CITY OF PORT ORANGE
POLICE OFFICERS' PENSION BOARD
QUARTERLY MEETING AGENDA

Port Orange Police Department
Police Department Training Room
4545 Clyde Morris Blvd.
Port Orange FL 32129
Friday, February 16, 2018
9:00 a.m.

Disability Information: If you are a person with a disability who needs any accommodation in order to participate in this proceeding, you are entitled, at no cost to you, to the provision of certain assistance. Please contact the City Clerk for the City of Port Orange, 1000 City Center Circle, Port Orange, FL 32129, telephone number 386-506-5563, within two working days of your receipt of this notice or five days prior to the meeting date. If you are hearing or voice impaired, contact the relay operator at 1-800-955-8771.
Appeal Notice: Any person who decides to appeal any decision made by the Port Orange Police Officers' Pension Board will need a record of the proceedings, and for such purpose he or she may need to ensure at his or her own expense for the taking and preparation of a verbatim record of all testimony and evidence of the proceedings upon which the appeal is to be based.

1. **CALL TO ORDER**
2. **DETERMINATION OF A QUORUM**
3. **APPROVAL OF MINUTES**
   A. Approve the minutes of quarterly meeting November 17, 2017
4. **OFFICER AND TRUSTEE REPORTS**
5. **CONSENT AGENDA**
   A. Ratify plan expenditures as follows:
      1. Sugarman & Susskind – monthly retainer for December 2017 - $2,600;
      2. Sugarman & Susskind – reimbursement for copy charges for Vastell disability - $100;
      3. Sugarman & Susskind – monthly retainer for January 2018 - $2,600;
      4. Sugarman & Susskind – monthly retainer for February 2018 - $2,600;
      5. CIOX Health – copy charges for medical records for David Vastell from Orlando Orthopaedic Center - $191.16;
      6. Plan Administrator Karan Rounsavall – monthly fee (November 2017, December 2017, January 2018) - $7,200;
      7. Florida Public Pension Trustees Association – Board membership renewal fee for 2018 - $600;
      8. Florida Public Pension Trustees Association – Registration fee for Winter Trustee School in Orlando (Trustees Bastian and Carman) - $1,200;

9. Hyatt Regency Orlando - lodging expense for Trustee Drew Bastian for FPPTA Winter School - $627;
10. Hyatt Regency Orlando - lodging expense for Trustee Warren Carman for FPPTA Winter School - $627;
11. AndCo Consulting – investment consulting and performance monitoring services for October 2017, November 2017, and December 2017 - $8,750;
12. First State Trust Company – custodial services for quarter ended December 31, 2017 - $4,625;
13. James Moore & Co. – Progress billing #1 for work on September 30, 2017 audit through December 31, 2017 - $4,000;
14. James Moore & Co. - Progress billing #2 for work on September 30, 2017 audit through January 31, 2018 - $5,000.

6. OLD BUSINESS

A. Acknowledge adoption of Ordinance No. 2017-32 establishing a defined contribution plan component/share plan for the Port Orange Police Officers' Pension Plan (adopted by City Council on December 12, 2017).

B. Acknowledge receipt of draft ordinance increasing investment limits on equities held in the portfolio from 65 to 70 percent, authorize plan actuary to prepare actuarial impact statement, and forward both to Port Orange City Council for consideration (as directed at November 17, 2017 meeting)

7. NEW BUSINESS

A. 2018 Biennial Update of Summary Plan Description as required by *Florida Statutes.*

B. Acknowledge receipt of detailed accounting report for Fiscal Year 2016/2017.

C. Consider fee increase for Plan Administrator Karan Rounsavall

8. CONSULTANT REPORTS

A. Chad Little – *Freiman Little Actuaries, LLC* (Plan Actuary)

1. Presentation of annual actuarial valuation for fiscal year ending September 30, 2017
2. Declare expected annual rate of investment return for assets of Port Orange Police Officers' Pension Plan for short term and long term thereafter in accordance with Section 112.661 *Florida Statutes*
3. Request for board interpretation of plan document, specifically, Section 54-124(e)(6) which states: *"Effective on January 31, 2011, credited service purchased pursuant to this subsection (3) shall not be counted toward vesting."*

B. Zach Chalifour – *James Moore CPA* (Auditor)

1. Presentation of draft audit of Police Pension Fund financials for fiscal year ended September 30, 2017

C. Tyler Grumbles – *AndCo Consulting* (Investment Consultant)

1. Investment Performance Report for quarter ended December 31, 2017;
2. International Equity Manager Search.

D. Ken Harrison – *Sugarman & Susskind* (Attorney)
1. Legislative Update
2. Update on disability application for Officer David Vastell

E. Karan Rounsavall – Plan Administrator

9. PUBLIC COMMENT

10. ADJOURNMENT

CITY OF PORT ORANGE
POLICE OFFICERS' PENSION BOARD
NOVEMBER 17, 2017

The Port Orange Police Officers' Pension Board of Trustees held its quarterly meeting on Friday, November 17, 2017 in the Police Department Training Room, 4545 Clyde Morris Boulevard, Port Orange, Florida.

MEMBERS PRESENT:	Chairman Steve Braddock (police member) William Proctor (police member) Warren Carman (fifth member) Brian Cobb (resident member)
MEMBERS ABSENT:	Drew Bastian (resident member) - excused
CONSULTANTS:	Dustin Watkins, Board Attorney – Sugarman & Susskind Tyler Grumbles, Investment Consultant – AndCo Chad Little, Actuary – Freiman Little Actuaries Karan Rounsavall, Plan Administrator
CITY STAFF:	Tracie Riehm, Finance Director

Chairman Braddock called the meeting to order at 9:05 a.m. A quorum was in attendance.

APPROVAL OF MINUTES

Member Proctor moved to approve minutes of quarterly meeting August 18, 2017 and special meeting November 6, 2017 as submitted. Member Cobb seconded the motion and it carried unanimously.

OFFICER AND TRUSTEE REPORTS - *None*

ELECTION OF OFFICERS

Plan Administrator Rounsavall advised that trustee terms were recently changed from two to four years on a staggered basis. Police trustees Sgt. Steve Braddock and Assistant Chief William Proctor were re-elected for four-year terms expiring in 2021. Sgt. Warren Carman, who served as the "fifth" member, was reappointed for a four-year term also expiring in 2021. City Council reappointed resident trustees (Drew Bastian and Brian Cobb) for two-year terms (expiring in 2019). Officers were elected every two years pursuant to board policy.

Member Carman moved to re-elect Sgt. Braddock as chairman and Assistant Chief Proctor as secretary for another two-year term by acclamation. There were no other nominations. Member Cobb seconded the motion and it carried unanimously.

CONSENT AGENDA

The following items were presented for action as recommended:

A. Approve plan expenditures as follows:
   1. Sugarman & Susskind – monthly retainer for September 2017 - $2,600.
      Recommendation: Ratify payment.

2. Sugarman & Susskind – monthly retainer for October 2017 - $2,600. *Recommendation:* Ratify payment.
3. Sugarman & Susskind – monthly retainer for November 2017 - $2,600. *Recommendation:* Ratify payment.
4. Plan Administrator Karan Rounsavall – monthly fee (August 2017, September 2017, October 2017) - $7,200. *Recommendation:* Ratify payments.
5. Florida Public Pension Trustees Association – registration for Trustee Drew Bastian to attend Fall Trustee School - $500. *Recommendation:* Ratify payment.
6. Tampa Marriott Waterside Hotel - lodging expense for Trustee Drew Bastian - $537 (FPPTA Fall School) - $537. *Recommendation*: Ratify payment.
7. Trustee Drew Bastian – reimbursement of mileage, parking and meal expenses for attendance at FPPTA Fall Trustee School - $244.77. *Recommendation*: Ratify payment.
8. AndCo Consulting – investment consulting and performance monitoring services for August and September 2017 - $5,833.33. *Recommendation:* Ratify payment.

Member Carman moved to ratify plan expenses as recommended. Member Proctor seconded the motion and it carried on an all-yes vote.

B. Acknowledge refund/rollover of member contributions to the following non-vested members:
   1. Jessica McLean (non-vested member) in the amount of $1,927.10.
   2. William Burmester (non-vested member) in the amount of $2,906.60.
   Recommendation: Acknowledge refund of member contributions as stated.

Member Cobb moved to acknowledge refund/rollover of member contributions as stated. Member Carman seconded the motion and it carried unanimously.

C. Acknowledge Retiree David Fouts' change of joint annuitant as of September 1, 2017. *Recommendation*: Acknowledge.

Member Proctor moved to approve Retiree Fouts' first change of joint annuitant as provided for in plan document. Member Carman seconded motion and it carried on an all-yes vote.

OLD BUSINESS

A. Reconsider ordinance establishing a defined contribution plan component and authorize actuary to prepare updated statement of no impact

The City of Port Orange recently reached an agreement with the Coastal Florida Police Benevolent Association to use all insurance premium tax revenues received to offset the City's pension contributions (mutual consent). Attorney Watkins explained that statute required municipal plan sponsors to create a defined contribution plan component within the local law plan upon ratification of a collective bargaining agreement after July 1, 2015. The plan sponsor must adopt a defined contribution plan component even if it would not receive funding pursuant to mutual consent agreement.

An ordinance creating the defined contribution component (a/k/a share plan) was previously drafted. A new impact statement was needed clarifying that all Chapter 185 monies would be used to offset the City's contribution.

Member Carman moved to authorize the actuary to update the actuarial impact statement (no impact) for the proposed share plan ordinance and upon receipt thereof to direct the plan administrator to forward the ordinance and impact statement to city staff for consideration by the Port Orange City Council. Member Cobb seconded the motion which carried unanimously.

NEW BUSINESS

A. Acknowledge receipt of early and normal retirement calculations for terminated vested member Willie Coco and legal opinion as to his purchase of credited service for prior military service

Board members were in receipt of early and normal retirement calculations for terminated vested plan member Willie Coco. His calculation included the purchase of four years of prior military service for duty in the United States Marine Corps. At the time of the purchase of prior service, Mr. Coco was not eligible to receive a retirement benefit for his military service.

Referencing the attorney's correspondence dated October 25, 2017, it was unknown at the present time whether or not Mr. Coco would eventually be entitled to a military retirement based on his combined active duty Marine Corps service and subsequent Army Reserve service. In this case, federal statutes superseded *Florida Statutes* and the local ordinance. <u>Accordingly, the attorney opined that Mr. Coco's eligibility for a military retirement benefit based on his combined active duty Marine and Reserve service was irrelevant and that the Port Orange Pension Fund must, pursuant to 10 U.S.C. § 12736, honor the credited service that Mr. Coco purchased in 2004 in connection with his prior service in the Marines.</u>

The Port Orange Police Pension Board acknowledged receipt of retirement calculations for Willie Coco as well as attorney's legal opinion (dated October 25, 2017) that the Plan must honor four years of credited service purchased in connection with his prior military service.

B. Consider new engagement letter submitted by Freiman Little Actuaries for actuarial services incorporating revised fee

The Pension Board was in receipt of a new engagement letter for Freiman Little Actuaries (FLA). FLA was first retained by the Port Orange Police Pension Board in 2006 to provide actuarial services. The new engagement letter incorporated a five percent increase in fees across the board as well as a new $1,000 fee for electronic filing of the valuation report in comma delimited format. New fees were guaranteed for three years.

Mr. Little advised that the previously authorized experience study was pending the city's adjustment to 2014 and 2015 salaries. As such, the 2017 valuation would be presented at the quarterly meeting on February 16, 2018 using currently available information. He was also awaiting clarification of hire dates and the date that a member first made contributions to the pension plan. Member statements for 2017 would reflect the date that a member's credited service actually commenced.

Member Cobb moved to authorize execution of the new engagement letter, including fee schedule, with Freiman Little Actuaries with a three-year guarantee. Member Proctor seconded the motion and it carried on an all yes vote.

C. Letter of instruction to First State Trust Company authorizing recurring quarterly payment to AndCo Consulting, LLC for investment consulting and performance monitoring services

Member Cobb moved to authorize recurring quarterly ACH payments to AndCo Consulting from the Pension Fund's receipts and disbursements (R&D) account in the amount of $8,750. First payment would commence on January 1, 2018. Member Carman seconded the motion and it carried unanimously.

D. Establish quarterly meeting dates for 2018 as follows:

- Friday, February 16, 2018 at 9:00 a.m.
- Friday, May 18, 2018 at 9:00 a.m.
- Friday, August 17, 2018 at 9:00 a.m.
- Friday, November 16, 2018 at 9:00 a.m.

Member Carman moved to approve quarterly meeting dates as set forth above. Member Cobb seconded the motion and it carried on an all yes vote. Meetings held in the Police Department Training Room.

E. Authorization to renew membership in Florida Public Pension Trustees Association (FPPTA) for 2018 at a cost of $600

Member Proctor moved to authorize renewal of membership in FPPTA for 2018. Member Carman seconded the motion which carried unanimously.

F. Ratify early retirement benefits for Christopher Ganem (terminated vested member) commencing January 1, 2018 (100 percent joint and survivor)

Member Cobb moved to ratify commencement of early retirement benefits for Mr. Ganem as of January 1, 2018 based on his election of the 100 percent joint and survivor option. Member Carman seconded the motion and it carried on an all yes vote.

<u>CONSULTANT REPORTS</u>

A. Tyler Grumbles – *AndCo Consulting* (Investment Consultant)

1. Performance Report for quarter ended September 30, 2017

Mr. Grumbles delivered the Investment Performance Report for the final fiscal quarter. As the portfolio transitioned to AndCo Consulting as of October 13, 2017, the performance returns represented those of Graystone/Morgan Stanley. International equities were the best performing asset class during the quarter.

Total market value as of September 30, 2017 was $34,003,283 up from $32,521,592 for the previous quarter ended June 30, 2017. Contributions to the fund during the quarter exceeded $1 million including the 2016 premium tax distribution from the State in the amount of $397,679.88. On a percentage basis, the composite portfolio was up 3.05 percent (gross) for the quarter which ranked in the 81st percentile of public plans. For Fiscal Year 2016/2017, the fund was up 11.00 percent ranking in the 76th percentile. As of October 31, 2017, the fund was valued at $34,361,612.

Federal tax reform legislation dealing with unrelated business income (UBI) could potentially affect governmental retirement plans. It provided that a plan could not use its status as a tax deferred entity to benefit from UBI. This could affect real estate investments (e.g. rental income). AndCo was monitoring the structure of the plan's real estate portfolio accordingly.

The pension board acknowledged receipt of the investment performance report as presented.

2. Transition Post-Trade Analysis from CAPIS (Transition Manager)

Mr. Grumbles presented the post-trade analysis prepared by Capital Institutional Services, Inc. (CAPIS) which was hired as a transition manager to liquidate the legacy portfolio and move assets into the various index funds (target portfolio) as previously directed. CAPIS served as a fiduciary to the plan and ensured best trade practices. Total trading cost for the entire transition was $15,878.11.

The board acknowledged receipt of post-trade analysis prepared by CAPIS which served as investment manager to transition the portfolio from Graystone's holdings to various equity and fixed income index funds as directed by the Pension Board at its previous meeting.

3. Investment Manager Search for Domestic Fixed Income Portfolio

Board members were in receipt of a U.S. Core Fixed Income Manager Analysis prepared by AndCo. The U.S. Core Bond category was typically defined as all U.S. investment grade bonds with the most popular benchmark for the category being the Bloomberg Barclays US Aggregate Index. Mr. Grumbles vetted four mutual funds in this asset class and presented his recommendation for Dodge & Cox Income Fund and Metropolitan West Total Return Fund. Each of these funds would receive 50 percent of the proceeds from the sale of the Vanguard Total Bond Market ETF (representing an overall 30 percent allocation to fixed income consistent with the approved investment policy statement). Member Cobb stated that he was familiar with Dodge and Cox, in fact his investment firm regularly used this mutual fund.

Member Cobb moved to accept the consultant's recommendation for domestic fixed income investments as stated above. Member Carman seconded the motion and it carried unanimously.

4. Automatic Rebalancing Procedures

Given the board's prior action to invest in two fixed income mutual funds, it was necessary to provide letters of instruction to First State Trust Company (custodian) to accomplish the investment structure changes and provide for automatic rebalancing of the portfolio on a quarterly basis. Mr. Grumbles noted that the pension fund currently enjoyed a positive cash flow.

Member Cobb moved to approve quarterly rebalancing instructions to First State Trust Company, including direction to maintain $250,000 in the cash and disbursements account to pay plan expenses and benefit payments. Member Carman seconded the motion and it carried on an all yes vote.

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Mr. Grumbles reminded board members of a previous discussion to increase equity targets from 65 to 70 percent (at market value). This would give more investment flexibility. Doing so, however, required an ordinance amendment to the plan document.

Member Cobb moved to direct the plan attorney to draft an ordinance increasing the investment limit on equities from 65 to 70 percent of the portfolio. Member Carman seconded the motion; it carried unanimously.

B. Dustin Watkins – *Sugarman & Susskind* (Attorney)

Attorney Watkins reported on status of disability application submitted by Officer Dave Vastell. The attorney's office was currently collecting medical records from treating physicians and facilities. It was a time consuming and complicated process.

C. Chad Little – *Freiman Little Actuaries, LLC* (Plan Actuary)

Member Carman asked about the pending experience study and how it might affect a member's cost to purchase prior service. Mr. Little explained the purpose and scope of an experience study which could result in refinement of certain assumptions. It was unlikely, however, that the results of an experience study would dramatically reduce the cost to purchase service.

D. Karan Rounsavall – Plan Administrator

1. Educational Opportunity: Florida Public Pension Trustees Association (FPPTA) Winter Trustees School in Orlando (January 28 – 31, 2018)

If any member wished to attend, they were to contact her at their first opportunity. Members Bastian and Carman tentatively planned to attend the FPPTA Winter Trustees School.

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Mrs. Rounsavall advised that biennial revisions to the Summary Plan Description would be presented at the February 16, 2018 quarterly meeting.

The annual confirmation of receipt of benefits form would be mailed to retirees the following day.

James Moore & Co began work on the September 30, 2017 audit. The auditor typically selected 10 to 15 retiree files for benefit testing each year.

Cost-of-living adjustments for 2018 were prepared by the actuary and submitted to First State Trust Company for processing.

PUBLIC COMMENT - None

ADJOURNMENT

The meeting adjourned at 11:03 a.m.

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Steve Braddock, Chairman

____
Karan Rounsavall, Plan Administrator

<u>**ORDINANCE NO. 2017-32**</u>

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, AMENDING CHAPTER 54, ARTICLE V, CODE OF ORDINANCES, CITY OF PORT ORANGE FLORIDA, ENTITLED "POLICE PENSION FUND"; AMENDING SECTION 54-137, FUNDING; CREATING A NEW SECTION 54-140, SHARE PLAN; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Port Orange, Florida has entered into collective bargaining agreements with the Coastal Florida Police Benevolent Association (PBA), covering City Police Officers, Sergeants and Lieutenants for the period October 1, 2017 through September 30, 2020; and

WHEREAS, the collective bargaining agreements contain a mutual consent agreement concerning the use of Chapter 185 premium tax revenues and the establishment of a defined contribution component ("share plan") for the City of Port Orange Police Pension Fund; and

WHEREAS, in order to implement the changes to the Police Pension Fund contained in the collective bargaining agreements, an amendment to Chapter 54 of the City Code is necessary; and

WHEREAS, the City has obtained an actuarial impact statement concerning the retirement plan changes in accordance with Article X, Section 14 of the Florida Constitution and Section 112.63, Florida Statutes; and

WHEREAS, for purposes of this Ordinance text with underlined (<u>underlined</u>) type shall constitute additions to the original text and text with strike-through (~~strike through~~) type shall constitute deletions to the original text.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

<u>Section 1</u>. Section 54-137 of Article V of Chapter 54 of the Code of Ordinances, City of Port Orange, Florida, is hereby amended to read as follows:

Sec. 54-137. - Funding.

(c) *State contributions.* The fund shall receive the premium taxes collected and disbursed pursuant to F.S. §§ 185.08 and 185.10, which monies shall be deposited into the fund immediately, but in no event later than five days of receipt in lieu of which the city may direct that said premium taxes collected be deposited directly into the plan. In conjunction with the city's adoption of an ordinance implementing this pension plan pursuant to F.S. § 185.35, the board of trustees, with the approval of a majority of city police officers, and the city have acknowledged and agreed that the insurance premium tax revenues received pursuant to F.S. § 185.10 shall be deposited into and become an integral part of this fund, and not used for any other purpose. <u>In accordance with F.S. § 185.35, the city and the union representing city police officers have mutually agreed that all annual premium tax revenues received pursuant to Chapter 185 and all accumulated excess Chapter 185 premium tax revenues as of October 1, 2016 shall be used to offset the city's pension contributions.</u>

<u>Section 2</u>. A new section 54-140 of Article V of Chapter 54 of the Code of Ordinances, City of Port Orange, Florida, is hereby created to read as follows:

<u>Section 54-140. – Share Plan.</u>

<u>In accordance with F.S. § 185.35(6), a defined contribution plan component ("share plan") is hereby established for police officers as part of the defined benefit pension plan. However, the city and the union representing city police officers have mutually agreed that no Chapter 185 premium tax revenues will be allocated to the share plan at this time. At such time as the city and union mutually agree to allocate Ch. 185 premium tax revenues to the share plan, the city and union will negotiate the details of the share plan.</u>

<u>Section 3.</u> All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

<u>Section 4</u>. If any provisions of this ordinance or the application thereof to any person or circumstance are held invalid, the invalidity shall not affect other provisions or applications of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared severable.

<u>Section 5</u>. This ordinance shall become effective upon adoption, except as otherwise specifically provided herein.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, CMC, City Clerk

Passed on first reading, this 5 day of December, 2017.

Passed and adopted on second and final reading, this 12 day of December, 2017.

Reviewed and Approved:

Margaret T. Roberts, City Attorney

ORDINANCE NO. 2018-____

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, AMENDING THE PORT ORANGE POLICE PENSION FUND TO INCREASE THE INVESTMENT LIMIT ON EQUITIES; PROVIDING FOR CODIFICATION; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Port Orange (the "City") currently sponsors a Police Pension Fund ("Pension Fund"); and

WHEREAS, Section 54-134(e)(10) of the City Code currently provides that the Pension Fund's investments in common stocks shall not exceed 65 percent of the value of the Pension Fund's investment portfolio at market value; and

WHEREAS, the Pension Fund's investment consultant has advised that increasing this limit by 5 percent would improve overall investment performance; and

WHEREAS, the trustees of the Pension Fund consider such an amendment to be in the best interest of the participants and beneficiaries as it will improve the administration of the Pension Fund;

WHEREAS, the City Council has received and reviewed an actuarial impact statement related to this change; and

WHEREAS, the City Council deems it to be in the public interest to make this change to the Pension Fund;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA AS FOLLOWS:

Section 1. Section 54-134(e)(10) of the Port Orange Police Pension Fund is hereby amended as follows:

Sec. 54-134. Board of Trustees.

[...]

(e) *Duties.* The duties and responsibilities of the board shall include, but not necessarily be limited to, the following:

[...]

(10) To invest and reinvest such funds as are not necessary for current expenditures or liquid reserves, as the board may from time to time determine, in a manner consistent with the investment policies or guidelines adopted by the board, provided that pension fund investments in common stocks shall not exceed ~~65~~ <u>70</u> percent of the value of the pension fund investment portfolio, at market value. The board of trustees may sell, exchange or otherwise dispose of such investments at any time, and from time to time, as determined appropriate by the board. The board of trustees shall have the authority, in respect to any stocks, bonds or other property, real or personal, held by the board, to exercise all such rights, powers and privileges as may be lawfully exercised by any person owning similar stocks, bonds or other property in his own right. Notwithstanding the above, no more than 25 percent of fund assets may be invested in foreign securities.

[...]

<u>Section 2.</u> Specific authority is hereby granted to codify and incorporate this ordinance in the existing Code of Ordinances of the City of Port Orange.

<u>Section 3.</u> All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed to the extent of such conflict.

<u>Section 4.</u> If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provision or applications of this ordinance which can be given effect without the invalid provision or application, and to this and the provisions of this ordinance are declared severable.

<u>Section 5</u> This ordinance amendment shall take effect upon adoption.

____
MAYOR DONALD O. BURNETTE

ATTEST:

____
Robin L. Fenwick, City Clerk

Passed on first reading on the _____ day of _____________, 2018.

Passed and adopted on second and final reading on the ____ day of _________________, 2018.

Reviewed and Approved: ________________________________
Margaret T. Roberts, City Attorney

City of Port Orange Police Pension Fund

Summary Plan Description

City of Port Orange Police Pension Board of Trustees

Adopted February 16, 2018

INTRODUCTION

This Summary Plan Description (SPD) is intended to be a plain language summary of the City of Port Orange Police Pension Fund (the Plan). It describes your benefits, rights and obligations under the Plan as amended February 16, 2018. If you retired or terminated employment before February 16, 2018, your benefits are governed by the Plan in effect at the date you left employment.

The provisions of your Plan may only be determined by reading the actual Plan documents, which consist of the *Code of Ordinances* of the City of Port Orange, the applicable provisions of *Florida Statutes*, Title X, Chapter 112; *Florida Statutes*, Title XII, Chapter 185; and the Internal Revenue Code. In the event of any discrepancy between this SPD and the actual provisions of the Plan, the Plan will govern.

A copy of your Plan documents are on file at the City Clerk's Office and Human Resources Office and may be read by you, your beneficiaries or your legal representatives at any time during normal business hours. If you have any questions regarding either your Plan or this SPD, you should ask your Plan's Administrator.

Karan Rounsavall
Plan Administrator
Telephone: 321-537-6007
ctrounsavall@gmail.com
rounsavall@earthlink.net

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PLAN INFORMATION

Plan Name: City of Port Orange Police Officers' Pension Fund

Plan Year: Each 12-month period beginning on October 1st and ending on September 30th is the plan year. The Plan's fiscal records are maintained on this basis.

Legal Documents Creating the Plan: The actual Plan provisions are set forth in the *Code of Ordinances* of the City of Port Orange. The Plan is also governed by certain provisions of *Florida Statutes*, Title X, Chapter 112; *Florida Statutes*, Title XII, Chapter 185; and certain provisions of the Internal Revenue Code.

Board of Trustees: The Pension Plan is administered by a Board of Trustees which is responsible for overseeing the investment of Pension Plan assets and application of the provisions of the Pension Plan document. The Board has authority over distribution of all pensions and makes final decisions on claims and appeals. Five trustees comprise the Board: two legal residents of the City appointed by the City Council, two full-time police officers elected by Retirement Plan members and a fifth trustee chosen by the majority of the other four trustees. Each Trustee serves a four-year term.

Pension Plan assets are maintained and invested entirely separate from City assets and cannot be used for any purpose other than those specified in the Pension Plan.

The current members of the Board of Trustees are:

Steven M. Braddock, Police Representative
Drew Bastian, Resident
William Proctor, Police Representative
Brian Cobb, Resident
Warren Carman, Fifth Member

Plan Administrator: While the Plan is administered by the Board of Trustees, the Plan engages the services of accountants, attorneys, actuaries, investment managers and performance monitors to advise it. The Plan has engaged the services of Plan Administrator Karan Rounsavall to handle the day-to-day business of the Plan. If you have any questions regarding your benefits, you may contact:

Karan Rounsavall
Plan Administrator
Telephone: 321-537-6007
ctrounsavall@gmail.com
rounsavall@earthlink.net

Custodian: The custodian of the Plan is responsible for the safekeeping of securities owned by the Pension Fund. At the direction of the Board of Trustees, the custodian also pays benefits to eligible persons and pays expenses incurred by the Plan. The custodian is First State Trust Company of Wilmington, Delaware.

Legal Counsel: The attorney for the Plan is Sugarman & Susskind, PA.

Auditor: The accountant for the Plan is James Moore & Co.

Actuary: The actuary for the Plan is Freiman Little Actuaries, LLC.

Investment Managers: Various investment managers are responsible for selecting the securities to be bought and sold by the Plan, in accordance with *an Investment Policy Statement* adopted by the Board of Trustees. The investment managers are:

Vanguard Total Stock Market Index Fund
Vanguard Total International Stock Fund
Dodge & Cox Income Fund (domestic fixed income)
Metropolitan West Total Return Fund (domestic fixed income)
UBS (private real estate)

The investment consultant/performance monitor advises the Board of Trustees on its investment guidelines, the performance of its managers compared to applicable indices and recommends asset allocation of the Fund. The investment consultant/performance monitor is AndCo Consulting. AndCo assumed the duties of investment consultant as of August 2017.

DETAILED ACCOUNTING REPORT

A detailed accounting report, including line items for all administrative expenses (e.g. legal counsel, actuary, plan administrator, and all other consultants, and all travel and other expenses paid to or on behalf of the members of the board of trustees on behalf of the plan), shall be made available to plan members upon request.

COLLECTIVE BARGAINING AGREEMENT

Members are covered under a collective bargaining agreement between the City of Port Orange and the Coastal Florida Police Benevolent Association. The subject collective bargaining agreement is for the three-year period beginning October 1, 2017 through September 30, 2020. Article 27 – Retirement Plan of said collective bargaining agreement addresses matters relating to the pension plan.

AGENT FOR SERVICE OF LEGAL PROCESS

Board of Trustees
Port Orange Police Officers' Pension Plan
4545 Clyde Morris Boulevard
Port Orange FL 32129

DEFINITIONS

Participant: Full-time employees who satisfy the definition of a police officer in *Florida Statutes* Section 185.02(11) become Participants immediately upon hire. Participation in the Plan is mandatory.

The police chief shall have the option to elect not to participate in the plan by submitting a written election to the Port Orange Police Officers' Pension Board within 30 days following employment as police chief.

Vesting Credits: This is your service with the City as a full-time police officer during which you contributed to the Plan. Completed months of partial years of service are included in the determination of Vesting Credits.

Compensation: This is the monthly salary paid by the City for work performed arising from that employment including:

- overtime payments up to 300 hours per year
- amounts withheld for tax-sheltered annuities
- amounts withheld for deferred compensation programs
- any other type of salary reduction plan authorized under the Internal Revenue Code
- payments in addition to the base rate of pay if all of the following apply
  - payments are paid according to a formal written policy that is applied to all eligible employees equally
  - payments are paid for as long as the employee continues employment
  - payments are paid at least annually
- for employees hired on or before January 31, 2011, lump-sum payments for accumulated sick and annual leave upon termination from employment are includable only as described in the following:
  - lump-sum payments for accumulated sick and annual leave accumulated as of March 1, 2011 are includable
  - lump-sum payments for one-half of the hours of sick and annual leave accumulated between March 1, 2011 and March 1, 2012 are includable
  - lump-sum payments for accumulated sick and annual leave accumulated on or after March 1, 2012 are not includable

Compensation does not include extra duty or special detail work performed on behalf of a second-party employer. Compensation does not include lump-sum payments for accumulated sick and annual leave upon termination of employment for employees hired after January 31, 2011.

Vesting: You are 100 percent vested upon completion of ten years of Vesting Credits. Vested means you have a non-forfeitable right to a pension benefit under this Plan.

WHAT IS A DEFINED BENEFIT RETIREMENT PLAN?

This Plan is called a defined benefit retirement plan because the retirement income you will receive at your date of retirement is defined by the Plan. Benefits payable are defined in terms of a formula based on your years of service.

WHO PAYS FOR MY BENEFITS?

You, the City of Port Orange and the State of Florida all make contributions toward the cost of the Plan. These contributions, along with investment income, are used to pay for Plan benefits.

Employees hired on or before January 31, 2011 contribute 7.5 percent of Compensation. Employees hired after January 31, 2011 contribute 8.0 percent of Compensation.

The State of Florida also contributes an amount pursuant to Chapter 185, *Florida Statutes*, which provides a system for the taxation of certain insurance companies issuing insurance on property located within the corporate limits of the City of Port Orange. A percentage of the premiums on that property insurance is rebated by the State of Florida to the City of Port Orange to be used to pay for benefits for police officers and their beneficiaries.

The City of Port Orange is ultimately responsible for the financial soundness of the Plan and will make contributions as required to keep the Plan actuarially sound. Each year, the City of Port Orange must contribute an amount determined by the Board of Trustees to be sufficient, along with your contribution and the State's contribution, to fund the benefits under the Plan.

WHAT IS MY NORMAL RETIREMENT DATE?

For Participants hired on or before January 31, 2011, the Normal Retirement Date is the first day of the month coincident with or next following the earlier of (i) age 48 and ten years of Vesting Credit, or (ii) age 45 and 25 years of Vesting Credit.

For Participants hired after January 31, 2011, the Normal Retirement Date is the first day of the month coincident with or next following the date you attain age 48 with ten years of Vesting Credit.

If you work beyond your Normal Retirement Date you can retire on the first day of any future month. This is called Late Retirement.

HOW MUCH IS MY NORMAL RETIREMENT BENEFIT?

The monthly benefit that you will receive if you continue in employment until your Normal Retirement Date is called your Normal Retirement Benefit.

For Participants hired on or before January 31, 2011, the amount of the Normal Retirement Benefit is computed according to the following formula, where the annual benefit payable may not exceed $95,000:

3.0% x 3-Year Average Final Compensation x Vesting Credit

Plus

the Supplemental Benefit, if you are eligible

For Participants hired on or before January 31, 2011 who retire with 25 years of Vesting Credit, the monthly Supplemental Benefit is equal to the following, but no more than $600 per month:

$200 Plus [($20 x Vesting Credit More than 10), but not more than $400]

This monthly benefit is payable for your life, with the guarantee that if you should die within 10 years, your designated Beneficiary will receive a monthly payment equal to the monthly payment you were receiving for the remainder of the 10 years. This is the Normal Form of Benefit which is commonly called a 10-Year Certain & Life annuity. You may choose an Optional Form of Benefit, as described later.

EXAMPLE #1: Suppose you were hired on or before January 31, 2011 and retire at age 45 with 25 years of Vesting Credit and monthly 3-Year Average Final Compensation of $4,000. The monthly Normal Retirement Benefit payable is computed according to the following formula, and then limited to $95,000 annually:

3.0% x $4,000 x 25 years, plus [$200 + lesser of $400 and ($20 x 15)] =
$3,000 + $500 = $3,500 per month, as your Normal Retirement Benefit.

EXAMPLE #2: Suppose you were hired on or before January 31, 2011 and retire at age 48 with 11 years of Vesting Credit and monthly 3-Year Average Final Compensation of $3,500. The monthly Normal Retirement Benefit payable is computed according to the following formula, and then limited to $95,000 annually:

3.0% x $3,500 x 11 years = $1,155 per month, as your Normal Retirement Benefit.

<u>For Participants hired after January 31, 2011</u>, the amount of the Normal Retirement Benefit is computed according to the following formula, where the annual benefit payable may not exceed $95,000:

3.0% x 5-Year Average Final Compensation x Vesting Credit

Plus

the Supplemental Benefit

For Participants hired after January 31, 2011 the monthly Supplemental Benefit is equal to the following, but no more than $200 per month:

$100 Plus [($10 x Vesting Credit More than 10), but not more than $100]

This monthly benefit is payable for your life, with the guarantee that if you should die within 10 years your designated Beneficiary will receive a monthly payment equal to the monthly payment you were receiving for the remainder of the 10 years. This is the Normal Form of Benefit which is commonly called a 10-Year Certain & Life annuity. You may choose an Optional Form of Benefit, as described later.

<u>EXAMPLE</u>: Suppose you were hired after January 31, 2011 and retire at age 48 with 11 years of Vesting Credit and monthly 5-Year Average Final Compensation of $3,000. The monthly Normal Retirement Benefit payable is computed according to the following formula, and then limited to $95,000 annually:

3.0% x $3,000 x 11, Plus [$100 + lesser of $100 and ($10 x 1)] =
$990 + $110 =
$1,100 per month, as your Normal Retirement Benefit.

IT IS IMPORTANT TO KEEP YOUR BENEFICIARY DESIGNATION UP TO DATE

If you retire after your Normal Retirement Date, your Late Retirement benefit is determined as described above for Normal Retirement. However, you will not receive less than the monthly income determined by the amount which would have been payable had you retired on your Normal Retirement Date actuarially increased to your Late Retirement Date.

WHAT IS AN ACCRUED BENEFIT?

At any time during your employment, the benefits you have accrued can be calculated based on your Average Final Compensation and Vesting Credit at that point in time. You are not eligible to receive any benefits until you have reached certain eligibility requirements and you have terminated employment with the City.

MAY I RETIRE EARLIER THAN MY NORMAL RETIREMENT DATE?

Yes, you may retire the first day of any month prior to your Normal Retirement Date after attainment of age 45 and the completion of 10 years of Vesting Credit. This date is called your Early Retirement Date.

HOW MUCH IS MY EARLY RETIREMENT BENEFIT?

Early Retirement Benefits are computed the same as described for Normal Retirement, but also reduced three percent (3%) for each year and fraction of a year Early Retirement precedes your Normal Retirement Date. This reduction takes into account your younger age and earlier commencement of benefit payments.

WHAT IS THE DROP?

Participants hired on or before January 31, 2011 are eligible to enter the Deferred Retirement Option Plan (DROP) upon earning 25 years of Vesting Credit. DROP participation is not available to members hired after January 31, 2011.

Your monthly DROP benefit is determined as described for Normal Retirement based on your Average Final Compensation and your Vesting Credit at your DROP entry date. Although you will continue to be employed by the City, your Average Final Compensation and your Vesting Credit are frozen at your DROP entry date. No further Employee Contributions are payable. DROP participants are not eligible for pre-retirement death or disability benefits.

A participant’s decision to enter DROP is irrevocable. A participant cannot change benefit options or change their type of retirement after beginning DROP participation.

The monthly DROP benefit accumulates with interest at the Plan’s current assumed net rate of investment return. The maximum DROP participation duration is 60 months. The DROP balance is payable as a lump sum within 60 days following DROP exit.

You must remain in the employment of the City to participate in the DROP and you must leave employment with the City after your maximum DROP participation duration has elapsed.

Participation in DROP is not a guarantee of continued employment throughout the DROP period.

SHARE PLAN

Effective December 12, 2017 a defined contribution plan component ("share plan") was established for police officers as part of the defined benefit pension plan. The share plan is not funded at the present time. Currently, the City of Port Orange and the union representing police officers have mutually agreed that no premium tax revenues received from the State of Florida will be allocated to the share plan (Reference: Chapter 185 of *Florida Statutes).* At such time that the City of Port Orange and the union mutually agree to allocate premium tax revenues to a share plan, the details thereof will be negotiated.

DO I RECEIVE CREDIT FOR TIME WORKED AS A POLICE OFFICER SOMEWHERE ELSE, OR IF I SERVE IN THE MILITARY?

You may purchase up to a total of four years of Vesting Credit for time spent as a full-time law enforcement officer somewhere else prior to employment, or for certain time spent on active duty in the military prior to employment.

You must contribute the full actuarial cost for prior military or law enforcement service, plus the cost of any actuarial calculations required. Your payment to the Plan may be made as a lump sum or by direct transfer into the Plan from any deferred compensation account pursuant to Section 457(e)(17) of the Internal Revenue Code. You may also arrange for installment payments on a schedule approved by the Board of Trustees that shall not exceed twice the number of years purchased. Your purchase would take effect only upon full payment of all actuarial cost and vesting. If you leave prior to full payment or prior to vesting the amount paid shall be refunded. The cost of the purchase must be paid in full prior to your retirement or DROP entry.

Effective January 31, 2011, Vesting Credit purchased for prior law enforcement or military service does not count toward vesting.

Time spent in the military service of the United States or United States merchant marine is added to your Vesting Credit (with no payment due from you) if you re-enter the City's police service within one year of your release with an honorable discharge.

No service upon which a retirement benefit is payable to you may be purchased or added to your Vesting Credit under the Plan.

WHAT HAPPENS IF I BECOME DISABLED?

If you become totally and permanently disabled as provided by the Plan, you may be eligible for a disability benefit. In the case of a disability incurred in the line-of-duty, you will be eligible for a benefit regardless of your length of service. In the case of a disability that is not incurred in the line-of-duty, you will only be eligible for a benefit if you have at least 10 years of Vesting Credit and have not reached your Normal Retirement Date.

The amount of your benefit due to line-of-duty disability is your Accrued Benefit but not less than 51% of your average monthly Compensation during the most recent 12 months of full-time employment as a City police officer. If you have not worked 12 months of full-time employment as a City police officer, the average is over the period you have worked.

The amount of your benefit due to non-line-of-duty disability is your Accrued Benefit, but not less than 25% of your average monthly Compensation during the most recent 12 months of full-time employment as a City police officer. If you have not worked 12 months of full-time employment as a City police officer, the average is over the period you have worked.

Disability benefits are payable until your death or recovery or until a minimum of 120 payments (10 years) have been made. If you die without recovering within 10 years of commencing payments, monthly payments will continue for the remainder of the 10 years to your designated Beneficiary.

The disability benefits provided may be offset by disability income benefits paid to you under worker's compensation.

SURVIVOR BENEFITS - WHAT BENEFITS ARE PAYABLE UPON MY DEATH?

You may designate a Beneficiary to receive a benefit that may become payable by the Plan upon your death.

You may change your designation at any time prior to your retirement or DROP entry date.

After retirement you may change your designation up to two times without the approval of the Board of Trustees or the current designated Beneficiary. The amount of retirement income payable upon changing your designated Beneficiary is actuarially redetermined to ensure your benefit is the actuarial equivalent of the present value of your benefits prior to the change in designated Beneficiary. You are responsible for the cost of performing the benefit calculation for the new beneficiary.

Death Before Retirement

Vested Members, whether or not still in active employment, who die prior to the commencement of benefits have a survivor benefit payable on their behalf. The amount of the monthly income payable is the Accrued Benefit at the date of death payable on the deceased Member's Normal Retirement Date, or the Accrued Benefit actuarially reduced payable on the first day of the month following death, as elected by the designated Beneficiary.

If you die while performing USERRA qualified military service, the Beneficiary is entitled to any benefits (other than benefit accruals relating to the period of military service) as if the Member had resumed employment and then died while employed.

If you die with less than 10 years of Vesting Credits, your Beneficiary is entitled to a refund of your contributions without interest.

KEEP YOUR BENEFICIARY DESIGNATION UP TO DATE.

Death After Retirement

If you were receiving an Optional Form of Benefit which provided for a survivor's benefit to be paid after your death, your beneficiary will receive payments following your death.

WHAT ARE THE OPTIONAL FORMS OF BENEFIT?

Unless you elect otherwise before your retirement or DROP entry, your pension is payable in the Normal Form of Benefit which is a 10-Year Certain & Life Annuity. A 10-Year Certain & Life Annuity is a monthly benefit is payable for your lifetime, with the guarantee that if you should die within 10 years your designated Beneficiary will receive a monthly payment equal to the monthly payment you were receiving for the remainder of the 10 years.

Upon retirement or entry into the DROP, you may select an Optional Form of Benefit. Optional Forms of Benefit are actuarially equivalent in value. The Optional Forms of Benefit are as follows:

Joint and Survivor Annuity: This is a reduced monthly pension payable for your lifetime. Upon your death, your eligible Beneficiary will receive a monthly payment for life equal to either 50%, 66 2/3%, 75%, or 100% (according to your election) of the monthly amount paid while you were alive. Your monthly benefit remains unchanged if your Beneficiary dies before you do. The benefit payable under this Optional Form is less than the benefit payable under the Normal Form to account for payments for the life of your designated Beneficiary after your death. If your beneficiary predeceases you, you may elect to name another beneficiary after paying the cost of calculating the new benefit as described above.

Life Only Annuity: This is a larger monthly pension payable for your lifetime only. There are no payments made to any surviving Beneficiary after your death. The benefit payable under this Optional Form is more than the benefit payable under the Normal Form because there are no payments to any Beneficiary upon your death. However, you should still name a beneficiary as that individual would be entitled to a refund of the unused portion of employee contributions that you made to the pension plan throughout your career.

DOES THE PLAN PAY A COST-OF-LIVING-ADJUSTMENT?

Participants who are employed and not participating in the DROP on January 31, 2011 must earn 25 years of service to be eligible for a cost-of-living (COLA) increase. The annual COLA is 3% of their current monthly benefit amount commencing on the first day of the month after reaching age 59. However, your annual benefit (including COLA increases) may not exceed $95,000.

Participants hired after January 31, 2011, are not eligible for any COLA.

WHAT IF I LEAVE EMPLOYMENT BEFORE I RETIRE?

If you have at least 10 years of Vesting Credits, you are entitled to a deferred vested retirement benefit. This benefit is equal to your Accrued Benefit on your termination date. The vested benefit is payable at your Normal Retirement Date. However, you may receive your vested benefit, reduced for Early Retirement, any time after your 45th birthday.

If you have less than 10 years of Vesting Credits when you leave employment, you will only receive the return of your employee Contributions without interest and no further benefits will be payable to you under the Plan.

However, you may elect to keep your accumulated employee contributions with the Pension Plan up to five years in the event that you return to the employment of the Port Orange Police Department during that time. No interest is earned during this interim period.

CAN I LOSE ANY OF MY BENEFITS IN THIS PLAN?

There are certain circumstances which may result in the disqualification, ineligibility, denial, loss, forfeiture, suspension or deferral of your benefits in this Plan. The following is a list of these circumstances:

(1) If you terminate employment before reaching the Normal or Early Retirement Date and you do not have at least 10 years of Vesting Credits, no benefits will be payable except for a return of your own contributions without interest.

(2) No credit is allowed either for benefit accrual or vesting purposes for any period in which you are not considered a full-time employee, except for certain military service.

(3) Your retirement benefit will not be payable until your actual retirement date, even if you continue to work beyond the Normal Retirement Date.

(4) Payment of your benefits may be subject to an income deduction order made pursuant to a state domestic relations law.

FORFEITURE OF PENSION

Your Accrued Benefit may be forfeited if you are convicted of certain felonies as provided by State law (Sections 112.3173 and 185.185, *Florida Statutes*).

Any Member who is convicted of or terminated for any of the following offenses committed <u>prior to retirement</u> shall forfeit all rights and benefits under this Plan, except for a refund of accumulated contributions. The specified offenses are:

(1) Committing, aiding or abetting of an embezzlement of public funds;

(2) Committing, aiding or abetting of any theft by a public officer or employee from employer;

(3) Bribery in connection with the employment of a public officer or employee;

(4) Any felony specified in Chapter 838, *Florida Statutes;*

(5) The committing of impeachable offense;

(6) The committing of any felony by a public officer or employee who, willfully and with intent to defraud the public or the public agency for which the public officer or employee acts or in which he or she is employed of the right to receive the faithful performance of his or her duty as a public officer or employee, realizes or obtains, or attempts to realize or obtain, a profit, gain, or advantage for himself or herself or for some other person through the use or attempted use of the power,

rights, privileges, duties, or position of his or her public office or employment position;

(7) The committing on or after October 1, 2008, of any felony defined in §800.04, *Florida Statutes,* against a victim younger than 16 years of age, or any felony defined in Chapter 794, *Florida Statutes* against a victim younger than 18 years of age, by a public officer or employee through the use or attempted use of power, rights, privileges, duties, or position of his or her public office of employment position.

Any Member who has received benefits from the Plan in excess of his accumulated contributions shall be required to repay the Plan. The Board of Trustees may implement legal action necessary to recover such funds.

Additionally, a Member who makes a false or misleading statement to obtain retirement benefits shall commit a misdemeanor of the first degree and if convicted, the Member may forfeit his/her benefit.

DO I HAVE RESPONSIBILITIES UNDER THE PLAN?

Yes. The following details some of the responsibilities you have under the Plan:

(1) Retain this Summary Plan Description with your other important papers for later reference or for replacement by updated versions and supplemental notices, if any.

(2) Upon completing eligibility requirements to become a Participant sign a Membership Form, including a Beneficiary designation.

(3) Keep your Beneficiary designation form updated to express your wishes.

(4) If you terminate employment, check to see if you are entitled to a vested retirement benefit and the date payable.

(5) If you should terminate employment with rights to a deferred vested retirement benefit, then, shortly before the date on which it is to begin, you should contact and notify the Plan Administrator to begin such payments.

(6) Upon your retirement under Early or Normal Retirement, complete the form necessary to indicate whether you desire an Optional Form of Benefit, and if so, which option you choose.

HOW DO I MAKE A CLAIM FOR BENEFITS?

Claims for benefits under the Plan must be filed in writing with the Plan Administrator. If you are eligible for any benefits from this Plan, and you request it, you will be provided with a notification form showing the amount of your benefit and options, if any, and the earliest date on which such benefit is payable.

If any claim for benefits is denied, suspended or terminated (in whole or in part), you will be furnished with a notice of denial, suspension or termination no later than 30 days after the final decision has been made. The notice will be provided in writing by certified mail and it will contain the following information:

(1) The specific reason or reasons for the denial, suspension or termination;

(2) Specific reference to those Plan provisions on which the action is based;

(3) A description of any additional material or information necessary to perfect your claim and an explanation of why such material or information is necessary; and

(4) An explanation of the claims review procedure.

WHAT IS THE CLAIMS REVIEW PROCEDURE?

If your claim for benefits is denied, suspended or terminated (in whole or in part) you may appeal to the Board of Trustees for a full and fair review.

(1) You must submit a written notice of appeal within 60 days after the notice of denial, suspension or termination is received, or such later time as the Board of Trustees deems reasonable.

(2) Your notice of appeal should briefly describe the grounds upon which the appeal is based. You must sign the appeal.

(3) You may review all pertinent documents during normal business hours, and will be permitted to submit comments and a statement of issues for consideration by the Board of Trustees.

(4) You may designate an attorney or any other person to act as your representative at any stage of the claims review procedure. You must designate your representative in writing and you and your representative must sign a "designation of representative." Any rights provided to you will automatically be extended to the representative you designate.

(5) The Board of Trustees will make the final decision, in writing, not more than 60 days after receipt of the notice of appeal, unless special circumstances (such as the need for a hearing) require an extension of time. In no event will the Board of Trustees make a decision later than 120 days after receipt of the notice of appeal.

(6) If an appeal is denied (in whole or in part) then the decision will set forth the specific reason or reasons for the denial with specific references to those pension plan provisions upon which the decision is based.

(7) The decision of the Board of Trustees is final and binding and not subject to the grievance or arbitration procedure of any collective bargaining agreement.

(8) No action in law or in equity may be brought to contest a denial, suspension or termination of benefits until you have complied with these procedures, unless the Board of Trustees fails to make a decision within 120 days after receipt of your notice of appeal. In no case should any action be brought unless instituted within one year from the time you received notice of denial, suspension or termination.

MEMORANDUM

February 1, 2018

TO: **Port Orange Police Officers' Pension Board**

FROM: **Karan Rounsavall, Pension Plan Administrator** Karan J. Rounsavall

SUBJECT: **Detailed Accounting Report for Fiscal Year 2016/2017**

Florida Statutes §185.05(8) requires all police pension plans to prepare a detailed accounting report of their administrative expenses and provide copies to the plan sponsor (City of Port Orange) and to the Port Orange Police Department, as well as make it available to plan members. The detailed accounting report is minimally required to include line items for all administrative expenses for legal counsel, actuary, plan administrator, and all other consultants, and all travel and other expenses paid to or on behalf of the members of the board of trustees or anyone else on behalf of the plan. The accounting report must accompany the plan's annual report to the state, which is due on March 15, 2018.

In accordance with the referenced statute, attached is the detailed accounting report for Fiscal Year 2016/2017 for your review. It reflects all administrative expenses (excluding investment management expenses) that were paid on behalf of the Port Orange Police Officers' Pension Plan from October 1, 2016 through September 30, 2017.

Actual administrative expenses paid in Fiscal Year 2016/2017 were slightly less than expenses paid in the prior year due to timing of recurring payments ($2,380.94). The adopted administrative expense budget for Fiscal Year 2016/2017 was $291,200.00. Administrative expenses paid ($261,802.56) were less than our adopted budget. Investment management expenses paid to portfolio managers are not reported because they are not considered administrative expenses.

If there are any questions or if additional information is required, please do not hesitate to contact me.

Port Orange Police Pension Plan
Fiscal Year 2016-17 Actual Expenses

Account Description	Actual Expense Total
Plan Expense:	
Service Providers:	
Actuary	31,500.00
Administrator	28,800.00
Auditor/ Accounting	10,000.00
Attorney/ Legal	30,900.00
Investment Consultant*	148,554.38
Custodial Services**	0.00
Subtotal:	**249,754.38**
Other Plan Expenses:	
Dues and Subscriptions	600.00
Insurance	4,795.00
Miscellaneous Expenses	198.26
Education	6,454.92
Subtotal:	**12,048.18**
TOTAL:	**261,802.56**

* Includes Investment Consultant Expenses. Does not include investment manager expenses. (Total - $246,612.51)
***13 months
**Custodial Services currently included in investment consultant's fee.

APPROVED BY PORT ORANGE POLICE PENSION BOARD - FEBRUARY 16, 2018

Port Orange Police Officers' Pension Plan
Fiscal Year 2016-17 Budget

Account Description	Prior Year Actual/Est Expense	% Total Admin	Next Fiscal Year Budget	% Total Budget
Plan Expense:				
Service Providers:				
Actuary	$31,250.00	12.2%	$34,500.00	11.8%
Administrator	$28,800.00	11.2%	$28,800.00	9.9%
Auditor/ Accounting	$10,000.00	3.9%	$10,000.00	3.4%
Attorney/ Legal	$27,300.00	10.7%	$27,300.00	9.4%
Investment Consultant	$147,415.00	57.5%	$170,000.00	58.4%
Custodial Services*	$0.00	0.0%	$0.00	0.0%
Subtotal:	**$244,765.00**	**95.5%**	**$270,600.00**	**92.9%**
Other Plan Expenses:				
Dues and Subscriptions	$600.00	0.2%	$600.00	0.2%
Insurance	$4,706.00	1.8%	$5,000.00	1.7%
Miscellaneous Expenses	$200.00	0.1%	$5,000.00	1.7%
Education	$6,010.00	2.3%	$10,000.00	3.4%
Subtotal:	**$11,516.00**	**4.5%**	**$20,600.00**	**7.1%**
TOTAL:	**$256,281.00**	**100.0%**	**$291,200.00**	**100.0%**

MEMORANDUM

February 1, 2018

TO: Port Orange Police Officers' Pension Board

FROM: Karan Rounsavall, Pension Plan Administrator Karan J. Rounsavall

SUBJECT: Fee Increase for Plan Administrator

It has been four years since I accepted the position as plan administrator for the Port Orange Police Officers' Pension Plan (March 15, 2014). It has been a challenge and I believe that the Pension Board has made a number of positive improvements during those years. I continue to absolutely enjoy what I am doing for the Pension Plan and its members (both active and retired) and have a passion for the work. My fee has been at $2,400 per month since May 1, 2015.

As of March 1, 2018 my fee will increase to $2,600 per month. Additionally, I am requesting that the pension board cover my registration and lodging expense to attend one Florida Public Pension Trustees Association (FPPTA) event each calendar year. <u>This fee will be guaranteed for three years.</u> This is a fair and reasonable fee given the complexity of the plan. For comparison purposes, the prior plan administrator received a monthly fee of just under $3,000.

We continue to *"make haste slowly"* and the pension plan is in good order at the present time. Some accomplishments over the past three years include:

1. The number of retirees in payment status has increased from 42 in 2014 to 57 as of February 2018. As of this time, there are no DROP retirees.
2. Effective July 1, 2015, the pension plan has complied with new legislation to prepare annually an administrative expense budget and a detailed accounting report.
3. In the past year, we issued a request for proposal (RFP) for investment consultant services. Following several special meetings and a lot of homework on the part of trustees, we transitioned the pension fund's portfolio to AndCo Consulting.
4. For the past three fiscal years, the board has conducted an independent audit of the pension fund. This is a labor intensive task. FYI - an independent audit is not an annual requirement for a pension fund.
5. The board was successful in lobbying City Council to adopt an ordinance increasing trustee terms from two to four years.
6. Over the last four years, all trustees have attended educational sessions offered by the Division of Retirement or Florida Public Pension Trustees Association (FPPTA) to increase their knowledge and effectiveness as trustees. Two trustees recently earned the Certified Public Pension Trustee (CPPT) designation.

I continue to personally meet with pending retirees to review and explain benefit options and paperwork necessary to establish ongoing monthly payments and distribution of DROP payments as appropriate. This practice encourages rapport with retirees.

Bottom line, it is a team effort. I want to thank the board and the various city departments for their assistance with my numerous inquiries and requests. The level of service and personal attention that I provide has been praised and commended by the trustees, retirees, and consultants. I have years of experience with this work, both from a trustee's standpoint and as a plan administrator. Again, I genuinely enjoy my role at Port Orange and the people with whom I have the privilege of working.

<u>*Recommendation*</u>*:* Increase monthly fee for plan administrator to $2,600 per month payable in arrears effective March 1, 2018 with a three-year guarantee. Additionally, cover registration fees and lodging costs for my attendance at one FPPTA educational event per calendar year.

CITY OF PORT ORANGE POLICE PENSION PLAN

FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2017

CITY OF PORT ORANGE POLICE PENSION PLAN
TABLE OF CONTENTS
SEPTEMBER 30, 2017

James Moore
Certified Public Accountants and Consultants

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees,
City of Port Orange Police Pension Plan:

Report on the Financial Statements

We have audited the accompanying financial statements of the City of Port Orange Police Pension Plan (the Plan), which comprise the statement of fiduciary net position as of September 30, 2017, the statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The Plan's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

121 Executive Circle
Daytona Beach, FL 32114-1180
Telephone: 386-257-4100

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Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Plan as of September 30, 2017, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary schedules, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of the Plan's management and independent actuary regarding the methods of measurement and presentation of the required supplementary information. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Management has omitted Management's Discussion and Analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by this missing information.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have issued our report dated February 16, 2018, on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

James Moore & Co., P.L.

Daytona Beach, Florida
February 16, 2018

CITY OF PORT ORANGE POLICE PENSION PLAN
STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2017

ASSETS	
Cash and cash equivalents with trustee	$ 1,663,095
Prepaid benefit payments	187,512
Interest and dividends receivable	105,673
Investments, at fair value	
Government agency obligations	5,079,539
Corporate and municipal debt obligations	3,254,729
Corporate equity securities	18,871,877
Partnership securities	1,574,360
Mutual funds	825,954
Real estate	2,879,056
Total investments	32,485,515
Total assets	$ 34,441,795
LIABILITIES	
Accounts payable	$ 58,066
NET POSITION RESTRICTED FOR PENSIONS	$ 34,383,729

The accompanying notes to financial statements are an intergral part of this statement.

CITY OF PORT ORANGE POLICE PENSION PLAN
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2017

Additions	
Contributions:	
Employer	$ 2,824,801
Plan members	355,777
State	397,680
Total contributions	3,578,258
Investment income:	
Net appreciation in fair value of investments	2,825,465
Interest and dividends	475,423
Total investment income	3,300,888
Less: investment expense	(237,571)
Net investment income	3,063,317
Total additions	6,641,575
Deductions	
Benefit payments	
Recurring payments	2,245,308
Lump sum distributions and refunds	11,688
Administrative expenses	106,538
Total deductions	2,363,534
Change in net position	4,278,041
Net position restricted for pensions, beginning of year	30,105,688
Net position restricted for pensions, end of year	$ 34,383,729

The accompanying notes to financial statements are an intergral part of this statement.

CITY OF PORT ORANGE POLICE PENSION PLAN
NOTES TO FINANCIAL STATEMENTS
SEPTEMBER 30, 2017

(1) Summary of Significant Accounting Policies:

The following is a summary of the more significant accounting policies and practices of the City of Port Orange Police Pension Plan (the Plan), which affects significant elements in the accompanying financial statements:

(a) **Plan description**—The City of Port Orange Police Pension Fund (the “Plan”) is a single-employer, defined benefit plan covering the police officers of the City of Port Orange, Florida (the City). Eligible employees of the Plan consist of full-time sworn police officers of the City. The Plan is governed by a Board of Trustees (the Board), made up of five individuals, including: two active participants of the Plan, two citizens of the City, and one member appointed by the Board.

Funds are accumulated from employee contributions, City contributions, State appropriations, and investment earnings from accumulated funds. All benefits and refunds of the Plan are recognized when due and payable in accordance with the terms of the plan. City Ordinance No. 2002-59 provides the authority under which the City establishes or amends Plan policies, procedures and/or benefits. The investments of the Plan are administered, managed and operated by the Board using the services of the City staff, consultants, and financial institutions. All investment management expenses and other administrative costs are financed by the Plan.

Full-time police officers are eligible to participate in the Plan immediately upon employment by the City. Police officers have the option to resign from the plan after the first year of employment. Plan participants were required to contribute 0.5% of their base salary to the plan through January 31, 2011. Plan participants who were employed on or before January 31, 2011, are required to contribute 7.5% of their base salary to the plan after January 31, 2011. Plan participants who were hired after January 31, 2011 are required to contribute 8.0% of their base salary to the Plan.

(b) **Pension benefits**—Participants have a stepped vesting program and achieve full benefits depending on hire date. Participants hired before January 31, 2011, achieve full benefits at age 45 with 25 years of service or at age 48 with 10 years of services. Participants hired after January 31, 2011, achieve full benefits at age 48 and 10 years of service.

An independent actuary is engaged to calculate benefits to be paid to retirees. Upon retirement, Plan participants are entitled to an annual pension benefit equal to 3.0% of their average final compensation (equivalent to the average of the three highest years of service for participants hired prior to January 31, 2011, and five highest years of service for participants hired after January 31, 2011) for each year of credited service at their normal retirement date.

Early retirement benefits are available, but are actuarially reduced to reflect early payment when the commencement of benefits precedes the normal retirement date.

(c) **Disability benefits**—The Plan pays out disability benefits to employees with varying levels of benefits for those with disabilities. Disability benefits are paid out on a multi-tier approach based on years of services and whether the disability resulted from events occurring while in the line of duty or not in the line of duty.

(d) **Death benefits**—In the event of an employee’s death, the survivor portion of the annuity, actuarially-reduced to reflect payment prior to the employee’s normal retirement date, is payable to the employee’s spouse, or other designated financial dependent, in accordance with the Plan document.

(1) **Summary of Significant Accounting Policies:** (Continued)

(e) **Deferred retirement option program**—The Plan offers a deferred retirement option program (DROP) for participants who were employed by the city on January 31, 2011, and who met the requirements for DROP on or after that date. Participants who enter the DROP program may participate until separating from City employment, not to exceed five years from entering the DROP program. While in the DROP program, employees no longer contribute to the Plan or accrue benefits, but instead earn monthly retirement benefits which are accumulated in a DROP account and paid out in a lump sum upon separation from employment with the City.

(f) **Plan membership**— Membership of the Plan consisted of the following at September 30, 2017, the date of the last actuarial valuation:

Retirees and beneficiaries receiving benefits	51
Terminated vested participants	7
Active participants	86
Total	144

(g) **Basis of accounting**—The Plan's financial statements are prepared in accordance with accounting principles generally accepted in the United States of America and accounted for in accordance with Governmental Accounting Standards Board ("GASB") Statement No. 67, *Financial Reporting for Pension Plans*. Contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefit payments are recognized when due and payable to the Plan participants in accordance with the terms of the Plan.

(h) **Use of estimates—**The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, disclosure of contingent assets and liabilities, and the actuarial present value of accumulated plan benefits and changes therein at the date of the financial statements. Actual results could differ from those estimates.

(i) **Cash and cash equivalents**—The Plan's cash and cash equivalents are considered to be cash on hand, demand deposits, money market accounts, and short-term investments with original maturities of three months or less from the date of acquisition. Cash and cash equivalents included $2,444,483 of money market funds at September 30, 2017, which are measured at fair value using Level 2 inputs, as discussed in Note (2).

(j) **Investment policy**—The investments of the Plan are governed by investment guidelines adopted by the Board of Trustees for the Plan. Authorized investments of the Plan include the following investments:

a. Equity securities (including convertible bonds) listed on the New York, American and principal regional and foreign (for foreign securities) exchanges.

b. Marketable debt securities issued or guaranteed by either (a) the United States Government or its agencies, (b) domestic corporations (including industrial and utilities) or Israel Bonds, (c) domestic banks and other U.S. financial institutions.

c. Private real estate investments expected to improve total portfolio diversification and provide income and opportunities for higher incremental returns in the long-term.

(1) **Summary of Significant Accounting Policies:** (Continued)

(k) **Investment valuation and income recognition**—Investments are stated at fair value based on quoted market prices. Purchases and sales of securities are reflected on a trade-date basis. Changes in the current value of investments and gains and losses on disposal of investments are reported in the statements of changes in fiduciary net position as the net appreciation or depreciation in current value of investments. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

(l) **Risk and uncertainties**—The Plan utilizes various investment securities including U.S. government securities, corporate debt instruments, mutual funds, and corporate stocks. Investment securities, in general, are exposed to various risks, such as interest rate risk, credit risk, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

(m) **Expenses—**Administrative expenses of the Plan are paid for directly by the Plan.

(2) **Investments:**

The Plan measures and records its investments, assets whose use is limited, and restricted assets using fair value measurement guidelines established by GASB Statement No. 72. These guidelines recognize a three-tiered fair value hierarchy, as follows:

- *Level 1:* Quoted prices for identical investments in active markets;
- *Level 2:* Observable inputs other than quoted market prices; and,
- *Level 3:* Unobservable inputs.

The following chart shows the Plan's investment accounts by investment portfolios and their respective maturities (in years) and fair value measurements at September 30, 2017:

	Carrying Value	Weighted Average Maturity (years)	Credit Rating Range (Moody)	Measured at Fair Value: Level 1	Level 2	Level 3
U.S. Treasury Obligations	$ 5,079,539	15.49	AAA	$ -	$ 5,079,539	$ -
Corporate & Municipal Debt	3,254,729	5.65	BAA1 – AA3	-	3,254,729	-
Common Stock	18,871,877	N/A	NR	18,871,877	-	-
Partnerships	1,574,360	N/A	NR	-	-	1,574,360
Mutual funds	825,954	N/A	NR	-	825,954	-
Real Estate Partnership	2,879,056	N/A	NR	-	-	2,879,056
Total Investments	$ 32,485,515			$ 18,871,877	$ 9,160,222	$ 4,453,416

(2) **<u>Investments:</u>** (Continued)

Interest Rate Risk: Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of investments. Generally, the longer the time to maturity, the greater the exposure to interest rate risk. The established performance objectives of the Pension Plans require investment maturities to provide sufficient liquidity to pay obligations as they become due. At September 30, 2017, the weighted average maturity in years for each investment type is included in the preceding table.

Credit Risk: Credit risk is the risk that a debt issuer or other counter-party to an investment will not fulfill its obligations. The Plan utilizes portfolio diversification in order to limit investments to the highest-rated securities as rated by nationally recognized rating agencies. The ratings of the investments held at year end are shown above. All are rated within the investment policy guidelines at September 30, 2017.

Concentration of Credit Risk: Concentration of credit risk is the risk of loss attributed to the magnitude of an investment in a single issuer. The Plan does not allow more than five (5) percent of its assets in the common stock, capital stock, or convertible securities of any one issuing company, nor shall the aggregate investment in any one issuing company, exceed twelve and one half (12.5) percent of the outstanding stock of that company. Target allocations in investment types include domestic equity (50 percent), international equity (10 percent), private real estate (7.5 percent) and domestic fixed income (32.5 percent). At September 30, 2017, the investment portfolios met the single issuer limitations.

Custodial Credit Risk: Custodial credit risk is the risk that the City may not recover cash and investments held by another party in the event of financial failure. Custodial credit risk is limited since investments are held in independent custodial safekeeping accounts or mutual funds.

Foreign Currency Risk: Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The Plan investment policy allows for up to twenty-five (25) percent of its investments in common stock, capital stock and convertible securities at market value in foreign securities. At September 30, 2017, the investment portfolios met the foreign securities limitations.

For the year ended September 30, 2017, the annual money-weighted rate of return on Plan investments, net of expenses, was 10.34%. This percentage is a measure of investment performance, net of expenses, as adjusted for changes in amounts contributed and invested.

(3) **<u>Funding Policy:</u>**

For the year ended September 30, 2017, Plan participants were required to contribute, depending on their hire date, either 7.5% or 8.0% of their base salary to the Plan, which accounted for $355,777 of total contributions to the Plan.

The aggregate funding method is utilized to calculate the City's contribution requirements, as calculated by an independent actuary. For the year ended September 30, 2017, the City contributed $2,824,801 to the Plan. Also counted toward the City's contributions were $397,680 of insurance premium tax monies received from the State of Florida.

(4) Net Pension Liability:

The net pension liability is the Plan's total pension liability offset by the Plan's fiduciary net position. The components of the net pension liability and the net pension liability as a percentage of the total pension liability were the following at September 30, 2017:

Total pension liability	$ 48,774,256
Fiduciary net position	(34,383,729)
Net pension liability	$ 14,390,527
Fiduciary net position as a percentage of the total pension liability	70.50%

Significant actuarial methods and assumptions of the Plan are presented in the following table:

Interest rate	7.45% net of investment expense, including inflation	
Pay increase	7.5%	
Inflation	2.0%	
Measurement date	September 30, 2017	
Valuation date	October 1, 2017	
Mortality tables	Healthy rates fully generational using Scale BB	
Healthy pre-retirement	Males:	10% RP-00 Combined Healthy White Collar + 90% RP-00 Combined Healthy Blue Collar
	Females:	100% RP-00 Combined Healthy White Collar
Healthy post-retirement	Males:	10% RP-00 Annuitant White Collar + 90% RP-00 Annuitant Blue Collar
	Females:	100% RP-00 Annuitant White Collar
Disabled mortality	Males:	60% RP-00 Disabled Retiree Set Back 4 Years + 40% RP-00 Annuitant White Collar
	Females:	60% RP-00 Disabled Retiree Set Forward 2 Years + 40% RP-00 Annuitant White Collar

Best estimates of arithmetic real rates of return for each major class included in the pension plan's target asset allocation as of September 30, 2017, are summarized in the following table:

Investment Type	Long-term Expected Real Rate of Return	Target Asset Allocation
Domestic Equity	7.5%	50.00%
International Equity	8.5%	10.00%
Domestic Bonds	2.5%	30.00%
Real Estate	4.5%	10.00%
International Bonds	3.5%	0.00%

(4) **Net Pension Liability:** (Continued)

The discount rate used to measure the total pension liability for the Plan was 7.45%. The projection of cash flows used to determine the discount rate assumed the plan member contributions will be made at the current contribution rate and that City contributions will be made as rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The following table provides the sensitivity of the net pension liability to changes in the discount rate as of September 30, 2017. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is one-percentage-point lower or one percentage-point higher than the single discount rate:

	1% Decrease: 6.45%	**Current Rate: 7.45%**	**1% Increase: 8.45%**
Net pension liability	\$20,796,882	\$14,390,527	\$9,104,841

REQUIRED SUPPLEMENTARY INFORMATION

CITY OF PORT ORANGE POLICE PENSION PLAN
SCHEDULE OF CHANGES IN NET PENSION LIABILITY
SEPTEMBER 30, 2017
(Unaudited)

Fiscal Year Ending September 30,	2017	2016	2015	2014
Total Pension Liability				
Service cost	$ 820,072	$ 885,450	$ 801,785	$ 753,000
Interest	3,425,372	3,371,771	3,257,812	3,123,215
Changes in benefit terms	(7,192)	-	-	-
Difference between actual and expected experience	397,703	(950,704)	609,774	557,616
Assumption changes	585,900	771,544	568,624	56,887
Benefit payments including refunds of contributions	(2,256,996)	(3,144,461)	(3,415,712)	(2,165,565)
Net change in total pension liability	2,964,859	933,600	1,822,283	2,325,153
Total pension liability - beginning	45,809,397	44,875,797	43,053,514	40,728,361
Total pension liability - ending (a)	$ 48,774,256	$ 45,809,397	$ 44,875,797	$ 43,053,514
Total Fiduciary Net Position				
Contributions - employer	$ 2,824,801	$ 2,817,806	$ 2,731,326	$ 2,670,260
Contributions - state	397,680	373,343	345,822	331,402
Contributions - employee	355,777	336,731	326,566	301,375
Net investment income	3,063,317	1,688,832	(21,228)	1,812,759
Benefit payments, including refunds of contributions	(2,256,996)	(3,151,653)	(3,415,712)	(2,165,565)
Administrative expense	(106,538)	(116,769)	(104,276)	(103,311)
Net change in plan fiduciary net position	4,278,041	1,948,290	(137,502)	2,846,920
Plan fiduciary net position - beginning	30,105,688	28,157,398	28,294,900	25,447,980
Plan fiduciary net position - ending (b)	$ 34,383,729	$ 30,105,688	$ 28,157,398	$ 28,294,900
Net pension liability - ending (a) - (b)	$ 14,390,527	$ 15,703,709	$ 16,718,399	$ 14,758,614
Plan fiduciary net position as a percentage of the total pension liability	70.50%	65.72%	62.75%	65.72%
Covered employee payroll	$ 4,622,671	$ 4,275,349	$ 4,293,316	$ 3,944,464
Net pension liability as a percentage of covered employee payroll	311.30%	367.31%	389.41%	374.16%

CITY OF PORT ORANGE POLICE PENSION PLAN
SCHEDULE OF CONTRIBUTIONS
SEPTEMBER 30, 2017
(Unaudited)

Fiscal Year	Actuarially Determined Contribution (ADC)	Contributions in Relation to ADC	Contribution Deficiency (Excess)	Covered Payroll	Contributions as Percentage of Employee Payroll
2017	$ 3,214,965	$ 3,222,481	$ (7,516)	$ 4,622,671	69.71%
2016	3,054,694	3,191,149	(136,455)	4,275,349	74.64%
2015	2,916,745	3,077,148	(160,403)	4,293,316	71.67%
2014	2,826,275	3,001,662	(175,387)	3,944,464	76.10%
2013	2,515,286	2,814,596	(299,310)	3,575,109	78.73%
2012	2,304,028	2,393,122	(89,094)	3,460,703	69.15%
2011	2,071,957	2,841,994	(770,037)	3,212,337	88.47%
2010	2,597,318	2,601,217	(3,899)	4,211,533	61.76%
2009	2,413,516	2,597,319	(183,803)	4,329,474	59.99%
2008	2,057,164	2,057,164	-	4,032,313	51.02%

Notes to Schedule:

Valuation Date: 10/01/2016

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method:	Entry Age
Amortization Method:	Level percent of pay, closed
Remaining Amortization Period:	25 years for change in Plan provisions, assumptions, and methods. (2015 and later) 30 years for plan provisions; 15 years for actuarial gains and losses (prior to 2015)
Asset Valuation Method:	5-year smoothed market
Inflation:	2.00%
Salary Increases:	7.50%
Investment Rate of Return:	7.75%, net of pension plan investment expense including inflation (7.65% to beginning with 2016 contributions; 7.55% with 2017 contributions) (7.45% beginning with 2018 contributions)
Mortality:	The mortality table was revised with the October 1, 2017 actuarial valuation to be that used for special risk employees in te valuation of the Florida Retirement System (FRS) as of July 1, 2016 and 2017, as required by state statute. The mortality table was revised with the October 1, 2016 to be that used for special risk employees in the valuation of FRS as of July 1, 2015, as required by state statute. Prior to this change the RP-2000 Combined Mortality Table using Scale AA projected to the valuation year was used.
Retirement Age:	Members hired after January 31, 2011 – 100% at age 48 and 10 years of service Members hired before January 31, 2011 – 100% at age 45 with 25 years of service or at age 48 with 10 years of service

CITY OF PORT ORANGE POLICE PENSION PLAN
SCHEDULE OF ANNUAL MONEY-WEIGHTED RATE OF RETURN
SEPTEMBER 30, 2017
(Unaudited)

Fiscal Year	Annual Money- Weighted Rate of Return Net of Investment Expense
2017	10.34%
2016	6.18%
2015	-0.49%
2014	7.48%

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Trustees,
City of Port Orange Police Pension Plan:

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of City of Port Orange Police Pension Plan (the Plan), which comprise the statement of fiduciary net position as of September 30, 2017, the statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements, and have issued our report thereon dated February 16, 2018.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Plan's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we do not express an opinion on the effectiveness of the Plan's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be material weaknesses or significant deficiencies, and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Plan's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards.*

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

James Moore & Co., P.L.

Daytona Beach, Florida
February 16, 2018

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City of Port Orange

Police Pension Fund

Actuarial Valuation as of October 1, 2017

February 12, 2018

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
ENDING SEPTEMBER 30, 2019

February 12, 2018

Board of Trustees
City of Port Orange Police Pension Fund
Port Orange, Florida

RE: Actuarial Valuation as of October 1, 2017

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2017 for the City of Port Orange Police Pension Fund (the Plan). This report provides a review of the current funded status of the Plan, establishes the minimum funding requirements for the fiscal year ending September 30, 2019 and provides an analysis of experience since the last valuation. In addition to providing the summary and derivation of actuarial findings, this report describes the data, assumptions, and methods used to create these results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Statement by Enrolled Actuary:

"This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation."

We look forward to the presentation of these results to you in person and we are always available to answer any questions you may have.

Sincerely,

Chad M. Little, ASA, EA
Partner, Consulting Actuary
Enrollment Number 17-6619

Paula C. Freiman, ASA, EA
Partner, Consulting Actuary
Enrollment Number 17-5796

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Section 1 Board Summary

This report presents the results of the October 1, 2017 actuarial valuation of the City of Port Orange Police Pension Fund (the Plan).

Summary of Principal Valuation Results

A summary of the key valuation findings as of October 1, 2017 are compared with the results of the prior valuation below.

Fiscal Year Ending September 30,	**2018**	**2019**
Total Minimum Funding Requirement (City plus State)	$3,197,607	$3,240,623
As a Percent of Payroll	73.10%	65.98%
Estimated State Contribution	$373,343	$397,680
As a Percent of Payroll	8.53%	8.10%
Estimated Minimum Required City Contribution	$2,824,264	$2,842,943
As a Percent of Payroll	64.57%	57.88%

Valuation Date October 1,	**2016**	**2017**
Accrued Liability (AL)	$45,802,205	$48,774,256
Actuarial Value of Assets	31,657,626	34,941,463
Unfunded Accrued Liability (UAL)	$14,144,579	$13,832,793
Funded Percentage	69.12%	71.64%

Valuation Date October 1,	**2016**	**2017**
Assumed Rate of Investment Return	7.55%	7.45%
Individual Salary Increases	7.50%	7.50%
Long-term Payroll Inflation	3.50%	3.50%
Payroll Inflation for Amortization of Unfunded	1.00%	1.00%
Funding Method	Entry Age	Entry Age

Note: We recommend the deposit of at least the minimum required contributions as a dollar amount shown above.

Summary of Significant Events

Determination of the funded status of the Plan and minimum funding requirements are based on participant data, asset information, Plan provisions, actuarial methods and assumptions, as well as contributions made to the Plan by the State of Florida. Any significant events associated with these items are discussed in the following.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the City and the Plan Administrator. This information includes, but is not limited to, statutory provisions, employee census, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

Participant Data

The number of active members increased from 79 to 86 with an increase of 12% in the payroll expected for the 12-month period beginning on the valuation date in comparison to the 1% payroll growth assumption used to amortize the unfunded accrued liability and the 3.5% increase assumption used to project total payroll to the funding year. The average annual payroll growth for the last ten years is shown below.

Valuation Date	Increase Total Valuation Payroll
10/01/2008	0 %
10/01/2009	8 %
10/01/2010	(19)%
10/01/2011	(3)%
10/01/2012	11 %
10/01/2013	10 %
10/01/2014	5 %
10/01/2015	10 %
10/01/2016	(8)%
10/01/2017	12 %
10-Year Average	2 %

There was a demographic loss on an actuarial accrued liability basis mostly due to pay increases more than expected offset by the vested termination of one member and the death of a retiree. While corrections were made to pensionable pay for fiscal 2014 and fiscal 2015, this revision had a minimal effect on the liability of the Plan.

The following table provides the details of actuarial gains and losses by source since October 1, 2006, the date of the last experience review of the Plan. We recommend an experience review be performed. In general, should a pattern of consistent gains or losses develop, assumptions may require revision.

Valuation Date		Total	Investment Related	Demographic
10/01/2007	Actuarial Loss	1,227,859	(278,370)	1,506,229
10/01/2008	Actuarial Loss	2,599,494	2,579,310	20,184
10/01/2009	Actuarial Loss	1,538,368	661,567	880,810
10/01/2010	Actuarial Loss	121,763	591,163	(469,400)
10/01/2011	Actuarial Loss	190,481	805,498	(615,017)
10/01/2012	Actuarial Loss	680,484	578,926	101,558
10/01/2013	Actuarial Gain	(181,623)	(255,604)	73,981
10/01/2014	Actuarial Loss	278,366	(279,250)	557,616
10/01/2015	Actuarial Loss	801,046	191,273	609,773
10/01/2016	Actuarial Gain	(809,648)	141,056	(950,704)
10/01/2016	Actuarial Gain	756,776	359,073	397,703

Assets

Whereas the assets were assumed to achieve a 7.55% investment return net of expenses, the return on the market value of assets was 10.04% producing a gain on a market value basis. Due to the smoothing method used to produce the actuarial value of assets which recognizes market value gains and losses over a five-year period, a 6.39% return was achieved on the actuarial value of assets such that an actuarial investment related loss was experienced for the year ended September 30, 2017. The following provides a summary of the actual return on investments for the 12-month periods ending on the date specified.

	Year Ended 9/30	Market Investment Return	Actuarial Investment Return	Assumed Net Return
1	1996	13.1 %	13.1 %	8.50%
2	1997	18.4 %	18.4 %	8.50%
3	1998	3.7 %	3.7 %	8.50%
4	1999	8.2 %	8.2 %	8.50%
5	2000	11.4 %	11.4 %	8.50%
6	2001	(11.3)%	(11.3)%	8.50%
7	2002	(7.3)%	(7.3)%	8.50%
8	2003	21.0 %	21.0 %	8.50%
9	2004	8.1 %	8.1 %	8.50%
10	2005	7.7 %	7.7 %	8.50%
11	2006	6.2 %	6.2 %	8.50%
12	2007	10.6 %	10.6 %	8.00%
13	2008	(12.1)%	(12.1)%	8.00%
14	2009	8.2 %	3.3 %	8.00%
15	2010	8.4 %	4.2 %	8.00%
16	2011	(0.6)%	3.4 %	8.00%
17	2012	17.5 %	5.0 %	8.00%
18	2013	11.1 %	8.9 %	7.75%
19	2014	7.6 %	8.8 %	7.75%
20	2015	(0.1)%	7.0 %	7.75%
21	2016	6.0 %	7.1 %	7.65%
22	2017	10.0 %	6.4 %	7.55%
22-Year Average		6.3 %	5.7 %	8.18%
10-Year Average		5.3 %	4.0 %	7.84%

The average return on the Market Value of Assets has been 6.3%, when looking over the last 22 valuations performed and 5.3% over the last 10 years, as shown above.

Net investment returns less than the assumed rate of return result in increased annual minimum required contributions. The net assumed investment return was revised to 7.45% for the October 1, 2017 actuarial valuation of the Plan.

Plan Provisions

Ordinance No. 2017-19 adopted effective September 19, 2017 Modifies language to extend Trustee terms from two to four years. We issued a statement of no impact associated with this change in Plan provisions on August 28, 2017.

Ordinance No. 2017-32 adopted effective December 12, 2017 amended the plan to provide that all annual premium tax revenues received pursuant to Chapter 185 and all accumulated excess Chapter 185 premium tax revenues as of October 1, 2016 are used to offset the City's pension contributions. For this October 1, 2017 actuarial valuation of the Plan the $7,192 accumulated excess was released into the actuarial value of assets as if the funding had been received for the year ending September 30, 2017. This ordinance also created a defined contribution plan component commonly referred to as the Share Plan. Our letter dated December 12, 2017 indicated that the increase in cost to the City would be equal to any contributions made to the Share Plan in the future. As currently the City of Port Orange and the union representing police officers have mutually agreed that no Chapter 185 premium tax revenues will be allocated to the Share Plan, there is no impact for the Share Plan at this time.

Methods

There have been no changes in methods since the prior valuation of the Plan.

Assumptions

The net assumed rate of investment return was revised from 7.55% used in the October 1, 2016 actuarial valuation to 7.45% for this October 1, 2017 actuarial valuation of the Plan as directed by the Board of Trustees. The 7.45% assumed return is a prescribed assumption as defined by Actuarial Standard of Practice No. 27 (ASOP 27), as it is set by the Board. The prescribed assumption significantly conflicts with our judgment regarding what would constitute a reasonable assumption for the purpose of the measurement as discussed in ASOP 27. As discussed with the Board we recommend lowering the net assumed return further.

In the prior valuation the required contribution was determined as of the valuation date, projected forward at 3.5% for one year after the valuation date to the beginning of the next fiscal year, then converted to a contribution payable periodically throughout the fiscal year beginning one year after the valuation date using the net assumed rate of investment return. For this valuation, projection for one year from the valuation date to the beginning of the next fiscal year is at the 7.45% net assumed rate of investment return.

In the prior valuation, the mortality table was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2015, as required by state statute. The mortality table has been revised to that used for special risk employees in the valuation of FRS as of July 1, 2016 and 2017, as required by state statute. While healthy post-retirement mortality and disabled mortality rates were unchanged, healthy pre-retirement mortality was revised.

State Contributions

The Estimated Minimum Required City Contribution assumes that the premium tax money received from the State will be in the same amount received in the prior year. Should the amount received in the fiscal years ending September 30, 2018 and 2019 be less than expected, the City will need to contribute any potential shortfall to the Plan.

Section 2 Results Derivation

In this section, the assets and liabilities of the Plan are shown in detail. Assets and liabilities are then compared to determine the funded status and minimum funding requirements. Finally, analysis is performed to explain movement in results from the prior valuation.

While asset information is based on the fair market value of assets, along with any techniques used to smooth out market fluctuations, liabilities are determined through a combination of the benefit provisions, participant census data which contains information for the members who will receive those benefits, and the methods and assumptions used with regard to how benefits will be paid to members. A summary of participant data, an outline of the benefit provisions, and a description of the methods and assumptions used in this valuation are described in Section 4.

Financial Information

Over the life of the Plan, the majority of assets are typically generated from investment return. In this section, we describe how the assets of the Plan are invested, show how the actuarial value of assets is derived, and review the investment results since the prior valuation.

Investment Allocation

Valuation Date	**October 1, 2016**		**October 1, 2017**	
Government agency obligations	$4,242,164	14%	$5,079,539	15%
Corporate and municipal debt obligations	3,191,355	11%	3,254,729	9%
Corporate equity securities	16,064,856	52%	18,871,877	55%
Partnership securities	1,996,541	7%	1,574,360	5%
Mutual funds	2,012,672	7%	825,954	2%
Real estate investments	2,169,990	7%	2,879,056	8%
Cash and cash equivalents	233,016	1%	1,663,095	5%
Net receivables	195,094	1%	235,119	1%
Fair Market Value of Assets	$30,105,688	100%	$34,383,729	100%

Reconciliation of Market Value of Assets

Year Ending September 30,		2016	2017
1.	**Market Value of Assets Beginning of Year**	$28,157,398	$30,105,688
2.	Contributions		
	a. City	$2,817,806	$2,824,801
	b. State	373,343	397,680
	c. Plan Members	336,731	355,777
	d. Total Contributions	$3,527,880	$3,578,258
3.	Investment earnings		
	a. Realized gains and (losses)	$(120,505)	$282,913
	b. Unrealized gains and (losses)	1,572,196	2,542,552
	c. Interest and dividends	447,111	475,423
	d. Investment expense	(209,970)	(237,571)
	e. Net investment income	$1,688,832	$3,063,317
4.	Deductions		
	a. Regular pension benefits	$(2,136,850)	$(2,245,308)
	b. DROP distributions	(920,505)	0
	c. Contribution refunds	(94,298)	(11,688)
	d. Administrative expenses	(116,769)	(106,538)
	e. Total Deductions	$(3,268,422)	$(2,363,534)
5.	Net Increase	$1,948,290	$4,278,041
6.	**Market Value of Assets End of Year**	$30,105,688	$34,383,729
7.	**Actual Return on Market Value of Assets**		
	a. Beginning Value	$28,157,398	$30,105,688
	b. Ending Value	30,105,688	34,383,729
	c. Contributions	3,527,880	3,578,258
	d. Benefits Paid	(3,151,653)	(2,256,996)
	e. Administrative Expenses	(116,769)	(106,538)
	f. Investment Income	1,688,832	3,063,317
	g. Actual Return on Market Value of Assets	6.01 %	10.04 %

Development of Actuarial Value of Assets

The market value of assets is adjusted to recognize gains and losses over a five-year period. However, the Actuarial Value of Assets is limited to no more than 120% or less than 80% of the market value of assets.

Determination of Actuarial Value of Assets for the Plan Year Ended September 30, 2017

1.	Market Value of Assets as of October 1, 2017			$34,383,729
2.	Phase-In Gains (Losses) Over Five Year Period			
		Original Gain (Loss)	**Percent Unrecognized**	**Unrecognized Gain (Loss)**
	a. Year Ending 9/30/2017	$759,494	80%	$607,595
	b. Year Ending 9/30/2016	(460,853)	60%	(276,512)
	c. Year Ending 9/30/2015	(2,196,177)	40%	(878,471)
	d. Year Ending 9/30/2014	(51,729)	20%	(10,346)
	e. Total			$(557,734)
3.	Preliminary Actuarial Value of Assets as of October 1, 2017			$34,941,463
4.	Corridor Around Market Value			
	a. Minimum = 80% of Market Value of Assets			$27,506,983
	b. Maximum = 120% of Market Value of Assets			$41,260,475
	c. Corridor Adjustment to Preliminary Actuarial Value			$0
5.	Cumulative Balance of State Funding Available for Benefit Improvements (Before Mutual Consent)			$7,192
6.	Actuarial Value of Assets as of October 1, 2017 (3. + 4.c. - 5.) (Before Mutual Consent)			$34,934,271
7.	Actuarial Value of Assets as of October 1, 2017 (3. + 4.c.) (After Mutual Consent)			$34,941,463

Development of Historical Gain or Loss on Market Value of Assets

		2017	2016
1.	Market Value of Assets - Beginning of Year	$30,105,688	$28,157,398
2.	Contributions	3,578,258	3,527,880
3.	Benefit Payments	(2,256,996)	(3,151,653)
4.	Administrative Expenses	(106,538)	(116,769)
5.	Expected Return on Assets	2,303,823	2,149,685
6.	Expected Value of Assets at End of Year	$33,624,235	$30,566,541
7.	Market Value of Assets - End of Year	$34,383,729	$30,105,688
8.	Gain (Loss) for Plan Year = (7) - (6)	$759,494	$(460,853)

		2015	2014
1.	Market Value of Assets - Beginning of Year	$28,294,900	$25,322,725
2.	Contributions	3,403,714	3,303,037
3.	Benefit Payments	(3,415,712)	(2,165,565)
4.	Administrative Expenses	(104,276)	(103,311)
5.	Expected Return on Assets	2,174,949	1,989,743
6.	Expected Value of Assets at End of Year	$30,353,575	$28,346,629
7.	Market Value of Assets - End of Year	$28,157,398	$28,294,900
8.	Gain (Loss) for Plan Year = (7) - (6)	$(2,196,177)	$(51,729)

State Contributions

Year Ending September 30	State Contributions	Recurring Cost Benefit Improvements	Base Plus Benefit Improvements	Recognized State Funding	Cumulative Balance Available Upon Benefit Improvement
2017	$397,680	$0	$699,961	$397,680	$7,192
2016	373,343	0	699,961	373,343	7,192
2015	345,822	0	699,961	345,822	7,192
2014	331,402	0	699,961	331,402	7,192
2013	316,074	0	699,961	316,074	7,192
2012	314,094	0	699,961	314,094	7,192
2011	303,356	0	699,961	303,356	7,192
2010	302,888	0	699,961	302,888	7,192
2009	314,162	0	699,961	314,162	7,192
2008	293,562	0	699,961	293,562	7,192
2007	296,758	0	699,961	296,758	7,192
2006	279,159	0	699,961	279,159	7,192
2005	267,203	0	699,961	267,203	7,192
2004	245,105	0	699,961	245,105	7,192
2003	198,169	454,127	699,961	198,169	7,192
2002	165,823	0	245,834	165,823	7,192
2001	135,870	121,320	245,834	135,870	7,192
2000	121,555	0	124,514	121,555	7,192
1999	131,706	0	124,514	124,514	7,192
1998	124,514	0	124,514	124,514	0

Note: The $7,192 cumulative balance as of September 30, 2017 has been released into the actuarial valuation of assets per the collective bargaining agreement and Ordinance No. 2017-32.

Present Value of Benefits

Valuation as of October 1,		2016	2017
1.	**Active Members**		
	a. Retirement Benefits	$18,568,984	$21,450,575
	b. Deferred Benefits	1,956,760	2,046,753
	c. Survivor Benefits	427,970	206,774
	d. Disability Retirement	400,749	448,278
	e. Total	$21,354,463	$24,152,380
2.	**Inactive Members**		
	a. Retirement and DROP	$26,807,657	$27,103,336
	b. Terminated Vested	926,415	1,362,308
	c. Beneficiaries	932,771	1,158,301
	d. Disability Retirement	1,679,405	1,682,435
	e. Total	$30,346,248	$31,306,380
3.	**Present Value of Benefits (PVB)**	$51,700,711	$55,458,760

Accrued Liability

Valuation as of October 1,		2016	2017
1.	**Active Members**		
	a. Retirement Benefits	$14,390,374	$16,678,481
	b. Deferred Benefits	648,553	509,494
	c. Survivor Benefits	300,881	144,512
	d. Disability Retirement	116,149	135,389
	e. Total	$15,455,957	$17,467,876
3.	**Inactive Members**		
	a. Retirement and DROP	$26,807,657	$27,103,336
	b. Terminated Vested	926,415	1,362,308
	c. Beneficiaries	932,771	1,158,301
	d. Disability Retirement	1,679,405	1,682,435
	e. Total	$30,346,248	$31,306,380
3.	**Accrued Liability (AL)**	$45,802,205	$48,774,256

Normal Cost – Entry Age Normal

Valuation as of October 1,		2016	2017
1.	**Preliminary Normal Cost**		
a.	Retirement Benefits	$582,836	$669,642
b.	Deferred Benefits	179,730	211,130
c.	Survivor Benefits	17,288	8,587
d.	Disability Retirement	40,218	44,185
e.	Total	$820,072	$933,544
2.	**Total Normal Cost**		
a.	Preliminary Normal Cost	$820,072	$933,544
b.	Estimated Administrative Expense	116,769	106,538
c.	Total Normal Cost	$936,841	$1,040,082
d.	Total Normal Cost as a % of Pay	22.17 %	21.92 %
3.	**Normal Cost Net of Actual Employee Contributions**		
a.	Preliminary Normal Cost	$820,072	
b.	Actual Administrative Expense	106,538	
c.	Actual Employee Contributions	(355,777)	
d.	Actual Employer Normal Cost	$570,833	
4.	**Valuation Payroll**	$4,226,346	$4,745,191

Unfunded Accrued Liability

Valuation as of October 1,	2017
Unfunded Actuarial Liability	
1. Accrued Liability	$48,774,256
2. Actuarial Value of Assets	34,941,463
3. Unfunded Accrued Liability	$13,832,793
Determination of Expected Unfunded Accrued Liability	
1. Unfunded Accrued Liability as of Prior Year	$14,144,579
2. Normal Cost (Net of Employee Contributions)	570,833
3. Interest on UAL and NC	1,111,014
4. Contributions	
a. City	$(2,824,801)
b. State of Florida	(404,872)
c. Total	$(3,229,673)
5. Interest on Contribution for Time on Deposit	(106,636)
6. Change in Plan, Methods or Assumptions	585,900
7. Expected UAL as of Current Year	$13,076,017
Calculation of (Gain) or Loss	
1. Actual Unfunded Accrued Liability	$13,832,793
2. Expected UAL	13,076,017
3. Total (Gain) or Loss	$756,776
4. Breakdown of (Gain) or Loss	
a. Investment Experience	$359,073
b. Demographic Experience	397,703
c. Total (Gain) or Loss	$756,776
Calculation of Actuarial Asset Gain or (Loss)	
1. Actuarial Value of Assets - Beginning of Year	$31,657,626
2. Expected Interest on Assets	2,390,151
3. Contributions	3,585,450
4. Benefit Payments	(2,256,996)
5. Administrative Expenses	(106,538)
6. Interest on items (3), (4) and (5)	30,843
7. Expected Value of Assets at End of Year	$35,300,536
8. Actuarial Value of Assets - End of Year	$34,941,463
9. Gain (Loss) for Plan Year = (8) - (7)	$(359,073)
10. Actual Investment Income	$2,061,921
11. Actual % Return	6.39%

Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level percentage of payroll based on the interest and payroll growth assumptions. In the October 1, 2014 valuation, unfunded accrued liability from changes in Plan provisions, actuarial assumptions, or changes in methods was amortized over 30 years and unfunded accrued liability from actuarial gains or losses was amortized over 15 years. Effective October 1, 2015 all new bases are amortized over 25 years.

Amortization Bases

	Date	Source	Remaining Balance	Remaining Balance Adjusted for Actual Contributions	Years Remain	Amort.
1.	10/01/2002	Fresh Start	$1,520,250	$1,495,596	5	$337,250
2.	10/01/2002	Plan Amendment	2,042,579	2,009,453	15	199,415
3.	10/01/2003	Actuarial Loss	80,511	79,205	1	79,205
4.	10/01/2004	Actuarial Loss	515,602	507,240	2	261,468
5.	10/01/2005	Actuarial Loss	221,075	217,490	3	77,028
6.	10/01/2005	Plan Amendment	347,539	341,903	18	30,548
7.	10/01/2006	Actuarial Loss	390,407	384,075	4	105,110
8.	10/01/2006	Method Change	786,768	774,008	19	67,185
9.	10/01/2006	Assumption Change	2,692,335	2,648,671	19	229,910
10.	10/01/2007	Actuarial Loss	636,512	626,189	5	141,203
11.	10/01/2007	Method Change	581,331	571,903	20	48,348
12.	10/01/2008	Actuarial Loss	1,512,112	1,487,589	6	287,819
13.	10/01/2008	Method Change	(1,939,575)	(1,908,119)	21	(157,450)
14.	10/01/2009	Actuarial Loss	992,236	976,144	7	166,628
15.	10/01/2010	Actuarial Loss	84,150	82,785	8	12,723
16.	10/01/2010	Plan Amendment	(1,974,146)	(1,942,130)	23	(153,558)
17.	10/01/2011	Actuarial Loss	140,945	138,659	9	19,486
18.	10/01/2012	Actuarial Loss	534,320	525,655	10	68,366
19.	10/01/2012	Plan Amendment	583,048	573,592	25	43,737
20.	10/01/2012	Assumption Change	1,442,612	1,419,216	25	108,216
21.	10/01/2013	Actuarial Gain	(151,192)	(148,740)	11	(18,079)
22.	10/01/2013	Assumption Change	51,282	50,450	26	3,785
23.	10/01/2014	Actuarial Loss	245,374	241,395	12	27,640
24.	10/01/2014	Assumption Change	55,631	54,729	27	4,046
25.	10/01/2015	Actuarial Loss	784,947	772,217	23	61,057
26.	10/01/2015	Assumption Change	557,196	548,160	23	43,341
27.	10/01/2016	Actuarial Gain	(803,829)	(790,793)	24	(61,357)
28.	10/01/2016	Assumption Change	765,998	753,575	24	58,469
29.	10/01/2017	Actuarial Loss	756,776	756,776	25	57,704
30.	10/01/2017	Assumption Change	585,900	585,900	25	44,675
	Scheduled Amortization Payment					$2,193,918
	Unfunded Accrued Liability			$13,832,793		

Projected Unfunded Accrued Liability and Amortization Payments

Valuation as of October 1,	Unfunded Accrued Liability	Amortization Payment
2017	$13,832,793	$2,193,918
2018	12,505,971	2,135,860
2019	11,142,685	1,890,495
2020	9,941,478	1,830,038
2021	8,715,742	1,738,961
2022	7,496,551	1,253,493
2023	6,708,166	960,501
2024	6,175,866	791,459
2025	5,785,545	785,596
2026	5,372,446	772,141
2027	4,943,028	704,344
2028	4,554,466	731,557
2029	4,107,716	707,727
2030	3,653,288	714,804
2031	3,157,401	721,952
2032	2,616,890	497,656
2033	2,277,117	502,633
2034	1,906,683	507,659
2035	1,503,251	476,196
2036	1,103,571	122,035
2037	1,054,661	64,261
2038	1,064,184	258,945
2039	865,230	261,534
2040	648,672	325,951
2041	346,763	332,877
2042	14,920	10,043
2043	5,240	5,240

Actions Taken to Reduce Unfunded Actuarial Accrued Liability

The required contributions calculated each year include a payment for the amortization of the unfunded accrued liability. This payment is designed to reduce the unfunded accrued liability in an orderly fashion. The Unfunded Actuarial Accrued Liability is being amortized as a level percentage of payroll based on the interest and payroll growth assumptions. In the October 1, 2014 valuation, unfunded accrued liability from changes in Plan provisions, actuarial assumptions, or changes in methods was amortized over 30 years and unfunded accrued liability from actuarial gains or losses was amortized over 15 years. Effective October 1, 2015 all new bases are amortized over 25 years.

Minimum Funding Requirements

Valuation as of October 1, Required Contribution for FYE September 30,		2016 2018	2017 2019
1.	Normal Cost	$936,841	$1,040,082
2.	Amortization of Unfunded Actuarial Liability	2,339,817	2,193,918
3.	Minimum Required Contribution at Valuation Date [1. + 2.]	$3,276,658	$3,234,000
4.	Minimum Required Contribution Projected to Beginning of Budget Year	$3,391,341	$3,474,933
5.	Interest for Periodic Payments	142,117	144,255
6.	Minimum Required Contribution Adjusted for Periodic Payments [4. + 5.]	$3,533,458	$3,619,188
7.	Expected Employee Contributions	$335,851	$378,565
8.	Expected State Contribution	373,343	397,680
9.	Estimated City Contribution	2,824,264	2,842,943
10.	Minimum Required Contribution for Funding Year	$3,533,458	$3,619,188
11.	City Plus State Contribution	$3,197,607	$3,240,623
12.	Expected Employee Contribution Rate	7.68%	7.71%
13.	Expected State Contribution Rate	8.53%	8.10%
14.	Estimated City Contribution Rate	64.57%	57.88%
15.	Minimum Required Contribution Rate	80.78%	73.69%
16.	City Plus State Contribution Rate	73.10%	65.98%
17.	Payroll		
	a. Valuation Payroll	$4,226,346	$4,745,191
	b. Projected Valuation Payroll	$4,374,268	$4,911,273
	c. Hired < January 31, 2011	2,818,171	2,867,394
	d. Hired > January 31, 2011	1,556,097	2,043,879
18.	Assumptions		
	a. Net Assumed Investment Return	7.55%	7.45%
	b. Contribution Projected to Next FY	3.50%	7.45%
	c. Total Payroll Inflation	3.50%	3.50%
	d. Payroll Inflation for Amortization of UAL	1.00%	1.00%

Reconciliation of Unfunded Accrued Liability

	Unfunded Accrued Liability	Funded Percentage	Change in Unfunded Accrued Liability	Change in Funded Percentage
As of October 1, 2016:	$14,144,579	69.12 %		
Changes due to:				
Normal Operation of Plan	$12,490,117	73.86 %	$(1,654,462)	4.74 %
Investment Experience	12,849,190	73.11 %	359,073	(0.75)%
Demographic Experience	13,246,893	72.51 %	397,703	(0.60)%
Change Net Assumed Return	13,821,373	71.66 %	574,480	(0.85)%
Required Mortality Change	13,832,793	71.64 %	11,420	(0.02)%
Total			$(311,786)	2.52 %
As of October 1, 2017:	$13,832,793	71.64 %		

Reconciliation of City Minimum Required Contribution

	Dollar Amount	Percent of Pay
For Fiscal Year Ending September 30, 2018:	$2,824,264	64.57 %
Changes due to:		
Normal Operation of Plan	$(199,108)	(6.59)%
Administrative Expense Change	(10,989)	(0.25)%
State Contribution Increase	(23,418)	(0.51)%
Investment Experience	29,652	0.66 %
Demographic Experience	21,462	(4.09)%
Change Net Assumed Return from 7.55% to 7.45%	59,306	1.20 %
Required Mortality Change	9,272	0.19 %
Use Net Assumed Return as Projection Rate	132,502	2.70 %
Total	$18,679	(6.69)%
For Fiscal Year Ending September 30, 2019:	$2,842,943	57.88 %

Section 3 Accounting Information

Information Required by GASB 67/68

A supplemental report provides information under the Governmental Accounting Standards Board No. 67/68.

Statement of Accumulated Plan Benefits (FASB 35)

The following table is based on prior accounting standards and is required by the State. The actuarial present value of accumulated plan benefits is an estimate of the liability for all benefits accrued to date.

Year Beginning October 1,	**2016**	**2017**
1. Actuarial present value of accumulated plan benefits		
a. Participants currently receiving benefits	$29,419,833	$29,944,072
b. Other participants	9,816,410	11,887,475
c. Total vested plan benefits	$39,236,243	$41,831,547
d. Total non-vested plan benefits	1,342,915	1,139,207
e. Total accumulated plan benefits	$40,579,158	$42,970,754
2. Change in present value of accumulated plan benefits		
a. Accumulated plan benefits beginning of year		$40,579,158
b. Increase (decrease) during year due to:		
i. Plan amendment		$0
ii. Change in assumptions or methods		489,330
iii. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		4,159,262
iv. Benefits paid		(2,256,996)
v. Other changes		0
vi. Net increase (decrease)		$2,391,596
c. Accumulated plan benefits end of year		$42,970,754

Other Disclosures Required by the State of Florida

Year Beginning October 1,	**2016**	**2017**
Present value of active member:		
Future salaries (attained age)	$31,441,169	$35,244,191
Future contributions (attained age)	$2,418,406	$2,722,821
Active Member accumulated contributions	$1,538,311	$1,799,003

Required Disclosure Under F.S. 112.664(1)

As required under F.S. Section 112.664(1) we have produced the following information:

(a) Total pension liability calculated based on mortality used in one of the last two Florida Retirement System (FRS) valuations. This actuarial valuation assumes mortality as used in the July 1, 2016 and 2017 actuarial valuation for special risk members of FRS.

(b) Total pension liability calculated using an assumed interest rate that is 200 basis points lower than that assumed in the valuation of the Plan.

(c) Determination of the number of months or years for which the current market value of assets is adequate to sustain the payment of expected retirement benefits.

(d) Recommended contribution to the Plan using the most recent valuation and the contributions necessary prepared pursuant to (a) and (b) stated as a dollar amount and % of payroll.

	2% Decrease (5.45%)	Current Discount Rate (7.45%)	2% Increase (9.45%)
Total pension liability	$63,032,645	$48,774,256	$39,082,155
Plan fiduciary net position	(34,383,729)	(34,383,729)	(34,383,729)
Net pension liability	$28,648,916	$14,390,527	$4,698,426
Plan fiduciary net position as a percentage of the total pension liability	54.55%	70.50%	87.98%
Years of benefit payments:			
Expected for current members:	98	98	98
Paid for with current assets:	13.09	15.36	19.43
City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	$4,933,214	$3,619,188	$2,534,991
Percent of Payroll	100.45%	73.69%	51.62%

Required Disclosure Under F.S. 112.664(2)(b)2.

F.S. Section 112.664(2)(b)2. - For the previous five years, beginning with 2013, a side-by-side comparison of the plan's assumed rate of return compared to the actual rate of return, as well as the percentages of cash, equity, bond and alternative investments in the plan portfolio. The actual rate of return is as provided by the investment monitor.

Year Ending September 30,	**2017**	**2016**	**2015**	**2014**	**2013**
Assumed rate of return	7.55%	7.65%	7.75%	7.75%	7.75%
Actual rate of return	10.04%	6.01%	(0.08%)	7.55%	11.12%
Percentages of assets in:					
Cash	6%	1%	0%	2%	7%
Equity	56%	59%	57%	57%	59%
Bond	25%	25%	25%	25%	28%
Alternative	13%	15%	18%	16%	6%
Total	100%	100%	100%	100%	100%

Section 4 Supplementary Information

Summary of Participant Data

Member Statistics

Year Beginning October 1,	2016	2017
Active Participants		
Number	79	86
Average Age	36.7	36.4
Average Credited Service	8.5	8.3
Percent Male	88.6	90.7
Average Valuation Salary	$55,326	$56,915
Total Valuation Salary	$4,370,757	$4,894,714
Payroll Covered in Valuation	$4,226,346	$4,745,191
Terminated With Rights to Deferred Benefits		
Number	6	7
Average Age	41.6	42.2
Percent Male	100.0	85.7
Average Monthly Benefit (Estimate)	$1,653	$1,926
DROP		
Number	0	0
Average Age	0.0	0.0
Percent Male	0.0	0.0
Average Monthly Benefit	$0	$0
DROP Balances	$0	$0
Service Retirements		
Number	44	44
Average Age	60.3	60.8
Percent Male	95.5	95.5
Average Monthly Benefit	$3,802	$3,838
Beneficiaries		
Number	2	3
Average Age	63.7	68.6
Percent Male	50.0	33.3
Average Monthly Benefit	$3,006	$2,643
Disability Retirements		
Number	4	4
Average Age	50.1	51.1
Percent Male	100.0	100.0
Average Monthly Benefit	$3,359	$3,369

Number of Active Members by Age and Service as of October 1, 2017

	Service							
Age	< 1	< 5	< 10	< 15	< 20	< 25	25+	Total
< 20								
< 25	1	2						3
< 30	4	11	3					18
< 35	5	6	8	1				20
< 40		4	2	9	1			16
< 45			1	8	3			12
< 50		1	1	2	6	2	1	13
< 55			1		1	1		3
< 60				1				1
60+								
Total	10	24	16	21	11	3	1	86

Active Valuation Pay by Age and Service as of October 1, 2017

	Service							
Age	< 1	< 5	< 10	< 15	< 20	< 25	25+	Total
< 20								
< 25	45,099	45,461						45,340
< 30	27,745	44,278	52,111					41,910
< 35	26,776	46,848	54,163	60,078				45,418
< 40		49,798	54,789	67,034	64,315			61,024
< 45			53,423	69,690	83,112			71,690
< 50		45,925	53,335	71,441	72,498	99,093	90,273	74,276
< 55			59,025		77,205	98,225		78,152
< 60				59,250				59,250
60+								
Total	28,996	46,008	54,063	67,764	75,077	98,804	90,273	56,915

Reconciliation of Plan Participants

	Active	Vested Termination	DROP	Retired	Survivor	Disability
As of October 1, 2013	78	3	9	33	1	4
Retired			(2)	2		
Disability Retirement	(1)					1
Vested Termination	(2)	2				
Nonvested Termination	(3)					
New Hires	8					
As of October 1, 2014	80	5	7	35	1	5
Nonvested Termination	(3)					
Death With Survivor				(1)	1	
Retired			(4)	4		
New Hires	8					
As of October 1, 2015	85	5	3	38	2	5
Nonvested Termination	(11)					
Vested Termination	(1)	1				
Retired	(3)		(3)	6		
Death						(1)
New Hires	9	0	0	0	0	0
As of October 1, 2016	79	6	0	44	2	4
Nonvested Termination	(6)					
Vested Termination	(1)	1				
Retired	(1)			1		
Death				(1)	1	
New Hires	15	0	0	0	0	0
As of October 1, 2017	86	7	0	44	3	4

Reconciliation of DROP Account Balances

1.	Beginning Balance as of October 1, 2016	$0
2.	Monthly Benefit Additions	0
3.	Interest Earned	0
4.	Distributions	0
5.	Ending Balance as of September 30, 2017	$0

Outline of Plan Provisions

Plan Type: Single-employer Defined Benefit Pension Plan

Legal Authority: The Plan was established and is amended by local ordinance.

Plan Administrator: The Board of Trustees

Board Composition: Two members are elected from among the police employees of the City, who are members of the plan, two city residents appointed by the Commission and one person is chosen by a majority of the previous four members.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Effective Date: The Plan was originally effective September 28, 1993. Prior to the Effective Date, Members were part of a "Chapter Plan" where a slightly different level of benefits was effective. The most recent amendment to the Plan was Ordinance No. 2015-38 effective December 1, 2015.

Plan Year: The 12-month period from October 1st to the following September 30th.

Member: Full-time employees who satisfy the definition of a police officer in F.S. Section 185.02(11) become Members immediately upon hire.

Credited Service: Years and completed months of full-time employment as a police officer of the city during which a person contributes to the Plan. Credited Service also includes certain military service. Additional Credited Service may be purchased at full actuarial cost. Credited Service purchased after January 31, 2011 is not counted towards vesting.

Vesting: 100% upon earning ten years of Credited Service.

Compensation: Prior to Ordinance No. 2012-4, Monthly salary paid for work performed including overtime payments from a salary fund up to 300 hours in a calendar year, 50% of accumulated sick and annual leave payouts, amounts withheld for tax sheltered annuities, tax deferred compensation, and payments in addition to the employee's base rate of pay if the payments are paid according to a formal written policy that applies to all eligible employee equally, payments are paid for as long as the employee continues employment, and payments are paid at least annually.

Effective with Ordinance No. 2012-4, Monthly salary paid for work performed including overtime payments from a salary fund up to 300 hours in a calendar year, lump sum payments for accumulated sick and annual leave for employees hired on or before January 31, 2011 (but not to exceed the hours of sick and annual leave accumulated as of March 1, 2011 plus 50% of the hours of sick and annual leave accumulated between March 1, 2011 and March 1, 2012, and excluding lump sum payments for accumulated sick and annual leave accumulated on or after March 1, 2012), amounts withheld for tax sheltered annuities, tax deferred compensation, and payments in addition to the employee's base rate of pay if the payments are paid according to a formal written policy that applies to all eligible employee equally, payments are paid for as long as the employee continues employment, and payments are paid at least annually.

Employee Contributions: 7.5% of Compensation for members hired on or before January 31, 2011 and 8.0% for members hired after that date. A Member who terminates non-vested is entitled to refund of accumulated Employee Contributions without interest. Contributions may be repaid with interest upon reentry into the Plan due to rehire.

Average Final Compensation: For members hired on or before January 31, 2011, one-twelfth the average of Compensation for the three highest years of Credited Service. For members hired after January 31, 2011, one-twelfth of the average of Compensation for the five highest years of Credited Service.

Normal Retirement Date: For members hired on or before January 31, 2011, the first day of the month coincident with or next following the earlier of (i) age 48 and ten years of Credited Service, or (ii) age 45 and 25 years of Credited Service. For members hired after January 31, 2011, the Normal Retirement Date is the first day of the month coincident with or next following the date the member attains age 48 and ten years of Credited Service.

Accrued Benefit (for Members Hired On or Before January 31, 2011): 3% x Average Final Compensation x Credited Service, plus, for Members who retire (i) with ten years of Credited Service prior to October 1, 2002, (ii) after having attained age 50 with ten years of Credited Service by October 1, 2002, (iii) with 20 years of Credited Service between October 1, 2002 and January 31, 2011, or (iv) with 25 years of Credited Service after January 31, 2011, a Supplemental Benefit (commonly referred to as a "health subsidy") is payable as follows:

(a) $200 per month

(b) $20 x Credited Service Over 10 Years (Maximum $400) per month

(c) Where (a) plus (b) is not more than $600 per month

For Members who retired prior to October 1, 1993 the monthly benefit was defined as 2% x Average Final Compensation x Credited Service (hereafter referred to as the "2% Multiplier Formula") plus the Supplemental Benefit defined above (the lesser of $600 and $200 + ($20 x Credited Service Over 10, but no more than $400)). A cost-of-living adjustment (CPI COLA) is payable annually effective January 1, 1994 on the portion of the benefit determined under the 2% Multiplier Formula. The amount of the CPI COLA is the increase in the Consumer Price Index (urban wage earner as calculated by the United States Department of Labor) between July of the immediately preceding year as compared to July of the prior year. The CPI COLA is granted until the participant's benefit determined under the 2% Multiplier Formula reaches the benefit amount provided for members who retire after October 1, 1993 (3% x Average Final Compensation x Credited Service) plus the Supplemental Benefit (the lesser of $600 and $200 + ($20 x Credited Service Over 10, but no more than $400)). This portion of Plan provisions was applicable to only one Member of the Plan. The last time the CPI COLA was paid was on January 1, 2006. The Plan provision defining the CPI COLA will not apply to Plan participants after January 1, 2006.

Effective October 1, 2001, Members who retired prior to October 1, 2002 (including disability retirees) are granted a 1% cost-of-living adjustment annually commencing the January 1 following the first anniversary of retirement annuity commencement (1% COLA). For a DROP retiree, the 1% COLA is granted commencing on the January 1 following the first anniversary of actual annuity commencement after the end of the DROP period. The 1% COLA is not payable to any participant eligible to receive the 3% COLA, as described in the following.

Effective October 1, 2002, retirees are granted a deferred annual 3% cost-of-living adjustment (3% COLA) as follows: (i) Members who are retired on October 1, 2002 and had earned at least 20 years of Credited Service, (ii) Members who are actively employed on October 1, 2002 and had attained age 50 with ten years of Credited Service at that date, (iii) Members who are actively employed on October 1, 2002 with 20 years of Credited Service at that date, (iv) Members who attain 20 years of Credited Service after October 1, 2002 and who retire or enter the DROP by January 31, 2011, and (v) Members who attain 25 years of Credited Service after January 31, 2011. The deferred 3% COLA is payable annually commencing as specified in the following:

(a) 5 years after retirement (or DROP) for participants who retire (or DROP) on or before January 31, 2011 upon attaining age 45 and 25 years of Credited Service or age 50 and 20 Years of Credited Service.

(b) The later of 5 years after retirement (or DROP) or age 59 for participants who were hired prior to January 1, 2003 and who retire (or DROP) on or before January 31, 2011 upon attaining age 48 and 20 years of Credited Service.

(c) On the first day of the month coincident with or next following attainment of age 59

   a. for participants who were hired prior to January 1, 2003 and who separate employment on or before January 31, 2011 with 20 years of Credited Service but before reaching age 48.

   b. for participants hired on or after January 1, 2003 who retire (or DROP) on or before January 31, 2011 with at least 20 years of Credited Service (but prior to age 45 and 25 Years of Credited Service and prior to age 50).

   c. for participants who retire after January 31, 2011.

(d) 5 years after commencement of disability benefits on or before January 31, 2011 if 20 years of Credited Service have been earned during employment.

For members actively employed on January 31, 2011, in no event will the annual benefit payable exceed $95,000, inclusive of any COLAs to which the member may be entitled.

<u>Accrued Benefit (for Members Hired After January 31, 2011):</u> 3% x Average Final Compensation x Credited Service, plus a Supplemental Benefit (commonly referred to as a “health subsidy”) is payable as follows:

(a) $100 per month

(b) $10 x Credited Service Over 10 Years (Maximum $100) per month

(c) Where (a) plus (b) is not more than $200 per month

No COLA is payable for members hired after January 31, 2011.

In no event will the annual benefit exceed $95,000.

<u>Late Retirement Benefit:</u> The higher of the benefit determined using the Average Final Compensation and Credited Service at the actual date of retirement from employment, or the benefit that would have been paid had the Member retired at the Normal Retirement Date increased actuarially from the Normal Retirement Date to the actual date of retirement.

<u>Early Retirement Date:</u> The first day of the month coincident with or next following the date the Member earns ten years of Credited Service and attains age 45.

<u>Early Retirement Benefit:</u> The Accrued Benefit reduced by 3% for each year the Member is younger than the Normal Retirement Date.

Disability Benefits: Members are eligible for service-connected Disability Benefits immediately upon hire. The monthly service-connected Disability Benefit is the greater of (i) the Accrued Benefit and (ii) 51% of average monthly compensation for the most recent 12 months of full-time employment. Members are eligible for a non-service-connected Disability Benefit after earning at least ten years of Credited Service. The monthly non-service-connected disability benefit is the greater of (i) the Accrued Benefit and (ii) 25% of average monthly compensation for the most recent 12 months of full-time employment. Disability Benefits are offset by disability income received from workers' compensation only to the extent by which the total of the workers' compensation benefit plus the Disability Benefit payable exceeds the employee's average monthly compensation at disability. However, any offset for workers' compensation will not result in less than 42% of average monthly compensation, in the event of service-connected disability, or in less than 25% of average monthly compensation, in the event of non-service-connected disability.

Pre-Retirement Survivor Benefits: Vested Members who die prior to the commencement of benefits shall have a survivor benefit payable on their behalf. The amount of the monthly income payable is the (i) Accrued Benefit at the date of death payable at the Normal Retirement Date, or (2) the actuarial equivalent of this Accrued Benefit payable on the first day of the month following death, as elected by the designated beneficiary.

Optional Forms of Benefit: Pension benefits described above are payable in the form of a 10 year certain and continuous annuity. Members may optionally choose an actuarially equivalent single life annuity, or joint and survivor annuity (with 50%, 66 2/3, 75%, or 100% continuance). Actuarial equivalence for healthy lives is determined based the RP-2000 mortality table projected using Scale AA to 2010 (50% male blend) and an 8.0% annual interest assumption. The RP-2000 mortality table for disabled retirees projected using Scale AA to 2010 (50% male blend) is used for disabled lives.

Deferred Retirement Option Plan (DROP): Members hired on or before January 31, 2011 are eligible to enter the DROP upon earning 25 years of Credited Service. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. The Accrued Benefit accumulates with interest at the fund's assumed rate of investment return in the DROP account (credited quarterly) and is payable as a single-lump sum within 60 days following DROP exit. The maximum DROP participation duration is 60 months. DROP participants are not eligible for pre-retirement death or disability benefits. No DROP is available to members hired after January 31, 2011.

Share Plan: Ordinance No. 2017-32 adopted effective December 12, 2017 amended the plan to provide that all annual premium tax revenues received pursuant to Chapter 185 and all accumulated excess Chapter 185 premium tax revenues as of October 1, 2016 are used to offset the City's pension contributions. This ordinance also created a defined contribution plan component commonly referred to as the Share Plan. Currently, the City of Port Orange and the union representing police officers have mutually agreed that no Chapter 185 premium tax revenues will be allocated to the Share Plan. At such time that the City of Port Orange and the union mutually agree to allocate premium tax revenues to the Share Plan, the details will be negotiated.

Description of Assumptions and Methods

Assumed Rate of Investment Return: 7.45% per year net of investment expenses (7.55% in the prior valuation)

Inflation: 2.0% per year

Salary Increase – Total Payroll: 3.5% per year

The payroll growth assumption used to amortize unfunded accrued liability as a level percent of payroll is 1.0%.

Salary Increase – Individual: 7.5% per year

Members hired after January 31, 2011 are assumed to have no payout for accrued hours includable in their pension.

For Members hired on or before January 31, 2011 the final year of Salary is increased to account for the number of accrued hours available at March 1, 2011 plus half of the number of accrued hours between March 1, 2011 and March 1, 2012, assuming members typically work 2,184 hours in a year.

Mortality: In the prior valuation, the mortality table was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2015, as required by state statute. The mortality table has been revised to that used for special risk employees in the valuation of FRS as of July 1, 2016 and 2017, as required by state statute. While healthy post-retirement mortality and disabled mortality rates were unchanged, healthy pre-retirement was revised. The mortality rates are as follows:

Healthy mortality (Pre-retirement):		
	Males:	10% RP-00 Combined Healthy White Collar +
		90% RP-00 Combined Healthy Blue Collar
	Females:	100% RP-00 Combined Healthy White Collar
	Both male and female rates fully generational using Scale BB	
Healthy mortality (Post-retirement):		
	Males:	10% RP-00 Annuitant White Collar +
		90% RP-00 Annuitant Blue Collar
	Females:	100% RP-00 Annuitant White Collar
	Both male and female rates fully generational using Scale BB	
Disabled mortality:	Males:	60% RP-00 Disabled Retiree Set Back 4 Years +
		40% RP-00 Annuitant White Collar
	Females:	60% RP-00 Disabled Retiree Set Forward 2 Yrs +
		40% RP-00 Annuitant White Collar
	No mortality improvement is assumed for disabled lives.	

Retirement: Unisex rates, as follows:

Members Hired Before January 31, 2011:

	Service		
Age	<10	10-24	25+
<=44	0.0%	0.0%	0.0%
45-51	0.0%	0.0%	100.0%
52+	0.0%	100.0%	100.0%

Members Hired After January 31, 2011: 100% at Age 48 and 10 Years of Service

Termination: In the current valuation the following unisex rates are assumed:

Service	Rate
0-2	23.0%
3-9	8.0%
10	30.0%
11-12	5.0%
13-14	4.0%
15-16	3.0%
17-18	2.0%
19	1.0%
20+	0.0%

Disability: Unisex rates, as follows:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
15	0.050%	29	0.106%	43	0.186%	57	0.704%
16	0.054%	30	0.110%	44	0.193%	58	0.746%
17	0.058%	31	0.114%	45	0.200%	59	0.788%
18	0.062%	32	0.118%	46	0.242%	60	0.830%
19	0.066%	33	0.122%	47	0.284%	61	0.872%
20	0.070%	34	0.126%	48	0.326%	62	0.914%
21	0.074%	35	0.130%	49	0.368%	63	0.956%
22	0.078%	36	0.137%	50	0.410%	64	0.998%
23	0.082%	37	0.144%	51	0.452%	65	1.040%
24	0.086%	38	0.151%	52	0.494%	66	1.082%
25	0.090%	39	0.158%	53	0.536%	67	1.124%
26	0.094%	40	0.165%	54	0.578%	68	1.166%
27	0.098%	41	0.172%	55	0.620%	69	1.208%
28	0.102%	42	0.179%	56	0.662%	70+	1.250%

100% of disabilities are assumed to be service connected.

Plan Expenses: The prior year administrative expense is added to the normal cost.

Marital Assumption: Husbands are assumed to be three years older than wives.

Funding Method: Entry Age (level percent of salary)

Glossary of Actuarial Terms

Present Value of Benefits (PVB): The present value, as of the valuation date, of all benefits that will become payable by the Plan for the current group of members in the census.

Normal Cost (NC): The value of the portion of the total benefit for active members which accrues in the year following the valuation date. Under the Entry Age Normal (Level Percent of Salary) funding method, the NC is a constant fraction of salary from the member's date of entry into the Plan to the member's assumed date of termination, retirement, disability or death.

Accrued Liability (AL): This is the portion of the PVB attributable to the past at the valuation date. For active members, AL is the annual NC accumulated from date of entry to the valuation date for each member. For retired and terminated members, the PVB and the AL are equal. The AL is the estimated liability owed by the pension fund at the valuation date.

Unfunded Accrued Liability (UAL): Any excess of the Accrued Liability over the fund assets. A negative UAL indicates fund assets are greater than the Accrued Liability, otherwise known as a surplus.

Actuarial Value of Assets: The market value of assets is adjusted to recognize gains and losses over a five-year period. The Actuarial Value of Assets shall not be more than 120% or less than 80% of the market value of assets.

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City of Port Orange

Police Pension Fund

GASB 67/68 Supplement
As of September 30, 2017

REPORT TO PROVIDE DISCLOSURES UNDER GASB STATEMENT NO. 67 AND 68
FOR THE PLAN AND FISCAL YEARS ENDING
SEPTEMBER 30, 2017

FLA

FREIMAN LITTLE ACTUARIES

February 12, 2018

Board of Trustees
City of Port Orange Police Pension Fund
Port Orange, Florida

RE: GASB 67/68 Supplement as of September 30, 2017

Dear Board Members:

We are pleased to present the Governmental Accounting Standards Board Statement No. 67 (GASB 67) and No. 68 (GASB 68) Supplement as of September 30, 2017 for the City of Port Orange Police Pension Fund (the Plan).

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report provides information required to be disclosed under GASB 67 and GASB 68 as described in the statement and the implementation guide. The relevant dates are as follows:

GASB 67		GASB 68	
Valuation Date	10/01/2017	Valuation Date	10/01/2017
Measurement Date	09/30/2017	Measurement Date	09/30/2017
Reporting Date	09/30/2017	Reporting Date	09/30/2017

Please let us know if you have any questions or need additional information

Sincerely,

Chad M. Little, ASA, EA
Partner, Consulting Actuary
Enrollment Number 17-6619

Paula C. Freiman, ASA, EA
Partner, Consulting Actuary
Enrollment Number 17-5796

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Statement of Fiduciary Net Position

As of September 30,	2017	2016
Assets		
Cash and cash equivalents	1,663,095	233,016
Prepaid benefit payments	187,512	183,944
Interest and dividends receivable	105,673	63,384
Investments, at fair value:		
Government agency obligations	5,079,539	4,242,164
Corporate and municipal debt obligations	3,254,729	3,191,355
Corporate equity securities	18,871,877	16,064,856
Partnership securities	1,574,360	1,996,541
Mutual funds	825,954	2,012,672
Real estate	2,879,056	2,169,990
Total investments	32,485,515	29,677,578
Total assets	34,441,795	30,157,922
Liabilities		
Accounts payable	58,066	52,234
Total liabilities	58,066	52,234
Net position restricted for pensions	34,383,729	30,105,688

Statement of Changes in Fiduciary Net Position

As of September 30,	2017	2016
Additions		
Contributions:		
Employer	2,824,801	2,817,806
State of Florida	397,680	373,343
Employees	355,777	336,731
Total contributions	3,578,258	3,527,880
Investment income:		
Net appreciation in fair value of investments	2,825,465	1,451,691
Interest and dividends	475,423	447,111
Total investment income	3,300,888	1,898,802
Less investment expenses:		
Investment expense	237,571	209,970
Net investment income	3,063,317	1,688,832
Total additions	6,641,575	5,216,712
Deductions		
Benefit payments, including DROP lump sums	2,245,308	3,057,355
Refunds of contributions	11,688	94,298
Administrative expenses	106,538	116,769
Total deductions	2,363,534	3,268,422
Net increase in net position	4,278,041	1,948,290
Net position restricted for pensions		
Beginning of year, as restated	30,105,688	28,157,398
End of year	34,383,729	30,105,688

Net Pension Liability

The total pension liability under GASB 67 and 68 is based on the October 1, 2017 actuarial valuation which used the following actuarial assumptions applied to all periods included in the measurement.

Inflation	2.0%
Salary increases	7.5%, including inflation
Investment rate of return	7.45% net of investment expense, including inflation
Mortality:	From the July 1, 2016 and 2017 FRS special risk valuation.
Healthy Pre-Retirement:	Males: 10% RP-00 Combined Healthy White Collar + 90% RP-00 Combined Healthy Blue Collar Females: 100% RP-00 Combined Healthy White Collar Both male and female rates fully generational using Scale BB
Healthy Post-Retirement:	Males: 10% RP-00 Annuitant White Collar + 90% RP-00 Annuitant Blue Collar Females: 100% RP-00 Annuitant White Collar Both male and female rates fully generational using Scale BB
Disabled mortality:	Males: 60% RP-00 Disabled Retiree Set Back 4 Years + 40% RP-00 Annuitant White Collar Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs + 40% RP-00 Annuitant White Collar No mortality improvement is assumed for disabled lives.

A review of assumptions was conducted as of October 1, 2006. This review is the basis for assumptions used in the valuation of the Plan supplemented by additional assumptions made for members hired after January 31, 2011. Mortality has been revised since the prior valuation of Plan as required by State statute. The net assumed rate of investment return was revised from 7.55% to 7.45% since the prior valuation of the Plan as directed by the Board of Trustees.

The long-term expected net rate of return on investments was determined using a building-block method. Best-estimate ranges of expected future real rates of return (expected returns net of investment expense and inflation) are developed for each major asset class. The long-term expected net rate of return on investments is the best-estimate ranges weighted by the asset allocation plus expected inflation. Best estimates of arithmetic real rates of return for each major asset class as provided by the investment monitor are shown in the following table:

Asset Class	Target Allocation %	Expected Long-Term Real Return	Weighted Average Expected Long-Term Real Return
Domestic Equity	50%	7.5%	3.8%
International Equity	10%	8.5%	0.9%
Domestic Bonds	30%	2.5%	0.8%
International Bonds	0%	3.5%	0.0%
Real Estate	10%	4.5%	0.5%
	100%		5.8%

Based on the above target allocation and expected long-term real returns for each asset class, the weighted average expected long-term real return net of inflation is 5.8%. The investment monitor also indicated that the inflation estimate was 2.5% producing an expected long-term rate of return net of expenses, including inflation of 8.3%.

The discount rate used to measure the total pension liability was 7.45%. This is the single rate that reflects the long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits. A projection of cash flows used to determine the discount rate assumed that plan member contributions are made at the current contribution rate and that City contributions will be made equal to the difference between the actuarially determined contribution and the member contributions. Based on those assumptions, the pension plan's fiduciary net position is projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments is applied to all periods of projected benefit payments to determine the total pension liability. For purposes of this determination we understand the board of trustees finds the 7.45% assumption to be reasonable and that they expect pension plan assets to be invested using a strategy to achieve the 7.45% net discount rate.

Note: See "Actuarial Assumptions and Methods" for a full description of the assumptions used in the determination of the total pension liability.

The components of the net pension liability at September 30, 2017 were as follows:

Total pension liability	$48,774,256
Plan fiduciary net position	(34,383,729)
Net pension liability	$14,390,527
Plan fiduciary net position as a percentage of the total pension liability	70.50%

Sensitivity of the net pension liability to changes in the discount rate follows.

	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
Net pension liability	$20,796,882	$14,390,527	$9,104,841

Schedule of Changes in Net Pension Liability and Related Ratios

This schedule will be updated each year until a 10-year history is accumulated.

Year Ending September 30,	**2017**	**2016**	**2015**	**2014**
Total pension liability				
Service cost	$820,072	$885,450	$801,785	$753,000
Interest	3,425,372	3,371,771	3,257,812	3,123,215
Changes of benefit terms	(7,192)	0	0	0
Differences between expected and actual experience	397,703	(950,704)	609,774	557,616
Changes of assumptions	585,900	771,544	568,624	56,887
Benefit payments, including DROP lump sums	(2,245,308)	(3,057,355)	(3,380,456)	(2,144,267)
Contribution refunds	(11,688)	(94,298)	(35,256)	(21,298)
Other	0	7,192	0	0
Net change in total pension liability	2,964,859	933,600	1,822,283	2,325,153
Total pension liability - beginning	45,809,397	44,875,797	43,053,514	40,728,361
Total pension liability - ending (a)	$48,774,256	$45,809,397	$44,875,797	$43,053,514
Plan fiduciary net position				
Contributions - employer	$2,824,801	$2,817,806	$2,731,326	$2,670,260
Contributions - State of Florida	397,680	373,343	345,822	331,402
Contributions - employee	355,777	336,731	326,566	301,375
Net investment income	3,063,317	1,688,832	(21,228)	1,812,759
Benefit payments, including DROP lump sums	(2,245,308)	(3,057,355)	(3,380,456)	(2,144,267)
Refunds of contributions	(11,688)	(94,298)	(35,256)	(21,298)
Administrative expense	(106,538)	(116,769)	(104,276)	(103,311)
Other	0	0	0	0
Net change in plan fiduciary net position	4,278,041	1,948,290	(137,502)	2,846,920
Plan fiduciary net position - beginning	30,105,688	28,157,398	28,294,900	25,447,980
Plan fiduciary net position - ending (b)	$34,383,729	$30,105,688	$28,157,398	$28,294,900
Net pension liability - ending (a) - (b)	$14,390,527	$15,703,709	$16,718,399	$14,758,614
Plan fiduciary net position as a percentage of the total pension liability	70.50 %	65.72 %	62.75 %	65.72 %
Covered employee payroll	$4,622,671	$4,275,349	$4,293,316	$3,944,464
Net pension liability as a percentage of covered employee payroll	311.30 %	367.31 %	389.41 %	374.16 %

Statement of Changes in Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability (a) - (b)**
Balances at 9/30/2016	$45,809,397	$30,105,688	$15,703,709
Changes for the year:			
Service cost	820,072		820,072
Interest	3,425,372		3,425,372
Changes of benefit terms	(7,192)		(7,192)
Differences between expected and actual experience	397,703		397,703
Changes of assumptions	585,900		585,900
Contributions—employer		2,824,801	(2,824,801)
Contributions—State of Florida		397,680	(397,680)
Contributions—employee		355,777	(355,777)
Net investment income		3,063,317	(3,063,317)
Benefit payments, including refunds of employee contributions	(2,256,996)	(2,256,996)	0
Administrative expense		(106,538)	106,538
Other changes		0	0
Net changes	2,964,859	4,278,041	(1,313,182)
Balances at 9/30/2017	$48,774,256	$34,383,729	$14,390,527

Pension Expense and Deferred Outflows and Inflows of Resources

Pension expense for the year ended September 30, 2017 is as shown below.

Description	Amount
Service cost	$820,072
Interest on the total pension liability	3,425,372
Changes of benefit terms	(7,192)
Differences between expected and actual experience	26,743
Changes of assumptions	447,162
Employee contributions	(355,777)
Projected earnings on pension plan investments	(2,303,823)
Differences between projected and actual earnings on plan investments	379,507
Pension plan administrative expense	106,538
Other changes in fiduciary net position	0
Total pension expense	$2,538,602

There are deferred outflows and inflows of resources from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$492,296	$528,168
Changes of assumptions	1,048,986	0
Net difference between projected and actual earnings	1,154,983	607,595
Total	$2,696,265	$1,135,763

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended September 30:	
2018	$853,412
2019	692,722
2020	166,266
2021	(151,898)
2022	0

Recognition of Deferred Outflows and Inflows of Resources

Year	Original Amount	Recognition Period	2017	2018	2019	2020	2021
			Measurement Year Recognition				
			Differences between Expected and Actual Experience				
2015	609,774	4.4	138,585	138,585	55,434	0	0
2016	(950,704)	4.5	(211,268)	(211,268)	(211,268)	(105,632)	0
2017	397,703	4.0	99,426	99,426	99,426	99,425	0
			Changes in Assumptions				
2015	568,624	4.4	129,233	129,233	51,692	0	0
2016	771,544	4.5	171,454	171,454	171,454	85,728	0
2017	585,900	4.0	146,475	146,475	146,475	146,475	0
			Differences between Projected and Actual Earnings on Pension Plan Investments				
2015	2,196,177	5.0	439,235	439,235	439,237	0	0
2016	460,853	5.0	92,171	92,171	92,171	92,169	0
2017	(759,494)	5.0	(151,899)	(151,899)	(151,899)	(151,899)	(151,898)

Schedule of Contributions

Year Ending September 30,	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined contribution	$3,214,965	$3,054,694	$2,916,475	$2,826,275	$2,515,286	$2,304,028	$2,071,957	$2,597,318	$2,413,516	$2,057,164
Contributions in relation to the actuarially determined contribution	3,222,481	3,191,149	3,077,148	3,001,662	2,814,596	2,393,122	2,841,994	2,601,217	2,597,319	2,057,164
Contribution deficiency (excess)	$(7,516)	$(136,455)	$(160,673)	$(175,387)	$(299,310)	$(89,094)	$(770,037)	$(3,899)	$(183,803)	$0
Covered employee payroll	$4,622,671	$4,275,349	$4,293,316	$3,944,464	$3,575,109	$3,460,703	$3,212,337	$4,211,533	$4,329,474	$4,032,313
Actual contributions as a percentage of covered-employee payroll	69.71 %	74.64 %	71.67 %	76.10 %	78.73 %	69.15 %	88.47 %	61.76 %	59.99 %	51.02 %

Notes to Schedule

Actuarially determined contributions are calculated based on the valuation as of the beginning of the year prior to the fiscal year in which contributions are due.

The actuarially determined contribution and contributions in relation to the actuarially determined contribution exclude employee contributions that are payable.

The actuarially determined contribution for fiscal 2011 was $2,841,837. However, the State of Florida required the City contribute based on the 64.5% contribution rate as a percent of emerging payroll in the amount of $2,071,957.

Covered employee payroll is that we understand was reported to the State of Florida in the annual state reports.

Methods and assumptions used to determine contributions:

Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	Effective October 1, 2015 all new unfunded accrued liability bases are amortized over 25 years. Prior to this change an amortization period of 30 years was used for changes in Plan provisions, assumptions, methods and 15 years for actuarial gains and losses.
Asset valuation method	5-year smoothed market
Inflation	2.0%
Salary increases	7.5%
Investment rate of return	The assumed rate of return net of investment expenses, gross of inflation, was 7.75% as of October 1, 2014, 7.65% as of October 1, 2015, 7.55% as of October 1, 2016, and 7.45% as of October 1, 2017.
Retirement age	See "Description of Assumptions and Methods" for the assumed retirement age assumption
Mortality	The mortality table was revised with the October 1, 2017 actuarial valuation to be that used for special risk employees in te valuation of the Florida Retirement System (FRS) as of July 1, 2016 and 2017, as required by state statute. The mortality table was revised with the October 1, 2016 to be that used for special risk employees in the valuation of FRS as of July 1, 2015, as required by state statute. Prior to this change the RP-2000 Combined Mortality Table using Scale AA projected to the valuation year was used.

Schedule of Investment Returns

This schedule will be updated each year until a 10-year history is accumulated.

Year Ending September 30,	Annual money-weighted rate of return net of investment expense
2017	10.34%
2016	6.18%
2015	(0.49%)
2014	7.48%

Plan Membership Statistics

Valuation as of October 1,	2017	2016
Inactive members or beneficiaries currently receiving benefits	51	50
Inactive members entitled to but not yet receiving benefits	7	6
Active members	86	79
Total	144	135

Plan Description

Plan Type: Single-employer Defined Benefit Pension Plan

Legal Authority: The Plan was established and is amended by local ordinance.

Plan Administrator: The Board of Trustees

Board Composition: Two members are elected from among the police employees of the City, who are members of the plan, two city residents appointed by the Commission and one person is chosen by a majority of the previous four members.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Effective Date: The Plan was originally effective September 28, 1993. Prior to the Effective Date, Members were part of a “Chapter Plan” where a slightly different level of benefits was effective. The most recent amendment to the Plan was Ordinance No. 2015-38 effective December 1, 2015.

Plan Year: The 12-month period from October 1st to the following September 30th.

Member: Full-time employees who satisfy the definition of a police officer in F.S. Section 185.02(11) become Members immediately upon hire.

Credited Service: Years and completed months of full-time employment as a police officer of the city during which a person contributes to the Plan. Credited Service also includes certain military service. Additional Credited Service may be purchased at full actuarial cost. Credited Service purchased after January 31, 2011 is not counted towards vesting.

Vesting: 100% upon earning ten years of Credited Service.

Compensation: Prior to Ordinance No. 2012-4, Monthly salary paid for work performed including overtime payments from a salary fund up to 300 hours in a calendar year, 50% of accumulated sick and annual leave payouts, amounts withheld for tax sheltered annuities, tax deferred compensation, and payments in addition to the employee’s base rate of pay if the payments are paid according to a formal written policy that applies to all eligible employee equally, payments are paid for as long as the employee continues employment, and payments are paid at least annually.

Effective with Ordinance No. 2012-4, Monthly salary paid for work performed including overtime payments from a salary fund up to 300 hours in a calendar year, lump sum payments for accumulated sick and annual leave for employees hired on or before January 31, 2011 (but not to exceed the hours of sick and annual leave accumulated as of March 1, 2011 plus 50% of the hours of sick and annual leave accumulated between March 1, 2011 and March 1, 2012, and excluding lump sum payments for accumulated sick and annual leave accumulated on or after March 1, 2012), amounts withheld for tax sheltered annuities, tax deferred compensation, and payments in addition to the employee’s base rate of pay if the payments are paid according to a formal written policy that applies to all eligible employee equally, payments are paid for as long as the employee continues employment, and payments are paid at least annually.

Employee Contributions: 7.5% of Compensation for members hired on or before January 31, 2011 and 8.0% for members hired after that date. A Member who terminates non-vested is entitled to refund of accumulated Employee Contributions without interest. Contributions may be repaid with interest upon reentry into the Plan due to rehire.

Average Final Compensation: For members hired on or before January 31, 2011, one-twelfth the average of Compensation for the three highest years of Credited Service. For members hired after January 31, 2011, one-twelfth of the average of Compensation for the five highest years of Credited Service.

Normal Retirement Date: For members hired on or before January 31, 2011, the first day of the month coincident with or next following the earlier of (i) age 48 and ten years of Credited Service, or (ii) age 45 and 25 years of Credited Service. For members hired after January 31, 2011, the Normal Retirement Date is the first day of the month coincident with or next following the date the member attains age 48 and ten years of Credited Service.

Accrued Benefit (for Members Hired On or Before January 31, 2011): 3% x Average Final Compensation x Credited Service, plus, for Members who retire (i) with ten years of Credited Service prior to October 1, 2002, (ii) after having attained age 50 with ten years of Credited Service by October 1, 2002, (iii) with 20 years of Credited Service between October 1, 2002 and January 31, 2011, or (iv) with 25 years of Credited Service after January 31, 2011, a Supplemental Benefit (commonly referred to as a "health subsidy") is payable as follows:

(a) $200 per month

(b) $20 x Credited Service Over 10 Years (Maximum $400) per month

(c) Where (a) plus (b) is not more than $600 per month

For Members who retired prior to October 1, 1993 the monthly benefit was defined as 2% x Average Final Compensation x Credited Service (hereafter referred to as the "2% Multiplier Formula") plus the Supplemental Benefit defined above (the lesser of $600 and $200 + ($20 x Credited Service Over 10, but no more than $400)). A cost-of-living adjustment (CPI COLA) is payable annually effective January 1, 1994 on the portion of the benefit determined under the 2% Multiplier Formula. The amount of the CPI COLA is the increase in the Consumer Price Index (urban wage earner as calculated by the United States Department of Labor) between July of the immediately preceding year as compared to July of the prior year. The CPI COLA is granted until the participant's benefit determined under the 2% Multiplier Formula reaches the benefit amount provided for members who retire after October 1, 1993 (3% x Average Final Compensation x Credited Service) plus the Supplemental Benefit (the lesser of $600 and $200 + ($20 x Credited Service Over 10, but no more than $400)). This portion of Plan provisions was applicable to only one Member of the Plan. The last time the CPI COLA was paid was on January 1, 2006. The Plan provision defining the CPI COLA will not apply to Plan participants after January 1, 2006.

Effective October 1, 2001, Members who retired prior to October 1, 2002 (including disability retirees) are granted a 1% cost-of-living adjustment annually commencing the January 1 following the first anniversary of retirement annuity commencement (1% COLA). For a DROP retiree, the 1% COLA is granted commencing on the January 1 following the first anniversary of actual annuity commencement after the end of the DROP period. The 1% COLA is not payable to any participant eligible to receive the 3% COLA, as described in the following.

Effective October 1, 2002, retirees are granted a deferred annual 3% cost-of-living adjustment (3% COLA) as follows: (i) Members who are retired on October 1, 2002 and had earned at least 20 years of Credited Service, (ii) Members who are actively employed on October 1, 2002 and had attained age 50 with ten years of Credited Service at that date, (iii) Members who are actively employed on October 1, 2002 with 20 years of Credited Service at that date, (iv) Members who attain 20 years of Credited Service after October 1, 2002 and who retire or enter the DROP by January 31, 2011, and (v) Members who attain 25 years of Credited Service after January 31, 2011. The deferred 3% COLA is payable annually commencing as specified in the following:

(a) 5 years after retirement (or DROP) for participants who retire (or DROP) on or before January 31, 2011 upon attaining age 45 and 25 years of Credited Service or age 50 and 20 Years of Credited Service.

(b) The later of 5 years after retirement (or DROP) or age 59 for participants who were hired prior to January 1, 2003 and who retire (or DROP) on or before January 31, 2011 upon attaining age 48 and 20 years of Credited Service.

(c) On the first day of the month coincident with or next following attainment of age 59

a. for participants who were hired prior to January 1, 2003 and who separate employment on or before January 31, 2011 with 20 years of Credited Service but before reaching age 48.

b. for participants hired on or after January 1, 2003 who retire (or DROP) on or before January 31, 2011 with at least 20 years of Credited Service (but prior to age 45 and 25 Years of Credited Service and prior to age 50).

c. for participants who retire after January 31, 2011.

(d) 5 years after commencement of disability benefits on or before January 31, 2011 if 20 years of Credited Service have been earned during employment.

For members actively employed on January 31, 2011, in no event will the annual benefit payable exceed $95,000, inclusive of any COLAs to which the member may be entitled.

<u>Accrued Benefit (for Members Hired After January 31, 2011):</u> 3% x Average Final Compensation x Credited Service, plus a Supplemental Benefit (commonly referred to as a “health subsidy”) is payable as follows:

(a) $100 per month

(b) $10 x Credited Service Over 10 Years (Maximum $100) per month

(c) Where (a) plus (b) is not more than $200 per month

No COLA is payable for members hired after January 31, 2011.

In no event will the annual benefit exceed $95,000.

<u>Late Retirement Benefit:</u> The higher of the benefit determined using the Average Final Compensation and Credited Service at the actual date of retirement from employment, or the benefit that would have been paid had the Member retired at the Normal Retirement Date increased actuarially from the Normal Retirement Date to the actual date of retirement.

<u>Early Retirement Date:</u> The first day of the month coincident with or next following the date the Member earns ten years of Credited Service and attains age 45.

<u>Early Retirement Benefit:</u> The Accrued Benefit reduced by 3% for each year the Member is younger than the Normal Retirement Date.

Disability Benefits: Members are eligible for service-connected Disability Benefits immediately upon hire. The monthly service-connected Disability Benefit is the greater of (i) the Accrued Benefit and (ii) 51% of average monthly compensation for the most recent 12 months of full-time employment. Members are eligible for a non-service-connected Disability Benefit after earning at least ten years of Credited Service. The monthly non-service-connected disability benefit is the greater of (i) the Accrued Benefit and (ii) 25% of average monthly compensation for the most recent 12 months of full-time employment. Disability Benefits are offset by disability income received from workers' compensation only to the extent by which the total of the workers' compensation benefit plus the Disability Benefit payable exceeds the employee's average monthly compensation at disability. However, any offset for workers' compensation will not result in less than 42% of average monthly compensation, in the event of service-connected disability, or in less than 25% of average monthly compensation, in the event of non-service-connected disability.

Pre-Retirement Survivor Benefits: Vested Members who die prior to the commencement of benefits shall have a survivor benefit payable on their behalf. The amount of the monthly income payable is the (i) Accrued Benefit at the date of death payable at the Normal Retirement Date, or (2) the actuarial equivalent of this Accrued Benefit payable on the first day of the month following death, as elected by the designated beneficiary.

Optional Forms of Benefit: Pension benefits described above are payable in the form of a 10 year certain and continuous annuity. Members may optionally choose an actuarially equivalent single life annuity, or joint and survivor annuity (with 50%, 66 2/3, 75%, or 100% continuance). Actuarial equivalence for healthy lives is determined based the RP-2000 mortality table projected using Scale AA to 2010 (50% male blend) and an 8.0% annual interest assumption. The RP-2000 mortality table for disabled retirees projected using Scale AA to 2010 (50% male blend) is used for disabled lives.

Deferred Retirement Option Plan (DROP): Members hired on or before January 31, 2011 are eligible to enter the DROP upon earning 25 years of Credited Service. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. The Accrued Benefit accumulates with interest at the fund's assumed rate of investment return in the DROP account (credited quarterly) and is payable as a single-lump sum within 60 days following DROP exit. The maximum DROP participation duration is 60 months. DROP participants are not eligible for pre-retirement death or disability benefits. No DROP is available to members hired after January 31, 2011.

Share Plan: Ordinance No. 2017-32 adopted effective December 12, 2017 amended the plan to provide that all annual premium tax revenues received pursuant to Chapter 185 and all accumulated excess Chapter 185 premium tax revenues as of October 1, 2016 are used to offset the City's pension contributions. This ordinance also created a defined contribution plan component commonly referred to as the Share Plan. Currently, the City of Port Orange and the union representing police officers have mutually agreed that no Chapter 185 premium tax revenues will be allocated to the Share Plan. At such time that the City of Port Orange and the union mutually agree to allocate premium tax revenues to the Share Plan, the details will be negotiated.

Actuarial Assumptions and Methods

Assumed Rate of Investment Return: 7.45% per year net of investment expenses (7.55% in the prior valuation)

Inflation: 2.0% per year

Salary Increase – Total Payroll: 3.5% per year

The payroll growth assumption used to amortize unfunded accrued liability as a level percent of payroll is 1.0%.

Salary Increase – Individual: 7.5% per year

Members hired after January 31, 2011 are assumed to have no payout for accrued hours includable in their pension.

For Members hired on or before January 31, 2011 the final year of Salary is increased to account for the number of accrued hours available at March 1, 2011 plus half of the number of accrued hours between March 1, 2011 and March 1, 2012, assuming members typically work 2,184 hours in a year.

Mortality: In the prior valuation, the mortality table was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2015, as required by state statute. The mortality table has been revised to that used for special risk employees in the valuation of FRS as of July 1, 2016 and 2017, as required by state statute. While healthy post-retirement mortality and disabled mortality rates were unchanged, healthy pre-retirement was revised. The mortality rates are as follows:

Healthy mortality (Pre-retirement):
Males: 10% RP-00 Combined Healthy White Collar +
90% RP-00 Combined Healthy Blue Collar
Females: 100% RP-00 Combined Healthy White Collar
Both male and female rates fully generational using Scale BB

Healthy mortality (Post-retirement):
Males: 10% RP-00 Annuitant White Collar +
90% RP-00 Annuitant Blue Collar
Females: 100% RP-00 Annuitant White Collar
Both male and female rates fully generational using Scale BB

Disabled mortality:
Males: 60% RP-00 Disabled Retiree Set Back 4 Years +
40% RP-00 Annuitant White Collar
Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs +
40% RP-00 Annuitant White Collar
No mortality improvement is assumed for disabled lives.

Retirement: Unisex rates, as follows:

Members Hired Before January 31, 2011:

	Service		
Age	<10	10-24	25+
<=44	0.0%	0.0%	0.0%
45-51	0.0%	0.0%	100.0%
52+	0.0%	100.0%	100.0%

Members Hired After January 31, 2011: 100% at Age 48 and 10 Years of Service

Termination: In the current valuation the following unisex rates are assumed:

Service	Rate
0-2	23.0%
3-9	8.0%
10	30.0%
11-12	5.0%
13-14	4.0%
15-16	3.0%
17-18	2.0%
19	1.0%
20+	0.0%

Disability: Unisex rates, as follows:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
15	0.050%	29	0.106%	43	0.186%	57	0.704%
16	0.054%	30	0.110%	44	0.193%	58	0.746%
17	0.058%	31	0.114%	45	0.200%	59	0.788%
18	0.062%	32	0.118%	46	0.242%	60	0.830%
19	0.066%	33	0.122%	47	0.284%	61	0.872%
20	0.070%	34	0.126%	48	0.326%	62	0.914%
21	0.074%	35	0.130%	49	0.368%	63	0.956%
22	0.078%	36	0.137%	50	0.410%	64	0.998%
23	0.082%	37	0.144%	51	0.452%	65	1.040%
24	0.086%	38	0.151%	52	0.494%	66	1.082%
25	0.090%	39	0.158%	53	0.536%	67	1.124%
26	0.094%	40	0.165%	54	0.578%	68	1.166%
27	0.098%	41	0.172%	55	0.620%	69	1.208%
28	0.102%	42	0.179%	56	0.662%	70+	1.250%

100% of disabilities are assumed to be service connected.

Plan Expenses: The prior year administrative expense is added to the normal cost.

Marital Assumption: Husbands are assumed to be three years older than wives.

Funding Method: Entry Age (level percent of salary)

Investment Performance Review
Period Ending December 31, 2017

Port Orange Police Pension

As we embark on a New Year together we first wanted to say, “Thank you” to our clients for giving us the opportunity to work with you. Our mission is to represent the sole interests of our clients by redefining independence. This mission means everything to us. We want to demonstrate this mission every day by maintaining your trust in an evolving financial world. We are extremely grateful to be your consultant and will continue to work tirelessly to uphold your trust and confidence.

As we enter 2018, AndCo has never been stronger and more committed to delivering high quality service. We are 87 people strong, all collectively striving to serve our clients each day. Since most clients do not have the opportunity to interact with our entire firm, we have attached a page which outlines our current organizational structure and illustrates our continued reinvestment in professionals to better serve you. Our steadfast focus on one line of business, general consulting, will remain our singular focus going forward.

Each January, we hold a Firmwide retreat to discuss the previous year’s successes and challenges, as well as outline our Strategic plan, including reinforcement of our Mission, Vision and Values. It’s a great time for our employees to spend time together and get a better understanding of where the company is going, why we’re headed in that direction, and more importantly, the critical role they each play in making it a success. Starting last year, along with this strategic review, we also started the process of announcing new partners at the firm. Since the firm was founded in 2000 by Joe Bogdahn, its foundational goal was to make the firm a multigenerational organization led by the employees. That succession plan was put into place in 2015 and last January we announced 6 new partners – Donna Sullivan, David Ray, Jason Purdy, Bryan Bakardjiev, Steve Gordon and Troy Brown.

This year, we added one new partner – Dan Johnson. Dan has been with the firm for almost 10 years and has worked tirelessly serving his clients and evolving the firm in multiple areas. Dan believes in what we are doing and the value of the independent service model. Dan has continuously demonstrated his willingness to drop everything to help others and help the firm better serve our clients, each other, and the community. As a testament to his contributions, when his name was announced Dan received a standing ovation from his peers. We are honored to have Dan at our firm and part of our ownership team.

At AndCo, we believe in order to continue growing over time, and align interests of all employees, we must continue to recycle equity opportunities back into the organization. This belief embodies our commitment to remain employee owned and managed, as well as reward those team members that have helped make the company what it is today and what it will be going forward. This shared belief also ensures legacy partners will eventually transfer their units to new members.

As such, since Joe initially transferred units back to the firm, I have granted units to new members. I am also happy to acknowledge Dave West as the most recent 1st generation partner to voluntarily recycle his ownership units back into the company. Dave was one of our initial partners and was an instrumental collaborator in the development of the early philosophies and deliverables of the organization. Dave will continue to support the firm by serving our clients with the same passion and enthusiasm into the future as one of our most tenured senior consultants.

So, this New Year we want to say “Thank you” twice: once to you, our valued clients, and once to Dave West for his support, belief and understanding of the AndCo way. We embark on 2018 stronger than ever thanks to your trust, people like Dave, and the rest of our tremendous, growing team.

On behalf of everyone at AndCo, thank you for your partnership.

Mike Welker, CFA®
President/CEO

MANAGEMENT

Mike Welker, CFA
President/CEO

Bryan Bakardjiev, CFA
Executive Director

Troy Brown, CFA
Executive Director

Steve Gordon
Executive Director

Kim Spurlin, CPA
Executive Director

CONSULTANTS

Jack Evatt
Director of Consulting

Dan Johnson
Director of Consulting

Doug Anderson
Annette Bidart
Mike Bostler
Jon Breth, CFP
Christiaan J. Brokaw, CFA
Peter Brown
Jennifer Brozstek
Mike Fleiner
Michael Holycross, CIMA
Jennifer Gainfort, CFA
Brian Green
Tyler Grumbles,CFA,CIPM
Ian Jones
Tony Kay
Brian King
Jeff Kuchta, CFA
Chris Kuhn, CFA, CAIA
Justin Lauver, Esq.
John McCann, CIMA
John Mellinger
Tim Nash
Mary Nye
T. Christopher Pipich, CFA
Howard Pohl
Kerry Richardville, CFA
James Ross
John Thinnes, CFA, CAIA
Brendon M. Vavrica, CFP
Tim Walters
Greg Weaver
Dave West, CFA

RESEARCH

Jeff Gabrione, CFA
Director of Research - Alternatives

Julie Baker, CFA
International

Brad Hess, CFA
Domestic

Steve Jones, CFA
Head of Asset Strategies

Tim Kominiarek, CAIA
Head of Real Asset

Kevin Laake, CFA
Domestic

Rob Mills, CAIA
Real Estate

Kadmiel Onodje, CAIA
Asset Strategies

Dan Osika, CFA
Asset Strategies

Philip Schmitt, CIMA
Head of Fixed Income

Evan Scussel, CFA, CAIA
Head of Equity

Matthew Ogren
Associate

RETIREMENT SOLUTIONS

Jacob Peacock
Director of Retirement Solutions

Joe Carter
Al DiCristofaro
Amy Heyel
Paul Murray

CLIENT SOLUTIONS GROUP

David Ray
Director of Client Solutions

Misha Bell
Zach Chichinski, CFA, CIPM
Jose Christiansen
Amy Foster
Nicole Hampton
Kim Hummel
Mary Ann Johnson
Rosemarie Kieskowski
Yoon Lee-Choi
Annie Lopez
Grace Niebrzydowski
Beth Porzelt
Jeff Pruniski
Albert Sauerland
Donna Sullivan
Brooke Wilson

OPERATIONS

Rachel Brignoni, CLSC
Director of Human Resources

Jason Purdy
Director of IT

Jamie Utt
IT Systems Administrator

Jerry Camel
Director of Software Development

Tim Linger
Software Developer

Brandie Rivera
Controller

Derek Tangeman, CFP, CIMA
Director of Marketing

Kim Goodearl
Head of RFP Team

Tala Chin
Marketing Analyst

John Rodak, CIPM
Head of Client On-Boarding

Meghan Haines
Client On-Boarding Associate

Bonnie Burgess
Office Administrator

COMPLIANCE

Matt DeConcini, Esq.
Chief Compliance Officer

Sara Searle
Compliance Officer

INVESTMENT COMMITTEE

Matt DeConcini, Esq.
Chief Compliance Officer (Moderator)

Jack Evatt
Director/Senior Consultant

Jeff Gabrione, CFA
Director of Research

Dan Johnson
Director/Senior Consultant

Ian Jones
Senior Consultant

Jacob Peacock
Director of Retirement Solutions

87 EMPLOYEES

29 ADVANCED DEGREES

20 CFA

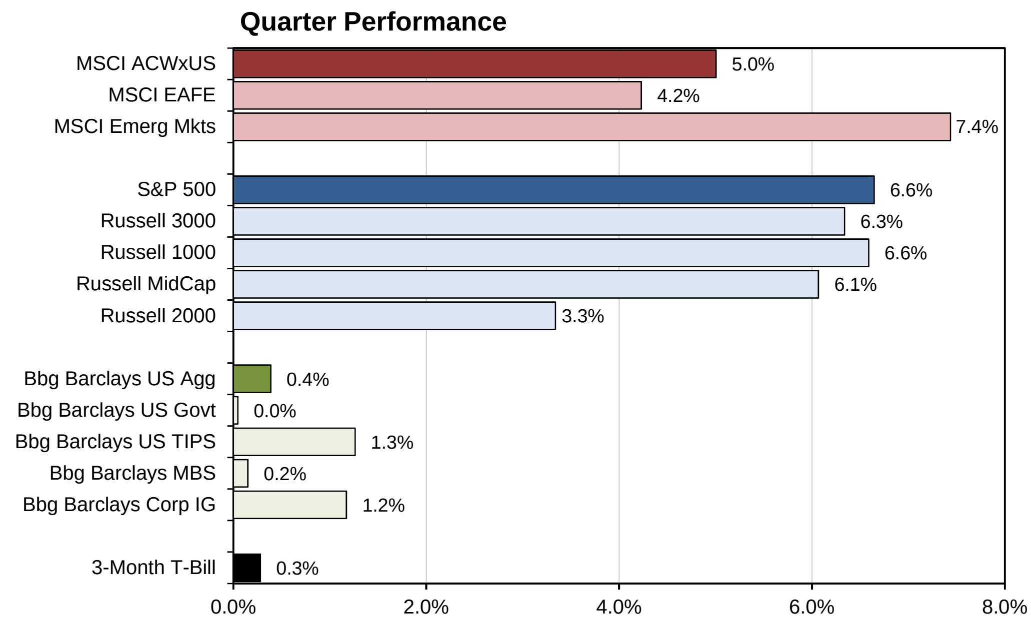
6 CAIA

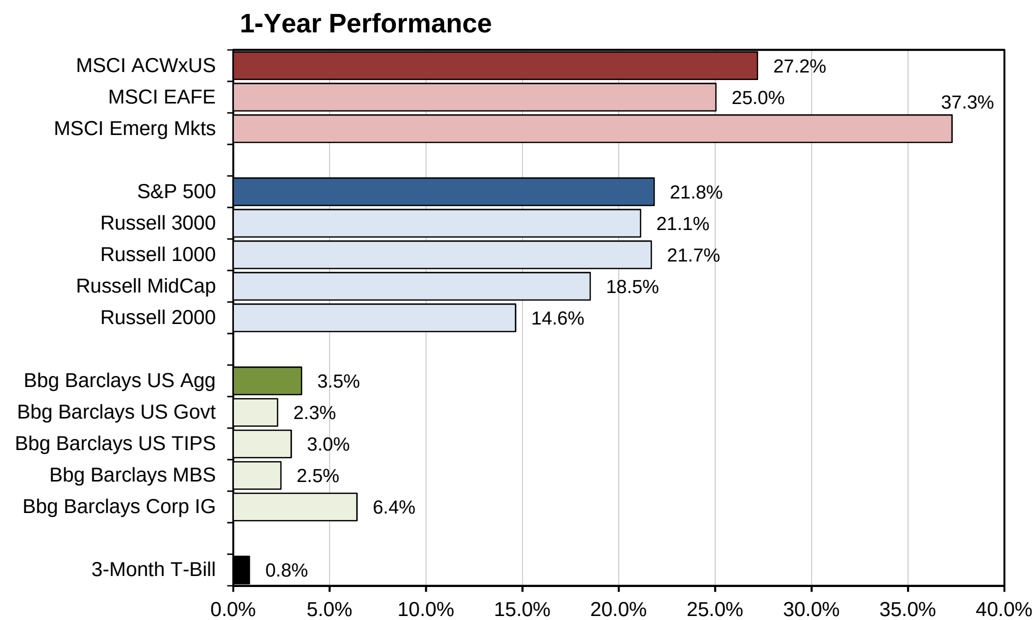
3 CIPM

- Market returns were positive across major equity and fixed income indices for the 4th quarter and calendar year 2017. Broad domestic and international equity markets continued their year long trend of strong positive performance. Fixed income indices also posted positive results, but equities outpaced fixed income investments for both the quarter and 1-year period as improving macroeconomic data and robust corporate earnings worldwide fostered investor optimism in the continued global economic recovery. The US stock market represented by the Russell 3000 Index returned 6.3% and 21.1% for the quarter and calendar year respectively. While the Russell 3000 outperformed the international MSCI ACWI ex US Index during the 4th quarter, international stocks were the best performers of 2017. Domestic equity indices pushed higher as most measures continued to show continued signs of a healthy US economy. Future prospects for lower corporate and individual tax rates following the passage of a republican party led tax code overhaul in December also boosted returns through the period.

- International equity market benchmarks posted considerable gains for both the 4th quarter and year-to-date period with the MSCI ACWI ex US returning 5.0% and 27.2% respectively. Emerging market stocks outpaced both international developed and US equities over both periods with the MSCI Emerging Markets Index returning 7.4% through the quarter and an impressive 37.3% for the calendar year. While developed market international index returns were weaker by comparison, they still posted solid gains with the MSCI EAFE Index returning 25.0% for the 1-year period outpacing major domestic indices. International equities benefitted from continued strength in global fundamental data, a weakening U.S. Dollar (USD) and generally accommodative global central bank policies. This positive trend in economic fundamentals led some global central banks to begin normalizing monetary policy with both the European Central Bank (ECB) and the Bank of England (BoE) taking action during the 4th quarter. Many international markets also saw their returns influenced, both positively and negatively, by ongoing political developments throughout the quarter.

- During the 4th quarter, interest rates on the US Treasury Yield Curve rose for short-term maturities, but fell for long-term maturities causing further flattening of the yield curve. The jump in interest rates on the short end of the curve was partially due to increasing investor expectations for a US Federal Reserve (Fed) interest rate hike, which materialized in December. Despite the increase in short-term rates, broad fixed income indices posted modestly positive results with the bellwether Bloomberg Barclays U.S. Aggregate Index returning 0.4% for the quarter and 3.5% for the year. Corporate credit continued its trend of outperformance relative to other investment grade sectors through 2017 as it benefitted from the further tightening of credit spreads relative to Treasuries.





Source: Investment Metrics

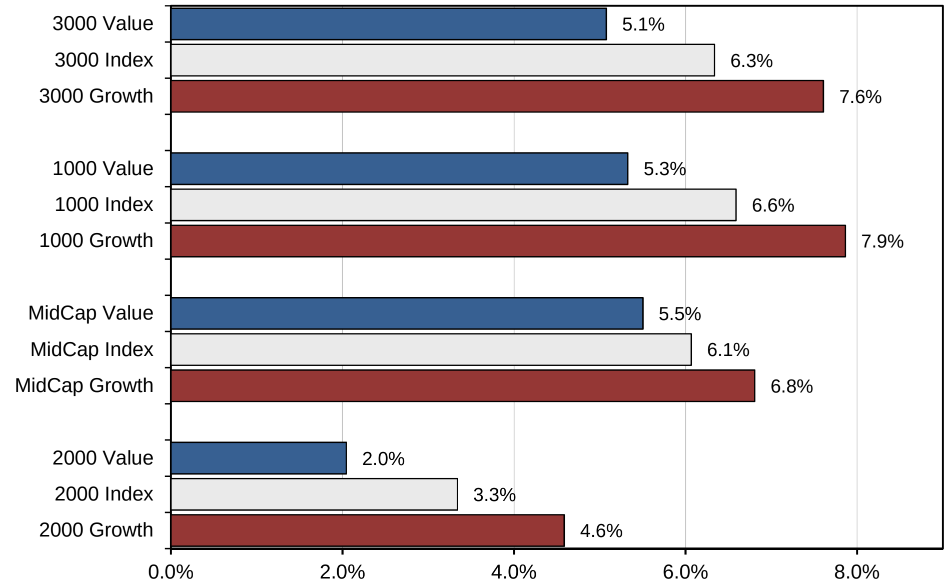
- US equity index returns were solidly positive across the style and capitalization spectrum for the 4th quarter and trailing 1-year period. Throughout 2017, there was only one instance of a negative quarterly return being posted by the Russell market cap and style indices, which was a -0.13% return by the Russell 2000 Value Index during 1Q 2017. Quarterly results benefitted from the passage of republican party tax reforms that represented the first major restructuring of the US Tax code since 1986. Investors cheered the reductions to both individual and corporate income tax rates. In particular, the reduction of the corporate tax rate from 35% to 21%, all else equal, should act as a tailwind to corporate earnings and therefore future investment returns. Furthermore, as seen through much of 2017, encouraging economic data continued to facilitate gains in U.S. equity markets as positive trends in GDP, consumer and business sentiment, corporate earnings and employment continued throughout the period.

- During the quarter, large cap stocks outperformed mid and small cap equities. The large cap Russell 1000 Index returned 6.6% during the period, double the 3.3% return posted by the small cap Russell 2000 Index. Calendar year results echo the 4th quarter's with the Russell 1000 gaining 21.7% versus a 14.6% increase for the Russell 2000. This trend of large cap outperformance can be partially explained by their greater to exposure to foreign markets relative to small cap companies. This can be especially beneficial during periods of USD weakness, such as that experienced over the last year, which is typically favorable to exporters and foreign sales. Large cap companies as a whole generate more revenue outside of the US which can expose them to faster growing markets, foreign tax benefits or strengthening foreign currencies.

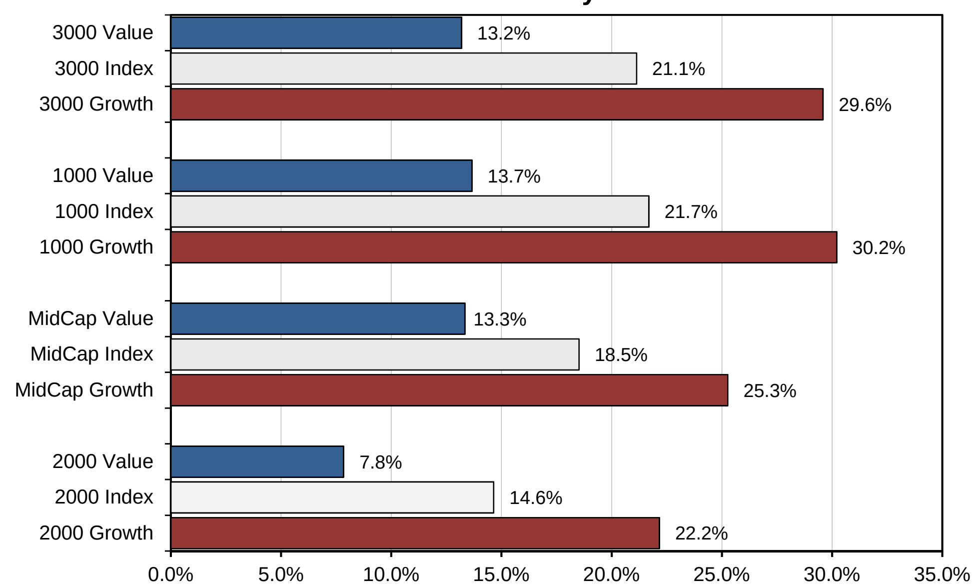
- Growth indices outperformed value indices across the market cap spectrum for the fourth straight quarter. Performance for growth indices more than doubled value index performance for each respective cap segment with all market cap growth indices posting returns greater than 20% during 2017. Growth benchmarks benefitted from larger exposures to more cyclical names within the information technology, consumer discretionary, health care and industrials sectors. They also benefitted from underweights to more defensive "bond proxy" sectors such as REITs, utilities and telecom. Lower exposure to the energy sector also acted as tailwind to growth benchmarks.

- Domestic equity valuations appear stretched relative to historical levels based on Forward Price/Earnings ratios (P/E), with even the most reasonably valued indices trading above their historical P/E valuations. Index P/E valuations range from 110% to 132% of their respective 15-year P/E averages. The small cap value index appears the most inexpensive and the small cap growth segment looks the most overvalued.

Quarter Performance - Russell Style Series



1-Year Performance - Russell Style Series

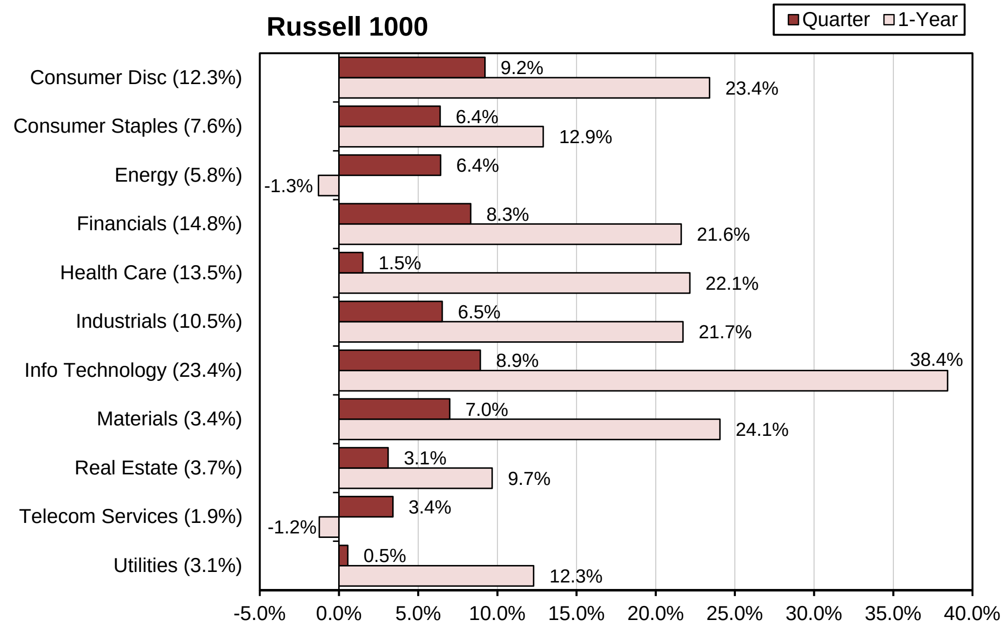


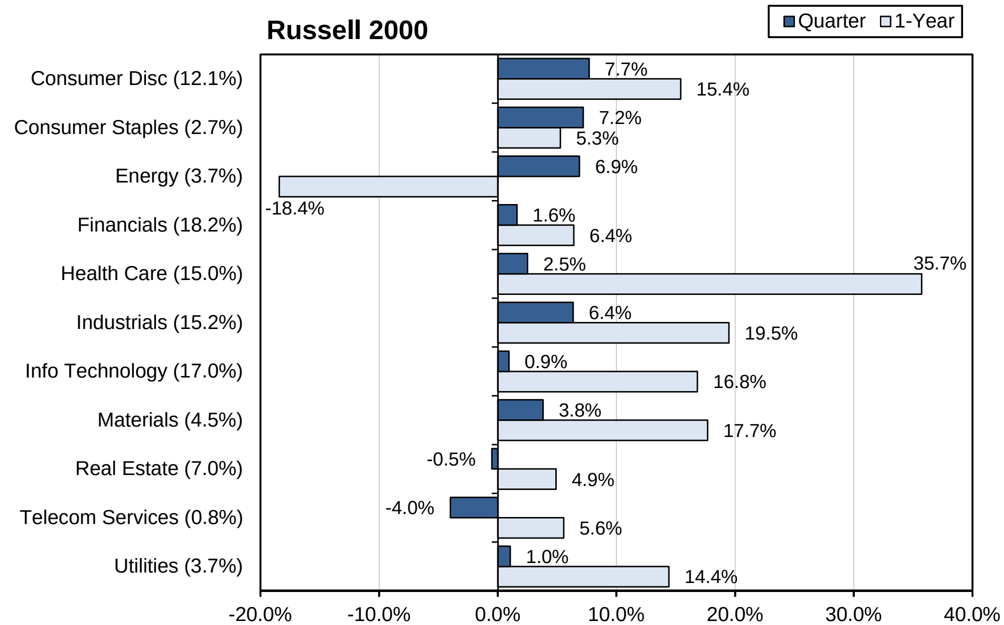
Source: Investment Metrics

- Sector performance was positive across all sectors for the 4th quarter of 2017. However, only four of eleven economic sectors outpaced the Russell 1000 Index return. Cyclical sectors tended to do well through the period with the higher yielding bond proxy sectors lagging on a relative basis. Apparel and retail companies drove performance within the consumer discretionary sector, which returned 9.2%, leading all other sectors. Technology stocks continued their 2017 gains over the quarter benefitting from robust 3rd quarter earnings and product demand returning 8.9%. Over the trailing 1-year period, technology was the best performing sector by a relatively wide margin returning an impressive 38.4%. Materials, consumer discretionary, healthcare, industrials and financials all posted returns greater than 20%. Nine of eleven large cap economic sectors posted positive returns for the year with eight posting double digit returns. Energy and telecom services were the only large cap sectors to post negative returns over the last year, returning -1.3% and -1.2% respectively.

- Small cap sector results were mixed relative to their large capitalization counterparts. Five of eleven economic sectors outpaced the Russell 2000 Index return for the quarter, with nine sectors posting positive results for the period. Most of the sector trends observable in large cap index sector performance also impacted small cap sectors. However, there were several notable differences, particularly in technology, telecom services and financials where there was significant underperformance relative to their large cap counterparts. Small cap sectors trailed large cap sectors in those three categorizations by 8.0%, 7.4% and 6.7% during the quarter respectively. Over the 1-year period, ten of eleven sectors have posted gains with six of eleven sectors having returns greater than 10%. Over the one year period, health care stocks were the best performers within the Russell 2000 returning a solid 35.7%. Energy was the only Russell 2000 sector to post a negative return over last year, falling a meaningful -18.4%.

- Using S&P 500 sector valuations as a proxy for the market, forward P/E ratios for eight of the GICS sectors were higher than their long-term averages at quarter-end. Using these historical P/E measures, the energy, materials and utilities sectors appear the most extended. In contrast the technology, health care and telecommunications sectors were trading at a discount to their long-term average P/E ratios.





Source: Morningstar Direct

Top 10 Weighted Stocks

Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	3.43%	10.2%	48.5%	Information Technology
Microsoft Corp	2.53%	15.4%	40.7%	Information Technology
Amazon.com Inc	1.83%	21.6%	56.0%	Consumer Discretionary
Facebook Inc A	1.63%	3.3%	53.4%	Information Technology
Berkshire Hathaway Inc B	1.50%	8.1%	21.6%	Financials
Johnson & Johnson	1.49%	8.1%	24.4%	Health Care
JPMorgan Chase & Co	1.46%	12.6%	26.7%	Financials
Exxon Mobil Corp	1.40%	3.0%	-3.8%	Energy
Alphabet Inc C	1.25%	9.1%	35.6%	Information Technology
Alphabet Inc A	1.24%	8.2%	32.9%	Information Technology

Top 10 Weighted Stocks

Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Nektar Therapeutics Inc	0.42%	148.8%	386.7%	Health Care
bluebird bio Inc	0.41%	29.7%	188.7%	Health Care
Sage Therapeutics Inc	0.30%	164.4%	222.6%	Health Care
Exact Sciences Corp	0.29%	11.5%	293.3%	Health Care
GrubHub Inc	0.29%	36.3%	90.9%	Information Technology
Catalent Inc	0.26%	2.9%	52.4%	Health Care
Knight-Swift Transportation Inc A	0.26%	5.4%	33.2%	Industrials
Curtiss-Wright Corp	0.26%	16.9%	24.6%	Industrials
EPAM Systems Inc	0.25%	22.2%	67.1%	Information Technology
Sterling Bancorp	0.25%	0.1%	6.4%	Financials

Top 10 Performing Stocks (by Quarter)

Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
CalAtlantic Group Inc	0.02%	54.1%	66.5%	Consumer Discretionary
Skechers USA Inc	0.02%	50.8%	53.9%	Consumer Discretionary
First Solar Inc	0.02%	47.2%	110.4%	Information Technology
Urban Outfitters Inc	0.01%	46.7%	23.1%	Consumer Discretionary
L Brands Inc	0.06%	46.5%	-3.9%	Consumer Discretionary
Regal Entertainment Group A	0.01%	45.4%	17.0%	Consumer Discretionary
HollyFrontier Corp	0.04%	43.5%	63.2%	Energy
Twitter Inc	0.06%	42.3%	47.3%	Information Technology
The Kroger Co	0.10%	37.6%	-19.0%	Consumer Staples
United States Steel Corp	0.02%	37.4%	7.4%	Materials

Top 10 Performing Stocks (by Quarter)

Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Verso Corp A	0.03%	245.2%	147.5%	Materials
AnaptysBio Inc	0.09%	188.2%	N/A	Health Care
Sage Therapeutics Inc	0.30%	164.4%	222.6%	Health Care
Valhi Inc	0.01%	154.6%	82.7%	Materials
Nektar Therapeutics Inc	0.42%	148.8%	386.7%	Health Care
Forterra Inc	0.01%	146.7%	-48.8%	Materials
Ignyta Inc	0.07%	116.2%	403.8%	Health Care
Overstock.com Inc	0.05%	115.2%	265.1%	Consumer Discretionary
Madrigal Pharmaceuticals Inc	0.02%	104.1%	516.0%	Health Care
Boot Barn Holdings Inc	0.01%	86.6%	32.7%	Consumer Discretionary

Bottom 10 Performing Stocks (by Quarter)

Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Mallinckrodt PLC	0.01%	-39.6%	-54.7%	Health Care
Intrexon Corp	0.00%	-39.4%	-49.4%	Health Care
Pandora Media Inc	0.00%	-37.4%	-63.0%	Information Technology
Tesaro Inc	0.01%	-35.8%	-38.4%	Health Care
PG&E Corp	0.09%	-34.2%	-24.5%	Utilities
Acadia Healthcare Co Inc	0.01%	-31.7%	-1.4%	Health Care
OPKO Health Inc	0.01%	-28.6%	-47.3%	Health Care
Celgene Corp	0.32%	-28.4%	-9.8%	Health Care
General Electric Co	0.60%	-27.3%	-42.9%	Industrials
Newell Brands Inc	0.06%	-27.0%	-29.4%	Consumer Discretionary

Bottom 10 Performing Stocks (by Quarter)

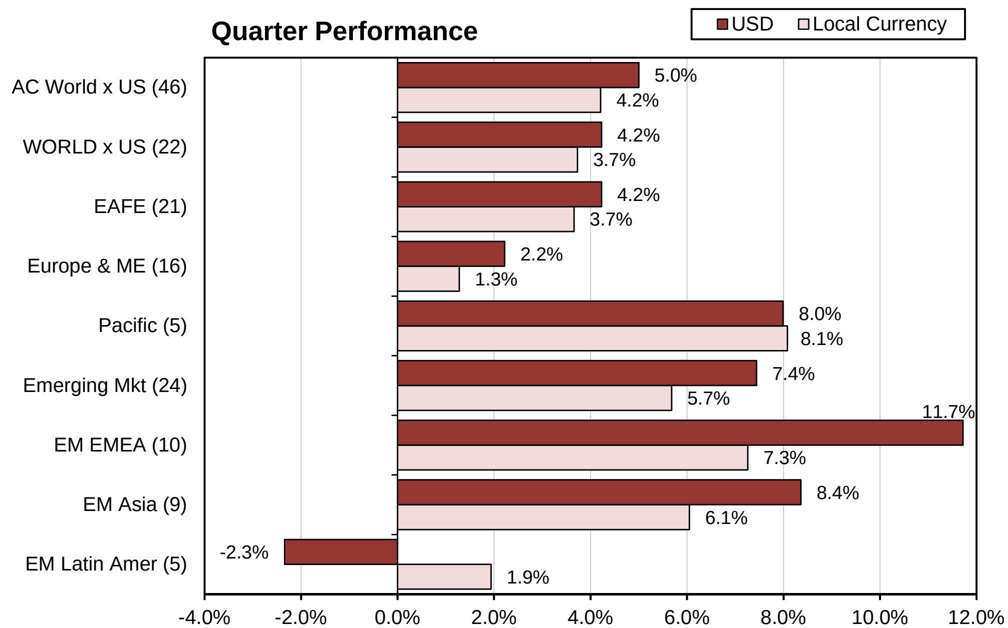
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Iconix Brand Group Inc	0.00%	-77.3%	-86.2%	Consumer Discretionary
Aqua Metals Inc	0.00%	-68.9%	-83.8%	Industrials
Immune Design Corp	0.01%	-62.3%	-29.1%	Health Care
GNC Holdings Inc	0.01%	-58.3%	-66.6%	Consumer Discretionary
Eastman Kodak Co	0.00%	-57.8%	-80.0%	Information Technology
GenMark Diagnostics Inc	0.01%	-56.7%	-65.9%	Health Care
Willbros Group Inc	0.00%	-55.9%	-56.2%	Energy
NanoString Technologies Inc	0.01%	-53.8%	-66.5%	Health Care
Nordic American Tankers Ltd	0.01%	-53.6%	-67.8%	Energy
Curis Inc	0.00%	-53.0%	-77.3%	Health Care

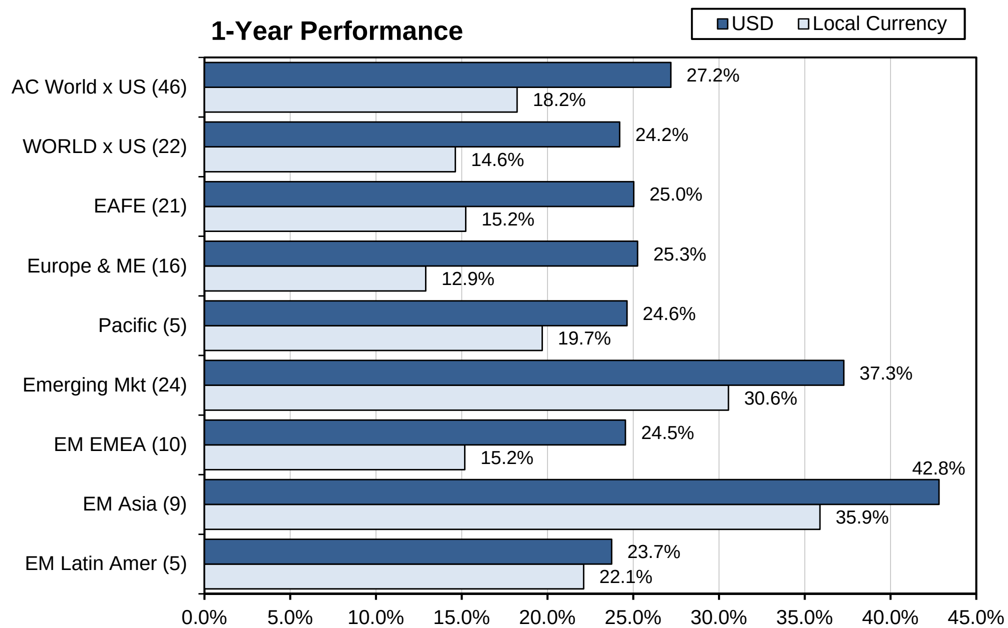
Source: Morningstar Direct

- International equity returns advanced during the 4th quarter, largely driven by ongoing improvement in the global economy and continued weakness in the USD. These trends, in tandem with a rally in technology stocks and rising commodity prices, helped emerging markets continue their 2017 outperformance relative to developed market equities. The USD continued its year-to-date decline against most major currencies through the period. This provided additional tailwinds to international index returns denominated in USD. The USD weakness is also visible in the 1-year performance for broad international indices, with all indices showing higher returns in terms of USD.

- Results for broad developed market international indices were positive for the 4th quarter in both USD and local currency terms with the MSCI EAFE Index returning 4.2% and 3.7% respectively. While developed markets advanced on the back of positive economic data, ongoing political developments also impacted several markets thorough the quarter. Enthusiasm over the ECB's decision to extend its quantitative easing program was waned by German Chancellor Merkel's failure to form a coalition government and Catalonia's independence referendum. In the UK, initial concerns over a "hard Brexit" were tempered toward the end of the quarter as a the EU and UK were able to come to a preliminary agreement, increasing the odds of a more amicable separation. Prime Minister Abe's coalition government was successful in Japan's October elections, winning a clear majority and providing reassurance that Japan's current monetary and fiscal policies will likely continue without major change. Performance for the past year has been strong on an absolute basis with the MSCI EAFE Index returning 25.0% and 15.2% in USD and local currency terms respectively.

- The MSCI Emerging Market Index outperformed developed markets during the 4th quarter, returning 7.4% and 5.7% in USD and local currency terms respectively. While the same tailwinds that pushed developed international markets higher also benefitted emerging market equities, rising commodity and technology stock prices also helped gains. Similar to developed markets, political news influenced emerging markets during the quarter. In China, there was a change in posture with a greater focus on quality growth, financial stability and economic reforms. India announced relief for the country's state run banks designed to inject additional liquidity to the financial system to improve lending and stimulate the economy. Mexican stocks suffered as the peso weakened against the dollar and investor concerns surrounding the future of NAFTA's pushed prices lower. Brazil also faced currency headwinds and despite the fact that corruption charges against President Temer were dropped, recent votes indicated that support for future political reforms may have weakened. One year returns for the MSCI Emerging Market Index were an impressive 37.3% in USD terms and 30.6% in terms of local currency.





Source: MSCI Global Index Monitor (Returns are Net)

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	12.3%	5.3%	24.7%
Consumer Staples	11.2%	4.9%	24.1%
Energy	5.3%	10.0%	21.6%
Financials	21.2%	3.0%	24.7%
Health Care	10.1%	0.0%	16.9%
Industrials	14.6%	4.8%	30.0%
Information Technology	6.4%	5.0%	39.3%
Materials	8.2%	8.5%	33.9%
Real Estate	3.6%	6.4%	21.7%
Telecommunication Services	3.9%	0.7%	12.9%
Utilities	3.2%	-1.0%	19.2%
Total	**100.0%**	**4.2%**	**25.0%**

MSCI - ACWIxUS	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	11.3%	6.1%	28.1%
Consumer Staples	9.6%	5.5%	24.0%
Energy	6.7%	7.4%	16.5%
Financials	23.1%	4.5%	26.0%
Health Care	7.6%	1.3%	18.1%
Industrials	11.9%	4.8%	29.4%
Information Technology	11.5%	6.2%	51.1%
Materials	8.2%	8.4%	32.2%
Real Estate	3.2%	5.6%	26.5%
Telecommunication Services	4.0%	1.5%	14.5%
Utilities	2.9%	-0.4%	18.6%
Total	**100.0%**	**5.0%**	**27.2%**

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	10.2%	9.0%	40.1%
Consumer Staples	6.6%	8.2%	25.5%
Energy	6.8%	7.9%	21.1%
Financials	23.5%	8.2%	32.6%
Health Care	2.7%	16.6%	32.7%
Industrials	5.2%	5.1%	26.1%
Information Technology	27.7%	7.1%	60.6%
Materials	7.4%	8.7%	33.6%
Real Estate	2.8%	3.1%	49.5%
Telecommunication Services	4.8%	3.0%	16.8%
Utilities	2.4%	1.5%	16.6%
Total	**100.0%**	**7.4%**	**37.3%**

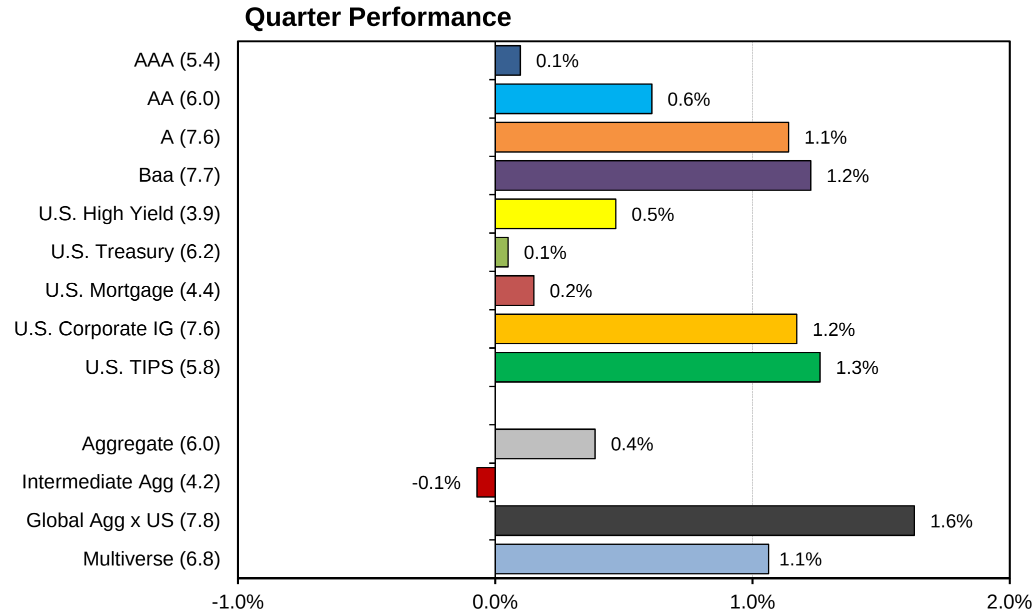
Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1- Year Return
Japan	24.0%	16.5%	8.5%	24.0%
United Kingdom	17.8%	12.2%	5.7%	22.3%
France	10.7%	7.3%	1.5%	28.8%
Germany	9.8%	6.7%	2.8%	27.7%
Switzerland	8.0%	5.5%	1.8%	22.5%
Australia	6.9%	4.8%	6.8%	19.9%
Hong Kong	3.6%	2.5%	6.6%	36.2%
Netherlands	3.6%	2.5%	0.8%	32.2%
Spain	3.2%	2.2%	-1.6%	27.1%
Sweden	2.7%	1.8%	-3.8%	20.6%
Italy	2.3%	1.6%	-2.3%	28.4%
Denmark	1.8%	1.3%	2.2%	34.7%
Singapore	1.3%	0.9%	10.1%	35.6%
Belgium	1.1%	0.8%	-1.5%	18.6%
Finland	0.9%	0.6%	-2.6%	22.5%
Norway	0.7%	0.5%	1.9%	28.3%
Ireland	0.5%	0.3%	3.5%	18.1%
Israel	0.5%	0.3%	4.1%	2.1%
Austria	0.3%	0.2%	5.8%	58.3%
New Zealand	0.2%	0.1%	1.5%	11.7%
Portugal	0.2%	0.1%	-2.0%	23.8%
Total EAFE Countries	**100.0%**	**68.7%**	**4.2%**	**25.0%**
Canada		6.6%	4.3%	16.1%
Total Developed Countries		**75.2%**	**4.2%**	**24.2%**
China		7.4%	7.6%	54.1%
Korea		3.8%	11.4%	47.3%
Taiwan		2.8%	4.0%	27.5%
India		2.2%	11.8%	38.8%
South Africa		1.8%	21.4%	36.1%
Brazil		1.7%	-2.0%	24.1%
Russia		0.8%	4.3%	5.2%
Mexico		0.7%	-8.1%	16.0%
Malaysia		0.6%	7.9%	25.1%
Indonesia		0.6%	8.2%	24.2%
Thailand		0.6%	9.5%	34.5%
Poland		0.3%	5.8%	54.7%
Chile		0.3%	7.2%	42.2%
Philippines		0.3%	6.5%	24.6%
Turkey		0.3%	4.3%	38.4%
United Arab Emirates		0.2%	-4.6%	2.9%
Qatar		0.1%	4.7%	-11.5%
Colombia		0.1%	0.8%	16.3%
Peru		0.1%	7.3%	38.4%
Greece		0.1%	13.3%	28.6%
Hungary		0.1%	7.1%	40.0%
Czech Republic		0.0%	7.8%	35.5%
Egypt		0.0%	-2.1%	5.1%
Pakistan		0.0%	-5.5%	-24.4%
Total Emerging Countries		**24.8%**	**7.4%**	**37.3%**
Total ACWIxUS Countries		**100.0%**	**5.0%**	**27.2%**

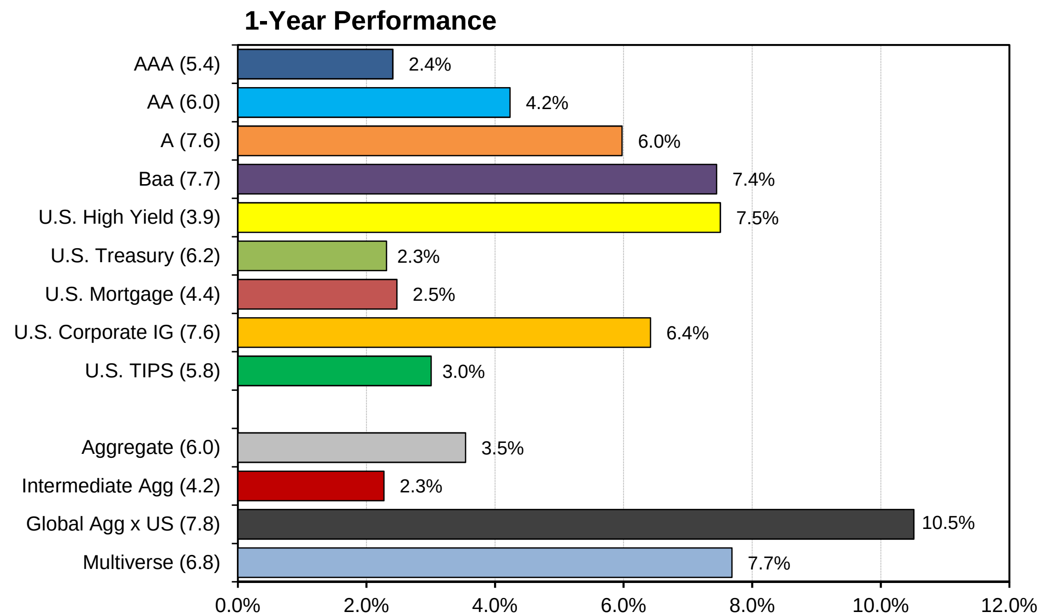
Source: MSCI Global Index Monitor (Returns are Net in USD)

- Broad fixed income benchmarks were slightly positive during the 4th quarter. In October, the Fed began implementation of its plan to gradually reduce its balance sheet by systematically slowing the rate of reinvestment of the Treasury and mortgage backed securities (MBS) it holds on its books as the securities mature. This process will reduce the size of the Fed's balance sheet over time and can be viewed as tightening of monetary policy. Positive macroeconomic data throughout the quarter increased expectations that the Federal Open Market Committee (FOMC) would increase short-term interest rates during the quarter, pushing interest rates higher, especially at the short end of the yield curve. The FOMC announced a 25 bps interest rate hike after its December meeting, however, investors were not surprised by the rate increase and market reactions were relatively muted. Despite subdued inflation, the Fed feels the economy is tracking to be healthy enough to warrant continued tightening in 2018. This caused a flattening of the yield curve as short-term market yields rose and rates on maturities greater than 10 years fell. Long-term rates fell due to the artificially low supply caused by significant Fed ownership of long maturity Treasuries as well as strong investor demand. All else equal, this was a benefit to longer duration indices. While this was a relatively difficult period for fixed income investments, the Bloomberg Barclays U.S. Aggregate Index stayed slightly positive for the quarter and calendar year, returning 0.4% and 3.5% respectively.

- Within investment grade credit, lower quality corporate issues outperformed higher quality issues for both the quarter and 1-year period as contracting credit spreads from improvements in economic fundamentals acted as a tailwind to these issues. Baa rated credit was the best performing investment grade credit quality segment returning 1.2% for the quarter and 7.4% for the year. High yield debt trailed investment grade credit for the quarter due to its lower duration and lack of spread compression relative to investment grade credit. While investment grade spreads tightened 8 bps during the 4th quarter, spreads on high yield bonds tightened only 4 bps. However, high yield debt continues to be the largest beneficiary of the strengthening economy over last year with the Bloomberg Barclays High Yield Index appreciating 7.5%.

- A review of sector performance shows that investment grade credit has continued its 2017 trend of outperformance versus Treasuries and MBS securities during the 4th quarter. As previously mentioned, corporate issues benefited from tightening credit spreads throughout the period. Treasuries struggled through the quarter due to lower yields and tightening monetary policy. Despite widening spreads and increased supply, MBS managed to outperform Treasuries for the quarter and the year. For calendar year 2017, Treasury securities were the worst performing investment grade sector returning 2.3%, while U.S. investment grade corporate bonds were the best performing investment grade sector gaining 6.4%.



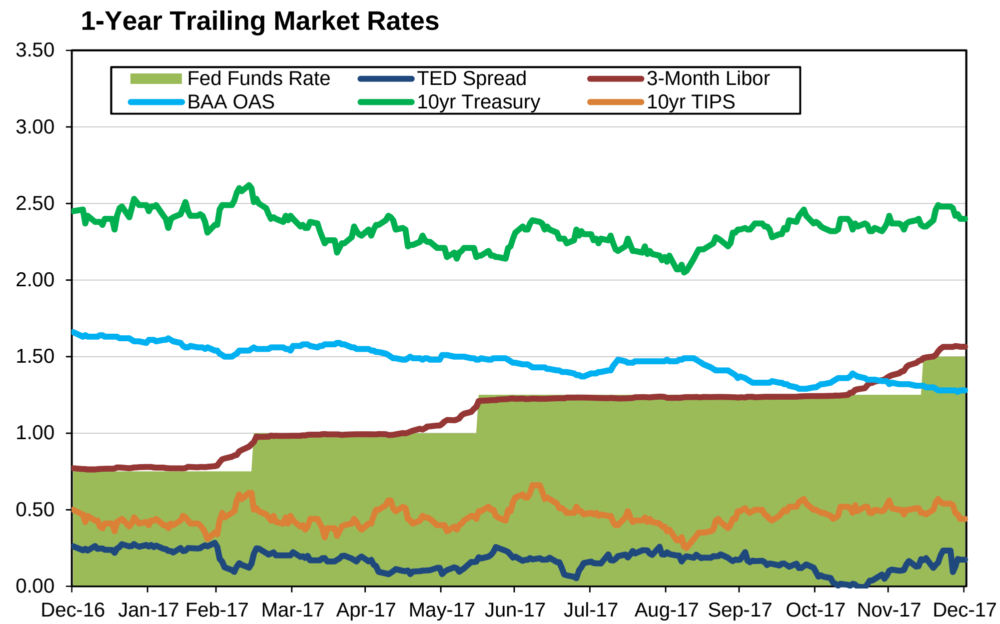


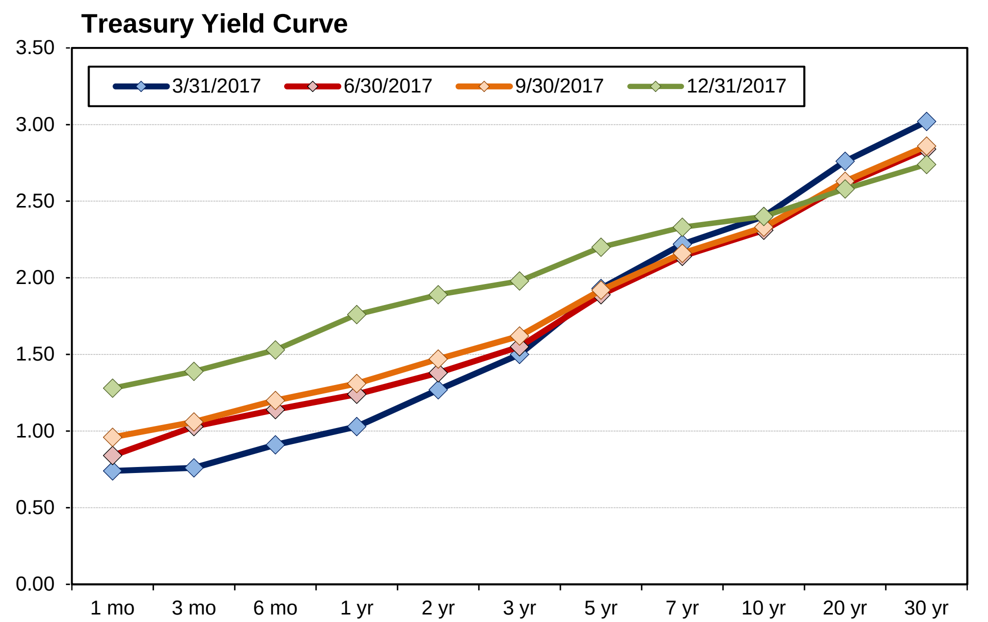
Source: Bloomberg

- Global fixed income indices also posted gains for the quarter. Global benchmarks are impacted by the same local yield and duration factors as domestic benchmarks. While these indices have relatively high durations, which benefitted them in the current quarter, the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. This currency effect can add additional return to foreign issues as it did during calendar year 2017, or it can further exacerbate negative performance as it did in 2016. Global bonds outperformed domestic issues during the quarter and 1-year period due to their relatively long durations and a currency effect tailwind caused by a weakening USD. Returns on global bonds represented by the Bloomberg Barclays Global Aggregate ex US Index were 1.6% and 10.5% for the 4th quarter and year-to-date period respectively. As the global economy continues to recover, several international central banks have started to move toward a less accommodative posture during the quarter. Notably, the ECB, while extending its current quantitative easing program well into 2018, announced that it be reducing the amount of monthly asset purchases from 60 billion euro per month to 30 billion euro per month. Similarly, despite a dovish stance on future rate increases, the BoE voted to raise interest rates for the first time in a decade.

- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) ended 2017 close to where it began the year, modestly rising during the 4th quarter. During the year, rates peaked during the 1st quarter of 2017 before hitting a low during the 3rd quarter. They then gradually rose to end the year slightly lower than where they started, falling to 2.40% from 2.45%. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. This line illustrates a steady decline in credit spreads throughout 2017. This decline is equivalent to an interest rate decrease on corporate bonds, which produces a tailwind for corporate bond index returns. These credit spreads have tightened by about 38 bps over the last 12-months. The green shading at the bottom of the graph illustrates the gradual increase in the Federal Funds Rate due to a less accommodative US monetary policy.

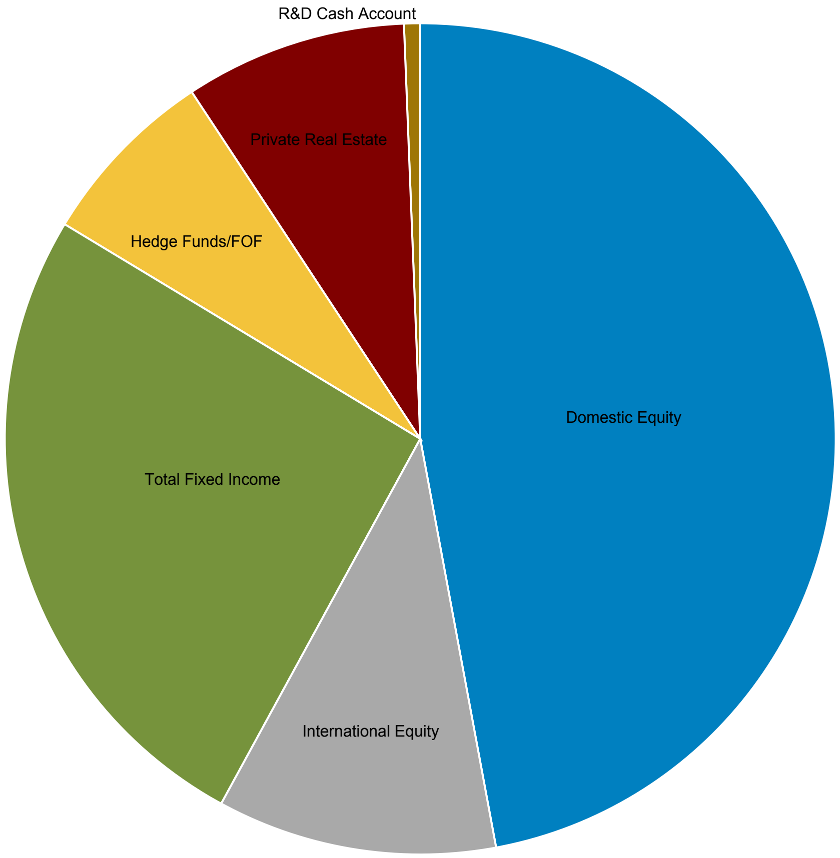
- The lower graph provides a snapshot of the U.S. Treasury yield curve at the end of each of the last four calendar quarters. As mentioned, the yield curve continues to flatten as yields on shorter-term maturities have risen, while interest rates on the long end of the curve have generally declined. The significant upward shift in short-term interest rates and decline of long-term interest rates throughout the year is clearly visible.

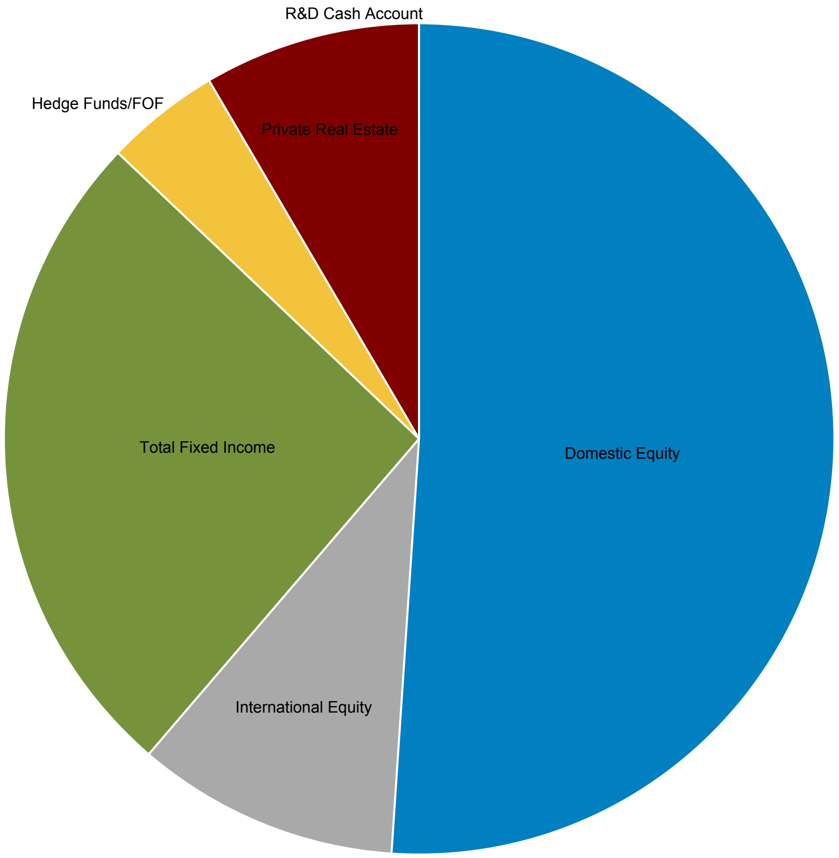




Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)

September 30, 2017 : $34,003,283	December 31, 2017 : $35,587,967





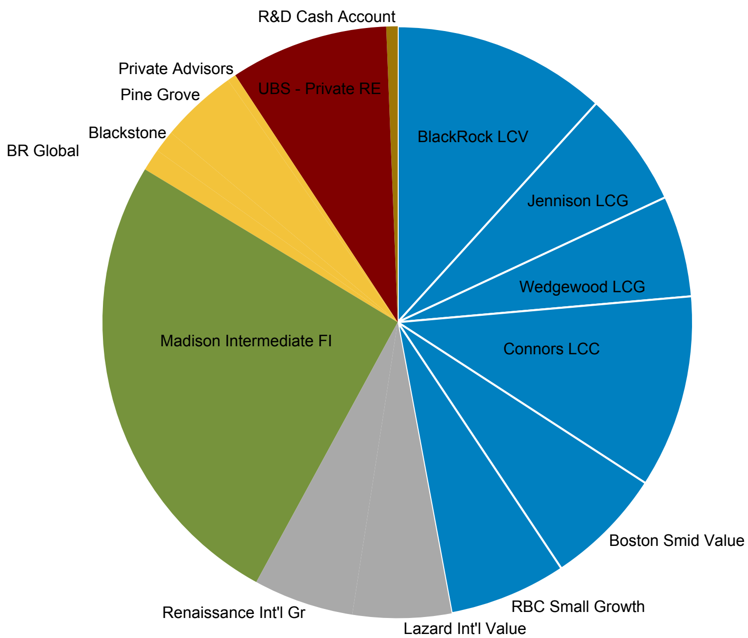
Allocation

	Market Value	Allocation
Domestic Equity	16,008,475	47.1
International Equity	3,697,856	10.9
Total Fixed Income	8,733,908	25.7
Hedge Funds/FOF	2,408,461	7.1
Private Real Estate	2,940,515	8.6
R&D Cash Account	214,068	0.6

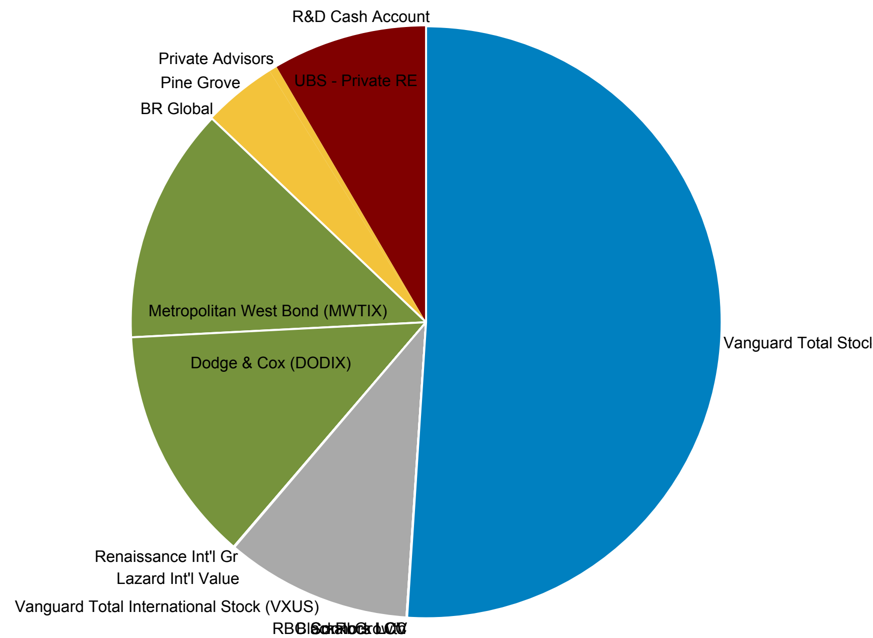
Allocation

	Market Value	Allocation
Domestic Equity	18,171,960	51.1
International Equity	3,639,911	10.2
Total Fixed Income	9,179,465	25.8
Hedge Funds/FOF	1,591,392	4.5
Private Real Estate	3,002,005	8.4
R&D Cash Account	3,234	0.0

September 30, 2017 : $34,003,283



December 31, 2017 : $35,587,967



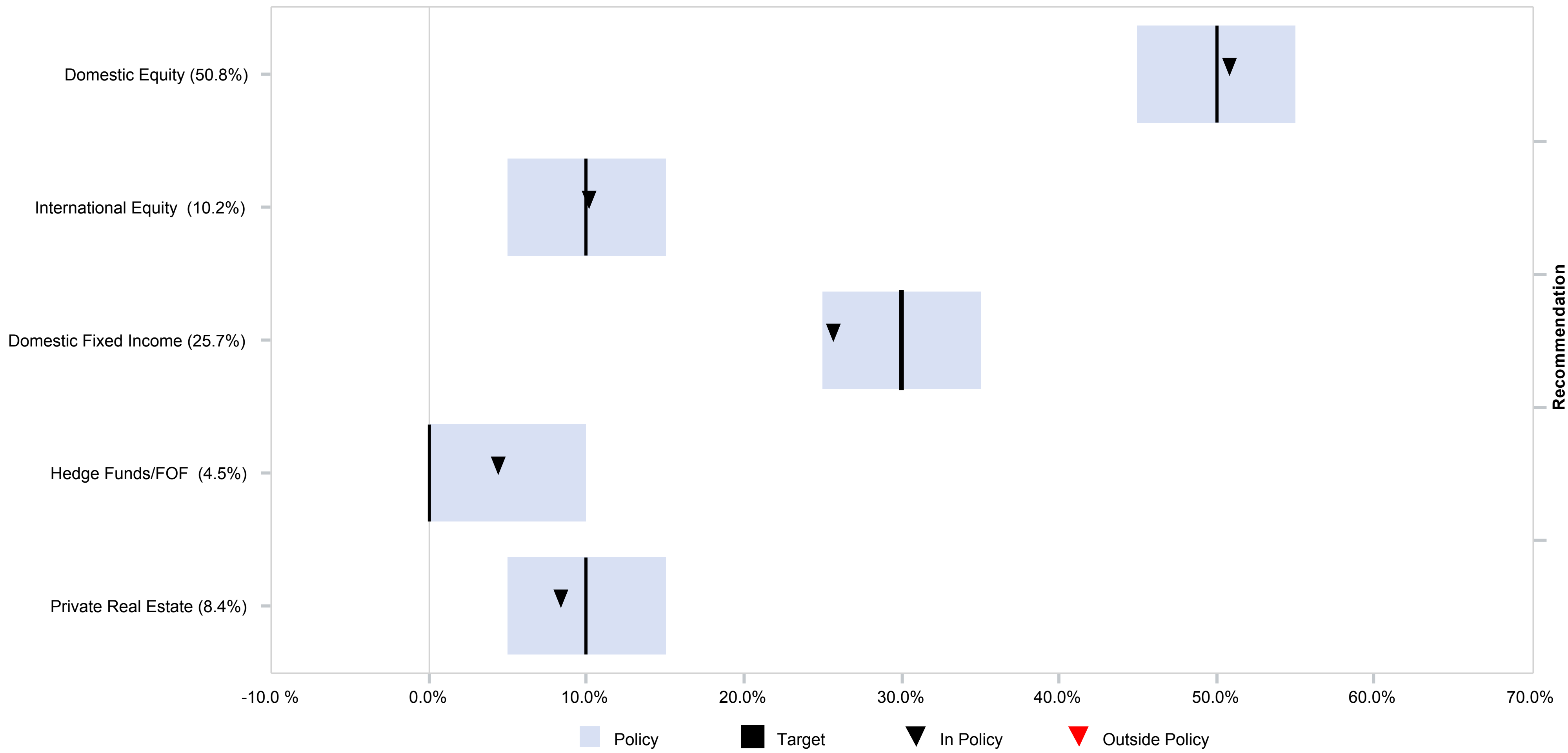
Allocation (September 30, 2017)

	Market Value	Allocation
Vanguard Total Stock Market Index (VITSX)	-	0.0
BlackRock LCV	3,992,758	11.7
Jennison LCG	2,148,655	6.3
Wedgewood LCG	1,882,285	5.5
Connors LCC	3,588,764	10.6
Boston Smid Value	2,208,964	6.5
RBC Small Growth	2,187,049	6.4
Vanguard Total International Stock (VXUS)	-	0.0
Lazard Int'l Value	1,832,036	5.4
Renaissance Int'l Gr	1,865,821	5.5
Dodge & Cox (DODIX)	-	0.0
Metropolitan West Bond (MWTIX)	-	0.0
Madison Intermediate FI	8,733,908	25.7
BR Global	413,456	1.2
Blackstone	412,498	1.2
Pine Grove	1,420,910	4.2
Private Advisors	161,597	0.5
UBS - Private RE	2,940,515	8.6
R&D Cash Account	214,068	0.6

Allocation (December 31, 2017)

	Market Value	Allocation
Vanguard Total Stock Market Index (VITSX)	18,157,773	51.0
BlackRock LCV	8,882	0.0
Jennison LCG	643	0.0
Wedgewood LCG	-	0.0
Connors LCC	2,657	0.0
Boston Smid Value	1,897	0.0
RBC Small Growth	108	0.0
Vanguard Total International Stock (VXUS)	3,625,195	10.2
Lazard Int'l Value	11,228	0.0
Renaissance Int'l Gr	3,488	0.0
Dodge & Cox (DODIX)	4,591,621	12.9
Metropolitan West Bond (MWTIX)	4,587,844	12.9
Madison Intermediate FI	-	0.0
BR Global	20	0.0
Blackstone	-	0.0
Pine Grove	1,438,100	4.0
Private Advisors	153,272	0.4
UBS - Private RE	3,002,005	8.4
R&D Cash Account	3,234	0.0

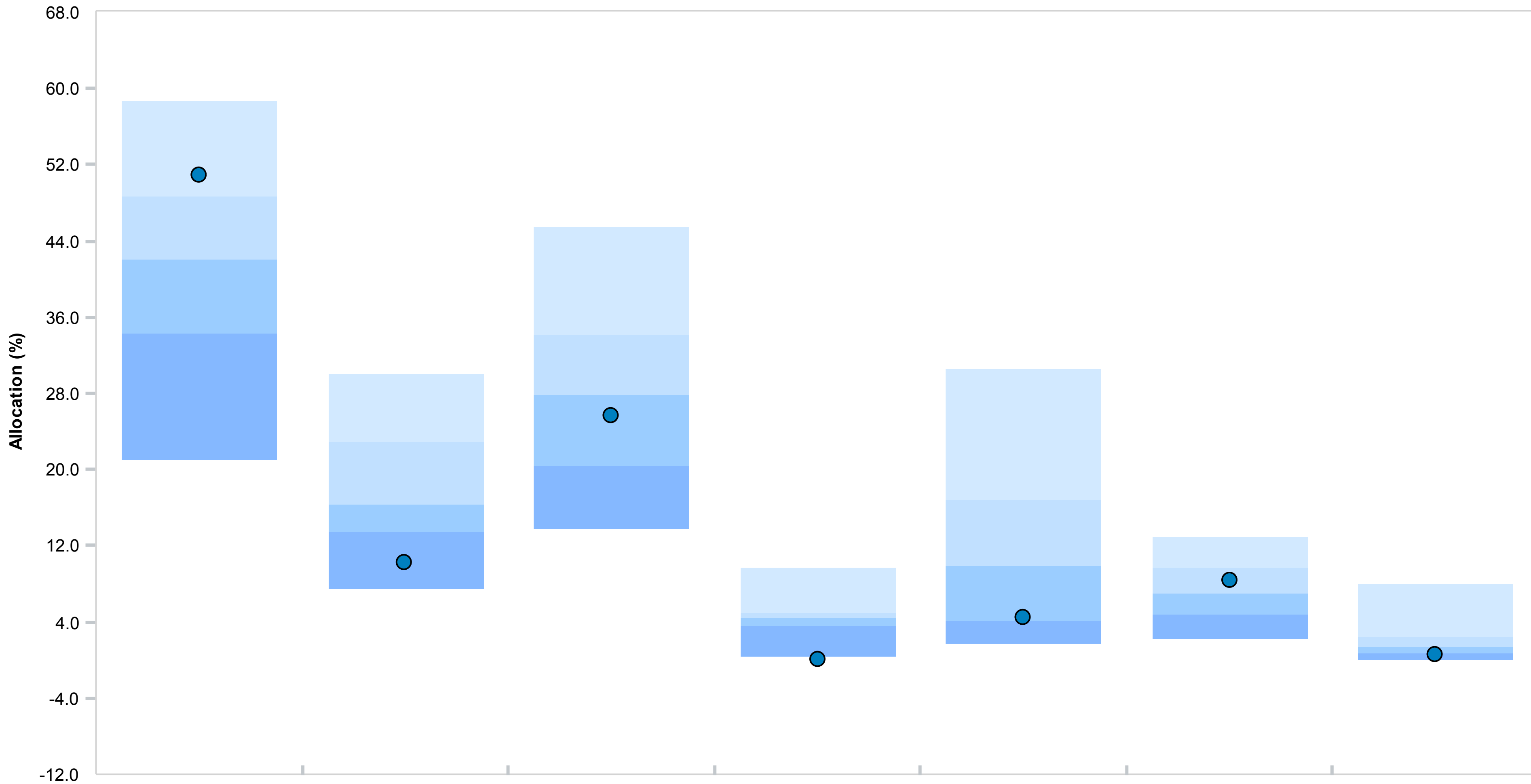
Executive Summary



Asset Allocation Compliance

	Minimum Allocation (%)	Maximum Allocation (%)	Current Allocation (%)	Target Allocation (%)
Hedge Funds/FOF	0.0	10.0	4.5	0.0
International Equity	5.0	15.0	10.2	10.0
Private Real Estate	5.0	15.0	8.4	10.0
Domestic Fixed Income	25.0	35.0	25.7	30.0
Domestic Equity	45.0	55.0	50.8	50.0
Total Fund	N/A	N/A	100.0	100.0

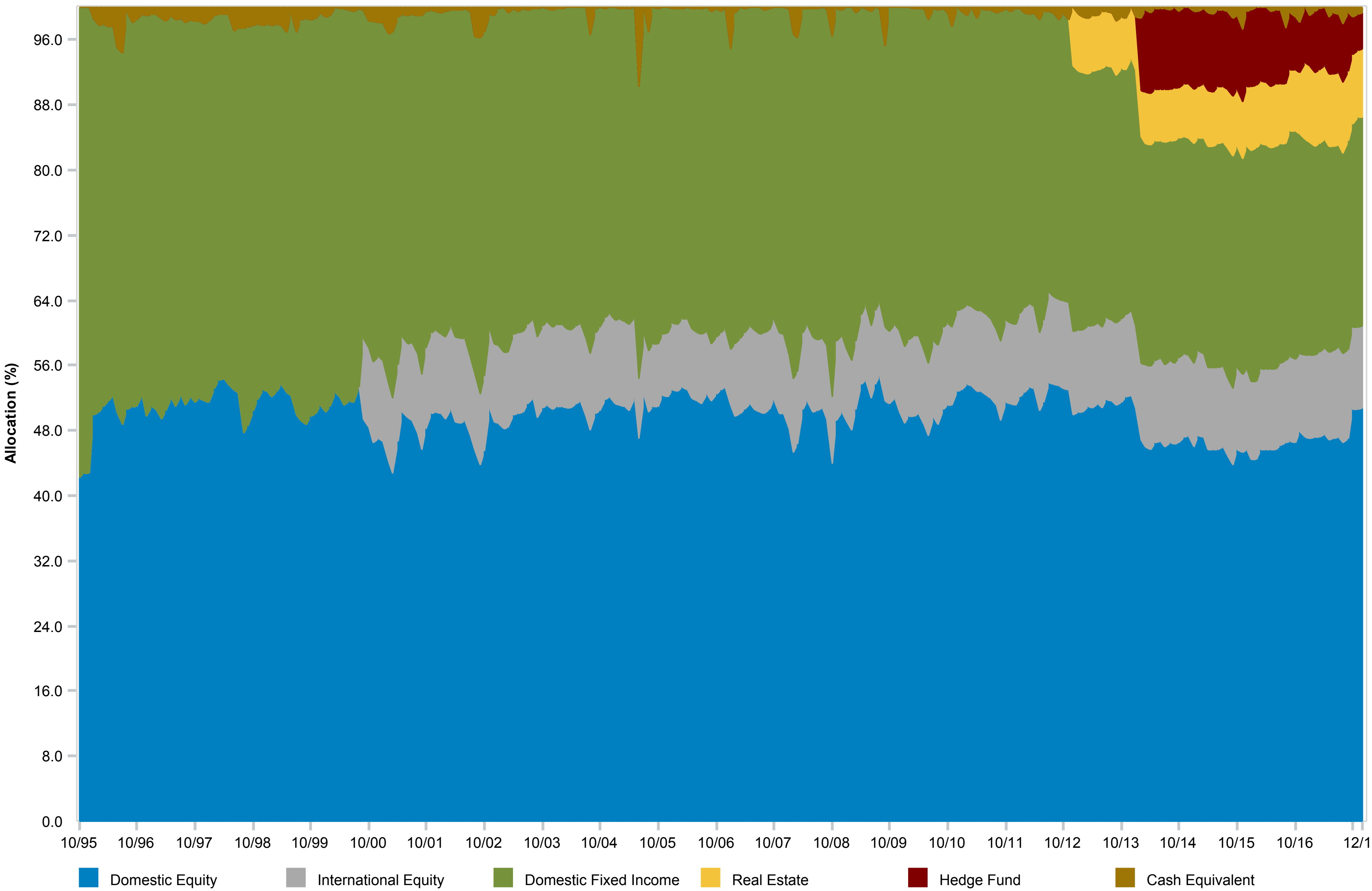
Plan Sponsor TF Asset Allocation vs. All Public Plans-Total Fund



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
● Total Fund	50.82 (19)	10.18 (88)	25.67 (59)	0.00	4.45 (73)	8.40 (38)	0.48 (80)
5th Percentile	58.68	29.95	45.49	9.70	30.56	12.95	7.98
1st Quartile	48.73	22.97	34.02	5.03	16.80	9.63	2.34
Median	42.08	16.37	27.82	4.41	9.91	6.95	1.31
3rd Quartile	34.30	13.35	20.43	3.61	4.16	4.84	0.70
95th Percentile	21.00	7.57	13.72	0.31	1.73	2.28	0.06
Population	563	539	562	168	180	353	497

Parentheses contain percentile rankings.

	Dec-2017		Sep-2017	
	($)	%	($)	%
Total Equity	**21,811,870**	**61.00**	**19,706,331**	**57.95**
Domestic Equity	**18,171,960**	**50.82**	**16,008,475**	**47.08**
BlackRock LCV	8,882	0.02	3,992,758	11.74
Jennison LCG	643	0.00	2,148,655	6.32
Wedgewood LCG	-	0.00	1,882,285	5.54
Connors LCC	2,657	0.01	3,588,764	10.55
Boston Smid Value	1,897	0.01	2,208,964	6.50
RBC Small Growth	108	0.00	2,187,049	6.43
Vanguard Total Stock Market Index (VITSX)	18,157,773	50.78	-	0.00
International Equity	**3,639,911**	**10.18**	**3,697,856**	**10.87**
Lazard Int'l Value	11,228	0.03	1,832,036	5.39
Renaissance Int'l Growth	3,488	0.01	1,865,821	5.49
Vanguard Total International Stock (VXUS)	3,625,195	10.14	-	0.00
Total Fixed Income	**9,179,465**	**25.67**	**8,733,908**	**25.69**
Madison Intermediate FI	-	0.00	8,733,908	25.69
Dodge & Cox (DODIX)	4,591,621	12.84	-	0.00
Metropolitan West Bond (MWTIX)	4,587,844	12.83	-	0.00
Hedge Funds/FOF	**1,591,392**	**4.45**	**2,408,461**	**7.08**
BlackRock Global L/S Credit	20	0.00	413,456	1.22
Blackstone Multi Strategy	-	0.00	412,498	1.21
Pine Grove - HFOF	1,438,100	4.02	1,420,910	4.18
Private Advisors - HFOF	153,272	0.43	161,597	0.48
Private Real Estate	**3,002,005**	**8.40**	**2,940,515**	**8.65**
UBS - Private Real Estate	3,002,005	8.40	2,940,515	8.65
R&D Cash Account	3,234	0.01	214,068	0.63
Total Fund	**35,756,521**	**100.00**	**34,003,283**	**100.00**


96.0
88.0
80.0
72.0
64.0
56.0
48.0
40.0
32.0
24.0
16.0
8.0
0.0
Allocation (%)
10/95
10/96
10/97
10/98
10/99
10/00
10/01
10/02
10/03
10/04
10/05
10/06
10/07
10/08
10/09
10/10
10/11
10/12
10/13
10/14
10/15
10/16
12/17
Domestic Equity
International Equity
Domestic Fixed Income
Real Estate
Hedge Fund
Cash Equivalent

	Market Value 10/01/2017	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Capital Gain/Loss	Market Value 12/31/2017
Total Equity	**19,706,331**	**1,179,228**	**-**	**-237**	**-**	**-7,848**	**148,305**	**786,092**	**21,811,870**
Domestic Equity	**16,008,475**	**1,325,017**	**-**	**-237**	**-**	**-7,848**	**99,808**	**746,744**	**18,171,960**
BlackRock LCV	3,992,758	-3,963,613	-	-	-	-7,848	7,368	-19,783	8,882
Jennison LCG	2,148,655	-2,148,548	-	-237	-	-	643	130	643
Wedgewood LCG	1,882,285	-1,881,624	-	-	-	-	-	-661	-
Connors LCC	3,588,764	-3,578,111	-	-	-	-	2,357	-10,353	2,657
Boston Smid Value	2,208,964	-2,204,814	-	-	-	-	814	-3,067	1,897
RBC Small Growth	2,187,049	-2,213,344	-	-	-	-	108	26,295	108
Vanguard Total Stock Market Index (VITSX)	-	17,315,071	-	-	-	-	88,519	754,183	18,157,773
International Equity	**3,697,856**	**-145,789**	**-**	**-**	**-**	**-**	**48,496**	**39,347**	**3,639,911**
Lazard Int'l Value	1,832,036	-1,825,188	-	-	-	-	10,931	-6,550	11,228
Renaissance Int'l Growth	1,865,821	-1,860,372	-	-	-	-	3,488	-5,449	3,488
Vanguard Total International Stock (VXUS)	-	3,539,771	-	-	-	-	34,078	51,346	3,625,195
Total Fixed Income	**8,733,908**	**483,456**	**-**	**-2**	**-**	**-**	**65,762**	**-103,659**	**9,179,465**
Madison Intermediate FI	8,733,908	-8,686,110	-	-2	-	-	-	-47,795	-
Dodge & Cox (DODIX)	-	4,582,967	-	-	-	-	38,384	-29,730	4,591,621
Metropolitan West Bond (MWTIX)	-	4,582,967	-	-	-	-	9,186	-4,309	4,587,844
Hedge Funds/FOF	**2,408,461**	**-827,451**	**-**	**-**	**20**	**-**	**-**	**10,363**	**1,591,392**
BlackRock Global L/S Credit	413,456	-413,835	-	-	20	-	-	380	20
Blackstone Multi Strategy	412,498	-413,616	-	-	-	-	-	1,118	-
Pine Grove - HFOF	1,420,910	-	-	-	-	-	-	17,190	1,438,100
Private Advisors - HFOF	161,597	-	-	-	-	-	-	-8,325	153,272
Private Real Estate	**2,940,515**	**-**	**-**	**-**	**-7,222**	**-**	**30,671**	**38,041**	**3,002,005**
UBS - Private Real Estate	2,940,515	-	-	-	-7,222	-	30,671	38,041	3,002,005
R&D Cash Account	214,068	-137,008	-	-68,199	-	-5,640	13	-	3,234
Total Fund	**34,003,283**	**-**	**894,648**	**-477,631**	**-7,202**	**-27,754**	**308,096**	**1,063,082**	**35,756,521**

	Market Value 10/01/2017	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Capital Gain/Loss	Market Value 12/31/2017
Total Equity	**19,706,331**	**1,179,228**	**-**	**-237**	**-**	**-7,848**	**148,305**	**786,092**	**21,811,870**
Domestic Equity	**16,008,475**	**1,325,017**	**-**	**-237**	**-**	**-7,848**	**99,808**	**746,744**	**18,171,960**
BlackRock LCV	3,992,758	-3,963,613	-	-	-	-7,848	7,368	-19,783	8,882
Jennison LCG	2,148,655	-2,148,548	-	-237	-	-	643	130	643
Wedgewood LCG	1,882,285	-1,881,624	-	-	-	-	-	-661	-
Connors LCC	3,588,764	-3,578,111	-	-	-	-	2,357	-10,353	2,657
Boston Smid Value	2,208,964	-2,204,814	-	-	-	-	814	-3,067	1,897
RBC Small Growth	2,187,049	-2,213,344	-	-	-	-	108	26,295	108
Vanguard Total Stock Market Index (VITSX)	-	17,315,071	-	-	-	-	88,519	754,183	18,157,773
International Equity	**3,697,856**	**-145,789**	**-**	**-**	**-**	**-**	**48,496**	**39,347**	**3,639,911**
Lazard Int'l Value	1,832,036	-1,825,188	-	-	-	-	10,931	-6,550	11,228
Renaissance Int'l Growth	1,865,821	-1,860,372	-	-	-	-	3,488	-5,449	3,488
Vanguard Total International Stock (VXUS)	-	3,539,771	-	-	-	-	34,078	51,346	3,625,195
Total Fixed Income	**8,733,908**	**483,456**	**-**	**-2**	**-**	**-**	**65,762**	**-103,659**	**9,179,465**
Madison Intermediate FI	8,733,908	-8,686,110	-	-2	-	-	-	-47,795	-
Dodge & Cox (DODIX)	-	4,582,967	-	-	-	-	38,384	-29,730	4,591,621
Metropolitan West Bond (MWTIX)	-	4,582,967	-	-	-	-	9,186	-4,309	4,587,844
Hedge Funds/FOF	**2,408,461**	**-827,451**	**-**	**-**	**20**	**-**	**-**	**10,363**	**1,591,392**
BlackRock Global L/S Credit	413,456	-413,835	-	-	20	-	-	380	20
Blackstone Multi Strategy	412,498	-413,616	-	-	-	-	-	1,118	-
Pine Grove - HFOF	1,420,910	-	-	-	-	-	-	17,190	1,438,100
Private Advisors - HFOF	161,597	-	-	-	-	-	-	-8,325	153,272
Private Real Estate	**2,940,515**	**-**	**-**	**-**	**-7,222**	**-**	**30,671**	**38,041**	**3,002,005**
UBS - Private Real Estate	2,940,515	-	-	-	-7,222	-	30,671	38,041	3,002,005
R&D Cash Account	214,068	-137,008	-	-68,199	-	-5,640	13	-	3,234
Total Fund	**34,003,283**	**-**	**894,648**	**-477,631**	**-7,202**	**-27,754**	**308,096**	**1,063,082**	**35,756,521**

	QTR		FYTD		1 YR		3 YR		4 YR		5 YR		Inception		Inception Date
Total Fund	**3.90**	**(34)**	**3.90**	**(34)**	**13.14**	**(83)**	**6.70**	**(76)**	**6.13**	**(88)**	**8.47**	**(71)**	**7.19**	**(81)**	**10/01/1995**
Total Fund Hybrid	3.97	(30)	3.97	(30)	13.62	(80)	7.27	(52)	7.10	(55)	9.23	(45)	7.55	(62)	
All Public Plans-Total Fund Median	3.69		3.69		15.39		7.39		7.22		9.12		7.66		
Total Equity															
Total Equity	4.48		4.48		N/A		N/A		N/A		N/A		9.56		07/01/2017
Total Equity	6.12		6.12		N/A		N/A		N/A		N/A		N/A		
Total Domestic Equity															
Vanguard Total Stock Market Index (VITSX)	N/A		N/A		N/A		N/A		N/A		N/A		1.00	(52)	12/01/2017
Russell 3000 Index	6.34	(41)	6.34	(41)	21.13	(39)	11.12	(13)	11.48	(13)	15.58	(19)	1.00	(52)	
IM U.S. Multi-Cap Core Equity (MF) Median	6.03		6.03		20.33		9.41		9.77		14.39		1.01		
Total International Equity															
Vanguard Total International Stock (VXUS)	N/A		N/A		N/A		N/A		N/A		N/A		2.07	(15)	12/01/2017
Vanguard Spliced Total International Stock Index	5.36	(5)	5.36	(5)	27.41	(25)	8.49	(31)	5.39	(24)	7.39	(54)	2.42	(4)	
IM International Multi-Cap Core Equity (MF) Median	3.89		3.89		25.36		7.85		4.50		7.46		1.47		
Total Fixed Income															
Total Fixed Income	-0.73		-0.73		N/A		N/A		N/A		N/A		-0.43		07/01/2017
Total Fixed Income	0.39		0.39		N/A		N/A		N/A		N/A		N/A		
Dodge & Cox (DODIX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A		01/01/2018
Bloomberg Barclays U.S. Aggregate Index	0.39	(39)	0.39	(39)	3.54	(52)	2.24	(43)	3.16	(35)	2.10	(39)	N/A		
IM U.S. Broad Market Core Fixed Income (MF) Median	0.34		0.34		3.58		2.16		2.99		1.96		N/A		
Metropolitan West Bond (MWTIX)	N/A		N/A		N/A		N/A		N/A		N/A		0.38	(67)	12/01/2017
Bloomberg Barclays U.S. Aggregate Index	0.39	(39)	0.39	(39)	3.54	(52)	2.24	(43)	3.16	(35)	2.10	(39)	0.46	(34)	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.34		0.34		3.58		2.16		2.99		1.96		0.42		
Total Hedge Funds / FOF															
Pine Grove - HFOF	1.21		1.21		5.56		1.90		N/A		N/A		1.66		03/01/2014
HFRI FOF: Conservative Index	0.93		0.93		3.88		2.04		2.31		3.37		2.00		
Private Advisors - HFOF	-5.15		-5.15		-3.50		-0.90		N/A		N/A		-0.82		03/01/2014
HFRI FOF: Conservative Index	0.93		0.93		3.88		2.04		2.31		3.37		2.00		

Returns for periods greater than one year are annualized. Returns are expressed as percentages.

	QTR		FYTD		1 YR		3 YR		4 YR		5 YR		Inception		Inception Date
Total Private Real Estate															
UBS - Private Real Estate	2.34	(38)	2.34	(38)	6.24	(96)	8.81	(95)	9.52	(95)	9.70	(95)	9.97	(N/A)	09/01/2012
NCREIF Property Index	1.80	(80)	1.80	(80)	6.96	(82)	9.38	(88)	9.99	(92)	10.19	(92)	10.18	(N/A)	
IM U.S. Open End Private Real Estate (SA+CF) Median	2.14		2.14		8.52		10.93		11.51		12.20		N/A		
R&D Cash Account	0.01		0.01		0.04		0.09		0.24		0.24		2.51		02/01/1996

Returns for periods greater than one year are annualized. Returns are expressed as percentages.

Comparative Performance

	FYTD		FY 2017		FY 2016		FY 2015		FY 2014		FY 2013		FY 2012	
Total Fund	**3.90**	**(34)**	**11.00**	**(76)**	**7.12**	**(92)**	**0.32**	**(29)**	**8.52**	**(85)**	**12.76**	**(46)**	**18.10**	**(46)**
Total Fund Hybrid	3.97	(30)	11.12	(74)	9.11	(67)	0.80	(20)	9.39	(67)	13.04	(41)	18.21	(44)
All Public Plans-Total Fund Median	3.69		12.20		9.68		-0.49		10.17		12.50		17.98	
Total Equity														
Total Equity	4.48		N/A		N/A		N/A		N/A		N/A		N/A	
Total Equity Policy	6.12		N/A		N/A		N/A		N/A		N/A		N/A	
Total Domestic Equity														
Vanguard Total Stock Market Index (VITSX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Russell 3000 Index	6.34	(41)	18.71	(35)	14.96	(15)	-0.49	(33)	17.76	(30)	21.60	(59)	30.20	(18)
IM U.S. Multi-Cap Core Equity (MF) Median	6.03		17.40		11.57		-1.73		16.25		22.74		26.56	
BlackRock LCV	N/A		20.98	(21)	14.43	(41)	-2.92	(47)	15.57	(79)	16.08	(95)	N/A	
Russell 1000 Value Index	5.33	(74)	15.12	(78)	16.19	(26)	-4.42	(65)	18.89	(42)	22.30	(60)	30.92	(26)
IM U.S. Large Cap Value Equity (SA+CF) Median	6.30		17.97		13.19		-3.29		18.35		23.73		28.24	
Jennison LCG	N/A		25.44	(8)	9.04	(76)	6.79	(15)	20.45	(26)	N/A		N/A	
Russell 1000 Growth Index	7.86	(22)	21.94	(36)	13.76	(22)	3.17	(55)	19.15	(39)	19.27	(64)	29.19	(38)
IM U.S. Large Cap Growth Equity (SA+CF) Median	6.91		20.80		11.64		3.60		18.09		20.25		27.63	
Wedgewood LCG	N/A		13.75	(96)	5.14	(96)	-2.95	(94)	15.99	(72)	N/A		N/A	
Russell 1000 Growth Index	7.86	(22)	21.94	(36)	13.76	(22)	3.17	(55)	19.15	(39)	19.27	(64)	29.19	(38)
IM U.S. Large Cap Growth Equity (SA+CF) Median	6.91		20.80		11.64		3.60		18.09		20.25		27.63	
Connors LCC	N/A		13.83	(89)	11.61	(66)	0.43	(46)	16.54	(80)	N/A		N/A	
S&P 500 Index	6.64	(52)	18.61	(53)	15.43	(22)	-0.61	(62)	19.73	(45)	19.34	(65)	30.20	(45)
IM U.S. Large Cap Core Equity (SA+CF) Median	6.67		18.71		13.16		0.02		19.25		20.62		29.70	
Boston Smid Value	N/A		19.58	(40)	N/A		N/A		N/A		N/A		N/A	
Russell 2500 Value Index	4.25	(69)	15.75	(70)	17.68	(19)	-2.44	(68)	9.88	(60)	27.58	(72)	32.15	(32)
IM U.S. SMID Cap Value Equity (SA+CF) Median	5.37		18.42		13.61		-0.25		11.11		29.97		29.72	
RBC Small Growth	N/A		14.94	(89)	14.58	(35)	6.08	(35)	1.00	(75)	32.33	(65)	32.30	(39)
Russell 2000 Growth Index	4.59	(60)	20.98	(59)	12.12	(47)	4.04	(49)	3.79	(54)	33.07	(58)	31.18	(48)
IM U.S. Small Cap Growth Equity (SA+CF) Median	4.84		21.36		11.64		3.66		4.18		33.90		30.68	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.

	FYTD		FY 2017		FY 2016		FY 2015		FY 2014		FY 2013		FY 2012	
Total International Equity														
Vanguard Total International Stock (VXUS)	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Vanguard Spliced Total International Stock Index	5.36	(5)	19.39	(42)	9.90	(15)	-11.10	(84)	5.18	(32)	16.82	(83)	14.36	(65)
IM International Multi-Cap Core Equity (MF) Median	3.89		19.03		6.03		-7.99		4.32		21.78		14.95	
Lazard Int'l Value	N/A		15.52	(85)	4.43	(88)	-1.72	(20)	6.99	(38)	20.04	(51)	23.27	(11)
MSCI EAFE (Net) Index	4.23	(73)	19.10	(66)	6.52	(80)	-8.66	(52)	4.25	(67)	23.77	(36)	13.75	(76)
IM International Equity (SA+CF) Median	5.54		20.99		11.48		-8.28		5.80		20.15		17.31	
Renaissance Int'l Growth	N/A		19.28	(63)	10.53	(55)	-11.86	(66)	10.85	(15)	24.85	(30)	16.00	(60)
MSCI AC World ex USA (Net)	5.00	(61)	19.61	(61)	9.26	(62)	-12.16	(67)	4.77	(62)	16.48	(63)	14.49	(70)
IM International Equity (SA+CF) Median	5.54		20.99		11.48		-8.28		5.80		20.15		17.31	
Total Fixed Income														
Total Fixed Income	-0.73		N/A		N/A		N/A		N/A		N/A		N/A	
Total Fixed Income Policy	0.39		N/A		N/A		N/A		N/A		N/A		N/A	
Dodge & Cox (DODIX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Bloomberg Barclays U.S. Aggregate Index	0.39	(39)	0.07	(63)	5.19	(52)	2.94	(8)	3.96	(59)	-1.68	(53)	5.16	(81)
IM U.S. Broad Market Core Fixed Income (MF) Median	0.34		0.47		5.21		1.89		4.19		-1.63		6.79	
Metropolitan West Bond (MWTIX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Bloomberg Barclays U.S. Aggregate Index	0.39	(39)	0.07	(63)	5.19	(52)	2.94	(8)	3.96	(59)	-1.68	(53)	5.16	(81)
IM U.S. Broad Market Core Fixed Income (MF) Median	0.34		0.47		5.21		1.89		4.19		-1.63		6.79	
Madison Intermediate FI	N/A		0.23	(88)	2.08	(99)	2.04	(83)	1.28	(100)	-0.38	(62)	3.04	(99)
Bloomberg Barclays Intermediate US Govt/Credit Idx	-0.20	(94)	0.23	(88)	3.52	(76)	2.68	(52)	2.20	(84)	-0.50	(66)	4.40	(81)
IM U.S. Intermediate Duration (SA+CF) Median	0.01		0.70		3.91		2.70		2.89		-0.27		5.56	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.

	FYTD		FY 2017		FY 2016		FY 2015		FY 2014		FY 2013		FY 2012	
Total Hedge Funds / FOF														
BlackRock Global L/S Credit	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
HFRX Fixed Income - Credit Index	0.57	(45)	5.39	(38)	0.31	(87)	-5.20	(88)	2.74	(64)	8.50	(2)	5.08	(83)
IM Alternative Credit Focus (MF) Median	0.47		4.52		3.98		-2.44		3.37		1.30		8.39	
Blackstone Multi Strategy	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
HFRX Global Hedge Fund Index	1.50		5.64		0.72		-4.74		3.54		5.13		2.20	
Pine Grove - HFOF	1.21		6.75		0.38		-4.18		N/A		N/A		N/A	
HFRI FOF: Conservative Index	0.93		4.61		0.25		0.62		5.64		6.61		2.59	
Private Advisors - HFOF	-5.15		4.45		0.69		-4.24		N/A		N/A		N/A	
HFRI FOF: Conservative Index	0.93		4.61		0.25		0.62		5.64		6.61		2.59	
Total Real Estate														
UBS - Private Real Estate	2.34	(38)	5.52	(87)	8.83	(100)	12.93	(82)	10.87	(91)	10.06	(91)	N/A	
NCREIF Property Index	1.80	(80)	6.89	(76)	9.22	(96)	13.48	(75)	11.26	(89)	11.00	(81)	11.00	(77)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.14		8.30		11.32		15.45		12.78		13.18		12.90	
R&D Cash Account	0.01		0.05		0.18		0.68		0.25		0.02		1.30	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.

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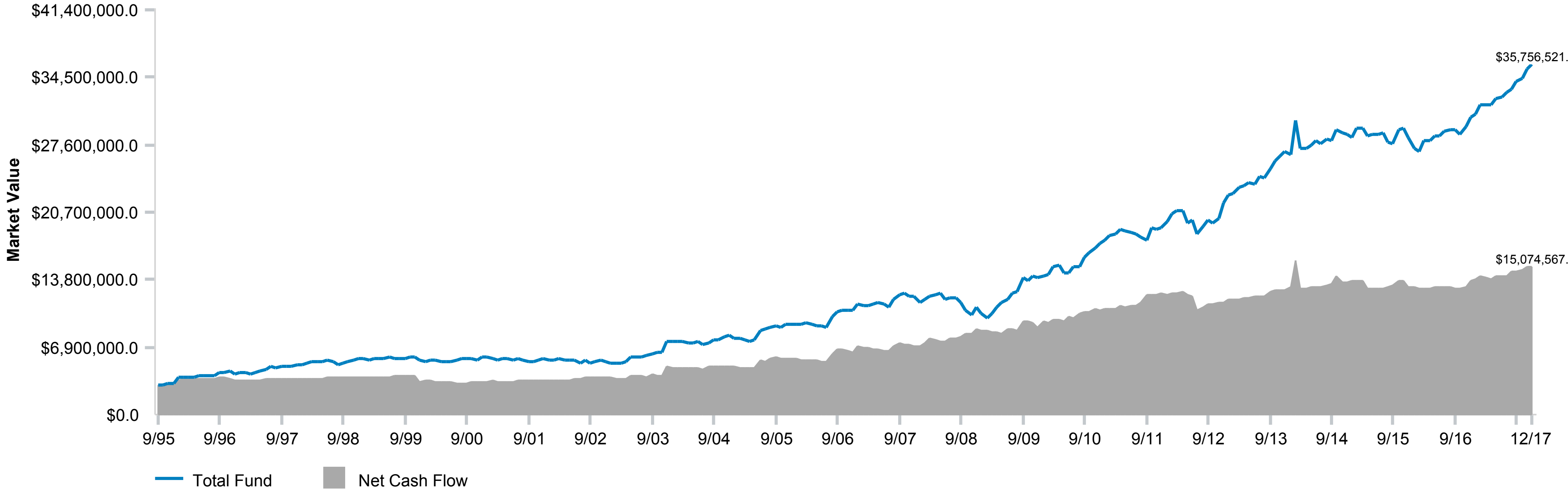
Plan Growth



Trailing Returns

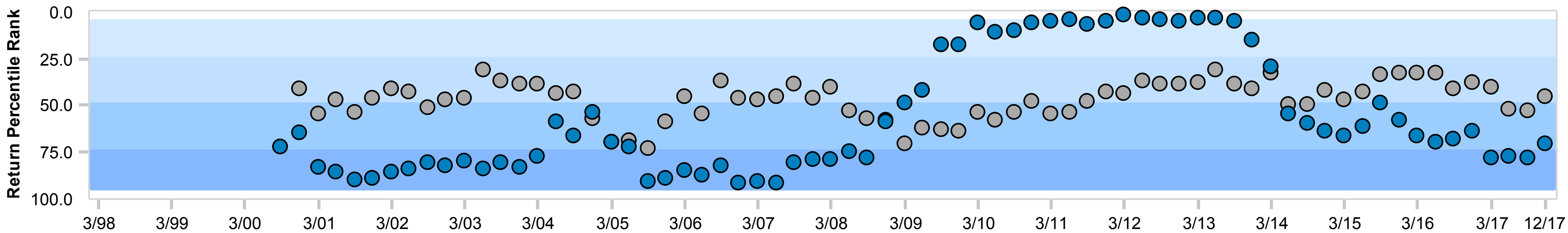
	QTR	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Total Fund	3.90 (34)	13.14 (83)	13.14 (83)	9.66 (89)	6.70 (76)	8.47 (71)	7.68 (76)	6.68 (23)	7.62 (53)
Total Fund Hybrid	3.97 (30)	13.62 (80)	13.62 (80)	10.61 (74)	7.27 (52)	9.23 (45)	8.39 (42)	6.34 (39)	7.84 (40)
Median	3.69	15.39	15.39	11.22	7.39	9.12	8.19	6.16	7.64

Fiscal Year Returns

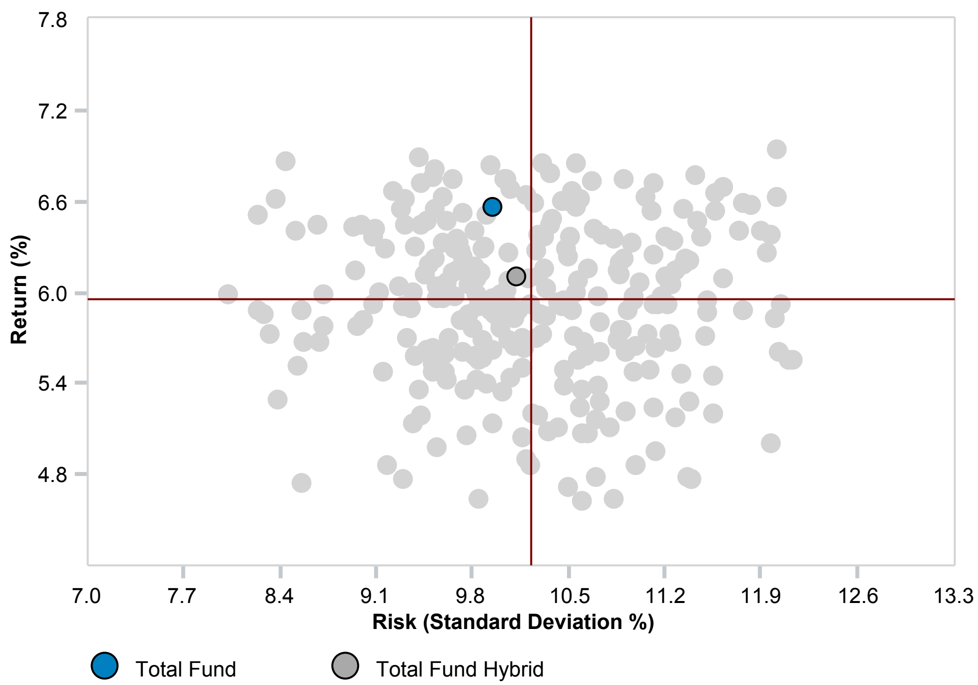
	FYTD	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Total Fund	3.90 (34)	11.00 (76)	7.12 (94)	0.32 (28)	8.52 (84)	12.76 (47)	18.10 (47)	0.66 (41)	9.63 (58)
Total Fund Hybrid	3.97 (30)	11.12 (73)	9.11 (69)	0.80 (18)	9.39 (66)	13.04 (41)	18.21 (45)	0.55 (42)	9.98 (49)
Median	3.69	12.15	9.69	-0.54	9.99	12.51	17.98	0.29	9.93

Peer Group: All Public Plans-Total Fund

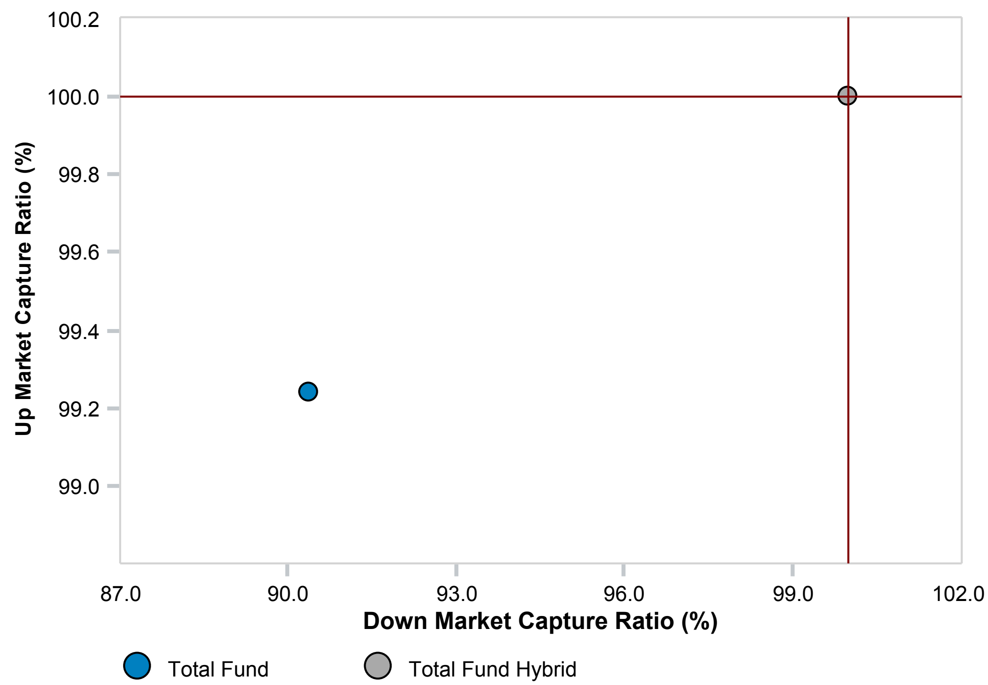
5 Year Rolling Percentile Ranking



Risk vs Return: October 2007 to Present



Up/Down Markets: October 2007 to Present



Historical Statistics: October 1, 2007 To December 31, 2017

	Consistency	Maximum Drawdown	Alpha	Active Return	Sharpe Ratio	Information Ratio	Treynor Ratio	Beta	Tracking Error
Total Fund	43.90	-23.70	0.62	0.42	0.64	0.25	0.07	0.97	1.72
Total Fund Hybrid	0.00	-28.52	0.00	0.00	0.59	N/A	0.06	1.00	0.00

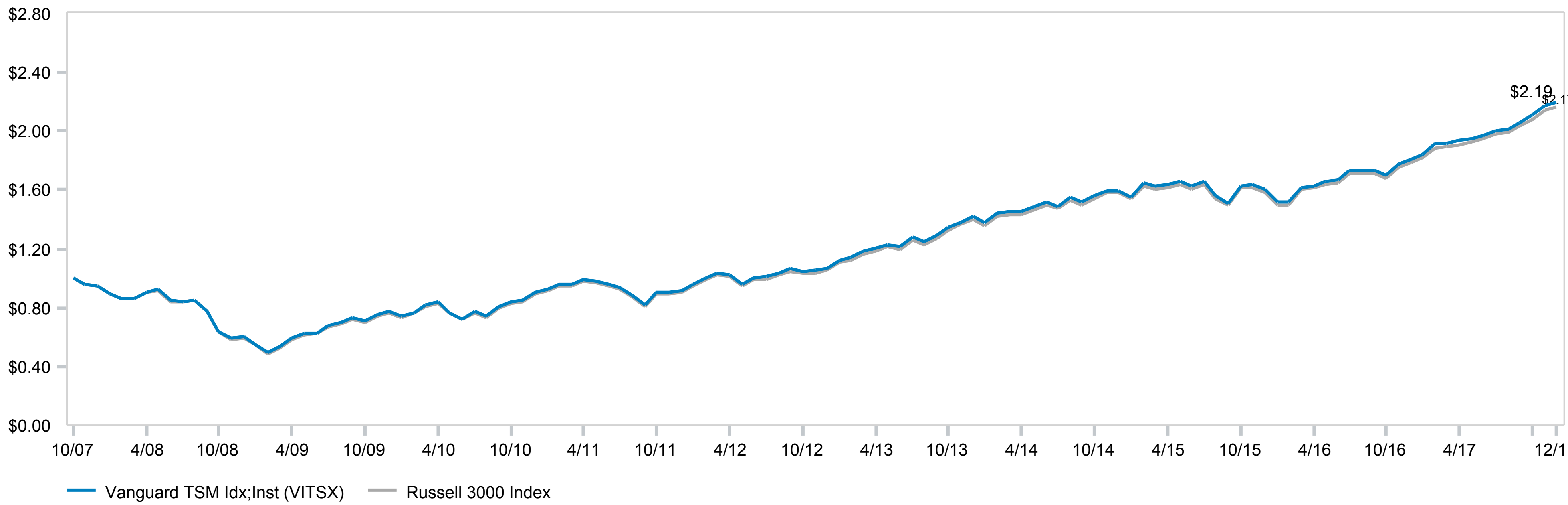
Peer Group: All Public Plans-Total Fund

Multi Timeperiod Statistics

	1 Qtr Return		1 Quarter Ending Sep-2017 Return		1 Quarter Ending Jun-2017 Return		1 Quarter Ending Mar-2017 Return		3 YR Return		5 YR Return		3 YR Down Market Capture		5 YR Down Market Capture	
Total Fund	**3.90**	**(34)**	**3.05**	**(82)**	**2.38**	**(87)**	**3.21**	**(94)**	**6.70**	**(76)**	**8.47**	**(71)**	**86.88**	**(86)**	**93.68**	**(78)**
Total Fund Hybrid	3.97	(30)	3.09	(80)	2.30	(88)	3.62	(87)	7.27	(52)	9.23	(45)	100.00		100.00	
All Public Plans-Total Fund Median	3.69		3.46		2.99		4.43		7.39		9.12		112.54		112.39	
Total Domestic Equity																
Vanguard Total Stock Market Index (VITSX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Russell 3000 Index	6.34	(41)	4.57	(38)	3.02	(44)	5.74	(44)	11.12	(13)	15.58	(19)	100.00		100.00	
IM U.S. Multi-Cap Core Equity (MF) Median	6.03		4.29		2.87		5.52		9.41		14.39		109.62		109.84	
Total International Equity																
Vanguard Total International Stock (VXUS)	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Vanguard Spliced Total International Stock Index	5.36	(5)	6.02	(35)	5.71	(74)	7.90	(35)	8.49	(31)	7.39	(54)	100.00		100.00	
IM International Multi-Cap Core Equity (MF) Median	3.89		5.69		6.18		7.70		7.85		7.46		107.03		97.61	
Total Fixed Income																
Dodge & Cox (DODIX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Bloomberg Barclays U.S. Aggregate Index	0.39	(39)	0.85	(42)	1.45	(53)	0.82	(69)	2.24	(43)	2.10	(39)	100.00		100.00	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.34		0.81		1.45		0.94		2.16		1.96		96.96		95.97	
Metropolitan West Bond (MWTIX)	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Bloomberg Barclays U.S. Aggregate Index	0.39	(39)	0.85	(42)	1.45	(53)	0.82	(69)	2.24	(43)	2.10	(39)	100.00		100.00	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.34		0.81		1.45		0.94		2.16		1.96		96.96		95.97	
Total Hedge Funds / FOF																
Private Advisors - HFOF	-5.15		-1.24		0.61		2.40		-0.90		N/A		88.84		N/A	
HFRI FOF: Conservative Index	0.93		1.32		0.37		1.21		2.04		3.37		100.00		100.00	
Real Estate																
UBS - Private Real Estate	2.34	(38)	1.48	(76)	1.14	(95)	1.15	(100)	8.81	(95)	9.70	(95)	N/A		N/A	
NCREIF Property Index	1.80	(80)	1.70	(63)	1.75	(70)	1.55	(60)	9.38	(88)	10.19	(92)	N/A		N/A	
IM U.S. Open End Private Real Estate (SA+CF) Median	2.13		1.76		1.91		1.91		10.93		12.20		N/A		N/A	
R & D																
R&D Cash Account	0.01		0.02		0.00		0.01		0.09		0.24		-199.62		-199.62	
90 Day U.S. Treasury Bill	0.28		0.27		0.20		0.10		0.38		0.25		100.00		100.00	

Long-Term
Manager Composite
Data

Growth of a Dollar



Trailing Returns

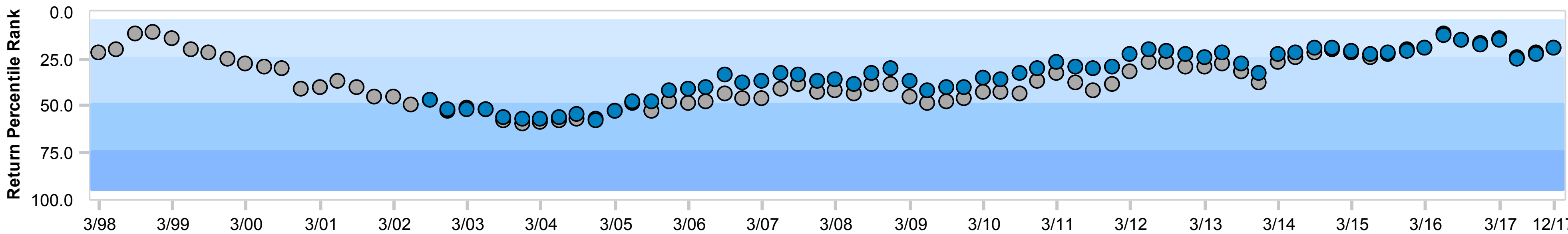
	QTR	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Vanguard TSM Idx;Inst (VITSX)	6.34 (41)	21.17 (37)	21.17 (37)	16.84 (22)	11.09 (14)	15.55 (19)	13.49 (14)	8.73 (14)	10.44 (18)
Russell 3000 Index	6.34 (41)	21.13 (39)	21.13 (39)	16.86 (21)	11.12 (13)	15.58 (19)	13.50 (14)	8.60 (17)	10.25 (25)
Median	6.03	20.33	20.33	15.20	9.41	14.39	11.98	7.35	9.51

Fiscal Year Returns

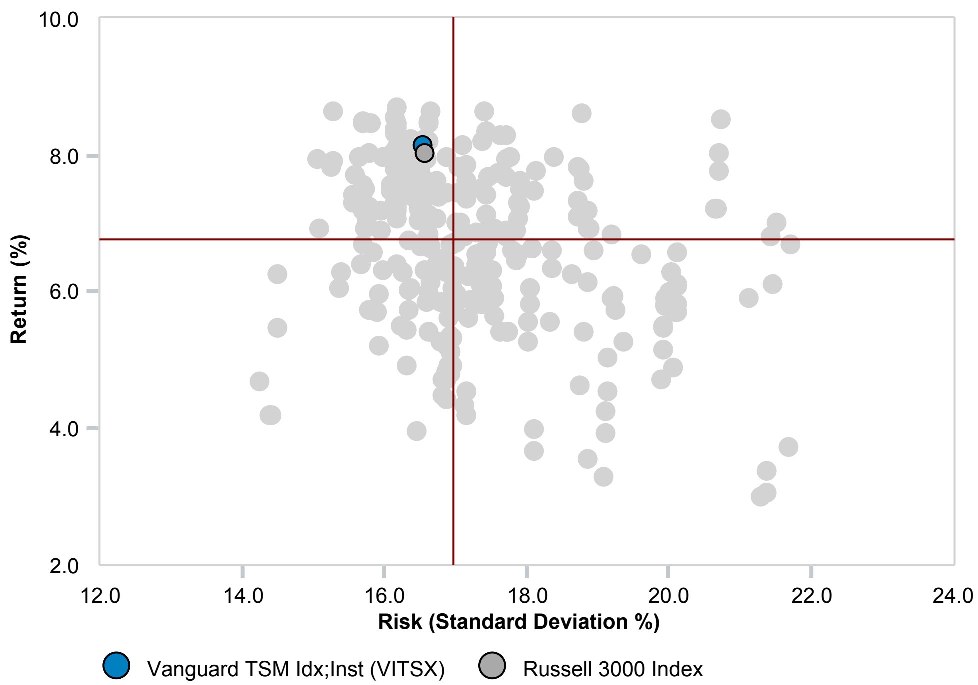
	FYTD	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Vanguard TSM Idx;Inst (VITSX)	6.34 (41)	18.64 (36)	15.00 (14)	-0.57 (35)	17.76 (30)	21.52 (60)	30.24 (17)	0.72 (25)	11.13 (28)
Russell 3000 Index	6.34 (41)	18.71 (35)	14.96 (15)	-0.49 (33)	17.76 (30)	21.60 (59)	30.20 (18)	0.55 (28)	10.96 (30)
Median	6.03	17.40	11.57	-1.73	16.25	22.74	26.56	-1.60	9.38

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Multi-Cap Core Equity (MF)

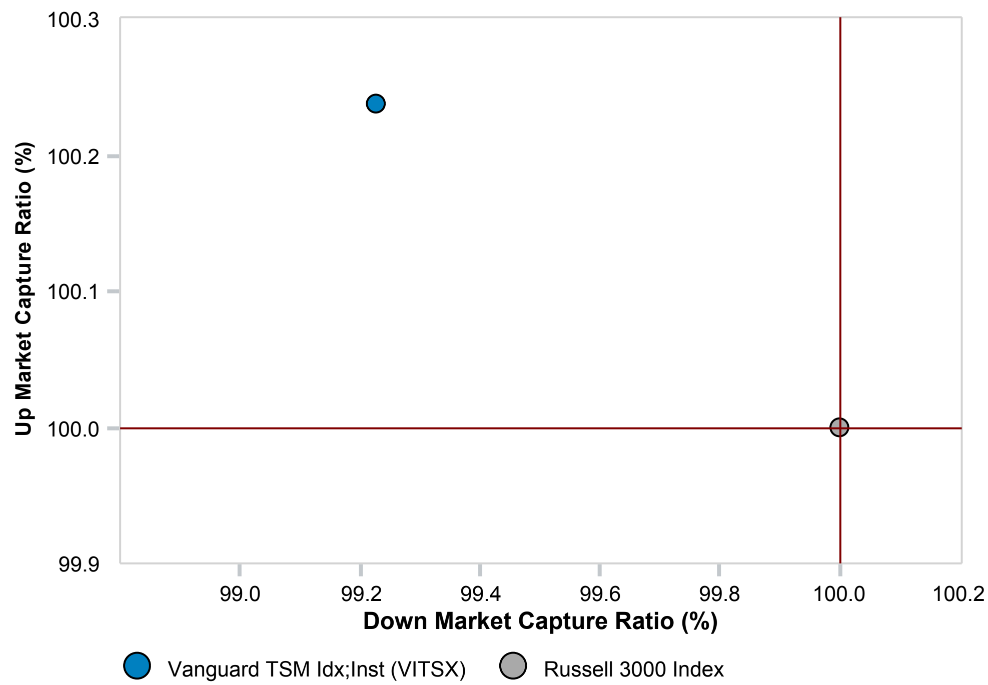
5 Year Rolling Percentile Ranking



Risk vs Return: October 2007 to Present



Up/Down Markets: October 2007 to Present

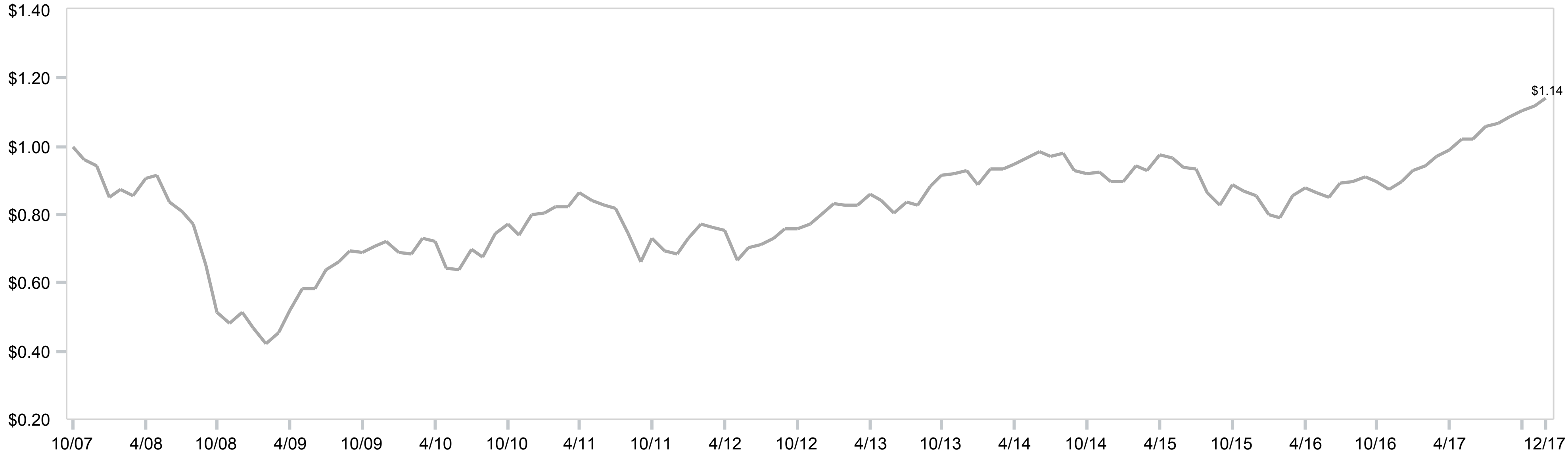


Historical Statistics: October 1, 2007 To December 31, 2017

	Consistency	Maximum Drawdown	Alpha	Active Return	Sharpe Ratio	Information Ratio	Treynor Ratio	Beta	Tracking Error
Vanguard TSM Idx;Inst (VITSX)	58.54	-45.55	0.12	0.11	0.53	0.85	0.09	1.00	0.14
Russell 3000 Index	0.00	-45.95	0.00	0.00	0.52	N/A	0.09	1.00	0.00

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Multi-Cap Core Equity (MF)

Growth of a Dollar



Trailing Returns

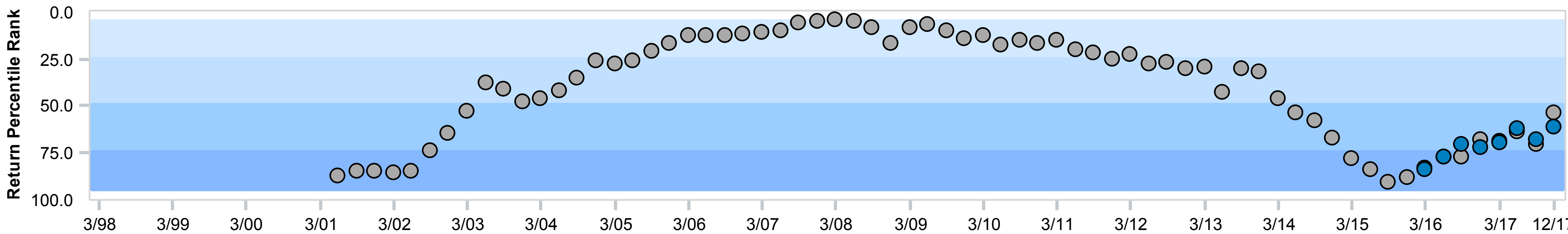
	QTR	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Vanguard Tot I Stk;ETF (VXUS)	4.86 (12)	28.17 (16)	28.17 (16)	15.85 (8)	8.71 (27)	7.23 (61)	N/A	N/A	N/A
Vanguard Spliced Total International Stock Index	5.36 (5)	27.41 (25)	27.41 (25)	15.51 (12)	8.49 (31)	7.39 (54)	5.27 (66)	1.95 (41)	8.72 (16)
Median	3.89	25.36	25.36	12.48	7.85	7.46	5.67	1.76	7.44

Fiscal Year Returns

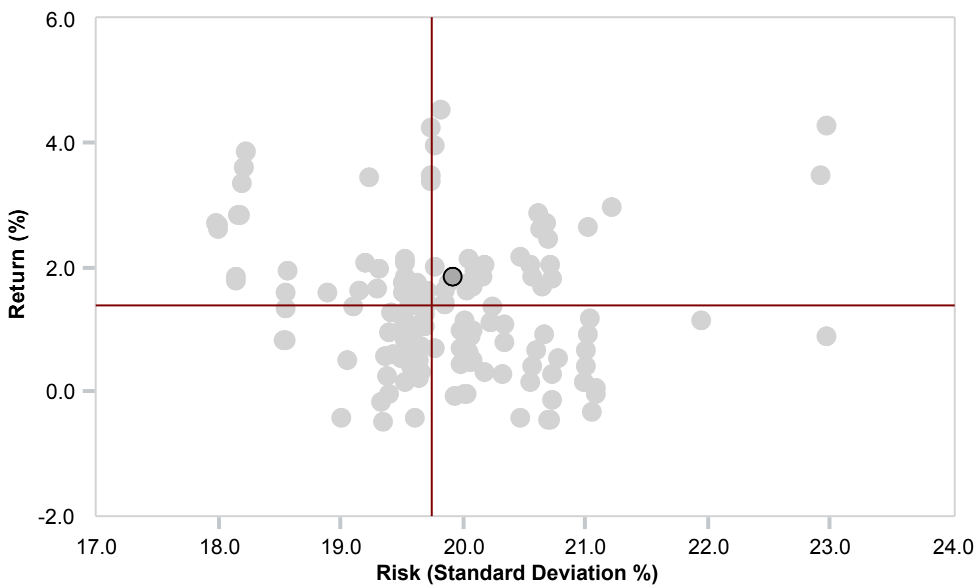
	FYTD	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Vanguard Tot I Stk;ETF (VXUS)	4.86 (12)	19.90 (35)	9.68 (16)	-10.74 (81)	4.87 (38)	17.14 (80)	15.49 (40)	N/A	N/A
Vanguard Spliced Total International Stock Index	5.36 (5)	19.39 (42)	9.90 (15)	-11.10 (84)	5.18 (32)	16.82 (83)	14.36 (65)	-11.21 (51)	7.16 (28)
Median	3.89	19.03	6.03	-7.99	4.32	21.78	14.95	-11.18	4.40

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM International Multi-Cap Core Equity (MF)

5 Year Rolling Percentile Ranking



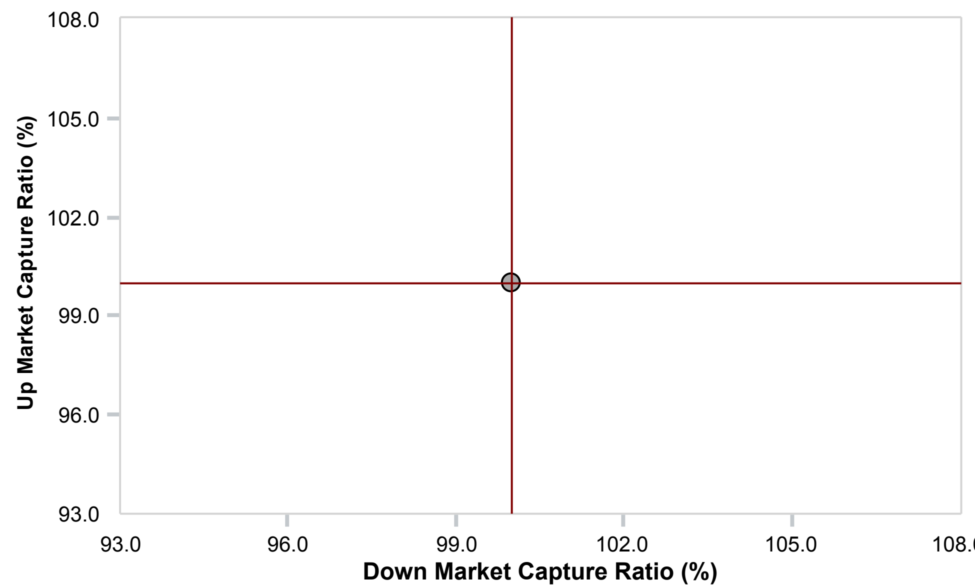
Risk vs Return: October 2007 to Present



Vanguard Tot I Stk;ETF (VXUS)

Vanguard Spliced Total International Stock Index

Up/Down Markets: October 2007 to Present



Vanguard Tot I Stk;ETF (VXUS)

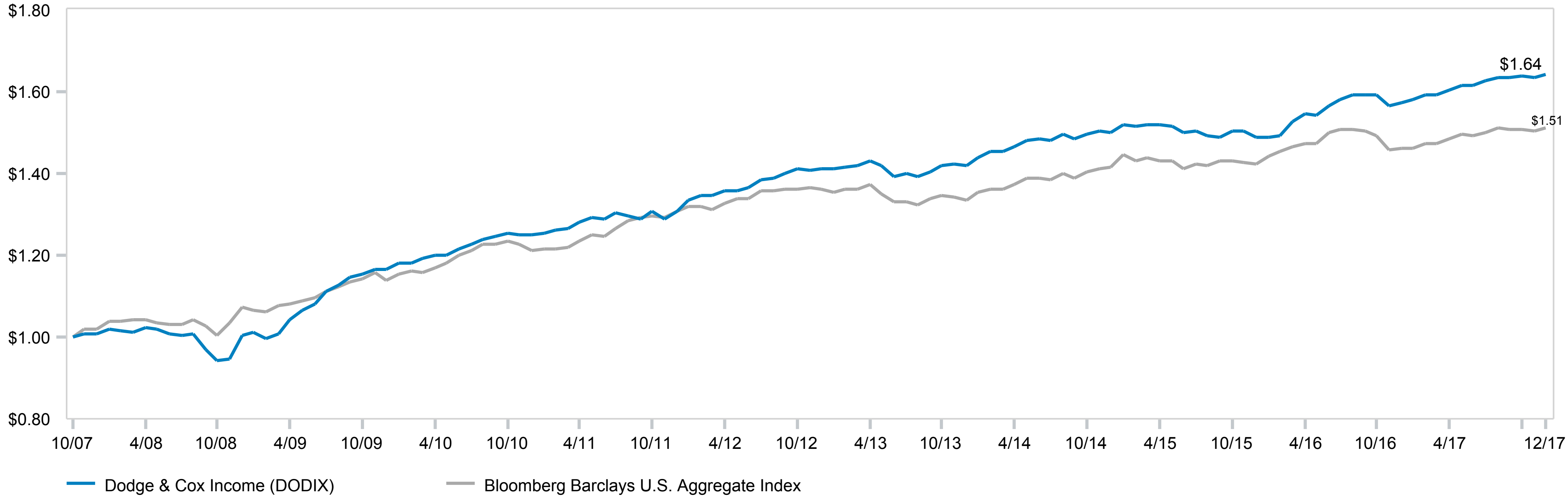
Vanguard Spliced Total International Stock Index

Historical Statistics: October 1, 2007 To December 31, 2017

	Consistency	Maximum Drawdown	Alpha	Active Return	Sharpe Ratio	Information Ratio	Treynor Ratio	Beta	Tracking Error
Vanguard Tot I Stk;ETF (VXUS)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanguard Spliced Total International Stock Index	0.00	-51.96	0.00	0.00	0.17	N/A	0.03	1.00	0.00

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM International Multi-Cap Core Equity (MF)

Growth of a Dollar



Trailing Returns

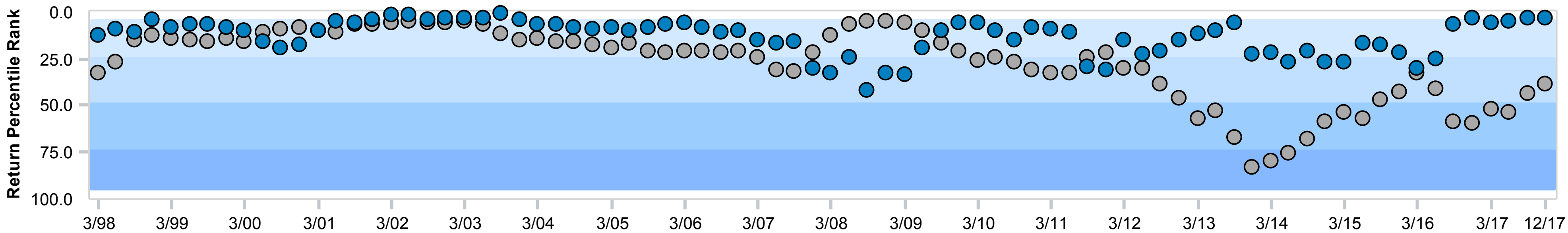
	QTR	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Dodge & Cox Income (DODIX)	0.48 (23)	4.36 (16)	4.36 (16)	4.99 (2)	3.09 (5)	3.07 (3)	3.99 (9)	5.01 (4)	4.78 (9)
Bloomberg Barclays U.S. Aggregate Index	0.39 (39)	3.54 (52)	3.54 (52)	3.09 (57)	2.24 (43)	2.10 (39)	3.20 (49)	4.01 (48)	4.15 (39)
Median	0.34	3.58	3.58	3.26	2.16	1.96	3.19	3.97	3.99

Fiscal Year Returns

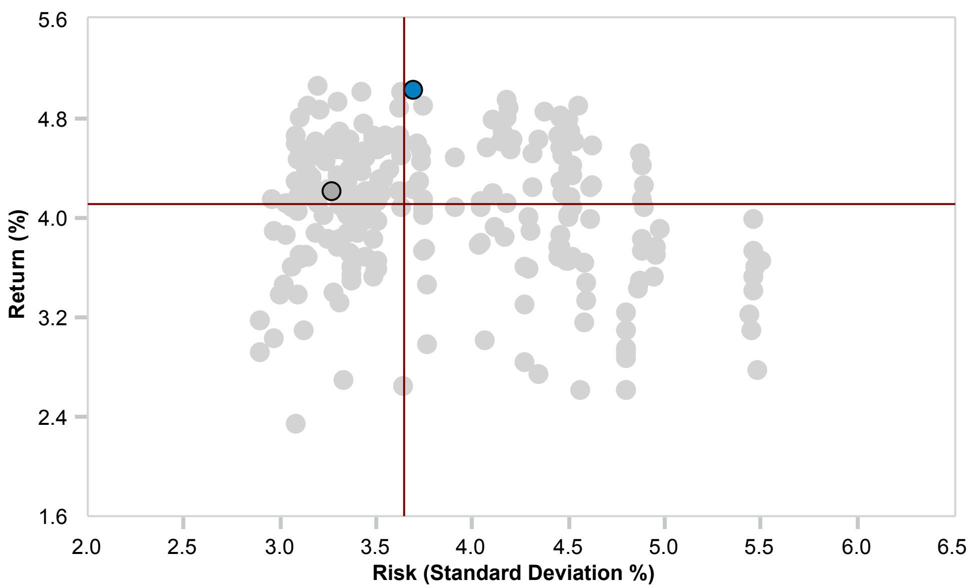
	FYTD	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Dodge & Cox Income (DODIX)	0.48 (23)	2.57 (3)	7.09 (3)	0.16 (94)	5.76 (9)	0.46 (5)	8.37 (15)	3.55 (73)	8.84 (62)
Bloomberg Barclays U.S. Aggregate Index	0.39 (39)	0.07 (63)	5.19 (52)	2.94 (8)	3.96 (59)	-1.68 (53)	5.16 (81)	5.26 (14)	8.16 (76)
Median	0.34	0.47	5.21	1.89	4.19	-1.63	6.79	4.31	9.34

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Broad Market Core Fixed Income (MF)

5 Year Rolling Percentile Ranking

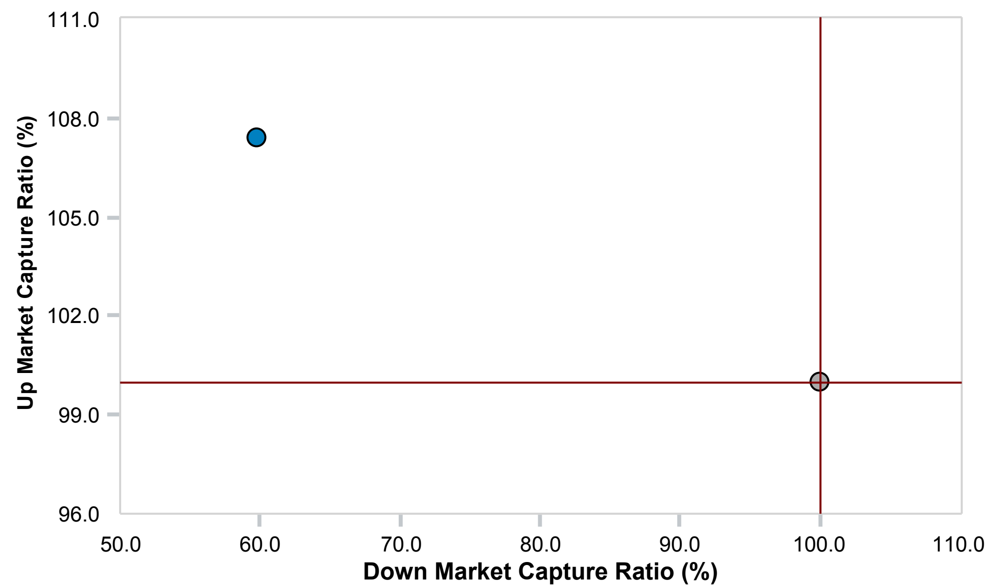


Risk vs Return: October 2007 to Present



- Dodge & Cox Income (DODIX)
- Bloomberg Barclays U.S. Aggregate Index

Up/Down Markets: October 2007 to Present



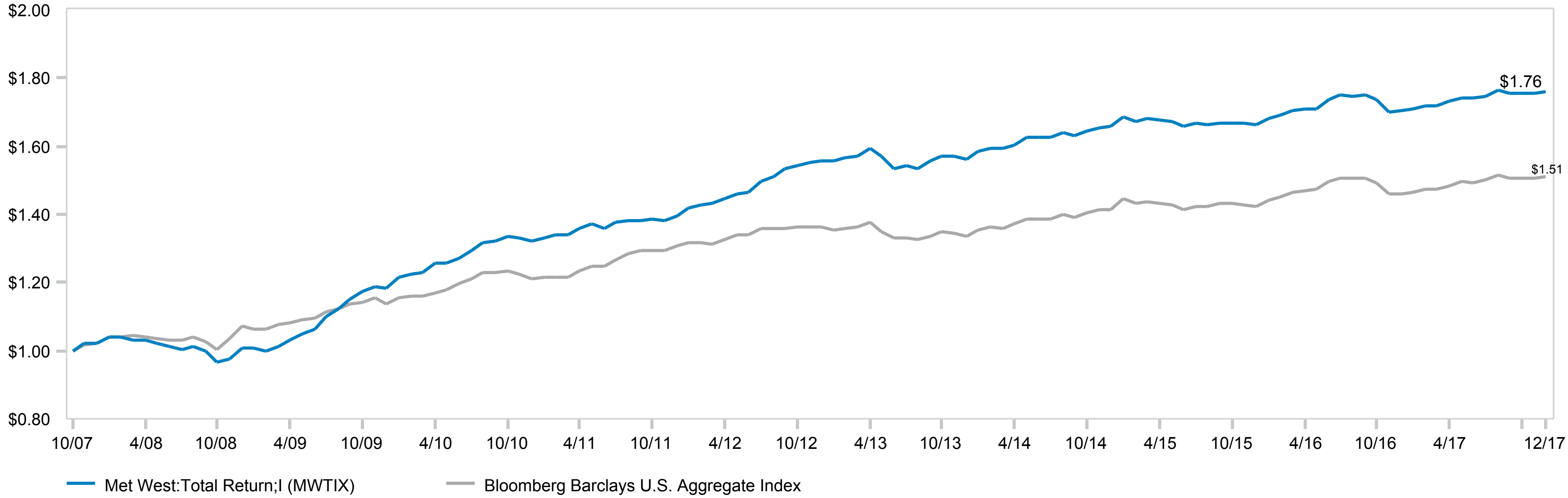
- Dodge & Cox Income (DODIX)
- Bloomberg Barclays U.S. Aggregate Index

Historical Statistics: October 1, 2007 To December 31, 2017

	Consistency	Maximum Drawdown	Alpha	Active Return	Sharpe Ratio	Information Ratio	Treynor Ratio	Beta	Tracking Error
Dodge & Cox Income (DODIX)	68.29	-4.08	2.12	0.80	1.19	0.26	0.07	0.69	3.09
Bloomberg Barclays U.S. Aggregate Index	0.00	-2.98	0.00	0.00	1.15	N/A	0.04	1.00	0.00

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Broad Market Core Fixed Income (MF)

Growth of a Dollar



Trailing Returns

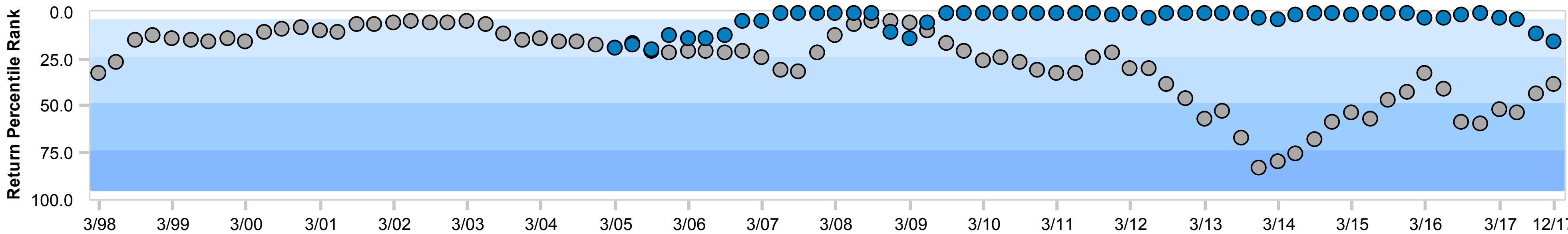
	QTR	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Met West:Total Return;I (MWTIX)	0.38 (41)	3.43 (58)	3.43 (58)	2.94 (67)	2.05 (58)	2.51 (16)	4.19 (5)	5.59 (1)	6.14 (1)
Bloomberg Barclays U.S. Aggregate Index	0.39 (39)	3.54 (52)	3.54 (52)	3.09 (57)	2.24 (43)	2.10 (39)	3.20 (49)	4.01 (48)	4.15 (39)
Median	0.34	3.58	3.58	3.26	2.16	1.96	3.19	3.97	3.99

Fiscal Year Returns

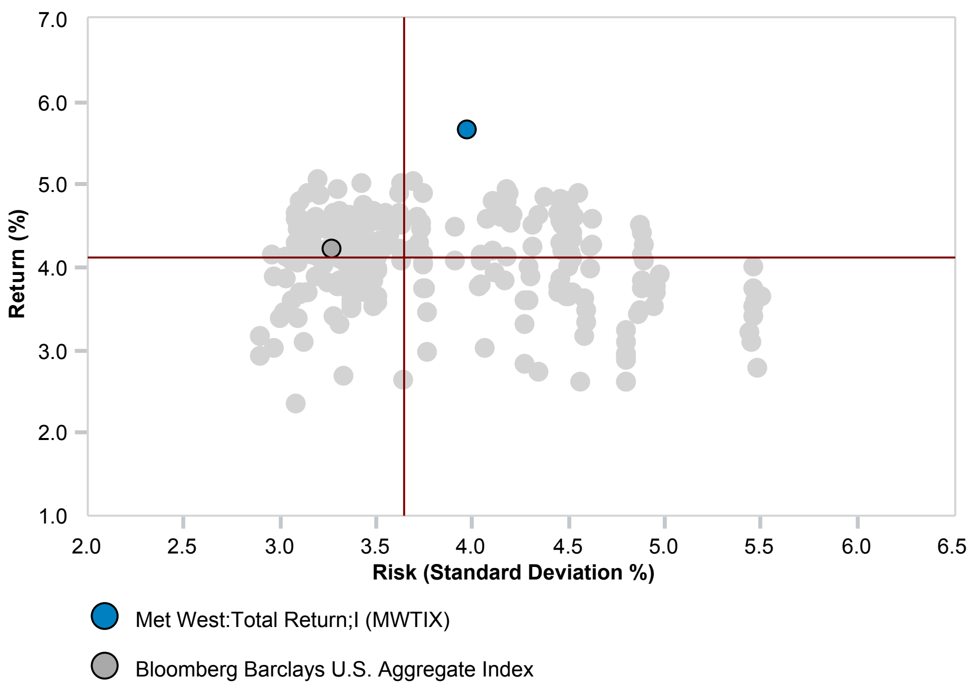
	FYTD	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Met West:Total Return;I (MWTIX)	0.38 (41)	0.31 (55)	4.82 (70)	2.27 (35)	4.95 (24)	1.38 (2)	11.02 (1)	4.37 (47)	15.16 (2)
Bloomberg Barclays U.S. Aggregate Index	0.39 (39)	0.07 (63)	5.19 (52)	2.94 (8)	3.96 (59)	-1.68 (53)	5.16 (81)	5.26 (14)	8.16 (76)
Median	0.34	0.47	5.21	1.89	4.19	-1.63	6.79	4.31	9.34

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Broad Market Core Fixed Income (MF)

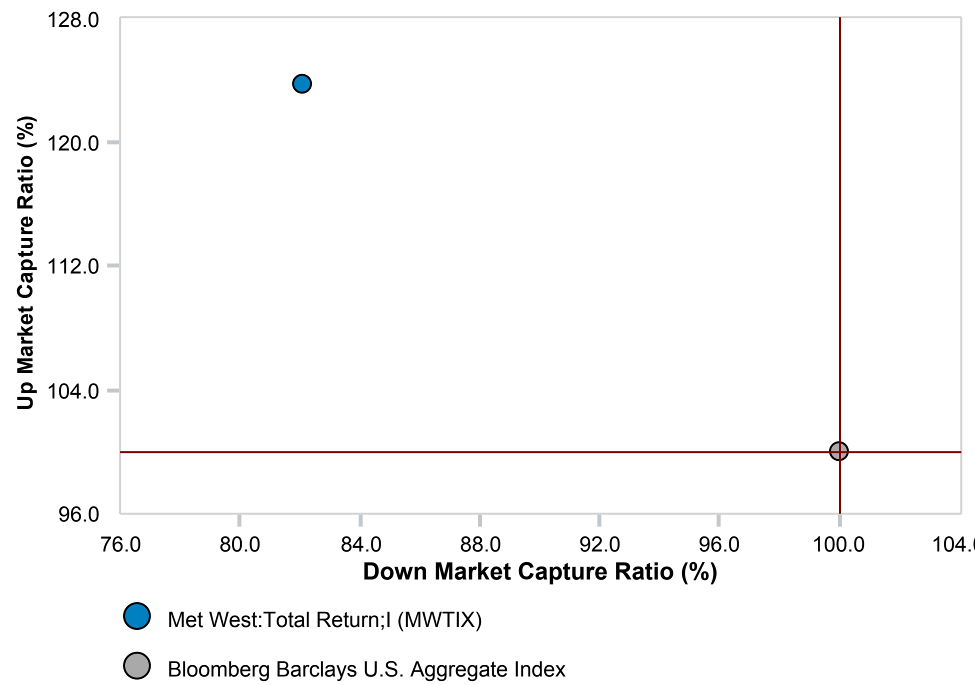
5 Year Rolling Percentile Ranking



Risk vs Return: October 2007 to Present



Up/Down Markets: October 2007 to Present

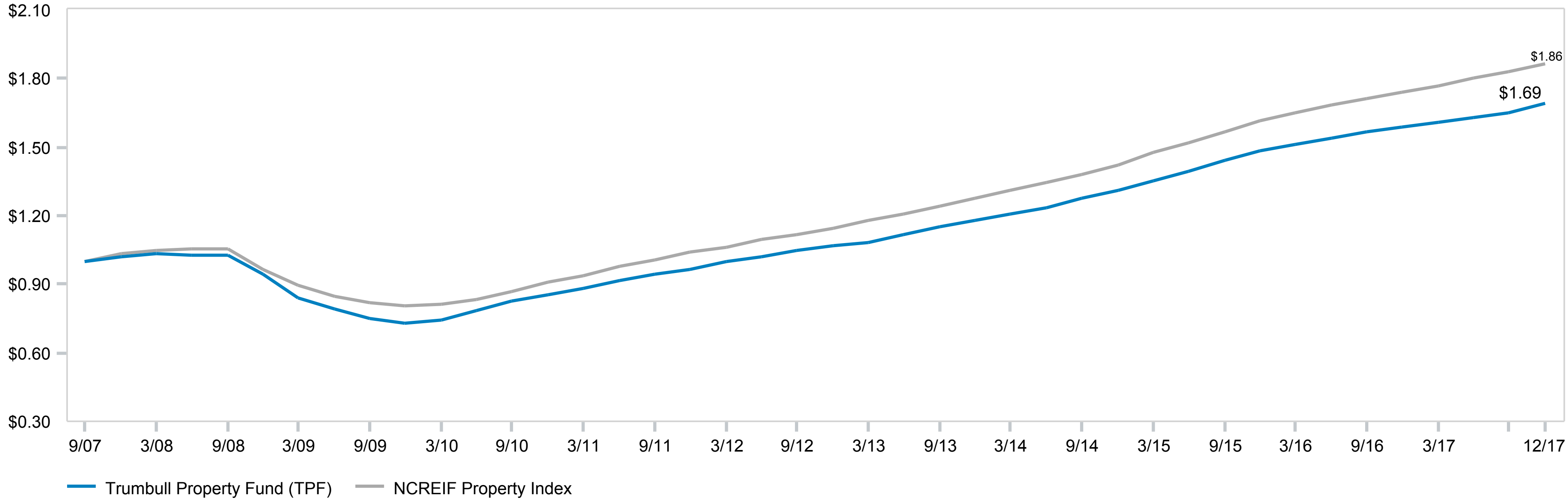


Historical Statistics: October 1, 2007 To December 31, 2017

	Consistency	Maximum Drawdown	Alpha	Active Return	Sharpe Ratio	Information Ratio	Treynor Ratio	Beta	Tracking Error
Met West:Total Return;I (MWTIX)	56.10	-3.50	2.02	1.43	1.27	0.50	0.06	0.86	2.84
Bloomberg Barclays U.S. Aggregate Index	0.00	-2.98	0.00	0.00	1.15	N/A	0.04	1.00	0.00

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Broad Market Core Fixed Income (MF)

Growth of a Dollar



Trailing Returns

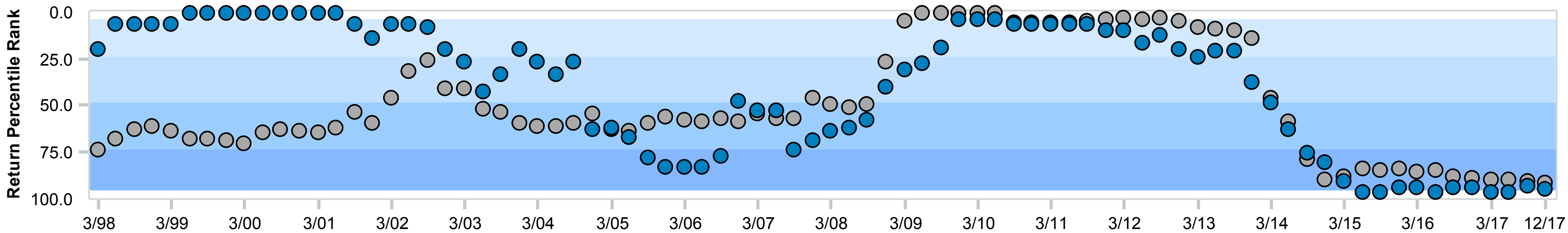
	QTR	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	15 YR
Trumbull Property Fund (TPF)	2.35 (37)	6.30 (95)	6.30 (95)	6.75 (100)	8.78 (95)	9.68 (95)	10.25 (95)	5.19 (56)	8.23 (73)
NCREIF Property Index	1.80 (80)	6.96 (82)	6.96 (82)	7.46 (88)	9.38 (88)	10.19 (92)	10.81 (93)	6.08 (21)	9.02 (28)
Median	2.13	8.52	8.52	8.92	10.93	12.20	12.75	5.25	8.66

Fiscal Year Returns

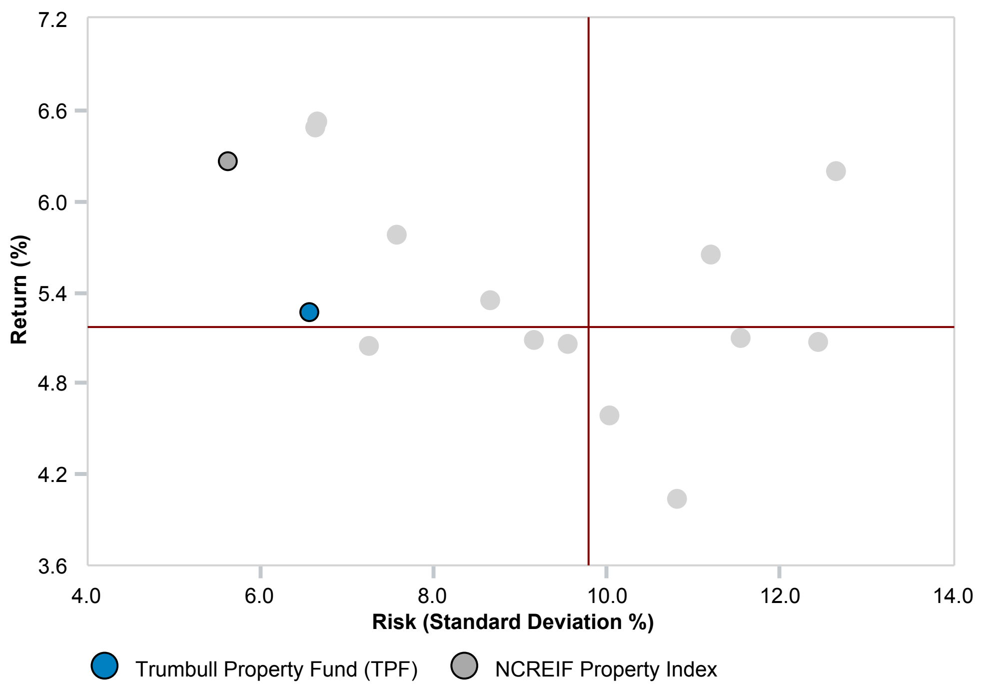
	FYTD	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Trumbull Property Fund (TPF)	2.35 (37)	5.37 (94)	8.85 (100)	12.94 (82)	10.89 (91)	10.08 (91)	10.53 (84)	14.50 (87)	9.57 (18)
NCREIF Property Index	1.80 (80)	6.89 (76)	9.22 (96)	13.48 (75)	11.26 (89)	11.00 (81)	11.00 (77)	16.10 (69)	5.84 (53)
Median	2.13	8.30	11.32	15.45	12.78	13.18	12.90	16.62	6.39

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Open End Private Real Estate (SA+CF)

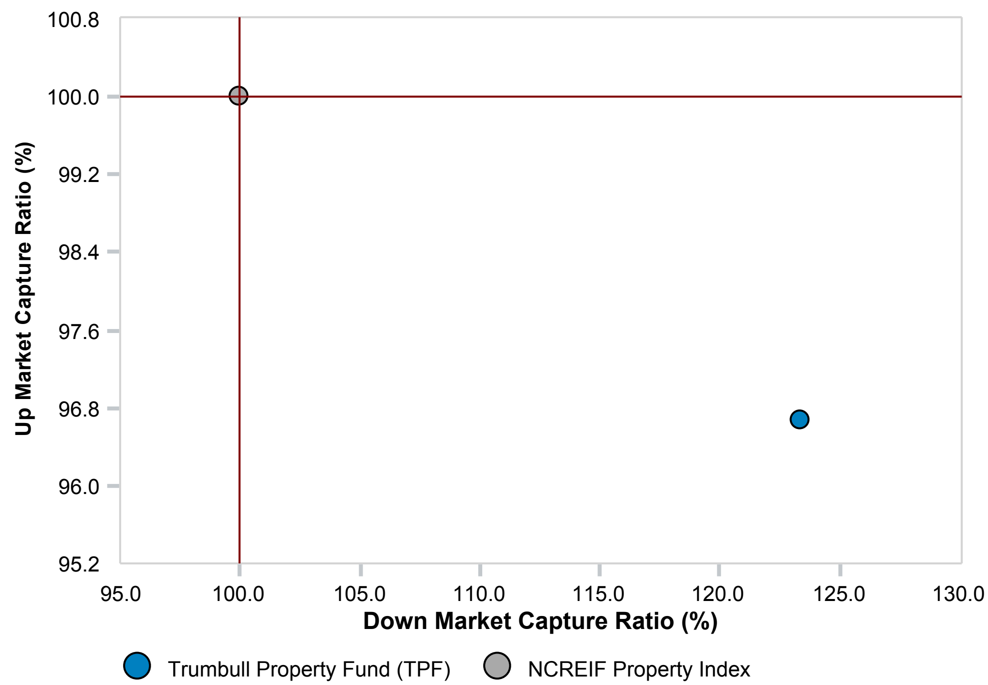
5 Year Rolling Percentile Ranking



Risk vs Return: October 2007 to Present



Up/Down Markets: October 2007 to Present



Historical Statistics: October 1, 2007 To December 31, 2017

	Consistency	Maximum Drawdown	Alpha	Active Return	Sharpe Ratio	Information Ratio	Treynor Ratio	Beta	Tracking Error
Trumbull Property Fund (TPF)	34.15	-29.41	-1.75	-0.90	0.74	-0.54	0.04	1.14	1.66
NCREIF Property Index	0.00	-23.87	0.00	0.00	1.02	N/A	0.06	1.00	0.00

Long-term composite performance. Actual client results may vary.
October 2007 represents the beginning of the current market cycle.
Peer Group: IM U.S. Open End Private Real Estate (SA+CF)

Total Fund Compliance:	Yes	No	N/A
1. The Total Plan return equaled or exceeded the 7.45% actuarial earnings assumption over the trailing three year period.		✓	
2. The Total Plan return equaled or exceeded the 7.45% actuarial earnings assumption over the trailing five year period.	✓		
3. The Total Plan return equaled or exceeded the total plan benchmark over the trailing three year period.		✓	
4. The Total Plan return equaled or exceeded the total plan benchmark over the trailing five year period.		✓	
5. The Total Plan return ranked within the top 50th percentile of its peer group over the trailing three year period.		✓	
6. The Total Plan return ranked within the top 50th percentile of its peer group over the trailing five year period.		✓	

Equity Compliance:	Yes	No	N/A
1. Total Equity return equaled or exceeded the benchmark over the trailing three year period.			✓
2. Total Equity return equaled or exceeded the benchmark over the trailing five year period.			✓
3. Total Equity allocation was less than 75% of the total plan assets at market.	✓		
4. Total foreign equity was less than 25% of the total plan assets at market.	✓		

Fixed Income Compliance:	Yes	No	N/A
1. Total Fixed Income return equaled or exceeded the benchmark over the trailing three year period.			✓
2. Total Fixed Income return equaled or exceeded the benchmark over the trailing five year period.			✓
3. No more than 5% of the fixed income portfolio was rated below BBB/Baa.	✓		

Manager Compliance:	VITSX			VXUS			DODIX			MWTIX		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Manager outperformed the index over the trailing three year period.			✓			✓			✓			✓
2. Manager outperformed the index over the trailing five year period.			✓			✓			✓			✓
3. Manager ranked within the top 50th percentile over the trailing three year period.			✓			✓			✓			✓
4. Manager ranked within the top 50th percentile over the trailing five year period.			✓			✓			✓			✓
5. Manager had less than 4 consecutive quarters of underperformance.			✓			✓			✓			✓
6. Manager three year down market capture ratio is less than the index.			✓			✓			✓			✓
7. Manager five year down market capture ratio is less than the index.			✓			✓			✓			✓
8. Manager reports compliance with PFIA.			✓			✓			✓			✓

Manager Compliance:	Private Advisors			UBS Real Estate		
	Yes	No	N/A	Yes	No	N/A
1. Manager outperformed the index over the trailing three year period.		✓			✓	
2. Manager outperformed the index over the trailing five year period.			✓		✓	
3. Manager ranked within the top 50th percentile over the trailing three year period.			✓		✓	
4. Manager ranked within the top 50th percentile over the trailing five year period.			✓		✓	
5. Manager had less than 4 consecutive quarters of underperformance.	✓			✓		
6. Manager three year down market capture ratio is less than the index.	✓					✓
7. Manager five year down market capture ratio is less than the index.			✓			✓
8. Manager reports compliance with PFIA.			✓			✓

Oct-1995

Russell 1000 Value Index	20.00
Russell 1000 Growth Index	17.50
Russell 2500 Growth Index	12.50
Bloomberg Barclays Intermediate US Govt/Credit Idx	50.00

Nov-1995

Russell 1000 Value Index	20.00
Russell 1000 Growth Index	17.50
Russell 2500 Growth Index	12.50
Bloomberg Barclays Intermediate US Govt/Credit Idx	50.00

Oct-2000

Russell 1000 Value Index	20.00
Russell 1000 Growth Index	17.50
Russell 2000 Value Index	6.25
Russell 2000 Growth Index	6.25
MSCI EAFE (Net) Index	10.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	40.00

Aug-2005

Russell 1000 Value Index	18.75
Russell 1000 Growth Index	18.75
Russell 2000 Value Index	6.25
Russell 2000 Growth Index	6.25
MSCI EAFE (Net) Index	10.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	40.00

Feb-2009

Russell 1000 Value Index	18.75
Russell 1000 Growth Index	18.75
Russell 2000 Value Index	6.25
Russell 2000 Growth Index	6.25
MSCI EAFE (Net) Index	5.00
MSCI AC World ex USA (Net)	5.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	40.00

Sep-2013

Russell 1000 Value Index	13.75
Russell 1000 Growth Index	13.75
Russell 2000 Value Index	6.25
Russell 2000 Growth Index	6.25
MSCI EAFE (Net) Index	5.00
MSCI AC World ex USA (Net)	5.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	32.50
S&P 500 Index	10.00
NCREIF Property Index	7.50

Mar-2014

Russell 1000 Value Index	11.25
Russell 1000 Growth Index	11.25
Russell 2000 Value Index	6.25
Russell 2000 Growth Index	6.25
MSCI EAFE (Net) Index	5.00
MSCI AC World ex USA (Net)	5.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	27.50
S&P 500 Index	10.00
NCREIF Property Index	7.50
HFRI FOF: Conservative Index	10.00

Apr-2016

Russell 1000 Value Index	11.25
Russell 1000 Growth Index	11.25
Russell 2500 Value Index	6.25
Russell 2000 Growth Index	6.25
MSCI EAFE (Net) Index	5.00
MSCI AC World ex USA (Net)	5.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	27.50
S&P 500 Index	10.00
NCREIF Property Index	7.50
HFRI FOF: Conservative Index	10.00

Oct-2017

Russell 3000 Index	50.00
MSCI AC World ex USA	10.00
Bloomberg Barclays U.S. Aggregate Index	30.00
NCREIF Property Index	10.00

Total Equity Policy	
Oct-2017	
Russell 3000 Index	83.00
MSCI AC World ex USA	17.00

Total Fixed Income Policy	
Oct-2017	
Bloomberg Barclays U.S. Aggregate Index	100.00

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

AndCo compiled this report for the sole use of the client for which it was prepared. AndCo is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. AndCo uses the results from this evaluation to make observations and recommendations to the client.

AndCo uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. AndCo analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides AndCo with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause AndCo to believe that the information presented is significantly misstated.

This performance report is based on data obtained by the client's custodian(s), investment fund administrator, or other sources believed to be reliable. While these sources are believed to be reliable, the data providers are responsible for the accuracy and completeness of their statements. Clients are encouraged to compare the records of their custodian(s) to ensure this report fairly and accurately reflects their various asset positions.

The strategies listed may not be suitable for all investors. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. Past performance is not an indication of future performance. Any information contained in this report is for informational purposes only and should not be construed to be an offer to buy or sell any securities, investment consulting, or investment management services.

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International Equity Manager Analysis
December 31, 2017

Port Orange Police Pension

Purpose for this Manager Evaluation Report

As we recommended in our investment plan, we believe that the Pension Plan should utilize one or two international equity managers that are actively managing the assets within the asset class. This report outlines our top picks for the Port Orange Police Pension Plan based on your unique needs.

Investment Options for this Manager Evaluation Report

Firm Name	Strategy Name	Vehicle	Management Fee	Investment Minimum
American Funds/Capital Research and Management	American Funds Europacific Growth R6 (RERGX)	MF	0.50%	$250
Ivy Investment Management	Ivy International Core Equity N (IINCX)	MF	0.82%	$1,000,000
Lazard Asset Management	Lazard International Equity R6 (RLIEX)	MF	0.80%	$1,000,000
Harris Associates	Oakmark International Institutional (OANIX)	MF	0.77%	$1,000,000

Definition and Characteristics

The International Equity asset class is typically defined as the markets of all developed and developing countries, excluding the US. These countries account for approximately 50% of the global equity exposure by market cap. The category blends both value and growth companies. The most often used benchmarks for the category are the MSCI All Country World ex U.S.A. (MSCI ACWI ex US) Index and the MSCI EAFE Index. The MSCI ACWI ex US covers all developed market countries other than the US, as well as the largest emerging market countries. The MSCI EAFE Index covers only developed markets in Europe, Asia and Australia. In both indices, the largest country exposures are typically Japan and the United Kingdom, with France, Switzerland and Germany each accounting for meaningful exposures. The largest sectors are Financials, Industrials and the Consumer sectors.

Role within a Portfolio

International Equity provides the portfolio with exposure to equity markets across the world.These markets typically have a relatively high correlation to US equity markets over the long-term, but can provide diversification benefits over shorter time periods. While expected risk is typically higher, International Equity makes up a significant part of global equity's potential investment growth. This asset class tends to include mostly developed markets, and smaller allocations to Emerging Markets Equity.

Benchmark and Peer Group

This International Equity search report will use the following benchmark and peer group:

Index – MSCI All Country World ex U.S.A. (ACWI ex U.S.A.) (Net): Covers large and mid-cap companies across 22 of 23 developed market countries and 23 emerging market countries. It consists of over 1,800 stocks accounting for 85% of the global equity opportunity set outside of the US.

Morningstar Category - Foreign Large Blend: Foreign large-blend portfolios invest in a variety of big international stocks. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios typically will have less than 20% of assets invested in US stocks.

Investment Option Comparison

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional
Firm Information				
Year Founded	1/1/1931	1/1/1937	1/1/1970	1/1/1976
US Headquarters Location	Los Angeles, California	Overland Park, KS	New York, NY	Chicago, IL
Number of Major Global Offices	13	1	17	1
Year Began Managing Ext. Funds	1/1/1934	1/1/1937	1/1/1970	1/1/1976
Firm AUM ($ M)	1,568,974	80,500	193,969	117,940
Ownership Type	Independent	Publicly Traded	Publicly Traded	Other
Largest Owner (%)	N/A	N/A	N/A	100
Largest Owner (Name)	400+ Employee Owners	N/A	N/A	Natixis Global Asset Management
Employee Ownership (%)	100	4	19	0
Qualify as Emerging Manager?	No	No	No	No
Strategy Information				
Inception Date	4/16/1984	5/13/1997	6/1/1995	10/1/1995
Open/Closed	Open	Open	Open	Open
Primary Benchmark	MSCI ACWI ex US	MSCI EAFE	MSCI EAFE	MSCI ACWI ex US
Secondary Benchmark	MSCI EAFE	MSCI ACWI ex US	MSCI ACWI ex US	MSCI EAFE
Peer Universe	International Developed	International Developed	International Developed	International Developed
Outperformance Estimate (%)	1-2	3	2-3	2-3
Tracking Error Estimate (%)	3-4	3-6	3-4	6-9
Strategy AUM ($ M)	132,281	4,400	14,253	39,274
Estimated Capacity ($ M)	Not Provided	Not Provided	25000	50000
Strategy AUM as % Firm Assets	8	5	24	91
Investment Approach - Primary	Bottom-up	Hybrid	Bottom-up	Bottom-up
Investment Approach - Secondary	Fundamental	Fundamental	Fundamental	Fundamental

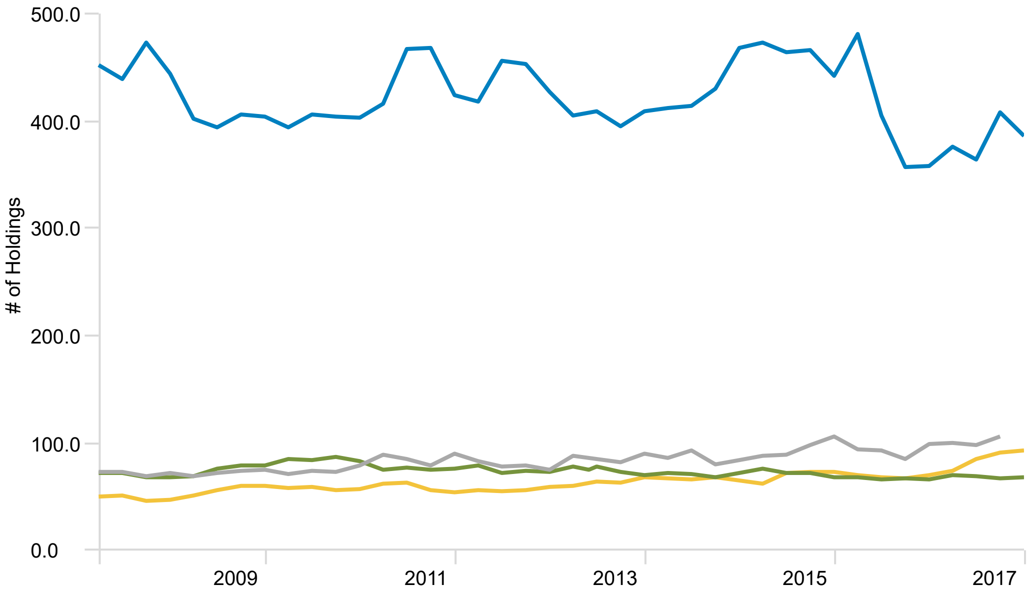
All data represents AndCo's view and may differ from the manager's interpretation.

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional
Team Information				
Decision Making Structure	Multi-manager	PM-Led	Team	Team
Number of Decision Makers	9	2	6	2
Names of Decision Makers	9 Person PM Team	J. Maxwell, C. Murray	6 Person PM Team	D. Herro, M. Manelli
Date Began Managing Strategy	1991-2013	2006, 2017	1995-2016	1992, 2016
Date Began with Firm	1982-2003	1998, 2011	1990-2008	1992, 2005
Number of Products Managed by Team	1	2	5	6
Number of Investment Analysts	165	20	90	8
Investment Analyst Team Structure	Sector/Industry Specialists	Sector/Industry Specialists	Sector/Industry Specialists	Generalists
Portfolio Construction Information				
Broad Style Category	Growth	Core	Value	Value
Style Bias	Core Growth	Flexible	Relative Value	Relative Value
Country/Region Constraint Type	Absolute	Benchmark Relative	Benchmark Relative	Absolute
Typical Country Constraints (%)	> 80 in Europe or Pacific Basin	3x	+/- 10	30
Typical Region Constraints (%)	> 80 in Europe or Pacific Basin	None	None	30
Typical Countries/Regions Overweight	Europe and Pacific Basin	None	None	None
Typical Countries/Regions Underweight	None	None	None	None
Maximum Emerging Market Exposure (%)	None	15	10	None
Sector Constraint Type	Absolute	Benchmark Relative	Benchmark Relative	None
Sector Constraints (%)	25 (Industry)	3x	+/-10	None
Typical Sector/s Overweight	None	None	None	None
Typical Sector/s Underweight	None	None	None	None
Typical Number of Holdings	270+	60-80	60-80	35-65
Average Full Position Size (%)	1-2	1-3	1.5	2-3
Maximum Position Size (%)	None	5	6	7
Annual Typical Asset Turnover (%)	30	95	40	50
Annual Typical Name Turnover (%)	Not Provided	Not Provided	40	20
Maximum Cash Allocation (%)	None	15	10	10
Currency Hedged?	Yes	Yes	No	Yes

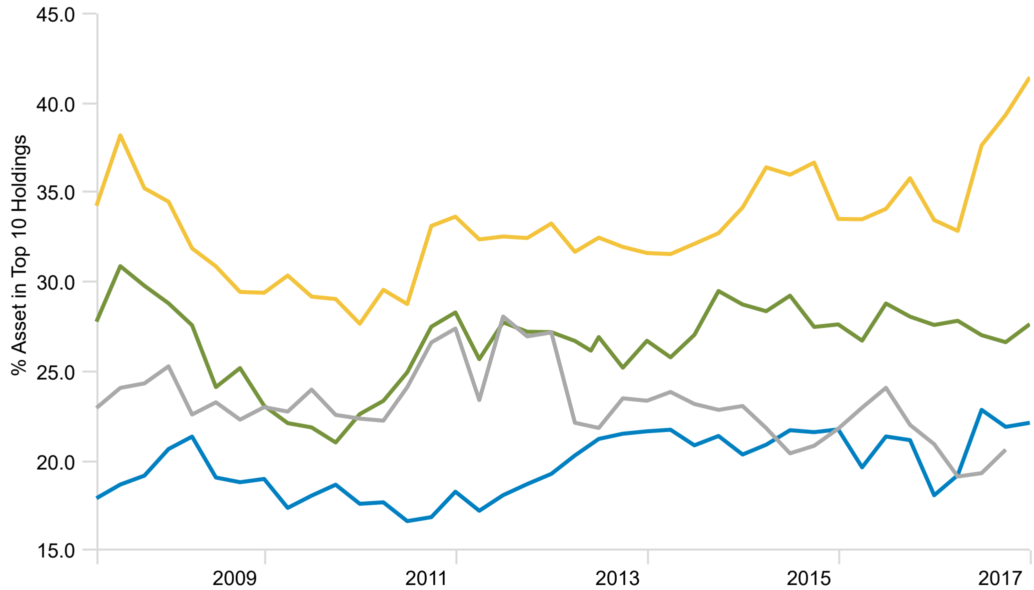
All data represents AndCo's view and may differ from the manager's interpretation.

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional	MSCI ACWI Ex USA NR USD
COMPOSITION					
# of Holdings	386	106	68	93	1,866
% Asset in Top 10 Holdings	22.13	20.62	27.64	41.44	9.49
Asset Alloc Cash %	7.03	0.94	2.22	3.34	0.01
Asset Alloc Equity %	92.18	96.54	96.81	91.69	99.86
Asset Alloc Bond %	0.63	0.06	0.00	0.00	0.00
Asset Alloc Other %	0.17	2.48	0.97	4.96	0.15
CHARACTERISTICS					
Average Market Cap (mil)	49,692.31	42,552.70	38,235.91	39,595.47	36,032.36
P/E Ratio (TTM)	19.67	19.12	19.62	14.71	16.73
P/B Ratio (TTM)	2.18	1.84	2.42	1.60	1.75
LT Earn Growth	15.61	9.85	9.58	7.28	10.58
Dividend Yield	1.75	3.04	2.58	3.26	3.02
ROE % (TTM)	16.64	14.55	18.26	13.44	15.44
GICS SECTORS %					
Energy %	5.99	10.92	8.01	0.00	6.74
Materials %	7.18	6.64	5.77	9.54	8.16
Industrials %	8.99	17.63	20.08	15.08	11.88
Consumer Discretionary %	12.96	12.77	11.10	33.90	11.31
Consumer Staples %	9.42	12.67	10.99	4.20	9.55
Healthcare %	6.59	7.32	7.71	1.36	7.64
Financials %	19.55	18.76	18.15	33.27	23.11
Information Technology %	22.11	6.98	7.58	2.66	11.50
Telecom Services %	3.19	6.34	6.38	0.00	4.04
Utilities %	2.80	0.00	1.53	0.00	2.91
Real Estate %	1.22	0.00	2.72	0.00	3.16
MARKET CAPITALIZATION					
Market Cap Giant %	63.61	61.68	53.65	53.36	57.18
Market Cap Large %	23.25	26.98	34.13	31.04	33.89
Market Cap Mid %	3.67	7.89	7.23	7.29	7.42
Market Cap Small %	0.15	0.00	0.00	0.00	0.05
Market Cap Micro %	0.00	0.00	0.00	0.00	0.01

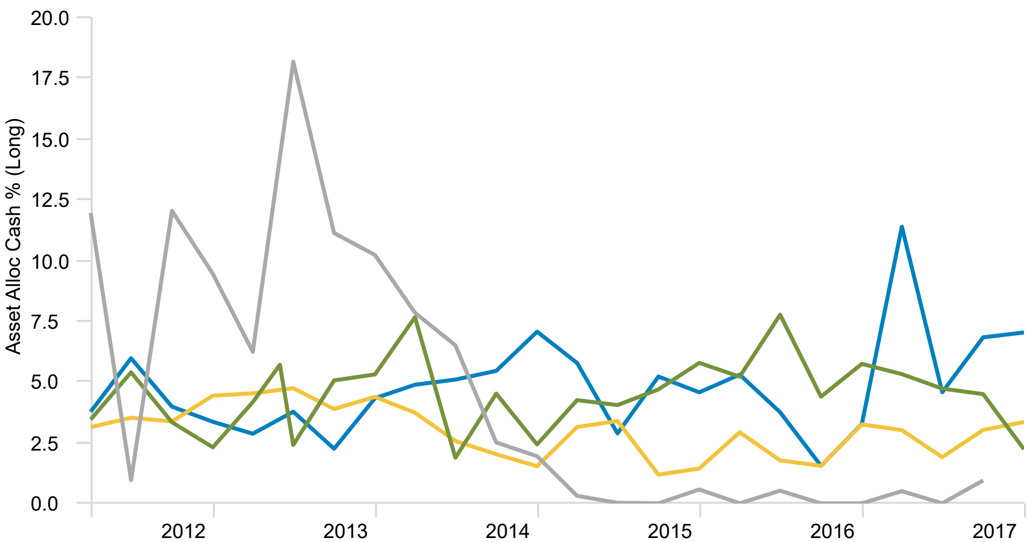
Historical Number of Holdings



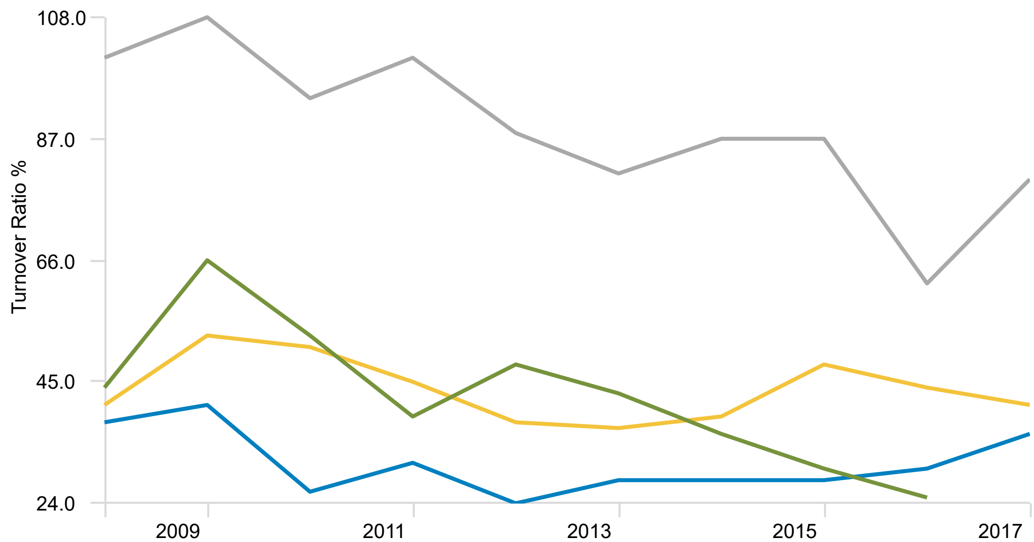
Historical Percentage of Assets in Top 10 Holdings



Historical Cash Allocation



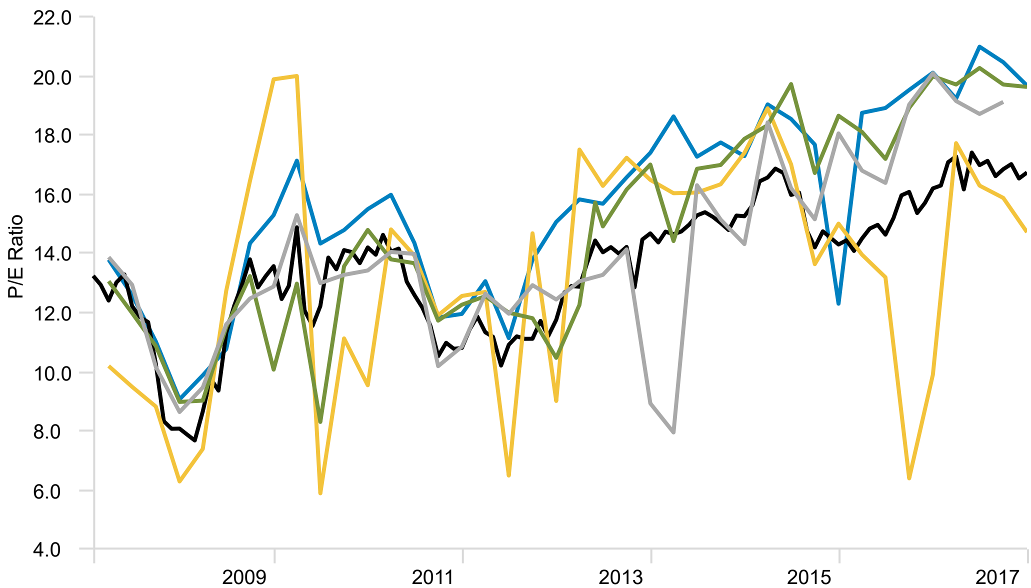
Historical Portfolio Turnover



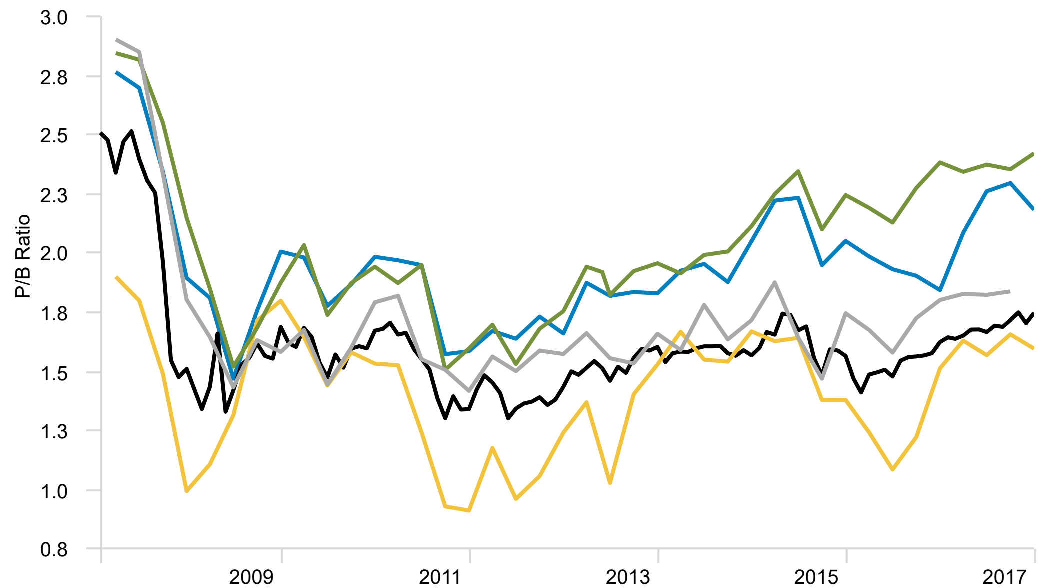
American Funds Europacific Growth R6 — Ivy International Core Equity N — Lazard International Equity R6

Oakmark International Institutional

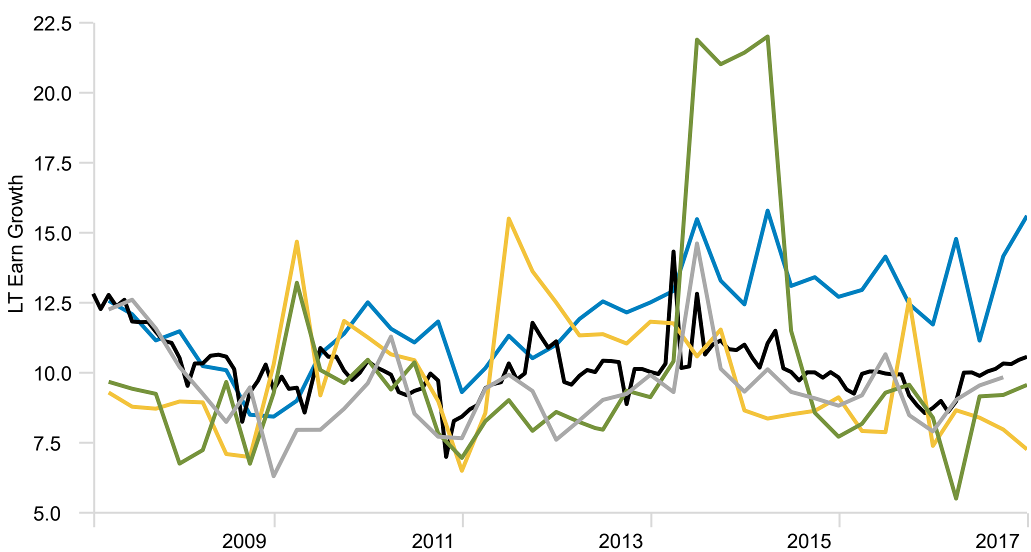
Historical P/E Ratio



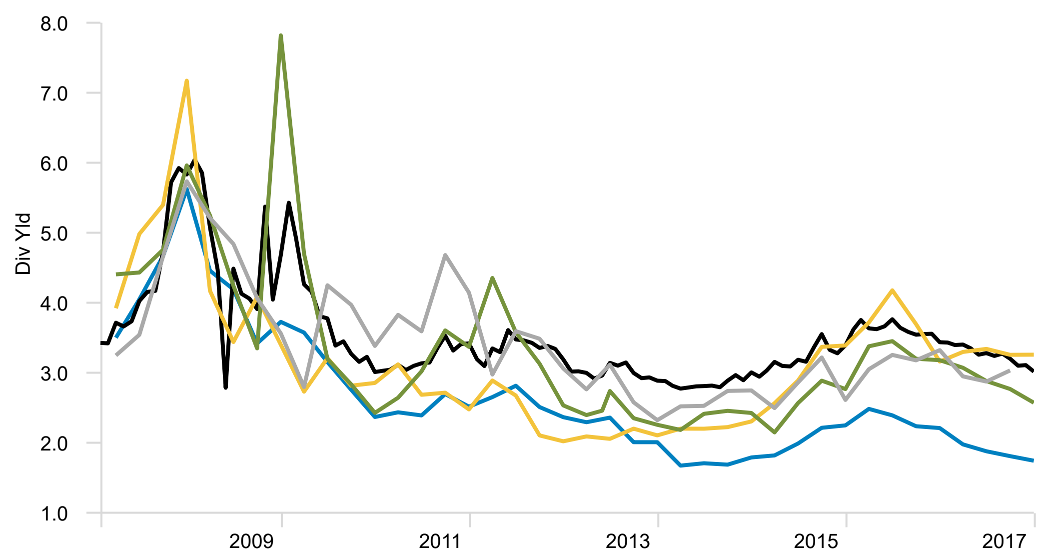
Historical P/B Ratio



Historical Earnings Growth



Historical Dividend Yield



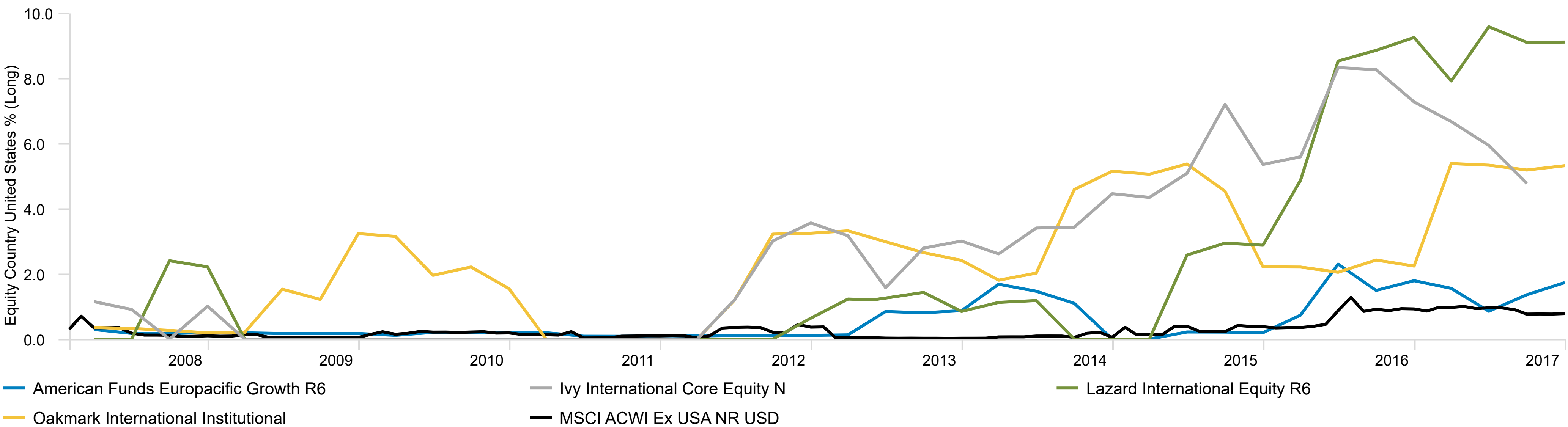
- American Funds Europacific Growth R6
- Ivy International Core Equity N
- Lazard International Equity R6
- Oakmark International Institutional
- MSCI ACWI Ex USA NR USD

Current Portfolio Region Allocation

Portfolio Date: 9/30/2017

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional	MSCI ACWI Ex USA NR USD
Equity Country United States %	1.48	4.95	9.88	5.66	0.79
Equity Region North America %	5.57	9.22	13.60	5.66	7.57
Equity Region Latin America %	2.24	2.21	1.09	1.54	2.33
Equity Region United Kingdom %	12.88	17.25	21.69	22.46	12.52
Equity Region Europe dev %	26.47	39.38	41.20	57.78	31.37
Equity Region Europe emrg %	0.70	0.00	0.73	0.00	1.55
Equity Region Japan %	14.90	18.42	17.01	5.97	16.36
Equity Region Australasia %	0.70	3.21	0.75	2.91	4.90
Equity Region Asia dev %	15.51	3.68	3.94	0.50	9.61
Equity Region Asia emrg %	19.82	6.62	0.00	3.19	11.71
Equity Region Africa/Middle East %	1.22	0.00	0.00	0.00	2.09
Equity Region Developed %	76.22	91.17	98.17	95.27	82.90
Equity Region Emerging %	23.78	8.83	1.83	4.73	17.10

Historical US Portfolio Exposure

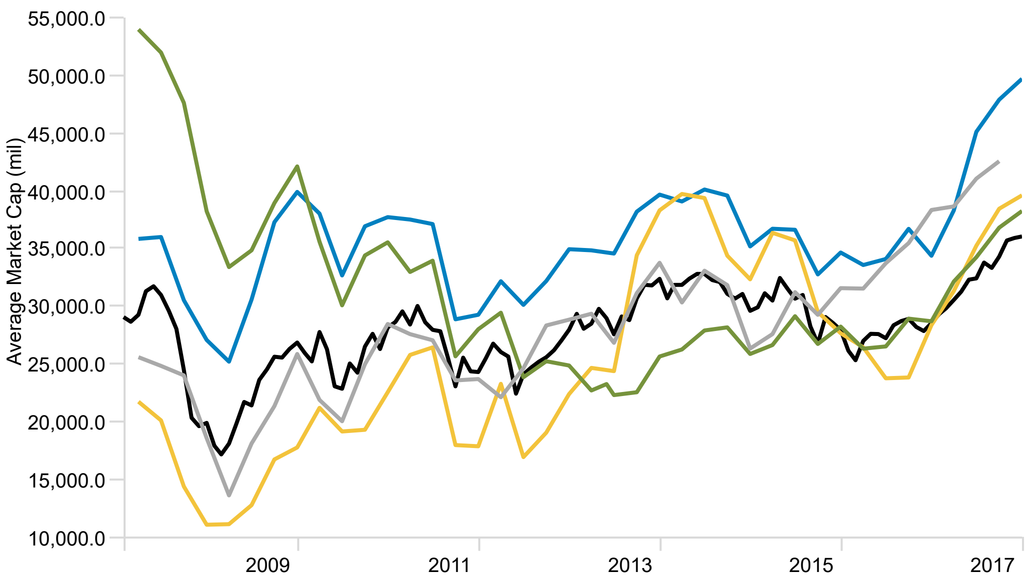


Style Allocation

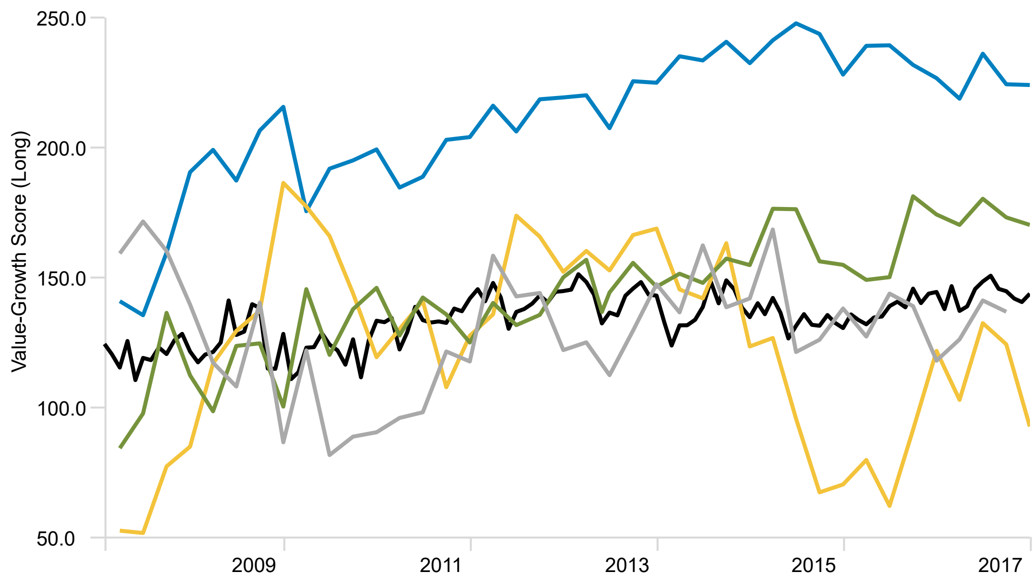
Portfolio Date: 9/30/2017

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional	MSCI ACWI Ex USA NR USD
Equity Style Large Value %	16.45	33.50	23.43	33.96	31.42
Equity Style Large Core %	25.67	28.44	26.47	31.01	29.01
Equity Style Large Growth %	40.71	23.68	35.57	17.65	27.35
Equity Style Mid Value %	1.05	2.55	1.61	0.74	3.02
Equity Style Mid Core %	1.35	3.31	2.80	6.38	2.85
Equity Style Mid Growth %	1.50	1.85	2.39	0.00	1.49
Equity Style Small Value %	0.12	0.00	0.00	0.00	0.07
Equity Style Small Core %	0.00	0.00	0.00	0.00	0.03
Equity Style Small Growth %	0.00	0.00	0.00	0.00	0.00

Historical Average Market Capitalization



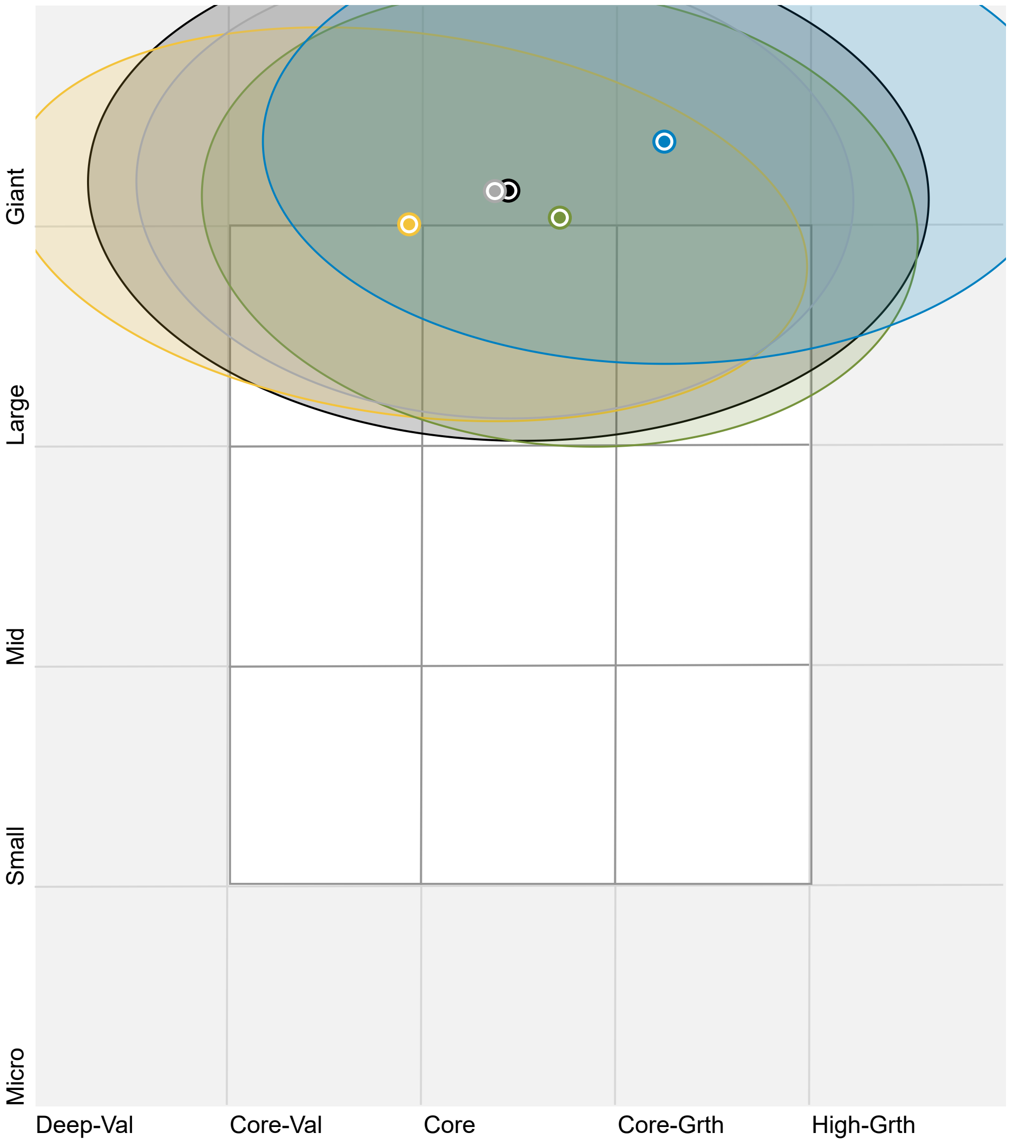
Historical Value - Growth Score



American Funds Europacific Growth R6 — Ivy International Core Equity N — Lazard International Equity R6

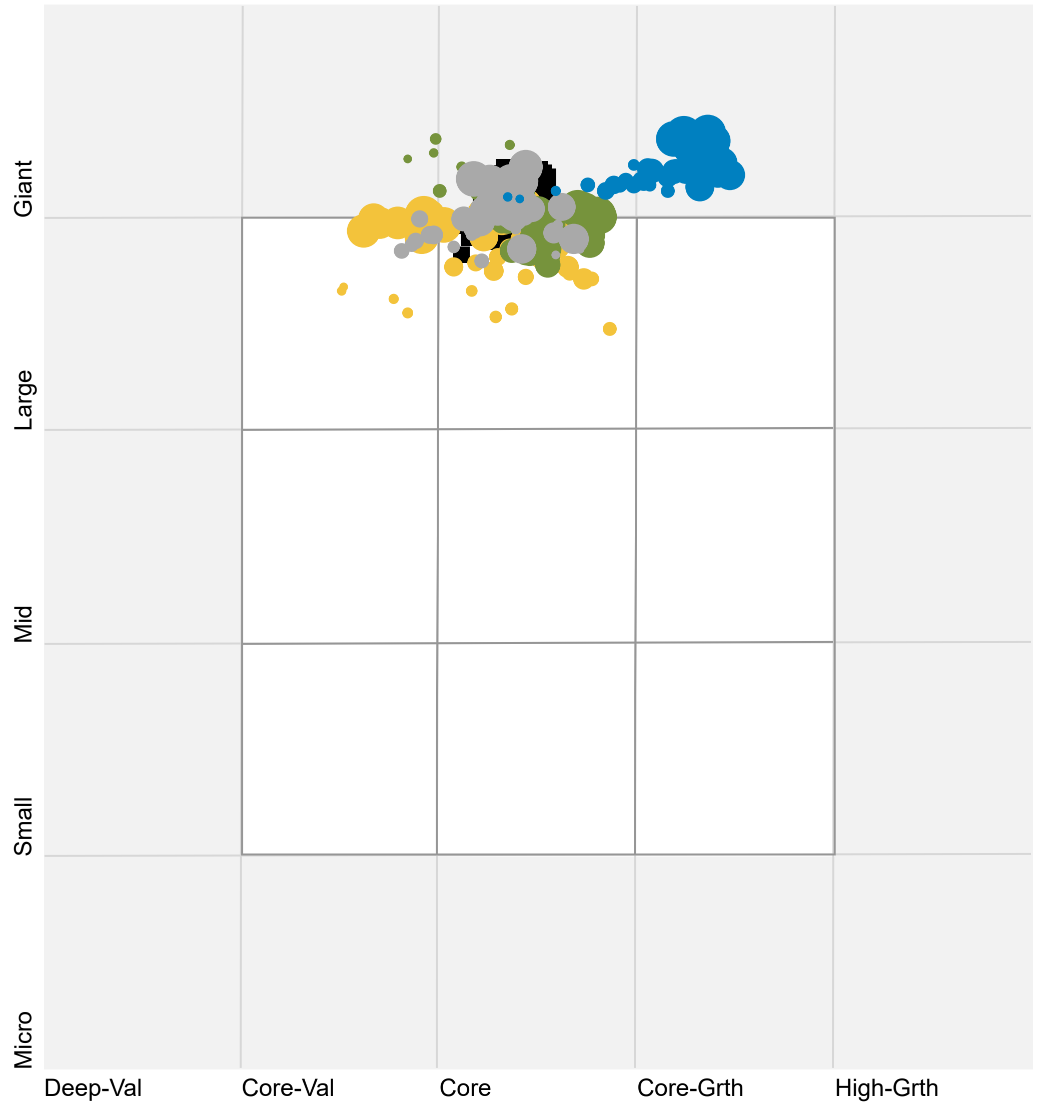
Oakmark International Institutional — MSCI ACWI Ex USA NR USD

Current Portfolio Holdings-Style Map



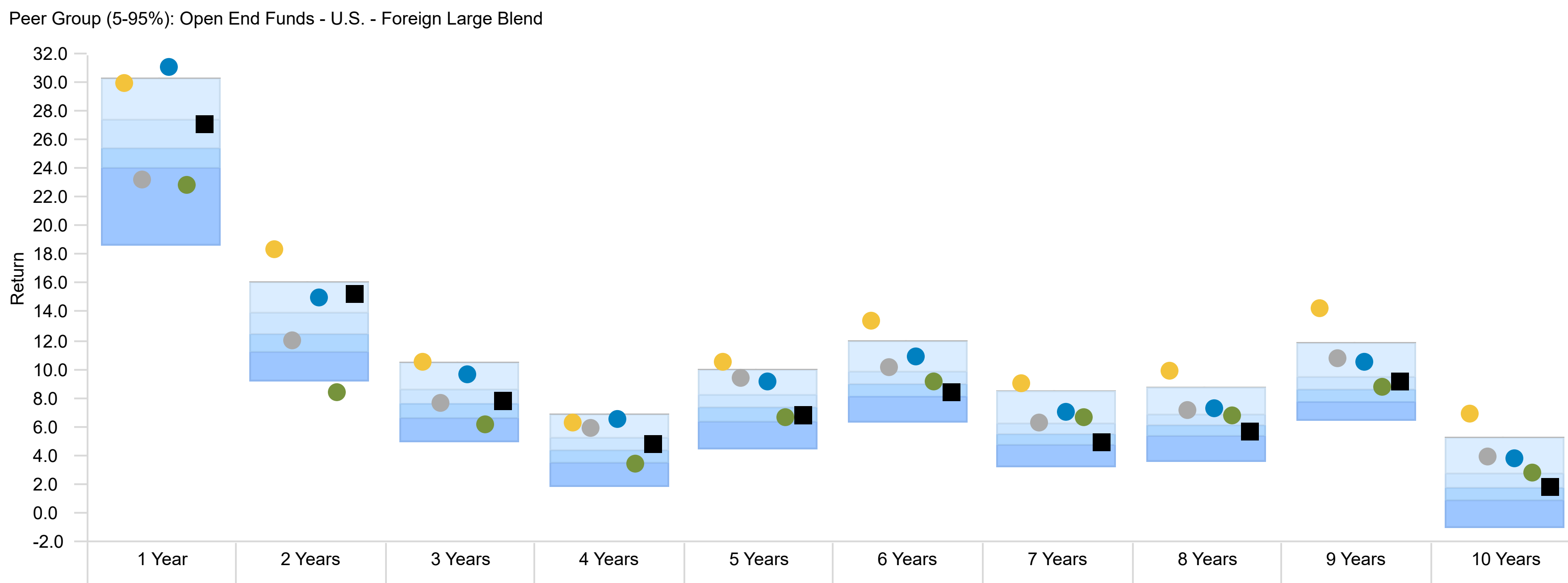
Historical Holdings-Based Style Trail

Time Period: 1/31/2008 to 12/31/2017



American Funds Europacific Growth R6
Ivy International Core Equity N
Lazard International Equity R6
Oakmark International Institutional
MSCI ACWI Ex USA NR USD

Quantitative Review



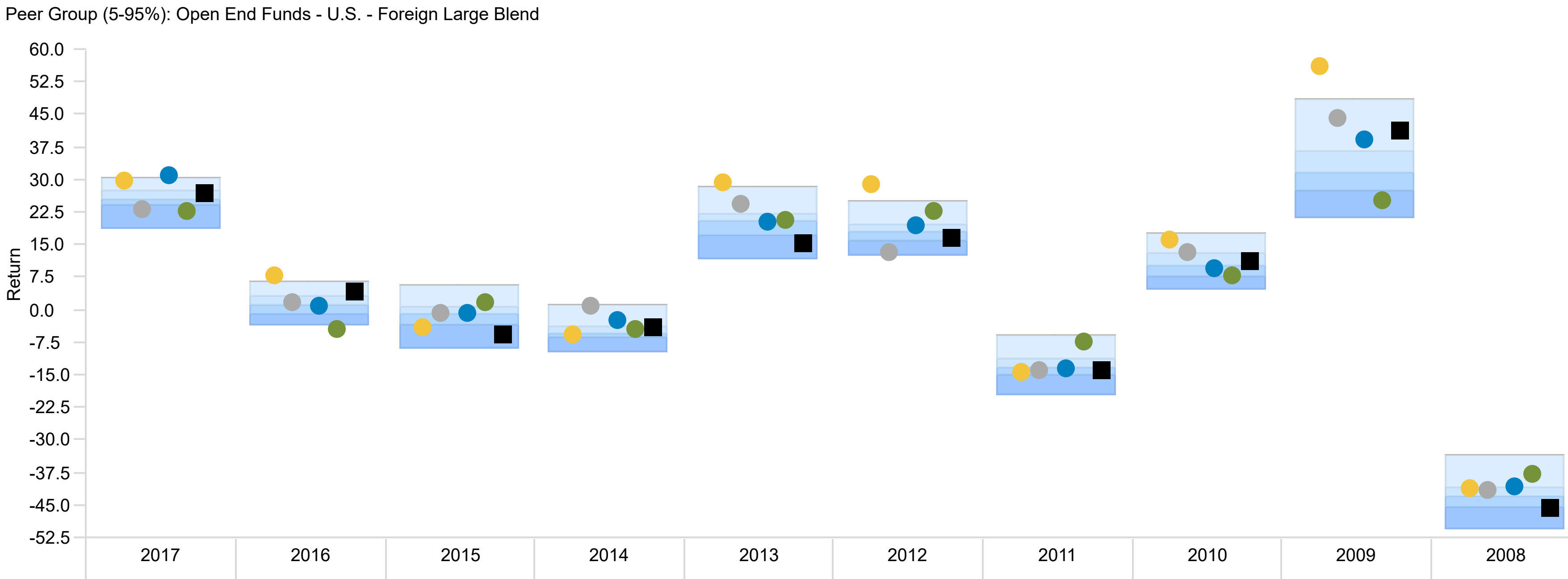
	1 Year	Rank	2 Years	Rank	3 Years	Rank	4 Years	Rank	5 Years	Rank	6 Years	Rank	7 Years	Rank	8 Years	Rank	9 Years	Rank	10 Years	Rank
American Funds Europacific Growth R6	31.17	3	15.11	15	9.66	11	6.54	6	9.21	10	10.88	10	7.05	11	7.39	13	10.54	12	3.90	11
Ivy International Core Equity N	23.28	81	12.03	59	7.68	48	6.02	10	9.49	8	10.14	19	6.32	23	7.19	17	10.78	10	3.93	11
Lazard International Equity R6	22.85	84	8.50	96	6.17	80	3.46	75	6.72	66	9.23	44	6.72	14	6.89	23	8.78	42	2.87	22
Oakmark International Institutional	30.00	7	18.47	2	10.51	5	6.30	7	10.55	4	13.47	1	9.05	4	9.92	4	14.30	1	6.98	1
MSCI ACWI Ex USA NR USD	27.19	28	15.29	13	7.83	45	4.78	36	6.80	64	8.41	67	4.93	70	5.69	63	9.17	31	1.84	45

● American Funds Europacific Growth R6 ● Ivy International Core Equity N ● Lazard International Equity R6

● Oakmark International Institutional ■ MSCI ACWI Ex USA NR USD

Returns Net of Fees.

Performance data shown prior to fund's inception date represents extended performance of an older share class of the same strategy.



	2017	Rank	2016	Rank	2015	Rank	2014	Rank	2013	Rank	2012	Rank	2011	Rank	2010	Rank	2009	Rank	2008	Rank
American Funds Europacific Growth R6	31.17	3	1.01	49	-0.48	37	-2.29	16	20.58	47	19.64	25	-13.31	51	9.76	53	39.35	16	-40.53	22
Ivy International Core Equity N	23.28	81	1.79	37	-0.52	38	1.19	5	24.54	14	13.45	91	-13.98	59	13.47	23	44.24	11	-41.50	30
Lazard International Equity R6	22.85	84	-4.17	96	1.67	15	-4.29	32	20.84	44	22.70	8	-7.17	7	8.04	69	25.19	85	-37.75	7
Oakmark International Institutional	30.00	7	7.96	3	-3.83	77	-5.41	51	29.34	3	29.22	2	-14.07	61	16.22	6	56.30	3	-41.06	25
MSCI ACWI Ex USA NR USD	27.19	28	4.50	15	-5.66	88	-3.87	26	15.29	82	16.83	64	-13.71	56	11.15	40	41.45	15	-45.53	75

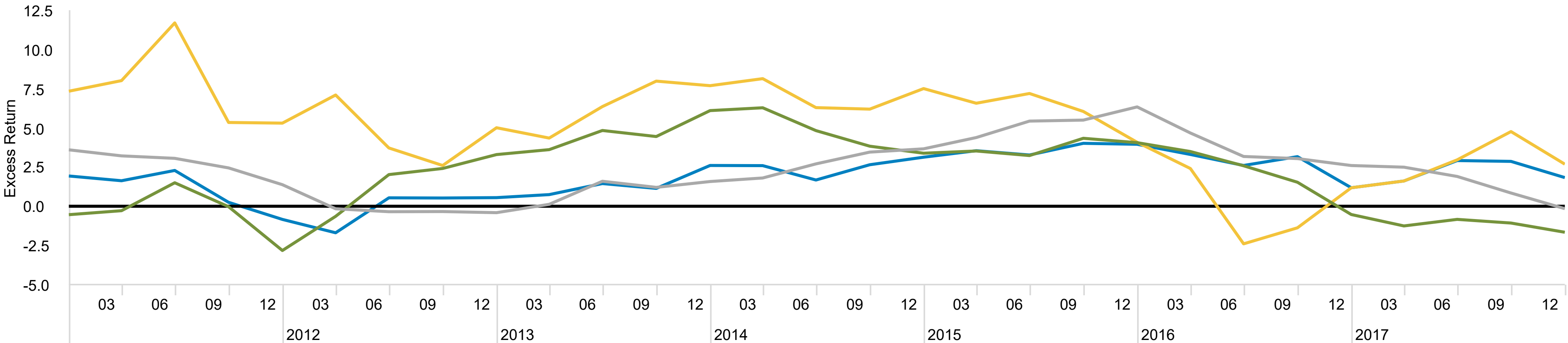
American Funds Europacific Growth R6 | Ivy International Core Equity N | Lazard International Equity R6

Oakmark International Institutional | MSCI ACWI Ex USA NR USD

Rolling Excess Returns

Time Period: 1/1/2008 to 12/31/2017

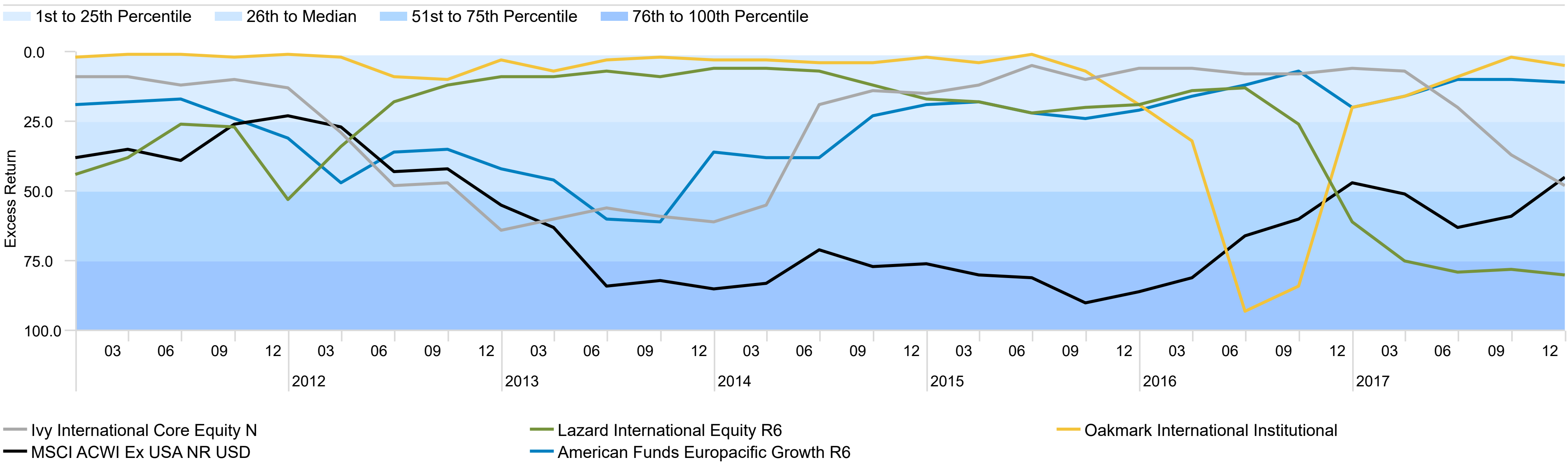
Rolling Window: 3 Years 3 Months shift Calculation Benchmark: MSCI ACWI Ex USA NR USD



Rolling Excess Return Rankings

Time Period: 1/1/2008 to 12/31/2017

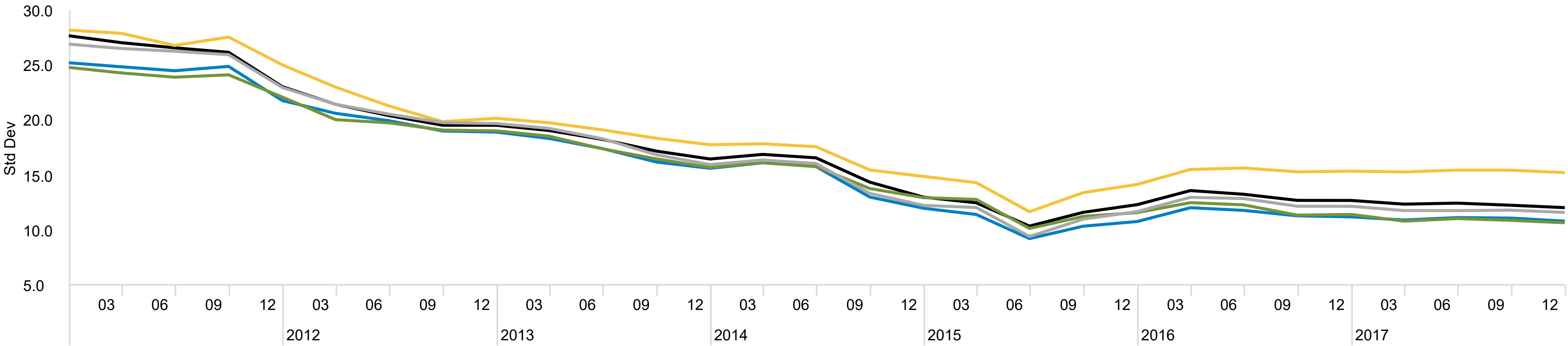
Rolling Window: 3 Years 3 Months shift Calculation Benchmark: MSCI ACWI Ex USA NR USD



Rolling Standard Deviation

Time Period: 1/1/2008 to 12/31/2017

Rolling Window: 3 Years 3 Months shift

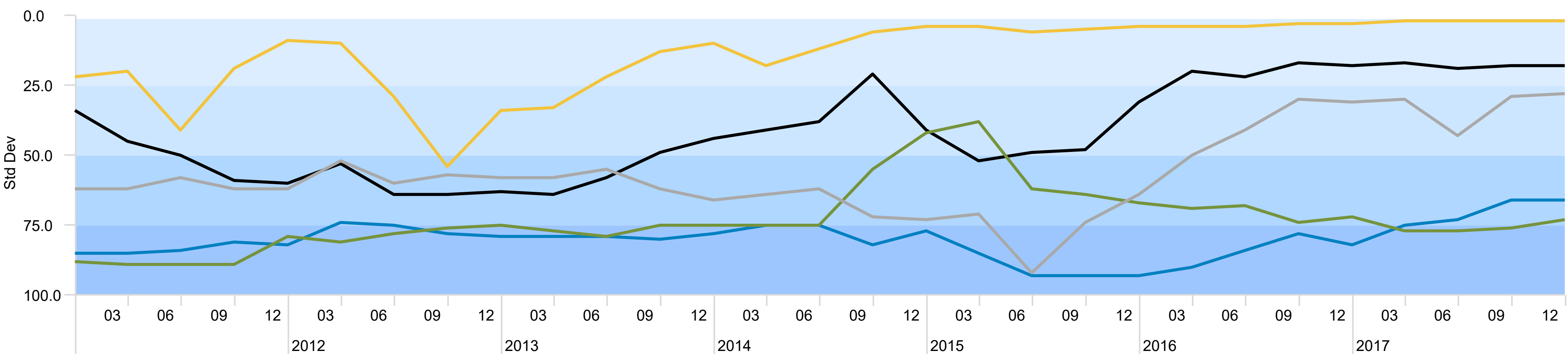


Rolling Standard Deviation Rankings

Time Period: 1/1/2008 to 12/31/2017

Rolling Window: 3 Years 3 Months shift

1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile

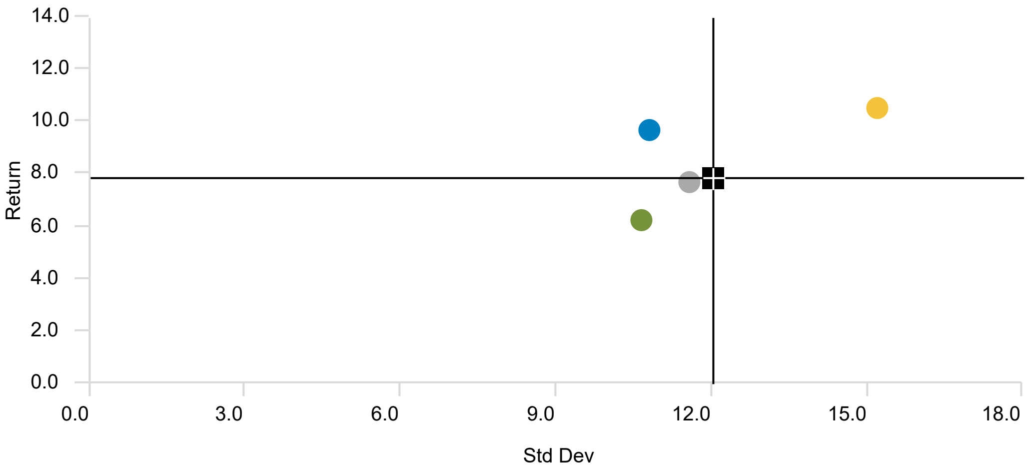


Ivy International Core Equity N
MSCI ACWI Ex USA NR USD
Lazard International Equity R6
American Funds Europacific Growth R6
Oakmark International Institutional

Risk-Reward: 3-Year

Time Period: 1/1/2015 to 12/31/2017

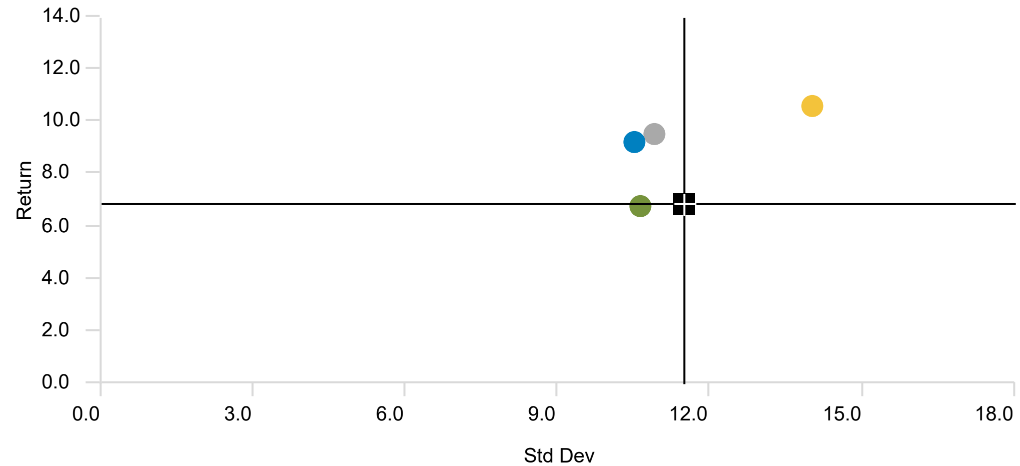
Calculation Benchmark: MSCI ACWI Ex USA NR USD



Risk-Reward: 5-Year

Time Period: 1/1/2013 to 12/31/2017

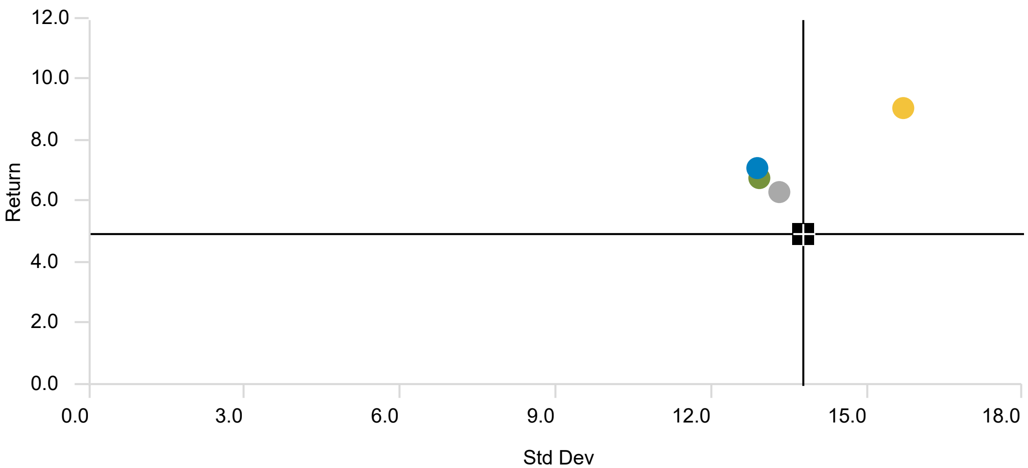
Calculation Benchmark: MSCI ACWI Ex USA NR USD



Risk-Reward: 7-Year

Time Period: 1/1/2011 to 12/31/2017

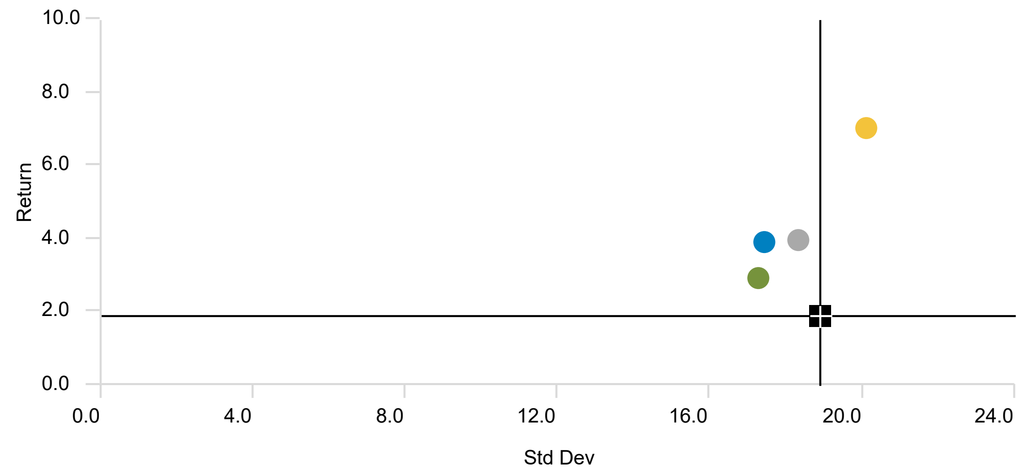
Calculation Benchmark: MSCI ACWI Ex USA NR USD



Risk-Reward: 10-Year

Time Period: 1/1/2008 to 12/31/2017

Calculation Benchmark: MSCI ACWI Ex USA NR USD

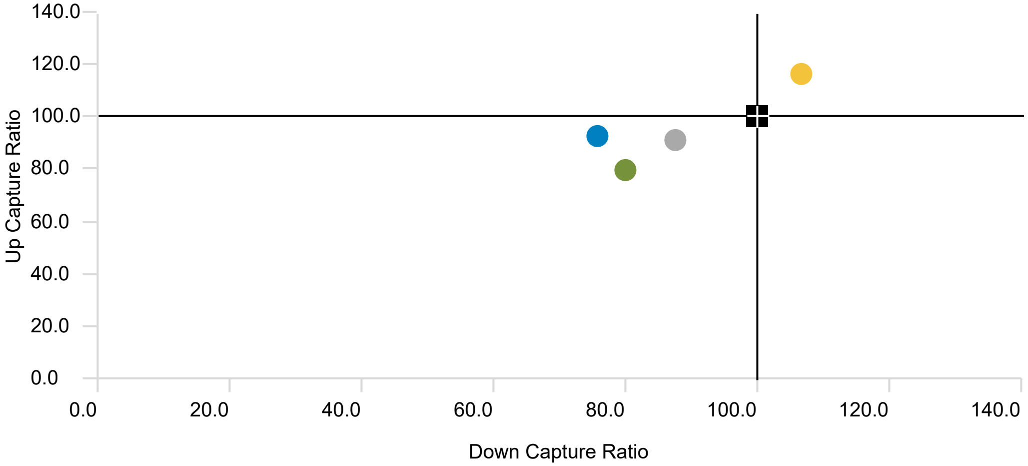


- American Funds Europacific Growth R6
- Ivy International Core Equity N
- Lazard International Equity R6
- Oakmark International Institutional
- MSCI ACWI Ex USA NR USD

Up and Down Market Capture: 3-Year

Time Period: 1/1/2015 to 12/31/2017

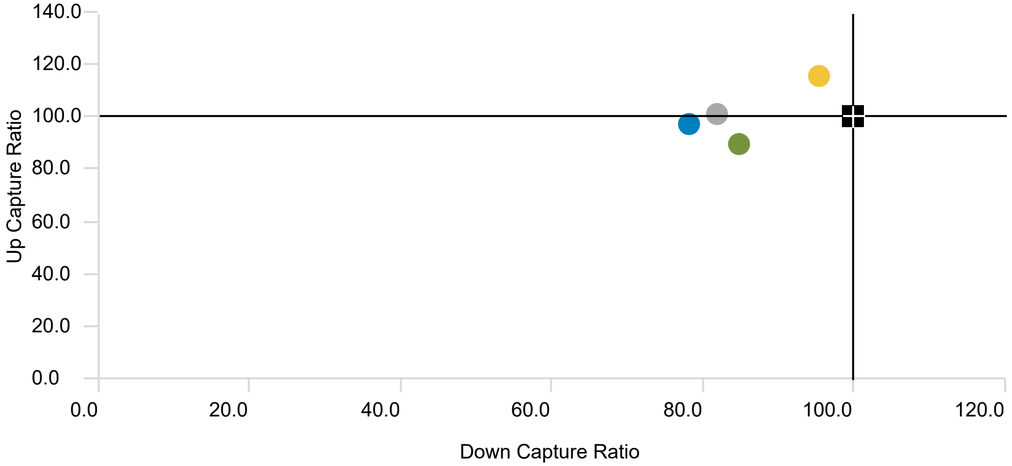
Calculation Benchmark: MSCI ACWI Ex USA NR USD



Up and Down Market Capture: 5-Year

Time Period: 1/1/2013 to 12/31/2017

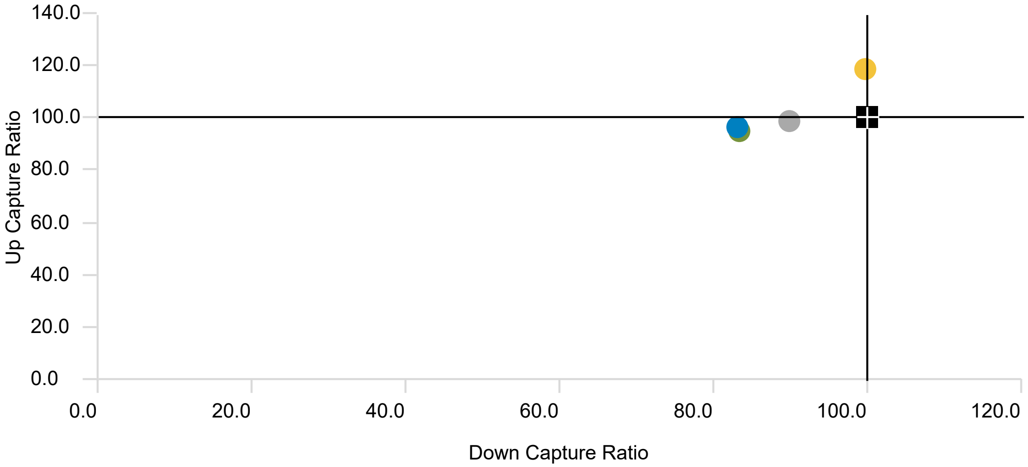
Calculation Benchmark: MSCI ACWI Ex USA NR USD



Up and Down Market Capture: 7-Year

Time Period: 1/1/2011 to 12/31/2017

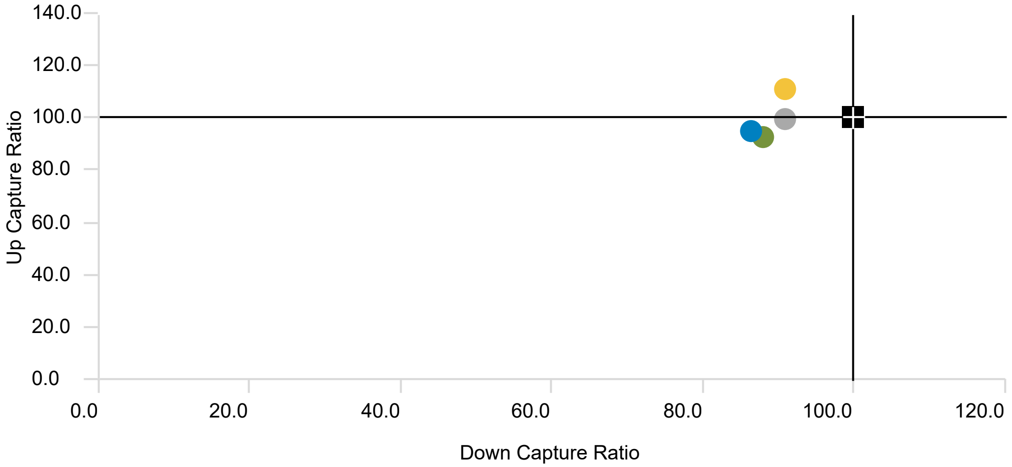
Calculation Benchmark: MSCI ACWI Ex USA NR USD



Up and Down Market Capture: 10-Year

Time Period: 1/1/2008 to 12/31/2017

Calculation Benchmark: MSCI ACWI Ex USA NR USD

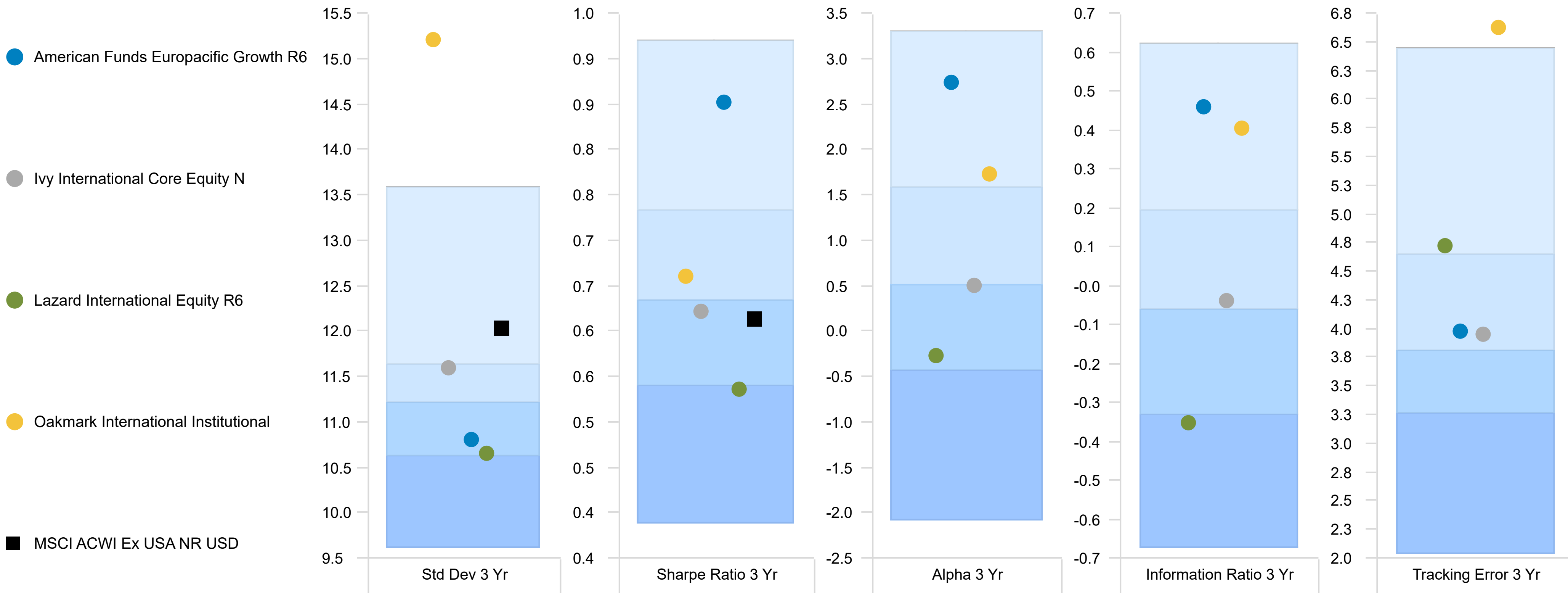


American Funds Europacific Growth R6 | Ivy International Core Equity N | Lazard International Equity R6

Oakmark International Institutional | MSCI ACWI Ex USA NR USD

Multi Statistic Analysis

As of 12/31/2017

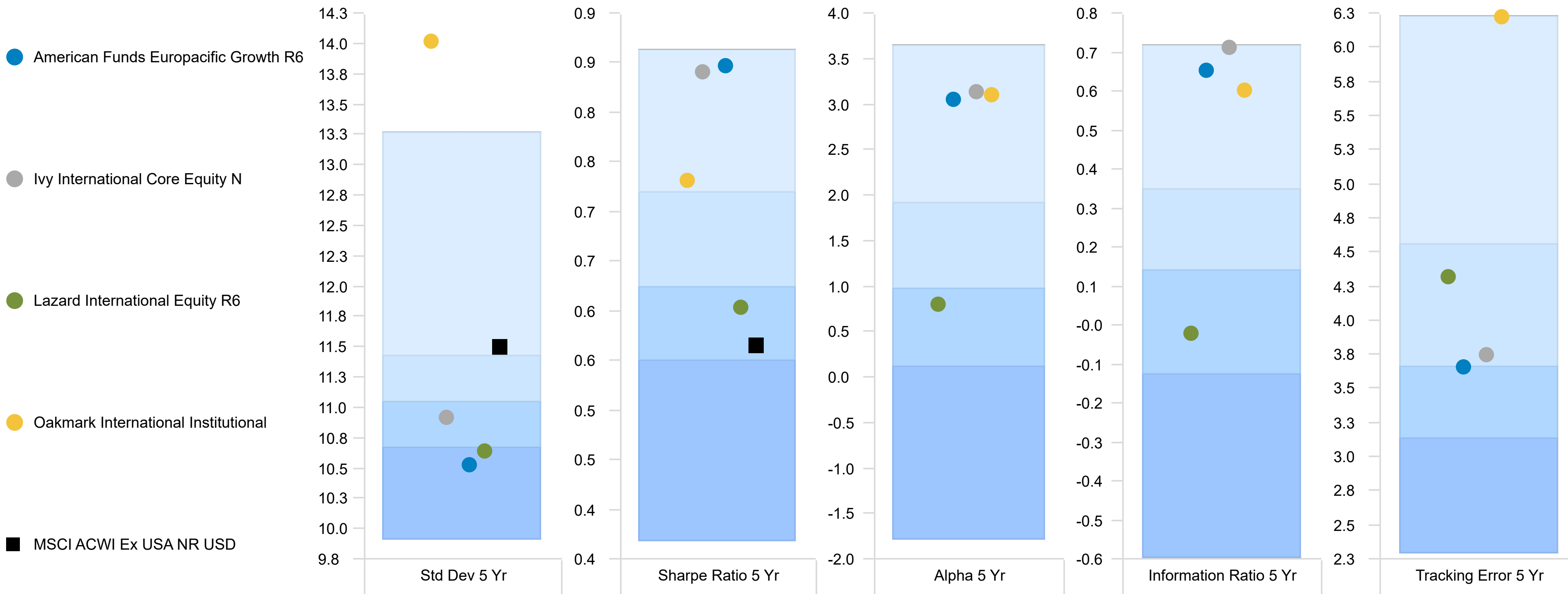


Time Period: 1/1/2015 to 12/31/2017

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
American Funds Europacific Growth R6	10.80	66	0.85	9	2.74	9	0.46	10	3.98	41
Ivy International Core Equity N	11.60	28	0.62	53	0.51	50	-0.04	49	3.95	42
Lazard International Equity R6	10.66	73	0.54	75	-0.26	70	-0.35	76	4.73	22
Oakmark International Institutional	15.22	2	0.66	41	1.73	22	0.40	13	6.62	5
MSCI ACWI Ex USA NR USD	12.04	18	0.61	57	0.00	65			0.00	100

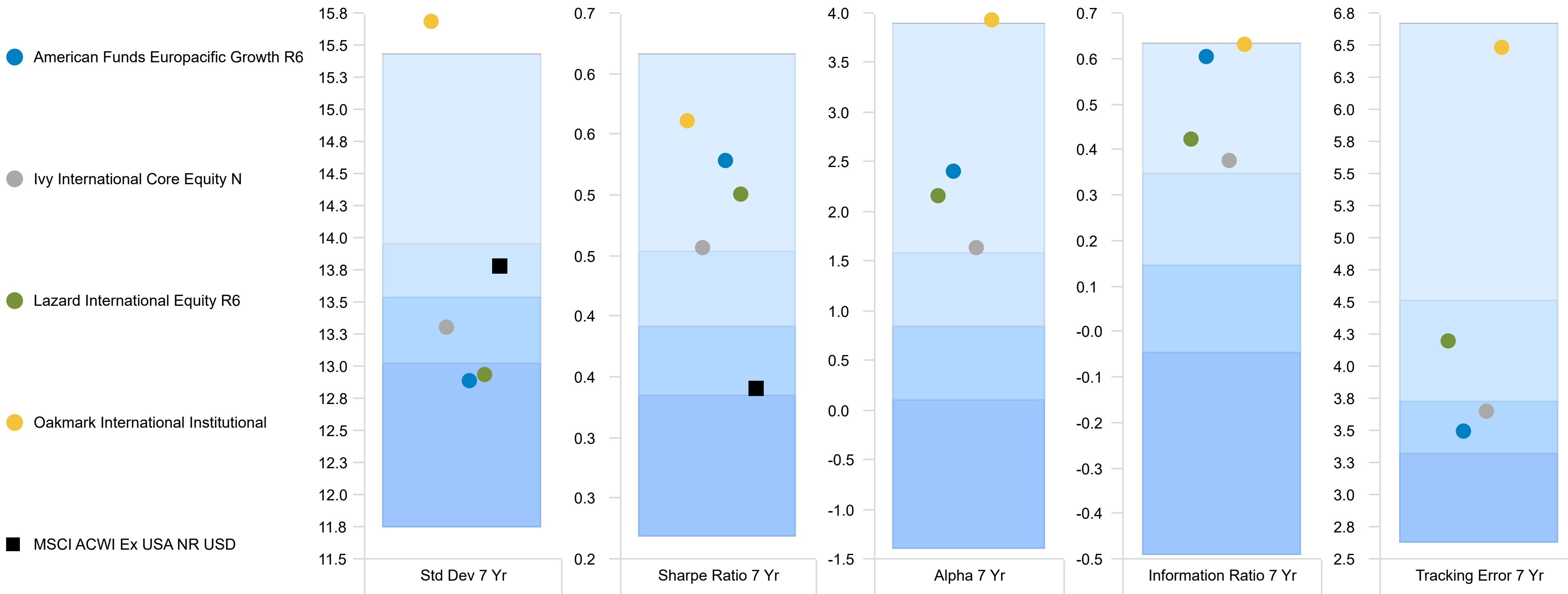
Multi Statistic Analysis

As of 12/31/2017



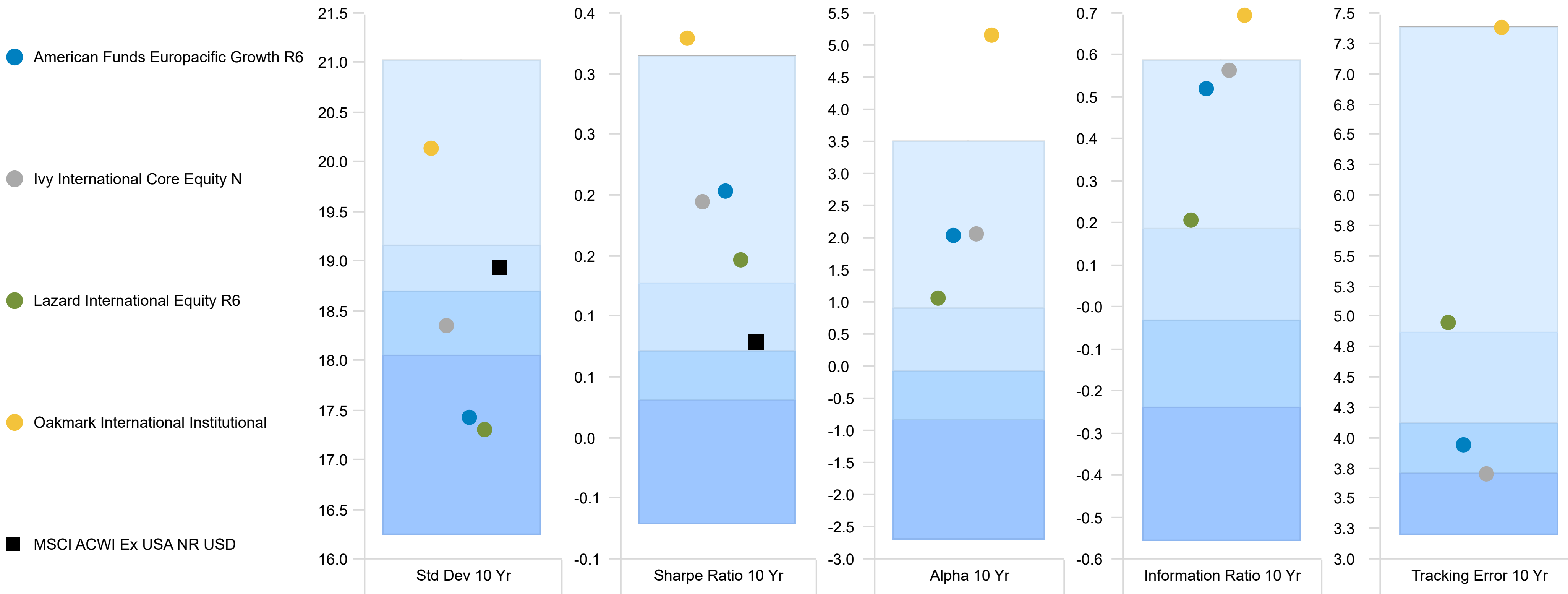
Time Period: 1/1/2013 to 12/31/2017

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
American Funds Europacific Growth R6	10.53	79	0.85	6	3.05	9	0.66	7	3.67	50
Ivy International Core Equity N	10.92	58	0.84	7	3.15	8	0.72	6	3.75	42
Lazard International Equity R6	10.65	76	0.60	58	0.81	54	-0.02	66	4.32	29
Oakmark International Institutional	14.02	3	0.73	21	3.11	8	0.60	8	6.23	6
MSCI ACWI Ex USA NR USD	11.50	23	0.57	71	0.00	77			0.00	100



Time Period: 1/1/2011 to 12/31/2017

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
American Funds Europacific Growth R6	12.89	80	0.53	8	2.42	9	0.61	7	3.50	70
Ivy International Core Equity N	13.31	60	0.46	23	1.64	23	0.38	23	3.66	56
Lazard International Equity R6	12.94	79	0.50	11	2.17	12	0.42	18	4.21	34
Oakmark International Institutional	15.70	4	0.56	6	3.93	5	0.63	5	6.49	7
MSCI ACWI Ex USA NR USD	13.78	29	0.34	72	0.00	77			0.00	100

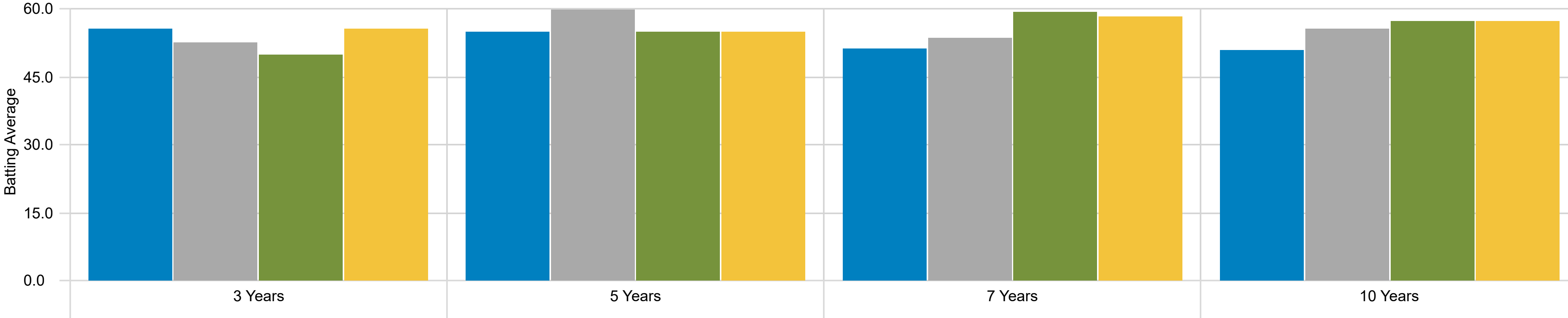


Time Period: 1/1/2008 to 12/31/2017

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
American Funds Europacific Growth R6	17.43	83	0.20	8	2.04	12	0.52	7	3.95	60
Ivy International Core Equity N	18.36	66	0.20	10	2.08	11	0.56	6	3.70	76
Lazard International Equity R6	17.30	88	0.15	20	1.08	22	0.21	24	4.95	23
Oakmark International Institutional	20.15	6	0.33	5	5.17	1	0.70	2	7.39	6
MSCI ACWI Ex USA NR USD	18.94	35	0.08	46	0.00	48			0.00	100

Batting Average

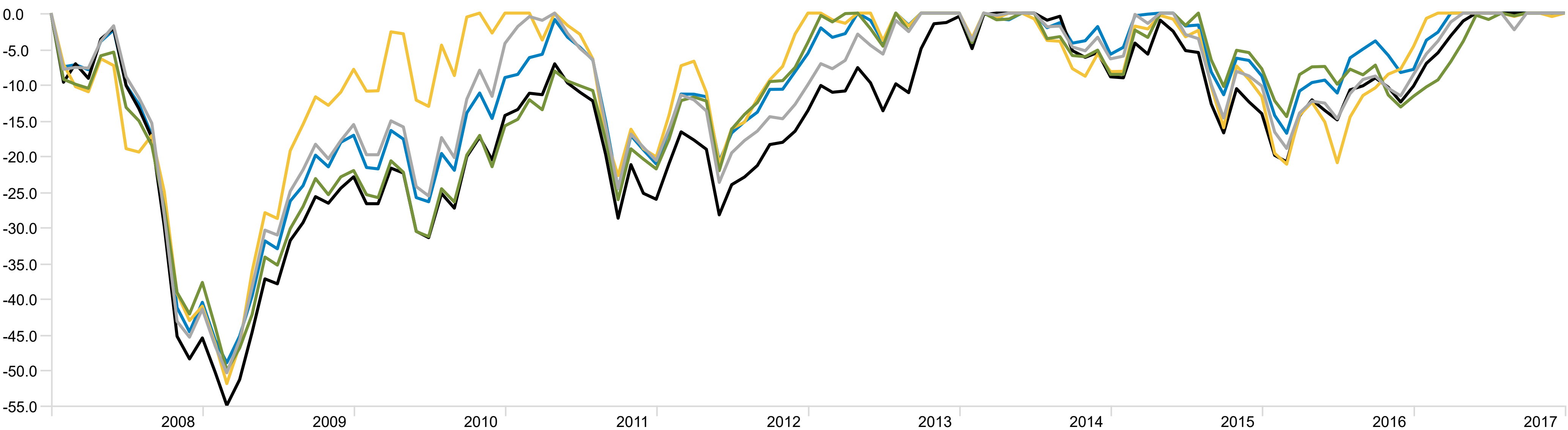
Source Data: Monthly Return Calculation Benchmark: MSCI ACWI Ex USA NR USD



Drawdown

Time Period: 1/1/2008 to 12/31/2017

Source Data: Monthly Return



American Funds Europacific Growth R6
Ivy International Core Equity N
Lazard International Equity R6
Oakmark International Institutional
MSCI ACWI Ex USA NR USD

MPT Statistics: 3-Year

Time Period: 1/1/2015 to 12/31/2017 Calculation Benchmark: MSCI ACWI Ex USA NR USD

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional	MSCI ACWI Ex USA NR USD
Return	9.66	7.68	6.17	10.51	7.83
Excess Return	1.83	-0.15	-1.66	2.68	0.00
Std Dev	10.80	11.60	10.66	15.22	12.04
Beta	0.85	0.91	0.81	1.15	1.00
Tracking Error	3.98	3.95	4.73	6.62	0.00
Sharpe Ratio	0.87	0.66	0.57	0.70	0.65
Alpha	2.74	0.51	-0.26	1.73	0.00
Information Ratio	0.46	-0.04	-0.35	0.40	
Batting Average	55.56	52.78	50.00	55.56	100.00
Up Capture Ratio	92.74	91.20	79.44	116.53	100.00
Down Capture Ratio	75.71	87.45	80.02	106.53	100.00

MPT Statistics: 5-Year

Time Period: 1/1/2013 to 12/31/2017 Calculation Benchmark: MSCI ACWI Ex USA NR USD

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional	MSCI ACWI Ex USA NR USD
Return	9.21	9.49	6.72	10.55	6.80
Excess Return	2.41	2.69	-0.08	3.75	0.00
Std Dev	10.53	10.92	10.65	14.02	11.50
Beta	0.87	0.90	0.86	1.10	1.00
Tracking Error	3.67	3.75	4.32	6.23	0.00
Sharpe Ratio	0.87	0.86	0.64	0.77	0.61
Alpha	3.05	3.15	0.81	3.11	0.00
Information Ratio	0.66	0.72	-0.02	0.60	
Batting Average	55.00	60.00	55.00	55.00	100.00
Up Capture Ratio	97.12	101.01	89.50	115.29	100.00
Down Capture Ratio	78.16	81.96	84.97	95.54	100.00

MPT Statistics: 7-Year

Time Period: 1/1/2011 to 12/31/2017 Calculation Benchmark: MSCI ACWI Ex USA NR USD

	American Funds Europacific Growth R6	Ivy International Core Equity N	Lazard International Equity R6	Oakmark International Institutional	MSCI ACWI Ex USA NR USD
Return	7.05	6.32	6.72	9.05	4.93
Excess Return	2.12	1.38	1.79	4.11	0.00
Std Dev	12.89	13.31	12.94	15.70	13.78
Beta	0.90	0.93	0.89	1.04	1.00
Tracking Error	3.50	3.66	4.21	6.49	0.00
Sharpe Ratio	0.58	0.51	0.55	0.62	0.40
Alpha	2.42	1.64	2.17	3.93	0.00
Information Ratio	0.61	0.38	0.42	0.63	
Batting Average	51.19	53.57	59.52	58.33	100.00
Up Capture Ratio	96.48	98.45	95.10	118.65	100.00
Down Capture Ratio	83.10	89.90	83.28	99.66	100.00

MPT Statistics: 10-Year

Time Period: 1/1/2008 to 12/31/2017 Calculation Benchmark: MSCI ACWI Ex USA NR USD

Return	3.90	3.93	2.87	6.98	1.84
Excess Return	2.06	2.09	1.04	5.14	0.00
Std Dev	17.43	18.36	17.30	20.15	18.94
Beta	0.90	0.95	0.88	0.99	1.00
Tracking Error	3.95	3.70	4.95	7.39	0.00
Sharpe Ratio	0.29	0.28	0.23	0.42	0.17
Alpha	2.04	2.08	1.08	5.17	0.00
Information Ratio	0.52	0.56	0.21	0.70	
Batting Average	50.83	55.83	57.50	57.50	100.00
Up Capture Ratio	95.10	99.59	92.48	111.28	100.00
Down Capture Ratio	86.52	91.06	87.95	91.05	100.00

Investment Option Narratives

Firm Overview

The Capital Group (CG) traces its roots back to 1931. CG is one of the largest privately held investment management organizations in the world and serves as adviser to the American Funds. CG is headquartered in Los Angeles, California and employs more than 7,000 associates across all subsidiaries with full-service locations in New York, London, and Singapore. The firm is 100% owned by over 400 active employees, and manages total fund assets of over $1 trillion across the asset class spectrum.

Team Overview

CG's portfolio management style is differentiated. The firm employs a multiple portfolio counselor system whereby each portfolio counselor manages his/her portion of the assets completely autonomously. Each has his/her own investing style. The EuroPacific Growth Fund utilizes nine portfolio counselors with average tenure with the firm of over 22 years. In addition, senior analysts manage a sleeve of the portfolio with their best ideas.

CG's team of investment analysts specialize by industry and provide company research to all equity products. CG utilizes around 100 analysts, split between US and non-US competencies. The US team is located in Los Angeles, San Francisco and New York, while the non-US team resides in Hong Kong, London, Tokyo, Beijing, Singapore, Mumbai and Geneva. Between 25 and 35 analysts are selected to participate in the research portfolio sleeve.

Strategy Overview

The process is based on fundamental, bottom-up research conducted on a global basis. CG believes that on-the-ground, in-person research is key to understanding businesses and companies. The team conducts thousands of company meetings annually. Analysts focus their efforts on determining an accurate value of the company in order to find the most attractively priced stocks based on their future earnings power. They then must communicate their findings and recommendations effectively to portfolio counselors. The portfolio counselors and analysts have regular discussions about companies to attempt to address multiple perspectives. In the end, the portfolio counselors and analysts make independent buy and sell decisions. The Fund typically holds around 300 securities. There is no formal rating system that communicates the research group's collective opinion on a stock, or one that dictates buy/sell activity. These decisions are solely up to the individual portfolio counselors and analysts as long as they are within the parameters dictated by the Fund's investment objectives.

CG utilizes a system that monitors recent activity in securities to ensure appropriate communication among the investment professionals and to facilitate coordination if needed. Besides having to invest at least 80% of assets in securities of issuers domiciled in Europe or the Pacific Basin, the only other formal constraint on the portfolio is a maximum weighting per industry of 25%. Cash is determined at the portfolio counselor level and is typically between 5-12%. The Fund will hedge currency as a defensive measure via forward currency contracts. Emerging equities are typically between 20-30% of the portfolio, but have been as high as 35%.

Expectations

The larger-than-typical cash allocation will tend to buffer the Fund somewhat during bear markets (e.g. 2001-02 and 2008). The Fund also will tend to do well when emerging market equities outperform as it has historically had an overweight in companies domiciled in developing countries.

The Fund has tended to lag in big rallies, especially low quality booms (e.g. 2003 and 2009), due to its lack of ability to own smaller, less liquid securities. In addition, cash has caused a drag on performance in these types of markets.

Points to Consider

The massive asset level of the Fund is an ongoing issue to watch. We would expect the large assets to limit flexibility and force the PMs to only own larger, more liquid securities. However, the asset base has been extremely large for well over a decade and yet the Fund has been able to outperform the index consistently. CG has not communicated any ultimate capacity level of the Fund.

CG does not publicly provide individual portfolio counselor performance attribution. This makes it difficult—if not impossible—to know if all nine are adding value on a consistent basis.

Given the size of the fund and cash flows, an above-average cash balance is consistent.

The larger allocation to emerging equities relative to peers counters the higher cash level typically by adding increased return potential, but with increased volatility. However, the portfolio is well diversified and the volatility of the total portfolio is reasonable.

Recommendation Summary

The Research Group recommends EuroPacific Growth Fund as an inexpensive core international equity allocation that has historically and consistently outperformed the index net of fees. Given its diversification by stock, sector, and country, as well as its lack of a strong style bias (growth versus value), the Fund is appropriate as a standalone international option. In addition, given its consistent overweight to emerging equities, it is a good way for smaller and/or risk averse plans to obtain exposure to the asset class without having to hire a dedicated manager.

The multiple portfolio counselor system utilized by CG makes PM turnover less impactful and disruptive to the investor, process, and ultimately to performance. With the exception of retirements, CG has experienced very little turnover in its key investment staff.

Firm Overview

Founded in 1937, Waddell & Reed (WR) stakes a claim as one of the oldest mutual fund complexes in the country. In 1998, WR became a publicly-traded stock on the New York Stock Exchange (ticker: WDR). In 2002, WR acquired the investment adviser to the Ivy Funds from MacKenzie Investment Management and launched the fund family for the firm's wholesale channel. Both WR Investment Management Company and Ivy Investment Management Company are wholly-owned, indirect subsidiaries of WR Financial. The firm recently went through a renaming/rebranding campaign to combine the entities under the Ivy Investments umbrella.

The firm is based in Overland Park, Kansas and manages total assets of approximately $100B across domestic equity, international equity, and fixed income. WR employees own approximately 14% of WDR common stock.

Team Overview

PM/Analyst John Maxwell leads the international strategy. He joined Ivy/WR in 1998 as an analyst and joined the international team in 2004. He was named Co-PM on the strategy in mid-2006 along with PM Thomas Mengel. Mengel was formally removed as a named PM on International Core in June 2009. Catherine Murray was named Assistant PM in January of 2014 as Robert Nightingale moved from the role to manage his own strategies (European Opportunities and Global Equity Income) in late 2013. Murray had been a sector analyst with the firm since 2011 and retains research coverage of International Financials. A team of 19 global sector analysts supports all of Ivy's/WR's equity strategies, with 11 of those more focused on the international equity strategies.

Strategy Overview

The team's investment philosophy focuses on taking advantage of market dislocations with an emphasis on attractively valued, high quality companies that will benefit from global thematic tailwinds. The strategy combines macro-economic/top-down themes with bottom-up, fundamental research and will move between value and growth as market cycles and research dictates. Maxwell has not added a new top-down theme since 2010. Currently, the four broad themes are: 1) the rising incomes of EM consumers, 2) dividend yielders, 3) global infrastructure, and 4) mergers & acquisitions. The bottom-up process focuses on free cash flow and relative valuation. No more than 30% of the portfolio is selected based exclusively on the bottom-up analysis, independent of macro themes. Maxwell interacts constantly with sector analysts and WR economists, but ultimately makes all final buy and sell decisions for the portfolio.

The stated range of holdings is 60-80 names. The strategy is primarily invested in large cap stocks, but they will buy stocks as small as $2B in market cap. Portfolio-level risk guidelines are: 1) 5% max invested in any one name, 2) various index relative ranges by sector and region, and 3) no more than 15% in emerging markets equities. Currency hedges are utilized for defensive purposes. Cash is typically less than 5%, but got as high as 12% at the end of 2008. The stated max cash position is 15%. Stocks are sold if: 1) there is a change in the top-down strategy, 2) company fundamentals deteriorate, 3) they identify a better opportunity, and/or 4) the relative valuation gap reverses.

Average annual turnover is 80-100%. About half of the turnover comes from adds and trims. The top-down themes change very little over time, however the way the theme translates in regards to actual portfolio holdings will change in order to maximize the opportunity.

Expectations

Since the process drives the team to look for opportunities during market dislocations, the strategy has tended to perform very well coming out of market bottoms or at the start of an expansionary cycle. For example, the strategy outperformed the index by almost 15% in 2009, coming out of the Great Recession of 2008. The flexibility afforded by the "core" mandate, allows the team to look for exploitable opportunities anywhere in the style spectrum.

The focus on higher quality companies can lead to underperformance during certain parts of the market cycle. The strategy is most susceptible to periods of underperformance during economic turning points. An example would be in the immediate periods following a recession as lower quality stocks that were once feared to go bankrupt, have new life.

Points to Consider

While the strategy's capacity is not currently an issue, the firm communicated that the portfolio would move up in market cap once assets reached $10B. This would not be a desired course of action in our opinion.

As mentioned in the Strategy Overview, cash levels can sometimes reach double digits as a residual of the bottom-up process. While this is not a top-down call by the investment team, it could still be frustrating for clients if/when it results in underperformance.

The team's philosophy of being early, opportunistic buyers when dislocations present themselves can lead to contrarian bets in the portfolio that require investor patience. The high quality bias should act as a buffer/margin of safety in these circumstances, but the risk exists that the strategy will experience periods of underperformance until the market recognizes the opportunity.

Recommendation Summary

The Research Group recommends Ivy International Core for both defined benefit and defined contribution clients as a core, standalone international equity manager given its moderate level of stock diversification and opportunistic core style classification.

While the strategy is diversified by number of stocks, the team will make large bets at the sector, country, theme level as they recognize dislocations. The opportunistic nature of the portfolio coupled with the team's focus on risk management at the stock level, portfolio level and benchmark level have led to strong historical performance for the strategy. While periods of underperformance have occurred, they have been few and small in magnitude. The strategy's attractive upside/downside market capture has been consistent over its history, adding strong value in up markets while also protecting capital relative to the index in down markets.

Firm Overview

Lazard Freres & Co. was founded in the mid-1800's. Lazard Asset Management (LAM), a subsidiary of Lazard Freres & Co., was formed in 1970. The firm's parent went public in 2005 and is publicly-traded on the New York Stock Exchange (Ticker: LAZ). The firm oversees almost $200 billion in assets under management across a broad spectrum of asset classes. LAM is headquartered in New York, NY with offices in 24 cities across 15 countries worldwide. The firm employ over 750 employees, over 300 of which represent investment professionals.

Team Overview

PM Michael Fry is considered the Lead PM on this strategy. He joined Lazard in 2005 and has over 35 years of investment experience. He is supported by five additional international equity PMs: Michael Bennett, Kevin Matthews, Giles Edwards, Michael Powers, and John Reinsburg. Bennett and Reinsburg both joined Lazard in 1992 from GE's internal investment management staff. All five PMs have additional PM/analyst responsibilities for the other three international equity strategies at the firm. PMs are supported by a large, tenured analyst team comprised of 40 professionals focused on international and emerging markets equity research. Analysts average over a decade of industry experience and are shared across the firm's equity products. Analysts focus their research by sector and are on the ground in Asia, Europe and the U.S. While the overall team has considerable influence over the portfolio, Lead PM Fry is considered the ultimate decision maker for International Equity.

Strategy Overview

The team's relative value investment philosophy is implemented by assessing the trade -off between valuation and financial productivity for any individual stock. Lazard believes that stock returns over time are driven by the sustainability and direction of financial productivity balanced by valuation. However, financial markets sometimes evaluate these factors inefficiently, presenting investment opportunities in three key ways: 1) some highly financially productive companies can sustain or improve returns on existing and incremental capital for longer than investors appreciate compounders); 2) investors often misprice structural changes within companies, which can have a material impact on the intrinsic value of a company (restructurings); and 3) investors' shorter-term focus on news flow can result in significant mispricings of securities, as typically, a company's intrinsic value fluctuates much less than the share price (mispricings).

Lazard's PMs and global sector specialists collaborate on detailed fundamental analysis that is rooted in developing unique sources of insight and integrating knowledge across regions, sectors and asset classes. Quantitative screening helps narrow the universe to those securities that meet the team's desired characteristics (attractive relative valuations and improving and/or strong levels of financials productivity as measured by ROE, ROA, FCF yields, etc.). PMs and analysts then conduct on-the-ground fundamental analysis and accounting validation (to ensure business values are real). This work is summarized in the investment thesis, which includes the potential upside to target valuation as well as downside risks. Theses are presented to the PM team for debate and challenge.

Portfolios hold 60-80 stocks. Country and sector weightings can be +/- 10% of index weights. The maximum individual stock weighting is 6%. The team will opportunistically purchase stocks down to a market capitalization of $3 billion, but the average weighted market cap tends to be close to the index. Portfolio turnover averages 30-50% annually.

Expectations

The strategy will tend to outperform the broad market in periods where value stocks are in favor, and conversely may lag in growth-biased markets. In down markets, the strategy has historically outperformed and we would expect that to continue going forward given the focus on valuation and quality as measured by financial productivity.

Periods of underperformance will generally be due to poor stock selection. However there have been periods like 2009 where low quality, less liquid securities soar upwards off the bottom, leaving this strategy playing catch up. Historically, these infrequent periods of underperformance have typically been followed by strong outperformance. Historical tracking error for the strategy has ranged from 2% to 4%.

Points to Consider

Lazard expects to have a certain level of turnover at the analyst position. On average over the past five years, they have lost four analysts annually across the entire firm (both equity and fixed income teams). We would consider this level of turnover at the junior levels normal and acceptable for a 100-plus person analyst team, however we plan to monitor this closely.

Lazard offers two versions of the international equity strategy: one with a maximum of 10% in emerging equities with a primary benchmark of MSCI EAFE Index and the other with a maximum in emerging equities of 10% over the MSCI ACWI ex US Index. The only way to access the ACWI ex US version is via separate account or commingled fund.

Current assets managed in the strategy (both EAFE and ACWI ex US versions) are just over $14 billion. The firm has communicated a need to take a closer look at capacity at around $15-16 billion. Firm-wide, Lazard manages over $45 billion in international equities and there exists a significant level of overlap among all four strategies.

Recommendation Summary

We recommend Lazard International Equity as an option for both defined benefit (DB) and defined contribution (DC) plans in search of a moderately diversified international equity option. While the strategy exhibits a relative value style, it is appropriately positioned as a core strategy. The strategy has a strong history of protecting capital on the downside relative to the index, and keeping up with the index in strongly rising markets. The strategy is a strong candidate for DC plans given its consistent alpha and lower tracking error for an active manager. The strategy would also work well in a DB plan as a sole allocation especially where a client has a dedicated emerging equity allocation. It would also work well paired with growth-biased developed international equity strategy. An extremely deep and long-tenured PM and research analyst team coupled with a long-standing and disciplined process lead us to believe the attractive historical track record has a strong likelihood of repeatability.

Firm Overview

Harris Associates was founded in 1976 and is headquartered in Chicago, IL. It became a wholly-owned subsidiary of Natixis Global Asset Management in 1995, but maintains autonomous control of investment decisions and day-to-day operations. Harris oversees more than $100 billion in client assets across U.S., global and international equity strategies, all managed in the same contrarian value style. The firm's client mix is primarily institutional, but it also has retail clients through the Oakmark branded mutual funds.

Expectations

The primary drivers of relative performance will be the portfolio's value bias and secondarily individual stock selection. Given the strategy's large cap bias, we would expect relative performance benefits when large caps outperform in general. In addition, the small weighting in emerging equities will be somewhat of a tailwind/ headwind relative to the MSCI EAFE Index/MSCI ACW x US Index in periods where emerging markets outperform.

The strategy's higher beta, contrarian nature can lead to significant levels of underperformance, but those periods tend to be few and far between. For example, in 2007 the portfolio's underweight to Energy and Materials and overweight to and poor stock selection in Financials led to a negative absolute return (-0.5%) versus the MSCI ACW x US Index return of over 16%. The strategy outperformed significantly in the three calendar years following 2007, however the underperforming periods may be difficult for some investors to stomach.

Historical tracking error versus the MSCI ACW x US Index has been high, in the 6% to 9% range.

Team Overview

CIO David Herro, who has been with Harris since 1992, heads the International Investment Team. Herrois supported by co-PM Michael Manelli(2005) and eight other PM/analysts. The entire investment team averages over 13 years of investment experience. All PM/analysts are considered generalists by sector, but with country/ regional coverage. Each generally covers two distinct regions across developed and emerging markets.
Senior investment team members of the firm make up the Stock Selection Group (SSG), which is responsible for maintaining a list of securities that may be purchased and sold for client accounts ("Approved List"). Herroand Manelliare the primary decision makers for the international strategy, with final authority in Herro'shands. Herrois also a named PM on International Small Cap, Japan, Global All Cap, Global, and Global Concentrated, while Manelliis also a named PM on International Small Cap and Global.

Points to Consider

Co-PM Rob Taylor retired in September 2016 after 22 years at Harris. He also served as the head of international research from 2004 to 2015. Taylor's retirement was not unexpected so between a very experienced supporting team and Herroremaining at the helm, we have no concerns. In addition to the promotion of Manellito co-PM, Herrohas given the other named PMs on the international strategy co-PM responsibilities on other strategies as part of the ongoing succession planning.

The team will utilize currency hedging for defensive purposes and only where they have positions. For example, 90% of the portfolio's Japanese yen exposure was hedged in 2011 after the earthquake/tsunami disaster. Currently, a portion of the portfolio's Swiss franc (25%) and Australian dollar (10%) positions are hedged via forward contracts.

Strategy Overview

As value investors, Harris seeks out significantly underpriced companies with strong business fundamentals and proven management teams. The team believes that purchasing a business at a substantial discount to intrinsic value minimizes risk while providing significant profit potential. They look for management teams who seek to maximize long-term business value by running efficient operations that emphasize free cash flow generation and wise capital allocation.

The initial universe is narrowed first by eliminating countries that fail the firm's adequate legal/regulatory structure requirements, second by eliminating stocks with inadequate liquidity and finally by eliminating stocks that the team considers overvalued. The minimum market cap company that is eligible for purchase is $5 billion. PM/analysts then conduct deep fundamental research on the company via company filings, annual reports, proxy-voting records, trade publications, company visits/management conversations and Street research. Using this information, analysts prepare extensive models to determine an estimate of the company's intrinsic value. Stocks must be selling at a minimum 30% discount to estimates of intrinsic value. If the company fundamentals meet the team's criteria, the stock is presented to the SSG who then votes to decide whether the stock goes on the Approved List. Once on the Approved List, the stock is available for purchase.

The final portfolio holds 50-65 stocks. No more than 7% can be invested in an individual holding. The maximum investment in any one industry or country is 25% and 30%, respectively The team can invest in emerging equites and while there is no stated limit the historical high allocation to EM is just over 10%. Average annual total turnover is less than 50%, with name turnover closer to 20%.

Recommendation Summary

We recommend Harris Associates International strategy as an option for both defined benefit and defined contribution plans in search of a developed international strategy with a deep value bias. The strategy would work well in a defined benefit plan where the international equity allocation was divided between value and growth strategies. We believe it is only appropriate to utilize as a standalone option for those clients that understand the strategy's contrarian nature and the volatile relative performance pattern that is likely to occur over a full market cycle. The long-tenured team has consistently applied its disciplined, long-term contrarian value process, yielding investors significant alpha net of fees. The expense ratio for institutional share class of the OakmarkInternational Fund is considered below average from a fee perspective, at 0.81%

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta.

Batting Average – A measure of a manager's ability to consistently beat the market. It is calculated by dividing the number of months in which the manager beat or matched an index by the total number of months in the period.

Best Quarter- This is the highest quarterly (3 month) return of the investment since its inception.

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.

Down Period Percent - Number of months below 0 divided by the total number of months.

Downmarket Capture Ratio - The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance.

Downside Std Dev - This measures only deviations below a specified benchmark.

Excess Return- This is a measure of an investment's return in excess of a benchmark.

Information Ratio - This calculates the value-added contribution of the manager and is derived by dividing the excess rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.

Longest Down-Streak Return - Return for the longest series of negative monthly returns.

Longest Down-Streak # of Periods - Longest series of negative monthly returns.

Longest Up-Streak Return - Return for the longest series of positive monthly returns.

Longest Up-Streak - Longest series of positive monthly returns.

Kurtosis - Kurtosis indicates the peakedness of a distribution. For normal distribution, Kurtosis is 3.

Max Drawdown - The peak to trough decline during a specific record period of an investment or fund. It is usually quoted as the percentage between the peak to the trough.

Max Drawndown # of Periods - This is the number of months that encompasses the max drawdown for an investment.

R-Squared - The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.

Return - Compounded rate of return for the period.

Sharpe Ratio - Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.

Skewness - Skewness reflects the degree of asymmetry of a distribution. If the distribution has a longer left tail, the function has negative skewness. Otherwise, it has positive skewness. A normal distribution is symmetric with skewness 0.

Sortino Ratio - The Sortino Ratio is similar to Sharpe Ratio except it uses downside risk (Downside Deviation) in the denominator. It was developed in early 1980's by Frank Sortino. Since upside variability is not necessarily a bad thing, Sortino ratio is sometimes more preferable than Sharpe ratio.

Standard Deviation - A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.

Tracking Error - This is a measure of the standard deviation of a portfolio's excess returns versus its designated market benchmark.

Treynor Ratio - Similar to Sharpe Ratio, Treynor Ratio is a measurement of efficiency utilizing the relationship between annualized risk-adjusted return and risk. Unlike Sharpe Ratio, Treynor Ratio utilizes "market" risk (beta) instead of total risk (standard deviation). Good performance efficiency is measured by a high ratio.

Up period Percent - Number of months above 0 divided by the total number of months.

Upmarket Capture Ratio - The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

Value-Growth Score - Morningstar assigns an Overall Value score and an Overall Growth score to each stock within a fund. Morningstar then calculates a net value-core-growth score for each stock by subtracting the stock's Overall Value score from its Overall Growth score. Once this is done, these raw scores are rescaled to range between -100 to 400 in order to fit within the Morningstar Style Box. Scores below 67 are classified as value, scores above 233 are classified as growth, and scores between 67 and 233 fit within the core boundaries.

Worst Quarter - This is the lowest quarterly (3 month) return of the investment since its inception.

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