



October 5, 2017

Senator Kwame Raoul
Chairman, Senate Special Committee on State and Pension Fund Investments
Office of the Senate President
160 N. LaSalle Street
Blandic Building Ste. 720
Chicago, IL 60601
Attn: Ozie Goodwin

RE: Response to the 2017 Senate Committee on Pensions and Investments Questionnaire

Dear Senator Raoul:

Enclosed please find twelve copies of the Illinois Municipal Retirement Fund's responses to the Minority and Female Investment Hearing Questionnaire and the 2016 Diversity Report.

Please contact me at (630) 368-5355 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Louis W. Kosiba".

Louis W. Kosiba
Executive Director

State of Illinois

2017 Senate Committee on Pensions and Investments Questionnaire

Response respectfully submitted by the Illinois Municipal Retirement Fund
2211 York Road, Suite 500 Oak Brook, Illinois 60523-2337



Locally funded, financially sound.



**Minority and Female Investment Hearing Questionnaire
Special Committee on State and Pension Fund Investments**

I. Board of Trustees and Fund Policy

1. What is the percentage of minority and women representation on the Board of Trustees of your fund (“the Fund”)? Please identify the minority and women members of the Board of Trustees by name, specifying which members are African American, Asian American, and Latino.

As of March 31, 2017, 75% of the IMRF Board of Trustees are minority and/or women. There are 3 men and 5 women.

Names	IMRF Trustees	Minority & Women	Non-Minority Women	African American
Ms. Natalie Copper *	1	1	0	1
Ms. Gwen Henry	1	1	1	0
Mr. Tom Kuehne	1	0	0	0
Mr. David Miller	1	0	0	0
Ms. Sue Stanish	1	1	1	0
Ms. Sharon U. Thompson	1	1	1	0
Mr. Alex Wallace, Jr.	1	1	0	1
Ms. Trudy Williams	1	1	1	0
Total	8	6	4	2
Percentages	100%	75%	50%	25%

* Ms. Natalie Copper is also of Latino decent

2. Has the Board of Trustees implemented a policy encouraging the hiring of minority or women money managers by the Fund across all **asset classes**? If so, when was the policy promulgated? How has this policy been implemented? Describe any changes made to the policy and its execution in the last year to improve minority and female-owned business enterprise participation. Are there any **asset classes** that do not have minority and women representation? Please provide a copy of the policy.

Yes, on February 25, 1993, the IMRF Board of Trustees adopted the IMRF Investment Manager Selection Policy (a section in the Statement of Investment Policy) encouraging the hiring of minority or women owned investment managers.

Over the last year, the IMRF Statement of Investment Policy (SOIP) has been reviewed and amended. The Emerging and Minority Investment Manager goal for the fixed income asset class was increased from 20% to 25%. In addition, the Hedge Fund asset was removed from the goals as IMRF is no longer investing in this asset class.

Annually, the SOIP is reviewed and adopted by the IMRF Board of Trustees. The SOIP governs portfolio monitoring and investment activities.

As of March 31, 2017, Domestic Equity, International Equity, Fixed Income, Real Estate, and Private Equity have minority and women representation. In total, \$7.3 billion or 19.5% of IMRF's assets are managed by minority and women owned firms. Timberland and Agriculture are the only two asset classes that do not have minority and women representation. These two asset classes, in aggregate, represent \$258 million or 0.69% of the total IMRF portfolio.

The current Statement of Investment Policy was adopted on February 17, 2017. Below are excerpts from the Policy regarding Aspirational Goals, Emerging and Minority Investment Manager Utilization and Selection of Investment Managers.

Aspirational Goals: Emerging Investment Managers and Investment Advisors (In Compliance with Section 1-109.1 (10) of the Illinois Pension Code)

The Illinois Municipal Retirement Fund is committed to diversity in the hiring of emerging and minority owned investment managers.

The Illinois Municipal Retirement Fund Board of Trustees adopts 2 aspirational goals: (i) to utilize emerging investment managers for at least 20% of the total Fund's assets under management and (ii) to utilize firms owned by minorities, females and persons with disabilities for at least 20% of the total Fund's assets under management.

Policy to Achieve Aspirational Goals

The Illinois Municipal Retirement Fund Board of Trustees adopts a policy to ensure progress towards achieving the aspirational goals. The policy directs the IMRF Investment Staff:

- to build relationships with the emerging investment manager community by attending and/or speaking at emerging manager conferences,

- to launch targeted RFP’s that specifically focus on emerging and/or minority owned firms,
- to hire emerging investment managers for active strategies as opposed to lower revenue generating passive strategies,
- to utilize manager of managers and fund of funds programs to hire underlying emerging investment managers,
- to graduate underlying emerging investment managers for direct mandates.

The Illinois Municipal Retirement Fund Board of Trustees will evaluate the Executive Director on the efforts to achieve the aspirational goals. Job descriptions for key staff reflect IMRF’s commitment to diversity and aspirational goals.

Emerging Investment Manager Utilization (In Compliance with Section 1-109.1 (4) of the Illinois Pension Code)

The Illinois Municipal Retirement Fund is committed to providing opportunities for emerging investment managers. An emerging investment manager is defined as a qualified investment advisor that manages an investment portfolio of at least \$10,000,000 but less than \$10,000,000,000 and is a “minority owned business,” “female owned business” or “business owned by a person with a disability” as defined in the Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

Emerging Investment Management firms must be 51% or more owned by individuals that are minorities, females or persons with a disability and are citizens or lawful permanent residents of the United States. For a complete definition go to the following website: [\(30 ILCS 575/\) Business Enterprise for Minorities, Females, and Persons with Disabilities Act.](#)

The Illinois Municipal Retirement Fund Board of Trustees has adopted 3 separate goals for: (i) emerging investment managers that are minority owned businesses; (ii) emerging investment managers that are female owned businesses; and (iii) emerging investment managers that are businesses owned by a person with a disability.

Goals for Utilization of Emerging Investment Managers
by Emerging Investment Manager Classification

<u>Emerging Investment Manager Classification</u>	<u>Minimum Goal as a Percentage of Total Fund Market Value</u>
Minority Owned Businesses	13%
Female Owned Businesses	6%
Businesses Owned by a Person with a Disability	1%

Goals for Utilization of Emerging Investment Managers
by Asset Class

<u>Asset Class</u>	<u>Minimum Goal as a Percentage of Asset Class</u>
Domestic Equity	8%
International Equity	15%
Fixed Income	25%
Real Estate*	4%
Private Equity*	10%
Timberland	Best Efforts
Agriculture	Best Efforts

* based on committed amounts

Minority Investment Manager Utilization (In Compliance with Section 1-109.1 (9) of the Illinois Pension Code)

The Illinois Municipal Retirement Fund is committed to providing opportunities for minority investment managers. A minority investment manager is defined as a qualified investment manager that manages an investment portfolio and meets the definition of “minority owned business,” “female owned business” or “business owned by a person with a disability” as defined in the Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

Minority Investment Management firms must be 51% or more owned by individuals that are minorities, females or persons with a disability and are citizens or lawful permanent residents of the United States. For a complete definition go to the following website: [\(30 ILCS 575/\) Business Enterprise for Minorities, Females, and Persons with Disabilities Act.](#)

The Illinois Municipal Retirement Fund Board of Trustees has adopted 3 separate goals for: (i) minority investment managers that are minority owned businesses; (ii) minority investment managers that are female owned businesses; and (iii) minority investment managers that are businesses owned by a person with a disability.

Goals for Utilization of Minority Investment Managers
by Investment Manager Classification

<u>Investment Manager Classification</u>	<u>Minimum Goal as a Percentage of Total Fund Market Value</u>
Minority Owned Businesses	13%
Female Owned Businesses	6%
Businesses Owned by a Person with a Disability	1%

Goals for Utilization of Minority Investment Managers
by Asset Class

<u>Asset Class</u>	<u>Minimum Goal as a Percentage of Asset Class</u>
Domestic Equity	8%
International Equity	15%
Fixed Income	25%
Real Estate*	4%
Private Equity*	10%
Timberland	Best Efforts
Agriculture	Best Efforts

*based on committed amounts

Policy for Selection of Investment Managers

Purpose

This policy defines the process used by the Board to procure investment managers.

Philosophy

The Board recognizes the availability of qualified minority, female, and person with a disability owned business enterprises.

It is the policy of the Board to include qualified minority managers in the selection process and to objectively evaluate all qualified investment manager candidates regardless of race, gender or handicap.

All qualified investment manager candidates will be evaluated based on: demonstrated professional performance; organizational depth; institutional investment management capability; and reasonableness of fee structure, regardless of the amount of investment assets under management, or age of the investment management firm.

The Board will use professional consultants that do not use discriminatory practices in the creation and maintenance of their investment manager databases and will require the consultants used by the Fund to affirm their use of nondiscriminatory practices when evaluating investment manager candidates.

Procurement Process

When a search is necessary to fill a need in the investment portfolio (e.g. termination of a manager or addition of a new mandate) a Request for Proposal (RFP) shall be prepared. The search will be advertised in the State newspaper and a notice will be posted on the IMRF website. The RFP shall be made available on the IMRF website at least fourteen days before the response is due. When appropriate, the RFP shall also be made available on the investment consultant's website.

An RFP process is not required to place additional assets with an investment management firm that already manages IMRF assets.

Upon termination of a manager, assets may be placed with any appropriate investment management firm and/or transition management firm pending a decision for final disposition by the Board.

RFP Specifications

The RFP will provide background information on IMRF and will request detailed information on matters relevant to the investment manager search being conducted. The RFP will generally be organized as follows:

- Introduction and Goal of the RFP
- Background Information on IMRF
- Services to be Performed
- Qualifications for the Assignment
- Specifications for the Assignment
- Requirements and Instructions for RFP Completion
- General Terms and Conditions of the Contract Including Performance Review Criteria
- Selection Process and Criteria
- Projected Timeline for Completion of the Manager Search

Quiet Period

The Quiet Period is the period of time beginning when the investment manager search RFP is issued and ends when the investment manager is selected by the Board or the process is declared to be complete.

Investment manager respondents shall not contact IMRF Board members during the Quiet Period and should direct all communications to the Chief Investment Officer or the Executive Director or the contact identified in the RFP.

The purpose of the Quiet Period is to ensure that all prospective investment managers have equal access to information regarding the search objective and requirements; to be certain that communications are consistent and accurate; and to make the search process and selection process efficient, diligent and fair.

The Quiet Period will be posted to the IMRF website to prevent inadvertent violations by investment managers responding to the RFP.

IMRF Board members shall refrain from communicating with the respondents regarding any product or service related to the search during the Quiet Period unless this communication takes place during a manager presentation related to the search recommendation.

IMRF Staff shall refrain from communicating with the respondents regarding any product or service related to the search during the Quiet Period unless this communication is initiated by the RFP team for information related to the search.

An investment manager respondent shall be disqualified for violating the Quiet Period.

Selection Process

For searches when a consultant is retained, Staff and consultant will work jointly. Staff shall objectively review the RFP's to identify qualified candidates based solely on the criteria presented in the RFP. Staff and consultant may interview all, some or none of the RFP respondents, undertake site visits to respondent offices, and conduct such other due diligence as is prudent under the circumstances. The process may end at this point if there are no qualified candidates among the respondents.

Staff will present the results of the RFP process to the Investment Committee in the form of a written report. This report will be presented during a public meeting. Staff will make a recommendation to the Board or the Investment Committee of the Board. The Board will consider the recommendation from Staff and determine if the award of a mandate will be made.

During the selection process all respondents to the RFP will be evaluated and ranked on four primary factors:

- **People** - stability of the organization, ownership structure, diversity efforts and documented experience of key professionals
- **Process** - clearly defined, reasonable and repeatable investment strategy
- **Performance** - documented ability to meet investment performance benchmarks
- **Pricing** - fee schedule and associated costs

Staff and consultant are required to identify all minority and female owned firms and firms owned by a person with a disability in the report presented to the Investment Committee. The most qualified minority candidate(s) will be invited to present to the Board or the Investment Committee of the Board. Staff and consultant must specify the reason when these firms are not included in the recommendation.

IMRF reserves the right to reject respondents due to noncompliance with the requirements and instructions in the RFP.

IMRF also reserves the right to not hire or defer the hiring of any investment manager.

Contract Execution

When the contract has been awarded by action of the IMRF Board of Trustees, Staff will take the steps necessary to retain the investment manager including negotiations and execution of the contract.

Website Postings required by Section 1-113.14 of the Illinois Pension Code.

Upon execution of an investment management agreement, a summary of the contract will be posted on the IMRF website in the Investments portal under Investment Managers. Results of manager searches conducted by RFP will be posted under Business Opportunities. Investments made without a formal RFP will be posted under Business Opportunities and shall name the person(s) authorizing the procurement and the reason for the exception.

3. Has the Board of Trustees implemented a policy encouraging the hiring of minority- and female-owned broker/dealers by the Fund's asset managers? If so, when was the policy promulgated? How has this policy been implemented? Does your policy include all asset managers who trade publicly traded assets (e.g. REITs, hedge funds, etc)? Does your policy preclude the utilization of non-direct trading methods toward meeting your goals? Describe any changes made to the policy and its execution in the last year to improve minority and female-owned business enterprise participation. Please provide a copy of the policy.

Yes, the IMRF Board of Trustees has implemented a policy encouraging the hiring of minority, female and persons with a disability owned broker/dealers (as part of the Statement of Investment Policy) by the Fund's asset managers. The IMRF Board of Trustees formally adopted its first MWBE brokerage goal on January 23, 2004. The IMRF Board reviews and adopts the policy annually.

The policy includes all asset managers who trade publicly traded asset classes.

Yes, IMRF's policy precludes the utilization of non-direct trading methods such as step-outs.

During the last year, the IMRF Minority Broker/Dealer Utilization policy was amended to include the following:

- Added language to clarify that the restriction on investment managers (or their affiliates) acting as securities broker-dealers for asset purchases and sales in their IMRF-designated portfolios excludes "transition manager" assignments
- Added language discussing broker-dealer selection to include a fifth component stating that an investment manager's selection of broker-dealers may take into account their ability to satisfy IMRF's goals for utilization of minority broker-dealers
- Removed reference to the Hedge Fund Asset Class. In February 2016, IMRF began liquidating all hedge fund assets.

The current Statement of Investment Policy was adopted on February 17, 2017. Below are excerpts from the policy regarding minority broker/dealer utilization and goals.

Minority Broker/Dealer Utilization Policy

The firms that are to act as a securities broker-dealer with respect to the purchase and sale of assets for the Fund shall be selected by the investment manager in its sole discretion. The investment manager or any entity controlled by or controlling it, or affiliated with it, shall not act as a securities broker-dealer with respect to purchases and sales of assets allocated to the investment manager unless the Board specifically approves such action. This excludes Transition Manager assignments.

In the selection of broker-dealers with whom to place orders for the purchase or sale of securities for the Fund, the primary objective of the investment manager shall be to obtain the most favorable results for the Fund. The investment manager's selection of broker-dealers may take into account such relevant factors as (1) price and/or commission; (2) the broker-dealer's facilities, reliability and financial responsibility; (3) the ability of the broker-dealer to effect securities transactions, particularly with respect to such aspects as timing, order size, execution of orders and the ability to complete a

transaction through clearance, settlement and delivery; (4) the research and other services provided by such broker-dealer to the investment manager which are expected to enhance general portfolio management capabilities, notwithstanding the fact that the Fund may not be the direct or exclusive beneficiary of such services; and, (5) satisfy IMRF's goals for utilization of minority broker-dealers. The investment manager's selection of such broker-dealers shall be in accordance with Article I of the Illinois Pension Code (40 ILCS 5/1-101 et seq.), the Investment Advisors Act of 1940, and any other applicable securities laws, rules, and regulations.

Minority Broker/Dealer Utilization Goal

The Illinois Municipal Retirement Fund is committed to providing opportunities for minority owned and female owned broker/dealers and broker/dealers owned by a person with a disability. The Illinois Municipal Retirement Fund Board of Trustees has adopted a policy which sets forth goals for increasing the utilization of minority broker/dealers.

The minimum expectations for the utilization of minority broker/dealers are based on commission dollars for Equities and par value for Fixed Income. Investment managers of separately managed investment portfolios, in the following asset classes, must meet the minimum goals:

<u>Asset Class</u>	<u>2017 Minimum Goal</u>
U.S. Equities	25%
U.S. Large-Cap Equities	30%
U.S. Micro-Cap Equities	7%
International Equities	20%
Fixed Income	22%
High-Yield Bonds	5%
International Small-Cap Equities	5%
Emerging Market Equities	5%
Emerging Market Debt	Best Efforts
Bank Loans	Best Efforts
Opportunistic Strategies	Best Efforts

Note: This broker/dealer utilization goal will be reviewed annually. IMRF may allow current investment managers a limited transition period when minority broker/ dealer utilization goals are increased.

Investment managers are prohibited from using indirect methods such as step-outs to achieve these goals.

Investment managers of pooled/commingled investment portfolios are directed to use their best efforts to execute trades with minority broker/dealers. Efforts will be evaluated during semi-annual portfolio review meetings.

All investment managers executing brokerage on behalf of the Illinois Municipal Retirement Fund are directed to meet these minimum goals in their specific portfolios and shall report monthly on their utilization of minority broker/dealers. Any investment manager failing to meet the minimum goal during the reporting month must provide a written explanation disclosing the reasons for not meeting the goal.

Transition managers are expected to meet or exceed IMRF's current minority brokerage goals.

Staff will report to the Board of Trustees annually on the utilization of minority broker/dealers. Investment managers not meeting the minority broker/dealer utilization goal will be identified in the report. An investment manager's ability to meet a minority brokerage goal is an integral part of the manager monitoring process. Consequences for not meeting IMRF's minority brokerage goals are situation specific and range from increased monitoring, placement on watch list, asset reduction, termination, and exclusion from receiving additional allocations/mandates.

4. What steps is the Fund taking to encourage direct trading with minority- and female-owned broker/dealers across all relevant **asset classes** instead of step-outs and correspondent relationships?

IMRF's brokerage policy specifically states that "Investment managers are prohibited from using indirect methods such as step-outs to achieve these goals." IMRF requires investment managers to report their utilization of minority owned broker dealers each month.

IMRF maintains a list of minority, female and person with a disability owned broker dealers that have contacted IMRF. The list is posted on IMRF's website under the Investment section. While this is not an approved list, IMRF's investment managers may utilize this list to select minority and female owned broker dealers, at their sole discretion. IMRF's investment managers are expected to adhere to the Brokerage Policy. The list with full addresses can be found at www.imrf.org.

Additionally, IMRF assists in facilitating dialogue between minority broker dealers and its investment managers to expand trading opportunities across multiple product types.

5. Public Act 96-6 required funds to adopt goals across all **asset classes**. How has the Fund's goals changed since passage of the new law? How else has PA 96-6 impacted the Fund's use of emerging investment managers? How do you promote transparency within the Board? Are your full Board meetings and Investment Committee meetings entirely open to the public? Has the Board gone into Executive Session regarding non-legal matters in the past? If so, for what general reasons did the Board decide to hold an Executive Session instead of a public hearing? Do you (or have you) given consideration to providing the same written materials to the public so they can follow and understand the proceedings better? (as general referencing discloses little in the greater interest of transparency)

Since the passage of Public Act 96-6, IMRF's Minority and Emerging investment manager goals have changed to include goals by Investment Manager Classification. The Classifications are Minorities (African American, Asian and Latino), Females and Persons with a Disability. Each of the Classifications has a minimum goal as a percentage of Total Fund Market Value.

Also, the IMRF Board of Trustees adopted a 20% aspirational goal for Minority and Emerging investment managers. IMRF's aspirational goal is to have 20% of its assets managed by Minority and Emerging investment managers. As of March 31, 2017, 19.5% or \$7.3 billion of IMRF's total market value is managed by minority owned investment managers.

In addition, the Asset Classes have expanded from Equities, Fixed Income and Alternative to Domestic Equity, International Equity, Fixed Income, Real Estate, Private Equity, Timberland and Agriculture. Each of the Asset Classes has a minimum goal as a percentage of the Asset Class committed amount or market value. IMRF has minority investment managers in all asset classes with the exception of Timberland and Agriculture. In 2017, IMRF increased the Minority Manager goal for the Fixed Income asset class from 20% to 25%.

Since the passage of Public Act 96-6, IMRF's Minority brokerage goals were established to include goals for all asset classes. Furthermore, the goals and actual results are reviewed annually to assess each manager's efforts to meet or exceed IMRF's brokerage goals. In an effort to challenge investment managers' commitment to satisfy IMRF's goals to utilize minority broker-dealers, IMRF will increase asset class goals periodically.

In 2009, the IMRF website was redesigned to include the requirements found in Public Act 96-6. These modifications provide increased transparency of the Investment Department. Emerging investment managers, broker dealers and others are now able to easily examine IMRF's policies and goals as they relate to emerging investment managers and broker dealers. Additionally, all of IMRF's managers are able to study and download a list of minority broker dealers who have contacted IMRF. This list provides a starting point for managers to expand their network of minority broker dealers. Therefore, the list of minority broker dealers who have contacted IMRF facilitates our managers' compliance with our minimum minority broker dealer utilization goals.

IMRF promotes transparency within the Board by providing meeting materials to all Trustees one week prior to the meeting date. The meeting materials are made available to Trustees via BoardDocs, a web-based eGovernance tool. In addition, the Board Meeting agenda is posted on IMRF's website one week in advance of the meeting date.

Our Board of Trustees meetings and Investment Committee meetings are entirely open to the public in accordance with the Open Meetings Act. The Board has only gone into Executive Session regarding non-legal matters in the past to discuss Executive Director's performance/compensation and discuss the appointment of a new Executive Director.

Yes, IMRF has considered providing the same written materials to the public so they can follow and understand the proceedings better. IMRF is transparent since ample information is available on www.IMRF.org including but not limited to Investment and Board Meeting minutes, agendas, asset allocation, monthly and quarterly investment manager performance summary, minority investment manager and broker goals.

6. Is there a maximum allocation your plan is allowed to allocate to trade with an MWBE firm? IF so, what is the maximum? Is there a maximum volume or percent your plan is allowed to trade with a MWBE firm for each asset class? If so, what is the maximum? Is your policy a ceiling or floor? Why?

There are no maximum allocation amounts for trading with a MWBE firm. IMRF does not manage public equity or fixed income investments internally.

II. Staff

1. What is the percentage of minority and women representation on the Fund's investment staff (excluding support staff)? Please specify the percentage of African Americans, Asian Americans, Latinos, and women.

The IMRF investment staff (excluding support staff) is comprised of 7 men and 5 women. Out of the 12 staff members, 50% are minority and women of which Latinos and African American represent 33.33%.

Names	IMRF Investment Professionals	Total Minority & Woman	Non- Minority Woman	African- American	Asian- American	Latino
Mr. Alfonzo Bruno	1	0	0	0	0	0
Mr. Nicholas Catanese	1	0	0	0	0	0
Ms. Elizabeth Govea	1	1	0	0	0	1
Mr. Luke Kukulka	1	0	0	0	0	0
Mr. Andrew Maday	1	0	0	0	0	0
Ms. Gissel Orlando	1	1	0	0	0	1
Mr. Edward Sambol	1	0	0	0	0	0
Ms. Karen Seplak	1	1	1	0	0	0
Ms. Dhvani Shah	1	1	0	0	1	0
Mr. Robert Talaga	1	0	0	0	0	0
Mr. Mordecai Tolbert	1	1	0	1	0	0
Ms. Rosa Vasquez	1	1	0	0	0	1
Total	12	6	1	1	1	3
Percentages	100%	50.00%	8.33%	8.33%	8.33%	25.00%

2. What is the percentage of minority and women representation on the Fund’s consulting staff that is specifically assigned to the Fund (excluding support staff)? Please specify the percentage of African Americans, Asian Americans, Latinos, and women.

As of June 30, 2017, 67% of IMRF’s consulting staff specifically assigned to the Fund (excluding support staff) is minority and women.

Names	Investment Consultant	Total Minority & Women	Non-Minority Women	African-American	Asian-American	Latino
Mr. Ryan Ball	1	0	0	0	0	0
Ms. Janet Becker-Wold	1	1	1	0	0	0
Mr. Avery Robinson	1	1	0	1	0	0
Total	3	2	1	1	0	0
Percentages	100%	67%	33%	33%	0%	0%

III. Consulting Firms

1. What is the percentage of minority and women representation at the Fund's hired consulting firm (excluding support staff)? Please specify the percentage of African Americans, Asian Americans, Latinos, and women.

IMRF's investment consultant is Callan. The percentage of minority and women investment professionals at Callan Associates is 56%. Furthermore, 51% of Callan's Shareholders are minority and women.

During 2016-2017, Callan Associates promoted 26 employees. 11 or 42% of the employees promoted were minority and women.

During 2016, Callan Associates hired 12 new employees. 6 or 50% of the new hires were minority and women.

Callan Associates posts job openings and internship opportunities with the following organizations: Toigo Foundation, NASP, NAA, National Black MBA Association, Asian MBA, National Society of Hispanic MBAs and local colleges and universities.

The tables below detail the specific percentages of African Americans, Asian American, Latinos, and women.

	Callan Investment Professionals	Total Minority & Women	African American	Asian American	Latino	Non-Minority Women	Two or More Races
Total	137	77	7	30	3	32	5
Percentages	100%	56%	5%	22%	2%	24%	4%

	Callan Shareholders	Total Minority & Women	African American	Asian American	Latino	Non-Minority Women	Two or More Races
Total	81	41	1	11	2	24	3
Percentages	100%	51%	1%	14%	2%	30%	4%

	Callan Promoted Employees 2016-17	Total Minority & Women	African American	Asian American	Latino	Non-Minority Women	Two or More Races
Total	26	11	1	3	0	7	0
Percentages	100%	42%	4%	12%	0.00%	27%	0.00%

	Callan 2016 New Hires	Total Minority & Women	African American	Asian American	Latino	Non-Minority Women	Two or More Races
Total	12	6	0	2	0	4	0
Percentages	100%	50.00%	0.00%	16.67%	0.00%	33.33%	0.00%

2. What standards do you and your consultants use to confirm and certify that an investment manager or broker is MWBE?

IMRF requires each investment manager to self-certify that their company meets the requirements to be classified as a “Minority Owned Business” or a “Female Owned Business” or a “Person with a Disability Owned Business” as detailed in Illinois Statute 30-ILCS-575: Business Enterprise for Minorities, Females, and Persons with Disabilities Act. A copy of the certification form is included below.

Brokers that are classified as minority, female or persons with a disability are asked to send their contact information. The broker’s contact information is then posted to IMRF’s website. Brokers may send in the minority certification certificate as well.

IMRF’s investment consultant, Callan Associates, does not independently confirm and certify MWBE ownership of investment managers or brokers. Managers inform Callan of MWBE ownership by indicating this in our annual questionnaire or RFP response. Managers are asked to indicate if the firm is majority woman owned, minority owned (along with the race and/or ethnicity), and/or majority disabled owned.

Minority, Female and Person with a Disability Owned Business Certification

The Illinois Municipal Retirement Fund Board of Trustees has adopted a policy which sets forth goals for increasing the utilization of qualified minority, female and person with a disability owned business enterprises in the Fund’s management of its investment assets and use of its service providers. As an IMRF investment manager, broker, or service provider, we ask that you confirm if your company meets the requirements to be classified as a “Minority Owned Business” or a “Female Owned Business” or a “Person with a Disability Owned Business” as detailed in Illinois Statute 30-ILCS-575: Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

When a business concern is owned at least 51% by any combination of minority persons, females, or persons with disabilities, even though none of the 3 classes alone holds at least a 51% interest, the ownership requirement for purposes of this Act is considered to be met. The certification category for the business is that of the class holding the largest ownership interest in the business. If 2 or more classes have equal ownership interests, the certification category shall be determined by the business concern.

The full text of Illinois Statute 30-ILCS-575 can be found at www.ilga.gov; click on: Illinois Compiled Statutes; click on: Chapter 30 Finance; lastly, click on: 30 ILCS 575/ Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

All Managers / Consultants MUST complete this form.

Minority, Female and Person with a Disability Owned Business Certification

Pursuant to Illinois Statute 30-ILCS-575: Business Enterprise
for Minorities, Females, and Persons with Disabilities Act

Our firm verifies that it *DOES NOT* meet the requirements to be classified as a “Minority, Female and/or Person with a Disability Owned Business” as defined in Illinois Statute 30-ILCS-575 Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

Our firm verifies that it *DOES* meet the requirements to be classified as a: (*must choose ONE*)

“Minority Owned Business” as defined in Illinois Statute 30-ILCS-575 Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

African American Asian Latino Other

“Female Owned Business” as defined in Illinois Statute 30-ILCS-575 Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

“Person with a Disability Owned Business” as defined in Illinois Statute 30-ILCS-575 Business Enterprise for Minorities, Females, and Persons with Disabilities Act.

If your firm *DOES* meet the requirements to be classified as a “Minority, Female and/or Person with a Disability Owned Business” as defined in Illinois Statute 30-ILCS-575 Business Enterprise for Minorities, Females, and Persons with Disabilities Act, please select your firm’s AUM:

\$10 million but less than \$10 billion
Equal to or greater than \$10 billion

Note: If your firm is certified as a Minority Owned Business by a State or local government entity, please include a copy of that certification.

INVESTMENT MANAGER / CONSULTANT:	
Company Name:	
Signature:	
Printed Name	
Title:	
Dated:	, 2017

3. How many MWBE firms did your consultant recommend in searches which occurred in 2016 and 2017 (through March 31)? How many MWBE firms did your consultant recommend in searches without a specific MWBE participation mandate? How many MWBE firms are currently on your consultant's recommended or select lists?

IMRF's Board of Trustees has adopted a Policy for the Selection of Investment Managers. All prospective investment managers are required to submit a completed request for proposal for each investment manager search. All respondents are evaluated by staff and consultant. IMRF does not rely solely on consultant recommendations when selecting managers. IMRF's consultant does not have a recommended or select list applicable to the IMRF relationship. IMRF's consultant conducts each search from bottoms up and includes all managers in their database and does not limit the search to pre-selected recommended list.

The table below details the MWBE firms that Callan recommended in searches without a specific MWBE mandate across all of their clients.

	2016	As of 7/31/17
# MWBE Firms to Manager Search Committee (MSC)	21	12
# MWBE Firms to MSC w/out MWBE Search	17	12
# MWBE Firms Advanced to Client	18	9
# MWBE Firms Advanced to Client w/out MWBE Search	14	9

IV. Money Managers

1. What is the percentage of minority and women representation at the Fund’s majority owned asset managers who are specifically assigned to the Fund’s accounts (excluding support staff)? Please specify the percentage of African Americans, Asian Americans, Latinos, and women.

IMRF has one UK-based investment manager that stated they are not allowed to disclose the ethnic background of their employees without their consent per UK Equal Opportunities legislation. They did provide the males and females assigned to the IMRF account.

IMRF also has one U.S. based investment manager that stated they do not track the requested information.

Minority and Women Representation at IMRF's Majority Owned Asset Managers								
Total Personnel Assigned to IMRF	Total Minority & Women	Non-Minority Male	Person with a Disability	Non-Minority Female	African American	Latino	Asian American	Other Minority *
5094	2601	2477	1	1171	202	248	838	141
Percentages	51%	49%	0%	23%	4%	5%	16%	3%

* Other minority represents those of mixed races or classifications not listed in the table

2. As of December 31, 2016 and March 31, 2017 what percentage (based on assets managed within each **asset class**) of money managers retained by the Fund is African American? Latino? Asian American? Female? Please identify these entities by name.

The table below details the percentage (based on assets managed within each asset class) of money managers retained by the Fund that are African American, Latino, Asian American, and Female as of 12/31/2016.

Classification	Agriculture	Domestic Equity	Fixed Income	Hedge Fund	International Equity	Private Equity	Real Estate	Timber
African American	0.0%	7.3%	12.4%	0.0%	12.3%	22.0%	1.4%	0.0%
Latino	0.0%	1.3%	16.8%	6.2%	1.3%	1.7%	2.8%	0.0%
Asian	0.0%	0.0%	0.0%	6.9%	0.3%	2.1%	0.8%	0.0%
Female	0.0%	0.0%	3.2%	0.0%	8.9%	0.7%	2.1%	0.0%
Disabled	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%
Total MWBE	0.0%	8.6%	32.5%	13.1%	22.8%	26.5%	7.6%	0.0%
Total Majority	100.0%	91.4%	67.5%	86.9%	77.2%	73.5%	92.4%	100.0%

Private Equity and Real Estate data is based on committed amounts. Fund of Fund values are reported at the underlying manager level.

The tables below identify the minority and female owned investment managers by asset class as of 12/31/2016.

Classification	% of Domestic Equity
African American	7.3%
Ariel	0.5%
Channing	1.4%
Holland	5.5%
Latino	1.3%
Ativo	0.8%
Wall Street	0.5%
Total Minority and Female	8.6%

Classification	% of Fixed Income
African American	12.4%
Earnest Partners	5.4%
Piedmont	5.4%
Progress	0.0%
Progress Subadvisor Advent Capital	0.3%
Progress Subadvisor Pugh Capital Management	1.4%

Classification	% of Fixed Income
Female	3.2%
Progress Subadvisor Concerto Asset Management	0.3%
Progress Subadvisor Longfellow Investment Management	1.3%
Progress Subadvisor New Century Advisors	1.6%
Latino	16.8%
Garcia Hamilton	5.1%
LM Capital	8.4%
Progress Subadvisor Garcia Hamilton & Associates	1.2%
Progress Subadvisor GIA Partners	1.3%
Progress Subadvisor Ramirez Asset Management	0.8%
Total Minority and Female	32.5%

Classification	% of Hedge Fund
Asian	6.9%
Aurora Subadvisor Sentinel Dome	6.9%
Latino	6.2%
Aurora Subadvisor Roystone Capital	6.2%
Total Minority and Female	13.1%

Classification	% of International Equity
African American	12.3%
Brown Capital	4.1%
Earnest Partners	7.6%
Progress Int Subadvisor Brown Capital Management	0.7%
Asian	0.3%
Progress Int Subadvisor Arga Investment Management	0.3%
Female	8.9%
GlobeFlex	7.7%
Progress Int Subadvisor Metis Global Partners	0.3%
Progress Int Subadvisor Strategic Global Advisors	0.9%
Latino	1.3%
Progress Int Subadvisor Ativo Capital Management	0.7%
Progress Int Subadvisor Glovista Investments	0.6%
Total Minority and Female	22.8%

Classification	% of Private Equity
African American	22.0%
Abbott Capital Subadvisor ICV III	0.2%
ICV III	0.9%
Muller & Monroe ILPEFF	0.2%
Muller & Monroe ILPEFF Subadvisor Ascend Ventures II	0.1%
Muller & Monroe ILPEFF Subadvisor ICV Partners II	0.0%
Muller & Monroe ILPEFF Subadvisor RLJ Equity Partners	0.1%
Muller & Monroe ILPEFF Subadvisor Smith Whiley Pelham Fund II	0.1%
Muller & Monroe ILPEFF Subadvisor Syncom Venture Partners V	0.1%
Muller & Monroe M2PEFF	0.1%
Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	0.1%
Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	0.1%
Pantheon Subadvisor ICV III	0.2%
Pantheon Subadvisor Vistria Fund	0.1%
Vista Credit Opp Fund I	2.3%
Vista Credit Opportunities Fund II	2.3%
Vista Equity Partners V	4.6%
Vista Equity Partners VI	4.6%
Vista Foundation Fund II	0.7%
Vista Foundation Fund III	1.1%
Vistria	0.7%
Vistria Fund II	3.4%
Asian	2.1%
Abbott Capital Subadvisor Storm Ventures V	0.2%
Abbott Capital Subadvisor Vivo Capital Fund VIII	0.2%
Abbott Capital Subadvisor Vivo Ventures VII	0.3%
Mayfield XIV	0.2%
Mayfield Select	0.5%
Mayfield XV	0.5%
Pantheon Subadvisor Khosla Seed	0.0%
Pantheon Subadvisor Khosla Seed B	0.0%
Pantheon Subadvisor Khosla Seed C	0.1%
Pantheon Subadvisor Khosla Ventures III	0.0%
Pantheon Subadvisor Khosla Ventures IV	0.1%
Pantheon Subadvisor Khosla Ventures V	0.1%

Classification	% of Private Equity
Female	0.7%
Abbott Capital Subadvisor 1315 Healthcare Fund	0.2%
Abbott Capital Subadvisor Canvas Ventures 2	0.2%
Abbott Capital Subadvisor Oak HC/FT Partners	0.2%
Muller & Monroe ILPEFF Subadvisor Castile Ventures III	0.1%
Pantheon Subadvisor Oak HC	0.1%
Latino	1.7%
Abbott Capital Subadvisor Clearlake Capital Partners III	0.3%
Abbott Capital Subadvisor NMS Fund II	0.2%
AUA Private Equity Fund, LP	0.2%
Estancia	0.2%
Muller & Monroe ILPEFF Subadvisor Nogales Investors II	0.0%
Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	0.1%
NMS II	0.2%
Pantheon Subadvisor NMS Fund II	0.1%
Valor Equity Partners III	0.2%
Total Minority and Female	26.5%

Classification	% of Real Estate
African American	1.4%
Artemis RE Partners Subadvisor Jair Lynch Development Partners	1.4%
Asian	0.8%
Franklin Templeton Subadvisor GreenOak U.S.	0.4%
Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	0.1%
Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	0.3%
Disabled	0.5%
Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	0.5%
Female	2.1%
Artemis Real Estate Partners Healthcare Fund I	0.9%
Artemis Spruce MWBE	0.4%
Artemis Spruce MWBE Subadvisor Artemis Healthcare Fund	0.9%
Latino	2.8%
Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	0.4%
Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	0.5%
LongWharf Real Estate Partners V	1.1%
Oak Street Real Estate Capital III	0.9%
Total Minority and Female	7.6%

The table below details the percentage (based on assets managed within each asset class) of money managers retained by the Fund that are African American, Latino, Asian American, and Female as of 3/31/17.

Classification	Agriculture	Domestic Equity	Fixed Income	Hedge Fund*	International Equity	Private Equity	Real Estate	Timber
African American	0.0%	7.5%	12.5%	0.0%	12.3%	20.9%	1.3%	0.0%
Latino	0.0%	0.7%	16.9%	8.7%	0.8%	1.6%	5.0%	0.0%
Asian	0.0%	0.0%	0.0%	13.4%	0.6%	2.1%	0.7%	0.0%
Female	0.0%	0.0%	3.0%	0.0%	9.3%	0.9%	4.4%	0.0%
Disabled	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%
Total MWBE	0.0%	8.2%	32.4%	22.1%	23.0%	25.5%	11.8%	0.0%
Total Majority	100.0%	91.8%	67.6%	77.9%	77.0%	74.5%	88.2%	100.0%

* As of February 2016, the hedge fund asset class is in liquidation.

The tables below identify the minority and female owned investment managers by asset class as of 3/31/17.

Classification	% of Domestic Equity
African American	7.5%
Ariel	0.4%
Channing	1.3%
Holland	5.7%
Latino	0.7%
Ativo	0.7%
Total Minority and Female	8.2%

Classification	% of Fixed Income
African American	12.5%
Earnest Partners	5.3%
Piedmont	5.3%
Progress Subadvisor Advent Capital	0.5%
Progress Subadvisor Pugh Capital Management	1.4%
Female	3.0%
Progress Subadvisor Concerto Asset Management	0.0%
Progress Subadvisor Longfellow Investment Management	1.4%
Progress Subadvisor New Century Advisors	1.6%

Classification	% of Fixed Income
Latino	16.9%
Garcia Hamilton	5.1%
LM Capital	8.3%
Progress Subadvisor Garcia Hamilton & Associates	1.2%
Progress Subadvisor GIA Partners	1.3%
Progress Subadvisor Ramirez Asset Management	0.9%
Total Minority and Female	32.4%

Classification	% of Hedge Fund
Asian	13.4%
Aurora Subadvisor Sentinel Dome	13.4%
Latino	8.7%
Aurora Subadvisor Roystone Capital	8.7%
Total Minority and Female	22.1%

Classification	% of International Equity
African American	12.3%
Brown Capital	4.0%
Earnest Partners	7.6%
Progress Int Subadvisor Brown Capital Management	0.7%
Asian	0.6%
Progress Int Subadvisor Arga Investment Management	0.6%
Female	9.3%
GlobeFlex	7.8%
Progress Int Subadvisor Metis Global Partners	0.5%
Progress Int Subadvisor Strategic Global Advisors	0.9%
Latino	0.8%
Progress Int Subadvisor Ativo Capital Management	0.5%
Progress Int Subadvisor Glovista Investments	0.4%
Total Minority and Female	23.0%

Classification	% of Private Equity
African American	20.9%
Abbott Capital Subadvisor ICV III	0.2%
ICV III	0.9%
Muller & Monroe M2PEFF	0.1%
Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	0.1%
Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	0.1%
Pantheon Subadvisor ICV III	0.2%
Pantheon Subadvisor Vistria Fund	0.1%
Vista Credit Opp Fund I	2.2%
Vista Credit Opportunities Fund II	2.2%
Vista Equity Partners V	4.5%
Vista Equity Partners VI	4.5%
Vista Foundation Fund II	0.7%
Vista Foundation Fund III	1.1%
Vistria	0.7%
Vistria Fund II	3.4%
Asian	2.1%
Abbott Capital Subadvisor Storm Ventures V	0.2%
Abbott Capital Subadvisor Vivo Capital Fund VIII	0.2%
Abbott Capital Subadvisor Vivo Ventures VII	0.3%
Mayfield XIV	0.2%
Mayfield Select	0.4%
Mayfield XV	0.4%
Pantheon Subadvisor Khosla Seed	0.0%
Pantheon Subadvisor Khosla Seed B	0.0%
Pantheon Subadvisor Khosla Seed C	0.1%
Pantheon Subadvisor Khosla Ventures III	0.0%
Pantheon Subadvisor Khosla Ventures IV	0.1%
Pantheon Subadvisor Khosla Ventures V	0.1%
Female	0.9%
Abbott Capital Subadvisor 1315 Healthcare Fund	0.2%
Abbott Capital Subadvisor Canvas Ventures 2	0.2%
Abbott Capital Subadvisor Oak HC/FT Partners	0.2%
Abbott Capital Subadvisor Oak HC/FT Partners II	0.2%
Pantheon Subadvisor Oak HC	0.1%
Pantheon Subadvisor Oak HC II	0.1%

Classification	% of Private Equity
Latino	1.6%
Abbott Capital Subadvisor Clearlake Capital Partners III	0.3%
Abbott Capital Subadvisor NMS Fund II	0.2%
AUA Private Equity Fund, LP	0.2%
Estancia	0.2%
Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	0.1%
NMS II	0.2%
Pantheon Subadvisor NMS Fund II	0.1%
Valor Equity Partners III	0.2%
Total Minority and Female	25.5%

Classification	% of Real Estate
African American	1.3%
Artemis RE Partners Subadvisor Jair Lynch Development Partners	1.3%
Asian	0.7%
Franklin Templeton Subadvisor GreenOak U.S.	0.4%
Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	0.1%
Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	0.2%
Disabled	0.5%
Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	0.5%
Female	4.4%
Artemis RE Partners Subadvisor CRES Management	0.8%
Artemis Real Estate Partners Healthcare Fund I	0.8%
Artemis Spruce MWBE	1.9%
Artemis Spruce MWBE Subadvisor Artemis Healthcare Fund	0.8%
Latino	5.0%
Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	0.4%
Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	0.4%
LongWharf Real Estate Partners V	1.0%
Oak Street Real Estate Capital III	0.8%
Oak Street Real Estate Capital IV	2.4%
Total Minority and Female	11.8%

3. Exclusive of a manager of managers program, as of December 31, 2016 and March 31, 2017, what percentage of money managers retained by the Fund is African American? Latino? Asian American? Female? Please identify these entities by name.

The table below details the percentage (based on assets managed within each asset class) of money managers retained by the Fund that are African American, Latino, Asian American, and Female (exclusive of manager of managers program) as of 12/31/2016.

	Agriculture	Domestic Equity	Fixed Income	Hedge Fund	International Equity	Private Equity	Real Estate	Timber
African American	0.0%	7.3%	11.7%	0.0%	12.1%	22.0%	0.0%	0.0%
Latino	0.0%	1.3%	14.7%	6.2%	0.0%	1.7%	2.9%	0.0%
Asian	0.0%	0.0%	0.0%	6.9%	0.0%	2.1%	0.8%	0.0%
Female	0.0%	0.0%	0.0%	0.0%	7.9%	0.7%	0.9%	0.0%
Disabled	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%
Total MWBE	0.0%	8.6%	26.4%	13.1%	20.0%	26.5%	5.1%	0.0%
Total Majority	100.0%	91.4%	73.6%	86.9%	80.0%	73.5%	94.9%	100.0%

Private Equity and Real Estate data is based on committed amounts. Fund of Fund values are reported at the underlying manager level.

The tables below identify the minority and female owned investment managers by asset class (exclusive of manager of managers program) as of 12/31/2016.

Classification	% of Domestic Equity
African American	7.3%
Ariel	0.5%
Channing	1.4%
Holland	5.5%
Latino	1.3%
Ativo	0.8%
Wall Street	0.5%
Total Minority and Female	8.6%

Classification	% of Fixed Income
African American	11.7%
Earnest Partners	5.9%
Piedmont	5.8%
Latino	14.7%
Garcia Hamilton	5.6%
LM Capital	9.1%
Total Minority and Female	26.4%

Classification	% of Hedge Fund
Asian	6.9%
Aurora Subadvisor Sentinel Dome	6.9%
Latino	6.2%
Aurora Subadvisor Roystone Capital	6.2%
Total Minority and Female	13.1%

Classification	% of International Equity
African American	12.1%
Brown Capital	4.2%
Earnest Partners	7.9%
Female	7.9%
GlobeFlex	7.9%
Total Minority and Female	20.0%

Classification	% of Private Equity
African American	22.0%
Abbott Capital Subadvisor ICV III	0.2%
ICV III	0.9%
Muller & Monroe ILPEFF	0.2%
Muller & Monroe ILPEFF Subadvisor Ascend Ventures II	0.1%
Muller & Monroe ILPEFF Subadvisor ICV Partners II	0.0%
Muller & Monroe ILPEFF Subadvisor RLJ Equity Partners	0.1%
Muller & Monroe ILPEFF Subadvisor Smith Whiley Pelham Fund II	0.1%
Muller & Monroe ILPEFF Subadvisor Syncom Venture Partners V	0.1%
Muller & Monroe M2PEFF	0.1%
Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	0.1%
Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	0.1%
Pantheon Subadvisor ICV III	0.2%
Pantheon Subadvisor Vistria Fund	0.1%
Vista Credit Opp Fund I	2.3%
Vista Credit Opportunities Fund II	2.3%
Vista Equity Partners V	4.6%
Vista Equity Partners VI	4.6%
Vista Foundation Fund II	0.7%
Vista Foundation Fund III	1.1%
Vistria	0.7%
Vistria Fund II	3.4%

Classification	% of Private Equity
Asian	2.1%
Abbott Capital Subadvisor Storm Ventures V	0.2%
Abbott Capital Subadvisor Vivo Capital Fund VIII	0.2%
Abbott Capital Subadvisor Vivo Ventures VII	0.3%
Mayfield XIV	0.2%
Mayfield Select	0.5%
Mayfield XV	0.5%
Pantheon Subadvisor Khosla Seed	0.0%
Pantheon Subadvisor Khosla Seed B	0.0%
Pantheon Subadvisor Khosla Seed C	0.1%
Pantheon Subadvisor Khosla Ventures III	0.0%
Pantheon Subadvisor Khosla Ventures IV	0.1%
Pantheon Subadvisor Khosla Ventures V	0.1%
Female	0.7%
Abbott Capital Subadvisor 1315 Healthcare Fund	0.2%
Abbott Capital Subadvisor Canvas Ventures 2	0.2%
Abbott Capital Subadvisor Oak HC/FT Partners	0.2%
Muller & Monroe ILPEFF Subadvisor Castile Ventures III	0.1%
Pantheon Subadvisor Oak HC	0.1%
Latino	1.7%
Abbott Capital Subadvisor Clearlake Capital Partners III	0.3%
Abbott Capital Subadvisor NMS Fund II	0.2%
AUA Private Equity Fund, LP	0.2%
Estancia	0.2%
Muller & Monroe ILPEFF Subadvisor Nogales Investors II	0.0%
Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	0.1%
NMS II	0.2%
Pantheon Subadvisor NMS Fund II	0.1%
Valor Equity Partners III	0.2%
Total Minority and Female	26.5%

Classification	% of Real Estate
Asian	0.8%
Franklin Templeton Subadvisor GreenOak U.S.	0.4%
Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	0.1%
Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	0.3%
Disabled	0.5%
Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	0.5%

Classification	% of Real Estate
Female	0.9%
Artemis Real Estate Partners Healthcare Fund I	0.9%
Latino	2.9%
Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	0.4%
Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	0.5%
LongWharf Real Estate Partners V	1.1%
Oak Street Real Estate Capital III	0.9%
Total Minority and Female	5.1%

The table below details the percentage (based on assets managed within each asset class) of money managers retained by the Fund that are African American, Latino, Asian American, and Female (exclusive of manager of managers program) as of 3/31/17.

Classification	Agriculture	Domestic Equity	Fixed Income	Hedge Fund*	International Equity	Private Equity	Real Estate	Timber
African American	0.0%	7.5%	11.6%	0.0%	12.1%	20.9%	0.0%	0.0%
Latino	0.0%	0.7%	14.6%	8.7%	0.0%	1.6%	5.3%	0.0%
Asian	0.0%	0.0%	0.0%	13.4%	0.0%	2.1%	0.7%	0.0%
Female	0.0%	0.0%	0.0%	0.0%	8.1%	0.9%	0.8%	0.0%
Disabled	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%
Total MWBE	0.0%	8.2%	26.2%	22.1%	20.2%	25.5%	7.4%	0.0%
Total Majority	100.0%	91.8%	73.8%	77.9%	79.8%	74.5%	92.6%	100.0%

Private Equity and Real Estate data is based on committed amounts. Fund of Fund values are reported at the underlying manager level. * As of February 2016, the hedge fund asset class is in liquidation.

The tables below identify the minority and female owned investment managers by asset class (exclusive of manager of managers program) as of 3/31/17.

Classification	% of Domestic Equity
African American	7.5%
Ariel	0.4%
Channing	1.3%
Holland	5.7%
Latino	0.7%
Ativo	0.7%
Total Minority and Female	8.2%

Classification	% of Fixed Income
African American	11.6%
Earnest Partners	5.8%
Piedmont	5.8%
Latino	14.6%
Garcia Hamilton	5.5%
LM Capital	9.1%
Total Minority and Female	26.2%

Classification	% of Hedge Fund
Asian	13.4%
Aurora Subadvisor Sentinel Dome	13.4%
Latino	8.7%
Aurora Subadvisor Roystone Capital	8.7%
Total Minority and Female	22.1%

Classification	% of International Equity
African American	12.1%
Brown Capital	4.2%
Earnest Partners	7.9%
Female	8.1%
GlobeFlex	8.1%
Total Minority and Female	20.2%

Classification	% of Private Equity
African American	20.9%
Abbott Capital Subadvisor ICV III	0.2%
ICV III	0.9%
Muller & Monroe M2PEFF	0.1%
Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	0.1%
Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	0.1%
Pantheon Subadvisor ICV III	0.2%
Pantheon Subadvisor Vistria Fund	0.1%
Vista Credit Opp Fund I	2.2%
Vista Credit Opportunities Fund II	2.2%
Vista Equity Partners V	4.5%
Vista Equity Partners VI	4.5%
Vista Foundation Fund II	0.7%

Classification	% of Private Equity
Vista Foundation Fund III	1.1%
Vistria	0.7%
Vistria Fund II	3.4%
Asian	2.1%
Abbott Capital Subadvisor Storm Ventures V	0.2%
Abbott Capital Subadvisor Vivo Capital Fund VIII	0.2%
Abbott Capital Subadvisor Vivo Ventures VII	0.3%
Mayfield XIV	0.2%
Mayfield Select	0.4%
Mayfield XV	0.4%
Pantheon Subadvisor Khosla Seed	0.0%
Pantheon Subadvisor Khosla Seed B	0.0%
Pantheon Subadvisor Khosla Seed C	0.1%
Pantheon Subadvisor Khosla Ventures III	0.0%
Pantheon Subadvisor Khosla Ventures IV	0.1%
Pantheon Subadvisor Khosla Ventures V	0.1%
Female	0.9%
Abbott Capital Subadvisor 1315 Healthcare Fund	0.2%
Abbott Capital Subadvisor Canvas Ventures 2	0.2%
Abbott Capital Subadvisor Oak HC/FT Partners	0.2%
Abbott Capital Subadvisor Oak HC/FT Partners II	0.2%
Pantheon Subadvisor Oak HC	0.1%
Pantheon Subadvisor Oak HC II	0.1%
Latino	1.6%
Abbott Capital Subadvisor Clearlake Capital Partners III	0.3%
Abbott Capital Subadvisor NMS Fund II	0.2%
AUA Private Equity Fund, LP	0.2%
Estancia	0.2%
Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	0.1%
NMS II	0.2%
Pantheon Subadvisor NMS Fund II	0.1%
Valor Equity Partners III	0.2%
Total Minority and Female	25.5%

Classification	% of Real Estate
Asian	0.7%
Franklin Templeton Subadvisor GreenOak U.S.	0.4%
Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	0.1%
Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	0.3%
Disabled	0.5%
Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	0.5%
Female	0.8%
Artemis Real Estate Partners Healthcare Fund I	0.8%
Latino	5.3%
Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	0.4%
Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	0.5%
LongWharf Real Estate Partners V	1.0%
Oak Street Real Estate Capital III	0.8%
Oak Street Real Estate Capital IV	2.5%
Total Minority and Female	7.4%

4. Are any of your managers of managers minority- or female-owned firms? (If so, please name the firm and the amount of assets being managed. If not, and you have hired a manager of managers, please name the firm and the amount of assets being managed.)

Yes, Progress Investment Management, an African American owned firm, manages over \$1.0 billion on behalf of IMRF. Progress is the only manager of managers firm for IMRF’s Public Markets investments. IMRF utilizes Progress to implement two public market investment mandates exclusively focused on hiring investment management firms that are at least 51% owned by minorities, females and persons with a disability.

In addition, IMRF utilizes Artemis, a women owned firm, to implement a real estate mandate exclusively focused on hiring real estate firms that are at least 51% owned by minorities, females and persons with a disability. To date, IMRF has committed \$150 million to the Artemis MWBE “Spruce” evergreen manager of managers program. In turn, Artemis has committed \$90 million or 60% of IMRF’s capital to three underlying real estate managers.

As of March 31, 2017					
Manager of Managers	Classification	International Equity \$AUM	Fixed Income \$AUM	Real Estate \$AUM	Total \$AUM
Progress Investment Management	African American	\$257,544,150	\$862,411,701	-	\$1,119,955,852
Artemis MWBE Spruce Program	Female	-	-	\$150,000,000	\$150,000,000

5. If you have hired a manager of managers, what fees are paid to your manager of managers? What amount of the manager of managers fees are paid to the underlying managers? Please be specific and request this from your manager of managers.

As of December 31, 2016, IMRF paid Progress Investment Management, an African American owned firm, a total of \$2.8 million to manage a fixed income portfolio. The underlying fixed income managers were paid \$1.8 million or 65.7% of the total fees paid to Progress for this mandate. In addition, IMRF paid Progress Investment Management a total of \$1.2 million to manage an international equity portfolio. The underlying international equity managers were paid \$866,690 or 73.7% of the total fees paid to Progress for this mandate.

As of March 31, 2017, IMRF paid Progress Investment Management a total of \$707,656 to manage a fixed income portfolio. The underlying fixed income managers were paid \$458,161 or 64.7% of the total fees paid to Progress for this mandate. In addition, IMRF paid Progress Investment Management a total of \$317,160 to manage an international equity portfolio. The underlying international equity managers were paid \$233,037 or 73.4% of the total fees paid to Progress for this mandate.

Artemis implements a real estate manager of managers program on behalf of IMRF. As of December 31, 2016, IMRF did not pay any fees to Artemis. However, the underlying real estate managers were paid \$174,643. As of March 31, 2017, IMRF paid Artemis a total of \$70,338 to manage the real estate manager of managers program. The underlying real estate managers were paid \$84,173 or 54% of total fees paid for the mandate.

The tables below list the fees that were paid to Progress Investment Management and the underlying managers for the fixed income and international equity mandates as of 12/31/2016.

Asset Class	Manager	Market Value	% of Market Value	Fees Paid to Manager	% of Fees Paid to Manager	Classification
Fixed Income	Progress			964,593	34.30%	African American
Fixed Income	Progress Subadvisor Advent Capital	32,787,029	3.85%	92,936	3.30%	African American
Fixed Income	Progress Subadvisor Concerto Asset Management, LLC	32,498,397	3.81%	125,282	4.46%	Female
Fixed Income	Progress Subadvisor Garcia Hamilton & Associates	126,462,098	14.84%	255,570	9.09%	Latino
Fixed Income	Progress Subadvisor GIA Partners, LLC	134,977,016	15.84%	336,102	11.95%	Latino
Fixed Income	Progress Subadvisor Longfellow Investment Management Co.	137,598,219	16.14%	286,119	10.17%	Female
Fixed Income	Progress Subadvisor New Century Advisors, LLC	161,181,100	18.91%	294,157	10.46%	Female
Fixed	Progress Subadvisor	142,678,279	16.74%	288,808	10.27%	African

Asset Class	Manager	Market Value	% of Market Value	Fees Paid to Manager	% of Fees Paid to Manager	Classification
Income	Pugh Capital Management, Inc.					American
Fixed Income	Progress Subadvisor Ramirez Asset Management Inc.	84,114,016	9.87%	168,577	5.99%	Latino
Total Fixed Income		\$852,296,153	100%	\$2,812,144	100%	
International Equity	Progress International			309,745	26.28%	African American
International Equity	Progress Int Subadvisor Arga Investment Management, LP	19,991,697	8.49%	74,598	6.33%	Asian
International Equity	Progress Int Subadvisor Ativo Capital Management, LLC	45,080,185	19.15%	142,781	12.12%	Latino
International Equity	Progress Int Subadvisor Brown Capital Management, Inc.	44,687,186	18.98%	155,115	13.16%	African American
International Equity	Progress Int Subadvisor Glovista Investments, LLC	40,674,831	17.28%	173,618	14.73%	Latino
International Equity	Progress Int Subadvisor Metis Global Partners	22,084,209	9.38%	88,551	7.51%	Female
International Equity	Progress Int Subadvisor Strategic Global Advisors, LLC	62,872,001	26.71%	234,027	19.86%	Female
Total International Equity		\$235,390,110	100%	\$1,178,435	100%	

The table below lists the fees that were paid to Artemis and the underlying managers for the real estate mandate as of 12/31/2016.

Asset Class	Manager	Commitment	% of Commitment	Fees Paid to Manager	% of Fees Paid to Manager	Classification
Real Estate	Artemis MWBE Spruce	10,000,000	13%	0	0%	Female
Real Estate	Artemis Subadvisor Artemis Healthcare Fund I	25,000,000	33%	174,643	100%	Female
Real Estate	Artemis Subadvisor Jair Lynch Development Partners	40,000,000	53%	0	0%	African American
Total Real Estate		\$75,000,000	100%	\$174,643	100%	

The tables below list the fees that were paid to Progress Investment Management and the underlying managers for the fixed income and international equity mandates as of 3/31/2017.

Asset Class	Manager	Market Value	% of Market Value	Fees Paid to Manager	% of Fees Paid to Manager	Classification
Fixed Income	Progress			249,495	35.26%	African American
Fixed Income	Progress Subadvisor Advent Capital	46,540,332	5.40%	31,692	4.48%	African American
Fixed Income	Progress Subadvisor Concerto Asset Management	105	0.00%	10,871	1.54%	Female
Fixed Income	Progress Subadvisor Garcia Hamilton & Associates	127,725,748	14.81%	63,724	9.00%	Latino
Fixed Income	Progress Subadvisor GIA Partners	137,232,376	15.91%	85,473	12.08%	Latino
Fixed Income	Progress Subadvisor Longfellow Investment Management	149,183,503	17.30%	75,346	10.65%	Female
Fixed Income	Progress Subadvisor New Century Advisors	162,922,696	18.89%	73,405	10.37%	Female
Fixed Income	Progress Subadvisor Pugh Capital Management	143,844,263	16.68%	71,806	10.15%	African American
Fixed Income	Progress Subadvisor Ramirez Asset Management	94,962,677	11.01%	45,844	6.48%	Latino
Total Fixed Income		\$862,411,701	100%	\$707,656	100%	
International Equity	Progress International			84,123	26.52%	African American
International Equity	Progress Int Subadvisor Arga Investment Management	46,387,953	18.01%	21,329	6.72%	Asian

Asset Class	Manager	Market Value	% of Market Value	Fees Paid to Manager	% of Fees Paid to Manager	Classification
International Equity	Progress Int Subadvisor Ativo Capital Management	33,865,228	13.15%	35,844	11.30%	Latino
International Equity	Progress Int Subadvisor Brown Capital Management	48,607,941	18.87%	41,355	13.04%	African American
International Equity	Progress Int Subadvisor Glovista Investments	25,654,146	9.96%	45,389	14.31%	Latino
International Equity	Progress Int Subadvisor Metis Global Partners	35,587,051	13.82%	26,562	8.37%	Female
International Equity	Progress Int Subadvisor Strategic Global Advisors	67,441,832	26.19%	62,559	19.72%	Female
Total International Equity		\$257,544,150	100%	\$317,160	100%	

The table below lists the fees that were paid to Artemis and the underlying managers for the real estate mandate as of 3/31/2017.

Asset Class	Manager	Commitment	% of Commitment	Fees Paid to Manager	% of Fees Paid to Manager	Classification
Real Estate	Artemis MWBE Spruce	60,000,000	40%	70,338	46%	Female
Real Estate	Artemis Subadvisor Artemis Healthcare Fund I	25,000,000	17%	65,599	42%	Female
Real Estate	Artemis Subadvisor CRES Management	25,000,000	17%	18,574	12%	Female
Real Estate	Artemis Subadvisor Jair Lynch Development Partners	40,000,000	27%	0	0%	African American
Total Real Estate		\$150,000,000	100%	\$154,511	100%	

V. Illinois-headquartered Managers

1. What percent of assets by **asset class** were allocated to Illinois-headquartered minority- and female-owned investment managers in 2016 and 2017 (March 31)? What is the total dollar amount of those assets allocated to Illinois-headquartered minority- and female-owned investment managers relative to each **asset class**?

The table below lists the percent of assets by asset class that were allocated to Illinois headquartered minority and female owned investment managers as of 12/31/2016.

Asset Class	Manager	AUM		Classification	Location
		\$ in Asset Class	% of Asset Class		
Domestic Equity	Ariel	71,801,783	0.46%	African American	Illinois
Domestic Equity	Ativo	120,457,646	0.76%	Latino	Illinois
Domestic Equity	Channing	213,876,368	1.36%	African American	Illinois
Domestic Equity	Holland	862,687,327	5.48%	African American	Illinois
Total Domestic Equity		\$1,268,823,124	8.06%		
International Equity	Progress Int Subadvisor Ativo Capital Management	45,080,185	0.66%	Latino	Illinois
Total International Equity		\$45,080,185	0.66%		
Private Equity	Muller & Monroe ILPEFF	4,691,387	0.21%	African American	Illinois
Private Equity	Muller & Monroe M2PEFF	2,494,789	0.11%	African American	Illinois
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	1,563,314	0.07%	Latino	Illinois
Private Equity	Valor Equity Partners III	5,000,000	0.23%	Latino	Illinois
Private Equity	Vista Credit Opp Fund I	50,000,000	2.29%	African American	Illinois
Private Equity	Vista Credit Opp Fund II	50,000,000	2.29%	African American	Illinois
Private Equity	Vistria	15,000,000	0.69%	African American	Illinois
Private Equity	Vistria Fund II	75,000,000	3.43%	African American	Illinois
Private Equity	Pantheon Subadvisor Vistria Fund	3,079,594	0.14%	African American	Illinois
Total Private Equity		\$206,829,084	9.46%		

Asset Class	Manager	AUM		Classification	Location
		\$ in Asset Class	% of Asset Class		
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	14,849,944	0.52%	Disabled	Illinois
Real Estate	Oak Street Real Estate Capital	25,000,000	0.88%	Latino	Illinois
Total Real Estate		\$39,849,944	1.40%		
Total Fund		\$1,560,582,337	19.58%		
Private Equity and Real Estate data is based on committed amounts					

The table below lists the percent of assets by asset classes that were allocated to Illinois headquartered minority and female owned investment managers as of 3/31/2017.

Asset Class	Manager	AUM		Classification	Location
		\$ in Asset Class	% of Asset Class		
Domestic Equity	Ariel	73,882,460	0.45%	African American	Illinois
Domestic Equity	Ativo	121,790,571	0.74%	Latino	Illinois
Domestic Equity	Channing	214,449,547	1.30%	African American	Illinois
Domestic Equity	Holland	938,702,325	5.71%	African American	Illinois
Total Domestic Equity		\$1,348,824,903	8.20%		
International Equity	Progress Int Subadvisor Ativo Capital Management	33,865,228	0.46%	Latino	Illinois
Total International Equity		\$33,865,228	0.46%		
Private Equity	Muller & Monroe M2PEFF	2,494,789	0.11%	African American	Illinois
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private	1,563,314	0.07%	Latino	Illinois

Asset Class	Manager	AUM		Classification	Location
		\$ in Asset Class	% of Asset Class		
	Equity II				
Private Equity	Valor Equity Partners III	5,000,000	0.22%	Latino	Illinois
Private Equity	Vista Credit Opp Fund I	50,000,000	2.24%	African American	Illinois
Private Equity	Vista Credit Opp Fund II	50,000,000	2.24%	African American	Illinois
Private Equity	Vistria	15,000,000	0.67%	African American	Illinois
Private Equity	Vistria Fund II	75,000,000	3.35%	African American	Illinois
Private Equity	Pantheon Subadvisor Vistria Fund	3,079,594	0.14%	African American	Illinois
Total Private Equity		\$202,137,697	9.04%		
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	14,849,944	0.48%	Disabled	Illinois
Real Estate	Oak Street Real Estate Capital III	25,000,000	0.81%	Latino	Illinois
Real Estate	Oak Street Real Estate Capital IV	75,000,000	2.42%	Latino	Illinois
Total Real Estate		\$39,849,944	3.70%		
Total Fund		\$1,699,677,773	21.41%		
Private Equity and Real Estate data is based on committed amounts					

2. What is the percentage of the total dollar amount of investment management fees that is paid by the Fund to Illinois-headquartered minority- and female-owned investment managers in 2016 and 2017 (through March 31)? What is the total dollar amount of those fees by **asset class**? Please specify the percentage and total dollar amount for African American-, Latino-, Asian American-, and female-owned, Illinois-headquartered investment managers?

As of 12/31/2016, IMRF paid over \$6 million or 4.9% of the total Fund investment management fees to Illinois headquartered minority and female owned investment management firms.

The table below lists by asset class the percentage and total dollar amount of investment management fees that is paid by the Fund to Illinois headquartered minority and female owned investment managers in 2016.

Asset Class	Manager	Total Fees Paid			Classification	Location
		\$ in Asset Class	% of Asset Class	% of Total Fund		
Domestic Equity						
Domestic Equity	Ariel	549,840	1.63%	0.45%	African American	Illinois
Domestic Equity	Ativo	564,879	1.67%	0.46%	Latino	Illinois
Domestic Equity	Channing	895,528	2.65%	0.73%	African American	Illinois
Domestic Equity	Holland	1,735,250	5.14%	1.41%	African American	Illinois
Total Domestic Equity		\$3,745,497	11.09%	3.05%		
International Equity						
International Equity	Progress Int Subadvisor Ativo Capital Management	142,782	0.60%	0.12%	Latino	Illinois
Total International Equity		\$142,782	0.60%	0.12%		
Private Equity						
Private Equity	Muller & Monroe ILPEFF	7,497	0.04%	0.01%	African American	Illinois
Private Equity	Muller & Monroe M2PEFF	92,799	0.54%	0.08%	African American	Illinois
Private Equity	Muller & Monroe	7,497	0.04%	0.01%	Latino	Illinois

Asset Class	Manager	Total Fees Paid			Classification	Location
		\$ in Asset Class	% of Asset Class	% of Total Fund		
	M2PEFF Subadvisor Hispania Private Equity II					
Private Equity	Pantheon Subadvisor Vistria Fund	42,977	0.25%	0.03%	African American	Illinois
Private Equity	Valor Equity Partners III	95,618	0.56%	0.08%	Latino	Illinois
Private Equity	Vista Credit Opp Fund I	929,493	5.44%	0.75%	African American	Illinois
Private Equity	Vista Credit Opp Fund II	73,273	0.43%	0.06%	African American	Illinois
Private Equity	Vistria	278,033	1.63%	0.23%	African American	Illinois
Private Equity	Vistria Fund II	-	0.00%	0.00%	African American	Illinois
Total Private Equity		\$1,527,187	8.93%	1.25%		
Real Estate						
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	225,346	0.87%	0.18%	Disabled	Illinois
Real Estate	Oak Street Real Estate Capital III	415,204	1.61%	0.34%	Latino	Illinois
Total Real Estate		640,550	2.48%	0.52%		
Total		\$6,056,016	23.1%	4.9%		
Private Equity and Real Estate data is based on committed amounts						

As of 3/31/17, IMRF paid over \$1.9 million or 6.8% of the total Fund investment management fees to Illinois headquartered minority and female owned investment management firms.

The table below lists by asset class the percentage and total dollar amount of investment management fees that is paid by the Fund to Illinois headquartered minority and female owned investment managers as of 3/31/17.

Asset Class	Manager	Total Fees Paid			Classification	Location
		\$ in Asset Class	% of Asset Class	% of Total Fund		
Domestic Equity						
Domestic Equity	Ariel	150,769	1.86%	0.52%	African American	Illinois
Domestic Equity	Ativo	190,137	2.34%	0.65%	Latino	Illinois
Domestic Equity	Channing	268,735	3.31%	0.92%	African American	Illinois
Domestic Equity	Holland	472,507	5.82%	1.62%	African American	Illinois
Total Domestic Equity		\$1,082,148	13.33%	3.71%		
International Equity						
International Equity	Progress Int Subadvisor Ativo Capital Management	35,844	0.66%	0.12%	Latino	Illinois
Total International Equity		\$35,844	0.66%	0.12%		
Private Equity						
Private Equity	Muller & Monroe M2PEFF	25,000	0.52%	0.09%	African American	Illinois
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	2,846	0.06%	0.01%	Latino	Illinois
Private Equity	Pantheon Subadvisor Vistria Fund	10,095	0.21%	0.03%	African American	Illinois
Private Equity	Valor Equity Partners III	23,914	0.49%	0.08%	Latino	Illinois
Private	Vista Credit		9.38%	1.56%	African	Illinois

Asset Class	Manager	Total Fees Paid			Classification	Location
		\$ in Asset Class	% of Asset Class	% of Total Fund		
Equity	Opp Fund I	453,961			American	
Private Equity	Vista Credit Opp Fund II	116,877	2.41%	0.40%	African American	Illinois
Private Equity	Vistria	75,000	1.55%	0.26%	African American	Illinois
Private Equity	Vistria Fund II	-	0.00%	0.00%	African American	Illinois
Total Private Equity		\$707,693	14.62%	2.43%		
Real Estate						
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	81,566	1.24%	0.28%	Disabled	Illinois
Real Estate	Oak Street Real Estate Capital III	85,809	1.30%	0.29%	Latino	Illinois
Real Estate	Oak Street Real Estate Capital IV	-	0.00%	0.00%	Latino	Illinois
Total Real Estate		\$167,375	2.54%	0.57%		
Total		\$1,993,060	31.2%	6.8%		
Private Equity and Real Estate data is based on committed amounts						

3. In 2016 and 2017 (through March 31), what is the total dollar amount of commissions paid and percentage of the total paid to Illinois-headquartered minority- and female-owned broker/dealers? Please separate commissions paid as follows: (a) total and (b) net of step outs, correspondence, and/or any other non-direct trading.

As of December 31, 2016, the total dollar amount of commissions paid to Illinois headquartered minority and female owned broker/dealers for Domestic and International Equity was \$1,731,023.82 or 16.43% of total Equity commissions.

ASSET CLASS	Equity		
	Broker Classification	Total Executed Commissions (a) and (b)	Percentage of Executed Commissions (a) and (b)
Illinois headquartered MWBE brokers		\$1,731,023.82	16.43%
African American		\$628,292.01	5.96%
Andes Capital Group (Illinois Based)		\$5,608.17	0.05%
Loop Capital Markets (Illinois Based)		\$622,683.84	5.91%
Latino		\$94,280.71	0.89%
Cabrera Capital Markets (Illinois Based)		\$94,280.71	0.89%
Woman-Owned		\$1,008,451.11	9.57%
Cheevers and Company (Illinois Based)		\$362,187.28	3.44%
M Ramsey King Securities (Illinois Based)		\$351,709.89	3.34%
North South Capital (Illinois Based)		\$289,669.14	2.75%
Podesta and Company (Illinois Based)		\$4,884.80	0.05%
Majority brokers		\$8,805,589.64	83.57%

As of December 31, 2016, the total par value traded by Illinois headquartered minority and female owned broker/dealers for Fixed Income was 3,522,268,083 or 4.20% of total Fixed Income par value traded.

ASSET CLASS	Fixed Income		
	Broker Classification	Par Value Traded (a) and (b)	Percentage of Par Value Traded (a) and (b)
Illinois headquartered MWBE brokers		3,522,268,083	4.20%
African American		2,565,347,368	3.06%
Loop Capital Markets (Illinois Based)		2,565,347,368	3.06%
Latino		956,920,715	1.14%
Cabrera Capital Markets (Illinois Based)		956,920,715	1.14%
Majority brokers		80,317,274,279	95.80%

As of March 31, 2017, the total dollar amount of commissions paid to Illinois headquartered minority and female owned broker/dealers for Domestic and International Equity was \$347,580 or 13.75% of total Equity commissions.

ASSET CLASS	Equity	
Broker Classification	Total Executed Commissions (a) and (b)	Percentage of Executed Commissions (a) and (b)
Illinois headquartered MWBE brokers	\$347,580.06	13.75%
African American	\$166,477.83	6.59%
Loop Capital Markets (Illinois Based)	\$166,477.83	6.59%
Latino	\$24,988.68	0.99%
Cabrera Capital Markets (Illinois Based)	\$24,988.68	0.99%
Woman-Owned	\$156,113.54	6.18%
Cheevers and Company (Illinois Based)	\$75,497.15	2.99%
North South Capital (Illinois Based)	\$79,271.79	3.14%
Podesta and Company (Illinois Based)	\$1,344.60	0.05%
Majority brokers	\$2,179,855.36	86.25%

As of March 31, 2017 the total par value traded by Illinois headquartered minority and female owned broker/dealers for Fixed Income was 752,916,262 or 2.82% of total Fixed Income par value traded.

ASSET CLASS	Fixed Income	
Broker Classification	Par Value Traded (a) and (b)	Percentage of Par Value Traded (a) and (b)
Illinois headquartered MWBE brokers	752,916,262	2.82%
African American	277,511,321	1.04%
Loop Capital Markets (Illinois Based)	277,511,321	1.04%
Latino	475,404,941	1.78%
Cabrera Capital Markets (Illinois Based)	475,404,941	1.78%
Majority brokers	25,984,513,578	97.18%

VI. RFPs

1. How many direct-hire RFP's have you issued in 2017 for emerging managers in the following alternatives asset classes: Real Estate, Hedge Fund, and Private Equity.

IMRF has not issued a direct hire RFP for emerging managers in 2017. However, \$810 million was allocated to minority owned investment managers as of August 31, 2017.

\$75 million in direct Real Estate commitments:

- In January 2017, IMRF committed \$75 million to Artemis, a women owned firm. This was IMRF's 2017 annual commitment to the evergreen separate account manager of managers program known as Spruce.

\$135 million in direct Private Equity commitments:

- In March 2017, IMRF committed \$35 million to ICV Partners, an African American owned firm.
- In March 2017, IMRF committed \$75 million to Valor Equity Partners, a Latino owned firm.
- In August 2017, IMRF committed \$25 million to New MainStream, a Latino owned firm.

\$600 million in direct Fixed Income commitments:

- In May 2017, IMRF committed \$200 million to Earnest Partners, an African American owned firm.
- In May 2017, IMRF committed \$200 million to Garcia Hamilton, a Latino owned firm.
- In May 2017, IMRF committed \$200 million to Piedmont Investment Advisors, an African American owned firm.

2. Have you issued any RFPs which preclude MWBE firms, as a whole, from responding due to minimum requirements of the RFP? Please include all RFPs issued across all **asset classes** from June 30, 2016 to March 31, 2017.

No. IMRF has not issued any RFPs which preclude MWBE firms as a whole. MWBE investment managers were encouraged to submit RFP's for each search below. Since 2012, IMRF has advertised investment manager searches in Emerging Manager Monthly in an effort to inform MWBE managers about IMRF's searches.

In 2012, IMRF launched its first MWBE RFP to search for private equity managers. As a result of the targeted search, IMRF hired ICV Partners, an African American owned private equity firm. Due to the success of the targeted search process, IMRF launched another MWBE RFP in December 2013. As a result of the targeted search, IMRF selected the following five MWBE private equity firms: AUA Private Equity Fund, L.P. (Latino), Estancia Capital Partners, L.P. (Latino), NMS Fund II, L.P. (Latino), Valor Equity Partners III L.P. (Latino), and Vistria Fund, L.P. (African American). Due to the level of high quality responses received, this outreach has become a permanent step of the RFP process at IMRF.

IMRF issued one RFP from June 30, 2016 to March 31, 2017. As a result of this search, IMRF hired four investment managers: Cohen & Steers, Brookfield Investment Management, Oaktree and Partners Group.

Issue Date	End Date	Search Name	Total Allocation (in millions)	MWBE Manager Allocation (in millions)	% MWBE
2/1/2017	5/19/2017	Publicly Listed Infrastructure Equity and/or Debt and Unlisted Infrastructure Equity and/or Debt	\$650	\$0	0%
		Total	\$650	\$0	0.00%

VII. Verification and Accountability

1. Are all of your underlying managers meeting MWBE brokerage goals? Are there any consequences for underlying managers not meeting MWBE brokerage goals?

One investment manager, Arrowstreet did not meet IMRF’s MWBE brokerage goal for 2016. However, Arrowstreet is trading a significant amount of its client base with MWBE brokers. The total amount of commissions paid to MWBE brokers firm wide during 2016 was \$14.4 million or 152 times IMRF’s 20% goal.

When evaluating investment manager relationships, IMRF considers the manager’s adherence to IMRF’s goals and objectives. Achieving the minority brokerage goal is one standard used to evaluate the ongoing relationship with all investment managers. Additionally, IMRF evaluates the investment performance, consistency of investment process, investment style and organizational stability.

Any investment manager failing to meet the minimum goal during the reporting month must provide a written explanation disclosing the reasons for not meeting the goal.

Each quarter end, IMRF reviews the investment managers’ usage of minority brokers. Managers not achieving their minority brokerage goal on a year-to-date basis receive a letter from IMRF reminding them of our goals and our expectations for the manager to meet/exceed IMRF’s goal.

Consequences for not meeting IMRF’s MWBE brokerage goals are situation specific and range from increased monitoring, placement on watch list, asset reduction, termination and exclusion from receiving additional allocations/mandates.

MANAGERS NOT MEETING IMRF BROKERAGE COMMISSION GOALS - 12/31/16				
Goal	Manager Name - Asset Class	Total Commissions Paid	Minority Commissions Paid	Amount Achieved
20%	Arrowstreet - International Large Cap Core	\$472,041	\$83,538	17.70%

2. How many of your managers have violated your MWBE Brokerage Policy on multiple occasions? Who are these firms and how many times have they violated the policy?

IMRF has one investment manager, Arrowstreet, which has not met IMRF's MWBE brokerage goal on multiple occasions. Arrowstreet was hired in 2008, since that time they have not met the goal 6 times. However, Arrowstreet is trading a significant amount of its client asset base with MWBE brokers. IMRF has confirmed this with the MWBE brokers that Arrowstreet is executing trades.

The total amount of commissions paid to MWBE brokers firm wide during 2016 was \$14.4 million (152 times IMRF's 20% goal). As of 3/31/2017, the total amount of commissions paid to MWBE brokers firm wide was \$2.9 million (178 times IMRF's 20% goal).

The table below details MWBE commissions paid by Arrowstreet firm wide versus MWBE commissions paid for the IMRF account.

	2013	2014	2015	2016	YTD as of 3/31/2017
MWBE Commissions Paid – Firm wide	\$6.8 million	\$7.4 million	\$10.6 million	\$14.4 million	\$2.9 million
MWBE Commissions Paid - IMRF Account	\$69,482	\$82,899	\$75,674	\$83,538	\$14,643

3. What are the consequences for individual managers who do not meet or exceed your MWBE goals? Please list managers that are not in compliance with your goals and the total commissions paid in 2016 and 2017 (through March 31). Please list by broker the dollar amounts on your account.

When evaluating investment manager relationships, IMRF considers the manager's adherence to IMRF's goals and objectives. Achieving the minority brokerage goal is one standard used to evaluate the ongoing relationship with all investment managers. Additionally, IMRF evaluates the investment performance, consistency of investment process, investment style and organizational stability.

Any investment manager failing to meet the minimum goal during the reporting month must provide a written explanation disclosing the reasons for not meeting the goal.

Each quarter end, IMRF reviews the investment managers' usage of minority brokers. Managers not achieving their minority brokerage goal on year to date basis receive a letter from IMRF reminding them of our goals and our expectations that they take steps to achieve our goal.

Consequences for not meeting IMRF's MWBE brokerage goals are situation specific and range from increased monitoring, placement on watch list, asset reduction, termination and exclusion from receiving additional allocations/mandates.

Arrowstreet did not meet IMRF's MWBE brokerage goal as of year-end 2016. As of March 31, 2017, IMRF has six investment managers, Arrowstreet, Globeflex, Mondrian, Northern Trust (S&P 500 Value), Sands, and Earnest Partners (Core Fixed Income) that are not meeting IMRF's MWBE brokerage goals. These managers have been notified that they are expected to meet the goal by year end. As of June 30, 2017, Globeflex, Northern Trust and Sands are meeting IMRF's MWBE brokerage goals.

The brokers that executed trades for Arrowstreet, Globeflex, Mondrian, Northern Trust (S&P 500 Value), Sands, and Earnest Partners (Core Fixed Income) are listed below.

Calendar Year 2016				
Manager Name	African American	Latino	Majority	Grand Total
Arrowstreet Intl Large Cap Core				
Banc of America Securities			1,922	1,922
Bank of America Merrill Lynch			30,352	30,352
Goldman Sachs			24,684	24,684
HSBC Securities			33,265	33,265
Instinet			31,032	31,032
Investment Technology Group ITG			59,716	59,716
ITG Posit Alert			1,198	1,198
JP Morgan Securities			39,590	39,590
Loop Capital Markets	40,670			40,670
Macquarie Capital			161	161
Pavilion Financial Corporation			37,760	37,760

Penserra Securities		42,868		42,868
Salomon Smith Barney			21,466	21,466
Sanford Bernstein			36,463	36,463
Societe Generale Securities Corporation			29,562	29,562
UBS Securities			34,390	34,390
Weeden and Company			6,945	6,945
Arrowstreet Intl Large Cap Core Total	\$40,670	\$42,868	\$388,503	\$472,041

As of March 31, 2017						
Manager Name	African American	Disabled Veteran	Latino	Majority	Woman-Owned	Grand Total
Arrowstreet Intl Large Cap Core						
Banc of America Securities				1,922		1,922
Bank of America Merrill Lynch				30,352		30,352
Goldman Sachs				24,684		24,684
HSBC Securities				33,265		33,265
Instinet				31,032		31,032
Investment Technology Group ITG				59,716		59,716
ITG Posit Alert				1,198		1,198
JP Morgan Securities				39,590		39,590
Loop Capital Markets	40,670					40,670
Macquarie Capital				161		161
Pavilion Financial Corporation				37,760		37,760
Penserra Securities			42,868			42,868
Salomon Smith Barney				21,466		21,466
Sanford Bernstein				36,463		36,463
Societe Generale Securities Corporation				29,562		29,562
UBS Securities				34,390		34,390
Weeden and Company				6,945		6,945
Arrowstreet Intl Large Cap Core Total	\$40,670		\$42,868	\$388,503		\$472,041
Globeflex Intl Large Cap Core						
BNY Convergenx				132,940		132,940
BTIG				104,365		104,365
Cantor Fitzgerald				10,410		10,410
CLSA				76,060		76,060

Goldman Sachs				105,187		105,187
HSBC Securities				2,591		2,591
Instinet				174,671		174,671
Investment Technology Group ITG				80,957		80,957
Jefferies				169,411		169,411
Liquidnet				232		232
M Ramsey King Securities					196,397	196,397
North South Capital					284,487	284,487
UBS Securities				195,390		195,390
Globeflex Intl Large Cap Core Total				\$1,052,214	\$480,884	\$1,533,099
Mondrian Intl Large Cap Value						
Banco Santander Central Hispano				65		65
Cabrera Capital Markets			2,228			2,228
China International Capital Corporation				1,958		1,958
Citigroup Global Markets				7,796		7,796
CLSA				5,273		5,273
Credit Lyonnais Securities				5,372		5,372
Edelweiss				875		875
Exane				2,457		2,457
Exane BNP Paribas				1,177		1,177
Goldman Sachs				3,340		3,340
Instinet				4,033		4,033
Itau Securities				1,172		1,172
JP Morgan Securities				8,456		8,456
Loop Capital Markets	7,864					7,864
Merrill Lynch				4,739		4,739
Mischler Financial Group		12,135				12,135
Morgan Stanley				1,204		1,204
Sanford Bernstein				4,076		4,076
UBS Securities				7,094		7,094
Mondrian Intl Large Cap Value Total	\$7,864	\$12,135	\$2,228	\$59,086		\$81,314
NTGI S&P500 Large Cap Value Index						
Citigroup Global Markets				0		0
Credit Suisse Securities				0		0

Goldman Sachs				0		0
Guzman and Company			173			173
Investment Technology Group ITG				2,592		2,592
JP Morgan Securities				0		0
Loop Capital Markets	1,804					1,804
Macquarie Capital				10,390		10,390
Merrill Lynch				0		0
Morgan Stanley				0		0
Penserra Securities			3,663			3,663
UBS Securities				0		0
Weeden and Company				0		0
Williams Capital Group	7,703					7,703
NTGI S&P500 Large Cap Value Index Total	\$9,507		\$3,837	\$12,982		\$26,325
Sands Large Cap Growth						
Allen & Company				5,874		5,874
Banc of America Securities				4,430		4,430
Barclays Capital				4,442		4,442
Cantor Fitzgerald				51		51
CLSA				5,853		5,853
Deutsche Bank Securities				296		296
Drexel Hamilton		29,020				29,020
Goldman Sachs				75		75
Liquidnet				2,076		2,076
Morgan Stanley				2,161		2,161
National Financial Services				2,233		2,233
Sanford Bernstein				23,016		23,016
UBS Securities				5,809		5,809
Sands Large Cap Growth Total		\$29,020		\$56,319		485,339

4. What, if any, precautions do you take so there is no discrimination in hiring or firing a firm based on the political affiliation of a firm's partners or employees?

IMRF is rarely contacted by individuals that are politically connected. IMRF has an open door policy whereby any investment manager may request a meeting with IMRF. During the meeting, IMRF's portfolio needs and RFP search process are explained. IMRF encourages prospective managers to contact IMRF directly without needing a third party referral. IMRF provides investment information on its website.

IMRF does not inquire or take into consideration political affiliations of prospective or current investment managers when hiring or firing. IMRF's eight member Board of Trustees approve all recommendations to hire or fire an investment manager. The eight member Board is made up of three Employee Trustees elected by active members, one Annuitant Trustee elected by retirees, and four Executive Trustees elected by IMRF employers. There are no ex-officio or appointed members on the IMRF Board of Trustees. All Trustees have a fiduciary obligation to IMRF, which means they are required to act solely in the best interest of the Fund.

IMRF uses the RFP process for the hiring of all new investment managers. The RFP process has depoliticized the manager hiring process. IMRF's Quiet Period is the period of time beginning when the RFP is issued and ends when the firms are selected by the Board of Trustees. The Quiet Period ensures that all prospective investment managers have equal access to information regarding the search objective and requirements; to be certain that communications are consistent and accurate; and to make the search process and selection process efficient, diligent, and fair. IMRF is transparent regarding its open door policy and rules of engagement for soliciting IMRF business during the RFP process. All RFPs contain the following communication:

In general, IMRF has an open door policy to meet with managers. It means that IMRF will meet with managers and they do not need any third party referral.

A third party (legislator, other person not specifically affiliated with a manager) contacts IMRF during an active search (not during the quiet period) and encourages IMRF to include Manager X in the search.

During a search, IMRF would not include a manager in the search based on any encouragement from a third party. Depending on the circumstances of the contact from the third party, the manager may get disqualified from further consideration and IMRF would report it to the Board during an open meeting when Staff gives their search summary and recommendations.

A third party contacts IMRF regarding Manager X, but there are no active searches (or there are no active searches related to Manager X).

If a third party contacts IMRF regarding Manager X (not during a search) IMRF would tell the third party that the manager has to contact Staff for a meeting. Based on our open door policy, IMRF would meet with the manager. No actual action other than a meeting is guaranteed.

IMRF is contacted during the quiet period from a manager that is in the search.

During a quiet period, contact from a manager in the search is treated based on circumstance. The manager could be responding to our questions for more information (which is fine). If they are contacting IMRF regarding a referral from a third party, Staff would tell them that it is not in the scope of RFP contact and they will get disqualified from further consideration if they continue this dialogue. If we end up disqualifying them, we would report it to the Board during an open meeting.

IMRF is contacted during the quiet period from a third party regarding a specific manager who is included in a search.

IMRF does not accept conversation from third parties on a manager during quiet period. Staff would tell them that we are in quiet period and can't discuss the search or the manager. If the third party does not discontinue the dialogue, such contact would be reported to any relevant ethics oversight body (such as the Legislative Inspector General, if the third party is a legislator, for example). Depending on that nature of the contact, IMRF may disqualify the manager. Any disqualification and/or ethics officer referral would be reported to the Board during an open meeting.

5. Are the Fund's transition managers required to meet or exceed the Fund's minority/women owned brokerage firm utilization goals, if the Fund has goals, when conducting open market trades during transitions? Please explain.

Yes, the Fund's transition managers are required to meet or exceed the Fund's minority/women owned brokerage firm utilization goals.

In 2016, IMRF added the following language to the Statement of Investment Policy: Transition managers are expected to meet or exceed IMRF's current minority brokerage goals.

VIII. Transition Managers and Brokers

1. Please list, by investment manager, all brokers utilized during 2016 and through March 31, 2017, and the total commission paid to each broker utilized. Please denote MWBE brokers by ethnic group and Illinois-based broker/dealers. Please separate the managers and their brokers utilized by **asset class** (i.e., domestic equity, international equity, fixed income, etc.). For fixed income, please list par value traded by manager with each broker as opposed to estimating commissions. Separate commissions paid as follows: (a) total and (b) net of step outs, correspondence, commission recapture, and/or any other non-direct trading. Please include all asset managers that manage asset classes that trade publically traded securities. (e.g. REIT Managers, Hedge Fund Managers, etc.) Are any managers excluded from your policy currently and what are your plans to rectify this issue?

No investment managers are excluded from IMRF's brokerage policy.

As of 12/31/2016, MWBE brokers earned \$2.8 million or 26.9% of IMRF's total Domestic and International Equity commissions. The table below lists by broker classification, the total dollar amount of commissions paid by the Fund for Domestic and International Equity asset classes as of 12/31/2016.

Broker Classification	Total Executed Commissions (a) and (b)	Percentage of Executed Commissions (a) and (b)
African American	\$1,064,932.88	10.11%
Latino	\$316,394.32	3.00%
Woman-Owned	\$1,258,066.68	11.94%
Disabled Veteran	\$170,131.14	1.61%
Native American	\$23,967.24	0.23%
Total MWBE	\$2,833,492.25	26.89%
Total Majority	\$7,703,121.21	73.11%

As of 12/31/2016, MWBE brokers executed over 8 million par value or 9.6% of IMRF's total Fixed Income par value. The table below lists by broker classification, the Fund's total par value traded for Fixed Income asset classes as of 12/31/2016.

Broker Classification	Total Par Value Traded (a) and (b)	Percentage of Par Value Traded (a) and (b)
African American	5,531,325,962	6.60%
Latino	1,015,524,405.24	1.21%
Woman-Owned	260,850,164	0.31%
Disabled Veteran	1,235,252,602	1.47%
Native American	9,655,000	0.01%
Total MWBE	8,052,608,133	9.60%
Total Majority	75,786,934,229	90.40%

The tables below list by asset class, all brokers utilized by each investment manager during 2016.

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Ariel Micro Cap	\$133,302.73
African American	\$27,137.83
Blaylock Robert Van	\$24.00
Castleoak Securities	\$9,498.05
Topeka Capital Markets	\$2,754.69
Williams Capital Group	\$5,896.03
Loop Capital Markets (Illinois Based)	\$8,965.06
Latino	\$17,816.25
Penserra Securities	\$9,084.10
Cabrera Capital Markets (Illinois Based)	\$8,732.15
Woman-Owned	\$7,225.30
Cheevers and Company (Illinois Based)	\$7,225.30
Disabled Veteran	\$13,022.28
Academy Securities	\$11,535.77
Drexel Hamilton	\$1,486.51
Majority	\$68,101.07
B Riley and Company	\$6,934.79
Barclays Capital	\$157.97
BMO Capital Markets	\$472.50
BNY Convergenx	\$48.00
BTIG	\$18,776.15
Cantor Fitzgerald	\$6,273.79
Cowen And Company	\$96.00
Craig Hallum Capital Group	\$785.13
Dougherty Company	\$744.00
Goldman Sachs	\$3,330.39
Instinet	\$351.54
Investment Technology Group ITG	\$1,035.00
Jefferies	\$21.00
Jones and Associates	\$3,107.88
Jonestrading Institutional Services	\$3,116.80
Morgan Stanley	\$316.00
Oppenheimer and Company	\$2,026.63
Pulse Trading	\$86.12
RBC Capital Markets	\$877.59
Robert W Baird and Company	\$712.00
Roth Capital Partners	\$820.38

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Sidoti and Company	\$2,098.12
State Street Global Markets	\$229.29
Stifel Nicolaus and Company	\$246.82
UBS Securities	\$1,527.32
Weeden and Company	\$1,510.43
Siebert Brandford Shank	\$295.32
Lake Street Capital	\$201.43
ITG Posit Alert	\$587.85
Baypoint Trading	\$7,520.96
Frank Russell Securities	\$3,645.88
Feltl and Company	\$126.00
William Blair and Company (Illinois Based)	\$21.99
Ativo Micro Cap	\$162,881.37
African American	\$28,900.11
Andes Capital Group (Illinois Based)	\$1,100.00
Loop Capital Markets (Illinois Based)	\$27,800.11
Latino	\$26,716.82
Penserra Securities	\$22,689.21
Cabrera Capital Markets (Illinois Based)	\$4,027.61
Disabled Veteran	\$3,854.52
Mischler Financial Group	\$3,854.52
Majority	\$103,409.92
Cantor Fitzgerald	\$49,696.01
Fox River Execution Technology	\$4,537.84
Jonestrading Institutional Services	\$49,176.07
BMO Large Cap Value	\$972,525.98
African American	\$109,958.56
Thomas P Reynolds Securities	\$52,459.88
Topeka Capital Markets	\$27,074.24
Bonwick Capital Partners	\$7,281.84
Loop Capital Markets (Illinois Based)	\$23,142.60
Latino	\$78,282.64
Vandham Securities Corp	\$57,902.76
Cabrera Capital Markets (Illinois Based)	\$20,379.88
Woman-Owned	\$245,161.18
Capital Institutional Services	\$99,123.06
Pacific American Securities	\$6,270.08
M Ramsey King Securities (Illinois Based)	\$139,768.04
Disabled Veteran	\$9,997.28

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Drexel Hamilton	\$9,997.28
Majority	\$505,159.08
Bank of America Merrill Lynch	\$13,589.52
Barclays Capital	\$3,480.08
BlockCross Holdings	\$9,600.03
BNY Convergenx	\$37,092.49
BNY Mellon Capital Markets	\$84,565.34
BTIG	\$309.65
Canaccord Genuity	\$1,011.16
Cantor Fitzgerald	\$12,135.56
CIS Brokerage	\$1,863.40
Citigroup Global Markets	\$2,472.18
Cowen And Company	\$8,255.91
Craig Hallum Capital Group	\$3,967.52
Credit Suisse Securities	\$7,730.40
Deutsche Bank Securities	\$2,347.80
Evercore Group	\$11,867.98
Goldman Sachs	\$4,674.04
Instinet	\$28,423.22
Investment Technology Group ITG	\$46,222.39
Jefferies	\$4,593.49
Jones and Associates	\$3,751.00
Jonestrading Institutional Services	\$714.66
JP Morgan Securities	\$3,790.64
Liquidnet	\$25,276.39
Luminex	\$475.77
Macquarie Capital	\$1,665.48
Piper Jaffray and Company	\$9,892.92
Raymond James and Associates	\$13,309.28
RBC Capital Markets	\$37,996.69
Robert W Baird and Company	\$11,051.24
Sanford Bernstein	\$2,624.24
SeaPort Group Securities	\$2,075.04
Stephens	\$24,376.98
Weeden and Company	\$21,271.13
Cornerstone Macro	\$9,566.20
Aqua Securities	\$877.22
ITG Posit Alert	\$23,118.36
William O'Neil and Company	\$11,417.12

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Pacific Crest Securities	\$2,810.88
William Blair and Company (Illinois Based)	\$14,895.68
Native American	\$23,967.24
Tribal Capital Markets	\$23,967.24
Channing Small Cap Value	\$87,161.76
African American	\$18,570.80
Topeka Capital Markets	\$437.55
Williams Capital Group	\$6,909.60
Andes Capital Group (Illinois Based)	\$3,935.17
Loop Capital Markets (Illinois Based)	\$7,288.48
Latino	\$1,227.72
Cabrera Capital Markets (Illinois Based)	\$1,227.72
Woman-Owned	\$6,434.35
CL King & Associates	\$1,438.23
Telsey Advisory Group	\$4,433.83
Cheevers and Company (Illinois Based)	\$531.81
M Ramsey King Securities (Illinois Based)	\$30.48
Disabled Veteran	\$1,273.90
Drexel Hamilton	\$977.68
Mischler Financial Group	\$296.22
Majority	\$59,654.99
BB and T Securities	\$2,736.76
Cantor Fitzgerald	\$1,679.43
D A Davidson and Company	\$1,949.20
Investment Technology Group ITG	\$2,290.96
JMP Securities	\$1,939.48
Johnson Rice and Company	\$5,168.35
Jones and Associates	\$2,543.00
Jonestrading Institutional Services	\$176.01
Keefe Bruyette and Woods	\$6,635.62
Keybank Capital Markets	\$3,087.44
Merrill Lynch	\$3,811.85
Robert W Baird and Company	\$8,934.70
Sandler O'Neil and Partners	\$1,631.63
SeaPort Group Securities	\$3,723.77
Stephens	\$2,127.37
Stifel Nicolaus and Company	\$5,982.63
Wunderlich Securities	\$1,158.25
William Blair and Company (Illinois Based)	\$4,078.54

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
DFA Micro Cap	\$43,602.88
African American	\$3,806.80
Topeka Capital Markets	\$734.40
Williams Capital Group	\$1,587.86
Loop Capital Markets (Illinois Based)	\$1,484.55
Majority	\$39,796.08
Bank of America Merrill Lynch	\$55.88
BTIG	\$156.20
Cantor Fitzgerald	\$1,159.92
Credit Suisse Securities	\$379.04
Goldman Sachs	\$155.11
Instinet	\$17,995.04
Jefferies	\$14,491.80
Jonestrading Institutional Services	\$996.48
Knight Capital	\$3,721.20
Pavilion Financial Corporation	\$48.83
Rosenblatt Securities	\$122.35
Weeden and Company	\$47.40
Wells Fargo Securities	\$350.83
Hovde Group	\$116.00
DFA Small Cap Value	\$130,837.67
African American	\$14,607.48
Topeka Capital Markets	\$3,741.69
Williams Capital Group	\$6,320.33
Loop Capital Markets (Illinois Based)	\$4,545.47
Majority	\$116,230.18
BTIG	\$37.21
Cantor Fitzgerald	\$1,585.01
Instinet	\$67,931.96
Jefferies	\$30,305.33
Jonestrading Institutional Services	\$3,012.59
Knight Capital	\$11,790.64
Pavilion Financial Corporation	\$155.83
Rosenblatt Securities	\$369.60
Wells Fargo Securities	\$1,042.01
Dodge & Cox Large Cap Value	\$99,182.37
African American	\$36,687.07
BOE Securities	\$12,491.07
Sturdivant and Company	\$14,451.00

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Williams Capital Group	\$9,745.00
Majority	\$62,495.30
Banc of America Securities	\$65.50
Bank of America Merrill Lynch	\$971.50
Barclays Capital	\$8,442.50
BTIG	\$4,356.00
Cowen And Company	\$2,719.37
Credit Suisse Securities	\$4,921.00
Deutsche Bank Securities	\$4,159.50
Goldman Sachs	\$1,834.42
HSBC Securities	\$1,278.00
Instinet	\$28.50
International Strategy and Investment Group	\$2,337.00
JP Morgan Securities	\$15,371.74
Merrill Lynch	\$1,475.84
Morgan Stanley	\$63.00
Sanford Bernstein	\$12,268.03
UBS Securities	\$2,203.40
FIAM Small Cap Growth Co Commingled Pool	\$805,497.14
Majority	\$805,497.14
Banc of America Securities	\$67,617.59
Bank of America Merrill Lynch	\$5,512.77
Barclays Capital	\$21,267.42
BMO Capital Markets	\$16,269.70
BNP Paribus Securities Corp	\$777.32
BNY Convergenx	\$1,962.68
BTIG	\$21,357.65
Canaccord Genuity	\$2,004.21
Cantor Fitzgerald	\$2,582.38
Citigroup Global Markets	\$32,627.45
Cowen And Company	\$20,966.84
Credit Suisse Securities	\$73,972.02
D A Davidson and Company	\$329.57
Deutsche Bank Securities	\$29,053.11
Evercore Group	\$531.63
FBR Capital Markets and Company	\$5,054.65
Goldman Sachs	\$70,895.20
Guggenheim Securities	\$129.10
Instinet	\$527.31

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Investment Technology Group ITG	\$12,858.35
Jefferies	\$45,385.83
JMP Securities	\$56.12
Jonestrading Institutional Services	\$12,407.98
JP Morgan Securities	\$78,127.02
Keefe Bruyette and Woods	\$5,844.58
Kepler Cheuvreux	\$329.92
Keybanc Capital Markets	\$927.51
Knight Capital	\$18,439.26
Liquidnet	\$52,913.92
Macquarie Capital	\$3,153.06
Merrill Lynch	\$3,104.21
Mizuho Securities	\$932.50
Morgan Stanley	\$51,757.62
Needham and Company	\$184.49
Nomura Securities International	\$3,865.87
Oppenheimer and Company	\$961.76
Piper Jaffray and Company	\$2,514.00
Raymond James and Associates	\$3,555.13
RBC Capital Markets	\$24,977.40
Robert W Baird and Company	\$16,116.97
Sandler O'Neil and Partners	\$972.76
Sanford Bernstein	\$4,024.96
State Street Global Markets	\$6,606.64
Stephens	\$5,348.63
Stifel Nicolaus and Company	\$4,665.27
Suntrust Robinson Humphrey	\$7,516.64
UBS Securities	\$28,767.64
Wedbush Securities	\$5,899.03
Weeden and Company	\$6,763.02
Wells Fargo Securities	\$5,671.38
Wunderlich Securities	\$950.34
CRT Capital Group	\$397.05
Maxim Group	\$40.54
ITG Posit Alert	\$11,135.64
SG Americas Securities	\$113.47
Susquehanna Financial Group	\$158.04
Wall Street Access	\$1,232.61
Green Street Advisors	\$549.67

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Janney Montgomery Scott	\$1,759.64
William Blair and Company (Illinois Based)	\$1,072.11
Frontier Small Cap Growth	\$740,825.82
African American	\$136,406.07
Blaylock Robert Van	\$66,715.60
Topeka Capital Markets	\$11,148.70
Loop Capital Markets (Illinois Based)	\$58,541.77
Woman-Owned	\$138,721.28
Capital Institutional Services	\$4,531.47
CL King & Associates	\$56,809.46
Cheevers and Company (Illinois Based)	\$77,380.35
Majority	\$465,698.47
Avondale Partners	\$3,770.68
Banc of America Securities	\$2,177.00
Bank of America Merrill Lynch	\$6,186.24
Barclays Capital	\$4,690.71
BB and T Securities	\$5,080.46
BlockCross Holdings	\$87.10
BMO Capital Markets	\$3,687.28
BTIG	\$3,664.50
Canaccord Genuity	\$4,836.04
Cantor Fitzgerald	\$18,927.00
Citigroup Global Markets	\$12,588.80
Cowen And Company	\$7,202.66
Credit Suisse Securities	\$25,558.56
D A Davidson and Company	\$5,947.32
Deutsche Bank Securities	\$3,736.22
Evercore Group	\$622.40
Goldman Sachs	\$2,939.04
Guggenheim Securities	\$6,024.04
Instinet	\$18,038.79
Investment Technology Group ITG	\$22,958.39
Jefferies	\$3,927.34
JMP Securities	\$6,483.96
Joh Berenberg Gossler	\$869.68
Johnson Rice and Company	\$2,407.06
JP Morgan Securities	\$8,349.18
Keefe Bruyette and Woods	\$7,671.20
Keybank Capital Markets	\$17,399.36

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Leerink Swann and Company	\$7,105.92
Liquidnet	\$49,520.12
Macquarie Capital	\$13,325.52
Needham and Company	\$6,738.76
ONeil Securities	\$3,620.64
Oppenheimer and Company	\$8,894.70
Piper Jaffray and Company	\$4,734.80
Raymond James and Associates	\$8,995.65
RBC Capital Markets	\$14,236.49
Robert W Baird and Company	\$21,324.27
Sanford Bernstein	\$3,797.08
Sidoti and Company	\$4,865.46
State Street Global Markets	\$2,959.53
Stephens	\$15,079.88
Stifel Nicolaus and Company	\$700.16
Strategas Research Partners	\$1,898.64
Suntrust Robinson Humphrey	\$16,754.26
UBS Securities	\$4,329.26
Wedbush Securities	\$1,131.84
Weeden and Company	\$13,914.69
Wells Fargo Securities	\$6,017.88
Cornerstone Macro	\$5,494.14
CRT Capital Group	\$1,742.12
Longbow Securities	\$3,897.28
Vining Sparks	\$1,175.32
William ONeil and Company	\$3,157.20
Wolfe Trahan and Company	\$2,412.52
Barrington Research Associates (Illinois Based)	\$85.28
First Analysis Securities Corporation (Illinois Based)	\$2,569.21
William Blair and Company (Illinois Based)	\$29,388.84
Holland Large Cap Growth	\$149,499.23
African American	\$29,033.79
Williams Capital Group	\$17,530.21
Loop Capital Markets (Illinois Based)	\$11,503.58
Latino	\$5,163.08
Penserra Securities	\$5,163.08
Woman-Owned	\$23,377.48
Cheevers and Company (Illinois Based)	\$6,595.98
M Ramsey King Securities (Illinois Based)	\$6,714.57

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
North South Capital (Illinois Based)	\$5,182.13
Podesta and Company (Illinois Based)	\$4,884.80
Disabled Veteran	\$14,122.14
Mischler Financial Group	\$14,122.14
Majority	\$77,802.74
Cantor Fitzgerald	\$8,879.86
FIS Brokerage	\$874.39
Goldman Sachs	\$3,431.46
Instinet	\$46,904.89
JP Morgan Securities	\$5,348.89
Knight Capital	\$8.26
Piper Jaffray and Company	\$1,062.15
Sanford Bernstein	\$8,507.40
William Blair and Company (Illinois Based)	\$2,785.44
ICOM Small Cap Value	\$518,062.00
African American	\$85,350.00
Sturdivant and Company	\$34,277.00
Topeka Capital Markets	\$12,329.00
Williams Capital Group	\$7,175.00
Loop Capital Markets (Illinois Based)	\$31,569.00
Latino	\$36,427.00
Penserra Securities	\$36,427.00
Woman-Owned	\$33,860.00
CL King & Associates	\$33,860.00
Disabled Veteran	\$13,517.00
Mischler Financial Group	\$13,517.00
Majority	\$348,908.00
BB and T Securities	\$7,298.00
Bloomberg	\$2,006.00
Cantor Fitzgerald	\$2,702.00
Credit Suisse Securities	\$10,366.00
Evercore Group	\$3,342.00
FBR Capital Markets and Company	\$384.00
Jefferies	\$2,472.00
Jones and Associates	\$13,041.00
Jonestrading Institutional Services	\$19,381.00
JP Morgan Securities	\$11,528.00
Keefe Bruyette and Woods	\$23,909.00
Keybank Capital Markets	\$29,331.00

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Merrill Lynch	\$1,375.00
Needham and Company	\$4,965.00
Oppenheimer and Company	\$768.00
Raymond James and Associates	\$65,832.00
Robert W Baird and Company	\$28,610.00
Sanford Bernstein	\$3,066.00
Stephens	\$14,971.00
Stifel Nicolaus and Company	\$82,667.00
Suntrust Robinson Humphrey	\$13,531.00
Weeden and Company	\$4,524.00
Wells Fargo Securities	\$2,839.00
Lombardia Small Cap Value	\$396,598.62
African American	\$75,914.88
Williams Capital Group	\$54,834.84
Loop Capital Markets (Illinois Based)	\$21,080.04
Latino	\$36,145.95
Cabrera Capital Markets (Illinois Based)	\$36,145.95
Woman-Owned	\$43,787.86
Capital Institutional Services	\$25,461.25
CL King & Associates	\$930.99
Cheevers and Company (Illinois Based)	\$8,816.16
M Ramsey King Securities (Illinois Based)	\$8,579.46
Disabled Veteran	\$4,141.83
Drexel Hamilton	\$4,141.83
Majority	\$236,608.10
Bear Stearns and Company	\$957.80
BNY Convergenx	\$1,798.08
Cantor Fitzgerald	\$4,258.46
Credit Suisse Securities	\$2,737.71
FBR Capital Markets and Company	\$57.56
Goldman Sachs	\$1,847.96
Interstate Group	\$1,208.55
Investment Technology Group ITG	\$1,308.06
Jefferies	\$204.08
Johnson Rice and Company	\$3,829.75
Jonestrading Institutional Services	\$6,076.30
Keefe Bruyette and Woods	\$13,075.90
Knight Capital	\$724.33
Liquidnet	\$87.60

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Macquarie Capital	\$32.28
Merrill Lynch	\$164,579.30
Morgan Keegan and Company	\$135.20
Morgan Stanley	\$1,139.95
Oppenheimer and Company	\$161.74
Raymond James and Associates	\$2,303.20
Robert W Baird and Company	\$4,197.15
Sanford Bernstein	\$350.85
Sidoti and Company	\$807.05
State Street Global Markets	\$3,104.70
Stephens	\$1,521.50
Stifel Nicolaus and Company	\$5,939.60
Suntrust Robinson Humphrey	\$4,377.30
Wedbush Securities	\$286.90
Weeden and Company	\$5,259.34
Siebert Brandford Shank	\$4,239.90
LSV Large Cap Value	\$70,678.72
African American	\$2,324.00
Loop Capital Markets (Illinois Based)	\$2,324.00
Latino	\$1,040.16
Cabrera Capital Markets (Illinois Based)	\$1,040.16
Woman-Owned	\$34,199.84
Cheevers and Company (Illinois Based)	\$34,199.84
Majority	\$33,114.72
Banc of America Securities	\$551.50
Bank of America Merrill Lynch	\$1,672.45
Credit Suisse Securities	\$8,388.11
Fox River Execution Technology	\$1,025.68
Investment Technology Group ITG	\$5,052.02
JP Morgan Securities	\$1,168.55
Liquidnet	\$60.00
Merrill Lynch	\$1,856.73
Morgan Stanley	\$1,259.30
Sanford Bernstein	\$884.33
UBS Securities	\$10,912.55
ITG Posit Alert	\$283.50
NTGI MarketCap Large Cap Core Index	\$49,192.06
African American	\$2,357.29
Williams Capital Group	\$303.06

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Loop Capital Markets (Illinois Based)	\$2,054.23
Disabled Veteran	\$229.47
Mischler Financial Group	\$229.47
Majority	\$46,605.30
Citigroup Global Markets	\$0.00
Credit Suisse Securities	\$136.29
Goldman Sachs	\$25,185.41
Investment Technology Group ITG	\$21,129.28
JP Morgan Securities	\$5.34
Merrill Lynch	\$1.54
Morgan Stanley	\$0.00
Weeden and Company	\$5.55
CitiSoft	\$141.89
NTGI S&P500 Large Cap Growth Index	\$409.17
African American	\$175.44
Loop Capital Markets (Illinois Based)	\$175.44
Latino	\$49.05
Guzman and Company	\$49.05
Majority	\$184.68
Citigroup Global Markets	\$0.00
Credit Suisse Securities	\$0.00
Goldman Sachs	\$0.00
Investment Technology Group ITG	\$184.68
JP Morgan Securities	\$0.00
Merrill Lynch	\$0.00
UBS Securities	\$0.00
Weeden and Company	\$0.00
NTGI S&P500 Large Cap Value Index	\$26,324.73
African American	\$9,506.54
Williams Capital Group	\$7,702.81
Loop Capital Markets (Illinois Based)	\$1,803.73
Latino	\$3,836.56
Guzman and Company	\$173.42
Penserra Securities	\$3,663.14
Majority	\$12,981.63
Citigroup Global Markets	\$0.00
Credit Suisse Securities	\$0.00
Goldman Sachs	\$0.00
Investment Technology Group ITG	\$2,592.01

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
JP Morgan Securities	\$0.00
Macquarie Capital	\$10,389.62
Merrill Lynch	\$0.00
Morgan Stanley	\$0.00
UBS Securities	\$0.00
Weeden and Company	\$0.00
Sands Large Cap Growth	\$85,338.59
Disabled Veteran	\$29,020.00
Drexel Hamilton	\$29,020.00
Majority	\$56,318.59
Allen & Company	\$5,873.96
Banc of America Securities	\$4,430.05
Barclays Capital	\$4,442.42
Cantor Fitzgerald	\$51.00
CLSA	\$5,853.36
Deutsche Bank Securities	\$296.42
Goldman Sachs	\$75.15
Liquidnet	\$2,076.16
Morgan Stanley	\$2,161.42
Sanford Bernstein	\$23,016.36
UBS Securities	\$5,809.12
National Financial Services	\$2,233.17
Vision Large Cap Growth	\$32,985.24
African American	\$10,133.93
Williams Capital Group	\$10,133.93
Majority	\$22,851.31
Instinet	\$13,033.68
Oppenheimer and Company	\$839.40
Stifel Nicolaus and Company	\$8,978.23
Wall Street Micro Cap	\$645,976.31
African American	\$57,441.68
Topeka Capital Markets	\$543.50
Loop Capital Markets (Illinois Based)	\$56,898.18
Latino	\$17,318.78
Penserra Securities	\$17,318.78
Woman-Owned	\$12,571.06
CL King & Associates	\$6,571.06
Cheevers and Company (Illinois Based)	\$6,000.00
Disabled Veteran	\$1,080.00

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Academy Securities	\$1,080.00
Majority	\$557,564.79
Abel Noser Corp	\$62,459.54
B Riley and Company	\$9,663.72
Barclays Capital	\$180.00
BMO Capital Markets	\$225.00
Cantor Fitzgerald	\$3,071.00
Cowen And Company	\$97,248.87
Craig Hallum Capital Group	\$7,970.80
Credit Suisse Securities	\$2,117.00
D A Davidson and Company	\$4,296.00
Deutsche Bank Securities	\$391.50
Dougherty Company	\$6,183.96
Goldman Sachs	\$3,042.18
Jones and Associates	\$3,210.64
Jonestrading Institutional Services	\$18,720.66
JP Morgan Securities	\$45.00
Keybank Capital Markets	\$526.50
Knight Capital	\$193,018.29
Leerink Swann and Company	\$6,396.50
Merrill Lynch	\$976.50
Morgan Stanley	\$1,020.00
Needham and Company	\$12,750.50
Piper Jaffray and Company	\$7,463.08
Raymond James and Associates	\$4,789.00
RBC Capital Markets	\$47,489.99
Robert W Baird and Company	\$251.24
State Street Global Markets	\$13,980.16
Stephens	\$16,830.55
Stifel Nicolaus and Company	\$3,067.00
Suntrust Robinson Humphrey	\$1,400.00
UBS Securities	\$864.00
RBC Capital Markets	\$8,960.55
Maxim Group	\$1,222.50
Lake Street Capital	\$728.00
Imperial Capital	\$3,138.75
Northland Securities	\$1,321.50
Feltl and Company	\$1,500.00
Wachovia Bank	\$798.00

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Jolson Merchant Partners	\$6,553.85
William Blair and Company (Illinois Based)	\$3,692.46
Grand Total	\$5,150,882.38

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Arrowstreet Intl Large Cap Core	\$472,041.21
African American	\$40,670.06
Loop Capital Markets (Illinois Based)	\$40,670.06
Latino	\$42,867.99
Penserra Securities	\$42,867.99
Majority	\$388,503.16
Banc of America Securities	\$1,921.56
Bank of America Merrill Lynch	\$30,352.40
Goldman Sachs	\$24,683.71
HSBC Securities	\$33,264.61
Instinet	\$31,032.06
Investment Technology Group ITG	\$59,715.91
JP Morgan Securities	\$39,590.03
Macquarie Capital	\$160.53
Pavilion Financial Corporation	\$37,759.94
Salomon Smith Barney	\$21,465.78
Sanford Bernstein	\$36,462.59
Societe Generale Securities Corporation	\$29,561.51
UBS Securities	\$34,389.76
Weeden and Company	\$6,944.59
ITG Posit Alert	\$1,198.18
Brandes Intl Large Cap Value	\$263,010.51
African American	\$41,197.86
Topeka Capital Markets	\$9,744.23
Loop Capital Markets (Illinois Based)	\$31,453.63
Latino	\$22,031.41
Penserra Securities	\$22,031.41
Majority	\$199,781.24
Barclays Capital	\$9,982.47
BTIG	\$1,761.56
Citigroup Global Markets	\$9,687.63
Credit Suisse Securities	\$12,806.34
Daewoo Securities	\$3,147.45
Daiwa Securities Group	\$1,296.52
Deutsche Bank Securities	\$19,415.90
Evercore Group	\$1,055.51

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Goldman Sachs	\$34,318.63
Helvea	\$1,414.96
HSBC Securities	\$2,887.80
Instinet	\$447.20
International Strategy and Investment Group	\$3,189.78
Investec Henderson Crosthwaite Securities	\$1,138.77
Jefferies	\$8,465.07
JP Morgan Securities	\$3,525.36
Keefe Bruyette and Woods	\$878.71
Kepler Cheuvreux	\$3,307.61
Liquidnet	\$69.43
Macquarie Capital	\$5,245.31
Merrill Lynch	\$15,195.20
Mitsubishi Securities	\$4,740.24
Mizuho Securities	\$3,504.29
Morgan Stanley	\$14,798.76
Redburn Partners	\$1,804.79
Sanford Bernstein	\$20,204.73
Santander Securities	\$1,966.55
Scotia Capital	\$598.66
Societe Generale Securities Corporation	\$3,927.94
State Street Global Markets	\$192.87
UBS Securities	\$5,461.68
Weeden and Company	\$252.04
Autonomous Research	\$3,091.50
Brown Intl Equity Service Large Cap Core	\$35,155.92
African American	\$9,921.47
Williams Capital Group	\$3,758.44
Loop Capital Markets (Illinois Based)	\$6,163.03
Majority	\$25,234.45
Barclays Capital	\$3,967.68
Macquarie Capital	\$4,970.38
Mainfirst Securities	\$10,485.32
Societe Generale Securities Corporation	\$5,811.07
Earnest Intl Large Cap Growth	\$272,574.26
African American	\$63,618.28
Castleoak Securities	\$11,845.75
Topeka Capital Markets	\$5,513.85

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Williams Capital Group	\$12,787.52
Loop Capital Markets (Illinois Based)	\$33,471.16
Disabled Veteran	\$4,749.76
Mischler Financial Group	\$4,749.76
Woman-Owned	\$24,660.44
Capital Institutional Services	\$3,954.68
Cheevers and Company (Illinois Based)	\$20,705.76
Majority	\$179,545.78
Bank of America Merrill Lynch	\$20,115.53
Barclays Capital	\$1,306.44
Bass Trading International Group	\$2,086.03
Berenberg Bank	\$5,787.42
Bloomberg	\$20,221.60
BNY Convergenx	\$110.00
Canaccord Genuity	\$1,068.10
Citigroup Global Markets	\$8,823.08
Deutsche Bank Securities	\$14,450.34
Investment Technology Group ITG	\$6,045.98
Jefferies	\$28,198.45
Jones and Associates	\$268.42
JP Morgan Securities	\$19,270.45
Keefe Bruyette and Woods	\$2,805.01
Kepler Cheuvreux	\$1,768.71
Keybank Capital Markets	\$2,566.34
Liquidnet	\$2,570.68
Macquarie Capital	\$1,829.30
Morgan Stanley	\$28,240.03
Pavilion Financial Corporation	\$615.16
Raymond James and Associates	\$3,206.56
RBC Capital Markets	\$2,063.96
Robert W Baird and Company	\$1,735.48
Robinson Humphrey	\$2,131.85
State Street Global Markets	\$28.00
Stifel Nicolaus and Company	\$516.53
Wedbush Securities	\$721.28
William Blair and Company (Illinois Based)	\$995.05
Genesis Emerging Markets	\$681,405.53
Majority	\$681,405.53

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Avior	\$3,061.82
Bank of China International	\$778.33
Barclays Capital	\$3,304.36
BMO Capital Markets	\$6,347.42
BNP Paribus Securities Corp	\$12,389.81
BTG Pactual	\$2,188.28
Canaccord Genuity	\$2,125.18
Cantor Fitzgerald	\$107.83
CICC	\$25,693.30
CIMB Securities	\$856.71
Citigroup Global Markets	\$43,604.27
CLSA	\$36,779.28
Credit Suisse Securities	\$42,640.81
Daewoo Securities	\$580.97
Deutsche Bank Securities	\$42,935.31
Edelweiss	\$2,490.59
EFG-Hermes	\$1,374.13
Exane	\$2,397.83
GBM International	\$222.42
Goldman Sachs	\$25,982.71
HSBC Securities	\$20,877.55
Instinet	\$1,784.39
Investec Henderson Crosthwaite Securities	\$5,788.52
Itau Securities	\$3,893.05
Jefferies	\$8,823.61
JP Morgan Securities	\$27,990.73
Korea Investment and Securities Company	\$1,228.00
Liberum Capital	\$800.42
Liquidnet	\$16,508.95
Macquarie Capital	\$26,142.43
Maybank Kim Eng Securities	\$2,639.75
Merrill Lynch	\$48,014.87
Morgan Stanley	\$51,950.76
Motilal Oswal Securities International	\$8,471.62
Otkritie Securities	\$558.82
RBC Capital Markets	\$84.93
Redburn Partners	\$3,457.17
Renaissance Capital Investments	\$13,211.74

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Samsung Securities	\$9,767.31
Sanford Bernstein	\$11,787.17
Sanlam	\$2,572.95
Sberbank CIB	\$1,628.67
Scotia Capital	\$966.42
Standard Bank Group Securities	\$15,823.49
UBS Securities	\$70,681.23
VTB Capital	\$1,866.68
CFG Morocco	\$1,547.41
CITIC Securities International Company	\$5,076.09
Cormark Securities	\$47.98
Davy Group	\$1,372.44
Exotix USA	\$6,722.39
IndiaInfoline	\$7,968.64
Kotak Securities	\$7,245.01
Wood and Company	\$4,249.90
African Alliance	\$2,572.20
Brasil Plural	\$1,402.31
Credicorp Capital	\$67.56
Axis Capital Limited	\$173.49
Banco Santander Central Hispano	\$2,687.03
CI Capital Partners	\$4,268.39
IMARA	\$4,189.95
Unlu and Company	\$1,250.40
Viet Capital Securities	\$6,926.17
Yuanta Securities Company	\$5,841.67
Attijariwafa Bank	\$2,031.15
Securities Africa Limited	\$695.05
Kestrel	\$706.62
Saigon Securities	\$1,181.09
Globeflex Intl Large Cap Core	\$1,533,098.79
Woman-Owned	\$480,884.35
M Ramsey King Securities (Illinois Based)	\$196,397.34
North South Capital (Illinois Based)	\$284,487.01
Majority	\$1,052,214.44
BNY Convergenx	\$132,939.61
BTIG	\$104,365.35
Cantor Fitzgerald	\$10,409.51

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
CLSA	\$76,059.96
Goldman Sachs	\$105,187.43
HSBC Securities	\$2,591.32
Instinet	\$174,671.02
Investment Technology Group ITG	\$80,957.27
Jefferies	\$169,411.15
Liquidnet	\$232.10
UBS Securities	\$195,389.72
Lazard Intl Large Cap Value	\$49,535.97
African American	\$10,875.98
Loop Capital Markets (Illinois Based)	\$10,875.98
Woman-Owned	\$3,186.18
Cheevers and Company (Illinois Based)	\$3,186.18
Majority	\$35,473.81
Barclays Capital	\$1,209.17
BMO Capital Markets	\$298.54
Citigroup Global Markets	\$945.00
CLSA	\$1,484.86
Commerzbank	\$507.27
Credit Agricole Securities	\$1,593.95
Credit Suisse Securities	\$4,364.91
Deutsche Bank Securities	\$1,447.63
Exane	\$375.07
Goldman Sachs	\$2,336.08
HSBC Securities	\$376.68
Instinet	\$751.67
International Strategy and Investment Group	\$16.00
Investment Technology Group ITG	\$76.73
Itau Securities	\$44.23
JP Morgan Securities	\$3,035.08
Liquidnet	\$1,197.64
Macquarie Capital	\$258.98
Merrill Lynch	\$5,510.75
Mitsubishi Securities	\$46.68
Mizuho Securities	\$423.03
Morgan Stanley	\$2,722.32
Nomura Securities International	\$207.51
RBC Capital Markets	\$233.92

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Redburn Partners	\$45.39
Salomon Smith Barney	\$3,425.82
Sanford Bernstein	\$21.00
SMBC Nikko Securities	\$133.14
Stifel Nicolaus and Company	\$35.56
UBS Securities	\$1,721.87
Vontobel Securities	\$322.32
Brasil Plural	\$8.58
Bradesco	\$42.75
Autonomous Research	\$253.69
Lombardia Intl Large Cap Value	\$24,569.50
African American	\$15,714.32
Williams Capital Group	\$7,087.80
Loop Capital Markets (Illinois Based)	\$8,626.52
Majority	\$8,855.18
Daewoo Securities	\$1,706.41
Knight Capital	\$372.13
Macquarie Capital	\$4,035.24
XP Securities	\$2,741.40
Mondrian Intl Large Cap Value	\$81,313.75
African American	\$7,864.30
Loop Capital Markets (Illinois Based)	\$7,864.30
Disabled Veteran	\$12,135.11
Mischler Financial Group	\$12,135.11
Latino	\$2,228.49
Cabrera Capital Markets (Illinois Based)	\$2,228.49
Majority	\$59,085.85
China International Capital Corporation	\$1,958.34
Citigroup Global Markets	\$7,795.56
CLSA	\$5,273.09
Credit Lyonnais Securities	\$5,371.70
Edelweiss	\$875.44
Exane	\$2,457.24
Exane BNP Paribas	\$1,176.70
Goldman Sachs	\$3,340.30
Instinet	\$4,033.20
Itau Securities	\$1,171.53
JP Morgan Securities	\$8,455.51

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Merrill Lynch	\$4,738.60
Morgan Stanley	\$1,203.55
Sanford Bernstein	\$4,076.35
UBS Securities	\$7,093.81
Banco Santander Central Hispano	\$64.93
NTGI MSCI EAFE Index	\$138,758.37
African American	\$1,079.08
Loop Capital Markets (Illinois Based)	\$1,079.08
Latino	\$975.62
Guzman and Company	\$282.89
Penserra Securities	\$692.72
Majority	\$136,703.67
Barclays Capital	\$37.57
Citigroup Global Markets	\$13,127.48
Credit Suisse Securities	\$1,546.86
Deutsche Bank Securities	\$4,004.19
Goldman Sachs	\$23,282.42
HSBC Securities	\$14,083.60
Instinet	\$0.00
Investment Technology Group ITG	\$45,353.41
JP Morgan Securities	\$3,183.90
Liquidnet	\$551.12
Macquarie Capital	\$12,196.66
Merrill Lynch	\$8,255.46
Morgan Stanley	\$964.02
Societe Generale Securities Corporation	\$829.09
UBS Securities	\$9,287.87
Weeden and Company	\$0.00
Rabobank Group	\$0.00
Progress Intl Equity	\$233,979.17
African American	\$51,387.35
Topeka Capital Markets	\$831.20
Williams Capital Group	\$948.05
Andes Capital Group (Illinois Based)	\$573.00
Loop Capital Markets (Illinois Based)	\$49,035.10
Disabled Veteran	\$269.14
Mischler Financial Group	\$269.14
Latino	\$24,266.80

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Penserra Securities	\$3,768.05
Cabrera Capital Markets (Illinois Based)	\$20,498.75
Woman-Owned	\$13,043.21
Divine Capital Markets	\$463.80
Falcon Square Capital	\$93.00
Cheevers and Company (Illinois Based)	\$12,486.41
Majority	\$145,012.67
Barclays Capital	\$948.96
Bloomberg	\$24,288.66
BNP Paribus Securities Corp	\$0.00
BNY Convergenx	\$19,315.99
Broadcort Capital Corp	\$0.00
Citigroup Global Markets	\$3,943.54
Credit Suisse Securities	\$3,355.62
Danske Bank	\$902.86
Deutsche Bank Securities	\$6,075.15
Goldman Sachs	\$2,705.04
Goodbody	\$744.02
HSBC Securities	\$4,460.18
Instinet	\$17,607.06
Investment Technology Group ITG	\$238.53
Jefferies	\$2,703.80
JP Morgan Securities	\$914.32
Knight Capital	\$0.00
Liquidnet	\$105.83
Macquarie Capital	\$6,724.13
Merrill Lynch	\$3,606.95
Mizuho Securities	\$122.28
Morgan Stanley	\$5,622.81
Robert W Baird and Company	\$252.04
Sanford Bernstein	\$1,946.80
SBC Warburg	\$64.88
Societe Generale Securities Corporation	\$2,564.67
UBS Securities	\$1,964.48
WallachBeth Capital	\$31,086.58
Weeden and Company	\$1,445.00
Intl FCStone Financial	\$0.00
Themis Trading	\$623.90

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
BCP Securities	\$678.59
Templeton Intl Small Cap	\$151,207.87
African American	\$3,342.86
Topeka Capital Markets	\$23.17
Loop Capital Markets (Illinois Based)	\$3,319.69
Disabled Veteran	\$913.58
Mischler Financial Group	\$913.58
Woman-Owned	\$5,894.66
FIG Group	\$5,674.66
M Ramsey King Securities (Illinois Based)	\$220.00
Majority	\$141,056.77
Bank of America Merrill Lynch	\$6,703.61
Bank of Montreal	\$2,822.07
BMO Capital Markets	\$2,138.06
BNP Paribus Securities Corp	\$1,667.43
BNY Convergenx	\$97.14
BTIG	\$1,189.10
Canaccord Genuity	\$1,048.63
Cantor Fitzgerald	\$427.28
Carnegie Investment Bank	\$1,635.51
China International Capital Corporation	\$120.12
CIMB Securities	\$2,686.18
Citigroup Global Markets	\$7,355.59
Credit Lyonnais Securities	\$4,226.94
Credit Suisse Securities	\$9,990.10
Daewoo Securities	\$4,885.60
Daiwa Securities Group	\$4,128.82
Deutsche Bank Securities	\$8,226.28
Enskilda Securities	\$235.94
Goldman Sachs	\$2,041.59
Handelsbanken Markets Securities	\$505.97
Hongkong Shanghai Bancorp	\$2,561.06
Instinet	\$3,236.27
Investec Henderson Crosthwaite Securities	\$1,414.55
Investment Technology Group ITG	\$11,333.10
Itau Securities	\$304.13
Jefferies	\$1,903.90
Joh Berenberg Gossler	\$2,270.79

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Jones and Associates	\$437.59
JP Morgan Securities	\$3,953.36
Kepler Cheuvreux	\$993.92
Knight Capital	\$44.25
Liquidnet	\$2,520.82
Macquarie Capital	\$3,457.34
Maybank Kim Eng Securities	\$1,350.17
Mizuho Securities	\$1,152.16
Morgan Keegan and Company	\$66.70
Morgan Stanley	\$5,129.18
Nomura Securities International	\$819.86
OliveTree	\$315.17
Raymond James and Associates	\$1,203.90
RBC Capital Markets	\$8,300.38
Rosenblatt Securities	\$3.00
Samsung Securities	\$373.24
Sanford Bernstein	\$2,861.11
Santander Securities	\$303.70
Scotia Capital	\$8,465.28
SMBC Nikko Securities	\$144.12
Societe Generale Securities Corporation	\$354.21
TD Securities	\$100.01
UBS Securities	\$9,302.69
Weeden and Company	\$56.35
XP Investimentos	\$113.46
Cormark Securities	\$133.32
IndiaInfoline	\$375.33
Wood and Company	\$1,849.97
Rabobank Group	\$281.59
CIBC World Markets	\$388.66
Credicorp Capital	\$92.54
Axis Capital Limited	\$96.89
Banco Bradesco	\$5.12
DE Jardin	\$118.84
Banco Pactual	\$25.34
Peters and Company	\$397.94
Panmure Gordon and Company	\$230.58
Petercam	\$82.92

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
William Blair Intl Large Cap Growth	\$1,133,272.76
African American	\$152,265.00
Loop Capital Markets (Illinois Based)	\$152,265.00
Disabled Veteran	\$51,033.46
Mischler Financial Group	\$51,033.46
Woman-Owned	\$164,852.18
Cheevers and Company (Illinois Based)	\$164,852.18
Majority	\$765,122.11
Banc of America Securities	\$1,950.54
Bank of America Merrill Lynch	\$41,194.10
Barclays Capital	\$7,853.25
Berenberg Bank	\$13,845.03
BMO Capital Markets	\$5,366.11
BNP Paribus Securities Corp	\$9,504.65
BTIG	\$8,606.65
Carnegie Investment Bank	\$7,795.07
China International Capital Corporation	\$3,448.32
CIMB Securities	\$1,879.11
Citigroup Global Markets	\$32,165.47
CLSA	\$26,341.29
Commerzbank	\$1,827.84
Credit Suisse Securities	\$73,706.28
Daiwa Securities Group	\$24,408.53
Danske Bank	\$2,780.04
Deutsche Bank Securities	\$18,590.51
Edelweiss	\$636.50
EFG-Hermes	\$901.94
Enskilda Securities	\$2,320.29
Exane	\$9,443.78
Exane BNP Paribas	\$1,727.21
Goldman Sachs	\$32,183.03
Goodbody	\$1,065.83
Handelsbanken Markets Securities	\$9,978.37
Helvea	\$1,255.65
HSBC Securities	\$6,485.19
Instinet	\$3,451.15
Intermonte SIM	\$2,087.34
Investec Henderson Crosthwaite Securities	\$1,960.80

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Investment Technology Group ITG	\$7,056.25
Itau Securities	\$1,337.20
Jefferies	\$28,408.48
JM Financial	\$2,910.53
JP Morgan Securities	\$29,130.28
Keefe Bruyette and Woods	\$1,023.76
Kepler Cheuvreux	\$6,988.35
Liberum Capital	\$2,656.55
Liquidnet	\$56,697.36
Macquarie Capital	\$21,868.26
Mainfirst Securities	\$1,943.55
Mediobanca	\$1,150.22
Mitsubishi Securities	\$9,155.51
Mizuho Securities	\$4,848.15
Morgan Stanley	\$28,968.86
Natixis Securities	\$1,098.09
Nomura Securities International	\$13,794.44
Northern Trust	\$0.00
Numis Securities	\$6,806.76
RBC Capital Markets	\$9,041.81
Redburn Partners	\$5,918.07
Sanford Bernstein	\$46,044.85
Santander Securities	\$2,558.13
Scotia Capital	\$4,116.85
SMBC Nikko Securities	\$9,880.93
Societe Generale Securities Corporation	\$3,519.25
State Street Global Markets	\$0.00
TD Securities	\$2,058.28
UBS Securities	\$74,988.49
Vontobel Securities	\$2,803.54
IndiaInfoline	\$1,081.62
Natexis Bleichroeder International	\$699.03
ABG Securities	\$5,345.14
CIBC World Markets	\$1,431.84
RenCap Securities	\$5,119.04
Auerbach Grayson and Company	\$77.05
Banco Bradesco	\$305.90
Autonomous Research	\$1,350.85

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
ITG Posit Alert	\$7,071.20
Ambit Capital	\$89.33
BMO Nesbitt Burns	\$1,018.44
William Blair Intl Small Cap	\$315,807.48
African American	\$18,684.04
Loop Capital Markets (Illinois Based)	\$18,684.04
Disabled Veteran	\$10,771.67
Mischler Financial Group	\$10,771.67
Woman-Owned	\$20,207.30
Cheevers and Company (Illinois Based)	\$20,207.30
Majority	\$266,144.47
Bank of America Merrill Lynch	\$11,321.35
Bank of New York Mellon	\$461.27
Barclays Capital	\$2,676.79
Berenberg Bank	\$3,119.68
BMO Capital Markets	\$769.26
BNP Paribas Securities Corp	\$467.26
BTIG	\$4,895.12
Canaccord Genuity	\$329.61
Carnegie Investment Bank	\$5,836.14
CIMB Securities	\$2,375.62
Citigroup Global Markets	\$13,094.36
CLSA	\$7,520.23
Commerzbank	\$0.00
Credit Suisse Securities	\$14,363.48
Daiwa Securities Group	\$8,301.49
Danske Bank	\$1,083.20
Deutsche Bank Securities	\$7,613.98
Enskilda Securities	\$4,692.73
Exane	\$1,783.02
Exane BNP Paribas	\$4,812.41
Goldman Sachs	\$8,181.32
Goodbody	\$1,569.22
Handelsbanken Markets Securities	\$2,651.73
Helvea	\$506.86
HSBC Securities	\$4,484.69
Instinet	\$2,147.17
Investec Henderson Crosthwaite Securities	\$1,826.20

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Investment Technology Group ITG	\$2,081.99
Itau Securities	\$713.72
Jefferies	\$1,813.06
JP Morgan Securities	\$9,560.32
Keefe Bruyette and Woods	\$308.84
Kepler Cheuvreux	\$2,443.14
Liberum Capital	\$1,895.92
Liquidnet	\$24,758.57
Macquarie Capital	\$11,261.57
Mainfirst Securities	\$1,567.04
Maybank Kim Eng Securities	\$1,608.96
Mediobanca	\$1,598.94
Mitsubishi Securities	\$6,759.49
Mizuho Securities	\$7,234.39
Morgan Stanley	\$8,240.18
Natixis Securities	\$173.13
Nomura Securities International	\$3,704.93
Northern Trust	\$0.00
Numis Securities	\$2,009.46
RBC Capital Markets	\$3,015.37
Samsung Securities	\$1,483.23
Sanford Bernstein	\$11,615.44
Santander Securities	\$4,579.22
Scotia Capital	\$219.67
SMBC Nikko Securities	\$5,623.49
Societe Generale Securities Corporation	\$627.95
Standard Bank Group Securities	\$1,523.72
State Street Global Markets	\$0.00
TD Securities	\$1,661.64
UBS Securities	\$25,226.71
Unicredit US Finance	\$1,183.65
Davy Group	\$188.92
Natexis Bleichroeder International	\$580.85
ABG Securities	\$565.89
Banco Bradesco	\$235.36
ITG Posit Alert	\$1,569.35
Panmure Gordon and Company	\$1,068.88
NH Investment and Securities Company	\$557.28

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Grand Total	\$5,385,731.09

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Babson Bank Loans	9,288,642,172
Majority	9,288,642,172
Antares Holdings	28,446,691
Babson Capital Management	4,419,950
Banc of America Securities	527,568,965
Bank of America Merrill Lynch	273,282,381
Barclays Capital	630,241,725
BBVA Securities	2,766,510
BlackRock Interfund Transfer	900,628,854
BNP Paribus Securities Corp	59,246,397
Cantor Fitzgerald	5,142,120
Citigroup Global Markets	634,305,295
Citizens Republic Bancorp	3,002,616
Commerzbank	14,054,755
Credit Suisse Securities	794,436,504
Deutsche Bank Securities	1,000,523,049
Goldman Sachs	674,904,191
Guggenheim Securities	2,450,000
HSBC Securities	27,151,051
Imperial Capital	9,355,115
Jefferies	38,141,818
JP Morgan Securities	1,899,943,733
Keybanc Capital Markets	10,408,529
Liquidnet	1,000,000
MarketAxess Corporation	197,219,000
Merrill Lynch	17,566,205
Millennium Advisors	110,000
Mizuho Securities	8,666,037
Morgan Stanley	473,278,291
Natixis Bleichroeder	2,166,600
Nomura Securities International	91,976,891
Oppenheimer and Company	2,450,000
RBC Capital Markets	59,402,685
Robert W Baird and Company	500,000
Royal Bank of Canada	93,809,295
Royal Bank of Scotland	1,083,300
Santander Securities	13,471,900

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
SC Lowy	1,370,485
Scotia Capital	16,964,492
SeaPort Group Securities	6,673,769
Societe Generale Securities Corporation	10,938,210
State Street Global Markets	5,075,000
Stifel Nicolaus and Company	685,345
SumRidge Partners	340,000
Suntrust Robinson Humphrey	23,318,715
UBS Securities	221,859,616
Unicredit US Finance	14,600,150
Wells Fargo Securities	460,997,949
Macquarie Capital	4,400,886
Riverstone Holdings	14,444,070
GE	1,000,000
Cortland Capital Market Services	727,809
Barings Global Fund (Internal Trade)	2,125,225
BlackRock Core Plus	17,442,575,495
African American	2,667,242,410
CastleOak Securities	896,320,148
Williams Capital Group	271,884,373
Loop Capital Markets (Illinois Based)	1,499,037,888
Latino	769,671,499
Cabrera Capital Markets (Illinois Based)	769,671,499
Disabled Veteran	938,528,467
Mischler Financial Group	938,528,467
Majority	13,067,133,120
Amherst Pierpont Securities	8,962,425
Amherst Securities Group	348,714
Banc of America Securities	239,162
Bank of America Merrill Lynch	28,676,852
Bank of Scotia Scotiabank	469,872
Barclays Capital	801,693,505
BB and T Securities	516,017
BBVA Securities	253,557
BMO Capital Markets	1,961,068
BMO Nesbitt Burns	32,574,877
BNP Paribus Securities Corp	1,099,484,475
BNY Convergenx	53,878
BNY Mellon Capital Markets	4,515,700

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Brownstone Investment Group	237,281
Cantor Fitzgerald	4,622,837
CIBC World Markets	438,742
Citigroup Global Markets	602,111,306
Credit Agricole Securities	60,040,934
Credit Suisse Securities	1,172,334,164
Daiwa Securities Group	24,812,358
Deutsche Bank Securities	744,075,773
FTN Financial Securities	985,166
Goldman Sachs	1,690,104,667
HSBC Securities	91,471,296
Imperial Capital	345,507
Intl FCStone Financial	1,409,528
Janney Montgomery Scott	502,164
Jefferies	320,742,083
JP Morgan Securities	1,384,690,851
Keybanc Capital Markets	1,366,997
Liquidnet	309,799
Lloyds Securities	225,108
MarketAxess Corporation	1,590,306
Merrill Lynch	3,357,278,230
Millennium Advisors	203,868
Mitsubishi Securities	706,369
Mizuho Securities	16,187,416
Morgan Stanley	445,799,727
Natixis Bleichroeder	1,294,999
Nomura Securities International	238,540,676
Northern Trust	15,655,476
Oppenheimer and Company	710,226
Piper Jaffray and Company	429,624
Raymond James and Associates	645,891
RBC Capital Markets	334,434,580
RBS Securities	108,200,798
Robert W Baird and Company	1,034,452
Royal Bank of Scotland	6,796,449
Santander Securities	2,251,725
Scotia Capital	105,597
SeaPort Group Securities	2,555,623
SG Americas Securities	1,240,281

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Societe Generale Securities Corporation	17,378,354
State Street Global Markets	9,645,977
Stephens	81,387
Stifel Nicolaus and Company	2,501,039
SumRidge Partners	926,220
Suntrust Robinson Humphrey	156,093
Susquehanna Financial Group	372,432
TD Securities	15,401,540
UBS Securities	29,267,144
US Bancorp Investments	1,727,626
Wells Fargo Securities	170,352,488
MUFG Securities	995,059
National Bank Financial	549,502
R Seelaus	197,457,347
Bay Crest Partners	787,188
Canaccord Genuity	144,394
Natixis Securities	2,250,000
Australia and New Zealand Banking Group	250,190
Performance Trust Capital Partners	650,167
BlackRock US Debt Index	41,230,829,545
African American	3,183,850
Castleoak Securities	1,654,361
Williams Capital Group	1,149,803
Loop Capital Markets (Illinois Based)	379,685
Latino	354,461
Samuel A Ramirez	354,461
Woman-Owned	510,047
CL King & Associates	510,047
Disabled Veteran	1,408,357
Drexel Hamilton	1,408,357
Majority	41,225,372,831
Amherst Pierpont Securities	25,949,068
Banco Votorantim	185,443
Bank of New York Mellon	168,872,297
Bank of Scotia Scotiabank	7,099,724
Barclays Capital	2,982,116,502
BB and T Securities	2,176,879
BBVA Securities	420,831
BMO Capital Markets	50,605,069

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
BMO Nesbitt Burns	42,948,917
BNP Paribus Securities Corp	441,078,066
BNY Convergenx	4,969,146
BNY Mellon Capital Markets	69,400,937
Bradesco	68,867
Brean Capital	14,318,465
Brownstone Investment Group	2,287,499
Cantor Fitzgerald	7,756,471
CIBC World Markets	1,361,022
Citigroup Global Markets	7,065,862,496
Commerzbank	894,807
Credit Agricole Securities	33,440,111
Credit Suisse Securities	10,366,114,506
CRT Capital Group	9,298
Daiwa Securities Group	71,651,006
Deutsche Bank Securities	369,578,483
Fidelity Capital Market	184,845
FTN Financial Securities	4,722,712
Goldman Sachs	3,446,506,458
Guggenheim Securities	371,297
Hilltop Securities	467,100
HSBC Securities	145,088,673
Imperial Capital	566,938
Ing Financial Markets	955,164
Intl FCStone Financial	5,900,839
Itau Securities	1,301,368
Janney Montgomery Scott	795,926
Jefferies	87,885,037
JP Morgan Securities	3,872,126,797
Keybanc Capital Markets	13,233,461
KGS Alpha Capital Markets	626,654
Liquidnet	1,052,428
Lloyds Securities	486,989
MarketAxess Corporation	34,031,000
Merrill Lynch	1,823,835,798
Millennium Advisors	7,109,725
Mitsubishi Securities	7,580,007
Mizuho Securities	150,635,132
Morgan Stanley	3,379,232,984

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Nomura Securities International	3,149,203,285
Raymond James and Associates	1,927,087
RBC Capital Markets	1,475,525,350
RBS Securities	124,910,384
Robert W Baird and Company	17,109,186
RW Pressprich and Company	3,014,637
Santander Securities	5,951,834
Scotia Capital	58,644,026
SeaPort Group Securities	2,795,282
SG Americas Securities	35,616,320
SMBC Nikko Securities	5,486,242
Societe Generale Securities Corporation	132,074,273
Standard Chartered	955,311
Stifel Nicolaus and Company	12,389,305
SumRidge Partners	3,091,371
Suntrust Robinson Humphrey	9,478,497
Susquehanna Financial Group	9,505,444
TD Securities	97,683,773
UBS Securities	53,500,258
Unicredit US Finance	586,123
US Bancorp Investments	17,699,771
Vining Sparks	9,354,940
Wells Fargo Securities	1,268,977,588
National Bank of Canada	721,304
ANZ Securities Limited	1,050,112
MUFG Securities	4,116,852
National Bank Financial	348,284
R Seelaus	148,880
WestPac Securities	335,246
Baypoint Trading	117,117
National Australia Bank	418,954
Nathan Hale Capital	3,725,854
William Blair and Company (Illinois Based)	40,892
Mesirow Financial (Illinois Based)	5,005,806
Brandes Core Plus	364,205,972
African American	172,589,374
CastleOak Securities	32,755,000
Williams Capital Group	42,350,000
Loop Capital Markets (Illinois Based)	97,484,374

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Latino	2,500,000
Cabrera Capital Markets (Illinois Based)	2,500,000
Woman-Owned	4,523,000
CL King & Associates	4,523,000
Majority	184,593,599
Amherst Pierpont Securities	8,087,535
Bank of America Merrill Lynch	35,050,000
Barclays Capital	1,735,000
Citigroup Global Markets	4,855,000
Deutsche Bank Securities	42,750,000
Goldman Sachs	20,580,000
Hilltop Securities	1,000,000
Imperial Capital	1,000,000
Jefferies	4,815,000
JP Morgan Securities	6,260,000
Keybanc Capital Markets	6,150,000
MarketAxess Corporation	1,000,000
Miller Tabak and Company	440,000
Morgan Stanley	6,400,000
Pierpont Securities	1,000,000
RW Pressprich and Company	880,000
SeaPort Group Securities	9,345,000
Stifel Nicolaus and Company	2,580,000
SumRidge Partners	500,000
Susquehanna Financial Group	5,000,000
Wells Fargo Securities	25,166,064
Crescent Opportunistic Fixed Income	142,371,494
Latino	892,230
Penserra Securities	892,230
Woman-Owned	210,241
CL King & Associates	210,241
Majority	141,269,024
Antares Holdings	1,070,050
Bank of America Merrill Lynch	23,064,281
Bank of Montreal	360,327
Bank of Scotia Scotiabank	99,149
Barclays Capital	18,800,745
BNP Paribus Securities Corp	63,593
Cantor Fitzgerald	1,737,510

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Capital One Southcoast	159,987
Citigroup Global Markets	10,394,695
Citizens Republic Bancorp	158,262
Credit Suisse Securities	11,587,163
Deutsche Bank Securities	5,534,782
Goldman Sachs	12,856,280
Guggenheim Securities	65,032
HSBC Securities	140,569
Janney Montgomery Scott	623,048
Jefferies	6,518,841
JP Morgan Securities	20,808,989
Keybanc Capital Markets	3,365,932
Morgan Stanley	6,330,367
Nomura Securities International	2,158,769
Oppenheimer and Company	2,462,234
RBC Capital Markets	1,739,194
Robert W Baird and Company	3,028,360
Scotia Capital	4,923
SeaPort Group Securities	122,985
SG Americas Securities	6,454
Societe Generale Securities Corporation	170,367
Stifel Nicolaus and Company	838,610
Suntrust Robinson Humphrey	410,116
UBS Securities	1,484,616
Wells Fargo Securities	3,836,408
Macquarie Capital	66,180
Golub Capital	479,805
Morgan Keegan and Company	565,559
KKR	62,049
Crescent (Private Securities)	92,794
Earnest Core Fixed Income	72,405,002
African American	4,019,808
Loop Capital Markets (Illinois Based)	4,019,808
Latino	13,070,000
Great Pacific	13,070,000
Woman-Owned	1,343,570
Duncan Williams	1,343,570
Majority	53,971,624
Amherst Pierpont Securities	950,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Bank of America Merrill Lynch	11,276,000
Barclays Capital	5,611,000
Brean Capital	2,900,706
Citigroup Global Markets	3,709,235
FTN Financial Securities	4,797,507
Intl FCStone Financial	47,312
JP Morgan Securities	3,483,916
Keybank Capital Markets	335,000
KGS Alpha Capital Markets	13,400,398
Millennium Advisors	549,000
Morgan Stanley	875,000
Robert W Baird and Company	349,864
Southwest Securities	69,153
Stephens	263,401
US Bancorp Investments	1,769,000
Wells Fargo Securities	3,323,000
Vining Sparks	262,132
Garcia Hamilton Core Fixed Income	885,640,673
African American	140,695,000
Williams Capital Group	7,260,000
Loop Capital Markets (Illinois Based)	133,435,000
Latino	119,556,000
Great Pacific	24,205,000
Penserra Securities	1,865,000
Cabrera Capital Markets (Illinois Based)	93,486,000
Woman-Owned	79,808,797
Alamo Capital	18,883,795
MFR Securities	60,925,002
Native American	9,655,000
Tribal Capital Markets	9,655,000
Disabled Veteran	238,604,558
Mischler Financial Group	234,169,558
Academy Securities	4,435,000
Majority	297,321,318
Bank of New York Mellon	1,290,000
Bank Of Oklahoma	4,745,000
BB and T Securities	19,167,138
BNY Mellon Capital Markets	10,115,000
BOSC	6,000,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Brownstone Investment Group	7,100,000
Deutsche Bank Securities	21,945,000
First Tennessee Capital Markets	9,134,000
FTN Financial Securities	79,712,000
Intl FCStone Financial	14,750,000
JP Morgan Securities	5,215,000
Keybanc Capital Markets	4,385,000
Morgan Stanley	39,025,000
Suntrust Robinson Humphrey	65,348,180
US Bancorp Investments	9,390,000
LM Capital Core Plus	415,740,000
African American	106,400,000
Castleoak Securities	15,400,000
Williams Capital Group	27,750,000
Loop Capital Markets (Illinois Based)	63,250,000
Latino	52,200,000
Cabrera Capital Markets (Illinois Based)	52,200,000
Woman-Owned	69,900,000
MFR Securities	69,900,000
Disabled Veteran	2,000,000
Mischler Financial Group	2,000,000
Majority	185,240,000
Banc of America Securities	16,000,000
Bank of America Merrill Lynch	8,300,000
Barclays Capital	1,900,000
Citigroup Global Markets	35,465,000
Deutsche Bank Securities	6,700,000
Goldman Sachs	38,700,000
KGS Alpha Capital Markets	9,000,000
Mizuho Securities	8,100,000
Morgan Stanley	51,350,000
RBC Capital Markets	9,725,000
MacKay High Yield	396,229,635
African American	13,995,000
Williams Capital Group	6,620,000
Loop Capital Markets (Illinois Based)	7,375,000
Latino	11,452,000
Penserra Securities	9,667,000
Samuel A Ramirez	1,785,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Woman-Owned	8,144,000
CL King & Associates	6,401,000
Falcon Square Capital	1,743,000
Majority	362,638,635
Banc of America Securities	43,565,000
Banca Imi Securities Corporation	4,520,000
Bank of America Merrill Lynch	15,515,625
Barclays Capital	35,046,415
BBVA Securities	145,000
BMO Capital Markets	1,877,000
Cantor Fitzgerald	3,745,000
Citigroup Global Markets	17,387,730
Credit Suisse Securities	20,215,000
Deutsche Bank Securities	21,227,000
Goldman Sachs	31,650,809
Guggenheim Securities	4,780,000
HSBC Securities	880,000
Imperial Capital	1,692,000
Jefferies	11,638,000
JP Morgan Securities	60,368,925
Keybank Capital Markets	200,000
MarketAxess Corporation	445,000
Millennium Advisors	125,000
Miller Tabak and Company	2,095,000
Mitsubishi Securities	165,000
Mizuho Securities	2,689,490
Morgan Stanley	19,585,000
Nomura Securities International	3,205,000
Oppenheimer and Company	3,265,000
RBC Capital Markets	5,730,000
Robert W Baird and Company	7,858,000
SeaPort Group Securities	1,820,000
Stifel Nicolaus and Company	10,329,530
SumRidge Partners	1,045,000
Suntrust Robinson Humphrey	5,323,250
UBS Securities	1,240,000
Wells Fargo Securities	22,503,000
Macquarie Capital	420,000
Johnson Rice and Company	11,861

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Natixis Securities	300,000
Trumid Financial	30,000
NTGI BC Aggregate Index	4,837,285,247
African American	7,050,069
Loop Capital Markets (Illinois Based)	7,050,069
Woman-Owned	232,681
CL King & Associates	232,681
Majority	4,830,002,498
Bank of New York Mellon	392,709
Bank of Scotia Scotiabank	272,374
Barclays Capital	202,424,297
BB and T Securities	2,092,463
BMO Capital Markets	31,851,427
BNP Paribus Securities Corp	479,841,206
BNY Convergenx	252,657
BNY Mellon Capital Markets	678,374
Brownstone Investment Group	990,606
Cantor Fitzgerald	1,455,465
CIBC World Markets	1,253,332
Citigroup Global Markets	98,561,286
Credit Agricole Securities	374,061
Credit Suisse Securities	57,309,596
Deutsche Bank Securities	52,471,991
FTN Financial Securities	10,090,417
Goldman Sachs	65,507,782
HSBC Securities	19,654,974
Intl FCStone Financial	53,109,959
Jefferies	23,644,833
JP Morgan Securities	937,598,555
Keybank Capital Markets	10,105,262
KGS Alpha Capital Markets	16,239,421
MarketAxess Corporation	10,064,689
Merrill Lynch	247,841,012
Millennium Advisors	5,228,570
Mitsubishi Securities	3,859,891
Mizuho Securities	6,454,480
Morgan Stanley	954,233,207
Nomura Securities International	216,598,365
Pierpont Securities	25,710,502

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Piper Jaffray and Company	64,483
Raymond James and Associates	29,538,424
RBC Capital Markets	22,739,217
RBS Securities	8,116,674
Robert W Baird and Company	8,634,101
Santander Securities	1,178,609
Scotia Capital	1,289,306
SMBC Nikko Securities	614,928
Societe Generale Securities Corporation	7,216,446
Southwest Securities	29,051,288
Stifel Nicolaus and Company	4,485,972
SumRidge Partners	283,577
Suntrust Robinson Humphrey	1,819,672
Susquehanna Financial Group	18,728,183
TD Securities	17,818,763
UBS Securities	12,315,783
US Bancorp Investments	5,563,748
Wells Fargo Securities	1,105,829,302
National Bank of Canada	242,721
ANZ Securities Limited	1,069,652
William Blair and Company (Illinois Based)	16,400,311
Mesirow Financial (Illinois Based)	837,576
Piedmont Core Fixed Income	452,405,507
African American	76,435,000
CastleOak Securities	45,290,000
Williams Capital Group	17,195,000
Loop Capital Markets (Illinois Based)	13,950,000
Woman-Owned	43,935,000
CL King & Associates	43,935,000
Disabled Veteran	5,510,000
Drexel Hamilton	5,510,000
Majority	326,525,507
Arbor Trading	55,315,204
Bank of America Merrill Lynch	18,795,000
FTN Financial Securities	3,260,000
Janney Montgomery Scott	675,000
JP Morgan Securities	51,606,964
Morgan Stanley	30,240,000
RBC Capital Markets	4,195,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Stifel Nicolaus and Company	96,890,000
Suntrust Robinson Humphrey	15,938,339
Wells Fargo Securities	49,610,000
Progress Core Plus	2,111,699,938
African American	685,522,060
Castleoak Securities	553,656,485
Williams Capital Group	4,957,000
Blaylock Robert Van	965,000
Loop Capital Markets (Illinois Based)	125,943,575
Latino	30,828,216
Great Pacific	5,840,000
Penserra Securities	925,000
Cabrera Capital Markets (Illinois Based)	24,063,216
Woman-Owned	52,242,829
Alamo Capital	8,118,955
CL King & Associates	6,294,000
Falcon Square Capital	1,377,000
MFR Securities	36,452,874
Disabled Veteran	49,201,221
Drexel Hamilton	5,165,000
Mischler Financial Group	42,511,221
Academy Securities	1,525,000
Majority	1,293,905,612
AK Capital	209,335
Amherst Pierpont Securities	1,020,000
Amherst Securities Group	5,954,397
Banc of America Securities	118,807,003
Banca Imi Securities Corporation	300,000
Bank of America Merrill Lynch	285,000
Bank of Montreal	180,000
Barclays Capital	129,163,383
BB and T Securities	9,973,672
BCP Securities	4,131,281
BNP Paribus Securities Corp	42,140,382
BNY Convergenx	475,000
BNY Mellon Capital Markets	430,000
BOSC	2,105,000
Calyon Securities	44,000
Cantor Fitzgerald	6,675,958

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Citigroup Global Markets	93,767,496
Credit Agricole Securities	4,460,000
Credit Lyonnais Securities	200,000
Credit Suisse Securities	36,134,514
Deutsche Bank Securities	87,377,295
First Tennessee Capital Markets	1,115,000
FTN Financial Securities	40,638,699
Goldman Sachs	83,512,792
Guggenheim Securities	5,952,712
Hilltop Securities	70,000
HSBC Securities	78,545,318
Hutchinson Shockey Erley	619,000
Imperial Capital	579,000
Intl FCStone Financial	15,607,509
Janney Montgomery Scott	2,364,000
Jefferies	20,761,303
JP Morgan Securities	89,076,504
Keybanc Capital Markets	5,760,000
MarketAxess Corporation	264,000
Merrill Lynch	4,595,934
Millennium Advisors	10,000
Miller Tabak and Company	360,000
Mitsubishi Securities	2,416,000
Mizuho Securities	2,837,000
Morgan Stanley	62,449,654
Nomura Securities International	8,025,000
Oppenheimer and Company	3,154,000
Pierpont Securities	200,000
Piper Jaffray and Company	995,000
Raymond James and Associates	2,368,147
RBC Capital Markets	15,968,000
RBS Securities	44,630,225
Robert W Baird and Company	17,362,782
RW Pressprich and Company	7,423,799
Santander Securities	732,000
SBC Warburg	1,158,000
Scotia Capital	6,889,000
SeaPort Group Securities	2,160,000
SG Americas Securities	11,863,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Societe Generale Securities Corporation	38,011,622
Southwest Securities	185,695
Stephens	10,600,084
Sterne Agee and Leach	45,000
Stifel Nicolaus and Company	9,686,000
SumRidge Partners	600,000
Suntrust Robinson Humphrey	2,339,204
Susquehanna Financial Group	80,000
TD Securities	15,627,036
UBS Securities	4,123,000
US Bancorp Investments	5,192,000
Vining Sparks	1,070,000
Wedbush Securities	14,820,000
Wells Fargo Securities	102,660,334
ANZ Securities Limited	95,000
GMP Securities	237,000
Standard Bank Group Securities	200,000
Auriga Securities	426,545
First Tryon Securities	120,000
Brown Brothers Harriman and Company	510,000
Cross Point Capital	1,290,000
RenCap Securities	300,000
Tradeweb Markets	75,000
BondDesk Trading	235,000
William Blair and Company (Illinois Based)	420,000
Mesirow Financial (Illinois Based)	660,000
Standish Emerging Markets Debt	940,725,410
Majority	940,725,410
Banc of America Securities	1,395,342
Bank of America Merrill Lynch	100,118,015
Barclays Capital	69,850,046
BBVA Securities	8,331,487
BNP Paribus Securities Corp	23,532,804
Cantor Fitzgerald	620,000
CITIC Securities International Company	27,443,575
Citigroup Global Markets	137,280,725
Credit Suisse Securities	19,298,157
Deutsche Bank Securities	12,218,215
Goldman Sachs	89,812,568

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
HSBC Securities	62,012,572
Ing Financial Markets	3,757,344
Jefferies	35,296,667
JP Morgan Securities	251,488,657
MarketAxess Corporation	360,000
Merrill Lynch	6,912,820
Mitsubishi Securities	3,010,000
Mizuho Securities	150,000
Morgan Stanley	39,708,649
Nomura Securities International	7,275,000
RBS Securities	1,380,000
Santander Securities	8,327,535
Scotia Capital	1,941,384
Standard Chartered	2,651,363
UBS Securities	18,357,585
Unicredit US Finance	800,000
Puente Corredoe De Bolsa	1,029,898
Standard Bank Group Securities	950,000
VTB Capital	800,000
MUFG Securities	3,855,000
ICBC Standard Bank	760,000
Taplin Core Plus	645,326,518
African American	275,106,958
CastleOak Securities	71,000,000
Williams Capital Group	50,000,000
Loop Capital Markets (Illinois Based)	154,106,958
Latino	15,000,000
Cabrera Capital Markets (Illinois Based)	15,000,000
Majority	355,219,560
Bank of America Merrill Lynch	26,500,000
Barclays Capital	44,000,000
BB and T Securities	1,000,000
BNP Paribus Securities Corp	8,450,000
Cantor Fitzgerald	4,200,000
Citigroup Global Markets	47,000,000
Credit Suisse Securities	22,250,000
Deutsche Bank Securities	22,500,000
Goldman Sachs	12,500,000
HSBC Securities	8,500,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Jefferies	4,850,000
JP Morgan Securities	36,500,000
MarketAxess Corporation	500,000
Millennium Advisors	500,000
Mizuho Securities	6,500,000
Morgan Stanley	16,500,000
Pierpont Securities	2,500,000
RBC Capital Markets	24,500,000
Robert W Baird and Company	500,000
RW Pressprich and Company	1,000,000
SeaPort Group Securities	6,185,000
Stifel Nicolaus and Company	4,500,000
SumRidge Partners	2,000,000
Susquehanna Financial Group	5,000,000
TD Securities	5,000,000
UBS Securities	3,000,000
Wells Fargo Securities	33,784,560
Ameriprise Financial	5,000,000
Western Core Plus	3,754,596,363
African American	1,379,086,434
CastleOak Securities	919,771,422
Loop Capital Markets (Illinois Based)	459,315,012
Majority	2,375,509,930
Agency Trading Group	609,325
Amherst Pierpont Securities	1,311,526
Arbor Trading	85,046
Banc of America Securities	183,266,798
Bank of New York Mellon	5,851,002
Barclays Capital	98,186,583
BB and T Securities	953,701
BBVA Securities	297,147
BMO Capital Markets	777,588
BNP Paribus Securities Corp	7,180,652
Brean Capital	5,776,367
Brownstone Investment Group	9,991
Cantor Fitzgerald	7,442,313
Citigroup Global Markets	97,434,330
Credit Suisse Securities	120,301,962
D A Davidson and Company	1,474,375

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Deutsche Bank Securities	70,572,605
First Tennessee Capital Markets	2,013,196
Goldman Sachs	495,663,364
HSBC Securities	10,689,393
Imperial Capital	111,540
Ing Financial Markets	2,549,755
Intl FCStone Financial	4,193,557
Jefferies	139,473,120
JP Morgan Securities	420,472,500
Keybank Capital Markets	2,456,590
KGS Alpha Capital Markets	1,864,499
MarketAxess Corporation	5,764,276
Merrill Lynch	55,344,909
Millennium Advisors	13,515,406
Mitsubishi Securities	3,601,767
Mizuho Securities	487,092
Morgan Stanley	252,969,323
Natixis Bleichroeder	222,250
Nomura Securities International	34,189,341
Oppenheimer and Company	425,706
Piper Jaffray and Company	1,608,970
Raymond James and Associates	132,258
RBC Capital Markets	98,597,770
Robert W Baird and Company	756,062
Santander Securities	6,169,691
Scotia Capital	401,397
SeaPort Group Securities	7,972,484
Societe Generale Securities Corporation	40,362
Southwest Securities	559,226
State Street Global Markets	797,456
Stephens	219,546
Stifel Nicolaus and Company	4,364,712
SumRidge Partners	4,264,113
Suntrust Robinson Humphrey	1,537,632
Susquehanna Financial Group	2,136,332
The Toronto Dominion Bank	3,945,076
UBS Securities	27,135,448
US Bancorp Investments	2,926,108
Wells Fargo Securities	164,384,493

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
MUFG Securities	21,900
Barings Bank Loans	858,863,391
Majority	858,863,391
Banc of America Securities	54,788,927
Barclays Capital	67,113,031
BlackRock Interfund Transfer	155,121,525
BNP Paribus Securities Corp	7,158,023
Cantor Fitzgerald	183,678
Citigroup Global Markets	46,248,667
Credit Suisse Securities	54,529,972
Deutsche Bank Securities	161,690,706
Goldman Sachs	59,482,645
HSBC Securities	4,858,190
Ing Financial Markets	16,473,979
Jefferies	10,000,018
JP Morgan Securities	88,259,607
Keybanc Capital Markets	12,386,126
MarketAxess Corporation	3,120,000
Merrill Lynch	842,120
Morgan Stanley	16,551,536
RBC Capital Markets	15,524,706
Royal Bank of Scotland	3,446,792
Scotia Capital	6,000,000
Societe Generale Securities Corporation	2,000,000
UBS Securities	49,760,569
Wells Fargo Securities	23,322,573
Grand Total	83,839,542,362

As of 3/31/2017, MWBE brokers earned \$711,811 or 28.16% of IMRF's total Domestic and International Equity commissions. The table below lists by broker classification, the total dollar amount of commissions paid by the Fund for Domestic and International Equity asset classes as of 3/31/2017.

Broker Classification	Total Executed Commissions (a) and (b)	Percentage of Executed Commissions (a) and (b)
African American	\$246,441.02	9.75%
Latino	\$115,780.61	4.58%
Woman-Owned	\$269,964.95	10.68%
Disabled Veteran	\$66,928.28	2.65%
Native American	\$12,696.36	0.50%
Total MWBE	\$711,811.23	28.16%
Total Majority	\$1,815,624.19	71.84%

As of 3/31/2017, MWBE brokers executed over 2.0 million par value or 7.52% of IMRF's total Fixed Income par value. The table below lists by broker classification, the Fund's total par value traded for Fixed Income asset classes as of 3/31/2017.

Broker Classification	Total Par Value Traded (a) and (b)	Percentage of Par Value Traded (a) and (b)
African American	964,079,818	3.61%
Latino	502,374,346.33	1.88%
Woman-Owned	100,377,533	0.38%
Disabled Veteran	442,685,673	1.66%
Total MWBE	2,009,517,370	7.52%
Total Majority	24,727,912,469	92.48%

The tables below list, by asset class, all brokers utilized by each investment manager as of March 31, 2017.

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Ariel Micro Cap	\$47,312.06
African American	\$10,056.72
Castleoak Securities	\$3,841.18
Williams Capital Group	\$2,680.11
Loop Capital Markets (Illinois Based)	\$3,535.43
Latino	\$4,797.89
Penserra Securities	\$3,249.49
Cabrera Capital Markets (Illinois Based)	\$1,548.40
Woman-Owned	\$1,245.00
Cheevers and Company (Illinois Based)	\$1,245.00
Disabled Veteran	\$7,485.80
Academy Securities	\$5,429.70
Mischler Financial Group	\$2,056.10
Majority	\$23,726.65
B Riley and Company	\$1,122.00
Barclays Capital	\$71.70
BTIG	\$4,479.07
Citigroup Global Markets	\$151.47
Craig Hallum Capital Group	\$3,419.76
Goldman Sachs	\$48.00
Jonestrading Institutional Services	\$507.50
Pulse Trading	\$72.00
RBC Capital Markets	\$67.00
Robert W Baird and Company	\$74.34
Sanford Bernstein	\$1,707.00
Sidoti and Company	\$971.07
State Street Global Markets	\$196.00
UBS Securities	\$107.00
Weeden and Company	\$3,556.20
ITG Posit Alert	\$4,161.62
Baypoint Trading	\$2,531.32
Benchmark Company	\$318.00
Global Hunter Securities	\$165.60
Ativo Micro Cap	\$35,802.66
African American	\$3,624.06
Loop Capital Markets (Illinois Based)	\$3,624.06

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Latino	\$3,806.75
Cabrera Capital Markets (Illinois Based)	\$3,806.75
Woman-Owned	\$327.36
Divine Capital Markets	\$327.36
Disabled Veteran	\$3,472.13
Mischler Financial Group	\$3,472.13
Majority	\$24,572.36
Cantor Fitzgerald	\$6,728.47
Jonestrading Institutional Services	\$17,161.89
Liquidnet	\$682.00
BMO Large Cap Value	\$307,535.33
African American	\$12,130.24
Thomas P Reynolds Securities	\$12,130.24
Latino	\$45,513.84
Vandham Securities Corp	\$39,626.08
Cabrera Capital Markets (Illinois Based)	\$5,887.76
Woman-Owned	\$87,271.48
Capital Institutional Services	\$70,575.56
FIG Group	\$16,695.92
Majority	\$149,923.41
BlockCross Holdings	\$2,658.24
BNY Mellon Capital Markets	\$33,625.33
Cantor Fitzgerald	\$1,503.82
Citigroup Global Markets	\$18,705.88
Cowen And Company	\$2,421.82
Credit Suisse Securities	\$5,525.06
Evercore Group	\$5,443.38
Instinet	\$10,836.64
Jefferies	\$511.68
Jones and Associates	\$1,546.46
JP Morgan Securities	\$55.50
Liquidnet	\$3,363.51
Luminex	\$853.38
Merrill Lynch	\$912.80
RBC Capital Markets	\$10,203.81
Robert W Baird and Company	\$3,246.08
Stephens	\$22,228.00
Weeden and Company	\$2,678.41
Cornerstone Macro	\$2,633.82

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Aqua Securities	\$210.16
ITG Posit Alert	\$18,913.63
William Blair and Company (Illinois Based)	\$1,846.00
Native American	\$12,696.36
Tribal Capital Markets	\$12,696.36
Channing Small Cap Value	\$46,433.94
African American	\$11,294.63
Williams Capital Group	\$5,790.23
Loop Capital Markets (Illinois Based)	\$5,504.40
Latino	\$4,016.40
Cabrera Capital Markets (Illinois Based)	\$4,016.40
Woman-Owned	\$219.39
CL King & Associates	\$219.39
Disabled Veteran	\$612.33
Mischler Financial Group	\$612.33
Majority	\$30,291.19
Cantor Fitzgerald	\$2,205.24
D A Davidson and Company	\$2,089.56
Johnson Rice and Company	\$2,492.73
Jonestrading Institutional Services	\$96.66
Keefe Bruyette and Woods	\$7,284.77
Keybanc Capital Markets	\$2,880.55
Merrill Lynch	\$52.80
Robert W Baird and Company	\$2,336.29
SeaPort Group Securities	\$5,255.27
Stephens	\$757.34
Stifel Nicolaus and Company	\$3,800.37
William Blair and Company (Illinois Based)	\$1,039.61
DFA Micro Cap	\$16,772.00
African American	\$1,382.00
Loop Capital Markets (Illinois Based)	\$1,382.00
Majority	\$15,390.00
BTIG	\$39.00
Instinet	\$6,045.00
Jefferies	\$7,617.00
Jonestrading Institutional Services	\$436.00
Keybanc Capital Markets	\$59.00
Knight Capital	\$971.00
Rosenblatt Securities	\$223.00

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
DFA Small Cap Value	\$47,396.00
African American	\$4,182.00
Loop Capital Markets (Illinois Based)	\$4,182.00
Majority	\$43,214.00
Instinet	\$20,484.00
Jefferies	\$16,473.00
Jonestrading Institutional Services	\$2,778.00
Knight Capital	\$2,394.00
Rosenblatt Securities	\$792.00
FBN Securities	\$293.00
Dodge & Cox Large Cap Value	\$20,761.85
African American	\$10,301.10
BOE Securities	\$300.00
Sturdivant and Company	\$8,201.10
Williams Capital Group	\$1,800.00
Majority	\$10,460.75
Allen & Company	\$98.37
Barclays Capital	\$1,755.00
Cowen And Company	\$144.50
Credit Suisse Securities	\$1,765.00
Deutsche Bank Securities	\$360.00
Goldman Sachs	\$72.00
JP Morgan Securities	\$937.00
Keefe Bruyette and Woods	\$126.00
Merrill Lynch	\$1,752.28
Morgan Stanley	\$265.50
Sanford Bernstein	\$2,658.10
UBS Securities	\$527.00
FIAM Small Cap Growth Co Commingled Pool	\$128,994.29
Majority	\$128,994.29
Banc of America Securities	\$3,438.26
Barclays Capital	\$1,761.46
BMO Capital Markets	\$949.80
BNP Paribus Securities Corp	\$112.97
BTIG	\$2,096.76
Cantor Fitzgerald	\$1,236.23
Citigroup Global Markets	\$2,503.39
Cowen And Company	\$53.92
Credit Suisse Securities	\$10,100.08

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Deutsche Bank Securities	\$10,953.61
FBR Capital Markets and Company	\$1,298.85
Goldman Sachs	\$13,123.52
Jefferies	\$3,111.25
JMP Securities	\$174.42
Jonestrading Institutional Services	\$344.05
JP Morgan Securities	\$14,139.31
Keefe Bruyette and Woods	\$1,273.29
Knight Capital	\$6,242.56
Leerink Swann and Company	\$24.40
Liquidnet	\$14,217.96
Mizuho Securities	\$703.07
Morgan Stanley	\$10,102.61
Nomura Securities International	\$577.53
Raymond James and Associates	\$477.73
RBC Capital Markets	\$6,296.00
Robert W Baird and Company	\$1,730.22
Sanford Bernstein	\$617.10
State Street Global Markets	\$779.87
Stifel Nicolaus and Company	\$3,454.45
UBS Securities	\$10,700.55
Wedbush Securities	\$148.74
Weeden and Company	\$182.02
Wells Fargo Securities	\$232.52
ITG Posit Alert	\$5,153.41
Green Street Advisors	\$682.40
Frontier Small Cap Growth	\$183,551.16
African American	\$41,948.91
Blaylock Robert Van	\$22,208.28
Loop Capital Markets (Illinois Based)	\$19,740.63
Woman-Owned	\$28,314.00
Capital Institutional Services	\$7,761.63
CL King & Associates	\$6,746.52
Cheevers and Company (Illinois Based)	\$13,805.85
Majority	\$113,288.25
Avondale Partners	\$1,490.36
Bank of America Merrill Lynch	\$1,210.08
Barclays Capital	\$1,406.20
BMO Capital Markets	\$587.28

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
BTIG	\$1,164.92
Canaccord Genuity	\$987.66
Cantor Fitzgerald	\$194.16
Citigroup Global Markets	\$2,529.08
Cowen And Company	\$10,377.56
Credit Suisse Securities	\$6,455.52
D A Davidson and Company	\$2,453.24
Deutsche Bank Securities	\$274.84
Goldman Sachs	\$1,472.13
Guggenheim Securities	\$1,132.64
Instinet	\$3,706.50
Investment Technology Group ITG	\$4,969.27
Jefferies	\$920.20
JMP Securities	\$928.58
Johnson Rice and Company	\$204.82
JP Morgan Securities	\$2,526.27
Keefe Bruyette and Woods	\$130.88
Keybanc Capital Markets	\$2,873.88
Leerink Swann and Company	\$2,267.00
Liquidnet	\$18,358.38
Morgan Stanley	\$931.62
ONeil Securities	\$176.46
Oppenheimer and Company	\$5,635.56
Piper Jaffray and Company	\$4,713.31
Raymond James and Associates	\$4,455.48
RBC Capital Markets	\$191.60
Robert W Baird and Company	\$3,271.40
Sanford Bernstein	\$182.82
Sidoti and Company	\$2,989.96
State Street Global Markets	\$510.09
Stephens	\$3,575.24
Stifel Nicolaus and Company	\$69.36
Suntrust Robinson Humphrey	\$3,412.08
UBS Securities	\$1,010.62
Wedbush Securities	\$5,717.12
Weeden and Company	\$184.02
Wells Fargo Securities	\$1,492.94
Cornerstone Macro	\$1,396.52
Wolfe Trahan and Company	\$3,418.64

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
William Blair and Company (Illinois Based)	\$1,331.96
Holland Large Cap Growth	\$18,708.64
African American	\$4,199.88
Williams Capital Group	\$3,136.08
Loop Capital Markets (Illinois Based)	\$1,063.80
Latino	\$253.96
Penserra Securities	\$253.96
Woman-Owned	\$3,227.60
Cheevers and Company (Illinois Based)	\$1,883.00
Podesta and Company (Illinois Based)	\$1,344.60
Disabled Veteran	\$1,577.88
Mischler Financial Group	\$1,577.88
Majority	\$9,449.32
Cantor Fitzgerald	\$1,292.98
Instinet	\$8,156.34
ICOM Small Cap Value	\$122,745.00
African American	\$24,282.00
Sturdivant and Company	\$7,827.00
Williams Capital Group	\$8,166.00
Loop Capital Markets (Illinois Based)	\$8,289.00
Latino	\$7,432.00
Penserra Securities	\$7,432.00
Woman-Owned	\$7,712.00
CL King & Associates	\$7,712.00
Majority	\$83,319.00
Bloomberg	\$251.00
Credit Suisse Securities	\$3,784.00
Jefferies	\$2,452.00
Jones and Associates	\$6,417.00
JP Morgan Securities	\$5,935.00
Keefe Bruyette and Woods	\$5,971.00
Keybank Capital Markets	\$5,318.00
Luminex	\$20.00
Merrill Lynch	\$104.00
Raymond James and Associates	\$13,779.00
Robert W Baird and Company	\$4,081.00
Sanford Bernstein	\$1,003.00
Stephens	\$2,068.00
Stifel Nicolaus and Company	\$25,568.00

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Suntrust Robinson Humphrey	\$3,920.00
Weeden and Company	\$1,552.00
Wells Fargo Securities	\$1,096.00
LSV Large Cap Value	\$20,612.59
African American	\$994.00
Loop Capital Markets (Illinois Based)	\$994.00
Latino	\$7,827.76
Cabrera Capital Markets (Illinois Based)	\$7,827.76
Woman-Owned	\$15.00
Cheevers and Company (Illinois Based)	\$15.00
Disabled Veteran	\$3,937.50
Mischler Financial Group	\$3,937.50
Majority	\$7,838.33
Bank of America Merrill Lynch	\$872.79
Credit Suisse Securities	\$2,898.00
Fox River Execution Technology	\$153.44
Morgan Stanley	\$200.90
Sanford Bernstein	\$137.25
UBS Securities	\$2,489.79
ITG Posit Alert	\$1,086.16
NTGI MarketCap Large Cap Core Index	\$133.29
Majority	\$133.29
Citigroup Global Markets	\$0.00
Deutsche Bank Securities	\$0.00
Goldman Sachs	\$0.00
Investment Technology Group ITG	\$133.29
JP Morgan Securities	\$0.00
Merrill Lynch	\$0.00
Morgan Stanley	\$0.00
Weeden and Company	\$0.00
NTGI S&P500 Large Cap Growth Index	\$69.25
Latino	\$22.32
Guzman and Company	\$22.32
Majority	\$46.93
Goldman Sachs	\$0.00
Investment Technology Group ITG	\$46.93
JP Morgan Securities	\$0.00
Merrill Lynch	\$0.00
NTGI S&P500 Large Cap Value Index	\$47.86

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
African American	\$5.64
Williams Capital Group	\$5.64
Majority	\$42.22
Citigroup Global Markets	\$0.00
Goldman Sachs	\$0.00
Investment Technology Group ITG	\$42.22
JP Morgan Securities	\$0.00
Merrill Lynch	\$0.00
Sands Large Cap Growth	\$19,957.21
Disabled Veteran	\$2,390.00
Drexel Hamilton	\$2,390.00
Majority	\$17,567.21
Barclays Capital	\$154.76
CLSA	\$704.17
Morgan Stanley	\$526.65
Sanford Bernstein	\$9,898.05
National Financial Services	\$6,283.58
Wall Street Micro Cap	\$211,973.12
African American	\$20,120.16
Loop Capital Markets (Illinois Based)	\$20,120.16
Latino	\$10,785.90
Penserra Securities	\$10,785.90
Woman-Owned	\$4,612.25
CL King & Associates	\$1,848.50
Cheevers and Company (Illinois Based)	\$2,763.75
Majority	\$176,454.81
Abel Noser Corp	\$11,837.45
B Riley and Company	\$10,912.94
Bass Trading International Group	\$1,362.00
BNY Convergenx	\$596.00
Cantor Fitzgerald	\$5,635.60
Cowen And Company	\$24,524.84
Craig Hallum Capital Group	\$572.00
Credit Suisse Securities	\$2,754.72
Deutsche Bank Securities	\$1,826.16
Dougherty Company	\$2,184.00
Evercore Group	\$450.00
Goldman Sachs	\$4,807.92
Jefferies	\$3,078.36

Asset Class	Domestic Equity
Manager Name	Executed Commissions (a) and (b)
Jonestrading Institutional Services	\$7,473.80
Keybank Capital Markets	\$3,455.17
Knight Capital	\$17,180.01
Morgan Stanley	\$696.00
Needham and Company	\$13,856.22
Oppenheimer and Company	\$3,251.72
Piper Jaffray and Company	\$2,961.88
Raymond James and Associates	\$2,772.36
RBC Capital Markets	\$3,863.18
State Street Global Markets	\$2,743.15
Stephens	\$7,424.64
Stifel Nicolaus and Company	\$4,806.76
Suntrust Robinson Humphrey	\$1,249.00
UBS Securities	\$2,680.20
Weeden and Company	\$5,357.21
Wunderlich Securities	\$3,420.00
Lake Street Capital	\$3,506.04
Imperial Capital	\$3,252.00
Northland Securities	\$1,655.00
Wachovia Bank	\$4,136.52
Jolson Merchant Partners	\$1,549.68
William Blair and Company (Illinois Based)	\$2,813.68
Buckingham Research Group	\$1,044.00
Compass Point Research and Trading	\$1,932.48
Donaldson, Lufkin & Jenrette	\$1,240.00
FBN Securities	\$1,592.12
Grand Total	\$1,228,806.25

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Arrowstreet Intl Large Cap Core	\$79,929.53
African American	\$10,429.79
Loop Capital Markets (Illinois Based)	\$10,429.79
Latino	\$4,213.39
Penserra Securities	\$4,213.39
Majority	\$65,286.35
Bank of America Merrill Lynch	\$7,004.94
Goldman Sachs	\$4,217.50
HSBC Securities	\$7,526.03
Instinet	\$4,584.96
Investment Technology Group ITG	\$8,965.26
JP Morgan Securities	\$5,049.05
Pavilion Financial Corporation	\$8,585.09
Salomon Smith Barney	\$3,563.93
Sanford Bernstein	\$3,430.04
Societe Generale Securities Corporation	\$6,134.35
UBS Securities	\$4,806.78
Weeden and Company	\$880.95
ITG Posit Alert	\$537.47
Brandes Intl Large Cap Value	\$62,634.24
Latino	\$22,698.86
Penserra Securities	\$22,698.86
Majority	\$39,935.38
Barclays Capital	\$1,516.95
Citigroup Global Markets	\$2,690.97
Credit Suisse Securities	\$2,515.33
Daiwa Securities Group	\$576.92
Deutsche Bank Securities	\$2,225.20
Goldman Sachs	\$1,627.26
HSBC Securities	\$619.45
Jefferies	\$3,720.78
JP Morgan Securities	\$346.37
Keefe Bruyette and Woods	\$948.26
Liquidnet	\$155.66
Macquarie Capital	\$591.11
Merrill Lynch	\$10,168.38
Morgan Stanley	\$3,056.20
RBC Capital Markets	\$428.19

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Salomon Smith Barney	\$2,362.40
Sanford Bernstein	\$5,682.07
Santander Securities	\$189.30
ITG Posit Alert	\$514.58
Brown Intl Equity Service Large Cap Core	\$6,603.01
African American	\$1,466.20
Williams Capital Group	\$417.08
Loop Capital Markets (Illinois Based)	\$1,049.12
Majority	\$5,136.81
Barclays Capital	\$3,509.59
Helvea	\$442.76
Macquarie Capital	\$1,184.46
Earnest Intl Large Cap Growth	\$31,392.80
African American	\$5,595.54
Castleoak Securities	\$2,146.66
Williams Capital Group	\$1,313.59
Loop Capital Markets (Illinois Based)	\$2,135.29
Disabled Veteran	\$549.30
Mischler Financial Group	\$549.30
Woman-Owned	\$956.20
Cheevers and Company (Illinois Based)	\$956.20
Majority	\$24,291.76
Bank of America Merrill Lynch	\$778.75
Barclays Capital	\$2,789.34
Bass Trading International Group	\$62.76
Berenberg Bank	\$6,178.30
Bloomberg	\$5,152.15
Citigroup Global Markets	\$2,972.10
Deutsche Bank Securities	\$741.71
Jefferies	\$1,335.13
Liquidnet	\$1,833.17
Macquarie Capital	\$246.95
Morgan Stanley	\$1,014.27
RBC Capital Markets	\$238.96
ITG Posit Alert	\$948.17
Genesis Emerging Markets	\$133,222.18
Majority	\$133,222.18
Avior	\$1,027.51

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Barclays Capital	\$21.29
BMO Capital Markets	\$2,240.64
BNP Paribas Securities Corp	\$717.54
BTG Pactual	\$2,861.10
BTIG	\$200.59
Canaccord Genuity	\$296.07
CICC	\$1,314.41
CIMB Securities	\$38.67
Citigroup Global Markets	\$7,827.08
CLSA	\$4,038.13
Credit Suisse Securities	\$8,408.74
Daewoo Securities	\$822.89
Deutsche Bank Securities	\$2,994.98
EFG-Hermes	\$71.93
Goldman Sachs	\$3,516.64
HSBC Securities	\$2,401.09
Instinet	\$155.07
Investec Henderson Crosthwaite Securities	\$818.34
Itau Securities	\$3,434.71
Jefferies	\$475.80
JP Morgan Securities	\$3,002.71
Korea Investment and Securities Company	\$1,645.04
Liberum Capital	\$331.52
Liquidnet	\$4,188.58
Macquarie Capital	\$6,833.78
Maybank Kim Eng Securities	\$300.82
Merrill Lynch	\$10,600.72
Morgan Stanley	\$15,755.51
Motilal Oswal Securities International	\$361.96
Redburn Partners	\$693.51
Renaissance Capital Investments	\$1,553.04
Samsung Securities	\$4,546.35
Sanford Bernstein	\$1,806.77
Sanlam	\$74.75
Scotia Capital	\$423.48
Standard Bank Group Securities	\$641.14
UBS Securities	\$32,276.48
VTB Capital	\$2.55

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
IndiaInfoline	\$831.31
African Alliance	\$103.64
Brasil Plural	\$384.78
Bradesco	\$15.41
Banco Santander Central Hispano	\$1,797.67
Viet Capital Securities	\$503.47
Saigon Securities	\$863.96
Globeflex Intl Large Cap Core	\$401,350.08
Woman-Owned	\$79,271.79
North South Capital (Illinois Based)	\$79,271.79
Majority	\$322,078.29
BTIG	\$11,458.51
CLSA	\$26,280.76
Goldman Sachs	\$24,828.58
HSBC Securities	\$15,937.38
Instinet	\$116,330.64
Investment Technology Group ITG	\$6,592.10
Jefferies	\$24,734.05
Pavilion Financial Corporation	\$14,339.74
UBS Securities	\$81,576.53
Lazard Intl Large Cap Value	\$21,873.42
African American	\$4,403.49
Loop Capital Markets (Illinois Based)	\$4,403.49
Woman-Owned	\$1,653.42
Cheevers and Company (Illinois Based)	\$1,653.42
Majority	\$15,816.50
Barclays Capital	\$497.61
BMO Capital Markets	\$38.42
Citigroup Global Markets	\$2,112.02
CLSA	\$13.29
Credit Agricole Securities	\$352.00
Credit Suisse Securities	\$3,790.85
Deutsche Bank Securities	\$350.79
Instinet	\$1,454.12
Itau Securities	\$666.79
JP Morgan Securities	\$2,326.32
Liquidnet	\$770.97
Macquarie Capital	\$143.92

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Merrill Lynch	\$1,813.94
Morgan Stanley	\$83.38
RBC Capital Markets	\$191.03
Sanford Bernstein	\$3.00
UBS Securities	\$944.48
Bradesco	\$254.22
ITG Posit Alert	\$9.37
Mondrian Intl Large Cap Value	\$18,854.63
African American	\$1,768.33
Loop Capital Markets (Illinois Based)	\$1,768.33
Disabled Veteran	\$1,105.12
Mischler Financial Group	\$1,105.12
Majority	\$15,981.18
China International Capital Corporation	\$442.23
Citigroup Global Markets	\$3,599.37
CLSA	\$1,015.32
Exane	\$102.77
HSBC Securities	\$989.47
Instinet	\$1,933.64
Itau Securities	\$194.01
JP Morgan Securities	\$2,828.17
Merrill Lynch	\$893.67
Sanford Bernstein	\$3,173.82
UBS Securities	\$808.71
NTGI MSCI EAFE Index	\$23,403.40
Majority	\$23,403.40
Barclays Capital	\$7,762.37
Citigroup Global Markets	\$0.00
Credit Suisse Securities	\$187.00
Goldman Sachs	\$3,327.53
HSBC Securities	\$0.00
Investment Technology Group ITG	\$6,257.96
JP Morgan Securities	\$0.00
Merrill Lynch	\$5,016.39
Morgan Stanley	\$0.00
Societe Generale Securities Corporation	\$422.61
UBS Securities	\$429.55
Weeden and Company	\$0.00

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Progress Intl Equity	\$65,024.78
African American	\$35,410.43
Loop Capital Markets (Illinois Based)	\$35,410.43
Disabled Veteran	\$432.76
Mischler Financial Group	\$432.76
Latino	\$4,411.54
Penserra Securities	\$2,509.93
Cabrera Capital Markets (Illinois Based)	\$1,901.61
Woman-Owned	\$973.41
Cheevers and Company (Illinois Based)	\$973.41
Majority	\$23,796.64
Barclays Capital	\$28.50
Bloomberg	\$1,701.45
BNY Convergenx	\$671.71
Broadcort Capital Corp	\$0.00
Citigroup Global Markets	\$2,213.66
Credit Suisse Securities	\$1,807.87
Deutsche Bank Securities	\$3,914.75
Goldman Sachs	\$2,341.64
HSBC Securities	\$894.39
Instinet	\$192.47
Investment Technology Group ITG	\$638.65
JP Morgan Securities	\$112.72
Merrill Lynch	\$0.00
Mizuho Securities	\$179.09
Morgan Stanley	\$1,986.54
Sanford Bernstein	\$77.13
SMBC Nikko Securities	\$14.71
UBS Securities	\$4,814.87
WallachBeth Capital	\$2,174.26
Intl FCStone Financial	\$0.00
Themis Trading	\$32.23
SG Americas Securities	\$0.00
Brean Capital	\$0.00
Templeton Intl Small Cap	\$23,626.95
African American	\$232.12
Loop Capital Markets (Illinois Based)	\$232.12
Disabled Veteran	\$134.00

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Mischler Financial Group	\$134.00
Woman-Owned	\$1,964.53
FIG Group	\$1,964.53
Majority	\$21,296.30
Banc of America Securities	\$131.00
BMO Capital Markets	\$268.00
BNP Paribas Securities Corp	\$1,156.92
BTIG	\$103.14
Carnegie Investment Bank	\$202.00
Citigroup Global Markets	\$1,082.36
Credit Lyonnais Securities	\$250.21
Credit Suisse Securities	\$2,388.04
Daiwa Securities Group	\$995.85
Deutsche Bank Securities	\$264.52
Goldman Sachs	\$2,973.92
Hongkong Shanghai Bancorp	\$718.00
Instinet	\$74.73
Investec Henderson Crosthwaite Securities	\$376.96
Investment Technology Group ITG	\$533.88
Jones and Associates	\$94.75
JP Morgan Securities	\$269.96
Kepler Cheuvreux	\$527.07
Knight Capital	\$156.00
Liquidnet	\$724.87
Mizuho Securities	\$525.00
Morgan Stanley	\$19.04
Nomura Securities International	\$198.00
Raymond James and Associates	\$17.00
RBC Capital Markets	\$652.63
Rosenblatt Securities	\$65.00
Sanford Bernstein	\$517.00
Scotia Capital	\$453.00
TD Securities	\$407.00
UBS Securities	\$2,240.52
IndiaInfoline	\$713.19
CIBC World Markets	\$57.01
Kempen and Company	\$182.00
Shore capital	\$7.73

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
RBS Securities	\$1,940.00
CF Global Trading	\$10.00
William Blair Intl Large Cap Growth	\$343,365.05
African American	\$36,665.93
Loop Capital Markets (Illinois Based)	\$36,665.93
Disabled Veteran	\$43,276.75
Mischler Financial Group	\$43,276.75
Woman-Owned	\$46,131.63
Cheevers and Company (Illinois Based)	\$46,131.63
Majority	\$217,290.74
Bank of America Merrill Lynch	\$19,946.63
Barclays Capital	\$1,330.57
Berenberg Bank	\$4,257.55
BMO Capital Markets	\$235.49
BNP Paribas Securities Corp	\$2,193.12
BTIG	\$3,736.94
Citigroup Global Markets	\$10,588.35
CLSA	\$4,950.30
Credit Suisse Securities	\$20,275.79
Daiwa Securities Group	\$3,231.81
Deutsche Bank Securities	\$6,899.76
Exane	\$7,465.68
Goldman Sachs	\$10,655.03
Handelsbanken Markets Securities	\$3,152.03
HSBC Securities	\$3,353.91
Instinet	\$2,382.78
Itau Securities	\$2,253.78
Jefferies	\$2,152.02
JM Financial	\$545.23
JP Morgan Securities	\$6,360.62
Keefe Bruyette and Woods	\$1,757.54
Kepler Cheuvreux	\$79.84
Liberum Capital	\$1,070.88
Liquidnet	\$11,791.29
Macquarie Capital	\$6,453.15
Maybank Kim Eng Securities	\$1,529.54
Mitsubishi Securities	\$2,036.07
Mizuho Securities	\$3,833.13

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Morgan Stanley	\$5,894.01
Nomura Securities International	\$4,193.82
Numis Securities	\$3,465.84
RBC Capital Markets	\$3,697.39
Samsung Securities	\$1,489.74
Sanford Bernstein	\$8,473.13
Santander Securities	\$4,064.62
Scotia Capital	\$3,238.91
SMBC Nikko Securities	\$1,801.75
Societe Generale Securities Corporation	\$262.01
TD Securities	\$1,500.28
UBS Securities	\$26,681.56
Kotak Securities	\$359.46
CIBC World Markets	\$224.47
Brasil Plural	\$622.60
Auerbach Grayson and Company	\$146.56
Autonomous Research	\$356.70
ITG Posit Alert	\$5,523.25
NH Investment and Securities Company	\$775.81
William Blair Intl Small Cap	\$87,349.10
African American	\$5,947.85
Loop Capital Markets (Illinois Based)	\$5,947.85
Disabled Veteran	\$1,954.71
Mischler Financial Group	\$1,954.71
Woman-Owned	\$6,069.89
Cheevers and Company (Illinois Based)	\$6,069.89
Majority	\$73,376.65
Bank of America Merrill Lynch	\$3,934.56
Barclays Capital	\$1,380.72
Berenberg Bank	\$1,162.25
BNP Paribus Securities Corp	\$94.91
BTG Pactual	\$623.37
BTIG	\$458.15
Carnegie Investment Bank	\$2,195.08
CIMB Securities	\$1,095.98
Citigroup Global Markets	\$2,979.42
CLSA	\$4,240.46
Credit Suisse Securities	\$6,405.84

Asset Class	International Equity
Manager Name	Executed Commissions (a) and (b)
Daiwa Securities Group	\$3,357.27
Deutsche Bank Securities	\$3,301.21
Enskilda Securities	\$21.99
Exane	\$180.45
Goldman Sachs	\$2,532.24
Handelsbanken Markets Securities	\$2,895.40
HSBC Securities	\$441.63
Instinet	\$190.81
Investec Henderson Crosthwaite Securities	\$23.56
Itau Securities	\$1,861.67
JP Morgan Securities	\$1,893.63
Kepler Cheuvreux	\$1,532.69
Liberum Capital	\$1,865.87
Liquidnet	\$4,664.81
Macquarie Capital	\$3,203.29
Mediobanca	\$1,488.45
Mitsubishi Securities	\$715.37
Morgan Stanley	\$1,912.37
Numis Securities	\$865.07
RBC Capital Markets	\$2,014.30
Redburn Partners	\$668.72
Sanford Bernstein	\$1,259.45
SMBC Nikko Securities	\$176.71
Societe Generale Securities Corporation	\$198.49
UBS Securities	\$6,356.03
Vontobel Securities	\$851.32
Davy Group	\$1,962.66
CIBC World Markets	\$399.40
Banco Bradesco	\$530.35
ITG Posit Alert	\$1,440.70
Grand Total	\$1,298,629.17

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
BlackRock Core Plus	4,486,101,700
African American	214,150,205
CastleOak Securities	81,255,875
Loop Capital Markets (Illinois Based)	132,894,330
Latino	412,329,061
Cabrera Capital Markets (Illinois Based)	412,329,061
Woman-Owned	93,060
CL King & Associates	93,060
Disabled Veteran	384,053,190
Drexel Hamilton	279,174
Mischler Financial Group	383,774,016
Majority	3,475,476,183
Amherst Pierpont Securities	6,668,673
Barclays Capital	197,166,657
BMO Capital Markets	29,988,387
BNP Paribas Securities Corp	481,443,238
BNY Convergenx	2,600,637
Brownstone Investment Group	110,656
Cantor Fitzgerald	1,670,655
Citigroup Global Markets	133,872,958
Credit Agricole Securities	8,921,483
Credit Suisse Securities	363,450,902
Daiwa Securities Group	23,583,321
Deutsche Bank Securities	64,171,411
FTN Financial Securities	3,068,217
Goldman Sachs	428,278,445
Hilltop Securities	804,651
HSBC Securities	7,846,430
Imperial Capital	150,961
Jefferies	143,783,798
JP Morgan Securities	401,008,272
MarketAxess Corporation	274,201
Merrill Lynch	666,082,647
Mizuho Securities	41,932,773
Morgan Stanley	145,060,168
Nomura Securities International	52,921,675

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Piper Jaffray and Company	276,963
RBC Capital Markets	177,543,550
RBS Securities	3,382,569
Robert W Baird and Company	84,993
Santander Securities	1,186,699
Scotia Capital	755,387
SeaPort Group Securities	781,065
SG Americas Securities	245,203
Societe Generale Securities Corporation	15,154,778
Stephens	182,762
Stifel Nicolaus and Company	91,886
Suntrust Robinson Humphrey	193,641
TD Securities	3,374,559
UBS Securities	1,640,526
US Bancorp Investments	1,944,761
Wells Fargo Securities	62,846,512
MUFG Securities	366,063
R Seelaus	472,966
Performance Trust Capital Partners	90,083
BlackRock US Debt Index	11,230,835,835
African American	1,246,623
Castleoak Securities	938,241
Williams Capital Group	157,098
Loop Capital Markets (Illinois Based)	151,284
Latino	1,093,844
Great Pacific	198,568
Samuel A Ramirez	529,396
Cabrera Capital Markets (Illinois Based)	365,880
Woman-Owned	126,781
CL King & Associates	126,781
Disabled Veteran	111,987
Drexel Hamilton	111,987
Majority	11,228,256,600
Amherst Pierpont Securities	18,086,470
Barclays Capital	604,984,975
BB and T Securities	815,176
BBVA Securities	80,173
BMO Capital Markets	8,188,651
BNP Paribus Securities Corp	1,046,936,032

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
BNY Convergenx	10,998,140
BNY Mellon Capital Markets	8,234,489
Brean Capital	431,399
Brownstone Investment Group	173,383
Cantor Fitzgerald	321,033
Citigroup Global Markets	756,843,280
Credit Agricole Securities	10,218,541
Credit Suisse Securities	1,902,764,362
Daiwa Securities Group	33,774,236
Deutsche Bank Securities	69,240,628
Fidelity Capital Market	121,374
FTN Financial Securities	582,545
Goldman Sachs	879,906,554
Hilltop Securities	169,573
HSBC Securities	59,890,161
Ing Financial Markets	173,758
Itau Securities	60,970
Janney Montgomery Scott	161,236
Jefferies	13,903,234
JP Morgan Securities	1,102,652,328
Keybanc Capital Markets	2,582,814
KGS Alpha Capital Markets	623,499
Liquidnet	827,413
Lloyds Securities	400,162
MarketAxess Corporation	9,124,375
Merrill Lynch	984,307,176
Millennium Advisors	2,002,284
Mizuho Securities	286,251,843
Morgan Stanley	1,514,158,053
Nomura Securities International	1,040,797,395
Piper Jaffray and Company	265,101
Raymond James and Associates	6,887,427
RBC Capital Markets	467,561,347
RBS Securities	9,599,505
Robert W Baird and Company	4,309,939
Santander Securities	1,360,302
Scotia Capital	7,835,255
SeaPort Group Securities	633,589
SG Americas Securities	4,766,229

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
SMBC Nikko Securities	1,224,111
Societe Generale Securities Corporation	16,489,205
Standard Chartered	614,646
Stifel Nicolaus and Company	5,083,048
SumRidge Partners	1,126,249
Suntrust Robinson Humphrey	835,239
Susquehanna Financial Group	3,369,672
TD Securities	31,274,869
UBS Securities	6,867,181
US Bancorp Investments	6,439,042
Vining Sparks	390,183
Wells Fargo Securities	262,245,613
National Bank of Canada	712,220
ANZ Securities Limited	279,248
MUFG Securities	4,256,977
R Seelaus	248,313
Nathan Hale Capital	4,428,884
Performance Trust Capital Partners	345,571
Mesirow Financial (Illinois Based)	8,019,917
Brandes Core Plus	30,825,120
African American	26,350,000
Castleoak Securities	850,000
Williams Capital Group	3,500,000
Loop Capital Markets (Illinois Based)	22,000,000
Majority	4,475,120
Goldman Sachs	1,452,650
Imperial Capital	1,500,000
Wells Fargo Securities	1,522,470
Crescent Opportunistic Fixed Income	180,390,921
Latino	4,947,005
Penserra Securities	4,947,005
Majority	175,443,916
Antares Holdings	1,044,462
Bank of America Merrill Lynch	41,814,633
Bank of Montreal	138,670
Bank of Scotia Scotiabank	120,560
Barclays Capital	21,862,738
BNP Paribus Securities Corp	214,295
Cantor Fitzgerald	282,030

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Citigroup Global Markets	9,850,058
Citizens Republic Bancorp	1,054,262
Credit Suisse Securities	10,741,014
Deutsche Bank Securities	3,394,179
Goldman Sachs	18,312,709
Guggenheim Securities	30,140
HSBC Securities	526,720
Janney Montgomery Scott	70,231
Jefferies	9,616,928
JP Morgan Securities	24,287,676
Keybank Capital Markets	1,206,934
Mizuho Securities	510,480
Morgan Stanley	5,606,386
Nomura Securities International	2,410,975
Oppenheimer and Company	2,000,755
RBC Capital Markets	3,789,671
Robert W Baird and Company	3,417,900
SeaPort Group Securities	258,910
Societe Generale Securities Corporation	1,922,343
Stifel Nicolaus and Company	809,600
Suntrust Robinson Humphrey	52,060
UBS Securities	1,860,568
Wells Fargo Securities	5,182,436
KKR	33,844
Bank of China International	3,019,748
Earnest Core Fixed Income	23,573,804
Latino	866,436
Great Pacific	866,436
Majority	22,707,368
BB and T Securities	327,926
Cantor Fitzgerald	1,161,369
Credit Suisse Securities	1,390,029
FTN Financial Securities	2,627,808
Goldman Sachs	7,404,819
KGS Alpha Capital Markets	6,555,416
Millennium Advisors	75,000
Morgan Stanley	550,000
Stifel Nicolaus and Company	39,000
Susquehanna Financial Group	2,281,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
US Bancorp Investments	260,000
Wells Fargo Securities	35,000
Garcia Hamilton Core Fixed Income	225,763,692
African American	44,370,000
Loop Capital Markets (Illinois Based)	44,370,000
Latino	34,650,000
Great Pacific	1,750,000
Cabrera Capital Markets (Illinois Based)	32,900,000
Woman-Owned	66,212,692
MFR Securities	66,212,692
Disabled Veteran	19,875,000
Mischler Financial Group	19,875,000
Majority	60,656,000
Banc of America Securities	12,695,000
BNY Mellon Capital Markets	4,655,000
Brownstone Investment Group	2,525,000
Deutsche Bank Securities	6,621,000
FTN Financial Securities	12,650,000
Goldman Sachs	9,700,000
Susquehanna Financial Group	2,780,000
Cantella	9,030,000
LM Capital Core Plus	95,530,000
African American	18,275,000
Loop Capital Markets (Illinois Based)	18,275,000
Latino	21,500,000
Penserra Securities	12,500,000
Cabrera Capital Markets (Illinois Based)	9,000,000
Woman-Owned	21,900,000
MFR Securities	21,900,000
Majority	33,855,000
Bank of America Merrill Lynch	1,000,000
BCP Securities	200,000
Cantor Fitzgerald	1,500,000
Credit Suisse Securities	6,125,000
Goldman Sachs	7,900,000
Jefferies	5,000,000
Mizuho Securities	12,130,000
MacKay High Yield	110,074,147
African American	5,055,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Williams Capital Group	3,630,000
Loop Capital Markets (Illinois Based)	1,425,000
Latino	5,450,000
Penserra Securities	4,990,000
Samuel A Ramirez	460,000
Majority	99,569,147
Bank of America Merrill Lynch	16,053,147
Barclays Capital	11,796,000
Citigroup Global Markets	4,118,000
Credit Suisse Securities	11,041,000
CRT Capital Group	95,000
Deutsche Bank Securities	8,540,000
Goldman Sachs	6,870,000
HSBC Securities	125,000
Jefferies	2,315,000
JP Morgan Securities	22,110,000
MarketAxess Corporation	435,000
Miller Tabak and Company	575,000
Mizuho Securities	1,000,000
Morgan Stanley	2,280,000
Nomura Securities International	425,000
Oppenheimer and Company	70,000
RBC Capital Markets	1,510,000
Robert W Baird and Company	885,000
SeaPort Group Securities	1,615,000
Stifel Nicolaus and Company	1,801,000
UBS Securities	2,595,000
Wells Fargo Securities	3,315,000
NTGI BC Aggregate Index	4,399,415,641
African American	2,170,673
Loop Capital Markets (Illinois Based)	2,170,673
Majority	4,397,244,968
Barclays Capital	176,715,517
BB and T Securities	399,760
BMO Capital Markets	2,521,624
BNP Paribas Securities Corp	698,350,659
BNY Mellon Capital Markets	6,971,362
Brownstone Investment Group	2,820,514
Cantor Fitzgerald	220,591

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Citigroup Global Markets	54,746,418
Credit Suisse Securities	139,005,508
Deutsche Bank Securities	23,799,250
FTN Financial Securities	11,702,990
Goldman Sachs	83,645,163
HSBC Securities	10,785,226
Intl FCStone Financial	58,946,363
Jefferies	30,926,373
JP Morgan Securities	809,112,144
Keybank Capital Markets	2,656,120
KGS Alpha Capital Markets	48,581,800
MarketAxess Corporation	1,743,959
Merrill Lynch	449,971,042
Millennium Advisors	2,514,006
Mitsubishi Securities	4,319,854
Mizuho Securities	241,445
Morgan Stanley	414,565,988
Nomura Securities International	342,614,301
Pierpont Securities	19,718,766
Piper Jaffray and Company	1,961,684
Raymond James and Associates	17,761,462
RBC Capital Markets	2,799,339
RBS Securities	12,846,706
Robert W Baird and Company	5,251,792
Scotia Capital	499,435
SMBC Nikko Securities	1,436,521
Societe Generale Securities Corporation	4,090,073
Southwest Securities	15,080,350
Stifel Nicolaus and Company	1,207,161
Suntrust Robinson Humphrey	204,922
Susquehanna Financial Group	10,074,743
TD Securities	2,020,358
US Bancorp Investments	7,612,840
Vining Sparks	927,832
Wells Fargo Securities	901,747,048
National Australia Bank	499,721
William Blair and Company (Illinois Based)	10,031,973
Mesirow Financial (Illinois Based)	3,040,472
Maxim Group	553,791

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Piedmont Core Fixed Income	138,944,000
African American	26,009,000
Castleoak Securities	26,009,000
Woman-Owned	11,150,000
CL King & Associates	11,150,000
Majority	101,785,000
Arbor Trading	7,160,000
JP Morgan Securities	7,390,000
Millennium Advisors	2,535,000
Morgan Stanley	6,825,000
Stifel Nicolaus and Company	32,135,000
Wells Fargo Securities	45,740,000
Progress Core Plus	577,039,041
African American	170,605,436
Castleoak Securities	141,595,000
Williams Capital Group	360,000
Blaylock Robert Van	435,000
Loop Capital Markets (Illinois Based)	28,215,436
Latino	10,538,000
Great Pacific	670,000
Penserra Securities	58,000
Cabrera Capital Markets (Illinois Based)	9,810,000
Woman-Owned	895,000
Alamo Capital	200,000
CL King & Associates	300,000
Pacific American Securities	395,000
Disabled Veteran	33,645,497
Drexel Hamilton	1,165,000
Mischler Financial Group	32,480,497
Majority	361,355,108
Amherst Securities Group	1,865,000
Banc of America Securities	38,679,000
Bank of New York Mellon	950,000
Barclays Capital	50,194,000
BB and T Securities	460,000
BCP Securities	1,126,349
BNP Paribus Securities Corp	9,770,000
Brean Capital	350,000
Brownstone Investment Group	370,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Calyon Securities	443,000
Cantor Fitzgerald	3,226,000
Citigroup Global Markets	35,696,000
Credit Suisse Securities	10,891,000
Deutsche Bank Securities	15,408,000
First Tennessee Capital Markets	885,000
FTN Financial Securities	7,903,155
Goldman Sachs	22,258,000
Guggenheim Securities	64,621
Hilltop Securities	455,000
HSBC Securities	4,107,000
Imperial Capital	138,000
Intl FCStone Financial	4,821,842
Janney Montgomery Scott	3,108,658
Jefferies	10,792,000
JP Morgan Securities	24,856,375
Keybanc Capital Markets	2,760,429
KGS Alpha Capital Markets	196,460
MarketAxess Corporation	470,000
Merrill Lynch	540,000
Mitsubishi Securities	2,397,000
Mizuho Securities	979,000
Morgan Stanley	23,658,000
Nomura Securities International	1,912,000
Oppenheimer and Company	70,000
Piper Jaffray and Company	240,000
Raymond James and Associates	295,000
RBC Capital Markets	7,751,000
RBS Securities	3,105,000
Robert W Baird and Company	4,145,811
RW Pressprich and Company	1,555,925
Scotia Capital	635,000
SeaPort Group Securities	401,000
SMBC Nikko Securities	505,000
Stephens	1,566,654
Stifel Nicolaus and Company	3,672,000
SumRidge Partners	450,000
Suntrust Robinson Humphrey	1,821,000
Susquehanna Financial Group	1,005,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
TD Securities	820,000
UBS Securities	7,624,000
US Bancorp Investments	1,725,000
Wedbush Securities	2,373,000
Wells Fargo Securities	34,085,829
GMP Securities	370,000
ICBC Standard Bank	81,000
Tradeweb Markets	460,000
William Blair and Company (Illinois Based)	200,000
Cantella	3,085,000
Knight Capital	1,295,000
Natexis Bleichroeder International	122,000
BTIG	165,000
Standish Emerging Markets Debt	360,386,605
Majority	360,386,605
Banc of America Securities	20,897,035
Bank of America Merrill Lynch	26,449,889
Barclays Capital	20,126,231
BBVA Securities	88,837
BNP Paribus Securities Corp	6,950,477
Cantor Fitzgerald	3,100,000
Citigroup Global Markets	73,080,580
Credit Suisse Securities	2,107,714
Deutsche Bank Securities	9,026,946
Goldman Sachs	28,245,430
HSBC Securities	17,844,239
Ing Financial Markets	2,987,710
Jefferies	6,735,000
JP Morgan Securities	121,409,970
Merrill Lynch	4,938,023
Mizuho Securities	920,000
Morgan Stanley	3,359,216
Nomura Securities International	2,430,000
Scotia Capital	747,575
UBS Securities	3,071,473
Standard Bank Group Securities	597,386
VTB Capital	1,640,000
Balanz Capital	3,632,875
Taplin Core Plus	106,376,200

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
African American	20,811,200
Castleoak Securities	2,811,200
Loop Capital Markets (Illinois Based)	18,000,000
Latino	11,000,000
Cabrera Capital Markets (Illinois Based)	11,000,000
Disabled Veteran	5,000,000
Drexel Hamilton	5,000,000
Majority	69,565,000
Amherst Pierpont Securities	2,815,000
Bank of America Merrill Lynch	3,000,000
Barclays Capital	3,000,000
Citigroup Global Markets	14,000,000
Deutsche Bank Securities	6,500,000
JP Morgan Securities	10,000,000
Mizuho Securities	2,500,000
Morgan Stanley	3,750,000
RBC Capital Markets	21,000,000
SeaPort Group Securities	2,000,000
In capital	1,000,000
Western Core Plus	943,251,207
African American	435,036,680
Castleoak Securities	425,027,083
Loop Capital Markets (Illinois Based)	10,009,597
Majority	508,214,527
Agency Trading Group	733,956
Amherst Pierpont Securities	1,271,428
Banc of America Securities	45,569,842
Barclays Capital	28,467,650
BMO Capital Markets	2,575,059
BNP Paribus Securities Corp	1,861,472
Brean Capital	802,351
Brownstone Investment Group	19,692
Citigroup Global Markets	11,052,155
Credit Suisse Securities	40,241,389
Deutsche Bank Securities	770,668
Goldman Sachs	144,437,464
HSBC Securities	3,112,610
Jefferies	5,199,188
JP Morgan Securities	8,283,824

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Keybank Capital Markets	260,201
Morgan Stanley	51,276,863
Nomura Securities International	38,517,712
RBC Capital Markets	60,279,346
RBS Securities	20,971,184
SeaPort Group Securities	427,994
Stifel Nicolaus and Company	608,770
Suntrust Robinson Humphrey	56,658
TD Securities	3,458,452
UBS Securities	15,285,799
US Bancorp Investments	131,151
Wells Fargo Securities	21,608,671
MUFG Securities	381,482
Mesirow Financial (Illinois Based)	8,095
Sumitomo Mitsui Banking Corp	543,402
Barings Bank Loans	3,828,921,927
Majority	3,828,921,927
Banc of America Securities	424,814,622
Barclays Capital	356,010,378
BlackRock Interfund Transfer	472,277,809
BNP Paribus Securities Corp	40,360,168
Citigroup Global Markets	256,430,164
Citizens Republic Bancorp	2,000,000
Credit Suisse Securities	216,044,212
Deutsche Bank Securities	352,965,340
Goldman Sachs	260,565,525
HSBC Securities	9,028,699
Imperial Capital	3,000,000
Ing Financial Markets	6,268,805
Jefferies	7,450,000
JP Morgan Securities	543,303,679
Keybank Capital Markets	5,097,274
Liquidnet	1,465,000
MarketAxess Corporation	32,864,000
Merrill Lynch	167,271,100
Morgan Stanley	252,399,195
Nomura Securities International	47,206,551
RBC Capital Markets	43,266,920
Royal Bank of Canada	10,403,000

Asset Class	Fixed Income
Manager Name	Par Value Traded (a) and (b)
Scotia Capital	36,271,429
SeaPort Group Securities	3,000,000
Societe Generale Securities Corporation	13,000,000
State Street Global Markets	3,000,000
Suntrust Robinson Humphrey	798,621
UBS Securities	65,236,358
Wells Fargo Securities	176,667,371
Macquarie Capital	8,601,953
Natixis Securities	305,000
Cortland Capital Market Services	363,905
KKR	11,184,851
Grand Total	26,737,429,839

2. Please list transition managers utilized in 2016 and 2017 (through March 31) and commissions paid to each. Have you utilized any MWBE managers? If so who and if not why not?

IMRF completed a Transition Management Pool/Bench of Providers Search in April 2015 and selected two MWBE brokerage firms to be included in the Pool/Bench of Providers. By January 2016, the contracts were executed with the selected transition managers: BlackRock, Loop (African American), Penserra (Latino), State Street, and Russell. IMRF had one transition event in October 2016 and utilized Penserra. Total commissions paid for this transition were \$84,341.

In March 2017, IMRF's manager of managers, Progress utilized Loop Capital to conduct a transition. Total commissions paid for this transition were \$28,806.

As part of its custodial arrangement, IMRF has an ongoing contract with The Northern Trust for transition management. While Northern Trust is not an MWBE manager, they have utilized MWBE broker/dealers for IMRF transitions, per IMRF instructions. IMRF did not utilize Northern Trust for any transitions during 2016 or 2017.

Completion Date	Manager/Broker Name	Service Provided	Commissions	% of Total Commissions Paid
10/6/2016	Penserra	Transition Manager & Broker	\$84,341	100%
	Total Commissions Paid		\$84,341	100%

Completion Date	Manager/Broker Name	Service Provided	Commissions	% of Total Commissions Paid
3/24/2017	Loop Capital	Transition Manager & Broker	\$28,806	100%
	Total Commissions Paid		\$28,806	100%

3. If you don't use a pool of transition managers, how do you determine which transition managers to utilize?

IMRF has established a transition management pool/bench of providers which includes minority and non-minority owned firms. In addition, as part of its custodial arrangement, IMRF has an ongoing contract with its master trustee for transition management services.

When a transition event occurs, IMRF seeks transition bids from the pool of transition management providers. The selection of the actual transition manager to effectuate the transition event is largely dependent on:

- Reasonableness of proposed strategy given market dynamics and portfolio characteristics
- Total cost analysis
- Specialty considerations
- Liquidity advantage

Transition managers are expected to meet or exceed IMRF's minority brokerage goals.

4. Of the transitions that are conducted, what were the total fees and commissions paid to transition managers? Please list and denote fees and commissions paid to all transition managers individually and denote MWBE firms.

IMRF completed a Transition Management Pool/Bench of Providers Search in April 2015 and selected two MWBE brokerage firms to be included in the Pool/Bench of Providers. By January 2016, the contracts were executed with the selected transition managers: BlackRock, Loop (African American), Penserra (Latino), State Street, and Russell. IMRF had one transition event in October 2016 and utilized Penserra. Total commissions paid for this transition were \$84,341.

In March 2017, IMRF's manager of managers, Progress utilized Loop Capital to conduct a transition. Total commissions paid for this transition were \$28,806.

Completion Date	Manager/Broker Name	Service Provided	Commissions	% of Total Commissions Paid
10/6/2016	Penserra-Latino	Transition Manager & Broker	\$84,341	100%
	Total Commissions Paid		\$84,341	100%

Completion Date	Manager/Broker Name	Service Provided	Commissions	% of Total Commissions Paid
3/24/2017	Loop Capital-African American	Transition Manager & Broker	\$28,806	100%
	Total Commissions Paid		\$28,806	100%

5. Please list gross commissions paid in 2016 and 2017 (through March 31) to brokers used during transitions. In addition, please list the names and commissions paid to each broker.

IMRF completed a Transition Management Pool/Bench of Providers Search in April 2015 and selected two MWBE brokerage firms to be included in the Pool/Bench of Providers. By January 2016, the contracts were executed with the selected transition managers: BlackRock, Loop (African American), Penserra (Latino), State Street, and Russell. IMRF had one transition event in October 2016 and utilized Penserra. Total commissions paid for this transition were \$84,341.

In March 2017, IMRF's manager of managers, Progress utilized Loop Capital to conduct a transition. Total commissions paid for this transition were \$28,806.

Completion Date	Manager/Broker Name	Service Provided	Commissions	% of Total Commissions Paid
10/6/2016	Penserra-Latino	Transition Manager & Broker	\$84,341	100%
	Total Commissions Paid		\$84,341	100%

Completion Date	Manager/Broker Name	Service Provided	Commissions	% of Total Commissions Paid
3/24/2017	Loop Capital-African American	Transition Manager & Broker	\$28,806	100%
	Total Commissions Paid		\$28,806	100%

IX. Assets

1. As of December 31, 2016 and March 31, 2017, what were the total amounts of the Fund's assets?

Date	Total Fund Market Value (in millions)
December 31, 2016	\$36,235
March 31, 2017	\$37,579

2. What is your average initial allocation to MBE firms in each of the listed asset classes since 2014? What is your average initial allocation to non-MBE firms in each of the listed asset classes since 2014: Domestic Equity, International Equity, Fixed Income, Hedge Fund, Real Estate, and Private Equity.

Since 2014, IMRF's average initial allocations for direct mandates to MBE and non-MBE firms across all asset classes are listed in the tables below.

Asset Class	Average Initial Allocation Amount to MBE firms (in millions)
Fixed Income	\$100
International Equity	\$250
Private Equity	\$35
Real Estate	\$46

Asset Class	Average Initial Allocation Amount to non-MBE firms (in millions)
Fixed Income	\$215
Private Equity	\$23
Real Estate	\$69
Domestic Equity	\$225
Alternative	\$100

The table below lists the MWBE managers that received direct mandates from IMRF since 2014.

Asset Class	Initial Allocation Amount to MBE firms (in millions)
Fixed Income	\$100
Garcia Hamilton	\$100
International Equity	\$250
Progress International Equity- existing manager (new product)	\$250
Private Equity	\$595
AUA PE Fund	\$5
Estancia Capital Partners	\$5
ICV Partners IV	\$35
Mayfield Select	\$10
Mayfield XV	\$10
New Mainstream Capital II (NMS Fund II)	\$5
New Mainstream Capital III (NMS Fund III)	\$25
Valor Equity Partners III	\$5
Valor Equity Partners IV	\$75

Asset Class	Initial Allocation Amount to MBE firms (in millions)
Vista Credit Oppor. Fund I	\$50
Vista Credit Oppor. Fund II	\$50
Vista Equity Partners V	\$100
Vista Equity Partners VI	\$100
Vista Foundation Fund II	\$15
Vista Foundation Fund III	\$25
Vistria Fund II L.P.	\$75
Vistria Fund L.P.	\$5
Real Estate	\$230
Artemis Real Estate Partners Healthcare Fund I	\$25
Artemis Real Estate Partners, LLC	\$75
Long Wharf Real Estate Partners V	\$30
Oak Street Real Estate Capital Fund III	\$25
Oak Street Real Estate Capital Fund IV	\$75
Grand Total	\$1,175

3. What percent of assets were allocated to MWBE firms in searches not specifically designated for emerging managers?

Since 2014, IMRF has completed 8 investment manager RFPs, none of which were specifically designated for emerging managers. However, as a result of those searches two emerging firms were hired and have \$250 million in commitments, in aggregate.

- 17% of the assets allocated for the U.S. Value-Add Real Estate search went to a MWBE manager.
- 100% of the assets allocated for the Real Estate Manager of Managers search went to a MWBE manager. This mandate is an evergreen account that will continue to receive additional allocations.

In 2015, as a result of the U.S. Value-Add Real Estate Search, Oak Street, an Illinois based and Latino owned firm, was hired. IMRF committed \$25 million to Oak Street Fund III. Furthermore, in December 2016, IMRF committed \$75 million to Oak Street Fund IV. IMRF's total commitment to Oak Street is \$100 million.

As a result of the Real Estate Manager of Managers Search that was completed in November 2015, Artemis Real Estate Partners, a women owned firm, was hired. IMRF's initial commitment was \$75 million. This evergreen separate account mandate is exclusively focused on hiring underlying real estate firms that are at least 51% owned by minority, females and persons with a disability. IMRF's 2017 commitment is \$75 million. IMRF's total commitment to the evergreen Real Estate Manager of Managers program is \$150 million. IMRF expects to make annual commitments to this program consistent with its asset allocation.

4. For 2016, please list [1] **asset classes**, [2] money managers, [3] the amount of assets managed in that **asset class** (in column [1]) per manager as of December 31, 2016, [4] the percentage of assets this represents in that **asset class** (in column [1]) as of December 31, 2016, and [5] the percentage of assets this represents in the overall Fund as of December 31, 2016. Please also list [6] the amount of fees paid per **asset class** (in column [1]) in 2016, [7] the percentage of fees paid to this manager [2] compared to fees paid by the Fund in this **asset class** (in column [1]) in 2016, [8] the percentage of fees paid to this manager [2] compared to fees paid by the overall Fund in 2015, and [9] the classification (i.e. African American, Latino, Asian American, Female) of the manager [2]. Please be sure to sort the table by **Asset Class** [1] then Classification [9].

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Domestic Equity	Ariel	\$ 71,801,783	0.46%	0.19%	\$ 549,840	1.63%	0.45%	African American
Domestic Equity	Channing	\$ 213,876,368	1.36%	0.56%	\$ 895,528	2.65%	0.73%	African American
Domestic Equity	Holland	\$ 862,687,327	5.48%	2.25%	\$ 1,735,250	5.14%	1.41%	African American
Domestic Equity	Vision (terminated 5/27/2016)	\$ -	0.00%	0.00%	\$ 190,611	0.56%	0.15%	Female
Domestic Equity	Ativo	\$ 120,457,646	0.76%	0.31%	\$ 564,879	1.67%	0.46%	Latino
Domestic Equity	Lombardia Small Cap (terminated 5/27/2016)	\$ -	0.00%	0.00%	\$ 399,065	1.18%	0.32%	Latino
Domestic Equity	Wall Street	\$ 84,888,514	0.54%	0.22%	\$ 1,361,065	4.03%	1.10%	Latino
Domestic Equity	BMO	\$ 1,312,137,784	8.33%	3.43%	\$ 2,660,541	7.87%	2.15%	
Domestic Equity	DFA Micro Cap	\$ 377,018,942	2.39%	0.98%	\$ 1,640,163	4.85%	1.33%	
Domestic Equity	DFA Small Cap	\$ 855,573,915	5.43%	2.23%	\$ 3,701,671	10.96%	3.00%	
Domestic Equity	Dodge & Cox	\$ 1,289,023,624	8.19%	3.37%	\$ 2,387,754	7.07%	1.93%	
Domestic Equity	Frontier	\$ 367,912,663	2.34%	0.96%	\$ 2,594,186	7.68%	2.10%	
Domestic Equity	Inv Couns of Maryland	\$ 706,263,796	4.48%	1.84%	\$ 3,569,447	10.56%	2.89%	
Domestic Equity	LSV	\$ 1,351,048,298	8.58%	3.53%	\$ 2,947,370	8.72%	2.39%	
Domestic Equity	NTI Growth	\$ 1,523,642,380	9.68%	3.98%	\$ 106,725	0.32%	0.09%	
Domestic Equity	NTI MarketCap	\$ 2,944,696,020	18.70%	7.69%	\$ 202,099	0.60%	0.16%	
Domestic Equity	NTI Value	\$ 1,531,347,006	9.72%	4.00%	\$ 71,471	0.21%	0.06%	
Domestic Equity	Pyramis Small Co	\$ 1,003,343,797	6.37%	2.62%	\$ 5,567,943	16.48%	4.51%	
Domestic Equity	Sands	\$ 1,131,963,980	7.19%	2.96%	\$ 2,643,120	7.82%	2.14%	
Total Domestic Equity		\$ 15,747,683,842	100%	41.13%	\$ 33,788,728	100%	27.37%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Fixed Income	Earnest Partners	\$ 550,077,444	5.37%	1.44%	\$ 1,046,836	7.02%	0.85%	African American
Fixed Income	Piedmont	\$ 548,195,937	5.35%	1.43%	\$ 909,982	6.11%	0.74%	African American
Fixed Income	Progress		0.00%	0.00%	\$ 964,594	6.47%	0.78%	African American
Fixed Income	Progress Subadvisor Advent Capital	\$ 32,787,029	0.32%	0.09%	\$ 92,936	0.62%	0.08%	African American
Fixed Income	Progress Subadvisor Pugh Capital Management	\$ 142,678,279	1.39%	0.37%	\$ 288,809	1.94%	0.23%	African American
Fixed Income	Progress Subadvisor Concerto Asset Management	\$ 32,498,397	0.32%	0.08%	\$ 125,282	0.84%	0.10%	Female
Fixed Income	Progress Subadvisor Longfellow Investment Management	\$ 137,598,219	1.34%	0.36%	\$ 286,118	1.92%	0.23%	Female
Fixed Income	Progress Subadvisor New Century Advisors	\$ 161,181,100	1.57%	0.42%	\$ 294,156	1.97%	0.24%	Female
Fixed Income	Garcia Hamilton	\$ 521,496,091	5.09%	1.36%	\$ 500,213	3.36%	0.41%	Latino
Fixed Income	LM Capital	\$ 857,307,500	8.37%	2.24%	\$ 1,400,197	9.40%	1.13%	Latino
Fixed Income	Progress Subadvisor Garcia Hamilton & Associates	\$ 126,462,098	1.24%	0.33%	\$ 255,570	1.71%	0.21%	Latino
Fixed Income	Progress Subadvisor GIA Partners	\$ 134,977,016	1.32%	0.35%	\$ 336,103	2.26%	0.27%	Latino
Fixed Income	Progress Subadvisor Ramirez Asset Management	\$ 84,114,016	0.82%	0.22%	\$ 168,577	1.13%	0.14%	Latino
Fixed Income	Babson	\$ 307,903,524	3.01%	0.80%	\$ 1,160,474	7.79%	0.94%	
Fixed Income	BlackRock Core Plus	\$ 743,635,080	7.26%	1.94%	\$ 841,554	5.65%	0.68%	
Fixed Income	BlackRock US Debt Index	\$ 1,393,601,514	13.61%	3.64%	\$ 70,498	0.47%	0.06%	
Fixed Income	Brandes Core Plus	\$ 245,224,136	2.40%	0.64%	\$ -	0.00%	0.00%	
Fixed Income	Crescent	\$ 115,833,909	1.13%	0.30%	\$ 796,639	5.35%	0.65%	
Fixed Income	MacKay Shields	\$ 619,710,161	6.05%	1.62%	\$ 2,080,528	13.96%	1.69%	
Fixed Income	NTI Barclays Aggregate	\$ 1,508,847,244	14.74%	3.94%	\$ 114,206	0.77%	0.09%	
Fixed Income	Pyramis High Yield (terminated on 3/28/14)	\$ 1,021,286	0.01%	0.00%	\$ 28,841	0.19%	0.02%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Fixed Income	Standish	\$ 184,275,519	1.80%	0.48%	\$ 632,345	4.24%	0.51%	
Fixed Income	Taplin Canada	\$ 868,450,261	8.48%	2.27%	\$ 1,136,182	7.62%	0.92%	
Fixed Income	Western	\$ 920,537,911	8.99%	2.40%	\$ 1,372,829	9.21%	1.11%	
Total Fixed Income		\$ 10,238,413,668	100%	26.74%	\$ 14,903,470	100%	12.07%	
International Equity	Brown Capital	\$ 275,571,176	4.06%	0.72%	\$ 3,469,129	14.47%	2.81%	African American
International Equity	Earnest Partners	\$ 515,825,904	7.60%	1.35%	\$ 1,049,880	4.38%	0.85%	African American
International Equity	Progress Int Subadvisor Brown Capital Management	\$ 44,687,186	0.66%	0.12%	\$ 155,114	0.65%	0.13%	African American
International Equity	Progress International	\$ -	0.00%	0.00%	\$ 309,745	1.29%	0.25%	African American
International Equity	Progress Int Subadvisor Arga Investment Management	\$ 19,991,697	0.29%	0.05%	\$ 74,598	0.31%	0.06%	Asian
International Equity	GlobeFlex	\$ 520,157,999	7.67%	1.36%	\$ 2,029,896	8.47%	1.64%	Female
International Equity	Progress Int Subadvisor Metis Global Partners	\$ 22,084,209	0.33%	0.06%	\$ 88,551	0.37%	0.07%	Female
International Equity	Progress Int Subadvisor Strategic Global Advisors	\$ 62,872,001	0.93%	0.16%	\$ 234,026	0.98%	0.19%	Female
International Equity	Lombardia International (terminated 5/27/2016)	\$ -	0.00%	0.00%	\$ 69,409	0.29%	0.06%	Latino
International Equity	Progress Int Subadvisor Ativo Capital Management	\$ 45,080,185	0.66%	0.12%	\$ 142,782	0.60%	0.12%	Latino
International Equity	Progress Int Subadvisor Glovista Investments	\$ 40,674,831	0.60%	0.11%	\$ 173,619	0.72%	0.14%	Latino
International Equity	Arrowstreet	\$ 543,387,161	8.01%	1.42%	\$ 2,456,239	10.24%	1.99%	
International Equity	Brandes	\$ 525,357,853	7.74%	1.37%	\$ 1,580,105	6.59%	1.28%	
International Equity	Genesis	\$ 608,682,465	8.97%	1.59%	\$ 3,614,484	15.08%	2.93%	
International Equity	Lazard	\$ 92,076,238	1.36%	0.24%	\$ 622,394	2.60%	0.50%	
International Equity	Mondrian	\$ 487,782,548	7.19%	1.27%	\$ 2,441,737	10.18%	1.98%	
International Equity	NTI EAFE Index	\$ 1,982,765,302	29.23%	5.18%	\$ 153,804	0.64%	0.12%	
International Equity	Templeton	\$ 187,097,180	2.76%	0.49%	\$ 1,375,361	5.74%	1.11%	
International	William Blair	\$ 584,442,811	8.62%	1.53%	\$ 2,150,808	8.97%	1.74%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Equity								
International Equity	William Blair Small Cap	\$ 225,300,435	3.32%	0.59%	\$ 1,784,375	7.44%	1.45%	
Total International Equity		\$ 6,783,837,182	100.00%	17.72%	\$ 23,976,056	100.00%	19.42%	
Cash	Cash	\$ 139,182,841	100.00%	0.36%	\$ -	0.00%	0.00%	
Total Cash		\$ 139,182,841	100.00%	0.36%	\$ -	\$ -	0.00%	
Hedge Fund	Aurora Subadvisor Elizabeth Park	\$ -	0.00%	0.00%	\$ 73,988	1.21%	0.06%	African American
Hedge Fund	Aurora Subadvisor Sentinel Dome	\$ 5,823,550	6.91%	0.02%	\$ 206,233	3.37%	0.17%	Asian
Hedge Fund	Aurora Subadvisor Adi Capital	\$ -	0.00%	0.00%	\$ 77,161	1.26%	0.06%	Asian
Hedge Fund	Aurora Subadvisor Columbus Hill Partners, L.P.	\$ -	0.00%	0.00%	\$ 59,234	0.97%	0.05%	Asian
Hedge Fund	Aurora Subadvisor GuardCap Macro	\$ -	0.00%	0.00%	\$ 66,317	1.08%	0.05%	Asian
Hedge Fund	Aurora Subadvisor Naya Funds	\$ -	0.00%	0.00%	\$ 10,910	0.18%	0.01%	Asian
Hedge Fund	Aurora Subadvisor Aperimus Partners, L.P.	\$ -	0.00%	0.00%	\$ 118,023	1.93%	0.10%	Female
Hedge Fund	Aurora Subadvisor Roystone Capital	\$ 5,244,658	6.22%	0.01%	\$ 146,907	2.40%	0.12%	Latino
Hedge Fund	Aurora Subadvisor Kabouter	\$ -	0.00%	0.00%	\$ 17,434	0.29%	0.01%	Latino
Hedge Fund	Aurora Subadvisor Miura Global Partners II, LP	\$ -	0.00%	0.00%	\$ 171,425	2.80%	0.14%	Latino
Hedge Fund	Aurora Subadvisor Non-Minority	\$ 73,217,514	86.87%	0.19%	\$ 3,986,338	65.18%	3.23%	
Hedge Fund	Aurora (terminated 2/25/2016)	\$ -	0.00%	0.00%	\$ 1,181,658	19.32%	0.96%	
Total Hedge Fund		\$ 84,285,722	100.00%	0.22%	\$ 6,115,628	100.00%	4.95%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Agriculture	Hancock /Premier Partners IV	\$ 186,101,565	100.00%	0.49%	\$ 1,062,918	100.00%	0.86%	
Total Agriculture		\$ 186,101,565	100.00%	0.49%	\$ 1,062,918	100.00%	0.86%	
Private Equity	Abbott Capital Subadvisor ICV III	\$ 4,512,858	0.21%	0.01%	\$ 49,648	0.29%	0.04%	African American
Private Equity	ICV III	\$ 20,000,000	0.91%	0.05%	\$ 221,154	1.29%	0.18%	African American
Private Equity	Muller & Monroe ILPEFF	\$ 4,691,387	0.21%	0.01%	\$ 7,497	0.04%	0.01%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor Ascend Ventures II	\$ 1,384,754	0.06%	0.00%	\$ 9,488	0.06%	0.01%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor ICV Partners II	\$ 865,471	0.04%	0.00%	\$ -	0.00%	0.00%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor RLJ Equity Partners	\$ 2,163,678	0.10%	0.01%	\$ 17,259	0.10%	0.01%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor Smith Whiley Pelham Fund II	\$ 1,730,942	0.08%	0.00%	\$ -	0.00%	0.00%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor Syncom Venture Partners V	\$ 1,730,942	0.08%	0.00%	\$ 13,089	0.08%	0.01%	African American
Private Equity	Muller & Monroe M2PEFF	\$ 2,494,789	0.11%	0.01%	\$ 92,799	0.54%	0.08%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	\$ 1,661,021	0.08%	0.00%	\$ 22,393	0.13%	0.02%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund	\$ 1,563,314	0.07%	0.00%	\$ 5,726	0.03%	0.00%	African American

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	III							
Private Equity	Pantheon Subadvisor ICV III	\$ 5,026,875	0.23%	0.01%	\$ 30,282	0.18%	0.02%	African American
Private Equity	Pantheon Subadvisor Vistria Fund	\$ 3,079,594	0.14%	0.01%	\$ 42,977	0.25%	0.03%	African American
Private Equity	Vista Credit Opp Fund I	\$ 50,000,000	2.29%	0.13%	\$ 929,493	5.44%	0.75%	African American
Private Equity	Vista Credit Opportunities Fund II	\$ 50,000,000	2.29%	0.13%	\$ 73,273	0.43%	0.06%	African American
Private Equity	Vista Equity Partners V	\$ 100,000,000	4.57%	0.26%	\$ 1,140,734	6.67%	0.92%	African American
Private Equity	Vista Equity Partners VI	\$ 100,000,000	4.57%	0.26%	\$ 452,446	2.65%	0.37%	African American
Private Equity	Vista Foundation Fund II	\$ 15,000,000	0.69%	0.04%	\$ 300,000	1.75%	0.24%	African American
Private Equity	Vista Foundation Fund III	\$ 25,000,000	1.14%	0.07%	\$ 309,066	1.81%	0.25%	African American
Private Equity	Vistria	\$ 15,000,000	0.69%	0.04%	\$ 278,033	1.63%	0.23%	African American
Private Equity	Vistria Fund II	\$ 75,000,000	3.43%	0.20%	\$ -	0.00%	0.00%	African American
Private Equity	Abbott Capital Subadvisor Storm Ventures V	\$ 4,000,000	0.18%	0.01%	\$ 87,891	0.51%	0.07%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Capital Fund VIII	\$ 3,500,000	0.16%	0.01%	\$ 57,709	0.34%	0.05%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Ventures VII	\$ 6,004,410	0.27%	0.02%	\$ 127,788	0.75%	0.10%	Asian
Private Equity	Mayfield XIV	\$ 5,000,000	0.23%	0.01%	\$ 102,516	0.60%	0.08%	Asian
Private Equity	Mayfield Select	\$ 10,000,000	0.46%	0.03%	\$ -	0.00%	0.00%	Asian
Private Equity	Mayfield XV	\$ 10,000,000	0.46%	0.03%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed	\$ 220,000	0.01%	0.00%	\$ 2,939	0.02%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed B	\$ 1,080,000	0.05%	0.00%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed C	\$ 2,250,000	0.10%	0.01%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures III	\$ 680,194	0.03%	0.00%	\$ 4,686	0.03%	0.00%	Asian

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Pantheon Subadvisor Khosla Ventures IV	\$ 1,120,000	0.05%	0.00%	\$ 11,614	0.07%	0.01%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures V	\$ 2,250,000	0.10%	0.01%	\$ 19,262	0.11%	0.02%	Asian
Private Equity	Abbott Capital Subadvisor 1315 Healthcare Fund	\$ 3,535,056	0.16%	0.01%	\$ 88,910	0.52%	0.07%	Female
Private Equity	Abbott Capital Subadvisor Canvas Ventures 2	\$ 3,500,000	0.16%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Abbott Capital Subadvisor Oak HC/FT Partners	\$ 4,500,000	0.21%	0.01%	\$ 93,311	0.55%	0.08%	Female
Private Equity	Muller & Monroe ILPEFF Subadvisor Castile Ventures III	\$ 1,730,942	0.08%	0.00%	\$ 12,416	0.07%	0.01%	Female
Private Equity	Pantheon Subadvisor Oak HC	\$ 2,250,000	0.10%	0.01%	\$ 34,020	0.20%	0.03%	Female
Private Equity	Abbott Capital Subadvisor Clearlake Capital Partners III	\$ 7,500,597	0.34%	0.02%	\$ 71,333	0.42%	0.06%	Latino
Private Equity	Abbott Capital Subadvisor NMS Fund II	\$ 4,518,171	0.21%	0.01%	\$ 32,366	0.19%	0.03%	Latino
Private Equity	AUA Private Equity Fund, LP	\$ 5,000,000	0.23%	0.01%	\$ 62,156	0.36%	0.05%	Latino
Private Equity	Estancia	\$ 5,000,000	0.23%	0.01%	\$ 95,870	0.56%	0.08%	Latino
Private Equity	Muller & Monroe ILPEFF Subadvisor Nogales Investors II	\$ 748,965	0.03%	0.00%	\$ 2,918	0.02%	0.00%	Latino
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	\$ 1,563,314	0.07%	0.00%	\$ 7,497	0.04%	0.01%	Latino
Private Equity	NMS II	\$ 5,000,000	0.23%	0.01%	\$ 51,050	0.30%	0.04%	Latino

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Pantheon Subadvisor NMS Fund II	\$ 2,250,000	0.10%	0.01%	\$ 11,627	0.07%	0.01%	Latino
Private Equity	Valor Equity Partners III	\$ 5,000,000	0.23%	0.01%	\$ 95,618	0.56%	0.08%	Latino
Private Equity	Abbott Capital		0.00%	0.00%	\$ 1,280,704	7.49%	1.04%	
Private Equity	Abbott Capital Subadvisor Non-minority	\$ 775,114,277	35.44%	2.02%	\$ 3,529,492	20.65%	2.86%	
Private Equity	ABRY ASF III	\$ 35,000,000	1.60%	0.09%	\$ 583,362	3.41%	0.47%	
Private Equity	ABRY Heritage Fund	\$ 7,500,000	0.34%	0.02%	\$ 60,734	0.36%	0.05%	
Private Equity	ABRY PARTNERS VIII, LP	\$ 25,000,000	1.14%	0.07%	\$ 346,963	2.03%	0.28%	
Private Equity	ABRY SE IV	\$ 20,000,000	0.91%	0.05%	\$ 139,617	0.82%	0.11%	
Private Equity	Beecken Petty IV	\$ 10,000,000	0.46%	0.03%	\$ 38,321	0.22%	0.03%	
Private Equity	EnCap IX	\$ 25,000,000	1.14%	0.07%	\$ 244,216	1.43%	0.20%	
Private Equity	EnCap X	\$ 25,000,000	1.14%	0.07%	\$ 375,000	2.19%	0.30%	
Private Equity	Inflexion Buyout Fund IV	\$ 37,020,000	1.69%	0.10%	\$ 630,476	3.69%	0.51%	
Private Equity	Inflexion Enterprise Fund IV	\$ 18,510,000	0.85%	0.05%	\$ 229,691	1.34%	0.19%	
Private Equity	Inflexion Partnership Capital I	\$ 24,680,000	1.13%	0.06%	\$ 528,912	3.09%	0.43%	
Private Equity	Inflexion Supplemental Fund IV	\$ 20,978,000	0.96%	0.05%	\$ 21,198	0.12%	0.02%	
Private Equity	Lightspeed IX	\$ 20,000,000	0.91%	0.05%	\$ 495,556	2.90%	0.40%	
Private Equity	Lightspeed Select	\$ 6,250,000	0.29%	0.02%	\$ 89,384	0.52%	0.07%	
Private Equity	Lightspeed Select II	\$ 8,000,000	0.37%	0.02%	\$ 7,500	0.04%	0.01%	
Private Equity	Lightspeed X	\$ 18,750,000	0.86%	0.05%	\$ 361,375	2.11%	0.29%	
Private Equity	Lightspeed XI	\$ 22,000,000	1.01%	0.06%	\$ 72,103	0.42%	0.06%	
Private Equity	Muller & Monroe ILPEFF Subadvisor DN Partners II	\$ 1,730,942	0.08%	0.00%	\$ 4,583	0.03%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor HKW Capital Partners III	\$ 1,730,942	0.08%	0.00%	\$ 1,225	0.01%	0.00%	
Private Equity	Muller & Monroe ILPEFF	\$ 865,471	0.04%	0.00%	\$ 5,201	0.03%	0.00%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Subadvisor Hopewell Ventures							
Private Equity	Muller & Monroe ILPEFF Subadvisor LaSalle Capital Group	\$ 1,298,207	0.06%	0.00%	\$ 3,705	0.02%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor Prism Investors II	\$ 865,471	0.04%	0.00%	\$ 319	0.00%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor Rock Island Capital Q Fund I	\$ 1,730,942	0.08%	0.00%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor Strength Capital Partners II	\$ 1,730,942	0.08%	0.00%	\$ 11,159	0.07%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Acon-Bastion Partners II	\$ 5,211,047	0.24%	0.01%	\$ 7,817	0.05%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Carpenter Community BancFund-A	\$ 1,856,436	0.08%	0.00%	\$ 16,109	0.09%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Clearview Capital II	\$ 3,126,628	0.14%	0.01%	\$ 5,092	0.03%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Craton Equity Investors I	\$ 2,605,524	0.12%	0.01%	\$ 16,832	0.10%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Encore Consumer Capital Fund	\$ 3,256,905	0.15%	0.01%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe M2PEFF	\$ 1,661,021	0.08%	0.00%	\$ 28,029	0.16%	0.02%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Subadvisor MK Capital II							
Private Equity	Pantheon		0.00%	0.00%	\$ 395,179	2.31%	0.32%	
Private Equity	Pantheon Subadvisor Non-Minority	\$ 451,616,141	20.65%	1.18%	\$ 2,195,590	12.84%	1.78%	
Private Equity	Versant Ventures V	\$ 15,000,000	0.69%	0.04%	\$ 300,000	1.75%	0.24%	
Private Equity	Versant Ventures VI	\$ 15,000,000	0.69%	0.04%	\$ -	0.00%	0.00%	
Total Private Equity (committed amounts)		\$ 2,187,196,172	100.00%	5.71%	\$ 17,094,299	100.00%	13.85%	
Real Estate	Artemis RE Partners Subadvisor Jair Lynch Development Partners	\$ 40,000,000	1.41%	0.10%	\$ -	0.00%	0.00%	African American
Real Estate	Franklin Templeton Subadvisor GreenOak U.S.	\$ 11,723,640	0.41%	0.03%	\$ 48,080	0.19%	0.04%	Asian
Real Estate	Franklin Templeton Subadvisor GreenOak U.S. Co- Investment	\$ 2,930,910	0.10%	0.01%	\$ 25,388	0.10%	0.02%	Asian
Real Estate	Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	\$ 7,424,972	0.26%	0.02%	\$ 119,508	0.46%	0.10%	Asian
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	\$ 14,849,944	0.52%	0.04%	\$ 225,346	0.87%	0.18%	Disabled
Real Estate	Artemis Real Estate Partners Healthcare Fund I	\$ 25,000,000	0.88%	0.07%	\$ 174,643	0.68%	0.14%	Female
Real Estate	Artemis Spruce MWBE	\$ 10,000,000	0.35%	0.03%	\$ -	0.00%	0.00%	Female
Real Estate	Artemis Spruce MWBE Subadvisor Artemis Healthcare Fund	\$ 25,000,000	0.88%	0.07%	\$ 174,643	0.68%	0.14%	Female
Real Estate	Franklin Templeton	\$ 11,723,640	0.41%	0.03%	\$ 72,326	0.28%	0.06%	Latino

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Subadvisor Hudson Realty Capital V, L.P.							
Real Estate	Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	\$ 13,677,580	0.48%	0.04%	\$ 270,816	1.05%	0.22%	Latino
Real Estate	LongWharf Real Estate Partners V	\$ 30,000,000	1.05%	0.08%	\$ 637,397	2.47%	0.52%	Latino
Real Estate	Oak Street Real Estate Capital III	\$ 25,000,000	0.88%	0.07%	\$ 415,204	1.61%	0.34%	Latino
Real Estate	AEW Core	\$ 195,000,000	6.85%	0.51%	\$ 1,832,370	7.11%	1.48%	
Real Estate	AEW Partners VIII	\$ 50,000,000	1.76%	0.13%	\$ -	0.00%	0.00%	
Real Estate	AEW Partners VII	\$ 25,000,000	0.88%	0.07%	\$ 250,000	0.97%	0.20%	
Real Estate	Almanac ARS V	\$ 50,000,000	1.76%	0.13%	\$ 200,410	0.78%	0.16%	
Real Estate	Almanac ARS VI	\$ 50,000,000	1.76%	0.13%	\$ 163,771	0.64%	0.13%	
Real Estate	Almanac ARS VII	\$ 35,000,000	1.23%	0.09%	\$ 437,500	1.70%	0.35%	
Real Estate	Ares Europe Fund IV	\$ 50,000,000	1.76%	0.13%	\$ 747,268	2.90%	0.61%	
Real Estate	Ares European Property II	\$ 105,170,000	3.69%	0.27%	\$ 1,259,181	4.89%	1.02%	
Real Estate	Blackstone BREP Asia	\$ 100,000,000	3.51%	0.26%	\$ 1,500,000	5.82%	1.21%	
Real Estate	Blackstone BREP VII	\$ 50,000,000	1.76%	0.13%	\$ 555,665	2.16%	0.45%	
Real Estate	Blackstone BREP VIII	\$ 100,000,000	3.51%	0.26%	\$ 1,500,000	5.82%	1.21%	
Real Estate	Blackstone Debt II	\$ 100,000,000	3.51%	0.26%	\$ 1,077,677	4.18%	0.87%	
Real Estate	Blackstone Debt III	\$ 100,000,000	3.51%	0.26%	\$ -	0.00%	0.00%	
Real Estate	CBRE Core	\$ 125,000,000	4.39%	0.33%	\$ 622,681	2.42%	0.50%	
Real Estate	CBRE Strategic Partners US Value 8	\$ 35,000,000	1.23%	0.09%	\$ -	0.00%	0.00%	
Real Estate	CBRE VI	\$ 30,000,000	1.05%	0.08%	\$ 184,753	0.72%	0.15%	
Real Estate	CBRE VII	\$ 35,000,000	1.23%	0.09%	\$ 235,338	0.91%	0.19%	
Real Estate	Cornerstone Fund VIII	\$ 50,000,000	1.76%	0.13%	\$ 237,207	0.92%	0.19%	
Real Estate	Cornerstone Patriot Fund	\$ 100,000,000	3.51%	0.26%	\$ 1,090,785	4.23%	0.88%	
Real Estate	Crow Holdings Realty Partners VII	\$ 75,000,000	2.63%	0.20%	\$ 1,125,000	4.36%	0.91%	
Real Estate	Dune II	\$ 50,000,000	1.76%	0.13%	\$ 422,863	1.64%	0.34%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Real Estate	Dune III	\$ 25,000,000	0.88%	0.07%	\$ 304,035	1.18%	0.25%	
Real Estate	Franklin Templeton EMREFF	\$ 2,899,614	0.10%	0.01%	\$ 228,555	0.89%	0.19%	
Real Estate	Franklin Templeton Subadvisor Argosy Real Estate Partners II, L.P.	\$ 9,769,700	0.34%	0.03%	\$ 27,765	0.11%	0.02%	
Real Estate	GTIS Brazil Real Estate Fund III	\$ 75,000,000	2.63%	0.20%	\$ 579,656	2.25%	0.47%	
Real Estate	Invesco	\$ 130,000,000	4.57%	0.34%	\$ 1,583,681	6.14%	1.28%	
Real Estate	LaSalle VI	\$ 20,000,000	0.70%	0.05%	\$ 214,877	0.83%	0.17%	
Real Estate	LaSalle VII	\$ 25,000,000	0.88%	0.07%	\$ 238,400	0.92%	0.19%	
Real Estate	Resolution Fund IV	\$ 61,700,000	2.17%	0.16%	\$ 806,507	3.13%	0.65%	
Real Estate	Rockwood Capital Fund VIII	\$ 50,000,000	1.76%	0.13%	\$ 284,488	1.10%	0.23%	
Real Estate	Rockwood IX	\$ 25,000,000	0.88%	0.07%	\$ 350,000	1.36%	0.28%	
Real Estate	Rockwood X	\$ 50,000,000	1.76%	0.13%	\$ 336,614	1.31%	0.27%	
Real Estate	Security Capital	\$ 75,000,000	2.63%	0.20%	\$ 425,845	1.65%	0.34%	
Real Estate	Starwood Global Opportunity Fund XI	\$ 75,000,000	2.63%	0.20%	\$ -	0.00%	0.00%	
Real Estate	Starwood IX	\$ 20,000,000	0.70%	0.05%	\$ 244,901	0.95%	0.20%	
Real Estate	Starwood X	\$ 50,000,000	1.76%	0.13%	\$ 625,000	2.42%	0.51%	
Real Estate	TA Realty Buckhead	\$ 225,000,000	7.90%	0.59%	\$ 1,518,173	5.89%	1.23%	
Real Estate	TA Realty Fund IX	\$ 50,000,000	1.76%	0.13%	\$ 368,315	1.43%	0.30%	
Real Estate	TA Realty Fund X	\$ 50,000,000	1.76%	0.13%	\$ 1,040,364	4.04%	0.84%	
Real Estate	Torchlight IV	\$ 65,000,000	2.28%	0.17%	\$ 572,266	2.22%	0.46%	
Real Estate	Torchlight V	\$ 35,000,000	1.23%	0.09%	\$ 420,000	1.63%	0.34%	
Total Real Estate (committed amounts)		\$ 2,846,870,000	100.00%	7.44%	\$ 25,775,263	100.00%	20.88%	
Timber	Forest	\$ 73,735,008	100.00%	0.19%	\$ 745,073	100.00%	0.60%	
Total Timber		\$ 73,735,008	100.00%	0.19%	\$ 745,073	100.00%	0.60%	
Private Equity and Real Estate data is based on committed amounts								
Total IMRF (includes committed amounts for Private Equity and Real Estate)		\$ 38,287,306,000			\$ 123,461,435			

5. For 2017, please complete the following table as of March 31, 2017. Please list [1] the **asset class**, [2] the money manager, [3] the amount of assets managed in that **asset class** (in column [1]), [4] the percentage of assets this represents in that **asset class** (in column [1]), and [5] the percentage of assets this represents in the overall Fund. Please also list [6] the amount of fees paid per **asset class** (in column [1]), [7] the percentage of fees paid to this manager [2] compared to fees paid by the Fund in this **asset class** (in column [1]), [8] the percentage of fees paid to this manager [2] compared to fees paid by the overall Fund, and [9] the classification (e.g. African American, Latino, Asian American, Female) of the manager [2]. Please be sure to sort the table by **Asset Class** [1] then Classification [9].

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Domestic Equity	Ariel	\$ 73,882,460	0.45%	0.19%	\$ 150,769	1.86%	0.52%	African American
Domestic Equity	Channing	\$ 214,449,547	1.30%	0.54%	\$ 268,735	3.31%	0.92%	African American
Domestic Equity	Holland	\$ 938,702,325	5.71%	2.35%	\$ 472,507	5.82%	1.62%	African American
Domestic Equity	Ativo	\$ 121,790,571	0.74%	0.31%	\$ 190,137	2.34%	0.65%	Latino
Domestic Equity	Wallstreet	\$ -	0.00%	0.00%	\$ 25,863	0.32%	0.09%	Latino
Domestic Equity	BMO	\$ 1,363,493,686	8.29%	3.42%	\$ 741,532	9.13%	2.54%	
Domestic Equity	DFA Micro Cap	\$ 375,328,023	2.28%	0.94%	\$ 469,160	5.77%	1.61%	
Domestic Equity	DFA Small Cap	\$ 842,764,551	5.13%	2.11%	\$ 1,053,456	12.97%	3.61%	
Domestic Equity	Dodge & Cox	\$ 1,349,317,547	8.21%	3.38%	\$ 701,025	8.63%	2.40%	
Domestic Equity	Frontier	\$ 386,831,552	2.35%	0.97%	\$ 478,026	5.88%	1.64%	
Domestic Equity	Inv Couns of Maryland	\$ 711,631,885	4.33%	1.79%	\$ 680,680	8.38%	2.33%	
Domestic Equity	LSV	\$ 1,385,126,823	8.42%	3.47%	\$ 811,710	9.99%	2.78%	
Domestic Equity	NTI Growth	\$ 1,653,028,686	10.05%	4.15%	\$ 27,852	0.34%	0.10%	
Domestic Equity	NTI MarketCap	\$ 3,115,555,096	18.95%	7.82%	\$ 55,213	0.68%	0.19%	
Domestic Equity	NTI Value	\$ 1,582,751,181	9.63%	3.97%	\$ 27,293	0.34%	0.09%	
Domestic Equity	Pyramis Small Co	\$ 1,035,787,334	6.30%	2.60%	\$ 1,246,006	15.34%	4.27%	
Domestic Equity	Sands	\$ 1,290,403,466	7.85%	3.24%	\$ 724,313	8.92%	2.48%	
Total Domestic Equity		\$ 16,440,844,735	100%	41.24%	\$ 8,124,276	100%	27.85%	
Fixed Income	Earnest Partners	\$ 548,818,595	5.33%	1.38%	\$ 226,116	6.25%	0.78%	African American
Fixed Income	Piedmont	\$ 549,880,773	5.34%	1.38%	\$ 225,053	6.22%	0.77%	African American
Fixed Income	Progress	\$ -	0.00%	0.00%	\$ 249,495	6.89%	0.86%	African American
Fixed Income	Progress Subadvisor	\$ 46,540,332	0.45%	0.12%	\$ 31,692	0.88%	0.11%	African American

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Advent Capital							
Fixed Income	Progress Subadvisor Pugh Capital Management	\$ 143,844,263	1.40%	0.36%	\$ 71,806	1.98%	0.25%	African American
Fixed Income	Progress Subadvisor Concerto Asset Management	\$ 105	0.00%	0.00%	\$ 10,871	0.30%	0.04%	Female
Fixed Income	Progress Subadvisor Longfellow Investment Management	\$ 149,183,503	1.45%	0.37%	\$ 75,346	2.08%	0.26%	Female
Fixed Income	Progress Subadvisor New Century Advisors	\$ 162,922,696	1.58%	0.41%	\$ 73,405	2.03%	0.25%	Female
Fixed Income	Garcia Hamilton	\$ 521,059,137	5.06%	1.31%	\$ 145,239	4.01%	0.50%	Latino
Fixed Income	LM Capital	\$ 859,209,254	8.34%	2.16%	\$ 343,946	9.50%	1.18%	Latino
Fixed Income	Progress Subadvisor Garcia Hamilton & Associates	\$ 127,725,748	1.24%	0.32%	\$ 63,724	1.76%	0.22%	Latino
Fixed Income	Progress Subadvisor GIA Partners	\$ 137,232,376	1.33%	0.34%	\$ 85,473	2.36%	0.29%	Latino
Fixed Income	Progress Subadvisor Ramirez Asset Management	\$ 94,962,677	0.92%	0.24%	\$ 45,844	1.27%	0.16%	Latino
Fixed Income	Babson	\$ 308,305,862	2.99%	0.77%	\$ 296,563	8.19%	1.02%	
Fixed Income	BlackRock Core Plus	\$ 744,774,345	7.23%	1.87%	\$ 91,838	2.54%	0.31%	
Fixed Income	BlackRock US Debt Index	\$ 1,405,411,216	13.64%	3.53%	\$ 17,533	0.48%	0.06%	
Fixed Income	Brandes Core Plus	\$ 245,172,466	2.38%	0.62%	\$ -	0.00%	0.00%	
Fixed Income	Crescent	\$ 118,443,419	1.15%	0.30%	\$ 203,625	5.63%	0.70%	
Fixed Income	MacKay Shields	\$ 624,617,347	6.06%	1.57%	\$ 547,724	15.13%	1.88%	
Fixed Income	NTI Barclays Aggregate	\$ 1,521,620,770	14.76%	3.82%	\$ 28,291	0.78%	0.10%	
Fixed Income	Pyramis High Yield (terminated on 3/28/14)	\$ 860,300	0.01%	0.00%	\$ 1,695	0.05%	0.01%	
Fixed Income	Standish	\$ 194,830,239	1.89%	0.49%	\$ 167,624	4.63%	0.57%	
Fixed Income	Taplin Canida	\$ 871,976,328	8.46%	2.19%	\$ 285,229	7.88%	0.98%	
Fixed Income	Western	\$ 928,814,873	9.01%	2.33%	\$ 331,603	9.16%	1.14%	
Total Fixed Income		\$ 10,306,206,625	100%	25.85%	\$ 3,619,736	100%	12.41%	
International Equity	Brown Capital	\$ 296,096,032	4.04%	0.74%	\$ 180,310	3.34%	0.62%	African American
International Equity	Earnest Partners	\$ 558,786,462	7.63%	1.40%	\$ 274,008	5.08%	0.94%	African American

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
International Equity	Progress Int Subadvisor Brown Capital Management	\$ 48,607,941	0.66%	0.12%	\$ 41,355	0.77%	0.14%	African American
International Equity	Progress International	\$ -	0.00%	0.00%	\$ 84,123	1.56%	0.29%	African American
International Equity	Progress Int Subadvisor Arga Investment Management	\$ 46,387,953	0.63%	0.12%	\$ 21,329	0.40%	0.07%	Asian
International Equity	GlobeFlex	\$ 574,933,500	7.85%	1.44%	\$ 530,033	9.83%	1.82%	Female
International Equity	Progress Int Subadvisor Metis Global Partners	\$ 35,587,051	0.49%	0.09%	\$ 26,562	0.49%	0.09%	Female
International Equity	Progress Int Subadvisor Strategic Global Advisors	\$ 67,441,832	0.92%	0.17%	\$ 62,559	1.16%	0.21%	Female
International Equity	Progress Int Subadvisor Ativo Capital Management	\$ 33,865,228	0.46%	0.08%	\$ 35,844	0.66%	0.12%	Latino
International Equity	Progress Int Subadvisor Glovista Investments	\$ 25,654,146	0.35%	0.06%	\$ 45,389	0.84%	0.16%	Latino
International Equity	Arrowstreet	\$ 591,598,653	8.07%	1.48%	\$ 686,269	12.72%	2.35%	
International Equity	Brandes	\$ 552,518,517	7.54%	1.39%	\$ 290,264	5.38%	1.00%	
International Equity	Genesis	\$ 667,609,755	9.11%	1.67%	\$ 973,818	18.05%	3.34%	
International Equity	Lazard	\$ 98,039,865	1.34%	0.25%	\$ 59,856	1.11%	0.21%	
International Equity	Mondrian	\$ 525,352,585	7.17%	1.32%	\$ 648,735	12.03%	2.22%	
International Equity	NTI EAFE Index	\$ 2,129,214,814	29.06%	5.34%	\$ 37,177	0.69%	0.13%	
International Equity	Templeton	\$ 205,929,571	2.81%	0.52%	\$ 367,687	6.82%	1.26%	
International Equity	William Blair	\$ 626,295,151	8.55%	1.57%	\$ 564,615	10.47%	1.94%	
International Equity	William Blair Small Cap	\$ 243,357,537	3.32%	0.61%	\$ 463,778	8.60%	1.59%	
Total International Equity		\$ 7,327,276,591	100%	18.38%	\$ 5,393,710	100%	18.49%	
Cash	Cash	\$ 162,022,522	100.00%	0.41%	\$ -	0.00%	0.00%	
Total Cash		\$ 162,022,522	100.00%	0.41%	\$ -	\$ -	0.00%	
Hedge Fund	Aurora Subadvisor Sentinel Dome	\$ 4,501,603	13.38%	0.01%	\$ 11,075	8.82%	0.17%	Asian
Hedge Fund	Aurora Subadvisor Roystone Capital	\$ 2,927,600	8.70%	0.01%	\$ 11,473	9.14%	0.04%	Latino

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Hedge Fund	Aurora (terminated 2/25/2016)	\$ -	0.00%	0.00%	\$ -	0.00%	0.00%	
Hedge Fund	Aurora Subadvisor Non-Minority	\$ 26,204,992	77.91%	0.07%	\$ 102,953	82.03%	0.35%	
Total Hedge Fund		\$ 33,634,195	100.00%	0.08%	\$ 125,501	100.00%	0.57%	
Agriculture	Hancock /Premier Partners IV	\$ 183,163,900	100.00%	0.46%	\$ 284,949	100.00%	0.98%	
Total Agriculture		\$ 183,163,900	100.00%	0.46%	\$ 284,949	100.00%	0.98%	
Private Equity	Abbott Capital Subadvisor ICV III	\$ 4,512,858	0.20%	0.01%	\$ -	0.00%	0.00%	African American
Private Equity	ICV III	\$ 20,000,000	0.89%	0.05%	\$ -	0.00%	0.00%	African American
Private Equity	Muller & Monroe M2PEFF	\$ 2,494,789	0.11%	0.01%	\$ 25,000	0.52%	0.09%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	\$ 1,661,021	0.07%	0.00%	\$ 5,071	0.10%	0.02%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	\$ 1,563,314	0.07%	0.00%	\$ -	0.00%	0.00%	African American
Private Equity	Pantheon Subadvisor ICV III	\$ 5,026,875	0.22%	0.01%	\$ -	0.00%	0.00%	African American
Private Equity	Pantheon Subadvisor Vistria Fund	\$ 3,079,594	0.14%	0.01%	\$ 10,095	0.21%	0.03%	African American
Private Equity	Vista Credit Opp Fund I	\$ 50,000,000	2.24%	0.13%	\$ 453,961	9.38%	1.56%	African American
Private Equity	Vista Credit Opportunities Fund II	\$ 50,000,000	2.24%	0.13%	\$ 116,877	2.41%	0.40%	African American
Private Equity	Vista Equity Partners V	\$ 100,000,000	4.47%	0.25%	\$ 329,630	6.81%	1.13%	African American
Private Equity	Vista Equity Partners VI	\$ 100,000,000	4.47%	0.25%	\$ 194,008	4.01%	0.67%	African American
Private Equity	Vista Foundation Fund II	\$ 15,000,000	0.67%	0.04%	\$ 75,000	1.55%	0.26%	African American
Private Equity	Vista Foundation Fund III	\$ 25,000,000	1.12%	0.06%	\$ 113,458	2.34%	0.39%	African American
Private Equity	Vistria	\$ 15,000,000	0.67%	0.04%	\$ 75,000	1.55%	0.26%	African American
Private Equity	Vistria Fund II	\$ 75,000,000	3.35%	0.19%	\$ -	0.00%	0.00%	African American
Private Equity	Abbott Capital Subadvisor	\$ 4,000,000	0.18%	0.01%	\$ 24,032	0.50%	0.08%	Asian

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Storm Ventures V							
Private Equity	Abbott Capital Subadvisor Vivo Capital Fund VIII	\$ 3,500,000	0.16%	0.01%	\$ 16,515	0.34%	0.06%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Ventures VII	\$ 6,004,410	0.27%	0.02%	\$ 27,562	0.57%	0.09%	Asian
Private Equity	Mayfield XIV	\$ 5,000,000	0.22%	0.01%	\$ 34,530	0.71%	0.12%	Asian
Private Equity	Mayfield Select	\$ 10,000,000	0.45%	0.03%	\$ -	0.00%	0.00%	Asian
Private Equity	Mayfield XV	\$ 10,000,000	0.45%	0.03%	\$ 11,740	0.24%	0.04%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed	\$ 220,000	0.01%	0.00%	\$ 597	0.01%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed B	\$ 1,080,000	0.05%	0.00%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed C	\$ 2,250,000	0.10%	0.01%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures III	\$ 680,194	0.03%	0.00%	\$ 1,089	0.02%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures IV	\$ 1,120,000	0.05%	0.00%	\$ 2,372	0.05%	0.01%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures V	\$ 2,250,000	0.10%	0.01%	\$ 1,572	0.03%	0.01%	Asian
Private Equity	Abbott Capital Subadvisor 1315 Healthcare Fund	\$ 3,535,056	0.16%	0.01%	\$ 17,588	0.36%	0.06%	Female
Private Equity	Abbott Capital Subadvisor Canvas Ventures 2	\$ 3,500,000	0.16%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Abbott Capital Subadvisor Oak HC/FT Partners	\$ 4,500,000	0.20%	0.01%	\$ 23,994	0.50%	0.08%	Female
Private Equity	Abbott Capital Subadvisor Oak HC/FT Partners II	\$ 4,250,000	0.19%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Pantheon Subadvisor Oak HC	\$ 2,250,000	0.10%	0.01%	\$ 8,119	0.17%	0.03%	Female
Private Equity	Pantheon Subadvisor Oak HC II	\$ 3,000,000	0.13%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Abbott Capital Subadvisor Clearlake Capital Partners III	\$ 7,500,597	0.34%	0.02%	\$ 10,525	0.22%	0.04%	Latino

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Abbott Capital Subadvisor NMS Fund II	\$ 4,518,171	0.20%	0.01%	\$ 14,078	0.29%	0.05%	Latino
Private Equity	AUA Private Equity Fund, LP	\$ 5,000,000	0.22%	0.01%	\$ 40,699	0.84%	0.14%	Latino
Private Equity	Estancia	\$ 5,000,000	0.22%	0.01%	\$ 14,348	0.30%	0.05%	Latino
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	\$ 1,563,314	0.07%	0.00%	\$ 2,846	0.06%	0.01%	Latino
Private Equity	NMS II	\$ 5,000,000	0.22%	0.01%	\$ -	0.00%	0.00%	Latino
Private Equity	Pantheon Subadvisor NMS Fund II	\$ 2,250,000	0.10%	0.01%	\$ 4,815	0.10%	0.02%	Latino
Private Equity	Valor Equity Partners III	\$ 5,000,000	0.22%	0.01%	\$ 23,914	0.49%	0.08%	Latino
Private Equity	Abbott Capital		0.00%	0.00%	\$ 321,656	6.65%	1.10%	
Private Equity	Abbott Capital Subadvisor Non-minority	\$ 774,121,467	34.61%	1.94%	\$ 941,921	19.46%	3.23%	
Private Equity	ABRY ASF III	\$ 35,000,000	1.56%	0.09%	\$ 62,914	1.30%	0.22%	
Private Equity	ABRY Heritage Fund	\$ 7,500,000	0.34%	0.02%	\$ 29,195	0.60%	0.10%	
Private Equity	ABRY PARTNERS VIII, LP	\$ 25,000,000	1.12%	0.06%	\$ 73,975	1.53%	0.25%	
Private Equity	ABRY SE IV	\$ 20,000,000	0.89%	0.05%	\$ 2,308	0.05%	0.01%	
Private Equity	ABRY Senior Equity Fund V	\$ 23,000,000	1.03%	0.06%	\$ 46,419	0.96%	0.16%	
Private Equity	Beecken Petty IV	\$ 10,000,000	0.45%	0.03%	\$ 48,500	1.00%	0.17%	
Private Equity	Encap Capital Partners XI	\$ 35,000,000	1.56%	0.09%	\$ -	0.00%	0.00%	
Private Equity	EnCap IX	\$ 25,000,000	1.12%	0.06%	\$ 69,894	1.44%	0.24%	
Private Equity	EnCap X	\$ 25,000,000	1.12%	0.06%	\$ 93,750	1.94%	0.32%	
Private Equity	Inflexion Buyout Fund IV	\$ 37,650,000	1.68%	0.09%	\$ 141,166	2.92%	0.48%	
Private Equity	Inflexion Enterprise Fund IV	\$ 18,825,000	0.84%	0.05%	\$ 92,836	1.92%	0.32%	
Private Equity	Inflexion Partnership Capital I	\$ 25,100,000	1.12%	0.06%	\$ 118,439	2.45%	0.41%	
Private Equity	Inflexion Supplemental Fund IV	\$ 21,335,000	0.95%	0.05%	\$ 11,173	0.23%	0.04%	
Private Equity	Lightspeed IX	\$ 20,000,000	0.89%	0.05%	\$ 123,889	2.56%	0.42%	
Private Equity	Lightspeed Select	\$ 6,250,000	0.28%	0.02%	\$ 31,250	0.65%	0.11%	
Private Equity	Lightspeed Select II	\$ 8,000,000	0.36%	0.02%	\$ 8,750	0.18%	0.03%	
Private Equity	Lightspeed X	\$ 18,750,000	0.84%	0.05%	\$ 114,094	2.36%	0.39%	
Private Equity	Lightspeed XI	\$ 22,000,000	0.98%	0.06%	\$ 109,102	2.25%	0.37%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Muller & Monroe M2PEFF Subadvisor Acon-Bastion Partners II	\$ 5,211,047	0.23%	0.01%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Carpenter Community BancFund-A	\$ 1,856,436	0.08%	0.00%	\$ 3,996	0.08%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Clearview Capital II	\$ 3,126,628	0.14%	0.01%	\$ 1,096	0.02%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Craton Equity Investors I	\$ 2,605,524	0.12%	0.01%	\$ 3,704	0.08%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Encore Consumer Capital Fund	\$ 3,256,905	0.15%	0.01%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor MK Capital II	\$ 1,661,021	0.07%	0.00%	\$ 9,343	0.19%	0.03%	
Private Equity	Pantheon		0.00%	0.00%	\$ 105,565	2.18%	0.36%	
Private Equity	Pantheon Subadvisor Non-Minority	\$ 459,930,910	20.56%	1.15%	\$ 492,046	10.17%	1.69%	
Private Equity	Versant Ventures V	\$ 15,000,000	0.67%	0.04%	\$ 75,000	1.55%	0.26%	
Private Equity	Versant Ventures VI	\$ 15,000,000	0.67%	0.04%	\$ 29,063	0.60%	0.10%	
Total Private Equity (committed amounts)		\$ 2,236,490,131	100.00%	5.61%	\$ 4,840,078	100.00%	16.59%	
Real Estate	Franklin Templeton Subadvisor GreenOak U.S.	\$ 11,723,640	0.38%	0.03%	\$ 5,708	0.09%	0.02%	Asian
Real Estate	Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	\$ 2,930,910	0.09%	0.01%	\$ -	0.00%	0.00%	Asian
Real Estate	Franklin Templeton Subadvisor	\$ 7,424,972	0.24%	0.02%	\$ 59,915	0.91%	0.21%	Asian

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Noble Hospitality Fund II, L.P.							
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	\$ 14,849,944	0.48%	0.04%	\$ 81,566	1.24%	0.28%	Disabled
Real Estate	Artemis Real Estate Partners Healthcare Fund I	\$ 25,000,000	0.81%	0.06%	\$ 65,599	0.99%	0.22%	Female
Real Estate	Artemis RE Partners Subadvisor CRES Management	\$ 25,000,000	0.81%	0.06%	\$ 18,574	0.28%	0.06%	Female
Real Estate	Artemis RE Partners Subadvisor Jair Lynch Development Partners	\$ 40,000,000	1.29%	0.10%	\$ -	0.00%	0.00%	African American
Real Estate	Artemis Spruce MWBE	\$ 60,000,000	1.93%	0.15%	\$ 70,338	1.07%	0.24%	Female
Real Estate	Artemis Spruce MWBE Subadvisor Artemis Healthcare Fund	\$ 25,000,000	0.81%	0.06%	\$ 65,599	0.99%	0.22%	Female
Real Estate	Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	\$ 11,723,640	0.38%	0.03%	\$ 9,013	0.14%	0.03%	Latino
Real Estate	Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	\$ 13,677,580	0.44%	0.03%	\$ 99,370	1.51%	0.34%	Latino
Real Estate	LongWharf Real Estate Partners V	\$ 30,000,000	0.97%	0.08%	\$ 110,959	1.68%	0.38%	Latino
Real Estate	Oak Street Real Estate Capital III	\$ 25,000,000	0.81%	0.06%	\$ 85,809	1.30%	0.29%	Latino
Real Estate	Oak Street Real Estate Capital IV	\$ 75,000,000	2.42%	0.19%	\$ -	0.00%	0.00%	Latino
Real Estate	AEW Core	\$ 195,000,000	6.29%	0.49%	\$ 447,704	6.79%	1.53%	
Real Estate	AEW Partners VIII	\$ 50,000,000	1.61%	0.13%	\$ -	0.00%	0.00%	
Real Estate	AEW Partners VII	\$ 25,000,000	0.81%	0.06%	\$ 62,500	0.95%	0.21%	
Real Estate	Almanac ARS V	\$ 50,000,000	1.61%	0.13%	\$ 34,425	0.52%	0.12%	
Real Estate	Almanac ARS VI	\$ 50,000,000	1.61%	0.13%	\$ 36,455	0.55%	0.12%	
Real Estate	Almanac ARS VII	\$ 35,000,000	1.13%	0.09%	\$ 107,877	1.64%	0.37%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Real Estate	Ares Europe Fund IV	\$ 50,000,000	1.61%	0.13%	\$ 184,932	2.80%	0.63%	
Real Estate	Ares European Property II	\$ 106,520,000	3.44%	0.27%	\$ 259,906	3.94%	0.89%	
Real Estate	Barings European Core Fund	\$ 26,630,000	0.86%	0.07%	\$ 27,986	0.42%	0.10%	
Real Estate	Blackstone BREP Asia	\$ 100,000,000	3.22%	0.25%	\$ 375,000	5.69%	1.29%	
Real Estate	Blackstone BREP VII	\$ 50,000,000	1.61%	0.13%	\$ 129,250	1.96%	0.44%	
Real Estate	Blackstone BREP VIII	\$ 100,000,000	3.22%	0.25%	\$ 375,000	5.69%	1.29%	
Real Estate	Blackstone Debt II	\$ 100,000,000	3.22%	0.25%	\$ 203,566	3.09%	0.70%	
Real Estate	Blackstone Debt III	\$ 100,000,000	3.22%	0.25%	\$ 41,781	0.63%	0.14%	
Real Estate	CBRE Core	\$ 125,000,000	4.03%	0.31%	\$ 161,151	2.44%	0.55%	
Real Estate	CBRE Strategic Partners US Value VIII	\$ 35,000,000	1.13%	0.09%	\$ 7,102	0.11%	0.02%	
Real Estate	CBRE VI	\$ 30,000,000	0.97%	0.08%	\$ 22,067	0.33%	0.08%	
Real Estate	CBRE VII	\$ 35,000,000	1.13%	0.09%	\$ 58,834	0.89%	0.20%	
Real Estate	Cornerstone Fund VIII	\$ 50,000,000	1.61%	0.13%	\$ 33,682	0.51%	0.12%	
Real Estate	Cornerstone Patriot Fund	\$ 100,000,000	3.22%	0.25%	\$ 279,097	4.23%	0.96%	
Real Estate	Crow Holdings Realty Partners VIII	\$ 75,000,000	2.42%	0.19%	\$ -	0.00%	0.00%	
Real Estate	Crow Holdings Realty Partners VII	\$ 75,000,000	2.42%	0.19%	\$ 281,250	4.26%	0.96%	
Real Estate	Dune II	\$ 50,000,000	1.61%	0.13%	\$ 95,942	1.45%	0.33%	
Real Estate	Dune III	\$ 25,000,000	0.81%	0.06%	\$ 60,276	0.91%	0.21%	
Real Estate	Franklin Templeton EMREFF	\$ 2,899,614	0.09%	0.01%	\$ 46,098	0.70%	0.16%	
Real Estate	Franklin Templeton Subadvisor Argosy Real Estate Partners II, L.P.	\$ 9,769,700	0.32%	0.02%	\$ 27,240	0.41%	0.09%	
Real Estate	GTIS Brazil Real Estate Fund III	\$ 75,000,000	2.42%	0.19%	\$ 286,644	4.35%	0.98%	
Real Estate	Invesco	\$ 130,000,000	4.19%	0.33%	\$ 389,744	5.91%	1.34%	
Real Estate	LaSalle VI	\$ 20,000,000	0.64%	0.05%	\$ 34,153	0.52%	0.12%	
Real Estate	LaSalle VII	\$ 25,000,000	0.81%	0.06%	\$ 97,170	1.47%	0.33%	
Real Estate	Resolution Fund IV	\$ 62,750,000	2.02%	0.16%	\$ 197,755	3.00%	0.68%	
Real Estate	Rockwood Capital Fund VIII	\$ 50,000,000	1.61%	0.13%	\$ 39,374	0.60%	0.13%	
Real Estate	Rockwood IX	\$ 25,000,000	0.81%	0.06%	\$ 87,500	1.33%	0.30%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Real Estate	Rockwood X	\$ 50,000,000	1.61%	0.13%	\$ 102,923	1.56%	0.35%	
Real Estate	Security Capital	\$ 75,000,000	2.42%	0.19%	\$ 117,277	1.78%	0.40%	
Real Estate	Starwood Global Opportunity Fund XI	\$ 75,000,000	2.42%	0.19%	\$ -	0.00%	0.00%	
Real Estate	Starwood IX	\$ 20,000,000	0.64%	0.05%	\$ 50,552	0.77%	0.17%	
Real Estate	Starwood X	\$ 50,000,000	1.61%	0.13%	\$ 154,110	2.34%	0.53%	
Real Estate	TA Realty Buckhead	\$ 225,000,000	7.26%	0.56%	\$ 425,013	6.44%	1.46%	
Real Estate	TA Realty Fund IX	\$ 50,000,000	1.61%	0.13%	\$ 78,024	1.18%	0.27%	
Real Estate	TA Realty Fund X	\$ 50,000,000	1.61%	0.13%	\$ 244,367	3.70%	0.84%	
Real Estate	Torchlight IV	\$ 65,000,000	2.10%	0.16%	\$ 154,553	2.34%	0.53%	
Real Estate	Torchlight V	\$ 35,000,000	1.13%	0.09%	\$ 105,000	1.59%	0.36%	
Total Real Estate (committed amounts)		\$ 3,100,900,000	100.00%	7.78%	\$ 6,595,731	100.00%	22.61%	
Timber	Forest	\$ 74,896,443	100.00%	0.19%	\$ 182,499	100.00%	0.63%	
Total Timber		\$ 74,896,443	100.00%	0.19%	\$ 182,499	100.00%	0.63%	
Private Equity and Real Estate data is based on committed amounts								
Total IMRF (includes committed amounts for Private Equity and Real Estate)		\$ 39,865,435,143			\$ 29,166,479			

6. Please complete the following table in the same manner as Question IX.2, for 2016, but exclusive of the manager of managers program. If your fund does not use a manager of managers program you may leave this table blank.

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
		[3]	[4]	[5]	[6]	[7]	[8]	
[1]	[2]	\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	[9]
Domestic Equity	Ariel	\$ 71,801,783	0.46%	0.19%	\$ 549,840	1.63%	0.46%	African American
Domestic Equity	Channing	\$ 213,876,368	1.36%	0.58%	\$ 895,528	2.65%	0.75%	African American
Domestic Equity	Holland	\$ 862,687,327	5.48%	2.32%	\$ 1,735,250	5.14%	1.45%	African American
Domestic Equity	Vision (terminated 5/27/2016)	\$ -	0.00%	0.00%	\$ 190,611	0.56%	0.16%	Female
Domestic Equity	Ativo	\$ 120,457,646	0.76%	0.32%	\$ 564,879	1.67%	0.47%	Latino
Domestic Equity	Lombardia Small Cap (terminated 5/27/2016)	\$ -	0.00%	0.00%	\$ 399,065	1.18%	0.33%	Latino
Domestic Equity	Wall Street	\$ 84,888,514	0.54%	0.23%	\$ 1,361,065	4.03%	1.14%	Latino
Domestic Equity	BMO	\$ 1,312,137,784	8.33%	3.53%	\$ 2,660,541	7.87%	2.23%	
Domestic Equity	DFA Micro Cap	\$ 377,018,942	2.39%	1.02%	\$ 1,640,163	4.85%	1.37%	
Domestic Equity	DFA Small Cap	\$ 855,573,915	5.43%	2.30%	\$ 3,701,671	10.96%	3.10%	
Domestic Equity	Dodge & Cox	\$ 1,289,023,624	8.19%	3.47%	\$ 2,387,754	7.07%	2.00%	
Domestic Equity	Frontier	\$ 367,912,663	2.34%	0.99%	\$ 2,594,186	7.68%	2.17%	
Domestic Equity	Inv Couns of Maryland	\$ 706,263,796	4.48%	1.90%	\$ 3,569,447	10.56%	2.99%	
Domestic Equity	LSV	\$ 1,351,048,298	8.58%	3.64%	\$ 2,947,370	8.72%	2.47%	
Domestic Equity	NTI Growth	\$ 1,523,642,380	9.68%	4.10%	\$ 106,725	0.32%	0.09%	
Domestic Equity	NTI MarketCap	\$ 2,944,696,020	18.70%	7.93%	\$ 202,099	0.60%	0.17%	
Domestic Equity	NTI Value	\$ 1,531,347,006	9.72%	4.12%	\$ 71,471	0.21%	0.06%	
Domestic Equity	Pyramis Small Co	\$ 1,003,343,797	6.37%	2.70%	\$ 5,567,943	16.48%	4.67%	
Domestic Equity	Sands	\$ 1,131,963,980	7.19%	3.05%	\$ 2,643,120	7.82%	2.22%	
Total Domestic Equity		\$ 15,747,683,842	100%	42.42%	\$ 33,788,728	100%	28.32%	
Fixed Income	Earnest Partners	\$ 550,077,444	5.86%	1.48%	\$ 1,046,836	8.66%	0.88%	African American
Fixed Income	Piedmont	\$ 548,195,937	5.84%	1.48%	\$ 909,982	7.53%	0.76%	African American
Fixed Income	Garcia Hamilton	\$ 521,496,091	5.56%	1.40%	\$ 500,213	4.14%	0.42%	Latino
Fixed Income	LM Capital	\$ 857,307,500	9.13%	2.31%	\$ 1,400,197	11.58%	1.17%	Latino
Fixed Income	Babson	\$ 307,903,524	3.28%	0.83%	\$ 1,160,474	9.60%	0.97%	
Fixed Income	BlackRock Core Plus	\$ 743,635,080	7.92%	2.00%	\$ 841,554	6.96%	0.71%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Fixed Income	BlackRock US Debt Index	\$ 1,393,601,514	14.85%	3.75%	\$ 70,498	0.58%	0.06%	
Fixed Income	Brandes Core Plus	\$ 245,224,136	2.61%	0.66%	\$ -	0.00%	0.00%	
Fixed Income	Crescent	\$ 115,833,909	1.23%	0.31%	\$ 796,639	6.59%	0.67%	
Fixed Income	MacKay Shields	\$ 619,710,161	6.60%	1.67%	\$ 2,080,528	17.21%	1.74%	
Fixed Income	NTI Barclays Aggregate	\$ 1,508,847,244	16.08%	4.06%	\$ 114,206	0.94%	0.10%	
Fixed Income	Pyramis High Yield (terminated on 3/28/14)	\$ 1,021,286	0.01%	0.00%	\$ 28,841	0.24%	0.02%	
Fixed Income	Standish	\$ 184,275,519	1.96%	0.50%	\$ 632,345	5.23%	0.53%	
Fixed Income	Taplin Canada	\$ 868,450,261	9.25%	2.34%	\$ 1,136,182	9.40%	0.95%	
Fixed Income	Western	\$ 920,537,911	9.81%	2.48%	\$ 1,372,829	11.35%	1.15%	
Total Fixed Income		\$ 9,386,117,515	100%	25.28%	\$ 12,091,324	100%	10.14%	
International Equity	Brown Capital	\$ 275,571,176	4.21%	0.74%	\$ 3,469,129	15.22%	2.91%	African American
International Equity	Earnest Partners	\$ 515,825,904	7.88%	1.39%	\$ 1,049,880	4.61%	0.88%	African American
International Equity	GlobeFlex	\$ 520,157,999	7.94%	1.40%	\$ 2,029,896	8.90%	1.70%	Female
International Equity	Lombardia International (terminated 5/27/2016)	\$ -	0.00%	0.00%	\$ 69,409	0.30%	0.06%	Latino
International Equity	Arrowstreet	\$ 543,387,161	8.30%	1.46%	\$ 2,456,239	10.77%	2.06%	
International Equity	Brandes	\$ 525,357,853	8.02%	1.42%	\$ 1,580,105	6.93%	1.32%	
International Equity	Genesis	\$ 608,682,465	9.30%	1.64%	\$ 3,614,484	15.85%	3.03%	
International Equity	Lazard	\$ 92,076,238	1.41%	0.25%	\$ 622,394	2.73%	0.52%	
International Equity	Mondrian	\$ 487,782,548	7.45%	1.31%	\$ 2,441,737	10.71%	2.05%	
International Equity	NTI EAFE Index	\$ 1,982,765,302	30.28%	5.34%	\$ 153,804	0.67%	0.13%	
International Equity	Templeton	\$ 187,097,180	2.86%	0.50%	\$ 1,375,361	6.03%	1.15%	
International Equity	William Blair	\$ 584,442,811	8.92%	1.57%	\$ 2,150,808	9.43%	1.80%	
International Equity	William Blair Small Cap	\$ 225,300,435	3.44%	0.61%	\$ 1,784,375	7.83%	1.50%	
Total International Equity		\$ 6,548,447,072	100.00%	17.64%	\$ 22,797,621	100.00%	19.11%	
Cash	Cash	\$ 139,182,841	100.00%	0.37%	\$ -	0.00%	0.00%	
Total Cash		\$ 139,182,841	100.00%	0.37%	\$ -	\$ -	0.00%	
Hedge Fund	Aurora Subadvisor	\$ -	0.00%	0.00%	\$ 73,988	1.21%	0.06%	African American

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Elizabeth Park							
Hedge Fund	Aurora Subadvisor Sentinel Dome	\$ 5,823,550	6.91%	0.02%	\$ 206,233	3.37%	0.17%	Asian
Hedge Fund	Aurora Subadvisor Adi Capital	\$ -	0.00%	0.00%	\$ 77,161	1.26%	0.06%	Asian
Hedge Fund	Aurora Subadvisor Columbus Hill Partners, L.P.	\$ -	0.00%	0.00%	\$ 59,234	0.97%	0.05%	Asian
Hedge Fund	Aurora Subadvisor GuardCap Macro	\$ -	0.00%	0.00%	\$ 66,317	1.08%	0.06%	Asian
Hedge Fund	Aurora Subadvisor Naya Funds	\$ -	0.00%	0.00%	\$ 10,910	0.18%	0.01%	Asian
Hedge Fund	Aurora Subadvisor Aperimus Partners, L.P.	\$ -	0.00%	0.00%	\$ 118,023	1.93%	0.10%	Female
Hedge Fund	Aurora Subadvisor Roystone Capital	\$ 5,244,658	6.22%	0.01%	\$ 146,907	2.40%	0.12%	Latino
Hedge Fund	Aurora Subadvisor Kabouter	\$ -	0.00%	0.00%	\$ 17,434	0.29%	0.01%	Latino
Hedge Fund	Aurora Subadvisor Miura Global Partners II, LP	\$ -	0.00%	0.00%	\$ 171,425	2.80%	0.14%	Latino
Hedge Fund	Aurora Subadvisor Non-Minority	\$ 73,217,514	86.87%	0.20%	\$ 3,986,338	65.18%	3.34%	
Hedge Fund	Aurora (terminated 2/25/2016)	\$ -	0.00%	0.00%	\$ 1,181,658	19.32%	0.99%	
Total Hedge Fund		\$ 84,285,722	100.00%	0.23%	\$ 6,115,628	100.00%	5.13%	
Agriculture	Hancock /Premier Partners IV	\$ 186,101,565	100.00%	0.50%	\$ 1,062,918	100.00%	0.89%	
Total Agriculture		\$ 186,101,565	100.00%	0.50%	\$ 1,062,918	100.00%	0.89%	
Private Equity	Abbott Capital Subadvisor ICV III	\$ 4,512,858	0.21%	0.01%	\$ 49,648	0.29%	0.04%	African American
Private Equity	ICV III	\$ 20,000,000	0.91%	0.05%	\$ 221,154	1.29%	0.19%	African American
Private Equity	Muller & Monroe ILPEFF	\$ 4,691,387	0.21%	0.01%	\$ 7,497	0.04%	0.01%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor Ascend Ventures II	\$ 1,384,754	0.06%	0.00%	\$ 9,488	0.06%	0.01%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor ICV	\$ 865,471	0.04%	0.00%	\$ -	0.00%	0.00%	African American

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Partners II							
Private Equity	Muller & Monroe ILPEFF Subadvisor RLJ Equity Partners	\$ 2,163,678	0.10%	0.01%	\$ 17,259	0.10%	0.01%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor Smith Whiley Pelham Fund II	\$ 1,730,942	0.08%	0.00%	\$ -	0.00%	0.00%	African American
Private Equity	Muller & Monroe ILPEFF Subadvisor Syncom Venture Partners V	\$ 1,730,942	0.08%	0.00%	\$ 13,089	0.08%	0.01%	African American
Private Equity	Muller & Monroe M2PEFF	\$ 2,494,789	0.11%	0.01%	\$ 92,799	0.54%	0.08%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor DBL Equity Fund - BAEF II	\$ 1,661,021	0.08%	0.00%	\$ 22,393	0.13%	0.02%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	\$ 1,563,314	0.07%	0.00%	\$ 5,726	0.03%	0.00%	African American
Private Equity	Pantheon Subadvisor ICV III	\$ 5,026,875	0.23%	0.01%	\$ 30,282	0.18%	0.03%	African American
Private Equity	Pantheon Subadvisor Vistria Fund	\$ 3,079,594	0.14%	0.01%	\$ 42,977	0.25%	0.04%	African American
Private Equity	Vista Credit Opp Fund I	\$ 50,000,000	2.29%	0.13%	\$ 929,493	5.44%	0.78%	African American
Private Equity	Vista Credit Opportunities Fund II	\$ 50,000,000	2.29%	0.13%	\$ 73,273	0.43%	0.06%	African American
Private Equity	Vista Equity Partners V	\$ 100,000,000	4.57%	0.27%	\$ 1,140,734	6.67%	0.96%	African American
Private Equity	Vista Equity Partners VI	\$ 100,000,000	4.57%	0.27%	\$ 452,446	2.65%	0.38%	African American
Private Equity	Vista Foundation Fund II	\$ 15,000,000	0.69%	0.04%	\$ 300,000	1.75%	0.25%	African American
Private Equity	Vista Foundation Fund III	\$ 25,000,000	1.14%	0.07%	\$ 309,066	1.81%	0.26%	African American
Private Equity	Vistria	\$ 15,000,000	0.69%	0.04%	\$ 278,033	1.63%	0.23%	African American
Private Equity	Vistria Fund II	\$ 75,000,000	3.43%	0.20%	\$ -	0.00%	0.00%	African American
Private Equity	Abbott Capital Subadvisor Storm Ventures V	\$ 4,000,000	0.18%	0.01%	\$ 87,891	0.51%	0.07%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Capital Fund VIII	\$ 3,500,000	0.16%	0.01%	\$ 57,709	0.34%	0.05%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Ventures VII	\$ 6,004,410	0.27%	0.02%	\$ 127,788	0.75%	0.11%	Asian
Private Equity	Mayfield XIV	\$ 5,000,000	0.23%	0.01%	\$ 102,516	0.60%	0.09%	Asian

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		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Mayfield Select	\$ 10,000,000	0.46%	0.03%	\$ -	0.00%	0.00%	Asian
Private Equity	Mayfield XV	\$ 10,000,000	0.46%	0.03%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed	\$ 220,000	0.01%	0.00%	\$ 2,939	0.02%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed B	\$ 1,080,000	0.05%	0.00%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed C	\$ 2,250,000	0.10%	0.01%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures III	\$ 680,194	0.03%	0.00%	\$ 4,686	0.03%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures IV	\$ 1,120,000	0.05%	0.00%	\$ 11,614	0.07%	0.01%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures V	\$ 2,250,000	0.10%	0.01%	\$ 19,262	0.11%	0.02%	Asian
Private Equity	Abbott Capital Subadvisor 1315 Healthcare Fund	\$ 3,535,056	0.16%	0.01%	\$ 88,910	0.52%	0.07%	Female
Private Equity	Abbott Capital Subadvisor Canvas Ventures 2	\$ 3,500,000	0.16%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Abbott Capital Subadvisor Oak HC/FT Partners	\$ 4,500,000	0.21%	0.01%	\$ 93,311	0.55%	0.08%	Female
Private Equity	Muller & Monroe ILPEFF Subadvisor Castile Ventures III	\$ 1,730,942	0.08%	0.00%	\$ 12,416	0.07%	0.01%	Female
Private Equity	Pantheon Subadvisor Oak HC	\$ 2,250,000	0.10%	0.01%	\$ 34,020	0.20%	0.03%	Female
Private Equity	Abbott Capital Subadvisor Clearlake Capital Partners III	\$ 7,500,597	0.34%	0.02%	\$ 71,333	0.42%	0.06%	Latino
Private Equity	Abbott Capital Subadvisor NMS Fund II	\$ 4,518,171	0.21%	0.01%	\$ 32,366	0.19%	0.03%	Latino
Private Equity	AUA Private Equity Fund, LP	\$ 5,000,000	0.23%	0.01%	\$ 62,156	0.36%	0.05%	Latino
Private Equity	Estancia	\$ 5,000,000	0.23%	0.01%	\$ 95,870	0.56%	0.08%	Latino
Private Equity	Muller & Monroe ILPEFF Subadvisor Nogales Investors II	\$ 748,965	0.03%	0.00%	\$ 2,918	0.02%	0.00%	Latino
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private	\$ 1,563,314	0.07%	0.00%	\$ 7,497	0.04%	0.01%	Latino

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		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Equity II							
Private Equity	NMS II	\$ 5,000,000	0.23%	0.01%	\$ 51,050	0.30%	0.04%	Latino
Private Equity	Pantheon Subadvisor NMS Fund II	\$ 2,250,000	0.10%	0.01%	\$ 11,627	0.07%	0.01%	Latino
Private Equity	Valor Equity Partners III	\$ 5,000,000	0.23%	0.01%	\$ 95,618	0.56%	0.08%	Latino
Private Equity	Abbott Capital		0.00%	0.00%	\$ 1,280,704	7.49%	1.07%	
Private Equity	Abbott Capital Subadvisor Non-minority	\$ 775,114,277	35.44%	2.09%	\$ 3,529,492	20.65%	2.96%	
Private Equity	ABRY ASF III	\$ 35,000,000	1.60%	0.09%	\$ 583,362	3.41%	0.49%	
Private Equity	ABRY Heritage Fund	\$ 7,500,000	0.34%	0.02%	\$ 60,734	0.36%	0.05%	
Private Equity	ABRY PARTNERS VIII, LP	\$ 25,000,000	1.14%	0.07%	\$ 346,963	2.03%	0.29%	
Private Equity	ABRY SE IV	\$ 20,000,000	0.91%	0.05%	\$ 139,617	0.82%	0.12%	
Private Equity	Beecken Petty IV	\$ 10,000,000	0.46%	0.03%	\$ 38,321	0.22%	0.03%	
Private Equity	EnCap IX	\$ 25,000,000	1.14%	0.07%	\$ 244,216	1.43%	0.20%	
Private Equity	EnCap X	\$ 25,000,000	1.14%	0.07%	\$ 375,000	2.19%	0.31%	
Private Equity	Inflexion Buyout Fund IV	\$ 37,020,000	1.69%	0.10%	\$ 630,476	3.69%	0.53%	
Private Equity	Inflexion Enterprise Fund IV	\$ 18,510,000	0.85%	0.05%	\$ 229,691	1.34%	0.19%	
Private Equity	Inflexion Partnership Capital I	\$ 24,680,000	1.13%	0.07%	\$ 528,912	3.09%	0.44%	
Private Equity	Inflexion Supplemental Fund IV	\$ 20,978,000	0.96%	0.06%	\$ 21,198	0.12%	0.02%	
Private Equity	Lightspeed IX	\$ 20,000,000	0.91%	0.05%	\$ 495,556	2.90%	0.42%	
Private Equity	Lightspeed Select	\$ 6,250,000	0.29%	0.02%	\$ 89,384	0.52%	0.07%	
Private Equity	Lightspeed Select II	\$ 8,000,000	0.37%	0.02%	\$ 7,500	0.04%	0.01%	
Private Equity	Lightspeed X	\$ 18,750,000	0.86%	0.05%	\$ 361,375	2.11%	0.30%	
Private Equity	Lightspeed XI	\$ 22,000,000	1.01%	0.06%	\$ 72,103	0.42%	0.06%	
Private Equity	Muller & Monroe ILPEFF Subadvisor DN Partners II	\$ 1,730,942	0.08%	0.00%	\$ 4,583	0.03%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor HKW Capital Partners III	\$ 1,730,942	0.08%	0.00%	\$ 1,225	0.01%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor Hopewell Ventures	\$ 865,471	0.04%	0.00%	\$ 5,201	0.03%	0.00%	
Private Equity	Muller & Monroe ILPEFF	\$ 1,298,207	0.06%	0.00%	\$ 3,705	0.02%	0.00%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	Subadvisor LaSalle Capital Group							
Private Equity	Muller & Monroe ILPEFF Subadvisor Prism Investors II	\$ 865,471	0.04%	0.00%	\$ 319	0.00%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor Rock Island Capital Q Fund I	\$ 1,730,942	0.08%	0.00%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe ILPEFF Subadvisor Strength Capital Partners II	\$ 1,730,942	0.08%	0.00%	\$ 11,159	0.07%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Acon- Bastion Partners II	\$ 5,211,047	0.24%	0.01%	\$ 7,817	0.05%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Carpenter Community BancFund-A	\$ 1,856,436	0.08%	0.01%	\$ 16,109	0.09%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Clearview Capital II	\$ 3,126,628	0.14%	0.01%	\$ 5,092	0.03%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Craton Equity Investors I	\$ 2,605,524	0.12%	0.01%	\$ 16,832	0.10%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Encore Consumer Capital Fund	\$ 3,256,905	0.15%	0.01%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor MK Capital II	\$ 1,661,021	0.08%	0.00%	\$ 28,029	0.16%	0.02%	
Private Equity	Pantheon		0.00%	0.00%	\$ 395,179	2.31%	0.33%	
Private Equity	Pantheon Subadvisor Non- Minority	\$ 451,616,141	20.65%	1.22%	\$ 2,195,590	12.84%	1.84%	
Private Equity	Versant Ventures V	\$ 15,000,000	0.69%	0.04%	\$ 300,000	1.75%	0.25%	
Private Equity	Versant Ventures VI	\$ 15,000,000	0.69%	0.04%	\$ -	0.00%	0.00%	
Total Private Equity (committed amounts)		\$ 2,187,196,172	100.00%	5.89%	\$ 17,094,299	100.00%	14.33%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Real Estate	Franklin Templeton Subadvisor GreenOak U.S.	\$ 11,723,640	0.42%	0.03%	\$ 48,080	0.19%	0.04%	Asian
Real Estate	Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	\$ 2,930,910	0.11%	0.01%	\$ 25,388	0.10%	0.02%	Asian
Real Estate	Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	\$ 7,424,972	0.27%	0.02%	\$ 119,508	0.47%	0.10%	Asian
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	\$ 14,849,944	0.54%	0.04%	\$ 225,346	0.88%	0.19%	Disabled
Real Estate	Artemis Real Estate Partners Healthcare Fund I	\$ 25,000,000	0.90%	0.07%	\$ 174,643	0.68%	0.15%	Female
Real Estate	Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	\$ 11,723,640	0.42%	0.03%	\$ 72,326	0.28%	0.06%	Latino
Real Estate	Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	\$ 13,677,580	0.49%	0.04%	\$ 270,816	1.06%	0.23%	Latino
Real Estate	LongWharf Real Estate Partners V	\$ 30,000,000	1.08%	0.08%	\$ 637,397	2.49%	0.53%	Latino
Real Estate	Oak Street Real Estate Capital III	\$ 25,000,000	0.90%	0.07%	\$ 415,204	1.62%	0.35%	Latino
Real Estate	AEW Core	\$ 195,000,000	7.03%	0.53%	\$ 1,832,370	7.16%	1.54%	
Real Estate	AEW Partners VIII	\$ 50,000,000	1.80%	0.13%	\$ -	0.00%	0.00%	
Real Estate	AEW Partners VII	\$ 25,000,000	0.90%	0.07%	\$ 250,000	0.98%	0.21%	
Real Estate	Almanac ARS V	\$ 50,000,000	1.80%	0.13%	\$ 200,410	0.78%	0.17%	
Real Estate	Almanac ARS VI	\$ 50,000,000	1.80%	0.13%	\$ 163,771	0.64%	0.14%	
Real Estate	Almanac ARS VII	\$ 35,000,000	1.26%	0.09%	\$ 437,500	1.71%	0.37%	
Real Estate	Ares Europe Fund IV	\$ 50,000,000	1.80%	0.13%	\$ 747,268	2.92%	0.63%	
Real Estate	Ares European Property II	\$ 105,170,000	3.79%	0.28%	\$ 1,259,181	4.92%	1.06%	
Real Estate	Blackstone BREP Asia	\$ 100,000,000	3.61%	0.27%	\$ 1,500,000	5.86%	1.26%	
Real Estate	Blackstone BREP VII	\$ 50,000,000	1.80%	0.13%	\$ 555,665	2.17%	0.47%	
Real Estate	Blackstone BREP VIII	\$ 100,000,000	3.61%	0.27%	\$ 1,500,000	5.86%	1.26%	
Real Estate	Blackstone Debt II	\$ 100,000,000	3.61%	0.27%	\$ 1,077,677	4.21%	0.90%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Real Estate	Blackstone Debt III	\$ 100,000,000	3.61%	0.27%	\$ -	0.00%	0.00%	
Real Estate	CBRE Core	\$ 125,000,000	4.51%	0.34%	\$ 622,681	2.43%	0.52%	
Real Estate	CBRE Strategic Partners US Value 8	\$ 35,000,000	1.26%	0.09%	\$ -	0.00%	0.00%	
Real Estate	CBRE VI	\$ 30,000,000	1.08%	0.08%	\$ 184,753	0.72%	0.15%	
Real Estate	CBRE VII	\$ 35,000,000	1.26%	0.09%	\$ 235,338	0.92%	0.20%	
Real Estate	Cornerstone Fund VIII	\$ 50,000,000	1.80%	0.13%	\$ 237,207	0.93%	0.20%	
Real Estate	Cornerstone Patriot Fund	\$ 100,000,000	3.61%	0.27%	\$ 1,090,785	4.26%	0.91%	
Real Estate	Crow Holdings Realty Partners VII	\$ 75,000,000	2.71%	0.20%	\$ 1,125,000	4.39%	0.94%	
Real Estate	Dune II	\$ 50,000,000	1.80%	0.13%	\$ 422,863	1.65%	0.35%	
Real Estate	Dune III	\$ 25,000,000	0.90%	0.07%	\$ 304,035	1.19%	0.25%	
Real Estate	Franklin Templeton EMREFF	\$ 2,899,614	0.10%	0.01%	\$ 228,555	0.89%	0.19%	
Real Estate	Franklin Templeton Subadvisor Argosy Real Estate Partners II, L.P.	\$ 9,769,700	0.35%	0.03%	\$ 27,765	0.11%	0.02%	
Real Estate	GTIS Brazil Real Estate Fund III	\$ 75,000,000	2.71%	0.20%	\$ 579,656	2.26%	0.49%	
Real Estate	Invesco	\$ 130,000,000	4.69%	0.35%	\$ 1,583,681	6.19%	1.33%	
Real Estate	LaSalle VI	\$ 20,000,000	0.72%	0.05%	\$ 214,877	0.84%	0.18%	
Real Estate	LaSalle VII	\$ 25,000,000	0.90%	0.07%	\$ 238,400	0.93%	0.20%	
Real Estate	Resolution Fund IV	\$ 61,700,000	2.23%	0.17%	\$ 806,507	3.15%	0.68%	
Real Estate	Rockwood Capital Fund VIII	\$ 50,000,000	1.80%	0.13%	\$ 284,488	1.11%	0.24%	
Real Estate	Rockwood IX	\$ 25,000,000	0.90%	0.07%	\$ 350,000	1.37%	0.29%	
Real Estate	Rockwood X	\$ 50,000,000	1.80%	0.13%	\$ 336,614	1.31%	0.28%	
Real Estate	Security Capital	\$ 75,000,000	2.71%	0.20%	\$ 425,845	1.66%	0.36%	
Real Estate	Starwood Global Opportunity Fund XI	\$ 75,000,000	2.71%	0.20%	\$ -	0.00%	0.00%	
Real Estate	Starwood IX	\$ 20,000,000	0.72%	0.05%	\$ 244,901	0.96%	0.21%	
Real Estate	Starwood X	\$ 50,000,000	1.80%	0.13%	\$ 625,000	2.44%	0.52%	
Real Estate	TA Realty Buckhead	\$ 225,000,000	8.12%	0.61%	\$ 1,518,173	5.93%	1.27%	
Real Estate	TA Realty Fund IX	\$ 50,000,000	1.80%	0.13%	\$ 368,315	1.44%	0.31%	
Real Estate	TA Realty Fund X	\$ 50,000,000	1.80%	0.13%	\$ 1,040,364	4.06%	0.87%	
Real Estate	Torchlight IV	\$ 65,000,000	2.34%	0.18%	\$ 572,266	2.24%	0.48%	
Real Estate	Torchlight V	\$ 35,000,000	1.26%	0.09%	\$ 420,000	1.64%	0.35%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Total Real Estate (committed amounts)		\$ 2,771,870,000	100.00%	7.47%	\$ 25,600,620	100.00%	21.46%	
Timber	Forest	\$ 73,735,008	100.00%	0.20%	\$ 745,073	100.00%	0.62%	
Total Timber		\$ 73,735,008	100.00%	0.20%	\$ 745,073	100.00%	0.62%	
Private Equity and Real Estate data is based on committed amounts								
Total IMRF (includes committed amounts for Private Equity and Real Estate)		\$ 37,124,619,737			\$ 119,296,211			

7. Please complete the following table in the same manner as Question IX.3, but exclusive of the manager of managers program. Please complete the table using information rendered through March 31, 2017. If your fund does not use a manager of managers program you may leave this table blank.

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
		[1]	[2]	[3]	[4]	[5]	[6]	
			% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Domestic Equity	Ariel	\$ 73,882,460	0.45%	0.19%	\$ 150,769	1.86%	0.54%	African American
Domestic Equity	Channing	\$ 214,449,547	1.30%	0.56%	\$ 268,735	3.31%	0.96%	African American
Domestic Equity	Holland	\$ 938,702,325	5.71%	2.43%	\$ 472,507	5.82%	1.69%	African American
Domestic Equity	Ativo	\$ 121,790,571	0.74%	0.32%	\$ 190,137	2.34%	0.68%	Latino
Domestic Equity	BMO	\$ 1,363,493,686	8.29%	3.53%	\$ 741,532	9.13%	2.65%	
Domestic Equity	DFA Micro Cap	\$ 375,328,023	2.28%	0.97%	\$ 469,160	5.77%	1.68%	
Domestic Equity	DFA Small Cap	\$ 842,764,551	5.13%	2.18%	\$ 1,053,456	12.97%	3.76%	
Domestic Equity	Dodge & Cox	\$ 1,349,317,547	8.21%	3.50%	\$ 701,025	8.63%	2.50%	
Domestic Equity	Frontier	\$ 386,831,552	2.35%	1.00%	\$ 478,026	5.88%	1.71%	
Domestic Equity	Inv Couns of Maryland	\$ 711,631,885	4.33%	1.84%	\$ 680,680	8.38%	2.43%	
Domestic Equity	LSV	\$ 1,385,126,823	8.42%	3.59%	\$ 811,710	9.99%	2.90%	
Domestic Equity	NTI Growth	\$ 1,653,028,686	10.05%	4.28%	\$ 27,852	0.34%	0.10%	
Domestic Equity	NTI MarketCap	\$ 3,115,555,096	18.95%	8.07%	\$ 55,213	0.68%	0.20%	
Domestic Equity	NTI Value	\$ 1,582,751,181	9.63%	4.10%	\$ 27,293	0.34%	0.10%	
Domestic Equity	Pyramis Small Co	\$ 1,035,787,334	6.30%	2.68%	\$ 1,246,006	15.34%	4.45%	
Domestic Equity	Sands	\$ 1,290,403,466	7.85%	3.34%	\$ 724,313	8.92%	2.59%	
Domestic Equity	Wallstreet	\$ -	0.00%	0.00%	\$ 25,863	0.32%	0.09%	
Total Domestic Equity		\$ 16,440,844,735	100%	42.60%	\$ 8,124,276	100%	29.03%	
Fixed Income	Earnest Partners	\$ 548,818,595	5.81%	1.42%	\$ 226,116	7.76%	0.81%	African American
Fixed Income	Piedmont	\$ 549,880,773	5.82%	1.42%	\$ 225,053	7.73%	0.80%	African American
Fixed Income	Garcia Hamilton	\$ 521,059,137	5.52%	1.35%	\$ 145,239	4.99%	0.52%	Latino
Fixed Income	LM Capital	\$ 859,209,254	9.10%	2.23%	\$ 343,946	11.81%	1.23%	Latino
Fixed Income	Babson	\$ 308,305,862	3.26%	0.80%	\$ 296,563	10.18%	1.06%	
Fixed Income	BlackRock Core Plus	\$ 744,774,345	7.89%	1.93%	\$ 91,838	3.15%	0.33%	
Fixed Income	BlackRock US Debt Index	\$ 1,405,411,216	14.88%	3.64%	\$ 17,533	0.60%	0.06%	
Fixed Income	Brandes Core Plus	\$ 245,172,466	2.60%	0.64%	\$ -	0.00%	0.00%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Fixed Income	Crescent	\$ 118,443,419	1.25%	0.31%	\$ 203,625	6.99%	0.73%	
Fixed Income	MacKay Shields	\$ 624,617,347	6.61%	1.62%	\$ 547,724	18.81%	1.96%	
Fixed Income	NTI Barclays Aggregate	\$ 1,521,620,770	16.11%	3.94%	\$ 28,291	0.97%	0.10%	
Fixed Income	Pyramis High Yield (terminated on 3/28/14)	\$ 860,300	0.01%	0.00%	\$ 1,695	0.06%	0.01%	
Fixed Income	Standish	\$ 194,830,239	2.06%	0.50%	\$ 167,624	5.76%	0.60%	
Fixed Income	Taplin Canida	\$ 871,976,328	9.23%	2.26%	\$ 285,229	9.79%	1.02%	
Fixed Income	Western	\$ 928,814,873	9.84%	2.41%	\$ 331,603	11.39%	1.18%	
Total Fixed Income		\$ 9,443,794,924	100%	24.47%	\$ 2,912,079	100%	10.41%	
International Equity	Brown Capital	\$ 296,096,032	4.19%	0.77%	\$ 180,310	3.55%	0.64%	African American
International Equity	Earnest Partners	\$ 558,786,462	7.90%	1.45%	\$ 274,008	5.40%	0.98%	African American
International Equity	GlobeFlex	\$ 574,933,500	8.13%	1.49%	\$ 530,033	10.44%	1.89%	Female
International Equity	Arrowstreet	\$ 591,598,653	8.37%	1.53%	\$ 686,269	13.52%	2.45%	
International Equity	Brandes	\$ 552,518,517	7.82%	1.43%	\$ 290,264	5.72%	1.04%	
International Equity	Genesis	\$ 667,609,755	9.44%	1.73%	\$ 973,818	19.18%	3.48%	
International Equity	Lazard	\$ 98,039,865	1.39%	0.25%	\$ 59,856	1.18%	0.21%	
International Equity	Mondrian	\$ 525,352,585	7.43%	1.36%	\$ 648,735	12.78%	2.32%	
International Equity	NTI EAFE Index	\$ 2,129,214,814	30.12%	5.52%	\$ 37,177	0.73%	0.13%	
International Equity	Templeton	\$ 205,929,571	2.91%	0.53%	\$ 367,687	7.24%	1.31%	
International Equity	William Blair	\$ 626,295,151	8.86%	1.62%	\$ 564,615	11.12%	2.02%	
International Equity	William Blair Small Cap	\$ 243,357,537	3.44%	0.63%	\$ 463,778	9.14%	1.66%	
Total International Equity		\$ 7,069,732,441	100.00%	18.32%	\$ 5,076,549	100.00%	18.14%	
Cash	Cash	\$ 162,022,522	100.00%	0.42%	\$ -	0.00%	0.00%	
Total Cash		\$ 162,022,522	100.00%	0.42%	\$ -	\$ -	0.00%	
Hedge Fund	Aurora Subadvisor Sentinel Dome	\$ 4,501,603	13.38%	0.01%	\$ 11,075	8.82%	0.17%	Asian
Hedge Fund	Aurora Subadvisor Roystone Capital	\$ 2,927,600	8.70%	0.01%	\$ 11,473	9.14%	0.04%	Latino

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Hedge Fund	Aurora (terminated 2/25/2016)	\$ -	0.00%	0.00%	\$ -	0.00%	0.00%	
Hedge Fund	Aurora Subadvisor Non-Minority	\$ 26,204,992	77.91%	0.07%	\$ 102,953	82.03%	0.37%	
Total Hedge Fund		\$ 33,634,195	100.00%	0.09%	\$ 125,501	100.00%	0.58%	
Agriculture	Hancock /Premier Partners IV	\$ 183,163,900	100.00%	0.47%	\$ 284,949	100.00%	1.02%	
Total Agriculture		\$ 183,163,900	100.00%	0.47%	\$ 284,949	100.00%	1.02%	
Private Equity	Abbott Capital Subadvisor ICV III	\$ 4,512,858	0.20%	0.01%	\$ -	0.00%	0.00%	African American
Private Equity	ICV III	\$ 20,000,000	0.89%	0.05%	\$ -	0.00%	0.00%	African American
Private Equity	Muller & Monroe M2PEFF	\$ 2,494,789	0.11%	0.01%	\$ 25,000	0.52%	0.09%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor DBL Equity Fund -BAEF II	\$ 1,661,021	0.07%	0.00%	\$ 5,071	0.10%	0.02%	African American
Private Equity	Muller & Monroe M2PEFF Subadvisor Smith Whiley Pelham Fund III	\$ 1,563,314	0.07%	0.00%	\$ -	0.00%	0.00%	African American
Private Equity	Pantheon Subadvisor ICV III	\$ 5,026,875	0.22%	0.01%	\$ -	0.00%	0.00%	African American
Private Equity	Pantheon Subadvisor Vistria Fund	\$ 3,079,594	0.14%	0.01%	\$ 10,095	0.21%	0.04%	African American
Private Equity	Vista Credit Opp Fund I	\$ 50,000,000	2.24%	0.13%	\$ 453,961	9.38%	1.62%	African American
Private Equity	Vista Credit Opportunities Fund II	\$ 50,000,000	2.24%	0.13%	\$ 116,877	2.41%	0.42%	African American
Private Equity	Vista Equity Partners V	\$ 100,000,000	4.47%	0.26%	\$ 329,630	6.81%	1.18%	African American
Private Equity	Vista Equity Partners VI	\$ 100,000,000	4.47%	0.26%	\$ 194,008	4.01%	0.69%	African American
Private Equity	Vista Foundation Fund II	\$ 15,000,000	0.67%	0.04%	\$ 75,000	1.55%	0.27%	African American
Private Equity	Vista Foundation Fund III	\$ 25,000,000	1.12%	0.06%	\$ 113,458	2.34%	0.41%	African American
Private Equity	Vistria	\$ 15,000,000	0.67%	0.04%	\$ 75,000	1.55%	0.27%	African American

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Vistria Fund II	\$ 75,000,000	3.35%	0.19%	\$ -	0.00%	0.00%	African American
Private Equity	Abbott Capital Subadvisor Storm Ventures V	\$ 4,000,000	0.18%	0.01%	\$ 24,032	0.50%	0.09%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Capital Fund VIII	\$ 3,500,000	0.16%	0.01%	\$ 16,515	0.34%	0.06%	Asian
Private Equity	Abbott Capital Subadvisor Vivo Ventures VII	\$ 6,004,410	0.27%	0.02%	\$ 27,562	0.57%	0.10%	Asian
Private Equity	Mayfield XIV	\$ 5,000,000	0.22%	0.01%	\$ 34,530	0.71%	0.12%	Asian
Private Equity	Mayfield Select	\$ 10,000,000	0.45%	0.03%	\$ -	0.00%	0.00%	Asian
Private Equity	Mayfield XV	\$ 10,000,000	0.45%	0.03%	\$ 11,740	0.24%	0.04%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed	\$ 220,000	0.01%	0.00%	\$ 597	0.01%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed B	\$ 1,080,000	0.05%	0.00%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Seed C	\$ 2,250,000	0.10%	0.01%	\$ -	0.00%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures III	\$ 680,194	0.03%	0.00%	\$ 1,089	0.02%	0.00%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures IV	\$ 1,120,000	0.05%	0.00%	\$ 2,372	0.05%	0.01%	Asian
Private Equity	Pantheon Subadvisor Khosla Ventures V	\$ 2,250,000	0.10%	0.01%	\$ 1,572	0.03%	0.01%	Asian
Private Equity	Abbott Capital Subadvisor 1315 Healthcare Fund	\$ 3,535,056	0.16%	0.01%	\$ 17,588	0.36%	0.06%	Female
Private Equity	Abbott Capital Subadvisor Canvas Ventures 2	\$ 3,500,000	0.16%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Abbott Capital Subadvisor Oak HC/FT Partners	\$ 4,500,000	0.20%	0.01%	\$ 23,994	0.50%	0.09%	Female

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	Abbott Capital Subadvisor Oak HC/FT Partners II	\$ 4,250,000	0.19%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Pantheon Subadvisor Oak HC	\$ 2,250,000	0.10%	0.01%	\$ 8,119	0.17%	0.03%	Female
Private Equity	Pantheon Subadvisor Oak HC II	\$ 3,000,000	0.13%	0.01%	\$ -	0.00%	0.00%	Female
Private Equity	Abbott Capital Subadvisor Clearlake Capital Partners III	\$ 7,500,597	0.34%	0.02%	\$ 10,525	0.22%	0.04%	Latino
Private Equity	Abbott Capital Subadvisor NMS Fund II	\$ 4,518,171	0.20%	0.01%	\$ 14,078	0.29%	0.05%	Latino
Private Equity	AUA Private Equity Fund, LP	\$ 5,000,000	0.22%	0.01%	\$ 40,699	0.84%	0.15%	Latino
Private Equity	Estancia	\$ 5,000,000	0.22%	0.01%	\$ 14,348	0.30%	0.05%	Latino
Private Equity	Muller & Monroe M2PEFF Subadvisor Hispania Private Equity II	\$ 1,563,314	0.07%	0.00%	\$ 2,846	0.06%	0.01%	Latino
Private Equity	NMS II	\$ 5,000,000	0.22%	0.01%	\$ -	0.00%	0.00%	Latino
Private Equity	Pantheon Subadvisor NMS Fund II	\$ 2,250,000	0.10%	0.01%	\$ 4,815	0.10%	0.02%	Latino
Private Equity	Valor Equity Partners III	\$ 5,000,000	0.22%	0.01%	\$ 23,914	0.49%	0.09%	Latino
Private Equity	Abbott Capital		0.00%	0.00%	\$ 321,656	6.65%	1.15%	
Private Equity	Abbott Capital Subadvisor Non-minority	\$ 774,121,467	34.61%	2.01%	\$ 941,921	19.46%	3.37%	
Private Equity	ABRY ASF III	\$ 35,000,000	1.56%	0.09%	\$ 62,914	1.30%	0.22%	
Private Equity	ABRY Heritage Fund	\$ 7,500,000	0.34%	0.02%	\$ 29,195	0.60%	0.10%	
Private Equity	ABRY PARTNERS VIII, LP	\$ 25,000,000	1.12%	0.06%	\$ 73,975	1.53%	0.26%	
Private Equity	ABRY SE IV	\$ 20,000,000	0.89%	0.05%	\$ 2,308	0.05%	0.01%	
Private Equity	ABRY Senior Equity Fund V	\$ 23,000,000	1.03%	0.06%	\$ 46,419	0.96%	0.17%	
Private Equity	Beecken Petty IV	\$ 10,000,000	0.45%	0.03%	\$ 48,500	1.00%	0.17%	
Private Equity	Encap Capital Partners XI	\$ 35,000,000	1.56%	0.09%	\$ -	0.00%	0.00%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Private Equity	EnCap IX	\$ 25,000,000	1.12%	0.06%	\$ 69,894	1.44%	0.25%	
Private Equity	EnCap X	\$ 25,000,000	1.12%	0.06%	\$ 93,750	1.94%	0.33%	
Private Equity	Inflexion Buyout Fund IV	\$ 37,650,000	1.68%	0.10%	\$ 141,166	2.92%	0.50%	
Private Equity	Inflexion Enterprise Fund IV	\$ 18,825,000	0.84%	0.05%	\$ 92,836	1.92%	0.33%	
Private Equity	Inflexion Partnership Capital I	\$ 25,100,000	1.12%	0.07%	\$ 118,439	2.45%	0.42%	
Private Equity	Inflexion Supplemental Fund IV	\$ 21,335,000	0.95%	0.06%	\$ 11,173	0.23%	0.04%	
Private Equity	Lightspeed IX	\$ 20,000,000	0.89%	0.05%	\$ 123,889	2.56%	0.44%	
Private Equity	Lightspeed Select	\$ 6,250,000	0.28%	0.02%	\$ 31,250	0.65%	0.11%	
Private Equity	Lightspeed Select II	\$ 8,000,000	0.36%	0.02%	\$ 8,750	0.18%	0.03%	
Private Equity	Lightspeed X	\$ 18,750,000	0.84%	0.05%	\$ 114,094	2.36%	0.41%	
Private Equity	Lightspeed XI	\$ 22,000,000	0.98%	0.06%	\$ 109,102	2.25%	0.39%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Acon-Bastion Partners II	\$ 5,211,047	0.23%	0.01%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Carpenter Community BancFund-A	\$ 1,856,436	0.08%	0.00%	\$ 3,996	0.08%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Clearview Capital II	\$ 3,126,628	0.14%	0.01%	\$ 1,096	0.02%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Craton Equity Investors I	\$ 2,605,524	0.12%	0.01%	\$ 3,704	0.08%	0.01%	
Private Equity	Muller & Monroe M2PEFF Subadvisor Encore Consumer Capital Fund	\$ 3,256,905	0.15%	0.01%	\$ -	0.00%	0.00%	
Private Equity	Muller & Monroe M2PEFF Subadvisor MK Capital	\$ 1,661,021	0.07%	0.00%	\$ 9,343	0.19%	0.03%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	II							
Private Equity	Pantheon		0.00%	0.00%	\$ 105,565	2.18%	0.38%	
Private Equity	Pantheon Subadvisor Non-Minority	\$ 459,930,910	20.56%	1.19%	\$ 492,046	10.17%	1.76%	
Private Equity	Versant Ventures V	\$ 15,000,000	0.67%	0.04%	\$ 75,000	1.55%	0.27%	
Private Equity	Versant Ventures VI	\$ 15,000,000	0.67%	0.04%	\$ 29,063	0.60%	0.10%	
Total Private Equity (committed amounts)		\$ 2,236,490,131	100.00%	5.79%	\$ 4,840,078	100.00%	17.29%	
Real Estate	Franklin Templeton Subadvisor GreenOak U.S.	\$ 11,723,640	0.40%	0.03%	\$ 5,708	0.09%	0.02%	Asian
Real Estate	Franklin Templeton Subadvisor GreenOak U.S. Co-Investment	\$ 2,930,910	0.10%	0.01%	\$ -	0.00%	0.00%	Asian
Real Estate	Franklin Templeton Subadvisor Noble Hospitality Fund II, L.P.	\$ 7,424,972	0.25%	0.02%	\$ 59,915	0.93%	0.21%	Asian
Real Estate	Franklin Templeton Subadvisor Newport Capital Partners Fund I, L.P.	\$ 14,849,944	0.50%	0.04%	\$ 81,566	1.27%	0.29%	Disabled
Real Estate	Artemis Real Estate Partners Healthcare Fund I	\$ 25,000,000	0.85%	0.06%	\$ 65,599	1.02%	0.23%	Female
Real Estate	Franklin Templeton Subadvisor Hudson Realty Capital V, L.P.	\$ 11,723,640	0.40%	0.03%	\$ 9,013	0.14%	0.03%	Latino
Real Estate	Franklin Templeton Subadvisor LongWharf Real Estate Partners IV, L.P.	\$ 13,677,580	0.46%	0.04%	\$ 99,370	1.54%	0.36%	Latino
Real Estate	LongWharf Real Estate Partners V	\$ 30,000,000	1.02%	0.08%	\$ 110,959	1.72%	0.40%	Latino

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
Real Estate	Oak Street Real Estate Capital III	\$ 25,000,000	0.85%	0.06%	\$ 85,809	1.33%	0.31%	Latino
Real Estate	Oak Street Real Estate Capital IV	\$ 75,000,000	2.54%	0.19%	\$ -	0.00%	0.00%	Latino
Real Estate	AEW Core	\$ 195,000,000	6.61%	0.51%	\$ 447,704	6.95%	1.60%	
Real Estate	AEW Partners VIII	\$ 50,000,000	1.69%	0.13%	\$ -	0.00%	0.00%	
Real Estate	AEW Partners VII	\$ 25,000,000	0.85%	0.06%	\$ 62,500	0.97%	0.22%	
Real Estate	Almanac ARS V	\$ 50,000,000	1.69%	0.13%	\$ 34,425	0.53%	0.12%	
Real Estate	Almanac ARS VI	\$ 50,000,000	1.69%	0.13%	\$ 36,455	0.57%	0.13%	
Real Estate	Almanac ARS VII	\$ 35,000,000	1.19%	0.09%	\$ 107,877	1.67%	0.39%	
Real Estate	Ares Europe Fund IV	\$ 50,000,000	1.69%	0.13%	\$ 184,932	2.87%	0.66%	
Real Estate	Ares European Property II	\$ 106,520,000	3.61%	0.28%	\$ 259,906	4.04%	0.93%	
Real Estate	Barings European Core Fund	\$ 26,630,000	0.90%	0.07%	\$ 27,986	0.43%	0.10%	
Real Estate	Blackstone BREP Asia	\$ 100,000,000	3.39%	0.26%	\$ 375,000	5.82%	1.34%	
Real Estate	Blackstone BREP VII	\$ 50,000,000	1.69%	0.13%	\$ 129,250	2.01%	0.46%	
Real Estate	Blackstone BREP VIII	\$ 100,000,000	3.39%	0.26%	\$ 375,000	5.82%	1.34%	
Real Estate	Blackstone Debt II	\$ 100,000,000	3.39%	0.26%	\$ 203,566	3.16%	0.73%	
Real Estate	Blackstone Debt III	\$ 100,000,000	3.39%	0.26%	\$ 41,781	0.65%	0.15%	
Real Estate	CBRE Core	\$ 125,000,000	4.24%	0.32%	\$ 161,151	2.50%	0.58%	
Real Estate	CBRE Strategic Partners US Value VIII	\$ 35,000,000	1.19%	0.09%	\$ 7,102	0.11%	0.03%	
Real Estate	CBRE VI	\$ 30,000,000	1.02%	0.08%	\$ 22,067	0.34%	0.08%	
Real Estate	CBRE VII	\$ 35,000,000	1.19%	0.09%	\$ 58,834	0.91%	0.21%	
Real Estate	Cornerstone Fund VIII	\$ 50,000,000	1.69%	0.13%	\$ 33,682	0.52%	0.12%	
Real Estate	Cornerstone Patriot Fund	\$ 100,000,000	3.39%	0.26%	\$ 279,097	4.33%	1.00%	
Real Estate	Crow Holdings Realty Partners VIII	\$ 75,000,000	2.54%	0.19%	\$ -	0.00%	0.00%	
Real Estate	Crow Holdings Realty Partners VII	\$ 75,000,000	2.54%	0.19%	\$ 281,250	4.37%	1.00%	
Real Estate	Dune II	\$ 50,000,000	1.69%	0.13%	\$ 95,942	1.49%	0.34%	
Real Estate	Dune III	\$ 25,000,000	0.85%	0.06%	\$ 60,276	0.94%	0.22%	
Real Estate	Franklin Templeton	\$ 2,899,614	0.10%	0.01%	\$ 46,098	0.72%	0.16%	

Asset Class	Manager	Asset Under Management			Total Fees Paid			Classification
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		\$ in Asset Class	% of Asset Class	% of Total	\$ in Asset Class	% of Asset Class	% of Total	
	EMREFF							
Real Estate	Franklin Templeton Subadvisor Argosy Real Estate Partners II, L.P.	\$ 9,769,700	0.33%	0.03%	\$ 27,240	0.42%	0.10%	
Real Estate	GTIS Brazil Real Estate Fund III	\$ 75,000,000	2.54%	0.19%	\$ 286,644	4.45%	1.02%	
Real Estate	Invesco	\$ 130,000,000	4.41%	0.34%	\$ 389,744	6.05%	1.39%	
Real Estate	LaSalle VI	\$ 20,000,000	0.68%	0.05%	\$ 34,153	0.53%	0.12%	
Real Estate	LaSalle VII	\$ 25,000,000	0.85%	0.06%	\$ 97,170	1.51%	0.35%	
Real Estate	Resolution Fund IV	\$ 62,750,000	2.13%	0.16%	\$ 197,755	3.07%	0.71%	
Real Estate	Rockwood Capital Fund VIII	\$ 50,000,000	1.69%	0.13%	\$ 39,374	0.61%	0.14%	
Real Estate	Rockwood IX	\$ 25,000,000	0.85%	0.06%	\$ 87,500	1.36%	0.31%	
Real Estate	Rockwood X	\$ 50,000,000	1.69%	0.13%	\$ 102,923	1.60%	0.37%	
Real Estate	Security Capital	\$ 75,000,000	2.54%	0.19%	\$ 117,277	1.82%	0.42%	
Real Estate	Starwood Global Opportunity Fund XI	\$ 75,000,000	2.54%	0.19%	\$ -	0.00%	0.00%	
Real Estate	Starwood IX	\$ 20,000,000	0.68%	0.05%	\$ 50,552	0.78%	0.18%	
Real Estate	Starwood X	\$ 50,000,000	1.69%	0.13%	\$ 154,110	2.39%	0.55%	
Real Estate	TA Realty Buckhead	\$ 225,000,000	7.62%	0.58%	\$ 425,013	6.60%	1.52%	
Real Estate	TA Realty Fund IX	\$ 50,000,000	1.69%	0.13%	\$ 78,024	1.21%	0.28%	
Real Estate	TA Realty Fund X	\$ 50,000,000	1.69%	0.13%	\$ 244,367	3.79%	0.87%	
Real Estate	Torchlight IV	\$ 65,000,000	2.20%	0.17%	\$ 154,553	2.40%	0.55%	
Real Estate	Torchlight V	\$ 35,000,000	1.19%	0.09%	\$ 105,000	1.63%	0.38%	
Total Real Estate (committed amounts)		\$ 2,950,900,000	100.00%	7.65%	\$ 6,441,220	100.00%	23.01%	
Timber	Forest	\$ 74,896,443	100.00%	0.19%	\$ 182,499	100.00%	0.65%	
Total Timber		\$ 74,896,443	100.00%	0.19%	\$ 182,499	100.00%	0.65%	
Private Equity and Real Estate data is based on committed amounts								
Total IMRF (includes committed amounts for Private Equity and Real Estate)		\$ 38,595,479,291			\$ 27,987,152			

Complete the charts below to the best of your ability. If a chart does not apply to your Fund please leave it blank. Please complete and edit based on your asset allocation and fund. The categories are for guidance but should include strategies within each asset class in which your fund is invested for both the asset management and brokerage goals and actual utilization information.

ILLINOIS MUNICIPAL RETIREMENT FUND

Total Fund Assets as of December 31, 2016
\$36,235 Million
Total Fund Assets as of March 31, 2017
\$37,579 Million

MWD Manager Utilization Goal	
<u>Classification</u>	<u>Minimum Goal as a % of Total Fund Market Value</u>
Minorities	13.0%
Female Owned	6.0%
Persons with a Disability Owned	1.0%
Total	20.0%
<u>Asset Classes</u>	<u>Minimum Goal as a % of Asset Class</u>
Domestic Equity	8.0%
International Equity	15.0%
Fixed Income	25.0%
Hedge Funds	15.0%
Real Estate	4.0%
Private Equity	10.0%
Timberland	Best Efforts
Agriculture	Best Efforts
MWD Brokerage Goal	
<u>Asset Classes</u>	<u>Minimum Goal as a % of Asset Class Commissions</u>
U.S. Equities	25.0%
U.S. Large-Cap	30.0%
International Equities	20.0%
International Small-Cap Equities	5.0%
U.S. Micro-Cap Equities	7.0%
Equity Commingled Accounts	Best Efforts
Hedge Funds ¹	Best Efforts
Emerging Market Equities ²	5.0%

<u>Asset Classes</u>	<u>Minimum Goal as a % of Asset Class Par Volume Traded</u>
Fixed Income	22%
High Yield Bonds	5%
Emerging Market Debt	Best Efforts
Fixed Income Commingled Accounts	Best Efforts
Opportunistic Strategies ²	Best Efforts
Bank Loans ²	Best Efforts

1 The separate account Hedge Fund of Funds mandate was terminated in February 2016.

2 No separate account mandates

Composition of Board and Staff		
Total Minority/Female Trustees	6 of 8	75%
African-American	2 of 8	25%
Latino*	0 of 8	0%
Non-Minority Female	4 of 8	38%
Total Investment Staff	6 of 12	50%
African-American	1 of 12	8%
Latino	3 of 12	25%
Asian-American	1 of 12	8%
Non-Minority Female	1 of 12	8%
Total Consultant Staff	2 of 3	67%
African-American	1 of 3	33%
Asian-American	0 of 3	0%
Non-Minority Female	1 of 3	33%
Latino	0 of 3	0%
Staff of Majority Owned Firms	2601 of 5094	51%
African-American	202	4%
Asian-American	838	16%
Latino	248	5%
Person with a Disability	1	0%
Other Minority	141	3%
Non-Minority Female	1171	23%

* One Trustee is half African American and half Latino, she is counted as African American

ASSET MANAGEMENT

For Calendar Year 2016							
Assets Managed by MWBE		% MWBE based on Total Funds	Strategy	MWBE AUM in Strategy	AUM in Strategy	% MWBE based on Total Fund	% MWBE based on Strategy
African-American	\$3,779,094,058	10.4%	Large Cap Equity	\$862,687,327	\$11,946,546,418	2.4%	7.2%
Latino(a)	\$2,137,684,822	5.9%	Micro Cap Equity	\$277,147,943	\$654,166,885	0.8%	42.4%
Asian-American	\$93,999,373	0.3%	Mid Cap Equity	\$0	\$0	0.0%	0.0%
Female	\$1,011,907,923	2.8%	Small Cap Equity	\$213,876,368	\$3,146,970,539	0.6%	6.8%
Disabled	\$14,849,944	0.0%	SMID Cap Equity	\$0	\$0	0.0%	0.0%
Total Assets Managed by MWBE	\$7,037,536,120	19.4%	Core Fixed	\$1,973,023,865	\$4,875,472,623	5.4%	40.5%
Fees paid to MWBE			Core Plus	\$1,291,063,834	\$4,068,911,222	3.6%	31.7%
			High Yield	\$65,285,425	\$686,016,872	0.2%	9.5%
African-American	\$15,536,989	12.6%	Opportunistic	\$0	\$115,833,909	0.0%	0.0%
Latino(a)	\$7,533,423	6.1%	Bank Loans	\$0	\$307,903,524	0.0%	0.0%
Asian-American	\$1,101,835	0.9%	Hedge Fund	\$11,068,208	\$84,285,722	0.0%	13.1%
Disabled	\$3,944,606	3.2%	Emerging Markets Debt	\$0	\$184,275,519	0.0%	0.0%
Female	\$225,346	0.2%	Emerging Markets	\$62,759,041	\$671,441,506	0.2%	9.3%
Total Fees Paid to MWBE	\$28,342,198	23.0%	Intl Large Cap Equity	\$1,439,498,962	\$5,655,310,874	4.0%	25.5%
Total Fees Paid	\$ 123,461,435		Intl Small Cap Equity	\$44,687,186	\$457,084,802	0.1%	9.8%
			Private Equity*	\$579,107,275	\$2,187,196,172	1.6%	26.5%
			Real Estate*	\$217,330,686	\$2,846,870,000	0.6%	7.6%
			Agriculture	\$0	\$186,101,565	0.0%	0.0%
			Timber	\$0	\$73,735,008	0.0%	0.0%
			Cash	\$0	\$139,182,841	0.0%	0.0%
Total				\$7,037,536,119	\$38,287,306,000	19.4%	
% of assets managed by IL MWBE firms				\$1,560,582,337	4.3%		
% of fees paid to IL MWBE firms				\$6,056,016	4.9%		

*Private Equity and Real Estate Values based on commitment amounts

Total fund market value as of 12/31/2016 is \$36,234,638,059

As of March 31, 2017							
Assets Managed by MWBE		% MWBE based on Total Funds	Strategy	MWBE AUM in Strategy	AUM in Strategy	% MWBE based on Total Fund	% MWBE based on Strategy
African-American	\$3,927,947,182	10.5%	Large Cap Equity	\$938,702,325	\$12,678,378,810	2.5%	7.4%
Latino(a)	\$2,115,660,039	5.6%	Micro Cap Equity	\$195,673,031	\$571,001,055	0.5%	34.3%
Asian-American	\$119,073,682	0.3%	Mid Cap Equity	\$0	\$0	0.0%	0.0%
Female	\$1,146,103,743	3.1%	Small Cap Equity	\$214,449,547	\$3,191,464,870	0.6%	6.7%
Disabled	\$14,849,944	0.0%	SMID Cap Equity	\$0	\$0	0.0%	0.0%
Total Assets Managed by MWBE	\$7,323,634,590	19.5%	Core Fixed	\$1,986,291,194	\$4,913,323,179	5.3%	40.4%
Fees paid to MWBE			Core Plus	\$1,308,547,830	\$4,099,285,842	3.5%	31.9%
			High Yield	\$46,540,437	\$672,018,084	0.1%	6.9%
			Opportunistic	\$0	\$118,443,419	0.0%	0.0%
African-American	\$3,674,070	12.6%	Bank Loans	\$0	\$308,305,862	0.0%	0.0%
Latino(a)	\$1,409,308	4.8%	Hedge Fund	\$7,429,203	\$33,634,195	0.0%	22.1%
Asian-American	\$218,036	0.7%	Emerging Markets Debt	\$0	\$194,830,239	0.0%	0.0%
Disabled	\$81,566	0.3%	Emerging Markets	\$61,241,197	\$728,850,951	0.2%	8.4%
Female	\$1,048,587	3.6%	Intl Large Cap Equity	\$1,577,511,007	\$6,100,530,592	4.2%	25.9%
Total Fees Paid to MWBE	\$6,431,566	22.1%	Intl Small Cap Equity	\$48,607,941	\$497,895,048	0.1%	9.8%
Total Fees Paid	\$ 29,166,479		Private Equity*	\$571,310,193	\$2,236,490,131	1.5%	25.5%
			Real Estate*	\$367,330,686	\$3,100,900,000	1.0%	11.8%
			Agriculture	\$0	\$183,163,900	0.0%	0.0%
			Timber	\$0	\$74,896,443	0.0%	0.0%
			Cash	\$0	\$162,022,522	0.0%	0.0%
Total				\$7,323,634,591	\$39,865,435,143	19.5%	
% of assets managed by IL MWBE firms			\$1,699,677,773	4.5%			
% of fees paid to IL MWBE firms			\$1,993,060	6.8%			

*Private Equity and Real Estate Values based on commitment amounts

Total fund market value as of 3/31/2017 is \$37,576,013,621

BROKERAGE
DOMESTIC EQUITY (EXCLUDING REITS AND HEDGE FUNDS)

Total commissions paid to MWBE firms in 2016 (in thousands)			Total commissions paid to MWBE firms in as of March 31, 2017 (in thousands)		
	\$	%		\$	%
African-American	\$816,571	12.2%	African-American	\$153,672	14.4%
Asian	\$58,509	0.9%	Asian	\$0	0.0%
Disabled	\$359,396	5.4%	Disabled	\$29,525	2.8%
Latino	\$116,572	1.7%	Latino	\$32,830	3.1%
Female	\$730,616	10.9%	Female	\$136,593	12.8%
Total	\$2,081,663	31.0%	Total	\$352,619	33.1%
Total commissions paid to IL MWBE firms in 2016 (in thousands)			Total commissions paid to IL MWBE firms in as of March 31, 2017 (in thousands)		
	\$	%		\$	%
IL Based	\$530,608	7.9%	IL Based	\$154,526	14.5%

INTERNATIONAL EQUITY (EXCLUDING REITS AND HEDGE FUNDS)

Total commissions paid to MWBE firms in 2016 (in thousands)			Total commissions paid to MWBE firms in as of March 31, 2017 (in thousands)		
	\$	%		\$	%
African-American	\$269,113	5.7%	African-American	\$70,894	6.3%
Asian	\$0	0.0%	Asian	\$0	0.0%
Disabled	\$23,560	0.5%	Disabled	\$2,026	0.2%
Latino	\$191,840	4.1%	Latino	\$44,204	3.9%
Female	\$585,619	12.5%	Female	\$168,805	14.9%
Total	\$1,070,132	22.8%	Total	\$285,928	25.2%
Total commissions paid to IL MWBE firms in 2016 (in thousands)			Total commissions paid to IL MWBE firms in as of March 31, 2017 (in thousands)		
	\$	%		\$	%
IL Based	\$632,271	13.5%	IL Based	\$239,022	21.1%

FIXED INCOME (EXCLUDING REITS AND HEDGE FUNDS)

Total par volume traded with MWBE firms in 2016 (in thousands)			Total par volume traded with MWBE firms in as of March 31, 2017 (in thousands)		
	#	%		#	%
African-American	7,645,746,539	14.7%	African-American	2,199,371,801	9.6%
Asian	0	0.0%	Asian	0	0.0%
Disabled	108,641,000	0.2%	Disabled	28,585,000	0.1%
Latino	281,343,432	0.5%	Latino	84,248,621	0.4%
Female	43,439,928	0.1%	Female	73,073,640	0.3%
			Native American	9,655,000	0.0%
Total	8,079,170,899	15.6%	Total	2,394,934,061	10.4%
Total par volume traded with IL MWBE firms in 2016 (in thousands)			Total par volume traded with IL MWBE firms in as of March 31, 2017 (in thousands)		
	#	%		#	%
IL Based	3,276,689,364	6.3%	IL Based	1,161,262,884	5.0%