North Dakota State Investment Board

ND STATE INVESTMENT BOARD MEETING

Friday, August 25, 2017, 8:30 a.m.
Peace Garden Room, State Capitol
600 E Blvd., Bismarck, ND

I. APPROVAL OF AGENDA

II. APPROVAL OF MINUTES (JULY 28, 2017)

III. ELECTION OF OFFICERS 2017-18 Board Action

A. Chair
B. Vice Chair
C. Parliamentarian (Appointed by Chair)
D. Audit Committee (Appointed by SIB) – Mr. Hunter (enclosed)

IV. INVESTMENTS

A. Asset and Performance Overview - Mr. Hunter (enclosed) (15 minutes) **Board Action**
B. North Dakota Parks & Recreation Agency - Mr. Hunter (enclosed) (5 minutes) **Board Action**
C. Manager Interviews
   1. Fixed Income Restructuring Overview - Mr. Schulz (enclosed) (10 minutes) Informational
   2. PIMCO - Mr. Scott Mather and Ms. Stephanie King (enclosed) (40 minutes)
   3. Staff Recommendation - Mr. Schulz (enclosed) (10 minutes) **Board Action***
      ** Executive Session pursuant to NDCC §44-04-18.4(1), §44-04-19.1(9), & §44-04-19.2- to discuss confidential commercial and financial information and provide contract negotiating instructions to its attorney or negotiator.*

============================ Break from 10:00 to 10:15 am ===========================

   4. Adams Street Global Fund 2017 (enclosed) (30 minutes) - Mr. Gonzalo and Ms. Meldrum
   5. Staff Recommendation - Mr. Hunter (enclosed) (10 minutes) **Board Action**

D. Callan Performance Review - Mr. Erlendson & Browning (enclosed) (45 minutes) **Board Acceptance**

V. QUARTERLY MONITORING (Questions Only - Board Acceptance) (10 minutes)

A. Executive Limitations/Staff Relations - Mr. Hunter
B. Budget and Financial Conditions - Ms. Flanagan
C. Investment Program - Mr. Schulz
D. Retirement Program - Ms. Kopp
E. Watch List - Mr. Schulz
F. Investment Manager Catalog - Mr. Schmidt

VI. OTHER

A. Code of Conduct Affirmation (Legacy Fund) – Mr. Hunter

Next Meeting: SIB meeting - September 22, 2017, 8:30 a.m. - State Capitol, Peace Garden Room
SIB Audit Committee meeting - September 22, 2017, 1:00 p.m. - Retirement and Investment Office, 3442 East Century Avenue, Bismarck

VII. ADJOURNMENT

Any individual requiring an auxiliary aid or service, please contact the Retirement and Investment Office (701) 328-9885 at least three (3) days prior to the scheduled meeting.

NORTH DAKOTA STATE INVESTMENT BOARD
MINUTES OF THE
JULY 28, 2017, BOARD MEETING

MEMBERS PRESENT: Jon Godfread, Insurance Commissioner
Rob Lech, Parliamentarian
Lance Gaebe, Commissioner of Trust Lands
Mike Gessner, TFFR Board
Mel Olson, TFFR Board
Kelly Schmidt, State Treasurer
Troy Seibel, PERS Board
Yvonne Smith, PERS Board
Cindy Ternes, WSI Designee

MEMBERS ABSENT: Adam Miller, PERS Board
Brent Sanford, Lt. Governor, Chair

STAFF PRESENT: Eric Chin, Investment Officer
Bonnie Heit, Assist to the SIB
David Hunter, ED/CIO
Fay Kopp, Dep ED/CRO
Terra Miller Bowley, Supvr Audit Services
Cody Schmidt, Compliance Officer
Darren Schulz, Dep CIO

OTHERS PRESENT: Dean Anagnost, Workforce Safety & Insurance Board
Tag Anderson, State Risk Management
Alex Browning, Callan Associates
Mike Burton, Teachers' Fund for Retirement Board
Clare Carlson, Workforce Safety & Insurance
Senator Dick Dever, Public Employees Retirement System Board
Senator Jim Dotzenrod, Legacy and Budget Stabilization Fund
Paul Erlendson, Callan Associates
Casey Goodhouse, Public Employees Retirement System Board
Jena Gullo, United Way
Toni Gumeringer, Teachers' Fund for Retirement Board
Lynn Hart, Human Resource Management Services
George Hellyer, Park District of the City of Grand Forks, Pension Plan (TLCF)
Representative Keith Kempenich, Legacy and Budget Stabilization Fund
Bryan Klipfel, Workforce Safety & Insurance
Jeff Lancaster, Park District of the City of Grand Forks, Pension Plan (TLCF)
Robert Lauf, Governor's Office (TLCF)
Sherrie Lundbark, City of Grand Forks (TLCF)
Jan Murtha, Attorney General's Office
Senator Carolyn Nelson, Minority Caucus Leader
Gil Nelson, Public
John Pirone, Callan Associates
Bryan Reinhardt, PERS
Christi Schaefbauer, Assn of School Business Mgrs
Charles Steffan, Workforce Safety & Insurance Board
Maureen Storstad, City of Grand Forks (TLCF)
Mylynn Tufte, Public Employees Retirement System Board
Kathy Wamsley, United Way
Kim Wassim, Public Employees Retirement System Board

CALL TO ORDER:

Mr. Rob Lech, Parliamentarian, called the State Investment Board (SIB) meeting to order at 8:16 a.m. on Friday, July 28, 2017, at the Bismarck State College, National Energy Center of Excellence.

AGENDA:

IT WAS MOVED BY MR. OLSON AND SECONDED BY MS. TERNES AND CARRIED BY A VOICE VOTE TO ACCEPT THE AGENDA FOR THE JULY 28, 2017, MEETING.

AYES: COMMISSIONER GAEBE, TREASURER SCHMIDT, COMMISSIONER GODFREAD, MR. OLSON, MS. TERNES, MR. GESSNER, MR. SEIBEL, MR. LECH, AND MS. SMITH
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

Chair Pro Tem

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MR. GESSNER AND CARRIED BY A VOICE VOTE TO HAVE MR. LECH SERVE AS CHAIR PRO TEM.

AYES: MR. GESSNER, COMMISSIONER GAEBE, MS. SMITH, MS. TERNES, TREASURER SCHMIDT, MR. LECH, COMMISSIONER GODFREAD, MR. OLSON, AND MR. SEIBEL
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

MINUTES:

IT WAS MOVED BY MS. SMITH AND SECONDED BY MR. OLSON AND CARRIED BY A VOICE VOTE TO ACCEPT THE MINUTES OF THE MAY 26, 2017, MEETING AS DISTRIBUTED.

AYES: MR. OLSON, MR. SEIBEL, COMMISSIONER GAEBE, MR. GESSNER, COMMISSIONER GODFREAD, MS. SMITH, TREASURER MILLER, MS. TERNES, AND MR. LECH
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

ELECTION OF OFFICERS AND APPOINTMENTS:

IT WAS MOVED BY MS. TERNES AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A ROLL CALL VOTE TO POSTPONE ELECTION OF OFFICERS AND APPOINTMENT OF THE SIB AUDIT COMMITTEE FOR THE 2017-18 TIMEFRAME UNTIL THE AUGUST 25, 2017, MEETING.

AYES: TREASURER SCHMIDT, MR. GESSNER, COMMISSIONER GODFREAD, MS. TERNES, COMMISSIONER GAEBE, MS. SMITH, MR. LECH, MR. SEIBEL, AND MR. OLSON
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

INVESTMENT GOVERNANCE:

Mr. Hunter reviewed revised Investment Policy Statements for the Legacy Fund, Budget Stabilization, and City of Grand Forks Employee Plan and requested the SIB's acceptance.

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MR. GESSNER AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE REVISED INVESTMENT POLICY STATEMENT FOR THE LEGACY FUND.

AYES: MS. SMITH, MR. OLSON, MR. GESSNER, MR. LECH, MR. SEIBEL, MS. TERNES, COMMISSIONER GODFREAD, COMMISSIONER GAEBE, AND TREASURER SCHMIDT.
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

IT WAS MOVED BY MR. OLSON AND SECONDED BY MS. SMITH AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE REVISED INVESTMENT POLICY STATEMENT FOR THE BUDGET STABILIZATION FUND.

AYES: TREASURER SCHMIDT, MR. SEIBEL, MR. OLSON, COMMISSIONER GAEBE, MR. LECH, COMMISSIONER GODFREAD, MR. GESSNER, MS. SMITH, AND MS. TERNES
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

IT WAS MOVED BY MS. SMITH AND SECONDED BY TREASURER SCHMIDT AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE REVISED INVESTMENT POLICY STATEMENT FOR THE CITY OF GRAND FORKS EMPLOYEE PENSION PLAN.

AYES: MS. TERNES, MR. OLSON, COMMISSIONER GODFREAD, TREASURER SCHMIDT, COMMISSIONER GAEBE, MR. SEIBEL, MR. LECH, MS. SMITH, AND MR. GESSNER
NAYS: NONE
MOTION CARRIED
ABSENT: MR. MILLER, LT. GOVERNOR SANFORD

Code of Conduct

The SIB was provided a copy of their Governance Process Policy B-8, Board Members' Code of Conduct. As outlined in the policy, board members are annually required to affirm their understanding of the policy by signing and dating the acknowledgement.

Fundamental Investment Beliefs

Mr. Hunter provided an investment performance update as of May 31, 2017, and preliminary return estimates for Fiscal Year 2017. He also highlighted board education for the past biennium, the SIB's annual planning cycle, and Strategic Investment Plan.

CALLAN COLLEGE:

Callan representatives Mr. Browning and Mr. Pirone presented educational segments on Capital Market Theory and Asset Allocation.

The Board recessed at 10:40 a.m. and reconvened at 10:58 a.m.

Mr. Erlendson presented an educational segment on Investment Policy Statements.

Mr. Erlendson and Ms. Murtha presented an educational segment on the Role of the Fiduciary.

OTHER:

United Way representatives provided an overview of United Way and the impact and needs of the Bismarck/Mandan community. The State Government 2017 United Way Fund Drive is being co-chaired by Mr. Hunter and Lt. Governor Sanford.

The next meeting of the SIB is scheduled for August 25, 2017, at 8:30 a.m. at the State Capitol, Peace Garden Room.

The next meeting of the SIB Audit Committee is scheduled for September 22, 2017, at 1:00 p.m. at the Retirement and Investment Office, Bismarck, ND.

ADJOURNMENT:

With no further business to come before the SIB, Mr. Lech adjourned the meeting at 12:24 p.m.

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Mr. Rob Lech, Chairman
State Investment Board

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Bonnie Heit
Assistant to the Board

TO: State Investment Board (SIB)

FROM: Dave Hunter, Executive Director/CIO

DATE: August 25, 2017

RE: Election of Officers – July 2017 to June 2018

In accordance with the SIB Governance Policy B-7 on "Annual Board Planning Cycle", the SIB will conduct an "Election of Officers" each July. The relevant By-Laws and Governance Policy of the SIB are highlighted immediately below for reference purposes.

CHAPTER 3 - OFFICERS AND DUTIES

Section 3-1. The officers of the SIB are a Chair and Vice Chair, one of which must be an appointed or elected member of the TFFR or PERS Board. The officers will be elected by the SIB to a one-year term at the first regularly scheduled meeting following July 1 of each year. Vacancies will be filled by the SIB at the first scheduled meeting following the vacancy.

Section 3-2. Chair. The Chair will preside at all meetings of the SIB.

Section 3-3. Vice Chair. In the absence of the Chair, the Vice Chair will perform the duties of the Chair.

Section 3-4. Executive Director. An Executive Director will be retained by the SIB. The Executive Director will serve at the SIB's pleasure, be responsible for keeping the records of the SIB and TFFR Board actions, and perform such duties as the SIB prescribes. The Executive Director will make out and give out all notices required to be given by law, procedures, or rules and regulations of the two boards.

Policy Implemented: June 23, 1995.

The chairperson's primary responsibility is to insure the integrity of the board's process. The chairperson is the only board member authorized to speak for the board other than in specifically authorized instances.

1. The duty of the chairperson is to see that the board operates consistent with state law, administrative rules, and its own policies.

   A. The board agenda will be the responsibility and be coordinated by the chairperson.
   B. Meeting discussion content will only be those issues which, according to board policy, clearly belong to the board and not the executive director, or in a board member's opinion, may deal with fiduciary responsibilities.
   C. Deliberation will be fair, open, and thorough, but also efficient, timely, orderly, and brief.
   D. The chairperson shall appoint a parliamentarian.

Board Action Requested

TO: STATE INVESTMENT BOARD

FROM: David Hunter, ED/CIO and Terra Miller-Bowley, Supervisor of Audit Services

DATE: **August 21, 2017**

RE: Audit Committee Appointments

As directed by SIB Policy B-6, Governance Process/Standing Committees, the Audit Committee shall consist of five members selected by the SIB. Three members of the Audit Committee represent the three groups on the SIB (TFFR board, PERS board, and the elected and appointed officials). The other two members will be selected from outside of the SIB and will be **auditors** with at least a Certified Public Accountant (CPA) or Certified Internal Auditor (CIA) designation.

The SIB previously approved the following four Board representatives for the past year:

Rebecca Dorwart, CPA, CIA
Joshua Wiens, CPA
Cindy Ternes (Workforce Safety & Insurance designee) representing elected and appointed officials
Michael Gessner, representing TFFR

Background and Recommendation:

SIB Policy B-6 states the following: "An Audit Committee has been established as a standing committee of the SIB. The Audit Committee will assist the SIB in carrying out its oversight responsibilities as they relate to RIO's internal and external audit programs, including financial and other reporting practices, internal controls, and compliance with laws, regulations and ethics." **Based on the strong performance of the Audit Committee during the past year with regards to assisting the SIB in carrying out its oversight responsibilities, the Executive Director and Supervisor of Audit Services recommend the re-appointment of the four existing audit committee members. RIO also notes the SIB needs to appoint one new member representing PERS. Yvonne Smith, Adam Miller and Chief Deputy Attorney General Troy Seibel represent PERS and each stated their willingness to serve on the Audit Committee for the upcoming fiscal year. The new appointee will replace Mr. Mike Sandal, who retired from PERS and is no longer eligible to serve on the Audit Committee.**

Suggested Language for Board Recommendation and Motion:

RIO recommends the re-appointment of four existing audit committee members including Ms. Rebecca Dorwart, Mr. Joshua Wiens, Ms. Cindy Ternes and Mr. Michael Gessner. RIO also recommends that Ms. Yvonne Smith, Mr. Adam Miller *or* Chief Deputy Attorney General Troy Seibel serve as the fifth newly appointed audit committee member.

Rebecca Dorwart, CPA, CIA

Ms. Rebecca Dorwart is currently the Human Resources Project Manager for MDU Resources Group, Inc., reporting to the Vice President of Human Resources. Responsibilities in the role of Human Resources Project Manager include analysis of executive and board member total compensation, tracking multi-employer plan status, working with outside consultants on pension and post-retirement valuations, leading the preparation of compensation related sections of the proxy statement and providing audit resolution assistance to business units on human resources related control deficiencies.

Prior to her new assignment, Rebecca was the Director of Internal Controls for MDU Resources Group, Inc. for four years where she was responsible for the risk assessment of company-wide financial processes and controls and the coordination of the company's Sarbanes-Oxley compliance program. She reported to the Vice President/Chief Financial Officer but also communicated with the Audit Committee of MDU Resources Group's Board of Directors.

Ms. Dorwart also served as the Director of Internal Auditing MDU Resources Group, Inc. for nine years where she managed all internal audit functions of MDU and coordinates the work with the external audit. She directly supervised eleven internal auditors and reported to the Vice President/Chief Financial Officer, President and Chief Executive Officer and the Audit Committee of MDU Resources Group's Board of Directors.

Rebecca worked for the Montana Office of the Legislative Auditor as a financial compliance auditor for five years before joining MDU Resources Group, Inc. in 1992. At MDU Resources Group, Inc., Becky worked in the Internal Auditing Department until 1997 when she was transferred to Portland, Oregon as General Accounting Manager for International Line Builders, Inc., a MDU acquisition. In 1999, she transferred to Medford, Oregon as Senior Business Development Analyst for Knife River Corporation, working on the merger and acquisition of construction materials related businesses. In February of 2003, she was named Internal Auditing Manager for MDU Resources Group, Inc. She is active in the local chapter of the IIA.

Joshua J. Wiens, CPA

Mr. Joshua Wiens currently serves as Chief Financial Officer of McDonalds of Bismarck-Mandan. Joshua manages the finances and accounting for six McDonalds stores in Bismarck and Mandan including all accounting and payroll related functions. He also manages the insurance and Affordable Care Act regulations and reporting for employees in addition to submitting monthly and annual financial statements to McDonalds Corporation. Joshua has served in this role since 2013 to date.

Mr. Wiens concurrently acts as Chief Financial Officer for Shiloh Christian School in Bismarck. Joshua effectively manages the business side of this private school which includes a $3.6 billion budget and working with a bank and contractor on construction projects and financing along with handling numerous vendor relationships for the school.

Prior to serving as CFO for his two current employers, Joshua was a Senior Audit Manager for Eide Bailly, LLP in Bismarck. Mr. Wiens specialized in non-profit/government, financial institution, small business and construction contractor audits and consulting. Clients ranged in size from $100,000 to $5 billion in assets and total revenues of up to $100 million. Joshua's 15 years of professional auditing experience with Eide Bailly is ideal for serving as a member of the SIB Audit Committee. His resume is attached for further reference including his career accomplishments and professional education.

State Investment Board

Asset and Investment Performance Overview

For the periods ended June 30, 2017

August 22, 2017

Dave Hunter, Executive Director / CIO

Darren Schulz, Deputy Chief Investment Officer

ND Retirement & Investment Office (RIO)

State Investment Board (SIB)

State Investment Board – Client Assets Under Management

Fund Name	Market Values as of 6/30/17 [1]	Market Values as of 6/30/16 [2]
Pension Trust Fund		
Public Employees Retirement System (PERS)	2,781,347,058	2,459,388,086
Teachers' Fund for Retirement (TFFR)	2,318,214,334	2,082,183,640
City of Bismarck Employees Pension	91,954,165	82,441,003
City of Grand Forks Employees Pension	63,392,384	57,975,758
City of Bismarck Police Pension	38,136,784	33,983,598
Grand Forks Park District	6,160,568	5,720,245
Subtotal Pension Trust Fund	**5,299,205,292**	**4,721,692,330**
Insurance Trust Fund		
Workforce Safety & Insurance (WSI)	1,894,614,791	1,832,104,203
City of Fargo FargoDome Permanent Fund	41,634,918	38,782,721
PERS Group Insurance Account	37,500,315	37,715,356
State Fire and Tornado Fund	22,008,326	24,091,203
Petroleum Tank Release Compensation Fund	6,396,410	7,149,512
Budget Stabilization Fund	6,127,844	575,918,381
State Risk Management Fund	5,781,003	6,534,801
State Risk Management Workers Comp Fund	5,534,628	5,516,177
Insurance Regulatory Trust Fund	5,289,164	1,085,836
ND Association of Counties (NDACo) Fund	4,383,920	4,048,863
State Bonding Fund	3,374,399	3,296,372
ND Board of Medicine	2,179,911	2,208,667
Bismarck Deferred Sick Leave Account	698,131	642,265
Cultural Endowment Fund	431,470	386,452
Subtotal Insurance Trust Fund	**2,035,955,230**	**2,539,480,809**
Legacy Trust Fund		
Legacy Fund	4,687,963,729	3,809,485,177
PERS Retiree Insurance Credit Fund	116,150,947	101,623,224
Job Service of North Dakota Pension	97,332,820	96,588,333
ND Tobacco Prevention and Control Trust Fund	57,462,736	54,366,538
Total Assets Under SIB Management	**12,294,070,754**	**11,323,236,410**

[1] *6/30/17 market values are unaudited and subject to change.*

[2] *6/30/16 market values as stated in the Comprehensive Annual Financial Report.*

- SIB client assets grew by approximately 8.6% (or $971 million) in the last year due to a combination of Legacy Fund and Pension Trust asset growth of $878 million and $577 million, respectively.
- The Pension Trust posted a net return of 12.96% in the last year. During the last 5-years, the Pension Trust generated a net annualized return of 9.14%, exceeding the performance benchmark of 8.20%.
- The Insurance Trust generated a net return of 7.80% in the last year. During the last 5-years, the Insurance Trust posted a net annualized return of 5.45%, exceeding the performance benchmark of 3.90%.
- The Legacy Fund generated a net investment gain of 12.03% for the year ended June 30, 2017, exceeding its performance benchmark. During the last 5-years, the Legacy Fund has generated a net annualized return of 4.76%, exceeding the performance benchmark of 3.84%.
- SIB client assets totaled approximately $12.3 billion as of June 30, 2017, based on unaudited valuations.

Investment Performance Evaluation – June 30, 2017

Investment Performance Criteria :

SIB clients should receive investment returns consistent with their investment policies and market variables (pursuant to Section D.3 of the SIB Governance Manual). **The "Ends" for investment performance is evaluated based on comparison of each client's actual rate of return (net of fees), risk levels and risk adjusted returns, versus the client's policy benchmark over 5 years.**

Pension Trust:

Every Pension Trust client posted positive Excess Returns for the 5-year periods ended June 30, 2017, while adhering to approved risk levels and generating at least 0.50% of positive Risk Adjusted Excess Return (over the last 5-years).

PERS and TFFR earned 13.0% and 12.9%, respectively, for the 1-year ended June 30, 2017. TFFR and PERS each earned over 9.1% for the 5-years ended June 30, 2017. Global equities were the primary performance driver and gained 19% last year with U.S. Small Cap up 25% and Emerging Markets up 24%, while the S&P 500 index was up 18%. Our private equity portfolio posted strong absolute returns of 11% over the last year. U.S. fixed income was our # 1 generator of excess return and earned 6% last year versus -0.31% for the Bloomberg Aggregate Index. Global Real Asset returns were mixed with Real Estate and Infrastructure each earning over 9.1% last year, while our Timber portfolio declined 9.4% in fiscal 2017.

Non-Pension Trust:

Every Non-Pension Trust client generated positive Excess Return and positive Risk Adjusted Excess Returns for the 5-years ended June 30, 2017, with two exceptions for the PERS Retiree Health Insurance Credit Fund and PERS Group Insurance.

The Legacy Fund earned 12% for the 1-year ended June 30, 2017, which translates into over $450 million of net investment income (including unrealized gains). The Legacy Fund's U.S. Equity portfolio earned over 19% last year, while International Equities earned nearly 24%. U.S. Fixed Income also performed well with a 3.5% return versus -0.31% for the Bloomberg Aggregate Index. Diversified Real Assets and Real Estate returns exceeded their respective benchmarks and earned over 2% and 8%, respectively, in the last year. Our second largest non-Pension Trust client, WSI, also generated strong returns by earning over 8.2% for the 1-year ended June 30, 2017.

Risk, as measured by standard deviation, was within approved levels for all SIB clients for the 5-years ended June 30, 2017.

Actual asset allocations are within Target ranges and guidelines as confirmed by Callan Associates as of June 30, 2017.

Note: Current year returns are unaudited and subject to change.

Pension Trust Return & Risk Summary – **June 30, 2017**

Returns and Risk: Every Pension Trust client portfolio generated positive "Excess Return" for the 3- and 5-year periods ended June 30, 2017, while adhering to prescribed risk levels (e.g. within 115% of the Policy Benchmark for the 5-years ended 6/30/2017).

	1 Yr. Ended 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017	Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
PERS - $2.8 billion					
Total Fund Return - Net	13.05%	5.49%	9.16%	4.8%	0.50%
Policy Benchmark Return	11.87%	4.75%	8.25%	4.6%	
Excess Return	1.18%	0.74%	0.90%	105%	
TFFR - $2.3 billion					
Total Fund Return - Net	12.92%	5.44%	9.18%	4.8%	0.52%
Policy Benchmark Return	11.63%	4.69%	8.25%	4.6%	
Excess Return	1.29%	0.76%	0.94%	105%	
Bismark Employee - $92 million					
Total Fund Return - Net	11.56%	5.26%	8.48%	4.2%	0.57%
Policy Benchmark Return	9.98%	4.48%	7.38%	4.0%	
Excess Return	1.58%	0.78%	1.10%	107%	

Note: Amounts are unaudited and subject to change.

Pension Trust Return & Risk Summary – **June 30, 2017**

	1 Yr. Ended 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017	Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
Bismarck Police - $38 million					
Total Fund Return - Net	12.24%	5.26%	8.73%	4.6%	0.51%
Policy Benchmark Return	10.98%	4.56%	7.73%	4.3%	
Excess Return	1.27%	0.70%	1.00%	106%	
Job Service - $97 million					
Total Fund Return - Net	5.63%	4.79%	7.86%	3.9%	0.79%
Policy Benchmark Return	7.85%	3.85%	6.42%	3.6%	
Excess Return	-2.22%	0.95%	1.44%	109%	
Grand Forks Employee - $63 million					
Total Fund Return - Net	12.84%	5.37%	9.18%	5.0%	0.51%
Policy Benchmark Return	12.07%	4.83%	8.38%	4.8%	
Excess Return	0.77%	0.54%	0.80%	103%	
Grand Forks Park District - $6 million					
Total Fund Return - Net	12.74%	5.65%	9.46%	4.9%	0.73%
Policy Benchmark Return	11.83%	4.96%	8.55%	4.8%	
Excess Return	0.92%	0.69%	0.91%	102%	

Risk Adjusted Excess Returns for the 5-years ended June 30, 2017, were positive for all Pension Trust clients ranging from 0.50% for PERS to 0.79% for Job Service.

Job Service is 140+% funded & significantly de-risked its investment portfolio over the last year.

Risk Adjusted Excess Return measures actual portfolio results versus a benchmark adjusted by its risk relative to a benchmark portfolio. This metric is positive if excess returns are due to "smart" investment decisions or negative if driven by excess risk.

Note: Current year returns are unaudited and subject to change.

Non-Pension Trust Return & Risk Summary – **June 30, 2017**

	Current FYTD 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017	Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
Legacy Fund - $4.7 billion					
Total Fund Return - Net	12.03%	5.36%	4.77%	3.9%	0.59%
Policy Benchmark Return	9.91%	4.37%	3.76%	3.5%	
Excess Return	2.12%	1.00%	1.01%	OK	
Workforce Safety Insurance - $1.9 billion					
Total Fund Return - Net	8.29%	5.02%	6.98%	3.3%	1.37%
Policy Benchmark Return	5.20%	3.75%	5.01%	3.0%	
Excess Return	3.09%	1.27%	1.97%	OK	
Budget Stabilization - $6 million					
Total Fund Return - Net	0.80%	1.49%	1.66%	0.7%	0.55%
Policy Benchmark Return	0.37%	0.87%	0.71%	0.5%	
Excess Return	0.42%	0.62%	0.95%	OK	
Fire & Tornado Fund - $22 million					
Total Fund Return - Net	9.30%	5.00%	7.62%	3.7%	0.79%
Policy Benchmark Return	6.47%	3.83%	5.74%	3.2%	
Excess Return	2.83%	1.17%	1.88%	OK	

Returns and Risk: All but two Non-Pension Trust client generated positive Excess Return and Risk Adjusted Excess Return for the 5-year period ended June 30, 2017 (if applicable). These returns were achieved while adhering to reasonable risk levels which were generally within 1% of policy levels.

Risk Adjusted Excess Return measures a portfolio's excess return adjusted by its risk relative to a benchmark portfolio. This metric is positive if returns are due to "smart" investment decisions or negative if driven by excess risk.

Note: Current year returns are unaudited and subject to change.

Non-Pension Trust Return & Risk Summary – **June 30, 2017**

	Current FYTD 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017	Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
State Bonding Fund - $3 million					
Total Fund Return - Net	2.40%	2.37%	2.83%	2.0%	1.14%
Policy Benchmark Return	0.05%	1.48%	1.30%	1.7%	
Excess Return	2.34%	0.90%	1.52%	OK	
Insurance Reg. Trust Fund - $5 million					
Total Fund Return - Net	7.40%	3.60%	5.79%	3.0%	0.41%
Policy Benchmark Return	5.69%	2.93%	4.60%	2.6%	
Excess Return	1.70%	0.67%	1.20%	OK	
Petroleum Tank Release Compensation Fund - $6 million					
Total Fund Return - Net	2.23%	2.18%	2.54%	1.8%	1.04%
Policy Benchmark Return	0.09%	1.36%	1.20%	1.6%	
Excess Return	2.14%	0.82%	1.34%	OK	
State Risk Management Fund - $5.8 million					
Total Fund Return - Net	8.27%	5.58%	7.81%	3.4%	1.03%
Policy Benchmark Return	5.47%	4.39%	5.79%	3.0%	
Excess Return	2.80%	1.19%	2.02%	OK	

SIB Client Commentary:

The State Bonding Fund, Insurance Regulatory Trust Fund, Petroleum Tank Release Compensation Fund, and State Risk Management Fund have all posted positive Risk Adjusted Excess Returns for the 5-years ended June 30, 2017, including Excess Returns of 1.20% or more.

Note: Current year returns are unaudited and subject to change.

Non-Pension Trust Return & Risk Summary – **June 30, 2017**

	Current FYTD 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017	Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
State Risk Management W/C Fund - $5.5 million					
Total Fund Return - Net	9.41%	6.03%	8.63%	3.8%	1.02%
Policy Benchmark Return	6.83%	4.90%	6.69%	3.4%	
Excess Return	2.58%	1.13%	1.94%	OK	
ND Assoc. of Counties - $4.4 million					
Total Fund Return - Net	8.30%	4.58%	6.92%	3.5%	0.74%
Policy Benchmark Return	5.51%	3.44%	5.07%	2.9%	
Excess Return	2.79%	1.14%	1.85%	OK	
Bismark Deferred Sick Leave - $700,000					
Total Fund Return - Net	8.85%	4.99%	7.38%	3.7%	0.92%
Policy Benchmark Return	5.44%	3.62%	5.24%	3.0%	
Excess Return	3.41%	1.37%	2.15%	OK	
FargoDome Permanent Fund - $42 million					
Total Fund Return - Net	12.25%	5.50%	9.16%	4.9%	0.93%
Policy Benchmark Return	9.74%	4.38%	7.46%	4.5%	
Excess Return	2.51%	1.11%	1.70%	OK	

SIB Client Commentary:

The State Risk Management Workers Compensation Fund, North Dakota Association of Counties, City of Bismarck Deferred Sick Leave Account and FargoDome Permanent Fund have all posted positive Risk Adjusted Excess Returns for the 5-years ended June 30, 2017, including Excess Returns of 1.85% or more.

Note: Current year returns are unaudited and subject to change.

Non-Pension Trust Return & Risk Summary – **June 30, 2017**

	Current FYTD 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017	Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
Cultural Endowment Fund - $431,000					
Total Fund Return - Net	12.71%	6.62%	10.37%	4.9%	0.83%
Policy Benchmark Return	10.79%	5.66%	8.76%	4.5%	
Excess Return	1.93%	0.96%	1.62%	OK	
Board of Medicine - $2 million					
Total Fund Return - Net	5.29%	3.19%			
Policy Benchmark Return	4.06%	2.40%			
Excess Return	1.23%	0.79%			
PERS Retiree Health - $116 million					
Total Fund Return - Net	11.81%	5.09%	8.80%	5.3%	-0.64%
Policy Benchmark Return	11.32%	5.42%	8.83%	4.9%	
Excess Return	0.49%	-0.32%	-0.03%	OK	
PERS Group Insurance - $37 million					
Total Fund Return - Net	0.08%	0.52%	0.38%	0.6%	-0.06%
Policy Benchmark Return	0.37%	0.65%	0.42%	0.5%	
Excess Return	-0.29%	-0.12%	-0.04%	OK	
Tobacco Prevention & Control - $57 million					
Total Fund Return - Net	1.66%				
Policy Benchmark Return	1.67%				
Excess Return	-0.02%				

SIB Client Specific Commentary:

The Cultural Endowment Fund has generated the highest absolute level of net investment returns (of 10.37%) over the last 5-years.

The Board of Medicine became an SIB client two years ago noting they were previously investing in Certificates of Deposit.

PERS Retiree Health absolute returns have been reasonable the last 5-years (8.80%) but disappointing on a risk adjusted basis.(-0.64%). We are re-examining SEI's benchmarks and risk and return profile.

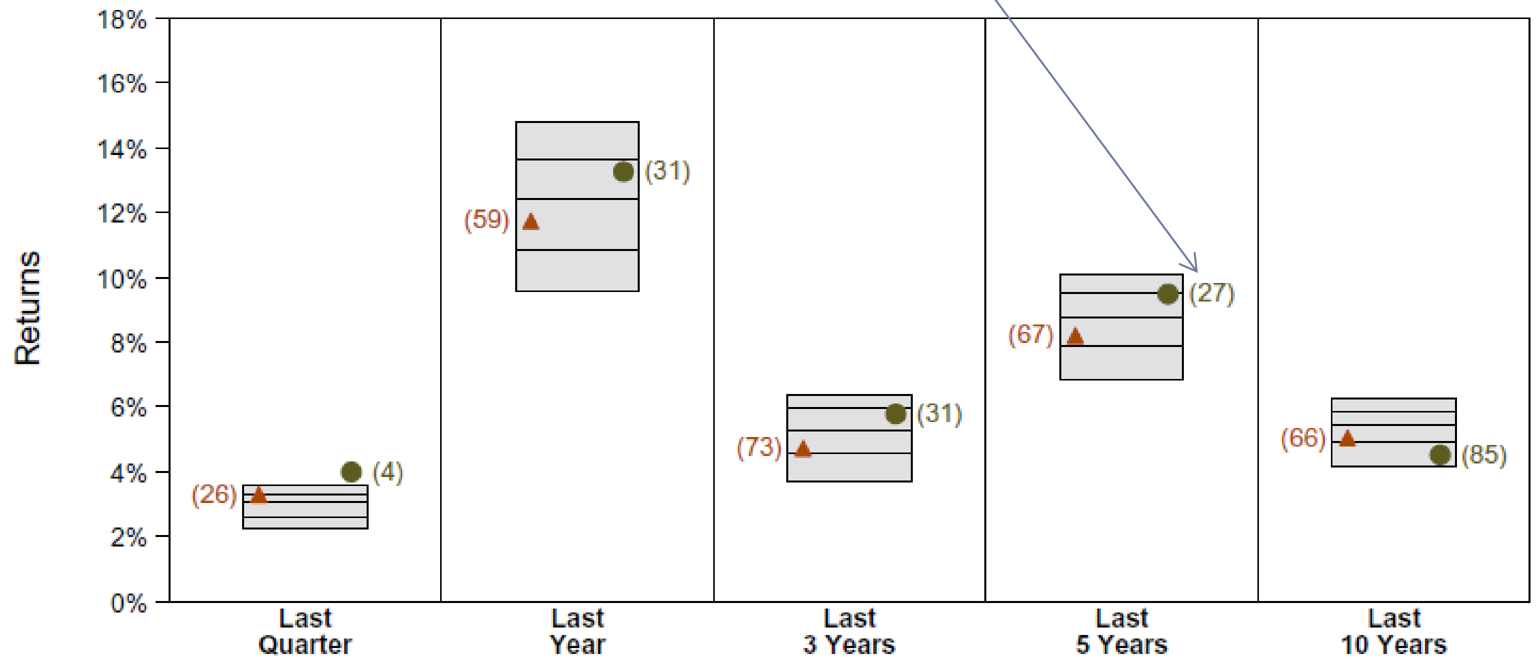
PERS Group Insurance performance for the fiscal year ended June 30, 2017 is disappointing but within 0.04% of the Policy Benchmark Return over the last 5-years.

The Tobacco Prevention and Control Trust Fund was transferred to OMB regulatory oversight on July 1, 2017.

Note: Current year returns are unaudited and subject to change.

Pension Trust "gross" returns were ranked in the 27th percentile for the 5-years ended June 30, 2017, based on Callan's "Public Fund Sponsor Database".

CAI Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	3.57	14.82	6.37	10.09	6.29
25th Percentile	3.31	13.62	5.95	9.53	5.85
Median	3.04	12.42	5.30	8.78	5.44
75th Percentile	2.62	10.86	4.56	7.86	4.93
90th Percentile	2.23	9.59	3.73	6.82	4.19
Total Fund ●	3.99	13.26	5.78	9.48	4.52
Policy Target ▲	3.29	11.74	4.73	8.20	5.04

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

Board Action Requested

Remove PIMCO from Watch List

After extensive due diligence by investment staff and consultation with Callan, RIO recommends that PIMCO be removed from our Watch List. PIMCO was originally placed on Watch following the resignation of co-founder and CIO Bill Gross on September 26, 2014. PIMCO remained on Watch during the last three years largely due to continued senior management changes at the firm. Most recently, Mr. Emmanuel (Manny) Roman was named PIMCO's CEO on July 19, 2016. Mr. Roman is an investment professional with nearly 30 years of experience including executive leadership roles at Goldman Sachs and serving as CEO of Man Group PLC (one of the world's largest publicly traded alternative asset managers) since 2013. Recent staff meetings with Manny and Group CIO Dan Ivascyn confirm our belief that PIMCO has successfully emerged from the post-Bill Gross era noting that firm asset levels have stabilized at roughly $1.6 trillion.

Total SIB assets with PIMCO were valued at $786 million as of June 30, 2017, including $184 million in Agency MBS, $68 million in Unconstrained, $206 million in DISCO, $115 million in BRAVO and $213 million in U.S. Small Cap Equity. **Investment performance for each of these strategies have met, if not exceeded staff expectations since inception.** In general, **PIMCO has exceeded our expectations in the private market strategies** (including DISCO and BRAVO which have produced double digit returns per annum since inception) **and met our expectations in the public markets** (including Agency MBS and Unconstrained which earned 2% to 3.5% p.a. since inception and U.S. Small Cap which earned 7.2% p.a. since inception, but 14.6% p.a. the last 5-years).

RIO requests the SIB approve the recommendation to remove PIMCO from our Watch List noting that PIMCO's senior management team appears to have stabilized in recent years and noting that investment performance has consistently met or exceeded our expectations since inception including the most recent 3-to-5 year periods.

Asset and Investment Performance Highlights

- **SIB client assets reached an all-time high of nearly $12.3 billion as of June 30, 2017.**
- **Investment returns exceeded policy benchmarks for 99% of SIB client assets under management for the 5-years ended June 30, 2017, while noting that prescribed risk levels (as measured by standard deviation) were adhered to for all client portfolios without exception.**
- **PERS and TFFR earned 13.0% and 12.9%, respectively, for the year ended June 30, 2017, exceeding their policy benchmarks by over 1% and generating $45 million of excess return (in fiscal 2017). For the 5-years ended June 30, 2017, PERS and TFFR each earned over 9.1% per annum including 0.75% of excess return which translates into $150 million of incremental income (over the last 5 years).**
- **Legacy Fund earned 12% for the year ended June 30, 2017, surpassing its policy benchmark by over 1.5% which translates into $60 million of incremental income in fiscal 2017.**
- **Workforce Safety & Insurance earned 8.2% and 6.9% for the 1- and 5-year periods ended June 30, 2017, beating its policy benchmarks by at least 1.5% which translates into over $100 million of incremental income for WSI over the last 5-years.**
- **BND's deposit program is being enhanced to raise the interest rate up to 0.10% above the effective federal funds rate for overnight investments and may incorporate separate fixed rate CD's with terms up to 3-years. Given BND's AA deposit rating and short-term nature of these investments, RIO deems the interest rate risk to be reasonable noting aggregate BND exposure will not exceed the SIB approved $200 million level.**

The above amounts are based on unaudited data that is deemed to be materially accurate but subject to change.

AGENDA ITEM IV.B.

BOARD ACTION REQUESTED

To: State Investment Board

From: Dave Hunter, Executive Director / CIO

Date: August 21, 2017

RE: New SIB Client Request

SIB Client Inquiry:

Mr. Matthew Gardner, North Dakota Parks and Recreations Department (NDPRD) Manager, inquired if an endowment trust for the Lewis and Clark Fort Mandan Foundation could become a client of the SIB. NDPRD recently received $650,000 in the trust and worked through Assistant Attorney General, Joseph Bialke "Dutch" on the transfer. The intent of the trust is for ongoing maintenance of the Lewis and Clark Interpretive Center for Fort Mandan (Center). Their hope would be to use the investment income on a biennial basis to offset maintenance costs of the Center.

RIO Response:

Upon further review and discussion with the Office of the Attorney General, RIO informed Mr. Gardner that the SIB could accept NDPRD as a contract client, but not without a restructuring of the Lewis and Clark Trust. As such, Assistant Attorney General Joseph Bialke requested the NDPRD take one of the two recommended actions.

1. Request the current Advisory Board approve transferring the entire corpus of the trust to NDPRD under Article V (a) and (b); or
2. Amend the trust again to change the trustee from the L&C Foundation to NDPRD.

Assistant Attorney General Janilyn Murtha indicated that both options are acceptable and will be present at the SIB for further consultation and guidance.

If the SIB desires, RIO will inform NDPRD of the SIB's willingness or unwillingness to accept NDPRD as an investment client for the above stated trust funds at a future date.

North Dakota State Investment Board

Fixed Income Restructuring Overview

August 25, 2017

Dave Hunter, Darren Schulz and Eric Chin

Pension Trust Fixed Income Structure

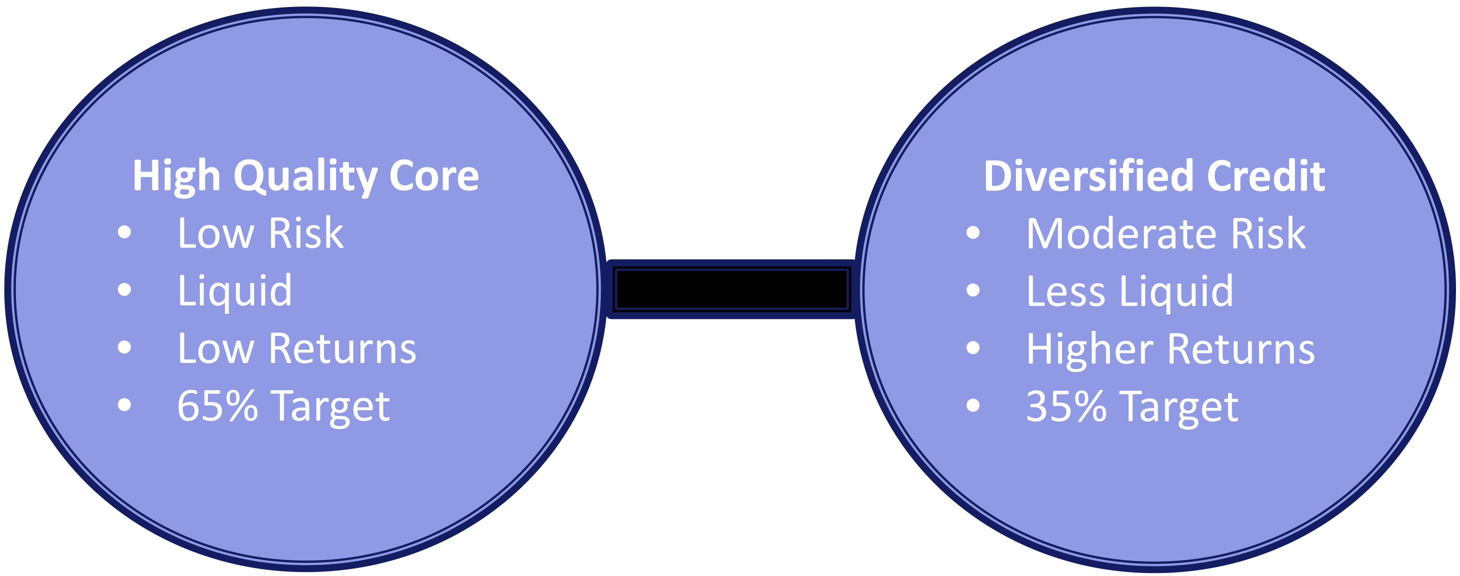
- Evolving fixed income landscape and stage of credit cycle merited a review of the Pension Trust's current fixed income manager structure
- In January, Staff presented a conceptual framework encompassing the following changes:
  - Increasing anchor of high quality, low risk, highly liquid U.S. investment grade core fixed income aka "High Quality Core"
  - Diversifying traditional non-investment grade with high yield/loan alternatives and private credit aka "Diversified Credit"
  - Transitioning non-U.S./global developed fixed income into U.S. centric fixed income

North Dakota State Investment Board

Fixed Income Structure Proposal

Initially discussed at the Jan. 2017 Board Meeting

- Barbelled approach



- Increase allocation to investment grade instruments
- Reallocate current investment grade assets into two Core Bond mandates—allow managers to tactically shift allocations across investment grade assets

North Dakota State Investment Board

Higher Expected Risk-Adjusted Returns

PENSION TRUST - Fixed Income Only				
Fixed Income Restructuring to Improve Returns and Reduce Risk				
CURRENT	Target	Projected	Projected	
Pension Trust	Allocation	Return	Risk	
U.S. Investment Grade (IG)	13.3%	3.0%	3.8%	
U.S. High Yield Debt (HY)	4.6%	4.8%	10.4%	
International Debt	**5.4%**	**1.4%**	**9.2%**	
Fixed Income	23.3%	(1) **3.0%**	**6.3%** (3)	
				$5,299
PROPOSED	Target	Projected	Projected	**Pension $**
Pension Trust	Allocation	Return	Risk	**$5.3 billion**
U.S. Investment Grade (IG	**16.3%**	**3.0%**	**3.8%**	**$864**
Diversified Credit (DC)	**7.0%**	**4.8%**	**10.4%**	**$371**
International Debt (a)	**0.0%**	**1.4%**	**9.2%**	**$0**
Fixed Income	23.3%	(2) **3.5%**	**5.7%** (4)	**$1,235**

RIO's Fixed Income Recommendation:

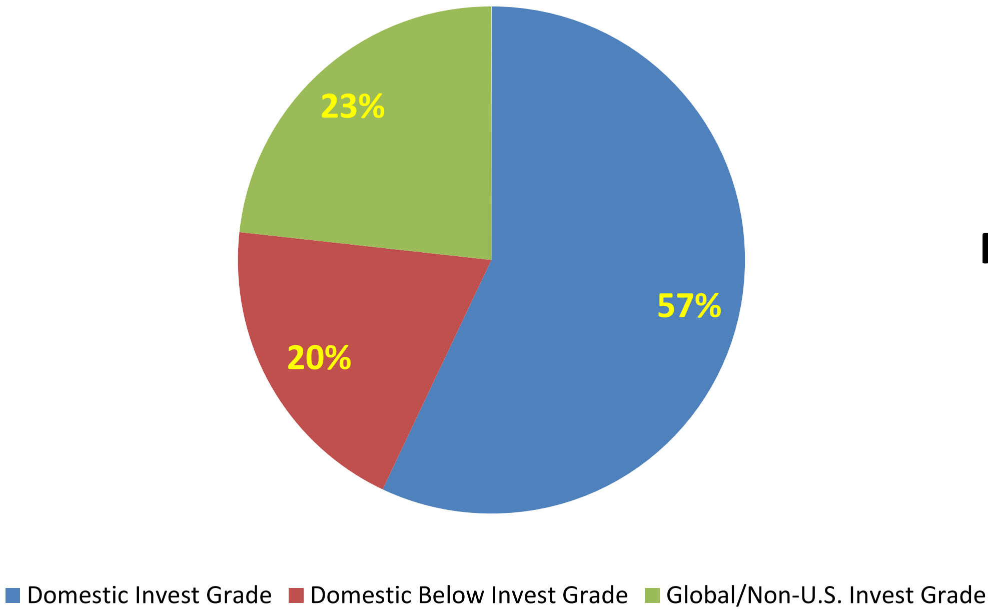
If International Debt (a) is eliminated while U.S. Investment Grade and Diversified Credit are increased by 3% and 2.4%, respectively, Projected Return would increase from 3.0% (1) to 3.5% (2), while Projected Risk would decline from 6.3% (3) to 5.7% (4).

Key Point: RIO's Recommendation Increases Projected Returns 0.5% and Decreases Projected Risk 0.6% of "Fixed Income" in the Pension Trust.

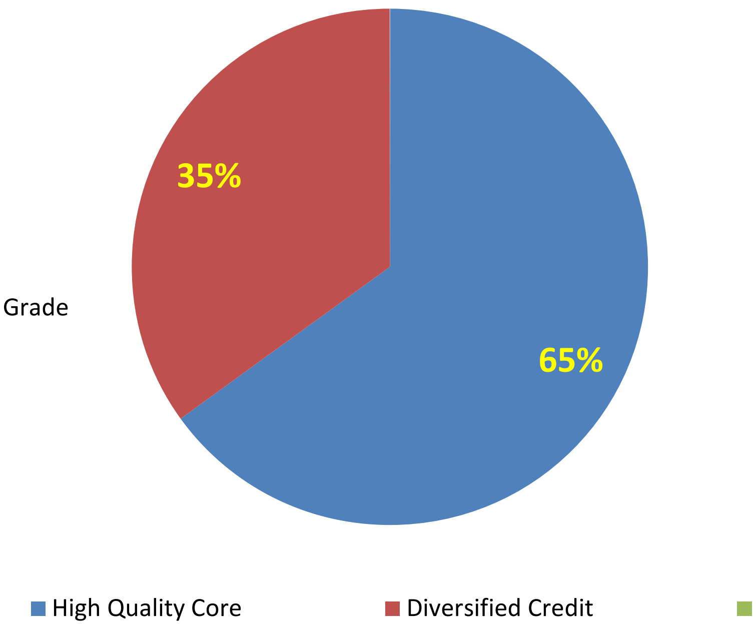
North Dakota State Investment Board

Summarized Allocation Changes

Existing Fixed Income Structure



Proposed Fixed Income Structure



PIMCO

Relationship summary and organizational review

25 August 2017

North Dakota State Investment Board

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Biographical information

Stephanie L. King, CFA

Ms. King is an executive vice president, head of the U.S. public client practice and an account manager in the Newport Beach office, focusing on institutional investors within the public sector. Previously at PIMCO, she worked with a variety of institutional client types and headed the U.S. corporate client practice. Additionally, she led the firm's global recruiting function as part of PIMCO's business management group and worked on a variety of talent management initiatives. She currently serves on the steering committee for PIMCO's global inclusion, diversity and culture initiative. Prior to joining PIMCO in 2001, she was with Morgan Stanley, Blue Capital Management and Bain & Company. She has 18 years of investment experience and holds an MBA from Stanford University Graduate School of Business and an undergraduate degree from the Wharton School of the University of Pennsylvania.

Scott A. Mather

Mr. Mather is CIO U.S. Core Strategies and a managing director in the Newport Beach office. He is a member of the Investment Committee and a generalist portfolio manager. Mr. Mather also oversees ESG portfolio integration in the U.S. Previously he was head of global portfolio management. Before that, he led portfolio management in Europe, managed euro and pan-European portfolios and worked closely with many Allianz-related companies. He also served as a managing director of Allianz Global Investors KAG. Prior to these roles, Mr. Mather co-headed PIMCO's mortgage- and asset-backed securities team. Prior to joining PIMCO in 1998, he was a fixed income trader specializing in mortgage-backed securities at Goldman Sachs in New York. He has 22 years of investment experience and holds a master's degree in engineering, as well as undergraduate degrees, from the University of Pennsylvania.

Agenda

1/Relationship summary

2/PIMCO organizational review

1. Relationship summary

Relationship summary: North Dakota State Investment Board and PIMCO

Name	Inception	Market Value	Annualized Performance Since Inception / After Fee IRR[1]
Public Investments			
Agency MBS	30 March 2012	$ 184,371,068	2.1
Unconstrained Bond*	31 March 2014	$ 68,420,077	3.5
RAE Fundamental U.S. Small - Insurance	30 June 2007	$ 40,563,035	7.1
RAE Fundamental U.S. Small - Legacy	28 February 2015	$ 172,339,311	7.4
Private Investments			
DiSCO II – Pension	07 October 2011	$ 108,345,259	14.6
DiSCO II – Insurance	07 October 2011	$ 97,402,771	14.6
BRAVO II – Pension**	11 October 2013	$ 57,304,239	11.9
BRAVO II – Insurance**	11 October 2013	$ 57,304,239	11.9
DiSCO I***	30 June 2008	-	11.0
Distressed Mortgage Fund***	31 October 2007	-	9.0
	Total:	**$ 786,049,999**	

As of 31 July 2017
1 Performance reported net of fees (including unrealized and realized carry and is shown since inception for each private fund- assumes that each fund is liquidated at the end of the stated reporting period)
* Originally invested in the PIMCO Unconstrained Bond Fund on 05 March 2012
** As of 30 June 2017
*** Final performance figure for the commingled vehicle. Original capital commitment in DiSCO I was $50,000,000. Original capital commitment in DMF was $20,000,000

2. PIMCO organizational review

PIMCO at a glance

2,150+
Employees around the world

675+
Global investment professionals

225
Portfolio Managers with an average of 15 years investment experience

160+
Investment professionals who have been at PIMCO for more than 10 years

55+
Global Credit Analysts

14
Sector Specialty Desks

12
Global offices throughout the Americas, Europe and Asia

$1.61 trillion
Assets under management

As of 30 June 2017. SOURCE: PIMCO.

PIMCO: Focused on delivering returns and managing risks

PIMCO Today

Assets under management

- $1.61 trillion[1]

Deep global resources and expertise

- Over 2,150 total employees
  - Over 675 investment professionals
  - 225 portfolio managers with 15yrs average investment experience
- PIMCO Global Advisory Board

Time-tested investment philosophy

- Diversified set of alpha engines
  - Top Down
  - Bottom Up
  - Structural tilts

Looking Ahead

What We Stand For

- PIMCO is committed to being the world's premier fixed income investment manager

Client objectives driving focus

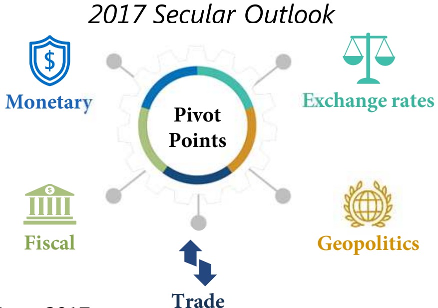
- Investing in technology to bolster capabilities
- Expanding expertise across fixed income, quantitative investing and alternative strategies
- Integrating ESG with dedicated platform and resources
- Delivering customized solutions to meet the dynamic needs of our clients

Industry leading and community minded

- Total Return turns 30!
- Ranked best fund family for 2016 by Barron's[2]
- 9th annual global week of volunteering
- 2017 Civic 50 Award

Thought Leadership

Pivot Points
2017 Secular Outlook



Bond by Bond
No Shortcuts in Credit Research

Bonds are Different
Active vs. Passive Management in 12 Points

As of 30 June 2017

[1] Effective 31 March 2012, PIMCO began reporting the assets managed on behalf of its parent's affiliated companies as part of its assets under management.

[2] Fund Family rakings: 1Yr. 2 out of 61; 5Yrs. 1 out of 54, and; 10 Yrs. 1 out of 53. Barron's/Lipper ranking 2016 is based on after fees performance weighted by asset size, relative to the fund family's other assets in its general classification. Performance of a fund family's largest funds can materially affect a firm's ranking. To be included in the ranking, a firm must have at least three funds in the general equity category, one world equity, one mixed equity (e.g., balanced or target-date fund), two taxable bonds, and one tax-exempt bond fund. Single-sector, country, and state-specific municipal-bond funds are not factored into the score; nor are Standard & Poor's 500 index funds. **Past rankings are no guarantee of future rankings.**

Assets under management by strategy

PIMCO manages $1.61 trillion in assets, including $1.22 trillion in third-party client assets

		Billions ($)
Alternatives		
Hedge Funds	Global macro, long/short credit, multi-asset volatility arbitrage strategies, relative value commodities	17.35
Liquid Absolute Return	Unconstrained bond strategies, credit absolute return, other absolute return strategies	16.13
Opportunistic/Distressed	Opportunistic strategies focusing on real estate related assets (residential, commercial), corporate credit	7.42
Asset Allocation		
Asset Allocation Strategies	Global Multi Asset, All Asset, EM Multi Asset, RealPath, Inflation-Response Multi Asset, DRA	36.40
Equities		
Equity Strategies	Combines enhanced equities and active equities	25.62
Real Return		
Real Return Strategies	Combines inflation linked strategies, actively managed commodities, and real-estate linked exposure	59.52
Fixed Income		
Total Return[1]	Total Return	91.57
Intermediate[2]	Core Strategies, Moderate Duration	109.05
Credit	Investment Grade Corporates, Bank Loans, High Yield Corporates, Convertibles	206.05
Long Duration	Focus on long-term bonds; asset liability management	144.86
Income	Income-oriented, insurance income	181.97
Global	Non-US and global multiple currency formats	96.86
Cash Management[2]	Money Market, Short-Term, Low Duration	102.64
Emerging Markets	Local debt, external debt, currency	39.76
Mortgages	Agency MBS, structured credit (non-Agency MBS, CMBS, and ABS)	31.56
Diversified Income	Global credit combining corporate and emerging markets debt	20.42
Municipals	Tax-efficient total return management	15.78
Other	Custom mandates	15.94
Total assets under management		**$ 1,218.90 B**
Stable Value[2]	Stable income with emphasis on principal stability	19.81
Tail-Risk Hedging[3]	Pooled and customized portfolios of actively managed tail-risk hedges	32.24

As of 30 June 2017. SOURCE: PIMCO

Assets reflect those managed on behalf of third-party clients and exclude affiliated assets. Fund of funds assets have been netted from each strategy.

Potential differences in asset totals are due to rounding. Represents assets of strategy group in dedicated and non-dedicated portfolios.

[1] Total Return has been segregated to isolate the assets of PIMCO sponsored U.S. Total Return 1940-act fund and foreign pool fund accounts. All other U.S. Total Return portfolios are included in the Intermediate category.

[2] Stable value assets have not been netted from U.S. Total Return, U.S. Moderate Duration and U.S. Low Duration assets.

[3] Tail-risk hedging assets reflect total notional value of dedicated mandates and are not counted towards PIMCO total assets under management.

PIMCO

An Introduction to PIMCO's Total Return Fund II
25 August 2017

North Dakota State Investment Board

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Disclosures

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Investors should consider the investment objectives, risks, charges and expenses of the funds carefully before investing. This and other information are contained in the fund's prospectus and summary prospectus, if available, which may be obtained by contacting your investment professional or PIMCO representative or by visiting www.pimco.com. Please read them carefully before you invest or send money.

These materials are being provided on the express basis that they and any related communications (whether written or oral) will not cause Pacific Investment Management Company LLC (or any affiliate) (collectively, "PIMCO") to become an investment advice fiduciary under ERISA or the Internal Revenue Code, as the recipients are fully aware that PIMCO (i) is not undertaking to provide impartial investment advice, make a recommendation regarding the acquisition, holding or disposal of an investment, act as an impartial adviser, or give advice in a fiduciary capacity, and (ii) has a financial interest in the offering and sale of one or more products and services, which may depend on a number of factors relating to PIMCO (and its affiliates') internal business objectives, and which has been disclosed to the recipient. These materials are also being provided on PIMCO's understanding that the recipients they are directed to are all financially sophisticated, capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies. If this is not the case, we ask that you inform us immediately. You should consult your own separate advisors before making any investment decisions.

These materials are also being provided on the express basis that they and any related communications will not cause PIMCO (or any affiliate) to become an investment advice fiduciary under ERISA or the Internal Revenue Code with respect to any recipient or any employee benefit plan or IRA because: (i) all recipients are acting as or on behalf of a U.S. registered investment adviser, a U.S. registered broker-dealer, a bank regulated by the United States or any State, an insurance company licensed by more than one State to manage the assets of employee benefit plans subject to ERISA (and together with plans subject to Section 4975 of the Internal Revenue Code, "Plans"), or a fiduciary with respect to such Plan(s) with at least $50 million of client assets under management and control, (ii) the recipients are all independent of PIMCO and its affiliates, (iii) upon review of all relevant facts and circumstances, the recipients have concluded that they have no financial interest, ownership interest, or other relationship, agreement or understanding with PIMCO or any affiliate that would limit any fiduciary responsibility that any recipient may have with respect to any Plan on behalf of which this information may be utilized, and (iv) the recipient is, or is represented by, an independent fiduciary that satisfies the criteria set forth in 29 C.F.R. § 2510.3-21(c)(1), including but not limited to paragraphs (c)(1)(i), (ii), and (iv). If this is not the case, or if there is any relationship with any recipient of which you are aware that would call into question the recipient's ability to independently fulfill its responsibilities to any such Plan, we ask that you let us know immediately.

The information provided herein is intended to be used solely by the recipient in considering the products or services described herein and may not be used for any other reason, personal or otherwise.

PIMCO Investments LLC

CMR2017-0818-285605

Biographical information

Stephanie L. King, CFA

Ms. King is an executive vice president, head of the U.S. public client practice and an account manager in the Newport Beach office, focusing on institutional investors within the public sector. Previously at PIMCO, she worked with a variety of institutional client types and headed the U.S. corporate client practice. Additionally, she led the firm's global recruiting function as part of PIMCO's business management group and worked on a variety of talent management initiatives. She currently serves on the steering committee for PIMCO's global inclusion, diversity and culture initiative. Prior to joining PIMCO in 2001, she was with Morgan Stanley, Blue Capital Management and Bain & Company. She has 18 years of investment experience and holds an MBA from Stanford University Graduate School of Business and an undergraduate degree from the Wharton School of the University of Pennsylvania.

Scott A. Mather

Mr. Mather is CIO U.S. Core Strategies and a managing director in the Newport Beach office. He is a member of the Investment Committee and a generalist portfolio manager. Mr. Mather also oversees ESG portfolio integration in the U.S. Previously he was head of global portfolio management. Before that, he led portfolio management in Europe, managed euro and pan-European portfolios and worked closely with many Allianz-related companies. He also served as a managing director of Allianz Global Investors KAG. Prior to these roles, Mr. Mather co-headed PIMCO's mortgage- and asset-backed securities team. Prior to joining PIMCO in 1998, he was a fixed income trader specializing in mortgage-backed securities at Goldman Sachs in New York. He has 22 years of investment experience and holds a master's degree in engineering, as well as undergraduate degrees, from the University of Pennsylvania.

Agenda

1/Core fixed income investment process & outlook

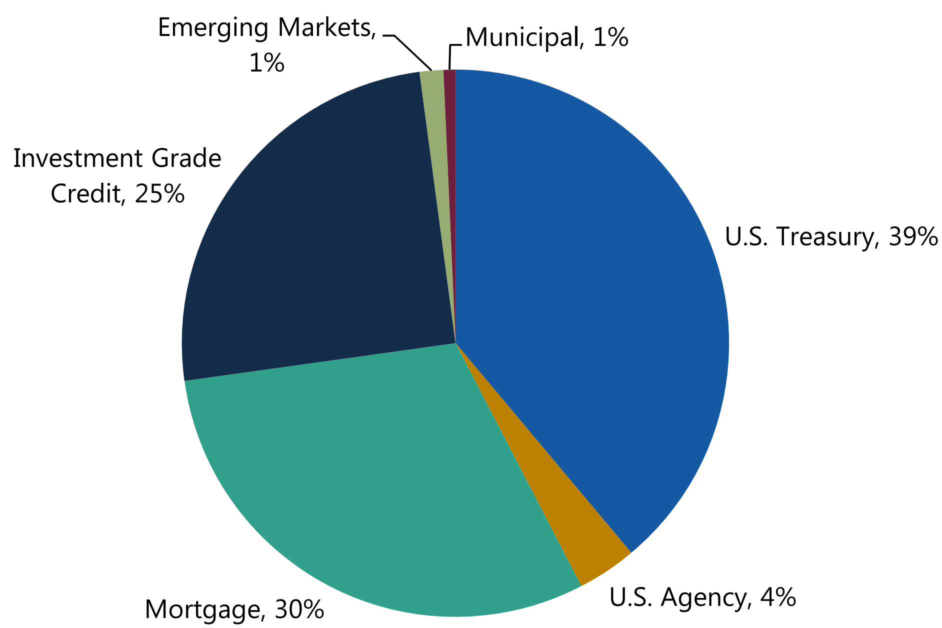
1. Core fixed income investment process & outlook

Overview of PIMCO core fixed income strategies

PIMCO Total Return Strategies

- Strategy objective: outperform the Barclays U.S. Aggregate Index
- Eligible investments: primarily U.S. Treasuries, Investment Grade Corporate Credit, and Mortgage Backed Securities
- Investment style: active management approach utilizing a variety of strategies across portfolio dimensions
  - Duration management
  - Yield curve positioning
  - Sector over- and under-weights
  - Security selection

Barclays U.S. Aggregate Sector Exposures



As of 30 June 2017
Benchmark: Barclays U.S. Aggregate Index
Refer to Appendix for additional index, investment strategy and risk information

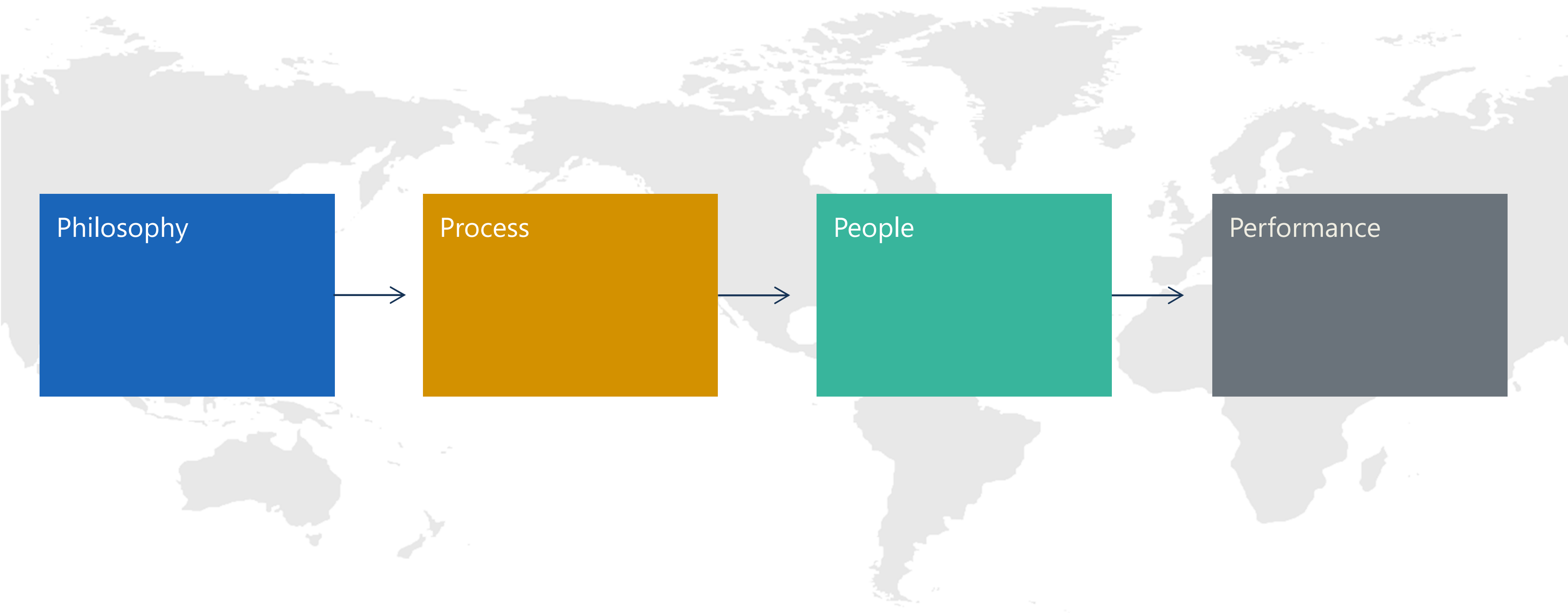
Why invest in core bonds…with PIMCO?

Why PIMCO?

- **Time-tested investment process** that has led to a strong long-term track record
- **Breadth and depth of PM resources** that has allowed effective usage of a broad investment opportunity set
- **Diverse alpha strategies** that have provided consistency in adding value across various market environments
- **Focus on risk management** that has enabled robust risk-adjusted returns

Refer to Appendix for additional investment strategy and risk information.

Total Return: positioning for long-term success



PIMCO’s investment philosophy

- Long-term orientation
- Diverse strategies
- Broad universe
- Risk management

Refer to Appendix for additional investment strategy and risk information.

Positioned for long-term success:
Total Return leverages PIMCO's top-down and bottom-up expertise

TOP-DOWN

Macroeconomic forum

Market strategy sessions (ongoing)

Asia Portfolio Committee (APC)	Americas Portfolio Committee (AmPC)	European Portfolio Committee (EPC)	Emerging Market Portfolio Committee (EMPC)

Investment Committee

TR PORTFOLIO MANAGEMENT TEAM

Investment Committee

Mortgages	Credit IG/HY	Short-Term	Municipals	Treasuries	TIPS	Global	Currencies

Sector and regional specialty desks

Macroeconomic forum

BOTTOM-UP

Refer to Appendix for additional investment strategy and risk information.

Positioning for long-term success:
Investment process – from themes to holdings

THEMES

- Secular outlook
- Cyclical outlook

MARKET VIEWS

- Interest rates
- Volatility
- Yield curve shape
- Credit trends
- Country outlooks

PORTFOLIO TARGETS

- Duration
- Yield curve position
- Sector (index and plus)
- Quality
- Country weights

PORTFOLIO CONSTRUCTION

Buy and sell bonds based on:

- Consistency with targets
- Portfolio guidelines
- Valuation (rich/cheap)
- Instrument selection
- Credit selection
- Risk controls
- Liquidity

All investment professionals and outside experts

Investment committee / Global portfolio managers

Generalist portfolio managers and specialist teams

Refer to Appendix for additional investment strategy and risk information.

PIMCO's portfolio management committee teams

Group Chief Investment Officer

Dan Ivascyn

CIOs

Andrew Balls	**Mark Kiesel**	**Scott Mather**	**Marc Seidner**	**Mihir Worah**
CIO Global Fixed Income	CIO Global Credit	CIO US Core Strategies	CIO Non-Traditional Strategies	CIO Real Return and Asset Allocation

ADDITIONAL INVESTMENT COMMITTEE MEMBERS

Tony Crescenzi	Mohsen Fahmi	Qi Wang	Jiaying Huang[1]	Vinayak Seshasayee[1]
Chris Dialynas	Joachim Fels	Mukundan Devarajan[1]	Jing Yang[1]	

ASIA-PACIFIC PORTFOLIO COMMITTEE		AMERICAS PORTFOLIO COMMITTEE		EUROPEAN PORTFOLIO COMMITTEE		EMERGING MARKETS PORTFOLIO COMMITTEE
Adam Bowe	Raja Mukherji	Jeremie Banet[2]	Emmanuel Sharef	Mike Amey	Nicola Mai	Yacov Arnopolin
Tadashi Kakuchi	Luke Spajic[2]	Libby Cantrill	Saurabh Sud	Andrew Balls	Lorenzo Pagani	Francesc Balcells
Tomoya Masanao	Dorris Chen[3]	Rick Chan	Tiffany Wilding[2]	Volker Blau	Eve Tournier	Pramol Dhawan
Rob Mead	Sachin Gupta[3]	Lillian Lin	Xiao Han[3]	Philippe Bodereau	Konstantin Veit	Gene Frieda
Isaac Meng	Abhijeet Neogy[3]	Andrew Nowobilski	Ismael Orenstein[3]	Andrew Bosomworth[2]	Mukundan Devarajan[3]	Mike Gomez[2]
Roland Mieth	Taosha Wang[3]	Vinayak Seshasayee	Stefano Risa[3]	Thomas Kressin	Christian Wild[3]	Lupin Rahman

As of 30 June 2017
IC Chair rotates between the Group CIO and CIOs
[1] IC rotating members
[2] Portfolio Committee Chair
[3] Committee Rotating Member
Refer to Appendix for additional investment strategy and risk information

Positioning for long-term success:
The Total Return leadership team

Scott Mather, CIO U.S. Core Strategies, Portfolio Manager

- Member of the Investment Committee
- Previously head of Global Portfolio Management
- Joined PIMCO in 1998
- Masters degree in engineering from University of Pennsylvania
- Finalist for Morningstar Fixed-Income Manager of the Year (2011)

Mark Kiesel, CIO Global Credit, Portfolio Manager

- Member of the Investment Committee
- Joined PIMCO in 1996
- Morningstar Fixed-Income Fund Manager of the Year (U.S.) for 2012
- MBA from University of Chicago

Mihir Worah, CIO Real Return and Asset Allocation, Portfolio Manager

- Member of the Investment Committee
- Joined PIMCO in 2001
- Previously a postdoctoral research associate at the University of California, Berkeley and the Stanford Linear Accelerator Center
- Ph.D. in theoretical physics from University of Chicago

The Morningstar Fixed-Income Fund Manager of the Year award is based on the strength of the manager, performance, strategy and firm's stewardship. Morningstar Awards 2012 ©. Morningstar, Inc. All Right Reserved. Awarded to Mark Kiesel for U.S. Fixed-Income Fund Manager of the Year.
Refer to Appendix for additional investment strategy and risk information

PIMCO Global Advisory Board

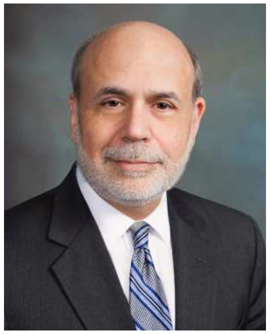
Insights from market and policy experts to complement our investment process

- Members meet several times per year and attend PIMCO's Secular Forum
- Board offers collective views on global economic, political and strategic developments
- Inform but not change PIMCO's longstanding investment process

Ben Bernanke | Chair of the Board

Economist, Former Chairman of the Federal Reserve

2000 and 2015 PIMCO Secular Forum speaker, "Perspectives on the Secular Outlook"



Gordon Brown

Former UK Prime Minister and Chancellor of the Exchequer

2011 PIMCO Secular Forum speaker, "Evolution of the international monetary system over the next few years"

Ng Kok Song

Former Chief Investment Officer of the Government of Singapore Investment Corporation (GIC)

Anne-Marie Slaughter

President and CEO of New America, Former Director of Policy Planning at U.S. State Department

2014 PIMCO Secular Forum speaker, "Geopolitical hot spots"

Jean-Claude Trichet

Former President of the European Central Bank

2015 PIMCO Secular Forum speaker, "Global monetary policy: Where do Central Banks go from here?"

PIMCO's record of performance – Total Return Fund II

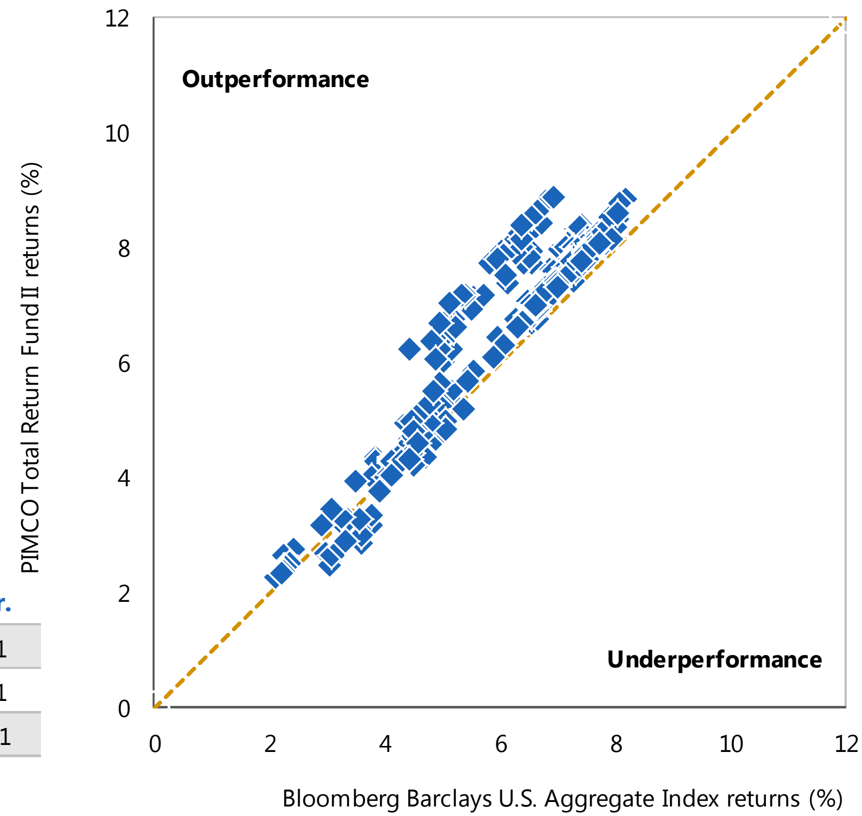
Fund outperformed benchmark 217 out of 247 rolling monthly 5-year periods after fees

Contributing factors

- Conservative investment philosophy
- Long-term orientation
- Diversified sources of return
- Top-down and bottom-up insights
- Risk management emphasis

PIMCO Total Return Fund II (Inception: 30 Dec '91)	S.I.	10 yrs.	5 yrs.	3 yrs.	1 yr.
Before fees (%)	6.77	6.06	2.85	2.90	2.11
After fees (%)	6.24	5.53	2.33	2.38	1.61
Bloomberg Barclays U.S. Aggregate Index (%)	5.62	4.48	2.21	2.48	-0.31

PIMCO Total Return Fund II (after fees) versus Bloomberg Barclays U.S. Aggregate Index rolling monthly 5-year returns from 31 December 1996 through 30 June 2017



Performance quoted represents past performance. Past performance is not a guarantee or a reliable indicator of future results. Investment return and the principal value of an investment will fluctuate. Shares may be worth more or less than original cost when redeemed. Current performance may be lower or higher than performance shown. For performance current to the most recent month-end, visit www.PIMCO.com or call (888) 87-PIMCO.

As of 30 June 2017
The 45-degree line in the performance graph(s) represents the point at which the fund performance is equal to the index.
Performance shown is for the institutional share class.
Refer to Appendix for additional performance and fee, chart, index and risk information.

PIMCO Total Return: Risk management and capital preservation

Risk management

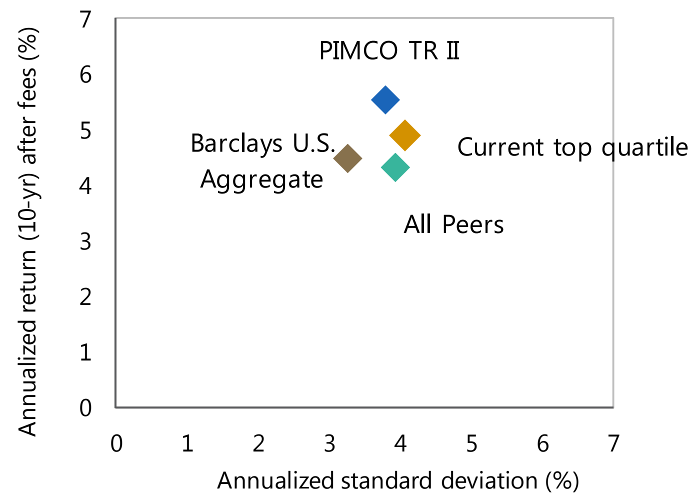
- PIMCO TR II is in the top decile[1] of all the share classes in the category based on 10-year returns
- PIMCO TR II has delivered a higher average return with lower volatility over the past 10 years than the average peer[2] currently in the top quartile

Capital preservation

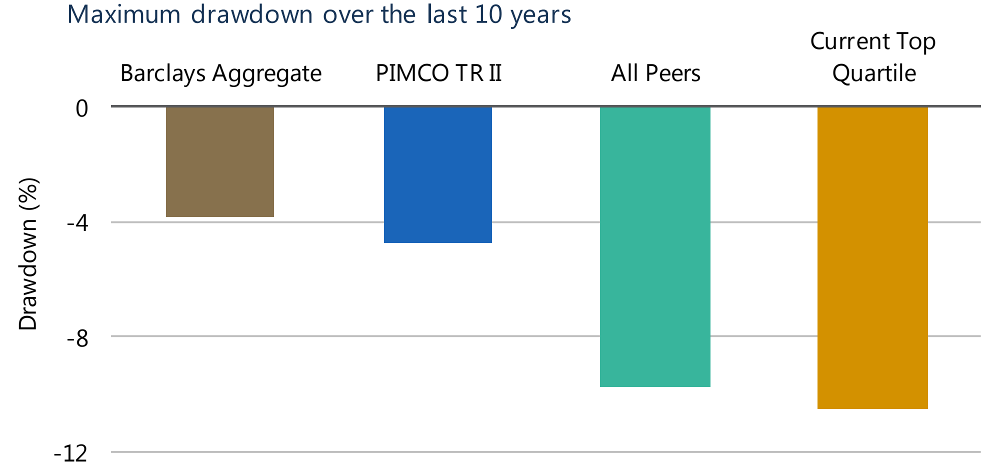
- Our rigorous risk management has helped the fund navigate a variety of market events and climates
- PIMCO TR II's maximum drawdown[3] over the last 10 years is lower than its average peer

Performance quoted represents past performance. Past performance is not a guarantee or a reliable indicator of future results. Investment return and the principal value of an investment will fluctuate. Shares may be worth more or less than original cost when redeemed. Current performance may be lower or higher than performance shown. For performance current to the most recent month-end, visit www.PIMCO.com or call (888) 87-PIMCO.

Risk versus return



Maximum drawdown over the last 10 years



As of 30 June 2017. SOURCE: Morningstar, PIMCO.
Performance shown is for the institutional share class.

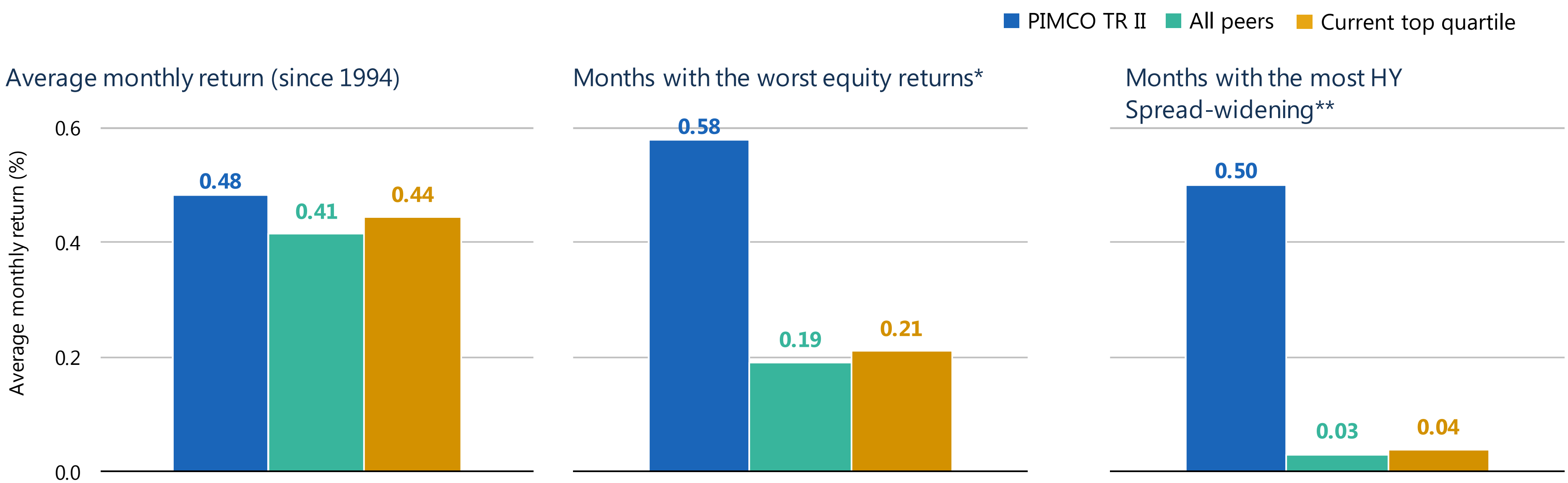
[1] PIMCO Total Return II (TR II) ranking is based on performance for the institutional share class (PMBIX). [2] Peer group in rankings are based on all share classes of funds in Morningstar's OE Intermediate-Term Bond Category with at least 10 years of performance history. The Current top quartile reflects those share classes in the top quartile based on 3-year returns. [3] Maximum drawdowns are calculated as the change from peak to trough in the specified period (10 years) using monthly returns.

Fund percentile rankings: 1 Yr. 274 (980 investments ranked); 3 Yrs. 350 (856 investments ranked) 5 Yrs. 419 (767 investments ranked); 10 Yrs. 42 (540 investments ranked).

Refer to Appendix for additional performance and fee, chart, index, Morningstar Ranking and risk information.

Delivering on our commitment to investors:
Diversification in periods of market stress

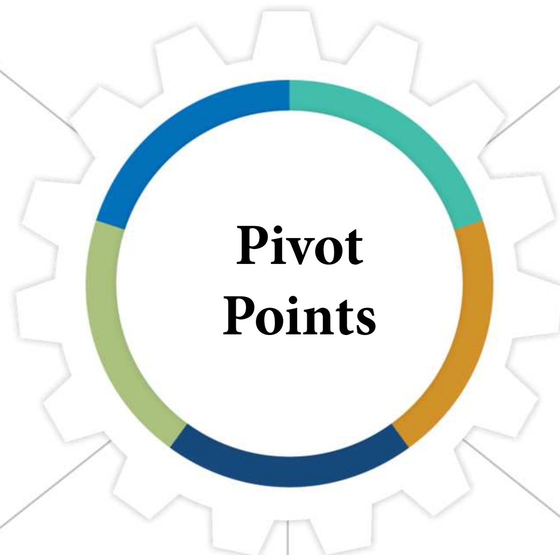
- PIMCO TR II seeks a diverse set of alpha strategies, resulting in:
  - A higher average monthly return than its peer group
  - Stronger performance through times of market stress, when investors especially seek diversification to other elements in their own portfolios
- In months where equities sold-off* or high yield spreads widened the most,** PIMCO TR II had the highest average return relative to peers.



Performance quoted represents past performance. Past performance is not a guarantee or a reliable indicator of future results. Investment return and the principal value of an investment will fluctuate. Shares may be worth more or less than original cost when redeemed. Current performance may be lower or higher than performance shown. For performance current to the most recent month-end, visit www.PIMCO.com or call (888) 87-PIMCO.

As of 30 June 2017. SOURCE: Morningstar, Bloomberg, PIMCO. Performance shown is for the institutional share class after-fees.
Equities are represented by the S&P 500 Total Return Index. High Yield is represented by the Barclays U.S. Corporate High Yield Index. Peer group based on all share classes of funds in Morningstar's OE Intermediate-Term Bond Category. PIMCO Total Return II (TR II) performance reflects the institutional share class (PMBIX). The current top quartile reflects those share classes currently in the top quartile based on three-year returns. Monthly returns are calculated from January 1994, the earliest available date for the HY index
*The worst equity returns are identified as the worst 25% of months with negative S&P 500 returns
**The most HY spread-widening months are identified as the widest 25% of months with spread widening
Fund percentile rankings: 1 Yr. 274 (980 investments ranked); 3 Yrs. 350 (856 investments ranked) 5 Yrs. 419 (767 investments ranked); 10 Yrs. 42 (540 investments ranked).
Refer to Appendix for additional performance and fee, index, Morningstar Ranking and risk information.

In a world of insecure stability, investors must prepare for five key policy pivots that will test markets



Monetary
Fed balance sheet normalization, but less than many think, with a New Neutral destination for the fed funds rate. The ECB is likely to taper purchases, while the BoJ only gradually raises target yield

Exchange rates
We expect the Chinese yuan to grind weaker as growth downshifts and President Xi favors structural reform over a fragile, levered status quo

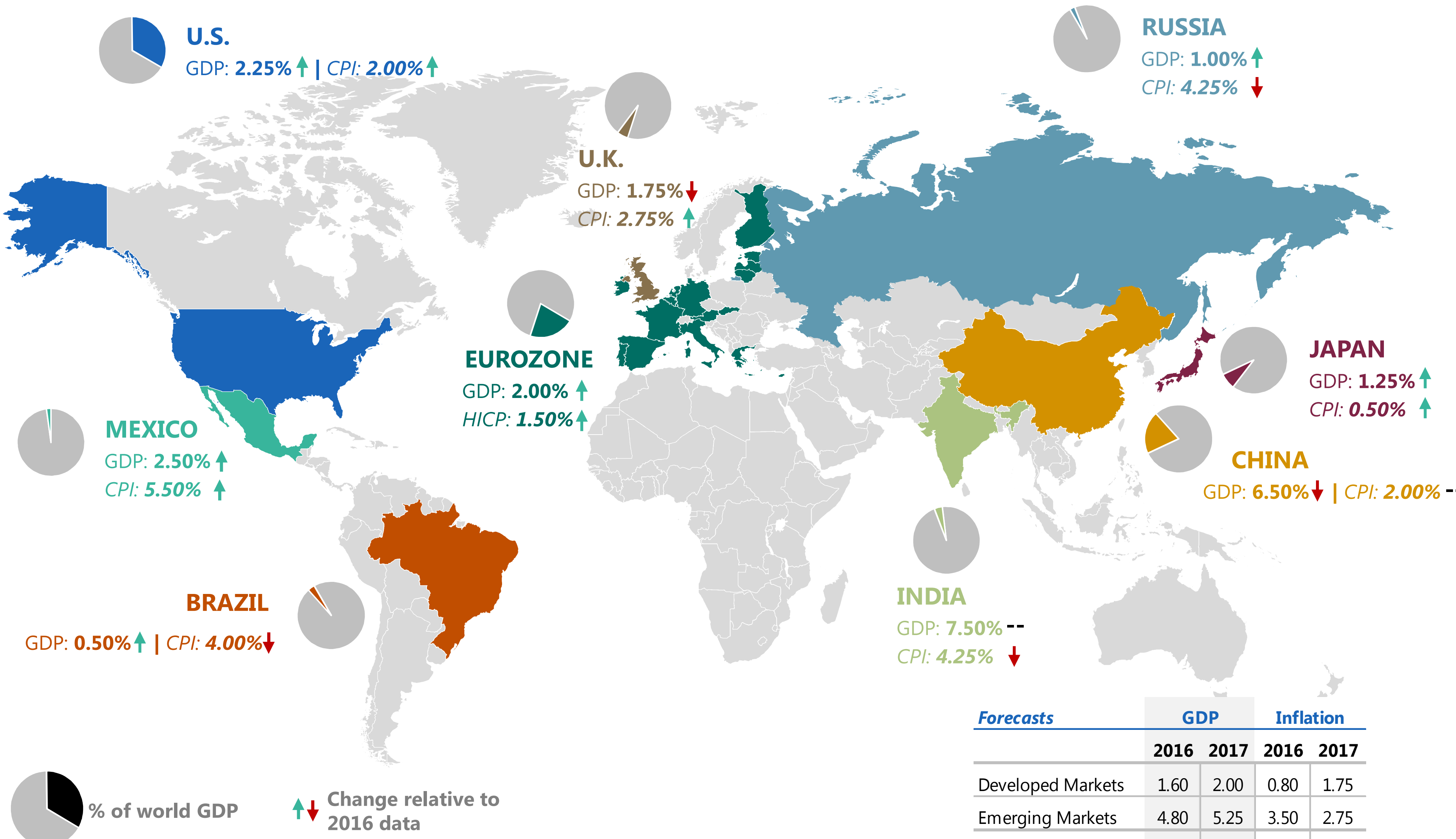
Fiscal
We expect the U.S. Congress to pass a package tilted to tax cuts, light on reform; we see limited fiscal space in Europe.

Geopolitics
Amid populist movements in Europe and beyond, we expect the euro to survive and Italy to remain in the eurozone

Trade
U.S. Trade Policy likely to Focus on bilateral deals and aggressive use of existing authority within WTO

As of 30 June 2017
SOURCE: PIMCO
Refer to Appendix for additional forecast, outlook and risk information.

PIMCO's 2017 cyclical outlook



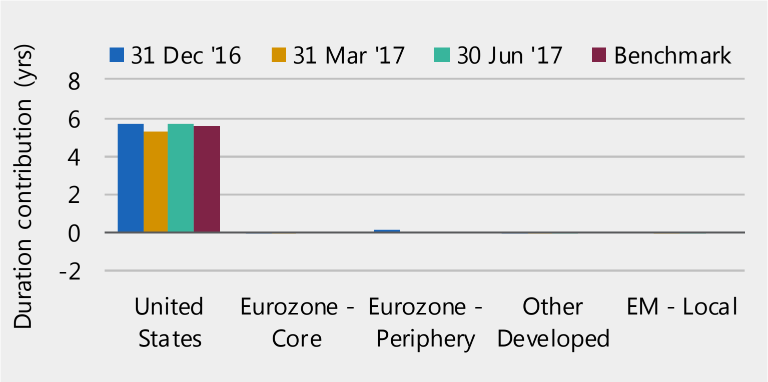
Forecasts	GDP		Inflation	
	2016	**2017**	**2016**	**2017**
Developed Markets	1.60	2.00	0.80	1.75
Emerging Markets	4.80	5.25	3.50	2.75
World	**2.60**	**3.00**	**1.70**	**2.25**

PIMCO forecast ranges as of June 2017.
Real GDP and inflation projections reflect the midpoints of PIMCO's forecast ranges for 2017. Refer to Appendix for additional forecast, outlook and risk information.

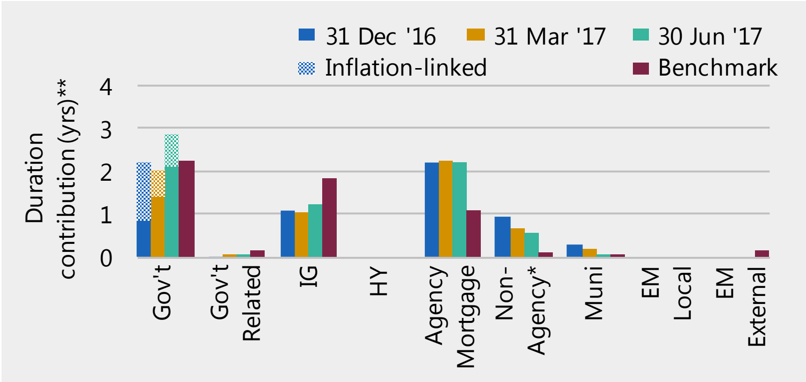
PIMCO Total Return Fund II positioning

PIMCO Total Return Fund II		31 Dec '16	31 Mar '17	30 Jun '17
Effective duration (yrs.)	Portfolio	5.7	5.3	5.7
	Index	5.5	5.5	5.6

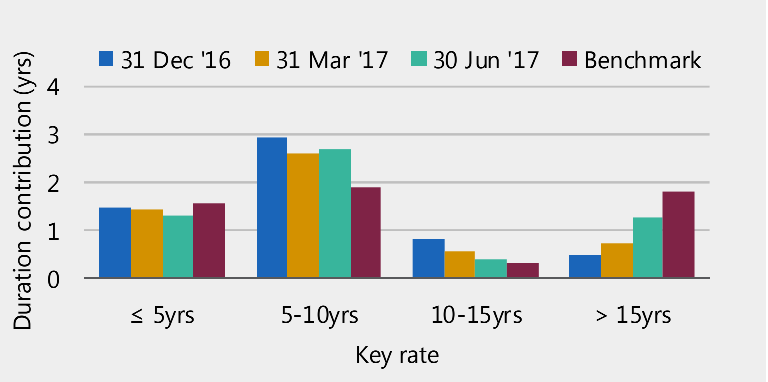
REGIONAL EXPOSURE



SECTOR EXPOSURE



KEY RATE DURATION EXPOSURE



As of 30 June 2017
Benchmark: Barclays U.S. Aggregate Index. Benchmark interest rate and spread durations calculated using PIMCO proprietary analytics and risk models
*Non-agency may include non-agency mortgage backed securities, asset backed securities, and commercial mortgage backed securities
**For spread sectors, the relevant spread duration contribution is used
Refer to Appendix for additional investment strategy, portfolio structure and risk information.

Appendix

PERFORMANCE AND FEE
Past performance is not a guarantee or a reliable indicator of future results. The performance figures presented reflect the total return performance for Institutional Class shares (after fees) and reflect changes in share price and reinvestment of dividend and capital gain distributions. All periods longer than one year are annualized. The minimum initial investment for iclass shares is $1 million; however, it may be modified for certain financial intermediaries who submit trades on behalf of eligible investors.

Investments made by a Fund and the results achieved by a Fund are not expected to be the same as those made by any other PIMCO-advised Fund, including those with a similar name, investment objective or policies. A new or smaller Fund's performance may not represent how the Fund is expected to or may perform in the long-term. New Funds have limited operating histories for investors to evaluate and new and smaller Funds may not attract sufficient assets to achieve investment and trading efficiencies. A Fund may be forced to sell a comparatively large portion of its portfolio to meet significant shareholder redemptions for cash, or hold a comparatively large portion of its portfolio in cash due to significant share purchases for cash, in each case when the Fund otherwise would not seek to do so, which may adversely affect performance.

Differences in the Fund's performance versus the index and related attribution information with respect to particular categories of securities or individual positions may be attributable, in part, to differences in the pricing methodologies used by the Fund and the index.

There is no assurance that any fund, including any fund that has experienced high or unusual performance for one or more periods, will experience similar levels of performance in the future. High performance is defined as a significant increase in either 1) a fund’s [total] return in excess of that of the fund’s benchmark between reporting periods or 2) a fund’s total return in excess of the fund’s historical returns between reporting periods. Unusual performance is defined as a significant change in a fund’s performance as compared to one or more previous reporting periods.

CHART
Performance results for certain charts and graphs may be limited by date ranges specified on those charts and graphs; different time periods may produce different results.

FORECAST
Forecasts, estimates and certain information contained herein are based upon proprietary research and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. There is no guarantee that results will be achieved.

INVESTMENT STRATEGY
There is no guarantee that these investment strategies will work under all market conditions or are suitable for all investors and each investor should evaluate their ability to invest long-term, especially during periods of downturn in the market.

MORNINGSTAR RANKING
Past rankings are no guarantee of future rankings. Morningstar Ranking for the Intermediate-Term Bond category as of 6/30/17 for the Institutional Class Shares; other classes may have different performance characteristics. The Morningstar Rankings are calculated by Morningstar and are based on the total return performance, with distributions reinvested and operating expenses deducted. Morningstar does not take into account sales charges.

OUTLOOK
Statements concerning financial market trends or portfolio strategies are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions, and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market. Outlook and strategies are subject to change without notice.

PORTFOLIO STRUCTURE
Portfolio structure is subject to change without notice and may not be representative of current or future allocations.

Appendix

RISK
Investing in the **bond market** is subject to risks, including market, interest rate, issuer, credit, inflation risk, and liquidity risk. The value of most bonds and bond strategies are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and volatile than those with shorter durations; bond prices generally fall as interest rates rise, and the current low interest rate environment increases this risk. Current reductions in bond counterparty capacity may contribute to decreased market liquidity and increased price volatility. Bond investments may be worth more or less than the original cost when redeemed. Investing in **foreign denominated and/or domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. **Mortgage and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and their value may fluctuate in response to the market's perception of issuer creditworthiness; while generally supported by some form of government or private guarantee there is no assurance that private guarantors will meet their obligations. **High-yield, lower-rated, securities** involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Derivatives** may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. **Diversification** does not ensure against loss.

STANDARD DEVIATION
Standard deviation is a statistical measure of dispersion about an average which, for a mutual fund, depicts how widely the returns varied over a certain period of time. The greater the dispersion, the greater the risk.

PIMCO Investments LLC, distributor, 1633 Broadway, New York, NY, 10019, is a company of PIMCO.

INDEX DESCRIPTIONS
Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

It is not possible to invest directly in an unmanaged index.

North Dakota State Investment Board

Core Fixed Income Manager Recommendation

August 25, 2017

Dave Hunter, Darren Schulz and Eric Chin

Investment Recommendation

- **Staff recommends that the NDSIB engage Pacific Investment Management Company LLC "PIMCO" to manage up to a $300 million Core Bond Strategy for the Pension Trust** (Subject to continued negotiations and finalization of the contract).
- This will be the first of two Core Bond manager recommendations
- Pair PIMCO's Total Return Core Bond strategy, a top-down strategy, with a second manager that employs a bottom-up strategy

North Dakota State Investment Board

Investment Recommendation

Competitive Advantages

- PIMCO is one of the largest fixed income asset managers in the world with $1.6 trillion in assets under management. PIMCO's size offers advantages few other managers can replicate:
  - PIMCO has over 300 investment professionals focused on investing in and evaluating fixed income
  - PIMCO's Global Advisory Board provides unique economic insight and views. Members of the board include Ben Bernanke, Gordon Brown, Ng Kok Song, Anne-Marie Slaughter, Jean-Claude Trichet.
  - As one of the largest bondholders in the world, PIMCO has access to senior management across industries

Investment Recommendation

Competitive Advantages

- PIMCO has a 25+ year track record of managing core strategies
- PIMCO's core strategy has out-performed peers with performance falling in the top-decile over the prior 10 and 20 year periods
- On a risk adjusted basis PIMCO scores positively as well, with Sharpe ratios above the median over the 10 and 20 year periods (better than the benchmark)
- A focus on preservation of capital and risk management
  - Dedicated team of 12 risk managers
  - Navigated the 2008 financial crises well generating positive returns in 2008 (+4.68%)

North Dakota State Investment Board

Manager Search Process

- Began with over 200 Core Bond managers that manage separate account products
  - Staff sought Core Bond managers with sufficient size and excess return compared to the benchmark. Staff removed managers with:
    - AUM less than $5.0 billion
    - Negative gross of fee excess returns against the Bloomberg Aggregate Bond Index for the 10 year period (ending Dec. 31, 2016)
    - 40 managers remained

North Dakota State Investment Board

Manager Search Process

Staff employed additional quantitative and qualitative screens to thin the universe

- Evaluated traditional metrics, but put heavier weights on downside protection, preservation of capital, and low correlation to equities
  - For a Core Bond mandate preservation of capital is key
- Collaborated with Callan to create a short list of managers (below)

Fund Name*	Inception Date	Total Product Assets ($M)	Excess Return vs. Blmbg:Aggregate for 60 Quarters	Correlation vs. S&P:500 for 60 Quarters	Returns for 60 Quarters	Standard Deviation for 60 Quarters
Baird:Core Bond	October-00	$ 17,417	0.77%	0.09	5.35%	3.61%
Barings:Core FI	January-91	$ 10,244	0.62%	-0.07	5.20%	3.44%
IncomeR&M:Aggregate	January-92	$ 8,556	0.76%	0.07	5.34%	3.71%
MacKay:Core Invst Gr	October-86	$ 6,086	0.67%	-0.08	5.25%	3.45%
Manulife:Core Fixed Income	January-96	$ 10,725	1.26%	0.29	5.84%	4.31%
PIMCO:Total Return Core	December-89	$ 30,326	0.86%	-0.12	5.44%	3.93%
PruFI:Core FI	January-91	$ 30,281	0.84%	0.01	5.42%	3.63%
TCW:Core Fixed Income	October-96	$ 9,835	0.85%	0.37	5.43%	3.80%
Wells:Montgomery Core Fixed	July-90	$ 28,252	1.06%	-0.20	5.64%	3.52%
CAI Core Bond FI	October-73	$ 2,099	0.37%	-0.05	4.95%	3.45%
Blmbg:Aggregate	January-76		0.00%	-0.31	4.58%	3.50%
S&P:500	January-72		2.11%	1.00	6.69%	15.87%

*** Data as of Dec. 31 2016. Numbers are unaudited. Source: Product Assets are from the manager. Statistics are from Callan's PeP database**

North Dakota State Investment Board

Manager Search Process

- Staff held conference calls with each of the nine managers to evaluate the managers' strategies
- Conducted onsite due diligence at the managers' offices—met the investment team, evaluated systems, and assessed operations and infrastructure
- Performed additional quantitative and qualitative analyses, evaluated factors such as credit quality, duration, sector allocation, exposures
- Authored and distributed "Request for Information"

North Dakota State Investment Board

Manager Search Process

- Staff grouped candidate managers into a top-down group and a bottom-up group
- Pair one manager from each group to gain diversification benefits

Excess Correlation Table Benchmark: Bloomberg Aggregate (10 Years Ending Dec. 31, 2016)*											
	Baird Core Bond	**Barings Core FI**	**IncomeR&M Aggregate**	**MacKay Core Invst Gr**	**Manulife Core Fixed Income**	**PIMCO Total Return Core**	**PruFI Core FI**	**TCW Core Fixed Income**	**Wells Montgomery Core Fixed**	**CAI Core Bond FI**	**Blmbg Aggregate**
Baird:Core Bond	1.00										
Barings:Core FI	0.87	1.00									
IncomeR&M:Aggrega	0.79	0.82	1.00								
MacKay:Core Invst Gr	**0.60**	**0.67**	**0.48**	1.00							
Manulife:Core Fixed Income	0.93	0.92	0.79	**0.70**	1.00						
PIMCO:Total Return Core	**0.46**	**0.70**	**0.70**	**0.57**	**0.64**	1.00					
PruFI:Core FI	0.94	0.91	0.79	**0.67**	0.97	**0.57**	1.00				
TCW:Core Fixed Income	0.91	0.87	0.72	**0.67**	0.97	**0.60**	0.93	1.00			
Wells:Montgomery Core Fixed	0.70	0.83	0.64	**0.69**	0.77	**0.55**	0.85	0.71	1.00		
CAI Core Bond FI	0.96	0.93	0.85	**0.65**	0.97	**0.59**	0.99	0.93	0.82	1.00	
Blmbg:Aggregate	0.00	0.00	0.00	**0.00**	0.00	**0.00**	0.00	0.00	0.00	0.00	1.00

*Numbers are unaudited. Source: Statistics are from Callan's PeP database

North Dakota State Investment Board

PIMCO Manager Evaluation

Organizational Overview

- Founded in Newport Beach California in 1971
- Offices in 11 countries
- Acquired by Allianz SE "Allianz" in 2000
- One of the largest fixed income managers in the world with \$1.61 trillion in total assets: \$1.22 trillion in third party assets (approximately \$1.4 trillion in fixed income assets)
- Over 2150 employees with 349 investment professionals: 225 portfolio managers, 124 analysts

PIMCO Manager Evaluation

Total Return Strategy

- Core bond strategy—diversified portfolio of high quality bonds that seeks to generate excess return above the Bloomberg Barclays U.S. Aggregate Index
- Employs a top-down investment process to identify major long-term themes that will impact markets
- Focus on longer term secular trends (three to five years)—demographics, politics, and structural economic changes
- Secular and cyclical views drive major shifts in portfolio strategy
- Combines top-down with bottom-up research to identify attractive securities
- Rotate among sectors including: government, corporates, mortgages, asset-backed

PIMCO Manager Evaluation

Investment Process

- Begins with PIMCO Secular Forum—Teams formulate outlook for global bond markets over the next 3-5 years
- Quarterly "Economic Forums" to evaluate growth and inflation over the next 6-12 months. Four regional committees present research and economic data
- PIMCO's Investment Committee "IC" develops major strategies that serves as a model for other portfolios
- IC sets targets for factors such as: duration, yield curve, convexity, sector concentration and credit quality
- Portfolio manager structures portfolio to reflect the model portfolio
- PMs leverage sector teams' input and strategic ideas for security selection and execution

North Dakota State Investment Board

PIMCO Manager Evaluation

Performance and Risk Statistics

Common Period Returns and Risk Statistics (Gross)*
10 Years as of 6/30/17

	PIMCO Total Return Core	MacKay Core Investment Grade	Callan Core Bond FI	Bloomberg Agg.
Returns (Gross)	5.73%	5.48%	5.06%	4.48%
Excess Return (Bloomberg Agg.)	1.26%	1.00%	0.58%	0.00%
Excess Return Ratio (Bloomberg Agg.)	0.82	1.03	0.6	N/A
Standard Deviation	3.71%	3.30%	3.40%	3.27%
Sharpe Ratio (3 month T-bill)	1.39	1.48	1.31	1.19
Tracking Error (Bloomberg Agg.)	1.53%	0.97%	1.13%	0.00%
Maximum Drawdown (Monthly)	4.81%	3.72%	5.04%	3.83%
Downside Risk (Bloomberg Agg.)	0.89%	0.60%	0.70%	0.00%
Up Market Capture (Bloomberg Agg.)	128.61%	114.02%	107.96%	100.00%
Down Market Capture (Bloomberg Agg.)	104.52%	89.33%	95.20%	100.00%

*Numbers are unaudited. Source: Statistics are from Callan's PeP database

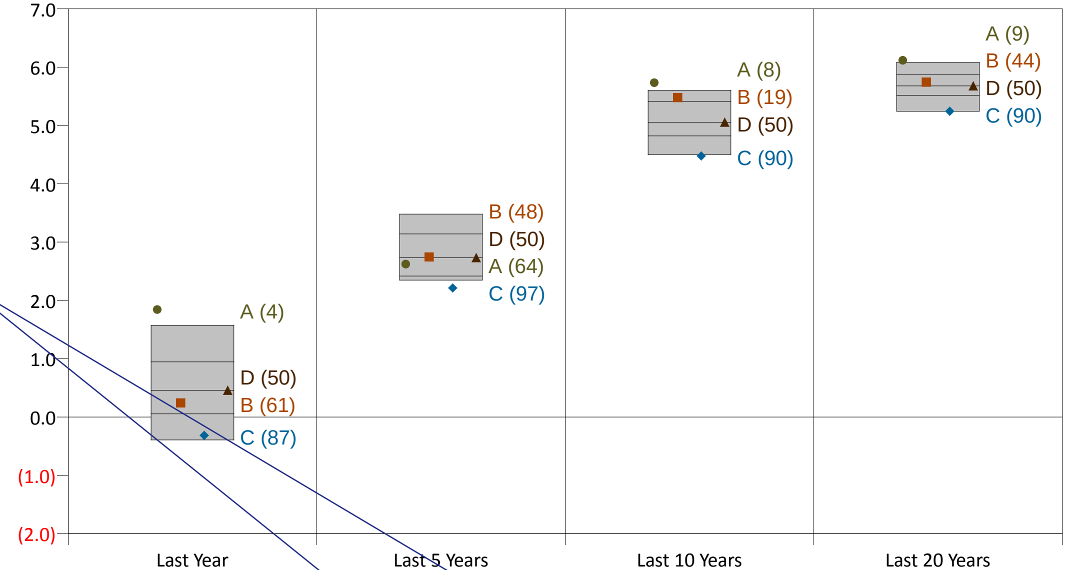
- Both PIMCO and MacKay compare favorably to the Callan peer universe
- Both funds generate significant excess returns over the benchmark

North Dakota State Investment Board

PIMCO Manager Evaluation

Gross Returns (Periods Ended June 30, 2017)*

PIMCO has outperformed over the long term



	Last Year	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	1.57	3.48	5.61	6.08
25th Percentile	0.95	3.14	5.41	5.88
Median	0.46	2.73	5.06	5.68
75th Percentile	0.06	2.42	4.82	5.52
90th Percentile	(0.39)	2.35	4.50	5.24
Member Count	61	61	61	47
PIMCO TR Core ● A	**1.84**	**2.62**	**5.73**	**6.12**
MacKay:Core Invst Gr ■ B	0.24	2.75	5.48	5.74
Blmbg:Aggregate ◆ C	(0.31)	2.21	4.48	5.24
CAI Core Bond FI ▲ D	0.46	2.73	5.06	5.68

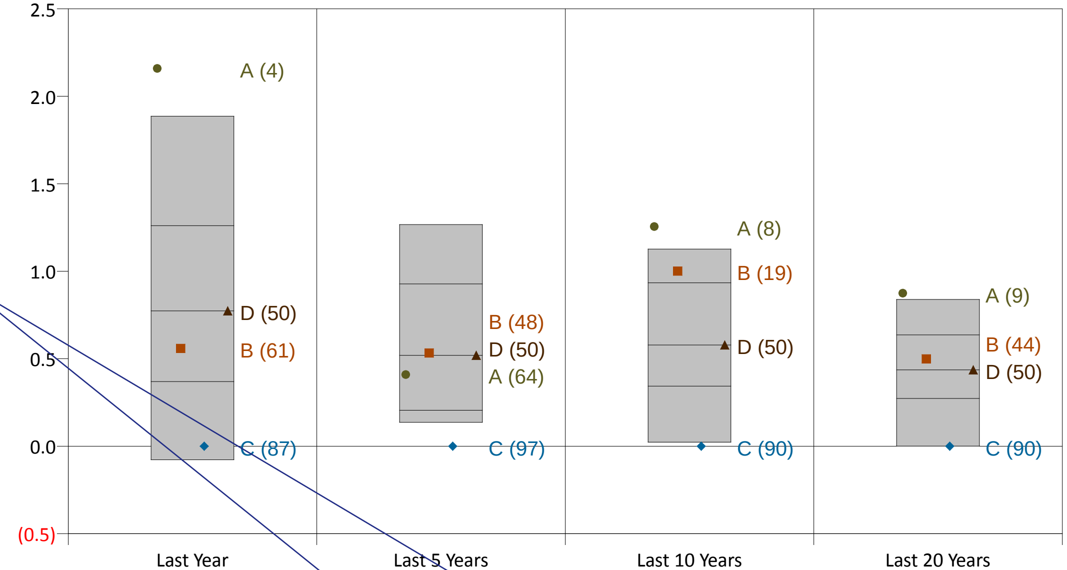
*Numbers are unaudited. Source: Statistics are from Callan's PeP database

North Dakota State Investment Board

PIMCO Manager Evaluation

Excess Returns (Periods Ended June 30, 2017)*

PIMCO has outperformed over the long term



	Last Year	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	1.89	1.27	1.13	0.84
25th Percentile	1.26	0.93	0.93	0.64
Median	0.77	0.52	0.58	0.44
75th Percentile	0.37	0.21	0.34	0.27
90th Percentile	(0.08)	0.14	0.02	0.00
Member Count	61	61	61	47
PIMCO TR Core ● A	**2.16**	**0.41**	**1.26**	**0.88**
MacKay:Core Invst Gr ■ B	0.56	0.53	1.00	0.50
Blmbg:Aggregate ◆ C	0.00	0.00	0.00	0.00
CAI Core Bond FI ▲ D	0.77	0.52	0.58	0.44

*Numbers are unaudited. Source: Statistics are from Callan's PeP database

North Dakota State Investment Board

Agenda Item IV.C.3

BOARD ACTION

TO: State Investment Board

FROM: Dave Hunter, Darren Schulz and Eric Chin

DATE: August 24, 2017

SUBJECT: PIMCO Total Return Core Fixed Income Recommendation

Summary:

At a prior SIB meeting, Staff proposed a new fixed income manager framework for the Pension Trust that seeks to generate higher risk-adjusted returns and greater diversification. The proposed structure includes a principal allocation to U.S. investment grade core fixed income comprised of an anchor of low risk, high quality, highly liquid traditional fixed income to fulfill the role of capital preservation and high quality income generation. This anchor allocation to High Quality Core is comprised of core investment grade instruments to provide diversification from riskier assets such as equities. Today, as part of the restructuring, Staff is recommending that the Board approve the selection of PIMCO to manage one of two up to $300 million US Core Fixed Income mandates on behalf of the Pension Trust.

RIO Staff Fixed Income Manager Structure Proposal

In January, Staff proposed a fixed income manager framework that seeks to achieve improvements in risk-adjusted return potential and diversification without increasing Pension trust plan-level risk. The proposed structure is a “barbelled” approach, explicitly segmenting the fixed income manager structure based on liquidity, quality, expected return potential and risk profile:

1. An anchor of low risk, high quality, highly liquid traditional fixed income beta exposures on one end of the credit risk spectrum to fulfill the role of capital preservation and high quality income generation. This anchor allocation to High Quality Core is comprised of core investment grade instruments to provide diversification from riskier assets such as equities. Staff is recommending approximately 65% of the total fixed income exposure be invested in High Quality Core.

2. Staff is recommending complementing High Quality Core with moderate risk, less liquid, higher return potential alternative credit strategies for greater diversification and differentiated sources of return enhancement. This satellite allocation, labelled “Diversified Credit”, broadens the traditional high yield designation to include high yield/loan alternatives, the first phase of which is a recommendation to establish a strategic allocation to middle market direct lending. Staff is recommending that approximately 35% of the total pension fixed income allocation be allocated to Diversified Credit. Staff is recommending that future direct lending commitments be funded from the existing traditional high yield mandate with Loomis Sayles.

3. Given the low expected return potential of non-U.S./global developed fixed income and the disproportionate currency risk contribution, Staff is recommending the transition of the pension trust’s non-U.S./global fixed income mandates into U.S. centric fixed income.

US Core Fixed Income Search Process:

From a manager database of over 200 investment manager candidates with US core fixed income product track records, Staff further narrowed the list of candidates by applying firm and product minimum asset criteria, which resulted in 40 remaining managers. Staff employed additional qualitative screens and quantitative analysis across a host of various metrics: relative performance, risk adjusted returns, tracking error, up/down market capture, standard deviation, quality distribution, historical sector allocations, correlation to equities, and excess return correlations. In collaboration with Callan, this vetting process produced a list of 10 viable candidates:

1. Baird
2. Barings
3. Income Research & Management
4. MacKay
5. Manulife
6. PIMCO
7. Prudential
8. TCW
9. Wells (Montgomery)
10. Western

Staff conducted conference calls and on-site due diligence meetings with all of the above managers with a focus on the following attributes:

- **Organization**: Firm ownership, client make-up (geographic & type), assets under management, and product offerings
- **Team**: Size and experience of the team, staff turnover, organizational culture, and retention methods for key staff
- **Process and Philosophy**: Drivers of outperformance (duration, curve, sector rotation, security selection)
- **Portfolio Characteristics**: Bias to specific sectors (credit, securitized), quality
- **Performance Based Metrics**: Correlation, risk (standalone and benchmark relative), excess returns, upside/downside capture, and consistency of performance

Staff identified two managers that employ top-down strategies – PIMCO and MacKay Shields – that would serve as ideal complements to a second manager that employs a bottoms-up fundamental investment process. For reasons described below, Staff recommends that the Board engage PIMCO to manage a Core Bond Strategy on behalf of the Pension Trust.

PIMCO Total Return Core Strategy Evaluation:

1. **Organizational Overview:** Founded in 1971 as a subsidiary of Pacific Mutual Life Insurance Company, PIMCO has a long history of actively managing fixed income strategies. Acquired in 2000 by the German insurer Allianz SE, PIMCO operates as a separate and autonomous subsidiary of Allianz. The firm's workforce consists of about 2,200 employees, which includes over 675 investment professionals. As of June 30, 2017, the firm manages approximately $1.61 trillion in assets, of which $1.22 trillion are third party client assets. Within the firm's Core and Core Plus strategies, the firm manages approximately $156.3 billion.

2. PIMCO Total Return Core Strategy:

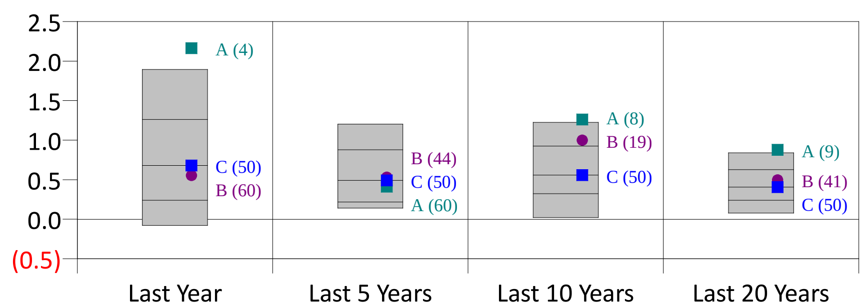
a. **People:** PIMCO's fixed income portfolio group develops model portfolios on a team-oriented basis in what can be described as hub and spoke system, in which the PIMCO Investment Committee serves as a hub, receiving input from a variety of sector specialists (spoke) that feed strategic ideas and assist with execution. Reporting to Group CIO Dan Ivascyn (19 years at PIMCO), Scott Mather (19), Mark Kiesel (21), and Mihir Worah (16) serve as portfolio managers for the strategy and are supported by deep teams of analysts and traders.

b. **Philosophy and Process:** With the belief that no single risk should dominate returns, PIMCO's investment philosophy centers on capturing multiple sources of return in order to deliver consistent results in various market environments. Accordingly, PIMCO seeks to add value through both "top down" and "bottoms-up" sources of return. Driven by a 3-5 year secular outlook that identifies major long-term themes that will impact the global economy and financial markets, PIMCO establishes top-down targets for duration, volatility shifts, yield curve positioning and sector rotation. A 6-12 month cyclical outlook forms the basis for shifts within the cyclical outlook. At the bottoms-up level, sector specialists are tasked with analyzing and selecting specific securities.

   Another input into PIMCO's top-down views is their Global Advisory Board consisting of five world-renowned experts on economic and policy issues: Ben Bernanke, Gordon Brown, Ng Kok Song, Anne-Marie Slaughter, and Jean-Claude Trichet.

c. **Performance:** PIMCO's Total Return Core strategy has delivered higher excess returns versus peers over the long term:

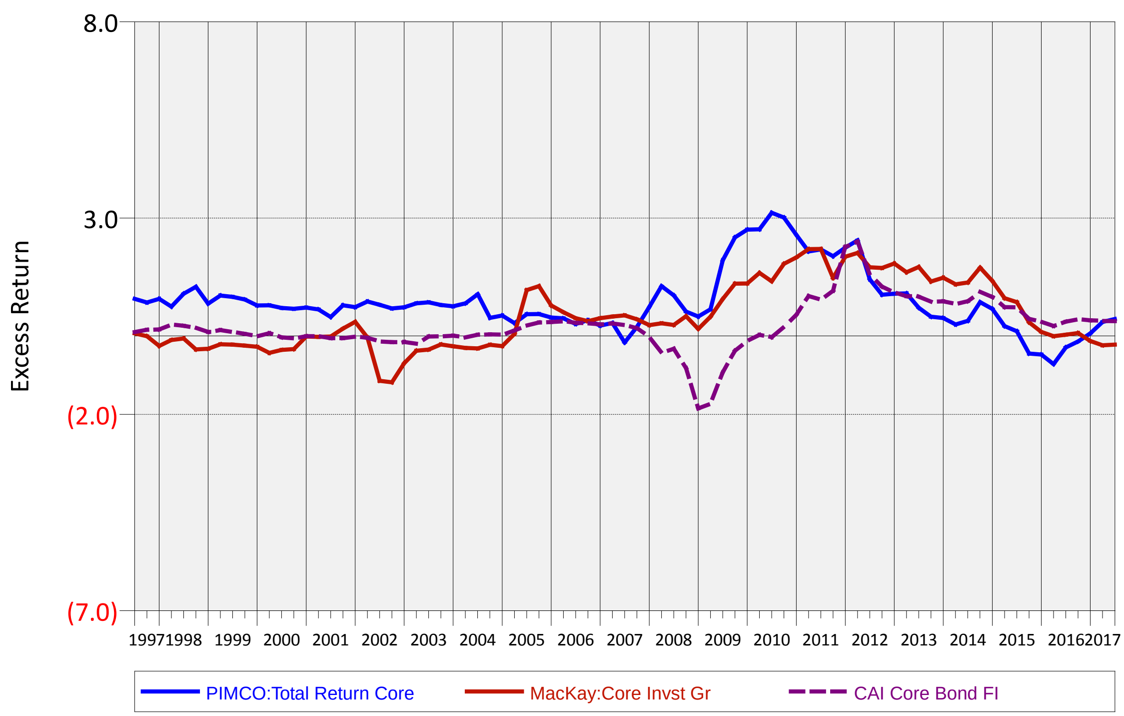
Excess Return relative to Blmbg:Aggregate
for Periods Ended June 30, 2017
Group: CAI Core Bond Fixed Income



	Last Year	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	1.90	1.20	1.23	0.84
25th Percentile	1.26	0.88	0.93	0.63
Median	0.68	0.49	0.56	0.41
75th Percentile	0.24	0.22	0.32	0.24
90th Percentile	(0.08)	0.14	0.02	0.08
Member Count	71	71	71	65
PIMCO:Total Return Core ■ A	2.17	0.41	1.26	0.88
MacKay:Core Invst Gr ● B	0.56	0.53	1.00	0.50
CAI Core Bond FI ■ C	0.68	0.49	0.56	0.41

The strategy has also demonstrated consistency in delivering excess returns over 3 year rolling periods:

Rolling 12 Quarter Gross of Fee Excess Return Relative To Blmbg:Aggregate
for 20 Years Ended June 30, 2017



Conclusion:

Staff recommends to the Board the selection of PIMCO to manage one of two up to $300 million US Core Fixed Income mandates on behalf of the Pension Trust. Staff recommends that the Board award the mandate to PIMCO for the following reasons:

1. Its top-down strategy and diverse alpha drivers differentiates it from more traditional traditional bottoms-up core strategies

2. PIMCO's size and resource advantage is significant and its investment process is difficult to replicate. PIMCO has one of the largest investment teams with 349 investment professionals, including a 57 person credit research team and a 59 person structured/securitized team. Additionally, the firm has access to renowned economic and political experts through its Global Advisory Board..

3. PIMCO has demonstrated the ability to generate consistent excess returns with lower excess return correlation to other core strategies.

Current Pension Trust Fixed Income Manager Structure

As of 6/30/2017						
		Allocation (% of Total Portfolio)		Allocation (% of Fixed Income Portfolio)		
Managers		Market Value	Actual	Policy	Actual	Policy
TOTAL PENSION TRUST	**$**	**5,299,205,292**	**100.0%**	**100.0%**	**N/A**	**N/A**
PIMCO (DiSCO II)	$	107,377,713	2.0%	2.0%	8.82%	8.72%
State Street Long U.S. Treasury Index NL Fund	$	118,180,932	2.2%	1.3%	9.70%	5.70%
PIMCO Unconstrained	$	67,365,621	1.3%	1.7%	5.53%	7.25%
Declaration (Total Return)	$	90,750,663	1.7%	1.6%	7.45%	6.84%
JP Morgan Mortgage Backed Securities	$	131,206,979	2.5%	2.7%	10.77%	11.41%
PIMCO Agency MBS	$	183,534,801	3.5%	4.0%	15.07%	17.11%
Total Investment Grade Fixed Income	**$**	**698,416,709**	**13.2%**	**13.3%**	**57.3%**	**57.0%**
Loomis Sayles High Yield	$	200,807,828	3.8%	3.5%	16.49%	14.91%
PIMCO (BRAVO II)	$	57,304,239	1.1%	1.1%	4.70%	4.65%
GS Mezzanine Partners 2006 Offshore, L.P.	$	381,850	0.0%	0.0%	0.03%	0.03%
GS Mezzanine Partners V Offshore, L.P.	$	1,398,900	0.0%	0.0%	0.11%	0.11%
Total Below Investment Grade Fixed Income	**$**	**259,892,817**	**4.9%**	**4.6%**	**21.3%**	**19.7%**
Total Domestic Fixed Income	***$***	***958,309,526***	***18.1%***	***17.8%***	***78.7%***	***76.7%***
UBS Global (ex-US) Bond Strategy	$	105,946,147	2.0%	2.7%	8.70%	11.63%
Brandywine Global Opportunistic Fixed Income	$	153,803,731	2.9%	2.7%	12.63%	11.63%
Total Developed Investment Grade Int'l FI	**$**	**259,749,878**	**4.9%**	**5.4%**	**21.3%**	**23.3%**
Total International Fixed Income	**$**	**259,749,878**	**4.9%**	**5.4%**	**21.3%**	**23.3%**
TOTAL GLOBAL FIXED INCOME	***$***	***1,218,059,404***	***23.0%***	***23.2%***	***100.0%***	***100.0%***

North Dakota State Investment Board

The 2017 Global Private Equity Program

August 25, 2017

Presented by: Miguel Gonzalo, CFA and Kelly Meldrum, CFA

Adams Street Partners

Introduction

Partner & Head of Investment Strategy

Education: University of Notre Dame, BA

Northwestern University Kellogg School of Management, MBA

Years of Investment/
Operational Experience: 22

Partner & Head of Primary Investments

Education: Bentley College, BS

Years of Investment/
Operational Experience: 32

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Topics for Discussion

Firm Overview

Proven Private Markets Partner

Adams Street Partners

Private Markets Partner	Experienced and Proven Team	Exemplary Client Service
■ 40+ years of experience ■ Recognized as industry leader with over $30B in assets under management ■ 100% independent and employee owned – our interests are directly aligned with that of our client's ■ Over $195 million invested into the firm and funds	■ **Since Inception IRRs*:** **Primary: 21%[1]** **Secondary: 20%[1]** **Direct: 16%[2]** **Co-Investment: 21%[3]** ■ Highly integrated platform with shared insights ■ Senior staff average 15 years of investment experience ■ Excellent risk management capabilities	■ Deep understanding of institutional client needs ■ 300+ diverse clients ■ Client access to industry-leading interactive analytical tools and data ■ Customized, specialized approach to all client portfolios

As of March 31, 2017

1. Composite since inception IRR of private equity fund investments in Adams Street Partners "Core Portfolios" which are funds and separate accounts (excluding special mandate funds and non-discretionary separate accounts) of which Adams Street Partners is the general partner, manager or investment adviser (as applicable) and for which Adams Street Partners makes discretionary investments in private equity. Primary inception date as of November 1, 1979. Secondary inception date as of August 29, 1986. IRRs are net of fees, carried interest and expenses charged to the underlying private equity funds, but are gross of Adams Street Partners' fees, carried interest and expenses, which reduce returns to investors. For the effect of Adams Street Partners' fees, carried interest and expenses on Adams Street Partners' fund returns to investors, please see Adams Street Partners Net Performance chart in this presentation.
2. Composite since inception IRR is net of Adams Street Partners' fees, carried interest and expenses. IVCF II, a component of this composite, charged only management fees and expenses. Inception date as of March 1, 1989. Includes IVCF II (invested in both partnerships and direct portfolio companies), IVCF III, BVCF IV, AS V, AS 2006, AS 2007, AS 2008, AS 2009, AS 2010, AS 2011, AS 2012, AS 2013, AS 2014, AS 2015 and AS Venture Growth VI.
3. Composite since inception IRR, which is net of Adams Street Partners' fees, carried interest and expenses. Inception date as of July 8, 1992. Includes a separate account (1992-1998), Co-Investment I (2006), II (2009) and III (2014).

* Past performance is not a guarantee of future results. The IRRs shown above are composite IRRs and do not represent returns achieved by any particular Adams Street Partners fund or any investor in an Adams Street Partners fund. There can be no guarantee that unrealized investments reflected in this performance data will ultimately be liquidated at values reflected above. For net performance of Adams Street Partners funds, see the Net Performance chart included in this presentation.

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160+ PEOPLE ▶ 9 OFFICES ▶ 30+ NATIONS INVESTED = 1400+ QUALITY OPPORTUNITIES REVIEWED ANNUALLY

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Managing Partner &
Head of Investments
Chicago

Bon French
Executive Chairman
Chicago

FUND INVESTMENTS

Kelly Meldrum
Head of Primary Investments
Menlo Park

Jeff Akers
Head of Secondary Investments
Chicago

PRIMARY

Matthew Autrey *Chicago*

Morgan Holzaepfel *Boston*

Saguna Malhotra *Menlo Park*

Yar-Ping Soo *Singapore*

Jeff Burgis *Chicago*

Brijesh Jeevarathnam *Menlo Park*

Sunil Mishra *Singapore*

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Adam Chenoweth *Chicago*

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Ling Jen Wu Singapore

Arnaud de Cremiers *London*

Alex Lesch *Chicago*

Sergey Sheshuryak *London*

Yu (Hubert) Zhang Beijing

Doris (Yiyang) Guo *Beijing*

Dominic Maier *London*

SECONDARY

Troy Barnett *Chicago*

Joe Goldrick *Chicago*

Greg Holden *London*

Pinal Nicum *London*

Kristof Van Overloop *London*

DIRECT INVESTMENTS

Dave Brett
Head of Co-Investments
Chicago

Terry Gould
Head of Direct Investments
Chicago

Bill Sacher
Head of Private Credit
New York

CO-INVESTMENTS

Sachin Tulyani *London*

Benjamin Wallwork *London*

Craig Waslin *Chicago*

VENTURE CAPITAL/ GROWTH EQUITY

Tom Bremner *Chicago*

Jeff Diehl *Chicago*

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Fred Wang *Menlo Park*

Mike Zappert *Menlo Park*

PRIVATE CREDIT

Shahab Rashid *New York*

Fred Chung *New York*

Thomas Petty *New York*

Emily Shiau *New York*

INVESTMENT ANALYTICS

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Head of Risk Management and Advanced Analytics
Chicago

Mhahesh Madhavan *Chicago*

Toby True *Chicago*

Jian Zhang *Chicago*

INVESTMENT STRATEGY

Miguel Gonzalo
Head of Investment Strategy
Chicago

Jana Tortora *Chicago*

Investment Capabilities

Designed to meet clients' goals and objectives

ADAMS STREET PARTNERS

	Target Net Return*	Strategy	Geographic Diversification	Timing and Capacity
In Market Investment Capabilities				
Annual Global Program[1]	14-18%	Comprehensive program integrating primary, secondary, direct and co-investments diversified by time, subclass and geography	Global	$800 Million
Private Credit Fund	10-12%	Private debt solutions (1st and 2nd lien, mezzanine, unitranche debt) in predominantly US mid-market buyout transactions, incorporating a disciplined loss avoidance approach	US and Europe	$500 Million – $1 Billion
Global Secondary Fund 6	15%+	Thematic and high conviction approach to secondary purchases of mature fund interests and structured transactions	Global	$1.2 Billion
Venture/Growth	20%+	Growth equity investments focusing on Technology & Healthcare	Mainly US and Western Europe	$100+ Million
No Fund Currently Available				
Co-Investments	15-20%	Partnering with leading financial sponsors in buyout and growth equity investments	Mainly US and Western Europe	Fall of 2017
US Small Market Buyout	15%+	Buyout funds and co-investments ($1.5 Billion and below) which target US companies with $500M or less in enterprise value	US	2018

1. Consists of a US Partnership Fund, a Non-US Partnership Fund and a Direct Venture/Growth Equity Fund..

* The targeted annual net return (after Adams Street Partners' fees, expenses and carried interest) is only a target. There can be no guarantee that Adams Street Partners will achieve returns in the targeted range.

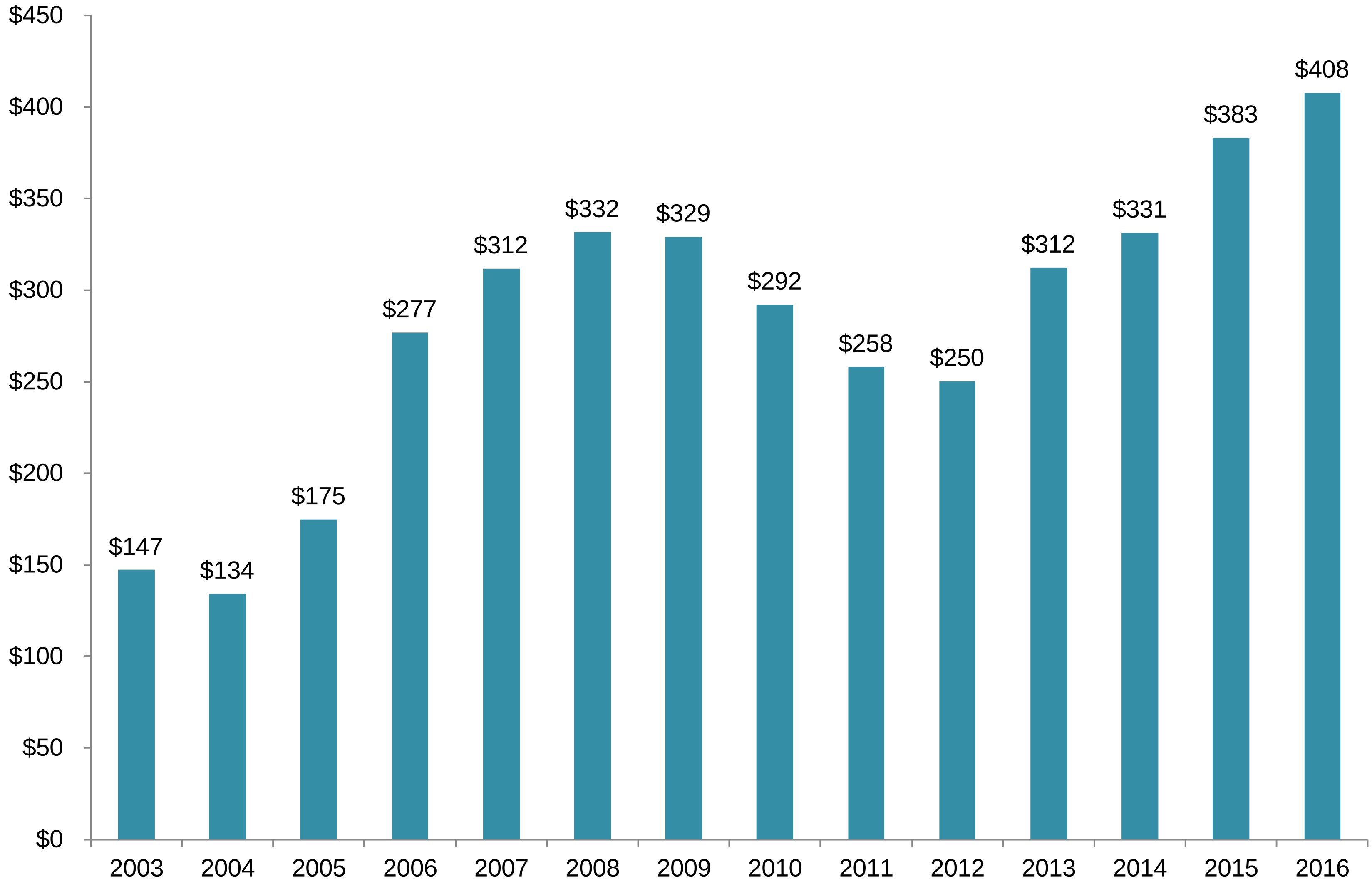
Current State of the Private Equity Market

- **Exit markets have been robust driving strong performance and distributions**
  - IPO & M&A market much more discerning in 2016/17
  - Strategic acquirers have been active purchasers of private equity backed companies in an effort to bolster growth
  - GPs have been net sellers
- **Fundraising momentum is strong and “dry powder” has ticked up**
- **High valuations have posed a challenge for new deals, though GPs have remained patient**
  - Valuations have been supported by abundant debt and equity availability
  - Moderate correction in growth/late stage venture entry valuations
- **Leverage is readily available**
  - Market uncertainty, geopolitical turmoil, and leveraged lending guidelines have caused fluctuations
  - Banks are more discriminating lenders and are less willing to take risk
- **The venture opportunity set is large and global on the back of continued innovation**
  - Key sectors include: cloud computing, mobile, big data, security/infrastructure, consumer internet
  - Emerging tech sectors becoming more prolific: AI, autonomous, machine/deep learning, VR/AR

As of August 2017

US Buyout Fund Dry Powder

Adams Street Partners

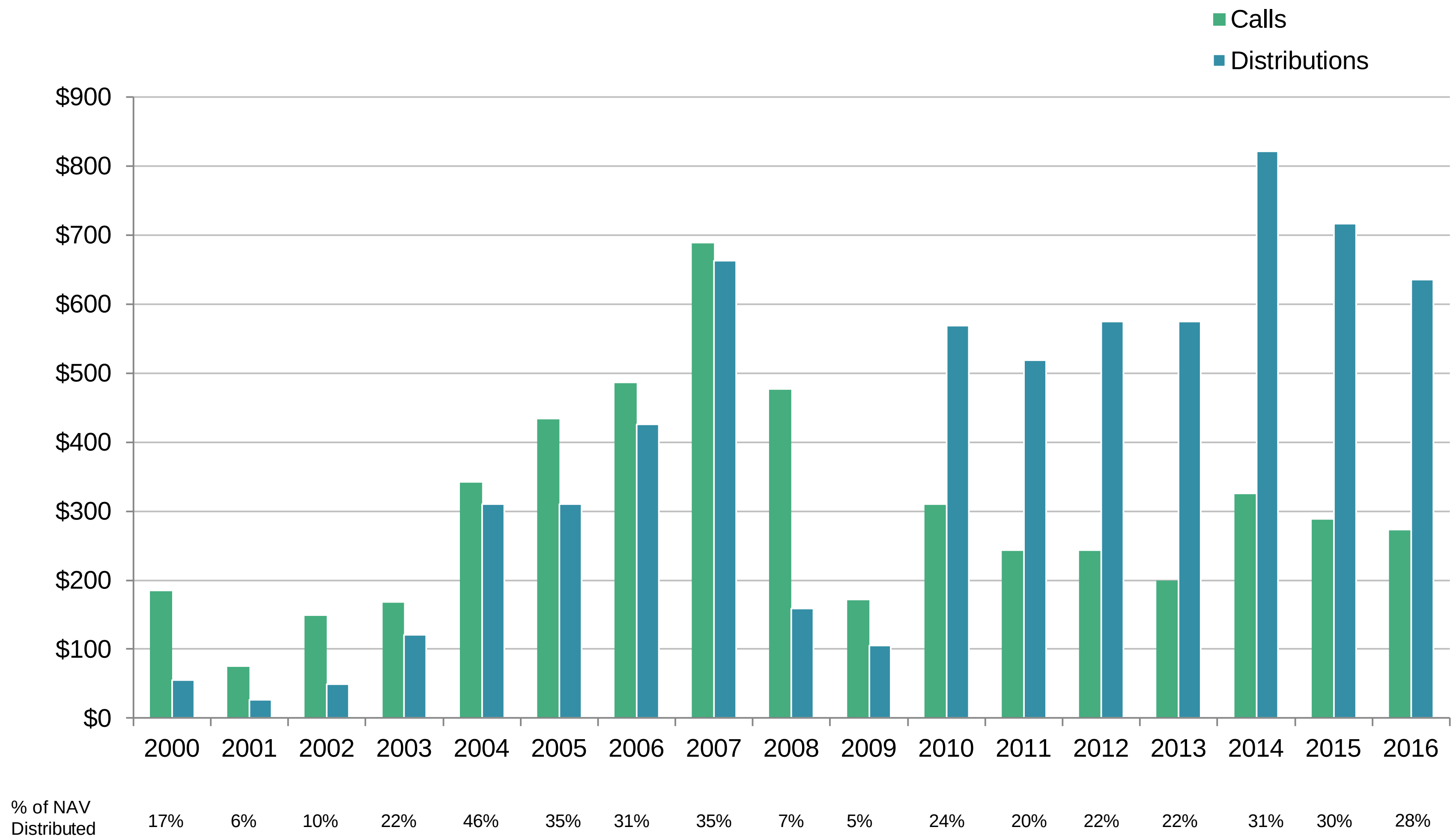


Significant dry powder

Source: Preqin data collected on 03/09/2017. USD in billions.
Adams Street Partners updates data semi-annually at June and December quarter ends.

Strong Liquidity from Our Primary US Buyout Portfolio

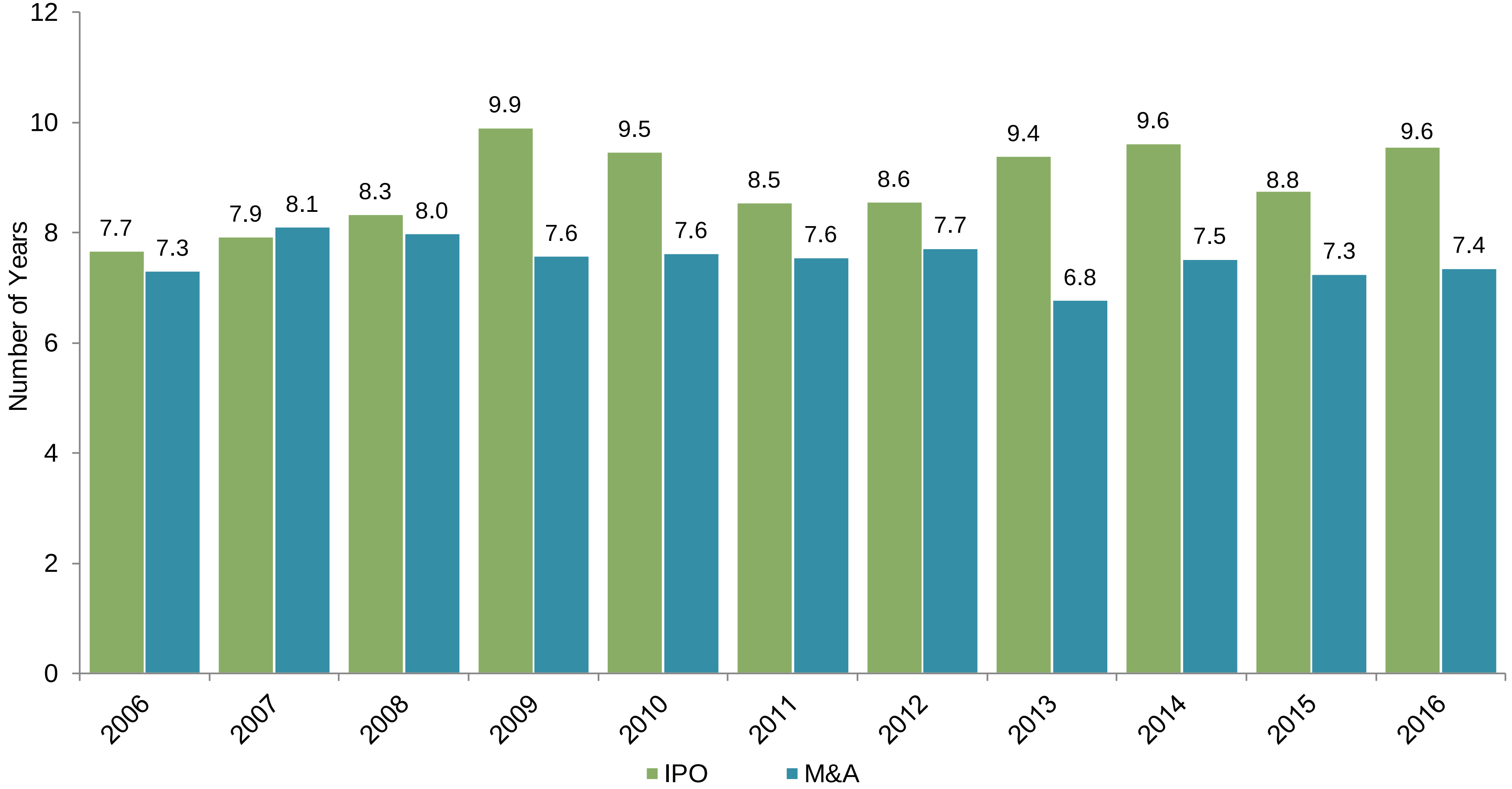
ASP Primary US Buyout calls and distributions over time



Source: ASPIRE as of December 31, 2016. Includes all primary investments in US Buyout Funds in Core Portfolios. “Core Portfolios” are funds and separate accounts (excluding special mandate funds and non-discretionary separate accounts) of which Adams Street Partners is the general partner, manager or investment adviser (as applicable) and for which Adams Street Partners makes discretionary investments in private equity funds. Core Portfolios include separate accounts no longer with Adams Street Partners. The cash flows presented in this chart do not represent the cash flows of any particular Adams Street Partners fund or any investor in an Adams Street Partners fund. USD in millions.

Median Time from Initial Venture Capital Equity Funding to Exit

As of December 31, 2016



Companies are staying private longer

Source: Pitchbook as of 4Q 2016.

We Pick Managers Who Pick Well

Our VC managers invested in 70% of companies that achieved private valuations greater than $1.0 billion*

Source: Pitchbook and ASPIRE as of September 30, 2016.
* Adams Street Partners captured 70% of the global non-healthcare $1 billion+ venture backed companies since 2000;
Portfolio companies of funds in which Adams Street Partners' portfolios have invested; a complete list of such portfolio companies is available upon request.

North Dakota Portfolio Update

North Dakota State Investment Board

Private equity portfolio summary

Total portfolio as of March 31, 2017

	Subscription	Investment Commitments	Amount Drawn	Amount UnDrawn	Market Value (NAV)	Distributions Received (D)	Total Value (NAV + D)	Net IRR Since Inception	Inception Date	Total Value / Amount Drawn
Institutional Venture Capital Fund II	$5,000,000	$5,000,000	$5,000,000	$0	$0	$13,434,867	$13,434,867	21.34%	3/1989	2.69x
Institutional Venture Capital Fund III	$6,000,000	$6,000,000	$6,000,000	$0	$0	$18,438,202	$18,438,202	34.15%	1/1993	3.07x
1998 Global Fund	$23,701,761	$23,938,195	$22,848,073	$853,688	$1,415,132	$33,160,040	$34,575,172	5.01%	1/1998	1.51x
1999 Global Fund	$24,489,864	$24,657,244	$23,421,339	$1,068,525	$1,931,214	$35,032,422	$36,963,637	6.02%	1/1999	1.58x
1999 Non-U.S. Fund	$24,523,732	$24,512,934	$23,944,608	$579,124	$2,023,870	$45,247,402	$47,271,272	11.92%	1/1999	1.97x
Venture Capital Fund IV	$25,000,000	$25,000,000	$25,000,000	$0	$3,342,859	$43,736,431	$47,079,290	7.64%	5/1999	1.88x
Direct Co-Investment	$20,000,000	$20,000,000	$19,100,000	$900,000	$3,240,024	$25,094,614	$28,334,638	5.50%	9/2006	1.48x
ASP 2008 Non-US Fund	$10,000,000	$9,980,161	$8,685,000	$1,315,000	$7,831,822	$4,354,653	$12,186,475	9.16%	1/2008	1.40x
2010 Global Fund	$15,000,000	$15,052,176	$12,065,250	$2,934,750	$11,703,799	$5,367,960	$17,071,759	11.86%	4/2010	1.41x
2015 Global Fund	$30,000,000	$29,729,225	$5,355,000	$24,645,000	$6,510,451	$541,781	$7,052,232	63.10%	10/2015	1.32x
2016 Global Fund	$30,000,000	$16,969,116	$750,000	$29,250,000	$1,096,507	$0	$1,096,507	NM	5/2016	1.46x
Grand Total	$213,715,357	$200,839,051	$152,169,270	$61,546,087	$39,095,678	$224,408,373	$263,504,051	**10.96%**		1.73x
							MSCI ACWI Since Inception^	6.30%	Added Value	**4.66%**
							Rusell 3000 Since Inception^	7.06%	Added Value	**3.90%**

April 1, 2017 – June 30, 2017
Draws: $3.9 million
Distributions: $2.6 million

* Change in value over amount invested. Internal rates of return are not calculated for funds less than one year old.

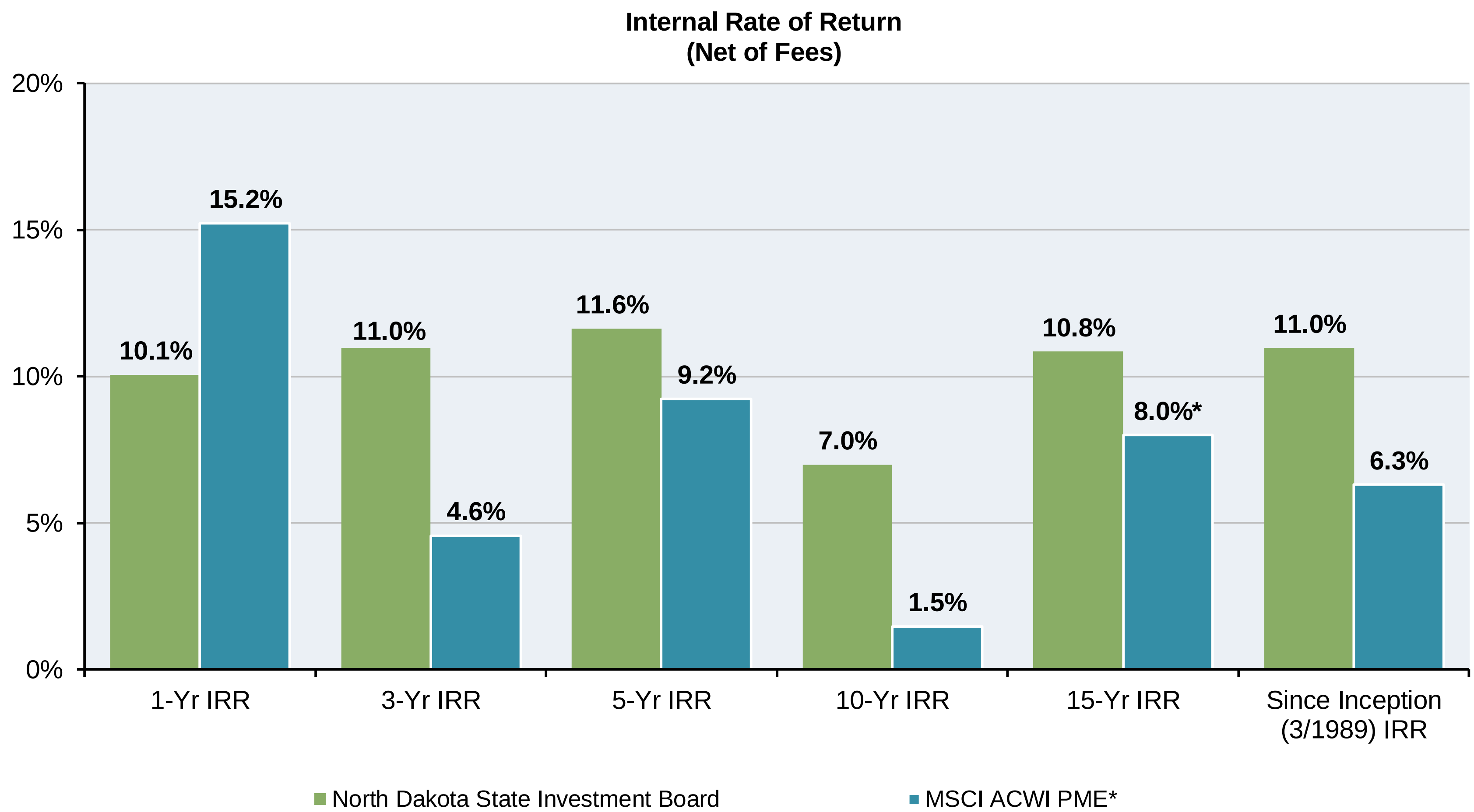
^ Direct Alpha Methodology

Performance early in a fund’s life is not generally meaningful due to fee drag and immature investments.

North Dakota State Investment Board

Intraperiod returns as compared to benchmark data

Total portfolio as of March 31, 2017

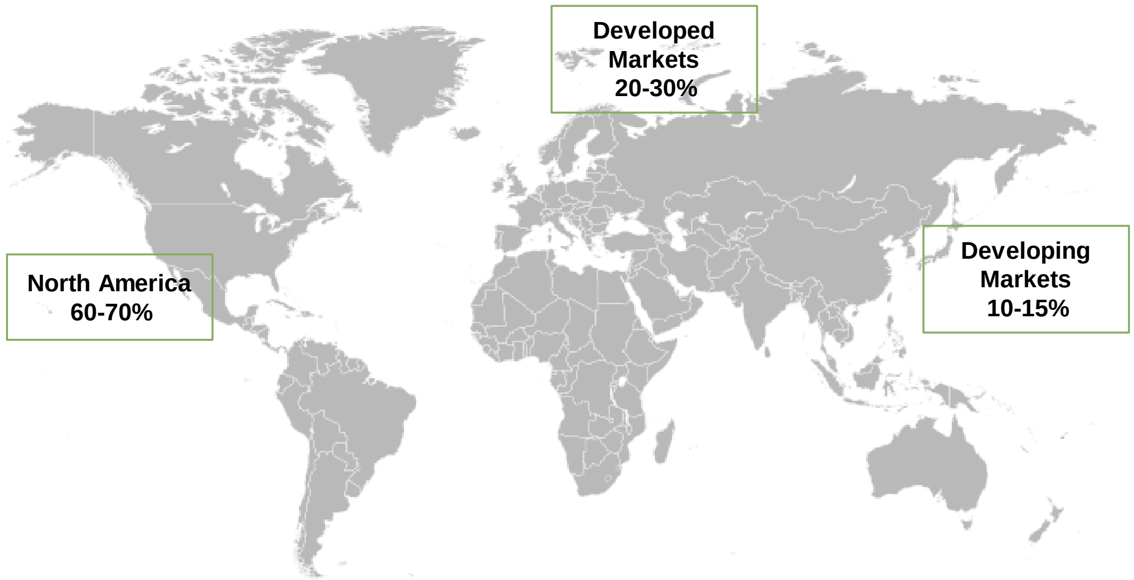


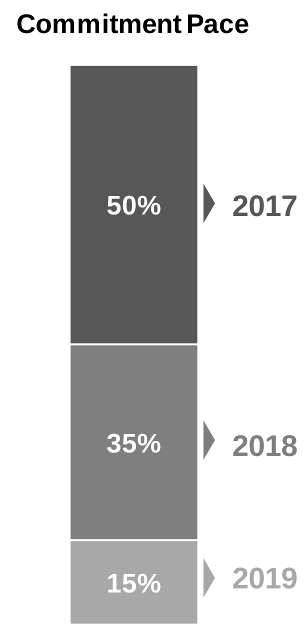
* For some periods, it was not possible to calculate a traditional PME because the pace of distributions would have created a short position in the public index. In these cases, the PME is calculated using the "Direct Alpha" PME methodology (Gredil, Griffiths, Stucke, "Benchmarking Private Equity: The Direct Alpha Method," 2014).

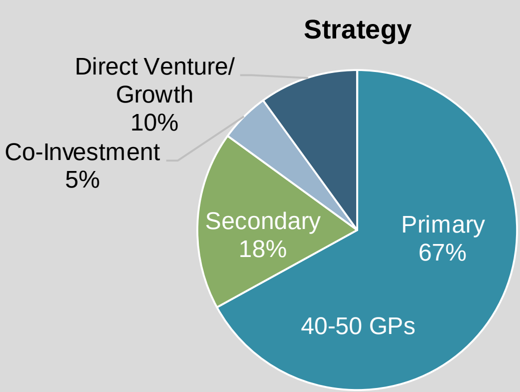
What We Are Offering

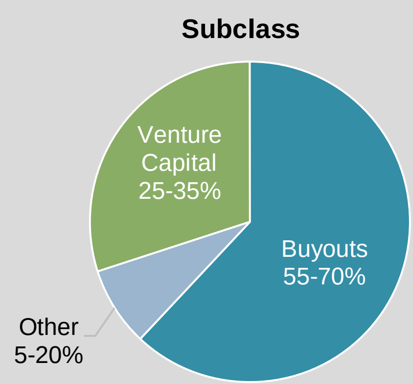
2017 Global Private Equity Program

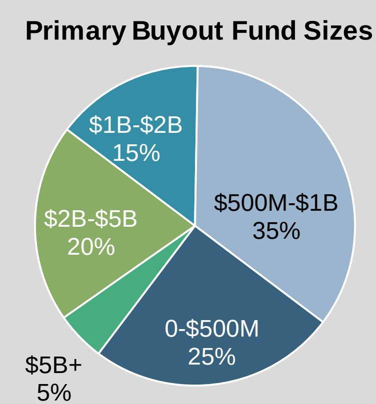
Projected allocations*





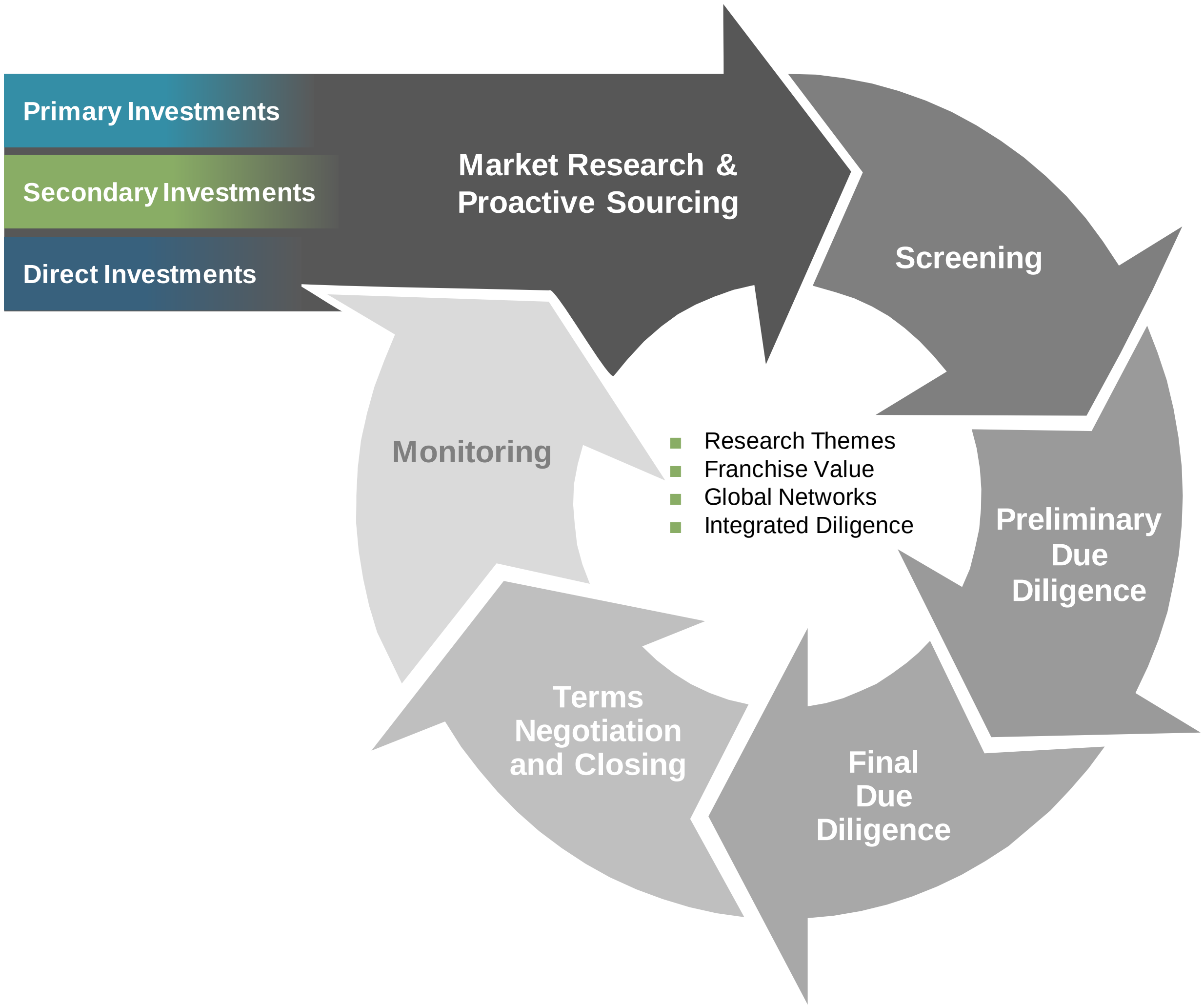






*Actual allocations will differ once the Program is fully invested.

Iterative and Continuous Process with Shared Insights



Current Investment Themes Drive our Manager Selection

ADAMS STREET PARTNERS

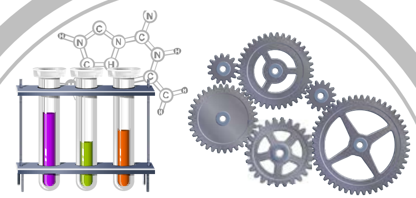
Software and Technology Enabled Services

crv

Index Ventures

ACCEL

KKR



Engineering and Manufacturing

IOP

Quantum Capital Partners AG

SK Capital

Healthcare 2025

RoundTable Healthcare Partners

G Square

博裕资本 Boyu Capital

Changing Consumer Preferences

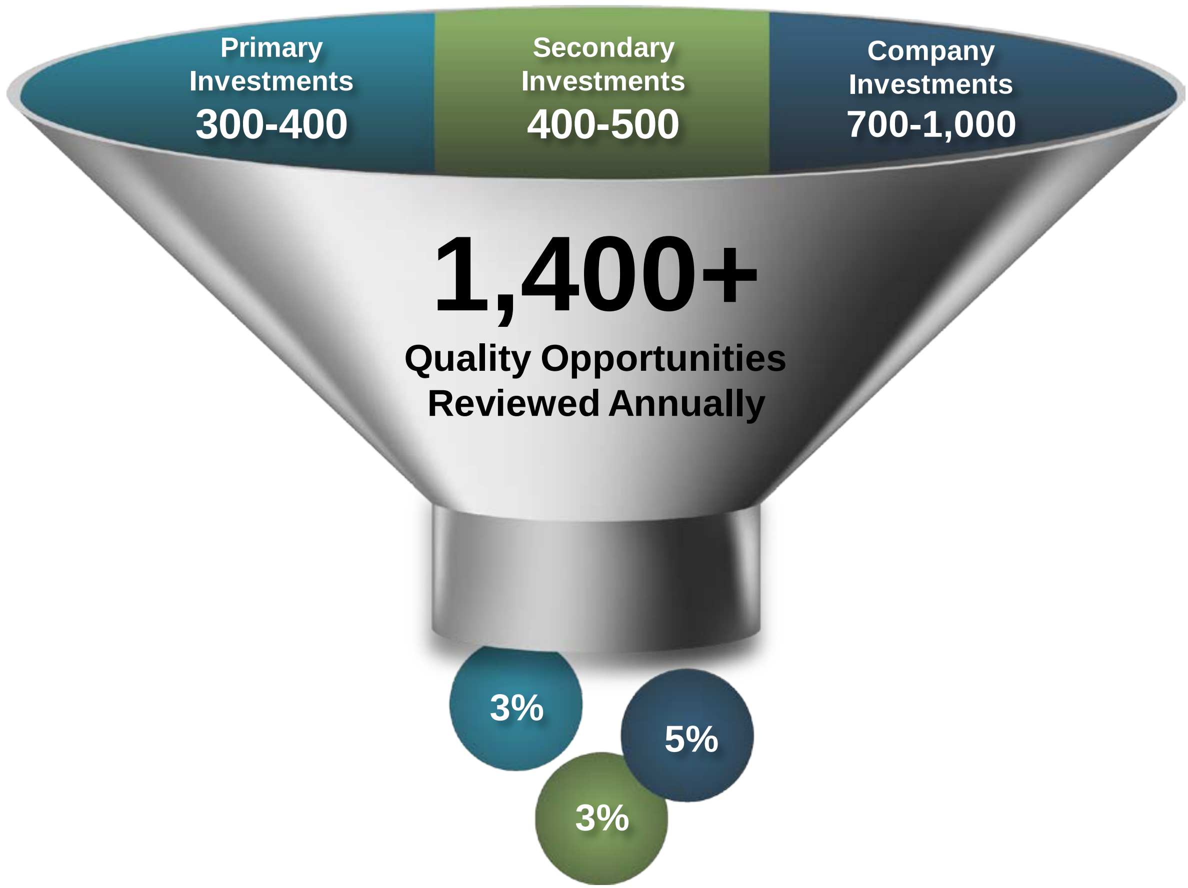
K2VC 险峰长青

Altamont Capital Partners

CORTEC Group

A complete list of Adams Street Partners’ primary fund investments is available upon request.

Proactive Reach Where Selectivity is the Key



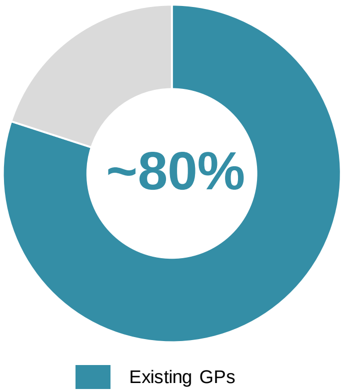
<5%

of opportunities make it to investment

Secondary Selection Adds Value Early in the Program

ADAMS STREET PARTNERS

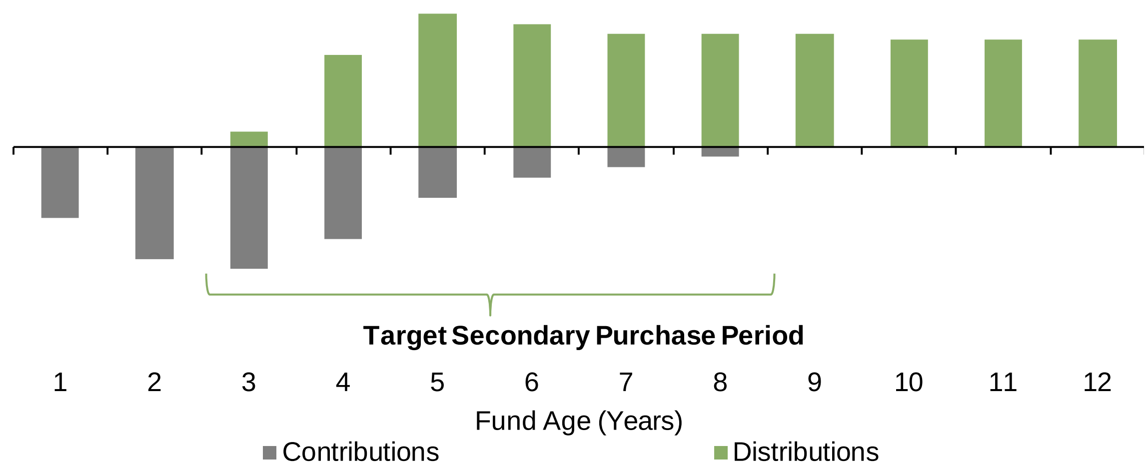
% of Current Value to Existing GPs[1]



MDP Madison Dearborn Partners, LLC | Warburg Pincus | Vitruvian Partners | Charterhouse
NMC New Mountain Capital LLC | TDR Capital | TA Associates | Waterland Private Equity Investments
The Energy & Minerals Group | Berkshire Partners | WCAS | Advent International Global Private Equity

Investment Period | Harvest Period

Illustrative Fund Cash Flows[3]



Secondary investments have a quicker payback period – year 1 yield averages >17%[2]

1. General Partners in the Primary Portfolio
2. Source: ASPIRE as of March 31, 2017 sourced on July 3, 2017. Yield is defined as return of contributed capital at secondary investment or "deal" level one year after close date.
3. Cash flows depicted are for illustrative purposes only and do not reflect actual cash flows of Adams Street Partners secondary investments.

A complete list of Adams Street Partners' Secondary investments is available upon request.

We Target Assets With Specific Attributes

Strong fundamentals at attractive values

ADAMS STREET PARTNERS

Growth Orientation

Target **3-8** year old funds

Emphasize growth **themes** and **sectors**

~80% of gains from **NAV growth**, not discount

Attractive Valuations

Identify and track managers with **conservative** valuation policies and guidance

Understand and position portfolio for multiple **arbitrage** at exit

High Quality Managers

Top 20 managers* account for **63%** of total secondary value

ABRY Partners, Charterhouse, Warburg Pincus, Pearl Diver Capital, Vitruvian Partners, TDR Capital, New Mountain Capital LLC, Waterland Private Equity Investments, Palamon Capital Partners, MDP, Berkshire Partners, CVC Capital Partners, The Energy & Minerals Group, CIVC Partners, Eurazeo, Pollen Street Capital, Fortress, Symphony Technology Group, Summit Partners, ABS Capital Partners

Source: ASPIRE as of March 31, 2017.

*Top 20 managers by remaining NAV plus unfunded exposure. A complete list of Adams Street Partners' Secondary investments is available upon request.

Adams Street Partners

Appendix

Miguel Gonzalo, CFA

Partner & Head of Investment Strategy, Chicago

EDUCATION:

University of Notre Dame, BA

Northwestern University Kellogg School of Management, MBA

YEARS OF INVESTMENT/ OPERATIONAL EXPERIENCE:

22

- As a Partner and Head of Investment Strategy, Miguel combines our bottom up investment research with top down forward-looking views in order to construct portfolios that meet our clients' objectives. Miguel collaborates with investors to formulate strategies that leverage Adams Street Partners' global capabilities.
- Miguel has worked closely with investors in the management of their portfolios, including the development and ongoing monitoring of their private equity programs since 2000. He is actively involved in the portfolio construction and ongoing monitoring of the various fund of funds programs and separate accounts. In addition, he maintains relationships with investment consultants to ensure continuity with client objectives.
- Prior to joining the Private Equity Group in 2000, Miguel was Head of the Performance Analysis Group in the Asset Allocation/Currency Group of Brinson Partners where he oversaw the design and management of the Firm's performance attribution and analytics systems.
- Miguel is a member of the Adams Street Partners Portfolio Construction Committee, the CFA Society of Chicago and the CFA Institute

Kelly Meldrum, CFA

Partner & Head of Primary Investments, Menlo Park

EDUCATION:
Bentley College, BS

YEARS OF INVESTMENT/ OPERATIONAL EXPERIENCE:
32

- Kelly is a Partner and Head of Primary Investments. She is focused on the Global primary portfolio. Kelly is Chairperson of the Adams Street Partners Primary Investment Committee, and is a member of the Adams Street Partners Executive Committee. Kelly opened our Menlo Park office in 2006.
- Kelly is currently responsible for many of Adams Street's General Partners, including Accel, August, Benchmark, Berkshire and TA Associates.
- Before joining Adams Street Partners in 2005, Kelly was the Director of Private Equity for the William and Flora Hewlett Foundation. She focused on the development and implementation of a high quality private equity fund investment program. Prior to that, she worked as a senior investment analyst with the Hewlett-Packard Corporation, where she managed a portfolio of venture capital partnership interests and was responsible for the research and investment management of public equities in the high technology and energy sectors. Additional investment experience includes working with the venture capital group of Morgan Stanley & Company, Inc.
- Kelly is a member of the CFA Institute and the CFA Society of San Francisco. Kelly is a Trustee of the Oregon Shakespeare Festival.
- She sits on advisory boards for ten private equity firms within the Adams Street Partners portfolio.

Organized to Ensure Investment Focus

ADAMS STREET PARTNERS

INVESTMENT

ADVANCED ANALYTICS

Ray Chan
Mhahesh Madhavan
Tobias True
Jian Zhang

STRATEGY

Miguel Gonzalo
Alex Storer
Jana Tortora

PRIMARY

Matthew Autrey
Alex Bozoglou
Jeff Burgis
Adam Chenoweth
Arnaud de Cremiers
Doris (Yiyang) Guo
Morgan Holzaepfel
Jim Korczak
Brijesh Jeevarathnam
Alex Lesch
Saguna Malhotra
Dominic Maier
Kelly Meldrum
Sunil Mishra
Ross Morrison
Sergey Sheshuryak
Yar-Ping Soo
Michael Taylor
Ling Jen Wu
Yu (Hubert) Zhang

Associates

Kelly Carlquist
Jonathan Goh
Marcus Lindroos

SECONDARY

Jeff Akers
Troy Barnett
Joe Goldrick
Greg Holden
Eric Klen
Pinal Nicum
Kristof Van Overloop

Associates

Thomas Ault
William Bertha
Joshua Burandt
Jason Frank
Clinton Miller
Alexander Silver

DIRECT

Co-Investments

Dave Brett
Sachin Tulyani
Ben Wallwork
Craig Waslin

Venture Capital/ Growth Equity

Thomas Bremner
Jeff Diehl
Terry Gould
Robin Murray
Fred Wang
Mike Zappert

Private Credit

Bill Sacher
Shahab Rashid
Fred Chung
Thomas Petty
Emily Shiau

Associates

Michael Allen
Paul Anthony
Paul Cappelli
Ali Lauer
Davis Thacker
Matthew Wachtel

EXECUTIVE COMMITTEE

Bon French
Executive Chairman

Jeff Akers
Head of Secondary Investments

Jeff Diehl
Managing Partner & Head of Investments

Gary Fencik
Head of Investor Relations

Terry Gould
Head of Direct Investments

Quintin Kevin
Chief Financial Officer

Kelly Meldrum
Head of Primary Investments

Kevin O'Donnell
Global Head of Investor Relations

INVESTOR RELATIONS AND MARKETING

Investor Relations

Mike Chia
Greg Favre
Gary Fencik
Sam Garetano
John Gray
Ana Maria Harrison
Ben Hart
Scott Hazen
John Kremer
Mike Lucarelli
Vinay Mendiratta
Kristina Milberg
Kevin O'Donnell
Isamu Sai
Steven Wilde
Martin vom Hagen

Marketing

Jeanne Elliott Enright
CJ Flynn
Nancy LaDieu
Melissa Lefko
Greta Nolan
Megan Schroeder

SUPPORT TEAMS

Finance

Stephen Baranowski
Sarah Bass
Tyson Bauer
Juan Beltran
Naz Busch
Ellen Castellini
Sara Cushing
Megan Dunne
Scott Fisher
Jessica Garvey
Lynn Hayden
Aaron Karlinsky
Quintin Kevin
Christopher Larson
Megan Meyer
Steve Montag
Joe Peck
Mary Kate Planek
Lena Pugh
Jamie Raibley
Scott Rybak
Olivia Schreader
Jason Swanson
Christina Totton
Hannah Wilson
Douglas Wong
Triste Wyckoff-Heintz

Legal

Ben Benedict
Tim Bryant
Gail Carey
Sara Robinson Dasse
Jennifer Goodman
Rasa Kelpsa
Eric Mansell
Anne Semik
Mamiko Higashi

Human Resources

Carolyn Flanagan
Kristen Lampert
Ko Liang
Kelly M. Mahadev
Mac Pfisterer
Elyse Winter

Information Technology

Philipp Bohren
Curt De Witt
Mike Giannangelo
Megan Heneghan
Derek Piunti

Performance Reporting

Lauren Gebbie
Todd Jankowski
Mike Rosa
Mensur Sulic
Renee Vogl
Molly Winans

Diversity, Inclusion and ESG* Considerations at Adams Street

Adams Street Partners

ESG Considerations

- Adams Street became a signatory to the United Nations Principles for Responsible Investment ("UNPRI") in October 2010
- The Firm adopted an ESG Policy, established an ESG Committee and conducted firm-wide training regarding integration of ESG considerations into the investment process
- The Firm integrates ESG Considerations into the investment process using the below criteria to evaluate prospective investments:
  - Character and integrity of the leadership of the fund or portfolio company
  - The quality, sustainability and transparency of operations
  - Impacts of the fund's investments or portfolio company's business (e.g., human rights and environmental impacts)

Our **Diversity and Inclusion Initiative's mission** is to increase access, contribute to education and engage staff in outreach opportunities designed to raise awareness and bring greater numbers of women and men of diverse backgrounds into the industry.

ALPFA · FWA Financial Women's Association · National Association of Black Accountants, Inc. "Lifting As We Climb" · NSH MBA National Society of Hispanic MBAs · SEO Sponsors for Educational Opportunity · TOIGO. Robert Toigo Foundation · Women's Private Equity Summit

*Environmental, Social and Governance ("ESG") Considerations

Notes to Performance: All Strategies Outperform Public Market Equivalents by 400 bps*

As March 31, 2017

* The strategies listed exceeded public market equivalents by 400 bps based on the composite, since inception IRR for each strategy as described herein.

1. With respect to the strategies Primary Only, Primary Venture Capital, Primary Buyout, ASP Capital Funds and Co-Investment Funds, this chart, in USD, shows composite performance of private equity fund investments in Adams Street Partners "Core Portfolios" which are funds and separate accounts (excluding special mandate funds and non-discretionary separate accounts) of which Adams Street Partners is the general partner, manager or investment adviser (as applicable) and for which Adams Street Partners makes discretionary investments in private equity. For each of these strategies in the chart, performance is shown on a composite basis for all investments in Core Portfolios that are within that strategy.

2. With respect to the strategy Secondary Only, this chart, in USD, shows composite performance by year of legal closing and transfer of assets of secondary investments (including interests purchased pursuant to a right of first refusal); it includes all secondary investments from 1986 through current period in all funds or other portfolios over which Adams Street Partners exercises investment discretion (including separate accounts no longer with Adams Street Partners).

3. With respect to Adams Street Partners primary and secondary investments, IRRs are net of fees, carried interest and expenses charged to the underlying private equity funds, but are gross of Adams Street Partners' fees, carried interest and expenses, which reduce returns to investors. For the effect of Adams Street Partners' fees, carried interest and expenses on Adams Street Partners' fund returns to investors, please see Adams Street Partners Net Performance chart in the notes section of this presentation. There can be no guarantee that unrealized investments will ultimately be liquidated at the values reflected in this return data. With respect to Adams Street Partners direct and co-investment funds included in this data, performance is net of Adams Street Partners' fees, carried interest and expenses. The returns presented in this chart do not represent returns achieved by any particular Adams Street Partners fund or any investor in an Adams Street Partners fund.

4. Public Market Equivalent (PME) is calculated using the MSCI All Country World Index. For some periods, it was not possible to calculate traditional PME because the pace of distributions would have created a short position in the public index. In these cases, denoted by the symbol "^", the PME is calculated using the "Direct Alpha" PME methodology (Gredil, Griffiths, Stucke, "Benchmarking Private Equity: The Direct Alpha Method," 2014). Mathematically, Direct Alpha PME is equal to the IRR of the future value of cash flows, where future value is based on the return of the benchmark index, less than the IRR of the actual value of the cash flows.

5. Inception date as of November 1, 1979.

6. Inception date as of February 21, 1985.

7. Inception date as of August 29, 1986.

8. Inception date as of March 1, 1989. Composite since inception IRR is net of Adams Street Partners' fees, carried interest and expenses. IVCF II, a component of this composite, charged only management fees and expenses. Includes IVCF II (invested in both partnerships and direct portfolio companies), IVCF III, BVCF IV, AS V, AS 2006, AS 2007, AS 2008, AS 2009, AS 2010, AS 2011, AS 2012, AS 2013, AS 2014, AS 2015, AS 2016, AS 2017 and AS Venture/Growth VI.

9. Inception date as of July 8, 1992. Co-Investment Funds includes a separate account (1992-1998), Co-Investment I (2006), II (2009) and III (2014).

Past performance is not a guarantee of future results.

Notes to Performance: Consistent Outperformance Across Strategies Over Time

March 31, 2017

1. This chart, in USD, shows composite performance of private equity fund investments in Adams Street Partners "Core Portfolios" which are funds and separate accounts (excluding special mandate funds and non-discretionary separate accounts) of which Adams Street Partners is the general partner, manager or investment adviser (as applicable) and for which Adams Street Partners makes discretionary investments in private equity. For each strategy listed in the chart, performance is shown on a composite basis for all investments in Core Portfolios that are within that strategy. The returns presented in this chart do not represent returns achieved by any particular Adams Street Partners fund or any investor in an Adams Street Partners fund. For Adams Street Partners funds' net returns, please see the Adams Street Partners Net Performance chart in the notes section of this presentation.
2. With respect to Adams Street Partners primary and secondary investments, IRRs are net of fees, carried interest and expenses charged to the underlying private equity funds, but are gross of Adams Street Partners' fees, carried interest and expenses, which reduce returns to investors. For the effect of Adams Street Partners' fees, carried interest and expenses on Adams Street Partners' fund returns to investors, please see Adams Street Partners Net Performance chart in the notes section of this presentation. There can be no guarantee that unrealized investments will ultimately be liquidated at the values reflected in this return data. With respect to Adams Street Partners direct and co-investment funds included in this data, performance is net of Adams Street Partners' fees, carried interest and expenses.
3. Public Market Equivalent (PME) is calculated using the MSCI All Country World Index.
4. Inception date as of November 1, 1979.
5. Inception date as of August 29, 1986.
6. Inception date as of February 21, 1985.
7. Inception date as of March 1, 1989. Composite since inception IRR is net of Adams Street Partners' fees, carried interest and expenses. IVCF II, a component of this composite, charged only management fees and expenses. Includes IVCF II (invested in both partnerships and direct portfolio companies), IVCF III, BVCF IV, AS V, AS 2006, AS 2007, AS 2008, AS 2009, AS 2010, AS 2011, AS 2012, AS 2013, AS 2014, AS 2015, AS 2016, AS 2017 and AS Venture/Growth VI.
8. Inception date as of July 8, 1992. Co-Investment Funds includes a separate account (1992-1998), Co-Investment I (2006), II (2009) and III (2014).

^ For some periods, it was not possible to calculate traditional PME because the pace of distributions would have created a short position in the public index. In these cases PME is calculated using the "Direct Alpha" PME methodology (Gredil, Griffiths, Stucke, "Benchmarking Private Equity: The Direct Alpha Method," 2014). Mathematically, Direct Alpha PME is equal to the IRR of the future value of cash flows, where future value is based on the return of the benchmark index, less than the IRR of the actual value of the cash flows.

Past performance is not a guarantee of future results.

Adams Street Partners Net Performance

As of March 31, 2017

ADAMS STREET PARTNERS

	Performance in USD			
	Gross IRR	Net IRR	PME*	Net Multiple
Brinson Partnership 1996 Subscription	16.92%	14.21%	6.8% ^	1.69x
Brinson Partnership 1997 Subscription	15.07%	12.13%	3.4% ^	1.62x
Brinson Partnership 1998 Subscription	6.85%	5.01%	3.1% ^	1.35x
Brinson Partnership 1999 Subscription	7.62%	5.76%	4.3% ^	1.41x
Brinson Partnership 2000 Subscription	9.36%	7.30%	5.3% ^	1.50x
Brinson Partnership 2001 Subscription	10.85%	8.61%	6.6% ^	1.57x
Adams Street Partnership Fund - 2002 Non-U.S. Fund, LP	14.06%	11.61%	7.9% ^	1.71x
Adams Street Partnership Fund - 2002 U.S. Fund, LP	10.62%	8.56%	6.4%	1.63x
Adams Street Partnership Fund - 2003 Non-U.S. Fund, LP	12.15%	9.66%	5.3% ^	1.57x
Adams Street Partnership Fund - 2003 U.S. Fund, LP	9.85%	7.92%	6.6%	1.58x
Adams Street Partnership Fund - 2004 Non-U.S. Fund, LP	7.99%	6.00%	3.4%	1.39x
Adams Street Partnership Fund - 2004 U.S. Fund, LP	8.83%	7.07%	7.1%	1.51x
Adams Street Partnership Fund - 2005 Non-U.S. Fund, LP	6.53%	4.94%	2.8%	1.34x
Adams Street Partnership Fund - 2005 U.S. Fund, LP	8.50%	6.89%	8.2%	1.49x
Adams Street Partnership Fund - 2006 Non-U.S. Fund, LP	7.21%	5.62%	3.5%	1.37x
Adams Street Partnership Fund - 2006 U.S. Fund, LP	8.84%	7.14%	9.0%	1.46x
Adams Street 2006 Direct Fund, L.P.	11.09%	7.72%	7.6%	1.83x
Adams Street Partnership Fund - 2007 Non-U.S. Fund, LP	9.19%	7.30%	4.5%	1.41x
Adams Street Partnership Fund - 2007 U.S. Fund, LP	14.00%	11.91%	11.1%	1.69x
Adams Street 2007 Direct Fund, L.P.	15.19%	10.95%	8.9%	1.99x
Adams Street Partnership Fund - 2008 Non-U.S. Fund, L.P.	12.13%	9.51%	5.2%	1.42x
Adams Street Partnership Fund - 2008 U.S. Fund, L.P.	18.27%	15.56%	13.3%	1.77x
Adams Street 2008 Direct Fund, L.P.	20.36%	14.95%	12.6%	2.12x
Adams Street Partnership Fund - 2009 Non-U.S. Developed Markets, L.P.	12.54%	9.02%	5.8%	1.29x
Adams Street Partnership Fund - 2009 Non-U.S. Emerging Markets Fund, L.P.	11.11%	8.79%	2.5%	1.38x
Adams Street Partnership Fund - 2009 U.S. Fund, L.P.	16.66%	13.58%	13.8%	1.56x
Adams Street 2009 Direct Fund, L.P.	20.67%	14.28%	14.6%	1.75x
Adams Street Partnership Fund - 2010 Non-U.S. Developed Markets Fund, L.P.	12.15%	8.71%	5.8%	1.26x
Adams Street Partnership Fund - 2010 Non-U.S. Emerging Markets Fund, L.P.	12.14%	9.86%	2.6%	1.34x
Adams Street Partnership Fund - 2010 U.S. Fund, L.P.	17.43%	14.25%	13.3%	1.51x
Adams Street 2010 Direct Fund, L.P.	18.50%	12.27%	13.4%	1.58x
Adams Street 2011 Non-US Developed Markets Fund LP	12.54%	9.19%	6.0%	1.24x
Adams Street 2011 Emerging Markets Fund LP	12.91%	10.58%	2.3%	1.37x
Adams Street 2011 US Fund LP	16.08%	13.18%	13.5%	1.40x
Adams Street 2011 Direct Fund LP	26.07%	18.30%	12.7%	1.78x
Adams Street 2012 Global Fund LP	11.88%	7.91%	7.6%	1.18x
Adams Street 2012 Developed Markets Fund LP	12.74%	9.19%	3.9%	1.19x
Adams Street 2012 Emerging Markets Fund LP	9.56%	6.75%	4.3%	1.16x
Adams Street 2012 US Fund LP	11.07%	7.86%	11.5%	1.19x
Adams Street 2012 Direct Fund LP	17.81%	9.57%	12.0%	1.24x
Adams Street 2013 Global Fund LP	11.00%	7.40%	7.6%	1.14x
Adams Street 2013 Developed Markets Fund LP	12.00%	8.72%	3.8%	1.16x
Adams Street 2013 Emerging Markets Fund LP	11.91%	8.87%	6.2%	1.14x
Adams Street 2013 US Fund LP	10.76%	7.68%	11.0%	1.15x
Adams Street 2013 Direct Fund LP	12.20%	5.31%	11.7%	1.10x
Adams Street 2014 Global Fund LP	12.83%	8.34%	7.9%	1.12x
Adams Street 2014 Developed Markets Fund LP	10.99%	6.34%	4.3%	1.08x
Adams Street 2014 Emerging Markets Fund LP	13.37%	9.34%	7.7%	1.13x
Adams Street 2014 US Fund LP	11.45%	8.16%	11.0%	1.13x
Adams Street 2014 Direct Fund LP	23.00%	12.89%	10.8%	1.19x

The page entitled "Notes to Performance: Adams Street Partners Net Performance." included on the following page of this presentation, is an important component of this performance data. Past performance is not a guarantee of future results.

Notes to Performance:
Adams Street Partners Net Performance

As of March 31, 2017

Note: Brinson Partnership Subscription gross and net IRR presents representative subscription performance of a subscriber that followed Adams Street Partners' recommended allocation and pays the highest fees. For Adams Street Funds, actual commingled fund performance gross and net IRR are presented. Gross IRRs are net of management fees, carried interest and expenses charged to the underlying private equity funds, in the case of primary and secondary funds, but gross of Adams Street Partners' management fees and carried interest, which reduce returns to investors. Net IRRs are net of Adams Street Partners' management fees, carried interest and expenses as well as net of management fees, carried interest and expenses charged to the underlying private equity funds (in the case of primary and secondary funds). Capital-weighted annualized returns from inception through quarter end. There can be no guarantee that unrealized investments will ultimately be liquidated at the values reflected in this return data. Each Brinson Partnership Subscription includes fund allocations made within a series of pooled investment vehicles. Performance for vintage years later than 2014 is not shown because performance early in a fund's life is not generally meaningful due to fee drag and immature investments. Past performance is not a guarantee of future results.

*Public Market Equivalent (PME) is calculated using the S&P 500 Index for Brinson Partnership Subscription, US Funds and Direct Funds; MSCI EAFE (Europe, Australasia, Far East) for Non-US and Non-US Developed Funds; MSCI Emerging for Emerging Markets Funds; and MSCI All Country World for Global Funds. The PME calculation is based on the Net IRR cash flows which reflects the payments of fees, carried interest and expenses.

^ During some periods in which Adams Street Partners investments outperformed the benchmark by a substantial margin, PME could not be calculated because the tracking position in the underlying benchmark index would have resulted in a short position. In these cases, the PME is calculated using the "Direct Alpha" PME methodology (Gredil, Griffiths, Stucke, "Benchmarking Private Equity: The Direct Alpha Method," 2014). Mathematically, Direct Alpha PME is equal to the IRR of the future value of the cash flows underlying the IRR calculation, where future value is based on the return of the benchmark index, less the IRR of the actual value of the cash flows.

AGENDA ITEM IV.C.5.

BOARD ACTION REQUESTED

TO: State Investment Board

FROM: Dave Hunter, Darren Schulz and Eric Chin

DATE: August 22, 2017

SUBJECT: **Private Equity Recommendation – Adams Street Partners**

Background:

As part of a multi-year plan to enhance the expected return of our private equity ("PE") portfolio, RIO continues to review existing and prospective PE managers in the marketplace. At this time, RIO recommends making a new "follow-on" commitment to the Adams Street Partners ("Adams Street" or "ASP") Global Fund for 2017. Adams Street is our largest PE manager (at $40 million) and has consistently generated the strongest returns (within PE) for our clients over the last 25 years.

	1-Yr.	*3-Yrs.*	*5-Yrs.*	*10-Yrs.*	*Inception*
Net IRR for Adams Street Partners Investment	*10.1%*	*11.0%*	*11.6%*	*7.0%*	*11.0%*

It is important to note that SIB clients within the $5.3 billion Pension Trust currently have a 6.5% (or $345 million) target allocation to PE versus an actual allocation of $167 million. In order to reduce this $178 million underweight position, RIO recommends the SIB approve a new "follow-on" commitment to the ASP 2017 Global Fund of $60 million. RIO notes the SIB previously approved two similar $30 million commitments to ASP's Global Fund in September of 2015 and February of 2016. In March of 2016, RIO and Callan identified BlackRock as a new strategic partner to complement Adams Street and re-establish our clients' long-term commitment to this asset class. Given the significant growth in the Pension Trust during the past year, we regularly review our PE investment pacing schedule with the intent of eliminating the sizable underweight position over the next 5 years. Investment pacing plays an important role in gradually re-building our PE portfolio so as to prevent the potential adverse effects of vintage year concentration risk. The establishment of two strategic partners in this long-term investment should also help to reduce management fees. Given expected capital distributions on existing PE assets over the next five years, ASP believes annual private equity commitments will likely need to approximate $60 million (for each manager) over the next five years. Based on a prior investment pacing schedule, the SIB committed $200 million to BlackRock over a four-year commitment period (or $50 million per annum).

RIO Due Diligence:

During the past three years, RIO met with over two dozen private equity investment and consulting firms including Adams Street, BlackRock, Capital Group, Carlyle Group, Cogent, CorsAir, Credit Suisse, Crestline, Evercore, Goldman Sachs, Hamilton Lane, HarbourVest, Invest America, JPMorgan, KKR, Matlin Patterson, Pantheon, Partners Group, Pathway, Portfolio Advisors, Public Pension Capital, Quantum Energy Partners, RCP Investors and UBS. During the course of our due diligence, nearly all investment managers expressed a willingness to offer preferential pricing to develop a long-term strategic relationship.

RIO notes that ASP has served as the SIB's longest term, strategic partner within PE and provided our Pension Trust clients with a reasonable return premium versus public equity (of over 4% versus MSCI World Index since inception). Over the long-term, ASP believes it will be able to generate a 3% to 4% return premium versus public equity (after all fees).

Key Terms:

Fund Name:	Adams Street 2017 Global Fund LP
General Partner:	Adams Street Partners
Fund Term:	15 years after final close
Borrowing:	Up to 25%
Commitment Period:	Target 2.5 to 3.0 years
Return Objective:	Net IRR in excess of 13%
Management Fee:	0.49% for $60 million
Carried Interest:	0% primary (~65%); 10% secondary/co-invest (~25%); 20% direct (~10%)
Preferred Return:	7% for secondary and co-investments
Example:	Fund of Funds (primary, secondary, co-invest) (~ 90%); Direct (~ 10%)

Recommendation:

RIO recommends the SIB approve a $60 million commitment to the Adams Street 2017 Global Fund. This action is consistent with RIO's prior recommendations to re-establish our commitment to the PE sector while working with one of our longest-term strategic partners in order to reduce our current underweight position in a reasonable and prudent manner. As previously noted, the SIB's investment history with Adams Street Partners goes back to 1991.

Adams Street Partners – Partnership Fund Management Fees

	North Dakota	
	Subscription ($M)	Partnership Fund Fee*
2015 Global Fund	$30	0.61%
2016 Global Fund	$30	0.56%
2017 Global Fund	$60	0.49%

* Estimated average annual fund of fund fee based on assumed commitment pace; the Partnership Fund Management Fee is divided by Subscription amount to Global Fund, divided by 15 years. The portion of North Dakota's subscription that is allocated to the Direct Fund will be assessed an annual fee of 2% and 20% carried interest.

Note: Management fees are reduced for size and repeat subscriptions.

August 25, 2017

North Dakota
State Investment Board

Performance Evaluation

as of June 30, 2017

Paul Erlendson
Senior Vice President

Alex Browning
Vice President

Callan Succession Planning

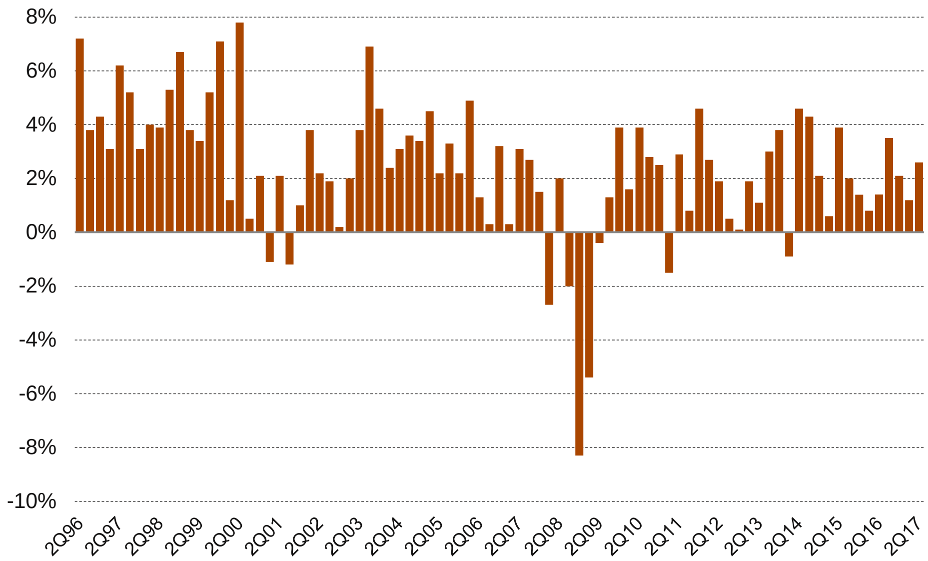
Effective September 1, 2017

- Greg Allen, President and Director of Research, will assume the title of CEO and President.
- Ron Peyton, Chairman and CEO, will assume the title of Executive Chairman.
- Both will maintain current reporting lines, aside from Greg reporting to the Board.
- Greg's current title of Director of Research will be transitioned some time in the future.

U.S. Economy

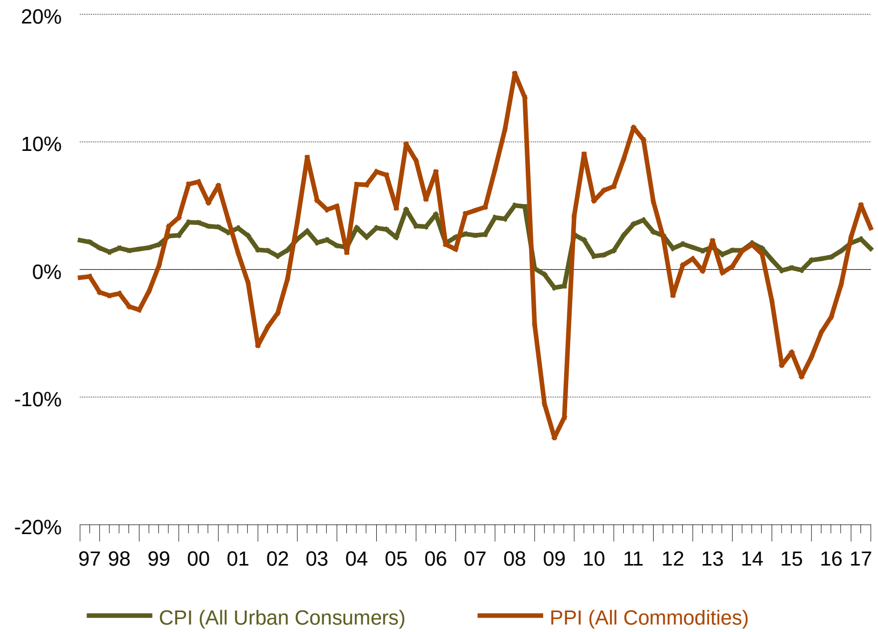
Periods Ending June 30, 2017

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

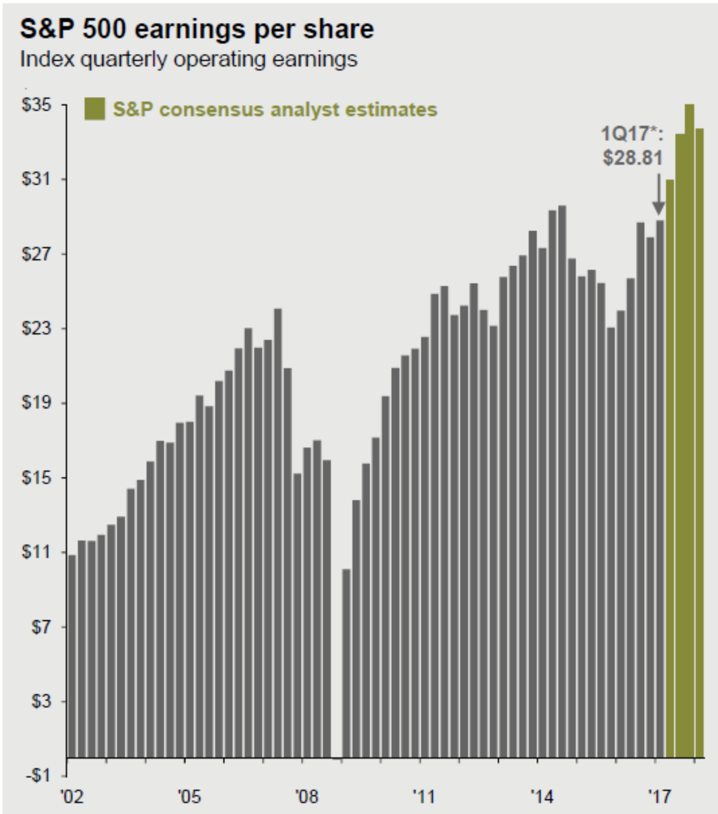
Inflation Year-Over-Year

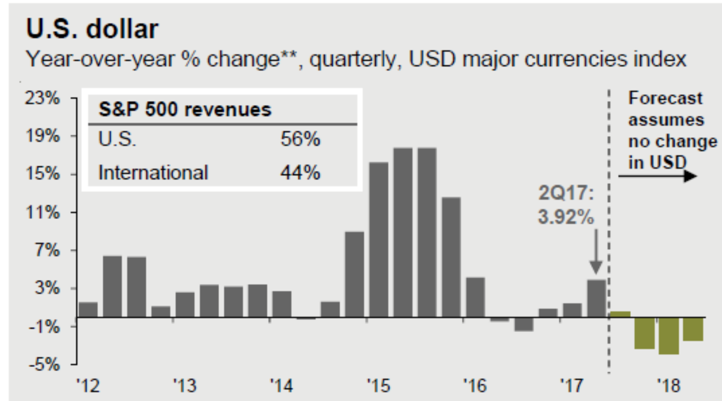


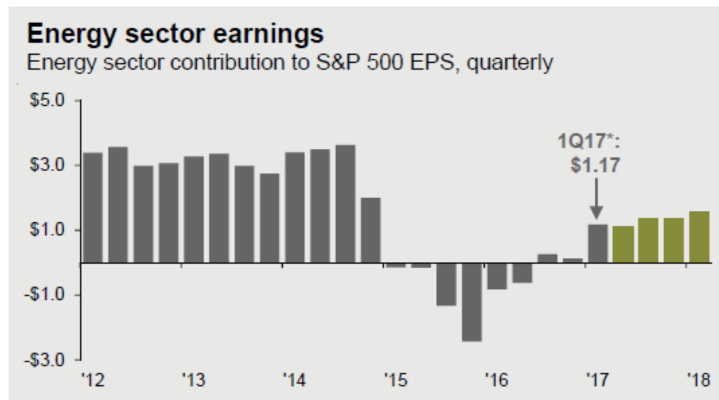
Source: Bureau of Labor Statistics

- The initial estimate of 2nd quarter GDP was 2.6%, in-line with expectations and stronger than Q1's 1.4%.
- June headline inflation rose 1.6% over the trailing twelve months. Core CPI increased 1.7%.
- June unemployment was 4.4% (down 0.1% from March) while the labor force participation rate fell to 62.8% (down 0.2%).
- The Fed increased the target overnight rate to 1.00% - 1.25% on June 15.

Corporate Earnings



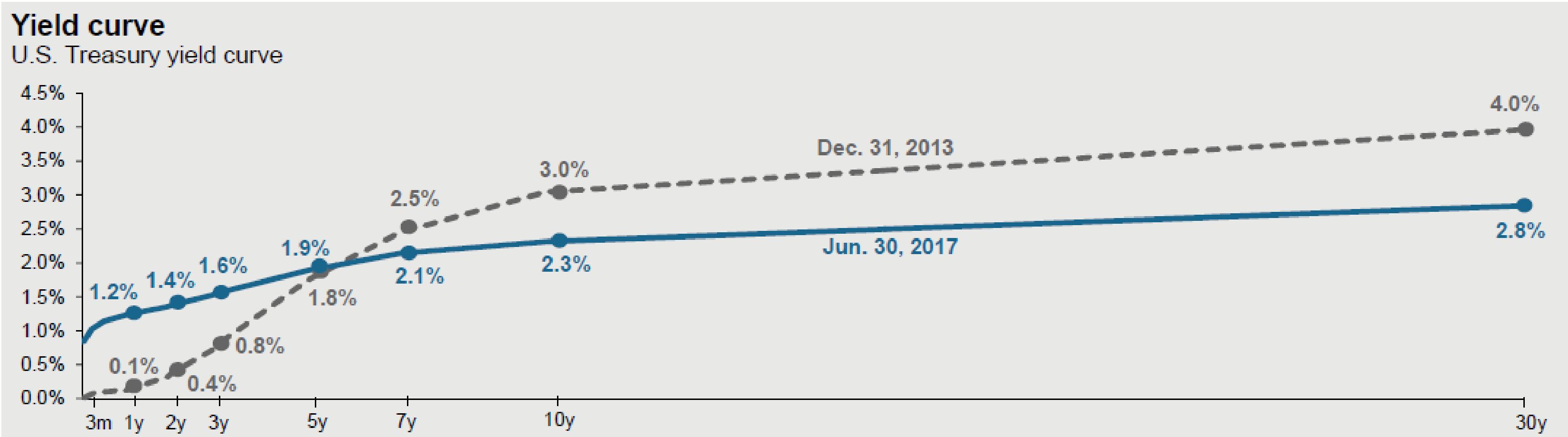


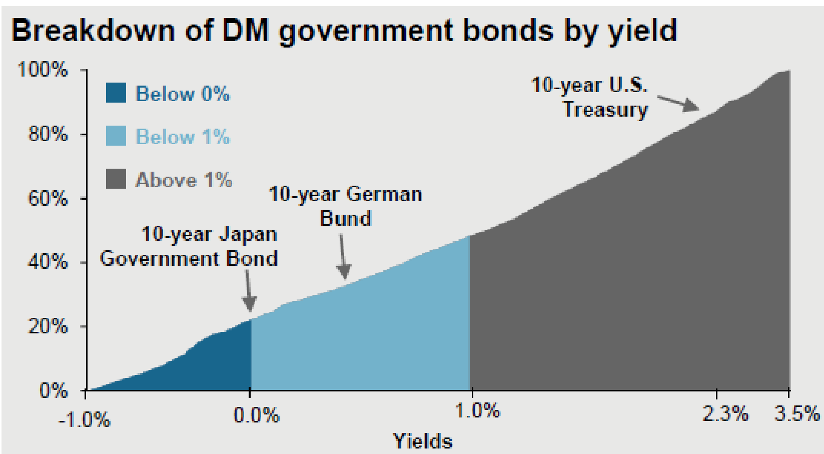


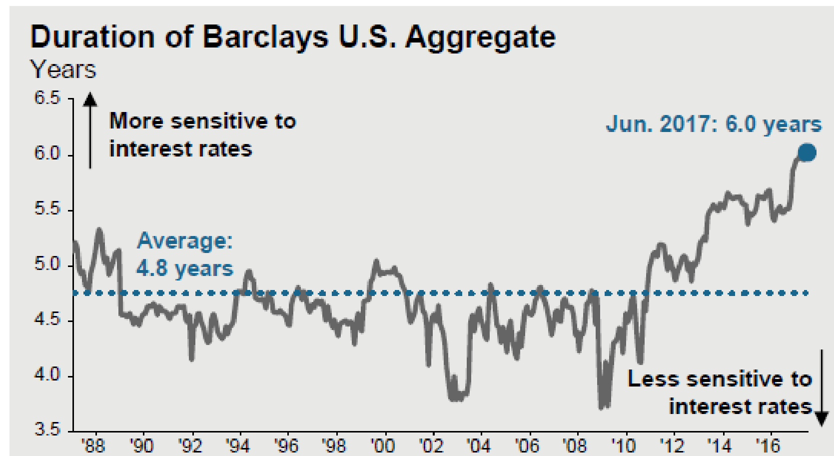
- Earnings lifted U.S. equities higher in the quarter, driven by a few key factors:
  - A boost to exports from a weaker dollar
  - Wages have increased enough to support consumer spending yet labor costs have not weighed on profits
  - The energy sector's earnings drag as the broad index level has abated
  - Companies are benefitting from years of extensive cost-cutting

Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management; (Top right) Federal Reserve, S&P 500 individual company 10k filings, S&P Index Alert. EPS levels are based on operating earnings per share. Earnings estimates are Standard & Poor's consensus analyst expectations. Past performance is not indicative of future returns. Currencies in the Trade Weighted U.S. Dollar Major Currencies Index are: British pound, euro, Swedish krona, Australian dollar, Canadian dollar, Japanese yen and Swiss franc. *1Q17 earnings are calculated using actual earnings for 98.6% of S&P 500 market cap and earnings estimates for the remaining companies. **Year-over-year change is calculated using the quarterly average for each period. USD forecast assumes no change in the U.S. dollar from its June 30, 2017 level. Guide to the Markets – U.S. Data are as of June 30, 2017.

Bond Market Dynamics







- Historically high duration means the U.S. Aggregate is more sensitive to interest rate changes; however, higher yields in the U.S. relative to other developed markets increases global demand which could slow the pace at which long rates rise.

Source: FactSet, J.P. Morgan Asset Management; (Bottom left) Bloomberg, BofA/Merrill Lynch. (Bottom right) Barclays, Bloomberg. The Developed Market Government Bond Index is the Bank of America/Merrill Lynch Global Government Index. Duration measures the sensitivity of the price of a bond to a change in interest rates. The higher the duration the greater the sensitivity bond is to movements in the interest rate. Guide to the Markets – U.S. Data are as of June 30, 2017.

Asset Class Performance

Periodic Table of Investment Returns
for Periods Ended June 30, 2017

Best

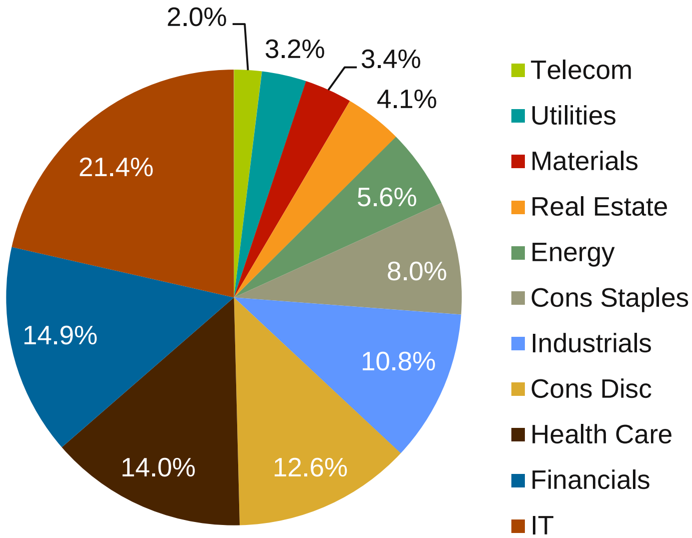
Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
MSCI:EM Gross 6.4%	Russell:2000 Index 24.6%	S&P:500 9.6%	S&P:500 14.6%	S&P:500 7.2%	Russell:2000 Index 8.0%
MSCI:EAFE 6.1%	MSCI:EM Gross 24.2%	Russell:2000 Index 7.4%	Russell:2000 Index 13.7%	Russell:2000 Index 6.9%	S&P:500 7.2%
S&P:500 3.1%	MSCI:EAFE 20.3%	Blmbg:Aggregate 2.5%	MSCI:EAFE 8.7%	Blmbg:Aggregate 4.5%	MSCI:EM Gross 5.8%
Russell:2000 Index 2.5%	S&P:500 17.9%	MSCI:EM Gross 1.4%	MSCI:EM Gross 4.3%	MSCI:EM Gross 2.2%	Blmbg:Aggregate 5.2%
Blmbg:Aggregate 1.4%	3 Month T-Bill 0.5%	MSCI:EAFE 1.1%	Blmbg:Aggregate 2.2%	MSCI:EAFE 1.0%	MSCI:EAFE 4.3%
3 Month T-Bill 0.2%	Blmbg:Aggregate (0.3%)	3 Month T-Bill 0.2%	3 Month T-Bill 0.2%	3 Month T-Bill 0.6%	3 Month T-Bill 2.2%
Blmbg:Commodity Price Idx **(3.2%)**	Blmbg:Commodity Price Idx **(7.0%)**	Blmbg:Commodity Price Idx **(15.0%)**	Blmbg:Commodity Price Idx **(9.4%)**	Blmbg:Commodity Price Idx **(6.9%)**	Blmbg:Commodity Price Idx **(1.8%)**

Worst

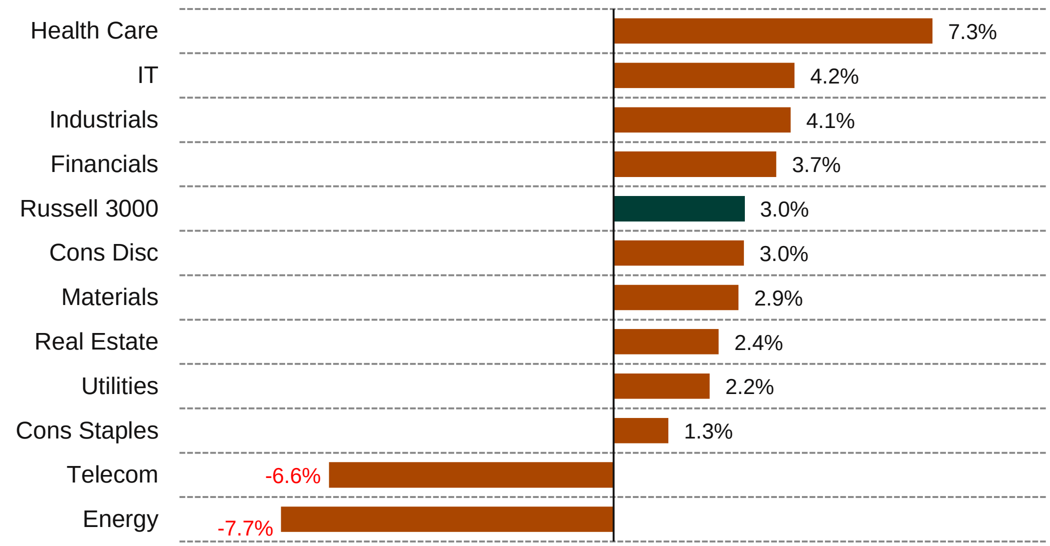
U.S. Equity Returns

Periods Ending June 30, 2017

Economic Sector Exposure (Russell 3000)



Quarterly Returns (Russell 3000)



Source: Barrow Hanley Quarterly Benchmark Review

- The RU 1000 was up 3.1% - Health Care (+7.2%) and Industrials (+4.3%) were the best performing sectors.
- The RU 2000 was up 2.5% - Telecom (+15.5%) and Health Care (+8.8%) were the best performing sectors.
- S&P 500 companies reported the strongest quarterly earnings growth rate in six years and 70% of companies reported earnings above expectations.

U.S. Equity Style Returns

Periods Ending June 30, 2017

	2Q 2017		
	Value	Core	Growth
Large	1.3%	3.1%	4.7%
Mid	1.4%	2.7%	4.2%
Small	0.7%	2.5%	4.4%

	Annualized 1 Year Returns		
	Value	Core	Growth
Large	15.5%	18.0%	20.4%
Mid	15.9%	16.5%	17.1%
Small	24.9%	24.6%	24.4%

Represents 3 best performing asset classes in time period

Represents 3 middle performing asset classes in time period

Represents 3 worst performing asset classes in time period

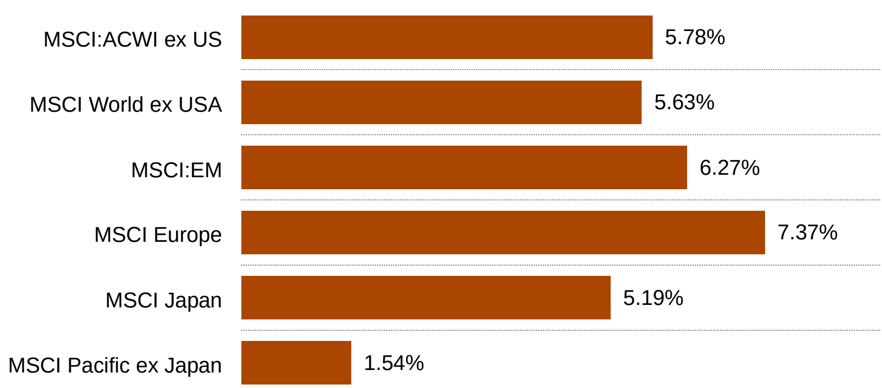
- Last Quarter: Large outperformed except in value, which was led by mid; growth outperformed.
  – Strong earnings and continued flows into passive strategies, particularly ETFs, buoyed large cap.
  – Growth stocks Facebook, Amazon, Apple, Microsoft, and Google accounted for 22% of the S&P 500's quarterly return.
- Last Year: Small outperformed; growth outperformed except in small cap where value edged growth.

Large Cap Core is represented by the Russell 1000 Index, Large Cap Value is represented by the Russell 1000 Value Index and Large Cap Growth is represented by the Russell 1000 Growth Index. Mid Cap Core is represented by the Russell Midcap Index, Mid Cap Value is represented by the Russell Midcap Value Index and Mid Cap Growth is represented by the Russell Midcap Growth Index. Small Cap Core is represented by the Russell 2000 Index, Small Cap Value is represented by the Russell 2000 Value Index and Small Cap Growth is represented by the Russell 2000 Growth Index.

International Equity Returns

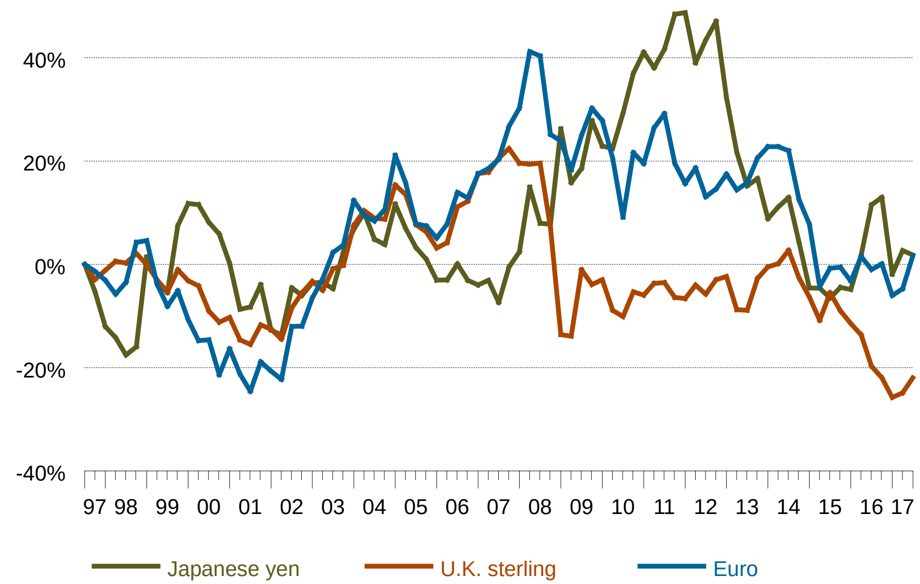
Periods Ending June 30, 2017

Regional Quarterly Performance (U.S. Dollar)



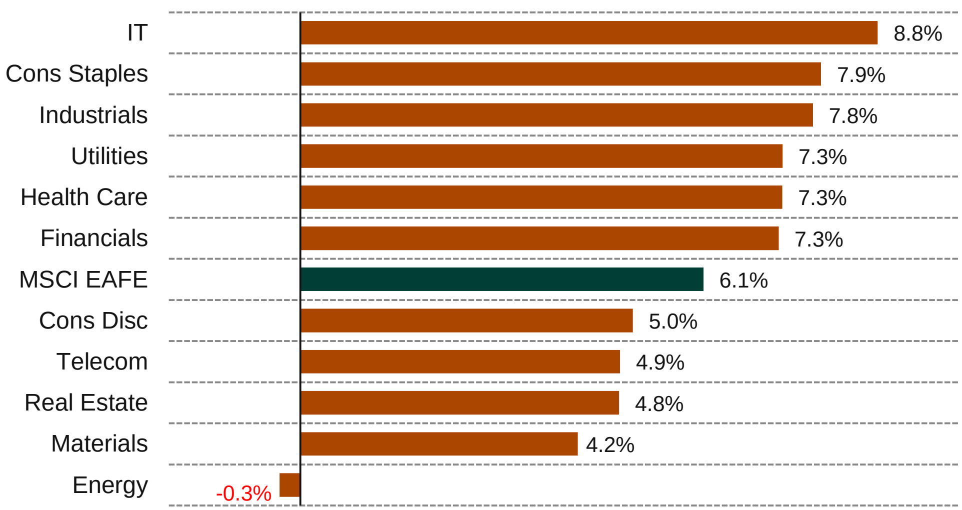
Source: MSCI

Major Currencies' Cumulative Returns (vs. U.S. Dollar)



*Euro returns from 1Q99. German mark prior to 1Q99.
Source: MSCI

MSCI EAFE Sector Returns



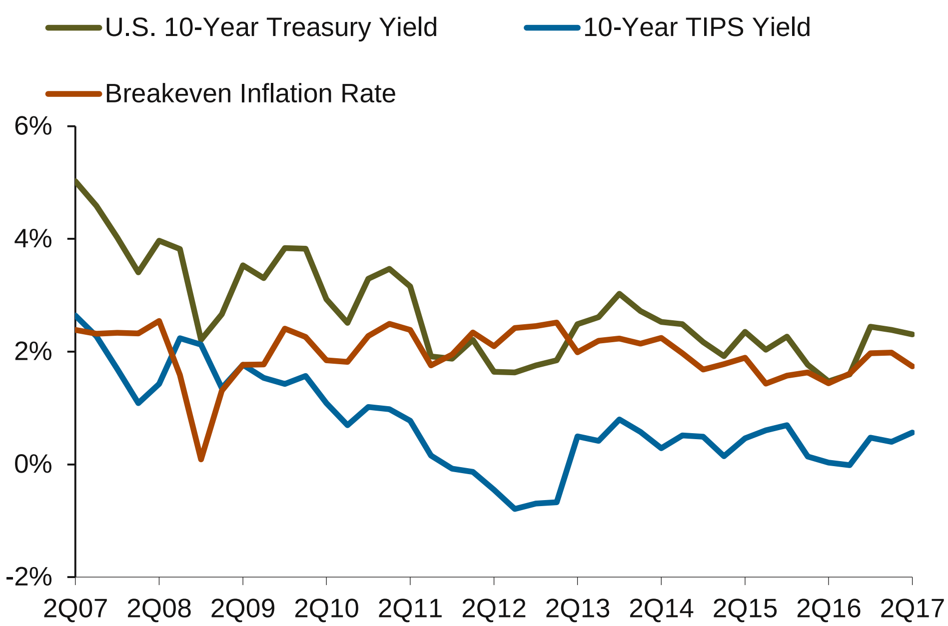
Source: Barrow Hanley Quarterly Benchmark Review

- The best performing region was Europe (+7.4%).
- The euro (+6.6%) and pound (3.9%) strengthened versus the dollar while the yen weakened (-0.8%).
- Economic recovery and market-friendly election outcomes spurred non-U.S. equities past U.S. equities for the second consecutive quarter.

Yield Curve Changes

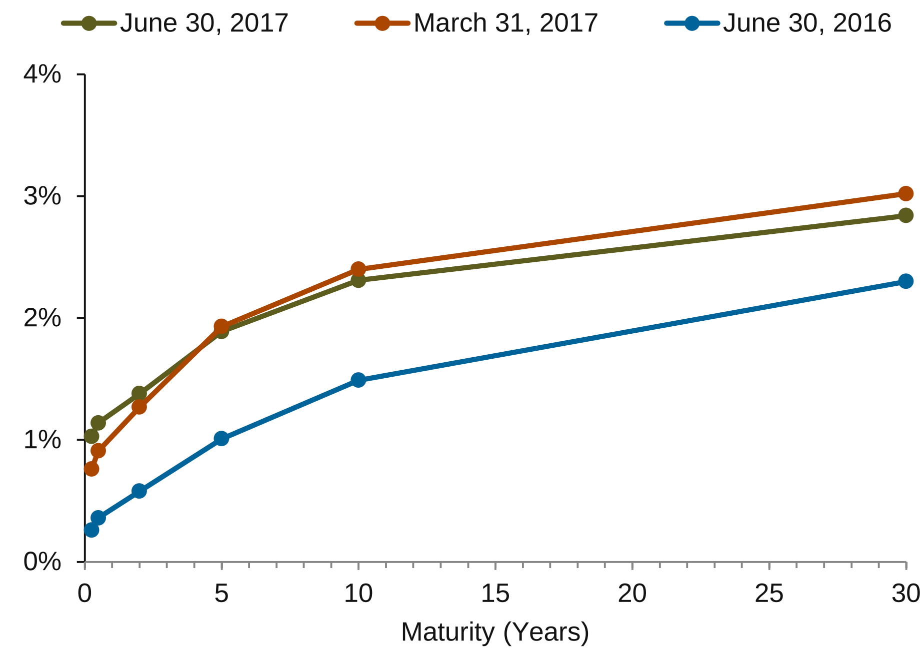
Periods Ending June 30, 2017

Historical 10-Year Yields



Source: Bloomberg

U.S. Treasury Yield Curves



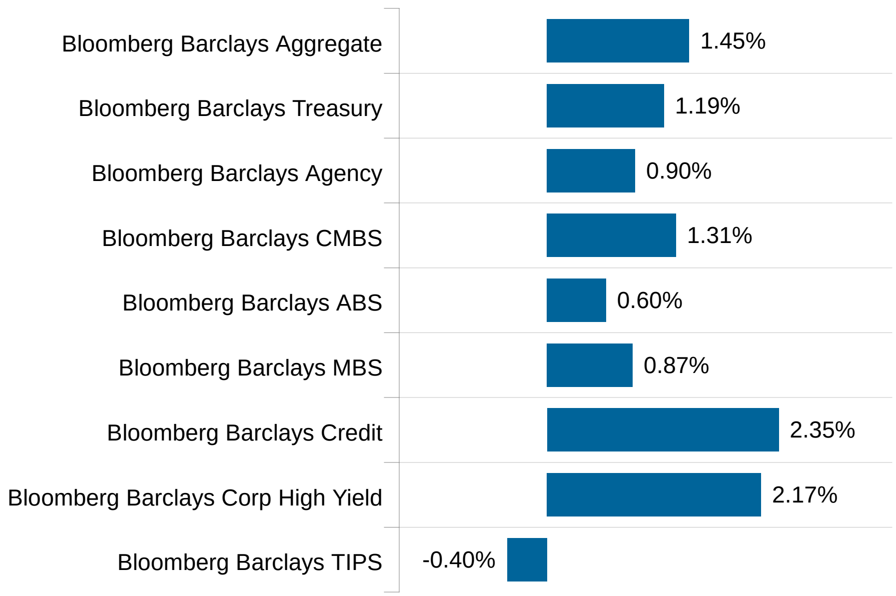
Source: U.S. Department of the Treasury

- The Treasury yield curve flattened with short term rates rising along with Fed action and the long term falling on expectations of a slower growth trajectory. The yield on the 10-year and 30-year dropped 9 bps and 18 bps, respectively. The 3-month rose 27 bps.
- Breakeven inflation fell as expectations for policy-driven growth have softened.
- Worldwide, rates remain low.

Total Rates of Return by Bond Sector

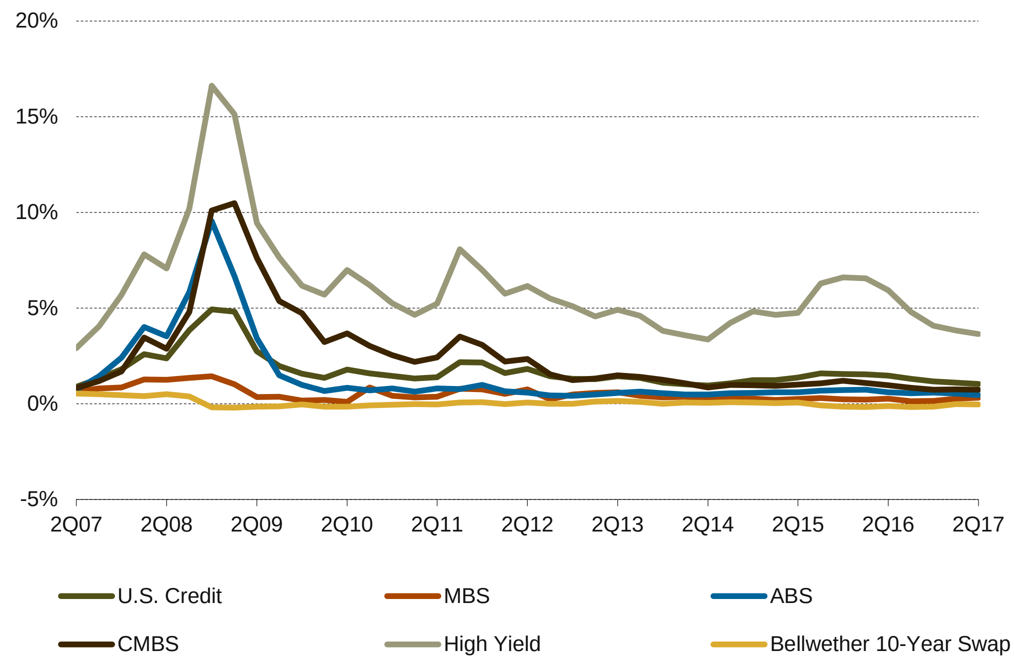
Periods Ending June 30, 2017

Total Returns



Source: Bloomberg Barclays

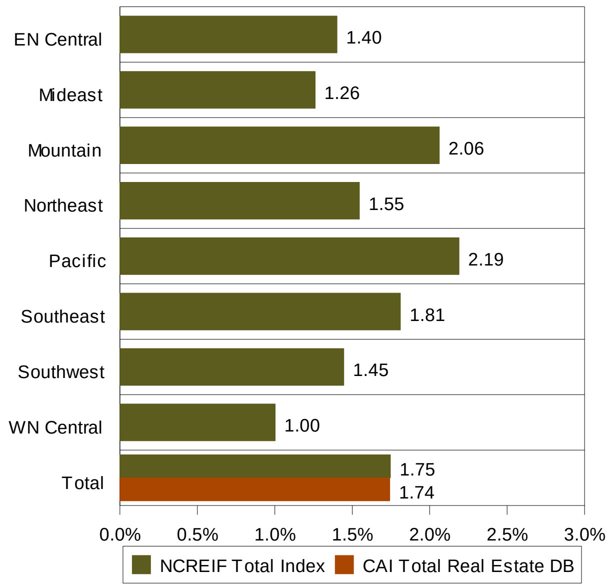
Effective Yield Over Treasuries



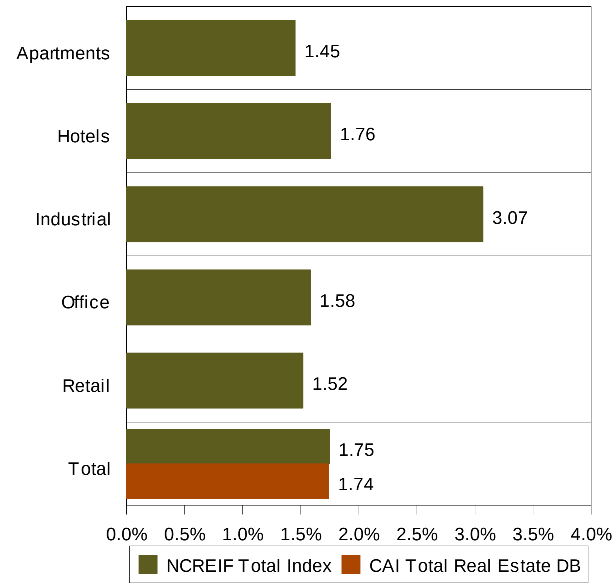
- Credit (+2.4%) and high yield (+2.2%) were the best performing sectors on solid earnings and as global demand for yield provided support for spread sectors.
- Treasury Inflation Protected Securities (TIPS) (-0.4%) underperformed on lower inflation expectations following weak CPI and retail sales data.
- Demand for yield saw spreads contract in most sectors; MBS widened moderately.

Real Estate Overview

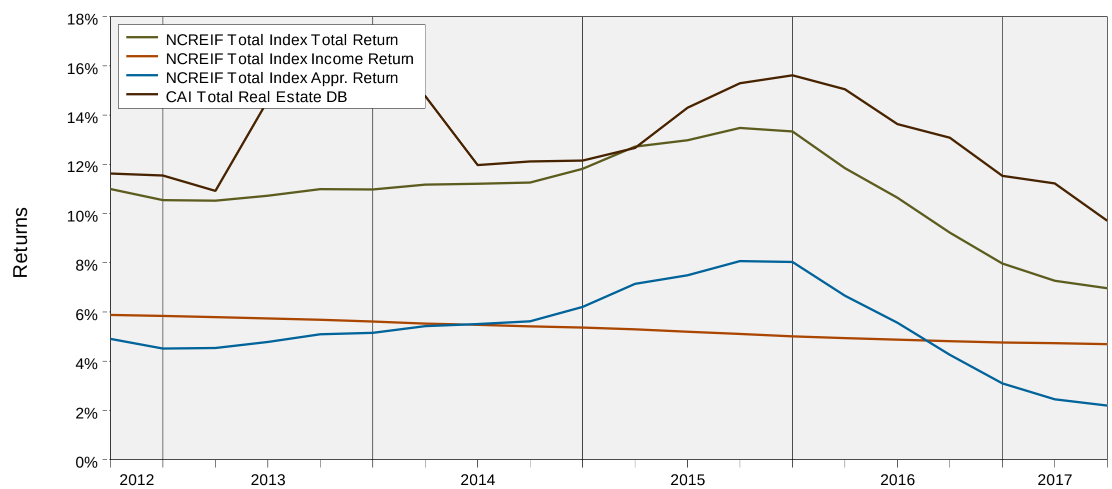
NCREIF Total Index Returns by Geographic Are
Quarter Ended June 30, 2017



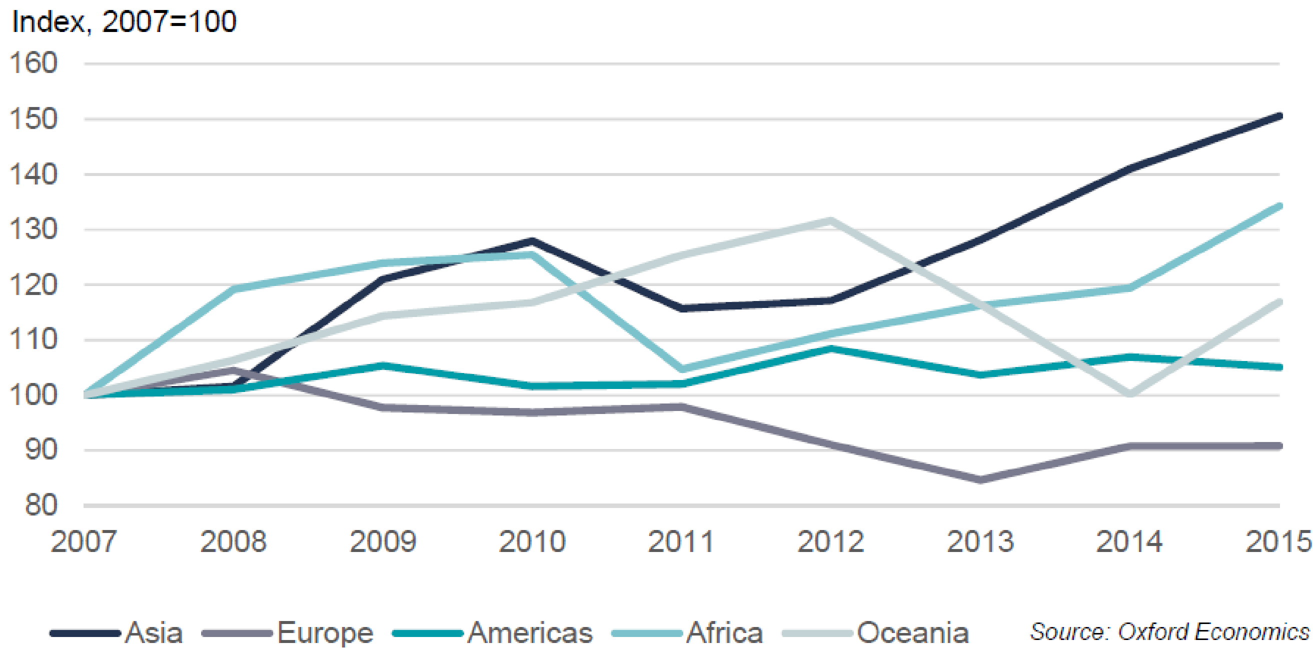
NCREIF Total Index Returns by Property Typ
Quarter Ended June 30, 2017



Rolling 1 Year Returns



Infrastructure



- Global Infrastructure Hub ("GIH") is a G20-backed enterprise. The GIH commissioned Oxford Economics to prepare a July 2017 report titled "Global Infrastructure Outlook: Infrastructure Investment Needs 50 Countries, 7 Sectors to 2040."
- Two-thirds of global infrastructure spending between 2007 - 2015 was in roads and electricity.
- Estimated $18 trillion shortfall between current investment projections and required spending. The largest amount of spending, $28 trillion, is expected in China. The largest shortfall, $3.8 trillion, expected to occur in the United States.

Sources: The Economist magazine; Oxford Economics

A comparison of US Stock Market Conditions

Characteristics of U.S. Stock Market	1976	1996	2016	
Number of listed companies	4,796	7,322	3,671	Fewer than ever
Market capitalization (billions 2016 USD)	\$2,975	\$12,322	\$25,303	
Gross domestic product (billions 2016 USD)	\$6,325	\$11,769	\$18,565	
Market capitalization as a % of GDP	47.0%	104.7%	136.3%	
Individual direct ownership	50.0%	27.2%	21.5%	More institutional
Number of ETFs (U.S. domestic equity)	0	2	658	
NYSE annual share volume (in millions)	5,360	104,636	316,495	
Equity options traded (contracts in millions)	32	199	3,626	
Characteristics of U.S. Companies	**1976**	**1996**	**2016**	
Average market capitalization (millions 2016 USD)	\$620	\$1,683	\$6,893	
Corporate profit as a % of GDP	6.9%	6.2%	8.9%	
Average age in years of a listed company	10.9	12.2	18.4	
Herfindahl-Hirschman Index (HHI)	1,392	812	1,180	Relatively diverse
New establishments	697,749	711,716	669,917	
Assets Under Management (in Billions USD)	**1976**	**1996**	**2016**	
Mututal funds	\$40	\$1,725	\$8,725	
Index funds	<\$1	\$85	\$1,990	
Hedge funds (long/short equity)	<\$1	\$130	\$850	
Venture capital	\$4	\$48	\$333	
Buyout funds	<\$1	\$80	\$827	

- The Herfindahl–Hirschman Index provides a measure of market concentration.
- According to the US Department of Justice, the agency generally considers markets in which the HHI is between 1,500 and 2,500 points to be moderately concentrated, and considers markets in which the HHI is in excess of 2,500 points to be highly concentrated.

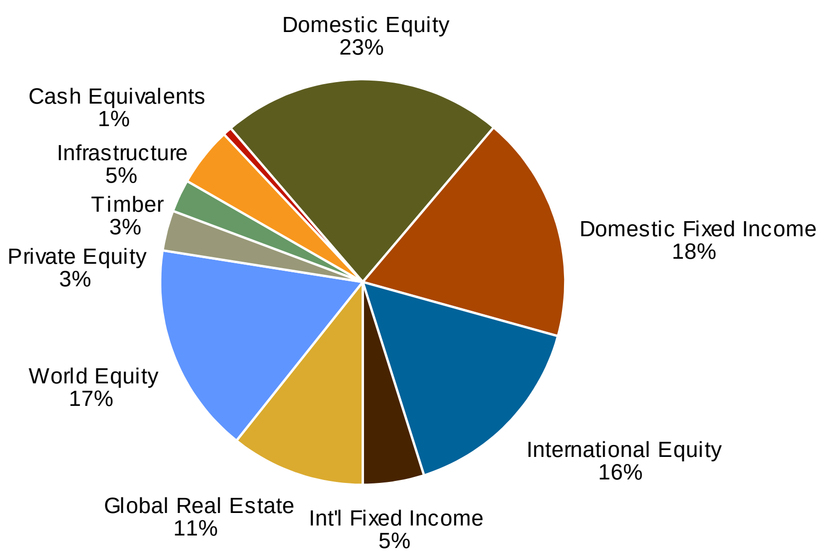
Source: Credit Suisse, “The Incredible Shrinking Universe of Stocks”

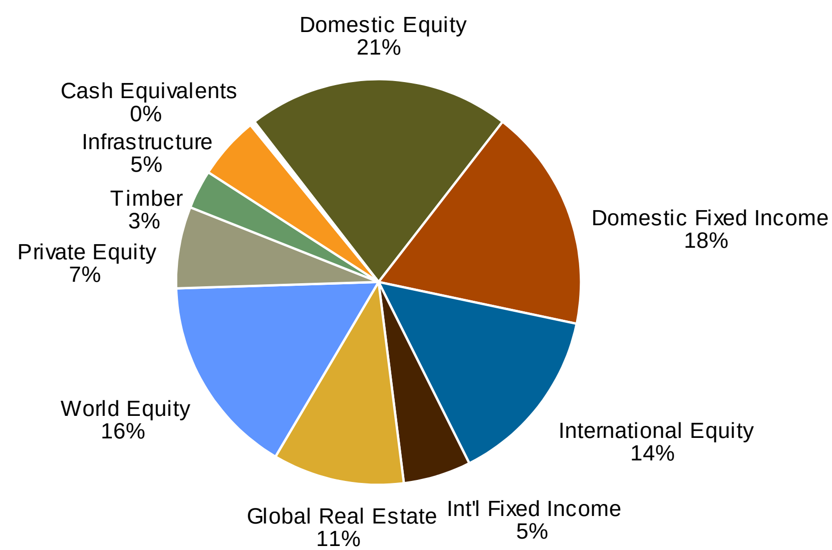
Consolidated Pension Trusts Quarterly Review

- Public Employees Retirement System
- Teachers' Fund for Retirement

Consolidated Pension Trust Allocation

As of June 30, 2017

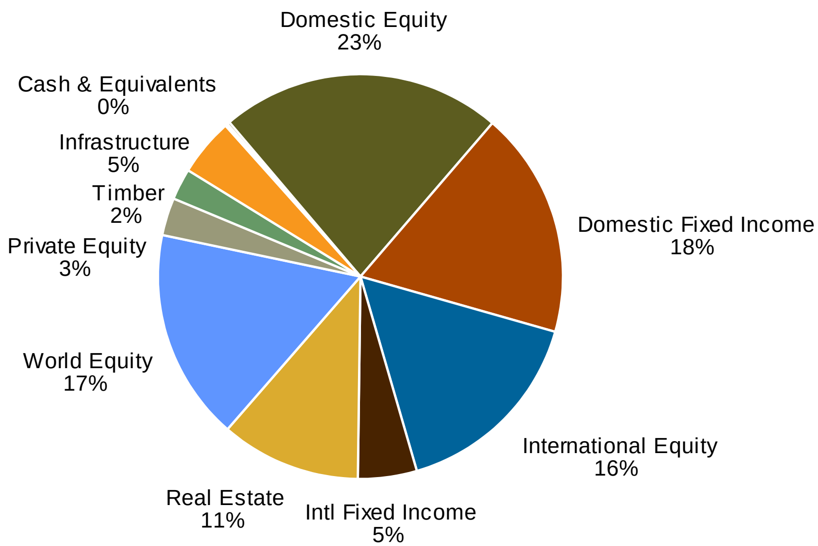


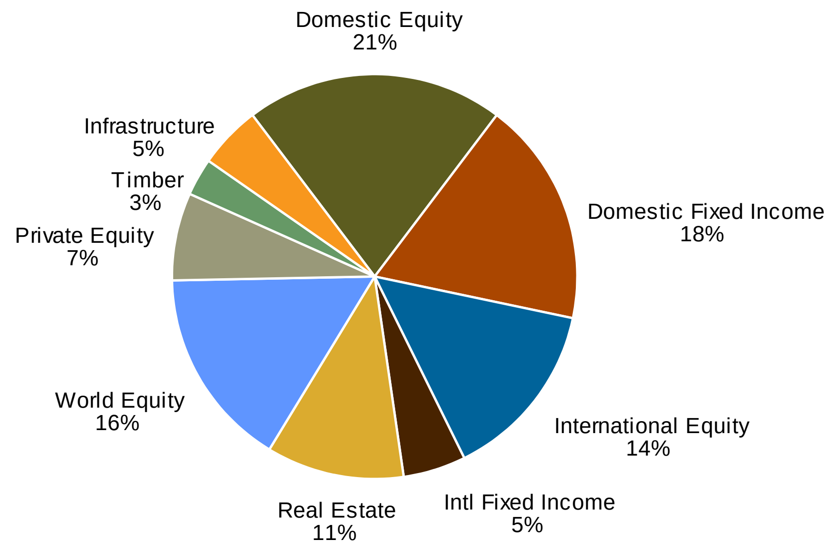


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	1,193,659	22.5%	21.0%	1.5%	80,826
Domestic Fixed Income	958,310	18.1%	17.8%	0.3%	15,051
International Equity	838,649	15.8%	14.3%	1.5%	80,863
Int'l Fixed Income	259,750	4.9%	5.4%	(0.5%)	(26,407)
Global Real Estate	569,154	10.7%	10.5%	0.2%	12,738
World Equity	889,574	16.8%	16.0%	0.8%	41,701
Private Equity	167,162	3.2%	6.5%	(3.3%)	(177,286)
Timber	136,488	2.6%	3.1%	(0.5%)	(27,787)
Infrastructure	247,530	4.7%	5.0%	(0.3%)	(17,430)
Cash Equivalents	38,929	0.7%	0.4%	0.3%	17,733
Total	5,299,205	100.0%	100.0%		

PERS Allocation

As of June 30, 2017

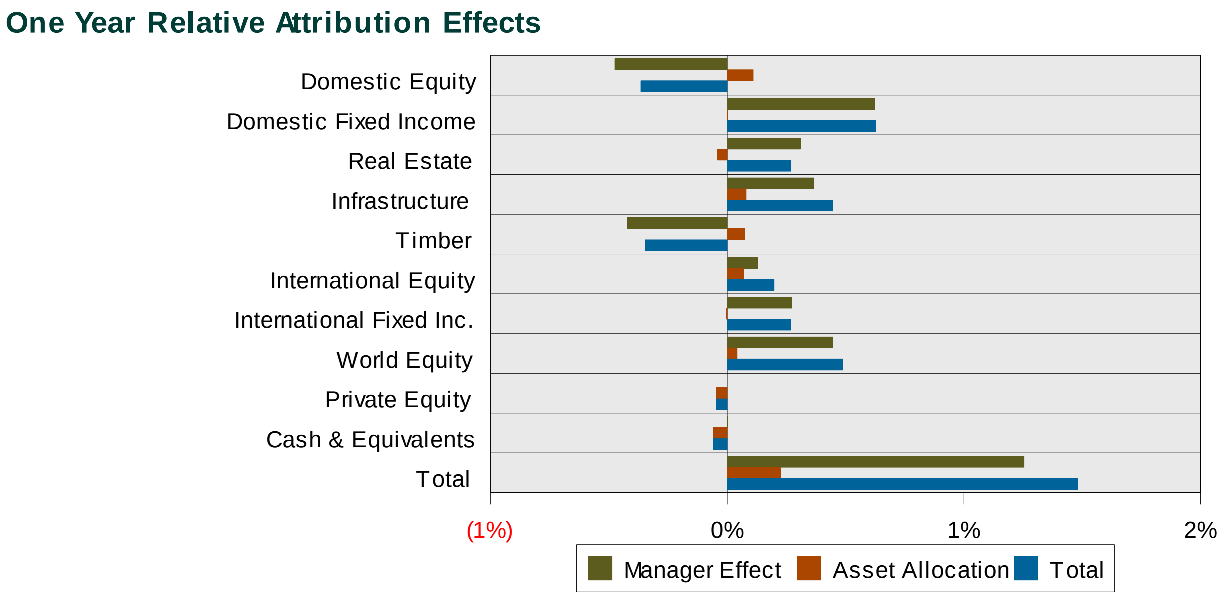




Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	631,278	22.7%	20.6%	2.1%	58,320
Domestic Fixed Income	502,620	18.1%	18.0%	0.1%	1,978
International Equity	447,370	16.1%	14.4%	1.7%	46,856
Intl Fixed Income	130,196	4.7%	5.0%	(0.3%)	(8,871)
Real Estate	311,147	11.2%	11.0%	0.2%	5,199
World Equity	468,680	16.9%	16.0%	0.9%	23,665
Private Equity	83,863	3.0%	7.0%	(4.0%)	(110,832)
Timber	68,943	2.5%	3.0%	(0.5%)	(14,498)
Infrastructure	126,764	4.6%	5.0%	(0.4%)	(12,304)
Cash & Equivalents	10,486	0.4%	0.0%	0.4%	10,486
Total	2,781,347	100.0%	100.0%		

PERS Performance and Attribution

As of June 30, 2017



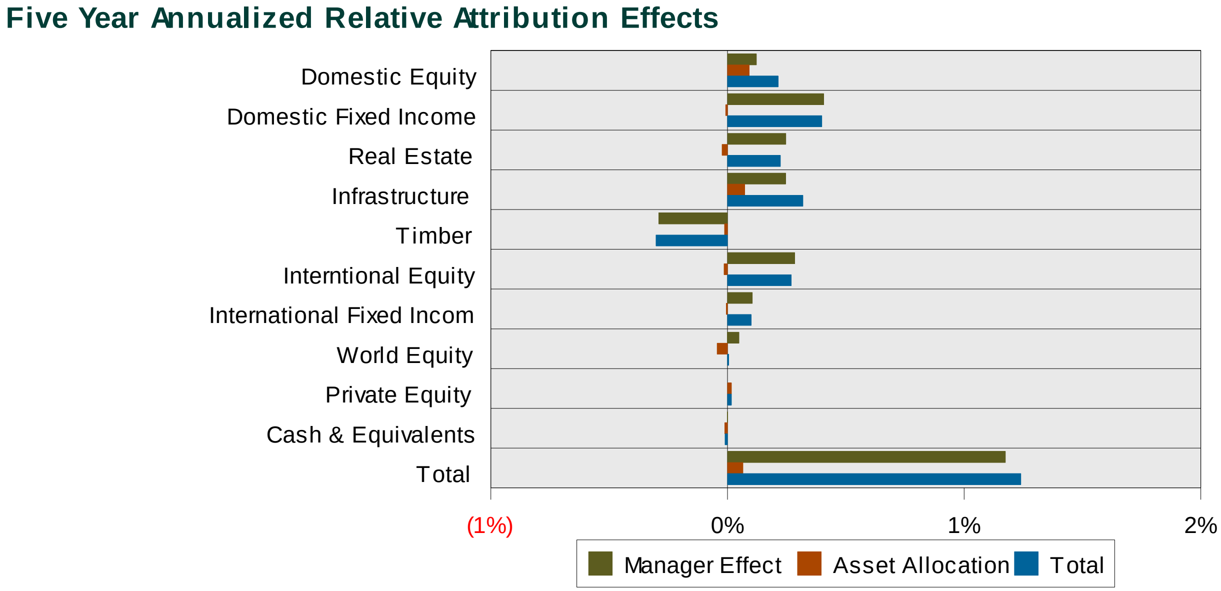
1 Year Ended 6/30/2017	
Gross:	13.35%
Net of fees:	13.05%
Target:	11.87%
Net Added:	1.18%

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	17.38%	19.58%	(0.47%)	0.11%	(0.36%)
Domestic Fixed Income	18%	18%	6.53%	3.23%	0.62%	0.00%	0.63%
Real Estate	11%	11%	9.65%	6.97%	0.31%	(0.04%)	0.27%
Infrastructure	4%	5%	9.73%	1.50%	0.37%	0.08%	0.45%
Timber	3%	3%	(9.44%)	3.35%	(0.42%)	0.07%	(0.35%)
International Equity	16%	14%	21.37%	20.53%	0.13%	0.07%	0.20%
International Fixed Inc.	5%	5%	1.15%	(3.80%)	0.27%	(0.00%)	0.27%
World Equity	17%	16%	21.01%	18.20%	0.45%	0.04%	0.49%
Private Equity	3%	7%	11.12%	11.12%	0.00%	(0.05%)	(0.05%)
Cash & Equivalents	1%	0%	0.74%	0.70%	0.00%	(0.06%)	(0.06%)
Total			**13.35% =**	**11.87% +**	**1.25% +**	**0.23%**	**1.48%**

PERS Performance and Attribution

As of June 30, 2017



5 Years Ended 6/30/2017	
Gross:	9.49%
Net of fees:	9.16%
Target:	8.25%
Net Added:	0.91%

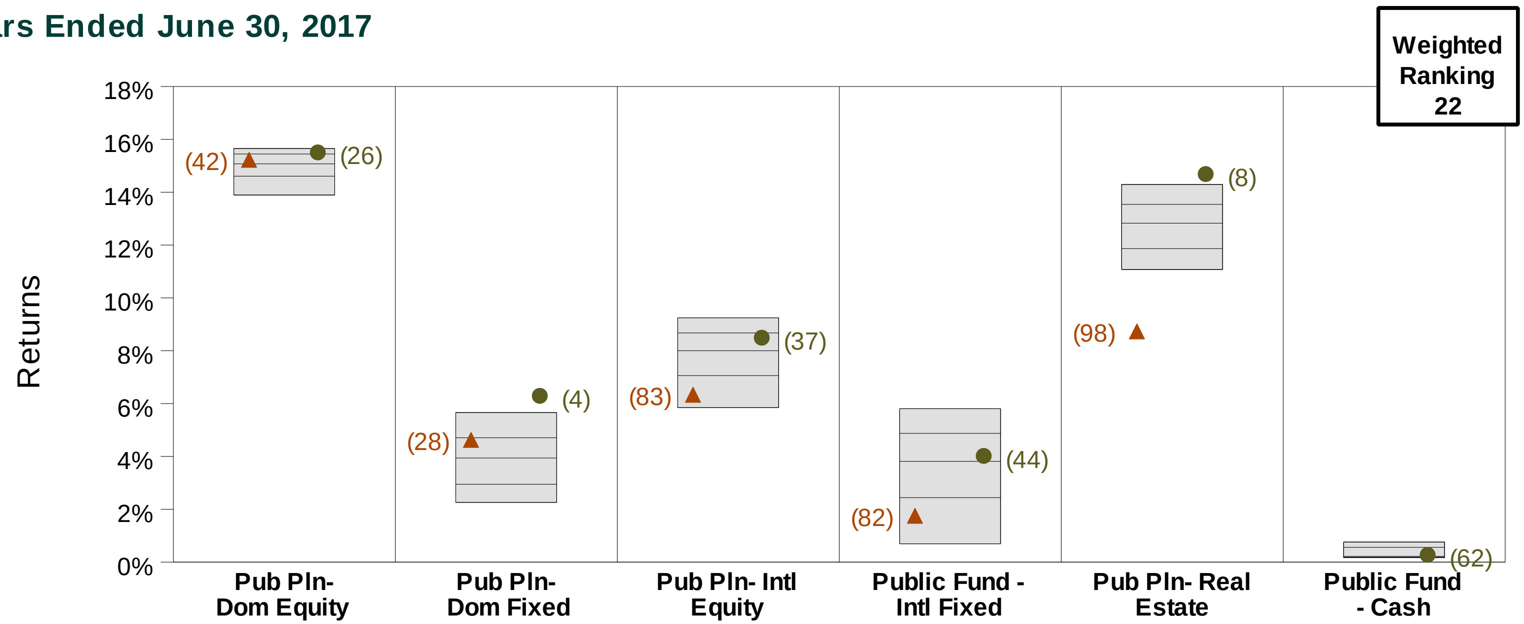
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	22%	15.08%	14.52%	0.12%	0.09%	0.21%
Domestic Fixed Income	18%	17%	5.82%	3.57%	0.41%	(0.01%)	0.40%
Real Estate	10%	10%	13.00%	10.49%	0.25%	(0.02%)	0.22%
Infrastructure	4%	5%	7.22%	1.11%	0.25%	0.07%	0.32%
Timber	4%	5%	0.27%	7.16%	(0.29%)	(0.01%)	(0.30%)
Interntional Equity	15%	15%	9.43%	7.52%	0.28%	(0.01%)	0.27%
International Fixed Incom	5%	5%	1.60%	(0.36%)	0.10%	(0.00%)	0.10%
World Equity	15%	15%	11.31%	11.38%	0.05%	(0.04%)	0.01%
Private Equity	4%	5%	1.59%	1.59%	0.00%	0.02%	0.02%
Cash & Equivalents	1%	1%	0.25%	0.22%	0.00%	(0.01%)	(0.01%)
Total			**9.49% =**	**8.25% +**	**1.17% +**	**0.07%**	**1.24%**

Asset Class Composite Results

PERS' results vs other Public Funds

Total Asset Class Performance
Seven Years Ended June 30, 2017

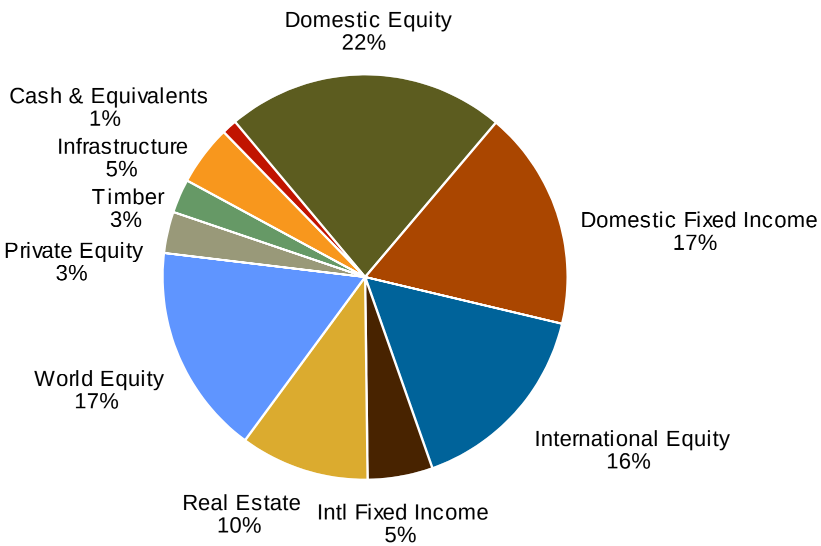


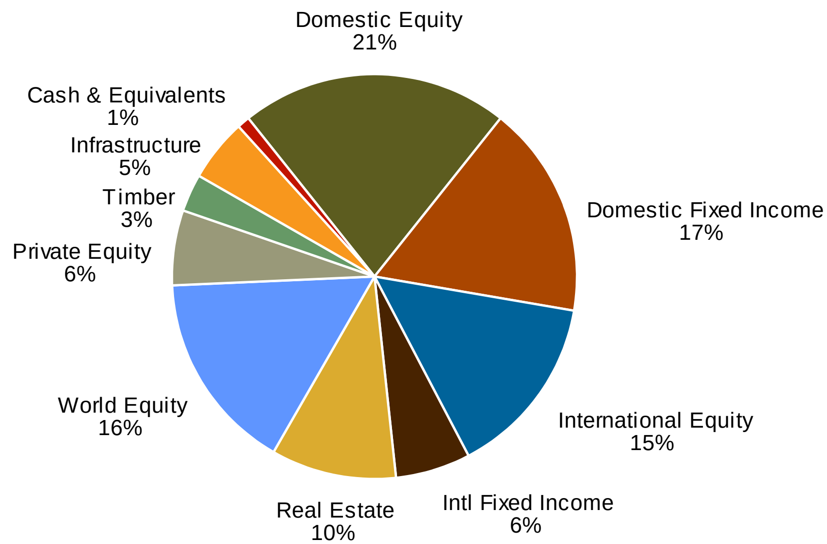
	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.66	5.67	9.25	5.81	14.30	0.77
25th Percentile	15.45	4.71	8.68	4.87	13.54	0.56
Median	15.08	3.94	8.00	3.81	12.83	0.22
75th Percentile	14.61	2.95	7.07	2.45	11.87	0.19
90th Percentile	13.90	2.26	5.85	0.70	11.08	0.17
Asset Class Composite ●	15.44	6.23	8.43	3.95	14.61	0.21
Composite Benchmark ▲	15.23	4.63	6.34	1.75	8.74	-

- Public market asset classes are above median except cash.
  - Many "cash" funds have exposure to higher return and risk strategies (i.e. credit and longer duration) than NDSIB does.
- Domestic fixed income and real estate returns in top decile.

TFFR Allocation

As of June 30, 2017



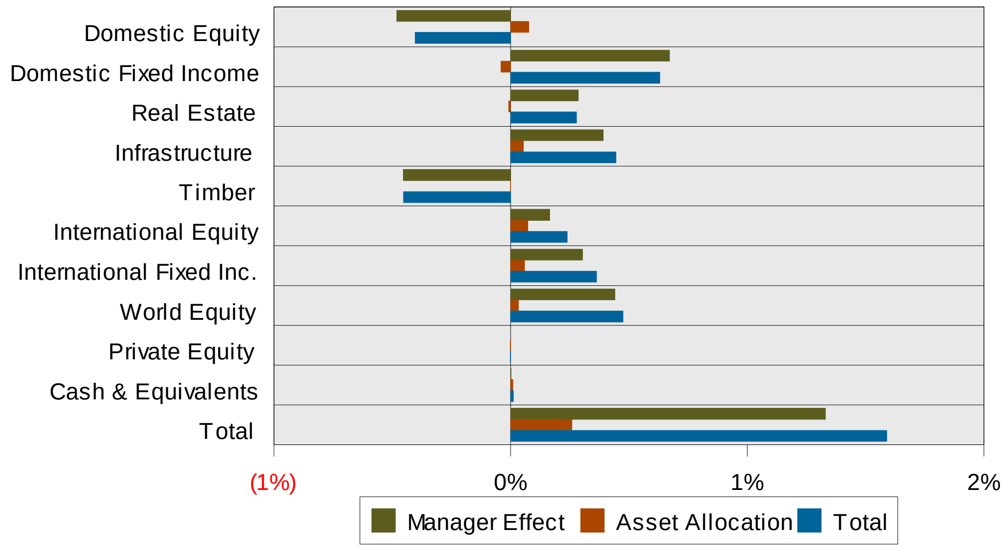


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	521,098	22.5%	21.4%	1.1%	25,000
Domestic Fixed Income	405,007	17.5%	17.0%	0.5%	10,910
International Equity	368,270	15.9%	14.6%	1.3%	29,811
Intl Fixed Income	121,141	5.2%	6.0%	(0.8%)	(17,952)
Real Estate	237,904	10.3%	10.0%	0.3%	6,083
World Equity	388,563	16.8%	16.0%	0.8%	17,649
Private Equity	76,976	3.3%	6.0%	(2.7%)	(62,117)
Timber	61,610	2.7%	3.0%	(0.3%)	(7,937)
Infrastructure	110,391	4.8%	5.0%	(0.2%)	(5,520)
Cash & Equivalents	27,255	1.2%	1.0%	0.2%	4,072
Total	2,318,214	100.0%	100.0%		

TFFR Performance and Attribution

As of June 30, 2017

One Year Relative Attribution Effects



1 Year Ended 6/30/2017	
Gross:	13.22%
Net of fees:	12.92%
Target:	11.63%
Net Added:	1.29%

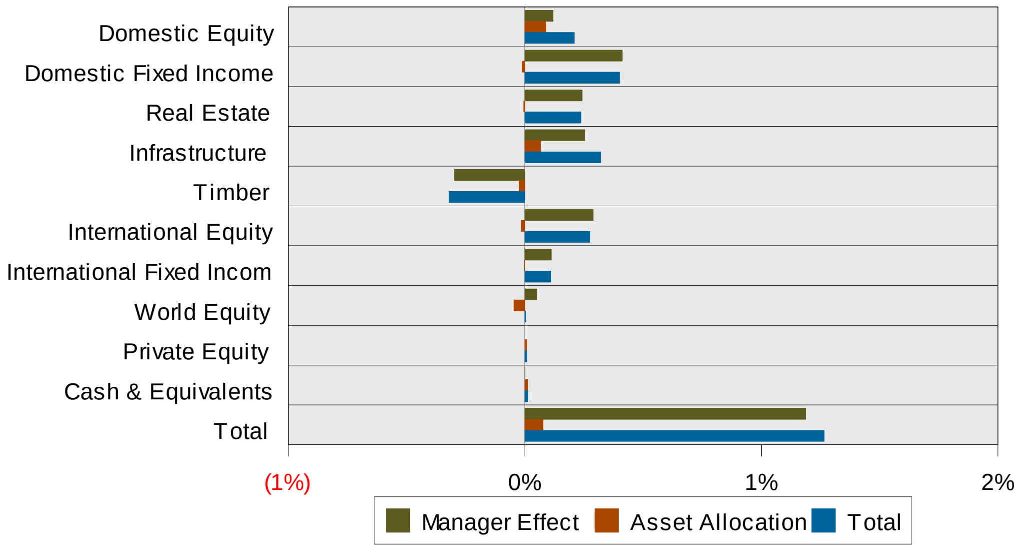
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	17.35%	19.56%	(0.48%)	0.08%	(0.40%)
Domestic Fixed Income	17%	17%	6.24%	2.62%	0.67%	(0.04%)	0.63%
Real Estate	10%	10%	9.65%	6.97%	0.29%	(0.01%)	0.28%
Infrastructure	4%	5%	9.73%	1.50%	0.39%	0.05%	0.45%
Timber	3%	3%	(9.44%)	3.35%	(0.45%)	0.00%	(0.45%)
International Equity	16%	15%	21.37%	20.33%	0.17%	0.07%	0.24%
International Fixed Inc.	5%	6%	1.15%	(3.80%)	0.30%	0.06%	0.36%
World Equity	17%	16%	21.01%	18.20%	0.44%	0.03%	0.48%
Private Equity	3%	6%	11.12%	11.12%	0.00%	(0.00%)	(0.00%)
Cash & Equivalents	1%	1%	0.74%	0.49%	0.00%	0.01%	0.01%
Total			**13.22% =**	**11.63% +**	**1.33% +**	**0.26%**	**1.59%**

TFFR Performance and Attribution

As of June 30, 2017

Five Year Annualized Relative Attribution Effects



5 Years Ended 6/30/2017	
Gross:	9.51%
Net of fees:	9.18%
Target:	8.25%
Net Added:	0.93%

Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	22%	15.07%	14.51%	0.12%	0.09%	0.21%
Domestic Fixed Income	18%	17%	5.77%	3.46%	0.41%	(0.01%)	0.40%
Real Estate	10%	10%	13.00%	10.49%	0.24%	(0.00%)	0.24%
Infrastructure	4%	5%	7.22%	1.11%	0.25%	0.07%	0.32%
Timber	4%	5%	0.27%	7.16%	(0.30%)	(0.02%)	(0.32%)
International Equity	15%	15%	9.67%	7.73%	0.29%	(0.01%)	0.28%
International Fixed Incom	5%	5%	1.60%	(0.36%)	0.11%	(0.00%)	0.11%
World Equity	15%	15%	11.31%	11.38%	0.05%	(0.05%)	0.00%
Private Equity	4%	5%	1.59%	1.59%	0.00%	0.01%	0.01%
Cash & Equivalents	1%	1%	0.25%	0.17%	0.00%	0.01%	0.01%

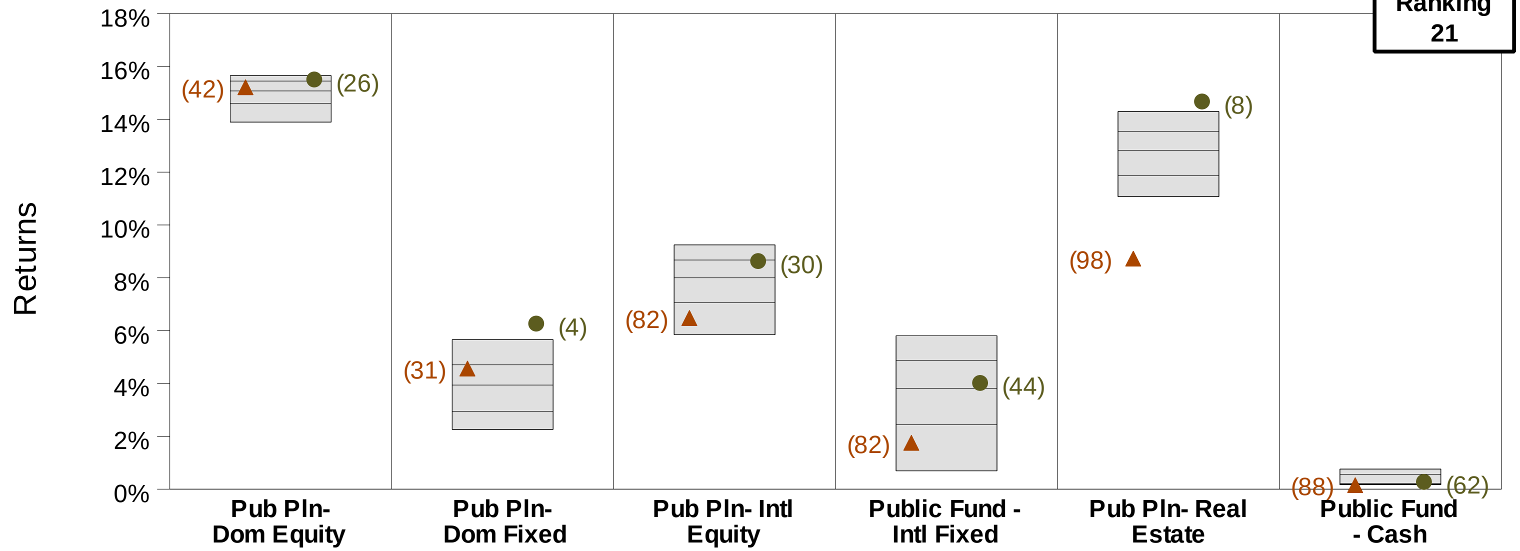
Total 9.51% = 8.25% + 1.19% + 0.08% 1.27%

Asset Class Composite Results

TFFR's asset class results vs other Public Pension Funds

Total Asset Class Performance
Seven Years Ended June 30, 2017

Weighted Ranking 21



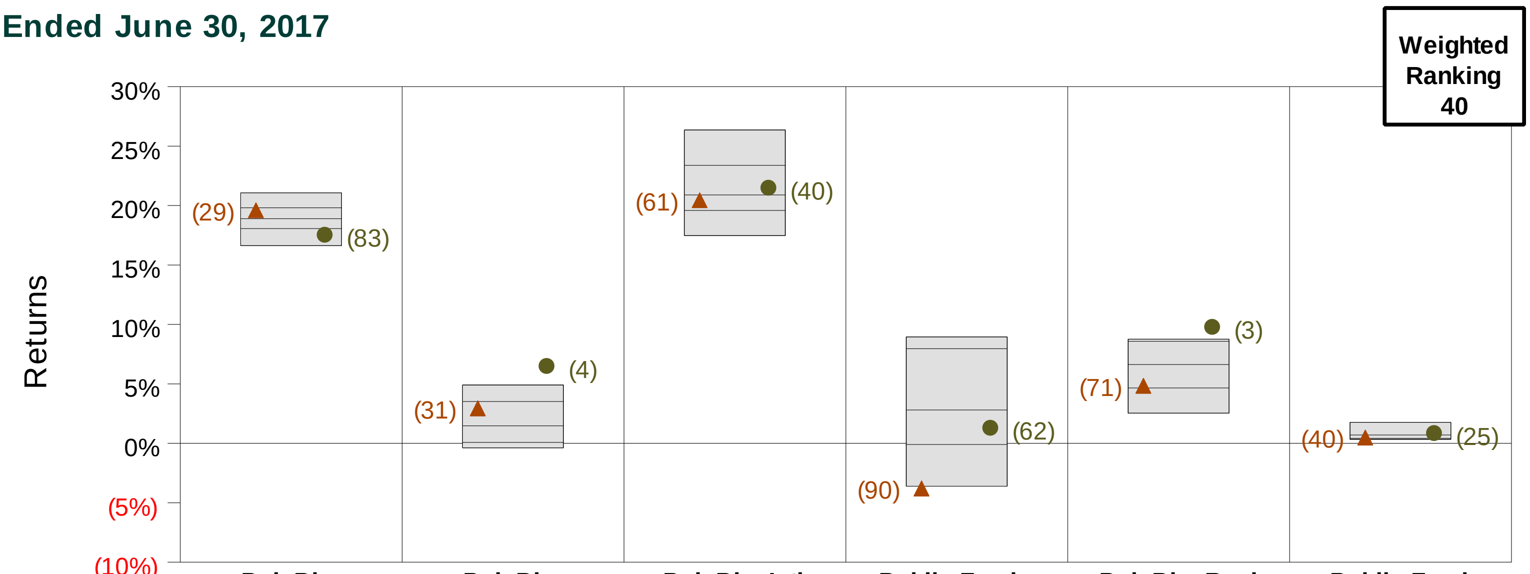
	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.66	5.67	9.25	5.81	14.30	0.77
25th Percentile	15.45	4.71	8.68	4.87	13.54	0.56
Median	15.08	3.94	8.00	3.81	12.83	0.22
75th Percentile	14.61	2.95	7.07	2.45	11.87	0.19
90th Percentile	13.90	2.26	5.85	0.70	11.08	0.17
Asset Class Composite ●	15.44	6.20	8.57	3.95	14.61	0.21
Composite Benchmark ▲	15.22	4.57	6.48	1.75	8.73	0.15

- Public market asset classes are all above their respective benchmark.
- Domestic fixed income and real estate have performed exceptionally well over the last 7 years.

Asset Class Composite Results

Consolidated Pension Trust asset class results vs other Public Pension Funds

Total Asset Class Performance
One Year Ended June 30, 2017



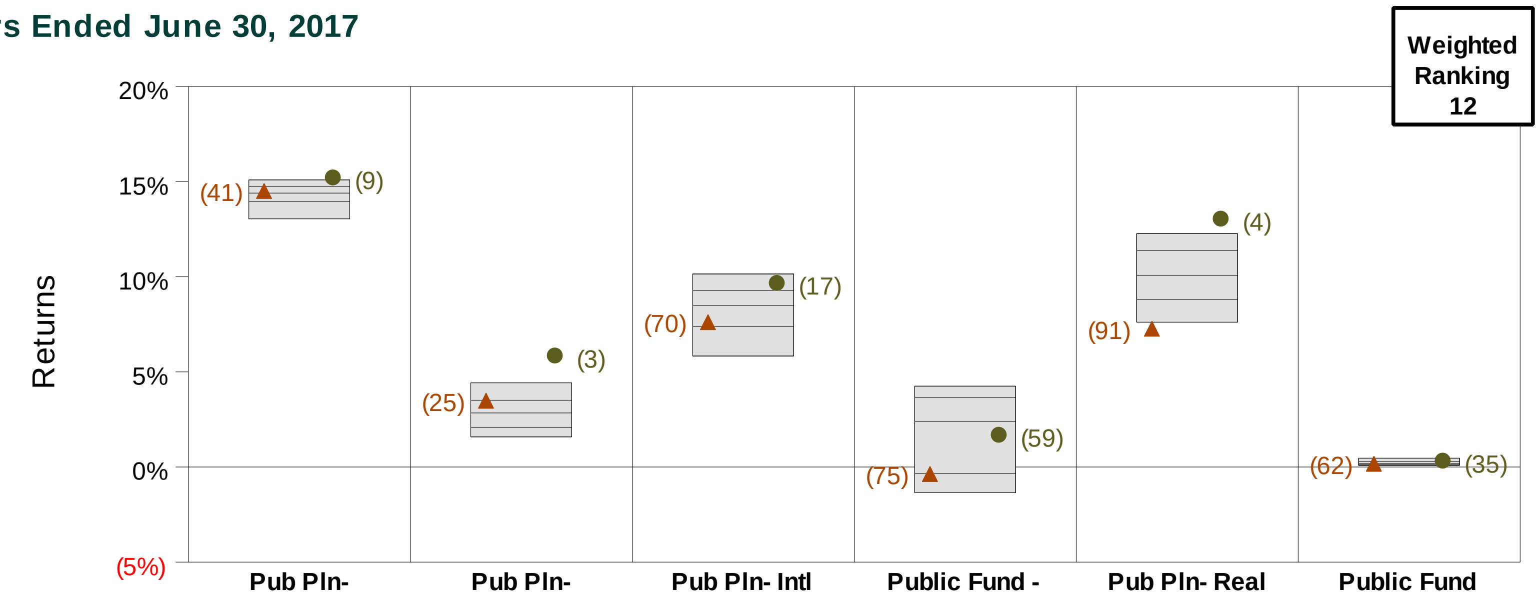
	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	21.07	4.91	26.36	8.96	8.76	1.77
25th Percentile	19.81	3.52	23.38	7.97	8.58	0.70
Median	18.90	1.48	20.90	2.81	6.63	0.42
75th Percentile	18.07	0.08	19.59	(0.09)	4.66	0.35
90th Percentile	16.63	(0.38)	17.47	(3.61)	2.54	0.33
Asset Class Composite ●	17.39	6.36	21.36	1.15	9.65	0.72
Composite Benchmark ▲	19.61	2.95	20.45	(3.80)	4.84	0.49

- Domestic equity and international fixed income placed below median over the last year.
- Public market asset classes outperformed their respective benchmarks with the exception of domestic equity.

Asset Class Composite Results

Consolidated Pension Trust asset class results vs other Public Pension Funds

Total Asset Class Performance
Five Years Ended June 30, 2017



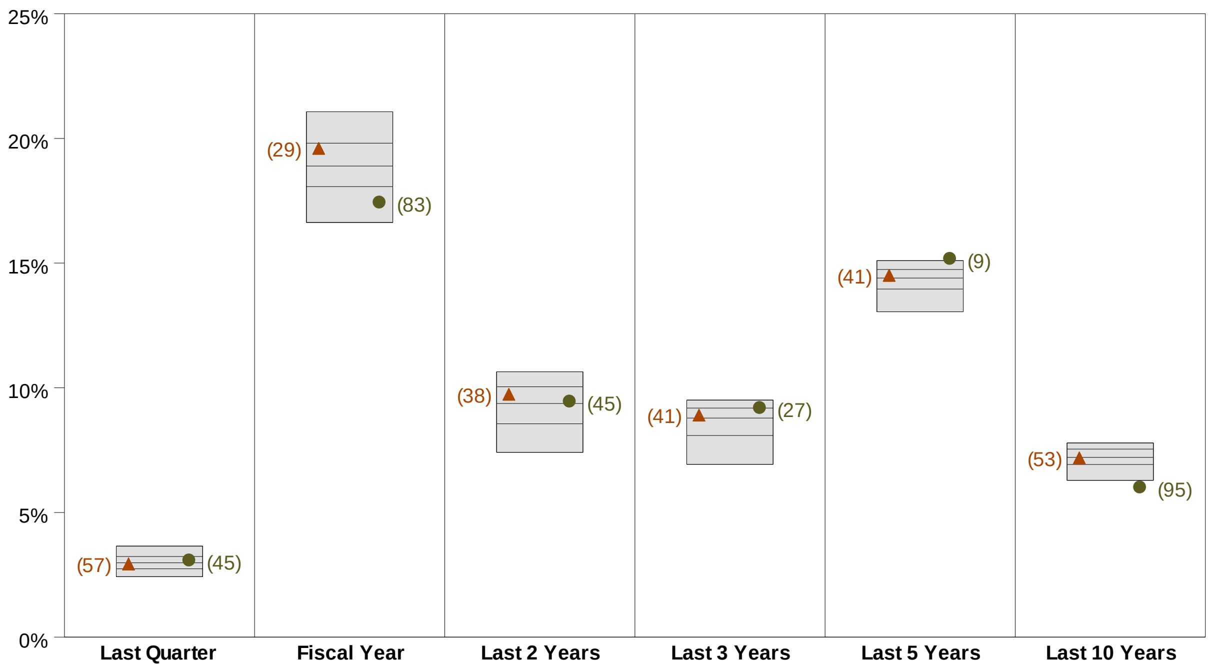
	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.10	4.43	10.15	4.25	12.27	0.47
25th Percentile	14.74	3.52	9.29	3.66	11.38	0.30
Median	14.40	2.85	8.50	2.38	10.07	0.20
75th Percentile	13.96	2.08	7.38	(0.35)	8.81	0.14
90th Percentile	13.05	1.59	5.83	(1.35)	7.61	0.09
Asset Class Composite ●	15.13	5.77	9.59	1.60	12.96	0.24
Composite Benchmark ▲	14.51	3.49	7.62	(0.36)	7.27	0.17

- Other than international fixed income, public market asset classes are above median over the last five years.
- Domestic equity and fixed income, and real estate are all in the top decile over the last five years.

Consolidated Pension Trust: U.S. Equity

As of June 30, 2017

Performance vs Pub Pln- Domestic Equity (Gross)



	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	3.65	21.07	10.64	9.51	15.10	7.79
25th Percentile	3.23	19.81	10.04	9.18	14.74	7.54
Median	2.98	18.90	9.37	8.78	14.40	7.21
75th Percentile	2.74	18.07	8.56	8.09	13.96	6.92
90th Percentile	2.43	16.63	7.41	6.93	13.05	6.29
Domestic Equity ●	3.04	17.39	9.42	9.16	15.13	5.96
Domestic Equity Target ▲	2.94	19.61	9.74	8.91	14.51	7.19

- Domestic equity returns outpaced the benchmark during the last quarter, but trailed over the last year.

Consolidated Pension Trust: International Equity

As of June 30, 2017

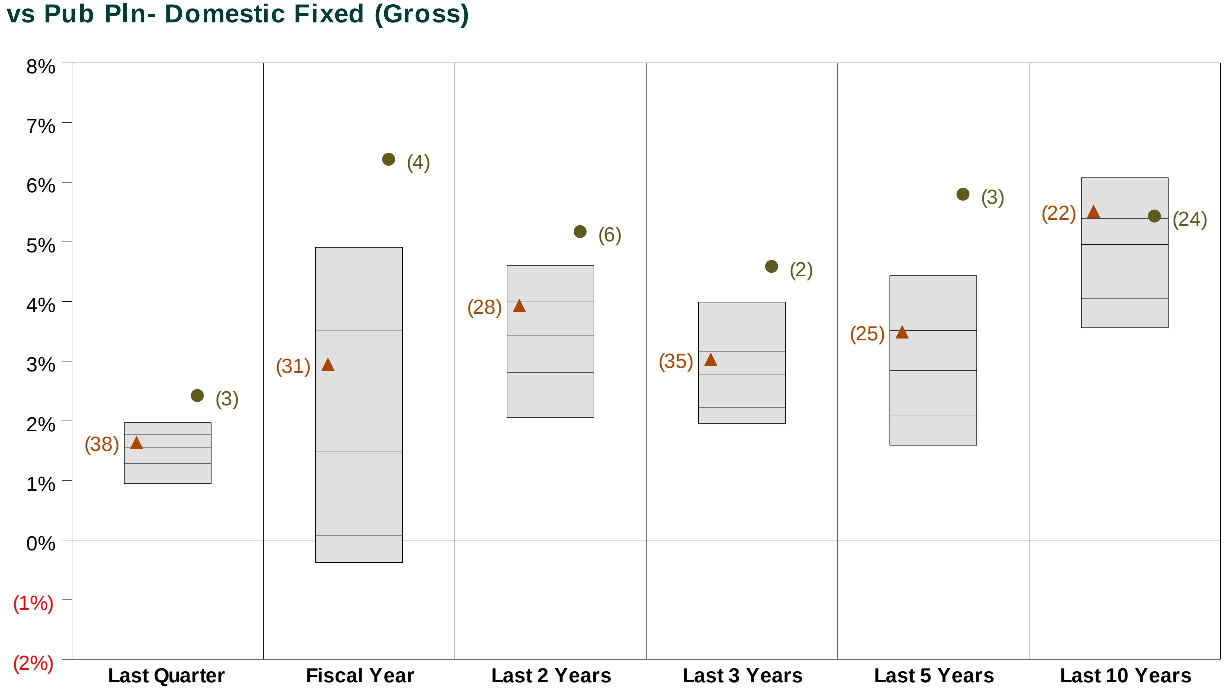
Performance vs Pub Pln- International Equity (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	8.07	26.36	7.32	3.81	10.15	3.24
25th Percentile	6.78	23.38	5.93	2.95	9.29	2.65
Median	6.27	20.90	5.07	2.22	8.50	2.05
75th Percentile	5.96	19.59	4.22	1.52	7.38	1.06
90th Percentile	5.39	17.47	3.31	0.90	5.83	(0.20)
International Equity ●	6.54	21.36	5.79	2.94	9.59	2.90
International Equity Target ▲	5.77	20.45	3.89	1.06	7.62	1.27

- International equity returns are above the benchmark and median for all time periods represented above.

Consolidated Pension Trust: U.S. Fixed Income

As of June 30, 2017



	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.97	4.91	4.61	3.99	4.43	6.07
25th Percentile	1.77	3.52	3.99	3.16	3.52	5.39
Median	1.56	1.48	3.44	2.78	2.85	4.95
75th Percentile	1.29	0.08	2.81	2.22	2.08	4.05
90th Percentile	0.95	(0.38)	2.06	1.95	1.59	3.56
Domestic Fixed Income ●	2.40	6.36	5.15	4.56	5.77	5.41
Domestic Fixed Income Target ▲	1.63	2.95	3.93	3.03	3.49	5.51

- The domestic fixed income program has maintained top decile performance during the last five years.

Consolidated Pension Trust: International Fixed Income

As of June 30, 2017

Performance vs Public Fund - International Fixed (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	4.37	8.96	9.05	4.15	4.25	6.89
25th Percentile	2.84	7.97	5.40	3.59	3.66	6.07
Median	2.49	2.81	3.82	0.12	2.38	4.98
75th Percentile	1.93	(0.09)	2.89	(2.04)	(0.35)	3.36
90th Percentile	1.45	(3.61)	2.36	(3.65)	(1.35)	2.31
International Fixed Income ●	4.07	1.15	4.46	(0.37)	1.60	5.06
International Fixed Income Target ▲	3.55	(3.80)	3.45	(2.42)	(0.36)	3.42

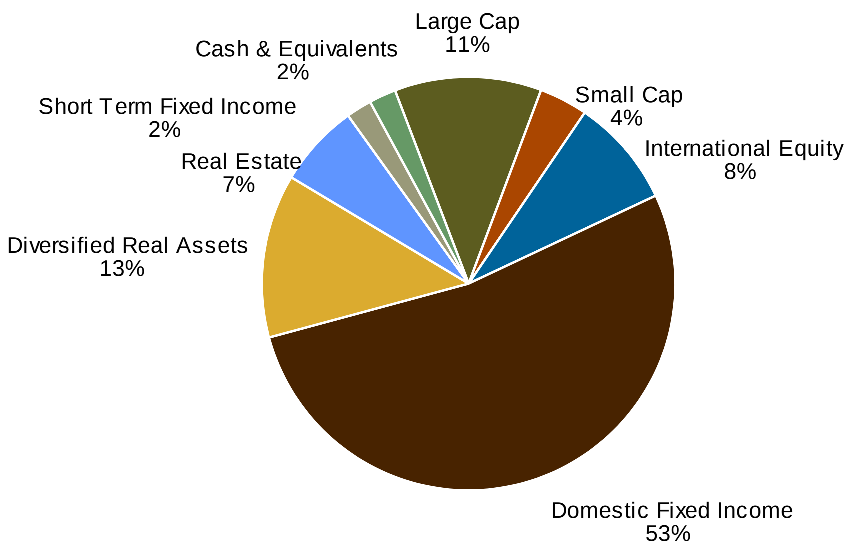
- The international fixed income program placed in the top quartile and outperformed the benchmark during the during the last quarter.

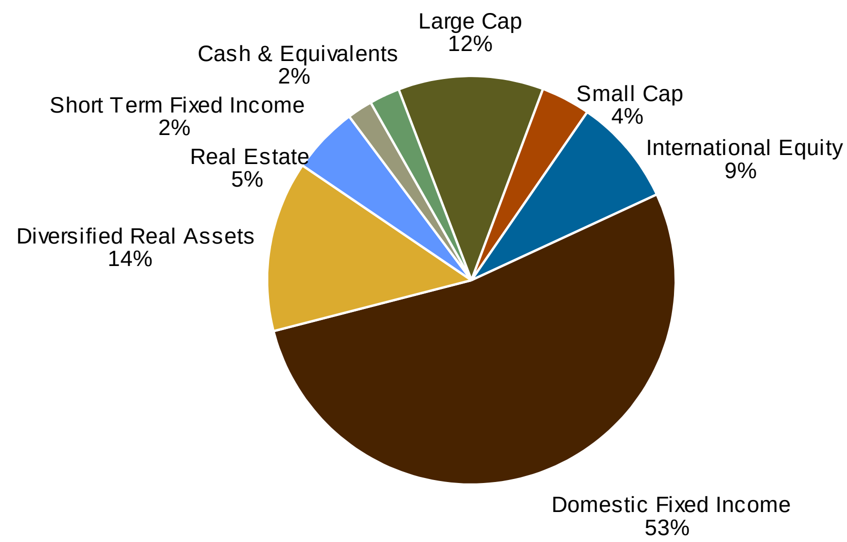
Consolidated Insurance Trust Quarterly Review

- Workforce Safety & Insurance Legacy Fund
- Budget Stabilization Fund

Consolidated Insurance Trust Allocation

As of June 30, 2017

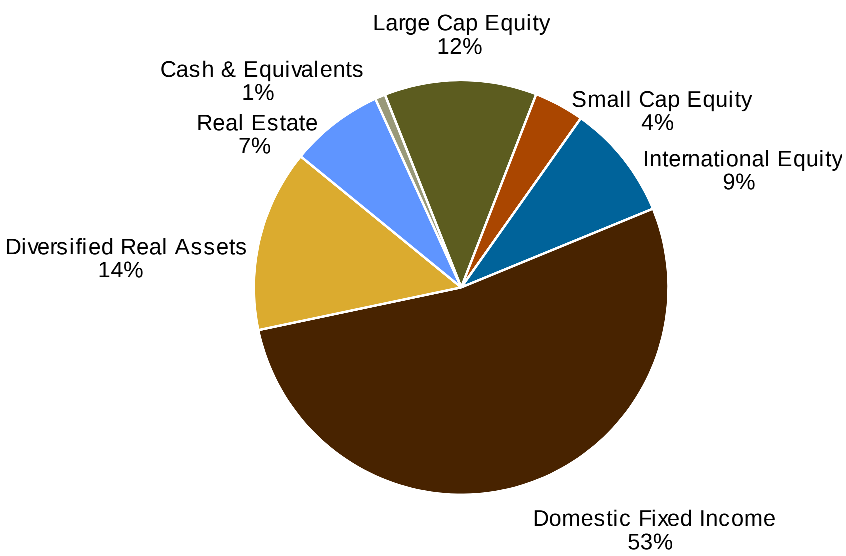


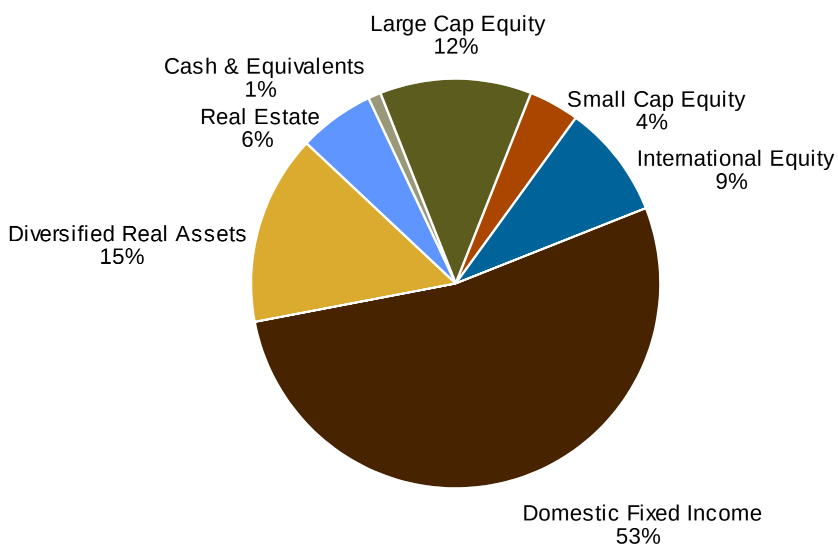


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap	244,443	11.5%	11.5%	0.0%	(413)
Small Cap	81,244	3.8%	3.9%	(0.1%)	(1,794)
International Equity	180,107	8.5%	8.5%	0.0%	(874)
Domestic Fixed Income	1,123,404	52.8%	52.9%	(0.1%)	(2,933)
Diversified Real Assets	273,423	12.8%	13.5%	(0.7%)	(14,017)
Real Estate	138,450	6.5%	5.3%	1.2%	25,603
Short Term Fixed Income	43,061	2.0%	2.0%	0.0%	478
Cash & Equivalents	45,050	2.1%	2.4%	(0.3%)	(6,050)
Total	2,129,182	100.0%	100.0%		

WSI Allocation

As of June 30, 2017



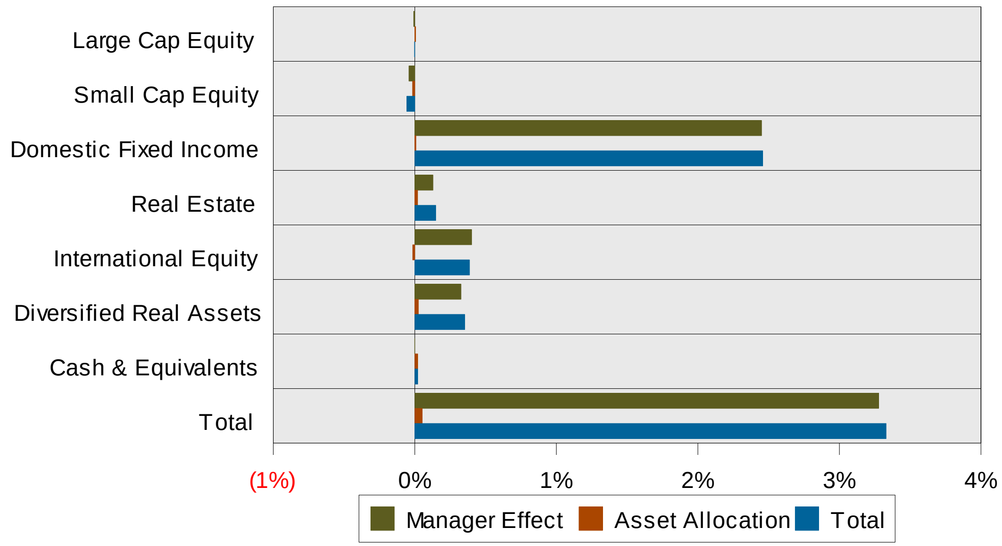


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	225,967	11.9%	12.0%	(0.1%)	(1,386)
Small Cap Equity	73,303	3.9%	4.0%	(0.1%)	(2,482)
International Equity	170,422	9.0%	9.0%	0.0%	(93)
Domestic Fixed Income	1,002,477	52.9%	53.0%	(0.1%)	(1,669)
Diversified Real Assets	269,190	14.2%	15.0%	(0.8%)	(15,003)
Real Estate	138,384	7.3%	6.0%	1.3%	24,707
Cash & Equivalents	14,872	0.8%	1.0%	(0.2%)	(4,074)
Total	1,894,615	100.0%	100.0%		

WSI Performance and Attribution

As of June 30, 2017

One Year Relative Attribution Effects



1 Year Ended 6/30/2017	
Gross:	8.53%
Net of fees:	8.29%
Target:	5.20%
Net Added:	3.09%

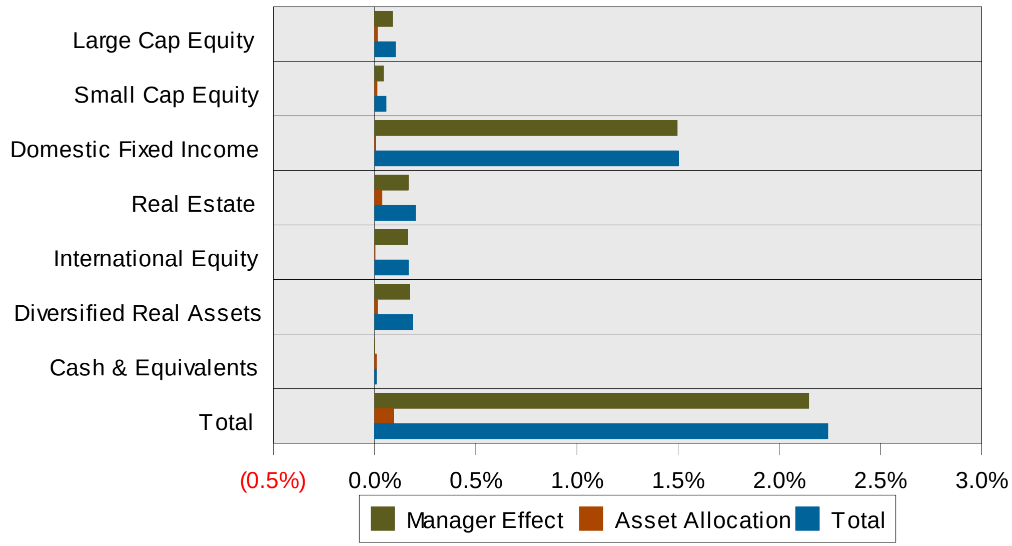
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	17.94%		18.03%		(0.01%)		0.01%	(0.00%)
Small Cap Equity	4%	4%	23.31%		24.60%		(0.04%)		(0.02%)	(0.06%)
Domestic Fixed Income	53%	53%	4.14%		(0.31%)		2.45%		0.01%	2.46%
Real Estate	7%	6%	8.72%		6.97%		0.13%		0.02%	0.15%
International Equity	9%	9%	24.61%		19.49%		0.40%		(0.01%)	0.39%
Diversified Real Assets	14%	15%	4.02%		1.75%		0.33%		0.03%	0.35%
Cash & Equivalents	1%	1%	0.44%		0.49%		(0.00%)		0.02%	0.02%
Total			**8.53%**	**=**	**5.20%**	**+**	**3.28%**	**+**	**0.05%**	**3.33%**

WSI Performance and Attribution

As of June 30, 2017

Five Year Annualized Relative Attribution Effects



<u>5 Years Ended 6/30/2017</u>

Gross:	7.25%
Net of fees:	6.98%
Target:	5.01%
Net Added:	1.97%

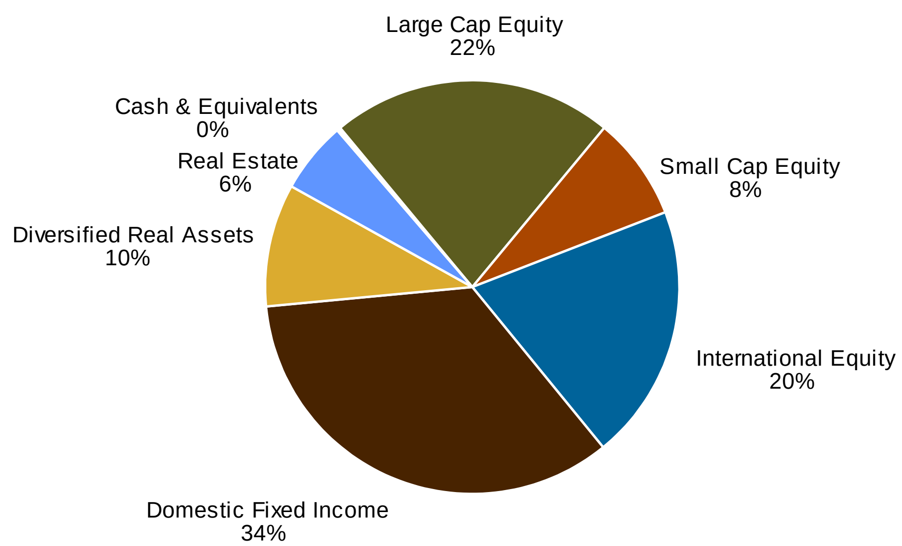
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap Equity	11%	11%	15.58%		14.67%		0.09%		0.01%	0.10%
Small Cap Equity	4%	4%	15.05%		13.70%		0.04%		0.01%	0.06%
Domestic Fixed Income	52%	52%	5.07%		2.21%		1.50%		0.01%	1.50%
Real Estate	7%	6%	13.05%		10.49%		0.17%		0.04%	0.20%
International Equity	8%	8%	10.61%		8.55%		0.16%		0.00%	0.17%
Diversified Real Assets	17%	18%	3.68%		2.68%		0.17%		0.01%	0.19%
Cash & Equivalents	1%	1%	0.17%		0.17%		(0.00%)		0.01%	0.01%
Total			**7.25%**	**=**	**5.01%**	**+**	**2.15%**	**+**	**0.09%**	**2.24%**

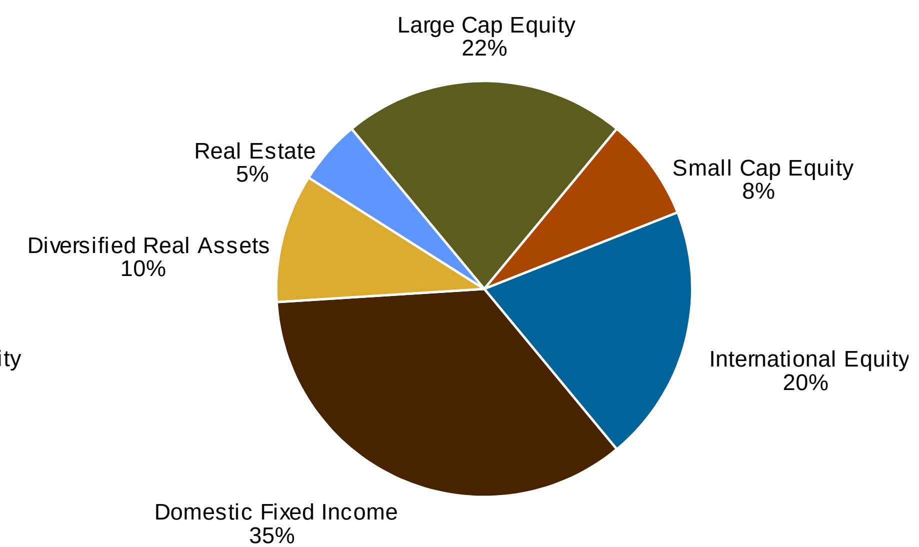
Legacy Fund Allocation

As of June 30, 2017

Actual Asset Allocation



Target Asset Allocation

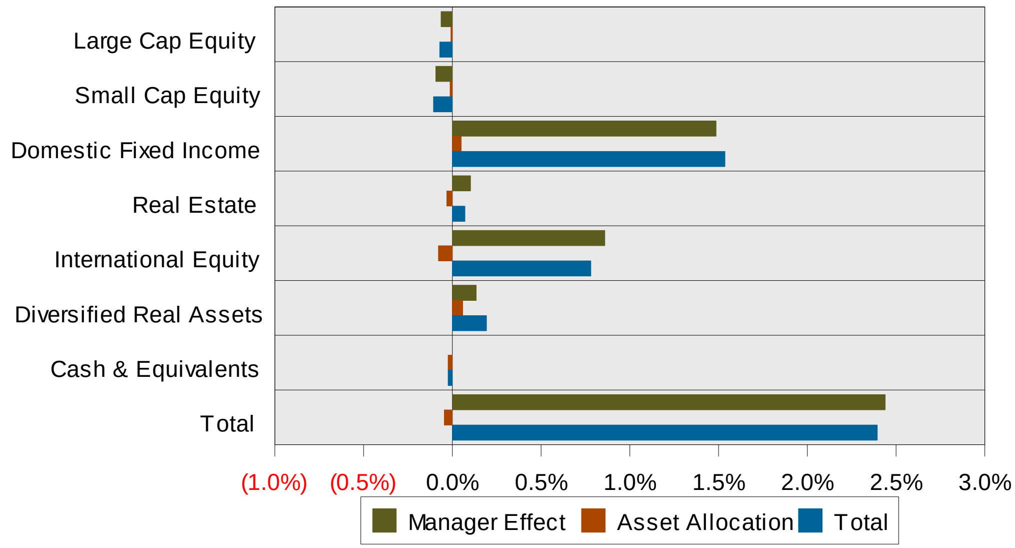


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	1,029,556	22.0%	22.0%	0.0%	(1,796)
Small Cap Equity	379,376	8.1%	8.0%	0.1%	4,339
International Equity	938,507	20.0%	20.0%	0.0%	914
Domestic Fixed Income	1,614,701	34.4%	35.0%	(0.6%)	(26,087)
Diversified Real Assets	452,210	9.6%	10.0%	(0.4%)	(16,587)
Real Estate	264,258	5.6%	5.0%	0.6%	29,860
Cash & Equivalents	9,357	0.2%	0.0%	0.2%	9,357
Total	4,687,964	100.0%	100.0%		

Legacy Fund Performance and Attribution

As of June 30, 2017

One Year Relative Attribution Effects



<u>1 Year Ended 6/30/2017</u>

Gross:	12.30%
Net of fees:	12.03%
Target:	9.91%
Net Added:	2.12%

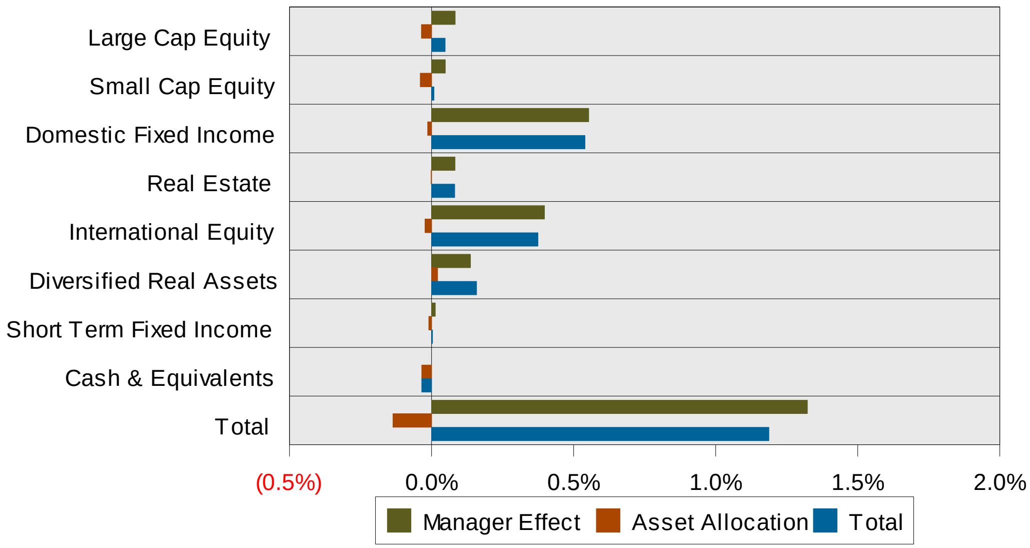
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	17.77%	18.03%	(0.06%)	(0.01%)	(0.07%)
Small Cap Equity	8%	8%	23.34%	24.60%	(0.09%)	(0.01%)	(0.11%)
Domestic Fixed Income	34%	35%	3.68%	(0.31%)	1.49%	0.05%	1.54%
Real Estate	6%	5%	8.75%	6.97%	0.10%	(0.03%)	0.07%
International Equity	20%	20%	24.26%	19.49%	0.86%	(0.08%)	0.78%
Diversified Real Assets	9%	10%	2.35%	1.02%	0.13%	0.06%	0.19%
Cash & Equivalents	0%	0%	0.44%	0.44%	0.00%	(0.02%)	(0.02%)
Total			**12.30% =**	**9.91% +**	**2.44% +**	**(0.05%)**	**2.39%**

Legacy Fund Performance and Attribution

As of June 30, 2017

Three Year Annualized Relative Attribution Effects



3 Years Ended 6/30/2017	
Gross:	5.61%
Net of fees:	5.36%
Target:	4.42%
Net Added:	0.94%

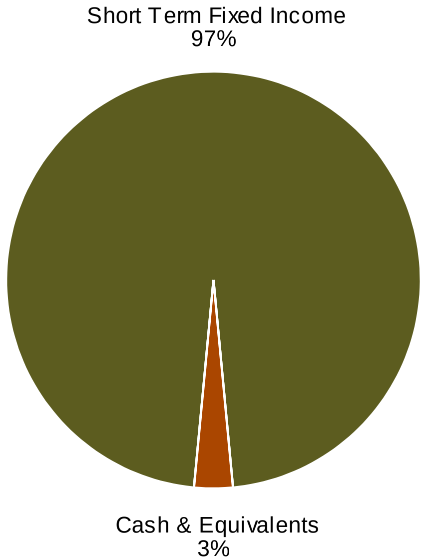
Three Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	9.70%		9.26%		0.08%		(0.04%)	0.05%
Small Cap Equity	8%	8%	8.08%		7.36%		0.05%		(0.04%)	0.01%
Domestic Fixed Income	34%	34%	4.10%		2.48%		0.55%		(0.01%)	0.54%
Real Estate	6%	5%	11.81%		10.17%		0.08%		(0.00%)	0.08%
International Equity	20%	20%	2.86%		0.93%		0.40%		(0.02%)	0.37%
Diversified Real Assets	9%	9%	1.26%		(0.21%)		0.14%		0.02%	0.16%
Short Term Fixed Income	2%	2%	-		-		0.01%		(0.01%)	0.00%
Cash & Equivalents	0%	0%	0.19%		0.19%		0.00%		(0.03%)	(0.03%)
Total			**5.61%**	**=**	**4.42%**	**+**	**1.32%**	**+**	**(0.14%)**	**1.19%**

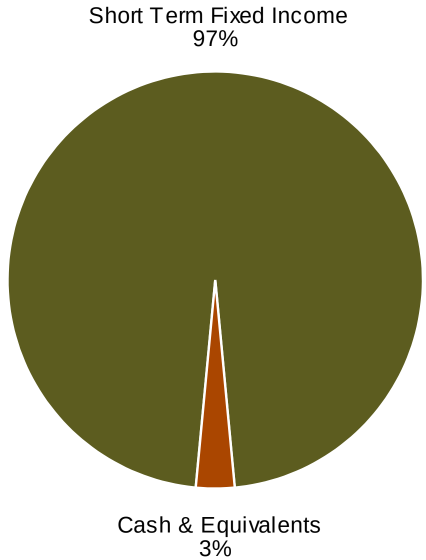
Budget Stabilization Fund Allocation

As of June 30, 2017

Actual Asset Allocation



Target Asset Allocation

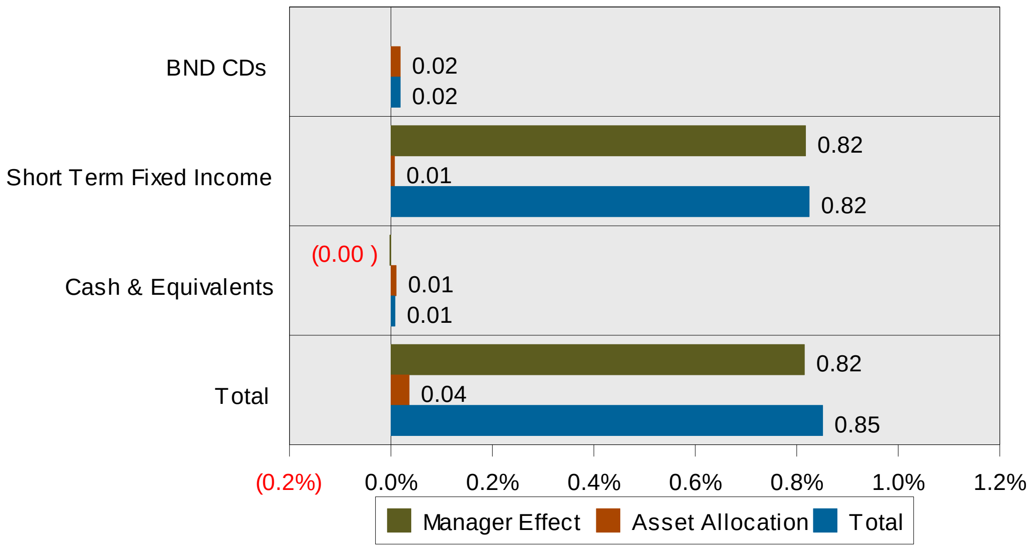


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Short Term Fixed Income	5,942	97.0%	97.0%	0.0%	0
Cash & Equiv alents	186	3.0%	3.0%	0.0%	0
Total	6,128	100.0%	100.0%		

Budget Stabilization Fund Overview

As of June 30, 2017

One Year Relative Attribution Effects



1 Year Ended 6/30/2017

Gross:	1.13%
Net of fees:	0.80%
Target:	0.28%
Net Added:	0.52%

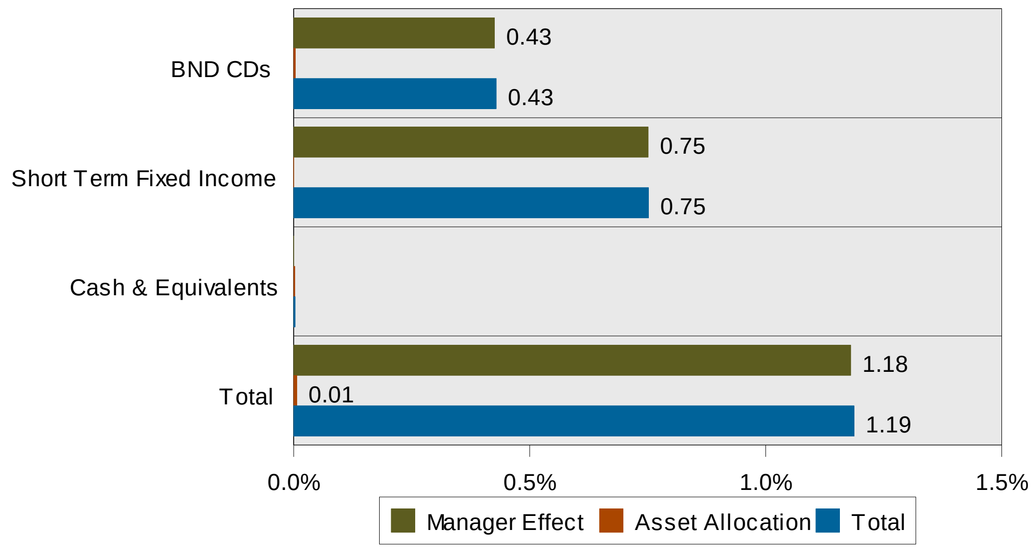
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	12%	11%	-	-	0.00%	0.02%	0.02%
Short Term Fixed Income	84%	83%	0.91%	(0.07%)	0.82%	0.01%	0.82%
Cash & Equivalents	5%	6%	0.43%	0.49%	(0.00%)	0.01%	0.01%
Total			**1.13% =**	**0.28% +**	**0.82% +**	**0.04%**	**0.85%**

Budget Stabilization Fund Overview

As of June 30, 2017

Five Year Annualized Relative Attribution Effects



5 Year Ended 6/30/2017	
Gross:	1.86%
Net of fees:	1.72%
Target:	0.68%
Net Added:	1.04%

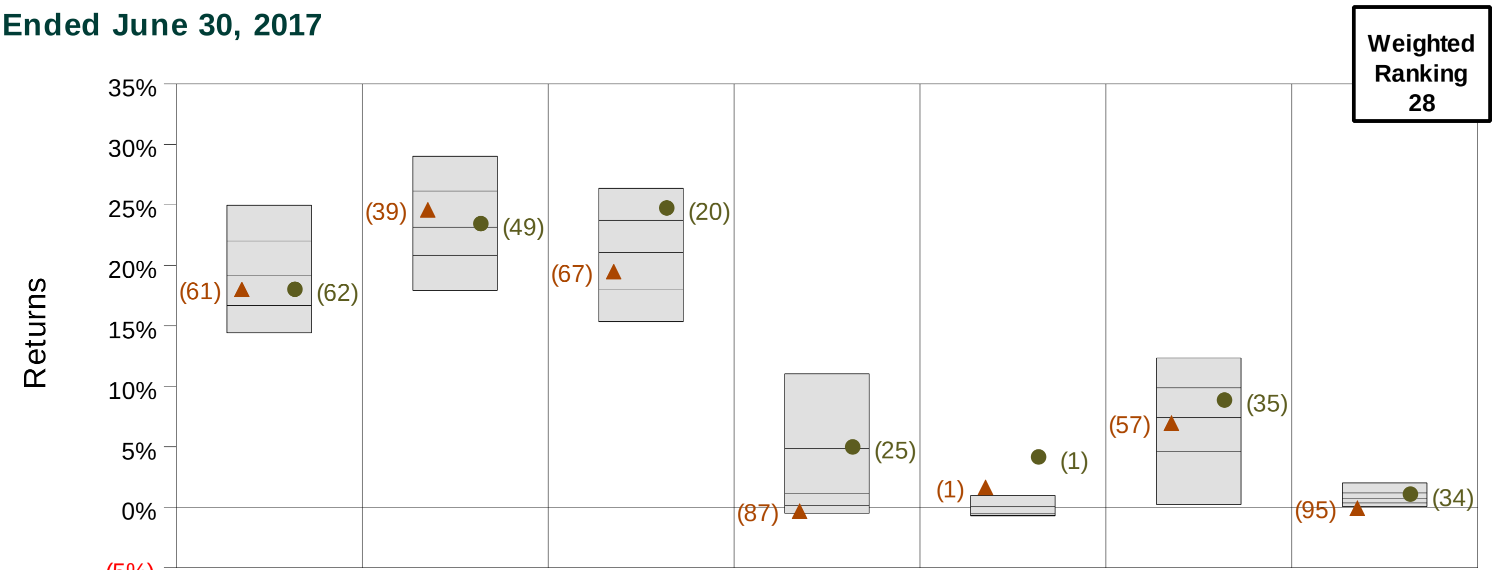
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
BND CDs	19%	19%	2.88%		0.87%		0.43%		0.00%	0.43%
Short Term Fixed Income	79%	79%	1.61%		0.65%		0.75%		0.00%	0.75%
Cash & Equivalents	2%	2%	0.15%		0.14%		0.00%		0.00%	0.00%
Total			**1.86%**	**=**	**0.68%**	**+**	**1.18%**	**+**	**0.01%**	**1.19%**

Asset Class Composite Results

Consolidated Insurance Trust asset class results vs Callan Style Groups

Total Asset Class Performance
One Year Ended June 30, 2017



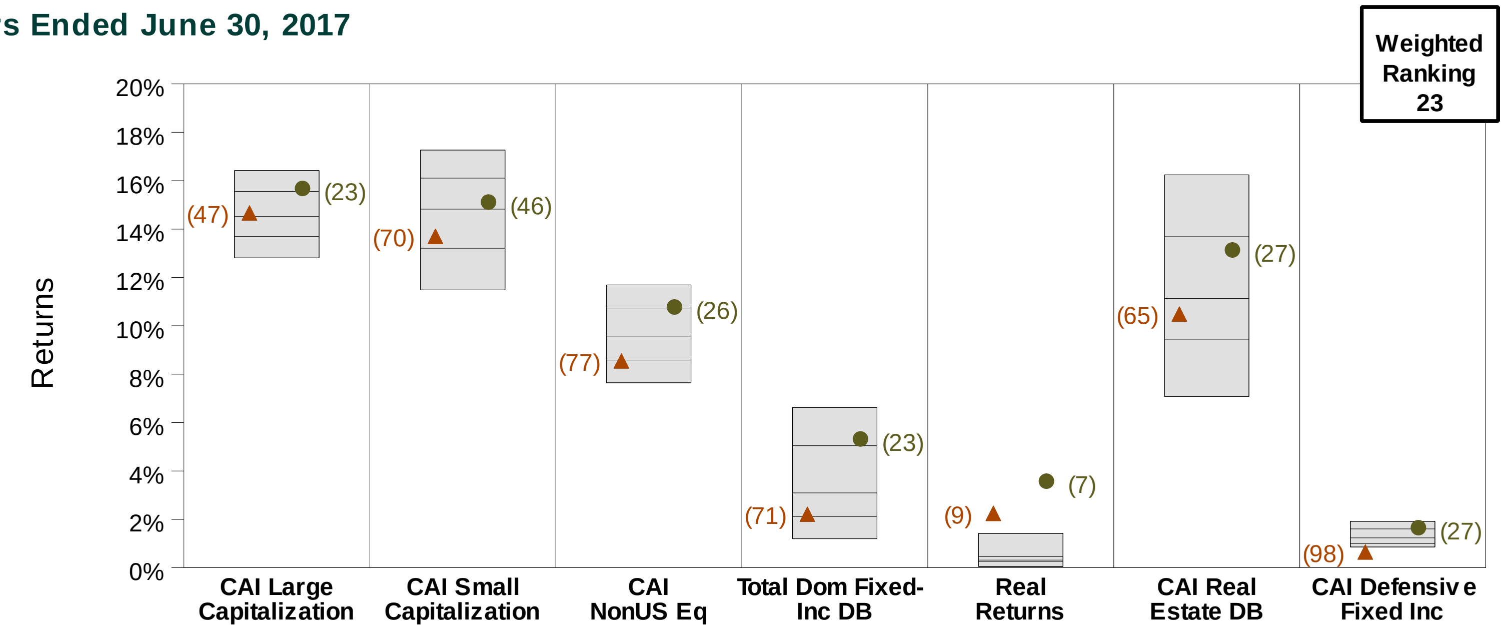
	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Defensive Fixed Inc
10th Percentile	24.98	29.03	26.38	11.03	0.98	12.34	2.01
25th Percentile	22.01	26.14	23.72	4.85	0.05	9.87	1.18
Median	19.14	23.16	21.05	1.16	(0.50)	7.41	0.75
75th Percentile	16.69	20.83	18.04	0.14	(0.65)	4.62	0.36
90th Percentile	14.43	17.94	15.35	(0.49)	(0.70)	0.23	0.06
Asset Class Composite ●	17.87	23.30	24.60	4.83	4.00	8.72	0.94
Composite Benchmark ▲	18.03	24.60	19.49	(0.31)	1.65	6.97	(0.07)

- Large and small cap stocks were below benchmark over the last year.
- Int’l equity, domestic fixed income, and real return placed in the top quartile over the last year.

Asset Class Composite Results

Consolidated Insurance Trust asset class results vs Callan Style Groups

Total Asset Class Performance
Five Years Ended June 30, 2017



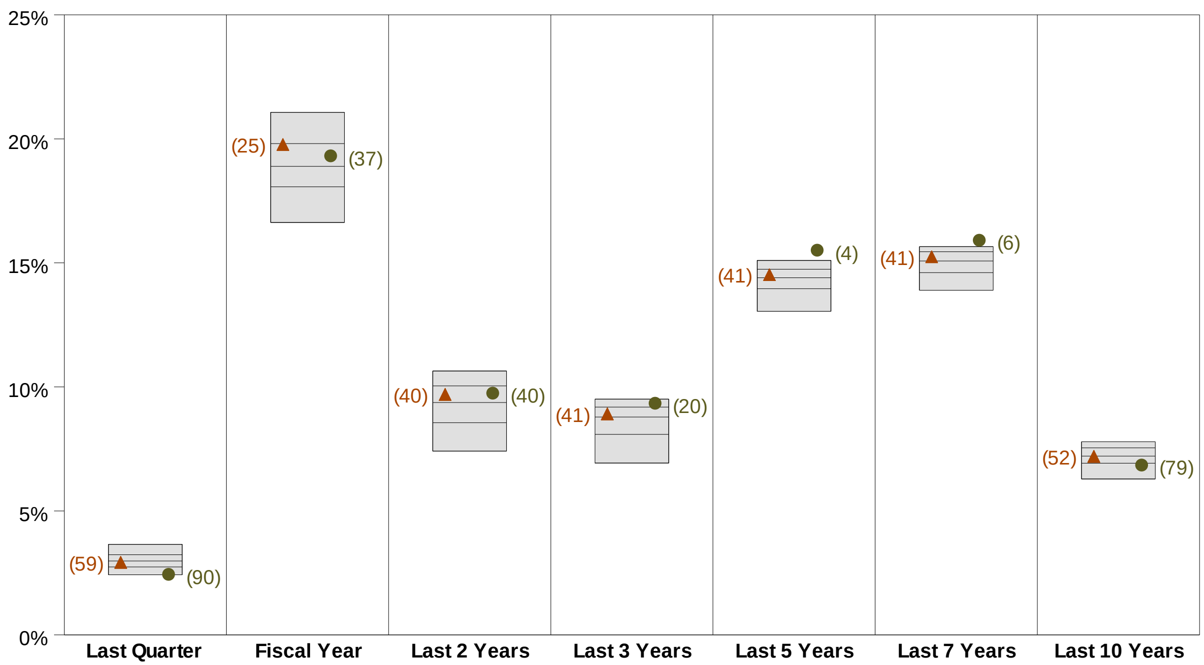
	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Defensive Fixed Inc
10th Percentile	16.42	17.27	11.69	6.63	1.42	16.24	1.92
25th Percentile	15.56	16.11	10.74	5.05	0.46	13.69	1.60
Median	14.52	14.83	9.57	3.09	0.32	11.13	1.24
75th Percentile	13.69	13.21	8.58	2.12	0.26	9.45	1.00
90th Percentile	12.81	11.49	7.64	1.20	0.05	7.08	0.86
Asset Class Composite ●	15.60	15.04	10.71	5.25	3.50	13.07	1.58
Composite Benchmark ▲	14.67	13.70	8.55	2.21	2.25	10.49	0.65

- Large cap, domestic fixed income, and real return placed in the top quartile over the last five years.
- All asset classes outperformed their respective benchmarks over the last five years.

Consolidated Insurance Trust: Domestic Equity

As of June 30, 2017

Performance vs Pub Pln- Domestic Equity (Gross)



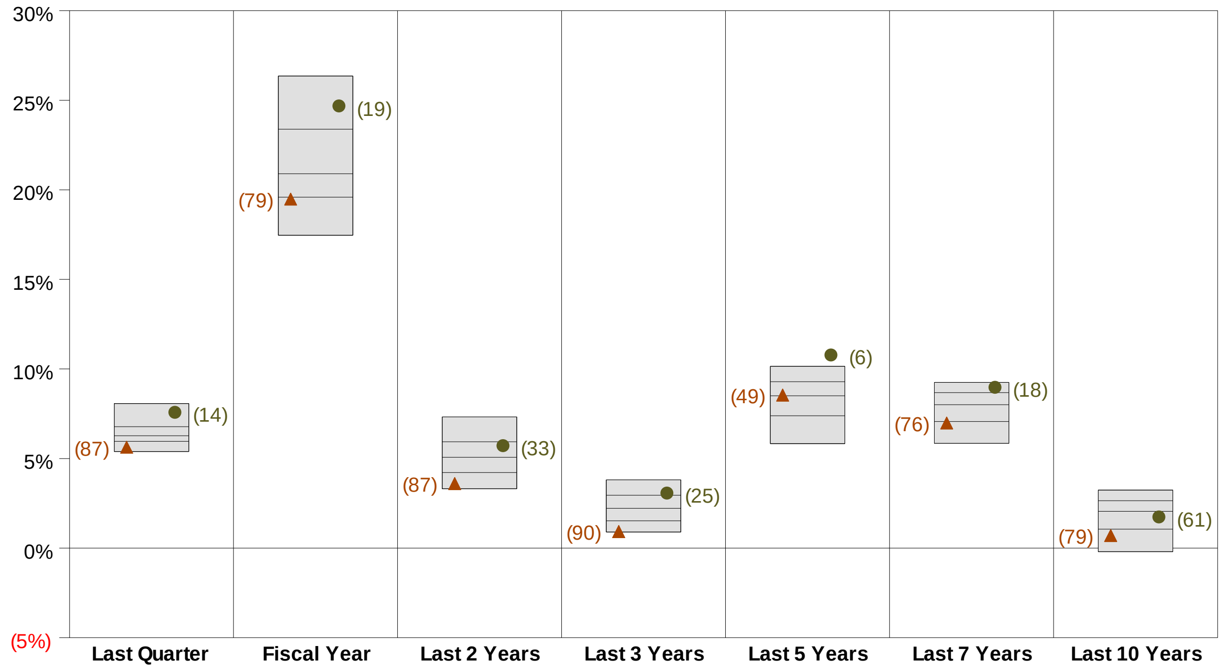
	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	3.65	21.07	10.64	9.51	15.10	15.66	7.79
25th Percentile	3.23	19.81	10.04	9.18	14.74	15.45	7.54
Median	2.98	18.90	9.37	8.78	14.40	15.08	7.21
75th Percentile	2.74	18.07	8.56	8.09	13.96	14.61	6.92
90th Percentile	2.43	16.63	7.41	6.93	13.05	13.90	6.29
Domestic Equity ●	2.38	19.26	9.69	9.29	15.45	15.86	6.79
Domestic Equity Target ▲	2.93	19.77	9.70	8.91	14.53	15.25	7.20

- With the exception of the most recent quarter and 10 year period, the Insurance Trust’s domestic equity program has consistently placed above the median manager.

Consolidated Insurance Trust: International Equity

As of June 30, 2017

Performance vs Pub Pln- International Equity (Gross)



	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	8.07	26.36	7.32	3.81	10.15	9.25	3.24
25th Percentile	6.78	23.38	5.93	2.95	9.29	8.68	2.65
Median	6.27	20.90	5.07	2.22	8.50	8.00	2.05
75th Percentile	5.96	19.59	4.22	1.52	7.38	7.07	1.06
90th Percentile	5.39	17.47	3.31	0.90	5.83	5.85	(0.20)
International Equity ●	7.51	24.60	5.64	2.99	10.71	8.90	1.66
International Equity Target ▲	5.63	19.49	3.61	0.93	8.55	6.99	0.71

- The international equity program has placed above median for all periods except the most recent 10 year period.

Consolidated Insurance Trust: Domestic Fixed Income

As of June 30, 2017

Performance vs Pub Pln- Domestic Fixed (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	1.97	4.91	4.61	3.99	4.43	5.67	6.07
25th Percentile	1.77	3.52	3.99	3.16	3.52	4.71	5.39
Median	1.56	1.48	3.44	2.78	2.85	3.94	4.95
75th Percentile	1.29	0.08	2.81	2.22	2.08	2.95	4.05
90th Percentile	0.95	(0.38)	2.06	1.95	1.59	2.26	3.56
Domestic Fixed Income ●	2.68	4.83	5.62	4.54	5.25	6.26	6.44
Domestic Fixed Inc. Target ▲	1.45	(0.31)	2.79	2.48	2.21	3.19	4.48

- Fixed income has been an exceptionally well-performing asset in the Insurance Trust, placing in the top decile over all time periods.

Watchlist Managers

As of June 30, 2017

- UBS Global Fixed Income
- JP Morgan MBS

Callan

June 30, 2017

North Dakota State Investment Board Pension Funds

Investment Measurement Service Quarterly Review

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Domestic Equity

International Equity

World Equity

Private Equity

Domestic Fixed Income

International Fixed Income

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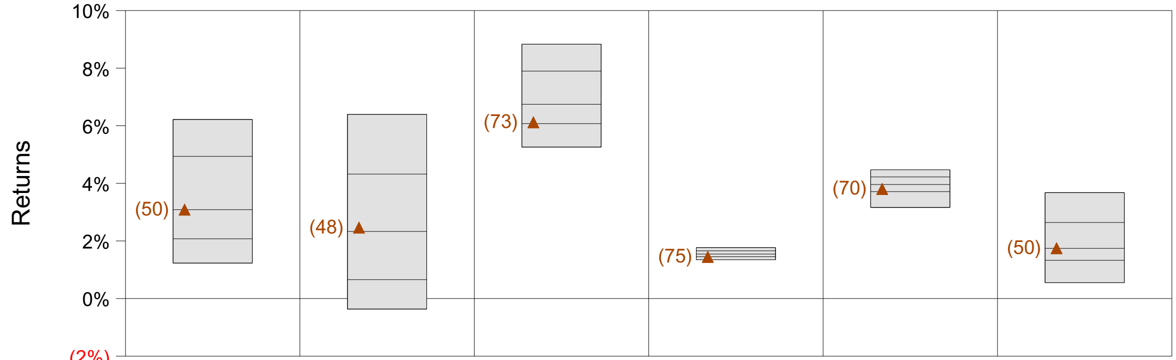
Market Overview
Active Management vs Index Returns

Market Overview

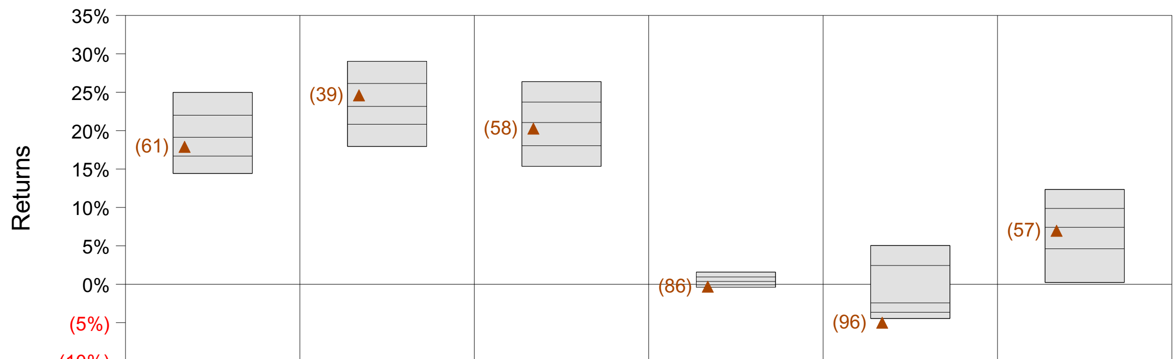
The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

Range of Separate Account Manager Returns by Asset Class
One Quarter Ended June 30, 2017



	Large Cap Equity vs S&P 500	Small Cap Equity vs Russell 2000	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Blmbg Aggr Bd	Non-US Fixed Income vs Citi Non-US Govt	Real Estate vs NCREIF Index
10th Percentile	6.22	6.40	8.83	1.77	4.47	3.68
25th Percentile	4.94	4.32	7.90	1.66	4.22	2.64
Median	3.09	2.33	6.75	1.54	3.96	1.74
75th Percentile	2.07	0.66	6.07	1.45	3.71	1.33
90th Percentile	1.23	(0.37)	5.26	1.35	3.16	0.55
Index ▲	3.09	2.46	6.12	1.45	3.81	1.75

Range of Separate Account Manager Returns by Asset Class
One Year Ended June 30, 2017



	Large Cap Equity vs S&P 500	Small Cap Equity vs Russell 2000	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Blmbg Aggr Bd	Non-US Fixed Income vs Citi Non-US Govt	Real Estate vs NCREIF Index
10th Percentile	24.98	29.03	26.38	1.58	5.05	12.34
25th Percentile	22.01	26.14	23.72	0.95	2.44	9.87
Median	19.14	23.16	21.05	0.37	(2.43)	7.41
75th Percentile	16.69	20.83	18.04	(0.07)	(3.65)	4.62
90th Percentile	14.43	17.94	15.35	(0.39)	(4.46)	0.23
Index ▲	17.90	24.60	20.27	(0.31)	(5.01)	6.97

Callan

CALLAN INSTITUTE

Capital Market Review

Second Quarter 2017

Why Is Inflation So Low?

ECONOMY

2 PAGE

Both price and wage inflation remain subdued, even after eight years of recovery, when inflationary pressures typically build. Why? There is no consensus on the cause, but both issues weigh heavily on the Fed as it charts future rate hikes and unwinds its balance sheet.

Many Funds 'Risk Up' for Returns

FUND SPONSOR

4 PAGE

Many fund sponsors feel compelled to take on substantial market risk to attempt to close a funding gap or meet spending needs without eroding the corpus. Fund sponsors are further focusing on diversification within each asset class to help mitigate their overall risk.

Many Shocks, but No Signs of Slowing

EQUITY

6 PAGE

U.S. stocks inched higher, despite turbulent events in the news, and the **S&P 500 Index** hit a record high during the second quarter. Non-U.S. developed equity outperformed its U.S. counterpart, helped by a weak U.S. dollar, while emerging markets outpaced developed markets.

On the Hunt for More Yield Globally

FIXED INCOME

9 PAGE

In their continued hunt for stable yields, investors gravitated to corporate bonds in the U.S., and favored municipal bonds over Treasuries. Unhedged non-U.S. bonds got help from the weak dollar, while emerging market fixed income saw strong demand from yield-hungry investors.

Some Positive Signs Emerging

REAL ESTATE

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The **NCREIF Property Index** rebounded from last quarter's seven-year low return while the **NCREIF Open End Diversified Core Equity Index** set a new seven-year low. U.S. REITs underperformed global REITs, but still managed to generate positive returns.

Happy Campers

PRIVATE EQUITY

13 PAGE

A bucolic summer has favored the private equity market, with moderate increases across transactional measures and liquidity remaining hearty. Fundraising finished the quarter ahead of last year, buyout investment showed large gains, and venture investment ticked up.

As the World Churns, Despacito

HEDGE FUNDS

14 PAGE

The **Credit Suisse Hedge Fund Index** rose 0.8%, while the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 0.9%. Growth in Europe and Japan this quarter provided a friendly setting for hedge funds seeking alternative risks.

Best Return for DC Index Since 2013

DEFINED CONTRIBUTION

15 PAGE

The Callan DC Index™ climbed 4.7% in the first quarter, its highest quarterly return since the end of 2013, after an 8.0% gain in 2016. But the DC Index did markedly lag the Age 45 Target Date Fund (+5.6%). Plan balances grew 4.74%, primarily driven by investment returns.

Broad Market Quarterly Returns

U.S. Equity Russell 3000	Non-U.S. Equity MSCI ACWI ex USA	U.S. Fixed Income Bloomberg Barclays Agg	Non-U.S. Fixed Income Bloomberg Barclays Gbl ex US
+3.0%	+5.8%	+1.4%	+3.5%

Sources: Bloomberg Barclays, MSCI, Russell Investment Group

Why Is Inflation So Low?

ECONOMY | Jay Kloepfer

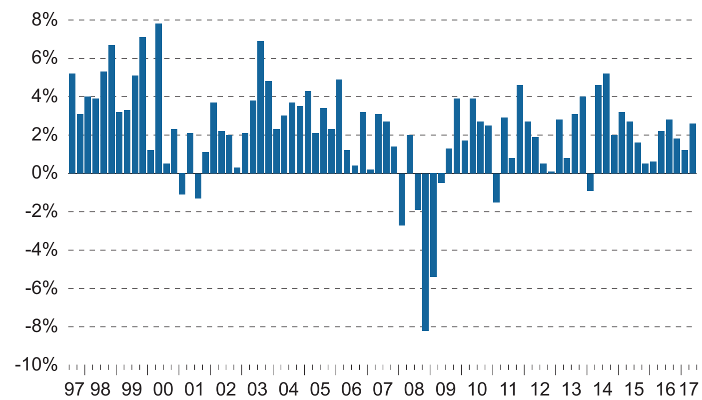
We are now eight years into the economic recovery in the U.S., arguably the latter stages of a mature expansion and at a point where inflationary pressures typically begin to build. Yet price and wage inflation remain stubbornly subdued. Headline and particularly core inflation have drifted down over the past several months. Headline inflation (the CPI – All Urban) climbed above 2% in December 2016 and stayed near 2.5% until May 2017, when it began to ebb. The Index was unchanged in June, meaning zero inflation month to month; the year-over-year change is now 1.6%. The Fed's targeted measure of core inflation (personal consumption expenditures (PCE) less food and energy) slipped to a year-over-year gain of just 1.4% in May and will likely show a flattening similar to the CPI-U in June. This decline in core inflation is both baffling and frustrating to the Fed, and it provides a headwind to its efforts to bring interest rates back to "normal."

Low wage growth is also a mystery in the U.S., where it has remained below 3% for years while the unemployment rate has fallen to a 16-year low of 4.4% in June, and stories of tight labor markets abound in industries around the country.

The explanations for persistent low inflation are varied, but there is no consensus on the cause. The most plausible reasons include: 1) lackluster global growth; 2) excess industrial capacity, much of it in China, pushing down goods prices; and 3) technology, specifically product and process innovations that slash production costs.

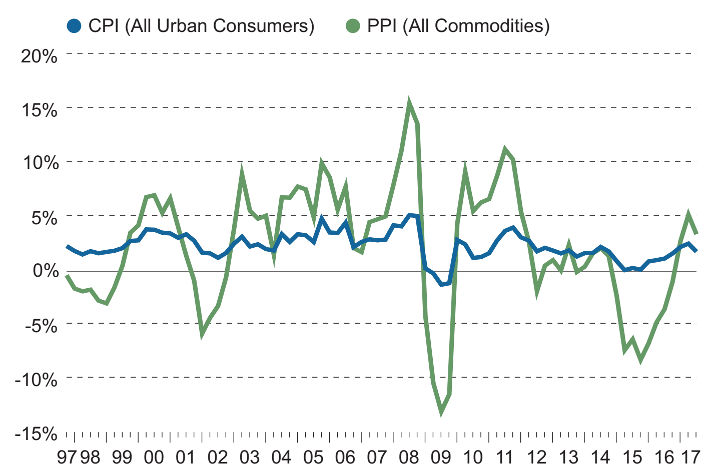
Weak wage growth is more of a conundrum, especially in economies such as the U.S. that appear to be at full employment. Why hasn't the job market pressure pushed up overall wages? More plausible explanations include: 1) a large pool remains of workers not properly captured in the official unemployment data (discouraged workers, the long-term unemployed); 2) the replacement of retiring higher-wage baby boomers with lower-wage young workers, skewing the average wage downward; 3) poor productivity growth, paired with 4) use of technology to replace workers with capital, particularly in low-wage, low-skilled jobs; and 5) a related shift in market power from labor to capital. None of these factors alone explain the persistence of low inflation and low wage growth, but the interaction of these factors tells a believable story.

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

In addition to the conundrum of low inflation, the state of growth weighs heavily on the Fed's deliberations on the path to future interest rate hikes and the size of its balance sheet. Second quarter GDP growth came in at 2.6%, roughly in line with expectations. The solid (if unspectacular) figure built on the upward revision to disappointing data in the first quarter, which was adjusted up from 0.7% to 1.2%. Consumer spending, job growth, and capital spending have been strong enough to enable the U.S. economy to amble on at a reasonable if unspectacular (although sometimes halting) pace for eight years. Consumer spending has been the engine for growth, increasing faster than GDP (2.8% in the second quarter), and supported by gains in employment, disposable income, and household wealth. The combination of a strong job market, continued stock market gains, and the expectation for tax cuts coming from the Trump administration and the Republican Congress has fueled consumer confidence, and with it spending, since the start of 2017—although confidence did take a breather in the second quarter.

Business fixed investment enjoyed a strong first quarter with a 7.2% gain, driven by close to 15% growth in structures (including oil and gas mining), and followed with another 5% gain in the second quarter. The rebound in the oil and gas sector suggests the spending on capital has built some momentum.

Residential housing spending took a hit in the second quarter, falling by 6.8%, somewhat in defiance of the laws of economics as the supply of homes for sale is not keeping up with demand. The nation-wide average price for a new home reached an all-time high in May, topping $400,000. High prices should be driving builders to build, but the permits and starts for both single-family and multi-family homes declined in May before recovering somewhat in June. The restraint on construction activity may stem from tightened standards on commercial real estate loans, particularly on multi-family homes, and rising interest rates.

The Long-Term View

Index	2017 2nd Qtr	Periods ended Dec. 31, 2016 Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	3.02	12.74	14.67	7.07	9.29
S&P 500	3.09	11.96	14.66	6.95	9.15
Russell 2000	2.46	21.31	14.46	7.07	9.69
Non-U.S. Equity					
MSCI ACWI ex USA	5.78	4.50	5.00	0.96	–
MSCI Emerging Markets	6.27	11.19	1.28	1.84	–
MSCI ACWI ex USA Small Cap	8.07	3.78	9.67	3.03	6.70
Fixed Income					
Bloomberg Barclays Agg	1.45	2.65	2.23	4.34	5.63
90-Day T-Bill	0.20	0.33	0.12	0.80	2.71
Bloomberg Barclays Long G/C	4.39	6.67	4.07	6.85	7.58
Bloomberg Barclays Gl Agg ex US	3.55	1.49	-1.39	2.44	4.73
Real Estate					
NCREIF Property	1.75	7.97	10.91	6.93	8.63
FTSE NAREIT Equity	1.52	8.52	12.01	5.08	11.13
Alternatives					
CS Hedge Fund	0.76	1.25	4.34	3.75	–
Cambridge PE*	–	9.20	12.78	9.40	15.39
Bloomberg Commodity	-3.00	11.77	-8.95	-5.57	2.55
Gold Spot Price	-0.71	8.63	-5.97	6.08	4.82
Inflation – CPI-U	0.47	2.07	1.36	1.81	2.26

*Most recent quarterly data not available.
Sources: Bloomberg Barclays, Bloomberg, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson Reuters/Cambridge, Bureau of Economic Analysis.

Recent Quarterly Economic Indicators

	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15
Employment Cost–Total Compensation Growth	2.4%	2.4%	2.2%	2.3%	2.3%	1.9%	2.0%	2.0%
Nonfarm Business–Productivity Growth	1.3%*	0.0%	1.8%	3.3%	-0.1%	-0.7%	-2.0%	1.8%
GDP Growth	2.6%	1.2%	1.8%	2.8%	2.2%	0.6%	0.5%	1.6%
Manufacturing Capacity Utilization	75.5%	75.3%	75.1%	74.9%	75.1%	75.4%	75.4%	75.7%
Consumer Sentiment Index (1966=100)	96.4	97.2	93.2	90.3	92.4	91.5	91.3	90.8

*Estimate.
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan.

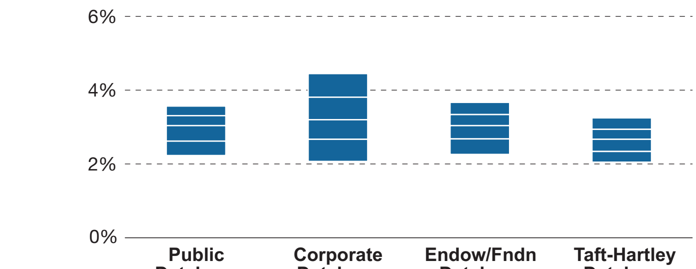
Many Funds ‘Risk Up’ for Returns

FUND SPONSOR | Todd Carabasi, Tom Shingler

Fund sponsors are beginning to come to grips with lower capital market return expectations. Pension funds are reducing actuarial return assumptions, and endowments and foundations are discussing and making adjustments to spending rules. Some funds are addressing this issue by taking on substantial market risk (80%-85% in risky assets) to attempt to close a funding gap or meet spending needs without eroding the corpus. Fund sponsors are further focusing on diversification within each asset class to help mitigate their overall risk.

Fund sponsors face the challenge of looking for investments with attractive real return expectations while seeking at least some diversification to the beta of equities to smooth the ride within the growth allocation. By focusing on diversifiers, funds can consider adding investments like high yield, low-volatility equity, hedge funds, multi-asset class funds, and options-based strategies. This also allows for new strategies to be brought into the fold, based on anticipated diversification benefits or return enhancement. This broadening of growth assets can lead to a sharper focus on refining fixed income exposure to gain a “purer” exposure to interest rate sensitivity and to serve as an anchor to the portfolio in a bear market (e.g., allocating the fixed income portfolio to long-duration Treasuries).

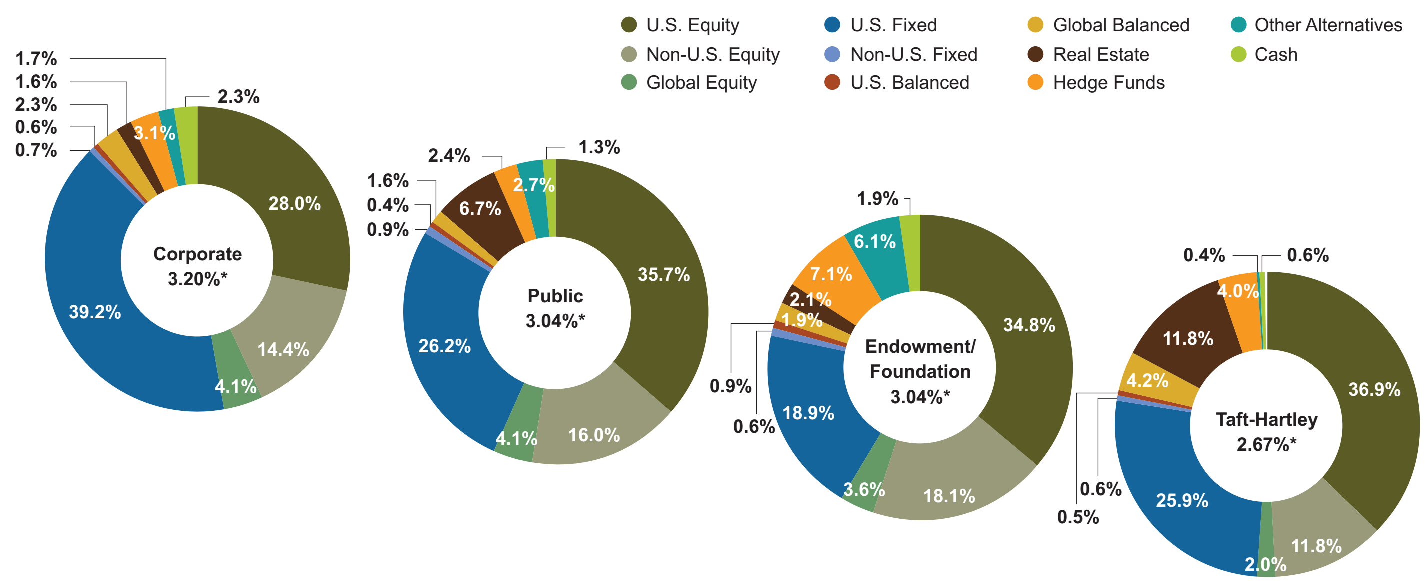
Callan Fund Sponsor Returns for the Quarter



	Public Database	Corporate Database	Endow/Fndn Database	Taft-Hartley Database
10th Percentile	3.57	4.45	3.67	3.25
25th Percentile	3.31	3.81	3.34	2.94
Median	3.04	3.20	3.04	2.67
75th Percentile	2.62	2.67	2.68	2.34
90th Percentile	2.23	2.07	2.26	2.05

Source: Callan

Callan Fund Sponsor Average Asset Allocation



*Latest median quarter return.
Note: charts may not sum to 100% due to rounding.
Source: Callan

At the same time, with U.S. equities continuing their unprecedented positive run, fund sponsors are asking the question "Why diversify?" The answer: While results in non-U.S. equity, real assets, and alternatives have lagged U.S. equities in the last five years, their longer-term diversifying characteristics warrant consideration.

The active/passive discussion continues to loom large. The argument to retain active managers to protect in a down market and be nimble in a volatile, low-return environment is compelling to some, but many fund sponsors are weary of historical underperformance by active equity managers. Additionally, the use of passive management helps control costs.

Callan has observed the following trends over the last five years:

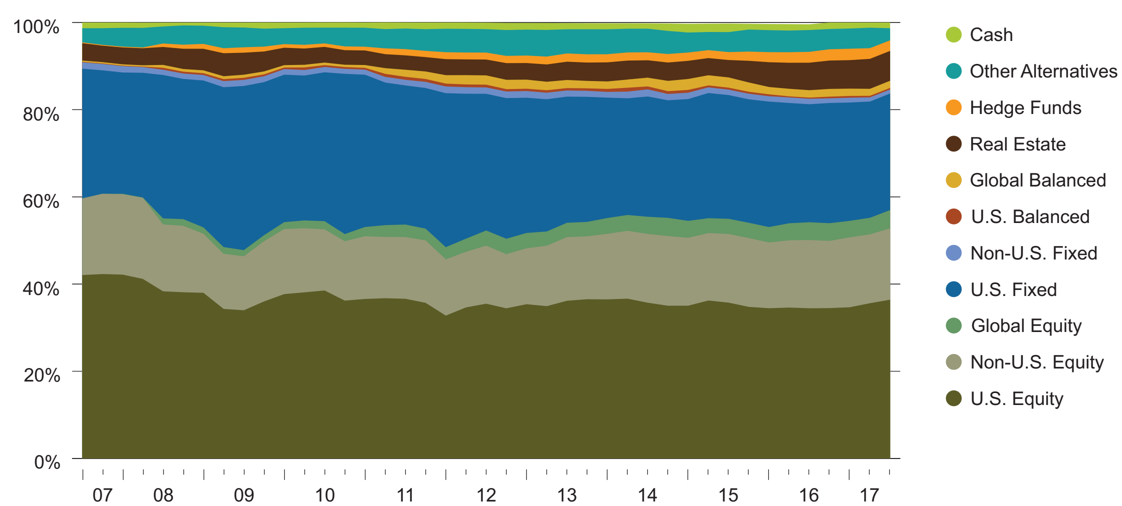
– The U.S. fixed income allocations for corporate plan sponsors has increased overall and has become more widely dispersed as plans take different steps to de-risk plan assets.
– Many public funds have increased their allocation to non-U.S. equity, real estate, and other alternatives at the expense of fixed income and U.S. equity. Simultaneously, some of the fixed income exposure has become more equity-like in nature, with allocations to areas like high yield.
– Endowments and foundations have continued to move assets from fixed income to asset classes with expectations for higher returns, such as global equity and real estate.

A 60% S&P 500/40% Bloomberg Barclays U.S. Aggregate Bond Index portfolio returned 10.4% over the year ended June 30, 2017. All of the broad fund sponsor groups tracked in Callan's database topped the 60/40 portfolio over that period.

Endowments and foundations underperformed other fund sponsor groups over the past three, five, and ten years. But they did have the best performance over the last year.

Taft-Hartley plans were the best-performing group over the past three and five years. Corporate plans beat other groups over the last 10 years.

Callan Public Fund Database Average Asset Allocation (10 Years)



Source: Callan. Callan's database includes the following groups: public defined benefit, corporate defined benefit, endowments/foundations, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

Global Equity

U.S. Stocks: Shocks, but No Slowing

+3.0%

RUSSELL 3000

Despite an increase in interest rates and turbulent events in the news, including disruptions within the Trump administration and terrorist attacks in the U.K., U.S. stocks continued to inch higher during the second quarter. Amid this volatile macro backdrop, S&P 500 companies reported the strongest quarterly earnings growth rate in six years (70% reported profits above expectations), and the **S&P 500 Index** hit a record high during the quarter.

Large cap stocks outperformed mid and small caps (S&P 500 Index: +3.1%; **Russell 2000 Index:** +2.5%). Strong earnings reports out of large cap stocks contributed to their leg up over small cap. Large cap was also buoyed by the continued flow of assets into passively managed strategies, especially ETF vehicles.

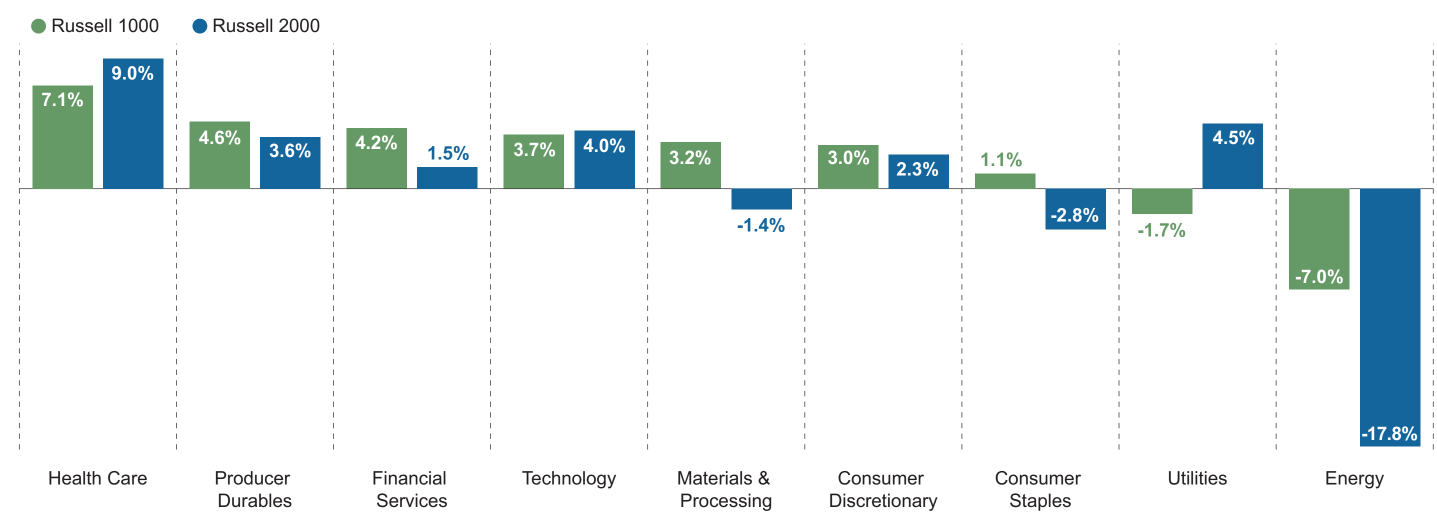
Small cap valuations kept stretching higher and, as a result, investors continued to take profits following a boon year in 2016. The continued expansion in small cap multiples may be giving some investors pause, particularly as the current economic upturn is nearing nine years.

Growth outperformed value across large and small caps (**Russell 1000 Growth:** +4.7% vs. **Russell 1000 Value:** +1.3%; **Russell 2000 Growth:** +4.4% vs. **Russell 2000 Value:** +0.7%). The strong-performing "FAAMG" stocks (Facebook, Amazon, Apple, Microsoft, and Google) comprised 22% of the S&P 500's return in the second quarter versus 32% in the first. Investors continued to be drawn to the top-line growth prospects and market share gains at these large, established firms.

Investor sentiment broadened across sectors in the second quarter compared to the first, as a wider range of firms reported positive results. Top sectors in the S&P 500 included Health Care (+7.1%), which rallied on the Trump administration's prospect of change to the Affordable Care Act; Industrials (+4.7%), which benefited from declining commodity prices; Financials (+4.2%), spurred by the Fed's announcement that 34 of the largest banks passed their stress tests, the largest cohort to do so since the tests began; and Tech (+4.1%), on the continued rise of those FAAMG stocks.

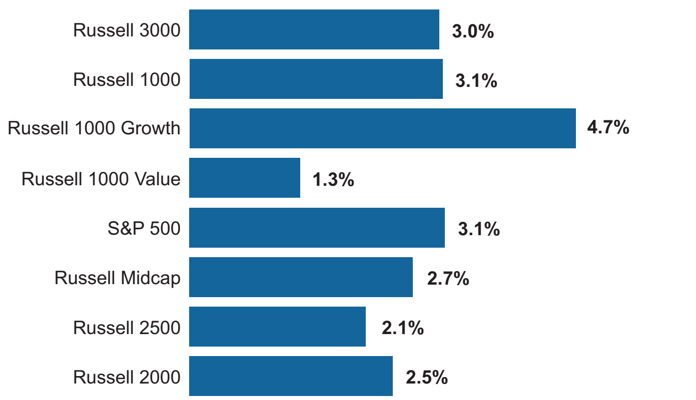
Energy (-6.4%) and Telecom (-7.0%) were the laggards. Crude oil prices fell due to an increase in supply, the result of a milder winter. In addition, improving efficiency within the U.S. fracking

Quarterly Performance of Select Sectors



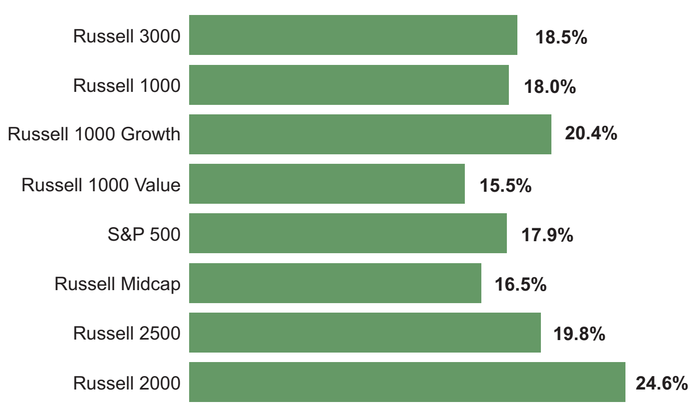
Source: Russell Investment Group

U.S. Equity: Quarterly Returns



Sources: Russell Investment Group and Standard & Poor's

U.S. Equity: One-Year Returns



Sources: Russell Investment Group and Standard & Poor's

industry impacted prices. Within Telecom, competition for market share intensified in the increasingly commoditized (and consolidated) space.

Value stocks were hurt by Consumer Staples companies resetting to more sensible valuations following the strong rally in 2016 that resulted from the "yield trade," as investors sought the safety of strong dividends and lower-volatility stocks.

From a factor perspective, Momentum (+7.9%) was the top-performing factor while Enhanced Value (weighted to the forward price-earnings ratio, enterprise value/cash flow from operations, and price-to-book value of stocks in the factor) fared worst (+1.3%). Momentum was favored as investors sought stocks with demonstrated earnings growth.

Non-U.S. Stocks: Europe's Recovery a Boost

+5.8%
MSCI ACWI ex USA

Non-U.S. developed equity outperformed the U.S. for the second consecutive quarter, fueled by economic recovery in Europe and market-friendly outcomes in European elections. The **MSCI Europe Index** jumped 7.4% and the **MSCI World ex USA Index** notched a 5.6% gain, compared to the 3.1% rise in the S&P 500.

Gains were broad-based and helped by weakness in the U.S. dollar, which lost about 7% versus the euro and 5% versus a broad basket of currencies.

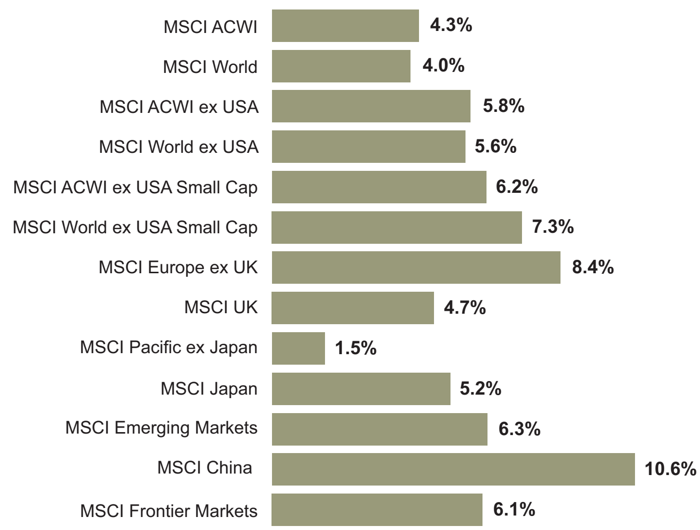
The euro rallied as a result of hawkish comments from the European Central Bank, coupled with improving European economic and sentiment indicators. European Financials benefited from expectations of higher rates, and European Industrials were propped up by stronger economic expectations.

Energy and Telecom Services were the only sectors in developed markets with negative second quarter returns. Energy fell as oil prices continued to languish due to an imbalance between supply and demand—despite OPEC's efforts to cut production. Telecom Services were buffeted by pricing pressure.

Within the MSCI indices, Europe ex-U.K. was up 8.4%, the U.K gained 4.7%, and Japan returned 5.2%. Small caps outperformed; the **MSCI EAFE Small Cap Index** rose 8.1%.

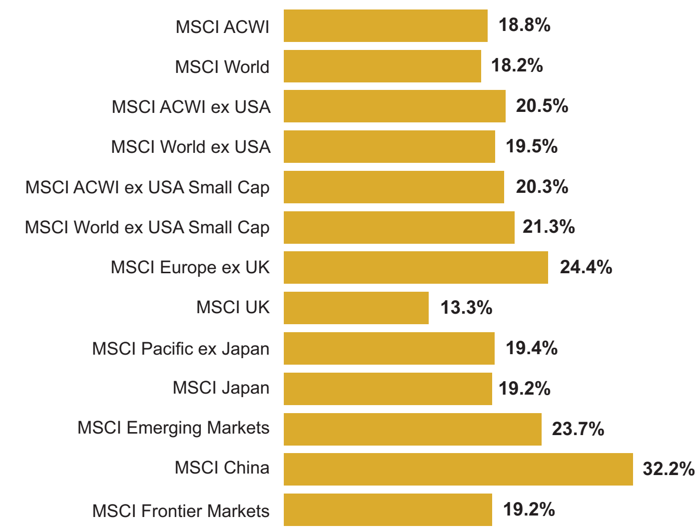
Looking at the global picture for stocks, the **MSCI ACWI Index** gained 4.3%, and developed and emerging markets outperformed the U.S. (**MSCI ACWI ex USA Index:** +5.8%), due largely to broad-based weakness in the U.S. dollar.

Non-U.S. Equity: Quarterly Returns (U.S. Dollar)



Source: MSCI

Non-U.S. Equity: One-Year Returns (U.S. Dollar)



Source: MSCI

Emerging Markets: Tech Triumphs

+6.3%
MSCI EM

Emerging markets outpaced the developed markets for the second straight quarter, propelled by Technology companies in China, South Korea, and Taiwan. The **MSCI Emerging Markets Index** gained 6.3%. Industry leaders in online and mobile commerce, payments, digital media, cloud computing, and smartphones are monopolizing the markets. That includes Tencent and Alibaba in China; Samsung in South Korea; and Taiwan Semiconductor Manufacturing in Taiwan.

Positive economic momentum and European election results placed Greece (+33.8%) and Hungary (+19.4%) as the top two performing countries in emerging markets. China rose 10.6%, while India's gain was muted at +2.9%, though it remains a top performer year-to-date (+21%). The three worst-performing countries were Qatar (-10.9%), Russia (-10.0%), and Brazil (-6.7%). Qatar was hit after four Arab nations (Saudi Arabia, the United Arab Emirates, Egypt, and Bahrain) imposed an embargo, accusing the country of backing terrorism. Russia slumped because of declining oil prices and looming new sanctions. And continuing political instability in Brazil (including President Michel Temer's bribery scandal) and commodity prices weighed on the country.

Quality, growth, and momentum factors dominated the market given the returns of large cap technology companies.

Non-U.S. Small Cap: All Over the Map

+6.2%
MSCI ACWI ex US SC

Developed non-U.S. small cap stocks outperformed large cap equity, as they were better positioned for the local economic recovery in Europe. But small cap equity lagged large cap in emerging markets, due to the performance of the large cap tech companies. The **MSCI World ex USA Small Cap Index** climbed 7.3% while the **MSCI Emerging Markets Small Cap Index** increased 2.6%.

Energy was the worst-performing sector in developed and emerging markets due to declining oil prices, which also caused growth to outperform value in developed small cap. Financials, the top performing sector for the quarter, offset Energy; on the heels of positive economic data and election results, Eastern European Financials rallied.

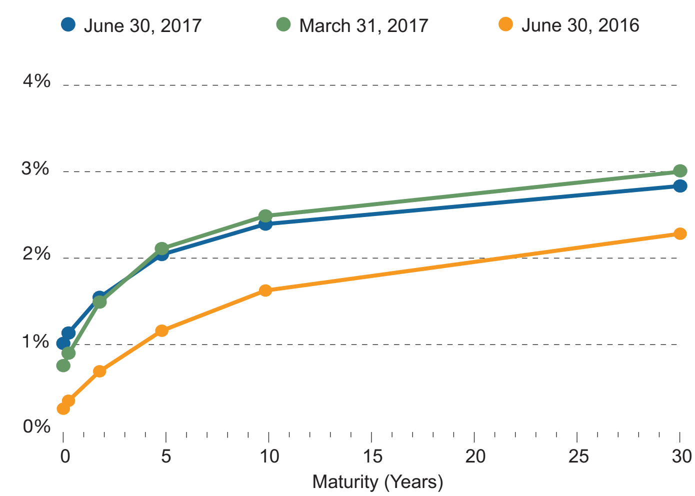
Global Fixed Income

U.S. Bonds: On the Hunt for Yield

+1.4%
BB AGGREGATE

Corporate bonds performed best in the second quarter on strong demand. Investors continued their hunt for stable yields that are higher than what is available for like-duration government bonds. The **Bloomberg Barclays US Corporate Bond Index** was up 2.5% (+3.8% year to date), while the **Bloomberg Barclays US Aggregate Bond Index** rose 1.4% (+2.3% YTD). Credit fundamentals remained strong with solid earnings growth and a modest (but acceptable) economic growth environment; corporate balance sheets appeared to be in good shape. And although rates have moved higher on the front end, overall the curve has flattened; the demand for yield is providing support for spread sectors broadly.

U.S. Treasury Yield Curves

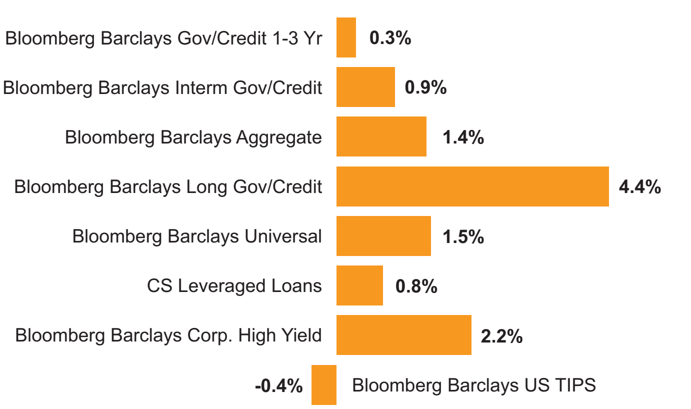


Source: Bloomberg

The **Bloomberg Barclays Corporate High Yield Index** increased 2.2%. Low interest rates continued to be a catalyst pushing investors out the risk spectrum in search of higher yields. Default expectations are low across most sectors, providing some comfort to investors. Energy was the only high-yield sector to decline (-0.66%). Rising inventories and concern over OPEC policy put pressure on oil prices, which have fallen approximately 17% so far this year.

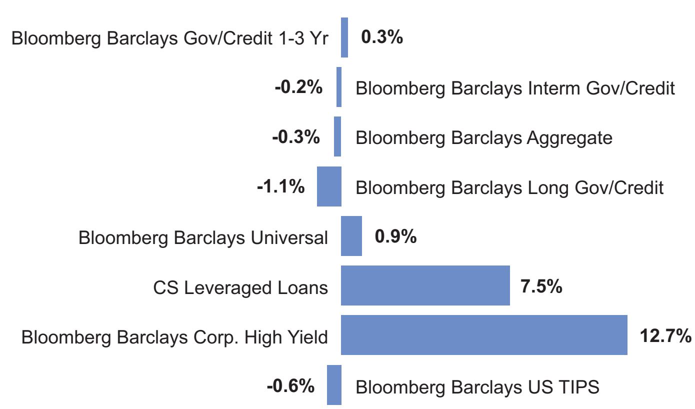
In the government market, municipal bonds outperformed Treasuries. The **Bloomberg Barclays Municipal Bond Index** was up 2.0%, compared to the **Bloomberg Barclays US Treasury Index** (+1.2%). Results were bolstered by lowered expectations for tax reform and favorable supply/demand technicals. The Fed, viewing inflation weakness as temporary, raised rates by 25 basis points, as expected. The yield curve flattened over the quarter, with short rates rising and longer

U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and Credit Suisse

U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and Credit Suisse

rates falling. The 10-year U.S. Treasury yield closed the quarter at 2.31%, down from 2.40% as of March 31, though it hit a 2017 low of 2.12% earlier in June. The 2-year U.S. Treasury yield climbed 11 bps to close at 1.38%.

TIPS underperformed as expectations for inflation sank, a reversal from the previous quarter; the **Bloomberg Barclays US TIPS Index** fell 0.4%. The 10-year breakeven spread (the difference between nominal and real yields) was 1.73% as of quarter-end, down from 1.97% at the end of the first quarter, as inflation came in below expectations for the third consecutive month.

Non-U.S. Bonds: Our Pain, Their Gain

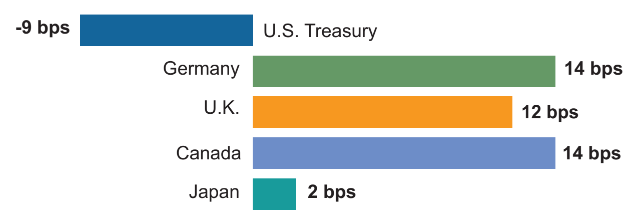
+3.5%
BB GBL AGG EX US

A weaker U.S. dollar helped unhedged non-U.S. bonds and hindered hedged bonds. The **Bloomberg Barclays Global Aggregate ex-US Bond Index** (unhedged) jumped 3.5%, while the hedged Index rose only 0.6%. The U.S. dollar lost nearly 7% versus the euro and almost 5% versus a broad basket of developed market currencies. Positive economic growth and hawkish rhetoric from the European Central Bank (ECB) and the Bank of England drove strong results in the euro and the British pound compared to the U.S. dollar. The quarter closed with an upbeat assessment of the euro zone's recovery from the president of the ECB, Mario Draghi, fueling speculation that the tapering of ECB asset purchases may be on the horizon. This change in tone spooked investors and sent global yields higher and stocks lower going into quarter-end.

Despite growing geopolitical tension and pressure on energy and commodity prices, the demand for yield drove returns in emerging market (EM) debt amid a strong technical climate supported by robust investor flows. The dollar-denominated **JPM EMBI Global Diversified Index** was up 2.2%, and the local currency-denominated **JPM GBI-EM Global Diversified Index** jumped even more sharply, rising 3.6%. The weaker U.S. dollar and relatively higher local yields pushed EM local debt returns higher for the quarter and the year, continuing the post-election rebound.

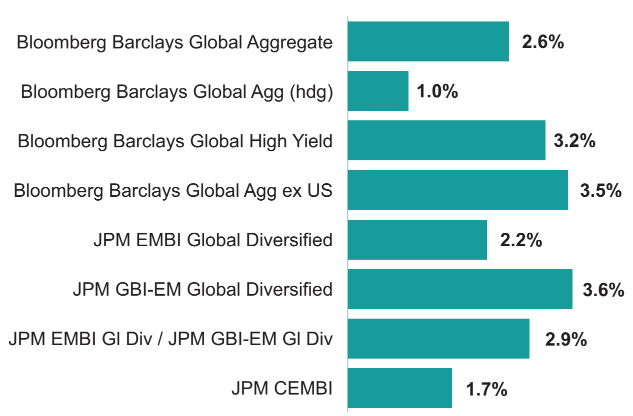
Change in 10-year Global Government Bond Yields

1Q17 to 2Q17



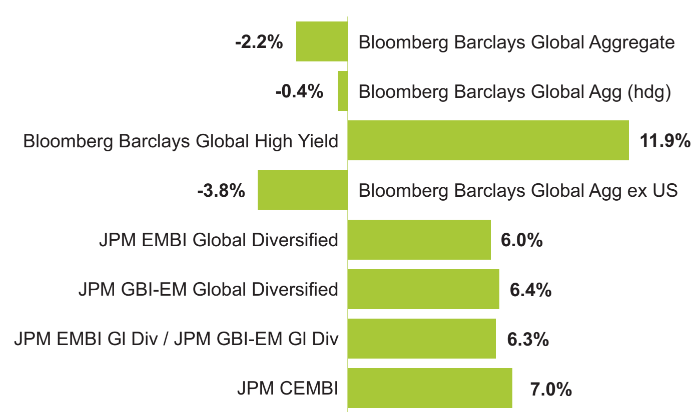
Source: Bloomberg Barclays

Non-U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and JP Morgan

Non-U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and JP Morgan

Some Positive Signs Emerging

REAL ESTATE | Kevin Nagy

The **NCREIF Property Index** advanced 1.8% during the second quarter (1.2% from income and 0.6% from appreciation). This marked the 34th consecutive quarter of positive returns for the Index. Appreciation return increased from the previous quarter, the first such gain since the first quarter of 2015.

Industrial (+3.1%) was the best-performing sector for the fifth consecutive quarter with Hotel (+1.8%), Office (+1.6%), Retail (+1.5%), and Apartments (+1.5%) also gaining. The West region was the strongest performer for the third quarter in a row, returning 2.2%, and the Midwest lagged with a 1.3% return. Transaction volume increased to $7.7 billion, up 11% from the first quarter but down 14.5% from the second quarter of 2016. Appraisal capitalization rates increased to 4.5%, slightly up from last quarter. Transaction capitalization rates fell to 6.1% from last quarter's 12-quarter high of 6.3%. The spread between appraisal and transaction rates decreased to 1.6 percentage points.

Occupancy rates fell for the second consecutive quarter to 92.8%. Apartment and Retail occupancy rates increased slightly while Industrial and Office rates decreased.

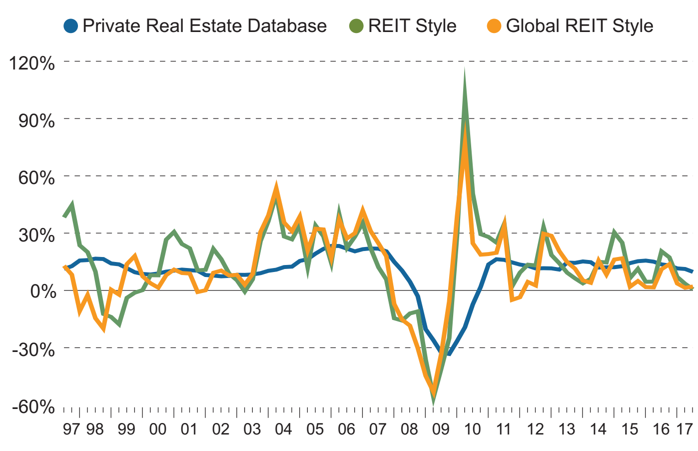
The **NCREIF Open End Diversified Core Equity Index** rose 1.7% (1.1% from income and 0.6% from appreciation), a decline from the first quarter and the lowest since 2010. Income returns increased slightly and appreciation fell to a new seven-year low.

Global real estate investment trusts (REITs), tracked by the **FTSE EPRA/NAREIT Developed REIT Index** (USD), posted a 3.1% return, outpacing U.S. REITs, which gained 1.5% as measured by the **FTSE NAREIT Equity REITs Index**.

In the U.S., REITs rebounded in June after being relatively flat in April and negative in May. Retail (-7.6%) was again the worst performer, depressed by weak earnings results from large retailers and the growing market share of e-commerce. Self-Storage (-2.7%), Specialty (-0.6%), and Timber (-0.1%) also fell. Health Care (+5.3%) remained strong as efforts to overturn the Affordable Care Act faltered. Industrial (+12.0%), Data Centers (+9.2%), Infrastructure (+8.8%), and Residential (+6.0%) all experienced strong gains.

Europe, as represented by the **FTSE EPRA/NAREIT Europe Index**, was the strongest performing region, returning 10.6% in U.S. dollar terms. The euro's appreciation against the dollar was a major driver of returns, as was strong, diversified growth across the majority of the region's economies. The successful takeover of several Spanish and Italian banks boosted continental European stocks and helped them outperform their U.K. peers.

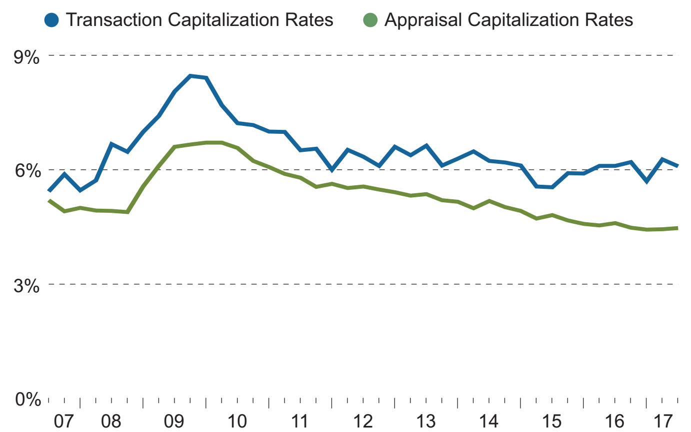
Rolling One-Year Returns



Source: Callan

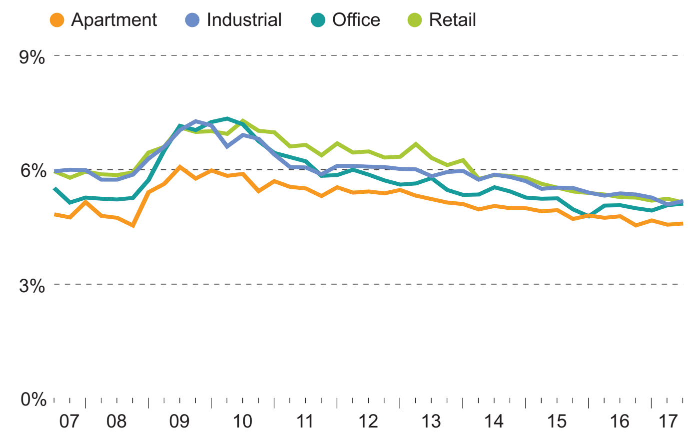
*Index subreturns are calculated separately from index return and may not total.

NCREIF Transaction and Appraisal Capitalization Rates



Source: NCREIF
Note: Transaction capitalization rate is equal weighted.

NCREIF Capitalization Rates by Property Type



Source: NCREIF
Note: Capitalization rates are appraisal-based.

The Asia-Pacific region outperformed the U.S. but lagged Europe. Singapore and Hong Kong again provided the strongest regional performance while Australia lagged behind, hurt by a weak retail sector. Japanese REITs suffered negative returns this quarter, but strong results from Japanese developers were enough to push the aggregate real estate index to a positive return.

Commercial mortgage-backed securities (CMBS) issuance for the quarter increased to $20.2 billion, a 79% increase over $13.9 billion in the first quarter. This also represented a 44.1% increase over the second quarter of 2016 ($11.3 billion).

Happy Campers

PRIVATE EQUITY | Gary Robertson

New private equity partnership commitments totaled $85.5 billion in the second quarter, with 319 new partnerships formed, according to *Private Equity Analyst.* The number of funds increased 3% from 310 in the first quarter, and the dollar volume rose 7% from $80.0 billion. Apollo IX raised the most capital in the quarter, $23.5 billion, and subsequently topped up to $24.6 billion for the final close—the largest buyout fund ever raised. The largest European (CVC VII: $19 billion) and Asian (KKR Asia III: $9.3 billion) funds were also closed this quarter.

Funds Closed January 1 to June 30, 2017

Strategy	No. of Funds	Amt ($mm)	Percent
Venture Capital	282	16,421	10%
Buyouts	220	120,352	73%
Subordinated Debt	26	7,326	4%
Distressed Debt	13	7,189	4%
Secondary and Other	23	5,249	3%
Fund-of-funds	65	8,945	5%
Totals	**629**	**165,481**	**100%**

Source: Private Equity Analyst
Figures may not total due to rounding.

Investments by funds into companies totaled 127 deals, up 69% from 75 in the prior quarter, according to *Buyouts* newsletter. The announced total volume was $72 billion, up 177% from $26 billion in the first quarter. Fifteen deals with announced values of $1 billion or more closed in the quarter.

New investments in venture capital companies totaled 1,963 rounds of financing with $21.8 billion of announced value, according to the National Venture Capital Association. The number of rounds closely mirrored the 1,954 in the first quarter, but announced dollar value increased 36% from $16.0 billion.

Buyouts reports there were 161 private M&A exits of buyout-backed companies, with 41 deals disclosing values totaling $18.3 billion. The M&A exit count was flat with the prior quarter's 162, but the announced value increased 15% from $15.9 billion. There were seven buyout-backed IPOs in the second quarter (a two-year high), raising an aggregate $2.0 billion. The number increased from five the prior quarter, but the total proceeds decreased from $3.1 billion.

Venture-backed exits (both private sales and IPOs) totaled 156 transactions, and disclosed value totaled $10.5 billion. Exits declined 19% from the first quarter's 192, and the dollar volume declined 28% from $14.6 billion.

Please see our upcoming issue of Private Markets Trends for more in-depth coverage.

Private Equity Performance Database (%) (Pooled Horizon IRRs through March 31, 2017*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	3.17	6.77	12.30	14.35	9.71	7.66	21.22
Growth Equity	4.16	12.02	9.70	11.51	10.34	11.37	13.60
All Buyouts	4.34	14.55	10.29	12.76	9.19	13.54	12.56
Mezzanine	2.83	9.47	8.13	9.70	8.83	9.52	9.06
Distressed	3.37	14.72	6.83	10.55	9.29	10.83	10.70
All Private Equity	**3.95**	**12.61**	**10.07**	**12.52**	**9.39**	**11.70**	**13.15**
S&P 500	6.07	17.17	10.37	13.30	7.51	7.09	7.86
Russell 3000	5.74	18.07	9.76	13.18	7.54	7.44	8.11

Private equity returns are net of fees.
Sources: Standard & Poor's and Thomson Reuters/Cambridge
*Most recent data available at time of publication.

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of *Capital Market Review* and other Callan publications.

As the World Churns, Despacito

HEDGE FUNDS | Jim McKee

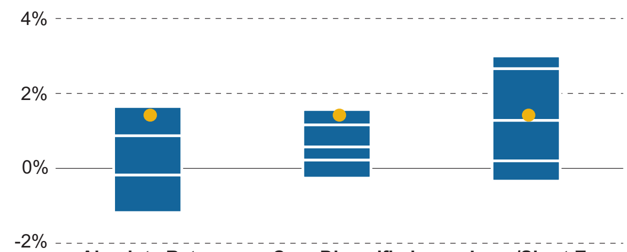
Stock lovers embraced the slowly shifting narrative of global growth appearing in Europe and Japan in the second quarter. Fixed income markets were unsettled when the European Central Bank hinted at potentially tapering its bond purchase program.

The quarter's market conditions provided a friendly setting for hedge funds seeking alternative risks. Illustrating raw hedge fund performance without implementation costs, though net of underlying hedge fund fees, the **Credit Suisse Hedge Fund Index** (CS HFI) rose 0.8%. As a live hedge fund portfolio, net of all fees and expenses, the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 0.9%.

Within the CS HFI, *Long/Short Equity* (+3.1%) repeated as the best-performing strategy for the second straight quarter. *Risk Arbitrage* rallied 2.7% while *Distressed* appreciated 1.6%. *Convertible Arb* (+0.2%) and *Equity Market Neutral* (+0.4%) experienced more modest gains. In last place for the second straight quarter, *Managed Futures* lost 3.4%. Even the more discretionary *Global Macro* (-1.8%) lost its footing with the unexpected turn of top-down themes.

Within Callan's **Hedge Fund-of-Funds Database,** the median *Callan Long/Short Equity FOF* (+1.3%) outpaced the *Callan Absolute Return FOF* (+0.9%). With diversifying exposures to both non-directional and directional styles, the *Core Diversified FOF* gained 0.6%.

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Eq FOF Style
10th Percentile	1.70	1.57	3.00
25th Percentile	1.65	1.16	2.66
Median	0.87	0.57	1.28
75th Percentile	-0.18	0.22	0.20
90th Percentile	-1.18	-0.26	-0.34
T-Bill + 5% ●	1.42	1.42	1.42

Sources: Callan and Merrill Lynch

Callan Database Median and Index Returns* for Periods ended June 30, 2017

	Quarter	YTD	Year	3 Years	5 Years	10 Years	15 Years
Hedge Fund-of-Funds Database	**0.94**	**3.26**	**8.12**	**1.78**	**5.39**	**2.90**	**4.88**
CS Hedge Fund Index	0.76	2.85	5.84	1.54	4.47	3.18	5.84
CS Equity Market Neutral	0.36	2.50	1.38	-0.40	1.89	-3.18	0.42
CS Convertible Arbitrage	0.21	2.46	6.82	1.90	3.53	3.42	4.67
CS Fixed Income Arbitrage	1.62	3.97	8.66	3.26	4.62	3.44	4.11
CS Multi-Strategy	2.29	5.11	9.05	5.53	7.41	4.88	7.02
CS Distressed	1.64	3.90	10.58	0.28	5.90	3.45	7.25
CS Risk Arbitrage	2.73	3.97	7.19	1.89	3.18	3.23	3.95
CS Event-Driven Multi-Strategy	0.76	3.67	8.73	-2.05	4.09	2.83	6.30
CS Long/Short Equity	3.06	6.62	8.40	2.97	7.00	3.73	6.49
CS Global Macro	-1.77	-1.54	3.58	1.43	2.79	4.85	7.47
CS Managed Futures	-3.40	-4.38	-12.70	1.26	0.06	1.49	4.07
CS Emerging Markets	2.67	7.05	11.25	4.30	5.91	3.47	8.10

*Returns less than one year are not annualized. Sources: Callan and Credit Suisse.

Best Return for DC Index Since 2013

DEFINED CONTRIBUTION | Tom Szkwarla

The Callan DC Index™ climbed 4.7% in the first quarter, its highest quarterly return since the end of 2013. This performance builds on results for 2016, when the Index rose 8.0%. But the DC Index did markedly lag the Age 45 Target Date Fund (+5.6%). In rising markets target date funds (TDFs) tend to outperform the DC Index because the average TDF has a higher allocation to equities than the average defined contribution (DC) plan.

During the quarter, plan balances grew 4.74%; investment returns accounted for the vast majority (4.67% vs. 0.07% for contributions). Since inception of the Index, plan sponsor and participant contributions have accounted for about a quarter of its growth.

Emerging market stocks, while a small part of DC plans, represented the sole equity asset class to witness inflows. This is not surprising given their strong showing during the period—DC flows often chase performance. Most other asset classes saw outflows in the first quarter, with the exception of TDFs, which dominated inflows as usual. In the first quarter, TDFs attracted over 88 cents of every dollar that moved within DC plans.

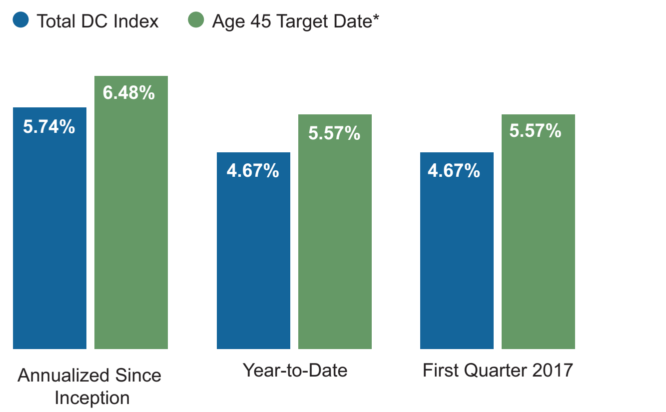
Turnover (i.e., net transfer activity within DC plans) was low this quarter (0.42%) compared to the historical average (0.64%).

The Callan DC Index's equity allocation ended the quarter at 69%, well below the average equity allocation of the Age 45 Target Date Fund (76%) but above the Index's historical average (67%).

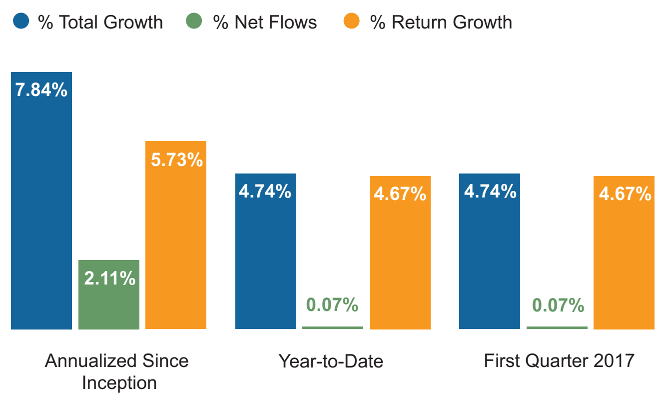
When TDFs are held within a DC plan, they now account for 32% of plan assets. The next largest plan holding, U.S. large cap equity funds, account for less than 23% of plan assets.

The Callan DC Index is an equally weighted index tracking the cash flows and performance of nearly 90 plans, representing more than one million DC participants and over $135 billion in assets. The Index is updated quarterly and is available on Callan's website, as is the quarterly DC Observer newsletter.

Investment Performance



Growth Sources



Net Cash Flow Analysis (First Quarter 2017)
(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	88.69%
U.S. Fixed Income	7.25%
Company Stock	-15.92%
Stable Value	-36.49%
Total Turnover**	**0.42%**

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

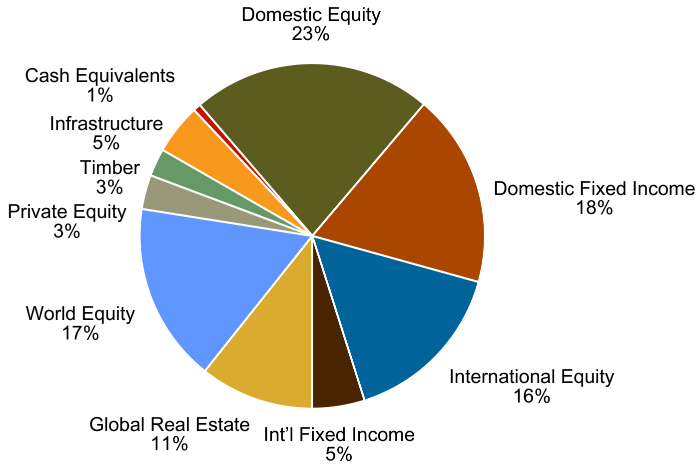
* The Age 45 Fund transitioned from the average 2030 TDF to the 2035 TDF in June 2013.

** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

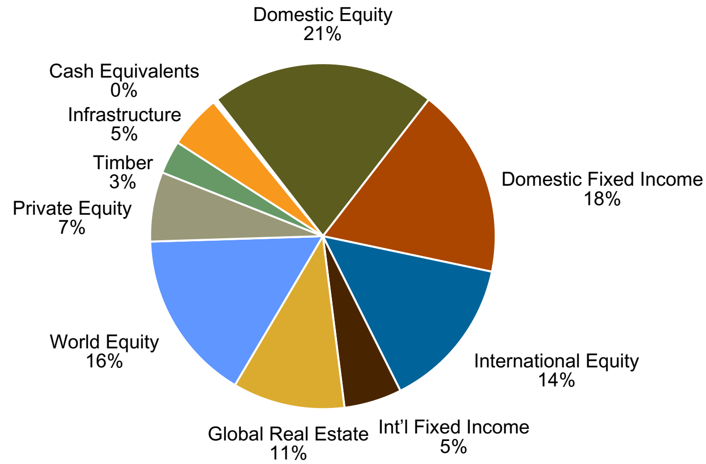
Actual vs Target Asset Allocation
As of June 30, 2017

The top left chart shows the Fund's asset allocation as of June 30, 2017. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the CAI Public Fund Sponsor Database.

Actual Asset Allocation

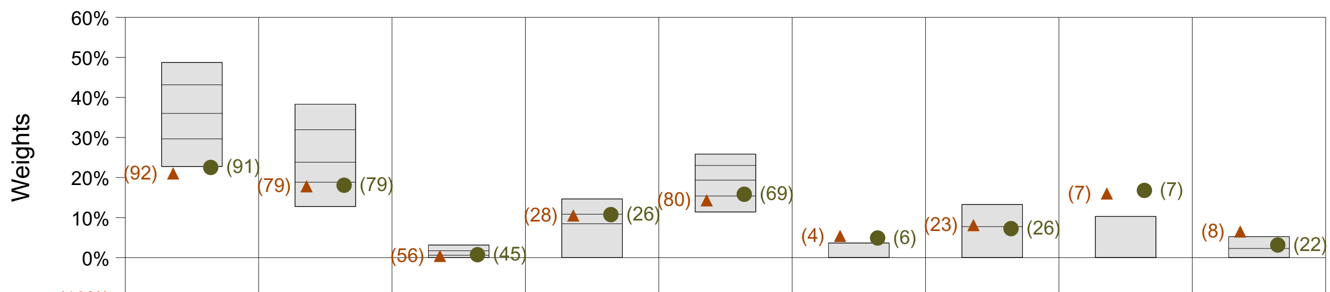


Target Asset Allocation



Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	1,193,659	22.5%	21.0%	1.5%	80,826
Domestic Fixed Income	958,310	18.1%	17.8%	0.3%	15,051
International Equity	838,649	15.8%	14.3%	1.5%	80,863
Int'l Fixed Income	259,750	4.9%	5.4%	(0.5%)	(26,407)
Global Real Estate	569,154	10.7%	10.5%	0.2%	12,738
World Equity	889,574	16.8%	16.0%	0.8%	41,701
Private Equity	167,162	3.2%	6.5%	(3.3%)	(177,286)
Timber	136,488	2.6%	3.1%	(0.5%)	(27,787)
Infrastructure	247,530	4.7%	5.0%	(0.3%)	(17,430)
Cash Equivalents	38,929	0.7%	0.4%	0.3%	17,733
Total	5,299,205	100.0%	100.0%		

Asset Class Weights vs CAI Public Fund Sponsor Database



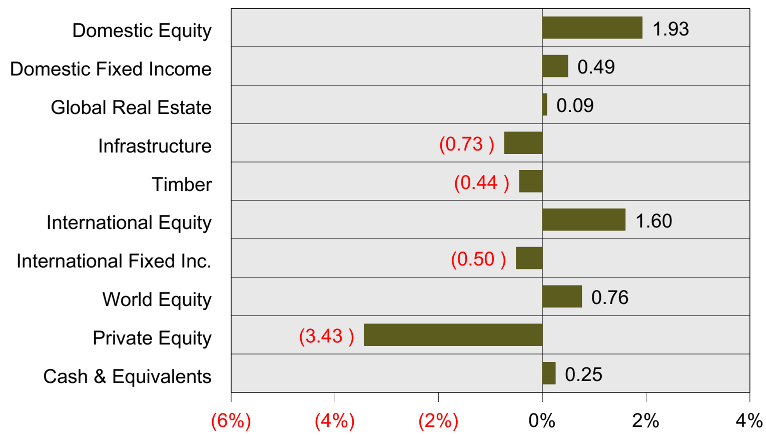
	Domestic Equity	Domestic Fixed Income	Cash Equivalents	Global Real Estate	International Equity	Int'l Fixed Income	Alternative	World Equity	Private Equity
10th Percentile	48.74	38.31	3.15	14.66	25.85	3.65	13.27	10.30	5.23
25th Percentile	43.15	31.94	1.72	10.84	23.01	0.00	7.74	0.00	2.29
Median	36.02	23.83	0.61	8.45	19.36	0.00	0.00	0.00	0.00
75th Percentile	29.66	18.84	0.00	0.00	15.39	0.00	0.00	0.00	0.00
90th Percentile	22.74	12.76	0.00	0.00	11.40	0.00	0.00	0.00	0.00
Fund ●	22.53	18.08	0.73	10.74	15.83	4.90	7.25	16.79	3.15
Target ▲	21.00	17.80	0.40	10.50	14.30	5.40	8.10	16.00	6.50
% Group Invested	96.10%	97.40%	70.13%	70.13%	90.91%	13.64%	14.94%	12.99%	32.47%

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

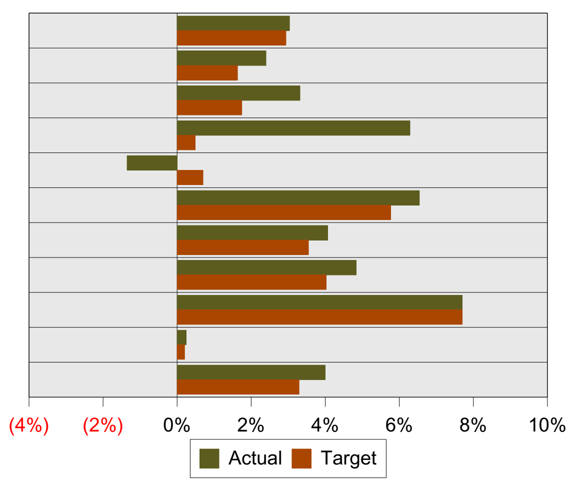
Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

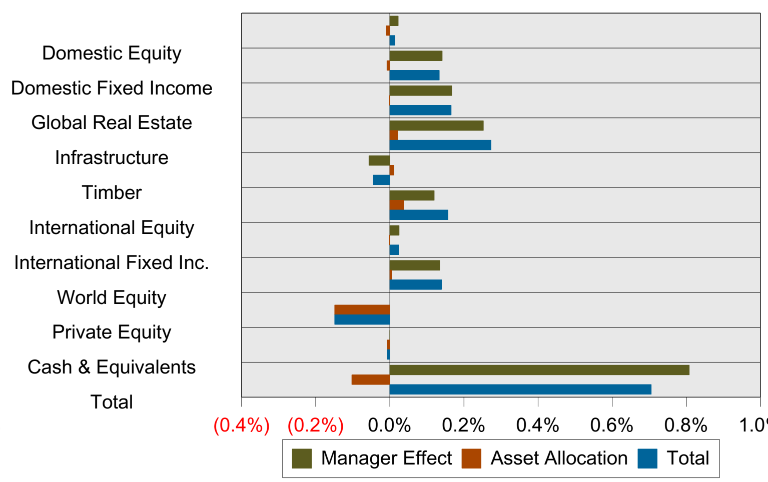
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2017

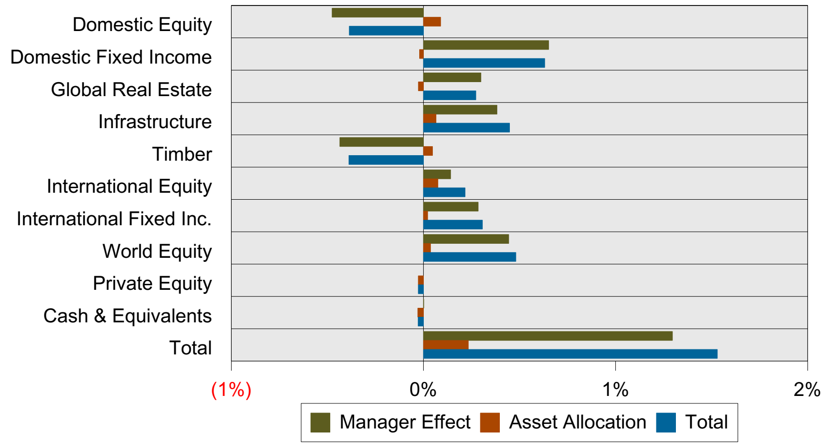
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	3.04%	2.94%	0.02%	(0.01%)	0.01%
Domestic Fixed Income	18%	18%	2.40%	1.63%	0.14%	(0.01%)	0.13%
Global Real Estate	11%	10%	3.32%	1.75%	0.17%	(0.00%)	0.17%
Infrastructure	4%	5%	6.29%	0.49%	0.25%	0.02%	0.27%
Timber	3%	3%	(1.35%)	0.70%	(0.06%)	0.01%	(0.05%)
International Equity	16%	14%	6.54%	5.77%	0.12%	0.04%	0.16%
International Fixed Inc.	5%	5%	4.07%	3.55%	0.03%	(0.00%)	0.02%
World Equity	17%	16%	4.84%	4.03%	0.13%	0.00%	0.14%
Private Equity	3%	6%	7.70%	7.70%	0.00%	(0.15%)	(0.15%)
Cash & Equivalents	1%	0%	0.24%	0.20%	0.00%	(0.01%)	(0.01%)
Total			**4.00%**	**= 3.29%**	**+ 0.81%**	**+ (0.10%)**	**0.71%**

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

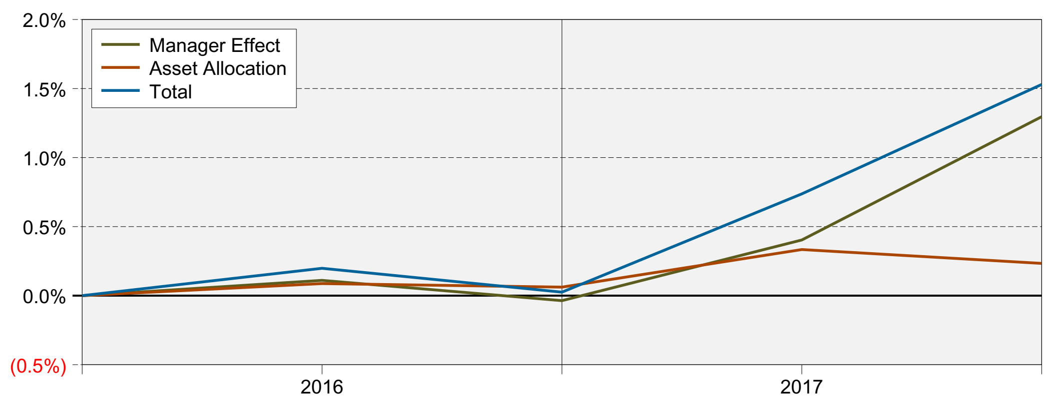
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	17.39%	19.61%	(0.48%)	0.09%	(0.39%)
Domestic Fixed Income	18%	18%	6.36%	2.95%	0.65%	(0.02%)	0.63%
Global Real Estate	11%	10%	9.65%	6.97%	0.30%	(0.03%)	0.27%
Infrastructure	4%	5%	9.73%	1.50%	0.38%	0.07%	0.45%
Timber	3%	3%	(9.44%)	3.35%	(0.44%)	0.05%	(0.39%)
International Equity	15%	14%	21.36%	20.45%	0.14%	0.08%	0.22%
International Fixed Inc.	5%	5%	1.15%	(3.80%)	0.28%	0.02%	0.31%
World Equity	17%	16%	21.02%	18.20%	0.44%	0.04%	0.48%
Private Equity	3%	6%	11.11%	11.11%	0.00%	(0.03%)	(0.03%)
Cash & Equivalents	1%	1%	0.72%	0.49%	0.00%	(0.03%)	(0.03%)
Total			**13.27% =**	**11.74% +**	**1.30% +**	**0.23%**	**1.53%**

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

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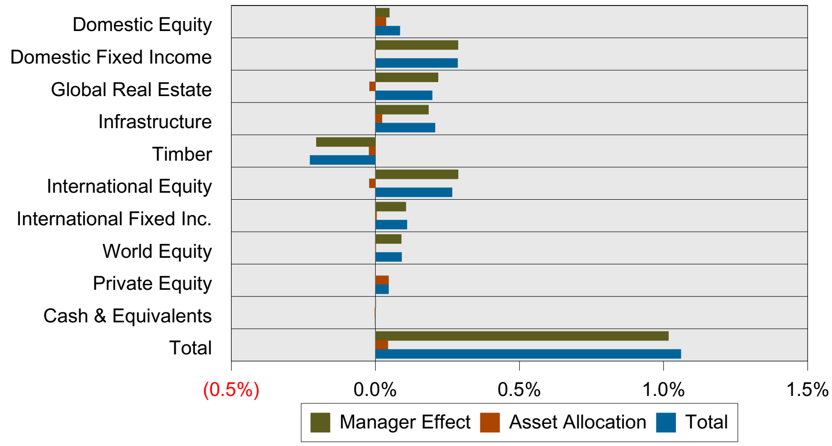
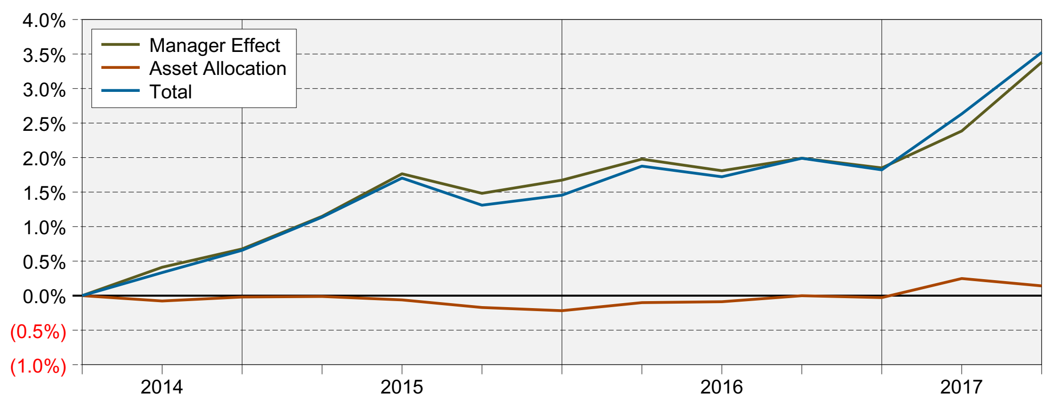
Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

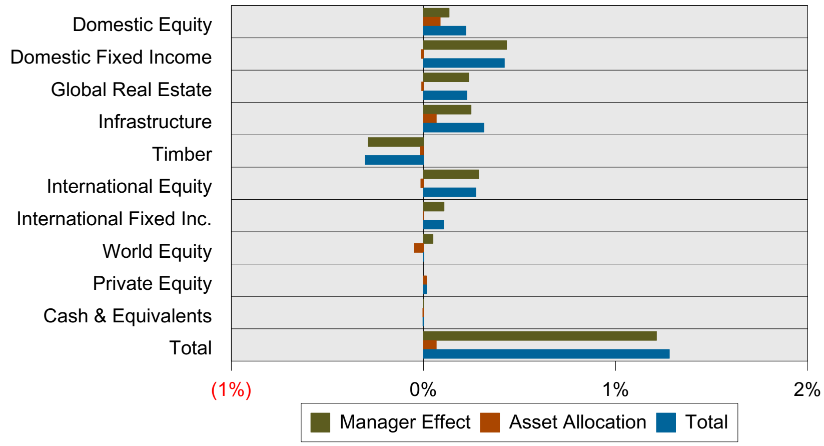
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	9.16%	8.91%	0.05%	0.04%	0.08%
Domestic Fixed Income	19%	18%	4.56%	3.03%	0.29%	(0.00%)	0.28%
Global Real Estate	10%	10%	12.36%	10.17%	0.22%	(0.02%)	0.20%
Infrastructure	4%	5%	4.81%	0.58%	0.18%	0.02%	0.21%
Timber	3%	4%	(0.60%)	5.54%	(0.20%)	(0.02%)	(0.23%)
International Equity	15%	14%	2.94%	1.06%	0.29%	(0.02%)	0.27%
International Fixed Inc.	5%	5%	(0.37%)	(2.42%)	0.11%	0.00%	0.11%
World Equity	16%	16%	5.78%	5.24%	0.09%	0.00%	0.09%
Private Equity	4%	5%	(0.81%)	(0.81%)	0.00%	0.05%	0.05%
Cash & Equivalents	1%	1%	0.36%	0.23%	0.00%	(0.00%)	(0.00%)
Total			**5.79% =**	**4.73% +**	**1.02% +**	**0.04%**	**1.06%**

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

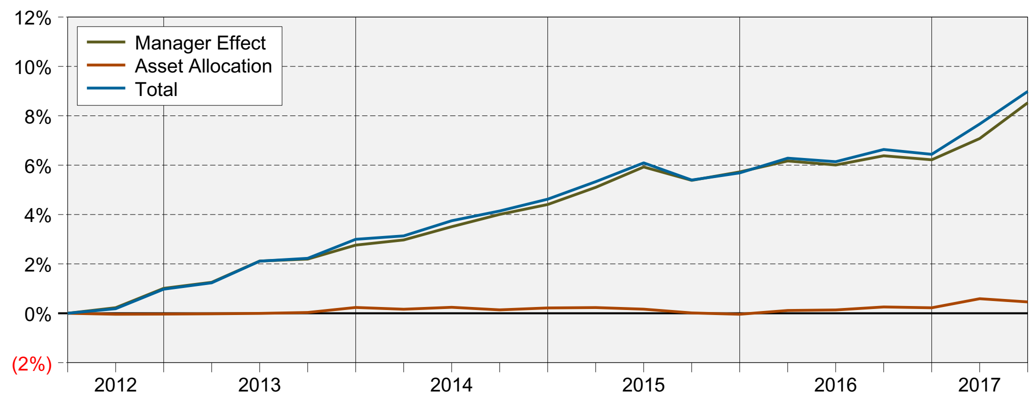
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

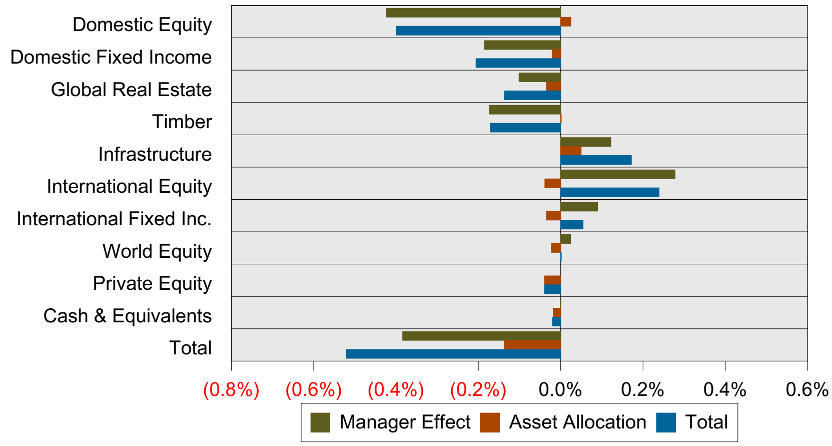
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	22%	15.13%	14.51%	0.13%	0.09%	0.22%
Domestic Fixed Income	19%	18%	5.77%	3.49%	0.43%	(0.01%)	0.42%
Global Real Estate	10%	10%	12.96%	10.49%	0.24%	(0.01%)	0.23%
Infrastructure	4%	5%	7.20%	1.11%	0.25%	0.07%	0.32%
Timber	4%	5%	0.27%	7.16%	(0.29%)	(0.02%)	(0.30%)
International Equity	15%	15%	9.59%	7.62%	0.29%	(0.01%)	0.27%
International Fixed Inc.	5%	5%	1.60%	(0.36%)	0.11%	(0.00%)	0.11%
World Equity	15%	15%	11.31%	11.38%	0.05%	(0.05%)	0.00%
Private Equity	4%	5%	1.62%	1.62%	0.00%	0.02%	0.02%
Cash & Equivalents	1%	1%	0.24%	0.17%	0.00%	(0.00%)	(0.00%)
Total			**9.49% =**	**8.20% +**	**1.21% +**	**0.07%**	**1.28%**

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

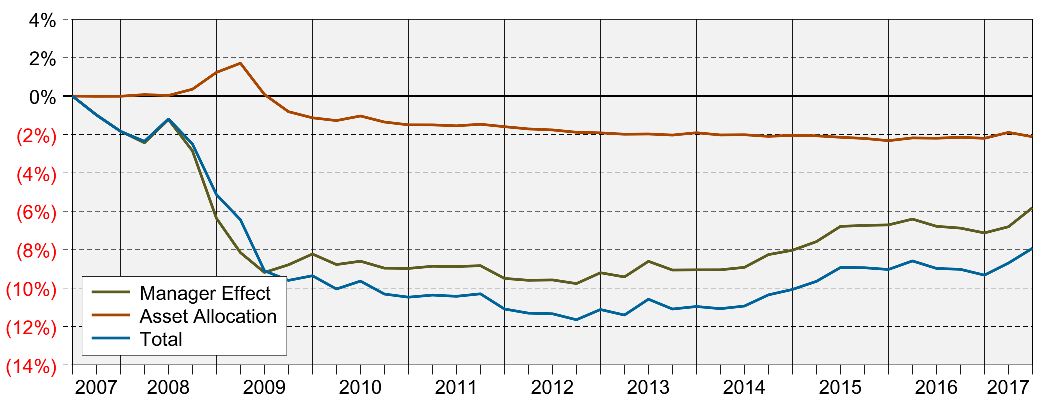
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Ten Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Ten Year Annualized Relative Attribution Effects

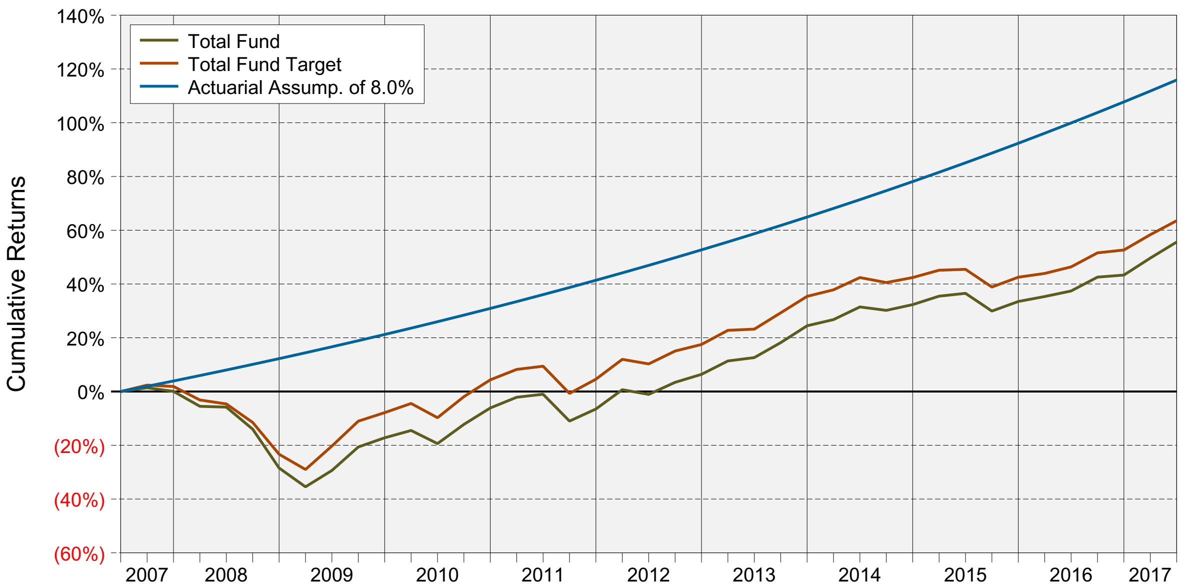
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Domestic Equity	29%	30%	5.96%		7.19%		(0.42%)		0.02%	(0.40%)
Domestic Fixed Income	22%	21%	5.41%		5.51%		(0.18%)		(0.02%)	(0.21%)
Global Real Estate	9%	9%	5.13%		6.42%		(0.10%)		(0.04%)	(0.14%)
Timber	2%	3%	-		-		(0.17%)		0.00%	(0.17%)
Infrastructure	2%	3%	-		-		0.12%		0.05%	0.17%
International Equity	16%	17%	2.90%		1.28%		0.28%		(0.04%)	0.24%
International Fixed Inc.	5%	5%	5.06%		3.42%		0.09%		(0.03%)	0.05%
World Equity	8%	8%	-		-		0.02%		(0.02%)	0.00%
Private Equity	4%	5%	0.12%		0.12%		0.00%		(0.04%)	(0.04%)
Cash & Equivalents	1%	1%	0.36%		0.58%		(0.00%)		(0.02%)	(0.02%)
Total			**4.52%**	**=**	**5.04%**	**+**	**(0.38%)**	**+**	**(0.14%)**	**(0.52%)**

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

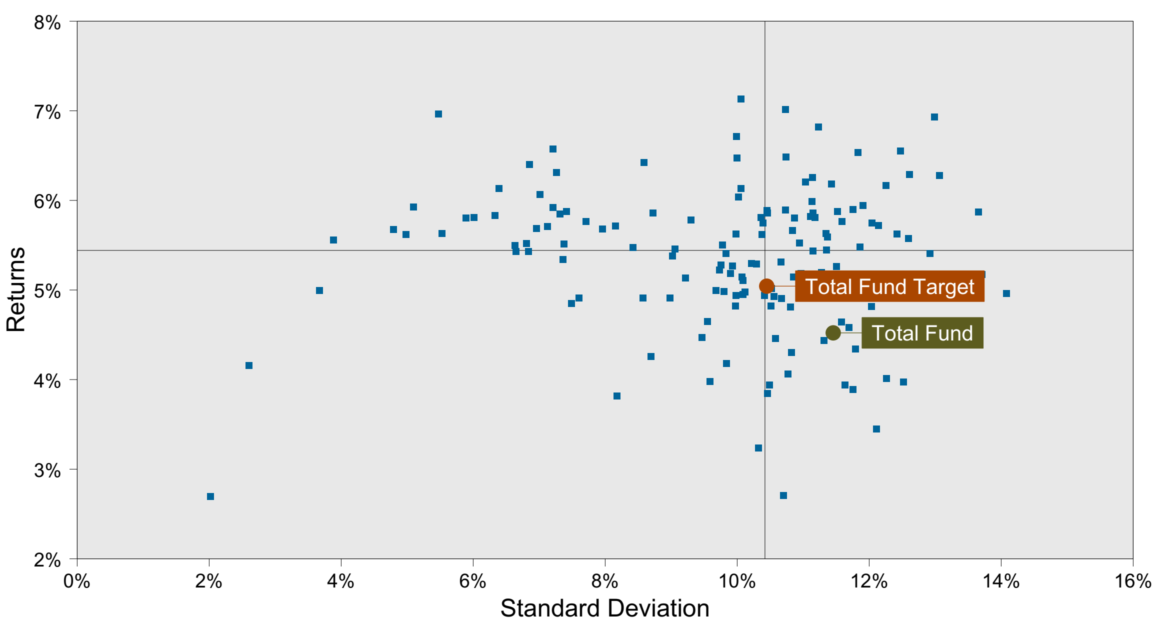
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Ten Year Annualized Risk vs Return



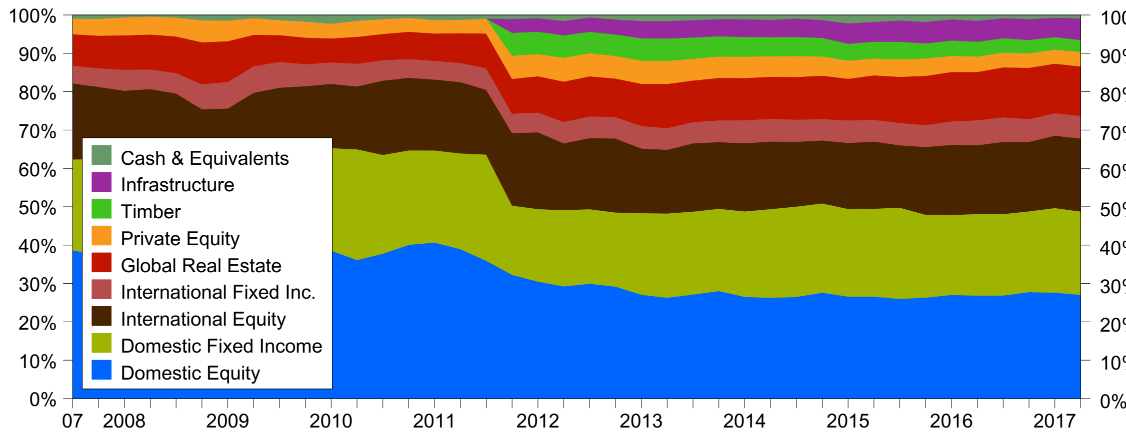
Squares represent membership of the CAI Public Fund Sponsor Database

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

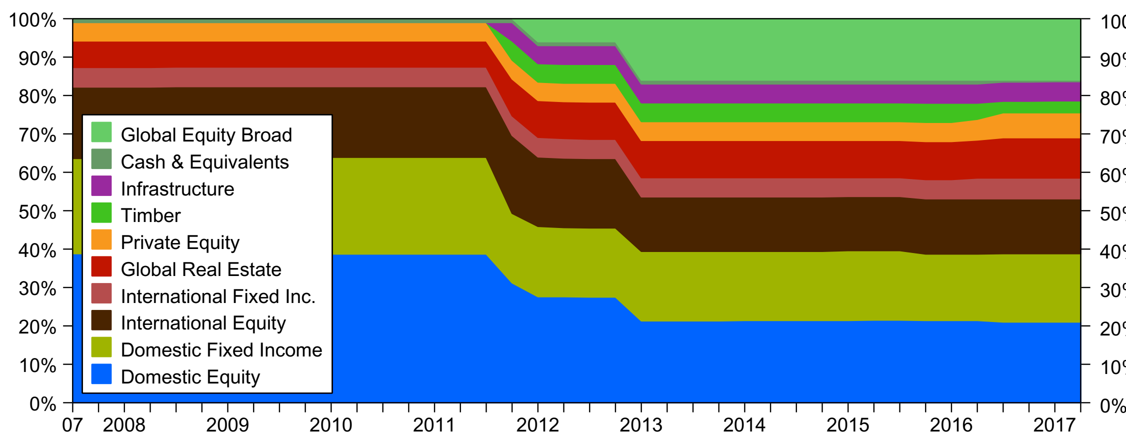
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.

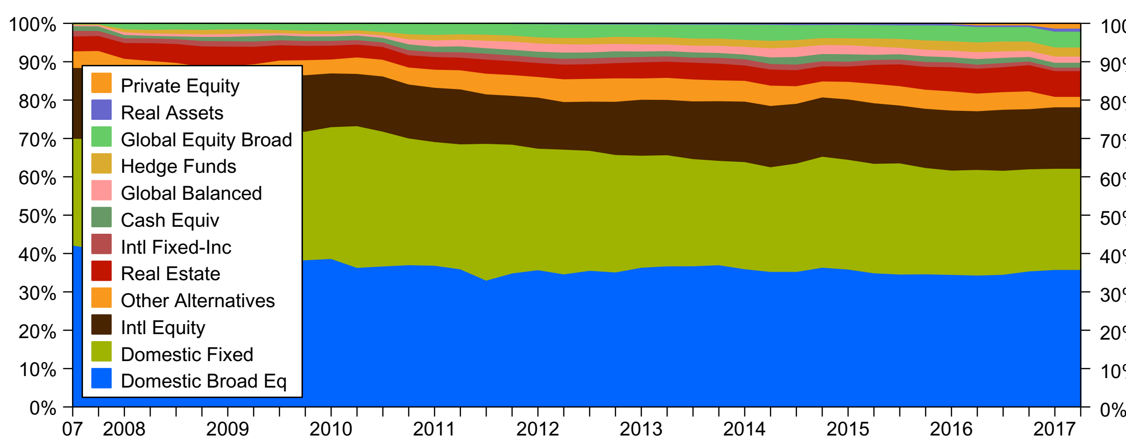
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average CAI Public Fund Sponsor Database Historical Asset Allocation

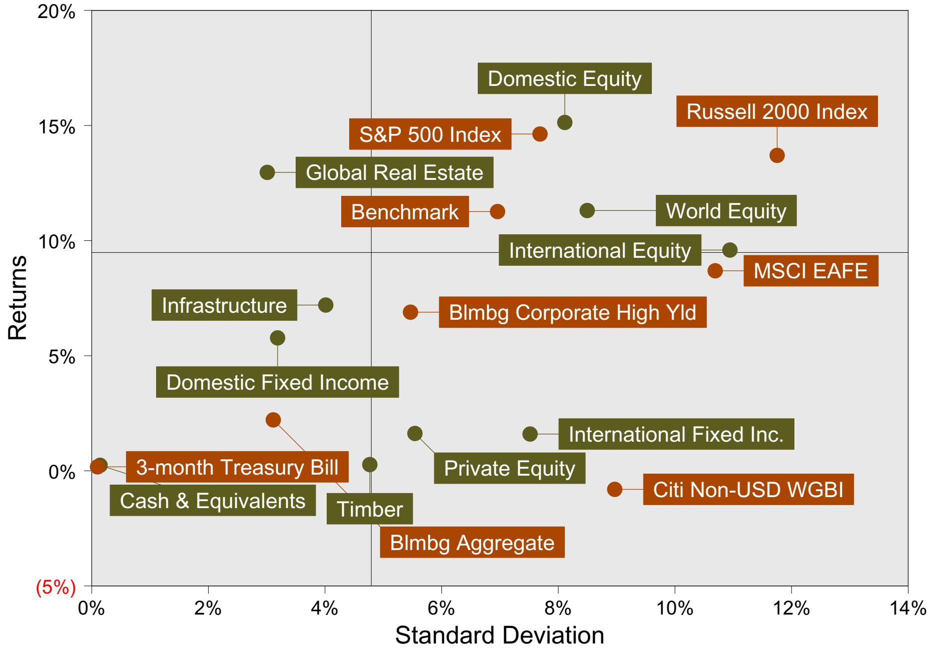


* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

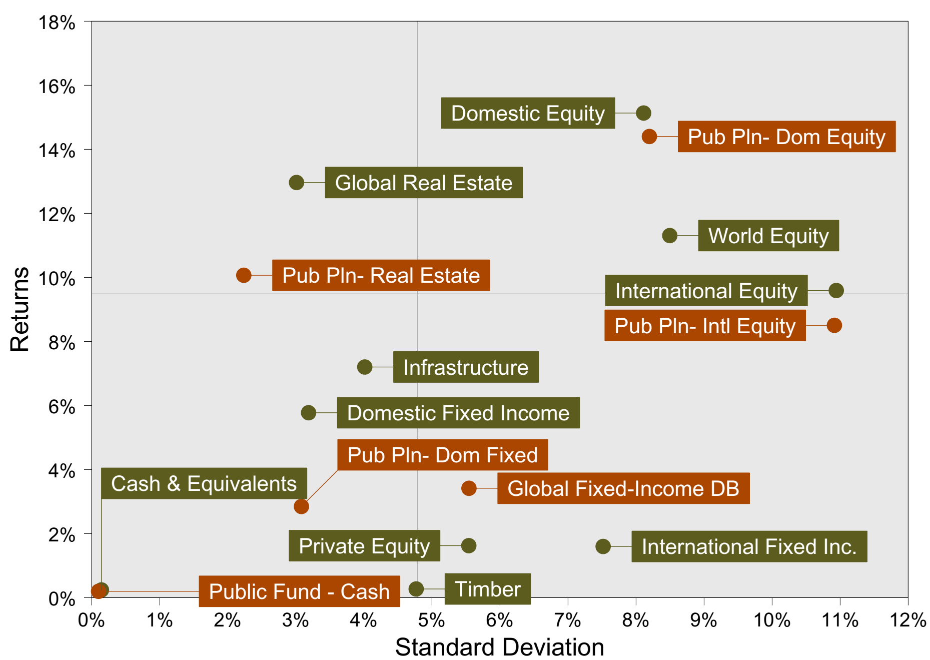
Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

Five Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices



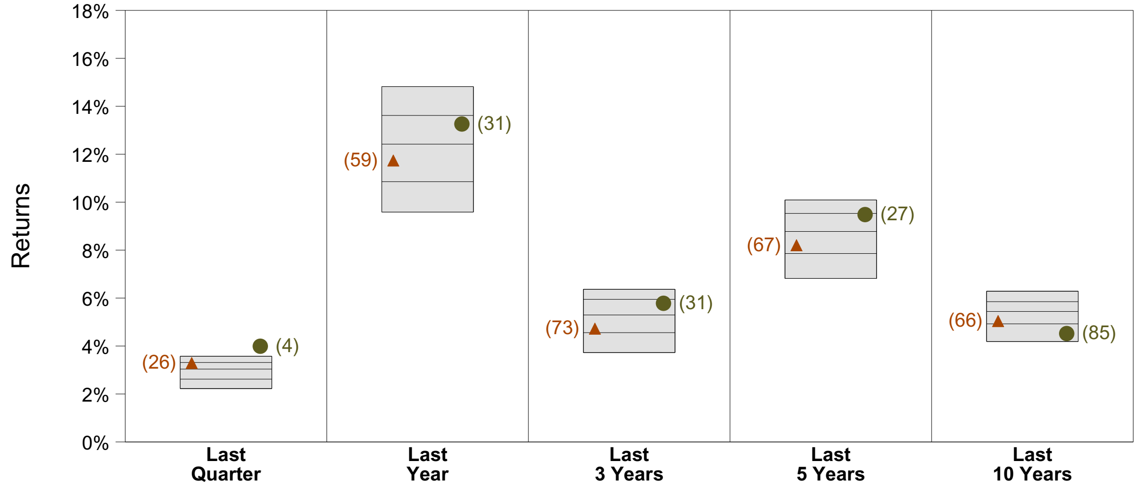
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

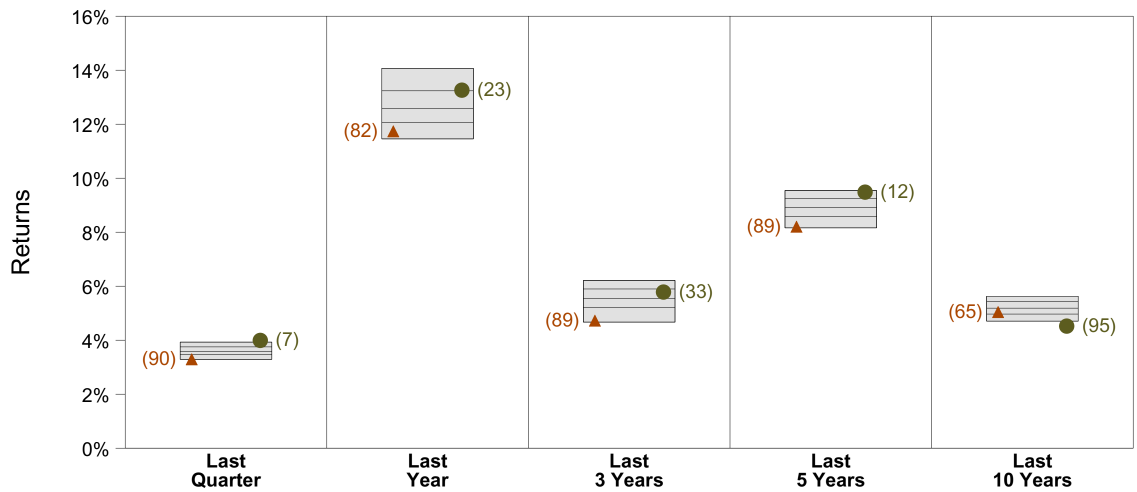
The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2017. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

CAI Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	3.57	14.82	6.37	10.09	6.29
25th Percentile	3.31	13.62	5.95	9.53	5.85
Median	3.04	12.42	5.30	8.78	5.44
75th Percentile	2.62	10.86	4.56	7.86	4.93
90th Percentile	2.23	9.59	3.73	6.82	4.19
Total Fund ●	3.99	13.26	5.78	9.48	4.52
Policy Target ▲	3.29	11.74	4.73	8.20	5.04

Asset Allocation Adjusted Ranking



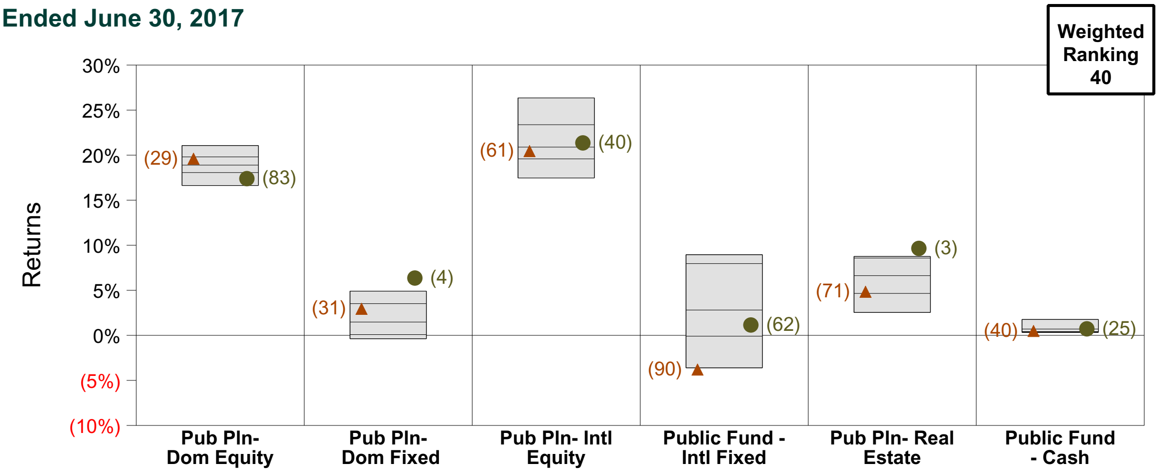
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	3.93	14.07	6.21	9.54	5.63
25th Percentile	3.75	13.24	5.90	9.25	5.44
Median	3.58	12.58	5.55	8.91	5.19
75th Percentile	3.47	12.06	5.22	8.59	4.97
90th Percentile	3.29	11.46	4.67	8.16	4.71
Total Fund ●	3.99	13.26	5.78	9.48	4.52
Policy Target ▲	3.29	11.74	4.73	8.20	5.04

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

Asset Class Rankings

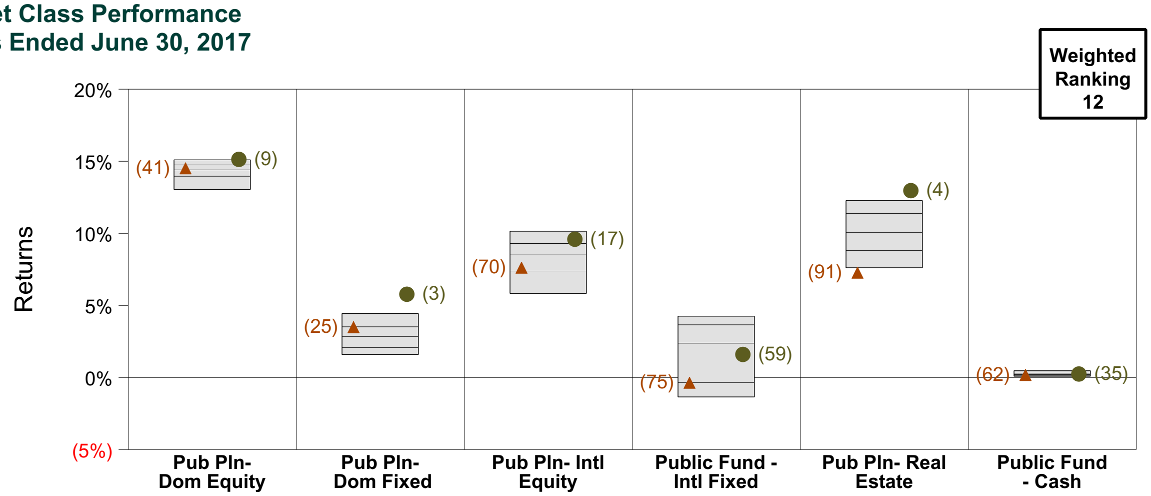
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance
One Year Ended June 30, 2017



	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	21.07	4.91	26.36	8.96	8.76	1.77
25th Percentile	19.81	3.52	23.38	7.97	8.58	0.70
Median	18.90	1.48	20.90	2.81	6.63	0.42
75th Percentile	18.07	0.08	19.59	(0.09)	4.66	0.35
90th Percentile	16.63	(0.38)	17.47	(3.61)	2.54	0.33
Asset Class Composite ●	17.39	6.36	21.36	1.15	9.65	0.72
Composite Benchmark ▲	19.61	2.95	20.45	(3.80)	4.84	0.49

Total Asset Class Performance
Five Years Ended June 30, 2017



	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.10	4.43	10.15	4.25	12.27	0.47
25th Percentile	14.74	3.52	9.29	3.66	11.38	0.30
Median	14.40	2.85	8.50	2.38	10.07	0.20
75th Percentile	13.96	2.08	7.38	(0.35)	8.81	0.14
90th Percentile	13.05	1.59	5.83	(1.35)	7.61	0.09
Asset Class Composite ●	15.13	5.77	9.59	1.60	12.96	0.24
Composite Benchmark ▲	14.51	3.49	7.62	(0.36)	7.27	0.17

* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	**$3,089,044,149**	**58.29%**	**$(33,592,420)**	**$141,232,646**	**$2,981,403,922**	**58.47%**
Domestic Equity	**$1,193,659,217**	**22.53%**	**$(17,454,545)**	**$35,662,353**	**$1,175,451,410**	**23.05%**
Large Cap Domestic Equity	**$904,798,035**	**17.07%**	**$(17,228,223)**	**$27,048,683**	**$894,977,576**	**17.55%**
L.A. Capital	344,801,496	6.51%	(12,175,536)	12,710,186	344,266,846	6.75%
LACM Enhanced Index	200,427,445	3.78%	(52,687)	4,784,680	195,695,452	3.84%
Northern Trust AM Enh S&P 500	167,318,509	3.16%	0	3,464,944	163,853,565	3.21%
Parametric Clifton Enh S&P 500	192,250,585	3.63%	(5,000,000)	6,088,872	191,161,713	3.75%
Small Cap Domestic Equity	**$288,861,182**	**5.45%**	**$(226,322)**	**$8,613,670**	**$280,473,834**	**5.50%**
Atlanta Capital	130,237,677	2.46%	(226,322)	4,582,400	125,881,599	2.47%
Parametric Clifton Enh Small Cap	158,623,505	2.99%	0	4,031,270	154,592,235	3.03%
International Equity	**$838,649,370**	**15.83%**	**$(15,308,725)**	**$52,465,049**	**$801,493,046**	**15.72%**
Developed Int'l Equity	**$632,346,103**	**11.93%**	**$(10,308,725)**	**$40,513,455**	**$602,141,373**	**11.81%**
DFA Int'l Small Cap	87,623,184	1.65%	(5,000,000)	5,504,399	87,118,785	1.71%
Northern Trust AM World Ex US	301,033,064	5.68%	(5,000,000)	16,808,143	289,224,921	5.67%
Wellington Management Co.	97,530,440	1.84%	(182,896)	7,467,466	90,245,871	1.77%
William Blair	146,159,414	2.76%	(125,829)	10,733,447	135,551,796	2.66%
Emerging Markets Equity	**$206,303,267**	**3.89%**	**$(5,000,000)**	**$11,951,594**	**$199,351,673**	**3.91%**
Axiom	156,217,685	2.95%	0	10,750,384	145,467,301	2.85%
DFA	50,085,582	0.95%	(5,000,000)	1,201,210	53,884,372	1.06%
World Equity	**$889,573,644**	**16.79%**	**$(717,322)**	**$41,047,598**	**$849,243,368**	**16.65%**
EPOCH Investment Partners	395,944,967	7.47%	(596,382)	23,551,084	372,990,266	7.31%
LSV Asset Management	493,628,676	9.32%	(120,940)	17,496,514	476,253,103	9.34%

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Private Equity	**$167,161,918**	**3.15%**	**$(111,827)**	**$12,057,647**	**$155,216,098**	**3.04%**
Adams Street Direct Co-Invest Fd	3,270,630	0.06%	0	(32,636)	3,303,266	0.06%
Adams Street Direct Fund 2010	1,031,502	0.02%	16,950	76,299	938,253	0.02%
Adams Street 1998 Partnership	125,606	0.00%	0	974	124,632	0.00%
Adams Street 1999 Partnership	337,144	0.01%	0	11,549	325,595	0.01%
Adams Street 2000 Partnership	553,857	0.01%	(400,854)	15,397	939,314	0.02%
Adams Street 2001 Partnership	1,329,647	0.03%	0	55,699	1,273,948	0.02%
Adams Street 2002 Partnership	339,221	0.01%	0	8,445	330,776	0.01%
Adams Street 2003 Partnership	288,137	0.01%	(46,160)	15,761	318,536	0.01%
Adams Street 2010 Partnership	6,216,403	0.12%	(122,181)	219,637	6,118,947	0.12%
Adams Street 2008 Fund	7,770,177	0.15%	(374,858)	597,972	7,547,063	0.15%
Adams Street 1999 Non-US	69,632	0.00%	0	2,497	67,135	0.00%
Adams Street 2000 Non-US	530,987	0.01%	0	24,067	506,920	0.01%
Adams Street 2001 Non-US	162,493	0.00%	0	15,014	147,479	0.00%
Adams Street 2002 Non-US	502,108	0.01%	(198,634)	15,901	684,841	0.01%
Adams Street 2003 Non-US	323,478	0.01%	0	15,024	308,454	0.01%
Adams Street 2004 Non-US	319,996	0.01%	0	20,448	299,548	0.01%
Adams Street 2010 Non-US	3,148,471	0.06%	0	277,974	2,870,497	0.06%
Adams Street 2010 Non-US Emg	1,438,104	0.03%	0	56,556	1,381,548	0.03%
Adams Street 2015 Global Fd	8,071,559	0.15%	1,398,403	348,396	6,324,760	0.12%
Adams Street 2016 Global Fd	2,128,412	0.04%	1,020,000	48,919	1,059,493	0.02%
Adams Street BVCF IV Fund	3,460,356	0.07%	0	150,292	3,310,064	0.06%
BlackRock	8,611,773	0.16%	4,150,831	(267,735)	4,728,677	0.09%
Capital International V	2,013,333	0.04%	(1,780,798)	(1,379,511)	5,173,642	0.10%
Capital International VI	23,602,740	0.45%	0	2,198,586	21,404,154	0.42%
CorsAir III	14,359,422	0.27%	0	424,684	13,934,738	0.27%
CorsAir IV	24,055,396	0.45%	(599)	2,708,453	21,347,542	0.42%
EIG Energy Fund XIV	6,099,526	0.12%	0	977,574	5,121,952	0.10%
Hearthstone Advisors MS II	1	0.00%	10,282	(13,636)	3,355	0.00%
Hearthstone Advisors MS III	2,292,685	0.04%	0	94,103	2,198,582	0.04%
Lewis & Clark, LP	1,622,825	0.03%	0	292,916	1,329,909	0.03%
Lewis & Clark II	9,118,782	0.17%	(290,239)	682,486	8,726,535	0.17%
Matlin Patterson II	1,157,048	0.02%	0	(136,064)	1,293,112	0.03%
Matlin Patterson III	24,790,467	0.47%	(3,493,971)	1,691,072	26,593,366	0.52%
Quantum Energy Partners	8,020,000	0.15%	0	2,880,158	5,139,842	0.10%
Quantum Resources	-	-	0	(39,623)	39,623	0.00%

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL FIXED INCOME	**$1,218,059,403**	**22.99%**	**$(1,731,020)**	**$32,632,110**	**$1,187,158,313**	**23.28%**
Domestic Fixed Income	**$958,309,525**	**18.08%**	**$(1,509,658)**	**$22,481,384**	**$937,337,798**	**18.38%**
Inv. Grade Fixed Income	**$698,416,708**	**13.18%**	**$(256,505)**	**$15,550,738**	**$683,122,475**	**13.40%**
Declaration Total Return	90,750,663	1.71%	(32,384)	1,668,192	89,114,855	1.75%
J. P. Morgan MBS	131,206,979	2.48%	(65,211)	1,643,819	129,628,371	2.54%
PIMCO DiSCO II	107,377,713	2.03%	0	4,641,671	102,736,042	2.01%
PIMCO MBS	183,534,800	3.46%	(75,642)	1,766,969	181,843,474	3.57%
PIMCO Unconstrained	67,365,621	1.27%	(73,536)	1,329,149	66,110,009	1.30%
SSgA Long US Treas Index	118,180,932	2.23%	(9,731)	4,500,938	113,689,725	2.23%
Below Inv. Grade Fixed Income	**$259,892,817**	**4.90%**	**$(1,253,153)**	**$6,930,647**	**$254,215,323**	**4.99%**
Goldman Sachs 2006 Offshore	381,850	0.01%	0	39,295	342,555	0.01%
Goldman Sachs Offshore V	1,398,900	0.03%	(1,007,704)	(337,542)	2,744,146	0.05%
Loomis Sayles	200,807,828	3.79%	(245,449)	4,693,973	196,359,304	3.85%
PIMCO Bravo II Fund	57,304,239	1.08%	0	2,534,921	54,769,318	1.07%
Internationall Fixed Income	**$259,749,878**	**4.90%**	**$(221,362)**	**$10,150,726**	**$249,820,515**	**4.90%**
Brandywine	153,803,731	2.90%	(140,880)	6,179,862	147,764,749	2.90%
UBS Global Asset Mgmt.	105,946,147	2.00%	(80,482)	3,970,864	102,055,766	2.00%
GLOBAL REAL ASSETS	**$953,172,392**	**17.99%**	**$20,078,562**	**$29,619,006**	**$903,474,824**	**17.72%**
Global Real Estate	**$569,154,356**	**10.74%**	**$2,817,628**	**$18,014,501**	**$548,322,227**	**10.75%**
Invesco Core Real Estate	257,521,398	4.86%	(2,080,680)	4,754,921	254,847,158	5.00%
Invesco Fund II	188,225	0.00%	0	6,016	182,209	0.00%
Invesco Fund III	21,815,113	0.41%	(9,671,388)	(713,051)	32,199,552	0.63%
Invesco Asia RE Feeder	279,160	0.01%	(1,059,000)	610,258	727,901	0.01%
Invesco Asia RE Fund III	21,688,372	0.41%	702,258	3,739,760	17,246,354	0.34%
Invesco Value Added Fd IV	44,296,474	0.84%	16,874,025	1,400,886	26,021,563	0.51%
JP Morgan	197,342,292	3.72%	(1,940,661)	3,308,388	195,974,565	3.84%
JP Morgan Alternative Fd	292,644	0.01%	0	6,215	286,429	0.01%
JP Morgan China Property Fd	15,776,662	0.30%	(3,635)	4,082,681	11,697,616	0.23%
JP Morgan Greater European Opp Fd	9,954,015	0.19%	(3,292)	818,427	9,138,881	0.18%
Timber	**$136,487,897**	**2.58%**	**$(1,292,000)**	**$(1,879,620)**	**$139,659,517**	**2.74%**
TIR Teredo	31,445,437	0.59%	0	(558,656)	32,004,093	0.63%
TIR Springbank	105,042,460	1.98%	(1,292,000)	(1,320,964)	107,655,424	2.11%
Infrastructure	**$247,530,139**	**4.67%**	**$18,552,934**	**$13,484,125**	**$215,493,080**	**4.23%**
JP Morgan Asian Infrastructure	23,570,946	0.44%	(22,952)	260,368	23,333,530	0.46%
JP Morgan IIF	178,979,737	3.38%	19,385,561	10,242,126	149,352,050	2.93%
Grosvenor Cust. Infrastructure	37,507,235	0.71%	182,439	2,624,992	34,699,804	0.68%
Grosvenor Cust. Infrastructure II	7,472,221	0.14%	(992,114)	356,639	8,107,696	0.16%
CASH & CASH EQUIVALENTS	**$38,929,339**	**0.73%**	**$11,506,704**	**$97,287**	**$27,325,348**	**0.54%**
Northern Trust Cash Account	28,874,936	0.54%	11,506,704	74,525	17,293,707	0.34%
Bank of ND	10,054,403	0.19%	0	22,763	10,031,640	0.20%
Securities Lending Income	**$0**	**0.00%**	**$(137,879)**	**$137,879**	**-**	**-**
Total Fund	**$5,299,205,283**	**100.0%**	**$(3,876,054)**	**$203,718,929**	**$5,099,362,407**	**100.0%**

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Equity					
Gross	4.74%	19.12%	5.95%	11.68%	-
Net	4.68%	18.83%	5.64%	11.32%	-
Wtd Avg Global Equity Benchmark	4.48%	18.65%	5.08%	10.81%	-
Domestic Equity					
Gross	3.04%	17.39%	9.16%	15.13%	5.96%
Net	3.00%	17.11%	8.96%	14.87%	5.66%
Wtd Avg Domestic Equity Benchmark	2.94%	19.61%	8.91%	14.51%	7.19%
Large Cap Equity					
Gross	3.02%	16.37%	10.07%	15.52%	5.38%
Net	3.00%	16.20%	9.91%	15.33%	5.15%
Large Cap Benchmark (1)	3.06%	18.03%	9.26%	14.67%	7.19%
L.A. Capital - Gross	3.68%	15.90%	11.18%	15.50%	8.66%
L.A. Capital - Net	3.63%	15.66%	10.95%	15.26%	8.45%
Russell 1000 Growth Index	4.67%	20.42%	11.11%	15.30%	8.91%
LACM Enhanced Index - Goss	2.45%	15.56%	9.88%	14.96%	7.89%
LACM Enhanced Index - Net	2.42%	15.44%	9.75%	14.82%	7.73%
Russell 1000 Index	3.06%	18.03%	9.26%	14.67%	7.29%
Northern Tr AM Enh S&P500 - Gross	2.11%	16.51%	8.00%	14.59%	7.12%
Northern Tr AM Enh S&P500 - Net	2.11%	16.51%	7.88%	14.28%	6.94%
S&P 500 Index	3.09%	17.90%	9.61%	14.63%	7.18%
Parametric Clifton Enh S&P500 - Gross	3.19%	17.97%	9.85%	14.75%	-
Parametric Clifton Enh S&P500 - Net	3.19%	17.72%	9.77%	14.65%	-
S&P 500 Index	3.09%	17.90%	9.61%	14.63%	7.18%
Small Cap Equity					
Gross	3.07%	20.78%	5.96%	13.57%	7.29%
Net	2.99%	20.09%	5.63%	13.08%	6.77%
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	6.92%
Atlanta Capital - Gross	3.65%	15.83%	-	-	-
Atlanta Capital - Net	3.46%	14.98%	-	-	-
S&P 600 Small Cap Index	1.71%	22.47%	9.32%	15.47%	8.44%
Parametric Clifton Enh SmCap - Gross	2.61%	24.97%	8.31%	14.75%	-
Parametric Clifton Enh SmCap - Net	2.61%	24.44%	7.89%	14.25%	-
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	6.92%

(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
International Equity					
Gross	6.54%	21.36%	2.94%	9.59%	2.90%
Net	6.50%	21.17%	2.75%	9.28%	2.55%
Wtd Avg Int'l Equity Benchmark	5.77%	20.45%	1.06%	7.62%	1.27%
Developed Intl Equity					
Gross	6.72%	21.29%	2.74%	10.64%	2.25%
Net	6.67%	21.04%	2.50%	10.33%	1.93%
Benchmark(1)	5.63%	19.49%	0.93%	8.55%	0.71%
DFA Int'l Small Cap Value - Net	6.33%	28.80%	4.16%	13.74%	-
World ex US SC Value	6.44%	23.52%	2.76%	11.48%	3.01%
Northern Tr AM World ex US - Gross	5.80%	19.95%	1.04%	-	-
Northern Tr AM World ex US - Net	5.80%	19.92%	1.01%	-	-
MSCI World ex US	5.63%	19.49%	0.67%	8.15%	1.00%
Wellington Management - Gross	8.28%	20.62%	7.31%	15.04%	6.15%
Wellington Management - Net	8.07%	19.62%	6.42%	14.09%	5.24%
BMI, EPAC, <$2 B	7.33%	20.88%	5.71%	12.00%	2.88%
William Blair - Gross	7.92%	20.15%	-	-	-
William Blair - Net	7.83%	19.77%	-	-	-
MSCI ACWI ex US IMI	5.85%	20.43%	1.14%	7.58%	1.38%
Emerging Markets Equity					
Gross	5.99%	21.55%	3.09%	5.26%	3.46%
Net	5.99%	21.55%	3.08%	4.96%	3.04%
Emerging Mkts - Net	6.27%	23.75%	1.07%	3.96%	1.92%
Axiom - Net	7.39%	22.29%	-	-	-
Emerging Mkts - Net	6.27%	23.75%	1.07%	3.96%	1.92%
DFA - Net	2.28%	19.52%	3.49%	6.86%	3.98%
Emerging Mkts - Net	6.27%	23.75%	1.07%	3.96%	1.92%
World Equity					
Gross	4.84%	21.02%	5.78%	11.31%	-
Net	4.75%	20.57%	5.10%	10.62%	-
MSCI World Index	4.03%	18.20%	5.24%	11.38%	3.97%
EPOCH Investment - Gross(2)	6.32%	17.71%	6.33%	11.43%	-
EPOCH Investment - Net	6.15%	16.96%	5.65%	10.68%	-
MSCI World Index	4.03%	18.20%	5.24%	11.38%	3.97%
LSV Asset Management - Gross(3)	3.67%	23.50%	5.38%	-	-
LSV Asset Management - Net	3.65%	23.29%	4.70%	-	-
MSCI ACWI Idx	4.45%	19.42%	5.39%	11.14%	4.27%

(1) MSCI EAFE through 12/31/1996; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.
(2) EPOCH Investment was removed from the Domestic Equity Composite to the World Equity Composite as of 1/1/2012.
(3) LSV Asset Management was removed from the Domestic Equity and International Equity Composites to the World Equity Composite as of February 1, 2013.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity*					
Net	7.70%	11.11%	(0.82%)	1.59%	(0.01%)
Adams Street Direct Co-Invest Fd	(0.99%)	(4.11%)	8.19%	10.58%	5.30%
Adams Street Direct Fund 2010	7.99%	12.03%	8.00%	11.92%	-
Adams Street 1998 Partnership	0.78%	(0.16%)	1.08%	4.12%	(1.70%)
Adams Street 1999 Partnership	3.55%	(0.25%)	(2.85%)	3.36%	2.08%
Adams Street 2000 Partnership	2.86%	3.00%	(3.33%)	0.71%	3.02%
Adams Street 2001 Partnership	4.37%	7.60%	(1.19%)	5.31%	3.94%
Adams Street 2002 Partnership	2.55%	19.56%	1.74%	5.99%	4.88%
Adams Street 2003 Partnership	5.79%	11.44%	7.19%	11.45%	5.26%
Adams Street 2010 Partnership	3.66%	15.12%	13.11%	13.30%	-
Adams Street 2008 Fund	8.34%	15.67%	11.65%	12.86%	-
Adams Street 1999 Non-US	3.72%	1.60%	0.03%	6.19%	4.47%
Adams Street 2000 Non-US	4.75%	13.07%	(0.25%)	0.63%	1.60%
Adams Street 2001 Non-US	10.18%	(4.37%)	11.33%	14.86%	3.27%
Adams Street 2002 Non-US	3.27%	(5.01%)	4.42%	5.43%	1.84%
Adams Street 2003 Non-US	4.87%	26.53%	13.54%	18.17%	11.24%
Adams Street 2004 Non-US	6.83%	9.42%	(2.02%)	7.06%	3.94%
Adams Street 2010 Non-US	9.68%	21.63%	9.17%	10.50%	-
Adams Street 2010 Non-US Emg	4.09%	10.13%	14.02%	7.90%	-
Adams Street 2015 Global Fd	5.17%	51.76%	-	-	-
Adams Street 2016 Global Fd	3.34%	-	-	-	-
Adams Street BVCF IV Fund	4.54%	7.91%	14.68%	18.81%	30.94%
BlackRock	(3.26%)	-	-	-	-
Capital International V	(34.83%)	(49.48%)	(31.17%)	(20.15%)	-
Capital International VI	10.27%	9.55%	(4.66%)	(8.71%)	-
CorsAir III	3.05%	6.84%	9.34%	3.15%	4.16%
CorsAir IV	12.67%	22.98%	15.91%	14.40%	-
EIG Energy Fund XIV	19.09%	12.11%	(34.78%)	(23.36%)	(7.12%)
Lewis & Clark, LP	22.03%	22.03%	(26.04%)	(17.39%)	(4.84%)
Lewis & Clark II	7.98%	10.83%	(1.11%)	(2.96%)	-
Matlin Patterson II	(10.52%)	(28.84%)	(2.99%)	(7.24%)	(28.58%)
Matlin Patterson III	6.35%	6.84%	(0.56%)	5.14%	5.28%
Quantum Energy Partners	56.04%	68.38%	1.68%	10.37%	6.90%

* Corsair III was taken out from the Private Equity Composite on July 1, 2009. It was then added back into the Private Equity Composite on October 1, 2011. At this time Corsair IV, Capital Intl and EIG were also added to this composite.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Fixed Income					
Gross	2.75%	5.11%	3.55%	4.89%	-
Net	2.69%	4.86%	3.30%	4.65%	-
Wtd Avg Global FI Benchmark	2.11%	1.46%	1.88%	2.69%	-
Domestic Fixed Income					
Gross	2.40%	6.36%	4.56%	5.77%	5.41%
Net	2.35%	6.14%	4.34%	5.56%	5.15%
Wtd Avg Domestic FI Benchmark	1.63%	2.95%	3.03%	3.49%	5.51%
Inv. Grade Fixed Income					
Gross	2.28%	3.79%	4.20%	4.67%	4.84%
Net	2.24%	3.65%	4.06%	4.55%	4.62%
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	4.48%
Declaration Total Return - Net	1.87%	4.99%	3.74%	5.14%	-
Libor-3 Month	0.30%	0.98%	0.58%	0.46%	0.99%
J.P. Morgan MBS - Gross	1.27%	0.82%	-	-	-
J.P. Morgan MBS - Net	1.22%	0.62%	-	-	-
Blmbg Mortgage	0.87%	(0.06%)	2.17%	2.00%	4.31%
PIMCO Unconstrained - Gross(1)	2.01%	9.71%	3.37%	2.75%	-
PIMCO Unconstrained - Net	1.90%	9.22%	2.97%	2.50%	-
Blended Benchmark(2)	0.30%	0.98%	0.58%	0.50%	-
PIMCO DiSCO II - Net	4.52%	17.08%	8.43%	13.70%	-
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	4.48%
PIMCO MBS - Gross	0.97%	0.36%	2.36%	2.13%	-
PIMCO MBS - Net	0.93%	0.19%	2.18%	1.95%	-
Blmbg Mortgage	0.87%	(0.06%)	2.17%	2.00%	4.31%
SSgA Long US Treas Idx - Gross	3.96%	(7.23%)	5.56%	-	-
SSgA Long US Treas Idx - Net	3.95%	(7.27%)	5.52%	-	-
Blmbg Long Treas	3.96%	(7.22%)	5.58%	2.76%	7.34%
Below Inv. Grade Fixed Income					
Gross	2.73%	13.30%	5.38%	8.67%	6.55%
Net	2.64%	12.86%	4.95%	8.21%	6.17%
Blmbg HY Corp 2% Issue	2.17%	12.69%	4.50%	6.90%	7.76%
Goldman Sachs 2006 Offshore - Net	11.47%	59.81%	27.41%	25.21%	10.63%
Goldman Sachs Offshore V - Net	(18.28%)	(13.28%)	(1.99%)	3.94%	-
PIMCO Bravo II Fund - Net	4.63%	13.38%	10.22%	-	-
Blmbg HY Corp 2% Issue	2.17%	12.69%	4.50%	6.90%	7.76%
Loomis Sayles - Gross	2.39%	13.48%	4.68%	7.93%	7.70%
Loomis Sayles - Net	2.27%	12.91%	4.16%	7.40%	7.33%
Blmbg HY Corp 2% Issue	2.17%	12.69%	4.50%	6.90%	7.76%

(1) The product changed from Commingled Fund to Separate Account in March 2014.
(2) Libor-3 month through Feb. 28, 2014; Fund's performance through March 31, 2014; Libor-3 month thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
International Fixed Income					
Gross	4.07%	1.15%	(0.37%)	1.60%	5.06%
Net	3.97%	0.79%	(0.74%)	1.24%	4.81%
Wtd Avg Int'l FI Benchmark	3.55%	(3.80%)	(2.42%)	(0.36%)	3.42%
Brandywine - Gross	4.18%	4.78%	1.39%	3.55%	6.61%
Brandywine - Net	4.09%	4.38%	1.00%	3.16%	6.42%
Blmbg Global Aggregate	2.60%	(2.18%)	(0.35%)	0.78%	3.69%
UBS Global Asset Mgmt. - Gross	3.89%	(3.69%)	(2.44%)	(0.55%)	3.16%
UBS Global Asset Mgmt. - Net	3.81%	(4.01%)	(2.78%)	(0.87%)	2.86%
Blended Benchmark(1)	3.55%	(3.80%)	(2.42%)	(0.36%)	3.42%
Global Real Assets					
Gross	3.31%	6.41%	8.05%	8.75%	-
Net	3.17%	5.98%	7.60%	8.30%	-
Wtd Avg Global Real Assets Benchmark	1.23%	4.76%	6.57%	7.26%	-
Global Real Estate					
Gross	3.32%	9.65%	12.36%	12.96%	5.13%
Net	3.19%	9.13%	11.81%	12.43%	3.59%
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	6.42%
Invesco Core Real Estate - Gross	1.88%	8.53%	11.91%	12.00%	5.41%
Invesco Core Real Estate - Net	1.79%	8.16%	11.52%	11.59%	4.98%
Invesco Fund II - Net	3.30%	22.72%	11.61%	14.46%	-
Invesco Fund III - Net	(2.76%)	11.58%	14.81%	15.89%	-
Invesco Asia RE Feeder - Net	83.64%	982.41%	203.10%	97.81%	-
Invesco Asia RE Fund III - Net	21.68%	21.25%	-	-	-
Invesco Value Added Fd IV - Net	4.24%	8.07%	-	-	-
JP Morgan - Gross	1.70%	8.05%	11.64%	12.91%	5.62%
JP Morgan - Net	1.48%	7.08%	10.52%	11.82%	4.54%
JP Morgan Alternative Fd - Net	2.17%	6.73%	(9.88%)	(2.58%)	(5.72%)
JP Morgan China Property Fd - Net	34.91%	37.81%	23.20%	24.37%	-
JPM Greater European Opp Fd - Net	8.96%	(0.51%)	13.11%	4.86%	-
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	6.42%
Timber					
Net	(1.35%)	(9.44%)	(0.60%)	0.27%	-
TIR Teredo	(1.75%)	(7.02%)	5.49%	5.75%	7.08%
TIR Springbank	(1.24%)	(10.13%)	(3.20%)	(2.37%)	(1.86%)
NCREIF Timberland Index	0.70%	3.35%	5.54%	7.16%	5.54%
Infrastructure					
Gross	6.29%	9.73%	4.81%	7.20%	-
Net	6.02%	9.21%	4.21%	6.52%	-
JP Morgan Asian Infrastructure - Net	1.12%	35.48%	6.04%	8.92%	-
JP Morgan IIF - Gross	6.87%	7.06%	4.38%	6.68%	3.63%
JP Morgan IIF - Net	6.48%	6.33%	3.47%	5.65%	2.41%
Grosvenor Cust. Infrastructure - Net	7.52%	8.70%	7.49%	8.94%	-
Grosvenor Cust. Infrastructure II - Net	5.35%	3.28%	-	-	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.59%
Cash & Cash Equivalents - Net	**0.24%**	**0.72%**	**0.36%**	**0.24%**	**0.36%**
Cash Account - Net	0.25%	0.76%	0.37%	0.25%	0.35%
Bank of ND - Net	0.23%	-	-	-	-
3-month Treasury Bill	0.20%	0.49%	0.23%	0.17%	0.58%
Total Fund					
Gross	3.99%	13.26%	5.78%	9.48%	4.52%
Net	3.92%	12.96%	5.46%	9.14%	4.06%
Target*	3.29%	11.74%	4.73%	8.20%	5.04%

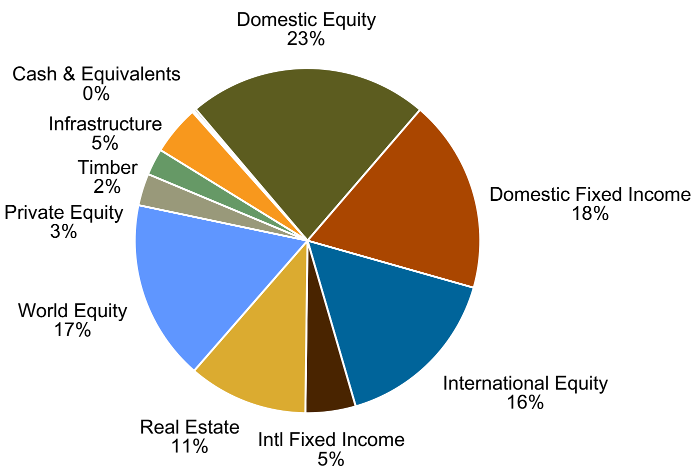
* Current Quarter Target = 16.1% Russell 1000 Index, 16.0% MSCI World, 13.2% Blmbg Aggregate, 11.2% MSCI World ex US, 10.5% NCREIF Total Index, 6.5% NDSIB PEN - Private Equity, 5.4% Blmbg Glob Agg ex USD, 5.0% CPI-W, 4.9% Russell 2000 Index, 4.6% Blmbg HY 2% Iss Cap, 3.1% MSCI EM, 3.1% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

(1) Citigroup Non-US Govt through 12/31/2009 and the Bloomberg Global Aggregate Index ex US thereafter.

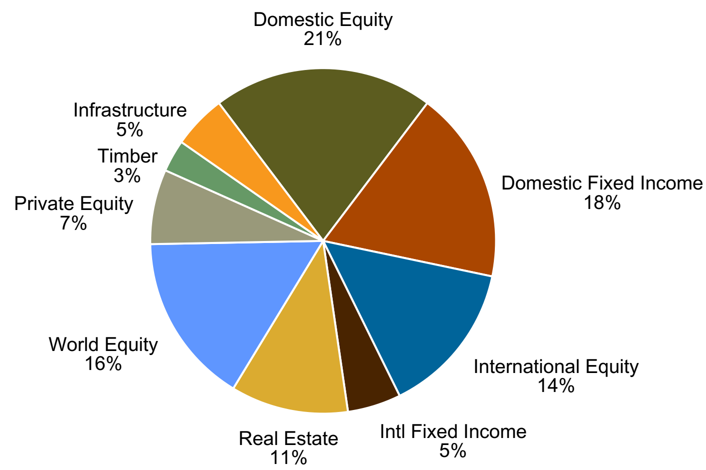
Actual vs Target Asset Allocation
As of June 30, 2017

The top left chart shows the Fund's asset allocation as of June 30, 2017. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the CAI Public Fund Sponsor Database.

Actual Asset Allocation

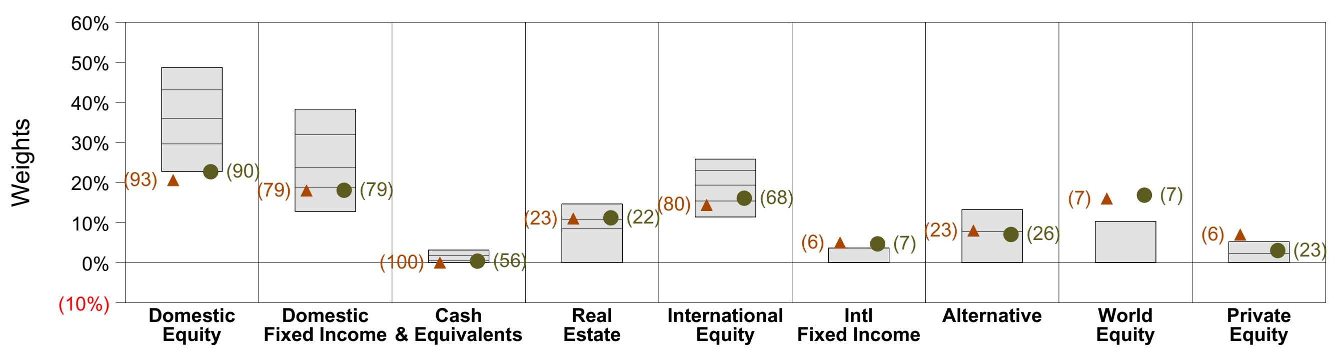


Target Asset Allocation



Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	631,278	22.7%	20.6%	2.1%	58,320
Domestic Fixed Income	502,620	18.1%	18.0%	0.1%	1,978
International Equity	447,370	16.1%	14.4%	1.7%	46,856
Intl Fixed Income	130,196	4.7%	5.0%	(0.3%)	(8,871)
Real Estate	311,147	11.2%	11.0%	0.2%	5,199
World Equity	468,680	16.9%	16.0%	0.9%	23,665
Private Equity	83,863	3.0%	7.0%	(4.0%)	(110,832)
Timber	68,943	2.5%	3.0%	(0.5%)	(14,498)
Infrastructure	126,764	4.6%	5.0%	(0.4%)	(12,304)
Cash & Equivalents	10,486	0.4%	0.0%	0.4%	10,486
Total	2,781,347	100.0%	100.0%		

Asset Class Weights vs CAI Public Fund Sponsor Database



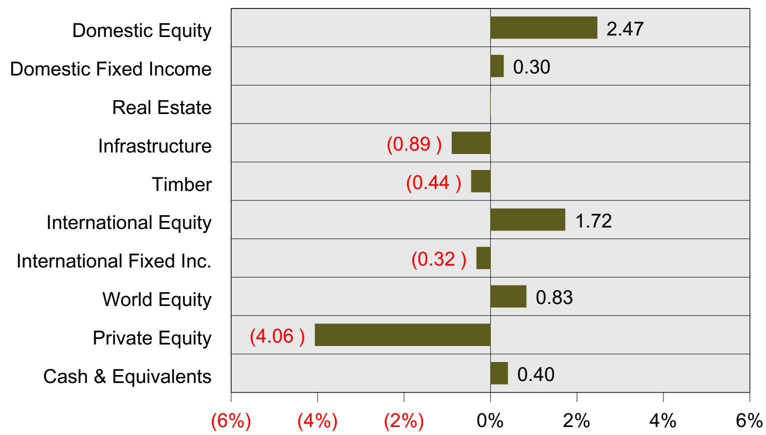
	Domestic Equity	Domestic Fixed Income	Cash & Equivalents	Real Estate	International Equity	Intl Fixed Income	Alternative	World Equity	Private Equity
10th Percentile	48.74	38.31	3.15	14.66	25.85	3.65	13.27	10.30	5.23
25th Percentile	43.15	31.94	1.72	10.84	23.01	0.00	7.74	0.00	2.29
Median	36.02	23.83	0.61	8.45	19.36	0.00	0.00	0.00	0.00
75th Percentile	29.66	18.84	0.00	0.00	15.39	0.00	0.00	0.00	0.00
90th Percentile	22.74	12.76	0.00	0.00	11.40	0.00	0.00	0.00	0.00
Fund ●	22.70	18.07	0.38	11.19	16.08	4.68	7.04	16.85	3.02
Target ▲	20.60	18.00	0.00	11.00	14.40	5.00	8.00	16.00	7.00
% Group Invested	96.10%	97.40%	70.13%	70.13%	90.91%	13.64%	14.94%	12.99%	32.47%

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

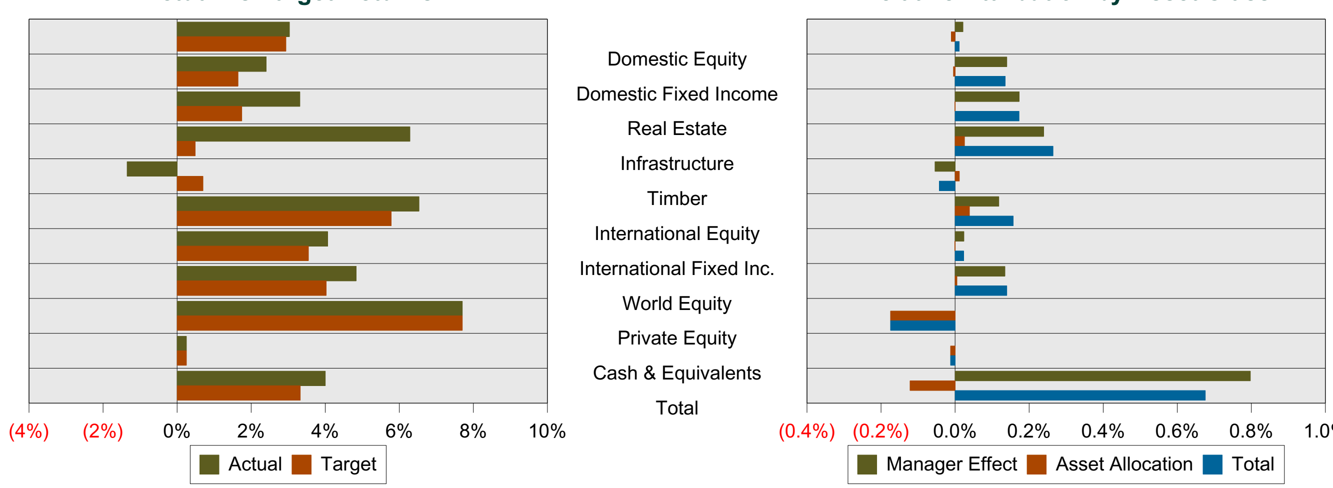
Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

Asset Class Under or Overweighting



Actual vs Target Returns / Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2017

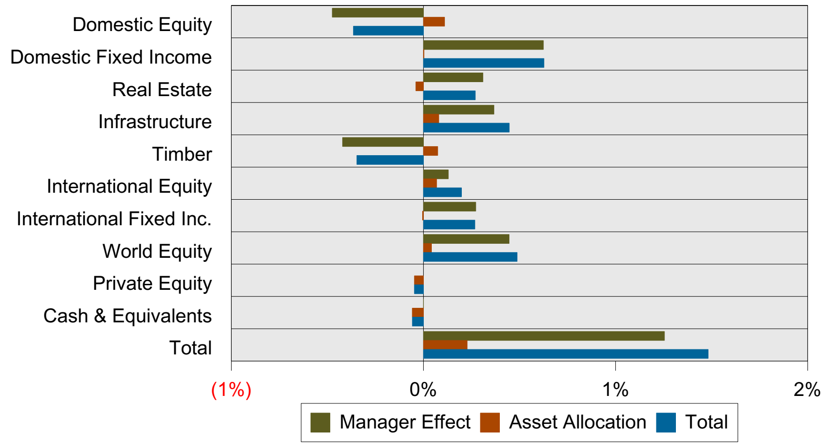
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	3.03%	2.94%	0.02%	(0.01%)	0.01%
Domestic Fixed Income	18%	18%	2.41%	1.65%	0.14%	(0.00%)	0.14%
Real Estate	11%	11%	3.32%	1.75%	0.17%	(0.00%)	0.17%
Infrastructure	4%	5%	6.29%	0.49%	0.24%	0.03%	0.26%
Timber	3%	3%	(1.35%)	0.70%	(0.05%)	0.01%	(0.04%)
International Equity	16%	14%	6.53%	5.78%	0.12%	0.04%	0.16%
International Fixed Inc.	5%	5%	4.06%	3.55%	0.02%	(0.00%)	0.02%
World Equity	17%	16%	4.83%	4.03%	0.13%	0.00%	0.14%
Private Equity	3%	7%	7.70%	7.70%	0.00%	(0.17%)	(0.17%)
Cash & Equivalents	0%	0%	0.25%	0.25%	0.00%	(0.01%)	(0.01%)
Total			**4.00% =**	**3.33% +**	**0.80% +**	**(0.12%)**	**0.68%**

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

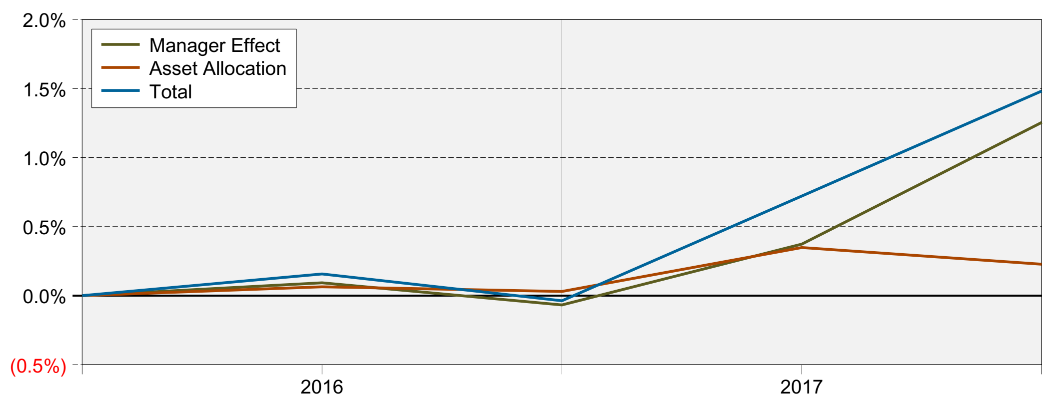
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

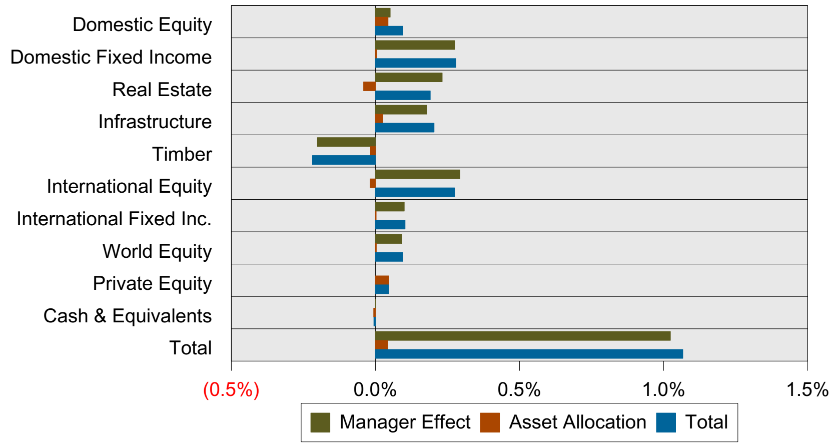
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	17.38%	19.58%	(0.47%)	0.11%	(0.36%)
Domestic Fixed Income	18%	18%	6.53%	3.23%	0.62%	0.00%	0.63%
Real Estate	11%	11%	9.65%	6.97%	0.31%	(0.04%)	0.27%
Infrastructure	4%	5%	9.73%	1.50%	0.37%	0.08%	0.45%
Timber	3%	3%	(9.44%)	3.35%	(0.42%)	0.07%	(0.35%)
International Equity	16%	14%	21.37%	20.53%	0.13%	0.07%	0.20%
International Fixed Inc.	5%	5%	1.15%	(3.80%)	0.27%	(0.00%)	0.27%
World Equity	17%	16%	21.01%	18.20%	0.45%	0.04%	0.49%
Private Equity	3%	7%	11.12%	11.12%	0.00%	(0.05%)	(0.05%)
Cash & Equivalents	1%	0%	0.74%	0.70%	0.00%	(0.06%)	(0.06%)
Total			**13.35% =**	**11.87% +**	**1.25% +**	**0.23%**	**1.48%**

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

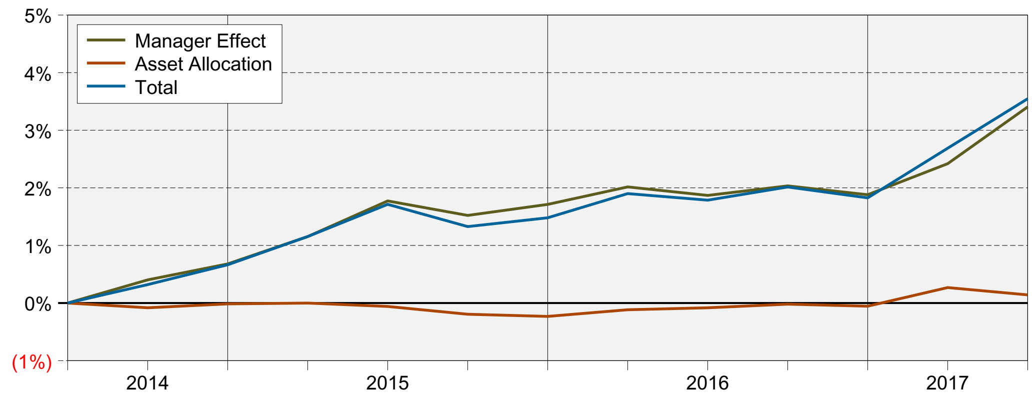
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

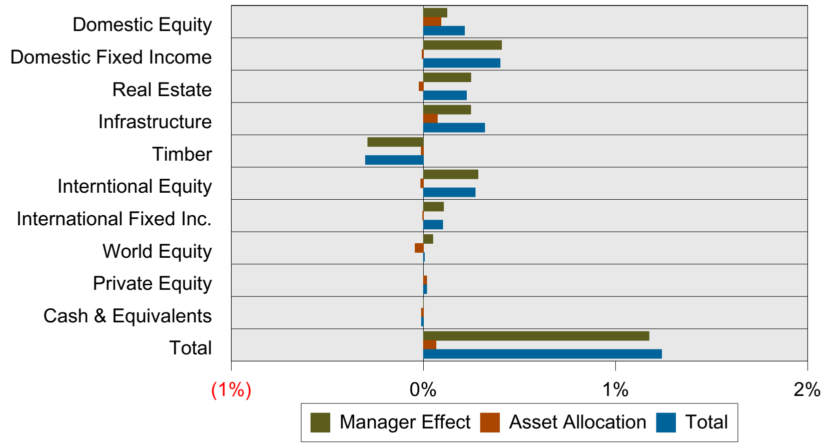
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	9.17%	8.92%	0.05%	0.04%	0.10%
Domestic Fixed Income	18%	17%	4.58%	3.06%	0.27%	0.00%	0.28%
Real Estate	11%	10%	12.44%	10.17%	0.23%	(0.04%)	0.19%
Infrastructure	4%	5%	4.81%	0.58%	0.18%	0.03%	0.20%
Timber	3%	4%	(0.60%)	5.54%	(0.20%)	(0.02%)	(0.22%)
International Equity	15%	15%	2.95%	1.06%	0.29%	(0.02%)	0.27%
International Fixed Inc.	5%	5%	(0.37%)	(2.42%)	0.10%	0.00%	0.10%
World Equity	16%	16%	5.79%	5.24%	0.09%	0.00%	0.09%
Private Equity	4%	6%	(0.81%)	(0.81%)	0.00%	0.05%	0.05%
Cash & Equivalents	1%	1%	0.37%	0.31%	0.00%	(0.01%)	(0.01%)
Total			**5.81% =**	**4.74% +**	**1.02% +**	**0.04%**	**1.07%**

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

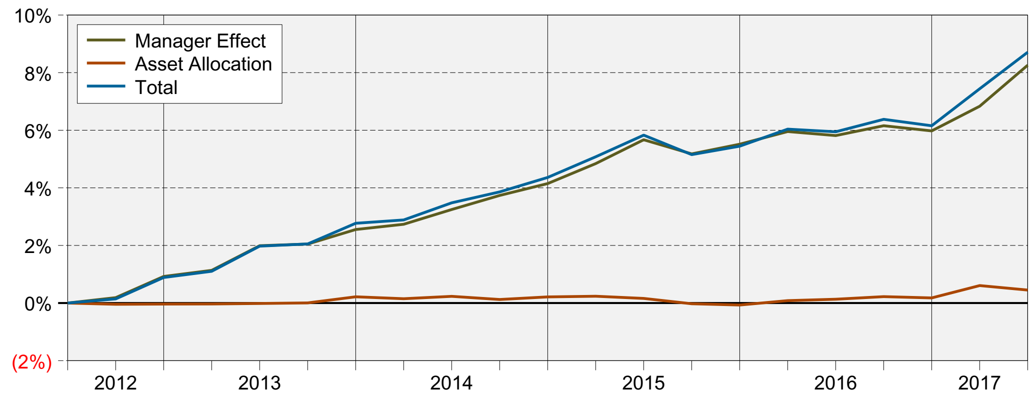
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

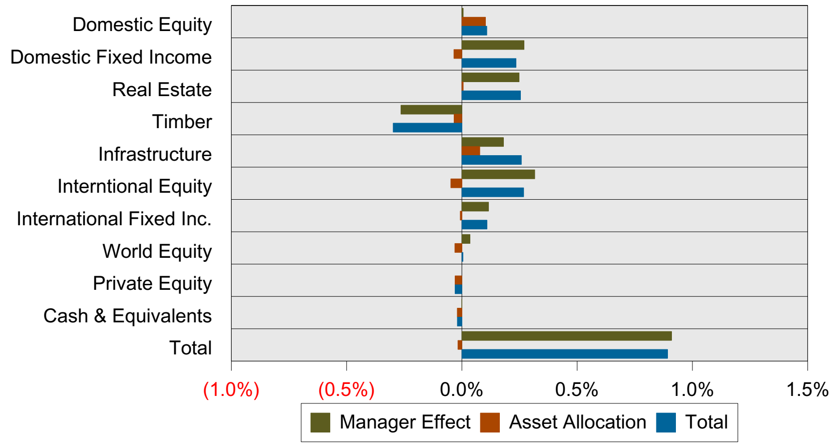
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	22%	15.08%	14.52%	0.12%	0.09%	0.21%
Domestic Fixed Income	18%	17%	5.82%	3.57%	0.41%	(0.01%)	0.40%
Real Estate	10%	10%	13.00%	10.49%	0.25%	(0.02%)	0.22%
Infrastructure	4%	5%	7.22%	1.11%	0.25%	0.07%	0.32%
Timber	4%	5%	0.27%	7.16%	(0.29%)	(0.01%)	(0.30%)
Interntional Equity	15%	15%	9.43%	7.52%	0.28%	(0.01%)	0.27%
International Fixed Inc.	5%	5%	1.60%	(0.36%)	0.10%	(0.00%)	0.10%
World Equity	15%	15%	11.31%	11.38%	0.05%	(0.04%)	0.01%
Private Equity	4%	5%	1.59%	1.59%	0.00%	0.02%	0.02%
Cash & Equivalents	1%	1%	0.25%	0.22%	0.00%	(0.01%)	(0.01%)
Total			**9.49% =**	**8.25% +**	**1.17% +**	**0.07%**	**1.24%**

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

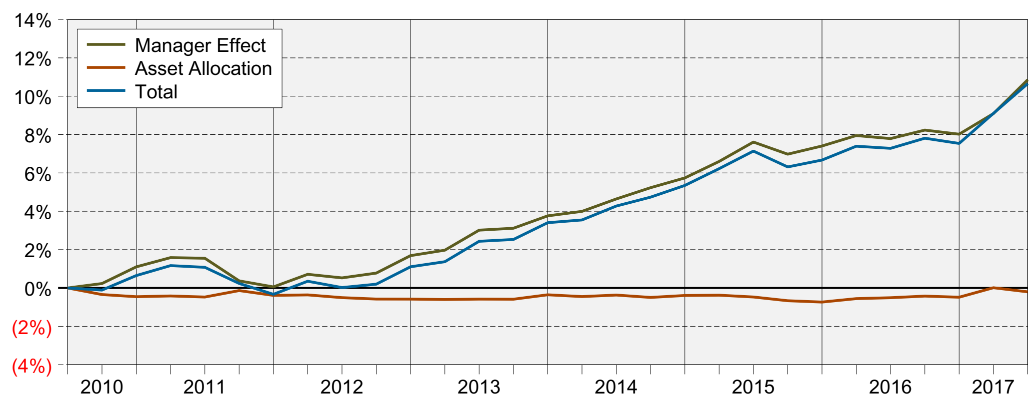
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Seven Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Seven Year Annualized Relative Attribution Effects

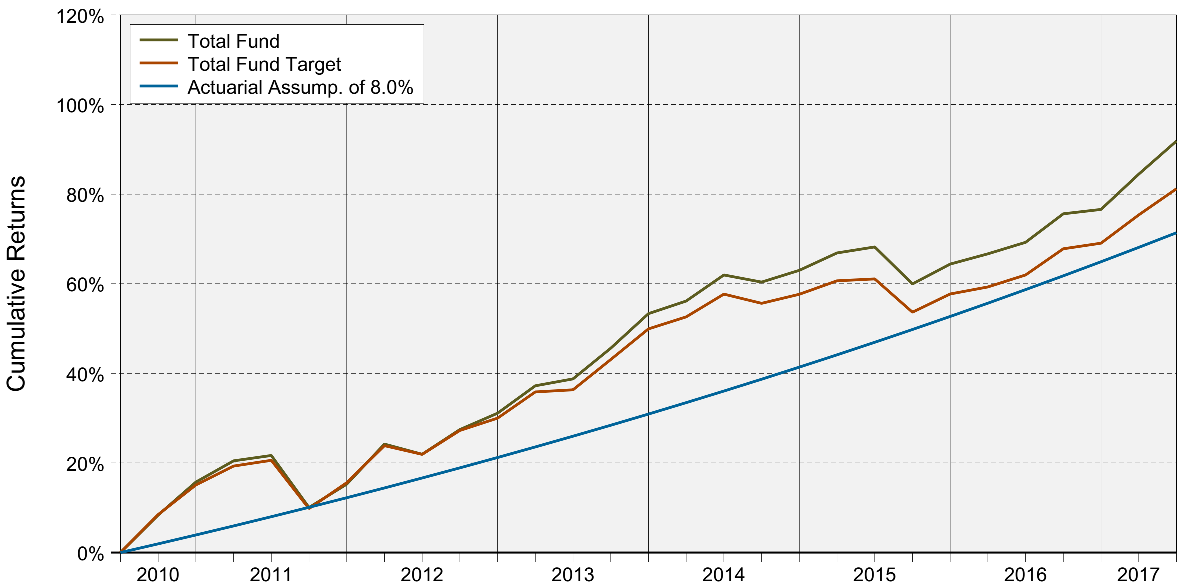
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	27%	26%	15.44%	15.23%	0.01%	0.10%	0.11%
Domestic Fixed Income	20%	19%	6.23%	4.63%	0.27%	(0.03%)	0.24%
Real Estate	9%	9%	14.61%	11.58%	0.25%	0.01%	0.25%
Timber	4%	4%	-	-	(0.26%)	(0.03%)	(0.30%)
Infrastructure	3%	4%	-	-	0.18%	0.08%	0.26%
Interntional Equity	16%	15%	8.43%	6.34%	0.32%	(0.05%)	0.27%
International Fixed Inc.	5%	5%	3.95%	1.75%	0.12%	(0.01%)	0.11%
World Equity	11%	11%	-	-	0.04%	(0.03%)	0.00%
Private Equity	4%	5%	3.91%	3.91%	0.00%	(0.03%)	(0.03%)
Cash & Equivalents	1%	1%	0.21%	0.19%	0.00%	(0.02%)	(0.02%)
Total			**9.75% =**	**8.86% +**	**0.91% +**	**(0.02%)**	**0.89%**

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

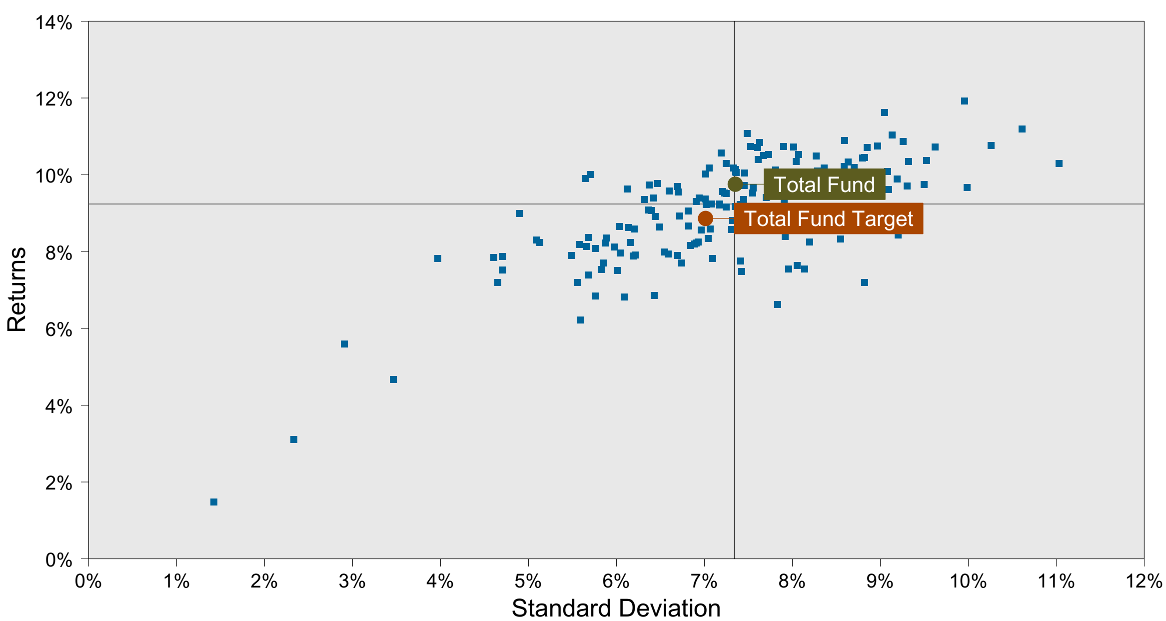
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Seven Year Annualized Risk vs Return



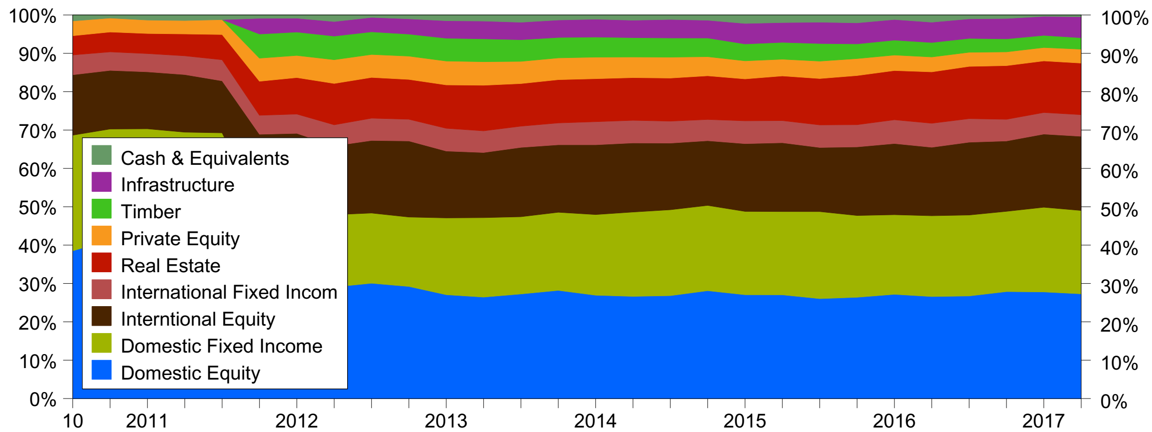
Squares represent membership of the CAI Public Fund Sponsor Database

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

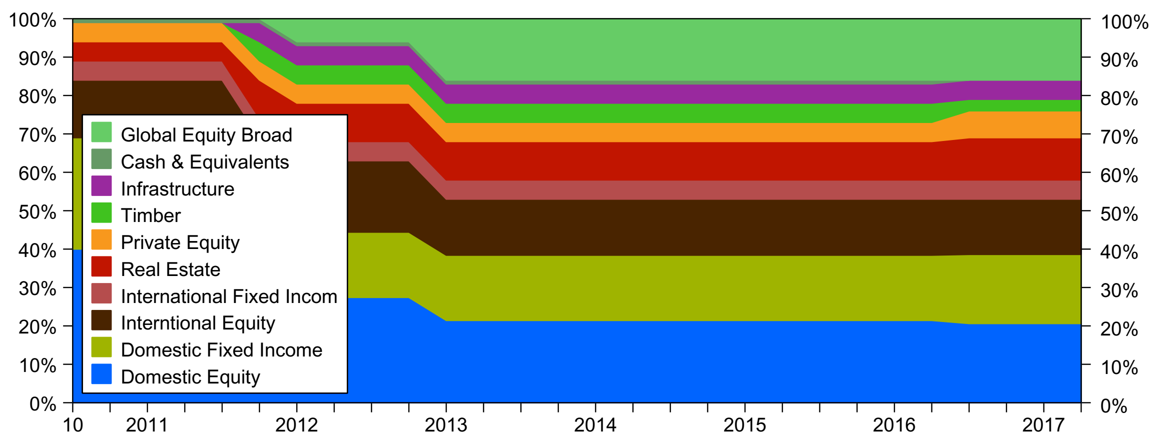
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.

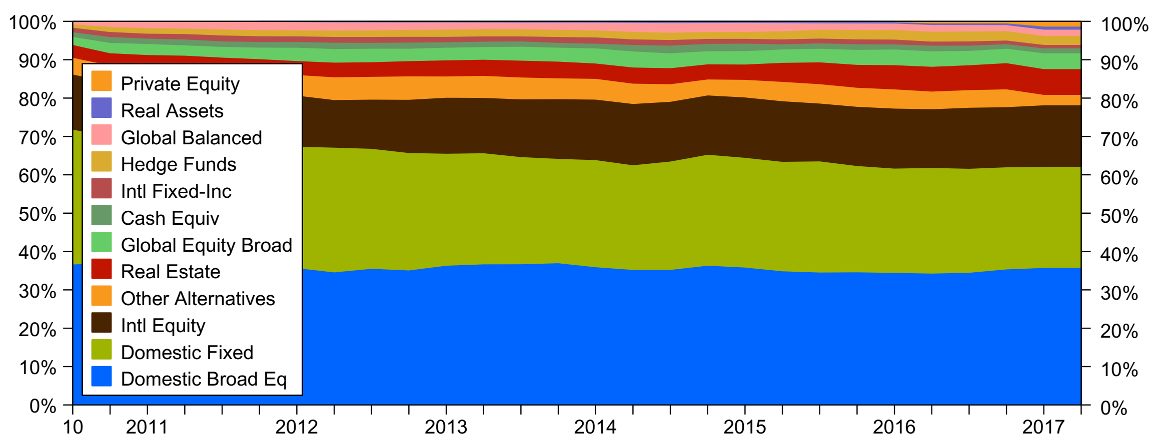
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average CAI Public Fund Sponsor Database Historical Asset Allocation

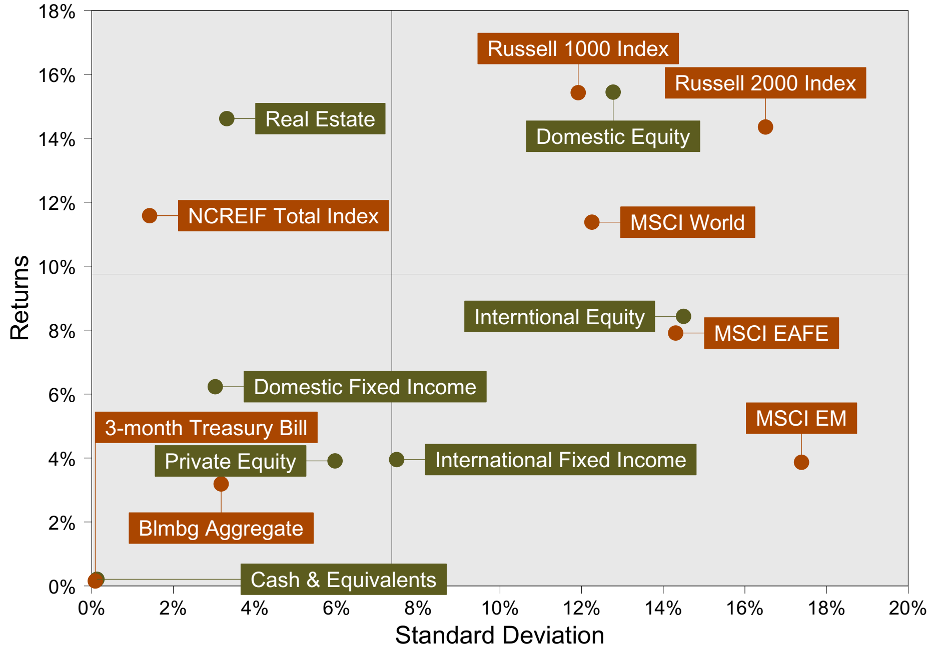


* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

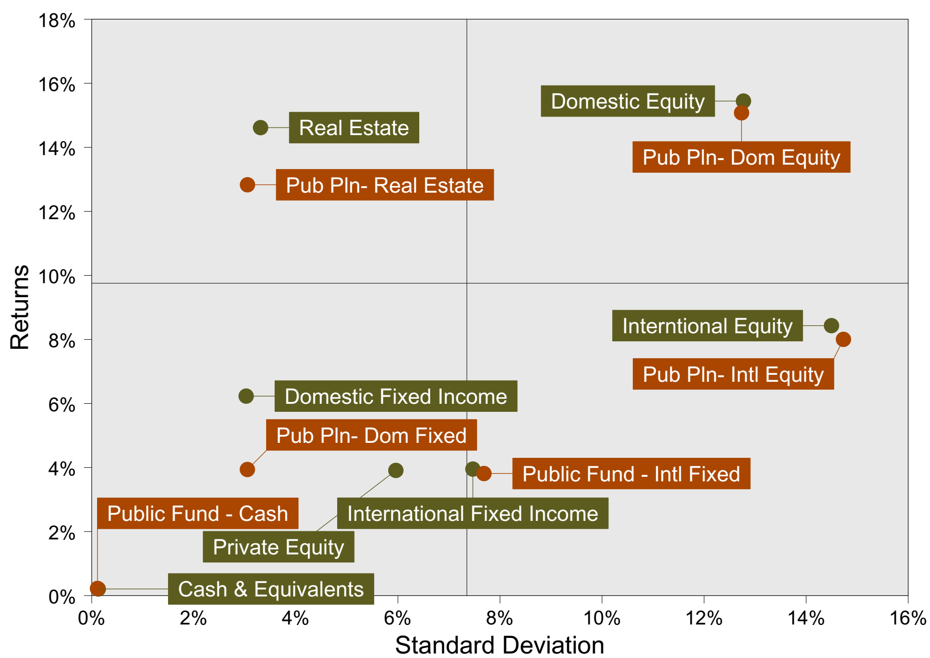
Asset Class Risk and Return

The charts below show the seven year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

Seven Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices



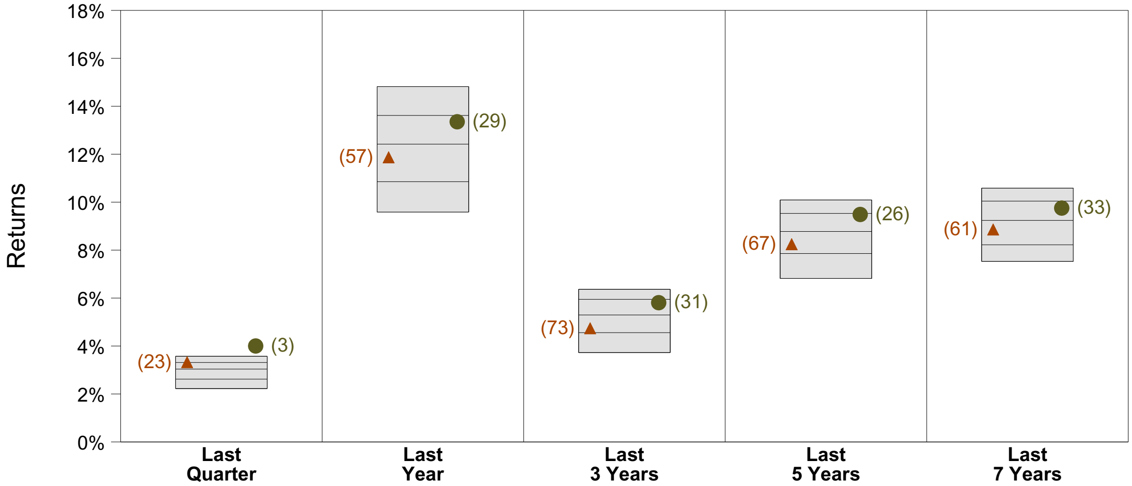
Seven Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

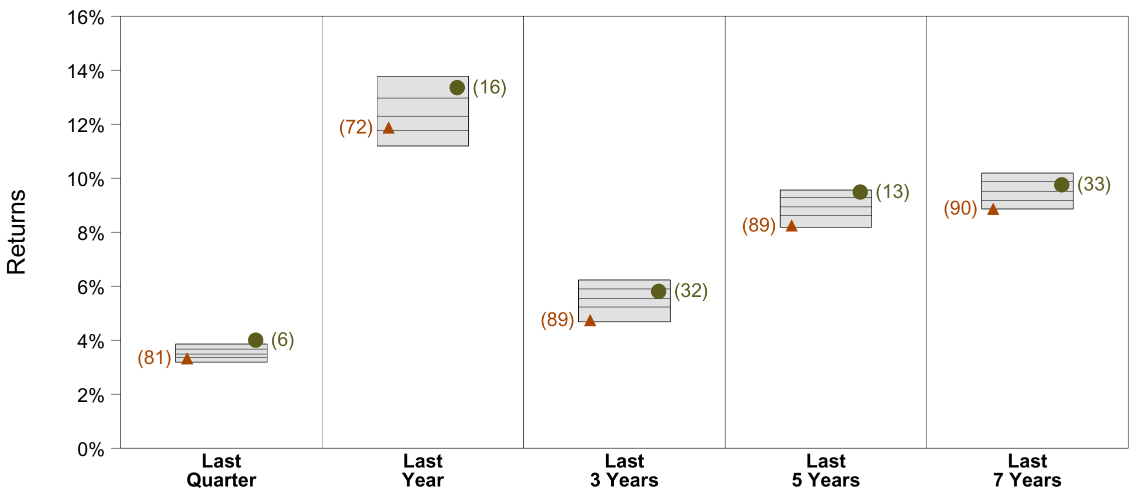
The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2017. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

CAI Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	3.57	14.82	6.37	10.09	10.59
25th Percentile	3.31	13.62	5.95	9.53	10.04
Median	3.04	12.42	5.30	8.78	9.24
75th Percentile	2.62	10.86	4.56	7.86	8.22
90th Percentile	2.23	9.59	3.73	6.82	7.53
Total Fund ●	4.00	13.35	5.81	9.49	9.75
Policy Target ▲	3.33	11.87	4.74	8.25	8.86

Asset Allocation Adjusted Ranking



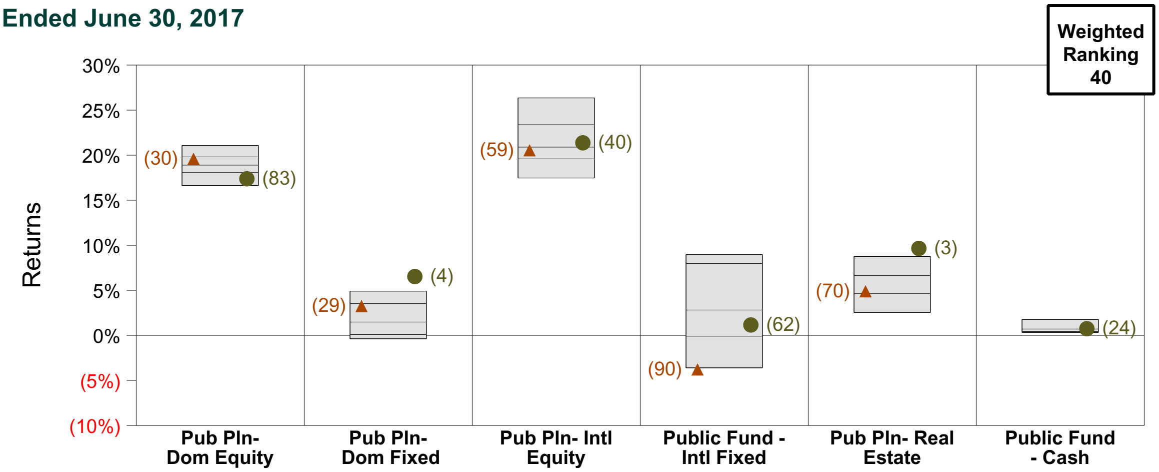
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	3.86	13.77	6.23	9.56	10.19
25th Percentile	3.67	12.97	5.90	9.28	9.87
Median	3.49	12.30	5.54	8.94	9.52
75th Percentile	3.37	11.77	5.23	8.63	9.18
90th Percentile	3.19	11.19	4.68	8.18	8.86
Total Fund ●	4.00	13.35	5.81	9.49	9.75
Policy Target ▲	3.33	11.87	4.74	8.25	8.86

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

Asset Class Rankings

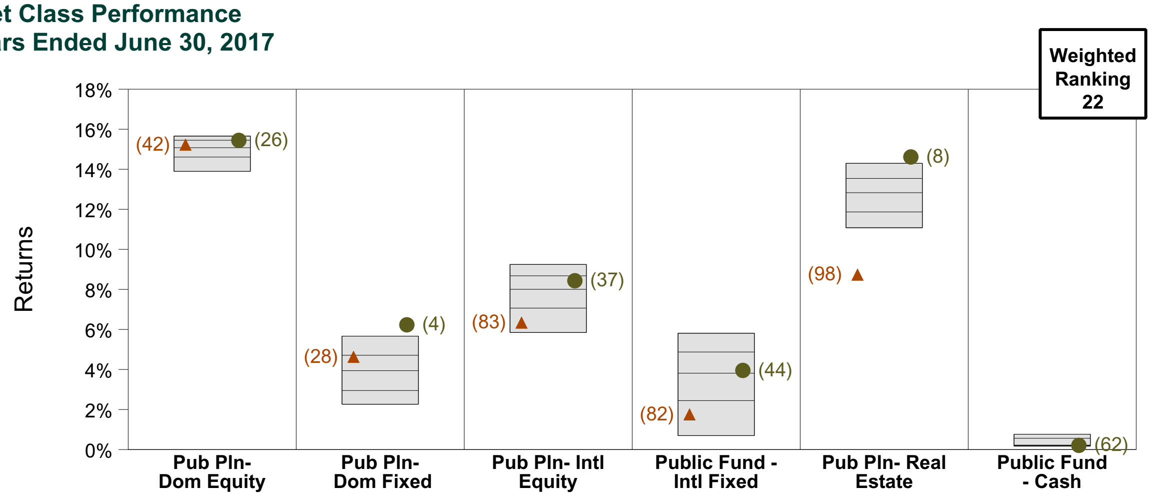
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance
One Year Ended June 30, 2017



	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	21.07	4.91	26.36	8.96	8.76	1.77
25th Percentile	19.81	3.52	23.38	7.97	8.58	0.70
Median	18.90	1.48	20.90	2.81	6.63	0.42
75th Percentile	18.07	0.08	19.59	(0.09)	4.66	0.35
90th Percentile	16.63	(0.38)	17.47	(3.61)	2.54	0.33
Asset Class Composite ●	17.38	6.53	21.37	1.15	9.65	0.74
Composite Benchmark ▲	19.58	3.23	20.53	(3.80)	4.88	-

Total Asset Class Performance
Seven Years Ended June 30, 2017



	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.66	5.67	9.25	5.81	14.30	0.77
25th Percentile	15.45	4.71	8.68	4.87	13.54	0.56
Median	15.08	3.94	8.00	3.81	12.83	0.22
75th Percentile	14.61	2.95	7.07	2.45	11.87	0.19
90th Percentile	13.90	2.26	5.85	0.70	11.08	0.17
Asset Class Composite ●	15.44	6.23	8.43	3.95	14.61	0.21
Composite Benchmark ▲	15.23	4.63	6.34	1.75	8.74	-

* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Class Allocation

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	**$1,631,190,921**	**58.65%**	**$(12,153,247)**	**$74,222,991**	**$1,569,121,178**	**58.66%**
Domestic Equity	**$631,277,502**	**22.70%**	**$(6,609,511)**	**$18,782,920**	**$619,104,093**	**23.14%**
Large Cap	479,066,241	17.22%	(6,365,156)	14,240,466	471,190,931	17.61%
Small Cap	152,211,261	5.47%	(244,355)	4,542,455	147,913,162	5.53%
International Equity	**$447,370,457**	**16.08%**	**$(5,449,971)**	**$27,777,639**	**$425,042,789**	**15.89%**
Developed Intl Equity	329,244,317	11.84%	(3,649,971)	20,993,261	311,901,027	11.66%
Emerging Markets	118,126,139	4.25%	(1,800,000)	6,784,378	113,141,762	4.23%
World Equity	**$468,680,340**	**16.85%**	**$(37,663)**	**$21,613,291**	**$447,104,711**	**16.71%**
Private Equity	**$83,862,623**	**3.02%**	**$(56,102)**	**$6,049,140**	**$77,869,585**	**2.91%**
GLOBAL FIXED INCOME	**$632,816,497**	**22.75%**	**$(1,417,328)**	**$16,919,646**	**$617,314,180**	**23.08%**
Domestic Fixed Income	**$502,620,244**	**18.07%**	**$(1,288,857)**	**$11,830,531**	**$492,078,570**	**18.40%**
Inv. Grade Fixed Income	359,796,107	12.94%	(514,777)	8,019,552	352,291,332	13.17%
Below Inv. Grade Fixed Income	142,824,137	5.14%	(774,081)	3,810,979	139,787,238	5.23%
International Fixed Income	**$130,196,253**	**4.68%**	**$(128,471)**	**$5,089,114**	**$125,235,610**	**4.68%**
GLOBAL REAL ASSETS	**$506,853,480**	**18.22%**	**$10,284,400**	**$15,815,993**	**$480,753,087**	**17.97%**
Real Estate	311,147,233	11.19%	1,592,603	9,851,031	299,703,599	11.20%
Timber	68,942,678	2.48%	(652,614)	(949,432)	70,544,724	2.64%
Infrastructure	126,763,569	4.56%	9,344,411	6,914,395	110,504,763	4.13%
Cash & Equivalents	**$10,486,155**	**0.38%**	**$2,662,685**	**$26,761**	**$7,796,709**	**0.29%**
Securities Lending Income	**$0**	**0.00%**	**$(73,054)**	**$73,054**	**-**	**-**
Total Fund	**$2,781,347,053**	**100.0%**	**$(696,544)**	**$107,058,444**	**$2,674,985,154**	**100.0%**

PLEASE REFER TO PAGES 30-32 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Global Equity					
Gross	4.73%	19.13%	5.96%	11.60%	-
Net	4.68%	18.85%	5.64%	11.27%	-
Wtd Avg Global Equity Benchmark	4.55%	18.77%	4.99%	10.66%	-
Domestic Equity					
Gross	3.03%	17.38%	9.17%	15.08%	15.44%
Net	3.00%	17.10%	8.98%	14.86%	15.19%
Wtd Avg Domestci Equity Benchmark	2.94%	19.58%	8.92%	14.52%	15.23%
Large Cap Equity					
Gross	3.02%	16.37%	10.05%	15.50%	15.75%
Net	3.00%	16.20%	9.90%	15.31%	15.50%
Benchmark(1)	3.06%	18.03%	9.26%	14.67%	15.42%
Small Cap Equity					
Gross	3.07%	20.74%	5.95%	13.50%	14.32%
Net	2.99%	20.08%	5.62%	13.17%	14.03%
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	14.35%
International Equity					
Gross	6.53%	21.37%	2.95%	9.43%	8.43%
Net	6.50%	21.18%	2.77%	9.17%	8.12%
Wtd Avg Intl Equity Benchmark	5.78%	20.53%	1.06%	7.52%	6.34%
Developed Intl Equity					
Gross	6.73%	21.30%	2.76%	10.59%	9.06%
Net	6.68%	21.05%	2.52%	10.31%	8.75%
Benchmark(2)	5.63%	19.49%	0.93%	8.55%	6.99%
Emerging Markets					
Gross	6.00%	21.55%	3.03%	5.18%	5.94%
Net	6.00%	21.55%	3.02%	4.98%	5.64%
Benchmark(3)	6.27%	23.75%	1.07%	3.96%	3.91%
World Equity					
Gross	4.83%	21.01%	5.79%	11.31%	-
Net	4.75%	20.57%	5.10%	10.61%	-
MSCI World Index	4.03%	18.20%	5.24%	11.38%	11.38%
Private Equity					
Net	7.70%	11.12%	(0.82%)	1.55%	3.83%

(1) S&P 500 Index through 12/31/2011 and the Russell 1000 Index thereafter.
(2) 50% Hedged EAFE through 3/31/2011, MSCI EAFE through 6/30/2016; MSCI World ex-US thereafter.
(3) MSCI Emerging Mkts Idx (Gross) through 6/30/2011 and MSCI Emerging Mkts Idx Net thereafter.

PLEASE REFER TO PAGES 33-37 FOR INVESTMENT MANAGER LEVEL RETURNS.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Global Fixed Income					
Gross	2.74%	5.27%	3.54%	4.90%	-
Net	2.68%	5.02%	3.28%	4.65%	-
Wtd Avg Global Fixed Income Benchmark	2.09%	1.73%	1.86%	2.71%	-
Domestic Fixed Income					
Gross	2.41%	6.53%	4.58%	5.82%	6.23%
Net	2.35%	6.30%	4.36%	5.61%	5.98%
Wtd Avg Domestic FI Benchmark	1.65%	3.23%	3.06%	3.57%	4.63%
Inv. Grade Fixed Income					
Gross	2.28%	3.79%	4.20%	4.67%	5.10%
Net	2.24%	3.65%	4.06%	4.55%	4.93%
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	3.19%
Below Inv. Grade Fixed Income					
Gross	2.73%	13.30%	5.36%	8.66%	9.21%
Net	2.64%	12.86%	4.93%	8.20%	8.77%
Blmbg HY Corp 2% Issue	2.17%	12.69%	4.50%	6.90%	8.14%
International Fixed Income					
Gross	4.06%	1.15%	(0.37%)	1.60%	3.95%
Net	3.97%	0.79%	(0.74%)	1.23%	3.58%
Wtd Avg Intl Fixed Income Benchmark	3.55%	(3.80%)	(2.42%)	(0.36%)	1.75%
Global Real Assets					
Gross	3.32%	6.59%	8.19%	8.83%	-
Net	3.18%	6.16%	7.73%	8.38%	-
Wtd Avg Global Real Assets Benchmark	1.17%	4.67%	6.55%	7.25%	-
Real Estate					
Gross	3.32%	9.65%	12.44%	13.00%	14.61%
Net	3.19%	9.13%	11.88%	12.46%	14.05%
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	11.58%
Timber					
Net	(1.35%)	(9.44%)	(0.60%)	0.27%	-
NCREIF Timberland Index	0.70%	3.35%	5.54%	7.16%	5.31%
Infrastructure					
Gross	6.29%	9.73%	4.81%	7.22%	-
Net	6.02%	9.21%	4.21%	6.52%	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.59%
Cash & Equivalents - Net	**0.25%**	**0.74%**	**0.37%**	**0.25%**	**0.21%**
3-month Treasury Bill	0.20%	0.49%	0.23%	0.17%	0.15%
Total Fund					
Gross	4.00%	13.35%	5.81%	9.49%	9.75%
Net	3.93%	13.05%	5.48%	9.16%	9.41%
Target*	3.33%	11.87%	4.74%	8.25%	8.86%

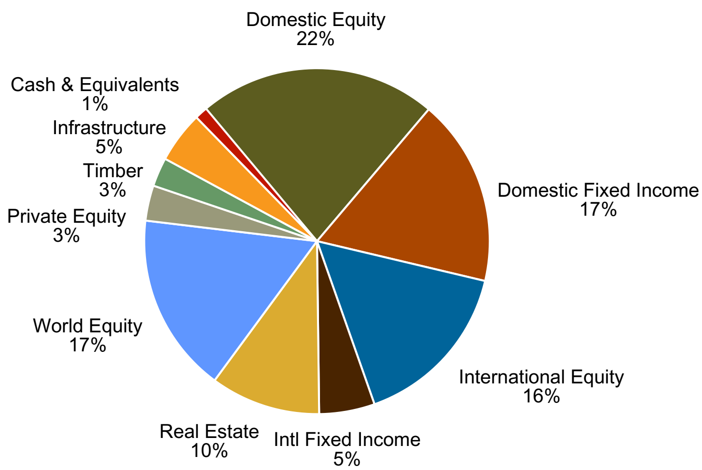
* Current Quarter Target = 16.0% MSCI World, 15.8% Russell 1000 Index, 13.0% Blmbg Aggregate, 11.0% MSCI World ex US, 11.0% NCREIF Total Index, 7.0% NDSIB PERS - Private Equity, 5.0% CPI-W, 5.0% Blmbg HY 2% Iss Cap, 5.0% Blmbg Glob Agg ex USD, 4.8% Russell 2000 Index, 3.4% MSCI EM and 3.0% NCREIF Timberland Index.

PLEASE REFER TO PAGES 33-37 FOR INVESTMENT MANAGER LEVEL RETURNS.

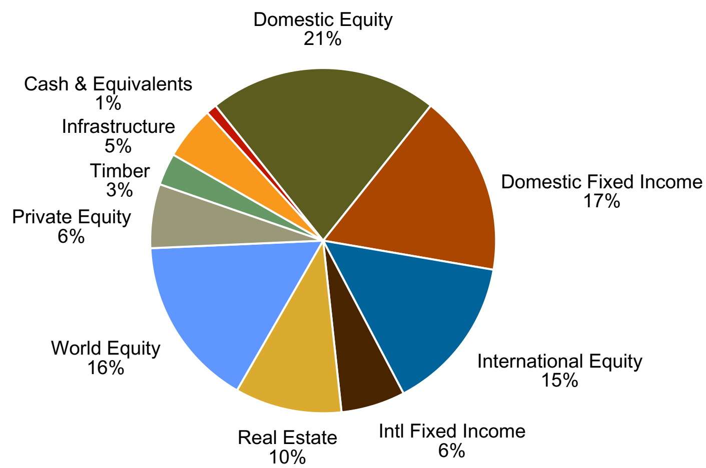
Actual vs Target Asset Allocation
As of June 30, 2017

The top left chart shows the Fund's asset allocation as of June 30, 2017. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the CAI Public Fund Sponsor Database.

Actual Asset Allocation

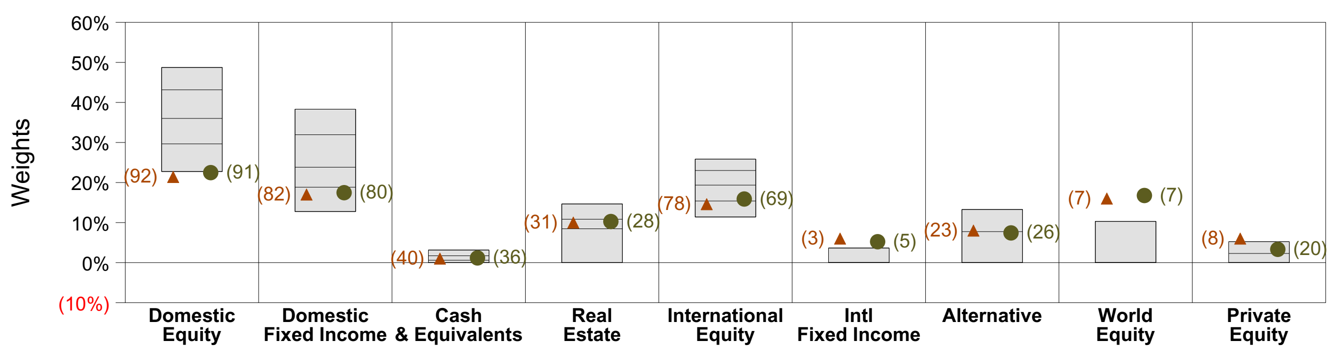


Target Asset Allocation



Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	521,098	22.5%	21.4%	1.1%	25,000
Domestic Fixed Income	405,007	17.5%	17.0%	0.5%	10,910
International Equity	368,270	15.9%	14.6%	1.3%	29,811
Intl Fixed Income	121,141	5.2%	6.0%	(0.8%)	(17,952)
Real Estate	237,904	10.3%	10.0%	0.3%	6,083
World Equity	388,563	16.8%	16.0%	0.8%	17,649
Private Equity	76,976	3.3%	6.0%	(2.7%)	(62,117)
Timber	61,610	2.7%	3.0%	(0.3%)	(7,937)
Infrastructure	110,391	4.8%	5.0%	(0.2%)	(5,520)
Cash & Equivalents	27,255	1.2%	1.0%	0.2%	4,072
Total	2,318,214	100.0%	100.0%		

Asset Class Weights vs CAI Public Fund Sponsor Database



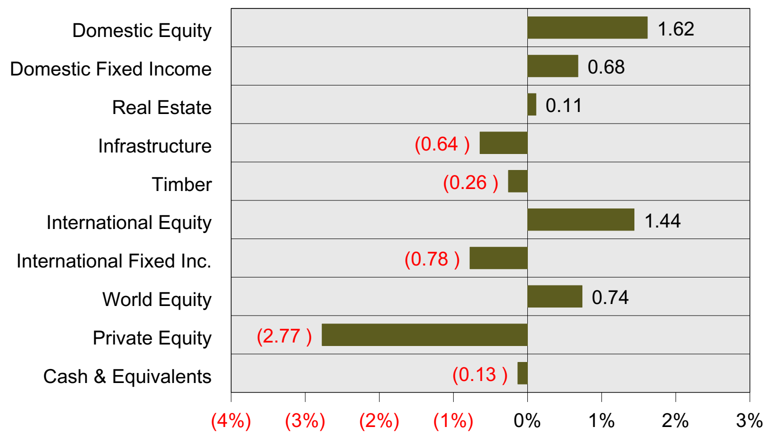
	Domestic Equity	Domestic Fixed Income	Cash & Equivalents	Real Estate	International Equity	Intl Fixed Income	Alternative	World Equity	Private Equity
10th Percentile	48.74	38.31	3.15	14.66	25.85	3.65	13.27	10.30	5.23
25th Percentile	43.15	31.94	1.72	10.84	23.01	0.00	7.74	0.00	2.29
Median	36.02	23.83	0.61	8.45	19.36	0.00	0.00	0.00	0.00
75th Percentile	29.66	18.84	0.00	0.00	15.39	0.00	0.00	0.00	0.00
90th Percentile	22.74	12.76	0.00	0.00	11.40	0.00	0.00	0.00	0.00
Fund ●	22.48	17.47	1.18	10.26	15.89	5.23	7.42	16.76	3.32
Target ▲	21.40	17.00	1.00	10.00	14.60	6.00	8.00	16.00	6.00
% Group Invested	96.10%	97.40%	70.13%	70.13%	90.91%	13.64%	14.94%	12.99%	32.47%

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

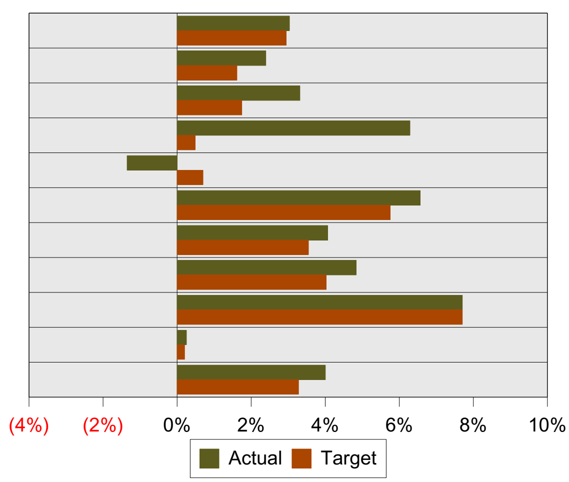
Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

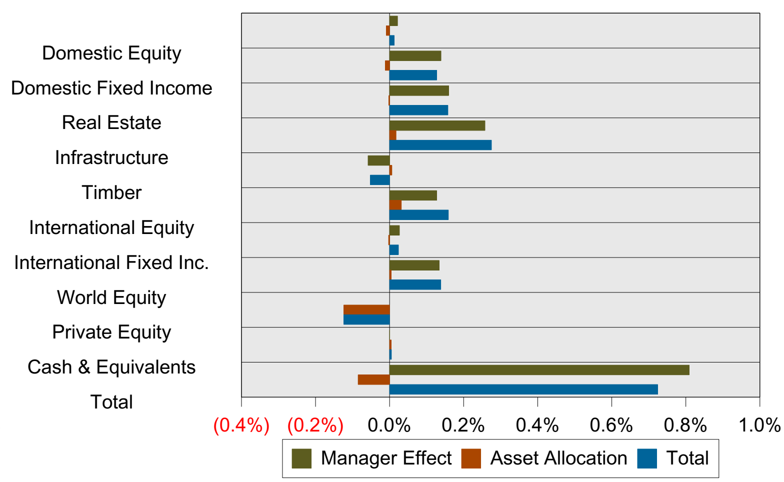
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2017

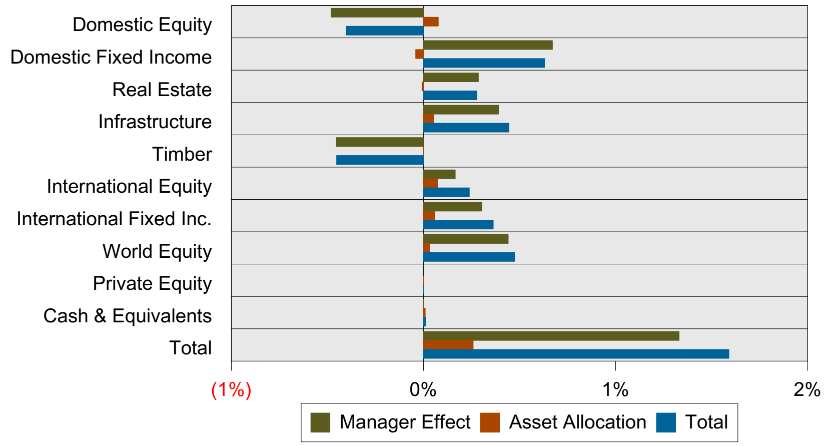
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	3.03%	2.94%	0.02%	(0.01%)	0.01%
Domestic Fixed Income	18%	17%	2.40%	1.62%	0.14%	(0.01%)	0.13%
Real Estate	10%	10%	3.32%	1.75%	0.16%	(0.00%)	0.16%
Infrastructure	4%	5%	6.29%	0.49%	0.26%	0.02%	0.28%
Timber	3%	3%	(1.35%)	0.70%	(0.06%)	0.01%	(0.05%)
International Equity	16%	15%	6.57%	5.75%	0.13%	0.03%	0.16%
International Fixed Inc.	5%	6%	4.06%	3.55%	0.03%	(0.00%)	0.02%
World Equity	17%	16%	4.83%	4.03%	0.13%	0.00%	0.14%
Private Equity	3%	6%	7.70%	7.70%	0.00%	(0.12%)	(0.12%)
Cash & Equivalents	1%	1%	0.25%	0.20%	0.00%	0.00%	0.00%
Total			**4.00% =**	**3.28% +**	**0.81% +**	**(0.08%)**	**0.72%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

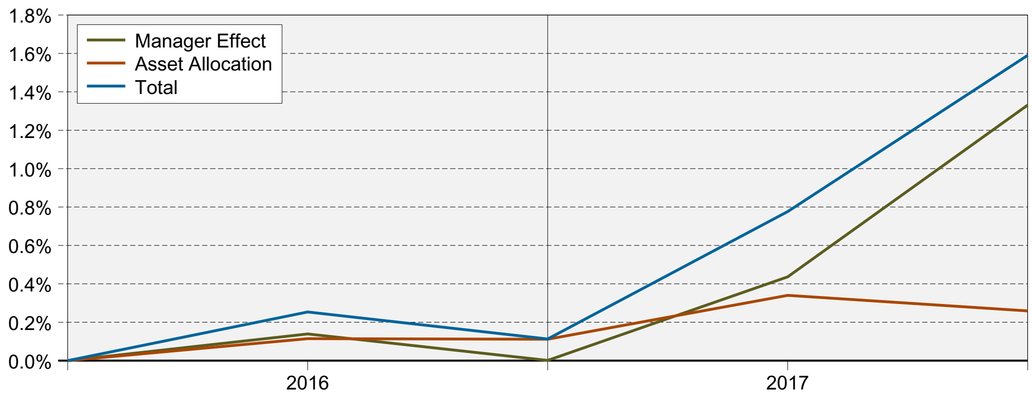
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

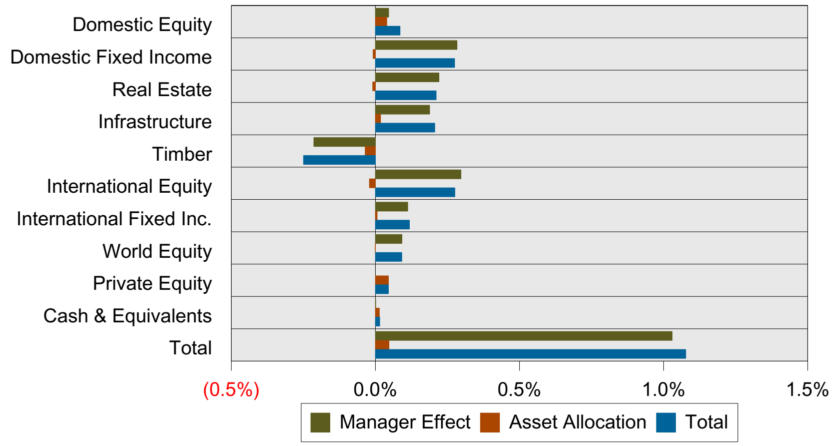
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	17.35%	19.56%	(0.48%)	0.08%	(0.40%)
Domestic Fixed Income	17%	17%	6.24%	2.62%	0.67%	(0.04%)	0.63%
Real Estate	10%	10%	9.65%	6.97%	0.29%	(0.01%)	0.28%
Infrastructure	4%	5%	9.73%	1.50%	0.39%	0.05%	0.45%
Timber	3%	3%	(9.44%)	3.35%	(0.45%)	0.00%	(0.45%)
International Equity	16%	15%	21.37%	20.33%	0.17%	0.07%	0.24%
International Fixed Inc.	5%	6%	1.15%	(3.80%)	0.30%	0.06%	0.36%
World Equity	17%	16%	21.01%	18.20%	0.44%	0.03%	0.48%
Private Equity	3%	6%	11.12%	11.12%	0.00%	(0.00%)	(0.00%)
Cash & Equivalents	1%	1%	0.74%	0.49%	0.00%	0.01%	0.01%
Total			**13.22% =**	**11.63% +**	**1.33% +**	**0.26%**	**1.59%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

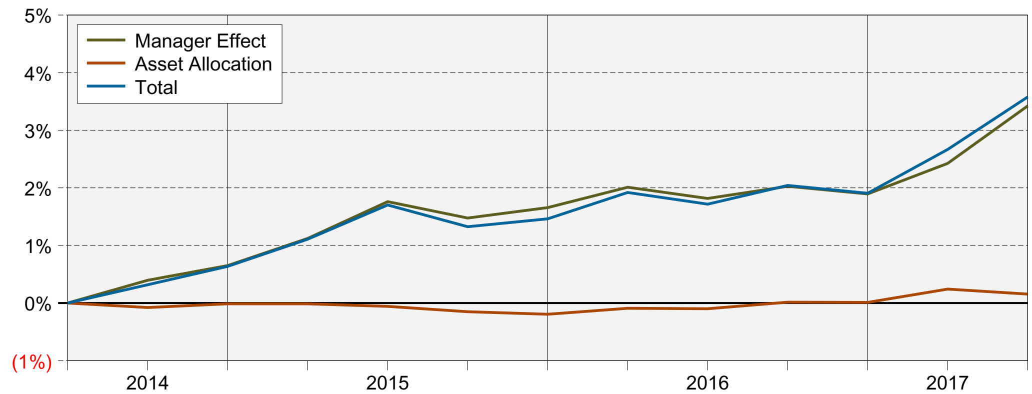
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

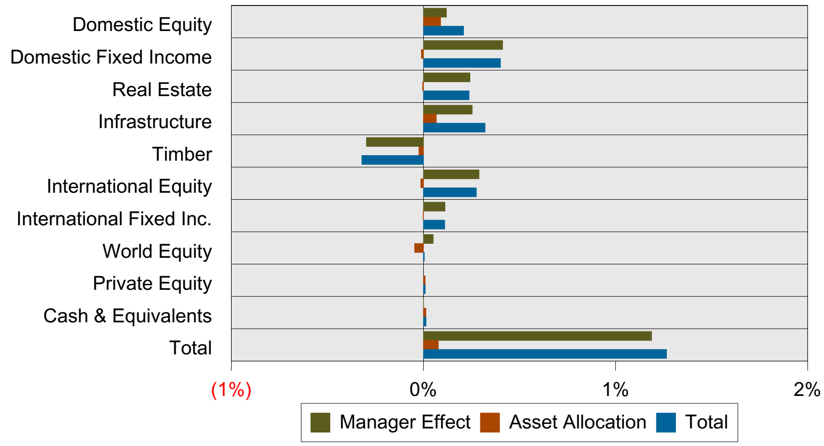
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	9.16%	8.91%	0.05%	0.04%	0.09%
Domestic Fixed Income	18%	17%	4.48%	2.88%	0.28%	(0.01%)	0.27%
Real Estate	10%	10%	12.44%	10.17%	0.22%	(0.01%)	0.21%
Infrastructure	4%	5%	4.81%	0.58%	0.19%	0.02%	0.21%
Timber	4%	4%	(0.60%)	5.54%	(0.21%)	(0.04%)	(0.25%)
International Equity	15%	15%	2.94%	1.04%	0.30%	(0.02%)	0.28%
International Fixed Inc.	5%	5%	(0.37%)	(2.42%)	0.11%	0.01%	0.12%
World Equity	16%	16%	5.79%	5.24%	0.09%	(0.00%)	0.09%
Private Equity	4%	5%	(0.81%)	(0.81%)	0.00%	0.05%	0.05%
Cash & Equivalents	1%	1%	0.37%	0.23%	0.00%	0.01%	0.02%
Total			**5.76% =**	**4.69% +**	**1.03% +**	**0.05%**	**1.08%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

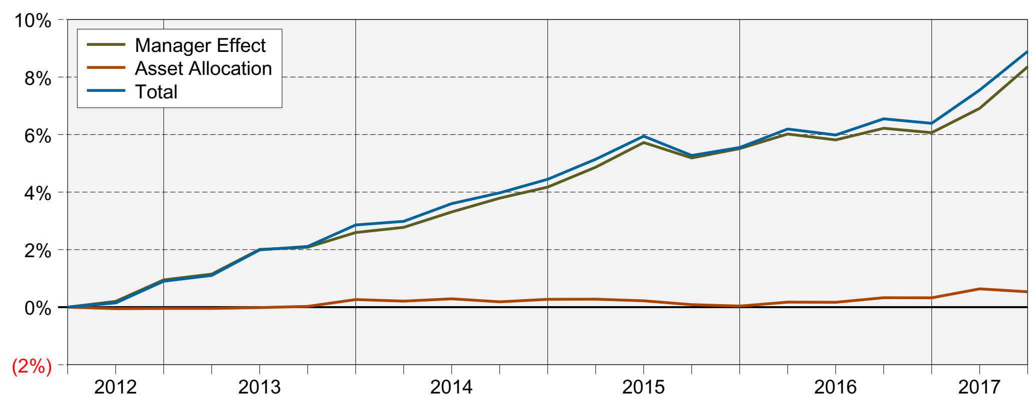
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

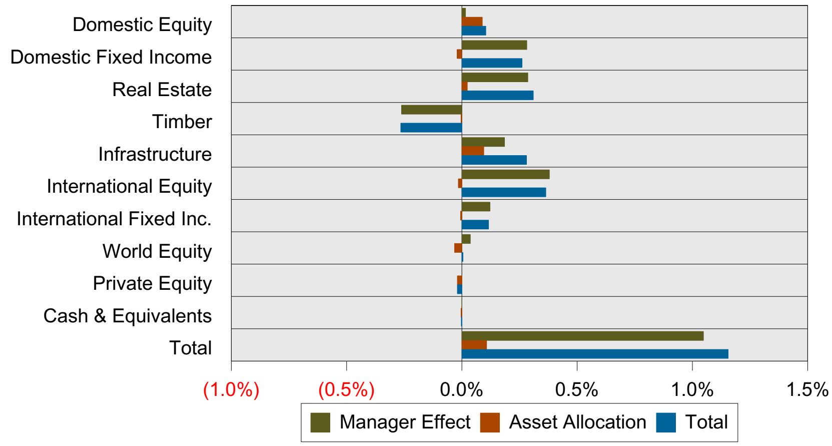
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	22%	15.07%	14.51%	0.12%	0.09%	0.21%
Domestic Fixed Income	18%	17%	5.77%	3.46%	0.41%	(0.01%)	0.40%
Real Estate	10%	10%	13.00%	10.49%	0.24%	(0.00%)	0.24%
Infrastructure	4%	5%	7.22%	1.11%	0.25%	0.07%	0.32%
Timber	4%	5%	0.27%	7.16%	(0.30%)	(0.02%)	(0.32%)
International Equity	15%	15%	9.67%	7.73%	0.29%	(0.01%)	0.28%
International Fixed Inc.	5%	5%	1.60%	(0.36%)	0.11%	(0.00%)	0.11%
World Equity	15%	15%	11.31%	11.38%	0.05%	(0.05%)	0.00%
Private Equity	4%	5%	1.59%	1.59%	0.00%	0.01%	0.01%
Cash & Equivalents	1%	1%	0.25%	0.17%	0.00%	0.01%	0.01%
Total			**9.51% =**	**8.25% +**	**1.19% +**	**0.08%**	**1.27%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

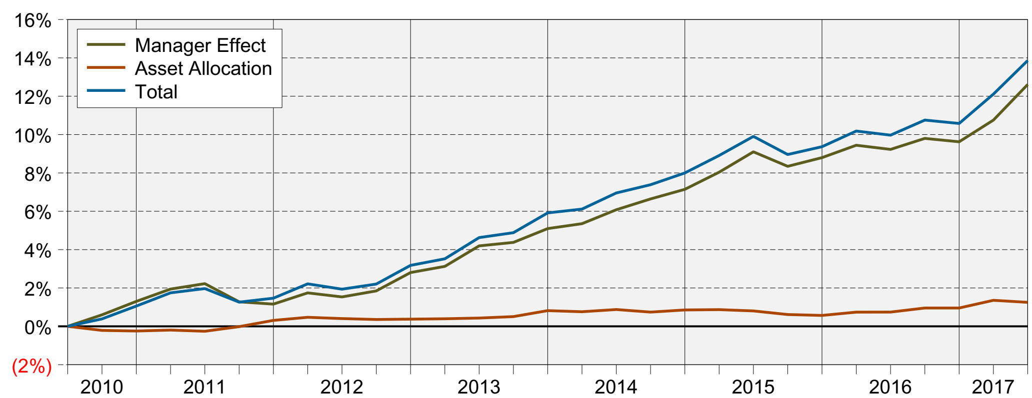
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Seven Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Seven Year Annualized Relative Attribution Effects

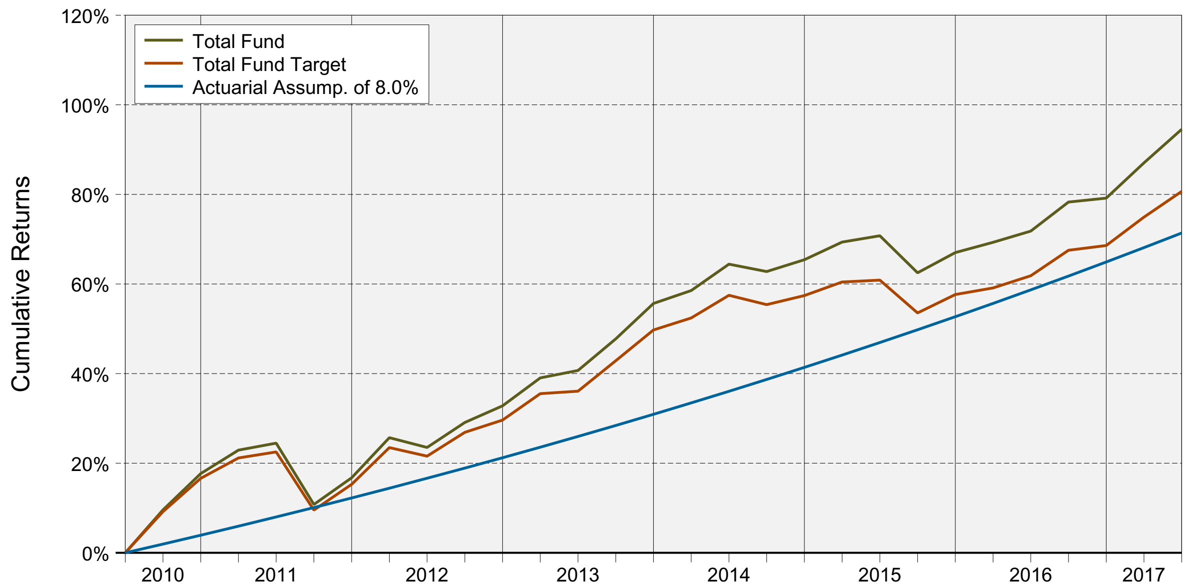
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	27%	26%	15.44%	15.22%	0.02%	0.09%	0.10%
Domestic Fixed Income	18%	17%	6.20%	4.57%	0.28%	(0.02%)	0.26%
Real Estate	10%	10%	14.61%	11.58%	0.29%	0.02%	0.31%
Timber	4%	4%	-	-	(0.26%)	(0.00%)	(0.27%)
Infrastructure	3%	4%	-	-	0.19%	0.10%	0.28%
International Equity	17%	17%	8.57%	6.48%	0.38%	(0.02%)	0.36%
International Fixed Inc.	5%	5%	3.95%	1.75%	0.12%	(0.01%)	0.12%
World Equity	11%	11%	-	-	0.04%	(0.03%)	0.00%
Private Equity	5%	5%	3.93%	3.93%	0.00%	(0.02%)	(0.02%)
Cash & Equivalents	1%	1%	0.21%	0.15%	0.00%	(0.00%)	(0.00%)
Total			**9.97% =**	**8.82% +**	**1.05% +**	**0.11%**	**1.16%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

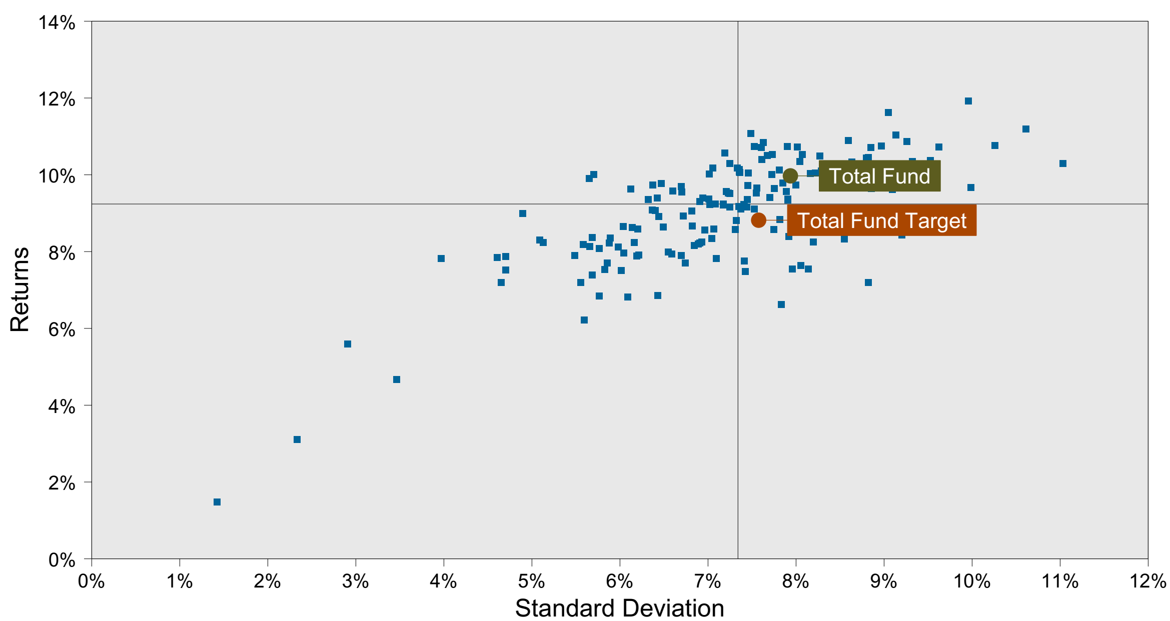
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Seven Year Annualized Risk vs Return



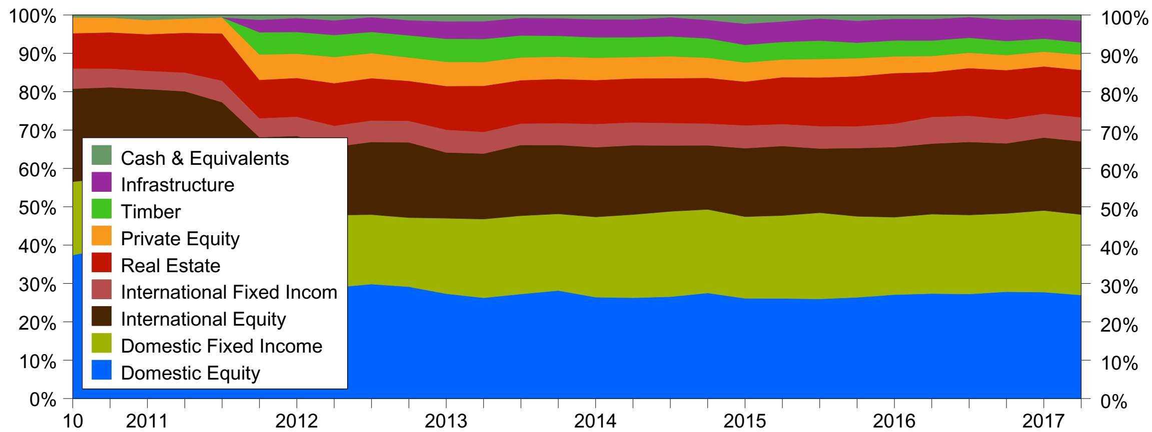
Squares represent membership of the CAI Public Fund Sponsor Database

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

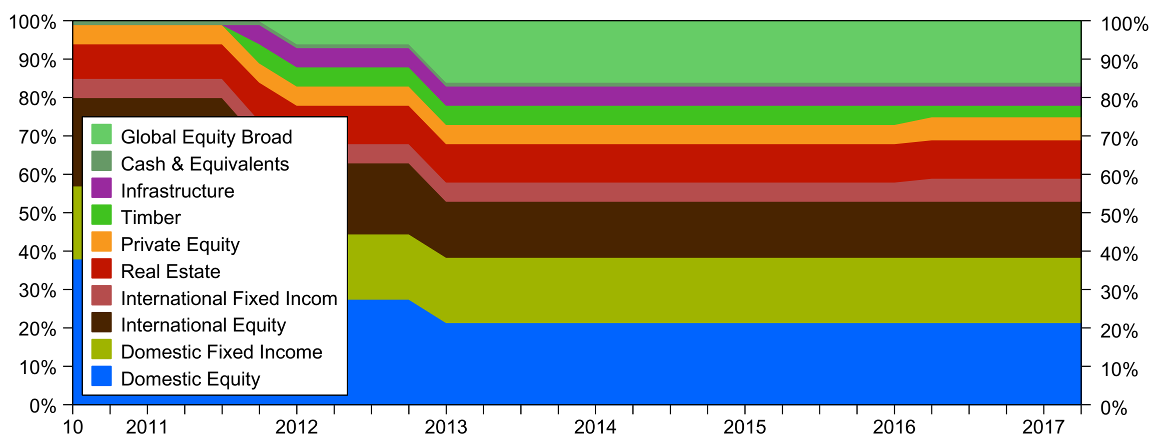
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.

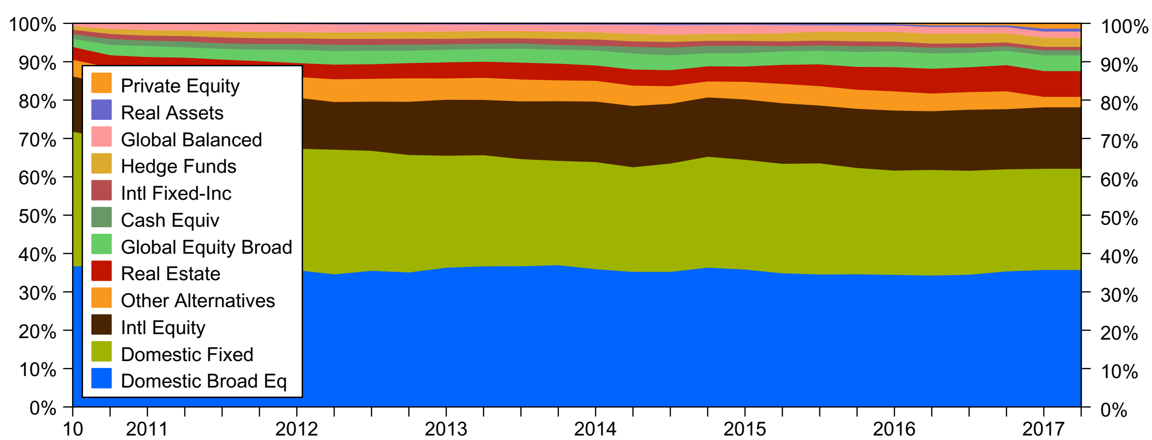
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average CAI Public Fund Sponsor Database Historical Asset Allocation

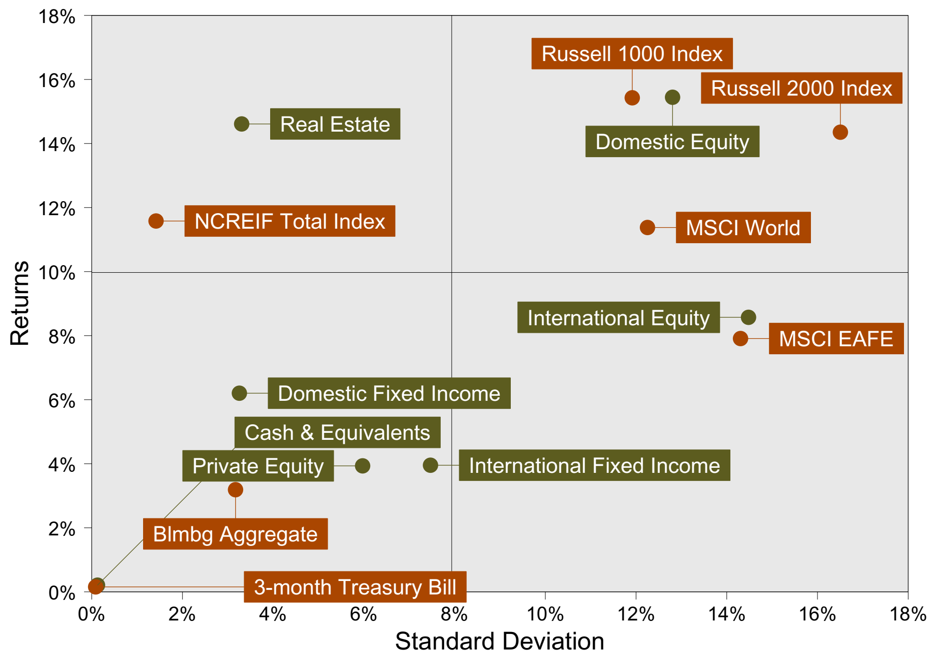


* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

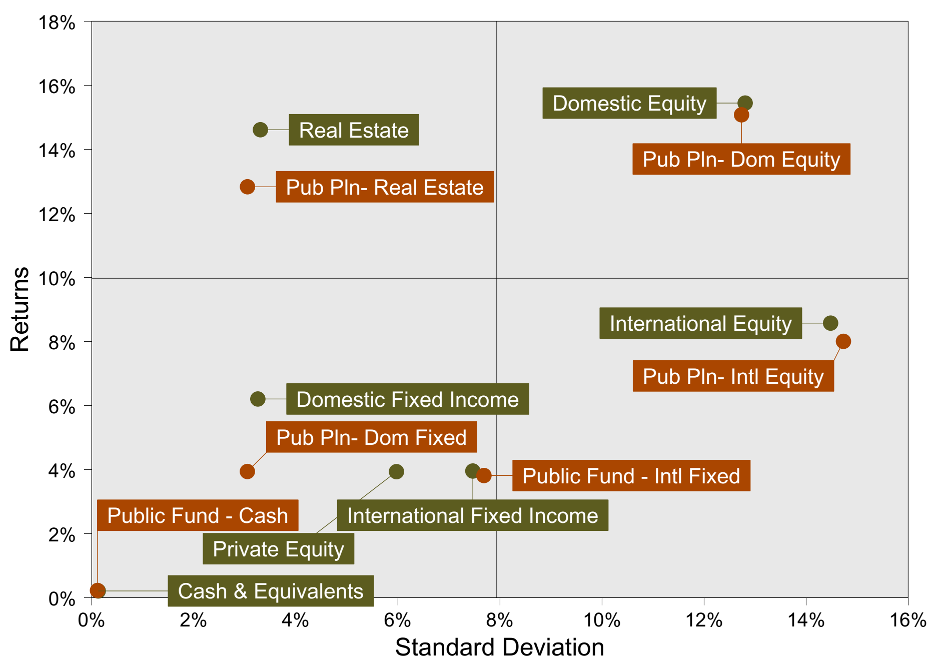
Asset Class Risk and Return

The charts below show the seven year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

Seven Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices



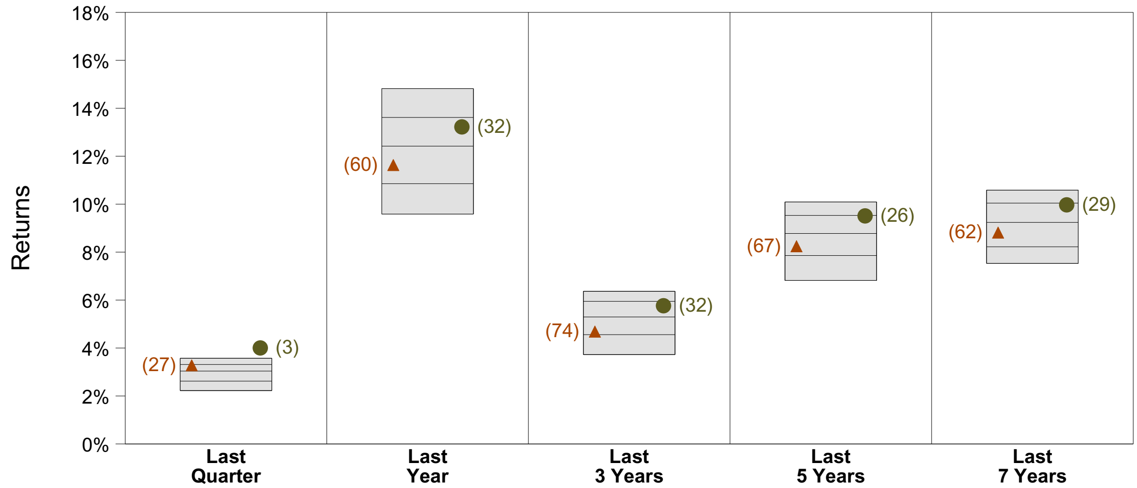
Seven Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

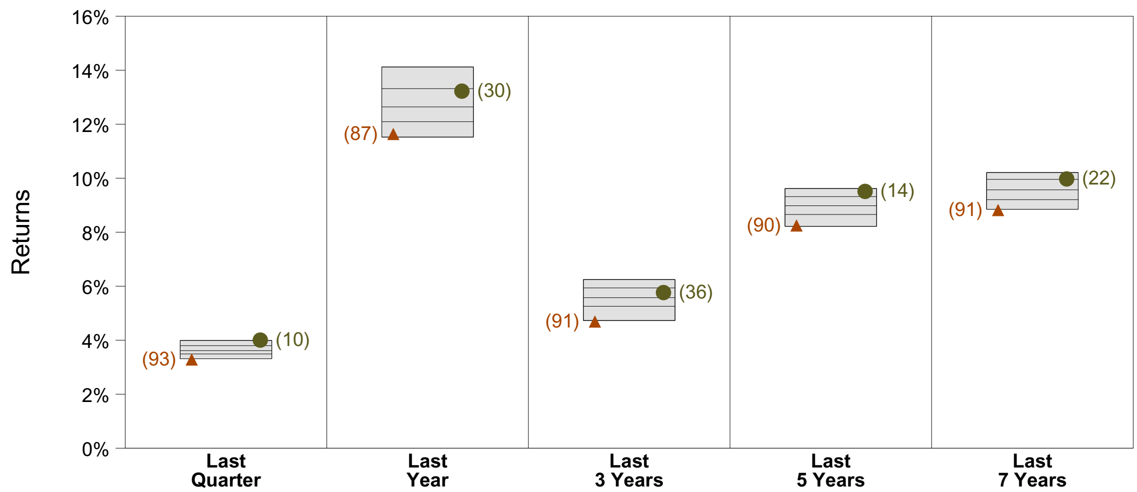
The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2017. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

CAI Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	3.57	14.82	6.37	10.09	10.59
25th Percentile	3.31	13.62	5.95	9.53	10.04
Median	3.04	12.42	5.30	8.78	9.24
75th Percentile	2.62	10.86	4.56	7.86	8.22
90th Percentile	2.23	9.59	3.73	6.82	7.53
Total Fund ●	4.00	13.22	5.76	9.51	9.97
Policy Target ▲	3.28	11.63	4.69	8.25	8.82

Asset Allocation Adjusted Ranking



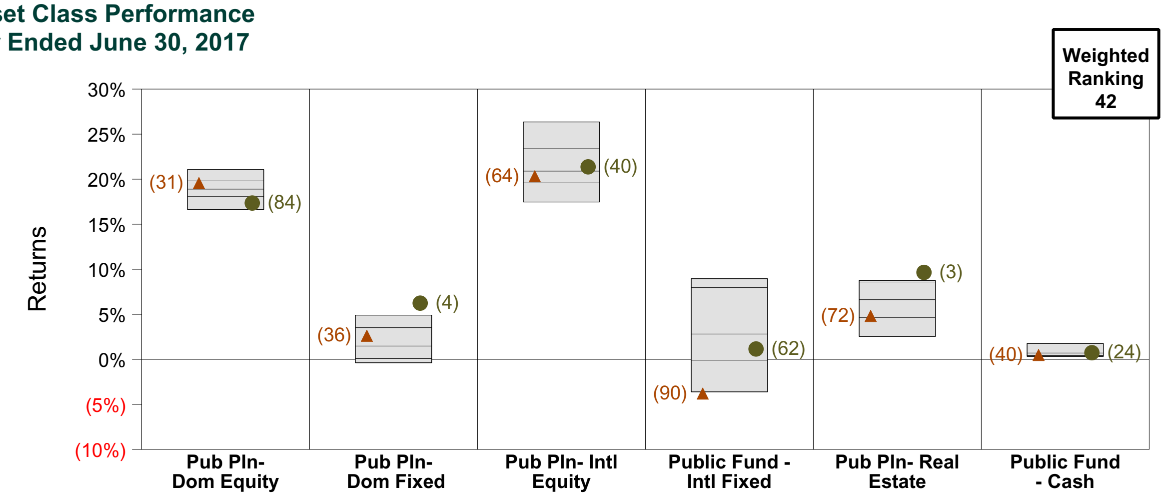
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	3.99	14.12	6.25	9.62	10.21
25th Percentile	3.80	13.32	5.94	9.32	9.96
Median	3.61	12.64	5.57	8.98	9.57
75th Percentile	3.49	12.09	5.26	8.66	9.20
90th Percentile	3.31	11.52	4.73	8.22	8.85
Total Fund ●	4.00	13.22	5.76	9.51	9.97
Policy Target ▲	3.28	11.63	4.69	8.25	8.82

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

Asset Class Rankings

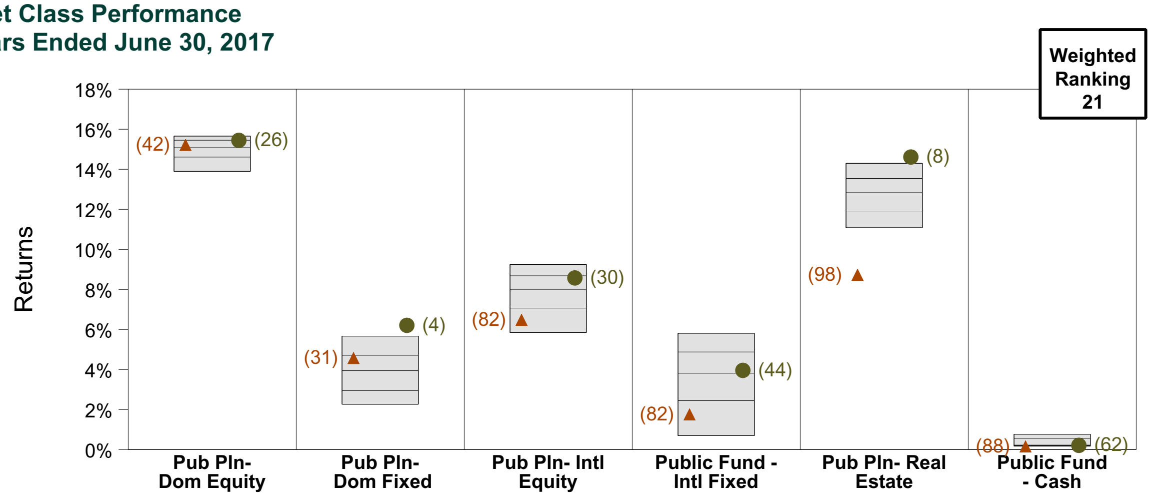
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund’s actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund’s overall success in picking managers and structuring asset classes.

Total Asset Class Performance
One Year Ended June 30, 2017



	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	21.07	4.91	26.36	8.96	8.76	1.77
25th Percentile	19.81	3.52	23.38	7.97	8.58	0.70
Median	18.90	1.48	20.90	2.81	6.63	0.42
75th Percentile	18.07	0.08	19.59	(0.09)	4.66	0.35
90th Percentile	16.63	(0.38)	17.47	(3.61)	2.54	0.33
Asset Class Composite ●	17.35	6.24	21.37	1.15	9.65	0.74
Composite Benchmark ▲	19.56	2.62	20.33	(3.80)	4.82	0.49

Total Asset Class Performance
Seven Years Ended June 30, 2017



	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	15.66	5.67	9.25	5.81	14.30	0.77
25th Percentile	15.45	4.71	8.68	4.87	13.54	0.56
Median	15.08	3.94	8.00	3.81	12.83	0.22
75th Percentile	14.61	2.95	7.07	2.45	11.87	0.19
90th Percentile	13.90	2.26	5.85	0.70	11.08	0.17
Asset Class Composite ●	15.44	6.20	8.57	3.95	14.61	0.21
Composite Benchmark ▲	15.22	4.57	6.48	1.75	8.73	0.15

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Class Allocation

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	**$1,354,907,880**	**58.45%**	**$(21,224,026)**	**$62,421,822**	**$1,313,710,084**	**58.81%**
Domestic Equity	**$521,098,201**	**22.48%**	**$(11,582,967)**	**$15,683,417**	**$516,997,751**	**23.15%**
Large Cap	397,798,517	17.16%	(11,386,283)	12,003,389	397,181,411	17.78%
Small Cap	123,299,684	5.32%	(196,684)	3,680,027	119,816,340	5.36%
International Equity	**$368,269,961**	**15.89%**	**$(9,091,061)**	**$23,247,965**	**$354,113,057**	**15.85%**
Developed Intl Equity	287,498,117	12.40%	(6,141,061)	18,511,090	275,128,088	12.32%
Emerging Markets	80,771,844	3.48%	(2,950,000)	4,736,875	78,984,969	3.54%
World Equity	**$388,563,403**	**16.76%**	**$(498,473)**	**$17,937,990**	**$371,123,886**	**16.61%**
Private Equity	**$76,976,315**	**3.32%**	**$(51,525)**	**$5,552,450**	**$71,475,390**	**3.20%**
GLOBAL FIXED INCOME	**$526,147,328**	**22.70%**	**$(1,109,980)**	**$14,230,225**	**$513,027,083**	**22.97%**
Fixed Income Comp	**$405,006,821**	**17.47%**	**$(939,185)**	**$9,493,579**	**$396,452,428**	**17.75%**
Investment Grade Fixed	298,944,157	12.90%	(402,417)	6,663,497	292,683,077	13.10%
Below Inv. Grade Fixed Income	106,062,664	4.58%	(536,768)	2,830,081	103,769,351	4.65%
International Fixed Income	**$121,140,506**	**5.23%**	**$(170,795)**	**$4,736,646**	**$116,574,655**	**5.22%**
GLOBAL REAL ASSETS	**$409,904,597**	**17.68%**	**$8,683,595**	**$12,705,639**	**$388,515,364**	**17.39%**
Real Estate	237,904,250	10.26%	1,177,757	7,529,989	229,196,503	10.26%
Timber	61,609,798	2.66%	(583,201)	(848,449)	63,041,448	2.82%
Infrastructure	110,390,549	4.76%	8,089,038	6,024,098	96,277,413	4.31%
Cash & Equivalents	**$27,254,525**	**1.18%**	**$8,766,629**	**$63,246**	**$18,424,650**	**0.82%**
Securities Lending Income	**$0**	**0.00%**	**$(59,807)**	**$59,807**	**-**	**-**
Total Fund	**$2,318,214,330**	**100.0%**	**$(4,943,590)**	**$89,480,739**	**$2,233,677,181**	**100.0%**

PLEASE REFER TO PAGES 30-32 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Global Equity					
Gross	4.75%	19.10%	5.91%	11.63%	-
Net	4.70%	18.81%	5.60%	11.29%	-
Wtd Avg Global Equity Benchmark	4.44%	18.58%	4.95%	10.71%	-
Domestic Equity					
Gross	3.03%	17.35%	9.16%	15.07%	15.44%
Net	3.00%	17.07%	8.97%	14.85%	15.19%
Wtd Avg Domestic Equity Benchmark	2.94%	19.56%	8.91%	14.51%	15.22%
Large Cap Equity					
Gross	3.02%	16.37%	10.05%	15.48%	15.73%
Net	3.00%	16.20%	9.90%	15.29%	15.49%
Benchmark(1)	3.06%	18.03%	9.26%	14.67%	15.42%
Small Cap Equity					
Gross	3.07%	20.74%	5.95%	13.50%	14.34%
Net	2.99%	20.08%	5.62%	13.17%	14.05%
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	14.35%
International Equity					
Gross	6.57%	21.37%	2.94%	9.67%	8.57%
Net	6.53%	21.17%	2.74%	9.40%	8.26%
Wtd Avg Intl Equity Benchmark	5.75%	20.33%	1.04%	7.73%	6.48%
Developed Intl Equity					
Gross	6.73%	21.30%	2.76%	10.59%	9.11%
Net	6.68%	21.05%	2.52%	10.31%	8.80%
Benchmark(2)	5.63%	19.49%	0.93%	8.55%	6.99%
Emerging Markets					
Gross	6.00%	21.55%	3.03%	5.18%	5.90%
Net	6.00%	21.55%	3.02%	4.98%	5.61%
Benchmark(3)	6.27%	23.75%	1.07%	3.96%	3.91%
World Equity					
Gross	4.83%	21.01%	5.79%	11.31%	-
Net	4.75%	20.57%	5.10%	10.61%	-
MSCI World Index	4.03%	18.20%	5.24%	11.38%	11.38%
Private Equity					
Net	7.70%	11.12%	(0.82%)	1.56%	3.86%

(1) S&P 500 Index through 12/31/2011 and the Russell 1000 Index thereafter.
(2) 50% Hedged EAFE through 3/31/2011; MSCI EAFE through 6/3016; MSCI World ex-US thereafter.
(3) MSCI Emerging Mkts Idx (Gross) through 6/30/2011 and MSCI Emerging Mkts Idx Net thereafter.

PLEASE REFER TO PAGES 33-37 FOR INVESTMENT MANAGER LEVEL RETURNS.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Global Fixed Income					
Gross	2.77%	4.93%	3.39%	4.82%	-
Net	2.72%	4.68%	3.14%	4.57%	-
Wtd Avg Global Fixed Inc. Benchmark	2.12%	0.94%	1.64%	2.58%	-
Domestic Fixed Income					
Gross	2.40%	6.24%	4.48%	5.77%	6.20%
Net	2.35%	6.02%	4.25%	5.55%	6.06%
Wtd Avg Domestic FI Benchmark	1.62%	2.62%	2.88%	3.46%	4.57%
Inv. Grade Fixed Income					
Gross	2.28%	3.79%	4.20%	4.67%	5.11%
Net	2.24%	3.65%	4.06%	4.55%	4.94%
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	3.19%
Below Inv. Grade Fixed Income					
Gross	2.73%	13.30%	5.37%	8.66%	9.20%
Net	2.64%	12.86%	4.93%	8.20%	8.76%
Blmbg HY Corp 2% Issue	2.17%	12.69%	4.50%	6.90%	8.14%
International Fixed Income					
Gross	4.06%	1.15%	(0.37%)	1.60%	3.95%
Net	3.97%	0.79%	(0.74%)	1.24%	3.59%
Wtd Avg Intl Fixed Income Benchmark	3.55%	(3.80%)	(2.42%)	(0.36%)	1.75%
Global Real Assets					
Gross	3.30%	6.20%	8.02%	8.74%	-
Net	3.16%	5.78%	7.56%	8.29%	-
Wtd Avg Global Real Assets Benchmark	1.22%	4.82%	6.61%	7.29%	-
Real Estate					
Gross	3.32%	9.65%	12.44%	13.00%	14.61%
Net	3.19%	9.13%	11.88%	12.46%	14.04%
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	11.58%
Timber					
Net	(1.35%)	(9.44%)	(0.60%)	0.27%	-
NCREIF Timberland Index	0.70%	3.35%	5.54%	7.16%	5.31%
Infrastructure					
Gross	6.29%	9.73%	4.81%	7.22%	-
Net	6.02%	9.21%	4.21%	6.52%	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.59%
Cash & Equivalents - Net	**0.25%**	**0.74%**	**0.37%**	**0.25%**	**0.21%**
3-month Treasury Bill	0.20%	0.49%	0.23%	0.17%	0.15%
Total Fund					
Gross	4.00%	13.22%	5.76%	9.51%	9.97%
Net	3.94%	12.92%	5.44%	9.18%	9.63%
Target*	3.28%	11.63%	4.69%	8.25%	8.82%

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

PLEASE REFER TO PAGES 33-37 FOR INVESTMENT MANAGER LEVEL RETURNS.

Domestic Equity
Period Ended June 30, 2017

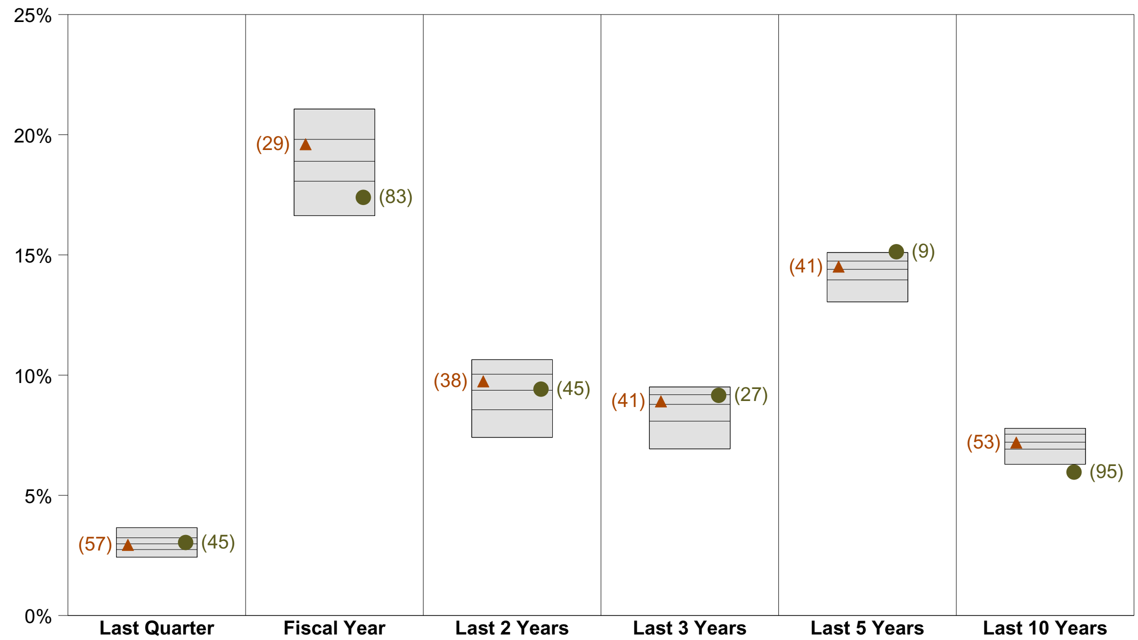
Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a 3.04% return for the quarter placing it in the 45 percentile of the Pub Pln- Domestic Equity group for the quarter and in the 83 percentile for the last year.
- Domestic Equity's portfolio outperformed the Russell 1000 Index by 0.10% for the quarter and underperformed the Russell 1000 Index for the year by 2.21%.

Quarterly Asset Growth

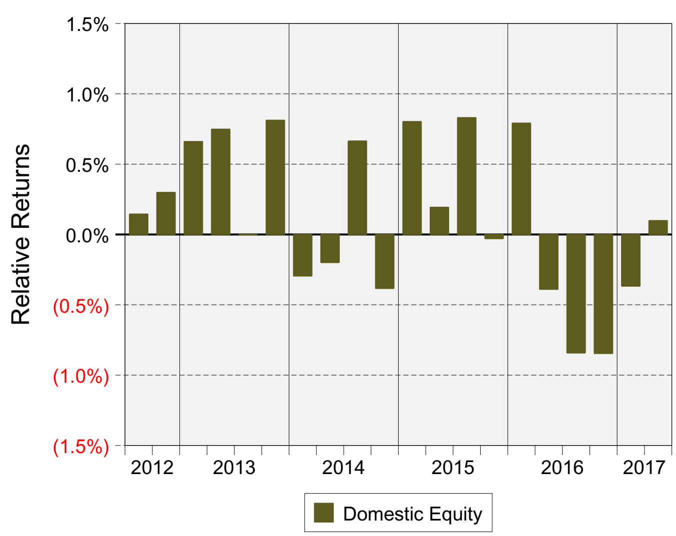
Beginning Market Value	$1,175,451,410
Net New Investment	$-17,454,545
Investment Gains/(Losses)	$35,662,353
Ending Market Value	$1,193,659,217

Performance vs Pub Pln- Domestic Equity (Gross)

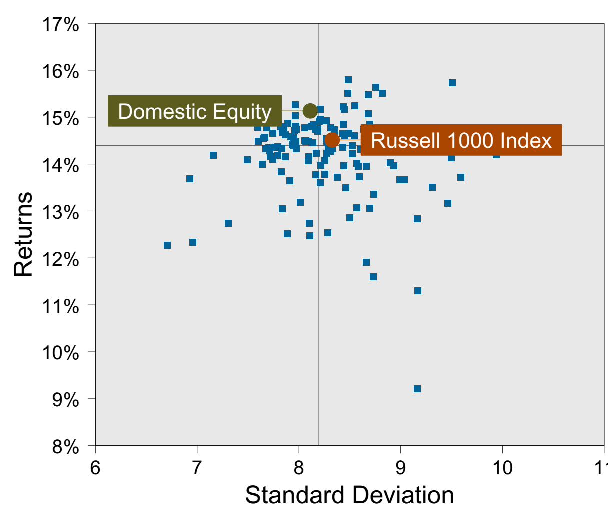


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	3.65	21.07	10.64	9.51	15.10	7.79
25th Percentile	3.23	19.81	10.04	9.18	14.74	7.54
Median	2.98	18.90	9.37	8.78	14.40	7.21
75th Percentile	2.74	18.07	8.56	8.09	13.96	6.92
90th Percentile	2.43	16.63	7.41	6.93	13.05	6.29
Domestic Equity ●	3.04	17.39	9.42	9.16	15.13	5.96
Russell 1000 Index ▲	2.94	19.61	9.74	8.91	14.51	7.19

Relative Return vs Russell 1000 Index



Pub Pln- Domestic Equity (Gross)
Annualized Five Year Risk vs Return



L.A. Capital
Period Ended June 30, 2017

Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

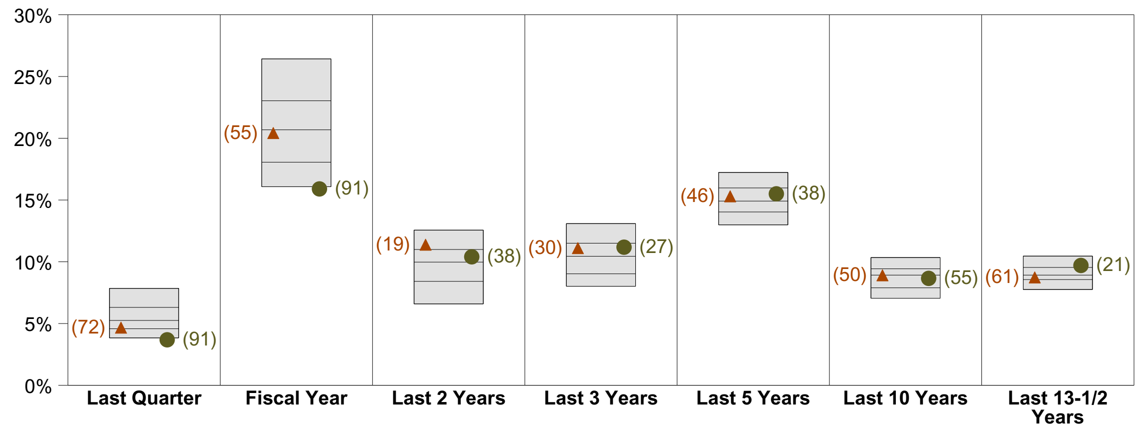
Quarterly Summary and Highlights

- L.A. Capital's portfolio posted a 3.68% return for the quarter placing it in the 91 percentile of the CAI Large Cap Growth group for the quarter and in the 91 percentile for the last year.
- L.A. Capital's portfolio underperformed the Russell 1000 Growth Index by 0.99% for the quarter and underperformed the Russell 1000 Growth Index for the year by 4.53%.

Quarterly Asset Growth

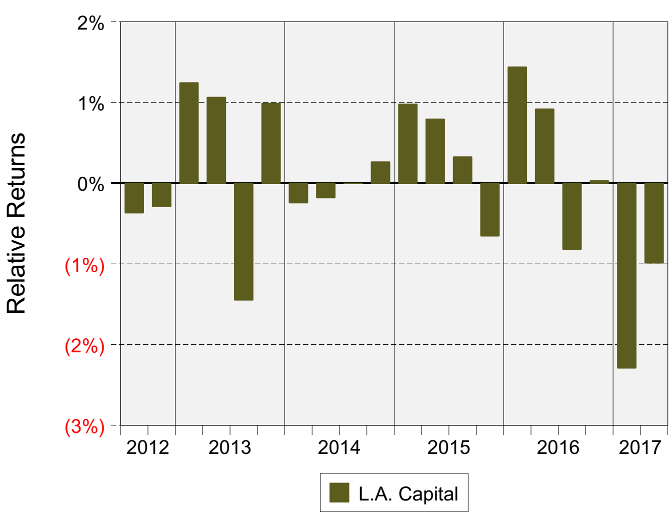
Beginning Market Value	$344,266,846
Net New Investment	$-12,175,536
Investment Gains/(Losses)	$12,710,186
Ending Market Value	$344,801,496

Performance vs CAI Large Cap Growth (Gross)

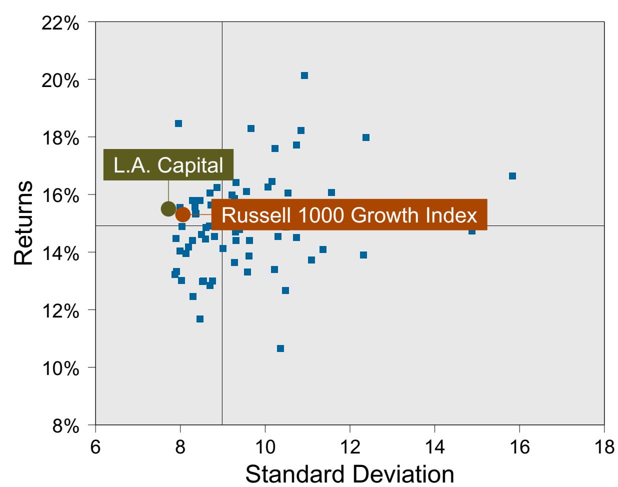


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 13-1/2 Years
10th Percentile	7.85	26.43	12.56	13.09	17.23	10.34	10.46
25th Percentile	6.31	23.03	10.99	11.50	15.98	9.43	9.54
Median	5.25	20.68	9.97	10.45	14.91	8.92	8.92
75th Percentile	4.58	18.06	8.41	9.03	14.03	7.89	8.56
90th Percentile	3.84	16.08	6.59	8.02	12.99	7.05	7.76
L.A. Capital ●	3.68	15.90	10.40	11.18	15.50	8.66	9.70
Russell 1000 Growth Index ▲	4.67	20.42	11.38	11.11	15.30	8.91	8.74

Relative Return vs Russell 1000 Growth Index



CAI Large Cap Growth (Gross)
Annualized Five Year Risk vs Return



L.A. Capital Management Enhanced Index
Period Ended June 30, 2017

Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

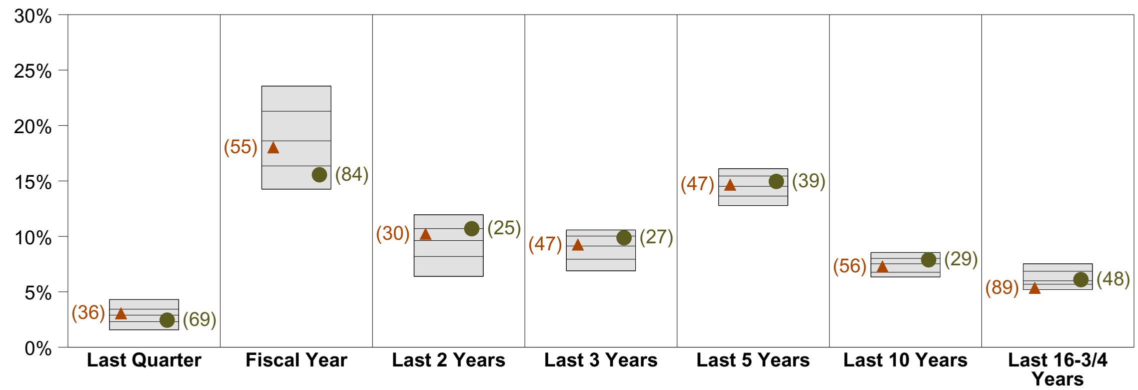
Quarterly Summary and Highlights

- LACM Enhanced Index's portfolio posted a 2.45% return for the quarter placing it in the 69 percentile of the CAI Large Cap Core group for the quarter and in the 84 percentile for the last year.
- LACM Enhanced Index's portfolio underperformed the Russell 1000 Index by 0.62% for the quarter and underperformed the Russell 1000 Index for the year by 2.47%.

Quarterly Asset Growth

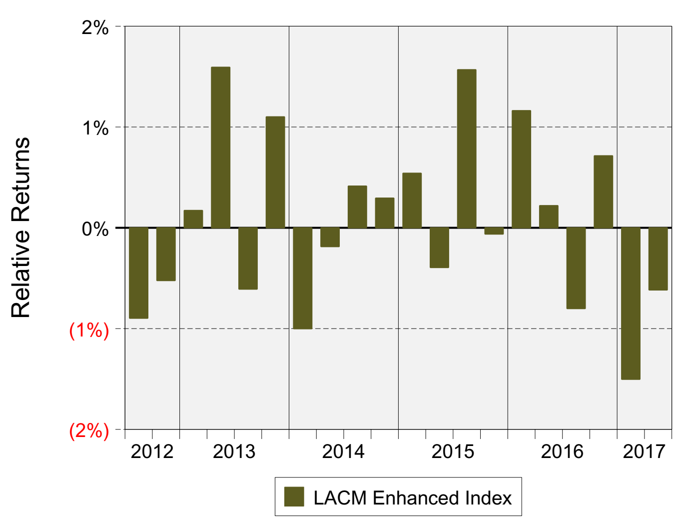
Beginning Market Value	$195,695,452
Net New Investment	$-52,687
Investment Gains/(Losses)	$4,784,680
Ending Market Value	$200,427,445

Performance vs CAI Large Cap Core (Gross)

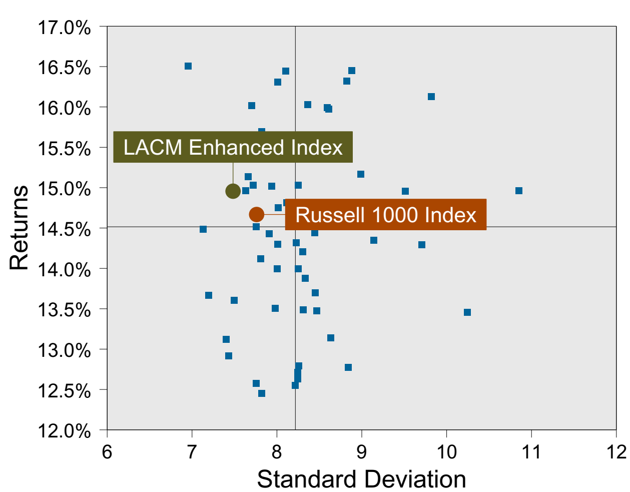


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 16-3/4 Years
10th Percentile	4.30	23.56	11.95	10.58	16.11	8.54	7.53
25th Percentile	3.43	21.29	10.70	10.03	15.45	8.01	6.85
Median	2.90	18.62	9.62	9.13	14.52	7.53	5.99
75th Percentile	2.31	16.36	8.19	7.94	13.63	6.76	5.68
90th Percentile	1.57	14.26	6.39	6.89	12.78	6.34	5.20
LACM Enhanced Index ●	2.45	15.56	10.69	9.88	14.96	7.89	6.10
Russell 1000 Index ▲	3.06	18.03	10.22	9.26	14.67	7.29	5.36

Relative Return vs Russell 1000 Index



CAI Large Cap Core (Gross)
Annualized Five Year Risk vs Return



Northern Trust AM Enh S&P500
Period Ended June 30, 2017

Investment Philosophy

Northern Trust AM Enhanced S&P 500 employs a quantitative investment approach, focusing on the stock selection process as the principal source of value added. The account invests primarily in a broadly diversified portfolio of equity securities that include securities convertible into equity securities (including common stock), warrants, rights and units or shares in trusts, exchange traded funds and investment companies. The Investment Manager intends to use futures and options to manage market risk associated with the account's investments.

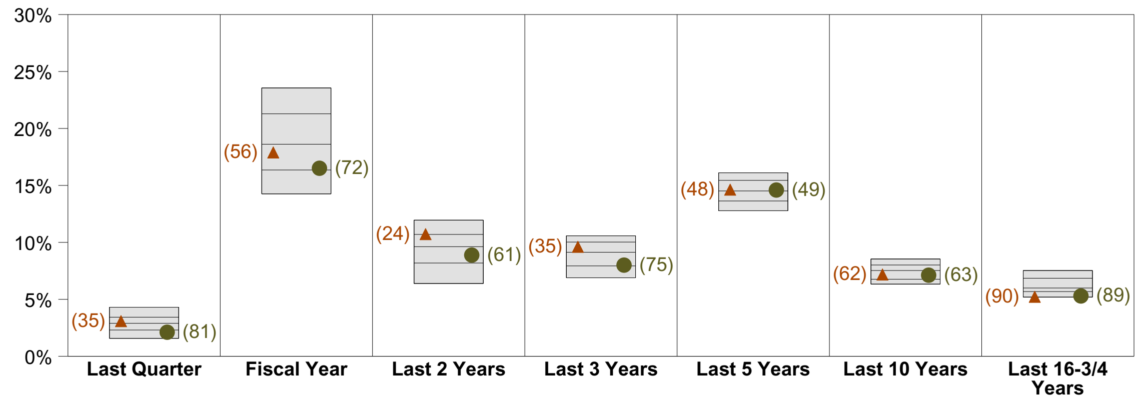
Quarterly Summary and Highlights

- Northern Trust AM Enh S&P500's portfolio posted a 2.11% return for the quarter placing it in the 81 percentile of the CAI Large Cap Core group for the quarter and in the 72 percentile for the last year.
- Northern Trust AM Enh S&P500's portfolio underperformed the S&P 500 Index by 0.97% for the quarter and underperformed the S&P 500 Index for the year by 1.39%.

Quarterly Asset Growth

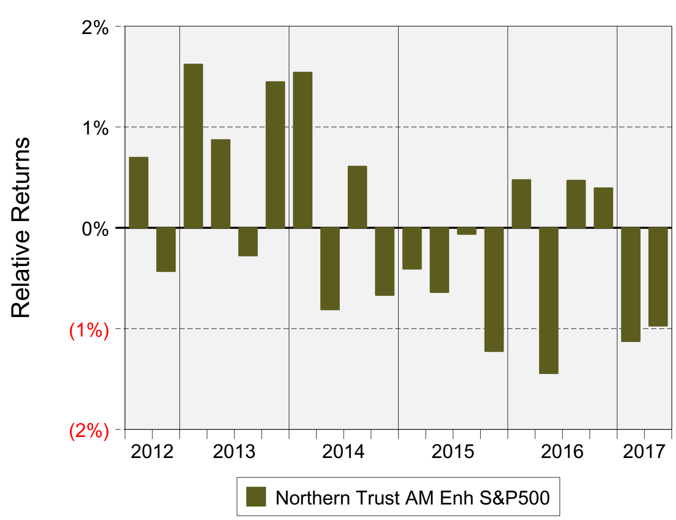
Beginning Market Value	$163,853,565
Net New Investment	$0
Investment Gains/(Losses)	$3,464,944
Ending Market Value	$167,318,509

Performance vs CAI Large Cap Core (Gross)

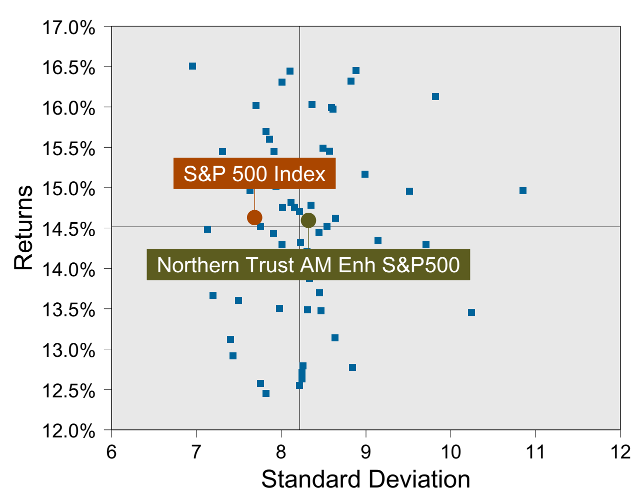


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 16-3/4 Years
10th Percentile	4.30	23.56	11.95	10.58	16.11	8.54	7.53
25th Percentile	3.43	21.29	10.70	10.03	15.45	8.01	6.85
Median	2.90	18.62	9.62	9.13	14.52	7.53	5.99
75th Percentile	2.31	16.36	8.19	7.94	13.63	6.76	5.68
90th Percentile	1.57	14.26	6.39	6.89	12.78	6.34	5.20
Northern Trust AM Enh S&P500 ●	2.11	16.51	8.88	8.00	14.59	7.12	5.30
S&P 500 Index ▲	3.09	17.90	10.73	9.61	14.63	7.18	5.23

Relative Return vs S&P 500 Index



CAI Large Cap Core (Gross)
Annualized Five Year Risk vs Return



Parametric Clifton Enh S&P
Period Ended June 30, 2017

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

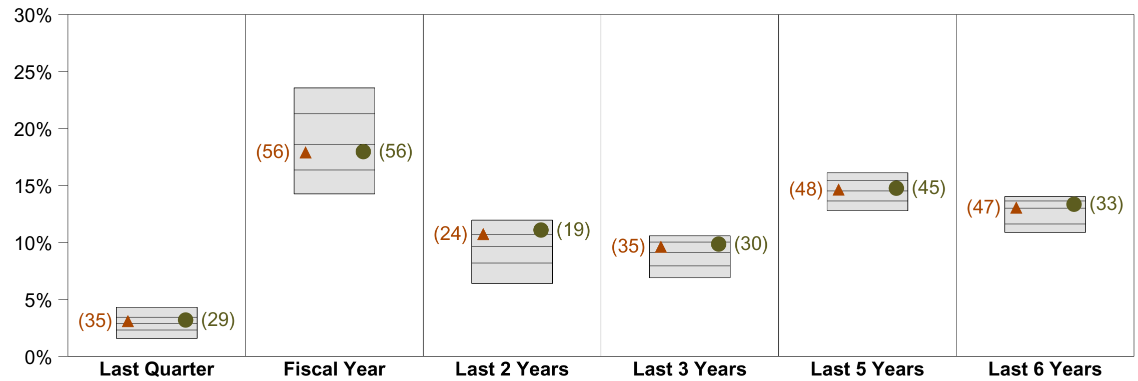
Quarterly Summary and Highlights

- Parametric Clifton Enh S&P's portfolio posted a 3.19% return for the quarter placing it in the 29 percentile of the CAI Large Cap Core group for the quarter and in the 56 percentile for the last year.
- Parametric Clifton Enh S&P's portfolio outperformed the S&P 500 Index by 0.10% for the quarter and outperformed the S&P 500 Index for the year by 0.07%.

Quarterly Asset Growth

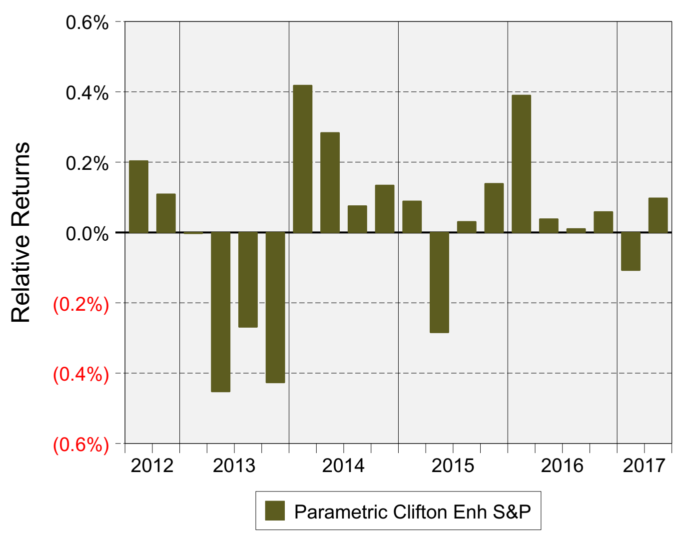
Beginning Market Value	$191,161,713
Net New Investment	$-5,000,000
Investment Gains/(Losses)	$6,088,872
Ending Market Value	$192,250,585

Performance vs CAI Large Cap Core (Gross)

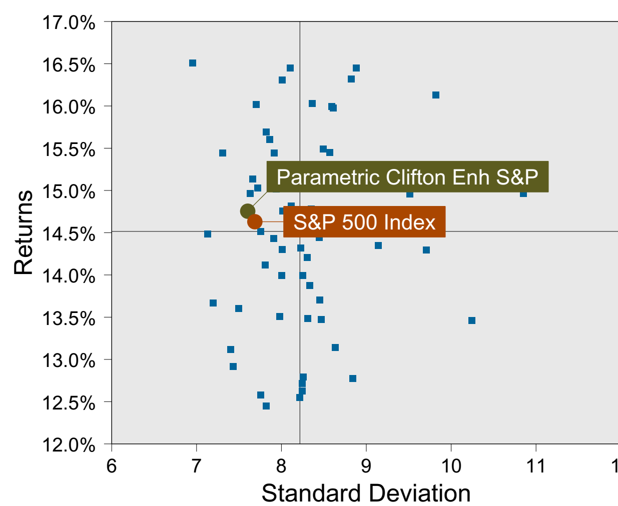


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years
10th Percentile	4.30	23.56	11.95	10.58	16.11	14.02
25th Percentile	3.43	21.29	10.70	10.03	15.45	13.64
Median	2.90	18.62	9.62	9.13	14.52	13.00
75th Percentile	2.31	16.36	8.19	7.94	13.63	11.62
90th Percentile	1.57	14.26	6.39	6.89	12.78	10.88
Parametric Clifton Enh S&P ●	3.19	17.97	11.08	9.85	14.75	13.35
S&P 500 Index ▲	3.09	17.90	10.73	9.61	14.63	13.05

Relative Return vs S&P 500 Index



CAI Large Cap Core (Gross) Annualized Five Year Risk vs Return



Atlanta Capital
Period Ended June 30, 2017

Investment Philosophy

Atlanta believes that high quality companies produce consistently increasing earnings and dividends, thereby providing attractive returns with moderate risk over the long-term.

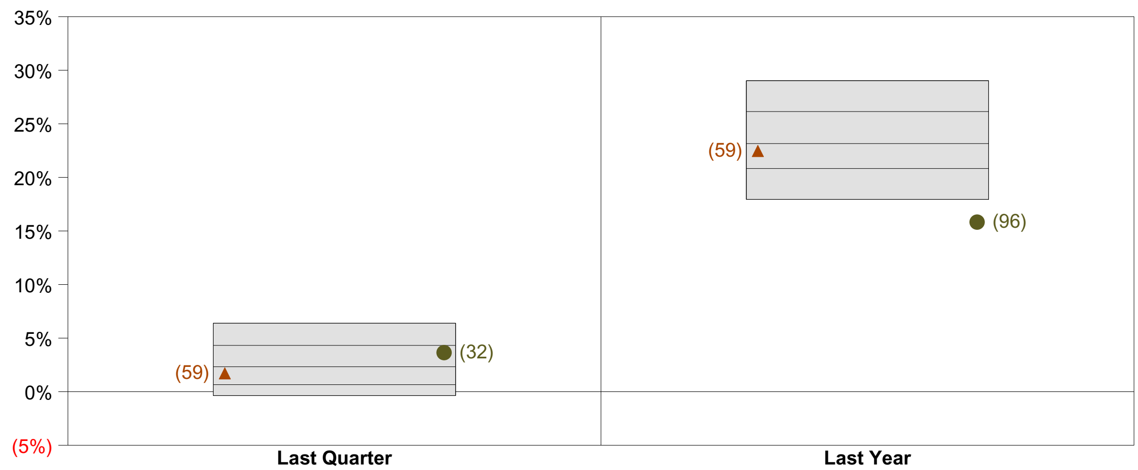
Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a 3.65% return for the quarter placing it in the 32 percentile of the CAI Small Capitalization group for the quarter and in the 96 percentile for the last year.
- Atlanta Capital's portfolio outperformed the S&P 600 Small Cap Index by 1.93% for the quarter and underperformed the S&P 600 Small Cap Index for the year by 6.64%.

Quarterly Asset Growth

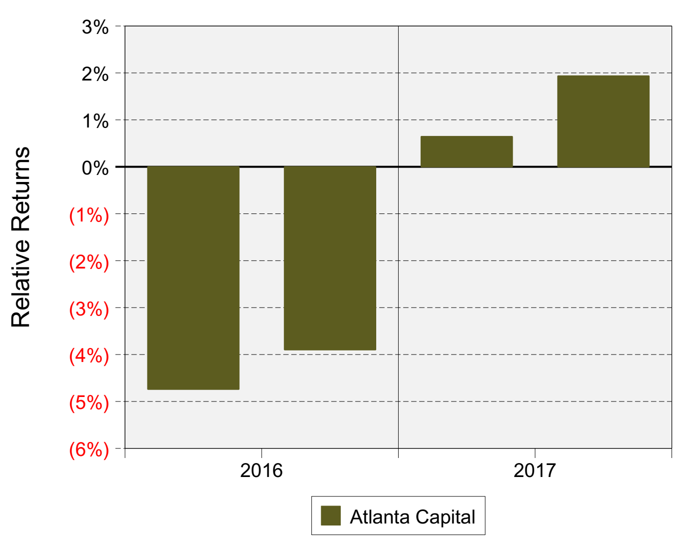
Beginning Market Value	$125,881,599
Net New Investment	$-226,322
Investment Gains/(Losses)	$4,582,400
Ending Market Value	$130,237,677

Performance vs CAI Small Capitalization (Gross)

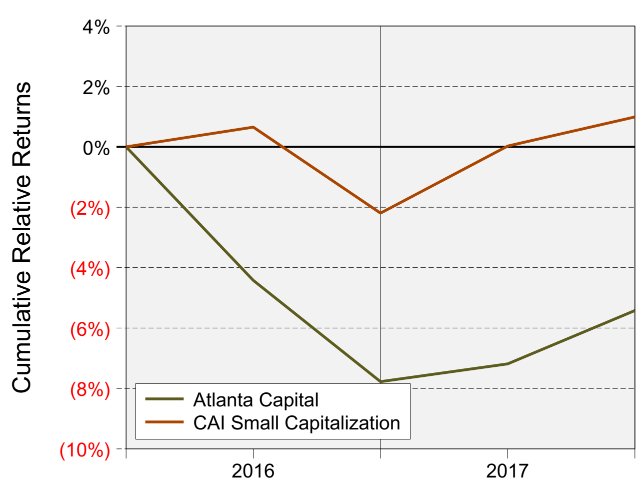


	Last Quarter	Last Year
10th Percentile	6.40	29.03
25th Percentile	4.32	26.14
Median	2.33	23.16
75th Percentile	0.66	20.83
90th Percentile	(0.37)	17.94
Atlanta Capital ●	3.65	15.83
S&P 600 Small Cap Index ▲	1.71	22.47

Relative Return vs S&P 600 Small Cap Index



Cumulative Returns vs S&P 600 Small Cap Index



Parametric Clifton Enh SmCap
Period Ended June 30, 2017

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

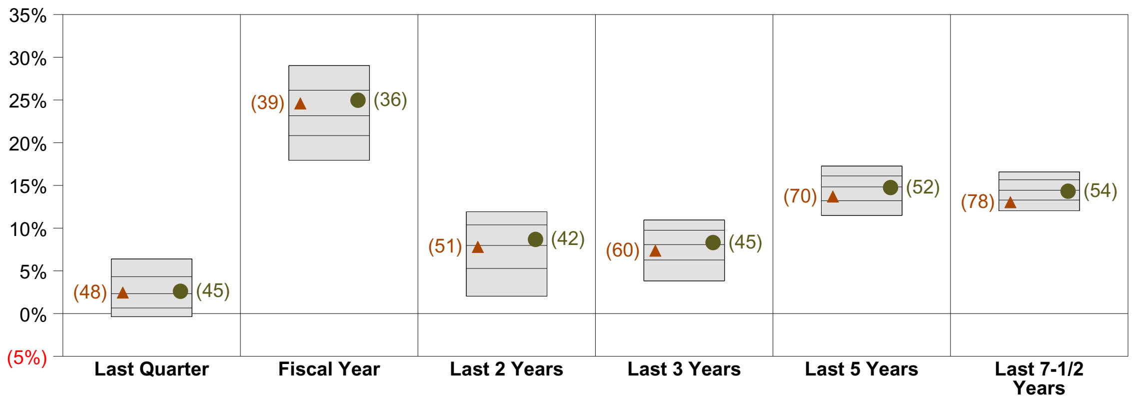
Quarterly Summary and Highlights

- Parametric Clifton Enh SmCap's portfolio posted a 2.61% return for the quarter placing it in the 45 percentile of the CAI Small Capitalization group for the quarter and in the 36 percentile for the last year.
- Parametric Clifton Enh SmCap's portfolio outperformed the Russell 2000 Index by 0.14% for the quarter and outperformed the Russell 2000 Index for the year by 0.37%.

Quarterly Asset Growth

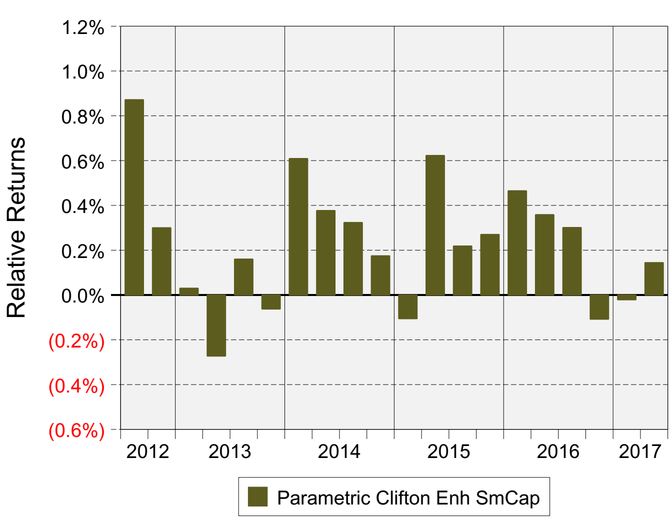
Beginning Market Value	$154,592,235
Net New Investment	$0
Investment Gains/(Losses)	$4,031,270
Ending Market Value	$158,623,505

Performance vs CAI Small Capitalization (Gross)

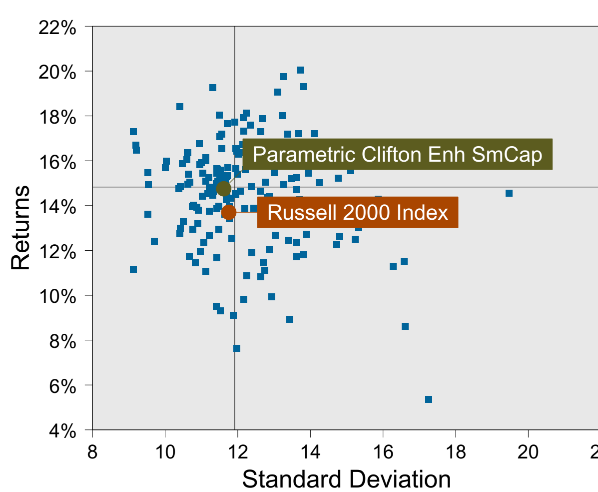


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-1/2 Years
10th Percentile	6.40	29.03	11.92	10.96	17.27	16.58
25th Percentile	4.32	26.14	10.38	9.75	16.11	15.66
Median	2.33	23.16	7.97	8.07	14.83	14.44
75th Percentile	0.66	20.83	5.28	6.27	13.21	13.29
90th Percentile	(0.37)	17.94	2.03	3.82	11.49	12.04
Parametric Clifton Enh SmCap ●	2.61	24.97	8.68	8.31	14.75	14.32
Russell 2000 Index ▲	2.46	24.60	7.80	7.36	13.70	13.04

Relative Return vs Russell 2000 Index



CAI Small Capitalization (Gross)
Annualized Five Year Risk vs Return



International Equity
Period Ended June 30, 2017

Quarterly Summary and Highlights

- International Equity's portfolio posted a 6.54% return for the quarter placing it in the 33 percentile of the Pub Pln- International Equity group for the quarter and in the 40 percentile for the last year.
- International Equity's portfolio outperformed the International Equity Target by 0.77% for the quarter and outperformed the International Equity Target for the year by 0.91%.

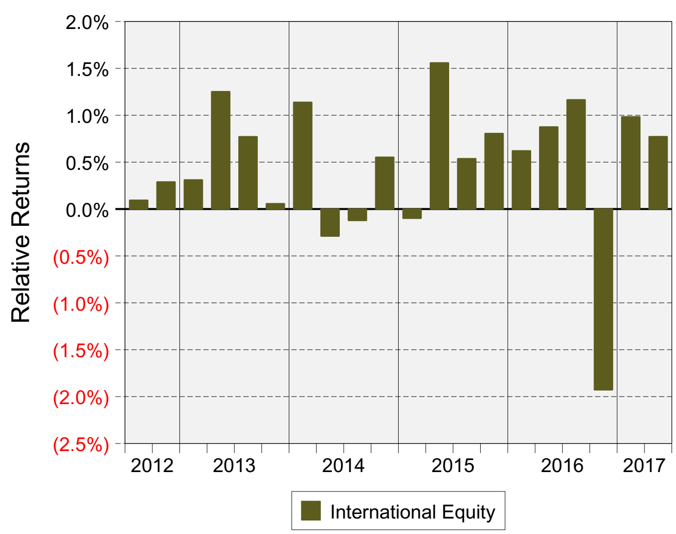
Quarterly Asset Growth

Beginning Market Value	$801,493,046
Net New Investment	$-15,308,725
Investment Gains/(Losses)	$52,465,049
Ending Market Value	$838,649,370

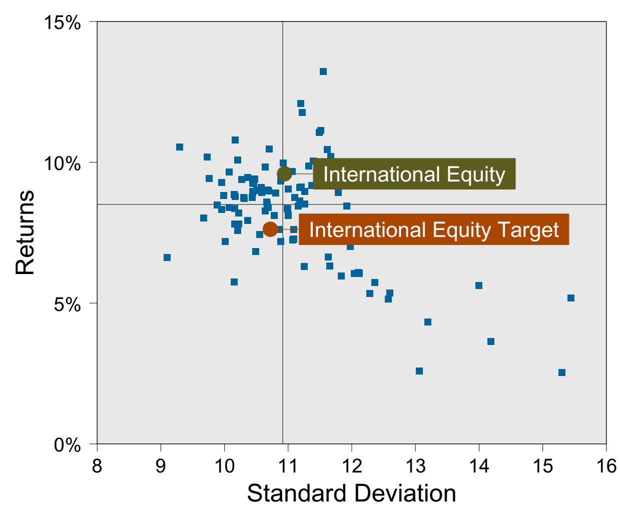
Performance vs Pub Pln- International Equity (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	8.07	26.36	7.32	3.81	10.15	3.24
25th Percentile	6.78	23.38	5.93	2.95	9.29	2.65
Median	6.27	20.90	5.07	2.22	8.50	2.05
75th Percentile	5.96	19.59	4.22	1.52	7.38	1.06
90th Percentile	5.39	17.47	3.31	0.90	5.83	(0.20)
International Equity ●	6.54	21.36	5.79	2.94	9.59	2.90
International Equity Target ▲	5.77	20.45	3.89	1.06	7.62	1.27

Relative Return vs International Equity Target



Pub Pln- International Equity (Gross) Annualized Five Year Risk vs Return



DFA International Small Cap Value Fund
Period Ended June 30, 2017

Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

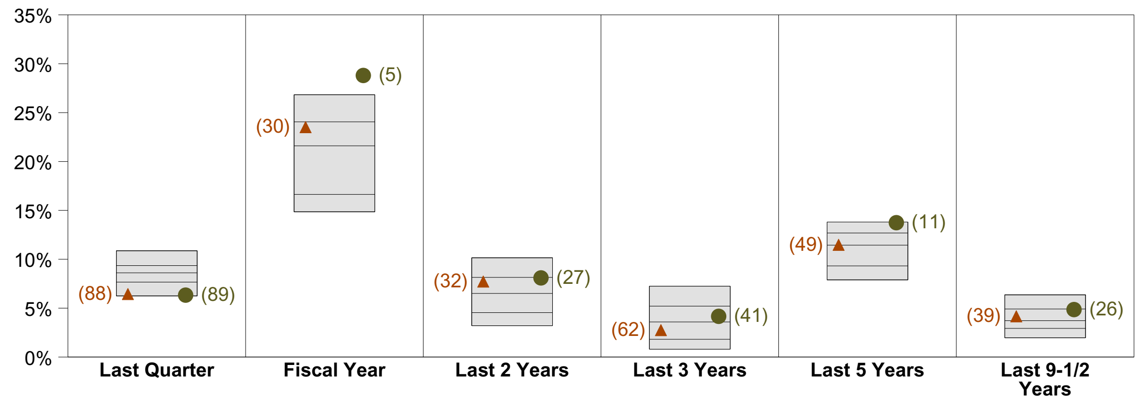
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 6.33% return for the quarter placing it in the 89 percentile of the CAI International Small Cap Mut Funds group for the quarter and in the 5 percentile for the last year.
- DFA Intl Small Cap Value's portfolio underperformed the World ex US SC Value by 0.11% for the quarter and outperformed the World ex US SC Value for the year by 5.28%.

Quarterly Asset Growth

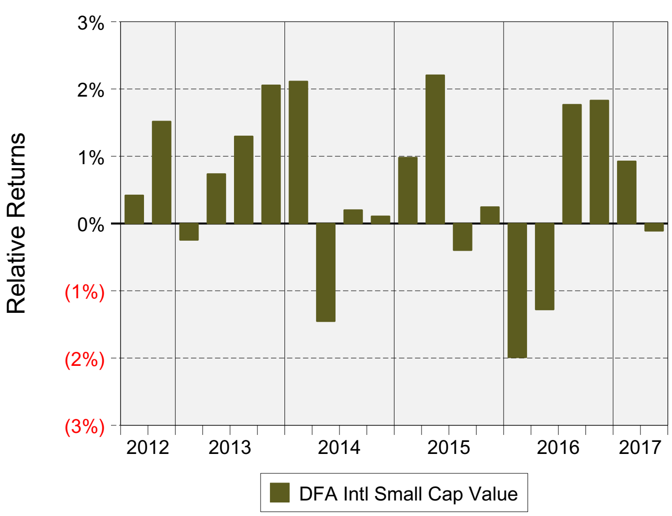
Beginning Market Value	$87,118,785
Net New Investment	$-5,000,000
Investment Gains/(Losses)	$5,504,399
Ending Market Value	$87,623,184

Performance vs CAI International Small Cap Mut Funds (Net)

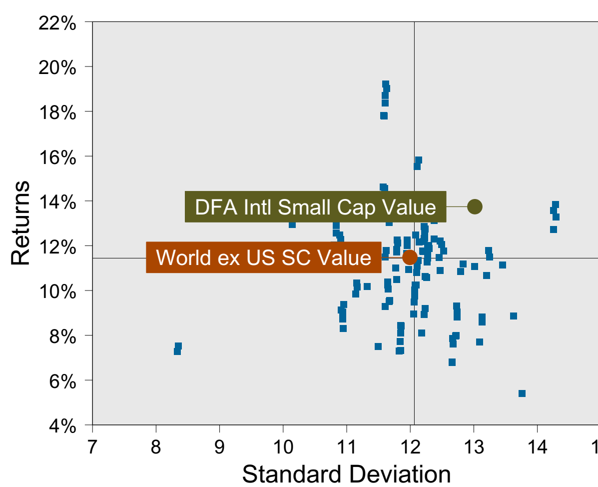


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	10.87	26.83	10.15	7.25	13.81	6.36
25th Percentile	9.35	24.06	8.15	5.21	12.69	4.92
Median	8.61	21.60	6.50	3.59	11.44	3.72
75th Percentile	7.67	16.63	4.54	1.82	9.32	2.93
90th Percentile	6.25	14.86	3.21	0.80	7.89	1.97
DFA Intl Small Cap Value ●	6.33	28.80	8.09	4.16	13.74	4.86
World ex US SC Value ▲	6.44	23.52	7.72	2.76	11.48	4.17

Relative Return vs World ex US SC Value



CAI International Small Cap Mut Funds (Net)
Annualized Five Year Risk vs Return



Northern Tr AM Wrld ex US
Period Ended June 30, 2017

Investment Philosophy

The Fund's objective is to provide investment results that approximate the overall performance of the MSCI World ex-US Equity Index.

Quarterly Summary and Highlights

- Northern Tr AM Wrld ex US's portfolio posted a 5.80% return for the quarter placing it in the 81 percentile of the CAI Non-US Equity group for the quarter and in the 63 percentile for the last year.
- Northern Tr AM Wrld ex US's portfolio outperformed the MSCI World ex US by 0.17% for the quarter and outperformed the MSCI World ex US for the year by 0.46%.

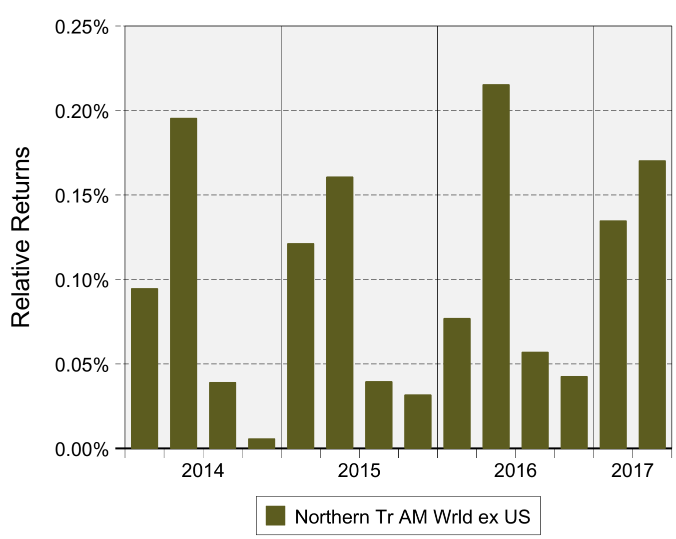
Quarterly Asset Growth

Beginning Market Value	$289,224,921
Net New Investment	$-5,000,000
Investment Gains/(Losses)	$16,808,143
Ending Market Value	$301,033,064

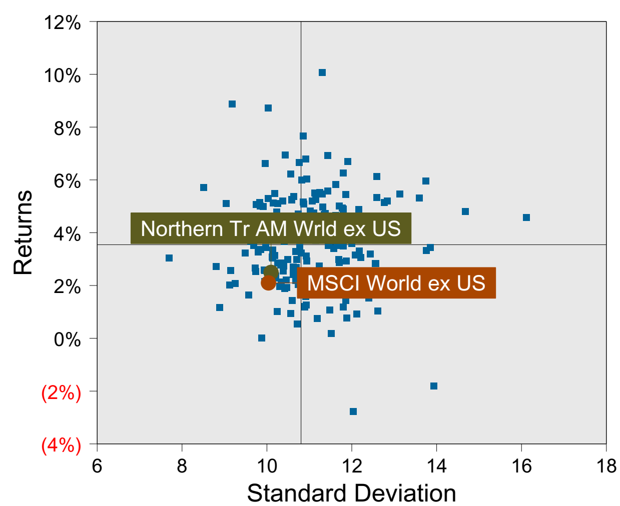
Performance vs CAI Non-US Equity (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	8.83	26.38	8.00	4.97	5.50
25th Percentile	7.90	23.72	6.57	3.92	4.77
Median	6.75	21.05	4.79	2.63	3.55
75th Percentile	6.07	18.04	3.45	1.44	2.43
90th Percentile	5.26	15.35	2.40	0.24	1.61
Northern Tr AM Wrld ex US ●	5.80	19.95	4.18	1.04	2.50
MSCI World ex US ▲	5.63	19.49	3.79	0.67	2.10

Relative Return vs MSCI World ex US



CAI Non-US Equity (Gross)
Annualized Three and One-Half Year Risk vs Return



Wellington Management
Period Ended June 30, 2017

Investment Philosophy

The International Small Cap Opportunities investment approach is bottom-up focused, and leverages the global research resources at Wellington Management. In implementing purchase decisions, consideration is given to the size, liquidity, and volatility of these prospects. Sell decisions are based on changing fundamentals or valuations, or on finding better opportunities elsewhere. The assets are not hedged.

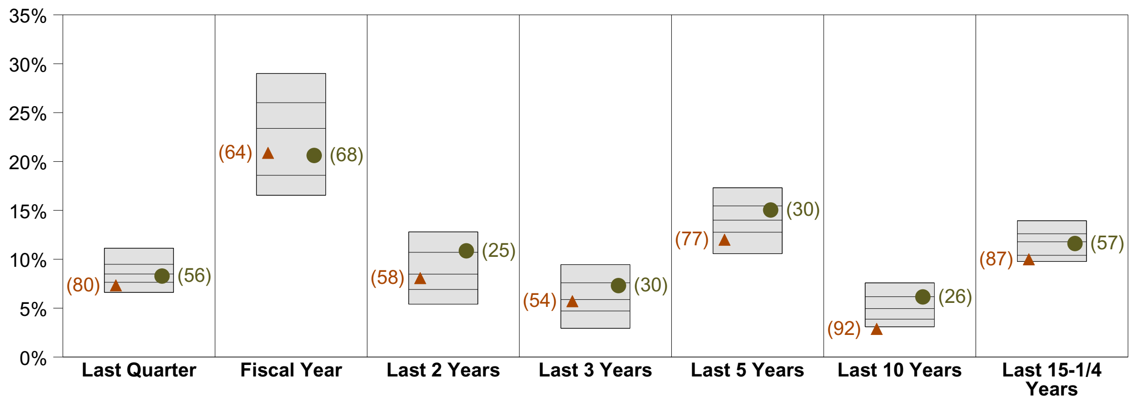
Quarterly Summary and Highlights

- Wellington Management's portfolio posted a 8.28% return for the quarter placing it in the 56 percentile of the CAI International Small Cap group for the quarter and in the 68 percentile for the last year.
- Wellington Management's portfolio outperformed the S&P BMI EPAC <$2 B by 0.95% for the quarter and underperformed the S&P BMI EPAC <$2 B for the year by 0.26%.

Quarterly Asset Growth

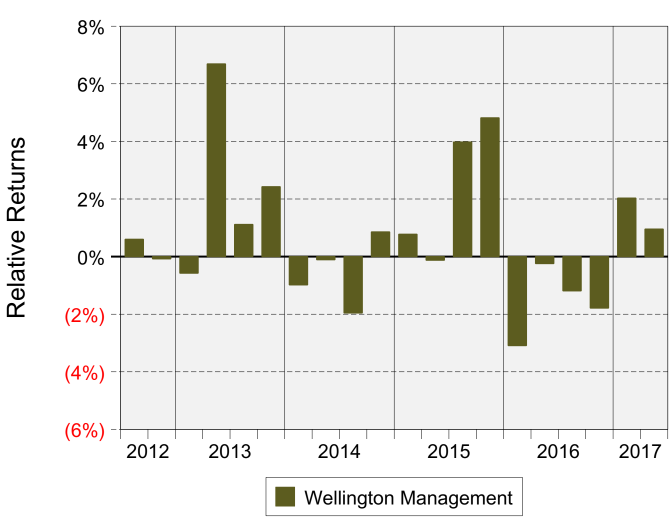
Beginning Market Value	$90,245,871
Net New Investment	$-182,896
Investment Gains/(Losses)	$7,467,466
Ending Market Value	$97,530,440

Performance vs CAI International Small Cap (Gross)

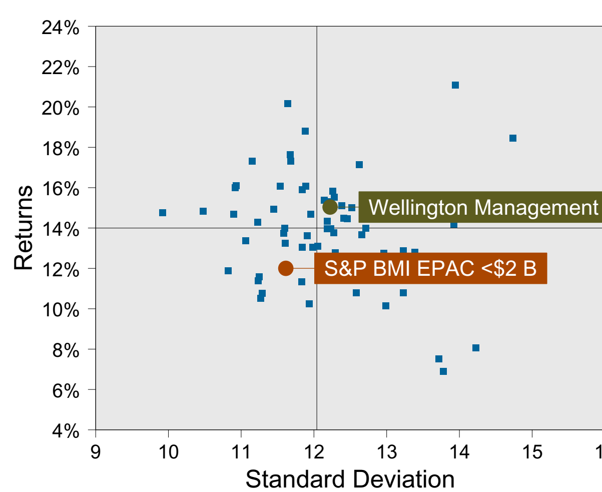


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 15-1/4 Years
10th Percentile	11.13	29.01	12.80	9.46	17.31	7.59	13.95
25th Percentile	9.49	26.02	10.71	7.59	15.46	6.17	12.61
Median	8.50	23.39	8.48	5.88	14.00	4.96	11.79
75th Percentile	7.65	18.59	6.91	4.71	12.77	3.88	10.40
90th Percentile	6.61	16.54	5.41	2.94	10.58	3.09	9.77
Wellington Management ●	8.28	20.62	10.86	7.31	15.04	6.15	11.61
S&P BMI EPAC <$2 B ▲	7.33	20.88	8.08	5.71	12.00	2.88	10.00

Relative Return vs S&P BMI EPAC <$2 B



CAI International Small Cap (Gross) Annualized Five Year Risk vs Return



William Blair
Period Ended June 30, 2017

Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

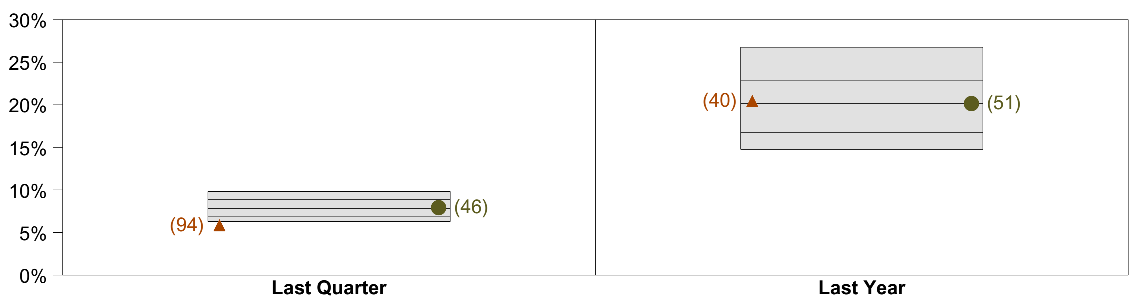
Quarterly Summary and Highlights

- William Blair's portfolio posted a 7.92% return for the quarter placing it in the 46 percentile of the CAI Non-US All Country Growth Equity group for the quarter and in the 51 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI ex US IMI by 2.08% for the quarter and underperformed the MSCI ACWI ex US IMI for the year by 0.29%.

Quarterly Asset Growth

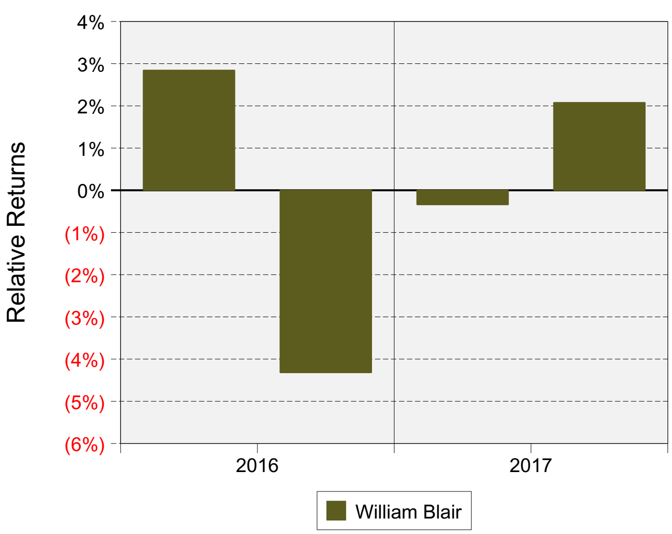
Beginning Market Value	$135,551,796
Net New Investment	$-125,829
Investment Gains/(Losses)	$10,733,447
Ending Market Value	$146,159,414

Performance vs CAI Non-US All Country Growth Equity (Gross)

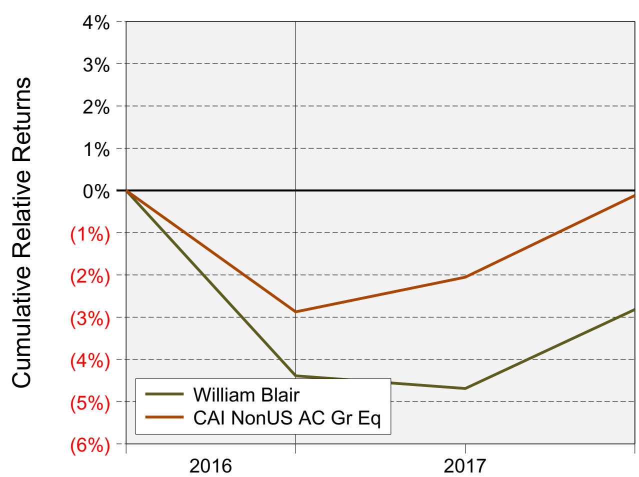


	Last Quarter	Last Year
10th Percentile	9.82	26.77
25th Percentile	8.89	22.82
Median	7.81	20.16
75th Percentile	6.85	16.73
90th Percentile	6.28	14.77
William Blair ●	7.92	20.15
MSCI ACWI ex US IMI ▲	5.85	20.43

Relative Return vs MSCI ACWI ex US IMI



Cumulative Returns vs MSCI ACWI ex US IMI



Axiom Emerging Markets
Period Ended June 30, 2017

Investment Philosophy

The Emerging Markets Equity strategy seeks to invest in emerging market securities issued by companies whose key business drivers are both improving and exceeding expectations, as determined by Axiom's stock selection techniques focused on fundamental company analysis. The strategy considers companies either (i) located in countries that are not included in the MSCI Developed Markets Index series or (ii) that derive a majority of their revenues or assets from a country or countries not included in the MSCI Developed Markets Index series, in each case at the time of investment. Although the Manager generally expects the strategy's investment portfolio to be geographically diverse, there are no prescribed limits on geographic distribution of the strategy's investments and the strategy has the authority to invest in securities traded in securities markets or any country in the world.

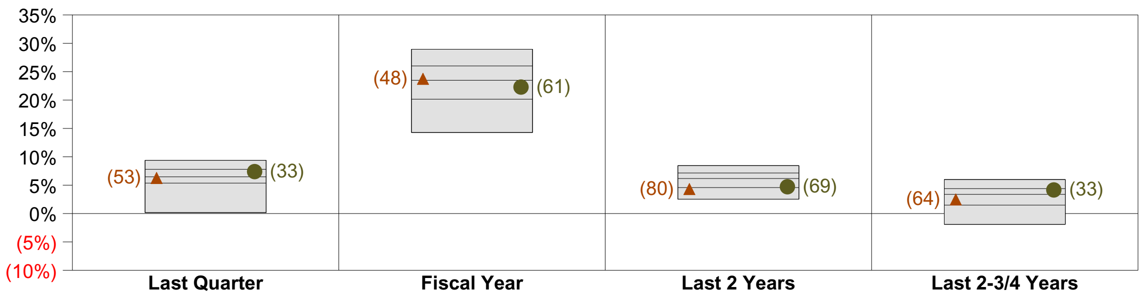
Quarterly Summary and Highlights

- Axiom Emerging Markets's portfolio posted a 7.39% return for the quarter placing it in the 33 percentile of the CAI Emerging Markets Equity Mut Funds group for the quarter and in the 61 percentile for the last year.
- Axiom Emerging Markets's portfolio outperformed the MSCI EM by 1.12% for the quarter and underperformed the MSCI EM for the year by 1.46%.

Quarterly Asset Growth

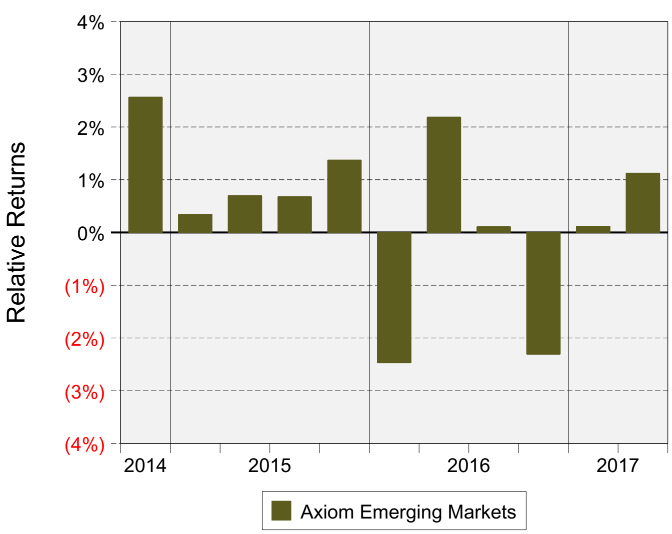
Beginning Market Value	$145,467,301
Net New Investment	$0
Investment Gains/(Losses)	$10,750,384
Ending Market Value	$156,217,685

Performance vs CAI Emerging Markets Equity Mut Funds (Net)

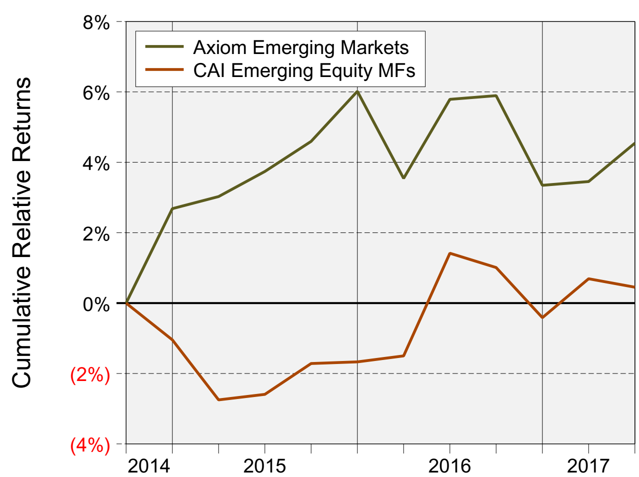


	Last Quarter	Fiscal Year	Last 2 Years	Last 2-3/4 Years
10th Percentile	9.39	28.95	8.45	5.99
25th Percentile	7.80	26.01	7.15	4.39
Median	6.47	23.49	6.18	3.38
75th Percentile	5.37	20.16	4.58	1.49
90th Percentile	0.17	14.28	2.53	(1.91)
Axiom Emerging Markets ●	7.39	22.29	4.72	4.16
MSCI EM ▲	6.27	23.75	4.32	2.49

Relative Return vs MSCI EM



Cumulative Returns vs MSCI EM



DFA Emerging Markets
Period Ended June 30, 2017

Investment Philosophy

The Emerging Markets Small Cap Portfolio invests in small cap emerging markets companies. Presently, this means investment in companies whose market capitalization is less than $2.3 billion at the time of purchase. Dimensional considers, among other things, information disseminated by the International Finance Corporation in determining and approving emerging market countries.

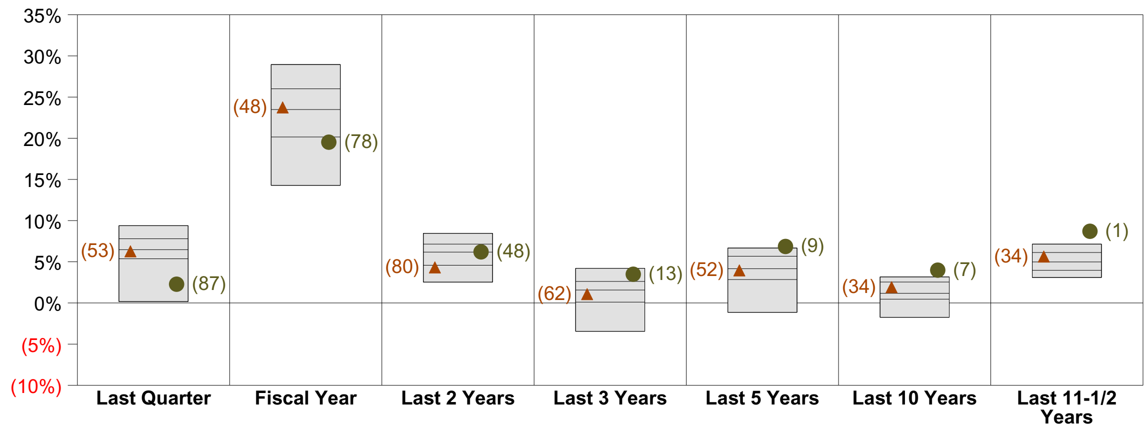
Quarterly Summary and Highlights

- DFA Emerging Markets's portfolio posted a 2.28% return for the quarter placing it in the 87 percentile of the CAI Emerging Markets Equity Mut Funds group for the quarter and in the 78 percentile for the last year.
- DFA Emerging Markets's portfolio underperformed the MSCI EM by 3.99% for the quarter and underperformed the MSCI EM for the year by 4.22%.

Quarterly Asset Growth

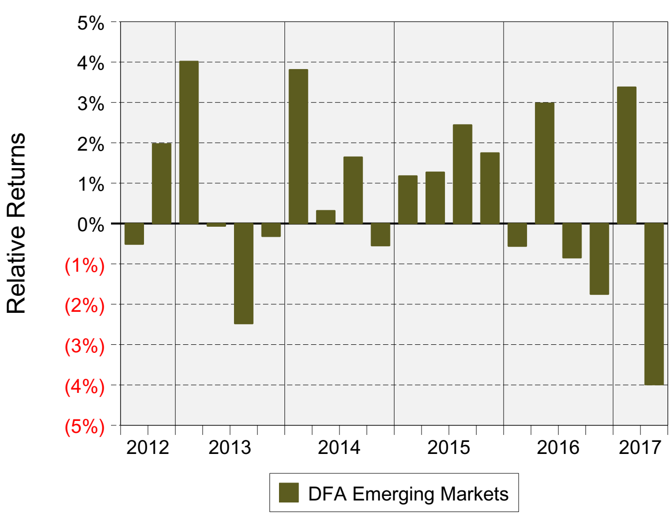
Beginning Market Value	$53,884,372
Net New Investment	$-5,000,000
Investment Gains/(Losses)	$1,201,210
Ending Market Value	$50,085,582

Performance vs CAI Emerging Markets Equity Mut Funds (Net)

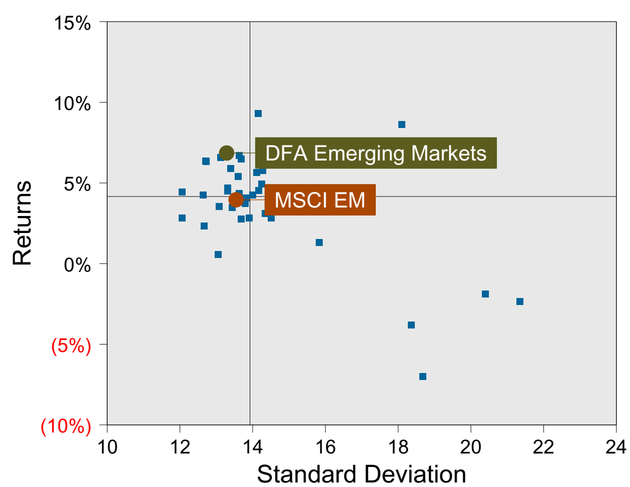


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11-1/2 Years
10th Percentile	9.39	28.95	8.45	4.21	6.67	3.16	7.15
25th Percentile	7.80	26.01	7.15	2.61	5.67	2.54	6.13
Median	6.47	23.49	6.18	1.57	4.16	1.17	4.98
75th Percentile	5.37	20.16	4.58	0.10	2.84	0.46	3.96
90th Percentile	0.17	14.28	2.53	(3.45)	(1.14)	(1.75)	3.09
DFA Emerging Markets ●	2.28	19.52	6.20	3.49	6.86	3.98	8.70
MSCI EM ▲	6.27	23.75	4.32	1.07	3.96	1.92	5.63

Relative Return vs MSCI EM



CAI Emerging Markets Equity Mut Funds (Net)
Annualized Five Year Risk vs Return



EPOCH Investment
Period Ended June 30, 2017

Investment Philosophy

Epoch seeks to produce superior risk adjusted returns by building portfolios of businesses with outstanding risk/reward profiles without running a high degree of capital risk. They analyze businesses in the same manner private investors would in looking to purchase the entire company. The strategy only invests in businesses that are understood and where they have confidence in the financial statements. They seek businesses that generate "free cash flow" and securities that have unrecognized potential yet possess a combination of above average yield, above average free cash flow growth, and/or below average valuation. Global Choice is a "best ideas" portfolio at Epoch with every stock held in other strategies managed by the firm. **The EPOCH Blended Benchmark consists of the S&P 500 Index through 12/31/2011 and the MSCI World Index thereafter.**

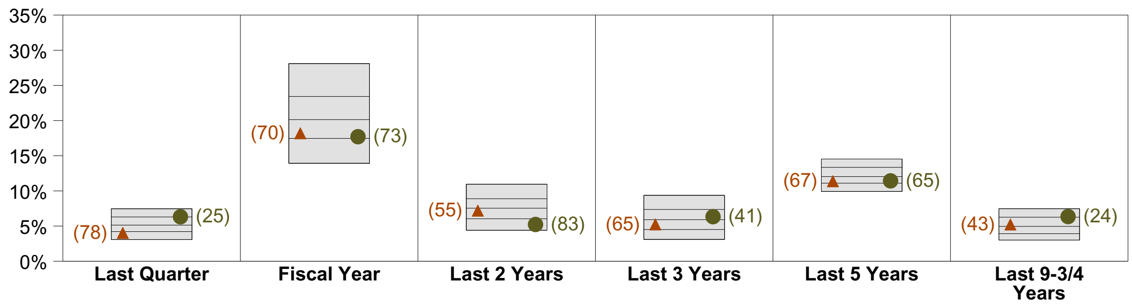
Quarterly Summary and Highlights

- EPOCH Investment's portfolio posted a 6.32% return for the quarter placing it in the 25 percentile of the CAI Global Equity group for the quarter and in the 73 percentile for the last year.
- EPOCH Investment's portfolio outperformed the EPOCH Blended Benchmark by 2.29% for the quarter and underperformed the EPOCH Blended Benchmark for the year by 0.49%.

Quarterly Asset Growth

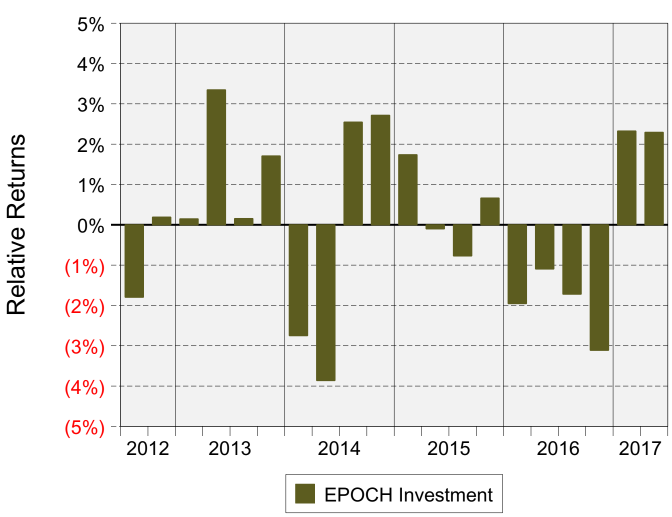
Beginning Market Value	$372,990,266
Net New Investment	$-596,382
Investment Gains/(Losses)	$23,551,084
Ending Market Value	$395,944,967

Performance vs CAI Global Equity (Gross)

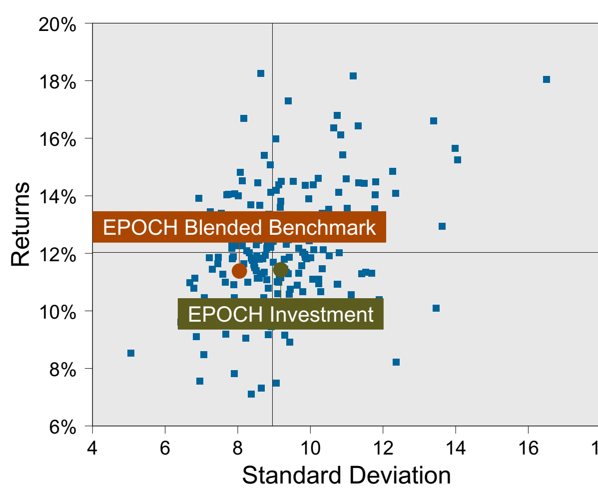


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-3/4 Years
10th Percentile	7.46	28.10	10.95	9.37	14.53	7.47
25th Percentile	6.30	23.43	8.89	7.36	13.35	6.26
Median	5.13	20.14	7.54	5.91	12.03	4.95
75th Percentile	4.21	17.46	6.04	4.51	11.10	3.92
90th Percentile	3.08	13.92	4.40	3.10	9.92	3.00
EPOCH Investment ●	6.32	17.71	5.23	6.33	11.43	6.35
EPOCH Blended Benchmark ▲	4.03	18.20	7.20	5.24	11.38	5.23

Relative Returns vs EPOCH Blended Benchmark



CAI Global Equity (Gross) Annualized Five Year Risk vs Return



LSV Asset Management
Period Ended June 30, 2017

Investment Philosophy

The Global Value (ACWI) Equity strategy is managed using quantitative techniques to select individual securities in a risk-controlled, bottom-up approach. Value factors and security selection dominate sector/industry factors as explanators of performance.

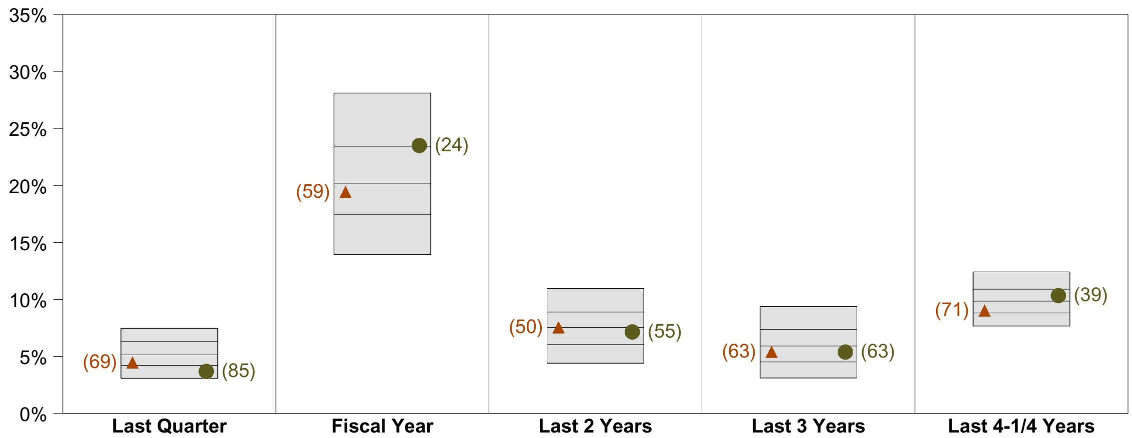
Quarterly Summary and Highlights

- LSV Asset Management's portfolio posted a 3.67% return for the quarter placing it in the 85 percentile of the CAI Global Equity group for the quarter and in the 24 percentile for the last year.
- LSV Asset Management's portfolio underperformed the MSCI ACWI Gross by 0.78% for the quarter and outperformed the MSCI ACWI Gross for the year by 4.08%.

Quarterly Asset Growth

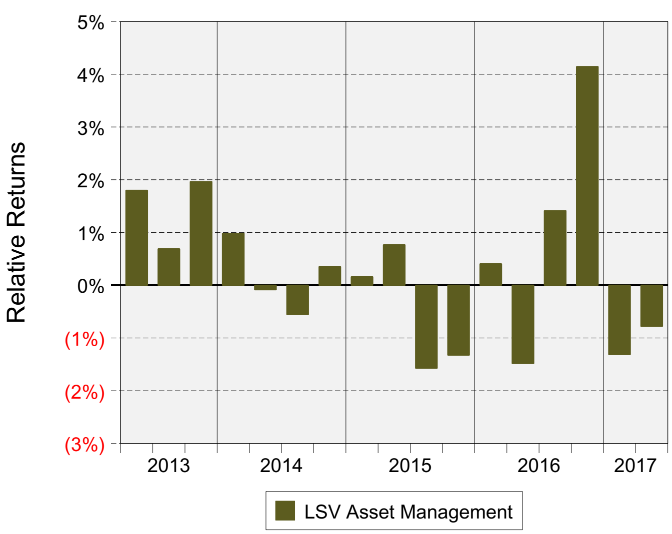
Beginning Market Value	$476,253,103
Net New Investment	$-120,940
Investment Gains/(Losses)	$17,496,514
Ending Market Value	$493,628,676

Performance vs CAI Global Equity (Gross)

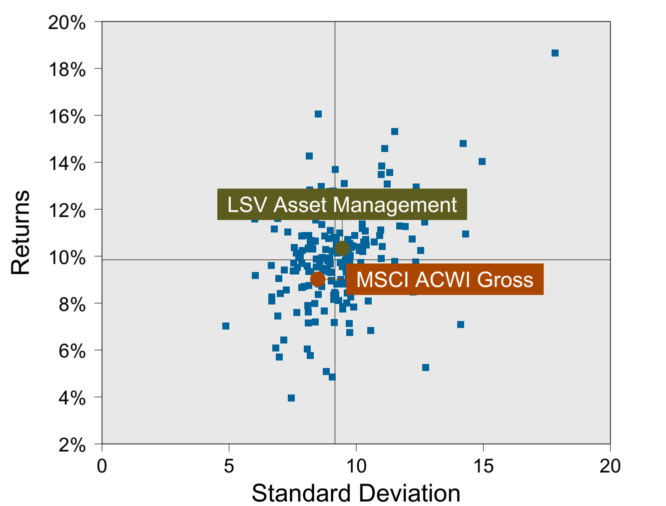


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	7.46	28.10	10.95	9.37	12.41
25th Percentile	6.30	23.43	8.89	7.36	10.89
Median	5.13	20.14	7.54	5.91	9.84
75th Percentile	4.21	17.46	6.04	4.51	8.81
90th Percentile	3.08	13.92	4.40	3.10	7.66
LSV Asset Management ●	3.67	23.50	7.14	5.38	10.33
MSCI ACWI Gross ▲	4.45	19.42	7.54	5.39	9.02

Relative Return vs MSCI ACWI Gross



CAI Global Equity (Gross)
Annualized Four and One-Quarter Year Risk vs Return



Investment Manager Returns

The table below details the rates of return for the Fund’s investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund’s accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 16-1/2 Years
Private Equity	**7.70%**	**11.11%**	**(0.82%)**	**1.59%**	**2.37%**
Adams Street Direct Co-Invest Fd	(0.99%)	(4.11%)	8.19%	10.58%	-
Adams Street Direct Fd 2010	7.99%	12.03%	8.00%	11.92%	-
Adams Street 1998 Partnership	0.78%	(0.16%)	1.08%	4.12%	1.67%
Adams Street 1999 Partnership	3.55%	(0.25%)	(2.85%)	3.36%	2.74%
Adams Street 2000 Partnership	2.86%	3.00%	(3.33%)	0.71%	3.21%
Adams Street 2001 Partnership	4.37%	7.60%	(1.19%)	5.31%	3.70%
Adams Street 2002 Partnership	2.55%	19.56%	1.74%	5.99%	-
Adams Street 2003 Partnership	5.79%	11.44%	7.19%	11.45%	-
Adams Street 2010 Partnership	3.66%	15.12%	13.11%	13.30%	-
Adams Street 2008 Fund	8.34%	15.67%	11.65%	12.86%	-
Adams Street 1999 Non-US	3.72%	1.60%	0.03%	6.19%	6.22%
Adams Street 2000 Non-US	4.75%	13.07%	(0.25%)	0.63%	3.14%
Adams Street 2001 Non-US	10.18%	(4.37%)	11.33%	14.86%	-
Adams Street 2002 Non-US	3.27%	(5.01%)	4.42%	5.43%	-
Adams Street 2003 Non-US	4.87%	26.53%	13.54%	18.17%	-
Adams Street 2004 Non-US	6.83%	9.42%	(2.02%)	7.06%	-
Adams Street 2010 Non-US	9.68%	21.63%	9.17%	10.50%	-
Adams Street 2010 NonUS Emg	4.09%	10.13%	14.02%	7.90%	-
Adams Street 2015 Global Fd	5.17%	51.76%	-	-	-
Adams Street 2016 Global Fd	3.34%	-	-	-	-
Adams Street BVCF IV Fund	4.54%	7.91%	14.68%	18.81%	17.92%
BlackRock	(3.26%)	-	-	-	-
Capital International V	(34.83%)	(49.48%)	(31.17%)	(20.15%)	-
Capital International VI	10.27%	9.55%	(4.66%)	(8.71%)	-
CorsAir III	3.05%	6.84%	9.34%	3.15%	-
CorsAir IV	12.67%	22.98%	15.91%	14.40%	-
EIG Energy Fund XIV	19.09%	12.11%	(34.78%)	(23.36%)	-
Lewis & Clark	22.03%	22.03%	(26.04%)	(17.39%)	-
Lewis & Clark II	7.98%	10.83%	(1.11%)	(2.96%)	-
Matlin Patterson II	(10.52%)	(28.84%)	(2.99%)	(7.24%)	-
Matlin Patterson III	6.35%	6.84%	(0.56%)	5.14%	-
Quantum Energy Partners	56.04%	68.38%	1.68%	10.37%	-
Russell 1000 Index	3.06%	18.03%	9.26%	14.67%	6.06%
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	8.17%

Domestic Fixed Income
Period Ended June 30, 2017

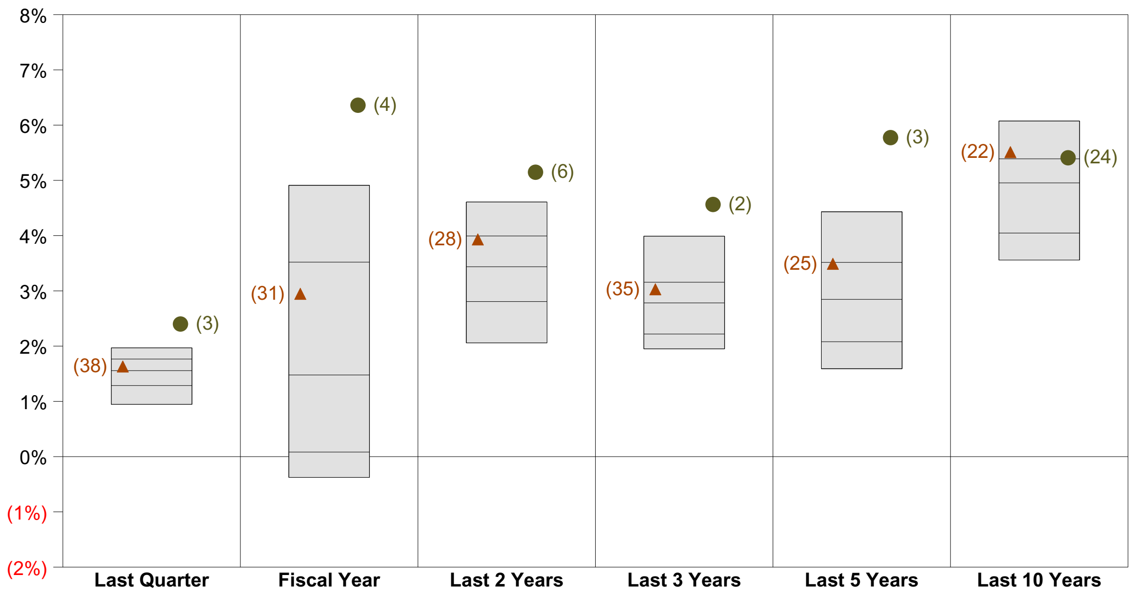
Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a 2.40% return for the quarter placing it in the 3 percentile of the Pub Pln- Domestic Fixed group for the quarter and in the 4 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 0.77% for the quarter and outperformed the Domestic Fixed Income Target for the year by 3.41%.

Quarterly Asset Growth

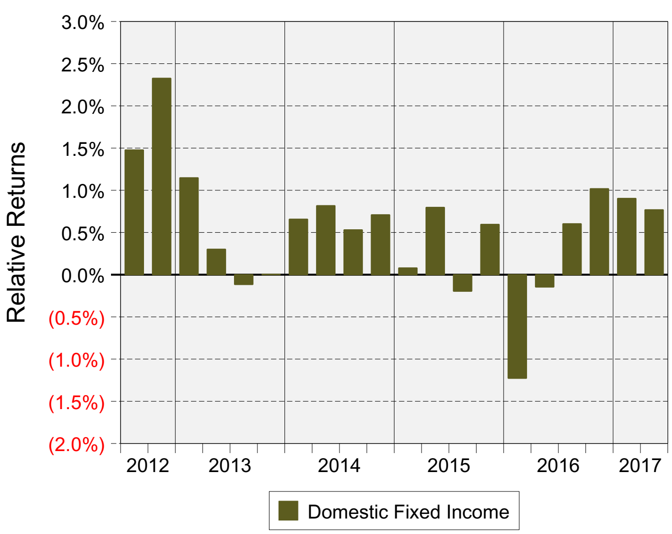
Beginning Market Value	$937,337,798
Net New Investment	$-1,509,658
Investment Gains/(Losses)	$22,481,384
Ending Market Value	$958,309,525

Performance vs Pub Pln- Domestic Fixed (Gross)

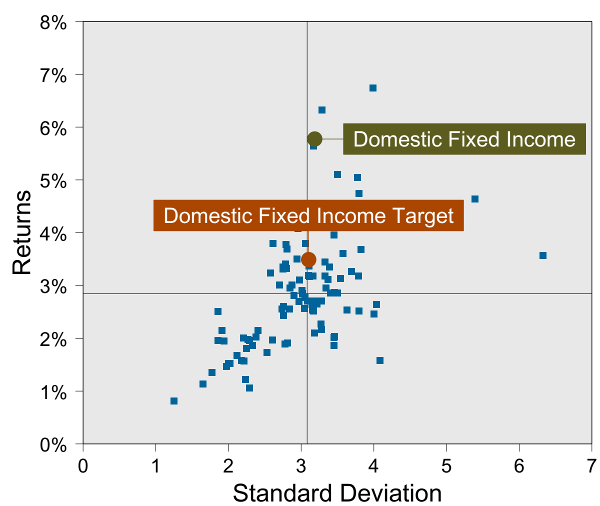


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.97	4.91	4.61	3.99	4.43	6.07
25th Percentile	1.77	3.52	3.99	3.16	3.52	5.39
Median	1.56	1.48	3.44	2.78	2.85	4.95
75th Percentile	1.29	0.08	2.81	2.22	2.08	4.05
90th Percentile	0.95	(0.38)	2.06	1.95	1.59	3.56
Domestic Fixed Income ●	2.40	6.36	5.15	4.56	5.77	5.41
Domestic Fixed Income Target ▲	1.63	2.95	3.93	3.03	3.49	5.51

Relative Returns vs Domestic Fixed Income Target



Pub Pln- Domestic Fixed (Gross) Annualized Five Year Risk vs Return



Declaration Total Return
Period Ended June 30, 2017

Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a 1.87% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed Income Mut Funds group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio outperformed the LIBOR - 3 Month by 1.58% for the quarter and outperformed the LIBOR - 3 Month for the year by 4.01%.

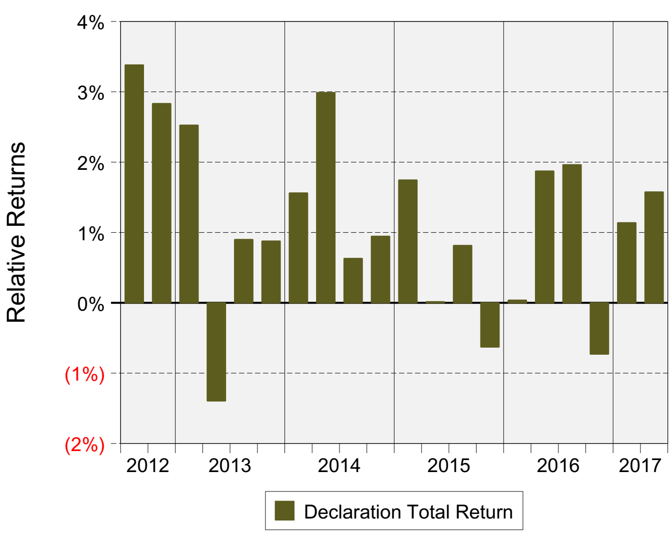
Quarterly Asset Growth

Beginning Market Value	$89,114,855
Net New Investment	$-32,384
Investment Gains/(Losses)	$1,668,192
Ending Market Value	$90,750,663

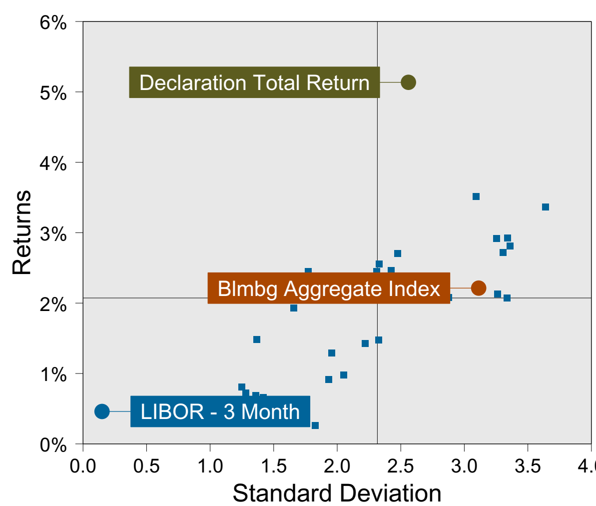
Performance vs CAI Intermediate Fixed Income Mut Funds (Net)

		Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile		1.63	1.84	3.67	2.99	3.01
25th Percentile		1.53	1.08	2.79	2.28	2.71
Median		0.96	0.48	2.01	1.67	2.07
75th Percentile		0.65	(0.21)	1.16	1.28	0.98
90th Percentile		0.39	(1.14)	0.54	0.78	0.68
Declaration Total Return	● A	1.87	4.99	3.79	3.74	5.14
Blmbg Aggregate Index	■ B	1.45	(0.31)	2.79	2.48	2.21
LIBOR - 3 Month	▲	0.30	0.98	0.74	0.58	0.46

Relative Return vs LIBOR - 3 Month



CAI Intermediate Fixed Income Mut Funds (Net)
Annualized Five Year Risk vs Return



J.P. Morgan MBS
Period Ended June 30, 2017

Investment Philosophy
JP Morgan seeks to outperform the benchmark over longer horizons regardless of the market environment.

Quarterly Summary and Highlights
- J.P. Morgan MBS's portfolio posted a 1.27% return for the quarter placing it in the 25 percentile of the CAI Mortgage Backed Fixed Income group for the quarter and in the 38 percentile for the last year.
- J.P. Morgan MBS's portfolio outperformed the Blmbg Mortgage Backed Sec by 0.40% for the quarter and outperformed the Blmbg Mortgage Backed Sec for the year by 0.87%.

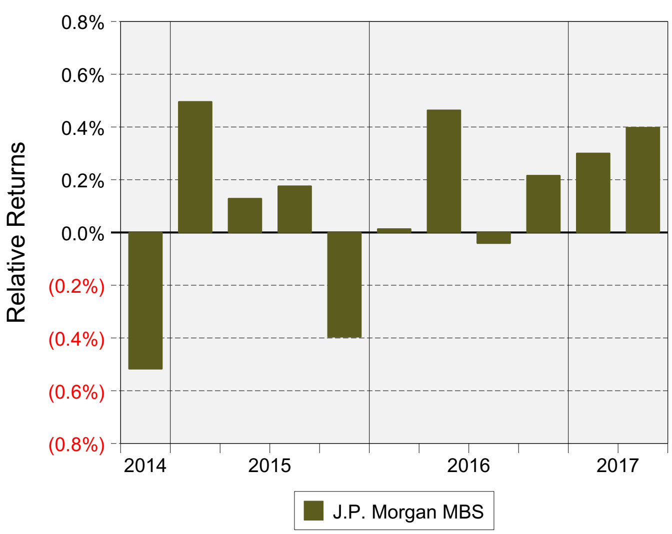
Quarterly Asset Growth

Beginning Market Value	$129,628,371
Net New Investment	$-65,211
Investment Gains/(Losses)	$1,643,819
Ending Market Value	$131,206,979

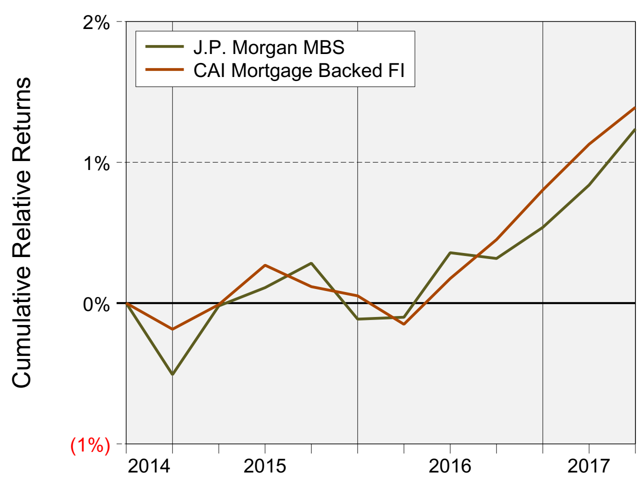
Performance vs CAI Mortgage Backed Fixed Income (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 2-3/4 Years
10th Percentile	1.69	4.41	4.09	4.18
25th Percentile	1.27	1.30	2.98	3.25
Median	1.11	0.74	2.47	2.61
75th Percentile	0.97	0.35	2.17	2.47
90th Percentile	0.63	(0.55)	1.65	1.95
J.P. Morgan MBS ●	1.27	0.82	2.69	2.76
Blmbg Mortgage Backed Sec ▲	0.87	(0.06)	2.12	2.30

Relative Returns vs Blmbg Mortgage Backed Sec



Cumulative Returns vs Blmbg Mortgage Backed Sec



PIMCO DiSCO II
Period Ended June 30, 2017

Investment Philosophy

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 4.52% return for the quarter placing it in the 1 percentile of the CAI Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 3.07% for the quarter and outperformed the Blmbg Aggregate for the year by 17.39%.

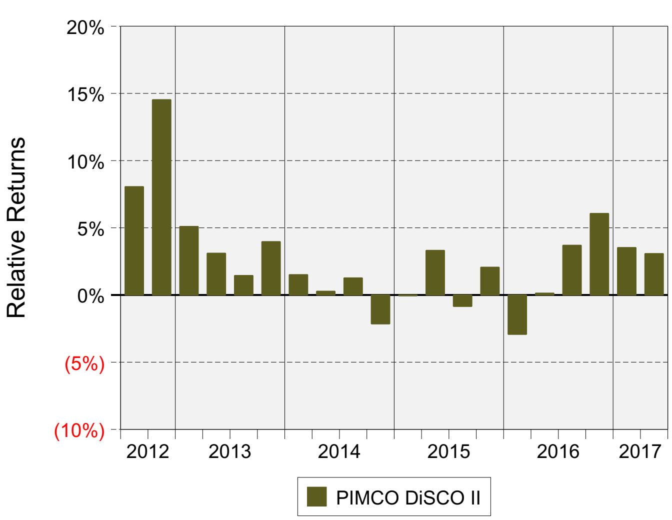
Quarterly Asset Growth

Beginning Market Value	$102,736,042
Net New Investment	$0
Investment Gains/(Losses)	$4,641,671
Ending Market Value	$107,377,713

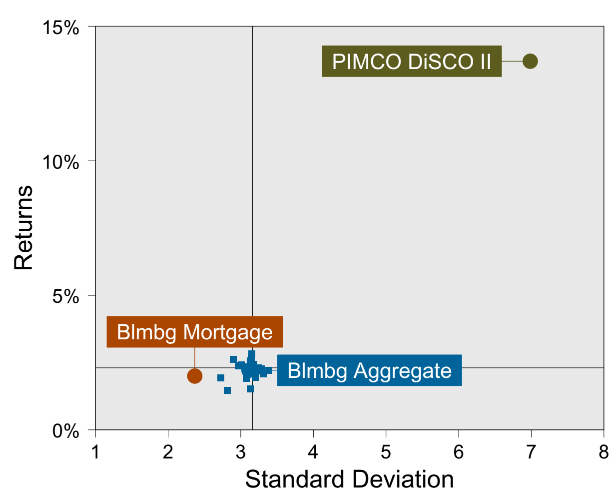
Performance vs CAI Core Bond Mutual Funds (Net)

		Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-1/2 Years
10th Percentile		1.75	1.35	3.57	2.90	3.31	3.73
25th Percentile		1.62	0.94	3.02	2.50	2.61	2.96
Median		1.48	0.12	2.68	2.21	2.31	2.71
75th Percentile		1.33	(0.19)	2.45	2.07	2.08	2.37
90th Percentile		1.20	(0.50)	2.26	1.91	1.67	2.05
PIMCO DiSCO II	● A	4.52	17.08	10.55	8.43	13.70	15.43
Blmbg Mortgage	■ B	0.87	(0.06)	2.12	2.17	2.00	2.12
Blmbg Aggregate	▲	1.45	(0.31)	2.79	2.48	2.21	2.45

Relative Return vs Blmbg Aggregate



CAI Core Bond Mutual Funds (Net)
Annualized Five Year Risk vs Return



PIMCO MBS
Period Ended June 30, 2017

Investment Philosophy

The PIMCO Mortgage-Backed Securities Strategy is an actively managed bond portfolio that invests in high quality, short to intermediate duration mortgage-backed securities. The fund invests primarily in securities that are highly rated, such as US Government guaranteed Ginnie Mae securities and Agency-guaranteed Fannie Mae and Freddie Mac mortgage-backed securities.

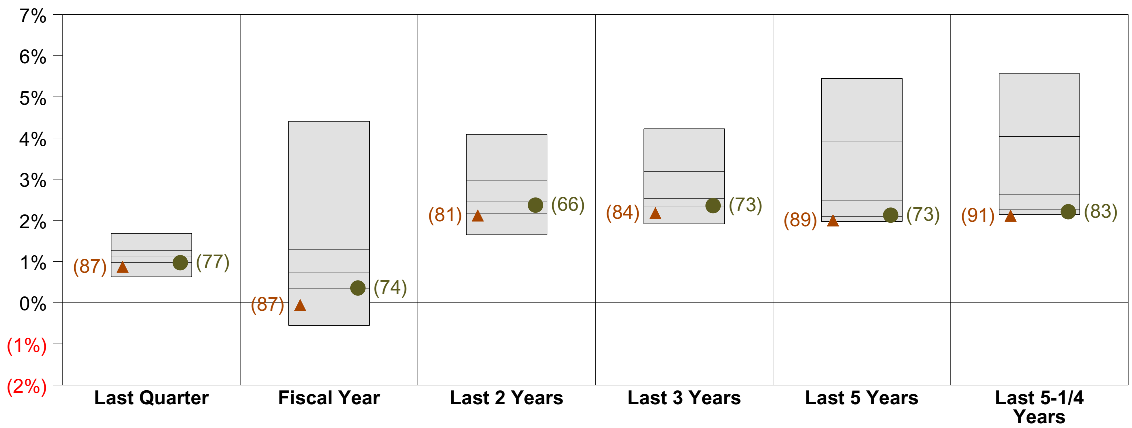
Quarterly Summary and Highlights

- PIMCO MBS's portfolio posted a 0.97% return for the quarter placing it in the 77 percentile of the CAI Mortgage Backed Fixed Income group for the quarter and in the 74 percentile for the last year.
- PIMCO MBS's portfolio outperformed the Blmbg Mortgage Backed Sec by 0.10% for the quarter and outperformed the Blmbg Mortgage Backed Sec for the year by 0.42%.

Quarterly Asset Growth

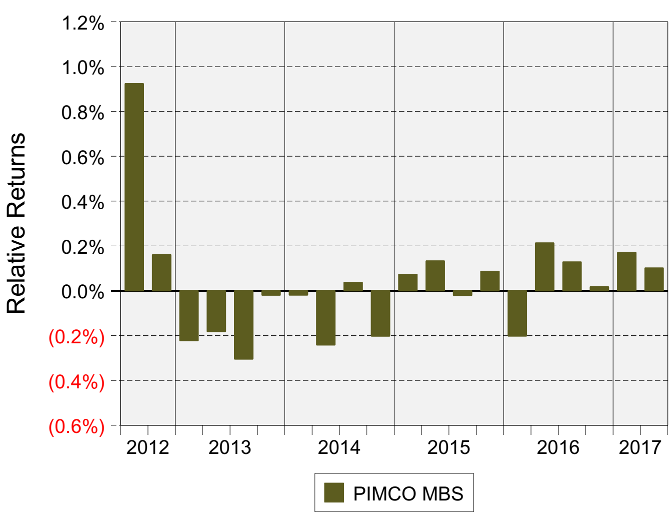
Beginning Market Value	$181,843,474
Net New Investment	$-75,642
Investment Gains/(Losses)	$1,766,969
Ending Market Value	$183,534,800

Performance vs CAI Mortgage Backed Fixed Income (Gross)

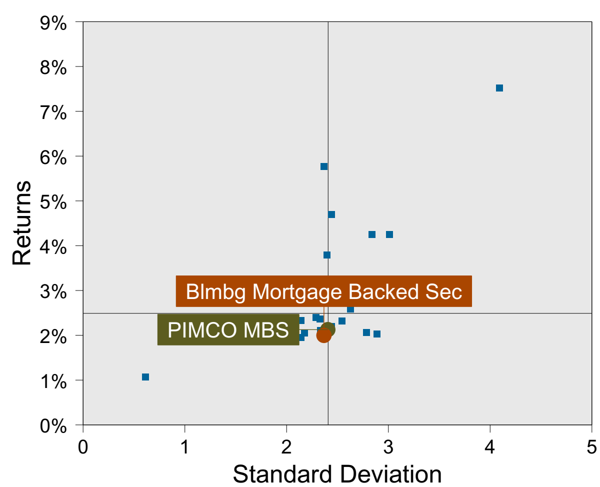


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-1/4 Years
10th Percentile	1.69	4.41	4.09	4.22	5.45	5.56
25th Percentile	1.27	1.30	2.98	3.18	3.90	4.04
Median	1.11	0.74	2.47	2.53	2.49	2.63
75th Percentile	0.97	0.35	2.17	2.35	2.10	2.27
90th Percentile	0.63	(0.55)	1.65	1.91	1.97	2.15
PIMCO MBS ●	0.97	0.36	2.37	2.36	2.13	2.21
Blmbg Mortgage Backed Sec ▲	0.87	(0.06)	2.12	2.17	2.00	2.11

Relative Returns vs Blmbg Mortgage Backed Sec



CAI Mortgage Backed Fixed Income (Gross) Annualized Five Year Risk vs Return



PIMCO Unconstrained
Period Ended June 30, 2017

Investment Philosophy

The PIMCO Unconstrained Bond Strategy is an absolute return-oriented, investment grade quality fixed income strategy that leverages PIMCO's secular thinking, global themes, and integrated investment process without the constraints of a benchmark or significant sector/instrument limitations. The strategy focuses on long-term economic, social and political trends. Over shorter cyclical time frames, the unconstrained nature of the strategy allows PIMCO to take on more risk when tactical opportunities are identified, and it allows for reduction and diversification of risk at times when the outlook may be more challenging for traditional fixed income benchmarks. **The product changed from Commingled Fund to Separate Account in March 2014. *Libor-3 month through February 28, 2014; Fund's performance through March 31, 2014; Libor-3 month thereafter.**

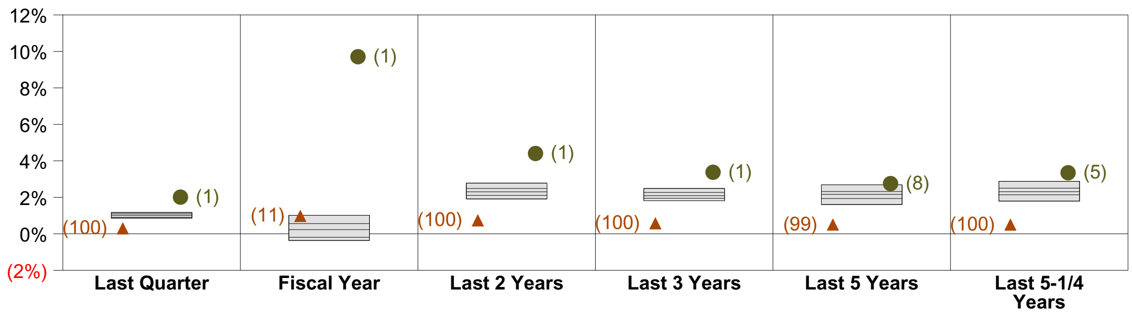
Quarterly Summary and Highlights

- PIMCO Unconstrained's portfolio posted a 2.01% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed Income group for the quarter and in the 1 percentile for the last year.
- PIMCO Unconstrained's portfolio outperformed the Blended Benchmark* by 1.71% for the quarter and outperformed the Blended Benchmark* for the year by 8.73%.

Quarterly Asset Growth

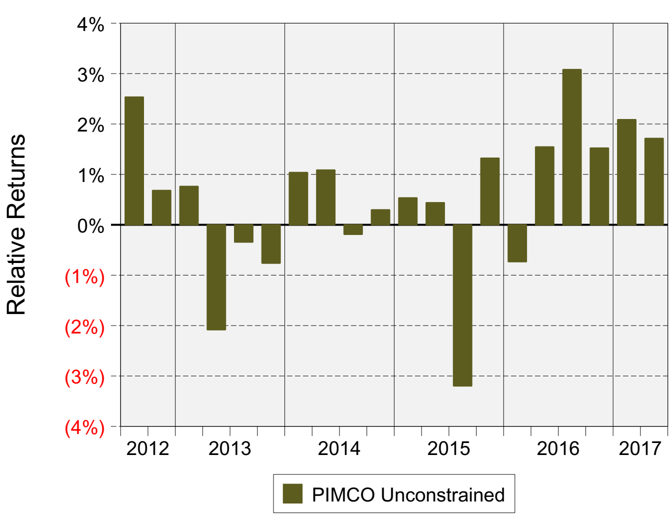
Beginning Market Value	$66,110,009
Net New Investment	$-73,536
Investment Gains/(Losses)	$1,329,149
Ending Market Value	$67,365,621

Performance vs CAI Intermediate Fixed Income (Gross)

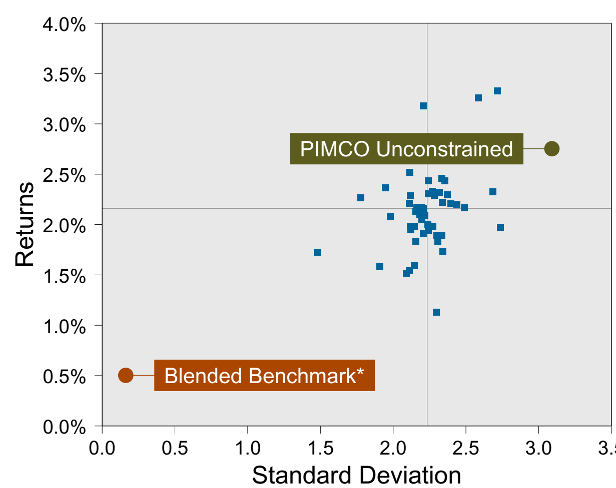


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-1/4 Years
10th Percentile	1.17	1.02	2.78	2.49	2.69	2.88
25th Percentile	1.09	0.56	2.49	2.27	2.32	2.51
Median	1.01	0.23	2.30	2.09	2.16	2.31
75th Percentile	0.90	(0.19)	2.11	1.95	1.93	2.14
90th Percentile	0.86	(0.36)	1.91	1.81	1.61	1.79
PIMCO Unconstrained ●	2.01	9.71	4.40	3.37	2.75	3.35
Blended Benchmark* ▲	0.30	0.98	0.74	0.58	0.50	0.50

Relative Return vs Blended Benchmark*



CAI Intermediate Fixed Income (Gross)
Annualized Five Year Risk vs Return



SSgA Long US Treas Index
Period Ended June 30, 2017

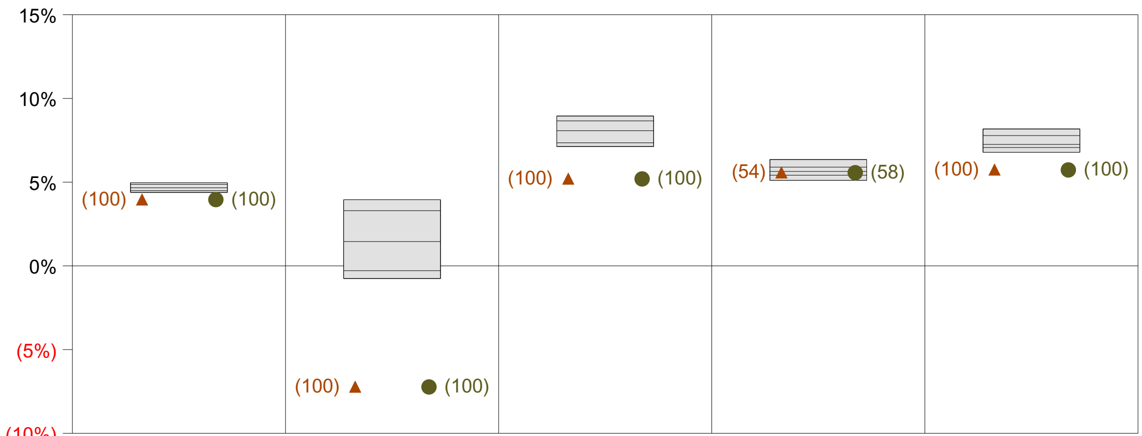
Investment Philosophy
The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Barclays Capital U.S. Long Treasury Bond Index over the long term.

Quarterly Summary and Highlights
- SSgA Long US Treas Index's portfolio posted a 3.96% return for the quarter placing it in the 100 percentile of the CAI Extended Maturity Fixed Income group for the quarter and in the 100 percentile for the last year.
- SSgA Long US Treas Index's portfolio underperformed the Blmbg Treasury Long by 0.00% for the quarter and underperformed the Blmbg Treasury Long for the year by 0.01%.

Quarterly Asset Growth

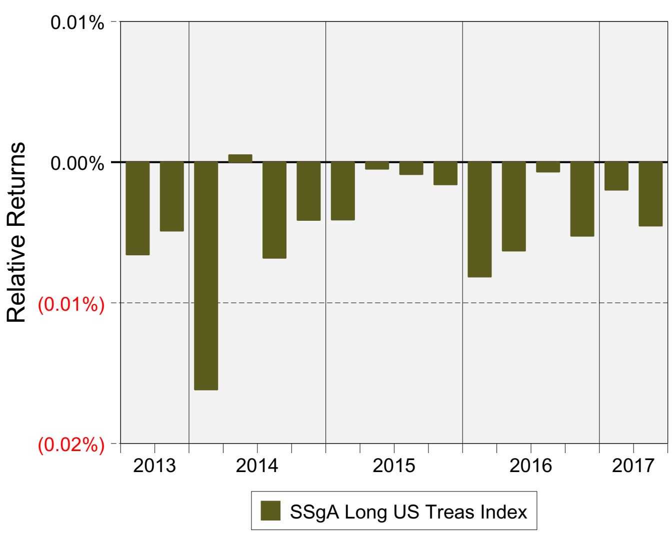
Beginning Market Value	$113,689,725
Net New Investment	$-9,731
Investment Gains/(Losses)	$4,500,938
Ending Market Value	$118,180,932

Performance vs CAI Extended Maturity Fixed Income (Gross)

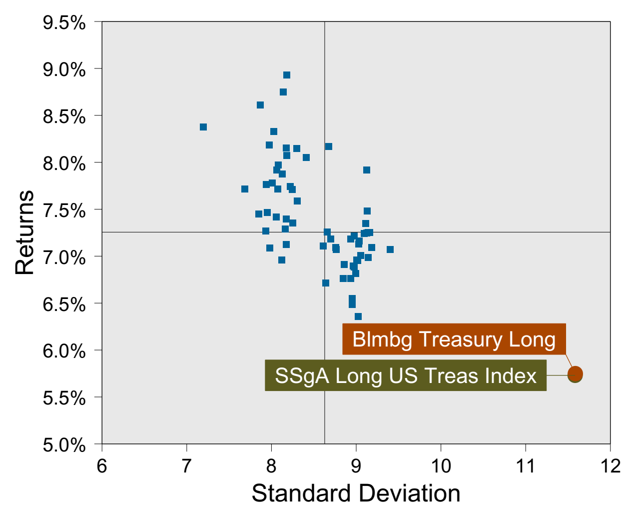


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 4 Years
10th Percentile	4.97	3.95	8.95	6.35	8.18
25th Percentile	4.87	3.30	8.66	5.90	7.78
Median	4.66	1.45	8.07	5.64	7.26
75th Percentile	4.49	(0.29)	7.35	5.42	7.07
90th Percentile	4.39	(0.76)	7.13	5.11	6.78
SSgA Long US Treas Index ●	3.96	(7.23)	5.19	5.56	5.73
Blmbg Treasury Long ▲	3.96	(7.22)	5.21	5.58	5.75

Relative Return vs Blmbg Treasury Long



CAI Extended Maturity Fixed Income (Gross)
Annualized Four Year Risk vs Return



Goldman Sachs 2006 Offshore
Period Ended June 30, 2017

Investment Philosophy

GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. They focus on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers.

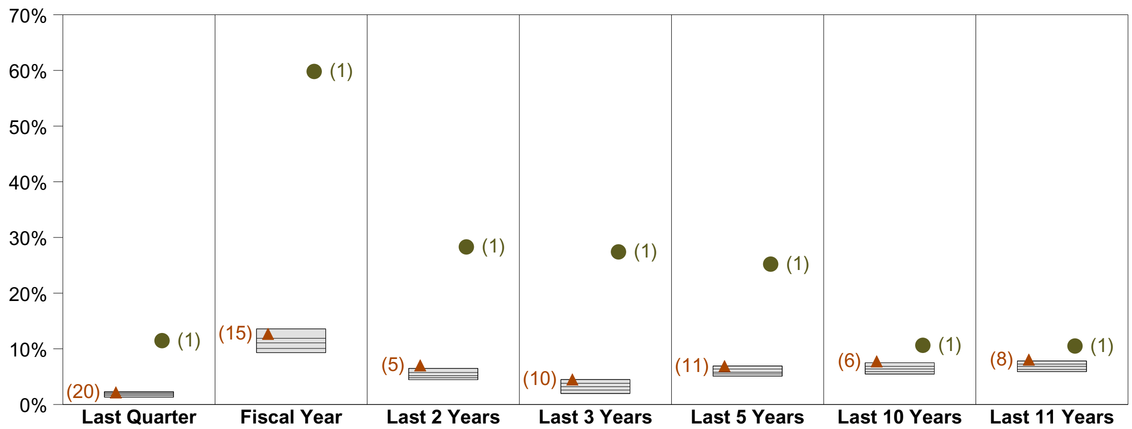
Quarterly Summary and Highlights

- Goldman Sachs's portfolio posted a 11.47% return for the quarter placing it in the 1 percentile of the CAI High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Goldman Sachs's portfolio outperformed the Blmbg HY 2% Iss Cap by 9.30% for the quarter and outperformed the Blmbg HY 2% Iss Cap for the year by 47.12%.

Quarterly Asset Growth

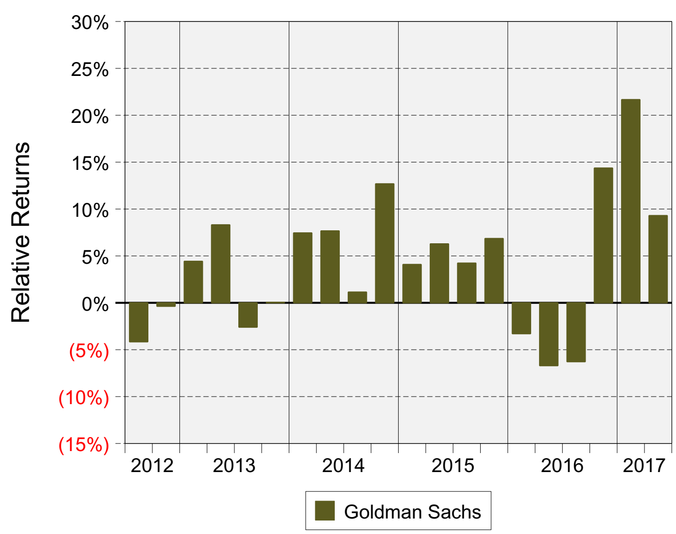
Beginning Market Value	$342,555
Net New Investment	$0
Investment Gains/(Losses)	$39,295
Ending Market Value	$381,850

Performance vs CAI High Yield Mutual Funds (Net)

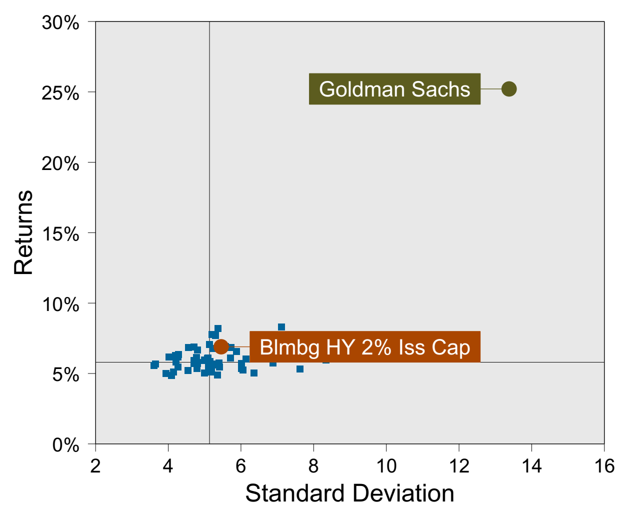


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11 Years
10th Percentile	2.30	13.59	6.48	4.48	6.92	7.50	7.82
25th Percentile	2.13	11.89	5.75	3.81	6.37	6.85	7.26
Median	1.91	11.07	5.17	3.20	5.80	6.38	6.84
75th Percentile	1.66	10.07	4.80	2.60	5.50	5.91	6.30
90th Percentile	1.32	9.31	4.45	1.97	5.09	5.46	5.89
Goldman Sachs ●	11.47	59.81	28.30	27.41	25.21	10.63	10.51
Blmbg HY 2% Iss Cap ▲	2.17	12.69	7.03	4.50	6.90	7.76	8.07

Relative Return vs Blmbg HY 2% Iss Cap



CAI High Yield Mutual Funds (Net)
Annualized Five Year Risk vs Return



Goldman Sachs Offshore Fund V
Period Ended June 30, 2017

Investment Philosophy

GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. They focus on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers.

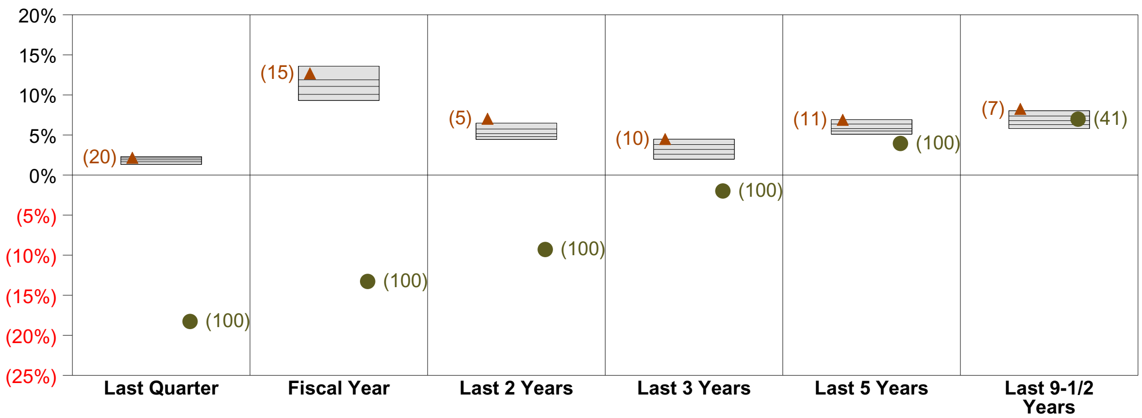
Quarterly Summary and Highlights

- Goldman Sachs Offshore V's portfolio posted a (18.28)% return for the quarter placing it in the 100 percentile of the CAI High Yield Mutual Funds group for the quarter and in the 100 percentile for the last year.
- Goldman Sachs Offshore V's portfolio underperformed the Blmbg HY 2% Iss Cap by 20.45% for the quarter and underperformed the Blmbg HY 2% Iss Cap for the year by 25.97%.

Quarterly Asset Growth

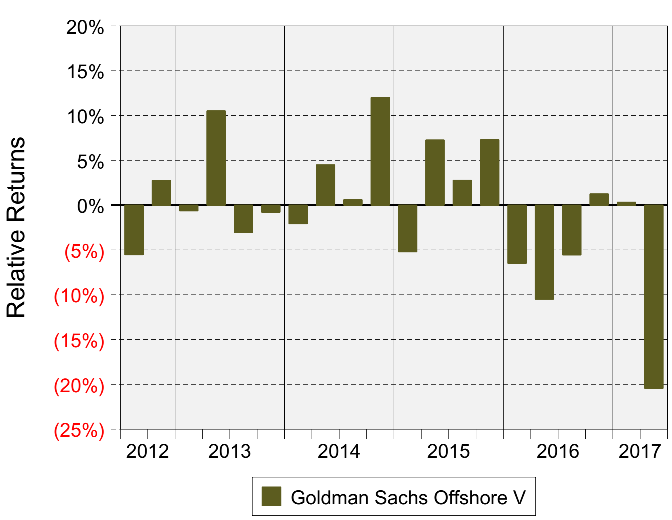
Beginning Market Value	$2,744,146
Net New Investment	$-1,007,704
Investment Gains/(Losses)	$-337,542
Ending Market Value	$1,398,900

Performance vs CAI High Yield Mutual Funds (Net)

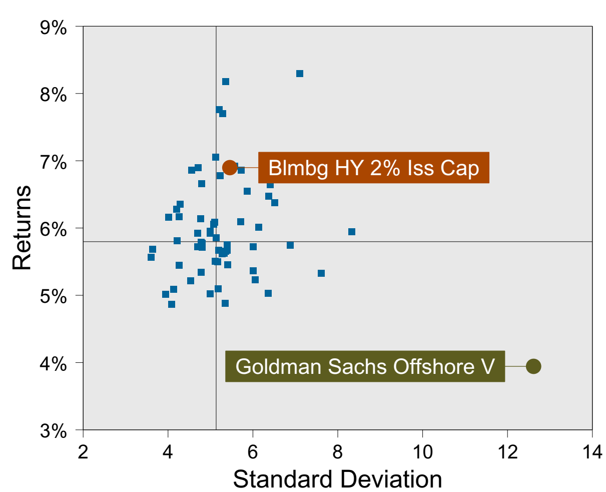


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	2.30	13.59	6.48	4.48	6.92	8.03
25th Percentile	2.13	11.89	5.75	3.81	6.37	7.37
Median	1.91	11.07	5.17	3.20	5.80	6.79
75th Percentile	1.66	10.07	4.80	2.60	5.50	6.29
90th Percentile	1.32	9.31	4.45	1.97	5.09	5.80
Goldman Sachs Offshore V ●	(18.28)	(13.28)	(9.29)	(1.99)	3.94	6.98
Blmbg HY 2% Iss Cap ▲	2.17	12.69	7.03	4.50	6.90	8.26

Relative Return vs Blmbg HY 2% Iss Cap



CAI High Yield Mutual Funds (Net)
Annualized Five Year Risk vs Return



Loomis Sayles
Period Ended June 30, 2017

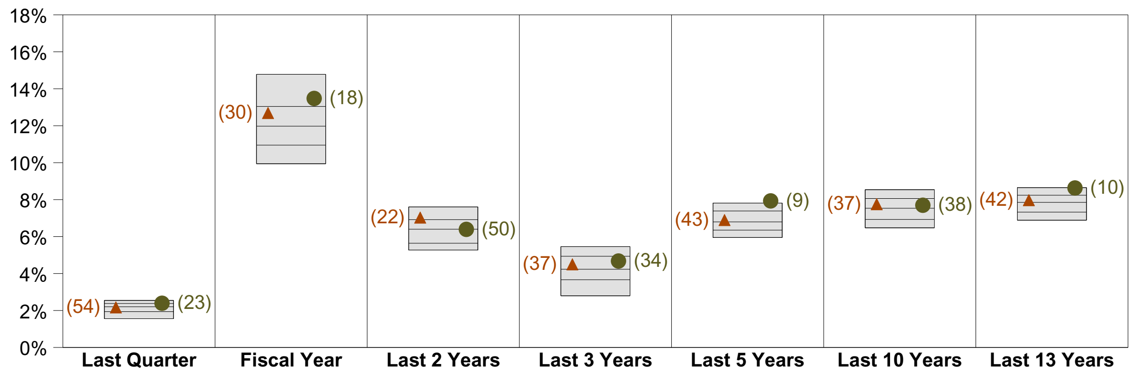
Investment Philosophy
The High Yield Full Discretion Strategy seeks to identify attractive sectors and specific investment opportunities primarily within the global fixed income market through a global economic and interest rate framework. Portfolio managers incorporate a long-term macroeconomic view along with a stringent bottom-up investment evaluation process that drives security selection and resulting sector allocations. Opportunistic investments in non-benchmark sectors including investment grade corporate, emerging market, and non-US dollar debt and convertible bonds help to manage overall portfolio risk and enhance total return potential.

Quarterly Summary and Highlights
- Loomis Sayles's portfolio posted a 2.39% return for the quarter placing it in the 23 percentile of the CAI High Yield Fixed Income group for the quarter and in the 18 percentile for the last year.
- Loomis Sayles's portfolio outperformed the Blmbg HY 2% Iss Cap by 0.22% for the quarter and outperformed the Blmbg HY 2% Iss Cap for the year by 0.79%.

Quarterly Asset Growth

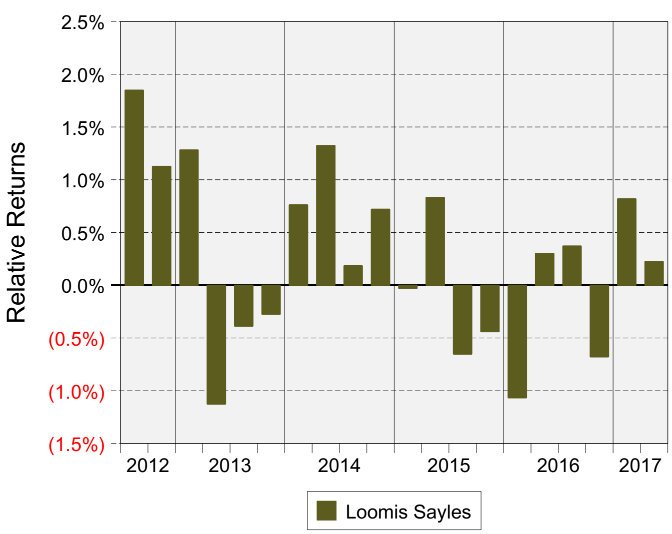
Beginning Market Value	$196,359,304
Net New Investment	$-245,449
Investment Gains/(Losses)	$4,693,973
Ending Market Value	$200,807,828

Performance vs CAI High Yield Fixed Income (Gross)

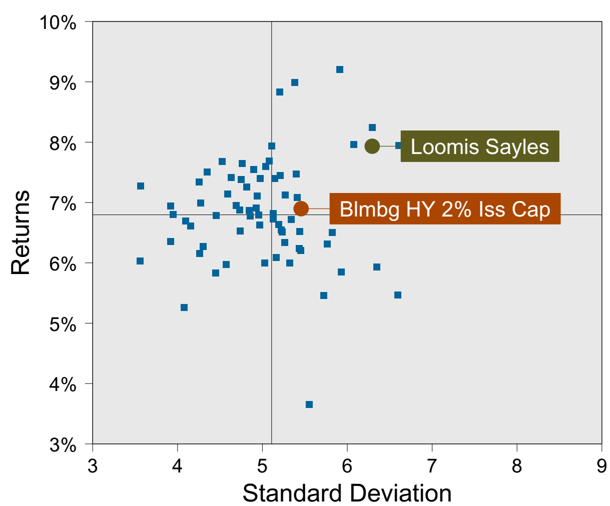


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 13 Years
10th Percentile	2.54	14.78	7.61	5.46	7.81	8.54	8.65
25th Percentile	2.38	13.04	6.92	4.93	7.39	8.06	8.24
Median	2.20	11.98	6.40	4.23	6.80	7.53	7.85
75th Percentile	1.94	10.95	5.64	3.67	6.35	6.93	7.32
90th Percentile	1.56	9.94	5.27	2.80	5.95	6.47	6.89
Loomis Sayles ●	2.39	13.48	6.39	4.68	7.93	7.70	8.63
Blmbg HY 2% Iss Cap ▲	2.17	12.69	7.03	4.50	6.90	7.76	7.97

Relative Return vs Blmbg HY 2% Iss Cap



CAI High Yield Fixed Income (Gross)
Annualized Five Year Risk vs Return



PIMCO Bravo II Fund
Period Ended June 30, 2017

Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe.

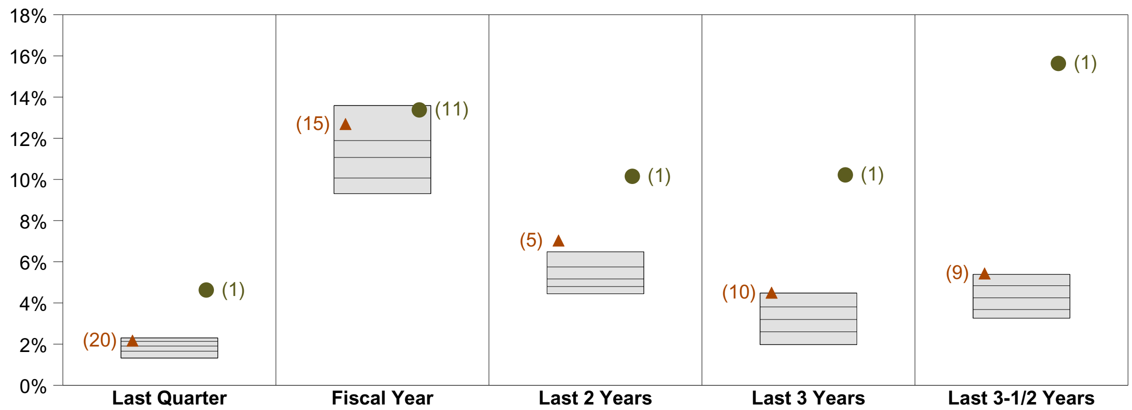
Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 4.63% return for the quarter placing it in the 1 percentile of the CAI High Yield Mutual Funds group for the quarter and in the 11 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Blmbg HY 2% Iss Cap by 2.46% for the quarter and outperformed the Blmbg HY 2% Iss Cap for the year by 0.69%.

Quarterly Asset Growth

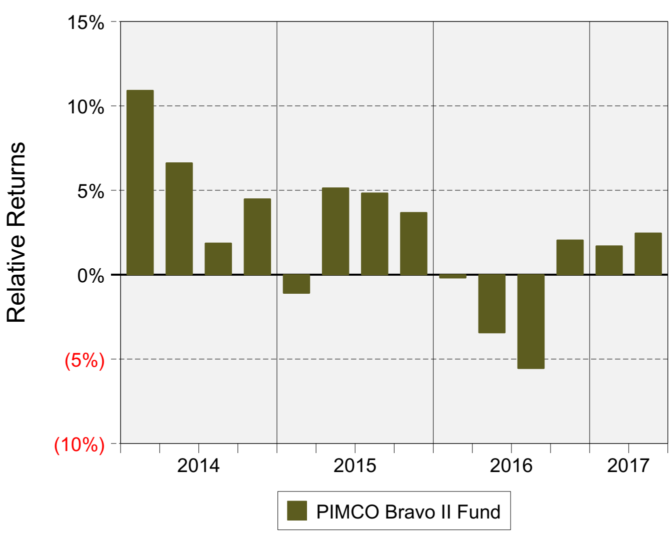
Beginning Market Value	$54,769,318
Net New Investment	$0
Investment Gains/(Losses)	$2,534,921
Ending Market Value	$57,304,239

Performance vs CAI High Yield Mutual Funds (Net)

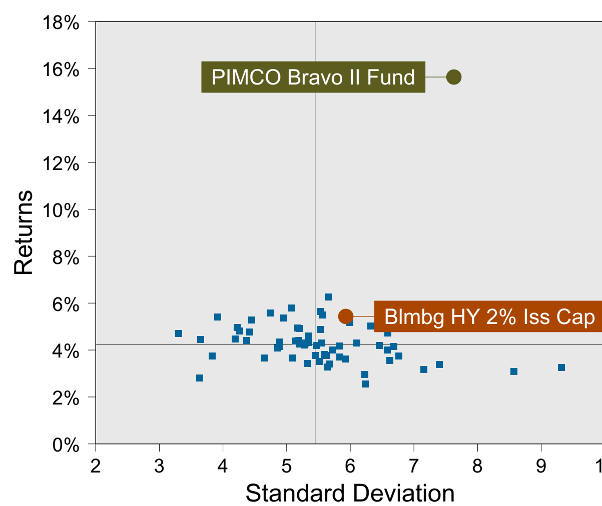


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	2.30	13.59	6.48	4.48	5.39
25th Percentile	2.13	11.89	5.75	3.81	4.84
Median	1.91	11.07	5.17	3.20	4.25
75th Percentile	1.66	10.07	4.80	2.60	3.68
90th Percentile	1.32	9.31	4.45	1.97	3.26
PIMCO Bravo II Fund ●	4.63	13.38	10.15	10.22	15.63
Blmbg HY 2% Iss Cap ▲	2.17	12.69	7.03	4.50	5.43

Relative Return vs Blmbg HY 2% Iss Cap



CAI High Yield Mutual Funds (Net)
Annualized Three and One-Half Year Risk vs Return



International Fixed Income
Period Ended June 30, 2017

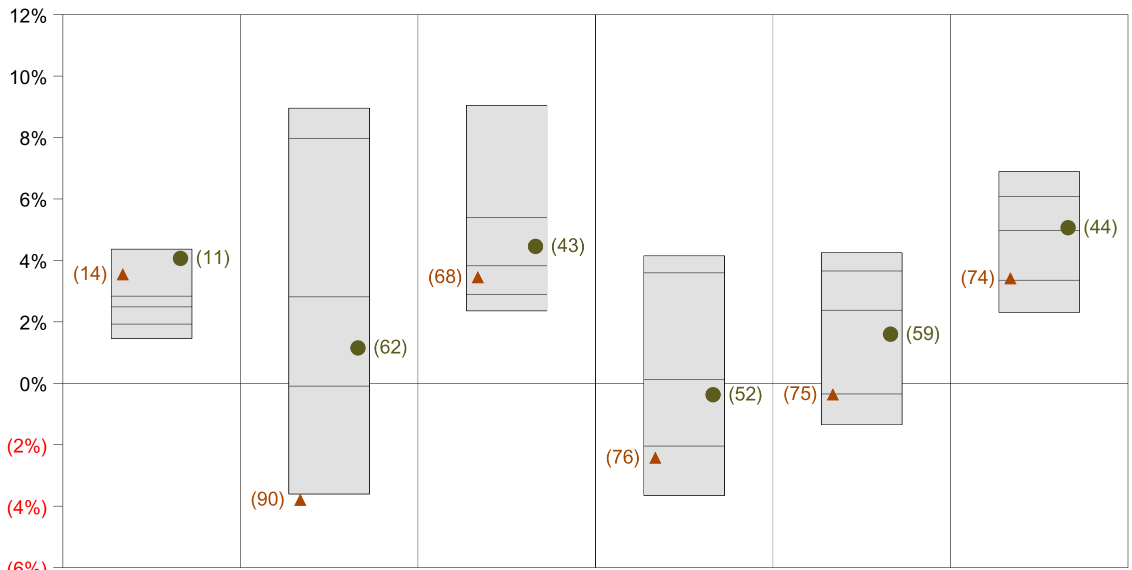
Quarterly Summary and Highlights

- International Fixed Income's portfolio posted a 4.07% return for the quarter placing it in the 11 percentile of the Public Fund - International Fixed group for the quarter and in the 62 percentile for the last year.
- International Fixed Income's portfolio outperformed the International Fixed Income Target by 0.52% for the quarter and outperformed the International Fixed Income Target for the year by 4.95%.

Quarterly Asset Growth

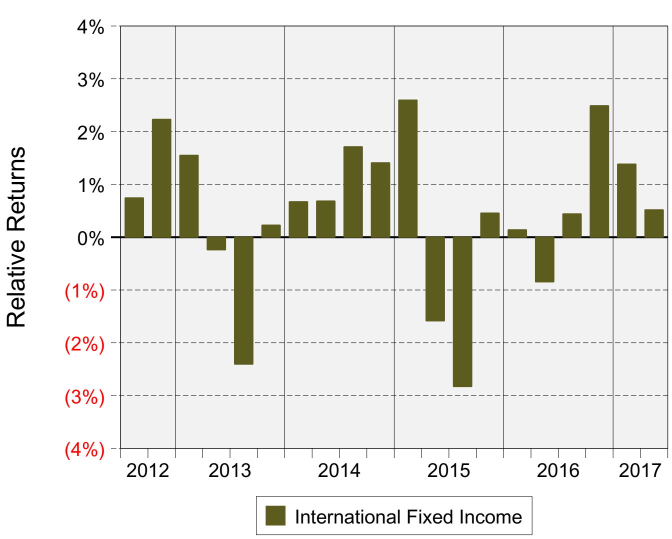
Beginning Market Value	$249,820,515
Net New Investment	$-221,362
Investment Gains/(Losses)	$10,150,726
Ending Market Value	$259,749,878

Performance vs Public Fund - International Fixed (Gross)

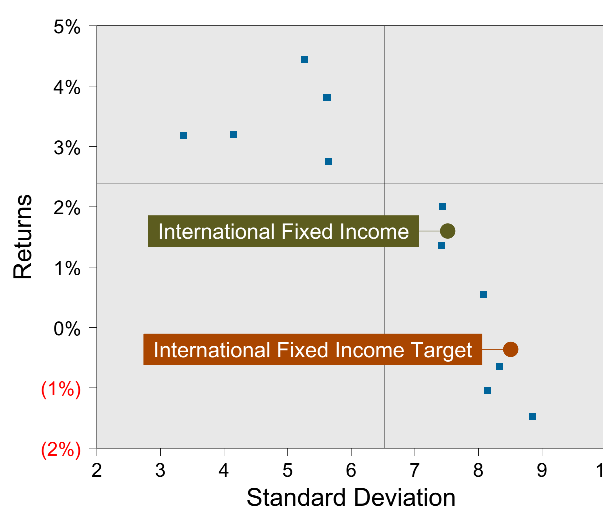


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	4.37	8.96	9.05	4.15	4.25	6.89
25th Percentile	2.84	7.97	5.40	3.59	3.66	6.07
Median	2.49	2.81	3.82	0.12	2.38	4.98
75th Percentile	1.93	(0.09)	2.89	(2.04)	(0.35)	3.36
90th Percentile	1.45	(3.61)	2.36	(3.65)	(1.35)	2.31
International Fixed Income ●	4.07	1.15	4.46	(0.37)	1.60	5.06
International Fixed Income Target ▲	3.55	(3.80)	3.45	(2.42)	(0.36)	3.42

Relative Returns vs International Fixed Income Target



Public Fund - International Fixed (Gross) Annualized Five Year Risk vs Return



Brandywine Asset Management
Period Ended June 30, 2017

Investment Philosophy

Brandywine engages in a disciplined, active, value-driven, strategic approach. Their investment strategy concentrates on top-down analysis of macro-economic conditions in order to determine where the most attractive valuations exist. Specifically, they invest in bonds with the highest real yields globally. They manage currency to protect principal and increase returns, patiently rotated among countries and attempt to control risk by purchasing undervalued securities.

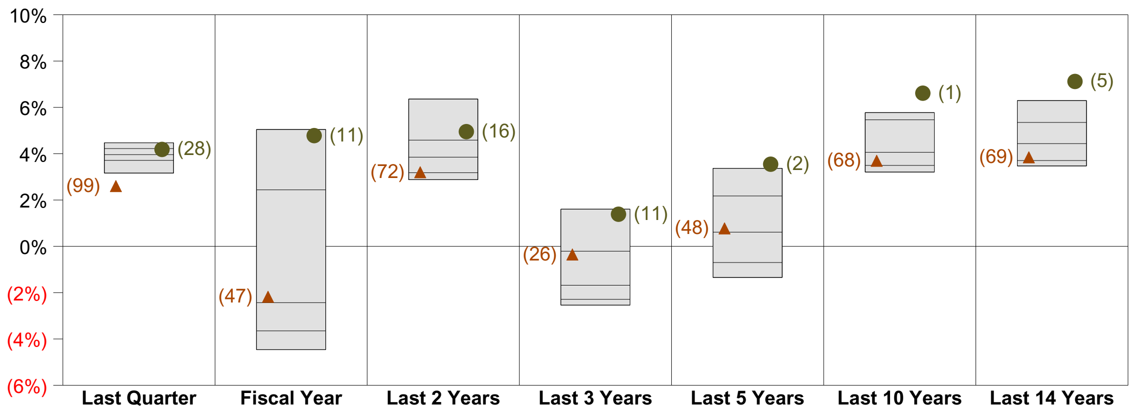
Quarterly Summary and Highlights

- Brandywine's portfolio posted a 4.18% return for the quarter placing it in the 28 percentile of the CAI Non US Fixed Income (Unhedged) group for the quarter and in the 11 percentile for the last year.
- Brandywine's portfolio outperformed the Blmbg Global Aggregate by 1.58% for the quarter and outperformed the Blmbg Global Aggregate for the year by 6.96%.

Quarterly Asset Growth

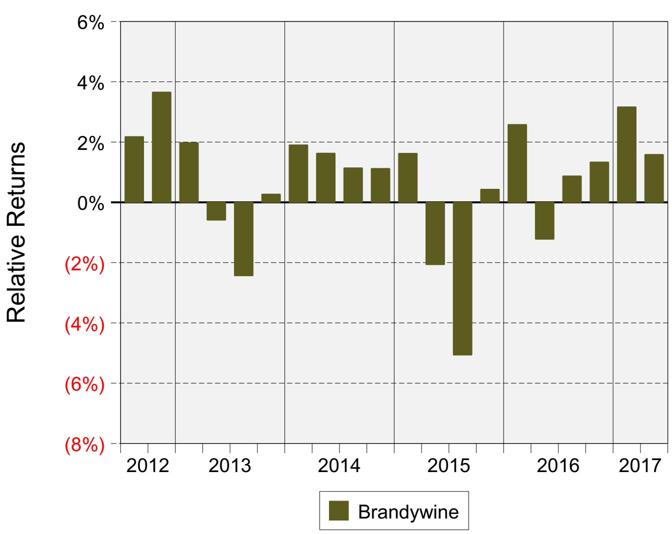
Beginning Market Value	$147,764,749
Net New Investment	$-140,880
Investment Gains/(Losses)	$6,179,862
Ending Market Value	$153,803,731

Performance vs CAI Non US Fixed Income (Unhedged) (Gross)

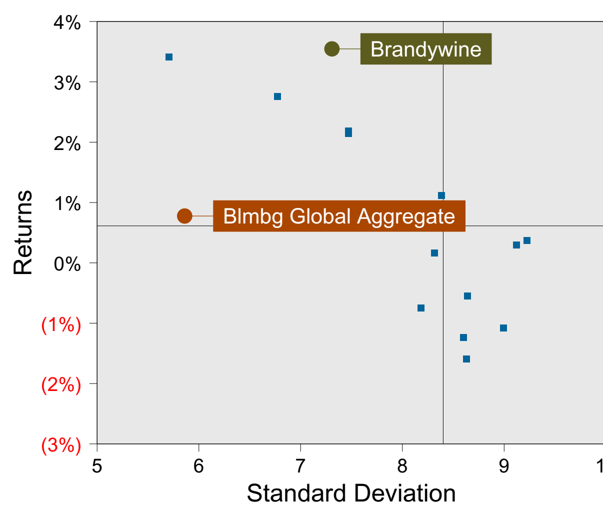


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14 Years
10th Percentile	4.47	5.05	6.36	1.61	3.37	5.77	6.29
25th Percentile	4.22	2.44	4.59	(0.21)	2.18	5.46	5.35
Median	3.96	(2.43)	3.85	(1.68)	0.61	4.06	4.44
75th Percentile	3.71	(3.65)	3.18	(2.29)	(0.70)	3.49	3.71
90th Percentile	3.16	(4.46)	2.88	(2.54)	(1.34)	3.21	3.47
Brandywine ●	4.18	4.78	4.95	1.39	3.55	6.61	7.12
Blmbg Global Aggregate ▲	2.60	(2.18)	3.20	(0.35)	0.78	3.69	3.85

Relative Return vs Blmbg Global Aggregate



CAI Non US Fixed Income (Unhedged) (Gross) Annualized Five Year Risk vs Return



UBS Global Asset Management
Period Ended June 30, 2017

Investment Philosophy

UBS Global Asset Management's non-US fixed income portfolio's assets are invested in emerging markets debt on an opportunistic basis up to the stated maximum allocation of 5%. The account's non-US fixed income assets will be fully-invested at all times, but such assets may be invested in the UBS US Cash Management Prime Collective Fund for operational and risk management purposes. ***Citigroup Non-US Govt Index through 12/31/2009; Bloomberg Aggregate ex-US Index thereafter.**

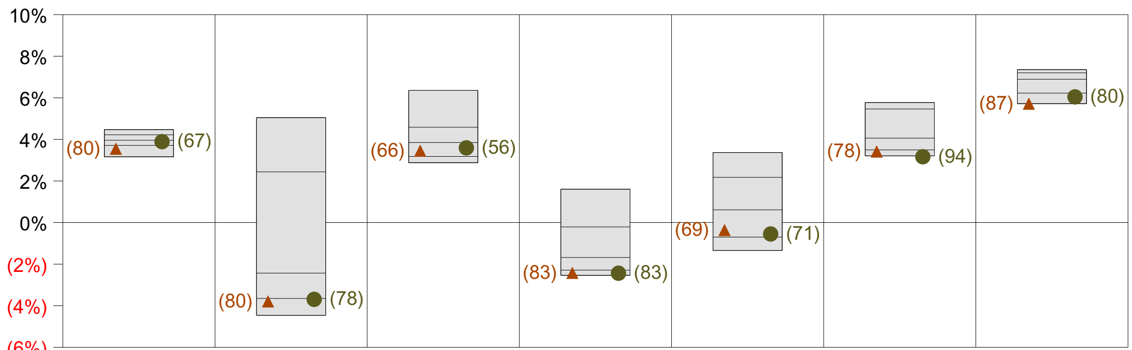
Quarterly Summary and Highlights

- UBS Global Asset Management's portfolio posted a 3.89% return for the quarter placing it in the 67 percentile of the CAI Non US Fixed Income (Unhedged) group for the quarter and in the 78 percentile for the last year.
- UBS Global Asset Management's portfolio outperformed the Blended Benchmark* by 0.35% for the quarter and outperformed the Blended Benchmark* for the year by 0.10%.

Quarterly Asset Growth

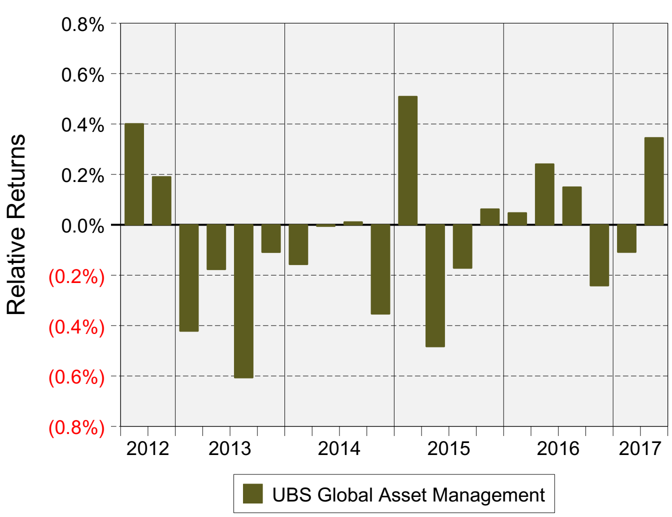
Beginning Market Value	$102,055,766
Net New Investment	$-80,482
Investment Gains/(Losses)	$3,970,864
Ending Market Value	$105,946,147

Performance vs CAI Non US Fixed Income (Unhedged) (Gross)

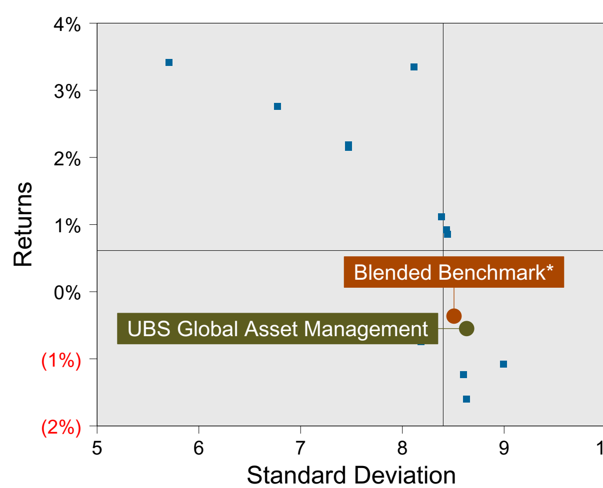


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 28-1/4 Years
10th Percentile	4.47	5.05	6.36	1.61	3.37	5.77	7.36
25th Percentile	4.22	2.44	4.59	(0.21)	2.18	5.46	7.20
Median	3.96	(2.43)	3.85	(1.68)	0.61	4.06	6.89
75th Percentile	3.71	(3.65)	3.18	(2.29)	(0.70)	3.49	6.23
90th Percentile	3.16	(4.46)	2.88	(2.54)	(1.34)	3.21	5.72
UBS Global Asset Management ●	3.89	(3.69)	3.59	(2.44)	(0.55)	3.16	6.04
Blended Benchmark* ▲	3.55	(3.80)	3.45	(2.42)	(0.36)	3.42	5.71

Relative Return vs Blended Benchmark*



CAI Non US Fixed Income (Unhedged) (Gross) Annualized Five Year Risk vs Return



Global Real Estate Composite
Period Ended June 30, 2017

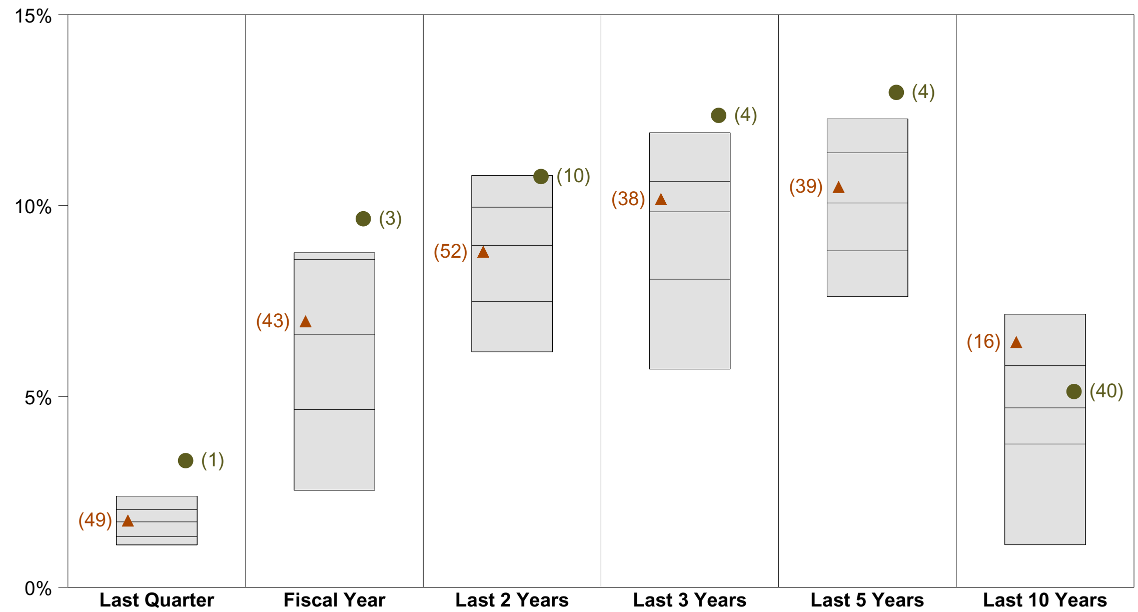
Quarterly Summary and Highlights

- Global Real Estate Composite's portfolio posted a 3.32% return for the quarter placing it in the 1 percentile of the Pub Pln- Real Estate group for the quarter and in the 3 percentile for the last year.
- Global Real Estate Composite's portfolio outperformed the NCREIF Total Index by 1.57% for the quarter and outperformed the NCREIF Total Index for the year by 2.69%.

Quarterly Asset Growth

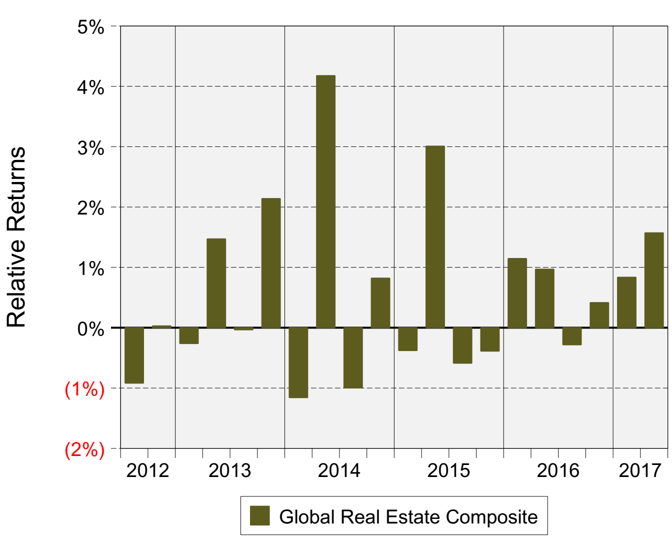
Beginning Market Value	$548,322,227
Net New Investment	$2,817,628
Investment Gains/(Losses)	$18,014,501
Ending Market Value	$569,154,356

Performance vs Pub Pln- Real Estate (Gross)

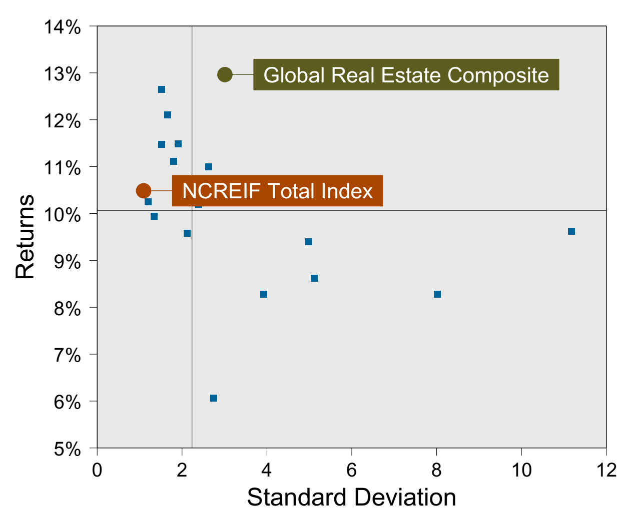


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	2.39	8.76	10.79	11.91	12.27	7.16
25th Percentile	2.04	8.58	9.96	10.63	11.38	5.81
Median	1.71	6.63	8.96	9.84	10.07	4.70
75th Percentile	1.33	4.66	7.48	8.07	8.81	3.75
90th Percentile	1.11	2.54	6.17	5.71	7.61	1.11
Global Real Estate Composite ●	3.32	9.65	10.76	12.36	12.96	5.13
NCREIF Total Index ▲	1.75	6.97	8.79	10.17	10.49	6.42

Relative Return vs NCREIF Total Index



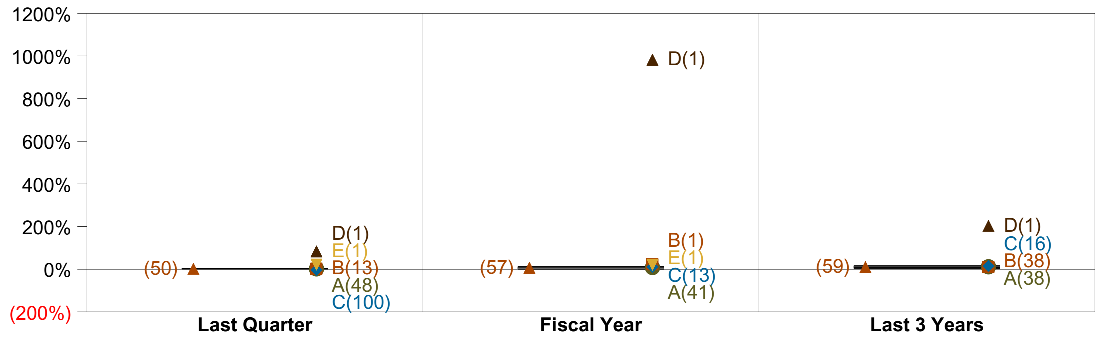
Pub Pln- Real Estate (Gross)
Annualized Five Year Risk vs Return



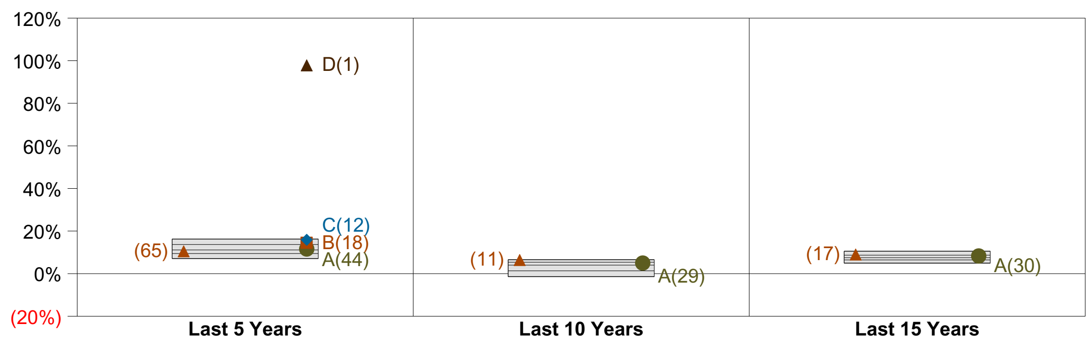
North Dakota State Investment Board Pension Funds
Performance vs CAI Total Real Estate Database
Periods Ended June 30, 2017

Return Ranking

The chart below illustrates fund rankings over various periods versus the CAI Total Real Estate Database. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the CAI Total Real Estate Database. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.



		Last Quarter	Fiscal Year	Last 3 Years
10th Percentile		3.68	12.34	16.74
25th Percentile		2.64	9.87	13.54
Median		1.74	7.41	10.69
75th Percentile		1.33	4.62	8.06
90th Percentile		0.55	0.23	4.11
Invesco Core Real Estate	● A	1.79	8.16	11.52
Invesco Fund II	■ B	3.30	22.72	11.61
Invesco Fund III	◆ C	(2.76)	11.58	14.81
Invesco Asia RE Feeder	▲ D	83.64	982.41	203.10
Invesco Asia RE Fund III	▼ E	21.68	21.25	-
NCREIF Total Index	▲	1.75	6.97	10.17

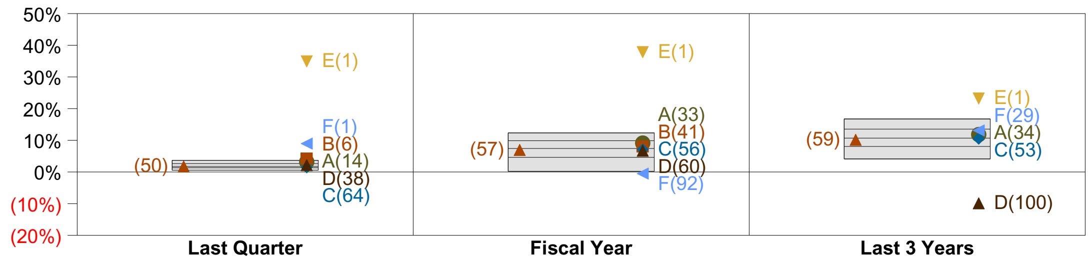


		Last 5 Years	Last 10 Years	Last 15 Years
10th Percentile		16.24	6.56	10.54
25th Percentile		13.69	5.36	8.67
Median		11.13	3.99	7.49
75th Percentile		9.45	1.32	6.43
90th Percentile		7.08	(1.41)	4.94
Invesco Core Real Estate	● A	11.59	4.98	8.30
Invesco Fund II	■ B	14.46	-	-
Invesco Fund III	◆ C	15.89	-	-
Invesco Asia RE Feeder	▲ D	97.81	-	-
Invesco Asia RE Fund III	▼ E	-	-	-
NCREIF Total Index	▲	10.49	6.42	9.02

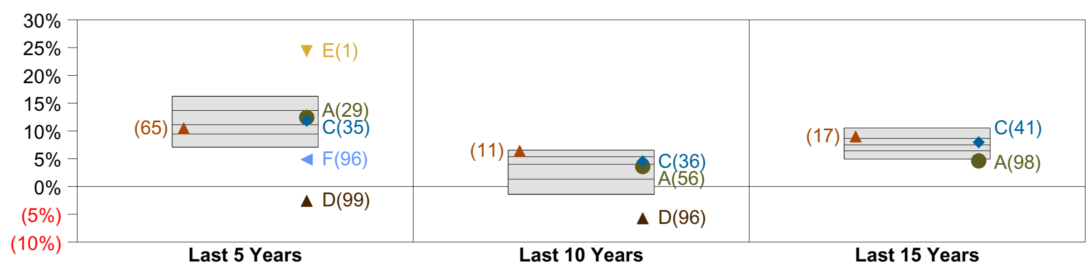
North Dakota State Investment Board Pension Funds
Performance vs CAI Total Real Estate Database
Periods Ended June 30, 2017

Return Ranking

The chart below illustrates fund rankings over various periods versus the CAI Total Real Estate Database. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the CAI Total Real Estate Database. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.



		Last Quarter	Fiscal Year	Last 3 Years
10th Percentile		3.68	12.34	16.74
25th Percentile		2.64	9.87	13.54
Median		1.74	7.41	10.69
75th Percentile		1.33	4.62	8.06
90th Percentile		0.55	0.23	4.11
Total Real Estate	● A	3.19	9.13	11.81
Invesco Value Added Fd IV	■ B	4.24	8.07	-
JP Morgan Investment	◆ C	1.48	7.08	10.52
JP Morgan Alternative Fd	▲ D	2.17	6.73	(9.88)
JP Morgan Greater China Fund	▼ E	34.91	37.81	23.20
JPM GreaterEur Opp Prop Fd	◄ F	8.96	(0.51)	13.11
NCREIF Total Index	▲	1.75	6.97	10.17



		Last 5 Years	Last 10 Years	Last 15 Years
10th Percentile		16.24	6.56	10.54
25th Percentile		13.69	5.36	8.67
Median		11.13	3.99	7.49
75th Percentile		9.45	1.32	6.43
90th Percentile		7.08	(1.41)	4.94
Total Real Estate	● A	12.43	3.59	4.61
Invesco Value Added Fd IV	■ B	-	-	-
JP Morgan Investment	◆ C	11.82	4.54	7.97
JP Morgan Alternative Fd	▲ D	(2.58)	(5.72)	-
JP Morgan Greater China Fund	▼ E	24.37	-	-
JPM GreaterEur Opp Prop Fd	◄ F	4.86	-	-
NCREIF Total Index	▲	10.49	6.42	9.02

TIR Teredo
Period Ended June 30, 2017

Investment Philosophy

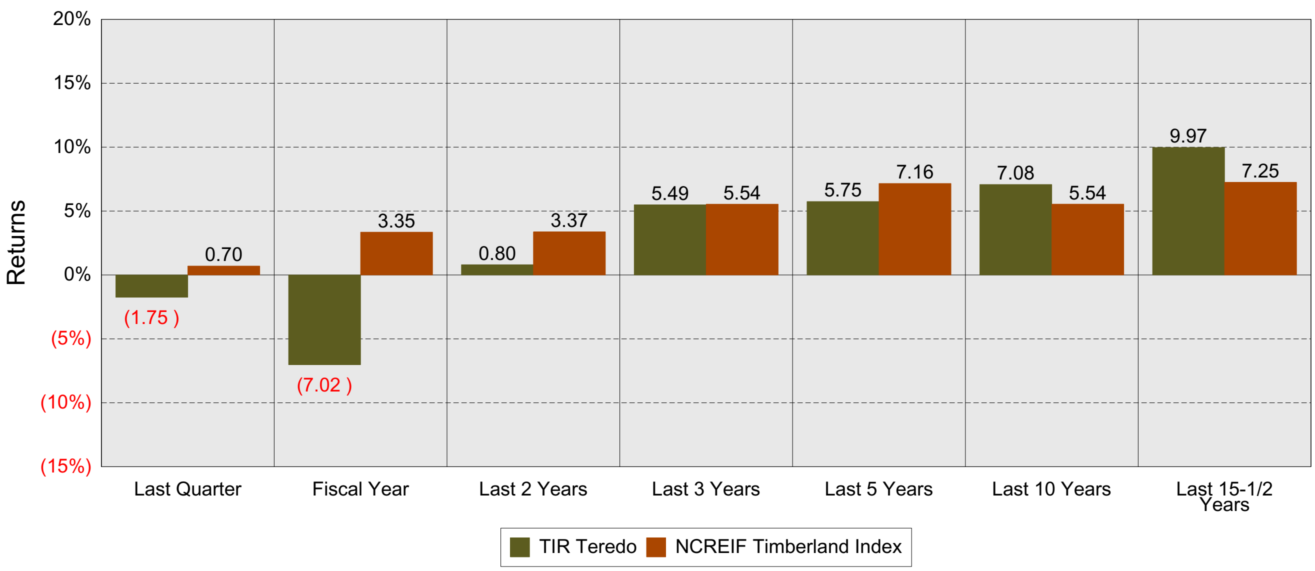
Teredo Timber LLC - The investment objective of Teredo is to provide competitive investment returns from increasing saw timber production through the 20 year term of the partnership. TIR's management strategy is to maximize saw timber volume by applying intensive forest management techniques which accelerate growth through the diameter class distribution. Periodic cash flows are produced from thinning and final harvests of the individual timber stands.

Quarterly Summary and Highlights

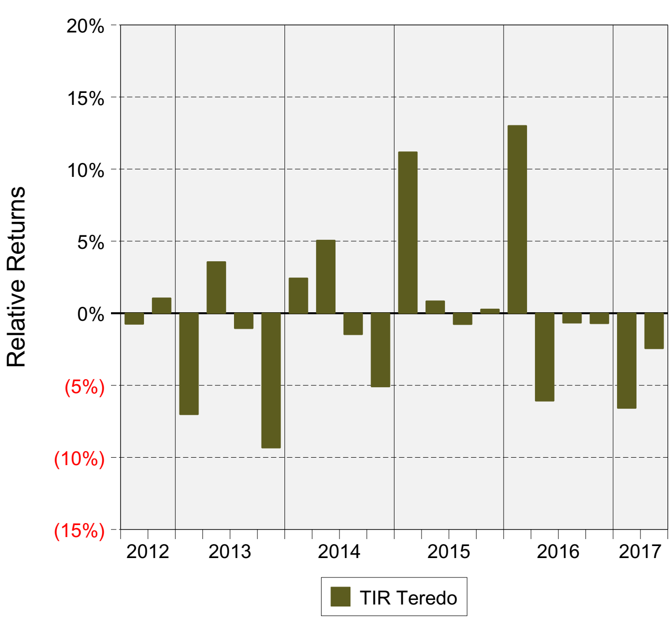
- TIR Teredo's portfolio underperformed the NCREIF Timberland Index by 2.44% for the quarter and underperformed the NCREIF Timberland Index for the year by 10.37%.

Quarterly Asset Growth

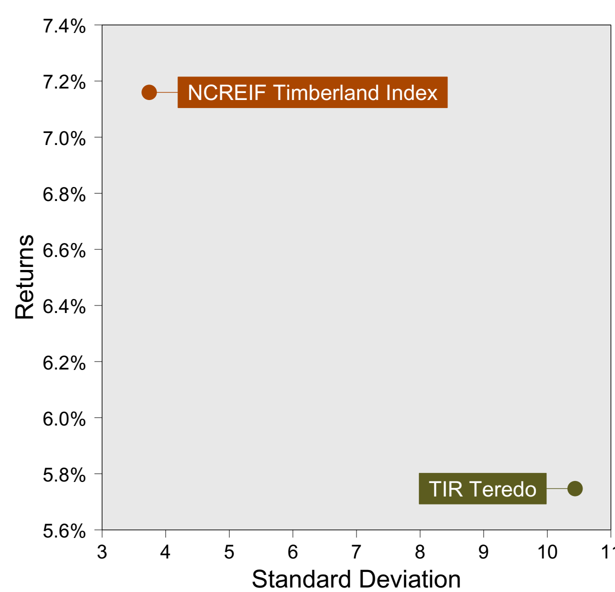
Beginning Market Value	$32,004,093
Net New Investment	$0
Investment Gains/(Losses)	$-558,656
Ending Market Value	$31,445,437



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return



TIR Springbank
Period Ended June 30, 2017

Investment Philosophy

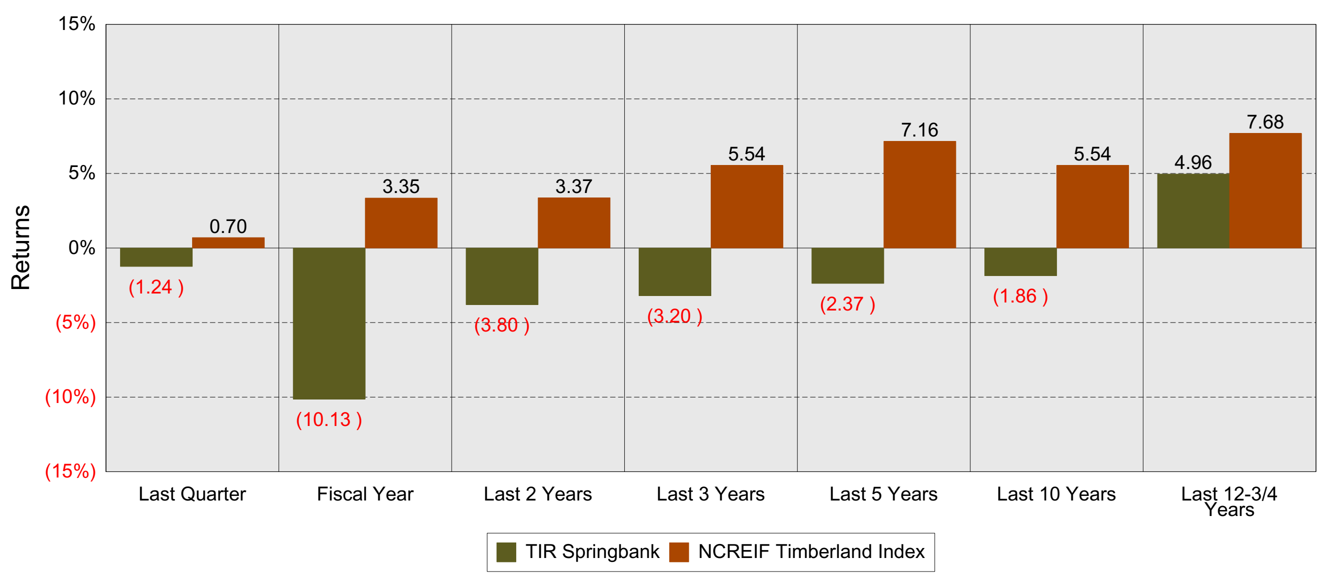
Springbank LLC - The investment objective of Springbank is to maximize long-term investment potential by means of the formation of a dedicated land management group, intensive timber management to increase timber production, the coordination of timber harvesting with land management activities and direct marketing and selective real estate partnerships.

Quarterly Summary and Highlights

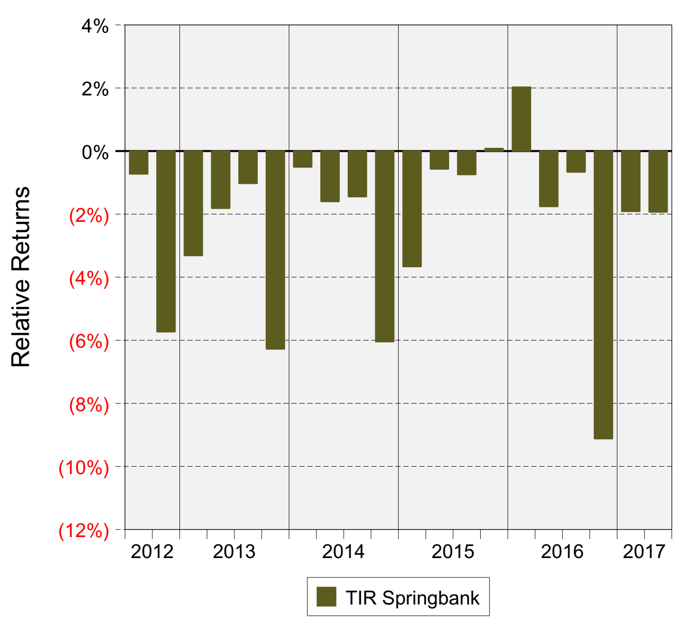
- TIR Springbank's portfolio underperformed the NCREIF Timberland Index by 1.94% for the quarter and underperformed the NCREIF Timberland Index for the year by 13.48%.

Quarterly Asset Growth

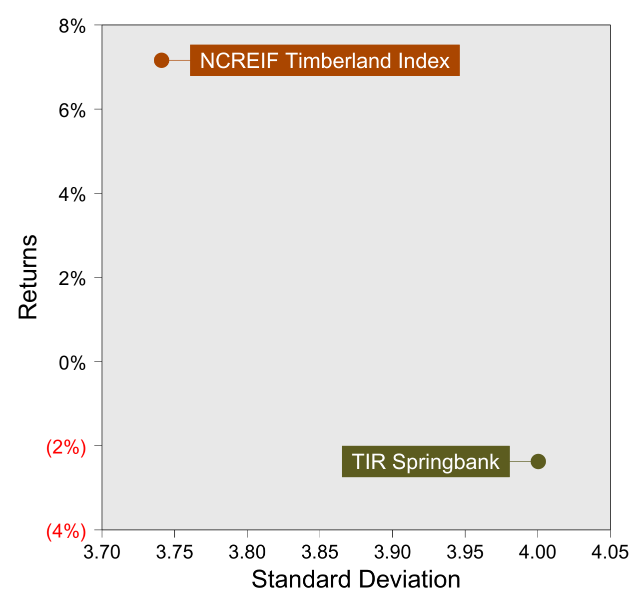
Beginning Market Value	$107,655,424
Net New Investment	$-1,292,000
Investment Gains/(Losses)	$-1,320,964
Ending Market Value	$105,042,460



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return



JP Morgan Asian Infrastructure
Period Ended June 30, 2017

Investment Philosophy

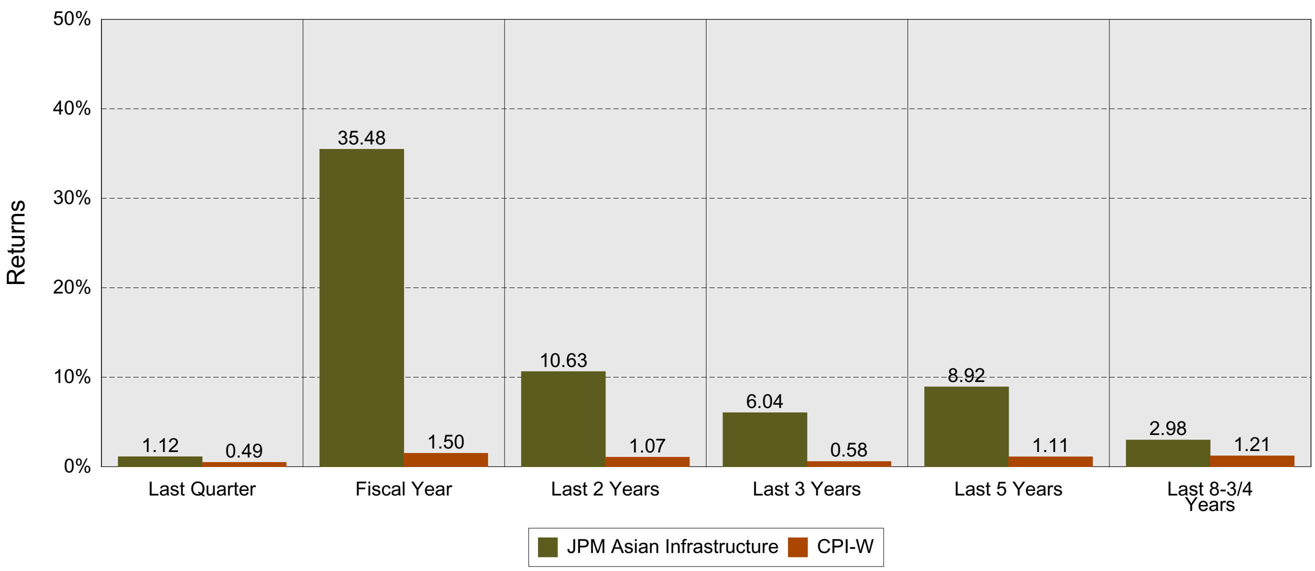
The JPMorgan Asian Infrastructure & Related Resources Opportunity ("AIRRO") Fund seeks to invest in infrastructure and related resources opportunities across the greater Asia Pacific region. The Fund seeks to invest in a broad range of assets, including: core infrastructure, power both from conventional and renewable sources, communications, water and waste-water, public works, urban development and other "social" infrastructure assets and related resources.

Quarterly Summary and Highlights

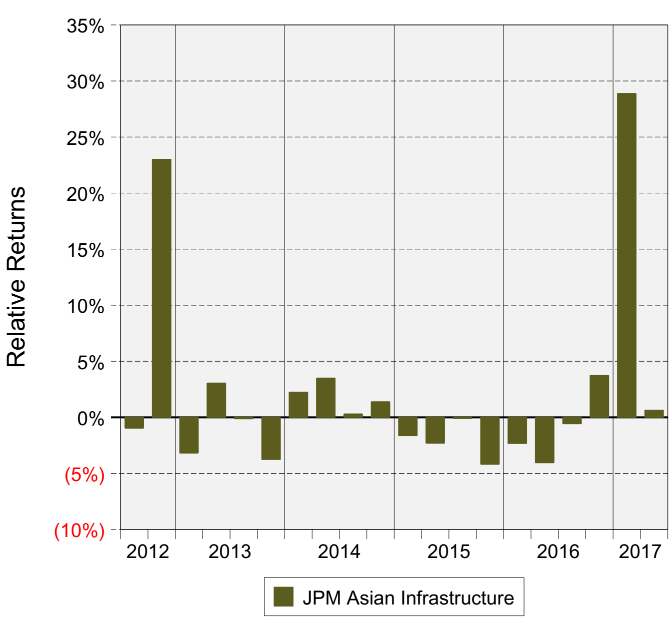
- JPM Asian Infrastructure's portfolio outperformed the CPI-W by 0.63% for the quarter and outperformed the CPI-W for the year by 33.98%.

Quarterly Asset Growth

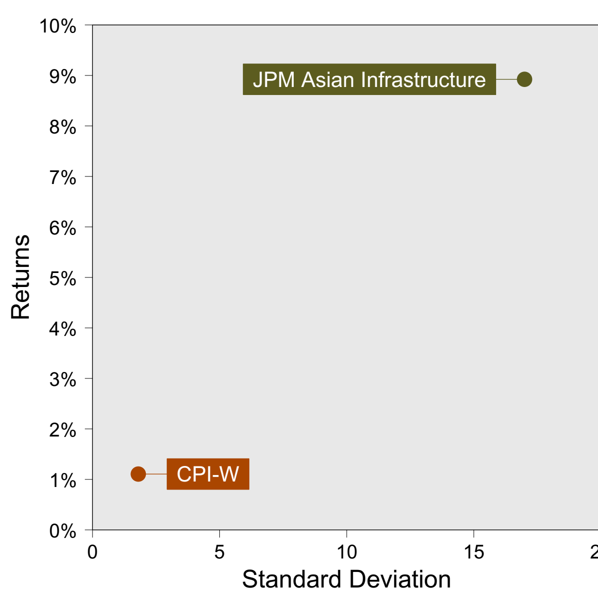
Beginning Market Value	$23,333,530
Net New Investment	$-22,952
Investment Gains/(Losses)	$260,368
Ending Market Value	$23,570,946



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



JPM Infrastructure Fund
Period Ended June 30, 2017

Investment Philosophy

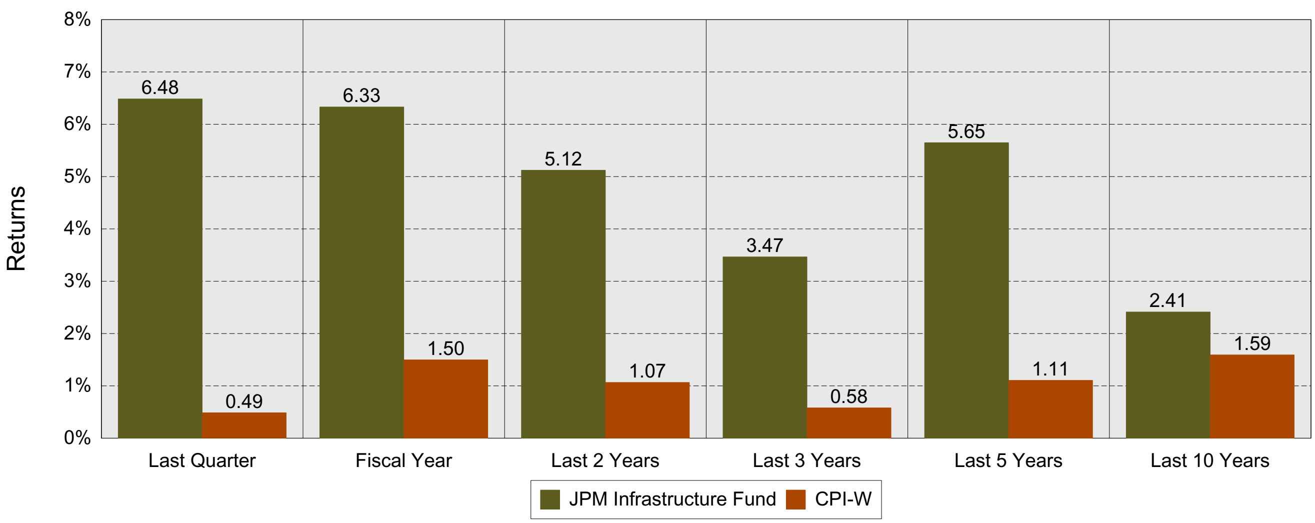
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports.

Quarterly Summary and Highlights

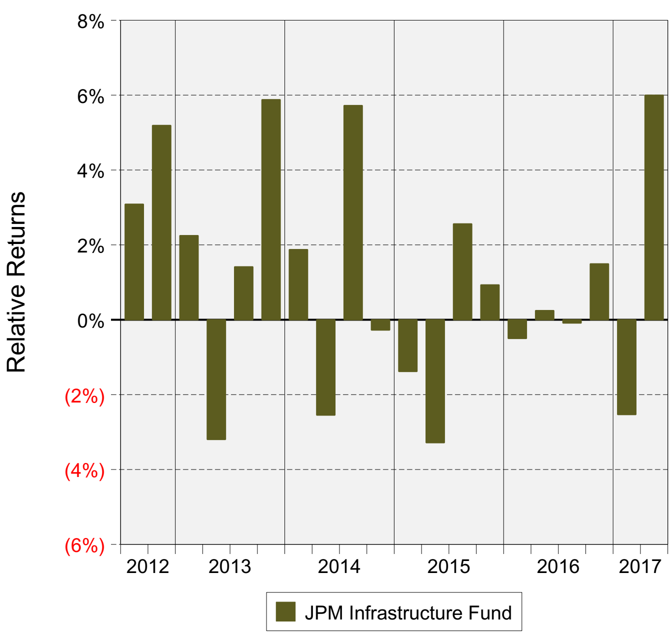
- JPM Infrastructure Fund's portfolio outperformed the CPI-W by 6.00% for the quarter and outperformed the CPI-W for the year by 4.83%.

Quarterly Asset Growth

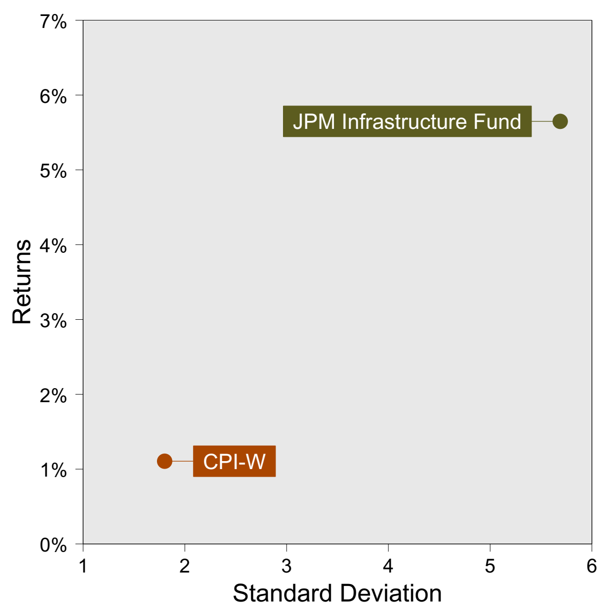
Beginning Market Value	$149,352,050
Net New Investment	$19,945,224
Investment Gains/(Losses)	$9,682,464
Ending Market Value	$178,979,737



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



Grosvenor Cust. Infrastructure
Period Ended June 30, 2017

Investment Philosophy

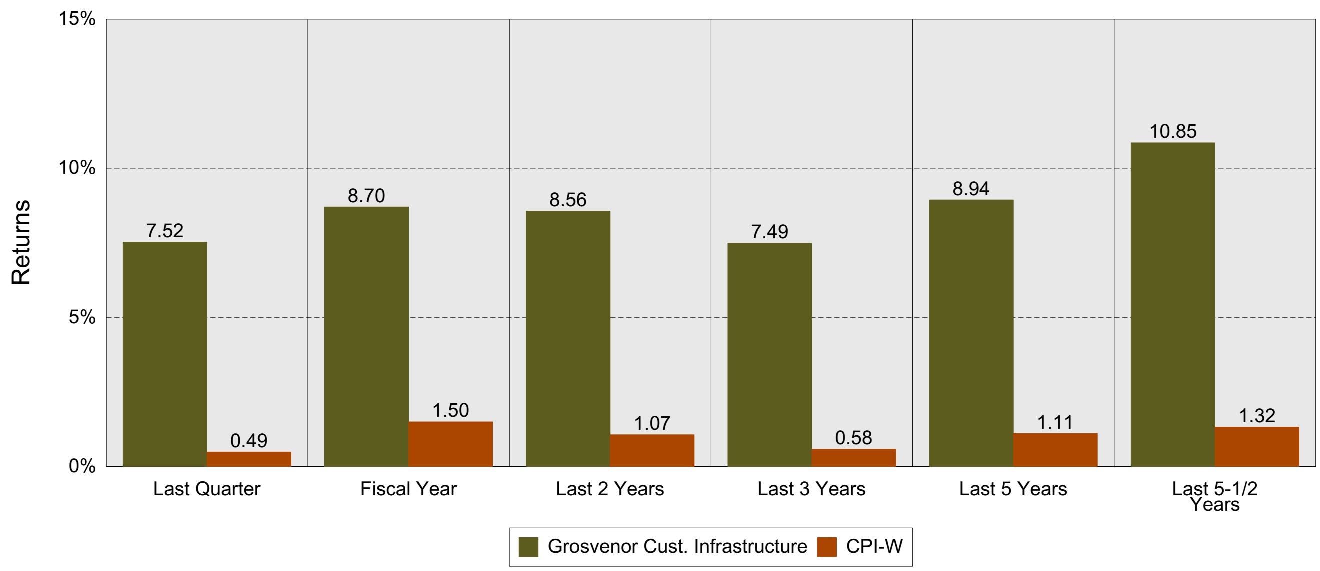
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

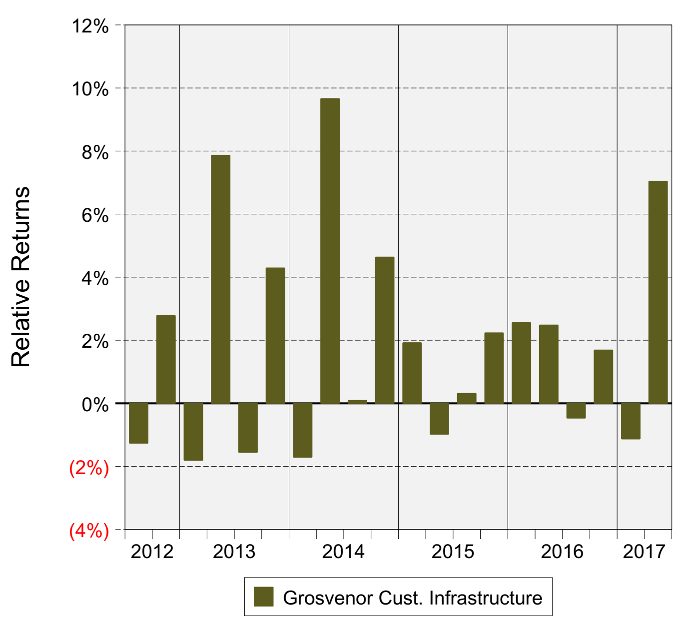
- Grosvenor Cust. Infrastructure's portfolio outperformed the CPI-W by 7.04% for the quarter and outperformed the CPI-W for the year by 7.20%.

Quarterly Asset Growth

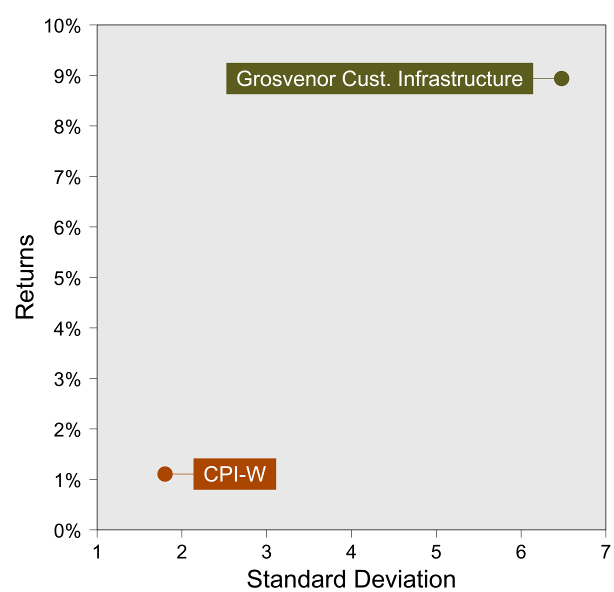
Beginning Market Value	$34,699,804
Net New Investment	$182,439
Investment Gains/(Losses)	$2,624,992
Ending Market Value	$37,507,235



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



Grosvenor Cust. Infrastructure II
Period Ended June 30, 2017

Investment Philosophy

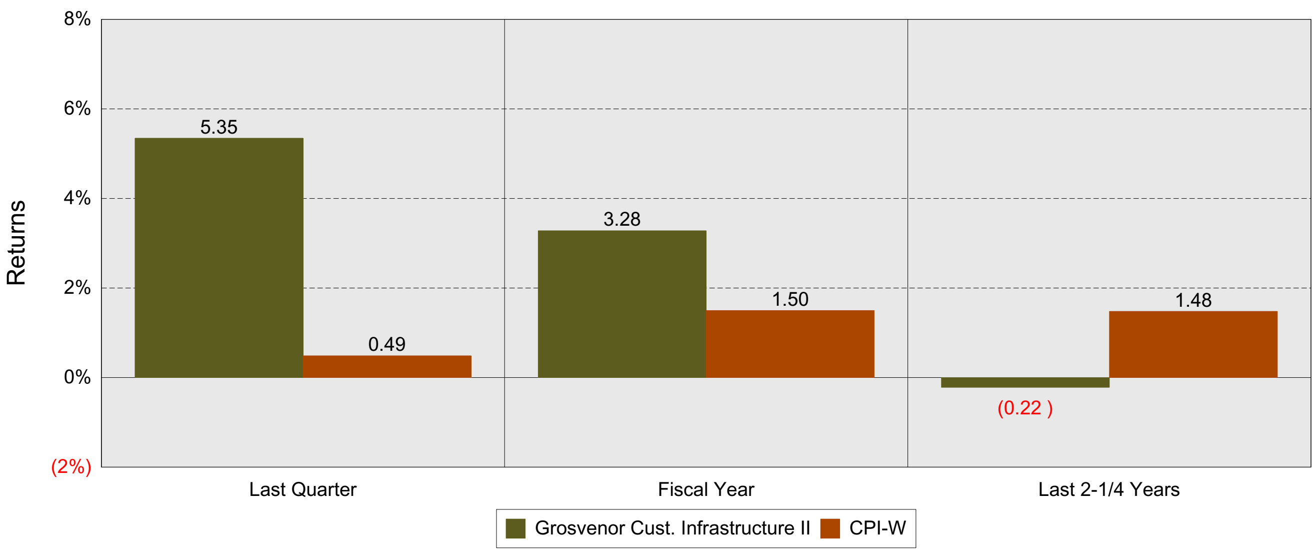
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

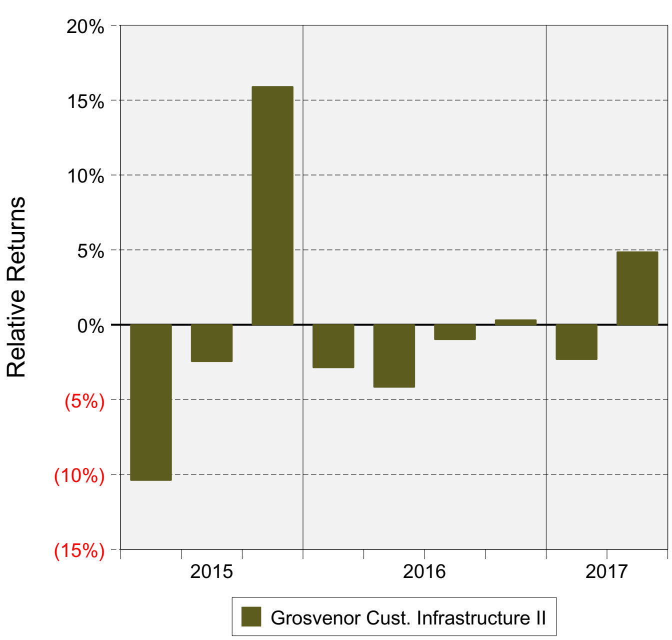
- Grosvenor Cust. Infrastructure II's portfolio outperformed the CPI-W by 4.86% for the quarter and outperformed the CPI-W for the year by 1.78%.

Quarterly Asset Growth

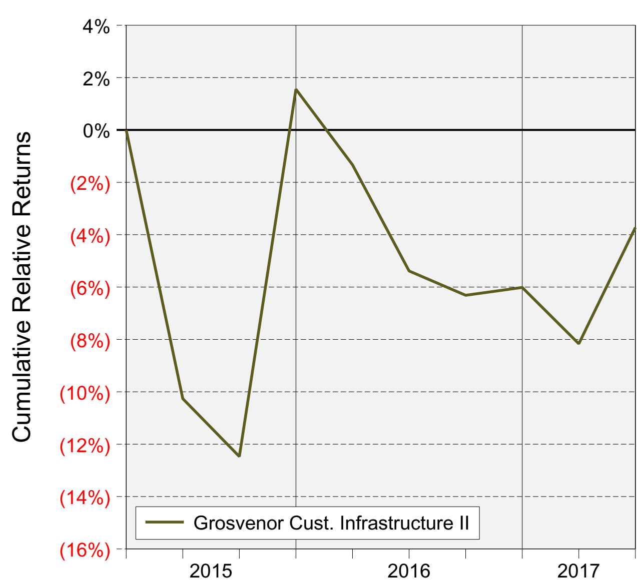
Beginning Market Value	$8,107,696
Net New Investment	$-992,114
Investment Gains/(Losses)	$356,639
Ending Market Value	$7,472,221



Relative Return vs CPI-W



Cumulative Returns vs CPI-W



Research and Educational Programs

The Callan Institute provides both research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/library to see all of our publications, and www.callan.com/blog to view our blog “Perspectives.” For more information contact Anna West at 415.974.5060 / institute@callan.com.

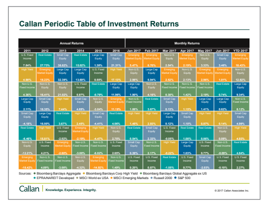
New Research from Callan’s Experts

The Hedge Fund Edge: Still Sharp or Too Dull? | Why should investors bother with hedge funds? The original proposition behind them was their differentiated performance: better risk-adjusted returns with a lower correlation to traditional capital markets. Do hedge funds still have their inherent advantage? This white paper looks at the key traits in the DNA of hedge funds—and why they still offer an advantage for investors.

White Label Funds: A No-Nonsense Design Handbook | In a paper published in *The Journal of Retirement,* Callan’s Rod Bare, Jay Kloepfer, Lori Lucas, and Jimmy Veneruso offer a guide to plan sponsors considering adding these funds to their lineup.

Survivorship Bias Presentation Summary, 2017 National Conference | In this presentation, Greg Allen and Butch Cliff discussed an algorithm they developed with Walter J. Meerschaert, Callan’s manager of Information Technology, to measure and correct for survivorship bias, the logical flaw of looking only at the results for the survivors in a universe, rather than the results for all members of the universe. Their algorithm, called SUBICO (for SUrvivorship BIas COrrection), uses all of the underlying data for both surviving and non-surviving members of the universe to correct for survivorship bias.

Next Generation QDIAs, 2017 National Conference | The workshop “The Future of DC Is Here: The Next Generation of QDIAs,” hosted by Ben Taylor, James Veneruso, and Brianne Weymouth, discussed new approaches to qualified default investment alternatives as they become the primary savings vehicle for defined contribution plans.



June 2017 Monthly Periodic Table of Returns | A monthly update for Callan’s Periodic Table of Investment Returns, covering the major public equity asset classes.

Periodicals

Private Markets Trends, Spring 2017 | Gary Robertson reports that the private equity market is off to a roaring start in 2017, and new partnership commitments may exceed the level of 2016.

Hedge Fund Monitor, 2nd Quarter 2017 | Jim McKee looks at “false charges,” or bear markets that come and go quickly but can leave unprepared investors at significant risk.

DC Observer, 2nd Quarter 2017 | Lori Lucas discusses how to manage DC plan recordkeepers, explaining that one of the best ways is to conduct periodic searches.

Market Pulse Flipbook, 1st Quarter 2017 | A quarterly market reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, alternatives, and defined contribution.

Capital Market Review, 1st Quarter 2017 | A quarterly macroeconomic newsletter providing thoughtful insights on the economy and recent performance in equity, fixed income, alternatives, international, real estate, and other capital markets.

Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: www.callan.com/library/

Mark your calendars for our fall **Regional Workshop**, October 24 in New York and October 26 in Chicago, where we'll cover highlights from our soon-to-be published *Investment Management Fee Survey* and cover other aspects of fees. Callan's **National Conference** will be held January 29–31, 2018, at the Palace Hotel in San Francisco.

For more information about events, please contact Barb Gerraty: 415.274.3093 / gerraty@callan.com

The Center for Investment Training Educational Sessions

The Center for Investment Training, better known as the "Callan College," provides a foundation of knowledge for industry professionals who are involved in the investment decision-making process. It was founded in 1994 to provide clients and non-clients alike with basic- to intermediate-level instruction. Our next session is:

Introduction to Investments

Chicago, October 24-25, 2017

This program familiarizes fund sponsor trustees, staff, and asset management advisers with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals who have less than two years of experience with asset-management oversight and/or support responsibilities. Tuition for the Introductory "Callan College" session is $2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Customized Sessions

The "Callan College" is equipped to customize a curriculum to meet the training and educational needs of a specific organization. These tailored sessions range from basic to advanced and can take place anywhere—even at your office.

Learn more at www.callan.com/events/callan-college-intro or contact Kathleen Cunnie: 415.274.3029 / cunnie@callan.com

Education: By the Numbers

525	Attendees (on average) of the Institute's annual National Conference	50+	Unique pieces of research the Institute generates each year
3,500	Total attendees of the "Callan College" since 1994	1980	Year the Callan Institute was founded

"We think the best way to learn something is to teach it. Entrusting client education to our consultants and specialists ensures that they have a total command of their subject matter. This is one reason why education and research have been cornerstones of our firm for more than 40 years."

Ron Peyton, Chairman and CEO

List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor and disclose potential conflicts on an on-going basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Manager Name
1607 Capital Partners, LLC
Aberdeen Asset Management PLC
Acadian Asset Management LLC
AEGON USA Investment Management
AEW Capital Management
Affiliated Managers Group, Inc.
Alcentra
AllianceBernstein
Allianz Global Investors
Allianz Life Insurance Company of North America
American Century Investments
Amundi Smith Breeden LLC
Angelo, Gordon & Co.
Apollo Global Management
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Artisan Holdings
Atlanta Capital Management Co., LLC
Aviva Investors Americas
AXA Investment Managers
Baillie Gifford Overseas Limited
Baird Advisors
Bank of America
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
Black Creek Investment Management Inc.
BlackRock
BMO Global Asset Management
BNP Paribas Investment Partners
BNY Mellon Asset Management
Boston Partners
Boyd Watterson Asset Management, LLC
Brandes Investment Partners, L.P.

Manager Name
Brandywine Global Investment Management, LLC
Brown Brothers Harriman & Company
Brown Investment Advisory & Trust Company
Cambiar Investors, LLC
Capital Group
CastleArk Management, LLC
Causeway Capital Management
Chartwell Investment Partners
Chicago Equity Partners, LLC
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Management Investment Advisers, LLC
Columbus Circle Investors
Cornerstone Capital Management
Cramer Rosenthal McGlynn, LLC
Credit Suisse Asset Management
Crestline Investors, Inc.
D.E. Shaw Investment Management, L.L.C.
DePrince, Race & Zollo, Inc.
Deutsche Asset Management
Diamond Hill Capital Management, Inc.
Dimensional Fund Advisors LP
Doubleline
Duff & Phelps Investment Mgmt. Co.
Eagle Asset Management, Inc.
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Investors
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Eagle Investment Management, LLC
First Hawaiian Bank Wealth Management Division
Fisher Investments
Franklin Templeton

Manager Name
Franklin Templeton Institutional
Fred Alger Management, Inc.
Fuller & Thaler Asset Management, Inc.
GAM (USA) Inc.
Global Evolution USA
GlobeFlex Capital, L.P.
GMO
Goldman Sachs Asset Management
Gryphon International Investment Corporation
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Harding Loevner LP
Hartford Funds
Hartford Investment Management Co.
Heitman LLC
Henderson Global Investors
Hotchkis & Wiley Capital Management, LLC
HSBC Global Asset Management
Income Research + Management, Inc.
Insight Investment Management Limited
INTECH Investment Management, LLC
Invesco
Investec Asset Management
Ivy Investments
Jacobs Levy Equity Management, Inc.
Janus Capital Management, LLC
Jensen Investment Management
Jobs Peak Advisors
J.P. Morgan Asset Management
KeyCorp
Lazard Asset Management
Legal & General Investment Management America
Lincoln National Corporation
LMCG Investments, LLC
Logan Circle Partners, L.P.
Longfellow Investment Management Co.
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
Los Angeles Capital Management
LSV Asset Management
MacKay Shields LLC
Macquarie Investment Management (formerly Delaware Investments)
Man Investments Inc.
Manulife Asset Management
McKinley Capital Management, LLC
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
Mountain Lake Investment Management LLC
MUFG Union Bank, N.A.
Neuberger Berman
New York Life Investment Management LLC
Newfleet Asset Management LLC
Newton Investment Management (fka Newton Capital Mgmt)
Nikko Asset Management Co., Ltd.

Manager Name
Northern Trust Asset Management
Nuveen Investments, Inc.
OFI Global Asset Management
Old Mutual Asset Management
O’Shaughnessy Asset Management, LLC
Pacific Investment Management Company
Peregrine Capital Management, Inc.
PGIM
PGIM Fixed Income
PineBridge Investments
Pioneer Investments
PNC Capital Advisors, LLC
PPM America
Principal Global Investors
Private Advisors, LLC
Putnam Investments, LLC
Pzena Investment Management, LLC
QMA (Quantitative Management Associates)
RBC Global Asset Management
Record Currency Management Ltd.
Regions Financial Corporation
RidgeWorth Capital Management, Inc.
Rockefeller & Co., Inc.
Rothschild Asset Management, Inc.
Russell Investments
Santander Global Facilities
Schroder Investment Management North America Inc.
Smith, Graham & Co. Investment Advisors, L.P.
Smith Group Asset Management
South Texas Money Management, Ltd.
Standard Life Investments Limited
Standish
State Street Global Advisors
Stone Harbor Investment Partners, L.P.
Strategic Global Advisors
T. Rowe Price Associates, Inc.
Taplin, Canida & Habacht
Teachers Insurance & Annuity Association of America
The Boston Company Asset Management, LLC
The Hartford
The London Company
The TCW Group, Inc.
Thompson, Siegel & Walmsley LLC
Thornburg Investment Management, Inc.
Tri-Star Trust Bank
UBS Asset Management
Van Eck Global
Versus Capital Group
Victory Capital Management Inc.
Vontobel Asset Management, Inc.
Voya Financial
Voya Investment Management (fka ING)
Vulcan Value Partners, LLC
Wasatch Advisors, Inc.
WCM Investment Management
WEDGE Capital Management
Wedgewood Partners, Inc.
Wellington Management Company, LLP
Wells Capital Management
Western Asset Management Company

Manager Name
William Blair & Company

Manager Name
WisdomTree Asset Management

Callan

June 30, 2017

North Dakota State Investment Board Insurance Trust

Investment Measurement Service Quarterly Review

Table of Contents
June 30, 2017

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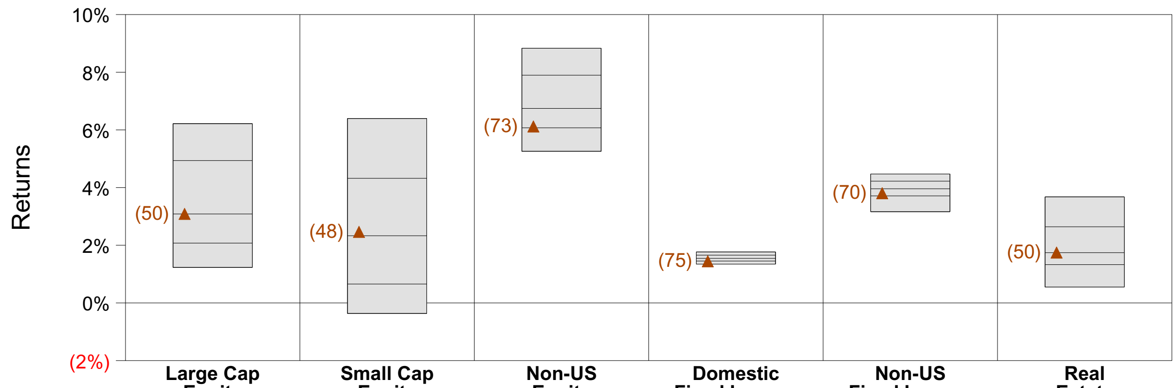
Market Overview

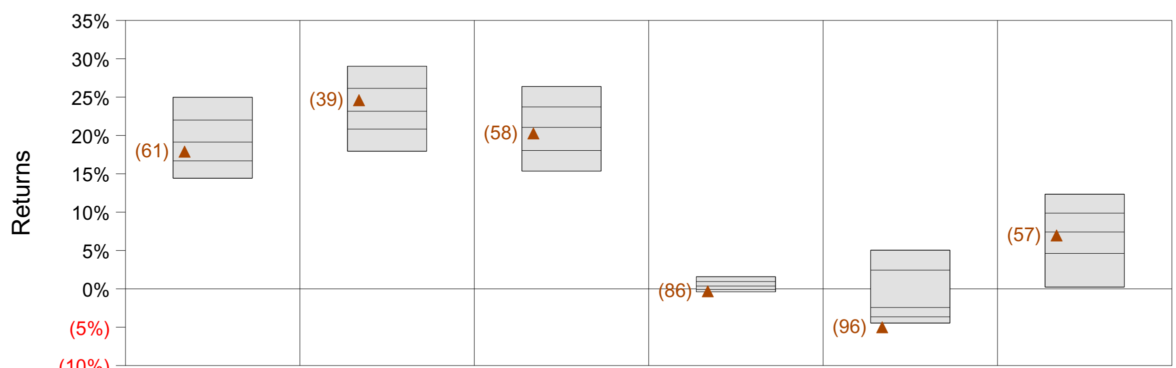
The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

Range of Separate Account Manager Returns by Asset Class
One Quarter Ended June 30, 2017



	Large Cap Equity vs S&P 500	Small Cap Equity vs Russell 2000	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Blmbg Aggr Bd	Non-US Fixed Income vs Citi Non-US Govt	Real Estate vs NCREIF Index
10th Percentile	6.22	6.40	8.83	1.77	4.47	3.68
25th Percentile	4.94	4.32	7.90	1.66	4.22	2.64
Median	3.09	2.33	6.75	1.54	3.96	1.74
75th Percentile	2.07	0.66	6.07	1.45	3.71	1.33
90th Percentile	1.23	(0.37)	5.26	1.35	3.16	0.55
Index ▲	3.09	2.46	6.12	1.45	3.81	1.75

Range of Separate Account Manager Returns by Asset Class
One Year Ended June 30, 2017



	Large Cap Equity vs S&P 500	Small Cap Equity vs Russell 2000	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Blmbg Aggr Bd	Non-US Fixed Income vs Citi Non-US Govt	Real Estate vs NCREIF Index
10th Percentile	24.98	29.03	26.38	1.58	5.05	12.34
25th Percentile	22.01	26.14	23.72	0.95	2.44	9.87
Median	19.14	23.16	21.05	0.37	(2.43)	7.41
75th Percentile	16.69	20.83	18.04	(0.07)	(3.65)	4.62
90th Percentile	14.43	17.94	15.35	(0.39)	(4.46)	0.23
Index ▲	17.90	24.60	20.27	(0.31)	(5.01)	6.97

Callan

CALLAN INSTITUTE

Capital Market Review

Second Quarter 2017

Why Is Inflation So Low?

ECONOMY

2 PAGE

Both price and wage inflation remain subdued, even after eight years of recovery, when inflationary pressures typically build. Why? There is no consensus on the cause, but both issues weigh heavily on the Fed as it charts future rate hikes and unwinds its balance sheet.

Many Funds 'Risk Up' for Returns

FUND SPONSOR

4 PAGE

Many fund sponsors feel compelled to take on substantial market risk to attempt to close a funding gap or meet spending needs without eroding the corpus. Fund sponsors are further focusing on diversification within each asset class to help mitigate their overall risk.

Many Shocks, but No Signs of Slowing

EQUITY

6 PAGE

U.S. stocks inched higher, despite turbulent events in the news, and the **S&P 500 Index** hit a record high during the second quarter. Non-U.S. developed equity outperformed its U.S. counterpart, helped by a weak U.S. dollar, while emerging markets outpaced developed markets.

On the Hunt for More Yield Globally

FIXED INCOME

9 PAGE

In their continued hunt for stable yields, investors gravitated to corporate bonds in the U.S., and favored municipal bonds over Treasuries. Unhedged non-U.S. bonds got help from the weak dollar, while emerging market fixed income saw strong demand from yield-hungry investors.

Some Positive Signs Emerging

REAL ESTATE

11 PAGE

The **NCREIF Property Index** rebounded from last quarter's seven-year low return while the **NCREIF Open End Diversified Core Equity Index** set a new seven-year low. U.S. REITs underperformed global REITs, but still managed to generate positive returns.

Happy Campers

PRIVATE EQUITY

13 PAGE

A bucolic summer has favored the private equity market, with moderate increases across transactional measures and liquidity remaining hearty. Fundraising finished the quarter ahead of last year, buyout investment showed large gains, and venture investment ticked up.

As the World Churns, Despacito

HEDGE FUNDS

14 PAGE

The **Credit Suisse Hedge Fund Index** rose 0.8%, while the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 0.9%. Growth in Europe and Japan this quarter provided a friendly setting for hedge funds seeking alternative risks.

Best Return for DC Index Since 2013

DEFINED CONTRIBUTION

15 PAGE

The Callan DC Index™ climbed 4.7% in the first quarter, its highest quarterly return since the end of 2013, after an 8.0% gain in 2016. But the DC Index did markedly lag the Age 45 Target Date Fund (+5.6%). Plan balances grew 4.74%, primarily driven by investment returns.

Broad Market Quarterly Returns

U.S. Equity Russell 3000	Non-U.S. Equity MSCI ACWI ex USA	U.S. Fixed Income Bloomberg Barclays Agg	Non-U.S. Fixed Income Bloomberg Barclays Gbl ex US
+3.0%	+5.8%	+1.4%	+3.5%

Sources: Bloomberg Barclays, MSCI, Russell Investment Group

Knowledge. Experience. Integrity.

Why Is Inflation So Low?

ECONOMY | Jay Kloepfer

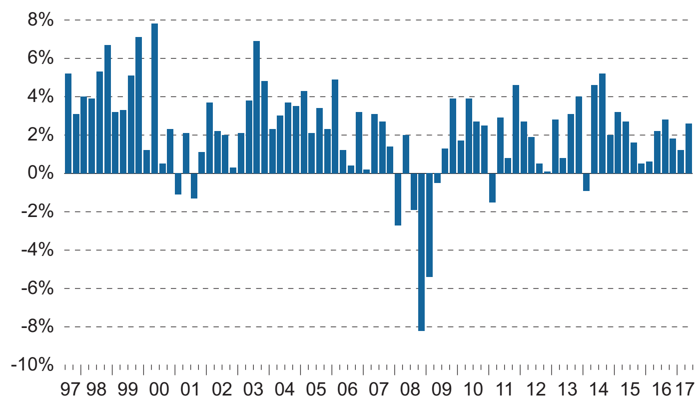
We are now eight years into the economic recovery in the U.S., arguably the latter stages of a mature expansion and at a point where inflationary pressures typically begin to build. Yet price and wage inflation remain stubbornly subdued. Headline and particularly core inflation have drifted down over the past several months. Headline inflation (the CPI – All Urban) climbed above 2% in December 2016 and stayed near 2.5% until May 2017, when it began to ebb. The Index was unchanged in June, meaning zero inflation month to month; the year-over-year change is now 1.6%. The Fed's targeted measure of core inflation (personal consumption expenditures (PCE) less food and energy) slipped to a year-over-year gain of just 1.4% in May and will likely show a flattening similar to the CPI-U in June. This decline in core inflation is both baffling and frustrating to the Fed, and it provides a headwind to its efforts to bring interest rates back to "normal."

Low wage growth is also a mystery in the U.S., where it has remained below 3% for years while the unemployment rate has fallen to a 16-year low of 4.4% in June, and stories of tight labor markets abound in industries around the country.

The explanations for persistent low inflation are varied, but there is no consensus on the cause. The most plausible reasons include: 1) lackluster global growth; 2) excess industrial capacity, much of it in China, pushing down goods prices; and 3) technology, specifically product and process innovations that slash production costs.

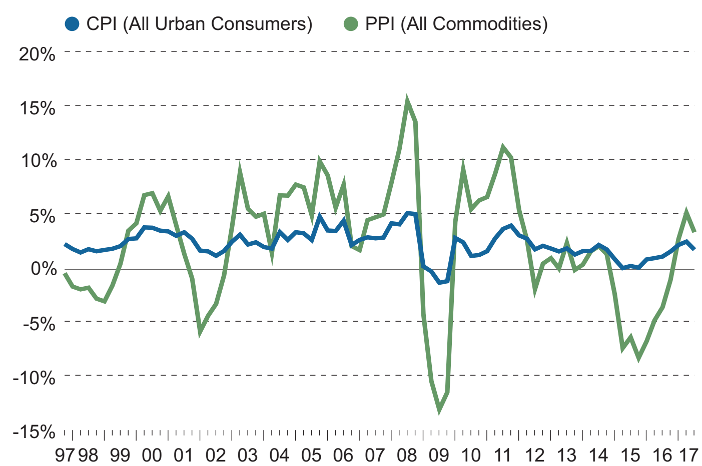
Weak wage growth is more of a conundrum, especially in economies such as the U.S. that appear to be at full employment. Why hasn't the job market pressure pushed up overall wages? More plausible explanations include: 1) a large pool remains of workers not properly captured in the official unemployment data (discouraged workers, the long-term unemployed); 2) the replacement of retiring higher-wage baby boomers with lower-wage young workers, skewing the average wage downward; 3) poor productivity growth, paired with 4) use of technology to replace workers with capital, particularly in low-wage, low-skilled jobs; and 5) a related shift in market power from labor to capital. None of these factors alone explain the persistence of low inflation and low wage growth, but the interaction of these factors tells a believable story.

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

In addition to the conundrum of low inflation, the state of growth weighs heavily on the Fed's deliberations on the path to future interest rate hikes and the size of its balance sheet. Second quarter GDP growth came in at 2.6%, roughly in line with expectations. The solid (if unspectacular) figure built on the upward revision to disappointing data in the first quarter, which was adjusted up from 0.7% to 1.2%. Consumer spending, job growth, and capital spending have been strong enough to enable the U.S. economy to amble on at a reasonable if unspectacular (although sometimes halting) pace for eight years. Consumer spending has been the engine for growth, increasing faster than GDP (2.8% in the second quarter), and supported by gains in employment, disposable income, and household wealth. The combination of a strong job market, continued stock market gains, and the expectation for tax cuts coming from the Trump administration and the Republican Congress has fueled consumer confidence, and with it spending, since the start of 2017—although confidence did take a breather in the second quarter.

Business fixed investment enjoyed a strong first quarter with a 7.2% gain, driven by close to 15% growth in structures (including oil and gas mining), and followed with another 5% gain in the second quarter. The rebound in the oil and gas sector suggests the spending on capital has built some momentum.

Residential housing spending took a hit in the second quarter, falling by 6.8%, somewhat in defiance of the laws of economics as the supply of homes for sale is not keeping up with demand. The nation-wide average price for a new home reached an all-time high in May, topping $400,000. High prices should be driving builders to build, but the permits and starts for both single-family and multi-family homes declined in May before recovering somewhat in June. The restraint on construction activity may stem from tightened standards on commercial real estate loans, particularly on multi-family homes, and rising interest rates.

The Long-Term View

Index	2017 2nd Qtr	Periods ended Dec. 31, 2016 Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	3.02	12.74	14.67	7.07	9.29
S&P 500	3.09	11.96	14.66	6.95	9.15
Russell 2000	2.46	21.31	14.46	7.07	9.69
Non-U.S. Equity					
MSCI ACWI ex USA	5.78	4.50	5.00	0.96	–
MSCI Emerging Markets	6.27	11.19	1.28	1.84	–
MSCI ACWI ex USA Small Cap	8.07	3.78	9.67	3.03	6.70
Fixed Income					
Bloomberg Barclays Agg	1.45	2.65	2.23	4.34	5.63
90-Day T-Bill	0.20	0.33	0.12	0.80	2.71
Bloomberg Barclays Long G/C	4.39	6.67	4.07	6.85	7.58
Bloomberg Barclays Gl Agg ex US	3.55	1.49	-1.39	2.44	4.73
Real Estate					
NCREIF Property	1.75	7.97	10.91	6.93	8.63
FTSE NAREIT Equity	1.52	8.52	12.01	5.08	11.13
Alternatives					
CS Hedge Fund	0.76	1.25	4.34	3.75	–
Cambridge PE*	–	9.20	12.78	9.40	15.39
Bloomberg Commodity	-3.00	11.77	-8.95	-5.57	2.55
Gold Spot Price	-0.71	8.63	-5.97	6.08	4.82
Inflation – CPI-U	0.47	2.07	1.36	1.81	2.26

*Most recent quarterly data not available.
Sources: Bloomberg Barclays, Bloomberg, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson Reuters/Cambridge, Bureau of Economic Analysis.

Recent Quarterly Economic Indicators

	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15
Employment Cost–Total Compensation Growth	2.4%	2.4%	2.2%	2.3%	2.3%	1.9%	2.0%	2.0%
Nonfarm Business–Productivity Growth	1.3%*	0.0%	1.8%	3.3%	-0.1%	-0.7%	-2.0%	1.8%
GDP Growth	2.6%	1.2%	1.8%	2.8%	2.2%	0.6%	0.5%	1.6%
Manufacturing Capacity Utilization	75.5%	75.3%	75.1%	74.9%	75.1%	75.4%	75.4%	75.7%
Consumer Sentiment Index (1966=100)	96.4	97.2	93.2	90.3	92.4	91.5	91.3	90.8

*Estimate.
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan.

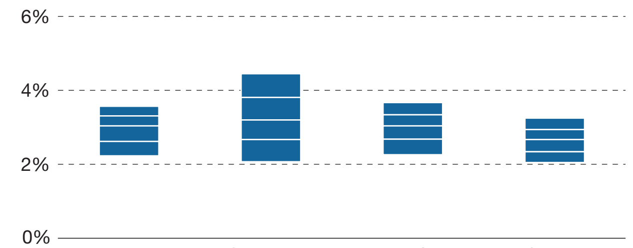
Many Funds ‘Risk Up’ for Returns

FUND SPONSOR | Todd Carabasi, Tom Shingler

Fund sponsors are beginning to come to grips with lower capital market return expectations. Pension funds are reducing actuarial return assumptions, and endowments and foundations are discussing and making adjustments to spending rules. Some funds are addressing this issue by taking on substantial market risk (80%-85% in risky assets) to attempt to close a funding gap or meet spending needs without eroding the corpus. Fund sponsors are further focusing on diversification within each asset class to help mitigate their overall risk.

Fund sponsors face the challenge of looking for investments with attractive real return expectations while seeking at least some diversification to the beta of equities to smooth the ride within the growth allocation. By focusing on diversifiers, funds can consider adding investments like high yield, low-volatility equity, hedge funds, multi-asset class funds, and options-based strategies. This also allows for new strategies to be brought into the fold, based on anticipated diversification benefits or return enhancement. This broadening of growth assets can lead to a sharper focus on refining fixed income exposure to gain a “purer” exposure to interest rate sensitivity and to serve as an anchor to the portfolio in a bear market (e.g., allocating the fixed income portfolio to long-duration Treasuries).

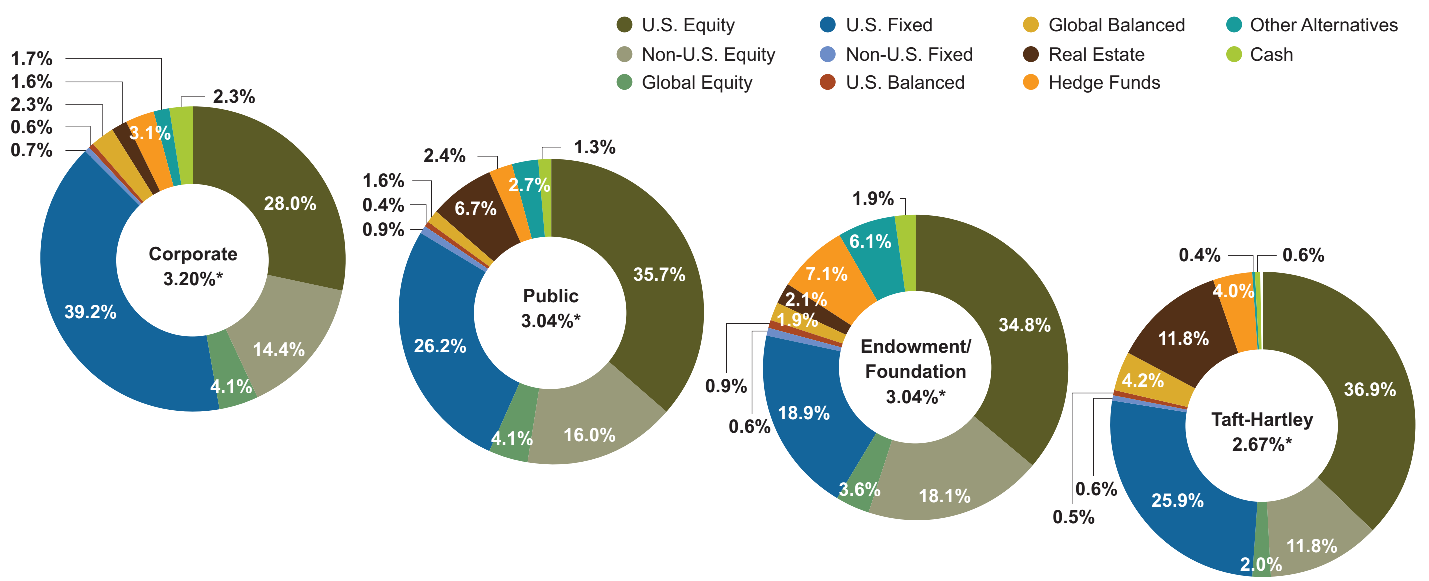
Callan Fund Sponsor Returns for the Quarter



	Public Database	Corporate Database	Endow/Fndn Database	Taft-Hartley Database
10th Percentile	3.57	4.45	3.67	3.25
25th Percentile	3.31	3.81	3.34	2.94
Median	3.04	3.20	3.04	2.67
75th Percentile	2.62	2.67	2.68	2.34
90th Percentile	2.23	2.07	2.26	2.05

Source: Callan

Callan Fund Sponsor Average Asset Allocation



*Latest median quarter return.
Note: charts may not sum to 100% due to rounding.
Source: Callan

At the same time, with U.S. equities continuing their unprecedented positive run, fund sponsors are asking the question "Why diversify?" The answer: While results in non-U.S. equity, real assets, and alternatives have lagged U.S. equities in the last five years, their longer-term diversifying characteristics warrant consideration.

The active/passive discussion continues to loom large. The argument to retain active managers to protect in a down market and be nimble in a volatile, low-return environment is compelling to some, but many fund sponsors are weary of historical underperformance by active equity managers. Additionally, the use of passive management helps control costs.

Callan has observed the following trends over the last five years:

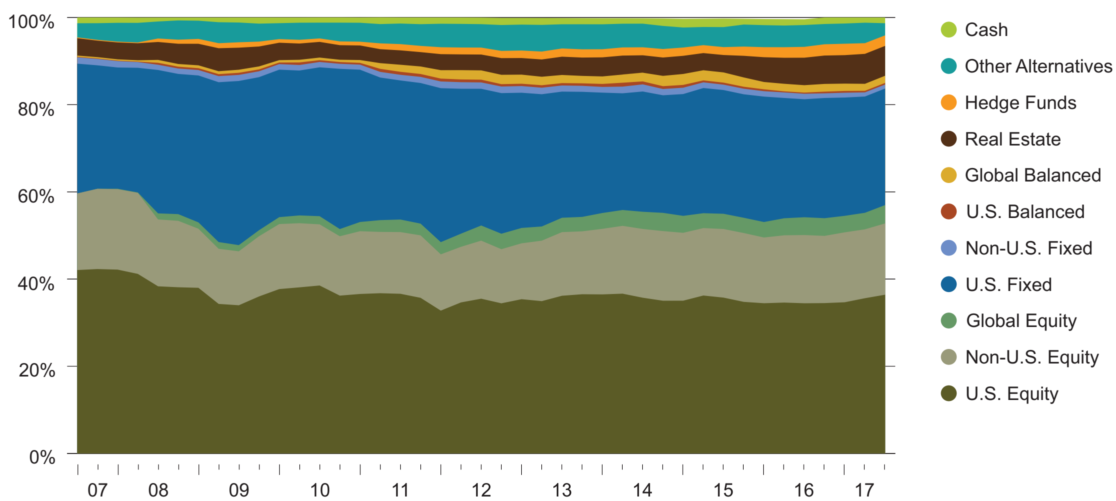
- The U.S. fixed income allocations for corporate plan sponsors has increased overall and has become more widely dispersed as plans take different steps to de-risk plan assets.
- Many public funds have increased their allocation to non-U.S. equity, real estate, and other alternatives at the expense of fixed income and U.S. equity. Simultaneously, some of the fixed income exposure has become more equity-like in nature, with allocations to areas like high yield.
- Endowments and foundations have continued to move assets from fixed income to asset classes with expectations for higher returns, such as global equity and real estate.

A 60% S&P 500/40% Bloomberg Barclays U.S. Aggregate Bond Index portfolio returned 10.4% over the year ended June 30, 2017. All of the broad fund sponsor groups tracked in Callan's database topped the 60/40 portfolio over that period.

Endowments and foundations underperformed other fund sponsor groups over the past three, five, and ten years. But they did have the best performance over the last year.

Taft-Hartley plans were the best-performing group over the past three and five years. Corporate plans beat other groups over the last 10 years.

Callan Public Fund Database Average Asset Allocation (10 Years)



Source: Callan. Callan's database includes the following groups: public defined benefit, corporate defined benefit, endowments/foundations, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

Global Equity

U.S. Stocks: Shocks, but No Slowing

+3.0%
RUSSELL 3000

Despite an increase in interest rates and turbulent events in the news, including disruptions within the Trump administration and terrorist attacks in the U.K., U.S. stocks continued to inch higher during the second quarter. Amid this volatile macro backdrop, S&P 500 companies reported the strongest quarterly earnings growth rate in six years (70% reported profits above expectations), and the **S&P 500 Index** hit a record high during the quarter.

Large cap stocks outperformed mid and small caps (S&P 500 Index: +3.1%; **Russell 2000 Index:** +2.5%). Strong earnings reports out of large cap stocks contributed to their leg up over small cap. Large cap was also buoyed by the continued flow of assets into passively managed strategies, especially ETF vehicles.

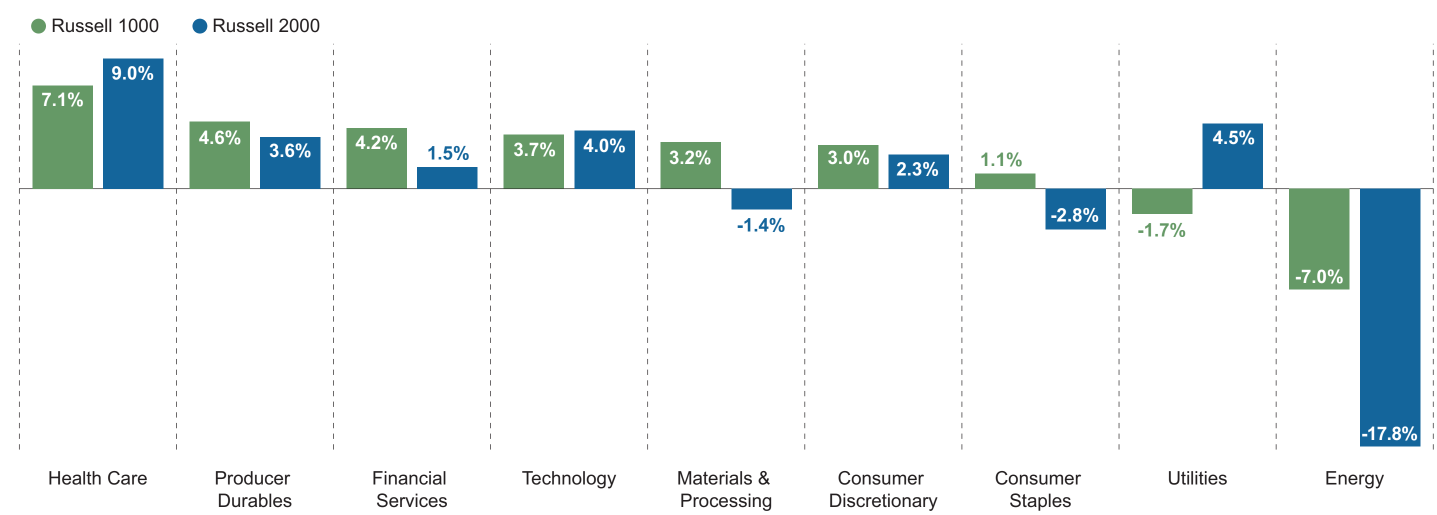
Small cap valuations kept stretching higher and, as a result, investors continued to take profits following a boon year in 2016. The continued expansion in small cap multiples may be giving some investors pause, particularly as the current economic upturn is nearing nine years.

Growth outperformed value across large and small caps (**Russell 1000 Growth:** +4.7% vs. **Russell 1000 Value:** +1.3%; **Russell 2000 Growth:** +4.4% vs. **Russell 2000 Value:** +0.7%). The strong-performing "FAAMG" stocks (Facebook, Amazon, Apple, Microsoft, and Google) comprised 22% of the S&P 500's return in the second quarter versus 32% in the first. Investors continued to be drawn to the top-line growth prospects and market share gains at these large, established firms.

Investor sentiment broadened across sectors in the second quarter compared to the first, as a wider range of firms reported positive results. Top sectors in the S&P 500 included Health Care (+7.1%), which rallied on the Trump administration's prospect of change to the Affordable Care Act; Industrials (+4.7%), which benefited from declining commodity prices; Financials (+4.2%), spurred by the Fed's announcement that 34 of the largest banks passed their stress tests, the largest cohort to do so since the tests began; and Tech (+4.1%), on the continued rise of those FAAMG stocks.

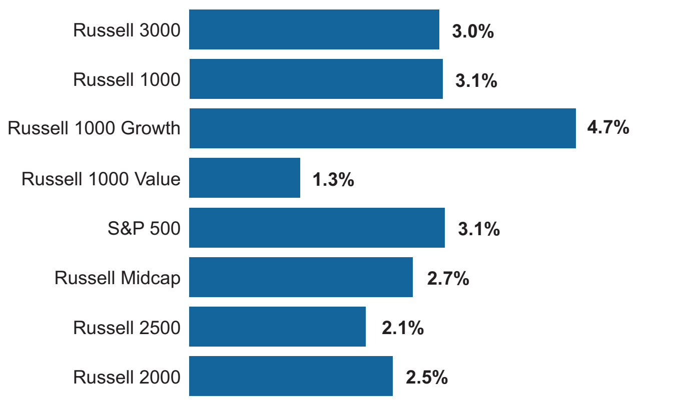
Energy (-6.4%) and Telecom (-7.0%) were the laggards. Crude oil prices fell due to an increase in supply, the result of a milder winter. In addition, improving efficiency within the U.S. fracking

Quarterly Performance of Select Sectors



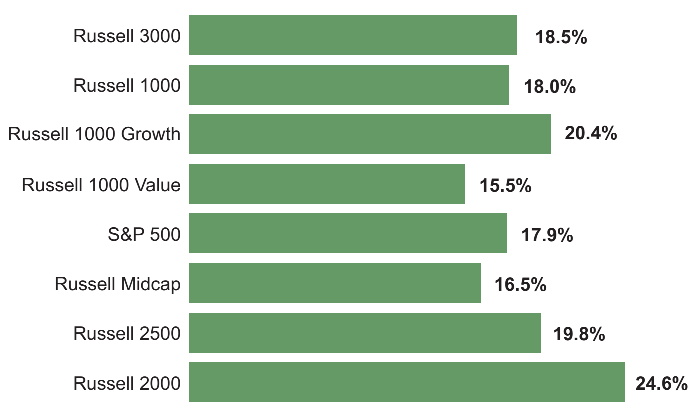
Source: Russell Investment Group

U.S. Equity: Quarterly Returns



Sources: Russell Investment Group and Standard & Poor's

U.S. Equity: One-Year Returns



Sources: Russell Investment Group and Standard & Poor's

industry impacted prices. Within Telecom, competition for market share intensified in the increasingly commoditized (and consolidated) space.

Value stocks were hurt by Consumer Staples companies resetting to more sensible valuations following the strong rally in 2016 that resulted from the "yield trade," as investors sought the safety of strong dividends and lower-volatility stocks.

From a factor perspective, Momentum (+7.9%) was the top-performing factor while Enhanced Value (weighted to the forward price-earnings ratio, enterprise value/cash flow from operations, and price-to-book value of stocks in the factor) fared worst (+1.3%). Momentum was favored as investors sought stocks with demonstrated earnings growth.

Non-U.S. Stocks: Europe's Recovery a Boost

+5.8%
MSCI ACWI ex USA

Non-U.S. developed equity outperformed the U.S. for the second consecutive quarter, fueled by economic recovery in Europe and market-friendly outcomes in European elections. The **MSCI Europe Index** jumped 7.4% and the **MSCI World ex USA Index** notched a 5.6% gain, compared to the 3.1% rise in the S&P 500.

Gains were broad-based and helped by weakness in the U.S. dollar, which lost about 7% versus the euro and 5% versus a broad basket of currencies.

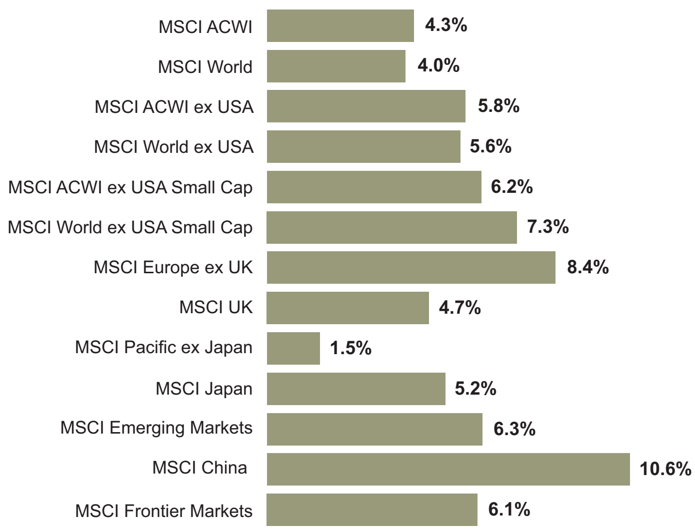
The euro rallied as a result of hawkish comments from the European Central Bank, coupled with improving European economic and sentiment indicators. European Financials benefited from expectations of higher rates, and European Industrials were propped up by stronger economic expectations.

Energy and Telecom Services were the only sectors in developed markets with negative second quarter returns. Energy fell as oil prices continued to languish due to an imbalance between supply and demand—despite OPEC's efforts to cut production. Telecom Services were buffeted by pricing pressure.

Within the MSCI indices, Europe ex-U.K. was up 8.4%, the U.K gained 4.7%, and Japan returned 5.2%. Small caps outperformed; the **MSCI EAFE Small Cap Index** rose 8.1%.

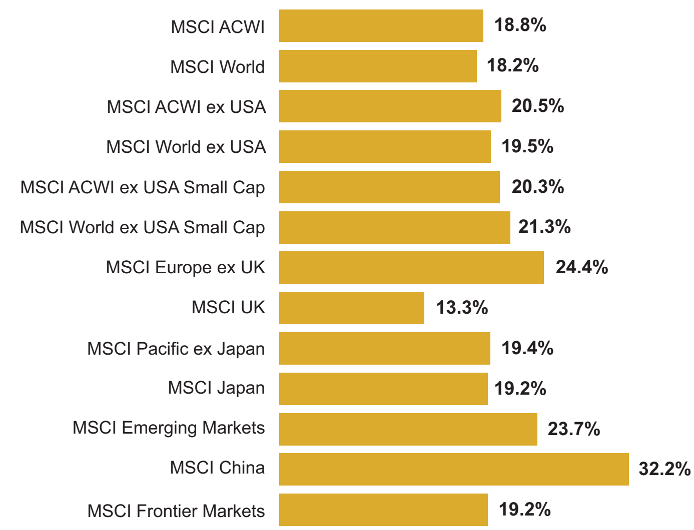
Looking at the global picture for stocks, the **MSCI ACWI Index** gained 4.3%, and developed and emerging markets outperformed the U.S. (**MSCI ACWI ex USA Index:** +5.8%), due largely to broad-based weakness in the U.S. dollar.

Non-U.S. Equity: Quarterly Returns (U.S. Dollar)



Source: MSCI

Non-U.S. Equity: One-Year Returns (U.S. Dollar)



Source: MSCI

Emerging Markets: Tech Triumphs

+6.3%
MSCI EM

Emerging markets outpaced the developed markets for the second straight quarter, propelled by Technology companies in China, South Korea, and Taiwan. The **MSCI Emerging Markets Index** gained 6.3%. Industry leaders in online and mobile commerce, payments, digital media, cloud computing, and smartphones are monopolizing the markets. That includes Tencent and Alibaba in China; Samsung in South Korea; and Taiwan Semiconductor Manufacturing in Taiwan.

Positive economic momentum and European election results placed Greece (+33.8%) and Hungary (+19.4%) as the top two performing countries in emerging markets. China rose 10.6%, while India's gain was muted at +2.9%, though it remains a top performer year-to-date (+21%). The three worst-performing countries were Qatar (-10.9%), Russia (-10.0%), and Brazil (-6.7%). Qatar was hit after four Arab nations (Saudi Arabia, the United Arab Emirates, Egypt, and Bahrain) imposed an embargo, accusing the country of backing terrorism. Russia slumped because of declining oil prices and looming new sanctions. And continuing political instability in Brazil (including President Michel Temer's bribery scandal) and commodity prices weighed on the country.

Quality, growth, and momentum factors dominated the market given the returns of large cap technology companies.

Non-U.S. Small Cap: All Over the Map

+6.2%
MSCI ACWI ex US SC

Developed non-U.S. small cap stocks outperformed large cap equity, as they were better positioned for the local economic recovery in Europe. But small cap equity lagged large cap in emerging markets, due to the performance of the large cap tech companies. The **MSCI World ex USA Small Cap Index** climbed 7.3% while the **MSCI Emerging Markets Small Cap Index** increased 2.6%.

Energy was the worst-performing sector in developed and emerging markets due to declining oil prices, which also caused growth to outperform value in developed small cap. Financials, the top performing sector for the quarter, offset Energy; on the heels of positive economic data and election results, Eastern European Financials rallied.

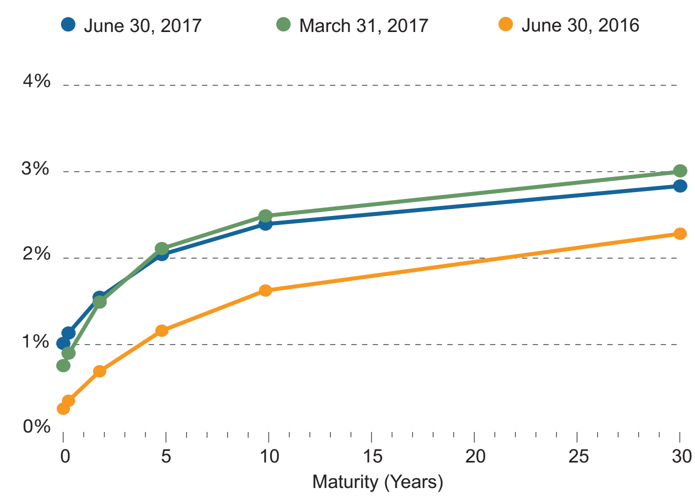
Global Fixed Income

U.S. Bonds: On the Hunt for Yield

+1.4%
BB AGGREGATE

Corporate bonds performed best in the second quarter on strong demand. Investors continued their hunt for stable yields that are higher than what is available for like-duration government bonds. The **Bloomberg Barclays US Corporate Bond Index** was up 2.5% (+3.8% year to date), while the **Bloomberg Barclays US Aggregate Bond Index** rose 1.4% (+2.3% YTD). Credit fundamentals remained strong with solid earnings growth and a modest (but acceptable) economic growth environment; corporate balance sheets appeared to be in good shape. And although rates have moved higher on the front end, overall the curve has flattened; the demand for yield is providing support for spread sectors broadly.

U.S. Treasury Yield Curves

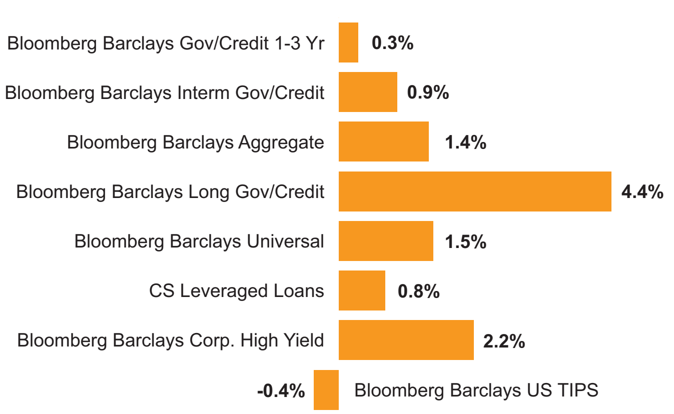


Source: Bloomberg

The **Bloomberg Barclays Corporate High Yield Index** increased 2.2%. Low interest rates continued to be a catalyst pushing investors out the risk spectrum in search of higher yields. Default expectations are low across most sectors, providing some comfort to investors. Energy was the only high-yield sector to decline (-0.66%). Rising inventories and concern over OPEC policy put pressure on oil prices, which have fallen approximately 17% so far this year.

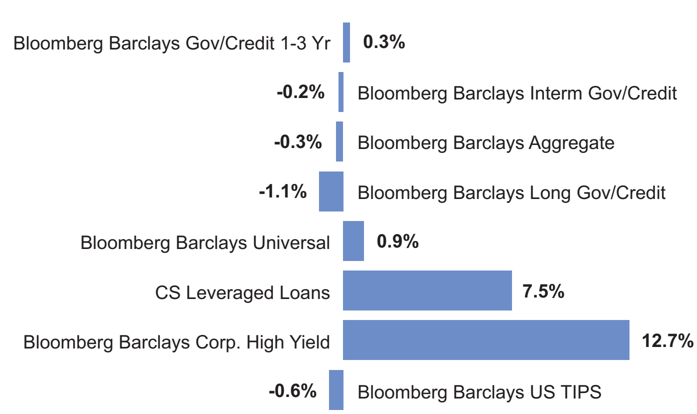
In the government market, municipal bonds outperformed Treasuries. The **Bloomberg Barclays Municipal Bond Index** was up 2.0%, compared to the **Bloomberg Barclays US Treasury Index** (+1.2%). Results were bolstered by lowered expectations for tax reform and favorable supply/demand technicals. The Fed, viewing inflation weakness as temporary, raised rates by 25 basis points, as expected. The yield curve flattened over the quarter, with short rates rising and longer

U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and Credit Suisse

U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and Credit Suisse

rates falling. The 10-year U.S. Treasury yield closed the quarter at 2.31%, down from 2.40% as of March 31, though it hit a 2017 low of 2.12% earlier in June. The 2-year U.S. Treasury yield climbed 11 bps to close at 1.38%.

TIPS underperformed as expectations for inflation sank, a reversal from the previous quarter; the **Bloomberg Barclays US TIPS Index** fell 0.4%. The 10-year breakeven spread (the difference between nominal and real yields) was 1.73% as of quarter-end, down from 1.97% at the end of the first quarter, as inflation came in below expectations for the third consecutive month.

Non-U.S. Bonds: Our Pain, Their Gain

+3.5%

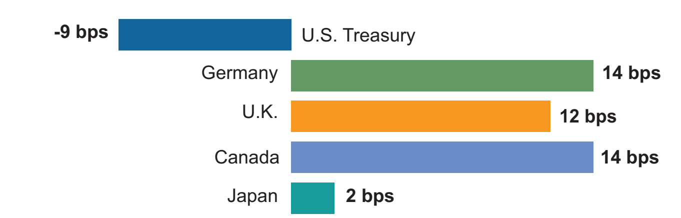
BB GBL AGG ex US

A weaker U.S. dollar helped unhedged non-U.S. bonds and hindered hedged bonds. The **Bloomberg Barclays Global Aggregate ex-US Bond Index** (unhedged) jumped 3.5%, while the hedged Index rose only 0.6%. The U.S. dollar lost nearly 7% versus the euro and almost 5% versus a broad basket of developed market currencies. Positive economic growth and hawkish rhetoric from the European Central Bank (ECB) and the Bank of England drove strong results in the euro and the British pound compared to the U.S. dollar. The quarter closed with an upbeat assessment of the euro zone's recovery from the president of the ECB, Mario Draghi, fueling speculation that the tapering of ECB asset purchases may be on the horizon. This change in tone spooked investors and sent global yields higher and stocks lower going into quarter-end.

Despite growing geopolitical tension and pressure on energy and commodity prices, the demand for yield drove returns in emerging market (EM) debt amid a strong technical climate supported by robust investor flows. The dollar-denominated **JPM EMBI Global Diversified Index** was up 2.2%, and the local currency-denominated **JPM GBI-EM Global Diversified Index** jumped even more sharply, rising 3.6%. The weaker U.S. dollar and relatively higher local yields pushed EM local debt returns higher for the quarter and the year, continuing the post-election rebound.

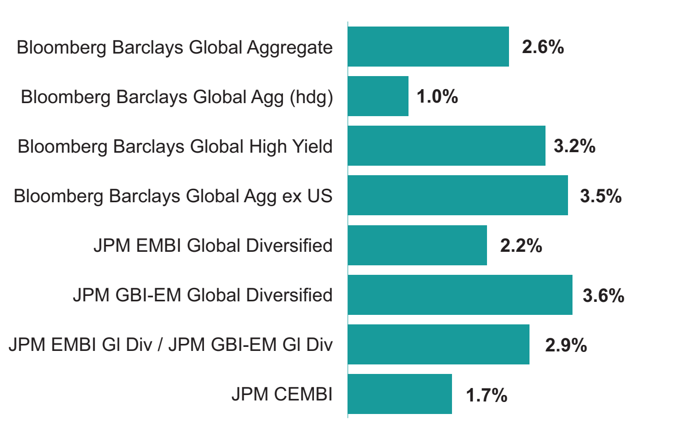
Change in 10-year Global Government Bond Yields

1Q17 to 2Q17



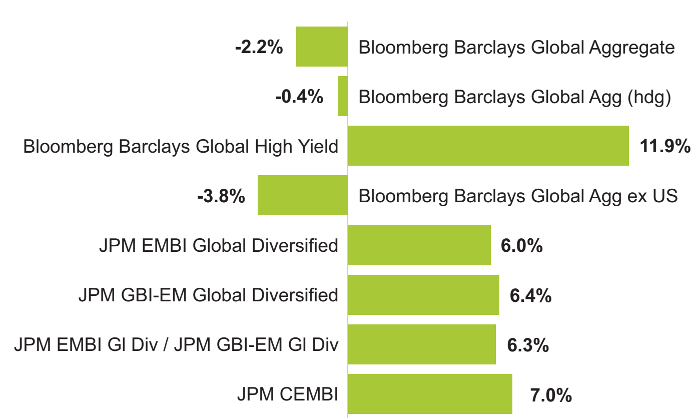
Source: Bloomberg Barclays

Non-U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and JP Morgan

Non-U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and JP Morgan

Some Positive Signs Emerging

REAL ESTATE | Kevin Nagy

The **NCREIF Property Index** advanced 1.8% during the second quarter (1.2% from income and 0.6% from appreciation). This marked the 34th consecutive quarter of positive returns for the Index. Appreciation return increased from the previous quarter, the first such gain since the first quarter of 2015.

Industrial (+3.1%) was the best-performing sector for the fifth consecutive quarter with Hotel (+1.8%), Office (+1.6%), Retail (+1.5%), and Apartments (+1.5%) also gaining. The West region was the strongest performer for the third quarter in a row, returning 2.2%, and the Midwest lagged with a 1.3% return. Transaction volume increased to $7.7 billion, up 11% from the first quarter but down 14.5% from the second quarter of 2016. Appraisal capitalization rates increased to 4.5%, slightly up from last quarter. Transaction capitalization rates fell to 6.1% from last quarter's 12-quarter high of 6.3%. The spread between appraisal and transaction rates decreased to 1.6 percentage points.

Occupancy rates fell for the second consecutive quarter to 92.8%. Apartment and Retail occupancy rates increased slightly while Industrial and Office rates decreased.

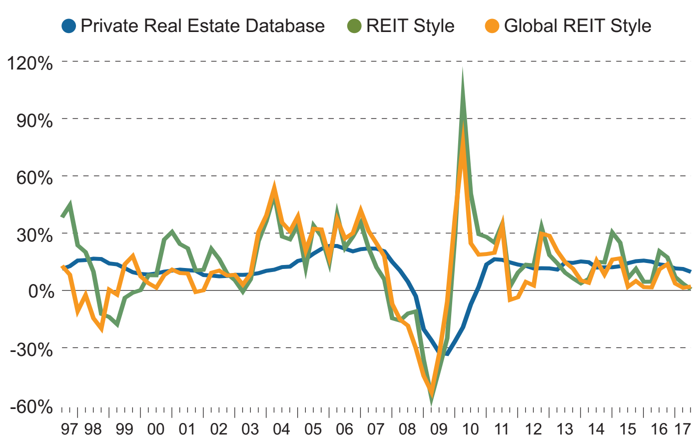
The **NCREIF Open End Diversified Core Equity Index** rose 1.7% (1.1% from income and 0.6% from appreciation), a decline from the first quarter and the lowest since 2010. Income returns increased slightly and appreciation fell to a new seven-year low.

Global real estate investment trusts (REITs), tracked by the **FTSE EPRA/NAREIT Developed REIT Index** (USD), posted a 3.1% return, outpacing U.S. REITs, which gained 1.5% as measured by the **FTSE NAREIT Equity REITs Index**.

In the U.S., REITs rebounded in June after being relatively flat in April and negative in May. Retail (-7.6%) was again the worst performer, depressed by weak earnings results from large retailers and the growing market share of e-commerce. Self-Storage (-2.7%), Specialty (-0.6%), and Timber (-0.1%) also fell. Health Care (+5.3%) remained strong as efforts to overturn the Affordable Care Act faltered. Industrial (+12.0%), Data Centers (+9.2%), Infrastructure (+8.8%), and Residential (+6.0%) all experienced strong gains.

Europe, as represented by the **FTSE EPRA/NAREIT Europe Index**, was the strongest performing region, returning 10.6% in U.S. dollar terms. The euro's appreciation against the dollar was a major driver of returns, as was strong, diversified growth across the majority of the region's economies. The successful takeover of several Spanish and Italian banks boosted continental European stocks and helped them outperform their U.K. peers.

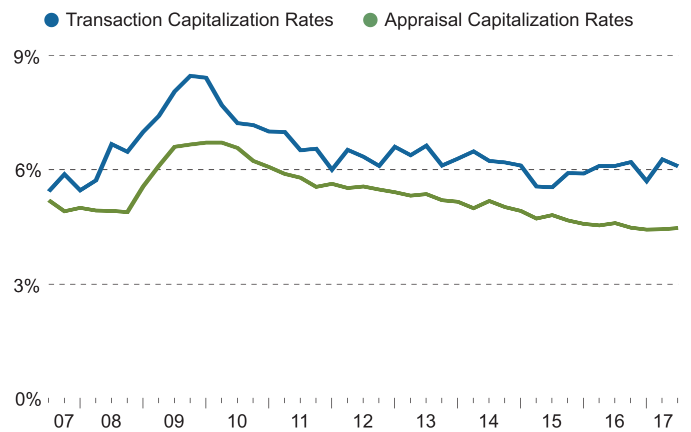
Rolling One-Year Returns



Source: Callan

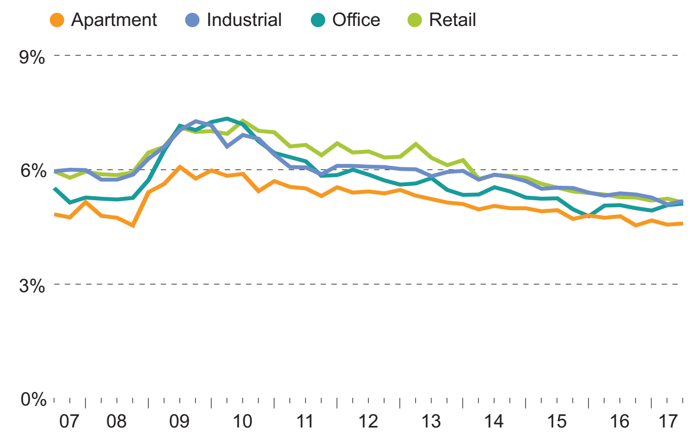
*Index subreturns are calculated separately from index return and may not total.

NCREIF Transaction and Appraisal Capitalization Rates



Source: NCREIF
Note: Transaction capitalization rate is equal weighted.

NCREIF Capitalization Rates by Property Type



Source: NCREIF
Note: Capitalization rates are appraisal-based.

The Asia-Pacific region outperformed the U.S. but lagged Europe. Singapore and Hong Kong again provided the strongest regional performance while Australia lagged behind, hurt by a weak retail sector. Japanese REITs suffered negative returns this quarter, but strong results from Japanese developers were enough to push the aggregate real estate index to a positive return.

Commercial mortgage-backed securities (CMBS) issuance for the quarter increased to $20.2 billion, a 79% increase over $13.9 billion in the first quarter. This also represented a 44.1% increase over the second quarter of 2016 ($11.3 billion).

Happy Campers

PRIVATE EQUITY | Gary Robertson

New private equity partnership commitments totaled $85.5 billion in the second quarter, with 319 new partnerships formed, according to *Private Equity Analyst.* The number of funds increased 3% from 310 in the first quarter, and the dollar volume rose 7% from $80.0 billion. Apollo IX raised the most capital in the quarter, $23.5 billion, and subsequently topped up to $24.6 billion for the final close—the largest buyout fund ever raised. The largest European (CVC VII: $19 billion) and Asian (KKR Asia III: $9.3 billion) funds were also closed this quarter.

Funds Closed January 1 to June 30, 2017

Strategy	No. of Funds	Amt ($mm)	Percent
Venture Capital	282	16,421	10%
Buyouts	220	120,352	73%
Subordinated Debt	26	7,326	4%
Distressed Debt	13	7,189	4%
Secondary and Other	23	5,249	3%
Fund-of-funds	65	8,945	5%
Totals	**629**	**165,481**	**100%**

Source: Private Equity Analyst
Figures may not total due to rounding.

Investments by funds into companies totaled 127 deals, up 69% from 75 in the prior quarter, according to *Buyouts* newsletter. The announced total volume was $72 billion, up 177% from $26 billion in the first quarter. Fifteen deals with announced values of $1 billion or more closed in the quarter.

New investments in venture capital companies totaled 1,963 rounds of financing with $21.8 billion of announced value, according to the National Venture Capital Association. The number of rounds closely mirrored the 1,954 in the first quarter, but announced dollar value increased 36% from $16.0 billion.

Buyouts reports there were 161 private M&A exits of buyout-backed companies, with 41 deals disclosing values totaling $18.3 billion. The M&A exit count was flat with the prior quarter's 162, but the announced value increased 15% from $15.9 billion. There were seven buyout-backed IPOs in the second quarter (a two-year high), raising an aggregate $2.0 billion. The number increased from five the prior quarter, but the total proceeds decreased from $3.1 billion.

Venture-backed exits (both private sales and IPOs) totaled 156 transactions, and disclosed value totaled $10.5 billion. Exits declined 19% from the first quarter's 192, and the dollar volume declined 28% from $14.6 billion.

Please see our upcoming issue of Private Markets Trends for more in-depth coverage.

Private Equity Performance Database (%) (Pooled Horizon IRRs through March 31, 2017*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	3.17	6.77	12.30	14.35	9.71	7.66	21.22
Growth Equity	4.16	12.02	9.70	11.51	10.34	11.37	13.60
All Buyouts	4.34	14.55	10.29	12.76	9.19	13.54	12.56
Mezzanine	2.83	9.47	8.13	9.70	8.83	9.52	9.06
Distressed	3.37	14.72	6.83	10.55	9.29	10.83	10.70
All Private Equity	**3.95**	**12.61**	**10.07**	**12.52**	**9.39**	**11.70**	**13.15**
S&P 500	6.07	17.17	10.37	13.30	7.51	7.09	7.86
Russell 3000	5.74	18.07	9.76	13.18	7.54	7.44	8.11

Private equity returns are net of fees.
Sources: Standard & Poor's and Thomson Reuters/Cambridge
*Most recent data available at time of publication.

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of *Capital Market Review* and other Callan publications.

As the World Churns, Despacito

HEDGE FUNDS | Jim McKee

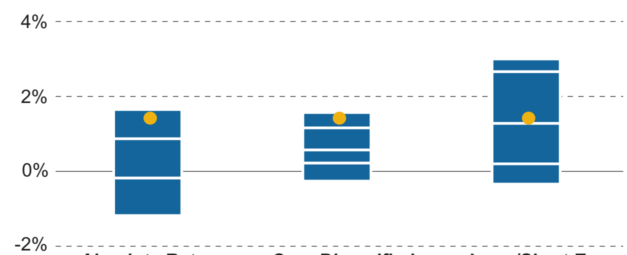
Stock lovers embraced the slowly shifting narrative of global growth appearing in Europe and Japan in the second quarter. Fixed income markets were unsettled when the European Central Bank hinted at potentially tapering its bond purchase program.

The quarter's market conditions provided a friendly setting for hedge funds seeking alternative risks. Illustrating raw hedge fund performance without implementation costs, though net of underlying hedge fund fees, the **Credit Suisse Hedge Fund Index** (CS HFI) rose 0.8%. As a live hedge fund portfolio, net of all fees and expenses, the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 0.9%.

Within the CS HFI, *Long/Short Equity* (+3.1%) repeated as the best-performing strategy for the second straight quarter. *Risk Arbitrage* rallied 2.7% while *Distressed* appreciated 1.6%. *Convertible Arb* (+0.2%) and *Equity Market Neutral* (+0.4%) experienced more modest gains. In last place for the second straight quarter, *Managed Futures* lost 3.4%. Even the more discretionary *Global Macro* (-1.8%) lost its footing with the unexpected turn of top-down themes.

Within Callan's **Hedge Fund-of-Funds Database,** the median *Callan Long/Short Equity FOF* (+1.3%) outpaced the *Callan Absolute Return FOF* (+0.9%). With diversifying exposures to both non-directional and directional styles, the *Core Diversified FOF* gained 0.6%.

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Eq FOF Style
10th Percentile	1.70	1.57	3.00
25th Percentile	1.65	1.16	2.66
Median	0.87	0.57	1.28
75th Percentile	-0.18	0.22	0.20
90th Percentile	-1.18	-0.26	-0.34
T-Bill + 5% ●	1.42	1.42	1.42

Sources: Callan and Merrill Lynch

Callan Database Median and Index Returns* for Periods ended June 30, 2017

	Quarter	YTD	Year	3 Years	5 Years	10 Years	15 Years
Hedge Fund-of-Funds Database	**0.94**	**3.26**	**8.12**	**1.78**	**5.39**	**2.90**	**4.88**
CS Hedge Fund Index	0.76	2.85	5.84	1.54	4.47	3.18	5.84
CS Equity Market Neutral	0.36	2.50	1.38	-0.40	1.89	-3.18	0.42
CS Convertible Arbitrage	0.21	2.46	6.82	1.90	3.53	3.42	4.67
CS Fixed Income Arbitrage	1.62	3.97	8.66	3.26	4.62	3.44	4.11
CS Multi-Strategy	2.29	5.11	9.05	5.53	7.41	4.88	7.02
CS Distressed	1.64	3.90	10.58	0.28	5.90	3.45	7.25
CS Risk Arbitrage	2.73	3.97	7.19	1.89	3.18	3.23	3.95
CS Event-Driven Multi-Strategy	0.76	3.67	8.73	-2.05	4.09	2.83	6.30
CS Long/Short Equity	3.06	6.62	8.40	2.97	7.00	3.73	6.49
CS Global Macro	-1.77	-1.54	3.58	1.43	2.79	4.85	7.47
CS Managed Futures	-3.40	-4.38	-12.70	1.26	0.06	1.49	4.07
CS Emerging Markets	2.67	7.05	11.25	4.30	5.91	3.47	8.10

*Returns less than one year are not annualized. Sources: Callan and Credit Suisse.

Best Return for DC Index Since 2013

DEFINED CONTRIBUTION | Tom Szkwarla

The Callan DC Index™ climbed 4.7% in the first quarter, its highest quarterly return since the end of 2013. This performance builds on results for 2016, when the Index rose 8.0%. But the DC Index did markedly lag the Age 45 Target Date Fund (+5.6%). In rising markets target date funds (TDFs) tend to outperform the DC Index because the average TDF has a higher allocation to equities than the average defined contribution (DC) plan.

During the quarter, plan balances grew 4.74%; investment returns accounted for the vast majority (4.67% vs. 0.07% for contributions). Since inception of the Index, plan sponsor and participant contributions have accounted for about a quarter of its growth.

Emerging market stocks, while a small part of DC plans, represented the sole equity asset class to witness inflows. This is not surprising given their strong showing during the period—DC flows often chase performance. Most other asset classes saw outflows in the first quarter, with the exception of TDFs, which dominated inflows as usual. In the first quarter, TDFs attracted over 88 cents of every dollar that moved within DC plans.

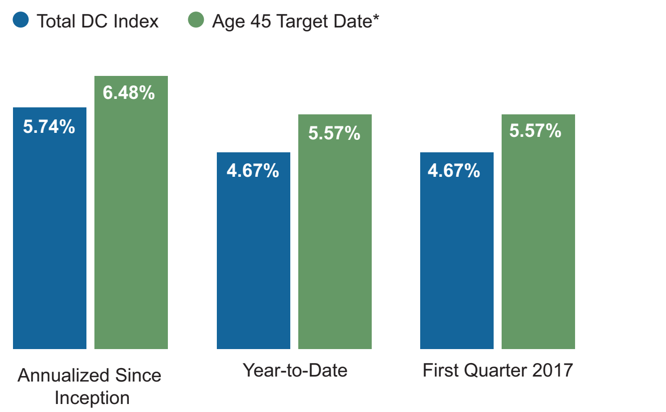
Turnover (i.e., net transfer activity within DC plans) was low this quarter (0.42%) compared to the historical average (0.64%).

The Callan DC Index's equity allocation ended the quarter at 69%, well below the average equity allocation of the Age 45 Target Date Fund (76%) but above the Index's historical average (67%).

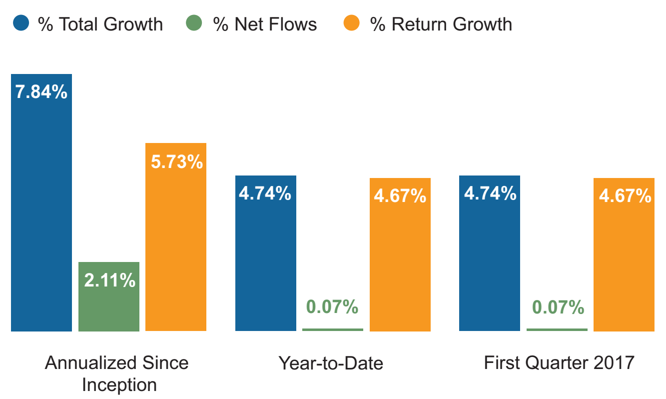
When TDFs are held within a DC plan, they now account for 32% of plan assets. The next largest plan holding, U.S. large cap equity funds, account for less than 23% of plan assets.

The Callan DC Index is an equally weighted index tracking the cash flows and performance of nearly 90 plans, representing more than one million DC participants and over $135 billion in assets. The Index is updated quarterly and is available on Callan's website, as is the quarterly DC Observer newsletter.

Investment Performance



Growth Sources



Net Cash Flow Analysis (First Quarter 2017)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	88.69%
U.S. Fixed Income	7.25%
Company Stock	-15.92%
Stable Value	-36.49%
Total Turnover**	**0.42%**

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

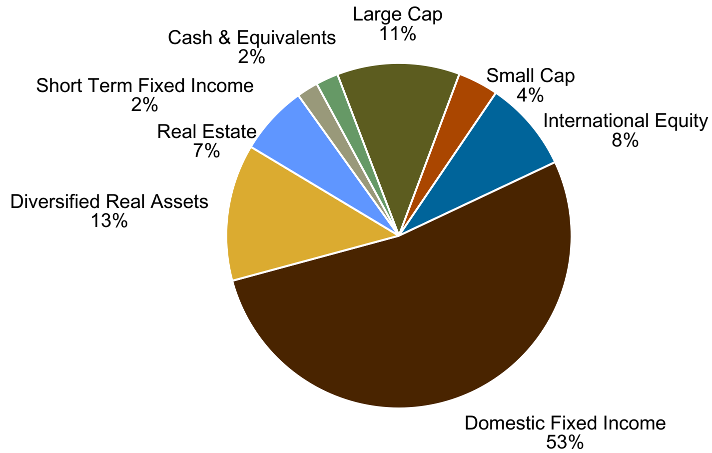
Note: DC Index inception date is January 2006.

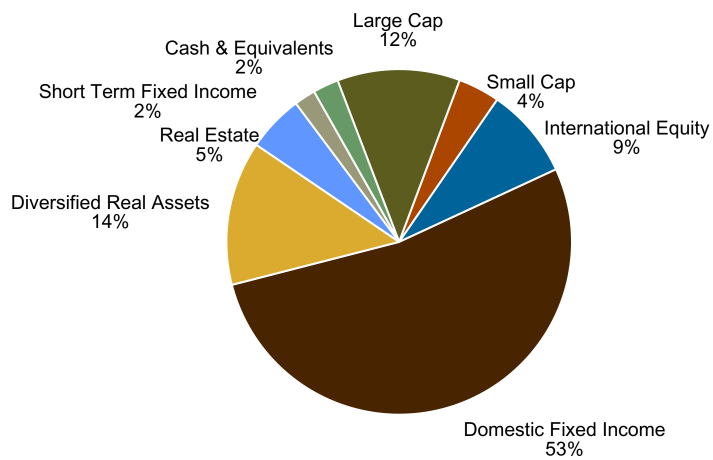
* The Age 45 Fund transitioned from the average 2030 TDF to the 2035 TDF in June 2013.

** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

Actual vs Target Asset Allocation
As of June 30, 2017

The first chart below shows the Fund's asset allocation as of June 30, 2017. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.





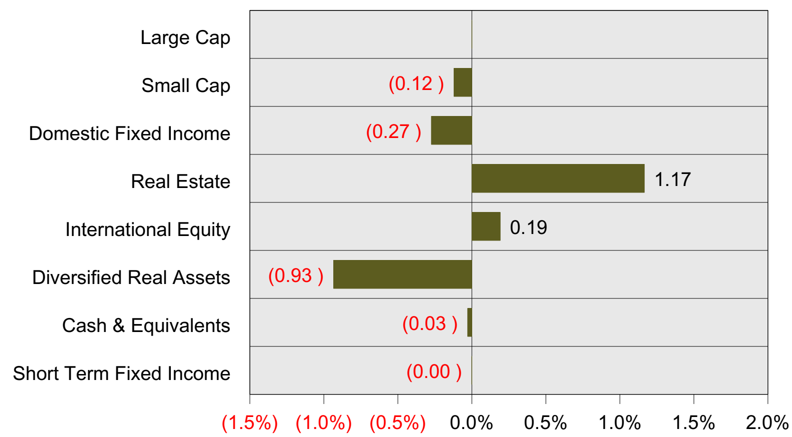
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap	244,443	11.5%	11.5%	0.0%	(413)
Small Cap	81,244	3.8%	3.9%	(0.1%)	(1,794)
International Equity	180,107	8.5%	8.5%	0.0%	(874)
Domestic Fixed Income	1,123,404	52.8%	52.9%	(0.1%)	(2,933)
Diversified Real Assets	273,423	12.8%	13.5%	(0.7%)	(14,017)
Real Estate	138,450	6.5%	5.3%	1.2%	25,603
Short Term Fixed Income	43,061	2.0%	2.0%	0.0%	478
Cash & Equivalents	45,050	2.1%	2.4%	(0.3%)	(6,050)
Total	2,129,182	100.0%	100.0%		

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

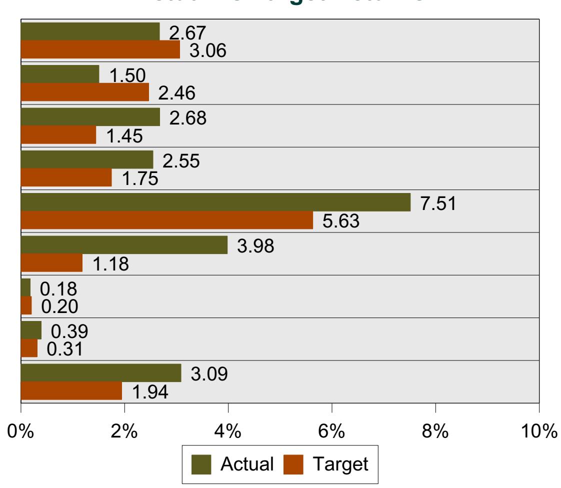
Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

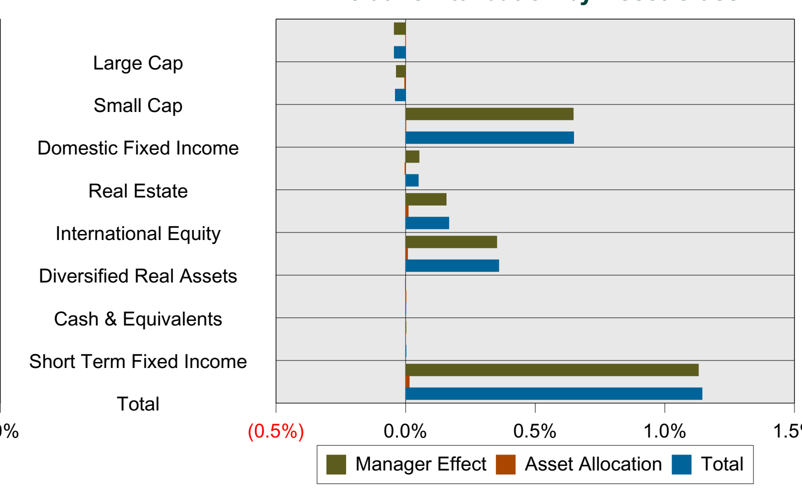
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2017

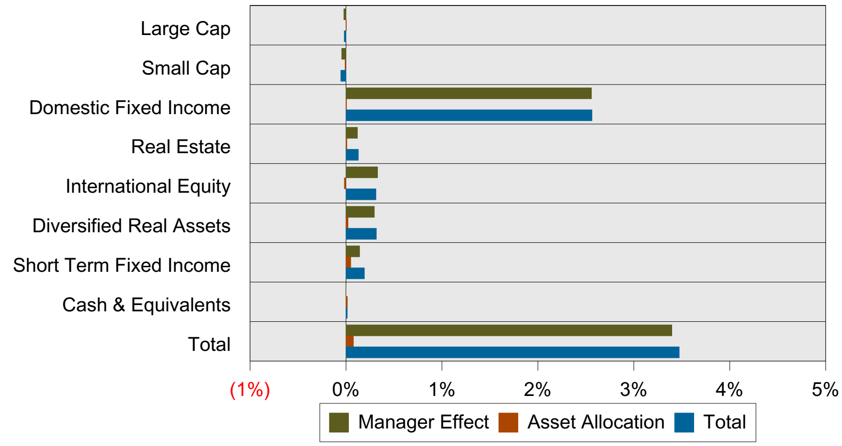
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	12%	11%	2.67%	3.06%	(0.04%)	(0.00%)	(0.04%)
Small Cap	4%	4%	1.50%	2.46%	(0.04%)	(0.00%)	(0.04%)
Domestic Fixed Income	52%	53%	2.68%	1.45%	0.65%	0.00%	0.65%
Real Estate	6%	5%	2.55%	1.75%	0.05%	(0.00%)	0.05%
International Equity	9%	8%	7.51%	5.63%	0.16%	0.01%	0.17%
Diversified Real Assets	13%	13%	3.98%	1.18%	0.35%	0.01%	0.36%
Cash & Equivalents	3%	3%	0.18%	0.20%	(0.00%)	0.00%	0.00%
Short Term Fixed Income	2%	2%	0.39%	0.31%	0.00%	0.00%	0.00%
Total			**3.09% =**	**1.94% +**	**1.13% +**	**0.01%**	**1.14%**

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

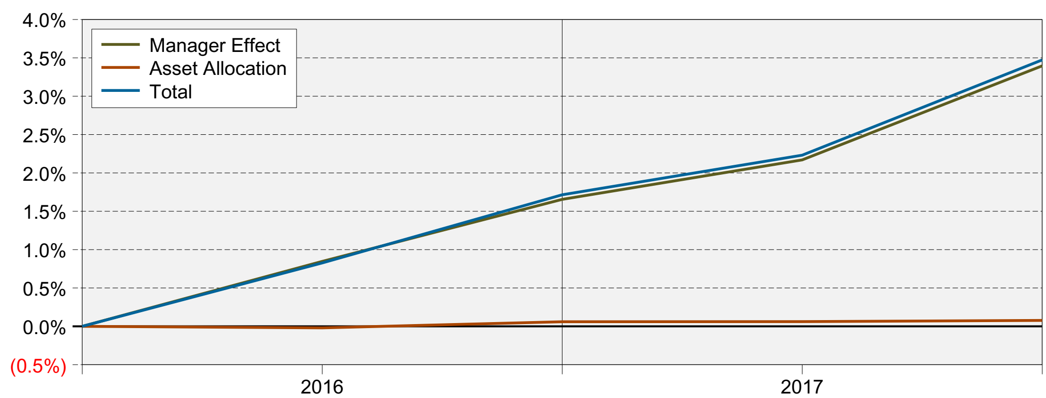
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

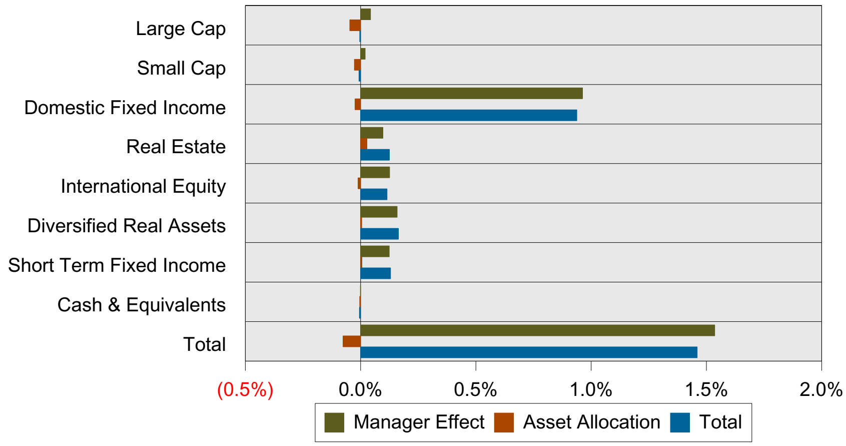
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	17.87%	18.03%	(0.02%)	0.00%	(0.02%)
Small Cap	4%	4%	23.30%	24.60%	(0.04%)	(0.01%)	(0.05%)
Domestic Fixed Income	48%	49%	4.83%	(0.31%)	2.56%	0.01%	2.56%
Real Estate	6%	5%	8.72%	6.97%	0.12%	0.01%	0.13%
International Equity	8%	8%	24.60%	19.49%	0.33%	(0.02%)	0.31%
Diversified Real Assets	12%	13%	4.00%	1.65%	0.30%	0.02%	0.32%
Short Term Fixed Income	9%	8%	0.94%	0.04%	0.14%	0.05%	0.19%
Cash & Equivalents	2%	2%	0.44%	0.49%	(0.00%)	0.01%	0.01%
Total			**8.02% =**	**4.55% +**	**3.40% +**	**0.08%**	**3.47%**

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

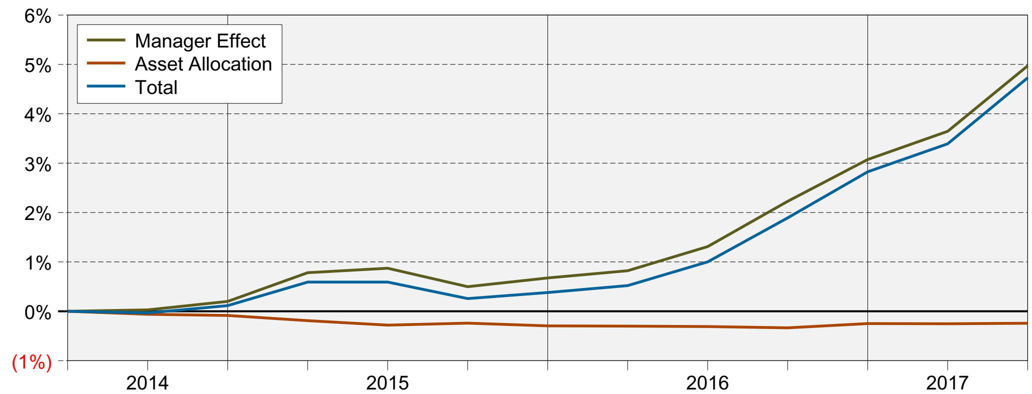
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

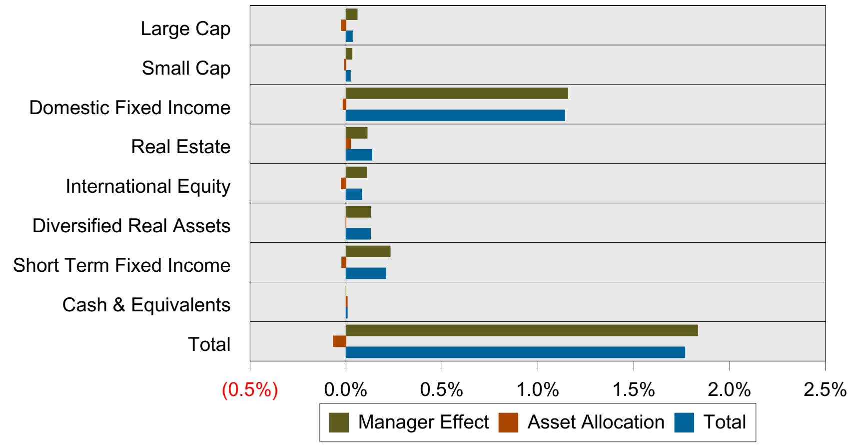
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap	12%	12%	9.76%		9.26%		0.04%		(0.05%)	(0.00%)
Small Cap	4%	4%	8.03%		7.36%		0.02%		(0.03%)	(0.01%)
Domestic Fixed Income	43%	43%	4.54%		2.48%		0.96%		(0.02%)	0.94%
Real Estate	5%	5%	11.82%		10.17%		0.10%		0.03%	0.12%
International Equity	8%	8%	2.99%		0.93%		0.13%		(0.01%)	0.11%
Diversified Real Assets	10%	11%	2.17%		0.76%		0.16%		0.00%	0.16%
Short Term Fixed Income	15%	14%	1.52%		0.75%		0.12%		0.01%	0.13%
Cash & Equivalents	3%	2%	0.19%		0.23%		(0.00%)		(0.00%)	(0.01%)
Total			**4.63%**	**=**	**3.17%**	**+**	**1.54%**	**+**	**(0.08%)**	**1.46%**

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

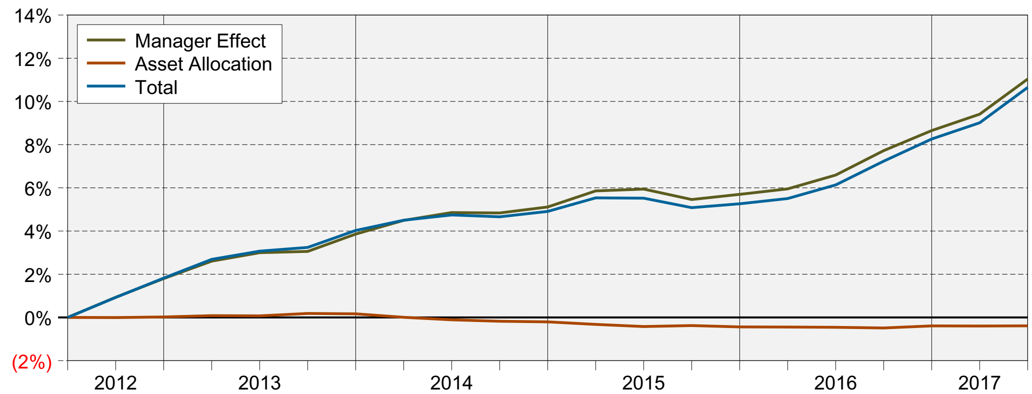
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

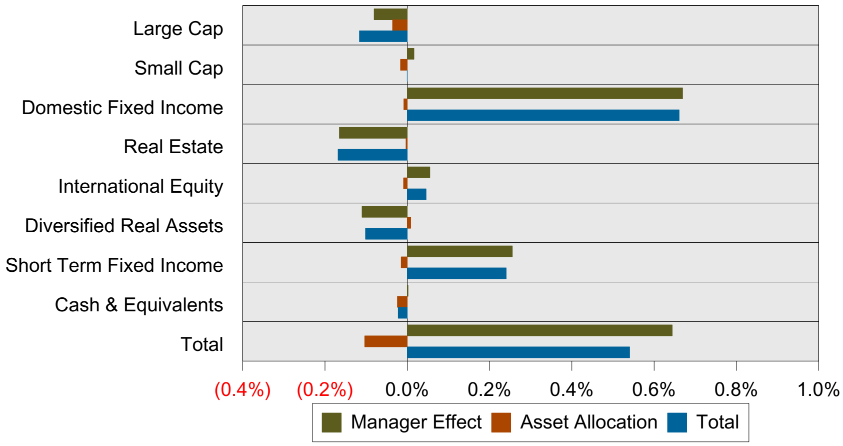
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	10%	15.60%	14.67%	0.06%	(0.03%)	0.03%
Small Cap	3%	3%	15.04%	13.70%	0.03%	(0.01%)	0.02%
Domestic Fixed Income	38%	38%	5.25%	2.21%	1.16%	(0.02%)	1.14%
Real Estate	5%	4%	13.07%	10.49%	0.11%	0.02%	0.14%
International Equity	7%	7%	10.71%	8.55%	0.11%	(0.03%)	0.08%
Diversified Real Assets	11%	11%	3.50%	2.25%	0.13%	(0.00%)	0.13%
Short Term Fixed Income	24%	23%	1.58%	0.67%	0.23%	(0.02%)	0.21%
Cash & Equivalents	3%	3%	0.17%	0.17%	(0.00%)	0.01%	0.01%
Total			**5.67% =**	**3.90% +**	**1.83% +**	**(0.07%)**	**1.77%**

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

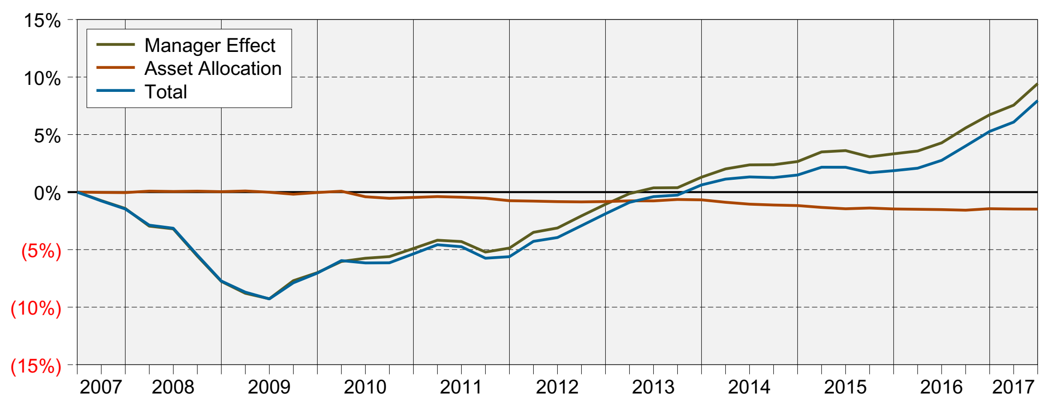
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Ten Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Ten Year Annualized Relative Attribution Effects

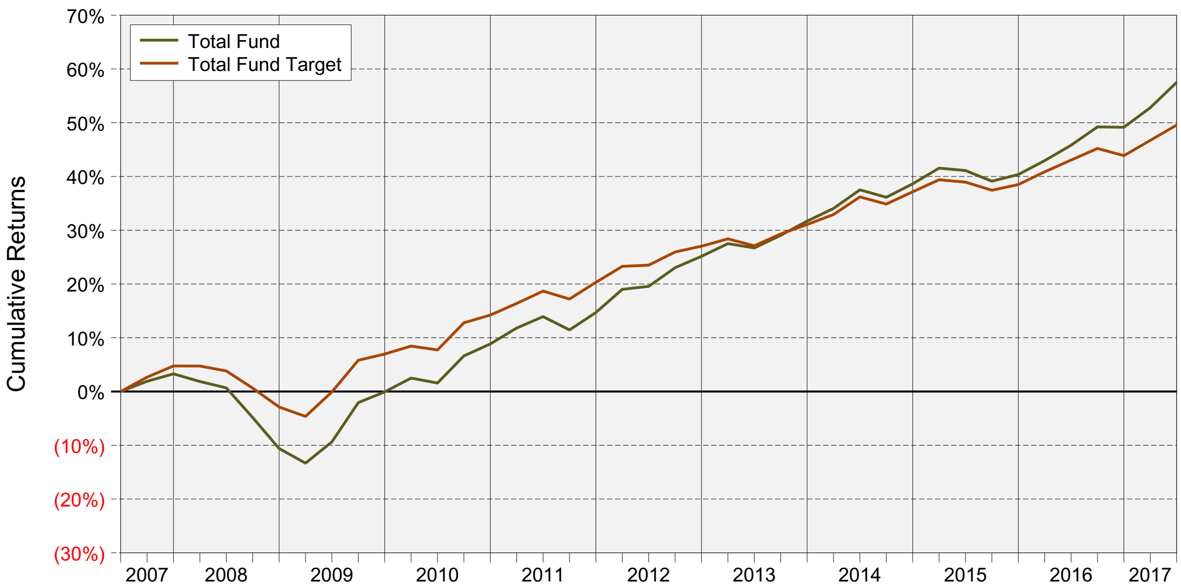
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	10%	6.56%	7.19%	(0.08%)	(0.04%)	(0.12%)
Small Cap	3%	3%	7.42%	6.92%	0.02%	(0.02%)	(0.00%)
Domestic Fixed Income	41%	41%	6.44%	4.48%	0.67%	(0.01%)	0.66%
Real Estate	5%	5%	2.50%	6.42%	(0.17%)	(0.00%)	(0.17%)
International Equity	7%	7%	1.66%	0.71%	0.05%	(0.01%)	0.05%
Diversified Real Assets	15%	15%	4.23%	4.44%	(0.11%)	0.01%	(0.10%)
Short Term Fixed Income	16%	16%	2.34%	0.94%	0.26%	(0.01%)	0.24%
Cash & Equivalents	3%	3%	0.62%	0.58%	0.00%	(0.02%)	(0.02%)
Total			**4.65% =**	**4.11% +**	**0.64% +**	**(0.10%)**	**0.54%**

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

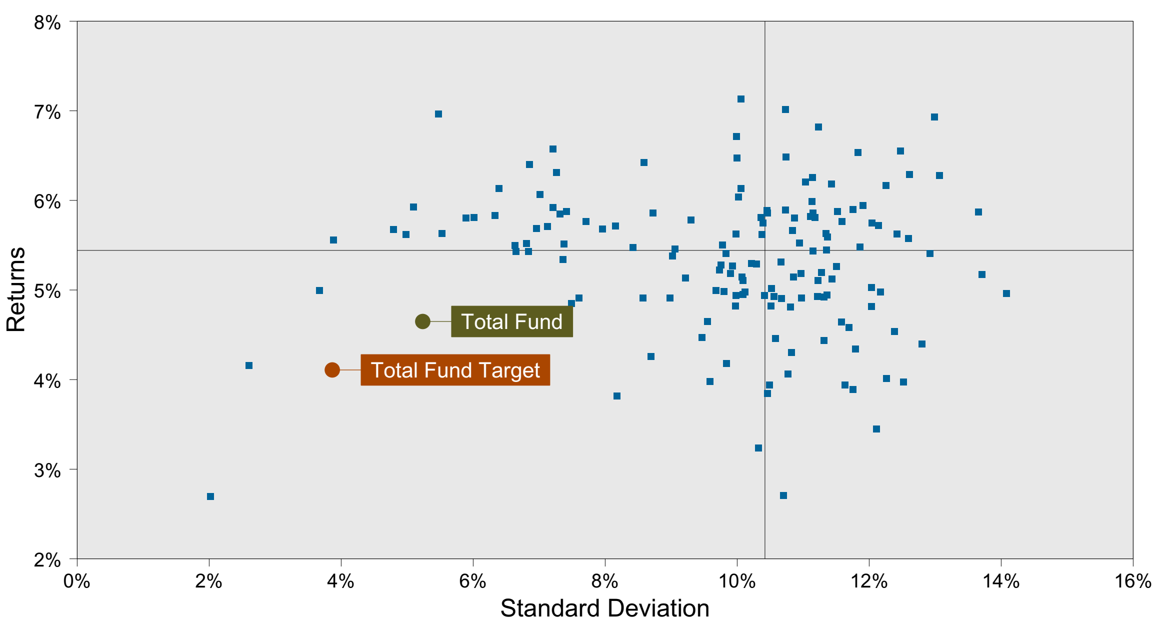
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Ten Year Annualized Risk vs Return



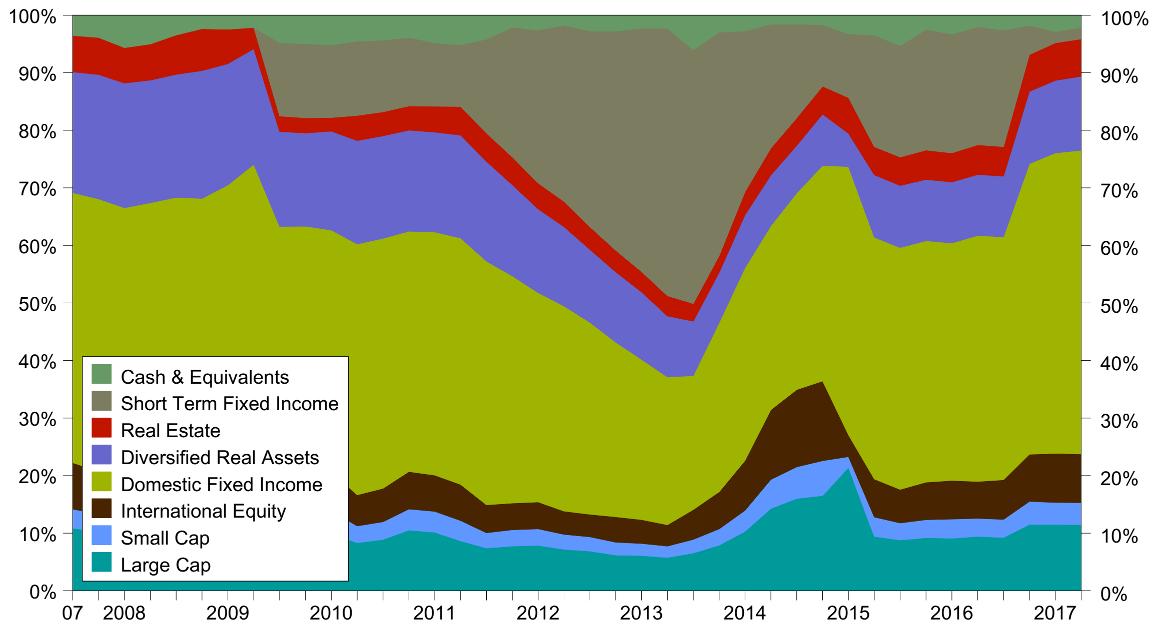
Squares represent membership of the CAI Public Fund Sponsor Database

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

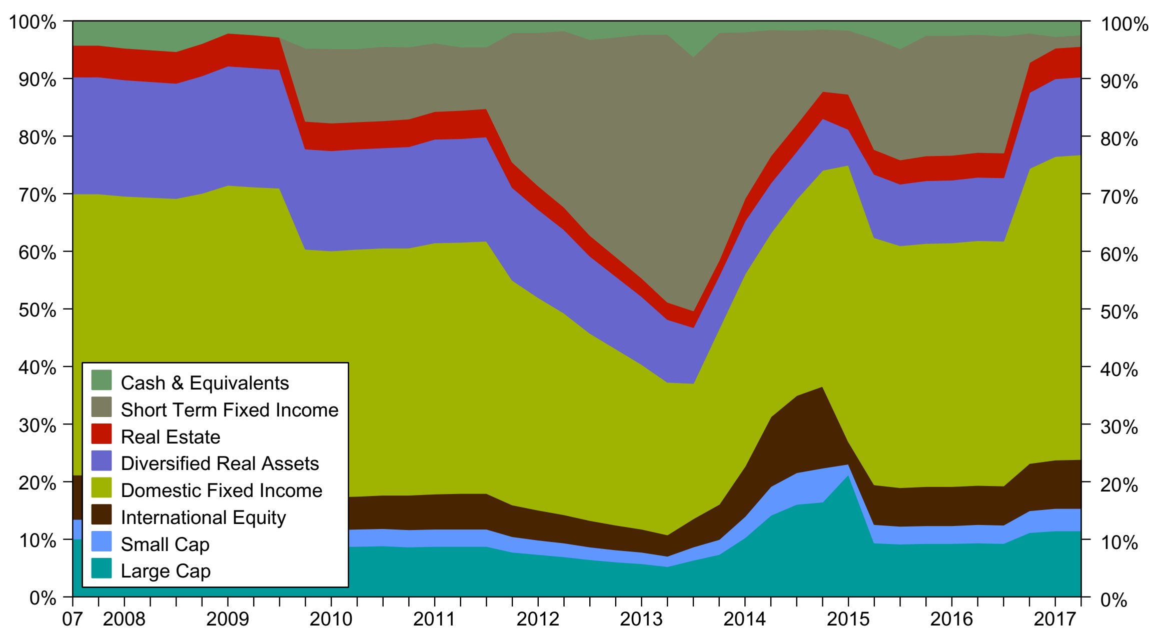
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation

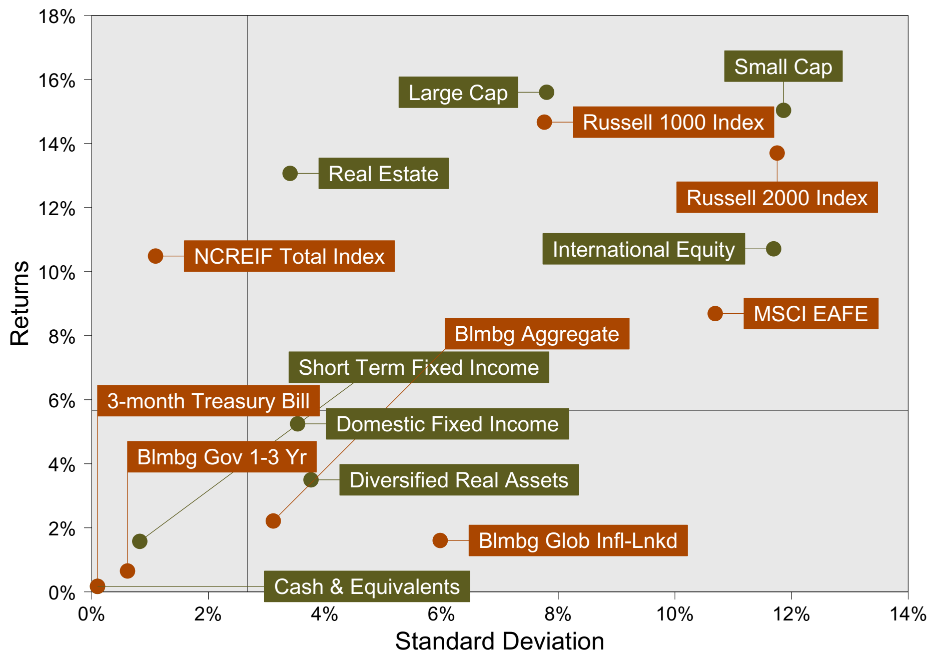


* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

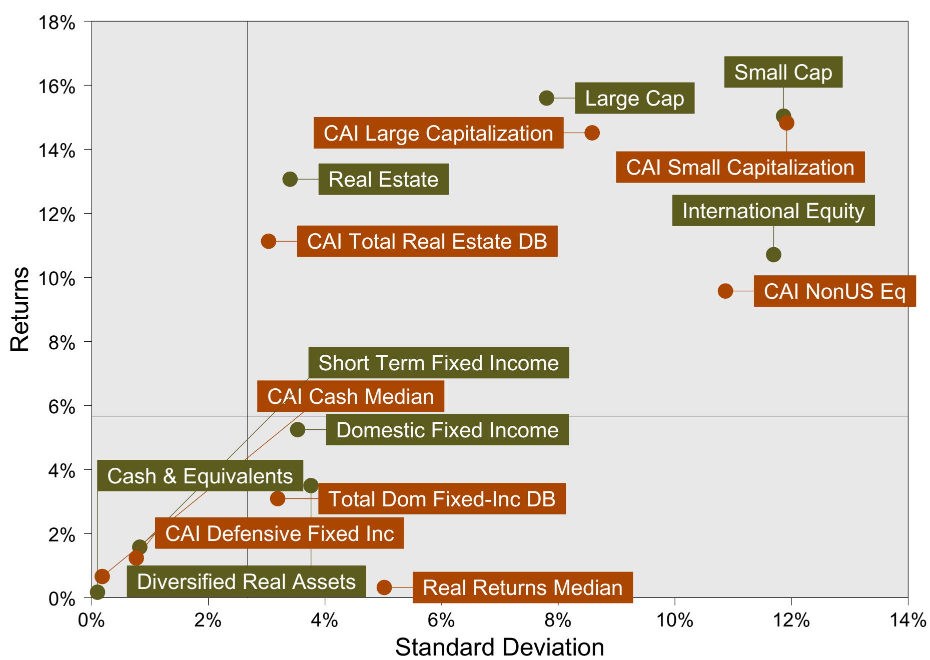
Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

Five Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices



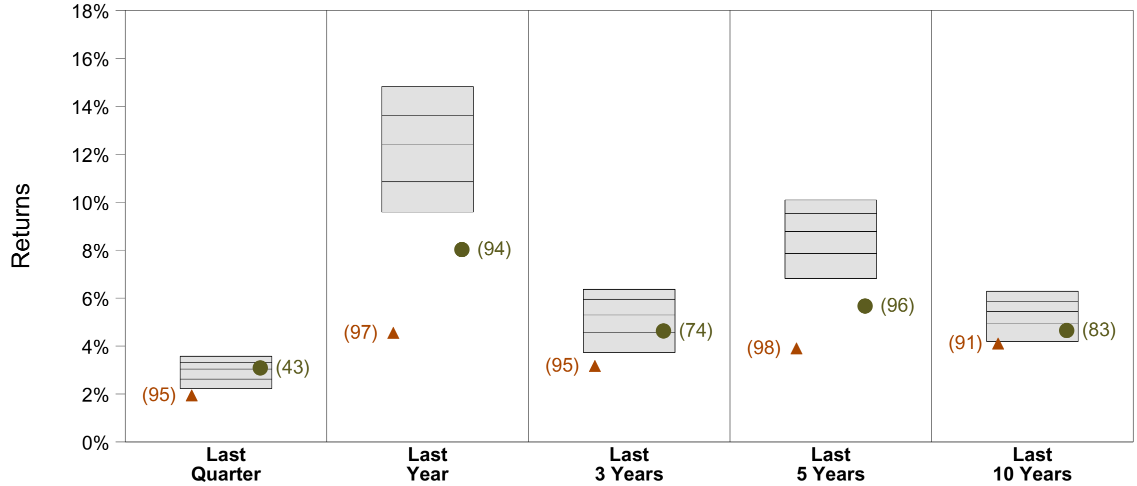
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

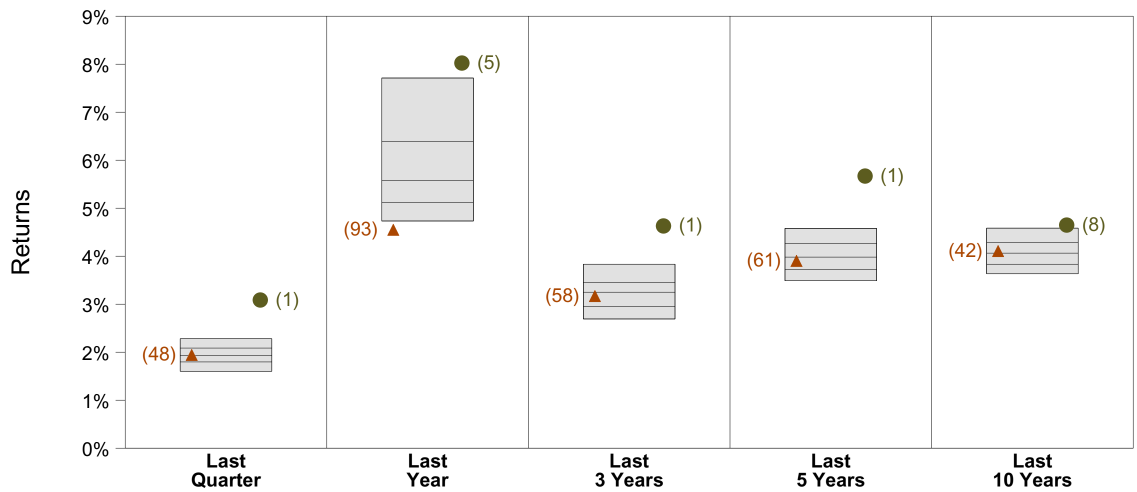
The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2017. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

CAI Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	3.57	14.82	6.37	10.09	6.29
25th Percentile	3.31	13.62	5.95	9.53	5.85
Median	3.04	12.42	5.30	8.78	5.44
75th Percentile	2.62	10.86	4.56	7.86	4.93
90th Percentile	2.23	9.59	3.73	6.82	4.19
Total Fund ●	3.09	8.02	4.63	5.67	4.65
Policy Target ▲	1.94	4.55	3.17	3.90	4.11

Asset Allocation Adjusted Ranking



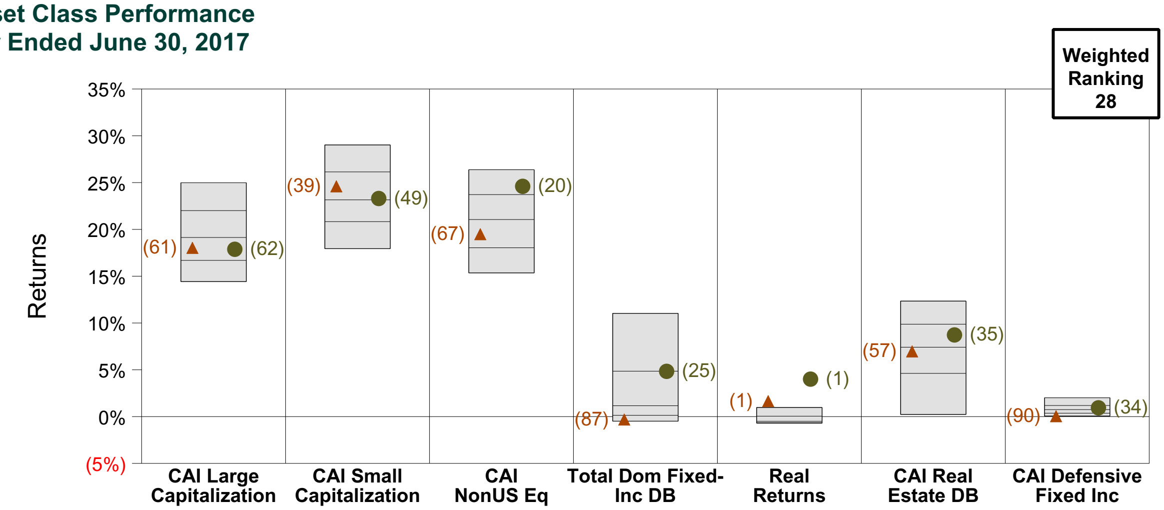
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	2.28	7.71	3.83	4.58	4.58
25th Percentile	2.09	6.39	3.46	4.26	4.29
Median	1.93	5.58	3.25	3.98	4.06
75th Percentile	1.80	5.12	2.95	3.72	3.83
90th Percentile	1.60	4.73	2.69	3.49	3.63
Total Fund ●	3.09	8.02	4.63	5.67	4.65
Policy Target ▲	1.94	4.55	3.17	3.90	4.11

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

Asset Class Rankings

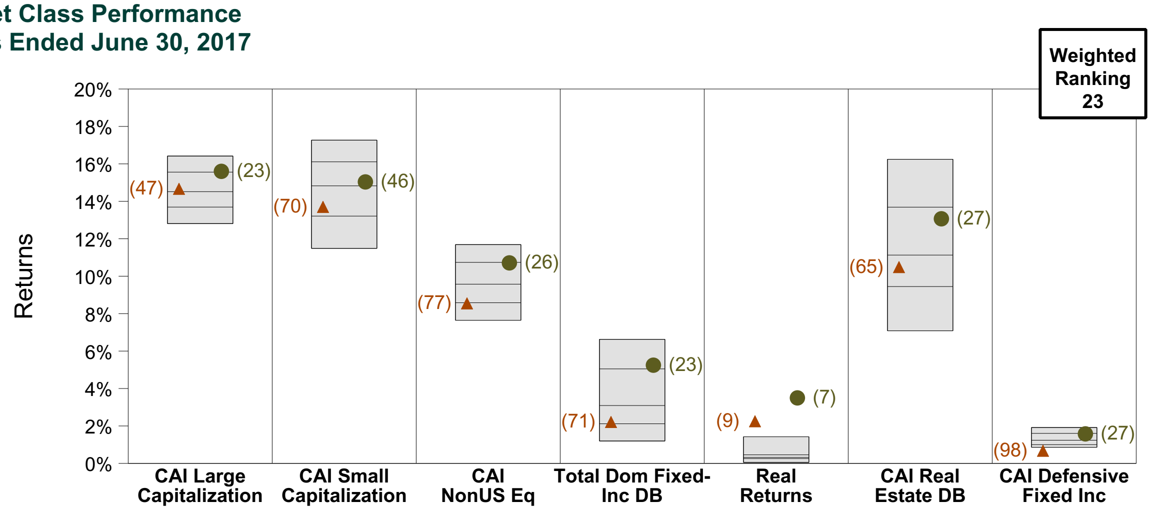
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance
One Year Ended June 30, 2017



	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Defensive Fixed Inc
10th Percentile	24.98	29.03	26.38	11.03	0.98	12.34	2.01
25th Percentile	22.01	26.14	23.72	4.85	0.05	9.87	1.18
Median	19.14	23.16	21.05	1.16	(0.50)	7.41	0.75
75th Percentile	16.69	20.83	18.04	0.14	(0.65)	4.62	0.36
90th Percentile	14.43	17.94	15.35	(0.49)	(0.70)	0.23	0.06
Asset Class Composite ●	17.87	23.30	24.60	4.83	4.00	8.72	0.94
Composite Benchmark ▲	18.03	24.60	19.49	(0.31)	1.65	6.97	0.04

Total Asset Class Performance
Five Years Ended June 30, 2017



	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Defensive Fixed Inc
10th Percentile	16.42	17.27	11.69	6.63	1.42	16.24	1.92
25th Percentile	15.56	16.11	10.74	5.05	0.46	13.69	1.60
Median	14.52	14.83	9.57	3.09	0.32	11.13	1.24
75th Percentile	13.69	13.21	8.58	2.12	0.26	9.45	1.00
90th Percentile	12.81	11.49	7.64	1.20	0.05	7.08	0.86
Asset Class Composite ●	15.60	15.04	10.71	5.25	3.50	13.07	1.58
Composite Benchmark ▲	14.67	13.70	8.55	2.21	2.25	10.49	0.67

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equity	**$325,687,534**	**15.30%**	**$(3,133,845)**	**$7,670,119**	**$321,151,259**	**15.33%**
Large Cap	**$244,443,123**	**11.48%**	**$(3,108,352)**	**$6,465,256**	**$241,086,220**	**11.51%**
Parametric Clifton Large Cap	48,932,899	2.30%	0	1,479,866	47,453,033	2.26%
L.A. Capital Large Cap Growth	73,031,178	3.43%	(3,038,077)	2,419,607	73,649,648	3.52%
L.A. Capital Enhanced	48,265,386	2.27%	(15,908)	1,029,616	47,251,677	2.26%
LSV Large Cap Value	74,213,660	3.49%	(54,368)	1,536,166	72,731,862	3.47%
Small Cap	**$81,244,411**	**3.82%**	**$(25,492)**	**$1,204,864**	**$80,065,040**	**3.82%**
Parametric Clifton Small Cap	40,967,446	1.92%	0	1,052,470	39,914,976	1.91%
PIMCO RAE	40,276,965	1.89%	(25,492)	152,394	40,150,063	1.92%
International Equity	**$180,106,820**	**8.46%**	**$(12,138,188)**	**$13,398,551**	**$178,846,457**	**8.54%**
DFA Int'l Small Cap Value	19,561,888	0.92%	0	1,165,272	18,396,616	0.88%
LSV Intl Value	72,838,070	3.42%	(7,072,994)	4,977,232	74,933,832	3.58%
Vanguard Intl Explorer Fund	16,992,660	0.80%	(5,000,000)	2,083,290	19,909,369	0.95%
William Blair	70,714,202	3.32%	(65,194)	5,172,756	65,606,640	3.13%
Domestic Fixed Income	**$1,123,403,771**	**52.76%**	**$459,423**	**$29,328,024**	**$1,093,616,324**	**52.20%**
Declaration Total Return	83,910,558	3.94%	(29,944)	1,542,457	82,398,045	3.93%
PIMCO DiSCO II	96,532,945	4.53%	0	4,172,879	92,360,066	4.41%
PIMCO Bravo II Fund	57,304,239	2.69%	0	2,534,921	54,769,318	2.61%
Prudential	115,288,216	5.41%	(74,451)	2,787,723	112,574,944	5.37%
SSgA US Govt Credit Bd Idx	141,844,286	6.66%	(2,512,043)	2,422,782	141,933,546	6.77%
Wells Capital	314,324,221	14.76%	(121,585)	9,459,316	304,986,490	14.56%
Western Asset Management	314,199,305	14.76%	3,197,446	6,407,946	304,593,914	14.54%
Diversified Real Assets	**$273,422,575**	**12.84%**	**$(928,436)**	**$10,481,878**	**$263,869,133**	**12.59%**
Western Asset Management	114,027,560	5.36%	(37,459)	2,809,220	111,255,799	5.31%
JP Morgan Infrastructure	85,292,003	4.01%	(329,643)	5,494,534	80,127,112	3.82%
Eastern Timber Opportunities	55,349,404	2.60%	(652,554)	865,628	55,136,330	2.63%
Grosvenor Cust. Infrastructure	18,753,608	0.88%	91,219	1,312,497	17,349,892	0.83%
Real Estate	**$138,449,576**	**6.50%**	**$(1,771,167)**	**$3,458,669**	**$136,762,074**	**6.53%**
Invesco Core Real Estate	65,481,054	3.08%	(529,071)	1,209,062	64,801,064	3.09%
JP Morgan RE	72,968,522	3.43%	(1,242,095)	2,249,607	71,961,010	3.43%
Short Term Fixed Income	**$43,061,431**	**2.02%**	**$1,886,053**	**$163,120**	**$41,012,258**	**1.96%**
JP Morgan Short Term Bonds	43,061,431	2.02%	1,887,381	163,126	41,010,924	1.96%
Barings Short Term Bonds	0	0.00%	(1,328)	(6)	1,334	0.00%
Cash & Equivalents	**$45,050,272**	**2.12%**	**$(15,034,666)**	**$108,552**	**$59,976,385**	**2.86%**
Northern Trust Cash Account	19,907,422	0.93%	(15,034,666)	51,630	34,890,458	1.67%
Bank of ND	25,142,849	1.18%	0	56,922	25,085,927	1.20%
Securities Lending Income	**$0**	**0.00%**	**$(50,823)**	**$50,823**	**-**	**-**
Total Fund	**$2,129,181,978**	**100.0%**	**$(30,711,648)**	**$64,659,737**	**$2,095,233,890**	**100.0%**

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity					
Gross	2.38%	19.26%	9.29%	15.45%	6.79%
Net	2.34%	18.93%	9.03%	15.18%	6.43%
Large Cap Equity					
Gross	2.67%	17.87%	9.76%	15.60%	6.56%
Net	2.63%	17.62%	9.55%	15.38%	6.25%
Benchmark(1)	3.06%	18.03%	9.26%	14.67%	7.19%
Parametric Clifton Large Cap - Gross	3.12%	17.93%	9.99%	14.96%	-
Parametric Clifton Large Cap - Net	3.12%	17.71%	9.87%	14.82%	-
S&P 500 Index	3.09%	17.90%	9.61%	14.63%	7.18%
L.A. Capital - Gross	3.22%	15.29%	11.01%	15.39%	8.72%
L.A. Capital - Net	3.16%	15.06%	10.79%	15.16%	8.52%
Russell 1000 Growth Index	4.67%	20.42%	11.11%	15.30%	8.91%
L.A. Capital Enhanced - Gross	2.18%	15.67%	9.95%	14.97%	8.25%
L.A. Capital Enhanced - Net	2.15%	15.52%	9.81%	14.82%	8.08%
Russell 1000 Index	3.06%	18.03%	9.26%	14.67%	7.29%
LSV Asset Management - Gross	2.11%	21.77%	8.17%	16.56%	6.65%
LSV Asset Management - Net	2.04%	21.39%	7.85%	16.23%	6.34%
Russell 1000 Value Index	1.34%	15.53%	7.36%	13.94%	5.57%
Small Cap Equity					
Gross	1.50%	23.30%	8.03%	15.04%	7.42%
Net	1.47%	22.79%	7.64%	14.60%	6.92%
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	6.92%
Parametric Clifton Small Cap - Gross	2.64%	25.25%	8.60%	14.92%	-
Parametric Clifton SmallCap - Net	2.64%	24.59%	8.16%	14.46%	-
Russell 2000 Index	2.46%	24.60%	7.36%	13.70%	6.92%
PIMCO RAE - Gross	0.38%	21.58%	7.24%	14.97%	7.53%
PIMCO RAE - Net	0.32%	21.28%	6.93%	14.59%	7.16%
Russell 2000	2.46%	24.60%	7.36%	13.70%	6.92%
International Equity					
Gross	7.51%	24.60%	2.99%	10.71%	1.66%
Net	7.43%	24.24%	2.66%	10.33%	1.39%
Benchmark(2)	5.63%	19.49%	0.93%	8.55%	0.71%
DFA Intl Small Cap Value - Net	6.33%	28.80%	4.16%	13.74%	-
World ex US SC Va	6.44%	23.52%	2.76%	11.48%	3.01%
LSV Asset Management - Gross	6.72%	27.15%	2.96%	10.89%	0.62%
LSV Asset Management - Net	6.62%	26.66%	2.55%	10.43%	0.31%
Benchmark(3)	6.12%	20.27%	1.15%	8.69%	0.77%
Vanguard Intl Explorer Fund - Net	10.44%	26.60%	5.69%	13.05%	3.45%
BMI, EPAC, <$2 B	7.33%	20.88%	5.71%	12.00%	2.88%
William Blair - Gross	7.89%	19.91%	-	-	-
William Blair - Net	7.79%	19.50%	-	-	-
MSCI ACWI ex US IMI	5.85%	20.43%	1.14%	7.58%	1.38%

(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.
(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.
(3) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Fixed Income					
Gross	2.68%	4.83%	4.54%	5.25%	6.44%
Net	2.65%	4.71%	4.41%	5.10%	6.26%
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	4.48%
Declaration Total Return - Net	1.87%	4.99%	3.71%	-	-
Libor-3 Month	0.30%	0.98%	0.58%	0.46%	0.99%
PIMCO DiSCO II - Net	4.52%	17.08%	8.43%	13.70%	-
PIMCO Bravo II Fund - Net	4.63%	13.38%	10.22%	-	-
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	4.48%
Prudential - Gross	2.48%	2.79%	4.06%	4.17%	6.46%
Prudential - Net	2.41%	2.52%	3.78%	3.90%	6.32%
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	4.48%
Wells Capital - Gross	3.10%	5.42%	4.49%	5.31%	7.47%
Wells Capital - Net	3.06%	5.24%	4.30%	5.11%	7.25%
Blmbg Baa Credit 3%	2.68%	3.57%	3.47%	4.30%	6.49%
Western Asset - Gross	2.10%	2.73%	4.08%	4.10%	5.62%
Western Asset - Net	2.07%	2.60%	3.94%	3.95%	5.44%
Blmbg Aggregate	1.45%	(0.31%)	2.48%	2.21%	4.48%
SSgA US Govt Cr Bd Idx - Gross	1.69%	(0.43%)	2.62%	-	-
SSgA US Govt Cr Bd Idx - Net	1.68%	(0.46%)	2.58%	-	-
Blmbg Govt/Credit Bd	1.69%	(0.41%)	2.62%	2.29%	4.57%
Diversified Real Assets					
Gross	3.98%	4.00%	2.17%	3.50%	4.23%
Net	3.85%	3.73%	1.87%	3.17%	3.91%
Weighted Benchmark	1.18%	1.65%	0.76%	2.25%	4.44%
Western TIPS - Gross	2.53%	0.96%	0.23%	1.41%	3.68%
Western TIPS - Net	2.49%	0.82%	0.09%	1.27%	3.51%
Blmbg Glbl Inftn-Linked(1)	2.03%	0.91%	(0.30%)	1.60%	4.11%
JP Morgan Infrastructure - Gross	6.87%	7.04%	3.99%	6.46%	-
JP Morgan Infrastructure - Net	6.48%	6.31%	3.04%	5.39%	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.59%
Eastern Timber Opportunities - Net	1.60%	4.31%	2.81%	4.30%	-
NCREIF Timberland Index	0.70%	3.35%	5.54%	7.16%	5.54%
Grosvenor Cust. Infrastructure - Net	7.52%	8.70%	7.49%	8.94%	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.59%

(1) Blmbg US TIPS through 12/31/2009 and Blmbg Global Inflation-Linked thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

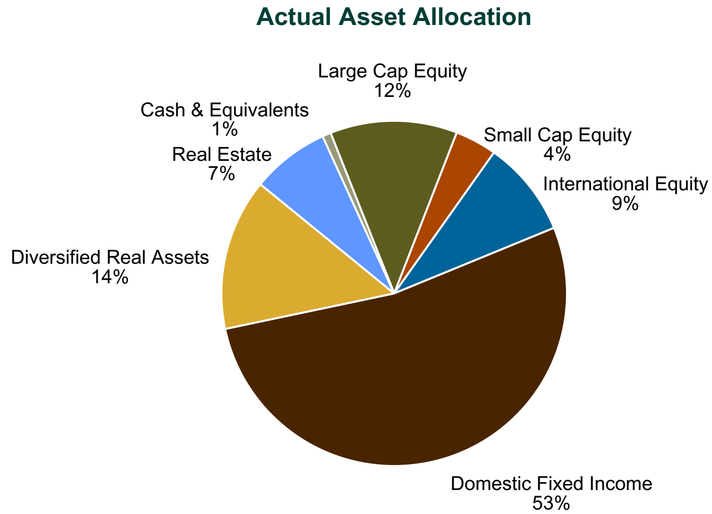
Returns for Periods Ended June 30, 2017

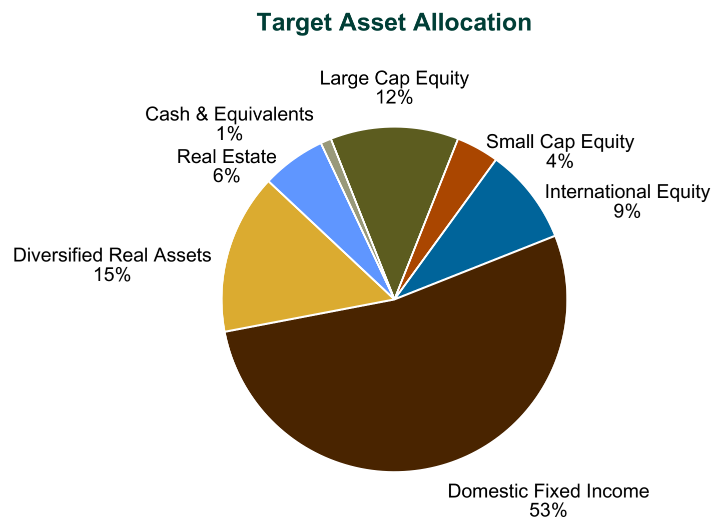
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate					
Gross	2.55%	8.72%	11.82%	13.07%	2.50%
Net	2.28%	8.07%	11.06%	12.14%	1.43%
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	6.42%
Invesco Core Real Estate - Gross	1.88%	8.53%	11.91%	-	-
Invesco Core Real Estate - Net	1.79%	8.16%	11.52%	-	-
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	6.42%
JP Morgan - Gross	3.14%	8.89%	11.84%	13.80%	2.83%
JP Morgan - Net	2.72%	7.98%	10.77%	12.52%	1.61%
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	6.42%
Short Term Fixed Income					
Gross	0.39%	0.94%	1.52%	1.58%	-
Net	0.33%	0.59%	1.29%	1.40%	-
Blended Benchmark(1)	0.31%	0.04%	0.75%	0.67%	-
JP Morgan Short Term Bds - Gross	0.39%	0.32%	1.08%	1.07%	-
JP Morgan Short Term Bds - Net	0.33%	0.05%	0.91%	0.94%	-
Blmbg Gov/Credit 1-3 Y	0.31%	0.35%	0.95%	0.95%	2.30%
Cash & Equivalents - Net	**0.18%**	**0.44%**	**0.19%**	**0.17%**	**0.62%**
Cash Account- Net	0.14%	0.32%	0.15%	0.15%	0.61%
Bank of ND - Net	0.23%	-	-	-	-
90 Day Treasury Bills	0.20%	0.49%	0.23%	0.17%	0.58%
Total Fund					
Gross	3.09%	8.02%	4.63%	5.67%	4.65%
Net	3.02%	7.80%	4.41%	5.45%	4.40%
Target*	1.94%	4.55%	3.17%	3.90%	4.11%

* Current Quarter Target = 52.9% Blmbg Aggregate, 13.5% NDSIB INS DRA Weighted Benchmark, 11.5% Russell 1000 Index, 8.5% MSCI World ex US, 5.3% NCREIF Total Index, 3.9% Russell 2000 Index, 2.4% 3-month Treasury Bill and 2.0% Blmbg Gov/Cred 1-3 Yr.
(1) Blmbg Gov 1-3 Yr through March 31, 2017 and Blmbg Gov/Credit 1-3 Yr thereafter.

Actual vs Target Asset Allocation
As of June 30, 2017

The first chart below shows the Fund's asset allocation as of June 30, 2017. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.





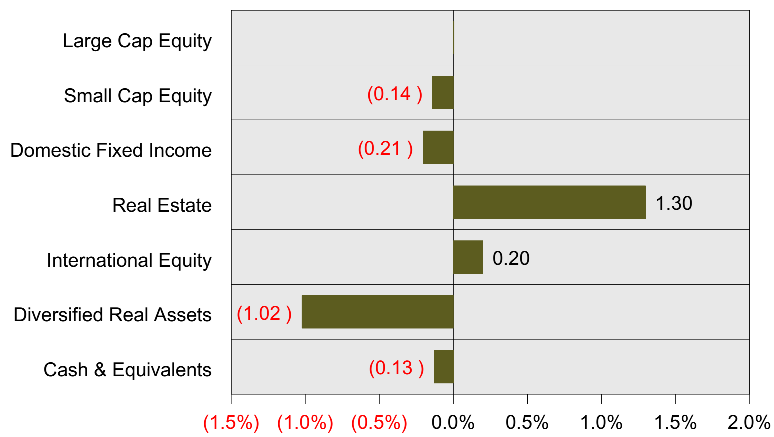
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	225,967	11.9%	12.0%	(0.1%)	(1,386)
Small Cap Equity	73,303	3.9%	4.0%	(0.1%)	(2,482)
International Equity	170,422	9.0%	9.0%	0.0%	(93)
Domestic Fixed Income	1,002,477	52.9%	53.0%	(0.1%)	(1,669)
Diversified Real Assets	269,190	14.2%	15.0%	(0.8%)	(15,003)
Real Estate	138,384	7.3%	6.0%	1.3%	24,707
Cash & Equivalents	14,872	0.8%	1.0%	(0.2%)	(4,074)
Total	1,894,615	100.0%	100.0%		

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

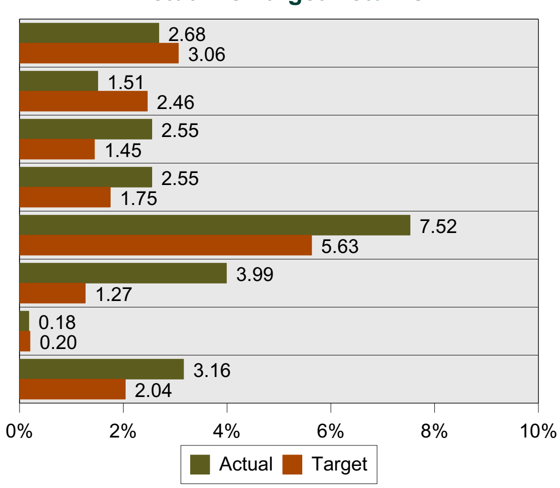
Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

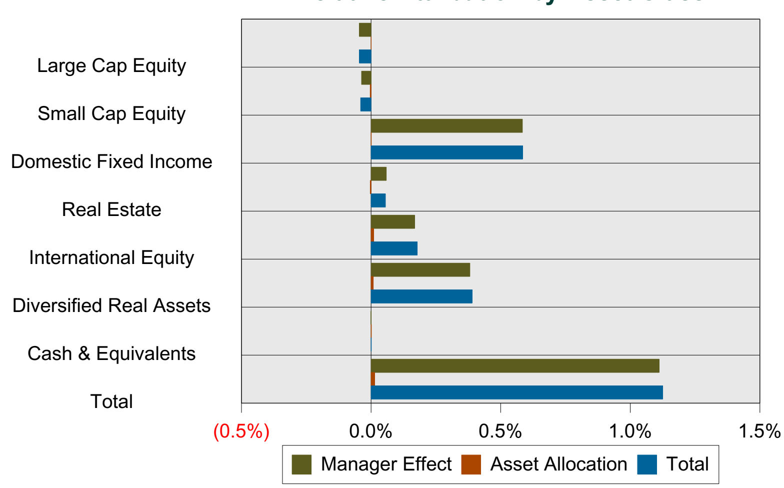
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2017

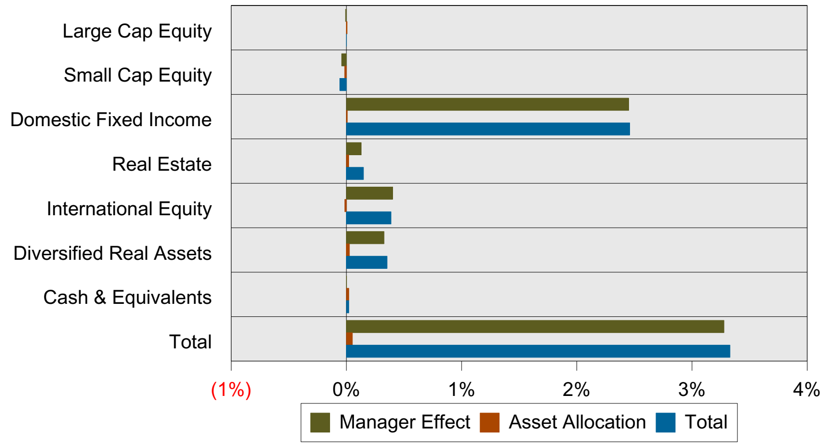
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	2.68%	3.06%	(0.05%)	(0.00%)	(0.05%)
Small Cap Equity	4%	4%	1.51%	2.46%	(0.04%)	(0.00%)	(0.04%)
Domestic Fixed Income	53%	53%	2.55%	1.45%	0.58%	0.00%	0.58%
Real Estate	7%	6%	2.55%	1.75%	0.06%	(0.00%)	0.06%
International Equity	9%	9%	7.52%	5.63%	0.17%	0.01%	0.18%
Diversified Real Assets	14%	15%	3.99%	1.27%	0.38%	0.01%	0.39%
Cash & Equivalents	1%	1%	0.18%	0.20%	(0.00%)	0.00%	0.00%
Total			**3.16% =**	**2.04% +**	**1.11% +**	**0.01%**	**1.13%**

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

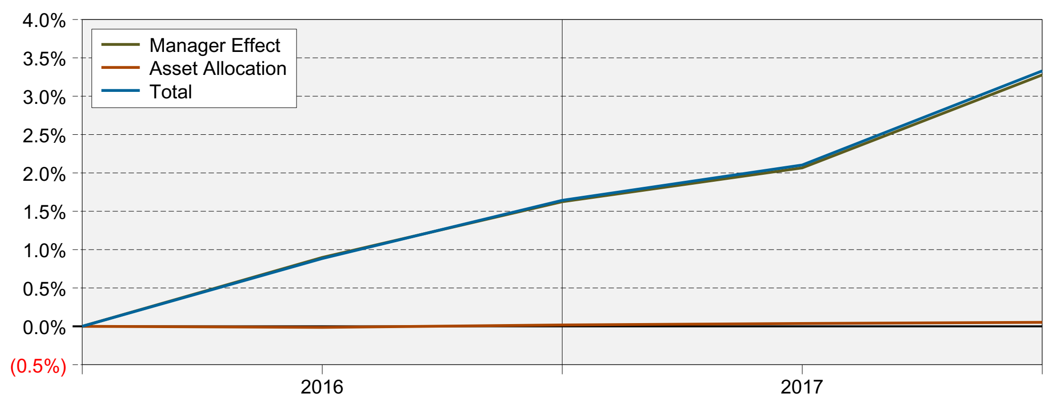
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

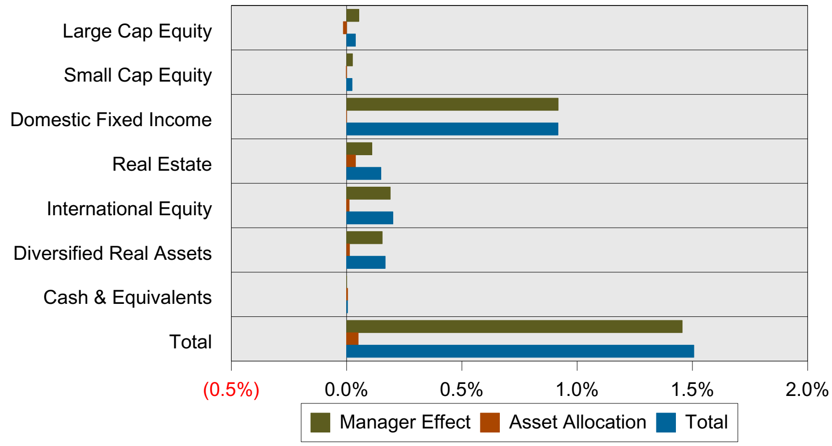
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	17.94%	18.03%	(0.01%)	0.01%	(0.00%)
Small Cap Equity	4%	4%	23.31%	24.60%	(0.04%)	(0.02%)	(0.06%)
Domestic Fixed Income	53%	53%	4.14%	(0.31%)	2.45%	0.01%	2.46%
Real Estate	7%	6%	8.72%	6.97%	0.13%	0.02%	0.15%
International Equity	9%	9%	24.61%	19.49%	0.40%	(0.01%)	0.39%
Diversified Real Assets	14%	15%	4.02%	1.75%	0.33%	0.03%	0.35%
Cash & Equivalents	1%	1%	0.44%	0.49%	(0.00%)	0.02%	0.02%
Total			**8.53% =**	**5.20% +**	**3.28% +**	**0.05%**	**3.33%**

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

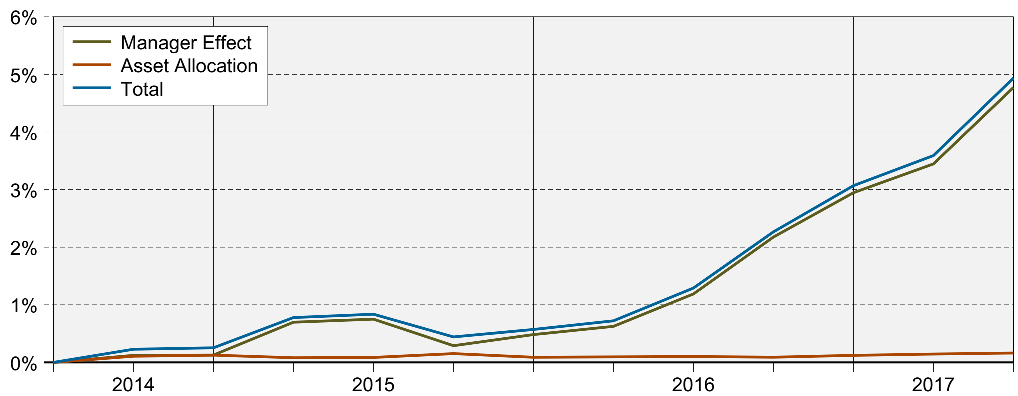
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

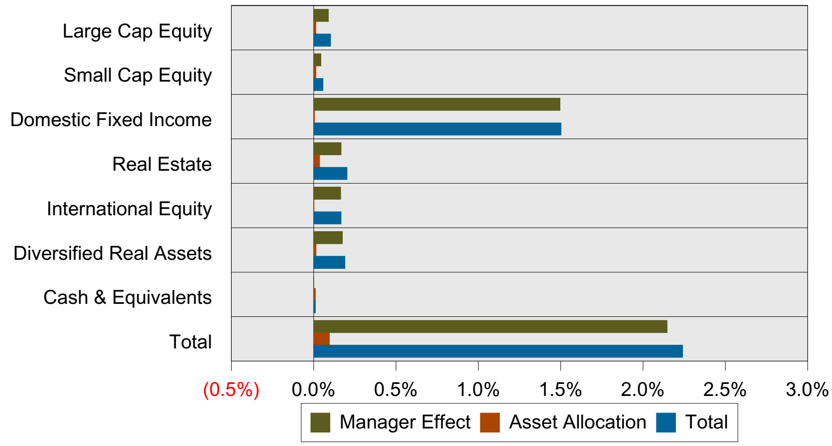
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	9.75%	9.26%	0.05%	(0.01%)	0.04%
Small Cap Equity	4%	4%	8.04%	7.36%	0.03%	(0.00%)	0.02%
Domestic Fixed Income	53%	53%	4.23%	2.48%	0.92%	(0.00%)	0.92%
Real Estate	7%	6%	11.82%	10.17%	0.11%	0.04%	0.15%
International Equity	9%	9%	3.00%	0.93%	0.19%	0.01%	0.20%
Diversified Real Assets	15%	15%	2.48%	1.47%	0.15%	0.01%	0.17%
Cash & Equivalents	1%	1%	0.19%	0.23%	(0.00%)	0.00%	0.00%
Total			**5.26% =**	**3.75% +**	**1.46% +**	**0.05%**	**1.51%**

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

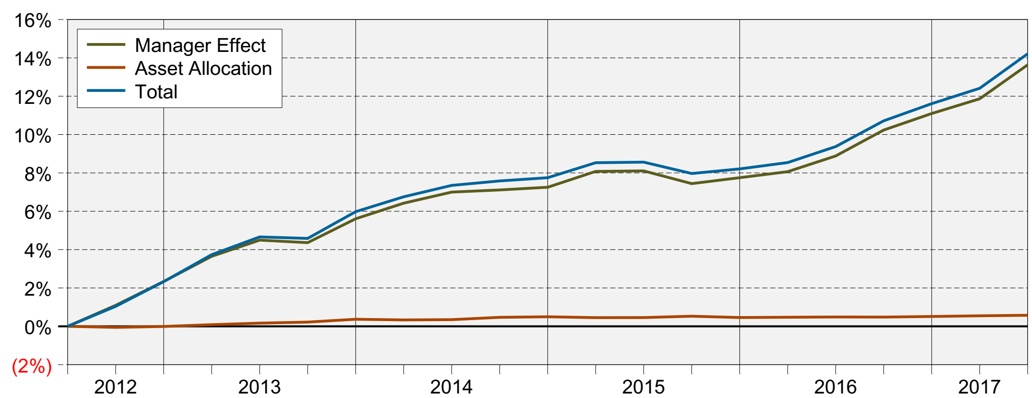
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

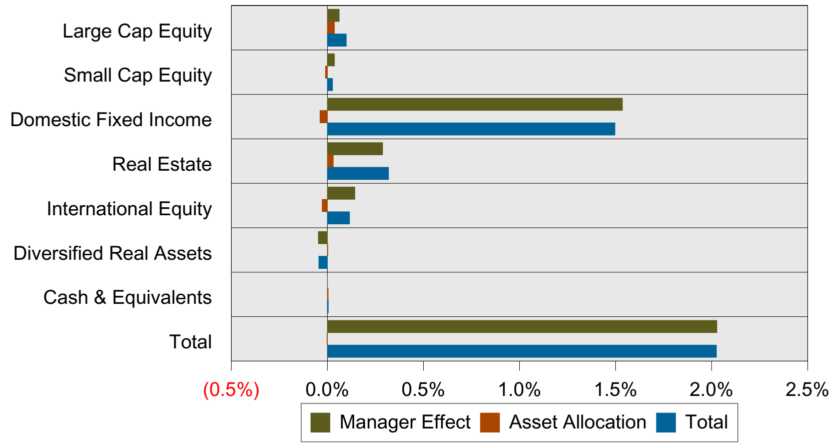
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	11%	11%	15.58%	14.67%	0.09%	0.01%	0.10%
Small Cap Equity	4%	4%	15.05%	13.70%	0.04%	0.01%	0.06%
Domestic Fixed Income	52%	52%	5.07%	2.21%	1.50%	0.01%	1.50%
Real Estate	7%	6%	13.05%	10.49%	0.17%	0.04%	0.20%
International Equity	8%	8%	10.61%	8.55%	0.16%	0.00%	0.17%
Diversified Real Assets	17%	18%	3.68%	2.68%	0.17%	0.01%	0.19%
Cash & Equivalents	1%	1%	0.17%	0.17%	(0.00%)	0.01%	0.01%
Total			**7.25% =**	**5.01% +**	**2.15% +**	**0.09%**	**2.24%**

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

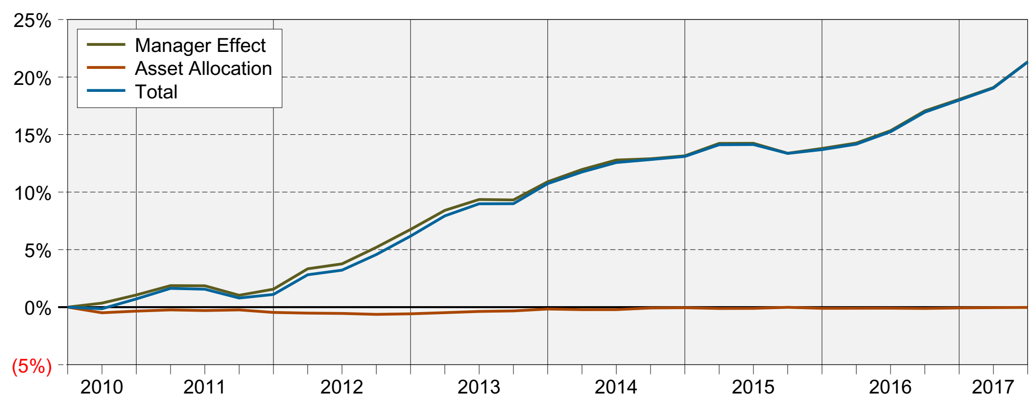
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Seven Year Annualized Relative Attribution Effects



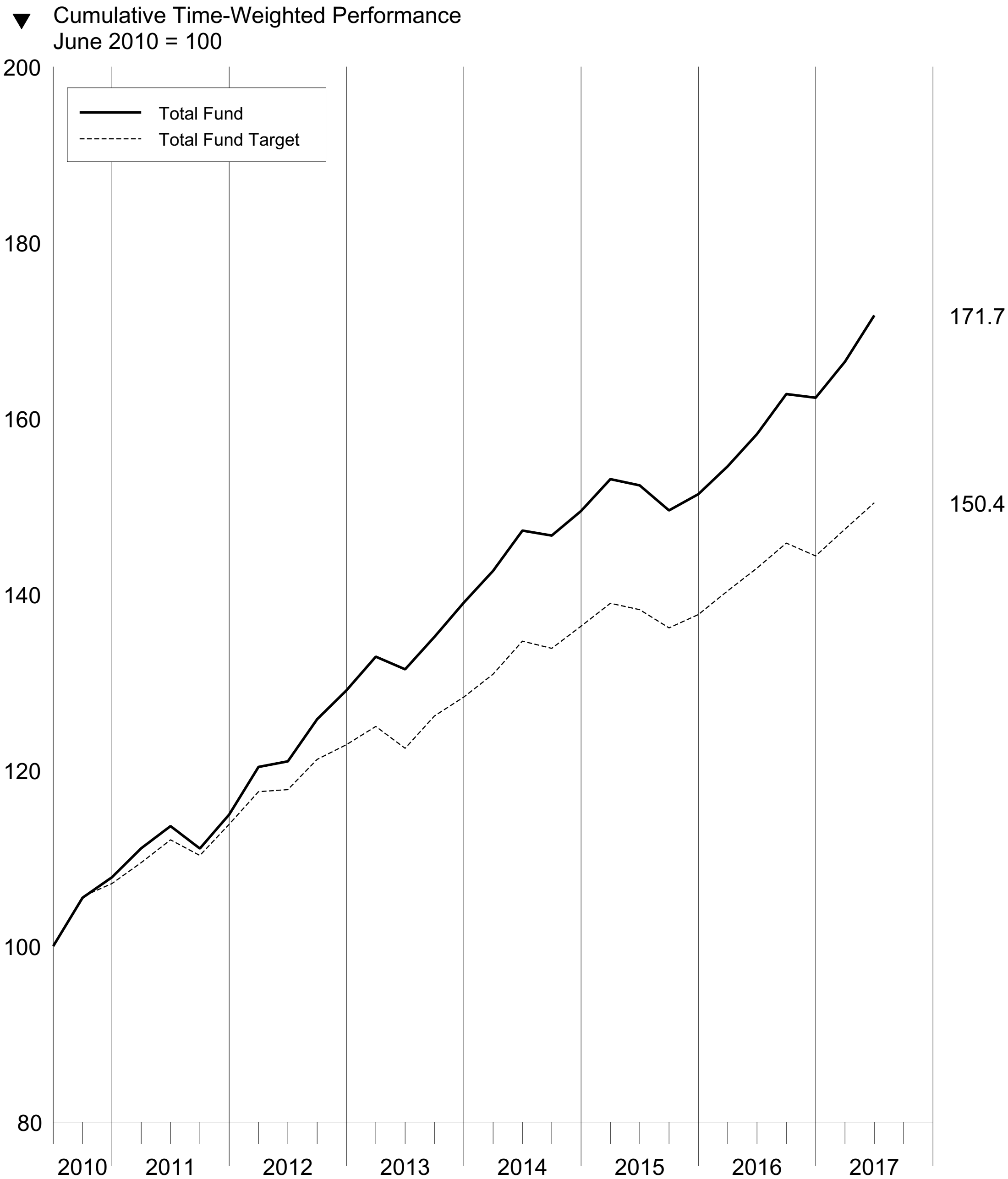
Cumulative Relative Attribution Effects



Seven Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	11%	11%	16.03%	15.43%	0.06%	0.04%	0.10%
Small Cap Equity	4%	4%	15.47%	14.35%	0.04%	(0.01%)	0.03%
Domestic Fixed Income	52%	52%	6.11%	3.19%	1.54%	(0.04%)	1.50%
Real Estate	6%	6%	16.41%	11.58%	0.29%	0.03%	0.32%
International Equity	8%	8%	8.78%	6.99%	0.14%	(0.03%)	0.12%
Diversified Real Assets	18%	19%	4.44%	4.59%	(0.05%)	0.00%	(0.04%)
Cash & Equivalents	1%	1%	0.20%	0.15%	0.00%	0.00%	0.00%
Total			**8.03% =**	**6.01% +**	**2.03% +**	**(0.00%)**	**2.03%**

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

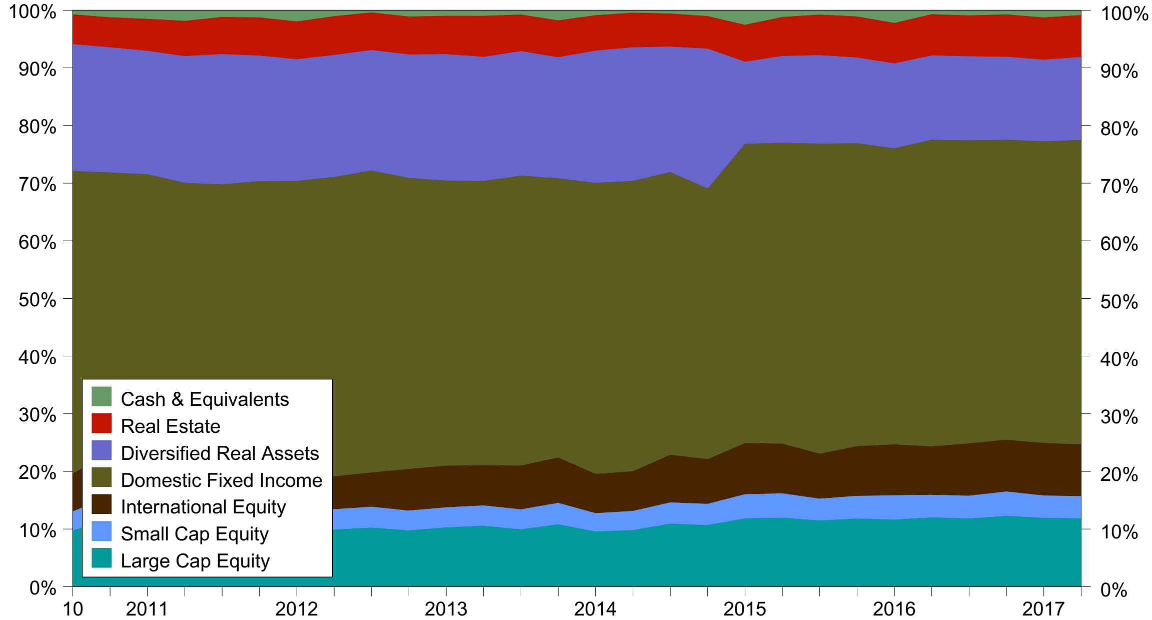


Cumulative Time-Weighted Performance
June 2010 = 100
Total Fund
Total Fund Target
200
180
160
140
120
100
80
171.7
150.4
2010
2011
2012
2013
2014
2015
2016
2017

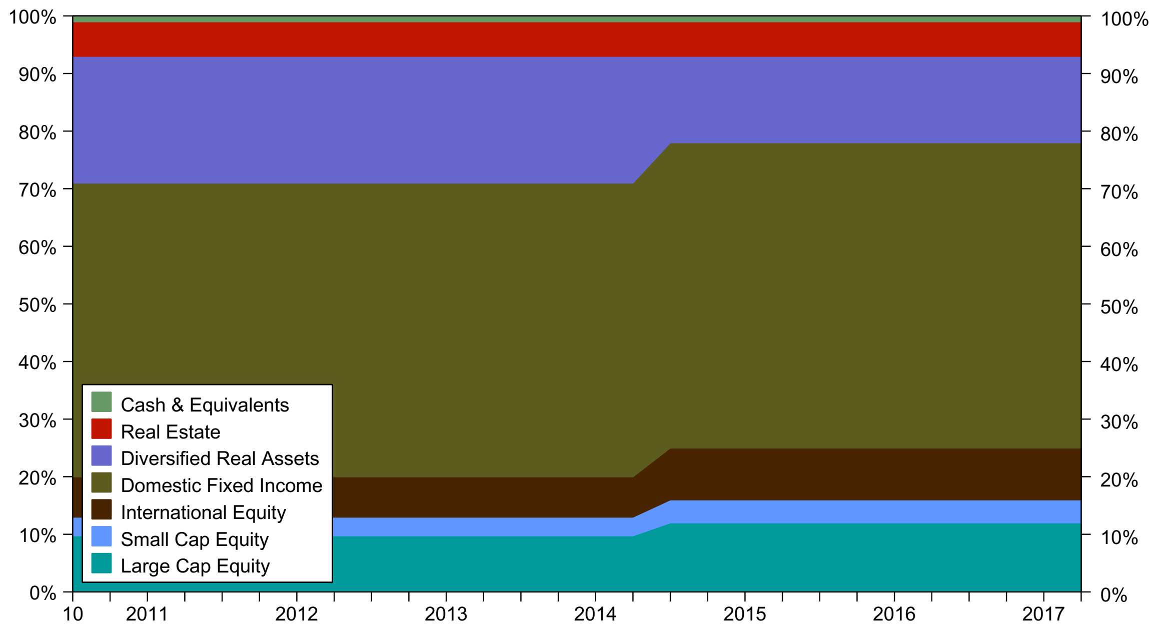
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation

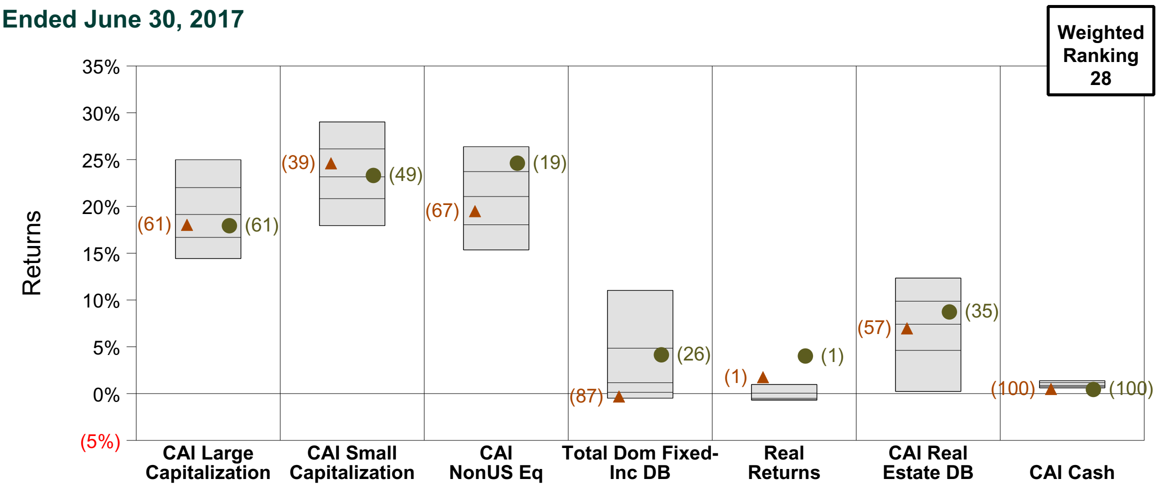


* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

Asset Class Rankings

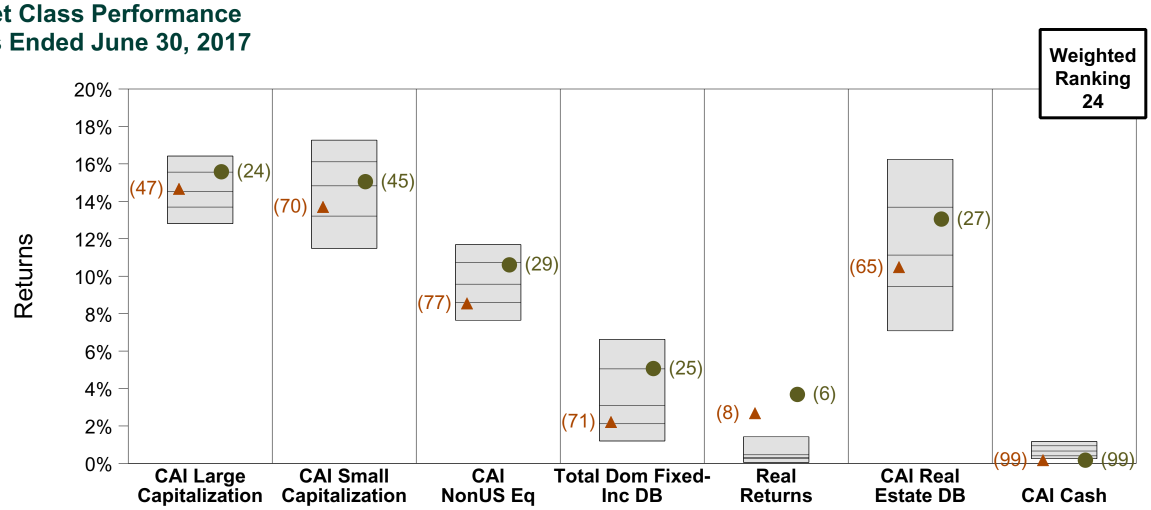
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance
One Year Ended June 30, 2017



	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Cash
10th Percentile	24.98	29.03	26.38	11.03	0.98	12.34	1.38
25th Percentile	22.01	26.14	23.72	4.85	0.05	9.87	1.18
Median	19.14	23.16	21.05	1.16	(0.50)	7.41	0.87
75th Percentile	16.69	20.83	18.04	0.14	(0.65)	4.62	0.75
90th Percentile	14.43	17.94	15.35	(0.49)	(0.70)	0.23	0.61
Asset Class Composite ●	17.94	23.31	24.61	4.14	4.02	8.72	0.44
Composite Benchmark ▲	18.03	24.60	19.49	(0.31)	1.75	6.97	0.49

Total Asset Class Performance
Five Years Ended June 30, 2017



	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Cash
10th Percentile	16.42	17.27	11.69	6.63	1.42	16.24	1.17
25th Percentile	15.56	16.11	10.74	5.05	0.46	13.69	0.94
Median	14.52	14.83	9.57	3.09	0.32	11.13	0.66
75th Percentile	13.69	13.21	8.58	2.12	0.26	9.45	0.40
90th Percentile	12.81	11.49	7.64	1.20	0.05	7.08	0.25
Asset Class Composite ●	15.58	15.05	10.61	5.07	3.68	13.05	0.17
Composite Benchmark ▲	14.67	13.70	8.55	2.21	2.68	10.49	0.17

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Class Allocation

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Large Cap Equity	$225,967,420	11.93%	$(3,661,122)	$5,989,329	$223,639,212	12.01%
Small Cap Equity	$73,302,938	3.87%	$(376,112)	$1,085,820	$72,593,231	3.90%
International Equity	$170,421,845	9.00%	$(12,026,947)	$12,715,222	$169,733,569	9.11%
Domestic Fixed Income	$1,002,477,211	52.91%	$(58,238)	$24,911,806	$977,623,644	52.48%
Diversified Real Assets	$269,189,521	14.21%	$(1,101,522)	$10,343,796	$259,947,247	13.95%
Real Estate	$138,384,075	7.30%	$(1,767,621)	$3,457,006	$136,694,690	7.34%
Cash & Equivalents	$14,871,774	0.78%	$(7,799,384)	$26,377	$22,644,781	1.22%
Securities Lending Income	$0	0.00%	$(47,335)	$47,335	-	-
Total Fund	$1,894,614,785	100.0%	$(26,838,281)	$58,576,691	$1,862,876,374	100.0%

PLEASE REFER TO PAGE 30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

Asset Class Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

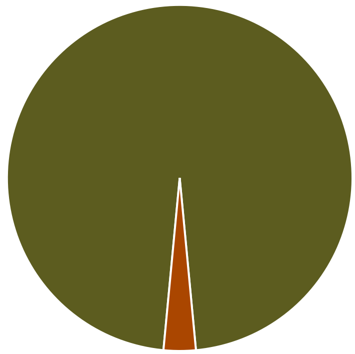
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Large Cap Equity					
Gross	2.68%	17.94%	9.75%	15.58%	16.03%
Net	2.64%	17.68%	9.54%	15.36%	15.76%
Benchmark(1)	3.06%	18.03%	9.26%	14.67%	15.42%
Small Cap Equity					
Gross	1.51%	23.31%	8.04%	15.05%	15.47%
Net	1.47%	22.80%	7.65%	14.62%	14.89%
Russell 2000	2.46%	24.60%	7.36%	13.70%	14.35%
International Equity					
Gross	7.52%	24.61%	3.00%	10.61%	8.78%
Net	7.44%	24.26%	2.67%	10.24%	8.39%
Benchmark(2)	5.63%	19.49%	0.93%	8.55%	6.99%
Domestic Fixed Income					
Gross	2.55%	4.14%	4.23%	5.07%	6.11%
Net	2.52%	4.01%	4.10%	4.92%	5.95%
Blmbg Aggregate	1.45%	(0.31%)	2.48%	2.21%	3.19%
Diversified Real Assets					
Gross	3.99%	4.02%	2.48%	3.68%	4.44%
Net	3.86%	3.74%	2.14%	3.34%	4.08%
Weighted Benchmark	1.27%	1.75%	1.47%	2.68%	4.59%
Real Estate					
Gross	2.55%	8.72%	11.82%	13.05%	16.41%
Net	2.28%	8.07%	11.07%	12.14%	15.39%
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	11.58%
Cash & Equivalents - Net	**0.18%**	**0.44%**	**0.19%**	**0.17%**	**0.20%**
90 Day Treasury Bills	0.20%	0.49%	0.23%	0.17%	0.15%
Total Fund					
Gross	3.16%	8.53%	5.26%	7.25%	8.03%
Net	3.09%	8.29%	5.02%	6.98%	7.74%
Target*	2.04%	5.20%	3.75%	5.01%	6.01%

* Current Quarter Target = 53.0% Blmbg Aggregate, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI World ex US, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.
(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.
(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.
PLEASE REFER TO PAGE 31-33 FOR INVESTMENT MANAGER LEVEL RETURNS.

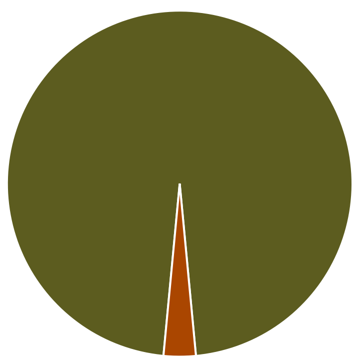
Actual vs Target Asset Allocation
As of June 30, 2017

The first chart below shows the Fund’s asset allocation as of June 30, 2017. The second chart shows the Fund’s target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



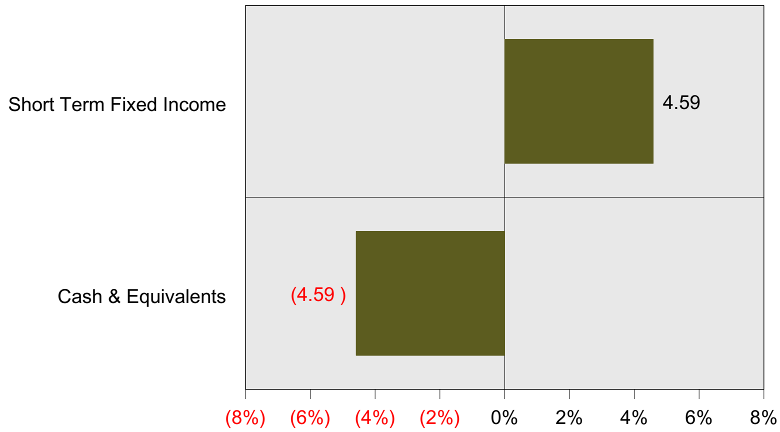
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Short Term Fixed Income	5,942	97.0%	97.0%	0.0%	0
Cash & Equivalents	186	3.0%	3.0%	0.0%	0
Total	6,128	100.0%	100.0%		

* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.

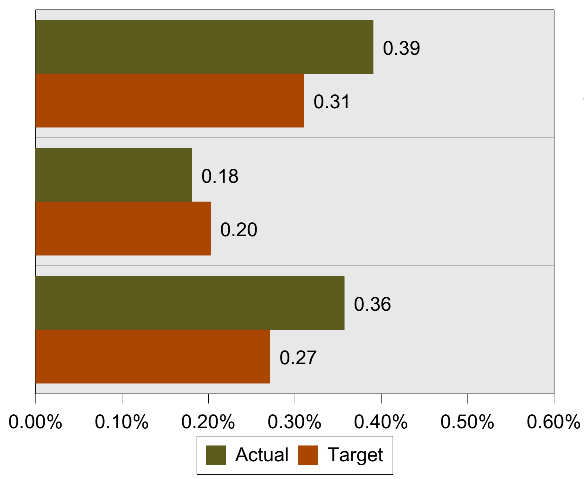
Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

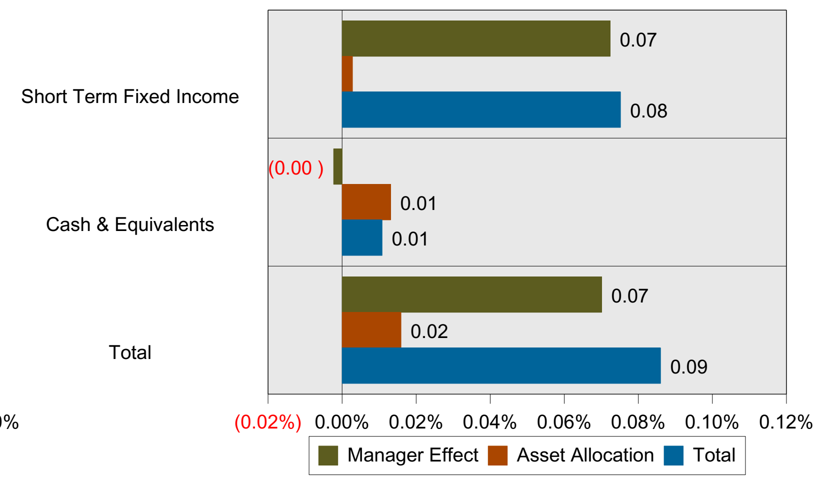
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2017

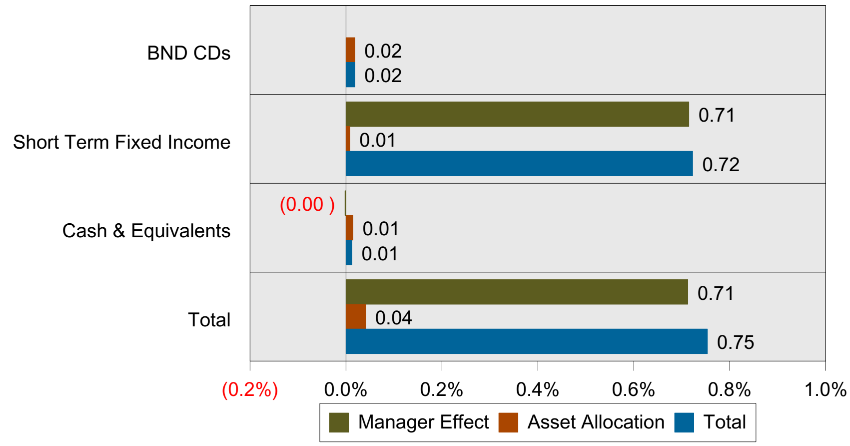
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	91%	87%	0.39%	0.31%	0.07%	0.00%	0.08%
Cash & Equivalents	9%	13%	0.18%	0.20%	(0.00%)	0.01%	0.01%
Total			**0.36% =**	**0.27% +**	**0.07% +**	**0.02%**	**0.09%**

* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.

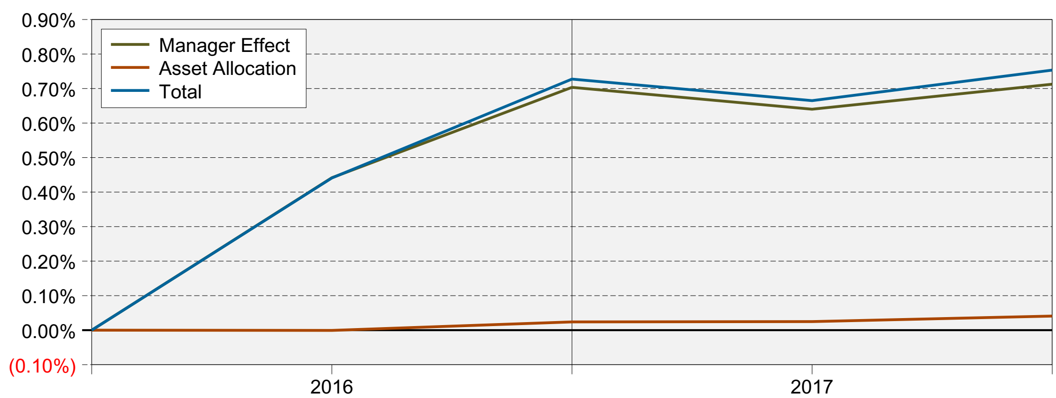
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

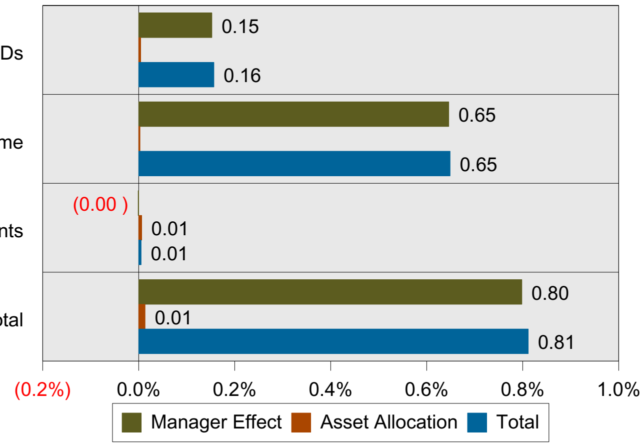
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	12%	11%	-	-	0.00%	0.02%	0.02%
Short Term Fixed Income	84%	83%	0.91%	0.04%	0.71%	0.01%	0.72%
Cash & Equivalents	5%	6%	0.43%	0.49%	(0.00%)	0.01%	0.01%
Total			**1.13% =**	**0.38% +**	**0.71% +**	**0.04%**	**0.75%**

* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.

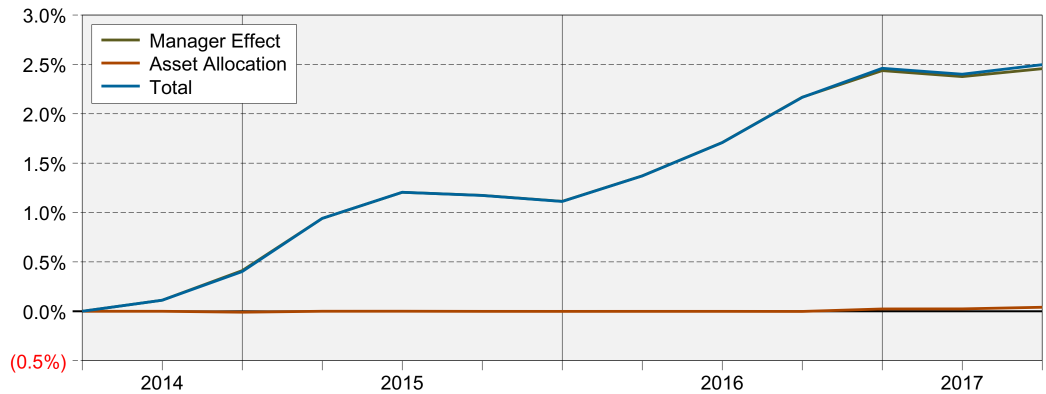
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

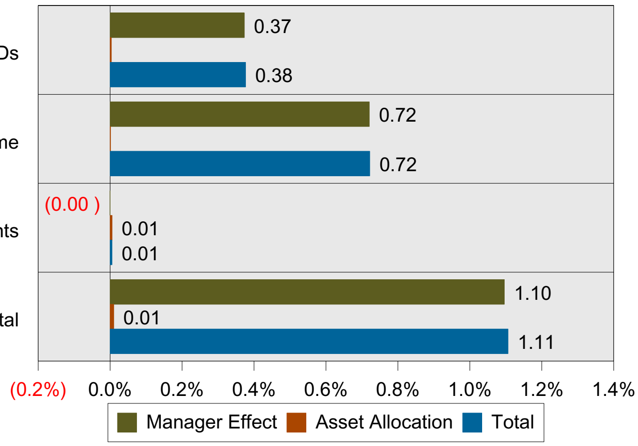
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
BND CDs	15%	15%	-		-		0.15%		0.00%	0.16%
Short Term Fixed Income	83%	82%	1.54%		0.75%		0.65%		0.00%	0.65%
Cash & Equivalents	3%	3%	0.19%		0.23%		(0.00%)		0.01%	0.01%
Total			**1.68%**	**=**	**0.87%**	**+**	**0.80%**	**+**	**0.01%**	**0.81%**

* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.

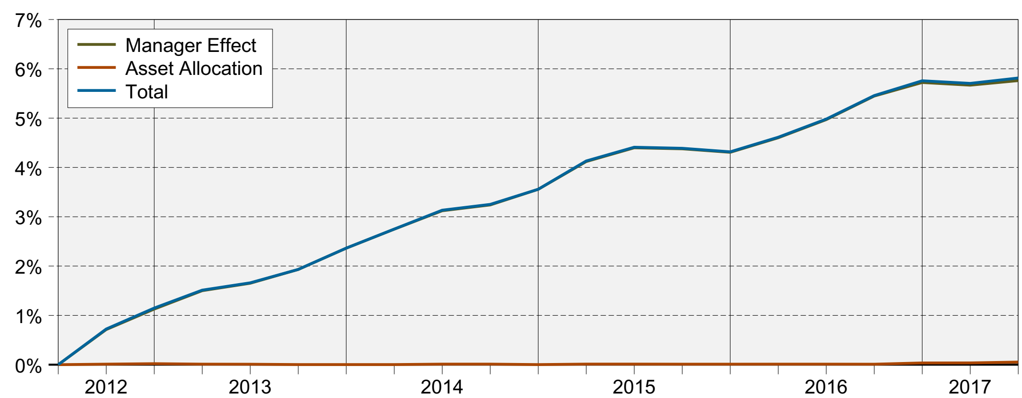
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

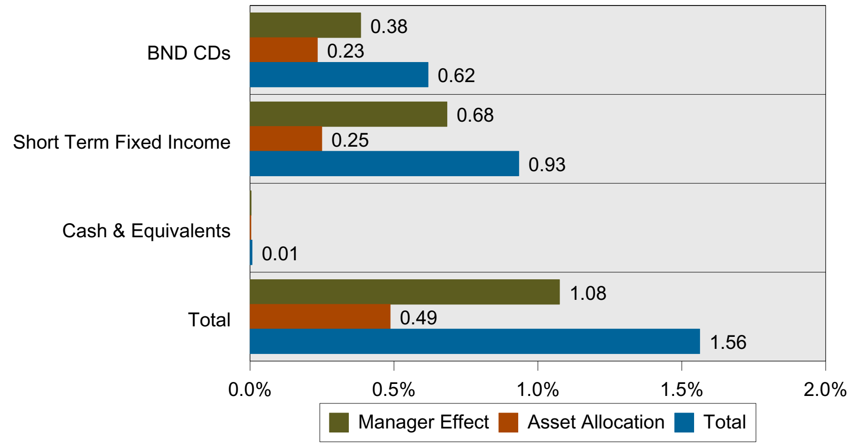
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
BND CDs	18%	18%	-		-		0.37%		0.00%	0.38%
Short Term Fixed Income	80%	80%	1.58%		0.67%		0.72%		0.00%	0.72%
Cash & Equivalents	2%	3%	0.17%		0.17%		(0.00%)		0.01%	0.01%
Total			**1.81%**	**=**	**0.70%**	**+**	**1.10%**	**+**	**0.01%**	**1.11%**

* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.

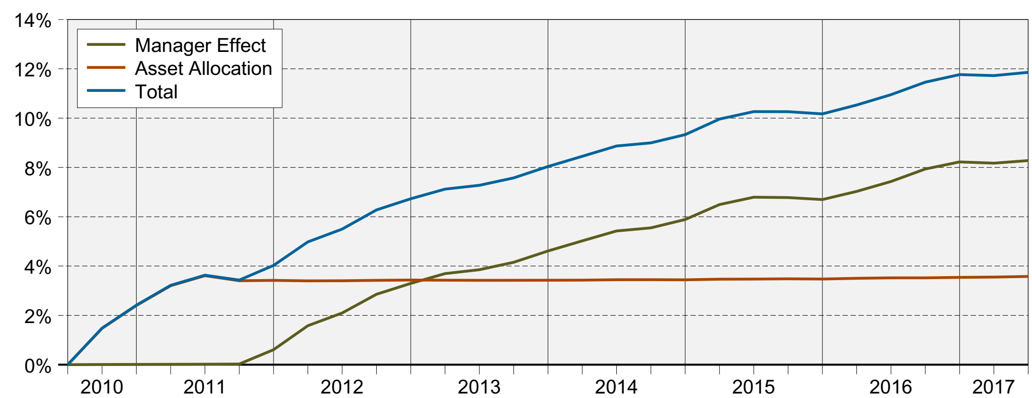
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Seven Year Annualized Relative Attribution Effects



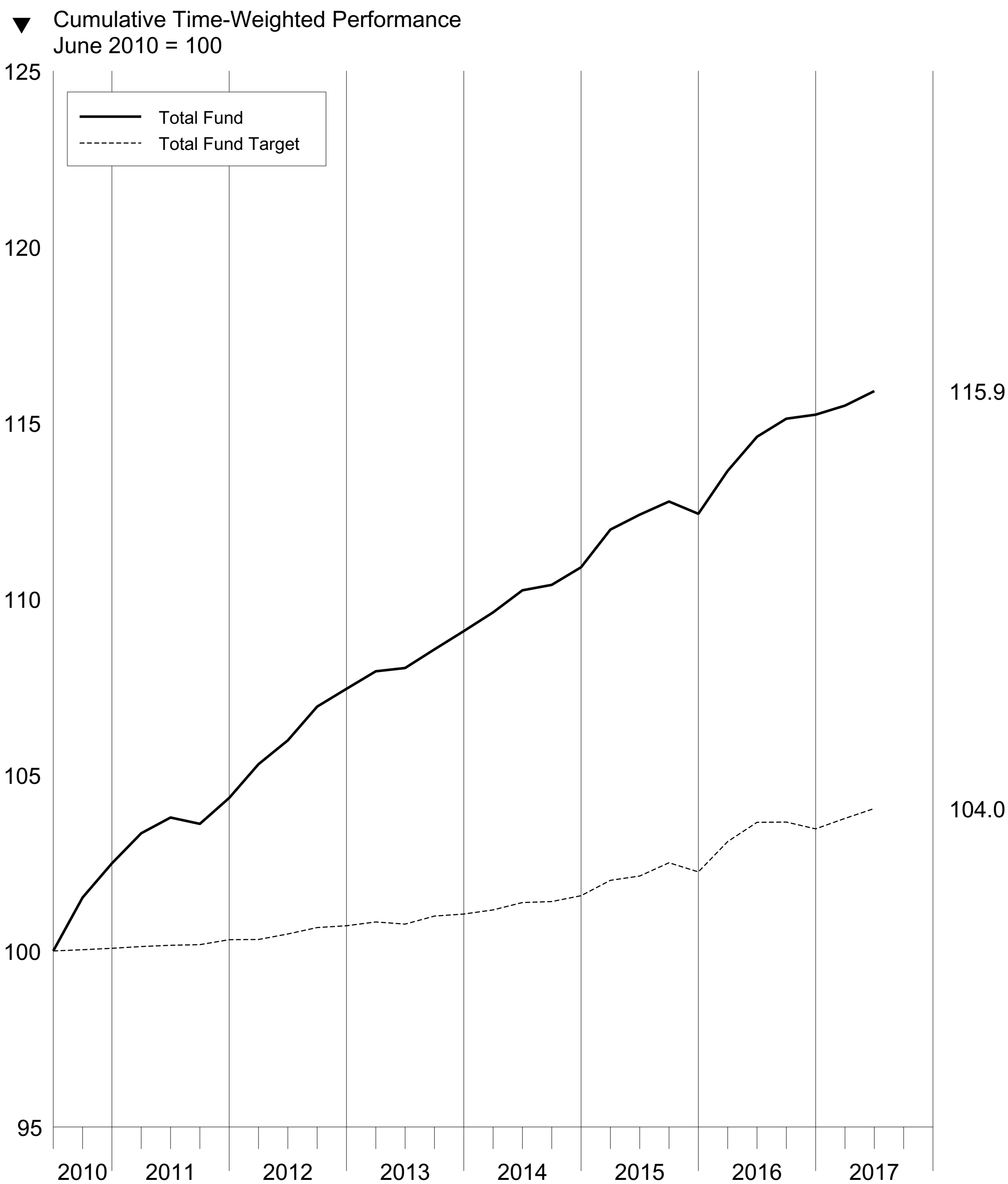
Cumulative Relative Attribution Effects



Seven Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
BND CDs	21%	16%	-		-		0.38%		0.23%	0.62%
Short Term Fixed Income	75%	65%	1.86%		0.98%		0.68%		0.25%	0.93%
Cash & Equivalents	4%	20%	0.20%		0.15%		0.00%		0.00%	0.01%
Total			**2.13%**	**=**	**0.57%**	**+**	**1.08%**	**+**	**0.49%**	**1.56%**

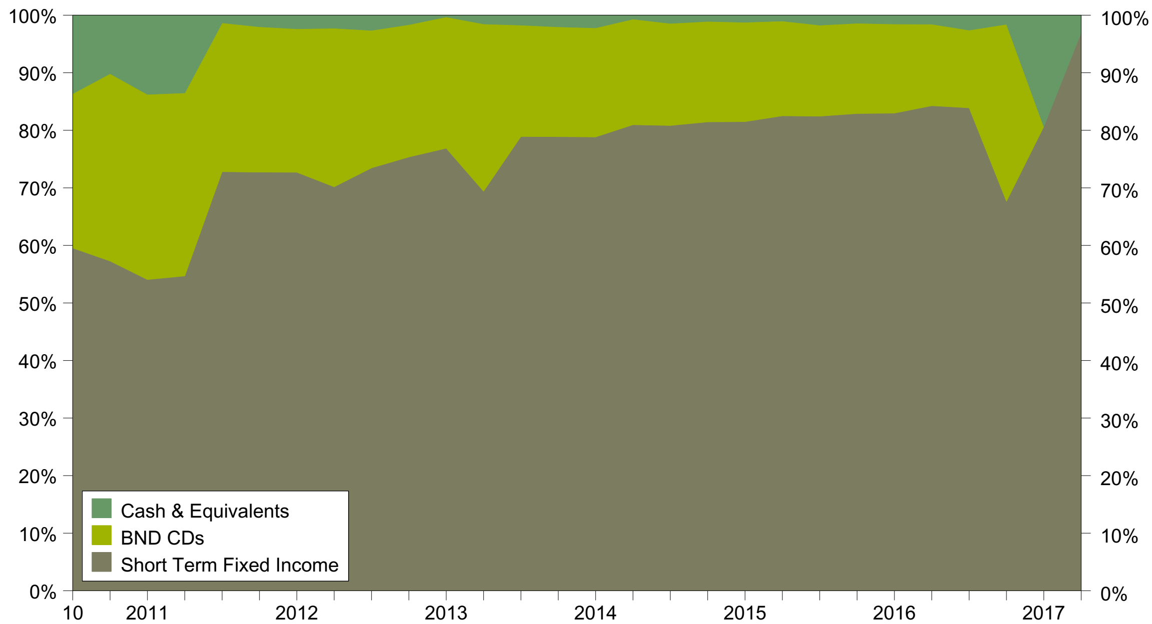
* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.


Cumulative Time-Weighted Performance
June 2010 = 100
125
120
115
110
105
100
95
Total Fund
Total Fund Target
115.9
104.0
2010
2011
2012
2013
2014
2015
2016
2017

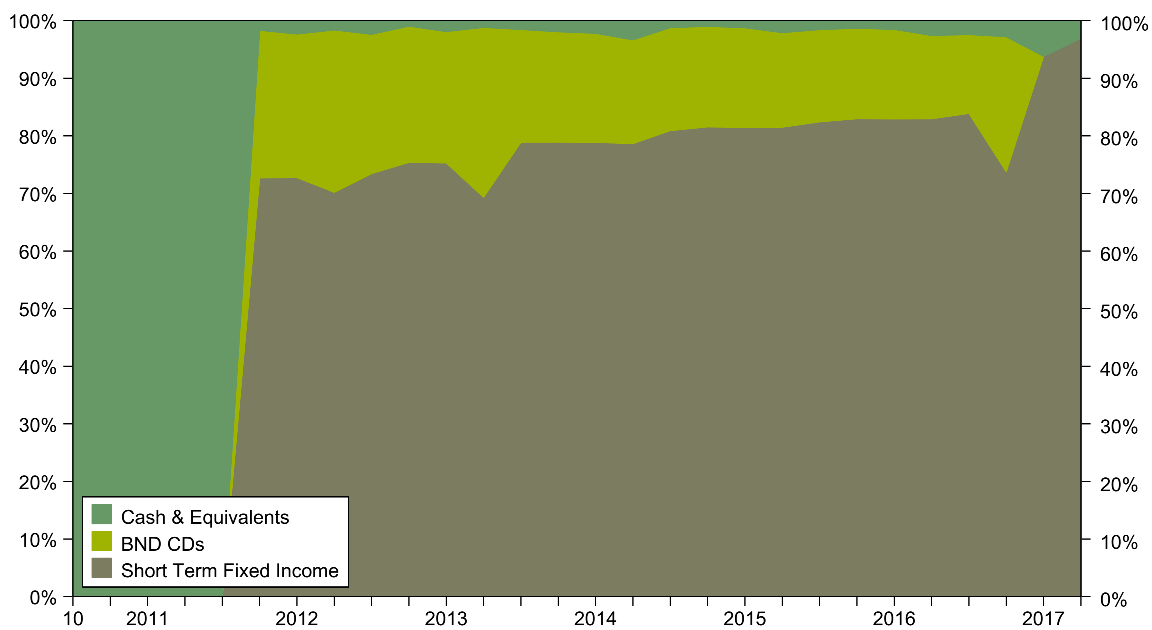
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation



* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Class Allocation

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Short Term Fixed Income	$5,941,545	96.96%	$989,861	$20,795	$4,930,889	80.64%
Cash & Equivalents	$186,299	3.04%	$(998,651)	$955	$1,183,995	19.36%
Securities Lending Income	$0	0.00%	$(79)	$79	-	-
Total Fund	$6,127,844	100.0%	$(8,869)	$21,829	$6,114,884	100.0%

PLEASE REFER TO PAGE 30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Short Term Fixed Income					
Gross	0.39%	0.91%	1.54%	1.58%	1.86%
Net	0.33%	0.52%	1.31%	1.40%	1.70%
Blended Benchmark(1)	0.31%	0.04%	0.75%	0.67%	-
Cash & Equivalents - Net	**0.18%**	**0.43%**	**0.19%**	**0.17%**	**0.20%**
3-month Treasury Bill	0.20%	0.49%	0.23%	0.17%	0.15%
Total Fund					
Gross	0.36%	1.13%	1.68%	1.81%	2.13%
Net	0.29%	0.80%	1.49%	1.66%	2.00%
Target*	0.27%	0.38%	0.87%	0.70%	0.57%

* Current Quarter Target = 97.0% Blmbg Gov/Cred 1-3 Yr and 3.0% 3-month Treasury Bill.
(1) Blmbg Gov 1-3 Yr through March 31, 2017 and Blmbg Gov/Credit 1-3 Yr thereafter.

PLEASE REFER TO PAGES 31-33 FOR INVESTMENT MANAGER LEVEL RETURNS.

Large Cap Equity
Period Ended June 30, 2017

Quarterly Summary and Highlights

- Large Cap Equity's portfolio posted a 2.67% return for the quarter placing it in the 63 percentile of the CAI Large Capitalization group for the quarter and in the 62 percentile for the last year.
- Large Cap Equity's portfolio underperformed the Large Cap Equity Target by 0.39% for the quarter and underperformed the Large Cap Equity Target for the year by 0.15%.

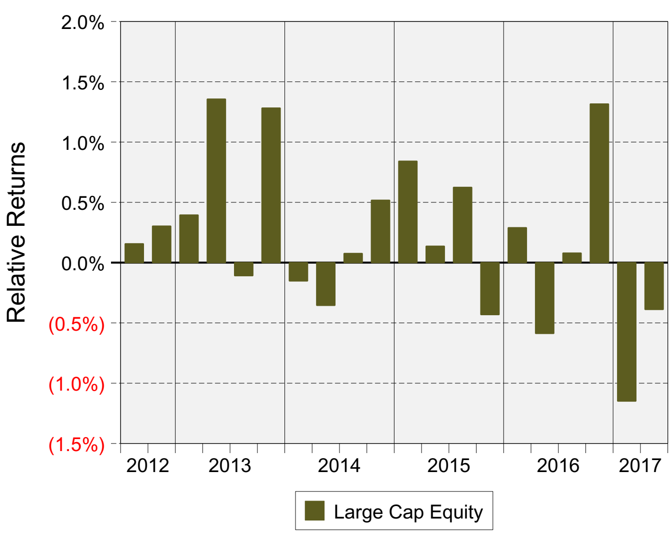
Quarterly Asset Growth

Beginning Market Value	$241,086,220
Net New Investment	$-3,108,352
Investment Gains/(Losses)	$6,465,256
Ending Market Value	$244,443,123

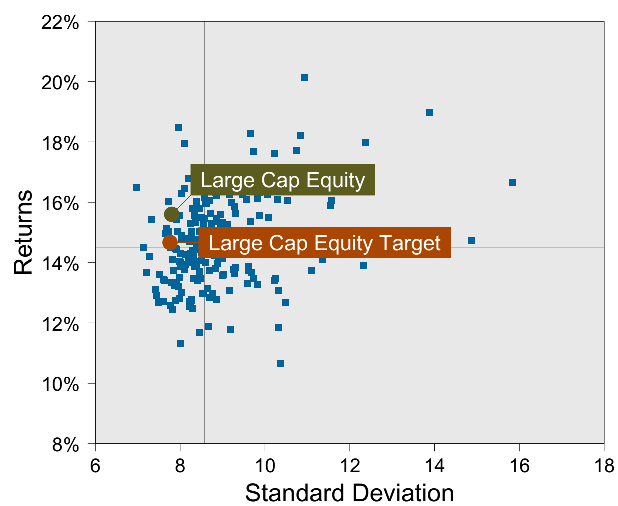
Performance vs CAI Large Capitalization (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	6.22	24.98	11.93	11.53	16.42	9.44
25th Percentile	4.94	22.01	10.68	10.43	15.56	8.50
Median	3.09	19.14	9.52	8.95	14.52	7.54
75th Percentile	2.07	16.69	8.10	7.57	13.69	6.44
90th Percentile	1.23	14.43	6.57	6.72	12.81	5.70
Large Cap Equity ●	2.67	17.87	10.14	9.76	15.60	6.56
Large Cap Equity Target ▲	3.06	18.03	10.22	9.26	14.67	7.19

Relative Return vs Large Cap Equity Target



CAI Large Capitalization (Gross)
Annualized Five Year Risk vs Return



Parametric Clifton Large Cap
Period Ended June 30, 2017

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

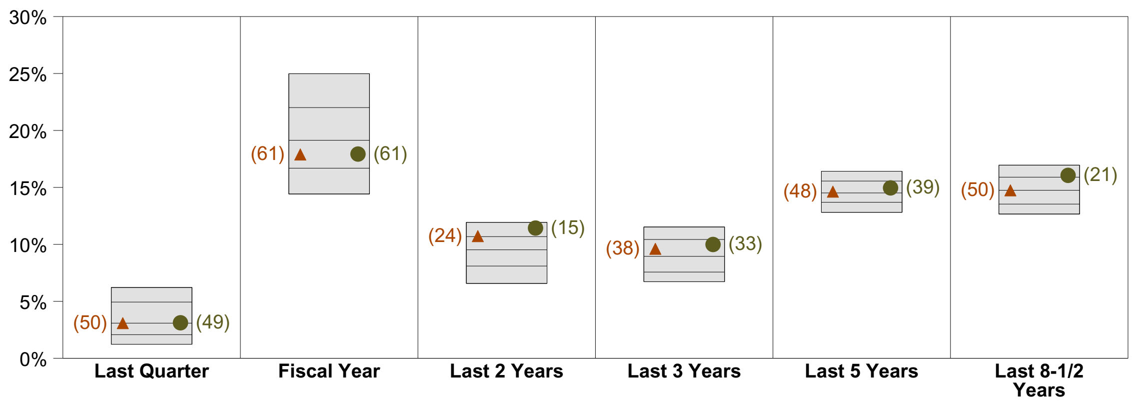
Quarterly Summary and Highlights

- Parametric Clifton Large Cap's portfolio posted a 3.12% return for the quarter placing it in the 49 percentile of the CAI Large Capitalization group for the quarter and in the 61 percentile for the last year.
- Parametric Clifton Large Cap's portfolio outperformed the S&P 500 Index by 0.03% for the quarter and outperformed the S&P 500 Index for the year by 0.03%.

Quarterly Asset Growth

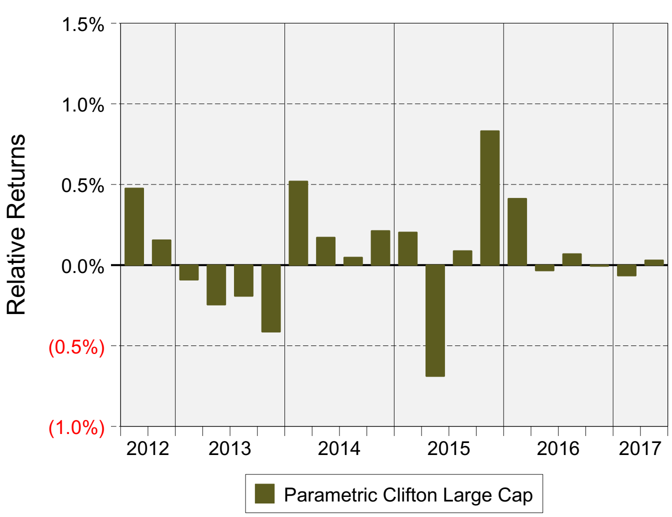
Beginning Market Value	$47,453,033
Net New Investment	$0
Investment Gains/(Losses)	$1,479,866
Ending Market Value	$48,932,899

Performance vs CAI Large Capitalization (Gross)

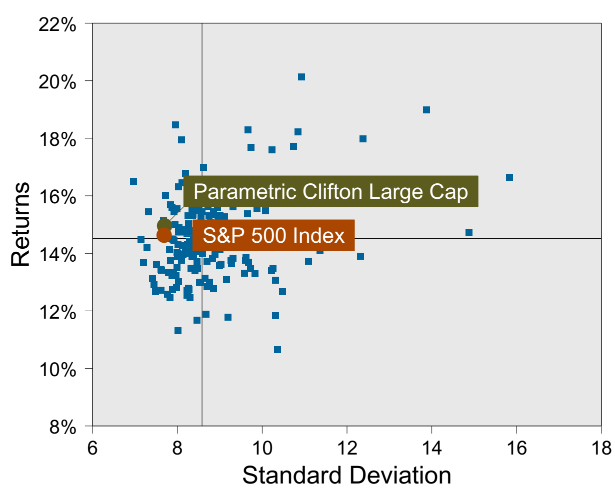


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 8-1/2 Years
10th Percentile	6.22	24.98	11.93	11.53	16.42	16.95
25th Percentile	4.94	22.01	10.68	10.43	15.56	15.90
Median	3.09	19.14	9.52	8.95	14.52	14.75
75th Percentile	2.07	16.69	8.10	7.57	13.69	13.54
90th Percentile	1.23	14.43	6.57	6.72	12.81	12.66
Parametric Clifton Large Cap ●	3.12	17.93	11.43	9.99	14.96	16.06
S&P 500 Index ▲	3.09	17.90	10.73	9.61	14.63	14.75

Relative Return vs S&P 500 Index



CAI Large Capitalization (Gross)
Annualized Five Year Risk vs Return



L.A. Capital
Period Ended June 30, 2017

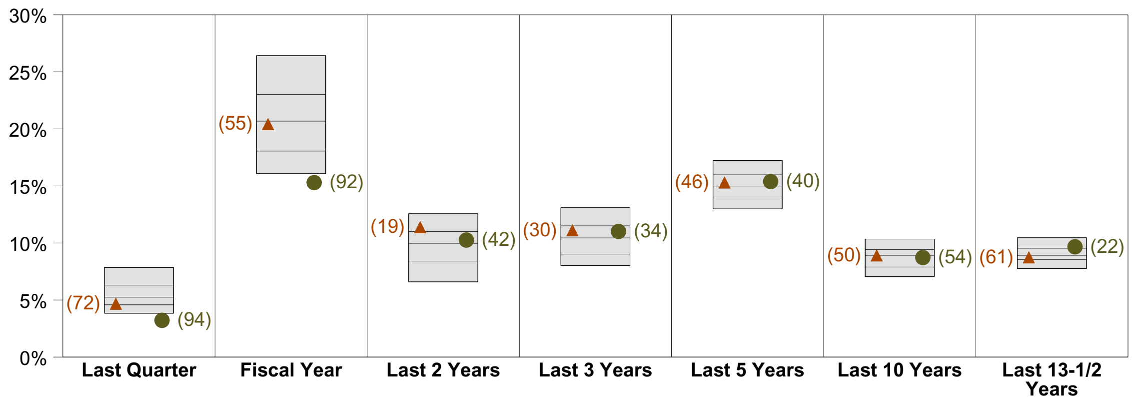
Investment Philosophy
The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

Quarterly Summary and Highlights
- L.A. Capital Large Cap Growth's portfolio posted a 3.22% return for the quarter placing it in the 94 percentile of the CAI Large Cap Growth group for the quarter and in the 92 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio underperformed the Russell 1000 Growth Index by 1.45% for the quarter and underperformed the Russell 1000 Growth Index for the year by 5.13%.

Quarterly Asset Growth

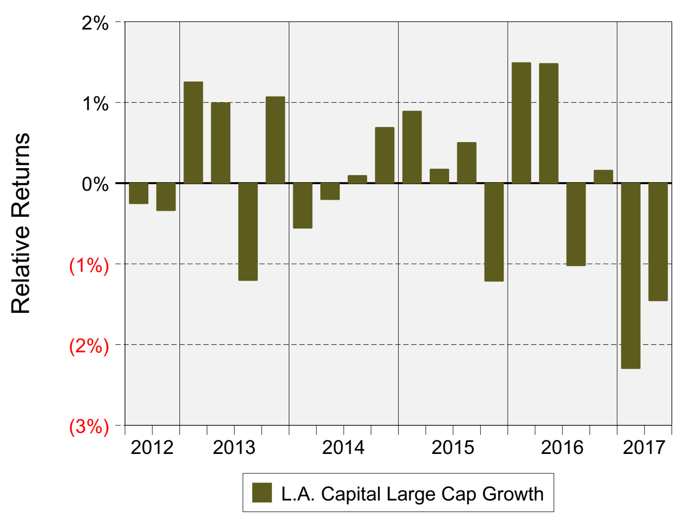
Beginning Market Value	$73,649,648
Net New Investment	$-3,038,077
Investment Gains/(Losses)	$2,419,607
Ending Market Value	$73,031,178

Performance vs CAI Large Cap Growth (Gross)

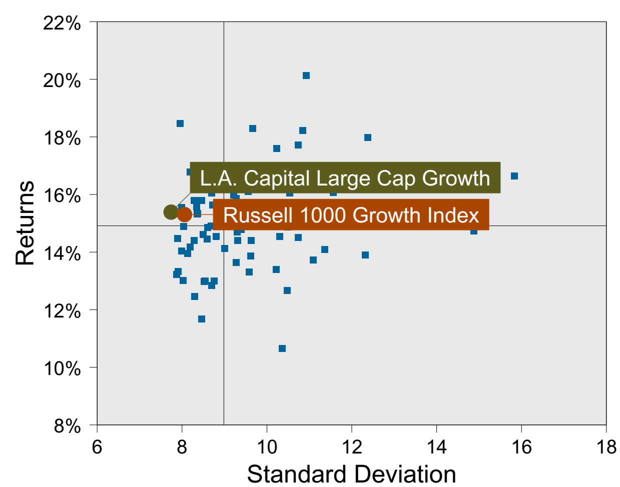


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 13-1/2 Years
10th Percentile	7.85	26.43	12.56	13.09	17.23	10.34	10.46
25th Percentile	6.31	23.03	10.99	11.50	15.98	9.43	9.54
Median	5.25	20.68	9.97	10.45	14.91	8.92	8.92
75th Percentile	4.58	18.06	8.41	9.03	14.03	7.89	8.56
90th Percentile	3.84	16.08	6.59	8.02	12.99	7.05	7.76
L.A. Capital Large Cap Growth ●	3.22	15.29	10.26	11.01	15.39	8.72	9.66
Russell 1000 Growth Index ▲	4.67	20.42	11.38	11.11	15.30	8.91	8.74

Relative Return vs Russell 1000 Growth Index



CAI Large Cap Growth (Gross)
Annualized Five Year Risk vs Return



L.A. Capital Enhanced
Period Ended June 30, 2017

Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

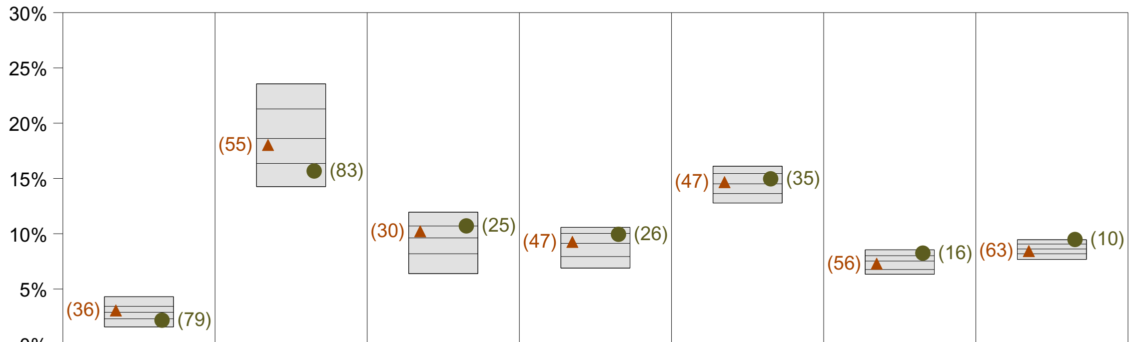
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a 2.18% return for the quarter placing it in the 79 percentile of the CAI Large Cap Core group for the quarter and in the 83 percentile for the last year.
- L.A. Capital Enhanced's portfolio underperformed the Russell 1000 Index by 0.88% for the quarter and underperformed the Russell 1000 Index for the year by 2.36%.

Quarterly Asset Growth

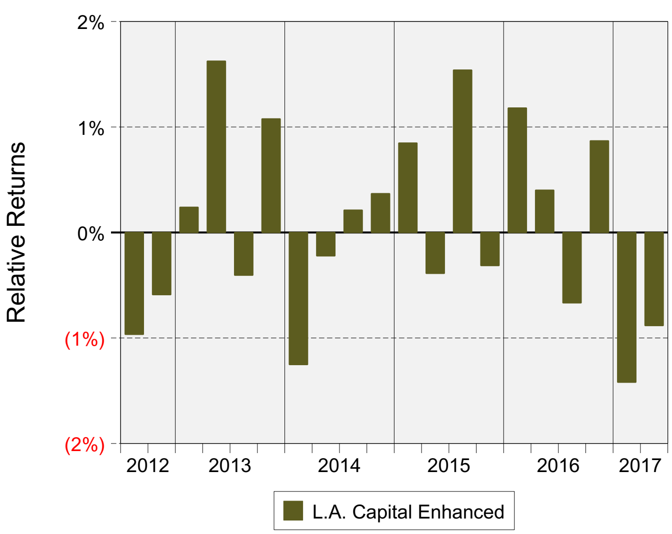
Beginning Market Value	$47,251,677
Net New Investment	$-15,908
Investment Gains/(Losses)	$1,029,616
Ending Market Value	$48,265,386

Performance vs CAI Large Cap Core (Gross)

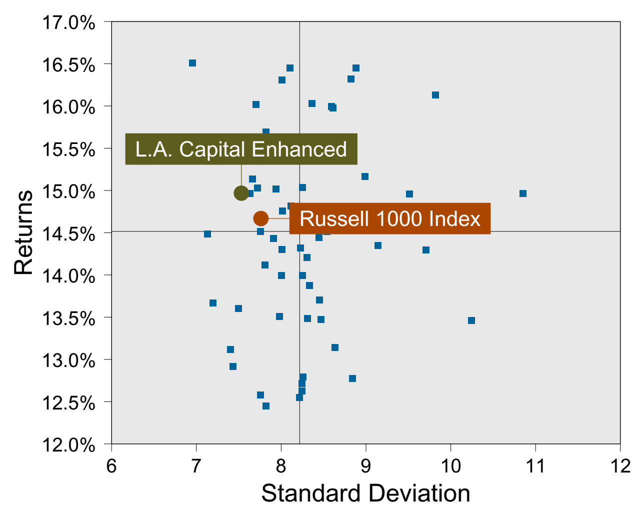


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 13 Years
10th Percentile	4.30	23.56	11.95	10.58	16.11	8.54	9.46
25th Percentile	3.43	21.29	10.70	10.03	15.45	8.01	9.07
Median	2.90	18.62	9.62	9.13	14.52	7.53	8.62
75th Percentile	2.31	16.36	8.19	7.94	13.63	6.76	8.19
90th Percentile	1.57	14.26	6.39	6.89	12.78	6.34	7.68
L.A. Capital Enhanced ●	2.18	15.67	10.71	9.95	14.97	8.25	9.48
Russell 1000 Index ▲	3.06	18.03	10.22	9.26	14.67	7.29	8.43

Relative Return vs Russell 1000 Index



CAI Large Cap Core (Gross) Annualized Five Year Risk vs Return



LSV Asset Management
Period Ended June 30, 2017

Investment Philosophy

The objective of LSV Asset Management's Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested.

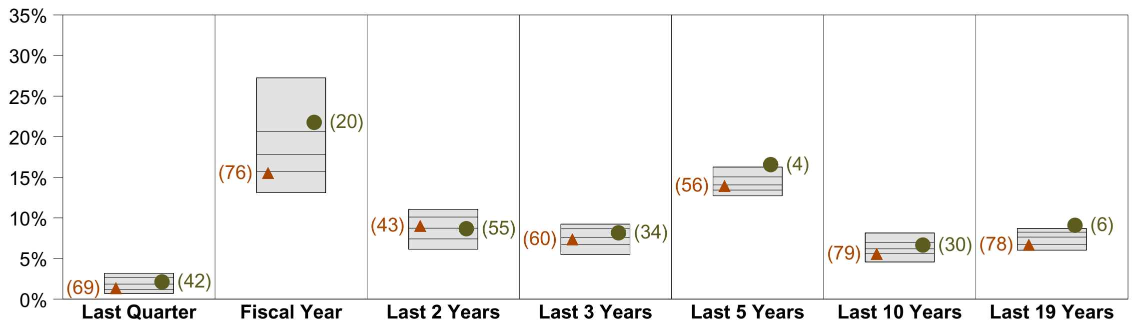
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a 2.11% return for the quarter placing it in the 42 percentile of the CAI Large Cap Value group for the quarter and in the 20 percentile for the last year.
- LSV Large Cap Value's portfolio outperformed the Russell 1000 Value Index by 0.77% for the quarter and outperformed the Russell 1000 Value Index for the year by 6.24%.

Quarterly Asset Growth

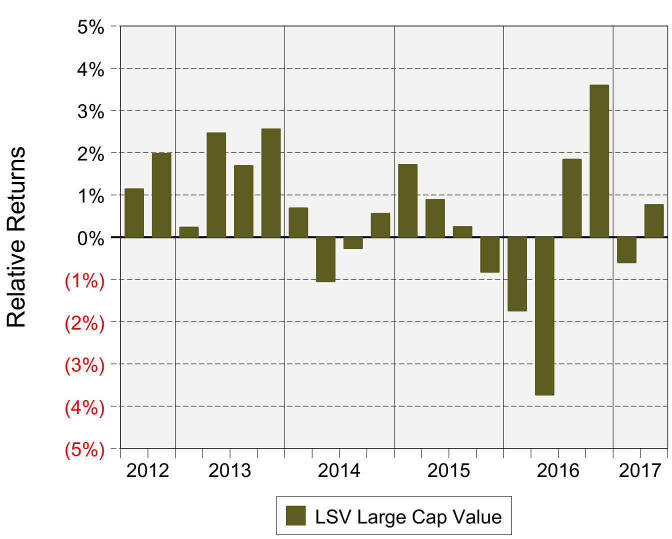
Beginning Market Value	$72,731,862
Net New Investment	$-54,368
Investment Gains/(Losses)	$1,536,166
Ending Market Value	$74,213,660

Performance vs CAI Large Cap Value (Gross)

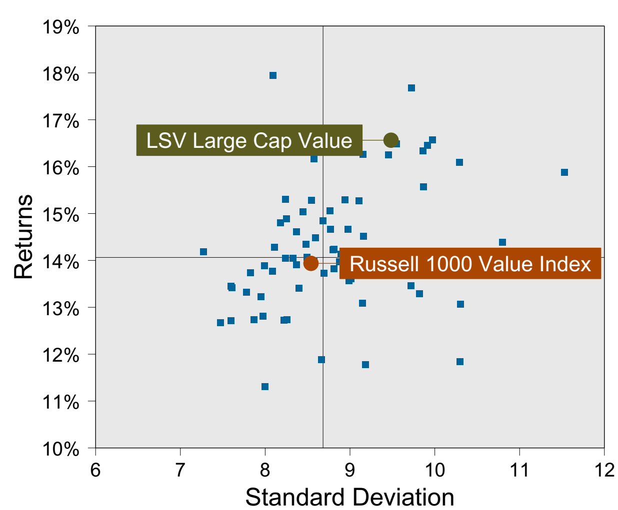


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 19 Years
10th Percentile	3.18	27.25	11.06	9.23	16.27	8.14	8.70
25th Percentile	2.64	20.66	10.11	8.66	15.05	6.99	8.25
Median	1.85	17.82	8.74	7.59	14.06	6.19	7.64
75th Percentile	1.18	15.73	7.41	6.70	13.43	5.63	6.73
90th Percentile	0.70	13.11	6.14	5.47	12.72	4.57	6.03
LSV Large Cap Value ●	2.11	21.77	8.67	8.17	16.56	6.65	9.09
Russell 1000 Value Index ▲	1.34	15.53	9.01	7.36	13.94	5.57	6.68

Relative Return vs Russell 1000 Value Index



CAI Large Cap Value (Gross) Annualized Five Year Risk vs Return



Small Cap Equity
Period Ended June 30, 2017

Quarterly Summary and Highlights

- Small Cap Equity's portfolio posted a 1.50% return for the quarter placing it in the 62 percentile of the CAI Small Capitalization group for the quarter and in the 49 percentile for the last year.
- Small Cap Equity's portfolio underperformed the Small Cap Equity Target by 0.96% for the quarter and underperformed the Small Cap Equity Target for the year by 1.30%.

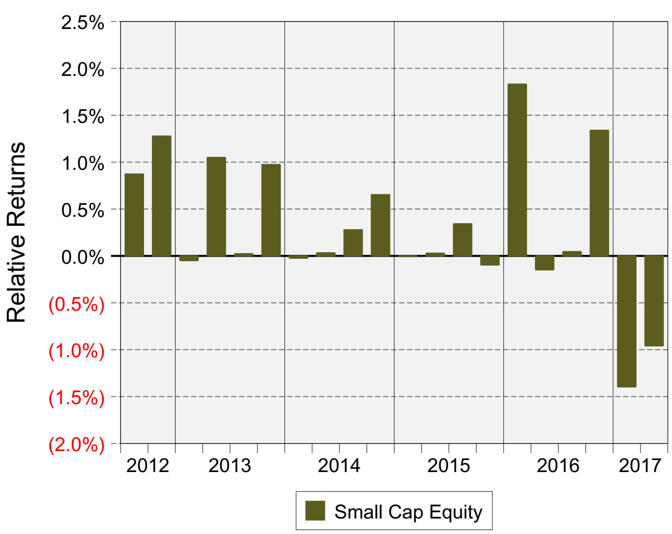
Quarterly Asset Growth

Beginning Market Value	$80,065,040
Net New Investment	$-25,492
Investment Gains/(Losses)	$1,204,864
Ending Market Value	$81,244,411

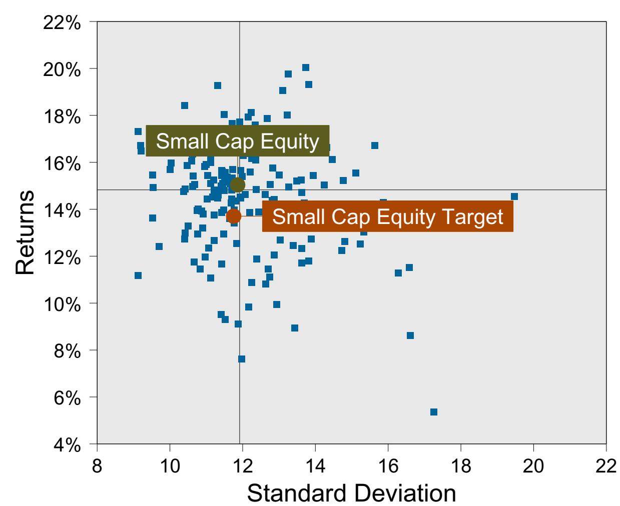
Performance vs CAI Small Capitalization (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	6.40	29.03	11.92	10.96	17.27	10.04
25th Percentile	4.32	26.14	10.38	9.75	16.11	9.20
Median	2.33	23.16	7.97	8.07	14.83	8.07
75th Percentile	0.66	20.83	5.28	6.27	13.21	7.02
90th Percentile	(0.37)	17.94	2.03	3.82	11.49	5.88
Small Cap Equity ●	1.50	23.30	8.31	8.03	15.04	7.42
Small Cap Equity Target ▲	2.46	24.60	7.80	7.36	13.70	6.92

Relative Return vs Small Cap Equity Target



CAI Small Capitalization (Gross) Annualized Five Year Risk vs Return



Parametric Clifton SmallCap
Period Ended June 30, 2017

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

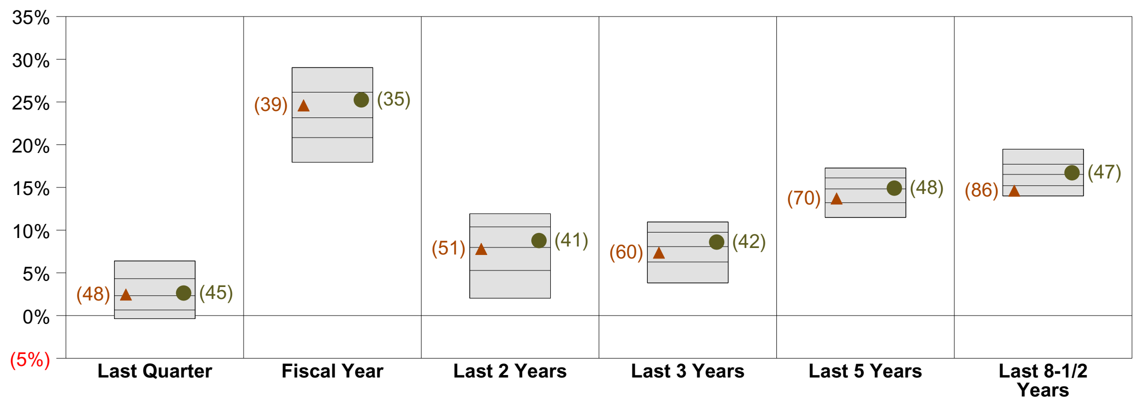
Quarterly Summary and Highlights

- Parametric Clifton SmallCap's portfolio posted a 2.64% return for the quarter placing it in the 45 percentile of the CAI Small Capitalization group for the quarter and in the 35 percentile for the last year.
- Parametric Clifton SmallCap's portfolio outperformed the Russell 2000 Index by 0.17% for the quarter and outperformed the Russell 2000 Index for the year by 0.65%.

Quarterly Asset Growth

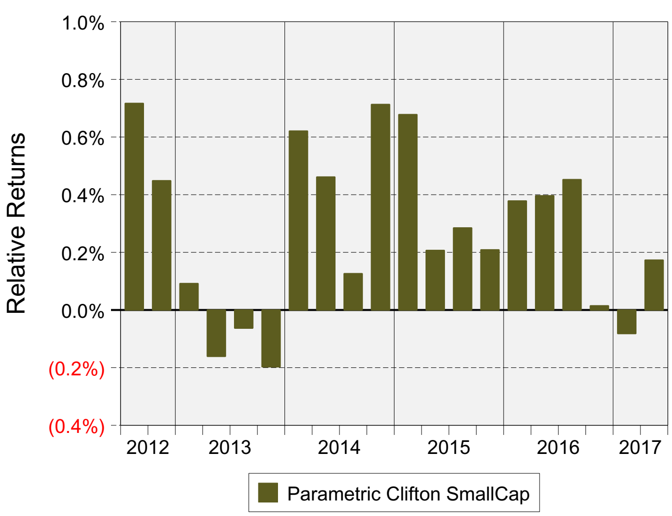
Beginning Market Value	$39,914,976
Net New Investment	$0
Investment Gains/(Losses)	$1,052,470
Ending Market Value	$40,967,446

Performance vs CAI Small Capitalization (Gross)

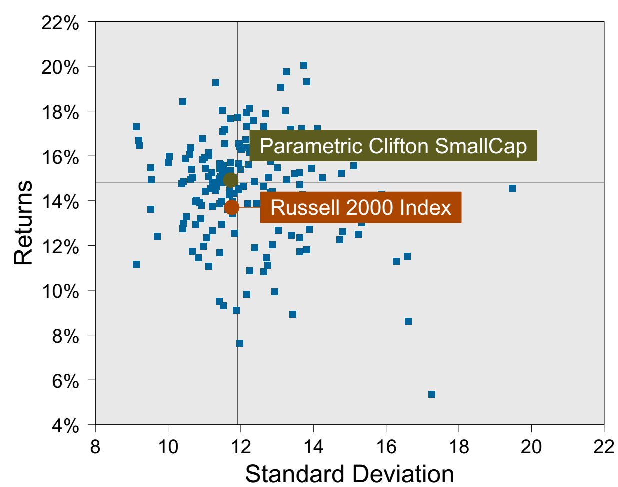


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 8-1/2 Years
10th Percentile	6.40	29.03	11.92	10.96	17.27	19.47
25th Percentile	4.32	26.14	10.38	9.75	16.11	17.71
Median	2.33	23.16	7.97	8.07	14.83	16.52
75th Percentile	0.66	20.83	5.28	6.27	13.21	15.20
90th Percentile	(0.37)	17.94	2.03	3.82	11.49	14.00
Parametric Clifton SmallCap ●	2.64	25.25	8.78	8.60	14.92	16.71
Russell 2000 Index ▲	2.46	24.60	7.80	7.36	13.70	14.62

Relative Return vs Russell 2000 Index



CAI Small Capitalization (Gross)
Annualized Five Year Risk vs Return



PIMCO RAE
Period Ended June 30, 2017

Investment Philosophy

Small company value equity portfolio utilizing the index strategy and philosophy described as the Enhanced RAFI US Small strategy which relies on portfolio weights derived from firm fundamentals (free cash flow, book equity value, total sales and gross dividend), instead of market capitalization. Additionally, the enhanced portfolio strategy uses a quality of earnings screening and a financial distress screening to augment portfolio returns and reduce portfolio volatility.

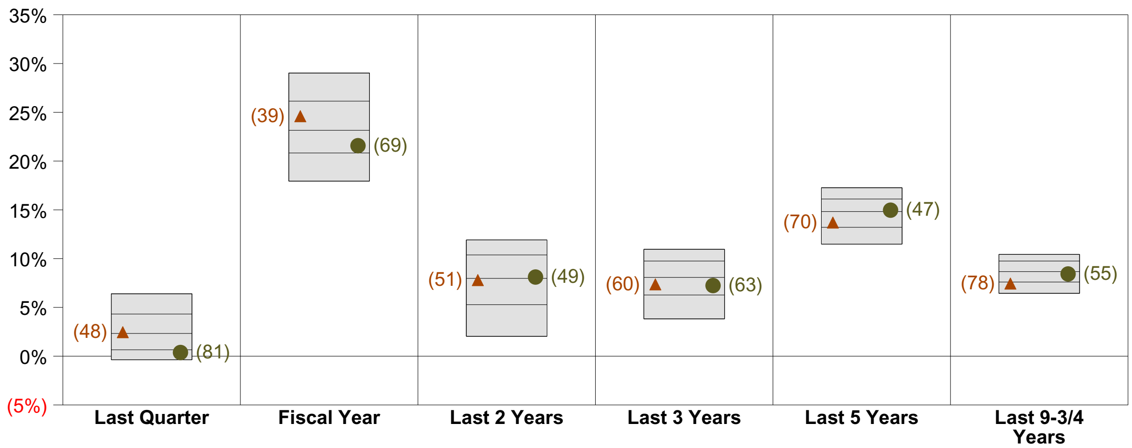
Quarterly Summary and Highlights

- PIMCO RAE's portfolio posted a 0.38% return for the quarter placing it in the 81 percentile of the CAI Small Capitalization group for the quarter and in the 69 percentile for the last year.
- PIMCO RAE's portfolio underperformed the Russell 2000 Index by 2.08% for the quarter and underperformed the Russell 2000 Index for the year by 3.02%.

Quarterly Asset Growth

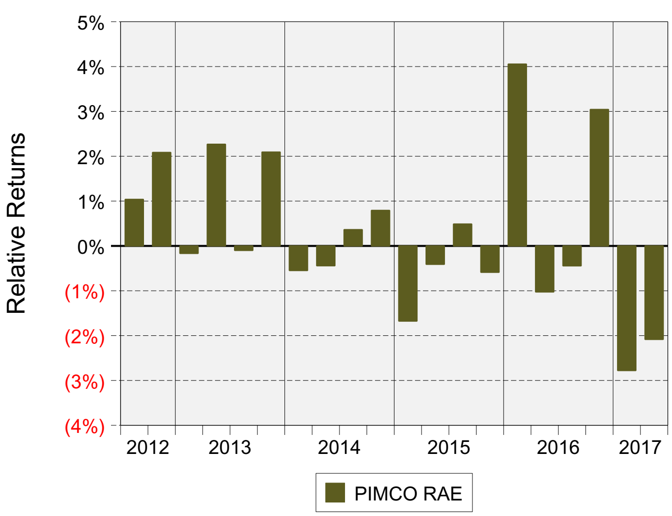
Beginning Market Value	$40,150,063
Net New Investment	$-25,492
Investment Gains/(Losses)	$152,394
Ending Market Value	$40,276,965

Performance vs CAI Small Capitalization (Gross)

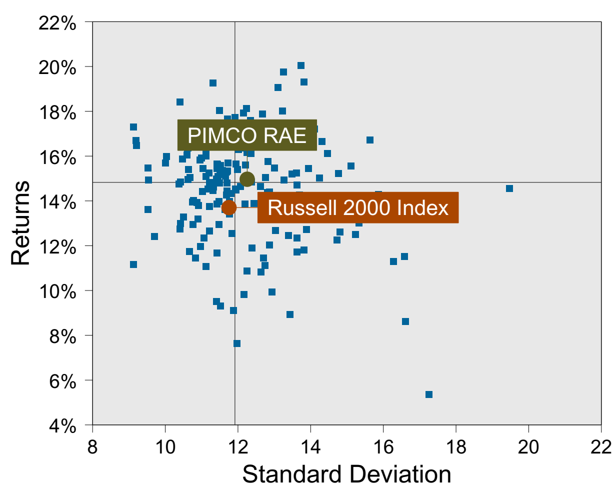


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-3/4 Years
10th Percentile	6.40	29.03	11.92	10.96	17.27	10.43
25th Percentile	4.32	26.14	10.38	9.75	16.11	9.75
Median	2.33	23.16	7.97	8.07	14.83	8.67
75th Percentile	0.66	20.83	5.28	6.27	13.21	7.60
90th Percentile	(0.37)	17.94	2.03	3.82	11.49	6.44
PIMCO RAE ●	0.38	21.58	8.11	7.24	14.97	8.43
Russell 2000 Index ▲	2.46	24.60	7.80	7.36	13.70	7.45

Relative Return vs Russell 2000 Index



CAI Small Capitalization (Gross)
Annualized Five Year Risk vs Return



International Equity
Period Ended June 30, 2017

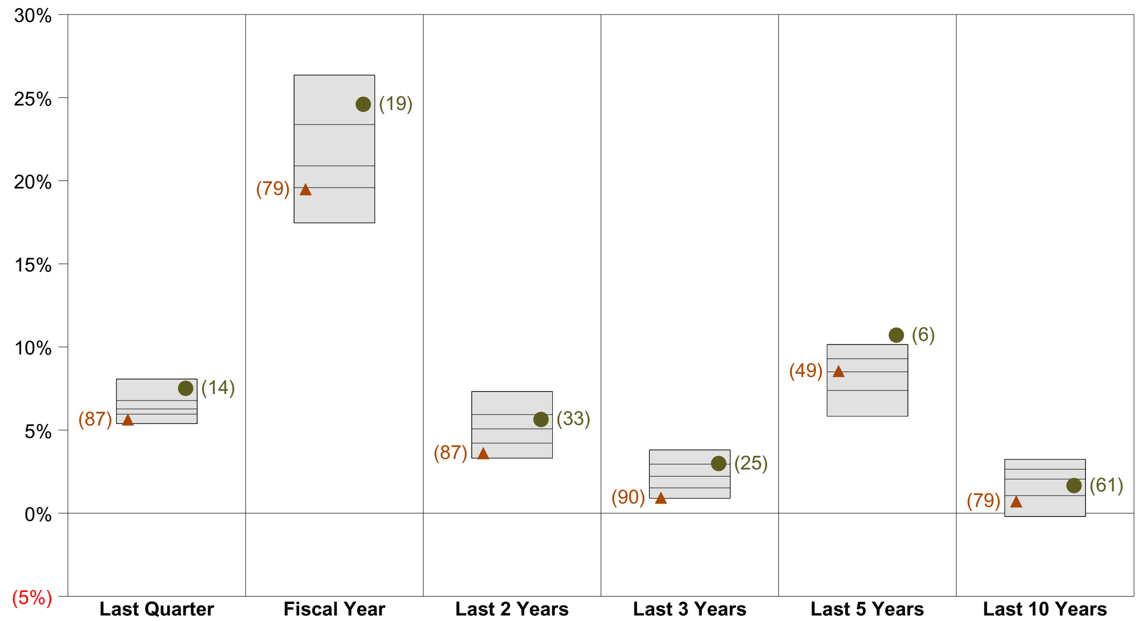
Quarterly Summary and Highlights

- International Equity's portfolio posted a 7.51% return for the quarter placing it in the 14 percentile of the Pub Pln- International Equity group for the quarter and in the 19 percentile for the last year.
- International Equity's portfolio outperformed the International Equity Target by 1.88% for the quarter and outperformed the International Equity Target for the year by 5.11%.

Quarterly Asset Growth

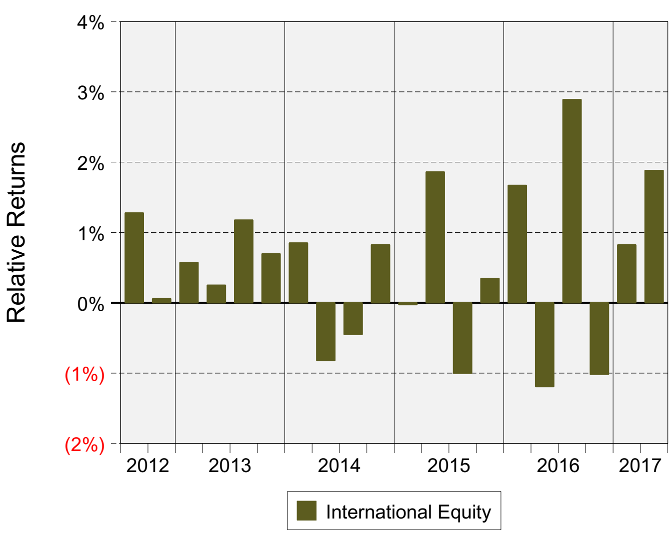
Beginning Market Value	$178,846,457
Net New Investment	$-12,138,188
Investment Gains/(Losses)	$13,398,551
Ending Market Value	$180,106,820

Performance vs Pub Pln- International Equity (Gross)

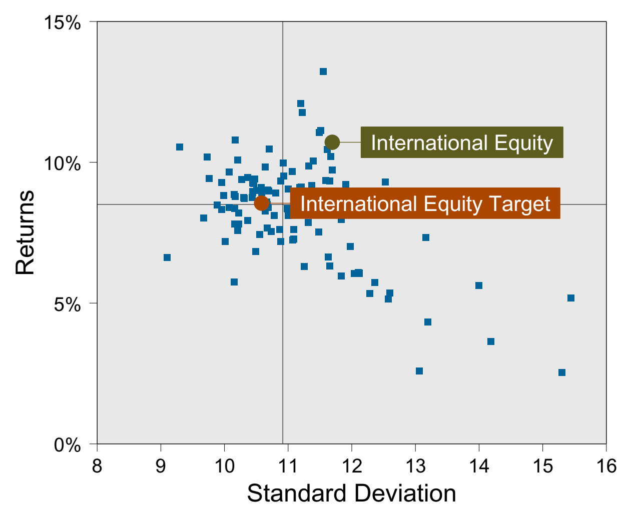


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	8.07	26.36	7.32	3.81	10.15	3.24
25th Percentile	6.78	23.38	5.93	2.95	9.29	2.65
Median	6.27	20.90	5.07	2.22	8.50	2.05
75th Percentile	5.96	19.59	4.22	1.52	7.38	1.06
90th Percentile	5.39	17.47	3.31	0.90	5.83	(0.20)
International Equity ●	7.51	24.60	5.64	2.99	10.71	1.66
International Equity Target ▲	5.63	19.49	3.61	0.93	8.55	0.71

Relative Return vs International Equity Target



Pub Pln- International Equity (Gross) Annualized Five Year Risk vs Return



DFA Intl Small Cap Value
Period Ended June 30, 2017

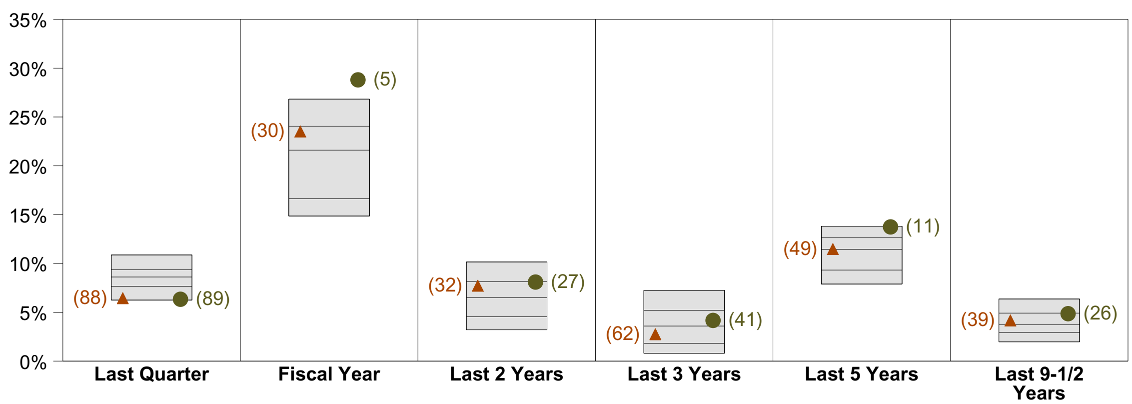
Investment Philosophy
The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

Quarterly Summary and Highlights
- DFA Intl Small Cap Value's portfolio posted a 6.33% return for the quarter placing it in the 89 percentile of the CAI International Small Cap Mut Funds group for the quarter and in the 5 percentile for the last year.
- DFA Intl Small Cap Value's portfolio underperformed the World ex US SC Value by 0.11% for the quarter and outperformed the World ex US SC Value for the year by 5.28%.

Quarterly Asset Growth

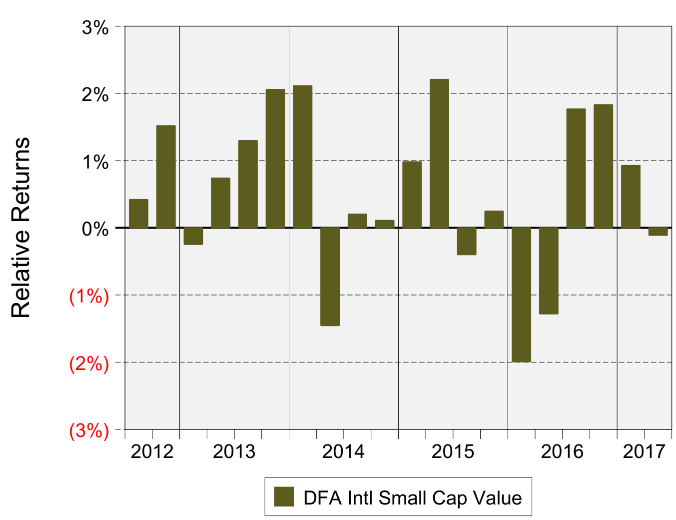
Beginning Market Value	$18,396,616
Net New Investment	$0
Investment Gains/(Losses)	$1,165,272
Ending Market Value	$19,561,888

Performance vs CAI International Small Cap Mut Funds (Net)

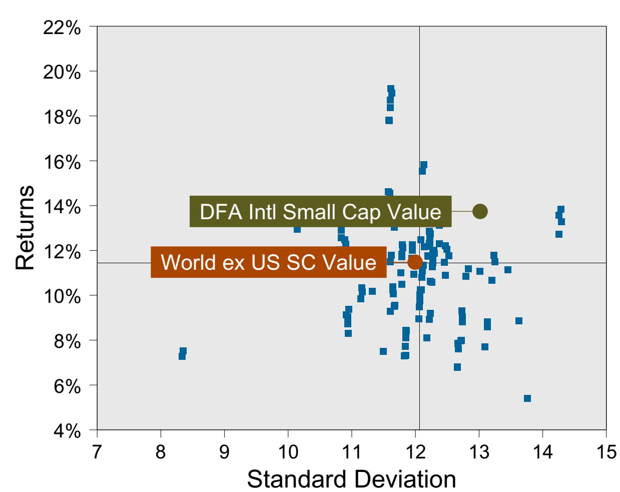


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	10.87	26.83	10.15	7.25	13.81	6.36
25th Percentile	9.35	24.06	8.15	5.21	12.69	4.92
Median	8.61	21.60	6.50	3.59	11.44	3.72
75th Percentile	7.67	16.63	4.54	1.82	9.32	2.93
90th Percentile	6.25	14.86	3.21	0.80	7.89	1.97
DFA Intl Small Cap Value ●	6.33	28.80	8.09	4.16	13.74	4.86
World ex US SC Value ▲	6.44	23.52	7.72	2.76	11.48	4.17

Relative Return vs World ex US SC Value



CAI International Small Cap Mut Funds (Net)
Annualized Five Year Risk vs Return



LSV Intl Value
Period Ended June 30, 2017

Investment Philosophy

The objective of LSV Asset Management's International Large Cap Value strategy is to outperform the MSCI EAFE Index by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested. LSV weights countries at a neutral weight relative to the benchmark country weights. 50% of the portfolio is US dollar hedged. ***MSCI EAFE through 9/30/2000, 50% Hedged EAFE through 3/31/2011 and MSCI EAFE again thereafter.**

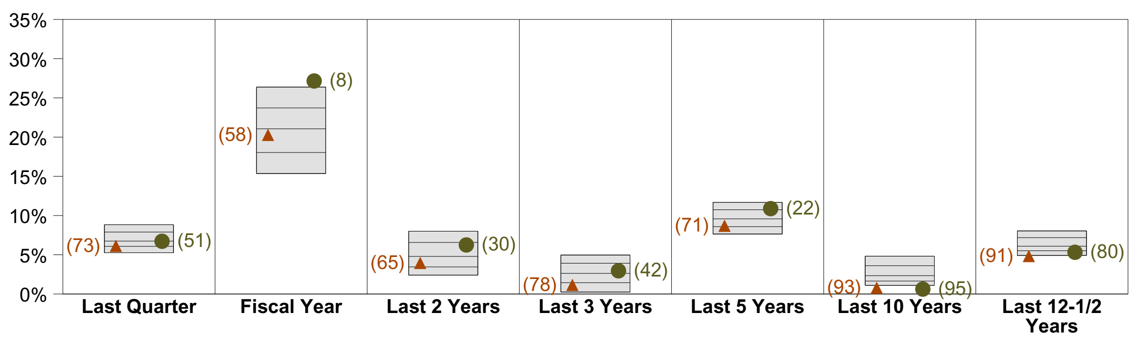
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a 6.72% return for the quarter placing it in the 51 percentile of the CAI Non-US Equity group for the quarter and in the 8 percentile for the last year.
- LSV Intl Value's portfolio outperformed the Benchmark by 0.60% for the quarter and outperformed the Benchmark for the year by 6.89%.

Quarterly Asset Growth

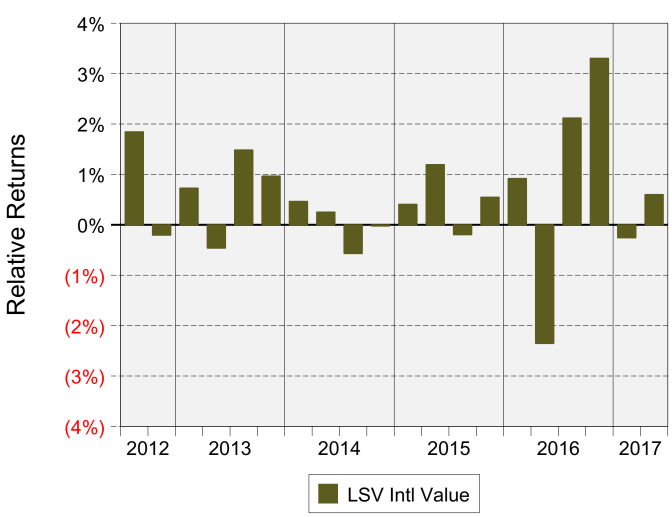
Beginning Market Value	$74,933,832
Net New Investment	$-7,072,994
Investment Gains/(Losses)	$4,977,232
Ending Market Value	$72,838,070

Performance vs CAI Non-US Equity (Gross)

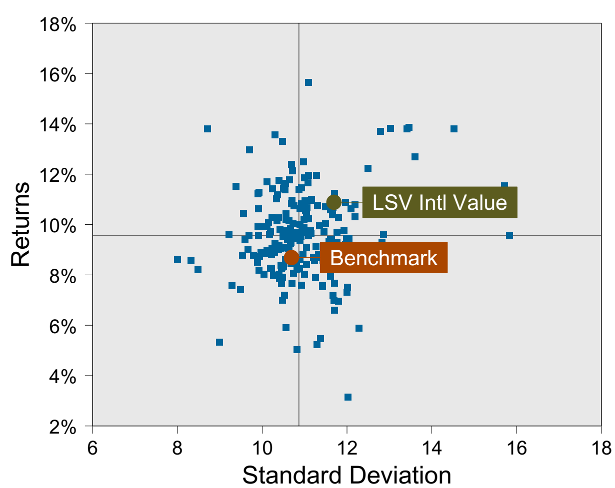


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 12-1/2 Years
10th Percentile	8.83	26.38	8.00	4.97	11.69	4.82	8.04
25th Percentile	7.90	23.72	6.57	3.92	10.74	3.61	7.18
Median	6.75	21.05	4.79	2.63	9.57	2.33	6.09
75th Percentile	6.07	18.04	3.45	1.44	8.58	1.65	5.51
90th Percentile	5.26	15.35	2.40	0.24	7.64	1.10	4.92
LSV Intl Value ●	6.72	27.15	6.25	2.96	10.89	0.62	5.32
Benchmark ▲	6.12	20.27	3.94	1.15	8.69	0.77	4.82

Relative Return vs Benchmark



CAI Non-US Equity (Gross)
Annualized Five Year Risk vs Return



Vanguard Intl Explorer Fund
Period Ended June 30, 2017

Investment Philosophy

Vanguard International Explorer Fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for long-term capital appreciation. The advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

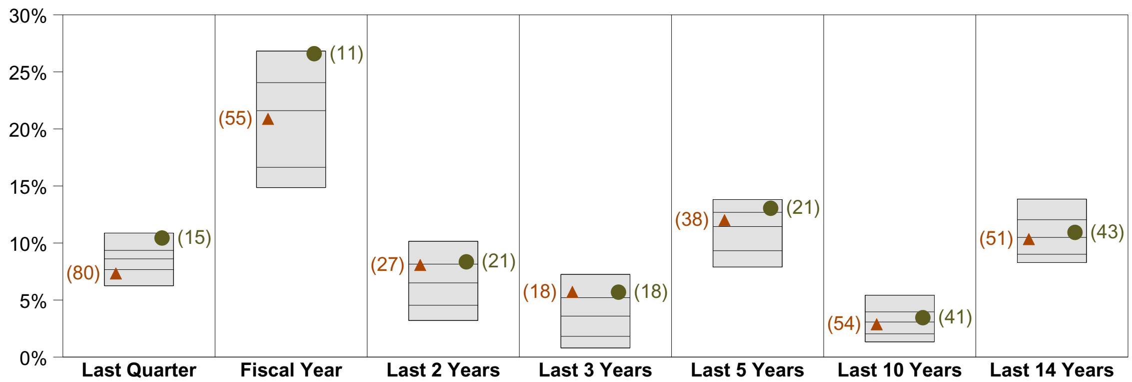
Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a 10.44% return for the quarter placing it in the 15 percentile of the CAI International Small Cap Mut Funds group for the quarter and in the 11 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio outperformed the S&P BMI EPAC <$2 B by 3.11% for the quarter and outperformed the S&P BMI EPAC <$2 B for the year by 5.71%.

Quarterly Asset Growth

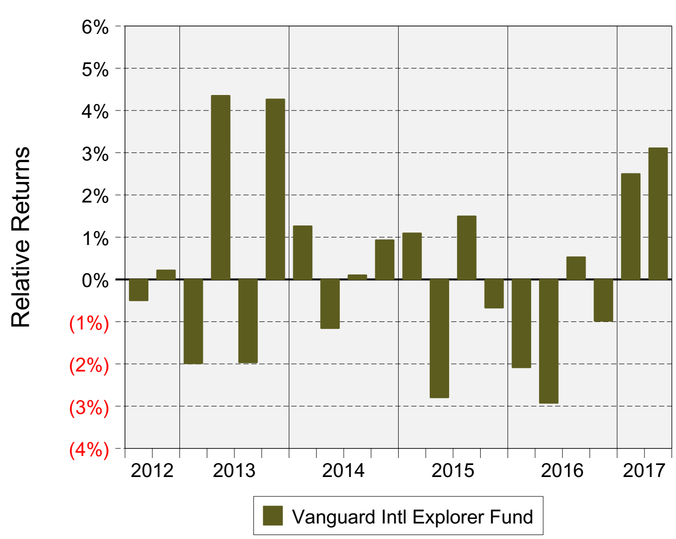
Beginning Market Value	$19,909,369
Net New Investment	$-5,000,000
Investment Gains/(Losses)	$2,083,290
Ending Market Value	$16,992,660

Performance vs CAI International Small Cap Mut Funds (Net)

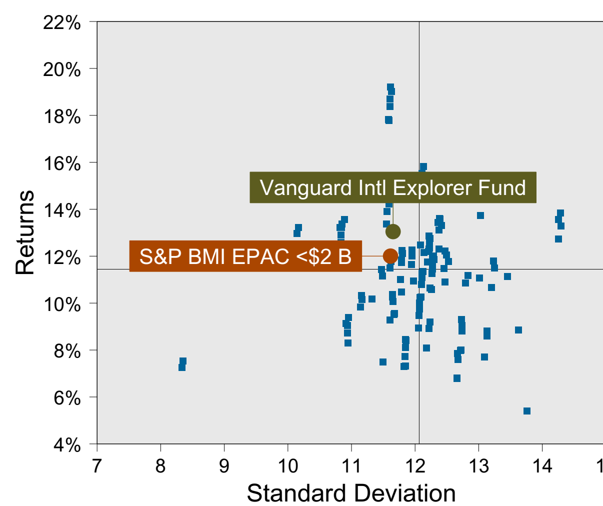


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14 Years
10th Percentile	10.87	26.83	10.15	7.25	13.81	5.42	13.85
25th Percentile	9.35	24.06	8.15	5.21	12.69	3.96	12.04
Median	8.61	21.60	6.50	3.59	11.44	3.08	10.49
75th Percentile	7.67	16.63	4.54	1.82	9.32	2.04	9.01
90th Percentile	6.25	14.86	3.21	0.80	7.89	1.33	8.28
Vanguard Intl Explorer Fund ●	10.44	26.60	8.35	5.69	13.05	3.45	10.93
S&P BMI EPAC <$2 B ▲	7.33	20.88	8.08	5.71	12.00	2.88	10.34

Relative Return vs S&P BMI EPAC <$2 B



CAI International Small Cap Mut Funds (Net)
Annualized Five Year Risk vs Return



William Blair
Period Ended June 30, 2017

Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

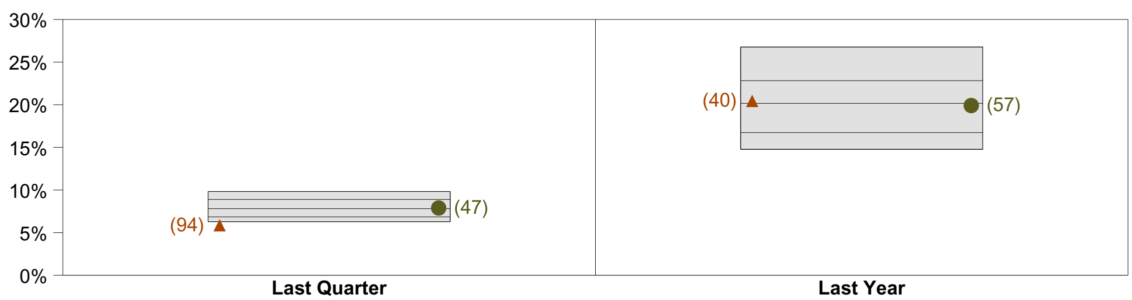
Quarterly Summary and Highlights

- William Blair's portfolio posted a 7.89% return for the quarter placing it in the 47 percentile of the CAI Non-US All Country Growth Equity group for the quarter and in the 57 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI ex US IMI by 2.04% for the quarter and underperformed the MSCI ACWI ex US IMI for the year by 0.53%.

Quarterly Asset Growth

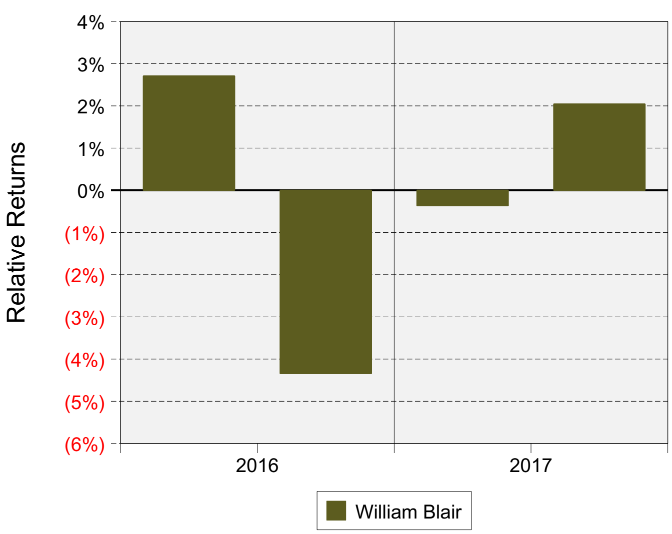
Beginning Market Value	$65,606,640
Net New Investment	$-65,194
Investment Gains/(Losses)	$5,172,756
Ending Market Value	$70,714,202

Performance vs CAI Non-US All Country Growth Equity (Gross)

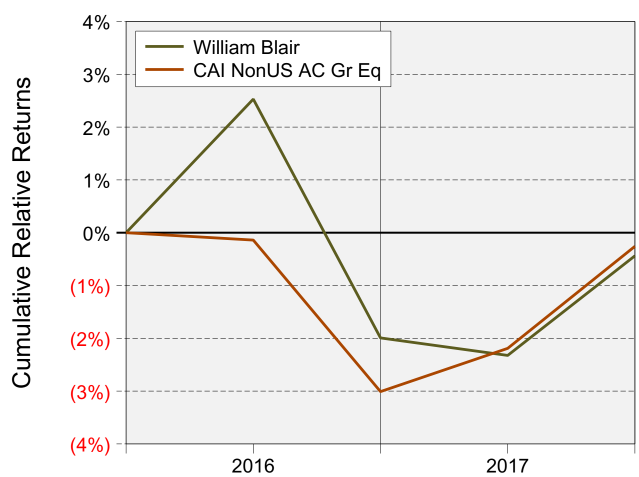


	Last Quarter	Last Year
10th Percentile	9.82	26.77
25th Percentile	8.89	22.82
Median	7.81	20.16
75th Percentile	6.85	16.73
90th Percentile	6.28	14.77
William Blair ●	7.89	19.91
MSCI ACWI ex US IMI ▲	5.85	20.43

Relative Return vs MSCI ACWI ex US IMI



Cumulative Returns vs MSCI ACWI ex US IMI



Domestic Fixed Income
Period Ended June 30, 2017

Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a 2.68% return for the quarter placing it in the 3 percentile of the Pub Pln- Domestic Fixed group for the quarter and in the 10 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Inc. Target by 1.23% for the quarter and outperformed the Domestic Fixed Inc. Target for the year by 5.15%.

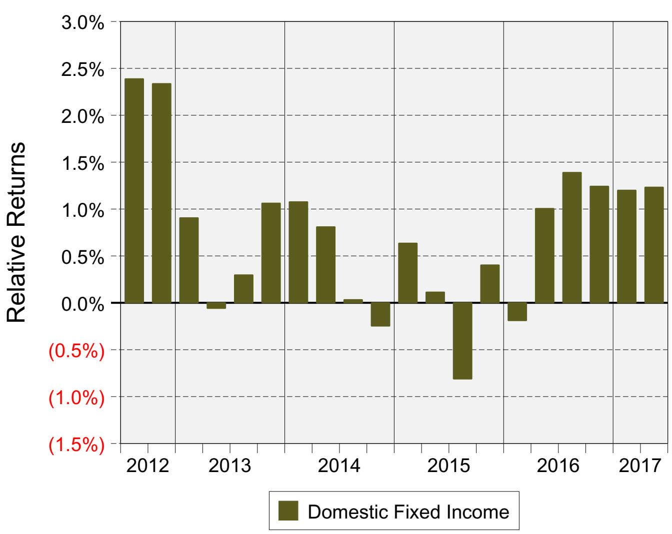
Quarterly Asset Growth

Beginning Market Value	$1,093,616,324
Net New Investment	$459,423
Investment Gains/(Losses)	$29,328,024
Ending Market Value	$1,123,403,771

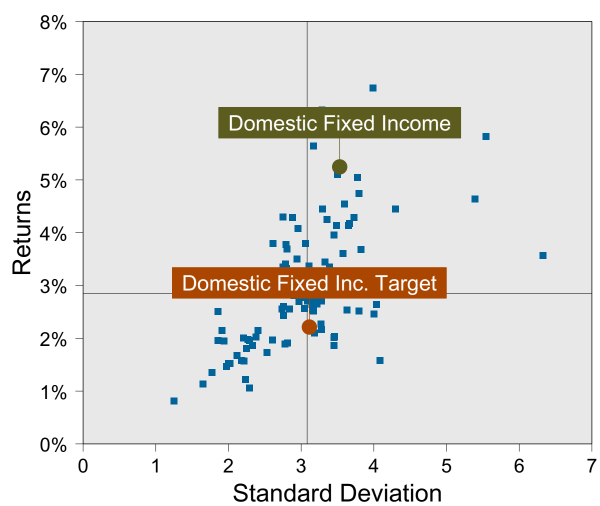
Performance vs Pub Pln- Domestic Fixed (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.97	4.91	4.61	3.99	4.43	6.07
25th Percentile	1.77	3.52	3.99	3.16	3.52	5.39
Median	1.56	1.48	3.44	2.78	2.85	4.95
75th Percentile	1.29	0.08	2.81	2.22	2.08	4.05
90th Percentile	0.95	(0.38)	2.06	1.95	1.59	3.56
Domestic Fixed Income ●	2.68	4.83	5.62	4.54	5.25	6.44
Domestic Fixed Inc. Target ▲	1.45	(0.31)	2.79	2.48	2.21	4.48

Relative Return vs Domestic Fixed Inc. Target



Pub Pln- Domestic Fixed (Gross) Annualized Five Year Risk vs Return



Declaration Total Return
Period Ended June 30, 2017

Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

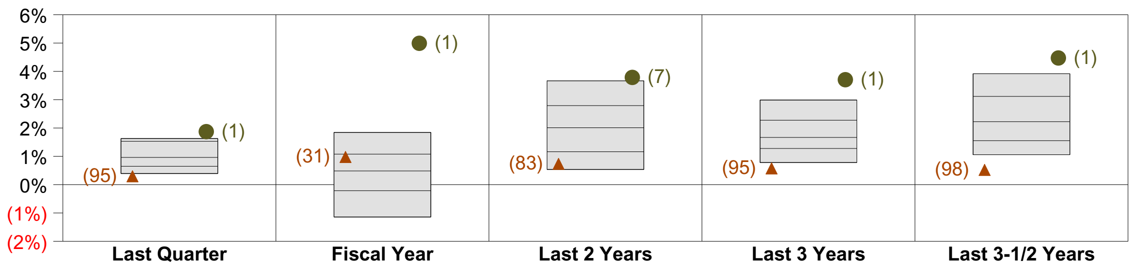
Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a 1.87% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed Income Mut Funds group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio outperformed the LIBOR - 3 Month by 1.58% for the quarter and outperformed the LIBOR - 3 Month for the year by 4.01%.

Quarterly Asset Growth

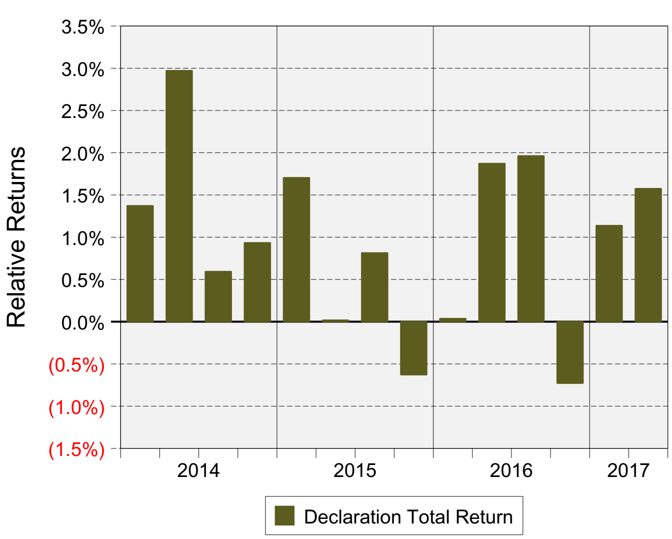
Beginning Market Value	$82,398,045
Net New Investment	$-29,944
Investment Gains/(Losses)	$1,542,457
Ending Market Value	$83,910,558

Performance vs CAI Intermediate Fixed Income Mut Funds (Net)

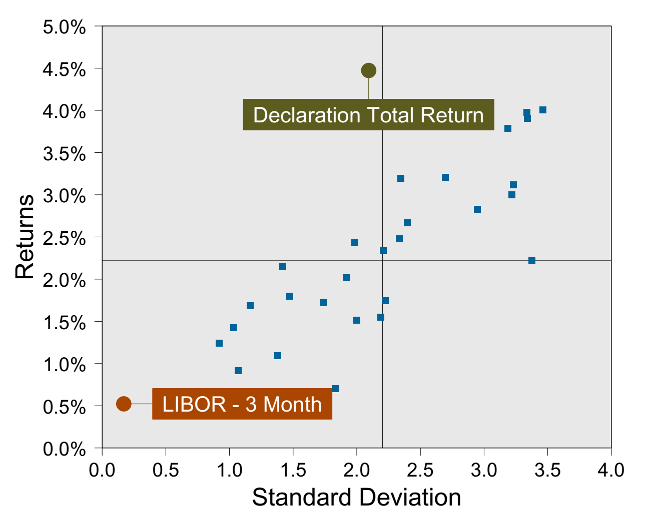


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.63	1.84	3.67	2.99	3.92
25th Percentile	1.53	1.08	2.79	2.28	3.12
Median	0.96	0.48	2.01	1.67	2.22
75th Percentile	0.65	(0.21)	1.16	1.28	1.55
90th Percentile	0.39	(1.14)	0.54	0.78	1.06
Declaration Total Return ●	1.87	4.99	3.79	3.71	4.47
LIBOR - 3 Month ▲	0.30	0.98	0.74	0.58	0.52

Relative Return vs LIBOR - 3 Month



CAI Intermediate Fixed Income Mut Funds (Net)
Annualized Three and One-Half Year Risk vs Return



PIMCO DiSCO II
Period Ended June 30, 2017

Investment Philosophy
The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

Quarterly Summary and Highlights
- PIMCO DiSCO II's portfolio posted a 4.52% return for the quarter placing it in the 1 percentile of the CAI Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 3.07% for the quarter and outperformed the Blmbg Aggregate for the year by 17.39%.

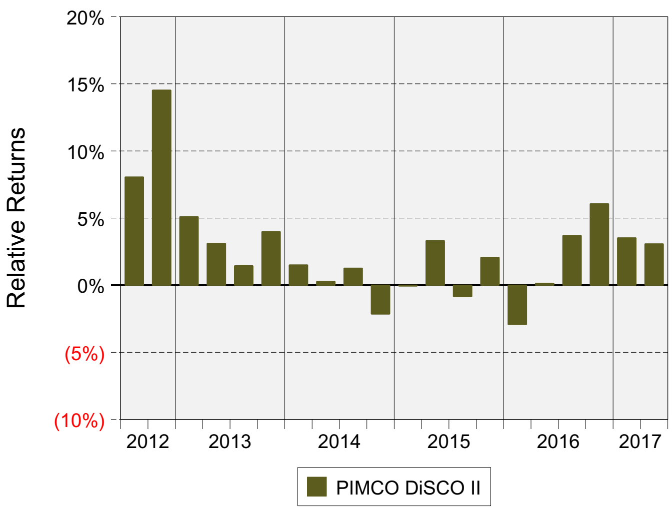
Quarterly Asset Growth

Beginning Market Value	$92,360,066
Net New Investment	$0
Investment Gains/(Losses)	$4,172,879
Ending Market Value	$96,532,945

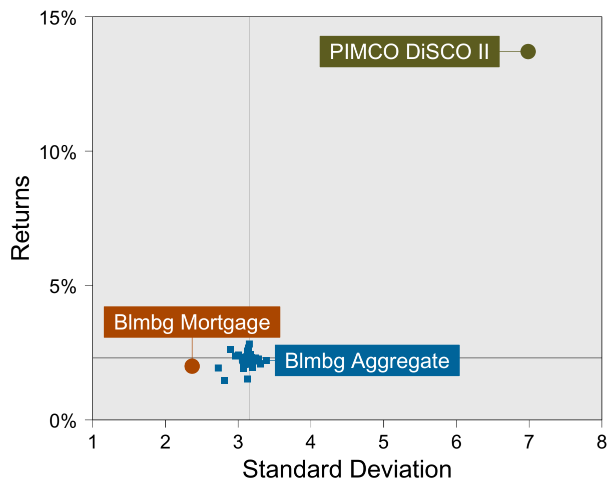
Performance vs CAI Core Bond Mutual Funds (Net)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-1/2 Years
10th Percentile	1.75	1.35	3.57	2.90	3.31	3.73
25th Percentile	1.62	0.94	3.02	2.50	2.61	2.96
Median	1.48	0.12	2.68	2.21	2.31	2.71
75th Percentile	1.33	(0.19)	2.45	2.07	2.08	2.37
90th Percentile	1.20	(0.50)	2.26	1.91	1.67	2.05
PIMCO DiSCO II ● A	4.52	17.08	10.55	8.43	13.70	15.30
Blmbg Mortgage ■ B	0.87	(0.06)	2.12	2.17	2.00	2.12
Blmbg Aggregate ▲	1.45	(0.31)	2.79	2.48	2.21	2.45

Relative Return vs Blmbg Aggregate



CAI Core Bond Mutual Funds (Net)
Annualized Five Year Risk vs Return



PIMCO Bravo II Fund
Period Ended June 30, 2017

Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe.

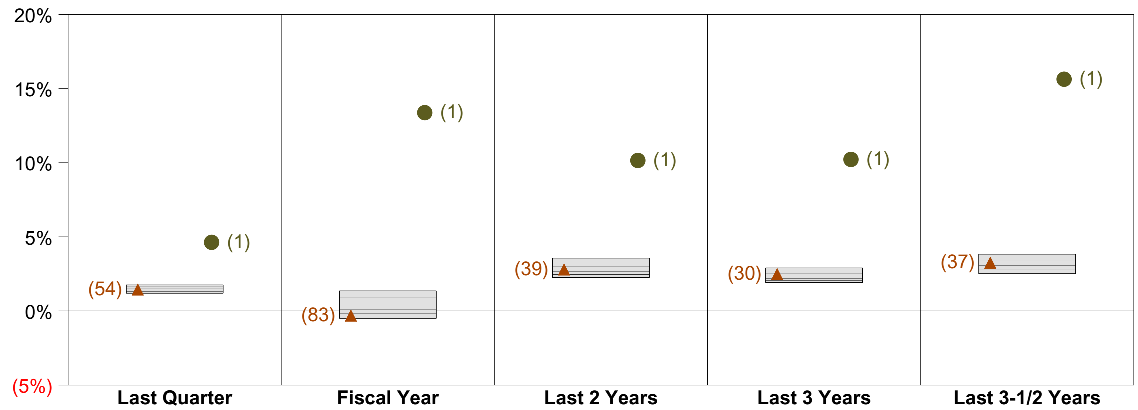
Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 4.63% return for the quarter placing it in the 1 percentile of the CAI Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Blmbg Aggregate by 3.18% for the quarter and outperformed the Blmbg Aggregate for the year by 13.69%.

Quarterly Asset Growth

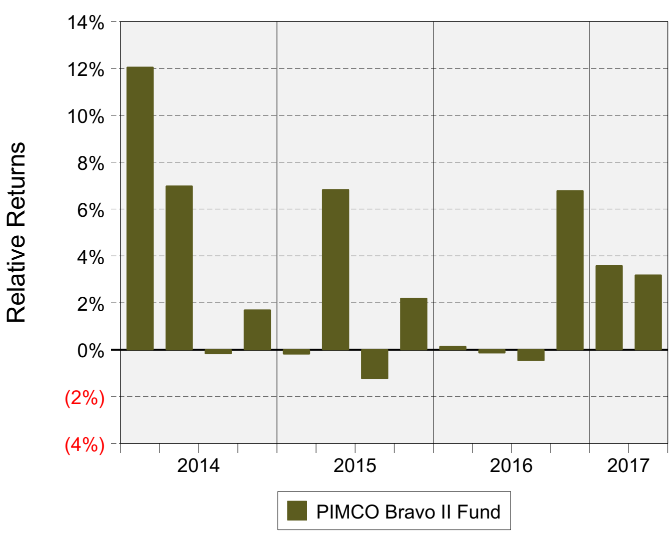
Beginning Market Value	$54,769,318
Net New Investment	$0
Investment Gains/(Losses)	$2,534,921
Ending Market Value	$57,304,239

Performance vs CAI Core Bond Mutual Funds (Net)

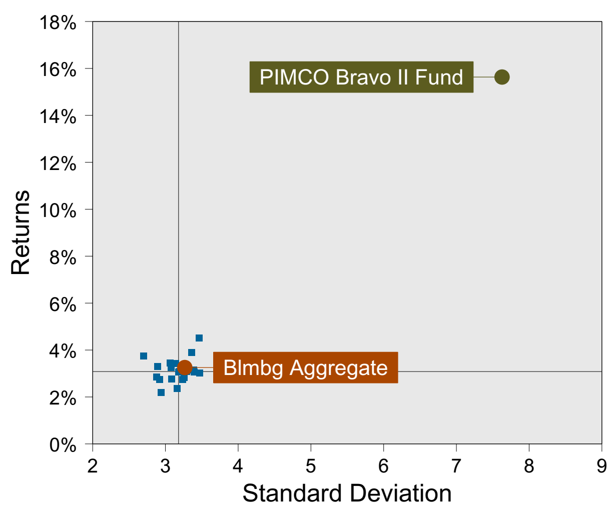


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.75	1.35	3.57	2.90	3.83
25th Percentile	1.62	0.94	3.02	2.50	3.37
Median	1.48	0.12	2.68	2.21	3.08
75th Percentile	1.33	(0.19)	2.45	2.07	2.83
90th Percentile	1.20	(0.50)	2.26	1.91	2.51
PIMCO Bravo II Fund ●	4.63	13.38	10.15	10.22	15.63
Blmbg Aggregate ▲	1.45	(0.31)	2.79	2.48	3.25

Relative Return vs Blmbg Aggregate



CAI Core Bond Mutual Funds (Net)
Annualized Three and One-Half Year Risk vs Return



Prudential
Period Ended June 30, 2017

Investment Philosophy

The core plus fixed income account is a multi-sector strategy that is diversified across a broad range of fixed income sectors, including Treasuries, agencies, mortgage-backed securities, structured product (asset-backed securities, commercial mortgage-backed securities), investment grade corporate bonds, high yield bonds, bank loans and international debt. The primary sources of excess return are sector allocation and security selection, with duration and yield curve less of a focus.

Quarterly Summary and Highlights

- Prudential's portfolio posted a 2.48% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed Income group for the quarter and in the 2 percentile for the last year.
- Prudential's portfolio outperformed the Blmbg Aggregate by 1.03% for the quarter and outperformed the Blmbg Aggregate for the year by 3.11%.

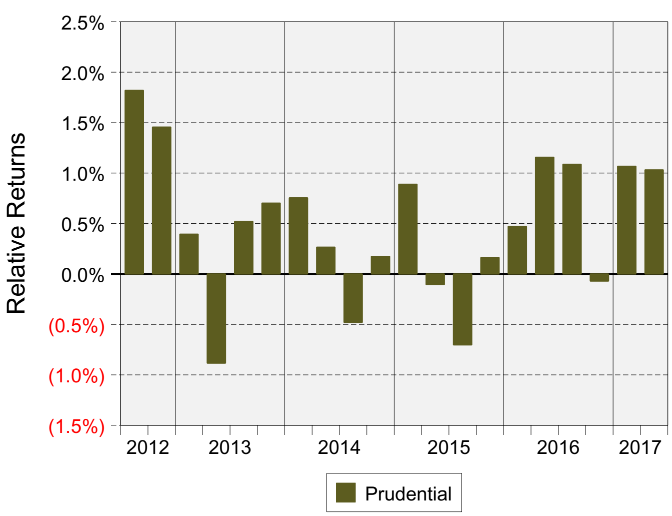
Quarterly Asset Growth

Beginning Market Value	$112,574,944
Net New Investment	$-74,451
Investment Gains/(Losses)	$2,787,723
Ending Market Value	$115,288,216

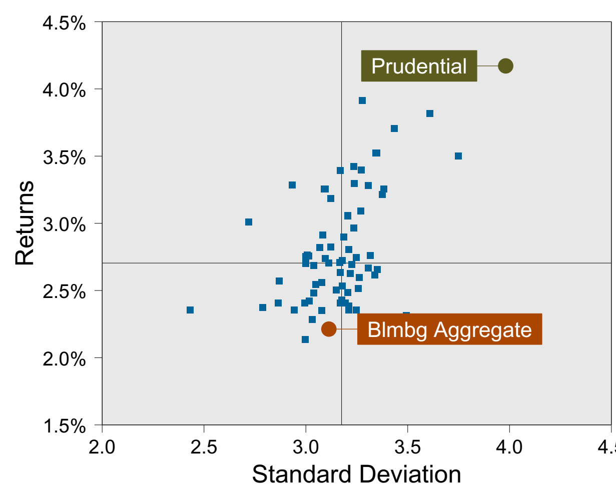
Performance vs CAI Core Bond Fixed Income (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 10-3/4 Years
10th Percentile	1.77	1.58	3.93	3.31	3.42	5.70	5.46
25th Percentile	1.66	0.95	3.61	3.07	3.09	5.40	5.24
Median	1.54	0.37	3.20	2.90	2.70	5.04	4.93
75th Percentile	1.45	(0.07)	2.97	2.67	2.43	4.80	4.71
90th Percentile	1.35	(0.39)	2.79	2.37	2.35	4.50	4.42
Prudential ●	2.48	2.79	4.93	4.06	4.17	6.46	6.29
Blmbg Aggregate ▲	1.45	(0.31)	2.79	2.48	2.21	4.48	4.37

Relative Return vs Blmbg Aggregate



CAI Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return



SSgA US Govt Cr Bd Index
Period Ended June 30, 2017

Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Barclays Capital U.S. Government/Credit Bond Index over the long term.

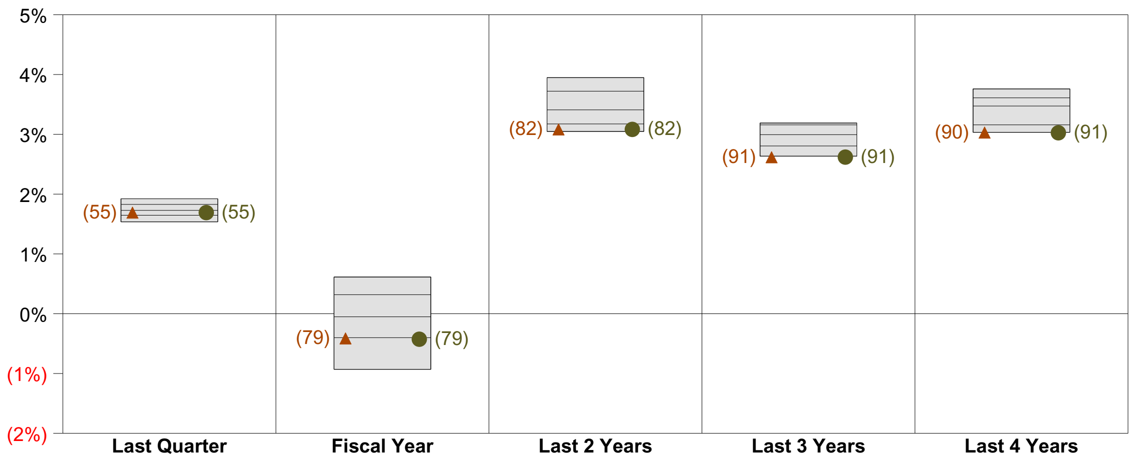
Quarterly Summary and Highlights

- SSgA US Govt Cr Bd Index's portfolio posted a 1.69% return for the quarter placing it in the 55 percentile of the CAI Government/Credit group for the quarter and in the 79 percentile for the last year.
- SSgA US Govt Cr Bd Index's portfolio outperformed the Blmbg Gov/Credit by 0.00% for the quarter and underperformed the Blmbg Gov/Credit for the year by 0.01%.

Quarterly Asset Growth

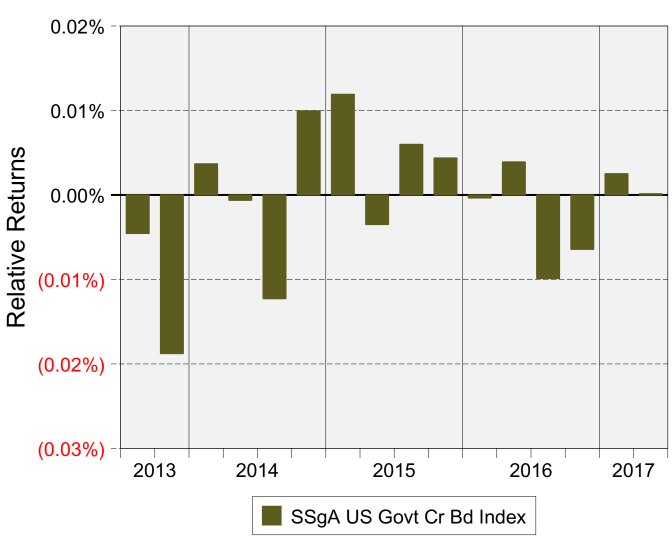
Beginning Market Value	$141,933,546
Net New Investment	$-2,512,043
Investment Gains/(Losses)	$2,422,782
Ending Market Value	$141,844,286

Performance vs CAI Government/Credit (Gross)

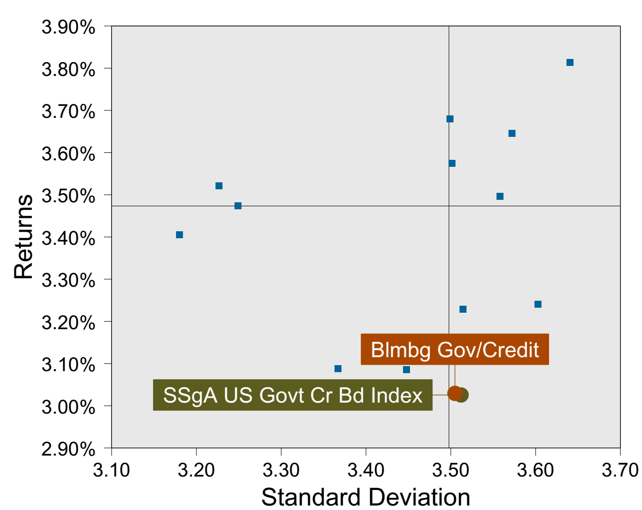


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 4 Years
10th Percentile	1.92	0.61	3.95	3.19	3.76
25th Percentile	1.83	0.32	3.72	3.16	3.61
Median	1.73	(0.05)	3.41	2.99	3.47
75th Percentile	1.65	(0.40)	3.17	2.81	3.16
90th Percentile	1.54	(0.93)	3.05	2.64	3.03
SSgA US Govt Cr Bd Index ●	1.69	(0.43)	3.08	2.62	3.03
Blmbg Gov/Credit ▲	1.69	(0.41)	3.08	2.62	3.03

Relative Return vs Blmbg Gov/Credit



CAI Government/Credit (Gross)
Annualized Four Year Risk vs Return



Investment Philosophy

The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. The investment process for this fund starts with a "top-down" strategy. Security selection is determined by in-depth credit research, holding that in-depth knowledge of industries, companies, and their management teams can help identify credit trends that can lead to investment opportunities. Furthermore, a disciplined relative value framework is applied to help determine the optimal position to invest within an industry and within an individual issuer's capital structure.

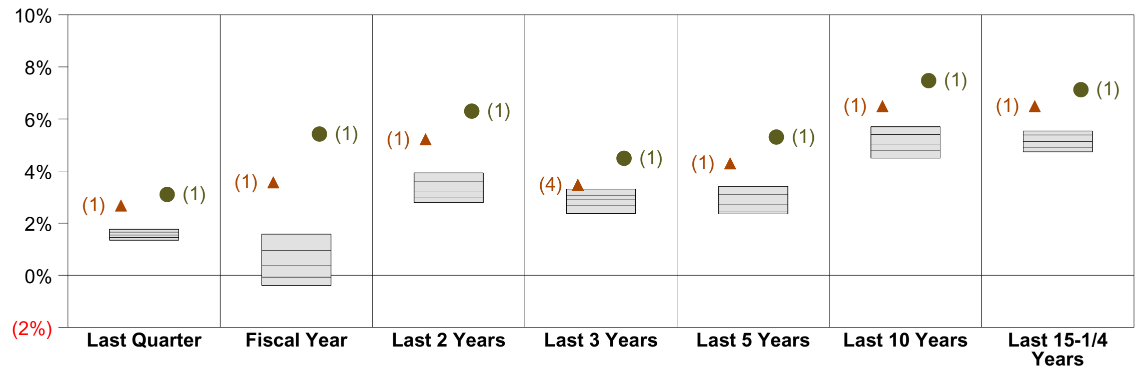
Quarterly Summary and Highlights

- Wells Capital's portfolio posted a 3.10% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed Income group for the quarter and in the 1 percentile for the last year.
- Wells Capital's portfolio outperformed the Blmbg Baa Cred 3% Iss Cap by 0.42% for the quarter and outperformed the Blmbg Baa Cred 3% Iss Cap for the year by 1.86%.

Quarterly Asset Growth

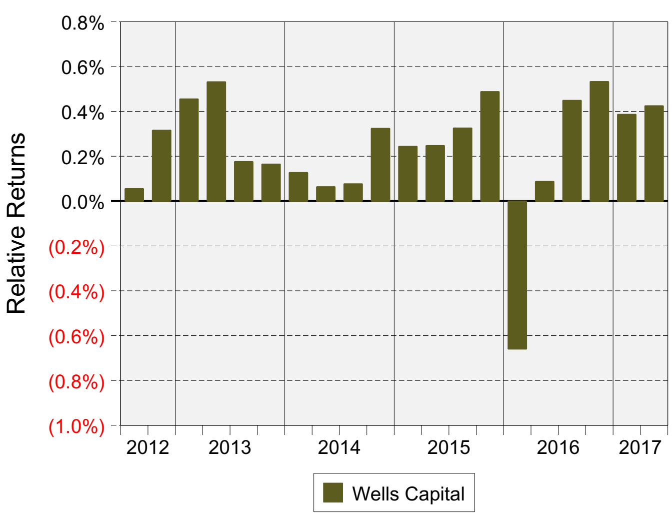
Beginning Market Value	$304,986,490
Net New Investment	$-121,585
Investment Gains/(Losses)	$9,459,316
Ending Market Value	$314,324,221

Performance vs CAI Core Bond Fixed Income (Gross)

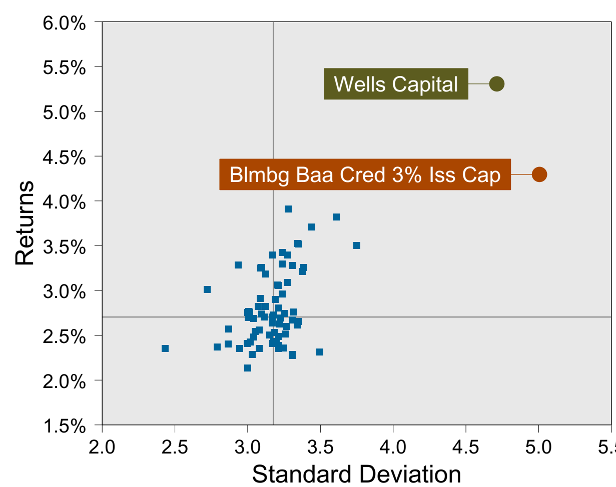


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 15-1/4 Years
10th Percentile	1.77	1.58	3.93	3.31	3.42	5.70	5.54
25th Percentile	1.66	0.95	3.61	3.07	3.09	5.40	5.39
Median	1.54	0.37	3.20	2.90	2.70	5.04	5.14
75th Percentile	1.45	(0.07)	2.97	2.67	2.43	4.80	4.92
90th Percentile	1.35	(0.39)	2.79	2.37	2.35	4.50	4.74
Wells Capital ●	3.10	5.42	6.30	4.49	5.31	7.47	7.13
Blmbg Baa Cred 3% Iss Cap ▲	2.68	3.57	5.22	3.47	4.30	6.49	6.49

Relative Returns vs Blmbg Baa Cred 3% Iss Cap



CAI Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return



Western Asset Management Company
Period Ended June 30, 2017

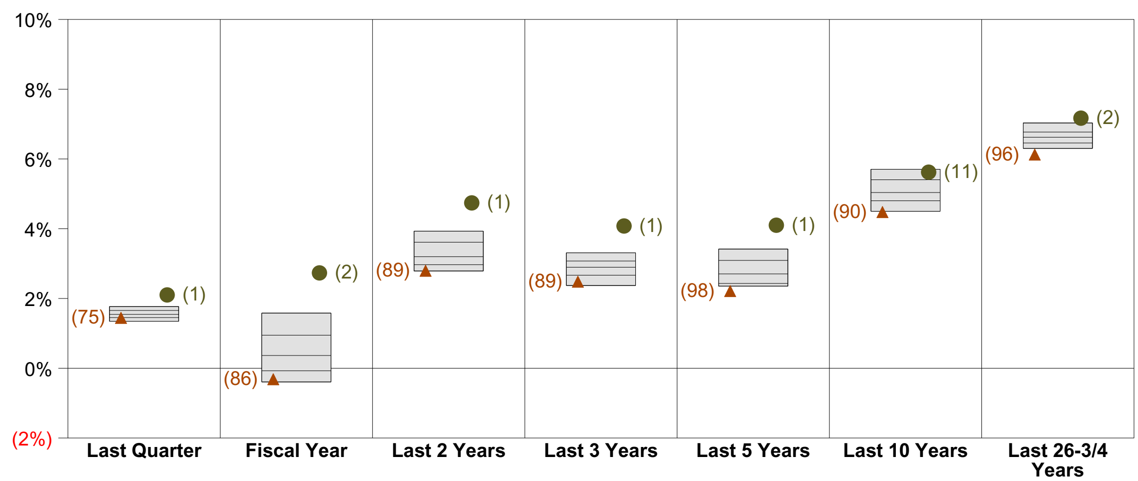
Investment Philosophy
Western Asset designs this portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.

Quarterly Summary and Highlights
- Western Asset's portfolio posted a 2.10% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed Income group for the quarter and in the 2 percentile for the last year.
- Western Asset's portfolio outperformed the Blmbg Aggregate by 0.66% for the quarter and outperformed the Blmbg Aggregate for the year by 3.05%.

Quarterly Asset Growth

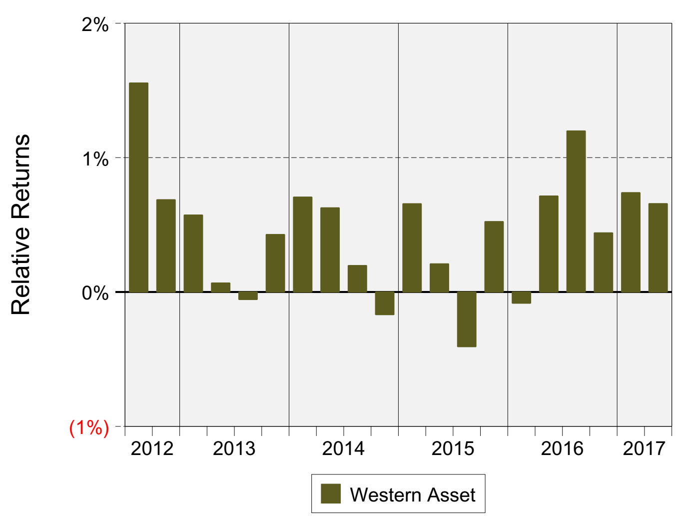
Beginning Market Value	$304,593,914
Net New Investment	$3,197,446
Investment Gains/(Losses)	$6,407,946
Ending Market Value	$314,199,305

Performance vs CAI Core Bond Fixed Income (Gross)

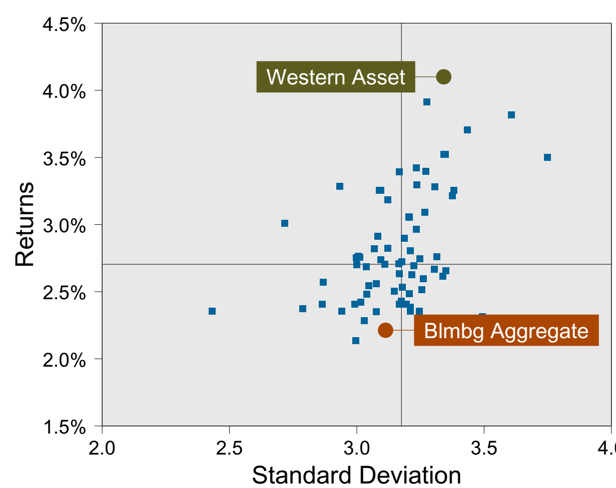


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 26-3/4 Years
10th Percentile	1.77	1.58	3.93	3.31	3.42	5.70	7.03
25th Percentile	1.66	0.95	3.61	3.07	3.09	5.40	6.77
Median	1.54	0.37	3.20	2.90	2.70	5.04	6.62
75th Percentile	1.45	(0.07)	2.97	2.67	2.43	4.80	6.46
90th Percentile	1.35	(0.39)	2.79	2.37	2.35	4.50	6.30
Western Asset ●	2.10	2.73	4.74	4.08	4.10	5.62	7.17
Blmbg Aggregate ▲	1.45	(0.31)	2.79	2.48	2.21	4.48	6.13

Relative Return vs Blmbg Aggregate



CAI Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return



Western TIPS
Period Ended June 30, 2017

Investment Philosophy

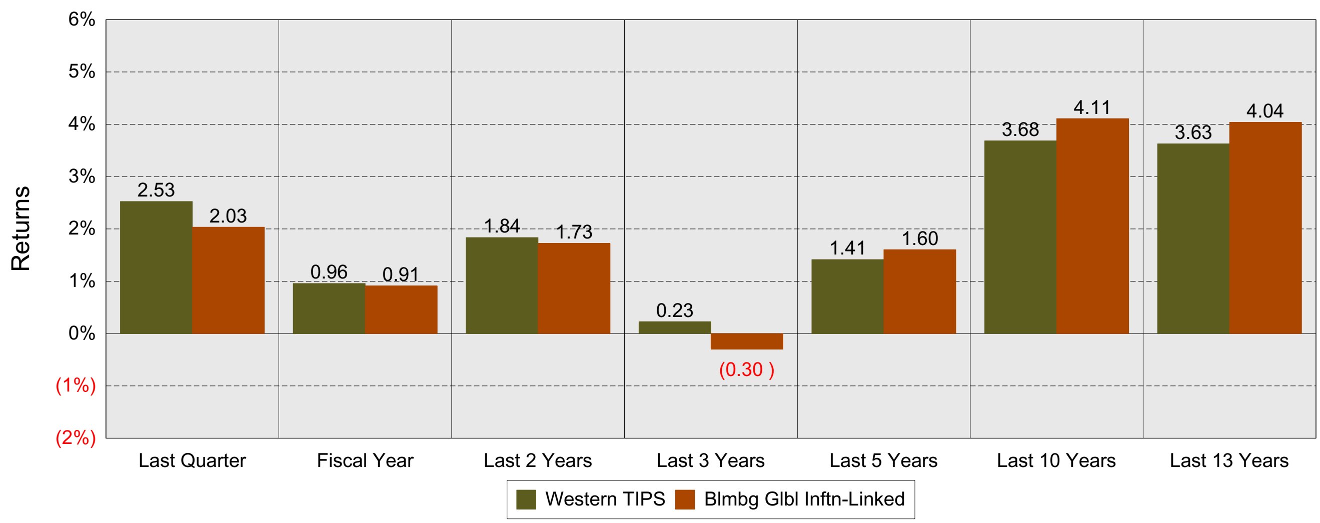
Western Asset's Global Inflation-Linked composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. Constructed primarily of inflation-indexed securities, these portfolios use diversified strategies in seeking to add value while minimizing risk. Value can be added through country selection, term structure, issue selection, duration management and currency management. **Bloomberg US TIPS through 12/31/2009 and Bloomberg Global Inflation-Linked thereafter.**

Quarterly Summary and Highlights

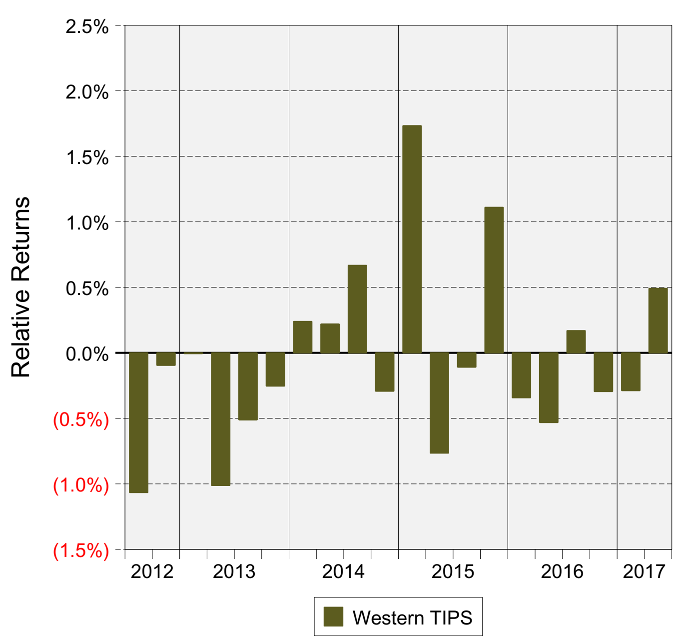
- Western TIPS's portfolio outperformed the Blmbg Glbl Inftn-Linked by 0.49% for the quarter and outperformed the Blmbg Glbl Inftn-Linked for the year by 0.05%.

Quarterly Asset Growth

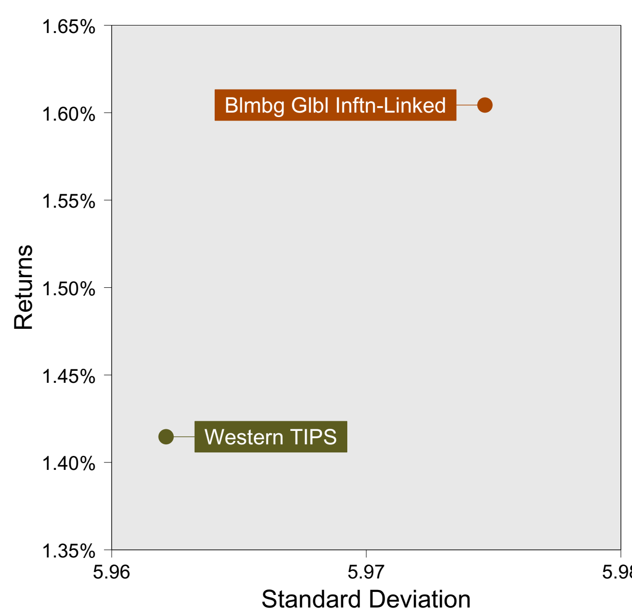
Beginning Market Value	$111,255,799
Net New Investment	$-37,459
Investment Gains/(Losses)	$2,809,220
Ending Market Value	$114,027,560



Relative Return vs Blmbg Glbl Inftn-Linked



Annualized Five Year Risk vs Return



Eastern Timber Opportunities
Period Ended June 30, 2017

Investment Philosophy

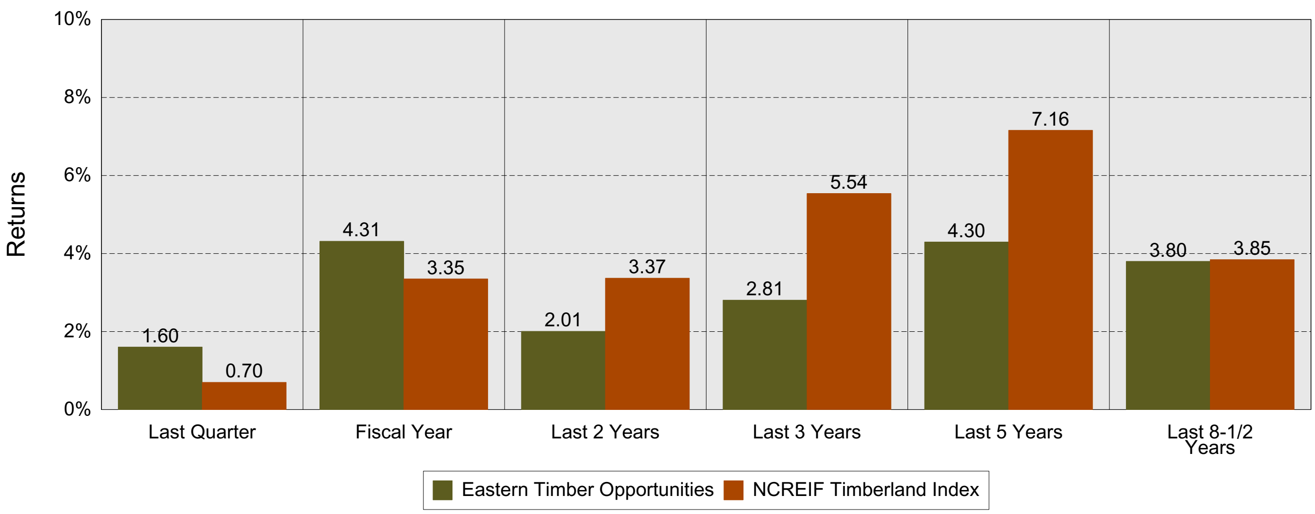
The investment objective of the Eastern Timberland Opportunities fund is to provide competitive timberland investment returns from Eastern US timberland investments by pursuing management strategies to increase timber production and land values through the investment term. TIR will maximize timber values within the portfolio with the application of intensive forest management techniques to accelerate the growth in timber volume and movement into higher value product categories. Additional value will be captured by realizing higher and better use opportunities for select timberland properties throughout the portfolio.

Quarterly Summary and Highlights

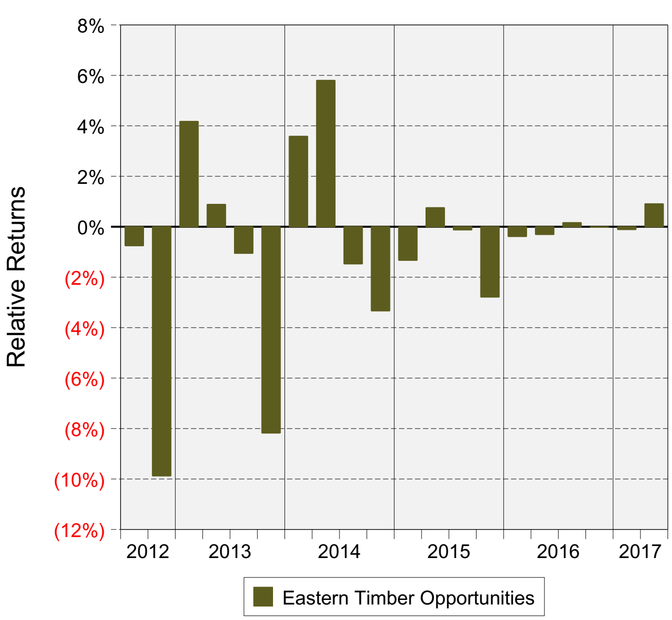
- Eastern Timber Opportunities's portfolio outperformed the NCREIF Timberland Index by 0.91% for the quarter and outperformed the NCREIF Timberland Index for the year by 0.96%.

Quarterly Asset Growth

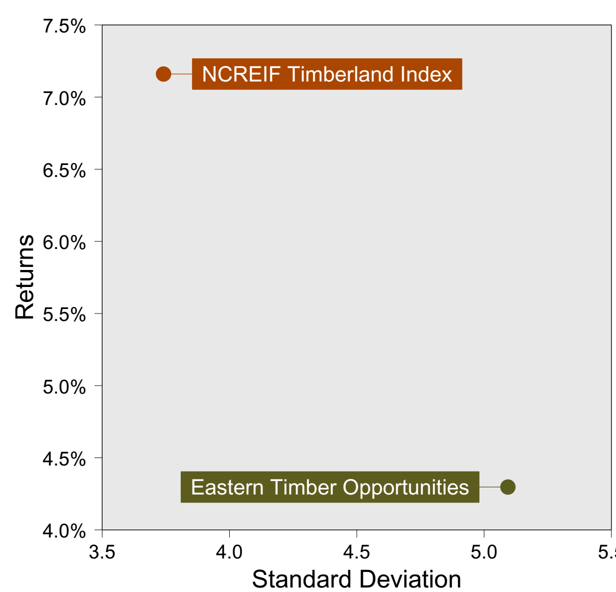
Beginning Market Value	$55,136,330
Net New Investment	$-652,554
Investment Gains/(Losses)	$865,628
Ending Market Value	$55,349,404



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return



JP Morgan Infrastructure
Period Ended June 30, 2017

Investment Philosophy

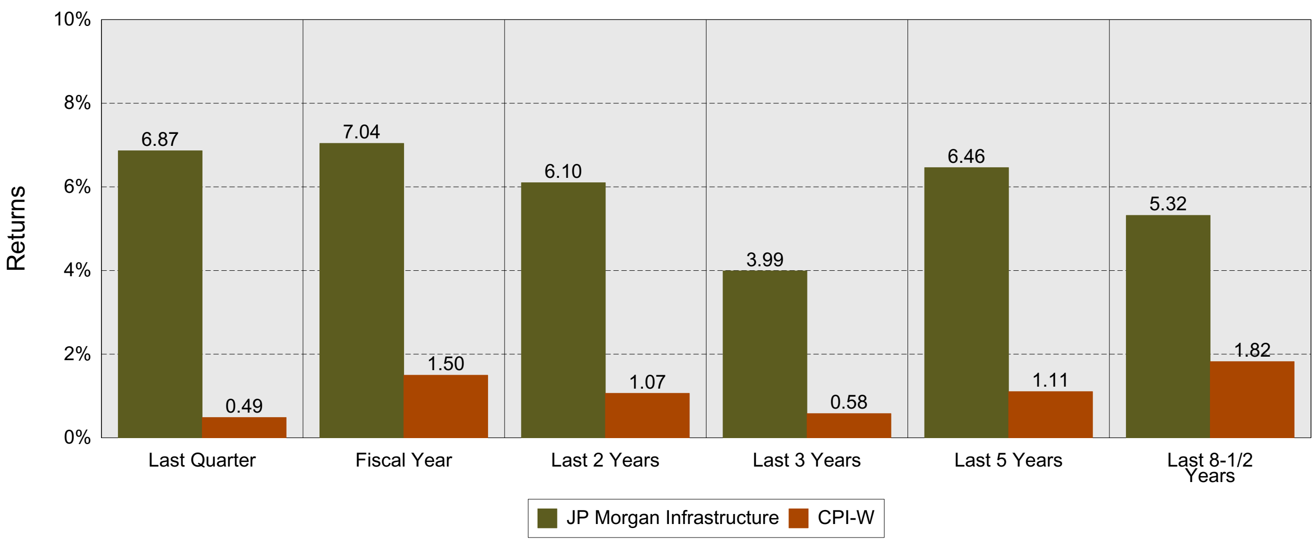
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports.

Quarterly Summary and Highlights

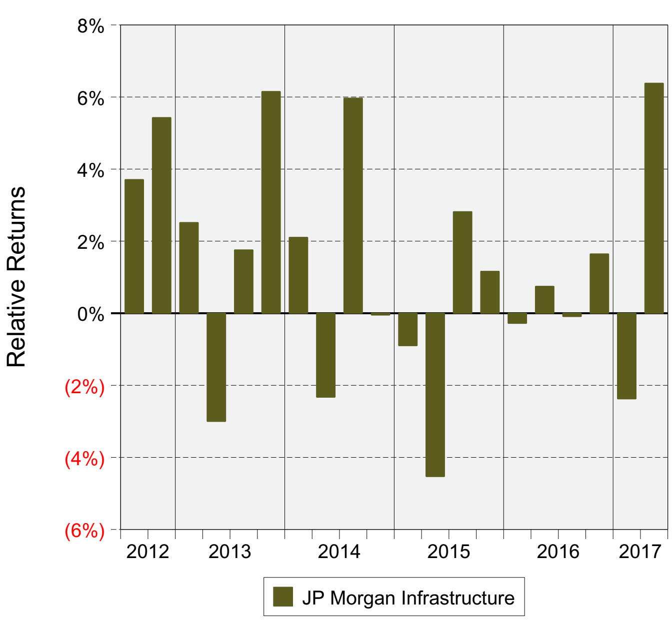
- JP Morgan Infrastructure's portfolio outperformed the CPI-W by 6.38% for the quarter and outperformed the CPI-W for the year by 5.54%.

Quarterly Asset Growth

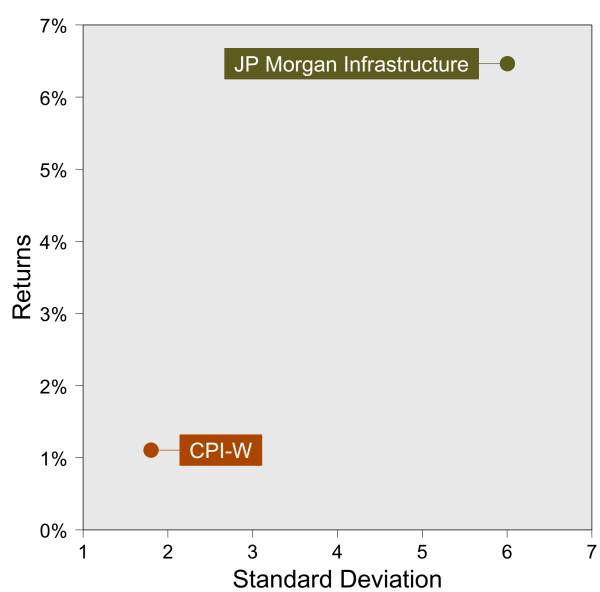
Beginning Market Value	$80,127,112
Net New Investment	$-329,643
Investment Gains/(Losses)	$5,494,534
Ending Market Value	$85,292,003



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



Grosvenor Cust. Infrastructure
Period Ended June 30, 2017

Investment Philosophy

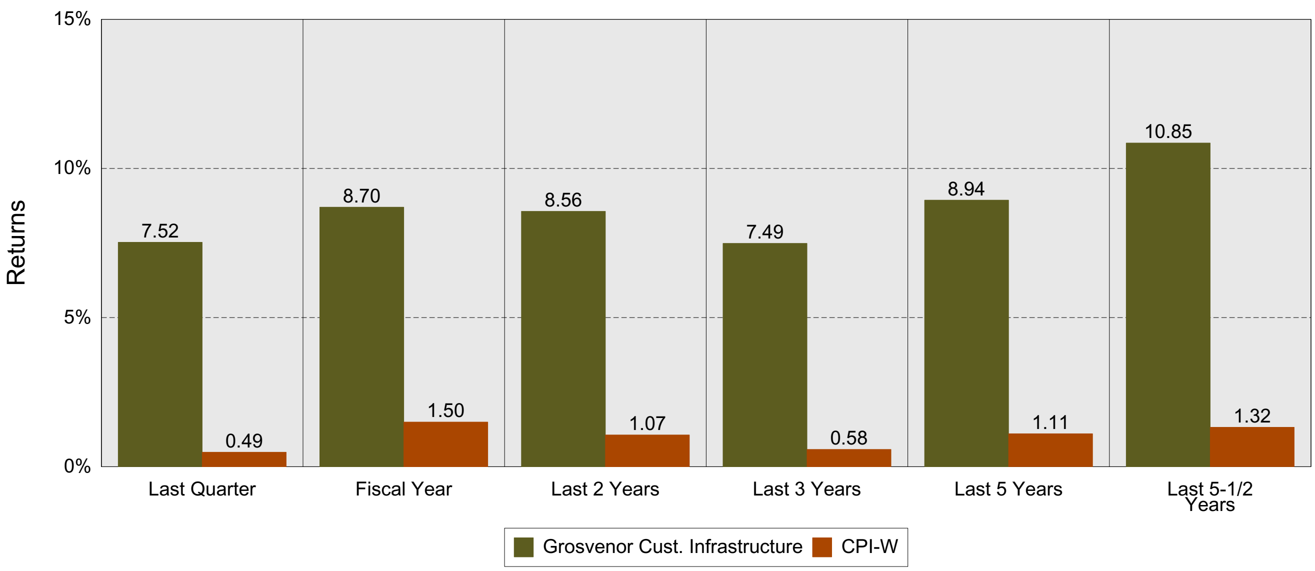
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

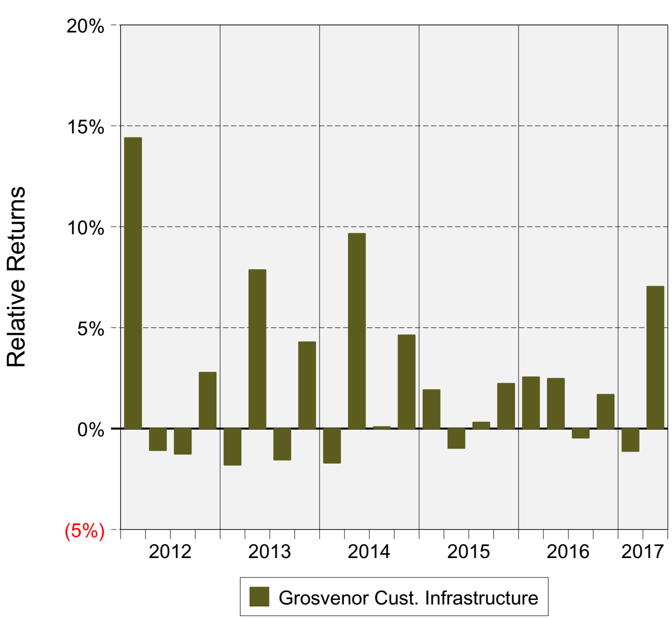
- Grosvenor Cust. Infrastructure's portfolio outperformed the CPI-W by 7.04% for the quarter and outperformed the CPI-W for the year by 7.20%.

Quarterly Asset Growth

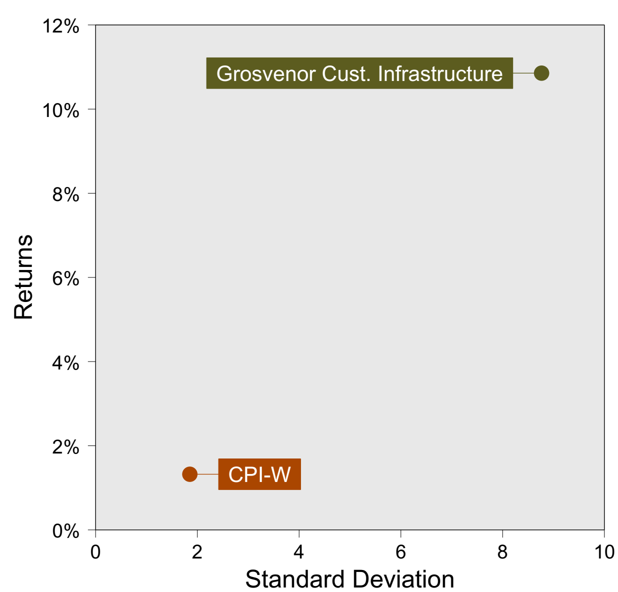
Beginning Market Value	$17,349,892
Net New Investment	$91,219
Investment Gains/(Losses)	$1,312,497
Ending Market Value	$18,753,608



Relative Return vs CPI-W



Annualized Five and One-Half Year Risk vs Return



Real Estate
Period Ended June 30, 2017

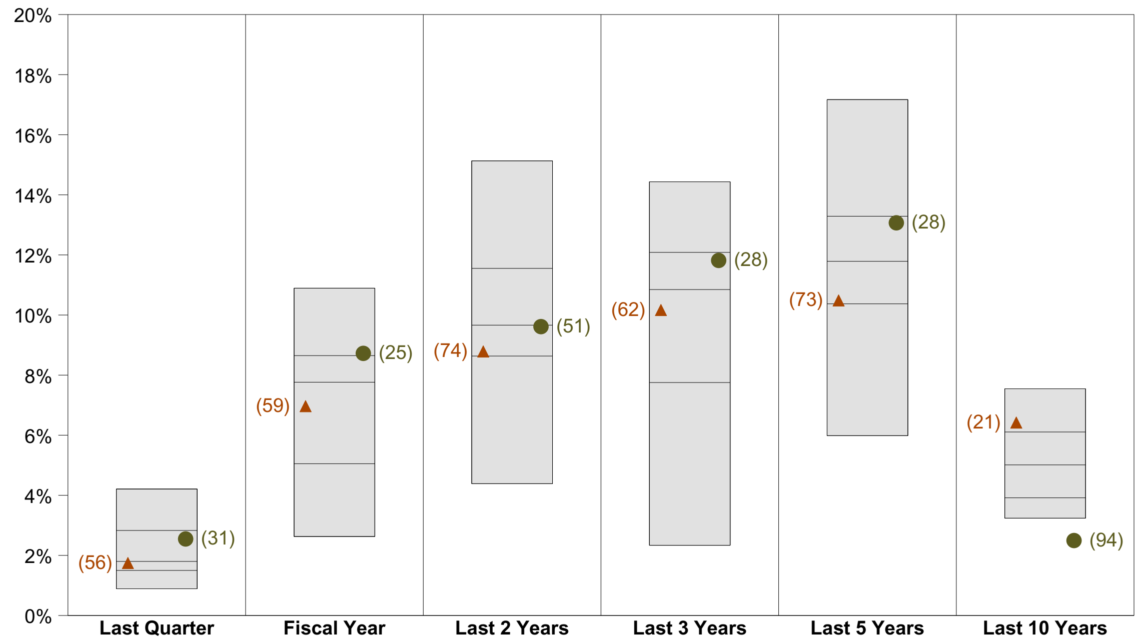
Quarterly Summary and Highlights

- Real Estate's portfolio posted a 2.55% return for the quarter placing it in the 31 percentile of the CAI Total Real Estate Database group for the quarter and in the 25 percentile for the last year.
- Real Estate's portfolio outperformed the NCREIF Total Index by 0.80% for the quarter and outperformed the NCREIF Total Index for the year by 1.76%.

Quarterly Asset Growth

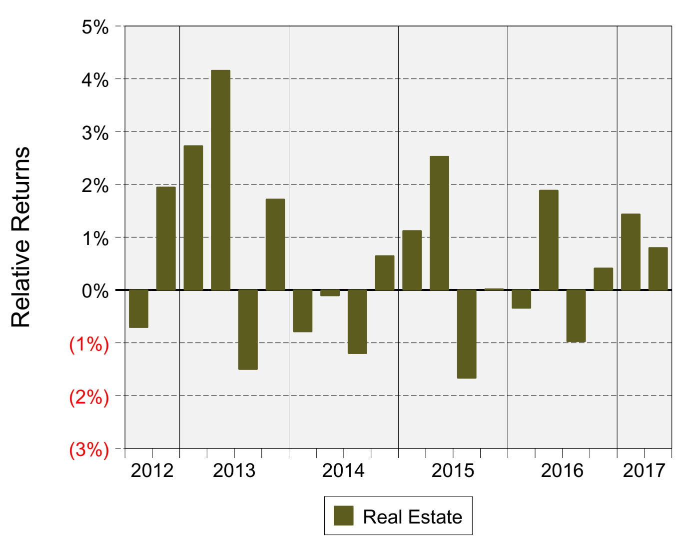
Beginning Market Value	$136,762,074
Net New Investment	$-1,771,167
Investment Gains/(Losses)	$3,458,669
Ending Market Value	$138,449,576

Performance vs CAI Total Real Estate Database (Gross)

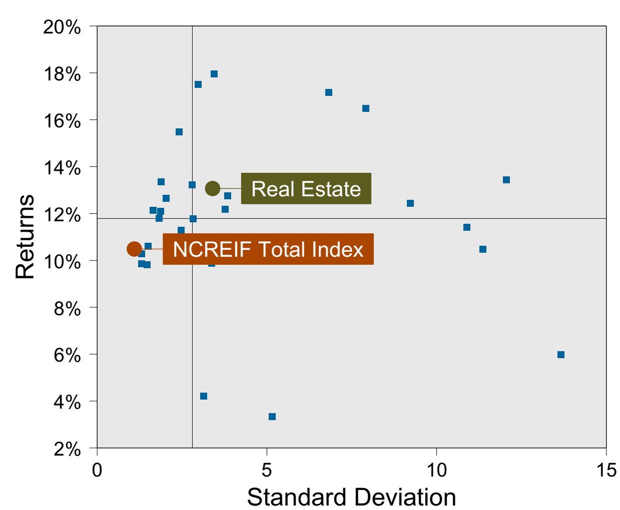


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	4.21	10.89	15.13	14.43	17.17	7.55
25th Percentile	2.83	8.65	11.55	12.09	13.29	6.11
Median	1.80	7.76	9.66	10.85	11.79	5.01
75th Percentile	1.50	5.05	8.64	7.75	10.37	3.92
90th Percentile	0.89	2.63	4.39	2.34	5.99	3.24
Real Estate ●	2.55	8.72	9.61	11.82	13.07	2.50
NCREIF Total Index ▲	1.75	6.97	8.79	10.17	10.49	6.42

Relative Return vs NCREIF Total Index



CAI Total Real Estate Database (Gross) Annualized Five Year Risk vs Return



Invesco Core Real Estate
Period Ended June 30, 2017

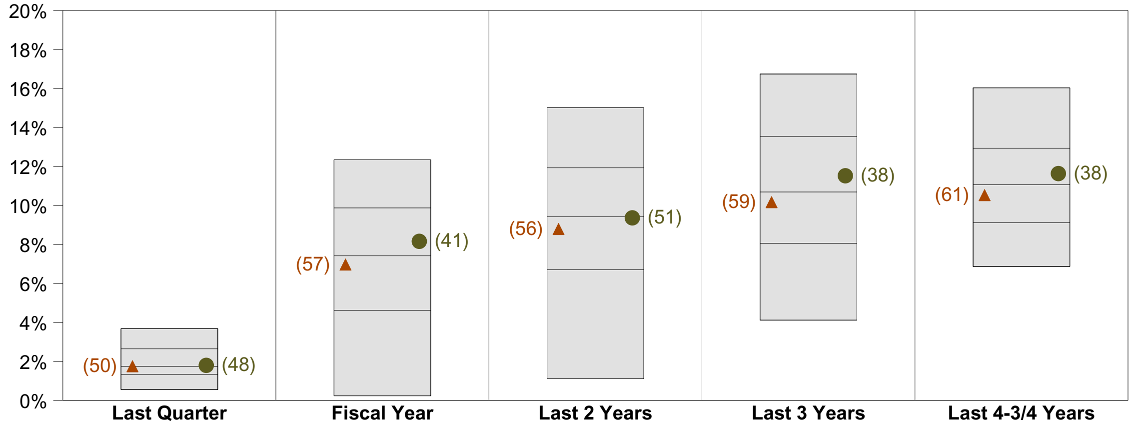
Investment Philosophy
IRE's investment philosophy is comprised of two fundamental principles: (1) maximize the predictability and consistency of investment returns and (2) minimize the risk of capital loss. This philosophy forms the cornerstone of the company's real estate investment philosophy.

Quarterly Summary and Highlights
- Invesco Core Real Estate's portfolio posted a 1.79% return for the quarter placing it in the 48 percentile of the CAI Total Real Estate Database group for the quarter and in the 41 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 0.05% for the quarter and outperformed the NCREIF Total Index for the year by 1.19%.

Quarterly Asset Growth

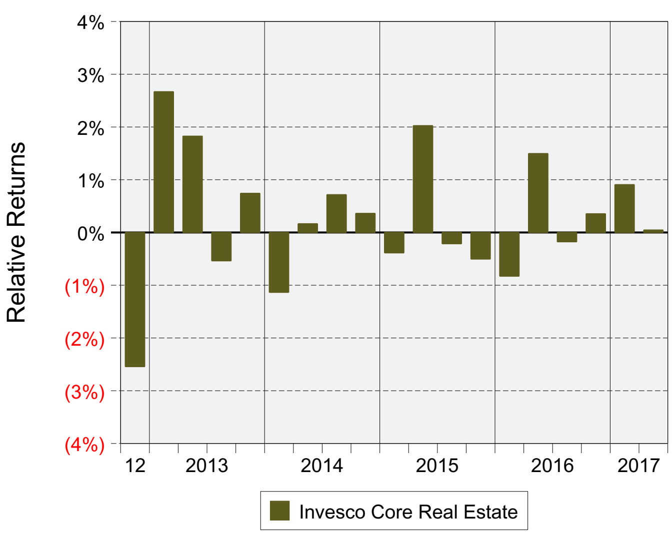
Beginning Market Value	$64,801,064
Net New Investment	$-472,743
Investment Gains/(Losses)	$1,152,734
Ending Market Value	$65,481,054

Performance vs CAI Total Real Estate Database (Net)

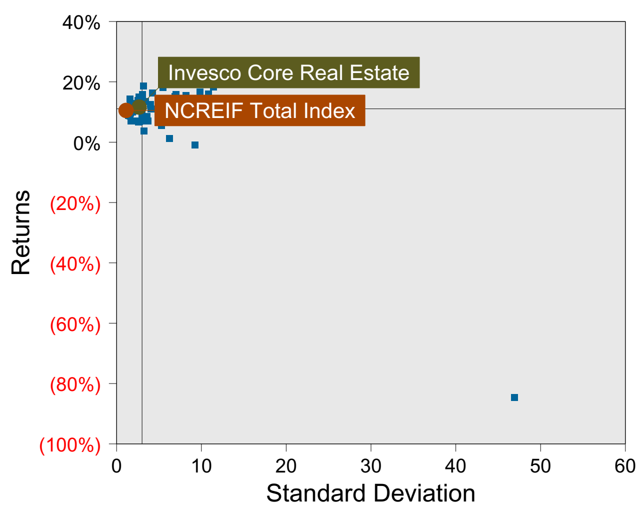


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 4-3/4 Years
10th Percentile	3.68	12.34	15.02	16.74	16.03
25th Percentile	2.64	9.87	11.93	13.54	12.94
Median	1.74	7.41	9.42	10.69	11.06
75th Percentile	1.33	4.62	6.70	8.06	9.12
90th Percentile	0.55	0.23	1.11	4.11	6.87
Invesco Core Real Estate ●	1.79	8.16	9.36	11.52	11.63
NCREIF Total Index ▲	1.75	6.97	8.79	10.17	10.53

Relative Return vs NCREIF Total Index



CAI Total Real Estate Database (Net)
Annualized Four and Three-Quarter Year Risk vs Return



JP Morgan Real Estate
Period Ended June 30, 2017

Investment Philosophy

The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy and pursues all property investments on an opportunistic basis. The majority of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors.

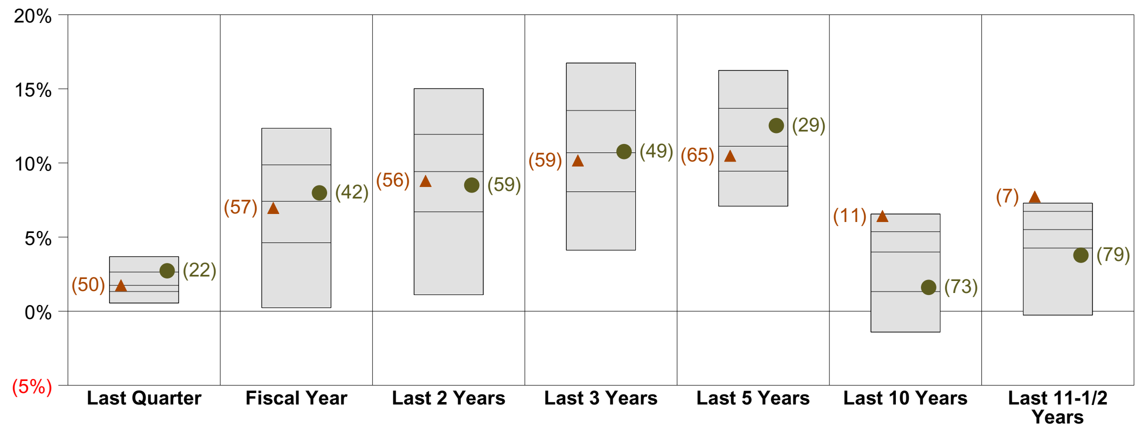
Quarterly Summary and Highlights

- JP Morgan Real Estate's portfolio posted a 2.72% return for the quarter placing it in the 22 percentile of the CAI Total Real Estate Database group for the quarter and in the 42 percentile for the last year.
- JP Morgan Real Estate's portfolio outperformed the NCREIF Total Index by 0.98% for the quarter and outperformed the NCREIF Total Index for the year by 1.02%.

Quarterly Asset Growth

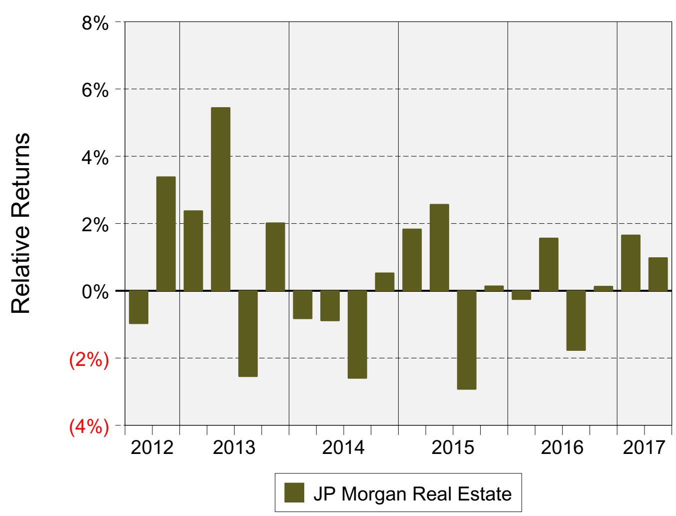
Beginning Market Value	$71,961,010
Net New Investment	$-944,132
Investment Gains/(Losses)	$1,951,644
Ending Market Value	$72,968,522

Performance vs CAI Total Real Estate Database (Net)

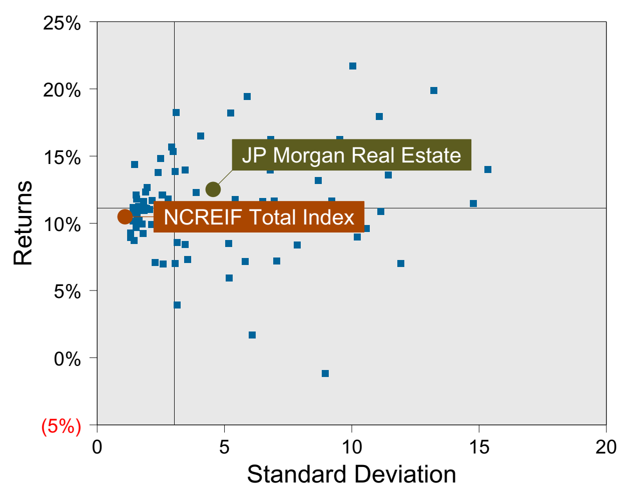


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11-1/2 Years
10th Percentile	3.68	12.34	15.02	16.74	16.24	6.56	7.29
25th Percentile	2.64	9.87	11.93	13.54	13.69	5.36	6.73
Median	1.74	7.41	9.42	10.69	11.13	3.99	5.51
75th Percentile	1.33	4.62	6.70	8.06	9.45	1.32	4.26
90th Percentile	0.55	0.23	1.11	4.11	7.08	(1.41)	(0.27)
JP Morgan Real Estate ●	2.72	7.98	8.50	10.77	12.52	1.61	3.78
NCREIF Total Index ▲	1.75	6.97	8.79	10.17	10.49	6.42	7.73

Relative Return vs NCREIF Total Index



CAI Total Real Estate Database (Net)
Annualized Five Year Risk vs Return



Short Term Fixed Income
Period Ended June 30, 2017

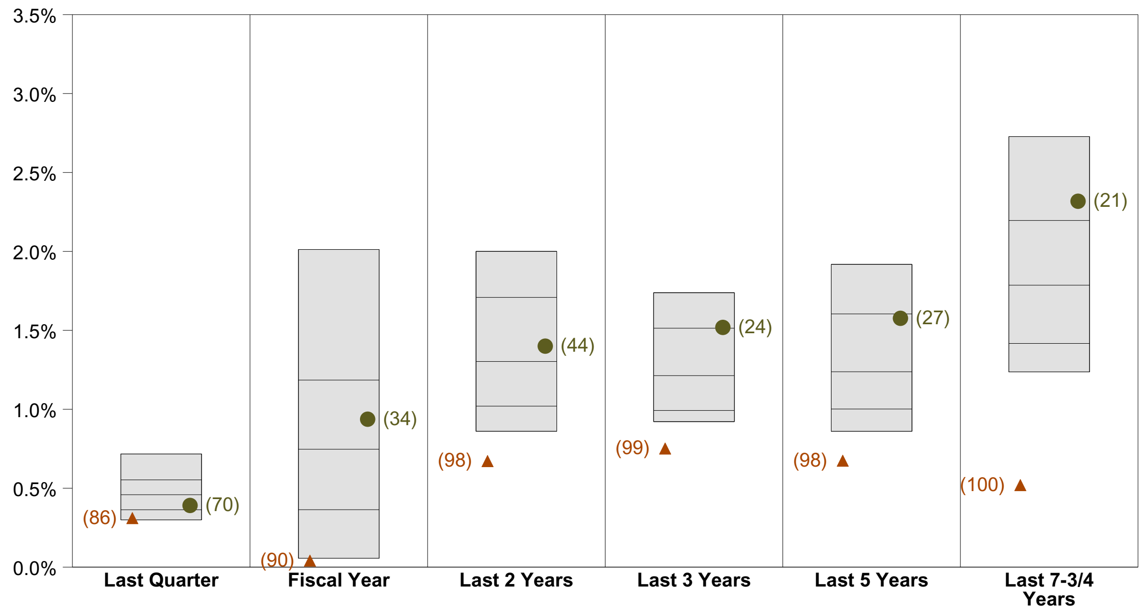
Quarterly Summary and Highlights

- Short Term Fixed Income's portfolio posted a 0.39% return for the quarter placing it in the 70 percentile of the CAI Defensive Fixed Income group for the quarter and in the 34 percentile for the last year.
- Short Term Fixed Income's portfolio outperformed the Short Term Fixed Target by 0.08% for the quarter and outperformed the Short Term Fixed Target for the year by 0.90%.

Quarterly Asset Growth

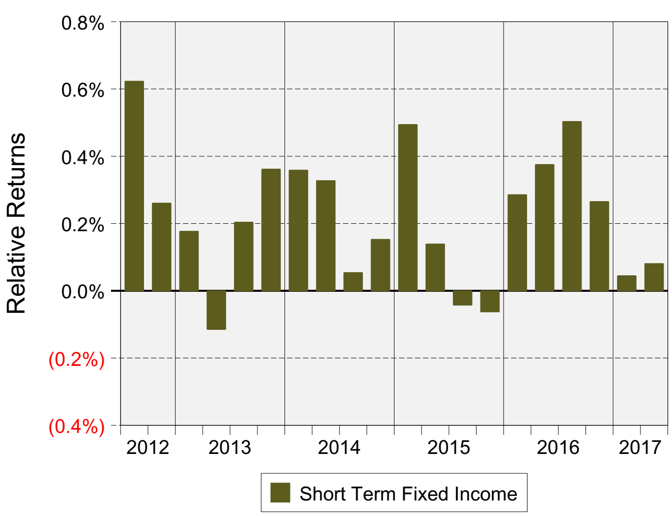
Beginning Market Value	$41,012,258
Net New Investment	$1,886,053
Investment Gains/(Losses)	$163,120
Ending Market Value	$43,061,431

Performance vs CAI Defensive Fixed Income (Gross)

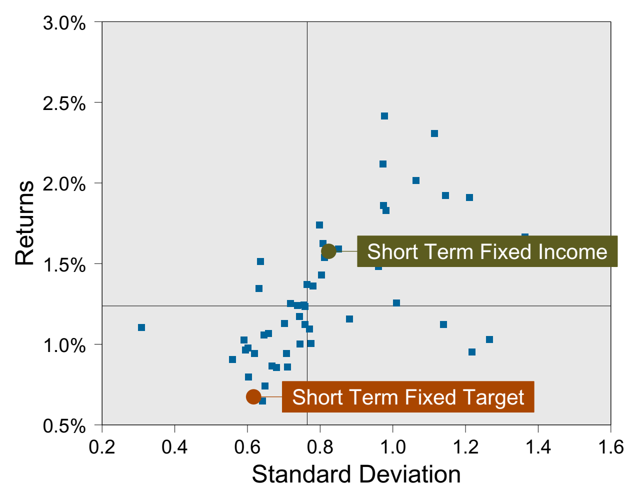


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-3/4 Years
10th Percentile	0.72	2.01	2.00	1.74	1.92	2.73
25th Percentile	0.55	1.18	1.71	1.51	1.60	2.20
Median	0.46	0.75	1.30	1.21	1.24	1.79
75th Percentile	0.36	0.36	1.02	0.99	1.00	1.42
90th Percentile	0.30	0.06	0.86	0.92	0.86	1.24
Short Term Fixed Income ●	0.39	0.94	1.40	1.52	1.58	2.32
Short Term Fixed Target ▲	0.31	0.04	0.67	0.75	0.67	0.52

Relative Return vs Short Term Fixed Target



CAI Defensive Fixed Income (Gross)
Annualized Five Year Risk vs Return



JP Morgan Short Term Bonds
Period Ended June 30, 2017

Investment Philosophy

The investment objective of this account is to outperform the Barclays Capital 1-3 year Government/Credit Index while maintaining total return risk similar to that of the benchmark as measured over a market cycle. The weighted average effective duration of the portfolio will typically remain within +/- 30% of the benchmark.

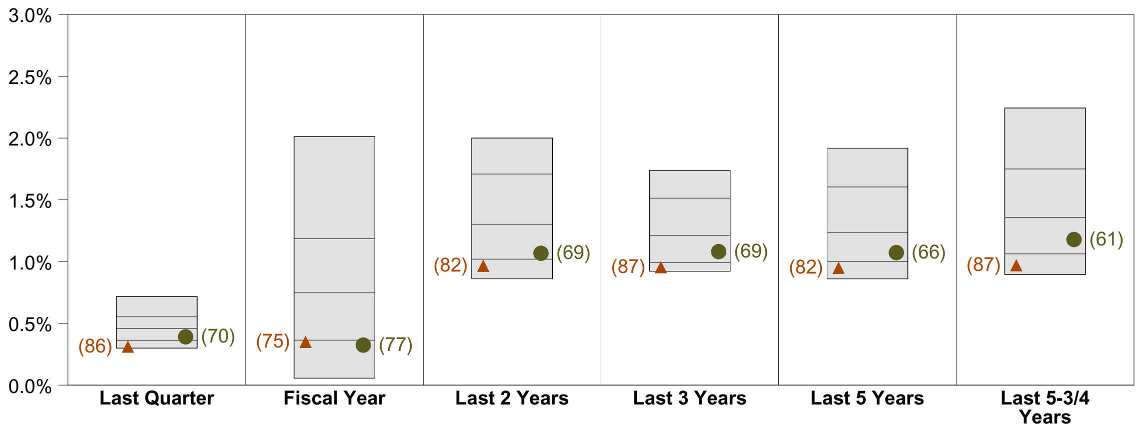
Quarterly Summary and Highlights

- JP Morgan Short Term Bonds's portfolio posted a 0.39% return for the quarter placing it in the 70 percentile of the CAI Defensive Fixed Income group for the quarter and in the 77 percentile for the last year.
- JP Morgan Short Term Bonds's portfolio outperformed the Blmbg Gov/Cred 1-3 Yr by 0.08% for the quarter and underperformed the Blmbg Gov/Cred 1-3 Yr for the year by 0.03%.

Quarterly Asset Growth

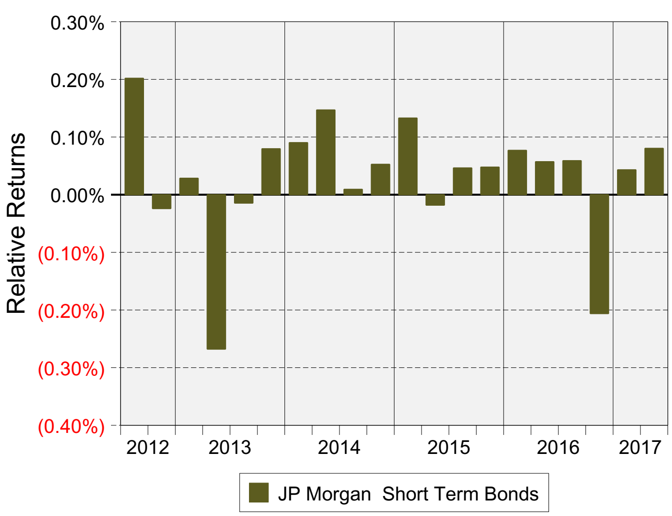
Beginning Market Value	$41,010,924
Net New Investment	$1,887,381
Investment Gains/(Losses)	$163,126
Ending Market Value	$43,061,431

Performance vs CAI Defensive Fixed Income (Gross)

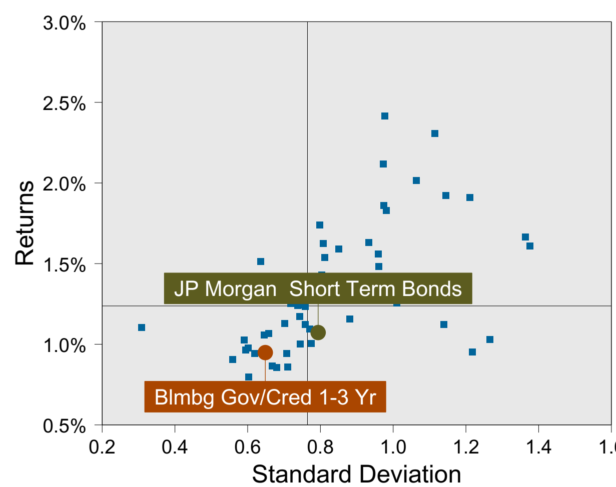


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-3/4 Years
10th Percentile	0.72	2.01	2.00	1.74	1.92	2.24
25th Percentile	0.55	1.18	1.71	1.51	1.60	1.75
Median	0.46	0.75	1.30	1.21	1.24	1.36
75th Percentile	0.36	0.36	1.02	0.99	1.00	1.06
90th Percentile	0.30	0.06	0.86	0.92	0.86	0.90
JP Morgan Short Term Bonds ●	0.39	0.32	1.07	1.08	1.07	1.18
Blmbg Gov/Cred 1-3 Yr ▲	0.31	0.35	0.97	0.95	0.95	0.97

Relative Return vs Blmbg Gov/Cred 1-3 Yr



CAI Defensive Fixed Income (Gross)
Annualized Five Year Risk vs Return



Research and Educational Programs

The Callan Institute provides both research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/library to see all of our publications, and www.callan.com/blog to view our blog “Perspectives.” For more information contact Anna West at 415.974.5060 / institute@callan.com.

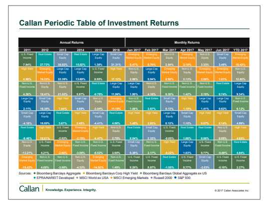
New Research from Callan’s Experts

The Hedge Fund Edge: Still Sharp or Too Dull? | Why should investors bother with hedge funds? The original proposition behind them was their differentiated performance: better risk-adjusted returns with a lower correlation to traditional capital markets. Do hedge funds still have their inherent advantage? This white paper looks at the key traits in the DNA of hedge funds—and why they still offer an advantage for investors.

White Label Funds: A No-Nonsense Design Handbook | In a paper published in *The Journal of Retirement,* Callan’s Rod Bare, Jay Kloepfer, Lori Lucas, and Jimmy Veneruso offer a guide to plan sponsors considering adding these funds to their lineup.

Survivorship Bias Presentation Summary, 2017 National Conference | In this presentation, Greg Allen and Butch Cliff discussed an algorithm they developed with Walter J. Meerschaert, Callan’s manager of Information Technology, to measure and correct for survivorship bias, the logical flaw of looking only at the results for the survivors in a universe, rather than the results for all members of the universe. Their algorithm, called SUBICO (for SUrvivorship BIas COrrection), uses all of the underlying data for both surviving and non-surviving members of the universe to correct for survivorship bias.

Next Generation QDIAs, 2017 National Conference | The workshop “The Future of DC Is Here: The Next Generation of QDIAs,” hosted by Ben Taylor, James Veneruso, and Brianne Weymouth, discussed new approaches to qualified default investment alternatives as they become the primary savings vehicle for defined contribution plans.



June 2017 Monthly Periodic Table of Returns | A monthly update for Callan’s Periodic Table of Investment Returns, covering the major public equity asset classes.

Periodicals

Private Markets Trends, Spring 2017 | Gary Robertson reports that the private equity market is off to a roaring start in 2017, and new partnership commitments may exceed the level of 2016.

Hedge Fund Monitor, 2nd Quarter 2017 | Jim McKee looks at “false charges,” or bear markets that come and go quickly but can leave unprepared investors at significant risk.

DC Observer, 2nd Quarter 2017 | Lori Lucas discusses how to manage DC plan recordkeepers, explaining that one of the best ways is to conduct periodic searches.

Market Pulse Flipbook, 1st Quarter 2017 | A quarterly market reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, alternatives, and defined contribution.

Capital Market Review, 1st Quarter 2017 | A quarterly macroeconomic newsletter providing thoughtful insights on the economy and recent performance in equity, fixed income, alternatives, international, real estate, and other capital markets.

Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: www.callan.com/library/

Mark your calendars for our fall **Regional Workshop**, October 24 in New York and October 26 in Chicago, where we'll cover highlights from our soon-to-be published *Investment Management Fee Survey* and cover other aspects of fees. Callan's **National Conference** will be held January 29–31, 2018, at the Palace Hotel in San Francisco.

For more information about events, please contact Barb Gerraty: 415.274.3093 / gerraty@callan.com

The Center for Investment Training Educational Sessions

The Center for Investment Training, better known as the "Callan College," provides a foundation of knowledge for industry professionals who are involved in the investment decision-making process. It was founded in 1994 to provide clients and non-clients alike with basic- to intermediate-level instruction. Our next session is:

Introduction to Investments

Chicago, October 24-25, 2017

This program familiarizes fund sponsor trustees, staff, and asset management advisers with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals who have less than two years of experience with asset-management oversight and/or support responsibilities. Tuition for the Introductory "Callan College" session is $2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Customized Sessions

The "Callan College" is equipped to customize a curriculum to meet the training and educational needs of a specific organization. These tailored sessions range from basic to advanced and can take place anywhere—even at your office.

Learn more at www.callan.com/events/callan-college-intro or contact Kathleen Cunnie: 415.274.3029 / cunnie@callan.com

Education: By the Numbers

525	Attendees (on average) of the Institute's annual National Conference	50+	Unique pieces of research the Institute generates each year
3,500	Total attendees of the "Callan College" since 1994	1980	Year the Callan Institute was founded

"We think the best way to learn something is to teach it. Entrusting client education to our consultants and specialists ensures that they have a total command of their subject matter. This is one reason why education and research have been cornerstones of our firm for more than 40 years."

Ron Peyton, Chairman and CEO

Callan

Quarterly List as of June 30, 2017

List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor and disclose potential conflicts on an on-going basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Manager Name
1607 Capital Partners, LLC
Aberdeen Asset Management PLC
Acadian Asset Management LLC
AEGON USA Investment Management
AEW Capital Management
Affiliated Managers Group, Inc.
Alcentra
AllianceBernstein
Allianz Global Investors
Allianz Life Insurance Company of North America
American Century Investments
Amundi Smith Breeden LLC
Angelo, Gordon & Co.
Apollo Global Management
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Artisan Holdings
Atlanta Capital Management Co., LLC
Aviva Investors Americas
AXA Investment Managers
Baillie Gifford Overseas Limited
Baird Advisors
Bank of America
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
Black Creek Investment Management Inc.
BlackRock
BMO Global Asset Management
BNP Paribas Investment Partners
BNY Mellon Asset Management
Boston Partners
Boyd Watterson Asset Management, LLC
Brandes Investment Partners, L.P.

Manager Name
Brandywine Global Investment Management, LLC
Brown Brothers Harriman & Company
Brown Investment Advisory & Trust Company
Cambiar Investors, LLC
Capital Group
CastleArk Management, LLC
Causeway Capital Management
Chartwell Investment Partners
Chicago Equity Partners, LLC
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Management Investment Advisers, LLC
Columbus Circle Investors
Cornerstone Capital Management
Cramer Rosenthal McGlynn, LLC
Credit Suisse Asset Management
Crestline Investors, Inc.
D.E. Shaw Investment Management, L.L.C.
DePrince, Race & Zollo, Inc.
Deutsche Asset Management
Diamond Hill Capital Management, Inc.
Dimensional Fund Advisors LP
Doubleline
Duff & Phelps Investment Mgmt. Co.
Eagle Asset Management, Inc.
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Investors
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Eagle Investment Management, LLC
First Hawaiian Bank Wealth Management Division
Fisher Investments
Franklin Templeton

Manager Name
Franklin Templeton Institutional
Fred Alger Management, Inc.
Fuller & Thaler Asset Management, Inc.
GAM (USA) Inc.
Global Evolution USA
GlobeFlex Capital, L.P.
GMO
Goldman Sachs Asset Management
Gryphon International Investment Corporation
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Harding Loevner LP
Hartford Funds
Hartford Investment Management Co.
Heitman LLC
Henderson Global Investors
Hotchkis & Wiley Capital Management, LLC
HSBC Global Asset Management
Income Research + Management, Inc.
Insight Investment Management Limited
INTECH Investment Management, LLC
Invesco
Investec Asset Management
Ivy Investments
Jacobs Levy Equity Management, Inc.
Janus Capital Management, LLC
Jensen Investment Management
Jobs Peak Advisors
J.P. Morgan Asset Management
KeyCorp
Lazard Asset Management
Legal & General Investment Management America
Lincoln National Corporation
LMCG Investments, LLC
Logan Circle Partners, L.P.
Longfellow Investment Management Co.
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
Los Angeles Capital Management
LSV Asset Management
MacKay Shields LLC
Macquarie Investment Management (formerly Delaware Investments)
Man Investments Inc.
Manulife Asset Management
McKinley Capital Management, LLC
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
Mountain Lake Investment Management LLC
MUFG Union Bank, N.A.
Neuberger Berman
New York Life Investment Management LLC
Newfleet Asset Management LLC
Newton Investment Management (fka Newton Capital Mgmt)
Nikko Asset Management Co., Ltd.

Manager Name
Northern Trust Asset Management
Nuveen Investments, Inc.
OFI Global Asset Management
Old Mutual Asset Management
O'Shaughnessy Asset Management, LLC
Pacific Investment Management Company
Peregrine Capital Management, Inc.
PGIM
PGIM Fixed Income
PineBridge Investments
Pioneer Investments
PNC Capital Advisors, LLC
PPM America
Principal Global Investors
Private Advisors, LLC
Putnam Investments, LLC
Pzena Investment Management, LLC
QMA (Quantitative Management Associates)
RBC Global Asset Management
Record Currency Management Ltd.
Regions Financial Corporation
RidgeWorth Capital Management, Inc.
Rockefeller & Co., Inc.
Rothschild Asset Management, Inc.
Russell Investments
Santander Global Facilities
Schroder Investment Management North America Inc.
Smith, Graham & Co. Investment Advisors, L.P.
Smith Group Asset Management
South Texas Money Management, Ltd.
Standard Life Investments Limited
Standish
State Street Global Advisors
Stone Harbor Investment Partners, L.P.
Strategic Global Advisors
T. Rowe Price Associates, Inc.
Taplin, Canida & Habacht
Teachers Insurance & Annuity Association of America
The Boston Company Asset Management, LLC
The Hartford
The London Company
The TCW Group, Inc.
Thompson, Siegel & Walmsley LLC
Thornburg Investment Management, Inc.
Tri-Star Trust Bank
UBS Asset Management
Van Eck Global
Versus Capital Group
Victory Capital Management Inc.
Vontobel Asset Management, Inc.
Voya Financial
Voya Investment Management (fka ING)
Vulcan Value Partners, LLC
Wasatch Advisors, Inc.
WCM Investment Management
WEDGE Capital Management
Wedgewood Partners, Inc.
Wellington Management Company, LLP
Wells Capital Management
Western Asset Management Company

Manager Name
William Blair & Company

Manager Name
WisdomTree Asset Management

Callan

June 30, 2017

North Dakota State Investment Board Legacy Fund

Investment Measurement Service Quarterly Review

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June 30, 2017

Executive Summary

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Manager Evaluation

Domestic Equity

International Equity

Domestic Fixed Income

Diversified Real Assets

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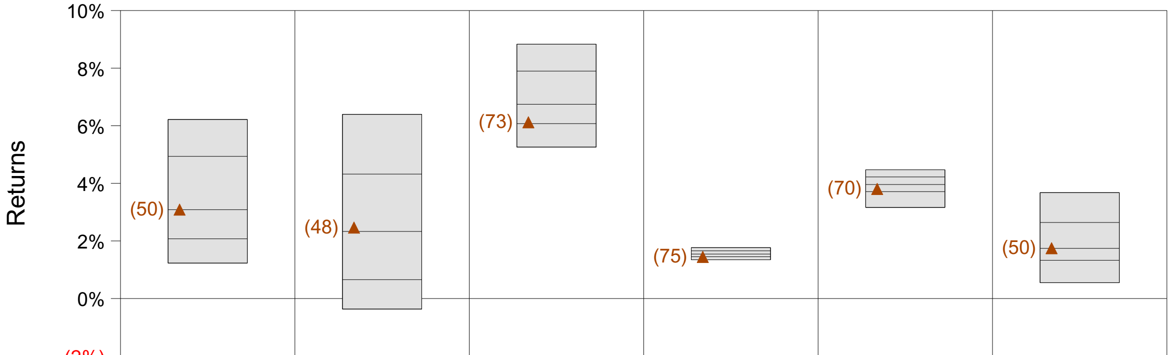
June 30, 2017

Market Overview
Active Management vs Index Returns

Market Overview

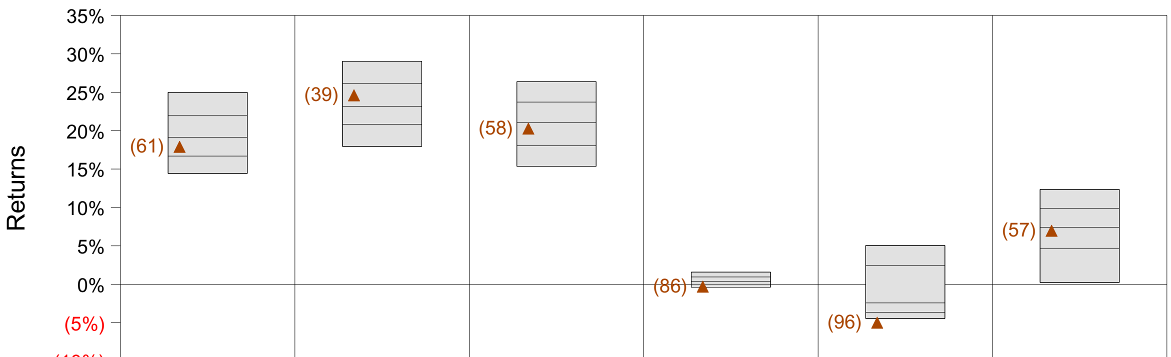
The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

Range of Separate Account Manager Returns by Asset Class
One Quarter Ended June 30, 2017



	Large Cap Equity vs S&P 500	Small Cap Equity vs Russell 2000	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Blmbg Aggr Bd	Non-US Fixed Income vs Citi Non-US Govt	Real Estate vs NCREIF Index
10th Percentile	6.22	6.40	8.83	1.77	4.47	3.68
25th Percentile	4.94	4.32	7.90	1.66	4.22	2.64
Median	3.09	2.33	6.75	1.54	3.96	1.74
75th Percentile	2.07	0.66	6.07	1.45	3.71	1.33
90th Percentile	1.23	(0.37)	5.26	1.35	3.16	0.55
Index ▲	3.09	2.46	6.12	1.45	3.81	1.75

Range of Separate Account Manager Returns by Asset Class
One Year Ended June 30, 2017



	Large Cap Equity vs S&P 500	Small Cap Equity vs Russell 2000	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Blmbg Aggr Bd	Non-US Fixed Income vs Citi Non-US Govt	Real Estate vs NCREIF Index
10th Percentile	24.98	29.03	26.38	1.58	5.05	12.34
25th Percentile	22.01	26.14	23.72	0.95	2.44	9.87
Median	19.14	23.16	21.05	0.37	(2.43)	7.41
75th Percentile	16.69	20.83	18.04	(0.07)	(3.65)	4.62
90th Percentile	14.43	17.94	15.35	(0.39)	(4.46)	0.23
Index ▲	17.90	24.60	20.27	(0.31)	(5.01)	6.97

Callan

Second Quarter 2017

Why Is Inflation So Low?

ECONOMY

2 PAGE

Both price and wage inflation remain subdued, even after eight years of recovery, when inflationary pressures typically build. Why? There is no consensus on the cause, but both issues weigh heavily on the Fed as it charts future rate hikes and unwinds its balance sheet.

Many Funds 'Risk Up' for Returns

FUND SPONSOR

4 PAGE

Many fund sponsors feel compelled to take on substantial market risk to attempt to close a funding gap or meet spending needs without eroding the corpus. Fund sponsors are further focusing on diversification within each asset class to help mitigate their overall risk.

Many Shocks, but No Signs of Slowing

EQUITY

6 PAGE

U.S. stocks inched higher, despite turbulent events in the news, and the **S&P 500 Index** hit a record high during the second quarter. Non-U.S. developed equity outperformed its U.S. counterpart, helped by a weak U.S. dollar, while emerging markets outpaced developed markets.

On the Hunt for More Yield Globally

FIXED INCOME

9 PAGE

In their continued hunt for stable yields, investors gravitated to corporate bonds in the U.S., and favored municipal bonds over Treasuries. Unhedged non-U.S. bonds got help from the weak dollar, while emerging market fixed income saw strong demand from yield-hungry investors.

Some Positive Signs Emerging

REAL ESTATE

11 PAGE

The **NCREIF Property Index** rebounded from last quarter's seven-year low return while the **NCREIF Open End Diversified Core Equity Index** set a new seven-year low. U.S. REITs underperformed global REITs, but still managed to generate positive returns.

Happy Campers

PRIVATE EQUITY

13 PAGE

A bucolic summer has favored the private equity market, with moderate increases across transactional measures and liquidity remaining hearty. Fundraising finished the quarter ahead of last year, buyout investment showed large gains, and venture investment ticked up.

As the World Churns, Despacito

HEDGE FUNDS

14 PAGE

The **Credit Suisse Hedge Fund Index** rose 0.8%, while the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 0.9%. Growth in Europe and Japan this quarter provided a friendly setting for hedge funds seeking alternative risks.

Best Return for DC Index Since 2013

DEFINED CONTRIBUTION

15 PAGE

The Callan DC Index™ climbed 4.7% in the first quarter, its highest quarterly return since the end of 2013, after an 8.0% gain in 2016. But the DC Index did markedly lag the Age 45 Target Date Fund (+5.6%). Plan balances grew 4.74%, primarily driven by investment returns.

Broad Market Quarterly Returns

U.S. Equity Russell 3000	Non-U.S. Equity MSCI ACWI ex USA	U.S. Fixed Income Bloomberg Barclays Agg	Non-U.S. Fixed Income Bloomberg Barclays Gbl ex US
+3.0%	+5.8%	+1.4%	+3.5%

Sources: Bloomberg Barclays, MSCI, Russell Investment Group

Knowledge. Experience. Integrity.

Why Is Inflation So Low?

ECONOMY | Jay Kloepfer

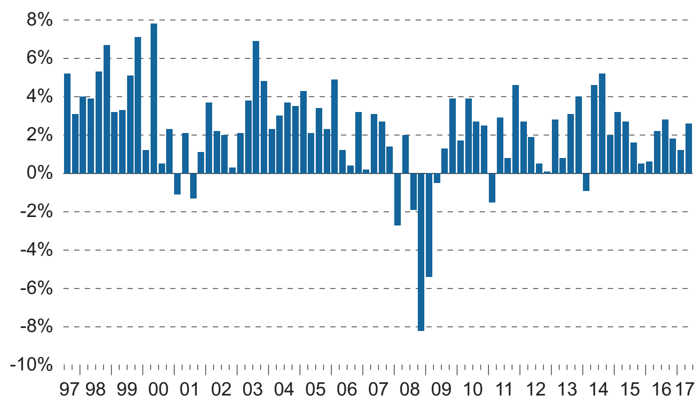
We are now eight years into the economic recovery in the U.S., arguably the latter stages of a mature expansion and at a point where inflationary pressures typically begin to build. Yet price and wage inflation remain stubbornly subdued. Headline and particularly core inflation have drifted down over the past several months. Headline inflation (the CPI – All Urban) climbed above 2% in December 2016 and stayed near 2.5% until May 2017, when it began to ebb. The Index was unchanged in June, meaning zero inflation month to month; the year-over-year change is now 1.6%. The Fed's targeted measure of core inflation (personal consumption expenditures (PCE) less food and energy) slipped to a year-over-year gain of just 1.4% in May and will likely show a flattening similar to the CPI-U in June. This decline in core inflation is both baffling and frustrating to the Fed, and it provides a headwind to its efforts to bring interest rates back to "normal."

Low wage growth is also a mystery in the U.S., where it has remained below 3% for years while the unemployment rate has fallen to a 16-year low of 4.4% in June, and stories of tight labor markets abound in industries around the country.

The explanations for persistent low inflation are varied, but there is no consensus on the cause. The most plausible reasons include: 1) lackluster global growth; 2) excess industrial capacity, much of it in China, pushing down goods prices; and 3) technology, specifically product and process innovations that slash production costs.

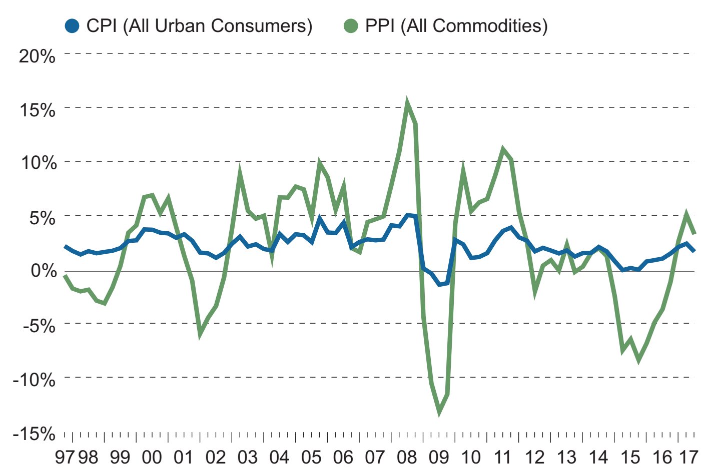
Weak wage growth is more of a conundrum, especially in economies such as the U.S. that appear to be at full employment. Why hasn't the job market pressure pushed up overall wages? More plausible explanations include: 1) a large pool remains of workers not properly captured in the official unemployment data (discouraged workers, the long-term unemployed); 2) the replacement of retiring higher-wage baby boomers with lower-wage young workers, skewing the average wage downward; 3) poor productivity growth, paired with 4) use of technology to replace workers with capital, particularly in low-wage, low-skilled jobs; and 5) a related shift in market power from labor to capital. None of these factors alone explain the persistence of low inflation and low wage growth, but the interaction of these factors tells a believable story.

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

In addition to the conundrum of low inflation, the state of growth weighs heavily on the Fed's deliberations on the path to future interest rate hikes and the size of its balance sheet. Second quarter GDP growth came in at 2.6%, roughly in line with expectations. The solid (if unspectacular) figure built on the upward revision to disappointing data in the first quarter, which was adjusted up from 0.7% to 1.2%. Consumer spending, job growth, and capital spending have been strong enough to enable the U.S. economy to amble on at a reasonable if unspectacular (although sometimes halting) pace for eight years. Consumer spending has been the engine for growth, increasing faster than GDP (2.8% in the second quarter), and supported by gains in employment, disposable income, and household wealth. The combination of a strong job market, continued stock market gains, and the expectation for tax cuts coming from the Trump administration and the Republican Congress has fueled consumer confidence, and with it spending, since the start of 2017—although confidence did take a breather in the second quarter.

Business fixed investment enjoyed a strong first quarter with a 7.2% gain, driven by close to 15% growth in structures (including oil and gas mining), and followed with another 5% gain in the second quarter. The rebound in the oil and gas sector suggests the spending on capital has built some momentum.

Residential housing spending took a hit in the second quarter, falling by 6.8%, somewhat in defiance of the laws of economics as the supply of homes for sale is not keeping up with demand. The nation-wide average price for a new home reached an all-time high in May, topping $400,000. High prices should be driving builders to build, but the permits and starts for both single-family and multi-family homes declined in May before recovering somewhat in June. The restraint on construction activity may stem from tightened standards on commercial real estate loans, particularly on multi-family homes, and rising interest rates.

The Long-Term View

Index	2017 2nd Qtr	Periods ended Dec. 31, 2016 Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	3.02	12.74	14.67	7.07	9.29
S&P 500	3.09	11.96	14.66	6.95	9.15
Russell 2000	2.46	21.31	14.46	7.07	9.69
Non-U.S. Equity					
MSCI ACWI ex USA	5.78	4.50	5.00	0.96	–
MSCI Emerging Markets	6.27	11.19	1.28	1.84	–
MSCI ACWI ex USA Small Cap	8.07	3.78	9.67	3.03	6.70
Fixed Income					
Bloomberg Barclays Agg	1.45	2.65	2.23	4.34	5.63
90-Day T-Bill	0.20	0.33	0.12	0.80	2.71
Bloomberg Barclays Long G/C	4.39	6.67	4.07	6.85	7.58
Bloomberg Barclays Gl Agg ex US	3.55	1.49	-1.39	2.44	4.73
Real Estate					
NCREIF Property	1.75	7.97	10.91	6.93	8.63
FTSE NAREIT Equity	1.52	8.52	12.01	5.08	11.13
Alternatives					
CS Hedge Fund	0.76	1.25	4.34	3.75	–
Cambridge PE*	–	9.20	12.78	9.40	15.39
Bloomberg Commodity	-3.00	11.77	-8.95	-5.57	2.55
Gold Spot Price	-0.71	8.63	-5.97	6.08	4.82
Inflation – CPI-U	0.47	2.07	1.36	1.81	2.26

*Most recent quarterly data not available.
Sources: Bloomberg Barclays, Bloomberg, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson Reuters/Cambridge, Bureau of Economic Analysis.

Recent Quarterly Economic Indicators

	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15
Employment Cost–Total Compensation Growth	2.4%	2.4%	2.2%	2.3%	2.3%	1.9%	2.0%	2.0%
Nonfarm Business–Productivity Growth	1.3%*	0.0%	1.8%	3.3%	-0.1%	-0.7%	-2.0%	1.8%
GDP Growth	2.6%	1.2%	1.8%	2.8%	2.2%	0.6%	0.5%	1.6%
Manufacturing Capacity Utilization	75.5%	75.3%	75.1%	74.9%	75.1%	75.4%	75.4%	75.7%
Consumer Sentiment Index (1966=100)	96.4	97.2	93.2	90.3	92.4	91.5	91.3	90.8

*Estimate.
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan.

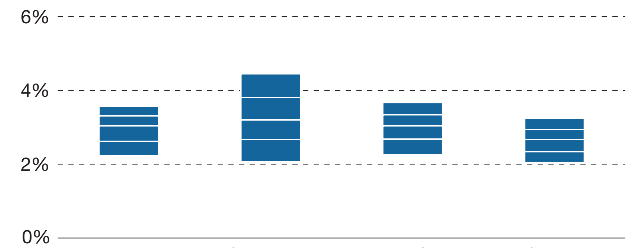
Many Funds ‘Risk Up’ for Returns

FUND SPONSOR | Todd Carabasi, Tom Shingler

Fund sponsors are beginning to come to grips with lower capital market return expectations. Pension funds are reducing actuarial return assumptions, and endowments and foundations are discussing and making adjustments to spending rules. Some funds are addressing this issue by taking on substantial market risk (80%-85% in risky assets) to attempt to close a funding gap or meet spending needs without eroding the corpus. Fund sponsors are further focusing on diversification within each asset class to help mitigate their overall risk.

Fund sponsors face the challenge of looking for investments with attractive real return expectations while seeking at least some diversification to the beta of equities to smooth the ride within the growth allocation. By focusing on diversifiers, funds can consider adding investments like high yield, low-volatility equity, hedge funds, multi-asset class funds, and options-based strategies. This also allows for new strategies to be brought into the fold, based on anticipated diversification benefits or return enhancement. This broadening of growth assets can lead to a sharper focus on refining fixed income exposure to gain a “purer” exposure to interest rate sensitivity and to serve as an anchor to the portfolio in a bear market (e.g., allocating the fixed income portfolio to long-duration Treasuries).

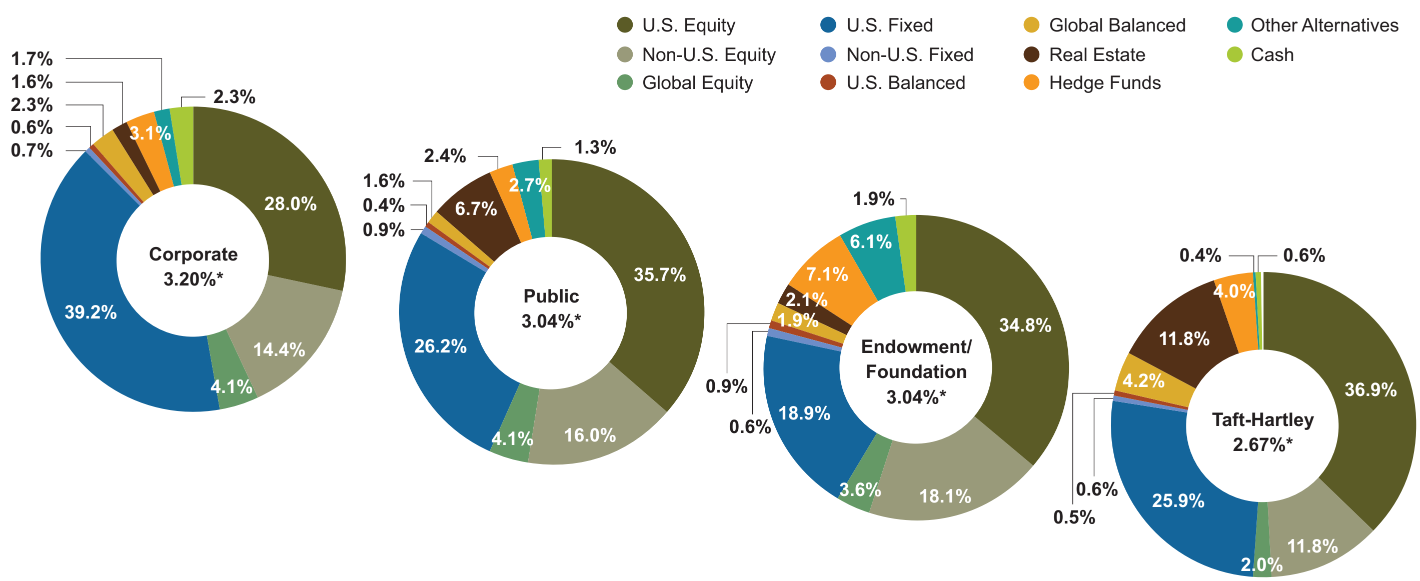
Callan Fund Sponsor Returns for the Quarter



	Public Database	Corporate Database	Endow/Fndn Database	Taft-Hartley Database
10th Percentile	3.57	4.45	3.67	3.25
25th Percentile	3.31	3.81	3.34	2.94
Median	3.04	3.20	3.04	2.67
75th Percentile	2.62	2.67	2.68	2.34
90th Percentile	2.23	2.07	2.26	2.05

Source: Callan

Callan Fund Sponsor Average Asset Allocation



*Latest median quarter return.
Note: charts may not sum to 100% due to rounding.
Source: Callan

At the same time, with U.S. equities continuing their unprecedented positive run, fund sponsors are asking the question "Why diversify?" The answer: While results in non-U.S. equity, real assets, and alternatives have lagged U.S. equities in the last five years, their longer-term diversifying characteristics warrant consideration.

The active/passive discussion continues to loom large. The argument to retain active managers to protect in a down market and be nimble in a volatile, low-return environment is compelling to some, but many fund sponsors are weary of historical underperformance by active equity managers. Additionally, the use of passive management helps control costs.

Callan has observed the following trends over the last five years:

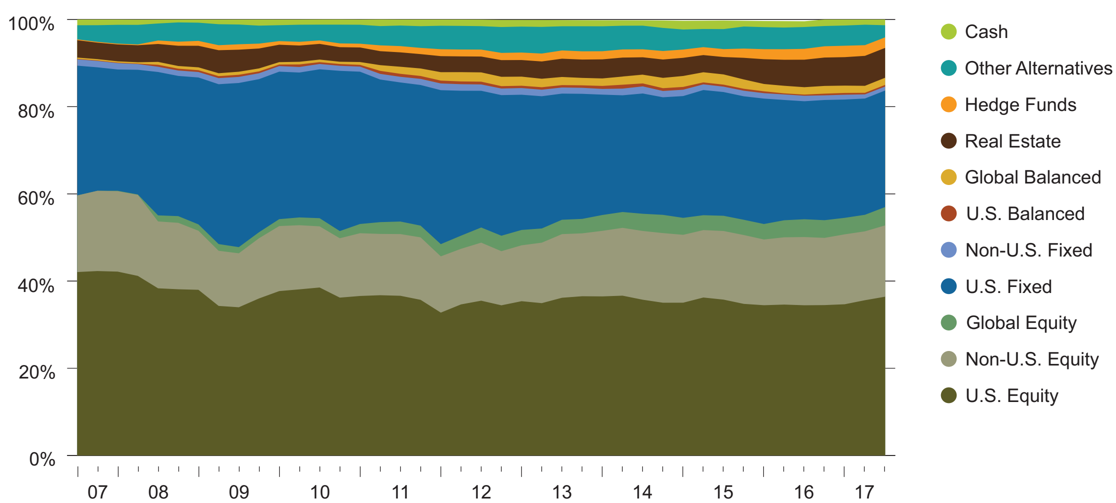
– The U.S. fixed income allocations for corporate plan sponsors has increased overall and has become more widely dispersed as plans take different steps to de-risk plan assets.
– Many public funds have increased their allocation to non-U.S. equity, real estate, and other alternatives at the expense of fixed income and U.S. equity. Simultaneously, some of the fixed income exposure has become more equity-like in nature, with allocations to areas like high yield.
– Endowments and foundations have continued to move assets from fixed income to asset classes with expectations for higher returns, such as global equity and real estate.

A 60% S&P 500/40% Bloomberg Barclays U.S. Aggregate Bond Index portfolio returned 10.4% over the year ended June 30, 2017. All of the broad fund sponsor groups tracked in Callan's database topped the 60/40 portfolio over that period.

Endowments and foundations underperformed other fund sponsor groups over the past three, five, and ten years. But they did have the best performance over the last year.

Taft-Hartley plans were the best-performing group over the past three and five years. Corporate plans beat other groups over the last 10 years.

Callan Public Fund Database Average Asset Allocation (10 Years)



Source: Callan. Callan's database includes the following groups: public defined benefit, corporate defined benefit, endowments/foundations, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

Global Equity

U.S. Stocks: Shocks, but No Slowing

+3.0%
RUSSELL 3000

Despite an increase in interest rates and turbulent events in the news, including disruptions within the Trump administration and terrorist attacks in the U.K., U.S. stocks continued to inch higher during the second quarter. Amid this volatile macro backdrop, S&P 500 companies reported the strongest quarterly earnings growth rate in six years (70% reported profits above expectations), and the **S&P 500 Index** hit a record high during the quarter.

Large cap stocks outperformed mid and small caps (S&P 500 Index: +3.1%; **Russell 2000 Index:** +2.5%). Strong earnings reports out of large cap stocks contributed to their leg up over small cap. Large cap was also buoyed by the continued flow of assets into passively managed strategies, especially ETF vehicles.

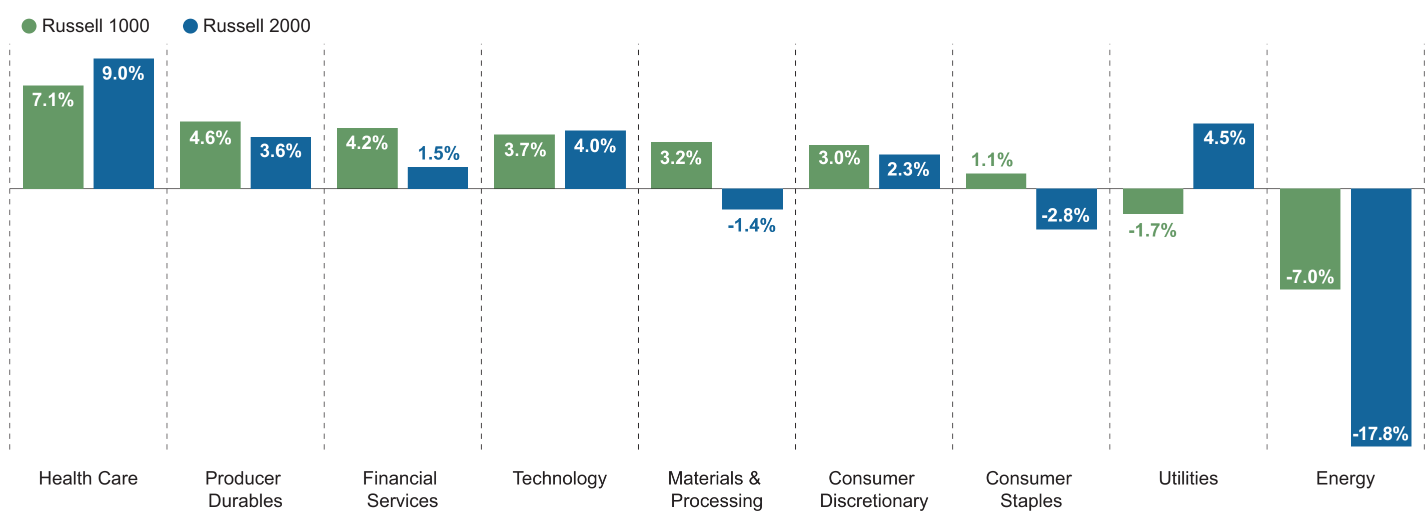
Small cap valuations kept stretching higher and, as a result, investors continued to take profits following a boon year in 2016. The continued expansion in small cap multiples may be giving some investors pause, particularly as the current economic upturn is nearing nine years.

Growth outperformed value across large and small caps (**Russell 1000 Growth:** +4.7% vs. **Russell 1000 Value:** +1.3%; **Russell 2000 Growth:** +4.4% vs. **Russell 2000 Value:** +0.7%). The strong-performing "FAAMG" stocks (Facebook, Amazon, Apple, Microsoft, and Google) comprised 22% of the S&P 500's return in the second quarter versus 32% in the first. Investors continued to be drawn to the top-line growth prospects and market share gains at these large, established firms.

Investor sentiment broadened across sectors in the second quarter compared to the first, as a wider range of firms reported positive results. Top sectors in the S&P 500 included Health Care (+7.1%), which rallied on the Trump administration's prospect of change to the Affordable Care Act; Industrials (+4.7%), which benefited from declining commodity prices; Financials (+4.2%), spurred by the Fed's announcement that 34 of the largest banks passed their stress tests, the largest cohort to do so since the tests began; and Tech (+4.1%), on the continued rise of those FAAMG stocks.

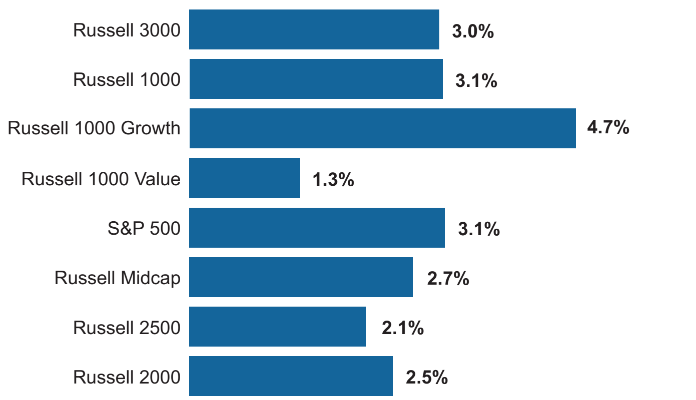
Energy (-6.4%) and Telecom (-7.0%) were the laggards. Crude oil prices fell due to an increase in supply, the result of a milder winter. In addition, improving efficiency within the U.S. fracking

Quarterly Performance of Select Sectors



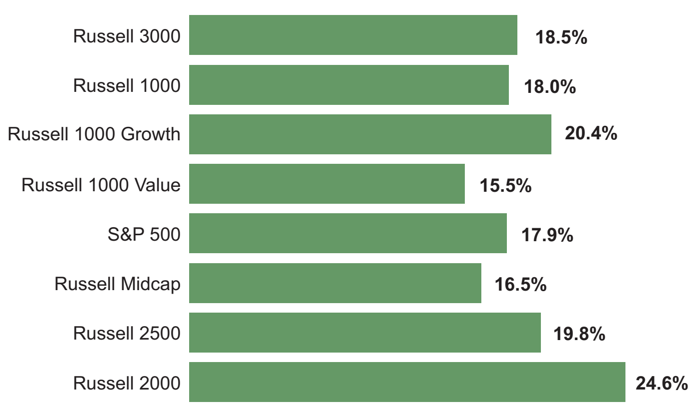
Source: Russell Investment Group

U.S. Equity: Quarterly Returns



Sources: Russell Investment Group and Standard & Poor's

U.S. Equity: One-Year Returns



Sources: Russell Investment Group and Standard & Poor's

industry impacted prices. Within Telecom, competition for market share intensified in the increasingly commoditized (and consolidated) space.

Value stocks were hurt by Consumer Staples companies resetting to more sensible valuations following the strong rally in 2016 that resulted from the "yield trade," as investors sought the safety of strong dividends and lower-volatility stocks.

From a factor perspective, Momentum (+7.9%) was the top-performing factor while Enhanced Value (weighted to the forward price-earnings ratio, enterprise value/cash flow from operations, and price-to-book value of stocks in the factor) fared worst (+1.3%). Momentum was favored as investors sought stocks with demonstrated earnings growth.

Non-U.S. Stocks: Europe's Recovery a Boost

+5.8%
MSCI ACWI ex USA

Non-U.S. developed equity outperformed the U.S. for the second consecutive quarter, fueled by economic recovery in Europe and market-friendly outcomes in European elections. The **MSCI Europe Index** jumped 7.4% and the **MSCI World ex USA Index** notched a 5.6% gain, compared to the 3.1% rise in the S&P 500.

Gains were broad-based and helped by weakness in the U.S. dollar, which lost about 7% versus the euro and 5% versus a broad basket of currencies.

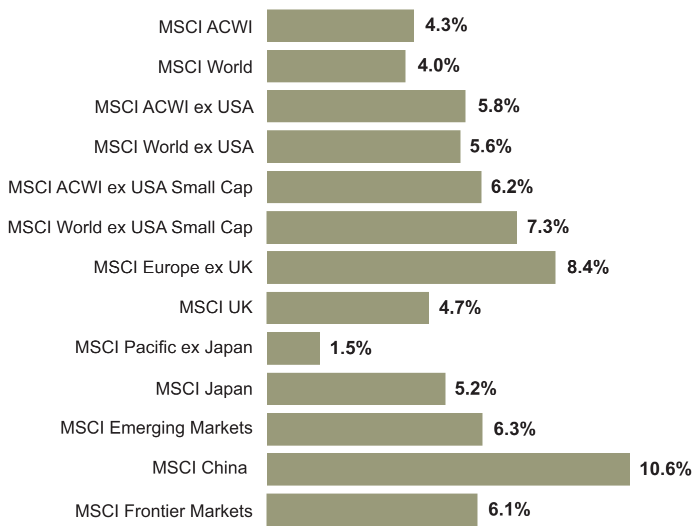
The euro rallied as a result of hawkish comments from the European Central Bank, coupled with improving European economic and sentiment indicators. European Financials benefited from expectations of higher rates, and European Industrials were propped up by stronger economic expectations.

Energy and Telecom Services were the only sectors in developed markets with negative second quarter returns. Energy fell as oil prices continued to languish due to an imbalance between supply and demand—despite OPEC's efforts to cut production. Telecom Services were buffeted by pricing pressure.

Within the MSCI indices, Europe ex-U.K. was up 8.4%, the U.K gained 4.7%, and Japan returned 5.2%. Small caps outperformed; the **MSCI EAFE Small Cap Index** rose 8.1%.

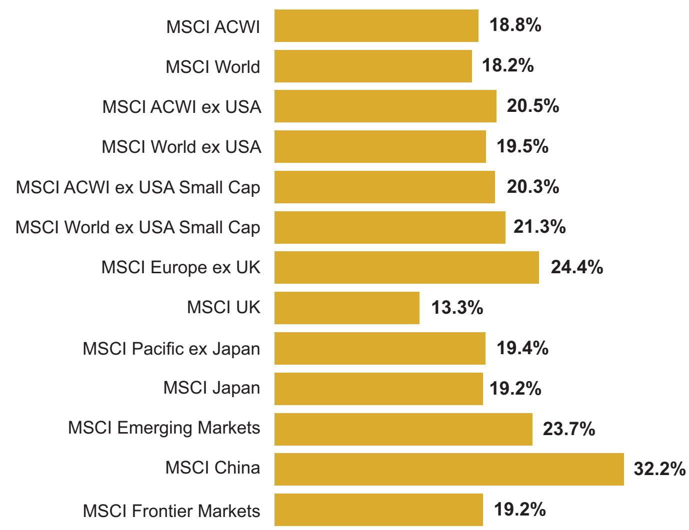
Looking at the global picture for stocks, the **MSCI ACWI Index** gained 4.3%, and developed and emerging markets outperformed the U.S. (**MSCI ACWI ex USA Index:** +5.8%), due largely to broad-based weakness in the U.S. dollar.

Non-U.S. Equity: Quarterly Returns (U.S. Dollar)



Source: MSCI

Non-U.S. Equity: One-Year Returns (U.S. Dollar)



Source: MSCI

Emerging Markets: Tech Triumphs

+6.3%
MSCI EM

Emerging markets outpaced the developed markets for the second straight quarter, propelled by Technology companies in China, South Korea, and Taiwan. The **MSCI Emerging Markets Index** gained 6.3%. Industry leaders in online and mobile commerce, payments, digital media, cloud computing, and smartphones are monopolizing the markets. That includes Tencent and Alibaba in China; Samsung in South Korea; and Taiwan Semiconductor Manufacturing in Taiwan.

Positive economic momentum and European election results placed Greece (+33.8%) and Hungary (+19.4%) as the top two performing countries in emerging markets. China rose 10.6%, while India's gain was muted at +2.9%, though it remains a top performer year-to-date (+21%). The three worst-performing countries were Qatar (-10.9%), Russia (-10.0%), and Brazil (-6.7%). Qatar was hit after four Arab nations (Saudi Arabia, the United Arab Emirates, Egypt, and Bahrain) imposed an embargo, accusing the country of backing terrorism. Russia slumped because of declining oil prices and looming new sanctions. And continuing political instability in Brazil (including President Michel Temer's bribery scandal) and commodity prices weighed on the country.

Quality, growth, and momentum factors dominated the market given the returns of large cap technology companies.

Non-U.S. Small Cap: All Over the Map

+6.2%
MSCI ACWI ex US SC

Developed non-U.S. small cap stocks outperformed large cap equity, as they were better positioned for the local economic recovery in Europe. But small cap equity lagged large cap in emerging markets, due to the performance of the large cap tech companies. The **MSCI World ex USA Small Cap Index** climbed 7.3% while the **MSCI Emerging Markets Small Cap Index** increased 2.6%.

Energy was the worst-performing sector in developed and emerging markets due to declining oil prices, which also caused growth to outperform value in developed small cap. Financials, the top performing sector for the quarter, offset Energy; on the heels of positive economic data and election results, Eastern European Financials rallied.

Global Fixed Income

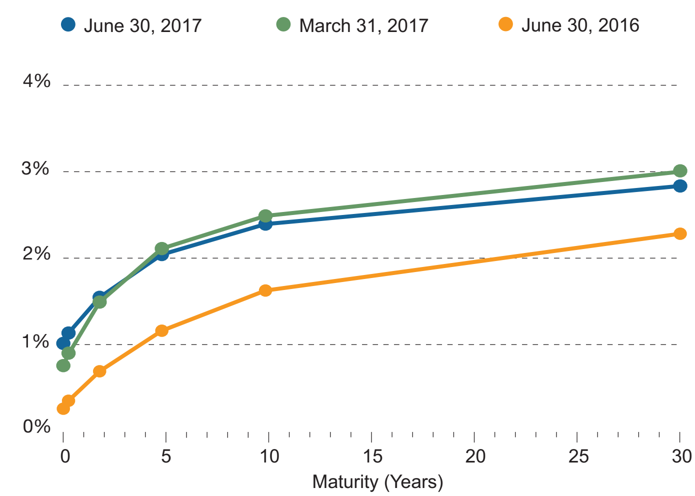
U.S. Bonds: On the Hunt for Yield

+1.4%

BB AGGREGATE

Corporate bonds performed best in the second quarter on strong demand. Investors continued their hunt for stable yields that are higher than what is available for like-duration government bonds. The **Bloomberg Barclays US Corporate Bond Index** was up 2.5% (+3.8% year to date), while the **Bloomberg Barclays US Aggregate Bond Index** rose 1.4% (+2.3% YTD). Credit fundamentals remained strong with solid earnings growth and a modest (but acceptable) economic growth environment; corporate balance sheets appeared to be in good shape. And although rates have moved higher on the front end, overall the curve has flattened; the demand for yield is providing support for spread sectors broadly.

U.S. Treasury Yield Curves

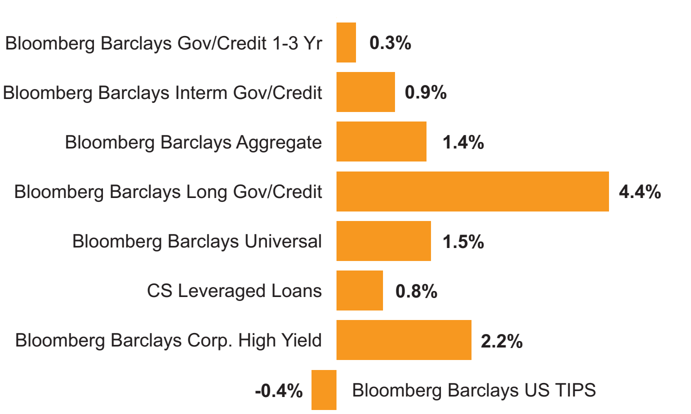


Source: Bloomberg

The **Bloomberg Barclays Corporate High Yield Index** increased 2.2%. Low interest rates continued to be a catalyst pushing investors out the risk spectrum in search of higher yields. Default expectations are low across most sectors, providing some comfort to investors. Energy was the only high-yield sector to decline (-0.66%). Rising inventories and concern over OPEC policy put pressure on oil prices, which have fallen approximately 17% so far this year.

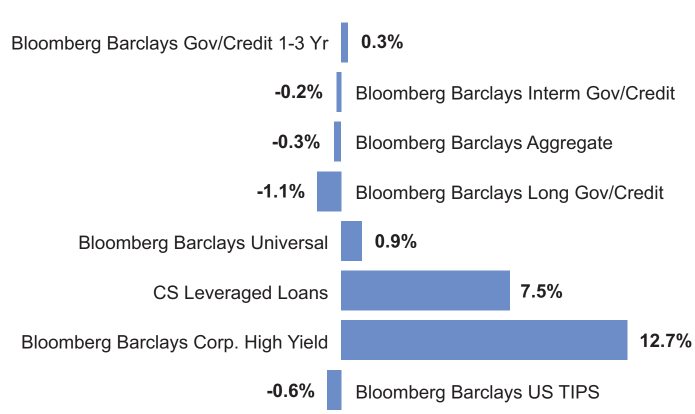
In the government market, municipal bonds outperformed Treasuries. The **Bloomberg Barclays Municipal Bond Index** was up 2.0%, compared to the **Bloomberg Barclays US Treasury Index** (+1.2%). Results were bolstered by lowered expectations for tax reform and favorable supply/demand technicals. The Fed, viewing inflation weakness as temporary, raised rates by 25 basis points, as expected. The yield curve flattened over the quarter, with short rates rising and longer

U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and Credit Suisse

U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and Credit Suisse

rates falling. The 10-year U.S. Treasury yield closed the quarter at 2.31%, down from 2.40% as of March 31, though it hit a 2017 low of 2.12% earlier in June. The 2-year U.S. Treasury yield climbed 11 bps to close at 1.38%.

TIPS underperformed as expectations for inflation sank, a reversal from the previous quarter; the **Bloomberg Barclays US TIPS Index** fell 0.4%. The 10-year breakeven spread (the difference between nominal and real yields) was 1.73% as of quarter-end, down from 1.97% at the end of the first quarter, as inflation came in below expectations for the third consecutive month.

Non-U.S. Bonds: Our Pain, Their Gain

+3.5%

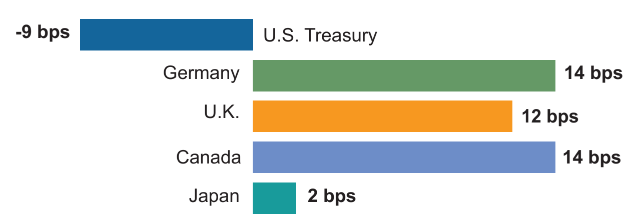
BB GBL AGG ex US

A weaker U.S. dollar helped unhedged non-U.S. bonds and hindered hedged bonds. The **Bloomberg Barclays Global Aggregate ex-US Bond Index** (unhedged) jumped 3.5%, while the hedged Index rose only 0.6%. The U.S. dollar lost nearly 7% versus the euro and almost 5% versus a broad basket of developed market currencies. Positive economic growth and hawkish rhetoric from the European Central Bank (ECB) and the Bank of England drove strong results in the euro and the British pound compared to the U.S. dollar. The quarter closed with an upbeat assessment of the euro zone's recovery from the president of the ECB, Mario Draghi, fueling speculation that the tapering of ECB asset purchases may be on the horizon. This change in tone spooked investors and sent global yields higher and stocks lower going into quarter-end.

Despite growing geopolitical tension and pressure on energy and commodity prices, the demand for yield drove returns in emerging market (EM) debt amid a strong technical climate supported by robust investor flows. The dollar-denominated **JPM EMBI Global Diversified Index** was up 2.2%, and the local currency-denominated **JPM GBI-EM Global Diversified Index** jumped even more sharply, rising 3.6%. The weaker U.S. dollar and relatively higher local yields pushed EM local debt returns higher for the quarter and the year, continuing the post-election rebound.

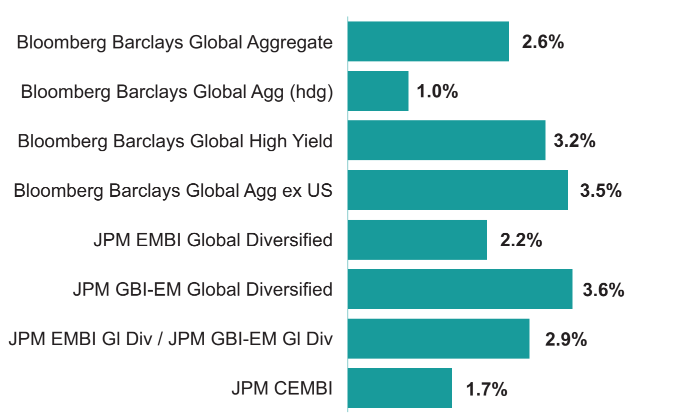
Change in 10-year Global Government Bond Yields

1Q17 to 2Q17



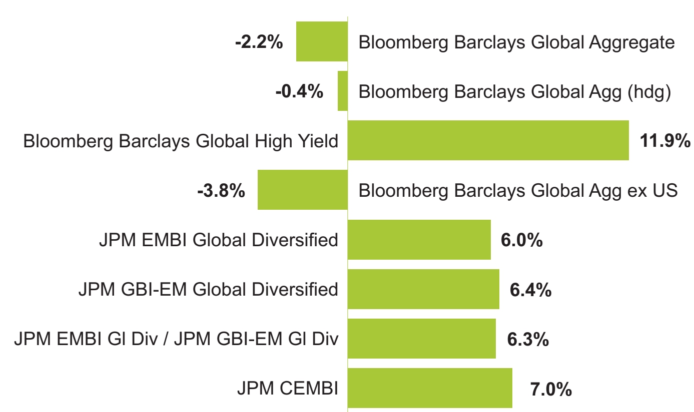
Source: Bloomberg Barclays

Non-U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and JP Morgan

Non-U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and JP Morgan

Some Positive Signs Emerging

REAL ESTATE | Kevin Nagy

The **NCREIF Property Index** advanced 1.8% during the second quarter (1.2% from income and 0.6% from appreciation). This marked the 34th consecutive quarter of positive returns for the Index. Appreciation return increased from the previous quarter, the first such gain since the first quarter of 2015.

Industrial (+3.1%) was the best-performing sector for the fifth consecutive quarter with Hotel (+1.8%), Office (+1.6%), Retail (+1.5%), and Apartments (+1.5%) also gaining. The West region was the strongest performer for the third quarter in a row, returning 2.2%, and the Midwest lagged with a 1.3% return. Transaction volume increased to $7.7 billion, up 11% from the first quarter but down 14.5% from the second quarter of 2016. Appraisal capitalization rates increased to 4.5%, slightly up from last quarter. Transaction capitalization rates fell to 6.1% from last quarter's 12-quarter high of 6.3%. The spread between appraisal and transaction rates decreased to 1.6 percentage points.

Occupancy rates fell for the second consecutive quarter to 92.8%. Apartment and Retail occupancy rates increased slightly while Industrial and Office rates decreased.

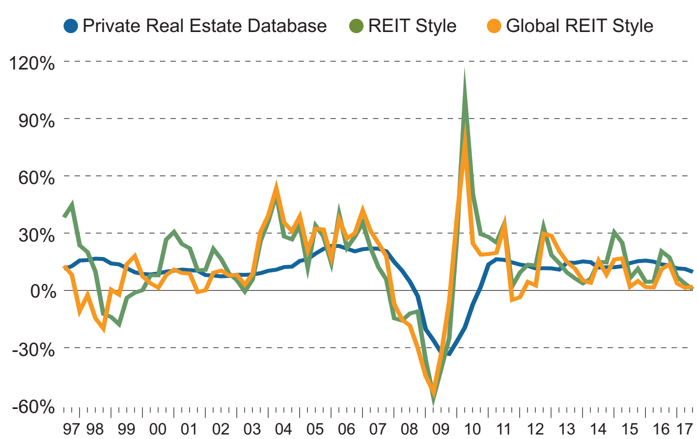
The **NCREIF Open End Diversified Core Equity Index** rose 1.7% (1.1% from income and 0.6% from appreciation), a decline from the first quarter and the lowest since 2010. Income returns increased slightly and appreciation fell to a new seven-year low.

Global real estate investment trusts (REITs), tracked by the **FTSE EPRA/NAREIT Developed REIT Index** (USD), posted a 3.1% return, outpacing U.S. REITs, which gained 1.5% as measured by the **FTSE NAREIT Equity REITs Index**.

In the U.S., REITs rebounded in June after being relatively flat in April and negative in May. Retail (-7.6%) was again the worst performer, depressed by weak earnings results from large retailers and the growing market share of e-commerce. Self-Storage (-2.7%), Specialty (-0.6%), and Timber (-0.1%) also fell. Health Care (+5.3%) remained strong as efforts to overturn the Affordable Care Act faltered. Industrial (+12.0%), Data Centers (+9.2%), Infrastructure (+8.8%), and Residential (+6.0%) all experienced strong gains.

Europe, as represented by the **FTSE EPRA/NAREIT Europe Index**, was the strongest performing region, returning 10.6% in U.S. dollar terms. The euro's appreciation against the dollar was a major driver of returns, as was strong, diversified growth across the majority of the region's economies. The successful takeover of several Spanish and Italian banks boosted continental European stocks and helped them outperform their U.K. peers.

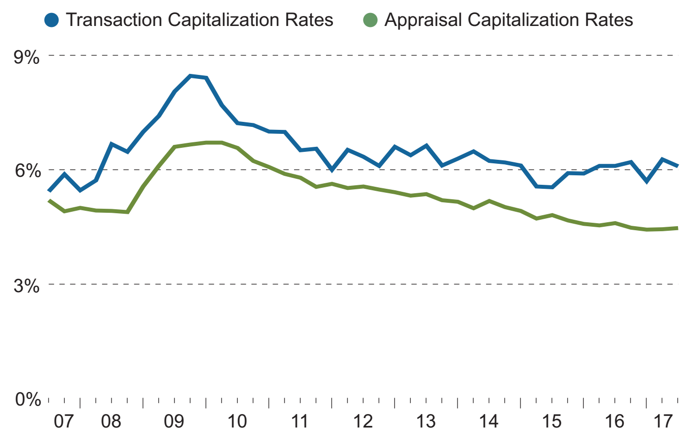
Rolling One-Year Returns



Source: Callan

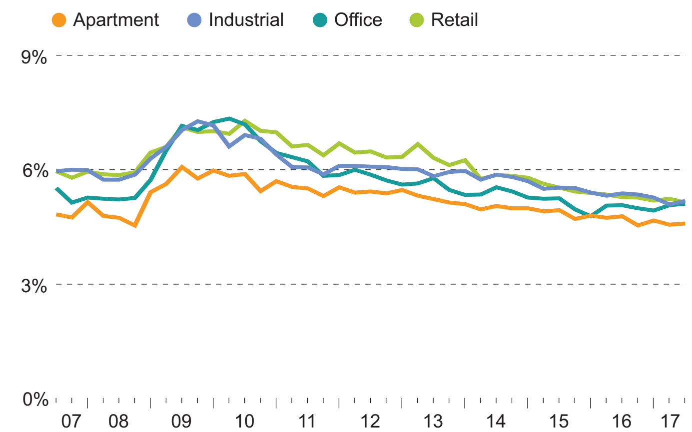
*Index subreturns are calculated separately from index return and may not total.

NCREIF Transaction and Appraisal Capitalization Rates



Source: NCREIF
Note: Transaction capitalization rate is equal weighted.

NCREIF Capitalization Rates by Property Type



Source: NCREIF
Note: Capitalization rates are appraisal-based.

The Asia-Pacific region outperformed the U.S. but lagged Europe. Singapore and Hong Kong again provided the strongest regional performance while Australia lagged behind, hurt by a weak retail sector. Japanese REITs suffered negative returns this quarter, but strong results from Japanese developers were enough to push the aggregate real estate index to a positive return.

Commercial mortgage-backed securities (CMBS) issuance for the quarter increased to $20.2 billion, a 79% increase over $13.9 billion in the first quarter. This also represented a 44.1% increase over the second quarter of 2016 ($11.3 billion).

Happy Campers

PRIVATE EQUITY | Gary Robertson

New private equity partnership commitments totaled $85.5 billion in the second quarter, with 319 new partnerships formed, according to *Private Equity Analyst.* The number of funds increased 3% from 310 in the first quarter, and the dollar volume rose 7% from $80.0 billion. Apollo IX raised the most capital in the quarter, $23.5 billion, and subsequently topped up to $24.6 billion for the final close—the largest buyout fund ever raised. The largest European (CVC VII: $19 billion) and Asian (KKR Asia III: $9.3 billion) funds were also closed this quarter.

Funds Closed January 1 to June 30, 2017

Strategy	No. of Funds	Amt ($mm)	Percent
Venture Capital	282	16,421	10%
Buyouts	220	120,352	73%
Subordinated Debt	26	7,326	4%
Distressed Debt	13	7,189	4%
Secondary and Other	23	5,249	3%
Fund-of-funds	65	8,945	5%
Totals	**629**	**165,481**	**100%**

Source: Private Equity Analyst
Figures may not total due to rounding.

Investments by funds into companies totaled 127 deals, up 69% from 75 in the prior quarter, according to *Buyouts* newsletter. The announced total volume was $72 billion, up 177% from $26 billion in the first quarter. Fifteen deals with announced values of $1 billion or more closed in the quarter.

New investments in venture capital companies totaled 1,963 rounds of financing with $21.8 billion of announced value, according to the National Venture Capital Association. The number of rounds closely mirrored the 1,954 in the first quarter, but announced dollar value increased 36% from $16.0 billion.

Buyouts reports there were 161 private M&A exits of buyout-backed companies, with 41 deals disclosing values totaling $18.3 billion. The M&A exit count was flat with the prior quarter's 162, but the announced value increased 15% from $15.9 billion. There were seven buyout-backed IPOs in the second quarter (a two-year high), raising an aggregate $2.0 billion. The number increased from five the prior quarter, but the total proceeds decreased from $3.1 billion.

Venture-backed exits (both private sales and IPOs) totaled 156 transactions, and disclosed value totaled $10.5 billion. Exits declined 19% from the first quarter's 192, and the dollar volume declined 28% from $14.6 billion.

Please see our upcoming issue of Private Markets Trends for more in-depth coverage.

Private Equity Performance Database (%) (Pooled Horizon IRRs through March 31, 2017*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	3.17	6.77	12.30	14.35	9.71	7.66	21.22
Growth Equity	4.16	12.02	9.70	11.51	10.34	11.37	13.60
All Buyouts	4.34	14.55	10.29	12.76	9.19	13.54	12.56
Mezzanine	2.83	9.47	8.13	9.70	8.83	9.52	9.06
Distressed	3.37	14.72	6.83	10.55	9.29	10.83	10.70
All Private Equity	**3.95**	**12.61**	**10.07**	**12.52**	**9.39**	**11.70**	**13.15**
S&P 500	6.07	17.17	10.37	13.30	7.51	7.09	7.86
Russell 3000	5.74	18.07	9.76	13.18	7.54	7.44	8.11

Private equity returns are net of fees.
Sources: Standard & Poor's and Thomson Reuters/Cambridge
*Most recent data available at time of publication.

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of *Capital Market Review* and other Callan publications.

As the World Churns, Despacito

HEDGE FUNDS | Jim McKee

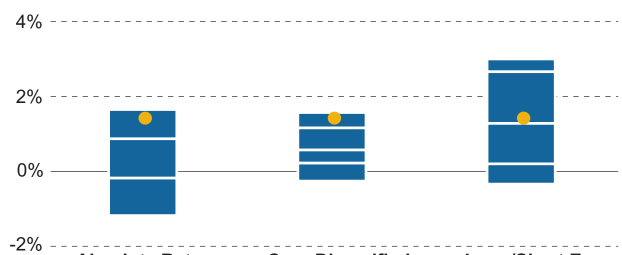
Stock lovers embraced the slowly shifting narrative of global growth appearing in Europe and Japan in the second quarter. Fixed income markets were unsettled when the European Central Bank hinted at potentially tapering its bond purchase program.

The quarter's market conditions provided a friendly setting for hedge funds seeking alternative risks. Illustrating raw hedge fund performance without implementation costs, though net of underlying hedge fund fees, the **Credit Suisse Hedge Fund Index** (CS HFI) rose 0.8%. As a live hedge fund portfolio, net of all fees and expenses, the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 0.9%.

Within the CS HFI, *Long/Short Equity* (+3.1%) repeated as the best-performing strategy for the second straight quarter. *Risk Arbitrage* rallied 2.7% while *Distressed* appreciated 1.6%. *Convertible Arb* (+0.2%) and *Equity Market Neutral* (+0.4%) experienced more modest gains. In last place for the second straight quarter, *Managed Futures* lost 3.4%. Even the more discretionary *Global Macro* (-1.8%) lost its footing with the unexpected turn of top-down themes.

Within Callan's **Hedge Fund-of-Funds Database,** the median *Callan Long/Short Equity FOF* (+1.3%) outpaced the *Callan Absolute Return FOF* (+0.9%). With diversifying exposures to both non-directional and directional styles, the *Core Diversified FOF* gained 0.6%.

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Eq FOF Style
10th Percentile	1.70	1.57	3.00
25th Percentile	1.65	1.16	2.66
Median	0.87	0.57	1.28
75th Percentile	-0.18	0.22	0.20
90th Percentile	-1.18	-0.26	-0.34
T-Bill + 5% ●	1.42	1.42	1.42

Sources: Callan and Merrill Lynch

Callan Database Median and Index Returns* for Periods ended June 30, 2017

	Quarter	YTD	Year	3 Years	5 Years	10 Years	15 Years
Hedge Fund-of-Funds Database	**0.94**	**3.26**	**8.12**	**1.78**	**5.39**	**2.90**	**4.88**
CS Hedge Fund Index	0.76	2.85	5.84	1.54	4.47	3.18	5.84
CS Equity Market Neutral	0.36	2.50	1.38	-0.40	1.89	-3.18	0.42
CS Convertible Arbitrage	0.21	2.46	6.82	1.90	3.53	3.42	4.67
CS Fixed Income Arbitrage	1.62	3.97	8.66	3.26	4.62	3.44	4.11
CS Multi-Strategy	2.29	5.11	9.05	5.53	7.41	4.88	7.02
CS Distressed	1.64	3.90	10.58	0.28	5.90	3.45	7.25
CS Risk Arbitrage	2.73	3.97	7.19	1.89	3.18	3.23	3.95
CS Event-Driven Multi-Strategy	0.76	3.67	8.73	-2.05	4.09	2.83	6.30
CS Long/Short Equity	3.06	6.62	8.40	2.97	7.00	3.73	6.49
CS Global Macro	-1.77	-1.54	3.58	1.43	2.79	4.85	7.47
CS Managed Futures	-3.40	-4.38	-12.70	1.26	0.06	1.49	4.07
CS Emerging Markets	2.67	7.05	11.25	4.30	5.91	3.47	8.10

*Returns less than one year are not annualized. Sources: Callan and Credit Suisse.

Best Return for DC Index Since 2013

DEFINED CONTRIBUTION | Tom Szkwarla

The Callan DC Index™ climbed 4.7% in the first quarter, its highest quarterly return since the end of 2013. This performance builds on results for 2016, when the Index rose 8.0%. But the DC Index did markedly lag the Age 45 Target Date Fund (+5.6%). In rising markets target date funds (TDFs) tend to outperform the DC Index because the average TDF has a higher allocation to equities than the average defined contribution (DC) plan.

During the quarter, plan balances grew 4.74%; investment returns accounted for the vast majority (4.67% vs. 0.07% for contributions). Since inception of the Index, plan sponsor and participant contributions have accounted for about a quarter of its growth.

Emerging market stocks, while a small part of DC plans, represented the sole equity asset class to witness inflows. This is not surprising given their strong showing during the period—DC flows often chase performance. Most other asset classes saw outflows in the first quarter, with the exception of TDFs, which dominated inflows as usual. In the first quarter, TDFs attracted over 88 cents of every dollar that moved within DC plans.

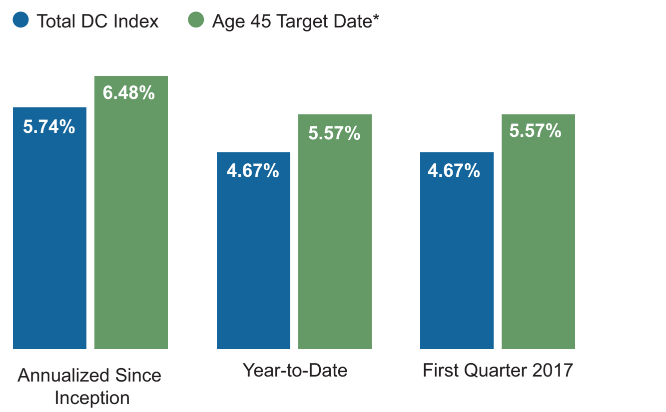
Turnover (i.e., net transfer activity within DC plans) was low this quarter (0.42%) compared to the historical average (0.64%).

The Callan DC Index's equity allocation ended the quarter at 69%, well below the average equity allocation of the Age 45 Target Date Fund (76%) but above the Index's historical average (67%).

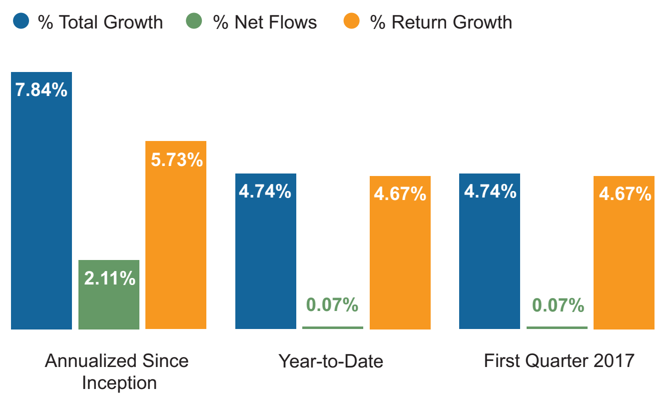
When TDFs are held within a DC plan, they now account for 32% of plan assets. The next largest plan holding, U.S. large cap equity funds, account for less than 23% of plan assets.

The Callan DC Index is an equally weighted index tracking the cash flows and performance of nearly 90 plans, representing more than one million DC participants and over $135 billion in assets. The Index is updated quarterly and is available on Callan's website, as is the quarterly DC Observer newsletter.

Investment Performance



Growth Sources



Net Cash Flow Analysis (First Quarter 2017)
(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	88.69%
U.S. Fixed Income	7.25%
Company Stock	-15.92%
Stable Value	-36.49%
Total Turnover**	**0.42%**

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

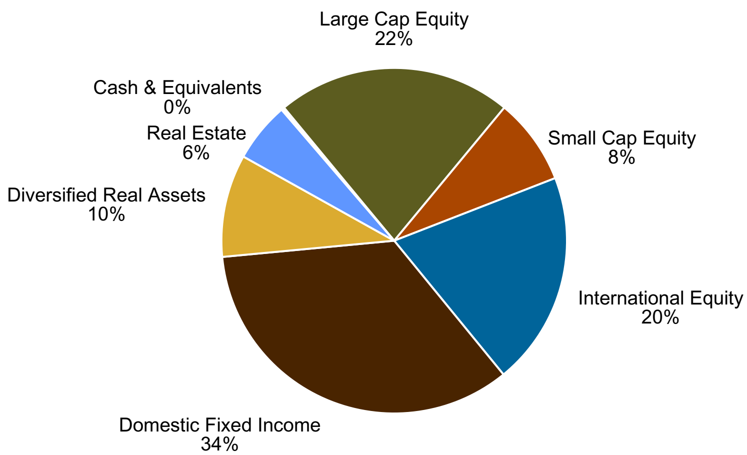
* The Age 45 Fund transitioned from the average 2030 TDF to the 2035 TDF in June 2013.

** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

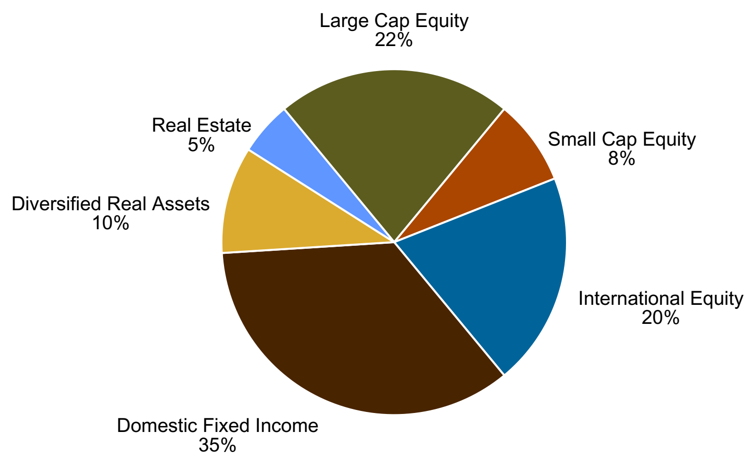
Actual vs Target Asset Allocation
As of June 30, 2017

The first chart below shows the Fund's asset allocation as of June 30, 2017. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation

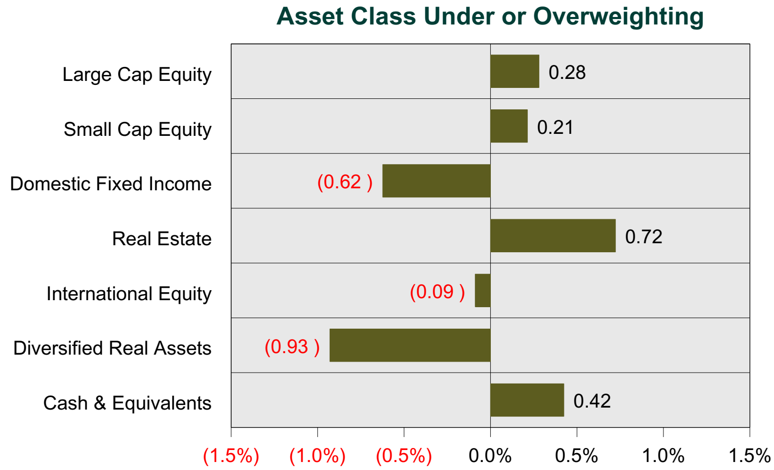


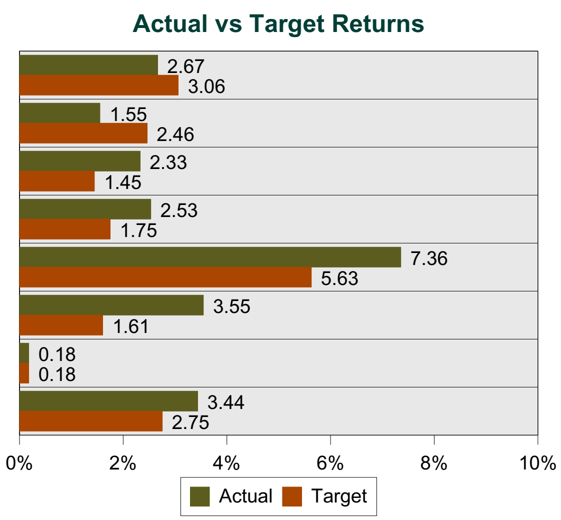
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	1,029,556	22.0%	22.0%	0.0%	(1,796)
Small Cap Equity	379,376	8.1%	8.0%	0.1%	4,339
International Equity	938,507	20.0%	20.0%	0.0%	914
Domestic Fixed Income	1,614,701	34.4%	35.0%	(0.6%)	(26,087)
Diversified Real Assets	452,210	9.6%	10.0%	(0.4%)	(16,587)
Real Estate	264,258	5.6%	5.0%	0.6%	29,860
Cash & Equivalents	9,357	0.2%	0.0%	0.2%	9,357
Total	4,687,964	100.0%	100.0%		

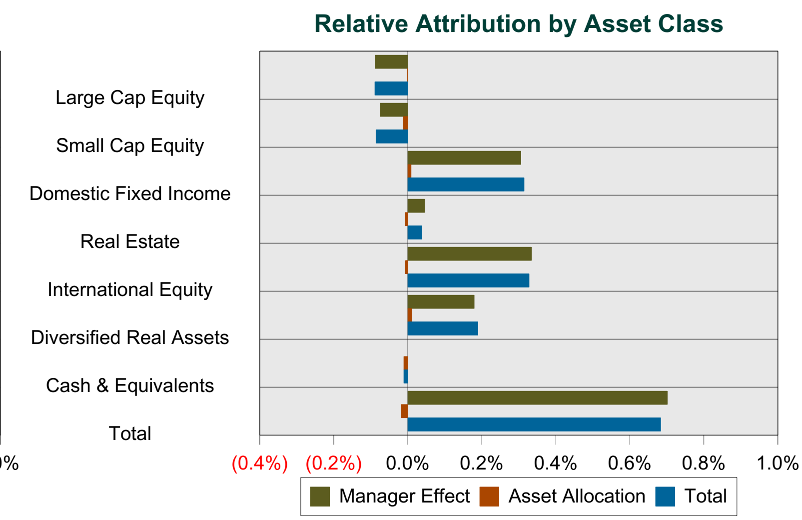
* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI EAFE, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

Quarterly Total Fund Relative Attribution - June 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.







Relative Attribution Effects for Quarter ended June 30, 2017

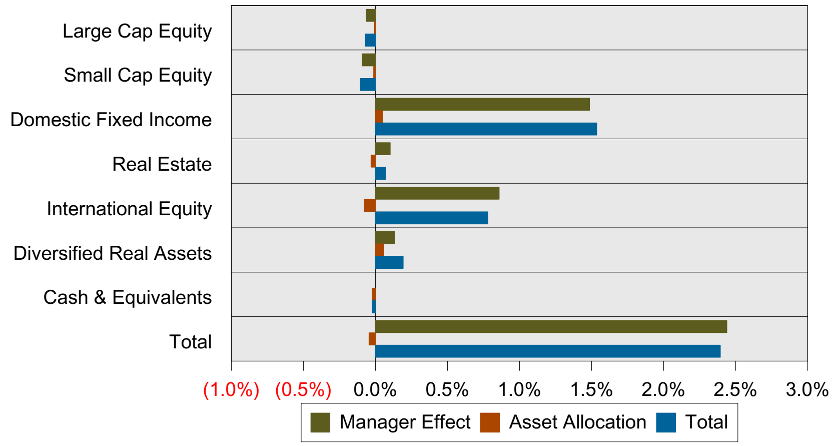
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	2.67%	3.06%	(0.09%)	(0.00%)	(0.09%)
Small Cap Equity	8%	8%	1.55%	2.46%	(0.07%)	(0.01%)	(0.09%)
Domestic Fixed Income	34%	35%	2.33%	1.45%	0.31%	0.01%	0.31%
Real Estate	6%	5%	2.53%	1.75%	0.05%	(0.01%)	0.04%
International Equity	20%	20%	7.36%	5.63%	0.33%	(0.01%)	0.33%
Diversified Real Assets	9%	10%	3.55%	1.61%	0.18%	0.01%	0.19%
Cash & Equivalents	0%	0%	0.18%	0.18%	0.00%	(0.01%)	(0.01%)
Total			**3.44% =**	**2.75% +**	**0.70% +**	**(0.02%)**	**0.68%**

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

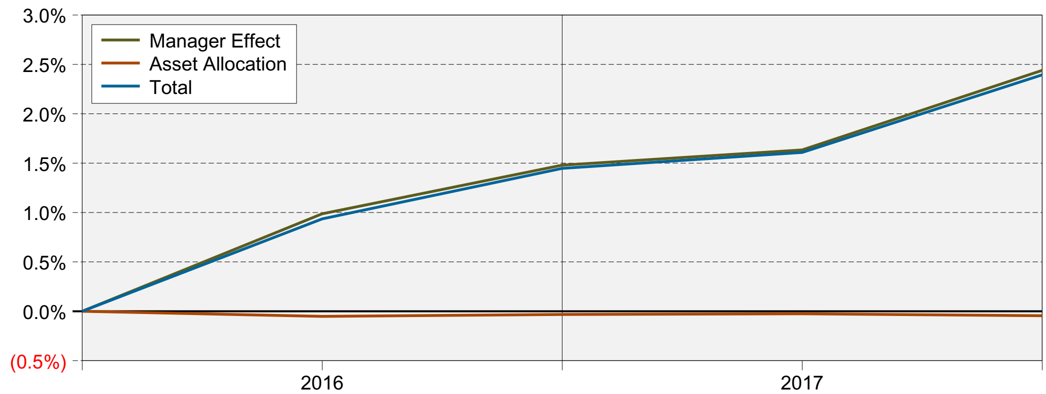
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

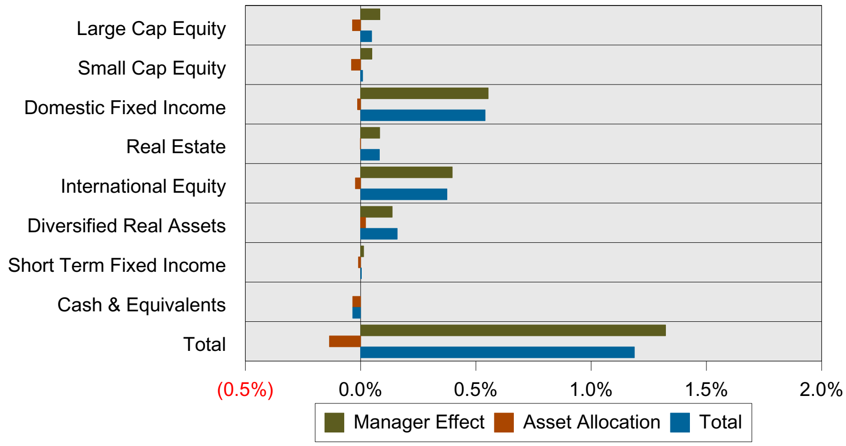
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	17.77%		18.03%		(0.06%)		(0.01%)	(0.07%)
Small Cap Equity	8%	8%	23.34%		24.60%		(0.09%)		(0.01%)	(0.11%)
Domestic Fixed Income	34%	35%	3.68%		(0.31%)		1.49%		0.05%	1.54%
Real Estate	6%	5%	8.75%		6.97%		0.10%		(0.03%)	0.07%
International Equity	20%	20%	24.26%		19.49%		0.86%		(0.08%)	0.78%
Diversified Real Assets	9%	10%	2.35%		1.02%		0.13%		0.06%	0.19%
Cash & Equivalents	0%	0%	0.44%		0.44%		0.00%		(0.02%)	(0.02%)
Total			**12.30%**	**=**	**9.91%**	**+**	**2.44%**	**+**	**(0.05%)**	**2.39%**

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

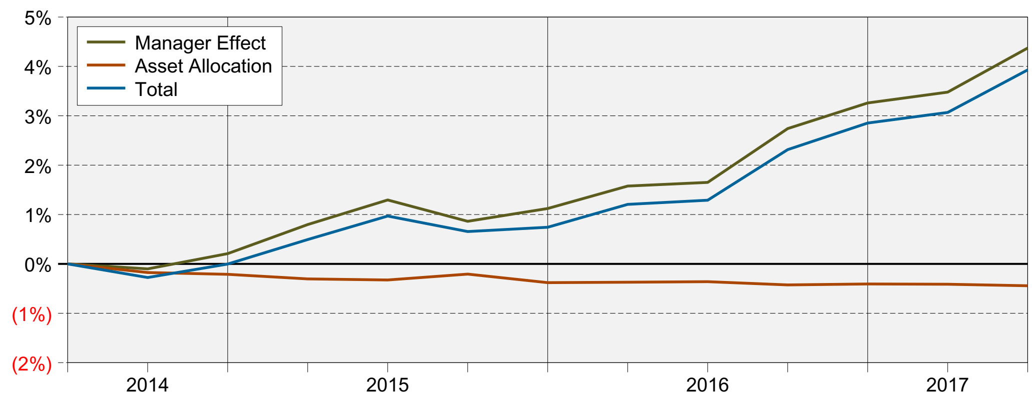
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

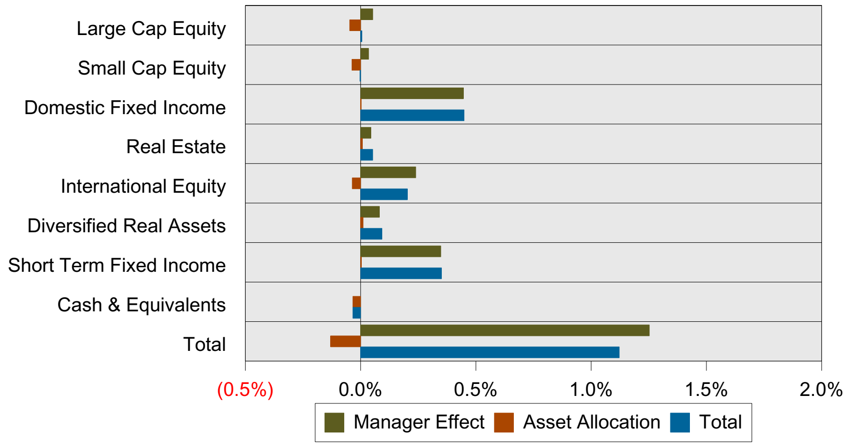
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	9.70%	9.26%	0.08%	(0.04%)	0.05%
Small Cap Equity	8%	8%	8.08%	7.36%	0.05%	(0.04%)	0.01%
Domestic Fixed Income	34%	34%	4.10%	2.48%	0.55%	(0.01%)	0.54%
Real Estate	6%	5%	11.81%	10.17%	0.08%	(0.00%)	0.08%
International Equity	20%	20%	2.86%	0.93%	0.40%	(0.02%)	0.37%
Diversified Real Assets	9%	9%	1.26%	(0.21%)	0.14%	0.02%	0.16%
Short Term Fixed Income	2%	2%	-	-	0.01%	(0.01%)	0.00%
Cash & Equivalents	0%	0%	0.19%	0.19%	0.00%	(0.03%)	(0.03%)
Total			**5.61% =**	**4.42% +**	**1.32% +**	**(0.14%)**	**1.19%**

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

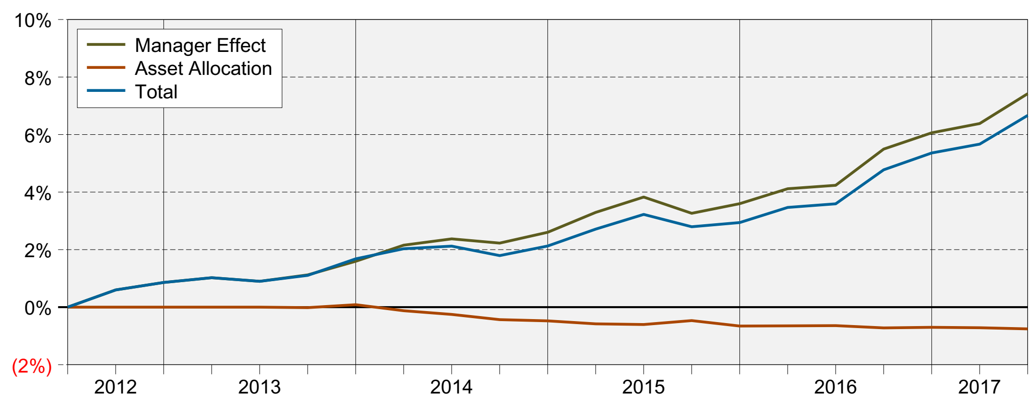
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

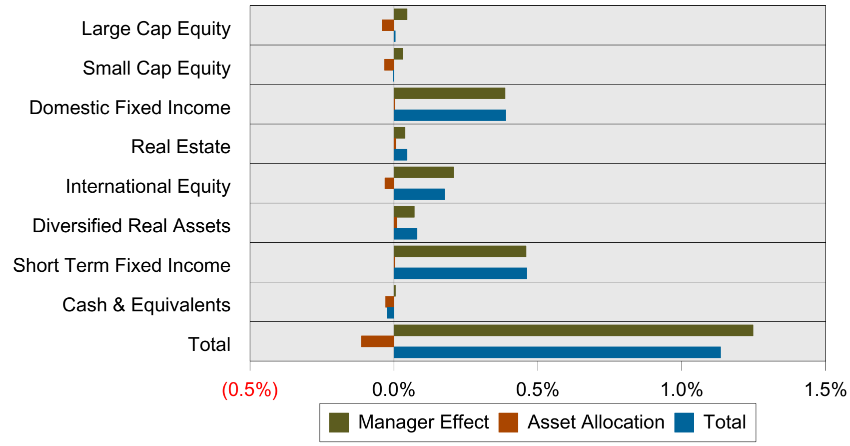
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	15%	15%	-	-	0.05%	(0.05%)	0.01%
Small Cap Equity	5%	5%	-	-	0.03%	(0.04%)	(0.00%)
Domestic Fixed Income	23%	23%	-	-	0.45%	0.00%	0.45%
Real Estate	4%	3%	-	-	0.04%	0.01%	0.05%
International Equity	13%	14%	-	-	0.24%	(0.04%)	0.20%
Diversified Real Assets	5%	6%	-	-	0.08%	0.01%	0.09%
Short Term Fixed Income	33%	34%	-	-	0.35%	0.00%	0.35%
Cash & Equivalents	0%	0%	0.16%	0.16%	0.00%	(0.03%)	(0.03%)
Total			**4.96% =**	**3.84% +**	**1.25% +**	**(0.13%)**	**1.12%**

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

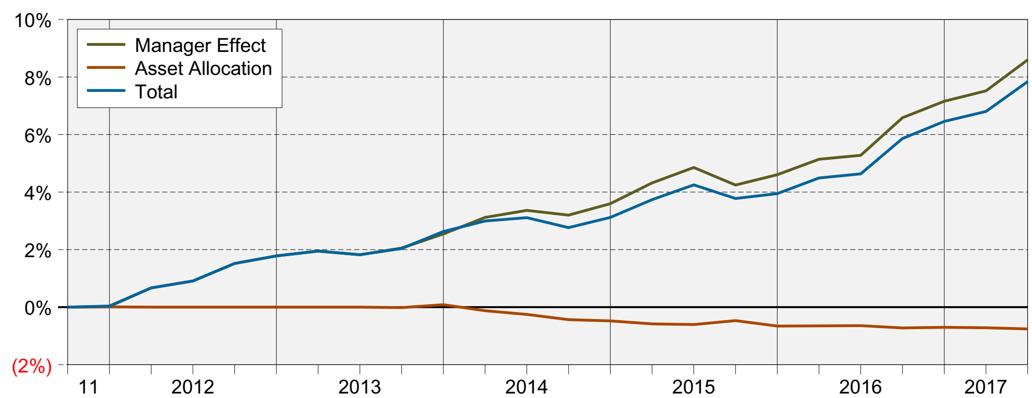
Cumulative Total Fund Relative Attribution - June 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five and Three-Quarter Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five and Three-Quarter Year Annualized Relative Attribution Effects

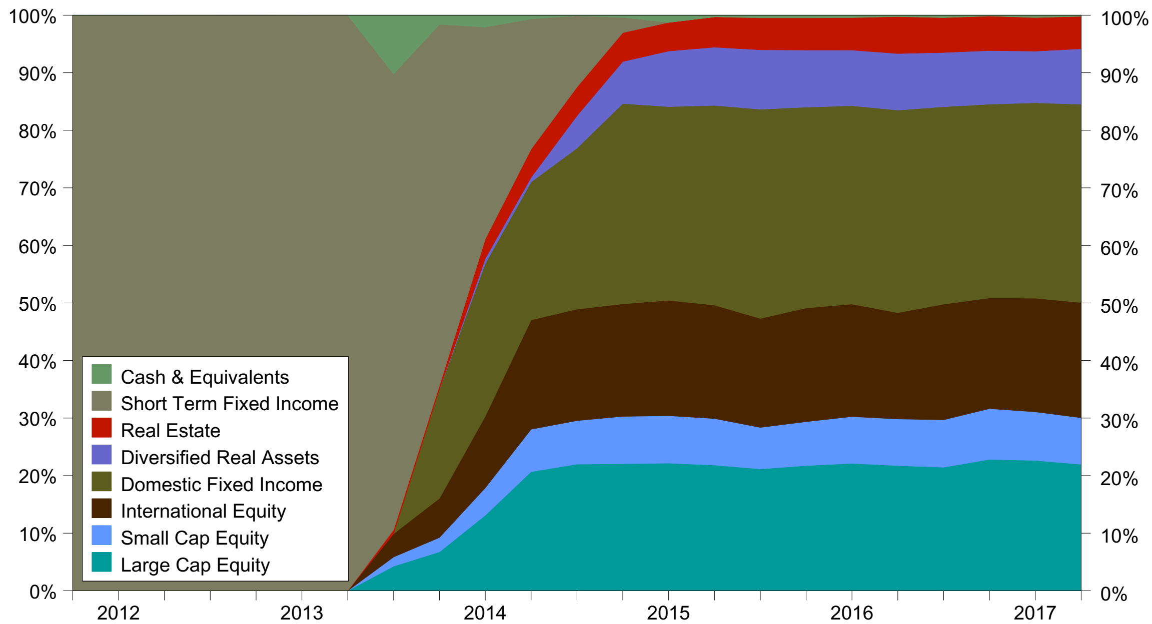
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	13%	13%	-	-	0.05%	(0.04%)	0.00%
Small Cap Equity	5%	5%	-	-	0.03%	(0.03%)	(0.00%)
Domestic Fixed Income	20%	20%	-	-	0.39%	0.00%	0.39%
Real Estate	3%	3%	-	-	0.04%	0.01%	0.05%
International Equity	12%	12%	-	-	0.21%	(0.03%)	0.18%
Diversified Real Assets	5%	5%	-	-	0.07%	0.01%	0.08%
Short Term Fixed Income	39%	40%	-	-	0.46%	0.00%	0.46%
Cash & Equivalents	4%	3%	0.16%	0.16%	0.01%	(0.03%)	(0.02%)
Total			**4.51% =**	**3.37% +**	**1.25% +**	**(0.11%)**	**1.13%**

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

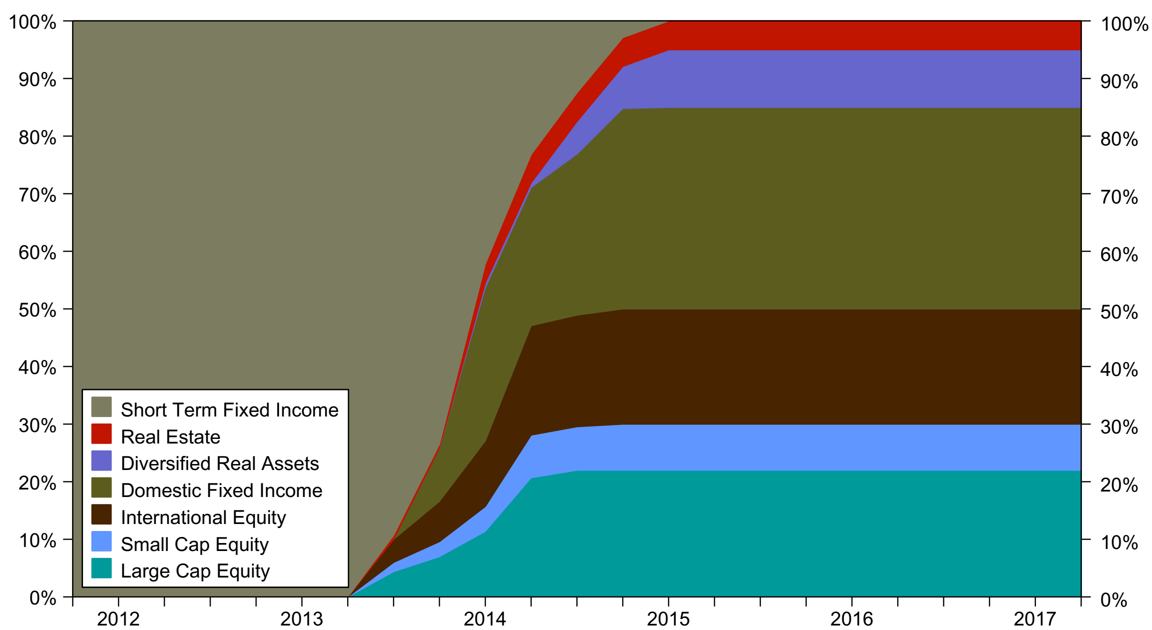
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation

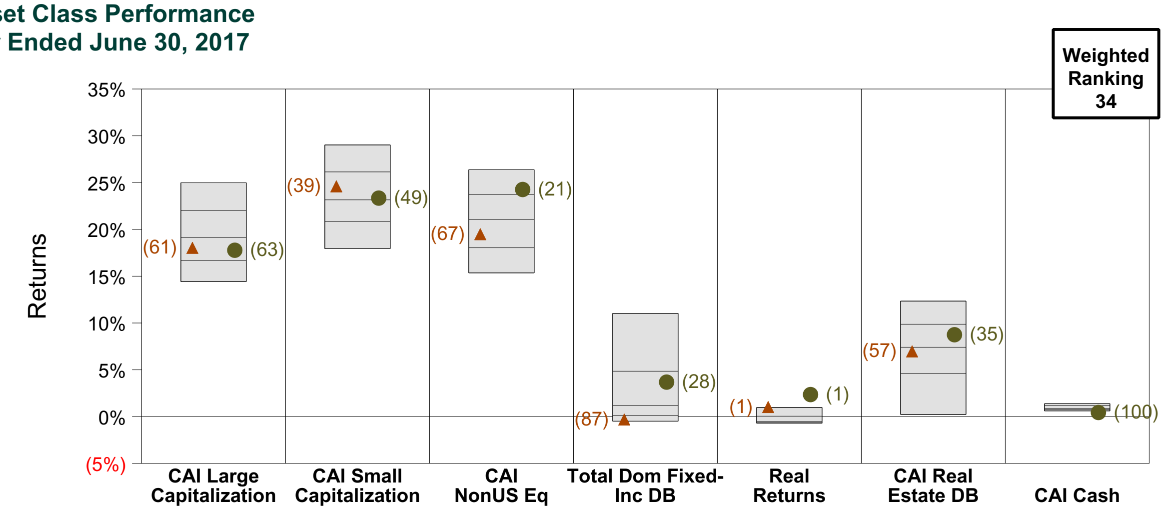


* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

Asset Class Rankings

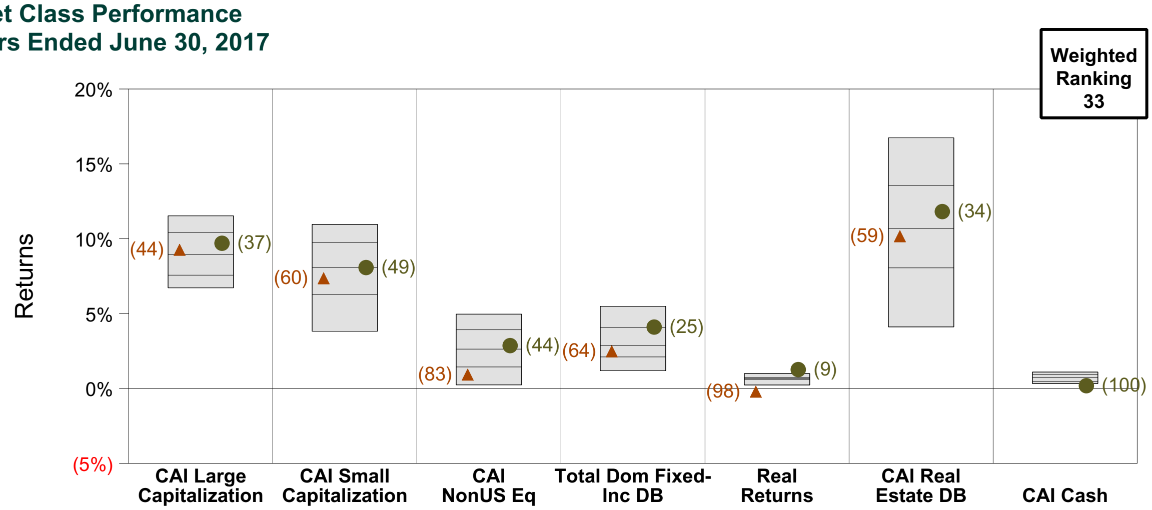
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance
One Year Ended June 30, 2017



	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Cash
10th Percentile	24.98	29.03	26.38	11.03	0.98	12.34	1.38
25th Percentile	22.01	26.14	23.72	4.85	0.05	9.87	1.18
Median	19.14	23.16	21.05	1.16	(0.50)	7.41	0.87
75th Percentile	16.69	20.83	18.04	0.14	(0.65)	4.62	0.75
90th Percentile	14.43	17.94	15.35	(0.49)	(0.70)	0.23	0.61
Asset Class Composite ●	17.77	23.34	24.26	3.68	2.35	8.75	0.44
Composite Benchmark ▲	18.03	24.60	19.49	(0.31)	1.02	6.97	-

Total Asset Class Performance
Three Years Ended June 30, 2017



	CAI Large Capitalization	CAI Small Capitalization	CAI NonUS Eq	Total Dom Fixed-Inc DB	Real Returns	CAI Real Estate DB	CAI Cash
10th Percentile	11.53	10.96	4.97	5.49	1.00	16.74	1.10
25th Percentile	10.43	9.75	3.92	4.07	0.73	13.54	0.95
Median	8.95	8.07	2.63	2.89	0.68	10.69	0.73
75th Percentile	7.57	6.27	1.44	2.11	0.60	8.06	0.47
90th Percentile	6.72	3.82	0.24	1.19	0.24	4.11	0.33
Asset Class Composite ●	9.70	8.08	2.86	4.10	1.26	11.81	0.19
Composite Benchmark ▲	9.26	7.36	0.93	2.48	(0.21)	10.17	-

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2017, with the distribution as of March 31, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Class Allocation

	June 30, 2017				March 31, 2017	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equity	**$1,408,932,348**	**30.05%**	**$(554,596)**	**$32,532,071**	**$1,376,954,873**	**31.08%**
Large Cap Equity	**$1,029,556,016**	**21.96%**	**$(446,207)**	**$26,734,533**	**$1,003,267,690**	**22.65%**
L.A. Capital Enhanced	200,847,139	4.28%	(65,585)	4,073,251	196,839,473	4.44%
L.A. Capital Large Cap Growth	313,133,611	6.68%	(154,552)	10,382,730	302,905,433	6.84%
Parametric Clifton Large Cap	203,767,236	4.35%	0	6,166,998	197,600,238	4.46%
LSV Large Cap Value	311,808,030	6.65%	(226,070)	6,111,553	305,922,547	6.91%
Small Cap Equity	**$379,376,332**	**8.09%**	**$(108,389)**	**$5,797,538**	**$373,687,183**	**8.44%**
Parametric Clifton SmallCap	208,245,366	4.44%	0	5,276,887	202,968,479	4.58%
PIMCO RAE	171,130,966	3.65%	(108,389)	520,651	170,718,704	3.85%
International Equity	**$938,506,615**	**20.02%**	**$(678,833)**	**$64,321,282**	**$874,864,166**	**19.75%**
DFA Intl SmallCap Value	93,652,212	2.00%	0	5,578,718	88,073,494	1.99%
LSV Intl Value	382,364,713	8.16%	(345,401)	22,934,671	359,775,443	8.12%
Vanguard Intl Explorer Fund	93,713,936	2.00%	0	8,857,828	84,856,108	1.92%
William Blair	368,775,754	7.87%	(333,432)	26,950,064	342,159,121	7.72%
Domestic Fixed Income	**$1,614,700,564**	**34.44%**	**$74,876,375**	**$35,826,677**	**$1,503,997,511**	**33.95%**
BND CDs	57,188,509	1.22%	(20,136,770)	476,457	76,848,822	1.73%
Declaration Total Return	126,385,793	2.70%	17,961,421	2,262,458	106,161,914	2.40%
Prudential	178,188,628	3.80%	7,889,995	3,963,307	166,335,326	3.75%
SSgA US Govt Credit Bd Idx	231,692,172	4.94%	27,983,636	3,490,542	200,217,994	4.52%
Wells Capital	473,768,708	10.11%	25,326,597	13,476,224	434,965,887	9.82%
Western Asset Management	472,234,602	10.07%	15,851,495	8,876,889	447,506,219	10.10%
Pooled Fixed Income(1)	75,242,151	1.61%	0	3,280,802	71,961,350	1.62%
Diversified Real Assets	**$452,209,854**	**9.65%**	**$40,058,714**	**$14,211,281**	**$397,939,858**	**8.98%**
Western TIPS	320,367,717	6.83%	22,901,574	7,317,799	290,148,344	6.55%
JP Morgan Infrastructure	113,161,582	2.41%	19,639,944	6,001,885	87,519,754	1.98%
Grosvenor Cust. Infrastructure	18,680,554	0.40%	(2,482,804)	891,598	20,271,760	0.46%
Real Estate	**$264,257,789**	**5.64%**	**$(714,657)**	**$6,542,794**	**$258,429,652**	**5.83%**
Invesco Core Real Estate	127,038,112	2.71%	(109,278)	2,345,520	124,801,870	2.82%
JP Morgan RE Inc & Growth	137,219,677	2.93%	(605,379)	4,197,274	133,627,782	3.02%
Cash & Equivalents	**$9,356,557**	**0.20%**	**$(8,684,948)**	**$31,713**	**$18,009,792**	**0.41%**
Securities Lending Income	**$0**	**0.00%**	**$(181,457)**	**$181,457**	**-**	**-**
Total Fund	**$4,687,963,726**	**100.0%**	**$104,120,599**	**$153,647,275**	**$4,430,195,852**	**100.0%**

(1) Comprised of PIMCO DiSCO II and PIMCO Bravo II.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5-3/4 Years
Domestic Equity				
Gross	2.36%	19.31%	9.32%	-
Net	2.32%	18.99%	9.06%	-
Large Cap Equity				
Gross	2.67%	17.77%	9.70%	-
Net	2.62%	17.51%	9.48%	-
Russell 1000 Index	3.06%	18.03%	9.26%	16.66%
L.A. Capital Enhanced - Gross	2.07%	15.00%	9.67%	-
L.A. Capital Enhanced - Net	2.04%	14.84%	9.52%	-
Russell 1000 Index	3.06%	18.03%	9.26%	16.66%
L.A. Capital LargeCap Growth - Gross	3.43%	15.44%	10.91%	-
L.A. Capital LargeCap Growth - Net	3.38%	15.21%	10.69%	-
Russell 1000 Growth Index	4.67%	20.42%	11.11%	17.12%
Parametric Clifton Large Cap - Gross	3.12%	17.67%	10.01%	-
Parametric Clifton Large Cap - Net	3.12%	17.39%	9.87%	-
S&P 500 Index	3.09%	17.90%	9.61%	16.64%
LSV Large Cap Value - Gross	2.00%	22.05%	8.32%	-
LSV Large Cap Value - Net	1.92%	21.69%	8.01%	-
Russell 1000 Value Index	1.34%	15.53%	7.36%	16.11%
Small Cap Equity				
Gross	1.55%	23.34%	8.08%	-
Net	1.52%	22.87%	7.71%	-
Russell 2000 Index	2.46%	24.60%	7.36%	16.29%
Parametric Clifton Small Cap - Gross	2.60%	24.96%	8.59%	-
Parametric Clifton Small Cap - Net	2.60%	24.35%	8.16%	-
Russell 2000 Index	2.46%	24.60%	7.36%	16.29%
PIMCO RAE - Gross	0.30%	21.42%	7.15%	-
PIMCO RAE - Net	0.24%	21.12%	6.86%	-
Russell 2000 Index	2.46%	24.60%	7.36%	16.29%
International Equity				
Gross	7.36%	24.26%	2.86%	-
Net	7.27%	23.91%	2.56%	-
Benchmark(1)	5.63%	19.49%	0.93%	8.56%
DFA Intl Small Cap Value	6.33%	28.80%	4.16%	-
World ex US SC Va	6.44%	23.52%	2.76%	10.61%
LSV Intl Value - Gross	6.38%	26.86%	3.00%	-
LSV Intl Value - Net	6.28%	26.38%	2.60%	-
MSCI EAFE Index	6.12%	20.27%	1.15%	8.68%
Vanguard Intl Explorer Fund	10.44%	26.60%	5.69%	-
BMI, EPAC, <$2 B	7.33%	20.88%	5.71%	10.97%
William Blair - Gross	7.88%	19.95%	-	-
William Blair - Net	7.78%	19.56%	-	-
MSCI ACWI ex US IMI	5.85%	20.43%	1.14%	7.70%

(1) MSCI EAFE through 6/30/2016 and MSCI World ex-US thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 5-3/4 Years
Domestic Fixed Income					
Gross	2.33%	3.68%	4.10%	-	-
Net	2.30%	3.55%	3.97%	-	-
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	2.54%
BND CDs - Net	0.69%	-	-	-	-
Declaration Total Return - Net	1.87%	4.99%	3.71%	-	-
Libor-3 Month	0.30%	0.98%	0.58%	0.46%	0.47%
Prudential - Gross	2.31%	3.10%	4.23%	-	-
Prudential - Net	2.25%	2.83%	3.96%	-	-
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	2.54%
Wells Capital - Gross	3.05%	5.23%	4.44%	-	-
Wells Capital - Net	3.01%	5.05%	4.26%	-	-
Blmbg Baa Credit 3% In	2.68%	3.57%	3.47%	4.30%	5.07%
Western Asset - Gross	1.97%	2.48%	3.88%	-	-
Western Asset - Net	1.94%	2.35%	3.74%	-	-
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	2.54%
SSgA US Govt Credit Bd Idx - Gross	1.69%	(0.43%)	2.62%	-	-
SSgA US Govt Credit Bd Idx - Net	1.68%	(0.46%)	2.59%	-	-
Blmbg Govt/Credit Bd	1.69%	(0.41%)	2.62%	2.29%	2.66%
Pooled Fixed Income - Net(1)	4.56%	15.72%	-	-	-
Blmbg Aggregate Index	1.45%	(0.31%)	2.48%	2.21%	2.54%
Diversified Real Assets					
Gross	3.55%	2.35%	1.26%	-	-
Net	3.44%	2.10%	1.03%	-	-
Weighted Benchmark	1.61%	1.02%	(0.21%)	-	-
Western Asset TIPS - Gross	2.53%	0.95%	0.24%	-	-
Western Asset TIPS - Net	2.49%	0.82%	0.12%	-	-
Blmbg Glbl Inftn-Lnked	2.03%	0.91%	(0.30%)	1.60%	2.16%
JP Morgan Infrastructure - Gross	6.87%	6.96%	-	-	-
JP Morgan Infrastructure - Net	6.49%	6.27%	-	-	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.14%
Grosvenor Cust. Infrastructure - Net	5.34%	3.28%	-	-	-
CPI-W	0.49%	1.50%	0.58%	1.11%	1.14%
Real Estate					
Gross	2.53%	8.75%	11.81%	-	-
Net	2.27%	8.09%	11.09%	-	-
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	10.61%
Invesco Core Real Estate - Gross	1.88%	8.53%	11.90%	-	-
Invesco Core Real Estate - Net	1.79%	8.16%	11.52%	-	-
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	10.61%
JP Morgan RE Inc & Growth - Gross	3.14%	8.94%	11.88%	-	-
JP Morgan RE Inc & Growth - Net	2.72%	8.03%	10.80%	-	-
NCREIF Total Index	1.75%	6.97%	10.17%	10.49%	10.61%
Cash & Equivalents - Net	**0.18%**	**0.44%**	**0.19%**	**0.16%**	**0.16%**
90 Day Treasury Bills	0.20%	0.49%	0.23%	0.17%	0.16%
Total Fund					
Gross	3.44%	12.30%	5.61%	4.96%	4.51%
Net	3.37%	12.03%	5.36%	4.76%	4.33%
Target*	2.75%	9.91%	4.42%	3.84%	3.37%

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.
(1) Comprised of PIMCO DiSCO II and PIMCO Bravo II.

Domestic Equity
Period Ended June 30, 2017

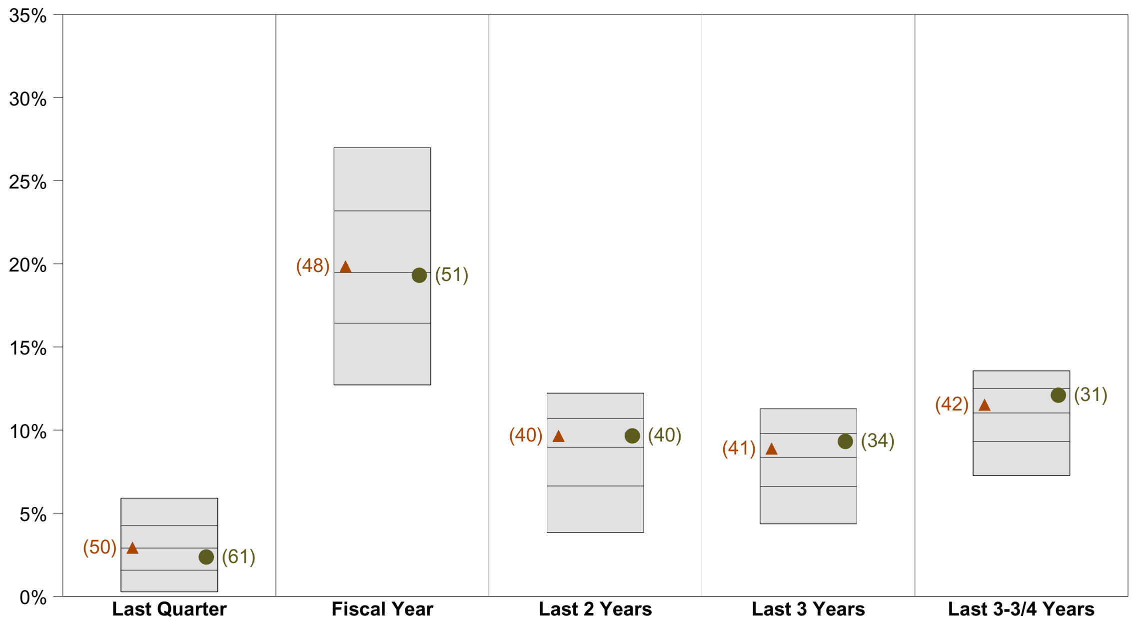
Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a 2.36% return for the quarter placing it in the 61 percentile of the Total Domestic Equity Database group for the quarter and in the 51 percentile for the last year.
- Domestic Equity's portfolio underperformed the Domestic Equity Target by 0.56% for the quarter and underperformed the Domestic Equity Target for the year by 0.54%.

Quarterly Asset Growth

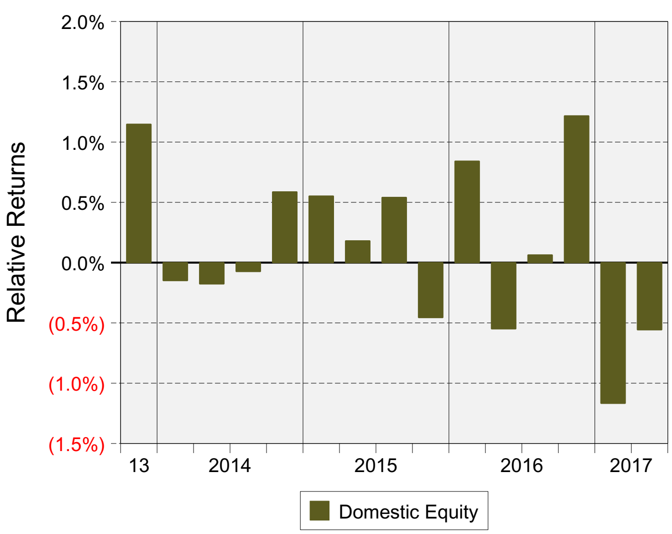
Beginning Market Value	$1,376,954,873
Net New Investment	$-554,596
Investment Gains/(Losses)	$32,532,071
Ending Market Value	$1,408,932,348

Performance vs Total Domestic Equity Database (Gross)

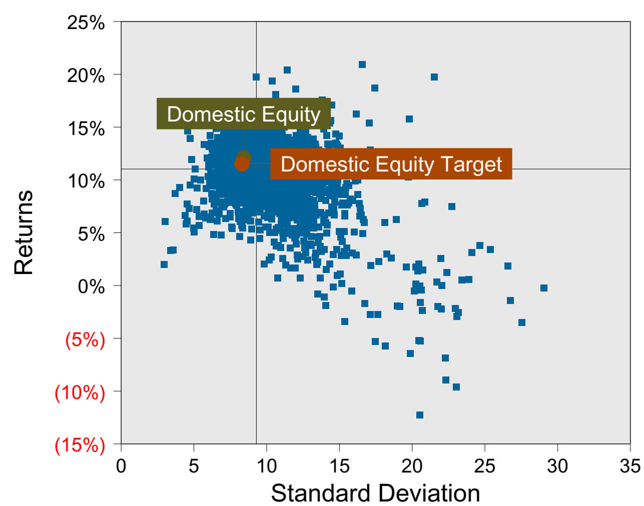


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	5.90	26.99	12.22	11.28	13.56
25th Percentile	4.28	23.19	10.68	9.79	12.49
Median	2.90	19.48	8.97	8.33	11.03
75th Percentile	1.57	16.43	6.64	6.61	9.32
90th Percentile	0.27	12.72	3.85	4.36	7.26
Domestic Equity ●	2.36	19.31	9.65	9.32	12.10
Domestic Equity Target ▲	2.92	19.85	9.65	8.88	11.52

Relative Return vs Domestic Equity Target



Total Domestic Equity Database (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



Parametric Clifton Large Cap
Period Ended June 30, 2017

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

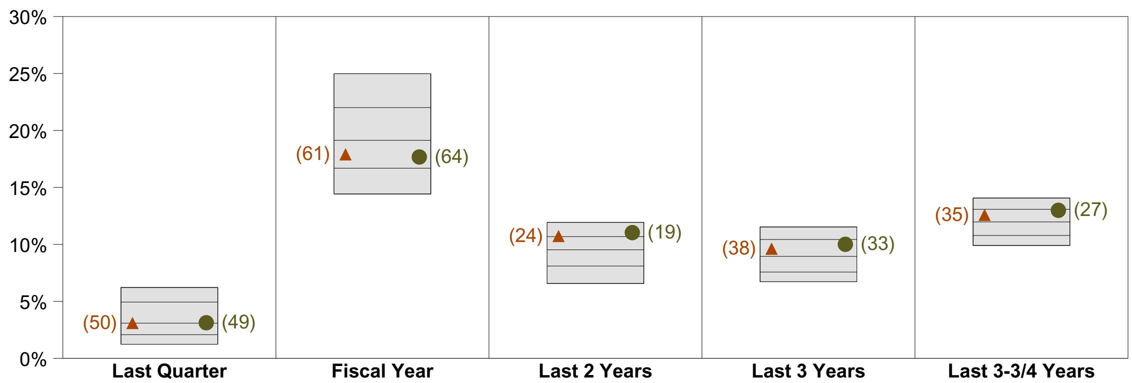
Quarterly Summary and Highlights

- Parametric Clifton Large Cap's portfolio posted a 3.12% return for the quarter placing it in the 49 percentile of the CAI Large Capitalization group for the quarter and in the 64 percentile for the last year.
- Parametric Clifton Large Cap's portfolio outperformed the S&P 500 Index by 0.03% for the quarter and underperformed the S&P 500 Index for the year by 0.22%.

Quarterly Asset Growth

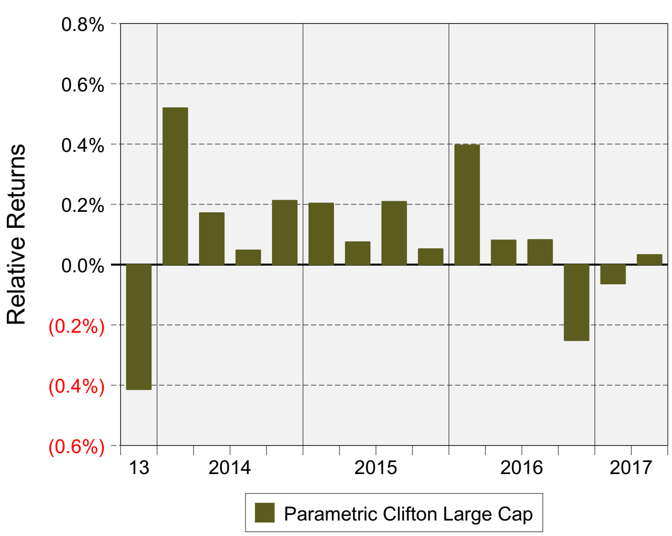
Beginning Market Value	$197,600,238
Net New Investment	$0
Investment Gains/(Losses)	$6,166,998
Ending Market Value	$203,767,236

Performance vs CAI Large Capitalization (Gross)

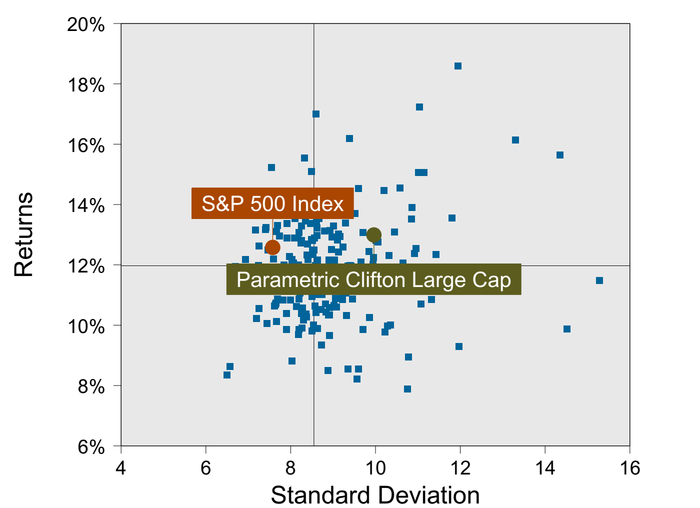


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	6.22	24.98	11.93	11.53	14.07
25th Percentile	4.94	22.01	10.68	10.43	13.08
Median	3.09	19.14	9.52	8.95	11.97
75th Percentile	2.07	16.69	8.10	7.57	10.78
90th Percentile	1.23	14.43	6.57	6.72	9.90
Parametric Clifton Large Cap ●	3.12	17.67	11.03	10.01	12.99
S&P 500 Index ▲	3.09	17.90	10.73	9.61	12.58

Relative Return vs S&P 500 Index



CAI Large Capitalization (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



L.A. Capital
Period Ended June 30, 2017

Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

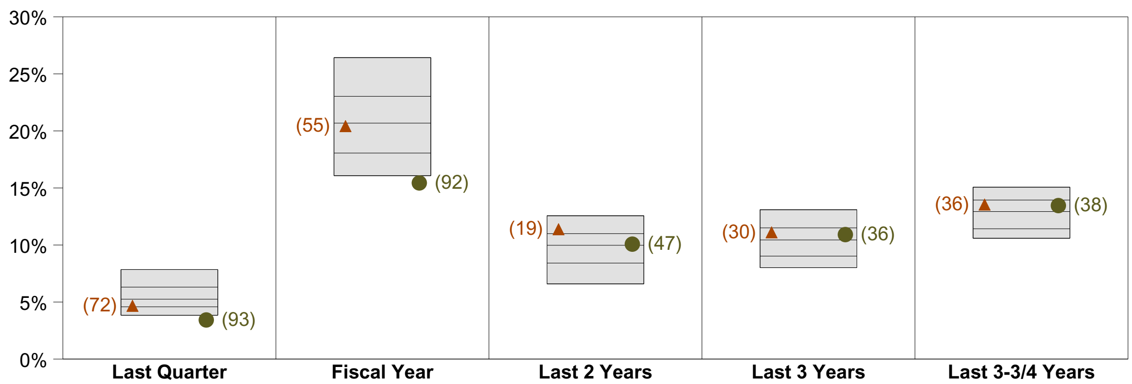
Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a 3.43% return for the quarter placing it in the 93 percentile of the CAI Large Cap Growth group for the quarter and in the 92 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio underperformed the Russell 1000 Growth Index by 1.24% for the quarter and underperformed the Russell 1000 Growth Index for the year by 4.98%.

Quarterly Asset Growth

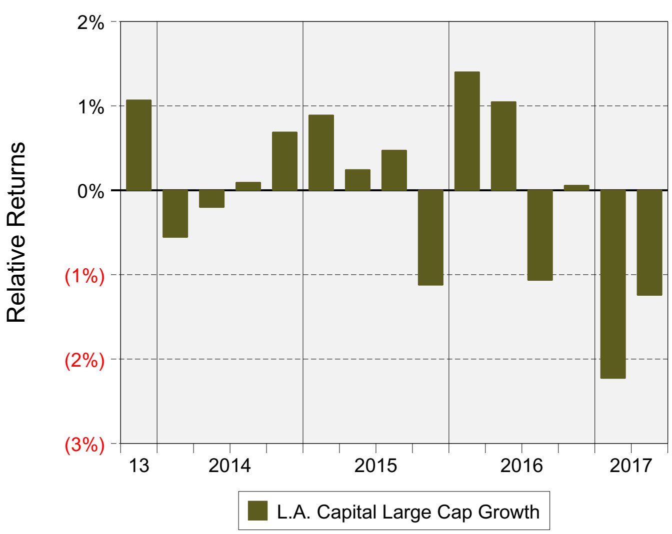
Beginning Market Value	$302,905,433
Net New Investment	$-154,552
Investment Gains/(Losses)	$10,382,730
Ending Market Value	$313,133,611

Performance vs CAI Large Cap Growth (Gross)

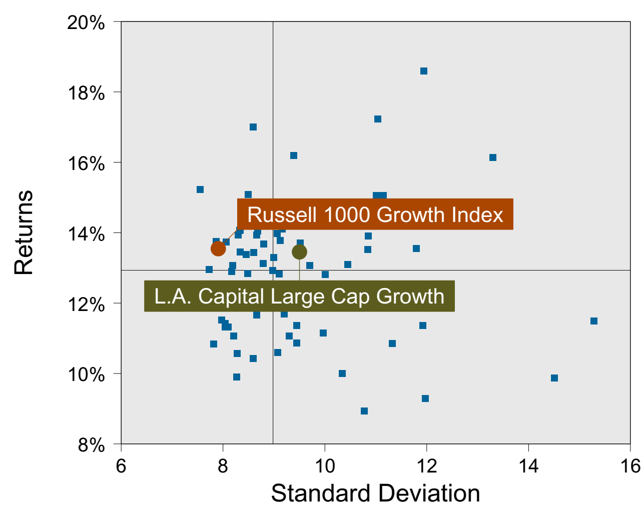


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	7.85	26.43	12.56	13.09	15.07
25th Percentile	6.31	23.03	10.99	11.50	13.94
Median	5.25	20.68	9.97	10.45	12.93
75th Percentile	4.58	18.06	8.41	9.03	11.42
90th Percentile	3.84	16.08	6.59	8.02	10.59
L.A. Capital Large Cap Growth ●	3.43	15.44	10.08	10.91	13.45
Russell 1000 Growth Index ▲	4.67	20.42	11.38	11.11	13.55

Relative Return vs Russell 1000 Growth Index



CAI Large Cap Growth (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



L.A. Capital Enhanced
Period Ended June 30, 2017

Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

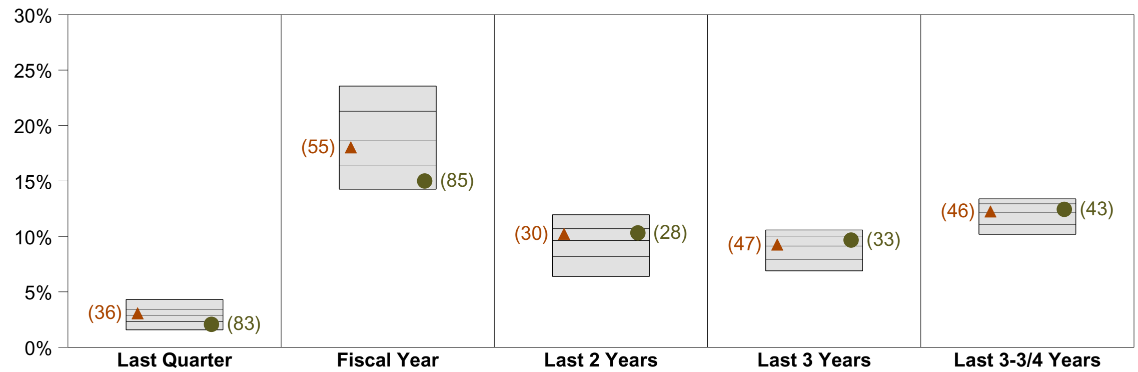
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a 2.07% return for the quarter placing it in the 83 percentile of the CAI Large Cap Core group for the quarter and in the 85 percentile for the last year.
- L.A. Capital Enhanced's portfolio underperformed the Russell 1000 Index by 0.99% for the quarter and underperformed the Russell 1000 Index for the year by 3.03%.

Quarterly Asset Growth

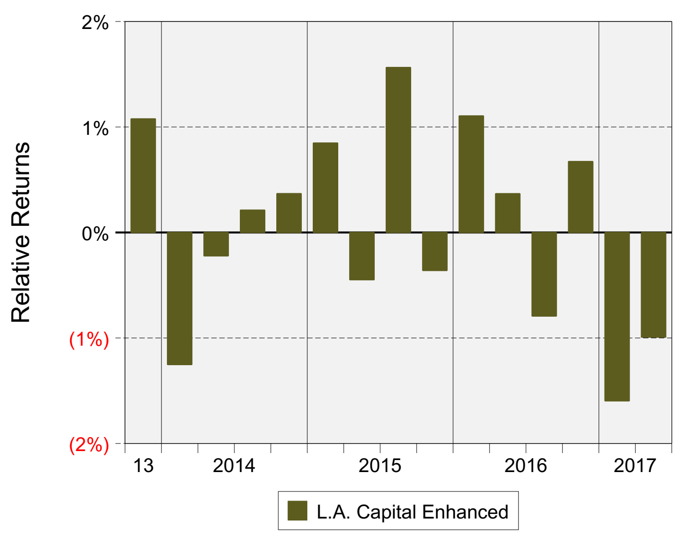
Beginning Market Value	$196,839,473
Net New Investment	$-65,585
Investment Gains/(Losses)	$4,073,251
Ending Market Value	$200,847,139

Performance vs CAI Large Cap Core (Gross)

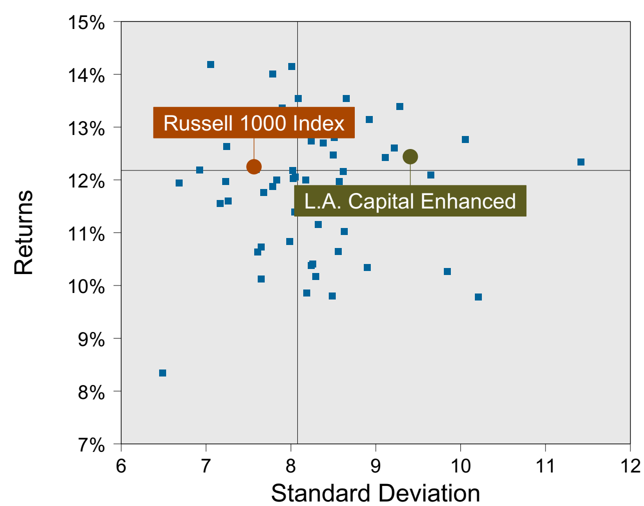


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	4.30	23.56	11.95	10.58	13.39
25th Percentile	3.43	21.29	10.70	10.03	12.94
Median	2.90	18.62	9.62	9.13	12.18
75th Percentile	2.31	16.36	8.19	7.94	11.09
90th Percentile	1.57	14.26	6.39	6.89	10.19
L.A. Capital Enhanced ●	2.07	15.00	10.32	9.67	12.44
Russell 1000 Index ▲	3.06	18.03	10.22	9.26	12.25

Relative Return vs Russell 1000 Index



CAI Large Cap Core (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



LSV Asset Management
Period Ended June 30, 2017

Investment Philosophy

The objective of LSV Asset Management's Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested.

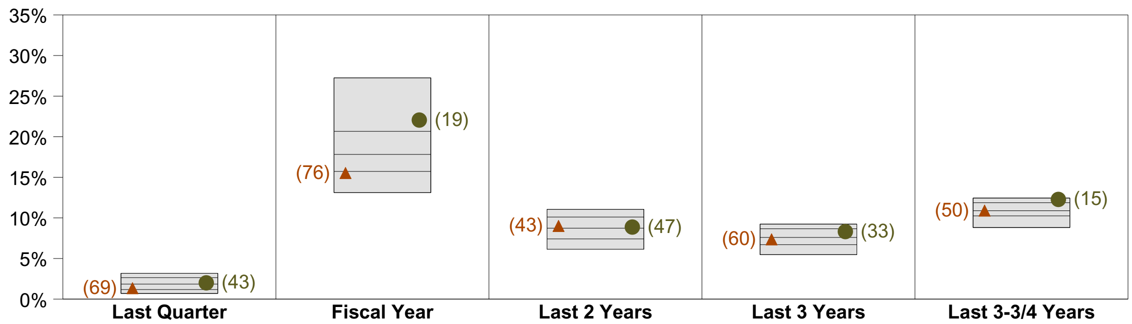
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a 2.00% return for the quarter placing it in the 43 percentile of the CAI Large Cap Value group for the quarter and in the 19 percentile for the last year.
- LSV Large Cap Value's portfolio outperformed the Russell 1000 Value Index by 0.66% for the quarter and outperformed the Russell 1000 Value Index for the year by 6.52%.

Quarterly Asset Growth

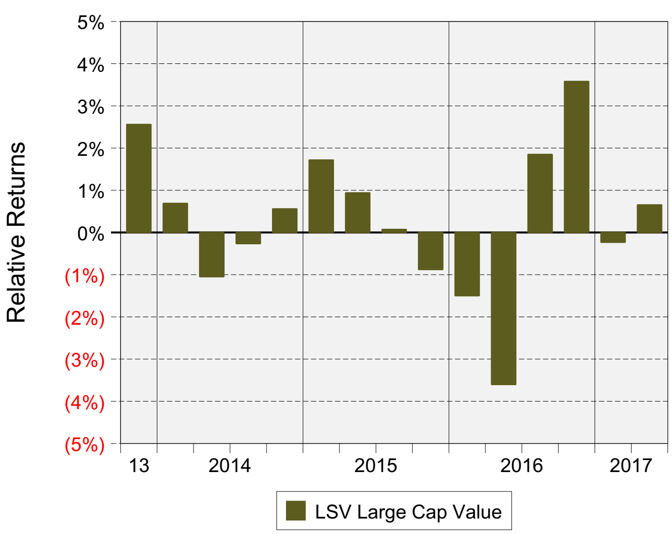
Beginning Market Value	$305,922,547
Net New Investment	$-226,070
Investment Gains/(Losses)	$6,111,553
Ending Market Value	$311,808,030

Performance vs CAI Large Cap Value (Gross)

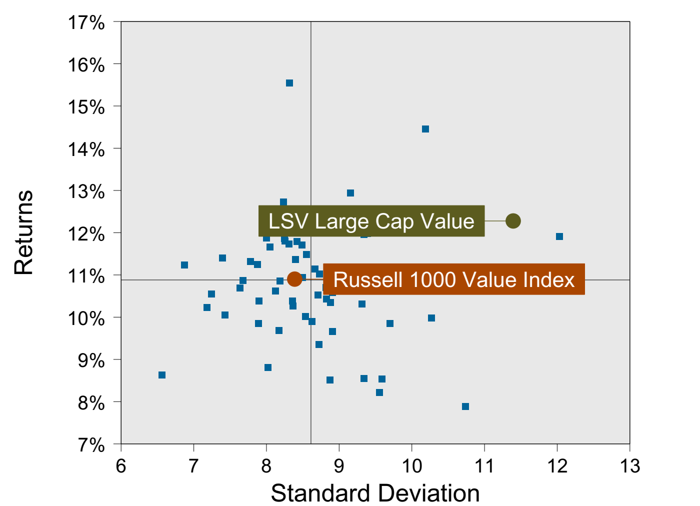


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	3.18	27.25	11.06	9.23	12.45
25th Percentile	2.64	20.66	10.11	8.66	11.87
Median	1.85	17.82	8.74	7.59	10.88
75th Percentile	1.18	15.73	7.41	6.70	10.25
90th Percentile	0.70	13.11	6.14	5.47	8.81
LSV Large Cap Value ●	2.00	22.05	8.87	8.32	12.28
Russell 1000 Value Index ▲	1.34	15.53	9.01	7.36	10.90

Relative Return vs Russell 1000 Value Index



CAI Large Cap Value (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



Parametric Clifton Small Cap
Period Ended June 30, 2017

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

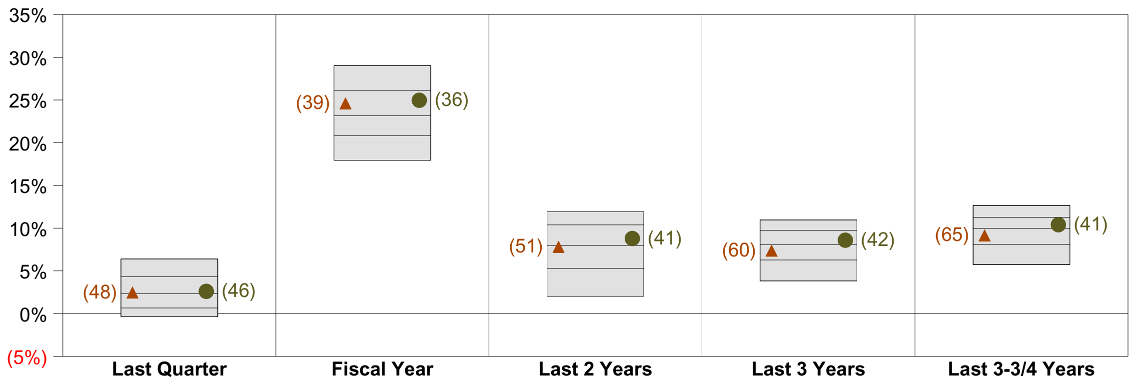
Quarterly Summary and Highlights

- Parametric Clifton Small Cap's portfolio posted a 2.60% return for the quarter placing it in the 46 percentile of the CAI Small Capitalization group for the quarter and in the 36 percentile for the last year.
- Parametric Clifton Small Cap's portfolio outperformed the Russell 2000 Index by 0.14% for the quarter and outperformed the Russell 2000 Index for the year by 0.36%.

Quarterly Asset Growth

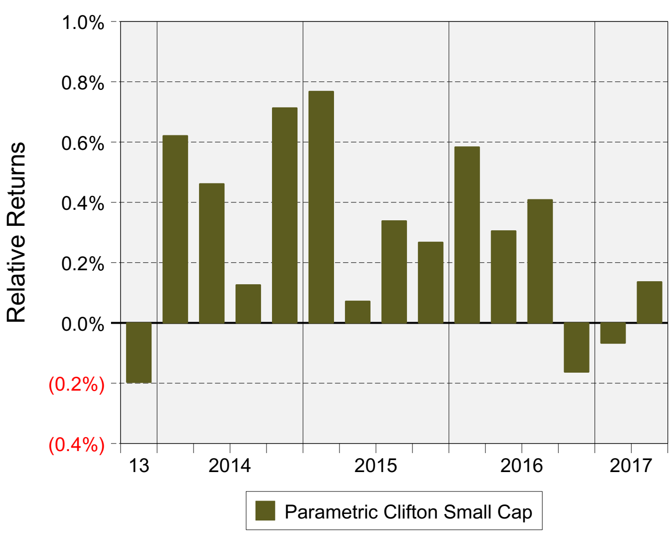
Beginning Market Value	$202,968,479
Net New Investment	$0
Investment Gains/(Losses)	$5,276,887
Ending Market Value	$208,245,366

Performance vs CAI Small Capitalization (Gross)

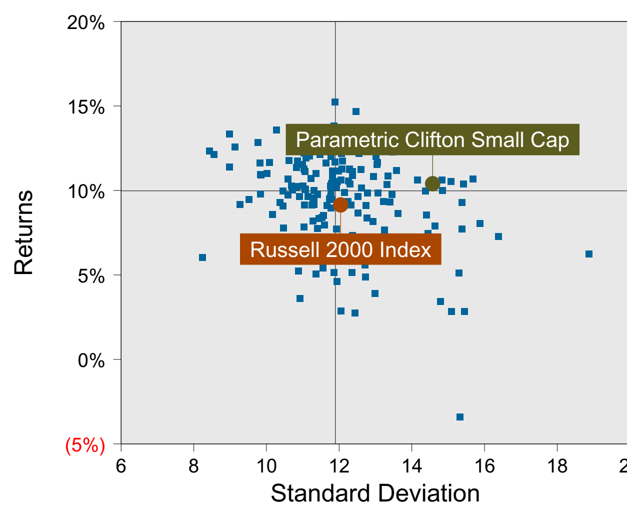


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	6.40	29.03	11.92	10.96	12.65
25th Percentile	4.32	26.14	10.38	9.75	11.27
Median	2.33	23.16	7.97	8.07	9.98
75th Percentile	0.66	20.83	5.28	6.27	8.10
90th Percentile	(0.37)	17.94	2.03	3.82	5.74
Parametric Clifton Small Cap ●	2.60	24.96	8.79	8.59	10.40
Russell 2000 Index ▲	2.46	24.60	7.80	7.36	9.14

Relative Return vs Russell 2000 Index



CAI Small Capitalization (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



PIMCO RAE
Period Ended June 30, 2017

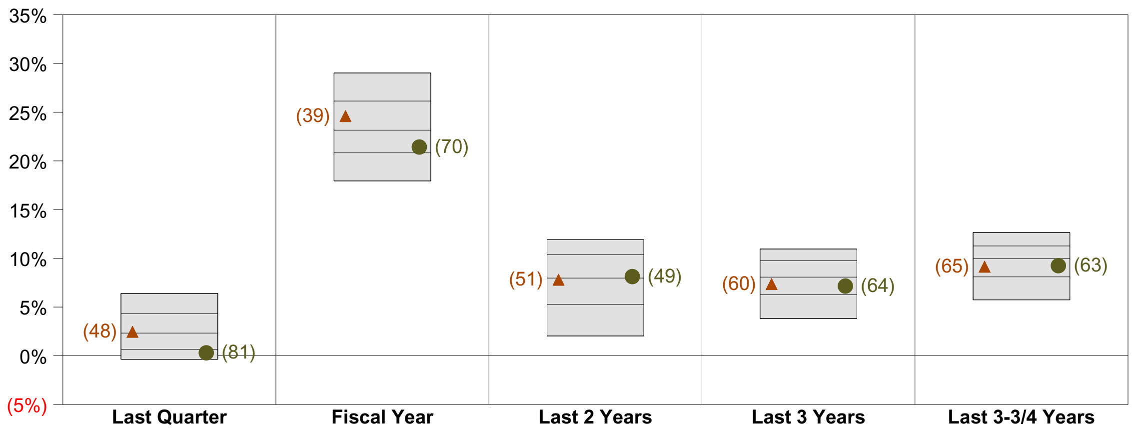
Investment Philosophy
Small company value equity portfolio utilizing the index strategy and philosophy described as the Enhanced RAFI US Small strategy which relies on portfolio weights derived from firm fundamentals (free cash flow, book equity value, total sales and gross dividend), instead of market capitalization. Additionally, the enhanced portfolio strategy uses a quality of earnings screening and a financial distress screening to augment portfolio returns and reduce portfolio volatility.

Quarterly Summary and Highlights
- PIMCO RAE's portfolio posted a 0.30% return for the quarter placing it in the 81 percentile of the CAI Small Capitalization group for the quarter and in the 70 percentile for the last year.
- PIMCO RAE's portfolio underperformed the Russell 2000 Index by 2.16% for the quarter and underperformed the Russell 2000 Index for the year by 3.18%.

Quarterly Asset Growth

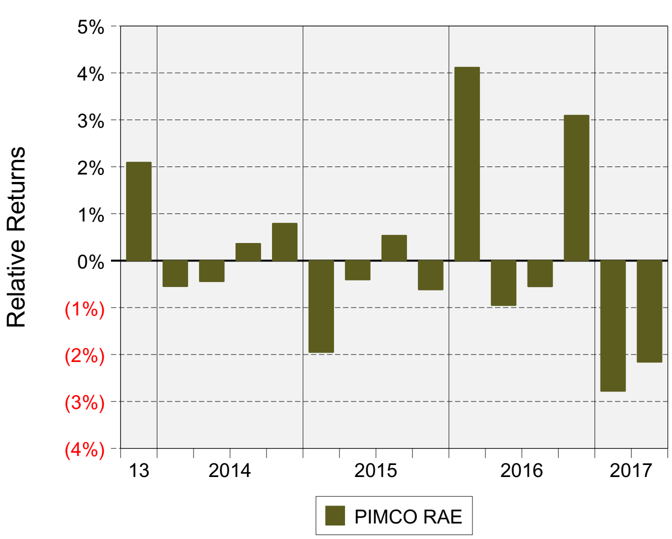
Beginning Market Value	$170,718,704
Net New Investment	$-108,389
Investment Gains/(Losses)	$520,651
Ending Market Value	$171,130,966

Performance vs CAI Small Capitalization (Gross)

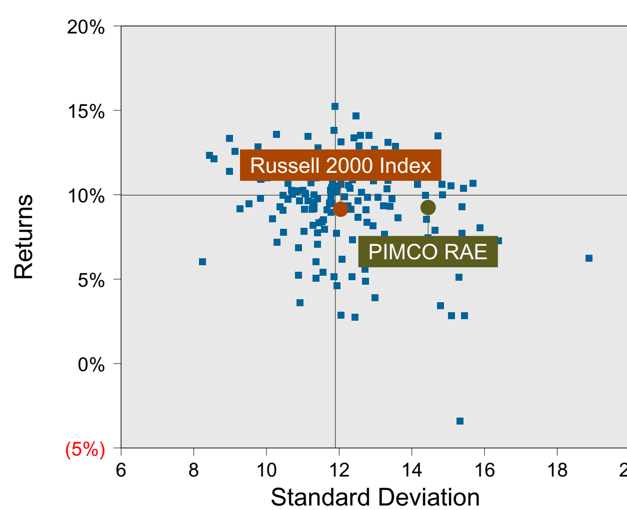


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	6.40	29.03	11.92	10.96	12.65
25th Percentile	4.32	26.14	10.38	9.75	11.27
Median	2.33	23.16	7.97	8.07	9.98
75th Percentile	0.66	20.83	5.28	6.27	8.10
90th Percentile	(0.37)	17.94	2.03	3.82	5.74
PIMCO RAE ●	0.30	21.42	8.13	7.15	9.25
Russell 2000 Index ▲	2.46	24.60	7.80	7.36	9.14

Relative Return vs Russell 2000 Index



CAI Small Capitalization (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



International Equity
Period Ended June 30, 2017

Quarterly Summary and Highlights

- International Equity's portfolio posted a 7.36% return for the quarter placing it in the 36 percentile of the CAI Non-US Equity group for the quarter and in the 21 percentile for the last year.
- International Equity's portfolio outperformed the International Equity Target by 1.73% for the quarter and outperformed the International Equity Target for the year by 4.78%.

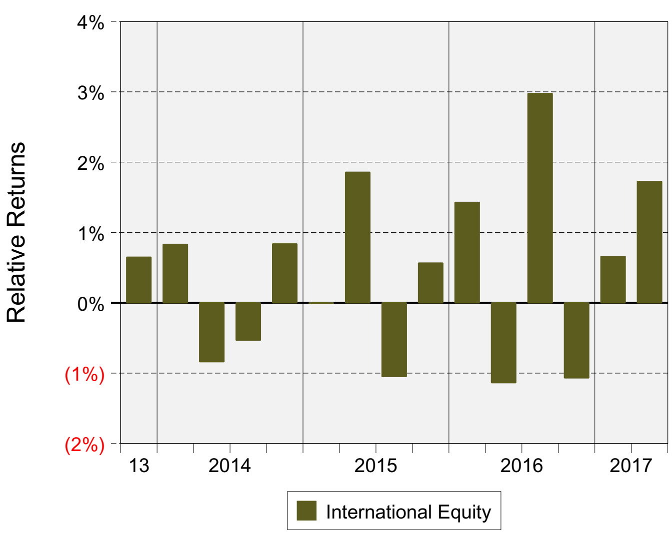
Quarterly Asset Growth

Beginning Market Value	$874,864,166
Net New Investment	$-678,833
Investment Gains/(Losses)	$64,321,282
Ending Market Value	$938,506,615

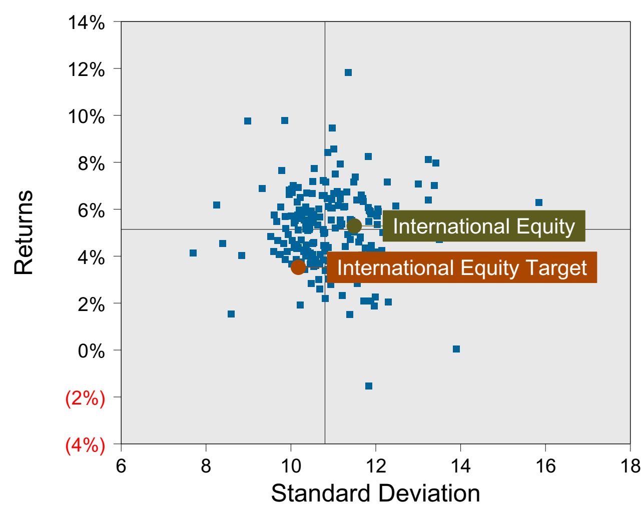
Performance vs CAI Non-US Equity (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	8.83	26.38	8.00	4.97	7.01
25th Percentile	7.90	23.72	6.57	3.92	6.10
Median	6.75	21.05	4.79	2.63	5.14
75th Percentile	6.07	18.04	3.45	1.44	4.04
90th Percentile	5.26	15.35	2.40	0.24	3.05
International Equity ●	7.36	24.26	5.48	2.86	5.29
International Equity Target ▲	5.63	19.49	3.61	0.93	3.53

Relative Return vs International Equity Target



CAI Non-US Equity (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



DFA Intl Small Cap Value
Period Ended June 30, 2017

Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

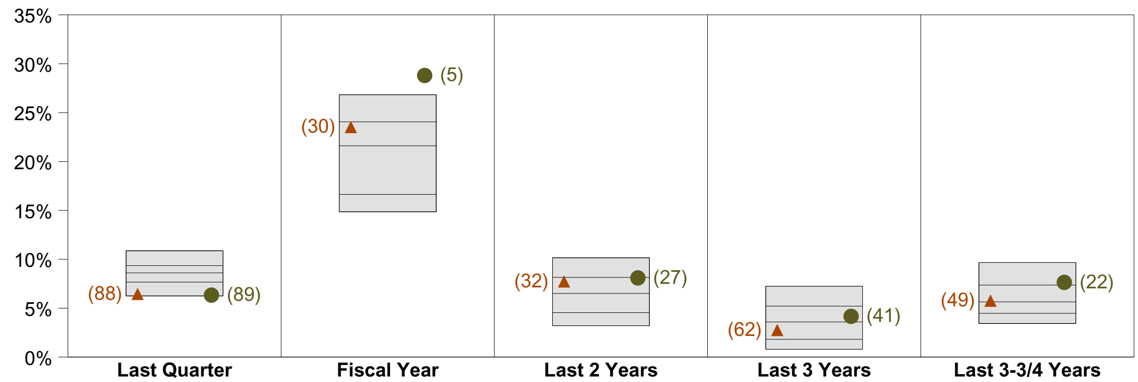
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 6.33% return for the quarter placing it in the 89 percentile of the CAI International Small Cap Mut Funds group for the quarter and in the 5 percentile for the last year.
- DFA Intl Small Cap Value's portfolio underperformed the World ex US SC Value by 0.11% for the quarter and outperformed the World ex US SC Value for the year by 5.28%.

Quarterly Asset Growth

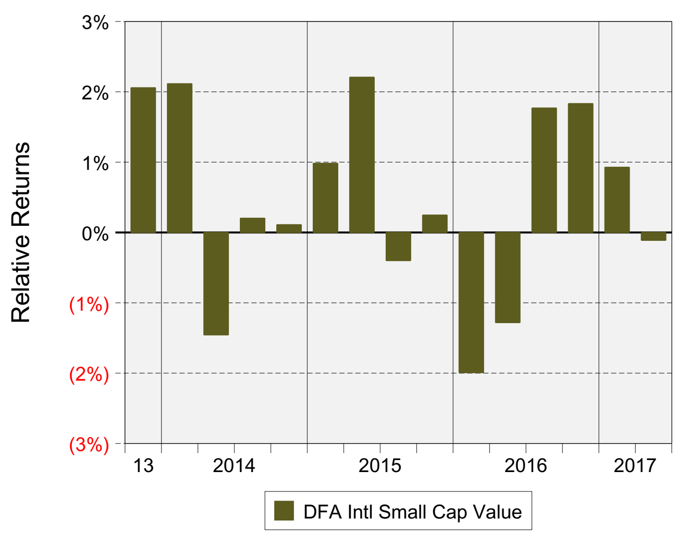
Beginning Market Value	$88,073,494
Net New Investment	$0
Investment Gains/(Losses)	$5,578,718
Ending Market Value	$93,652,212

Performance vs CAI International Small Cap Mut Funds (Net)

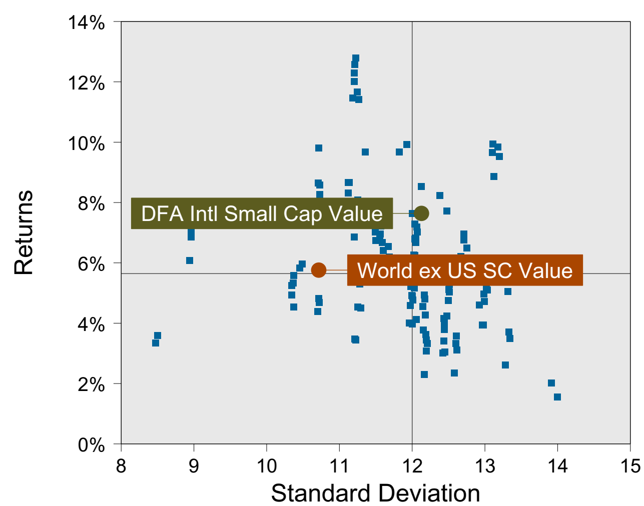


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	10.87	26.83	10.15	7.25	9.67
25th Percentile	9.35	24.06	8.15	5.21	7.36
Median	8.61	21.60	6.50	3.59	5.64
75th Percentile	7.67	16.63	4.54	1.82	4.47
90th Percentile	6.25	14.86	3.21	0.80	3.43
DFA Intl Small Cap Value ●	6.33	28.80	8.09	4.16	7.64
World ex US SC Value ▲	6.44	23.52	7.72	2.76	5.76

Relative Return vs World ex US SC Value



CAI International Small Cap Mut Funds (Net)
Annualized Three and Three-Quarter Year Risk vs Return



LSV Intl Value
Period Ended June 30, 2017

Investment Philosophy

The objective of LSV Asset Management's International Large Cap Value strategy is to outperform the MSCI EAFE Index by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested. LSV weights countries at a neutral weight relative to the benchmark country weights. 50% of the portfolio is US dollar hedged.

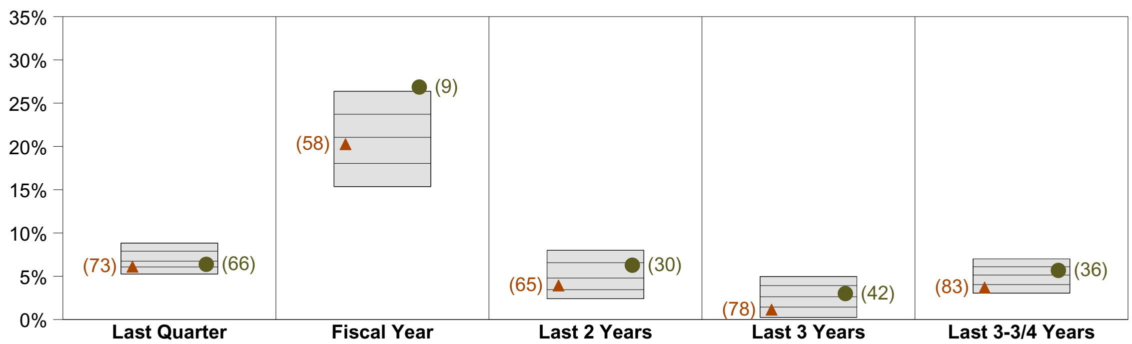
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a 6.38% return for the quarter placing it in the 66 percentile of the CAI Non-US Equity group for the quarter and in the 9 percentile for the last year.
- LSV Intl Value's portfolio outperformed the MSCI EAFE by 0.26% for the quarter and outperformed the MSCI EAFE for the year by 6.59%.

Quarterly Asset Growth

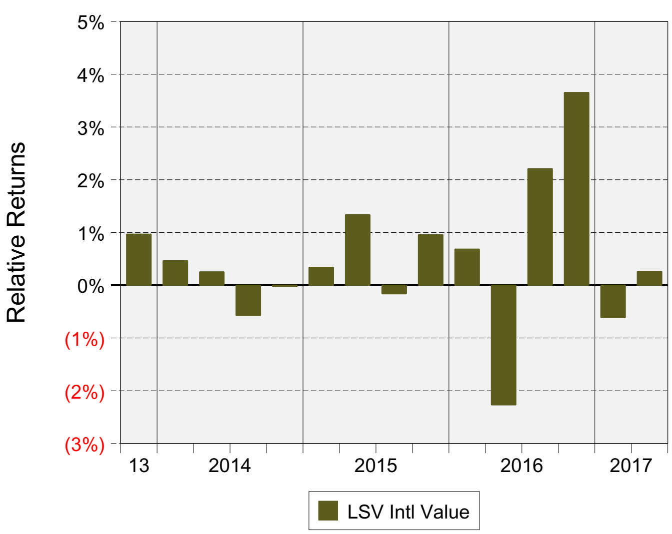
Beginning Market Value	$359,775,443
Net New Investment	$-345,401
Investment Gains/(Losses)	$22,934,671
Ending Market Value	$382,364,713

Performance vs CAI Non-US Equity (Gross)

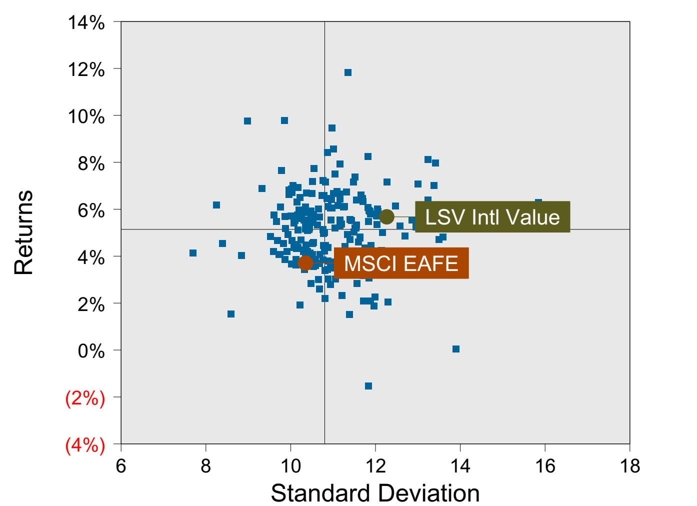


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	8.83	26.38	8.00	4.97	7.01
25th Percentile	7.90	23.72	6.57	3.92	6.10
Median	6.75	21.05	4.79	2.63	5.14
75th Percentile	6.07	18.04	3.45	1.44	4.04
90th Percentile	5.26	15.35	2.40	0.24	3.05
LSV Intl Value ●	6.38	26.86	6.28	3.00	5.68
MSCI EAFE ▲	6.12	20.27	3.94	1.15	3.70

Relative Return vs MSCI EAFE



CAI Non-US Equity (Gross)
Annualized Three and Three-Quarter Year Risk vs Return



Vanguard Intl Explorer Fund
Period Ended June 30, 2017

Investment Philosophy

Vanguard International Explorer Fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for long-term capital appreciation. The advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

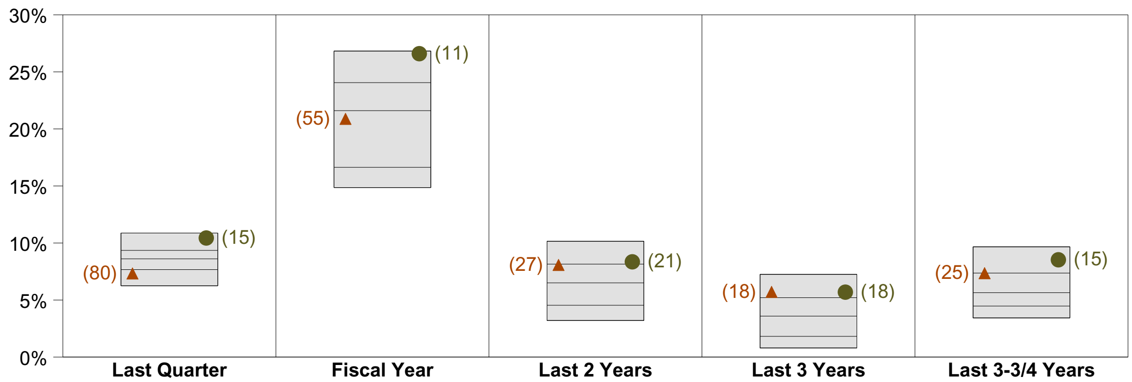
Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a 10.44% return for the quarter placing it in the 15 percentile of the CAI International Small Cap Mut Funds group for the quarter and in the 11 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio outperformed the S&P BMI EPAC <$2 B by 3.11% for the quarter and outperformed the S&P BMI EPAC <$2 B for the year by 5.71%.

Quarterly Asset Growth

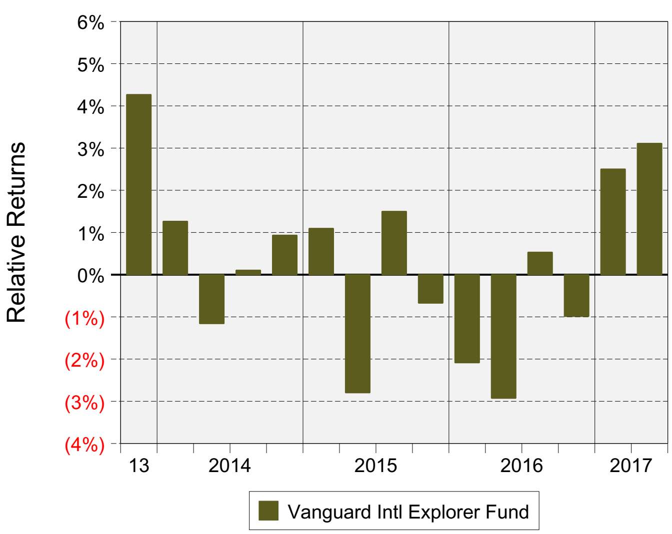
Beginning Market Value	$84,856,108
Net New Investment	$0
Investment Gains/(Losses)	$8,857,828
Ending Market Value	$93,713,936

Performance vs CAI International Small Cap Mut Funds (Net)

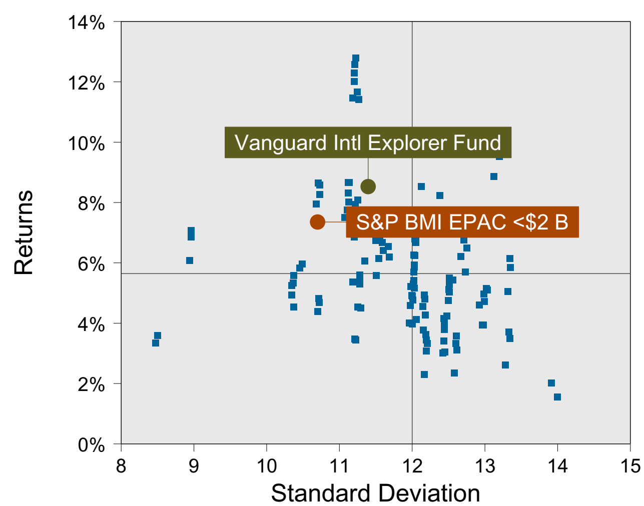


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	10.87	26.83	10.15	7.25	9.67
25th Percentile	9.35	24.06	8.15	5.21	7.36
Median	8.61	21.60	6.50	3.59	5.64
75th Percentile	7.67	16.63	4.54	1.82	4.47
90th Percentile	6.25	14.86	3.21	0.80	3.43
Vanguard Intl Explorer Fund ●	10.44	26.60	8.35	5.69	8.53
S&P BMI EPAC <$2 B ▲	7.33	20.88	8.08	5.71	7.35

Relative Return vs S&P BMI EPAC <$2 B



CAI International Small Cap Mut Funds (Net)
Annualized Three and Three-Quarter Year Risk vs Return



William Blair
Period Ended June 30, 2017

Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

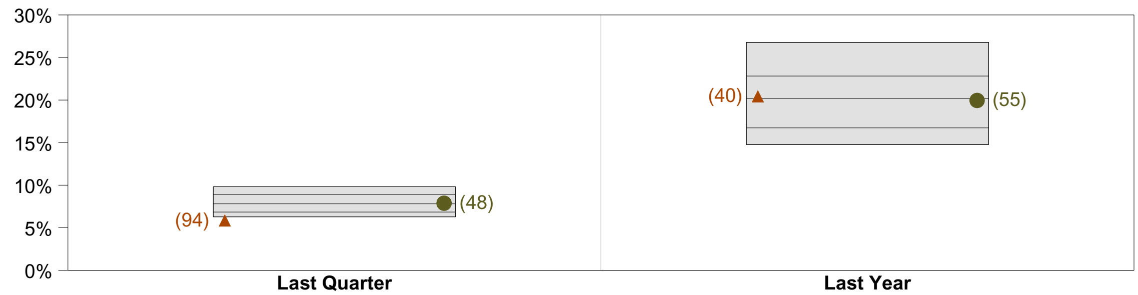
Quarterly Summary and Highlights

- William Blair's portfolio posted a 7.88% return for the quarter placing it in the 48 percentile of the CAI Non-US All Country Growth Equity group for the quarter and in the 55 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI ex US IMI by 2.04% for the quarter and underperformed the MSCI ACWI ex US IMI for the year by 0.48%.

Quarterly Asset Growth

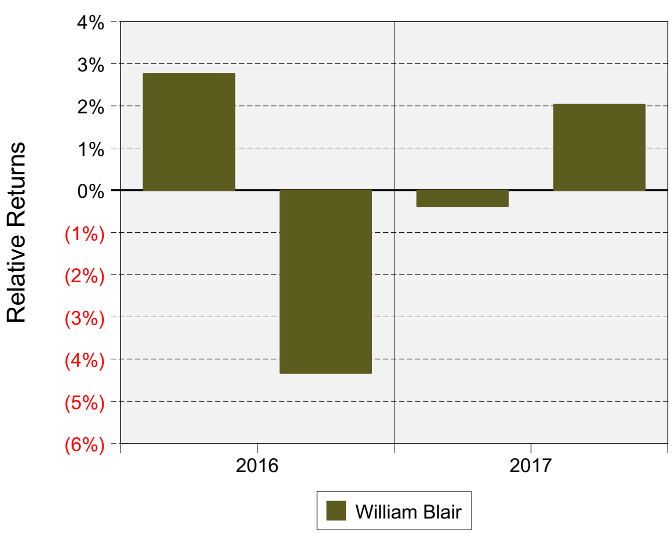
Beginning Market Value	$342,159,121
Net New Investment	$-333,432
Investment Gains/(Losses)	$26,950,064
Ending Market Value	$368,775,754

Performance vs CAI Non-US All Country Growth Equity (Gross)

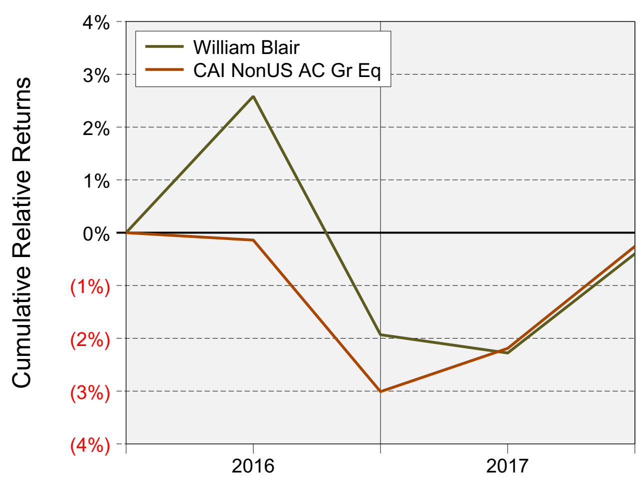


	Last Quarter	Last Year
10th Percentile	9.82	26.77
25th Percentile	8.89	22.82
Median	7.81	20.16
75th Percentile	6.85	16.73
90th Percentile	6.28	14.77
William Blair ●	7.88	19.95
MSCI ACWI ex US IMI ▲	5.85	20.43

Relative Return vs MSCI ACWI ex US IMI



Cumulative Returns vs MSCI ACWI ex US IMI



Domestic Fixed Income
Period Ended June 30, 2017

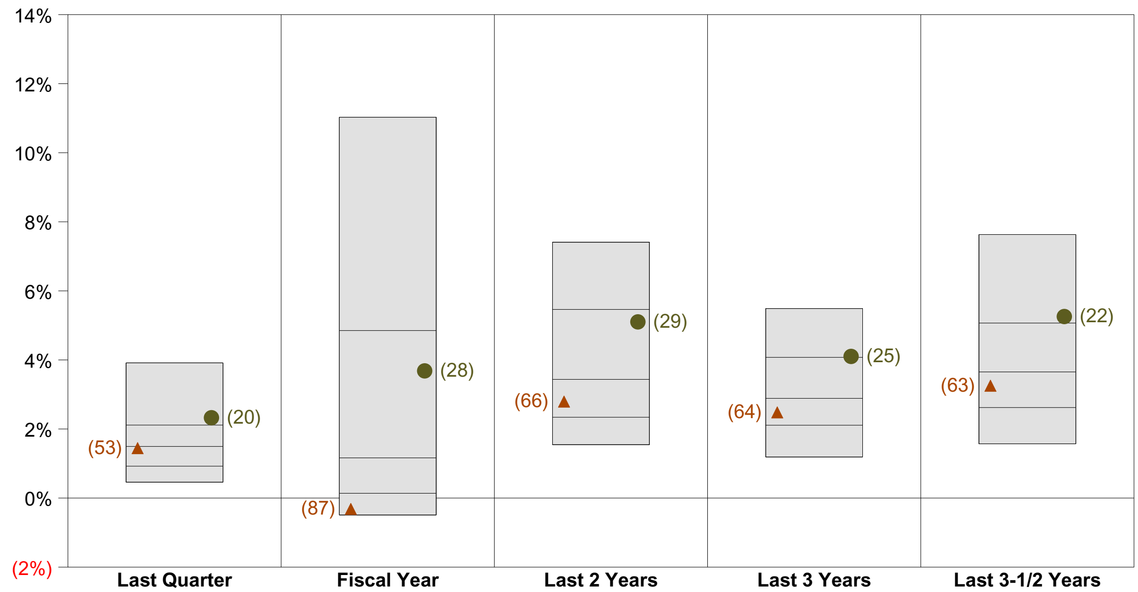
Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a 2.33% return for the quarter placing it in the 20 percentile of the Total Domestic Fixed-Inc Database group for the quarter and in the 28 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 0.88% for the quarter and outperformed the Domestic Fixed Income Target for the year by 4.00%.

Quarterly Asset Growth

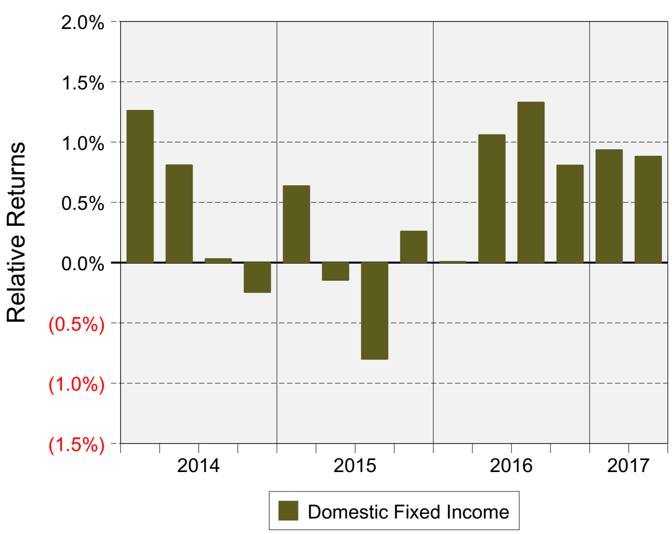
Beginning Market Value	$1,503,997,511
Net New Investment	$74,876,375
Investment Gains/(Losses)	$35,826,677
Ending Market Value	$1,614,700,564

Performance vs Total Domestic Fixed-Inc Database (Gross)

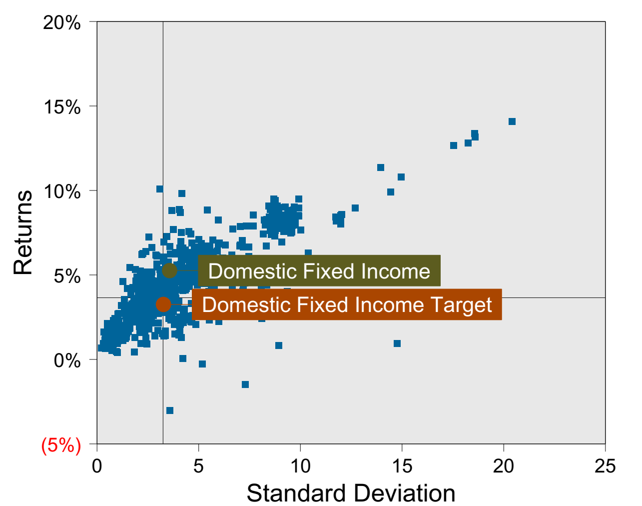


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	3.92	11.03	7.41	5.49	7.63
25th Percentile	2.11	4.85	5.46	4.07	5.07
Median	1.49	1.16	3.44	2.89	3.65
75th Percentile	0.92	0.14	2.34	2.11	2.62
90th Percentile	0.46	(0.49)	1.55	1.19	1.57
Domestic Fixed Income ●	2.33	3.68	5.10	4.10	5.26
Domestic Fixed Income Target ▲	1.45	(0.31)	2.79	2.48	3.25

Relative Returns vs Domestic Fixed Income Target



Total Domestic Fixed-Inc Database (Gross) Annualized Three and One-Half Year Risk vs Return



Declaration Total Return
Period Ended June 30, 2017

Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

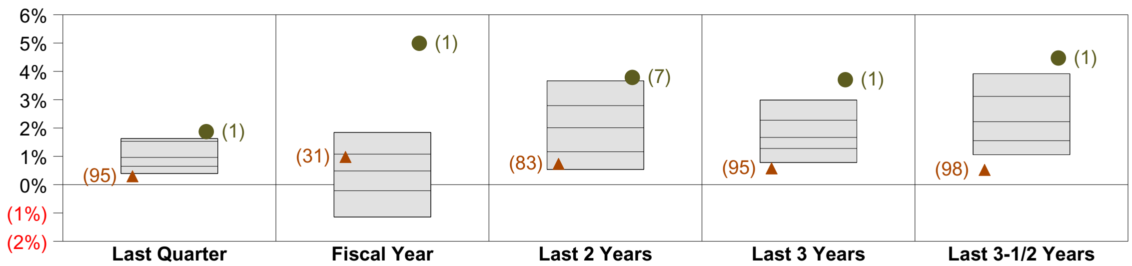
Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a 1.87% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed Income Mut Funds group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio outperformed the LIBOR - 3 Month by 1.58% for the quarter and outperformed the LIBOR - 3 Month for the year by 4.01%.

Quarterly Asset Growth

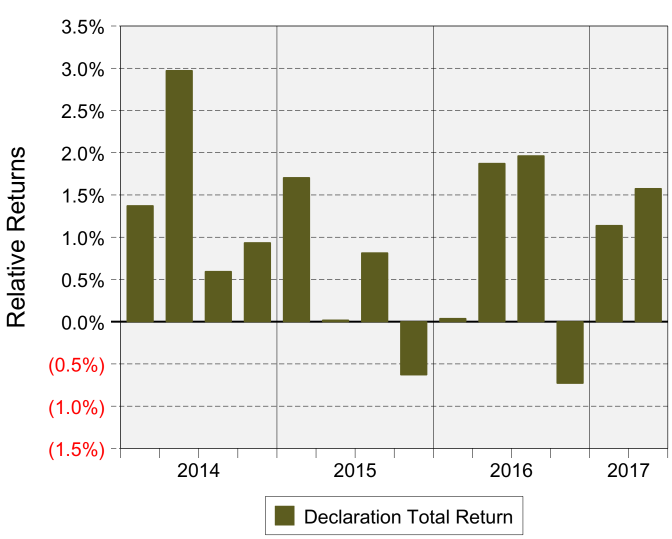
Beginning Market Value	$106,161,914
Net New Investment	$17,961,421
Investment Gains/(Losses)	$2,262,458
Ending Market Value	$126,385,793

Performance vs CAI Intermediate Fixed Income Mut Funds (Net)

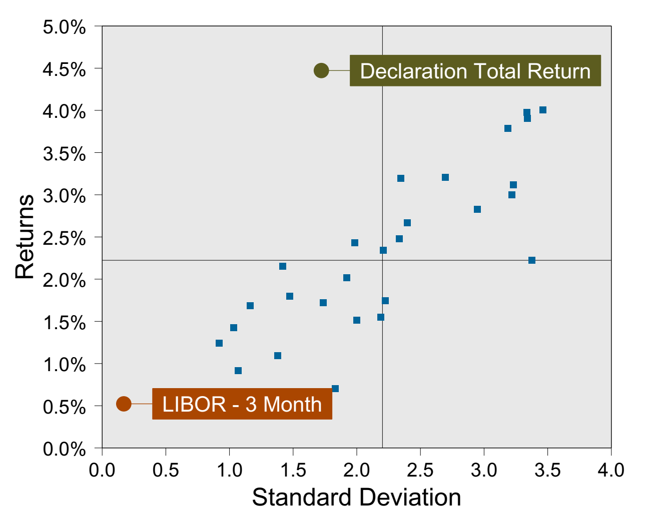


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.63	1.84	3.67	2.99	3.92
25th Percentile	1.53	1.08	2.79	2.28	3.12
Median	0.96	0.48	2.01	1.67	2.22
75th Percentile	0.65	(0.21)	1.16	1.28	1.55
90th Percentile	0.39	(1.14)	0.54	0.78	1.06
Declaration Total Return ●	1.87	4.99	3.79	3.71	4.47
LIBOR - 3 Month ▲	0.30	0.98	0.74	0.58	0.52

Relative Return vs LIBOR - 3 Month



CAI Intermediate Fixed Income Mut Funds (Net)
Annualized Three and One-Half Year Risk vs Return



Prudential
Period Ended June 30, 2017

Investment Philosophy

The core plus fixed income account is a multi-sector strategy that is diversified across a broad range of fixed income sectors, including Treasuries, agencies, mortgage-backed securities, structured product (asset-backed securities, commercial mortgage-backed securities), investment grade corporate bonds, high yield bonds, bank loans and international debt. The primary sources of excess return are sector allocation and security selection, with duration and yield curve less of a focus.

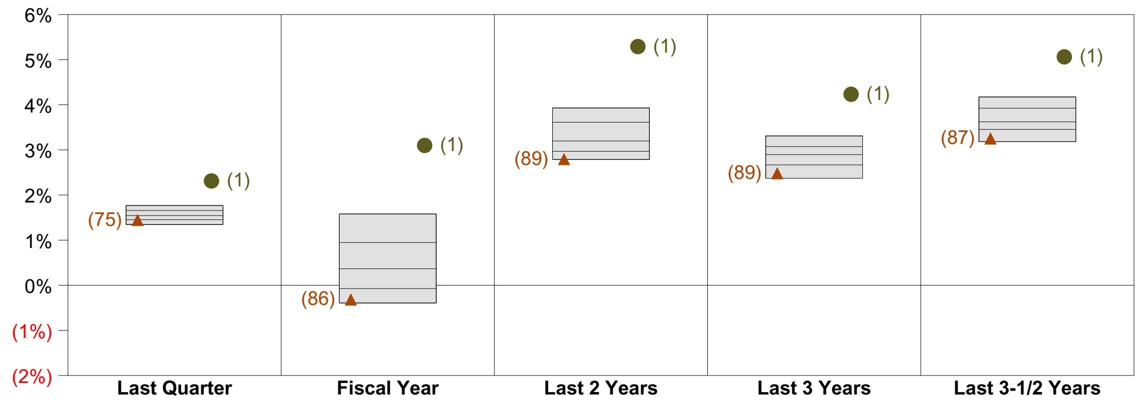
Quarterly Summary and Highlights

- Prudential's portfolio posted a 2.31% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed Income group for the quarter and in the 1 percentile for the last year.
- Prudential's portfolio outperformed the Blmbg Aggregate by 0.87% for the quarter and outperformed the Blmbg Aggregate for the year by 3.41%.

Quarterly Asset Growth

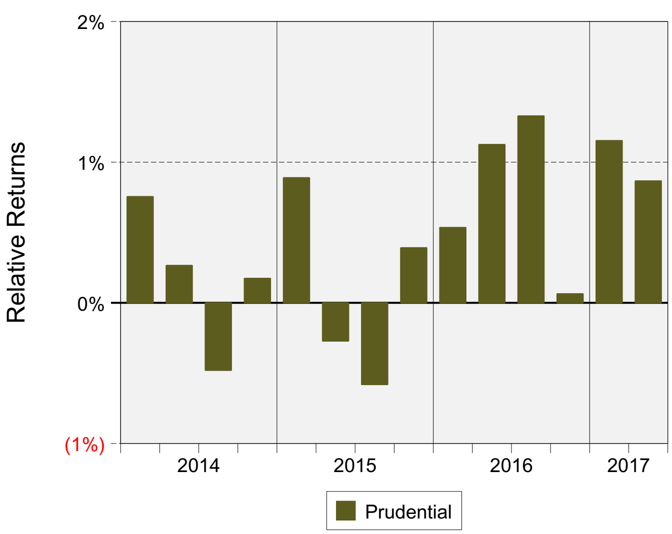
Beginning Market Value	$166,335,326
Net New Investment	$7,889,995
Investment Gains/(Losses)	$3,963,306
Ending Market Value	$178,188,628

Performance vs CAI Core Bond Fixed Income (Gross)

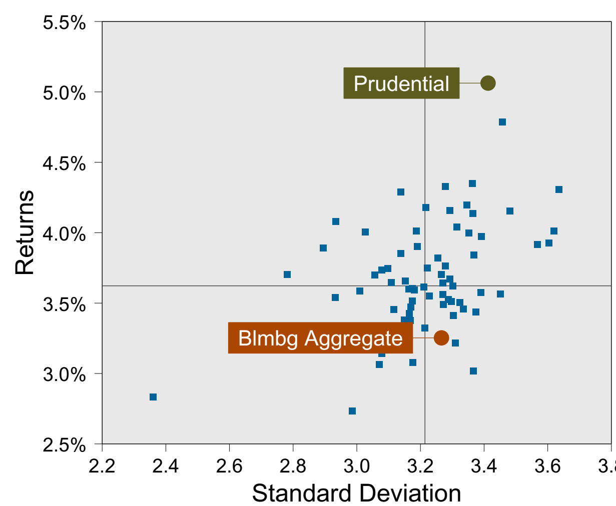


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.77	1.58	3.93	3.31	4.17
25th Percentile	1.66	0.95	3.61	3.07	3.93
Median	1.54	0.37	3.20	2.90	3.62
75th Percentile	1.45	(0.07)	2.97	2.67	3.45
90th Percentile	1.35	(0.39)	2.79	2.37	3.18
Prudential ●	2.31	3.10	5.29	4.23	5.06
Blmbg Aggregate ▲	1.45	(0.31)	2.79	2.48	3.25

Relative Return vs Blmbg Aggregate



CAI Core Bond Fixed Income (Gross)
Annualized Three and One-Half Year Risk vs Return



SSgA US Govt Credit Bd Idx
Period Ended June 30, 2017

Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Barclays Capital U.S. Government/Credit Bond Index over the long term.

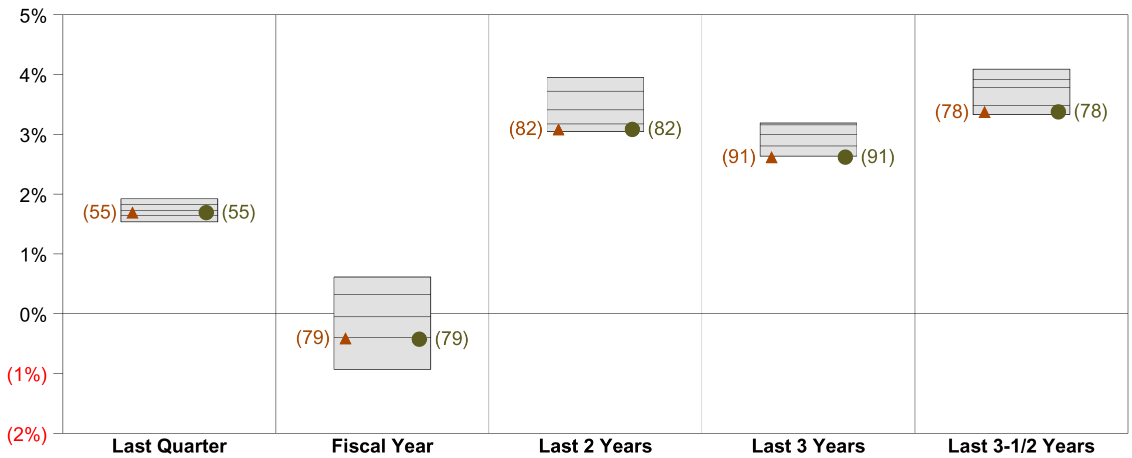
Quarterly Summary and Highlights

- SSgA US Govt Credit Bd Idx's portfolio posted a 1.69% return for the quarter placing it in the 55 percentile of the CAI Government/Credit group for the quarter and in the 79 percentile for the last year.
- SSgA US Govt Credit Bd Idx's portfolio outperformed the Blmbg Gov/Credit by 0.00% for the quarter and underperformed the Blmbg Gov/Credit for the year by 0.01%.

Quarterly Asset Growth

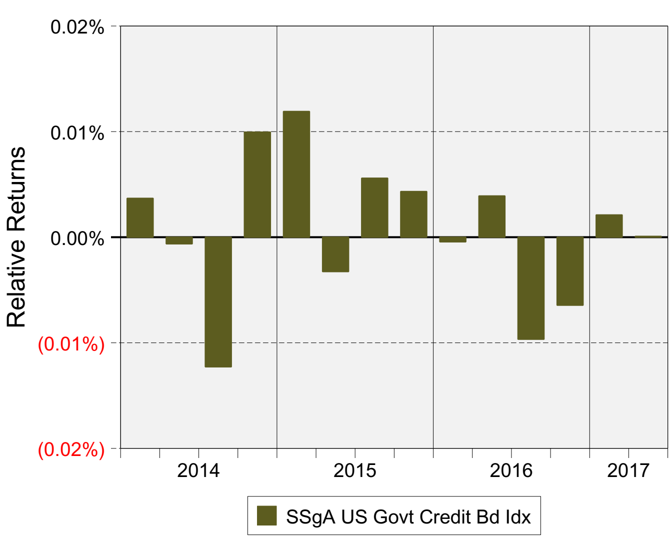
Beginning Market Value	$200,217,994
Net New Investment	$27,983,636
Investment Gains/(Losses)	$3,490,542
Ending Market Value	$231,692,172

Performance vs CAI Government/Credit (Gross)

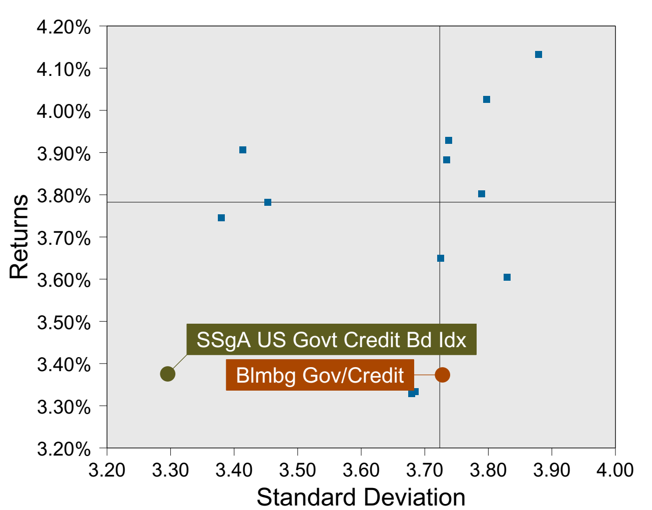


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.92	0.61	3.95	3.19	4.09
25th Percentile	1.83	0.32	3.72	3.16	3.92
Median	1.73	(0.05)	3.41	2.99	3.78
75th Percentile	1.65	(0.40)	3.17	2.81	3.48
90th Percentile	1.54	(0.93)	3.05	2.64	3.33
SSgA US Govt Credit Bd Idx ●	1.69	(0.43)	3.08	2.62	3.38
Blmbg Gov/Credit ▲	1.69	(0.41)	3.08	2.62	3.37

Relative Return vs Blmbg Gov/Credit



CAI Government/Credit (Gross)
Annualized Three and One-Half Year Risk vs Return



Wells Capital
Period Ended June 30, 2017

Investment Philosophy

The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. The investment process for this fund starts with a "top-down" strategy. Security selection is determined by in-depth credit research, holding that in-depth knowledge of industries, companies, and their management teams can help identify credit trends that can lead to investment opportunities. Furthermore, a disciplined relative value framework is applied to help determine the optimal position to invest within an industry and within an individual issuer's capital structure.

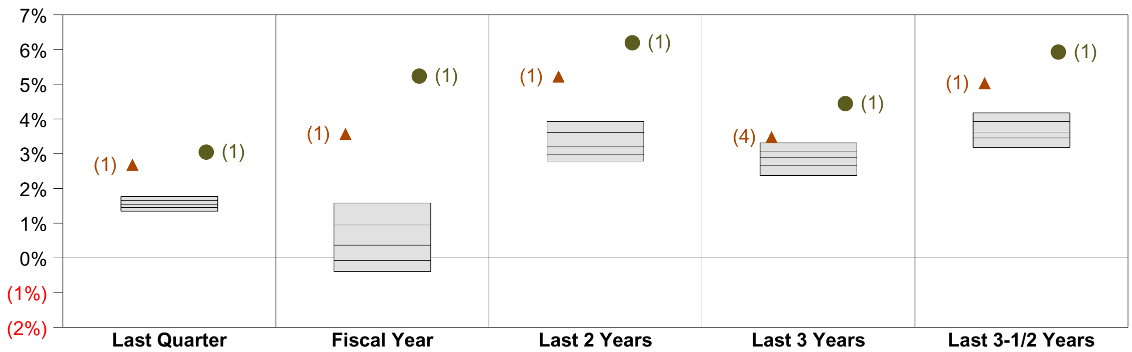
Quarterly Summary and Highlights

- Wells Capital's portfolio posted a 3.05% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed Income group for the quarter and in the 1 percentile for the last year.
- Wells Capital's portfolio outperformed the Blmbg Baa Cred 3% Iss Cap by 0.37% for the quarter and outperformed the Blmbg Baa Cred 3% Iss Cap for the year by 1.67%.

Quarterly Asset Growth

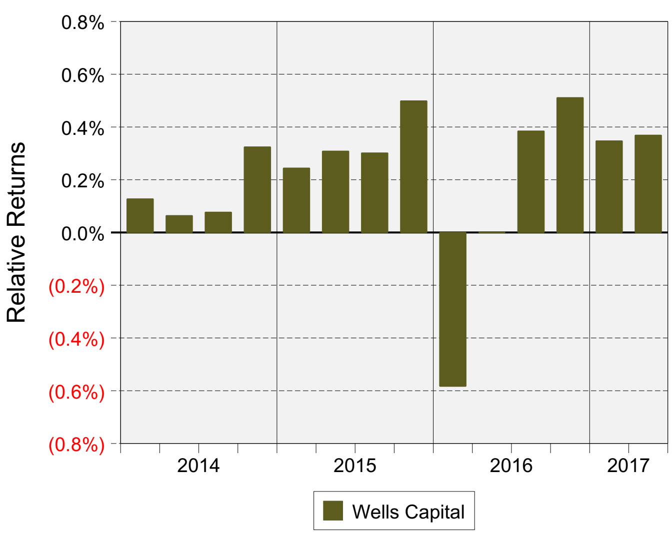
Beginning Market Value	$434,965,887
Net New Investment	$25,326,597
Investment Gains/(Losses)	$13,476,224
Ending Market Value	$473,768,708

Performance vs CAI Core Bond Fixed Income (Gross)

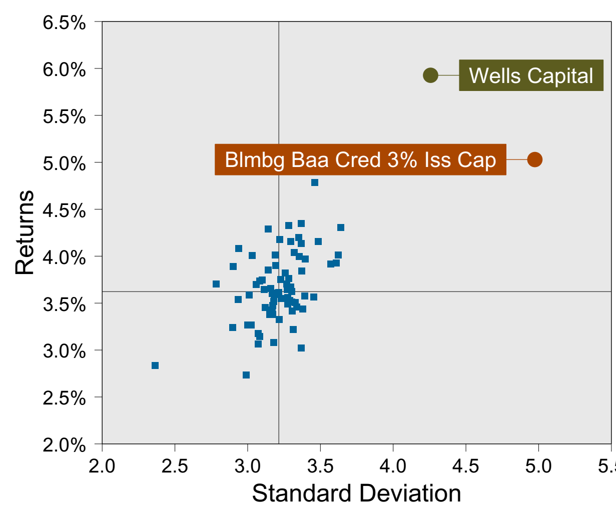


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.77	1.58	3.93	3.31	4.17
25th Percentile	1.66	0.95	3.61	3.07	3.93
Median	1.54	0.37	3.20	2.90	3.62
75th Percentile	1.45	(0.07)	2.97	2.67	3.45
90th Percentile	1.35	(0.39)	2.79	2.37	3.18
Wells Capital ●	3.05	5.23	6.19	4.44	5.93
Blmbg Baa Cred 3% Iss Cap ▲	2.68	3.57	5.22	3.47	5.03

Relative Returns vs Blmbg Baa Cred 3% Iss Cap



CAI Core Bond Fixed Income (Gross) Annualized Three and One-Half Year Risk vs Return



Western Asset Management Company
Period Ended June 30, 2017

Investment Philosophy

Western Asset designs this portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.

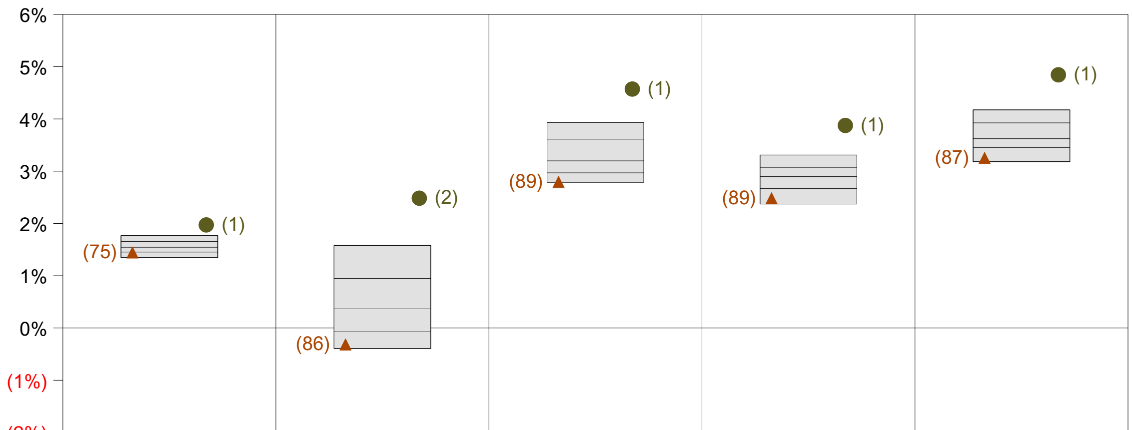
Quarterly Summary and Highlights

- Western Asset's portfolio posted a 1.97% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed Income group for the quarter and in the 2 percentile for the last year.
- Western Asset's portfolio outperformed the Blmbg Aggregate by 0.53% for the quarter and outperformed the Blmbg Aggregate for the year by 2.80%.

Quarterly Asset Growth

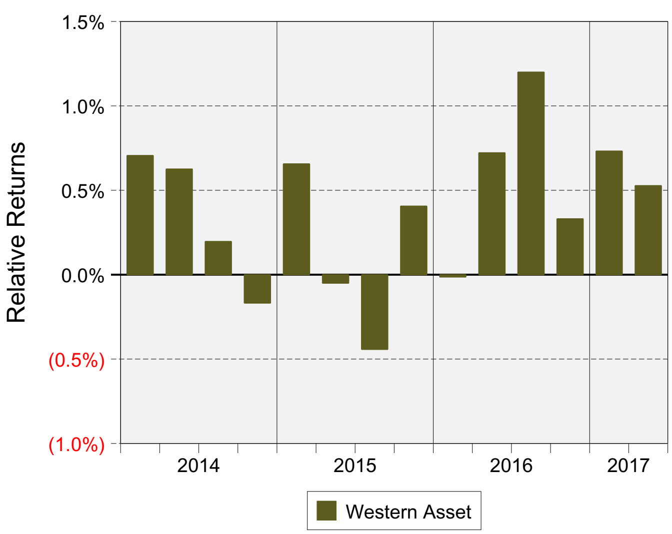
Beginning Market Value	$447,506,219
Net New Investment	$15,851,495
Investment Gains/(Losses)	$8,876,889
Ending Market Value	$472,234,602

Performance vs CAI Core Bond Fixed Income (Gross)

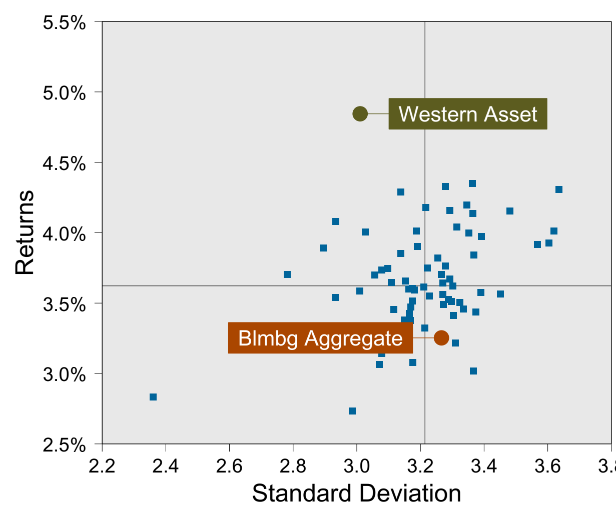


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	1.77	1.58	3.93	3.31	4.17
25th Percentile	1.66	0.95	3.61	3.07	3.93
Median	1.54	0.37	3.20	2.90	3.62
75th Percentile	1.45	(0.07)	2.97	2.67	3.45
90th Percentile	1.35	(0.39)	2.79	2.37	3.18
Western Asset ●	1.97	2.48	4.57	3.88	4.84
Blmbg Aggregate ▲	1.45	(0.31)	2.79	2.48	3.25

Relative Return vs Blmbg Aggregate



CAI Core Bond Fixed Income (Gross)
Annualized Three and One-Half Year Risk vs Return



Western Asset TIPS
Period Ended June 30, 2017

Investment Philosophy

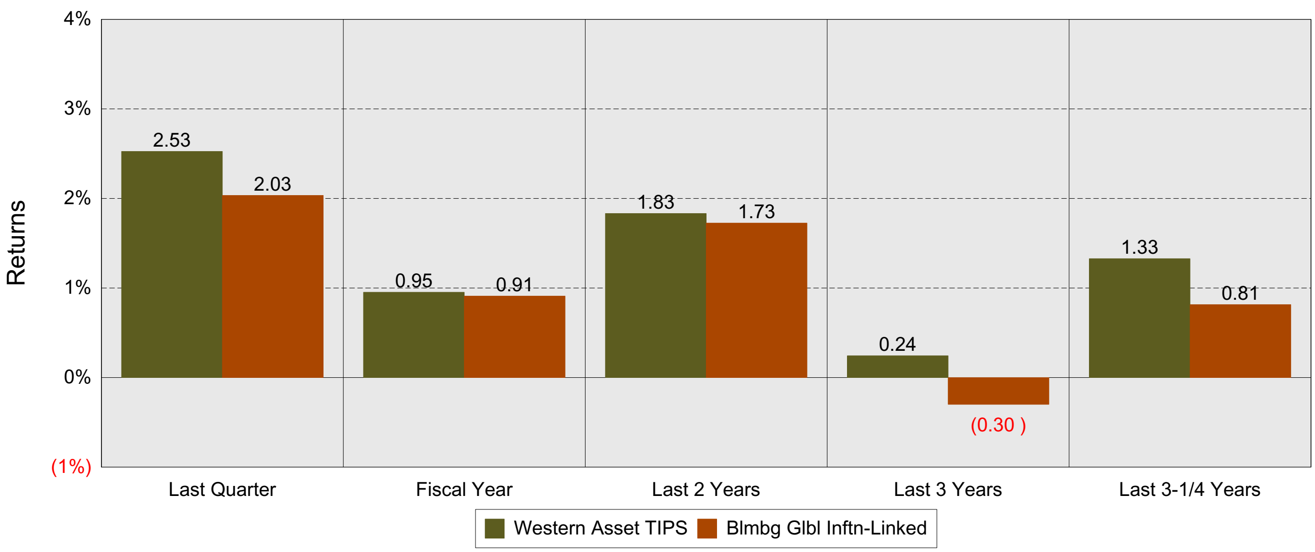
Western Asset's Global Inflation-Linked composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. Constructed primarily of inflation-indexed securities, these portfolios use diversified strategies in seeking to add value while minimizing risk. Value can be added through country selection, term structure, issue selection, duration management and currency management.

Quarterly Summary and Highlights

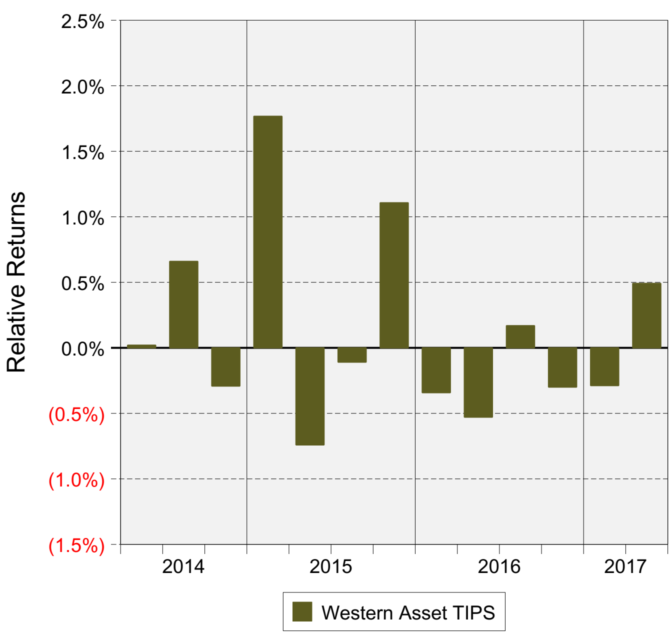
- Western Asset TIPS's portfolio outperformed the Blmbg Glbl Inftn-Linked by 0.49% for the quarter and outperformed the Blmbg Glbl Inftn-Linked for the year by 0.04%.

Quarterly Asset Growth

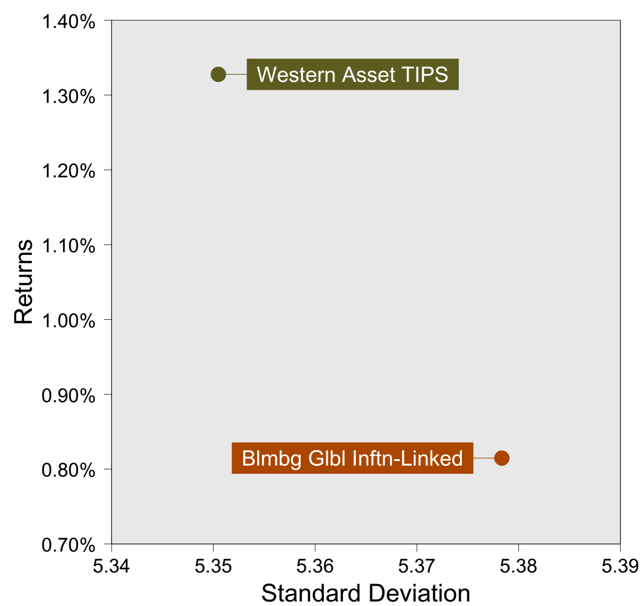
Beginning Market Value	$290,148,344
Net New Investment	$22,901,574
Investment Gains/(Losses)	$7,317,799
Ending Market Value	$320,367,717



Relative Return vs Blmbg Glbl Inftn-Linked



Annualized Three and One-Quarter Year Risk vs Return



JP Morgan Infrastructure
Period Ended June 30, 2017

Investment Philosophy

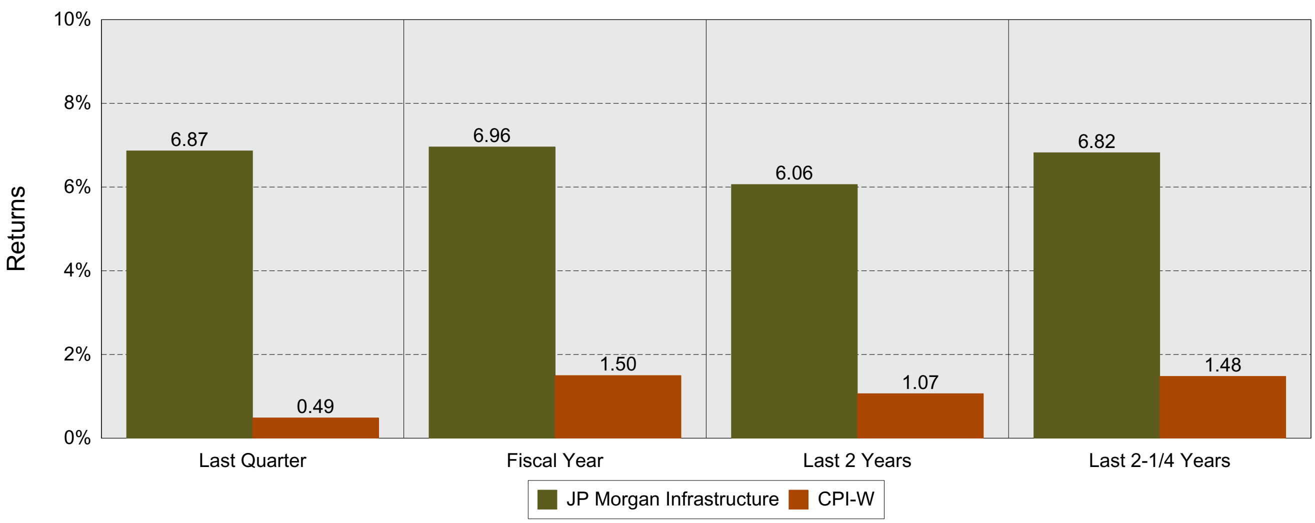
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports.

Quarterly Summary and Highlights

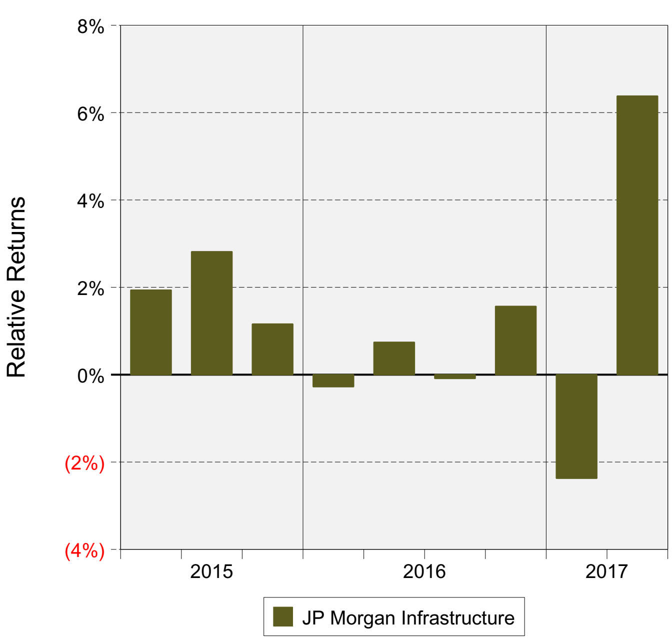
- JP Morgan Infrastructure's portfolio outperformed the CPI-W by 6.38% for the quarter and outperformed the CPI-W for the year by 5.46%.

Quarterly Asset Growth

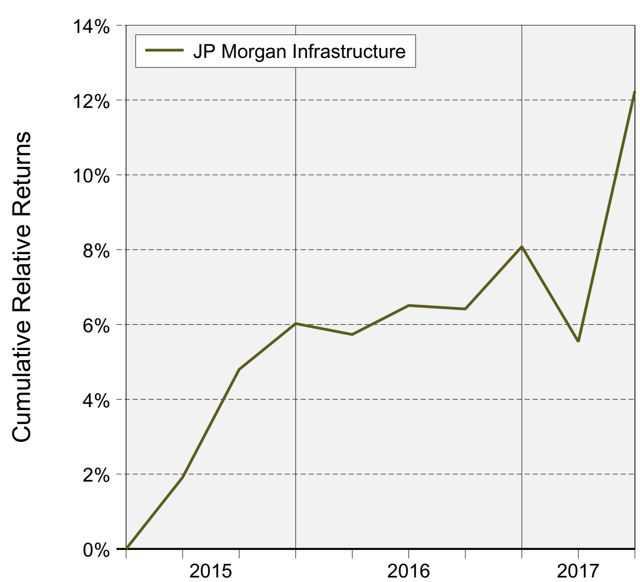
Beginning Market Value	$87,519,754
Net New Investment	$19,639,944
Investment Gains/(Losses)	$6,001,885
Ending Market Value	$113,161,582



Relative Return vs CPI-W



Cumulative Returns vs CPI-W



Grosvenor Cust. Infrastructure
Period Ended June 30, 2017

Investment Philosophy

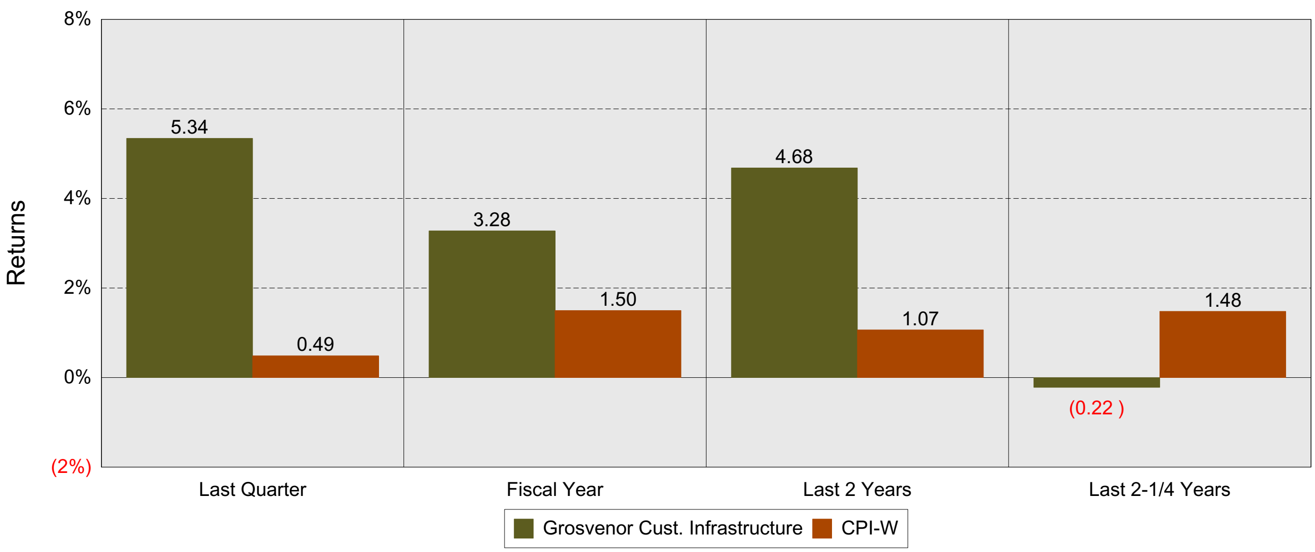
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

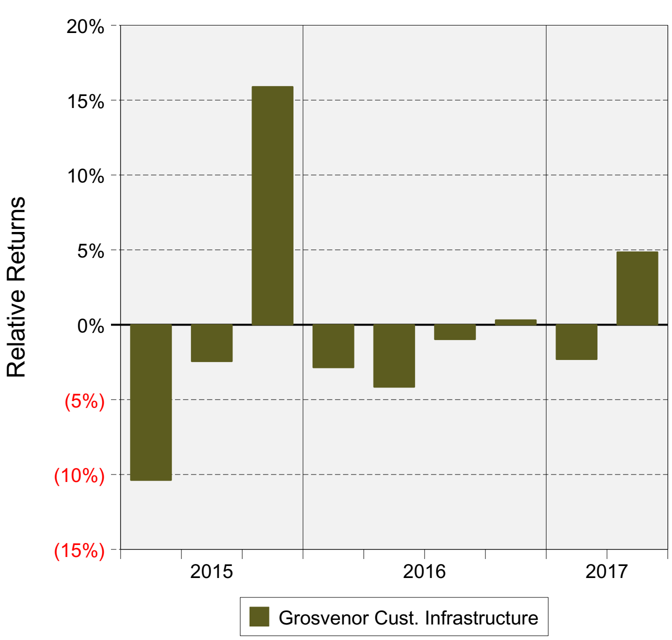
- Grosvenor Cust. Infrastructure's portfolio outperformed the CPI-W by 4.86% for the quarter and outperformed the CPI-W for the year by 1.78%.

Quarterly Asset Growth

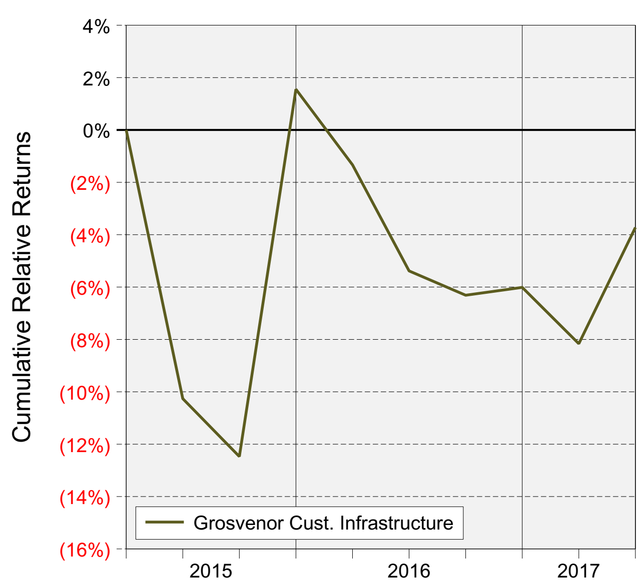
Beginning Market Value	$20,271,760
Net New Investment	$-2,482,804
Investment Gains/(Losses)	$891,598
Ending Market Value	$18,680,554



Relative Return vs CPI-W



Cumulative Returns vs CPI-W



Invesco Core Real Estate
Period Ended June 30, 2017

Investment Philosophy

IRE's investment philosophy is comprised of two fundamental principles: (1) maximize the predictability and consistency of investment returns and (2) minimize the risk of capital loss. This philosophy forms the cornerstone of the company's real estate investment philosophy.

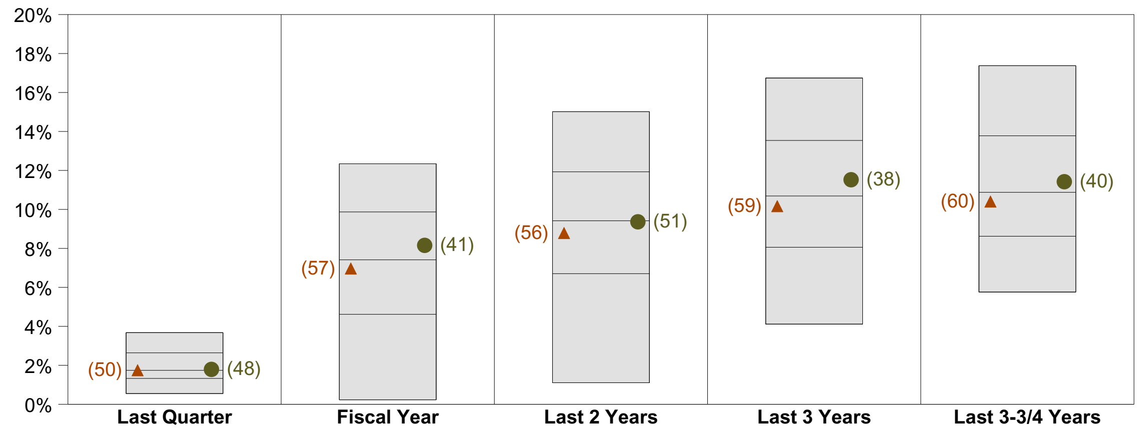
Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 1.79% return for the quarter placing it in the 48 percentile of the CAI Total Real Estate Database group for the quarter and in the 41 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 0.05% for the quarter and outperformed the NCREIF Total Index for the year by 1.19%.

Quarterly Asset Growth

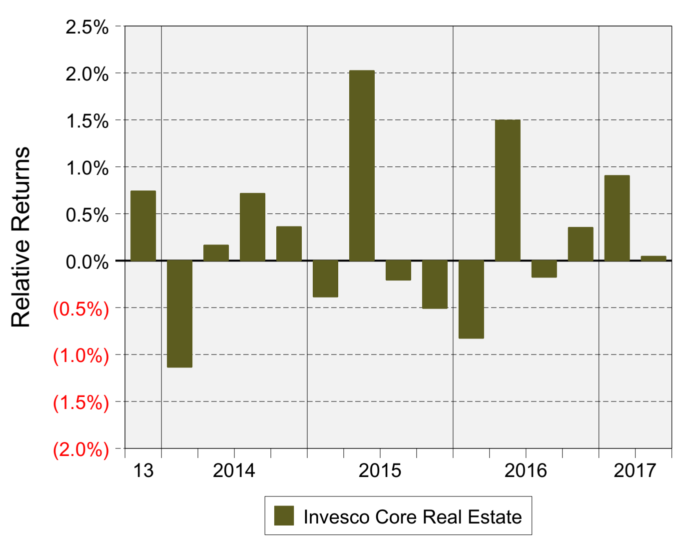
Beginning Market Value	$124,801,870
Net New Investment	$-109,278
Investment Gains/(Losses)	$2,345,520
Ending Market Value	$127,038,112

Performance vs CAI Total Real Estate Database (Net)

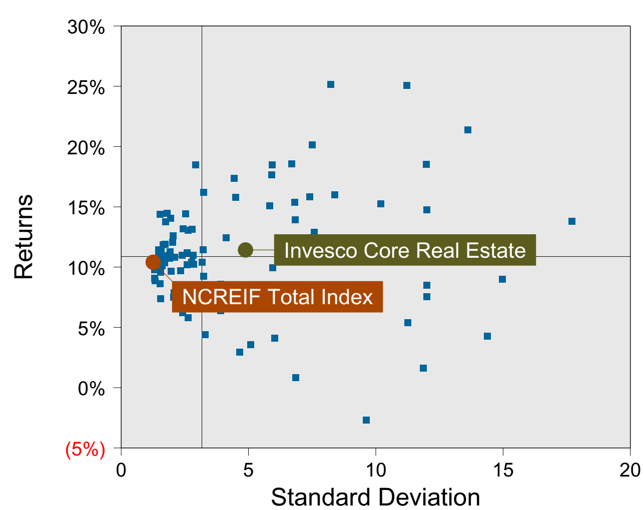


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	3.68	12.34	15.02	16.74	17.38
25th Percentile	2.64	9.87	11.93	13.54	13.78
Median	1.74	7.41	9.42	10.69	10.88
75th Percentile	1.33	4.62	6.70	8.06	8.62
90th Percentile	0.55	0.23	1.11	4.11	5.76
Invesco Core Real Estate ●	1.79	8.16	9.36	11.52	11.42
NCREIF Total Index ▲	1.75	6.97	8.79	10.17	10.40

Relative Return vs NCREIF Total Index



CAI Total Real Estate Database (Net)
Annualized Three and Three-Quarter Year Risk vs Return



JP Morgan RE Inc & Growth
Period Ended June 30, 2017

Investment Philosophy

The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy and pursues all property investments on an opportunistic basis. The majority of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors.

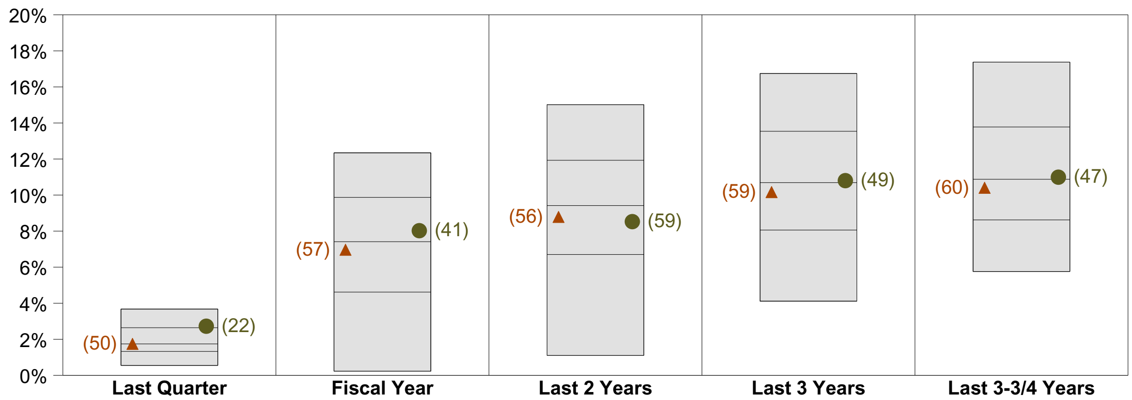
Quarterly Summary and Highlights

- JP Morgan RE Inc & Growth's portfolio posted a 2.72% return for the quarter placing it in the 22 percentile of the CAI Total Real Estate Database group for the quarter and in the 41 percentile for the last year.
- JP Morgan RE Inc & Growth's portfolio outperformed the NCREIF Total Index by 0.98% for the quarter and outperformed the NCREIF Total Index for the year by 1.06%.

Quarterly Asset Growth

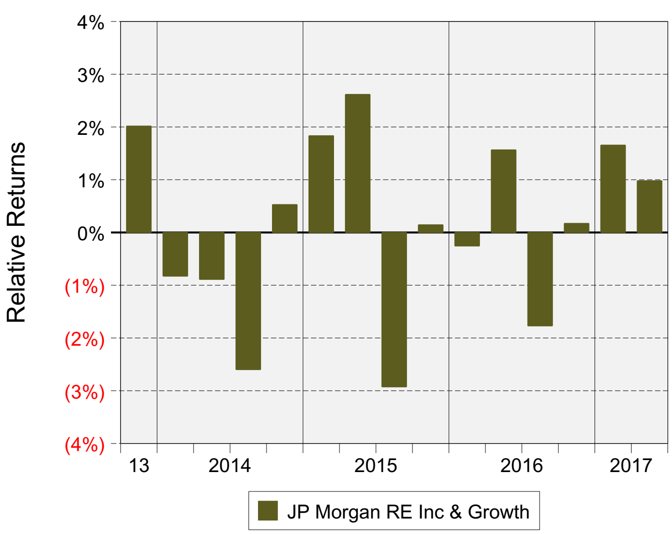
Beginning Market Value	$133,627,782
Net New Investment	$-47,671
Investment Gains/(Losses)	$3,639,566
Ending Market Value	$137,219,677

Performance vs CAI Total Real Estate Database (Net)

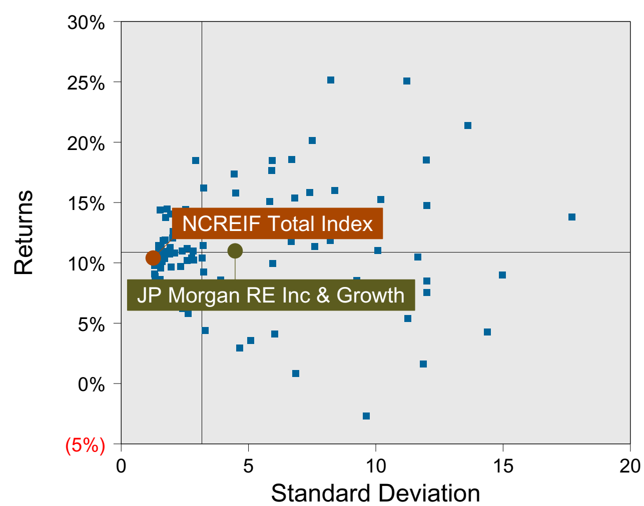


		Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile		3.68	12.34	15.02	16.74	17.38
25th Percentile		2.64	9.87	11.93	13.54	13.78
Median		1.74	7.41	9.42	10.69	10.88
75th Percentile		1.33	4.62	6.70	8.06	8.62
90th Percentile		0.55	0.23	1.11	4.11	5.76
JP Morgan RE Inc & Growth	●	2.72	8.03	8.53	10.80	10.99
NCREIF Total Index	▲	1.75	6.97	8.79	10.17	10.40

Relative Return vs NCREIF Total Index



CAI Total Real Estate Database (Net)
Annualized Three and Three-Quarter Year Risk vs Return



Research and Educational Programs

The Callan Institute provides both research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/library to see all of our publications, and www.callan.com/blog to view our blog “Perspectives.” For more information contact Anna West at 415.974.5060 / institute@callan.com.

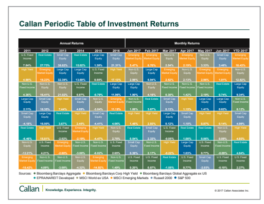
New Research from Callan’s Experts

The Hedge Fund Edge: Still Sharp or Too Dull? | Why should investors bother with hedge funds? The original proposition behind them was their differentiated performance: better risk-adjusted returns with a lower correlation to traditional capital markets. Do hedge funds still have their inherent advantage? This white paper looks at the key traits in the DNA of hedge funds—and why they still offer an advantage for investors.

White Label Funds: A No-Nonsense Design Handbook | In a paper published in *The Journal of Retirement,* Callan’s Rod Bare, Jay Kloepfer, Lori Lucas, and Jimmy Veneruso offer a guide to plan sponsors considering adding these funds to their lineup.

Survivorship Bias Presentation Summary, 2017 National Conference | In this presentation, Greg Allen and Butch Cliff discussed an algorithm they developed with Walter J. Meerschaert, Callan’s manager of Information Technology, to measure and correct for survivorship bias, the logical flaw of looking only at the results for the survivors in a universe, rather than the results for all members of the universe. Their algorithm, called SUBICO (for SUrvivorship BIas COrrection), uses all of the underlying data for both surviving and non-surviving members of the universe to correct for survivorship bias.

Next Generation QDIAs, 2017 National Conference | The workshop “The Future of DC Is Here: The Next Generation of QDIAs,” hosted by Ben Taylor, James Veneruso, and Brianne Weymouth, discussed new approaches to qualified default investment alternatives as they become the primary savings vehicle for defined contribution plans.



June 2017 Monthly Periodic Table of Returns | A monthly update for Callan’s Periodic Table of Investment Returns, covering the major public equity asset classes.

Periodicals

Private Markets Trends, Spring 2017 | Gary Robertson reports that the private equity market is off to a roaring start in 2017, and new partnership commitments may exceed the level of 2016.

Hedge Fund Monitor, 2nd Quarter 2017 | Jim McKee looks at “false charges,” or bear markets that come and go quickly but can leave unprepared investors at significant risk.

DC Observer, 2nd Quarter 2017 | Lori Lucas discusses how to manage DC plan recordkeepers, explaining that one of the best ways is to conduct periodic searches.

Market Pulse Flipbook, 1st Quarter 2017 | A quarterly market reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, alternatives, and defined contribution.

Capital Market Review, 1st Quarter 2017 | A quarterly macroeconomic newsletter providing thoughtful insights on the economy and recent performance in equity, fixed income, alternatives, international, real estate, and other capital markets.

Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: www.callan.com/library/

Mark your calendars for our fall **Regional Workshop**, October 24 in New York and October 26 in Chicago, where we'll cover highlights from our soon-to-be published *Investment Management Fee Survey* and cover other aspects of fees. Callan's **National Conference** will be held January 29–31, 2018, at the Palace Hotel in San Francisco.

For more information about events, please contact Barb Gerraty: 415.274.3093 / gerraty@callan.com

The Center for Investment Training Educational Sessions

The Center for Investment Training, better known as the "Callan College," provides a foundation of knowledge for industry professionals who are involved in the investment decision-making process. It was founded in 1994 to provide clients and non-clients alike with basic- to intermediate-level instruction. Our next session is:

Introduction to Investments

Chicago, October 24-25, 2017

This program familiarizes fund sponsor trustees, staff, and asset management advisers with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals who have less than two years of experience with asset-management oversight and/or support responsibilities. Tuition for the Introductory "Callan College" session is $2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Customized Sessions

The "Callan College" is equipped to customize a curriculum to meet the training and educational needs of a specific organization. These tailored sessions range from basic to advanced and can take place anywhere—even at your office.

Learn more at www.callan.com/events/callan-college-intro or contact Kathleen Cunnie: 415.274.3029 / cunnie@callan.com

Education: By the Numbers

525	Attendees (on average) of the Institute's annual National Conference	50+	Unique pieces of research the Institute generates each year
3,500	Total attendees of the "Callan College" since 1994	1980	Year the Callan Institute was founded

"We think the best way to learn something is to teach it. Entrusting client education to our consultants and specialists ensures that they have a total command of their subject matter. This is one reason why education and research have been cornerstones of our firm for more than 40 years."

Ron Peyton, Chairman and CEO

Callan

Quarterly List as of June 30, 2017

List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor and disclose potential conflicts on an on-going basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Manager Name
1607 Capital Partners, LLC
Aberdeen Asset Management PLC
Acadian Asset Management LLC
AEGON USA Investment Management
AEW Capital Management
Affiliated Managers Group, Inc.
Alcentra
AllianceBernstein
Allianz Global Investors
Allianz Life Insurance Company of North America
American Century Investments
Amundi Smith Breeden LLC
Angelo, Gordon & Co.
Apollo Global Management
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Artisan Holdings
Atlanta Capital Management Co., LLC
Aviva Investors Americas
AXA Investment Managers
Baillie Gifford Overseas Limited
Baird Advisors
Bank of America
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
Black Creek Investment Management Inc.
BlackRock
BMO Global Asset Management
BNP Paribas Investment Partners
BNY Mellon Asset Management
Boston Partners
Boyd Watterson Asset Management, LLC
Brandes Investment Partners, L.P.

Manager Name
Brandywine Global Investment Management, LLC
Brown Brothers Harriman & Company
Brown Investment Advisory & Trust Company
Cambiar Investors, LLC
Capital Group
CastleArk Management, LLC
Causeway Capital Management
Chartwell Investment Partners
Chicago Equity Partners, LLC
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Management Investment Advisers, LLC
Columbus Circle Investors
Cornerstone Capital Management
Cramer Rosenthal McGlynn, LLC
Credit Suisse Asset Management
Crestline Investors, Inc.
D.E. Shaw Investment Management, L.L.C.
DePrince, Race & Zollo, Inc.
Deutsche Asset Management
Diamond Hill Capital Management, Inc.
Dimensional Fund Advisors LP
Doubleline
Duff & Phelps Investment Mgmt. Co.
Eagle Asset Management, Inc.
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Investors
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Eagle Investment Management, LLC
First Hawaiian Bank Wealth Management Division
Fisher Investments
Franklin Templeton

Manager Name
Franklin Templeton Institutional
Fred Alger Management, Inc.
Fuller & Thaler Asset Management, Inc.
GAM (USA) Inc.
Global Evolution USA
GlobeFlex Capital, L.P.
GMO
Goldman Sachs Asset Management
Gryphon International Investment Corporation
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Harding Loevner LP
Hartford Funds
Hartford Investment Management Co.
Heitman LLC
Henderson Global Investors
Hotchkis & Wiley Capital Management, LLC
HSBC Global Asset Management
Income Research + Management, Inc.
Insight Investment Management Limited
INTECH Investment Management, LLC
Invesco
Investec Asset Management
Ivy Investments
Jacobs Levy Equity Management, Inc.
Janus Capital Management, LLC
Jensen Investment Management
Jobs Peak Advisors
J.P. Morgan Asset Management
KeyCorp
Lazard Asset Management
Legal & General Investment Management America
Lincoln National Corporation
LMCG Investments, LLC
Logan Circle Partners, L.P.
Longfellow Investment Management Co.
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
Los Angeles Capital Management
LSV Asset Management
MacKay Shields LLC
Macquarie Investment Management (formerly Delaware Investments)
Man Investments Inc.
Manulife Asset Management
McKinley Capital Management, LLC
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
Mountain Lake Investment Management LLC
MUFG Union Bank, N.A.
Neuberger Berman
New York Life Investment Management LLC
Newfleet Asset Management LLC
Newton Investment Management (fka Newton Capital Mgmt)
Nikko Asset Management Co., Ltd.

Manager Name
Northern Trust Asset Management
Nuveen Investments, Inc.
OFI Global Asset Management
Old Mutual Asset Management
O’Shaughnessy Asset Management, LLC
Pacific Investment Management Company
Peregrine Capital Management, Inc.
PGIM
PGIM Fixed Income
PineBridge Investments
Pioneer Investments
PNC Capital Advisors, LLC
PPM America
Principal Global Investors
Private Advisors, LLC
Putnam Investments, LLC
Pzena Investment Management, LLC
QMA (Quantitative Management Associates)
RBC Global Asset Management
Record Currency Management Ltd.
Regions Financial Corporation
RidgeWorth Capital Management, Inc.
Rockefeller & Co., Inc.
Rothschild Asset Management, Inc.
Russell Investments
Santander Global Facilities
Schroder Investment Management North America Inc.
Smith, Graham & Co. Investment Advisors, L.P.
Smith Group Asset Management
South Texas Money Management, Ltd.
Standard Life Investments Limited
Standish
State Street Global Advisors
Stone Harbor Investment Partners, L.P.
Strategic Global Advisors
T. Rowe Price Associates, Inc.
Taplin, Canida & Habacht
Teachers Insurance & Annuity Association of America
The Boston Company Asset Management, LLC
The Hartford
The London Company
The TCW Group, Inc.
Thompson, Siegel & Walmsley LLC
Thornburg Investment Management, Inc.
Tri-Star Trust Bank
UBS Asset Management
Van Eck Global
Versus Capital Group
Victory Capital Management Inc.
Vontobel Asset Management, Inc.
Voya Financial
Voya Investment Management (fka ING)
Vulcan Value Partners, LLC
Wasatch Advisors, Inc.
WCM Investment Management
WEDGE Capital Management
Wedgewood Partners, Inc.
Wellington Management Company, LLP
Wells Capital Management
Western Asset Management Company

Manager Name
William Blair & Company

Manager Name
WisdomTree Asset Management

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

QUARTERLY MONITORING REPORT

Quarter Ended June 30, 2017

EXECUTIVE LIMITATIONS / STAFF RELATIONS

The Executive Limitation "Staff Relations" deals with the treatment of staff at RIO. The executive director "shall not cause or allow any condition or any communication which is unfair, undignified, or disrespectful." This Executive Limitation lists six specific limitations that range from personnel policies to exit interviews. All the limitations are intended to protect staff from unfair, undignified, or disrespectful treatment by management.

During the past quarter, there were no exceptions to this Executive Limitation.

The Executive Director/CIO held four full office meetings and five manager meetings during the second calendar quarter of 2017 in order to promote an open and collaborative work environment while enhancing team member communication, awareness and engagement.

RIO was fully staffed as of June 30, 2017.

BUDGETING / FINANCIAL CONDITION

AS OF JUNE 30, 2017

			EXPENDITURES			
	2015-2017 BUDGET	ADJUSTED APPROPRIATION	BIENNIUM TO DATE ACTUAL	BUDGET AVAILABLE	% BUDGET AVAILABLE	% OF BIENNIUM REMAINING
SALARIES AND BENEFITS	$ 4,340,551.00	$ 4,342,556.31	$ 4,233,921.17	$ 108,635.14	2.50%	0.00%
OPERATING EXPENDITURES	990,874.00	990,874.00	842,556.45	148,317.55	14.97%	0.00%
CONTINGENCY	82,000.00	82,000.00	8,999.25	73,000.75	89.03%	0.00%
TOTAL	$ 5,413,425.00	$ 5,415,430.31	$ 5,085,476.87	329,953.44	6.09%	0.00%

EXPENDITURE REPORT

QUARTER ENDED JUNE 30, 2017

	INVESTMENT	RETIREMENT	QUARTERLY TOTALS	FISCAL YEAR TO - DATE	BIENNIUM TO - DATE
CONTINUING APPROPRIATIONS					
INVESTMENT EXPENDITURES (SEE ATTACHED DETAIL)	$ 8,011,337.75	$ 0.00	$ 8,011,337.75	$ 30,193,620.17	$ 62,455,379.79
MEMBER CLAIMS					
1. ANNUITY PAYMENTS	0.00	47,570,111.33	47,570,111.33	190,085,971.13	369,789,747.33
2. REFUND PAYMENTS	0.00	2,033,307.67	2,033,307.67	6,487,402.95	12,739,972.45
TOTAL MEMBER CLAIMS	0.00	49,603,419.00	49,603,419.00	196,573,374.08	382,529,719.78
OTHER CONTINUING APPROPRIATIONS	53,796.46	15,696.14	69,492.60	479,773.36	957,137.75
TOTAL CONTINUING APPROPRIATIONS	8,065,134.21	49,619,115.14	57,684,249.35	227,246,767.61	445,942,237.32
BUDGETED EXPENDITURES					
1. SALARIES & BENEFITS					
SALARIES	198,911.75	206,411.25	405,323.00	1,610,401.33	3,132,932.66
OVERTIME/TEMPORARY	0.00	0.00	0.00	4,185.00	8,021.25
TERMINATION SALARY & BENEFITS	0.00	0.00	0.00	0.00	0.00
FRINGE BENEFITS	62,770.34	80,278.99	143,049.33	559,592.01	1,092,967.26
TOTAL SALARY & BENEFITS	261,682.09	286,690.24	548,372.33	2,174,178.34	4,233,921.17
2. OPERATING EXPENDITURES					
DATA PROCESSING	3,644.85	21,187.94	24,832.79	74,515.06	152,917.81
TELECOMMUNICATIONS - ISD	1,073.24	1,864.53	2,937.77	8,882.50	18,157.68
TRAVEL	3,400.88	2,646.48	6,047.36	28,380.13	68,656.69
IT - SOFTWARE/SUPPLIES	4,048.56	7,866.89	11,915.45	14,750.72	15,125.77
POSTAGE SERVICES	1,192.58	6,406.76	7,599.34	46,325.81	90,463.92
IT - CONTRACTUAL SERVICES	1,375.33	86,144.95	87,520.28	124,766.02	130,382.22
BUILDING/LAND RENT & LEASES	5,174.16	8,598.54	13,772.70	82,861.20	164,747.40
DUES & PROF. DEVELOPMENT	260.00	1,352.50	1,612.50	16,501.50	38,781.00
OPERATING FEES & SERVICES	8,065.19	12,065.32	20,130.51	23,657.84	47,032.45
REPAIR SERVICE	0.00	0.00	0.00	909.85	922.35
PROFESSIONAL SERVICES	1,450.71	2,534.29	3,985.00	13,596.00	24,377.00
INSURANCE	0.00	0.00	0.00	638.79	1,269.56
OFFICE SUPPLIES	464.75	973.17	1,437.92	3,004.57	5,029.47
PRINTING	1,533.89	8,447.91	9,981.80	18,496.40	34,005.01
PROFESSIONAL SUPPLIES & MATERIALS	119.91	97.51	217.42	1,075.55	1,722.89
MISCELLANEOUS SUPPLIES	90.39	192.08	282.47	840.98	1,621.17
IT EQUIPMENT UNDER $5000	11,295.87	22,183.30	33,479.17	33,479.17	35,661.55
OTHER EQUIPMENT UNDER $5000	0.00	0.00	0.00	0.00	472.00
OFFICE EQUIPMENT & FURNITURE UNDER $5000	1,291.85	8,359.66	9,651.51	9,652.51	11,210.51
TOTAL OPERATING EXPENDITURES	44,482.16	190,921.83	235,403.99	502,334.60	842,556.45
3. CONTINGENCY	0.00	8,999.25	8,999.25	8,999.25	8,999.25
TOTAL BUDGETED EXPENDITURES	306,164.25	486,611.32	792,775.57	2,685,512.19	5,085,476.87
TOTAL EXPENDITURES	$ 8,317,502.00	$ 50,090,030.32	$ 58,477,024.92	$ 229,932,279.80	$ 451,027,714.19

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED JUNE 30, 2017

FOR QUARTER ENDED 3/31/17

PENSION DEVELOPED INTERNATIONAL EQUITY POOL		
Wellington	182,896.50	
William Blair	125,828.72	
TOTAL PENSION INTERNATIONAL EQUITY		308,725.22
PENSION GLOBAL EQUITY POOL		
Epoch	596,382.00	
LSV	120,940.00	
TOTAL PENSION GLOBAL EQUITY		717,322.00
PENSION BELOW INVESTMENT GRADE FIXED		
Loomis Sayles		245,449.13
PENSION INVESTMENT GRADE FIXED INCOME POOL		
JP Morgan	65,211.44	
PIMCO	149,178.34	
State Street	9,731.14	
TOTAL PENSION INVESTMENT GRADE FIXED INCOME		224,120.92
PENSION INFRASTRUCTURE POOL		
JP Morgan		262,648.13
PENSION LARGE CAP EQUITY POOL		
LA Capital		228,223.19
PENSION SMALL CAP EQUITY POOL		
Atlanta Capital		226,322.00
PENSION REAL ESTATE		
JP Morgan (Special & Strategic)	443,176.63	
Invesco	216,290.91	
TOTAL PENSION REAL ESTATE		659,467.54
PENSION INTERNATIONAL FIXED INCOME		
Brandywine	140,880.01	
UBS	80,482.32	
TOTAL PENSION INTERNATIONAL FIXED INCOME		221,362.33
INSURANCE FIXED INCOME POOL		
Prudential	74,450.56	
State Street	12,043.17	
Wells	121,585.37	
Western Asset	102,554.44	
TOTAL INSURANCE FIXED INCOME		310,633.54
INSURANCE LARGE CAP EQUITY POOL		
LA Capital	53,984.35	
LSV	54,368.00	
TOTAL INSURANCE LARGE CAP		108,352.35
INSURANCE SMALL CAP EQUITY POOL		
PIMCO RAE		25,492.35
INSURANCE INT'L EQUITY		
LSV	72,994.00	
William Blair	65,193.96	
TOTAL INSURANCE INT'L EQUITY		138,187.96
INSURANCE DIVERSIFIED REAL ASSETS		
JP Morgan	140,916.84	
Western Asset	37,458.98	
TOTAL INSURANCE DIVERSIFIED REAL ASSETS		178,375.82

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED JUNE 30, 2017

INSURANCE REAL ESTATE		
Invesco	54,998.03	
JP Morgan	137,444.87	
TOTAL INSURANCE REAL ESTATE		192,442.90
INSURANCE SHORT TERM FIXED		
JP Morgan		27,619.30
LEGACY FIXED INCOME		
Prudential	110,004.57	
State Street	16,363.97	
Wells	173,402.72	
Western Asset	148,505.25	
TOTAL INSURANCE FIXED INCOME		448,276.51
LEGACY LARGE CAP EQUITY		
LA Capital	220,136.52	
LSV	226,070.00	
TOTAL INSURANCE LARGE CAP		446,206.52
LEGACY SMALL CAP EQUITY		
PIMCO RAE		108,389.21
LEGACY INT'L EQUITY		
LSV	345,401.00	
William Blair	333,431.61	
TOTAL INSURANCE INT'L EQUITY		678,832.61
LEGACY DIVERSIFIED REAL ASSETS		
JP Morgan	153,931.78	
Western Asset	97,690.73	
TOTAL INSURANCE DIVERSIFIED REAL ASSETS		251,622.51
LEGACY REAL ESTATE		
Invesco	105,919.19	
JP Morgan	255,193.93	
TOTAL INSURANCE REAL ESTATE		361,113.12
PERS RETIREE HEALTH INSURANCE CREDIT FUND		
SEI		80,342.82
JOB SERVICE FUND		
SEI		65,170.32
TOBACCO PREVENTION & CONTROL TRUST FUND		
STATE STREET		4,039.56
CONSULTANT		
Adams Street	14,158.00	
Callan	99,753.55	
Novarca	31,026.04	
TOTAL CONSULTANT		144,937.59
TOTAL FOR QUARTER ENDED 3/31/17		**6,663,675.45**
FOR QUARTER ENDED 6/30/17		
PENSION INFRASTRUCTURE POOL		
JP Morgan		264,371.66
PENSION REAL ESTATE		
Invesco		221,521.88

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED JUNE 30, 2017

PENSION CASH		
Northern Trust		7,638.98
INSURANCE DIVERSIFIED REAL ASSETS		
JP Morgan		141,834.93
INSURANCE REAL ESTATE		
Invesco	56,328.15	
JP Morgan	136,014.82	
TOTAL INSURANCE REAL ESTATE		192,342.97
LEGACY DIVERSIFIED REAL ASSETS		
JP Morgan		154,920.83
LEGACY REAL ESTATE		
Invesco	109,278.04	
JP Morgan	255,753.01	
TOTAL INSURANCE REAL ESTATE		365,031.05
TOTAL FOR QUARTER ENDED 6/30/17		**1,347,662.30**
TOTAL FEES PAID DURING QUARTER ENDED 6/30/2017		**8,011,337.75**

Quarterly Report on Ends
Q4:FY17

Investment Program

Ongoing due diligence conducted on the following organizations:

- Adams Street (private equity)
- JP Morgan (real estate)
- PIMCO (domestic fixed income)
- Prudential (domestic fixed income)
- TIR (timber)
- Western (domestic fixed income)
- William Blair (international equity)

Preliminary due diligence conducted on the following organizations:

- Baird (core fixed income)
- Barings (core fixed income)
- Dodge & Cox (core fixed income)
- IR&M (core fixed income)
- Loomis Sayles (core fixed income)
- MacKay Shields (core fixed income)
- Manulife (core fixed income)
- Mercer (infrastructure)
- TCW (core fixed income)
- TPG (special situations)
- Wellington (core fixed income)
- Wells Fargo (fixed income)

At the May SIB meeting, Staff provided the Board an update regarding a pending restructuring of the current fixed income manager structure within the pension trust. Staff is currently conducting due diligence on a number of core fixed income managers and finalist candidates will present to the Board at the August and September Board meetings.

Following Board approval of the selection of Ares and Cerberus to manage middle market direct lending accounts in the third fiscal quarter, Staff and counsel are proceeding with a legal contract review with both firms.

Staff is continuing the live phase of the implementation of the BlackRock Solutions Aladdin system and is currently developing reporting packages.

Staff attended meetings with the following entities: TFFR Board, NDPERS Investment Subcommittee, Legacy and Budget Stabilization Fund Advisory Board, ND Association of Counties, FargoDome Finance Committee, and Grand Forks Park District.

Staff continues to conduct preliminary due diligence on possible managers/products for future consideration.

Staff continues to monitor each client's asset allocation monthly and makes rebalancing decisions based on rebalancing policy and cash flow requirements.

Quarterly Report on TFFR Ends
Quarter ended June 30, 2017

Retirement Program

This report highlights exceptions to normal operating conditions.

- Governor Burgum re-appointed Mike Burton of Fargo to represent retired members on the TFFR Board for a 5-year term from 7/1/17 – 6/30/22. Mr. Burton has also been designated as an alternate to serve on the State Investment Board.

- TFFR continues to explore and implement cost saving initiatives in the member and employer outreach program areas by utilizing more electronic education materials instead of printed versions.

- TFFR has updated the content of all retirement publications and forms, in addition to the new RIO office address. A new logo and newsletter format has also been designed and will be reflected in updated agency materials.

North Dakota Retirement & Investment Office
›Teachers' Fund for Retirement
›State Investment Board

NDSIB Watch List

Data as of 06/30/2017

JP Morgan MBS (Pen.)		*$131,206,979*	
	Returns	Index[1]	Excess
1 Year	0.82	(0.06)	0.87
Inception*	2.76	2.30	0.46

*Funded 09/30/2014

UBS International Fixed (Pen.)		*$105,946,147*	
	Returns	Index[2]	Excess
1 Year	(3.69)	(3.80)	0.10
3 Year	(2.44)	(2.42)	(0.01)
Inception*	5.93	5.64	0.29

*Funded 07/01/1989

[1] Bloomberg Mortgage Index

[2] Bloomberg Global Aggregate ex-US

Note: Return data is gross of fee due to data availability

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Adams Street Partners Miguel Gonzalo	Pension	Private Equity	various commitments since 1991	The Adams Street Partnership Fund Program (“ASP Fund Program”) invests in private equity partnerships and portfolio companies, creating a portfolio diversified by time, manager and subclass. Investment commitments will typically be made over a three- to four-year period in venture capital, buyout and other partnerships, which include mezzanine/subordinated debt, restructuring/distressed debt and special situations. A portion of a participant’s subscription to the ASP Fund Program may be used to opportunistically invest in secondary interests in private equity partnerships and/or their portfolio companies. All of the Adams Street Partner funds which North Dakota State Investment Board has invested in are based in U.S. dollars.
Atlanta Capital Emma Hutchinson	Pension	Small Cap Equity	April-16	The High Quality Small Cap strategy is a fundamental core approach that invests in small cap companies in strong financial condition and whose equities are priced below the team's estimate of fair value. The investment team seeks to own innovative businesses that dominate a niche, maintain high barriers to entry, and have consistent demand over an economic cycle. They conduct bottom-up proprietary research, and meet with the management teams as well as visit the facilities of each of their companies. Stock purchases are analyzed as if they were a potential acquirer of the entire business. Atlanta Capital’s Core Equity team is comprised of three portfolio managers and one investment specialist. Each portfolio manager serves as a generalist and conducts his own analytical research while investment decisions are made on a consensus basis. Chip Reed, CFA, Bill Bell, CFA and Matt Hereford, CFA are responsible for all purchase and sell decisions.
Axiom International Lindsay Chamberlain	Pension	Emerging Markets Equity	August-14	The Emerging Markets strategy seeks to invest in emerging market securities issued by companies whose key business drivers are both improving and exceeding expectations, as determined by Axiom's stock selection techniques focused on fundamental company analysis. The strategy considers emerging markets securities to include securities of companies either (i) located in countries that are not included in the MSCI Developed Markets Index series or (ii) that derive a majority of their revenues or assets from a country or countries not included in the MSCI Developed Markets Index series, in each case at the time of investment. Although the Manager generally expects the strategy’s investment portfolio to be geographically diverse, there are no prescribed limits on geographic distribution of the strategy’s investments and the strategy has the authority to invest in securities traded in securities markets of any country in the world.
Blackrock Private Equity Partners (PEP) Private Opportunities Fund Leo Chenette	Pension	Private Equity	January-17	PEP seeks to build a diversified private equity program diversified across investment type, strategy, stage, industry sector, geography and vintage year. PEP offers comprehensive access to premier investments across Primaries, Secondaries, and Co-investments, as well as the technical expertise and investment know-how necessary to build and manage a successful customized fund of funds program. The PEP customized program allows the NDSIB to tailor exposures around its existing private equity investments. PEP sits within BlackRock, Inc. (“BlackRock”), a global Investment firm with $4.6 trillion assets under management. BlackRock is a publicly traded corporation that employs 135+ investment teams, and operates in 30 countries and 70 cities across the Americas, Europe, Asia-Pacific, the Middle East, and Africa.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Brandywine Asset Management Lisa Welch	Pension	Int'l Fixed Income	May-03	Brandywine's Global Fixed Income investment style is a disciplined, active, value-driven, strategic approach. Their investment strategy concentrates on top-down analysis of macro-economic conditions in order to determine where the most attractive valuations exist. Specifically, they invest in bonds with the highest real yields globally. They manage currency to protect principal and increase returns, patiently rotate among countries and attempt to control risk by purchasing undervalued securities. They believe their approach is ideally suited to the asset class, as each country, and sector exhibit unique valuation parameters. They believe that a client's portfolio should be invested in markets with, what they believe, demonstrate above-average value. Value is defined as a combination of above-average real interest rates and an under-valued currency. They typically concentrate investments where existing economic and market conditions may enable that value to be realized in an intermediate time frame. Their research has identified global fixed income as an opportunity class wherein active strategies have the most potential for reward and passive, index-replicating strategies are fundamentally insufficient and add an unnecessary level of risk to the portfolio management process. Country-by-country return dispersion (and, therefore, opportunity) across developed country bond markets is remarkable, and if capitalized upon as part of an actively managed process, can potentially provide significant excess return (alpha) above the benchmark. They seek to capture those excess returns through strategic investment in countries, currencies, sectors and securities, rather than by maintaining minimum, core commitments, reflective of the benchmark.
Capital Int'l V & VI Jim McGuigan	Pension	Private Equity	Aug-07	Capital International Private Equity Fund (CIPEF) has a geographic focus in global emerging markets. CIPEF's investment focus, by stage, primarily includes buy-outs, expansion capital, and replacement capital.
Clifton Group (Parametric Portfolio Associates) Ben Lazarus	Pension Insurance Legacy Fund	Dom Small Cap Equity Dom Lg Cap Equity Dom Small Cap Equity Dom Lg Cap Equity Dom Small Cap Equity Dom Lg Cap Equity	Nov-09 Apr-11 Nov-09 Nov-09 March-15 May-15	The Clifton Group believes that the U.S. equity universe is highly efficient. As such, we utilize a method of constructing the portfolio that we believe provides us with the greatest likelihood of outperforming the index. Specifically equity futures are used to gain the benchmark exposure. The underlying cash portfolio is then invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance. Each Enhanced Equity portfolio is carefully constructed and managed within strict quality and diversification guidelines. The Portfolio Management Team oversees all aspects of the construction and management process. Individual Portfolio Managers oversee different parts of the portfolio, but all are required to stay within pre-determined guidelines as provided by NDSIB. The account is monitored daily to verify that performance is maintained within expectation bands. Furthermore, accounts are reconciled monthly and audited semi-annually to confirm compliance with all existing guidelines.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Corsair (Fund III and IV) Michael Poe Cliff Brokaw	Pension	Private Equity	Feb-07	Corsair seeks to earn strong risk-adjusted returns by leveraging the investment team's knowledge and contacts to identify and execute attractive investments in companies in the financial services industry around the world. Corsair takes control and minority positions, either individually or as a lead member of an investor consortium. Target investments include both privately-held and public companies, generally via private transactions when the target company loses access to, or has difficulty accessing, the public capital markets. In certain circumstances, the Fund may acquire pools of financial assets or securities, or provide financing to a secured pool of assets. Corsair endeavors to develop a strong relationship and high degree of influence with investee company senior executives and key shareholders. In many instances, Corsair obtains Board representation, observer seats, or other types of management rights. Given the complexities of investing in a regulated industry, Corsair's ability to receive more traditional generalist buyout governance rights is often limited, and its ability to influence managerial decisions requires a degree of experience which Corsair believes can only be achieved through a long and consistent history of investing in the financial services sector. Corsair expects the Fund to make 10 to 15 investments over its investment period, although there can be no assurances with respect to the number of investments that will be made. Corsair anticipates holding its investments for between three and six years. In those instances where Corsair is part of an investor consortium, Corsair generally endeavors to act as a lead or co-lead investor, as was the case in all Corsair III investments. On select occasions Corsair expects to co-invest with strategic partners that are capable of bringing added value to an investment and where the Fund's exit considerations can be addressed. Above all, Corsair's value-driven investment style focuses on those investment opportunities in which the Investment Advisor believes that a positive discrepancy exists between an asset's price and its intrinsic value.
DFA - Dimensional Fund Advisors Joe Young	Pension Insurance Legacy	Developed Int'l Equity Int'l Equity Int'l Equity	Nov-07 Nov-07 Feb-02	The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Size is defined as the smallest 8-10% of each country's market capitalization. Securities are considered value stocks primarily because a company's shares have a high book value in relation to their market value (BtM). This BtM sort excludes firms with negative or zero book values. In assessing value, additional factors such as price-to-earnings ratios may be considered, as well as economic conditions and developments in the issuer's industry. The criteria for assessing value are subject to change from time to time. The Portfolio currently invests in companies in Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. It does not invest in emerging markets.
DFA - Dimensional Fund Advisors Joe Young	Pension	Emerging Markets Equity	Oct-05	The Emerging Markets Small Cap Portfolio invests in small cap emerging markets companies. Presently, this means investment in companies whose market capitalization is less than $2.3 billion at the time of purchase. Dimensional will consider, among other things, information disseminated by the International Finance Corporation in determining and approving emerging market countries. The Portfolio currently invests in companies in Brazil, Chile, China, Hungary, India, Indonesia, Israel, Malaysia, Mexico, the Philippines, Poland, South Africa, South Korea, Taiwan, Thailand, and Turkey. Due to repatriation restrictions, the Portfolio currently holds but does not purchase securities in Argentina.

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Investment Manager	Trust	Asset Class	Opened	Description
DMR (Declaration Total Return Bond Fund) John Pluta	Pension Insurance Legacy	Dom Inv Grade FI Dom Inv Grade FI Dom Inv Grade FI	Apr-12 Dec-13 Apr-15	The Fund's investment objective is to achieve net returns in the range of 6% to 10% annualized over rolling 3-year periods. The Investment Advisor attempts to achieve this objective using fundamental analysis to evaluate the pricing and volatility of a wide range of MBS and other structured finance securities while also making a relatively small allocation to corporate bonds. The Fund invests primarily in residential ("RMBS") and commercial ("CMBS") mortgage-backed securities. The Investment Advisor expects the Fund's returns to be achieved — if the Fund is successful — through both cash flow yield and trading gains. The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies ("Non-Agency RMBS") and government agencies ("Agency MBS") and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association ("Fannie Mae"), the Federal Home Loan Mortgage Corporation ("Freddie Mac") and the Government National Mortgage Association ("Ginnie Mae"). Portfolio holdings may range from short tenor senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. The tactical weighting of the Fund's portfolio across the different sub-sectors of the securitization market varies according to the Investment Advisor's perception of sub-sector as well as overall market volatility and liquidity. Smaller portfolio allocations may include consumer asset-backed securities ("ABS"), other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only ("IO") MBS. Other Fund investments may include U.S. government securities ("U.S. Treasuries"), unsecured debt securities issued by U.S. government agencies and entities ("Agency Debt") and derivatives related to any of the above.
EIG Energy (formerly TCW) Renee Davidovits	Pension	Private Equity	Jul-07	TCW Energy Fund XIV-A, L.P. (the "Fund") is a Delaware limited partnership, formed on October 27, 2006 for the purpose of establishing a diversified portfolio of investments in energy and energy-related infrastructure projects and companies on a global basis. The investments will include loans, production payments, net profits interests, royalty interests and other forms of debt and equity securities issued by companies globally with emphasis on operations in the United States, Canada, Western Europe and Australia. The Fund, TCW Energy Fund XIV, L.P., TCW Energy Fund XIV-B, L.P., and TCW Energy Fund XIV (Cayman) L.P., (collectively, "Fund XIV") shall not invest more than 15% of total commitments ("Commitments") in any one issuer and shall not invest more than 25% of Commitments in issuers operated principally outside Organization for Economic Cooperation and Development ("OECD") countries. The Fund shall not invest more than 35% of Commitments in equity securities other than equity securities received in connection with the purchase of mezzanine debt.
Epoch Investment Partners Thomas Pernice	Pension	Global Equity	July-07 Moved from Lg Cap Jan-12	The Epoch Global Choice strategy seeks to produce superior risk adjusted returns by building portfolios of businesses with outstanding risk/reward profiles. The concentrated active, global equity portfolio typically consists of approximately 20-35 securities (generally equities) representing the firm's highest conviction names. The expected annual turnover is generally between 90-130%. The equity portion of the portfolio will invest no more than 10% of the portfolio, at the time of purchase, in any one equity security.

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Investment Manager	Trust	Asset Class	Opened	Description
Goldman Sachs (2006 Fund, Fund V) Joe Hernandez Patrick Byrne	Pension	Below Inv Grade FI	Apr-06	The GS Mezzanine Partners family of funds is the largest mezzanine fund family in the world, with over $20 billion invested in 100+ companies since 1996. In 2007, Goldman Sachs established its fifth mezzanine fund, GS Mezzanine Partners V, with $13 billion of leveraged capital. GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. Our focus is on providing “private high yield” capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers. We target high-quality companies with $500 million to $10+ billion of enterprise value; leading market positions; high barriers to entry; well-regarded management teams; and stable, cash generative businesses.
Grosvenor Customized Infrastructure Strategies, LP (formerly Credit Suisse) Andrew Johnson Paul Burraston	Pension Insurance	Infrastructure Real Assets	Dec-11 Dec-11	Established on October 21, 2009, the Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).
Grosvenor Customized Infrastructure Strategies II Andrew Johnson Paul Burraston	Pension Legacy	Infrastructure Real Assets	Mar-15 Mar-15	Following the same strategy as our initial commingled multi-manager infrastructure fund, Customized Infrastructure Strategies, L.P. (“CIS I”), the Fund will seek to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified, global portfolio of primarily core and core-plus infrastructure investments. CIS II will target primary fund investments, secondary purchases of investments in funds (“secondaries”), and equity and debt co-investments. Consistent with CIS I’s target returns, CIS II will target a net return to its limited partners in excess of 10%1, with a low single-digit cash yield upon full investment of the Fund.
Hearthstone (MSII, MSIII) Mark Porath	Pension	Private Equity	Oct-99	In the Hearthstone-MSII Homebuilding Investors (MS2) and Hearthstone Multi-State Value-Added Fund III (“MS3”) funds, Hearthstone, on behalf of the Fund, is authorized to invest exclusively in residential development projects. Residential development projects include residential land development and single-family homebuilding, including the acquisition and conversion of rental properties into condominiums and other forms of single-family housing. MS3 was authorized to invest in the construction and sale of apartment buildings, but no such investments were made. Land development projects typically involve the acquisition, entitlement and development of anywhere from 100 to 1,000 finished residential lots for sale to merchant builders, but may involve the acquisition, permitting and development of other residential land. Single-family homebuilding projects generally involve the construction and sale of approximately 25 to 500 single-family attached or detached homes.

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Investment Manager	Trust	Asset Class	Opened	Description
Invesco Asia Fund I Asia Fund III Paul Michaels	Pension Pension	Real Estate	Nov-08 Nov-15	This investment strategy will focus on value added investments with an initial focus on China and Japan, with a secondary focus on Singapore and Hong Kong, in residential, industrial, retail and office properties. Where IRE identifies best value, it will execute the following value added strategies for the Fund: -Provide equity for the development of new real estate product that generates high cash returns and demonstrates mid-term growth opportunities. -Reposition assets or change the use of an asset to maximize its value by identifying highest/best use, curing deferred maintenance, improving overall asset quality and developing additional revenue-generating amenities. -Participating in high growth markets -Adopting higher leverage strategies and exploiting market inefficiencies.
Invesco Core USA LLC Paul Michaels	Pension Insurance Legacy	Real Estate	Aug-97 Oct-12 April-15	The Fund invests in properties located in the United States, typically requiring an investment of $10 million or greater. The Fund focuses on quality core real estate opportunities and, in addition, the Fund may invest up to 15% of its assets in "value-added" type real estate investment opportunities. The Fund seeks to provide Investors with returns equal to or greater than the NPI on a 3- and 5-year rolling basis.
Invesco IREF II Invesco IREF III Value-Add IV Paul Michaels	Pension Pension Pension	Real Estate	Nov-07 May-12 April-15	The Fund will invest in value-added real estate opportunities. Investments will be made solely in the United States in four specific product types- multifamily, industrial, retail and office properties. Where IRE identifies best values, it will execute the following strategies for the Fund: • Re-capitalization: Invest in properties or portfolios at a favorable basis by acquiring an equity interest and/or debt. • Lease-up: Acquire properties with vacant space or near-term lease rollover exposure, with the opportunity to reposition rent roll and tenancy. • High Yield Debt: Acquire unrated pieces of CMBS debt • Renovation/Retenanting/Repositioning: Reposition assets (an example would be to upgrade an asset from Class B to Class A) or change the use of an asset to maximize its value by curing deferred maintenance, improving overall asset quality and developing additional revenue-generating amenities. • Development: Provide equity commitments/investments for the development of new real estate products that allows for access to new, state-of-the-art products at wholesale pricing.
InvestAmerica Lewis & Clark L&C II John Cosgriff David Schroder	Pension	Private Equity	Feb-02 Jun-09	The investment strategy for Lewis and Clark Private Equities, LP and L&C Private Equities II, LP (the Funds) is to assemble a portfolio of investments in private growth and later-stage companies that have a strong probability of providing high returns without undue volatility and risk to investors. The Funds target for investment middle market growth and later stage companies throughout the United States with existing sales from $5,000,000 to $100,000,000. Typically, these small to medium sized companies are seeking to raise $1,000,000 to $10,000,000. The Principals of the Funds have demonstrated through the successful investment of previous venture funds, that this market niche has historically delivered high returns with more limited competition for financing. The Funds seek to achieve a minimum of a 25% and in many cases in excess of a 30% internal rate of return on each of its company investments. The Funds diversify their investments by investing in portfolio companies across many industries and geographic locations. Investments will be made across a range of manufacturing, service, distribution and technology companies. Most investments are expected to be in later stage companies with established sales and profitability. Some investments may be opportunistically made in growth stage companies. The investment team has historically invested throughout the United States with offices strategically located in the Midwest and Northwest.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Short Term Bond Fund Jim Sakelaris	Insurance	Short Term FI	Sep-11	The investment objective of the Short Term Bond Fund is to outperform (based on the portfolio's total return, gross of fees) the Barclays Capital 1-3 Year Government/Credit Index (the benchmark) while maintaining total return risk similar to that of the Benchmark as measured over a market cycle.
JP Morgan Alternative Property Fund Jim Sakelaris	Pension	Real Estate	Jan-06	The JPMorgan Alternative Property Fund seeks current income and capital appreciation from a portfolio of investments consisting of alternative real estate (senior housing, medical office, hotels, single-family subdivision development, condos, storage, parking and other “non-core” cash-flow-generating property investments) and real estate-related assets in the U.S., as well as traditional and alternative real estate and real estate-related assets in Canada, Mexico and the Caribbean. The Fund pursues a broadly diversified absolute-return strategy targeting a 12-15% total annualized IRR (including a current income return of 5-7% and the balance from capital appreciation) gross of all Fund-level fees and expenses, assuming at least a 5-year holding period. The Fund is designed to benefit from less competitive flow of capital relative to core property. As an infinite-life structure, the Fund offers potential investors the opportunity for periodic liquidity at net asset values established on a quarterly basis. The Fund will also periodically rebalance sector, product and geographic diversification to dampen volatility and create a stable alternative real estate investment portfolio with a conservative level of leverage (60% on a portfolio basis).

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Asian Infrastructure & Related Resources Opportunity Fund Jim Sakelaris	Pension	Infrastructure	Aug-08	The JPMorgan Asian Infrastructure & Related Resources Opportunity (“AIRRO”) Fund seeks to invest in infrastructure and related resources opportunities across the greater Asia Pacific region. The Fund seeks to invest in a broad range of assets, including (but not exhaustive): core infrastructure such as transportation, power both from conventional and renewable sources, communications, water and waste-water, public works, urban development and other "social" infrastructure assets (i.e. hospitals, schools, government centers) and related resources such as energy, raw materials, natural resources, construction and construction-related materials and real estate (that are part of or associated with any of the installation and operation of infrastructure). The Fund will seek an internal rate of return in excess of 19% (net of Incentive Allocation and Fund Expenses and any Taxation that is payable by the Fund, but exclusive of any Taxation payable by Investors with respect to distributions), assuming a constant exchange rate during the term of the Fund between the USD and the currencies in the countries where the Fund's Investments are located. The Investment Adviser will have the right, but not the obligation, to hedge currency risk at its discretion, however there currently is no intent to engage in active hedging except as follows: (i) in exceptional cases where we believe the underlying risk is excessive and (ii) where there are known future equity commitments subject to currency risk, including with respect to the acquisition of new assets. The Fund team’s view of infrastructure, in the Asian context, takes a holistic approach, encompassing not only core infrastructure but also the raw material and construction-related stages of infrastructure and those companies needed "to make infrastructure happen". By focusing on both infrastructure and related resources, the Investment Adviser has developed a strategy which seeks to capitalize on the entire opportunity presented by the large forecasted growth and required investment in Asian infrastructure. The Fund monitors its currency exposure on a regular basis taking account of the outlook for any currencies in which AIRRO is invested. At this time, AIRRO does not anticipate hedging its currency exposure in the near-term. Based on consensus forecasts prepared by Bloomberg, analysts expect Asian currencies to strengthen versus the USD over the medium-term. AIRRO’s entry cost (based on average weighted rates) for its investments are 47.68 INR/USD for SevenHills and 7.76 HKD/USD for Scitus (6.93 RMB/USD for Scitus’ corresponding investments onshore). We anticipate these positions to strengthen in the favor of AIRRO by exit (estimated to be 2013 for each investment). AIRRO will continue to monitor movements in Asian currencies and review its hedging strategy accordingly.

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Greater China Property Fund Jim Sakelaris	Pension	Real Estate	Jan-08	The JPMorgan Greater China Property Fund is a closed-end investment fund which seeks to invest in real estate development projects in Greater China (defined to include China, Hong Kong, Macau and Taiwan). Drawing on over 30 years of real estate investing experience and its position as one of the largest real estate investment managers globally, J.P. Morgan Investment Management Inc. seeks to develop and manage a portfolio of capital-appreciation oriented real estate assets in Greater China. The Fund will generally make its investments across the office, residential, industrial, retail and hospitality sectors by creating project-level joint venture arrangements with multiple operating partners in Greater China. In addition to direct real estate investments, the fund may invest in shorter-term, “structured capital” opportunities in the real estate sector (typically 6-18 months in nature). Such investments may involve publicly listed companies and private companies seeking funding for their operations. The fund will limit the structured capital investments to 20% of the fund’s total allocation. The Fund seeks to capitalize on the rapid and sustained economic growth, rising income levels, as well as the recent developments in China that will present opportunities for experienced real estate investment firms like J.P. Morgan to partner with local developers for new investments. The investment objective of the Fund is to seek capital appreciation. Since most of the Fund’s investments will be development stage properties, the Fund expects to generate little to no current income. The Fund expects that aggregate secured permanent indebtedness will not exceed, on average over a fiscal year, 75% of the greater of the fair market value or total cost of all of the Fund investments. Investment returns may be hedged on a case by case basis as some investments may be hedged while others may not. Whether to hedge will depend on a number of factors including the currency outlook, the cost/benefit of the hedge, the requirements of lenders, etc. In addition, in cases where debt borrowings are in local currency, there is effectively a built in hedge as well.

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Greater Europe Opportunistic Property Fund Jim Sakelaris	Pension	Real Estate	Sep-09	The JPMorgan Greater Europe Opportunistic Property Fund is a closed-end opportunity fund that offers investors an opportunity to participate in an actively managed portfolio of property investments throughout Europe both in direct assets and select investments in existing property companies. The Fund has the flexibility to invest in a variety of different types of real estate, including, without limitation, office, retail, industrial/warehouse, multi-family, hotel/leisure, parking and self-storage. The Fund aims to provide Investors with a targeted annualized IRR of at least 15% over the life of the fund net of all fees and expenses. The Fund intends to achieve its Target Return by using JPMorgan Asset Management's expertise and market contacts to successfully make use of the following risks: leasing risk; development risk; restructuring risk; liquidity/transparency risk and leverage. J.P. Morgan Asset Management - Global Real Assets believes that opportunities exist in the Target Markets for investors to create value through the development, rehabilitation, repositioning and recapitalization of undervalued real estate and real estate-related assets through the purchase of high quality assets or portfolios of assets from distressed sellers. After a period of rapid capital appreciation and falling risk premium for European real estate assets, partially a result of excess liquidity, the dislocation in capital markets experienced since the end of July 2007 has resulted in a substantial re-pricing of risk, particularly at the higher risk end of the spectrum. More uncertain prospects for occupier markets in some, though not all, countries are likely to continue to impact risk and therefore pricing. In Europe, JPMAM-GRA believes this creates two very distinct but compelling opportunities for the foreseeable future. The first is to capitalize on the opportunity to purchase high quality assets in core Western European markets which will be sold at favorable prices due to the lack of liquidity in the market or where the underlying risk is mispriced. Property owners overleveraged with short duration leverage, developers overexposed to construction and leasing risk, and corporate owners whose balance sheets have come under pressure are all expected to be excellent sources of these buying opportunities. We consider hedging on a deal-by-deal basis when we think it makes sense and is cost-effective. We consult with our foreign exchange desk at J.P. Morgan on a regular basis. At the present time, we believe the British Pound is underpriced relative to the Euro on a long-term historical basis and, therefore, we are currently not hedging the Pound position (at least with respect with the net equity, leverage acts as a natural hedge against 65% of the GAV since the debt on UK transactions is also denominated in Pounds). The Greater Europe Opportunistic Property Fund is Euro-denominated and thus reflects periodic currency movements in addition to property valuation changes.

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Income & Growth Fund Jim Sakelaris	Insurance Legacy	Real Estate Real Estate	Nov-05 April-15	J.P. Morgan U.S. Real Estate Income and Growth Fund - The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy targeting an 8-10% total annualized IRR (including a current income return of 5-7% per annum and the balance from capital appreciation) net of management fees and expenses, the payment of any Infrastructure Development Fee, if applicable, and the effect of taxes payable by certain of the Fund's Entities. The Fund pursues all property investments on an opportunistic basis. The majority (>50%) of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors. In addition to direct real estate, the Fund has the ability to invest in other access points - mezzanine debt, CMBS and REITs - when they provide core real estate cash flows at a better price than owning the property. This helps diversify the portfolio and offer a superior risk reward equation. This dynamic investment approach focuses on relative value and is not constrained by fixed allocation targets or benchmark composition allowing the Investment Advisor the ability to change the Fund's portfolio composition in response to changing market conditions and opportunities.

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Infrastructure Investments Fund Jim Sakelaris	Pension Insurance Legacy	Infrastructure Real Assets Real Assets	May-07 Nov-08 Feb-15	Infrastructure Investments Fund - Launched October 31, 2006, JPMorgan Infrastructure Investments Fund is the only open-ended private commingled infrastructure fund in the U.S. It invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and, seaports and airports. Our open-ended strategy supports a long-term investment horizon as we seek to achieve steady returns over time that are largely cash yield with modest capital appreciation. Our open-end format also aids in our acquisition and disposition process as a long-term outlook is attractive to governments, regulators and operating partners. The Fund seeks to achieve a leveraged portfolio target IRR of 10–12%, net of Fund Expenses. Leverage is targeted at 75% at the fund level. Its diverse client base, includes U.S., European, Asian and Canadian government, union and corporate pension plans, insurance companies, and high net worth individuals. The interaction of multiple currencies is viewed by many investors as another form of diversification. With respect to the JPMorgan Infrastructure Investments Fund ('IIF' or the 'Fund'), the Investment Adviser has the right, but not the obligation, to hedge currency risk at its discretion. Due to clients' differing perspectives on currency, and the complexities/costs of hedging an illiquid portfolio, there currently is no intent to engage in active hedging except as follows: (i) in exceptional cases where we believe the underlying risk is excessive and (ii) where there are known future equity commitments subject to currency risk, including with respect to the acquisition of new assets; this is a strategy that we have utilized for several investments in the existing portfolio. Generally speaking, we believe clients are more concerned with active management of infrastructure assets and strategies than with currency hedging. We understand that many clients prefer to hedge their currency exposures on an individual total portfolio basis. Further, many clients are interested in actively managing their currency exposure to generate alpha. J.P. Morgan has the capability to provide currency hedging (as a separate service outside of the Fund) for those clients that are interested in hedging currency risk and for clients wishing to generate additional alpha (whether the risk is associated with the Fund's portfolio or with other client investments).

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Mortgage Backed Securities Jim Sakelaris	Pension	Domestic Fixed Income	Sep-14	JPM seeks to create portfolios that offer superior stability of cash-flows (over a wide range of interest rate scenarios) versus those of the Barclays Capital Mortgage Securities benchmark. Due to a focus on identifying undervalued securities our selection is not limited to securities within the index, we may also utilize agency and non-agency commercial mortgage obligations. Because the mortgage-backed sector, in particular, has been less efficient relative to other sectors in recent years, security selection skills can add particular value. The JPM investment approach seeks to add value through the following: •We take a longer-term view of investing versus adopting a trading mentality. • Sub-sector allocation decisions are based on broad sector outlook, using expected return and valuation analysis. • Undervalued securities are identified through diligent research. • Relative risk/reward relationships are evaluated along the yield curve. • Strategy emphasizes research and individual security analysis rather than large macro bets. • Duration is managed primarily as a risk control measure. • Portfolios are well diversified and of high credit quality. • Risk management is embedded throughout process and seeks to limit downside risk relative to the benchmark.

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Investment Manager	Trust	Asset Class	Opened	Description
JP Morgan Strategic and Special Situations Property Funds Jim Sakelaris	Pension	Real Estate	Oct-90	**Strategic Property Fund** is an actively managed diversified, core, open-end commingled pension trust fund. It seeks an income-driven rate of return of 100 basis points over the NCREIF Property Index over a full market cycle (three-to-five-year horizon) through asset, geographic and sector selection and active asset management. The Fund invests in high-quality stabilized assets with dominant competitive characteristics in markets with attractive demographics throughout the United States. Following a core strategy, Strategic Property Fund focuses primarily on existing high-quality, well-leased assets in the four major property types: office, industrial, multi-family and retail. Strategic Property Fund focuses on the larger primary economic markets. Each sector is well leased with modest lease expiration exposure of approximately 10% per annum over the next five years. Due to the broad diversification in the Fund's investments, no individual properties or tenancies have the capacity to materially affect the Fund's performance. **Special Situation Property Fund** is an actively managed, value-added, open-ended commingled trust fund. It seeks an increased total return with a moderate-to-high risk level, as reflected in the potential volatility of both income and property values. Our investment philosophy for Special Situation Property Fund is based on our belief that consistently excellent investment results can be achieved by focusing on value-added investment opportunities while maintaining an optimum leverage ratio. The investment process is designed to continuously add value throughout the acquisition, ownership and disposition of an asset. Following a value-added strategy, Special Situation Property Fund focuses primarily on value-added real estate opportunities in the following major property types: office, industrial, hotel, retail and multi-family. The Fund does not attempt to match the geographic and property type diversification of the benchmark, but does maintain guidelines in order to limit over-or underweighting in regards to the NCREIF's property type and geographic guidelines. Our assets are generally located in major markets across the country (i.e., Washington D.C. and surrounding areas, Los Angeles, San Francisco, Atlanta, Chicago, Denver and Northern New Jersey). The Fund invests in a wide variety of value-added real estate opportunities, including but not limited to, improved properties that have significant appreciation potential through lease up, new development, redevelopment, repositioning and re-merchandising situations. The Fund may also acquire vacant land to be held for future development or appreciation. Development, renovation and property repositioning are important aspects of our value-added strategy.

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Investment Manager	Trust	Asset Class	Opened	Description
LA Capital Enhanced Tom Stevens	Pension Insurance Legacy	Dom Lg Cap Equity Dom Lg Cap Equity Dom Lg Cap Equity	Aug-00 Apr-04 May-15	A large core portfolio benchmarked to the Russell 1000 Index. This we would characterize as more of an enhanced index assignment where the objective is to track the benchmark with lower variability. This mandate is targeting a 1% annual alpha with a risk budget of 3%. The pension portfolio began in July of 2000 and the insurance portfolio was initiated in April of 2004. In October of 2006 we received approval from you to allocate a portion of each of these core accounts into the Large Cap Alpha Fund which we were launching at that time. A small portion of the portfolio has as a result been allocated to that product. The benchmark for this fund is the S&P500 which is very similar to the Russell 1000 Index. The objective here has been to outperform the benchmark by 5% while allowing for a risk budget as high as 7%. The intent here was to add incremental alpha to the assignment given that the information ratio was expected to be higher. The overall objectives have been met since this was initiated. **Investment Philosophy** All of our applications are driven by our Dynamic Alpha Model which is a quantitative process based upon understanding how specific factors are behaving in the market. We believe that investment results are driven by Investor Preferences which simply put, highlight which factors investors like or dislike at any point in time. We have developed sophisticated attribution tools which allow us to measure how the different factors are performing. While there is a significant amount of persistence, i.e. factors will move in one direction for sometimes an extended period of time, they will change at some point. Investors are not static in the views and one needs to recognize that when preferences shift a different posture related to that factor is warranted. Consequently we are not static and we are dynamic. In turbulent markets it is important to be able to understand how investor preferences change. In the last year there have been dramatic shifts in investor attitudes about risk factors and we feel our ability to perform during this period has been directly related to our ability to adapt.
LA Capital Structured (Russell 1000 Growth) Tom Stevens	Pension Insurance Legacy	Dom Lg Cap Equity Dom Lg Cap Equity Dom Lg Cap Equity	Jun-98 Aug-03 May-15	A large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that we are targeting a 2% alpha and constraining our risk budget (tracking error) to 4% relative to the benchmark. **Investment Philosophy** All of our applications are driven by our Dynamic Alpha Model which is a quantitative process based upon understanding how specific factors are behaving in the market. We believe that investment results are driven by Investor Preferences which simply put, highlight which factors investors like or dislike at any point in time. We have developed sophisticated attribution tools which allow us to measure how the different factors are performing. While there is a significant amount of persistence, i.e. factors will move in one direction for sometimes an extended period of time, they will change at some point. Investors are not static in the views and one needs to recognize that when preferences shift a different posture related to that factor is warranted. Consequently we are not static and we are dynamic. In turbulent markets it is important to be able to understand how investor preferences change. In the last year there have been dramatic shifts in investor attitudes about risk factors and we feel our ability to perform during this period has been directly related to our ability to adapt.

North Dakota State Investment Board Managers

Investment Manager	Trust	Asset Class	Opened	Description
Loomis Sayles Stephanie Lord	Pension	Below Inv Grade FI	Apr-04	The High Yield Full Discretion Strategy seeks to exploit the collaborative efforts of our economics group and Sector Teams in conjunction with the fundamental credit analysis from our Fixed Income Research Department. Our economics group and yield curve teams provide a global economic and interest rate framework for identifying sectors that we think are attractive. Our research department, along with the Sector Teams, seeks to identify specific investment opportunities primarily within the global fixed income market. Asset class and sector allocations reflect the macroeconomic view, while security selection based on fundamental and relative value analysis within sectors provides our primary source of excess return. Portfolio guidelines are broad and offer the portfolio management team significant investment flexibility. Experienced portfolio managers collaborate with our in-house credit analysts to identify attractive total rate of return investment opportunities in the global fixed income market. Portfolio managers incorporate the long-term macroeconomic view along with a stringent bottom-up investment evaluation process that drives security selection and resulting sector allocations. Opportunistic investments in non-benchmark sectors including investment grade corporate, emerging market, and non-US dollar debt and convertible bonds help to manage overall portfolio risk and enhance total return potential. The product's portfolio managers are responsible for strategy implementation, portfolio construction, and adherence to guidelines. This rigorous investment process results in portfolios that, we believe, are well diversified and expected to generate superior long-term investment performance when compared to the Barclays Capital High Yield Index.
LSV Int'l Equity James Owens, Jr.	Insurance Legacy	Int'l Equity Int'l Equity	Nov-04 Feb-15	The objective of our International Large Cap Value strategy is to outperform the MSCI EAFE Index (50% Hedged) by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). LSV weights countries at a neutral weight relative to the benchmark country weights. Initial positions must be in stocks with a market capitalization above $500 million. 50% of the portfolio is US dollar hedged.
LSV Large Cap James Owens, Jr.	Insurance Legacy	Dom Lg Cap Equity Dom Lg Cap Equity	Jun-98 May-15	The objective of our Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). Initial positions must be in stocks with a market capitalization above $500 million.

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LSV Global Equity James Owens, Jr.	Pension	Global Equity	Feb-13	The objective of the Global ACWI strategy is to outperform the unhedged total rate of return, net of dividend withholding taxes of the benchmark by at least 200 basis points (gross of fees) per annum. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 125 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across countries and industry groups. Initial positions must be in stocks with a market capitalization above $400 million.
Matlin Patterson (Fund II & III)	Pension	Private Equity	Sep-04	Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser's active management of the Fund's investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors. Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser's active management of the Fund's investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors.
NTAM (Northern Trust Asset Management) Enhanced S&P 500 Bob Parise	Pension	Dom Lg Cap Equity	Aug-00	The Investment Manager will use an investment approach primarily based on quantitative investment techniques. The principal source of value added is the stock selection process. Relative attractiveness is assessed using a proprietary multiple factor model. Attractive securities are over weighted relative to the Index while unattractive securities are under weighted, or excluded entirely. The account will invest primarily in a broadly diversified portfolio of equity securities. Equity securities include securities convertible into equity securities (including common stock), warrants, rights and units or shares in trusts, exchange traded funds and investment companies. The account may invest and reinvest in long or short positions in any of the instruments. The Investment Manager may purchase or sell futures and exchange traded and over-the-counter options on the Index or on a similarly broad index. The Investment Manager intends to use futures and options to manage market risk associated with the account's investments by selling futures on a stock index which correlates in price movement with a portion of the account to hedge against a potential decline in the prices of the securities comprising that portion of the account and, conversely, by purchasing futures on a stock index which correlates in price movement to a group of stocks which the account anticipates purchasing, to hedge against an increase in the value of such stocks. A portion of the cash in the account may be deposited with a broker as margin on futures or options transactions, to be invested on behalf of the account in obligations issued or guaranteed by the US Government or other appropriate short-term investments. To meet liquidity needs, the Investment Manager may also invest in short term cash investments, including shares of money market portfolios, which may be registered investment companies for which the Investment Manager or an affiliate serves as custodian or investment advisor.

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NTAM (Northern Trust Asset Management) World Ex-US Bob Parise	Pension	International Equity	Dec-13	The Fund will be maintained by the Trustee with the objective of providing investment results that replicate the overall performance of the MSCI® Emerging Markets Equity Index (the "Index"). The Trustee will attempt to meet the Fund's investment objective by including the common stocks of one or more companies included in the Index, on the sole basis of computer-generated statistical data, deems representative of the industry diversification of the entire Index. The Fund will be invested primarily in equity securities of business enterprises organized and domiciled outside of the United States ("U.S.") or for which the principal trading market is outside the U.S. In the Fund, and where applicable with respect to the Fund, the Trustee will employ statistical methods to select securities which comprise or will comprise the Index without necessarily buying all the relevant Index equities. Such securities will be selected, acquired, held and liquidated solely on the basis of such methods and not on the basis of any economic, financial, market timing, or other analysis. Securities purchased for the Fund will generally, but not necessarily, be traded on a foreign securities exchange. The Trustee may, in its discretion, purchase or sell depositary receipts. The Fund will be rebalanced from time to time in order to minimize the expected or predicted deviation between the performance of the Fund and the performance of the relevant Index or to reflect changes in the composition of the Index.
PIMCO Bravo II Julie Meggers Michael Chandra	Pension Insurance	Residential & Commercial Debt	Oct-13 Oct-13	To seek to capitalize on the perceived market opportunity and achieve its Target Return, the Fund will have broad discretion to invest principally in (or otherwise gain exposure to) U.S. and non-U.S.: (i) performing, underperforming or non-performing loans and other assets that have historically been securitized and/or otherwise traditionally held by financial institutions (as well as participations and other interests therein), including commercial and residential mortgage loans (each of which may convert to real estate holdings), consumer loans (such as credit card receivables, automobile loans and student loans) and/or servicing or similar rights relating to such loans and other assets; (ii) structured products, securitizations and other asset backed securities ("ABS") backed by assets of any type (whether U.S. or non-U.S. based collateral), including non-agency residential mortgage-backed securities ("RMBS") and commercial mortgage-backed securities ("CMBS" and, together with RMBS, "MBS"), collateralized debt obligations ("CDOs"), collateralized loan obligations ("CLOs") and repackaged securities (collectively, "Structured Investments"), including Structured Investments managed by PIMCO or an affiliate thereof; (iii) residential and commercial real estate; and/or (iv) investments in equity securities, equity-linked securities and/or debt instruments (including loans) of operating companies and other entities (whether stressed, distressed or otherwise on an opportunistic basis), including banks and other financial institutions, specialty finance entities, and other opportunities.
PIMCO Distressed Senior Credit Opportunities (DiSCO) Fund II Stephanie King Michael Chandra	Pension Insurance	Dom Inv Grade FI Fixed Income	Oct-11 Oct-11	The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

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PIMCO MBS Stephanie King Michael Chandra	Pension	Dom Inv Grade FI	Mar-12	The PIMCO Mortgage-Backed Securities Strategy is an actively managed bond portfolio that invests in high quality, short to intermediate duration mortgage-backed securities. The fund invests primarily in securities that are highly rated, such as US Government guaranteed Ginnie Mae securities and Agency-guaranteed Fannie Mae and Freddie Mac mortgage-backed securities.
PIMCO (formerly Research Affiliates) Stephanie King Michael Chandra	Insurance Legacy	Dom Small Cap Equity Dom Small Cap Equity	July-07 March-15	Small company value equity portfolio utilizing the index strategy and philosophy described as the Enhanced RAFI® US Small strategy which in turn is based on our patent pending Fundamental Index® concept. The Enhanced RAFI® US Small strategy relies on portfolio weights derived from firm fundamentals (free cash flow, book equity value, total sales and gross dividend), instead of market capitalization. In addition, the enhanced portfolio strategy uses a quality of earnings screening and a financial distress screening to augment portfolio returns and reduce portfolio volatility.
PIMCO Unconstrained Stephanie King Michael Chandra	Pension	Dom Inv Grade FI	Mar-14	The Fund seeks to achieve its investment objective by investing under normal circumstances at least 80% of its assets in a diversified portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts, or swap agreements. “Fixed Income Instruments” include bonds, debt securities and other similar instruments issued by various U.S. and non-U.S. public- or private-sector entities. The Fund intends to utilize various investment strategies in a broad array of fixed income sectors to achieve its investment objective. The Fund will not be constrained by management against an index. The average portfolio duration of this Fund will normally vary from (negative) 3 years to positive 8 years based on Pacific Investment Management Company LLC’s (“PIMCO”) forecast for interest rates. Duration is a measure used to determine the sensitivity of a security’s price to changes in interest rates. The longer a security’s duration, the more sensitive it will be to changes in interest rates. The Fund may invest in both investment-grade securities and high yield securities (“junk bonds”) subject to a maximum of 40% of its total assets in securities rated below Baa by Moody’s Investors Service, Inc. (“Moody’s”), or equivalently rated by Standard & Poor’s Ratings Services (“S&P”) or Fitch, Inc. (“Fitch”), or, if unrated, determined by PIMCO to be of comparable quality. The Fund may also invest without limitation in securities denominated in foreign currencies and in U.S. dollar-denominated securities of foreign issuers. In addition, the Fund may invest up to 50% of its total.
Prudential Core Plus Peter Taggert Steve Ahrens	Insurance Legacy	Fixed Income Fixed Income	Aug-06 April-15	The core plus fixed income account is a multi-sector strategy with alpha objective of +150 basis points versus the Barclays Aggregate Index over a full market cycle. The strategy is diversified across a broad range of fixed income sectors, including Treasuries, agencies, mortgage-backed securities, structured product (asset-backed securities, commercial mortgage-backed securities), investment grade corporate bonds, high yield bonds, bank loans and international debt. The primary sources of excess return are sector allocation and security selection, with duration and yield curve less of a focus.
Quantum Energy Partners Michael Dalton	Pension	Private Equity	Oct-06	Founded in 1998, Quantum Energy Partners is a leading provider of private equity to the global energy industry. With more than $5.7 billion in assets under management, Quantum targets investment opportunities between $100 and $400 million with proven management teams that possess a clear vision and whose companies have sustainable competitive advantages within well-defined segments of or strategies in the energy industry. Quantum primarily focuses on the oil and gas upstream, midstream and power sectors, but will consider opportunities across the entire energy industry.

updated 8/18/2017

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SEI Investments Bob Thomas	PERS Retiree Health	Multiple	Jul-09	**Fixed Income Strategy** - A diversified set of lowly correlated alpha sources increase confidence in consistent excess return -Combination of managers with a broad opportunity sets inclusive of government, credit and structured securities -Derivatives provide an efficient means of strategy implementation -Managers have the ability to utilize derivatives to manage duration, yield curve, sector and security strategies to enhance return or reduce risk **Emerging Markets Debt Strategy** - Specialist Emerging Market Debt Managers and seasoned investment teams with complementary investment philosophies that invest broad opportunity sets inclusive of tactical allocations to external debt, local debt, local currency, and corporate debt. **High Yield Strategy** - Diversified group of managers with deep and experienced credit resources whose outperformance will be generated from both Sector/Industry and Selection decisions. The differentiation between managers is not on the alpha source they are seeking to exploit, but rather on the credit philosophy and process. Broad opportunity sets primarily in fixed income securities rated below investment grade, including corporate bonds. May also invest in bank loans, convertible and preferred securities, zero coupon obligations and credit derivatives. Given the illiquidity of the high yield market, managers also have the ability to utilize the credit default swap market for enhancing return or reducing risk. **Small Cap Strategy** - Utilizing multiple SEI Portfolio sub-advisors, the SEI Portfolio invests in common stocks and other equity securities with the goal of providing capital appreciation. **World Equity ex-US Strategy** - Utilizing multiple SEI portfolio sub-advisors, the SEI portfolio invests in equity securities of foreign companies, including those in emerging market countries with the goal of capital appreciation. These securities may include common stocks, preferred stocks, warrants, exchange-traded funds based on an international equity index and derivative instruments whose value is based on an underlying equity security or basket of equity securities. The SEI portfolio is diversified as to issuers, market capitalization, industry and country. Certain SEI portfolio sub-advisors use strategies that are designed to correlate with a portfolio of international equity securities, but which are composed of derivative instruments backed by other types of securities. **Large Cap Equity Strategy** - A Russell 1000 index fund.
SEI Investments Bob Thomas	Job Service	Multiple	Dec-16	The Fund uses a multi-manager approach to portfolio construction that seeks to generate excess returns (i.e., returns in excess of benchmark) and at the same time provide diversification by avoiding over- concentration in a single investment style, sector or market trend. SEI analysis seeks to identify each manager's competitive advantage and characteristics of that advantage that can be monitored on an ongoing basis. Asset allocation to a given manager is based on the manager's skill set, the current macro economic environment, and the risks inherent in each manager's strategy.
State Street Global Advisors Joe Cadigan	Pension	Dom Inv Grade FI	Jun-13	This is a commingled index fund that seeks to replicate the risk and return characteristics of the Barclays Long Treasury Bond Index.
State Street Global Advisors Joe Cadigan	Insurance Legacy	Fixed Income Fixed Income	June-13 April-15	This is a commingled index fund that seeks to replicate the risk and return characteristics of the Barclays Government/Credit Bond Index.

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State Street Global Advisors Joe Cadigan	Tobacco	Short Term Fixed Income	Oct-15	The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to replicate, before expenses, the performance of the Index. The Strategy will not necessarily own all of the securities included in the Index. The Strategy may attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. However, due to the diverse composition of securities in the Index and the fact that many of the securities comprising the Index may be unavailable for purchase, it may not be possible for the Strategy to purchase some of the securities comprising the Index. In such a case, SSgA will select securities for the Strategy comprising a portfolio that SSgA expects will provide a return comparable to that of the Index. SSgA expects that it will typically seek to replicate index returns for the Portfolio through investments in the "cash" markets - actual holdings of debt securities and other instruments - rather than through "notional" or "synthetic" positions achieved through the use of derivatives, such as futures contracts or swap transactions (except in the unusual case where SSgA believes that use of derivatives is necessary to achieve an exposure that is not readily available through the cash markets). **Benchmark** Barclays U.S. 1-3 Year Treasury Bond Index
State Street Global Advisors Joe Cadigan	Tobacco	Large Cap Equity Ex-Tobacco	Oct-15	The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the equity securities comprising the Index, in approximately the same proportions as they are represented in the Index. Equity securities may include common stocks, preferred stocks, depository receipts, or other securities convertible into common stock. The Strategy may purchase securities in their initial public offerings ("IPOs"). In some cases, it may not be possible or practicable to purchase all of the securities comprising the Index, or to hold them in the same weightings as they represent in the Index. In those circumstances, SSgA may employ a sampling or optimization technique to construct the portfolio in question. From time to time securities are added to or removed from the Index. SSgA may sell securities that are represented in the Index, or purchase securities that are not yet represented in the Index, prior to or after their removal or addition to the Index. The Strategy may at times purchase or sell index futures contracts, or options on those futures, or engage in other transactions involving the use of derivatives, in lieu of investment directly in the securities making up the Index or to enhance the Strategy's replication of the Index return. The Strategy's return may not match the return of the Index. **Benchmark** S&P 500® ex Tobacco is comprised of the S&P 500® minus tobacco companies. The S&P 500® is comprised of approximately 500 leading companies in leading industries of the U.S. market with approximately 75% coverage of the U.S. stock market capitalization.

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TIR-Timberland Investment Resources Tom Johnson	Pension	Timber	Jun-01 Sept-04	**Teredo Timber LLC** - The investment objective of Teredo is to provide competitive investment returns from increasing saw timber production through the 20 year term of the partnership. TIR's management strategy is to maximize saw timber volume by applying intensive forest management techniques which accelerate growth through the diameter class distribution (from pulpwood to saw timber). Periodic cash flows are produced from thinning and final harvests of the individual timber stands. **Springbank LLC** - The investment objective of Springbank is to maximize long-term investment potential. TIR will implement four key strategies to attain the objective: • Formation of a dedicated land management group; • Intensive timber management to increase timber production; • Coordination of timber harvesting with land management activities; • Direct marketing and selective real estate partnerships.
TIR-Timberland Investment Resources Tom Johnson	Insurance	Real Assets	Oct-08	**Eastern Timberland Opportunities Fund** - The investment objective of the Eastern Timberland Opportunities fund is to provide competitive timberland investment returns from Eastern US timberland investments by pursuing management strategies to increase timber production and land values through the investment term. TIR will maximize timber values within the portfolio with the application of intensive forest management techniques to accelerate the growth in timber volume and movement into higher value product categories. Additional value will be captured by realizing higher and better use opportunities for select timberland properties throughout the portfolio.
UBS Global Asset Management Betsy Sanders	Pension	Dev. Int'l Fixed Income	Jul-89	The non-US fixed income portfolio's assets may be invested in emerging markets debt on an opportunistic basis up to the stated maximum allocation of 5%. The account's non-US fixed income assets will be fully-invested at all times, but such assets may be invested in the UBS US Cash Management Prime Collective Fund for operational and risk management purposes.
Vanguard Group Mark Miller	Insurance Legacy	Int'l Equity Int'l Equity	June-03 Feb-15	Vanguard International Explorer Fund seeks to provide long-term capital appreciation. The fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for capital appreciation. In doing so, the advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

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Wellington Trust Company Elizabeth O'Hara	Pension	Developed Int'l Equity	Mar-02	Securities lending is the temporary loan of a security from an institutional investor's portfolio to a broker/dealer or dealer bank to support that firm's trading activities. These trading activities include short selling, selling on margin or the satisfaction of some other type of transaction. Loaned securities are generally collateralized, reducing the lender's credit exposure to the borrower. Except for the right to vote proxies, the lender retains entitlement to all the benefits of owning the original securities, including the receipt of dividends and interest. Additionally, the lender receives a fee for the use of the securities and can reinvest the collateral. The lender, however, bears the market risk of the loaned securities. This is due to the borrower being obligated to ultimately return the securities, not the original market value of the securities, at the time the loan was made. Lendable securities include U.S. government and agency bonds, U.S. and foreign equities, U.S. corporate and Eurobonds, foreign government bonds, asset backed and mortgage backed securities. The International Small Cap Opportunities investment approach is bottom-up focused, and leverages the global research resources at Wellington Management. In implementing purchase decisions, consideration is given to the size, liquidity, and volatility of these prospects. Sell decisions are based on changing fundamentals or valuations, or on finding better opportunities elsewhere. The assets are not hedged.
Wells Capital Management Stephen Scharre	Insurance Legacy	Fixed Income Fixed Income	Apr-02 April-15	The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. Credit research is a primary driver of our results; however, our process starts with a "top-down" strategy to guide decision-making. Security selection is determined by in-depth credit research. We believe in-depth knowledge of industries, companies, and their management teams enable us to identify credit trends that can lead to investment opportunities. In conjunction with performing rigorous fundamental research, we also apply a disciplined relative value framework which helps us determine the optimal position to invest within an industry and within an individual issuer's capital structure.
Western Asset Susan Signori	Insurance Legacy	Fixed Income Fixed Income	Dec-93 April-15	A portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.
Western Asset Susan Signori	Insurance Legacy	Real Assets Real Assets	Oct-09 March-15	Western Asset's Global Inflation-Linked composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios use diversified strategies in seeking to add value while minimizing risk. The approach is to construct a portfolio primarily of inflation-indexed securities. Value can be added through country selection, term structure, issue selection, duration management and currency management.

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William Blair Bob Duwa	Pension Insurance Legacy	Developed Int'l Equity International Equity International Equity		William Blair invests in a growth-oriented, diversified portfolio that will typically hold between 40-70 securities. The firm's investment philosophy is to focus on companies with above-average growth prospects where growth can be sustained through leading or franchise positions in terms of proprietary products, marketing dominance, or cost/asset base advantage. Portfolio candidates typically have above-average prospective growth, evidence of sustainability of future growth, above-average profitability and reinvestment of internal capital, and conservative capital structure relative to sector norms. The portfolio will be diversified by region and country and may invest up to 2X the MSCI ACWI ex-US IMI Index weighting in Emerging Markets securities. In addition, the portfolio will be diversified by sector with no individual sector representing over 35.0% based upon market value. The maximum allocation to any one security is 5.0% of the portfolio (at market value) and notwithstanding this limitation, no immediate liquidation of investments shall be required solely due to changed in market value.

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AllianceBernstein/ Clifton Liz Smith	Pension	Lg Cap Dom Equity	Jun-09 to Oct-10 Capital Returned	The AllianceBernstein Term Asset-Backed Securities Loan Facility ("TALF") Opportunities Fund is a bottom-up research driven investment strategy structured to take advantage of the opportunity extended to investors through the TALF. The strategy will primarily draw its research from the AllianceBernstein Special Situations Group, which, among other asset classes, covers secured credit sensitive securities (e.g., ABS), as well as non-credit sensitive prime residential mortgage securities. For credit sensitive securities, credit research is overlaid on structural analyses to develop a complete picture of expected loss content, resiliency of cash flows, risk and return. All holdings are closely followed within our proprietary database which contains a time series of investment credit metrics, repayment rates, cohort, and originator statistics. The TALF Opportunities Fund will invest in a concentrated leveraged portfolio of structured asset securities that are eligible for non-recourse lending from the NY Fed TALF. The Fund's goal is to generate high risk-adjusted returns created by the dislocations in asset-backed and other securitization markets. The Fund will invest in AAA/Aaa-rated asset-backed securities as well as other TALF-eligible securities defined by the NY Fed. The TALF program limits the investment universe to US dollar-denominated securities whose underlying collateral is primarily based in the United States. Owing to the high credit quality of the underlying investments, we expect the majority of the Fund's return to be generated by the income in excess of the TALF loans' fees and interest. The Clifton Group is charged with applying the S&P 500 “beta” exposure for the AllianceBernstein “alpha” exposure. The overall goal of the account is to get the return of the S&P 500 index plus an additional alpha amount provided by the TALF fund.
Babson Capital Management Chad Strean	Legacy	Short Term Fixed Inc	Sep-11 to Feb-15 Change of asset allocation	Babson was hired to manage the Bank Loans in the former Prudential account. Their direction is to manage and supervise the deliberate liquidation, over time of these holdings. As securities mature or are sold off the proceeds will be transferred to the Active Short Duration Strategy.
Babson Capital Management Chad Strean	Insurance	Short Term Fixed Inc	Sep-11 to Apr-17 Terminated	The investment objective of the Babson Capital's Active Short Duration Strategy is to outperform the total return of the Barclays Capital 1-3 year US Government Index while minimizing fluctuations in capital value and providing sufficient liquidity to fund withdrawals driven by client activity. The portfolio seeks to achieve a high total rate of return primarily from current income while minimizing fluctuations in capital values by investing in a well-diversified portfolio of US Government, mortgage-backed, asset backed securities and corporate bonds. The investment team uses proprietary research to conduct value-driven sector rotation and intensive credit and structure analysis, while utilizing a dynamic yield curve management process, to construct effective portfolios. In addition to income, primary goals for the Active Short Duration strategy are stability and liquidity. In meeting these goals, risk is measured by perceived or actual changes in credit worthiness, adequate diversification and exposure to potential changes in interest rates. Babson Capital explicitly manages the portfolio to minimize these risks and endeavors to add value through security selection and portfolio duration structure designed to maximize the risk-return characteristics of the yield curve.
Bank of North Dakota Tim Porter	Pension Insurance	Dom Inv Grade FI Fixed Income	Apr-91 to Apr-12 Changed mandate to long treasury Dec-93 to Apr-13 Terminated	The Bank of North Dakota (BND) manages this fixed income portfolio for the State Investment Board with a passive management style designed to replicate the Barclay’s Government/Corporate Bond Index. In order to accomplish this objective, BND utilizes optimization software that allows us to monitor several portfolio and individual security constraints (duration, yield, convexity, credit quality and issue size). The portfolio is rebalanced monthly in order to achieve an annualized time-weighted rate of return that matches the Barclay’s Gov/Corp Bond Index with a tracking error not more than (+ or -) 30 basis points.

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Bank of North Dakota Tim Porter	Pension	Dom Inv Grade FI	Apr-12 to Apr-13 Terminated	The Bank of North Dakota (BND) manages this fixed income portfolio for the State Investment Board with a passive management style designed to replicate the Barclay's Long Treasury Index. In order to accomplish this objective, BND utilizes optimization software that allows us to monitor several portfolio and individual security constraints (duration, yield, convexity, credit quality and issue size). The portfolio is rebalanced monthly in order to achieve an annualized time-weighted rate of return that matches the Barclay's Gov/Corp Bond Index with a tracking error not more than (+ or -) 30 basis points.
Blackfriars Asset Management (WestAM) Hugh Hunter	Pension	Emerging Markets Equity	Mar-06 to Jun-12 Terminated	Blackfriars Asset Management Limited has been appointed by North Dakota State Investment Board to manage a Global Emerging Market Equity portfolio. The fund is invested in the WestAM Group Trust. Blackfriars strategy is that of a core, active manager with the objective of outperforming the MSCI Emerging Markets index by 2% over rolling three year periods. Our investment approach is team-based and focuses on capturing alpha from our top-down and bottom-up decisions. Our country allocation process is primarily driven by a factor model encompassing fundamental market and economic factors, whilst stock selection is driven by fundamental research by our internal team of analysts. Blackfriars Asset Management, at the time of appointment, was called WestLB Asset Management which was owned by WestLB AG, a German bank. Following the creation of a 50:50 joint venture with BNY Mellon in 2006, the company became fully owned by BNY Mellon on 31 December 2008 and changed its name to Blackfriars Asset Management Limited. The investment process and investment personnel involved in the management of the portfolio have not changed as a result of the change in ownership.
Brookfield Investment Management (Hyperion) Richard Torykian	Insurance	Fixed Income	Jan-07 to Mar-10 Terminated Acct taken over by Declaration	The Enhanced MBS investment process begins with a macro-economic assessment of the market. Included in the macro-economic assessment is the analysis of: the interest rate environment, the phase of the real estate cycle, consumer credit trends, recently released or pending economic data, supply and demand relationships, housing prices, and the Mortgage Refinancing Index. The analysis and review that occurs at this stage provides the groundwork for establishing the asset allocation for our Enhanced MBS Investment Strategy. We then conduct a detailed review of the MBS sub-sectors. We evaluate developments in each sector; current offerings; recent transactions and market clearing levels; security types and yield spread levels to formulate a relative value outlook. Our research analysts provide fundamental analysis on prepayment speeds, borrower credit exposure, geographic diversification, refinancing trends, and the correlation of returns. We then further analyze the risks of the various MBS sectors—specifically, the outlook for delinquencies, housing affordability, consumer debt, collateral value appreciation, and loss severities. These factors build a larger picture for the appropriate asset allocation for this strategy. The asset mix for our Enhanced MBS Investment Strategy is a ratio that may change over time, as opportunities in the sectors and sub-sectors are identified. Once the initial allocation mix has been determined, the investment process moves to the security selection phase. The most important component of our Enhanced MBS Investment Strategy is security selection. In short, while the market for non-Agency MBS may seem generic, the credit performance from one issue to another varies. Our security selection process results from both quantitative and qualitative inputs, as well as the substantial experience of the portfolio managers. Members of the investment team, utilizing Hyperion Brookfield's proprietary analytics, determine the relative strengths of various securities based on applicable criteria such as issuer, issue, vintage, credit rating, structure, and geographic exposure.

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Investment Manager	Trust	Asset Class	Open to Close Date	Description
Calamos Investments Meredith French	Pension	Dom Inv Grade FI	Oct-06 to Mar-12 Terminated Mandate changed to Global Opportunities	Calamos Advisors LLC manages a convertible mandate for the North Dakota State Investment Board through the Calamos Convertible Plus strategy. The primary objective of the strategy is to achieve high long-term total return through growth and income. The strategy is focused on primarily investing in convertible securities but in addition utilizes both equities and fixed income. This enhanced flexibility allows Calamos to better manage the overall risk/reward profile of a convertible mandate. To take advantage of international opportunities, the portfolio will utilize the Calamos International Convertible Group Trust, a commingled fund in which we purchase units on behalf of the North Dakota State Investment Board. This commingled fund is generally hedged between 70-100% from a currency perspective.
Calamos Investments Meredith French	Pension	Global Equity	Mar-12 to Dec-13 Terminated	The Global Opportunities objective is high long-term total return through capital appreciation and current income. The Trust invests primarily in a global portfolio of equity, convertible and fixed-income securities. In pursuing the Trust's investment objective, the Investment Manager attempts to utilize these different types of securities to strike, in its opinion, the appropriate balance between risk and reward in terms of growth and income. The Investment Manager attempts to keep a consistent balance between risk and reward over the course of different market cycles, through various combinations of stock, bonds and/or convertible securities, to achieve what the Investment Manager believes to be an appropriate blend for the then-current market. As the market environment changes, portfolio securities may change in an attempt to achieve a relatively consistent risk level over time. At some points in a market cycle, one type of security may make up a substantial portion of the portfolio, while at other times certain securities may have minimal or no representation, depending on market conditions.
Callan Associates Greg Allen	Pension	Small Cap Dom Equity	May-06 to March-16 Terminated	The investment strategy for the Diversified Alpha Small Cap Equity Fund ("Fund") is based on two empirical studies. The first observed that the average portfolio for a comprehensive universe of active institutional small cap products out-performed the Russell 2000 Index in every three-year period since 1984, resulting cumulative out-performance in excess of five percent per year over the 20-year period with a tracking error of five percent annualized. The consistency and magnitude of this out-performance led to Callan's use of the average institutional small cap portfolio as the target in the Fund's portfolio construction methodology rather than one of the standard small cap indices. The second study observed that the illiquidity of the small cap market presents significant structural challenges to managers as they grow in assets under management ("AUM"). These challenges resulted in smaller products (in terms of AUM) out-performing their larger counterparts by in excess of three percent per year over the observed 20-year period. The consistency and magnitude of this out-performance provided the basis for favoring smaller, less capacity-constrained products in the Fund's manager selection methodology. The Fund's strategy is implemented through the use of a stratified sampling technique, and it begins with the decomposition of Callan's Total Institutional Small Cap ("TISC") universe (consisting of over 700 products) into 10 distinct sub-styles, with approximately 70-75 products in each sub-style. After extensive screening, four products from each sub-style are selected which, when held in combination, are expected to closely track the performance of each sub-style as a whole. This process results in a total portfolio made up of 40 equity sub-advisors, equally weighted in the Fund's portfolio, which very closely tracks the performance of the average actively managed institutional small cap product (historical tracking error since inception of approximately one percent annualized).
Capital Guardian Michael Bowman	Pension Insurance Legacy	Developed Int'l Equity Int'l Equity Int'l Equity	Mar-92 to May-16 Terminated Apr-97 to May-16 Terminated Feb-15 to May-16 Terminated	The Portfolio will invest primarily in equity or equity type securities of companies in developed countries excluding the U.S. These equity securities will be listed on a stock exchange or traded in another recognized market and include, but are not limited to, common and preferred stocks, securities convertible or exchangeable into common or preferred stock, warrants, rights and depository arrangements. The Portfolio may invest in fixed-income securities (including cash or cash equivalents) when market conditions warrant. The Portfolio's investments may be denominated in U.S. dollars or in non-U.S. currencies. The Portfolio may include securities eligible for resale pursuant to Rule 144A and securities in offerings that are not registered for sale in the U.S. but are listed or quoted in the securities' local markets. Instruments acquired as a result of corporate actions are permitted.

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Clifton Group Ben Lazarus	Pension	Asset Alloc Overlay Lg Cap, Small Cap, Int'l Equity and Dom FI	Nov-08 to Jul-10 Overlay program discontinued	By utilizing exchange traded futures contracts, Clifton synthetically maintains North Dakota State Investment Board's (NDSIB) desired exposure to a variety of asset classes. This synthetic exposure is most often utilized between monthly cash rebalancing moves. Clifton works with NDSIB Staff intermonth and at month end to make sure the economic exposure is between prescribed bands. Futures are purchased or sold to change the portfolio's effective asset class exposure without liquidating or purchasing securities in the cash market. Subsequent asset class exposure is adjusted by modifying the futures positions while the underlying portfolio remains unaffected. Using exchange traded futures contracts as opposed to physical securities provides NDSIB with: • More flexibility and efficiency in moving between asset classes • Lower cost for establishing and removing positions • Detailed accounting on the performance of the rebalance move
Clifton Group Ben Lazarus	Pension	Developed Int'l Equity	Mar-10 to Dec 13 Terminated	This portfolio replicates the MSCI EAFE index utilizing futures contracts.
Coral Partners Fund V Yuval Almog	Pension	Private Equity	Mar-98 to Dec-12 Capital Returned	Coral Partners V focuses its investments in the healthcare and technology sectors with companies in all stages of growth from seed to expansion. The General Partners believe that achieving strong venture capital returns depends on the ability to create enterprises capable of attaining a defensible market leadership position, often by developing new technologies which result in either a new market or the restructuring of an existing market; and that the most effective way of accomplishing this objective is to exploit industry trends and focus on businesses which are execution intensive and operate on a worldwide scale. Important components of this strategy are: active involvement, industry focus, and portfolio management.
Coral Partners Momentum Fund Yuval Almog	Pension	Private Equity	7/1/2002 to June-15 Capital Returned	Coral's Momentum Fund focuses on opportunities in high growth markets undergoing imminent transitions driven by emerging technologies, new business modalities and customer preferences. Examples include: a) the transition to rich digital media as a mass market opportunity; b) the ascendance of ubiquitous telecommunications networks, allowing universal access to voice, data and rich content; and c) the transition to the delivery of software-driven applications as a service, creating new software based franchises with recurring revenue models. Coral's Momentum Fund invests in late stage, technology driven companies the General Partner believes has substantial intrinsic momentum. Companies with intrinsic momentum have early demand related indicators such as accelerating revenues, channel build-up, growing product utilization, and expanding customer bases. The General Partner believes that investing in companies at this stage of development mitigates product and technology risk as well as market acceptance risk.
Coral Partners Supplemental Fund V	Pension	Private Equity	Aug-01 to Dec-12 Capital Returned	Coral Technology Supplemental Fund V invests in technology portfolio companies of Coral Partners V.

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Corsair (ND Investors) Michael Poe Cliff Brokaw	Pension	Private Equity	Mar-08 to Dec-16 (IPO)	Corsair seeks to earn strong risk-adjusted returns by leveraging the investment team's knowledge and contacts to identify and execute attractive investments in companies in the financial services industry around the world. Corsair takes control and minority positions, either individually or as a lead member of an investor consortium. Target investments include both privately-held and public companies, generally via private transactions when the target company loses access to, or has difficulty accessing, the public capital markets. In certain circumstances, the Fund may acquire pools of financial assets or securities, or provide financing to a secured pool of assets. Corsair endeavors to develop a strong relationship and high degree of influence with investee company senior executives and key shareholders. In many instances, Corsair obtains Board representation, observer seats, or other types of management rights. Given the complexities of investing in a regulated industry, Corsair's ability to receive more traditional generalist buyout governance rights is often limited, and its ability to influence managerial decisions requires a degree of experience which Corsair believes can only be achieved through a long and consistent history of investing in the financial services sector. Corsair expects the Fund to make 10 to 15 investments over its investment period, although there can be no assurances with respect to the number of investments that will be made. Corsair anticipates holding its investments for between three and six years. In those instances where Corsair is part of an investor consortium, Corsair generally endeavors to act as a lead or co-lead investor, as was the case in all Corsair III investments. On select occasions Corsair expects to co-invest with strategic partners that are capable of bringing added value to an investment and where the Fund's exit considerations can be addressed. Above all, Corsair's value-driven investment style focuses on those investment opportunities in which the Investment Advisor believes that a positive discrepancy exists between an asset's price and its intrinsic value.
DMR (Declaration Mgmt & Research) Mortgage Opportunity Fund John Pluta	Pension	Below Inv Grade FI	May-08 to Dec-09 Fund matured/ capital returned	The Fund's investment strategy is to acquire stressed and distressed mortgage backed securities, primarily non-Agency Residential Mortgage Backed Securities ("RMBS"). The return objective of the Fund is to achieve a net IRR in the 12%-20% range within a target five year horizon from the acquisition of such securities. The goal is to extract a significant liquidity premium (apart from the compensation available for assuming credit risk) using bottom-up security analysis during a period when legacy holders of mortgage backed securities are in need of liquidity. Once fully invested, the Fund will be a long-biased investment in distressed securities within various sub-sectors of mortgage credit. The focus of the Fund is senior class RMBS backed by prime, Alt-A and subprime collateral. Higher allocations are expected to be in prime and Alt-A transactions. Security-specific risk will be analyzed at the loan level. The risk analysis links borrower attributes (loan-to-value, credit score, documentation status, age of loan, size of loan, etc.) to the borrower's default and prepayment propensities. Similar borrower attributes are examined to estimate recovery rates post default. Risk management at the security level also involves an examination of issue structure, waterfall priorities and other structural features which trap or divert cash flow, particularly as it relates to our target asset. It is anticipated that the Fund's returns will be earned primarily through cash yield on bonds it acquires at discounted prices and through repayment of principal, or partial principal from recoveries on defaulted mortgages, over the holding period of each asset in the Fund.

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DMR (Declaration Mgmt & Research) TALF and ABS Fund/Clifton John Pluta	Pension	Lg Cap Dom Equity	Aug-09 to Dec-11 Fund matured/capital returned	The investment objective of the DMR TALF and ABS Fund is to achieve attractive risk-adjusted returns in the low to mid-teens by investing opportunistically in senior classes of Consumer ABS and CMBS. The returns are expected to be achieved primarily through cash flow yield from assets acquired and financed using non recourse TALF leverage. The Fund term is expected to be relatively short with distributions beginning in July 2010 and most bonds naturally amortizing and maturing within 2-4 years from our purchase date. From a tactical standpoint, we believe the risk/return characteristics of short tenor ABS and CMBS compare favorably to other debt sectors. For TALF eligible assets, the low cost, non-recourse borrowing facility is an attractive feature which corporate credit, levered loans and high yield cannot access. The Fund's primary focus by sub-sector is on TALF-eligible legacy AAA senior CMBS. These assets are trading near par and tend to have a solid credit profile. The strategy does not involve stressed or "credit intensive" securities. Rather, we seek to execute risk efficient trades by employing non- recourse TALF leverage on lower volatility "par based" assets with high confidence in the receipt of coupon cash flow and full repayment of principal. TALF leverage is likely to range at 5x-15x capital depending upon the asset. In general, we expect to hold investments to their respective maturity dates, although we have the flexibility to sell holdings if spreads tighten. In acquiring assets, we employ a bottom-up analysis and model the structural characteristics of each transaction. DMR has a value orientation in security selection, seeking a margin of safety or cushion between base case performance expectations and extreme loss outcomes. The Clifton Group is charged with applying the S&P 500 "beta" exposure for the Declaration "alpha" exposure. The overall goal of the account is to get the return of the S&P 500 index plus an additional alpha amount provided by the TALF fund.
DMR (Declaration Mgmt & Research) - formerly Hyperion Brookfield mortgage portfolio John Pluta	Insurance	Fixed Income	Feb-10 to May-14 Liquidated and moved to TRBF	In this mandate, DMR will assume management of mortgage assets originally acquired by Brookfield (Hyperion) over the period 2006-2009. DMR will provide a fresh perspective on the holdings, some of which are credit impaired. The portfolio management services will include loan-level analysis on individual securities and portfolio level risk management of liquidity and volatility. DMR will seek to optimize the risk-return profile of the portfolio. The performance target of the portfolio is a gross total return of 1.25% above the return of the Benchmark over a full market cycle. The Benchmark is the Securitized Portion of Barclays U.S. Aggregate Index (ID #5582). In analyzing portfolio holdings, DMR may produce loss-adjusted cash flow projections on various bonds and/or stress test individual assets to identify break points (principal loss). DMR will evaluate the effect, if any, of government policy such as loan modification on portfolio holdings.
ECM - European Credit Mgmt John (Rusty) Reese	Pension	Lg Cap Dom Equity	Nov-07 to May-11 Terminated	The investment consists of variable rate notes issued by European Credit (Luxembourg), S.A., and managed by European Credit Management Ltd. The notes represent undivided interests in the issuer, a predominately investment grade European credit commingled fund currently rated BBB by Fitch Ratings, and are akin to fund subscriptions. The return on the investment is a combination of the beta of the S&P 500, achieved by means of a total return swap, and the excess return over EURIBOR, net of swap costs (if any), generated by the performance of EC(L). Returns of the investment are substantially hedged back to U.S. dollars.
Epoch Investment Partners Thomas Pernice	Pension	Lg Cap Dom Equity	Jul-07 to Dec-11 Mandate changed to Global Choice	Epoch's Global Absolute Return strategy seeks to produce superior risk-adjusted returns by building portfolios of businesses with outstanding risk/reward profiles without assuming a high degree of capital risk. We adopt a globally-minded approach, seeking to capture the benefits of borderless investing and globalization. The businesses in which we invest effectively reflects the high conviction ideas of the entire range of U.S. and Non-U.S. strategies offered by the firm to be included in this concentrated portfolio We manage portfolio risk exposure through quantitative and qualitative asset allocation inputs to reduce the likelihood of loss of capital. Our goal is to produce a portfolio of 20 – 30 positions that exhibits low volatility, strong risk-adjusted returns and real absolute returns. Global Absolute Return will use cash to mitigate downside capture.

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JP Morgan Emerging Markets Fund Jim Sakelaris	Pension	Emerging Markets Equity	11/1/2005 to 7/31/14 Terminated	The emphasis of investments in the Emerging Markets Equity Focused Fund is in capital and common stocks, securities convertible into capital and common stocks, and other equity investments, all of which involve foreign companies and enterprises' located primarily in emerging markets. In this context, 'Emerging' refers generally to countries outside of the MSCI EAFE Universe.
JP Morgan Short Term Bond Fund Jim Sakelaris	Legacy Fund	Short Term Fixed Inc	Sep-11 to Feb-15 Change of asset allocation	The investment objective of the Short Term Bond Fund is to outperform (based on the portfolio's total return, gross of fees) the Barclays Capital 1-3 Year Government/Credit Index (the benchmark) while maintaining total return risk similar to that of the Benchmark as measured over a market cycle.
LSV Int'l Equity James Owens, Jr.	Pension	Developed Int'l Equity	Nov-04 to Jan-13 Changed mandate to Global Equity	The objective of our International Large Cap Value strategy is to outperform the MSCI EAFE Index (50% Hedged) by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). LSV weights countries at a neutral weight relative to the benchmark country weights. Initial positions must be in stocks with a market capitalization above $500 million. 50% of the portfolio is US dollar hedged.
LSV Large Cap James Owens, Jr.	Pension	Dom Lg Cap Equity	Jun-98 to Jan-13 Changed mandate to Global Equity	The objective of our Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. The process used to select stocks is a quantitative approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be broadly diversified across industry groups and fully invested (cash balances are typically less than 1% of the portfolio). Initial positions must be in stocks with a market capitalization above $500 million.
Matlin Patterson (Fund I)	Pension	Private Equity	Jul-02 to Jun-16	Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser’s active management of the Fund’s investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors. Invest globally in the severely discounted securities and obligations of financially distressed companies with the objective of obtaining corporate control. Through the Investment Adviser’s active management of the Fund’s investments, the Fund is seeking superior risk adjusted returns and is operating globally in a segment of the distressed sector in which it has few significant competitors.
Mellon (Franklin Portfolio Assoc.)	Pension	Lg Cap Dom Equity	Sep-06 to Aug-09 Terminated	To achieve superior long term equity market returns through an investment process consisting of two parts: a) a market neutral equity strategy with approximately equal dollars invested long and short having the objective of neutralizing the overall movements of the market. Furthermore, other systematic sources of risk, including industry/sector and capitalization effects, will be controlled so that the large portion of portfolio returns comes from individual stock selection. b) an equitization strategy using S&P 500 index futures contracts to overlay the performance of the S&P 500 index on the market neutral strategy.

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NTGI (Northern Trust Global Investments) Common TIPS Fund Richard Clark Jim Aitcheson	Insurance	Inflation Protected	May-07 to July-10 Terminated	The Corporate Trustee may invest and reinvest in units of common funds maintained by the Corporate Trustee or any affiliate of the Corporate Trustee, including, but not limited tom the NTGI-QM Common Daily Treasury Inflation Protected Securities (TIPS) Index Fund-Lending. To meet liquidity needs, the Corporate Trustee may also invest in short term cash investments, including shares of money market portfolios, other common funds, or registered investment companies for which the Corporate Trustee or an affiliate serves as trustee, custodian or investment advisor.
NTGI (Northern Trust Collective Emerging Markets Index Fund) Jason Pasquinelli	Pension	Emerging Markets Equity	July-12 to July-14 Terminated	The Northern Trust Collective Emerging Markets Index Fund will be invested primarily in equity securities of business enterprises organized and domiciled outside the US or for which the principal trading market is outside the US. In the Fund, and where applicable with respect to the Fund, the Trustee will employ statistical methods to select securities which comprise or will comprise the Index without necessarily buying all the relevant Index equities. Such securities will be selected, acquired, held and liquidated solely on the basis of such methods and not on the basis of any economic, financial, market timing, or other analysis. Securities purchased for the Fund will generally, but not necessarily be traded on a foreign securities exchange. The Trustee may, in its discretion, purchase or sell depository receipts. The Fund will be rebalanced from time to time in order to minimize the expected or predicted deviation between the performance of the Fund and the performance of the relevant Index or to reflect changes in the composition of the Index.
PanAgora Asset Mgmt Lisa Mahoney	Pension	Emerging Markets Equity	Feb-06 to Dec-13 Terminated	The Emerging Markets Fund seeks to exceed, in the aggregate, the return of the Morgan Stanley Capital International Emerging Markets Index before fees and expenses. The Emerging Markets fund may be invested in: • International equity securities including common, preferred and instruments convertible into common or preferred stock for those companies which comprise the Benchmark and the Morgan Stanley Capital International Frontier Markets Equity Index. • American Depository Receipts, Global Depository Receipts, European Depository Receipts • Exchange traded funds based on the underlying securities in the Benchmark • Spot and forward currency exchange contracts • US Treasury bills • Daily Liquidity Fund • The maximum investment in companies which comprise the Morgan Stanley Capital International Frontier Markets Equity Index will not exceed 10% measured at time of purchase.
PIMCO Distressed Senior Credit Opportunities (DiSCO) Fund I Julie Meggers Todd Staley Michael Chandra	Pension	Dom Inv Grade FI	Jul-08 to Oct-11 Moved to Fund II	The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

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PIMCO Distressed Mortgage Fund Julie Meggers Todd Staley Michael Chandra	Pension	Below Inv Grade FI	Oct-07 to May-13 Capital Returned	The PIMCO Distressed Mortgage Fund is an opportunistic private-equity-style Fund which seeks to capitalize on the historic dislocation in the US and global mortgage markets. The Fund invests in mortgage-related securities and loans where PIMCO believes the long-term value of the investment is highly attractive relative to current market pricing. Within the universe of mortgage-related assets, the Fund will be otherwise unconstrained. The Fund will essentially look to capitalize on forced liquidations of mortgage risk from mark-to-market and ratings sensitive investors at historic high yields.
PIMCO Unconstrained Bond Fund Julie Meggers Todd Staley	Pension	Dom Inv Grade FI	Mar-12 to Mar-14 Converted to SMA	The PIMCO Unconstrained Bond Strategy is an absolute return-oriented, investment grade quality fixed income strategy that embodies PIMCO's secular thinking, global themes, and integrated investment process without the constraints of a benchmark or significant sector/instrument limitations. The strategy is designed to offer the traditional benefits of a core bond approach - capital preservation, liquidity, and diversification - but with higher alpha potential and the opportunity to mitigate downside risk to a greater degree than what is reasonably possible from traditional active fixed income management approaches.
Prudential Privest Peter Taggert	Pension	Dom Inv Grade FI	Jun-05 to Mar-12 Terminated	The Prudential Privest fixed income account is invested primarily in unsecured privately placed debt securities.
Prudential PruAlpha Peter Taggert	Pension Insurance (currently Budget Stabilization only)	Dom Lg Cap Equity Enhanced Cash	Mar-08 to May-12 Redeemed out/Terminated Jul-07 to May-12 Redeemed out/ Terminated	At launch, Pru Alpha was an absolute return strategy investing across multiple sectors of the global fixed income markets. There were significant redemptions from Pru Alpha in the wake of the high market volatility in late 2008. Pru Alpha is currently focused on investing in distressed securities in the fixed income markets. The Pension Trust invested in a feeder fund that allocated a substantial portion of its assets to the Pru Alpha Master Fund and invested substantially all of its remaining assets in a replication strategy based on the S&P 500 Total Return Index. On November 26, 2008, the S&P 500 beta overlay was discontinued. Effective June 1, 2009, the S&P 500 beta overlay was reapplied via a separate account that invests in S&P 500 futures in amounts intended to match the market value of the Pension Trust's Pru Alpha investment. The budget stabilization account is an “enhanced cash” portfolio to augment the other components of North Dakota’s budget stabilization assets. This account was originally invested across three components: Dryden Core Short-Term Bond Fund (80%), bank loans (10%), and Pru Alpha (absolute return fund, 10%). Core Short-Term Bond Fund is an “enhanced cash” portfolio that seeks to capture incremental yield from various sectors in the short term portion of the market, with virtually no interest rate risk. Holding assets in the structured product and corporate sectors led to significant underperformance through the credit market downturn from 3Q07-1Q09, but the fund has recovered significantly year-to-date 2009. The bank loan component of the portfolio consists of approximately 20-25 individual bank loans managed by PFIM’s high yield/bank loan team. The names held in the account are biased towards the higher quality and more liquid names in the bank loan arena. Pru Alpha is an absolute return strategy and is described with the Pension Trust investment above. On July 28, 2009, $95mm was added to this account. As a result of discussions with our senior investment team at PFIM and Steve Cochrane, it was decided to invest the new assets in short-term corporate bonds (1-3 years). As of 8/31/09, the account is allocated as follows: Short-term corporates (47%), Dryden Core Short-Term Bond Fund (39%), bank loans (5%), and Pru Alpha (4%) and cash (5).

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Quantum (Resources) Brian Borque	Pension	Private Equity	Oct-06 to Jun-17	Quantum Resources' investment strategy is to acquire, develop, enhance and exploit mature oil and gas properties in order to provide investors with both a current income vehicle with capital appreciation potential and a hedge to other investments through long-term exposure to changes in commodity prices. The company will acquire cash flow producing oil and gas properties primarily located in North America through asset or corporate purchases. By acquiring properties in a diverse set of mature fields with long operating histories, long-lived production characteristics and additional development potential, the company is emphasizing a focus on capital preservation and the reinvestment of cash flow into property development or add-on acquisitions. Management expects to acquire income streams generated by the production of oil and gas reserves at attractive discount rates of future net cash flows.
SEI Investments	Pension Insurance	Dom Small Cap Equity Dom Small Cap Equity	Jul-01 to Nov-09 Terminated Jul-01 to Nov-09 Terminated	Utilizing multiple SEI Portfolio sub-advisors, the SEI Portfolio invests in common stocks and other equity securities with the goal of providing capital appreciation.
SEI Investments Bob Thomas	Pension (Job Service only)	Core Plus Fixed Income	Jul-09 to Mar-12 Terminated	A diversified set of lowly correlated alpha sources increase confidence in consistent excess return -Combination of managers with a broad opportunity sets inclusive of government, credit and structured securities -Derivatives provide an efficient means of strategy implementation -Managers have the ability to utilize derivatives to manage duration, yield curve, sector and security strategies to enhance return or reduce risk
State Street Global Advisors Kevin Sullivan	Pension	Developed Int'l Equity	July-92 to Dec-13 Terminated	SSgA attempts to identify stocks that it believes are undervalued, using detailed investment analysis. The strategy is normally broadly invested among countries and industries. The investable universe is equity securities of companies outside the United States within the market capitalization range of the index.
State Street Global Advisors	Pension Insurance	Dom Lg Cap Equity Dom Lg Cap Equity	Jul-92 to Jul-09 Terminated Oct-96 to July-09 Terminated	Originally hired as S&P 500 Index funds and later re-mandated to 130/30 strategies.
State Street Global Advisors	PERS Retiree Health		Mar-94 to Jul-09 Terminated	Balanced account consisting of index funds in fixed income, large and small cap and int'l equity.
UBS Global Asset Management Betsy Sanders	Pension	Emerging Markets Equity	July 05 to Dec 13 Terminated	Emerging markets equity investments will be confined to the UBS Emerging Markets Equity collective Fund of the UBS Group Trust, which is maintained by UBS Global Asset Management Trust Company. The account's emerging markets equity assets will be fully-invested at all times, but such assets may be invested in the UBS US Cash Management Prime Collective Fund for operational and risk management purposes.

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Wachovia Global Securities Lending John Menard	Pension Insurance	All asset classes	Oct-07 to Jun-11 Terminated when acquired by Citi	Securities lending is the temporary loan of a security from an institutional investor's portfolio to a broker/dealer or dealer bank to support that firm's trading activities. These trading activities include short selling, selling on margin or the satisfaction of some other type of transaction. Loaned securities are generally collateralized, reducing the lender's credit exposure to the borrower. Except for the right to vote proxies, the lender retains entitlement to all the benefits of owning the original securities, including the receipt of dividends and interest. Additionally, the lender receives a fee for the use of the securities and can reinvest the collateral. The lender, however, bears the market risk of the loaned securities. This is due to the borrower being obligated to ultimately return the securities, not the original market value of the securities, at the time the loan was made. Lendable securities include U.S. government and agency bonds, U.S. and foreign equities, U.S. corporate and Eurobonds, foreign government bonds, asset backed and mortgage backed securities
Wells Capital Management Jeff Mellas Doug Beath	Pension	Dom Lg Cap Equity	Apr-06 to Mar-10 Terminated	The State of North Dakota's Alpha Capture Portfolio (ACP) is a quantitatively driven global long/short strategy designed to exploit mispricing of risk between and within asset classes and market sectors. Core models are utilized in conjunction with the management team to identify opportunities between global stock and bond markets. Markets that are designed to focus more directly on specialized markets such as commodities and individual market sectors supplement the core models. ACP is constructed using instruments such as futures contracts and exchange traded funds (ETFs). The ACP strategy does not currently hedge its non-U.S. dollar positions.
Wells/Sutter Niklas Nordenfelt	Pension	Below Inv Grade FI	Apr-04 to Mar-10 Terminated	The Sutter High Yield strategy applies a bottom-up fundamental based investment strategy focused on identifying the best risk adjusted opportunities in the high yield market. The investment objective is to deliver outperformance with less volatility over a market cycle. Documented rationale supports each initial investment in a credit. The team's philosophy and process is grounded on the principal of "underwriting the credit as though we are making a direct loan to that company" with a focus on U.S. based companies.
Wells Capital Management Stephen Scharre	Pension	Dom Inv Grade FI	Nov-98 to Mar-12 Terminated	The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. Credit research is a primary driver of our results; however, our process starts with a "top-down" strategy to guide decision-making. Security selection is determined by in-depth credit research. We believe in-depth knowledge of industries, companies, and their management teams enable us to identify credit trends that can lead to investment opportunities. In conjunction with performing rigorous fundamental research, we also apply a disciplined relative value framework which helps us determine the optimal position to invest within an industry and within an individual issuer's capital structure.
Western Asset Derek Fan	Pension	Dom Inv Grade FI	Oct-09 to Mar-12 Mandate changed to MBS	A portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.
Western Asset Derek Fan	Pension	Dom Inv Grade FI	Mar-12 to Sep-14 Terminated	The investment objective for the Western Asset Mortgage-Backed Securities portfolio is to outperform the Barclays Capital US Mortgage Backed Securities Index over a three to five year market cycle. The portfolio is designed to hold high quality assets, with at least 90% of the portfolio rated AAA, or the rating of US Treasury or Agency securities, by at least one of the nationally recognized statistical rating organizations.

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Investment Manager	Trust	Asset Class	Open to Close Date	Description
Western Asset	Insurance	Inflation Protected	May-04 to Oct-09 Mandate changed to Global TIPS	Western Asset's US TIPS Full Discretion Composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios use diversified strategies in seeking to add value while minimizing risk. The approach is to construct a well diversified, higher yielding inflation-protected portfolio with a bias towards Treasury Inflation Protected Securities. Exposure to the diversifying sectors (which include credit, global inflation-linked securities and mortgage-backed securities) may be derived through derivative and forward transactions. This strategy allows for opportunistic investments in high yield, emerging markets, non-dollar securities, commodities and bank loans.
Westridge/WG Trading/Clifton	Pension Pension Insurance	Dom Lg Cap Equity Dom Inv Grade FI Dom Lg Cap Equity	Aug-00 to Apr-11 Jan-08 to Apr-11 Apr-04 to Apr-11 (Settlement proceeds rec'd Apr-11)	S&P 500 Index Arbitrage Portfolio. Pension Domestic Fixed Income beta portfolio was changed to S&P 500 in November 2008. WG Trading was shut down by Federal Regulators in February 2009 and assets are in receivership. An S&P beta exposure was put on the accounts in July, 2009 by Clifton Group to maintain proper exposure to markets while in litigation.

BOARD LEADERSHIP

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The Quest for Alignment

Caroline Oliver Interviews Jean-Claude Pierre, Group CEO, Scott Bader

Jean-Claude Pierre became Group CEO of Scott Bader, a global chemical company, in June 2015. He holds a master's degree in Polymer Science from ITECH Lyon and an MBA from Hult. However, more relevant to this interview, he also holds a PhD in Organizational Systems from Saybrook University. Here, he talks with Board Leadership *Editor Caroline Oliver about his passion for exploring new perspectives on governance.*

Caroline: Tell me about the roots of Scott Bader and its particular approach to governance.

Jean-Claude: Scott Bader is a global chemical company employing over 650 people worldwide with manufacturing sites in Europe, the Middle East, South Africa, Canada, India, and South America with revenues of EUR 227 million. Our founder, Ernest Bader, and his family were Quakers who believed in the necessity of taking ethical and moral action to improve the world and looked for a less divisive way to use the capital of the company. They believed that labor should employ a company's capital and have a "real" say in all its affairs. They wanted to acknowledge the equality of everyone as individuals and saw that restructuring the way industry was managed was the only thing that could bring this about.

Caroline: I know that there are many examples of organizations that are seeking to enable employees to have more control over how their work is managed, but it has always worried me that such initiatives are unsustainable unless they start at the governance level.

Jean-Claude: That's true and one of the main things that attracted me to Scott Bader is that the organization is truly aligned at all levels.

Caroline: How does it work at the governance level?

Jean-Claude: In 1951 the decision was taken to transfer all the shares of the company to a newly created charitable trust—Scott Bader Commonwealth Limited. This body, which for simplicity I will call the Commonwealth, is a company limited by guarantee and a registered charity. The Commonwealth is founded on principles that reflect the belief that a socially responsible undertaking cannot exist merely in its own interests. It is part of the whole national and international community, and as such it has responsibilities that extend far beyond its factory walls. The ambition was "to provide opportunity for the full development of us all, both materially and spiritually: Mutual responsibility must permeate the whole community of work and be upheld by democratic participation and the principle of trusteeship" (Foreword from the revised Scott Bader Constitution, March 1963).

All Scott Bader employees can become Members of The Commonwealth

(continued on page 2)

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Alignment

(continued from front page)

and as such become trustees-in-common of the company assets. Membership is voluntary and there is no joining fee, but members do have to have completed one year of service in order to demonstrate that they believe in the company's values. Only 10 percent of employees are not signed up.

Employees do not have shares and there are no dividends. Instead, a certain percentage of profit goes to everyone—in the form of a group bonus that awards the same amount to everyone. The same percentage must also go to the charity. And then, if there is enough left, the remainder is distributed in the form of an individual performance bonus. Right now, we have a group of employees who are working on revamping the appraisal and award system to further align it with our ambitions in a changing world.

In Scott Bader's governance, there are three main roles: (1) The Commonwealth ensures that we stay true to the original ideas of our founder as highlighted in our constitution and manage our charitable giving; 2) the Members' Assembly ensures that our employees have a say in the way the business operates; and (3) the Group Board ensures that the business is compliant with its legal and ethical obligations. As in any other company, the executive team runs the day-to-day activities of the company.

Caroline: So how does this translate into the company's purpose?

Jean-Claude: Our purpose statement is "We pioneer the future of chemistry, making a positive difference to all businesses we serve and each life we touch." We also state that we intend to fulfill this purpose statement by

- Taking decisions with care—balancing ecology, humanity, and business.
- Using our chemistry expertise to innovate responsible solutions for the world today and tomorrow.
- Exceeding our customers' expectations.
- Using our resources sustainably to minimize the impact on the environment.
- Unleashing the diverse potential and goodwill of our people.
- Sharing our profits and using our talents to develop a more inclusive and harmonious society.

Caroline: What are the main advantages you see from Scott Bader's approach?

Jean-Claude: First, we cannot be taken over, so we can bring long-term stability and partnership to all business relationships. Also, the responsibility of ownership tends to create greater commitment and engagement—especially in times of crisis. It is very beneficial to be able to tap into the collective wisdom of everyone working in the company. Our charitable status also brings an obligation to the wider community.

Caroline: And what about the challenges?

Jean-Claude: We are on a constant learning journey. The need to ensure global representation was met about eight years ago when we created the Members Assembly. One challenge is that we tend to avoid conflict, and healthy conflict is obviously important when it comes to making good governance decisions. We also have some need to further progress on designing accountability.

But the biggest concern an organization like us faces is: what drives our ambition to keep improving our performance as we are not stimulated by external shareholders' expectations or by the drive of a single private entrepreneur. Being purpose-lead becomes the driver but how do we find a purpose that really ignites people's passion, gives meaning to their job? Everyone is clear that we want to leave the company a better place—that each generation must ensure the ongoing success of the organization so that future generations can benefit from its continued existence—but we need to further clarify what is a better place. Our current work to develop a long term sustainability roadmap will contribute to this clarification.

Caroline: What do you see as the main barriers to other companies operating in the same way?

Jean-Claude: The leadership belief and value system, which boils down, for me, to one essential point: the trust in the collective intelligence.

Caroline: Do you think these barriers can be overcome?

Jean-Claude: Yes, but it requires leaders to move to a higher level of consciousness, something that is happening more and more but is not mainstream yet. As the current economic model shows its limits and as the new generation aspires to more meaningful jobs, my hope is that the need for companies to embark on new business models will become obvious. People will be forced to think more systemically and inclusively. Companies not moving in that direction will fail to attract the talents they need to reinvent themselves in this new regenerative paradigm.

Caroline: How do you see the future of governance?

Jean-Claude: It will take the course it has to take based on what the new generation of employees desire, what consumers expect, and how strong social media can be. We are about to pilot a new type of balanced scorecard integrating five elements of trust. It might be hard to comply with these elements without a more inclusive governance. If this pilot succeeds, if investors embrace this tool when looking at financing companies, this type of scorecard might become an important catalyst to foster new types of governance.

I believe that for business to thrive, society needs to function well. We want simplicity to help us make sense of a complex world but the problem is that the complex issues are not going away. The more we involve and engage people, they more they will realize that the simplistic solutions are not the answer. This is what will develop further their critical thinking, an essential skill to build a functional society—this is what we all need at the end of the day. ❑

Jean-Claude Pierre can be reached at jean-claude.pierre@scottbader.com.

You can see more about Scott Bader's governance at http://www.scottbader.com/about-us/45/our-governance-structure.

Toward a Requisite Board Competencies Matrix—Part Two

by Axel Kravatzky

In the last issue of Board Leadership, *Axel Kravatzky, PhD, examined the collective and individual competencies needed by a board as well as advances in the design and use of Board Competency matrices. In this second article, he looks in more detail at definitions of competence versus competency.*

Working with Individual and Collective Competencies

THE REASON that all good governance guidelines recommend that boards be appropriately diverse is to ensure that the board, as a collective, is able to deal with the business coming before it.

First, what are we speaking about; then, how do we measure and work it—individually and collectively?

Definitions: Competence versus Competency

Pierce pointed out in a seminal article on competencies of future company directors that there is an important distinction to be made between the words *competence* and *competency*[1]:

- *"Competence is concerned with the performance of work in an effective and efficient manner.*
- *Competency is a dimension of management ability and behavior required for a competent performance to take place.*

Thus, a job consists of a set of deliverable outputs (competences) that are likely to require associated abilities (competencies)."

In other words, we can say that since the board as a whole is the body that acts and takes decisions, the board must be capable of delivering a set of outputs that are specific to the nature of the organization and its context. That means that the board as a whole must have certain competences. Since the collective work of the board is the result of contribution and interaction of individual board members, these individual board members must have certain competencies.

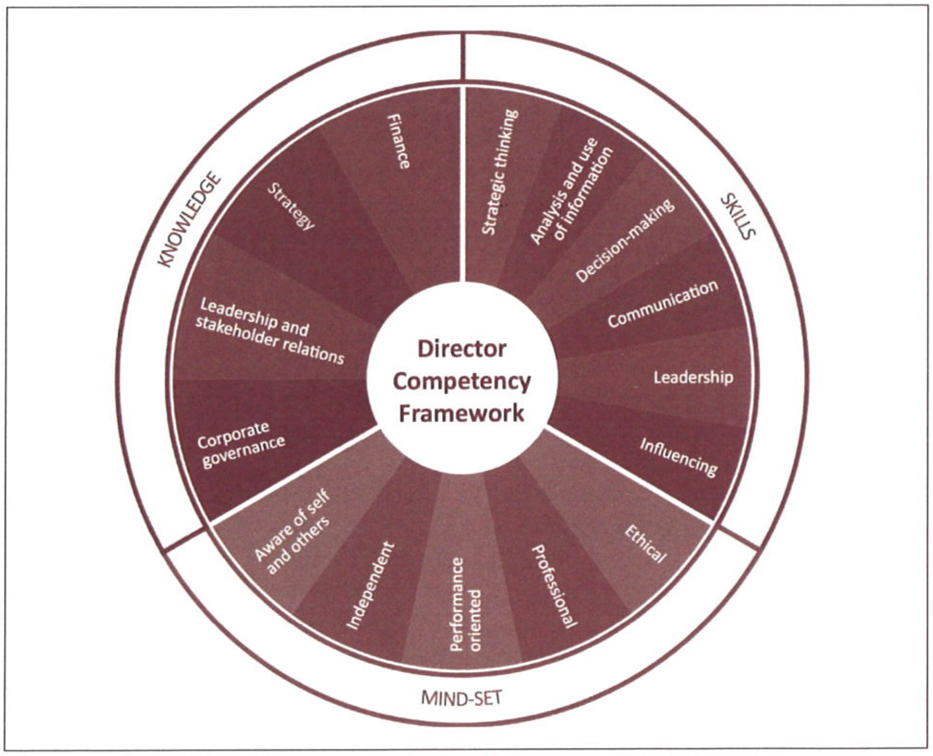
Pierce's article was published before director institutes and others developed competency frameworks for directors. Today, a number of such frameworks exist and there are formal development paths that directors can take to demonstrate their qualification—for example, in the form of Chartered Director (C.Dir.) qualifications. The defining characteristic all these qualification paths share is that director competence is demonstrated through the requisite combination of knowledge, skill, and experience.

The Caribbean Corporate Governance Institute's (CCGI) Chartered Director designation "means that a Director or Executive has demonstrated an internationally accepted level of competence in the key areas of Governance, Finance, Strategy and Leadership as it pertains to Board performance."[2]

The Institute of Directors in the United Kingdom presents its competency framework as in Figure 1,[3] while the frameworks used for the Chartered Director qualification in South Africa and the Caribbean state that "the effective combination of knowledge, skills and experience underpinned by values is what defines the behavior of a director as competent."[4] In South Africa and the Caribbean, the competency frameworks are presented as those in Figure 2.[2,4]

Kiel et al (quoted in Australian Institute of Company Directors, 2016)[5] talk

Figure 1: Director Competency Framework of IoD, UK



Source: Institute of Directors.[3]

about competencies of a director being "the experience, knowledge, skills, attitudes, values and beliefs of the person." They provide the following framework for considering these competencies.

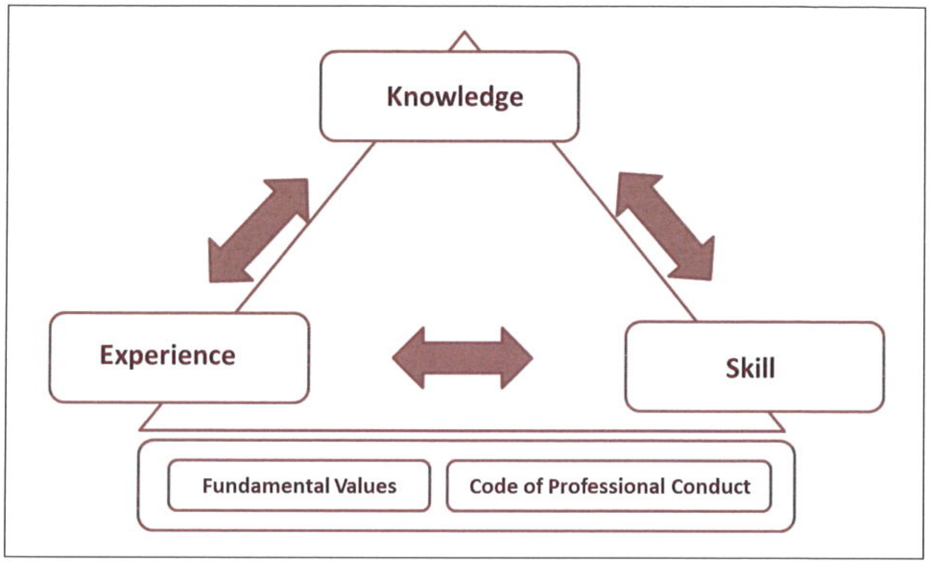
- *Industry:* Experience in and knowledge of the industry in which the organization operates.
- *Technical:* Technical/professional skills and specialist knowledge to assist with ongoing aspects of the board's role.
- *Governance:* The essential governance knowledge and understanding all directors should possess or develop if they are to be effective board members. Includes some specific technical competencies as applied at board level.
- *Behavioral:* The attributes and competencies enabling individual board members to use their knowledge and skills to function well as team members and to interact with key stakeholders.

In the case of the Romanian Competences Matrix, the competencies groupings are as follows[6]:

- Industry specific competencies
- Professional competencies of strategic importance
- Corporate governance (competencies)
- Social and personal
- International
- Shareholder specific competencies (not included in the other dimensions)
- State ownership unit specific competencies
- Other

Not all of these competencies need to be always used, but the state is providing a set of competency definitions for each one of the categories that boards, state ownership units, and shareholders can use in specifying the competencies necessary for their specific companies.[7] In this regard, it is important to reflect the difference in the work of management and the board in relation to the same topic. For example, both the board and management need to have industry-specific and

Figure 2: Director Competency Framework in South Africa



Source: IOD Southern Africa.[4]

state-specific competencies. However, since the work of the two bodies (board and management) is different in relation to these topics, the competency definitions need to reflect that.[8]

Levels of Competence and Competency

Having defined the required collective capabilities of the board, that is, the competences of the board, in the Board Profile, and then chosen or developed the right combination of competencies and other criteria in the form of the matrix and a competency dictionary, board and shareholders need to determine the levels of competency and competence of directors, potential directors, and the board as a whole.

At the individual director or candidate level, the Romanian legislation prescribes a scoring system that is quite common for competency assessment (see Government of Romania, 2016[6] and Table 1). Of special interest within the context of this article is the fact that "Level 3–Competent" in the Romanian Competency Rating Scale coincides not only with conventional definitions of "Level 3–Competent" in other such behavioral competency frameworks, but also with a relevant German court ruling.

The ruling in question was handed down by the Federal Court of Justice in Civil Law Matters[9] and stated that a member of a supervisory board must have the minimum knowledge and expertise, or must acquire them, in order to (without requiring the help of others) understand all business procedures normally accruing and appropriately assess them.

The combination of defined behavioral competencies together with the rating scale makes the assessment of individual director competencies much easier and more likely to be consistent.

At the collective level of the board, the capabilities identified to be necessary in the Board Profile are translated into a customized matrix with a specific combination of competencies, some of which are mandatory (all at least at Level 3), relative importance weights, and collective threshold levels. If, for example, the company is planning an initial public offering (IPO), it is quite possible that a related competency with Investor Relations is included in the matrix. The company might well retain specialist professional advice for the listing process, but at least some of the board members should be competent in this domain (Level 3). This could then be reflected in the threshold, which could be set at, say, 50%, which can be

Table 1: Competency Rating Scale

Score	Competency Level	Description
N/A	Not applicable	You are not required to apply or demonstrate this competency.
1	Limited	You have an understanding that does not surpass the level associated with the common knowledge regarding basic concepts.
2	Intermediate	You have a level of experience gained through basic training and/or through a few similar experiences. When performing this skill you are expected to need support. • You understand and can discuss terms, concepts, principles, and issues related to this competency; • You need to make active reference use of law, regulations, and guides in this competency.
3	Competent	You are able to successfully perform functions associated with this competency. Help from more experienced persons may be required from time to time, but you can usually perform the skill independently. • You have applied this competency successfully in the past with minimal guidance; • You understand and can discuss the application and implications of changes to processes, policies and procedures in this area.
4	Advanced	You can perform the tasks associated with this skill without assistance. You are recognized within your existing organization as an expert in this competency, you are able to provide guidance, and you have advanced experience specifically related to this competency. • You have consistently provided relevant ideas, resources, and practical perspectives on process or practice improvements, at council of administration and senior executive level; • You are capable of engaging and constructively challenging senior executives, as well as coaching others in the application of this competency.
5	Expert	You are known as an expert in this area. You can provide guidance and find solutions to dilemmas and complex problems related to this area of expertise. • You have demonstrated consistent excellence in applying this competency across multiple councils of administration and/or organizations; • You are regarded as an expert, leader, and innovator in this competency within the council, organization, and/or outside organizations.

Source: Government of Romania (2016)[6]

attained only if a sufficient number of directors have been assessed to have Level 3 competency or above. If there are any directors who score less than Level 3, this shortcoming can be noted and mitigated through special attention and purposeful development.

Conclusions

Pierce[1] pointed out that what matters most in governance is the performance of the team rather than the individual and that there is a shortage of empirical work in the area of the board's performance as a team. The advances reported in this article in the field of determining collective competences of the board and individual competencies will support the work of boards and shareholders to that end, particularly in complex and regulated environments.

The guidance published by the Romanian Government for State Owned Companies for the development of the Board Profile and the Competence Matrix, together with the Director Profiles and selection procedures are more elaborate than most other comparable guidance documents, but they form a useful basis for many other boards to use in forms that are customized for them. The framework can be used as a guide for selection, training, and evaluation of directors and boards as outlined in Table 2 on page 8.

While thresholds and competency combinations are important, it must be stressed that for the use of the competence matrices to be most effective they should also include criteria that enable evaluators to determine the degree to which the personal values that directors hold and their visions for the organization, align closely with those identified in the board profile. Furthermore the actual interaction of the directors as a team, and the factors that have been shown to influence that interaction most, need to be purposefully developed throughout the year to assure the performance of the board.[10] ❑

(continued on page 8)

Governance in the Making—A View from Academe

by Sue Konzelmann

Dr. Sue Konzelmann is Reader in Management in the Department of Management at Birkbeck, University of London, United Kingdom, who has been directing the Postgraduate Programmes in Corporate Governance and Business Ethics at that institution since 2003. She is also the founding director of the London Centre for Corporate Governance and Ethics. Here, she reflects on the changes she has seen over the intervening years.

Early Days

I GOT INTO corporate governance quite by accident. It all started with my internship in Industrial Relations at Usines Gustave Boel, a steelworks in La Louviere, Belgium, which formed part of my master's in international business studies from the University of South Carolina in 1984–1985. That experience, during a period of significant restructuring and concessionary collective bargaining, sparked my interest in the steel industry and desire to pursue a PhD. I did my PhD dissertation at the University of Notre Dame (UND) in Notre Dame, Indiana, on "Technological Integration and Fragmented Labour Market Structures: The Decline and Restructuring of the American Steel Industry" during the mid to late 1980s. This was a period of major upheaval—and deindustrialization—when the stock market was being theorized as an efficient "market for corporate control" and, on this basis, was being used to restructure industry. At the time, I didn't recognize this as being related to "corporate governance" because my main focus was on the influence of labor-management relations and work systems on firms' ability to respond to intensifying competitive pressures.

My then PhD supervisor, Frank Wilkinson—now a long-time mentor, colleague, and friend—was a visitor to UND from the University of Cambridge, as was Agit Singh, whose seminal work on takeovers played an important role in my own later research. In 1998, at least in part because of these connections, I was invited to spend my sabbatical from Indiana University South Bend (IUSB) at the University of Cambridge's Centre for Business Research (CBR), where I became involved in research on corporate governance with Frank, Agit, Simon Deakin, and others. This research largely focused on the question of whether the managers of publicly traded companies faced a "corporate governance constraint" on the approaches they were able to take in managing their human resources as a consequence of having to prioritize the interests of shareholders over those of all other stakeholder groups, particularly workers.

For several years I returned to Cambridge each summer to continue and extend this research and to deepen my collaboration with colleagues in the CBR; and in 2001, I took a year's leave from IUSB to help direct a CBR research project on these themes, which was extended to a second year when I joined a related collaborative project with MIT. During these two years, I also contributed to the teaching of corporate governance in the Judge Business School's MBA program and in the Law School with Simon Deakin.

In 2002, Birkbeck advertised a post to direct their newly established MSc and MRes programs in Corporate Governance and Business Ethics, to which I successfully applied. In the autumn of 2002, I taught the "Systems of Corporate Governance" module to the first class to enter this program, returning as director during the summer of 2003. The rest is history.

A Corporate Governance and Business Ethics Program Is Born

I can only speculate on the origins of the corporate governance program at Birkbeck, since I was not there when it was set up. As I said earlier, I applied for and was offered the position of being the first director of these programs in 2002; after a brief return to the States to sell my house, say my good-byes to friends and colleagues, and return to the United Kingdom with my three senior-citizen cats, I formally assumed the post in the summer of 2003, the second year that the program was delivered.

I imagine that the origins of the program can be located in the events of the 1990s, when the United Kingdom took the lead in corporate governance, following the collapse of a number of prominent British public companies as a consequence of a perceived lack of accountability on the part of top executives. Examples include Polly Peck (1990), the Bank of Credit and Commerce International (1991), and Barings Bank (1995).

In 1991, the "Cadbury Committee" on Financial Aspects of Corporate Governance was set up. Its 1992 report constituted the first code of "best practice" in corporate governance, which was added to the London Stock Exchange's listing rules on a "comply or explain" basis. This served as a model for other countries' codes of corporate governance, which have proliferated since.

In 1995, the Greenbury Report on Executive Pay was produced, followed by the 1998 Hampel Report reviewing the Cadbury and Greenbury reports.

The dot-com stock market bubble collapsed in 2001, so the establishment of the first postgraduate program in corporate governance by Birkbeck's Department of Management is indeed timely.

I later learned from graduates of the program that, at the time, this was the only program in the world with the words *corporate governance* in its title. So it attracted students from all around the world. Since then, while other postgraduate programs offer modules in corporate governance or focus on areas within corporate governance, Birkbeck's program is unique in its breadth of focus—students have the opportunity to focus on corporate governance from the perspective of strategic management, public sector, environmental issues, sport governance, and corporate responsibility and sustainability; and they have a wide (and expanding) range of modules from which to choose in areas relating to corporate governance, including human resource management and industrial relations, law and economics, finance, and accounting.

The Program Evolves

Birkbeck's institutional mission is to provide access to University of London qualifications for students who wouldn't otherwise have access—because they are working. Hence, a high proportion of our students are working, many within the field of corporate governance and business ethics or hoping to move into it. As mature working students, they are not only making enormous sacrifices to complete their program of studies, they also expect it to be relevant. So they communicate their desires and objectives and we respond to them.

This keeps the program's content on the cutting edge, academically and in practice, as we constantly make the linkages between theory and praxis. The students' confidence and their knowledge and experience of corporate governance practice and the requirements of the business and regulatory environment makes the classroom an exciting and engaging place for teaching and for learning.

The module offerings and program streams have expanded during the years I've been at Birkbeck. We now offer students the opportunity to focus on corporate governance and business ethics, public-sector governance, sport governance, environmental issues in corporate governance, management with corporate governance, and corporate responsibility and sustainability.

Because many of our students have been away from formal education for a long time—and they are often balancing work, family, and other responsibilities—some are unsure about committing to the full MSc. Therefore, we offer a postgraduate certificate (PG Cert) in corporate governance that can serve as a stand-alone qualification or a pathway onto the MSc. The PG Cert consists of four taught modules (Corporate Governance, International Business Ethics, Corporate Responsibility or Theoretical Perspectives and Research in CSR, and a fourth module of the student's choice). Students who successfully complete the PG Cert have the option of progressing to the MSc to complete their remaining four modules and a 12,000-word dissertation.

Students also engage beyond their program of study. The London Centre for Corporate Governance and Ethics (LCCGE) was established in 2008, with the collaboration of students and graduates of the postgraduate programs in corporate governance and business ethics, who wanted to be able to remain connected to Birkbeck, corporate governance, and each other after their graduation. Students also return to guest lecture and guest speak as a way of "giving something back."

Coming, as they do, from a wide range of areas—private sector, public sector, National Health Service, sport governance, charity and third sector, and the like—many of our students are among the strongest in the college, in terms of academic background and performance as well as professional experience.

How the Whole Field of Governance Has Evolved

The field of corporate governance is a fluid one that seems to evolve in response to perceived weaknesses or failings in the internal governance of organizations, resulting from problems in managerial accountability, board structure and functioning, shareholder rights and responsibilities, incentive systems, monitoring and sanctioning systems, and so on.

For example, as happened during the 1990s as a consequence of the corporate governance challenges experienced by a number of prominent companies, following the collapse of Enron and other major corporate scandals of the early 2000s, corporate governance shot to the top of the management and policy agenda—as it did again in the aftermath of the (yet unresolved) 2008 financial crisis and 2010 Eurozone crisis. In all of these cases, corporate governance was seen to have contributed to the problems faced.

Since (in my view) we have not adequately dealt with the causes of those experiences, there are certainly more to follow, meaning that corporate governance will remain an important academic, professional, and policy discipline for the foreseeable future.

Themes for the Future

I believe that the key corporate governance themes will continue to be important. These include the mechanisms by which an organization is directed, administered, and controlled; the relationships among stakeholders (internal and external); the goals for which the organization is governed; the exercise of power in organizations; the incentives and performance measures to achieve organizational success; the mechanisms for accountability and transparency to ensure performance effectiveness and the equitable distribution of resulting wealth; and managerial accountability, board structure and functioning, and shareholder rights and responsibilities.

To close with the enduring words of Sir Adrian Cadbury: "Corporate Governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations, and society."[1] ❏

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Note

1. Global Corporate Governance Forum, World Bank, 2000.

Matrix

(continued from page 5)

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Table 2: Uses of the Board Competence Matrix

Purpose and Activity	Application of Framework
Selection	• To design the selection interview • To design assessment tools and exercises • To rate potential appointees against competency requirements
Training & Development	• To identify skills gaps and define training needs • To develop curricula for training programs • As a guide for the induction of new appointees
Evaluation	• To establish performance evaluation criteria • As a frame of reference for providing performance feedback • As a tool to assess competency gaps

BOARD LEADERSHIP
INNOVATIVE APPROACHES TO GOVERNANCE

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BOARD LEADERSHIP

INNOVATIVE APPROACHES TO GOVERNANCE

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Encouraging Young Governance Professionals

An Interview with Alex Swallow

Increasing the diversity of board membership is a goal for many organizations. Here Board Leadership *Editor Caroline Oliver draws on the wisdom and experience of Alex Swallow[1]—a pioneer in encouraging young people to get involved in board leadership and boards to take advantage of all they have to offer. Please note that the term "trustee" is commonly used in the United Kingdom for those who serve on charity boards.*

Caroline: Can you tell me a little bit about yourself and why you got interested in board leadership?

Alex: A quick snapshot of me is that I am the founder of Young Charity Trustees,[2] a small, UK charitable organization that encourages young people to apply for board positions and charities to consider young people when recruiting trustees. My work trying to influence change in this area has led me to my current business, The Influence Expert (www.theinfluenceexpert.com), where I help people grow their influence to increase the impact that they have on the world.

My interest in board leadership started in my mid-twenties. I had moved to London and I didn't particularly feel part of a community there. I wanted to support a charity, so I saw an advert in the paper and joined the housing committee of a North London charity that supports people with learning disabilities and their families. I loved the work of the charity and must have come across as pretty keen: I was always asking questions and trying to learn more. One day I was chatting with a member of the staff when I was told the chief executive wanted to see me. To my great surprise I was asked if I would consider becoming a member of the trustee board!

I was very taken aback, as I thought being a trustee was only for retired or very experienced people. I decided to take up the role, as I was passionate about the work of the charity and honored to be asked. I am glad I did—it changed my life. As a trustee, I ended up being co vice-chair, company secretary, chairing the committee I had joined and getting involved in all sorts of things I would never have imagined, like helping plan the new building development for the charity.

(continued on page 2)

ALSO IN THIS ISSUE

EVENTS

September 21–22, 2017

Policy Governance® Boot Camp

— Grand Rapids, Michigan, USA

This two-day event aims to provide a thorough understanding of Policy Governance as a model for boards of directors.

For more information go to http://pgbootcamp.net/.

October 4, 2017

The OnTarget Board Members: 8 Indisputable Behaviors

— Mississauga, Ontario, Canada

The "8 Behaviors" is an approach to understanding best practices in governance that aims to enable your board to:

- reduce liability,
- increase transparency,
- improve accountability, and
- improve role clarity.

For more information go to http://cmraso.com/uw.htm.

October 11, 2017

Administrative Support (Board Secretary) Workshop

— Mississauga, Ontario, Canada

Designed for board secretaries (staff or board members/volunteers) who support their boards of directors by preparing and ensuring that the board's official documents are maintained properly.

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Encouraging

(continued from front page)

Early in my time as a new trustee I was lucky enough to go to a national trustee conference. It was my first time to be able to meet lots of trustees, and I was struck by how few of them were the same age as me. I thought to myself "If I can do this, surely lots of young people can"—and I decided to set up Young Charity Trustees.

We are now in our seventh year and I am continuing to campaign (see my latest article[3] for The Charity Commission for Northern Ireland).

Caroline: Can you describe what you got up to in your early days in the field of engaging young people in board leadership?

Alex: My first step was to set up a group on LinkedIn about the issue. Called Young Charity Trustees, it is still going strong; we now have more than four thousand members. The point of setting up the group was to bring people together around this issue and to learn if this was something that really needed attention.

I learned three crucial things:

1. It was definitely an issue. I discovered that the average age of trustees in England and Wales was 57 (I call this the "Heinz number").
2. At the same time, there were brilliant examples of young people on boards making a difference. For example, at the time there was a chair who wasn't even out of his teens.
3. There seemed to be a lack of awareness and confidence on both sides. Young people either didn't realize they could become trustees or didn't think charities would want them. Charities didn't think young people would be interested or weren't confident about involving them.

Over time I realized that my role, as well as generally bringing this issue to wider attention, was to act as a sort of "dating agency"—bringing fantastic young people together with brilliant charities so that they could create magic.

I began to make links to important people and organizations in this area. I found that there was a lot of good work already being done but that Young Charity Trustees helped to focus attention on the issue. I got involved with the working group for the annual Trustees' Week, organized by the Charity Commission. Through a kind contact, I also managed to meet the British Minister with responsibility for charities at the time.

Caroline: Have you found that people's attitudes to the idea of young people on boards has changed since then and, if so, how?

Alex: I wouldn't say that attitudes have changed exactly—I have generally always found that most people are receptive to the idea. What I would say is that three key things have happened:

1. The agenda has moved towards us a bit—over time more people have started to talk about this issue.
2. There is generally more going on in this area now, such as the International Young Governance Professionals Summit,[4] initiatives springing up in Scotland[5] and Wales[6] and this Young Trustees Guide.[7]
3. Charities are under even greater pressures now and need all the help they can get—so new blood joining charity boards is even more crucial.

Caroline: Are those who say that younger generations have become too narcissistic to care about the world beyond themselves right? If not, what evidence can you provide?

Alex: I think you will be unsurprised to hear that I think they are wrong!

I do believe that the pace of change in the world is seeing bigger gaps than before open between the generations. What young people want, what they have, and what they aspire to be are very different from previous generations. So it is not surprising that sometimes it may be harder for different generations to understand each other.

However, this does not mean that young people are too narcissistic to care. I have met so many incredible examples of young people making a difference on charity boards. Not only that, but most young people who are nervous about trying to be trustees are worried that they will harm causes that they care about—they think that they will somehow make a mistake that will negatively affect a charity they are passionate about, because of their inexperience.

Plus there are so many amazing young leaders in general: to give just two: John Loughton[8] and my wife, Nisha Kotecha.[9]

Caroline: What are the biggest remaining barriers?

Alex: The biggest barrier is lack of knowledge that it is possible. There are still so many young people who don't know that they can be on boards.

Lack of time/money investment in board diversity in general and governance in particular is also a big barrier. Charities and the charity sector don't always prioritize board leadership enough. Proper resources have to be allocated to the recruitment and training of trustees.

Failure to widen out to more types of young people is the third barrier I want to mention. I'd say that my biggest frustration in my role as the founder of Young Charity Trustees is that many of the young people I have helped to be trustees were generally doing well in their lives and careers anyway. I want trusteeship to be opened to young people from all walks of life and all social backgrounds. Charities support the most vulnerable people—but most trustees are not from vulnerable groups themselves. We are missing out on a lot of learning.

Caroline: Are you optimistic about removing those barriers?

Alex: Yes because:

- Progress is being made—I think that more and more charities are thinking about board diversity when they look for trustees.
- Funders are demanding it—more and more funders are interested in the composition of charity boards.
- The new generation of charity leaders is coming through, including people working in the charity sector—for example, I was a mentor for several years for an amazing program called Charityworks,[10] which helps talented young people get a start in the charity sector.

No because:

- Charities are under pressure and don't prioritize their boards even though doing so would help. People don't want to put their money where their mouth is—a lot of people say that board diversity is important but don't want to invest time and money to improve things. Also, there is still a lack of confidence both from young people and from charities.

Caroline: What is needed from whom to get to a real breakthrough?

Alex: There are three things I think would really help.

The first is greater understanding from charities of "What is good for the goose is good for the gander." When I recommend to charities about what would help young trustees, I am really talking about things (like induction, training) that all trustees deserve, whatever their age. The second is that I would love it if the really big charities could get involved in the campaign to get more young people on boards. Some of them are in touch with celebrities who would be credible to young people and really help to spread the word. Linked to the idea of spreading the word, I would like it if young people could be told in schools about all the amazing things that they can get involved in: as well as being trustees, things like being local councilors, members of Parliament, school governors, setting up their own organizations....

Caroline: How do you see your own future personal contribution?

Alex: Mainly, I just want to keep plugging away on these issues and encouraging the new generation to take over from me and lead in this area. I work hard to help people have a bigger impact on the world.[11] For example, one thing I really try to do is to enhance the ability of other people to communicate—whether it is simply sharing their work or helping show them new avenues to spread their message.[12]

I am planning to write a book about young trustees too—watch this space! ❑

Alex Swallow can be contacted at alexswallowconsulting@gmail.com.

Notes

1. Alex is The Influence Expert, helping people to grow their influence to increase their impact on the world. He is the author of the book *How to Become an Influencer*, which can be downloaded for free at his website. Alex is a social entrepreneur; as well as being the founder of Young Charity Trustees, he was chief executive of a national charity in London and promotes other initiatives in the charity sector, such as encouraging more people to work for charities. Along with his wife, he is a digital nomad—they have recently lived in Las Palmas, Berlin, Lisbon and Prague.

2. http://alexswallow.com/social-good/young-charity-trustees/.

3. http://www.ccni.blog/why-young-trustees-matter/.

4. https://iygp-summit.com/.

5. https://www.facebook.com/YoungTrusteesInScotland/.

6. https://twitter.com/ytrustees cymru.

7. https://www.cafonline.org/about-us/media-office/uncover-the-next-generation-of-charity-leaders.

8. https://www.youtube.com/watch?v=MDGqAPvVwbc.

9. https://www.linkedin.com/pulse/knowing-what-you-want-why-nisha-kotecha.

10. http://www.charity-works.co.uk/.

11. http://theinfluenceexpert.com/use-influence-impact-world/.

12. https://www.linkedin.com/pulse/100-linkedin-articles-key-lessons-alex-swallow.

Evaluating Your CEO on What Matters—and No More!

by Ted Hull

Board consultant and governance practitioner Ted Hull looks at CEO evaluation from the perspective of the Policy Governance® system.

Policy Governance seems to make so much sense. It's attractive to boards that want to identify the results their organization exists to produce in terms of knowing who will be better off in what way, and knowing what it's worth to produce those results. The concept of freeing up the CEO to use any means to accomplish these results or ends—excepting only those means that would compromise the values of the board, rather than wandering in and out of the minutia of operations is also appealing. Most boards even see the importance of monitoring the CEO's performance against the accomplishment of the board-stated ends and avoidance of the unacceptable means. The board has made it through the first year of using this new model of governing. Now it's time for the CEO's performance evaluation. So how does that work?

Someone on the board points out a policy that says *that the board will view the CEO's performance as identical to organizational performance, so that organizational accomplishment of board-stated ends and avoidance of board-proscribed means will be viewed as successful CEO performance.* It made sense to the board when the policy was developed, but how does that practically work when it's time to evaluate the CEO?

Suppose you want to have a fence built around your property. You want it constructed on your property line and in a way that doesn't violate any municipal codes or bylaws. You want the fence high enough to keep the dog in and the vagrants out. You might even mandate that it is built with cedar and not spruce or that all the fence boards must run vertically.

With those criteria in place and after interviewing a variety of fence builders, you decide to engage the one who has the expertise, experience, and demonstrated success in building fences. You've checked references and looked at fences that have already been built and you are confident this builder will do the job expertly, ethically and legally. A contract has been signed that outlines the terms of the agreement. Included in that contract are the location and height of the fence, the materials that will be used, and assurances that the posts will be in the ground to a depth equal to or greater than the industry standards of the local Fence Builders Association. The contract contains the terms of payment, including the amount as well as when certain portions of the payments will be made. Both parties agree that they know what to expect and will be satisfied when those expectations are met.

Now the job is completed. The dog isn't running away, the kids are corralled, and no one is poaching your cauliflower plants. And the bill is paid.

Now it's time for a performance evaluation. You are disappointed that the builder drove a Ford truck rather than a Toyota and you certainly wouldn't have used that brand of tools. You are upset with the tattoos on one of the helpers and the amount of time he took for coffee breaks.

If you think there is something wrong with this picture, you're right. The problem is that now you are evaluating the fence builder rather than the fence. So why do boards evaluate their CEO's job performance in ways they would accept as unreasonable in evaluating another individual?

To make sure that board members have really identified all their CEO evaluation criteria, I encourage them to create a list that assumes that all their policies have been fulfilled. The aim is to identify any still-unstated criteria and I call it the *"Yeah ... but what about...?" list*. Of course, this is a good list to have; but preparing it after the job is done (at least for the year) is not great timing. It should have been developed in the form of the board's ends and executive limitations policies prior to the job being started.

Let's go back to the analogy of our fence. If you are disappointed in the final result, it will likely relate to one of two reasons.

1. You Weren't Clear in Communicating Your Expectations

When you were deciding to have a fence built, you hopefully had a good idea what you wanted. You could envision what it would look like and what function it would perform long before you started looking for a builder. If you wanted privacy, you wouldn't have a chain-link fence built. If you have a swimming pool in your yard, you would want a fence that is high enough to ensure children won't wander into the yard, fall in the pool, and drown. But if you don't communicate that to the fence builder, don't be surprised if the fence doesn't accomplish the intended results, such as privacy for your family or safety for the neighborhood children.

It's your fence, your yard, and your money. You have every right and responsibility to make sure that the fence is built to your stated expectations, including it being done in a manner that is legally compliant and ethically responsible. Your municipality or county may have bylaws dictating how deep the posts need to be and the permits to ensure that underground cables aren't damaged. It may be that you aren't acquainted with the applicable bylaws. Don't worry; you don't need to be. You can ask the builder to provide you with evidence that all the relevant bylaws are being complied with.

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A Word in Your Ear

by Caroline Oliver, Editor, Board Leadership

EDITING *BOARD LEADERSHIP* is a pleasure and a privilege. Distinguishing the board's work of governance from managers' work in management is so vital if we are going to be able to ensure that the organizations in our midst function effectively and accountably to achieve great things. Duplication and confusion hobble us, obscuring our vision and hampering our ability to move forward toward it.

As you know, *Board Leadership* is constantly seeking innovation, and in this issue we talk about technology and youth—two great sources of innovation. But perhaps the biggest source of all is curiosity—the constant question: is there a better way? Because boards have been around for a long time, and because they tend to be populated by people who have been around a long time, perhaps the boardroom is not a place where curiosity naturally abounds. Asking questions of our CEOs in the name of due diligence is not the same as asking ourselves, "How could we as a board leadership team provide better leadership?" Nor is it the same as asking how our organization and its goals fit in with what the world as a whole needs and to what extent our future is bound up with the future of all those around us.

The big advances do not usually come from building step-by-step from where we are now—although sometimes that is just what is needed. The big advances usually come from looking at where we are now through a different lens.

Here are a few new lenses I can think of:

- What if we were to reinvent boards as the drivers of civil democracy?
- What if boards were to work from a much longer time horizon than they do today?
- What if board members were rotated between organizations in the same field?
- How could risk governance be completely revolutionized to increase effectiveness without bogging the staff and board down?
- Could board service be made a civic duty for which we are all trained?

The pages of *Board Leadership* give us the opportunity to explore questions big and small. I hope you will let me know about any questions you have that we can explore together. Just drop me a line: coliver@goodtogovern.com. ❑

Caroline Oliver can be contacted at coliver@goodtogovern.com.

FOOD FOR THOUGHT

"The real mechanism for corporate governance is the active involvement of the owners." ❑

Lou Gerstner, Lou Gerstner takes the gloves off: The IBM CEO on the turnaround—and on his critics. *Business Week* (November 18, 2002).

Thinking of publishing in* Board Leadership*? Contact managing editor Caroline Oliver for criteria at coliver@goodtogovern.com

WHEN WE SAY ...

BOARD LEADERSHIP'S mission is "to discover, explain, and discuss innovative approaches to board governance with the goal of helping organizations achieve effective, meaningful, and successful leadership to fulfill their missions."

Board Leadership aims to fulfill this mission by engaging its readers in a lively and illuminating inquiry into how board governance can be made more effective. This inquiry is based on three key assumptions:

- Boards exist to lead organizations; not merely monitor them.
- Effective board governance is not about either systems, structures, processes, theories, practices, culture, or behaviors—it is about all of them.
- Significant improvements are likely to come only through challenging the status quo and trying out new ideas in theory and in practice.

Uniquely among regular publications on board governance, *Board Leadership* primarily focuses on the job of board leadership as a whole, rather than on individual elements of practice within the overall job.

Over time, *Board Leadership* will provide a repository of different approaches to governance created through its regular "One Way to Govern" feature.

Here's what a few of the key terms we use mean to us:

- **Innovative:** Creating significant positive change.
- **Approaches to:** principles, theories, ideas, methodologies, and practices.
- **Board governance:** The job of governing whole organizations. ❑

Using Technology to Enrich Governance—What's Possible Now and What's Coming

By Ray Tooley

You will have noticed the growing number of applications that aim to help boards streamline their work. In this two-part article, Ray Tooley, CEO of OurBoardroom Technologies, helps us navigate the waters using his recent review of what's available. In the next issue of Board Leadership, *he will complete this review and look ahead to the radical advances coming our way.*

HUMAN BEINGS are tool-using creatures, so much so that, at one time, we thought we were the only species to use them. Since 1960, when Jane Goodall observed chimpanzees using a blade of grass as a tool to "fish" for termites, we have come to know that many mammals, cetaceans, birds, reptiles, and even insects use tools. We also know that elephants and other primates can actually manufacture tools that help in their survival.

Humans, however, have outdone themselves. We can live and travel almost anywhere we want (including plans for Mars). We don't fear predators (other than each other) and essentially have the means to feed ourselves (if we could only focus more on including everyone). We are healthier than ever. With the invention of computers and the means to connect them, we can communicate with each other no matter where we are and have an incredible ability to store, access, and share knowledge.

The tools we use today rely on technology to extend and enhance their usefulness. This two-part article will look at what tools and technology are available for boards today and will boldly predict what's coming in the future. It will pose some questions that may be difficult to answer but are important for the kind of new world we will live in.

Wikipedia defines "technology" as the "science of craft" (from the Greek *techne*, "art, skill, cunning of hand," and the suffix *logia*): the collection of techniques, skills, methods, and processes used for the accomplishment of objectives.

Why should we apply the "science of craft" to governance? The bottom line is that society will be better off with successful organizations. By maximizing the productivity of boards, we maximize organizational performance. The right tools can deliver the benefits of:

- sustainability—growth from a solid foundation;
- optimized human contribution—extracting everything we can from the skills, experience, and wisdom of people;
- decisions that are evidence-based—for informed judgment;
- role clarity—assigned and accepted accountability;
- time management—no time wasted;
- comprehensive—nothing overlooked by the board or staff;
- history—informs the future when easily accessible; and
- cost reduction—do more for less.

To help understand what's available for boards today and what's coming in the very near future, I have defined three classes of tools or applications of technology. Class I contains the large multitude of programs and websites that are available today from multiple vendors, all delivered over the Internet. We will look at their common feature set and pricing. Class II applications set a new standard of tool use and enhance the performance of the art and science of governing itself. Only one vendor currently provides this functionality, but I predict Class I tools will migrate to Class II over the next few years or risk obsolescence. Class III applications are currently not available but represent a revolution that's about to happen much sooner than we think.

What's Available Today—Class I Applications

Class I tools can essentially be described as delivering secure, consistent, and accessible document management. Information is usually accessed through a standard browser. All documentation is available in a familiar location for immediate viewing and future reference. This organization of data not only represents a significant step up from the physical delivery of "board packages" via paper and courier, but is also a step above the electronic distribution of board documentation via email. Board and staff no longer have to reinvent local storage and retrieval systems on their own personal computers. A PC is used as a "portal" to access documents that have been posted and can be accessed wherever users are located from most available computers. Boards also need task management and calendar functions, and these are included in Class I apps.

In addition, Class I vendors have a wide range of variations of the basic features of basic document upload/download, task, and calendar functionality. They use these differences to justify their uniqueness in the market in the hopes of convincing boards to purchase their product. A good strategy in assessing Class I products is to get several vendor-led demonstrations of the product. Simply "playing" with a demo or free version of a system can lead to many hours of time not well spent in building a mental understanding of how a system works. Comparisons between vendors combined with knowing how your board works will make a buying decision easier. Lists of features for comparison between vendors can sometimes be useful for assessment, but nothing substitutes getting a clear expert-led example of how a system will actually be used.

Pricing of Class I Applications

Pricing, of course, depends on each vendor but is usually based on three different approaches: a price per user per year, a price for the board with an additional cost for each committee, or by user "blocks," usually containing up to 25 people. Most pricing will include training, support, and product upgrades in addition to hosting the system with back-end management functions provided at no extra cost. Some vendors will also allow users to host a version of their software on local servers, but this can add incremental cost for management and administration.

Class I vendors, of which 14 were considered in my recent review, fall into three price ranges. I based a price comparison on a typical number of users (25) over a period of one year. Here are the results (with the number of vendors in brackets):

Lower Pricing (6): $2,000 to $6,000 per year

Mid Pricing (4): $6,000 to $15,000 per year

High Pricing (4): $15,000 to $28,750+ per year

Note: these prices are subject to change and may not reflect current rates. Some vendors do not provide publicly available pricing, so alternate sources have been used. Please check with each vendor for pricing for your specific board configuration. I have included a list of vendors considered in the second part of this article, to appear in the next *Board Leadership*.

Class I—Challenges/Opportunities

Document storage applications are mature in their implementation but have some serious shortcomings in supporting board governing operations. The documents provided are at the discretion of the person doing the uploading and may or may not have a clearly defined purpose. Even if a document is provided for "approval," it may not be clear what criteria should be used in that approval. Documents are usually provided in PDF or Word format, which makes them non-interactive. For example, a change to a board's published policies usually means a whole new document must be generated and posted. Almost all history of policy changes is lost unless a large effort is undertaken to compare old and new policy documents. In short, simple document storage and retrieval most likely does not take into account a clear governance purpose such as:

- what the organization is to achieve (what benefits for whom and at what worth),
- performance reports that deliver a high confidence of achievement and are rigorous and reasonable,
- a comprehensive Risk Governance framework,
- all-inclusive governance process documentation with self-monitoring, and
- content that is incidental information versus that requiring specific board decisions.

Additionally, board history stored in PDF or Word documents is almost as inaccessible as the proverbial 6-foot-high stack of board paper packages from years of meetings. Even electronic PDF and Word search capability does not yield results that are classified by governance purpose in Class I systems.

Of course some of these challenges with Class I offerings might be overcome with clever organization of material, but most cannot. What is the solution?

In part 2 of this article, which will appear in the next issue of *Board Leadership*, I will describe the next wave of offerings (what I am calling Class II), give you more details of the various apps I have reviewed, and offer some thoughts about the radical developments on the way as a result of artificial intelligence. ❑

Ray Tooley can be contacted at rtooley@ourboardroom.net.

Events

(continued from front page)

For more information go to http://cmraso.com/uw.htm.

October 19, 2017

Introduction to Policy Governance

— Helena, Montana, USA

For new and continuing board members or executives of boards using Policy Governance who want to get up to speed with, or refresh their understanding of, the governance process used by their boards as well as for board members or executives of organizations not currently using Policy Governance who would like to know how it works.

For more information go to https://www.eply.com/IntroductiontoPolicyGovernanceHelena1910023.

October 19–20, 2017

BoardSource Leadership Forum

— Seattle, Washington, USA

Plenary sessions, workshops, discussions, presentations, and networking for nonprofit board members, chief executives, staff, and nonprofit professionals to learn how to guide their organizations toward greater impact and mission.

For more information, go to www.boardsource.org. ❑

Evaluating Your CEO

(continued from page 4)

The same is true for the communication between your board and your CEO. If you haven't clearly stated the expectations to your CEO, don't be surprised if those vague expectations aren't met. If there is a mist in the boardroom, there will be a fog in the CEO's office. The message must be delivered clearly and unequivocally.

And about that fence: make sure the builder knows how any agreements are communicated and by whom. All arrangements must be in writing and signed by you. Verbal commitments don't count, and any directions regarding the job shouldn't be given by your 10-year-old, and if they are, they shouldn't be heeded by the builder.

In the same way, your CEO must know that expectations are only provided through duly passed motions of the board. In the same way that you as a homeowner are ultimately responsible for the construction of the fence, your board holds the final responsibility for the organization.

So now—assuming that you have communicated clearly and completely—there should be nothing left on your *but-what-about list*.

2. You Didn't Make Sure That Your Expectations Were Met

Remember we mentioned that it is your fence. You are ultimately responsible if the fence isn't built to your clearly stated expectations. So don't go away for six weeks and leave the final payment with your neighbor. If you don't regularly and frequently monitor the project based on your stated expectations, don't be upset if it doesn't go according to plan. That's called delegating and abdicating. And while you think that might go without saying, many boards do just that. They knew what results they wanted and what they didn't want to see happen and they communicated it—but they never monitored the process until the job was finished.

So go ahead. Spend some time as a board going over your but-what-about list before the CEO starts the job or at least when you are developing your policies. Ask these questions of yourself as a board: *If we came to the end of the year and we were disappointed with what was or what was not accomplished or in the ways it was done, what would those disappointments be? What would we wish we had said up front?* And then answer those questions proactively—at the beginning—now!

A few words of caution, however. If every board member's means preferences were to be included in the board's executive limitations, the CEO would have little chance of achieving your ends any time soon. The idea is to set limits in a way that empowers great CEO performance rather than bogs it down. No limitation should be imposed unless it is agreed upon by a majority of the board as essential, having taken account of all the board's existing policy that relates to the issue at hand. The next step is to monitor the results with regularity and rigor. Policy Governance provides a powerful technology for monitoring that I would encourage all boards to consider.

Let me warn you that there may still be a few but-what-about lists. They will likely be created by rogue board members who have their personal preferences that weren't met. It's those lists that shredders are created for.

Every analogy breaks down, but hopefully this one makes a point. The analogy of hiring a contractor to build a fence around your property is much less complex than setting expectations of a CEO. However, there are some common basic principles we have looked at. They both require foresight, planning, and monitoring. When those are in place, all that is left is an evaluation of your clearly stated expected results and making sure that any unacceptable means used in achieving those results were not used. When you have done that as a board, the year-end evaluation will have no surprises for your board or your CEO. ❑

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A list of Policy Governance resources can be found at https://www.policygovernanceassociation.org/resources/newsletters-a-books.html.

BOARD LEADERSHIP
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