Lower Swatara Township

PROPOSAL FOR INVESTMENT SERVICES
FOR THE
NON-UNIFORM AND POLICE PENSION PLANS

PFM®
40 Years of Independent Advice
The PFM Group
Financial & Investment Advisors

PFM Asset Management LLC

One Keystone Plaza
Suite 300
North Front & Market Streets
Harrisburg, PA 17101
(717) 232-2723

www.pfm.com

Table of Contents

Tab I - Cover Letter

The PFM Group
Financial & Investment Advisors

One Keystone Plaza
Suite 300
North Front & Market Streets
Harrisburg, PA 17101
17101

(717) 232-2723
(717) 233-6073 fax
www.pfm.com

October 30, 2015

Mr. Samuel Monticello
Township Manager
Lower Swatara Township
1499 Spring Garden Drive
Middletown, PA 17057

Dear Mr. Monticello:

PFM Asset Management LLC ("PFMAM") appreciates the opportunity to submit our proposal to provide Lower Swatara Township (the "Township") with investment and administrative services for its Police and Non-uniform Pension Plans (the "Plans"). Our discretionary multi-asset class investment management approach is a full-service solution in which PFMAM serves as an extension of the Board of Commissioners ("the Board") and staff in its role as a fiduciary to the Plans. We integrate industry best practices, which are designed to provide high fiduciary standards and investment flexibility, relieving the Board and staff of the day-to-day tasks associated with managing pension plans, while maintaining its oversight and control. Benefits to using PFMAM's approach include cost-effectiveness, fiduciary oversight, and the efficient execution of best ideas for the Plans.

PFMAM is an independent, Pennsylvania-based firm committed to partnering with our public sector clients on their finance and investment needs. With main offices in Harrisburg and Philadelphia, our professionals possess significant expertise with Pennsylvania laws regarding pensions (including Act 205, Act 600, and Act 44) and understand how to help our public pension client base maintain compliance with these requirements. Our discretionary portfolio management structure is designed to provide the Township with greater access to investments, streamlined processes for transition, and efficient implementation of portfolio decisions and rebalancing. Unlike some of our competitors, PFMAM will implement customized strategies on behalf of the Township, seeking to minimize risk while optimizing returns with a strategy that meets the needs of each individual plan.

We offer the Township the following qualifications that we believe distinguish PFMAM:

- **Expertise Serving Pennsylvania Public Funds.** We believe the experience and strong knowledge of PFMAM regarding Pennsylvania public retirement plans is hard to replicate by other firms. PFMAM's professionals and predecessors have advised defined benefit plans in Pennsylvania and assisted their staff in investment-related matters since 1992. We manage and advise more than 40 public retirement clients in Pennsylvania representing more than 80 retirement plans (as of June 30, 2015). Pennsylvania-based plans represent more than 50% of our retirement client base.

- **Fiduciary Responsibility.** Our structure allows us to provide the Township with objective and transparent advice. We will join the Township as co-fiduciaries as we administer the investment program for the Plans. We sit on the same side of the table as you. As an organization and your partner we are committed to our independence. We have never received fees or any remuneration from a third-party. The only source of revenue we receive is from our clients as their investment advisor. Our comprehensive reporting package allows the Township to monitor the Plans' investments and remain fully informed about the decisions we make on the Township's behalf.

- **Separation of Duties.** PFMAM serves as an <u>independent</u> investment advisor. This is an important distinction between PFMAM and some of its competitors. The custodian serves a distinct role as the safe-keeper of the assets, as does the actuary in their role in valuing the liabilities. This separation of duties between the investment advisor, custodian, and actuary is recommended by the Government Finance Officers Association ("GFOA") as best practices and is critical in fulfilling the fiduciary duty of board members in avoiding many potential conflicts of interest. As part of our role, we have performed numerous custodian and administration searches and would be happy to assist the Township in their search as part of our proposal. We also can partner with U.S. Bank, N.A. to provide the necessary plan administration and custody services for the Plans at a preferred rate that has been negotiated for PFMAM's clients.

- **Low-Cost Investment Management.** PFMAM is aware of the many financial challenges facing the public sector. As a result, we are focused on creating an investment program customized to achieve the Plans' investment objectives in the most cost efficient manner. We believe a diversified portfolio incorporating both active and passive strategies can offer a balanced, cost-effective approach to realizing long-term objectives. As of September 30, 2015, the average client investment manager cost for a balanced 60% equity / 40% fixed income portfolio was 20 basis points (0.20%).

- **Strong GIPS®-compliant Asset Management Track Record.** PFMAM's track record managing discretionary "outsourced CIO" multi-asset class portfolios has been distinguished since its inception more than 9 years ago. Our track record of performance is Global Investment Performance Standards ("GIPS®") compliant so you can be sure the performance you are comparing is an all-inclusive group of similar portfolios as opposed to "cherry-picked" examples of performance. The members of our Investment Committee average 26 years of investment experience. We are accountable for the investment program's structure and most importantly the performance outcomes.

In the pages that follow, we outline our experience, qualifications, and desire to work in a cooperative partnership with the Township to enhance the investment process and results for the Plans. We appreciate your consideration and welcome the opportunity to meet with you in person to discuss our proposal in greater detail. Should you have any questions or need clarification, please do not hesitate to contact Mark Yasenchak directly at (717) 232-2723 x1231 or yasenchakm@pfm.com.

Thank you for your review of our proposal.

Sincerely,

PFM Asset Management LLC

John Spagnola
Managing Director

Mark Yasenchak, CFA
Senior Managing Consultant

Tab II- A. Act 44 Disclosure Form

ATTACHMENT “A”

Act 44 Disclosure Form

Act 44 Disclosure Form

Completely reply to the following inquiries
(Attach additional pages as necessary):

1. *List the names and titles of each individual who will be providing professional services relative to this contract including advisors and subcontractors.*

   Mark Yasenchak, CFA, Senior Managing Consultant
   Marc Ammaturo, Managing Director
   John Spagnola, Managing Director
   Biagio Manieri, PhD., CFA, Director
   Tyler Braun, CFA, Sr. Managing Consultant

2. *Relative to question 1 above, describe the following:*

   A. *Are any of the above current or former officials of employees of Lower Swatara Township? When were they last employed by Lower Swatara Township?*

      No.

   B. *Are any of the above a registered federal or state lobbyist?*

      No.

   C. *What are the responsibilities of each individual with regard to the proposed services?*

      Mark Yasenchak, CFA, Senior Managing Consultant, Engagement Manager and Lead Advisor
      Marc Ammaturo, Managing Director, Co-Leader of Multi-Asset Class Practice
      John Spagnola, Managing Director, Co-Leader of Multi-Asset Class Practice
      Biagio Manieri, PhD., CFA, Director of Research, Chair of Investment Committee
      Tyler Braun, CFA, Sr. Managing Consultant, Portfolio Trader/Analytics

3. *Have you in the last year or do you now retain a third-party intermediary, agent or lobbyist to directly or indirectly communicate with Lower Swatara Township? If so, please describe.*

   No.

4. *Has your firm or anyone in your firm solicited a contribution to any municipal official or candidate for municipal office in Lower Swatara Township or to the political party or political actions committee of an official at Lower Swatara Township or candidate for elected office at Lower Swatara Township?*

   No.

5. *Confirm that, since on or after October 12, 2015 no one at your firm has communicated with, nor will they communicate with (or cause or agree to allow any third party to communicate with), any officials or employees of Lower Swatara Township except for requests for technical clarifications or proposal submission logistics which should be directed via email to:*

   Alexander Langan, Pension Consultant: ALangan@financialguide.com
   Samuel Monticello, Manager: SMonticello@LowerSwatara.org

   Confirmed.

6. *List all contributions made by your firm or an Affiliated Entity to a municipal official or candidate for office in Lower Swatara Township made on or after January 1, 2010. An affiliated entity means:*

   (1) A subsidiary or holding company of a lobbying firm or other business entity owned in whole or in part by a lobbying firm.

   (2) An organization recognized by the Internal Revenue Service as a tax-exempt organization under Section 501(c) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. §501(c)) established by a lobbyist or lobbying firm or an affiliated entity.

   None.

7. *List any direct financial, commercial or business relationship with any municipal official or pension system of Lower Swatara Township held by your firm or any Affiliated Entity.*

   None.

8. *List any gift including money, services, loan, travel, lodging, entertainment, discount or other thing of value, to any official, employee of Lower Swatara Township or a fiduciary of its pension plan.*

None.

9. *Confirm that no one at your firm or an Affiliated Entity was employed by Lower Swatara Township in the last 12 months.*

Confirmed.

10. *List any other disclosure made pursuant to Act 44 of 2009. (Attach additional pages as necessary)*

N/A

-end of document-

Tab II- B. RFP Questionnaire

ATTACHMENT "B"
I. COMPANY INFORMATION

1. List your firm's complete name, address, telephone and fax numbers. Briefly describe the organization, the year it was founded, location of its headquarters and other offices.

Name: PFM Asset Management LLC

Corporate Headquarters and Office Servicing the Township:

One Keystone Plaza, Suite 300
North Front and Market Streets
Harrisburg, PA 17101
(717) 232-2723
(717) 233-6073 fax
www.pfm.com

Contact: Mark Yasenchak, CFA - Senior Managing Consultant

Firm History

PFM Asset Management LLC ("PFMAM") is part of the PFM Group of companies, which includes Public Financial Management, Inc. ("PFM")—the nation's leading independent financial advisor in public finance, according to Thomson Reuters—and PFM Swap Advisors LLC ("PFMSA"). The PFM Group was founded in 1975 to provide independent financial advisory services to the public sector and began providing investment advisory services to public entities in 1980. PFMAM was created in 2001 as the entity through which investment advisory services are provided. In 2003, PFMAM acquired Spagnola-Cosack, Inc., a multi-asset class investment consultant co-founded by Managing Director John Spagnola in 1992, to provide independent investment consulting services. In total, the PFM Group has been providing investment advice for 35 years.

For the period ended June 30, 2015, PFMAM had $100.8 billion in total assets, including $59.2 billion in discretionary assets under management and $41.6 billion in non-discretionary assets under advisement.

Other Offices

The PFM Group has 38 offices and locations nationwide (as of June 30, 2015), three of which are in Pennsylvania:

- Ann Arbor, MI
- Austin, TX
- Chandler, AZ
- Cincinnati, OH
- Arlington, VA
- Boston, MA
- Chattanooga, TN
- Cleveland, OH
- Atlanta, GA
- Charlotte, NC
- Chicago, IL
- Dallas, TX

- Denver, CO
- **Harrisburg, PA**
- Los Angeles, CA
- Miami, FL
- New Orleans, LA
- Orlando, FL
- Princeton, NJ
- Richmond, VA
- St. Louis, MO
- Des Moines, IA
- Huntsville, AL
- **Malvern, PA**
- Milwaukee, WI
- New York, NY
- **Philadelphia, PA**
- Providence, RI
- San Francisco, CA
- Tampa Bay (Largo), FL
- Fargo, ND
- Long Island, NY
- Memphis, TN
- Minneapolis, MN
- Oakland, CA
- Phoenix, AZ
- Raleigh, NC
- Seattle, WA

2. Provide a brief history of your firm and your parent organization.

a. How long has the firm been providing investment consulting services to defined benefit plans and Pennsylvania municipal pension funds?

PFMAM and its predecessors have provided independent investment consulting services to municipal pension funds in Pennsylvania for 23 years. In total, the PFM Group has been investment advisory services to municipal governments for 35 years.

b. What is the total asset base of the pension funds on which you consult?

As of 6/30/2015 we provide investment advisory services to more than 190 retirement plans totaling $14.5 billion in assets.

c. What is the current number of governmental or municipal pension funds, including amount of assets, for which the firm currently acts as an advisor?

Of the amount listed above, roughly $3.1 billion (105 plans) is specifically for municipal defined benefit (pension) funds nation-wide—the majority of which are based in Pennsylvania.

d. Describe the level of experience and familiarity with Pennsylvania's Act 205, 600 and 44.

We believe the experience and strong knowledge of PFMAM regarding Pennsylvania public pension plans is hard to replicate by other firms. Our professionals have advised defined benefit plans in Pennsylvania and assisted their staff in investment-related matters for more than 20 years, and are very familiar with Act 205, 600 and 44.

Act 205 establishes reforms for the funding, reporting, and financing of municipal pensions in Pennsylvania. The legislation addresses the following major issues:

- Standardized actuarial and financial reporting
- Minimum employer contribution requirements

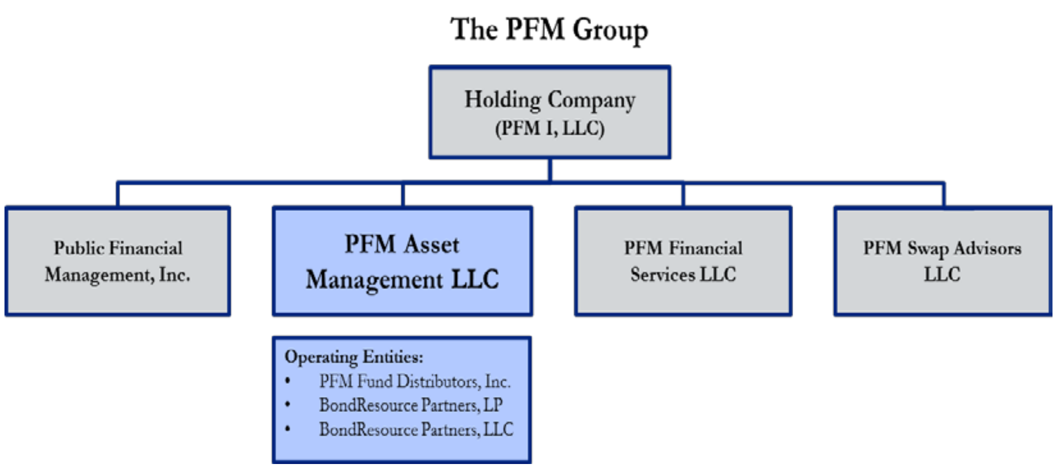
- Revision of the allocation formula for distributing state aid to pension plans
- Recovery plan and additional state funding for "distressed" pension plans

Act 600 governs police pensions in all boroughs, towns, and townships employing three or more full-time police officers. We are very familiar with the key aspects of Act 600 which may or may not have a role in determining the level of risk assumed in an investment portfolio. Some of these factors are as follows:

- Normal retirement is 25 years of service and age 50-55.
- The percentage of member contributions ranges from 0% to 8%, with 5% as a default.
- Benefits vest after 12 years.
- Benefits are calculated using 50% of an employee's average salary during the last three to five years of employment.
- There is no portability.

In addition to our knowledge of Act 205 and Act 600, we have extensive experience and familiarity with Act 44. Act 44 governs the process for choosing and replacing service providers to municipal pension funds in Pennsylvania. Additionally, Act 44 provides guidelines and reporting requirements for political contributions.

3. Describe your firm's ownership structure, including specific details regarding your parent and any affiliated companies.



PFMAM and our affiliates, described below, are indirect wholly-owned subsidiaries of a holding company known as PFM I, LLC. This holding company is owned by the firm's Managing Directors, who set the firm's strategic direction. Individual partners are responsible for specific practice areas and also personally manage specific client engagements.

The affiliates of PFMAM are:

- **Public Financial Management, Inc. ("PFM")** is the leading financial advisor in the country,[1] providing independent financial advisory services as well as management and budget consulting to local, state, and regional governments as well as non-profit clients. PFM is registered with the SEC and the Municipal Securities Rulemaking Board ("MSRB") as a municipal advisor.

- **PFM Financial Services LLC** is responsible for providing the Payment Solutions ("P-Card") program, a simple, easy-to-use purchasing card program designed to save clients time and money.

- **PFM Swap Advisors LLC ("PFMSA")** provides advice on interest rate swaps and related derivatives which may be employed by issuers of municipal securities. PFMSA is registered with the SEC as a municipal advisor and is registered as a Commodity Trading Advisor ("CTA") with the Commodity Futures Trading Commission ("CFTC").

PFMAM's wholly owned subsidiary, PFMFD, is registered with the SEC as a broker/dealer and is a member of FINRA and subject to the rules of the MSRB. The main function of this subsidiary is to act as the distributor and marketing agent for various Pools which are managed by PFMAM. We do not trade for client accounts through this broker/dealer or receive any commissions through this arrangement.

4. Describe all line(s) of business in your firm, your parent organization and any affiliated companies.

Please refer to Question 3 above for a summary of our various lines of business.

5. Does your firm provide services other than investment consulting services? If so, are these separate from the company's investment services? How?

PFMAM is more than an investment advisor to our clients—we are a strategic partner with vast municipal government finance and investment experience. One significant differentiator about PFMAM when compared to other investment advisors is our ability to leverage our deep resources on clients' behalf. In addition to pension plan management, we provide a number of specialized services for our clients' convenience, including the following*:

Fixed-Income Portfolio Management. PFMAM provides customized fixed-income portfolio management primarily for public-sector clients and not-for-profit institutions for operating funds, reserves, and bond proceeds investment.

[1] *Ranked by Thomson Reuters for calendar year 2014, based on principal amount and number of transactions.*

Other Post-Employment Benefits. The funding of non-pension, post-employement benefits has become a high priority for many of our investment advisory clients. PFMAM has become a leader in OPEB liability management and implementation. PFMAM has been able to advise, strategize, and implement plans for entities to mitigate their liability. In doing so, we have helped clients understand the future ramifications that OPEB can have on their financial picture.

Emerging and Minority Manager Programs. For the past 11 years, PFMAM has developed an emerging manager program seeding small start-up investment firms. The program is comprised primarily of minority managers, some of which have graduated to become independent, larger, and successful managers. The program provides a unique opportunity for investing in emerging and local talent with promising performance potential.

Structured Product Services. PFMAM's dedicated Structured Products Group provides clients with expertise in the structuring, procurement or termination of forward delivery agreements, guaranteed investment contracts, flexible repurchase agreements, escrow structuring, and asset swaps. Unlike many investment advisors, we have the internal resources and experience to support our clients in this highly specialized field.

Arbitrage Rebate Services. PFMAM can provide clients with complete arbitrage rebate services. Our fully staffed in-house Arbitrage & Tax Compliance Group is structured as a team approach that works together to review clients' debt and investments to identify opportunities for clients to manage their potential arbitrage rebate liability more effectively.

Financial Advisory Services. PFMAM's affiliate, Public Financial Management, Inc. ("PFM"), engages in capital planning, revenue forecasting and evaluation, resource allocation, debt management policy development, and debt transaction management (including structuring, documentation, and execution). PFM delivers deep experience and expertise that helps clients resolve the entire range of technical and financial challenges they routinely encounter during the capital formation process. We believe PFM's national reputation and consistent growth, from $5 billion in managed debt transactions in 1986 to $48.6 billion at year-end 2014, reflects our clients' recognition of our capabilities and the value we add.

Management and Budget Consulting Services. PFM's Management and Budget Consulting team offers highly effective capital and operating budget advice.

Swap Advisory and Monitoring Services: PFM Swap Advisors provides interest rate swaps, caps, and collars to help manage interest rate exposure and assist in the structure development and procurement of forward delivery agreements, guaranteed investment contracts, and flexible repurchase agreements.

**Fees for these services would be negotiated and agreed to in writing prior to undertaking any specific engagement, since the actual fee will depend on the complexity of the work.*

6. Is your firm, its parent or affiliate, a registered investment advisor with the SEC under the Investment Advisors Act of 1940?

Yes. PFMAM is a registered investment advisor with the SEC under the Investment Advisers Act of 1940.

7. Within the last five (5) years has your organization or any officer or principal been involved with any business litigation or other legal proceeding relating to your consulting activities? If so, provide an explanation and indicate the current status or disposition.

Beginning in September 2009, a Burlingame, California law firm filed antitrust complaints on behalf of 20 California governments or agencies against 40 financial institutions and advisors ("Burlingame Complaints"). These complaints and numerous other similar suits have been consolidated in federal district court in New York. The Burlingame Complaints are the only suits premised on the same transactions which name PFMAM as a defendant; PFMAM is not a defendant in the consolidated class action cases. One of the plaintiffs in the Burlingame suits has instructed its attorneys to dismiss the complaint against PFMAM. Discovery has not yet materially begun in the Burlingame suits and has been significantly limited at the request of the U.S. Department of Justice. PFMAM believes that the Burlingame suits are legally and factually unsupportable as to PFMAM and that PFMAM has no liability.

A municipal depositor in a local government investment pool for which PFMAM is the investment advisor/administrator was defrauded by an employee of the local government, who misappropriated funds to her own benefit through the use of drafts payable through funds on deposit in the local government investment pool. That individual was arrested in early 2010 and thereafter was convicted and incarcerated. In October 2012 the affected municipal government sued PFMAM and the local government investment pool to recover the previously discovered losses, claimed to be about $550,000 incurred over nearly 10 years. Discovery only has recently commenced in that litigation and, consequently, there is no clarity as to how the fraud was carried out, the amount of the loss, or whether the procedures of the local depositor facilitated the loss.

PFMAM and an affiliate (collectively "PFM") were joined as "4th party defendants" in a lawsuit initiated by a school district against its swap counterparty for declarative relief that the swap is unenforceable. The swap counterparty joined the school district's bond counsel as a defendant, and bond counsel then joined PFMAM, claiming that if counsel were to be liable for any damages it would be entitled to contribution from PFM. This suit was settled in early 2013; PFMAM contributed less than 1% of the amounts agreed in settlement.

8. If your firm, its parent or affiliate is a broker/dealer, do you trade for client accounts through this broker/dealer?

PFM Fund Distributors, Inc. ("PFMFD") is a subsidiary of PFMAM. PFMFD is a limited-purpose broker-dealer whose only business is to serve as the distributor or marketing agent for shares of government investment pools and a registered investment company which are advised by PFMAM. PFMFD does not trade for individual client accounts or receive any commissions.

9. Identify the consultants or other key staff who would be involved in servicing our account. Provide biographical data on these individuals.

PFMAM is offering Lower Swatara Township a team of specialized personnel who are experts in their respective areas, listed in the table below. **Mark Yasenchak, CFA**, Senior Managing Consultant, would be the Engagement Manager and Lead Advisor responsible for servicing Lower

Swatara Township on a day-to-day basis. **John Spagnola**, Managing Director, and **Marc Ammaturo**, Managing Director, are the Co-Leaders of our Multi-Asset Class Practice and will provide additional oversight on the relationship. **Biagio Manieri, PhD, CFA,** Director of Research, leads our research department in market research and manager due diligence and serves as the Chair of our Multi-Asset Class Investment Committee, which is responsible for investment management of our discretionary client portfolios. Prior to joining PFMAM, he helped manage over $13 billion in defined benefit and defined contribution plan assets at the Federal Reserve System. **Tyler Braun, CFA**, Senior Managing Consultant, will provide trading and analytical support to the Plans and the engagement team, including any accounting or operational inquiries.

Name	Role with the Township	Expertise
Mark Yasenchak, CFA *Senior Managing Consultant*	Engagement Manager and Lead Advisor	**14 years industry experience** **12 years with PFMAM** Mr. Yasenchak is a Senior Managing Consultant with PFM Asset Management LLC (PFMAM). He is responsible for advising institutional clients on the oversight of their multi-asset class portfolio solutions with a focus on pension, Other Post-Employment Benefits (OPEB), Endowment and Foundation, and other long-term investment funds. He is also a member of PFMAM's Multi-Asset Class Investment Committee which is responsible for the management of PFMAM's long-term discretionary assets. Prior to joining PFM, he was employed by PFPC, Inc., one of the nation's leading providers of technology and business services for the global investment industry. Mr. Yasenchak received his B.S. degree in Finance with a minor in Economics from West Chester University and has been awarded the Chartered Financial Analyst (CFA) designation. He is also a member of the CFA Institute, the CFA Society of Philadelphia, Government Finance Officers Association of Pennsylvania (GFOA-PA), Maryland Government Finance Officers Association (MDGFOA), and the National Association of Government Defined Contribution Administrators (NAGDCA).
Marc Ammaturo *Managing Director*	Co-Leader of Multi-Asset Class Practice	**19 years industry experience** **10 years with PFMAM** Mr. Ammaturo is the current engagement manager for the Township's OPEB Trust. He joined PFMAM in 2005 and was promoted to Managing Director in 2012. As co-leader of PFMAM's multi-asset class management practice, Mr. Ammaturo assists in setting the firm's strategy in developing, servicing, and marketing our discretionary multi-asset class management services nation-wide. He also serves on the Multi-Asset Class Investment Committee. In the community, Mr. Ammaturo serves on the Peirce College Board of Trustees ("Peirce"). At Peirce, he is Chairman of the Finance and Investment Committee and is a member of the College's Executive Committee. He also is a past member of the Philadelphia Regional Advisory Board for Economics Pennsylvania, a non-profit organization that promotes economic education in the K-12 Classroom. In addition, Mr. Ammaturo was selected by the PFM Group to participate in LEADERSHIP Philadelphia, a non-profit

Name	Role with the Township	Expertise
		organization that mobilizes the leaders of the private sector to work on behalf of the Philadelphia community.
John Spagnola *Managing Director*	Co-Leader of Multi-Asset Class Practice	**31 years industry experience** **12 years with PFMAM** Mr. Spagnola co-founded Spagnola-Cosack, Inc., an independent investment consulting firm that was acquired by PFMAM in 2003. His responsibilities include co-leading PFMAM's multi-asset class business with Mr. Ammaturo and overseeing client service, product development, and marketing. His clients include public, self-insurance, Taft-Hartley, corporate, hospital, endowment, and foundation funds. He currently serves on the Board of Directors for Magee Rehabilitation Hospital in Philadelphia, St. Rose of Lima Parish in Philadelphia, and the Greater Philadelphia Chamber of Commerce. He has also taught a course on managing public funds for the Fels Institute of Government at the University of Pennsylvania.
Biagio Manieri, PhD, CFA *Director of Research*	Director of Research / Chair of Investment Committee	**28 years industry experience** **3 years with PFMAM** Mr. Manieri serves as Chair of the Multi-Asset Class Investment Committee and leads a team of analysts concentrating on the economy, capital markets, and investment management products. Prior to joining PFMAM, he helped manage over $13 billion in defined benefit and defined contribution plan assets at the Federal Reserve System reporting to the Investment Committee consisting of Federal Reserve Presidents and Board Governors. He also served as an investment analyst at several asset management firms, including Lord Abbett & Co., FP Asset Management, Inc., and Goldman Sachs & Co. Mr. Manieri earned a B.E. in Electrical Engineering from The City College of the City University of New York, concentrating in computer hardware and programming. He went on to receive a Ph.D. in Political Science/International Relations at Columbia University, where he also taught for 5 years. Holds the Chartered Financial Analyst (CFA) designation.
Tyler Braun, CFA *Senior Managing Consultant*	Portfolio Trader / Analytics	**10 years industry experience** **7 years with PFMAM** Mr. Braun conducts portfolio management/trading activities for multi-asset class management clients, and also performs portfolio reviews and asset-liability analysis for current and prospective institutional clients. Mr. Braun obtained a B.A. from Bucknell University in 2005, with a dual major in Economics and Political Science, and an M.B.A in Finance from Villanova University in 2008. He holds the Chartered Financial Analyst (CFA) designation and is a member of the CFA Institute and CFA Society in Philadelphia.

10. What experience does the lead consultant have with governmental plans and Pennsylvania Municipalities?

Mark Yasenchak, CFA, the lead Engagement Manager, has been working with governmental plans in Pennsylvania for the past 12 years and has a significant amount of experience and expertise in matters related to public pension plans. His main focus is working with governmental retirement plans in the central and eastern regions of Pennsylvania. During his tenure at PFMAM, Mr. Yasenchak has worked with over 30 different municipalities in Pennsylvania as an advisor to their pension plans.

11. Can your firm provide "outsourced CIO" discretionary consulting services?

Yes, PFMAM is considered to be a leader in outsourced CIO discretionary management services for government entities. This is the service which we are proposing for the Township in this response. We currently work with 143 clients with assets under management of roughly $6.5 billion. Through our outsourced CIO (or discretionary management) services, we offer our clients a comprehensive solution for investment policy development, asset allocation, manager research and selection, and continuous monitoring of both the aggregate plan and underlying investments with tactical portfolio management and portfolio rebalancing. When using discretionary management, PFMAM provides all of the traditional consulting services one would expect, with the added benefit of using discretion to proactively manage the portfolio in response to changing market conditions. We act as a fiduciary, using our discretion to make investment decisions on our clients' behalf.

Clients benefit from our discretionary approach through:

- Strong governance from our seasoned Multi-Asset Class Investment Committee and Investment Research Group;
- Timely decisions based on the evolving market environment and clients' changing investment needs;
- Administrative efficiencies so that clients can focus on overall plan management instead of investment decisions; and
- Cost-effective solutions that emphasize tactical use of active and passive (index) investments.

In fact, many institutional investors are outsourcing investment responsibility to a fiduciary advisor, mainly due to a lack of internal resources, as well as the need for additional fiduciary oversight and faster implementation of investment ideas.[4] Over 30% of PFMAM's current discretionary multi-asset class relationships were non-discretionary investment consulting clients who opted to move to our discretionary management platform over the past 9 years.

Recently John Spagnola, Managing Director and leader of our outsourced CIO practice, was selected to be a panelist for an upcoming webinar on outsourced CIO services hosted by Pensions & Investments. This webinar will be held on Wednesday, November 4th from 2:00 p.m. to 3:00 p.m. Eastern Time.

[4] *"Investment Outsourcing Survey" published by Asset International, Inc.'s "aiCIO", February 2012.*

12. What type of fiduciary protection, if any, is offered by your firm?

PFMAM will serve as a fiduciary for the Plans, which means we must put the interests of the Plans before our own in providing our discretionary management services. The services that we provide are free from conflicts of interest and the only revenue we receive is from the fees paid by our clients. This allows us to focus exclusively on providing the best overall service to our clients in our role as an investment advisor and fiduciary.

PFMAM also has a strict Code of Ethics that is an expression of the Firm's recognition of its responsibilities to the public, clients, and professional associates. PFMAM requires that all officers, employees, consultants, and representatives avoid unauthorized activities that involve or might appear to involve a conflict of interest between personal and professional relationships.

13. Describe your intended interaction and involvement with the board/committee and staff.

Mark Yasenchak, CFA, Senior Managing Consultant, would be the Engagement Manager and Lead Advisor responsible for servicing Lower Swatara Township on a day-to-day basis. His office is located nearby in downtown Harrisburg. We prefer to think of our firm as a partner and extension of staff and thus will be willing to report to the Board/Committee in person as required and on an as-needed basis for day-to-day needs and regular Board/Committee meetings. The Township will also be assigned an account coordinator and other analysts, who provide day-to-day client support and will assist Mr. Yasenchak in providing our services to the Township.

14. Do you provide any educational opportunities to your clients' trustees, staff and plan participants?

PFMAM offers a comprehensive variety of educational services to clients, with frequency and content determined by both client needs and new research or market conditions. Listed below are many of the forums that we would continue to make available to the Township. Many of the training workshops and other seminars are presented by members of our Investment Committee, which includes three CFA charterholders and other seasoned professionals with an average of 28 years of experience.

Our Director of Research and Chair of the Investment Committee, Dr. Manieri, frequently participates in educational opportunities for our clients across the country, including recent events at the Palm Beach Chapter of the Florida GFOA; PFMAM's annual economic webinar; a client-specific training seminar in San Antonio, Texas; *Pensions & Investments'* webinar regarding OCIO services; and the Virginia State Building and Construction Trades Annual Conference, among others. All of these examples are recent and have taken place within the past six months.

We host an annual client education conference in Pennsylvania to review the previous year and look at the upcoming year. Ed Rendell, former Governor of Pennsylvania, was the keynote speaker in 2014 and Jack Bogle, founder and retired Chief Executive Officer ("CEO") of The Vanguard Group, presented in 2013.

- **Client-Specific Training:**
    - **In-meeting Topics:** We typically discuss economic issues and research ideas at each quarterly meeting with the Township.
    - **Client Tailored Education:** We will design specific training presentations covering various topics at the Township's request. These topics can also include industry best practices and fiduciary training.
    - **Individual Review:** We will meet with new or current Township staff members to inform and educate them regarding the structure of the portfolio and understand other financial issues being addressed by the Township and their impact on the Pension Plans.
- **Ongoing Publications:**
    - Monthly and quarterly market commentaries are published to provide a timely overview of current events impacting the financial markets.
    - Our Thought Leadership series, *PFM Perspectives*, describes our current thoughts on developments in the financial markets, and how they relate to our clients' portfolios.
    - Our Capital Market Assumptions are published annually to help inform our asset allocation process.
- **Webinars and Conference Calls:** We provide periodic web and telephonic conferences covering a wide variety of investment, public-sector, economic, and other topics. We also host an annual economic and market forecast webinar for our clients.
- **Education Symposiums:** We host an annual client education conference to review the previous year and look at the upcoming year.
- **Off-Site Client Training:** Clients are invited regularly to PFMAM-sponsored educational seminars held at off-site locations. These training events often feature industry subject matter experts on various public, pension, economic, investment, or other finance-related topics. Many of our training sessions also qualify for continuing professional education ("CPE") credits.

II. INVESTMENT APPROACHES/PHILOSOPHIES

1. Describe your firm's approach to investment research. Please indicate relationship with research/academics outside your firm.

The Township will be supported by PFMAM's Investment Research Group, a dedicated team of specialists who monitor both the markets and third-party investment managers, and frequently interact with the investment managers we monitor. Although we do reach out to various industry experts and academics for market insight and educational pieces, we do not have any formal relationships with outside firms or consultants. All of our research is conducted internally by our Investment Research Group.

The Investment Research Group is comprised of 10 members solely focused on two broad areas of research using industry-leading technology from the likes of Investment Metrics, eVestment Alliance, Morningstar/Ibbotson Associates, Bloomberg, and Hedge Fund Research, Inc. ("HFRI"). These two areas are:

- General market data research for the Investment Committee, and
- Manager research to find best-in-class third-party investment managers for each particular asset class.

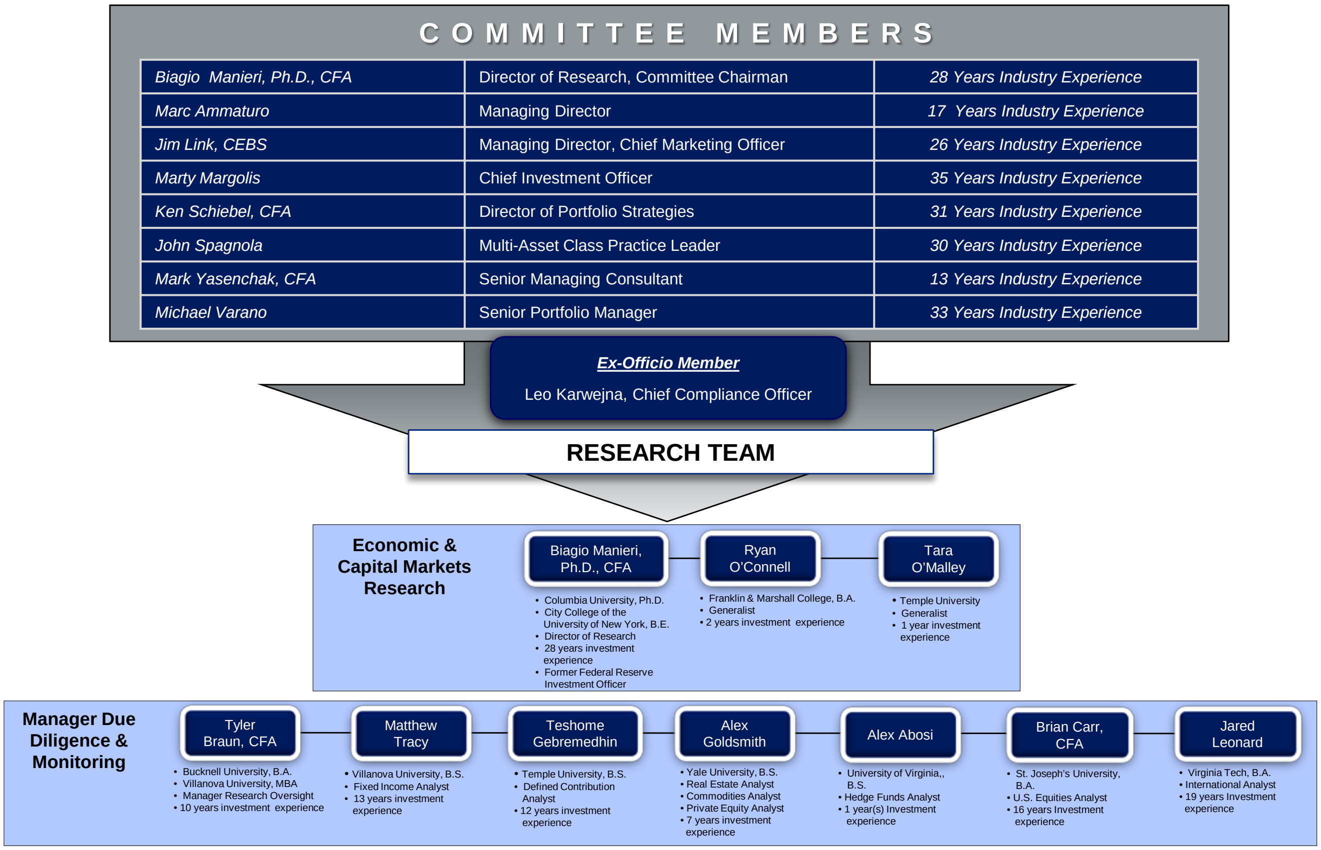
The research analysts focused on manager research are assigned to a specific asset class or search criteria for which they are responsible and report directly to the Director of Research. Both the research analysts and the Director of Research correspond with investment managers and service providers on a regular basis and meet with multiple providers frequently to gain a deep understanding of each provider. In addition, our Investment Research Group internally compiles our Capital Market Assumptions, a key component of our portfolio structuring process. We believe this fundamental understanding helps us make prudent decisions on behalf of our clients and thereby seek to achieve long-term favorable results with lower volatility.

Informed by the findings from our Investment Research Group, the Investment Committee focuses on three primary duties as it pertains to our multi-asset class strategies:

- Investment strategy (including active/passive fund mix),
- Asset allocation (including tactical decisions), and
- Manager/fund selection and monitoring.

Acting as the investment and portfolio risk oversight team for investment decisions, the Investment Committee convenes formally at least once a month to discuss any changes necessary for our clients' investment portfolios. If a portfolio decision should be made based on the information provided to the Investment Committee, the Township will receive an investment "alert" electronically explaining the investment decision and supporting rationale.

A organizational chart of the Investment Committee and Investment Research Group follows:



2. Give examples of how your research has been integrated into your products and services.

Through our discretionary management services, we are committed to providing our clients with services that are informed by in-depth research and seek to add value. Our Investment Committee and our Investment Research Group are continuously monitoring both the markets and our investment managers so that we are able to act quickly and take advantage of opportunities seeking to improve our clients' returns and mitigate risk. For example, during this past year, volatility picked up significantly due to concerns over slowing economic growth in China and more generally deteriorating fundamentals in emerging markets. In response to this volatile environment, we increased downside protection of the portfolio during this period of heightened volatility by removing our equity overweight and adding TIPS and ultra-short duration bond allocations.

The following chart depicts the tactical allocation changes made to our client portfolios, which resulted from the research and analysis conducted by our Investment Research Group and Investment Committee:

2008 **Financial Crisis**	• **September 2008:** Reduced Equity exposure to raise cash levels and added Short-Term Bond; underweighted REIT exposure; added Global Bond allocation
2009 **Global Equity Recovery; Spreads at Historic Levels; Inflation Concerns**	• **February 2009:** Added High Yield and Investment-Grade Corporate Fund, reduced Passive Fixed Income • **March 2009:** Removed Equity underweight • **June 2009**: Added Commodity Investment (when oil dropped to $60 per barrel) • **November 2009**: Removed dedicated Investment-Grade Corporate allocation
2010 **Recovery Continues; High Equity Correlations; Treasuries Move Lower**	• **April 2010:** Replaced US High Yield allocation with Global High Yield • **May 2010:** Reduced International Equity allocation • **September 2010:** Reduced % of Active vs. Passive Equity Management • **October 2010:** Removed International Equity underweight
2011 **European Crisis**	• **March 2011:** Added dedicated Emerging Markets Equity allocation • **June 2011:** Increased overall market capitalization within Domestic Equity • **December 2011:** Reduced International Equity and increased Domestic Equity
2012 **Continued Low Rates**	• **April 2012:** Removed Short-Term Bond Index, added Emerging Market Debt and High-Quality Corporates, reduced Fixed Income and increased Domestic Equity
2013 **Slow Recovery with Potential Rising Rates**	• **January 2013:** Eliminated Commodities allocation and fully weighted International Equity • **May 2013:** Reduced Emerging Markets Equity allocation; added Floating Rate Bank Loan fund; reduced Core Fixed Income • **July 2013:** Removed Emerging Markets Equity and Debt allocations
2014 - 2015 **Diverging Economic Growth and Valuations**	• **January 2014:** Removed U.S. REIT allocation • **April 2014:** Re-allocated a portion of International Equity allocation to Domestic Equity • **July 2014:** Removed dedicated Small Cap Equity exposure • **October 2014:** Removed dedicated Mid Cap Equity exposure • **January 2015:** Removed Bank Loans exposure and fully weighted International Equity • **March 2015:** Added dedicated International Small Cap Equity exposure • **April 2015:** Reduced Domestic Equity overweight and increased International Equity allocation • **August 2015:** Removed Global High Yield exposure and increased High-Quality Corporates • **October 2015:** Removed Equity overweight and added TIPS and Ultra Short allocation

In addition, on a quarterly basis, we publish articles for our Thought Leadership series, *PFM Perspectives*, which describe our current thoughts on developments in the financial markets and how they relate to our clients' portfolios. For example, Dr. Manieri, Director of Research recently published a white paper on active vs. passive management. Based on economic theory and empirical data, we believe that passive management or indexing should be the default option when selecting best-in-class managers. *Please refer to Tab III, Section D for a copy of this paper.*

We also annually publish our Capital Market Assumptions for intermediate- and long-term returns in a wide range of asset classes to help inform our asset allocation process. Our Capital Market Assumptions are determined by the Investment Committee through a comprehensive and ongoing process and help inform their investment decisions. *Please refer to Tab III, Section E for a copy of our 2015 Capital Market Assumptions.* Instead of relying on historical returns, our projections are derived from our internal research on the economic fundamentals of the asset classes and constituents, as well as drivers of returns (mainly dividends, real earnings growth, and inflation). This research into the intermediate and long-term expected returns for various asset classes has a direct impact on how our client portfolios are invested, both from a long-term strategic standpoint and a shorter-term tactical perspective.

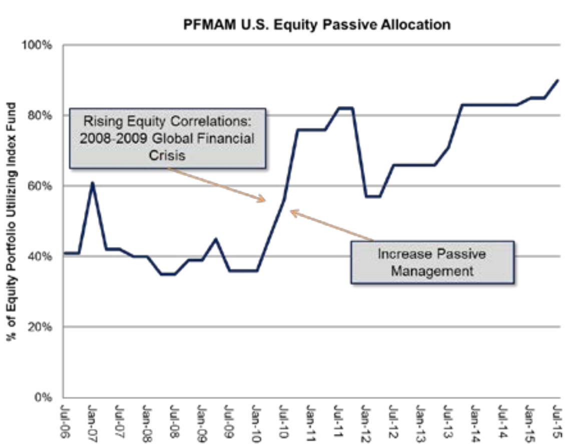
3. What are your general investment philosophies with regards to the portfolio structure of a municipal pension plan?

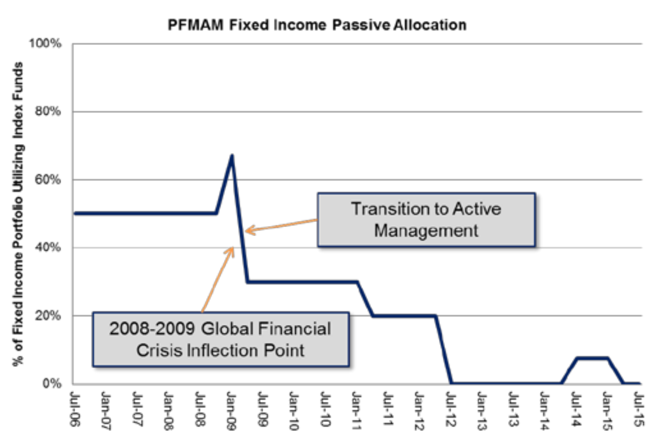
Investment Philosophy

Our multi-asset class investment philosophy is very straightforward. PFMAM hires best-in-class managers within a diversified asset allocation that considers both active and passive management options. We believe in operating in a transparent structure that seeks to avoid conflicts of interest, and we employ the precepts of Modern Portfolio Theory (i.e., risk should be commensurate with return) and quantitative rigor to every portfolio we manage.

PFMAM firmly believes that successful investing begins with a consistent, repeatable process that can adapt to changes in the global economy and markets. Our research has shown that the asset allocation decision is the most important factor in determining the performance of the portfolio. A fundamental understanding of asset classes helps mitigate the risk of constantly shifting the portfolio in reaction to daily movements in the markets, which can result in buying high and selling low—the exact opposite of what investors should do. We do not believe recent performance is an indicator of what to expect from various asset classes over long periods of time; instead, we believe macroeconomic data and the drivers of asset class returns (such as dividends, real earnings growth, and inflation) should be the focus, and we develop our internal Capital Market Assumptions as such.

We also believe that a fully diversified portfolio invested by both active and passive managers can offer a balanced approach to realizing long-term return objectives in a cost-effective manner. In general, we recommend passive management in the more efficient asset classes where it is very difficult for active managers to outperform the broad market (e.g., large-cap domestic equities), and we recommend active management in the less efficient asset classes where talented investment managers are rewarded (e.g., emerging-markets equities). This approach to investing helps our clients achieve market returns at a lower cost, while also benefitting from active management in certain asset classes. The following charts depict how our use of passive management has changed over time in response to various factors:





Risk Management

We believe risk in relation to public pension funds can be defined in two broad areas: investment risk and non-investment risk. As an investor, public pension plans are exposed to a variety of investment risks that pertain to all types of investors, such as market risk, credit risk, interest rate risk and liquidity risk. In addition, it is important to be concerned with manager risk and diversification risk, which can largely be mitigated by a properly structured portfolio. Another important investment-related risk that must be monitored is shortfall risk, which is the risk that the portfolio will not achieve its investment return goals. Not all of these risks can simply be defined by a statistical measure of volatility, such as standard deviation.

In terms of non-investment risk, a public pension plan ultimately needs to be concerned with its ability to pay retiree benefits that have been earned. Although this is highly impacted by how the assets are invested, there are other non-investment factors to consider (such as annual funding, benefit accrual guidelines and plan demographics). The risk of not being able to provide for future retiree benefits is arguably the most important risk facing public pension plans.

As a firm focused on public sector plan sponsors, PFMAM also manages our clients' portfolios with headline risks in mind (the impacts of negative publicity related to the Plan and its investments). We realize that citizens put enormous trust in their public sector officials and we want to ensure the reputation of the Township stays intact.

4. Do you have any proprietary funds in your fund line up?

No, we do not have any proprietary funds in the fund line up. We utilize only independent, third-party, institutionally-priced investment managers for our client portfolios.

5. What type of platform do you use? Is it open architect?

PFMAM offers our clients a truly open-architecture approach when conducting due diligence and monitoring investment managers. We are not constrained by a platform of managers. We are constantly receiving communication from new investment managers and often receive referrals from various third parties, including our clients. As a result, the list of managers followed by our firm is constantly growing. Our research analysts meet with multiple investment managers every week and have phone conversations with many more during an initial screening process. We work with best-in-class managers to obtain the lowest pricing or share class available to our clients, leveraging the aggregate assets under management of PFMAM clients. Because of our place in the market, we find this method to be more advantageous to our clients than being constrained to a "platform" structure.

6. What is the total number of funds available for the Township to invest in?

PFMAM starts with a total universe of roughly 24,000 investment products screened through our various resources by our Investment Research Group when constructing portfolios for our clients.

7. How does your firm account for market downturn and volatility?

When constructing portfolios for our clients, our Investment Committee pays particular attention to the anticipated volatility of the portfolios relative to the client's risk tolerance and how the portfolio is expected to behave in various market environments. We believe municipal governments are very adverse to risk. As such, an understanding and emphasis on risk management is a core part of the investment process.

This raises the following questions: What is risk? Is it volatility? Is it not outperforming a benchmark? Is it a permanent loss of capital? Recognizing that different clients may be uniquely impacted by various aspects of risk, we construct portfolios that seek to balance multiple types of risk. Most investors define risk as volatility or standard deviation of returns. As fundamental investors, we view volatility as a potential opportunity to buy quality assets at attractive prices and/or to sell assets trading at a high valuation. Additionally, risk is not simply a statistic such as standard deviation, but also includes a permanent loss of capital. For us, risk of capital loss is of utmost concern.

Recognizing that we operate in a world of imperfect and incomplete information, we strive to avoid investments where losses could be significant and where we may suffer a permanent loss of capital if the future runs counter to our expectations. Our approach to risk management is not to rely on quantitative models—which are prone to fail in spectacular fashion, as we have seen numerous times in history.

Rather, we strive to manage risk by:

- Not buying what we do not fully understand;
- Buying assets classes that are priced below our estimate of intrinsic value; and
- Focusing on downside risks (what could potentially go wrong).

Please refer to the tactical allocation changes in Question 2 of this section for historical tactical adjustments that were made during different market environments.

8. Is the Township's MMO utilized in determining your investment strategy? If so, how?

Yes, the Township's MMO is utilized during the review of the actuarial valuation and as part of the asset allocation determination process. When designing a portfolio strategy for our clients, we do not simply look at the target return and assign an asset allocation. Our staff conducts a detailed asset/liability analysis for our clients that incorporates projected benefit payments, normal cost, discount rate, funded ratio, accrued liabilities and other factors in projecting the market value of assets against the accrued liability based on various scenarios and asset allocations to determine the most appropriate level of risk and asset allocation strategy for the plan.

Secondarily, the MMO - and more broadly speaking, the review of contributions, distributions and expenses – is taken into account as part of the rebalancing strategy. Some of our clients choose to fund the MMO throughout the year in order to offset the amount of monthly pension disbursements. This method allows a smoother cash flow to manage. In instances where a municipality deposits their MMO all at once, we take consideration of the size and market conditions and may recommended investing the contribution of the course of time to limit market timing risk.

9. Please attach a hypothetical fund line up for the Township's plans.

The following table is for illustrative purposes only and represents a client portfolio we have recently recommended with 60% equity and 40% fixed income. As part of the implementation process, we will work with the Township to construct customized investment strategies for the Plans.

Fund	Asset Class	Management	Tactical Weights	Expense Ratio
Equity	-	-	-	-
Vanguard Total Stock Market Index	US All Cap	Passive	33.00%	0.05%
Vanguard Dividend Growth	US Large Cap	Active	6.00%	0.32%
Vanguard Developed Markets Index	Developed International	Passive	16.75%	0.10%
Oppenheimer International Small Cap	International Small Cap	Active	4.25%	0.95%
Fixed Income				
MetWest Total Return	Core Fixed	Active	11.25%	0.44%
Baird Core Plus	Core Fixed	Active	11.25%	0.30%
Vanguard Investment Grade Corporate	Investment Grade Corp.	Active	10.50%	0.10%
Federated Ultra Short	Ultra-Short Bond	Active	3.50%	0.35%
Real Return				
Vanguard Inflation-Protected Securities	TIPS	Active	3.50%	0.10%
Weighted Average Expense Ratio				**0.20%**

It is noteworthy that this allocation represents our diversified approach and use of active and passive management. PFMAM's decision to utilize active or passive management is one that is very tactical in nature. Unlike other firms that may choose to utilize passive management either for the entire portfolio or as a "core" component across all asset classes, we believe the market cycle or other market events may provide opportunities in active management if risk is "budgeted" appropriately.

For the past few years, PFAM has believed that while absolute returns were above average for equity investments, relative to benchmark return was more easily achieved in a more risk-adverse manner through the fixed income markets. In addition, up-trending markets where investments are highly correlated (such as equity markets have largely exhibited since 2009) are ideal for remaining in passive investments to capture market returns at a low cost. As you can see from the exhibit above, the allocation aligns with this thesis as nearly 50% of the portfolio is in passive funds, "budgeted" entirely in equity markets. We feel this form of tactical management and risk budgeting is key in achieving above market returns, while also mitigating risk.

Our strategies typically result in an underlying manager expense of 0.20% - 0.25% which is extremely competitive. This is not an out-of-pocket cost to the Township as we typically utilize institutional mutual funds in our strategies which are purchased at a Net Asset Value (NAV - in other words, the expense is accrued within the fund). It is a best practice to consider all costs, explicit and implicit, as well as all transactional and other investment charges, in addition to advisory and custody/administration fees.

III. ASSET ALLOCATION

1. What is your firm's process for establishing client goals and objectives?

PFMAM will begin this engagement by performing a detailed Portfolio Planning Survey with the Board/Committee. This survey is designed to facilitate a discussion on various asset classes to determine which should be permitted in the portfolio as well as an understanding of the Township's goals, objectives, cash flow projections, present and future liabilities, annual required contributions, risk tolerance, ability to withstand losses, and view of the economy and the markets. Specific to liability integration, PFMAM will review the Plans' most recent actuarial valuation and fully consider the assessment's fact pattern with the Board/Committee.

We will also coordinate with the Township's actuary to help ensure that the asset allocation remains appropriate when the actuarial valuation changes. The steps in policy development and allocation selection are listed below.

- Engaging in a portfolio planning survey
- Compiling capital markets assumptions
- Interfacing with the actuary
- Understanding the special nature of pension plan liabilities
- Determining asset allocation structure
- Selecting an appropriate asset mix

These resulting goals and objectives are then documented in an Investment Policy Statement "IPS") A typical IPS we help develop contains the following:

- **Background:** Discusses the origination of the Plans' portfolio and identifies the fiduciaries.

- **Purpose:** Documents the Plans' objectives, performance expectations, and investment guidelines. It also establishes the investment time horizon, risk tolerance ranges, and asset allocation.

- **Statement of Objectives:** Documents the goals to pay benefits, grow the amount of assets, assess the amount of liabilities, minimize principal fluctuations, and achieve a long-term rate of return.

- **Investment Guidelines:** Establishes the investment time horizon, diversification parameters, asset allocation targets and ranges, rebalancing philosophy, risk tolerances, and performance expectations.

- **Selection of Investment Managers:** Documents the criteria for selecting investment managers.

- **Guidelines for Portfolio Holdings:** Establishes the criteria for portfolio holdings in equities, fixed income, cash, and other asset classes. It also discusses the use of pooled vehicles and lists prohibited securities.
- **Safekeeping of Assets:** Documents the manner in which assets are held in custody.
- **Control Procedures:** Documents the procedure for reviewing investment objectives, investment performance, the voting of proxies, and the execution of security trades.

2. Describe your firm's asset allocation process, including, the development of investment policies and guidelines for investment managers? How often is this reevaluated or adjusted?

Our process for recommending an asset allocation and developing investment policies and guidelines starts with a review of the Plan's time horizon, risk management, liquidity needs, and return assumptions. In order to understand and evaluate these parameters, the process described in response to Question 1 above is utilized. Once key parameters are understood, we can begin to build the asset allocation of the portfolio. We start with the premise that all portfolios should be fully diversified across a broad range of equity and fixed income investments, based on each client's objectives and constraints.

To build a recommended portfolio structure, we utilize state-of-the-art portfolio optimization software developed by Morningstar to build return-maximizing/risk-managed asset allocations. The results will be presented to the Board/Committee for discussion and selection of an asset allocation framework that will then allow PFMAM's Investment Committee to determine the right mix of active vs. passive management, as well as select the most suitable investment options/funds.

After completion of the Portfolio Planning Survey, our principal steps are as follows:

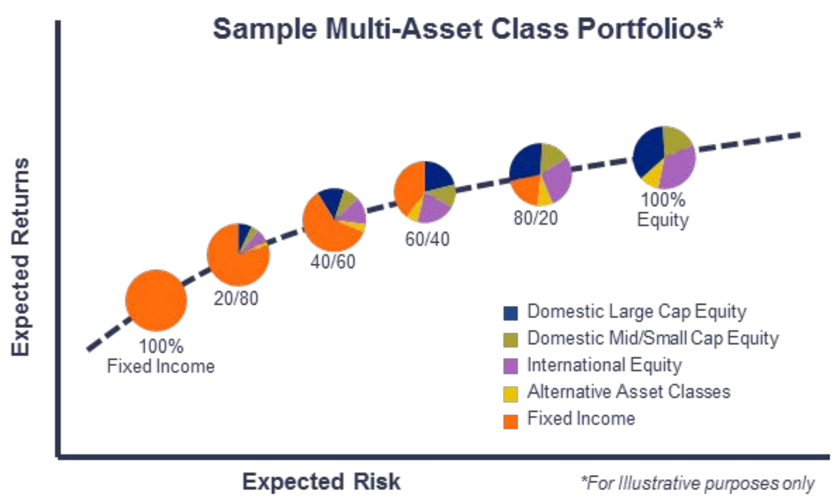
Compiling Capital Market Assumptions

Our Capital Market Assumptions are determined by PFMAM's Investment Committee through a comprehensive and ongoing process. This process utilizes a methodology developed by our investment professionals, who bring a diverse investment background to the table with a wealth of investment experience. Our assumptions are for intermediate- and long-term returns in a wide range of asset classes.

- For the intermediate-term (up to five years), our Capital Market Assumptions are derived from our assessment of current economic conditions, including corporate profits, balance sheets, and current valuations for various asset classes.
- Our long-term assumptions are derived using an economic building block approach which projects economic and corporate profit growth, and that takes into consideration the fundamental factors driving long-term real economic growth, our expectation for inflation, productivity and labor force growth.

Determining Asset Allocation Structure

- The information from the Portfolio Planning Survey and the Capital Market Assumptions is used to design an asset allocation structure for the Plan.
- We use a state-of-the-art modeling program from Morningstar to assist in our asset allocation process. This same modeling program, along with an internally-built modeling program, allows us to conduct a more detailed asset/liability modeling study.
- Each model uses the latest historical data on asset class investment returns, volatility, and correlation with other asset classes along with our Capital Market Assumptions to determine an "optimal" portfolio.
- A series of tests are run on each model to determine the probability of achieving the desired investment objective under different market scenarios.
- Existing funding requirements may override the more subjective "tolerance for loss."



Development of Investment Policies and Guidelines for Investment Managers

- Based on the selected asset allocation structure, we will draft a customized Investment Policy Statement that includes strategic targets and permissible ranges for each asset class to allow for a degree of tactical asset allocation adjustments
- Investment guidelines for underlying investment managers will also be documented to established parameters related to issuer limits, sector allocations, credit quality, etc.

By using this process, the Board/Committee will have a better understanding of the range of possibilities associated with each asset allocation structure, and are better equipped to embrace a structure that best meets the expectations set forth in the Portfolio Planning Survey. Following the asset allocation analysis and drafting/amending the investment policy, our staff will conduct the necessary due diligence and manager searches in order to create the most appropriate portfolio structure for the Plan.

We typically recommend that this process is repeated on a bi-annual basis (usually in conjunction with the actuarial valuation process) or as needed due to potential changes in the Plan's risk/return objectives, actuary assumptions or plan demographics.

3. How does your firm develop asset class assumptions?

Please refer to Question 2 in this section for a summary of how our capital market assumptions are created. In addition, please refer to Tab III, Section E for PFMAM's 2015 Capital Market Assumptions white paper that outlines our process in more detail.

4. Do you take funding levels and/or risk tolerance into consideration in establishing a target asset allocation? If so, how?

Yes, as part of our initial portfolio planning process (and ongoing with each actuarial valuation), we will review the actuarial valuation and discuss any important assumptions and calculations with the actuary. For example, we typically conduct a detailed asset/liability analysis for our clients as part of the portfolio planning process. Based on the information in the actuarial valuation, PFMAM will project future cash flows (benefit payments and annual contributions) and liabilities for the pension plan, and incorporate the expected cash flows into the Monte Carlo simulation that is used to project the market value of the assets. We then compare the projected market value to the projected liability to gain a better understanding of how the plan may be funded in the future based on various scenarios. During this process, we will often interact with the actuary to gain a better understanding of the assumptions. In many cases, the actuary will provide us with its projections for cash flows based on actuarial models to provide a more accurate analysis. In addition to actuarial information, we also incorporate the risk tolerance of the Board/Committee through their responses in the portfolio planning survey process at the onset of the relationship.

IV. INVESTMENT MANAGER RESEARCH

1. Provide information on the databases utilized to monitor and evaluate investment managers' performance for the purpose of manager selection. How many managers are in the database? How frequently is the investment management information updated? Is the database proprietary or third-party?

PFMAM utilizes a proprietary investment manager database maintained by our Investment Research Group, which is based on data collected from our ongoing manager meetings and due diligence. We also subscribe to the database of a well-known outside vendor, eVestment Alliance, and have access to Investment Metrics and Morningstar/Ibbotson Associates software platforms. This software allows us to have access to roughly 24,000 investment products. Our Investment Research Group verifies any data received from these vendors by comparing to both our internal data and the conversations we have with the respective investment managers.

In addition, as part of our performance and attribution reporting system, we are able to tap into a database consisting of more than $2.3 trillion in institutional assets to compare our client's portfolios and managers. PFMAM does not employ any outside consultants for the purposes of investment manager research. We are fully staffed to provide in-house investment manager research. In addition, we do not accept any fees or remunerations from managers who wish to be included in our database.

We believe it is important to examine both the qualitative and quantitative aspects of an investment manager. We use the data from our various third-party vendors (eVestment Alliance, Investment Metrics, Morningstar Direct) to conduct a thorough examination of a manager's risk/return characteristics to validate or discard the perceptions we developed during our qualitative analysis (i.e., manager interviews). Additionally, we continuously compare any data received from these vendors by comparing to both our internal database and the ongoing conversations we have with the respective investment managers. Proprietary questionnaires are used during meetings with managers and a formal scoring process is used to evaluate each manager.

Investment manager information is updated through Investment Metrics on a monthly basis and through eVestment Alliance when it is made available by the manager. Our Investment Research Group verifies any data received from these vendors by comparing to both our internal data and the conversations we have with the respective investment managers.

The table shown on the following page represents a summary of money managers by asset class that are currently maintained in the eVestment Alliance database, which provides our research department with a starting point in the manager search process. In addition to the nearly 14,000 products listed below for eVestment Alliance, PFMAM has access to an additional 10,000 investment products through various other databases (such as our in-house database and those offered through Morningstar Direct and Investment Metrics), providing us with a total universe of roughly 24,000 investment products.

Asset Class	No. of Active Firms	No. of Active Products
U.S. Equity	982	3479
U.S. Real Estate	62	61
U.S. Fixed Income	433	2003
U.S. Balanced/Multi-Asset	170	127
Non-U.S. Diversified Equity	361	738
Emerging Markets Equity	267	493
EAFE Fixed Income	41	27
Emerging Markets Fixed Income	108	257
Global Real Estate	76	87
Global Balanced/Multi-Asset	185	317
Total*	**1837**	**13819**
**Totals do not equal the sum as managers have multiple products*		

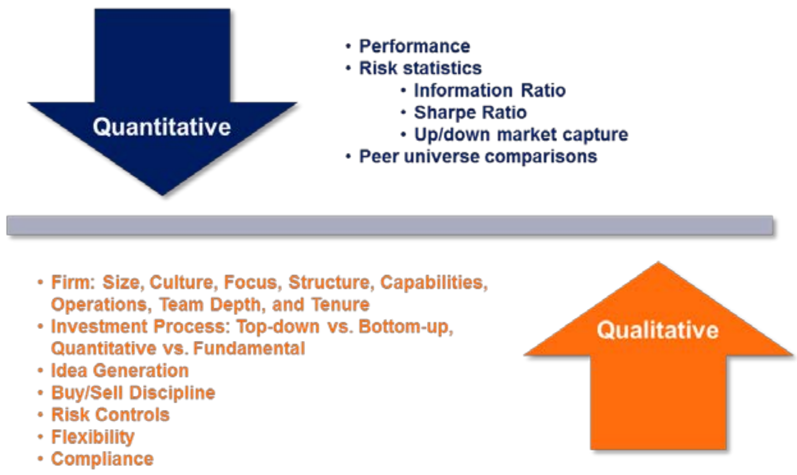
As of February 28, 2015.

2. Describe the due diligence process utilized in the selection of an investment manager.

Facilitated by our Investment Research Group and Investment Committee, PFMAM uses a formal due diligence process for evaluating funds, underlying managers, and investment strategies. The following outlines our search process and the criteria used to select managers. We like to think of our process as a funnel, starting at the top with a large universe of possible managers and working our way down to a few well-qualified firms for further examination.

Manager Universe Creation. Starting with the total universe of 24,000 investment products available for investment, we define a smaller universe of managers that correspond to the style mandate for which we are searching. The databases that help us in our search are eVestment Alliance, Morningstar Direct, and a performance and attribution reporting system developed by Investment Metrics. For example, if we are conducting a search for a large-cap value manager, we want to confirm that the managers we are evaluating are actually large-cap value managers. The process we utilize for this is called "style analysis," which examines a manager's return history through statistical analysis to determine which investment style the manager employs. The manager is then added to the appropriate style universe based upon the style analysis as well as PFMAM's own knowledge of managers.

Balanced Research Informs Decisions. Our research analysts consider both quantitative and qualitative data during the initial selection process and while performing ongoing due diligence.



Qualitative Analysis

We employ a full-scale qualitative review to understand the manager's process and to assess whether we believe it is repeatable. We believe that relying simply on historical returns would expose our clients to the pitfall of "chasing returns." We conduct interviews with the manager to learn more about the firm, personnel, and process. PFMAM understands that this is a very dynamic business and that change in this industry is constant. Therefore, we place a premium on having the most up-to-date and complete information on the candidate managers.

Quantitative Analysis

We also examine the volatility of the manager's performance or how consistently those returns were generated in order to determine the answers to the following questions: "Did the manager consistently beat his/her benchmark over a significant period of time?" or "Was performance generated by one or two years of exceptional performance with underperformance in the other years?"

To determine these characteristics, PFMAM examines various performance and risk measures and then selects the top 15 to 20 managers based on alpha, beta, standard deviation, information ratio, and other important quantitative criteria.

Proprietary Scoring Model and Manager Reviews. To formalize the due diligence process, PFMAM writes detailed manager reviews for each manager who has passed the interview process. In addition, managers are assigned scores based on the following qualitative sub-categories:

- *Firm Background:* history/year started/ownership, infrastructure, clients/assets (growth/decline);
- *Investment Team/Management:* experience/education, tenure/turnover, compensation structure;
- *Investment Process:* portfolio characteristics, buy/sell process, style drift, product growth/decline, largest client;
- *Performance:* trailing, calendar, and rolling year performance; up/down market and economic cycle performance; composite quality; and
- *Risk/Volatility:* standard deviation/Sharpe ratio, sector/security limits.

Each of these sub-categories is assigned a score between 1 (best) and 5 (worst). The scores for the sub-categories are then summed to derive a combined total score for the manager. To formalize our process, managers identified through this process are presented by the Investment Research Group to the Investment Committee for vetting and approval.

3. Give an overview of your firm's approach and criteria for placing a manager on a watch list. Under what conditions would a manager be removed from the watch list?

Not only is it important to select quality managers/funds, but it is also critical to know when to terminate or replace a manager/fund. PFMAM has a formal monitoring process that requires our Investment Research Group and Investment Committee to constantly reevaluate clients' managers and create consistency in why and how managers are terminated. Reasons for increased monitoring and eventual termination may include:

- Violation of investment guidelines;
- Deterioration in communication;
- Investment style drift;
- Prolonged underperformance;
- Change in ownership;
- Departure of key investment professionals; or
- Change in compensation package.

Through the discretionary management services we are proposing, PFMAM will take a more proactive approach in the manager monitoring process than a typical investment consultant. Rather than formally ranking managers and reporting those rankings to the client along with our recommendation, our Investment Research Group and Investment Committee will closely monitor each manager on a regular basis. Based on some of the reasons outlined above, the level of scrutiny and due diligence spent on a given manager may increase, similar to a watch list for an investment consultant. However, the benefit of our approach is that PFMAM can act more quickly if the problems persist or escalate. If the situation arises where the Investment Committee decides to terminate a manager, action can be taken immediately, rather than waiting for the next client meeting. This means an underperforming manager can be removed from a client's portfolio in a matter of days, as opposed to weeks or months under a typical consultant engagement.

For example, PFMAM clients were previously invested in the PIMCO Total Return Fund, which provided strong returns for a number of years. However, the firm began to experience significant personnel issues in 2014. Following the resignation of the firm's CEO and co-CIO, Mohamed El-Erian, we began closely monitoring this fund and the overall firm. Upon further review, PFMAM decided to reduce and later terminate the PIMCO Total Return Fund from client portfolios in April

2014. At that time, Bill Gross was still the firm's CIO and lead portfolio manager for the fund. After a few more months of sub-par performance, Bill Gross announced his resignation in September 2014. Through our discretionary management services, we were able to proactively monitor the situation and remove this fund from client portfolios prior to Bill Gross's resignation, rather than waiting to recommend termination at the next client meeting.

4. Did you receive any direct or indirect compensation from investment manager to be included in your database? You must include free services or sponsorship of unrelated events.

No, we do not accept any fees or remunerations from managers who wish to be included in our database.

V. PERFORMANCE REPORTING

1. Describe your firm's performance reporting and evaluation services.

Performance Evaluation

PFMAM is focused on providing a high level of reporting to our clients through regular in-person meetings and has devoted a great deal of time and resources to constantly improving our reporting capabilities. We internally measure performance on two levels:

- Client performance at the portfolio level in accordance with GIPS®.
- Performance of the underlying managers within the portfolio.

To measure client performance at the portfolio level, PFMAM uses PARIS, an industry-leading performance measurement, attribution, and reporting platform developed by Investment Metrics to access a database that consists of roughly 1,500 institutional plan sponsor portfolios with more than $2.3 trillion in combined assets. The universe of plan sponsors is categorized by public, corporate, endowment, foundation, healthcare, and Taft-Hartley plans and can be further segmented by asset size and asset allocation. As a result, we are able to create fully customized peer groups for comparison against our clients' portfolios. For example, we can compare the Plans to a peer universe of public plans with assets of less than $50 million and an equity allocation of 50-60%. These peer groups can be used to compare performance, risk statistics, and asset allocation.

To measure the performance of underlying managers, we look at the trailing, calendar, and rolling year periods against both a peer universe and a benchmark. Additionally, we review a variety of risk statistics (e.g., alpha, standard deviation, information ratio, up/down market capture, etc.) versus an appropriate benchmark. For equity managers, we review the top holdings and sector weights compared to existing managers in that asset class for the portfolio as well as the benchmark. A returns-based style map can also be used to show manager style "drift." For fixed income, we review the sector and quality breakdown of the managers versus the benchmark as well as compare statistics such as duration, maturity and yield to the peer universe.

In addition to these return and risk-based comparisons, our software also allows us to complete a detailed attribution analysis at both the manager and portfolio level. Through this analysis, we are able to determine the overall effect that sector asset allocation and return had on the overall manager/portfolio.

Customized Quarterly Performance Reports

The Township will receive a customized quarterly report containing a variety of exhibits, including total plan performance and attribution data versus a customized benchmark and analysis of constituent managers versus appropriate benchmarks and money manager peer groups. This would include a review of the economy, financial markets, and our investment strategy to provide insight into how the Plans' investments are being managed. Upon the Township's request, we can also provide a comparison of the Plans' performance versus a peer group of other pension plans.

PFMAM will provide as many hard or electronic copies of reports and related materials as needed. We will also provide qualitative inputs on the Plans' managers, reflection of other relevant considerations such as changes in the manager's organization, other portfolio management assignments, and the results of site visits.

Communication and Education

As part of our effort to continually educate our clients and provide full transparency regarding our investment decisions, the Township will receive regular communication and education through both in-person meetings and related materials. On a quarterly basis, Mr. Yasenchak will meet with the Township to review performance for both the Plans and the underlying managers relative to their respective benchmarks. He will also provide a review of the capital markets, the views of our Investment Committee and our investment strategy going forward.

In addition, as changes are made to the portfolio or significant events happen in the markets, the Township will receive detailed portfolio updates that outline any changes made to the portfolio, the rational for the change and our views going forward. This will provide the Township with additional insight into our investment decision making and a better understanding of the capital markets and drivers of portfolio performance in between scheduled meetings.

2. What methods and sources of data do you use in calculating investment performance of a client's portfolio? Do you reconcile your calculated performance with investment managers and custodians? Describe this process.

Calculation of the Plans' total fund performance is based on internally generated portfolio accounting. These internal accounting records will be reconciled with the transaction and holdings reports provided by the custodian on a daily and monthly basis. This provides an extra layer of reconciliation that most consultants who simply input custodian information cannot provide.

PFMAM's Accounting Group would reconcile our internal records with the Township's custodian, to help ensure accuracy of transactions and account holdings. In doing so, the Accounting Group will also compare returns of similarly managed portfolios for reasonableness. We also calculate underlying manager performance and reconcile with returns and input data directly acquired from the investment manager.

In calculating performance, we use the Modified-Dietz time weighted methodology, which attempts to remove the impact that contributions and withdrawals have on total portfolio performance. This method of performance calculation is an industry standard and complies with the CFA Institute's Global Investment Performance Standards ("GIPS"). *Please refer to Tab III, Section F for the Pensions & Investments article titled "Firms Differ on Value of Performance Reporting," which discusses PFMAM's GIPS-compliant performance reporting.*

3. How often are performance reports produced and delivered? How many business days after the end of a reporting period are the performance reports available? Can the reports be customized? Include a sample performance evaluation report in the appendix of your response.

Performance reports are typically produced quarterly, however, a subset of reports can also be produced monthly if desired. Quarterly performance reports are typically available 15-40 days after quarter end, depending on required exhibits and underlying information required for each exhibit. Each exhibit in the quarterly report can be fully customized to meet the Township's needs.

While are reports are highly customizable, a typically report includes the following:

- A review of the economy, financial markets, and PFMAM's market outlook and positioning created quarterly by our Investment Research Group.
- A summary financial reconciliation that shows net cash flows for the Plans over specific trailing periods.
- Performance for both the Plans and underlying investment managers/funds, relative to their benchmarks, for trailing and calendar year periods.
- Asset allocation and market value for each underlying manager and asset class compared to the targets and ranges outlined in the investment policy to ensure the Plans are in compliance.
- A general overview of each investment manager/fund and various portfolio characteristics (sector allocation, market cap weights, etc.) for each manager based on underlying holdings as of most recent quarter end.

Upon client request, our system is also capable of providing asset allocation and performance comparisons against similar plans, manager performance comparisons against their peers, performance attribution analysis, style analysis and a variety of risk statistics based on historical performance. The reporting system is highly customizable.

Mr. Yasenchak, the lead Engagement Manager, will be available to discuss the performance reports and current market sentiment with the Township on an as needed basis, as well as assist the Township in creating a reporting package that meets your specific needs.

Please refer to Tab III, Section B for a sample quarterly performance report.

4. Discuss the performance attribution your firm is capable of providing and describe how you evaluate "value add" in active management.

In measuring the success of existing investment managers, PFMAM relies on data provided by Investment Metrics via the PARIS performance analysis and reporting system. PARIS contains data for over 2,800 market indices and 350 investment manager peer universes. Using PARIS, we compare individual managers' returns to their appropriate asset class/style benchmark, focusing on under/over performance over all periods, paying particular attention to longer-term periods that cover full market cycles. We also compare managers' returns to those of their respective peer universes, noting whether a manager falls within the top quartile, above the median, or in the bottom quartile of the universe. Further, PARIS is able to perform a range of portfolio statistic calculations. We utilize these risk adjusted performance indicators such as tracking error, Sharpe ratio, alpha, beta and upside/downside capture as further data points measuring manager success.

In addition to various risk statistics and comparisons against benchmarks and peers, our research analysts also conduct an attribution analysis on each underlying manager on a quarterly basis. This allows us to see the value added from individual security selection and sector allocation, as shown in the example below. This analysis is then analyzed in conjunction with the attribution commentary our research analysts obtain directly from the managers through their quarterly performance calls/meetings.

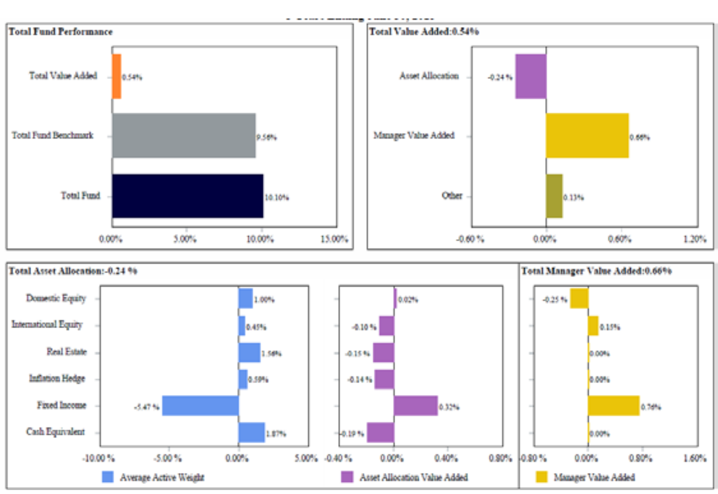
Buy and Hold Sector Attribution
Vanguard Dividend Growth vs. S&P 500
1 Quarter Ending June 30, 2015

Buy-and-Hold Portfolio	-1.44
Portfolio Trading	-0.11
Actual Return	-1.54
Benchmark Return	0.28
Actual Active Return	-1.82
Stock Selection	-1.35
Sector Selection	-0.21
Interaction	-0.15
Total Selection	-1.70
Portfolio Trading	-0.11
Benchmark Trading	0.01
Active Trading Impact	-0.12
Buy & Hold Active Return	-1.82

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Consumer Discretionary	11.02	12.60	-0.47	1.91	-0.30	-0.03	0.04	-0.29
Consumer Staples	16.66	9.69	-3.25	-1.75	-0.15	-0.14	-0.10	-0.39
Energy	9.35	8.04	3.73	-1.88	0.45	-0.03	0.07	0.50
Financials	13.20	16.21	-2.39	1.78	-0.68	-0.05	0.13	-0.60
Health Care	17.52	14.93	-1.75	2.83	-0.68	0.07	-0.12	-0.74
Industrials	15.71	10.37	-3.63	-2.23	-0.14	-0.13	-0.07	-0.35
Information Technology	9.15	19.68	0.80	0.17	0.12	0.01	-0.07	0.07
Materials	4.29	3.16	-0.59	-0.47	0.00	-0.01	0.00	-0.01
Telecommunication Services	0.00	2.28	0.00	1.10	0.00	-0.02	0.00	-0.02
Utilities	1.00	3.04	-4.78	-5.81	0.03	0.12	-0.02	0.13
Cash	2.11	0.00	0.01	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	-1.44	0.27	-1.35	-0.21	-0.15	-1.70

At the overall portfolio level, PFMAM is able to run portfolio attribution analysis that shows the value added from manager selection and asset allocation decisions. This will be an important way for the Township to measure the overall success of PFMAM as its discretionary investment advisor. The graphic below shows an example of how PFMAM can provide the portfolio attribution at the total fund level. This graph can be included in our quarterly investment performance report.

Total Fund Attribution
PFM Sample Client
3 Years Ending June 30, 2015



5. Describe how benchmarks are chosen or developed. Describe your custom benchmark capabilities.

The ultimate selection of a benchmark for our clients' portfolios is dependent upon the outcome of the portfolio planning process and the asset/liability study. At the total portfolio level, we generally create two benchmarks to compare against total portfolio performance:

- The first is a customized benchmark consisting of underlying benchmarks for each broad asset class, which allows for measurement of our overall asset allocation and manager selection process. We prefer to use asset class benchmarks that capture the broad market for each asset class. For example, a 60% equity / 40% fixed income portfolio may have a blended benchmark of 39% Russell 3000, 21% MSCI ACWI ex US (net) and 40% Barclays Aggregate. This benchmark is also able to incorporate changes over time. Should the plans strategic allocation change, the benchmark changes would be reflected from that point on as opposed to the entire benchmark having to change historically.

- The second is a benchmark that considers the actuarial rate of return so that we can monitor the funding ratio of the Plans.

Separately, a benchmark is chosen for each manager to provide a method for evaluating each manager's specific performance. Each benchmark plays an important role in the performance evaluation process, enabling the Township to more clearly discern the impact from asset allocation versus manager selection.

The following chart is a sampling of index benchmarks used for client portfolios:

Index Benchmarks	
Asset Class	**Index**
Domestic Equity	
All-Cap Equity	Russell 3000 Index
Large-Cap Equity	S&P 500 Index
Mid-Cap Equity	Russell Mid-Cap Index
Small-Cap Equity	Russell 2000 Index
International Equity	
Non-U.S. Equity	MSCI ACWI ex-US (Net)
Developed International Equity	MSCI EAFE Index (net)
Emerging Markets Equity	MSCI Emerging Markets Index (net)
Alternatives	
Real Estate Investment Trusts ("REITs")	FTSE NAREIT Equity REIT Index

Index Benchmarks	
Asset Class	**Index**
Private Real Estate	NCREIF Property Index
Commodities	DJ-UBS Commodity Index
Private Equity	Cambridge Associates U.S. Private Equity
Hedge Funds	HFRI Fund of Funds Composite Index
Fixed Income	
Investment-Grade Fixed Income	Barclays Capital U.S. Aggregate Bond Index
Intermediate-Term Investment Grade	Barclays Capital U.S. Credit: 5-10 Year
Floating Rate Bank Loans	Credit Suisse Leveraged Loan Index
High-Yield Bonds	BofA Merrill Lynch Global HY Constrained (USD)
Emerging Markets Debt	JPM EMBI Global Diversified

6. Describe your process for reviewing investment manager compliance of investment objectives and guidelines.

Our Investment Research Group utilizes both returns-based analysis and holdings-based analysis, including price-to-earnings and price-to-book ratios, to determine style and weighted average and median market capitalization to determine capitalization size in order to classify investment managers. Consistency of style is an important issue to PFMAM. The purpose of this style analysis is to ensure that the manager continues to do what he/she was hired to do, maintaining the prescribed portfolio and risk level. We utilize industry-leading, third-party software systems to monitor portfolio characteristics on a quarterly basis. Each manager's style and capitalization size movement over prior years is graphed using performance and holdings-based analysis and is included as part of the quarterly report. Fixed income managers are monitored based on the credit quality of their holdings and issuer limitations. Additionally, PFMAM closely monitors each manager's adherence to the policy objectives and guidelines. Clients are also briefed on adherence to performance objectives and violations of set guidelines when the performance report is presented. When not in compliance with guidelines or objectives, managers will be contacted and the Investment Committee will decide whether the manager should be terminated or retained. All of this analysis is conducted by our Investment Research Group and provided to our Investment Committee on a quarterly basis for further review.

VI. TRANSITION

1. Describe your transition process and include a proposed timeline.

PFMAM has worked with hundreds of clients in implementing and transitioning their investment programs. Our transition plan typically includes the following, but we would work closely with the Township to ensure we meet its specific needs and objectives as well.

Mark Yasenchak, CFA, the Township's proposed Lead Advisor, will quarterback the entire transition from beginning to end. He has been working with municipal pension plan transitions at PFMAM for over 12 years.

Task	Timeline
1. Execute Engagement agreement	PFM submits engagement agreement in week following approval
2. Execute U.S. Bank custodial agreement and documents (if needed)	Immediately following execution of engagement
3. Review actuarial valuation, managers, and security level positions	Immediately following execution of engagement
4. Construction and distribution of portfolio planning survey	Approximately 2 weeks following execution of engagement
5. On-site Interaction with Committee for: a. Committee education b. Review of current investment manager lineup c. Review multiple asset allocation options and modeling d. Recommendation and selection of investment strategy e. Determine transaction strategy for moving towards approved asset allocation	2-4 weeks after results of portfolio planning survey
6. Revision and adjustment to current Investment Policy	Upon approval of new asset allocation
7. Complete transfer of assets to U.S. Bank (if needed)	Following completed setup of U.S. Bank accounts
8. Begin implementation of long-term portfolio strategy	Following Committee approval
9. Implementation	1-2 months upon execution of engagement agreement

VII. AFFILIATED SERVCIES

1. Does your firm provide trustee or custodial services?

PFMAM does not provide trustee or custodial services, but is able to assist the Township in selecting a third-party trustee/custodian. Although the Township may choose its own custodian, PFMAM has a strong working relationship and preferred pricing with U.S. Bank, N.A., which can provide all the custodial services typically required by a Pennsylvania municipal pension plan. U.S. Bank's custody and administration services can be implemented seamlessly alongside PFMAM's services, with PFMAM acting as liaison in this process.

2. Can your firm provide custodial bank search services?

Yes, as mentioned above we have a great deal of experience in assisting our clients select a third-party custodian. In most instances, we have provided this service at no additional cost to our retainer clients.

VIII. FEES

1. Please provide a fee proposal for services outlined in the RFP. Provide a cost breakdown for each aspect.

Investment Advisory Fee

The discretionary investment management service that we are offering is designed to be a competitive, unbiased, and cost-effective approach to meeting the investment needs of Pennsylvania municipal pension plans.

PFMAM proposes the following fee schedule for our investment advisory services.

- First $10M…………………..0.45%
- Next $10M………………….0.35%
- Next $30M………………….0.25%
- Next $50M………………….0.20%
- Thereafter…………………...0.15%

Based on combined assets for the Plans of $11.3 million, the above fee schedule equates to roughly $49,700 on an annual basis.

Money Manager Fees

Underlying money manager/mutual fund fees are based on the investment managers utilized and the asset allocation of the portfolio and therefore may change over time. For a typical pension plan allocation, this fee is currently estimated at 0.15%-0.25%. Mutual fund fees are accrued as an expense of the mutual fund's net-asset-value (NAV) and are not an out-of-pocket expense to the Township's pension plans. Our performance calculation and reporting is net of these fees in accordance with GIPS®. Mutual fund fees can also be detailed in our customizable quarterly performance reporting package. Final fees will be based on the implemented asset allocation and final selection of managers.

Custody / Administrative Services

PFMAM does not provide custodian or pension administration/payment services, but is fully capable of conducting or assisting with a custodian search. We seamlessly work with many different custodians for our clients' portfolios. While the Township may choose its own custodian, we have been able to negotiate a highly competitive fee structure with U.S. Bank, National Association. A summary of the primary fees charged by U.S. Bank for PFMAM clients is included below.

Asset-Based Custodial Fees……….………….0.025%

Transaction-Based Fees
Trades (per trade)……………………………..$7.50
Benefit Payments (per check)…………………$2.50
Wire Transfers (per wire)……………………...$10.00
ACH (per ACH)………………..…………...$2.00
Lump Sum Distributions ……………………..$15.00

2. Are you willing to guarantee your fees for a specified period of time?

Yes. Our proposed fees are valid for the life of the contract.

3. Describe, in detail, all forms and sources of compensation you would anticipate receiving should you be awarded this contract? Include any commissions, 12b-1 trailer fees or compensation of any sort paid to any entity.

There will not be any additional commissions or 12b-1 fees related to the services we are proposing. We use only institutionally-priced funds with no load or 12b-1 fees. Our only source of revenue is the Investment Advisory fee schedule provided above.

IX. ADDITIONAL INFORMATION

1. Please attach your firms ADV Part II.

Please refer to Tab III, Section A for our ADV Part II.

2. Are there additional comments or suggestions that the board/committee should consider?

PFMAM specializes in providing truly independent investment management and consulting services to public plans. We believe the experience and strong knowledge of PFMAM regarding Pennsylvania public retirement plans is hard to replicate by other firms. PFMAM's professionals and predecessors have advised defined benefit plans in Pennsylvania and assisted their staff in investment-related matters since 1992. As a result of our significant experience in working with the public sector, we understand that many plan sponsors do not have the time and resources to properly manage their retirement plans. Therefore, we expanded our business beyond traditional consulting services to provide discretionary management services that allows our clients to delegate many of the investment functions to PFMAM so they can focus on other important financial and budget-related matters.

Our many strengths and reasons why the Township should consider our discretionary management approach for the Plans can be summarized as follows:

- **Simplified Governance.** PFMAM's committee-driven investment decision making, extensive expertise, and specialized resources help ensure that the Plans would be managed in a compliant and professional manner, relieving the Township staff of many tactical and day-to-day investment decisions. This would not only allow the Board to focus more time and efforts on other important matters but would also allow PFMAM to manage the Plans more efficiently and implement our best ideas in a timely manner.

- **Fiduciary Responsibility.** As an independent advisor paid only by our clients, PFMAM would act solely in the best interest of the Township and the Plans. Unlike many other investment management providers, PFMAM is truly independent, with no conflicts of interest, and is focused solely on fulfilling our fiduciary duty to our clients.

- **Performance Track Record.** PFMAM has a longstanding track record in providing discretionary management services and delivering strong performance relative to benchmarks since inception. We maintain compliance with the CFA Institute's GIPS® and have a nine (9) year performance track record. *Please refer to Tab III, Section C for PFMAM's complete multi-asset class performance composites.*

- **Timely Action.** Through a clearly defined decision-making framework, we are able to be more nimble in implementing our best investment ideas, without delays in awaiting client committee meeting quorums. This helps efficiently manage performance, risks, and costs.

- **Global Best Practice.** A growing number of institutional investors are outsourcing investment responsibility to a fiduciary advisor, mainly due to a lack of internal resources, as well as the need for additional fiduciary oversight and faster implementation of investment ideas.[5] More than 2,700 entities globally are now outsourcing, representing $586 billion in assets.

3. What distinguishes your firm?

We believe PFMAM is best suited for this engagement because we can offer the Township a wealth of experience, an established track record, and deep resources that are essential to developing and implementing a successful investment program. We are not distracted by high-net-worth or retail clients, and focus solely on the needs of public-sector and non-profit plan sponsors. We have the technical and professional resources required across our organization to assist clients like Lower Swatara Township and also have access to the knowledge and experience of our financial advisory affiliate, PFM, Inc.

Although we believe that several factors differentiate PFMAM from our competitors and make us best suited to serve as the Township's investment advisor, the most compelling reason to work with us is our flexibility in implementation. Rather than providing the Township with an "off-the-shelf" solution, PFMAM will create a customized multi-asset class strategy that best fits the Township's distinct needs, objectives, and plan demographics. We believe that, in collaboration with the Township, we can implement an innovative solution that will save the Board valuable time while allowing the Township to maintain control of its investments through the guidelines set forth in its Investment Policy Statement.

Other advantages we bring the Township include:

- **Established reputation and stability.** PFMAM is a well-respected name in the institutional investing industry with a 30+ year history as well as being known for our prudent approach to investing and quality of personnel and process that is geared specifically towards the government sector.

- **Independent advice.** PFMAM is not influenced by outside parties, maintaining complete objectivity in the services we provide. We do not use proprietary products, sell our research, or accept any other fees aside from those paid by our clients.

- **Deep understanding of asset class fundamentals.** Through our specialized investment consultants, seasoned Investment Committee and dedicated Investment Research Group, we offer our clients specific, research-supported views on public pension fund investing and how to successfully meet targets over the long term. Our ability to strategically diversify the portfolio will help shield the Plans from unwanted volatility.

[5] *"Investment Outsourcing Survey" published by Asset International, Inc.'s "aiCIO", February 2012.*

- **Full range of investment services.** Through our discretionary management solution, the Township will be relieved of day-to-day investment management responsibilities. With full discretion governed by an approved investment policy statement, PFMAM will implement the disciplined, time-tested process upon which we have built our reputation and track record. The Township can focus on other initiatives while still holding us completely accountable as a fiduciary to the Plans.

X. REFERENCES

1. Provide three (3) references.

Entity	Contact Information
Radnor Township	**Bill White** *Finance Director* 301 Iven Avenue Wayne, PA 19087 wwhite@radnor.org 610-688-5600
City of Harrisburg	**Jason Brinker** *Vice Chair of Harrisburg Police Pension Committee* 10 North Second Street Suite 103 Harrisburg, PA 17101 jbrinker@cityofhbg.com 717-255-7298
Upper Allen Township	**Scott W. Fraser** *Assistant Township Manager* 100 Gettysburg Pike Mechanicsburg, PA 17055 sfraser@upperallentwp.org 717-766-0756

In addition to the above long-standing client references, we would also like to provide the Township with an additional reference below that has just recently hired PFMAM through a competitive RFP process. While Manheim Township is just beginning to go through the initial implementation process described above in Section VI, Ms. Stratchko may be able to provide a unique perspective on why PFMAM was the best choice for their Township's needs.

Manheim Township
Dawn Stratchko
Treasurer / Finance Officer
1840 Municipal Drive
Lancaster, PA 17601
(717) 569-6408
dawn@manheimtownship.org

Tab III.
APPENDIX

A. Form ADV, Part II

PFM Asset Management LLC

One Keystone Plaza, Suite 300
N. Front & Market Streets
Harrisburg, PA 17101-2044

717-231-6200 phone
717-233-6073 fax

www.pfm.com

3/30/2015

FORM ADV PART 2
BROCHURE

This brochure provides information about the qualifications and business practices of PFM Asset Management LLC. If you have any questions about the contents of this brochure, please contact us at pfmamrequest@pfm.com. The information in this brochure has not been approved or verified by the United States Securities and Exchange Commission or by any state securities authority.

Additional information about PFM Asset Management LLC is also available on the SEC's website at www.adviserinfo.sec.gov. The searchable IARD/CRD number for PFM Asset Management LLC is 122141.

PFM Asset Management LLC is a Registered Investment Adviser. Registration with the United States Securities and Exchange Commission or any state securities authority does not imply a certain level of skill or training.

Notice of Material Changes

There are no "material changes" to the Brochure since our last amendment. We may, at any time, update this Brochure and if we do, we will either send you a copy or offer to send you a copy (either by electronic means (email) or in hard copy form). If you would like another copy of this Brochure, please download it from the SEC website as indicated above or you may contact our Chief Compliance Officer, Leo Karwejna, at 717-231-6200 or at pfmamrequest@pfm.com.

Table of Contents

Item 4 -Advisory Business

Public Financial Management, Inc. ("PFM, Inc.") was founded in 1975 to provide independent financial advisory services to the public sector. PFM, Inc. began providing investment advisory services to public entities in 1980. In 2001, PFM Asset Management LLC ("PFMAM") was created as the entity through which investment advisory services are provided. Collectively, both PFM, Inc. and PFMAM are referred to as the PFM Group of companies ("the PFM Group").

PFM, Inc., PFMAM and other related businesses within the PFM Group are organized in a holding company structure, and are indirect, wholly owned subsidiaries of the holding company, named PFM I, LLC. On June 30, 2014, PFM Inc., PFMAM and the other operating companies within the PFM Group closed on a transaction which resulted in the PFM Group's senior employees ("Managing Directors") acquiring the equity interests of outside investors in PFM I, LLC, so that all equity interests in PFM I, LLC are now owned by the Managing Directors.

PFMAM is a Delaware limited liability company.

As of December 31, 2014, the amount of client assets we managed on a discretionary basis was $52,977,622,772 and the amount we managed on a nondiscretionary basis was $1,911,028,716. In addition, as of December 31, 2014, we provided investment consulting services with respect to assets in the amount of $48,483,478,869.

We offer the following types of investment advice:

1. Discretionary Advice.

We offer discretionary advisory services for government, nonprofit and other institutional investors who invest in fixed income and multi-asset class strategies. When a client gives us investment discretion, we have the authority to determine, without obtaining specific approval, (1) overall asset allocation, (2) the manager or sub-adviser to be utilized for the portfolio, (3) the specific securities to be bought and sold, (4) the amount of securities to be bought and sold and (5) the broker or dealer through which the securities are bought or sold, These decisions are subject to limitations of state law and any other restrictions in the contract with our client and limitations in our client's written investment policies. Under these types of engagements, we assume day-to-day management responsibility for the assets covered by the investment advisory agreement. Examples of the securities we may recommend include U.S. Treasury securities, Federal Agency securities, high-grade corporate obligations, mortgage and asset backed securities, institutional mutual funds, and money market instruments. We arrange for the purchase and sale of these securities to meet the investment objectives and cash flow requirements of each client.

We manage fixed-income portfolios, often on a total return basis. We also implement liability-driven strategies that seek to generate cash flows from a portfolio of fixed-income securities to match specific liabilities such as bond-funded construction draws or insurance liabilities.

For some of our clients, including trusts, pension plans, endowments, foundations, other post-employment benefits (OPEB) plans or other similar asset pools, we serve as a discretionary manager to invest a client's assets in multiple types of investments. Generally these accounts include a variety of asset classes, which may include domestic equity, international equity, fixed-income, and other alternative asset classes.

We provide multi-asset class investment services in two forms. One form is a wrap fee program known as the Managed Accounts Program (MAP), where we charge a single fee to include investment advisory, third-party custody and administrative services. We are no longer marketing MAP to new clients. The other is a general discretionary form where we unbundle some of the service fees, which allows the client to separately negotiate these fees (for example, custody fees). This form of multi-asset class management is referred to as a fund of funds approach. It may also be described as outsourced CIO, implemented consulting and a variety of other generic terms. In each of these two general forms of management, we work with the client to determine a target asset allocation based on a variety of risk and return characteristics. We then implement the asset allocation, either by buying shares of mutual funds (including ETF's) and/or pooled funds or other investment vehicles (collectively, "Funds"), or by selecting separate account managers who will manage separate accounts of specific asset classes and/or strategies ("Investment Sub-Advisers").

Under the fund of funds approach, we have discretion to make the initial selection of the Funds or Investment Sub-Advisers. We also provide ongoing periodic monitoring services by evaluating the Fund's or the Investment Sub-Adviser's portfolio management philosophy, policies, processes, controls, personnel and investment performance. Clients who hire us give us authority to change, drop or add Funds or Investment Sub-Advisers. The client generally gives the Investment Sub-Advisers both investment and brokerage discretion in managing its portion of the portfolio. We give these clients periodic reports on the investment performance of the various Funds, Investment Sub-Advisers and the portfolio as a whole.

We assist clients in establishing the basis for asset allocation by preparing a written investment strategy. These clients give us authority to re-allocate assets and to change, eliminate or add managers or investments within the scope of the investment strategy.

2. Services to Registered Investment Companies and Local Government Investment Pools

PFMAM currently provides investment advisory and/or administrative services to 14 pooled investment programs across 13 states, as well as to one registered investment company whose series or classes are registered in multiple states. We generally provide administration and transfer agency services and an affiliate generally provides distribution services as described in this document.

3. Nondiscretionary Advice

We also may provide advice on a nondiscretionary basis where we offer clients investment recommendations, subject to their specific approval and further execution instructions. In this case our client makes trades directly or specifically approves our purchase or sale of specific securities, including certificates of deposit and other fixed-rate investments.

4. Consulting Services

We also provide nondiscretionary investment consulting services to:

- public, Taft-Hartley and corporate pension funds;
- hospital endowments and foundations;
- trusts;
- OPEB plans; and
- other similar institutional investors.

These consulting services consist of overseeing a client's portfolio where we have not been given authority to buy or sell securities in the portfolio. We typically begin these services by assessing the client's investment objectives, time horizon and risk tolerance. Using this information, we then propose asset allocation models within the investment guidelines which the client gives us. We may also assist in writing an investment policy which provides details about the objectives, diversification, quality and performance measurement of the portfolio. We also make recommendations on the selection of money managers, pooled trusts or mutual funds to carry out the client's investment strategy. Once our client puts the investment policy into place, we report quarterly to the client on the investment performance. We also report on whether an investment manager chosen follows its particular style, and whether our client's portfolio complies with its investment policy.

We also provide consulting services to OPEB plans and pension plans. These services involve financial reporting, analyzing cash flow implications of different funding strategies, and other matters relating to the OPEB benefits or pension benefits and funding arrangements. Often we perform these services by cooperating with our client's other professional advisors, such as the client's accountant or actuary.

5. Structured Products

We also provide analytical services for designing and procuring portfolios in connection with the current or advance refunding of municipal bonds and the investment of bond proceeds. For these engagements we arrange for purchases of specific securities that are generally government obligations or for structured investments such as forward delivery agreements. On our client's behalf, we arrange these purchases by obtaining bids on a competitive basis or in rare instances by negotiating on behalf of our client.

6. Treasury Consulting Services

We also provide clients with services to assist with the structure and design of third-party banking and custody services, evaluate the services offered by banks, and re-bid banking services. For each client, we conduct a detailed assessment of current banking arrangements. We evaluate the client's needs, analyze existing banking relationships, review how bank services fit into cash management and investment systems, and make specific recommendations to improve certain systems.

7. General Approach to Advisory Services

We tailor our advisory services taking into account following factors:

- the services that the client has requested;
- the client's investment objective;
- the client's investment policy;
- the client's time horizon; and
- risk tolerance.

A client may impose additional restrictions on the types of securities in which we can invest, or on the maturity of securities. We adhere to any investment restrictions provided by the client.

Item 5 - Fees and Compensation

The fees we charge to our advisory clients vary depending upon a number of factors including the types of investments permitted, the personnel providing the advisory services, the particular strategy, the size of portfolio being managed, the relationship with the client, and service requirements associated with the account.

Fees may also differ based on account type (e.g., a commingled, pooled account or a separate individual portfolio account).

Fees are negotiable so one client may be paying a higher fee than another client with similar investment objectives or goals.

1. Discretionary Advice

We generally receive compensation for fixed income separate account management based on a percentage of assets we manage. We receive this compensation after a service is provided, and we bill in arrears on a monthly basis. As a general guideline, we charge the following fees for investment advisory services for fixed income accounts:

Assets Under Management	Annual Rate
First $25,000,000	0.25%
Assets in Excess of $25,000,000	0.15%

Some clients may receive lower fees than this, based on the nature of the mandate or the size of the accounts.

As a general guideline for the multi-asset class management discretionary form, we charge the following fees for investment advisory services:

Assets Under Management	Annual Rate
First $10,000,000	0.45%
Next $10,000,000	0.35%
Next $30,000,000	0.25%
Next $50,000,000	0.20%
Assets in Excess of $100,000,000	0.15%

For multi-asset class discretionary management accounts using index investments only, a 10 basis point discount may be applied to all fee levels below 45 basis points.

For certain accounts, we may charge a minimum fee. However, when a fee for an account, as calculated above, exceeds the minimum fee, the calculated fee applies, rather than the minimum fee.

We use the following fee structure as a general guideline for MAP, which is no longer open to new clients:

Assets Under Management	Annual Rate
First $5,000,000	1.00%
Next $5,000,000	0.85%

Next $10,000,000	0.75%
Assets in Excess of $20,000,000	0.60%

These MAP fees include the following services: asset management, investment advisory and custody. However, the MAP fee does not include front or back-end fees for the mutual or pooled funds we select, any taxes or fees of attorneys, accountants, auditors or other professionals advising the client. A portion of the fee for MAP may be used to compensate the Investment Sub-Advisers.

2. Registered Investment Company and Pools

The fees we charge for the investment services we provide to the registered investment company and local government investment pools vary by program. Typically the fee schedule includes various breakpoints depending on asset levels, and may include fee caps or waivers which can be triggered by the overall expense ratio of the pool. We may also receive compensation for providing marketing, administrative and transfer agent services to the registered investment company shareholders and to investors in the local government investment pools.

We generally provide these administrative, transfer agent and marketing services as an integral part of our investment advisory services, and the fees we receive for these services usually may be included as a component of the investment advisory fees we charge.

3. Nondiscretionary Advice

We generally charge fixed fees for these services, depending upon the services that the client requests, and the complexity of the services. We also offer nondiscretionary advice on certificate of deposit investment programs, which are designed to provide clients with a fixed rate to a targeted maturity. Fees typically range up to 0.25% per annum of the cost of the investment purchased by our clients. Under the certificate of deposit programs, we provide clients with the option to set aside moneys in client accounts to be paid to us after we have performed the service.

4. Consulting Services

For full-service investment consulting services where we have not been given authority to buy or sell securities in the portfolio, we generally charge clients either a fixed fee or a fee that is based on a percentage of assets. The fixed fee is based on the size of the portfolio, complexity, and scope of services which our client wants us to perform. As a general guideline, we charge asset-based fees in a range from 0.05% to 0.30% annually, based on the characteristics listed above. From time to time, we charge hourly fees for these types of services.

For consulting services and reports we provide to OPEB plans, we charge a fixed fee generally in the range of $10,000 to $150,000, depending on the specifics of the services we agree to provide.

5. Structured Products

In these types of engagements, we usually charge a fixed fee. The client may pay the fee, or it may instruct the investment contract counterparty or underwriter in writing to pay our fee on the client's behalf. We and our clients agree upon a fee for each one of these engagements and the fee is a function of the size and complexity of the engagement. As a general guideline, the typical fee for investment of municipal bond proceeds in a structured investment, or in a refunding bond escrow structuring and procurement engagement, is less than or equal to .2% of the cost of the portfolio or the sum of the total deposits under the agreement. In limited circumstances, the fee will be higher, often because the portfolio is very small in size.

6. Other Important Information about Our Compensation

Because we tailor our services to the individual needs of a client, we may offer clients more than one of the services mentioned above. In addition, we may also provide services not mentioned above, such as assisting our clients with a one-time purchase or sale of securities. The fees we charge are negotiable and vary depending upon the particular services we perform and the complexity and extent of the work we provide.

We may charge a minimum fee for small accounts, as explained in Item 5 above. Certain of the portfolios of the local government investment pools and short term certificate of deposit purchase programs for which we serve as administrator and/or investment advisor have minimum investment requirements of between approximately $50,000 and $1,000,000. Other than these minimum fee requirements, there are no other requirements for opening or maintaining the account.

All fees are payable to us only after we perform the services; we do not require our clients to pay our fees in advance. Under the majority of our investment advisory engagements, clients authorize us to deduct fees from their investment accounts after they are notified. Under some engagements, we bill the client for our fees. The method of payment of our fees is subject to negotiation, and clients have the ability to choose the method of payment, depending on the type of service. For most of our accounts, we bill monthly in arrears. Under some client contracts, we bill the client quarterly. For some services, we bill the client on a one-time basis only when we complete the service.

For services we provide, other than those under our Managed Accounts Program (MAP), clients are responsible for their own custody and legal fees and taxes, if any. For the services we provide under our MAP, we charge clients a wrap fee. The wrap fee covers fees payable to the portfolio managers of the funds we choose for our MAP and the fee we pay to the custodian for MAP for custodial and administrative services. The portion of the wrap fee paid to portfolio managers of mutual funds generally is in the form of the expense ratios and is deducted automatically by the mutual fund company from the assets invested in the funds. We receive the remainder of the wrap fee, and apply a portion of the fee to pay the custodian pursuant to agreements between the custodian and us. We no longer offer MAP to new clients; a copy of the MAP wrap fee program brochure is available upon request.

We have a wholly-owned subsidiary, PFM Fund Distributors, Inc., which is a broker-dealer under the Securities Exchange Act of 1934. PFM Fund Distributors, Inc. typically serves as exclusive distributor of shares of a registered investment company and local government investment pools (Pooled Funds) for which we serve as investment adviser and/or administrator and we receive fees from this arrangement, as more fully described in Item 10, below.

No supervised person of our affiliated broker-dealer is compensated for the sale of securities.

PFMAM employees are paid a base salary plus a year-end bonus. The annual bonus is dependent upon the profitability of the firm, each group’s contribution to the overall profitability of the firm, and each individual’s contribution to the group’s success. PFMAM personnel may also receive a portion of their bonus based on marketing success. The firm’s compensation plan is intended to recognize and reward excellent performance on the part of individuals; however, no PFMAM employee is compensated on a commission or investment transaction-related basis. Managing Directors also have the obligation to buy stock in the PFM Group as part of the bonus process.

Item 6 - Performance-Based Fees and Side-By-Side Management

In rare instances, we enter into advisory agreements under which the client pays us a fee, part of which is performance based. For example, we have entered into agreements where the client pays us all or part of our fee to the extent that the performance of the portfolio we manage exceeds a predetermined benchmark, measured over a designated period of time. We manage both accounts that are charged a performance-based fee and accounts which are charged other fees, typically a percentage of the value of assets managed. To address any concern that we may have an incentive to favor certain investment opportunities for a performance-based account, we follow written procedures designed to allocate trades on an equitable basis considering the investment objectives of the account and without regard to whether an account has a performance-based fee. Accounts with the common objectives and permitted investments should receive a fair allocation of trades over time.

Item 7 - Types of Clients

PFMAM provides investment advisory services to state and local governments and their agencies, local government investment pools, non-profit organizations, pension and OPEB funds, corporations and other institutional clients. For information concerning minimum fee requirements, please see Item 5 above.

Item 8 - Methods of Analysis, Investment Strategies and Risk of Loss

Fixed-Income Portfolios – Analysis and Strategy

Overall strategies are developed by the Fixed-Income Investment Committee which considers the macroeconomic and interest rate conditions described below. We use a variety of analyses as well as internal and external data sources and market research. External sources include various news and information sources, books, governmental bulletins, data bases, research prepared by others and publications from rating agencies, unaffiliated broker-dealers and third-party information providers. We also collect information from clients to determine their liquidity requirements, risk tolerances and any other policies or procedures that guide the investment of the client's assets.

Within the investment objectives and other requirements of the particular client, for clients whose objectives are measured by total return or income, our investment approach emphasizes the use of active management strategies that seek to add value while limiting market and credit risk. For liability-driven investment portfolios, such as those funded with bond proceeds and used to pay project costs, we identify securities whose cash flows are expected to meet a draw schedule and we modify the portfolio as the draw schedule changes or as investment opportunities present themselves, although in the latter case the draw schedule is considered when making modifications.

Our Fixed-Income Active Management Process

The following describes our fixed-income investment strategy:

- Disciplined decision making process;
- Duration positioning to manage risk: generally slightly short of relevant benchmarks, policy of no more than +/- 25%, which protects the market value of the portfolio;
- Seeks out relative value through spread analysis, yield curve positioning, sector weightings and duration management; and
- Does not employ market timing or make significant duration bets.

We use top-down analysis to assess macroeconomic conditions including interest rates, the shape of the yield curve, Federal Reserve monetary policy, and current and historical yield spreads between sectors. Top-down analysis is a key element of our duration and sector allocation decision-making process. We believe identifying macro-level trends in these areas is important for adding value, controlling risk, and lowering volatility.

We use a careful bottom-up approach to security selection that seeks to identify those industries and issuers with fundamental characteristics and financial strength that enhances their potential to perform well. We seek to combine fundamentally sound investments into a portfolio that optimizes return potential in consideration of investment guidelines or restrictions.

Lastly, we incorporate low-risk active management techniques designed to enhance our relative value approach. We believe active management can capture market inefficiencies that create opportunities for return enhancement. While we expect that every security we buy will be suitable to hold to maturity, we frequently identify opportunities to swap one investment for another to increase earnings, adjust portfolio duration, improve liquidity, or restructure the portfolio to better meet future needs.

We specialize in managing short and intermediate-term fixed-income assets of governmental entities, so we have tailored our research capabilities and resources to this area of the market. Our portfolio managers and analytical team have access to three major on-line market trading systems, Bloomberg, MarketAxess, and TradeWeb. These systems provide active market quotes, including real-time Bloomberg and TradeWeb securities pricing services. We also have access to news from Dow Jones, the Associated Press, Bloomberg News, and several specialized news services. In addition, we communicate daily with approximately 30 major government securities dealers and receive market information from them that assists us in identifying specific market opportunities. We supplement these external systems and data sources with proprietary trading tools, which we have developed.

After factoring in a conservative posture which ensures that cash flow requirements are met, we will position a portfolio's duration to take advantage of expected interest rate movements: positioning with a shorter bias when we expect rates to rise and longer when we expect rates to fall. We establish a duration (or average maturity) target for the portfolio based on our macro view of the economy and the financial markets, the type of funds, cash-flow analysis and benchmark chosen by our clients. We add value by re-balancing the portfolio to take advantage of market opportunities and in anticipation of interest rate movements. Duration limits are established by our Fixed-Income Investment Committee and may be provided to and evaluated with our clients' staff on a regular basis as a management and oversight tool.

While maintaining the target duration range for a portfolio, we add value through asset allocation strategies which involve sector selection (security type), curve placement (maturity), spread analysis and issue selection (individual issuer). Our overall view of the economy provides the context for selecting maturities which represent the best relative value along the yield curve and the highest potential for enhanced return by "rolling down the curve" and for selecting specific securities within a sector. We think there is a significant opportunity to enhance earnings with a strategy that focuses on the selection of securities based on relative value. Sectors are selected which represent the best relative value based on our sector outlook and historical sector spreads. Investments other than Treasuries are purchased when spreads are wide and avoided or swapped out when spreads are narrow. Our portfolio managers and traders are assigned to specific market sectors in order to monitor products and opportunities and these responsibilities run across all portfolios.

Individual issues are selected based on our assessment of issuer quality and rating, interest rate spread, credit trends, issue structure and liquidity. Portfolios are generally diversified by security type and maturity to avoid a significant investment in a single issuer and to accommodate varying cash flow needs to provide periodic liquidity. We perform extensive proprietary analysis on the yield curve to identify "cheap" areas of the curve, and to evaluate a variety of portfolio structures. Using the results of this analysis, our portfolios are frequently over-weighted in certain maturities, and are structured in either a "bullet", "barbell" or "laddered" construct to provide optimal performance.

Fixed-Income Portfolios – Risk

Our fixed-income strategies, like all investment strategies, involve certain risks. For portfolios whose investments are limited to obligations of the U.S government we believe the risk of default is minimal; for those invested in obligations of Federal agencies, we believe the risk is nearly as low as it is for direct obligations of the U.S. government. Portfolios whose investments include corporate and municipal obligations are subject to the risk that an issuer will fail to pay principal or interest on a timely basis, while those containing mortgage-backed securities are subject to the risk of uncertain timing of principal payments. In order to manage risks we seek to diversify portfolio holdings and we limit our investments in corporate and municipal obligations and in mortgage-backed securities to those that are high grade.

Portfolios are also subject to interest rate risk. This is because the market value of securities changes as interest rates change, with a rise in rates reducing market values and a decline in rates increasing market values. Changes in interest rates affect longer maturity securities more than they affect shorter maturity securities. We manage this risk by varying the duration of portfolios other than those that are liability-driven in accordance with our outlook for interest rates and by managing these portfolios within duration ranges. Nonetheless, investors should expect to experience interest rate volatility in short-term fixed income portfolios and total return volatility which can include unrealized losses in excess of periodic income in intermediate and longer-term portfolios. Although the investment strategies we employ do not involve significant or unusual risk beyond that of the general domestic fixed-income markets, investors need to recognize that investing in securities involves a risk of loss that the investor should be prepared to bear. Past performance is not a guarantee of future returns.

The risk of our top-down strategy is that our macro view of the economy and financial markets is wrong and we position a portfolio's duration or sector allocation in a manner that is not optimal. We seek to manage this risk by limiting variations from duration or maturity targets other than those that are liability-driven and by diversifying holdings among security types. For liability-driven investment portfolios, we seek to minimize market risk by approximately matching portfolio cash flows with expected liabilities.

The risk of our bottom-up strategy is that securities that we include in a portfolio because they are perceived to have relative value may later lose value when compared with other securities. We seek to manage this risk by careful and systematic analysis of relative values by performing credit analysis on issuers of securities we recommend and by diversifying holdings.

Frequent trading of securities can create higher overall transaction costs and these will reduce portfolio income. We do manage portfolios actively and we seek to minimize trading costs by recommending liquid issues that are actively traded in the markets and by utilizing competitive bidding wherever feasible.

Multi-Asset Class Asset Management – Analysis and Strategy

The Multi-Asset Class Investment Committee plays a key role in the investment services delivered to clients by establishing asset allocation targets and approving managers/funds for all discretionary multi-asset class accounts. The Multi-Asset Class Investment Committee provides investment and portfolio risk oversight for investment decisions, and convenes regularly to discuss any changes necessary.

We use a consistent approach to multi-asset class accounts that involves portfolio planning, risk assessment, asset allocation determination, manager selection, and performance reporting. The primary difference between discretionary and nondiscretionary types of accounts relates to who provides direction relating to the allocation of assets to separate account managers and the execution of mutual fund buy and sell transactions. For discretionary accounts, we are authorized to instruct the custodian to rebalance the portfolio, move assets among separate account managers and/or to arrange for the purchase or sale of mutual fund holdings.

We believe that the asset allocation decision is the most important factor in determining the expected investment return between two different portfolios. Therefore, rigorous adherence to a disciplined process is critical in determining the amounts that will ultimately be allocated to equities, fixed income and other investments.

Compiling Capital Market Assumptions

Our Capital Market Assumptions are determined by the Multi-Asset Class Investment Committee through a comprehensive and ongoing process developed by our investment professionals. Our assumptions are for intermediate- and long-term returns in a wide range of asset classes.

- For the intermediate term (five years), our Capital Market Assumptions are derived from our assessment of current economic conditions, including corporate profits, balance sheets, and current valuations for various asset classes.
- Our long-term assumptions (thirty years) are derived using an economic building block approach that projects economic and corporate profit growth, and that takes into consideration the fundamental factors driving long-term real economic growth, and our expectation for inflation, productivity and labor force growth.

The next steps would be completed in collaboration with prospective clients:

Engaging in a Portfolio Planning Survey

We would begin the asset allocation process by reviewing a detailed portfolio planning survey with the prospective client. The survey is designed to facilitate a discussion of all of the asset classes to determine which should be permitted in the final overall allocation.

In addition, through a series of questions, the survey would bring to light information about goals, objectives, cash flow projections, risk tolerance, ability to withstand losses, as well as the view of the economy and the markets. In summary, the portfolio planning survey documents the level of expectations so that everyone understands the goals that have been set for the investment of the assets.

The survey results are updated periodically during an ongoing engagement as client circumstances change.

Determining Asset Allocation Structure

The information from the portfolio planning survey and the Capital Market Assumptions is used to design and keep current an asset allocation plan for the client. We use a modeling program from Ibbotson Associates, along with an internally-built modeling program, which allows us to conduct a more detailed asset/liability modeling study. Each model uses the latest historical data on asset class investment returns, volatility, and correlation with other asset classes along with our Capital Market Assumptions to determine an "optimal" portfolio.

Selecting an Appropriate Asset Mix

A series of tests is run on each model to determine the probability of achieving the desired investment objective under different market scenarios. Existing funding requirements may override the more subjective "tolerance for loss." We use this process, to help inform our clients of the range of possibilities associated with each asset allocation plan, and to identify a plan that best meets the expectations set forth in the portfolio planning survey.

Investment Manager Selection

Our research team is focused on monitoring the investment products included in our client portfolios. The research analysts are assigned to a specific asset class for which they are responsible. Both the research analysts and our Director of Research correspond with investment managers on a regular basis and meet with investment managers routinely to maintain an understanding of each manager's investment process and strategy. As part of the ongoing manager due diligence, the research analysts run a series of risk/return statistics, peer universe analysis, portfolio attribution and style analysis on all of the investment products in our clients' portfolios to ensure they continue to be an appropriate component of the overall portfolio. As a result, our research team is able to provide the clients with valuable information about potential investment managers.

Rebalancing

We evaluate a client's portfolio regularly to determine the need for rebalancing the portfolio based on factors including current allocation targets, perceived assessment of relative value, and changes in Capital Market Assumptions. For multi-asset class portfolios where we have discretion we establish target levels for each asset class in the planning stages along with a minimum /maximum range and may update these as our Capital Markets Assumptions and market conditions change. These parameters are input into the client's investment policy statement and are illustrated in the quarterly reports. We have invested in software that allows our staff to monitor compliance of a client's portfolios.

Ongoing Monitoring

We will monitor a client's asset allocation, as well as the portfolio's money managers/mutual funds on an ongoing basis through detailed analysis and our proprietary manager ranking system. For our discretionary accounts, we place a manager or fund on the watch list as a result of lagging performance, poor risk metrics and/or qualitative issues, among other things. Removal from the watch list is typically based on several quarters of improved performance against peers and an appropriate benchmark or remediation of other issues. If problems endure, probation is a subsequent step in the process of reviewing managers. Ultimately, if the problem persists, our Multi-Asset Class Investment Committee approves a termination recommendation.

We continually evaluate the economy, financial markets, and correlation of asset classes to assess whether a client's asset allocations are appropriate, as well as rebalance the portfolio if necessary. We regularly interview managers and visit their operations to ensure that they remain the most appropriate vehicle for our client's investments. Strategic allocation decisions, rebalancing, and re-evaluating managers are all part of the ongoing monitoring process.

Performance Reporting

We provide performance reporting on a quarterly basis. Each client will receive a report containing its own performance measures allowing the client to review its plan and its investment managers' performance versus the established benchmark, while monitoring cash flows and other financial indicators. The report includes a review of the economy, financial markets, and our investment strategy. We also organize quarterly conference calls/meetings to give a client a better understanding by hearing from the people who are making the asset allocation and investment manager decisions.

Multi-Asset Class Asset Management – Risk

Although the investment strategies we employ do not involve significant or unusual risk beyond that of the general markets for international and domestic equities, fixed income, publicly traded real estate, and other investments we recommend, investors need to recognize that investing in securities involves a risk of loss that an investor should be prepared to bear. In order to manage the risks inherent in these markets, we employ a diversified approach, blending equity, fixed income, and cash based securities, in a manner that is designed to meet the client’s risk tolerance, with the objective of reducing the risk of long term losses. Past performance is not a guarantee of future returns.

Investing in cash, fixed income, and equity funds through separate account managers, mutual funds or ETFs involves risk. Each asset class has its own idiosyncratic risk and return characteristics. In modeling portfolios for our clients, we assess the individual characteristics of asset classes, from a historic and forward looking point of view, to optimize the best blend given the client’s investment objectives and tolerance for risk. The range of probabilities examines extreme conditions (worst loss, maximum drawdown) over rolling one, five and ten year periods from a historic standpoint (losses for portfolios with heavy allocations of equities can be large in extreme market conditions as evidenced by the global financial crisis of 2008. Portfolios with heavy concentration of equities experienced losses of up to 30% or more during the worst period of peak to trough returns). The analysis also provides a 90% probability analysis of future geometric returns and minimum and maximum investment returns for one, five and ten year periods. Because our clients’ investment time horizons typically exceed five years, this form of analysis gives them a context for the range of possibilities of investment returns at the total fund level and the individual asset class level.

A higher overall equity allocation will result in the assumption of a greater degree of risk. The annual standard deviation of returns for equities falls in the 17 – 22% range, and for fixed income in the 5 - 10% range, so clients should expect wide potential volatility of returns from each individual asset class in any one given year.

Consulting Engagements – Analysis Strategy and Risk

For multi-asset class consulting engagements where we do not have discretion, the methods and analysis generally are similar to those for discretionary accounts as described above. However, determining asset allocation, setting an appropriate asset mix and manager selection are the responsibilities of the client, and not us. We generally make recommendations and report the results of reviews at quarterly client meetings and follow client direction with regard to the selection of managers and re-balancing accounts. As directed by the client, managers may include those that are not approved for our discretionary accounts. In cases where a client directs assets to a manager that is not approved, the level of ongoing diligence we perform may be limited and clients acknowledge this in writing. Risk for these accounts is similar to risk for discretionary multi-asset class accounts.

Item 9 - Disciplinary Information

An investment advisor must disclose material facts about any legal or disciplinary event that is material to a client’s evaluation of our advisory business or the integrity of our management. We do not have any disclosure items of this nature.

Item 10 - Other Financial Industry Activities and Affiliations

Our wholly-owned subsidiary, PFM Fund Distributors, Inc. (PFMFD), is registered as a broker-dealer under the Securities Exchange Act of 1934. Its sole activities are to serve as exclusive distributor to the registered investment company and local government investment pools (Pooled Funds) for which we serve as investment adviser and/or administrator. One of the managers of our company, Martin Margolis, is a registered principal of PFMFD.

If our client invests in a Pooled Fund, we disclose this relationship to the client, through the Form ADV Part 2A and the offering statement for the Pooled Fund. In addition, our investment advisory agreement with the client provides that if we invest client assets in a Pooled Fund, we will not take these assets into account for purposes of calculating our fees under the client's investment advisory agreement.

We serve as administrator and investment adviser to PFM Funds, a diversified, open-end management registered investment company offering money market funds to governmental entities and other institutional investors. We may enter into arrangements with a third party to compensate it for service it provides to us in our role as administrator to PFM Funds, or in PFMFD's role as distributor to PFM Funds. Such compensation payable to the third party is paid out of the fee we receive from the client. We also serve as administrator and/or investment adviser to the following local government investment pools:

- California Asset Management Trust (CAMP);
- Florida Education Investment Trust Fund (FEITF) (adviser and distributor only)*;
- Illinois Trust;
- Massachusetts Finance Development Agency Short-Term Asset Reserve Fund (Mass STAR);
- Michigan Liquid Asset Fund Plus (MILAF+);
- Minnesota Association of Governments Investing for Counties (MAGIC);
- Minnesota School District Liquid Asset Fund Plus (MSDLAF+);
- Missouri Securities Investment Program (MOSIP);
- Nebraska Liquid Asset Fund (NLAF);
- New Jersey Asset & Rebate Management Program (NJ/ARM);
- Pennsylvania Local Government Investment Trust (PLGIT);
- Pennsylvania OPEB Trust (adviser and distributor only);
- TexasTERM Local Government Investment Pool (TexasTERM); and
- Wyoming Government Investment Fund (WGIF).

* As of February 23, 2015, we assumed duties as administrator to FEITF.

PFMFD serves as distributor to all of these pools except for WGIF.

We have no arrangements for direct or indirect compensation with other investment advisers. As a matter of policy and practice, we do not accept any fees, commissions or other forms of compensation from any underlying money managers or other professionals affiliated with our client's account.

Item 11 - Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

Under Rule 204A-1 of the Investment Advisers Act of 1940, our employees are subject to our Code of Ethics (Code). Compliance with the Code is a condition of employment for all of our employees.

This Code sets out general ethical standards applicable to our employees. Employees are expected to maintain the highest ethical standards, embody a business culture that supports actions based on what is right rather than expediency, deal fairly with clients and one another, protect confidential information and seek guidance about ethical questions. More specifically with respect to advisory activities, the Code requires that whenever our personnel act in a fiduciary capacity, we will endeavor to put the client's interest ahead of the firm’s. We will disclose actual and potential meaningful conflicts of interest. We will manage actual conflicts in accordance with applicable regulatory and legal standards. If applicable regulatory and legal standards do not permit management of a conflict, we will seek to avoid the conflict. We will not engage in fraudulent, deceptive or manipulative conduct with respect to clients. We will act with appropriate care, skill and diligence.

Our employees are required to know when we are acting as a fiduciary with respect to the work they are doing. If we are acting as a fiduciary, they are expected to comply with all fiduciary standards which apply to us in performing their duties. In addition, they must also put the client’s interest ahead of their own personal interest. An employee’s fiduciary duty is a personal obligation. While advisory personnel may rely upon subordinates to perform many tasks that are part of their responsibilities, they are personally responsible for fiduciary obligations even if carried out through subordinates.

In general, the Code expresses our recognition of our responsibilities to the public, clients and professional associates. Our Code also contains various reporting, disclosure and approval requirements regarding employees' personal securities transactions. The Code requires that our employees whom we deem to be "Access Persons" must report all personal securities transactions, including transactions in mutual funds advised by us, to our Chief Compliance Officer, or to the person he designates. We prohibit our Access Persons from participating in initial public offerings unless our Chief Compliance Officer gives his approval. We also prohibit our employees from purchasing any municipal securities within 60 days of their issue date, if our affiliate, Public Financial Management, Inc., served as municipal advisor for the bond issue.

You can receive a copy of our Code by contacting us at One Keystone Plaza, Suite 300, North Front & Market Streets, Harrisburg, PA 17101, by calling 717-231-6200 or by emailing pfmamrequest@pfm.com.

On infrequent occasions, our employees may invest in securities that coincidentally we also recommend for purchase or sale in our client accounts. The securities we recommend for purchase and sale within our fixed-income and multi-asset class portfolios are of the type which the Securities and Exchange Commission has expressly recognized as presenting little opportunity for the type of improper trading which compliance with the Code of Ethics reporting requirements is designed to uncover. Further, our employees are subject to our Code of Ethics described above, and because our personnel are acting in a fiduciary capacity, we require our employees to put the client’s interests ahead of their individual interests or that of the firm with respect to the purchase and sale of securities.

Item 12 - Brokerage Practices

We generally exercise brokerage discretion as follows: typically, our clients allow us to choose the broker or dealer to execute the trades. In these situations, we deal with brokers and dealers whom we determine to be major market makers for the types of securities purchased or sold. As a matter of policy, we do not recommend, request or require a client to direct us to execute transactions through a specified broker-dealer. If a client provides us with an approved list of brokers and dealers, we place all orders for the purchase or sale of securities for the client's account with those brokers or dealers and this may limit our ability to achieve the most favorable price or execution. Under these circumstances, the client and the broker or dealer determine the commission rates.

The factors that we may consider in selecting or recommending a particular broker or dealer include: the execution, clearance and settlement capabilities of the firm; our knowledge of negotiated commission rates currently available and other current transaction costs; the nature of the portfolio transaction; the size of the transaction; the desired timing of the trade; the activity existing and expected in the market for the particular transaction; confidentiality; the availability of research and research related services provided through such firms (as discussed below); our knowledge of the financial stability of the firm; and our knowledge of actual or apparent operational problems of the firm. Given these factors, our clients may pay transaction costs in excess of that which another firm might have charged for effecting the same transaction.

When we select or recommend a firm that executes orders or is a party to portfolio transactions, relevant factors taken into consideration may also include whether that firm has furnished research and research related products and/or services. We receive a broad range of research services, including information on the economy, industries, groups of securities and individual companies, statistical information, market data, accounting and tax law interpretations, political developments, pricing and appraisal services, credit analysis, risk measurement analysis, performance analysis and other information which may affect the economy and/or security prices. Research services may be received in the form of written reports, periodicals, investment seminars, software, and electronic access to, and telephone contacts and personal meeting with, security analysts, economists, government representatives, and corporate and industry spokespersons. They also may consist of computer databases. Currently, as a matter of policy, we do not enter into any third party or proprietary soft dollar arrangements where a broker-dealer provides research services in exchange for an expectation of receiving a certain dollar amount of commissions.

From time to time some of these brokers offer us market commentary and data and statistical research reports as to factors which may influence market price movements. We believe that this information improves the quality of our investment and trading decisions for the benefit of all of our clients. We obtain express authorization from our client to consider direct brokerage factors (efficiency of execution and commission) in selecting a broker or dealer, and to consider the furnishing of statistical research and other information services by the broker or dealer. It is possible that the use of any these particular brokerage firms may result from time to time in a less favorable price for a particular transaction than if we canvassed a broader range of brokers. However, we believe that the practice of taking into account the furnishing of market information is reasonable. For fixed-income securities, we seek to minimize the effect, if any, of research on the transaction costs by using competitive bids and offers and involving major market makers wherever feasible, and use electronic trading platforms for a majority of trades to facilitate market access and in an effort to minimize transaction costs.

We have no agreement, understanding or other arrangement, either internal or with brokers and/or dealers, which would influence the allocation of securities transactions among brokers and/or dealers, and we do not utilize soft dollar arrangements other than those activities explicitly authorized under Section 28(e) of the Securities Exchange Act of 1934.

In the fixed-income markets, we may cause securities transactions to be executed for a client’s account concurrently with authorizations to purchase or sell the same securities for other accounts we manage. It is our policy to aggregate the purchase or sale of securities for various client accounts in order to achieve efficiency of execution and better pricing. Each client participating in an aggregate transaction will participate at the same price. Where we receive an allocation that is less than our order we normally allocate the securities to the participating client accounts on a pro rata basis in proportion to the size of the orders placed for each account, to the extent that we can. We may increase or decrease the amount of securities allocated to a client if necessary due to factors including avoiding odd lots in a particular security.

Item 13 - Review of Accounts

For our fixed-income accounts, our Fixed-Income Investment Committee meets generally on a monthly basis, or more frequently as necessary to review the overall strategic direction. This investment committee consists of portfolio managers, senior research staff and our chief investment officer.

Shorter-term tactical approaches are presented routinely through a report and analysis prepared and distributed by a sector specialist and may be discussed at a meeting. These reports, normally provided on a weekly basis, highlight interest rate trends and the relative value of different sectors and maturity structures in the market. Ad-hoc strategy discussions take place regularly, or after any significant market moving event, such as sudden changes in financial market conditions, general economic conditions, credit ratings downgrades, and/or the movement of a particular portfolio security through a price support or resistance level.

Our fixed-income portfolio managers and traders also review client portfolios on a daily basis. As part of daily practices, portfolio managers and traders discuss market developments, overall strategies, and the potential impact of pending economic announcements. During these sessions, portfolio managers review portfolios, upcoming maturities, and any expected large transactions.

For our multi-asset class accounts, our Multi-Asset Class Investment Committee meets generally on a monthly basis, or more frequently as necessary to review the overall strategic direction. This investment committee consists of portfolio managers, senior research staff and our chief investment officer.

We monitor the performance of multi-asset class accounts, including our Managed Accounts Program (MAP), on at least a quarterly basis to determine whether the underlying investments selected are performing in line with expectations and are meeting the needs of the individual client. We provide our multi-asset class clients a quarterly analysis of the performance of the underlying funds in which the client's assets are invested and of any reallocation of assets among these underlying funds. At least annually, we will consult with the client to determine whether there are reasons to revise the client's target investment strategy.

Changes in our Capital Market Assumptions, our outlook for asset class valuation, sudden changes in financial market conditions, and general economic conditions may trigger a review of our multi-asset class accounts. Accounts are reviewed by a principal or a portfolio manager in consultation with one of our principals. Normally, we sequence account reviews in a manner that provides for first review of the accounts that have the greatest potential exposure to the effects of the event which triggers the review.

We furnish monthly account summaries to each fixed-income portfolio client with assets under continuous management. The summaries include details of all transactions and holdings at the end of the period. We also provide account summaries on a daily basis on the Internet. We may also provide an investment advice memorandum upon advising and/or completing an order for a buy or sell of securities. Pursuant to our investment advisory agreements, we may also provide quarterly performance and economic reviews for some clients.

The custodian of our multi-asset class portfolio clients, including our MAP clients, provides each client with a monthly statement of account detailing the client's month-end balances and any transactions which occurred during the month. We review such statements monthly to determine whether transactions executed by the custodian are in agreement with any instructions which we or the client provided. In addition, we provide monthly written statements and quarterly performance reports.

Item 14 - Client Referrals and Other Compensation

From time to time, we may enter into arrangements under which we agree to engage a third party to solicit or refer to us potential new investment advisory clients. Under these arrangements, we enter into a written agreement with the third party, describing the third party’s activities on our behalf and the amount we agree to pay the third party. The agreement also contains the third party’s undertaking to act in manner consistent with our instructions and with the provisions of the Investment Advisers Act of 1940, and to provide the referral with a copy of our Form ADV, Part 2A and Part 2B. If the referral subsequently enters into an investment advisory agreement with us, we pay the solicitor a percentage of our investment advisory fee, which fee arrangement is disclosed to the prospect by the solicitor prior to any contact or meeting with the prospect.

Item 15 - Custody

We do not have custody of client funds or securities.

Item 16 - Investment Discretion

We offer discretionary advisory services with respect to a client's investable assets. When a client gives us investment discretion, we then have the authority to determine, without obtaining their specific approval, (1) overall asset allocation, (2) the manager or sub-adviser to be utilized for the portfolio, (3) the specific securities to be bought and sold, (4) the amount of securities to be bought and sold including overall asset allocation and (5) the broker or dealer through which the securities are bought or sold. These decisions are subject to limitations of state law and any other restrictions in the contract with our client, or in our client's investment policies. Many of our clients have their own investment policies, which usually contain restrictions on the types and credit quality of investments. We agree contractually to follow those guidelines. In addition, many of our clients are subject to state investment statutes, which we comply with as well. Our clients typically grant us discretionary authority in the investment advisory agreement which we enter into with them.

Item 17 - Voting Client Securities

We provide to certain of our clients discretionary investment advice on securities which are mutual funds. These mutual funds send us proxies, which we vote on behalf of these discretionary clients if they have given us the authorization to vote them. We also occasionally receive consent requests. Generally, we arrange for the portfolio manager overseeing the client's investments to be responsible for making all proxy-voting decisions. We seek to vote proxy proposals, consents or resolutions in a manner that serves the best interests of our clients. When reviewing whether a proposed action would be in our client's best interests, we take into account the following factors:

- The impact on the valuation of securities;
- The anticipated costs and benefits associated with the proposal;
- An increase or decrease in costs, particularly management fees, of investment in the securities;
- The effect on liquidity; and
- Customary industry and business practices.

In reviewing proxy issues of the type described below, we will apply the following general principles:

- With respect to an election of directors, we will typically vote in favor of the management-proposed slate of directors, unless there is a proxy contest for seats on the board of a portfolio fund or other important reasons for withholding votes for directors. We may abstain if there is insufficient information about the nominees disclosed in the proxy statement.

- Similarly, we will also generally support management's recommendation for the appointment of auditors, unless there are reasons for us to question the independence or performance of the nominees.

- We will vote in accordance with management's recommendations on issues that are technical and administrative in nature, such as changes to increase the number of directors or to adopt term limits. However, we review and vote on a case-by-case basis any non-routine proposals which are likely to affect the structure and operation of the portfolio company. Examples of these types of proposals include any limitations on shareholder rights, or those which have a material economic effect on the company.

- We will generally vote in favor of proposals that give shareholders a greater vote in the affairs of the company and oppose any measure that seeks to limit those rights.

- We also support proposals promoting transparency and accountability within a company to ensure that the directors fulfill their obligations to shareholders.

- We review proposals that result in an increase of compensation to investment advisors and other service providers of portfolio mutual funds on a case-by-case basis, with particular emphasis on the relative performance of the fund.

- We also review proposals relating to executive compensation plans to ensure that the long-term interests of management and shareholders are properly aligned.

- We generally oppose proposals to give shareholders the right to vote on executive compensation.

These policies are not exhaustive due to the variety of proxy voting issues that we may be required to consider.

With the exception of a client's shareholdings in a registered investment company and certain local government investment pools for which we provide services, a conflict of interest between us, and a client whose investments are managed by us, is unlikely. We are the investment advisor to a registered money market investment company (RIC) and to several local government investment pools (LGIPs). We receive no investment advisory fee from a client for managing client assets which we invest in the RIC or LGIPs. In regard to the voting of securities in the RIC or LGIPs for which we are the investment advisor (or where it would appear that we have an interest), we apply the following principles:

- If the proposal relates to the matters in which the outcome does not directly affect us, we will follow our general voting policies.

- If the proxy proposal relates to a transaction which directly affects us, or otherwise requires a case-by-case determination by us under our voting policies, we will seek the advice either of the managers of the client or of a qualified, independent third party, and we will submit the proxy statement to them. We will then follow the decision of our client's management or the recommendation of the third party in voting the proxy.

We maintain records relating to all proxy voting for five years. We will provide information to any client about how we voted proxies for securities in the client's account. Our Proxy Voting Policy is available upon request by contacting us at One Keystone Plaza, Suite 300, North Front & Market Streets, Harrisburg, PA 17101, by calling 717-231-6200 or by emailing pfmamrequest@pfm.com.

Under certain of our engagements, we do not assume the responsibility for voting proxies on client securities. The clients make arrangements to receive proxies from their custodian. In the event that we receive a proxy and we do not have authority to vote on it, we forward it to our client. Clients may contact the portfolio manager for their account if they have questions about a particular solicitation.

Item 18 - Financial Information

We are not aware of any financial condition that is reasonably likely to impair our ability to carry out our commitments and responsibilities under our client contracts.

Form ADV Part 2B
Brochure Supplement

PFM Asset Management LLC

One Keystone Plaza, Suite 300
N. Front & Market Streets
Harrisburg, PA 17101-2044
717-231-6200 (phone)
www.pfm.com

SEC File No. 801-60449

March 31, 2015

Marc D. Ammaturo*
Robert H. Cheddar, CFA
Joseph W. Creason
Michael P. Downs, CFA
Matthew R. Eisel, CFA
Christopher Harris, CFA
Biagio Manieri, CFA*
Gregg A. Manjerovic, CFA
Martin P. Margolis
Jeffrey H. Rowe, CFA
Kenneth R. Schiebel, CFA
John S. Spagnola*
Kerri L. Staub
Michael R. Varano
Mark Yasenchak, CFA

This Brochure Supplement provides information about our personnel listed above and supplements the PFM Asset Management LLC brochure. You should have received a copy of that brochure. Please contact our Compliance Department at 717.231.6200, or contact us by emailing pfmamrequest@pfm.com if you did not receive our Firm's brochure or if you have any questions about the contents of this supplement.

** Messrs. Ammaturo, Manieri and Spagnola are based in the Firm's Philadelphia, Pennsylvania Office, which is located at: Two Logan Square, 18th & Arch Streets, Suite 1600, Philadelphia, PA 19103; 215.567.6100 (telephone).*

Table of Contents

Educational Background and Business Experience

Item 2

Item 2 of Form ADV, Part 2B asks us to disclose background in education and business for our supervised persons who formulate the various types of investment advice we offer. Most types of our investment advice are provided to you by a team of more than five individuals. We have prepared background information for the team members who have the most responsibility for the advice the team prepares. We have provided the person's name, year of birth, formal education after high school, and business background (including an identification of the specific positions held) for the preceding five years of our supervised persons. Also listed are certain professional designations held by the supervised person. An explanation of the minimum qualifications required for each designation is included so you may better understand the value of the designation.

FIXED INCOME PORTFOLIOS

Robert H. Cheddar, CFA

Year of Birth: 1966

- Formal Education after High School
  - Susquehanna University, Selinsgrove, PA, Bachelor of Science, Business, Graduated 1988
  - Pennsylvania State University, Malvern, PA, MBA, Graduated 2003
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Harrisburg, PA, Senior Portfolio Manager, 01/2004 – 01/2011; Managing Director, 01/2011 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Joseph W. Creason

Year of Birth: 1976

- Formal Education after High School
  - Shippensburg University, Shippensburg, PA, Bachelor of Science, Finance, and Bachelor of Science, Economics, Graduated 2000
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management Inc., Harrisburg, PA, Portfolio Trader, 07/2000 –07/2009; Portfolio Manager, 07/2009 – Present

Michael P. Downs, CFA

Year of Birth: 1964

- Formal Education after High School
  - The Ohio State University, Columbus, OH, Bachelor of Science, Finance and Accounting, Graduated 1987
  - The Ohio State University, Columbus, OH, Master of Business Administration, Finance, Graduated 1991
- Business Background for the Previous Five Years
  - Hughes Capital Management, Inc., Alexandria, VA, Portfolio Manager, 06/2005 – 02/2014, PFM Asset Management LLC, Harrisburg, PA, Portfolio Manager, 04/2014 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Gregg A. Manjerovic, CFA

Year of Birth: 1971

- Formal Education after High School
  - University of Illinois at Chicago, Chicago, IL, Bachelor of Science, Finance/Management, Graduated 1993
  - Illinois Institute of Technology, Chicago, IL, MS, Financial Markets and Technology, Graduated 1999
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management, Inc., Harrisburg, PA, Fixed Income Portfolio Manager, 07/2001 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Martin P. Margolis

Year of Birth: 1944

- Formal Education after High School
  - University of Pennsylvania, Philadelphia, PA, Bachelor of Arts, History, Graduated 1966
  - University of Pennsylvania, Philadelphia, PA, Graduate School, History 1967-1972
- Business Background for the Previous Five Years
  - Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1987 – 01/2003; PFM Asset Management LLC, Harrisburg, PA, Managing Director, President, 01/2003 – Present

Jeffrey H. Rowe, CFA

Year of Birth: 1982

- Formal Education after High School
  - Pennsylvania State University, University Park, PA, Bachelor of Science, Finance, and a Minor in Supply Chain and Information Systems Technology, Graduated 2005
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Harrisburg, PA, Portfolio Trader, 05/2005 – 05/2010; Portfolio Manager, 05/2010 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Kenneth R. Schiebel, CFA

Year of Birth: 1959

- Formal Education after High School
  - University of Michigan, Ann Arbor, MI, Bachelor of Arts, Mathematics & Computer Science, Graduated 1981
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1994 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Kerri L. Staub

Year of Birth: 1983

- Formal Education after High School
  - Pennsylvania State University, Harrisburg, PA, Bachelor of Science, Business Management, Graduated 2006
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Harrisburg, PA, Portfolio Trader, 06/2007 – 07/2012; Portfolio Manager, 07/2012 – Present

Michael R. Varano

Year of Birth: 1952

- Formal Education after High School
  - Bloomsburg University, Bloomsburg, PA, Bachelor of Science, Business Management & Accounting, Graduated 1974
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1987– Present

MULTI-ASSET CLASS MANAGEMENT

Marc D. Ammaturo
Year of Birth: 1974

- Formal Education after High School
  - The Pennsylvania State University, State College, PA, Bachelor of Science, Accounting, Graduated 1996
  - Maryland University, College Park, MD, Masters of Business Administration, Finance, Graduated 2004
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Harrisburg, PA, Research Analyst, 01/2005 - 01/2007; Senior Managing Consultant, 01/2007 - 01/2012; Managing Director, 01/2012 – Present

Biagio Manieri, Ph.D., CFA
Year of Birth: 1960

- Formal Education after High School
  - City College of the City University of New York, New York, NY, Bachelor of Science, Electrical Engineering, Graduated 1983
  - Columbia University, New York, NY, Doctor of Philosophy, International Relations, Graduated 1995
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Philadelphia, PA, Director of Research, 01/2012 – Present; Federal Reserve System, Investment Officer, 03/2005-01/2012
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Martin P. Margolis
Year of Birth: 1944

- Formal Education after High School
  - University of Pennsylvania, Philadelphia, PA, Bachelor of Arts, History, Graduated 1966
  - University of Pennsylvania, Philadelphia, PA, Graduate School, History 1967-1972
- Business Background for the Previous Five Years
  - Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1987 – 01/2003; PFM Asset Management LLC, Harrisburg, PA, Managing Director, President, 01/2003 – Present

Kenneth R. Schiebel, CFA
Year of Birth: 1959

- Formal Education after High School
  - University of Michigan, Ann Arbor, MI, Bachelor of Arts, Mathematics & Computer Science, Graduated 1981
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1994– Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

John S. Spagnola
Year of Birth: 1957

- Formal Education after High School
  - Yale University, New Haven, CT, Bachelor of Arts, Political Science, Graduated 1980
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Philadelphia, PA, Managing Director, 01/2003 – Present

Mark Yasenchak, CFA
Year of Birth: 1978

- Formal Education after High School
  - West Chester University, West Chester, PA, Bachelor of Science, Finance and Economics, Graduated 2001
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Philadelphia, PA, Senior Managing Consultant, 10/2003 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

STRUCTURED PRODUCTS

Matthew R. Eisel, CFA
Year of Birth: 1983

- Formal Education after High School
  - University of South Carolina, Bachelor of Science, Entrepreneurial Management, Finance, and Risk Management & Insurance, Graduated 2005
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Harrisburg, PA, Consultant, 07/2005-07/2009; Senior Managing Consultant, 07/2009-10/2012; Director, 10/2012-01/2015; Managing Director, 02/2015 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Christopher M. Harris, CFA
Year of Birth: 1986

- Formal Education after High School
  - Dickinson College, Carlisle, PA, Bachelor of Arts, Economics, Graduated 2008
- Business Background for the Previous Five Years
- PFM Asset Management LLC, Harrisburg, PA, , Senior Managing Consultant, 06/2008 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Martin P. Margolis
Year of Birth: 1944

- Formal Education after High School
  - University of Pennsylvania, Philadelphia, PA, Bachelor of Arts, History, Graduated 1966
  - University of Pennsylvania, Philadelphia, PA, Graduate School, History 1967-1972
- Business Background for the Previous Five Years
  - Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1987 – 01/2003; PFM Asset Management LLC, Harrisburg, PA, Managing Director, President, 01/2003 – Present

Kenneth R. Schiebel, CFA
Year of Birth: 1959

- Formal Education after High School
  - University of Michigan, Ann Arbor, MI, Bachelor of Arts, Mathematics & Computer Science, Graduated 1981
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1994 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

CERTIFICATES OF DEPOSIT/FIXED TERM INVESTMENTS

Robert H. Cheddar, CFA
Year of Birth: 1966

- Formal Education after High School
  - Susquehanna University, Selinsgrove, PA, Bachelor of Science, Business, Graduated 1988
  - Pennsylvania State University, Malvern, PA, MBA, Graduated 2003
- Business Background for the Previous Five Years
  - PFM Asset Management LLC, Harrisburg, PA, Senior Portfolio Manager, 01/2004 – 01/2011; Managing Director, 01/2011 – Present
- Certifications
  - Chartered Financial Analyst. An explanation of the minimum qualifications required for this designation is provided at the conclusion of this Item.

Michael R. Varano
Year of Birth: 1952

- Formal Education after High School
  - Bloomsburg University, Bloomsburg, PA, Bachelor of Science, Business Management & Accounting, Graduated 1974
- Business Background for the Previous Five Years
  - PFM Asset Management LLC / Public Financial Management, Inc., Harrisburg, PA, Managing Director, 01/1987– Present

SUMMARY OF PROFESSIONAL DESIGNATIONS

This Summary should assist you with evaluating the professional designations and the minimum requirements that an individual must meet in order to hold this designation.

CFA – Chartered Financial Analyst

This designation is issued by the CFA Institute (www.cfainstitute.org). A candidate must meet one of the following prerequisites in order to participate in the CFA program: 1) Have obtained an undergraduate degree and have 4 years of professional experience involving investment decision-making; or 2) Have 4 years of full-time qualified work experience. The educational requirements that must be completed involve 250 hours of study for each of the 3 levels, and there are 3 course exams. There are no continuing education requirements.

Disciplinary Information

Item 3
If there are legal or disciplinary events material to your evaluation of the supervised person, Item 3 requires us to disclose all material facts regarding those events.

A. A criminal or civil action in a domestic, foreign or military court of competent jurisdiction in which the supervised person

1. *was convicted of, or pled guilty or nolo contendere ("no contest") to (a) any felony; (b) a misdemeanor that involved investments or an investment-related business, fraud, false statements or omissions, wrongful taking of property, bribery, perjury, forgery, counterfeiting, or extortion; or (c) a conspiracy to commit any of these offenses;*
2. *is the named subject of a pending criminal proceeding that involves an investment-related business, fraud, false statements or omissions, wrongful taking of property, bribery, perjury, forgery, counterfeiting, extortion, or a conspiracy to commit any of these offenses;*
3. *was found to have been involved in a violation of an investment-related statute or regulation; or*
4. *was the subject of any order, judgment, or decree permanently or temporarily enjoining, or otherwise limiting, the supervised person from engaging in any investment-related activity, or from violating any investment-related statute, rule, or order.*

Not applicable. None of the personnel listed in Item 2 above has ever been subject to any such criminal or civil action.

B. An administrative proceeding before the SEC, any other federal regulatory agency, any state regulatory agency, or any foreign financial regulatory authority in which the supervised person

1. *was found to have caused an investment-related business to lose its authorization to do business; or*
2. *was found to have been involved in a violation of an investment-related statute or regulation and was the subject of an order by the agency or authority*
   - *(a) denying, suspending, or revoking the authorization of the supervised person to act in an investment-related business;*
   - *(b) barring or suspending the supervised person's association with an investment-related business;*
   - *(c) otherwise significantly limiting the supervised person's investment-related activities; or*
   - *(d) imposing a civil money penalty of more than $2,500 on the supervised person.*

Not applicable. None of the personnel listed in Item 2 above has ever been subject to any such administrative proceeding.

C. A self-regulatory organization (SRO) proceeding in which the supervised person

1. *was found to have caused an investment-related business to lose its authorization to do business; or*
2. *was found to have been involved in a violation of the SRO's rules and was: (i) barred or suspended from membership or from association with other members, or was expelled from membership; (ii) otherwise significantly limited from investment-related activities; or (iii) fined more than $2,500.*

Not applicable. None of the personnel listed in Item 2 above has ever been subject to any such proceeding by an SRO.

D. Any other proceeding in which a professional attainment, designation, or license of the supervised person was revoked or suspended because of a violation of rules relating to professional conduct. If the supervised person resigned (or otherwise relinquished his attainment, designation, or license) in anticipation of such a proceeding (and the adviser knows, or should have known, of such resignation or relinquishment), disclose the event.

Not applicable. None of the personnel listed in Item 2 above has ever been subject to any such suspension or revocation.

Other Business Activities

Item 4

A. If the supervised person is actively engaged in any investment-related business or occupation, including if the supervised person is registered, or has an application pending to register, as a broker-dealer, registered representative of a broker-dealer, futures commission merchant ("FCM"), commodity pool operator ("CPO"), commodity trading advisor ("CTA"), or an associated person of an FCM, CPO, or CTA, we are required to disclose this fact and describe the business relationship, if any, between the advisory business and the other business.

We have a wholly owned subsidiary, PFM Fund Distributors, Inc. ("PFMFD"), which is a broker-dealer under the Securities Exchange Act of 1934 and a member of the Financial Industry Regulatory Authority ("FINRA"). PFMFD serves as exclusive distributor of shares of a registered investment company and local government investment pools (Pooled Funds) for which we serve as investment adviser and/or administrator and we receive fees from this arrangement. Messrs. Eisel, Harris, Margolis, Schiebel, and Varano are registered representatives of PFMFD.

- *If a relationship between the advisory business and the supervised person's other financial industry activities creates a material conflict of interest with clients, describe the nature of the conflict and generally how you address it.*

If our client invests in a Pooled Fund, we disclose this relationship to the client, through our firm brochure (the Form ADV, Part 2A) and the offering statement for the Pooled Fund. In addition, if we have an investment advisory arrangement with a client to manage a separate account, our investment advisory agreement with the client provides that if we invest client assets in a Pooled Fund, we will not take these assets into account for purposes of calculating our fees for managing the separate account.

- *If the supervised person receives commissions, bonuses or other compensation based on the sale of securities or other investment products, including as a broker-dealer or registered representative, and including distribution or service ("trail") fees from the sale of mutual funds, disclose this fact. If this compensation is not cash, explain what type of compensation the supervised person receives. Explain that this practice gives the supervised person an incentive to recommend investment products based on the compensation received, rather than on the client's needs.*

Our PFMFD registered representatives listed in this Brochure Supplement do not receive commissions, bonuses or other compensation directly based on the sale of shares in the Pooled Funds.

B. If the supervised person is actively engaged in any business or occupation for compensation not discussed in response to Item 4.A, above, and the other business activity or activities provide a substantial source of the supervised person's income or involve a substantial amount of the supervised person's time, disclose this fact and describe the nature of that business. If the other business activities represent less than 10 percent of the supervised person's time and income, you may presume that they are not substantial.

None of our supervised persons described in this Brochure Supplement engages in any other business or occupation which provides a substantial source of income or involves a substantial amount of time.

Additional Compensation

Item 5

If someone who is not a client provides an economic benefit to the supervised person for providing advisory services, generally describe the arrangement. For purposes of this Item, economic benefits include sales awards and other prizes, but do not include the supervised person's regular salary. Any bonus that is based, at least in part, on the number or amount of sales, client referrals, or new accounts should be considered an economic benefit, but other regular bonuses should not.

We do not have any arrangements in which someone other than a client provides any economic benefit to our supervised persons for providing advisory services.

Supervision

Item 6

Explain how you supervise the supervised person, including how you monitor the advice the supervised person provides to clients. Provide the name, title and telephone number of the person responsible for supervising the supervised person's advisory activities on behalf of your firm.

Marty Margolis as Chief Investment Officer and President of PFM Asset Management LLC oversees or participates in meetings of the committees which develop investment strategies for the various types of investment advice we offer to our clients. The strategies and advice developed by these committees are then marketed to our clients and prospects by the managing directors of our firm and our additional personnel. As the Chief Investment Officer of the firm, Mr. Margolis does not fall under the supervision of any individual, although he meets regularly with the other managing directors, the Firm's Chief Compliance Officer, and the Board of Directors and officers of the Firm's parent holding company. Mr. Margolis may be reached at 717.231.6200.

B. Sample Quarterly Performance Report

Sample Client - Multi-Asset Class Management

Investment Performance Review
Second Quarter 2015

Investment Advisors

John Smith, CFA, Managing Director
Jane Doe, CFA, Senior Managing Consultant

PFM Asset Management LLC

123 Main Street
City, State 12345
(123) 456-7890
(123) 456-7891 fax

Financial Markets & Investment Strategy Review

Quarterly Commentary

Second Quarter 2015

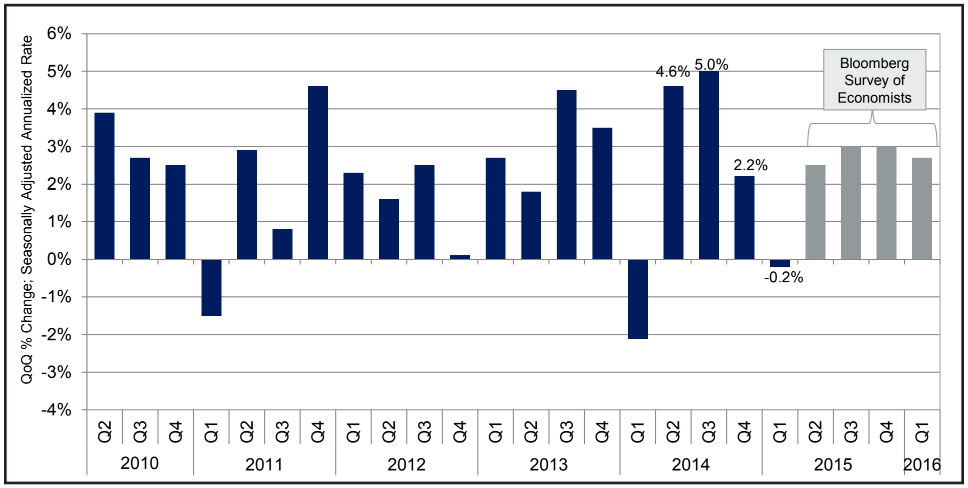
Multi-Asset Class Management

The Economy

- The Federal Open Market Committee (FOMC) kept the federal funds target rate unchanged for the quarter. While the FOMC's statement left open the possibility of an interest rate increase in the latter half of 2015, this policy decision will depend on labor market conditions and inflation expectations.
- For the first quarter of 2015, U.S. gross domestic product (GDP) declined by 0.2%. While estimates initially reflected a larger decline, increases in consumer spending and inventories contributed to the upward revision.
- Greece-related tensions grew as the troubled nation missed a payment of 1.6 billion euros to the International Monetary Fund (IMF), and Greek voters overwhelmingly rejected austerity measures demanded by creditors as a condition for further financial assistance. These actions leave open the possibility that Greece would abandon the euro and even leave the eurozone.
- The timing for a potential interest rate hike became more uncertain at the end of the quarter due to the potential for Greece's debt crisis to affect the overall global economy.
- The U.S. labor market continued to improve, as the unemployment rate fell from 5.5% in March to 5.3% in June. While robust headline job creation continued, some of the underlying metrics related to employment—particularly wage growth—were weak.
- The housing market strengthened, as reflected by improvements in the pace of pending home sales, building permits, new-home sales, and housing starts.

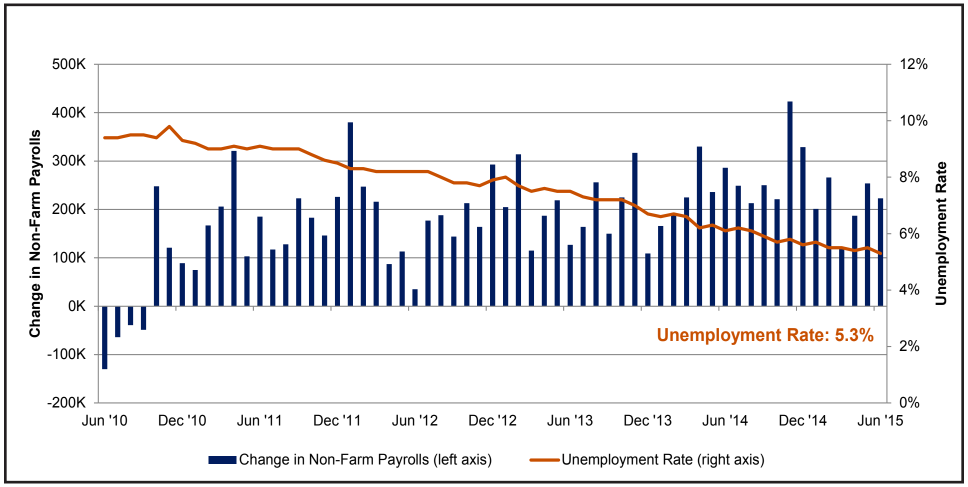
U.S. Real GDP Growth

(Seasonally Adjusted)



Source: Bureau of Economic Analysis. Dark blue bars indicate actual numbers; gray bars indicate forecasted estimates.

Change in Nonfarm Payrolls



Source: Bureau of Labor Statistics

Quarterly Commentary

Second Quarter 2015

Multi-Asset Class Management

What We're Watching

- After months of fruitless negotiations, Greece called for a referendum on the acceptance of the conditions for additional financial aid, with a decisive victory for the "no" vote. In an effort to kick-start new negotiations, the prime minister of Greece asked the finance minister to step down. We are carefully monitoring possible contagion.

- After a weak first quarter, the U.S. economy gained momentum in the second quarter. Economic growth has also picked up in non-U.S. developed economies, such as the eurozone and Japan. We are carefully monitoring economies around the world for indication that improvements will continue through 2016.

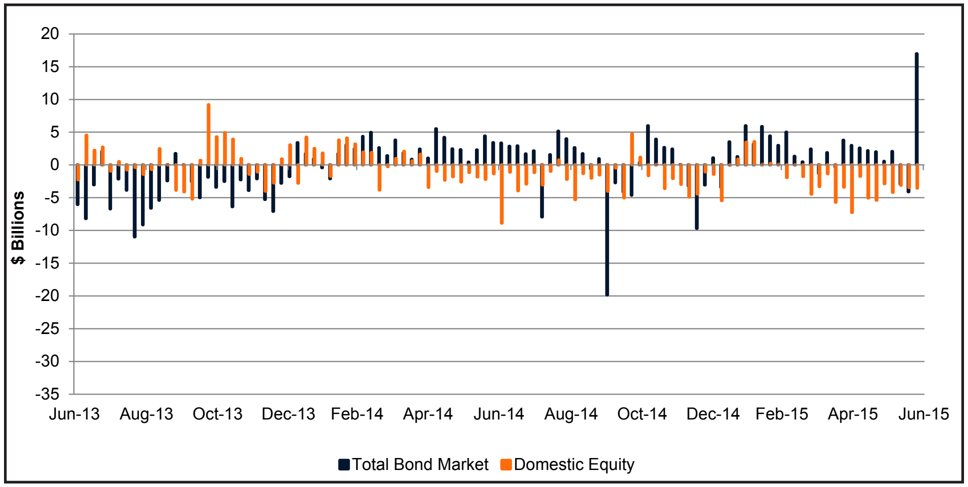
- Economic data from China remained soft, including industrial production, fixed investments, and retail sales, among others. Despite a slowing economy, Chinese equities turned in a strong performance this quarter. These equities have more recently weakened, dropping approximately 30.0% from their very recent high. The government has instituted a number of measures to help stabilize the market. Continuing losses in the equity market may spark social unrest in China and possibly cause contagion to spread to other equity markets.

- Interest rates have risen over the past few months as investors have priced in an improving economy and anticipate a possible federal funds rate hike later this year. We believe the economy and equity markets can withstand higher rates, provided the rate increase is measured.

- The Federal Reserve (Fed) is expected to begin raising the federal funds rate later in 2015. Chairwoman Janet Yellen has indicated that the pace of the increase will be moderate. Should the Fed act more aggressively than market expectations, the equity market rally could derail and put continued economic growth at risk.

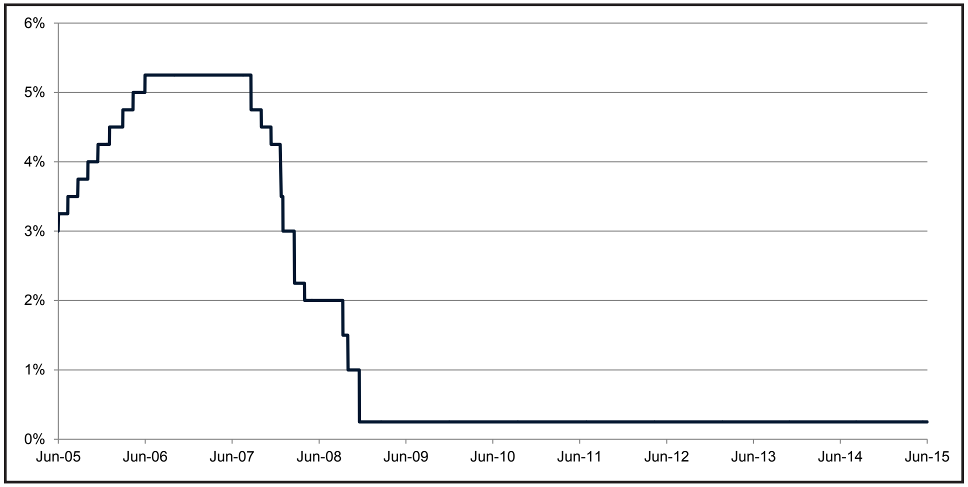
- Negotiations with Iran on its nuclear program have made progress recently. An agreement would help to increase the supply of oil, resulting in lower prices and economic growth.

Weekly Mutual Fund Flows



Source: Bloomberg

Fed Funds Target Rate



Source: Bloomberg

Market Index Performance

As of June 30, 2015

	1 Quarter	Year To Date	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
DOMESTIC EQUITY								
Russell 3000 Index	0.14	1.94	7.29	15.91	17.73	17.54	9.65	8.15
Russell 1000 Value Index	0.11	-0.61	4.13	13.55	17.34	16.50	8.59	7.05
S&P 500	0.28	1.23	7.42	15.70	17.31	17.34	9.42	7.89
Russell 1000 Growth Index	0.12	3.96	10.56	18.46	17.99	18.59	10.50	9.10
Russell Midcap Value Index	-1.97	0.41	3.67	15.09	19.13	17.73	10.61	8.89
Russell Midcap Index	-1.54	2.35	6.63	16.30	19.26	18.23	10.51	9.40
Russell Midcap Growth Index	-1.14	4.18	9.45	17.45	19.24	18.69	10.34	9.69
Russell 2500 Index	-0.34	4.81	5.92	15.33	18.66	17.85	10.93	9.09
Russell 2000 Value Index	-1.20	0.76	0.78	11.13	15.50	14.81	9.31	6.87
Russell 2000 Index	0.42	4.75	6.49	14.74	17.81	17.08	10.44	8.40
Russell 2000 Growth Index	1.98	8.74	12.34	18.37	20.11	19.33	11.52	9.86
INTERNATIONAL EQUITY								
MSCI EAFE (net)	0.62	5.52	-4.22	8.79	11.97	9.54	1.97	5.12
MSCI AC World Index (net)	0.35	2.66	0.71	11.28	13.01	11.93	4.79	6.41
MSCI AC World ex USA (Net)	0.53	4.03	-5.26	7.40	9.44	7.76	1.48	5.54
MSCI AC World ex USA Small Cap (Net)	4.22	8.32	-3.07	10.55	12.32	9.72	4.85	7.39
MSCI EM (net)	0.69	2.95	-5.12	4.14	3.71	3.69	0.86	8.11
ALTERNATIVES								
FTSE NAREIT Equity REIT Index	-9.95	-5.67	4.33	8.68	8.93	14.28	7.88	7.00
FTSE EPRA/NAREIT Developed Index	-6.67	-2.78	0.41	7.17	9.49	12.37	5.32	6.19
Bloomberg Commodity Index Total Return	4.66	-1.56	-23.71	-9.14	-8.76	-3.91	-10.91	-2.62
FIXED INCOME								
Barclays Aggregate	-1.68	-0.10	1.86	3.11	1.83	3.35	4.59	4.44
Barclays U.S. Government/Credit	-2.10	-0.30	1.69	2.98	1.76	3.52	4.62	4.38
Barclays Intermediate U.S. Gov/Credit	-0.62	0.82	1.68	2.27	1.60	2.79	3.91	4.02
Barclays U.S. Treasury: 1-3 Year	0.14	0.68	0.90	0.83	0.66	0.83	1.62	2.53
Barclays US Corp: High Yield	0.00	2.53	-0.40	5.49	6.81	8.61	9.35	7.89
Credit Suisse Leveraged Loan index	0.79	2.87	2.15	4.12	5.28	5.75	5.29	4.74
BofA Merrill Lynch Global HY Constrained (USD)	1.42	1.77	-3.95	4.46	6.68	8.35	8.83	7.82
Barclays Global Aggregate Ex USD	-0.83	-5.43	-13.19	-2.54	-2.83	1.08	1.14	2.83
JPM EMBI Global Diversified	-0.34	1.67	0.51	5.93	4.30	6.76	7.67	7.45
CASH EQUIVALENT								
90 Day U.S. Treasury Bill	0.01	0.02	0.03	0.04	0.05	0.07	0.20	1.38

Source: Investment Metrics. Returns are expressed as percentages. Please refer to the last page of this document for important disclosures relating to this material.

Quarterly Commentary

Second Quarter 2015

Multi-Asset Class Management

U.S. Equity

- U.S. equity markets, as measured by the S&P 500 Index (S&P), finished the quarter up 0.3%. The S&P came close to reaching its closing highs in late June, but then fell short as the situation in Greece became a concern in Europe and the U.S.

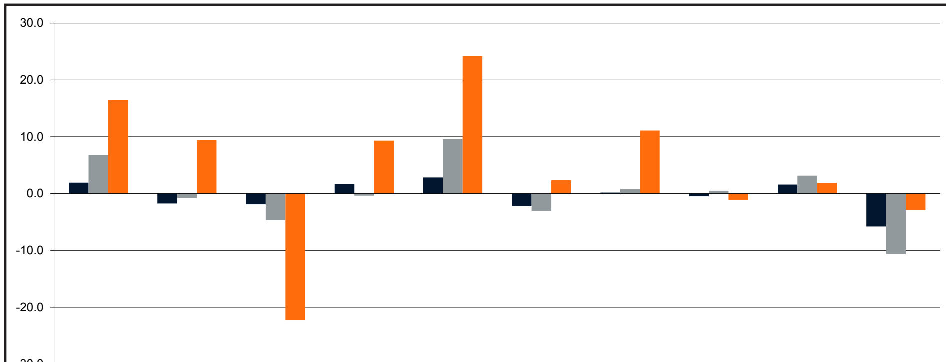
- Small-cap stocks (as measured by the Russell 2000 Index) had muted performance in the second quarter, returning 0.4%. Large-cap stocks, as measured by the Russell 1000 Index, had an even more muted performance during the quarter, up 0.1%.

- Within the small capitalization segment, growth-oriented stocks significantly outperformed their value-oriented counterparts during the quarter. Small-cap growth stocks returned nearly 2.0% during the second quarter, compared to a loss of 1.2% for small-cap value stocks. Large-cap value stocks and large-cap growth stocks were in line with each other, up a modest 0.1% for the quarter.

- The Utilities sector, one of the strongest performers during 2014, was the worst performer, down 5.8% for the quarter. Four other sectors faced challenges during the quarter, with the Energy sector declining by 1.9% even as oil prices stabilized in the range of $58 to $62 per barrel. The Healthcare and Consumer Discretionary sectors were the strongest performers for the quarter, up 2.8% and 1.9%, respectively. According to S&P, the Healthcare sector is expected to post 20.0% year-over-year earnings growth in the upcoming second-quarter earnings season.

S&P 500 Index Performance by Sector

Periods Ended June 30, 2015

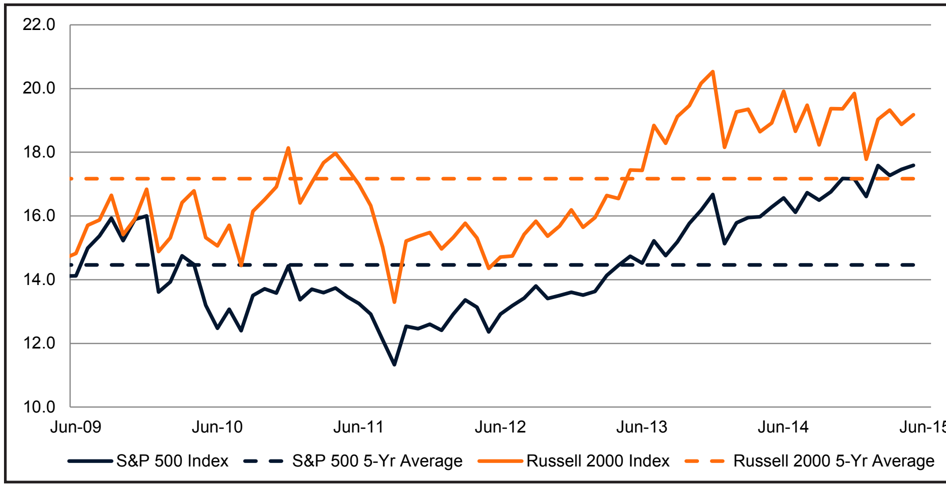


	Consumer Discretionary	Consumer Staples	Energy	Financials	Healthcare	Industrials	Information Technology	Materials	Telecom	Utilities
QTR	1.92	-1.74	-1.88	1.72	2.84	-2.23	0.19	-0.48	1.59	-5.80
YTD	6.81	-0.77	-4.68	-0.37	9.56	-3.06	0.76	0.50	3.15	-10.67
1 YR	16.45	9.41	-22.20	9.32	24.17	2.35	11.10	-1.08	1.89	-2.89

■QTR ■YTD ■1 YR

Source: Standard & Poor's

P/E Ratios of Major Stock Indices*



Source: Bloomberg

**P/E ratios are calculated based on 1-year-forward estimates and adjusted to include only positive earnings results for consistency.*

Non-U.S. Equity

- Developed markets outside of North America gained 0.6% as measured by the MSCI EAFE Index, net U.S. dollars (USD). After strengthening meaningfully in the first quarter, the USD weakened marginally in the second quarter, generating results in local currency terms (-1.8%) that trailed the USD index returns.

- Ireland (8.5%) and Hong Kong (5.6%) had the best returns in the developed world in USD terms. In contrast, returns in New Zealand (-13.1%) and Australia (-6.2%) were the biggest laggards.

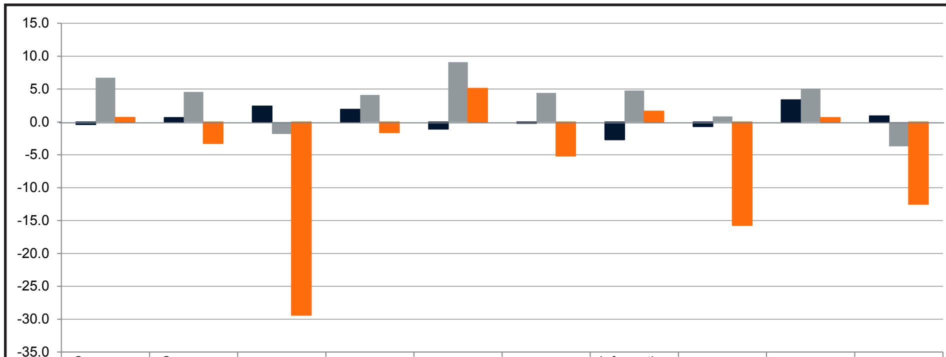
- Emerging-markets equity, as measured by the MSCI Emerging Markets (EM) Index, gained 0.7%. Leading the way were Hungary (11.0%) and United Arab Emirates (10.7%). Brazil (7.0%) rebounded nicely after its disastrous first quarter. Despite a sell-off near quarter-end, Chinese equities (6.0%) posted strong results over the course of the quarter. Russia (7.6%) continued to rebound after a difficult 2014. The smaller Asian markets of Indonesia (-14.1%) and Malaysia (-7.9%) delivered the weakest results.

- Across the MSCI All Country World Index (ACWI) ex-US, which includes both developed and emerging markets, the Energy sector (2.4%) rebounded nicely during the quarter on the heels of strengthening oil prices. Telecommunications (3.4%) also performed well. In contrast, the Information Technology sector (-2.7%) was the biggest detractor.

- The MSCI ACWI ex-US Small Cap Index gained 4.2%, outperforming its large-cap peers (0.5%).

MSCI ACWI ex-US Sectors

Periods Ended June 30, 2015

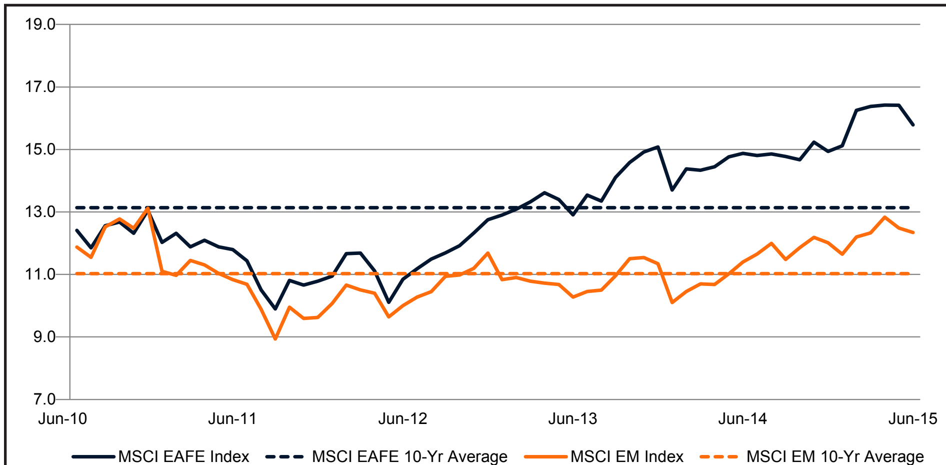


	Consumer Discretionary	Consumer Staples	Energy	Financials	Healthcare	Industrials	Information Technology	Materials	Telecom	Utilities
QTR	-0.40	0.65	2.41	1.92	-1.08	-0.22	-2.70	-0.71	3.35	0.91
YTD	6.73	4.58	-1.84	4.10	9.10	4.40	4.78	0.83	5.05	-3.70
1 YR	0.68	-3.27	-29.38	-1.62	5.10	-5.18	1.64	-15.75	0.65	-12.53

■QTR ■YTD ■1 YR

Source: Bloomberg

P/E Ratios of MSCI Equity Indices*



Source: Bloomberg

** P/E ratios are calculated based on 1-year forward estimates and adjusted to include only positive earnings results for consistency.*

PFM®

Fixed Income

- Rates rose across the U.S. Treasury yield curve on guidance from the Fed of a pending rate hike cycle. The 10-year U.S. Treasury ended the quarter at 2.4%, up from 1.9% at the start of the quarter.

- During the quarter, the Barclays U.S. Aggregate Bond Index lost 1.7%, with much of the loss in the investment-grade corporates sector (-3.2%).

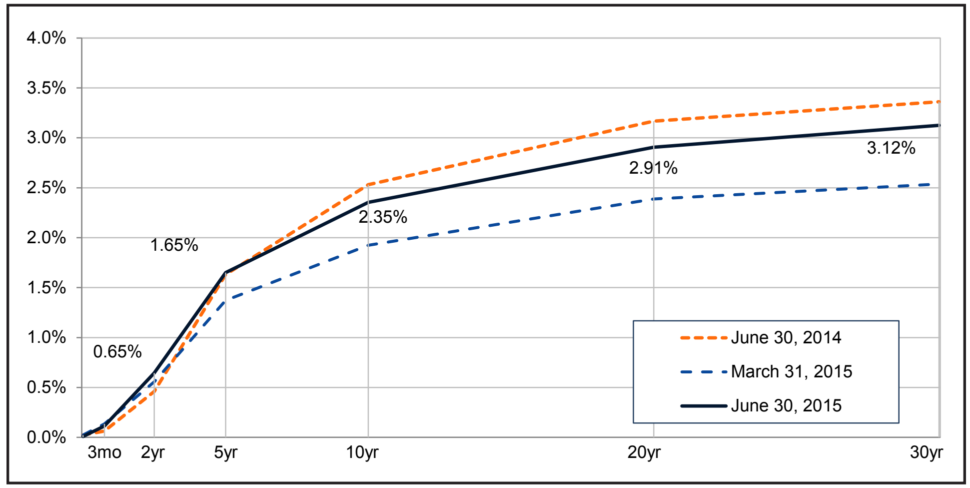
- While the overall Treasury market declined 1.6%, long-term Treasuries (as measured by the Barclays Long U.S. Treasury Index) dropped 8.3% on the rate shift.

- The fixed-rate mortgage market, as measured by the Barclays U.S. MBS Index, lost 0.7%, while the Barclays U.S. CMBS Index (measuring commercial MBS) lost 1.1%.

- Within investment-grade corporates, AAA-rated bonds declined 4.5%, more than their lower-quality peers. The Barclays U.S. High Yield Index was flat for the quarter, while the Barclays U.S. High Yield Loans Index gained 0.6%.

- USD-denominated EM debt gained 0.1% as measured by the Barclays EM USD Sovereign + Quasi-Sov Index, but local currency EM debt fell 0.6% as measured by the Barclays EM Local Currency Government Index.

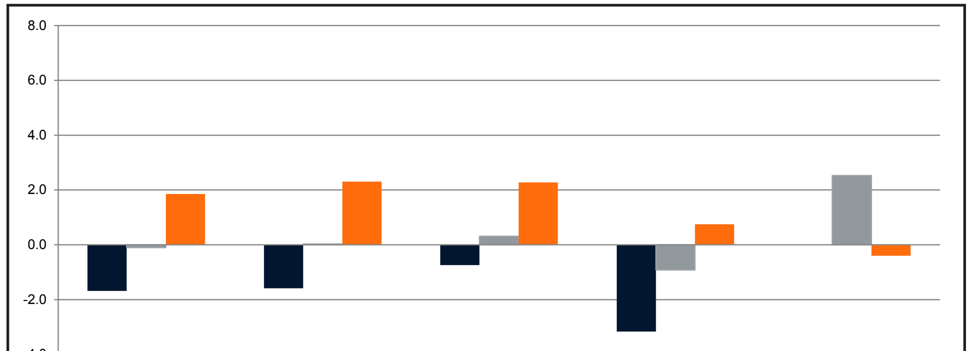
U.S. Treasury Yield Curve



Source: Bloomberg

Returns for Fixed-Income Segments

Periods Ended June 30, 2015



	Barclays U.S. Aggregate	Barclays U.S. Treasury	Barclays U.S. MBS	Barclays U.S. Corporate	Barclays U.S. High Yield
QTR	-1.68	-1.58	-0.74	-3.16	0.00
YTD	-0.10	0.03	0.31	-0.92	2.53
1 YR	1.86	2.31	2.28	0.75	-0.40

Source: Bloomberg

Quarterly Commentary

Second Quarter 2015

Multi-Asset Class Management

Alternative Asset Classes

- **U.S. real estate investment trusts (REITs)** fell 10.0% in the second quarter, as measured by the FTSE NAREIT Equity REIT Index, as REIT securities experienced their first negative quarter since the third quarter of 2014. The 5.5% drop in April was followed by an essentially flat May (with prices falling 0.12%), followed by another sizeable loss of 4.6% in June. Healthcare, Industrial, and Retail REITs were the worst-performing sectors, all down more than 12.0%. Apartments and Hotels were the best relative performers, both falling more than 6.0%.

- **Private real estate**, as measured by the NCREIF Index of 7,300 properties nationwide, increased 3.6% during the first quarter of 2015 (second-quarter data not yet available). A value appreciation of 2.3% supplemented a 1.3% income gain.

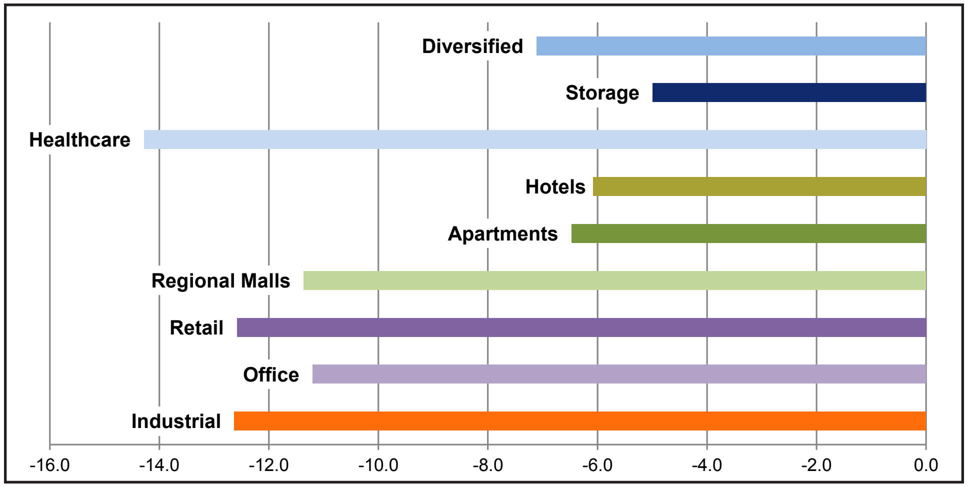
- **Commodities** reversed their negative trend as energy prices stabilized, gaining 4.7% as measured by the Bloomberg Commodity Index of 19 raw materials futures. Over the trailing 12-month period, the Bloomberg Index is still down 23.7%. Commodity-related equities, as measured by the S&P North American Natural Resources Sector Index, fell 2.7% during the quarter and continued to lag futures markets.

- **Hedge funds** had a positive return throughout the second quarter, ending the quarter slightly above U.S. equities, as the HFRI Fund Weighted Composite Index returned 0.5% for the quarter. Hedge funds aggregate returns continued to show very little volatility during the first half of the year.

- **Private equity** fundraising in the second quarter of 2015 was down relative to the first quarter. According to Preqin, private equity funds raised $105 billion in aggregate in the first quarter, with 220 funds reaching a final close. Venture and Real Estate were the two most active sectors this quarter, with 74 and 43 funds closing within each sector, respectively, while Buyout followed with 34 fund closings. North America-focused private equity funds led the way, closing 124 funds representing capital commitments of $68 billion. Europe followed, with 45 funds closing on $26 billion of capital. Uncommitted capital, known as "dry powder," remains near the all-time high of $1.3 trillion.

FTSE NAREIT Sectors

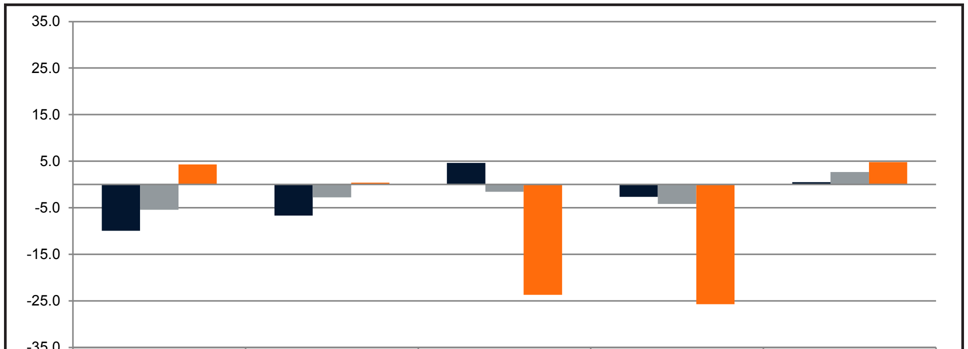
Quarter Ended June 30, 2015



Source: Bloomberg

Returns for Alternative Assets

Periods Ended June 30, 2015



	U.S. REITs	International REITs	Commodity Futures	Commodity Equities	Hedge Funds
QTR	-10.0	-6.7	4.7	-2.7	0.5
YTD	-5.4	-2.8	-1.6	-4.1	2.7
1 YR	4.3	0.4	-23.7	-25.7	4.8

■QTR ■YTD ■1 YR

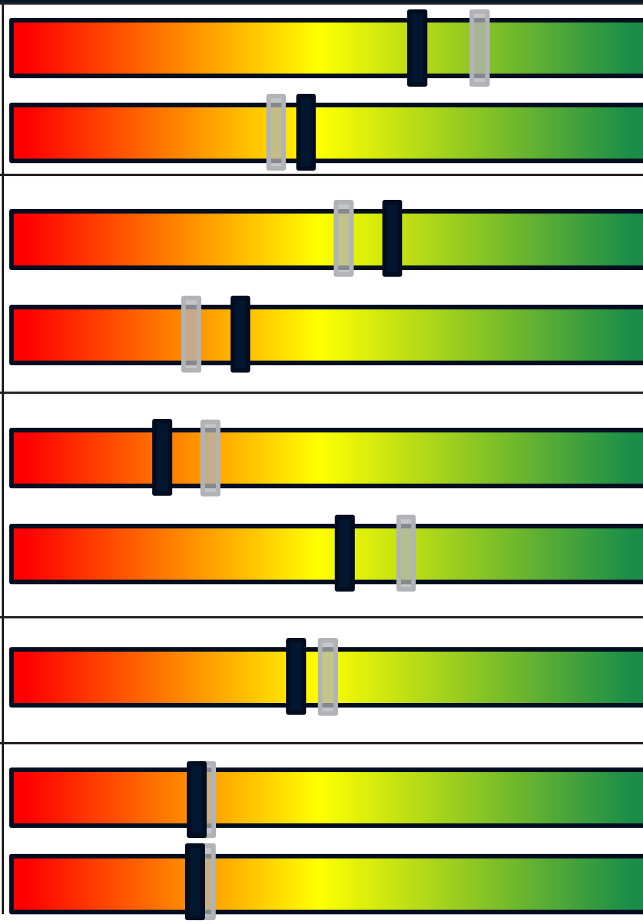
Sources: Bloomberg and Hedge Fund Research, Inc.

PFM®

PFMAM Investment Strategy Overview

For Third Quarter 2015

Asset Class	PFMAM Investment Preference	Comments
U.S. Equities		
Large Caps		We remain constructive on U.S. equities, driven by continuing improvements in the U.S. economy. Small-cap equities still look pricey.
Small Caps		
Non-U.S. Equities		
Developed Markets		We are also constructive on non-U.S. developed markets due to reasonable/below-average valuation. We turned bearish on emerging-markets equity in early 2013 due to deteriorating fundamentals. We are carefully monitoring emerging-markets equity at this time.
Emerging Markets		
Fixed Income		
Long Duration, Interest-Rate-Sensitive Sectors		We are concerned about long-duration, interest-rate-sensitive fixed income.
Credit-Sensitive Sectors		We are constructive on credit-sensitive segments due to an improving economy and low default rates.
Core Real Estate		Returns from real estate are expected to be more muted going forward as prices have fully recovered and face headwinds from rising interest rates.
Alternatives		
Hedge Funds		Due to rising assets under management and the proliferation of hedge funds and private equity funds, the relative performance from alternatives is unlikely to significantly outperform publicly traded markets.
Private Equity		



Please refer to the last page of this document for important disclosures. Blue bars represent our current outlook, while gray bars reflect our outlook one year ago.

Current outlook *Outlook one year ago*

Disclosures

The views expressed within this material constitute the perspective and judgment of PFM Asset Management LLC (PFMAM) at the time of distribution and are subject to change. Any forecast, projection, or prediction of the market, the economy, economic trends, and equity or fixed-income markets are based upon current opinion as of the date of issue, and are also subject to change. Opinions and data presented are not necessarily indicative of future events or expected performance. Information contained herein is based on data obtained from recognized statistical services, issuer reports or communications, or other sources believed to be reliable. No representation is made as to its accuracy or completeness. This material is intended for informational purposes only and should not be relied upon to make an investment decision, as it was prepared without regard to any specific objectives or financial circumstances. It should not be construed as an offer to purchase/sell any investment. References to particular issuers are for illustrative purposes only, and are not intended to be recommendations or advice regarding such issuers. PFMAM is registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM's clients are state and local governments, non-profit corporations, pension funds, and similar institutional investors. www.pfm.com

It is not possible to invest directly in an index. The index returns shown throughout this material do not represent the results of actual trading of investor assets. Third-party providers maintain the indices shown and calculate the index levels and performance shown or discussed. Index returns do not reflect payment of any sales charges or fees an investor would pay to purchase the securities they represent. The imposition of these fees and charges would cause investment performance to be lower than the performance shown.

Plan Performance Review

Account Reconciliation
Sample Client - Multi-Asset Class Management
As of June 30, 2015

QTR

	Market Value As of 04/01/2015	Net Flows	Return On Investment	Market Value As of 06/30/2015
TOTAL FUND	62,179,102	-	(14,649)	62,164,453

YTD

	Market Value As of 01/01/2015	Net Flows	Return On Investment	Market Value As of 06/30/2015
TOTAL FUND	60,674,907	-	1,489,545	62,164,453

1 Year

	Market Value As of 07/01/2014	Net Flows	Return On Investment	Market Value As of 06/30/2015
TOTAL FUND	58,562,340	2,002,979	1,599,134	62,164,453

Asset Allocation & Performance
Sample Client - Multi-Asset Class Management
As of June 30, 2015

	Allocation	Performance(%)							
	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date
TOTAL FUND	**100.00**	**0.00**	**2.46**	**2.65**	**10.10**	**10.08**	**7.30**	**6.86**	**07/01/2006**
Policy Index		*-1.10*	*1.22*	*2.43*	*9.09*	*9.75*	*6.19*	*5.78*	*07/01/2006*
Domestic Equity									
Manager A	31.49	0.08	1.88	7.18	17.68	17.56	9.80	15.73	05/01/2012
Russell 3000 Index		*0.14*	*1.94*	*7.29*	*17.73*	*17.54*	*9.65*	*15.79*	*05/01/2012*
Manager B	4.32	-1.54	-0.70	6.19	14.90	16.13	9.76	14.63	01/01/2012
S&P 500		*0.28*	*1.23*	*7.42*	*17.31*	*17.34*	*9.42*	*17.67*	*01/01/2012*
Manager C	6.15	0.28	1.23	7.40	17.27	17.31	9.43	3.69	11/01/2014
S&P 500		*0.28*	*1.23*	*7.42*	*17.31*	*17.34*	*9.42*	*3.69*	*11/01/2014*
International Equity									
Manager D	18.36	1.02	6.63	-3.97	12.00	9.84	2.18	7.02	06/01/2013
MSCI EAFE (net)		*0.62*	*5.52*	*-4.22*	*11.97*	*9.54*	*1.97*	*6.56*	*06/01/2013*
Manager E	4.79	5.34	12.21	6.16	24.03	19.34	10.24	5.34	04/01/2015
MSCI AC World ex USA Small Cap (Net)		*4.22*	*8.32*	*-3.07*	*12.32*	*9.72*	*4.85*	*4.22*	*04/01/2015*
Fixed Income									
Manager F	8.26	-1.34	0.04	1.93	4.18	5.43	7.29	8.05	02/01/2009
Barclays Aggregate		*-1.68*	*-0.10*	*1.86*	*1.83*	*3.35*	*4.59*	*4.51*	*02/01/2009*
Manager G	8.20	-1.56	0.22	1.91	3.09	4.84	6.19	2.96	05/01/2014
Barclays Aggregate		*-1.68*	*-0.10*	*1.86*	*1.83*	*3.35*	*4.59*	*2.63*	*05/01/2014*
Manager H	5.60	-0.83	1.12	2.77	3.50	6.30	N/A	2.81	06/01/2014
Barclays Aggregate		*-1.68*	*-0.10*	*1.86*	*1.83*	*3.35*	*4.59*	*1.76*	*06/01/2014*
Manager I	5.93	-1.58	0.65	1.88	3.07	4.92	5.99	3.24	05/01/2012
Barclays U.S. Credit: 5-10 Yr		*-2.06*	*0.53*	*1.85*	*3.69*	*5.68*	*7.02*	*3.81*	*05/01/2012*
Manager J	4.86	-0.19	1.39	-1.00	7.00	8.44	9.63	6.74	05/01/2012
BofA Merrill Lynch Global HY Constrained (USD)		*1.42*	*1.77*	*-3.95*	*6.68*	*8.35*	*8.83*	*6.23*	*05/01/2012*
Cash Equivalent									
Manager K	2.04	0.00	0.00	0.01	0.01	0.01	0.17	1.13	07/01/2006

Returns are net of mutual fund fees.
Returns are expressed as percentages.

PFM®

Comparative Performance
Sample Client - Multi-Asset Class Management
As of June 30, 2015

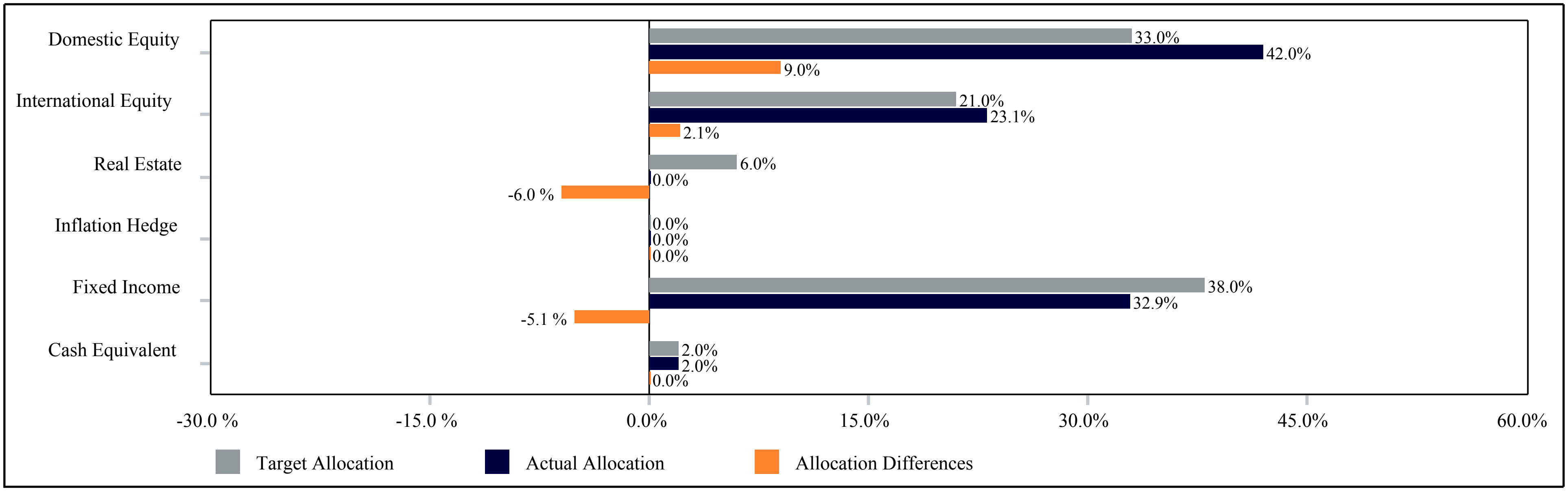
	2014	2013	2012	2011	2010	2009	2008
TOTAL FUND	**5.43**	**15.26**	**13.40**	**-0.64**	**12.63**	**26.40**	**-21.60**
Policy Index	*7.38*	*12.83*	*11.86*	*1.22*	*12.04*	*20.57*	*-23.61*
Domestic Equity							
Manager A	12.56	33.52	16.38	1.08	17.26	28.83	-36.99
Russell 3000 Index	*12.56*	*33.55*	*16.42*	*1.03*	*16.93*	*28.34*	*-37.31*
Manager B	11.85	31.53	10.39	9.43	11.42	21.74	-25.57
Manager C	13.64	32.33	15.96	2.08	15.05	26.62	-36.97
S&P 500	*13.69*	*32.39*	*16.00*	*2.11*	*15.06*	*26.46*	*-37.00*
International Equity							
Manager D	-5.66	22.06	18.56	-12.51	8.36	28.27	-41.27
MSCI EAFE (net)	*-4.90*	*22.78*	*17.32*	*-12.14*	*7.75*	*31.78*	*-43.38*
Manager E	0.38	45.26	23.17	-20.08	37.73	122.77	-65.86
MSCI AC World ex USA Small Cap (Net)	*-4.03*	*19.73*	*18.52*	*-18.50*	*25.21*	*62.91*	*-50.23*
Fixed Income							
Manager F	5.99	0.50	11.55	5.52	11.66	17.30	-1.27
Manager G	6.59	-1.32	7.95	7.89	9.81	15.36	-1.79
Manager H	6.86	-1.20	8.15	11.45	N/A	N/A	N/A
Barclays Aggregate	*5.97*	*-2.02*	*4.21*	*7.84*	*6.54*	*5.93*	*5.24*
Manager I	5.81	-1.37	9.14	7.52	10.47	17.73	-6.16
Barclays U.S. Credit: 5-10 Yr	*7.38*	*-2.05*	*11.26*	*8.21*	*10.54*	*18.96*	*-4.66*
Manager J	3.22	6.61	18.54	2.07	16.80	61.74	-26.55
BofA Merrill Lynch Global HY Constrained (USD)	*-0.09*	*7.96*	*19.30*	*2.61*	*13.76*	*62.21*	*-27.48*
Cash Equivalent							
Manager K	0.01	0.01	0.01	0.00	0.02	0.28	2.31

Returns are net of mutual fund fees.
Returns are expressed as percentages.

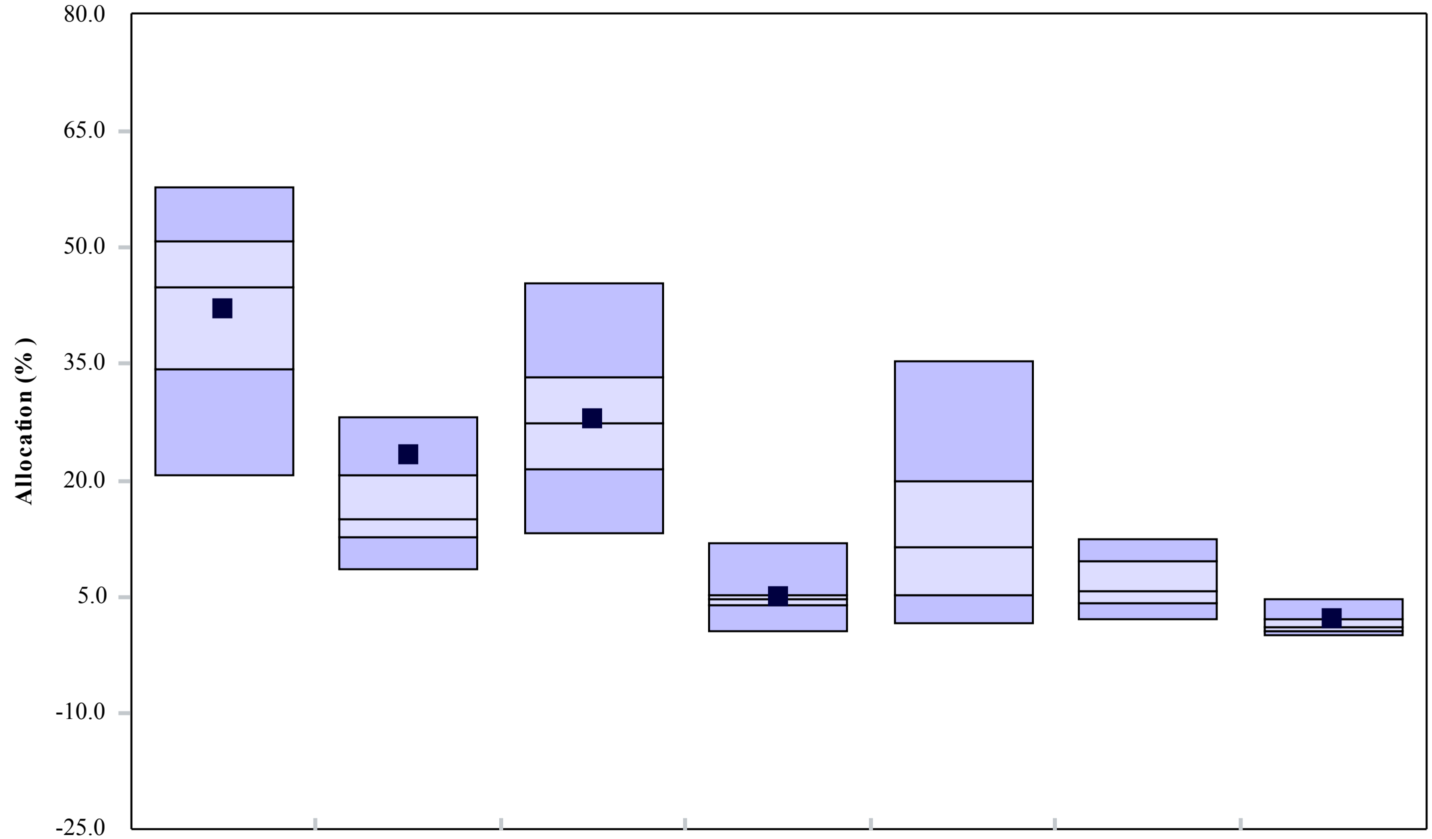
PFM®

Asset Allocation Summary
Sample Client - Multi-Asset Class Management
As of June 30, 2015

	Asset Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Differences (%)
TOTAL FUND	100.0	100.0	N/A	N/A	0.0
Domestic Equity	42.0	33.0	23.0	43.0	9.0
International Equity	23.1	21.0	11.0	31.0	2.1
Real Estate	0.0	6.0	0.0	12.0	-6.0
Inflation Hedge	0.0	0.0	0.0	10.0	0.0
Fixed Income	32.9	38.0	25.0	65.0	-5.1
Cash Equivalent	2.0	2.0	0.0	20.0	0.0



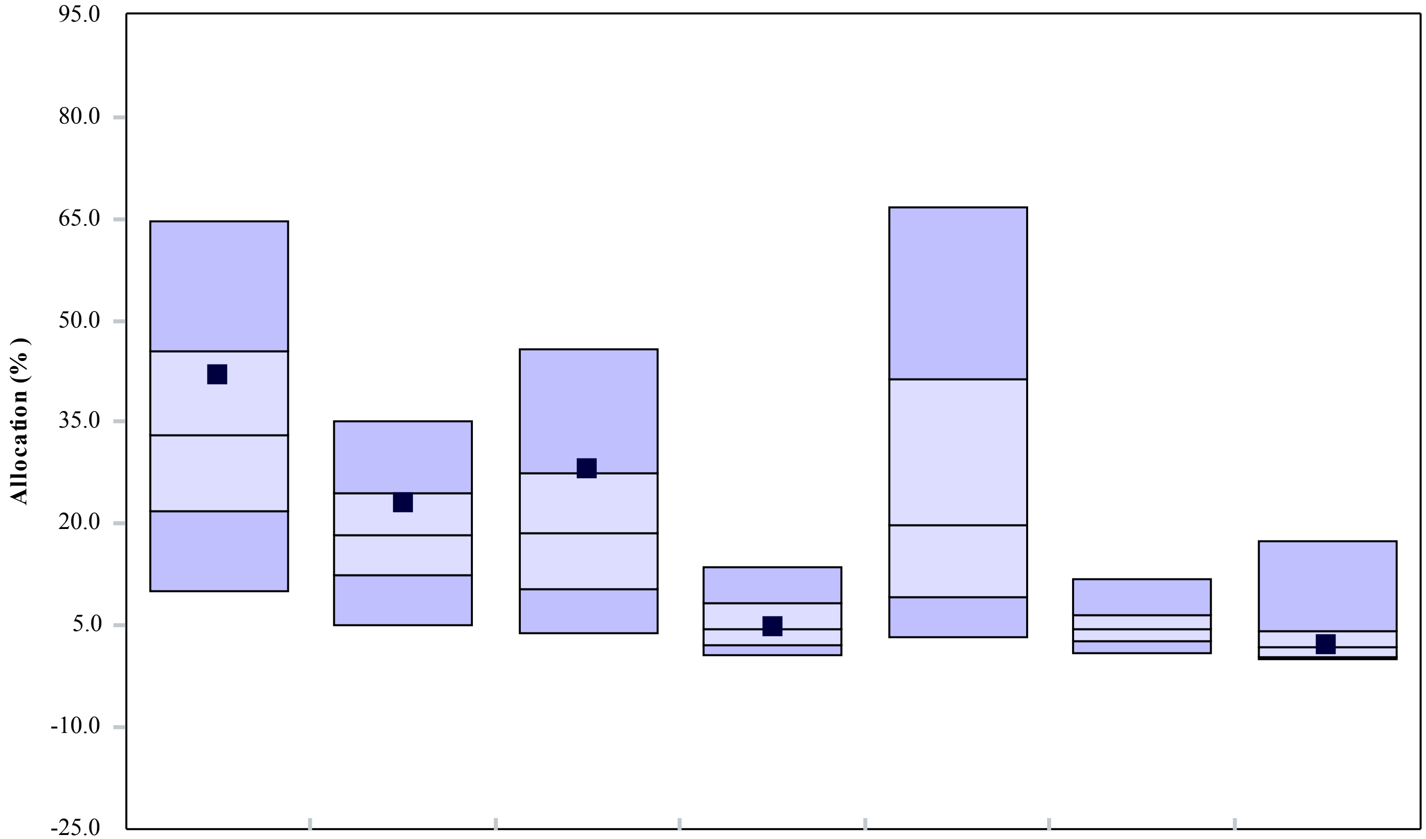
Plan Sponsor TF Asset Allocation
All Public Plans-Total Fund
Sample Client - Multi-Asset Class Management
As of June 30, 2015



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ Sample Client - Multi-Asset Class Management	41.95 (58)	23.15 (19)	28.00 (48)	4.86 (38)	N/A	N/A	2.04 (25)
5th Percentile	57.72	28.03	45.46	11.78	35.36	12.33	4.64
1st Quartile	50.73	20.60	33.31	5.19	19.80	9.59	1.97
Median	44.97	14.99	27.31	4.68	11.28	5.81	1.08
3rd Quartile	34.42	12.68	21.50	3.99	5.16	4.12	0.52
95th Percentile	20.55	8.46	13.21	0.62	1.55	2.21	0.07
Population	311	300	303	157	107	163	261

Parentheses contain percentile rankings.

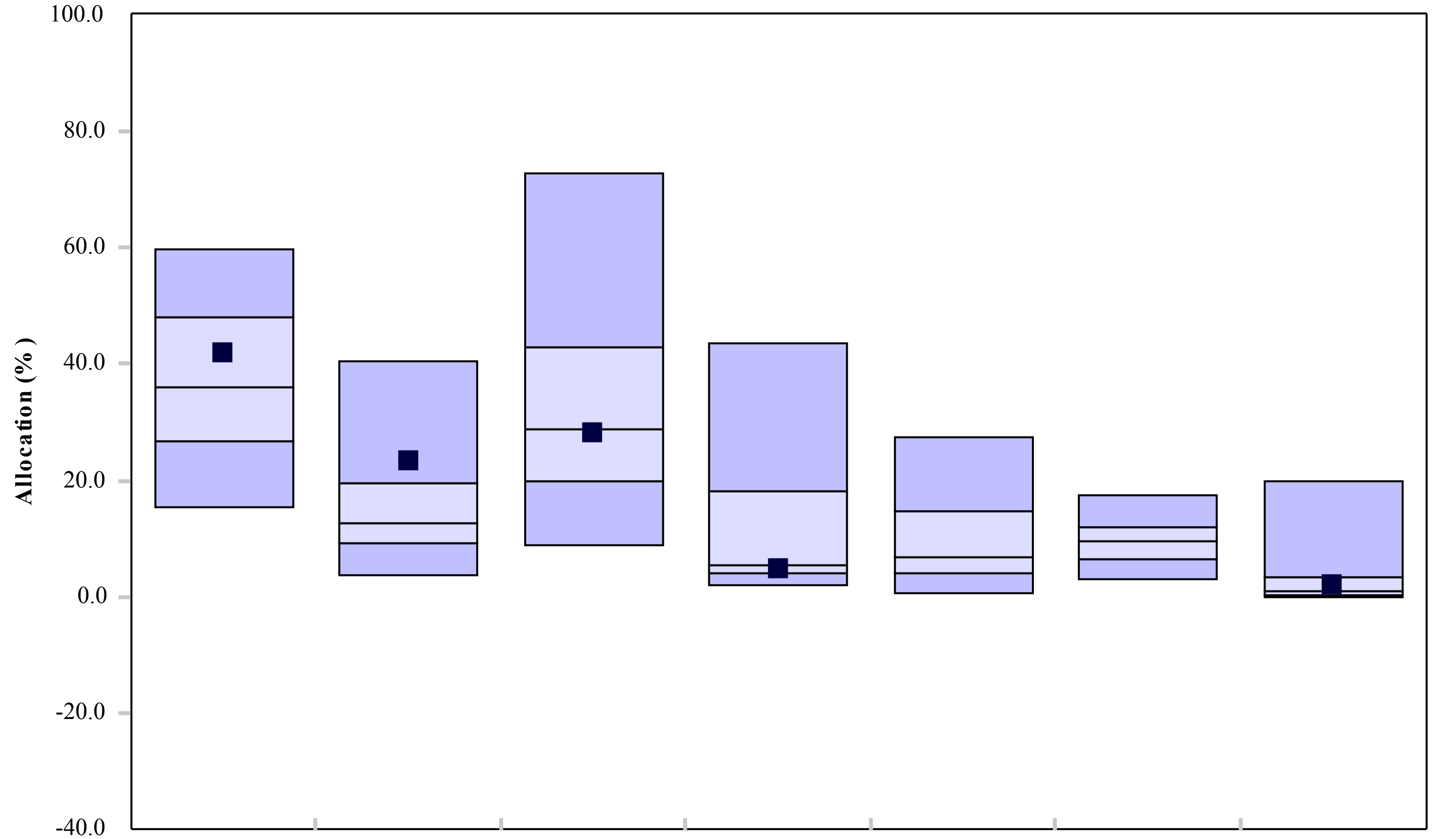
Plan Sponsor TF Asset Allocation
All Endowment&Foundation-Total Fund
Sample Client - Multi-Asset Class Management
As of June 30, 2015



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ Sample Client - Multi-Asset Class Management	41.95 (33)	23.15 (30)	28.00 (25)	4.86 (43)	N/A	N/A	2.04 (46)
5th Percentile	64.66	35.06	45.79	13.68	66.81	11.76	17.33
1st Quartile	45.56	24.54	27.37	8.18	41.34	6.50	4.12
Median	33.09	18.41	18.57	4.57	19.96	4.50	1.72
3rd Quartile	21.89	12.52	10.42	2.09	9.22	2.65	0.48
95th Percentile	10.22	5.04	3.83	0.68	3.31	0.97	0.04
Population	282	268	263	109	189	130	214

Parentheses contain percentile rankings.

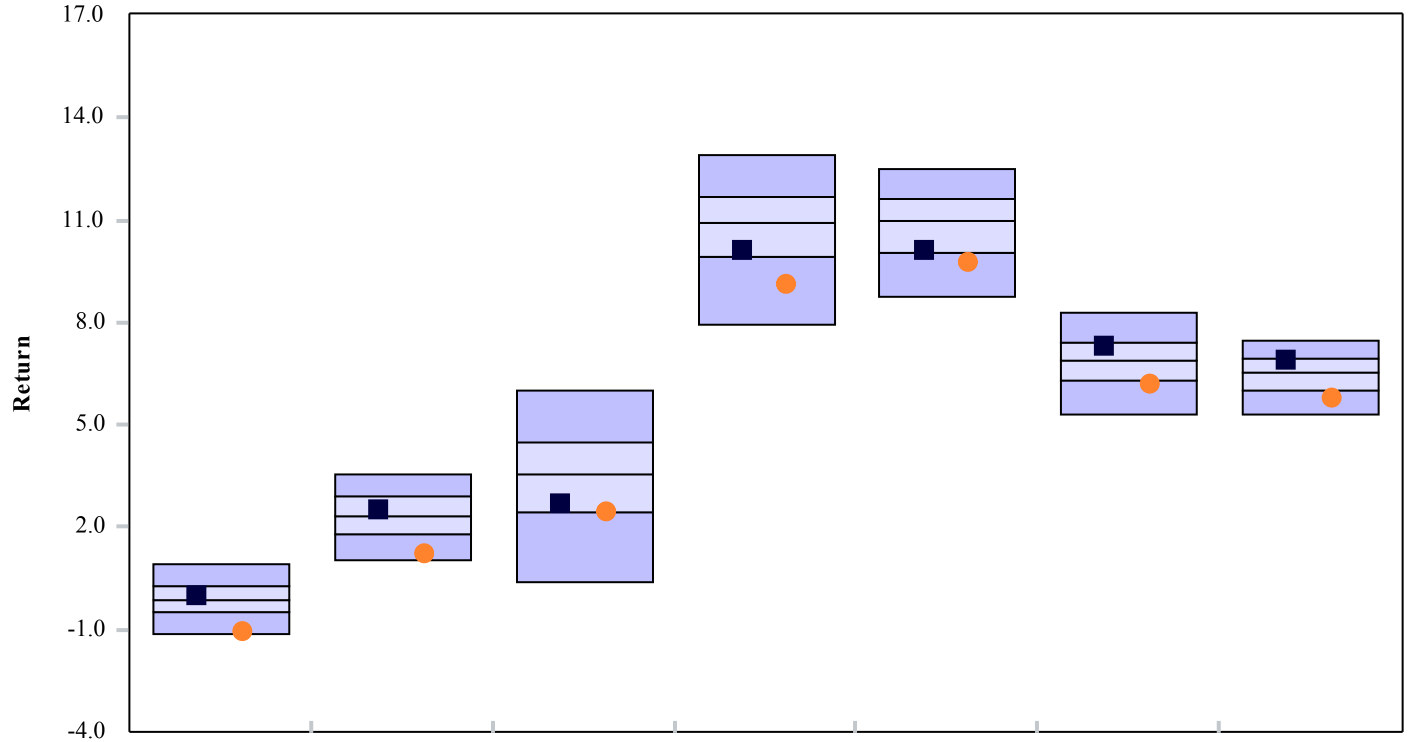
Plan Sponsor TF Asset Allocation
All Taft Hartley Plans-Total Fund
Sample Client - Multi-Asset Class Management
As of June 30, 2015



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ Sample Client - Multi-Asset Class Management	41.95 (38)	23.15 (17)	28.00 (54)	4.86 (58)	N/A	N/A	2.04 (34)
5th Percentile	59.92	40.53	72.83	43.60	27.28	17.45	19.84
1st Quartile	47.96	19.52	42.87	18.29	14.64	12.00	3.17
Median	35.86	12.70	28.79	5.39	6.62	9.48	0.95
3rd Quartile	26.68	9.20	20.01	4.05	3.89	6.33	0.28
95th Percentile	15.35	3.67	8.91	1.86	0.66	3.09	0.03
Population	195	156	199	49	55	116	124

Parentheses contain percentile rankings.

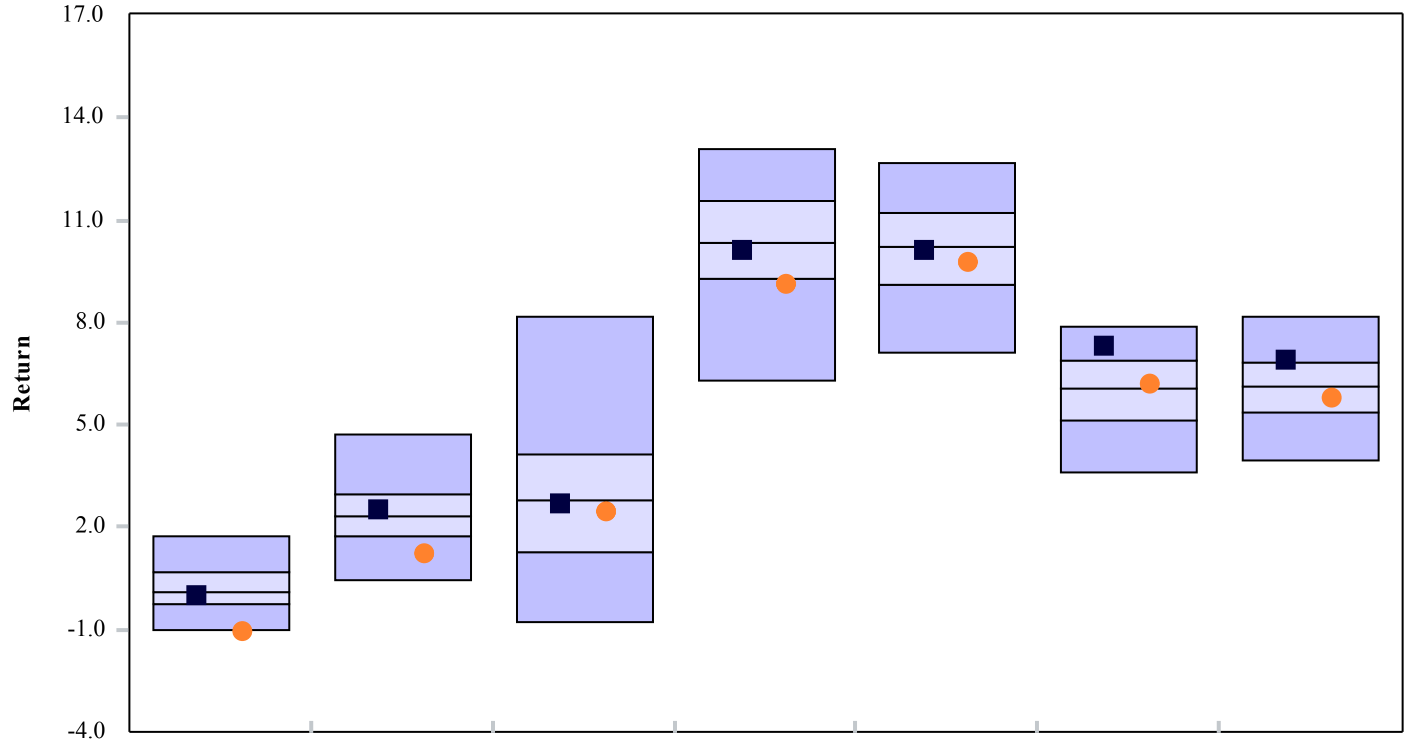
Plan Sponsor Peer Group Analysis
All Public Plans-Total Fund
Sample Client - Multi-Asset Class Management
As of June 30, 2015



	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	Jul-2006 To Jun-2015
■ Sample Client - Multi-Asset Class Management	0.00 (38)	2.46 (44)	2.65 (72)	10.10 (70)	10.08 (74)	7.30 (30)	6.86 (31)
● Policy Index	-1.10 (95)	1.22 (93)	2.43 (77)	9.09 (87)	9.75 (84)	6.19 (80)	5.78 (85)
5th Percentile	0.90	3.55	6.02	12.92	12.50	8.30	7.44
1st Quartile	0.26	2.88	4.49	11.70	11.59	7.43	6.92
Median	-0.14	2.34	3.53	10.89	11.00	6.87	6.52
3rd Quartile	-0.51	1.80	2.45	9.90	10.05	6.29	6.01
95th Percentile	-1.12	1.01	0.39	7.94	8.76	5.28	5.28
Population	338	338	337	318	300	283	200

Parentheses contain percentile rankings.
Returns are expressed as percentages.

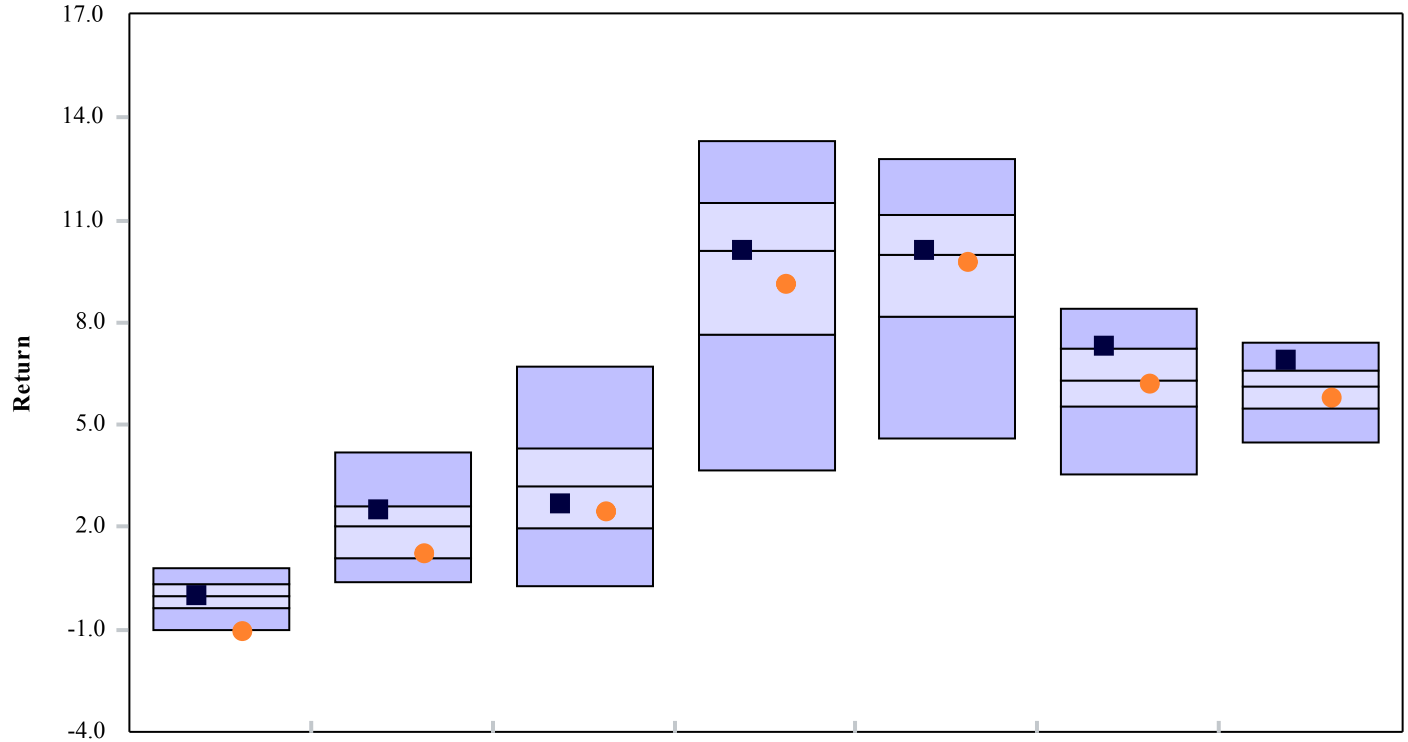
Plan Sponsor Peer Group Analysis
All Endowment&Foundation-Total Fund
Sample Client - Multi-Asset Class Management
As of June 30, 2015



	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	Jul-2006 To Jun-2015
■ Sample Client - Multi-Asset Class Management	0.00 (57)	2.46 (42)	2.65 (52)	10.10 (56)	10.08 (53)	7.30 (15)	6.86 (24)
● Policy Index	-1.10 (97)	1.22 (87)	2.43 (55)	9.09 (78)	9.75 (62)	6.19 (47)	5.78 (63)
5th Percentile	1.75	4.71	8.16	13.06	12.66	7.86	8.17
1st Quartile	0.69	2.95	4.13	11.56	11.23	6.90	6.81
Median	0.11	2.32	2.78	10.31	10.24	6.07	6.13
3rd Quartile	-0.26	1.73	1.24	9.26	9.13	5.11	5.36
95th Percentile	-1.01	0.45	-0.78	6.28	7.14	3.60	3.96
Population	350	349	340	307	281	249	222

Parentheses contain percentile rankings.
Returns are expressed as percentages.

Plan Sponsor Peer Group Analysis
All Taft Hartley Plans-Total Fund
Sample Client - Multi-Asset Class Management
As of June 30, 2015



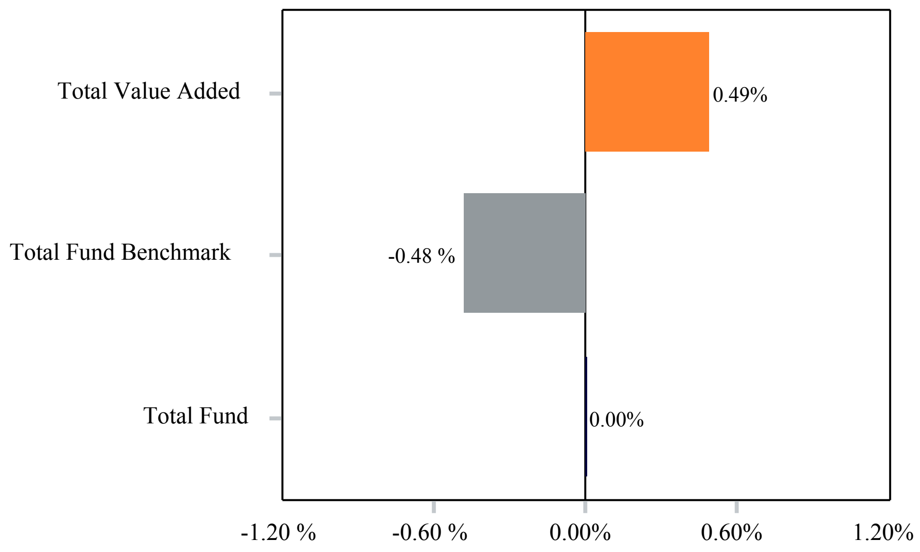
	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	Jul-2006 To Jun-2015
■ Sample Client - Multi-Asset Class Management	0.00 (49)	2.46 (32)	2.65 (63)	10.10 (50)	10.08 (49)	7.30 (24)	6.86 (19)
● Policy Index	-1.10 (97)	1.22 (72)	2.43 (67)	9.09 (64)	9.75 (57)	6.19 (55)	5.78 (65)
5th Percentile	0.80	4.18	6.72	13.29	12.81	8.42	7.43
1st Quartile	0.33	2.63	4.29	11.50	11.13	7.22	6.58
Median	-0.02	2.00	3.19	10.09	9.98	6.29	6.10
3rd Quartile	-0.38	1.07	1.94	7.65	8.14	5.52	5.50
95th Percentile	-1.01	0.39	0.29	3.68	4.61	3.55	4.50
Population	241	241	239	233	226	216	195

Parentheses contain percentile rankings.
Returns are expressed as percentages.

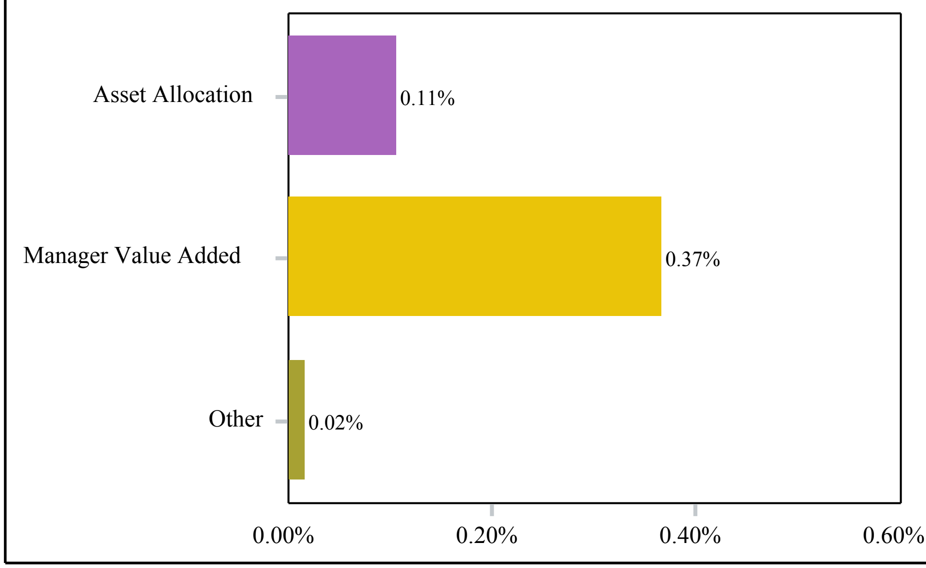
PFM®

Total Fund Attribution
Sample Client - Multi-Asset Class Management
1 Quarter Ending June 30, 2015

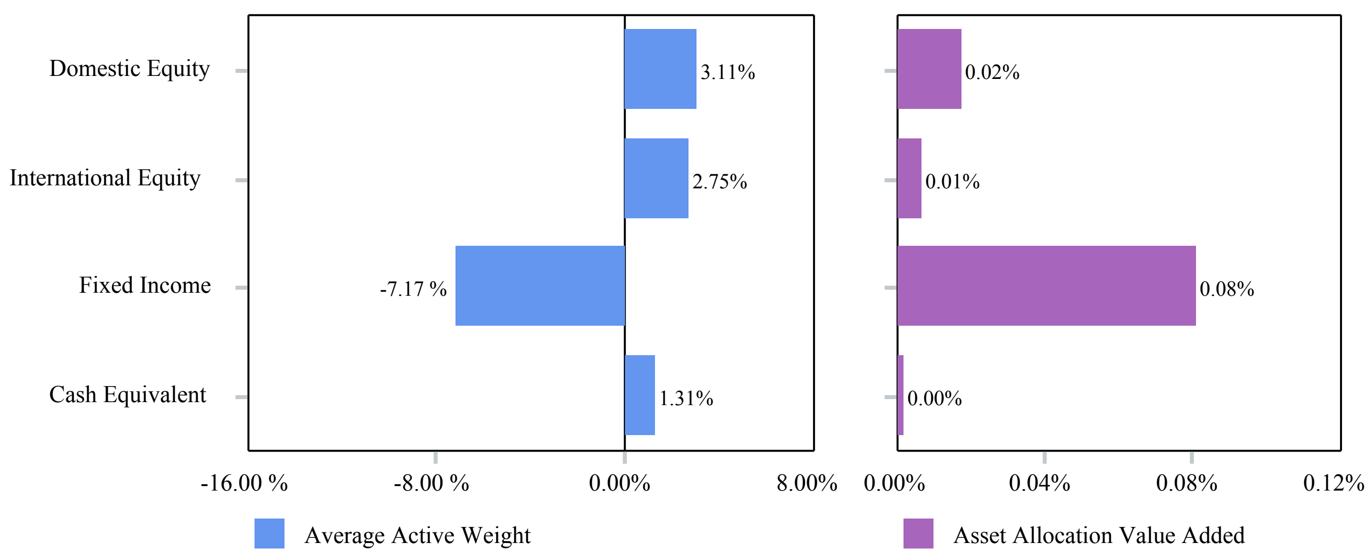
Total Fund Performance



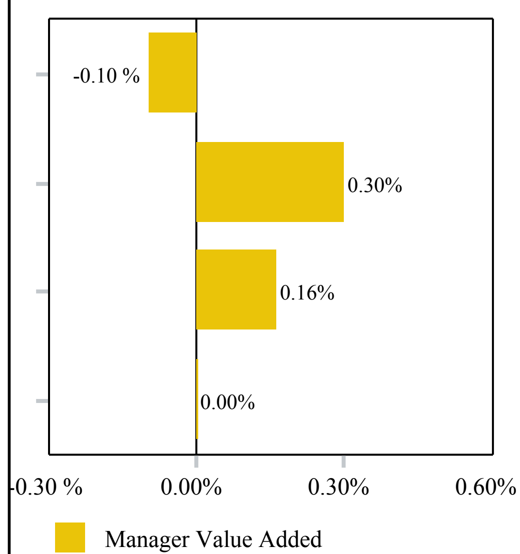
Total Value Added:0.49%



Total Asset Allocation:0.11%

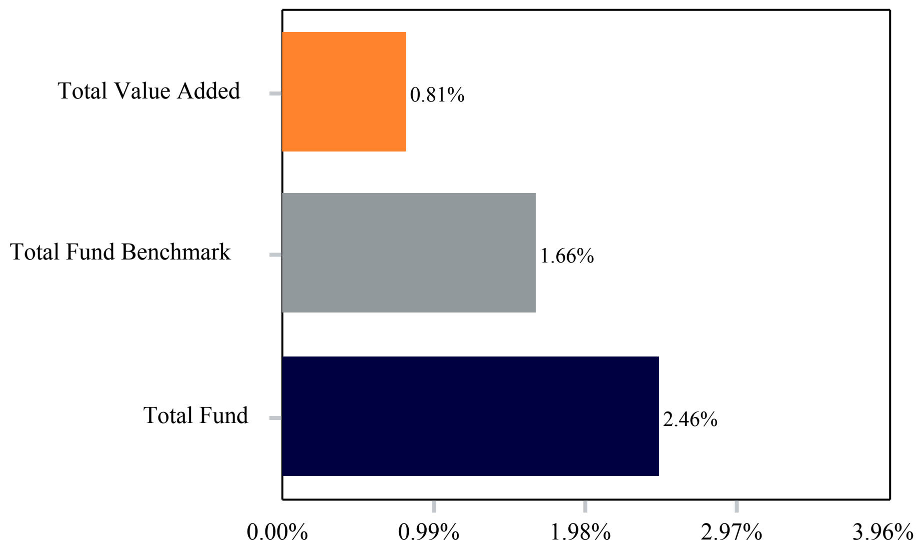


Total Manager Value Added:0.37%

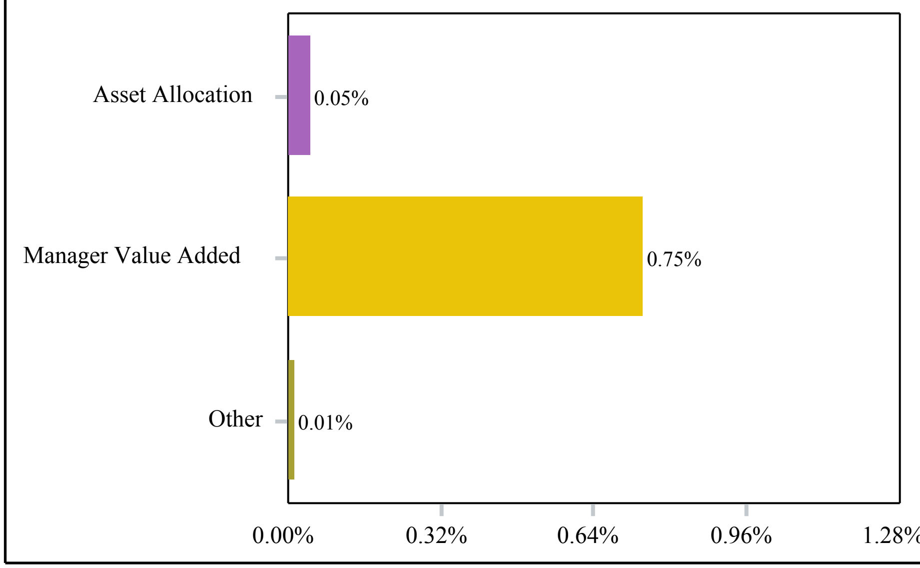


Total Fund Attribution
Sample Client - Multi-Asset Class Management
Year To Date Ending June 30, 2015

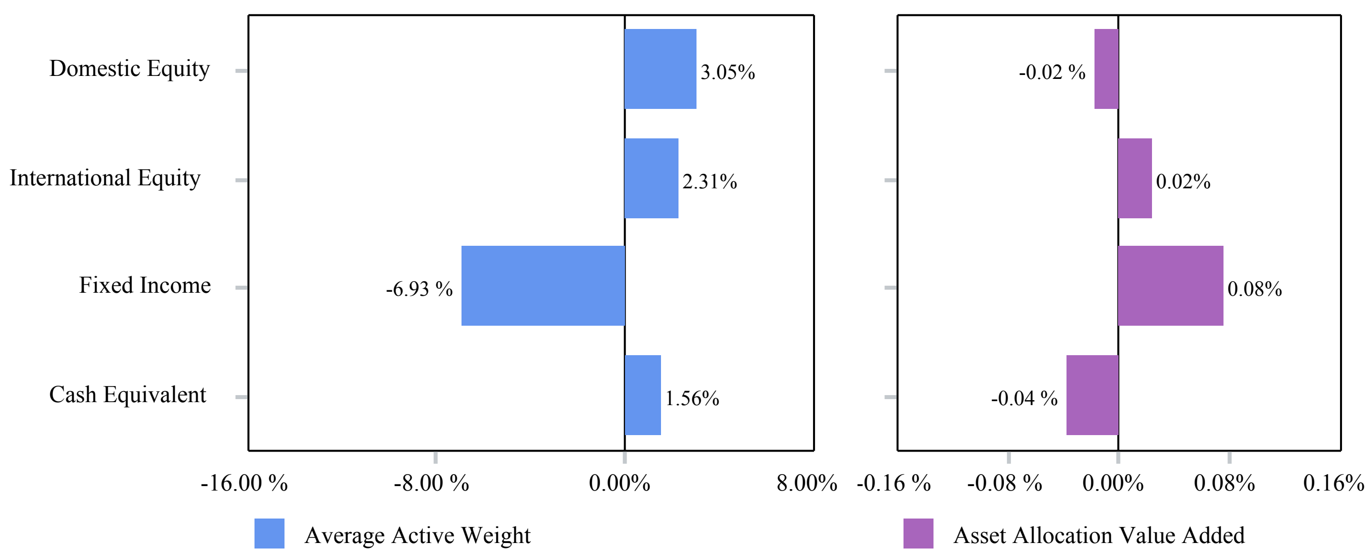
Total Fund Performance



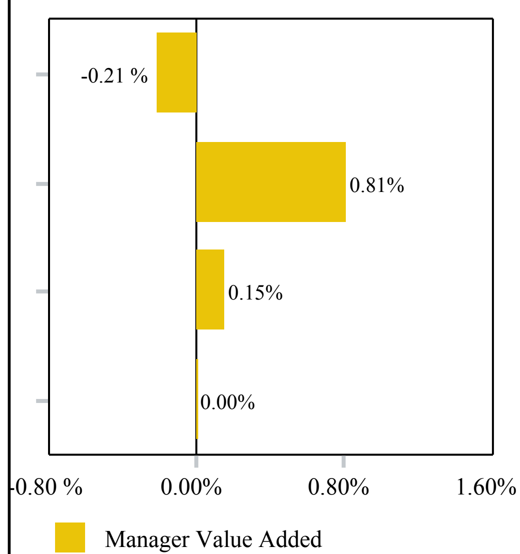
Total Value Added:0.81%



Total Asset Allocation:0.05%

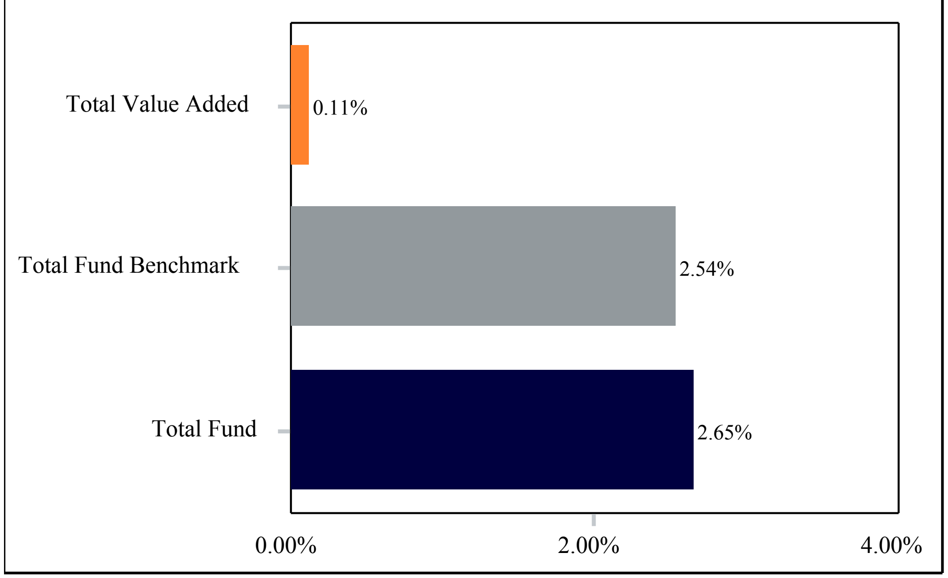


Total Manager Value Added:0.75%

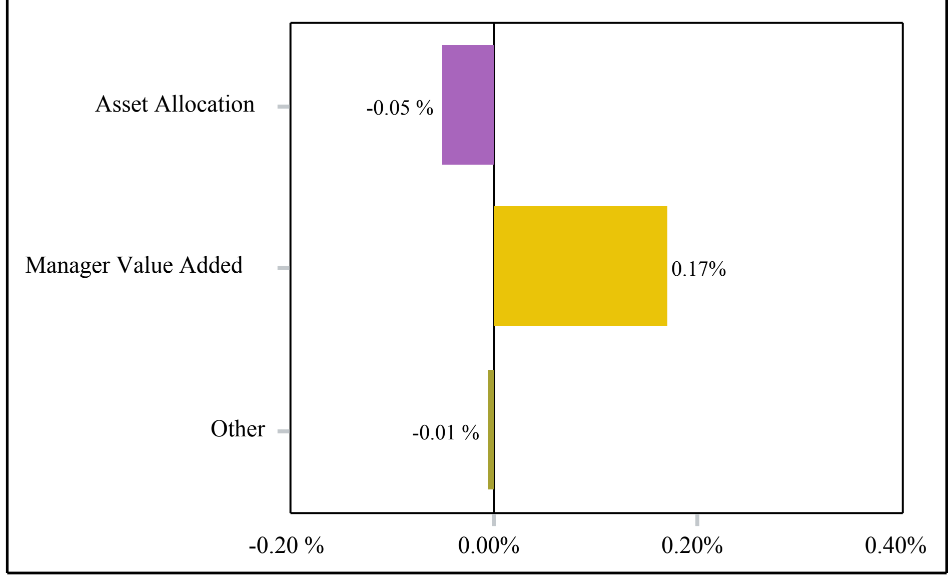


Total Fund Attribution
Sample Client - Multi-Asset Class Management
1 Year Ending June 30, 2015

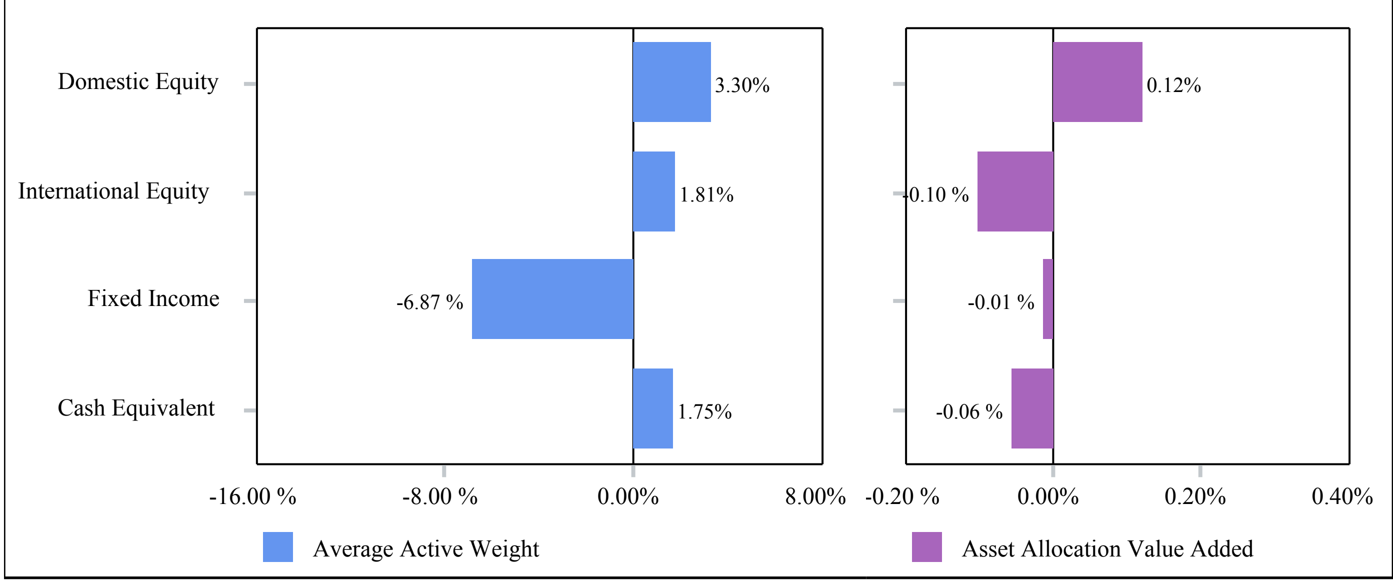
Total Fund Performance



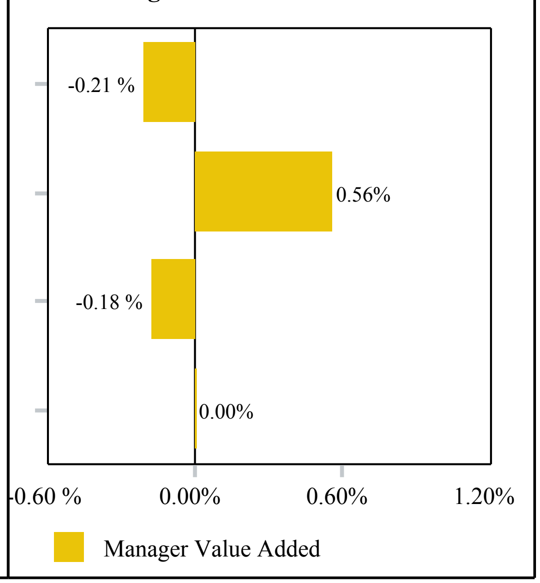
Total Value Added:0.11%



Total Asset Allocation:-0.05 %

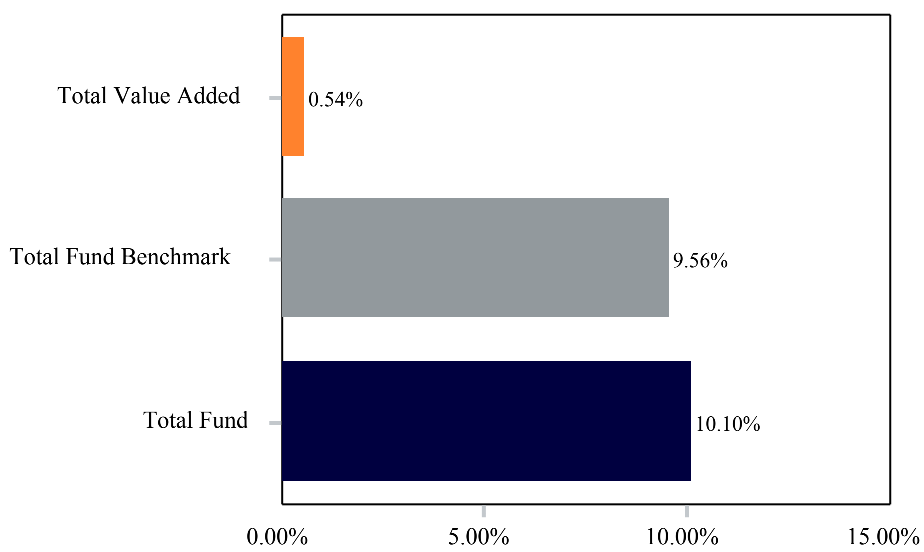


Total Manager Value Added:0.17%

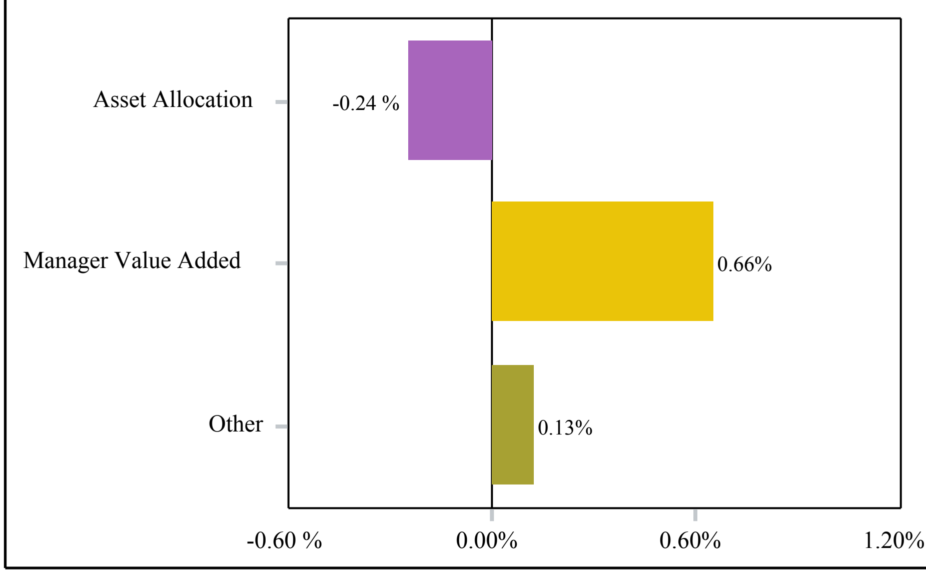


Total Fund Attribution
Sample Client - Multi-Asset Class Management
3 Years Ending June 30, 2015

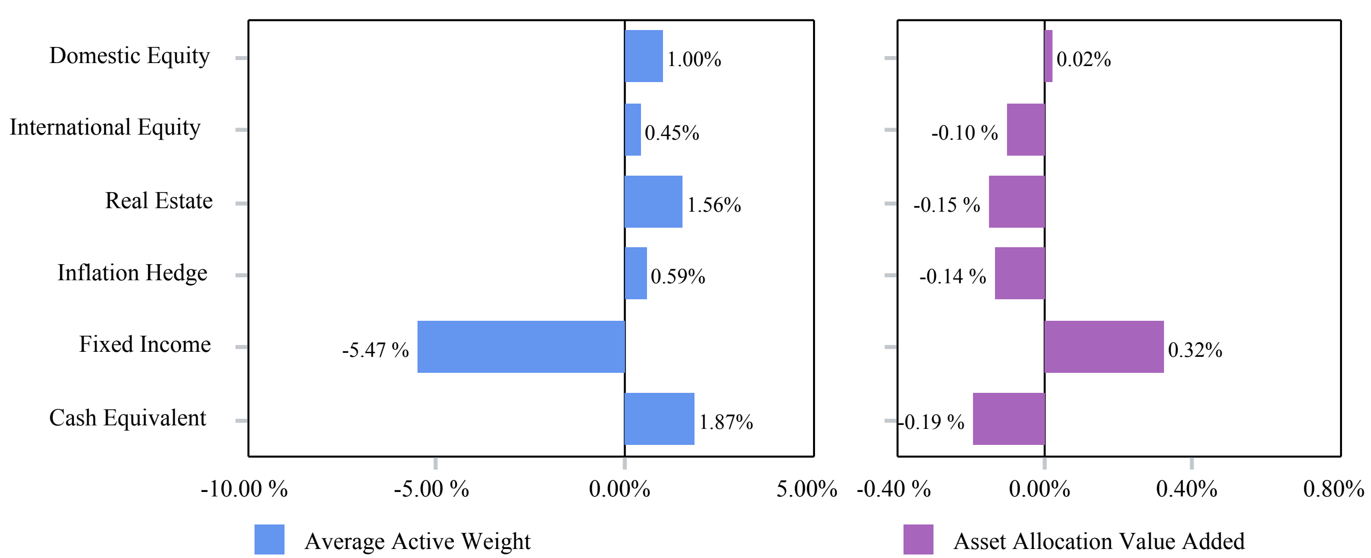
Total Fund Performance



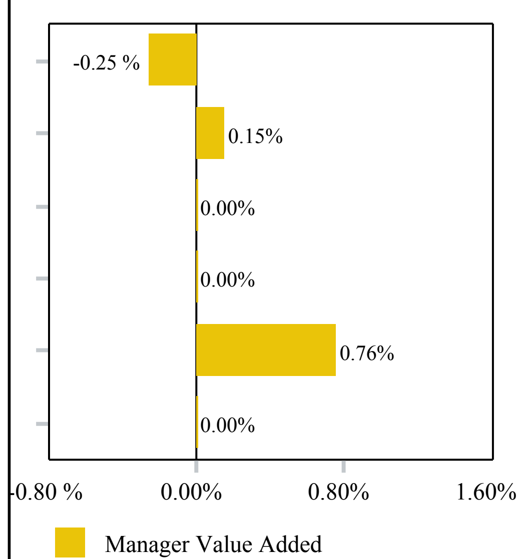
Total Value Added:0.54%



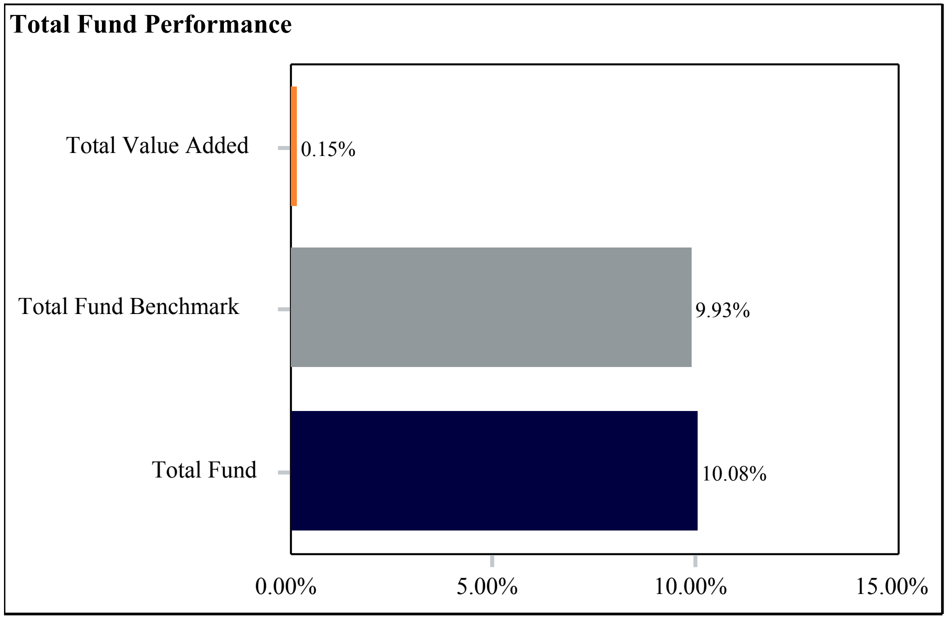
Total Asset Allocation:-0.24 %

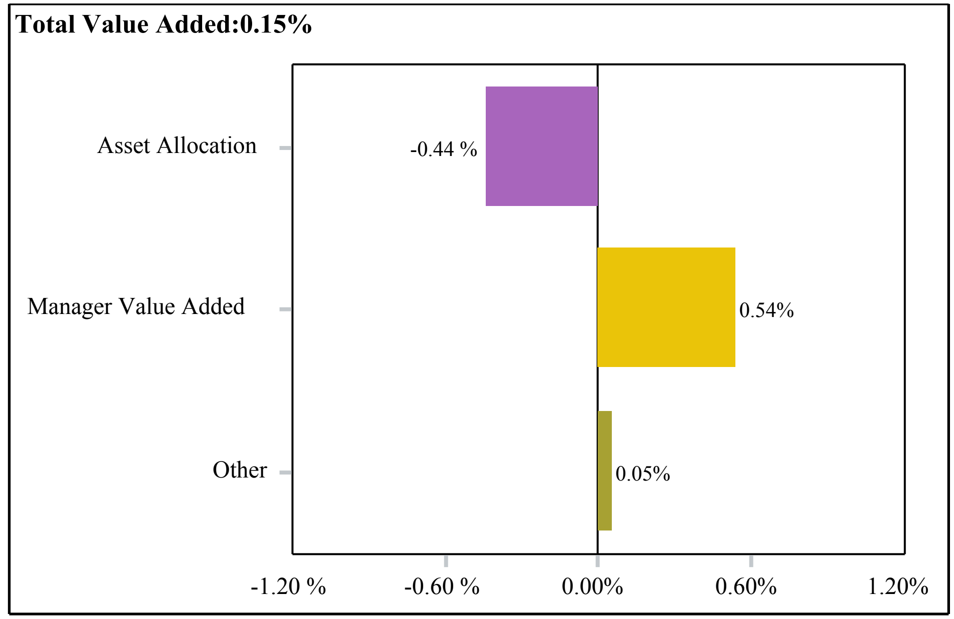


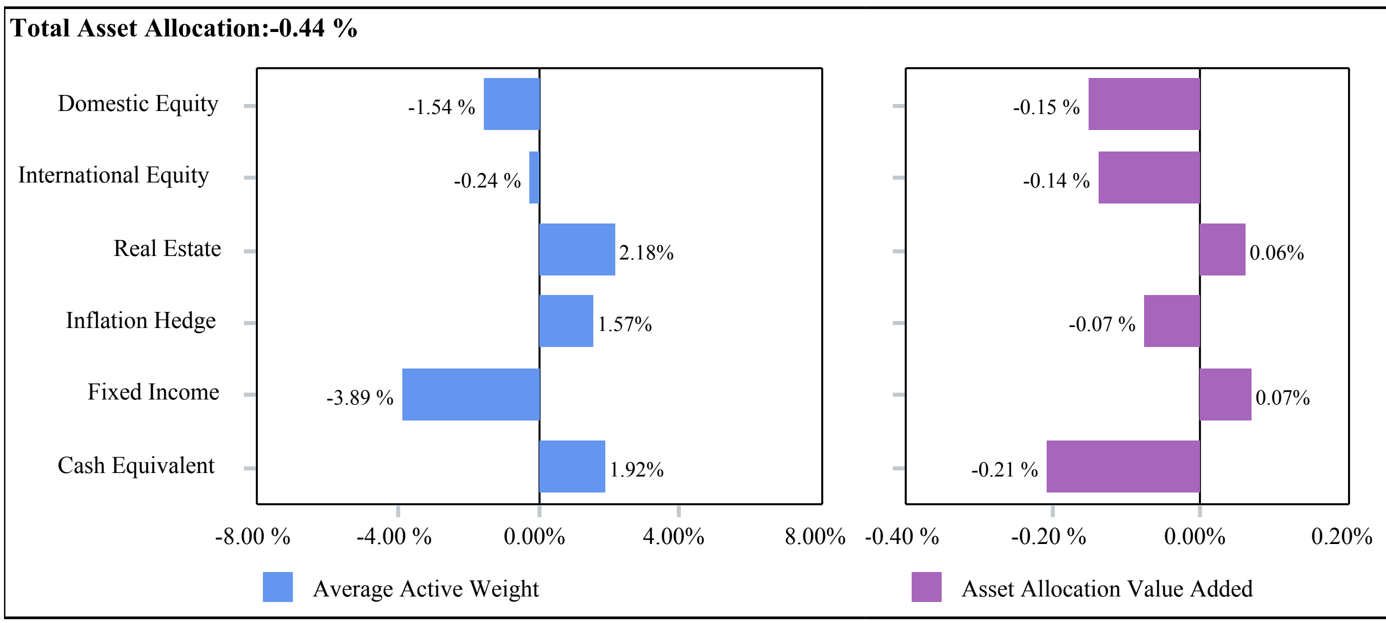
Total Manager Value Added:0.66%

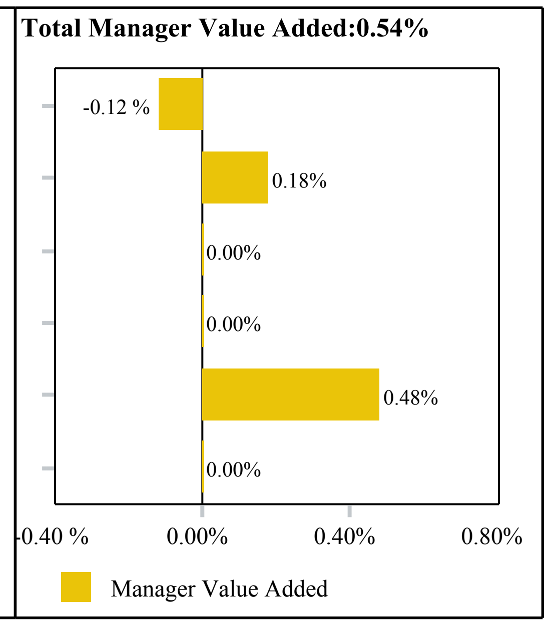


Total Fund Attribution
Sample Client - Multi-Asset Class Management
5 Years Ending June 30, 2015









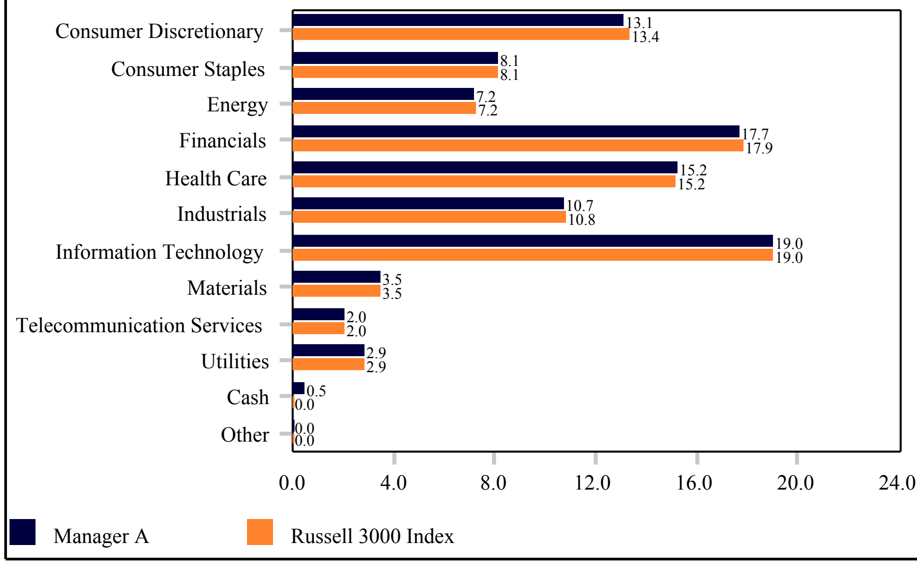
Investment Manager Review

Portfolio Characteristics
Manager A vs. Russell 3000 Index
As of June 30, 2015

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	107,676	108,212
Median Mkt. Cap ($M)	944	1,605
Price/Earnings ratio	19.48	19.50
Price/Book ratio	3.01	3.01
5 Yr. EPS Growth Rate (%)	13.43	13.14
Current Yield (%)	1.94	1.93
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	3,799	3,004
Debt to Equity	1.21	1.17

Sector Weights (%)



Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	3.18	3.16	0.02	1.22
Exxon Mobil Corp	1.53	1.52	0.01	-1.29
Microsoft Corp	1.42	1.56	-0.14	9.30
Johnson & Johnson	1.19	1.18	0.01	-2.41
General Electric Co	1.18	1.17	0.01	7.99
Wells Fargo & Co	1.15	1.15	0.00	4.09
JPMorgan Chase & Co	1.11	1.10	0.01	12.60
Berkshire Hathaway Inc	1.06	1.11	-0.05	-5.69
Procter & Gamble Co (The)	0.93	0.93	0.00	-3.73
Pfizer Inc	0.91	0.90	0.01	-2.82
% of Portfolio	13.66	13.78		

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Torchlight Energy Resources Inc	0.00	0.00	0.00	600.00
Harvest Natural Resources Inc.	0.00	0.00	0.00	291.50
DS Healthcare Group Inc	0.00	0.00	0.00	217.76
Geeknet Inc	0.00	0.00	0.00	153.69
Altisource Portfolio Solutions SA	0.00	0.00	0.00	139.24
Natural Health Trends Corp	0.00	0.00	0.00	131.84
Oncothyreon Inc	0.00	0.00	0.00	129.45
Sarepta Therapeutics Inc	0.00	0.01	-0.01	129.14
Alliance One International Inc	0.00	0.00	0.00	117.36
GTx Inc.	0.00	0.00	0.00	115.07
% of Portfolio	0.00	0.01		

Buy and Hold Sector Attribution
Manager A vs. Russell 3000 Index
1 Quarter Ending June 30, 2015

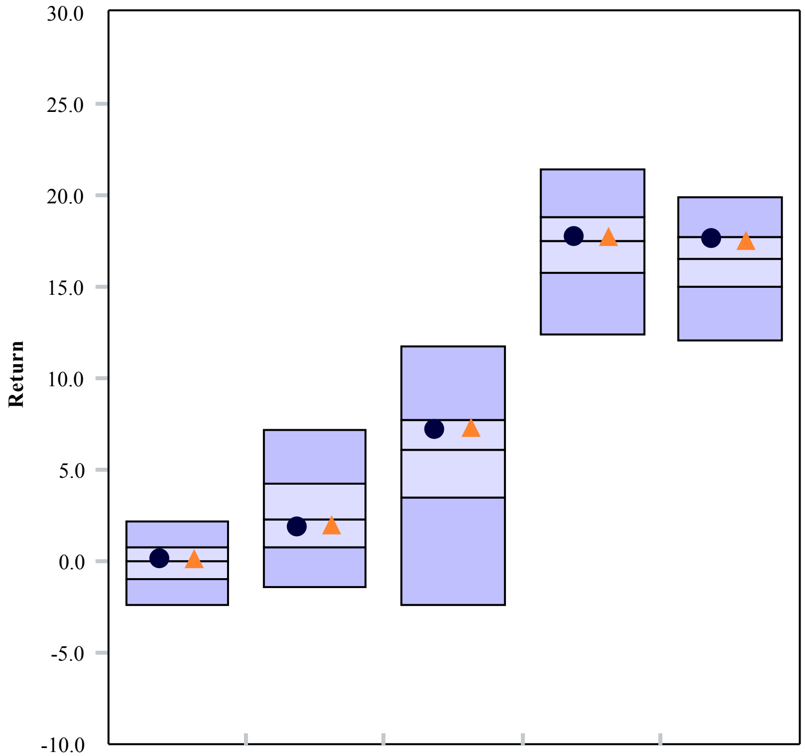
Buy-and-Hold Portfolio	0.09
Portfolio Trading	-0.01
Actual Return	0.08
Benchmark Return	0.14
Actual Active Return	-0.05
Stock Selection	-0.05
Sector Selection	0.01
Interaction	0.00
Total Selection	-0.05
Portfolio Trading	-0.01
Benchmark Trading	0.00
Active Trading Impact	-0.01
Buy & Hold Active Return	-0.05

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Consumer Discretionary	12.94	13.18	1.40	1.36	0.01	0.00	0.00	0.00
Consumer Staples	8.35	8.49	-1.70	-1.67	0.00	0.00	0.00	0.00
Energy	7.31	7.23	-2.01	-1.91	-0.01	0.00	0.00	-0.01
Financials	17.60	17.58	1.05	1.12	-0.01	0.00	0.00	-0.01
Health Care	14.61	14.60	3.34	3.32	0.00	0.00	0.00	0.00
Industrials	11.00	11.25	-2.49	-2.52	0.00	0.01	0.00	0.01
Information Technology	18.96	19.03	0.00	0.21	-0.04	0.00	0.00	-0.04
Materials	3.49	3.58	-1.10	-0.94	-0.01	0.00	0.00	0.00
Telecommunication Services	2.01	2.01	1.43	1.39	0.00	0.00	0.00	0.00
Utilities	3.06	3.06	-6.27	-6.28	0.00	0.00	0.00	0.00
Cash	0.66	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	0.09	0.14	-0.05	0.01	0.00	-0.05

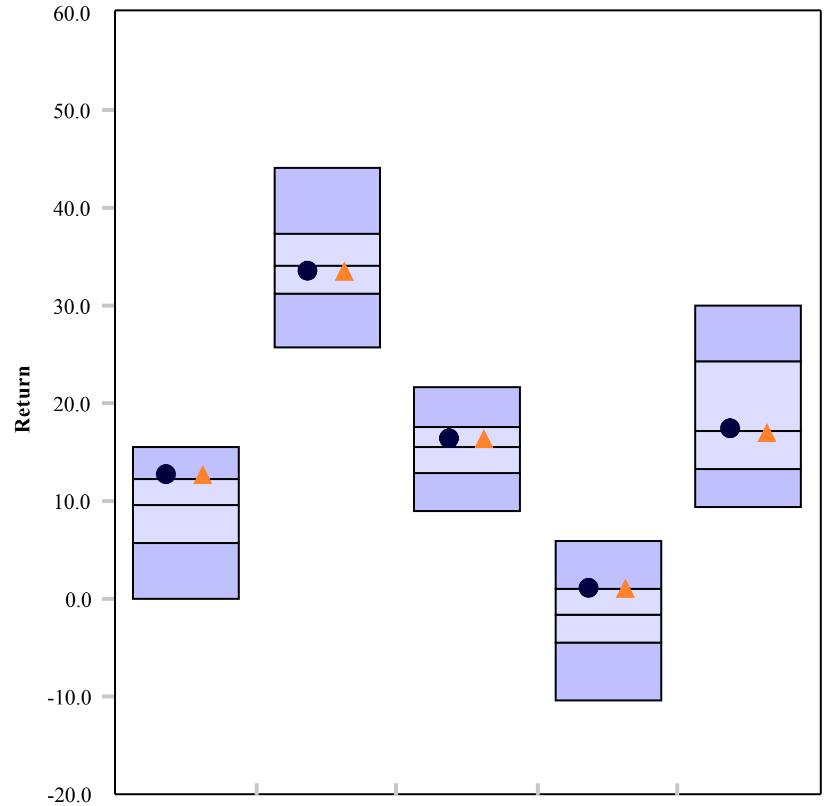
PFM®

Portfolio Analysis
Manager A
As of June 30, 2015

Peer Group Analysis - IM U.S. Core Equity (SA+CF+MF)



	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager A	0.08 (46)	1.88 (57)	7.18 (33)	17.68 (47)	17.56 (29)
▲ Russell 3000 Index	0.14 (44)	1.94 (56)	7.29 (31)	17.73 (45)	17.54 (30)
Median	0.00	2.30	6.07	17.49	16.49



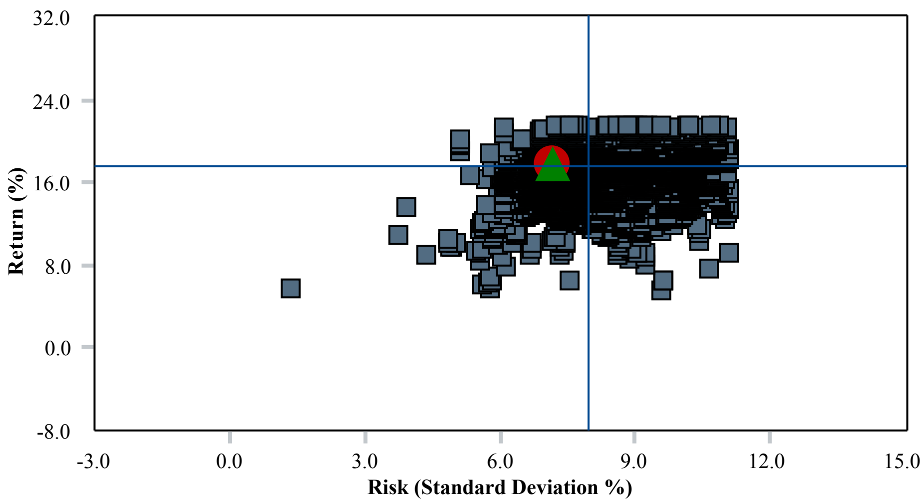
	2014	2013	2012	2011	2010
● Manager A	12.56 (23)	33.52 (55)	16.38 (37)	1.08 (26)	17.26 (50)
▲ Russell 3000 Index	12.56 (23)	33.55 (55)	16.42 (37)	1.03 (26)	16.93 (52)
Median	9.54	34.09	15.50	-1.57	17.06

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager A	17.68	8.57	1.95	-0.02	1.00	0.17	-0.05	0.11	-0.48	1.00
Russell 3000 Index	17.73	8.59	1.95	0.00	1.00	0.17	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.06	0.00	0.00	-16.75	8.59	-1.95	0.04

Portfolio Analysis
Manager A
As of June 30, 2015

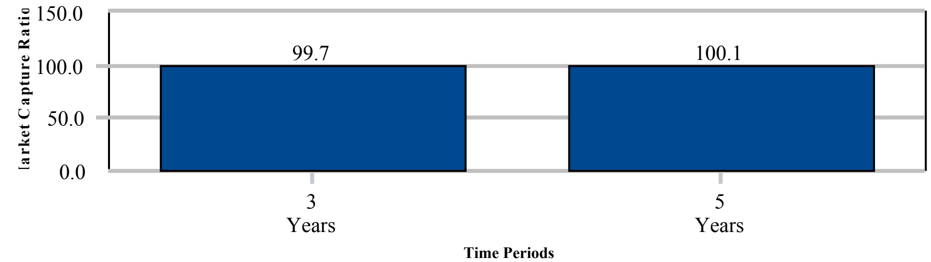
Peer Group Scattergram (07/01/12 to 06/30/15)



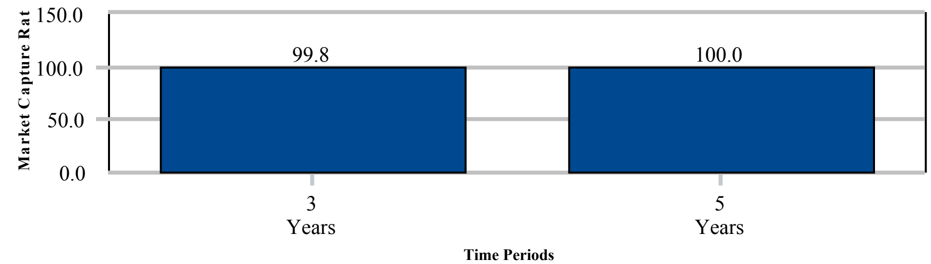
	Return	Standard Deviation
Manager A	17.68	7.18
Russell 3000 Index	17.73	7.19
Median	17.49	7.97

Up Down Market Capture

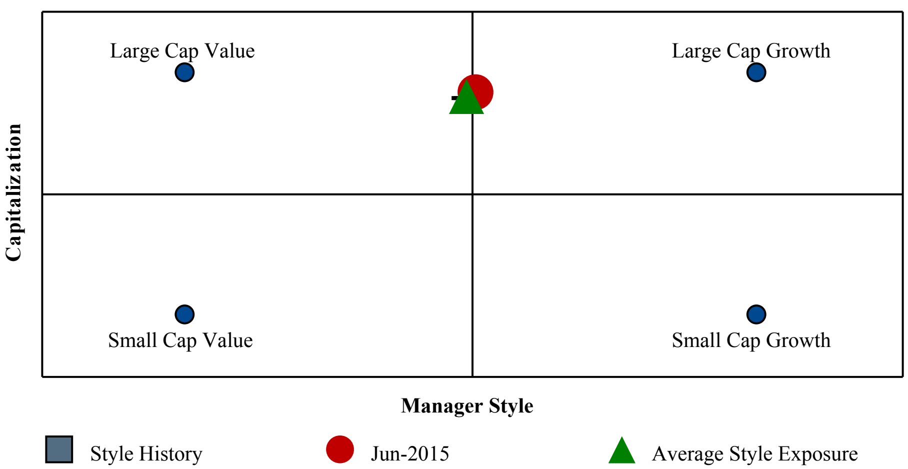
Up Market Capture



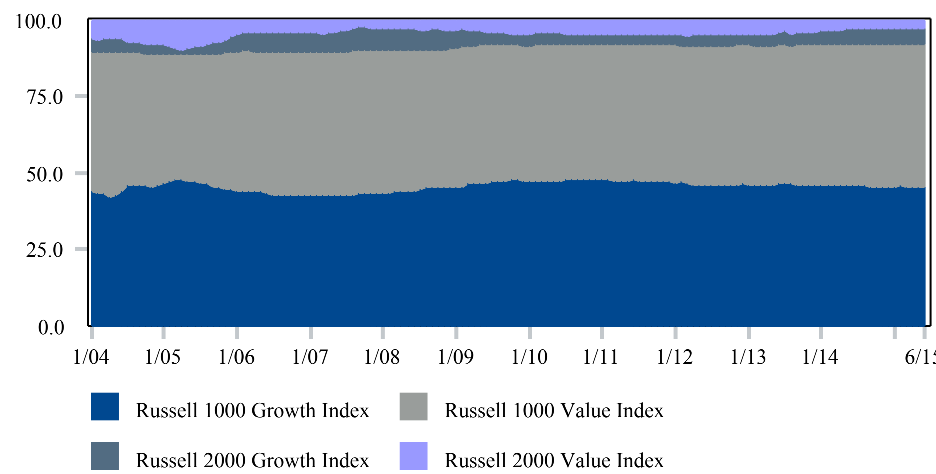
Down Market Capture



Style Map (12/01/00 to 06/30/15)



Style History (12/01/00 to 06/30/15)



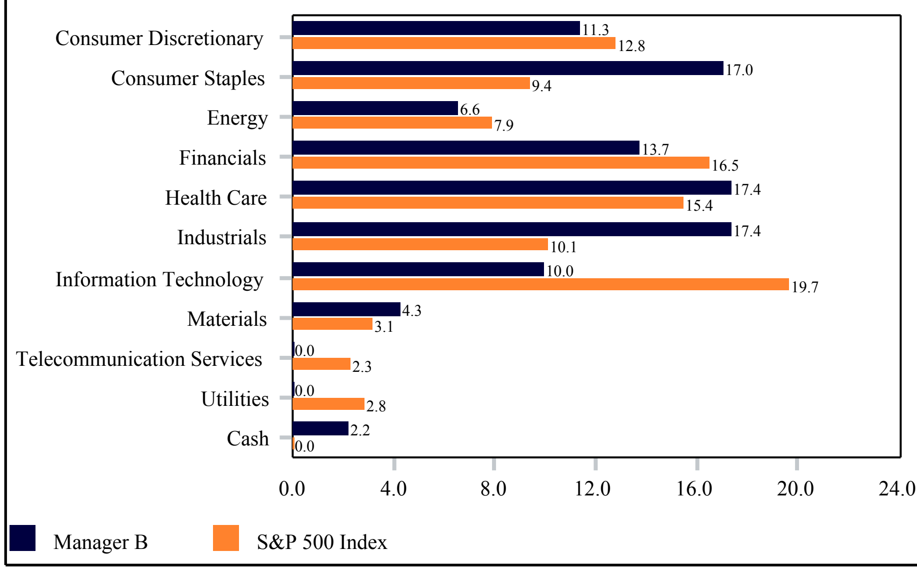
PFM®

Portfolio Characteristics
Manager B vs. S&P 500 Index
As of June 30, 2015

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	113,364	133,863
Median Mkt. Cap ($M)	81,760	17,911
Price/Earnings ratio	19.09	19.18
Price/Book ratio	3.52	3.06
5 Yr. EPS Growth Rate (%)	9.51	12.85
Current Yield (%)	2.40	2.09
Beta (5 Years, Monthly)	0.81	1.00
Number of Stocks	47	502
Debt to Equity	1.19	1.26

Sector Weights (%)



Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
United Parcel Service Inc	3.21	0.37	2.84	0.69
Microsoft Corp	2.92	1.96	0.96	9.30
Unitedhealth Group Inc	2.90	0.64	2.26	3.57
TJX Companies Inc (The)	2.87	0.25	2.62	-5.24
Honeywell International Inc.	2.74	0.44	2.30	-1.77
Nike Inc	2.69	0.41	2.28	7.96
ACE Ltd	2.68	0.18	2.50	-8.21
Coca-Cola Co (The)	2.60	0.84	1.76	-2.46
Accenture PLC	2.60	0.33	2.27	4.41
Praxair Inc.	2.49	0.19	2.30	-0.41
% of Portfolio	27.70	5.61		

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	2.92	1.96	0.96	9.30
Walt Disney Co (The)	1.58	0.98	0.60	8.82
Nike Inc	2.69	0.41	2.28	7.96
General Dynamics Corp	1.35	0.24	1.11	5.43
Diageo PLC	1.88	0.00	1.88	4.89
Accenture PLC	2.60	0.33	2.27	4.41
Wells Fargo & Co	2.03	1.45	0.58	4.09
Schlumberger Ltd	1.89	0.60	1.29	3.87
Unitedhealth Group Inc	2.90	0.64	2.26	3.57
PNC Financial Services Group Inc.	2.04	0.27	1.77	3.14
% of Portfolio	21.88	6.88		

Buy and Hold Sector Attribution
Manager B vs. S&P 500
1 Quarter Ending June 30, 2015

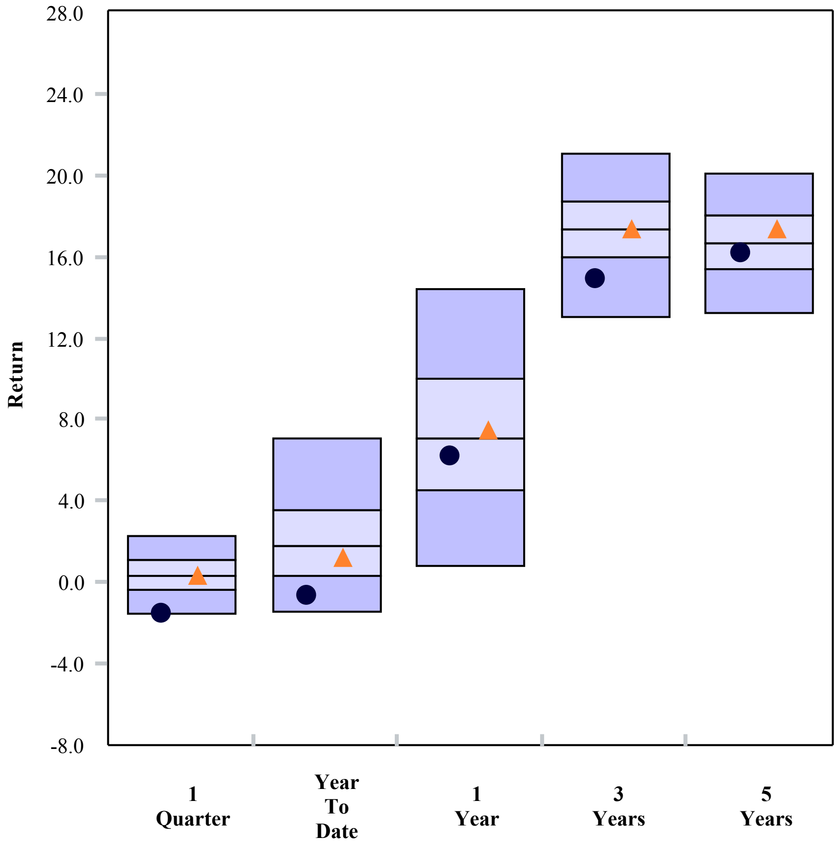
Buy-and-Hold Portfolio	-1.44
Portfolio Trading	-0.11
Actual Return	-1.54
Benchmark Return	0.28
Actual Active Return	-1.82
Stock Selection	-1.35
Sector Selection	-0.21
Interaction	-0.15
Total Selection	-1.70
Portfolio Trading	-0.11
Benchmark Trading	0.01
Active Trading Impact	-0.12
Buy & Hold Active Return	-1.82

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Consumer Discretionary	11.02	12.60	-0.47	1.91	-0.30	-0.03	0.04	-0.29
Consumer Staples	16.66	9.69	-3.25	-1.75	-0.15	-0.14	-0.10	-0.39
Energy	9.35	8.04	3.73	-1.88	0.45	-0.03	0.07	0.50
Financials	13.20	16.21	-2.39	1.78	-0.68	-0.05	0.13	-0.60
Health Care	17.52	14.93	-1.75	2.83	-0.68	0.07	-0.12	-0.74
Industrials	15.71	10.37	-3.63	-2.23	-0.14	-0.13	-0.07	-0.35
Information Technology	9.15	19.68	0.80	0.17	0.12	0.01	-0.07	0.07
Materials	4.29	3.16	-0.59	-0.47	0.00	-0.01	0.00	-0.01
Telecommunication Services	0.00	2.28	0.00	1.10	0.00	-0.02	0.00	-0.02
Utilities	1.00	3.04	-4.78	-5.81	0.03	0.12	-0.02	0.13
Cash	2.11	0.00	0.01	0.00	0.00	-0.01	0.00	-0.01
Total	100.00	100.00	-1.44	0.27	-1.35	-0.21	-0.15	-1.70

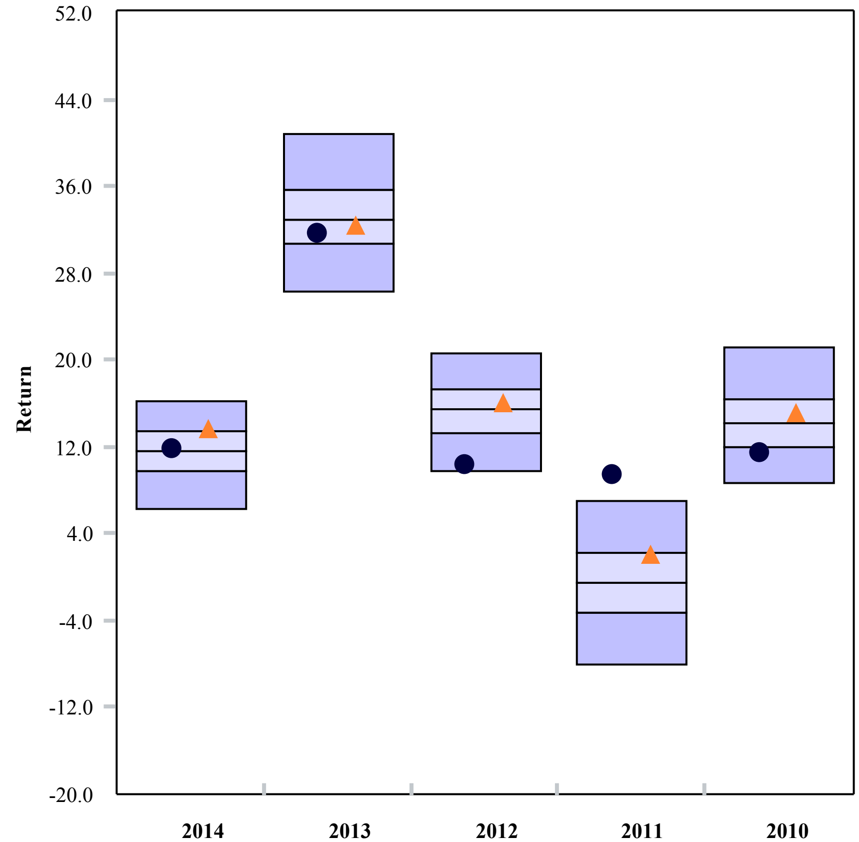
PFM®

Portfolio Analysis
Manager B
As of June 30, 2015

Peer Group Analysis - IM U.S. Large Cap Equity (SA+CF+MF)



	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager B	-1.54 (95)	-0.70 (89)	6.19 (60)	14.90 (86)	16.13 (62)
▲ S&P 500 Index	0.28 (51)	1.23 (60)	7.42 (45)	17.31 (52)	17.34 (39)
Median	0.29	1.75	7.02	17.37	16.66



	2014	2013	2012	2011	2010
● Manager B	11.85 (46)	31.53 (68)	10.39 (93)	9.43 (3)	11.42 (81)
▲ S&P 500 Index	13.69 (23)	32.39 (57)	16.00 (43)	2.11 (27)	15.06 (40)
Median	11.55	32.97	15.50	-0.46	14.14

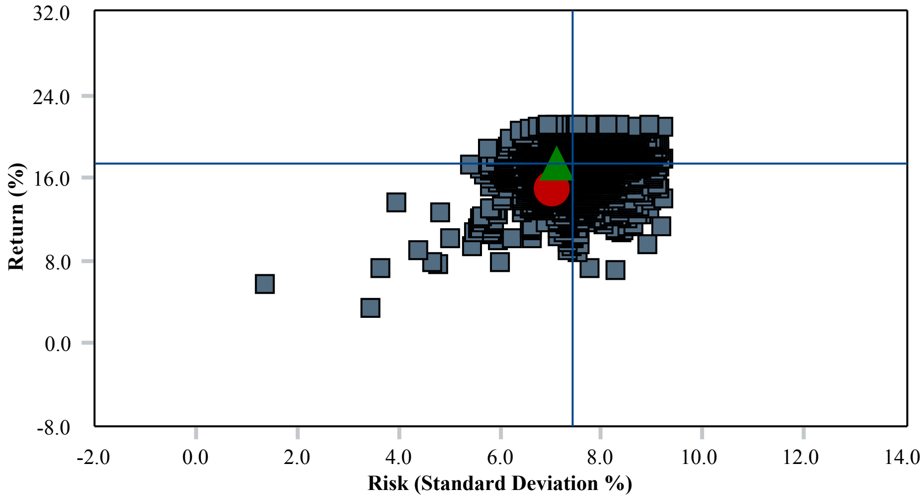
Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager B	14.90	8.04	1.77	-0.84	0.92	0.15	-2.13	2.13	-1.00	0.94
S&P 500 Index	17.31	8.43	1.94	0.00	1.00	0.16	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.06	0.00	0.00	-16.37	8.44	-1.94	0.05

PFM®

Portfolio Analysis
Manager B
As of June 30, 2015

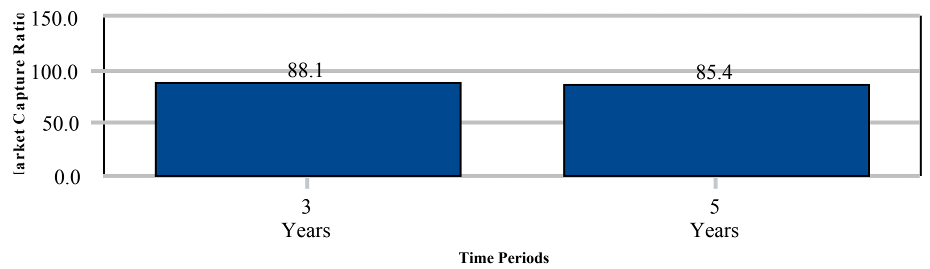
Peer Group Scattergram (07/01/12 to 06/30/15)



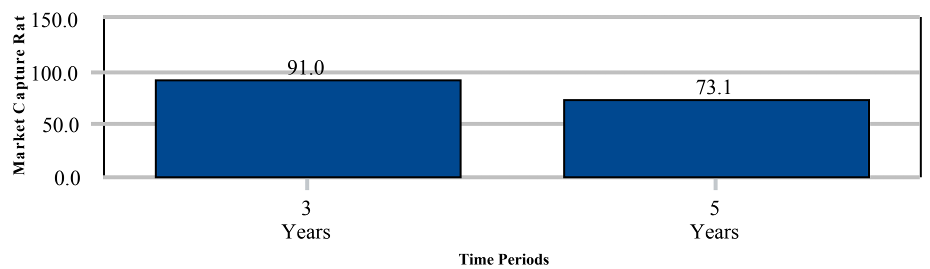
	Return	Standard Deviation
Manager B	14.90	7.06
S&P 500 Index	17.31	7.11
Median	17.37	7.45

Up Down Market Capture

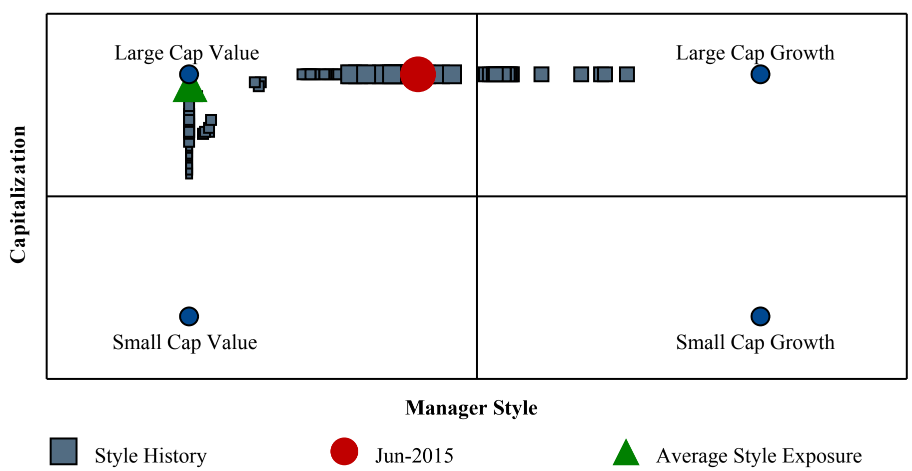
Up Market Capture



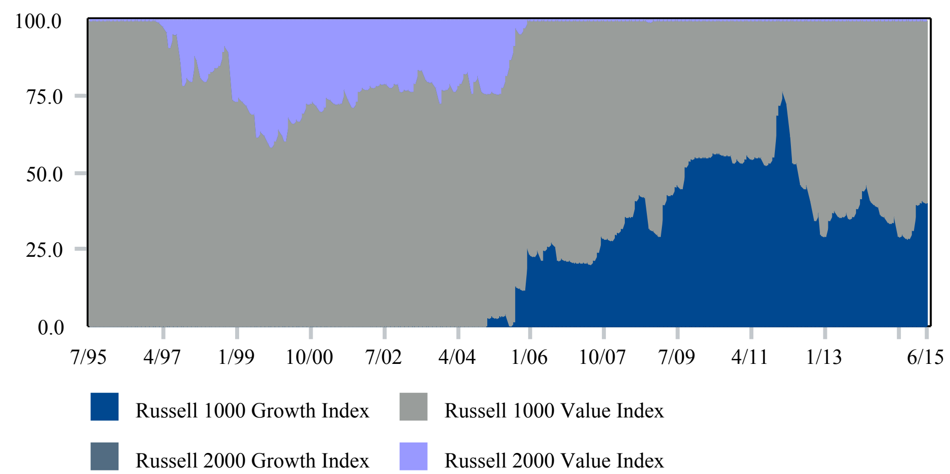
Down Market Capture



Style Map (06/01/92 to 06/30/15)



Style History (06/01/92 to 06/30/15)

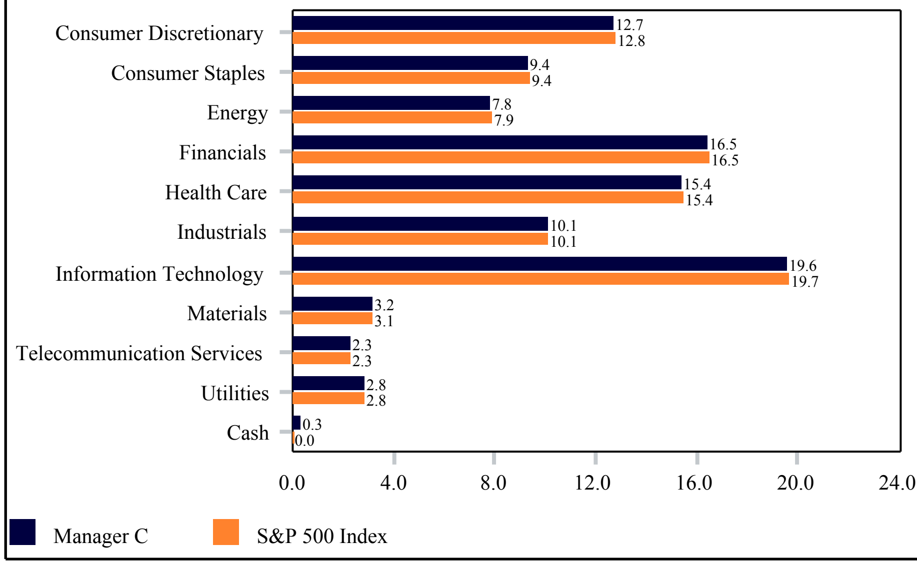


Portfolio Characteristics
Manager C vs. S&P 500 Index
As of June 30, 2015

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	133,355	133,863
Median Mkt. Cap ($M)	17,911	17,911
Price/Earnings ratio	19.18	19.18
Price/Book ratio	3.06	3.06
5 Yr. EPS Growth Rate (%)	13.27	12.85
Current Yield (%)	2.09	2.09
Beta (5 Years, Monthly)	1.00	1.00
Number of Stocks	507	502
Debt to Equity	1.26	1.26

Sector Weights (%)



Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	3.95	3.97	-0.02	1.22
Microsoft Corp	1.95	1.96	-0.01	9.30
Exxon Mobil Corp	1.90	1.91	-0.01	-1.29
Johnson & Johnson	1.48	1.48	0.00	-2.41
General Electric Co	1.46	1.47	-0.01	7.99
Wells Fargo & Co	1.44	1.45	-0.01	4.09
JPMorgan Chase & Co	1.37	1.38	-0.01	12.60
Berkshire Hathaway Inc	1.26	1.36	-0.10	-5.69
Procter & Gamble Co (The)	1.16	1.17	-0.01	-3.73
Pfizer Inc	1.13	1.13	0.00	-2.82
% of Portfolio	17.10	17.28		

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Netflix Inc	0.22	0.22	0.00	57.66
Cablevision Systems Corp	0.03	0.03	0.00	31.61
Cigna Corp	0.23	0.23	0.00	25.15
Pall Corp	0.07	0.07	0.00	24.35
Universal Health Services Inc.	0.07	0.07	0.00	20.81
HCA Holdings Inc	0.14	0.14	0.00	20.59
ConAgra Foods Inc.	0.10	0.10	0.00	20.49
Aetna Inc.	0.24	0.24	0.00	19.93
Altera Corp	0.08	0.08	0.00	19.80
Gilead Sciences Inc	0.94	0.94	0.00	19.75
% of Portfolio	2.12	2.12		

Buy and Hold Sector Attribution
Manager C vs. S&P 500
1 Quarter Ending June 30, 2015

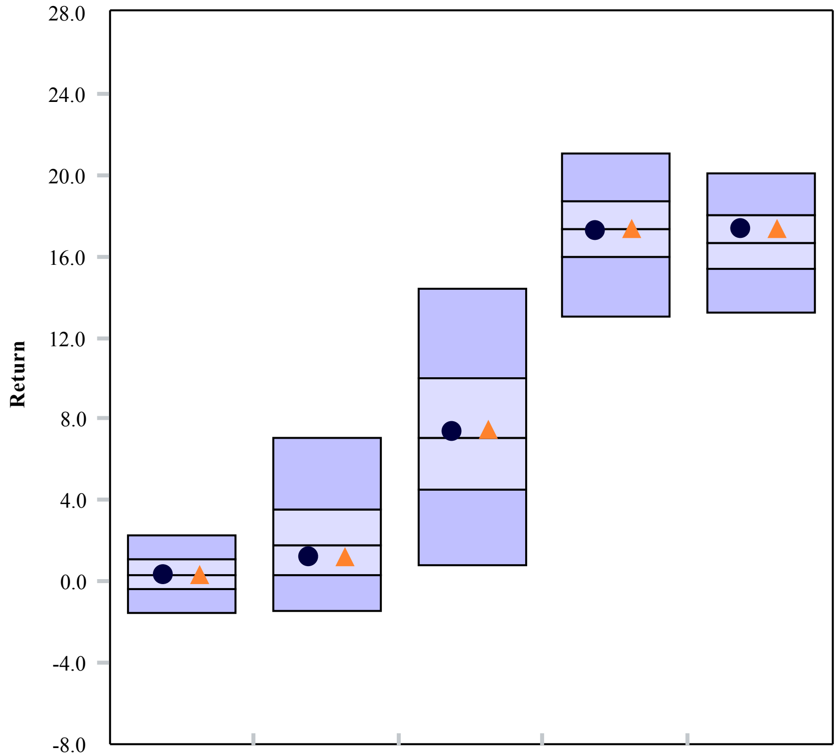
Buy-and-Hold Portfolio	0.27
Portfolio Trading	0.02
Actual Return	0.28
Benchmark Return	0.28
Actual Active Return	0.00
Stock Selection	0.00
Sector Selection	0.00
Interaction	0.00
Total Selection	0.00
Portfolio Trading	0.02
Benchmark Trading	0.01
Active Trading Impact	0.01
Buy & Hold Active Return	0.00

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Consumer Discretionary	12.54	12.60	1.91	1.91	0.00	0.00	0.00	0.00
Consumer Staples	9.65	9.69	-1.75	-1.75	0.00	0.00	0.00	0.00
Energy	8.01	8.04	-1.88	-1.88	0.00	0.00	0.00	0.00
Financials	16.14	16.21	1.78	1.78	0.00	0.00	0.00	0.00
Health Care	14.86	14.93	2.84	2.83	0.00	0.00	0.00	0.00
Industrials	10.33	10.37	-2.23	-2.23	0.00	0.00	0.00	0.00
Information Technology	19.59	19.68	0.17	0.17	0.00	0.00	0.00	0.00
Materials	3.14	3.16	-0.47	-0.47	0.00	0.00	0.00	0.00
Telecommunication Services	2.27	2.28	1.10	1.10	0.00	0.00	0.00	0.00
Utilities	3.03	3.04	-5.81	-5.81	0.00	0.00	0.00	0.00
Cash	0.43	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	0.27	0.27	0.00	0.00	0.00	0.00

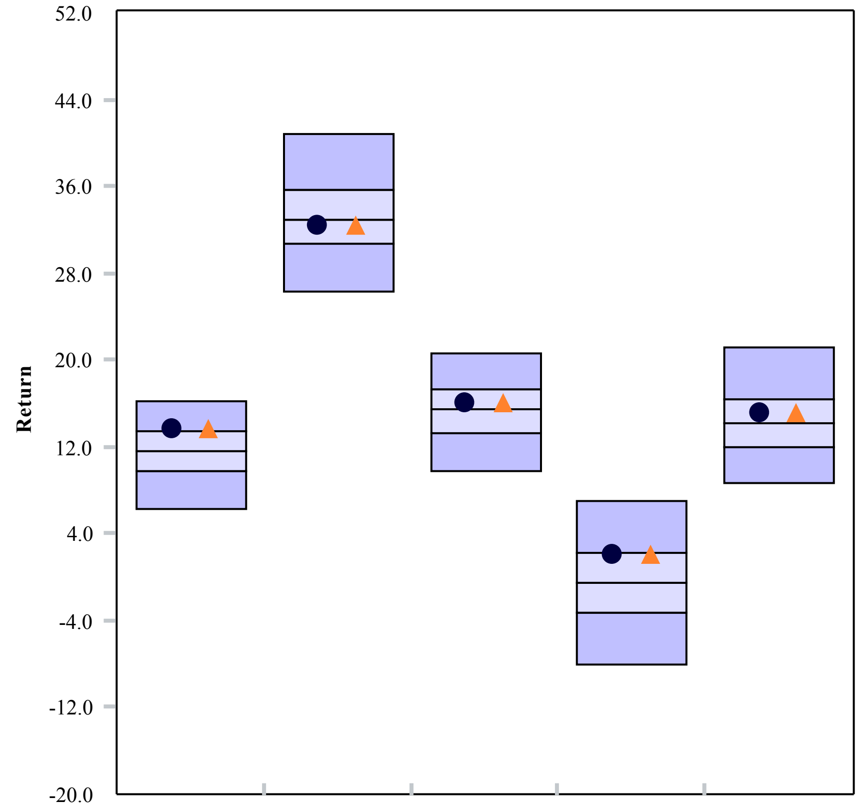
PFM®

Portfolio Analysis
Manager C
As of June 30, 2015

Peer Group Analysis - IM U.S. Large Cap Equity (SA+CF+MF)



	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager C	0.28 (51)	1.23 (60)	7.40 (45)	17.27 (53)	17.31 (39)
▲ S&P 500 Index	0.28 (51)	1.23 (60)	7.42 (45)	17.31 (52)	17.34 (39)
Median	0.29	1.75	7.02	17.37	16.66



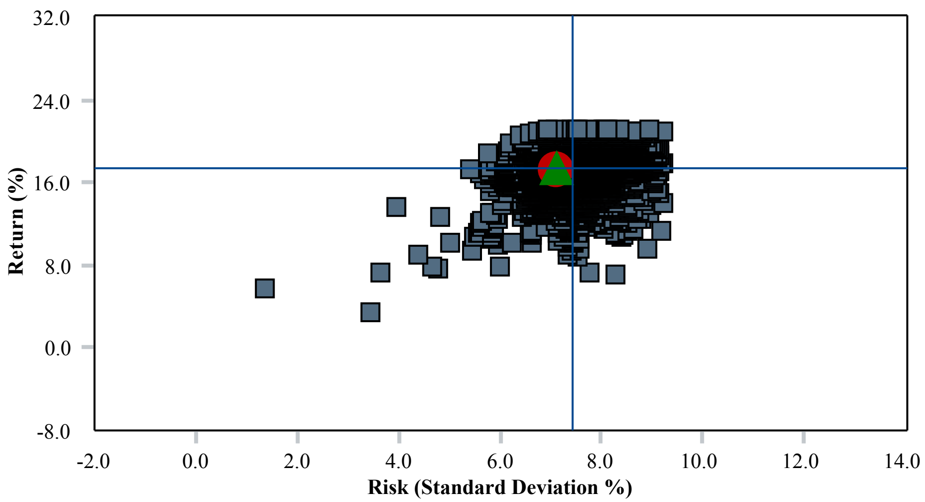
	2014	2013	2012	2011	2010
● Manager C	13.64 (24)	32.33 (58)	15.96 (44)	2.08 (27)	15.05 (40)
▲ S&P 500 Index	13.69 (23)	32.39 (57)	16.00 (43)	2.11 (27)	15.06 (40)
Median	11.55	32.97	15.50	-0.46	14.14

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager C	17.27	8.43	1.94	-0.03	1.00	0.16	-0.04	0.01	-2.58	1.00
S&P 500 Index	17.31	8.43	1.94	0.00	1.00	0.16	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.06	0.00	0.00	-16.37	8.44	-1.94	0.05

Portfolio Analysis
Manager C
As of June 30, 2015

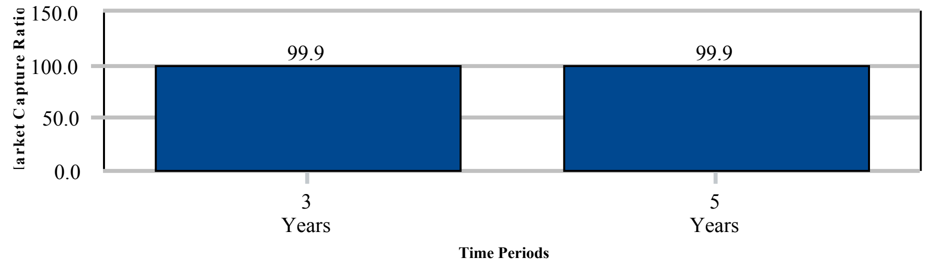
Peer Group Scattergram (07/01/12 to 06/30/15)



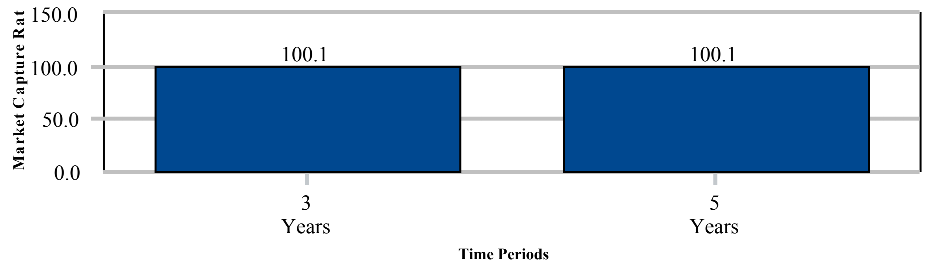
	Return	Standard Deviation
Manager C	17.27	7.11
S&P 500 Index	17.31	7.11
Median	17.37	7.45

Up Down Market Capture

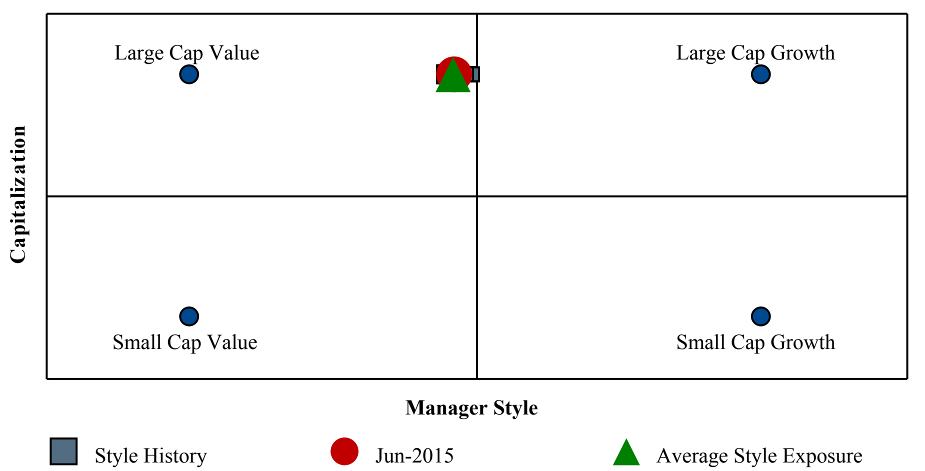
Up Market Capture



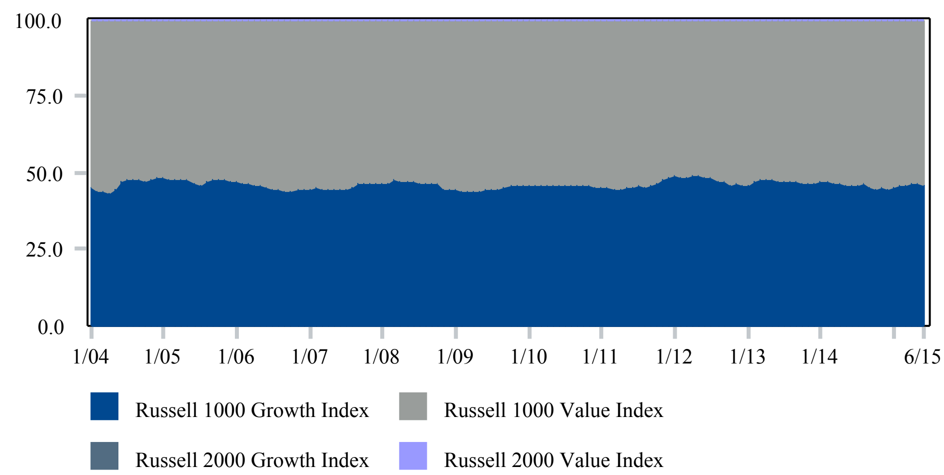
Down Market Capture



Style Map (12/01/00 to 06/30/15)



Style History (12/01/00 to 06/30/15)

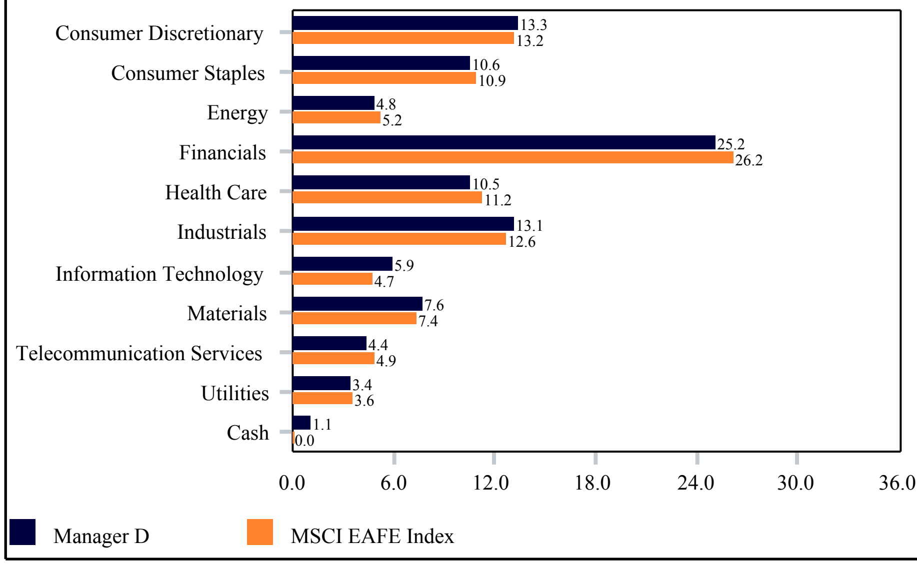


Portfolio Characteristics
Manager D vs. MSCI EAFE Index
As of June 30, 2015

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	56,357	60,679
Median Mkt. Cap ($M)	6,217	9,383
Price/Earnings ratio	16.14	16.42
Price/Book ratio	2.15	2.17
5 Yr. EPS Growth Rate (%)	11.25	11.16
Current Yield (%)	2.91	3.03
Beta (5 Years, Monthly)	1.02	1.00
Number of Stocks	1,396	911
Debt to Equity	1.31	1.33

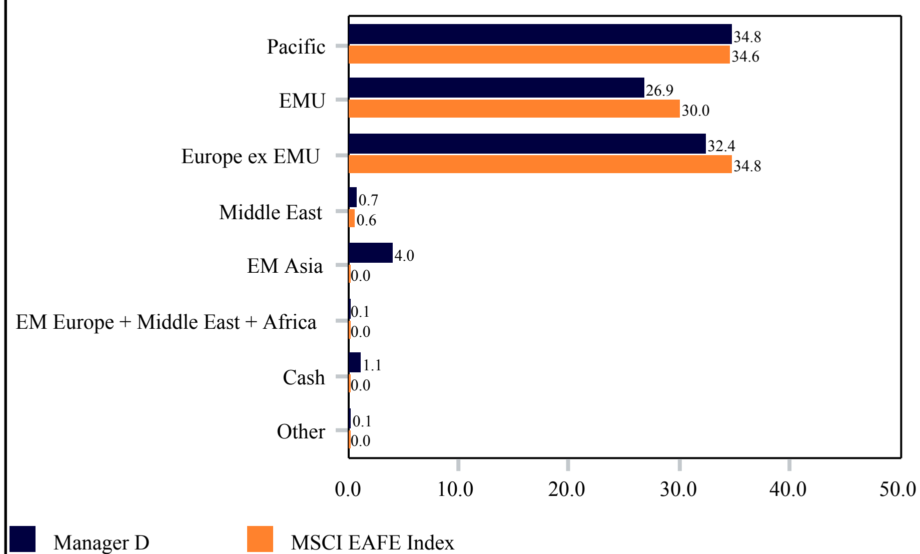
Sector Weights (%)



Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Nestle SA, Cham Und Vevey	1.61	1.78	-0.17	-1.56
Novartis AG	1.47	1.74	-0.27	-0.37
Roche Holding AG	1.38	1.51	-0.13	1.59
Toyota Motor Corp	1.24	1.40	-0.16	-4.10
HSBC Holdings PLC	1.22	1.32	-0.10	6.32
CASH	1.10	0.00	1.10	N/A
BP PLC	0.84	0.92	-0.08	3.40
Bayer AG	0.81	0.89	-0.08	-5.29
Sanofi	0.77	0.89	-0.12	2.85
Royal Dutch Shell PLC	0.76	0.84	-0.08	-4.35
% of Portfolio	11.20	11.29		

Region Weights (%)



Buy and Hold Sector Attribution
Manager D vs. MSCI EAFE Index
1 Quarter Ending June 30, 2015

Buy-and-Hold Portfolio	0.79
Portfolio Trading	0.23
Actual Return	1.02
Benchmark Return	0.84
Actual Active Return	0.18
Stock Selection	0.10
Sector Selection	-0.06
Interaction	-0.03
Total Selection	0.00
Portfolio Trading	0.23
Benchmark Trading	0.05
Active Trading Impact	0.17
Buy & Hold Active Return	0.18

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Consumer Discretionary	13.54	13.12	0.42	0.23	0.03	0.00	0.00	0.02
Consumer Staples	10.69	11.02	0.99	0.59	0.04	0.00	0.00	0.04
Energy	4.81	5.11	2.83	2.58	0.01	-0.01	0.00	0.01
Financials	24.96	26.01	2.15	1.96	0.05	-0.01	0.00	0.04
Health Care	10.88	11.43	-1.30	-1.37	0.01	0.01	0.00	0.02
Industrials	13.29	12.68	0.06	-0.19	0.03	-0.01	0.00	0.03
Information Technology	6.29	4.91	-3.05	-0.67	-0.12	-0.02	-0.03	-0.17
Materials	7.80	7.46	0.00	-0.64	0.05	0.00	0.00	0.04
Telecommunication Services	4.22	4.70	4.70	5.08	-0.02	-0.02	0.00	-0.04
Utilities	3.42	3.58	2.35	2.07	0.01	0.00	0.00	0.01
Cash	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	0.79	0.79	0.10	-0.06	-0.03	0.00

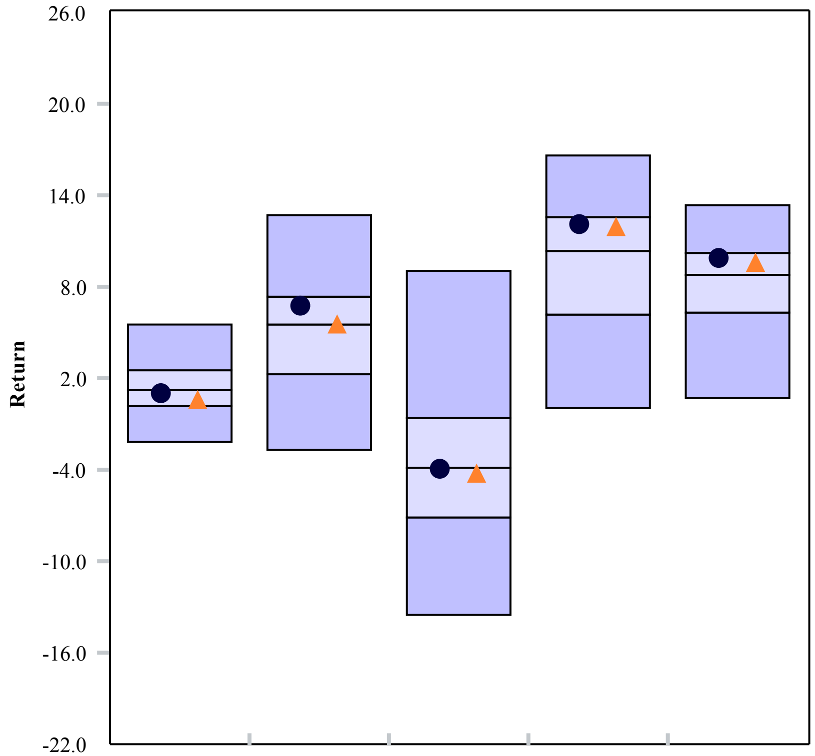
Buy and Hold Region Attribution
Manager D vs. MSCI EAFE Index
1 Quarter Ending June 30, 2015

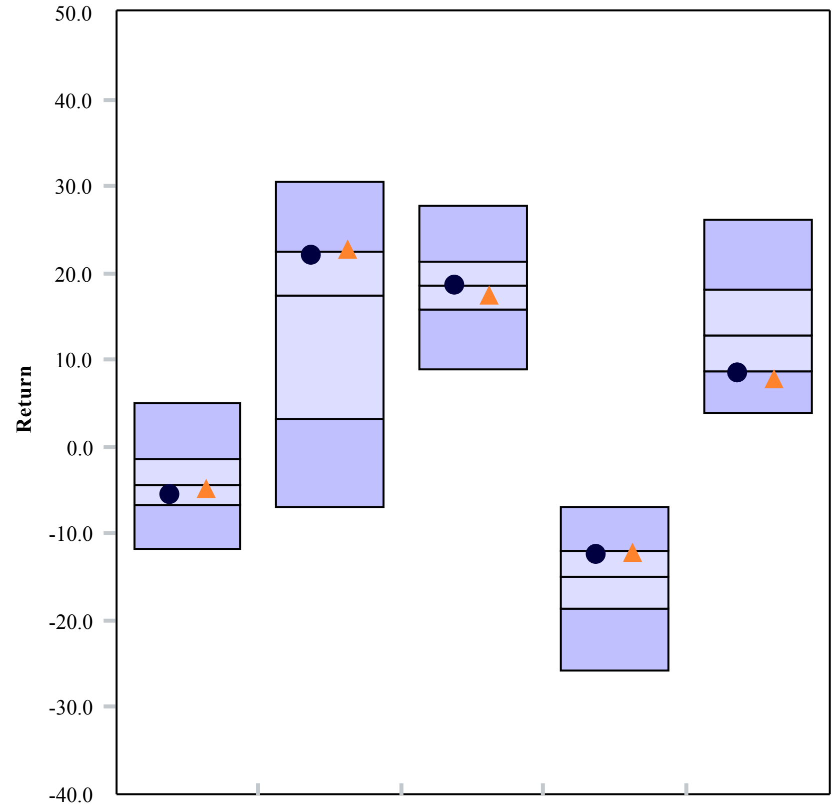
Buy-and-Hold Portfolio	0.79
Portfolio Trading	0.23
Actual Return	1.02
Benchmark Return	0.84
Actual Active Return	0.18
Stock Selection	0.16
Region Selection	-0.15
Interaction	-0.01
Total Selection	0.00
Portfolio Trading	0.23
Benchmark Trading	0.05
Active Trading Impact	0.17
Buy & Hold Active Return	0.18

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Region	Interaction	Total
EM Asia	4.17	0.00	-3.27	0.00	0.00	-0.17	0.00	-0.17
EM Europe + Middle East + Africa	0.06	0.00	3.96	0.00	0.00	0.00	0.00	0.00
EMU	27.75	30.64	-0.73	-0.77	0.01	0.05	0.00	0.06
Europe ex EMU	32.50	34.48	2.27	1.99	0.10	-0.02	-0.01	0.07
Middle East	0.67	0.60	-0.05	-0.31	0.00	0.00	0.00	0.00
Other	0.13	0.00	-2.46	0.00	0.00	0.00	0.00	0.00
Pacific	34.61	34.28	1.13	0.98	0.05	0.00	0.00	0.05
Cash	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	0.79	0.79	0.16	-0.15	-0.01	0.00

Portfolio Analysis
Manager D
As of June 30, 2015

Peer Group Analysis - IM International Equity (MF)





	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager D	1.02 (56)	6.63 (35)	-3.97 (52)	12.00 (31)	9.84 (32)
▲ MSCI EAFE (net)	0.62 (66)	5.52 (50)	-4.22 (55)	11.97 (32)	9.54 (37)
Median	1.20	5.46	-3.89	10.38	8.75

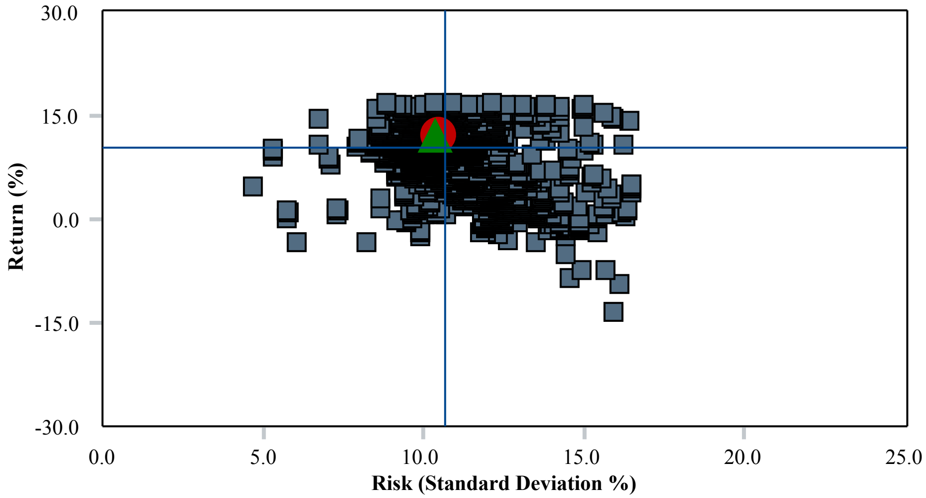
	2014	2013	2012	2011	2010
● Manager D	-5.66 (62)	22.06 (28)	18.56 (51)	-12.51 (30)	8.36 (77)
▲ MSCI EAFE (net)	-4.90 (55)	22.78 (23)	17.32 (64)	-12.14 (27)	7.75 (80)
Median	-4.51	17.45	18.61	-14.93	12.88

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager D	12.00	10.51	1.13	0.02	1.00	0.12	0.04	1.57	0.03	0.98
MSCI EAFE (net)	11.97	10.38	1.14	0.00	1.00	0.12	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-11.84	10.38	-1.14	0.00

Portfolio Analysis
Manager D
As of June 30, 2015

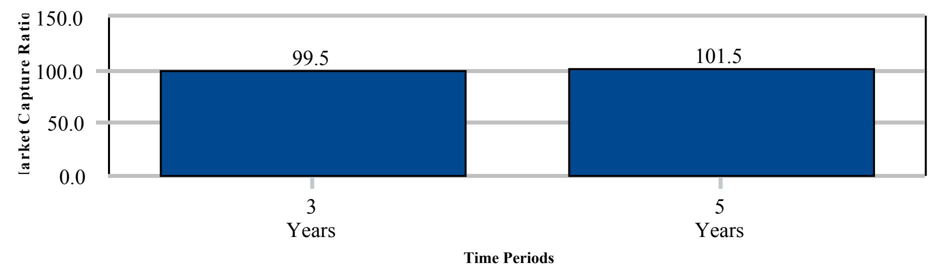
Peer Group Scattergram (07/01/12 to 06/30/15)



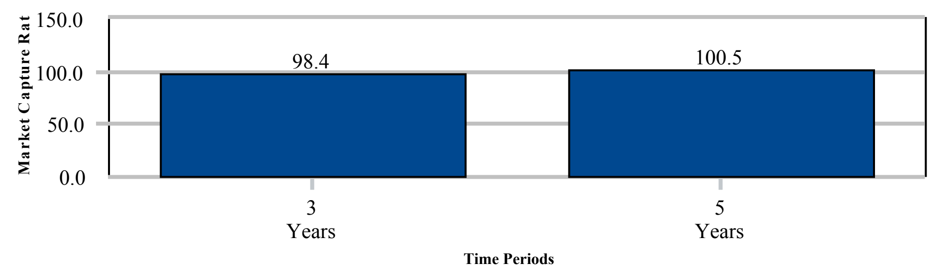
	Return	Standard Deviation
Manager D	12.00	10.51
MSCI EAFE (net)	11.97	10.38
Median	10.38	10.66

Up Down Market Capture

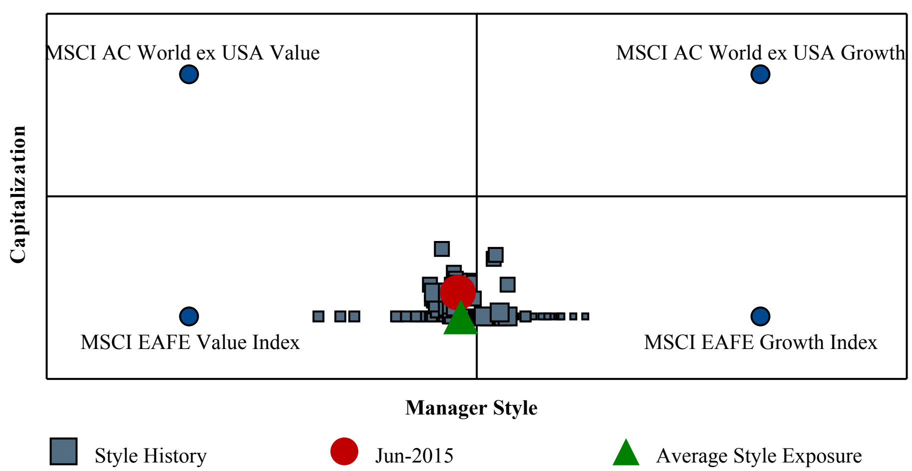
Up Market Capture



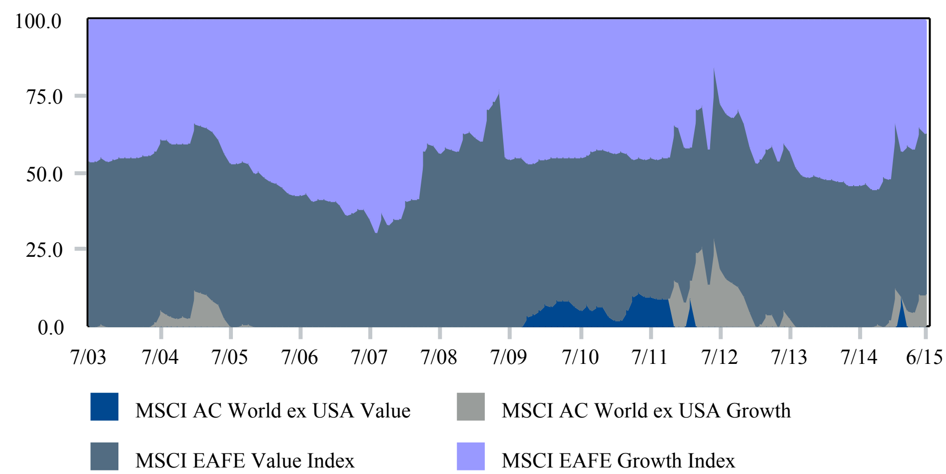
Down Market Capture



Style Map (06/01/00 to 06/30/15)



Style History (06/01/00 to 06/30/15)



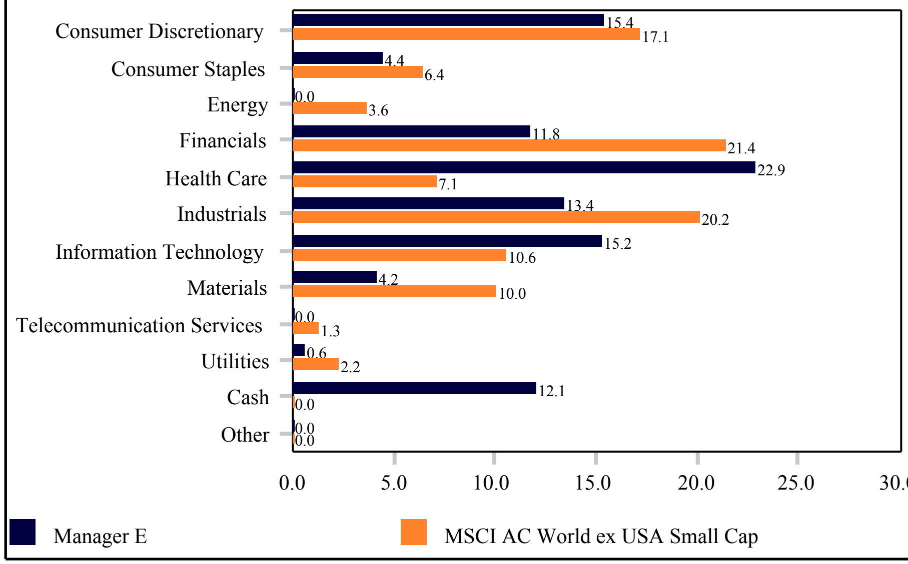
PFM®

Portfolio Characteristics
Manager E vs. MSCI AC World ex USA Small Cap
As of June 30, 2015

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	2,878	2,035
Median Mkt. Cap ($M)	2,609	773
Price/Earnings ratio	22.33	16.03
Price/Book ratio	3.13	2.19
5 Yr. EPS Growth Rate (%)	15.07	13.12
Current Yield (%)	1.64	2.40
Beta (5 Years, Monthly)	0.88	1.00
Number of Stocks	144	4,286
Debt to Equity	0.59	0.91

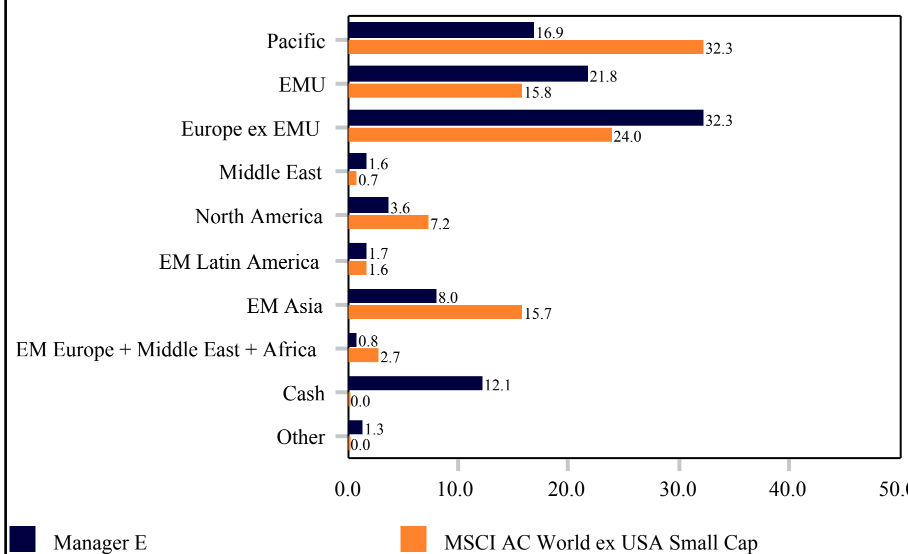
Sector Weights (%)



Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
CASH	12.09	0.00	12.09	N/A
Ocado Group PLC	2.51	0.12	2.39	33.53
Lonza Group AG, Zuerich	2.26	0.00	2.26	8.95
Britvic Plc	1.64	0.09	1.55	4.43
Vectura Group PLC	1.63	0.04	1.59	30.41
Nice Systems Ltd	1.61	0.00	1.61	4.61
SCSK Corp	1.39	0.05	1.34	8.79
Askul Corp	1.39	0.02	1.37	34.35
Ossur HF	1.32	0.00	1.32	18.48
Bank of Ireland	1.28	0.00	1.28	6.17
% of Portfolio	27.12	0.32		

Region Weights (%)



Buy and Hold Sector Attribution
Manager E vs. MSCI AC World ex USA Small Cap
1 Quarter Ending June 30, 2015

Buy-and-Hold Portfolio	6.03
Portfolio Trading	-0.69
Actual Return	5.34
Benchmark Return	4.36
Actual Active Return	0.98
Stock Selection	0.35
Sector Selection	0.39
Interaction	0.81
Total Selection	1.56
Portfolio Trading	-0.69
Benchmark Trading	-0.12
Active Trading Impact	-0.58
Buy & Hold Active Return	0.98

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Sector	Interaction	Total
Consumer Discretionary	15.57	17.46	12.95	7.06	1.03	-0.05	-0.11	0.87
Consumer Staples	4.65	6.20	-0.96	7.62	-0.53	-0.05	0.13	-0.45
Energy	0.00	3.78	0.00	4.35	0.00	0.00	0.00	0.00
Financials	11.14	21.70	2.20	2.20	0.00	0.24	0.00	0.24
Health Care	22.84	6.51	12.74	9.14	0.23	0.76	0.59	1.58
Industrials	13.73	19.84	1.26	4.05	-0.55	0.03	0.17	-0.36
Information Technology	15.49	10.69	3.52	2.35	0.12	-0.10	0.06	0.08
Materials	4.34	10.45	4.50	2.90	0.17	0.10	-0.10	0.17
Other	0.00	0.01	0.00	-5.32	0.00	0.00	0.00	0.00
Telecommunication Services	0.00	1.15	0.00	7.57	0.00	-0.04	0.00	-0.04
Utilities	0.73	2.20	-1.18	3.97	-0.11	0.01	0.08	-0.03
Cash	11.50	0.00	0.01	0.00	0.00	-0.51	0.00	-0.51
Total	100.00	100.00	6.03	4.48	0.35	0.39	0.81	1.56

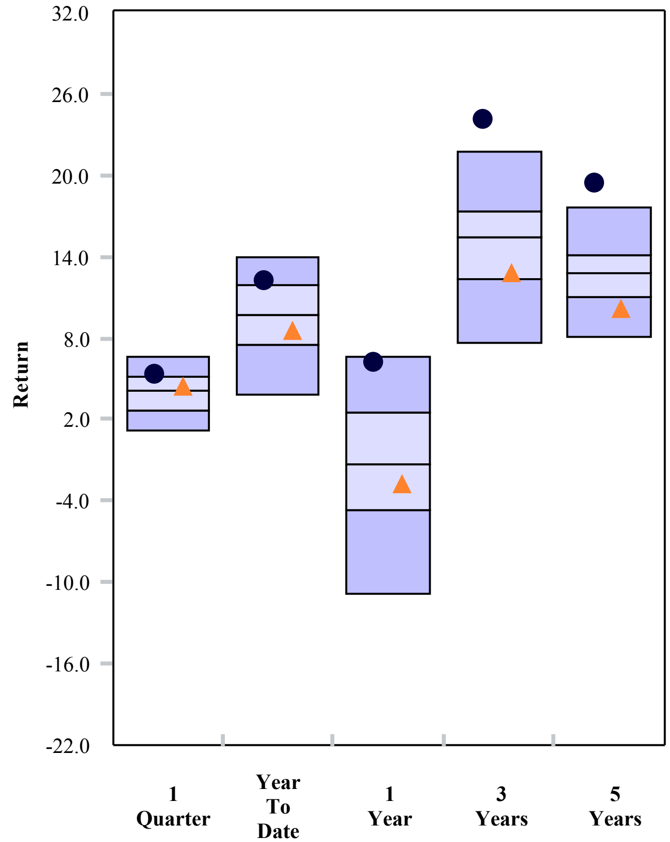
Buy and Hold Region Attribution
Manager E vs. MSCI AC World ex USA Small Cap
1 Quarter Ending June 30, 2015

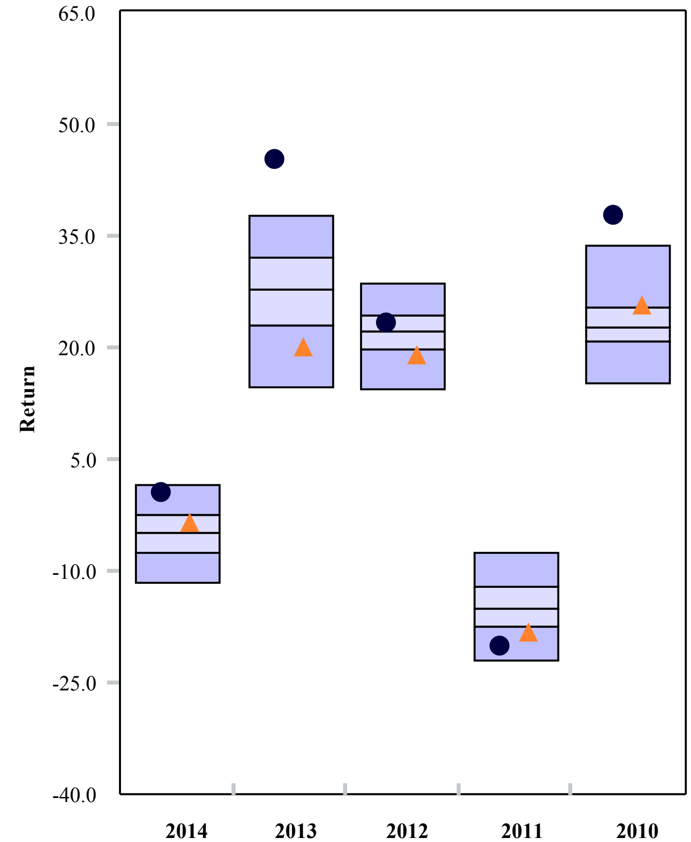
Buy-and-Hold Portfolio	6.03
Portfolio Trading	-0.69
Actual Return	5.34
Benchmark Return	4.36
Actual Active Return	0.98
Stock Selection	2.20
Region Selection	-0.14
Interaction	-0.51
Total Selection	1.56
Portfolio Trading	-0.69
Benchmark Trading	-0.12
Active Trading Impact	-0.58
Buy & Hold Active Return	0.98

	Allocation-04/01/2015		Performance-1 Quarter Ending June 30, 2015		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Stock	Region	Interaction	Total
EM Asia	9.09	15.04	-2.53	3.53	-0.91	0.06	0.36	-0.49
EM Europe + Middle East + Africa	0.71	2.95	1.66	-0.40	0.06	0.11	-0.05	0.12
EM Latin America	1.82	1.57	13.96	0.76	0.21	-0.01	0.03	0.23
EMU	22.34	15.93	7.37	2.47	0.78	-0.13	0.31	0.97
Europe ex EMU	31.09	24.13	6.52	8.61	-0.50	0.29	-0.14	-0.36
Middle East	1.58	0.71	4.61	3.21	0.01	-0.01	0.01	0.01
North America	2.96	7.40	15.87	2.71	0.97	0.08	-0.58	0.47
Other	1.21	0.03	18.48	-3.24	0.01	-0.09	0.26	0.17
Pacific	17.69	32.24	8.78	3.89	1.58	0.09	-0.71	0.95
Cash	11.50	0.00	0.01	0.00	0.00	-0.51	0.00	-0.51
Total	100.00	100.00	6.03	4.48	2.20	-0.14	-0.51	1.56

Portfolio Analysis
Manager E
As of June 30, 2015

Peer Group Analysis - IM International Small Cap Equity (SA+CF+MF)





	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager E	5.34 (19)	12.21 (21)	6.16 (6)	24.03 (2)	19.34 (2)
▲ MSCI AC World ex USA Small Cap	4.36 (47)	8.54 (65)	-2.74 (61)	12.71 (73)	10.10 (86)
Median	4.18	9.76	-1.34	15.36	12.72

	2014	2013	2012	2011	2010
● Manager E	0.38 (9)	45.26 (2)	23.17 (38)	-20.08 (89)	37.73 (2)
▲ MSCI AC World ex USA Small Cap	-3.69 (37)	20.13 (84)	18.96 (81)	-18.21 (80)	25.58 (23)
Median	-4.85	27.81	22.02	-15.20	22.71

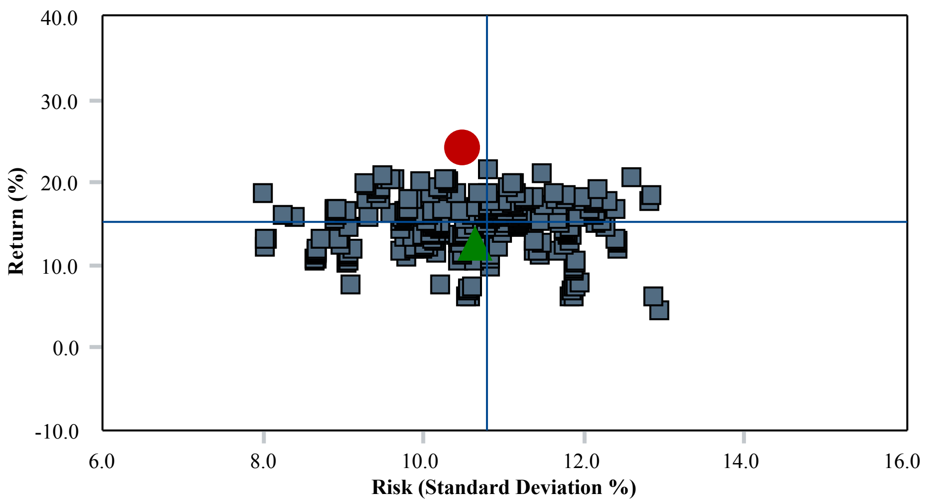
Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager E	24.03	9.52	2.32	12.67	0.81	0.27	9.61	4.76	2.02	0.79
MSCI AC World ex USA Small Cap	12.71	10.46	1.20	0.00	1.00	0.13	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-12.51	10.46	-1.20	0.00

PFM®

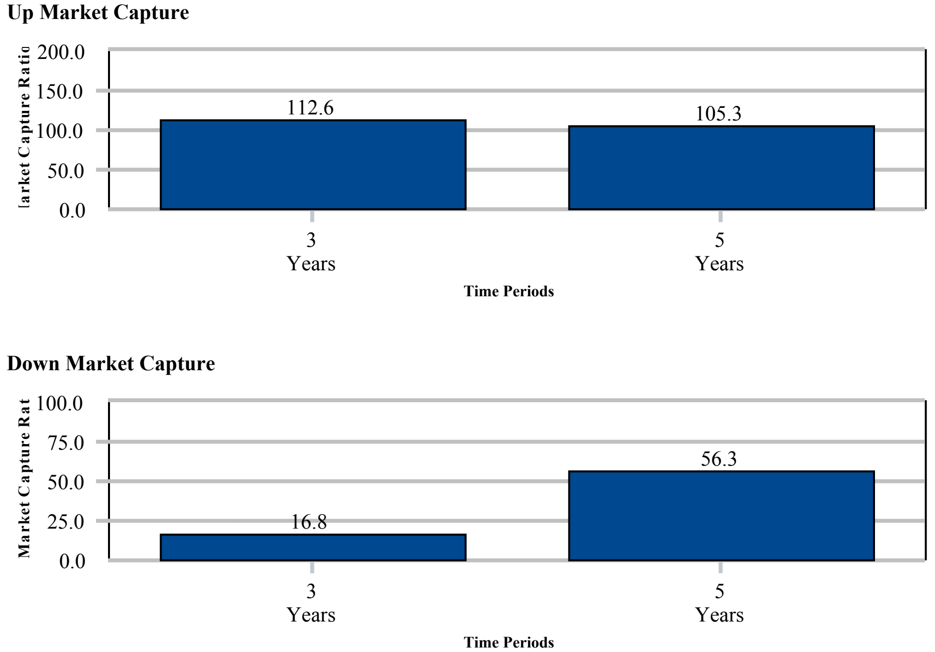
Portfolio Analysis
Manager E
As of June 30, 2015

Peer Group Scattergram (07/01/12 to 06/30/15)

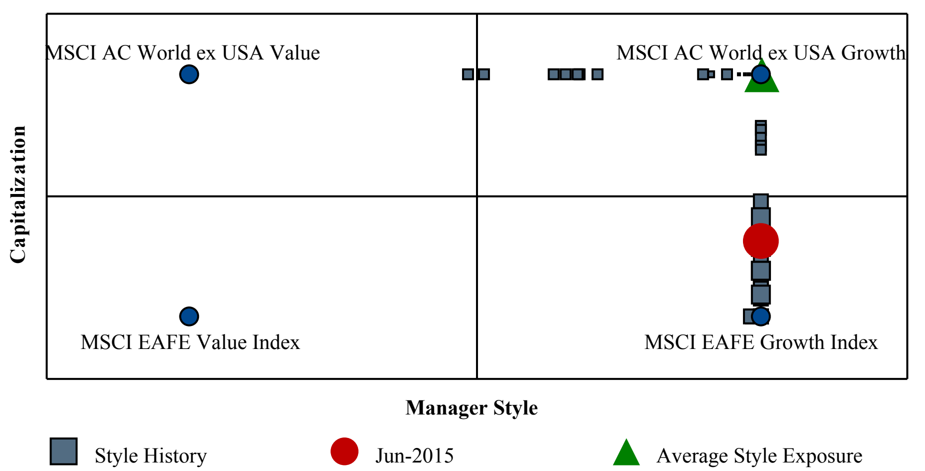


	Return	Standard Deviation
Manager E	24.03	10.50
MSCI AC World ex USA Small Cap	12.71	10.64
Median	15.36	10.79

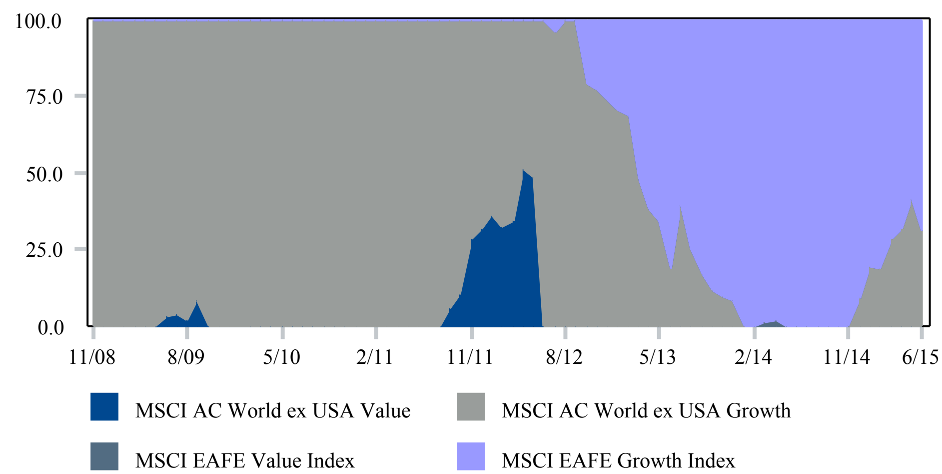
Up Down Market Capture



Style Map (10/01/05 to 06/30/15)



Style History (10/01/05 to 06/30/15)

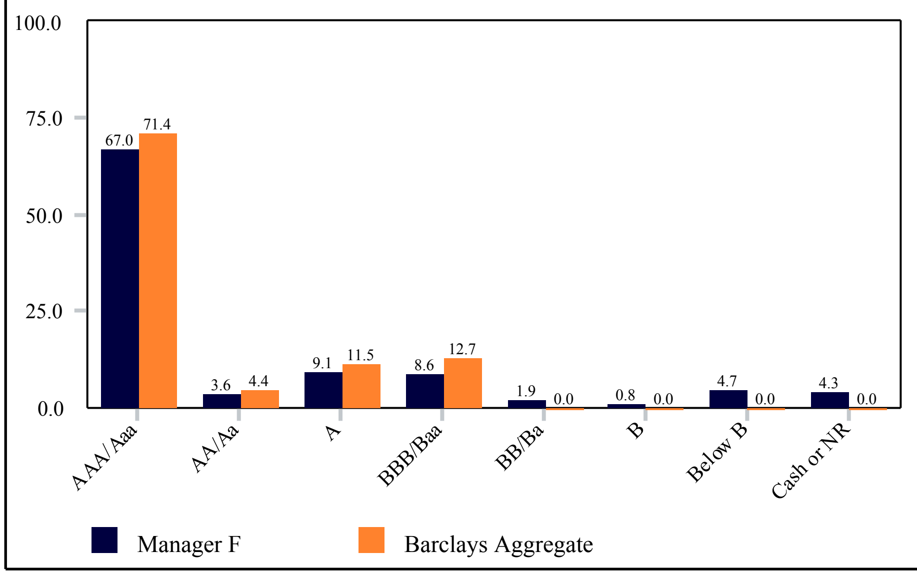


Portfolio Characteristics
Manager F vs. Barclays Aggregate
As of June 30, 2015

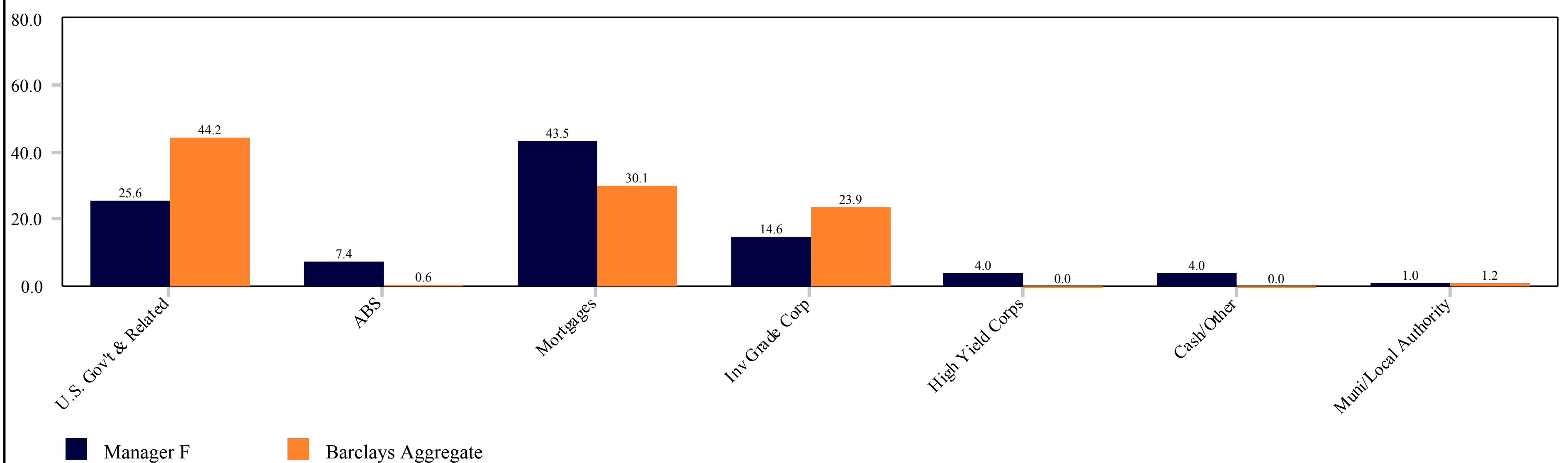
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.00	5.63
Yield To Maturity (%)	1.72	2.39
Avg. Maturity	8.11	7.87
Avg. Quality	AA	AA
Coupon Rate (%)	2.46	3.22

Credit Quality Distribution (%)



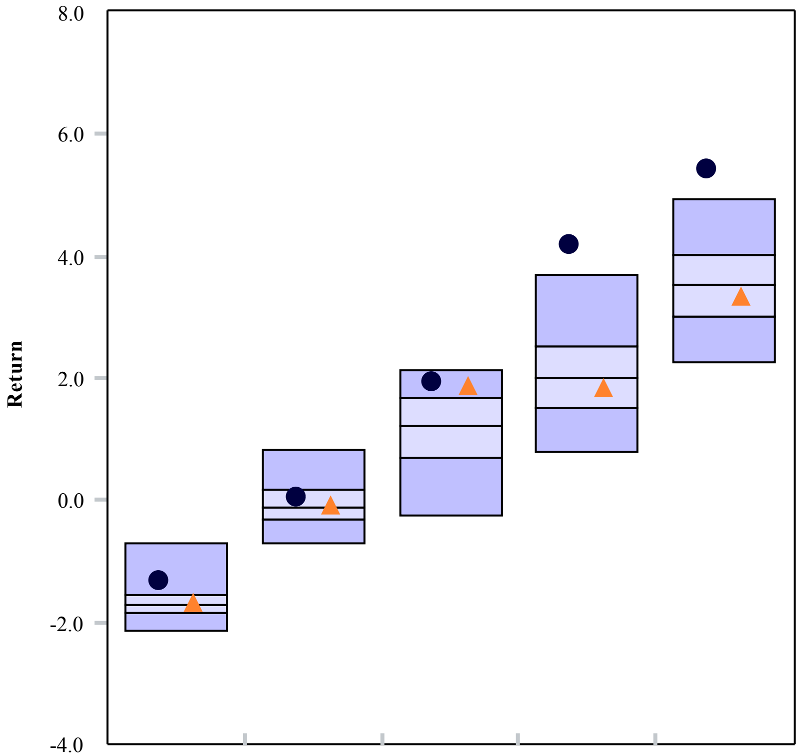
Sector Distribution (%)

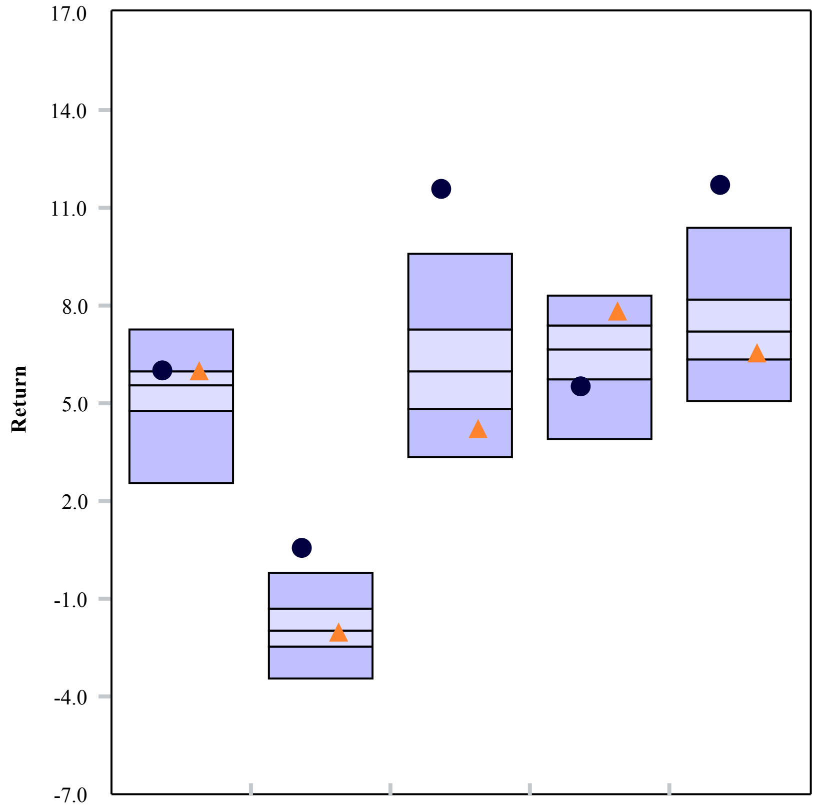


PFM®

Portfolio Analysis
Manager F
As of June 30, 2015

Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (MF)





	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager F	-1.34 (16)	0.04 (37)	1.93 (10)	4.18 (2)	5.43 (2)
▲ Barclays Aggregate	-1.68 (43)	-0.10 (50)	1.86 (13)	1.83 (59)	3.35 (58)
Median	-1.73	-0.11	1.21	2.00	3.52

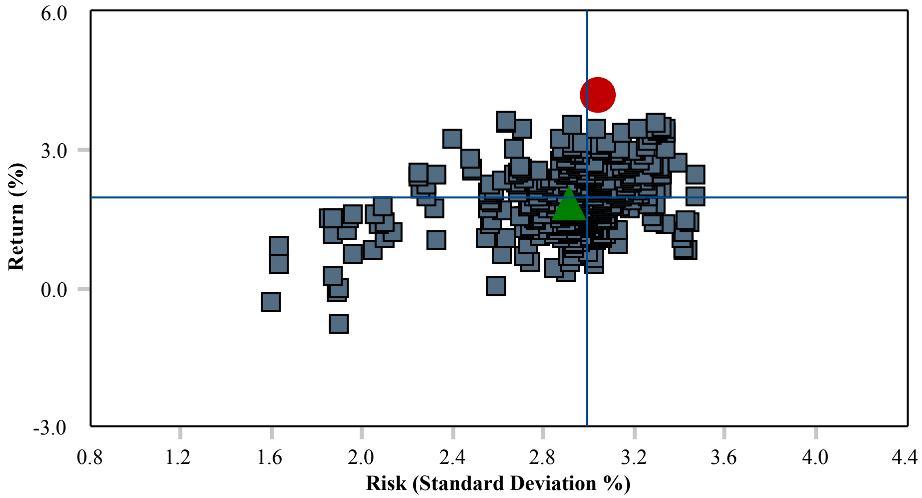
	2014	2013	2012	2011	2010
● Manager F	5.99 (26)	0.50 (3)	11.55 (1)	5.52 (81)	11.66 (2)
▲ Barclays Aggregate	5.97 (27)	-2.02 (54)	4.21 (80)	7.84 (11)	6.54 (69)
Median	5.54	-1.96	6.01	6.68	7.23

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager F	4.18	3.04	1.35	2.39	0.96	0.04	2.30	1.21	1.89	0.84
Barclays Aggregate	1.83	2.91	0.62	0.00	1.00	0.02	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-1.80	2.91	-0.62	0.01

Portfolio Analysis
Manager F
As of June 30, 2015

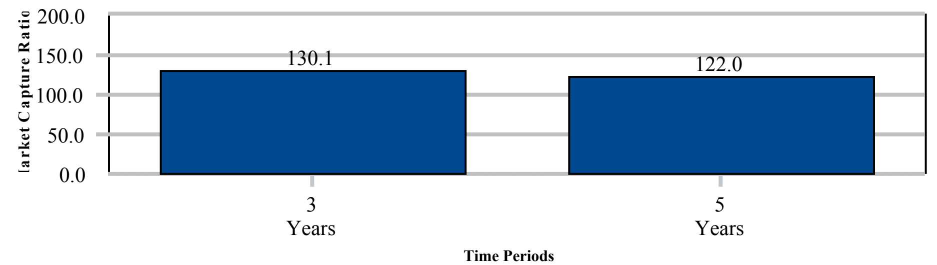
Peer Group Scattergram (07/01/12 to 06/30/15)



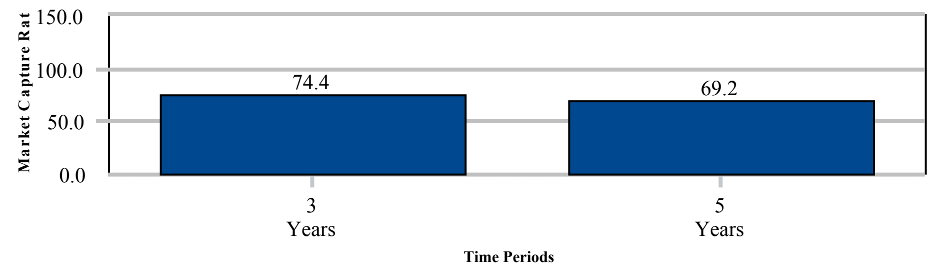
	Return	Standard Deviation
Manager F	4.18	3.04
Barclays Aggregate	1.83	2.91
Median	2.00	2.99

Up Down Market Capture

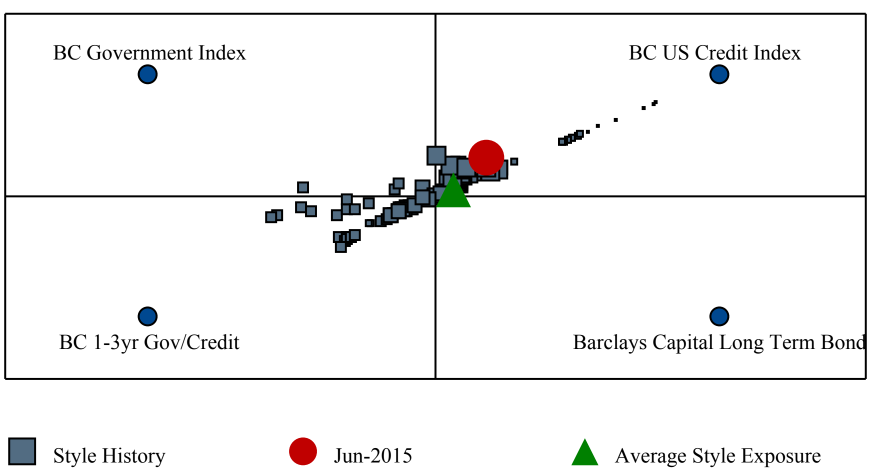
Up Market Capture



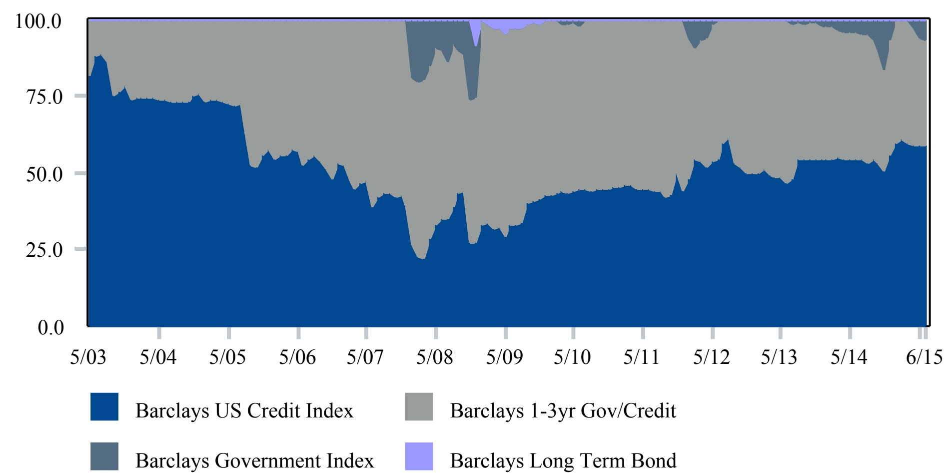
Down Market Capture



Style Map (04/01/00 to 06/30/15)



Style History (04/01/00 to 06/30/15)

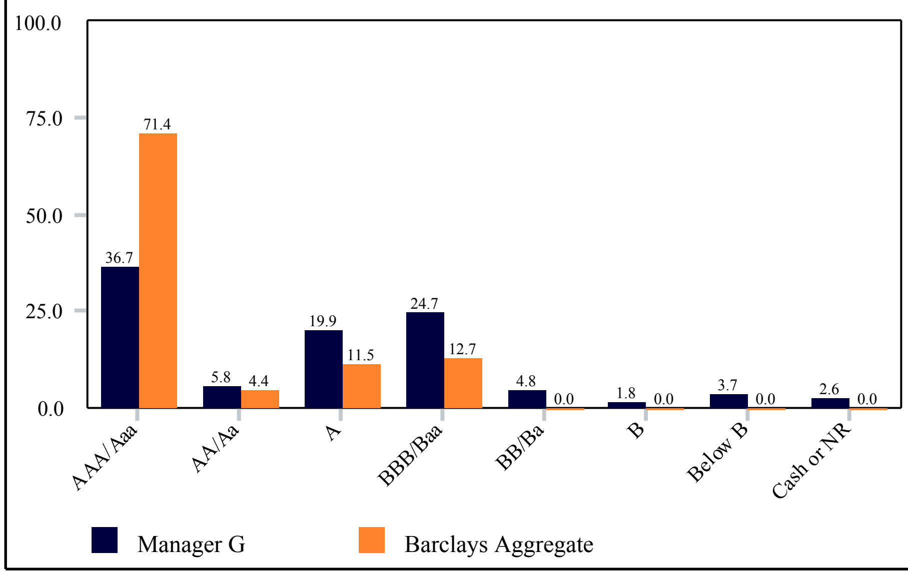


Portfolio Characteristics
Manager G vs. Barclays Aggregate
As of June 30, 2015

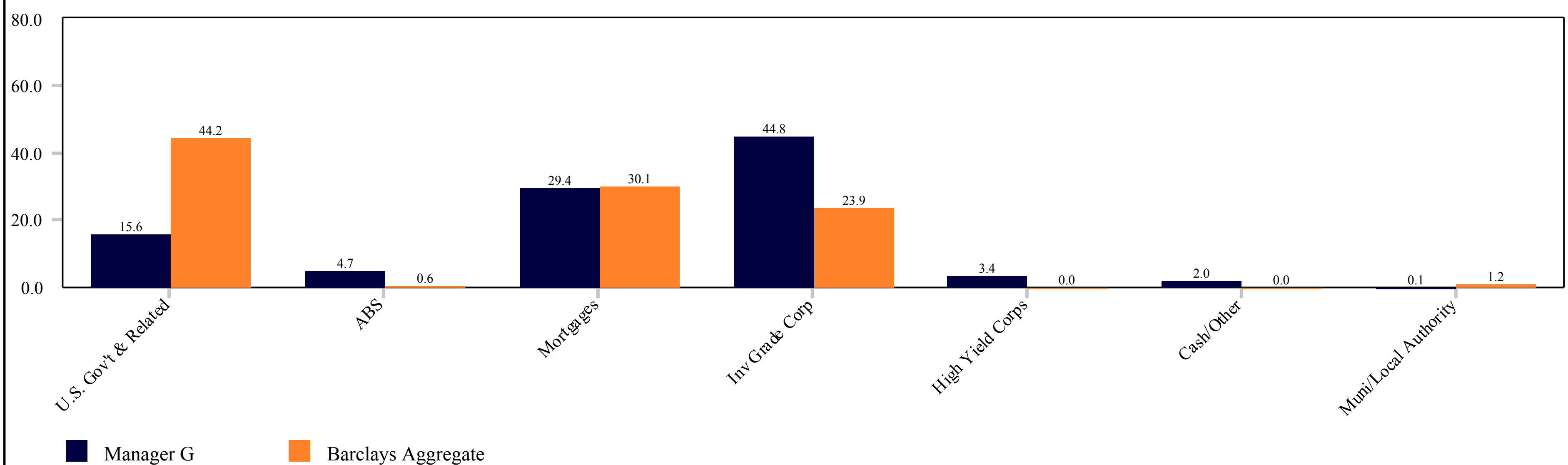
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.48	5.63
Yield To Maturity (%)	2.71	2.39
Avg. Maturity	6.96	7.87
Avg. Quality	A	AA
Coupon Rate (%)	3.84	3.22

Credit Quality Distribution (%)

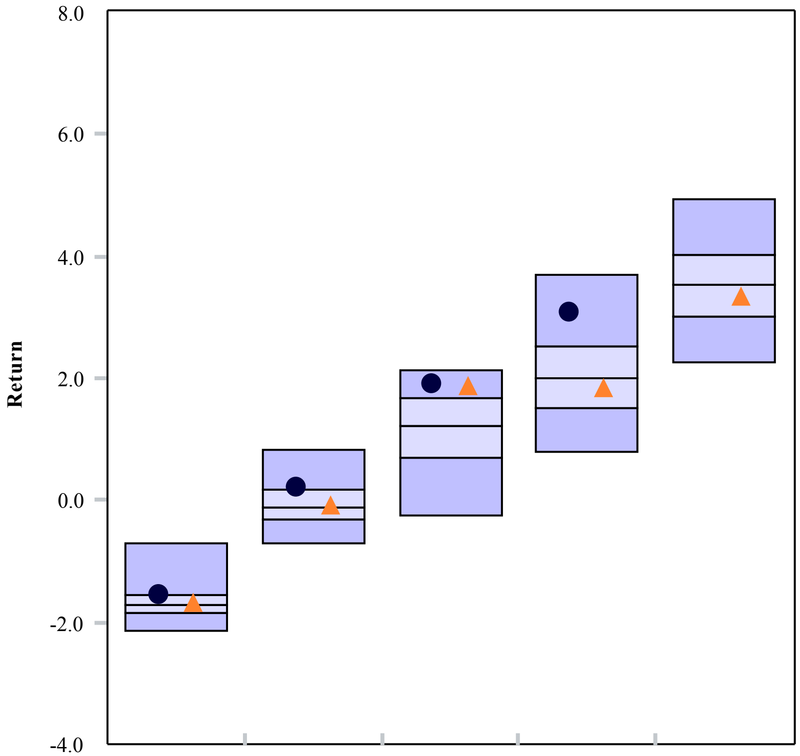


Sector Distribution (%)

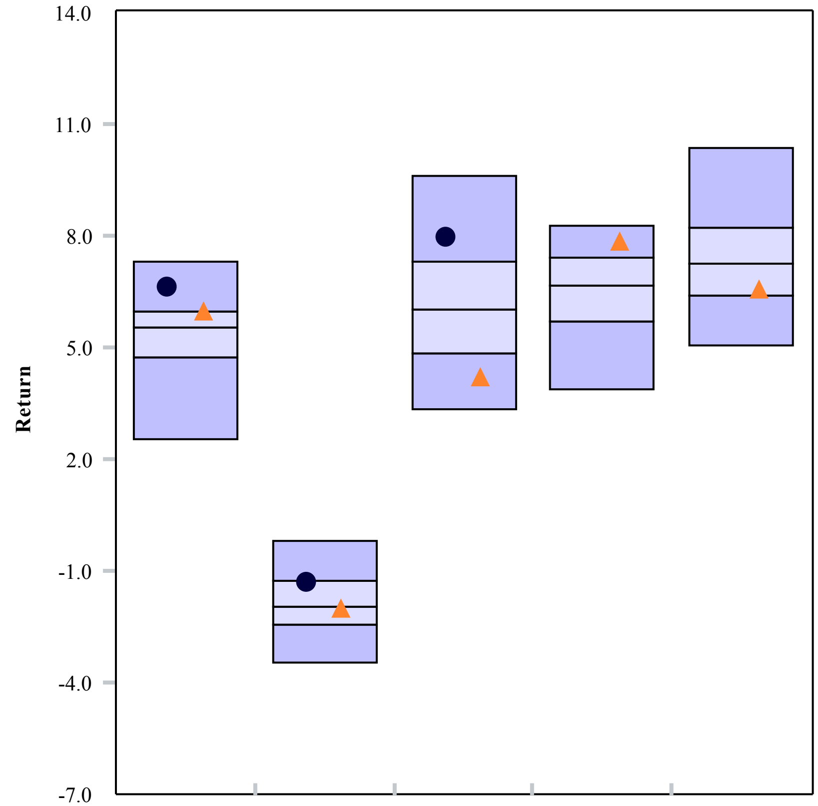


Portfolio Analysis
Manager G
As of June 30, 2015

Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (MF)



	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager G	-1.56 (26)	0.22 (24)	1.91 (10)	3.09 (11)	N/A
▲ Barclays Aggregate	-1.68 (43)	-0.10 (50)	1.86 (13)	1.83 (59)	3.35 (58)
Median	-1.73	-0.11	1.21	2.00	3.52



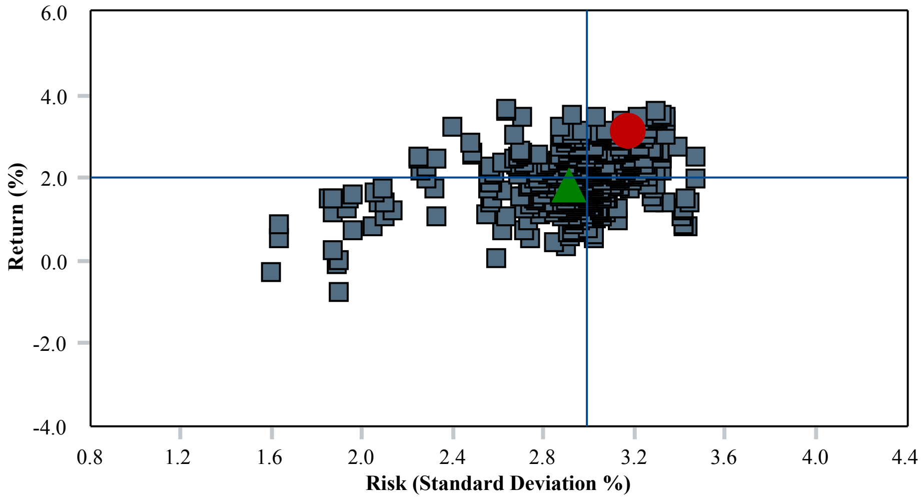
	2014	2013	2012	2011	2010
● Manager G	6.59 (13)	-1.32 (27)	7.95 (15)	N/A	N/A
▲ Barclays Aggregate	5.97 (27)	-2.02 (54)	4.21 (80)	7.84 (11)	6.54 (69)
Median	5.54	-1.96	6.01	6.68	7.23

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager G	3.09	3.18	0.96	1.13	1.07	0.03	1.25	0.72	1.73	0.95
Barclays Aggregate	1.83	2.91	0.62	0.00	1.00	0.02	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-1.80	2.91	-0.62	0.01

Portfolio Analysis
Manager G
As of June 30, 2015

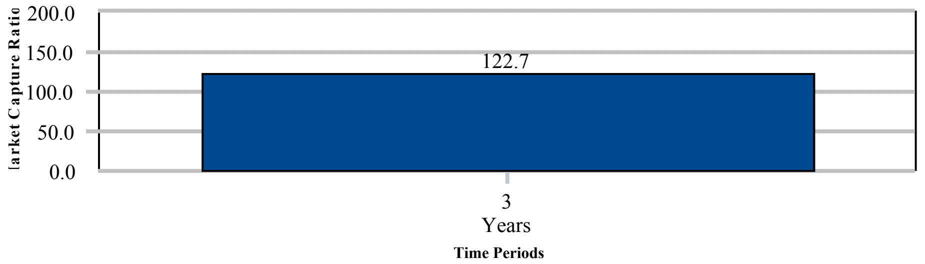
Peer Group Scattergram (07/01/12 to 06/30/15)



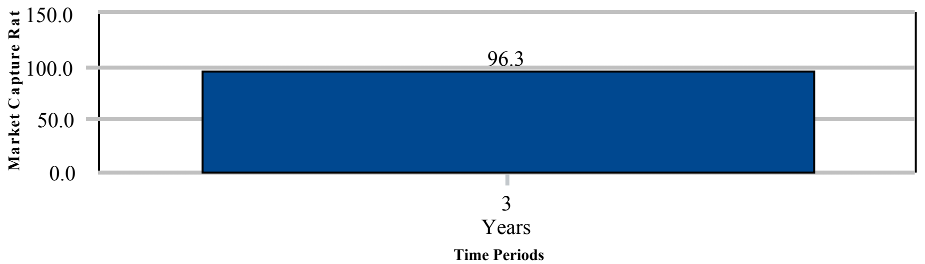
	Return	Standard Deviation
Manager G	3.09	3.18
Barclays Aggregate	1.83	2.91
Median	2.00	2.99

Up Down Market Capture

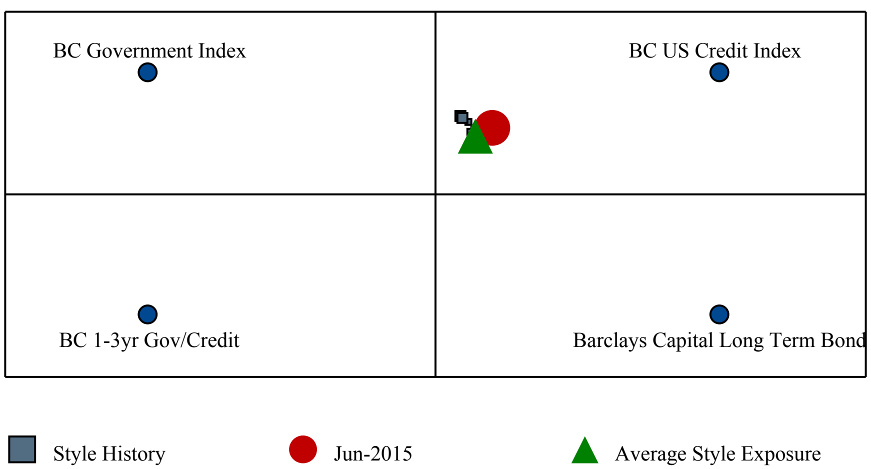
Up Market Capture



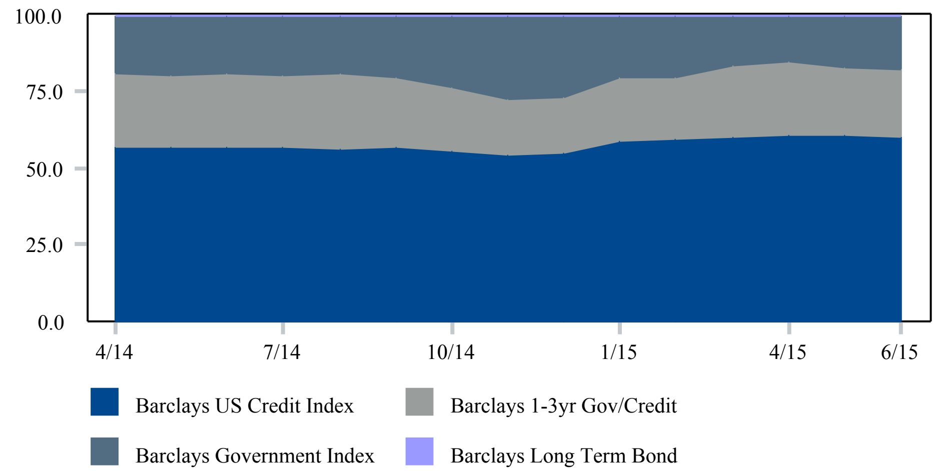
Down Market Capture



Style Map (03/01/11 to 06/30/15)



Style History (03/01/11 to 06/30/15)

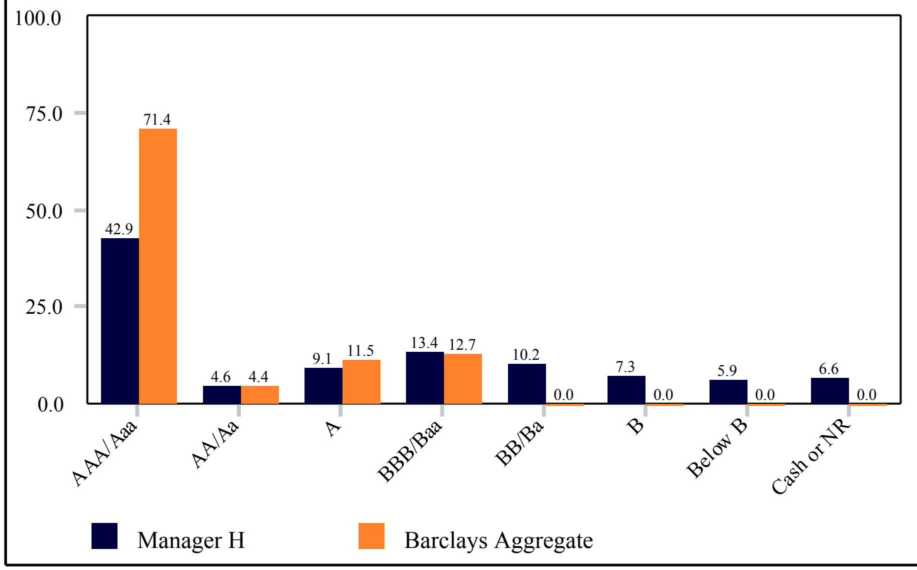


Portfolio Characteristics
Manager H vs. Barclays Aggregate
As of June 30, 2015

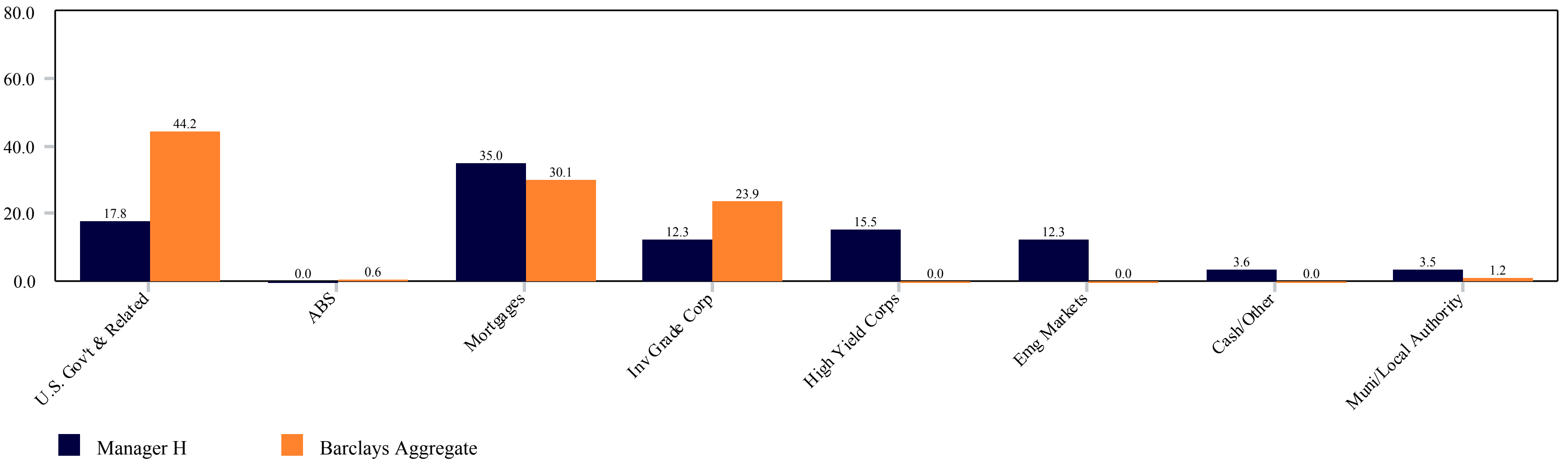
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.01	5.63
Yield To Maturity (%)	3.59	2.39
Avg. Maturity	7.32	7.87
Avg. Quality	A	AA
Coupon Rate (%)	4.44	3.22

Credit Quality Distribution (%)

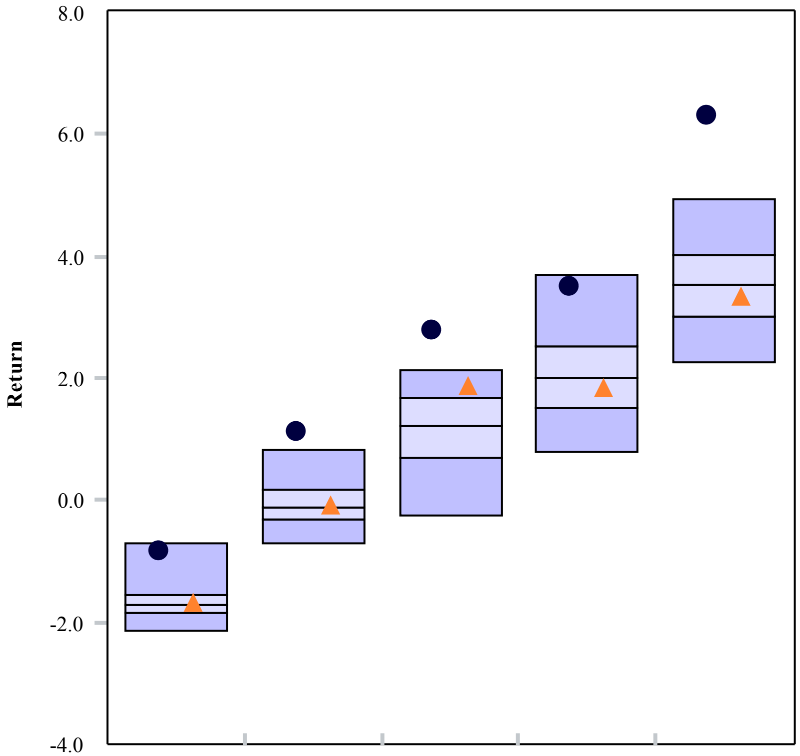


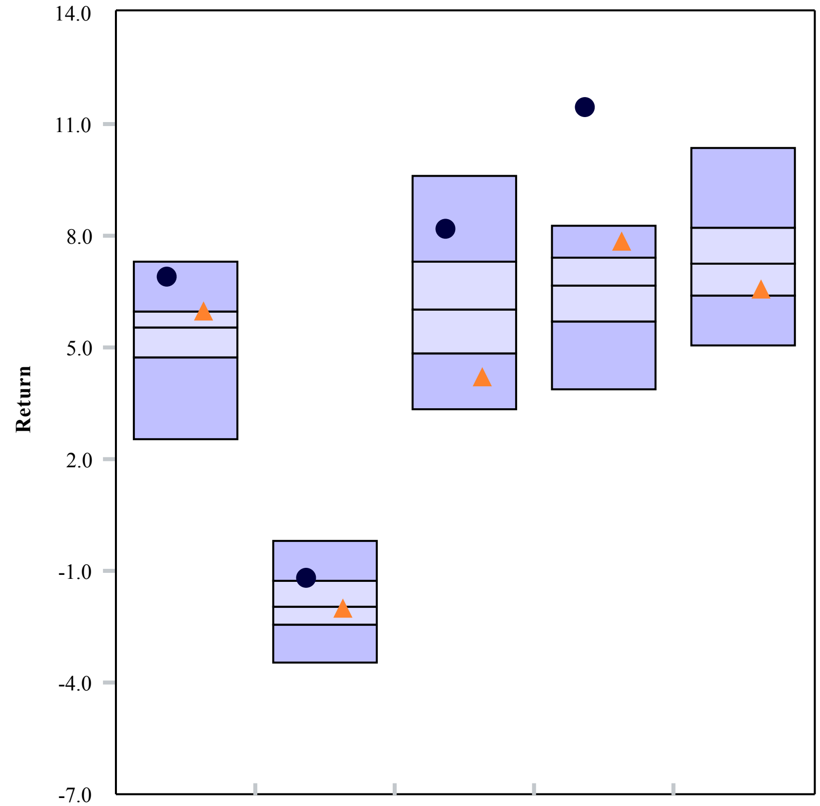
Sector Distribution (%)



Portfolio Analysis
Manager H
As of June 30, 2015

Peer Group Analysis - IM U.S. Broad Market Core Fixed Income (MF)





	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager H	-0.83 (8)	1.12 (3)	2.77 (1)	3.50 (6)	6.30 (1)
▲ Barclays Aggregate	-1.68 (43)	-0.10 (50)	1.86 (13)	1.83 (59)	3.35 (58)
Median	-1.73	-0.11	1.21	2.00	3.52

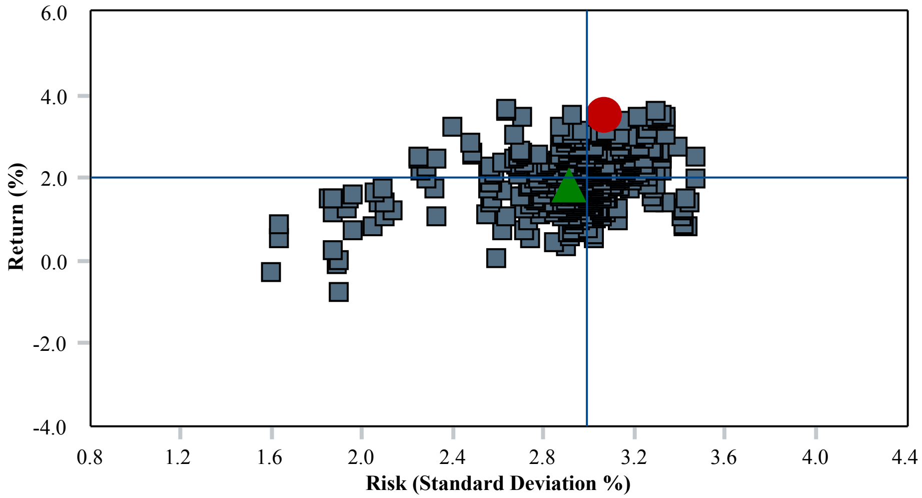
	2014	2013	2012	2011	2010
● Manager H	6.86 (10)	-1.20 (22)	8.15 (13)	11.45 (1)	N/A
▲ Barclays Aggregate	5.97 (27)	-2.02 (54)	4.21 (80)	7.84 (11)	6.54 (69)
Median	5.54	-1.96	6.01	6.68	7.23

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager H	3.50	3.07	1.12	1.66	0.99	0.03	1.64	1.04	1.58	0.89
Barclays Aggregate	1.83	2.91	0.62	0.00	1.00	0.02	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-1.80	2.91	-0.62	0.01

Portfolio Analysis
Manager H
As of June 30, 2015

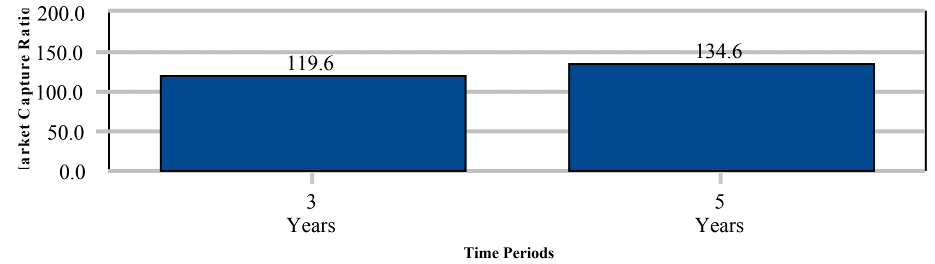
Peer Group Scattergram (07/01/12 to 06/30/15)



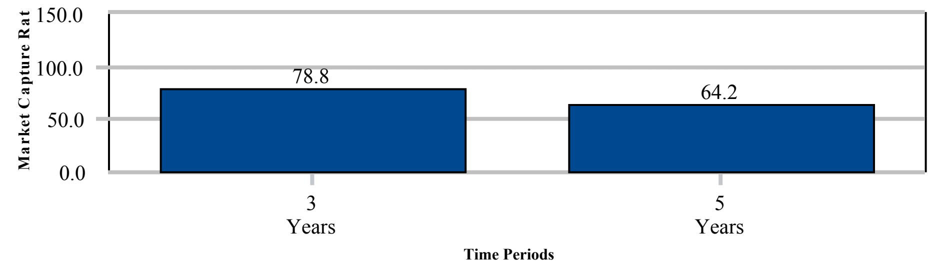
	Return	Standard Deviation
Manager H	3.50	3.07
Barclays Aggregate	1.83	2.91
Median	2.00	2.99

Up Down Market Capture

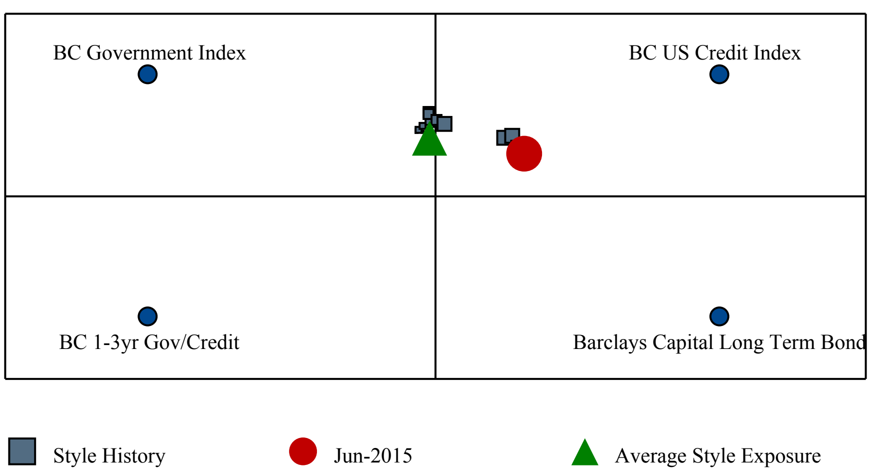
Up Market Capture



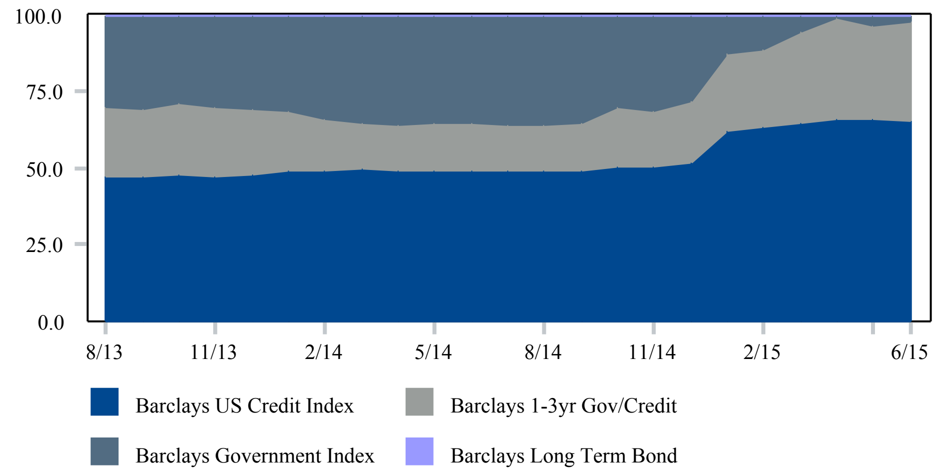
Down Market Capture



Style Map (07/01/10 to 06/30/15)



Style History (07/01/10 to 06/30/15)

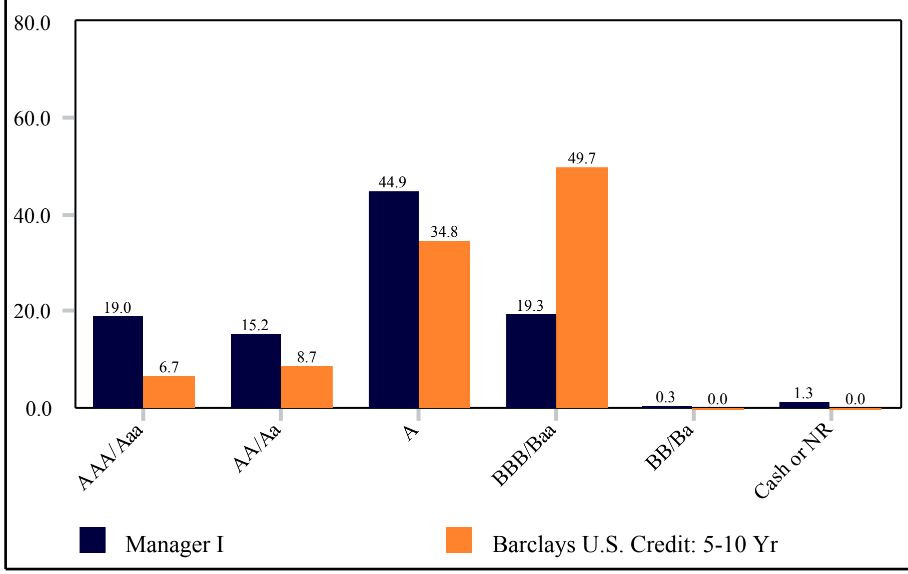


Portfolio Characteristics
Manager I vs. Barclays U.S. Credit: 5-10 Yr
As of June 30, 2015

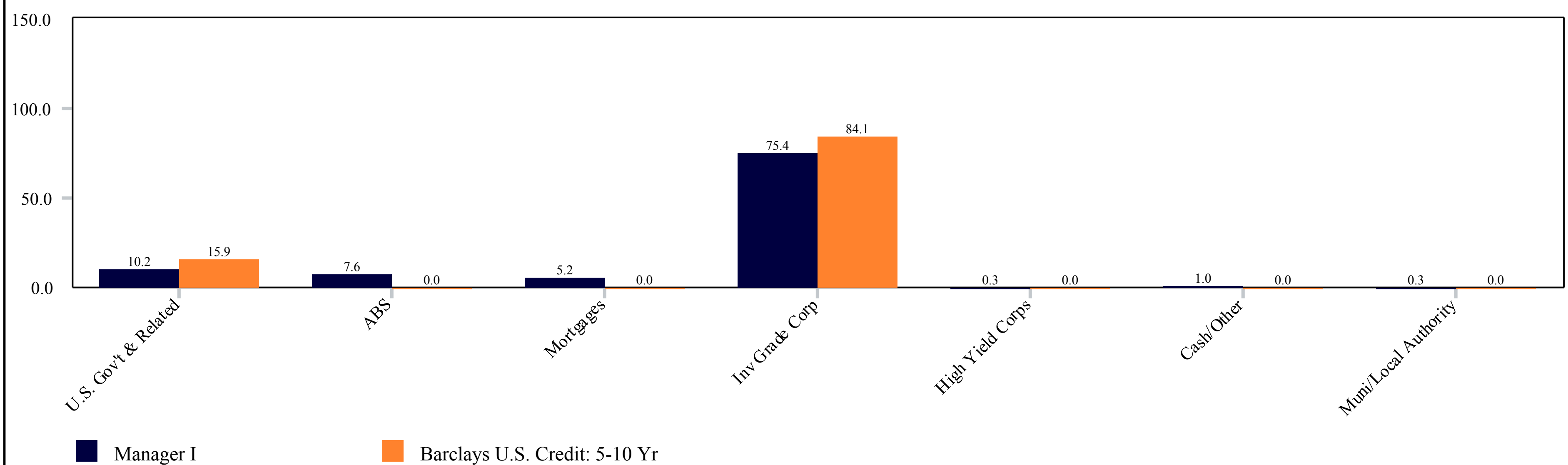
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.40	6.48
Yield To Maturity (%)	2.91	3.49
Avg. Maturity	6.40	7.48
Avg. Quality	A	A
Coupon Rate (%)	3.45	3.88

Credit Quality Distribution (%)

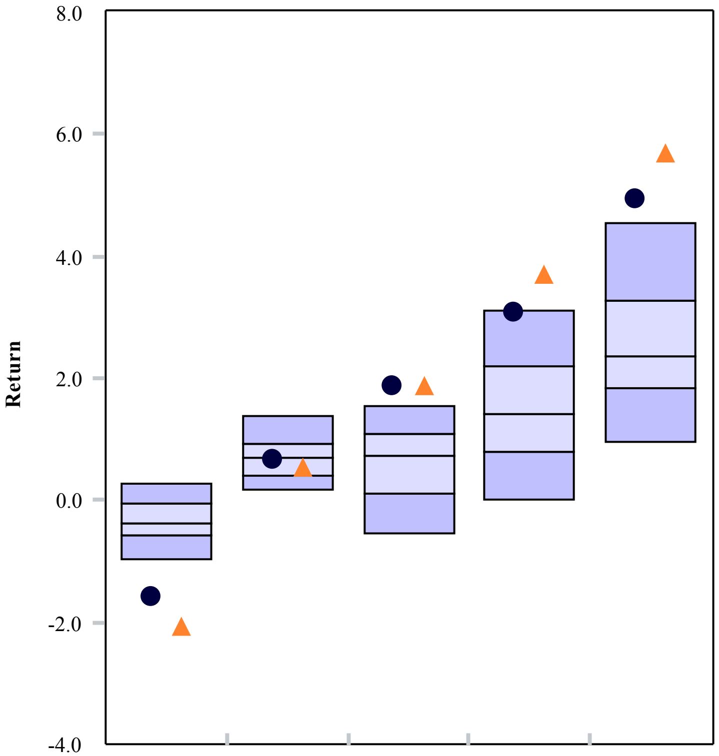


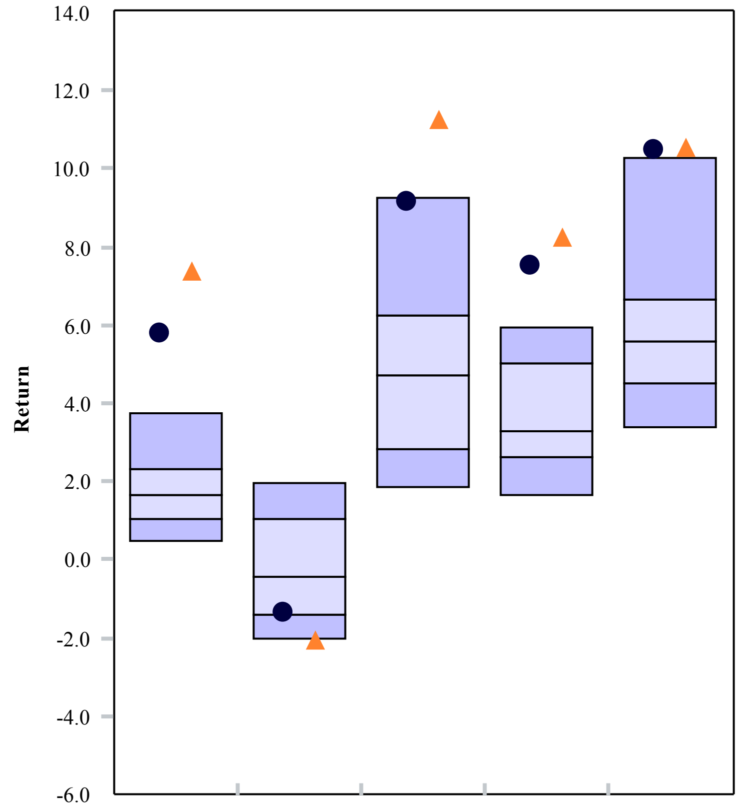
Sector Distribution (%)



Portfolio Analysis
Manager I
As of June 30, 2015

Peer Group Analysis - IM U.S. Intermediate Investment Grade (MF)





	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager I	-1.58 (100)	0.65 (54)	1.88 (1)	3.07 (6)	4.92 (2)
▲ Barclays U.S. Credit: 5-10 Yr	-2.06 (100)	0.53 (68)	1.85 (1)	3.69 (2)	5.68 (1)
Median	-0.37	0.68	0.73	1.42	2.36

	2014	2013	2012	2011	2010
● Manager I	5.81 (1)	-1.37 (74)	9.14 (6)	7.52 (1)	10.47 (5)
▲ Barclays U.S. Credit: 5-10 Yr	7.38 (1)	-2.05 (96)	11.26 (1)	8.21 (1)	10.54 (4)
Median	1.63	-0.42	4.71	3.30	5.58

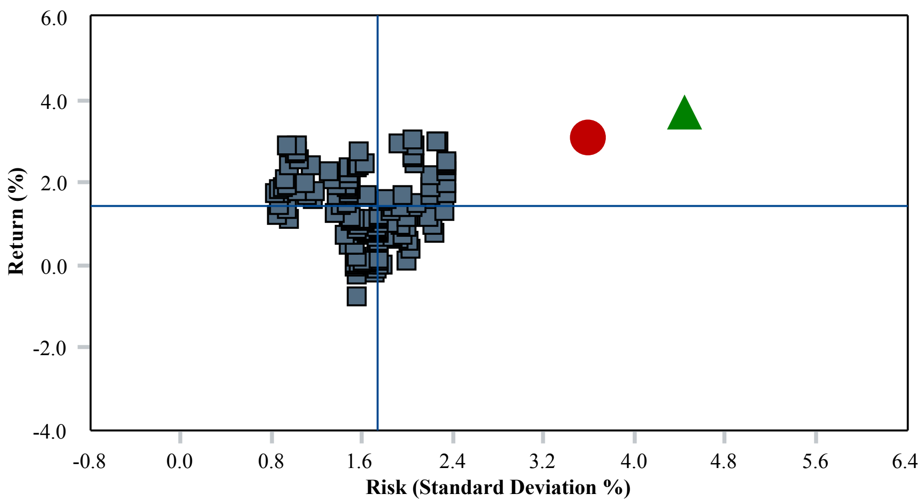
Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager I	3.07	3.59	0.85	0.12	0.80	0.04	-0.63	1.02	-0.62	0.98
Barclays U.S. Credit: 5-10 Yr	3.69	4.45	0.82	0.00	1.00	0.04	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-3.67	4.45	-0.82	0.02

PFM®

Portfolio Analysis
Manager I
As of June 30, 2015

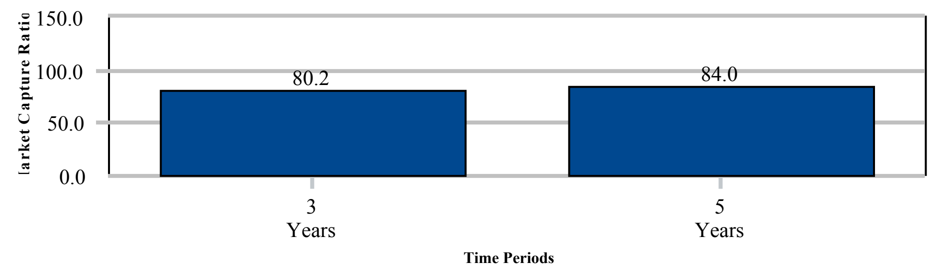
Peer Group Scattergram (07/01/12 to 06/30/15)



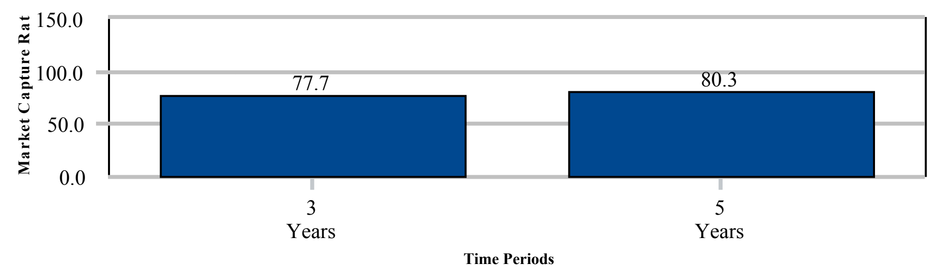
	Return	Standard Deviation
Manager I	3.07	3.59
Barclays U.S. Credit: 5-10 Yr	3.69	4.45
Median	1.42	1.73

Up Down Market Capture

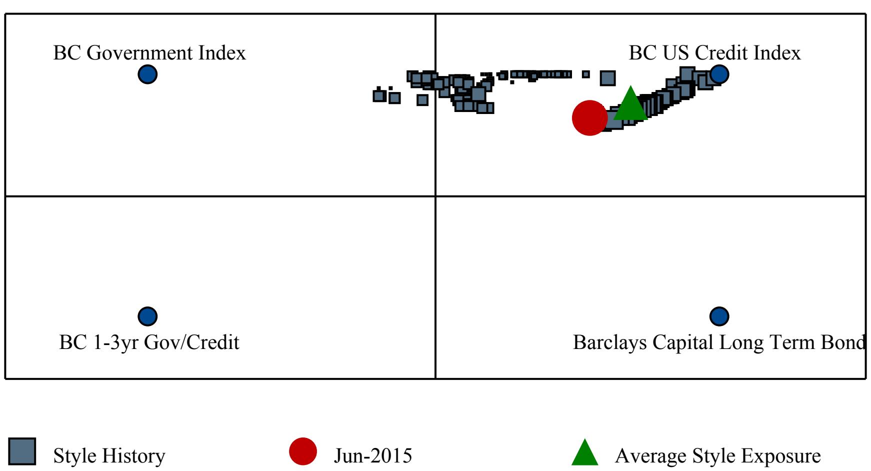
Up Market Capture



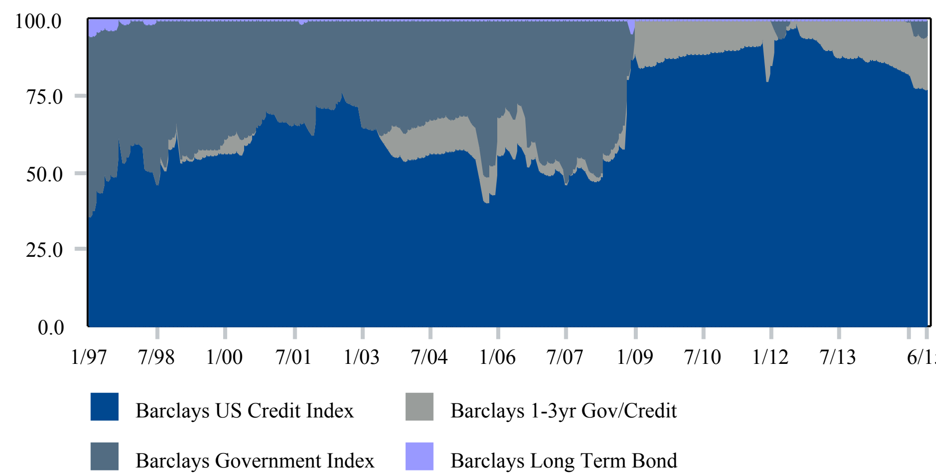
Down Market Capture



Style Map (12/01/93 to 06/30/15)



Style History (12/01/93 to 06/30/15)

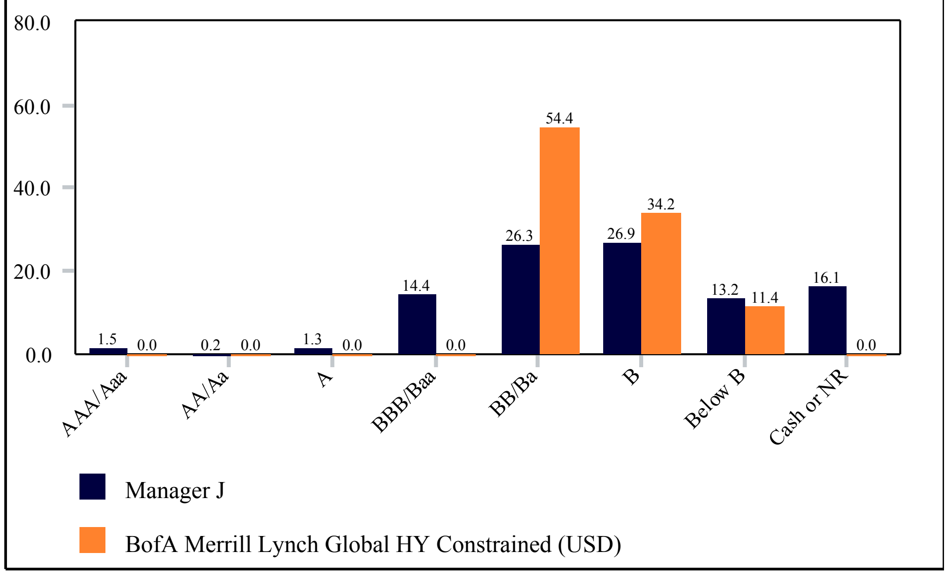


Portfolio Characteristics
Manager J vs. BofA Merrill Lynch Global HY Constrained (USD)
As of June 30, 2015

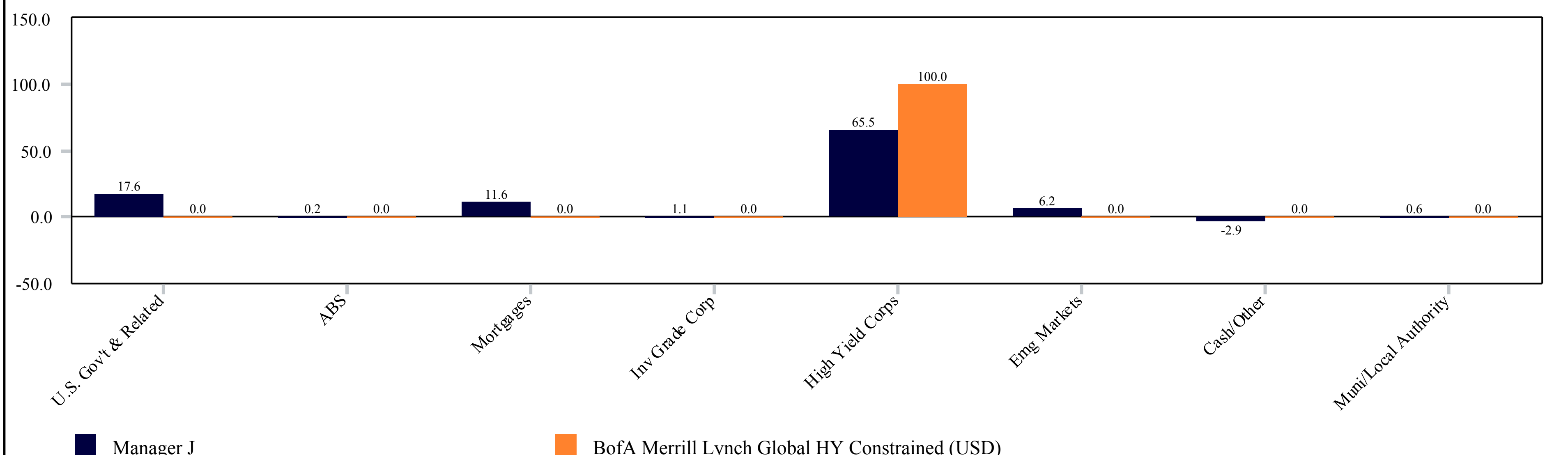
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.39	4.17
Yield To Maturity (%)	6.55	6.33
Avg. Maturity	7.60	6.13
Avg. Quality	BB	B
Coupon Rate (%)	6.29	6.70
% in $USD	101.03	79.35

Credit Quality Distribution (%)

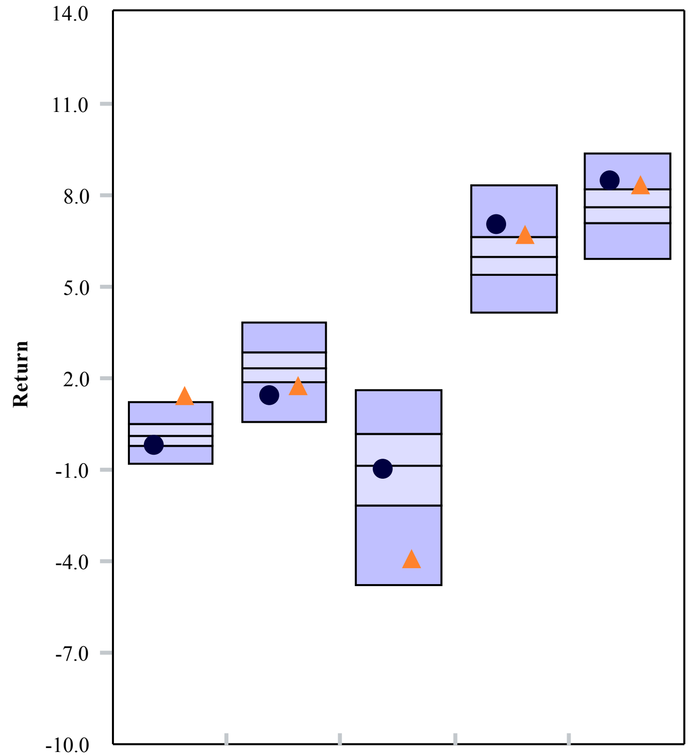


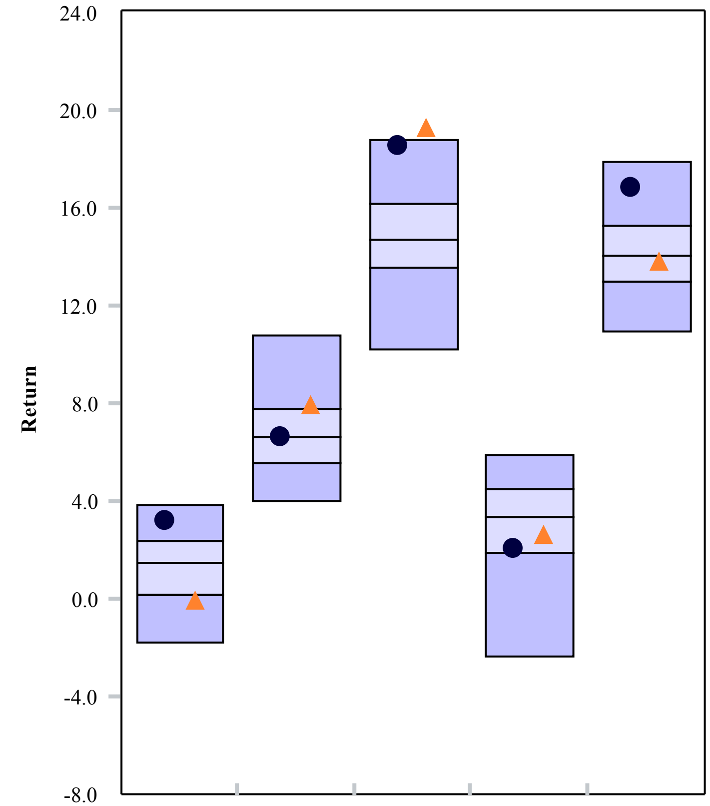
Sector Distribution (%)



Portfolio Analysis
Manager J
As of June 30, 2015

Peer Group Analysis - IM U.S. High Yield Bonds (MF)





	1 Quarter	Year To Date	1 Year	3 Years	5 Years
● Manager J	-0.19 (73)	1.39 (87)	-1.00 (54)	7.00 (16)	8.44 (19)
▲ BofA ML Global HY Constrained	1.42 (4)	1.77 (79)	-3.95 (91)	6.68 (23)	8.35 (20)
Median	0.12	2.31	-0.87	6.01	7.64

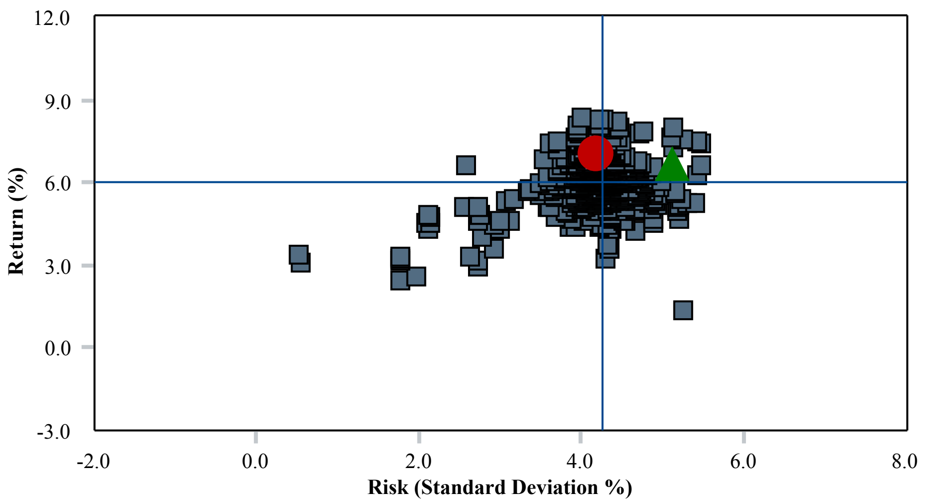
	2014	2013	2012	2011	2010
● Manager J	3.22 (12)	6.61 (51)	18.54 (6)	2.07 (72)	16.80 (13)
▲ BofA ML Global HY Constrained	-0.09 (79)	7.96 (22)	19.30 (3)	2.61 (63)	13.76 (59)
Median	1.47	6.61	14.72	3.31	14.05

Historical Statistics - 3 Years

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Treynor Ratio	Active Return	Tracking Error	Information Ratio	R-Squared
Manager J	7.00	4.18	1.63	1.93	0.75	0.09	0.26	2.09	0.12	0.84
BofA ML Global HY Constrained	6.68	5.12	1.28	0.00	1.00	0.07	0.00	0.00	N/A	1.00
90 Day U.S. Treasury Bill	0.05	0.02	N/A	0.05	0.00	0.00	-6.56	5.12	-1.28	0.03

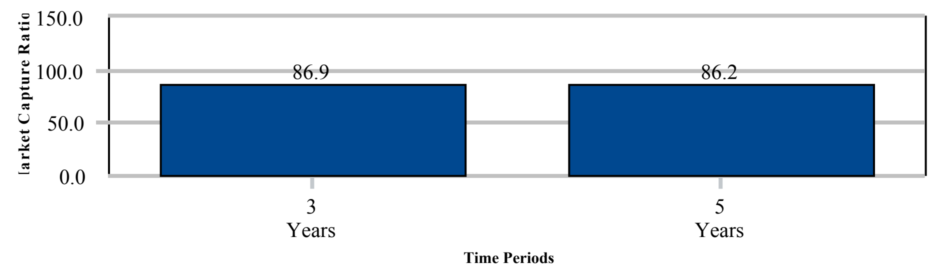
Portfolio Analysis
Manager J
As of June 30, 2015

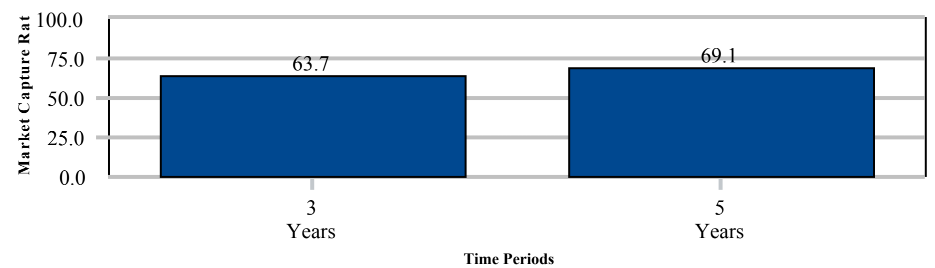
Peer Group Scattergram (07/01/12 to 06/30/15)



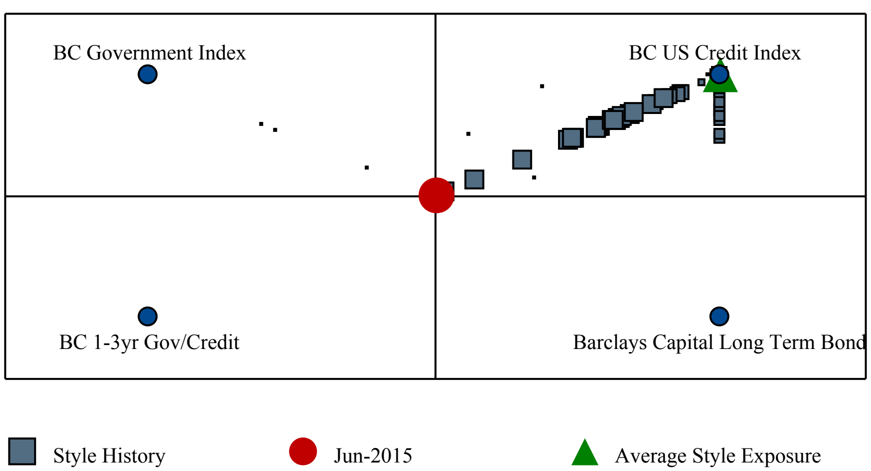
	Return	Standard Deviation
Manager J	7.00	4.18
BofA ML Global HY Constrained	6.68	5.12
Median	6.01	4.28

Up Down Market Capture

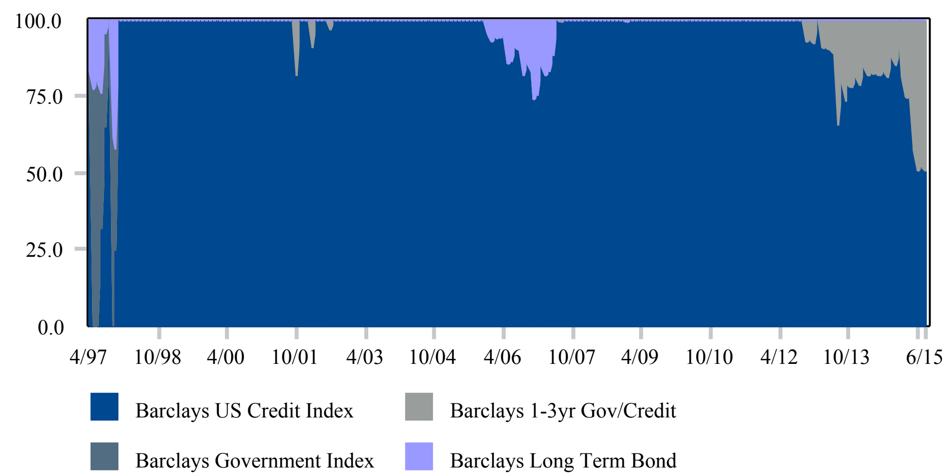




Style Map (03/01/94 to 06/30/15)



Style History (03/01/94 to 06/30/15)



Definitions Summary
Modern Portfolio Theory Statistics

Statistics		Definition
Return	-	Compounded rate of return for the period.
Standard Deviation	-	A statistical measure of the range of a portfolio's performance, the variability of a return around its average return over a specified time 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 the absolute rate of return per unit of risk. The higher the value, the better the product’s historical risk-adjusted performance.
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. It is a measure of the portfolio's historical performance not explained by movements of the market, or a portfolio's non-systematic return.
Beta	-	A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.
Treynor Ratio	-	Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Represents the excess rate of return over the risk free rate divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better the product’s historical risk-adjusted performance.
Active Return	-	Arithmetic difference between the managers return and the benchmark return over a specified time period.
Tracking Error	-	A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.
Information Ratio	-	Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.
R-Squared	-	The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Square means a higher correlation of the portfolio's performance to the appropriate benchmark.
Up Market Capture	-	The ratio of average portfolio return over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.
Down Market Capture	-	The ratio of average portfolio return over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

PERFORMANCE EVALUATION AND REPORTING SERVICES
INFORMATION DISCLAIMER

PFM Asset Management LLC has exercised reasonable professional care in the preparation of this performance report. However, information in this report on market indices and security characteristics, as well as information incorporated in the Market Commentary section, is received from sources external to PFM Asset Management LLC.

PFM Asset Management LLC relies on the client's custodian for security holdings and market values. Transaction dates reported by the custodian may differ from money manager statements. While efforts are made to ensure the data contained herein is accurate and complete, we disclaim all responsibility for any errors that may occur.

C. Performance Composite(s)




PFMAM Multi-Asset Class Composites
June 30, 2015

PFM Asset Management LLC
1 Keystone Plaza, Suite 300
Harrisburg, PA 17101
(717) 232-2723
www.pfm.com

PFM Asset Management LLC
PFMAM Multi-Asset Class 75:25 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	2.75%	2.06%	n/a	2	$3	0.0%	$59,223
2014	5.81%	6.53%	n/a	1	$1	0.0%	$54,889
2013	19.17%	19.16%	n/a	3	$13	0.0%	$51,650
2012	14.17%	13.60%	n/a	2	$9	0.0%	$49,093
2011	-1.80%	-1.08%	n/a	2	$8	0.0%	$43,933
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.94%	2.69%	7.16%	6.68%
2 Year	10.64%	10.51%	7.62%	7.15%
3 Year	11.70%	11.55%	6.84%	6.50%
4 Year	8.50%	8.56%	9.77%	9.42%
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	12.90%	12.97%	7.84%	7.66%
2013	10.13%	10.21%	10.43%	10.12%
2012	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 75:25 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	0.21%	-0.19%
3/31/2015	2.54%	2.25%
12/31/2014	1.97%	1.97%
9/30/2014	-1.76%	-1.32%
6/30/2014	3.87%	4.21%
3/31/2014	1.69%	1.60%
12/31/2013	6.31%	6.10%
9/30/2013	5.92%	5.87%
6/30/2013	-0.12%	-0.07%
3/31/2013	5.95%	6.16%
12/31/2012	2.00%	1.68%
9/30/2012	5.44%	5.36%
6/30/2012	-2.54%	-2.94%
3/31/2012	8.92%	9.24%
12/31/2011	7.37%	7.21%
9/30/2011	-12.71%	-11.96%
6/30/2011	0.56%	0.68%
3/31/2011	4.20%	4.10%
12/31/2010	n/a	n/a
9/30/2010	n/a	n/a

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 75:25 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 75:25 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 75% equity and 25% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is January 2011. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 49% Russell 3000 Index, 26% MSCI ACWI ex US (net) Index and 25% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 75% S&P 500 Index and 25% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 70:30 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	2.58%	1.92%	n/a	9	$16	0.0%	$59,223
2014	6.62%	6.55%	0.49%	10	$56	0.1%	$54,889
2013	17.77%	17.69%	0.13%	10	$45	0.1%	$51,650
2012	13.72%	12.98%	n/a	6	$15	0.0%	$49,093
2011	-0.47%	-0.41%	n/a	1	$1	0.0%	$43,933
2010	13.35%	12.93%	n/a	2	$87	0.2%	$42,686
2009	26.85%	24.72%	n/a	2	$57	0.1%	$39,273
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	3.55%	2.69%	6.64%	6.26%
2 Year	10.60%	10.05%	7.13%	6.70%
3 Year	11.36%	10.91%	6.40%	6.10%
4 Year	8.48%	8.26%	8.99%	8.77%
5 Year	11.34%	11.03%	9.20%	9.10%
6 Year	11.94%	11.35%	9.80%	9.58%
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	12.60%	12.30%	7.22%	7.17%
2013	10.05%	9.80%	9.56%	9.42%
2012	8.65%	8.30%	11.51%	11.48%
2011	12.69%	11.94%	14.85%	14.32%
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 70:30 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	0.12%	-0.29%
3/31/2015	2.45%	2.22%
12/31/2014	2.24%	1.98%
9/30/2014	-1.27%	-1.21%
6/30/2014	3.81%	4.06%
3/31/2014	1.74%	1.63%
12/31/2013	5.95%	5.69%
9/30/2013	5.56%	5.51%
6/30/2013	-0.34%	-0.21%
3/31/2013	5.66%	5.76%
12/31/2012	1.84%	1.57%
9/30/2012	5.28%	5.11%
6/30/2012	-2.15%	-2.58%
3/31/2012	8.40%	8.63%
12/31/2011	6.88%	6.84%
9/30/2011	-11.53%	-10.95%
6/30/2011	1.30%	0.79%
3/31/2011	3.90%	3.86%
12/31/2010	6.95%	6.63%
9/30/2010	9.77%	10.08%

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	-6.87%	-7.24%
3/31/2010	3.67%	3.72%
12/31/2009	3.75%	3.69%
9/30/2009	14.78%	13.24%
6/30/2009	16.28%	14.74%
3/31/2009	-8.39%	-7.42%
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 70:30 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 70:30 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 70% equity and 30% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is January 2009. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 46% Russell 3000 Index, 24% MSCI ACWI ex US (net) Index and 30% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 70% S&P 500 Index and 30% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 65:35 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	2.49%	1.80%	n/a	25	$543	0.9%	$59,223
2014	5.64%	6.40%	1.70%	23	$503	0.9%	$54,889
2013	16.15%	16.06%	0.97%	19	$279	0.5%	$51,650
2012	13.72%	12.37%	0.48%	20	$226	0.5%	$49,093
2011	-0.95%	0.10%	0.44%	22	$251	0.6%	$43,933
2010	12.99%	12.50%	1.27%	13	$141	0.3%	$42,686
2009	25.40%	23.46%	1.96%	9	$77	0.2%	$39,273
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	3.14%	2.55%	6.32%	5.85%
2 Year	9.63%	9.49%	6.64%	6.26%
3 Year	10.56%	10.20%	6.07%	5.72%
4 Year	7.89%	7.84%	8.63%	8.16%
5 Year	10.49%	10.43%	8.83%	8.46%
6 Year	11.27%	10.81%	9.35%	8.90%
7 Year	6.93%	6.41%	12.19%	11.84%
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	11.74%	11.53%	6.95%	6.72%
2013	9.36%	9.28%	9.29%	8.76%
2012	8.36%	8.16%	11.05%	10.61%
2011	11.96%	11.61%	13.91%	13.33%
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 65:35 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2015	0.08%	-0.38%
3/31/2015	2.41%	2.19%
12/31/2014	1.98%	1.90%
9/30/2014	-1.33%	-1.15%
6/30/2014	3.32%	3.92%
3/31/2014	1.61%	1.64%
12/31/2013	5.29%	5.23%
9/30/2013	5.42%	5.18%
6/30/2013	-0.62%	-0.40%
3/31/2013	5.30%	5.28%
12/31/2012	1.98%	1.51%
9/30/2012	5.37%	4.86%
6/30/2012	-2.08%	-2.27%
3/31/2012	8.08%	8.01%
12/31/2011	6.56%	6.38%
9/30/2011	-11.09%	-9.97%
6/30/2011	0.92%	0.90%
3/31/2011	3.59%	3.59%
12/31/2010	6.35%	6.02%
9/30/2010	9.35%	9.58%

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2010	-6.39%	-6.50%
3/31/2010	3.79%	3.56%
12/31/2009	3.84%	3.43%
9/30/2009	14.19%	12.57%
6/30/2009	15.17%	13.87%
3/31/2009	-8.18%	-6.87%
12/31/2008	-13.38%	-13.52%
9/30/2008	-8.05%	-9.06%
6/30/2008	-1.80%	-1.20%
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 65:35 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 65:35 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 65% equity and 35% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is April 2008. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 42% Russell 3000 Index, 23% MSCI ACWI ex US (net) Index and 35% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 65% S&P 500 Index and 35% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	2.38%	1.66%	n/a	75	$1,089	1.8%	$59,223
2014	5.88%	6.42%	0.42%	55	$985	1.8%	$54,889
2013	15.19%	14.61%	0.23%	48	$820	1.6%	$51,650
2012	13.38%	11.75%	0.44%	43	$487	1.0%	$49,093
2011	-0.59%	0.76%	0.21%	44	$368	0.8%	$43,933
2010	12.71%	12.12%	0.09%	36	$296	0.7%	$42,686
2009	25.88%	22.07%	0.38%	23	$158	0.4%	$39,273
2008	-21.48%	-24.30%	0.13%	13	$29	0.1%	$37,052
2007	6.33%	8.40%	0.15%	9	$23	0.1%	$33,568
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.94%	2.54%	5.86%	5.45%
2 Year	9.38%	9.02%	6.29%	5.82%
3 Year	10.19%	9.56%	5.72%	5.34%
4 Year	7.78%	7.53%	8.05%	7.52%
5 Year	10.16%	9.92%	8.22%	7.80%
6 Year	10.95%	10.36%	8.72%	8.21%
7 Year	7.32%	6.33%	11.30%	10.99%
8 Year	5.79%	5.05%	11.02%	10.73%
9 Year	6.86%	6.23%	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	11.40%	10.86%	6.52%	6.24%
2013	9.08%	8.86%	8.63%	8.07%
2012	8.29%	8.07%	10.21%	9.72%
2011	12.14%	11.31%	13.01%	12.31%
2010	3.66%	1.19%	15.16%	14.99%
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.01%	-0.48%
3/31/2015	2.39%	2.15%
12/31/2014	1.88%	1.92%
9/30/2014	-1.31%	-1.03%
6/30/2014	3.54%	3.77%
3/31/2014	1.71%	1.67%
12/31/2013	5.20%	4.82%
9/30/2013	4.90%	4.82%
6/30/2013	-0.62%	-0.54%
3/31/2013	5.03%	4.88%
12/31/2012	1.91%	1.40%
9/30/2012	5.14%	4.60%
6/30/2012	-1.67%	-1.92%
3/31/2012	7.62%	7.41%
12/31/2011	6.19%	6.00%
9/30/2011	-10.23%	-8.95%
6/30/2011	0.87%	1.01%
3/31/2011	3.38%	3.35%
12/31/2010	5.92%	5.46%
9/30/2010	8.86%	9.03%

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	-5.71%	-5.74%
3/31/2010	3.67%	3.45%
12/31/2009	3.53%	3.19%
9/30/2009	13.65%	11.86%
6/30/2009	14.72%	12.89%
3/31/2009	-6.74%	-6.32%
12/31/2008	-11.79%	-12.19%
9/30/2008	-6.92%	-8.37%
6/30/2008	-1.49%	-1.17%
3/31/2008	-2.93%	-4.79%
12/31/2007	-1.36%	-0.21%
9/30/2007	1.46%	2.76%
6/30/2007	3.61%	3.74%
3/31/2007	2.54%	1.90%
12/31/2006	5.53%	5.57%
9/30/2006	3.33%	4.15%
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 60:40 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 60% equity and 40% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is July 2006. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 39% Russell 3000 Index, 21% MSCI ACWI ex US (net) Index and 40% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 60% S&P 500 Index and 40% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 Index-Oriented Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.86%	1.66%	n/a	1	$924	1.6%	$59,223
2014	7.15%	6.42%	n/a	1	$859	1.6%	$54,889
2013	14.55%	14.61%	n/a	1	$708	1.4%	$51,650
2012	11.92%	11.75%	n/a	2	$552	1.1%	$49,093
2011	1.15%	0.76%	n/a	2	$399	0.9%	$43,933
2010	10.95%	12.12%	n/a	2	$295	0.7%	$42,686
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.95%	2.54%	5.61%	5.45%
2 Year	9.42%	9.02%	6.17%	5.82%
3 Year	9.77%	9.56%	5.63%	5.34%
4 Year	7.78%	7.53%	7.68%	7.52%
5 Year	10.01%	9.92%	7.79%	7.80%
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	11.15%	10.86%	6.47%	6.24%
2013	9.04%	8.86%	8.20%	8.07%
2012	7.89%	8.07%	9.54%	9.72%
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 Index-Oriented Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.52%	-0.48%
3/31/2015	2.39%	2.15%
12/31/2014	2.40%	1.92%
9/30/2014	-1.30%	-1.03%
6/30/2014	3.93%	3.77%
3/31/2014	2.00%	1.67%
12/31/2013	4.85%	4.82%
9/30/2013	4.63%	4.82%
6/30/2013	-0.58%	-0.54%
3/31/2013	5.03%	4.88%
12/31/2012	1.52%	1.40%
9/30/2012	4.22%	4.60%
6/30/2012	-1.59%	-1.92%
3/31/2012	7.49%	7.41%
12/31/2011	6.06%	6.00%
9/30/2011	-9.04%	-8.95%
6/30/2011	1.39%	1.01%
3/31/2011	3.43%	3.35%
12/31/2010	5.13%	5.46%
9/30/2010	8.32%	9.03%

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	-5.76%	-5.74%
3/31/2010	3.39%	3.45%
12/31/2009	2.77%	3.19%
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 Index-Oriented Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 60:40 Index-Oriented Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with an emphasis on passive management and a target allocation of roughly 60% equity and 40% fixed income. Beginning December 2013, the fixed income allocation was expanded to allow for actively-managed funds and the name was changed from PFMAM Multi-Asset Class 60:40 Index Funds Composite to its current name to better reflect the current investment strategy. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is October 2009. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 39% Russell 3000 Index, 21% MSCI ACWI ex US (net) Index and 40% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 60% S&P 500 Index and 40% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 SRI Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.76%	1.66%	n/a	8	$23	0.0%	$59,223
2014	4.88%	6.42%	0.02%	8	$22	0.0%	$54,889
2013	16.41%	14.61%	n/a	8	$19	0.0%	$51,650
2012	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	1.42%	2.54%	6.21%	5.45%
2 Year	9.05%	9.02%	6.75%	5.82%
3 Year	n/a	n/a	n/a	n/a
4 Year	n/a	n/a	n/a	n/a
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	n/a	n/a	n/a	n/a
2013	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 SRI Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.25%	-0.48%
3/31/2015	2.01%	2.15%
12/31/2014	1.87%	1.92%
9/30/2014	-2.17%	-1.03%
6/30/2014	3.73%	3.77%
3/31/2014	1.45%	1.67%
12/31/2013	5.53%	4.82%
9/30/2013	5.58%	4.82%
6/30/2013	-1.09%	-0.54%
3/31/2013	5.64%	4.88%
12/31/2012	n/a	n/a
9/30/2012	n/a	n/a
6/30/2012	n/a	n/a
3/31/2012	n/a	n/a
12/31/2011	n/a	n/a
9/30/2011	n/a	n/a
6/30/2011	n/a	n/a
3/31/2011	n/a	n/a
12/31/2010	n/a	n/a
9/30/2010	n/a	n/a

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 60:40 SRI Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 60:40 SRI Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 60% equity and 40% fixed income. Investments must adhere to the stated socially responsible investing ("SRI") criteria outlined in the clients' investment policies. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is January 2013. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 39% Russell 3000 Index, 21% MSCI ACWI ex US (net) Index and 40% Barclays Aggregate Index. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 55:45 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	2.15%	1.51%	n/a	10	$94	0.2%	$59,223
2014	5.94%	6.43%	0.35%	11	$120	0.2%	$54,889
2013	13.97%	13.18%	0.33%	10	$97	0.2%	$51,650
2012	13.07%	11.12%	1.49%	9	$34	0.1%	$49,093
2011	0.27%	1.42%	1.40%	9	$35	0.1%	$43,933
2010	12.42%	11.73%	n/a	3	$22	0.1%	$42,686
2009	24.67%	20.68%	n/a	3	$16	0.0%	$39,273
2008	-19.94%	-22.08%	n/a	2	$3	0.0%	$37,052
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.89%	2.52%	5.71%	5.06%
2 Year	9.02%	8.55%	5.99%	5.39%
3 Year	9.64%	8.93%	5.49%	4.97%
4 Year	7.58%	7.22%	7.52%	6.89%
5 Year	9.80%	9.41%	7.66%	7.14%
6 Year	10.67%	9.90%	8.11%	7.52%
7 Year	7.29%	6.25%	10.59%	10.14%
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	10.92%	10.20%	6.17%	5.76%
2013	8.91%	8.44%	8.04%	7.39%
2012	8.41%	7.98%	9.38%	8.83%
2011	12.01%	11.00%	12.14%	11.30%
2010	3.91%	1.66%	14.23%	13.85%
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 55:45 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2015	-0.13%	-0.59%
3/31/2015	2.29%	2.11%
12/31/2014	1.94%	1.93%
9/30/2014	-1.20%	-0.92%
6/30/2014	3.42%	3.63%
3/31/2014	1.70%	1.69%
12/31/2013	4.88%	4.42%
9/30/2013	4.73%	4.45%
6/30/2013	-0.87%	-0.67%
3/31/2013	4.67%	4.48%
12/31/2012	1.80%	1.29%
9/30/2012	4.98%	4.35%
6/30/2012	-1.32%	-1.57%
3/31/2012	7.21%	6.81%
12/31/2011	5.75%	5.63%
9/30/2011	-9.15%	-7.91%
6/30/2011	1.01%	1.11%
3/31/2011	3.32%	3.12%
12/31/2010	5.34%	4.90%
9/30/2010	8.38%	8.48%

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2010	-4.99%	-4.99%
3/31/2010	3.63%	3.33%
12/31/2009	3.48%	2.94%
9/30/2009	12.96%	11.17%
6/30/2009	14.02%	11.92%
3/31/2009	-6.47%	-5.77%
12/31/2008	-10.65%	-10.84%
9/30/2008	-6.51%	-7.69%
6/30/2008	-1.73%	-1.15%
3/31/2008	-2.47%	-4.22%
12/31/2007	-0.96%	0.05%
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 55:45 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 55:45 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 55% equity and 45% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is October 2007. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 36% Russell 3000 Index, 19% MSCI ACWI ex US (net) Index and 45% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 55% S&P 500 Index and 45% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 50:50 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.97%	1.37%	n/a	28	$215	0.4%	$59,223
2014	6.04%	6.44%	0.34%	26	$201	0.4%	$54,889
2013	12.87%	11.77%	0.33%	21	$156	0.3%	$51,650
2012	13.15%	10.50%	1.24%	17	$159	0.3%	$49,093
2011	0.45%	2.07%	0.55%	16	$121	0.3%	$43,933
2010	12.14%	11.32%	0.74%	12	$49	0.1%	$42,686
2009	23.69%	19.30%	0.40%	9	$32	0.1%	$39,273
2008	-17.10%	-19.82%	n/a	1	$1	0.0%	$37,052
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.83%	2.51%	5.18%	4.69%
2 Year	8.68%	8.08%	5.54%	4.97%
3 Year	9.34%	8.30%	5.16%	4.61%
4 Year	7.42%	6.90%	7.04%	6.27%
5 Year	9.44%	8.90%	7.12%	6.49%
6 Year	10.32%	9.43%	7.52%	6.84%
7 Year	7.42%	6.16%	9.73%	9.30%
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	10.63%	9.54%	5.80%	5.30%
2013	8.65%	8.02%	7.54%	6.71%
2012	8.42%	7.87%	8.67%	7.95%
2011	11.69%	10.67%	11.18%	10.29%
2010	4.76%	2.11%	12.97%	12.73%
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 50:50 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Blended Index Return
6/30/2015	-0.24%	-0.69%
3/31/2015	2.22%	2.07%
12/31/2014	1.89%	1.94%
9/30/2014	-1.04%	-0.80%
6/30/2014	3.37%	3.48%
3/31/2014	1.73%	1.72%
12/31/2013	4.50%	4.01%
9/30/2013	4.52%	4.09%
6/30/2013	-1.04%	-0.81%
3/31/2013	4.43%	4.07%
12/31/2012	1.93%	1.18%
9/30/2012	5.05%	4.09%
6/30/2012	-1.00%	-1.22%
3/31/2012	6.73%	6.21%
12/31/2011	5.45%	5.25%
9/30/2011	-8.54%	-6.87%
6/30/2011	1.10%	1.22%
3/31/2011	3.01%	2.88%
12/31/2010	4.95%	4.35%
9/30/2010	7.84%	7.93%

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Blended Index Return
6/30/2010	-4.31%	-4.23%
3/31/2010	3.55%	3.21%
12/31/2009	3.30%	2.70%
9/30/2009	12.24%	10.47%
6/30/2009	12.87%	10.95%
3/31/2009	-5.48%	-5.23%
12/31/2008	-8.87%	-9.49%
9/30/2008	-5.84%	-7.01%
6/30/2008	-1.41%	-1.13%
3/31/2008	-2.00%	-3.65%
12/31/2007	-0.53%	0.31%
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 50:50 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 50:50 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 50% equity and 50% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is October 2007. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 33% Russell 3000 Index, 17% MSCI ACWI ex US (net) Index and 50% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 50% S&P 500 Index and 50% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 40:60 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.74%	1.10%	n/a	4	$20	0.0%	$59,223
2014	5.50%	6.29%	n/a	5	$88	0.2%	$54,889
2013	10.13%	8.82%	n/a	4	$70	0.1%	$51,650
2012	12.58%	9.25%	n/a	4	$59	0.1%	$49,093
2011	0.63%	3.21%	n/a	3	$46	0.1%	$43,933
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.25%	2.34%	4.47%	4.02%
2 Year	7.55%	7.06%	4.79%	4.19%
3 Year	8.03%	6.96%	4.58%	3.95%
4 Year	6.65%	6.15%	6.01%	5.10%
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	9.35%	8.11%	5.07%	4.45%
2013	7.65%	7.05%	6.42%	5.44%
2012	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 40:60 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.39%	-0.88%
3/31/2015	2.14%	2.00%
12/31/2014	1.50%	1.88%
9/30/2014	-0.98%	-0.63%
6/30/2014	3.08%	3.20%
3/31/2014	1.82%	1.74%
12/31/2013	3.83%	3.15%
9/30/2013	3.78%	3.40%
6/30/2013	-1.43%	-1.13%
3/31/2013	3.68%	3.20%
12/31/2012	1.88%	1.01%
9/30/2012	4.68%	3.59%
6/30/2012	-0.33%	-0.56%
3/31/2012	5.90%	5.01%
12/31/2011	4.54%	4.40%
9/30/2011	-6.98%	-4.81%
6/30/2011	0.86%	1.44%
3/31/2011	2.60%	2.37%
12/31/2010	3.92%	3.19%
9/30/2010	n/a	n/a

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 40:60 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 40:60 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 40% equity and 60% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is October 2010. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 26% Russell 3000 Index, 14% MSCI ACWI ex US (net) Index and 60% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 40% S&P 500 Index and 60% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 35:65 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.62%	0.95%	n/a	2	$23	0.0%	$59,223
2014	6.14%	6.30%	n/a	1	$21	0.0%	$54,889
2013	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.68%	2.32%	4.03%	3.72%
2 Year	n/a	n/a	n/a	n/a
3 Year	n/a	n/a	n/a	n/a
4 Year	n/a	n/a	n/a	n/a
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	n/a	n/a	n/a	n/a
2013	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 35:65 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.43%	-0.98%
3/31/2015	2.06%	1.95%
12/31/2014	1.67%	1.89%
9/30/2014	-0.62%	-0.52%
6/30/2014	3.08%	3.05%
3/31/2014	1.90%	1.76%
12/31/2013	n/a	n/a
9/30/2013	n/a	n/a
6/30/2013	n/a	n/a
3/31/2013	n/a	n/a
12/31/2012	n/a	n/a
9/30/2012	n/a	n/a
6/30/2012	n/a	n/a
3/31/2012	n/a	n/a
12/31/2011	n/a	n/a
9/30/2011	n/a	n/a
6/30/2011	n/a	n/a
3/31/2011	n/a	n/a
12/31/2010	n/a	n/a
9/30/2010	n/a	n/a

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 35:65 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 35:65 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 35% equity and 65% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is January 2014. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 23% Russell 3000 Index, 12% MSCI ACWI ex US (net) Index and 65% Barclays Aggregate Index. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 30:70 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.39%	0.79%	n/a	12	$142	0.2%	$59,223
2014	5.75%	6.30%	0.49%	11	$138	0.3%	$54,889
2013	7.05%	6.10%	0.17%	12	$131	0.3%	$51,650
2012	11.86%	7.99%	0.42%	10	$50	0.1%	$49,093
2011	2.06%	4.48%	0.32%	11	$42	0.1%	$43,933
2010	9.42%	9.54%	0.76%	8	$34	0.1%	$42,686
2009	15.79%	13.90%	n/a	1	$4	0.0%	$39,273
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	2.44%	2.30%	3.65%	3.47%
2 Year	6.65%	6.11%	3.76%	3.50%
3 Year	6.91%	5.70%	3.82%	3.39%
4 Year	6.07%	5.49%	4.91%	4.00%
5 Year	7.20%	6.72%	4.86%	4.11%
6 Year	7.97%	7.46%	5.03%	4.33%
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	8.18%	6.79%	4.27%	3.65%
2013	6.91%	6.17%	5.32%	4.21%
2012	7.69%	7.31%	5.63%	4.55%
2011	8.95%	9.24%	6.83%	6.41%
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 30:70 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.59%	-1.08%
3/31/2015	2.00%	1.90%
12/31/2014	1.60%	1.90%
9/30/2014	-0.56%	-0.40%
6/30/2014	2.87%	2.91%
3/31/2014	1.75%	1.78%
12/31/2013	3.07%	2.35%
9/30/2013	2.93%	2.67%
6/30/2013	-2.03%	-1.40%
3/31/2013	3.00%	2.40%
12/31/2012	1.73%	0.78%
9/30/2012	4.65%	3.08%
6/30/2012	0.12%	0.12%
3/31/2012	4.93%	3.82%
12/31/2011	3.78%	3.63%
9/30/2011	-5.00%	-2.67%
6/30/2011	1.16%	1.65%
3/31/2011	2.32%	1.90%
12/31/2010	2.55%	2.08%
9/30/2010	5.37%	5.76%

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	-1.74%	-1.17%
3/31/2010	3.06%	2.67%
12/31/2009	2.15%	1.71%
9/30/2009	8.19%	7.74%
6/30/2009	8.00%	7.22%
3/31/2009	-2.98%	-3.06%
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 30:70 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 30:70 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 30% equity and 70% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is January 2009. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 20% Russell 3000 Index, 10% MSCI ACWI ex US (net) Index and 70% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 30% S&P 500 Index and 70% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 20:80 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	1.12%	0.51%	n/a	1	$1	0.0%	$59,223
2014	5.10%	6.14%	n/a	1	$1	0.0%	$54,889
2013	6.05%	3.28%	n/a	1	$1	0.0%	$51,650
2012	10.95%	6.74%	n/a	1	$9	0.0%	$49,093
2011	2.88%	5.57%	n/a	2	$9	0.0%	$43,933
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	1.79%	2.12%	3.10%	3.13%
2 Year	5.58%	5.08%	3.19%	2.99%
3 Year	6.06%	4.38%	3.19%	3.00%
4 Year	5.65%	4.70%	3.72%	3.15%
5 Year	6.56%	5.58%	3.75%	3.19%
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	7.33%	5.37%	3.34%	3.03%
2013	6.57%	5.18%	3.96%	3.22%
2012	n/a	n/a	3.97%	3.06%
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 20:80 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2015	-0.72%	-1.28%
3/31/2015	1.85%	1.81%
12/31/2014	1.17%	1.84%
9/30/2014	-0.50%	-0.23%
6/30/2014	2.61%	2.62%
3/31/2014	1.75%	1.80%
12/31/2013	2.38%	1.50%
9/30/2013	2.45%	1.98%
6/30/2013	-1.19%	-1.73%
3/31/2013	2.33%	1.53%
12/31/2012	1.63%	0.61%
9/30/2012	4.14%	2.59%
6/30/2012	0.78%	0.76%
3/31/2012	4.02%	2.64%
12/31/2011	2.81%	2.77%
9/30/2011	-3.09%	-0.55%
6/30/2011	1.27%	1.87%
3/31/2011	1.96%	1.39%
12/31/2010	1.56%	0.94%
9/30/2010	5.17%	4.69%

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
6/30/2010	n/a	n/a
3/31/2010	3.24%	2.37%
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 20:80 Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 20:80 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 20% equity and 80% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is July 2010. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 13% Russell 3000 Index, 7% MSCI ACWI ex US (net) Index and 80% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 20% S&P 500 Index and 80% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 10:90 Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	0.74%	0.20%	n/a	1	$0	0.0%	$59,223
2014	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2013	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	n/a	n/a	n/a	n/a
2 Year	n/a	n/a	n/a	n/a
3 Year	n/a	n/a	n/a	n/a
4 Year	n/a	n/a	n/a	n/a
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	n/a	n/a	n/a	n/a
2013	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 10:90 Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2015	-0.96%	-1.48%
3/31/2015	1.71%	1.71%
12/31/2014	n/a	n/a
9/30/2014	n/a	n/a
6/30/2014	n/a	n/a
3/31/2014	n/a	n/a
12/31/2013	n/a	n/a
9/30/2013	n/a	n/a
6/30/2013	n/a	n/a
3/31/2013	n/a	n/a
12/31/2012	n/a	n/a
9/30/2012	n/a	n/a
6/30/2012	n/a	n/a
3/31/2012	n/a	n/a
12/31/2011	n/a	n/a
9/30/2011	n/a	n/a
6/30/2011	n/a	n/a
3/31/2011	n/a	n/a
12/31/2010	n/a	n/a
9/30/2010	n/a	n/a

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 10:90 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 10% equity and 90% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is January 2015. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 7% Russell 3000 Index, 3% MSCI ACWI ex US (net) Index and 90% Barclays Aggregate Index. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class Fixed Income Composite
As of June 30, 2015

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2015 YTD	0.35%	-0.10%	n/a	4	$17	0.0%	$59,223
2014	5.33%	5.97%	n/a	4	$17	0.0%	$54,889
2013	-0.60%	-2.02%	n/a	1	$6	0.0%	$51,650
2012	10.64%	4.21%	n/a	1	$6	0.0%	$49,093
2011	4.68%	7.84%	n/a	1	$6	0.0%	$43,933
2010	8.30%	6.55%	n/a	1	$6	0.0%	$42,686
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 6/30/15	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	1.53%	1.86%	2.79%	3.27%
2 Year	3.60%	3.11%	2.68%	2.82%
3 Year	3.66%	1.83%	3.26%	2.95%
4 Year	4.34%	3.21%	3.09%	2.87%
5 Year	4.59%	3.35%	2.99%	2.82%
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2014	5.02%	2.66%	3.13%	2.67%
2013	4.80%	3.26%	3.17%	2.75%
2012	7.84%	6.19%	2.52%	2.42%
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class Fixed Income Composite
As of June 30, 2015

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2015	-1.24%	-1.68%
3/31/2015	1.60%	1.61%
12/31/2014	1.12%	1.79%
9/30/2014	0.06%	0.17%
6/30/2014	2.14%	2.04%
3/31/2014	1.92%	1.84%
12/31/2013	0.42%	-0.14%
9/30/2013	1.12%	0.57%
6/30/2013	-3.00%	-2.32%
3/31/2013	0.92%	-0.12%
12/31/2012	1.86%	0.21%
9/30/2012	4.09%	1.58%
6/30/2012	2.11%	2.06%
3/31/2012	2.20%	0.30%
12/31/2011	1.46%	1.12%
9/30/2011	0.50%	3.82%
6/30/2011	1.55%	2.29%
3/31/2011	1.10%	0.42%
12/31/2010	-0.45%	-1.30%
9/30/2010	3.35%	2.49%

Quarter Ended	Total Return (Gross of Fees) PFMAM Composite	Total Return (Gross of Fees) Blended Index Return
6/30/2010	2.46%	3.49%
3/31/2010	2.74%	1.78%
12/31/2009	1.56%	0.20%
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class Fixed Income Composite
As of June 30, 2015

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class Fixed Income Composite* includes all institutional portfolios diversified among various fixed income investments with a target allocation of 100% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is October 2009. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios.

Benchmark Description: Composite performance is compared to the Barclays Aggregate Index. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

Terminated or Inactive Composites

PFM Asset Management LLC
PFMAM Philadelphia Opportunity Fund Composite
As of September 30, 2013

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2013 YTD	15.21%	14.16%	n/a	1	$184	0.4%	$49,164
2012	15.24%	11.28%	n/a	1	$159	0.3%	$49,093
2011	-1.60%	-0.13%	n/a	1	$128	0.3%	$43,933
2010	15.43%	15.17%	n/a	1	$132	0.3%	$42,686
2009	29.76%	23.93%	n/a	1	$114	0.3%	$39,273
2008	-28.68%	-30.07%	n/a	1	$101	0.3%	$37,052
2007	5.88%	5.60%	n/a	1	$142	0.4%	$33,568
2006	15.74%	13.39%	n/a	1	$134	0.5%	$27,509
2005	7.02%	5.44%	n/a	1	$77	0.3%	$24,123
2004	10.90%	10.45%	n/a	1	$72	0.3%	$28,661
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 9/30/13	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	16.83%	15.70%	8.62%	7.32%
2 Year	19.42%	17.20%	9.19%	8.72%
3 Year	12.64%	11.38%	11.62%	10.62%
4 Year	12.16%	11.23%	12.60%	11.86%
5 Year	10.27%	8.31%	13.33%	13.34%
6 Year	5.29%	3.65%	15.03%	15.06%
7 Year	6.62%	5.10%	14.18%	14.21%
8 Year	7.10%	5.57%	13.43%	13.41%
9 Year	7.89%	6.28%	12.89%	12.83%
10 Year	8.36%	6.85%	12.43%	12.33%

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2012	9.38%	8.57%	13.46%	13.01%
2011	13.80%	12.55%	15.36%	15.80%
2010	2.22%	-0.06%	17.71%	18.54%
2009	-0.68%	-2.91%	15.93%	16.76%
2008	-4.39%	-5.74%	13.10%	12.99%
2007	9.46%	8.08%	7.39%	6.52%
2006	11.15%	9.70%	7.18%	6.14%
2005	14.62%	13.43%	8.47%	7.71%
2004	6.79%	5.32%	11.18%	11.76%
2003	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Philadelphia Opportunity Fund Composite
As of September 30, 2013

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
9/30/2013	6.49%	5.94%
6/30/2013	0.41%	0.52%
3/31/2013	7.74%	7.20%
12/31/2012	1.41%	1.35%
9/30/2012	6.28%	5.53%
6/30/2012	-3.07%	-5.34%
3/31/2012	10.31%	9.91%
12/31/2011	7.47%	8.18%
9/30/2011	-13.93%	-12.41%
6/30/2011	0.50%	0.22%
3/31/2011	5.84%	5.18%
12/31/2010	9.45%	8.95%
9/30/2010	9.26%	9.78%
6/30/2010	-8.37%	-8.44%
3/31/2010	5.35%	5.16%
12/31/2009	5.00%	4.77%
9/30/2009	14.58%	13.72%
6/30/2009	14.27%	13.74%
3/31/2009	-5.61%	-8.55%
12/31/2008	-16.65%	-17.66%

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
9/30/2008	-7.12%	-7.08%
6/30/2008	-1.17%	-1.47%
3/31/2008	-6.79%	-7.24%
12/31/2007	-2.34%	-2.07%
9/30/2007	0.48%	1.83%
6/30/2007	5.54%	4.51%
3/31/2007	2.23%	1.33%
12/31/2006	6.08%	5.93%
9/30/2006	3.81%	4.48%
6/30/2006	-1.96%	-1.59%
3/31/2006	7.20%	4.11%
12/31/2005	1.24%	1.76%
9/30/2005	3.81%	3.08%
6/30/2005	3.24%	2.41%
3/31/2005	-1.36%	-1.85%
12/31/2004	8.25%	8.28%
9/30/2004	-1.22%	-0.88%
6/30/2004	0.54%	0.57%
3/31/2004	3.16%	2.32%
12/31/2003	10.02%	9.95%

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Philadelphia Opportunity Fund Composite
As of September 30, 2013

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Philadelphia Opportunity Fund Composite* includes a single institutional multi-asset class portfolio diversified among equity and fixed income investments managed by qualified emerging/minority managers. The portfolio is managed in a fund-of-fund approach in accordance with the emerging/minority manager guidelines established in the investment policy. The portfolio does not use leverage, complex derivatives, or short positions.

The composite creation date is June 2006; the composite inception date is August 2000. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios. The composite was terminated September 2013.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 60% Russell 3000 Index, 20% MSCI EAFE (net) Index and 20% Barclays Aggregate Index. For periods prior to May 2011, the blended benchmark consists of 80% Russell 3000 Index and 20% Barclays Aggregate Index in order to better reflect the allocation of the portfolio during those periods. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 45:55 Composite
As of September 30, 2012

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2012 YTD	10.59%	8.67%	n/a	1	$9	0.0%	$46,495
2011	0.16%	2.56%	n/a	1	$9	0.0%	$43,933
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 9/30/12	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	16.15%	13.86%	n/a	4.52%
2 Year	7.57%	7.52%	0.84%	4.15%
3 Year	n/a	n/a	n/a	n/a
4 Year	n/a	n/a	n/a	n/a
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 45:55 Composite
As of September 30, 2012

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
9/30/2012	4.90%	3.85%
6/30/2012	-0.89%	-0.91%
3/31/2012	6.37%	5.60%
12/31/2011	5.02%	4.78%
9/30/2011	-8.00%	-5.86%
6/30/2011	0.87%	1.33%
3/31/2011	2.76%	2.61%
12/31/2010	4.47%	3.75%
9/30/2010	7.44%	7.42%
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a
6/30/2005	n/a	n/a
3/31/2005	n/a	n/a
12/31/2004	n/a	n/a
9/30/2004	n/a	n/a
6/30/2004	n/a	n/a
3/31/2004	n/a	n/a
12/31/2003	n/a	n/a
9/30/2003	n/a	n/a
6/30/2003	n/a	n/a
3/31/2003	n/a	n/a
12/31/2002	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 45:55 Composite
As of September 30, 2012

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 45:55 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 45% equity and 55% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is July 2010. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios. The composite became inactive September 2012 due to the absence of eligible portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 29% Russell 3000 Index, 16% MSCI ACWI ex US (net) Index and 55% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 45% S&P 500 Index and 55% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

PFM Asset Management LLC
PFMAM Multi-Asset Class 25:75 Composite
As of March 31, 2014

Year	PFMAM Composite Return (Gross of Fees)	Blended Index Return	PFMAM Composite Dispersion	Number of Accounts	Composite Assets (Millions)	Percentage of Firm Assets	Total Firm Assets (Millions)
2014 YTD	1.67%	1.79%	n/a	1	$2	0.0%	$51,721
2013	6.71%	4.60%	n/a	1	$2	0.0%	$51,650
2012	11.21%	7.37%	n/a	3	$36	0.1%	$49,093
2011	1.53%	4.94%	n/a	3	$34	0.1%	$43,933
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Periods Ended 3/31/14	Cumulative Annualized Return		Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
1 Year	5.58%	4.46%	4.74%	4.24%
2 Year	7.50%	5.24%	3.96%	3.36%
3 Year	6.30%	5.68%	4.66%	3.76%
4 Year	n/a	n/a	n/a	n/a
5 Year	n/a	n/a	n/a	n/a
6 Year	n/a	n/a	n/a	n/a
7 Year	n/a	n/a	n/a	n/a
8 Year	n/a	n/a	n/a	n/a
9 Year	n/a	n/a	n/a	n/a
10 Year	n/a	n/a	n/a	n/a

3-Year Periods Ending	3-Year Cumulative Return		3-Year Ex-Post Standard Deviation	
	PFMAM Composite (Gross of Fees)	Blended Index Return	PFMAM Composite	Blended Index Return
2013	6.41%	5.63%	4.58%	3.70%
2012	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 25:75 Composite
As of March 31, 2014

Quarterly Returns

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
3/31/2014	1.67%	1.79%
12/31/2013	2.69%	1.90%
9/30/2013	2.74%	2.34%
6/30/2013	-1.58%	-1.59%
3/31/2013	2.77%	1.93%
12/31/2012	1.69%	0.72%
9/30/2012	4.22%	2.84%
6/30/2012	0.51%	0.42%
3/31/2012	4.40%	3.22%
12/31/2011	3.12%	3.16%
9/30/2011	-4.07%	-1.64%
6/30/2011	0.65%	1.76%
3/31/2011	1.97%	1.63%
12/31/2010	2.27%	1.49%
9/30/2010	n/a	n/a
6/30/2010	n/a	n/a
3/31/2010	n/a	n/a
12/31/2009	n/a	n/a
9/30/2009	n/a	n/a
6/30/2009	n/a	n/a

Quarter Ended	Total Return (Gross of Fees)	
	PFMAM Composite	Blended Index Return
3/31/2009	n/a	n/a
12/31/2008	n/a	n/a
9/30/2008	n/a	n/a
6/30/2008	n/a	n/a
3/31/2008	n/a	n/a
12/31/2007	n/a	n/a
9/30/2007	n/a	n/a
6/30/2007	n/a	n/a
3/31/2007	n/a	n/a
12/31/2006	n/a	n/a
9/30/2006	n/a	n/a
6/30/2006	n/a	n/a
3/31/2006	n/a	n/a
12/31/2005	n/a	n/a
9/30/2005	n/a	n/a
6/30/2005	n/a	n/a
3/31/2005	n/a	n/a
12/31/2004	n/a	n/a
9/30/2004	n/a	n/a
6/30/2004	n/a	n/a

Please refer to the accompanying Important Disclosures.

PFM Asset Management LLC
PFMAM Multi-Asset Class 25:75 Composite
As of March 31, 2014

Important Disclosures

PFM Asset Management LLC (PFMAM) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. PFMAM has not been independently verified.

Firm Definition: For the purposes of complying with the GIPS standards, the firm is defined as PFMAM. PFMAM is an investment advisor registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. PFMAM was created in 2001; prior to 2001, PFMAM's investment advisory business was operated as part of Public Financial Management, Inc. utilizing the same personnel and investment process. Firm performance includes accounts managed by PFMAM, but which may have been previously managed by Public Financial Management, Inc. PFMAM manages short-term pools and money market funds, investment-grade fixed-income portfolios, and multi-asset class portfolios under a variety of individual client mandates.

Composite Description: The *PFMAM Multi-Asset Class 25:75 Composite* includes all institutional multi-asset class portfolios diversified among equity, fixed income and alternative investments with a target allocation of roughly 25% equity and 75% fixed income. The portfolios are managed in a fund-of-fund approach. The portfolios do not use leverage, complex derivatives, or short positions. Individual portfolios may have policies that are more or less restrictive than those described above, in some cases significantly so, and may use specific benchmarks that differ from those used as composite benchmarks in this presentation.

The composite creation date and inception date is October 2010. The minimum portfolio size for inclusion in the composite is $100,000. Only actual portfolios are included in the composites; the composite contains no simulated, model or non-fee paying portfolios. The composite became inactive March 2014 due to the absence of eligible portfolios.

Benchmark Description: Composite performance is compared to a blended benchmark consisting of 16% Russell 3000 Index, 9% MSCI ACWI ex US (net) Index and 75% Barclays Aggregate Index. In January 2012, the blended benchmark was changed from 25% S&P 500 Index and 75% Barclays Aggregate Index in order to better reflect the global allocation of the underlying portfolios. Benchmark returns are provided to represent the investment environment that existed during the time periods shown.

Performance Calculations: Valuations are computed, and performance results and asset values are reported in US dollars. Gross-of-fees returns are presented before management fees, custodial fees and taxes, but after brokerage and other transaction fees, if any. A client's return will be reduced by advisory fees and other expenses the portfolio may incur. PFMAM's standard investment advisory fee schedule is: 0.45% per annum on first $10 million, 0.35% per annum on the next $10 million, 0.25% per annum on the next $30 million, 0.20% per annum on the next $50 million and 0.15% per annum on assets over $100 million. Actual fees may be lower. Internal dispersion is calculated using the equal-weighted standard deviation of the annual gross returns of those portfolios that were included in the composite for the entire year; for years where there are five or fewer portfolios in the composite for the full annual period, dispersion is not presented, as it is deemed not meaningful. Benchmark returns are presented on a gross basis.

Risk Disclosure: Actual performance results may differ from composite returns, depending on the size of the account, investment guidelines and restrictions, inception date and other factors. Past performance is not indicative of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses. There can be no assurance that a client portfolio will meet its performance objective.

Additional Information: A list of composite descriptions is available upon request. The firm's policies for valuing portfolios, calculating performance, and preparing compliance presentations are also available upon request. Requests should be made to Biagio Manieri, PhD, CFA, at manierib@pfm.com.

D. Thought Leadership Series: PFM Perspectives

PFM®
Perspectives

January 2015

Active vs. Passive Management: Considerations for Best-in-Class Manager Selection

By Biagio Manieri, Ph.D., CFA, Director of Research and Head of the Multi-Asset Class Investment Committee at PFM Asset Management LLC

Introduction

A diversified portfolio incorporating both active and passive strategies can offer a balanced, cost-effective approach to realizing long-term return objectives. At PFM Asset Management LLC ("PFMAM"), we believe that over time, passively managed funds will outperform most actively managed funds. However, there are certain characteristics and qualities that we believe will improve the probability of picking an active manager who will outperform the benchmark over time. When approaching manager selection—the second part of our twofold investment process for long-term portfolios such as defined benefit plans, endowments, or foundations—we focus on the people making the investment decisions and the process they follow.[1] In this edition of *PFM Perspectives,* we explain our views on active versus passive management and describe how we select best-in-class managers.

Active vs. Passive Management

After constructing the portfolio's asset allocation, we must decide whether to use active or passive management for each asset class. This decision can be approached in two ways:

- First, we can look to **economic theory** for guidance, which tells us that, for the most part, markets are efficient. The application of this principle to investments is called the *Efficient Market Hypothesis (EMH)*. In summary, EMH tells us that security prices discount available information; new information is random (i.e., can be positive or negative and we cannot predict the outcome). Therefore, the movement of stock prices cannot be forecasted through the use of technical or fundamental analysis. Imbedded in the EMH are several implicit assumptions, which lead some to question its validity.

- Second, one can also use **simple logic** to examine the issue of whether to use active or passive investment management. As a whole, investors balance the market. In order for one investor to be overweight/underweight in a particular security, another investor needs to be underweight/overweight in the opposite direction. The same applies to investment performance. For one investor to outperform, another must underperform such that the two combined equal the market return. In other words, alpha is a zero-sum game (before costs). After costs, all investors combined must underperform the market by the costs of investing. The investment industry is highly competitive, and investors direct assets toward funds that outperform and remove assets from funds that underperform. If there is a group of investors that is inherently gaining alpha from another group of less capable investors, the first group will see positive inflows and the second group will see outflows and close down, leaving equally competent managers in the market. The results in Exhibit 1 show that over the past three to five years (the typical look back for most

Exhibit 1: Percentage of Active Funds Underperforming Their Index (as of June 30, 2014)

	One Year	Three Years	Five Years
U.S. Equity	60.2%	85.9%	73.6%
Non-U.S. Equity	74.9%	65.4%	70.3%
Emerging Markets (EM) Equities	64.6%	61.1%	68.0%
High Yield	72.8%	85.7%	85.4%
EM Debt	81.0%	86.5%	64.3%

Source: Standard & Poor's

[1] *Please see our PFM Perspectives paper titled "Strategic and Tactical Asset Allocation: Considerations for Optimal Asset Allocation," published November 2014, for a detailed description of the first part and primary focus of PFMAM's investment process: asset allocation (available upon request).*

institutional investors), most actively managed funds underperformed their respective indices. While this is a relatively recent snapshot, these results reflect longer-term trends, as most active managers underperformed even before the 2007-2008 financial crisis.

A Case for Passive Management

Based on economic theory and empirical data, we believe that passive management or indexing should be the default option. The first question investors need to ask themselves is not whether to select Active Manager A or Active Manager B, but whether there are reasons to believe that a particular active manager has a sustainable competitive advantage that will result in outperformance over time. In the absence of such reasons, the passive option should be selected.

One factor that influences our views of an active manager is the degree of difficulty in winning the active management game. This is partly based on the efficiency of the market under consideration and the availability of information. For example, small-cap stocks tend to receive less coverage and attention from major Wall Street research firms than large-cap stocks. While it is still a zero-sum game and the average investor in small-cap stocks will achieve the market return minus costs, fundamental managers with deep knowledge of the companies in which they invest should be able to gain an informational advantage and outperform over time.

Selecting Managers

In terms of investment approaches, we favor investment managers who rely on fundamental, bottom-up research and analysis to select securities over those who use quantitative strategies or market timing. In some asset classes, such as private equity, passive replication is either not possible and/or not desirable. In these cases, if we cannot invest with above-median managers because they are closed to new investors or for some other reason, we would rather avoid investing in the space altogether. We do not believe that the average return or beta exposure in these asset classes adequately compensates the investor for the risk exposure.

Characteristics of Successful (and Unsuccessful) Managers

While economic theory, logic, and actual results support our bias toward passive strategies, it is difficult to deny that some active managers have outperformed over long periods of time. The common characteristics of most of these active managers include:

- Views that run counter to the mainstream;
- Patience, focus, and a clear-cut investment philosophy; and
- The ability to endure periods of underperformance without abandoning their investment philosophy and strategy.

These fundamental investors have outperformed without access to inside information, using annual reports, industry publications, and other publicly available information. Contrary to EMH, all public information is not reflected in all stock prices at all times. Anyone who bothered to read the footnotes to Enron's annual reports knew the company had liabilities off of its balance sheet. The real issue is that with an average annual portfolio turnover of over 100%, how many investment managers have the time to read footnotes? Therefore, when selecting an investment manager, we are biased toward managers with a concentrated portfolio of companies where the manager has deep knowledge of the companies and low portfolio turnover.

If active management is a zero-sum game, yet markets are not perfectly efficient, why then do most active managers underperform most of the time? And how do we increase the probability of winning the active game? Most retail and institutional investors (including plan sponsors) chase performance; however, past performance is not a good predictor of future performance. Second, investment managers have become more focused on the short term, with the average equity mutual fund having a turnover of around 100%. This is driven by investors chasing performance, further reinforcing the cycle. Investment managers know that if they cannot outperform in the short term, they will be fired and will not be around for the long term. It may be a paradox that the focus on outperforming every single quarter leads to underperformance, as investment managers try to predict short-term events such as quarterly earnings and short-term movements in interest rates, among others.

There are other forces that work against the average active manager. According to Jack Bogle, retired CEO of The Vanguard Group, the investment industry—especially the mutual fund industry—used to operate under a "we sell what we make" mentality. Now its modus operandi is "we make what will sell."[2] Investment firms often create products that focus on the hot sector or investment theme of the moment. This approach biases PFMAM against large, multi-product investment firms that are only too willing to proliferate products that are in demand, regardless of whether they have the expertise to deliver outperformance with those products.

Rather than recognizing the futility of their approaches, many active managers have responded to their underperformance by becoming closet indexers, over/underweighting stocks in the index. The obsession with the index also leads to an obsession with tracking error (i.e., how closely a portfolio follows the benchmark index). Peter Bernstein, a widely recognized expert in the investment industry, points out, "Active managers have become increasingly sensitive to tracking error risk. Failing unconventionally was never a happy event in this business, but clients' love affair with benchmarks has made large tracking errors extremely perilous for managers."[3] Simply stated, most active managers are playing a game of trying to figure out whether to hold shares of a particular company at market weight (neutral for performance) or over/underweight. Great investors are not driven by benchmarks; they invest in great companies at attractive prices. Given the focus on tracking error and hugging the index, how can a manager hope to beat the index if the portfolio looks like the index and has higher costs?

Rather than relying on past performance, we believe investors should focus on the reasons for the over/underperformance. Most investors do not adequately distinguish whether the outperformance is due to the manager's superior investment decisions or willingness to take on excess risk. Likewise for underperformance: is it due to poor decision-making or factors outside of the investment manager's control? If a manager exhibits relative underperformance for the prior three-year period, but yet the investment professionals, firm structure, processes, and strategies have not changed, investors should ask themselves why they originally hired this manager. If those reasons are still valid, the investor should proceed with caution in terminating this manager.

Since performance persistence is weak, why do most investors use the prior three-year performance track record in making investment decisions? The alternative to using prior investment performance (which is to evaluate the investment process, strategy, organizational structure, the quality of the investment personnel, etc.) is not something that most investors can adequately analyze. So, when an investment manager with favorable three-year performance explains how he/she calculates intrinsic value, buys stocks at a discount to intrinsic value, or predicts future interest rate moves, the investor is convinced by the "story." After all, the manager has the good performance to supposedly back up what he/she is saying.

While the active management game is a zero-sum game overall and markets are largely efficient, we believe there are personal and organizational characteristics that should improve the odds of selecting the proper active manager.

Selecting an Active Manager

Since past performance is not a good predictor of future performance, quantitative measures based on performance such as the Sharpe ratio and information ratio are not reliable, as these statistics are not stationary and cannot be the sole basis for selecting an investment manager. Therefore, we believe that the most important factors in selecting an investment manager are qualitative. Quantitative factors help confirm the qualitative judgment of our investment professionals. PFMAM's investment process combines both qualitative and quantitative elements to help ensure that we select those managers who are best able to win the active-management game over long periods of time.

Qualitative

When selecting investment managers for asset classes, PFMAM believes nothing matters more than **the people making the investment decisions.** We want to see a passion for investing. Like every other profession (e.g., medicine, auto mechanics, etc.), some individuals will be more talented than others; some truly enjoy their profession and are highly motivated to do a good job, while others see it as a way to make money—possibly even a lot of money. Some investment professionals are motivated to "win" (i.e., outperform for the sake of beating others), whereas other investment professionals are motivated by acquiring more assets to generate more fees and make more money. In *Shop Class as Soulcraft: An Inquiry into the Value of Work*, Matthew Crawford compares two types of motorcycle mechanics: those who truly love their craft and will work hours on

[2] *"The Mutual Fund Industry in 2003: Back to the Future." Jack Bogle, Bogle Financial Markets Research Center.*
[3] *"Where, Oh Where are the .400 Hitters of Yesteryear?" Financial Analysts Journal, Nov-Dec 1998.*

a repair, and those who take shortcuts to finish one job and move on to the next as a way to generate higher billings. When hiring active investment managers, we prefer the first type and would rather index than select the second type.

Since people are the most important part of achieving great investment performance over time, by definition the investment decisions they make cannot be reduced to a quantifiable process. While process is important, the secret sauce is the people following that process and making the decisions. If the process could be reduced to a set of steps, then it can be implemented quantitatively. We do not believe this to be the case. This creates an issue for some plan sponsors selecting managers, since the criteria for assessing the quality of the people is necessarily qualitative; therefore, the decision as to whether to hire a manager cannot be reduced to simply comparing numbers.

One qualitative element that we focus on is **independent, contrarian thinking**. While efficient over time, capital markets can overprice securities that fit the flavor of the day and undervalue out-of-favor securities. Investment managers who are uncomfortable being out of consensus are ill-suited to take advantage of these opportunities. For example, in the late 1990s, the U.S. equity market significantly overvalued securities in the technology sector that were perceived to be tied to the "new economy," while significantly undervaluing all other securities. This created a significant opportunity for those managers with a disciplined investment process and valuation framework. The average investment manager feels comfortable being in the consensus and uncomfortable being out of consensus; the portfolio tends to look like the index and the peer group. Truly talented investment managers exhibit the opposite characteristics. Their portfolios do not look like the index; they tend to feel uncomfortable being in the consensus, knowing that this can only lead to average performance. They understand that to achieve performance that is different from the index, the portfolio cannot look like the index, and they are comfortable with this. They are contrarians, but not knee-jerk contrarians who disagree for the sake of disagreeing. They understand that the consensus is not always right and are willing to take advantage of these opportunities. If an investor is not comfortable investing with these managers, then the better solution is to hire a passive manager rather than hiring an average investment manager who will deliver the average return before fees and less after fees.

Having a deep understanding of the investment people and process is also important when the manager inevitably underperforms. At this point, an investor with a deep understanding of the manager is more likely to stick with the manager, as opposed to placing that manager on a watch list and ultimately terminating that manager. A superficial understanding of the manager based solely on past performance leads plan sponsors to constantly churn the manager lineup, with no better results than investment managers who churn their portfolios (i.e., always buying high and selling low).

Quantitative

When performing due diligence on a manager, we carefully analyze the **historical performance** to ensure we understand the drivers of past performance. What looks like "alpha" may be what some refer to as "beta in drag"—that is, returns are attributable to other market factors such as a fund's capitalization (i.e., size) and value (represented by the book-to-market ratio), rather than manager talent. Academic research has identified certain factors that earn a premium over time. For example, a fund that is outperforming in a rising market may simply hold higher risk or higher beta stocks. Small-cap stocks have historically outperformed large-cap stocks and stocks with low price/book ratios have earned a premium over stocks with high price/book ratios. If we notice that a manager consistently has a bias in favor of lower average and median market-cap stocks and those with low price/earnings ratios, we will not only compare the performance to a core index, but also to small/mid ("SMID") cap and value indices to see if the outperformance disappears. If a manager claims to be a stock picker, we want to see that his/her selection decisions drive performance. For example, after the real estate and stock market bubbles burst in Japan at the end of 1989 and into 1990, most non-U.S. developed-markets equity managers outperformed the MSCI EAFE Index, but this was driven by a systematic underweight of Japan rather than superior stock selection.

We also examine the **average turnover of a portfolio** to see if it is consistent with the investment process as defined by the manager. For example, if the manager describes his/her investment process as focusing on good-quality companies with strong management and trading at reasonable valuation, is that reflected in low turnover? We strongly believe that there are not that many high-quality companies with top-quality management where the stock is trading at attractive valuation to support a portfolio turnover of 100% per year.

One sign that we look for in determining whether a manager can add value over time is the **degree to which the portfolio hugs the benchmark.** We believe that a manager with deep research capabilities and a concentrated portfolio provides the best opportunity to outperform over time. Active managers with no sustainable competitive advantage tend to track the benchmark, which helps ensure the fund does not significantly underperform the overall peer group. This behavior leads to mediocre performance over time.

This benchmark-hugging behavior is combined with a focus on gathering as many assets as possible in order to generate ever higher fees for the investment firm. However, investors are seeking to generate outperformance, which may require the investment firm to limit the amount of assets under management. We look for investment firms that have a good understanding of how much assets they can productively manage and a willingness to close their funds after reaching those levels.

Organizational Characteristics

From an organizational perspective, PFMAM focuses on the **ownership structure** of the firm. All other things being equal, we tend not to prefer investment firms that are subsidiaries of larger firms, which are seen as sources of increasing profits and dividends to the parent company. These subsidiaries tend to be large, multi-product firms that typically produce what they can sell, as opposed to trying to sell what they can produce successfully. In a multi-product firm at any given time, some funds will outperform while other funds underperform. The firm simply sells what is outperforming at the time. A focused firm with one or two products does not have this luxury and instead focuses on its limited number of products in order for the firm to survive. We like to see an alignment of interest between the investor and the manager. This is more likely to be the case when the firm is an independent entity whose sole purpose is investment management, as the well-being of the firm is solely dependent on its long-term investment performance. We believe we are more likely to find these characteristics in smaller, independent investment firms rather than large asset management firms that are subsidiaries of even larger financial services firms.

Another aspect of the organizational structure of the firm that we examine is the **compensation scheme** of the investment professionals. We like to see incentive compensation based on performance as an important part of total compensation. We also like to see that the firm's investment professionals have a significant portion of, if not their entire, net worth in the product we are considering. This also helps to ensure an alignment of interest, and that the investment professionals are focused on investment performance and not simply gathering more assets.

In conducting our due diligence, we believe that visiting the investment manager at his/her office is an important part of the process. PFMAM makes every effort to speak with as many of the staff members of the firm, including traders and analysts, so that we can understand the **firm's culture**—an important determinant, in our belief, of attracting and retaining talented investment professionals. Something as simple as hearing different answers to the same questions from different people within the firm is instructive. For example, is there a difference between how portfolio managers and analysts describe their interactions? We also strive to speak with different individuals outside of the firm, as well as former employees, to gain useful insights, including positive or negative commentary. For example, it would be important to know if a manager spends every weekend perfecting his/her golf game when determining whether this manager has a passion for investing or whether it is a way to make money.

Monitoring

Monitoring the investment manager and portfolio is just as important as the original decision to hire that manager. Without proper monitoring and understanding of the portfolio, the plan sponsor has no way to judge the performance of the manager other than focusing on investment performance versus some benchmark. This will inevitably lead to manager churn during those times when the portfolio underperforms. By continuously maintaining a dialogue with the investment manager over time, we gain a greater understanding of the people, process, and firm, and can more easily spot possible issues on the horizon.

Establishing a Rebalancing Strategy

Once the portfolio is constructed, investors need to rebalance the assets on a periodic basis to maintain the desired strategic exposures. Rebalancing can also be called "a free lunch" in that it helps to reduce the volatility of the portfolio without reducing the return. As shown in Exhibit 2 (on the following page), the returns of the drifting portfolio and the annually rebalanced portfolio are the same (7.7%); however, the volatility of the annually rebalanced portfolio is lower (10.5%). This

Exhibit 2: Portfolio Results for Various Rebalancing Protocols, 20-Year Period

		Portfolio Deviation from Original Allocation			Rolling Period		
	Drifting	1% Range	3% Range	5% Range	Monthly	Quarterly	Annual
Return	7.7%	7.5%	7.6%	7.6%	7.5%	7.6%	7.7%
Risk	13.2%	10.7%	10.7%	10.6%	10.7%	10.7%	10.5%

Source: Morningstar EnCorr
Portfolio is made up of 40% Russell 3000 Index, 20% MSCI EAFE Index, 35% Barclays Capital U.S. Aggregate Bond Index, 5% FTSE NAREIT Equity REIT Index.

is accomplished by "buying low and selling high." Asset classes that have done relatively better are sold, while those that have underperformed are purchased. Over the trailing 20 years as of December 2013, a diversified model portfolio that did not rebalance achieved an annualized return of 7.7% with volatility of 13.2%. The same model portfolio that rebalanced annually achieved a return of 7.7% with a volatility of 10.5%. By simply rebalancing once per year, portfolio volatility is reduced by 21% with no loss in investment returns.

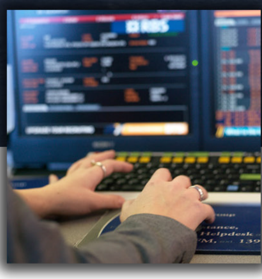
Conclusion

While PFMAM believes that passive management or indexing should be the default option for institutional investors, we also believe there are active managers who may outperform the index within a certain asset class. When considering any manager, it is important for investors to understand why that manager has over/underperformed and, in particular, distinguish between talent and taking excess risk. Additionally, it is important for investors to consider manager fees and how they are reflected in performance figures. While return comparisons are gross of fees, investors receive net results. Active managers tend to charge higher fees than passive managers, and therefore need to achieve even higher returns to produce comparable net-of-fee performance. An experienced investment advisor can help guide the process of interpreting qualitative versus quantitative manager data, and can proactively manage risk in the portfolio through manager monitoring and asset-class rebalancing.

E. Thought Leadership series: 2015 Capital Market Assumptions

Capital Market Assumptions for Multi-Asset Class Portfolios

January 2015



PFM®
The PFM Group
Financial & Investment Advisors

Executive Summary

- The U.S. economy unexpectedly contracted during the first quarter of 2014, but steadily gained speed as the year progressed. The Federal Reserve (Fed) continued to taper its quantitative easing (QE) program throughout 2014 and finally ended the program in October.
    - o The Bureau of Labor Statistics revised labor force growth downward from 1.0% to 0.6%, which will impact projections for future domestic growth.
- The eurozone economy stagnated in the first half of the year, which prompted the European Central Bank (ECB) to implement additional stimulus. Following an increase in the consumption tax in early April, Japan's economy contracted after gaining some ground.
- Emerging-markets (EM) economies generally experienced slower growth, particularly in China; in some cases, EM economies have reported slower growth than the U.S. Despite continuing worries that accommodative monetary policy through near-zero interest rates and bond buying would lead to runaway inflation, both headline and core inflation remain well-behaved, with the exceptions of certain EM countries such as Brazil and Russia.
- Confounding most forecasts, interest rates declined across the globe, with the yield on 10-year U.S. Treasuries closing out 2014 at 2.17%. Economic forecasters expect the global economy to continue to grow over the next few years. Our conviction remains highest for the U.S. economy.
- We believe non-U.S. developed-markets equities will achieve a slightly higher return than U.S. equities over the intermediate term due to more attractive valuations and additional monetary stimulus in the eurozone and Japan, offset by slower economic and profit growth.
- Since a growing share of corporate profits are earned outside of the home country and correlations between U.S. equities and non-U.S. developed-markets equities have increased over the years, we see merit in using similar expected long-term returns for both asset classes.
    - o While policy actions should support growth in non-U.S. developed markets, these economies must deal with long-term structural issues in order to improve their competitive positions. Likewise in the eurozone, the ECB has been receiving little support from fiscal policy or market reform efforts.
- Many EM countries are currently struggling with problems such as rising inflation, deteriorating current account balances, slower economic growth, and weaker currencies. These issues may further batter EM economies in 2015 as the Fed continues to normalize monetary policy.
- Over the long term, we use a higher expected return for EM equities than what is used for developed-markets equities because of faster labor force growth and technological progress.
- We believe that fixed-income returns will continue to be volatile in 2015. Over the next few years, we expect that fixed-income markets may struggle as interest rates normalize from historically low levels.
- For fixed-income returns, we assume that the current low-interest-rate environment will normalize and that new capital will be allocated to bonds at higher rates, offsetting the price decline of existing bond holdings.
- Real estate investment trusts (REITs) have characteristics of both fixed income and equity. Over long periods of time, we believe that REITs will return more than fixed income but less than equities.
- Commodities have received a significant amount of attention from institutional investors over the past few years, although they have recently had negative returns. Our estimate is that commodities will return approximately 3% over the intermediate term and 5.3% over the long term.

Please refer to page 17 of this document for important disclosures relating to this material.

PFMAM's Capital Market Assumptions for 2015

Intermediate: Next 5 Years	US Equity	US Small-caps	Int'l Developed Equity	EM equity	Non-US small cap	Core Bonds	Global Core	Intermediate IG Corp	Long IG Corp	EM Debt	High Yield	Bank Loans	REITs	PE RE	Commodities	HFs	PE	Cash
Expected Return (%)	7.5%	6.7%	7.8%	7.2%	8.5%	1.0%	1.0%	2.5%	2.5%	3.5%	4.0%	3.5%	5.2%	6.4%	3.0%	6.1%	9.9%	1.0%
Expected Risk (%)	17	19	18	24	22	4	4	6	10	10	10	6	12	15	16	10	25	1
Long Term Projections	**US Equity**	**US Small-caps**	**Int'l Developed Equity**	**EM equity**	**Non-US small cap**	**Core Bonds**	**Global Core**	**Intermediate IG Corp**	**Long IG Corp**	**EM Debt**	**High Yield**	**Bank Loans**	**REITs**	**PE RE**	**Commodities**	**HFs**	**PE**	**Cash**
Expected Return (%)	7.7%	8.2%	7.7%	8.2%	8.5%	5.5%	5.5%	6.3%	7.1%	7.3%	6.8%	5.2%	6.2%	7.4%	5.3%	7.4%	9.8%	3.3%
Expected Risk (%)	16	19	17	20	20	5	5	7	10	10	10	6	12	15	16	10	25	1
Correlations																		
US Equity	1																	
US Small-caps	0.9	1																
Int'l Developed Equity	0.8	0.8	1															
EM equity	0.7	0.7	0.7	1														
Non-US small cap	0.8	0.8	0.9	0.8	1													
Core Bonds	0.3	0.3	0.2	0.2	0.2	1												
Global Core	0.2	0.2	0.2	0.2	0.2	0.4	1											
Intermediate IG Corp	0.3	0.3	0.2	0.2	0.2	0.9	0.9	1										
Long IG Corp	0.3	0.3	0.2	0.2	0.2	0.9	0.9	0.9	1									
EM Debt	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	1								
High Yield	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	1							
Bank Loans	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.7	1						
REITs	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	1					
PE RE	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.2	0.8	1				
Commodities	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	1			
HFs	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.2	1		
PE	0.7	0.7	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.5	0.2	0.4	0.4	0.1	0.5	1	
Cash	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	,2	0.1	0.1	0.1	0.1	0.1	1

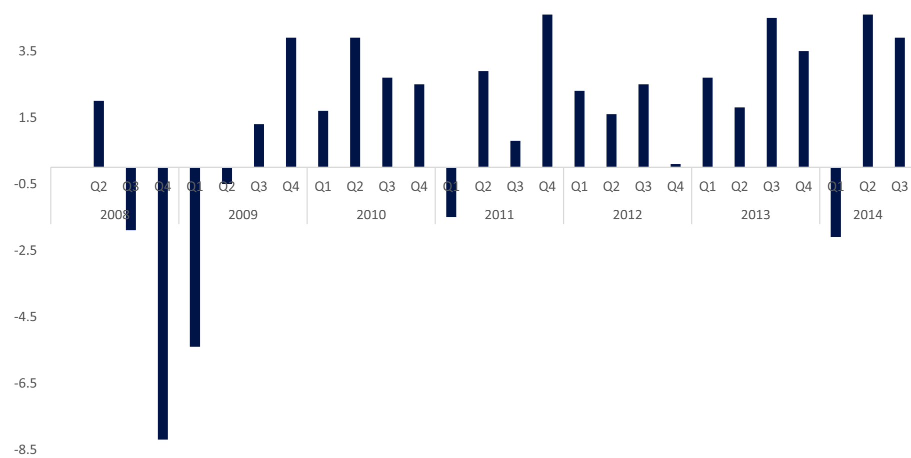
Expected Returns of Various Asset Classes

In this paper, PFM Asset Management LLC (PFMAM) presents what we believe are reasonable capital market assumptions over the intermediate term (i.e., the next five years) and longer term (i.e., more than 30 years). Our Capital Market Assumptions include expected returns, expected risks, and correlations for a wide variety of asset classes, as shown above. Our assumptions are developed by examining the economic fundamentals of each asset class, an overview of which has been provided in a companion publication, "Overview of Economic Fundamentals."

U.S. Equities

According to the Bureau of Economic Analysis, real GDP in the U.S. bottomed out in the second quarter of 2009 and has been growing modestly since, averaging about 2% real GDP growth, with quarter-to-quarter volatility (Exhibit 1).

Exhibit 1: U.S. GDP Growth



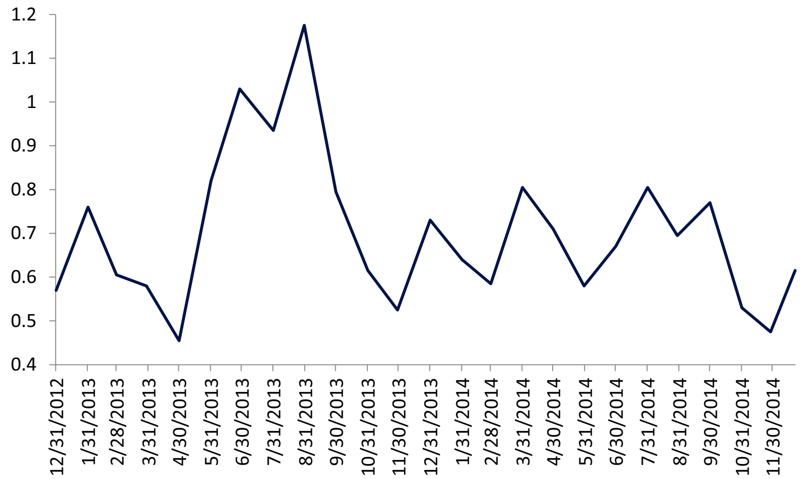
Source: Bloomberg

Economic forecasters expect the U.S. economy to continue to grow at a moderate pace over the next few years. Earlier in the recovery, positive economic growth and cost reductions helped corporate profits quickly recover the losses experienced during the financial crisis and propelled the equity market to all-time highs. As a result of strong equity returns since 2009, U.S. equity valuations are no longer cheap but fair. For the equity market to continue its rally, corporate profit growth needs to continue throughout 2015 and 2016, driven by better economic growth and a pick-up in corporate investments from cash on corporate balance sheets. In addition to the continued global economic recovery, central banks are supporting market gains through accommodative policies. While the Fed has ended its QE program and is expected to raise rates at some point in 2015 (Exhibit 2), monetary policy in the U.S. continues to remain accommodative. U.S. stock prices have recovered and reached all-time highs; valuations for equities are not as attractive as in the past few years. However, we believe that the current market environment can still support further equity gains. The current trailing price-to-earnings (P/E) ratio for the S&P 500 Index

 Please refer to page 17 of this document for important disclosures relating to this material.

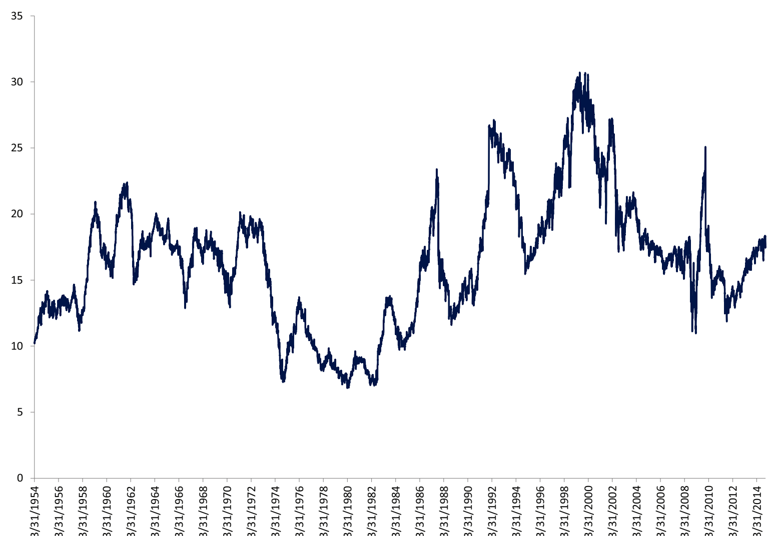
is 16.4, which is not significantly above its historical average of 16.3 since 1954 (Exhibit 3). The Shiller cyclically adjusted P/E ratio has attracted a lot of attention, and some investors believe that it is pointing to overvalued U.S. equities. While the current Shiller P/E ratio (which measures a security's price over its 10-year average earnings) is above the long-term average, it is in line with the average since 1990 as equity valuation has risen (Exhibits 4 and 5).

Exhibit 2: December 2015 Fed Funds Futures



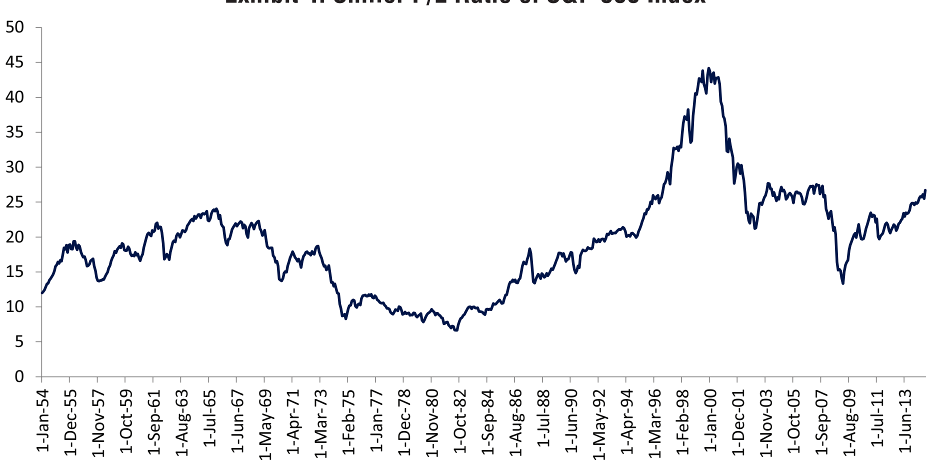
Source: Bloomberg

Exhibit 3: Trailing P/E Ratios of S&P 500 Index (1954-2014)



Source: Bloomberg

Exhibit 4: Shiller P/E Ratio of S&P 500 Index



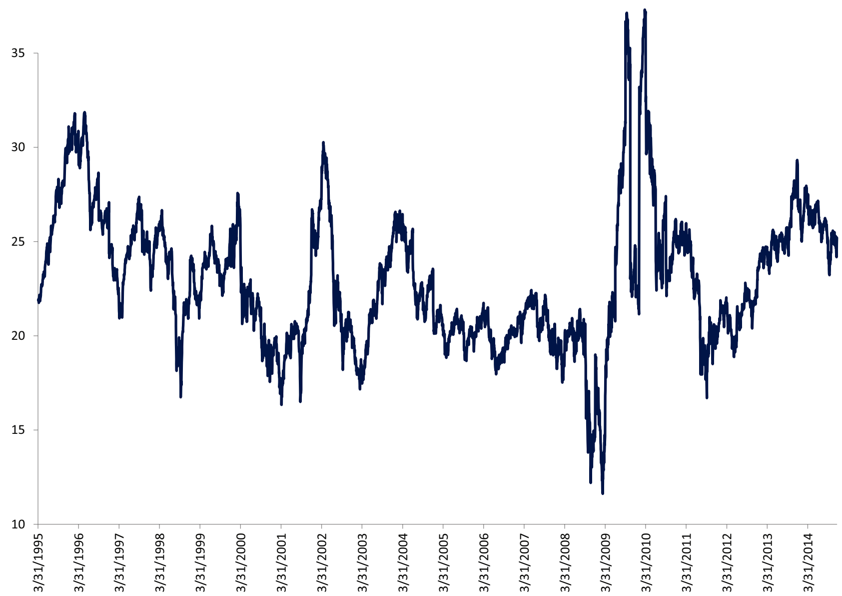
Source: Robert Shiller, Yale University

Exhibit 5: Shiller P/E Ratio

Time Period	Average	Median
1954-2014	19.3	18.8
1970-2014	19.4	18.3
1980-2014	21.3	21.0
1990-2014	25.3	23.9
Current: 26.7		

For U.S. small-cap equities, the current valuation is above the long-term average and less attractive compared to large-cap stocks. While smaller companies in the U.S. will benefit from an improving economy given that they have greater exposure to the national economy than large multi-national corporations, possible rising interest rates in 2015 will be a headwind for strong stock price appreciation given that the valuation is higher than the average. The current trailing P/E ratio for U.S. small-cap equities (as measured by the S&P 600 Index) is 22.9, which represents a premium versus the average of 22.5 since 1995 (Exhibit 6).

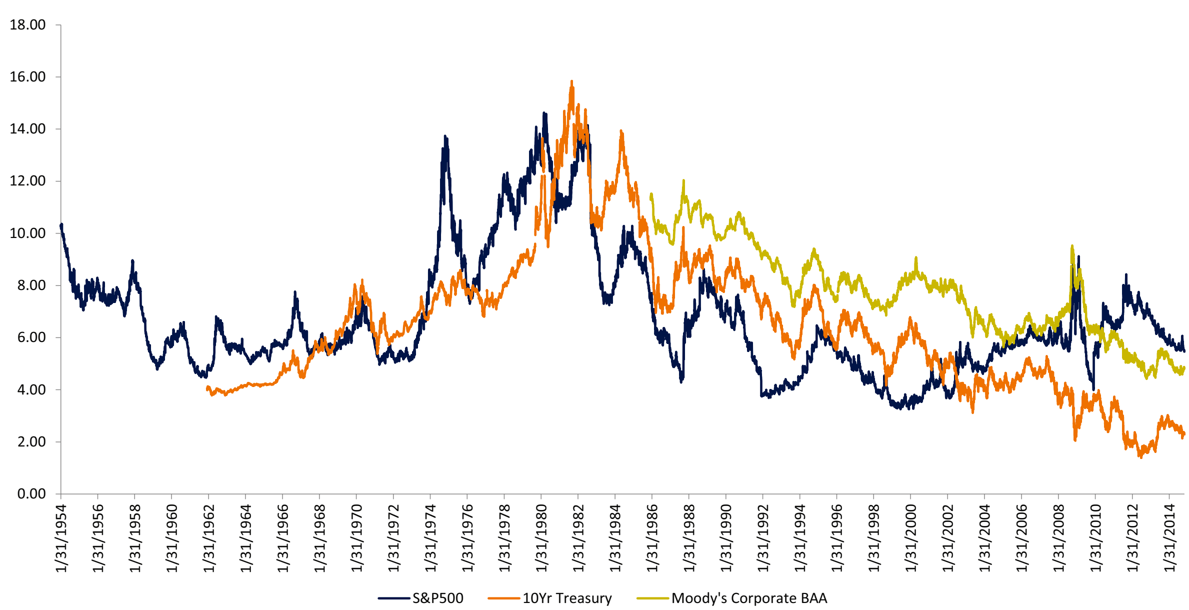
Exhibit 6: Trailing P/E Ratios of S&P 600 Index (1995–2014)



Source: Bloomberg

Relative to the fixed-income markets, the U.S. equity market remains attractively valued. Comparing the earnings yield (the inverse of P/E) to the yield of either 10-year Treasuries (the so called "Fed model") or to BBB-rated corporate bond yields, U.S. equities appear to still offer better value than fixed-income instruments (Exhibit 7). Additionally, modest and stable inflation and low interest rates are supportive of equity prices (Exhibits 8 and 9), as valuations during periods of low inflation and interest rates would push equity prices higher from current levels.

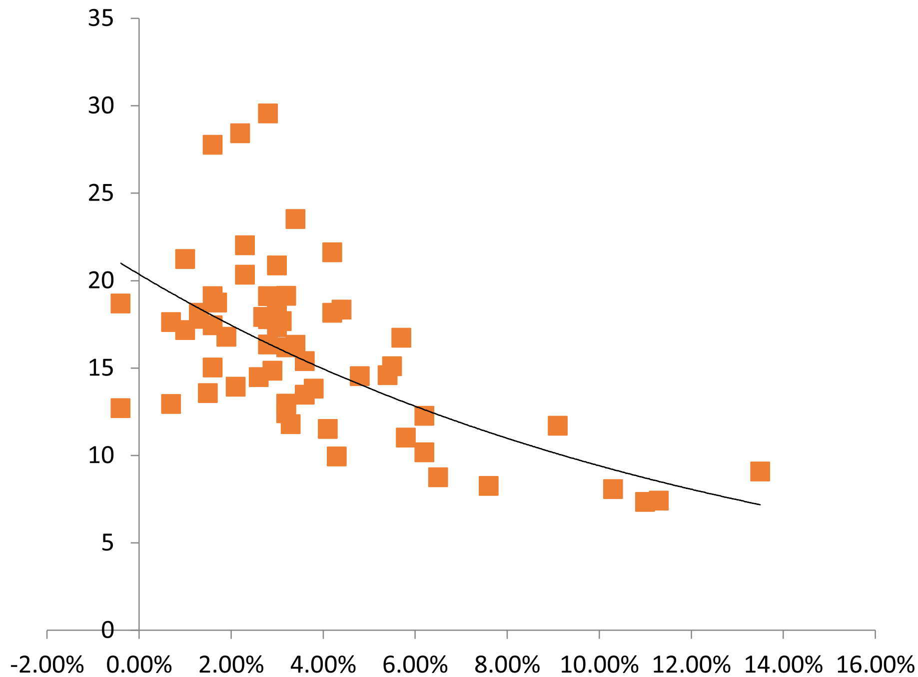
Exhibit 7: Equity Earnings Yield vs. Fixed Income Yields



Source: Bloomberg

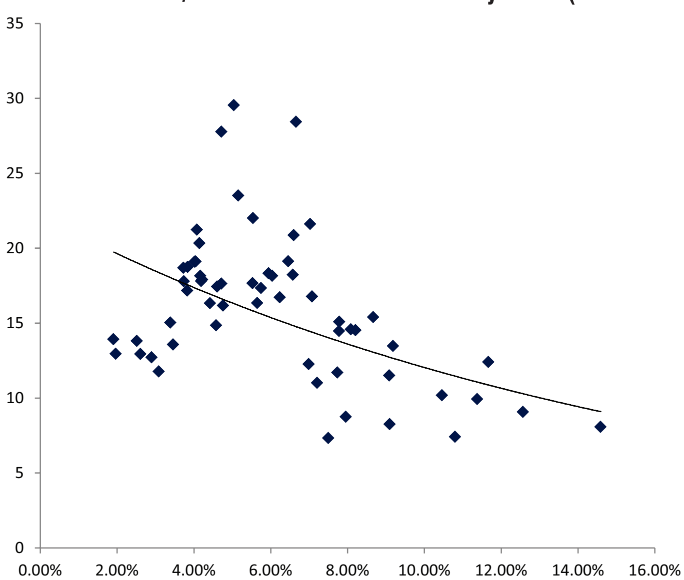
Please refer to page 17 of this document for important disclosures relating to this material.

Exhibit 8: P/E Ratios Compared to the Consumer Price Index (1954-2014)



Sources: Bloomberg and Bureau of Labor Statistics

Exhibit 9: P/E Ratio vs. 10-Year Treasury Yield (1954-2014)



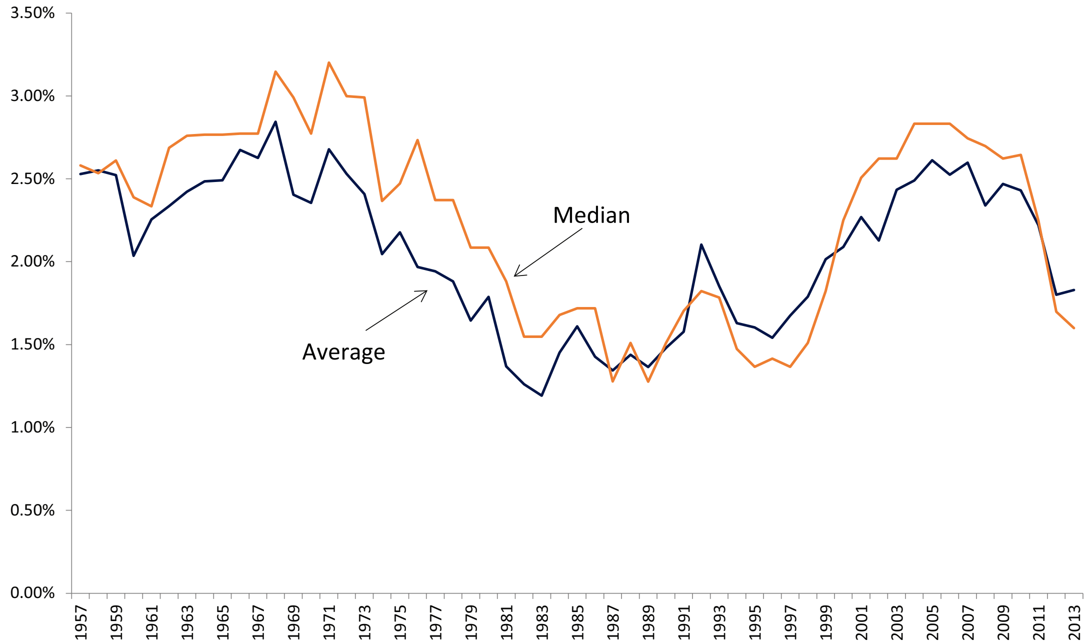
Source: Bloomberg

Over the long term, we expect real economic growth in the U.S. to approximate 2.6%, driven by labor force growth of 0.6% and productivity growth of 2%. Our expectations for real economic growth are consistent with those of the International Monetary Fund (IMF), the Fed, and other economic forecasters. Our forecast is also consistent with recent analysis by former U.S. Treasury Secretary Larry Summers and Harvard University professor Lant Pritchett that over long periods of time, real GDP growth per capita trends toward 2%.[1]

While some have argued that the U.S. will witness a structural decline in productivity growth going forward, others, including former Fed Chair Ben Bernanke, do not see any evidence that this will occur, and we are in agreement. According to data from the Bureau of Labor Statistics, productivity improvements do vary from period to period, but the data do not show a secular decline over time since 1947. Rather, periods of decelerating improvements have been followed by periods of accelerating productivity improvements (Exhibit 10).

[1] *"Asiaphoria Meet Regression to the Mean." The National Bureau of Economic Research, November 2013.*

Exhibit 10: U.S. Non-Farm Productivity

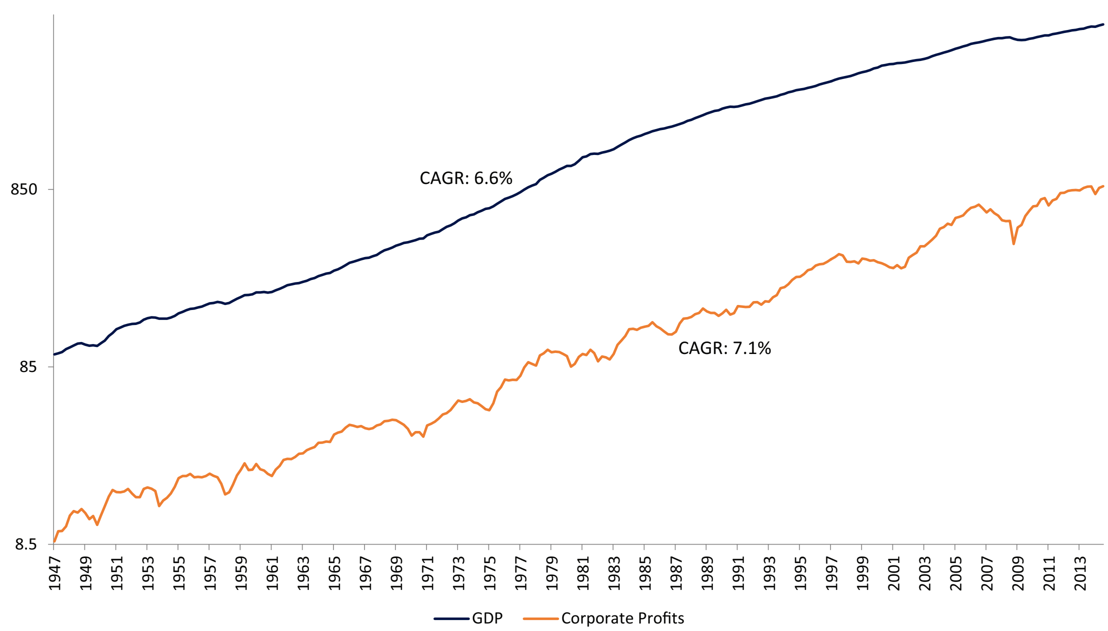


Source: Bureau of Labor Statistics, showing the rolling 10-year average and median

During the twentieth century, U.S. inflation averaged approximately 3%. One of the Fed's mandates is price stability, which it has defined as inflation of approximately 2%. Going forward, inflation may be a bit more muted than what we have experienced in the past, so we assume an inflation rate of 2.5%, which gives us a nominal GDP growth of 5.1%. This rate can be used as an approximation for corporate profit growth and stock price increases.

As noted in the methodology section, we use GDP growth as a proxy for corporate profits growth which is supported by empirical data. From 1929 to 2013, GDP growth compounded at 6.6% per annum. Corporate profit growth over the same period compounded at 7.1% (Exhibit 11).

Exhibit 11: GDP and Corporate Profit Growth



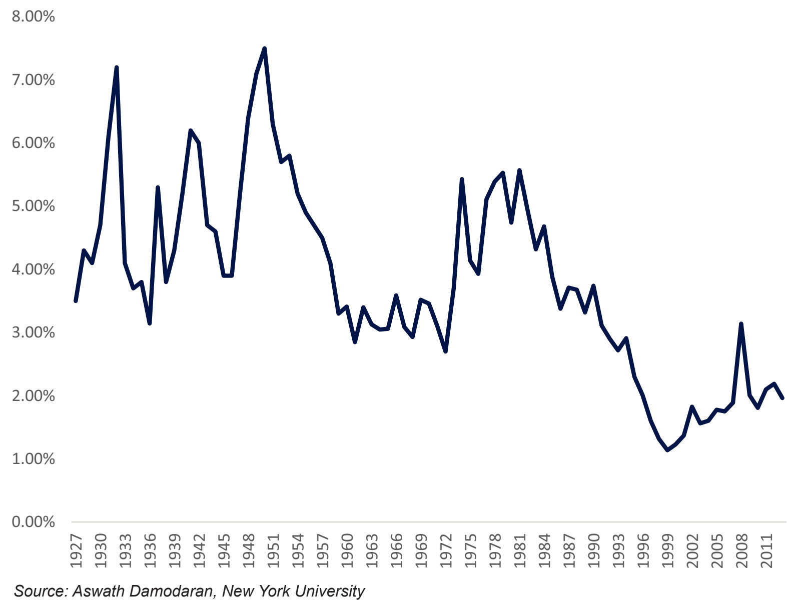
Source: Bureau of Economic Analysis

According to FactSet, 85% of companies in the S&P 500 Index are currently paying a dividend. For most of the twentieth century, the dividend yield on U.S. stocks was above 4% and then began a secular decline starting in the early 1980s (Exhibit 12). The current payout ratio is less than one-third (31.9%) compared to a historical average of 52%. The income component of the total return expected from U.S. equities is approximately 2%, which is the dividend yield of the S&P 500 Index. A conservative estimate of total return for U.S. stocks over the long term is approximately 7.1%, made up of 5.1% nominal price return and 2% income return.

The 7.1% expected return effectively assumes that the excess cash earned will not be productively reinvested in the business or used to buy back stock or make accretive acquisitions. We believe this assumption is too harsh, and therefore we add 60 basis points to account for the excess cash that is not paid out in the form of a dividend. Part of the 0.6% adjustment can come from increased payouts, stock buybacks, acquisitions, or productive investments. Companies are currently spending more on share buybacks than on dividend payments, as both investors and corporate management have arrived at the view that this represents a more tax-efficient method of returning cash to shareholders. We want to make sure that we give companies credit for these investments. If a company retains more of its earnings, this should help to support a higher growth rate in the future.

Therefore, we project that the total return for U.S. equities over the long term will be 7.7%, made up of a 5.1% nominal price return and a 2% income return, along with an adjustment of 0.6% to take into consideration excess cash. Our estimate is supported by economic theory and empirical data. According to economic theory (see Jeremy Siegel's "Stocks for the Long Run" and "The Future for Investors"), the real return from stocks should equal the earnings yield, or the inverse of the P/E ratio (earnings divided by price). When we look at the empirical data which compares the real stock return to the earnings yield over a variety of time periods (Exhibit 13), we find that this relationship closely follows what is suggested by economic theory. Using trailing 12-month profits, the P/E ratio of the S&P 500 Index is 19 or an earning yield of 5.3%. Using forward estimates, the P/E ratio is 15.2 or an earnings yield of 6.6%. The current valuation for U.S. equities supports a real return of approximately 5.9% (average of trailing and forward); adding inflation estimates of 2.5% results in a nominal return of approximately 8.4%, which is higher than our current estimate of 7.7%.

Exhibit 12: S&P 500 Index Dividend Yield



Source: Aswath Damodaran, New York University

Exhibit 13: Real Stock Return and Earnings Yield

Time Period	Real Stock Return	Median Earnings Yield
1871-1996	6.80%	7.30%
1871-1945	6.60%	7.40%
1946-1996	7.10%	7.00%
1996-2013	5.70%	5.50%

Sources: 1871-1996: Jeremy Siegel, "Stocks for the Long Term"; for 1996-2012: Bloomberg; Bureau of Labor Statistics

In deriving our expected return for U.S. equities over the intermediate term, we incorporate profit growth averaging 5.7% over the next six years. We start with the consensus estimates for 2015 as reported by FactSet and then incorporate trend-like growth of 5% for the next five years until 2020. If the U.S. economy shows a pick-up in economic activity as currently expected, corporate profit growth of approximately 5% should be achievable. The S&P 500 Index crossed 2058.9 on December 31, 2014, and is trading at a forward multiple of approximately 15 times earnings. Given that current valuation is approximately in line with the long-term average, we assume stable valuations over the next six years. Valuations are reasonable from an absolute standpoint, and are attractive in periods of low inflation and interest rates as well as when compared to fixed income, which supports the current valuation. However, it is possible that the expected rise in interest rates over the next couple of years could offset these expectations and pressure the current multiple. We do not expect this to happen given the past ability of equities to withstand rising rates (Exhibit 14). To derive our price target for the S&P 500 Index at the end of 2019, we use current forward P/E ratios and 2020 profit estimates, giving us an S&P 500 Index price target of approximately 2600 at the end of 2019. Expected profit growth and stable valuation support an average annual stock price appreciation of 4.9% for the next five years from current levels; adding income or dividends of 2% (the current yield on the S&P 500 Index) results in an expected return of 6.9%. As noted above, we add 60 basis points to take into consideration stock buybacks and possible acquisitions, which results in a total return of 7.5% for U.S. equities over the next five years. This is the same as our 2014 estimate. The expectation that U.S. equities will deliver 7.5% average annual total return is slightly less than our long-term assumption of 7.7% because of inflation expectations. The inflation rate over the next few years is expected to be 2% versus the long-term expected rate of inflation of 2.5%. Lower inflation results in lower nominal profit growth; assuming stable valuation, stock price appreciation should reflect profit growth.

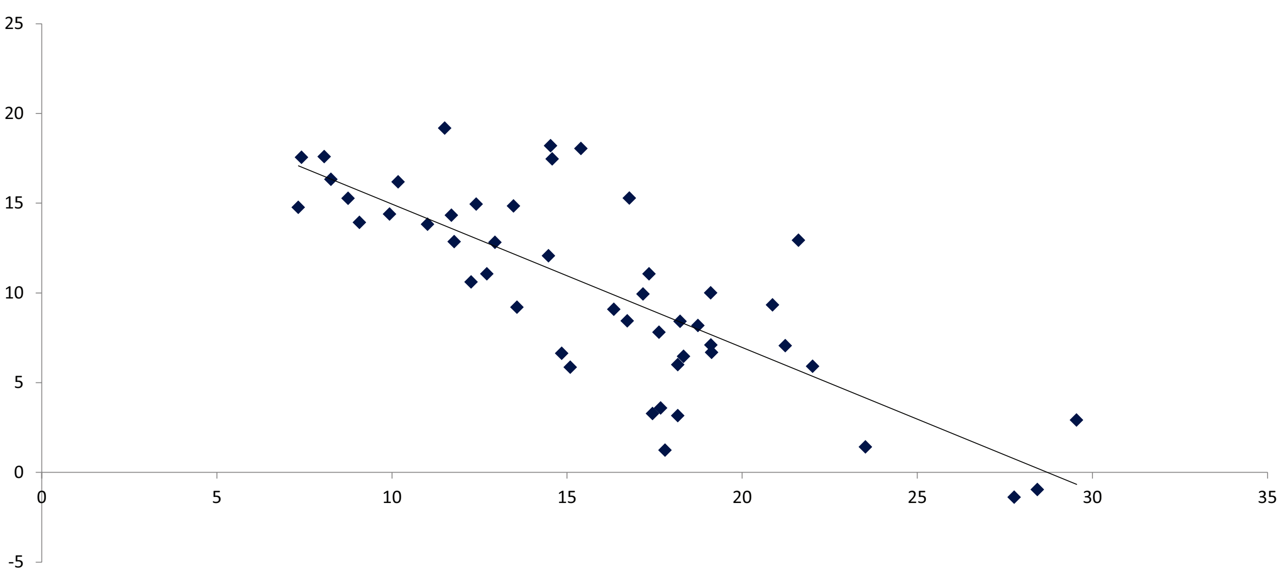
Exhibit 14: Rising Interest Rates and Equity Returns

	10 Year Treasury Yield	S&P 500 Annual TR
1954-1959	2.48% to 4.69%	20.36
1960s	4.72% to 7.65%	8.84
1972-1979	5.95% to 10.39%	7.02
June 1980-October 1981	9.78% to 15.15%	1.77
May 1983-June1984	10.38% to 13.56%	-5.67
1994	5.75% to 7.81%	1.27

Source: Bloomberg

Our intermediate-term assumption for U.S. equities is supported by current valuations. Historically, the relationship between the current valuation at a certain point in time and average returns over the next 10 years is quite strong (Exhibit 15), with a correlation of -0.8. Based on historical performance, current valuations would support an expected return of about 7.5% over the next 10 years.

Exhibit 15: Starting P/E Ratio and Returns Over The Next 10 Years



Source: Bloomberg (1954-2014)

Non-U.S. Equity: Developed Markets

For non-U.S. developed-markets equity, we use a long-term expected return similar to what was used for U.S. stocks. As the world has become more integrated, large multi-national corporations track each other more closely, and corporate profits are derived from all over the world. The companies in the S&P 500 Index earn approximately 46% of their profits from outside of the U.S., reflecting an increasing trend (Exhibit 16).

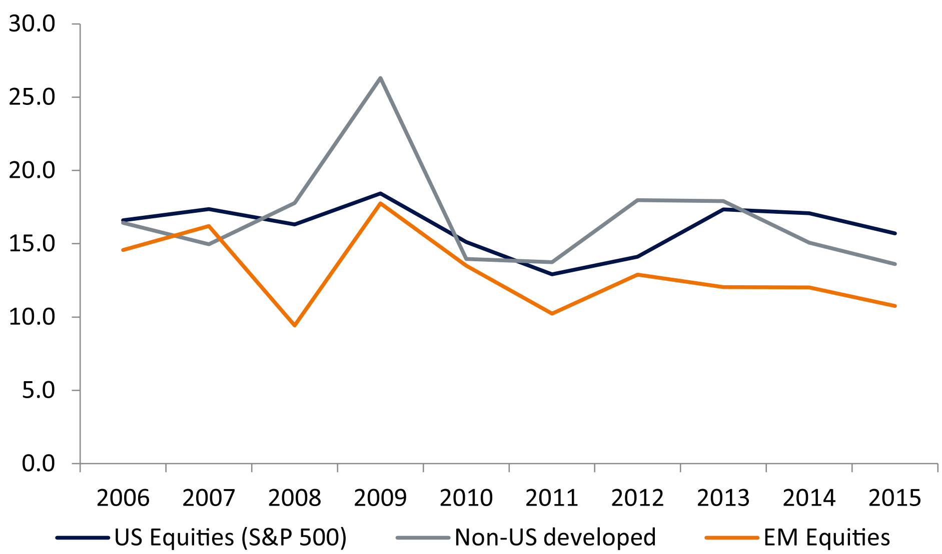
Exhibit 16: S&P 500 Companies Revenues Outside of the U.S.

Source: Standard and Poor's

The correlation between U.S. equities and non-U.S. developed-markets equities has progressively increased over the years from 0.6 to 0.9. Given these developments, we see merit in using similar long-term expected returns for U.S. and non-U.S. developed-markets equities. This conclusion is supported by historical returns of U.S. stocks versus non-U.S. developed-markets stocks. Since 1970, the S&P 500 Index has returned 10.4% versus 9.2% for the MSCI EAFE Index as measured in U.S. dollars. While the performance of U.S. stocks will differ from non-U.S. developed-markets stocks for any given period, we believe it is appropriate to use similar expected returns over the long term.

In deriving our intermediate-term assumptions for non-U.S. developed-markets equities, we consider current economic prospects and equity valuations. Currently, U.S. equities are trading at a premium to non-U.S. developed- and emerging-markets equities (Exhibit 17).

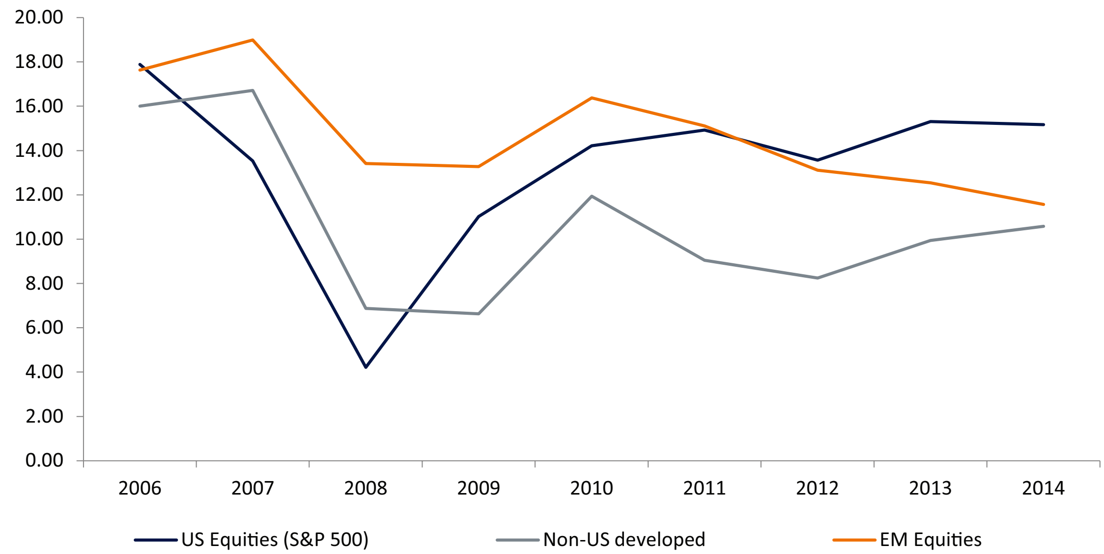
Exhibit 17: Trailing P/E Ratios for U.S. and Non-U.S. Equities



Source: Bloomberg

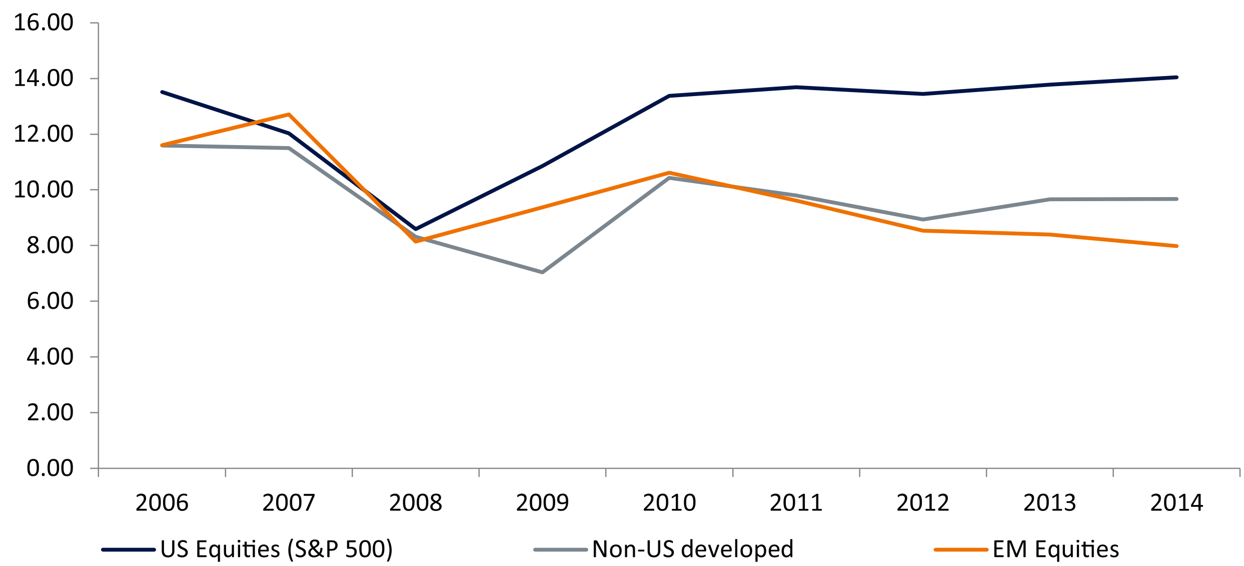
The policy actions adopted by the ECB over the past two years should provide support for economic growth and equity prices over the intermediate term, but these policies are not a panacea. Therefore, despite the more attractive valuation of these markets compared to the U.S., we do not expect these markets to significantly outperform the U.S. equity market over the next five years, as slower economic growth should offset the more attractive valuations. In addition to more challenging fundamentals, the profitability of the companies trading in these markets is lower than for U.S. companies (Exhibits 18 and 19).

Exhibit 18: Return on Equity (2006-2014)



Source: Bloomberg

Exhibit 19: Profit Margin



Source: Bloomberg

We estimate a total return of 7.8% for non-U.S. developed-markets equities over the next five years, which is modestly higher than the projection for U.S. equities due to more attractive valuations. This estimate is based on projected profit growth over the next six years that is moderately lower than in the U.S. to account for slower economic growth. We also assume that, over the next few years, non-U.S. developed-markets equities will trade at a modest discount on a forward P/E basis to U.S. equities to take into consideration the slower economic and profit growth and the higher risk of policy errors. The current trailing P/E ratio for non-U.S. developed-markets equities (as represented by the MSCI EAFE Index) is below the average since 1995 (Exhibit 17).

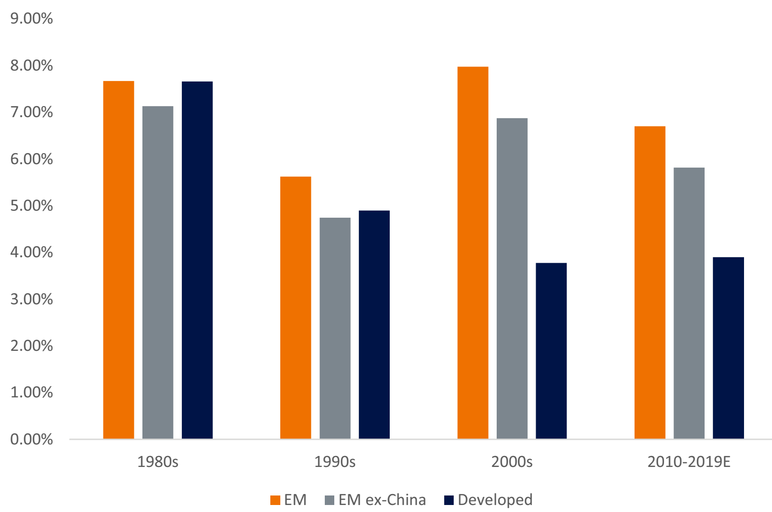
Our projected return for non-U.S. developed-markets equities balances the slower economic growth with more attractive valuation and higher dividend yield of these markets.

Emerging Markets

EM equities are currently trading at a discount to U.S. and non-U.S. developed-markets equities (Exhibit 17). This valuation discount for emerging markets is explained by a deterioration of the fundamentals in these markets. EM economies are facing headwinds of rising inflation in some countries and weak currencies in others. These factors are leading some central banks in EM countries (e.g., Brazil and Russia) to raise interest rates, which is further dampening economic growth.

In the 1980s and 1990s, EM economies grew slightly faster than the U.S. and developed-markets economies. While developed economies saw decelerating growth in the 2000s due to a 9/11-induced recession in the U.S. and a financial crisis in 2008, emerging markets experienced accelerating economic growth, a large part of which seems to have come from China. If we exclude China, EM countries experienced more modest GDP growth (Exhibit 20). The recent performance of EM economies calls into question whether emerging countries can maintain significantly higher growth rates than developed economies. In addition, China's GDP growth rate is moderating and expected to continue to slow down. Some EM economies are experiencing higher inflation, slower economic growth, and weaker currencies due to lower commodities prices, current account deficits, and tighter output gaps. For example, Brazil is facing challenges to its economic growth and is currently expected to grow around 2%, which is less than what is expected for U.S. economic growth.

Exhibit 20: GDP Growth for Emerging Markets vs. Developed Economies



Source: Our calculations are based on data from the International Monetary Fund; GDP measured in terms of purchasing power parity (and not current exchange rates)

While we expect a lower differential in economic growth, we still expect that emerging markets will grow slightly higher than developed economies, possibly in line with what occurred in the 1990s. The higher rate is supported by faster labor force growth and improved productivity rates driven by technological adoption and higher education levels as these developing countries catch up to developed countries. Over the long-term investment horizon, the growth rates are expected to converge as emerging markets mature; thus, we assume that real GDP growth in emerging markets will outpace U.S. GDP by 40 basis points. This expectation is slightly lower than the 50 basis points differential during the 1980s and 1990s prior to the acceleration in emerging markets' economic growth that occurred in the 2000s. Inflation has been higher for emerging markets than it has been for the U.S. However, we estimate that the difference will moderate over the long term and converge toward the expected U.S. inflation rate of 2.5%. Combining the slightly higher real GDP growth and comparable inflation leads to expected stock price returns of 5.5%. The dividend yield for EM stocks is approximately 2.7%. Combining nominal GDP growth or stock price returns of 5.5% and dividend yield of 2.7%, the resulting estimate is 8.2% total return for EM stocks over the long term.

While the growth rate remains higher, uncertainties and risks have increased for emerging markets. Despite the higher expected growth rates, EM equities are trading at a discount to U.S. and non-U.S. developed-markets equities as investors take note of the increased risks. Taking into consideration the lower valuation of EM equities which is offset by deteriorating fundamentals over the past year, we estimate that EM equities will achieve a total return of 7.2% over the intermediate term. Of this estimate, 2.7% will come from income or dividends, while price appreciation will contribute to the balance. Rising interest rates combined with decelerating economic growth tend to be unsupportive of strong equity performance. Therefore, at this time, we remain cautious about investing in EM equities in the short term. We currently believe that uncertainties about slower economic growth for EM economies are a downside risk for these markets.

Fixed Income

According to data from the Center for Research and Security Prices (CRSP) of the University of Chicago, investors in the post-war era have demanded a real return of 1% to 1.5% on average to hold Treasury bills (T-bills). We believe this makes sense, since investors and savers need to be compensated for deferring consumption, and a real return of 1% to 1.5% should be adequate. The term premium for holding 10-year Treasuries has averaged 1.5% to 1.75% over various periods. The spread (or difference in yields) to entice investors to hold investment-grade bonds over comparable Treasuries has averaged around 1.5%, although this spread varies depending on investors' perceptions of risk at any given point in time. The spread of high-yield (junk) bonds versus comparable-maturity Treasuries varies even more than for investment-grade bonds. We calculate an average spread of 500 basis points, but this spread can vary significantly during certain periods. In 2007, for example, the spread declined to approximately 250 basis points.

Over the long term, we use a real return of 0.8% for cash, which is down slightly from what we used previously. Going forward, more modest economic growth as a result of higher debt levels than in the past should translate into slightly lower real interest rates, including short-term rates. Fed officials estimate that the long-term federal funds rate will average approximately 3.75%; four senior officials expect it to be in a range from 3.25% to 3.5%. Using a building block approach, we combine a 0.8% estimated real return with an average long-term inflation assumption of 2.5%, resulting in a nominal expected return for cash (T-bills) of 3.3% over the long term. For core bonds, as represented by the Barclays Capital U.S. Aggregate Bond Index, we estimate a nominal long-term expected return of 5.5%. For investment-grade corporate bonds, the default rate has been very low historically; from 1970 to the present, the average default rate is 0.07%. From 1920 to 1940, a period which included the Great Depression, the average annual default rate was 0.5%. Therefore, we believe defaults do not have a meaningful impact on the return for investment-grade bonds. For high-yield bonds, we project an annual default rate of 5% and a recovery rate of 40%. As a result, our expectation for the nominal expected return of high-yield bonds is 6.8% over the long term.

The above return expectations are for the very long term, where changes in interest rates and valuations do not impact the total return since the fluctuations cancel out. But obviously, given the very low levels of current interest rates, the transition period between now and the very long term will be impacted by rising rates. To project the expected return for the Barclays Capital U.S. Aggregate Bond Index over the next 15 years, we have used the forward curves for the first five years and assumed that spreads do not vary meaningfully over this time frame, similar to our intermediate-term assumptions. For the remaining 10 years, we allow rates to rise in equal increments from the level at the end of the fifth year to reach the 5.5% that we expect for the long term. Assuming no net cash flows, we project an expected return of 2.6% annualized for the Barclays Capital U.S. Aggregate Bond Index over the next 15 years. The low expected return relative to the historical performance is due to interest rates rising from the current low levels.

For the Barclays Capital U.S. High Yield Bond Index, we use a similar methodology. We use the Treasury forward curves for the next five years to project rising rates. For the remaining 10 years, we increase rates in equal increments from the level at year five to 6.8% projected for year 15. The expected return for high-yield bonds over the next 15 years is 5.1%. This expected return is lower than the 6.8% that we are assuming over the long term due to rising rates.

In deriving our 2015 capital market assumptions, we expect that fixed-income markets will continue to struggle as rates normalize. Now that the QE program has ended, the process of normalizing interest rates should be helped along as the Fed begins to raise the federal funds target rate from the extraordinarily low range of zero to 25 basis points that has persisted since the end of 2008. As a reference point, before the Fed began to lower the federal funds rate in September 2007, the rate was 5.25%. While the federal funds rate may not reach 5.25% over the intermediate term, it is likely to rise from the current level at some point in 2015. As this happens, we expect modest returns from fixed-income investments relative to the asset class's strong performance since the early 1980s, which was driven by a significant decline in interest rates and credit spreads. Currently, interest rates are low in absolute terms as well as in relation to historical averages. These low rates are the results of both unconventional monetary policy as well as investors' continuing search for yield or income. The current yield on 10-year Treasuries is approximately 2.17% as of December 31, 2014. We expect the rise in interest rates to be modest, partly due to inflation continuing to be well-behaved. We do not expect interest rates to spike dramatically over the next few years, but there is still a risk of this happening if market participants overreact in 2015; this happened in mid-2013 when the yield on 10-year Treasuries rose from 1.6% to 3% in almost a straight line as investors rushed to reverse previously made investment decisions. Since the Fed has reiterated its commitment to maintain its accommodative policies, and given our expectations for modest and stable inflation, we believe that longer-term rates will not spike aggressively.

For core bonds (as represented by the Barclays Capital U.S. Aggregate Bond Index), we project an average annual total return of about 1%, which is based on the yield to maturity (YTM) of 2.1% and offset by the expected rise in interest rates over the next five years. We anticipate that long corporate bonds will return 2.5% annualized over the next five years. While the YTM of

Please refer to page 17 of this document for important disclosures relating to this material.

the Barclays Capital U.S. Long Term Corporate Index is approximately 4.5% and much higher than the yield for intermediate-duration investment-grade bonds, the duration of 13 years should have a significant impact in an environment of rising rates. This negative impact should be mitigated to some extent by the smaller rise in interest rates for longer maturities, with the yield curve flattening from its current (very steep) slope.

For high-yield bonds, we project a total return of 4% over the next five years, which is based on the current YTM of 6.3% and adjusted for expected rate increases, a default rate of 3% per year, and a recovery rate of 50%. Cash is expected to return close to 1%.

Hedge Funds

In deriving our expected returns for hedge funds, we assume that as a group they will not outperform the capital markets in which they invest. As more plan sponsors allocate more assets to hedge funds, we believe that the recent relative performance of hedge funds as a group versus public security markets will not improve in the near future (Exhibit 21).

Exhibit 21: Hedge Fund Performance

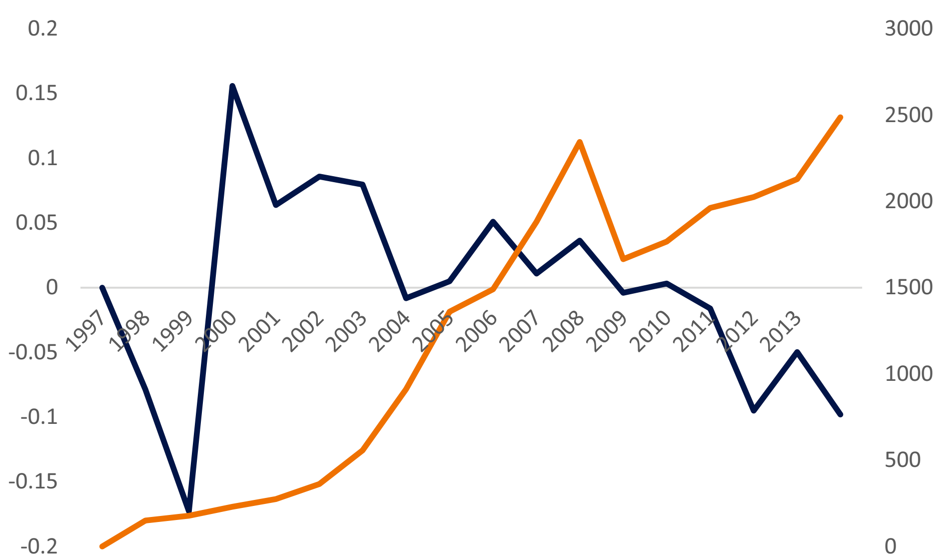
	1 Year	3 Years	5 Years	7 Years	10 Years
S&P 500	17.3	19.8	16.7	6.1	8.2
Barclays Capital Aggregate	4.1	2.7	4.2	5	4.6
HFRI	4.8	5.4	5.1	2.5	5.6
60% S&P 500/40% BC Agg	12.0	13.0	11.7	5.7	6.8
HFRI vs 60/40	-7.2	-7.6	-6.6	-3.2	-1.2
Fund of Hedge Funds (FHFs)	4.3	4.6	3.3	0.1	3.3
FHFs vs 60/40	-7.7	-8.4	-8.4	-5.6	-3.5

Source: HFR, Bloomberg; as of October 31, 2014

Using our long-term capital market assumptions for public security markets, we derive a long-term expected return for hedge funds of 7.4%. This estimate is the average for the entire group; however, we believe that some hedge funds managed by talented individuals will achieve higher returns.

For hedge funds, we estimate a total return of 6.1% over the intermediate term. While some investors treat hedge funds as an asset class with distinct alpha generators, PFMAM does not believe that hedge fund managers as a group will significantly outperform the public securities markets as they have in the past.[2] There are currently approximately 10,000 hedge funds managing almost $3 trillion in assets. As assets have been directed to the hedge fund industry and as the number of hedge funds has grown, the relative performance has deteriorated (Exhibit 22). Going forward, we believe that hedge funds as a group will generate performance that is in line with the public security markets.

Exhibit 22: HFRI Performance vs. 60% S&P 500 Index/40% Barclays Capital Aggregate Bond Index (blue, left axis) Compared to Hedge Funds Assets Under Management (orange, right axis, in billions)



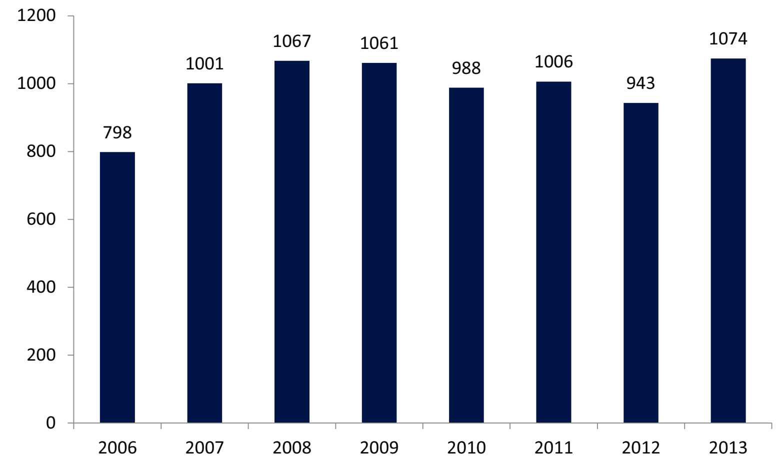
Sources: For assets under management: Barclays, WSJ; for HFRI performance: Hedge Fund Research, Inc.; For S&P 500 Index and Barclays Capital Aggregate Bond Index performance: Bloomberg, Ibbotson/EnCorr

[2]For more on this topic, please see the PFM Perspectives piece titled, "Hedge Funds: Then and Now," which was released in March 2013. To receive a copy of this paper, please contact your relationship manager.

Private Equity

Private equity represents a particular challenge in deriving expected returns. Historically, private equity has outperformed the public equity market, most likely due to the higher leverage embedded in these funds. Similar to the hedge fund industry, we do not believe that one can simply take the historical outperformance over the public equity market and project the same results going forward. According to research firms Preqin and Bain, there are currently over 4,800 private equity firms versus the approximately 500 firms that existed in the mid-1990s. These firms are managing approximately $3 trillion, of which $1 trillion is still uncalled capital or what is colloquially called "dry powder" (Exhibit 23). Therefore, similar to our view on hedge funds, we do not believe that, in general, the private equity industry will outperform the public equity market when returns are adjusted for the leverage they use.

Exhibit 23: Private Equity "Dry Powder" (in billions)



Source: Preqin

Following the financial crisis, the amount of debt used by the average private equity fund fell. But over the past couple of years, the leverage has been rising as markets normalize and investors continue to reach for yield. Currently, private equity transactions are financed by approximately one-third equity and the rest debt. Given the changing proportion of debt to equity used by private equity funds, we have adjusted our calculations accordingly. We now assume that private equity funds will leverage their equity investments two-to-one using debt financing. As noted, this change in assumption from the relative proportion that we used last year is driven by the changing practices of private equity funds. Over the long term, we assume that private equity will deliver a return of 9.8%.

To derive our intermediate-term expected return for private equity, we assume that these funds will generate comparable returns to the public equity markets adjusted for the leverage they typically use. Given current market conditions, we assume that these funds will lever up their equity by two-to-one (i.e., $100 in equity will result in invested capital of $300, of which $100 is in equity and $200 is in debt). We assume that the rate paid on this debt is comparable to the rate on high-yield bonds. For private equity, we derive an expected return of 9.9% over the intermediate term.

Over the long term, we assume that private equity funds will not outperform public equity markets when returns are adjusted for the leverage they use.

REITs

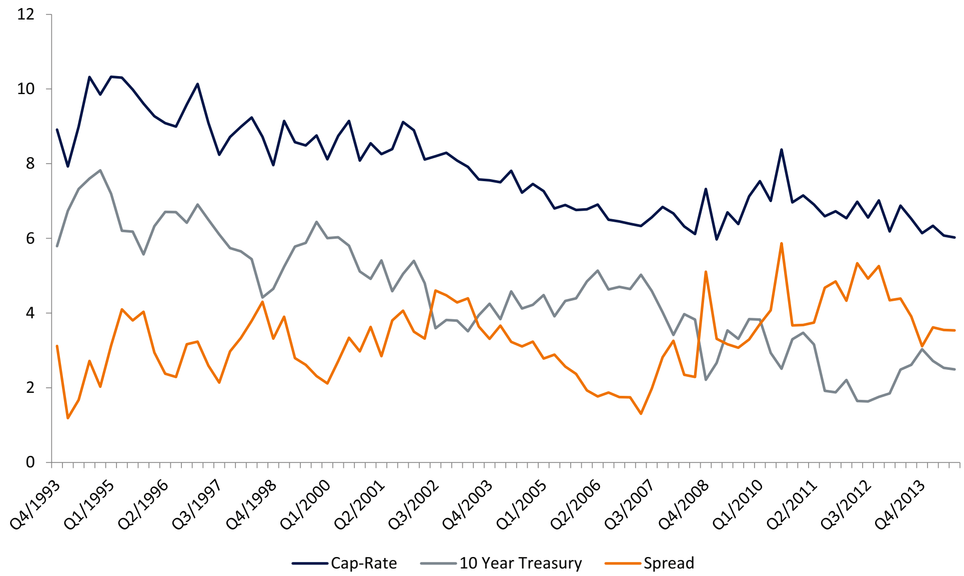
Over long periods of time, we believe that REITs will return more than fixed income but less than equities. We project that core REIT exposure will return approximately 6.2% in income and price appreciation over the long term. One methodology that is used to forecast forward-looking projections is to use a spread over 10-year Treasuries to calculate an expected capitalization (or cap) rate. We hesitate to use this methodology. In the early 1980s, the spread was negative 800 basis points and remained negative until the early 1990s. Since the early 1990s, the spread has been positive, but dropped close to zero in 2007. Instead, we prefer to rely on an understanding of the economics of the asset class and how it compares to other asset classes when projecting a reasonable expected return for real estate. The 6.2% expected for REITs is lower than the 7.7% we expect for U.S. equities and higher than the 5.5% we expect for investment-grade bonds. This is consistent with the economics of real estate relative to equities and fixed income.

Currently, the yield on U.S. REITs is 3.7%, and the market expectation for inflation is approximately 2%. Yield income of 3.7% plus property price appreciation of 2% would normally result in a total return of 5.7%. Given our view of a continuing rise in interest rates over the next few years (which will negatively impact interest-rate-sensitive investments), we subtract

 Please refer to page 17 of this document for important disclosures relating to this material.

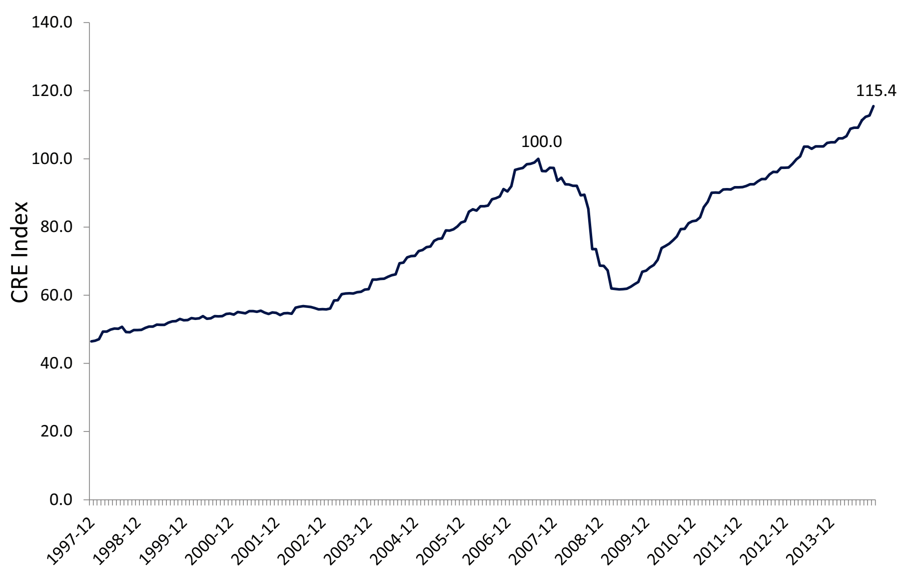
50 basis points to factor in the headwind that REITs will continue to face as interest rates rise. Over the next five years, we estimate that REITs will provide an annualized total return of 5.2%, which is consistent with our estimate that U.S. stocks will deliver 7.5% and bonds will return 1%. An expected return of 5.2% is much lower than what REITs have returned over the past three, five, and 10 years. We believe that, going forward, the price appreciation of core real estate will be more in line with inflation since cap rates and prices have come down to pre-financial-crisis levels (Exhibits 24 and 25).

Exhibit 24: Commercial Real Estate Cap Rate



Source: Bloomberg

Exhibit 25: Commercial Real Estate Price Index



Source: Green Street

Commodities

According to the Bank for International Settlements, the notional amount of over-the-counter commodity derivative contracts outstanding was 14 times larger in 2006 before the financial crisis than it was in 1998. The volume of these contracts peaked at over $13 trillion in mid-2008 before dropping to approximately $3 trillion as of the writing of this paper. Perhaps as a result of the strong inflows into commodity investing, many of the futures commodity curves became contango in 2005, where the futures contract price was above the spot price and would decline to the spot price before the expiration date. As a result of the curve being in contango, the roll return became negative. Today, many of the commodities forward curves remain in contango. Therefore, in our opinion, the historical investment performance from commodities cannot be used as a reliable predictor of future expected returns.

The fundamentals of investing in commodities support the notion that if market expectations for future commodity prices are correct (i.e., there are no unexpected prices), investing in commodities should return the T-bill rate, or inflation plus 0.8%, plus a roll yield of 2%, which is the average over long periods of time. Our estimate is that commodities will return 5.3% over the long term. Of course, it is possible that the roll yield is negative, which occurs when the futures curve is in contango (which is currently the case for many forward curves).

In 2014, again commodities turned in poor returns, with the DJ/UBS Commodity Index down 17.01% for the year. Negative roll yield (the Index uses the front month contract[3] to calculate the performance), low return on invested collateral (the Index assumes that the collateral is invested in T-bills), and declining commodity prices were the main reasons for negative returns. Over the next five years, we project that cash will earn 1%, which is the return on the collateral. The roll yield has averaged about 2% over time. Currently, many of the commodities curves are in contango, where the forward price is above the spot price. Therefore, the current roll yield is lower for many commodities. As a result, more and more commodities funds are going further out on the yield curve to mitigate this effect. Combining a roll yield of 2% and investment return on the collateral of 1% gives us a total return of 3% from investing in commodities in the intermediate term. It is possible to achieve a greater return than what we are assuming by investing the collateral in something other than T-bills or achieving a better roll yield by tactically rolling the futures contracts; however, we have not included this in our estimates. Commodities will achieve a much higher return over the next few years if unexpected inflation significantly rises, which will lead to commodities prices moving up higher and faster than what is implied in the forward curves. Given the macroeconomic environment and excess supply in many of the factors of production (including labor), we expect inflation to remain stable. In addition, many commodities are faced with unfavorable demand/supply dynamics as additional supply is added at a time when demand for commodities is not growing strongly.

The fundamentals of investing in commodities support the notion that if market expectations for future commodity prices are correct (i.e., there are no unexpected prices), investing in commodities over the long term should return the T-bill rate, or inflation plus 0.8%, plus a roll yield of 2%, which is the average over long periods of time.

Considerations for Asset Owners

Given the current low level of interest rates and the likelihood that rates will rise over the next few years, most plan sponsors will find it difficult to maintain a positive real (inflation-adjusted) return within their fixed-income allocations. Corporate pension plans have struggled as rates have fallen, leading to lower discount rates and higher present values of pension liabilities. While fixed-income portfolio performance will struggle if rates rise over the next few years, higher rates will translate into a higher discount rate and corresponding lower liabilities. If this occurs, funding ratios could improve due to the longer duration of the liabilities relative to the duration of the typical pension plan's fixed-income portfolio. Other post-employment benefits (OPEB) plans have had similar challenges as interest rates have declined, leading to higher liabilities. Like pensions, OPEB plans' funded status should improve as interest rates rise due to the longer duration of plan liabilities versus fixed-income assets.

Foundations and endowments also face hurdles. The typical foundation seeks to pay out 5% or so of assets in annual grants. To preserve purchasing power, the portfolio must achieve a real (inflation-adjusted) return of 5%. Given the levels of interest rates, this implies a healthy allocation to asset classes that are expected to achieve a real return above 5% to offset the lower return from the fixed-income portfolio. Unlike pension plans, foundations typically do not have liabilities whose value fluctuates with interest rates. This means that when interest rates rise, the loss incurred on the fixed-income portfolio will not be offset by lower liabilities. Endowments face a similar challenge of generating adequate returns to continue to meet their funding obligations.

In addition to the historically low interest rates, the macroeconomic backdrop also presents challenges for plan sponsors. While the eurozone emerged from recession, it continues to struggle as we saw in mid-2014 and may slip back into recession. Meanwhile, China's growth rate is expected to continue to moderate, but the risk of a hard landing remains among investors' concerns. China's growth rate has relied to a large extent on rising debt levels, and is driven by investments and exports versus consumption and internal demand. The Chinese government has indicated that it recognizes that this model presents risks to the long-term stability of its economy. The transition to a model of economic growth that relies more on consumption and less on investments is not likely to be smooth. The U.S. continues to face fiscal and political challenges brought about by a divided government. While the risk of another government shutdown is low, such an occurrence remains a possibility. In addition, the Fed has undertaken an unprecedented experiment with its unconventional monetary policy. So far, the results seem to be helping the economy, with inflation low and stable and interest rates well-behaved. But as the Fed engineers a return to normalcy, the exit strategy may prove challenging as the Fed's balance sheet has ballooned to over $4 trillion compared to less

[3] *For example, in January, the "front month" would be the contract that expires in February.*

Please refer to page 17 of this document for important disclosures relating to this material.

than $1 trillion before the financial crisis. Plan sponsors should be cognizant of all of these variables as they review their long-term investment strategy and decide whether changes are necessary.

Methodology Highlights (please refer to complete methodology on page 18)

Where possible, we follow common, if not related, approaches to forecasting returns within major asset class groups. Many of the underlying macro assumptions that drive models come from a common source—our Investment Research Group's forecasts.

Key variables used in our models are interrelated at a fundamental level and in many cases rest on our underlying macro assumptions.

All results are systematically subjected to a qualitative consistency check, which involves a cross asset-class comparison of risk-adjusted returns, a comparison with historical data, and a comparison of long-term macro trends with forecasts.

Where inconsistencies or inconclusive results are identified we err towards the more conservative estimate.

Important Disclosure Information

This material is for informational purposes only and is not intended to be an offer or solicitation to purchase or sell any security or to employ a specific investment strategy. It is intended solely for the information of those to whom it is distributed by PFM Asset Management LLC (PFMAM). No part of this material may be reproduced or retransmitted in any manner without the prior written permission of PFMAM. PFMAM does not represent, warrant, or guarantee that this material is accurate, complete, or suitable for any purpose and it should not be used as a basis for investment decisions. The information provided reflects PFMAM's projections based on the historical performance and characteristics of each asset class. The assets classes were selected based on the assumption that they will exhibit fairly stable behavior over long time periods. The data is hypothetical in nature and should not be relied upon as independently verifiable information. There is no guarantee that the projected returns can or will be achieved. This material does not purport to contain all of the information that a prospective investor may wish to consider and is not to be relied upon or used in substitution for the exercise of independent judgment. Past performance is not a guarantee of future results. Prior to investing, you should consult your accounting, tax, and legal advisors to understand the implications of such investment.

PFMAM, part of the PFM Group of companies, is registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940. For the period ended September 30, 2014, PFMAM had $93.5 billion in total assets, including $50.6 billion in discretionary assets under management and $42.9 billion in non-discretionary assets under advisement. PFMAM's clients are state and local governments, non-profit corporations, pension funds, and similar institutional investors. The PFM Group of companies also provides best practices strategic consulting and pension advisory consulting services. For more information, please visit www.pfm.com.

Glossary

Capitalization rates (aka "cap rates"): A rate of return on a real estate investment property based on the expected income that the property will generate. Capitalization rate is used to estimate the investor's potential return on his or her investment. This is done by dividing the income the property will generate (after fixed costs and variable costs) by the total value of the property. Capitalization Rate = Yearly Income/Total Value.

Commodity derivative contracts: A contract where the buyer has the right to exchange a commodity for a certain price at a future date, and the seller will receive the commodity in exchange for the established price.

Contango: When the futures price of a commodity is above the expected future spot price, and an investor is willing to pay more for a commodity at some point in the future than the actual expected price of the commodity. This may be due to an investor's desire to pay a premium to have the commodity in the future rather than paying the costs of storage and carry costs of buying the commodity today.

Forward-looking multiple (aka "forward multiple"): A price-to-earnings ratio that is based on forward (expected) earnings rather than on trailing earnings.

Nominal: An unadjusted rate, value, or change in value. This type of measure often reflects the current situation, such as the current price of a car, and does not make adjustments to reflect factors such as seasonality or inflation, which provide a more accurate measure in real terms.

Nominal rate of return: The return generated by an investment before taxes, investment fees, and inflation are factored in.

Roll yield: The amount of return generated in a backwardated futures market that is achieved by rolling a short-term contract into a longer-term contract and profiting from the convergence toward a higher spot price. Profiting from roll yield is a common goal for many strategies used by traders in the futures market. This is also known as "roll return."

Spot price: The current price at which a particular security can be bought or sold at a specified time and place. A security's spot price is regarded as the explicit value of the security at any given time in the marketplace. In contrast, a security's futures price is the expected value of the security, in relation to its current spot price and time frame in question.

Total return: When measuring performance, the actual rate of return of an investment or a pool of investments over a given evaluation period. Total return includes interest, capital gains, dividends, and distributions realized over a given period of time.

Treasury forward curve: In a forward market, the pattern of forward rates, or forward premia, for Treasuries over various time horizons.

Methodologies

Equities

To derive our intermediate-term expected return for equities, we project profit growth over the next five years, changes in valuation, and dividends. We then make an adjustment to consider the impact from stock buybacks and increasing cash levels on corporate balance sheets.

While short- and intermediate-term asset prices are influenced by factors other than the fundamentals and economics of the assets—such as price-to-earnings (P/E) multiple expansion or contraction and interest rate movements, among others—the expected return from owning an asset over a long period of time (e.g., 30 years and longer) is influenced by the economics of the asset class. In deriving our long-term expected return from equities, we use a building block approach, incorporating population or labor force growth, improvements in productivity, inflation, and income or dividends.

The building blocks to derive our long-term expected return from equities are as follows:

- Real GDP growth = population (labor force) growth + productivity improvements;
- Nominal GDP growth = real GDP growth + inflation;
- Corporate profit growth = ~ nominal GDP growth;
- Stock price appreciation = corporate profit growth; and
- **Total return from equities = stock price appreciation + income (dividend yield)**

Please refer to page 17 of this document for important disclosures relating to this material.

Fixed Income

We derive our intermediate-term fixed-income projections by starting with the current yield and adjust for the impact of rising rates, changes in credit spreads, defaults, and recovery rates. For rate projections, we use the Treasury forward curves provided by Bloomberg. For non-Treasury fixed-income instruments, spreads over Treasuries are nearly equal to the 15-year average in most cases. Given our views on the economy and inflation, we assume that spreads will remain fairly stable over the next few years.

In deriving expected volatility and correlations, we use a combination of historical observations and adjust for recent trends. While volatility and correlations tend to spike during periods of heightened stress, in general, past asset class behavior in terms of volatility and correlations tend to be good predictors of future volatility and correlation. Changes in volatility and correlations tend to occur over long periods of time.

For fixed-income returns, we assume that the current low interest rates will normalize. Similar to our methodology for projecting long-term expected returns from equities, we use a building block approach to project fixed-income returns over the long term. We begin with a real short-term, risk-free return and add various premia that investors demand for holding longer-term fixed-income instruments and those perceived to have more risk. The building blocks we use to develop our expected return from fixed income are as follows:

- **Nominal return for cash = real return + inflation**
- **The real return is based on the return of Treasury bills (T-bills) over inflation.**
- **Return expectation for longer-maturity fixed income = return for cash + term premium**
- **Return expectation for credit = return for Treasuries + credit spread**

Alternative Investments

In the case of alternative investments such as hedge funds and private equity, simply observing the reported volatility and correlations is not appropriate since these investments are less liquid. In the case of private equity, the absence of market prices necessitates valuation methods that try to ascertain the “fair value” of those assets by observing assets that are deemed to be “comparable.” Because comparability is a subjective measure, this introduces biases into the valuation process. As a result, we find that appraised values for these assets tend to be more “sticky” or move slower than the market. In deriving the volatility and correlation of these investments, we adjust the observed volatility and correlations to incorporate the economic fundamentals of the assets. For example, the reported correlations and volatility of private equity significantly underestimate the riskiness of the asset class. Therefore, when deriving the volatility and correlations for private equity, we start with publicly traded equities and make adjustments to account for the use of higher leverage by these investments and the wider dispersion in returns among private equity funds.

Hedge Funds

In deriving our expected returns for hedge funds, we assume that, as a group, they will not outperform the capital markets in which they invest. As more plan sponsors allocate more assets to hedge funds, we believe that the recent relative performance of hedge funds as a group versus public security markets will not improve in the near future. To derive the intermediate- and long-term assumptions for hedge funds, we use our capital market assumptions for the publicly traded markets in which hedge funds invest and adjust for the relative proportion and leverage used by these strategies.

Private Equity

To derive our intermediate-term expected return for private equity, we assume that these funds will generate comparable returns to the public equity markets adjusted for the leverage they typically use. We assume more leverage in the long term compared to the intermediate term. Over the long term, we assume that private equity funds will not outperform public equity markets when returns are adjusted for the leverage they use.

REITs

We view REITs as having characteristics of both fixed income and equity. The rent payments provide a fixed-income-like revenue stream, while property prices increase in response to inflation and improvements as well as investors’ perceptions of real estate relative to other asset classes, among other factors which is similar to equities. In deriving our assumption for total return from investing in real estate, we start with the yield and project appreciation in real estate prices; for the long term, we estimate the property prices will appreciate in line with inflation.

Commodities

Institutional investors gain exposure to commodities by investing in commodity futures. In doing so, the buyer agrees to purchase a futures contract that expires on a specified date and corresponds to a certain amount of a commodity at a specific price. This price reflects the market consensus for what the price of the commodity will be on that future date. Therefore, if the market consensus is that the commodity will increase in price, that expectation should be reflected in the price specified. Over the long term, the roll yield (or the yield captured when the price of a future contract converges with the current or spot price of the underlying commodity) has averaged about 2%. Investing in commodities using futures contracts has three sources of returns: 1) the return on the collateral, 2) the difference in price between the spot price and futures contracts price, or the roll yield, and 3) the movement in the spot price. If the commodities markets are efficiently priced, the forward price of the commodity should incorporate the spot price expected in the future.

PFM®

The PFM Group

Financial & Investment Advisors

Two Logan Square, Suite 1600
18th & Arch Streets
Philadelphia, PA 19103

215.567.6100
www.pfm.com

PFM

F. Pension & Investments article titled: "Firms Differ on Value of Performance Reporting"

INVESTMENT OUTSOURCING

Firms differ on value of performance reporting

By CHRISTINE WILLIAMSON

Unlike most other segments of the money management industry, investment outsourcing lacks standardized investment performance reporting.

Just 18, or 25%, of the 71 firms that participated in *Pensions & Investments*' latest investment outsourcing survey responded to the question: What percentage of the institutional clients for whom you provide full discretionary outsourced investment have met or exceed their internal benchmark for the one-, three- and five-year periods ended March 31, 2014.

Of the remainder, 59% did not respond; 13% declined; and 3% were too new to have a track record.

Eight reported 100% of the portfolios they manage with full discretion met or exceeded their benchmarks in the year ended March 31: Cardano Risk Management BV, Clearbrook Global Advisors LLC, CornerStone Partners LLC, Gallagher Fiduciary Advisors LLC, Robert Harrell Inc., Peirce Park Group Inc., Pyramis Global Advisors, and Wilshire Associates Inc.

For the three-year period, five managers said 100% of full discretionary portfolios they manage met or exceeded their benchmarks: Cardano, Cornerstone, Robert Harrell, Pyramis and Wilshire Associates.

For the five-years ended March 31, six managers said 100% of full discretionary portfolios they manage met or exceeded their benchmarks: Cambridge Associates LLC, Goldman Sachs Group, PFM Asset Management LLC, CornerStone, Gallagher and Harrell.

Among the firms that did not respond to *P&I*'s question, reasons centered on an inability to calculate an accurate composite figure.

"Thankfully, the investment industry is moving away from a myopic focus on returns and managers and is focusing on the big picture, getting the job done: paying benefits, funding scholarships, preserving values," Kathleen Powers Dunlap, partner and chief strategy officer at Fiduciary Research & Consulting LLC, San Francisco, said in an e-mail.

"The risk profile and asset allocation of a long frozen, fully funded DB plan vs. a cash balance plan vs. an underfunded open DB plan are so different that any composite would be utterly meaningless," Ms. Dunlap wrote, adding "performance (from outsourcers) is not readily available because in many cases it is irrelevant. Performance is not the measure ... for success."

FRC ranked 32nd on *P&I*'s list of firms with outsourced assets under investment management as of March 31, with $8.5 billion, all from a single client, which Ms. Dunlap did not name.

"The performance of fiduciary (outsourcing) managers should not be distilled into a single number," Paul Deane-Williams, a spokesman for Towers Watson & Co., said in an e-mailed response to *P&I*'s information request.

Outsourcing "takes many forms," and "with this in mind, the notion that fiduciary manager performance can be presented as a single number is, in our opinion, unrealistic," Mr. Deane-Williams wrote,


Grace Image

"Thankfully, the investment industry is moving away from a myopic focus on returns and managers and is focusing on the big picture, **getting the job done**: paying benefits, funding scholarships, preserving values."

FIDUCIARY RESEARCH & CONSULTING'S
KATHLEEN POWERS DUNLAP

comparing the practice to "a throwback to how the pension industry operated 20 to 30 years ago" when many plan executives selected balanced funds based on the best relative performance.

"Unfortunately, relative performance proved damaging to the plans and the scars are still visible today," Mr. Deane-Williams said.

Towers Watson had $65 billion in worldwide outsourcing assets under investment management as of March 31, which placed the Reigate, England-based firm in sixthplace on *P&I*'s ranking.

"Every client that decides to outsource the management of all or part of its defined benefit, defined contribution, endowment or foundation portfolio is unique," Kevin Jestice, principal and head of institutional advisory services, The Vanguard Group Inc., Valley Forge, Pa., said in an interview.

But unlike Towers Watson and FRC, Vanguard offers clients a sense of how their portfolios measure up to peers by calculating a CFA Institute global investment performance standard-compliant return from the returns of investors with similar asset allocations.

The goal of outsourcing is to produce a "stream of returns that accomplishes a purpose," such as hedging defined benefit plan liabilities or producing an absolute return plus the London interbank offered rate, Mr. Jestice said

Because each investor's purpose is different, Vanguard doesn't use a model portfolio approach; every asset allocation is customized. "It is especially important to get the asset allocation exactly right for each and every client," Mr. Jestice said.

SEE **REPORTING** ON PAGE 19

The largest managers of outsourced assets

Ranked by total worldwide institutional outsourced assets under investment management, in millions, as of March 31.

Rank	Manager	Assets	Rank	Manager	Assets	Rank	Manager	Assets	Rank	Manager	Assets
1	Russell Investments	$115,034	19	BNY Mellon	$16,054	37	Cornerstone Partners	$6,200	55	BMO Global Asset Mgmt.	$1,416
2	Cambridge Associates	$98,740	20	J.P. Morgan Asset Mgmt.	$14,608	38	Global Endowment Mgmt.	$6,000	56	Spider Management	$1,412
3	Mercer	$91,551	21	Hirtle, Callaghan	$14,500	39	Perella Weinberg	$5,376	57	Gerber/Taylor Mgmt.	$1,328
4	SEI Investments	$71,800	22	P-Solve	$13,600	40	Rocaton Investment Advisors	$5,344	58	Callan Associates	$1,314
5	Wells Fargo	$71,595	23	Pyramis Global Advisors	$13,296	41	CAPTRUST Financial	$4,773	59	Covariance Capital	$1,305
6	Towers Watson Investment	$65,032	24	UBS Global Asset Mgmt.	$13,072	42	NEPC	$4,737	60	Peirce Park Group	$1,106
7	BlackRock	$53,251	25	Morgan Stanley	$12,900	43	Meketa Investment Group	$4,546	61	Slocum	$1,100
8	Northern Trust Asset Mgmt.	$52,800	26	State Street Global	$11,623	44	HighVista Strategies	$3,871	62	Dana Investment	$1,036
9	Hewitt EnnisKnupp	$46,808	27	Investure	$11,000	45	Segal Rogerscasey	$3,300	63	Clearbrook	$760
10	Credit Suisse	$38,894	28	Cardano Risk Mgmt.	$10,914	46	PFM Asset Mgmt.	$3,124	64	Disabato Advisers	$480
11	Goldman Sachs Group	$37,784	29	Wurts & Associates	$9,600	47	New Providence Asset Mgmt.	$2,600	65	Robert Harrell	$400
12	BofA Merrill Lynch	$33,934	30	SECOR Asset Mgmt.	$9,468	48	Fund Evaluation Group	$2,514	66	Discretionary Mgmt. Svcs.	$394
13	Strategic Investment Group	$33,653	31	Marco Consulting Group	$8,725	49	DiMeo Schneider	$2,200	67	Asset Consulting Group	$225
14	Alan D. Biller	$32,000	32	Fiduciary Research	$8,500	50	Legato Capital Mgmt.	$2,020	68	Victoria 1522	$221
15	BNP Paribas Investment	$27,300	33	TIFF Advisory Services	$7,236	51	Gallagher Fiduciary	$1,998	69	Canterbury Consulting	$125
16	Summit Strategies Group	$22,921	34	Pentegra	$7,203	52	Equitas Capital Advisors	$1,990	70	Messner & Smith	$13
17	Vanguard Group	$21,286	35	Commonfund	$7,057	53	Cafaro Greenleaf	$1,865	71	Marquette Associates	$1
18	Pacific Global Advisors	$18,824	36	Wilshire Associates	$6,575	54	Angeles Investment Advisors	$1,742		Total	$1,205,974

INVESTMENT OUTSOURCING

Separate accounts	100%
Investment outsourcing institutional clients:	
Worldwide	42
U.S.	42

Client contact: Maureen Fitzgerald

1 Russell Investments

1301 SECOND AVE., 18TH FLOOR, SEATTLE, WA 98101; PHONE: 206-505-7877; FAX: 206-505-3495; WWW.RUSSELL.COM

Assets in outsourcing programs for institutional clients:	(U.S. MILLIONS)
Worldwide	$115,034
U.S.	$44,872
Outsourcing assets under investment management:	
Worldwide	$115,034
Internally managed	$3,862
U.S.	$44,872
Internally managed	$633
U.S. assets in:	
Full investment discretion	7%
Partial investment discretion	93%
Total portfolio outsourcing	77%
Partial portfolio outsourcing	23%
Commingled funds	76%
Separate accounts	24%
Worldwide assets in:	
Full investment discretion	27%
Partial investment discretion	73%
Total portfolio outsourcing	45%
Partial portfolio outsourcing	55%
Commingled funds	68%
Separate accounts	32%
Investment outsourcing institutional clients:	
Worldwide	468
U.S.	192

CONTINUED ON PAGE 20

Reporting

CONTINUED FROM PAGE 16

For the year ended March 31, 90% of Vanguard's clients with fully discretionary outsourced portfolios met or exceeded their policy benchmark. For three years, 82% met or bettered their benchmark, and 77% did so for the five-year periodaccording to data from the firm.

Vanguard was 17th in *P&I's* ranking, with $21.3 billion under investment management.

Other managers also welcomed the opportunity to provide *P&I* with performance of their fully discretionary outsourcing strategies.

PFM Asset Management LLC, Harrisburg, Pa., also uses GIPS to calculate the performance of the fully discretionary outsourced assets under its management, James Link, managing director and chief marketing officer, said in an e-mail.

For periods ended March 31, PFMAM's percentage of fully discretionary outsourcing clients that met or topped their benchmark was 92% for one and three years and 100% for five years, the company said.

"(Our) view is that the only real difference between outsourced investments and more traditional asset allocation is the firms providing the service," Mr. Link added.

He noted that while traditional money managers are accustomed to adhering to performance measurement and disclosure rules, many outsourced strategies are offered by "traditionally non-discretionary investment consultants who have not been required to adhere to the same performance measurement rules."

Mr. Link said "the investment performance track record is not ultimately that of the non-discretionary consultant, and therefore calculation and presentation does not need to comply with GIPS." But once an investment consulting firm assumes investment discretion, he said, GIPS performance calculations should become standard.

PFM was 46th in *P&I's* ranking, with $3.1 billion under investment management in outsourced strategies as of March 31.

What is – and should be – included in investment outsourcing programs for U.S. corporate defined benefit plans is of such concern to the U.S. Department of Labor's Employee Benefits Security Administration that earlier this year, it asked the ERISA Advisory Council to set up a task force to examine the issue and provide recommendations to the Secretary of Labor in November.

In addition to clarifying the legal requirements and other fiduciary issues related to outsourcing for defined benefit plans subject to the Employee Retirement Income Security Act, the task force is charged with recommending "current best practices in selecting and monitoring outsourced service providers, including identification of performance standards, benchmarking of costs and mitigating conflicts of interests," said the DOL's May 2014 issue statement.

Outsourcing outcomes

Percentage of portfolios managed with full discretion that met or exceeded their benchmark as of March 31.

Manager	1 year	3 years*	5 years*
Cardano Risk Mgmt.	100%	100%	N/A
Clearbrook	100%	N/A	N/A
CornerStone Partners	100%	100%	100%
Gallagher Fiduciary	100%	50%	100%
Peirce Park Group	100%	33%	N/A
Pyramis Global Advisors	100%	100%	N/A
Robert Harrell	100%	100%	100%
Wilshire Associates	100%	100%	67%
Pentegra	99%	97%	71%
Segal Rogerscasey	93%	86%	93%
PFM Asset Mgmt.	92%	92%	100%
SEI Investments	92%	95%	97%
Strategic Investment Group	91%	95%	94%
Vanguard Group	90%	82%	77%
J.P. Morgan Asset Mgmt.	89%	88%	89%
State Street Global	79%	59%	50%
Goldman Sachs Group	75%	90%	100%
Cambridge Associates	54%	75%	100%

*Annualized. Source: Company reports