ND STATE INVESTMENT BOARD MEETING

Friday, August 28, 2015, 8:30 a.m.
Peace Garden Room, State Capitol
600 E Blvd., Bismarck, ND

I. APPROVAL OF AGENDA

II. APPROVAL OF MINUTES (JULY 24, 2015)

III. INVESTMENTS

A. Asset and Performance Overview - Mr. Hunter (enclosed) (15 min) *(Informational)*
B. Capital Group Watch List Recommendation - Mr. Schulz (enclosed) (5 min) **(Board Action)**
C. U.S. Small Cap Equity - Mr. Hunter (enclosed) (15 min) **(Board Action)**
D. Job Service De-Risking Strategy - Mr. Schulz (enclosed) (15 min) **(Board Action)**
E. NDBA Meeting Update - Mr. Hunter (to follow) (10 min) *(Informational)*
F. Tobacco Free Trust Fund - Mr. Schulz (enclosed) (15 min) **(Board Action)**

IV. BOARD EDUCATION *(Informational)*

A. Recommended Options (Callan College, Industry Conferences) - Mr. Howard (enclosed) (5 min)
B. Asset Class Definitions / Glossary - Mr. Hunter (enclosed) (5 min)

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

V. MONITORING REPORTS (Board Acceptance Needed)

A. Trust Performance Measurement June 30, 2015 - Mr. Howard (enclosed) (45 min)
B. Budget Stabilization Fund Investment Policy Statement - Mr. Hunter (enclosed) (15 min)

VI. QUARTERLY MONITORING - 6/30/15 (enclosed) (Questions Only - Board Acceptance) (5 min)

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

VII. ADMINISTRATION (enclosed) (5 min)

A. Strategic Investment Beliefs including Transparency - Mr. Hunter *(Informational)*

VIII. OTHER

Next Meeting: SIB meeting - September 25, 2015, 8:30 a.m. - Ft. Union Room
SIB Audit Committee meeting - September 25, 2015, 1:00 p.m. - Ft. Union Room

IX. 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 24, 2015, BOARD MEETING

MEMBERS PRESENT:
Drew Wrigley, Lt. Governor, Chair
Mike Sandal, Vice Chair
Lance Gaebe, Land Commissioner
Mike Gessner, TFFR Board
Rob Lech, TFFR Board
Mel Olson, TFFR Board
Kelly Schmidt, State Treasurer
Yvonne Smith, PERS Board
Cindy Ternes, WSI designee
Kim Wassim, PERS Board

MEMBERS ABSENT:
Adam Hamm, Insurance Commissioner

STAFF PRESENT:
Eric Chin, Investment Analyst
Connie Flanagan, Fiscal & Invt Op Mgr
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
Shelly Schumacher, Retirement Program Mgr

GUESTS PRESENT:
Keith Ambachtsheer, KPA Advisory Services
Mike Burton, TFFR Board
Kim Franz, TFFR Board
Shari Haugan Hoffart, Treasurer's Office
Wally Keller, WSI Board
Bobbie Ripplinger, WSI Board
Karel Sovak, WSI Board
Jan Murtha, Attorney General's Office
Daniel Wassim, Intern, Attorney General's Office

CALL TO ORDER:

Lt. Governor Wrigley called the State Investment Board (SIB) meeting to order at 8:30 a.m. on Friday, July 24, 2015, at the University of Mary, Harold Schafer Leadership Center, Bismarck, ND.

AGENDA:

IT WAS MOVED BY MR. OLSON AND SECONDED BY MR. GESSNER AND CARRIED ON A VOICE VOTE TO ACCEPT THE AGENDA FOR THE JULY 24, 2015, MEETING AS DISTRIBUTED.

AYES: TREASURER SCHMIDT, MR. GESSNER, MS. TERNES, COMMISSIONER GAEBE, MS. SMITH, MR. LECH, MR. SANDAL, MS. WASSIM, MR. OLSON, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

MINUTES:

IT WAS MOVED BY MS. TERNES AND SECONDED BY MS. SMITH AND CARRIED ON A VOICE VOTE TO APPROVE THE JUNE 26, 2015, MINUTES AS DISTRIBUTED.

AYES: MS. SMITH, MR. SANDAL, MR. OLSON, MR. GESSNER, MR. LECH, MS. WASSIM, MS. TERNES, COMMISSIONER GAEBE, TREASURER SCHMIDT, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

ELECTION OF OFFICERS:

IT WAS MOVED BY MR. GESSNER AND SECONDED BY MS. TERNES THAT LT. GOVERNOR WRIGLEY CONTINUE IN HIS ROLE AS CHAIR OF THE SIB FOR THE PERIOD OF JULY 1, 2015 – JUNE 30, 2016.

IT WAS MOVED BY COMMISSIONER GAEBE AND SECONDED BY MR. OLSON AND CARRIED ON A VOICE VOTE TO CEASE NOMINATIONS AND CAST A UNANIMOUS BALLET FOR LT. GOVERNOR WRIGLEY TO CONTINUE TO SERVE AS CHAIR.

AYES: MS. WASSIM, TREASURER SCHMIDT, MR. OLSON, COMMISSIONER GAEBE, MR. LECH, MR. SANDAL, MR. GESSNER, MS. SMITH, MS. TERNES, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

IT WAS MOVED BY TREASURER SCHMIDT THAT MR. SANDAL CONTINUE IN HIS ROLE AS VICE CHAIR OF THE SIB FOR THE PERIOD OF JULY 1, 2015 – JUNE 30, 2016.

IT WAS MOVED BY COMMISSIONER GAEBE AND SECONDED BY MS. SMITH TO CEASE NOMINATIONS AND CAST A UNANIMOUS BALLET FOR MR. SANDAL AS VICE CHAIR.

AYES: COMMISSIONER GAEBE, TREASURER SCHMIDT, MR. SANDAL, MR. OLSON, MS. TERNES, MR. GESSNER, MS. WASSIM, MR. LECH, MS. SMITH, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

IT WAS MOVED BY TREASURER SCHMIDT TO NOMINATE MR. LECH AS PARLIAMENTARIAN.

Lt. Governor Wrigley reappointed Mr. Lech as parliamentarian for the period of July 1, 2015 – June 30, 2016.

AUDIT COMMITTEE:

Mr. Hunter stated the current members of the SIB Audit Committee Mr. Sandal, Mr. Gessner, Ms. Ternes, Ms. Dorwart, and Ms. Riedman have done an outstanding job during the past year and are willing to continue to serve for the period of July 1, 2015 – June 30, 2016. 1480

IT WAS MOVED BY MS. SMITH AND SECONDED BY MS. WASSIM AND CARRIED BY A ROLL CALL VOTE TO CONTINUE WITH THE CURRENT MEMBERSHIP OF THE SIB AUDIT COMMITTEE.

AYES: MR. OLSON, MS. WASSIM, COMMISSIONER GAEBE, MR. GESSNER, MS. SMITH, MR. SANDAL, TREASURER SCHMIDT, MS. TERNES, MR. LECH, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

INVESTMENTS:

Tobacco Prevention/Control Trust Fund – Mr. Hunter presented an investment policy statement for the Tobacco Prevention and Control Trust Fund for the board's consideration. The investment policy statement was modified to more clearly define the client's investment intent for the tobacco free restriction.

IT WAS MOVED BY MR. GESSNER AND SECONDED BY MR. SANDAL AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE INVESTMENT POLICY STATEMENT FOR THE TOBACCO PREVENTION AND CONTROL TRUST FUND.

AYES: MS. TERNES, MR. OLSON, TREASURER SCHMIDT, COMMISSIONER GAEBE, MS. WASSIM, MR. LECH, MR. SANDAL, MS. SMITH, MR. GESSNER, AND LT. GOVERNOR WRIGLEY
NAYS: MOTION CARRIED
ABSENT: COMMISSIONER HAMM

GOVERNANCE:

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.

Investment Manager Catalog – Board members were provided a listing of each of the current as well as previous investment managers and their mandates. The Board requested a listing of only the open accounts but still maintain a combined listing of both the open/closed accounts.

Planning Cycle/Meeting Schedule – The board was provided a planning calendar for Fiscal Years 2016 and 2017, and a 2015-16 meeting schedule for planning and reference purposes.

Governance Education – Mr. Keith Ambachtsheer, KPA Advisory Services, reviewed with the board a 2014 survey based study, which was conducted by himself and several colleagues on the effectiveness of pension fund governance.

The board recessed at 10:35 a.m. and reconvened at 10:50 a.m.

Mr. Ambachtsheer's second session focused on survey results on the effectiveness of long-horizon investment attitudes and practices.

OTHER:

Ms. Murtha reviewed a lawsuit which was recently filed by unsecured creditors against the holders of a General Motors (GM) term loan that was

repaid after GM filed for bankruptcy in 2009. The SIB's Pension Trust was a holder of the GM term loan via a Wells Capital Management (WCM) investment. The lawsuit claims that the holders of the GM term loan should not have been fully repaid and are seeking repayment of certain amounts paid to such holders.

Ms. Murtha will bring back information regarding options for outside counsel for the board's consideration at a future meeting.

ADJOURNMENT: 1481

With no further business to come before the SIB, Lt. Governor Wrigley adjourned the meeting at 11:58 p.m.

_____
Lt. Governor Wrigley, Chair
State Investment Board

_____
Bonnie Heit
Assistant to the Board

State Investment Board

Asset and Investment Performance Overview

August 24, 2015

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 6/30/15 [1]	Market Values as of 6/30/14 [2]
Pension Trust Fund		
Public Employees Retirement System (PERS)	2,422,579,596	2,332,744,037
Teachers' Fund for Retirement (TFFR)	2,103,807,352	2,061,684,912
Job Service of North Dakota Pension	96,392,560	97,825,769
City of Bismarck Employees Pension	81,745,818	78,804,326
City of Grand Forks Employees Pension	59,232,374	57,896,611
City of Bismarck Police Pension	35,889,943	34,643,204
Grand Forks Park District	6,035,137	5,938,993
City of Fargo Employees Pension	1,461	9,702
Subtotal Pension Trust Fund	**4,805,684,242**	**4,669,547,555**
Insurance Trust Fund		
Legacy Fund		2,215,941,142
Workforce Safety & Insurance (WSI)	1,762,659,137	1,703,987,980
Budget Stabilization Fund	574,011,150	586,199,881
City of Fargo FargoDome Permanent Fund	41,007,046	41,775,992
PERS Group Insurance Account	39,653,686	37,425,567
State Fire and Tornado Fund	23,416,231	29,223,707
Petroleum Tank Release Compensation Fund	7,162,837	7,092,998
State Risk Management Fund	6,849,216	6,948,162
State Risk Management Workers Comp Fund	6,224,541	5,965,322
ND Association of Counties (NDACo) Fund	3,833,499	3,445,373
State Bonding Fund	3,180,024	3,268,991
Insurance Regulatory Trust Fund	2,636,660	1,146,038
ND Board of Medical Examiners	2,174,702	1,889,897
Bismarck Deferred Sick Leave Account	872,178	849,818
Cultural Endowment Fund	383,050	364,979
Subtotal Insurance Trust Fund	**2,474,063,957**	**4,645,525,847**
Legacy Trust Fund		
Legacy Fund	3,328,631,302	
PERS Retiree Insurance Credit Fund	97,671,059	90,360,366
Total Assets Under SIB Management	**10,706,050,560**	**9,405,433,768**

[1] *6/30/15 market values are unaudited and subject to change.*

[2] *6/30/14 market values as stated in the Comprehensive Annual Financial Report.*

- SIB Client Assets Under Management grew by approximately 14% or $1.3 billion in the last year.
- The Pension Trust posted a net return of 3.5%, while the Insurance Trust generated a 2.3% net return in the last year. Investments were responsible for gains of $164 million for the Pension Trust and $58 million for the Insurance Trust excluding Legacy Fund assets.
- Legacy assets increased by 50% (or $1.1 billion) primarily due to tax collections, although net returns were 3.3% for the year ended June 30, 2015.
- SIB client assets exceeded $10.7 billion based on unaudited valuations as of June 30, 2015.

Client Level Return & Risk Summary – June 30, 2015

Overview: **Pursuant to Section D.3 of the SIB Governance Manual**, SIB clients should receive investment returns consistent with their investment policies and market variables. This "End" is evaluated based on comparison of each client's actual net rate of return, standard deviation and risk adjusted excess return, to the client's policy benchmark over a minimum period of 5 years. The following five pages summarizes actual client level returns (net of fees), for the 1-, 3- and 5-year periods ended June 30, 2015. In order to determine relative performance, actual returns (net of fees) are compared to the policy benchmark for each relevant period. Risk metrics (standard deviation and risk adjusted excess return) are also reported for each SIB client, if applicable, for the 5-year period ended June 30, 2015.

Pension Trust: **All Pension Trust clients generated positive Excess Returns for the 1-, 3- and 5-year periods ended June 30, 2015, as summarized on the following two pages.** Over the past year, PERS and TFFR generated a net return of approximately 3.5% which exceeded the policy benchmark by over 1.36%. **Based on $4.44 billion of total assets for PERS and TFFR, this translates into $60 million of incremental income for the State's two largest pension plans in the last year** (e.g. $4.44 billion x 1.36% = $60 million). *The main drivers of excess returns in the overall Pension Trust were World Equity (0.49%), Domestic Fixed Income (0.40%), U.S. Equity (0.34%), International Equity and Fixed Income (0.23%) and Real Estate (0.18%), with Timber (-0.30%) representing the largest detractor during the past year.* **Risk Adjusted Excess Returns** for the five-years ended June 30, 2015 were positive for all current Pension Trust clients with one exception for the Grand Forks Park District Plan (which still generated a 11.1% return over the last along with 0.59% of excess return over the past five-years).

Insurance Trust: **All Insurance Trust clients generated positive Excess Returns for the 1-, 3- and 5-year periods ended June 30, 2015, with two 1-year exceptions for PERS Retiree Heath and PERS Group Insurance**. The PERS Retiree Health Insurance Credit Fund ($96 million) and Group Insurance Fund ($41 million) experienced negative excess returns of 0.51% and 0.01%, respectively, in the past year. Both funds had positive excess return for the 3- and 5-year periods ended June 30, 2015. RIO and PERS are reviewing the asset allocation for Group Insurance based on changing liquidity requirements. *The top two drivers of excess returns in the Insurance Trust were Domestic Fixed Income (0.23%) and Real Estate (0.17%), while the top three drivers of excess return in the Legacy Fund were International Equity (0.45%), U.S. Large Cap Equity (0.36%) and Real Estate (0.15%), over the last year.* **Risk Adjusted Excess Returns** were positive for all but one Insurance Trust client for the five-year period ended June 30, 2015.

Actual asset allocations are within Target ranges and guidelines as confirmed by Callan Associates as of June 30, 2015.

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

Pension Trust Return & Risk Summary – June 30, 2015

Returns and Risk: Every single Pension Trust client portfolio generated positive "Excess Return" over the last 1-, 3- and 5-year periods ended June 30, 2015, while adhering to prescribed risk levels (i.e. < 115% of policy) **with no exceptions.**

	1 Yr Ended 6/30/2015	3 Yrs Ended 6/30/2015	5 Yrs Ended 6/30/2015	Risk 5 Yrs Ended 6/30/2015	Risk Adj Excess Return 5 Yrs Ended 6/30/2015
PERS (Main Plan)					
$ 2,401,309,136					
Total Fund Return - Net	**3.53%**	**10.98%**	**10.61%**	7.9%	**0.22%**
Policy Benchmark Return	2.16%	9.73%	10.00%	7.6%	
EXCESS RETURN	**1.38%**	**1.25%**	**0.61%**	**103.8%**	
TEACHERS' FUND FOR RETIREMENT (TFFR)					
$ 2,090,299,471					
Total Fund Return - Net	**3.52%**	**11.06%**	**10.94%**	7.9%	**0.57%**
Policy Benchmark Return	2.16%	9.78%	9.97%	7.6%	
EXCESS RETURN	**1.36%**	**1.28%**	**0.97%**	**103.8%**	
CITY OF BISMARCK EMPLOYEES PENSION					
$ 81,230,926					
Total Fund Return - Net	**3.69%**	**10.12%**	**10.29%**	6.9%	**0.55%**
Policy Benchmark Return	2.31%	8.59%	9.37%	6.6%	
EXCESS RETURN	**1.38%**	**1.53%**	**0.92%**	**103.8%**	

Pension Trust Return & Risk Summary – June 30, 2015

	1 Yr Ended 6/30/2015	3 Yrs Ended 6/30/2015	5 Yrs Ended 6/30/2015	Risk 5 Yrs Ended 6/30/2015	Risk Adj Excess Return 5 Yrs Ended 6/30/2015
CITY OF BISMARCK POLICE PENSION					
$ 35,631,338					
Total Fund Return - Net	**3.56%**	**10.50%**	**10.61%**	7.4%	**0.54%**
Policy Benchmark Return	2.23%	9.07%	9.81%	7.2%	
EXCESS RETURN	**1.33%**	**1.44%**	**0.80%**	**102.5%**	
JOB SERVICE					
Total Fund Return - Net	**3.30%**	**9.43%**	**9.47%**	6.0%	**0.63%**
Policy Benchmark Return	1.59%	7.38%	8.33%	5.7%	
EXCESS RETURN	**1.71%**	**2.05%**	**1.14%**	**105.7%**	
CITY OF GRAND FORKS PENSION PLAN					
$ 56,504,623					
Total Fund Return - Net	**3.53%**	**11.15%**	**11.04%**	7.98%	**0.40%**
Policy Benchmark Return	2.23%	9.90%	10.36%	7.78%	
EXCESS RETURN	**1.30%**	**1.25%**	**0.68%**	**102.6%**	
GRAND FORKS PARK DISTRICT PENSION PLAN					
$ 6,033,693					
Total Fund Return - Net	**4.22%**	**11.57%**	**11.12%**	8.18%	**-0.15%**
Policy Benchmark Return	2.89%	10.27%	10.54%	7.63%	
EXCESS RETURN	**1.33%**	**1.29%**	**0.59%**	**107.2%**	

Risk Adjusted Excess Returns for the five-years ended June 30, 2015 were positive for all Pension Trust clients with one exception - the Grand Forks Park District Plan (which still generated 0.59% of excess return over the past five-years).

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.

Insurance Trust Return & Risk Summary – June 30, 2015

	1 Yr Ended 6/30/2015	3 Yrs Ended 6/30/2015	5 Yrs Ended 6/30/2015	Risk 5 Yrs Ended 6/30/2015	Risk Adj Excess Return 5 Yrs Ended 6/30/2015
WORKFORCE SAFETY & INSURANCE (WSI)					
$ 1,770,406,238					
Total Fund Return - Net	**3.27%**	**7.71%**	**8.48%**	**3.9%**	**1.24%**
Policy Benchmark Return	2.65%	5.48%	6.69%	**3.6%**	
EXCESS RETURN	**0.61%**	**2.22%**	**1.78%**		
LEGACY FUND					
$ 3,194,769,809					
Total Fund Return - Net	**3.31%**	**3.69%**	**N/A**	**N/A**	**N/A**
Policy Benchmark Return	2.37%	2.73%	N/A	**N/A**	
EXCESS RETURN	**0.94%**	**0.96%**			
BUDGET STABILIZATION FUND					
$ 595,135,717					
Total Fund Return - Net	**1.86%**	**1.89%**	**2.28%**	**0.7%**	**0.32%**
Policy Benchmark Return	0.75%	0.55%	0.42%	**0.2%**	
EXCESS RETURN	**1.11%**	**1.34%**	**1.86%**		
FIRE & TORNADO FUND					
$ 25,431,804					
Total Fund Return - Net	**3.16%**	**8.76%**	**9.11%**	**5.3%**	**0.46%**
Policy Benchmark Return	2.49%	6.57%	7.15%	**4.4%**	
EXCESS RETURN	**0.67%**	**2.19%**	**1.95%**		

Returns and Risk: Actual investment returns of every Insurance Trust client exceeded their performance benchmarks for the five-years ended June 30, 2015 (if applicable). These "Excess Returns" were achieved while adhering to reasonable risk levels which were generally within 100 bps of policy levels.

Note: Excess Return values for WSI and the Legacy Fund were impacted by asset allocation changes in the last year.

Insurance Trust Return & Risk Summary – June 30, 2015

	1 Yr Ended 6/30/2015	3 Yrs Ended 6/30/2015	5 Yrs Ended 6/30/2015	Risk 5 Yrs Ended 6/30/2015	Risk Adj Excess Return 5 Yrs Ended 6/30/2015
STATE BONDING FUND					
$ 3,339,532					
Total Fund Return - Net	**1.25%**	**2.75%**	**3.71%**	**2.0%**	**1.31%**
Policy Benchmark Return	1.04%	1.04%	1.88%	**1.7%**	
EXCESS RETURN	**0.21%**	**1.71%**	**1.83%**		
INSURANCE REGULATORY TRUST FUND (IRTF)					
$ 658,357					
Total Fund Return - Net	**2.04%**	**6.75%**	**6.90%**	**4.5%**	**0.32%**
Policy Benchmark Return	1.75%	5.33%	5.59%	**3.8%**	
EXCESS RETURN	**0.29%**	**1.42%**	**1.30%**		
PETROLEUM TANK RELEASE COMPENSATION FUND					
$ 7,232,124					
Total Fund Return - Net	**1.13%**	**2.42%**	**3.41%**	**1.8%**	**1.23%**
Policy Benchmark Return	0.94%	0.95%	1.71%	**1.5%**	
EXCESS RETURN	**0.19%**	**1.47%**	**1.69%**		
STATE RISK MANAGEMENT FUND					
$ 6,929,517					
Total Fund Return - Net	**4.08%**	**8.80%**	**9.65%**	**4.8%**	**0.36%**
Policy Benchmark Return	3.46%	6.41%	7.46%	**3.9%**	
EXCESS RETURN	**0.62%**	**2.39%**	**2.19%**		
STATE RISK MANAGEMENT WORKERS COMP FUND					
$ 6,290,439					
Total Fund Return - Net	**4.57%**	**9.88%**	**10.62%**	**5.7%**	**0.39%**
Policy Benchmark Return	3.88%	7.55%	8.53%	**4.8%**	
EXCESS RETURN	**0.69%**	**2.33%**	**2.09%**		
ND ASSOCIATION OF COUNTIES FUND (NDACo)					
$ 3,562,951					
Total Fund Return - Net	**2.77%**	**7.88%**	**8.49%**	**6.1%**	**0.61%**
Policy Benchmark Return	2.16%	5.73%	6.58%	**5.1%**	
EXCESS RETURN	**0.61%**	**2.15%**	**1.91%**		

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: Every Insurance Trust client generated positive Risk Adjusted Excess Return over the past 5-years, with one exception for PERS Retiree Health Insurance Credit Fund (on the next page).

Insurance Trust Return & Risk Summary – June 30, 2015

	1 Yr Ended 6/30/2015	3 Yrs Ended 6/30/2015	5 Yrs Ended 6/30/2015	Risk 5 Yrs Ended 6/30/2015	Risk Adj Excess Return 5 Yrs Ended 6/30/2015
CITY OF BISMARCK DEFERRED SICK LEAVE ACCOUNT					
$ 881,132					
Total Fund Return - Net	**2.95%**	**8.29%**	**8.84%**	**4.8%**	**0.44%**
Policy Benchmark Return	2.31%	5.88%	6.62%	**3.8%**	
EXCESS RETURN	**0.65%**	**2.42%**	**2.22%**		
FARGODOME PERMANENT FUND					
$ 41,752,458					
Total Fund Return - Net	**3.38%**	**10.92%**	**10.89%**	**7.6%**	**0.54%**
Policy Benchmark Return	2.57%	8.94%	9.34%	**6.9%**	
EXCESS RETURN	**0.81%**	**1.98%**	**1.55%**		
CULTURAL ENDOWMENT FUND					
$ 383,865					
Total Fund Return - Net	**5.22%**	**12.46%**	**12.55%**	**8.0%**	**0.59%**
Policy Benchmark Return	4.24%	10.38%	10.69%	**7.2%**	
EXCESS RETURN	**0.98%**	**2.08%**	**1.85%**		
BOARD OF MEDICAL EXAMINERS					
$ 2,168,964					
Total Fund Return - Net	**2.70%**				**N/A**
Policy Benchmark Return	1.84%				
EXCESS RETURN	**0.86%**				
PERS RETIREE HEALTH					
$ 96,499,236					
Total Fund Return - Net	**3.06%**	**11.30%**	**11.47%**	**8.6%**	**-0.22%**
Policy Benchmark Return	3.57%	10.51%	10.85%	**8.0%**	
EXCESS RETURN	**-0.51%**	**0.79%**	**0.62%**		
PERS GROUP INSURANCE					
$ 41,205,242					
Total Fund Return - Net	**0.01%**	**0.10%**	**0.17%**	**0.1%**	**0.04%**
Policy Benchmark Return	0.02%	0.06%	0.08%	**0.0%**	
EXCESS RETURN	**-0.01%**	**0.03%**	**0.09%**		

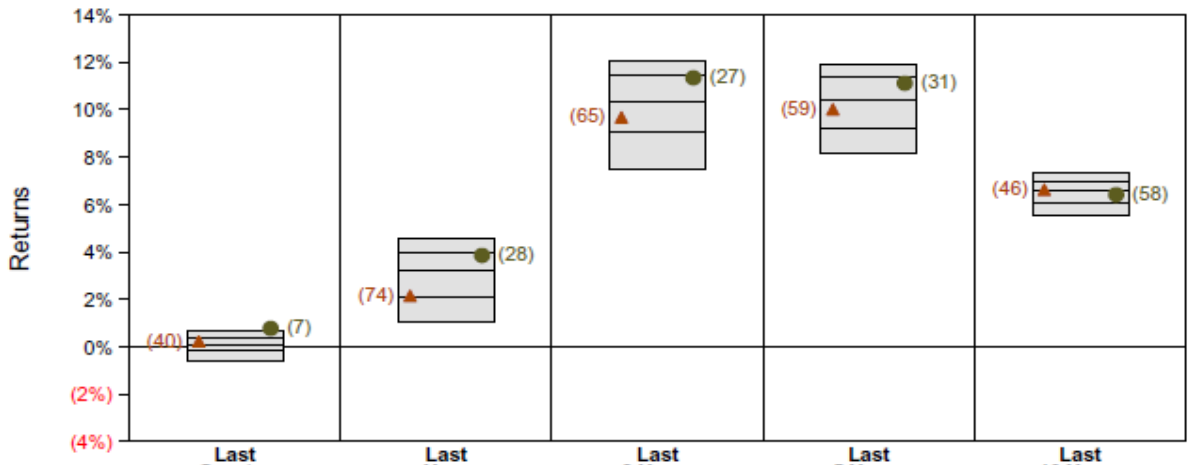
PERS Retiree Heath and PERS Group Insurance did not generate positive "Excess Return" over the past year, although 3- and 5-year performance was consistent with expectations.

Note: Every Insurance Trust client generated positive Risk Adjusted Excess Return over the past 5-years (if applicable), excluding the PERS Retiree Health Insurance Credit Fund which still posted a net return of 11.47% and excess return of 0.62% over the last 5-years.

Peer Performance - Pension Trust Total Fund Ranking (Unadjusted)

The chart displays the ranking of the Total Pension Fund's performance relative to that of the Public Fund Sponsor Database for periods ended June 30, 2015, **without any adjustment for the historical asset allocations** of the Total Pension Fund (versus other public fund sponsors).

Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.64	4.57	12.03	11.93	7.35
25th Percentile	0.39	3.94	11.46	11.35	6.98
Median	0.10	3.21	10.30	10.42	6.57
75th Percentile	(0.18)	2.10	9.08	9.17	6.07
90th Percentile	(0.58)	1.01	7.46	8.13	5.53
Total Fund ●	0.78	3.85	11.34	11.11	6.41
Policy Target ▲	0.23	2.15	9.67	10.01	6.62

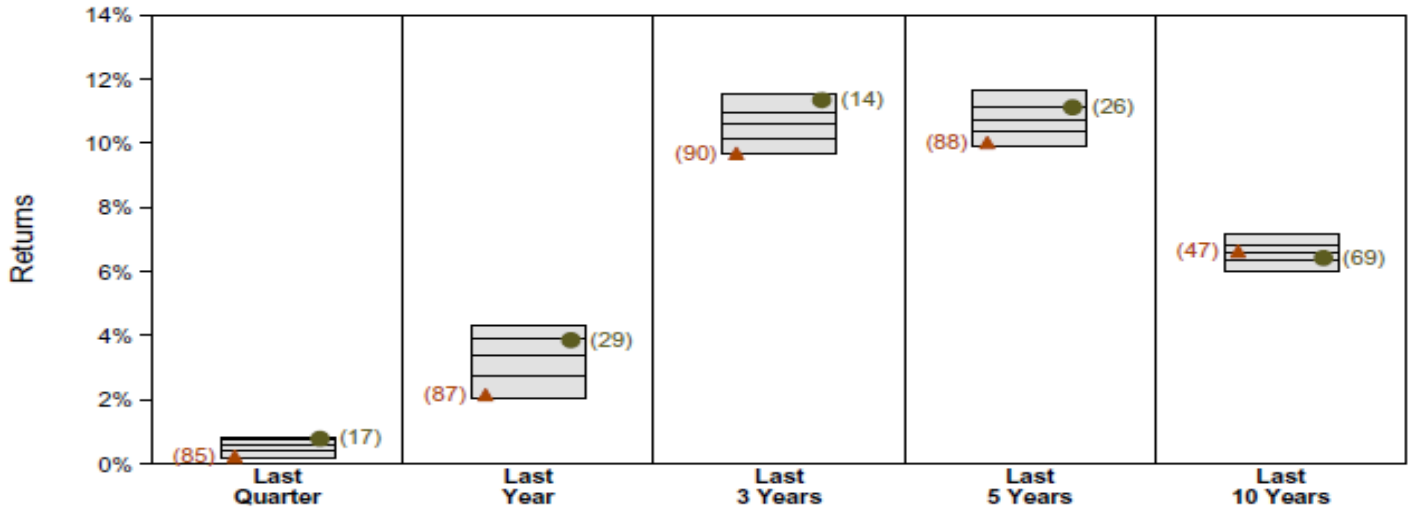
* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

Gross Returns: The Pension Trust generated 2nd quartile returns for the 1-, 3-, and 5-year periods and 3rd quartile returns for the 10-year period ended June 30, 2015 based on the Callan Associates Public Fund Sponsor Database (unadjusted basis).

Peer Performance - Pension Trust Total Fund Ranking (Adjusted)

The chart displays the ranking of the Total Pension Fund's performance relative to that of the Public Fund Sponsor Database for periods ended June 30, 2015, **adjusted for the historical asset allocations** of the Total Pension Fund (versus other public fund sponsors).

Asset Allocation Adjusted Ranking

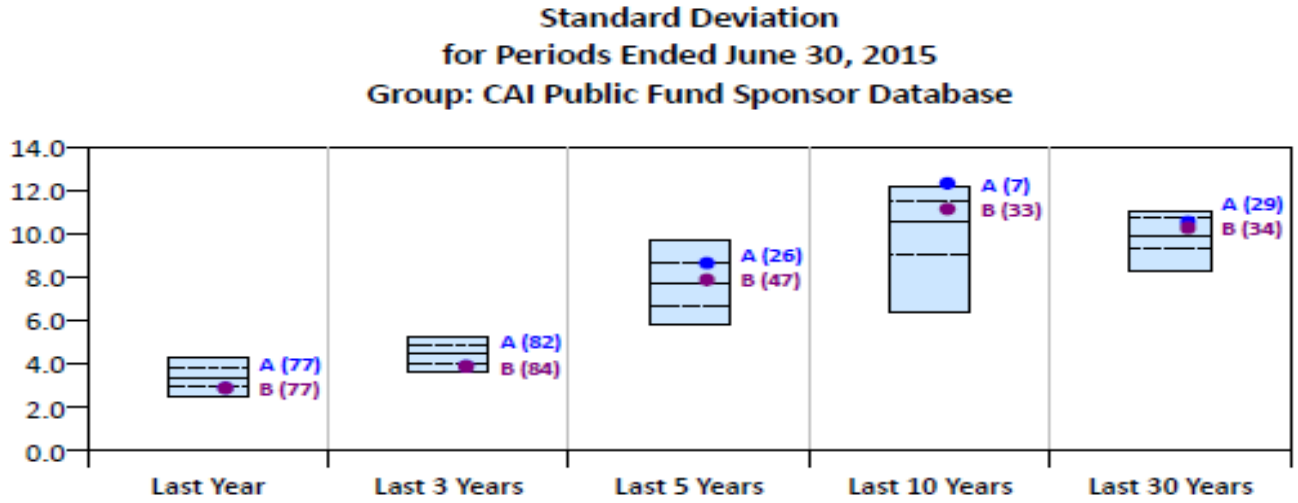


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.83	4.29	11.55	11.63	7.16
25th Percentile	0.73	3.92	10.96	11.14	6.80
Median	0.59	3.39	10.60	10.73	6.59
75th Percentile	0.41	2.74	10.15	10.36	6.32
90th Percentile	0.17	2.03	9.69	9.92	6.01
Total Fund ●	0.78	3.85	11.34	11.11	6.41
Policy Target ▲	0.23	2.15	9.67	10.01	6.62

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

Gross Returns: The Pension Trust generated 1st quartile returns for the 3-year period, 2nd quartile returns for the 1- and 5-year periods, and a 3rd quartile return for the 10-year period ended June 30, 2015 based on the Callan Associates Public Fund Sponsor Database (adjusted basis).

Pension "Risk" has declined as measured by Standard Deviation



		Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 30 Years
10th Percentile		4.3	5.3	9.7	12.1	11.0
25th Percentile		3.8	4.9	8.7	11.5	10.7
Median		3.4	4.5	7.7	10.6	9.9
75th Percentile		3.0	4.1	6.7	9.1	9.3
90th Percentile		2.5	3.6	5.8	6.4	8.3
Member Count		256	236	220	191	38
Total Fund-TFFR	A	2.9	3.9	8.7	12.3	10.5
Total Fund-PERS	B	2.9	3.9	7.9	11.1	10.3

Note: The Last 30 Years is shown for completeness but is less statistically significant due to a small sample size.

Portfolio volatility, as measured by Standard Deviation, has declined on an absolute basis and versus peers and currently resides in the 3rd quartile for 3-year period ended 6/30/15 versus the upper two quartiles for the "Last 5 (and 10) Years".

Historical Asset Class Market Returns and Key Economic Indicators

		Period Ended June 30, 2015			
Asset Class	**Benchmark**	**1-Year**	**3-Years**	**5-Years**	**10-Years**
Large Cap US Stocks	Russell 1000	7.37%	17.73%	17.58%	8.13%
Small Cap US Stocks	Russell 2000	6.49%	17.81%	17.08%	8.40%
Non-US Stocks (Developed)	MSCI EAFE	-4.22%	11.97%	9.54%	5.12%
Non-US Stocks (Emerging)	MSCI Emerging Markets	-4.77%	4.08%	4.03%	8.46%
US Bonds	Barclays Aggregate	1.86%	1.83%	3.35%	4.44%
High Yield Bonds	Barclays Corporate High Yield	-0.40%	6.81%	8.61%	7.89%
Non-US Debt	Citi Non-US World Govt	-13.49%	-3.88%	0.33%	2.63%
Inflation Protected	Barclays Global Inflation Linked	-4.23%	1.52%	4.65%	4.32%
Real Estate	NCREIF	12.98%	11.63%	12.72%	8.16%

Recent Quarterly Indicators	2Q15	1Q15	4Q14	3Q14	2Q14	1Q14	4Q13	3Q13
GDP Growth	2.3%	0.6%	2.1%	4.3%	4.6%	-0.9%	3.8%	3.0%
Unemployment Rate	5.4%	5.6%	5.7%	6.1%	6.2%	6.6%	7.0%	7.3%
CPI	0.1%	-0.1%	0.8%	1.7%	2.1%	1.5%	1.5%	1.2%
Consumer Sentiment	96.1	93.0	93.6	84.6	82.5	80.0	82.5	77.5

AGENDA ITEM III.B.

BOARD ACTION REQUESTED

TO: State Investment Board

FROM: Eric Chin

DATE: August 24, 2015

SUBJECT: Watchlist Recommendation: Capital Group International Equity Strategy

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RIO Recommendation:

RIO recommends that the SIB place the Capital Group International Equity Strategy on the Watchlist. This recommendation is in response to the recent announcement that three of the seven portfolio managers of the Capital Group International Equity Strategy would be relinquishing their portfolio management responsibilities in the near future.

Background:

As of June 30, 2015, the Capital Group manages approximately $461 million in its International Equity Strategy for the Pension Trust, Insurance Trust, and Legacy Fund.

Strategy	Pool	Market Value	
Developed International Equity	Pension Trust	$	136,969,814.01
International Equity	Insurance Trust	$	64,597,625.74
International Equity	Legacy Fund	$	259,231,013.10
Total		**$**	**460,798,452.85**

In May of 2015, the Capital Group announced the following changes to the International Equity Strategy's Portfolio Management Team:

a. Nancy J. Kyle will retire in early 2016 and will give up her portfolio management responsibilities.
b. Lionel M. Sauvage will retire in November 2015 and will give up his portfolio management responsibilities.
c. David I. Fisher will transition out of the strategy by July 2015. He will continue to manage portfolios in the All Countries World Equity and Emerging Markets Equity strategies.

Collectively these three individuals have over 117 years of investments experience. They are some of the most tenured investment professionals on the team. Replacements have not been named, and we expect the remaining four portfolio managers to lead the strategy for the foreseeable future.

Conclusion:

Staff recommends placing the Capital Group International Equity Strategy on the Watchlist. Losing 40% of the senior portfolio management team would be reason enough for any strategy/fund to be placed on watch. However, these concerns are magnified at the Capital Group because each portfolio manager directly manages an equity portfolio for the strategy. Not only will the strategy lose the knowledge and experience of these professionals, but also the departures will directly impact portfolio positioning, style composition, and ultimately the risk/reward characteristics of the portfolio. That being said, the Capital Group International Equity Strategy has generated 78 bps of excess return (gross) for the Pension Trust and 101 bps (gross) for the Insurance Trust over the ten year period ending June 30, 2015. Since inception, against its benchmark the strategy has performed even better generating 284 bps and 197 bps of excess return (gross) for the Pension Trust and the Insurance Trust respectively. Consequently, Staff is not yet recommending changes to existing SIB mandates. Going forward, Staff will closely monitor the evolution of the strategy and evaluate how these organizational changes affect the portfolios.

Agenda Item III. C.

BOARD ACTION REQUESTED

TO: State Investment Board

FROM: Dave Hunter and Darren Schulz

DATE: August 24, 2015

SUBJECT: U.S. Small Cap Equity – **Manager Search Recommended**

RIO Recommendation:

RIO recommends the SIB approve a manager search to potentially replace Callan's U.S. Small Cap Equity mandate ($125 million) within the Pension Trust.

RIO's recommendation is based on the following five factors:

1. Assets under management within this strategy have declined by 42% (from $1.1 billion) after the largest investor fully redeemed its $463 million investment on July 21, 2015;
2. Callan has cut the number of investment firms used within this $600 million multi-manager strategy in half (from 40 firms to 20 firms) during the past two months;
3. One-year returns trail the Russell 2000 Index by 250 basis points (bps) – Callan was up 4% versus the Russell 2000 benchmark being up 6.5%;
4. Five-year returns approximate the Russell 2000 - Callan was up 17.12% versus the Russell 2000 being up 17.08%; and
5. Since inception, Callan's U.S. Small Cap returns have exceeded the Russell 2000 benchmark by 31 bps (8.05% for Callan versus 7.74% for the index in the last 9 years).

Given the significant reduction in assets under management within this strategy, the material change in the number of managers used in the investment process, and combined with the sharp decline in returns (250 bps) during the last year, a manager search is deemed prudent. **RIO also recommends the SIB allow RIO to engage Aon Hewitt to conduct this manager search given the unique circumstances related to Callan conducting a search which involves one of its own investment strategies. At this time, Aon Hewitt has proposed a $25,000 project fee (excluding travel costs).** Aon Hewitt provides investment consulting services to 493 clients in the U.S. with total retainer client assets of $1.8 trillion as of December 31, 2014. RIO notes that "Pension and Investments – The International Newspaper of Money Management" cited Aon Hewitt and Callan as the # 1 and # 2 "Overall" investment consultant, respectively, in their most recent survey (published February 9, 2015). Callan and Aon Hewitt were also cited as the #1 and #2 "General" investment consultant, respectively, in this same publication.

Global Equity Returns in the Pension Trust have met expectations over last five-years:

For the 1- and 3-year periods ended June 30, 2015, the Global Equity portfolio (in the Pension Trust) has outperformed its benchmark by 166 bps and 88 bps, respectively, net of fees, despite the challenged performance of the Callan Small Cap Equity portfolio. The U.S. Equity portfolio

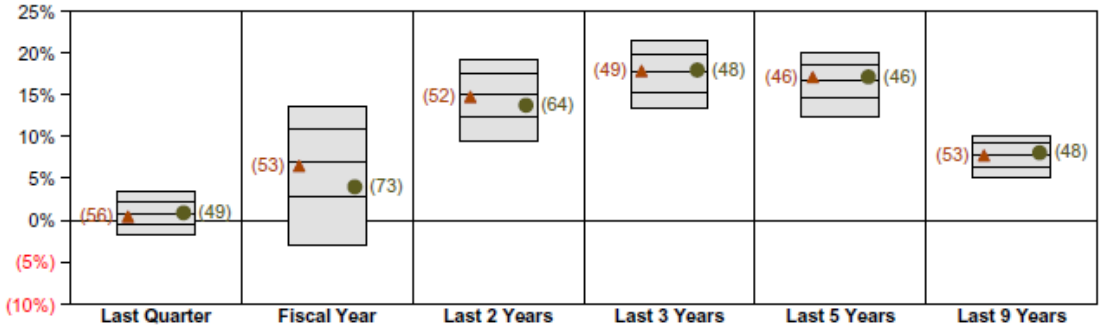
has exceeded its underlying benchmark by 23 bps during the last 5-years, net of fees, including this Callan strategy.

Returns for Periods Ended June 30, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Equity					
Gross	0.80%	3.60%	14.81%	-	-
Net	0.76%	3.25%	14.40%	-	-
Wtd Avg Global Equity Benchmark	0.18%	1.59%	13.52%	-	-
Domestic Equity					
Gross	0.39%	8.64%	19.11%	18.04%	7.34%
Net	0.37%	8.46%	18.80%	17.73%	7.02%
Wtd Avg Domestic Equity Benchmark	0.20%	7.26%	17.81%	17.50%	8.16%

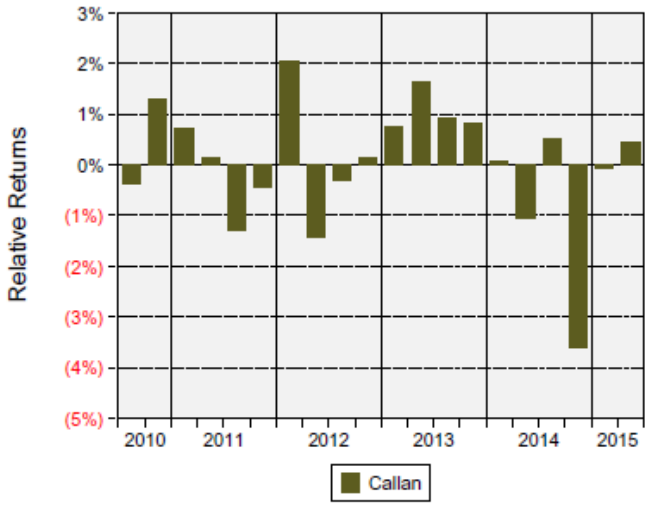
Callan U.S. Small Cap Equity Performance:

Performance vs CAI MF - Small Cap Broad Style (Net)

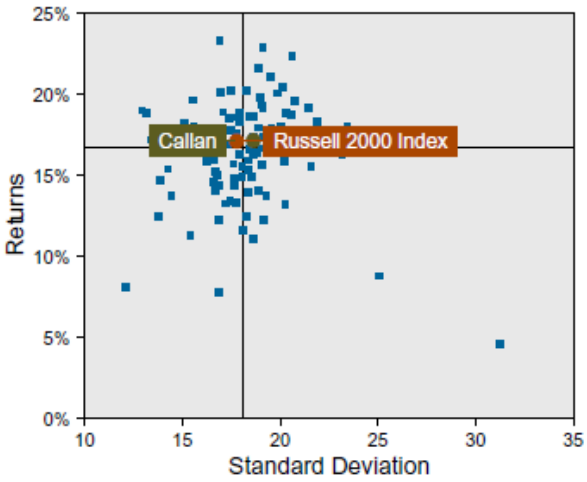


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9 Years
10th Percentile	3.49	13.58	19.12	21.44	20.09	10.07
25th Percentile	2.16	10.93	17.47	19.82	18.59	9.22
Median	0.70	6.89	15.08	17.80	16.65	7.87
75th Percentile	(0.54)	2.80	12.41	15.26	14.64	6.42
90th Percentile	(1.83)	(2.89)	9.34	13.38	12.31	5.10
Callan ●	0.88	3.99	13.74	17.94	17.12	8.05
Russell 2000 Index ▲	0.42	6.49	14.74	17.81	17.08	7.74

Relative Return vs Russell 2000 Index



CAI MF - Small Cap Broad Style (Net)
Annualized Five Year Risk vs Return



August 14, 2015

Mr. David Hunter
NDRIO Executive Director / Chief Investment Officer
North Dakota Retirement & Investment Office
P.O. Box 7100
Bismarck, ND 58507-7100

Subject: Small Cap Manager Search

Dear Mr. Hunter:

On behalf of Aon Hewitt Investment Consulting, Inc. (AHIC), we are pleased to have the opportunity to confirm our interest in partnering with North Dakota Retirement & Investment Office to conduct a small cap manager search.

As a proven investment consulting leader, we believe AHIC has the expertise to assist North Dakota Retirement & Investment Office. AHIC provides investment consulting services to 493 clients in the U.S. with total retainer client assets of $1.8 trillion as of December 31, 2014. We leverage the knowledge developed from working with sophisticated investment programs around the world to develop customized solutions to help clients achieve long term goals and objectives.

This response is being signed by our Chief Administrative Officer, David Testore. David is authorized to submit and represent the information contained in this response on behalf of AHIC.

David Testore, Chief Administrative Officer
Aon Hewitt Investment Consulting, Inc., an Aon Company
200 E. Randolph Street, Suite 1500
Chicago, IL 60601
Tel: 1.312.381.1307
Fax: 1.312.381.1366
Email: david.testore@aonhewitt.com

Please contact us if there is any additional information you require or if we can make this response more responsive to your needs. Thank you again for your consideration.

Sincerely,

Kristen Doyle Partner	Chris Riley Associate Partner	David Testore Chief Administrative Officer

Small Cap Manager Search

North Dakota Retirement & Investment Office

August 2015

Contact Information

Kristen Doyle, CFA
Partner
Aon Hewitt Investment Consulting, Inc.
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kristen.doyle@aonhewitt.com
aon.com

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AHIC Form ADV, Part 2A

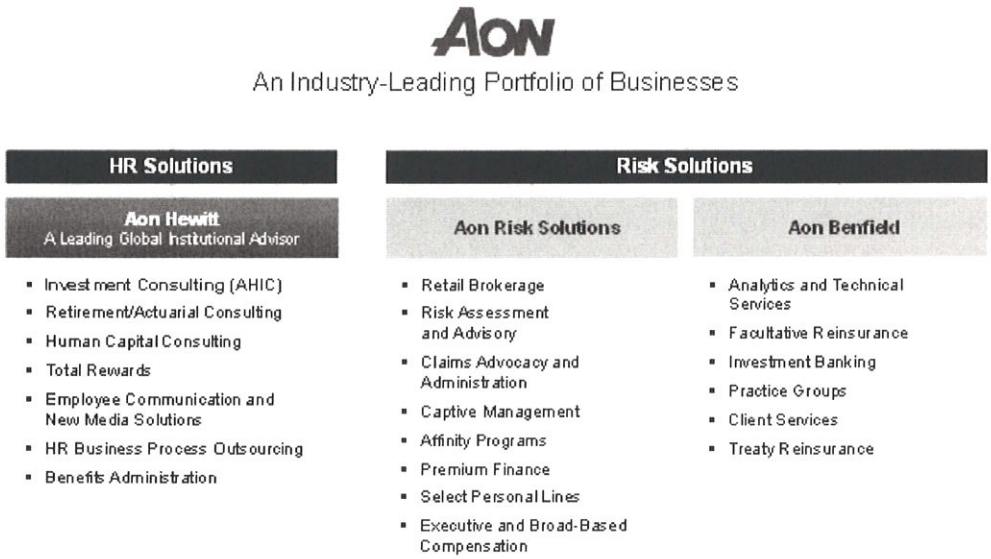
AHIC Form ADV, Part 2B—Chris Riley, Kristen Doyle

About Aon Hewitt Investment Consulting

AHIC is the U.S. Investment Consulting Division of Aon Hewitt. AHIC provides investment consulting services to 493 clients in the U.S. with total retainer client assets of $1.8 trillion as of December 31, 2014. Headquartered in Chicago, Illinois, we have served institutional investors since 1974 through our legacy organizations. We have 304 investment consulting colleagues in the U.S. (as of December 31, 2014) that advise institutional investors such as public organizations, public school systems, universities (public and private), corporations, union associations, health systems, endowments, and foundations with investment programs ranging in size from $25 million to $300 billion.

AHIC (previously Hewitt EnnisKnupp, Inc.) was established in 2010 when Hewitt Associates acquired Ennis, Knupp & Associates and was subsequently purchased by Aon. Aon plc (NYSE: Aon), Aon Hewitt Investment Consulting's parent company, is a publicly traded company with three primary subsidiaries: Aon Risk Solutions, Aon Benfield, and Aon Hewitt. Aon Hewitt Investment Consulting, Inc. is the U.S. Investment Consulting Division of Aon Hewitt and an indirect wholly owned subsidiary of Aon.

The following organizational chart illustrates Aon's affiliated businesses and the services they provide.



Proposed Consulting Team

The proposed team for North Dakota Retirement & Investment Office will be led by Chris Riley and Kristen Doyle as primary consultants. This team is based in our Chicago, Illinois headquarters.

Bios for Chris and Kristen are shown below.

Chris Riley

Associate Partner

Chris, associate partner, leads the firm's equity research team within the Global Investment Management group, coordinating and overseeing the efforts of 16 researchers globally. He is responsible for ensuring the firm's due diligence processes are in conformance with industry best practices, and are consistently implemented and documented across the public markets equity asset class.

Chris is responsible for ensuring the firm's Global Investment Management efforts, as related to public markets, are responsive to consultants' and clients' needs. Chris assists fiduciaries of public and corporate pension funds implement equity-related strategies that are consistent with the return and risk objectives of their funds. He, along with members of his team, conducts due diligence on a large universe of equity managers, including those within the U.S., non-U.S., global, emerging markets, and regional segments of the marketplace. Chris also oversees topical research conducted by the team with respect to the internally and externally published research pieces.

He also supports several of the firm's pension fund clients and assists with client projects that require his expertise. In this regard, he assists clients in identifying appropriate managers given their specific requirements and portfolio needs, and conducts prudent search processes to fill the mandates. Chris also provides recommendations on portfolio structure and manager allocations given his deep knowledge of investment managers' skill, strengths, and weaknesses.

Chris regularly speaks at industry conferences on topics such as investment manager selection, implementing global equity mandates, performance monitoring, and portfolio structure. Chris earned his B.S. degree in business administration from Roosevelt University prior to joining the firm in 2000.

Kristen Doyle, CFA

Partner

Kristen is a Partner within AHIC, leads the firm's public fund business, and is a member of the firm's client advisory group. As the head of public funds, Kristen is responsible for new business development and ensuring that AHIC has the right resources, research, and expertise necessary to properly service public sector clients. She assists with client projects that require her expertise.

Kristen currently works with seven retainer consulting clients, where she is either the lead or co-lead. These clients range from $200 million to $400 billion in assets under management and are primarily public pension plans and foundations/endowments. The public funds she works with include the Florida State Board of Administration, New Jersey Division of Investment, Federal Thrift Savings Plan, and Employees Retirement System of Texas. She is responsible for assisting these plans with asset allocation advice, risk budgeting, asset/liability reviews, investment policy development, benchmarking, manager selection and structure, and asset class structure. She is also responsible for reporting and monitoring the investment programs and has been instrumental in structuring public fund performance reports for staff

and the board as well as other reports such as risk exposure reporting for both traditional and alternative asset classes and risk management reporting.

Kristen recently led a comprehensive asset allocation and asset/liability study for the Florida State Board of Administration. During this time the investment advisory council, AHIC, and staff evaluated various asset allocation scenarios, conducted an in-depth review of the key inputs including the expected risks and returns of the various asset classes, and conducted stress testing and scenario analysis on both assets and liabilities. She and her colleagues also recently assisted the Employees Retirement System of Texas in conducting a two-year extensive asset/liability study where the board and investment advisory committee customized the capital market assumptions (expected returns, risks, and correlations) that were then used in the analysis. In addition, she assists the New Jersey Division of Investment with annual asset allocation reviews that inform both the long-term strategic allocation and shorter-term tactical investment themes.

Kristen also previously led the trust services team in the U.S. focused on custody, securities lending, and transition management. This team also supports the firm in other areas that include foreign exchange, transaction cost analysis, and commission recapture. The team assists clients with searching for vendors in these three areas, structuring a custody or securities lending relationship, and assessing the risks associated with these programs from an operational perspective. With regard to transition management, Kristen was also the previous global head of transition management, responsible for managing the transition management research and implementation team in the U.S., UK, and Canada.

Through these roles, Kristen has worked with almost every AHIC public pension fund client (in addition to her own public pension fund clients) and is therefore intimately familiar with the unique needs, circumstances, political challenges, and governance environment within which these entities operate. She is part of the public fund interest group at AHIC, which is a subset of consultants who specialize in issues facing public pension funds.

Prior to joining the firm in 2005, Kristen worked at Northern Trust in the custodial operations group for more than two years. She has a Bachelor of Arts in economics from Denison University. She is a CFA charterholder and member of CFA Institute and the CFA Society of Chicago.

Our Global Investment Management Team

AHIC prides itself in have a robust manager evaluation team and process. Our Global Investment Management (GIM) research team continually monitors and rates managers' products—whether they currently manage client assets or if they are being considered for a new mandate. Our manager researchers are based in the U.K., U.S., Canada, and Continental Europe, and they cover global markets and products. As illustrated in the graphic below, our investment manager researchers work collaboratively to form a manager research team that consists of 96 professionals (as of August 2015).

* Indicates the professional splits time between groups

In 2014, GIM conducted 787 manager searches and 3,484 meetings with managers.

Asset Class	2014 Manager Searches	2014 Manager Meetings
Equities	209*	1,095
Fixed Income	385	785
Liquid Alternatives	44	787
Real Estate	75	232
Private Equity / Infrastructure	74	585
Total	**787**	**3,484**

**Includes multi-asset class and other*

Manager Evaluation and Search Process

Our firm is proud to offer full coverage of the investment management universe. Our firm applies our strong fundamental viewpoints as well as in-depth quantitative excellence to evaluate and rate products according to a myriad of factors. Our process is a clear reflection of our organization's operational and research excellence, and consists of two main stages.

Initial Rating with the InForm Process

First, the InForm Process, which utilizes our proprietary model, analyzes available investment manager data and rates each product according to seven factors: business, staff, investment process, investment risk, performance, terms/conditions, and operations. The InForm Process, which has been rigorously tested, applies a quantitative framework around the fundamental insights we believe indicate investment opportunities may be well positioned to ultimately add value going forward. The proprietary model was fully designed and created in-house by the Aon Center for Innovation and Analytics (ACIA). The ACIA is a $350 million analytics research center that is responsible for delivering data-driven insights to client teams.

This initial review process allows our research professionals to quickly identify investment products with the strongest potential of ultimately obtaining a "Buy" rating after our extensive due diligence process concludes. Products that receive an above average rating may move on to our full due diligence and rating process. A qualitative override of the InForm Process result can also move a selected product into the next phase of our research process. Overrides typically occur when the data does not match a fundamental understanding of a product. An example would be a newly offered product from a well-established, highly regarded manager.

Full Due Diligence and Rating Discussion

The second phase of our research process is a more expanded evaluation of the seven aforementioned factors including an in-depth assessment of operations. Examples of research topics by factor are listed as follows:

- Business: Profitability, stability & spread of ownership, client base, remuneration policy.
- Staff: Quality, depth of resource, team dynamic, staff turnover.
- Investment Process: Competitive advantage, repeatability, skill, implementation.
- Risk: Embedded in process, independent verification, mix of measurements.
- Performance Analysis: Consistent with stated process, risk adjusted, persistent.
- Terms and Conditions: Client Service, fees, ESG, best practices in documentation.
- Operational Due Diligence: Operational controls, valuation of assets, independent directors, 3rd party vendors.

Our research teams meet and/or have conference calls with investment managers to gather needed information to perform in-depth research and prepare for a detailed rating meeting. A "Buy" rating requires at least one onsite meeting with the manager. All requested information and notes are stored in our firm's proprietary manager research information storing database. The system is accessible to both our investment consultants and research professionals. When full due diligence concludes, the product is then scored and rated through a formal voting process. Each manager must pass our operational due diligence process to receive a "Buy" rating.

Search Process

Our research teams work in close collaboration with client consultants to deliver strong investment manager recommendations that are the most suitable for clients. Our product search process typically begins with a meeting involving the client's consultants and a senior manager research professional where the client's specific goals, needs, and current portfolio are discussed. Our research professionals then evaluate our current "Buy" list of managers to identify an initial list of strategies that could be a match for our client.

Our research team then evaluates each product's fit with the client's existing portfolio. Examples of portfolio construction analyses performed include holdings-based analysis, returns-based analysis, and risk exposure analysis. Ultimately, a small subset of finalists is selected by a Portfolio Construction Committee, which votes by majority. The Portfolio Construction Committee consists of team members from the respective manager research team. The number of final candidates varies based on client preferences, portfolio requirements, and the number of "Buy" rated strategies available, but only the most qualified and appropriate candidates are brought forward for final consideration. Our team opines on the strengths and weaknesses of each product's fit. The full analysis is documented in a Search Report for the client. In all cases, we assist the client in arriving at a prudent and well-informed selection decision.

Some clients ask us to accompany them on on-site visits with finalists. Other clients prefer to rely upon our research team's visits with the manager. We are also available for any follow-up work, including fee negotiations, guideline development, and transition management.

Proposed Consulting Fee

We propose a project fee of $25,000. Scope of project would include:

- Discussion of mandate and specific circumstances of the NDRIO investment program.
- Identify candidates for consideration within the grouping of Buy-rated managers by Aon Hewitt Investment Consulting in the small cap equity marketplace appropriate for NDRIO's investment circumstances.
- Search report detailing quantitative data associated with the candidates.
- Research write-ups on the candidates.
- Follow-up discussions with NDRIO investment staff.
- Discussions with NDRIO Board onsite or via teleconference, if necessary.

Our proposed fee does not include travel costs that we would incur should AHIC representatives be requested to travel for work during the project. These costs would be billed at cost.

AGENDA ITEM III.D.

BOARD ACTION REQUESTED

TO: State Investment Board

FROM: Darren Schulz and David Hunter

DATE: 24 August 2015

SUBJECT: Job Service Pension De-Risking Strategy Recommendation

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Recommendation:

As part of a de-risking strategy for the Job Service Pension Plan, Staff recommends the transition of Job Service assets to SEI Investments as part of a strategic plan to develop and dynamically manage a "glide path" de-risking program on behalf of the Plan. Additionally, Staff recommends the implementation of a multi-manager structure as proposed in the memo. SEI offers an integrated pension solutions platform that supports the implementation of a comprehensive de-risking solution on behalf of frozen or closed mature pension plans, such as the Job Service Pension Plan.

Background:

The Job Service Pension Plan, officially known as The Retirement Plan for the Employees of Job Service North Dakota, is a defined benefit retirement plan that has been closed to new entrants since October 1, 1980. Job Service is a mature retirement plan: According to a 7/1/14 actuarial valuation, the Plan has 13 active members with an average age of 60.4 years and 213 retirees and beneficiaries. The Plan is also well-funded: Based on the estimated 6/30/15 current market value of plan assets of $96.4 million and 7/1/14 actuarial present value of liabilities of $65.5 million using an 8% discount rate, the estimated funded status of the plan is 147%.

At the January 2015 SIB meeting, the Board approved two key changes to the Job Service Pension Plan Investment Policy Statement: 1) A reduction in the expected return on assets assumption from 8% to 7% as part of a plan by the PERS Board to de-risk the Plan over time to reduce the volatility of the Plan's funded status; and 2) As part of the first stage of de-risking Plan assets, a new strategic asset allocation was adopted following an asset-liability study performed by SEI. The changes made to the policy allocation can be summarized as follows:

FORMER POLICY ALLOCATION		NEW POLICY ALLOCATION	
Domestic Large Cap Equity	25%	Domestic Equity	24%
Domestic Small Cap Equity	6%	Global Equity	16%
International Equity	9%		
TOTAL EQUITY	**40%**	**TOTAL EQUITY**	**40%**
Domestic Fixed Income	47%	Core Fixed Income	19%
U.S. High Yield Bonds	8%	U.S. High Yield Bonds	3%
International Fixed Income	5%	Emerging Markets Debt	3%
		Limited Duration Fixed Income	19%
		Diversified Short Term Fixed Income	10%
		Short Term Corporate Fixed Income	6%
TOTAL FIXED INCOME	**60%**	**TOTAL FIXED INCOME**	**60%**

RIO New Policy Allocation Implementation:

In March 2015, as part of the Plan's de-risking initiative, Staff implemented increases to the Job Service allocation to the Investment Grade Fixed Income asset class pool within the Pension Trust through the following internal rebalancing changes:

1. The reduction of the U.S. High Yield allocation from 8% to 3%; and

2. The reduction of the International Fixed Income allocation from 5% to 3%.

Dynamic De-Risking Process:

For a well-funded and mature plan closed to new employees, such as the Job Service Pension, dynamic de-risking through a disciplined framework allows a plan sponsor to efficiently achieve long-term risk/reward objectives over the remaining lifecycle of the plan. Dynamic de-risking is a flexible asset allocation and risk management framework. As compare to static asset allocation policies, dynamic asset allocation uses the funded status of a plan as the basis to increase the target duration to liability-hedging assets, such as bonds. A common approach is to develop a liability responsive "glide path" to increase the target allocation to risk-mitigating strategies using pre-determined triggers based on the funded ratio. As a plan's funded status improves, the allocation to risk-seeking assets declines; as a plan's funded status deteriorates, the allocation to risk-seeking assets increases.

The design, implementation and monitoring of a glide path is the foundation of a dynamic de-risking approach. A well-designed glide path provides a disciplined framework for reaching and maintaining a target funded status with effective downside protection. To make it effective, implementation should be streamlined and disciplined and a plan's funded level needs to be monitored more frequently.

Recommendation Rationale:

Following a due diligence review of SEI's pension solutions platform, Staff recommends transitioning Job Service Pension Plan assets to SEI Investments based on the following reasons:

1. The North Dakota State Investment Board has an existing relationship with SEI Investments, who has managed the PERS Retiree Health Credit Fund in its entirety ($98 million in total assets as of 6/30/15) since August 2009.

2. SEI Investments has a proven history in delivering a low cost, integrated pension de-risking solution encompassing a number of key functional areas:

   Strategic Advisory
   - Glide path development and implementation
   - Asset/liability studies
   - Active management relative to liabilities
   - De-risking investment policy formulation
   - Actuarial advisory support

   Liability Sensitive Implementation and Monitoring
   - Active funded status monitoring
   - Custom, active implementation
   - Portfolio risk modelling and stress testing

Investment Management

- Portfolio structure
- Sub-advisor manager platform to support de-risking solutions

3. A well-established dynamic de-risking solution that fully encompasses the design, implementation and active monitoring of Plan assets relative to liabilities helps to expedite the implementation process as changes in funded status occurs.

4. Delegation of some investment and operational responsibility to SEI as a strategic partner would remove the inherent burden of day-to-day administrative tasks associated with a dynamic de-risking investment framework.

SEI Implementation Recommendation:

As part of an asset/liability study performed by SEI, SEI proposed an implementation structure utilizing SEI sub-advised, multi-manager strategies. SEI proposed a structure that facilitates de-risking through the employment of managed volatility strategies within equities and lower duration fixed income strategies as a complement to core fixed income, both of which Staff endorses as means of providing downside protection and funded status volatility mitigation.

As part of the due diligence review of SEI's proposed manager structure, Staff conducted an on-site meeting at SEI's corporate office in Oaks, PA on July 1st with members of SEI's manager research, portfolio management and risk management teams. At the meeting, Staff reviewed SEI's investment philosophy, manager selection process and risk management function. Additionally, Staff reviewed the portfolio construction of the multi-manager structures and each of the investment managers sub-advising the strategies proposed by SEI for the Job Service Pension. **In conclusion, Staff supports the manager structure and strategies proposed by SEI and recommends that the State Investment Board approve the proposed implementation structure:**

Fund Name	Proposed Allocation
SEI US Managed Volatility Equity	24%
SEI Global Managed Volatility Equity	16%
TOTAL EQUITY	**40%**
SEI Core Fixed Income	19%
SEI Limited Duration Fixed income	19%
SEI Opportunistic Income	10%
SEI Ultra Short Duration Bond	6%
SEI US High Yield	3%
SEI Emerging Markets Debt	3%
TOTAL FIXED INCOME	**60%**

A summary of SEI's asset-liability study and strategy summaries are included as attachments to this memo.

Request Board Action:

Approval to transition Job Service Pension Plan assets to SEI Investments as part of a dynamic "glide path" de-risking solution.

Approval to implement the proposed manager structure utilizing SEI's multi-manager investment platform as part of the Job Service Pension Plan de-risking strategy.

North Dakota Job Service Pension Fund - Analysis

Objective

- Develop strategy to de-risk the Plan over time (glidepath)
- Include liability (actuarial rate) and portfolio
- Coordinate with progress on federal commitments

Updated Information

- 7/1/2014 actuarial valuation
- Plan now 149% funded based on 8.00% actuarial rate
- 13 active members nearing retirement age
- De-risking may be considered (based on progress with federal commitments)
- Investigate potential liability settlement options

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Retirement Plan for Employees of Job Service North Dakota: Key characteristics

Plan Overview

- Active members: 13
- Status: Frozen to new entrants
- Demographic profile: Inactively Dominated
- Valuation rate: 8.0%

Liability Overview

- Liability Growth: 0.7%
- Benefit Payments/Assets: 4.7%

Hurdle Rate: 5.4%

AAL: Actuarial Accrued Liability
PVB: Present Value Benefits

Pension Metrics:

Funded Status

Funded status changes driven by portfolio returns relative to liability returns.

Market Value of Assets:	$97.7MM
Actuarial Value of Assets:	$78.2MM
PVB:	$65.5MM

7/1/2014
AAL funded surplus/ratio: $32.2M/149%

Funding Standard Account

Scheduled contribution driven by funded ratio volatility. Contribution will be zero as long as the Plan's actuarial value of assets exceeds the actuarial present value of projected benefits.

Normal Costs:	$0

No Scheduled Contribution Required

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Estimated 6/30/2014 liability and funded status

Estimated Funded Status of the Plan

Discount Rate	8.0%	7.0%	6.0%	5.0%	4.0%	3.0%
Market Value of Assets	$97.7MM	$97.7MM	$97.7MM	$97.7MM	$97.7MM	$97.7MM
Liabilities	$65.5MM	$69.5MM	$73.8MM	$78.4MM	$83.2MM	$88.4MM
Funded Status	149.2%	140.5%	132.4%	124.6%	117.4%	110.6%
Surplus/(Deficit)	$32.2MM	$28.2MM	$23.9MM	$19.3MM	$14.5MM	$9.3MM

Note: Retiree liability includes Travelers annuitants (liability assumed to increase with changing discount rate)
Actives average 60.4 as of 7/1/2014
Based on 7/1/2014 actuarial valuation report
Actuary should provide actual liability determination

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Job Service

Asset Class	Portfolio A	Portfolio B Proposed	Portfolio C	Portfolio D	Portfolio E
Russell 1000 Large Cap Index	25.0	-	-	-	-
US Managed Volatility Equity	-	24.0	18.0	12.0	6.0
US Small Cap Equity	6.0	-	-	-	-
World Equity ex-US	9.0	-	-	-	-
Global Managed Volatility Equity	-	16.0	12.0	8.0	4.0
Total Equity	**40.0**	**40.0**	**30.0**	**20.0**	**10.0**
US High Yield	3.0	3.0	2.0	-	-
Emerging Markets Debt	3.0	3.0	2.0	-	-
International Fixed Income	-	-	-	-	-
Core Fixed Income	19.0	19.0	23.0	28.0	33.0
Limited Duration Fixed Income	19.0	19.0	23.0	27.0	32.0
Diversified Short Term Fixed Income	10.0	10.0	10.0	10.0	10.0
Short Term Corporate Fixed Income	6.0	6.0	10.0	15.0	15.0
Total Fixed Income	**60.0**	**60.0**	**70.0**	**80.0**	**90.0**
Portfolio Metric (Net of Fees)					
Expected Return (Short Term)	5.5	5.2	4.7	4.0	3.6
Expected Return (Equilibrium)	7.3	7.0	6.7	6.2	6.0
Standard Deviation	9.4	7.5	6.2	5.0	4.4
Risk of Loss (5th percentile-Short Term)	-8.9	-6.3	-5.1	-3.9	-3.5
Investment Management Fee	.43%	.45%	.44%	.43%	.42%

Please see important disclosures at the beginning of this section and at the back of the presentation.

U.S. Managed Volatility Fund (SIIT)

Fact Sheet / June 30, 2015

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Investment Strategy

The U.S. Managed Volatility Fund, (the "Fund") seeks capital appreciation with lower volatility than the broad U.S. equity market. The Fund will typically invest in securities of U.S. companies of all capitalization ranges that exhibit low relative volatility. Over the long term, the Fund is expected to achieve a return similar to that of the Russell 3000 Index with a lower level of volatility. Because the Fund's primary objective is to manage absolute volatility, sector and market-cap exposures may differ substantially from the index, which can cause short-term performance to diverge significantly from the broader market.

Fund Details

Total Net Assets	$1.4 Billion
Share Class	Class A
Ticker	SVYAX
CUSIP	783980725
Inception Date	12/31/2008

Investment Philosophy and Process

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. Our 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.

Manager Allocations

- AJO, L.P. - 31%
- Analytic Investors, LLC - 31%
- LSV Asset Management - 38%

Manager Details	Start Date	Key Attributes
AJO, L.P.	Dec 31, 2008	Proprietary, multi-factor quantitative model seeks mispriced securities
Analytic Investors, LLC	Dec 31, 2008	Disciplined quantitative methods
LSV Asset Management	Dec 16, 2010	Strong, deep value-oriented quantitative model

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
U.S. Managed Volatility Fund	-1.48	-0.87	1.89	10.08	17.57	18.28	N/A	16.05

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
U.S. Managed Volatility Fund	17.77	30.03	13.39	10.78	16.09	15.64	N/A	N/A

Performance shown is modified gross performance. Modified gross numbers reflect the deduction of product fees, but do not reflect account-level management and/or advisory fee charges pursuant to the contract.

Performance data quoted is historical and past performance does not guarantee future results. Current performance may be higher or lower. Performance current to the most recent month end can be obtained by calling 1-800-DIAL-SEI. The principal value and investment return of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original value.

To determine if the Fund(s) are an appropriate investment for you, carefully consider the investment objectives, risk factors and charges, and expenses before investing. This and other information can be found in the Fund's prospectus, which can be obtained by calling 1-800-DIAL-SEI. Read the prospectus carefully before investing.

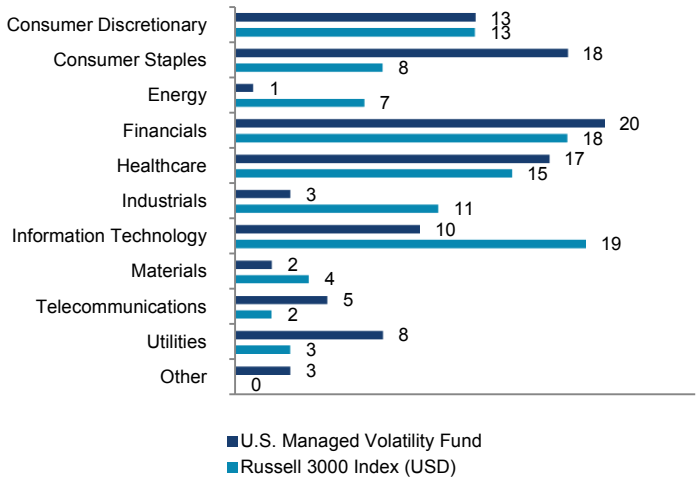
U.S. Managed Volatility Fund (SIIT)

Fact Sheet / June 30, 2015

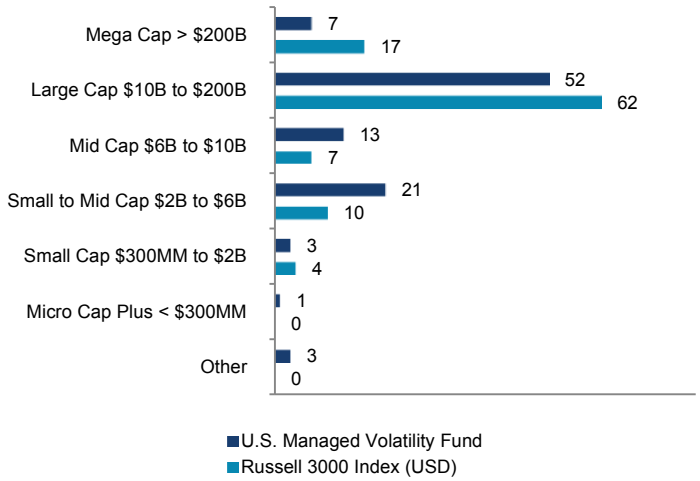
Portfolio Characteristics	Fund	Index
Weighted Capitalization ($ Mil)	$52,246	$109,055
Number Of Holdings	360	3,004
Price-to-Book Ratio	3.45	3.87
Median Forward Price-to-Earnings Ratio	16.27	18.18
Beta	0.87	1.00
Tracking Error (3 Year)	4.49%	n/a
Standard Deviation (3 Year)	8.02%	8.71%

Top Ten Securities	% of Net Assets
Johnson & Johnson	1.84
Everest Re Group Ltd	1.70
Wal-mart Stores Inc	1.61
Verizon Communications Inc	1.61
Amdocs Limited	1.59
International Business Machines Corp	1.58
Kroger Co (The)	1.56
At&t Inc	1.50
Pfizer Inc	1.44
Entergy Corporation	1.41

Sectors (% of portfolio)



Market Capitalization (% of portfolio)



Glossary and Disclosures

Beta: *Quantitative measure of the Fund's volatility relative to the benchmark used. A beta above 1 indicates the fund is more volatile than the overall market, while a beta below 1 indicates the fund is less volatile.*

Median Forward Price to Earnings Ratio: *Forecasted value (using median range of values – the middle set of values in a distribution range) of the market capitalization divided by the after-tax earnings for the prior 12-month period. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings. (Source: Russell)*

Price to Book Ratio: *Stock's capitalization divided by its book value, where book value is the value of an asset as it appears on a balance sheet, equal to cost minus accumulated depreciation. The value is the same whether the calculation is done for the whole company or on a per-share basis.*

Standard Deviation (Absolute): *Used to describe historical volatility, a statistical measure of the distance a quantity is likely to lie from its average value. It is applied to the annual rate of return of an investment, to measure the investment's volatility (risk). Standard Deviation is synonymous with volatility, in that the greater the standard deviation the more volatile an investment's return will be. A standard deviation of zero would mean an investment has a return rate that never varies.*

Tracking Error: *The measure of the risk of the portfolio relative to the benchmark.*

Weighted Capitalization: *The market price of an entire company, calculated by multiplying the number of shares outstanding by the price per share.*

SEI Investments Management Corporation (SIMC) is the adviser to the SEI Funds, which are distributed by SEI Investments Distribution Co. (SIDCO). SIMC and SIDCO are wholly owned subsidiaries of SEI Investments Company.

For those SEI Funds which employ the 'manager of managers' structure, SIMC has ultimate responsibility of the investment performance of the Fund due to is responsibility to oversee the sub-advisers and recommend their hiring, termination and replacement.

Current and future portfolio holdings are subject to risks. In addition to the normal risks associated with equity investing, international investments may involve risk of capital loss from unfavorable fluctuation in currency values, from difference in generally accepted accounting principles or from economic or political instability in other nations. Narrowly focused investments and smaller companies typically exhibit higher volatility. Products of companies in which technology funds invest may be subject to severe competition and rapid obsolescence.

The Russell 3000 Index measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market.

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Global Managed Volatility Fund (SIMT)

Fact Sheet / June 30, 2015

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Investment Strategy

The Global Managed Volatility Fund, (the "Fund") seeks capital appreciation with lower volatility than the overall global equity market. The Fund will typically invest in securities of U.S. and non-U.S. companies of all capitalization ranges that exhibit relatively low volatility. The Fund will ordinarily be 40% invested in non-U.S. securities, which may include those in emerging markets. Over the long-term, the Fund is expected to achieve a return similar to that of the MSCI World Equity Index with a lower level of volatility. Because the Fund's primary objective is to manage absolute volatility, sector and market-cap exposures may differ substantially from the index, which can cause short-term performance to diverge significantly from the broader market.

Fund Details

Total Net Assets	$2.1 Billion
Share Class	Class A
Ticker	SVTAX
CUSIP	783925415
Inception Date	7/27/2006

Investment Philosophy and Process

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. Our 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.

Manager Allocations

- Acadian Asset Management LLC - 61%
- Analytic Investors, LLC - 39%

Manager Details	Start Date	Key Attributes
Acadian Asset Management LLC	Jul 27, 2006	Diverse and innovative factor model
Analytic Investors, LLC	Jul 27, 2006	Disciplined quantitative methods

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Global Managed Volatility Fund	-1.76	0.18	4.10	10.55	14.07	12.27	N/A	4.47

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
Global Managed Volatility Fund	13.55	19.27	11.77	4.58	7.17	3.89	-27.13	0.03

Performance data quoted is historical and past performance does not guarantee future results. Current performance may be higher or lower. Performance current to the most recent month end can be obtained by calling 1-800-DIAL-SEI. The principal value and investment return of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original value.

To determine if the Fund(s) are an appropriate investment for you, carefully consider the investment objectives, risk factors and charges and expenses before investing. This and other information can be found in the Fund's prospectus, which can be obtained by calling 1-800-DIAL-SEI. Read the prospectus carefully before investing.

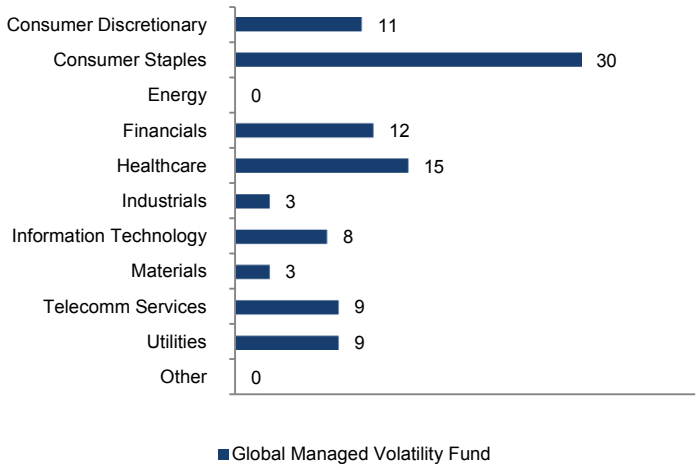
Global Managed Volatility Fund (SIMT)

Fact Sheet / June 30, 2015

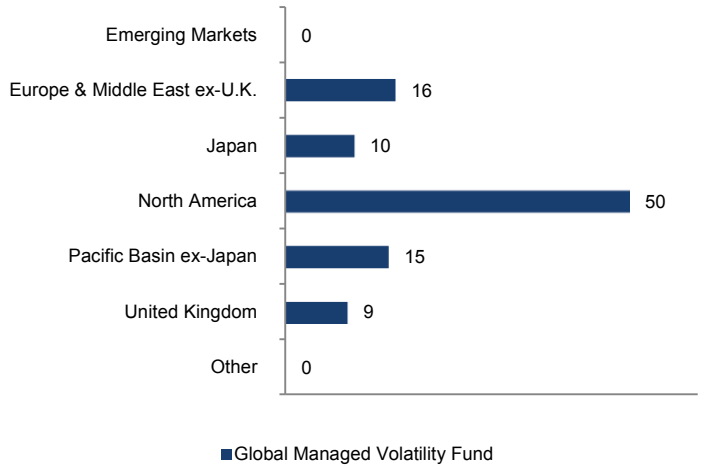
Portfolio Characteristics	Fund
Weighted Capitalization ($ Mil)	$28,621
Number Of Holdings	490
Price-to-book Ratio	3.13
Median Forward Price-to-earnings Ratio	17.68
Beta	0.78
Tracking Error (3 Year)	4.95%
Standard Deviation (3 Year)	6.80%

Top Ten Securities	% of Net Assets
Clorox Company	1.47
Johnson & Johnson	1.29
Imperial Tobacco Group Plc	1.21
Next Plc	1.15
Procter & Gamble Company	1.15
At&t Inc	1.15
Canadian Tire Corp Ltd	1.08
Sse Plc	1.08
Amerisourcebergen Corporation	1.01
Bunge Limited	0.99

Sectors (% of portfolio)



Regions (% of portfolio)



Glossary and Disclosures

Beta: *Quantitative measure of the Fund's volatility relative to the benchmark used. A beta above 1 indicates the fund is more volatile than the overall market, while a beta below 1 indicates the fund is less volatile.*

Median Forward Price to Earnings Ratio: *Forecasted value (using median range of values – the middle set of values in a distribution range) of the market capitalization divided by the after-tax earnings for the prior 12-month period. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings. (Source: Russell)*

Price to Book Ratio: *Stock's capitalization divided by its book value, where book value is the value of an asset as it appears on a balance sheet, equal to cost minus accumulated depreciation. The value is the same whether the calculation is done for the whole company or on a per-share basis.*

Standard Deviation (Absolute): *Used to describe historical volatility, a statistical measure of the distance a quantity is likely to lie from its average value. It is applied to the annual rate of return of an investment, to measure the investment's volatility (risk). Standard Deviation is synonymous with volatility, in that the greater the standard deviation the more volatile an investment's return will be. A standard deviation of zero would mean an investment has a return rate that never varies.*

Tracking Error: *The measure of the risk of the portfolio relative to the benchmark.*

Weighted Capitalization: *The market price of an entire company, calculated by multiplying the number of shares outstanding by the price per share.*

SEI Investments Management Corporation (SIMC) is the adviser to the SEI Funds, which are distributed by SEI Investments Distribution Co. (SIDCO). SIMC and SIDCO are wholly owned subsidiaries of SEI Investments Company.

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High Yield Bond Fund (SIIT)

Fact Sheet / June 30, 2015

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Investment Strategy

The High Yield Bond Fund, (the "Fund") seeks to provide total return by investing in riskier, higher-yielding fixed income securities. Under normal circumstances, the Fund will invest at least 80% of its net assets in high-yield fixed income securities, primarily in securities rated below investment grade (also known as junk bonds), including corporate bonds and debentures, convertible and preferred securities and zero coupon obligations. The Fund's securities are diversified as to issuers and industries. The Fund's weighted-average maturity may vary but will generally not exceed ten years.

Fund Details

Total Net Assets	$2.4 Billion
Share Class	Class A
Ticker	SGYAX
CUSIP	783980303
Inception Date	12/5/2005

Investment Philosophy and Process

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. Our 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.

Manager Allocations

- Ares Management LLC - 19%
- Benefit Street Partners LLC - 19%
- Brigade Capital Management, LLC - 21%
- Delaware Investments Fund Advisers - 15%
- J.P. Morgan Investment Mgmt Inc. - 19%
- SEI CDO Management - 7%

Manager Details	Start Date	Key Attributes
Ares Management LLC	Apr 5, 2007	Intensive credit research and opportunistic investment approach
Benefit Street Partners LLC	Mar 31, 2014	Fundamental, bottom-up security selection over an intermediate horizon.
Brigade Capital Management, LLC	Apr 1, 2009	Expertise in tactically investing across an issuer's capital structure
Delaware Investments Fund Advisers	Jul 23, 2008	In-depth fundamental credit research and sector expertise
J.P. Morgan Investment Management Inc.	Feb 2, 2006	Fundamental multi-factor, relative value research approach
SEI CDO Management	Dec 5, 2005	Fundamental relative value research assessment

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
High Yield Bond Fund	-1.29	0.53	3.41	0.76	7.70	9.64	N/A	8.61

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
High Yield Bond Fund	2.82	8.32	17.24	5.58	17.97	58.84	-27.99	2.38

Performance shown is modified gross performance. Modified gross numbers reflect the deduction of product fees, but do not reflect account-level management and/or advisory fee charges pursuant to the contract.

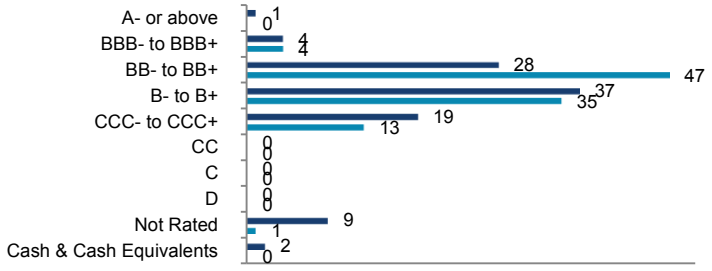
Performance data quoted is historical and past performance does not guarantee future results. Current performance may be higher or lower. Performance current to the most recent month end can be obtained by calling 1-800-DIAL-SEI. The principal value and investment return of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original value.

To determine if the Fund(s) are an appropriate investment for you, carefully consider the investment objectives, risk factors and charges, and expenses before investing. This and other information can be found in the Fund's prospectus, which can be obtained by calling 1-800-DIAL-SEI. Read the prospectus carefully before investing.

Portfolio Characteristics	Fund	Index
Effective Duration (Years)	2.81	2.80
Weighted Average Life (Years)	5.54	5.60
30-day Sec Yield	6.36	n/a
Unsubsidized 30-day Sec Yield	6.10	n/a
Number Of Holdings	1,214	2,303

Top Ten Securities	% of Net Assets
Rockw_07-1a A1la 144a 0.53% 08/01/2024	0.83
Sprint Corp 7.88% 09/15/2023	0.70
Caesars Entertainment Operating Company Inc 0.00% 02/15/2020	0.53
Tenet Healthcare Corporation 6.75% 06/15/2023	0.48
Shell 0.00% 12/12/2049	0.44
T-mobile Usa Inc 6.38% 03/01/2025	0.43
Monitronics International, Inc. 9.13% 04/01/2020	0.40
New Albertsons Inc 8.00% 05/01/2031	0.40
Hca Inc 7.50% 02/15/2022	0.38
Numericable-sfr S.A. 6.00% 05/15/2022	0.37

Credit Quality (% of portfolio)



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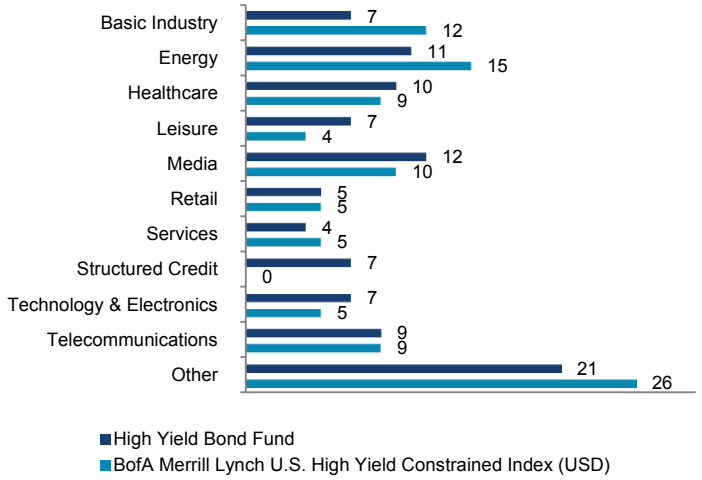
Sectors (% of portfolio)



Glossary and Disclosures

Effective Duration: *Duration is a measure of a security's price sensitivity to changes in interest rates. Specifically, duration measures the potential change in value of a bond that would result from a 1% change in interest rates. The shorter the duration of a bond, the less its price will potentially change as interest rates go up or down; conversely, the longer the duration of a bond, the more its price will potentially change.*

Weighted Average Life: *The average number of years for which each dollar of unpaid principal on a loan or mortgage remains outstanding.*

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Investments in high-yield bonds can experience higher volatility and increased credit risk when compared to other fixed-income instruments.

The BofA Merrill Lynch US High Yield Constrained Index measures the performance of high yield bonds.

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Emerging Markets Debt Fund (SIIT)

Fact Sheet / June 30, 2015

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Investment Strategy

The Emerging Markets Debt Fund, (the "Fund") seeks to maximize total return. It normally invests at least 80% of its assets in fixed income securities, in both U.S. dollar and local currency denominated debt of government, government-related and corporate issuers in emerging market countries, as well as entities organized to restructure the debt of those issuers. Although it is a non-diversified strategy, the Fund will invest in a number of countries and industries in order to limit its exposure to a single emerging market economy.

Fund Details

Total Net Assets	$1.8 Billion
Share Class	Class A
Ticker	SEDAX
CUSIP	783980758
Inception Date	12/5/2005

Investment Philosophy and Process

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. Our 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.

Manager Allocations

- Investec Asset Management - 25%
- Neuberger Berman Fixed Income LLC - 39%
- Stone Harbor Invt Partners LP - 36%

Manager Details	Start Date	Key Attributes
Investec Asset Management	Jun 28, 2013	Bottom-up process enhanced with top-down risk allocations.
Neuberger Berman Fixed Income LLC	Dec 17, 2013	Unique global presence with deep resources and selection skill
Stone Harbor Investment Partners LP	Apr 1, 2006	Consistent implementation of relative-value investment process

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Emerging Markets Debt Fund	-1.71	-0.50	-0.82	-7.95	0.17	4.59	N/A	7.11

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
Emerging Markets Debt Fund	0.16	-8.42	19.15	5.96	15.82	43.08	-17.02	6.96

Performance shown is modified gross performance. Modified gross numbers reflect the deduction of product fees, but do not reflect account-level management and/or advisory fee charges pursuant to the contract.

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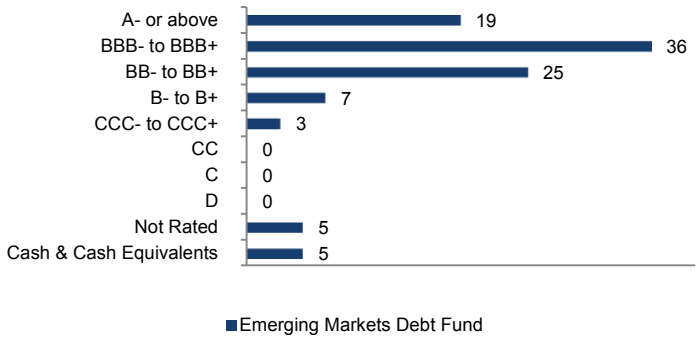
Portfolio Characteristics

	Fund	Index
Effective Duration (Years)	5.17	5.35
Weighted Average Life (Years)	9.23	8.96
30-day Sec Yield	6.17	n/a
Unsubsidized 30-day Sec Yield	5.67	n/a
Number Of Holdings	655	686

Top Ten Securities

	% of Net Assets
Mexico (United Mexican States) (Government) 10.00% 12/05/2024	1.54
Indonesia (Republic Of) 8.38% 03/15/2024	1.39
Brazil, Federative Republic Of (Government) 10.00% 01/01/2025	1.32
Indonesia (Republic Of) 9.00% 03/15/2029	1.00
Indonesia (Republic Of) 8.38% 03/15/2034	0.96
South Africa (Republic Of) 10.50% 12/21/2026	0.91
Russian Federation 7.50% 02/27/2019	0.88
Brazil, Federative Republic Of (Government) 10.00% 01/01/2017	0.82
Cote D Ivoire (Republic Of) 5.75% 12/31/2032	0.80
Petroleos De Venezuela Sa 8.50% 11/02/2017	0.78

Credit Quality (% of portfolio)



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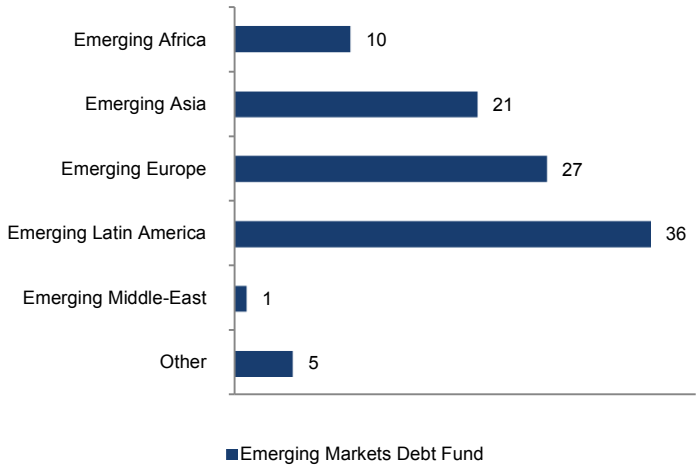
Regions (% of portfolio)



Glossary and Disclosures

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Weighted Average Life: *The average number of years for which each dollar of unpaid principal on a loan or mortgage remains outstanding.*

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IMU Performance Benchmarks 50/50 JPM EMBI Global Div & JPM GBI EM Global Div is a composite composed of 50% JP Morgan GBI Emerging Markets Global Diversified Index and 50% JP Morgan EMBI Global Diversified Index. The JP Morgan GBI Emerging Markets Global Diversified Index is a total return, unmanaged trade-weighted index for U.S. -dollar-denominated emerging-market bonds, including sovereign debt, quasi-sovereign debt, Brady bonds, loans and Eurobonds. The JP Morgan EMBI Global Diversified Index tracks the performance of external debt instruments (including U.S.-dollar-denominated and other external-currency-denominated Brady bonds, loans, Eurobonds and local market instruments) in the emerging markets.

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Core Fixed Income Fund (SIIT)

Fact Sheet / June 30, 2015

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Investment Strategy

The Core Fixed Income Fund, (the "Fund") seeks current income consistent with the preservation of capital. The Fund will invest at least 80% of its net assets in U.S. fixed-income securities. The Fund will invest primarily in investment-grade U.S. corporate and government fixed-income securities, including mortgage- and asset-backed securities. Investment-grade securities are those with an equivalent rating of BBB- or higher from a nationally recognized credit rating agency. To a limited extent, the Fund may invest in unrated securities or securities rated below investment grade.

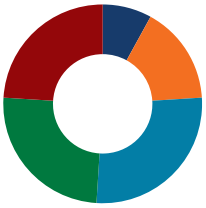
Fund Details

Total Net Assets	$5.4 Billion
Share Class	Class A
Ticker	SCOAX
CUSIP	783980204
Inception Date	6/14/1996

Investment Philosophy and Process

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. Our 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.

Manager Allocations



- J.P. Morgan Investment Mgmt Inc. - 8%
- Jennison Associates LLC - 16%
- Metropolitan West Asset Mgmt, LLC - 27%
- Wells Capital Management - 25%
- Western Asset Management Company - 24%

Manager Details	Start Date	Key Attributes
J.P. Morgan Investment Management Inc.	Apr 28, 2009	Fundamental research at the individual security level
Jennison Associates LLC	Apr 1, 2010	Robust process for sector and security selection
Metropolitan West Asset Management, LLC	Jul 10, 2002	Blends both top down and bottom up portfolio construction ideas
Wells Capital Management	Oct 1, 2003	Superior bottom-up security selection skills
Western Asset Management Company	Jun 17, 1996	Successful implementation of macro-driven investment process

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Core Fixed Income Fund	-1.09	-1.54	0.30	2.62	3.04	4.79	5.42	6.34

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
Core Fixed Income Fund	6.87	-1.10	7.23	8.12	9.96	15.55	-3.06	6.71

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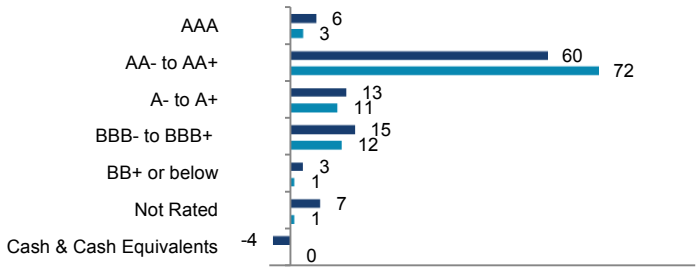
Core Fixed Income Fund (SIIT)

Fact Sheet / June 30, 2015

Portfolio Characteristics	Fund	Index
Effective Duration (Years)	5.16	5.33
Weighted Average Life (Years)	8.66	7.46
30-day Sec Yield	2.52	n/a
Unsubsidized 30-day Sec Yield	2.28	n/a
Number Of Holdings	3,181	9,496

Top Ten Securities	% of Net Assets
United States Treasury 3.00% 05/15/2045	1.67
United States Treasury 0.88% 08/15/2017	1.48
FNMA 30YR TBA(REG A) 4.00% 08/13/2015	1.24
United States Treasury 1.75% 09/30/2019	1.05
United States Treasury 2.13% 05/15/2025	1.01
United States Treasury 1.50% 05/31/2020	0.94
FNMA 30YR TBA(REG A) 3.50% 07/14/2015	0.88
FNMA 30YR TBA(REG A) 3.50% 08/13/2015	0.82
United States Treasury 2.75% 08/15/2042	0.80
Federal Home Loan Banks 0.00% 07/20/2015	0.75

Credit Quality (% of portfolio)



Core Fixed Income Fund
Barclays U.S. Aggregate Bond Index (USD)

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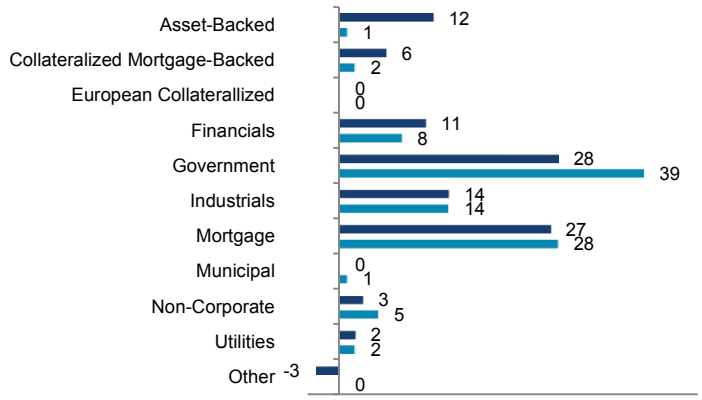
Sectors (% of portfolio)



Core Fixed Income Fund
Barclays U.S. Aggregate Bond Index (USD)

Glossary and Disclosures

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The Barclays U.S. Aggregate Bond Index is a benchmark index composed of U.S. securities in Treasury, Government-Related, Corporate, and Securitized sectors. It includes securities that are of investment-grade quality or better, have at least one year to maturity, and have an outstanding par value of at least $250 million.

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Limited Duration Bond Fund (SIIT)

Fact Sheet / June 30, 2015

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Investment Strategy

The Limited Duration Bond Fund, (the "Fund") seeks current income consistent with the preservation of capital. Under normal circumstances, the Fund will invest at least 80% of its net assets in investment-grade, U.S. dollar-denominated debt instruments. The Fund is expected to maintain a portfolio duration of three years or less under normal market conditions.

Fund Details

Total Net Assets	$668.2 Million
Share Class	Class A
Ticker	SLDBX
CUSIP	783980592
Inception Date	7/31/2014

Investment Philosophy and Process

The Fund uses a specialist manager that was selected due to their distinct investment style that matches the Fund's strategy and objective. Specialist managers have an opportunity to hone their investment process and to anticipate changes within their areas of the market. This focus provides the opportunity for greater consistency and predictability of results. The use of specialist managers is consistent with our view on diversification across and within asset classes. By selecting experts in the various sectors and styles, we work towards full coverage of all markets.

Manager Allocations

■ Logan Circle Partners, L.P. - 100%

Manager Details	Start Date	Key Attributes
■ Logan Circle Partners, L.P.	Aug 1, 2014	Top-down approach to short-duration management

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Limited Duration Bond Fund	-0.08	0.13	0.83	N/A	N/A	N/A	N/A	0.99

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
Limited Duration Bond Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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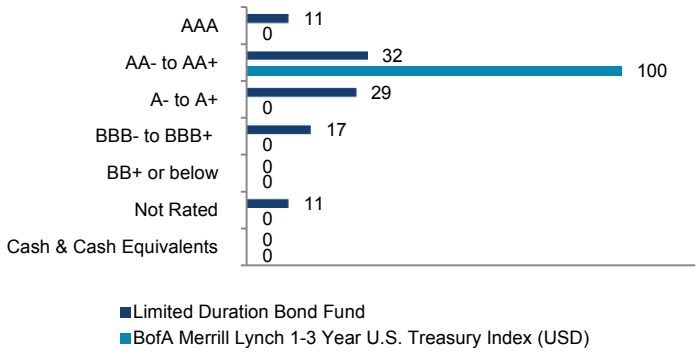
Limited Duration Bond Fund (SIIT)

Fact Sheet / June 30, 2015

Portfolio Characteristics	Fund	Index
Effective Duration (Years)	1.97	1.87
Weighted Average Life (Years)	2.23	1.91
30-day SEC Yield	1.17	n/a
Unsubsidized 30-day SEC Yield	0.98	n/a
Number Of Holdings	333	96

Top Ten Securities	% of Net Assets
United States Treasury 0.63% 04/30/2018	4.01
United States Treasury 1.00% 11/30/2019	3.12
United States Treasury 3.13% 05/15/2019	2.95
United States Treasury 1.38% 03/31/2020	1.44
United States Treasury 0.75% 02/28/2018	1.37
United States Treasury 0.63% 11/30/2017	1.32
Ontario (Province Of) 1.60% 09/21/2016	1.06
Hydro-Quebec 1.38% 06/19/2017	0.98
AFIN_13-3 B 2.32% 07/20/2018	0.93
Toronto-Dominion Bank/The 2.20% 07/29/2015	0.91

Credit Quality (% of portfolio)



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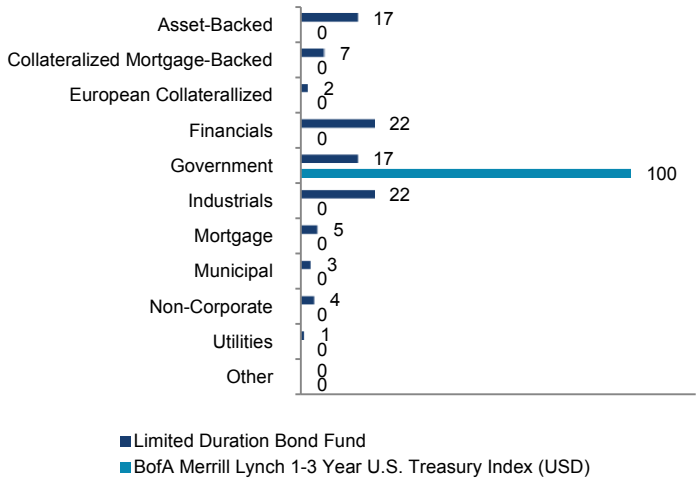
Sectors (% of portfolio)



Glossary and Disclosures

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The BofA Merrill Lynch 1-3 Year U.S. Treasury Index is an unmanaged index that tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than three years. It is not possible to invest directly in an unmanaged index.

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Opportunistic Income Fund (SIIT)

Fact Sheet / June 30, 2015

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Investment Strategy

The Opportunistic Income Fund, (the "Fund") seeks to provide long-term capital appreciation and income. The Fund invests primarily in a diversified portfolio of investment grade and non-investment grade fixed income securities. These securities may be fixed-, variable- or floating-rate obligations and will be rated the equivalent of CCC- or higher at the time of purchase by at least one nationally recognized credit rating agency. There are no restrictions on the maturity of any individual securities or on the Fund's average portfolio maturity, although the average portfolio duration will typically vary between zero and two years.

Fund Details

Total Net Assets	$2.2 Billion
Share Class	Class A
Ticker	ENIAX
CUSIP	783980717
Inception Date	12/14/2006

Investment Philosophy and Process

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. Our 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.

Manager Allocations

- Ares Management LLC - 29%
- Declaration Mgmt & Research, LLC - 44%
- Hyperion Brookfield Asset Mgmt, Inc. - 18%
- Wellington Management Company, LLP - 9%

Manager Details	Start Date	Key Attributes
Ares Management LLC	May 31, 2009	Intensive credit research and opportunistic investment approach
Declaration Management & Research, LLC	Sep 10, 2007	Focused on security selection in securitized sectors and income
Hyperion Brookfield Asset Management, Inc.	Sep 10, 2007	Security selection primarily in residential mortgage-backed securities
Wellington Management Company, LLP	Dec 15, 2006	Strong research capabilities, effective organizational structure

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Opportunistic Income Fund	-0.10	0.29	1.46	1.79	3.42	3.96	N/A	0.54

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
Opportunistic Income Fund	2.31	2.77	7.50	1.60	7.38	15.93	-27.76	-0.17

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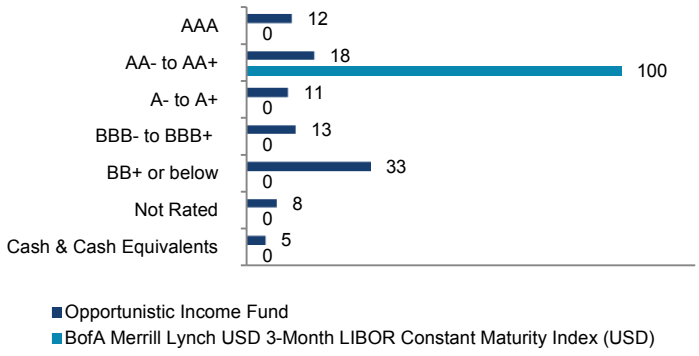
Portfolio Characteristics	Fund	Index
Effective Duration (Years)	0.65	0.25
Weighted Average Life (Years)	3.20	0.25
30-day Sec Yield	2.53	n/a
Unsubsidized 30-day Sec Yield	2.25	n/a
Number Of Holdings	1,179	1

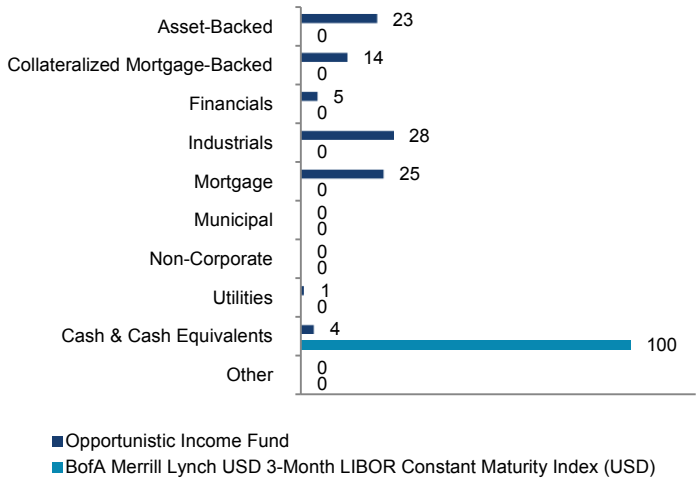
Top Ten Securities	% of Net Assets
AMXCA_14-1 A 0.56% 12/15/2021	0.62
FHMS_KLSF A 0.51% 11/25/2021	0.46
FREMF_K-F08 A 0.48% 01/25/2022	0.46
CSFB_04-AR5 6A1 2.61% 06/25/2034	0.41
FNMA_15-M3 FA 0.41% 06/25/2018	0.40
BAFC_06-I 1A1 2.33% 06/20/2036	0.39
NGN_10-R3 1A 0.75% 12/08/2020	0.39
HUB INTERNATIONAL LIMITED 4.00% 10/02/2020	0.39
FHSTR_14-KF06 A 0.51% 11/25/2021	0.37
BSARM_05-5 A2 2.26% 08/25/2035	0.36

Credit Quality (% of portfolio)



The credit quality of a fund's holdings is derived using Standard & Poor's as the ratings source. The purpose of the ratings is to provide investors with a simple system of gradation by which relative creditworthiness of a fund's securities may be noted. Ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest).

Sectors (% of portfolio)



Glossary and Disclosures

Effective Duration: *Duration is a measure of a security's price sensitivity to changes in interest rates. Specifically, duration measures the potential change in value of a bond that would result from a 1% change in interest rates. The shorter the duration of a bond, the less its price will potentially change as interest rates go up or down; conversely, the longer the duration of a bond, the more its price will potentially change.*

Weighted Average Life: *The average number of years for which each dollar of unpaid principal on a loan or mortgage remains outstanding.*

This material represents an assessment of the market environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding the Funds or any stock in particular, nor should it be construed as a recommendation to purchase or sell a security, including futures contracts. There is no assurance as of the date of this material that the securities mentioned remain in or out of the SEI Funds.

SEI Investments Management Corporation (SIMC) is the adviser to the SEI Funds, which are distributed by SEI Investments Distribution Co. (SIDCO). SIMC and SIDCO are wholly owned subsidiaries of SEI Investments Company.

For those SEI Funds which employ the 'manager of managers' structure, SIMC has ultimate responsibility of the investment performance of the Fund due to is responsibility to oversee the sub-advisers and recommend their hiring, termination and replacement.

There are risks involved with investing, including loss of principal. Current and future portfolio holdings are subject to risks as well. Diversification may not protect against market risk. There is no assurance the goals of the strategies discussed will be met. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from difference in generally accepted accounting principles or from economic or political instability in other nations. Emerging markets involve heightened risks related to the same factors as well as increased volatility and lower trading volume.

The BofA Merrill Lynch USD 3-Month Deposit Constant Maturity Index is based on the assumed purchase of a synthetic instrument having 3 months to maturity and with a coupon equal to the closing quote for 3-Month LIBOR. That issue is sold the following day (priced at a yield equal to the current day closing 3-Month LIBOR rate) and is rolled into a new 3-Month instrument. The index, therefore, will always have a constant maturity equal to exactly 3 months.

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Ultra Short Duration Bond Fund (SIIT)

Fact Sheet / June 30, 2015

SEI New ways. New answers.®

Investment Strategy

The Ultra Short Duration Bond Fund, (the "Fund") seeks to provide higher current income (and a correspondingly higher risk of principal volatility) than that typically offered by a money market fund, while maintaining a high degree of liquidity. Under normal circumstances, the Fund will invest at least 80% of its net assets in investment-grade, U.S. dollar-denominated debt instruments. The Fund is expected to maintain a portfolio duration of 18 months or less under normal market conditions.

Fund Details

Total Net Assets	$643.3 Million
Share Class	Class A
Ticker	SUSAX
CUSIP	783980675
Inception Date	2/28/2011

Investment Philosophy and Process

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. Our 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.

Manager Allocations

- Logan Circle Partners, L.P. - 50%
- Wellington Management Company, LLP - 50%

Manager Details	Start Date	Key Attributes
Logan Circle Partners, L.P.	May 1, 2012	Focused, top-down approach to short-duration management
Wellington Management Company, LLP	Mar 1, 2011	Superior bottom-up security selection skills

Performance Review

	Cumulative (%) as of 6/30/15			Annualized (%) as of 6/30/15				
Period	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Ultra Short Duration Bond Fund	0.01	0.24	0.66	0.83	1.35	N/A	N/A	1.31

Calendar Year Returns (%)	2014	2013	2012	2011	2010	2009	2008	2007
Ultra Short Duration Bond Fund	0.84	1.03	2.93	N/A	N/A	N/A	N/A	N/A

Performance shown is modified gross performance. Modified gross numbers reflect the deduction of product fees, but do not reflect account-level management and/or advisory fee charges pursuant to the contract.

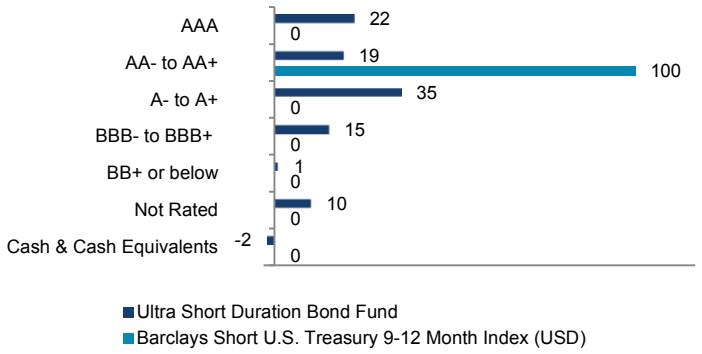
Performance data quoted is historical and past performance does not guarantee future results. Current performance may be higher or lower. Performance current to the most recent month end can be obtained by calling 1-800-DIAL-SEI. The principal value and investment return of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original value.

To determine if the Fund(s) are an appropriate investment for you, carefully consider the investment objectives, risk factors and charges, and expenses before investing. This and other information can be found in the Fund's prospectus, which can be obtained by calling 1-800-DIAL-SEI. Read the prospectus carefully before investing.

Portfolio Characteristics	Fund	Index
Effective Duration (Years)	0.85	0.88
Weighted Average Life (Years)	1.82	0.88
30-day SEC Yield	1.05	n/a
Unsubsidized 30-day SEC Yield	0.95	n/a
Number Of Holdings	614	21

Top Ten Securities	% of Net Assets
United States Treasury 0.63% 04/30/2018	1.93
FNMA 15YR TBA(REG B) 3.00% 07/16/2015	1.29
New Jersey Economic Development Authority 1.10% 06/15/2016	1.13
Abbey National Treasury Services Plc 0.80% 03/13/2017	0.70
Mizuho Bank Ltd 0.73% 09/25/2017	0.63
FNMA 15YR TBA(REG B) 3.50% 07/16/2015	0.63
Chevron Corp 1.37% 03/02/2018	0.61
BP Capital Markets Plc 1.67% 02/13/2018	0.61
Federal Home Loan Mortgage Corporation 1.40% 05/25/2018	0.59
Ontario (Province Of) 1.60% 09/21/2016	0.58

Credit Quality (% of portfolio)



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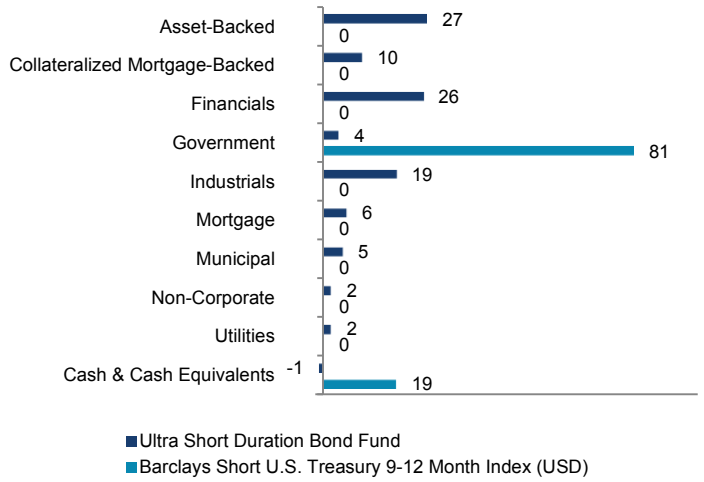
Sectors (% of portfolio)



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Money Market funds typically seek to maintain a net asset value of $1.00 per share and preserve principal while this Fund has no such objective.

The Barclays Short US Treasury 9-12 Month Index measures the performance of U.S. Treasury securities that have a remaining maturity between one and twelve months.

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AGENDA ITEM III. E.

INFORMATIONAL – NO BOARD ACTION REQUESTED

TO: **State Investment Board**

FROM: **Dave Hunter**

DATE: **August 25, 2015**

SUBJECT: **North Dakota Bankers Association ("NDBA") Meeting Update**

Background:

Rick Clayburgh, NDBA President and CEO, arranged a meeting with RIO to improve our mutual understanding of the investment services offered by our North Dakota based firms and review the search process and selection criteria utilized by the SIB. RIO's attended this meeting on April 13, 2015, along with Paul Erlendson of Callan and 10 North Dakota based investment professionals.

Initial Observations:

1) The vast majority of our North Dakota based firms specialize in multi-asset class solutions;
2) Bell State Bank has the ability to provide single and multi-asset class solutions;
3) SIB clients have historically utilized single asset class investment strategies;
4) All attendees expressed a strong desire to improve their ability to work together;
5) There was a favorable response to the NDSIB Due Diligence Questionnaire; and
6) RIO gained a better understanding of the concerns raised by the group attending this meeting.

Prior Actions:

RIO supplied the NDSIB Due Diligence Questionnaire to Rick Clayburgh in April, who subsequently distributed it to interested firms. RIO noted this nine-page questionnaire is generally required to be completed by all SIB managers at least once a year. RIO received completed questionnaires (and other supporting documentation) from the following five firms in late-May and June:

1) First Western Bank and Trust - Chris Lamoureux, SVP;
2) First International Bank and Trust - Cal Perleberg, Wealth Management Officer (John Stibbe);
3) Alerus Financial - Paul Dadlez, Director Wealth Advisory Services - Twin Cities (Ann McCoon);
4) Bell Wealth Management - Patrick Chaffee, EVP - Managing Director; and
5) American Trust Center - Joseph Heringer, J.D. - Personal Trust Manager (Bob Willer).

Update:

RIO was truly impressed with the high quality responses provided by every firm and clearly understands how each of these firms has been able to successfully deliver professional investment advice to their respective clientele. Based on current client investment guidelines and practices, RIO deems Bell Wealth Management ("Bell") and Alerus Financial Corporation ("Alerus") to be better suited to provide investment services to SIB clients than the other three firms at this time. The primary factors driving this opinion relate to the size and depth of the investment teams of Bell and Alerus compared to the other three firms noting that the SIB has not recently awarded investment mandates to firms with less than $1 billion in assets under management ("AUM"). In contrast, the smallest firm recently awarded a new mandate was Axiom International with approximately $10 billion in AUM.

Summary Rationale:

Bell and Alerus currently have AUM of approximately $5 billion and $2 billion, respectively, whereas each of the other firms have AUM less than $1 billion. RIO deems company concentration to be a material risk as our ability to efficiently manage our client investments can be adversely impacted if we represent over 10% of a firms total AUM. Given that our average investment mandate exceeds $300 million and we generally refrain from new commitments of less than $50 million, if not $100 million, RIO deems the company concentration risk of Alerus and Bell to be preferable over the smaller firms.

Next Steps:

RIO intends to share our findings with Callan and increase our own understanding of the investment services offered by Alerus and Bell later this year. In the event there is a mutual alignment of the investment needs of our SIB clients with the investment services offered by Bell and/or Alerus, RIO would respectfully request Callan to consider our local North Dakota based firms in our manager due diligence and selection process.

AGENDA ITEM III.F.

BOARD ACTION REQUESTED

TO: **State Investment Board**

FROM: **Darren Schulz and Dave Hunter**

DATE: **August 24, 2015**

SUBJECT: **Tobacco Prevention and Control Trust Fund Implementation**

Recommendation:

Following a search for managers that offer tobacco-free fixed income and equity strategies on behalf of the Tobacco Prevention and Control Trust Fund ("TPC"), Staff recommends to the Board the selection of State Street Global Advisors ("SSGA") to manage tobacco-free passive fixed income and equity mandates. In particular, **Staff recommends the selection of the following mandates:**

1. **90% allocation (approximately $42 million) to the SSGA Barclays 1-3 Year U.S. Treasury Index; and**
2. **10% allocation (approximately $4.7 million) to the SSGA S&P 500 ex-Tobacco Index.**

Background:

At the July 2015 SIB meeting, the Board approved an Investment Policy Statement ("IPS") for the TPC Fund. Within the IPS, in addition to language prohibiting investment in companies that derive any revenue from the sale of tobacco products, a strategic policy allocation of 90% fixed income/cash and 10% public equities was adopted based on the client's objectives and constraints, which can be summarized as follows:

1. A conservative risk tolerance reflecting not only a primary objective of capital preservation to fund the Agency's tobacco prevention and control programs, but also time horizon and liquidity constraints that include the cessation of Master Trust Settlement contributions after 2017 and the liquidation of Trust assets in subsequent years;

2. To support the real purchasing power of Trust assets while honoring the capital preservation objective, a conservative allocation of 10% equities is included for a higher potential return and diversification impact; and

3. A higher incremental yield than what is currently offered in a cash vehicle.

Implementation Due Diligence Process:

Staff conducted a search for investment managers that offer public equity and fixed income strategies employing screens of companies that do not derive any revenue from tobacco products. The universe of available investment vehicles also included strategies that screen more broadly for environmental, social and governance (ESG) factors which either explicitly exclude companies that derive revenues from tobacco production or do not include tobacco companies in the investible universe due to the inherently low ESG rankings assigned to the industry group.

Ultimately, four firms were selected and proposals were submitted by the following institutions: BlackRock iShares, Calvert Investments, Northern Trust Asset Management, and SSGA.

The following table summarizes the tobacco-free strategies reviewed by Staff:

	Fixed Income				Equity				
Firm	Strategies	Vehicle*	Style	Screen	Strategies	Vehicle*	Style	Screen	Total Fund Mgmt Fee
BlackRock	Treasury	ETF	Passive	None	MSCI US ESG Index	ETF	Passive	Positive ESG	0.19%
Calvert	Multi-Sector Short Duration	SA	Active	Tobacco Free	Calvert U.S. Large Cap Responsible Index	MF	Passive	Positive ESG	0.27%
Northern Trust	Government	C	Passive	None	MSCI World ESG index	MF	Passive	Positive ESG	0.17%
State Street	Treasury	C	Passive	None	S&P 500 Tobacco Free	C	Passive	Tobacco Free	0.04%

* C = Commingled Fund, ETF = Exchange Traded Fund, MF = Mutual Fund, SA = Separate Account

Selection Criteria:

Key considerations in the selection of managers to manage tobacco-free mandates were the following: 1) a preference for strategies that limit screens to the exclusion of only tobacco companies as compared to broader screens with a larger restricted universe; 2) a preference for high quality, shorter duration fixed income strategies to minimize credit and interest rate risk; and 3) a low cost implementation solution.

Recommendation Rationale:

Staff recommends the selection of SSGA to manage a passive Barclays 1-3 Year U.S. Treasury Index Strategy and a passive S&P 500 ex-Tobacco Index Strategy on behalf of the TPC Fund. Given a stated preference by Staff for a high quality, short duration fixed income solution, State Street offers the lowest cost short-term Treasury bond vehicle and it features a higher effective yield than the current Trust cash vehicle. Additionally, State Street offers a passive equity vehicle limited to only a tobacco screen at a low management fee.

Proposed Strategy	Weight	Estimated Contribution	Mgmt Fee (basis points)
SSgA Barclays 1-3 Year U.S. Treasury Index Strategy	90%	$ 42,000,000	4
SSgA S&P 500 ex-Tobacco Index Strategy	10%	$ 4,700,000	3.5
	100%	$ 46,700,000	4

The TPC asset allocation framework is unique with regards to the tobacco-free investment restriction along with the strong desire to preserve capital over a defined time period. These combined factors lead Staff to recommend a low cost, passive investment approach which meets TPC's tobacco free investment restrictions and strong desire to preserve capital in the current low rate environment.

Request for Board Action:

Approval to select SSGA to manage a 90% total fund allocation (approximately $42 million) in the SSgA Barclays U.S. Treasury 1-3 Year Index Strategy and a 10% allocation (approximately $4.7 million) in the SSGA S&P 500 ex-Tobacco Strategy on behalf of the TPC Fund.

AGENDA ITEM IV.A.

TO: State Investment Board

FROM: Dave Hunter, Executive Director/CIO

DATE: August 18, 2015

SUBJECT: Board Education

SIB Governance Policy B-7 encourages the development of a board education plan including investment education. RIO encourages all SIB members to participate in educational opportunities as their respective schedules permit and highly recommends the investment conferences offered by our consultant.

Based on discussion with prior SIB members, the **"Introduction to Investments"** conference offered by Callan (in Chicago on October 27-28, 2015), has been well received by newer board members ($2,350 tuition per participant), while the "**Callan National Conference"** (in San Francisco on January 25-27, 2016) has been well received by all attending SIB members (no tuition fee and includes meals at all events).

<u>I will invite SIB member opinion on the Callan conference offerings and other investment conferences during our meeting and then provide a refined list of additional investment conferences for member consideration in the future</u>.

It is important to note that some conferences may be attended by management firms with a strong desire to market their respective services and/or include topics which may not be specifically relevant to public pension plan attendees (e.g. defined contribution plan, lump sum settlements).

I will also share my "key take-away" points from our last governance presentation and provide an overview of our next steps for board education on pension governance (i.e. broad theories and practical applications).

NDSIB Board Education Opportunities

Callan New York Regional Workshop: October 21, 2015

Callan Atlanta Regional Workshop: October 22, 2015

Our regional workshops feature a two hour presentation given by a Callan specialist regarding a timely, often recently publicized, investment topic. For October, we will present the following topic:

Alternative investment strategies—once novelties compared to the traditional 60%equity/40% fixed income portfolio—have become standard in many institutional investment portfolios. Allocations to alternative investment strategies have notched up marginally over the past five years across investment types, leveling out after a decade of more rapid adoption. But are all investors using alternatives in the same capacity? In this workshop, we examine institutional investor use of asset classes like agriculture, private equity, and other real assets to create an asset allocation structure that meets their goals. We address the implementation challenges investors can face when putting these strategies into action.

Fiduciary Investors Symposium; Chicago: October 18-20, 2015

This event will include seminars across a wide range of subjects. A focus will be given to examining integrity and ethics within the context of investment manager relationships. Macroeconomics, asset allocation, risk management, and behavioral finance will also be discussed. Nobel Laureate Eugene Fama will host a Q&A session regarding Efficient Market Hypothesis.

Callan College: Introduction to Investments; Chicago: October 27-28, 2015

This session is designed to familiarize fund sponsor trustees, staff, and asset management advisors with basic investment theory, terminology, and practices. It is designed for individuals who have less than two years of experience with asset management oversight and/or support responsibilities.

Topics discussed will include:

- A description of the different parties involved in the investment management process, including their roles and responsibilities;
- A brief outline of the types and characteristics of different plans (i.e. defined benefit, defined contribution, endowments, foundations, and operating funds);
- An introduction to fiduciary issues as they pertain to fund management and oversight;
- An overview of capital market theory, characteristics of various asset classes, and the processes by which fiduciaries implement their investment sessions.

Callan National Conference; San Francisco: January 25-27, 2016

The National Conference consists of general sessions with presentations by world, political, arts, science, and investment industry speakers. The general sessions are followed by smaller breakout sessions on timely industry topics led by Callan specialists. Attendees include plan/fund sponsors, investment managers, and Callan associates.

Past presentation subjects include:

- Active Share
- Peripheral Real Asset Strategies
- Risk Management
- Investment Myths & Realities

More information regarding specific topics to be discussed at the 2016 conference will be available in the coming months.

Assorted Investment Conferences

September 2015

Markets Group Great Plains Institutional Forum; Minneapolis, MN; September 9th
The agenda will cover pension fund management, smart beta, private equity allocation trends, fund operational issues, global equity landscape, real assets, fixed income, and more. This forum is designed to bring together staff, board, and trustees from across Iowa, Kansas, Minnesota, Missouri, Nebraska, and the Dakotas.

https://www.marketsgroup.org/forums/great-plains-institutional-investor-forum-2015

The National Association of Government Defined Contribution Administrators, Inc. (NAGDCA); Indianapolis, IN; 27th-30th
This multi-day conference features general sessions, breakout speakers, and panel discussions centered focusing on plan administration, best practices, and strategies for preparing plan participants for retirement.

http://www.nagdca.org/dnn/NewsEvents/AnnualConference2015.aspx

October 2015

National Council on Teacher Retirement (NCTR); La Jolla, CA; 10th-14th
This multi-day conference features general sessions, breakout speakers, and panel discussions aimed at educating attendees about various asset classes and current trends in the retirement marketplace. Please note, in order to attend the conference you do have to become a member of NCTR.

http://www.nctr.org/cms/wp-content/uploads/15AC-Agenda-in-Brief-July-20.pdf

Pensions and Investments (P&I); New York, NY; 29th
Smart Beta Summit: Single day workshop focusing on smart beta, what it is, and how it fits into an overall portfolio

http://conferences.pionline.com/conference/smart-beta-summit/2015

Top 1000 Funds Fiduciary Investors Symposium; Chicago, IL; 18th-20th
This event will include seminars across a wide range of subjects. A focus will be given to examining integrity and ethics within the context of investment manager relationships. Macroeconomics, asset allocation, risk management, and behavioral finance will also be discussed. Nobel Laureate Eugene Fama will host a Q&A session regarding Efficient Market Hypothesis.

http://www.top1000funds.com/calendar/

November 2015

International Foundation of Employee Benefit Plans (IFEBP); Honolulu, HI; 8th-11th
This multi-day conference features general sessions and breakout sessions. Content is divided and coded by level of complexity so attendees can attend sessions tailored for their level of investment understanding.

https://www.ifebp.org/education/usannual/Pages/default.aspx

December 2015

Pensions and Investments (P&I); Chicago, IL; 8th
Liability Driven Investing Conference: Single day conference that reviews best practices for liability driven investing and provides new tools and techniques for ensuing an efficient de-risking strategy. Recent developments in LDI will also be discussed.

http://conferences.pionline.com/conference/liability-driven-investing/2015

National Association of State Retirement Administrators (NASRA); Washington, DC; 27th-29th
The NASRA winter meeting starts with a roundtable discussion of current events. Market analysis, forecasts, and overviews of current federal legislative and regulatory activities are presented the following days.

http://www.nasra.org/meetings

May 2016

National Conference on Public Employee Retirement Systems (NCPERS); San Diego, CA; 15th-19th
Educational material meant for trustees, administrators, state and local officials, investment and financial officers, and pension staff. Subject matter includes changes and trends in public plans, investment education, asset allocation, and more.

http://www.ncpers.org/annconf

August 2016

National Association of State Retirement Administrators (NASRA); Coeur D'Alene, ID; 6th-10th
This multi-day conference features leaders from retirement plan investing and administration and covers a wide variety of subjects including investment management, world events affecting the pension industry, economic trends, and more.

http://www.nasra.org/meetings

# # #

Callan

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2nd Quarter 2015

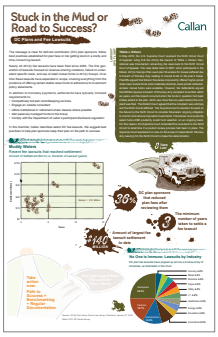
Education

Research and Educational Programs

The Callan Investments Institute provides research that keeps clients updated on the latest industry trends while helping them learn through carefully structured educational programs.

Recent Research

Please visit www.callan.com/research to see all of our publications.



Stuck in the Mud or Road to Success? DC Plans and Fee Lawsuits This charticle describes select fee lawsuits and best practices to help plan sponsors stay on the path to success.

Active Share and Product Pairs Analysis In this paper, author Greg Allen isolates the impact of active share on performance by focusing on "product pairs."

U.S. Equity Benchmark Review, Year-End 2014 This detailed report compares CRSP, Russell, and S&P indices alongside Callan Active Manager Style Groups.

Capital Market Review, 1st Quarter 2015 A newsletter providing insights on the economy and recent performance in the equity, fixed income, alternatives, and real estate markets.

Hedge Fund Monitor, 1st Quarter 2015 Cover story: Bridging the Gap: Multi-Asset Class Strategies.

Private Markets Trends, Spring 2015 A quarterly newsletter that discusses the market environment, recent events, performance, and other issues involving private equity.

DC Observer, 1st Quarter 2015 Cover story: Is Your Target Date Fund Suitable? Plus the Callan DC Index™.

Market Pulse Flipbook, 1st Quarter 2015 A reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, and alternatives.

Inside Callan's Database, 1st Quarter 2015 This report graphs performance and risk data from Callan's proprietary database alongside relevant market indices.

Real Estate Indicators: Too Hot to Touch or Cool Enough to Handle? See seven indicators that have helped signal when the institutional real estate market is overheated or cooled.

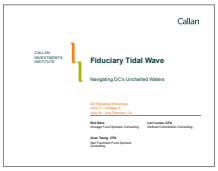
The Game of Retirement–Helping Employees Win This charticle provides a high-level look at the three generations DC plan sponsors must target and how best to communicate with them.

The Investment Vehicle Owner's Manual This charticle highlights the key features of several popular investment vehicles. It also encourages investors to consider six important questions when making an investment vehicle selection.

2015 Defined Contribution Survey Callan's annual survey of DC plan sponsors reveals trends in plan structure and management.

Events

Did you miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: https://www.callan.com/education/CII/



The **June Regional Workshop**'s topic was "Fiduciary Tidal Wave: Navigating DC's Uncharted Waters." Our speakers were Rod Bare, Chicago Fund Sponsor Consulting; Lori Lucas, CFA, Defined Contribution Consulting; and Uvan Tseng, CFA, San Francisco Fund Sponsor Consulting.

Our next event is the **October Regional Workshop**, to be held October 21 in New York and October 22 in Atlanta. Stay tuned for topic and speaker details! Also, save the date for our annual **National Conference** in San Francisco, January 25-27, 2016.

For more information about research or educational events, please contact Ray Combs: institute@callan.com or 415.974.5060

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 27-28, 2015

This session familiarizes fund sponsor trustees, staff, and asset management advisors 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.

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Education: By the Numbers

500	Attendees (on average) of the Institute's annual National Conference	**50+**	Unique pieces of research the Institute generates each year
3,300	Total attendees of the "Callan College" since 1994	**1980**	Year the Callan Investments 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

AGENDA ITEM IV. B.

TO: State Investment Board

FROM: Dave Hunter and Darren Schulz

DATE: August 24, 2015

SUBJECT: Asset Class Definitions and Callan Glossary of Investment Terms

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A refreshed "Overview of Asset Class Definitions" is attached along with Callan's latest "Glossary of Investment Terms". These reference materials are provided for informational purposes only.

Overview of Asset Class Definitions (Revised August 18, 2015)

There are three major asset classes:

1. **Equity**
2. **Debt**
3. **Real Assets** (or Other)

Alternative Investments are often cited as the fourth major asset class, but can frequently be re-classified into one of the other three categories with some exceptions (i.e. total return strategies using debt and equity).

Equity investments represent an ownership claim on the residual assets of a company after paying off debt.

Equities should be segregated into two major sectors, Public and Private, given major differences in liquidity:

1. Public equities are generally highly liquid and *valued on a daily basis* in the financial markets. Examples include common stock (Apple, Coca-Cola or McDonalds), options and futures.
2. Private equities are generally less liquid and often *valued on a less frequent basis* (monthly or quarterly). Major private equity firms include Apollo, Bain, Blackstone, Carlyle, KKR and TPG.

Public equity markets are often sub-classified by geographic region (U.S., International or Global), market capitalization (Large, Medium or Small), investment style (core, growth or value) and level of economic development (developed or emerging markets). The top U.S. and global equity benchmarks are discussed below.

Five major U.S. equity benchmarks include the **S&P 500, Russell 1000, 2000 and 3000,** and **Dow Jones Industrial Average ("Dow")**. The **S&P 500** is based on the market capitalizations of 500 large companies having common stock listed on the NYSE or NASDAQ. The **Russell 1000** represents the highest-ranking 1,000 stocks in the Russell 3000 Index, and represents about 90% of the total market capitalization of that index. The Russell 1000 has a weighted average market capitalization of over $100 billion with a median of approximately $8 billion. The **Russell 2000 Index** is a small-cap index and represents the bottom 2,000 stocks in the Russell 3000 Index. The Russell 2000 has a weighted average market capitalization of less than $2 billion with a median of less than $1 billion. The Russell 2000 is the most common benchmark for funds that identify themselves as "small-cap", while the **S&P 500** index is used primarily for large capitalization stocks. The **Dow** is a price-weighted measure of 30 U.S. blue-chip companies. **The Dow** covers all industries with the exception of transportation and utilities, which are covered by the Dow Jones Transportation Average and Dow Jones Utility Average. While stock selection is not governed by quantitative rules, a stock typically is added to The Dow only if the company has an excellent reputation, demonstrates sustained growth and is of interest to a large number of investors. Maintaining adequate sector representation within the indices is also a consideration in the selection process.

The **MSCI All Country World Index** (or "ACWI") measures the equity market performance of developed and emerging markets and consists of 46 country indexes comprising 23 developed and 23 emerging market country indexes. The developed market countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market countries are listed below. The **MSCI EAFE Index (Europe, Australasia, Far East)** measures the equity market performance of the developed market countries, excluding the US & Canada. The **MSCI Emerging Markets Index** measures equity market performance of emerging markets and consists of the following 24 countries: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

Public equity has historically provided **high investment returns with high volatility and high liquidity when compared to Bonds or Real Assets**. Currently, many investment consultants believe that Private Equity will provide an even higher investment return than Public Equity, albeit with higher volatility and less liquidity.

Debt represents a legal obligation between a borrower and a lender for a stated period of time and rate.

Debt or "Bonds" are classified as fixed or floating depending upon whether the interest rate is derived using a fixed rate (i.e. 5%) or a floating rate (i.e. Prime + 1.00%). Duration risk within fixed income is a major driver of investment risk and return particularly for longer term securities, including U.S. Treasury bonds.

Debt is often sub-classified into investment grade (rated BBB- or better) or non-investment grade (rated less than BBB- or non-rated) or by geographic region (U.S., International, Developed Markets or Emerging Markets). Debt can be issued by governments, agencies or companies and represent general obligations of the issuer or be backed by a specified pool of assets (i.e. mortgage backed securities). Bonds serve to diversify a portfolio by offering **lower volatility** than equities along with a **lower expected return and generally high liquidity**.

Real Assets represent an ownership interest in physical assets such as real estate, infrastructure (airports, toll roads), timberland and commodities (gold, oil, wheat). Real assets are expected to provide inflation hedging characteristics in periods of unanticipated inflation and diversify a portfolio consisting of debt and equity.

Alternative Investments can include precious metals, art, antiques, and financial assets such as derivatives, commodities, private equity, distressed debt and hedge funds. Real estate and forestry are also often termed alternative. Alternatives are sometimes used as a tool to reduce overall investment risk through diversification and may offer lower correlation with traditional financial investments such as stocks and bonds, although it may be difficult to determine the current market value of the asset, may be illiquid, purchase and sales costs may be high, and there may be limited historical risk and return data, all of which makes analysis complex.

Callan's 2015 Capital Markets Expectations for Return and Risk by major asset class and sector are summarized below and helpful when comparing the projected benefits and risks of each investment class.

		PROJECTED RETURN			PROJECTED RISK			2014 - 2023		
Asset Class	**Index**	**1-Year Arithmetic**	**10-Year Geometric***	**Real**	**Standard Deviation**	**Sharpe Ratio**	**Projected Yield**	**10-Year Geometric***	**Standard Deviation**	**Geometric* Delta**
Equities										
Broad Domestic Equity	Russell 3000	9.15%	7.60%	5.35%	19.00%	0.363	2.40%	7.60%	19.00%	0.00%
Large Cap	S&P 500	8.90%	7.50%	5.25%	18.30%	0.363	2.50%	7.50%	18.30%	0.00%
Small/Mid Cap	Russell 2500	10.15%	7.85%	5.60%	22.95%	0.344	1.90%	7.85%	22.95%	0.00%
Global ex-US Equity	MSCI ACWI ex USA	9.80%	7.80%	5.55%	21.45%	0.352	2.70%	7.80%	21.45%	0.00%
International Equity	MSCI World ex USA	9.25%	7.50%	5.25%	20.20%	0.347	3.00%	7.50%	20.20%	0.00%
Emerging Markets Equity	MSCI Emerging Markets	11.45%	7.90%	5.65%	27.95%	0.329	1.70%	7.90%	27.95%	0.00%
Fixed Income										
Short Duration	Barclays G/C 1-3	2.40%	2.40%	0.15%	2.25%	0.067	2.80%	2.75%	2.25%	-0.35%
Domestic Fixed	Barclays Aggregate	3.05%	3.00%	0.75%	3.75%	0.213	4.60%	3.00%	3.75%	0.00%
Long Duration	Barclays Long G/C	3.75%	3.20%	0.95%	11.40%	0.132	5.30%	4.10%	11.40%	-0.90%
TIPS	Barclays TIPS	3.10%	3.00%	0.75%	5.30%	0.160	4.20%	3.00%	5.30%	0.00%
High Yield	Barclays High Yield	5.50%	5.00%	2.75%	11.10%	0.293	8.00%	5.05%	11.45%	-0.05%
Non-US Fixed	Barclays Global Aggregate ex US	2.70%	2.30%	0.05%	9.40%	0.048	4.00%	2.75%	9.40%	-0.45%
Emerging Market Debt	EMBI Global Diversified	5.10%	4.70%	2.45%	10.00%	0.285	6.50%	4.90%	10.65%	-0.20%
Other										
Real Estate	Callan Real Estate	7.35%	6.15%	3.90%	16.50%	0.309	5.00%	6.15%	16.50%	0.00%
Private Equity	TR Post Venture Cap	13.55%	8.50%	6.25%	33.05%	0.342	0.00%	8.50%	33.05%	0.00%
Hedge Funds	Callan Hedge FoF Database	5.55%	5.25%	3.00%	9.30%	0.355	2.25%	5.10%	8.85%	0.15%
Commodities	Bloomberg Commodity	4.40%	2.75%	0.50%	18.50%	0.116	2.25%	3.05%	18.25%	-0.30%
Cash Equivalents	90-Day T-Bill	2.25%	2.25%	0.00%	0.90%	0.000	2.25%	2.00%	0.90%	0.25%
Inflation	CPI-U		2.25%		1.50%			2.25%	1.50%	0.00%

** Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).*

The Callan Periodic Table of Investment Returns

Annual Returns for Key Indices Ranked in Order of Performance (1995–2014)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
S&P 500 Growth 38.13%	S&P 500 Growth 23.97%	S&P 500 Growth 36.52%	S&P 500 Growth 42.16%	MSCI Emerging Markets 66.42%	Russell 2000 Value 22.83%	Russell 2000 Value 14.02%	Barclays Agg 10.26%	MSCI Emerging Markets 56.28%	MSCI Emerging Markets 25.95%	MSCI Emerging Markets 34.54%	MSCI Emerging Markets 32.59%	MSCI Emerging Markets 39.78%	Barclays Agg 5.24%	MSCI Emerging Markets 79.02%	Russell 2000 Growth 29.09%	Barclays Agg 7.84%	MSCI Emerging Markets 18.63%	Russell 2000 Growth 43.30%	S&P 500 Growth 14.89%
S&P 500 37.58%	S&P 500 22.96%	S&P 500 33.36%	S&P 500 28.58%	Russell 2000 Growth 43.09%	Barclays Agg 11.63%	Barclays Agg 8.43%	Barclays Corp High Yield -1.41%	Russell 2000 Growth 48.54%	Russell 2000 Value 22.25%	MSCI EAFE 13.54%	MSCI EAFE 26.34%	MSCI EAFE 11.17%	Barclays Corp High Yield -26.16%	Barclays Corp High Yield 58.21%	Russell 2000 26.85%	Barclays Corp High Yield 4.98%	Russell 2000 Value 18.05%	Russell 2000 38.82%	S&P 500 13.69%
S&P 500 Value 36.99%	S&P 500 Value 22.00%	Russell 2000 Value 31.78%	MSCI EAFE 20.00%	S&P 500 Growth 28.24%	S&P 500 Value 6.08%	Barclays Corp High Yield 5.28%	MSCI Emerging Markets -6.00%	Russell 2000 47.25%	MSCI EAFE 20.25%	S&P 500 Value 5.82%	Russell 2000 Value 23.48%	S&P 500 Growth 9.13%	Russell 2000 Value -28.92%	Russell 2000 Growth 34.47%	Russell 2000 Value 24.50%	S&P 500 Growth 4.65%	S&P 500 Value 17.68%	Russell 2000 Value 34.52%	S&P 500 Value 12.36%
Russell 2000 Growth 31.04%	Russell 2000 Value 21.37%	S&P 500 Value 29.98%	S&P 500 Value 14.69%	MSCI EAFE 26.96%	Russell 2000 -3.02%	Russell 2000 2.49%	Russell 2000 Value -11.43%	Russell 2000 Value 46.03%	Russell 2000 18.33%	S&P 500 4.91%	S&P 500 Value 20.81%	Russell 2000 Growth 7.05%	Russell 2000 -33.79%	MSCI EAFE 31.78%	MSCI Emerging Markets 19.20%	S&P 500 2.11%	MSCI EAFE 17.32%	S&P 500 Growth 32.75%	Barclays Agg 5.97%
Russell 2000 28.45%	Russell 2000 16.49%	Russell 2000 22.36%	Barclays Agg 8.70%	Russell 2000 21.26%	Barclays Corp High Yield -5.86%	MSCI Emerging Markets -2.37%	MSCI EAFE -15.94%	MSCI EAFE 38.59%	S&P 500 Value 15.71%	Russell 2000 Value 4.71%	Russell 2000 18.37%	Barclays Agg 6.97%	S&P 500 Growth -34.92%	S&P 500 Growth 31.57%	Barclays Corp High Yield 15.12%	S&P 500 Value -0.48%	Russell 2000 16.35%	S&P 500 32.39%	Russell 2000 Growth 5.60%
Russell 2000 Value 25.75%	Barclays Corp High Yield 11.35%	Russell 2000 Growth 12.95%	Barclays Corp High Yield 1.87%	S&P 500 21.04%	S&P 500 -9.11%	Russell 2000 Growth -9.23%	Russell 2000 -20.48%	S&P 500 Value 31.79%	Russell 2000 Growth 14.31%	Russell 2000 4.55%	S&P 500 15.79%	S&P 500 5.49%	S&P 500 -37.00%	Russell 2000 27.17%	S&P 500 Value 15.10%	Russell 2000 Growth -2.91%	S&P 500 16.00%	S&P 500 Value 31.99%	Russell 2000 4.89%
Barclays Corp High Yield 19.18%	Russell 2000 Growth 11.26%	Barclays Corp High Yield 12.76%	Russell 2000 Growth 1.23%	S&P 500 Value 12.73%	MSCI EAFE -14.17%	S&P 500 Value -11.71%	S&P 500 Value -20.85%	Barclays Corp High Yield 28.97%	Barclays Corp High Yield 11.13%	Russell 2000 Growth 4.15%	Russell 2000 Growth 13.35%	S&P 500 Value 1.99%	Russell 2000 Growth -38.54%	S&P 500 26.47%	S&P 500 15.06%	Russell 2000 -4.18%	Barclays Corp High Yield 15.81%	MSCI EAFE 22.78%	Russell 2000 Value 4.22%
Barclays Agg 18.46%	MSCI EAFE 6.05%	Barclays Agg 9.64%	Russell 2000 -2.55%	Barclays Corp High Yield 2.39%	S&P 500 Growth -22.08%	S&P 500 -11.89%	S&P 500 -22.10%	S&P 500 28.68%	S&P 500 10.88%	S&P 500 Growth 4.00%	Barclays Corp High Yield 11.85%	Barclays Corp High Yield 1.87%	S&P 500 Value -39.22%	S&P 500 Value 21.17%	S&P 500 Growth 15.05%	Russell 2000 Value -5.50%	S&P 500 Growth 14.61%	Barclays Corp High Yield 7.44%	Barclays Corp High Yield 2.45%
MSCI EAFE 11.21%	MSCI Emerging Markets 6.03%	MSCI EAFE 1.78%	Russell 2000 Value -6.45%	Barclays Agg -0.82%	Russell 2000 Growth -22.43%	S&P 500 Growth -12.73%	S&P 500 Growth -23.59%	S&P 500 Growth 25.66%	S&P 500 Growth 6.13%	Barclays Corp High Yield 2.74%	S&P 500 Growth 11.01%	Russell 2000 -1.57%	MSCI EAFE -43.38%	Russell 2000 Value 20.58%	MSCI EAFE 7.75%	MSCI EAFE -12.14%	Russell 2000 Growth 14.59%	Barclays Agg -2.02%	MSCI Emerging Markets -1.82%
MSCI Emerging Markets -5.21%	Barclays Agg 3.64%	MSCI Emerging Markets -11.59%	MSCI Emerging Markets -25.34%	Russell 2000 Value -1.49%	MSCI Emerging Markets -30.61%	MSCI EAFE -21.44%	Russell 2000 Growth -30.26%	Barclays Agg 4.10%	Barclays Agg 4.34%	Barclays Agg 2.43%	Barclays Agg 4.33%	Russell 2000 Value -9.78%	MSCI Emerging Markets -53.18%	Barclays Agg 5.93%	Barclays Agg 6.54%	MSCI Emerging Markets -18.17%	Barclays Agg 4.21%	MSCI Emerging Markets -2.27%	MSCI EAFE -4.90%

The Callan Periodic Table of Investment Returns conveys the strong ***case for diversification*** across asset classes (stocks vs. bonds), investment styles (growth vs. value), capitalizations (large vs. small), and equity markets (U.S. vs. international). The Table highlights the uncertainty inherent in all capital markets. Rankings change every year. Also noteworthy is the difference between absolute and relative performance, as returns for the top-performing asset class span a wide range over the past 20 years.

A printable copy of The Callan Periodic Table of Investment Returns is available on our website at **www.callan.com**.

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The Callan Periodic Table of Investment Returns 1995–2014

Callan's Periodic Table of Investment Returns depicts annual returns for 10 asset classes, ranked from best to worst performance for each calendar year. The asset classes are color-coded to enable easy tracking over time. We describe the well-known, industry-standard market indices that we use as proxies for each asset class in the text below.

- **Barclays Aggregate Bond Index** (formerly the Lehman Brothers Aggregate Bond Index) includes U.S. government, corporate, and mortgage-backed securities with maturities of at least one year.

- **Barclays High Yield Bond Index** measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt.

- **MSCI EAFE** is a Morgan Stanley Capital International Index that is designed to measure the performance of the developed stock markets of Europe, Australasia, and the Far East.

- **MSCI Emerging Markets** is a Morgan Stanley Capital International Index that is designed to measure the performance of equity markets in 21 emerging countries around the world.

- **Russell 2000** measures the performance of small capitalization U.S. stocks. The Russell 2000 is a market-value-weighted index of the 2,000 smallest stocks in the broad-market Russell 3000 Index. These securities are traded on the NYSE, AMEX, and NASDAQ.

- **Russell 2000 Value and Russell 2000 Growth** measure the performance of the growth and value styles of investing in small cap U.S. stocks. The indices are constructed by dividing the market capitalization of the Russell 2000 Index into Growth and Value indices, using style "factors" to make the assignment. The Value Index contains those Russell 2000 securities with a greater-than-average value orientation, while the Growth Index contains those securities with a greater-than-average growth orientation. Securities in the Value Index generally have lower price-to-book and price-earnings ratios than those in the Growth Index. The indices are market-capitalization-weighted. The constituent securities are not mutually exclusive.

- **S&P 500** measures the performance of large capitalization U.S. stocks. The S&P 500 is a market-value-weighted index of 500 stocks that are traded on the NYSE, AMEX, and NASDAQ. The weightings make each company's influence on the Index performance directly proportional to that company's market value.

- **S&P 500 Growth and S&P 500 Value** measure the performance of the growth and value styles of investing in large cap U.S. stocks. The indices are constructed by dividing the market capitalization of the S&P 500 Index into Growth and Value indices, using style "factors" to make the assignment. The Value Index contains those S&P 500 securities with a greater-than-average value orientation, while the Growth Index contains those securities with a greater-than-average growth orientation. The indices are market-capitalization-weighted. The constituent securities are not mutually exclusive.

Callan

Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional clients with creative, customized investment solutions that are uniquely backed by proprietary research, exclusive data, ongoing education and decision support. Today, Callan advises on more than $1.8 trillion in total assets, which makes us among the largest independently owned investment consulting firms in the U.S. We use a client-focused consulting model to serve public and private pension plan sponsors, endowments, foundations, operating funds, smaller investment consulting firms, investment managers, and financial intermediaries. For more information, please visit www.callan.com.

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Asset Class Definitions (previously distributed to SIB, TFFR and PERS board members and/or their investment sub-committees)

Global Equity

Definition
Investment represents an ownership claim on the residual assets of a company after the discharge of all senior claims such as secured and unsecured debt.

Public Equity
Public equity is traded on a national exchange. Includes common stock, preferred stock, convertible to stock, options, warrants, futures and other derivatives on equities or composites of equities, exchange-traded funds and equity-linked notes, units and partnership shares representing ownership interests in an underlying equity investment.

Private Equity
Private equity represents equity or equity linked securities in operating companies that are not publicly traded on a stock exchange.

Types of investment strategies
- *Leveraged buyout (LBO*) – Acquisition of a company with the use of financial leverage
- *Growth capital* – Investment in mature companies looking for capital to expand, restructure, enter new markets
- *Venture capital* – Investment in typically less mature companies, for launch, early development, or expansion
- *Mezzanine* – Subordinated debt/preferred equity used to reduce amount of equity capital required to finance LBOs
- *Distressed* – Equity securities of financially stressed companies
- *Secondaries* – Investment in existing private equity assets

Types of structures
- *Direct investment* – Direct purchase of equity securities of a private company
- *Co-investments* – Investments in equity securities of a private company alongside
- the manager of a direct fund
- *Direct fund* – Pool of capital formed to make direct investments
- *Fund-of-funds* – Pool of capital formed to make investments in direct funds

Strategic Role
- High long-term real returns
- Hedge against active (pre-retirement) liabilities
- Private equity enhances total portfolio return as a tradeoff for illiquidity

Characteristics

Public Developed Markets

- Relatively high returns (long-term) as compared to fixed income and real assets
- Relatively high volatility (standard deviation of returns) as compared to fixed income and real assets
- Relatively high liquidity
- Diversification
- Historically, public developed equities exhibit high correlation with private equity and high yield bonds, moderate correlation with investment grade corporate bonds and real assets, and negative correlation with sovereign debt.
- Currency adds to volatility but can be hedged, which mutes the diversification benefits

Public Emerging Markets

- Higher expected returns due to economic growth potential
- Liquidity risk is significant, particularly in frontier markets
- High volatility, particularly in frontier markets
- Historically, public emerging equities exhibit high correlation with high yield bonds, moderate correlation with investment grade corporate bonds and real assets, and negative correlation with sovereign debt.
- FX markets not sufficiently developed to hedge currency risk
- Limited access to markets
- Market information less abundant than for developed markets
- Counterparty risk and settlement delays pronounced in frontier markets

Private Equity

- Illiquid, long-term time horizon (7-12 year closed-end partnerships)
- Quality of the managers selected is the key determinant of success
- High volatility of returns compensated by higher expected returns
- Historically, public emerging equities exhibit high correlation with high yield bonds, moderate correlation with investment grade corporate bonds and real assets, and negative correlation with sovereign debt.
- Encompasses three stages: fundraising, portfolio construction and investment, exit and return realization

Risks

Public Equity

- *Absolute risk* – Possible magnitude of price decline
- *Liability hedging risk* – Risk that assets will not increase when liabilities increase
- *Regulatory risk* – Changes may adversely affect markets

- *Tax risk* – Changes may adversely affect markets
- *Liquidity risk* – Difficulty trading securities under adverse market conditions
- *Firm specific risk* – Unique risks associated with a specific firm
- *Tracking risk* – Magnitude of performance deterioration from a benchmark
- *Time horizon* – Horizon too short to weather cycles
- *Benchmark risk* – Benchmark not appropriate proxy
- *Market risks* – Price decline
- *Currency risk* – Unanticipated changes in exchange rate between two currencies
- *Counterparty risk* – Counterparty does not live up to its contractual obligations

Private Equity

- *Liquidity risk* – Absence of liquidity and appropriate exits could significantly increase time horizon
- *Firm specific risk* – Unique risks associated with a specific firm
- *Leverage risk* – Historical excess use of leverage and current inability to secure financing may adversely affect LBOs
- *Manager selection risk* – Selecting managers that fail to deliver top performance results
- *Diversification risk* – Inability to properly diversify the portfolio by vintage year, industry groups, geography
- *Tax risk* – Changes may adversely affect markets
- *Regulatory risk* – Changes may adversely affect markets
- *Strategy risk* – Continuing applicability of investment strategy in context of capital flows
- *Market risks* – Price decline

Global Fixed Income

Definition

Investment represents a legal obligation between a borrower and the lender with a maturity in excess of one year. Evidence of indebtedness and securities that evidence an ownership interest in debt obligations that are issued, insured, guaranteed by, or based on the credit of the following: companies, governmental entities or agencies, banks and insurance companies. Includes agency and non-agency mortgage-backed securities, collateralized mortgage obligations, commercial mortgage-backed securities, asset-backed securities, private placements, and options, futures or other derivatives on fixed income securities or components of fixed income.

Strategic Role

- Diversification within a multi-asset class, total return portfolio
- Hedge against a long duration accrued liability
- Current income
- Non-U.S. provides hedge against unanticipated domestic inflation and diversification to U.S. assets

Characteristics

- Medium volatility asset class
- Relatively high liquidity
- Broadly diversified by market sector, quality, and maturity
- Historically, developed sovereign debt exhibits low to negative correlation with real assets and negative correlation with equities; investment grade corporate bonds exhibit moderate correlation with equities and low correlation with real assets; high yield exhibits high correlation with equities and moderate correlation with real assets.
- A large currency component exists within international fixed income returns
- Developed markets are extremely liquid. Many issues of less developed markets are also relatively liquid.

Risks

- *Duration risk* – Price volatility from a change in overall interest rates
- *Convexity risk* – Negative convexity is the risk of price declines being greater than the price increase due to interest rates moving equally up versus down
- *Default or credit risk* – The uncertainty surrounding the borrower's ability to repay its obligations
- *Structure risk* – Risk that arises from the options implicit in bonds (like call ability and sinking funds) or the rules that govern cash flow differ from expectations
- *Sector risk* – Risk of holding sectors that are in different proportions than the benchmark
- *Liquidity risk* – Cost of trading in a security which is reflected in the bid-ask spread or the cost of selling due to cash flow needs
- *Reinvestment risk* – The uncertainty surrounding future yield opportunities to invest funds which come available due to call, maturities, or coupon payments
- *Benchmark risk* – Risk of the benchmark being inappropriate
- *Yield curve risk* – Price changes induced by changes in the slope of the yield curve
- *Currency risk* – The risk of currency movements vs. the dollar for each market. Currency may contribute greatly to return and lower correlation.

Global Real Assets

Definition

Investment represents an ownership interest in real return assets that provide inflation hedging characteristics in periods of unanticipated inflation. Includes inflation-linked securities, private or public real estate equity or equity-linked investments, private or public real estate debt, infrastructure, timber, real asset mezzanine debt or equity, non-fixed assets and other opportunistic investments in real assets.

Strategic Role

- Reduces risk of composite multi-asset portfolios through diversification
- Relatively low correlations to traditional asset classes
- Can serve as a possible inflation hedge during periods of high inflation
- Provides an attractive return relative to fixed income asset class in periods of low to moderate inflation
- Infrastructure provides inflation protection as he revenues of the underlying assets are typically linked to CPI
- Potential for high returns in niche opportunities

Characteristics

Real Estate

- *Risk* – Volatility of private real estate falls between publicly-traded debt and publicly-traded equities
- *Returns* – Nominal returns are expected to fall between equities and fixed income
- *Correlation* – Expected to exhibit low to no correlation with government and investment grade corporate bonds, and moderate correlation with high yield and equities.
- *Illiquidity* – Transactions require a significantly longer period to execute than other asset classes
- *Inefficient Market* – Information affecting real estate asset valuation and market trading is not rapidly, accurately, or efficiently reflected or interpreted in its pricing

Infrastructure

- *Long life assets* – Capital intensive assets with 25 to 99 year concessions, match for liability duration
- *Inflation protection* – Revenues typically linked to CPI
- *Monopoly or quasi monopoly* – High barriers to entry due to scale and capital cost
- *Steady and predictable cash flow* – Produce strong and predictable yields
- *Low correlation* – Provides portfolio diversification, low beta; expected to exhibit low to no correlation with fixed income and equities
- *Inelastic demand* – Predictable demand with little volatility, less susceptibility to economic downturns
- *Limited commodity risk* – Not subject to commodity pricing
- *Insensitive to changes in technology* – Low risk of redundancy or technology obsolescence
- Investments are usually illiquid and involve a long (10 to 20 year) holding period

Timberland

- *Return* – Low correlation with other asset classes, returns stem from four distinct sources: biological growth, timber prices, land values and management strategy
- *Income* – Driven almost entirely by the sale of harvested mature trees
- *Correlation* – Expected to exhibit low to no correlation with government and investment grade corporate bonds, and moderate correlation with high yield and equities.
- *Appreciation* – Driven by increased volume and value on timber and appreciation of underlying land
- Categorized by type of land (e.g. plantation, natural forest), type of tree (e.g., hardwood, softwood), country and region

Commodities

- *Real assets* – Raw materials that are the physical inputs of production, relatively homogenous in nature, lending itself to be traded via contracts with standardized terms
- *Inflation protection* – Storable commodities (such as energy) directly related to the intensity of economic activity exhibit positive correlation with unexpected inflation
- *Insurance risk premium* – Commodity futures prices tend to be priced at a discount to spot prices in order to induce speculators to bear volatile commodity price risk that inventory holders and producers wish to lay off

- *Positive event risk* – Surprises that occur in the commodities markets tend to be those that unexpectedly reduce the supply of the commodity to the market, resulting in price spikes
- *Negatively correlated with financial assets* – Unlike stocks and bonds, commodities are not as directly impacted by changes in discount rates as they are by the current supply and demand of the underlying commodity, thus they should be expected to have little or even negative correlation with capital assets.

Risks

Real Estate

- *Property type risks* – Negative changes in demand/supply conditions by property type (e.g., office, industrial, retail, lodging, mixed-use, multi-family)
- *Location risks* – Local market condition relative to the adverse changes surrounding a property, or in discovery of hazardous underlying conditions, such as toxic waste
- *Tenant credit risks* – Failure by a tenant to pay what is contractually owed
- *Physical/functional obsolescence* – Negative influences on buildings due to technological changes, outdated layout and design features, and physical depreciation
- *Interest rate risk* – Higher rates can negatively impact both sales strategies and leveraged properties at refinancing
- *Reinvestment risk* – In a declining rental rate market, cash flow received may not be reinvested at the same level
- *Business cycle risk* – As economies slow down, there may be less demand for space
- *Inflationary risk* – Rent levels may not always keep up with rising operating expense levels
- *Illiquidity* – Inability to effectively liquidate a property into cash
- *Natural disaster risk* – Weather, floods, earthquake
- Regulatory concerns are critical, especially in emerging markets
- Capital and managerial intensive

Infrastructure

- *Leverage* – Deals with leverage between 40% and 80% can transform low risk assets into risky investments. Changes in the credit environment alter refinancing risk.
- *Market inefficiencies* – Competitive auctions lead to overpaying. There is a limited history and track record in the U.S. infrastructure space.
- *Political and headline risk* – Public acceptance and understanding of infrastructure needs to expand. In addition, the political landscape in every state and municipality differs.
- *Regulatory risk* – Regulated assets are subject to government changes
- *Construction and development* – Project overruns and delays should be shared with construction partners. Volume/demand risk for new developments can vary.
- *Labor issues* – Greenfield projects could generate new jobs while the privatization of brownfield assets could eliminate skilled labor members
- *Asset control* – Stipulations via concession agreements limit some management control (pricing, growth, decision approvals, etc.). Asset control needs to be appropriately priced.
- *Firm specific risk* – Unique risks are associated with specific firm

Timberland

- *Liquidity risk* – Liquidity is thin, marketplace characterized by few buyers and sellers, transactions are complicated and can take many months to execute
- *Valuation risk* – Annual appraisal process can lead to disparities between carrying value and realized sales prices during downturns
- *Physical risk* – Subject to losses from natural and human-caused events such as fire, insect and vermin infestations, disease, inclement weather, and theft
- *Political and regulatory risk* – Environmental regulations can restrain or prohibit timberland management activities
- *Leverage* – Can amplify volatility and potentially lead to an inability to refinance properties or lead to a distressed sale, requires a minimum level of generated income
- *Location risks* – Real estate dispositions may also be impacted by weakness in local residential real estate markets

Commodities

- *Price risk* – Commodities with difficult or non-existent storage situations (heating oil, live cattle, live hogs, copper) coupled with a long-lead time between the production decision and the actual production of the commodity can lead to very volatile spot prices
- *Negative futures roll* – When the future contract's price is at a premium to the spot price, the cost to roll contracts forward is negative: an investor continuously locks in losses from the futures contracts converging to a lower spot price
- *Regulatory risk* – Concerns about the role played by investors in commodity markets could lead to new regulations impacting available investment opportunities, ultimately affecting investors' "license to invest".
- *Leverage* – A commodity futures program that is not fully collateralized (for every desired $1 in commodity futures exposure, an investor sets aside $1 in cash) can amplify volatility and potentially lead to greater losses
- *Implementation* – Because futures contracts are levered, cash management for the collateral is an important consideration due to the value

Global Alternatives

Definition

Investment has a distinct return/risk factor profile as compared to other specified broad asset class groupings. Examples: Low market exposure/absolute return strategies such as market neutral, and other niche strategies with low asset class beta such as insurance-linked investments, volatility, intellectual property, healthcare royalty, shipping, litigation finance and fine art.

Strategic Role

- More robust diversification achieved through the introduction of non-traditional return drivers/risk factors
- Low or negative correlations to other asset classes
- Return profile less dependent on economic growth and interest rates
- Potential for attractive risk-adjusted returns

Characteristics

- *Returns* – Exhibits lower correlations to broader equity and credit markets in periods of market distress
- *Illiquidity* – Transactions may require a longer period to execute than other asset classes
- *Inefficient Market* – Information affecting asset valuation and market trading may not be accurately or efficiently reflected or interpreted in its pricing

Risks

- *Market risk* – Cost of carry on being long volatility
- *Natural disaster risk* – Weather, floods, earthquake affect natural catastrophe-based insurance-linked products
- *Due diligence* – Complicated to evaluate and monitor
- *Illiquidity* – Transactions may require a longer period to execute than other asset classes
- *Implementation* – Complexity of implementation may be an impediment

Callan

Glossary of Investment Terms

The following Glossary of Investment Terms was prepared by Callan Associates.

A

Absolute Return Strategy – An absolute return strategy aims to produce positive returns in any market environment, primarily through the use of various hedge fund strategies.

Accumulated Benefit Obligation (ABO) – The ABO is an approximate measure of the liability of a retirement plan assuming immediate termination.

Active Duration Strategy – Active duration refers to a style of fixed income investing that actively manages portfolio duration to reflect expected changes in interest rates. Managers that employ this strategy/style are sometimes called "interest rate anticipators."

Active Management – Active management is a form of investment management that involves actively managing investment securities with the objective of earning positive risk-adjusted returns.

Actuary – A specialist in the application of mathematics, probability, statistics and risk theory to financial problems involving future uncertainty. These uncertainties are usually associated with life insurance, property and casualty insurance, annuities, pension or other employee benefit plans and investments.

ADV Part I, II – A disclosure document that all Registered Investment Advisors are required to file (and update annually) with the Securities and Exchange Commission. Part II of the ADV is required to be delivered to a client prior to or in conjunction with entering into a contract with an advisor.

All Cap Strategy – All cap managers invest in small, mid and large cap equity securities.

Alpha – Alpha is a coefficient used to measure risk-adjusted performance. As such, alpha measures the excess return associated with a security or portfolio over the market return. Alpha can be used to measure a manager's contribution to performance due to active management. A positive alpha indicates that the investment manager was able to earn incremental return over the market return.

Alternative Investments – The term "alternative investments" refers broadly to non-traditional investment strategies such as hedge funds, private equity, distressed debt, commodities and futures.

American Depository Receipt (ADR) – A financial asset (receipt) issued by U.S. banks as a substitute for actual ownership of shares of foreign stocks. ADRs are traded on U.S. stock exchanges.

Annuity – A financial product sold by financial institutions and designed to provide payments to the holder at specified intervals.

Arbitrage – A strategy that attempts to exploit price inefficiencies of identical or similar financial securities.

Arithmetic Return – The arithmetic return is the sum of periodic returns divided by the number of periods. This is also called the simple average return and can be contrasted with **Geometric Return**.

Adjustable Rate Mortgage (ARM) – A real estate mortgage agreement between a lending institution and a borrower in which the interest rate is not fixed but changes over the life of the loan at predetermined intervals.

Asset Allocation – The distribution of assets across cash equivalents, and real estate. An asset allocation plan is an integral part of an institution's investment strategy. Importantly, it determines an optimal allocation of assets to achieve the maximum risk-adjusted performance while taking into consideration the institution's risk tolerance and investment horizon.

Asset Backed Security (ABS) – A bond or note that is backed by a basket of assets. These assets are pooled to reduce risk through the diversification of the underlying assets. Securitization also makes these assets available for investment to a broader set of investors. These asset pools can be comprised of credit card receivables, home equity loans, auto loans or esoteric investments such as aircraft leases.

Asset Class – An asset class is a grouping of similar investments or assets, such as stocks, that have a distinguishable risk and return pattern.

Asset Liability Modeling – The process of projecting future changes in assets and liabilities. In relation to pension plans, it is used to provide an insight into the likely effect of different asset allocation strategies on a plan's future financial position.

Auditor's Report – Often called the "accountant's opinion". It is the statement of the accounting firm's opinion of the corporation's financial statements. A "clean" opinion indicates that the reports conform to the normal and generally accepted practices of accountancy.

Automatic Reinvestment – An automatic reinvestment plan means that an investor has authorized the purchase of additional shares of a mutual fund or stock with dividends and capital gain distributions.

B

Backwardation – A market condition in which a futures price is lower in the distant delivery months than in the near delivery months.

Balanced Fund – A balanced fund is an investment product that combines equities and bonds. Balanced funds typically exhibit less volatility than equity funds, but more volatility than bond funds.

Barbell Strategy – A "barbell" is a fixed income investment strategy in which short-term and long-term securities are overweighted in a portfolio while intermediate securities are underweighted. Compare to **Bullet Strategy.**

Basis Point (bp) – A basis point is equal to 1/100 of 1% and is generally used to describe changes in interest rates or yields and absolute yield spreads. It is also used in reference to investment fees.

Bear Market – A prolonged period of declining asset prices accompanied by widespread pessimism.

Benchmark – A proxy against which the investment performance of a manager is compared to determine whether the manager has added value.

Beneficiary – A pension fund beneficiary is one who is entitled to receive benefits from a pension plan.

Beta – Beta is a quantitative measure of the "systematic risk" or "market risk" of an equity security or portfolio. Beta measures the volatility of a security or portfolio relative to the overall market, where the beta of the market is equal to 1.0. A security or portfolio with a beta greater than 1.0 would be more volatile than the market, whereas a security or portfolio with a beta less than 1.0 would be less volatile than the overall market. More specifically, if the beta of a portfolio is 1.3, a 1 percent increase in the market would imply a rise of 1.3% for the portfolio. Conversely, a portfolio with beta of 0.9 would imply an increase of only 0.9% for a market increase of 1.0%.

Blue Chip Stocks – Equity shares of older, established companies such as General Motors or IBM. Most blue chip companies pay regular dividends.

Bond – A bond is a debt instrument issued by entities such as corporations, municipalities, federal, state and local government agencies for the purpose of raising capital through borrowing. Bonds typically pay interest

periodically while repaying the principal, or par value, at maturity. Bonds with maturities of five years or less are often called notes.

Bond Discount – The amount by which a bond's face or par value exceeds its market value.

Bond Maturity – The date on which a bond's principal becomes due and payable.

Bond Quality Ratings – A system, typically ranging from AAA to D, for measuring the relative investment qualities of bonds. The highest investment quality and least investment risk is generally AAA-rated, while the lowest investment quality and greatest investment risk bonds bear a rating of D. Several agencies provide the rating systems for companies' credit: Standard & Poor's, Moody's Investor Services and Fitch are used most commonly.

Bottom Up Analysis – A process of investing that focuses foremost on security analysis. Industry and economic analyses are of secondary consideration. The opposite of **Top Down Analysis.**

BRIC Countries – "BRIC" countries refer to the rapidly developing countries of Brazil, Russia, India and China.

Bridge Loan – A short-term loan provided while longer-term financing is being finalized, thus allowing for business to proceed uninterrupted.

Broker – An agent who acts as an intermediary between a buyer and a seller and usually charges a commission. Investment brokers need a license to act as a broker.

Broker/Dealer – A broker/dealer is any individual or firm in the business of buying and selling securities for itself and others. Broker/dealers must register with the SEC. A broker executes orders on behalf of his/her clients. A dealer executes trades for his/her firm's own account. Securities bought for the firm's own account may be sold to clients or other firms or become a part of the firm's holdings.

Brokerage Window – A brokerage window allows an individual to self-direct trading within a brokerage's offering through a retirement plan such as a 401(k). As opposed to being limited to the investment options within a sponsored 401(k), investors have the option to set up a "window," which allows them to trade most listed stocks, mutual funds and exchange-traded funds. May also be known as a "self-directed account" (SDA) or "self-directed brokerage account" (SDBA).

Bull Market – A prolonged period in which asset prices rise faster than their historical average.

Bullet Strategy – A fixed income strategy in which intermediate maturity fixed income securities are overweighted in a portfolio and short- and long-term fixed income securities are underweighted. It is the opposite of a **Barbell Strategy.**

Business Cycle – A business cycle refers to a predictable, long-term pattern of alternating periods of economic growth (recovery) and decline (recession), characterized by changing employment, industrial productivity and interest rates.

Buy-Side – The portion of the securities business in which securities are purchased and sold for money management purposes, rather than for underwriting. The opposite of **Sell-Side.**

C

Call Option – An option contract that gives the holder the right to buy a certain quantity of an underlying security from the writer of the option at a specified price (the strike price) and up to a specified date (the expiration date).

Cap Rate – Short for "capitalization rate," the cap rate is used mainly in real estate investing. It is a real estate asset's first year of net operating income divided by the asset's purchase price.

Capital Appreciation Return – A measure of the gain or loss of a security or portfolio due only to the change in the value of the asset or assets (does not include earned income). The capital appreciation-only portion of the total return is calculated by finding the percentage gain or loss in the market value of the assets over a time period, taking into account any asset purchases or sales during the period.

Capital Asset Pricing Model (CAPM) – An economic model for valuing stocks based upon the theory that investors demand higher returns for taking on more risk. It can be used to price an individual security (asset) or a portfolio. The CAPM evaluates a security's relationship with expected return and systematic risk (beta) to predict how the market will price a security in relation to its risk.

Capital Stock – All equity shares representing ownership of a business, including preferred and common stock.

Capitalization – The total amount of the various securities issued by a corporation. Capitalization includes debt, stock and retained earnings. It is not the same as **Market Capitalization.**

Capitalization Weighted Market Index – In a capitalization weighted market index, each security affects the value of the index in proportion to its market capitalization. Examples include the Nasdaq Index and the S&P 500 Index. See **Equal Weighted Index** as a comparison.

Cash Equivalent – This term includes all cash investments and investments that can be readily converted into cash.

Cash Sweep Accounts – A cash sweep account is used to "hold" all contributions and income from a portfolio, which are generally swept into a money market fund.

Certificate of Deposit (CD) – A bank certificate of deposit is a FDIC-insured security issued by banks or savings and loans for a specified time period, generally between 30 days and six years.

CFA (Chartered Financial Analyst) – A designation awarded by the CFA Institute to experienced financial analysts. CFA's must pass a set of rigorous examinations, as well as meet specific work experience requirements and agree to uphold a standards-of-conduct agreement.

CFP (Certified Financial Planner) – A designation granted by the College for Financial Planning to individuals who complete a series of educational requirements, courses and examinations in the areas of personal financial and retirement planning and who pledge to a code of ethical standards and continuing education.

Closed-End Fund – A closed-end fund has a fixed number of shares outstanding and trades on an exchange like a stock. Closed-end funds issue a fixed number of shares to the public in an initial public offering, after which time the shares are bought and sold on a stock exchange. The share price in a closed-end fund is determined entirely by market demand, so shares can either trade above (at a premium) or below (at a discount) the net asset value, which is the market value of the assets in the fund.

Collateralized Debt Obligation (CDO) – An investment grade security backed by a pool of bonds, loans and/or other assets. It is similar to a CMO in that it is issued in tranches with differing return/risk profiles.

Collateralized Loan Obligation (CLO) – A CDO that is backed by a portfolio of corporate loans rather than other types of debt.

Collateralized Mortgage Obligation (CMO) – An investment grade fixed income security backed by a pool of mortgages and structured to include several classes of maturities called tranches. Each tranche offers a different risk/return profile.

Commercial Mortgage-Backed Securities (CMBS) – CMBS are publicly traded bond-like products that are based on underlying pools of commercial mortgages.

Commercial Paper – Commercial paper refers to short-term debt instruments issued by corporations. Maturities of commercial paper are generally between 1 day and 270 days. The debt is usually issued at a discount to reflect prevailing market interest rates and is rated by the major rating agencies.

Commingled Fund – An investment fund that is similar to a mutual fund in that investors purchase and redeem units that represent ownership in a pool of securities. Investments are pooled in commingled funds to reduce management and administrative costs.

Commission – The fee paid to a broker to execute a trade or facilitate a transaction.

Commission Recapture – An agreement by which a plan sponsor earns credits based upon the amount of brokerage commissions paid. These credits can be used for services that will benefit the plan, such as consulting services, custodian fees, or hardware and software expenses.

Commodity – A commodity is a basic good, usually a raw product used in commerce, which is interchangeable with other commodities of the same type and is generally traded via futures contracts. Examples include oil, gold and wheat.

Common Stock – Securities representing equity ownership in a corporation, providing voting rights and entitling the holder to a share of the company's success through dividends and/or capital appreciation. In the event of liquidation, common stockholders have rights to a company's assets only after bondholders, other debt holders and preferred stockholders have been satisfied.

Compounding – The term used to describe an exponential increase in the value of an investment due to interest earned on interest.

Consumer Price Index (CPI) – The U.S. Department of Labor's measure of change in the U.S. cost of living to gauge the rate of inflation. A survey is conducted monthly to monitor the cost of various consumer goods such as food, housing and transportation. Costs are tracked over time to monitor overall living expenses.

Contango – A condition in which the distant delivery price for futures exceeds the current (spot) price, often due to the costs of storing and insuring the underlying commodity. The opposite of **Backwardation.**

Contingent Deferred Sales Charge (CDSC) – A CDSC is a type of sales charge levied on investors in a back-end load fund.

Contrarian Strategy – This term is used to describe an investment style in which managers select stocks that are out of favor or that have little current market interest on the premise that gains will be realized when the stocks return to favor.

Convertible Bond – A bond which may, at the holder's option, be exchanged for common stock. Convertible bonds provide investors with the downside price protection of a straight bond and potential upside from appreciation in the price of the underlying common stock.

Convexity – A measure which describes the degree to which the duration of a bond will change for a given change in interest rates. Positive convexity implies that duration will increase as interest rates fall, and, thus, a

bond's price will rise at an increasing rate as rates decline. Conversely, negative convexity implies that prices will rise at a decreasing rate as interest rates fall.

Core Bond Strategy – A fixed income strategy that typically invests in investment grade bonds of various types and maturities.

Core Equity Strategy – An equity strategy where the portfolio's characteristics are similar to those of the S&P 500 Index but that has the objective of adding value over the index, typically from sector and/or security selection.

Core International Strategy – This is an international equity strategy that invests mostly in large capitalization stocks in developed countries with liquid markets, thus having characteristics similar to the Morgan Stanley Capital International (MSCI) EAFE Index.

Core Plus Bond Strategy – A fixed income strategy that permits managers to use out-of-index instruments such as high yield, global and emerging market debt to add value over the index.

Core Real Estate Strategy – This real estate strategy is the most conservative approach to real estate investing. Core real estate is defined as real estate investments that are well leased and are typically over 85% leased to high credit-quality tenants. The total return is driven more by income than by capital appreciation.

Corporate Credit – A corporate credit is term that refers to a debt security issued by a corporation.

Correlation – Correlation measures the degree to which two variables, such as asset classes, move in relation to each other. Correlation is a commonly used tool in asset allocation studies and in portfolio management.

Coupon Rate – The coupon rate is the stated interest rate paid on a fixed income security.

Credit Quality – Credit quality is a term used to refer to the creditworthiness of a fixed income security. See **Bond Quality Ratings.**

Cumulative Return – The cumulative return for a portfolio or an asset is its cumulative compound return over the full length of a specified time period. This measure is not annualized and as such, represents the actual total return of the portfolio or asset over the full period.

Currency Hedging – A process involving the purchase and sale of forward currency contracts to manage currency risk.

Currency Return – A rate of return calculated from the change in exchange rates between one currency and another.

Current Yield – A security or portfolio's current yield is computed as its coupon or dividend rate divided by its market value.

CUSIP Number – A cusip is a unique number given to each stock and bond by the Committee for Uniform Securities Identification Procedures (CUSIP) of the American Bankers Association. A CUSIP number consists of nine digits, the first six uniquely identify the issuer and are assigned to issuers in alphabetic sequence; the next two characters (alphabetic or numeric) identify the specific security. The ninth digit is a check digit.

Custodian – The organization (usually a bank) that keeps custody of securities and other assets for purposes of safekeeping. The bank collects income, processes trades, provides reporting and other functions. The bank does not have fiduciary responsibility. The fees charged for these services are known as custodial fees.

Cyclical Stocks – Cyclical stocks move directly with the business cycle; generally advancing as business conditions improve and declining when business slackens. Steel, chemical, textile, and machinery stocks are

included in this category. To offset cyclical factors, many companies today are striving to diversify their operations among other fields and products.

D

Debenture – An unsecured bond backed by the general credit of the issuer. Debentures rank below secured debt. A subordinated debenture is an unsecured bond that ranks after secured debt and after regular debentures.

Debt Securities – A security representing a loan given to an investor by an issuer. Fixed income securities, or bonds, are debt securities.

Defensive Bond Strategy – A conservative fixed income investment strategy with the objective of minimizing interest rate risk by investing only in high quality short to intermediate maturity securities.

Defined Benefit Plan – A type of employee benefit plan in which benefit payments are predetermined by a formula. The employer is obligated to contribute funds into a defined benefit plan based on an actuarially determined formula that takes into consideration the age of the workforce, length of service and the investment earnings that are projected to be achieved. Defined Benefit Plans are overfunded if the present value of the future payment obligations to employees is less than the current value of the assets in the Plan and underfunded if the obligations exceed the current value of these Plan assets. The *Pension Benefit Guarantee Corporation* insures a specified percentage of these future pension benefit payments on a per employee basis.

Defined Contribution Plan – A type of employee benefit plan in which both the employee and the employer makes contributions. Each employee's account value is determined by the contribution made and the return on investment. A 401(k) Plan is a type of defined contribution Plan.

Deflation – A phase of the business cycle during which prices are declining. It is the opposite of inflation.

Derivative – An instrument whose price is determined by the price of an underlying asset. Examples include futures contracts, forward contracts, swaps and options.

Directed Brokerage – Circumstances in which a board of trustees or other fiduciary requests that the investment manager direct trades to a particular broker so that the commissions generated can be used for specific services or resources.

Directional Strategy – A directional strategy seeks to take advantage of the direction of the market. Market timing strategies fall into this category.

Disbursement – A cash or asset withdrawal from a portfolio.

Discount Rate – The discount rate is the rate charged to financial institutions that borrow funds directly from the Federal Reserve. It is also the term used to refer to the rate at which cash flows are discounted in a present value calculation.

Distressed Debt – Is an alternative asset class consisting of below-investment-grade bonds or bank debt securities of companies generally either in, or near bankruptcy protection or in the process of restructuring. Typically, these securities yield more than 1000 basis points over the risk-free rate as determined by the U.S. Treasury yield curve.

Diversification – The allocation of funds across different asset classes or securities within a portfolio.

Divestiture – The act of selling off an asset or business, typically because it is under-performing financially or no longer fits within a company's strategic plan.

Dividend Yield – The current annualized dividend paid on a share of common stock, expressed as a percentage of the stock's current market price.

Dollar Cost Averaging – A process of buying securities at regular intervals with a fixed dollar amount. At regular intervals, investors spend a specific dollar amount rather than purchase a specific number of shares. Thus, more shares are purchased when prices are low and fewer shares are purchased when prices are higher.

Dollar-Weighted Rate of Return – An investment's rate of return that equates the present value of its cash flows plus its final market value to its current price. It is also known as the Internal Rate of Return (IRR).

Downgrade – A negative change in the quality rating of an equity or fixed income security.

Duration – Duration is a measure of the price sensitivity of a bond to changes in interest rates. The longer the duration, the more sensitive the price of a bond will be to fluctuations in interest rates.

Dynamic Asset Allocation – An asset allocation strategy in which the asset mix is changed in response to changing market conditions.

E

Economically-Targeted Investment (ETI) – An ETI is an investment where the goal is to target a certain economic activity, sector or area in order to produce corollary benefits in addition to the main objective of earning a competitive risk-adjusted rate of return.

Effective Maturity – The effective maturity is the measure of years to expected maturity of a fixed income security. It takes into account any put or call options embedded in the security, expected sinking-fund payments and mortgage principal prepayments.

Effective Yield – The effective yield of a fixed income security is the actual total annualized return that would be realized if held to maturity.

Efficient Market Theory – A theory stating that a security's market price equals its true investment value at all times since all information is fully and immediately reflected in market prices.

Efficient Portfolio – An efficient portfolio is one that provides the maximum expected return for a given level of risk or, otherwise stated, as the minimum risk for a given level of expected return.

Emerging Markets – Emerging markets include markets in developing countries and economies. These markets are characterized by more aggressive risk/return profiles than their developed counterparts.

Employee Retirement Income Security Act (ERISA) – The Employee Retirement Income Security Act is a 1974 law governing the operation of most private pension and benefit plans. The law eased pension eligibility rules, set up the **Pension Benefit Guaranty Corporation**, and established guidelines for the management of pension funds.

Employee Stock Ownership Plan (ESOP) – A retirement savings program in which the employees own stock in the company for which they are employed.

End Point Sensitivity – The performance of a manager/fund varies depending on the ending point used to analyze performance. Therefore, it is important to look at performance for a number of market cycles or time periods to gain an accurate assessment of the manager or fund's performance.

Endowment Funds – Investment funds established for the support of institutions such as colleges, private schools, museums, hospitals, and foundations. The investment income may be used for the operation of the institution and for capital expenditures.

Enhanced Indexing – Enhanced Indexing combines elements of passive and active management. Enhanced managers typically have smaller deviations from the benchmark seeking to add value in a risk controlled fashion.

Equal-Weighted Composite – This term refers to a composite of returns for an investment manager that gives equal consideration to each portfolio's return regardless of the size of the portfolio.

Equal-Weighted Index – In an equal-weighted index, each security affects the value of the index equally. The Value Line Index is an example. Compare to **Capitalization Market Weighted Index**.

Equity – The ownership interest of common and preferred stockholders in a company.

Equity Market Neutral Strategy – A strategy in which the manager tries to profit from both increasing and decreasing prices by taking long and short positions of the same dollar amount but in different stocks. Thus, the overall strategy is neutral to market movements.

Equity Multiple – The total cash contributions divided by the initial equity.

Event Driven Strategy – A hedge fund strategy in which the manager takes significant positions in a certain number of companies with "special situations" such as mergers or acquisitions.

Excess Return – Excess return is a portfolio's return minus its benchmark return. In fixed income this measure is often adjusted for risk.

Exchange Traded Fund (ETF) – A fund that tracks an index, a commodity or a basket of assets like an index fund, but trades like a stock on an exchange, thus experiencing price changes throughout the day as it is bought and sold.

Expense Ratio – A mutual fund's cost of doing business, disclosed in the prospectus as a percent of assets. The ratio includes expenses such as management and advisory fees, overhead costs, distribution and advertising (12b-1) fees.

F

Face Value – See Par Value.

Federal Funds Rate – The interest rate charged on overnight loans between banks so that they maintain the minimum required level of reserves at the Federal Reserve.

Federal Reserve System – The Federal Reserve is the central bank for the United States and, as such, regulates the financial system. Its responsibilities include: conducting monetary policy, regulating banks, maintaining the stability of the U.S. financial system and providing financial services to the U.S. Government.

Fiduciary – A person legally appointed and authorized to hold assets in trust for another person/entity. Fiduciaries are legally obligated to manage assets for the benefit of the entity and not for his/her profit.

Financial Accounting Standards Board – A governing body established in 1973 to define and monitor the usage of generally accepted accounting principles called GAAP.

Financial Industry Regulatory Authority (FINRA) – A regulatory body created in July 2007 through the consolidation of the National Association of Securities Dealers and the New York Stock Exchange's regulation committee. The Financial Industry Regulatory Authority is responsible for regulating business between brokers, dealers and the investing public. By consolidating these two regulators, FINRA aims to eliminate regulatory overlap and cost inefficiencies.

"Flight to Quality" – "Flight to quality" is an expression used in reference to investor demand for high quality investment securities (generally U.S. Treasuries) in times of uncertainty, or real or perceived risk.

Fundamental Research (Fundamental Analysis) – An analysis of industries and companies based on such factors as sales, assets, earnings, products or services, markets and management. As applied to the economy, fundamental research includes consideration of gross national product, interest rates, unemployment, inventories, savings and other broad macroeconomic factors.

Funded Status – The status of a pension plan that has accumulated and set aside assets for the payment of retirement benefits to employees. Unfunded plans, also called pay-as-you-go arrangements, do not have assets set aside and retirement benefits are usually paid directly from employer contributions.

Funding Risk – The risk that anticipated contributions to a pension plan will not be made by the employer.

Futures Contracts – Futures contracts are financial contracts that obligate the buyer to purchase an asset (and the seller to sell an asset), such as a physical commodity or a financial instrument, at a predetermined future date and price. Futures can be used either to hedge or to speculate on the price movement of the underlying asset.

G

Generally Accepted Accounting Principles (GAAP) – Generally accepted accounting principles established by the Financial Accounting Standards Board in 1973.

Geometric Return – A method of calculating an investment return for a specified time period that takes into account compound growth. For example, suppose a $100 portfolio returned +25% in the first quarter (ending value is $125) but lost 20% in the second quarter (ending value is $100). Over the two quarters the return was 0%; this is the geometric return. The **return**, however, would simply average the two returns: (+25%) (.5) + (-20%) (.5) = +2.5%.

Glidepath – The path in which assets in a lifecycle fund gradually shift from an absolute return orientation to a capital preservation orientation as individuals move closer to retirement.

Global Industry Classification Standards (GICS) – A standardized classification system for equity sectors developed jointly by Morgan Stanley Capital International (MSCI) and Standard & Poor's. The GICS methodology is used by the MSCI indexes, which include domestic and international stocks, as well as by a large portion of the professional investment management community.

- **Consumer Discretionary Sector** – Includes those industries that tend to be the most sensitive to economic cycles. Examples include: automotive companies; manufacturers of textiles, apparel and leisure equipment; hotels; restaurants; media production companies; and consumer retailers.
- **Consumer Staples Sector** – Comprises companies whose businesses are less sensitive to economic cycles. These include: manufacturers and distributors of food, beverages and tobacco: producers of non-durable household goods and personal products; food and drug retailing companies; and hypermarkets and consumer super centers.
- **Energy Sector** – Encompasses companies whose businesses are dominated by construction or the provision of oil rigs, drilling equipment and other energy-related services and equipment. Also includes companies engaged in the exploration, production, marketing, refining and/or transportation of oil and gas products, as well as coal and other consumable fuels.

- **Financials Sector** – Includes companies across the financial spectrum: banking, mortgage finance, consumer finance, specialized finance, investment banking, brokerage, asset management and custody, corporate lending, insurance, and real estate, including REITs.
- **Health Care Sector** – This sector encompasses two main industry groups: companies that manufacture health care equipment and supplies or provide health care-related services. This includes distributors of health care facilities and organizations; companies involved in the research & development, production and marketing of pharmaceuticals and biotechnology products.
- **Industrials Sector** – Includes companies whose businesses are dominated by the manufacture and distribution of capital goods. These include: aerospace and defense; construction; engineering and building products; electrical equipment and industrial machinery; commercial services and supplies; and transportation services, including airlines, couriers and marine, road and rail transportation infrastructure.
- **Information Technology Sector** – Covers the following areas: technology software and services; information technology consulting; data processing and outsourced services; technology hardware and equipment, including manufacturers and distributors of communications equipment, computers and peripherals; electronic equipment and related instruments; semiconductors; and semiconductor equipment manufacturers.
- **Materials Sector** – Encompasses a wide range of commodity-related manufacturing industries. Included in this sector are companies that manufacture chemicals, construction materials, glass, paper, forest products and related packaging products, and metals, minerals and mining companies, including producers of steel.
- **Telecommunications Services Sector** – Contains companies that produce communications services primarily through a fixed-line, cellular, wireless, high bandwidth and/or fiber optic cable network.
- **Utilities Sector** – This includes electric, gas or water utilities, or companies that operate as independent producers and/or distributors of power.

Global Investment Performance Standards (GIPS) – GIPS are a set of ethical standards developed by the CFA Institute to establish a global standard for computing and reporting on investment management performance results. Adherence to GIPS ensures fair representation and full disclosure of all performance results.

Global Macro Strategy – This is a hedge fund strategy in which investments in stocks, bonds, and currencies are allocated across countries. These decisions are based upon macroeconomic forecasts such as economic outlooks and political views for various countries.

Global Strategies – Global investment strategies are those that invest in both foreign and domestic equity securities. Some invest in currency as well.

Government Bond – A bond issued by the U.S. Government or one of its agencies.

Growth Equity Managers – Managers that invest in companies that are expected to have above average prospects for long-term growth in earnings and profitability.

Guaranteed Investment Contract (GIC) – A contract between an insurance company and a corporate profit sharing or pension plan that guarantees a specific rate of return on the invested capital over the life of the contract. Although the insurance company takes all market, credit and interest rate risks on the investment portfolio, it can profit if its returns exceed the guaranteed amount. For pension and profit-sharing plans, guaranteed income contracts are a conservative way of assuring beneficiaries that their money will achieve a pre-determined rate of return.

H

Hard Dollars – Cash paid for services rendered. (See **Soft Dollars** as comparison.)

Hedge – A transaction or strategy designed to reduce investment risk and often involving derivative instruments such as futures contracts or options.

Hedge Fund of Funds – A hedge fund product which invests in other hedge fund strategies in order to diversify across hedge fund manager styles.

High Yield Strategy – Fixed income investment strategy that invests in below investment grade fixed income securities. As a result, security selection often involves intensive fundamental analysis of the company.

I

Immunization – A bond portfolio structured to achieve a target level of return in the face of changing interest rates. Immunization strategies combine short-term and long-term bonds to produce a predictable rate of return regardless of movements in interest rates.

Incentive Fee – Also called a Performance Fee, an incentive fee is a fee paid to an investment manager based upon the performance of the fund or portfolio. It is typically determined by a pre-specified formula and it can be in addition to a flat fee charged by the investment manager.

Income Return – A measure of the gain of a security or portfolio due only to income earned.

Indenture – An indenture is the written contract between a bondholder and an issuer that stipulates the terms of the bond.

Index – Indices are imaginary portfolios of securities that replicate a market or a portion of a market. An appropriate index can be used as a benchmark to evaluate an investment manager's performance.

Index Fund – A passively-managed investment in a diversified portfolio of financial assets designed to mimic the performance of a specific market index.

Inflation – A period in which the general level of prices for goods and services is increasing, and, thus, purchasing power is decreasing.

Information Ratio – The Information Ratio is a risk statistic that measures the excess return per unit of residual "non-market" risk in a portfolio. The ratio is the excess return per unit of risk that is due solely to the specific risks associated with the securities in the portfolio, rather than market risk. Non-market risk can be eliminated through diversification.

Initial Public Offering (IPO) – An IPO is a company's first sale of stock to the public. Securities offered in an IPO are often, but not always, those of young, small companies seeking outside equity capital and a public market for their stock.

Insider Trading – Illegal trading of securities based on non-public information.

Interest Rate Risk – Uncertainty in the return of a bond that is caused by changes in interest rates.

Internal Rate of Return (IRR) – See Dollar Weighted Return.

Investment Company – A corporation or trust that invests the capital of shareholders, generally through mutual funds. In the U.S., most investment companies are registered with and regulated by the Securities & Exchange Commission under the Investment Company Act of 1940.

Investment Grade – Investment grade bonds are those rated Baa or higher by Moody's and higher than BBB by Standard and Poor's.

Investment Management Consultant Association (IMCA) – The Investment Management Consultants Association is a Denver-based non-profit association that was founded in 1985. The association certifies consultants as Certified Investment Management Analysts (CIMA) after consultants attend its intensive program. IMCA holds the U.S. Patent office trademark for CIMA designation.

J

Junk Bonds – A term used in reference to high yield or below investment grade bonds.

J Curve – A theory stating that a country's trade deficit will initially worsen after a depreciation of its currency because higher prices of imports will more than offset the reduced volume of imports.

L

Laddered Strategy – A fixed income strategy in which a portfolio is structured with bonds maturing at regular intervals. The bonds are generally evenly distributed between short term, intermediate term, and long term maturities. As short term bonds mature, the funds received are reinvested in long term bonds.

Large Cap Strategy – Equity managers who invest primarily in large capitalization range companies. The average market capitalization of a security is $5 billion or higher.

Leverage – In finance, leverage is using given resources in such a way that the potential positive or negative outcome is magnified. It generally refers to using borrowed funds, or debt, to try to increase returns. In Real Estate, leverage is essentially the debt that is placed on a property in order to enhance return. For instance, if a property is 70% leveraged and the value is $10 million, then the amount of leverage is $7 million and the amount of equity is $3 million.

Leveraged Buy-Out (LBO) – An LBO is the acquisition of a company using a significant amount of borrowed money (bonds or loans) to meet the cost of acquisition. Generally, the assets of the company being acquired are used as collateral for the loans. The purpose of leveraged buyouts is to allow investors to make large acquisitions without having to commit a lot of equity capital. LBO's are done predominantly using private equity funds.

Lifecycle Funds – Lifecycle Funds refer to balanced investment vehicles, typically mutual funds, which match their asset allocation and risk level to an individual's retirement year. Also called Target **Maturity** Funds (or: target retirement funds?), these funds are designed to shift assets away from equity and into fixed income as an investor nears retirement.

Limited Partnership – A form of a partnership composed of a general manager responsible for the day-to-day management of the business, and several limited partners who invest money, but have limited involvement in the management of the firm, and, thus, limited liability for its financial obligations.

Liquidity – In general, liquidity refers to the ease by which a financial asset can be converted into cash. Liquidity is often more narrowly defined as the ability to sell an asset quickly without having to make a substantial price concession.

Liquidity Risk – Liquidity risk is the risk stemming from a lack of marketability of an investment, which makes it difficult to sell when desired.

Load – The percentage commission, or charge, on a mutual fund. The fee may be a one-time charge at the time of purchase (front-end load) when the fund is sold (back-end load), or an annual fee known as a 12b-1 fee.

London Interbank Overnight Rate (LIBOR) – LIBOR is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. LIBOR is fixed on a daily basis by the British Bankers' Association and is derived from a filtered average of the world's most creditworthy banks' interbank deposit rates. It is the world's most widely used benchmark for short-term interest rates.

Long Position – Being "long" implies an ownership position in a security or derivative instrument.

Long/Short Strategy – A hedge fund strategy that holds long positions in undervalued companies and shorts stocks that are deemed to be overvalued.

Lump Sum Distribution – Payment of an entire amount due at one time rather than in installments.

M

Management Fee – A management fee is the fee charged by an investment management company for its investment advisory services.

Manager Search – A process used to identify and select appropriate investment managers. Manager searches are an important phase in the implementation of a strategic investment plan. A manager search process typically includes a detailed analysis of both quantitative and qualitative data about the prospective manager.

Manager Structure – A framework for various types of investment managers hired to manage investment funds.

Mark-to-Market – The process of adjusting the value of a portfolio or financial instrument to reflect daily changes in its market price.

Market Capitalization – The market value of all the shares of common stock issued by a company at a point in time.

Market Proxy – The benchmark used to represent either the broad market or a segment of the market. The selection of an appropriate market proxy is critical in the determination of a relevant alpha, beta, R-squared and standard error.

Market Risk – See **Systematic Risk**

Market Timing – A form of active management that attempts to add value by "timing" the market, allocating funds between asset classes based on short-term expectations of movements in the capital markets. OR: A form of active management that attempts to add value by "timing" the market. This is achieved by allocating funds between asset classes based on short-term expectations of movements in the capital markets.

Market Value – The market value is the current price of a security or portfolio.

Market Value Weighted Index – See **Capitalization Weighted Market Index.**

Master Trust – A pooling of a plan sponsor's assets, including multiple managers and multiple plans, under one trust agreement.

Maturity Date – The date at which a bond's principal value is repaid, along with any accrued income due.

Median – The middle value in a distribution, above and below which lie an equal number of values. The median value ranks in the 50th percentile in a distribution.

Mezzanine Debt – Debt that is used to bridge the gap that may exist in an investment where the equity and senior debt (i.e. first mortgage) are not sufficient to close on a real estate investment. For example, if an investor were to put in 10% equity and the lender would only provide a 70% first mortgage, then mezzanine debt could be secured to fill in the 20% financing gap. Typically, mezzanine debt is short-term and has a much higher coupon rate than the senior debt.

Microcap Strategies – Microcap managers invest in very small companies, typically those with capitalizations of less than $500 million.

Middle Capitalization Strategies – Equity managers who invest primarily in middle capitalization range companies with market capitalizations between core equity companies and small capitalization companies. The average market capitalization of a security is approximately $3 billion, but the range can be from $1 billion to $5 billion.

Modern Portfolio Theory (MPT) – Modern portfolio theory (MPT) proposes that rational investors will use diversification to "optimize" their portfolios to earn the highest return for a given level of risk. Essential to this theory is the quantification of the relationship between risk and return, and the assumption that investors must be compensated for assuming additional risk.

Money Market Funds – Markets in which financial assets with a maturity of less than one year are traded. Money market funds are expected to invest in low-risk, highly liquid, short-term financial instruments. The net asset value is kept stable at $1 per share.

Mortgage-Backed Securities – Securities backed by a pool of mortgage loans.

Multi-Strategy – A hedge fund investment style that employs various strategies simultaneously. Managers generally overweight or underweight different strategies to capitalize on current investment opportunities.

Municipal Bond – A municipal bond is a debt instrument issued by a municipality such as a state or city. They are often called munis for short. Income paid on these bonds is exempt from federal, and sometimes state, income taxes.

Mutual Fund – A mutual fund is a professionally managed investment fund. Mutual funds are managed like large private accounts, but there are certain tax differences between an individually managed account and owning shares in a mutual fund.

N

NASD, Inc. (NASD) – Formerly known as the National Association of Securities Dealers, NASD, Inc. is an industry organization representing people and companies in the securities business. It is the primary self-regulatory organization with responsibility for regulating the industry with oversight from the SEC.

NASDAQ Stock Market – The largest U.S. electronic stock market with roughly 3200 companies listed.

National Association of Real Estate Investment Trusts (NAREIT) – NAREIT is the representative voice for U.S. real estate investment trusts (REITs) and publicly-traded real estate companies worldwide. Members are REITs and other businesses that own, operate, and finance income-producing real estate, as well as those firms and individuals who advise, study and service those businesses.

National Council of Real Estate Investment Fiduciaries (NCREIF) – NCREIF is made up of investment managers, plan sponsors, academicians, consultants, appraisers, CPA's, and other service providers that have a significant involvement in pension fund real estate investments. NCREIF serves the industry as an independent and non-partisan "Central Repository" of real estate performance information.

Net Absorption – Net absorption is the net change in occupied space in the real estate market.

Net Asset Value (NAV) – The value of one mutual fund share.

No Load Fund – A mutual fund which charges little or no commission (load) to the buyer of its shares.

Non-Directional Strategy – Non-directional hedge fund strategies aim to produce a positive return in any market environment by exploiting market inefficiencies. An example would be an/the **Equity Market Neutral Strategy.**

O

Opportunistic Real Estate Strategy – This strategy incorporates various tactics, such as taking public real estate companies, private or taking construction and leasing risk through ground-up development. Investments are highly leveraged (up to 90%) and the majority of the return, over two-thirds, is expected to come from appreciation.

Opportunity Cost – The difference between the performance of an actual investment and a desired investment adjusted for fixed costs and execution costs. The performance differential is a consequence of the inability to implement all desired trades.

Option – A contractual agreement that conveys the right, but not the obligation, to buy (receive) or sell (deliver) a specific security at a stipulated price and within a stated period of time. An option is part of a class of securities called derivatives, so named because these securities derive their value from the worth of an underlying security.

Over-the-Counter Market (OTC) – A market for securities not traded on a formal exchange, but rather through a dealer network. OTC stocks are often those of companies without sufficient shares, stockholders or earnings to warrant listing on an exchange. The OTC market is also the principal market for all types of bonds.

P

Par Value – In the case of a common stock, par is the dollar amount assigned to the share by the company's charter. In the case of preferred stocks, par is the dollar value upon which dividends are figured. With bonds, par value is the face amount or principal amount of the bond that will be repaid at maturity.

Passive Management – For a given asset class, the process of buying a diversified portfolio which mimics the overall performance of the asset class or relevant market index.

Pension Benefit Guaranty Corporation (PBGC) – The federal agency, established as a nonprofit corporation, charged with administering the plan termination provisions of ERISA Title IV and the Multi-employer Pension Plan Amendments Act of 1980. Employers pay premiums to the PBGC, which guarantees benefits for participants and beneficiaries when defined benefit plans terminate.

Pension Fund – An investment fund established by a corporation or organization to manage retirement benefits and investments for its employees.

Pension Protection Act of 2006 (PPA) – An act of legislation that made a large number of reforms to U.S. pension plan laws and regulations. This law made several pension provisions from the Economic Growth and Tax Relief Reconciliation Act of 2001 permanent, including the increased IRA contribution limits and the increased salary deferral contribution limits to a 401(k). It also attempted to strengthen the overall pension system and reduce the reliance on the federal pension system and the Pension Benefit Guaranty Corporation.

Performance Attribution – The process of evaluating the factors that contribute to the total rate of return of a portfolio.

Plan Sponsor – Any entity that establishes a pension plan, including private business entities acting for their employees, state and local entities operating on behalf of their employees, unions acting on behalf of their members and individuals representing themselves.

Preferred Stock – A class of stock with a higher rank than common stock. Holders of preferred stock have a claim on earnings before common stock shareholders.

Prepayment Risk – Prepayment risk refers to the risk associated with certain fixed income securities, namely mortgages, in which there exists an uncertainty as to whether and when unscheduled repayments of principal will occur. This is a "risk" in that prepayments can negatively affect the total return of the security.

Present Value – Present value is the value on a given date of a future payment/receipt or series of future payments/receipts, discounted to reflect the time value of money, usually by the current relevant market interest rate.

Price Spread – The difference between the bid price and the ask price of a security. For example, when a stock is quoted "50 bid, offered at 52," a two point spread is said to exist.

Primary Dealer – Primary dealers are banks or broker dealers who may trade directly with the Federal Reserve. They are required to make bids/offers when the Fed conducts its open market operations and to actively participate in U.S. Treasury auctions. These dealers purchase the majority of the U.S. Treasury securities sold at auctions and resell them to investors.

Prime Brokers – A prime broker offers a special group of services to certain clients. The services provided under prime brokering are securities lending, leveraged trade executions, and cash management, among other things. Prime brokerage services are provided by most large brokers.

Prime Rate – The lowest interest rate charged by commercial banks to their most credit-worthy customers. Other interest rates, such as personal, automobile, commercial and financing loans are often pegged to the prime.

Principal Value – See Par Value.

Private Equity – Equity capital that is made available to companies or investors but not quoted on a stock market. The funds raised through private equity can be used to develop new products and technologies, to expand working capital, to make acquisitions, or to strengthen a company's balance sheet.

Private Placement – A private placement involves the direct sale of a newly issued security to one or a small group of large institutional investors. Private placements are not traded on an exchange.

Probability Distribution – A distribution of all the values that a random variable can assume and the probability associated with each.

Profit Sharing Plan – A profit sharing plan is a retirement plan that receives contributions as a percentage of the sponsoring company's profits.

Projected Benefit Obligation (PBO) – A measure of a pension plan's liability at a specified date, assuming that the plan is ongoing and will not terminate in the foreseeable future.

Prospectus – A legal document stating the complete history and current status of a security issue. In accordance with the Securities Act of 1933, a prospectus must be made available to all interested purchasers in advance of a public offering. This formal written document must describe the plan for a proposed business enterprise, or the facts concerning an existing one that an investor needs in order to make an informed decision. Prospectuses are also used by mutual funds to describe the fund objectives, risks, fees and other essential information.

Prudent Man (Prudent Man Rule) – A concept born from the 1830 Massachusetts court decision of *Harvard College v Armory* that described the duty owed by a trustee to its beneficiaries: "All that can be required of a trustee to invest is, that he shall conduct himself faithfully and exercise sound discretion. He is to observe how men of prudence, discretion, and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income, as well as the probable safety of the capital to be invested."

Prudent Expert Rule – As a revised version of ERISA's Prudent Man Rule, ERISA requires that a fiduciary manage a portfolio "with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims." The Prudent Expert Rule differs from the classic Prudent Man Rule in that managers must act with "familiarity" on such matters as money management rather than just simple prudence.

Purchasing Power Parity (PPP) – An economic theory that estimates the amount of adjustment needed on the exchange rate between countries in order to equalize their purchasing power.

Purchasing Power Risk – Purchasing power risk is the risk that a portfolio or investment will earn a return less than the rate of inflation.

Put Option – An option contract that gives the holder the right to sell a certain quantity of an underlying security to the buyer of the option at a specified price (the strike price) up to a specified date (the expiration date).

Q

Qualified Default Investment Alternative (QDIA) – Default investment options in retirement plans that are granted safe harbor under ERISA according to the 2006 Pension Protection Act. QDIA's include balanced funds, target retirement funds (lifecycle funds) and managed accounts, but not stable value or money market funds, which have historically been used as the default option in retirement plans.

Qualified Retirement Plan or Trust – A plan that meets the requirements of Internal Revenue Code Section 401(a) and the Employee Retirement Income Security Act of 1974 (ERISA), and is thus eligible for favorable tax treatment. These plans offer several tax benefits: they allow employers to deduct annual allowable contributions for each participant; contributions and earnings on those contributions are tax-deferred until withdrawn for each participant; and some of the taxes can be deferred even further through a transfer into a different type of IRA.

R

Real Estate Investment Trust (REIT) – A corporation or trust that uses the pooled capital of many investors to purchase and manage income property and/or mortgage loans. REITs are traded on major exchanges. They are also granted special tax considerations.

Real Income – Income adjusted for inflation.

Real Rate of Return – A real rate of return is adjusted for inflation.

Recession – A recession is a period of general economic decline, officially marked by two consecutive quarters of a decline in GDP growth.

Refunding – Issuing a new bond to retire an existing bond. Refundings allow issuers to take advantage of lower interest rates by issuing new bonds at a lower rate and retiring older, higher rate bonds.

Rights – Rights give existing shareholders privilege to purchase a company's new securities, normally at a discount to the current market. Usually, the privilege must be exercised within a relatively short time span.

Risk-Adjusted Return – The return on an asset or portfolio, modified to explicitly account for the risk of the asset or portfolio.

Risk-Free Rate of Return – The risk-free return is the return on assets with zero risk. Rates on short-term U.S. Treasury bills are generally used to represent a risk-free rate.

Rollover – A tax-free reinvestment from a qualified retirement plan into an Individual Retirement Account (IRA) or other qualified plan, or from one IRA to another, as defined by the IRS.

R-squared (R^2) – R-squared measures the overall strength of "explanatory power" of a statistical relationship. In general, a higher R-squared means a stronger statistical relationship between two variables. An R-squared of 1 (100%) indicates that the statistical relationship has perfect explanatory power.

S

Safe Harbor Rules – A series of guidelines set forth by the Department of Labor that when fully complied, *may* limit a fiduciary's liabilities. Safe Harbor Rules require: the use of "prudent experts;" a due diligence process for selecting managers; that investment discretion be given to selected managers; that managers acknowledge a co-fiduciary status; and that these managers be monitored.

Secondary Market – The secondary market is the market in which securities are traded between investors rather than between the issuer and the investor.

Securities and Exchange Commission (SEC) – The SEC is the primary federal regulatory agency for the securities industry. Its responsibility is to promote full disclosure and to protect investors against fraudulent and manipulative practices in the securities markets.

Securities Lending – A loan of a security from one financial institution or dealer to another. The borrower provides the lender with collateral in the form of cash or securities and the interest earned on the collateral compensates the lender for loaning the securities to the borrower.

Securitization – The process of pooling together similar non-tradeable investments or assets and then issuing one tradeable security backed by those assets.

Sell Side – Sell side is used to describe the portion of the securities business whereby brokers or dealers sell securities to customers. The sell side includes retail brokers, institutional brokers and traders and their research departments. .

Separate Account – Money gathered from one source that is managed in a distinct and separate individual account.

Settlement Date Performance – A performance measurement methodology that bases calculations on the settlement date, rather than the trade date of transactions.

Sharpe Ratio – The Sharpe ratio is a commonly used measure of risk-adjusted return. It is calculated by subtracting the risk-free return (usually the 3 month Treasury bill) from a portfolio's return and then dividing this excess return by the portfolio's total standard deviation (a measure of portfolio volatility, or risk). The ratio thus represents the return gained per unit of risk taken.

Short Sale – A market transaction whereby an investor sells a borrowed security in anticipation of a decline in its price. The investor must then purchase the security to cover the loan by a pre-specified point in time. As a result, the investor has a short position.

Short-Term Investment Fund (STIF) – A bank fund that is invested in low-risk, highly liquid short-term financial instruments. The average portfolio maturity is generally 30 to 60 days.

Size-Weighted Composite – An investment manager's composite of portfolio returns that weights each portfolio's return based on the value of the account.

Small Capitalization Strategies – Small cap strategies invest in companies with relatively small market capitalizations. The cut-off point for small capitalization varies from manager to manager but on average includes firms with capitalization of $100 million - $1 billion.

Small/Mid Capitalization Strategies (SMID) – SMID managers invest in both small cap and mid cap companies and are generally benchmarked against an index such as the Russell 2500 or an S&P equivalent.

Socially-Targeted Investment – An investment which is made based upon social rather than financial guidelines. See also **Economically-Targeted Investment**.

Soft Dollars – Soft dollars are non-cash payments for services that are generated by institutional trading through a particular broker, often called a "Directed Broker." Soft dollars must be used to pay for goods or services that directly benefit the retirement plan.

Solvency – The ability of a corporation to meet its long term fixed expenses and to accomplish long term expansion and growth. (From "Investopedia")

Sortino Ratio – The Sortino ratio is a measure of risk-adjusted return. It measures a portfolio's return over a benchmark divided by downside risk, or the standard deviation of negative returns. It is similar to the Sharpe ratio, except that it differentiates between upside volatility ("good" volatility) and downside volatility ("bad" volatility).

Specific Risk – Specific risk is the risk attributable to an individual security and not related to market movements. This type of risk can be eliminated through diversification. It is also know as **unsystematic** risk.

Spot Price – The spot price is the current price at which a commodity can be traded.

Spot Rate – The yield-to-maturity of a 0% coupon Treasury for a given maturity.

Standard Deviation – Standard deviation is a statistical measure of portfolio risk. It reflects the average deviation of returns from their mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns has been.

Strategic Asset Allocation – Strategic asset allocation requires rebalancing back to a pre-determined policy allocation at specified time intervals or when established tolerance bands are violated.

Strip – Stripping is the process of removing (stripping) coupon payments from a bond and then selling these separate parts as a zero-coupon bond and disparate coupon payments. A **Treasury Strip** is a Treasury bond that has been stripped of its coupon payments and, thus, has a 0% coupon rate. It is also known as a Zero Coupon Bond.

Structured Investment Vehicle (SIV) - A structured investment vehicle (SIV) is an arbitrage fund that invests in a range of asset-backed securities and/or corporate bonds. An SIV is formed to profit from the difference between short-term borrowing rates and returns available on longer-term investments. The risk that arises from the transaction is twofold. First of all, the solvency of the SIV may be at risk if the value of investments falls below the amount borrowed to finance its investments. Secondly, there is a liquidity risk that, as the SIV borrows short term and invests long term, the amount owed will come due before the asset matures. Unless the borrower can refinance at favorable rates, they may be forced to sell the assets into a depressed market.

Structured Note – A structured note is a debt security with interest payments that are determined by a formula tied to the movement of an interest rate, stock, stock index, commodity, currency or other index.

Style – The description of the type of approach and strategy utilized by an investment manager. For example, an equity style is determined by portfolio characteristics such as: market capitalization of issues, price to earnings ratios and dividend yield. See Callan Style Groups in Appendix 1.

Swap – A contract between two parties in which the parties promise to exchange sets of payments on scheduled future dates. Swaps are not guaranteed by any clearinghouse and are, therefore, susceptible to default. Because of this, the contracting parties are sometimes required to post collateral. There are four primary classes of swaps defined by the type of their underlying instrument: interest rate, equity, currency, and commodity.

Systematic Risk – Systematic risk is the risk inherent to an entire market rather than an individual security. This type of risk cannot be eliminated through diversification. It is also known as "market risk."

T

Tactical Asset Allocation – Tactical Asset Allocation involves actively altering allocation among broad asset classes in an attempt to capture the highest returns. It is also referred to as "market timing."

Target Maturity Fund – A type of investment fund that is sometimes available in defined contribution plans where the investor selects a "maturity," typically the investor's retirement date. The fund is managed accordingly by investment professionals such that its asset allocation becomes more conservative over time in anticipation of funds being withdrawn at maturity.

Technical Analysis – Technical analysis involves studying market activity, primarily through the use of charts, to forecast future price movements.

10 K – An SEC-required annual report on a publicly-traded company that provides a comprehensive overview of the company's state of business. The 10-K must be filed within 90 days after the company's fiscal year end. A 10-Q report is filed quarterly.

Ticker – A group of letters assigned to a company when listed on an exchange.

Time Weighted Rate of Return – A method of computing investment performance that excludes the effect of cash flows by calculating sub-period returns. Because cash flows (contributions and withdrawals into a portfolio) are not controlled by an investment manager, it is inappropriate to measure performance net of the effect of these flows. Time weighted performance calculation is widely accepted as the appropriate method of performance measurement because it removes the impact of cash flows.

Top Down Analysis – A process of investing that focuses foremost on economic and industry analysis to structure portfolios. The opposite of **Bottom Up Analysis.**

Total Return – Total return is a standard measure of performance that includes capital appreciation or depreciation, realized gains and losses, and income.

Trade Date Performance – Performance measurement that bases all calculations of performance on the trade date of a transaction rather than the settlement date.

Trading Halt – A temporary suspension of the trading of a security on one or more exchanges, usually in anticipation of news or due to an order imbalance.

Transfer Agent – The organization employed by a bank or trust company to cancel and issue certificates, maintain records and process mailings to investors.

Transition Manager – A manager whose specific role is to transition one portfolio of assets to another while minimizing costs.

Treasury Bill – A U.S. Government security with a maturity of less than one year. It is often used as a measure of risk-free return.

Treasury Inflation-Protected Securities (TIPS) – TIPS are securities issued by the U.S. Treasury that offer inflation protection to investors. They have a fixed coupon rate but their principal value is adjusted at periodic intervals to reflect changes in the Consumer Price Index (CPI), the most commonly used index to measure inflation. For example, given a rise in the CPI, the principal value of the TIPS will be adjusted upward so that the amount of interest earned on the securities also increases.

Treasury Strip – See Strip.

Trustee – A person, bank or trust company that has responsibility over receipt, disbursement and investment of funds in a trust.

12b-1 Fee – The percent of a mutual fund's assets used to defray marketing and distribution expenses such as advertising and commissions paid to dealers. 12b-1 fees are named for the corresponding SEC rule, passed in 1980. A fund's prospectus outlines 12b-1 fees, if applicable. A true "no load" fund has neither a sales charge nor a 12b-1 fee.

U

Underfunded Pension Plan – An underfunded plan is a defined benefit plan that has liabilities that exceed its assets.

Underwriting – The process by which investment bankers raise investment capital from investors for corporations or governments by issuing debt or equity securities.

Unlisted Securities – Securities which are not listed on an organized stock exchange, such as those traded over-the-counter.

Unrelated Business Taxable Income (UBTI) – UBTI refers to income that may result in taxable income to an otherwise tax-exempt entity.

Unsystematic Risk – Unsystematic risk is the firm-specific risk of a security or portfolio. This type of risk can be eliminated through diversification. It is the portion of the total risk of a security or portfolio that is unique to the security or portfolio itself and is not related to the overall market.

Upgrade – A positive change in the quality rating of an equity or fixed income security.

V

Vacancy Rate – Vacancy rate refers to the percentage of stock in a real estate market that is not occupied.

Value-Added Real Estate Strategy – This type of strategy involves adding incremental value to a property in order to produce a higher return than a core strategy. Typically, half of the total return will come from income and half from appreciation.

Value at Risk (VaR) – Technique used to analyze variations in performance and to estimate the amount by which a portfolio could underperform.

Value Equity Managers – Investment managers who invest in companies believed to be undervalued or possessing lower than average price/earnings ratios based on their potential for capital appreciation.

Variable Annuity – A variable annuity is an insurance contract that guarantees a minimum payment after a specified amount of time. Future payments can vary as they depend upon the performance of the underlying managed portfolio.

Variance – Variance is a measure of risk which measures volatility around an average. For example, a range of prices for a stock will have a variance that reflects the amount that its price varies from its average. Variance is useful as a risk statistic because it gives an indication of how much the value of a portfolio might fluctuate from its average over a given time.

Venture Capital – Investment in a company that is at a relatively early stage of development and that is not listed on a stock exchange.

Vesting – Acquisition by a pension plan member of an absolute right to an immediate or deferred benefit by fulfilling prescribed conditions, especially length of employment requirements.

Volatility – The degree to which an investment's market value goes up and down over time.

W

Warrant – A certificate giving the holder the right to purchase shares of stock at a stipulated price within a specified time span.

Wrap Fee – A type of charge for an investment program that bundles or "wraps" a number of services (brokerage, advisory, research, consulting, management, and others) together and covers them with a single fee based on the value of assets under management.

Y

Yield Curve – A yield curve is a line that plots interest rates, at a specific point in time, of bonds with equal credit quality, but different maturity dates. The most frequently reported yield curve compares yields on U.S. Treasury securities; typically the 3-month, 2-year, 5-year and 30-year Treasuries. This yield curve is often used as a benchmark to compare yields on other fixed income securities, such as mortgages or corporate credits. The curve is also used by investors and economists to predict changes in economic output and growth.

Yield to Maturity – Yield to maturity is the rate of return an investor will receive if a bond is held to its maturity. Yield to expected maturity is calculated as the internal rate of return, incorporating the current market value and all expected future interest and principal flows.

Callan Terminology

A

Asset Allocation Effect – Measurement that illustrates the additional return produced by the difference between the target portfolio's asset class weights and the actual plan's asset class weights. This effect is seen when a return for an asset class target in the plan is greater than the total return of the plan's target benchmark as a whole and where the actual asset class weight was greater than the target asset class weight for the time period.

Average Coupon Rate – The market value weighted average coupon rate of all securities in a portfolio. The total portfolio coupon payments per year are divided by the total portfolio par value to get the average coupon rate.

Average Moody's Quality – A measure of the credit quality of a portfolio as determined by its individual security ratings. The Moody's ratings for each security are compiled into a composite rating for the whole portfolio.

Average Price – Equal to the portfolio market value divided by the number of securities in the portfolio. Portfolios with an average price above par will tend to generate more current income than those with an average price below par.

Average Years to Stated Maturity – The market value-weighted, average time to stated maturity for all securities in the portfolio. This term does not take into account embedded options such as sinking fund payments or mortgage prepayments.

C

Cash Flow/Sales – Cash flow divided by sales. Cash flow is the cash generated by a company after all cash expenses, including income taxes and minority interest, but before provision for dividends. Expenses do not include non-cash expenses such as depreciation. Sales represent gross sales reduced by cash discounts, returned sales, etc.

Cumulative Relative Return Ratio – The cumulative relative return for a portfolio or asset measures the cumulative return relative to a specified benchmark cumulative return. A period where the portfolio underperformed the benchmark would cause the return ratio for that period to be below zero. With examining the cumulative relative return ratio, values above zero represent total performance over the period above the benchmark, and values below zero represent total performance over the period below the benchmark.

Current Yield – The current yield is the current annual income generated by the total portfolio market value. It is equal to the total portfolio coupon payments per year divided by the current total portfolio market value.

D

Diversification Ratio – Diversification Ratio is the ratio of the number of issues in the top half of the portfolio's market value divided by the number of issues in the total portfolio. This value expresses to what extent a portfolio is equally weighted versus concentrated, given the number of names in the portfolio. This value can range from a high of 50% (equal weighted) to a low of 1% (half of the portfolio is in 1% of the names).

Dividends/Cash Flow – The Dividend/Cash Flow ratio is a measure of the sustainability or safety of a given dividend payment amount. The common stock dividends are the total dollar amount of dividends for a stock

over the preceding twelve months. Cash flow is the cash generated by a company after all cash expenses, including income taxes and minority interest, but before provision for dividends.

Down Market Capture Ratio – Down Market Capture is determined by the index which has a Down-Capture ratio of 100% when the index is performing negatively. If a manager captures less than 100% of the declining market it is said to be "defensive". This statistic is not annualized.

Downside Risk – Downside Risk differentiates between "good" risk (upside volatility) and "bad" risk (downside volatility). Whereas standard deviation treats both upside and downside risk the same, downside risk measures only the standard deviation of returns that are below the target. Returns above the target are assigned a deviation of zero. Both the frequency and magnitude of underperformance affect the amount of downside risk.

E

Earnings/Sales – This is a measure of a company's profitability, specifically measuring the relationship between the firm's costs and its sales. The value is equal to the earnings of a company divided by net sales. Earnings represent the income of a company after all expenses, income taxes, and minority interest, but before provisions for common and/or preferred stock dividends. Sales represent gross sales reduced by cash discounts, returned sales, etc.

Earnings Yield – The earnings per share of a share of a common stock for the preceding twelve months divided by the current closing price.

Effective Maturity – This is a measure of the market value weighted average of the years to expected maturity across all of the fixed income securities in the portfolio. Expected years to maturity takes into account any put or call options embedded in the security, any expected sinking-fund payments and any expected mortgage principal prepayments

Effective Yield – The effective yield is the actual total annualized return that would be realized if all securities in the portfolio were held to their expected maturities. Effective yield is calculated as the internal rate of return, using the current market value and all expected future interest and principal cash flows.

Excess Correlation – This is the correlation of one portfolio's excess return to another portfolio's excess return. Excess return is the return minus a benchmark's return. Excess Correlation is used to indicate whether different managers outperform a market index at the same time.

Excess Return Ratio – The Excess Return Ratio is a measure of risk-adjusted relative return. This ratio captures the amount of active management performance (value added relative to an index) per unit of active management risk (tracking error against the index). It is calculated by dividing the manager's annualized cumulative excess return relative to the index by the standard deviation of the individual quarterly excess returns. The Excess Return Ratio can be interpreted as the manager's active risk/reward tradeoff for diverging from the index when the index is mandated to be the "riskless" market position.

F

Five Year Beta – Beta measures the sensitivity of rates of return on a fund to general market movements. As such, the beta for a portfolio is a reflection of the risk of the securities in the portfolio as compared to the broader market. This value is a composite of the individual beta values within a portfolio. The beta computation is based on the weighted average of the five year historical betas of each security in a portfolio.

Five Year Growth in Earnings – This value represents a weighted average five-year annual growth rate of earnings per common stock share.

Forecasted Earnings Yield – This yield is a forward-looking valuation measure of a company's common stock. It expresses the amount of earnings estimated for next year per dollar of current share price as a percentage of yield.

Forecasted Growth in Earnings – This growth rate is a measure of a company's expected long-term success in generating future year-over-year earnings growth. This growth rate is a market value weighted average of the consensus (mean) analysts' long-term earnings growth rate forecast for each company in the portfolio. The definition of long-term varies by analyst but is limited to a 3-8 year range. This value is expresses the expected annual growth of earnings as a percent in percent form.

G

Growth in Assets - NOT IN PEP – This value represents a weighted average five year annual growth rate of assets per common stock share. The rates of growth in assets for trailing twelve month periods are calculated using the assets-per-share values for each time period. The five-year growth in assets figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio. The number of shares in each time period is adjusted to reflect any splits, mergers, or other capital changes. Total Assets includes the sum of current, non-current, and intangible assets.

Growth in Book Value - NOT IN PEP – This value represents a weighted average five year annual growth rate of book value per common stock share. The rates of growth in book value for trailing twelve month periods are calculated using the book value-per-share figures for each time period. The five-year growth in book value figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio. The number of shares in each time period is adjusted to reflect any splits, mergers, or other capital changes. Total Book Value is the sum of the common stock outstanding, capital surplus, and retained earnings.

Growth in Cash Flows – This value represents a weighted average five year annual growth rate of cash flow per common stock share. The rates of growth in cash flow for trailing twelve month periods are calculated using the cash flow-per-share values for each time period. The five-year growth in cash flow figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio.

Growth in Dividends – This value represents a weighted average five year annual growth rate of dividends per common stock share. The rates of growth in dividends for trailing twelve month periods are calculated using the dividend-per-share values for each time period. The five-year growth in dividends figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio.

Growth in Earnings - NOT IN PEP – This value represents a weighted average five year annual growth rate of earnings per common stock share. The rates of growth in earnings for trailing twelve month periods are calculated using the earnings-per-share values for each time period. The five-year growth in earnings figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio. The number of shares in each time period is adjusted to reflect any splits, mergers, or other capital changes. In this case, the earnings per share are fully diluted and exclude extraordinary items and discontinued operations. Fully diluted earnings per share are earnings that are reduced, or diluted, by assuming the conversion of all securities that are convertible into equities.

Growth in Sales – This value represents a weighted average five year annual growth rate of sales per common stock share. The rates of growth in sales for trailing twelve month periods are calculated using the sales-per-share values for each time period. The five-year growth in sales figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio.

I

Indicated Dividend Yield – The total amount of dividends paid out for a stock over the preceding twelve months divided by the closing price of a share of the common stock

Industry Concentration Return - NOT IN PEP – This measure looks at the return attributable to the difference between a portfolio's industry sector weights and the benchmark's sector weights. If the benchmark sector return is greater than the return of the benchmark as a whole and the portfolio's sector weight was greater than the benchmark weight, the portfolio will show a positive Industry Concentration Return for the time period. If the benchmark sector return is less than the return of the benchmark as a whole and the portfolio's sector weight was less than the benchmark weight, the portfolio will show a negative Industry Concentration Return for the time period.

Interest/Pretax Earnings - NOT IN PEP – This value is used as a measure of the ability of a company to meet interest payments out of earnings. The ratio is equal to the interest expense divided by earnings. Earnings is the value before: 1) interest expense, the expense of securing both short and long-term debt; 2) state, federal, and foreign taxes; 3) extraordinary items and discontinued operations; 4) provision for common and preferred dividends; and 5) minority interests, which is that portion of the consolidated subsidiary income applicable to common stock not owned by the parent company.

Issue Diversification – The number of stocks (largest holdings) making up half the market value of a total portfolio

M

Manager Selection Effect (Asset Class) – This attribution return measures the additional return produced by the managers within a management style group in the asset class compared to the return of the target benchmark for that style. Each style of an asset class whose return is higher than the target benchmark return will show a positive Manager Selection Return. Each style of an asset class whose return falls short of the target benchmark return will show a negative Manager Selection Return.

Manager Selection Effect (Total Fund) – This attribution return measures the additional return produced by the managers within an asset class in the plan compared to the return of the target benchmark for that asset class. Each asset class of a plan whose return is higher than the target benchmark return will show a positive Manager Selection Return. Each asset class of a plan whose return falls short of the target benchmark return will show a negative Manager Selection Return. The Manager Selection Effect is the compounded factor of each single time period factor over the cumulative time period.

Market Capitalization (Weighted Median) - NOT IN PEP – The weighted median market cap is the point at which half of the market value of the portfolio is invested in stocks with a greater market cap, and consequently the other half is invested in stocks with a lower market cap.

N

Net New Investment – For a portfolio or security, Net New Investment (NNI) is a measure of the net contribution of cash or assets over a period of time. At the portfolio level, Net New Investment is the net amount of contributions to the manager for the purpose of management. For a particular time period, the sum of any cash or asset contributions subtracted by any cash or asset withdrawals is the net new investment. At an asset class or security level, the Net New Investment measures the net contribution to an asset class or security. In this case, the Net New Investment is the sum of any purchases, subtracted by any sales and income.

O

OA Convexity – Convexity is a measure of the portfolio's exposure to interest rate risk. It is a measure of how much the duration of the portfolio will change given a change in interest rates. Generally, securities with negative convexities are considered to be risky in that changes in interest rates will result in disadvantageous changes in duration. The option-adjusted convexity (OA Convexity) for each security in the portfolio is

calculated using models developed by Lehman Brothers and Salomon Brothers which determine the expected stream of cash flows for the security based on various interest rate scenarios. Expected cash flows take into account any put or call options embedded in the security, any expected sinking-fund paydowns and any expected mortgage principal prepayments.

OA Duration – Duration is one measure of the portfolio's exposure to interest rate risk. In general, the higher a portfolio's duration, the more that its value will change in response to interest rate changes. The option-adjusted duration (OA Duration) for each security in the portfolio is calculated using models developed by Lehman Brothers and Salomon Brothers which determine the expected stream of cash-flows for the security based on various interest rate scenarios. Expected cash-flows take into account any put or call options embedded in the security, any expected sinking-fund paydowns and any expected mortgage principal prepayment.

P

Policy Return – The Policy Return is the portion of the Total Fund Return that is attributable to the historical policy weights and returns associated with the benchmarks used to define the target portfolio. This return is the return that would have been achieved if the plan had invested in a passive plan, replicating the target portfolio.

Price/Book Value – The Price to Book Value (P/B) is a measure of value for a company. It is equal to the market value of all the shares of common stock divided by the book value of the company. The book value is the sum of capital surplus, common stock, and retained earnings.

Price/Cash Flow – Price/Cash Flow is a measure of value for a company. It is equal to the current price per share divided by its annual cash flow per share.

Price/Earnings to Growth – Price/Earnings to Growth (or PEG) ratio is a ratio is used to determine the value of company stock while taking into account the earnings growth. The value is calculated by dividing the Price/Forecasted Earnings by the year-over-year forecasted earnings growth rate.

Price/Earnings Ratio – The Price to Earnings Ratio (P/E) is a measure of value for a company. It is equal to the price of a share of common stock divided by the earnings per share for a twelve-month period.

Price/Forecasted Earnings – This ratio is a forward looking valuation measure of a company's common stock. It encapsulates the amount of earnings estimated for next year per dollar of current share price. This value is calculated by dividing the present stock price by the consensus (mean) analysts' earnings forecasts for the next year. These earnings estimates are for recurring, non-extraordinary earnings per primary common share. The individual P/E stock ratios are then weighted by their respective portfolio market values in order to calculate a weighted average representative of the portfolio as a whole.

Price/Sales – The Price to Sales Ratio is a measure of value for a company. It is equal to the current price per share of common stock divided by its annual sales-per-share value. Sales represent gross sales reduced by cash discounts, return sales, etc.

Q

Quality Rating – A Standard and Poor's credit issue rating is a current opinion of the creditworthiness of an issuer. The S&P ratings for each security are compiled into a composite rating for the whole portfolio.

R

R&D/Sales - NOT IN PEP – Research and development expenditures divided by sales. Research and development expenses are costs that relate to the development of new products or services. Sales represent gross sales reduced by cash discounts, return sales, etc.

Real Return – Is a portfolio's return minus the risk-free rate.

Relative Cumulative Return – The relative cumulative return for a portfolio or asset measures the cumulative return relative to a specified benchmark cumulative return. A period where the portfolio underperformed the benchmark would cause the return ratio for that period to be below one. However, over the length of the entire time period, the portfolio may have a cumulative return above the benchmark. The relative return value is a ratio for which values above one represent total performance over the period above the benchmark and where values below one represent total performance over the period below the benchmark.

Relative Return Ratio – The relative return for a portfolio or asset measures the return relative to a specified benchmark return. The relative return value is a ratio for which values above zero represent a period where the portfolio outperformed the benchmark and values below zero represent a period where the portfolio underperformed the benchmark.

Relative Sector Variance – Relative Sector Variance is a measure that illustrates how aggressively the manager deviates from the sector weights of the index. This measure is simply the sum of the difference (absolute value) in the manager's sector weights from those of the index across all sectors. The higher the number the more aggressively the manager has deviated from the index sector weights.

Relative Standard Deviation – Is a simple measure of a manager's risk (volatility) relative to a benchmark. It is calculated by dividing the manager's standard deviation of returns by the benchmark's standard deviation of returns. A relative standard deviation of 1.20, for example, means the manager has exhibited 20% more risk than the benchmark over that time period. A relative standard deviation of .80 would imply 20% less risk.

Residual Risk – Residual Risk is the "unsystematic", or firm-specific, risk of a security or portfolio. It is the portion of the total risk of a security or portfolio that is unique to the security or portfolio itself and is not related to the overall market. The level of residual risk in a portfolio is a reflection of the "bets" the manager places in a particular asset class or sector. Diversification can reduce or eliminate the residual risk of a portfolio.

Return on Assets (ROA) – A measure of a company's profitability, specifically relating profits to the total investment required to achieve the profit.

Return on Equity (ROE) - NOT IN PEP – Return on Equity is a measure of a company's profitability, specifically relating profits to the equity investment employed to achieve the profits. Return on Equity focuses on the returns accruing to the residual owners of a company, the equity holders. It is equal to income divided by total common equity. Income excludes all expenses, which include income taxes and minority interest, but is calculated before provision for dividends, extraordinary items, and discontinued operations. Common equity includes common stock outstanding, capital surplus, and retained earnings. The earnings per share of a firm divided by the firm's *Book Value* per share.

Return on Equity – Return on Equity is a measure of a company's profitability, specifically relating profits to the equity investment employed to achieve the profits. Return on Equity focuses on the returns accruing to the residual owners of a company, the equity holders. It is equal to income divided by total common equity. Income is after all expenses, including income taxes and minority interest, but before provision for dividends, extraordinary items, and discontinued operations. Common equity includes common stock outstanding, capital surplus, and retained earnings.

Return on Investment (ROI) - NOT IN PEP – Return on Investment is a widely used measure of business success that relates net income to invested capital (total assets). ROI provides a standard for evaluating how efficiently management uses the average dollar (or unit of currency) invested in assets, whether the investment came from owners or creditors. A higher ROI may result in a higher return on stockholder's equity (ROE).

Returns – A standard measure of performance that includes capital appreciation or depreciation as well as realized gains and losses and income.

Rising/Declining Periods – Rising/declining periods refer to the sub-asset cycles vis-à-vis the broader asset class. For example, to determine the growth equity cycle, the S&P 500 Growth Index performance is compared to the S&P 500.

S

Sector Concentration – Sector Concentration is a simple measure of diversification by sector. It illustrates how many sectors comprise half of the portfolio market value.

Stated Maturity – The average years to stated maturity is the market value weighted average time to stated maturity for all securities in the portfolio. This measure does not take into account embedded options, sinking fund payments, or prepayments.

Stock Selection Return – This attribution return measures the additional return produced by the manager's security selection within each industry sector. Each sector in a portfolio whose return exceeds the sector return of the benchmark will show a positive Stock Selection Return. Each sector of a portfolio whose return falls short of the benchmark sector return will show a negative Stock Selection Return.

Style Allocation Effect *CALL PERF MEAS TER* – This attribution return measures the additional return produced by the difference between the target management style weights in the asset class and the actual weights of the managers representing the management styles. For each time period where the return for one of the style targets in the plan is greater than the total return of the asset class target benchmark as a whole and where the actual style weight was greater than the target style weight, the style will show a positive Style Asset Allocation Effect.

Style Policy Return – The Style Policy Return is the portion of the Total Fund Return that is attributable to the historical policy weights and returns associated with the management style benchmarks used to define the target asset class mix. This return is the return that would have been achieved if the plan had invested in a passive plan replicating the target asset mix.

Style Structure Attribution – A type of performance attribution that provides historical insight into how and why actual investment plan performance has differed from the performance of a plan's target portfolio at the level of a single asset class. This analysis allows comparison of the contributions of different management styles to the Total Return of a particular asset class. The target portfolio consists of relevant benchmarks for each management style in an asset class, weighted by the planned allocation of that style to the total asset class. The Total Return of the plan is broken down into three components: Style Policy Return, Style Allocation Effect, and Manager Selection Effect.

T

Total Fund Attribution – This type of performance attribution provides historical insight into how and why actual investment plan performance has differed from the performance of a plan's target portfolio. The target portfolio consists of relevant benchmarks for each asset class in a portfolio, weighted by the planned allocation of that asset class in the investment plan. The premise of Total Fund Attribution is that actual plan performance is the result of two factors: the performance of the investment plan target asset mix, and the value added to the plan through the implementation and maintenance of the policy mix. The Total Return of the plan is broken down into three components: Policy Return, Asset Allocation Effect, and Manager Selection Effect.

Total Risk – *CALLAN PERF MEAS TER* – Total risk is a measure of the total volatility of the excess returns of an asset or portfolio. The total risk is comprised of two measures of risk: market (non-diversifiable or systematic) risk and residual (diversifiable or firm-specific) risk.

Tracking Error - CAL RISK STAT – Tracking Error is the standard deviation of a portfolio's relative returns relative to a benchmark. Whereas the standard risk measure of standard deviation measures the absolute return

volatility, tracking error measures the volatility of the return differences between the portfolio and the benchmark over time. A portfolio that is actively managed in an aggressive manner would have a large amount of tracking error versus its index, while a portfolio that is more constrained to look like its index (an index fund being the extreme) would have smaller amounts of tracking error.

Treynor Ratio – The Treynor Ratio is a risk statistic that measures the excess return per unit of systematic market risk taken in a portfolio. The excess return is the total excess return without adjustment for risk. The ratio is equal to the excess return of the portfolio divided by the beta of the portfolio.

U

Up Market Capture Ratio – The Up Market Capture ratio is determined by the index which has an Up-Capture ratio of 100% when the index is performing positively. If a manager captures more than 100% of the rising market it is said to be "offensive." This statistic is not annualized.

W

Weighted Average Market Capitalization – The market value of all the shares of common stock issued by a company at a point in time, computed as the product of the number of shares of common stock times the current price.

Weighted Median Market Capitalization – The weighted median market cap is the point at which half of the market value of a portfolio is invested in stocks with a greater market cap, and consequently the other half is invested in stocks with a lower market cap.

Z

Z Score, MSCI Growth – The MSCI Growth Z Score is a holdings-based measure of the "growthyness" of an individual stock or portfolio of stocks based on fundamental financial ratio analysis. The MSCI Growth Z Score is an aggregate score based on the growth score of 5 separate financial fundamentals: Long Term Forward Earnings Growth, Short Term Forward Earnings Growth, Current Internal Growth (ROE * (1-payout ratio)), Long Term Historical Earnings Growth, and Long Term Historical Sales Growth. The Growth Z Score usually ranges between +3 and -3. A significant positive Growth Z-Score implies significant "growthyness" in the stock or portfolio. A Growth Z Score close to 0.0 (positive or negative) implies "core-like" style characteristics, and a significantly negative Growth Z Score implies more "valueyness" in the stock or portfolio (although MSCI Value Z Score should be used to confirm this).

Z Score, MSCI Value – The MSCI Value Z Score is a holdings-based measure of the "valueyness" of an individual stock or portfolio of stocks based on fundamental financial ratio analysis. The MSCI Value Z Score is an aggregate score based on the value scores of 3 separate financial fundamentals: Price/Book value, Price/Forward Earnings, and Dividend Yield. The Value MSCI Z Score usually ranges from +3 and -3. A significant positive Value Z Score implies significant "valueyness" in the stock or portfolio. A Value Z Score close to 0.0 (positive or negative) implies "core-like" style characteristics, and a significantly negative Value Z Score implies more "growthyness" in the stock or portfolio (although the MSCI Growth Z Score should be used to confirm this).

Z Score, MSCI Combined – The MSCI Combined Z Score is a single holdings-based measure of the "growthyness" or "valueyness" of an individual stock, or a portfolio of stocks, based on fundamental financial ratio analysis. The MSCI Combined Z Score is simply the difference between the MSCI Growth Z Score and the MSCI Value Z Score (Growth - Value). The underlying Growth Z Score is an aggregate score based on the growth scores of 5 separate financial fundamentals: Long Term Forward Earnings Growth, Short Term Forward Earnings Growth, Current Internal Growth (ROE * (1-payout ratio)), Long Term Historical Earnings Growth and Long Term Historical Sales Growth. The underlying Value Z Score is an aggregate score based on the value scores of 3 separate financial fundamentals: Price/Book value, Price/Forward Earnings, and Dividend Yield. The

MSCI Combined Z Score usually ranges between +2 and -2. A significant positive Combined Z Score implies significant "growthyness" in the stock or portfolio. A Combined Z Score close to 0.00 (positive or negative) implies "core-like" style characteristics, and a significantly negative Combined Z Score implies more "valueyness" in the stock or portfolio.

Callan

August 28, 2015

North Dakota State Investment Board

Performance Evaluation as of June 30, 2015

William Howard, CFA
Senior Vice President

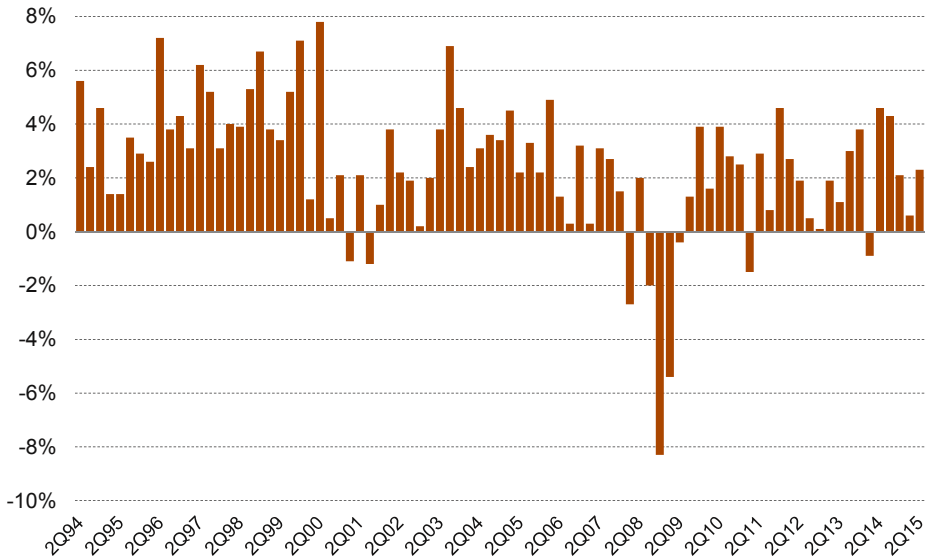
Agenda

- Review economic and market environment for periods ended June 30, 2015
- Pension Trust Quarterly Review
  - Results and Observations
- Insurance Trust Quarterly Review
  - Results and Observations
- Appendix

U.S. Economy

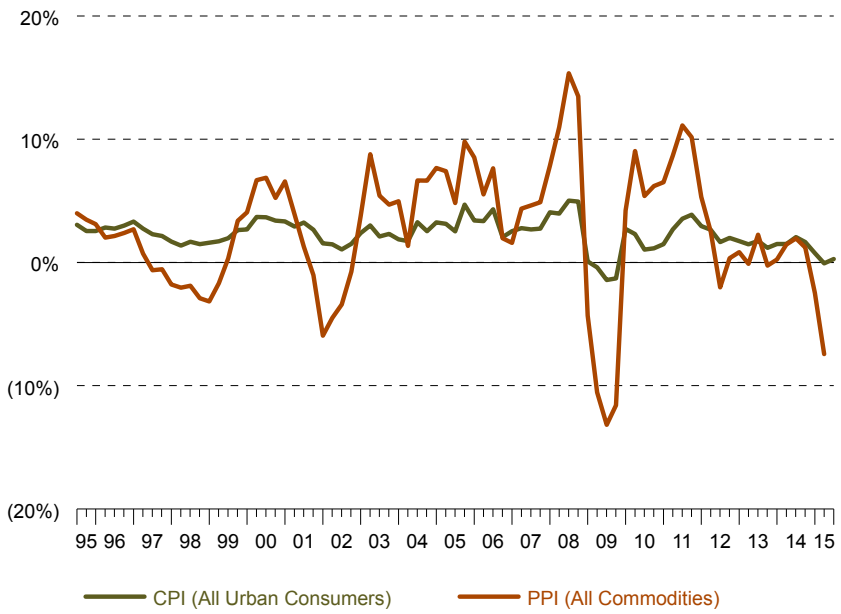
Periods Ending June 30, 2015

Quarterly Real GDP Growth (20 Years)*



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



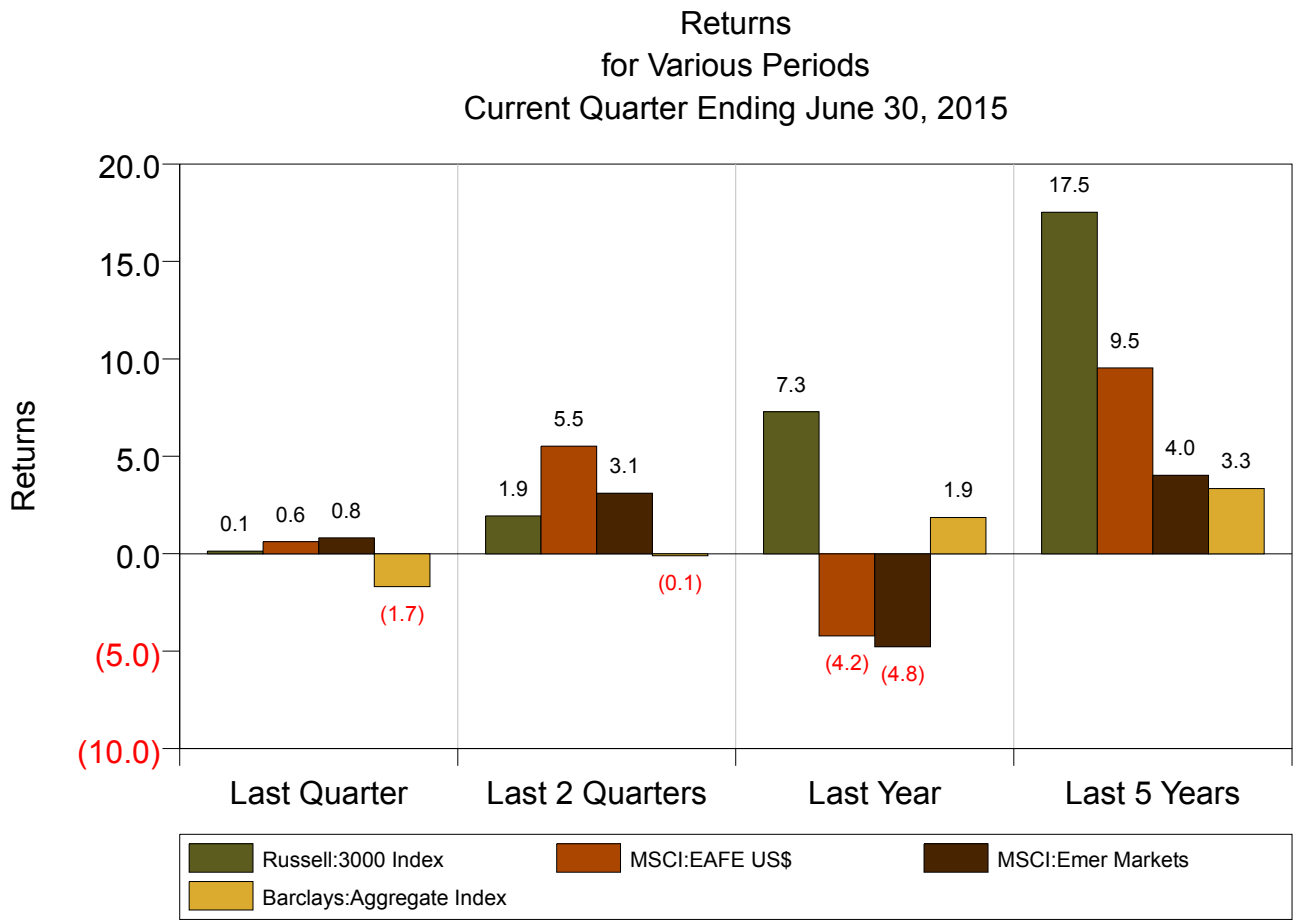
Source: Bureau of Labor Statistics

- Second quarter GDP growth up 2.3% (+0.6% for 1Q15)
- CPI increased 0.1% from a year earlier, core inflation up 1.8% (0.0% and 1.8% for core at 1Q15)
- The unemployment rate fell to 5.3% in June (5.5% end of 1Q15)
- WTI oil price down 44% from year ago
- The Fed contemplating timing of interest rate hike, perhaps in September or December

Asset Class Performance

Periods Ending June 30, 2015

	July	YTD
Russell 3000	1.7%	
MSCI EAFE	2.1%	
MSCI EM	-6.9%	
BC Aggregate	0.7%	



U.S. Equity Style Returns

Periods Ending June 30, 2015

	2Q 2015		
	Value	Core	Growth
Large	G 1.0%	G 0.9%	Y 0.7%
Mid	R -2.0%	R -1.5%	Y -1.1%
Small	R -1.2%	Y 0.4%	G 2.0%

	Annualized 1 Year Returns		
	Value	Core	Growth
Large	R 4.3%	Y 7.7%	G 11.1%
Mid	R 3.7%	Y 6.6%	G 9.5%
Small	R 0.8%	Y 6.5%	G 12.3%

G — Represents 3 best performing asset classes in time period

Y — Represents 3 middle performing asset classes in time period

R — Represents 3 worst performing asset classes in time period

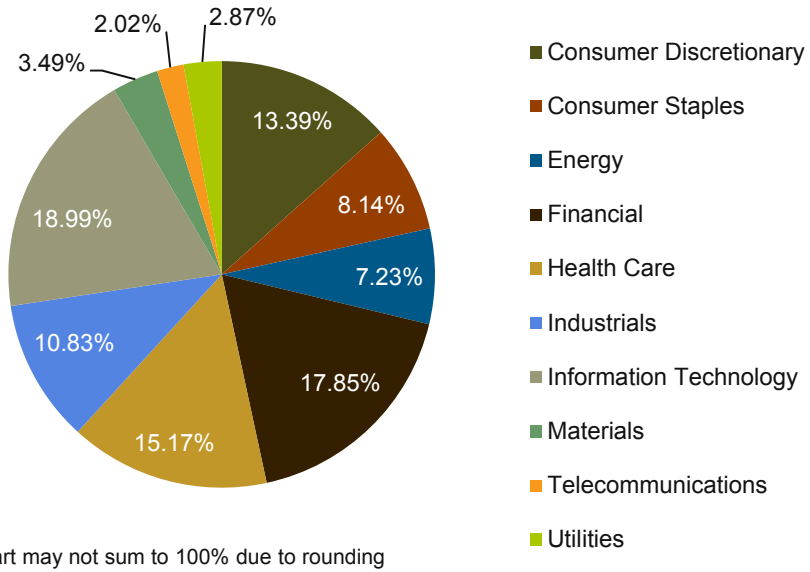
- Last Quarter and Year: Growth and Large Cap fared best

Large Cap Core is represented by the Russell Top 200 Index, Large Cap Value is represented by the Russell Top 200 Value Index and Large Cap Growth is represented by the Russell Top 200 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.

U.S. Equity Returns

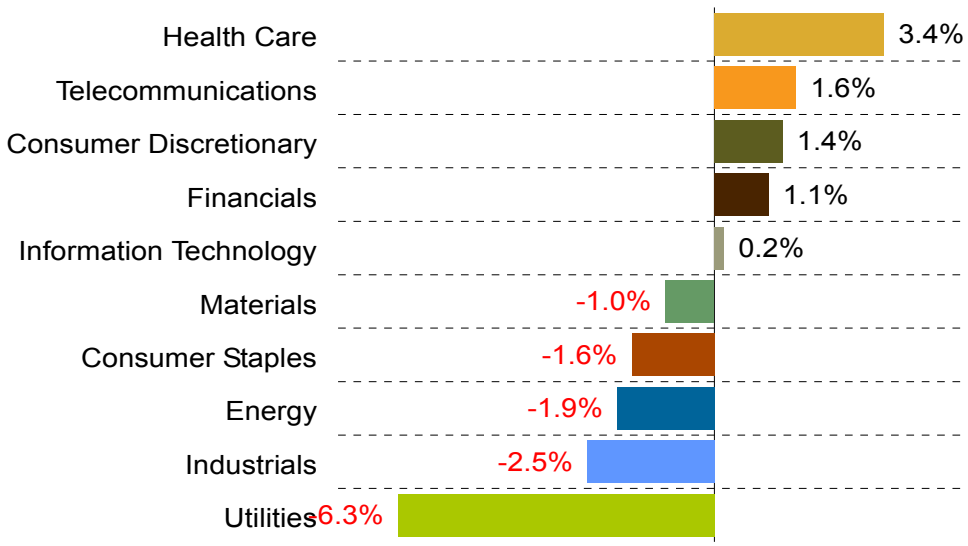
Periods Ending June 30, 2015

Economic Sector Exposure (Russell 3000)



Pie chart may not sum to 100% due to rounding
Source: Russell Investment Group

Quarterly Returns (Russell 3000)

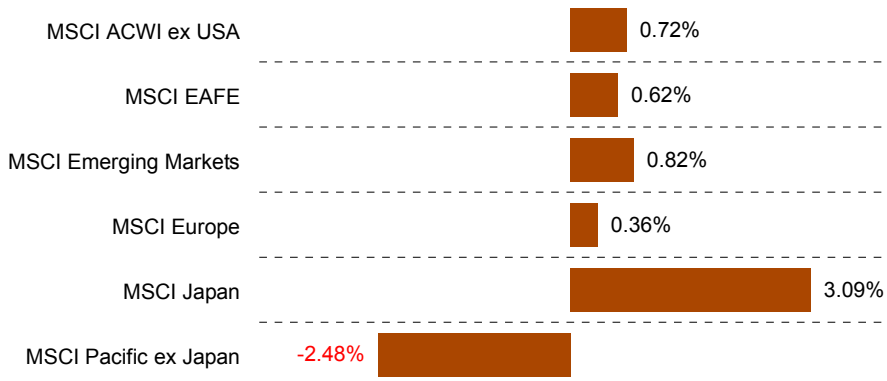


- Sector dispersion was quite large with a 9.7% spread between the best (Health Care: +3.4%) and worst (Utilities: -6.3%) sectors
- The prospect of Fed tightening hurt Utilities and REITs during quarter

International Equity Returns

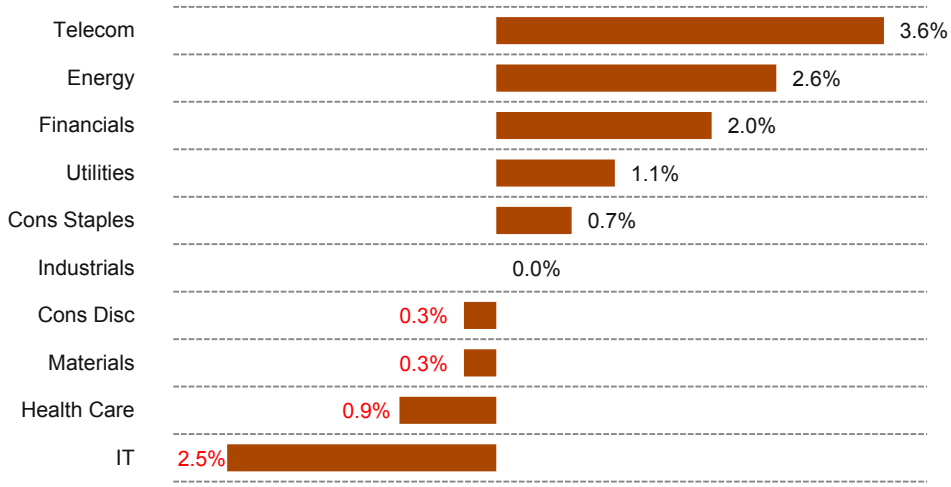
Periods Ending June 30, 2015

Regional Quarterly Performance (U.S. Dollar)



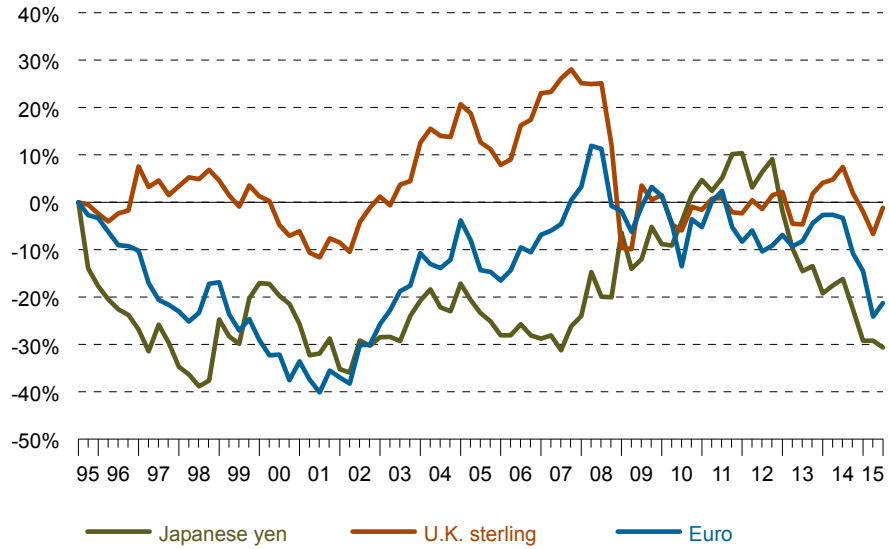
Source: MSCI

ACWI ex-U.S. Sector Returns



Source: MSCI

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



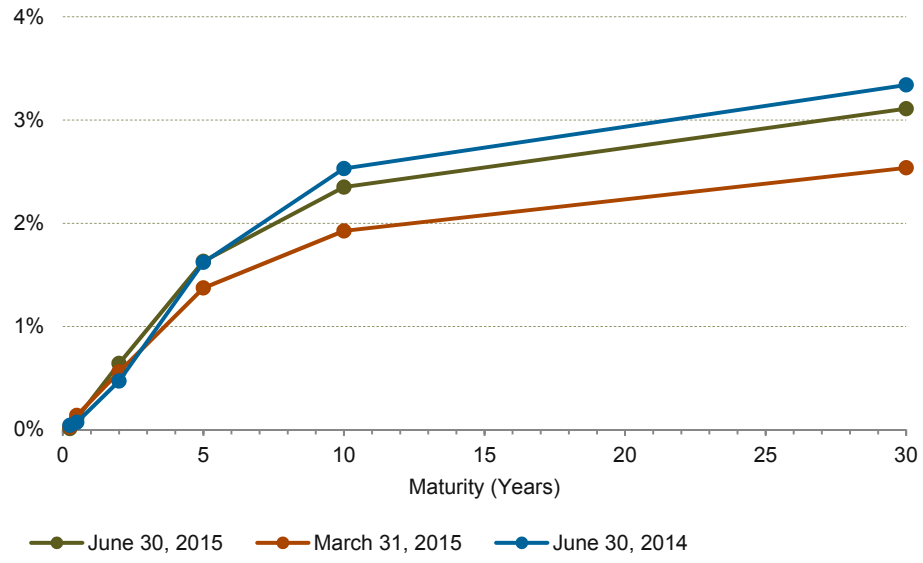
*Euro returns from 1Q99. German mark prior to 1Q99.
Source: MSCI

- The best performing market was Japan
- The euro rose 3.7% versus the dollar while the yen lost 2.2%
- Telecom and Energy were the best performing sectors while IT and Health Care lagged

Yield Curve Changes

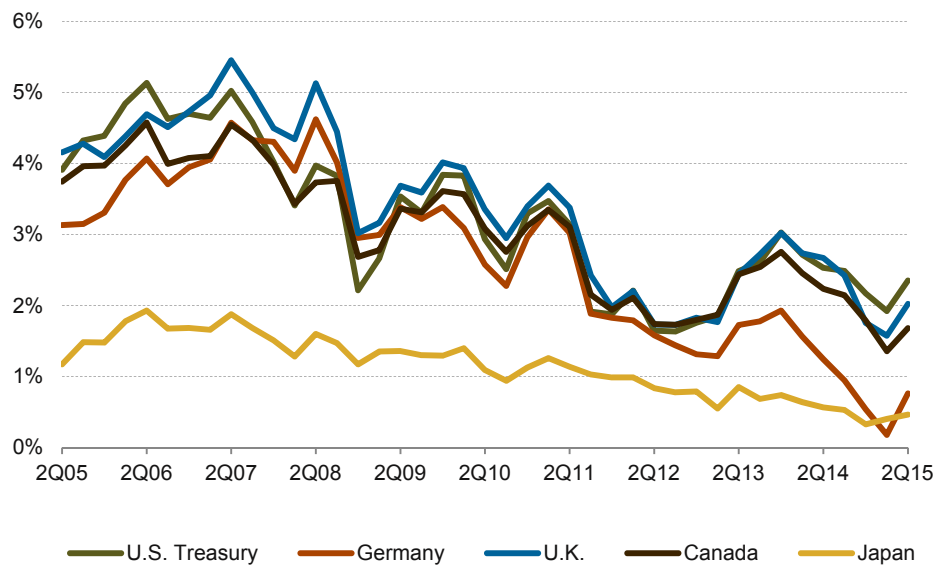
Periods Ending June 30, 2015

U.S. Treasury Yield Curves



Source: U.S. Department of the Treasury

10-Year Global Government Bond Yields



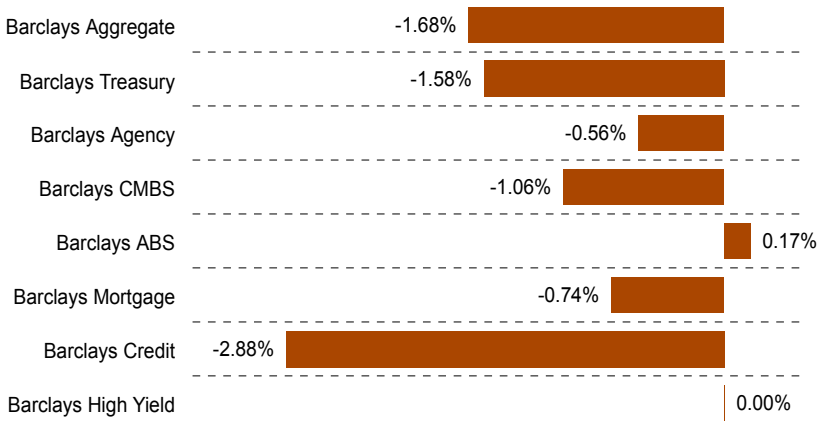
Source: Bloomberg

- The 10-year Treasury yield spiked to 2.37%, increasing 43 basis points
- Sovereign bond yields reversed course and rose

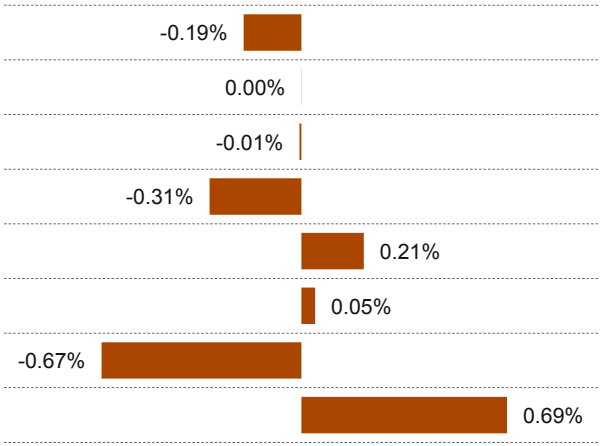
Total Rates of Return by Bond Sector

Periods Ending June 30, 2015

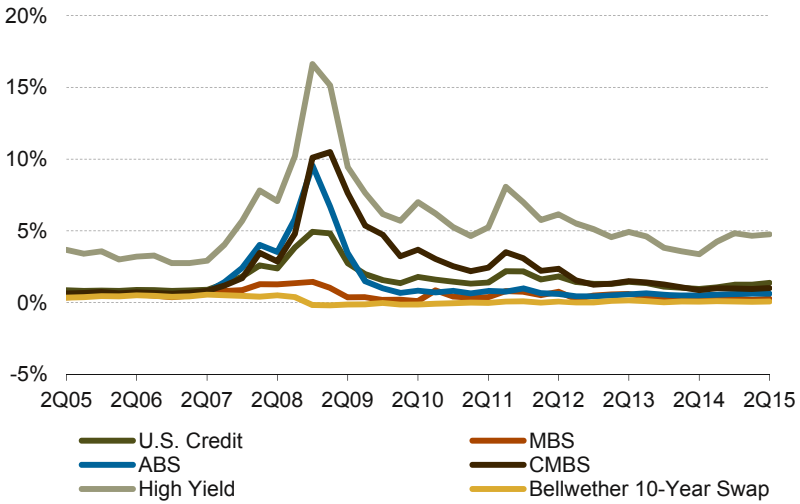
Absolute Returns for Quarter ended June 30, 2015



Excess Return versus Like-Duration Treasuries



Effective Yield Over Treasuries



- BC Aggregate gave back gains from 1Q as yields saw slight uptick
- Spreads widened during the quarter with the most dramatic increases to investment grade credit and high yield
- High yield default rates remain below 2%, concentrated in the energy sector

Source: Barclays

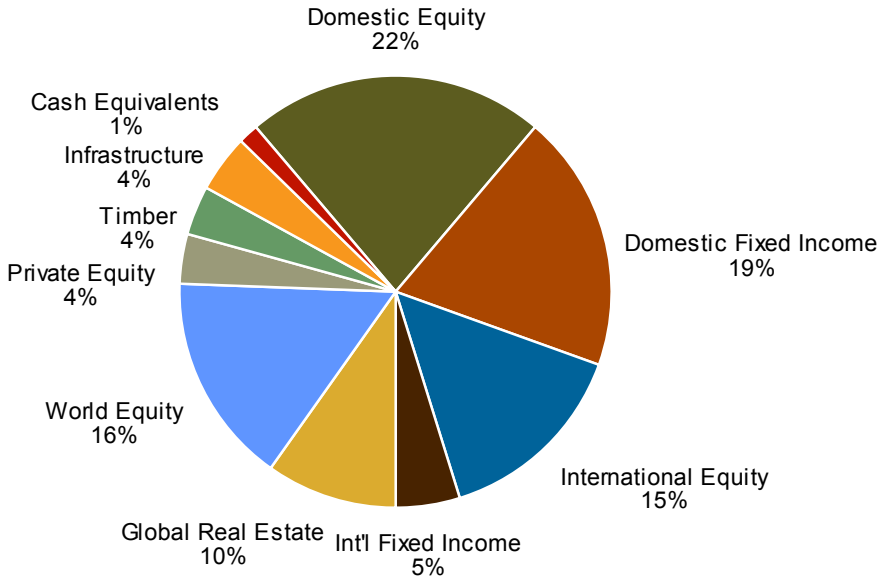
Consolidated Pension Trusts Quarterly Review

- Public Employees Retirement System
- Teachers' Fund for Retirement

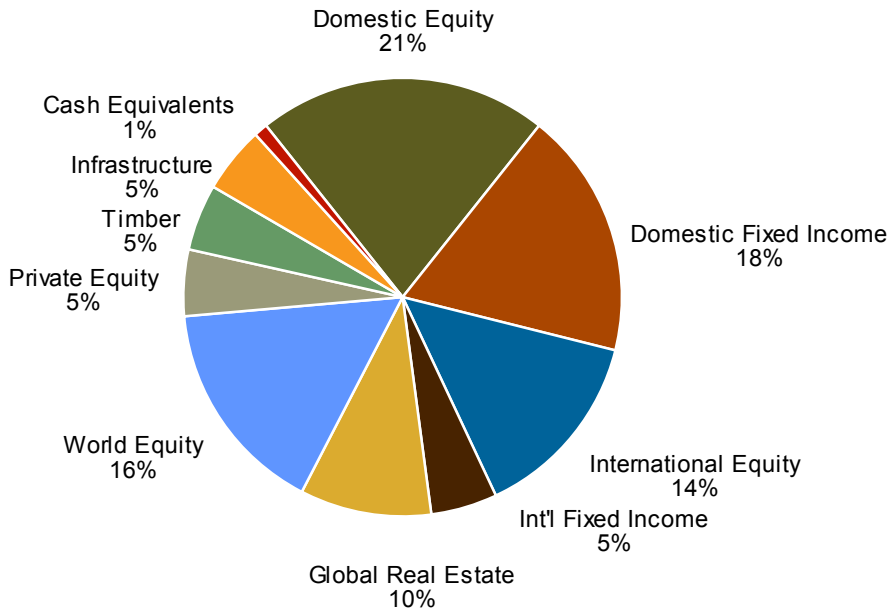
Consolidated Pension Trust Allocation

As of June 30, 2015

Actual Asset Allocation



Target Asset Allocation

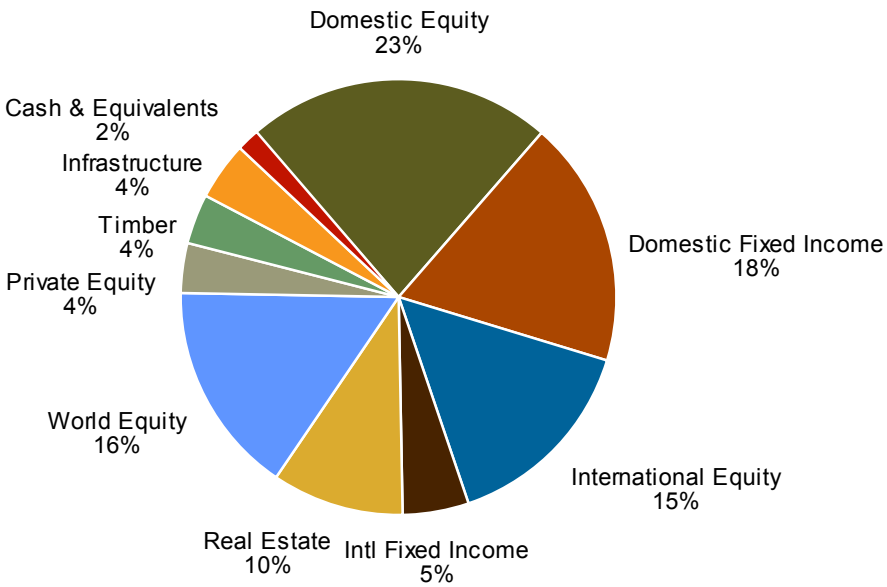


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	1,075,688	22.4%	21.5%	0.9%	42,464
Domestic Fixed Income	928,141	19.3%	18.1%	1.2%	58,310
International Equity	707,664	14.7%	14.1%	0.6%	30,061
Int'l Fixed Income	229,910	4.8%	4.9%	(0.1%)	(5,568)
Global Real Estate	468,650	9.8%	9.7%	0.1%	2,497
World Equity	760,650	15.8%	16.0%	(0.2%)	(8,261)
Private Equity	177,338	3.7%	4.9%	(1.2%)	(58,141)
Timber	177,399	3.7%	4.9%	(1.2%)	(58,080)
Infrastructure	208,262	4.3%	4.9%	(0.6%)	(27,217)
Cash Equivalents	71,991	1.5%	1.0%	0.5%	23,934
Total	4,805,692	100.0%	100.0%		

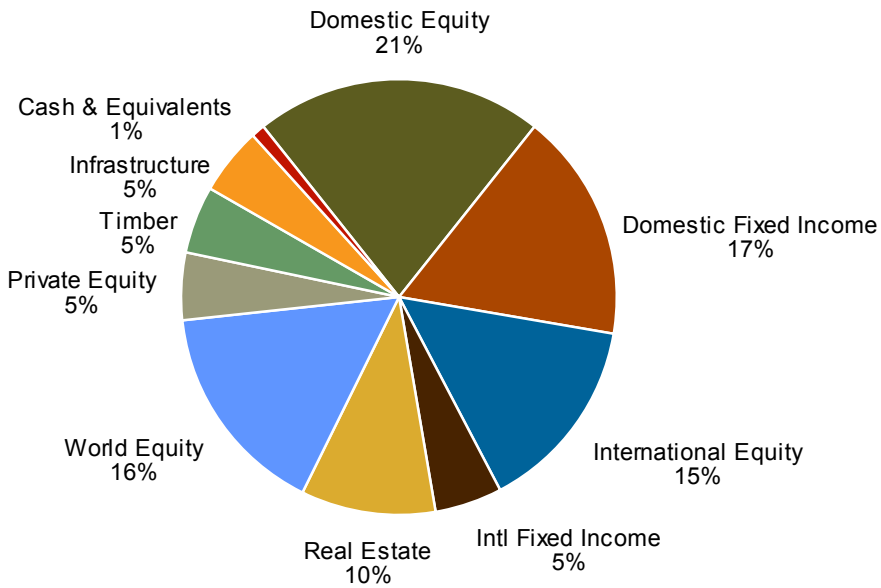
PERS Allocation

As of June 30, 2015

Actual Asset Allocation



Target Asset Allocation

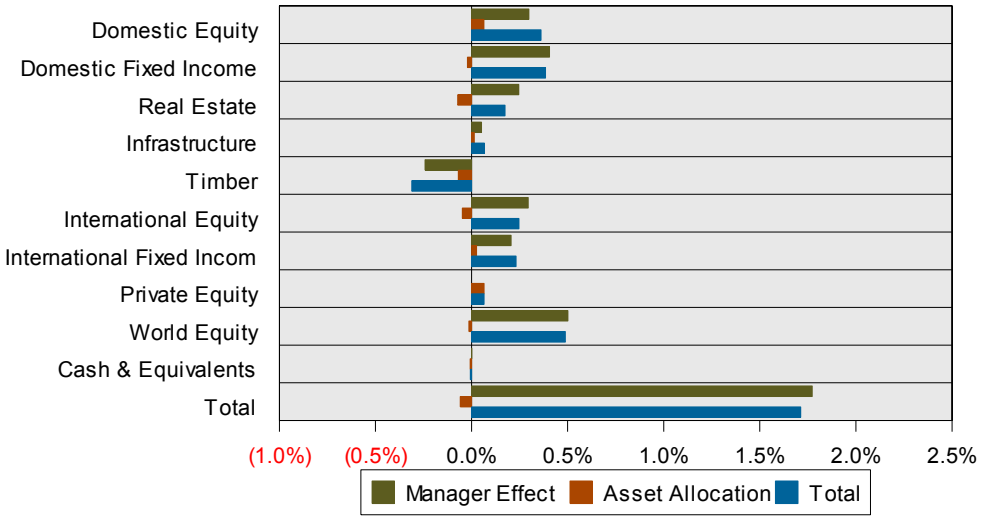


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	551,593	22.8%	21.4%	1.4%	33,160
Domestic Fixed Income	442,738	18.3%	17.0%	1.3%	30,898
International Equity	366,054	15.1%	14.6%	0.5%	12,357
Intl Fixed Income	117,625	4.9%	5.0%	(0.1%)	(3,504)
Real Estate	237,578	9.8%	10.0%	(0.2%)	(4,681)
World Equity	382,886	15.8%	16.0%	(0.2%)	(4,727)
Private Equity	88,968	3.7%	5.0%	(1.3%)	(32,162)
Timber	89,608	3.7%	5.0%	(1.3%)	(31,521)
Infrastructure	105,358	4.3%	5.0%	(0.7%)	(15,772)
Cash & Equivalents	40,177	1.7%	1.0%	0.7%	15,951
Total	2,422,584	100.0%	100.0%		

PERS Performance and Attribution

As of June 30, 2015

One Year Relative Attribution Effects



1 Year Ended 06/30/15	
Gross:	3.86%
Net:	3.53%
Target:	2.15%
Net Added:	1.38%

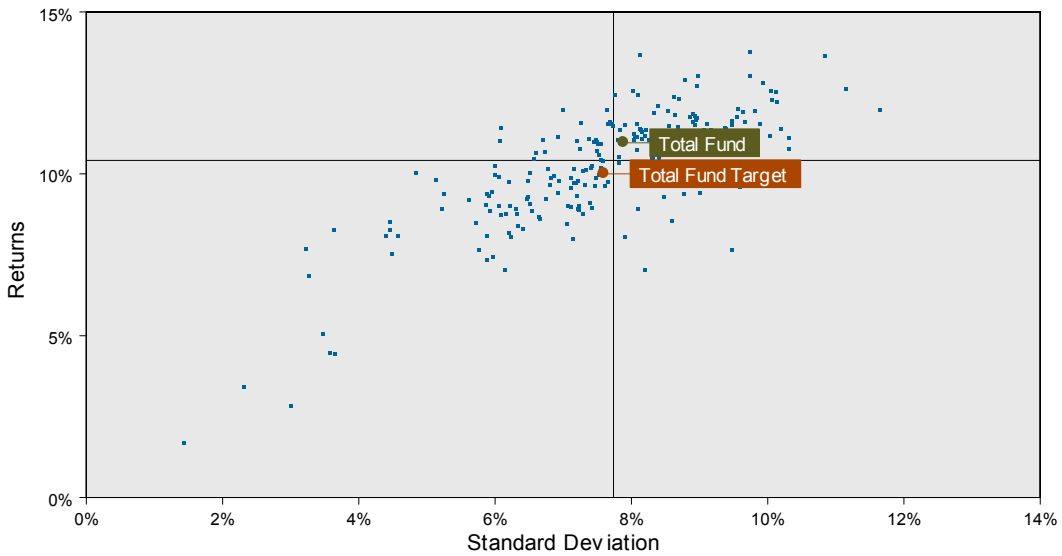
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	8.64%	7.26%	0.30%	0.06%	0.36%
Domestic Fixed Income	19%	17%	3.40%	1.22%	0.41%	(0.02%)	0.38%
Real Estate	9%	10%	15.78%	12.98%	0.25%	(0.07%)	0.17%
Infrastructure	4%	5%	1.23%	(0.38%)	0.05%	0.01%	0.07%
Timber	4%	5%	3.94%	10.02%	(0.24%)	(0.07%)	(0.31%)
International Equity	15%	15%	(2.53%)	(4.37%)	0.29%	(0.05%)	0.25%
International Fixed Incom	5%	5%	(9.37%)	(13.19%)	0.21%	0.03%	0.23%
Private Equity	4%	5%	(5.37%)	(5.37%)	0.00%	0.07%	0.07%
World Equity	16%	16%	4.67%	1.43%	0.50%	(0.01%)	0.49%
Cash & Equivalents	1%	1%	0.07%	0.02%	0.00%	(0.01%)	(0.01%)
Total			**3.86% =**	**2.15% +**	**1.77% +**	**(0.06%)**	**1.71%**

PERS Performance and Attribution

As of June 30, 2015

Five Year Annualized Risk vs Return



Squares represent membership of the Public Fund Sponsor Database

5 Years Ended 06/30/15	
Gross:	10.96%
Net:	10.61%
Target:	10.00%
Net Added:	0.61%

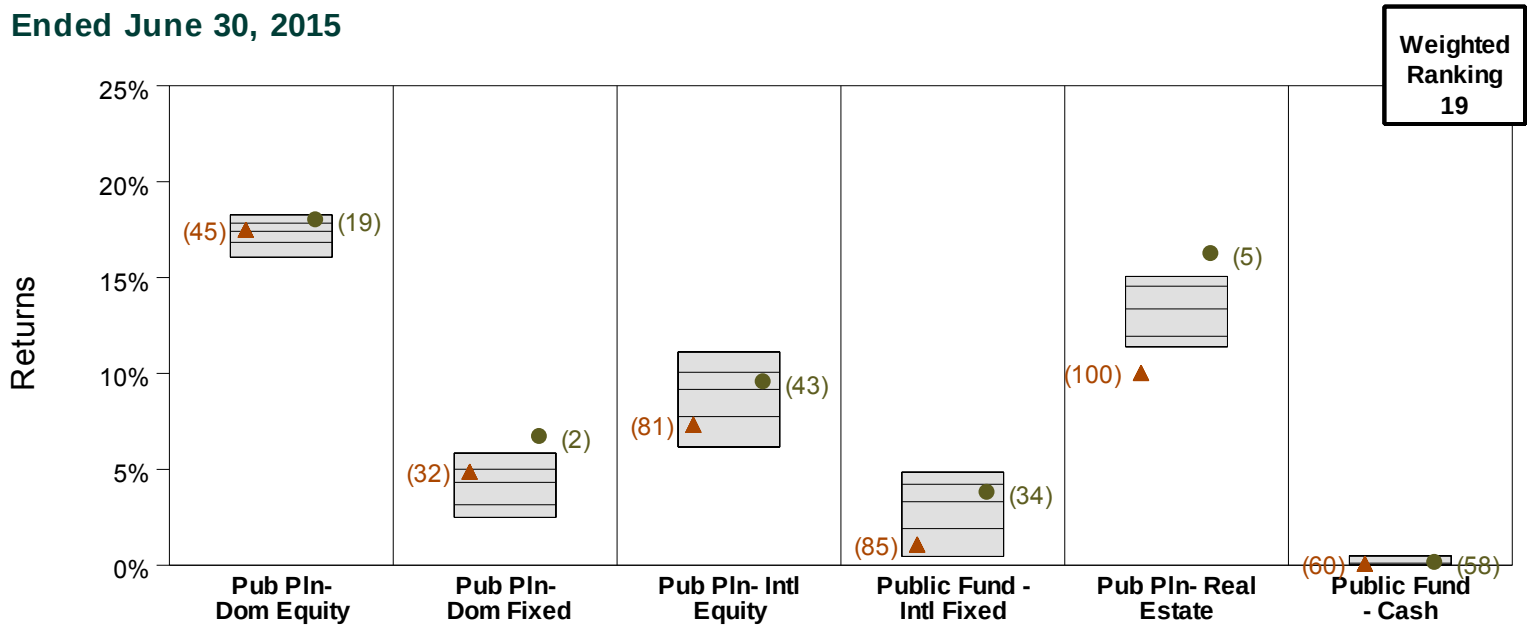
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	29%	28%	17.94%	17.49%	0.04%	0.13%	0.17%
Domestic Fixed Income	21%	20%	6.65%	4.88%	0.30%	(0.06%)	0.24%
Real Estate	8%	9%	16.18%	12.72%	0.26%	0.02%	0.28%
Timber	4%	4%	-	-	(0.30%)	(0.05%)	(0.35%)
Infrastructure	3%	4%	-	-	0.15%	0.10%	0.25%
Intemtional Equity	16%	16%	9.50%	7.33%	0.33%	(0.07%)	0.26%
International Fixed Incom	5%	5%	3.75%	1.08%	0.15%	(0.01%)	0.14%
Private Equity	5%	5%	4.87%	4.87%	0.00%	(0.06%)	(0.06%)
World Equity	9%	9%	-	-	0.10%	(0.05%)	0.05%
Cash & Equivalents	1%	1%	0.09%	0.08%	0.00%	(0.03%)	(0.03%)
Total			**10.96%**	**= 10.00%**	**+ 1.02%**	**+ (0.06%)**	**0.96%**

Asset class composite results

PERS' results vs other public funds

Total Asset Class Performance
Five Years Ended June 30, 2015

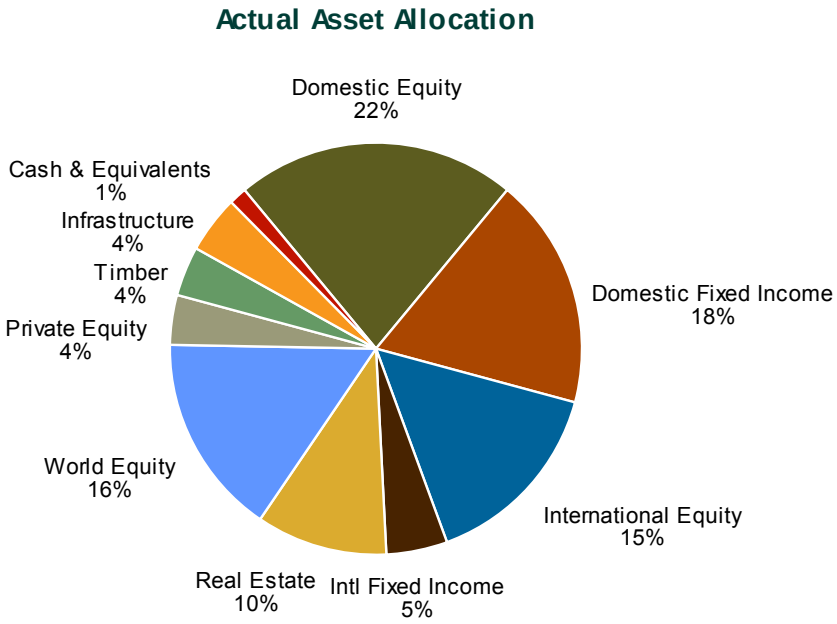


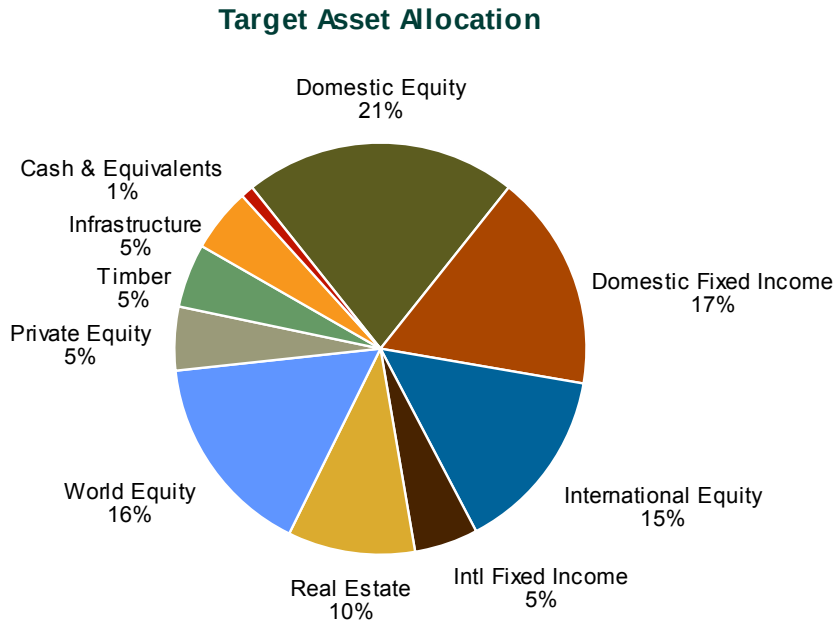
	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	18.27	5.86	11.12	4.87	15.06	0.50
25th Percentile	17.84	5.01	10.07	4.22	14.55	0.48
Median	17.41	4.33	9.17	3.32	13.37	0.11
75th Percentile	16.84	3.16	7.75	1.92	11.94	0.04
90th Percentile	16.06	2.51	6.17	0.46	11.39	0.01
Asset Class Composite ●	17.94	6.65	9.50	3.75	16.18	0.09
Composite Benchmark ▲	17.49	4.88	7.33	1.08	10.03	0.08

- Public market asset classes are all above their respective medians except cash
- U.S. equity, fixed income, and real estate returns in top quartile

TFFR Allocation

As of June 30, 2015



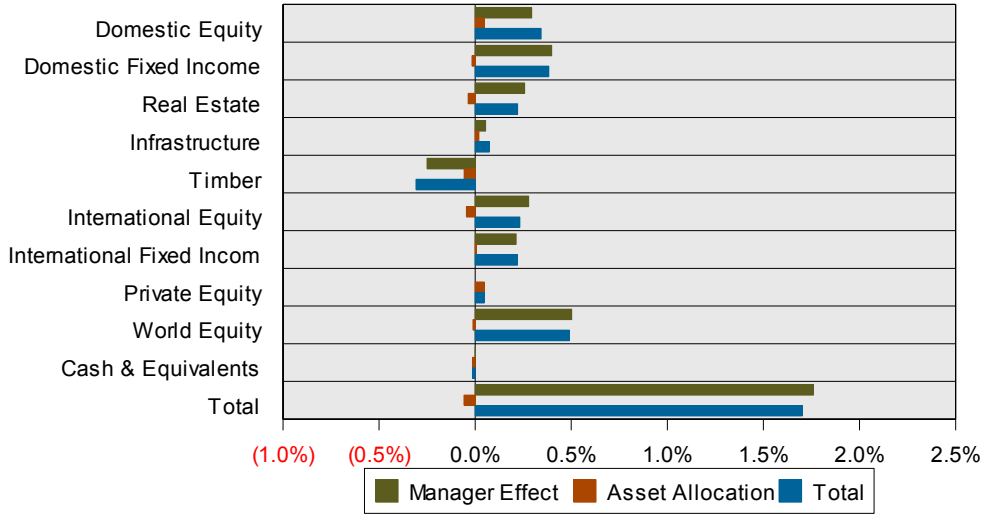


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	462,462	22.0%	21.4%	0.6%	12,247
Domestic Fixed Income	382,647	18.2%	17.0%	1.2%	24,999
International Equity	320,794	15.2%	14.6%	0.6%	13,638
Intl Fixed Income	101,752	4.8%	5.0%	(0.2%)	(3,439)
Real Estate	215,922	10.3%	10.0%	0.3%	5,541
World Equity	333,333	15.8%	16.0%	(0.2%)	(3,276)
Private Equity	81,662	3.9%	5.0%	(1.1%)	(23,528)
Timber	81,277	3.9%	5.0%	(1.1%)	(23,913)
Infrastructure	94,332	4.5%	5.0%	(0.5%)	(10,859)
Cash & Equivalents	29,628	1.4%	1.0%	0.4%	8,590
Total	2,103,811	100.0%	100.0%		

TFFR Performance and Attribution

As of June 30, 2015

One Year Relative Attribution Effects



1 Year Ended 06/30/15	
Gross:	3.86%
Net:	3.52%
Target:	2.15%
Net Added:	1.37%

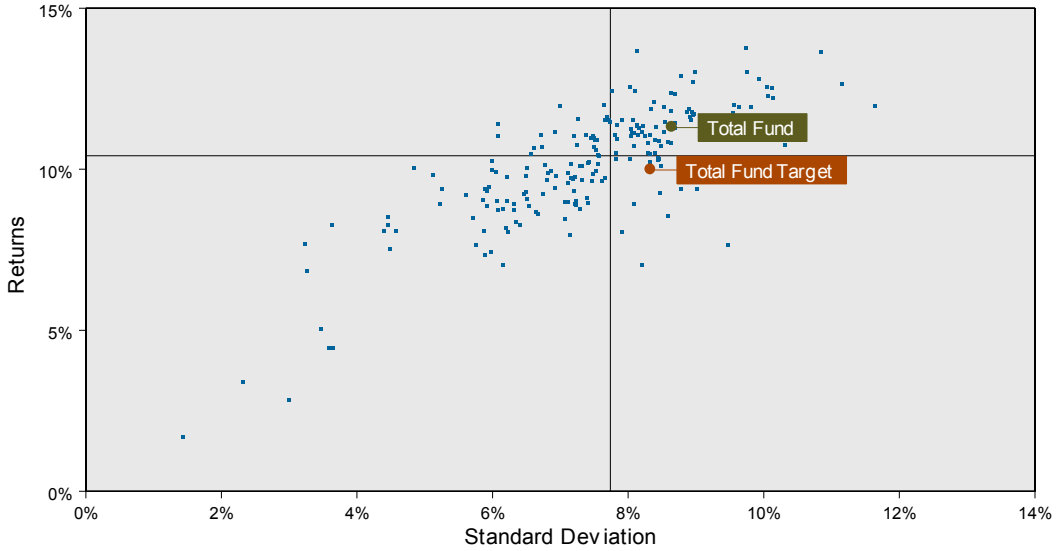
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	8.65%	7.26%	0.29%	0.05%	0.34%
Domestic Fixed Income	18%	17%	3.39%	1.22%	0.40%	(0.02%)	0.38%
Real Estate	10%	10%	15.78%	12.98%	0.26%	(0.04%)	0.22%
Infrastructure	4%	5%	1.23%	(0.38%)	0.05%	0.02%	0.07%
Timber	4%	5%	3.95%	10.02%	(0.25%)	(0.06%)	(0.31%)
International Equity	15%	15%	(2.62%)	(4.34%)	0.28%	(0.05%)	0.23%
International Fixed Incom	5%	5%	(9.37%)	(13.19%)	0.21%	0.01%	0.22%
Private Equity	4%	5%	(5.37%)	(5.37%)	0.00%	0.05%	0.05%
World Equity	16%	16%	4.68%	1.43%	0.50%	(0.01%)	0.49%
Cash & Equivalents	1%	1%	0.07%	0.02%	0.00%	(0.01%)	(0.01%)
Total			**3.86% =**	**2.15% +**	**1.76% +**	**(0.06%)**	**1.70%**

TFFR Performance and Attribution

As of June 30, 2015

Five Year Annualized Risk vs Return



Squares represent membership of the Public Fund Sponsor Database

5 Years Ended 06/30/15	
Gross:	11.30%
Net:	10.94%
Target:	9.97%
Net Added:	0.97%

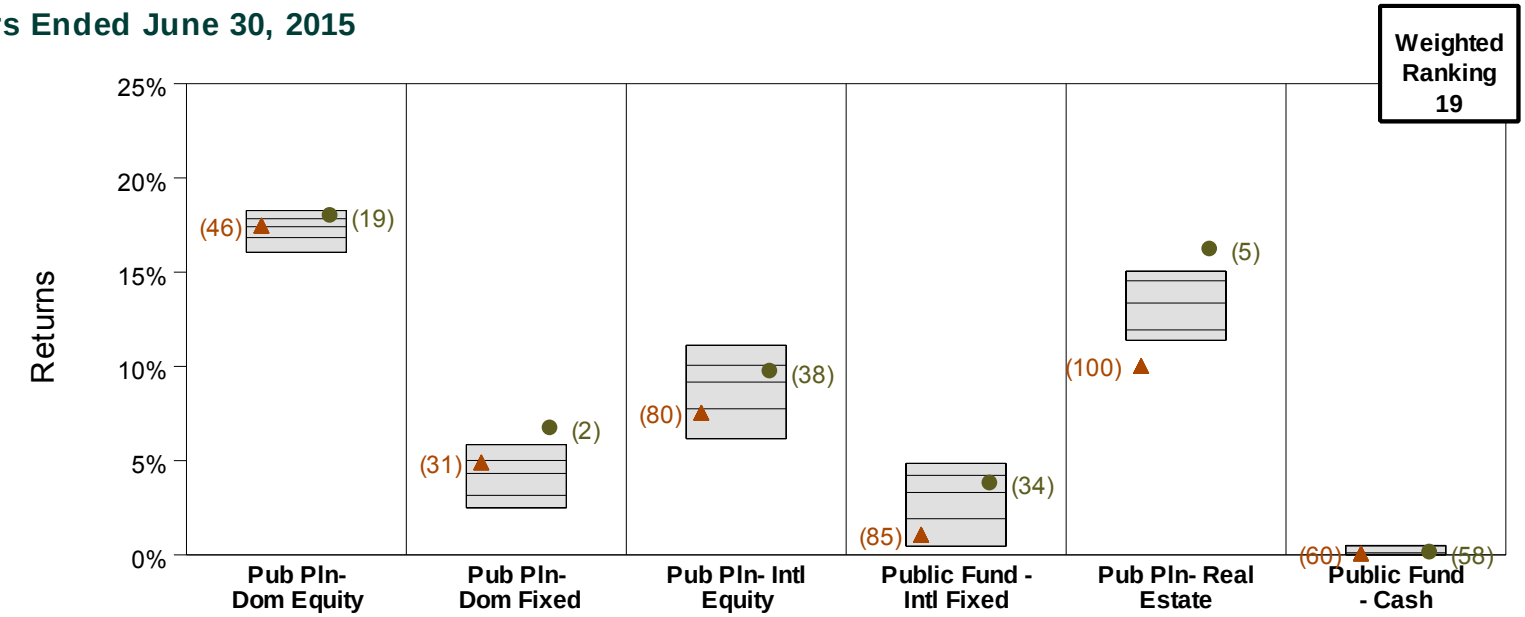
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	28%	27%	17.95%	17.48%	0.06%	0.11%	0.17%
Domestic Fixed Income	18%	18%	6.68%	4.91%	0.31%	(0.03%)	0.28%
Real Estate	10%	10%	16.17%	12.72%	0.32%	0.03%	0.35%
Timber	4%	4%	-	-	(0.29%)	0.01%	(0.28%)
Infrastructure	3%	4%	-	-	0.15%	0.13%	0.28%
International Equity	18%	18%	9.69%	7.55%	0.41%	(0.02%)	0.39%
International Fixed Incom	5%	5%	3.75%	1.08%	0.15%	(0.01%)	0.14%
Private Equity	5%	5%	4.90%	4.90%	0.00%	(0.05%)	(0.05%)
World Equity	9%	9%	-	-	0.10%	(0.05%)	0.05%
Cash & Equivalents	1%	1%	0.09%	0.08%	0.00%	(0.02%)	(0.02%)
Total			**11.30% =**	**9.97% +**	**1.21% +**	**0.11%**	**1.32%**

Asset Class Composite Results

TFFR's asset class results vs. other Public Pension Funds

Total Asset Class Performance
Five Years Ended June 30, 2015



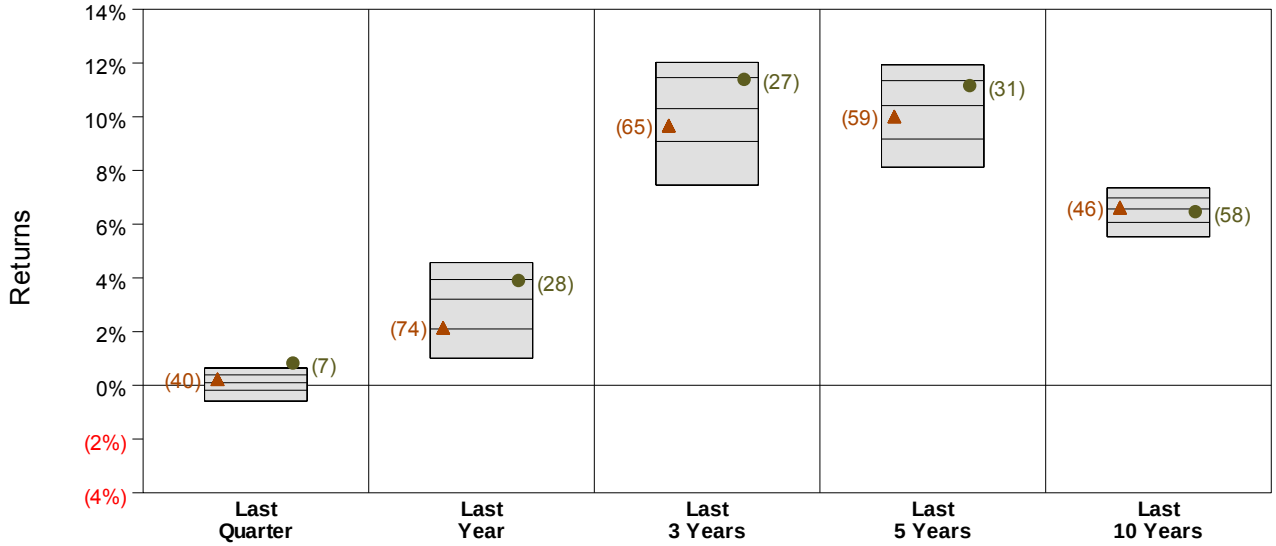
	Pub Pln- Dom Equity	Pub Pln- Dom Fixed	Pub Pln- Intl Equity	Public Fund - Intl Fixed	Pub Pln- Real Estate	Public Fund - Cash
10th Percentile	18.27	5.86	11.12	4.87	15.06	0.50
25th Percentile	17.84	5.01	10.07	4.22	14.55	0.48
Median	17.41	4.33	9.17	3.32	13.37	0.11
75th Percentile	16.84	3.16	7.75	1.92	11.94	0.04
90th Percentile	16.06	2.51	6.17	0.46	11.39	0.01
Asset Class Composite ●	17.95	6.68	9.69	3.75	16.17	0.09
Composite Benchmark ▲	17.48	4.91	7.55	1.08	10.03	0.08

- Public market asset classes are all above their respective medians except cash
- U.S. equity, fixed income, and real estate returns in top quartile

Consolidated Pension Trust: Total Fund versus Peer Group

As of June 30, 2015

Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.64	4.57	12.03	11.93	7.35
25th Percentile	0.39	3.94	11.46	11.35	6.98
Median	0.10	3.21	10.30	10.42	6.57
75th Percentile	(0.18)	2.10	9.08	9.17	6.07
90th Percentile	(0.58)	1.01	7.46	8.13	5.53
Total Fund ●	0.78	3.85	11.34	11.11	6.41
Policy Target ▲	0.23	2.15	9.67	10.01	6.62

- Consistently above median and beating the target for the last 5 years!

Consolidated Pension Trust: U.S. Equity

As of June 30, 2015

Performance vs Pub Pln- Domestic Equity (Gross)

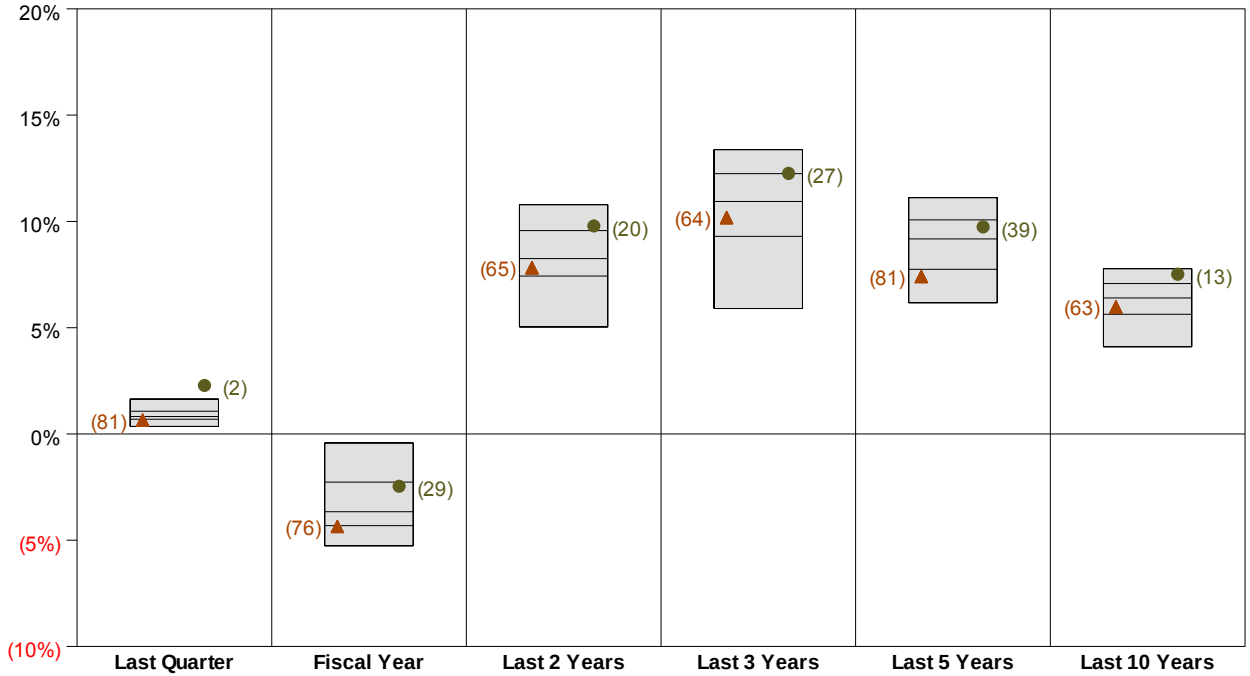
	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.72	8.67	16.73	18.81	18.27	8.92
25th Percentile	0.51	7.90	16.37	18.32	17.84	8.59
Median	0.27	7.33	15.73	17.84	17.41	8.19
75th Percentile	0.03	6.71	15.37	17.28	16.84	7.84
90th Percentile	(0.24)	5.21	14.47	16.66	16.06	7.21
Domestic Equity ●	0.39	8.64	16.69	19.11	18.04	7.34
Domestic Equity Target ▲	0.20	7.26	15.80	17.81	17.50	8.16

- Consistently above median and beating the benchmark for the last 5 years!

Consolidated Pension Trust: International Equity

As of June 30, 2015

Performance vs Pub Pln- International Equity (Gross)



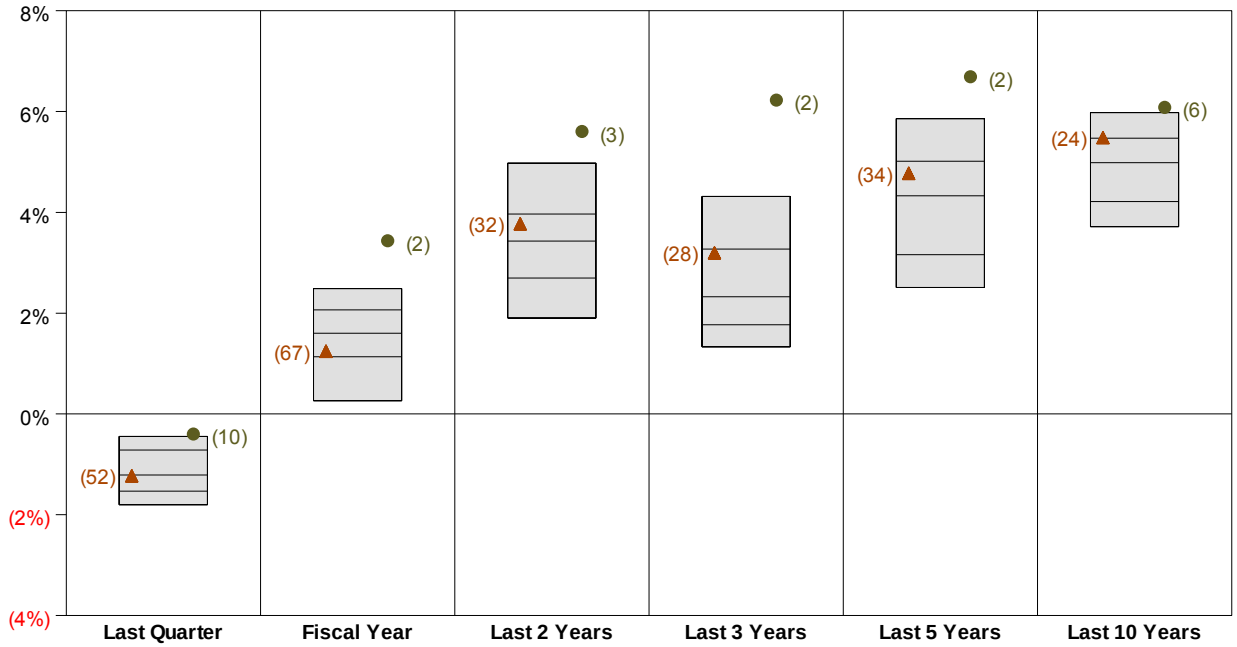
	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.64	(0.42)	10.79	13.37	11.12	7.78
25th Percentile	1.07	(2.27)	9.57	12.25	10.07	7.07
Median	0.82	(3.66)	8.25	10.94	9.17	6.40
75th Percentile	0.70	(4.32)	7.43	9.29	7.75	5.63
90th Percentile	0.35	(5.27)	5.03	5.90	6.17	4.10
International Equity ●	2.21	(2.53)	9.72	12.20	9.68	7.45
International Equity Target ▲	0.65	(4.35)	7.83	10.19	7.41	5.98

- The Pension Trust's International Equity pool's returns consistently exceed index and median peer.

Consolidated Pension Trust: U.S. Fixed Income

As of June 30, 2015

Performance vs Pub Pln- Domestic Fixed (Gross)



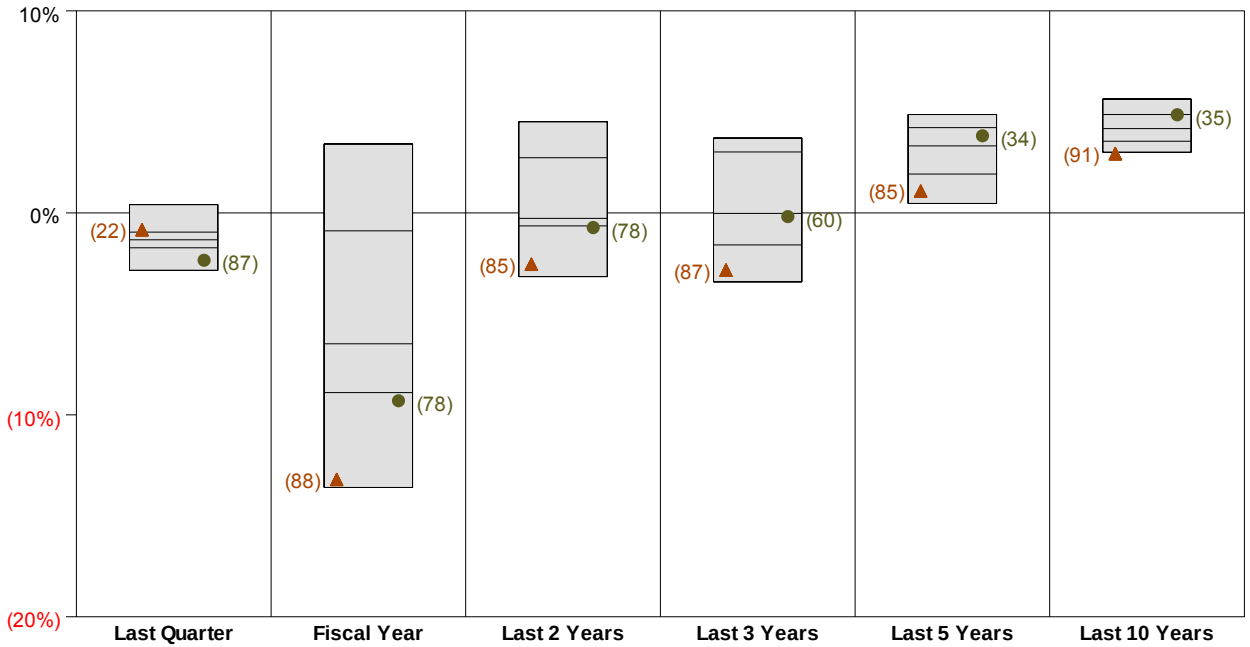
	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	(0.45)	2.48	4.98	4.31	5.86	5.98
25th Percentile	(0.72)	2.07	3.97	3.27	5.01	5.47
Median	(1.21)	1.60	3.43	2.33	4.33	4.98
75th Percentile	(1.53)	1.13	2.70	1.77	3.16	4.21
90th Percentile	(1.80)	0.26	1.91	1.33	2.51	3.71
Domestic Fixed Income ●	(0.43)	3.41	5.57	6.19	6.66	6.05
Domestic Fixed Income Target ▲	(1.23)	1.25	3.77	3.20	4.78	5.48

- Pension Trust's fixed income program continues to dominate its peers!

Consolidated Pension Trust: International Fixed Income

As of June 30, 2015

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	0.41	3.41	4.51	3.71	4.87	5.64
25th Percentile	(0.95)	(0.89)	2.73	3.01	4.22	4.87
Median	(1.33)	(6.49)	(0.27)	(0.03)	3.32	4.17
75th Percentile	(1.72)	(8.89)	(0.65)	(1.59)	1.92	3.55
90th Percentile	(2.85)	(13.59)	(3.16)	(3.42)	0.46	3.00
International Fixed Income ●	(2.42)	(9.37)	(0.81)	(0.26)	3.74	4.79
International Fixed Income Target ▲	(0.83)	(13.19)	(2.54)	(2.83)	1.08	2.94

- Except for last quarter, the International Fixed Income allocation has outperformed its index for the last 10 years.

Quarterly Change in Market Values

As of June 30, 2015

Quarter Ended June 30, 2015				
Fund	Ending Mkt. Value	Net Cash Flow	Investment Gain (Loss)	Change in Market Value
NDPERS	$ 2,422,583,785	$ 2,014,812	$ 19,259,835	$ 21,274,647
NDTFFR	$ 2,103,810,868	$ (3,938,363)	$ 17,449,758	$ 13,511,395

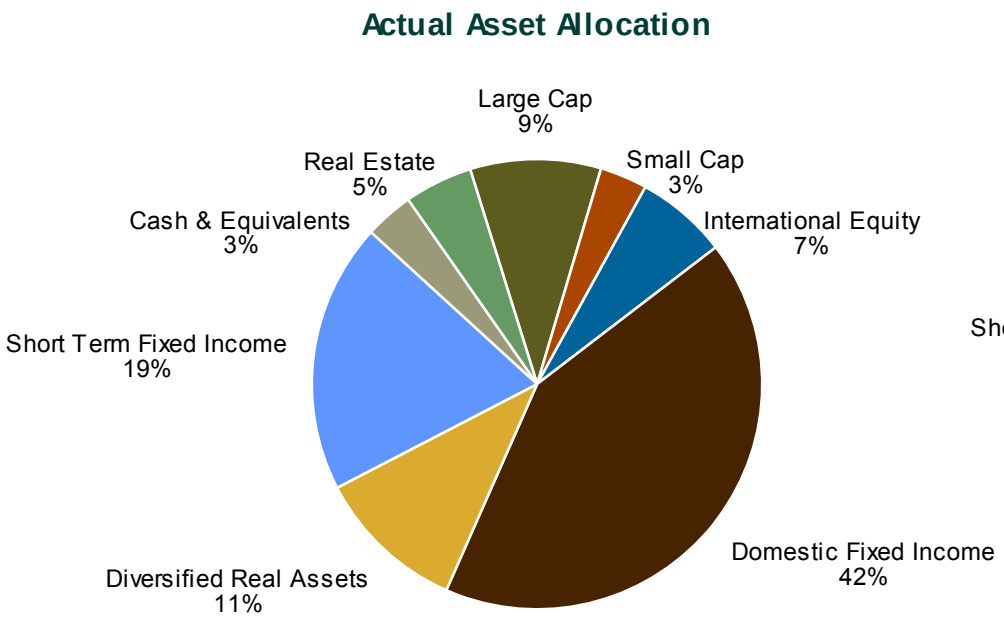
- Both pension funds experienced increases in Total Fund value
  - Returns in public equity and global real assets drove investment gain in PERS.
  - TFFR withdrew money from the fund but experienced significant investment gains.

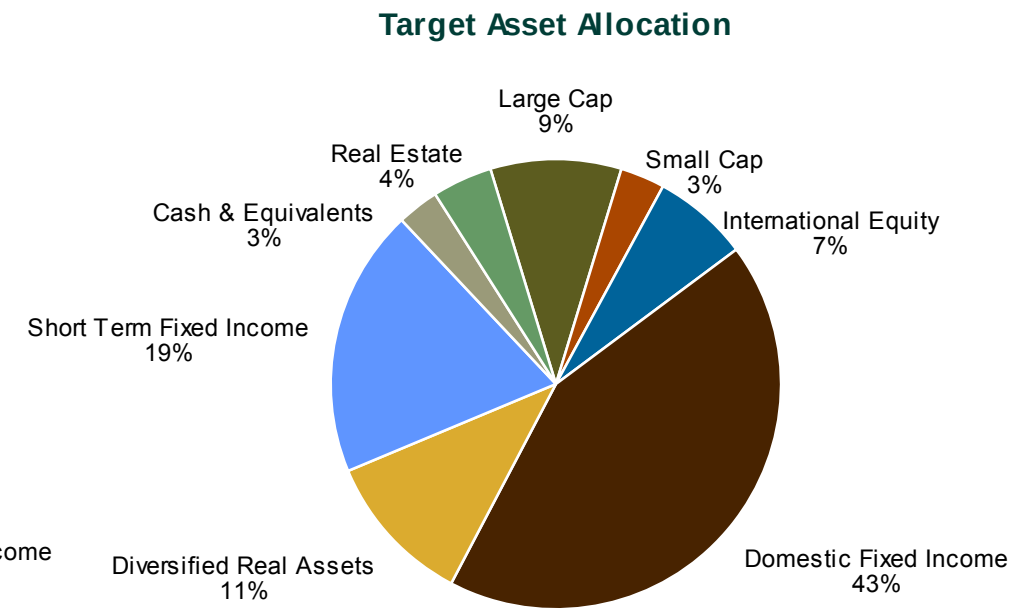
Consolidated Insurance Trust Quarterly Review

- Workforce Safety & Insurance
- Legacy Fund
- Budget Stabilization Fund

Consolidated Insurance Trust Allocation

As of June 30, 2015



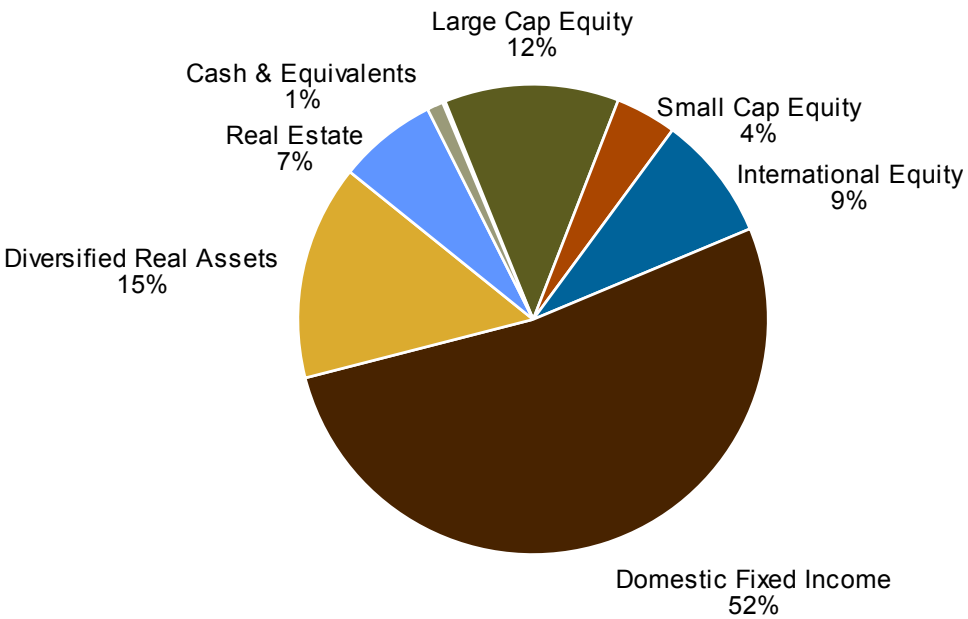


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap	230,769	9.4%	9.4%	0.0%	530
Small Cap	82,681	3.4%	3.2%	0.2%	4,302
International Equity	161,674	6.6%	6.9%	(0.3%)	(7,331)
Domestic Fixed Income	1,028,923	42.0%	42.9%	(0.9%)	(21,845)
Diversified Real Assets	265,626	10.8%	11.0%	(0.2%)	(3,801)
Short Term Fixed Income	475,067	19.4%	19.3%	0.1%	2,343
Cash & Equivalents	84,825	3.5%	3.0%	0.5%	11,345
Real Estate	119,779	4.9%	4.3%	0.6%	14,457
Total	2,449,342	100.0%	100.0%		

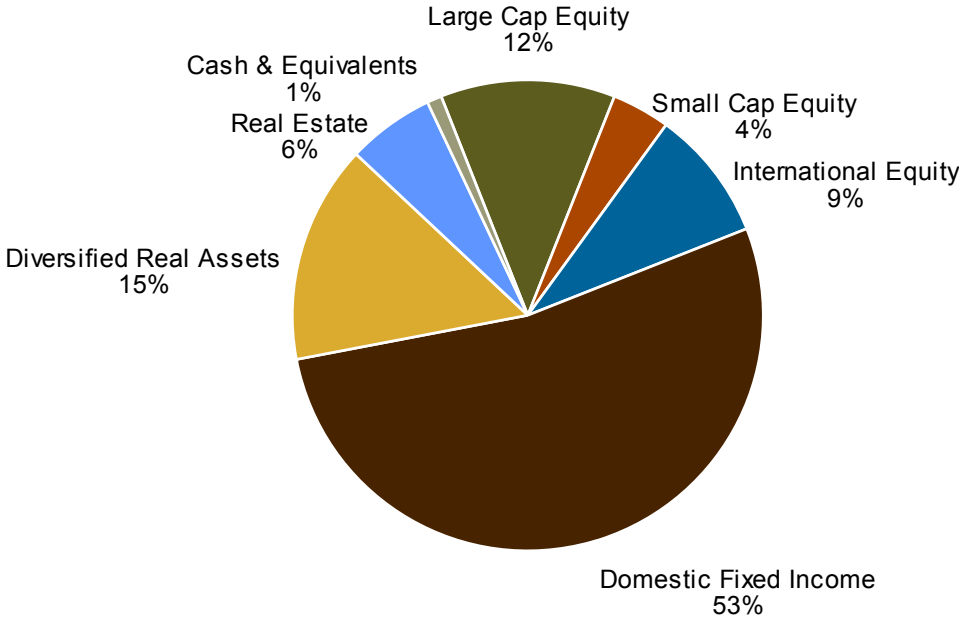
WSI Allocation

As of June 30, 2015

Actual Asset Allocation



Target Asset Allocation

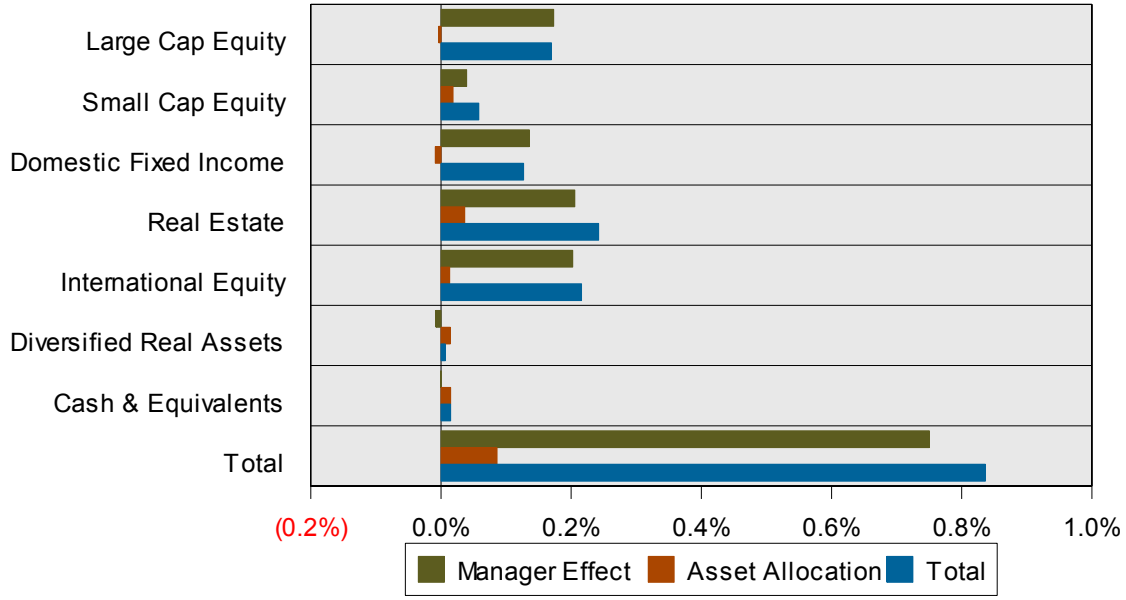


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	212,185	12.0%	12.0%	0.0%	678
Small Cap Equity	74,728	4.2%	4.0%	0.2%	4,226
International Equity	152,260	8.6%	9.0%	(0.4%)	(6,371)
Domestic Fixed Income	922,356	52.3%	53.0%	(0.7%)	(11,801)
Diversified Real Assets	261,500	14.8%	15.0%	(0.2%)	(2,884)
Real Estate	119,711	6.8%	6.0%	0.8%	13,958
Cash & Equivalents	19,821	1.1%	1.0%	0.1%	2,195
Total	1,762,560	100.0%	100.0%		

WSI Performance and Attribution

As of June 30, 2015

One Year Relative Attribution Effects



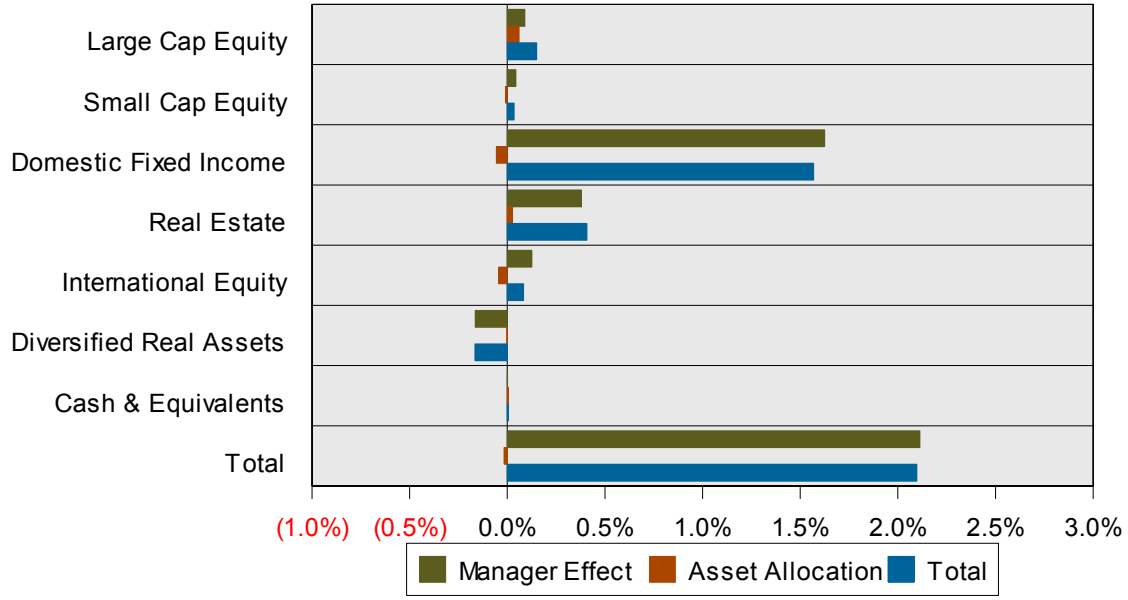
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	8.93%	7.37%	0.17%	(0.00%)	0.17%
Small Cap Equity	4%	4%	7.49%	6.49%	0.04%	0.02%	0.06%
Domestic Fixed Income	53%	53%	2.11%	1.86%	0.14%	(0.01%)	0.13%
Real Estate	6%	6%	16.37%	12.98%	0.21%	0.04%	0.24%
International Equity	9%	9%	(2.11%)	(4.22%)	0.20%	0.01%	0.22%
Diversified Real Assets	15%	15%	0.27%	0.49%	(0.01%)	0.01%	0.01%
Cash & Equivalents	1%	1%	0.01%	0.02%	(0.00%)	0.01%	0.01%
Total			**3.49% =**	**2.66% +**	**0.75% +**	**0.09%**	**0.84%**

WSI Performance and Attribution

As of June 30, 2015

Five Year Annualized Relative Attribution Effects



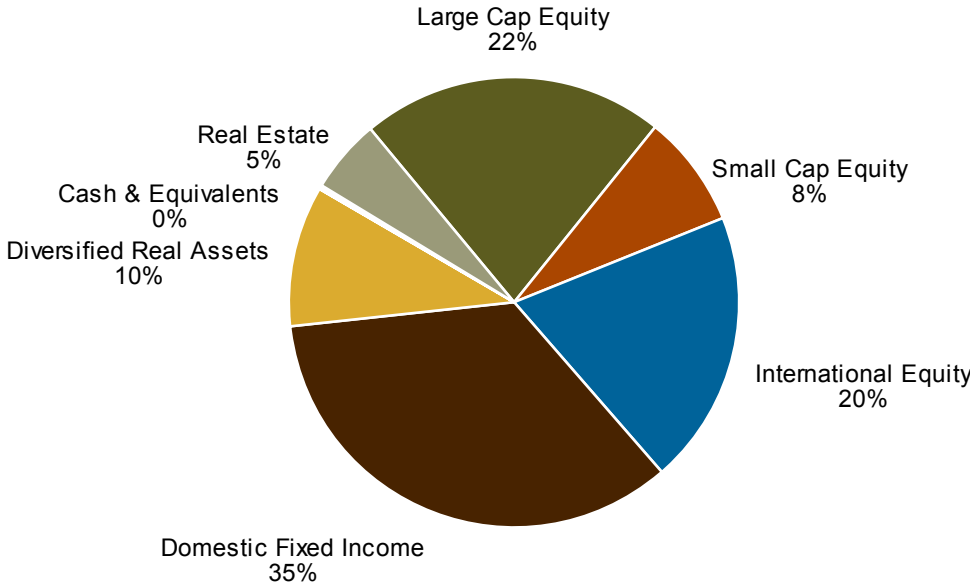
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	11%	10%	18.46%	17.58%	0.09%	0.06%	0.15%
Small Cap Equity	4%	3%	18.47%	17.08%	0.04%	(0.01%)	0.04%
Domestic Fixed Income	51%	51%	6.44%	3.35%	1.63%	(0.06%)	1.57%
Real Estate	6%	6%	19.24%	12.72%	0.38%	0.03%	0.41%
International Equity	7%	7%	10.06%	8.37%	0.13%	(0.04%)	0.08%
Diversified Real Assets	20%	21%	4.77%	5.67%	(0.16%)	(0.00%)	(0.16%)
Cash & Equivalents	1%	1%	0.17%	0.08%	0.00%	0.01%	0.01%
Total			**8.79%** =	**6.69%** +	**2.11%** +	**(0.02%)**	**2.10%**

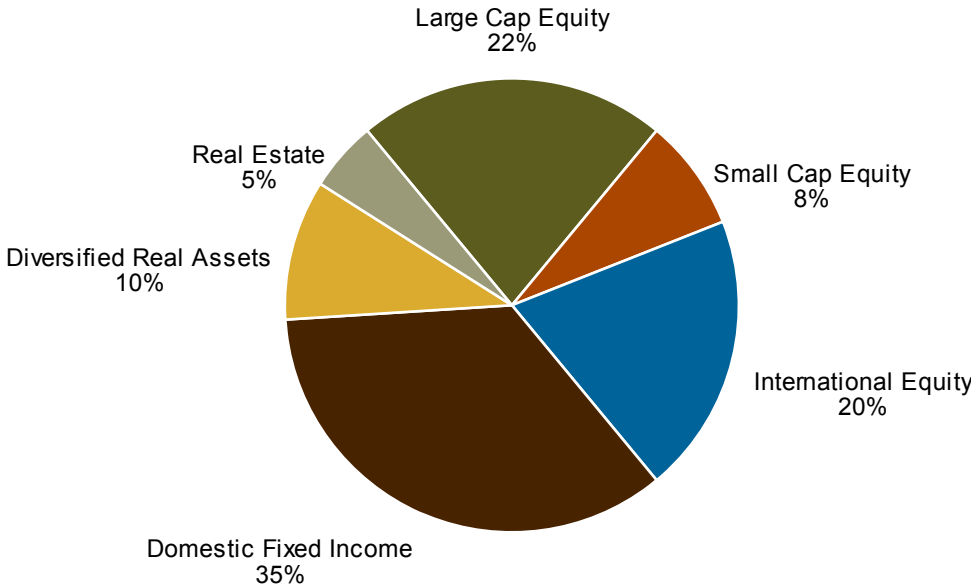
Legacy Fund Allocation

As of June 30, 2015

Actual Asset Allocation



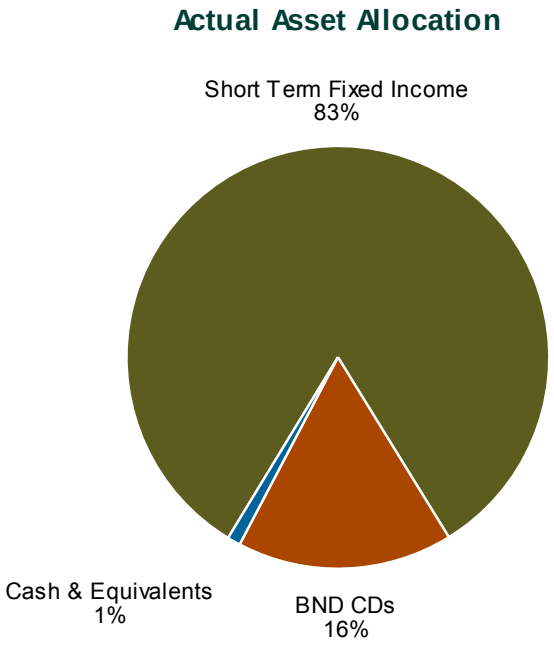
Target Asset Allocation

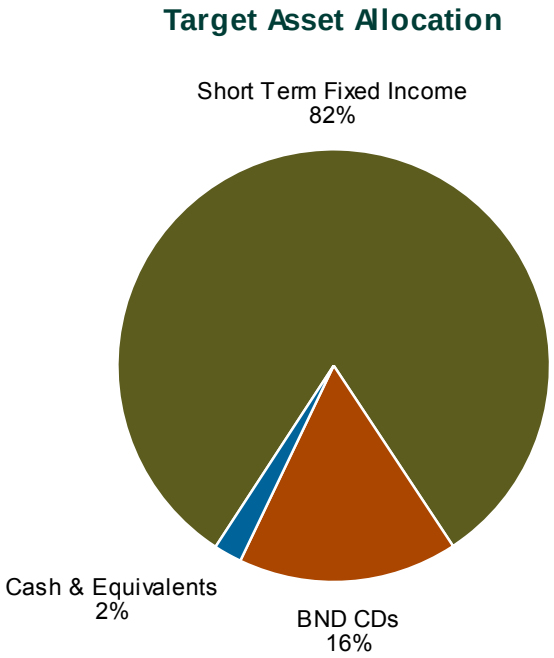


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	726,963	21.8%	22.0%	(0.2%)	(5,329)
Small Cap Equity	268,951	8.1%	8.0%	0.1%	2,663
International Equity	655,907	19.7%	20.0%	(0.3%)	(9,813)
Domestic Fixed Income	1,155,090	34.7%	35.0%	(0.3%)	(9,920)
Diversified Real Assets	336,794	10.1%	10.0%	0.1%	3,934
Cash & Equivalents	9,760	0.3%	0.0%	0.3%	9,760
Real Estate	175,136	5.3%	5.0%	0.3%	8,706
Total	3,328,600	100.0%	100.0%		

Budget Stabilization Fund Allocation

As of June 30, 2015



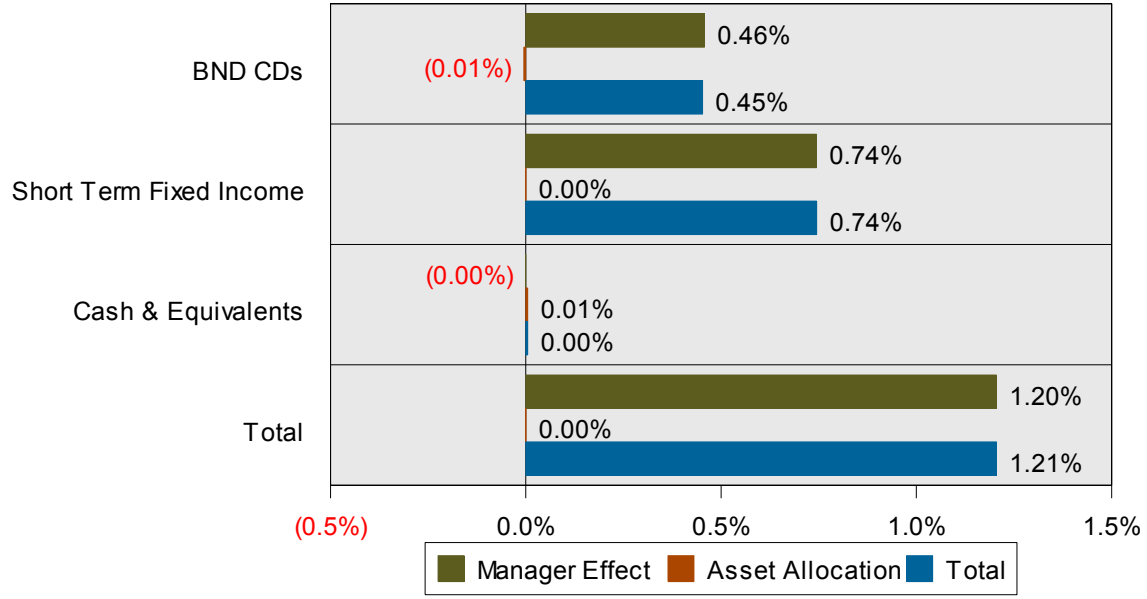


Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Short Term Fixed Income	473,649	82.5%	81.5%	1.0%	5,772
BND CDs	94,538	16.5%	16.4%	0.1%	343
Cash & Equivalents	5,824	1.0%	2.1%	(1.1%)	(6,115)
Total	574,011	100.0%	100.0%		

Budget Stabilization Fund Overview

As of June 30, 2015

One Year Relative Attribution Effects



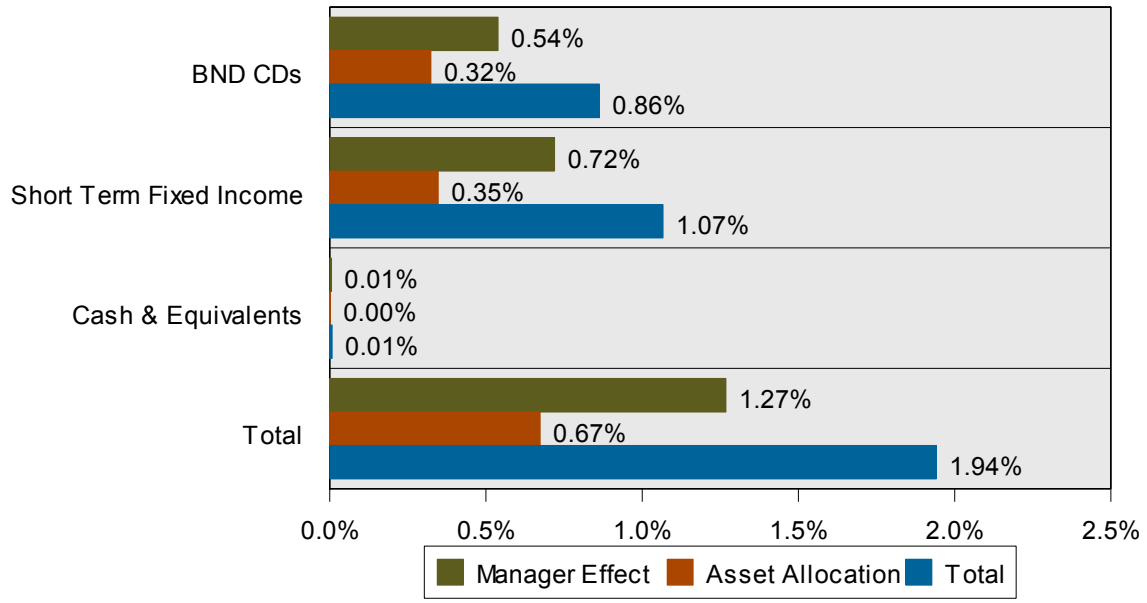
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	17%	17%	2.67%	0.02%	0.46%	(0.01%)	0.45%
Short Term Fixed Income	81%	81%	1.83%	0.91%	0.74%	0.00%	0.74%
Cash & Equivalents	1%	1%	0.01%	0.02%	(0.00%)	0.01%	0.00%
Total			**1.95%** =	**0.74%** +	**1.20%** +	**0.00%**	**1.21%**

Budget Stabilization Fund Overview

As of June 30, 2015

Five Year Annualized Relative Attribution Effects



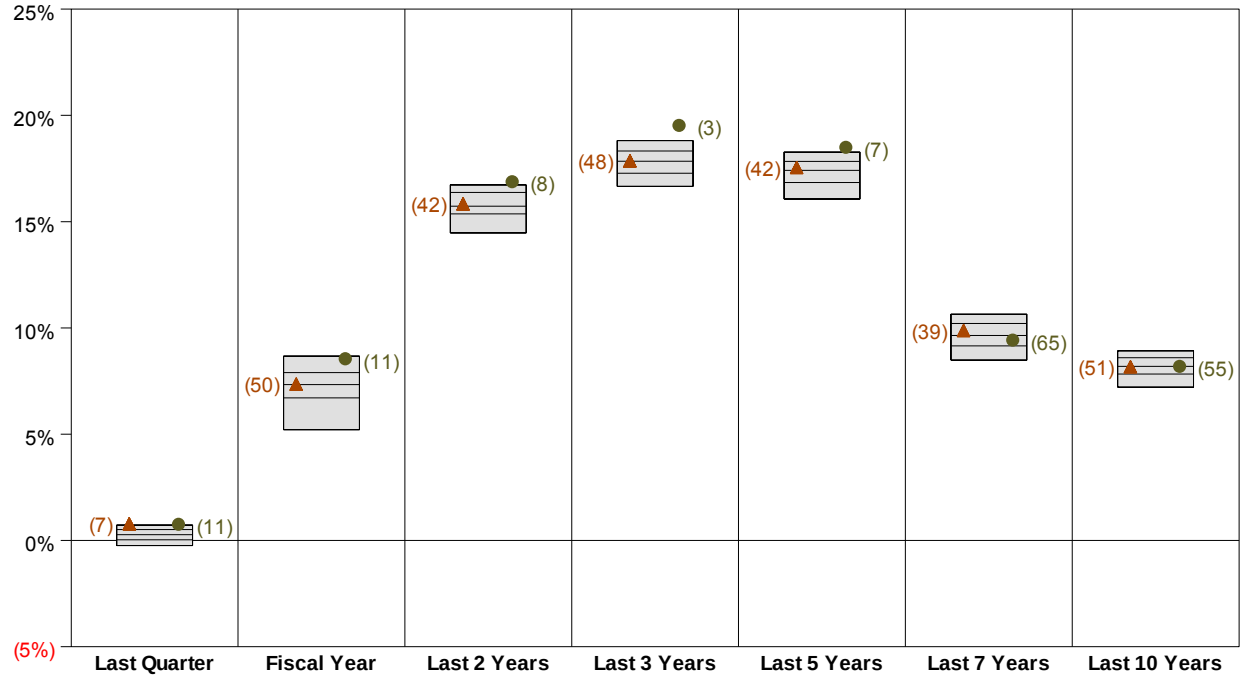
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	24%	16%	3.59%	1.13%	0.54%	0.32%	0.86%
Short Term Fixed Income	72%	57%	2.05%	1.10%	0.72%	0.35%	1.07%
Cash & Equivalents	5%	26%	0.17%	0.08%	0.01%	0.00%	0.01%
Total			**2.36%** =	**0.42%** +	**1.27%** +	**0.67%**	**1.94%**

Consolidated Insurance Trust: Domestic Equity

As of June 30, 2015

Performance vs Pub Pln- Domestic Equity (Gross)



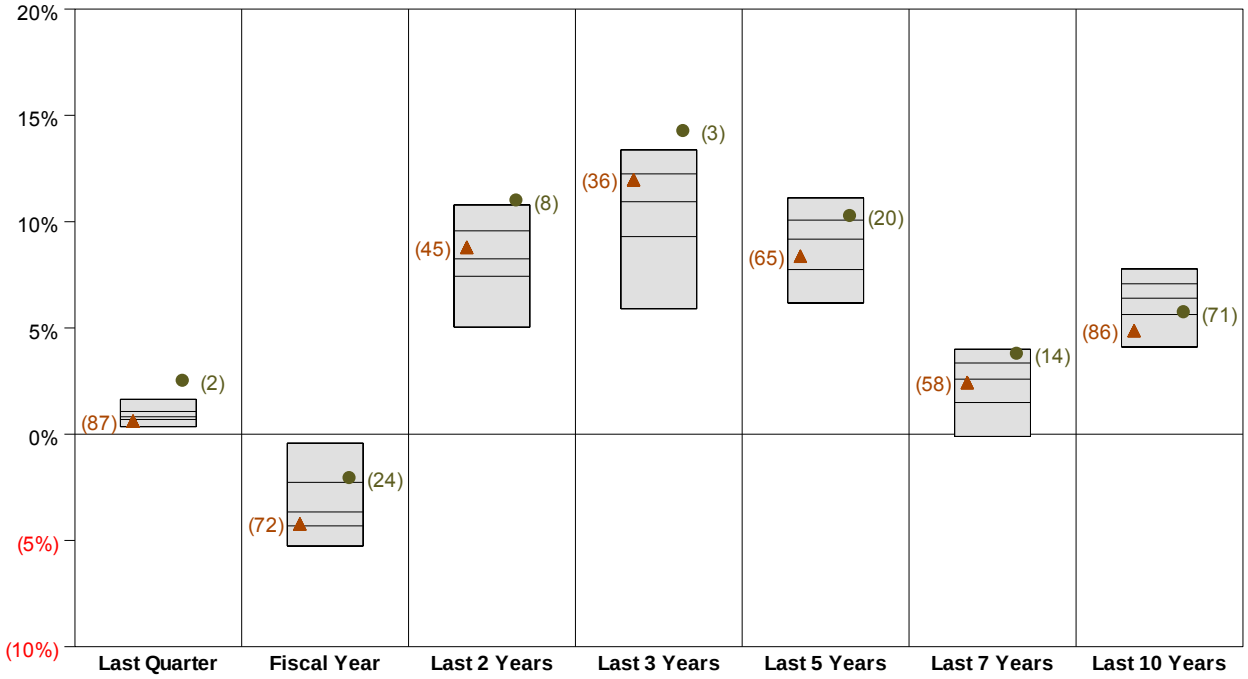
	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	0.72	8.67	16.73	18.81	18.27	10.64	8.92
25th Percentile	0.51	7.90	16.37	18.32	17.84	10.20	8.59
Median	0.27	7.33	15.73	17.84	17.41	9.64	8.19
75th Percentile	0.03	6.71	15.37	17.28	16.84	9.15	7.84
90th Percentile	(0.24)	5.21	14.47	16.66	16.06	8.49	7.21
Domestic Equity ●	0.70	8.48	16.82	19.46	18.43	9.37	8.13
Domestic Equity Target ▲	0.79	7.36	15.84	17.86	17.55	9.88	8.18

- Since the 2008 financial crisis, the Insurance Trust's domestic equity pool has done very well.
- For the last five full years the fund has outperformed the benchmark and placed above median.

Consolidated Insurance Trust: International Equity

As of June 30, 2015

Performance vs Pub Pln- International Equity (Gross)



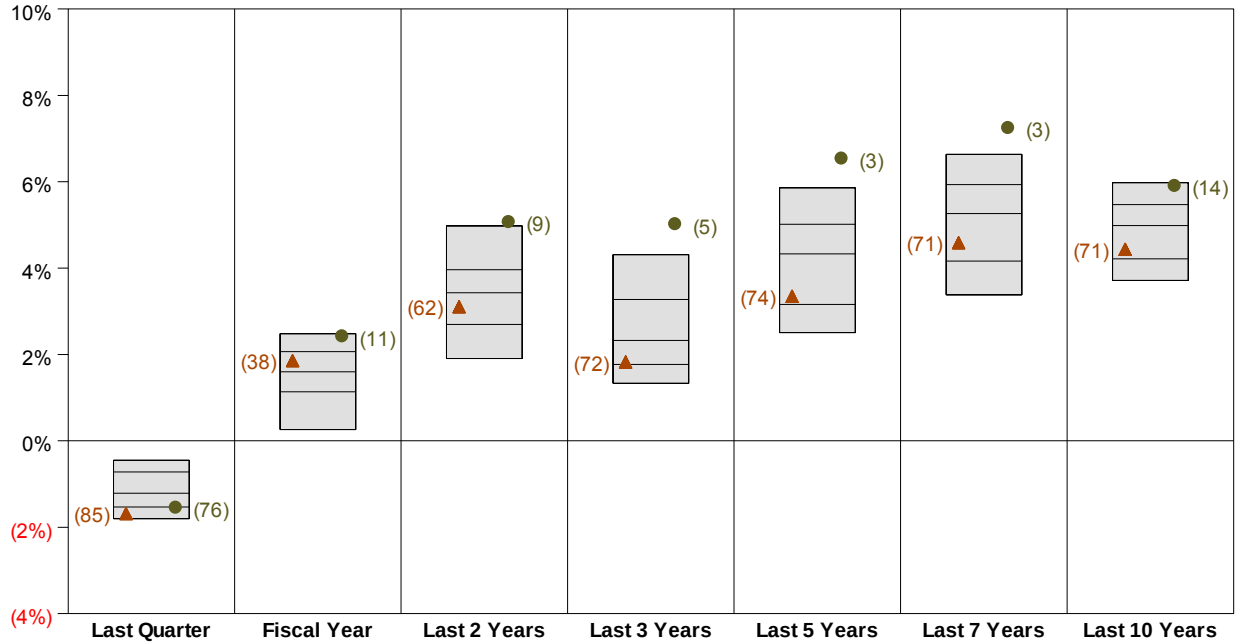
	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	1.64	(0.42)	10.79	13.37	11.12	4.00	7.78
25th Percentile	1.07	(2.27)	9.57	12.25	10.07	3.35	7.07
Median	0.82	(3.66)	8.25	10.94	9.17	2.59	6.40
75th Percentile	0.70	(4.32)	7.43	9.29	7.75	1.49	5.63
90th Percentile	0.35	(5.27)	5.03	5.90	6.17	(0.10)	4.10
International Equity ●	2.48	(2.11)	10.95	14.23	10.23	3.74	5.70
International Equity Target ▲	0.62	(4.22)	8.79	11.97	8.37	2.43	4.87

- The International Equity program has beaten the benchmark and placed in the top quartile of the peer group over the last seven years.

Consolidated Insurance Trust: Domestic Fixed Income

As of June 30, 2015

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	(0.45)	2.48	4.98	4.31	5.86	6.64	5.98
25th Percentile	(0.72)	2.07	3.97	3.27	5.01	5.93	5.47
Median	(1.21)	1.60	3.43	2.33	4.33	5.26	4.98
75th Percentile	(1.53)	1.13	2.70	1.77	3.16	4.16	4.21
90th Percentile	(1.80)	0.26	1.91	1.33	2.51	3.38	3.71
Domestic Fixed Income ●	(1.57)	2.40	5.04	5.00	6.51	7.22	5.88
Domestic Fixed Inc. Target ▲	(1.68)	1.86	3.11	1.83	3.35	4.59	4.44

- Except for the most recent quarter, fixed Income has been an exceptionally well-performing asset in the Insurance Trust.

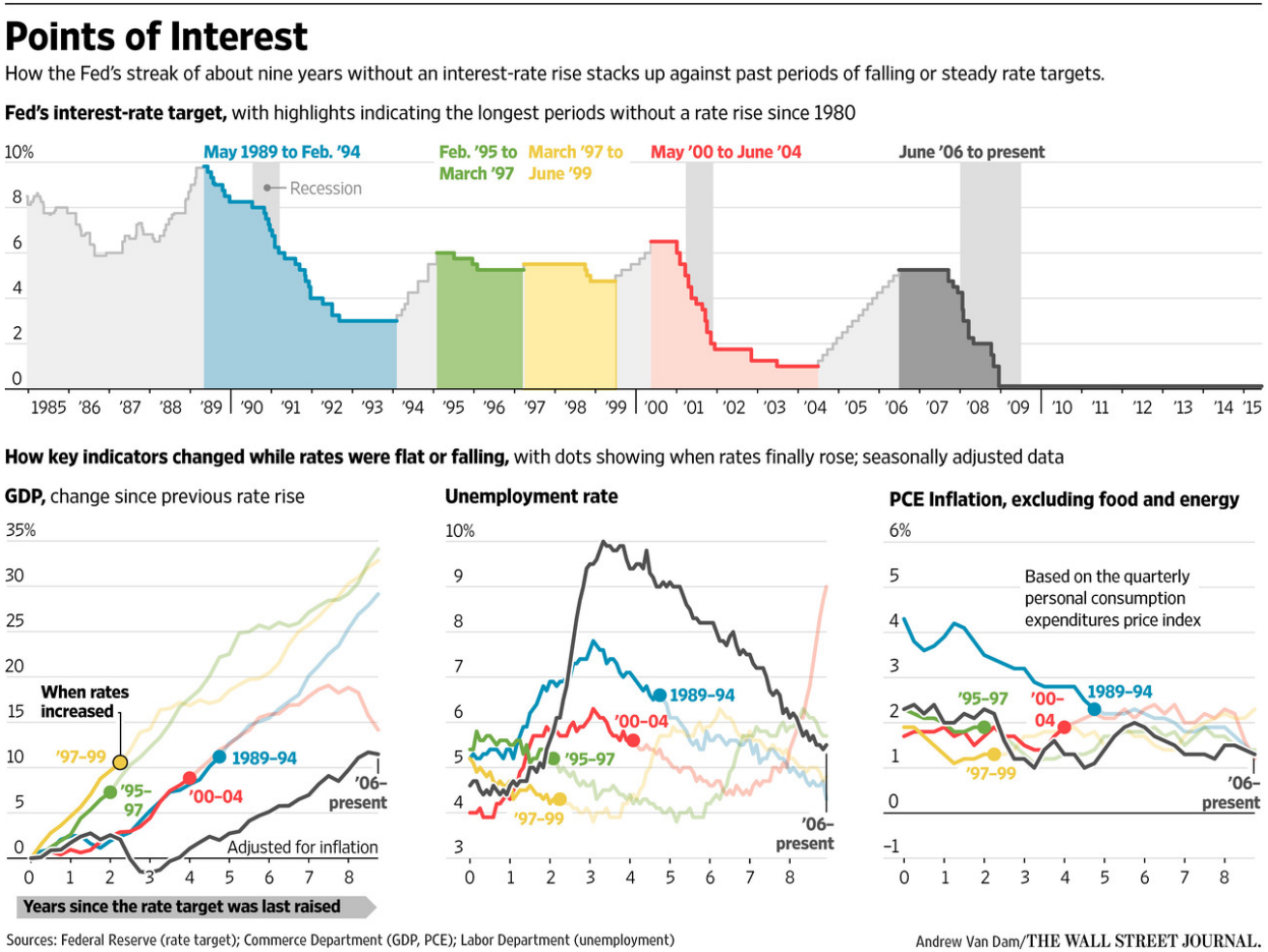
Quarterly Change in Market Value

As of June 30, 2015

Quarter Ended June 30, 2015				
Fund	Ending Mkt. Value	Net Cash Flow	Investment Gain (Loss)	Change in Market Value
WSI	$ 1,762,560,127	$ 354,023	$ (8,203,783)	$ (7,849,760)
Legacy	$ 3,328,600,152	$ 125,210,893	$ 8,625,861	$ 133,836,754
Budget Stabilization	$ 457,011,150	$ (23,382,415)	$ 2,257,849	$ (21,124,566)

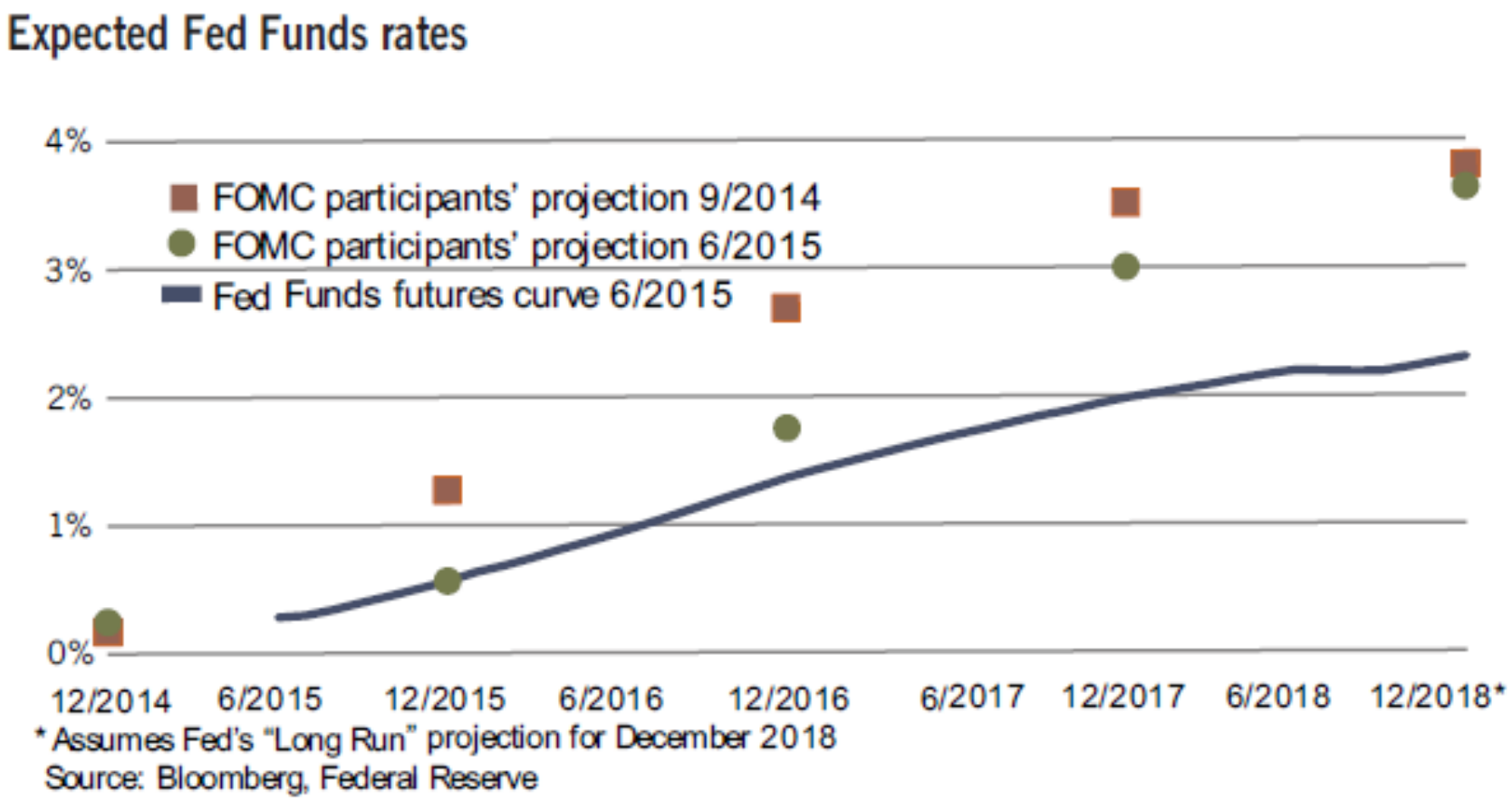
Appendix

Fed Funds History



Source: Wall Street Journal

Fed Funds Projections

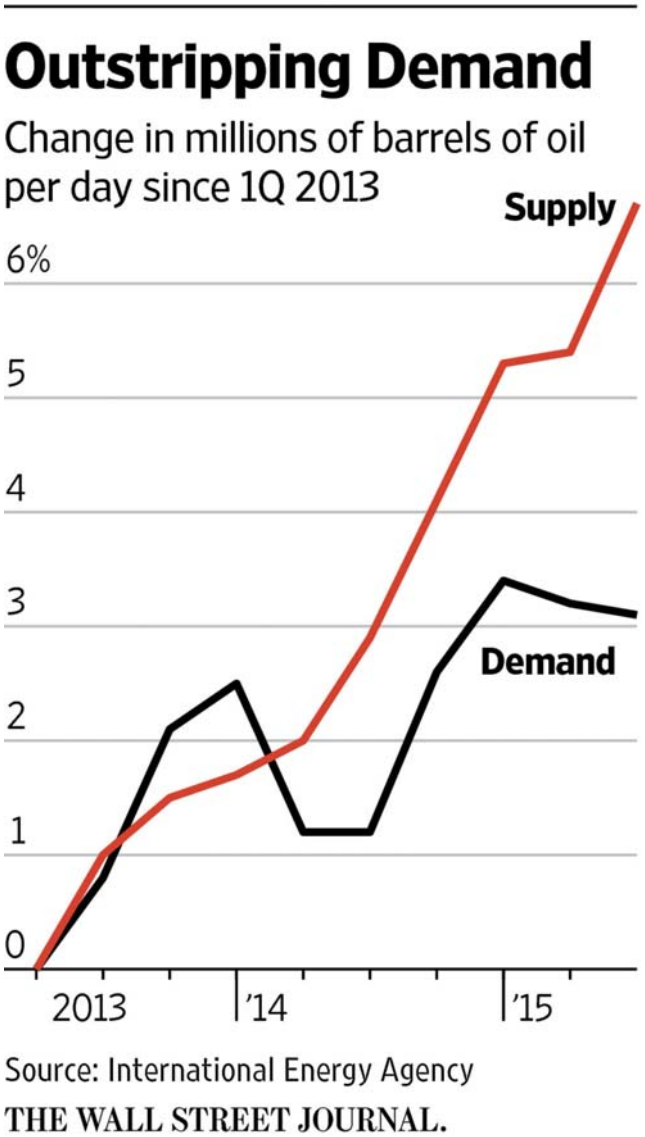


Source: ICAP

China

Source: The Economist

Oil Market Out of Balance

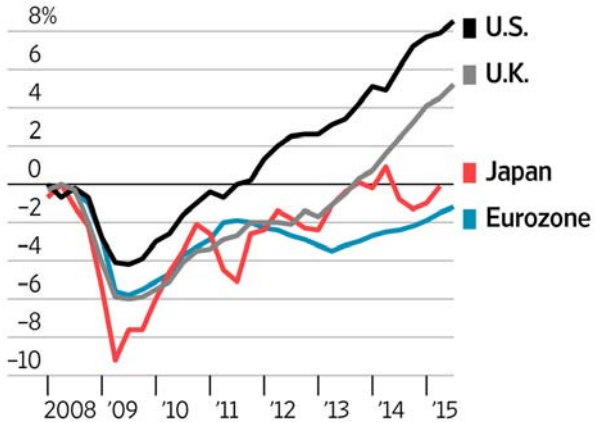


Global Economic Growth

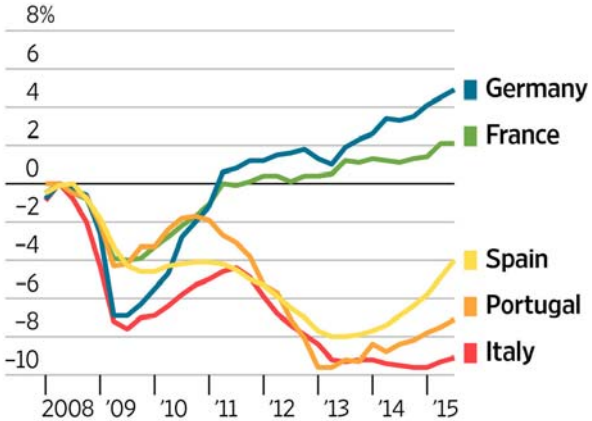
Uneven Recoveries

Charts show change post-2007 precrisis peak in gross domestic product; GDP figures are adjusted for inflation and seasonality.

Growth in the eurozone as a whole has lagged behind other major economies...



...and the gap between countries could pose a threat to a sustainable recovery.

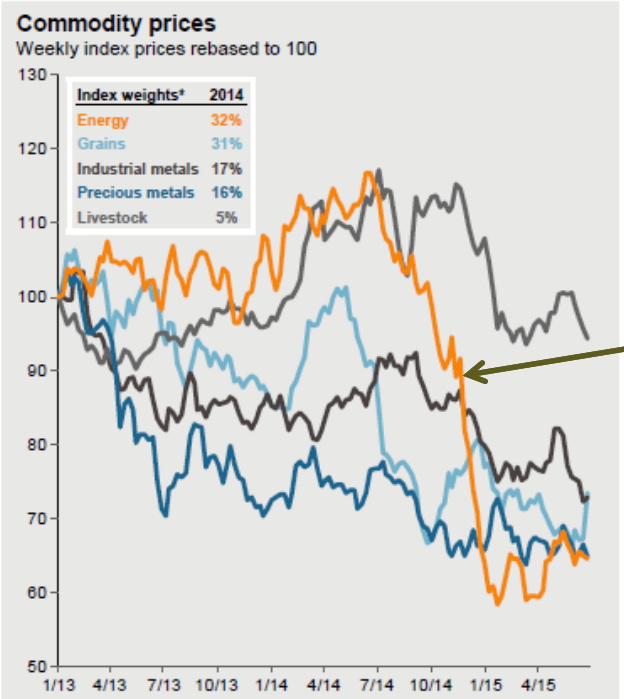


*Data for second-quarter 2015 are first estimates; Japan hasn't reported an early estimate yet

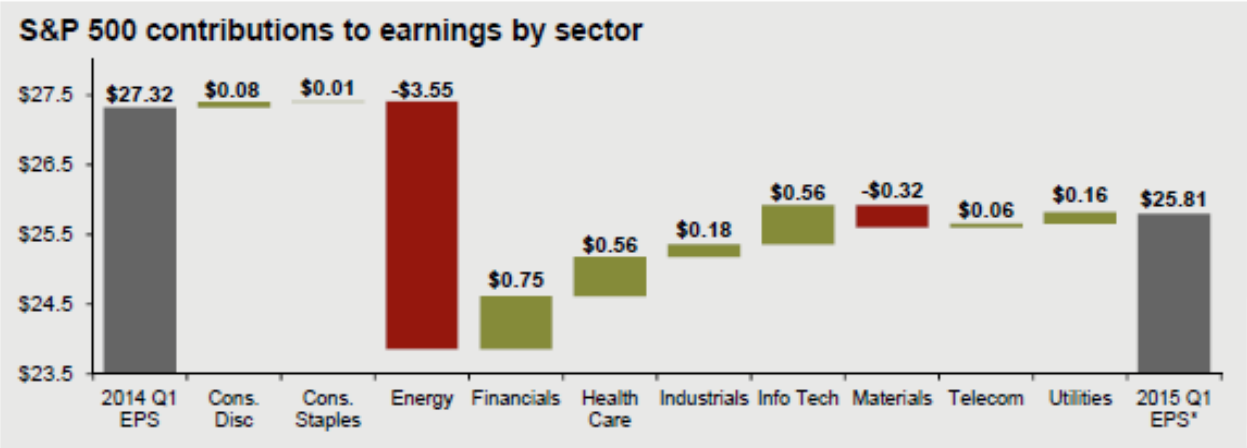
Sources: National statistics agencies in Europe; U.S. Commerce Department; Japan's Cabinet Office; Eurostat (eurozone)

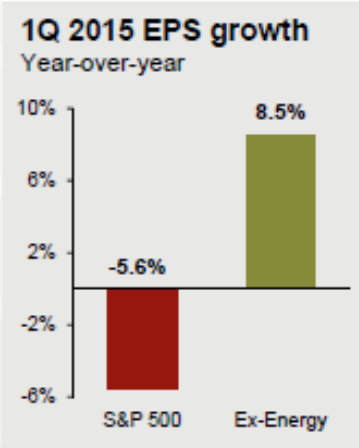
THE WALL STREET JOURNAL.

Impact of Energy on Earnings



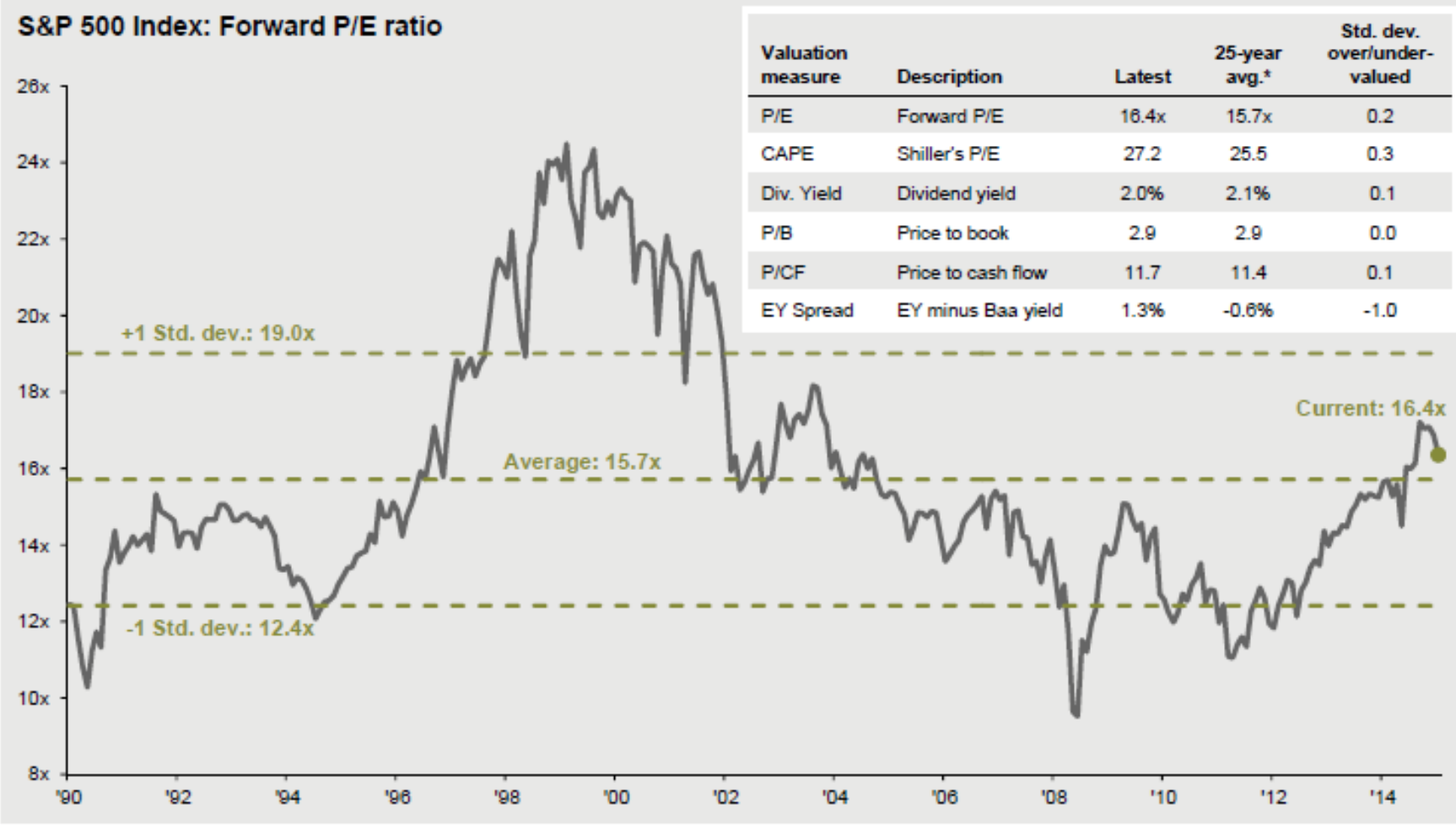
Energy prices





Source: J.P. Morgan Asset Management

S&P 500 Valuation Measures



Valuation measure	Description	Latest	25-year avg.*	Std. dev. over/under-valued
P/E	Forward P/E	16.4x	15.7x	0.2
CAPE	Shiller's P/E	27.2	25.5	0.3
Div. Yield	Dividend yield	2.0%	2.1%	0.1
P/B	Price to book	2.9	2.9	0.0
P/CF	Price to cash flow	11.7	11.4	0.1
EY Spread	EY minus Baa yield	1.3%	-0.6%	-1.0

Source: FactSet, FRB, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.

Source: JP Morgan

S&P 500 Calendar Year Streaks

If the S&P 500 Delivers Another Positive Year in 2015, It Would Be Highly Unusual Relative to History

# OF CONSEC-UTIVE YEARS OF POSITIVE RETURNS	START	END	CUMU-LATIVE RETURN	CAGR
3	1904	1906	67%	19%
3	1954	1956	111%	28%
3	1963	1965	60%	17%
3	1970	1972	40%	12%
4	1942	1945	143%	25%
4	1958	1961	102%	19%
5	2003	2007	83%	13%
6	1947	1952	148%	16%
6	2009	2014	159%	17%
8	1921	1928	435%	23%
8	1982	1989	291%	19%
9	1991	1999	450%	21%
			AVG. CAGR	19%

Performance on a monthly basis, peak to trough. Data as at December 31, 2014. Source: Factset.

Source: KKR

Regional Valuations

	Forward P/E[1]	Forward ROE (%)[1]	Dividend Yield (%)
EAFE	15.7	10.7	3.0
US	18.1	14.7	2.0
Japan	15.7	8.7	1.7
World	17.1	12.6	2.5
Emerging Markets	**12.6**	**12.1**	**2.6**

Source: Lazard

Callan

June 30, 2015

North Dakota State Investment Board Pension Funds

Investment Measurement Service Quarterly Review

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. Callan does not provide advice regarding, nor shall Callan be responsible for, the purchase, sale, hedge or holding of individual securities, including, without limitation securities of the client (i.e., company stock) or derivatives in the client's accounts. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the conformity of individual security holdings with the client's investment policies and guidelines, nor has it assumed any responsibility to do so. Advice pertaining to the merits of individual securities and derivatives should be discussed with a third party securities expert. Copyright 2015 by Callan Associates Inc.

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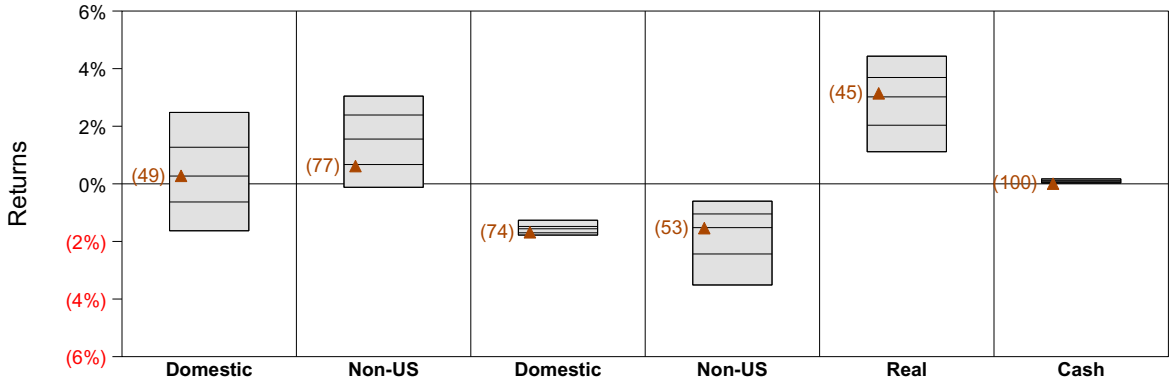
Market Overview
Active Management vs Index Returns

Market Overview

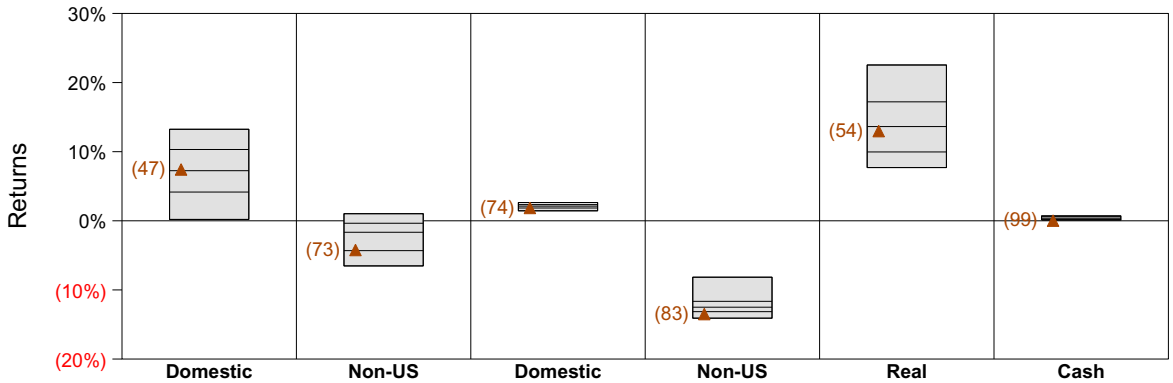
The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also 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 domestic equity manager database.

Range of Separate Account Manager Returns by Asset Class
One Quarter Ended June 30, 2015



	Domestic Equity vs S&P 500	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Barclays Aggr Bd	Non-US Fixed Income vs Citi Non-US Gov	Real Estate vs NCREIF Index	Cash Equivalents vs 3 Mon T-Bills
10th Percentile	2.48	3.05	(1.26)	(0.60)	4.43	0.17
25th Percentile	1.27	2.39	(1.48)	(1.05)	3.69	0.11
Median	0.27	1.55	(1.56)	(1.52)	3.02	0.09
75th Percentile	(0.63)	0.67	(1.70)	(2.43)	2.03	0.04
90th Percentile	(1.63)	(0.12)	(1.78)	(3.51)	1.12	0.03
Index ▲	0.28	0.62	(1.68)	(1.54)	3.14	0.01

Range of Separate Account Manager Returns by Asset Class
One Year Ended June 30, 2015



	Domestic Equity vs S&P 500	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Barclays Aggr Bd	Non-US Fixed Income vs Citi Non-US Gov	Real Estate vs NCREIF Index	Cash Equivalents vs 3 Mon T-Bills
10th Percentile	13.24	1.03	2.65	(8.16)	22.54	0.71
25th Percentile	10.32	(0.36)	2.35	(11.65)	17.21	0.59
Median	7.25	(1.66)	2.12	(12.50)	13.63	0.37
75th Percentile	4.16	(4.32)	1.85	(13.14)	9.96	0.20
90th Percentile	0.20	(6.53)	1.45	(14.09)	7.70	0.09
Index ▲	7.42	(4.22)	1.86	(13.49)	12.98	0.02

Callan

Capital Market Review

Second Quarter 2015

Reversion to the Mean

U.S. ECONOMY

2 PAGE

The U.S. GDP resumed momentum, posting a 2.3% increase. Credit goes to the rise in consumer spending fueled by robust gains in employment and household wealth. Inflation remains well below the Fed's 2% target.

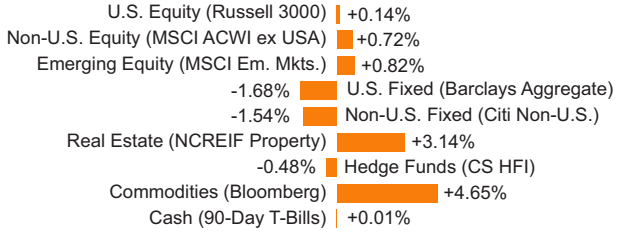
Returns Take a Semester Abroad

FUND SPONSOR

4 PAGE

In the **Callan Fund Sponsor Database**, corporate funds (-0.21%) were the quarter's worst performers while Taft-Hartley plans (+0.33%) were the best at the median. Taft-Hartley funds benefited from a smaller exposure to fixed income versus their corporate peers.

Broad Market Quarterly Returns



Sources: Barclays, Citigroup, Credit Suisse Hedge Index, Merrill Lynch, MSCI, NCREIF, Russell Investment Group, S&P Dow Jones

Underwhelming

U.S. EQUITY

6 PAGE

Large and small cap stocks showed slightly positive returns this quarter (**Russell 1000 Index**: +0.1% and **Russell 2000 Index**: +0.4%) while mid cap trailed considerably (**Russell Mid-Cap Index**: -1.5%). Growth maintained its lead over value in all capitalizations.

Greek Gloom

NON-U.S. EQUITY

9 PAGE

Non-U.S. markets managed to end the quarter with a slight gain (**MSCI ACWI ex USA Index**: +0.72%) despite heightened concerns about Greece and China. Both the developed **MSCI World ex USA Index** (+0.48%) and the **MSCI Emerging Markets Index** (+0.82%) eked out meager returns.

Rates Move Higher

U.S. FIXED INCOME

12 PAGE

The U.S. bond markets experienced a backup in interest rates as Treasuries sold off and spread sectors were mixed. The yield curve steepened. The **Barclays Aggregate Index** declined 1.68%. The **Barclays Corporate High Yield Index** was flat.

Deal or No Deal

NON-U.S. FIXED INCOME

15 PAGE

The debt standoff in Greece and a bull market reversal in developed markets highlighted the sovereign bond market. The unhedged **Citi Non-U.S. World Government Bond Index (WGBI)** declined 1.54%, while the hedged WGBI plunged 3.20% due to a weakening U.S. dollar.

Mixed Messages

REAL ESTATE

17 PAGE

The **NCREIF Property Index** advanced 3.14% (1.26% income return; 1.89% appreciation return). The **FTSE EPRA/NAREIT Developed REIT Index** (USD) declined 6.67% and domestic REITs tracked by the **FTSE NAREIT Equity REITs Index** dropped 9.95%.

A Seller's Market

PRIVATE EQUITY

19 PAGE

Fundraising, venture investment, and IPOs for both buyout and venture leaped in the second quarter. Buyout investment was flat and M&A exit figures for both buyout and venture were mixed. High prices are muting private M&A volumes, but all other activity measures soared.

Momentum Whiplash

HEDGE FUNDS

20 PAGE

The **Credit Suisse Hedge Fund Index** slipped 0.48%. The median manager in the **Callan Hedge Fund-of-Funds Database** inched ahead 0.23%. The quarter's most notable victim was Managed Futures (-10.61%).

TDFs Win Quarter, Asset Flows

DEFINED CONTRIBUTION

21 PAGE

The Callan DC Index™ gained 2.15%, trailing the typical 2035 target date fund (TDF), which rose 2.55%. DC plan balances grew by 2.76%. Nearly 66 cents of every dollar that moved within DC plans flowed to TDFs.

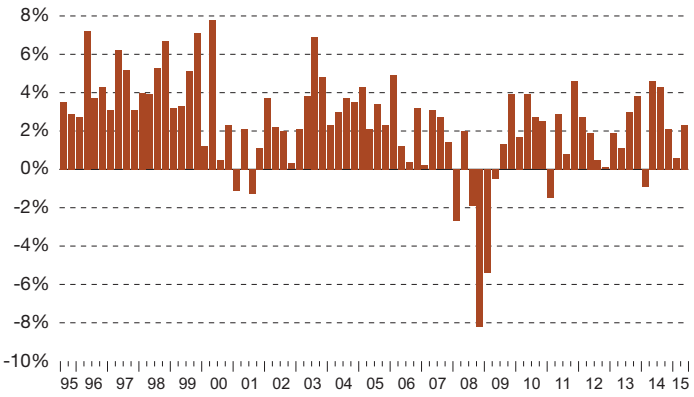
Reversion to the Mean

U.S. ECONOMY | Jay Kloepfer

After stalling in the first part of 2015, the U.S. economic expansion resumed in the second quarter with a 2.3% increase in GDP. Real GDP growth measurement for the first quarter proved to be a bumpy ride: the initial estimate of +0.2% was revised to a 0.7% loss, then to a slighter drop of 0.2%, and the most recent announcement swung back to black, albeit a scant +0.6%. However we measure it, the weakness in the first quarter was attributed to a strong dollar hurting exports, harsh winter weather interfering with general economic activity, and a sharp decline in oil drilling due to plunging oil prices. Labor stoppages in western ports added to the troubles. The resumption in growth in the second quarter came from a rise in consumption spending, fueled by robust gains in employment and household wealth. Consumer confidence rose through much of the quarter, although the events in Greece and China in June likely sapped some of that confidence. The housing market recovery continued to take shape, prodded by the same economic news that drove consumption (jobs, household wealth, and consumer confidence). While some of the data send mixed messages, growth in the U.S. economy is reverting to its underlying 2.5%-3% long-term average rate.

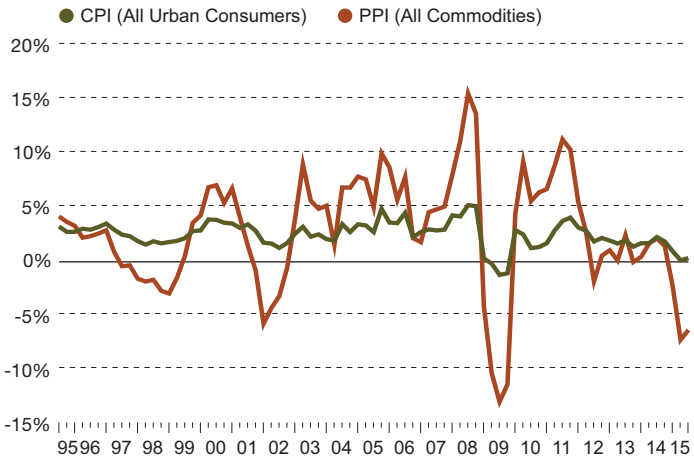
The job market posted solid gains during the first half of 2015, averaging 195,000 per month in the first quarter and 221,000 per month in the second. The year-over-year gain in jobs through June reached just short of three million, the largest gain for the July-June period since 2000. The unemployment rate fell to 5.3% in June. While these data confirm that the first-quarter GDP weakness was an anomaly, the Fed remains concerned about key characteristics of the U.S. labor market. Much of the improvement in the unemployment rate has been the result of discouraged workers leaving the labor force. The labor force participation rate fell to 62.6% in June, a 38-year low. Wage growth has been positive but modest, rising 2% year-over-year through June, suggesting continued slack in the labor market despite the reported job gains.

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

Inflation remains well below the Fed's 2% target. Headline CPI was flat in June compared to one year earlier due to sharply falling energy prices in the latter half of 2014. Core CPI, which excludes food and energy, was up 1.8% in June year-over-year, pushed up by health care and housing costs. The sharp drop in energy prices provided a windfall of sorts for consumers, enabling them to direct spending to other categories, such as cars and other durable goods.

Household net worth reached $85 trillion in the first quarter of 2015, fueled by rising home prices and the strong U.S. stock market. Net worth is now 25% higher than its 2007 pre-financial-crisis peak. This improvement in net worth, combined with the solid job market gains, has led to a buoyed level of consumer confidence and resulted in broad consumer spending, strong auto sales, and perked up interest in the housing market. Home prices are rising everywhere, but at varying rates; gains have averaged 5% year-over-year over the past 12 months. Existing home sales rose 3.2% in June to a 5.49 million-unit annual rate, while new home sales are running at a 545,000-unit rate; both rates are multi-year highs, but substantially below the peaks set prior to 2007. Inventories remain tight, despite the rising prices. One factor is the existing supply of homes that remain under water relative to their mortgage; recent estimates place this inventory at five million.

Capital spending by sector was all over the map during the first half of 2015. Spending on buildings suddenly surged during the second quarter. Spending on R&D and software continues to grow at a solid rate, while spending on equipment has stalled over the past four quarters. These three sectors drove business investment spending for several years after the recession. Spending on mining and oil wells collapsed, formerly another source of recent robust investment growth. Taken as a whole, capital spending stumbled in the fourth quarter of 2014 and suffered a weaker-than-expected first half of 2015, most likely because economic growth was interrupted.

U.S. exports of goods plunged in the first quarter of 2015, sapped by the surging dollar and uncertain economic growth. However, imports continued to increase and the combined effect of net exports (exports minus imports) subtracted 1.9% from GDP growth. Exports rebounded in the second quarter, as the impact of the dollar's surge stabilized and a modest recovery took hold in the euro zone. Exports rose by 5.3% and import growth slipped from 7.1% in the first quarter to 3.5% in the second; as a result, net exports no longer dragged on GDP growth.

The Long-Term View

Index	2015 2nd Qtr	Periods ended December 31, 2014 Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	0.14	12.56	15.63	7.94	9.78
S&P 500	0.28	13.69	15.45	7.67	9.62
Russell 2000	0.42	4.89	15.55	7.77	9.75
Non-U.S. Equity					
MSCI EAFE	0.62	-4.90	5.33	4.43	4.31
MSCI Emerging Markets	0.82	-1.82	2.11	8.78	8.83
S&P Ex-U.S. Small Cap	4.61	-3.42	8.52	6.84	5.48
Fixed Income					
Barclays Aggregate	-1.68	5.97	4.45	4.71	6.49
90-Day T-Bill	0.01	0.03	0.09	1.54	3.24
Barclays Long G/C	-7.22	19.31	9.81	7.36	8.49
Citi Non-U.S. Govt	-1.54	-2.68	0.85	2.64	6.21
Real Estate					
NCREIF Property	3.14	11.82	12.13	8.38	7.61
FTSE NAREIT Equity	-9.95	30.14	16.88	8.31	11.25
Alternatives					
CS Hedge Fund	-0.48	4.13	5.88	5.82	--
Cambridge PE*	--	22.88	17.40	14.02	15.56
Bloomberg Commodity	4.66	-17.01	-5.53	-1.86	--
Gold Spot Price	-0.96	-1.51	1.55	10.45	4.38
Inflation – CPI-U	1.07	0.76	1.69	2.12	2.52

*Private equity data is time-weighted return for period ended December 31, 2014.

Sources: Barclays, Bloomberg, Citigroup, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson/Cambridge.

Recent Quarterly Indicators

Economic Indicators	2Q15	1Q15	4Q14	3Q14	2Q14	1Q14	4Q13	3Q13
Employment Cost–Total Compensation Growth	2.0%	2.6%	2.2%	2.2%	2.0%	1.8%	2.0%	1.9%
Nonfarm Business–Productivity Growth	1.0%*	-3.1%	-2.1%	3.9%	2.9%	-4.7%	3.0%	3.4%
GDP Growth	2.3%	0.6%	2.1%	4.3%	4.6%	-0.9%	3.8%	3.0%
Manufacturing Capacity Utilization	77.2%	77.3%	77.8%	77.5%	77.1%	76.2%	76.4%	76.0%
Consumer Sentiment Index (1966=100)	94.2	95.5	89.8	83.0	82.8	80.9	76.9	81.6

*Estimate

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

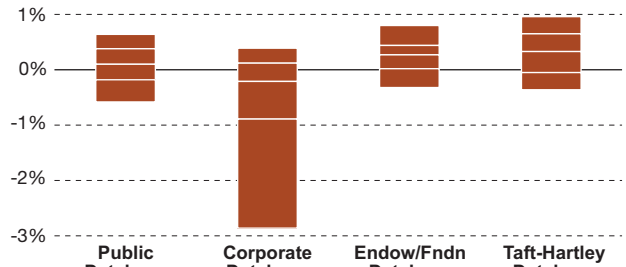
Returns Take a Semester Abroad

FUND SPONSOR | Kevin Nagy

Public markets experienced an up-and-down quarter, with equity indices exhibiting slight gains while fixed income was in the red. Non-U.S. equity markets (**MSCI ACWI ex USA Index**: +0.72%) were able to overcome uncertainty in Greece and a large sell-off in China to beat U.S. equity (**Russell 3000 Index**: +0.14%) for the second straight quarter. Both U.S. and non-U.S. fixed income markets suffered losses (**Barclays Aggregate**: -1.68%, **Citi Non-U.S. World Government Bond Index-Unhedged**: -1.54%).

As seen in the Callan Fund Sponsor Quarterly Returns chart, performance was tepid at best. Corporate funds were the worst performers across all percentiles shown, while Taft-Hartley plans (+0.33%) were the best at the median. The 10th percentile's performance displayed moderate dispersion, with Taft-Hartley plans (+0.96%) coming in first place and endowments/foundations (+0.80%) second. Dispersion in the bottom decile was highest, with endowments/foundations (-0.32%) in the lead and corporate plans (-2.86%) bringing up the rear.

Callan Fund Sponsor Quarterly Returns



	Public Database	Corporate Database	Endow/Fndn Database	Taft-Hartley Database
10th Percentile	0.64	0.39	0.80	0.96
25th Percentile	0.38	0.12	0.44	0.65
Median	0.10	-0.21	0.27	0.33
75th Percentile	-0.18	-0.89	0.02	-0.05
90th Percentile	-0.58	-2.86	-0.32	-0.36

Source: Callan

In terms of asset allocation and its impact on performance, Taft-Hartley funds benefited from a smaller exposure to fixed income when compared to their corporate peers. They were also helped by a strong performance from private real estate (**NCREIF Property Index**: +3.14%). Corporate funds were hurt by larger allocations to U.S. fixed income than the other fund

Database Median and Index Returns* for Periods ended June 30, 2015

Fund Sponsor	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Public Database	**0.10**	**2.43**	**3.20**	**10.30**	**10.41**	**6.57**
Corporate Database	**-0.21**	**2.15**	**2.94**	**9.72**	**10.57**	**6.79**
Endowments/Foundations Database	**0.27**	**2.56**	**2.34**	**10.03**	**9.89**	**6.53**
Taft-Hartley Database	**0.33**	**2.64**	**4.10**	**10.74**	**10.81**	**6.28**
Diversified Manager	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Asset Allocator Style	**-0.25**	**1.46**	**3.89**	**9.98**	**10.51**	**6.77**
U.S. Balanced Database	**-0.19**	**2.00**	**2.76**	**11.30**	**11.55**	**6.65**
Global Balanced Database	**-0.89**	**1.44**	**-0.06**	**8.00**	**8.88**	**6.58**
60% Russell 3000 + 40% Barclays Agg	-0.59	1.12	5.10	11.23	11.98	7.08
60% MSCI World + 40% Barclays Glbl Agg	-0.29	0.33	-2.04	8.04	8.72	5.50

*Returns less than one year are not annualized.

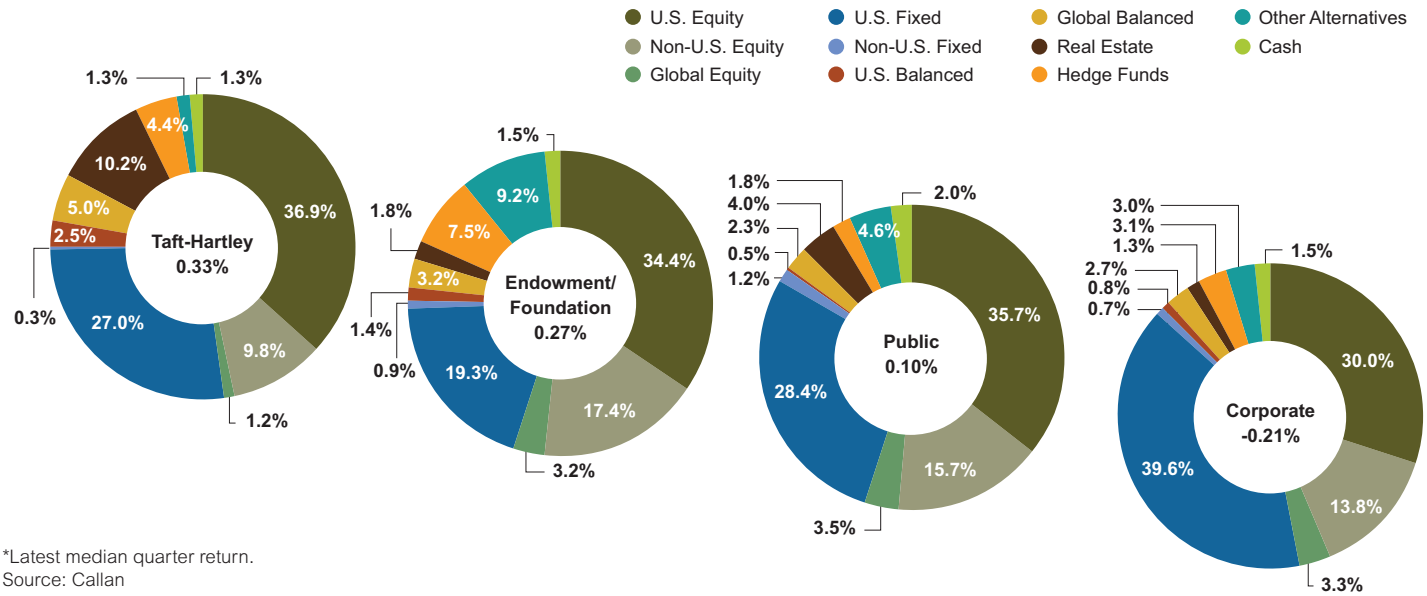
Sources: Callan, Barclays, MSCI, Russell Investment Group

types. As in the first quarter, corporate funds had the widest dispersion between top and bottom percentiles, due to some plans employing liability-driven investment (LDI) programs.

Taft-Hartley funds were the top performers in all noted time periods except for the 10-year period, which went to corporate funds. All fund types for that long-term time period displayed very similar performance in the 6% to 7% range.

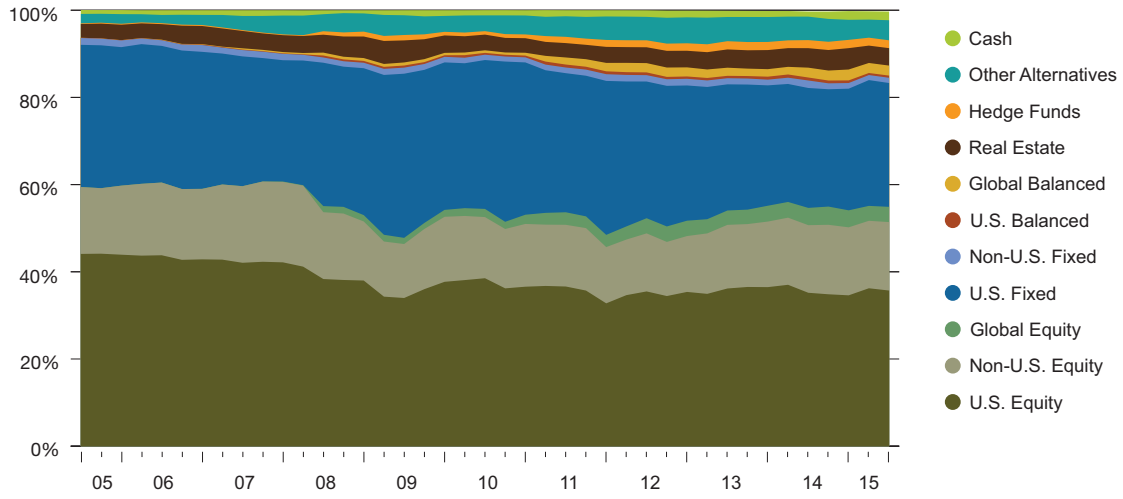
Despite trailing in the most recent quarter, the U.S.-focused 60% Russell 3000 + 40% Barclays Aggregate (-0.59%) has outperformed the global 60% MSCI World + 40% Barclays Global Aggregate benchmark (-0.29%) for every other time period. Callan's U.S. Balanced Database group has also outperformed the Global Balanced Database group in every period shown.

Callan Fund Sponsor Average Asset Allocation



*Latest median quarter return.
Source: Callan

Callan Public Fund Database Average Asset Allocation (10 Years)



Source: Callan

Underwhelming

U.S. EQUITY | Lauren Mathias, CFA

The second quarter got off to a promising start through April and May. In June, however, the **S&P 500 Index** dropped almost 2%, reducing U.S. equity results for the three-month period to 0.28%. Before declining, market indices reached new peaks—most notably the NASDAQ Composite surpassed the all-time high it previously set in March 2000.

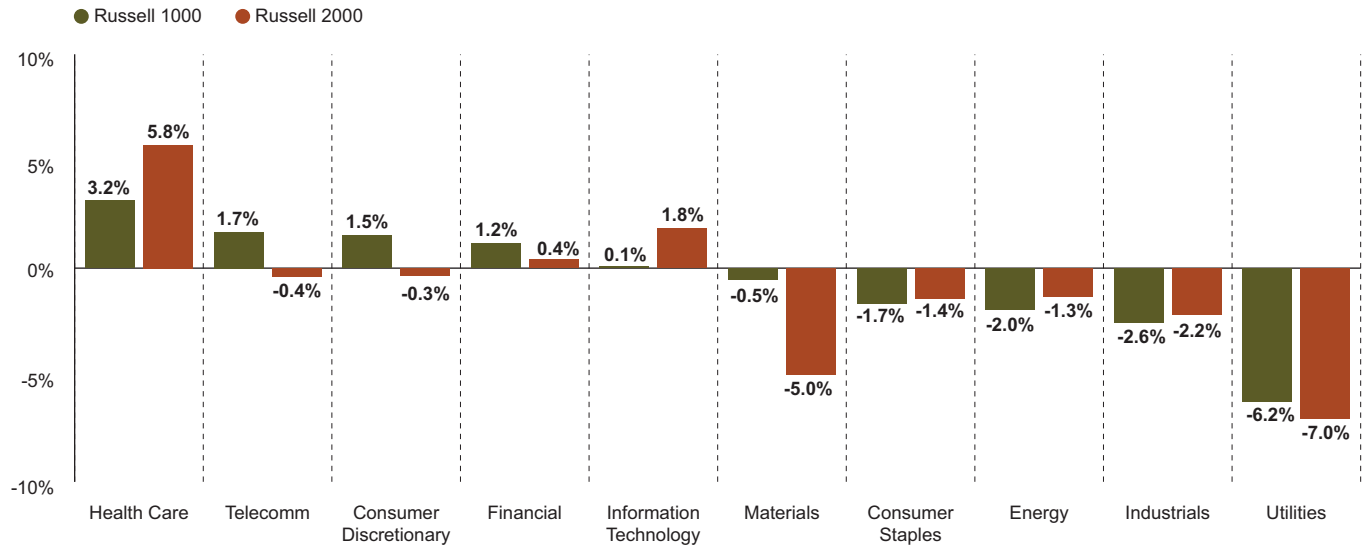
Despite underwhelming equity results, the U.S. economy does have some tailwinds. June's unemployment rate declined to 5.3%, housing improved as more Americans took out mortgages, and consumer confidence ticked higher. However, the Fed's concerns about economic growth persisted, further delaying a potential increase in interest rates. Underlying U.S. fundamentals appear solid, with corporate profit margins near highs and leverage well below historical averages. This is reflected in valuations with current P/E ratios across market capitalizations above 20-year averages.

Large and small cap stocks showed slightly positive returns this quarter (**Russell 1000 Index**: +0.1% and **Russell 2000 Index**: +0.4%) while mid cap trailed considerably (**Russell Mid-Cap Index**: -1.5%). Growth maintained its lead over value in all capitalizations, but most dramatically in small cap (**Russell 2000 Growth Index**: +2.0% and **Russell 2000 Value Index**: -1.2%). Small cap growth continued to beat small cap value in all annualized time periods of less than 10 years. Micro caps and mega caps both advanced (**Russell Microcap Index**: +2.8% and **Russell Top 50**: +1.5%).

Sectors exhibited divergent quarterly results across market capitalizations. Small cap Materials declined sharply versus a slight dip in large cap. Health Care boosted both large and small market caps but was much stronger in small cap. Utilities were the worst-performing sector across capitalizations as interest-rate-sensitive securities declined. On a positive note, M&A activity remained strong, with deal flow increasing across most sectors.

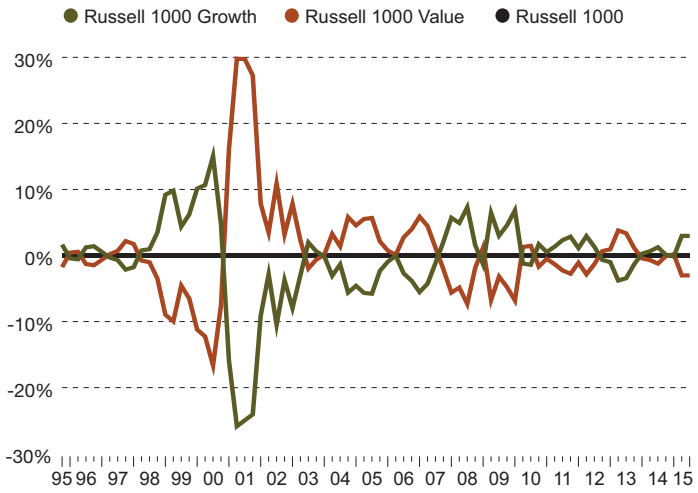
Notably, active management is having the most successful year since the financial crisis; almost half of active large cap managers have outperformed in 2015 thus far. This contrasts with assets that continue to flow to passive strategies, which have grown to be one-third of U.S. equity AUM.

Economic Sector Quarterly Performance



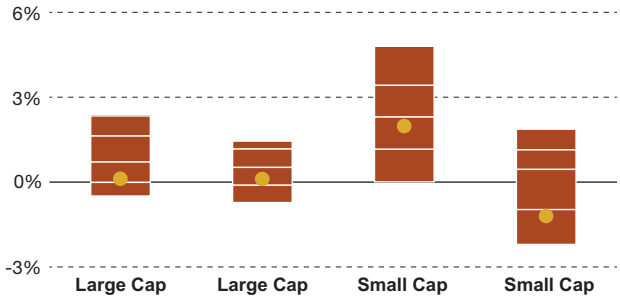
Source: Russell Investment Group

Rolling One-Year Relative Returns (vs. Russell 1000)



Source: Russell Investment Group

Callan Style Group Quarterly Returns



	Large Cap Growth Style	Large Cap Value Style	Small Cap Growth Style	Small Cap Value Style
10th Percentile	2.34	1.45	4.80	1.87
25th Percentile	1.63	1.17	3.42	1.14
Median	0.71	0.52	2.30	0.45
75th Percentile	-0.01	-0.11	1.16	-0.97
90th Percentile	-0.49	-0.72	0.01	-2.20
	R1000 Growth	**R1000 Value**	**R2000 Growth**	**R2000 Value**
Benchmark	0.12	0.11	1.98	-1.20

Sources: Callan, Russell Investment Group

U.S. Equity Index Characteristics as of June 30, 2015

	S&P 500	Rus 3000	Rus 1000	Rus Midcap	Rus 2500	Rus 2000
Cap Range Min ($mm)	1,735	24	354	354	24	24
Cap Range Max ($bn)	722.58	722.58	722.58	28.09	10.80	4.70
Number of Issues	502	3,004	1,029	829	2,494	1,975
% of Russell 3000	80%	100%	92%	28%	19%	8%
Wtd Avg Mkt Cap ($bn)	127.97	103.44	112.50	12.16	4.06	1.89
Price/Book Ratio	2.7	2.6	2.7	2.5	2.2	2.1
Forward P/E Ratio	16.4	17.2	16.9	19.0	19.8	20.9
Dividend Yield	2.1%	1.9%	2.0%	1.6%	1.4%	1.3%
5-Yr Earnings (forecasted)	10.3%	11.2%	11.1%	12.9%	13.0%	13.5%

Sources: Russell Investment Group, Standard & Poor's

Style Median and Index Returns* for Periods ended June 30, 2015

Large Cap Equity	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Large Cap Core Style	**0.42**	**1.82**	**8.00**	**18.21**	**17.89**	**8.39**
Large Cap Growth Style	**0.71**	**4.57**	**11.86**	**18.87**	**18.54**	**9.37**
Large Cap Value Style	**0.52**	**0.86**	**5.23**	**18.26**	**17.08**	**7.69**
Aggressive Growth Style	**1.49**	**6.77**	**10.44**	**17.74**	**17.31**	**9.83**
Contrarian Style	**0.40**	**0.65**	**5.46**	**17.91**	**16.74**	**7.94**
Yield-Oriented Style	**-0.15**	**0.02**	**4.25**	**15.70**	**15.99**	**8.28**
Russell 3000	0.14	1.94	7.29	17.73	17.54	8.15
Russell 1000	0.11	1.71	7.37	17.73	17.58	8.13
Russell 1000 Growth	0.12	3.96	10.56	17.99	18.59	9.10
Russell 1000 Value	0.11	-0.61	4.13	17.34	16.50	7.05
S&P Composite 1500	0.17	1.57	7.31	17.41	17.39	8.08
S&P 500	0.28	1.23	7.42	17.31	17.34	7.89
NYSE	-0.20	0.94	0.79	14.49	15.46	7.67
Dow Jones Industrials	-0.29	0.03	7.21	13.77	15.41	8.32
Mid Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Mid Cap Core Style	**-1.08**	**4.51**	**7.73**	**21.22**	**19.70**	**10.21**
Mid Cap Growth Style	**0.57**	**6.52**	**10.75**	**18.44**	**18.36**	**10.48**
Mid Cap Value Style	**-1.45**	**1.76**	**4.46**	**19.31**	**17.63**	**9.77**
Russell Midcap	-1.54	2.35	6.63	19.26	18.23	9.40
S&P MidCap 400	-1.06	4.20	6.40	18.60	17.82	9.74
Small Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Small Cap Core Style	**0.55**	**5.53**	**7.98**	**20.57**	**19.28**	**9.55**
Small Cap Growth Style	**2.30**	**8.37**	**11.25**	**19.92**	**19.56**	**10.35**
Small Cap Value Style	**0.45**	**3.09**	**4.44**	**18.61**	**17.48**	**8.99**
Russell 2000	0.42	4.75	6.49	17.81	17.08	8.40
S&P SmallCap 600	0.19	4.16	6.72	18.81	18.44	9.27
NASDAQ	2.03	5.90	14.44	20.94	20.26	10.42
Smid Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Smid Cap Broad Style	**0.58**	**7.08**	**8.81**	**19.15**	**18.93**	**10.06**
Smid Cap Growth Style	**1.82**	**8.64**	**10.75**	**19.12**	**19.75**	**10.14**
Smid Cap Value Style	**-0.66**	**2.77**	**4.88**	**19.11**	**17.63**	**9.90**
Russell 2500	-0.34	4.81	5.92	18.66	17.85	9.09
S&P 1000	-0.68	4.20	6.51	18.68	18.02	9.58
Russell 3000 Sectors	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Consumer Discretionary	1.36	6.10	14.73	22.99	23.12	9.98
Consumer Staples	-1.65	-0.42	9.54	14.64	17.00	10.82
Energy	-1.94	-4.13	-24.31	5.19	10.03	6.42
Financials	1.08	0.40	9.09	19.28	14.17	1.40
Health Care	3.38	11.45	26.47	28.19	24.58	12.03
Industrials	-2.53	-2.14	1.70	17.95	17.40	8.58
Information Technology	0.20	1.88	11.20	16.89	17.65	9.88
Materials	-0.97	0.03	-2.31	13.20	14.59	9.38
Telecommunications	1.63	3.56	1.69	7.56	14.16	7.32
Utilities	-6.31	-10.58	-3.88	8.54	12.65	7.02

*Returns less than one year are not annualized.
Sources: Callan, Dow Jones & Company, Russell Investment Group, Standard & Poor's, The NASDAQ Stock Market

Greek Gloom

NON-U.S. EQUITY | Irina Sushch

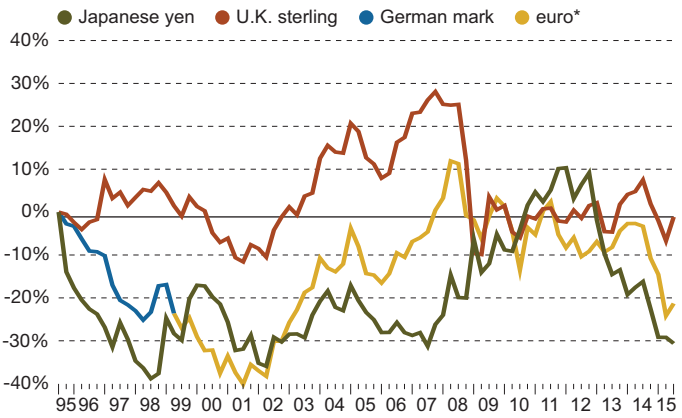
Non-U.S. markets managed to eke out a slightly positive return (**MSCI ACWI ex USA Index**: +0.72%) despite heightened concerns about Greece and China. Even with a "Grexit" looming, China threatened to steal the spotlight—its Shanghai Composite Index dropped nearly 20% in the final weeks of the quarter. Before nosediving, the Index was at a seven-year high and up roughly 150% from year-end 2013.

Both the developed **MSCI World ex USA Index** (+0.48%) and the **MSCI Emerging Markets Index** (+0.82%) delivered meager returns. Small cap stocks continued to climb amid the macro chaos (**MSCI ACWI ex USA Small Cap Index**: +4.22%). In international sectors, Energy (+2.59%) was boosted by rising oil prices. Telecommunications (+3.58%) gained on significant M&A activity. Information Technology (-2.56%) was the weakest sector, dragged down by low earnings in the first quarter. Global uncertainty, stunted earnings, and rising rates undermined the remaining non-U.S. sectors.

European stocks failed to impress (**MSCI Europe Index**: +0.36%). Greece continued to dampen investors' spirits, ending the quarter with a missed €1.55 billion payment to the International Monetary Fund. Germany slipped 5.59%, red across every sector due to slowing GDP growth. Health Care was a big detractor (European Health Care: -1.19%). Information Technology (-2.44%) and Industrials (-1.60%) stocks struggled.

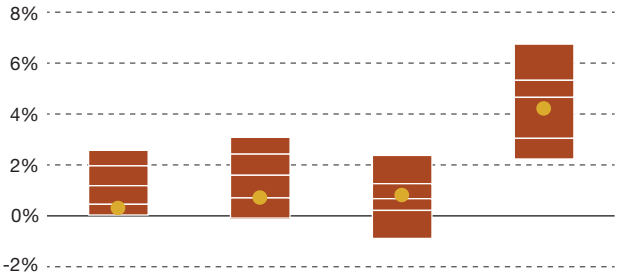
The **MSCI Pacific Index** (+1.14%) surpassed Europe by 78 bps, owing mainly to upbeat markets in Hong Kong (+5.56%) and Japan (+3.09%). Hong Kong experienced a flood of investment from China. Japan's GDP grew at an annualized 3.9% in the first quarter of 2015, and Japanese Financials were up 9.36% as banks benefitted from aggressive central bank policies. New Zealand (-13.08%) and Australia (-6.19%) fell deep into the red as their major exports (dairy and metals, respectively), were heavily affected by the mounting crisis in China's stock market. So far in 2015, the kiwi has fallen 13.3% against the U.S. dollar. Financials in Australia (-7.79%) were hammered by sluggish growth in the second quarter.

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



*euro returns from 1Q99
Source: MSCI

Callan Style Group Quarterly Returns

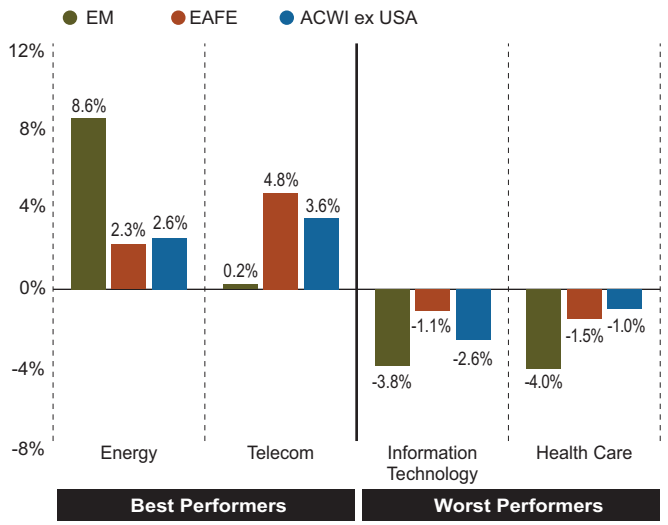


	Global Eq Style	Non-U.S. Eq Style	Emg Mkt Style	Small Cap Style
10th Percentile	2.54	3.05	2.34	6.71
25th Percentile	1.93	2.39	1.23	5.29
Median	1.15	1.56	0.64	4.62
75th Percentile	0.42	0.67	0.18	3.01
90th Percentile	0.00	-0.12	-0.92	2.20
	MSCI World	MSCI ACWI ex USA	MSCI Emg Mkts	MSCI ACWI ex USA SC
Benchmark	0.31	0.72	0.82	4.22

Sources: Callan, MSCI

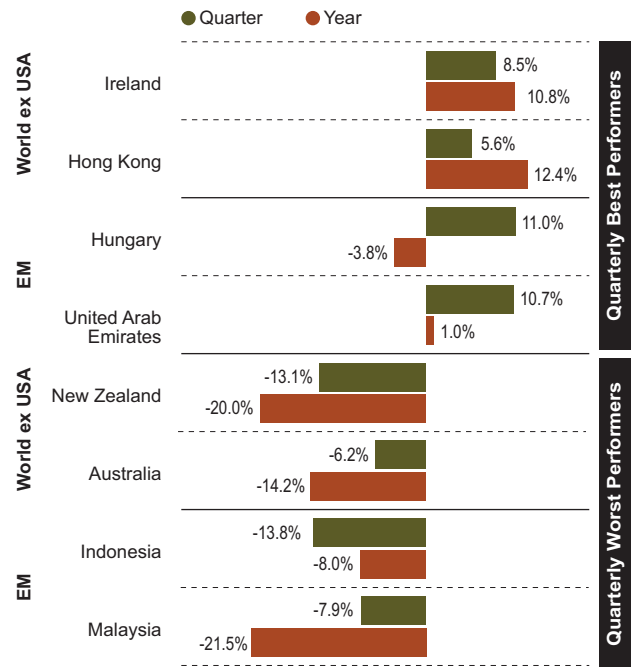
Although emerging market Energy stocks rose 8.62% due to climbing oil prices, the **MSCI Emerging Markets Index** (+0.82%) was hindered by Information Technology (-3.84%). **MSCI Emerging Markets Asia** (-0.04%) was chock full of negative stories. Indonesia (-13.82%), Malaysia (-7.88%), and Thailand (-3.30%) all experienced lethargic economic growth. Tech stocks impeded equity markets in South Korea and Taiwan. In India, subsiding growth along with lower-than-expected IT sales made for a weak quarter (-3.61%). China managed to gain 6.21% due to even lower interest rates and less restrictive real estate policies. However, China's markets were volatile throughout the quarter and crashed in the final two weeks. Russia (+7.70%) and Brazil (+7.02%) were bright spots, both buoyed by climbing commodity prices. Brazil's government is promising budget cuts, and Russia further cut interest rates to 11.5%. In Greece, equities gained 5.35% for the quarter in spite of the ongoing debt crisis, which damaged returns across the globe.

Quarterly Returns: Strong and Struggling Sectors



Source: MSCI

Quarterly and Annual Country Performance Snapshot



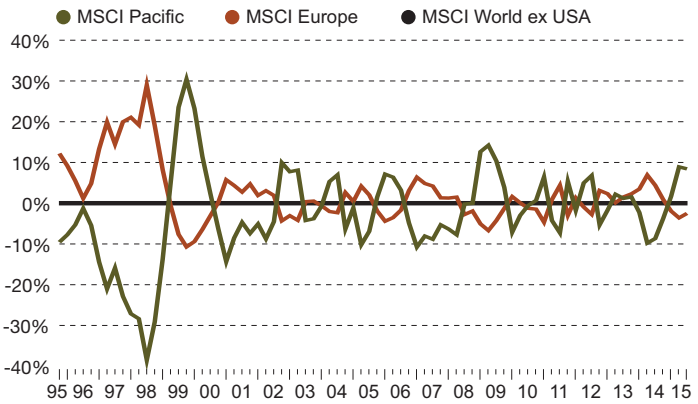
Source: MSCI

Quarterly Return Attribution for EAFE (U.S. Dollar)

Country	Total	Local	Currency	Wtg
Australia	-6.19%	-6.75%	0.61%	6.87%
Austria	3.18%	-0.54%	3.74%	0.17%
Belgium	1.04%	-2.60%	3.74%	1.30%
Denmark	2.36%	-1.48%	3.89%	1.66%
Finland	-3.89%	-7.36%	3.74%	0.82%
France	0.31%	-3.31%	3.74%	9.69%
Germany	-5.59%	-8.99%	3.74%	8.89%
Hong Kong	5.56%	5.56%	0.01%	3.25%
Ireland	8.52%	4.60%	3.74%	0.37%
Israel	-1.50%	-6.57%	5.42%	0.60%
Italy	2.49%	-1.21%	3.74%	2.41%
Japan	3.09%	5.19%	-1.99%	22.88%
Netherlands	2.81%	-0.90%	3.74%	2.77%
New Zealand	-13.08%	-3.62%	-9.81%	0.13%
Norway	3.31%	0.86%	2.44%	0.64%
Portugal	2.00%	-1.68%	3.74%	0.15%
Singapore	-0.06%	-1.86%	1.87%	1.43%
Spain	-2.05%	-5.58%	3.74%	3.51%
Sweden	-2.95%	-6.63%	3.94%	2.93%
Switzerland	1.01%	-2.82%	3.93%	9.23%
U.K.	2.99%	-2.79%	5.94%	20.29%

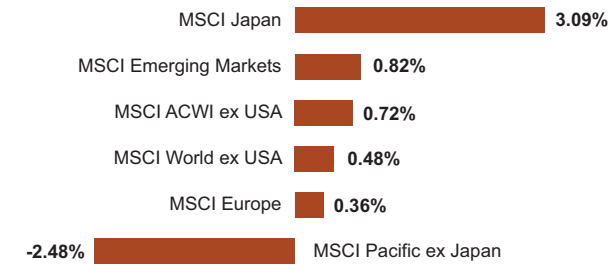
Sources: MSCI, Russell Investment Group, Standard & Poor's.

Rolling One-year Relative Returns (vs. MSCI World ex USA)



Source: MSCI

Regional Quarterly Performance (U.S. Dollar)



Source: MSCI

Style Median and Index Returns* for Periods ended June 30, 2015

Non-U.S. Equity	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Non-U.S. Equity Style	**1.56**	**6.63**	**-1.66**	**12.62**	**10.47**	**6.45**
MSCI EAFE	0.62	5.52	-4.22	11.97	9.54	5.12
MSCI EAFE (local)	-1.82	8.82	11.78	18.08	11.27	5.41
MSCI ACWI ex USA	0.72	4.35	-4.85	9.92	8.23	6.01
MSCI ACWI ex USA Growth	0.74	5.67	-1.70	10.54	8.84	6.37
MSCI ACWI ex USA Value	0.71	2.97	-7.98	9.25	7.58	5.91
Global Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Global Equity Style	**1.15**	**4.24**	**3.60**	**15.39**	**13.79**	**7.63**
MSCI World	0.31	2.63	1.43	14.27	13.10	6.38
MSCI World (local)	-0.69	4.14	8.41	17.01	13.79	6.36
MSCI ACWI	0.52	2.97	1.23	13.61	12.52	6.96
Regional Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
MSCI Europe	0.36	3.82	-7.65	12.37	10.02	5.03
MSCI Europe (local)	-3.91	7.25	6.99	15.16	10.37	5.49
MSCI Japan	3.09	13.62	8.31	13.30	8.80	4.23
MSCI Japan (local)	5.19	15.96	30.83	30.66	16.09	5.27
MSCI Pacific ex Japan	-2.48	0.58	-6.79	7.53	8.70	7.94
MSCI Pacific ex Japan (local)	-2.99	4.75	6.96	14.39	9.59	7.45
Emerging/Frontier Markets	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Emerging Market Style	**0.64**	**2.35**	**-5.34**	**4.86**	**4.67**	**8.97**
MSCI Emerging Markets	0.82	3.12	-4.77	4.08	4.03	8.46
MSCI Emerging Markets (local)	0.82	5.80	6.63	9.01	7.30	10.06
MSCI Frontier Markets	-0.05	-3.15	-13.93	12.96	7.29	0.42
Non-U.S. Small Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Non-U.S. Small Cap Style	**4.62**	**10.78**	**0.38**	**17.42**	**14.21**	**9.08**
MSCI World ex USA Small Cap	4.16	8.36	-3.96	13.60	11.10	6.30
MSCI ACWI ex USA Small Cap	4.22	8.32	-3.07	12.32	9.72	7.38
MSCI Emerging Market Small Cap	4.50	8.25	0.34	7.98	5.04	10.10

*Returns less than one year are not annualized.
Sources: Callan, MSCI

Rates Move Higher

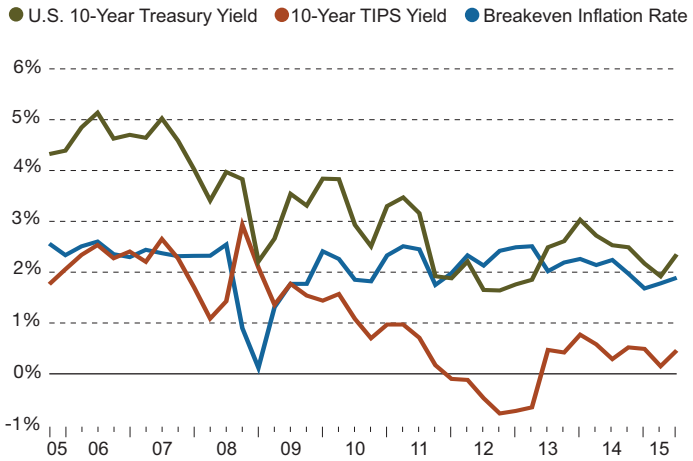
U.S. FIXED INCOME | Kevin Machiz, CFA, FRM

Interest rates moved higher in the second quarter given upward pressure from global interest rates as deflationary fears showed signs of relenting. The yield curve steepened after five consecutive quarters of flattening. The **Barclays Aggregate Index** fell 1.68%.

Short-term rates remained stable, as the Fed continued to peg the federal funds and discount rates at 0.00%–0.25% and 0.75%, respectively. The 10-year U.S. Treasury yield rose 43 bps. Yields on longer-term bonds increased even more (30-year U.S. Treasury yield: +59 bps).

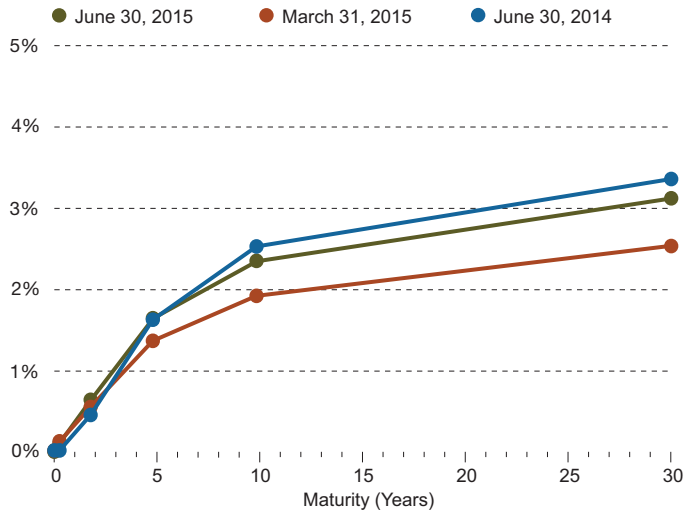
The market's expectation for the first hike in the fed funds rate settled around the end of 2015. The breakeven inflation rate (the difference between nominal and real yields) on the 10-year Treasury increased 12 bps to 1.89% as TIPS outperformed nominal Treasuries.

Historical 10-Year Yields



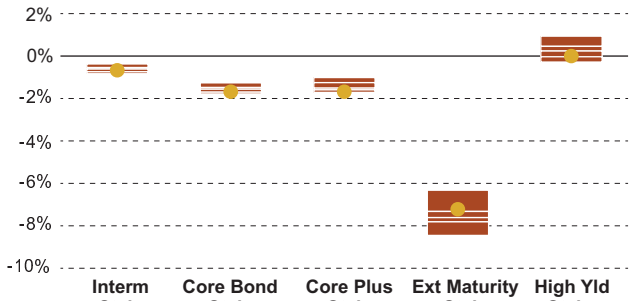
Source: Bloomberg

U.S. Treasury Yield Curves



Source: Bloomberg

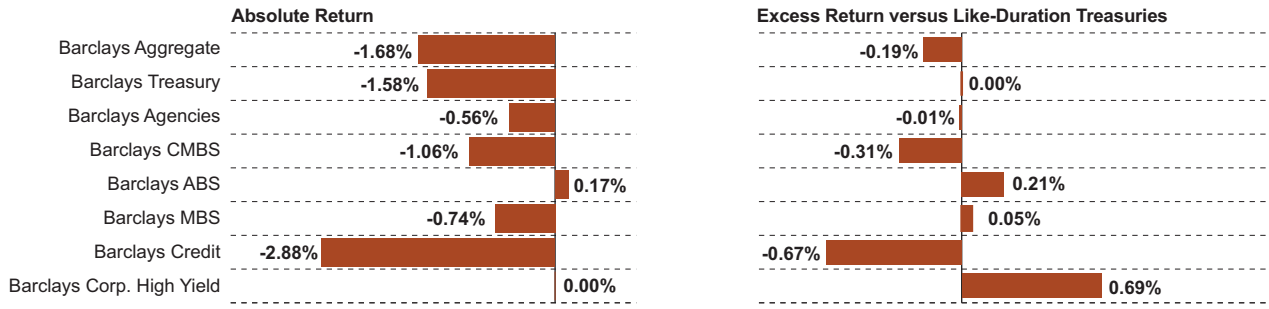
Callan Style Group Quarterly Returns



	Interm Style	Core Bond Style	Core Plus Style	Ext Maturity Style	High Yld Style
10th Percentile	-0.37	-1.26	-1.01	-6.32	0.94
25th Percentile	-0.54	-1.48	-1.25	-7.32	0.46
Median	-0.61	-1.56	-1.51	-7.61	0.24
75th Percentile	-0.74	-1.70	-1.59	-7.81	-0.03
90th Percentile	-0.83	-1.78	-1.71	-8.45	-0.28
	Barclays Interm Agg	**Barclays Agg**	**Barclays Agg**	**Barclays Long G/C**	**Barclays High Yld**
Benchmark	-0.67	-1.68	-1.68	-7.22	0.00

Sources: Barclays, Callan

Fixed Income Index Quarterly Returns

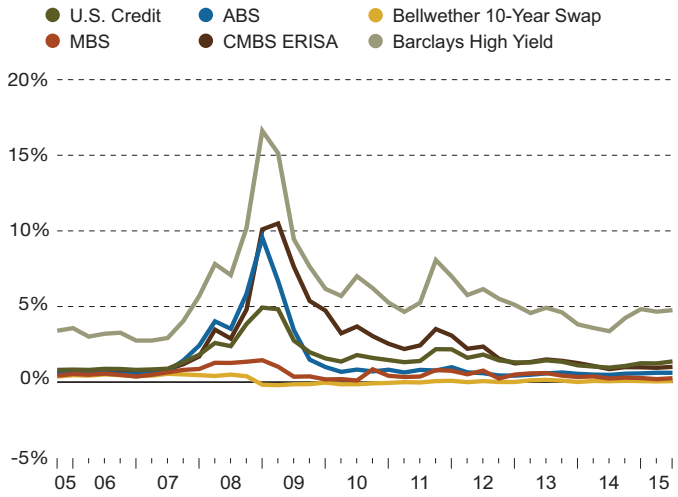


Source: Barclays

Relative to like-duration Treasuries, non-Treasury sectors saw scant gains (MBS: +0.05%; ABS: +0.21%) or negative results. Investment-grade corporate spreads widened with Utilities, Financials, and Industrials underperforming Treasuries by 1.41%, 0.61%, and 0.94% respectively.

High yield corporate bonds were among the best performers in the U.S. fixed income market as some energy companies rebounded strongly. The **Barclays Corporate High Yield Index** ended the quarter unchanged. New issue activity is on pace with the previous three calendar years. Year-to-date, there was approximately $191 billion in new issuance of high yield bonds.

Effective Yield Over Treasuries



Source: Barclays

U.S. Fixed Income Index Characteristics as of June 30, 2015

Barclays Indices	Yield to Worst	Mod Adj Duration	Avg Maturity	% of Barclays G/C	% of Barclays Agg
Barclays Aggregate	2.39	5.63	7.87		100.00%
Barclays Govt/Credit	2.24	6.09	8.33	100.00%	69.31%
Intermediate	1.74	3.94	4.28	79.77%	55.29%
Long-Term	4.20	14.58	24.32	20.23%	14.02%
Barclays Govt	1.47	5.44	6.68	56.76%	39.34%
Barclays Credit	3.25	6.95	10.51	43.24%	29.97%
Barclays MBS	2.78	4.61	7.06		28.11%
Barclays ABS	1.45	2.46	2.63		0.58%
Barclays CMBS	2.49	4.61	5.14		1.94%
Barclays Corp High Yield	6.57	4.36	6.41		

Source: Barclays

Style Median and Index Returns* for Periods ended June 30, 2015

Broad Fixed Income	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Core Bond Style	**-1.56**	**0.14**	**2.12**	**2.46**	**3.97**	**4.94**
Core Bond Plus Style	**-1.51**	**0.37**	**1.92**	**3.23**	**4.97**	**5.42**
Barclays Aggregate	-1.68	-0.10	1.86	1.83	3.35	4.44
Barclays Govt/Credit	-2.10	-0.30	1.69	1.76	3.52	4.38
Barclays Govt	-1.50	0.08	2.27	0.93	2.63	3.99
Barclays Credit	-2.88	-0.78	0.93	3.03	4.93	5.12
Citi Broad Investment Grade	-1.66	-0.06	1.87	1.83	3.31	4.53
Long-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Extended Maturity Style	**-7.61**	**-4.59**	**1.59**	**3.06**	**7.20**	**6.56**
Barclays Long Govt/Credit	-7.22	-4.11	2.32	2.61	6.79	6.18
Barclays Long Govt	-8.10	-4.52	6.20	1.25	6.23	6.12
Barclays Long Credit	-7.26	-4.42	-0.37	3.44	7.04	6.02
Citi Pension Discount Curve	-11.07	-6.78	2.36	2.72	8.74	6.93
Intermediate-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Intermediate Style	**-0.61**	**0.79**	**1.70**	**1.96**	**3.09**	**4.54**
Barclays Intermediate Aggregate	-0.67	0.64	1.89	1.74	2.89	4.22
Barclays Intermediate Govt/Credit	-0.62	0.82	1.68	1.60	2.79	4.02
Barclays Intermediate Govt	-0.43	0.82	1.79	0.90	2.06	3.67
Barclays Intermediate Credit	-0.94	0.82	1.51	2.88	4.19	4.80
Short-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Defensive Style	**0.11**	**0.76**	**1.08**	**1.09**	**1.50**	**3.05**
Active Duration Style	**-0.85**	**0.64**	**1.70**	**1.97**	**3.39**	**4.57**
Money Market Funds (net of fees)	0.00	0.00	0.01	0.01	0.01	1.32
ML Treasury 1–3-Year	0.15	0.67	0.88	0.66	0.82	2.52
90-Day Treasury Bills	0.01	0.01	0.02	0.06	0.08	1.42
High Yield	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
High Yield Style	**0.24**	**2.84**	**0.24**	**7.06**	**8.76**	**7.90**
Barclays Corporate High Yield	0.00	2.53	-0.40	6.81	8.61	7.89
ML High Yield Master	-0.04	2.49	-0.53	6.74	8.38	7.67
Mortgage/Asset-Backed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Mortgage Style	**-0.59**	**0.60**	**2.66**	**2.44**	**3.53**	**4.87**
Barclays MBS	-0.74	0.31	2.28	1.92	2.89	4.56
Barclays ABS	0.17	1.08	1.64	1.38	2.48	3.32
Barclays CMBS	-1.06	0.69	1.91	3.28	5.53	5.12
Municipal	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Barclays Muni	-0.89	0.11	3.00	3.10	4.50	4.45
Barclays Muni 1–10-Year	-0.51	0.32	1.74	2.10	3.22	3.89
Barclays Muni 3-Year	-0.02	0.39	0.57	1.17	1.71	2.97
TIPS	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Barclays TIPS Full Duration	-1.06	0.34	-1.73	-0.76	3.29	4.13
Barclays TIPS 1-10 Year	-0.15	1.06	-1.95	-0.54	2.36	3.70

*Returns of less than one year are not annualized.

Sources: Barclays, Callan, Citigroup, Merrill Lynch

Deal or No Deal

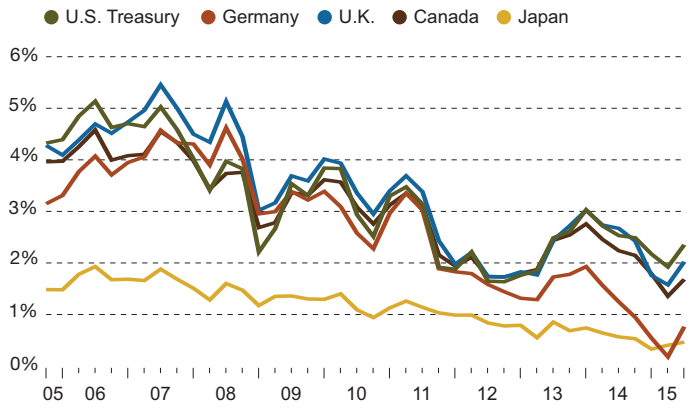
NON-U.S. FIXED INCOME | Kyle Fekete

The developed fixed income markets were characterized by rising interest rates, reversing the downward trend over the past several quarters. In a dramatic reversal, yield on German bunds climbed to 0.76% in June, up from the all-time low of 0.05% in mid-April. Rising interest rates were spurred by brighter news in Europe as both hiring and private sector growth approached four-year highs. In Europe, a whiff of inflation in May (+0.2% month-over-month) provided some evidence that the European Central Bank's asset purchase program was working.

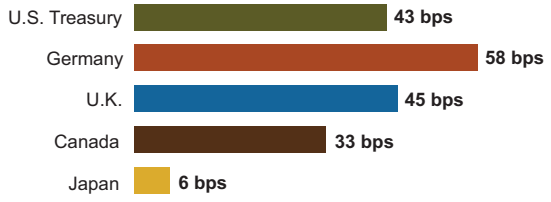
Concerns around Greece spread negativity throughout the markets; Italy and Spain were especially hard-hit. Unhedged returns in developed markets were generally negative in U.S. dollar terms (**Citi Non-U.S. World Government Bond Index:** -1.54%). On a hedged basis, all developed markets dropped as the U.S. dollar lost ground versus most developed market currencies (**Citi Non-U.S. World Government Bond Index:** -3.20%).

Emerging market dollar-denominated debt retreated as the **JPM EMBI Global Diversified Index** dipped 0.34% in spite of strong gains in Ukraine (+36.49%) and Venezuela (+12.73%). Ukraine is negotiating with foreign bondholders to restructure its debt. In spite of the strong quarter, it remains down 4.04% year-to-date and 36.77% over the last 12 months. The local

10-Year Global Government Bond Yields



Change in 10-Year Yields from 1Q15 to 2Q15



Source: Bloomberg

Quarterly Return Attribution for Non-U.S. Gov't Indices
(U.S. Dollar)

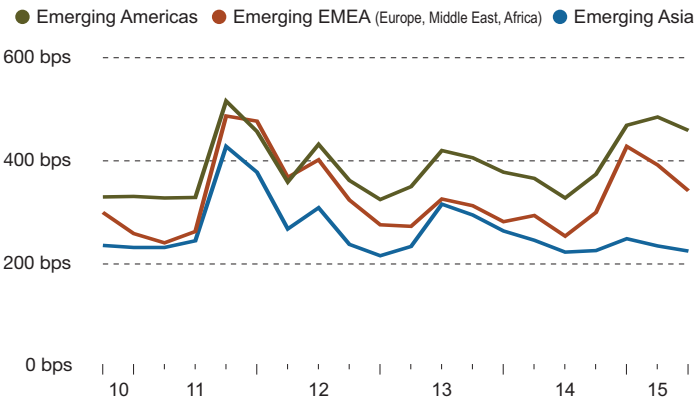
Country	Total	Local	Currency	Wtg
Australia	-2.18%	-2.77%	0.61%	1.95%
Austria	-1.56%	-5.11%	3.74%	1.89%
Belgium	-2.51%	-6.02%	3.74%	2.98%
Canada	-0.01%	-1.43%	1.45%	2.54%
Denmark	-3.10%	-6.73%	3.89%	0.81%
Finland	-0.41%	-4.00%	3.74%	0.68%
France	-1.63%	-5.18%	3.74%	11.23%
Germany	-0.94%	-4.52%	3.74%	8.88%
Ireland	-0.84%	-4.42%	3.74%	0.92%
Italy	-2.71%	-6.22%	3.74%	11.23%
Japan	-2.25%	-0.26%	-1.99%	32.73%
Malaysia	-1.22%	0.64%	-1.84%	0.62%
Mexico	-2.48%	0.44%	-2.91%	1.18%
Netherlands	-1.29%	-4.85%	3.74%	3.04%
Norway	1.67%	-0.74%	2.44%	0.34%
Poland	-2.02%	-2.81%	0.81%	0.67%
Singapore	1.14%	-0.72%	1.87%	0.45%
South Africa	-1.79%	-1.61%	-0.18%	0.64%
Spain	-2.49%	-6.01%	3.74%	6.21%
Sweden	0.34%	-3.46%	3.94%	0.58%
Switzerland	3.55%	-0.37%	3.93%	0.37%
U.K.	2.00%	-3.72%	5.94%	10.07%

Source: Citigroup

bond **JPM GBI-EM Global Diversified Index** also declined (-0.96%). Russia was again the best performer among emerging markets, up nearly 12% for the quarter and 29% year-to-date. Brazil's (+6%) local bonds continued to bounce back from a sell-off earlier in the year, while Turkey and Indonesia fell 5% for the quarter.

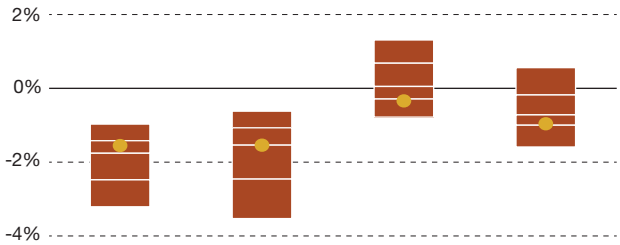
Greece missed a large payment to the International Monetary Fund on June 30, which weighed heavily on investor sentiment. Negotiations between Greece and its lenders continued but remained uncertain. Trading on Greek bonds halted; however, indications from dealers estimated two-year Greek debt yields at about 50% and 10-year debt at nearly 20%.

Emerging Spreads Over Developed (By Region)



Source: Barclays

Callan Style Group Quarterly Returns



	Global Fixed Style	Non-U.S. Fixed Style	Emerging Debt	Emerging Debt Local
10th Percentile	-0.95	-0.60	1.33	0.58
25th Percentile	-1.40	-1.05	0.70	-0.16
Median	-1.74	-1.52	0.07	-0.70
75th Percentile	-2.46	-2.44	-0.27	-0.98
90th Percentile	-3.19	-3.51	-0.76	-1.57
	Citi World Gov	Citi Non-U.S. World Gov	JPM EMBI GI Div	JPM GBI-EM GI Div
Benchmark ●	-1.55	-1.54	-0.34	-0.96

Sources: Callan, Citigroup, JPMorgan Chase & Co.

Style Median and Index Returns* for Periods ended June 30, 2015

Global Fixed Income	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Global Style	**-1.74**	**-3.03**	**-6.49**	**-0.51**	**2.51**	**4.17**
Citi World Govt	-1.55	-4.02	-9.02	-2.45	1.05	3.07
Citi World Govt (Local)	-2.67	-0.61	3.67	3.36	3.56	3.54
Barclays Global Aggregate	-1.18	-3.08	-7.09	-0.81	2.07	3.54
Non-U.S. Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Non-U.S. Style	**-1.52**	**-5.47**	**-12.50**	**-2.19**	**1.70**	**3.52**
Citi Non-U.S. World Govt	-1.54	-5.83	-13.49	-3.88	0.33	2.63
Citi Non-U.S. World Govt (Local)	-3.20	-0.91	4.20	4.37	3.93	3.47
European Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Citi Euro Govt Bond	-1.87	-9.15	-15.07	2.27	3.25	3.49
Citi Euro Govt Bond (Local)	-5.41	-1.34	2.49	6.16	4.85	4.16
Emerging Markets Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
JPM EMBI Global Diversified	-0.34	1.67	0.51	4.30	6.77	7.45
JPM GBI-EM Global Diversified	-0.96	-4.88	-15.39	-3.78	0.94	5.91

*Returns less than one year are not annualized.
Sources: Callan, Citigroup, JPMorgan Chase

Mixed Messages

REAL ESTATE | Mike Pritts

It was a difficult second quarter for U.S. REIT indices as pressure weighed heavily on global prices in anticipation of increased government bond yields. Continued low oil prices caused lingering concerns in U.S. oil-producing sub-markets. Credit markets appeared open, although slowing to a degree. The Fed stated in its June FOMC minutes that financing for commercial real estate remained broadly available, although the expansion of commercial real estate loans on banks' books slowed in April and May. Spreads widened in the commercial mortgage-backed securities (CMBS) market, which can be attributed to a lack of liquidity and potential interest rate hikes.

The **NCREIF Property Index** advanced 3.14% and recorded a 1.26% income return and a 1.89% appreciation return. The NCREIF Property Index cash flow return was 0.87% for the quarter and 3.43% for the trailing four quarters. During the first quarter, there were 134 asset trades, representing $7.1 billion of overall transactional volume. This remains ahead of the $5.3 billion 10-year quarterly transaction average. The peak quarterly transaction volume over the prior 10-year period was $8.7 billion in the second quarter of 2007.

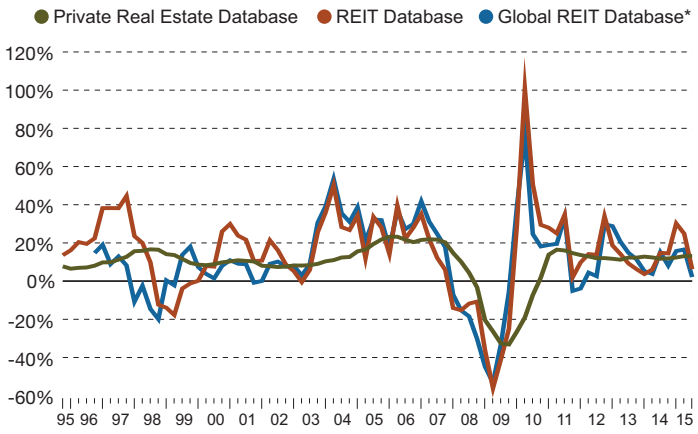
Pricing growth continued to characterize asset trades as equal-weighted transactional capitalization rates dropped to 5.5%. This reflects the lowest measure of the Index since the fourth quarter of 2007. Over the course of the prior cycle, quarterly equal-weighted transactional capitalization rates dipped to a low of 5.46% in the fourth quarter of 2007 and expanded to a peak of 8.46% in the third quarter of 2009. During the second quarter of 2015, appraisal capitalization rates slightly increased from 4.73% to 4.81%. As markets peaked over the prior cycle, appraisal capitalization rates declined to a low of 4.89% in the third quarter of 2008.

On a preliminary basis, the **NCREIF Open End Diversified Core Equity Index** produced a 3.82% total return, comprising a 1.19% income return and a 2.62% appreciation return. In the listed real estate market, the **FTSE EPRA/NAREIT Developed REIT Index** (USD) declined 6.67% and domestic REITs tracked by the **FTSE NAREIT Equity REITs Index** dropped 9.95%.

In the U.S., all sectors declined. Self-Storage (-5.0%) led sector performance, followed by Lodging (-6.2%), Residential (-6.4%), Office (-11.2%), Malls (-11.4%), Industrial (-12.6%), and Healthcare (-14.3%). Domestic REITs raised $17.6 billion (two initial public offerings, $436 million; 28 secondary offerings, $6.7 billion; two preferred equity offerings, $391 million; and 21 unsecured debt offerings, $10.2 billion).

In core Europe, falling unemployment rates, additional rounds of European Central Bank stimulus, and a general inflow of funds have led to a compression of prime office market capitalization rates—but spreads remain wide over sovereign yields. The central London office market continues to have high occupancy rates supported by strong employment growth and tight supply. Overall, European office vacancy rates have continued to decline, led by central London, major German cities, and second-tier markets.

Rolling One-Year Returns

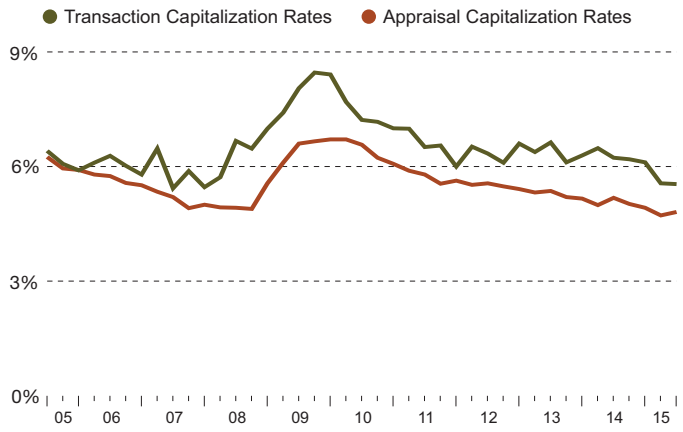


*Global REIT returns from 3Q96
Source: Callan

In Japan the yen's depreciation led to a very active second quarter for real estate markets, which caused further capitalization rate compression in first-tier cities. Transaction volumes in both China and Australia were muted as macro concerns over Chinese market corrections escalated. A weak Australian dollar attracted overseas investors, particularly from within the Asia Pacific region.

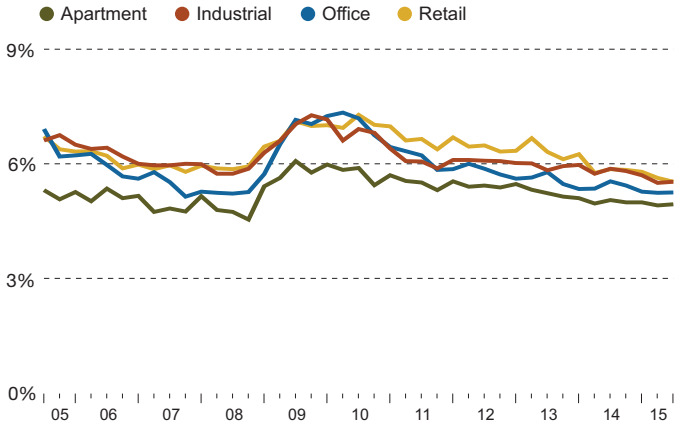
CMBS issuance reached $27.5 billion in the first quarter of the year, ahead of the $27.0 billion of issuance volume from the quarter prior and $20.5 billion in the second quarter of 2014. Total issuance for the trailing 12 months was $107.7 billion, nearing rolling one-year issuance volumes not seen since May 2008. Quarterly issuance volume between 2005 and 2007 ranged from $33.0 billion to a high of $73.6 billion in the second quarter of 2007.

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.

Callan Database Median and Index Returns* for Periods ended June 30, 2015

Private Real Estate	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Real Estate Database (net of fees)	**3.04**	**6.19**	**13.75**	**12.80**	**13.83**	**5.57**
NCREIF Property	3.14	6.83	12.98	11.63	12.72	8.16
NFI-ODCE (value wtd. net)	3.15	6.41	12.92	11.91	13.24	5.81
Public Real Estate	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
REIT Database	**-9.53**	**-5.30**	**5.54**	**9.77**	**15.08**	**8.15**
FTSE NAREIT Equity	-9.95	-5.67	4.33	8.93	14.28	7.01
Global Real Estate	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Global REIT Database	**-6.37**	**-1.96**	**2.02**	**10.40**	**13.16**	**7.17**
FTSE EPRA/NAREIT Developed REIT	-6.67	-2.78	0.41	9.50	12.38	6.20

*Returns less than one year are not annualized.
All REIT returns are reported gross in USD.
Sources: Callan, NAREIT, NCREIF, The FTSE Group. NCREIF statistics are the product of direct queries and may fluctuate over time.

A Seller's Market

PRIVATE EQUITY | Gary Robertson

In fundraising, *Private Equity Analyst* reports that new second-quarter commitments totaled $87.1 billion with 231 new partnerships formed, up 55% from the first quarter's $56.2 billion and 147 partnerships formed. If this momentum continues, 2015 could cross the $300 billion mark. The 10 partnerships that raised the most capital so far in 2015 account for 67% of the first-half total; Blackstone VII was the largest at $17.5 billion.

According to *Buyouts*, the investment pace by funds into companies in the second quarter totaled 358 transactions, up slightly from 333 deals in the first quarter of 2015. The announced aggregate dollar volume was $24.3 billion, down from $34.9 in the first quarter. Nine deals with announced values of $1 billion or more closed in the second quarter, the largest being the $4.1 billion Life Time Fitness and $3.4 billion Riverbed Technology take-private transactions.

According to the National Venture Capital Association, second-quarter investments in venture capital companies totaled $17.5 billion in 1,189 rounds of financing—the largest dollar volume since the fourth quarter of 2000. The dollar volume and number of rounds both increased compared to the first quarter's $13.5 billion and 1,048 rounds. The largest was a $1.5 billion expansion round by Airbnb.

Regarding exits, *Buyouts* reports that 135 private M&A exits of buyout-backed companies occurred during the second quarter, with 49 deals disclosing values totaling $35.8 billion. The M&A exit count was about even with the first quarter, which had 136 private exits but a slightly higher announced value of $36.9 billion. Buyout-backed IPOs jumped to 17 issues in the second quarter floating $6.6 billion, up from the six IPOs totaling $1.1 billion in the first quarter.

Venture-backed M&A exits totaled 70 transactions, with 14 disclosing a total dollar volume of $4.1 billion. The number of exits declined from the first quarter's 94 company sales, but the announced dollar volume increased from $2.2 billion. There were 27 VC-backed IPOs in the second quarter with a combined float of $3.4 billion, 10 more than the first quarter's 17 IPOs and more than double the total issuance of $1.4 billion.

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

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.

Funds Closed January 1 to June 30, 2015

Strategy	No. of Funds	Amt ($mm)	Percent
Venture Capital	151	21,523	15%
Buyouts	139	93,821	65%
Subordinated Debt	17	3,814	3%
Distressed Debt	19	10,793	8%
Secondary and Other	13	6,250	4%
Fund-of-funds	39	7,103	5%
Totals	**378**	**143,304**	**100%**

Source: Private Equity Analyst

Private Equity Performance Database (%) (Pooled Horizon IRRs through December 31, 2014*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	11.8	23.9	18.7	16.5	10.4	5.3	28.0
Growth Equity	0.8	11.1	14.2	14.0	12.6	10.5	15.0
All Buyouts	2.3	9.6	15.2	14.4	12.7	11.4	13.2
Mezzanine	1.9	11.0	12.3	11.9	10.6	8.0	10.3
Distressed	0.2	7.5	14.5	12.5	10.7	11.3	11.6
All Private Equity	**3.3**	**11.8**	**15.5**	**14.4**	**12.0**	**9.8**	**14.6**
S&P 500	4.9	13.7	20.4	15.5	7.7	4.2	9.9

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

Momentum Whiplash

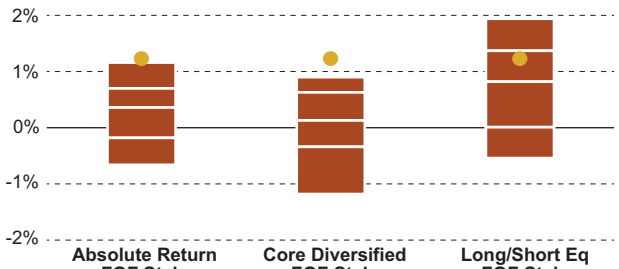
HEDGE FUNDS | Jim McKee

While Greece skidded toward default at quarter's end, the rest of the world's policy makers desperately tried to keep their respective economies on a growth track. As China's nascent stock market surged and rolled over, President Xi Jinping continued his formidable challenge to downshift its investment-led economy to a consumer-powered one. Facing tighter labor markets and greater consumer confidence at home, the U.S. Federal Reserve steered markets resolutely toward rate hikes. After rising early in the quarter, markets backpedaled at the end, with most finishing nearly unchanged. Giving up first-quarter gains, the 10-year Treasury fell 3.05%. The **Barclays High Yield Index** (+0.00%) absorbed widening spreads with its carry.

Illustrating raw hedge fund performance without implementation costs, the **Credit Suisse Hedge Fund Index (CS HFI)** slipped 0.48%. As a proxy to actively managed hedge fund portfolios, the median manager in the **Callan Hedge Fund-of-Funds Database** moved ahead 0.23%, net of all fees. Within the CS HFI, those chasing momentum were hurt badly while those focused on fundamentals survived unscathed, more or less. The quarter's most notable victim was *Managed Futures* (-10.61%). The best-performing strategies for the quarter were *Convertible Arb* (+2.49%), *Equity Market Neutral* (+2.12%), and *Risk Arb* (+1.70%). Despite meager fuel from market beta, *Long/Short Equity* gained 1.66%.

Within Callan's Hedge Fund-of-Funds Database, market exposures provided little traction in the second quarter. Nevertheless, the median *Callan Long/Short Equity FOF* (+0.82%) edged out the *Callan Absolute Return FOF* (+0.36%).

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Eq FOF Style
10th Percentile	1.16	0.90	1.94
25th Percentile	0.70	0.63	1.37
Median	0.36	0.13	0.82
75th Percentile	-0.18	-0.34	0.01
90th Percentile	-0.66	-1.18	-0.54
T-Bills + 5% ●	1.23	1.23	1.23

Sources: Callan, Merrill Lynch

Database Median and Index Returns* for Periods ended June 30, 2015

	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Hedge Fund-of-Funds Database	**0.23**	**2.45**	**3.57**	**7.08**	**5.61**	**4.78**
CS Hedge Fund Index	-0.48	1.99	3.28	7.08	6.17	5.89
CS Equity Market Neutral	2.12	-0.40	-1.07	3.21	3.31	-1.20
CS Convertible Arbitrage	2.49	2.97	-1.05	3.61	4.82	5.05
CS Fixed Income Arbitrage	0.90	0.75	1.70	5.00	6.23	4.04
CS Multi-Strategy	0.24	3.24	6.45	9.00	8.45	6.86
CS Distressed	-0.35	-0.10	-3.74	8.33	6.37	6.13
CS Risk Arbitrage	1.70	2.39	-2.04	2.71	2.57	3.96
CS Event Driven Multi-Strategy	0.73	2.89	-1.31	8.67	5.67	6.55
CS Long/Short Equity	1.66	3.53	6.01	10.84	7.82	6.69
CS Dedicated Short Bias	-4.83	-8.88	-8.12	-17.00	-15.71	-9.68
CS Global Macro	-1.80	2.59	4.79	4.84	5.99	7.68
CS Managed Futures	-10.61	-4.07	12.86	2.92	2.87	3.96
CS Emerging Markets	1.42	2.80	4.52	7.07	5.58	6.61

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

TDFs Win Quarter, Asset Flows

DEFINED CONTRIBUTION | James O'Connor

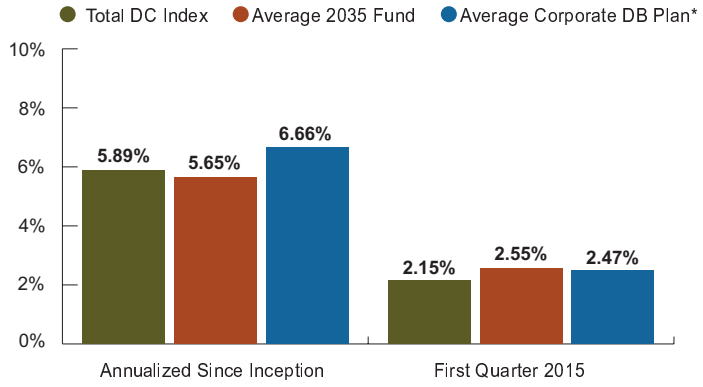
The Callan DC Index™ started the year off on a reasonably sound note, gaining 2.15% for the first quarter. Still, that performance trailed the typical 2035 target date fund (TDF), which gained 2.55%. TDFs benefited from a much higher exposure to non-U.S. equity—one of the best-performing asset classes during the period. Corporate DB plans performed more or less in line with 2035 TDFs, but have outperformed both TDFs and the DC Index since inception by an annualized margin of 1.01% and 0.77%, respectively.

DC plan balances grew by 2.76% in the first quarter, driven primarily by market performance. Inflows added 60 bps to total growth. Since inception, plan sponsor and participant contributions have had a significant impact on balances and are responsible for approximately one-third of the total growth in balances (2.54% annualized).

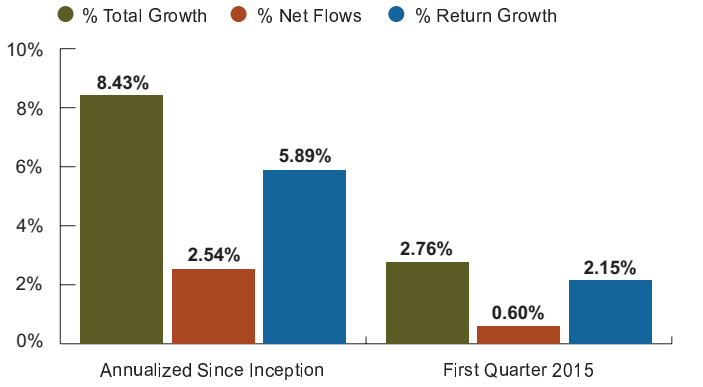
Nearly 66 cents of every dollar that moved within DC plans during the first quarter flowed to TDFs. However, U.S. fixed income and U.S. large cap also made respectable showings in terms of inflows—largely at the expense of stable value. Approximately 43% of outflows came from this asset class during the quarter. This follows five successive quarters of stable value fund outflows. Still, overall turnover was modest at 0.32%, significantly below the historical average of 0.67%.

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 $140 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 2015)*
(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	65.77%
U.S. Fixed Income	12.45%
Company Stock	-25.21%
Stable Value	-42.58%
Total Turnover	**0.32%**

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

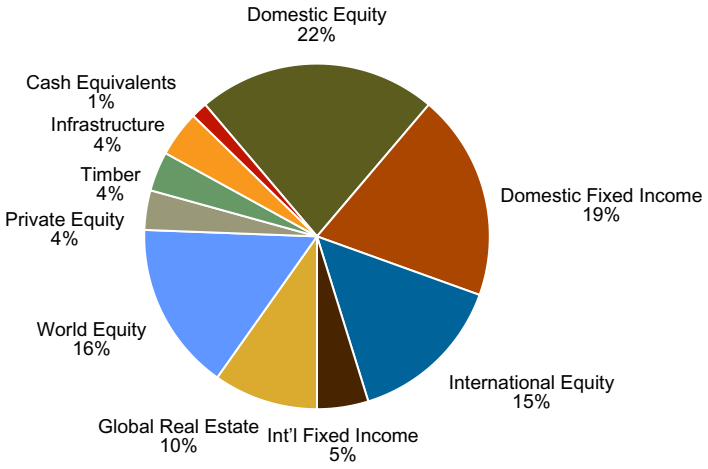
Source: Callan DC Index

*Notes: DC Index inception date is January 2006. DB plan performance is gross of fees. Data provided here is the most recent available at time of publication.

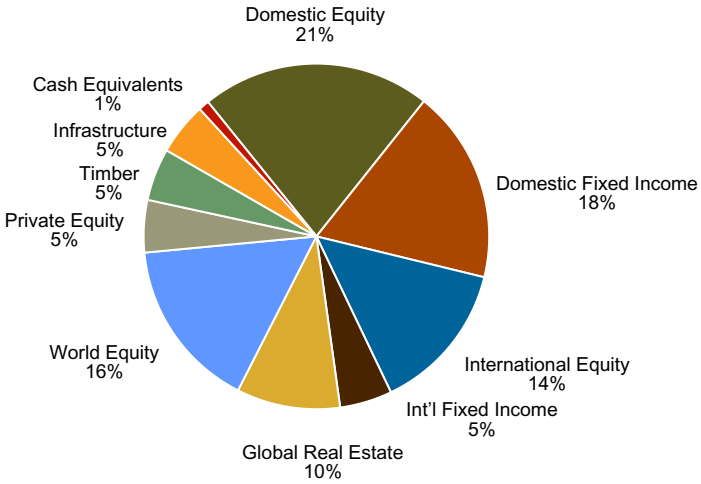
Actual vs Target Asset Allocation
As of June 30, 2015

The top left chart shows the Fund's asset allocation as of June 30, 2015. 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 Public Fund Sponsor Database.

Actual Asset Allocation

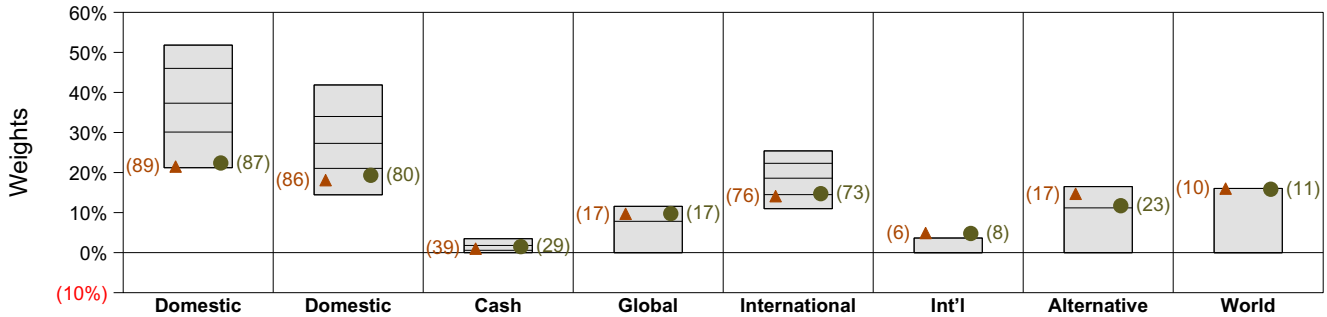


Target Asset Allocation



Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	1,075,688	22.4%	21.5%	0.9%	42,464
Domestic Fixed Income	928,141	19.3%	18.1%	1.2%	58,310
International Equity	707,664	14.7%	14.1%	0.6%	30,061
Int'l Fixed Income	229,910	4.8%	4.9%	(0.1%)	(5,568)
Global Real Estate	468,650	9.8%	9.7%	0.1%	2,497
World Equity	760,650	15.8%	16.0%	(0.2%)	(8,261)
Private Equity	177,338	3.7%	4.9%	(1.2%)	(58,141)
Timber	177,399	3.7%	4.9%	(1.2%)	(58,080)
Infrastructure	208,262	4.3%	4.9%	(0.6%)	(27,217)
Cash Equivalents	71,991	1.5%	1.0%	0.5%	23,934
Total	4,805,692	100.0%	100.0%		

Asset Class Weights vs Public Fund Sponsor Database



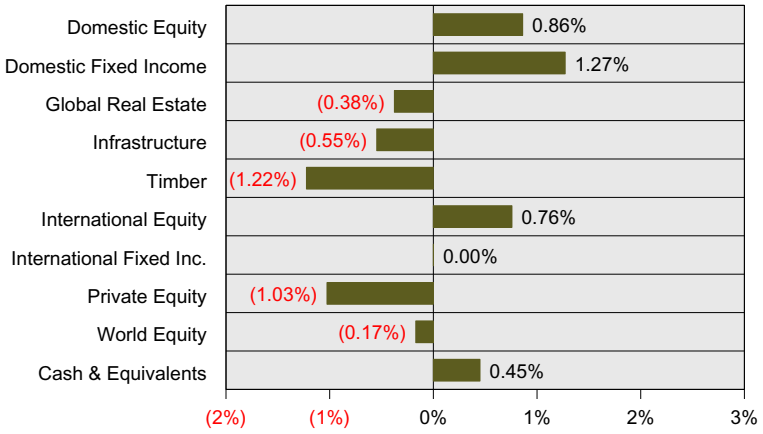
	Domestic Equity	Domestic Fixed Income	Cash Equivalents	Global Real Estate	International Equity	Int'l Fixed Income	Alternative	World Equity
10th Percentile	51.82	41.87	3.48	11.56	25.40	3.65	16.49	16.03
25th Percentile	46.01	34.00	1.79	7.82	22.30	0.00	11.17	0.00
Median	37.31	27.28	0.58	0.00	18.59	0.00	0.00	0.00
75th Percentile	30.11	21.04	0.00	0.00	14.49	0.00	0.00	0.00
90th Percentile	21.21	14.44	0.00	0.00	10.97	0.00	0.00	0.00
Fund ●	22.38	19.31	1.50	9.75	14.73	4.78	11.72	15.83
Target ▲	21.50	18.10	1.00	9.70	14.10	4.90	14.70	16.00
% Group Invested	96.34%	96.95%	71.34%	49.39%	90.85%	19.51%	43.90%	22.56%

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

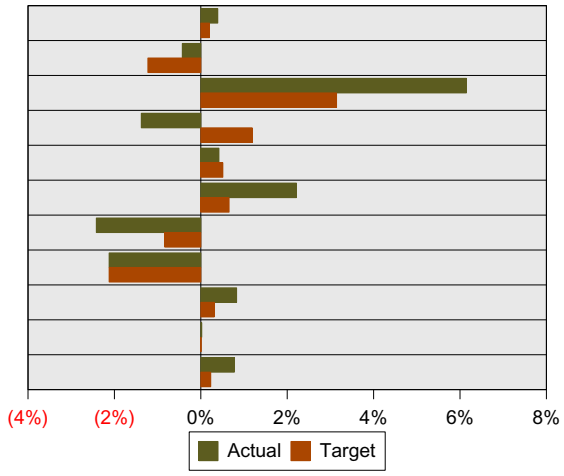
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

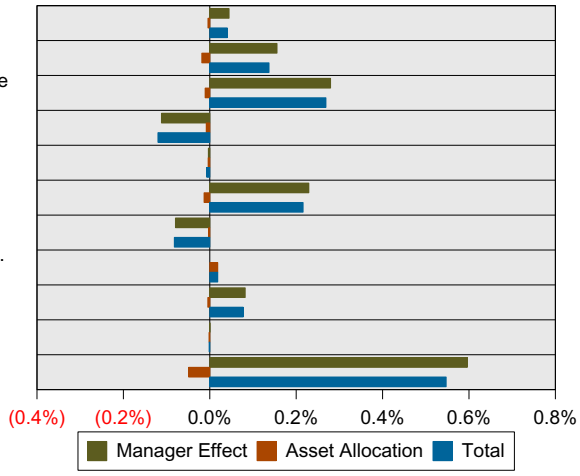
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

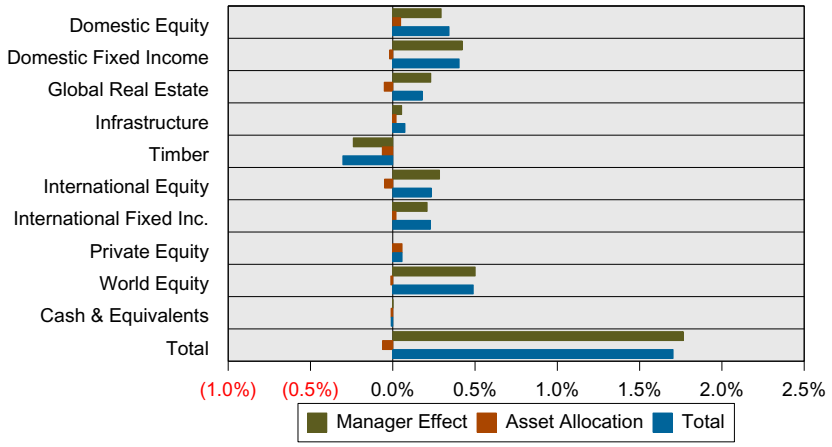
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	22%	21%	0.39%	0.20%	0.04%	(0.00%)	0.04%
Domestic Fixed Income	19%	18%	(0.43%)	(1.23%)	0.16%	(0.02%)	0.14%
Global Real Estate	9%	10%	6.15%	3.14%	0.28%	(0.01%)	0.27%
Infrastructure	4%	5%	(1.38%)	1.19%	(0.11%)	(0.01%)	(0.12%)
Timber	4%	5%	0.42%	0.51%	(0.00%)	(0.00%)	(0.01%)
International Equity	15%	14%	2.21%	0.65%	0.23%	(0.01%)	0.22%
International Fixed Inc.	5%	5%	(2.42%)	(0.83%)	(0.08%)	(0.00%)	(0.08%)
Private Equity	4%	5%	(2.12%)	(2.12%)	0.00%	0.02%	0.02%
World Equity	16%	16%	0.83%	0.31%	0.08%	(0.00%)	0.08%
Cash & Equivalents	1%	1%	0.02%	0.01%	0.00%	(0.00%)	(0.00%)
Total			**0.78%** =	**0.23%** +	**0.60%** +	**(0.05%)**	**0.55%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

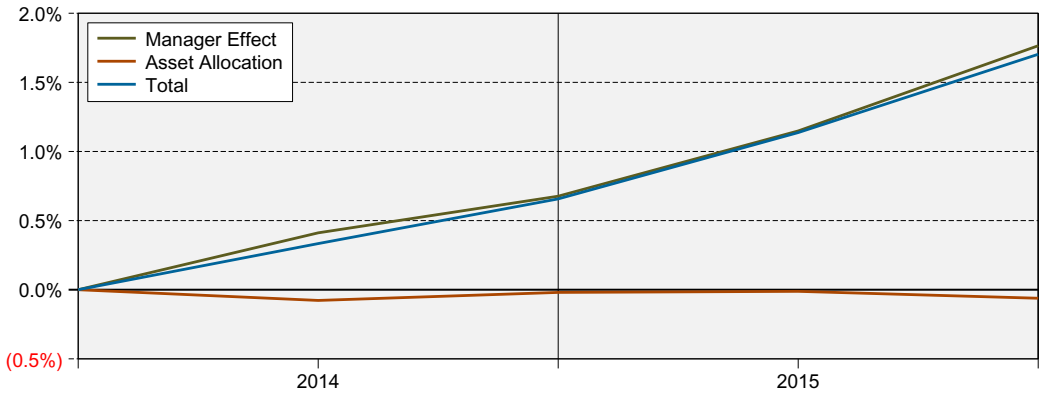
Cumulative Total Fund Relative Attribution - June 30, 2015

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

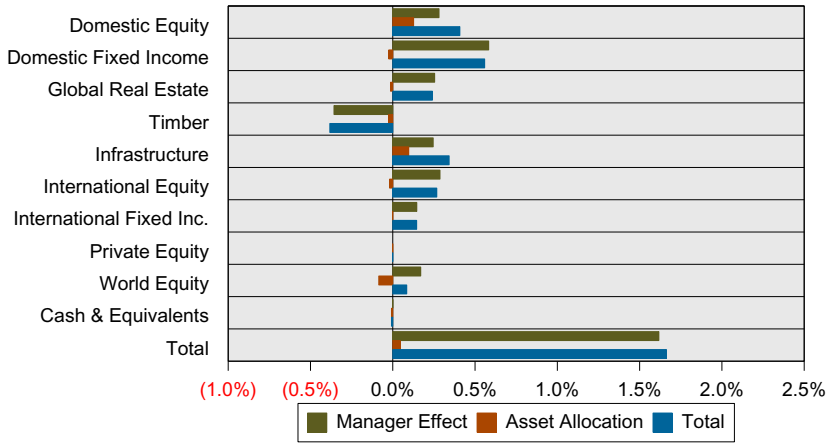
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	8.64%	7.26%	0.29%	0.05%	0.34%
Domestic Fixed Income	20%	18%	3.41%	1.25%	0.42%	(0.02%)	0.40%
Global Real Estate	9%	10%	15.63%	12.98%	0.23%	(0.05%)	0.18%
Infrastructure	4%	5%	1.23%	(0.38%)	0.05%	0.02%	0.07%
Timber	4%	5%	3.93%	10.02%	(0.24%)	(0.06%)	(0.30%)
International Equity	15%	14%	(2.53%)	(4.35%)	0.28%	(0.05%)	0.23%
International Fixed Inc.	5%	5%	(9.37%)	(13.19%)	0.21%	0.02%	0.23%
Private Equity	4%	5%	(5.37%)	(5.37%)	0.00%	0.06%	0.06%
World Equity	16%	16%	4.67%	1.43%	0.50%	(0.01%)	0.49%
Cash & Equivalents	1%	1%	0.06%	0.02%	0.00%	(0.01%)	(0.01%)
Total			**3.85% =**	**2.15% +**	**1.76% +**	**(0.06%)**	**1.70%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

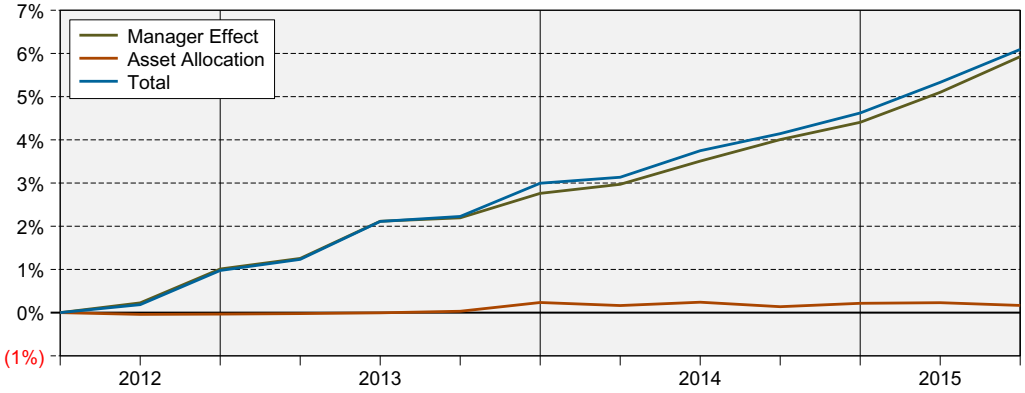
Cumulative Total Fund Relative Attribution - June 30, 2015

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

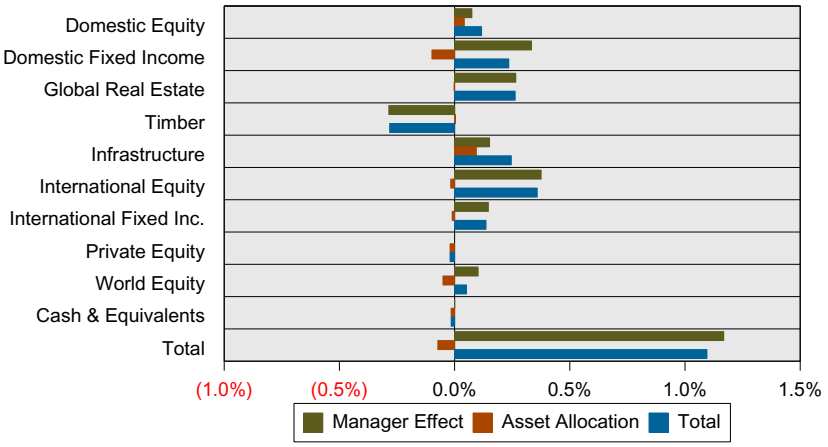
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	24%	22%	19.11%	17.81%	0.28%	0.13%	0.41%
Domestic Fixed Income	19%	18%	6.19%	3.20%	0.58%	(0.02%)	0.56%
Global Real Estate	9%	10%	14.46%	11.63%	0.25%	(0.01%)	0.24%
Timber	5%	5%	2.37%	9.76%	(0.36%)	(0.03%)	(0.38%)
Infrastructure	4%	5%	7.57%	1.13%	0.25%	0.10%	0.34%
International Equity	15%	15%	12.20%	10.19%	0.29%	(0.02%)	0.27%
International Fixed Inc.	5%	5%	(0.26%)	(2.83%)	0.15%	(0.00%)	0.15%
Private Equity	5%	5%	1.67%	1.67%	0.00%	(0.00%)	(0.00%)
World Equity	14%	14%	14.75%	14.27%	0.17%	(0.09%)	0.08%
Cash & Equivalents	1%	1%	0.07%	0.06%	0.00%	(0.01%)	(0.01%)
Total			**11.34% =**	**9.67% +**	**1.62% +**	**0.05%**	**1.66%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

Cumulative Total Fund Relative Attribution - June 30, 2015

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

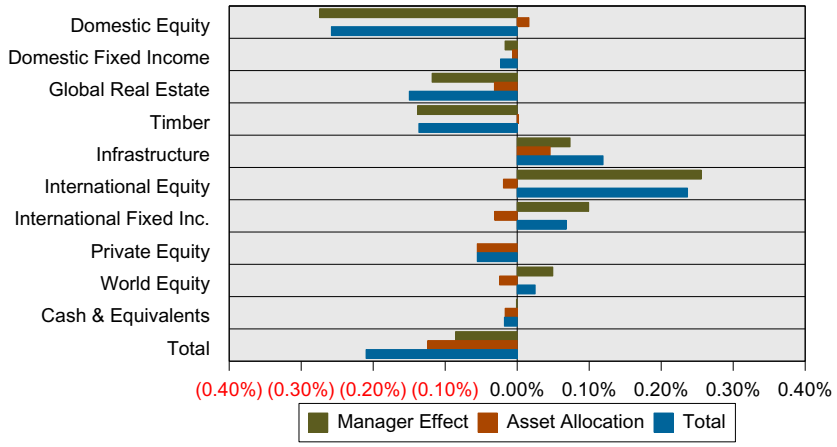
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	28%	28%	18.04%	17.50%	0.07%	0.04%	0.12%
Domestic Fixed Income	20%	20%	6.66%	4.78%	0.33%	(0.10%)	0.24%
Global Real Estate	9%	9%	16.03%	12.72%	0.27%	(0.00%)	0.26%
Timber	4%	4%	-	-	(0.29%)	0.00%	(0.28%)
Infrastructure	3%	4%	-	-	0.15%	0.09%	0.25%
International Equity	16%	16%	9.68%	7.41%	0.38%	(0.02%)	0.36%
International Fixed Inc.	5%	5%	3.74%	1.08%	0.15%	(0.01%)	0.14%
Private Equity	5%	5%	4.91%	4.91%	0.00%	(0.02%)	(0.02%)
World Equity	9%	9%	-	-	0.10%	(0.05%)	0.05%
Cash & Equivalents	1%	1%	0.10%	0.08%	0.00%	(0.01%)	(0.01%)
Total			**11.11%**	**= 10.01%**	**+ 1.17%**	**+ (0.07%)**	**1.10%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

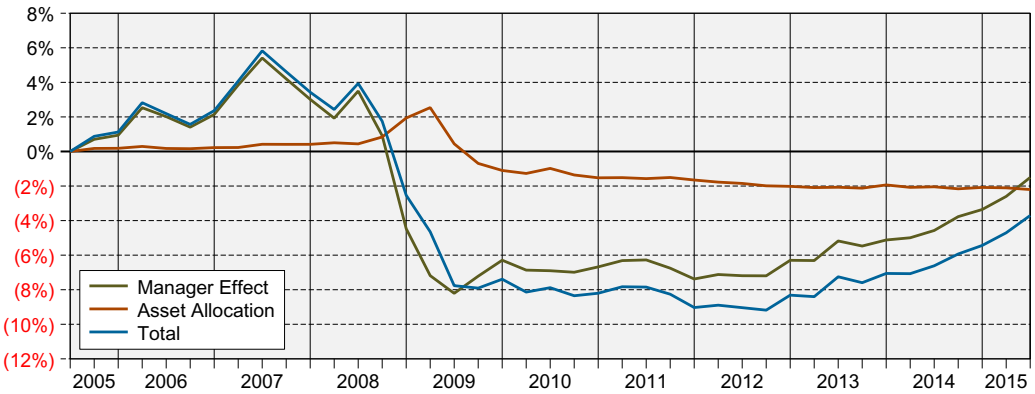
Cumulative Total Fund Relative Attribution - June 30, 2015

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

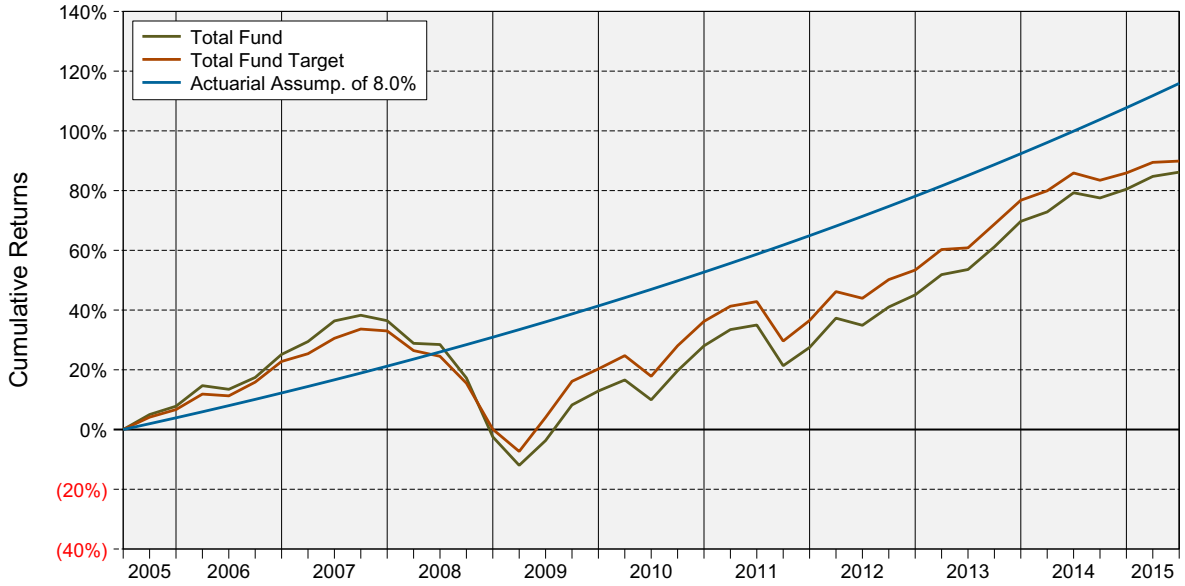
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	33%	33%	7.34%	8.16%	(0.27%)	0.02%	(0.26%)
Domestic Fixed Income	23%	22%	6.05%	5.48%	(0.02%)	(0.01%)	(0.02%)
Global Real Estate	9%	8%	6.81%	8.16%	(0.12%)	(0.03%)	(0.15%)
Timber	2%	2%	-	-	(0.14%)	0.00%	(0.14%)
Infrastructure	1%	2%	-	-	0.07%	0.05%	0.12%
International Equity	17%	17%	7.45%	5.98%	0.26%	(0.02%)	0.24%
International Fixed Inc.	5%	5%	4.79%	2.94%	0.10%	(0.03%)	0.07%
Private Equity	4%	5%	2.90%	2.90%	0.00%	(0.06%)	(0.06%)
World Equity	5%	5%	-	-	0.05%	(0.02%)	0.02%
Cash & Equivalents	1%	1%	1.21%	1.42%	(0.00%)	(0.02%)	(0.02%)
Total			**6.41% =**	**6.62% +**	**(0.09%) +**	**(0.12%)**	**(0.21%)**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

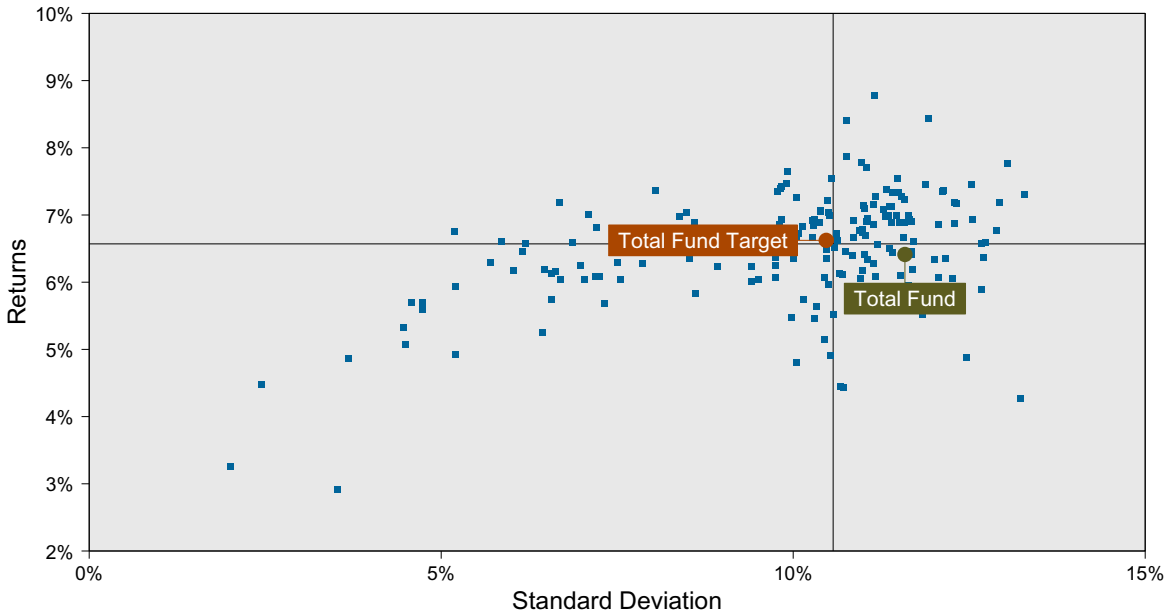
Cumulative Performance Relative to Target

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 Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Ten Year Annualized Risk vs Return



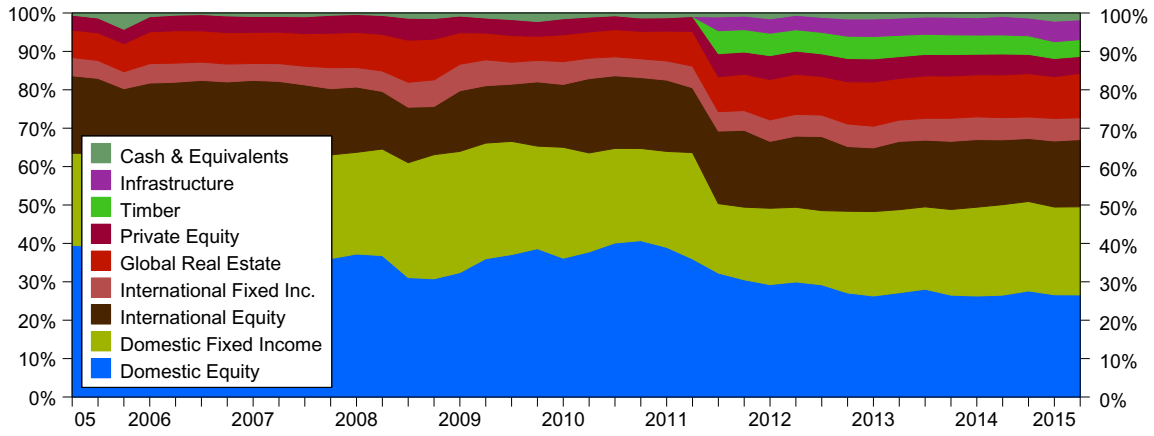
Squares represent membership of the Public Fund Sponsor Database

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

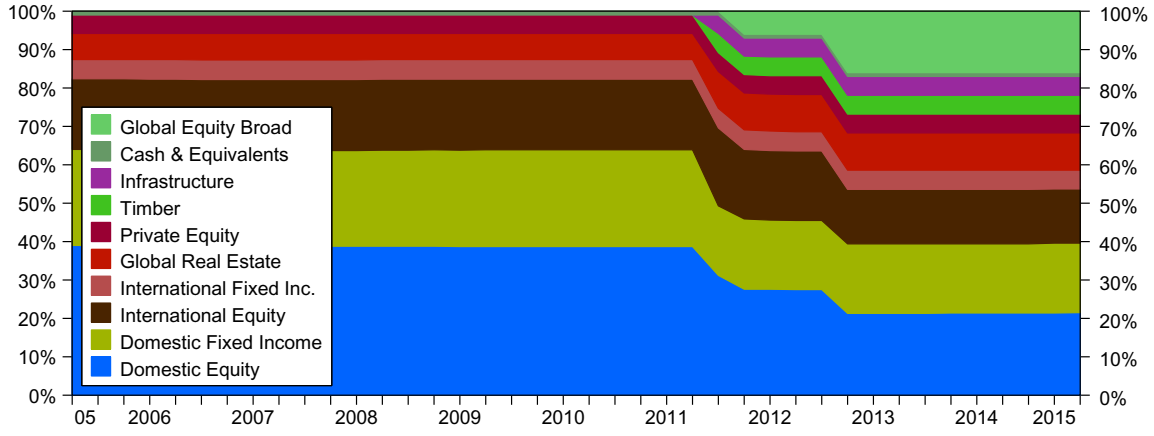
Actual vs Target Historical Asset Allocation

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 Public Fund Sponsor Database.

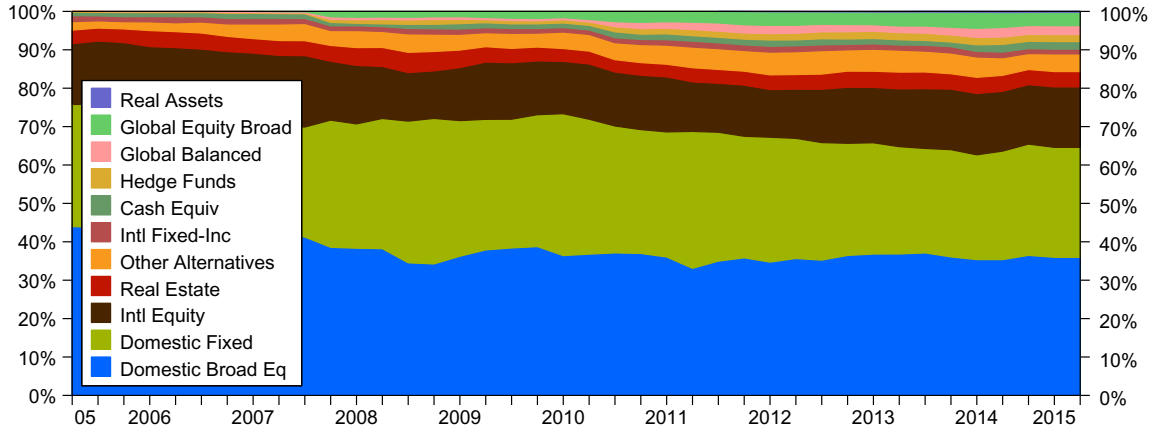
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Public Fund Sponsor Database Historical Asset Allocation

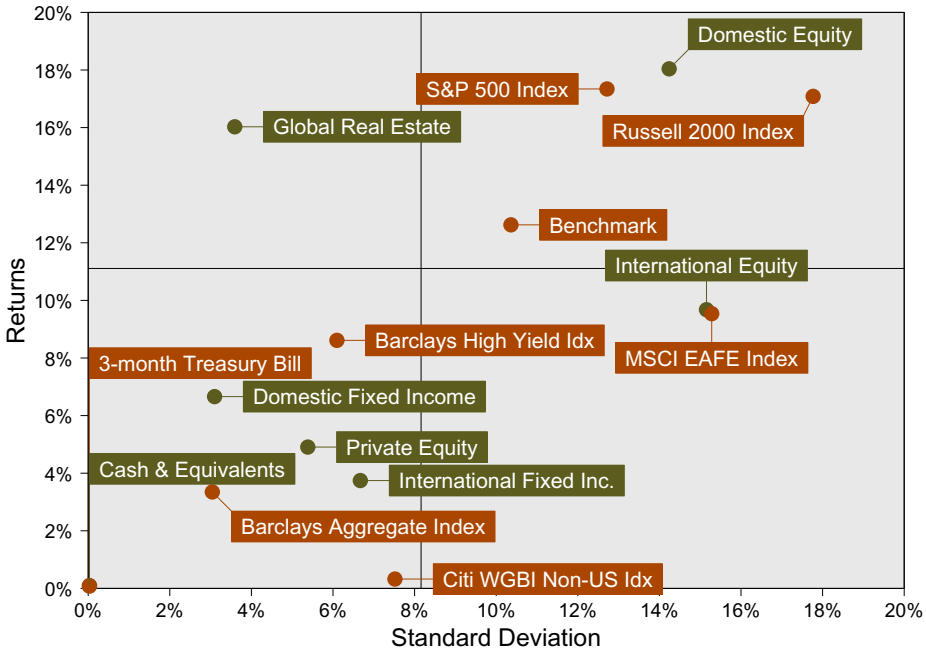


* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

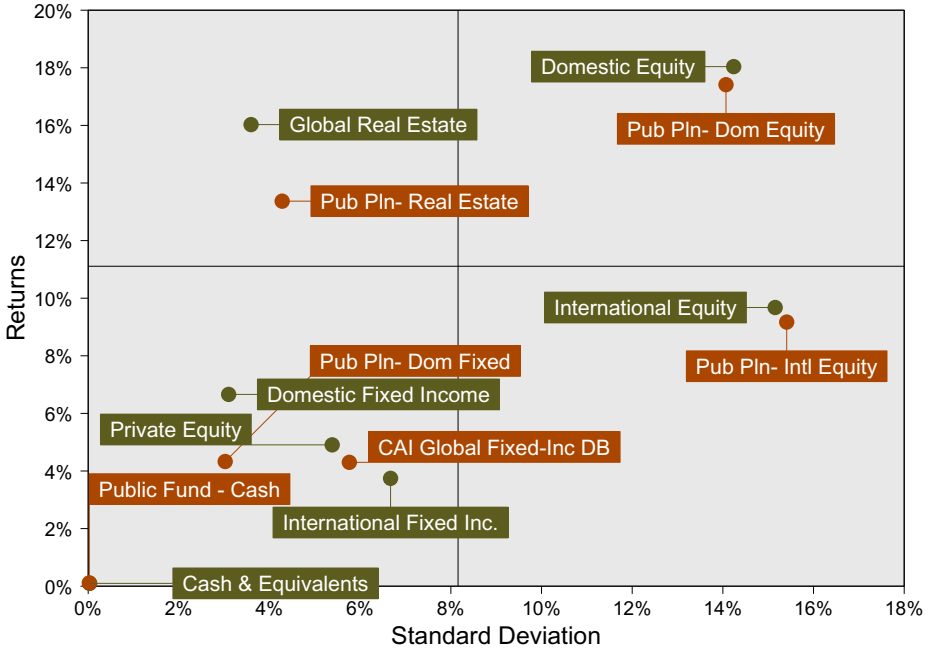
Asset Class Risk and Return

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



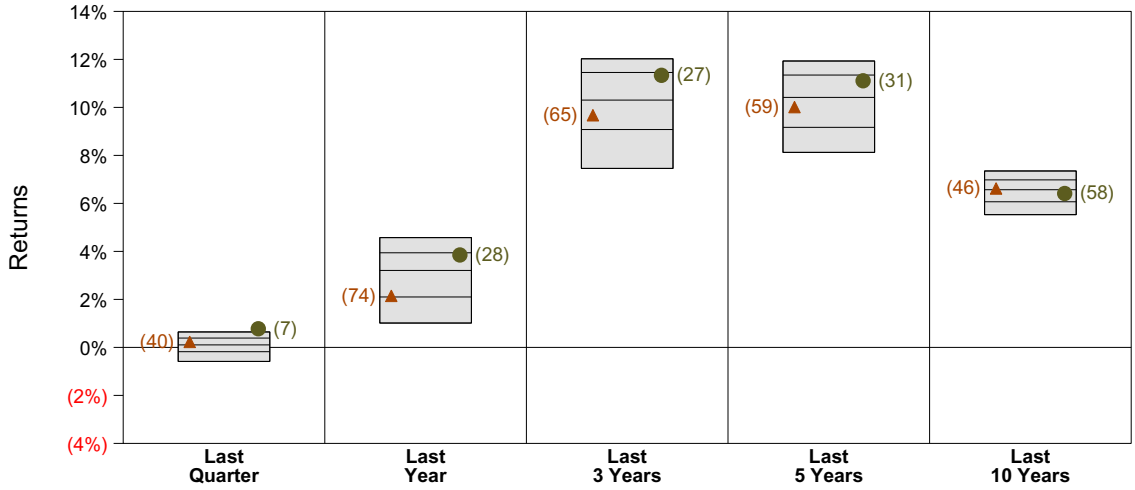
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

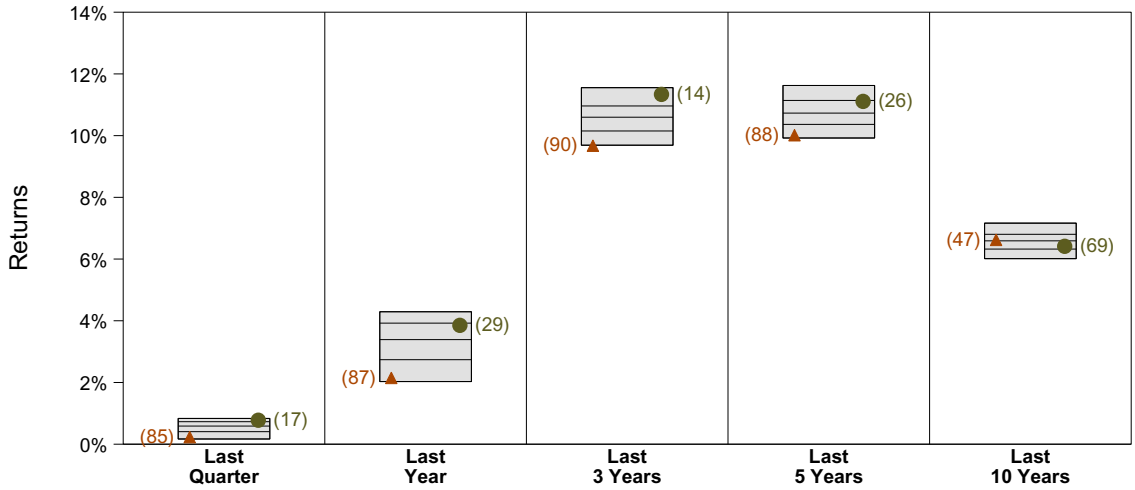
The first two charts show the ranking of the Total Fund's performance relative to that of the Public Fund Sponsor Database for periods ended June 30, 2015. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.64	4.57	12.03	11.93	7.35
25th Percentile	0.39	3.94	11.46	11.35	6.98
Median	0.10	3.21	10.30	10.42	6.57
75th Percentile	(0.18)	2.10	9.08	9.17	6.07
90th Percentile	(0.58)	1.01	7.46	8.13	5.53
Total Fund ●	0.78	3.85	11.34	11.11	6.41
Policy Target ▲	0.23	2.15	9.67	10.01	6.62

Asset Allocation Adjusted Ranking



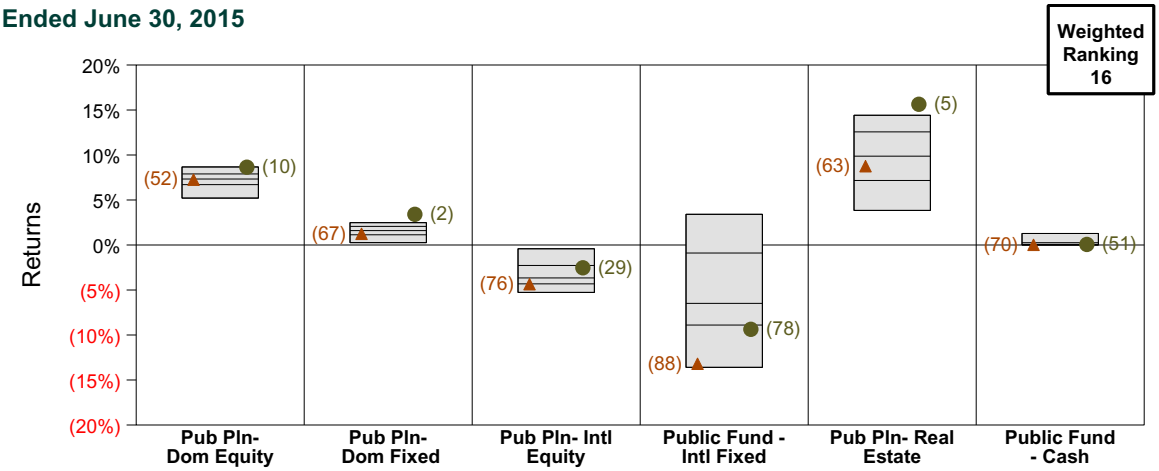
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.83	4.29	11.55	11.63	7.16
25th Percentile	0.73	3.92	10.96	11.14	6.80
Median	0.59	3.39	10.60	10.73	6.59
75th Percentile	0.41	2.74	10.15	10.36	6.32
90th Percentile	0.17	2.03	9.69	9.92	6.01
Total Fund ●	0.78	3.85	11.34	11.11	6.41
Policy Target ▲	0.23	2.15	9.67	10.01	6.62

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

Asset Class Rankings

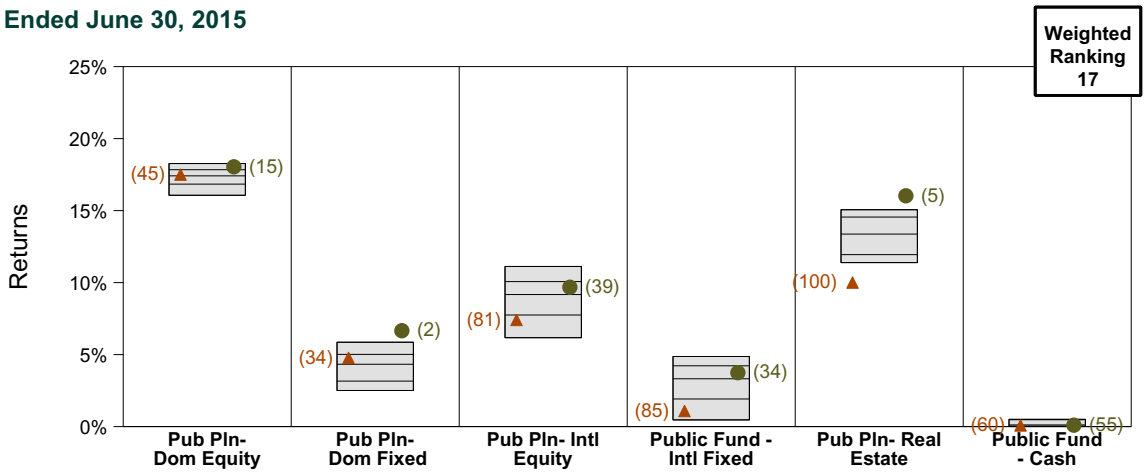
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used 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, 2015



	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	8.67	2.48	(0.42)	3.41	14.41	1.28
25th Percentile	7.90	2.07	(2.27)	(0.89)	12.57	0.26
Median	7.33	1.60	(3.66)	(6.49)	9.87	0.07
75th Percentile	6.71	1.13	(4.32)	(8.89)	7.17	0.01
90th Percentile	5.21	0.26	(5.27)	(13.59)	3.84	0.01
Asset Class Composite ●	8.64	3.41	(2.53)	(9.37)	15.63	0.06
Composite Benchmark ▲	7.26	1.25	(4.35)	(13.19)	8.76	0.02

Total Asset Class Performance
Five Years Ended June 30, 2015



	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	18.27	5.86	11.12	4.87	15.06	0.50
25th Percentile	17.84	5.01	10.07	4.22	14.55	0.48
Median	17.41	4.33	9.17	3.32	13.37	0.11
75th Percentile	16.84	3.16	7.75	1.92	11.94	0.04
90th Percentile	16.06	2.51	6.17	0.46	11.39	0.01
Asset Class Composite ●	18.04	6.66	9.68	3.74	16.03	0.10
Composite Benchmark ▲	17.50	4.78	7.41	1.08	10.00	0.08

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 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, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	**$2,721,339,590**	**56.63%**	**$460,871**	**$21,496,987**	**$2,699,381,732**	**56.60%**
Domestic Equity	**$1,075,687,784**	**22.38%**	**$(236,677)**	**$4,209,105**	**$1,071,715,356**	**22.47%**
Large Cap Domestic Equity	**$824,911,971**	**17.17%**	**$(236,677)**	**$1,818,771**	**$823,329,877**	**17.26%**
L.A. Capital	316,440,921	6.58%	(170,934)	2,862,397	313,749,458	6.58%
LACM Enhanced Index	204,948,213	4.26%	(65,743)	(576,204)	205,590,160	4.31%
Northern Trust AM Enh S&P 500	125,534,400	2.61%	0	(456,155)	125,990,554	2.64%
Parametric Clifton Enh S&P 500	177,988,438	3.70%	0	(11,267)	177,999,705	3.73%
Small Cap Domestic Equity	**$250,775,814**	**5.22%**	**$0**	**$2,390,334**	**$248,385,479**	**5.21%**
Callan	124,068,544	2.58%	0	1,081,829	122,986,715	2.58%
Parametric Clifton Enh Small Cap	126,707,269	2.64%	0	1,308,505	125,398,764	2.63%
International Equity	**$707,664,070**	**14.73%**	**$(324,332)**	**$15,340,515**	**$692,647,887**	**14.52%**
Developed Int'l Equity	**$553,330,100**	**11.51%**	**$(324,332)**	**$13,020,213**	**$540,634,219**	**11.34%**
Capital Group	136,969,814	2.85%	(128,476)	2,546,869	134,551,420	2.82%
DFA Int'l Small Cap	79,282,009	1.65%	0	3,911,123	75,370,886	1.58%
Northern Trust AM World Ex US	246,938,887	5.14%	(20,206)	1,581,404	245,377,689	5.15%
Wellington Management Co.	90,139,390	1.88%	(175,650)	4,980,818	85,334,223	1.79%
Emerging Markets Equity	**$154,333,970**	**3.21%**	**$0**	**$2,320,302**	**$152,013,668**	**3.19%**
Axiom	117,866,297	2.45%	0	1,616,909	116,249,388	2.44%
DFA	36,467,673	0.76%	0	703,393	35,764,280	0.75%
World Equity	**$760,650,074**	**15.83%**	**$10,433,049**	**$5,996,093**	**$744,220,932**	**15.61%**
EPOCH Investment Partners	329,591,814	6.86%	10,485,006	521,470	318,585,338	6.68%
LSV Asset Management	431,058,260	8.97%	(51,957)	5,474,623	425,635,595	8.92%

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Private Equity	**$177,337,661**	**3.69%**	**$(9,411,169)**	**$(4,048,726)**	**$190,797,557**	**4.00%**
Adams Street Direct Co-Invest Fd	11,361,500	0.24%	(2,472,652)	48,230	13,785,922	0.29%
Adams Street Direct Fund 2010	1,750,443	0.04%	0	35,579	1,714,864	0.04%
Adams Street 1998 Partnership	120,799	0.00%	0	(220)	121,019	0.00%
Adams Street 1999 Partnership	531,142	0.01%	0	(6,462)	537,604	0.01%
Adams Street 2000 Partnership	1,429,371	0.03%	(564,361)	(11,166)	2,004,898	0.04%
Adams Street 2001 Partnership	2,053,747	0.04%	(448,608)	3,281	2,499,074	0.05%
Adams Street 2002 Partnership	872,290	0.02%	0	(30,883)	903,173	0.02%
Adams Street 2003 Partnership	514,338	0.01%	0	25,581	488,757	0.01%
Adams Street 2010 Partnership	5,128,901	0.11%	191,338	111,958	4,825,605	0.10%
Adams Street 2008 Fund	7,235,368	0.15%	(351,563)	92,856	7,494,075	0.16%
Adams Street 1999 Non-US	483,796	0.01%	0	(13,375)	497,171	0.01%
Adams Street 2000 Non-US	768,779	0.02%	0	(32,771)	801,550	0.02%
Adams Street 2001 Non-US	384,735	0.01%	0	15,304	369,431	0.01%
Adams Street 2002 Non-US	984,002	0.02%	0	(34,031)	1,018,033	0.02%
Adams Street 2003 Non-US	899,192	0.02%	0	7,908	891,284	0.02%
Adams Street 2004 Non-US	731,073	0.02%	(134,951)	21,318	844,706	0.02%
Adams Street 2010 Non-US	2,404,837	0.05%	143,438	(41,749)	2,303,148	0.05%
Adams Street 2010 Non-US Emg	1,040,141	0.02%	0	46,737	993,404	0.02%
Adams Street BVCF IV Fund	3,827,914	0.08%	(4,281,768)	1,403,508	6,706,174	0.14%
Coral Partner VI	-	-	(543,055)	(81,462)	624,517	0.01%
Hearthstone Advisors MSII	1	0.00%	0	0	1	0.00%
Hearthstone Advisors MSIII	151,549	0.00%	0	(97,186)	248,735	0.01%
CorsAir III	9,934,616	0.21%	8,691	(937,153)	10,863,078	0.23%
ND Investors	11,075,982	0.23%	25,000	(510,014)	11,560,996	0.24%
CorsAir IV	16,775,349	0.35%	154,128	2,521,909	14,099,312	0.30%
Capital International V	15,796,580	0.33%	(509,228)	(505,528)	16,811,336	0.35%
Capital International VI	12,234,473	0.25%	250,886	58,452	11,925,135	0.25%
EIG Energy Fund XIV	18,496,623	0.38%	(372,493)	(3,118,095)	21,987,211	0.46%
Lewis & Clark, LP	2,724,490	0.06%	0	(1,287,547)	4,012,037	0.08%
Lewis & Clark II	9,116,657	0.19%	(193,485)	(1,527,423)	10,837,565	0.23%
Quantum Energy Partners	7,394,123	0.15%	(312,486)	(3,057,353)	10,763,962	0.23%
Quantum Resources	865,812	0.02%	0	(297,406)	1,163,218	0.02%
Matlin Patterson I	12,121	0.00%	0	0	12,121	0.00%
Matlin Patterson II	1,515,719	0.03%	0	298,144	1,217,575	0.03%
Matlin Patterson III	28,721,198	0.60%	0	2,850,332	25,870,866	0.54%

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL FIXED INCOME	**$1,158,050,994**	**24.10%**	**$12,441,096**	**$(9,708,248)**	**$1,155,318,146**	**24.23%**
Domestic Fixed Income	**$928,140,545**	**19.31%**	**$12,768,714**	**$(4,010,256)**	**$919,382,087**	**19.28%**
Inv. Grade Fixed Income	**$659,275,019**	**13.72%**	**$9,772,383**	**$(7,914,390)**	**$657,417,026**	**13.79%**
Declaration Total Return	84,489,780	1.76%	9,974,580	71,911	74,443,289	1.56%
J. P. Morgan MBS	124,349,721	2.59%	0	(769,546)	125,119,267	2.62%
PIMCO DiSCO II	87,857,199	1.83%	0	1,408,836	86,448,363	1.81%
PIMCO MBS	179,199,778	3.73%	(78,492)	(1,100,956)	180,379,226	3.78%
PIMCO Unconstrained	94,940,192	1.98%	(114,853)	482,459	94,572,586	1.98%
SSgA Long US Treas Index	88,438,348	1.84%	(8,852)	(8,007,095)	96,454,295	2.02%
Below Inv. Grade Fixed Income	**$268,865,527**	**5.59%**	**$2,996,331**	**$3,904,134**	**$261,965,061**	**5.49%**
Goldman Sachs 2006 Offshore	1,560,000	0.03%	0	92,328	1,467,672	0.03%
Goldman Sachs Offshore V	3,930,000	0.08%	(1,720,702)	314,002	5,336,700	0.11%
Loomis Sayles	227,990,933	4.74%	(282,967)	1,900,532	226,373,367	4.75%
PIMCO Bravo II Fund	35,384,594	0.74%	5,000,000	1,597,272	28,787,322	0.60%
Internationall Fixed Income	**$229,910,449**	**4.78%**	**$(327,618)**	**$(5,697,992)**	**$235,936,059**	**4.95%**
Brandywine	130,543,858	2.72%	(244,038)	(4,369,845)	135,157,741	2.83%
UBS Global Asset Mgmt.	99,366,592	2.07%	(83,580)	(1,328,146)	100,778,318	2.11%
GLOBAL REAL ASSETS	**$854,310,432**	**17.78%**	**$548,233**	**$25,466,225**	**$828,295,974**	**17.37%**
Global Real Estate	**$468,649,573**	**9.75%**	**$3,881,709**	**$27,643,662**	**$437,124,202**	**9.17%**
Invesco Core Real Estate	182,604,019	3.80%	(156,211)	9,125,660	173,634,569	3.64%
Invesco Real Estate Fund II	17,954,829	0.37%	0	286,461	17,668,368	0.37%
Invesco Real Estate Fund III	32,110,796	0.67%	(1,745,556)	1,375,157	32,481,195	0.68%
Invesco Asia RE Feeder	10,753,779	0.22%	(13,042,000)	2,044,813	21,750,966	0.46%
Invesco Value Added Fd IV	23,613,264	0.49%	21,369,791	2,243,473	-	-
JP Morgan	166,094,220	3.46%	0	6,789,123	159,305,097	3.34%
JP Morgan Alternative Fd	354,513	0.01%	0	2,682	351,831	0.01%
JP Morgan China Property Fd	9,876,712	0.21%	(1)	712,517	9,164,196	0.19%
JP Morgan Greater European Opp Fd	25,287,442	0.53%	(2,544,313)	5,063,776	22,767,979	0.48%
Timber	**$177,399,138**	**3.69%**	**$(25,328)**	**$740,756**	**$176,683,710**	**3.70%**
TIR Teredo	60,894,655	1.27%	0	812,444	60,082,211	1.26%
TIR Springbank	116,504,483	2.42%	(25,328)	(71,688)	116,601,499	2.44%
Infrastructure	**$208,261,721**	**4.33%**	**$(3,308,148)**	**$(2,918,193)**	**$214,488,063**	**4.50%**
JP Morgan Asian Infrastructure	30,600,000	0.64%	(1,733,861)	(354,066)	32,687,927	0.69%
JP Morgan IIF	137,120,438	2.85%	1,916,692	(2,524,162)	137,727,908	2.89%
Grosvenor Cust. Infrastructure	39,011,198	0.81%	(4,357,371)	83,765	43,284,804	0.91%
Grosvenor Cust. Infrastructure II	1,530,085	0.03%	866,392	(123,731)	787,424	0.02%
CASH & CASH EQUIVALENTS	**$71,991,366**	**1.50%**	**$(14,062,962)**	**$12,921**	**$86,041,407**	**1.80%**
Cash Account	71,991,366	1.50%	(14,062,962)	12,921	86,041,407	1.80%
Total Fund	**$4,805,692,383**	**100.0%**	**$(612,762)**	**$37,267,886**	**$4,769,037,259**	**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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Equity					
Gross	0.80%	3.60%	14.81%	-	-
Net	0.76%	3.25%	14.40%	-	-
Wtd Avg Global Equity Benchmark	0.18%	1.59%	13.52%	-	-
Domestic Equity					
Gross	0.39%	8.64%	19.11%	18.04%	7.34%
Net	0.37%	8.46%	18.80%	17.73%	7.02%
Wtd Avg Domestic Equity Benchmark	0.20%	7.26%	17.81%	17.50%	8.16%
Large Cap Equity					
Gross	0.22%	9.48%	19.10%	18.00%	6.55%
Net	0.19%	9.30%	18.87%	17.77%	6.29%
Large Cap Benchmark (1)	0.11%	7.37%	17.73%	17.57%	8.00%
L.A. Capital - Gross	0.91%	12.76%	19.03%	19.06%	9.92%
L.A. Capital - Net	0.86%	12.52%	18.78%	18.81%	9.71%
Russell 1000 Growth Index	0.12%	10.56%	17.99%	18.59%	9.10%
LACM Enhanced Index - Goss	(0.28%)	8.26%	17.89%	17.86%	9.02%
LACM Enhanced Index - Net	(0.31%)	8.13%	17.74%	17.66%	8.85%
Russell 1000 Index	0.11%	7.37%	17.73%	17.58%	8.13%
Northern Tr AM Enh S&P500 - Gross	(0.36%)	6.26%	18.57%	18.27%	8.19%
Northern Tr AM Enh S&P500 - Net	(0.36%)	5.89%	18.02%	17.90%	7.99%
S&P 500 Index	0.28%	7.42%	17.31%	17.34%	7.89%
Parametric Clifton Enh S&P500 - Gross	(0.01%)	7.43%	17.27%	-	-
Parametric Clifton Enh S&P500 - Net	(0.01%)	7.42%	17.18%	-	-
S&P 500 Index	0.28%	7.42%	17.31%	17.34%	7.89%
Small Cap Equity					
Gross	0.96%	5.77%	18.87%	18.03%	9.36%
Net	0.96%	5.57%	18.32%	17.47%	8.84%
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	8.40%
Callan - Net	0.88%	3.99%	17.94%	17.12%	-
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	8.40%
Parametric Clifton Enh SmCap - Gross	1.04%	7.58%	18.98%	18.46%	-
Parametric Clifton Enh SmCap - Net	1.04%	7.17%	18.44%	17.97%	-
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	8.40%

(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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
International Equity					
Gross	2.21%	(2.53%)	12.20%	9.68%	7.45%
Net	2.17%	(2.72%)	11.80%	9.27%	7.01%
Wtd Avg Int'l Equity Benchmark	0.65%	(4.35%)	10.19%	7.41%	5.98%
Developed Intl Equity					
Gross	2.41%	(3.11%)	13.99%	10.53%	6.15%
Net	2.35%	(3.35%)	13.62%	10.17%	5.77%
Benchmark(1)	0.62%	(4.22%)	11.97%	8.37%	4.87%
Capital Group - Gross	1.89%	(1.78%)	13.07%	9.84%	5.65%
Capital Group - Net	1.80%	(2.20%)	12.56%	9.54%	5.41%
Benchmark(1)	0.62%	(4.22%)	11.97%	8.37%	4.87%
DFA Int'l Small Cap Value - Net	5.19%	(3.27%)	17.67%	12.85%	-
World ex US SC Value	2.98%	(6.50%)	14.05%	10.60%	6.79%
Northern Tr AM World ex US - Gross	0.64%	(4.98%)	-	-	-
Northern Tr AM World ex US - Net	0.64%	(5.01%)	-	-	-
MSCI World ex US	0.48%	(5.28%)	11.15%	8.97%	5.16%
Wellington Management - Gross	5.84%	0.53%	17.91%	15.88%	8.90%
Wellington Management - Net	5.63%	(0.31%)	16.93%	14.90%	7.98%
BMI, EPAC, <$2 B	5.97%	1.14%	14.70%	11.08%	6.58%
Emerging Markets Equity					
Gross	1.53%	(0.68%)	5.41%	6.35%	9.94%
Net	1.53%	(0.70%)	4.92%	5.82%	9.36%
Emerging Mkts - Net	0.69%	(5.12%)	3.71%	3.69%	8.11%
Axiom - Net	1.39%	-	-	-	-
Emerging Mkts - Net	0.69%	(5.12%)	3.71%	3.69%	8.11%
DFA - Net	1.97%	(1.73%)	7.30%	6.30%	-
Emerging Mkts - Net	0.69%	(5.12%)	3.71%	3.69%	8.11%
World Equity					
Gross	0.83%	4.67%	14.75%	-	-
Net	0.75%	3.83%	14.00%	-	-
MSCI World Index	0.31%	1.43%	14.27%	13.10%	6.38%
EPOCH Investment - Gross(2)	0.21%	8.57%	15.76%	-	-
EPOCH Investment - Net	0.05%	7.85%	14.95%	-	-
MSCI World Index	0.31%	1.43%	14.27%	13.10%	6.38%
LSV Asset Management - Gross(3)	1.29%	1.94%	-	-	-
LSV Asset Management - Net	1.26%	1.03%	-	-	-
MSCI ACWI Idx	0.52%	1.23%	13.61%	12.52%	6.96%

(1) MSCI EAFE through 12/31/1996; 50% Hedged EAFE through 3/31/2011 and MSCI EAFE again 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity*					
Net	(2.12%)	(5.38%)	1.62%	4.82%	3.90%
Adams Street Direct Co-Invest Fd	0.36%	22.50%	17.56%	16.40%	-
Adams Street Direct Fund 2010	2.07%	4.61%	13.41%	10.50%	-
Adams Street 1998 Partnership	(0.18%)	(0.68%)	5.58%	3.14%	1.93%
Adams Street 1999 Partnership	(1.20%)	(17.94%)	1.82%	5.53%	4.27%
Adams Street 2000 Partnership	(0.63%)	(10.71%)	0.79%	6.58%	6.83%
Adams Street 2001 Partnership	0.16%	(0.25%)	10.23%	12.28%	7.76%
Adams Street 2002 Partnership	(3.42%)	(19.50%)	0.74%	9.23%	6.12%
Adams Street 2003 Partnership	5.23%	13.43%	16.55%	13.77%	10.06%
Adams Street 2010 Partnership	2.23%	18.37%	15.16%	16.38%	-
Adams Street 2008 Fund	1.24%	7.59%	12.29%	10.86%	-
Adams Street 1999 Non-US	(2.69%)	(13.15%)	5.41%	13.75%	15.16%
Adams Street 2000 Non-US	(4.09%)	(4.91%)	(0.39%)	5.62%	8.93%
Adams Street 2001 Non-US	4.14%	16.96%	19.22%	11.76%	4.49%
Adams Street 2002 Non-US	(3.34%)	(7.15%)	2.03%	8.69%	9.94%
Adams Street 2003 Non-US	0.89%	(2.02%)	15.53%	15.20%	16.22%
Adams Street 2004 Non-US	3.00%	(6.29%)	11.90%	11.38%	8.51%
Adams Street 2010 Non-US	(1.71%)	(2.43%)	7.30%	2.57%	-
Adams Street 2010 Non-US Emg	4.70%	21.80%	6.32%	-	-
Adams Street BVCF IV Fund	28.18%	42.10%	30.67%	59.66%	32.83%
CorsAir III	(8.62%)	(8.84%)	(6.62%)	(3.01%)	-
ND Investors	(4.40%)	(5.27%)	0.45%	1.16%	-
CorsAir IV	17.69%	29.73%	17.74%	5.04%	-
Capital International V	(3.14%)	(13.33%)	(4.79%)	3.37%	-
Capital International VI	0.49%	(21.71%)	(16.95%)	-	-
EIG Energy Fund XIV	(14.27%)	(23.62%)	(10.04%)	(2.51%)	-
Lewis & Clark, LP	(32.09%)	(32.09%)	(13.56%)	(5.81%)	0.97%
Lewis & Clark II	(14.35%)	(14.35%)	(8.65%)	(7.39%)	-
Quantum Energy Partners	(28.51%)	(19.31%)	7.92%	14.64%	-
Quantum Resources	(25.57%)	(42.83%)	(13.53%)	4.62%	-
Matlin Patterson I	0.00%	1.12%	6.13%	638.01%	175.50%
Matlin Patterson II	24.49%	19.60%	(3.46%)	(36.19%)	(24.48%)
Matlin Patterson III	11.02%	(2.43%)	8.43%	23.76%	-

* Corsair III and North Dakota Investors were taken out from the Private Equity Composite on July 1, 2009. They were 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Fixed Income					
Gross	(0.83%)	0.76%	4.84%	-	-
Net	(0.90%)	0.50%	4.60%	-	-
Wtd Avg Global FI Benchmark	(1.13%)	(2.03%)	1.89%	-	-
Domestic Fixed Income					
Gross	(0.43%)	3.41%	6.19%	6.66%	6.05%
Net	(0.48%)	3.18%	5.98%	6.44%	5.79%
Wtd Avg Domestic FI Benchmark	(1.23%)	1.25%	3.20%	4.78%	5.48%
Inv. Grade Fixed Income					
Gross	(1.19%)	3.67%	4.81%	5.36%	5.60%
Net	(1.22%)	3.54%	4.70%	5.18%	5.38%
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%	4.44%
Declaration Total Return - Net	0.09%	3.63%	6.05%	-	-
Libor-3 Month	0.07%	0.25%	0.28%	0.33%	1.84%
J.P. Morgan MBS - Gross	(0.62%)	-	-	-	-
J.P. Morgan MBS - Net	(0.62%)	-	-	-	-
Barclays Mortgage	(0.74%)	2.28%	1.92%	2.89%	4.56%
PIMCO Unconstrained - Gross(1)	0.51%	1.34%	1.67%	-	-
PIMCO Unconstrained - Net	0.39%	0.93%	1.50%	-	-
Blended Benchmark(2)	0.07%	0.25%	0.35%	-	-
PIMCO DiSCO II - Net	1.63%	4.32%	15.85%	-	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%	4.44%
PIMCO MBS - Gross	(0.61%)	2.33%	1.96%	-	-
PIMCO MBS - Net	(0.65%)	2.15%	1.79%	-	-
Barclays Mortgage	(0.74%)	2.28%	1.92%	2.89%	4.56%
SSgA Long US Treas Idx - Gross	(8.30%)	6.31%	-	-	-
SSgA Long US Treas Idx - Net	(8.31%)	6.28%	-	-	-
Barclays Long Treas	(8.30%)	6.33%	1.17%	6.24%	6.18%
Below Inv. Grade Fixed Income					
Gross	1.50%	2.53%	9.92%	10.19%	6.90%
Net	1.39%	2.09%	9.43%	9.87%	6.50%
Barclays HY Corp 2% Issue	0.01%	(0.39%)	6.81%	8.58%	7.90%
Goldman Sachs 2006 Offshore - Net	6.29%	25.65%	23.19%	14.06%	-
Goldman Sachs Offshore V - Net	7.28%	14.43%	13.82%	14.45%	-
PIMCO Bravo II Fund - Net	5.14%	10.36%	-	-	-
Barclays HY Corp 2% Issue	0.01%	(0.39%)	6.81%	8.58%	7.90%
Loomis Sayles - Gross	0.84%	1.33%	8.97%	9.68%	8.32%
Loomis Sayles - Net	0.71%	0.83%	8.44%	9.33%	7.96%
Barclays HY Corp 2% Issue	0.01%	(0.39%)	6.81%	8.58%	7.90%

(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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
International Fixed Income					
Gross	(2.42%)	(9.37%)	(0.26%)	3.74%	4.79%
Net	(2.55%)	(9.73%)	(0.61%)	3.48%	4.54%
Wtd Avg Int'l FI Benchmark	(0.83%)	(13.19%)	(2.83%)	1.08%	2.94%
Brandywine - Gross	(3.24%)	(5.39%)	2.62%	6.47%	6.76%
Brandywine - Net	(3.41%)	(5.75%)	2.25%	6.23%	6.58%
Barclays Global Aggregate	(1.18%)	(7.09%)	(0.81%)	2.07%	3.54%
UBS Global Asset Mgmt. - Gross	(1.32%)	(13.46%)	(3.22%)	0.89%	2.54%
UBS Global Asset Mgmt. - Net	(1.40%)	(13.81%)	(3.53%)	0.59%	2.23%
Blended Benchmark(1)	(0.83%)	(13.19%)	(2.83%)	1.08%	2.94%
Global Real Assets					
Gross	3.02%	9.39%	9.66%	-	-
Net	2.96%	8.99%	9.24%	-	-
Wtd Avg Global Real Assets Benchmark	1.99%	8.76%	8.45%	-	-
Global Real Estate					
Gross	6.15%	15.63%	14.46%	16.03%	6.81%
Net	6.11%	15.11%	13.94%	15.24%	5.06%
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%	8.16%
Invesco Core Real Estate - Gross	5.26%	16.38%	13.53%	14.95%	7.51%
Invesco Core Real Estate - Net	5.17%	15.97%	13.10%	14.48%	6.97%
Invesco Real Estate Fund II - Net	1.62%	6.23%	14.50%	24.83%	-
Invesco Real Estate Fund III - Net	4.26%	18.70%	17.92%	-	-
Invesco Asia RE Feeder - Net	9.40%	16.19%	8.12%	3.24%	-
JP Morgan - Gross	4.26%	14.71%	14.81%	15.69%	7.52%
JP Morgan - Net	4.26%	13.64%	13.75%	14.72%	6.45%
JP Morgan Alternative Fd - Net	0.76%	(33.28%)	(7.17%)	1.06%	-
JP Morgan China Property Fd - Net	7.78%	16.74%	22.93%	15.78%	-
JPM Greater European Opp Fd - Net	23.29%	16.90%	0.79%	*******%)	-
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%	8.16%
Timber					
Net	0.42%	3.93%	2.37%	-	-
TIR Teredo	1.35%	15.52%	9.18%	6.18%	9.49%
TIR Springbank	(0.06%)	(1.98%)	(1.41%)	(2.17%)	2.64%
NCREIF Timberland Index	0.51%	10.02%	9.77%	6.10%	7.96%
Infrastructure					
Gross	(1.38%)	1.23%	7.57%	-	-
Net	(1.52%)	0.72%	6.87%	-	-
JP Morgan Asian Infrastructure - Net	(1.10%)	(2.58%)	7.80%	4.26%	-
JP Morgan IIF - Gross	(1.88%)	1.06%	7.08%	6.59%	-
JP Morgan IIF - Net	(2.09%)	0.23%	6.00%	5.40%	-
Grosvenor Cust. Infrastructure - Net	0.22%	5.37%	9.19%	-	-
Grosvenor Cust. Infrastructure II - Net	(9.19%)	-	-	-	-
CPI-W	1.19%	(0.38%)	1.13%	1.80%	2.09%
Cash & Cash Equivalents - Net	**0.02%**	**0.06%**	**0.07%**	**0.10%**	**1.21%**
Cash Account - Net	0.02%	0.06%	0.07%	0.09%	1.20%
3-month Treasury Bill	0.01%	0.02%	0.06%	0.08%	1.42%
Total Fund					
Gross	0.78%	3.85%	11.34%	11.11%	6.41%
Net	0.73%	3.52%	10.97%	10.68%	6.23%
Target*	0.23%	2.15%	9.67%	10.01%	6.62%

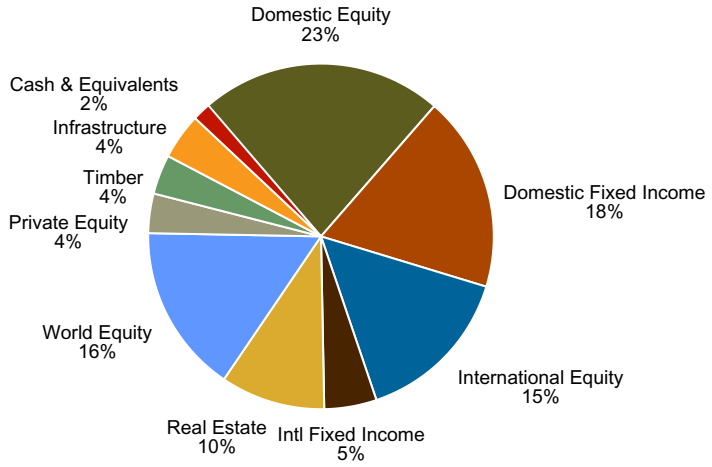
* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 13.2% Barclays Aggregate Index, 11.0% MSCI EAFE Index, 9.7% NCREIF Total Index, 4.9% CPI-W, 4.9% Russell 2000 Index, 4.9% NDSIB PEN - Private Equity, 4.9% Barclays HY Corp 2% Issue, 4.9% Global Agg ex USD, 4.9% NCREIF Timberland Index, 3.1% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

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

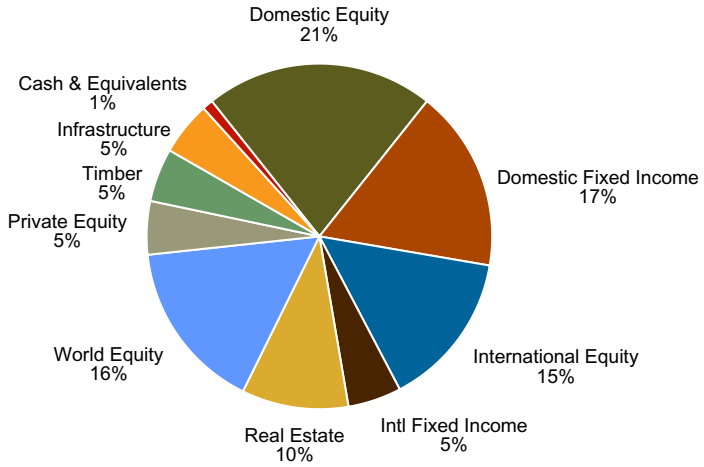
Actual vs Target Asset Allocation
As of June 30, 2015

The top left chart shows the Fund's asset allocation as of June 30, 2015. 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 Public Fund Sponsor Database.

Actual Asset Allocation

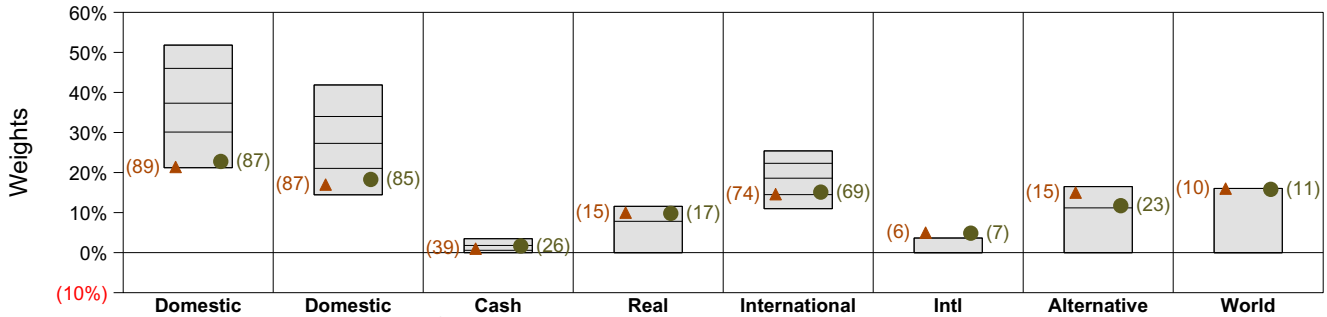


Target Asset Allocation



Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	551,593	22.8%	21.4%	1.4%	33,160
Domestic Fixed Income	442,738	18.3%	17.0%	1.3%	30,898
International Equity	366,054	15.1%	14.6%	0.5%	12,357
Intl Fixed Income	117,625	4.9%	5.0%	(0.1%)	(3,504)
Real Estate	237,578	9.8%	10.0%	(0.2%)	(4,681)
World Equity	382,886	15.8%	16.0%	(0.2%)	(4,727)
Private Equity	88,968	3.7%	5.0%	(1.3%)	(32,162)
Timber	89,608	3.7%	5.0%	(1.3%)	(31,521)
Infrastructure	105,358	4.3%	5.0%	(0.7%)	(15,772)
Cash & Equivalents	40,177	1.7%	1.0%	0.7%	15,951
Total	2,422,584	100.0%	100.0%		

Asset Class Weights vs Public Fund Sponsor Database



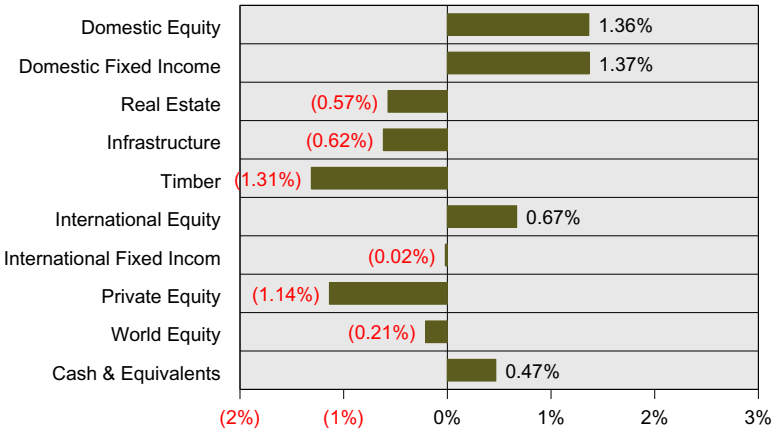
	Domestic Equity	Domestic Fixed Income	Cash & Equivalents	Real Estate	International Equity	Intl Fixed Income	Alternative	World Equity
10th Percentile	51.82	41.87	3.48	11.56	25.40	3.65	16.49	16.03
25th Percentile	46.01	34.00	1.79	7.82	22.30	0.00	11.17	0.00
Median	37.31	27.28	0.58	0.00	18.59	0.00	0.00	0.00
75th Percentile	30.11	21.04	0.00	0.00	14.49	0.00	0.00	0.00
90th Percentile	21.21	14.44	0.00	0.00	10.97	0.00	0.00	0.00
Fund ●	22.77	18.28	1.66	9.81	15.11	4.86	11.72	15.80
Target ▲	21.40	17.00	1.00	10.00	14.60	5.00	15.00	16.00
% Group Invested	96.34%	96.95%	71.34%	49.39%	90.85%	19.51%	43.90%	22.56%

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

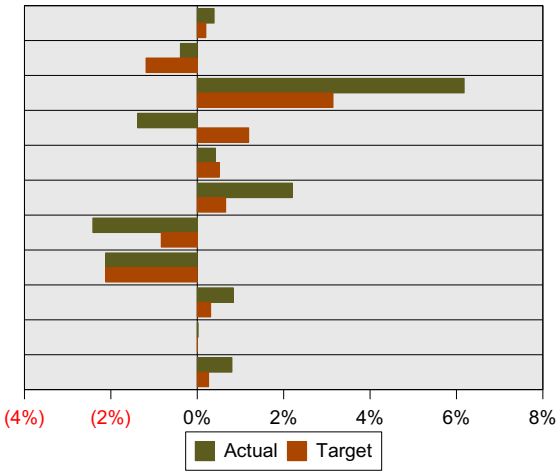
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

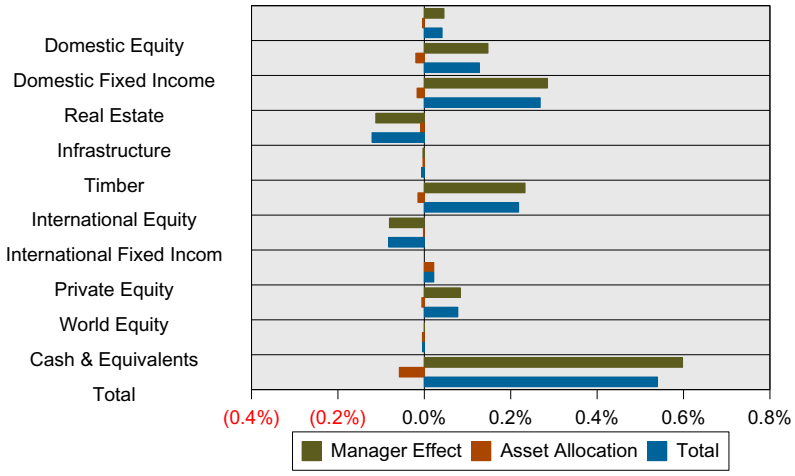
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

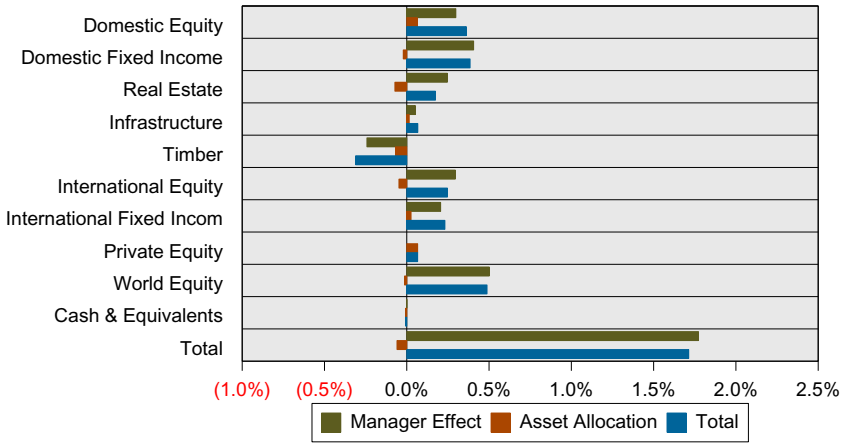
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	0.39%	0.20%	0.05%	(0.00%)	0.04%
Domestic Fixed Income	18%	17%	(0.39%)	(1.19%)	0.15%	(0.02%)	0.13%
Real Estate	9%	10%	6.18%	3.14%	0.29%	(0.02%)	0.27%
Infrastructure	4%	5%	(1.38%)	1.19%	(0.11%)	(0.01%)	(0.12%)
Timber	4%	5%	0.42%	0.51%	(0.00%)	(0.00%)	(0.01%)
International Equity	15%	15%	2.20%	0.66%	0.23%	(0.01%)	0.22%
International Fixed Incom	5%	5%	(2.42%)	(0.83%)	(0.08%)	(0.00%)	(0.08%)
Private Equity	4%	5%	(2.12%)	(2.12%)	0.00%	0.02%	0.02%
World Equity	16%	16%	0.84%	0.31%	0.08%	(0.01%)	0.08%
Cash & Equivalents	1%	1%	0.02%	0.01%	0.00%	(0.00%)	(0.00%)
Total			**0.80%** =	**0.26%** +	**0.60%** +	**(0.06%)**	**0.54%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

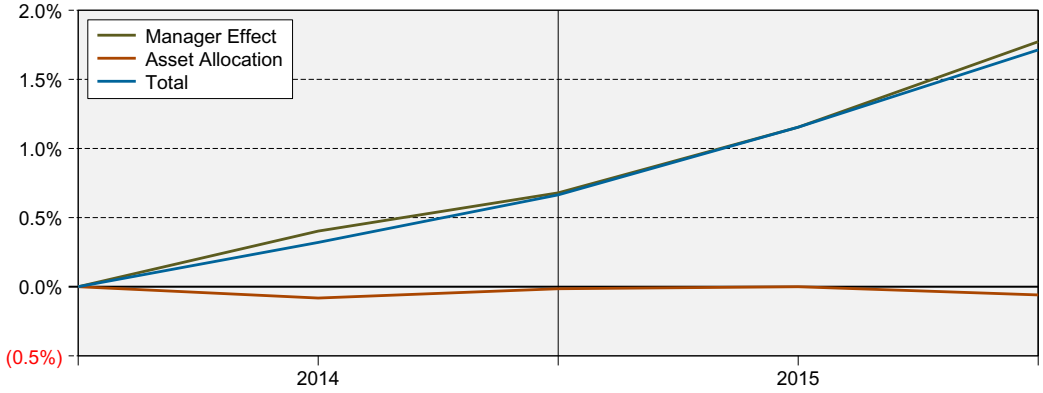
Cumulative Total Fund Relative Attribution - June 30, 2015

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

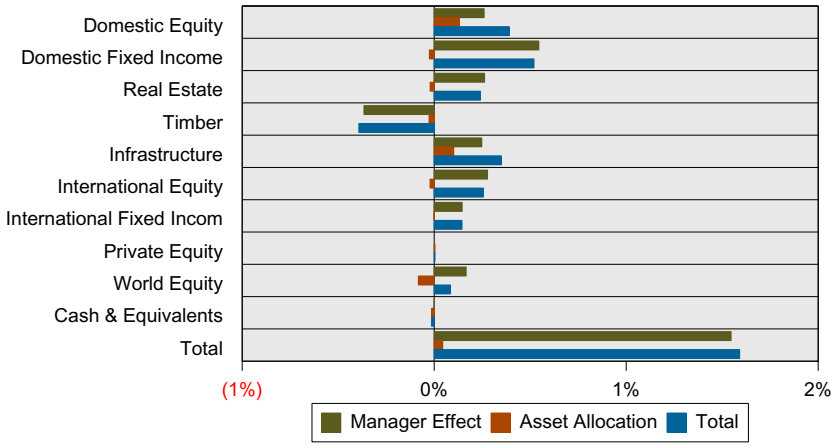
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	8.64%	7.26%	0.30%	0.06%	0.36%
Domestic Fixed Income	19%	17%	3.40%	1.22%	0.41%	(0.02%)	0.38%
Real Estate	9%	10%	15.78%	12.98%	0.25%	(0.07%)	0.17%
Infrastructure	4%	5%	1.23%	(0.38%)	0.05%	0.01%	0.07%
Timber	4%	5%	3.94%	10.02%	(0.24%)	(0.07%)	(0.31%)
International Equity	15%	15%	(2.53%)	(4.37%)	0.29%	(0.05%)	0.25%
International Fixed Incom	5%	5%	(9.37%)	(13.19%)	0.21%	0.03%	0.23%
Private Equity	4%	5%	(5.37%)	(5.37%)	0.00%	0.07%	0.07%
World Equity	16%	16%	4.67%	1.43%	0.50%	(0.01%)	0.49%
Cash & Equivalents	1%	1%	0.07%	0.02%	0.00%	(0.01%)	(0.01%)
Total			**3.86% =**	**2.15% +**	**1.77% +**	**(0.06%)**	**1.71%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

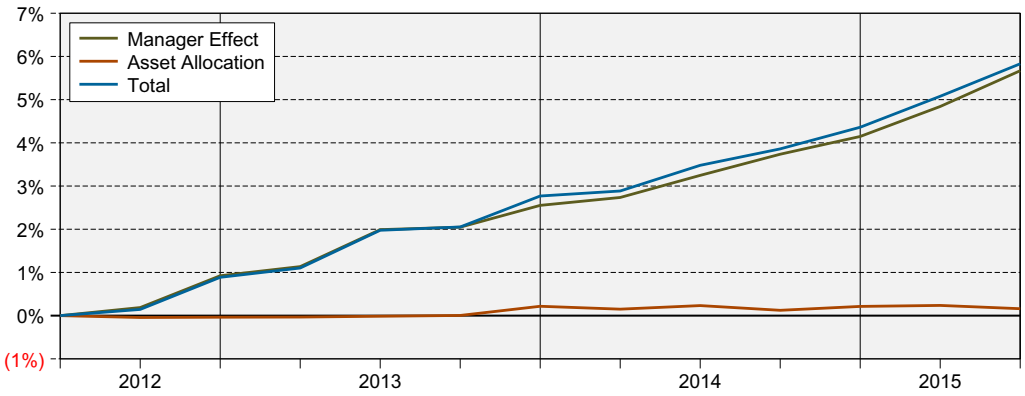
Cumulative Total Fund Relative Attribution - June 30, 2015

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

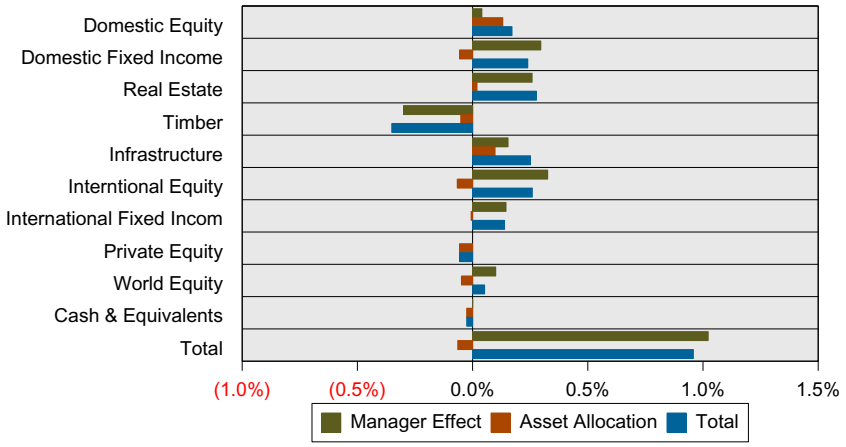
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	24%	22%	19.00%	17.81%	0.26%	0.13%	0.39%
Domestic Fixed Income	18%	17%	6.26%	3.29%	0.55%	(0.03%)	0.52%
Real Estate	10%	10%	14.49%	11.63%	0.26%	(0.02%)	0.24%
Timber	5%	5%	2.37%	9.76%	(0.37%)	(0.03%)	(0.39%)
Infrastructure	4%	5%	7.60%	1.13%	0.25%	0.10%	0.35%
International Equity	15%	15%	11.92%	10.01%	0.28%	(0.02%)	0.26%
International Fixed Incom	5%	5%	(0.26%)	(2.83%)	0.15%	(0.00%)	0.14%
Private Equity	5%	5%	1.61%	1.61%	0.00%	0.00%	0.00%
World Equity	14%	14%	14.74%	14.27%	0.17%	(0.08%)	0.08%
Cash & Equivalents	1%	1%	0.07%	0.06%	0.00%	(0.01%)	(0.01%)
Total			**11.32% =**	**9.73% +**	**1.55% +**	**0.04%**	**1.59%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

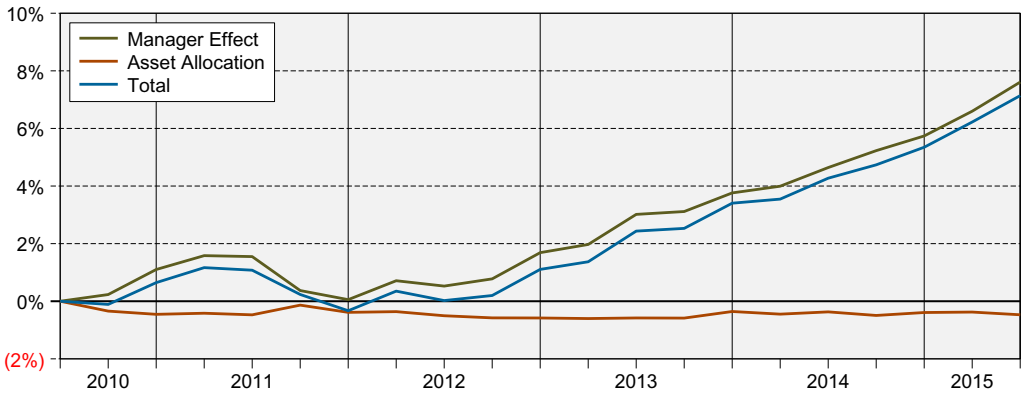
Cumulative Total Fund Relative Attribution - June 30, 2015

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

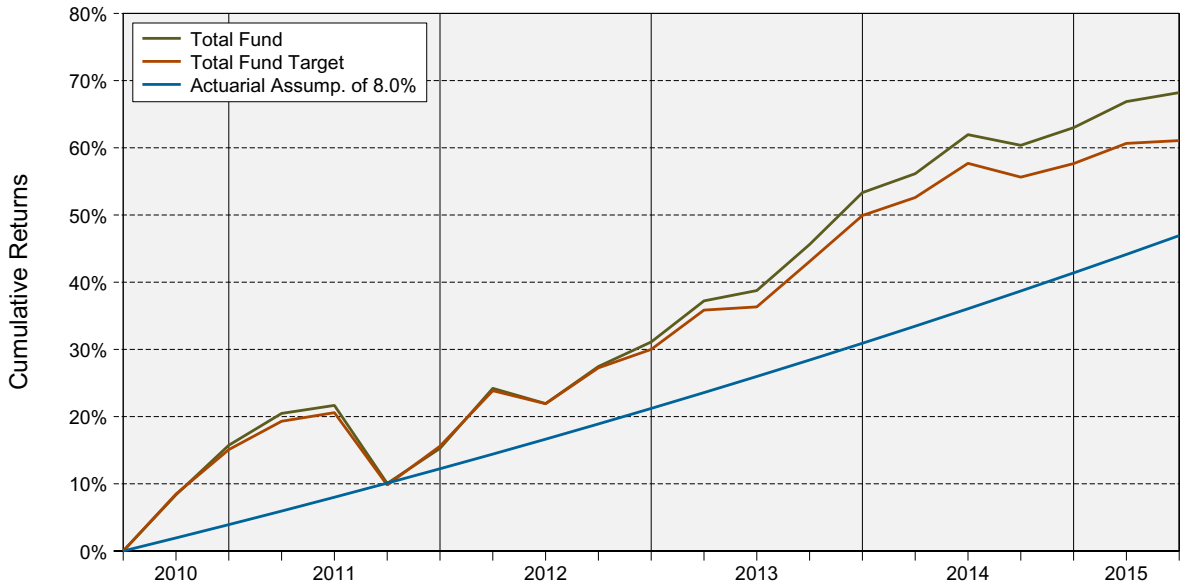
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	29%	28%	17.94%	17.49%	0.04%	0.13%	0.17%
Domestic Fixed Income	21%	20%	6.65%	4.88%	0.30%	(0.06%)	0.24%
Real Estate	8%	9%	16.18%	12.72%	0.26%	0.02%	0.28%
Timber	4%	4%	-	-	(0.30%)	(0.05%)	(0.35%)
Infrastructure	3%	4%	-	-	0.15%	0.10%	0.25%
Interntional Equity	16%	16%	9.50%	7.33%	0.33%	(0.07%)	0.26%
International Fixed Incom	5%	5%	3.75%	1.08%	0.15%	(0.01%)	0.14%
Private Equity	5%	5%	4.87%	4.87%	0.00%	(0.06%)	(0.06%)
World Equity	9%	9%	-	-	0.10%	(0.05%)	0.05%
Cash & Equivalents	1%	1%	0.09%	0.08%	0.00%	(0.03%)	(0.03%)
Total			**10.96%**	**= 10.00%**	**+ 1.02%**	**+ (0.06%)**	**0.96%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

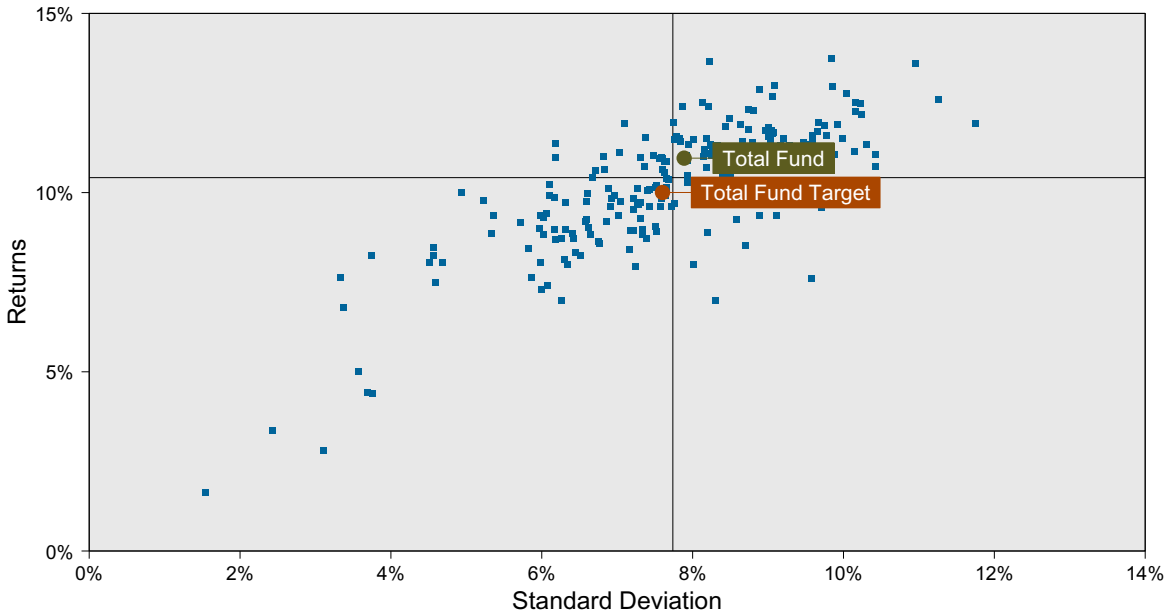
Cumulative Performance Relative to Target

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 Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Five Year Annualized Risk vs Return



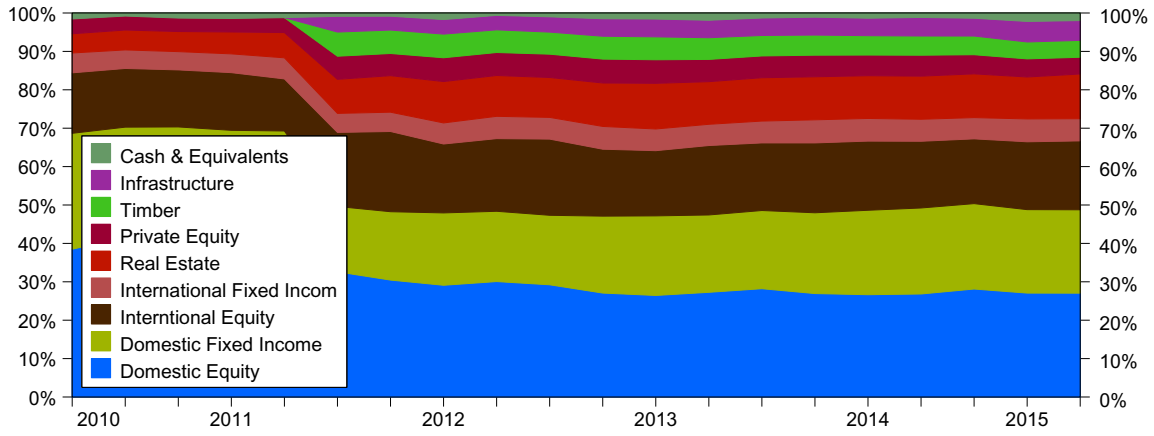
Squares represent membership of the Public Fund Sponsor Database

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

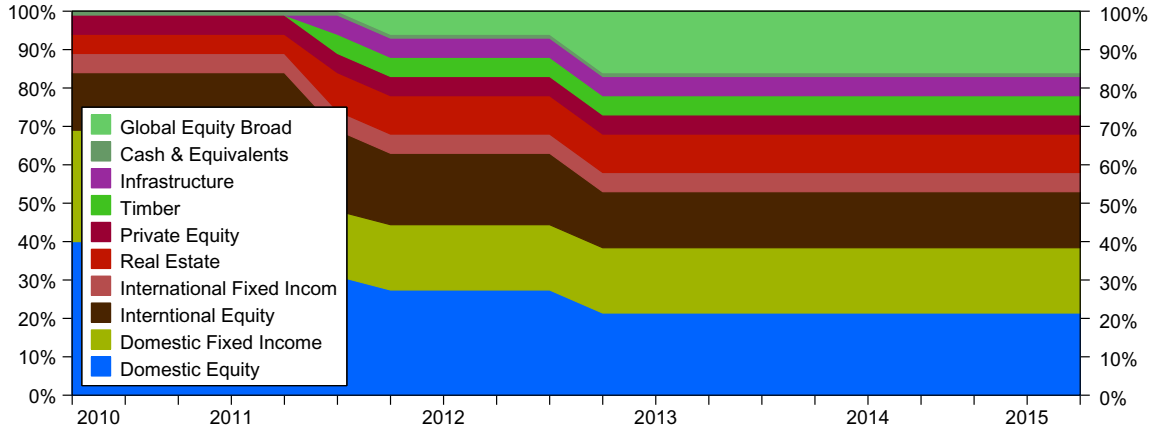
Actual vs Target Historical Asset Allocation

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 Public Fund Sponsor Database.

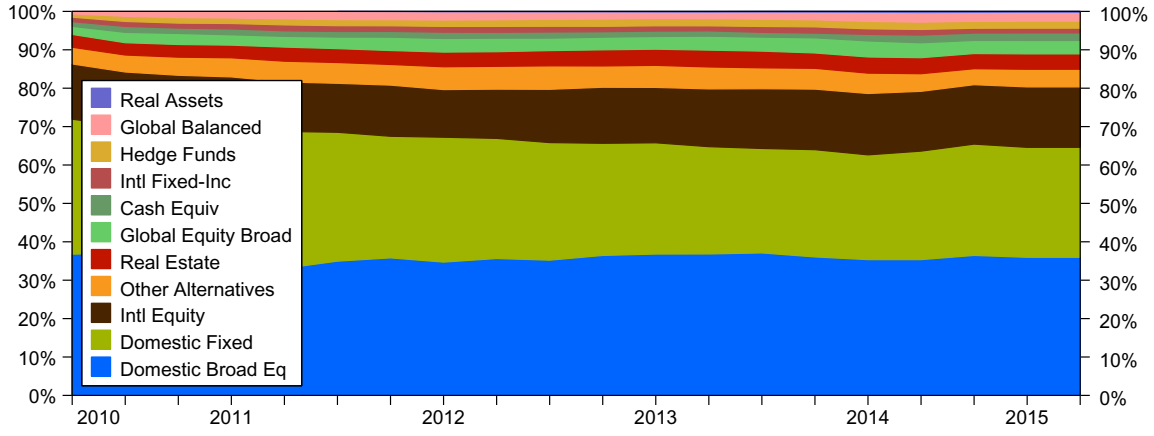
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Public Fund Sponsor Database Historical Asset Allocation

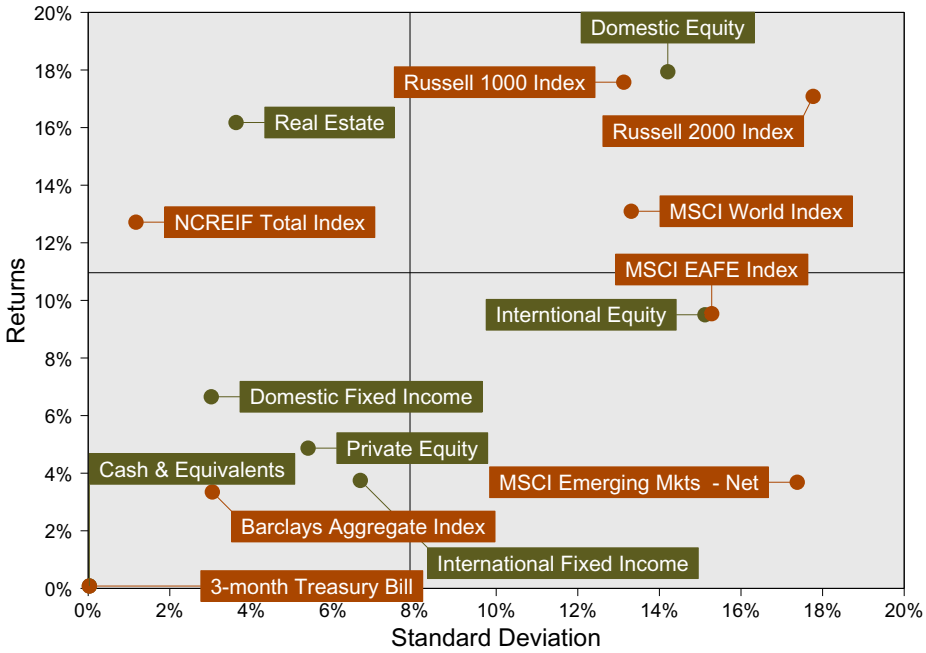


* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

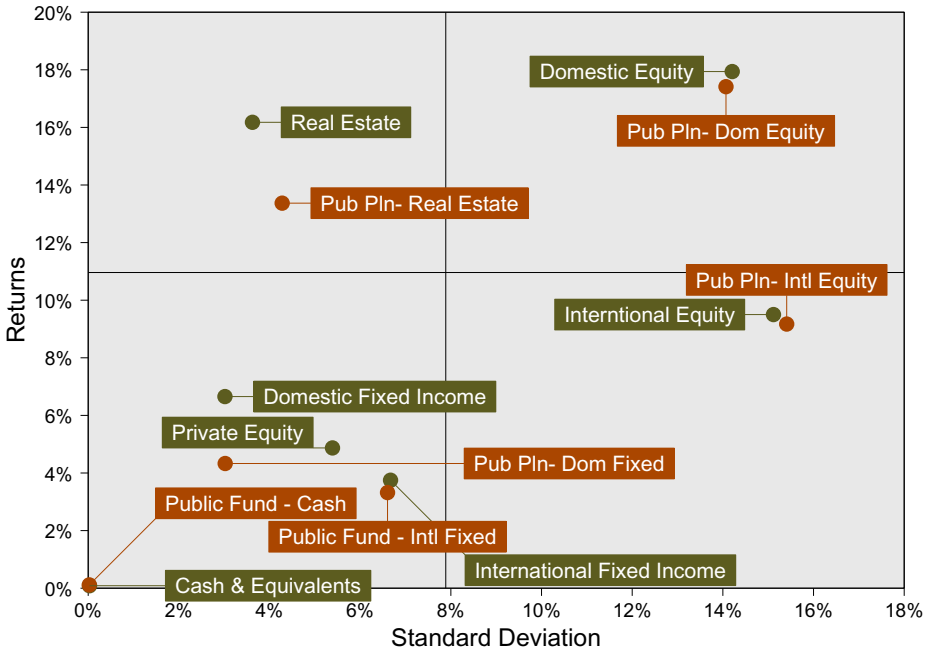
Asset Class Risk and Return

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



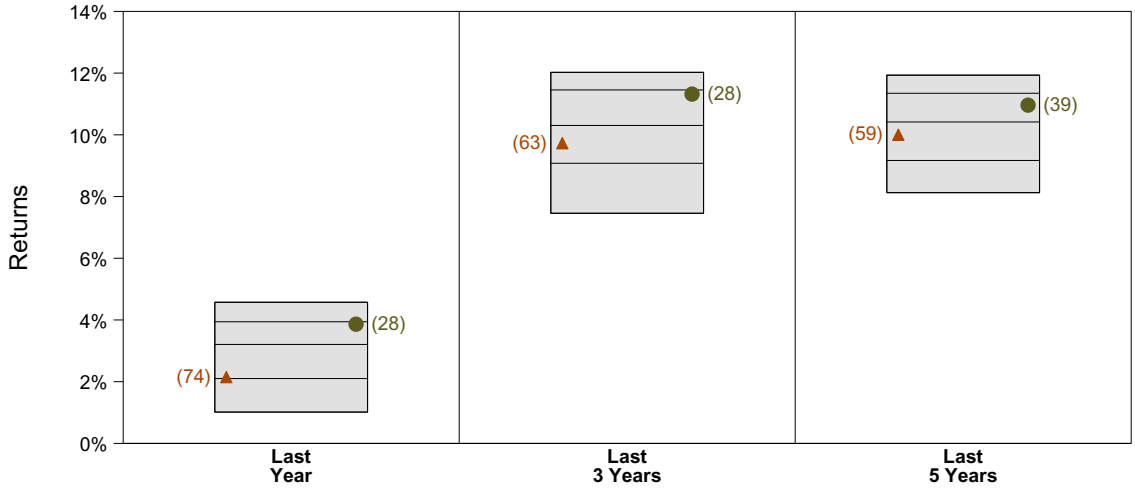
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

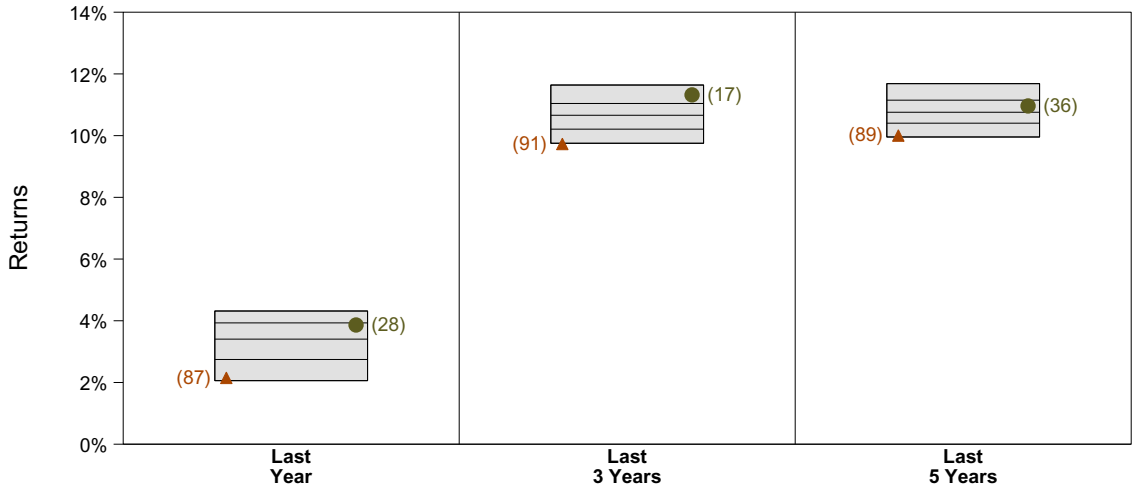
The first two charts show the ranking of the Total Fund's performance relative to that of the Public Fund Sponsor Database for periods ended June 30, 2015. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

Public Fund Sponsor Database



	Last Year	Last 3 Years	Last 5 Years
10th Percentile	4.57	12.03	11.93
25th Percentile	3.94	11.46	11.35
Median	3.21	10.30	10.42
75th Percentile	2.10	9.08	9.17
90th Percentile	1.01	7.46	8.13
Total Fund ●	3.86	11.32	10.96
Policy Target ▲	2.15	9.73	10.00

Asset Allocation Adjusted Ranking



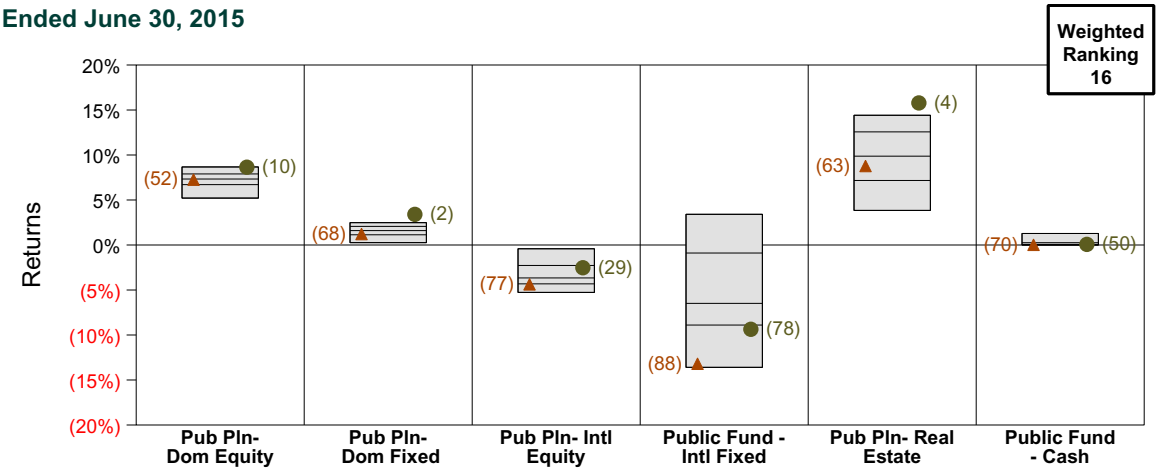
	Last Year	Last 3 Years	Last 5 Years
10th Percentile	4.32	11.64	11.69
25th Percentile	3.93	11.04	11.15
Median	3.40	10.66	10.76
75th Percentile	2.75	10.21	10.40
90th Percentile	2.06	9.75	9.96
Total Fund ●	3.86	11.32	10.96
Policy Target ▲	2.15	9.73	10.00

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

Asset Class Rankings

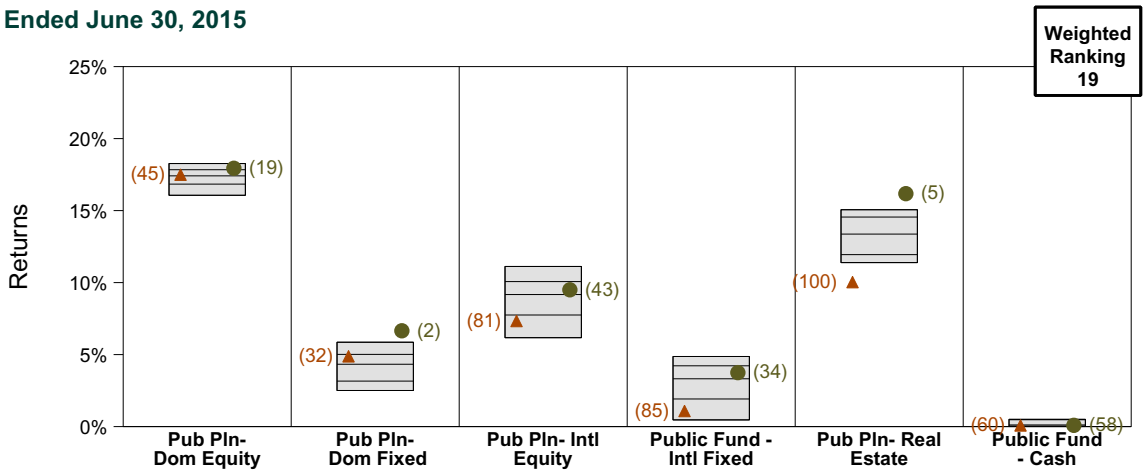
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used 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, 2015



	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	8.67	2.48	(0.42)	3.41	14.41	1.28
25th Percentile	7.90	2.07	(2.27)	(0.89)	12.57	0.26
Median	7.33	1.60	(3.66)	(6.49)	9.87	0.07
75th Percentile	6.71	1.13	(4.32)	(8.89)	7.17	0.01
90th Percentile	5.21	0.26	(5.27)	(13.59)	3.84	0.01
Asset Class Composite ●	8.64	3.40	(2.53)	(9.37)	15.78	0.07
Composite Benchmark ▲	7.26	1.22	(4.37)	(13.19)	8.78	0.02

Total Asset Class Performance
Five Years Ended June 30, 2015



	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	18.27	5.86	11.12	4.87	15.06	0.50
25th Percentile	17.84	5.01	10.07	4.22	14.55	0.48
Median	17.41	4.33	9.17	3.32	13.37	0.11
75th Percentile	16.84	3.16	7.75	1.92	11.94	0.04
90th Percentile	16.06	2.51	6.17	0.46	11.39	0.01
Asset Class Composite ●	17.94	6.65	9.50	3.75	16.18	0.09
Composite Benchmark ▲	17.49	4.88	7.33	1.08	10.03	0.08

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net 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, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	**$1,389,500,779**	**57.36%**	**$2,709,472**	**$11,000,556**	**$1,375,790,751**	**57.29%**
Domestic Equity	**$551,592,621**	**22.77%**	**$423,282**	**$2,144,738**	**$549,024,601**	**22.86%**
Large Cap	424,445,436	17.52%	310,782	932,178	423,202,476	17.62%
Small Cap	127,147,185	5.25%	112,500	1,212,560	125,822,125	5.24%
International Equity	**$366,054,326**	**15.11%**	**$(187,105)**	**$7,888,875**	**$358,352,555**	**14.92%**
Developed Intl Equity	280,774,762	11.59%	(249,605)	6,610,629	274,413,737	11.43%
Emerging Markets	85,279,564	3.52%	62,500	1,278,246	83,938,818	3.50%
World Equity	**$382,886,192**	**15.80%**	**$7,194,737**	**$2,998,127**	**$372,693,327**	**15.52%**
Private Equity	**$88,967,640**	**3.67%**	**$(4,721,442)**	**$(2,031,185)**	**$95,720,268**	**3.99%**
GLOBAL FIXED INCOME	**$560,362,966**	**23.13%**	**$3,486,170**	**$(4,659,767)**	**$561,536,563**	**23.38%**
Domestic Fixed Income	**$442,737,584**	**18.28%**	**$3,643,780**	**$(1,744,483)**	**$440,838,287**	**18.36%**
Inv. Grade Fixed Income	307,895,316	12.71%	1,853,721	(3,696,235)	309,737,831	12.90%
Below Inv. Grade Fixed Income	134,842,268	5.57%	1,790,059	1,951,752	131,100,456	5.46%
International Fixed Income	**$117,625,382**	**4.86%**	**$(157,610)**	**$(2,915,284)**	**$120,698,276**	**5.03%**
GLOBAL REAL ASSETS	**$432,543,163**	**17.85%**	**$281,445**	**$12,911,597**	**$419,350,121**	**17.46%**
Real Estate	237,577,808	9.81%	1,967,798	14,013,713	221,596,296	9.23%
Timber	89,607,737	3.70%	(12,794)	374,170	89,246,361	3.72%
Infrastructure	105,357,618	4.35%	(1,673,560)	(1,476,287)	108,507,464	4.52%
Cash & Equivalents	**$40,176,878**	**1.66%**	**$(4,462,274)**	**$7,449**	**$44,631,702**	**1.86%**
Total Fund	**$2,422,583,785**	**100.0%**	**$2,014,812**	**$19,259,835**	**$2,401,309,138**	**100.0%**

PLEASE REFER TO PAGES 36-38 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Global Equity				
Gross	0.80%	3.58%	14.66%	-
Net	0.76%	3.24%	14.30%	-
Wtd Avg Global Equity Benchmark	0.12%	1.47%	13.37%	-
Domestic Equity				
Gross	0.39%	8.64%	19.00%	17.94%
Net	0.37%	8.46%	18.77%	17.66%
Wtd Avg Domestci Equity Benchmark	0.20%	7.26%	17.81%	17.49%
Large Cap Equity				
Gross	0.22%	9.48%	19.08%	17.99%
Net	0.19%	9.30%	18.85%	17.70%
Benchmark(1)	0.11%	7.37%	17.73%	17.57%
Small Cap Equity				
Gross	0.96%	5.77%	18.77%	17.80%
Net	0.96%	5.57%	18.48%	17.56%
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%
International Equity				
Gross	2.20%	(2.53%)	11.92%	9.50%
Net	2.16%	(2.71%)	11.61%	9.14%
Wtd Avg Intl Equity Benchmark	0.66%	(4.37%)	10.01%	7.33%
Developed Intl Equity				
Gross	2.41%	(3.10%)	13.89%	10.39%
Net	2.35%	(3.34%)	13.58%	10.05%
Benchmark(2)	0.62%	(4.22%)	11.97%	8.37%
Emerging Markets				
Gross	1.53%	(0.86%)	5.28%	6.30%
Net	1.53%	(0.88%)	4.95%	5.89%
Benchmark(3)	0.69%	(5.12%)	3.71%	3.75%
World Equity				
Gross	0.84%	4.67%	14.74%	-
Net	0.75%	3.83%	13.98%	-
MSCI World Index	0.31%	1.43%	14.27%	13.10%
Private Equity				
Net	(2.12%)	(5.39%)	1.56%	4.76%

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

PLEASE REFER TO PAGES 39-43 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Global Fixed Income				
Gross	(0.82%)	0.65%	4.83%	-
Net	(0.89%)	0.40%	4.58%	-
Wtd Avg Global Fixed Income Benchmark	(1.11%)	(2.19%)	1.90%	-
Domestic Fixed Income				
Gross	(0.39%)	3.40%	6.26%	6.65%
Net	(0.44%)	3.17%	6.04%	6.40%
Wtd Avg Domestic FI Benchmark	(1.19%)	1.22%	3.29%	4.88%
Inv. Grade Fixed Income				
Gross	(1.19%)	3.66%	4.81%	5.36%
Net	(1.22%)	3.53%	4.70%	5.18%
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%
Below Inv. Grade Fixed Income				
Gross	1.50%	2.53%	9.92%	10.18%
Net	1.39%	2.09%	9.43%	9.74%
Barclays HY Corp 2% Issue	0.01%	(0.39%)	6.81%	8.58%
International Fixed Income				
Gross	(2.42%)	(9.37%)	(0.26%)	3.75%
Net	(2.55%)	(9.73%)	(0.63%)	3.38%
Wtd Avg Intl Fixed Income Benchmark	(0.83%)	(13.19%)	(2.83%)	1.08%
Global Real Assets				
Gross	3.04%	9.48%	9.69%	-
Net	2.99%	9.08%	9.27%	-
Wtd Avg Global Real Assets Benchmark	2.00%	8.82%	8.50%	-
Real Estate				
Gross	6.18%	15.78%	14.49%	16.18%
Net	6.14%	15.25%	13.98%	15.61%
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%
Timber				
Net	0.42%	3.94%	2.37%	-
NCREIF Timberland Index	0.51%	10.02%	9.77%	6.10%
Infrastructure				
Gross	(1.38%)	1.23%	7.60%	-
Net	(1.52%)	0.72%	6.87%	-
CPI-W	1.19%	(0.38%)	1.13%	1.80%
Cash & Equivalents - Net	**0.02%**	**0.07%**	**0.07%**	**0.09%**
3-month Treasury Bill	0.01%	0.02%	0.06%	0.08%
Total Fund				
Gross	0.80%	3.86%	11.32%	10.96%
Net	0.75%	3.53%	10.98%	10.61%
Target*	0.26%	2.15%	9.73%	10.00%

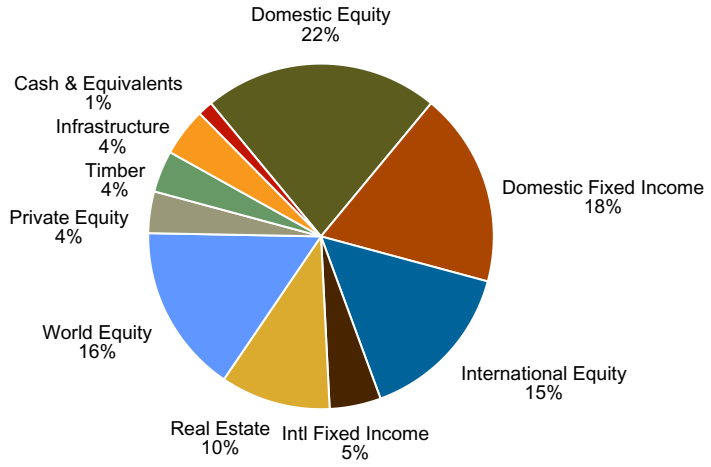
* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.1% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB PERS - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 3.5% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

PLEASE REFER TO PAGES 39-43 FOR INVESTMENT MANAGER LEVEL RETURNS.

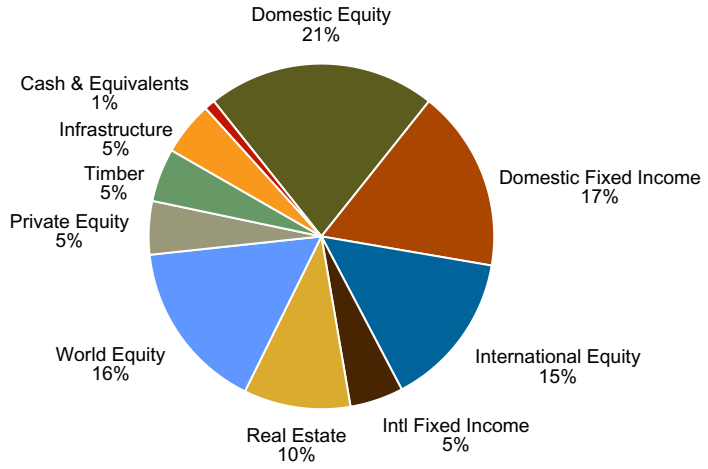
Actual vs Target Asset Allocation
As of June 30, 2015

The top left chart shows the Fund's asset allocation as of June 30, 2015. 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 Public Fund Sponsor Database.

Actual Asset Allocation

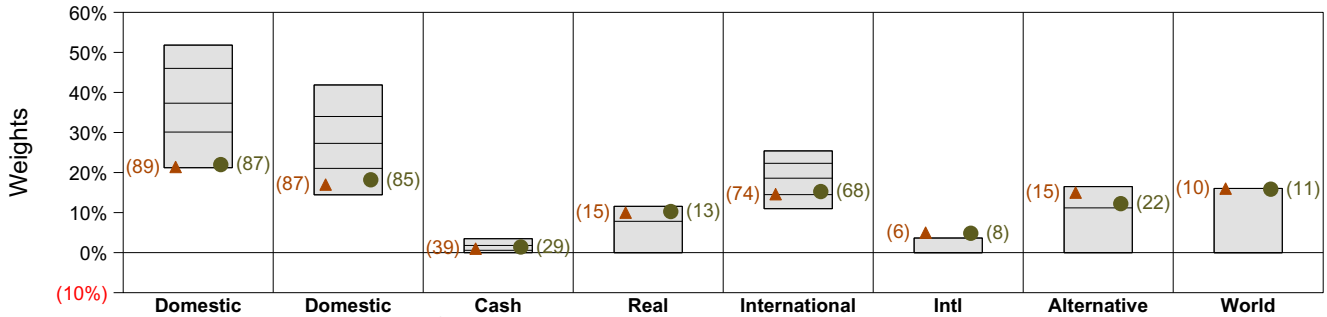


Target Asset Allocation



Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	462,462	22.0%	21.4%	0.6%	12,247
Domestic Fixed Income	382,647	18.2%	17.0%	1.2%	24,999
International Equity	320,794	15.2%	14.6%	0.6%	13,638
Intl Fixed Income	101,752	4.8%	5.0%	(0.2%)	(3,439)
Real Estate	215,922	10.3%	10.0%	0.3%	5,541
World Equity	333,333	15.8%	16.0%	(0.2%)	(3,276)
Private Equity	81,662	3.9%	5.0%	(1.1%)	(23,528)
Timber	81,277	3.9%	5.0%	(1.1%)	(23,913)
Infrastructure	94,332	4.5%	5.0%	(0.5%)	(10,859)
Cash & Equivalents	29,628	1.4%	1.0%	0.4%	8,590
Total	2,103,811	100.0%	100.0%		

Asset Class Weights vs Public Fund Sponsor Database



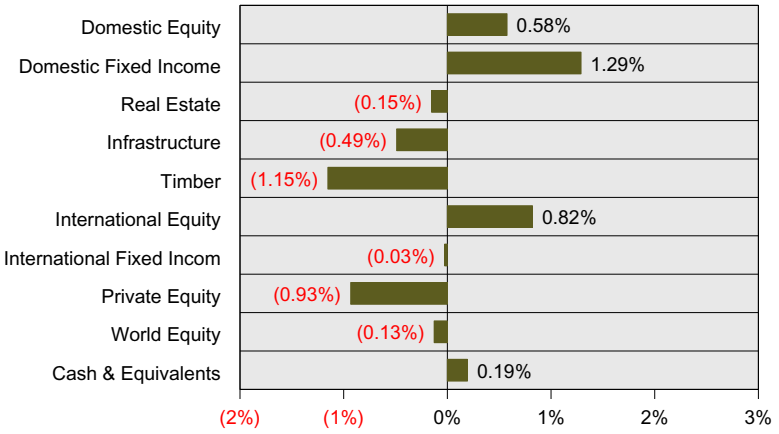
	Domestic Equity	Domestic Fixed Income	Cash & Equivalents	Real Estate	International Equity	Intl Fixed Income	Alternative	World Equity
10th Percentile	51.82	41.87	3.48	11.56	25.40	3.65	16.49	16.03
25th Percentile	46.01	34.00	1.79	7.82	22.30	0.00	11.17	0.00
Median	37.31	27.28	0.58	0.00	18.59	0.00	0.00	0.00
75th Percentile	30.11	21.04	0.00	0.00	14.49	0.00	0.00	0.00
90th Percentile	21.21	14.44	0.00	0.00	10.97	0.00	0.00	0.00
Fund ●	21.98	18.19	1.41	10.26	15.25	4.84	12.23	15.84
Target ▲	21.40	17.00	1.00	10.00	14.60	5.00	15.00	16.00
% Group Invested	96.34%	96.95%	71.34%	49.39%	90.85%	19.51%	43.90%	22.56%

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

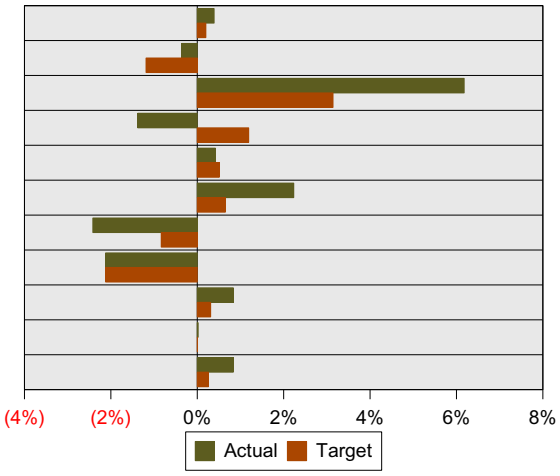
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

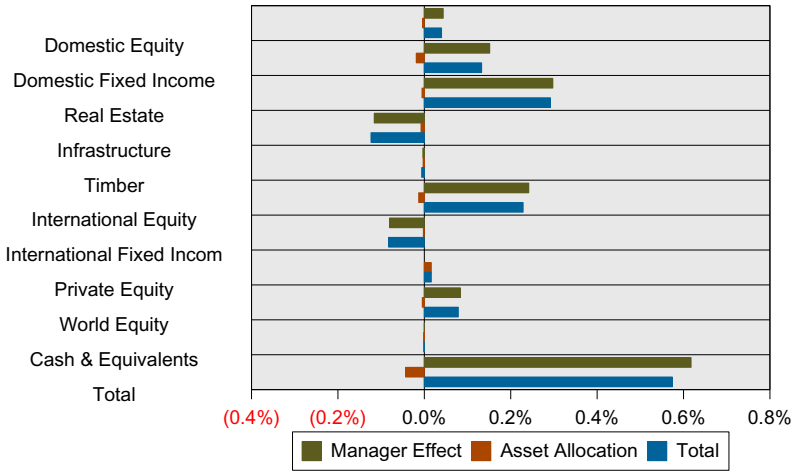
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

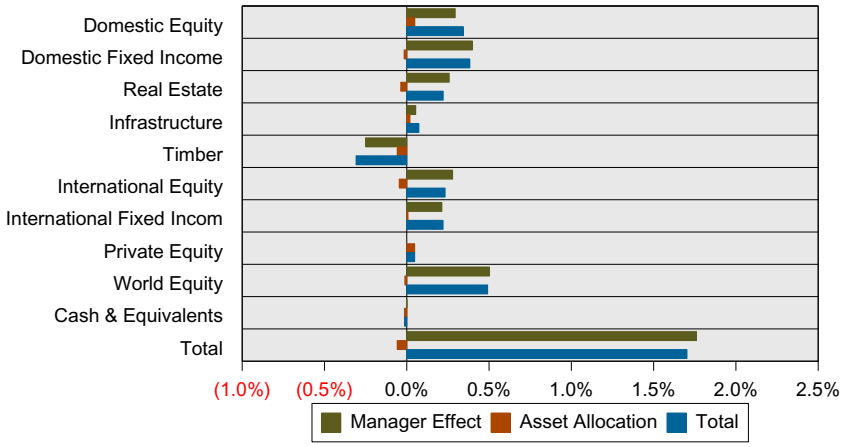
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	22%	21%	0.39%	0.20%	0.04%	(0.00%)	0.04%
Domestic Fixed Income	18%	17%	(0.36%)	(1.19%)	0.15%	(0.02%)	0.13%
Real Estate	10%	10%	6.18%	3.14%	0.30%	(0.01%)	0.29%
Infrastructure	5%	5%	(1.38%)	1.19%	(0.12%)	(0.01%)	(0.12%)
Timber	4%	5%	0.42%	0.51%	(0.00%)	(0.00%)	(0.01%)
International Equity	15%	15%	2.23%	0.65%	0.24%	(0.01%)	0.23%
International Fixed Incom	5%	5%	(2.42%)	(0.83%)	(0.08%)	(0.00%)	(0.08%)
Private Equity	4%	5%	(2.12%)	(2.12%)	0.00%	0.02%	0.02%
World Equity	16%	16%	0.84%	0.31%	0.08%	(0.00%)	0.08%
Cash & Equivalents	1%	1%	0.02%	0.01%	0.00%	(0.00%)	(0.00%)
Total			**0.83% =**	**0.26% +**	**0.62% +**	**(0.04%)**	**0.57%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

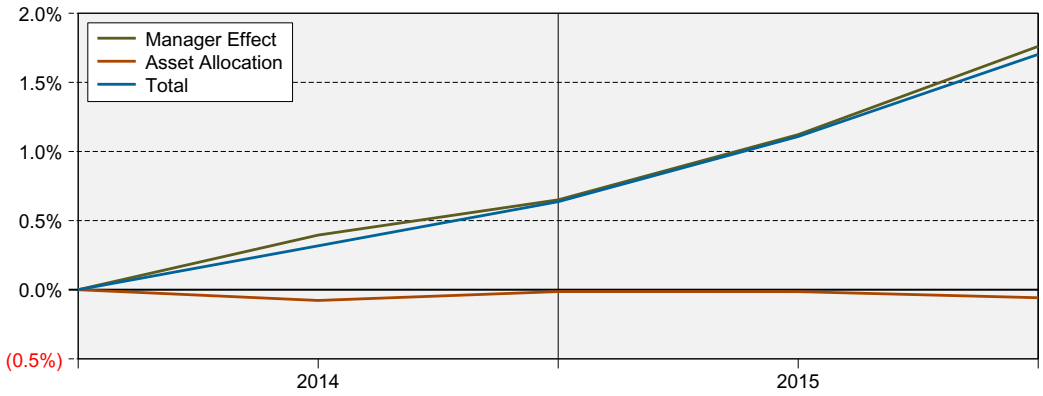
Cumulative Total Fund Relative Attribution - June 30, 2015

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

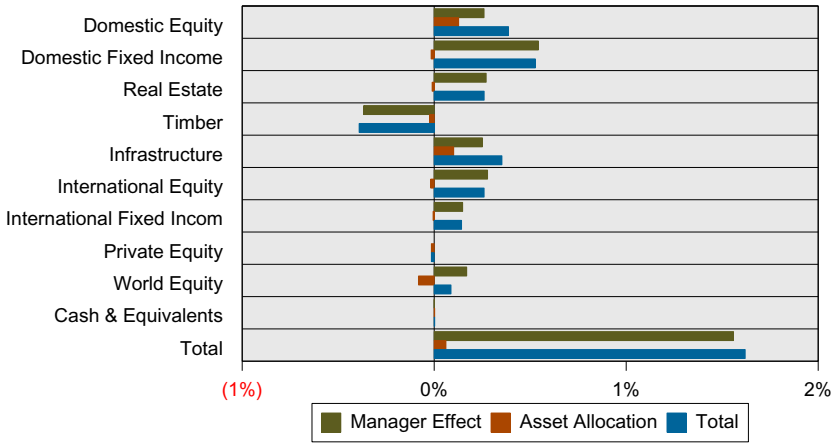
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	21%	8.65%	7.26%	0.29%	0.05%	0.34%
Domestic Fixed Income	18%	17%	3.39%	1.22%	0.40%	(0.02%)	0.38%
Real Estate	10%	10%	15.78%	12.98%	0.26%	(0.04%)	0.22%
Infrastructure	4%	5%	1.23%	(0.38%)	0.05%	0.02%	0.07%
Timber	4%	5%	3.95%	10.02%	(0.25%)	(0.06%)	(0.31%)
International Equity	15%	15%	(2.62%)	(4.34%)	0.28%	(0.05%)	0.23%
International Fixed Incom	5%	5%	(9.37%)	(13.19%)	0.21%	0.01%	0.22%
Private Equity	4%	5%	(5.37%)	(5.37%)	0.00%	0.05%	0.05%
World Equity	16%	16%	4.68%	1.43%	0.50%	(0.01%)	0.49%
Cash & Equivalents	1%	1%	0.07%	0.02%	0.00%	(0.01%)	(0.01%)
Total			**3.86% =**	**2.15% +**	**1.76% +**	**(0.06%)**	**1.70%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

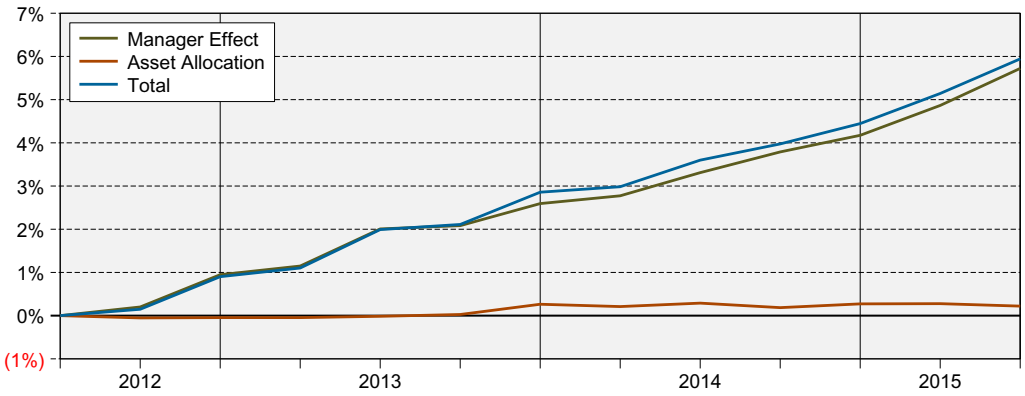
Cumulative Total Fund Relative Attribution - June 30, 2015

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

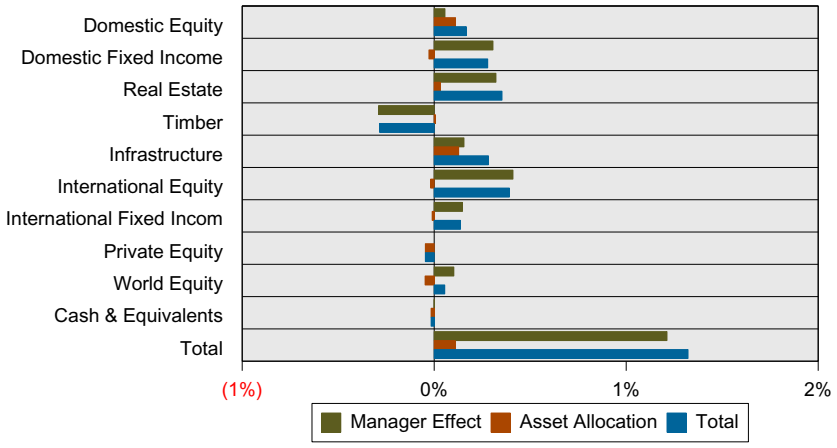
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	23%	22%	19.01%	17.81%	0.26%	0.13%	0.39%
Domestic Fixed Income	17%	17%	6.26%	3.29%	0.54%	(0.02%)	0.53%
Real Estate	10%	10%	14.49%	11.63%	0.27%	(0.01%)	0.26%
Timber	5%	5%	2.37%	9.76%	(0.37%)	(0.02%)	(0.39%)
Infrastructure	4%	5%	7.60%	1.13%	0.25%	0.10%	0.35%
International Equity	15%	15%	12.30%	10.40%	0.28%	(0.02%)	0.26%
International Fixed Incom	5%	5%	(0.26%)	(2.83%)	0.15%	(0.01%)	0.14%
Private Equity	5%	5%	1.62%	1.62%	0.00%	(0.01%)	(0.01%)
World Equity	14%	14%	14.74%	14.27%	0.17%	(0.08%)	0.09%
Cash & Equivalents	1%	1%	0.07%	0.06%	0.00%	0.00%	0.00%
Total			**11.40% =**	**9.78% +**	**1.56% +**	**0.06%**	**1.62%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

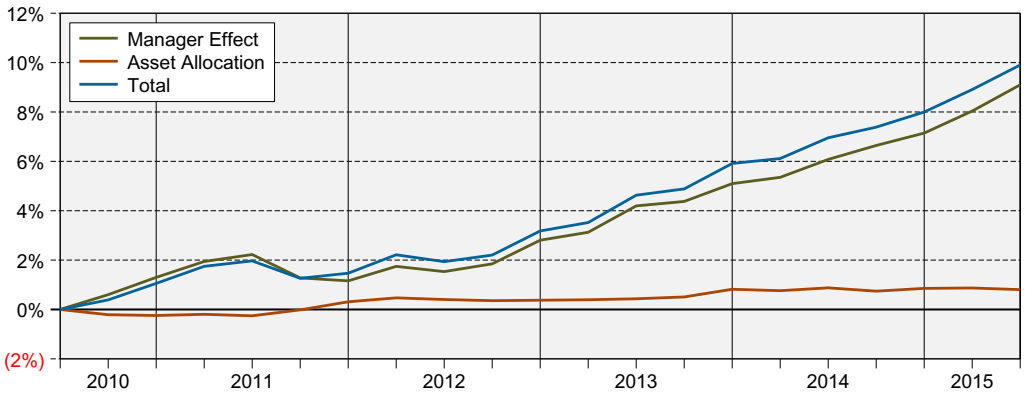
Cumulative Total Fund Relative Attribution - June 30, 2015

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

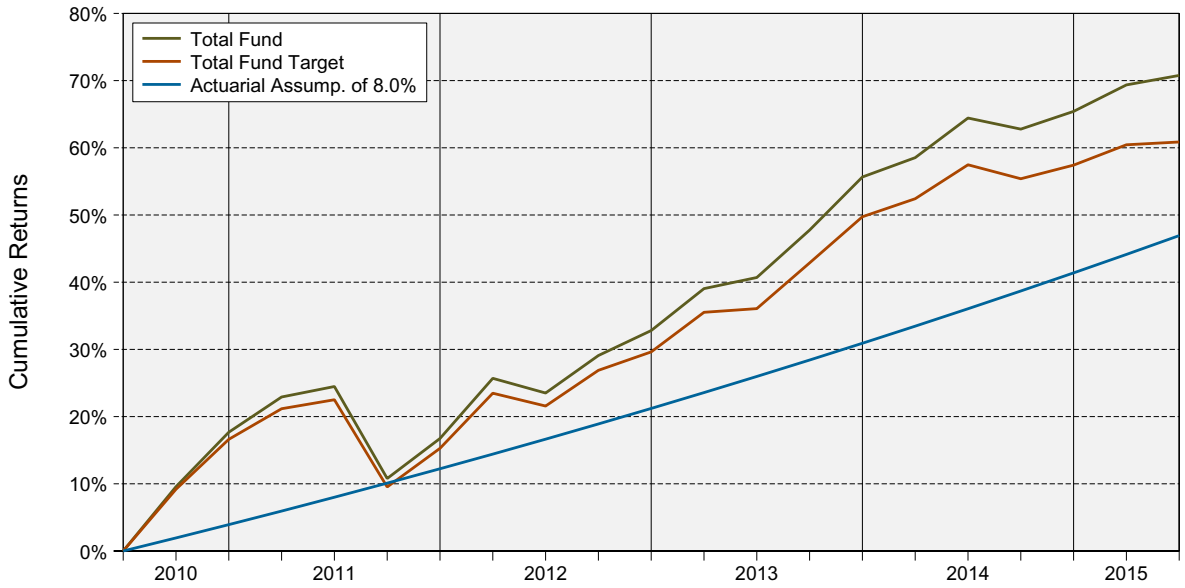
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	28%	27%	17.95%	17.48%	0.06%	0.11%	0.17%
Domestic Fixed Income	18%	18%	6.68%	4.91%	0.31%	(0.03%)	0.28%
Real Estate	10%	10%	16.17%	12.72%	0.32%	0.03%	0.35%
Timber	4%	4%	-	-	(0.29%)	0.01%	(0.28%)
Infrastructure	3%	4%	-	-	0.15%	0.13%	0.28%
International Equity	18%	18%	9.69%	7.55%	0.41%	(0.02%)	0.39%
International Fixed Incom	5%	5%	3.75%	1.08%	0.15%	(0.01%)	0.14%
Private Equity	5%	5%	4.90%	4.90%	0.00%	(0.05%)	(0.05%)
World Equity	9%	9%	-	-	0.10%	(0.05%)	0.05%
Cash & Equivalents	1%	1%	0.09%	0.08%	0.00%	(0.02%)	(0.02%)
Total			**11.30%**	**= 9.97%**	**+ 1.21%**	**+ 0.11%**	**1.32%**

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

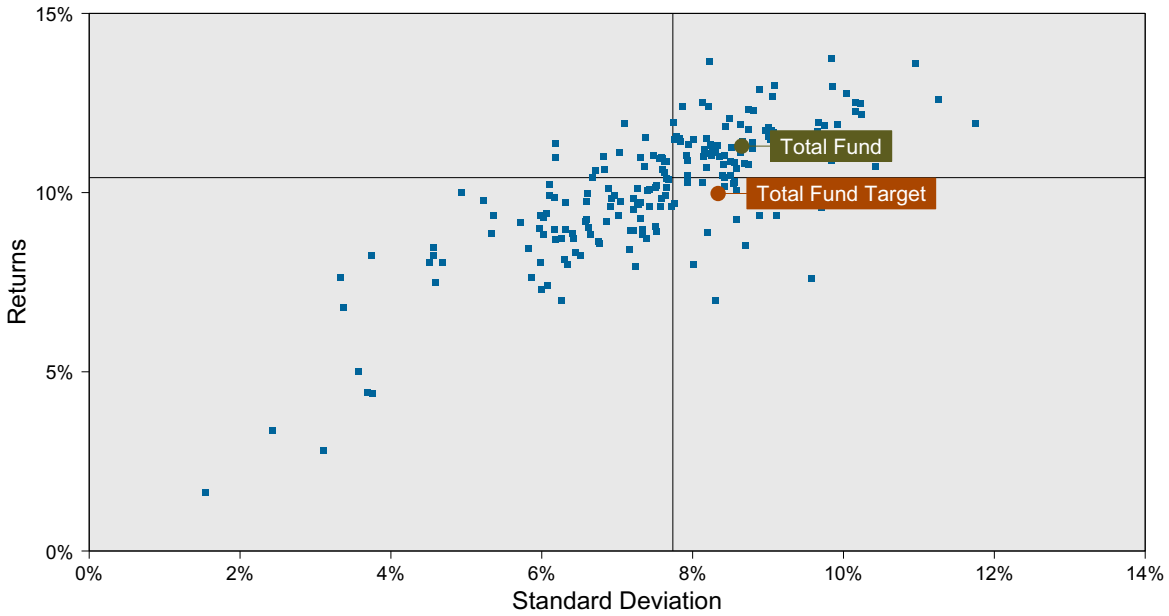
Cumulative Performance Relative to Target

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 Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Five Year Annualized Risk vs Return



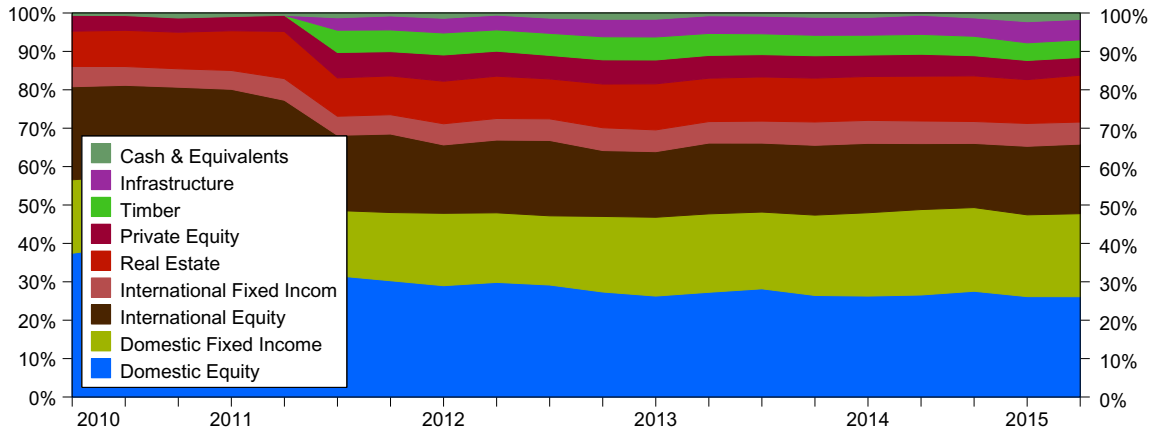
Squares represent membership of the Public Fund Sponsor Database

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

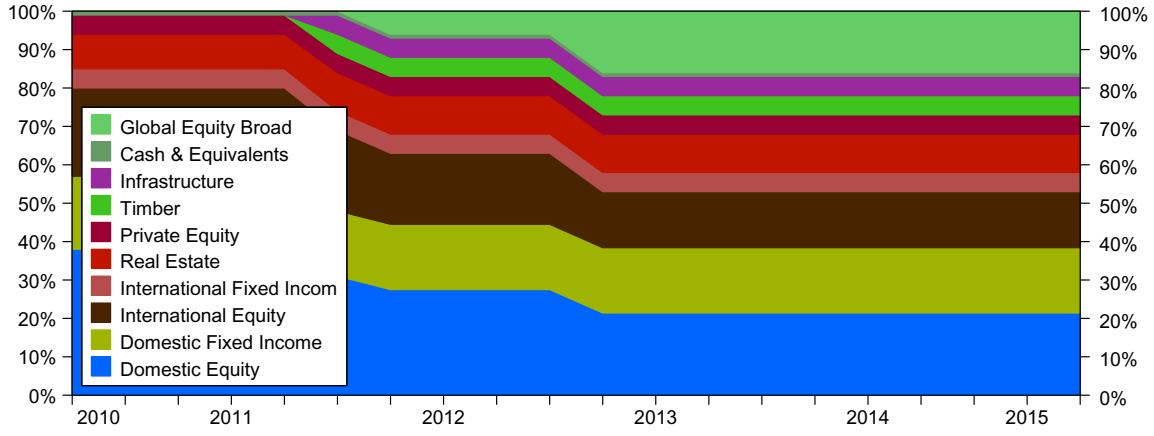
Actual vs Target Historical Asset Allocation

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 Public Fund Sponsor Database.

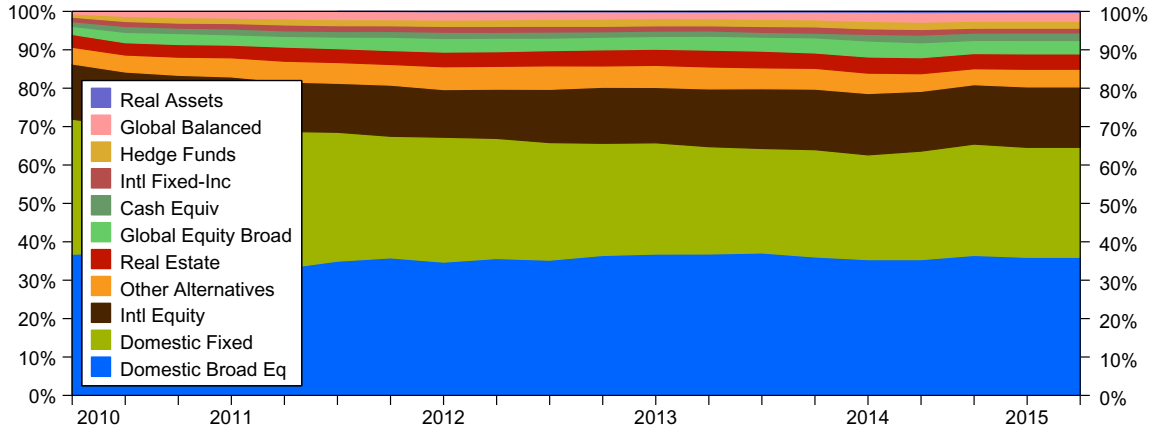
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Public Fund Sponsor Database Historical Asset Allocation

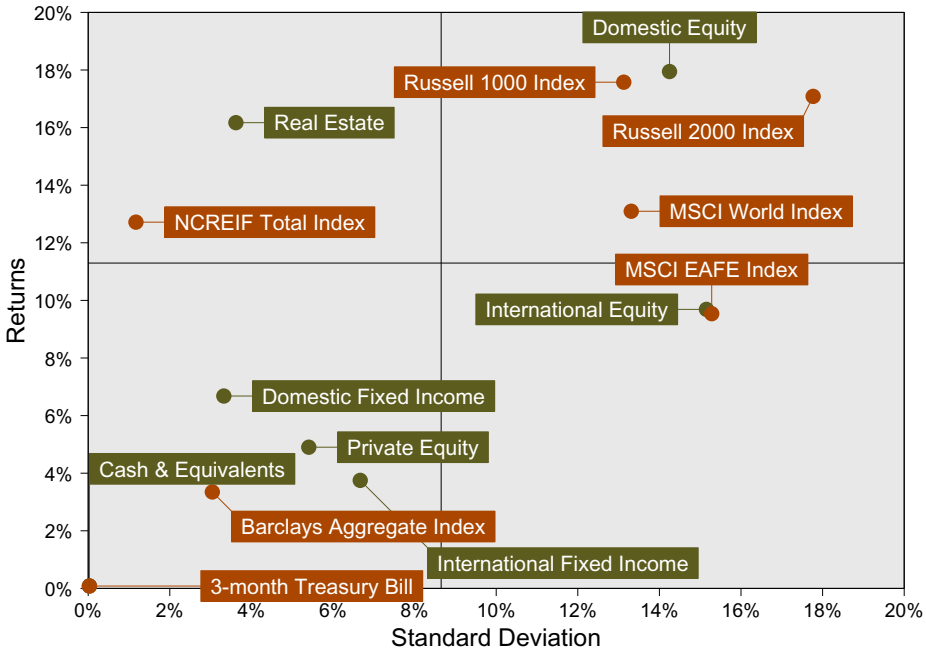


* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

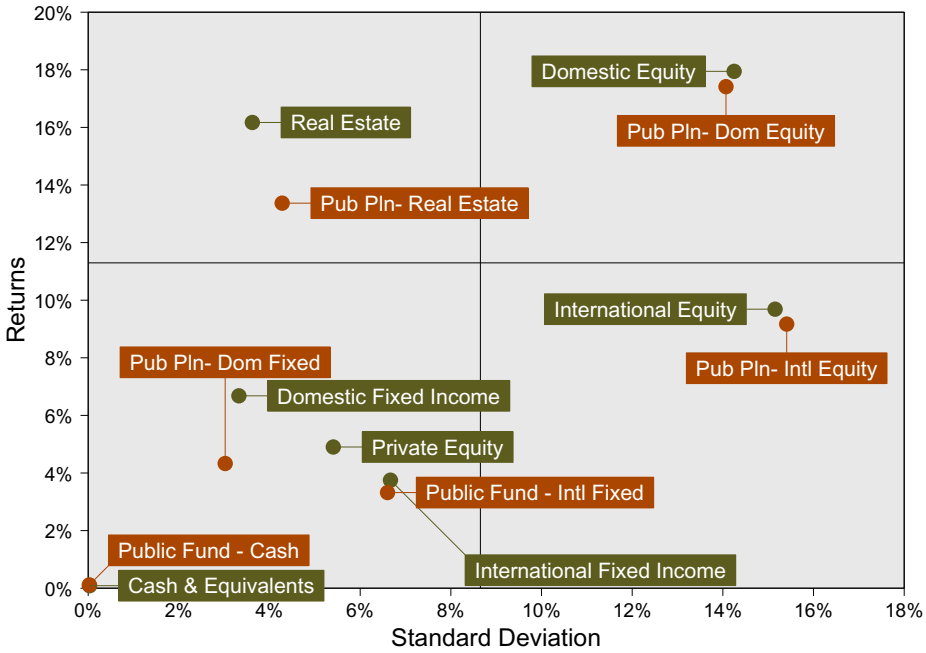
Asset Class Risk and Return

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



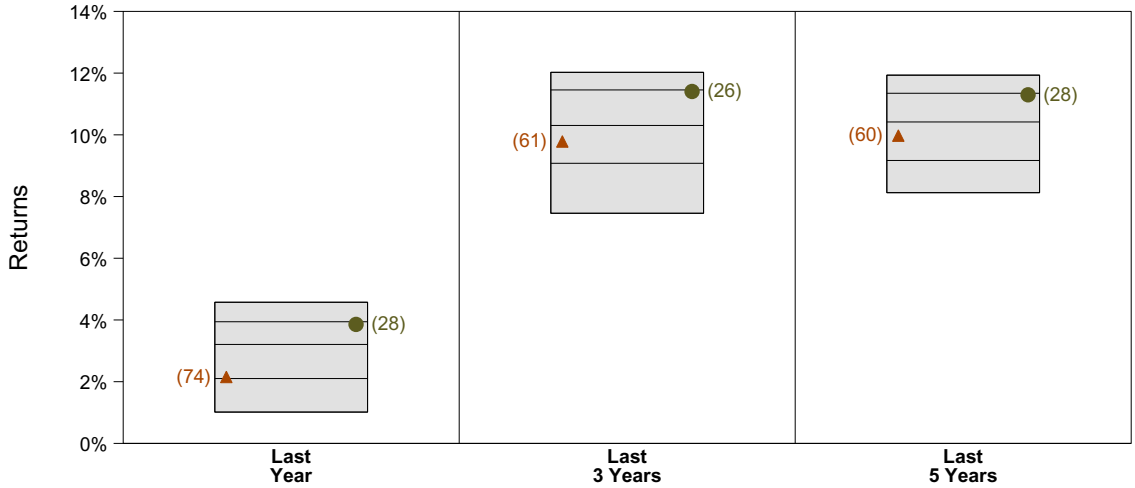
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

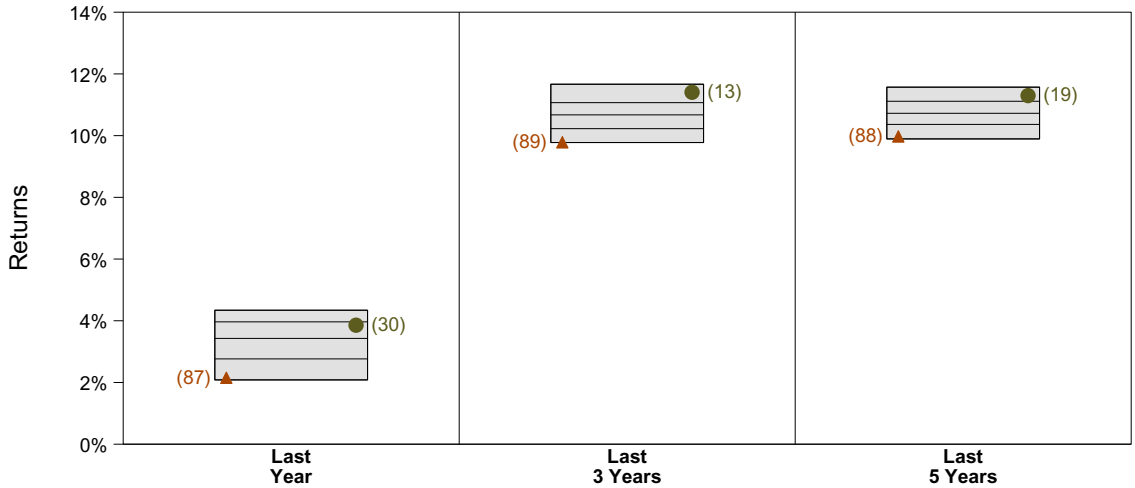
The first two charts show the ranking of the Total Fund's performance relative to that of the Public Fund Sponsor Database for periods ended June 30, 2015. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

Public Fund Sponsor Database



	Last Year	Last 3 Years	Last 5 Years
10th Percentile	4.57	12.03	11.93
25th Percentile	3.94	11.46	11.35
Median	3.21	10.30	10.42
75th Percentile	2.10	9.08	9.17
90th Percentile	1.01	7.46	8.13
Total Fund ●	3.86	11.40	11.30
Policy Target ▲	2.15	9.78	9.97

Asset Allocation Adjusted Ranking



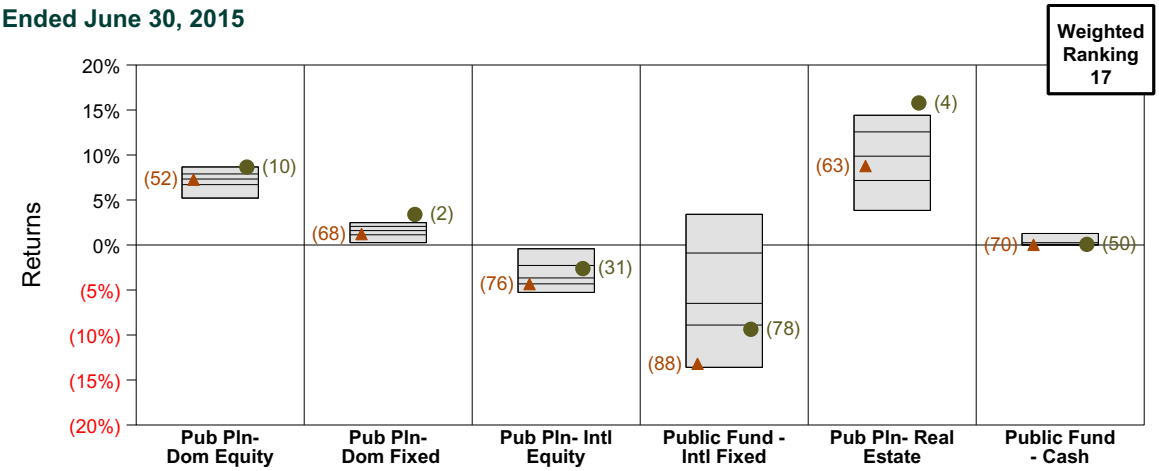
	Last Year	Last 3 Years	Last 5 Years
10th Percentile	4.34	11.67	11.57
25th Percentile	3.96	11.07	11.11
Median	3.43	10.67	10.72
75th Percentile	2.76	10.23	10.36
90th Percentile	2.08	9.78	9.89
Total Fund ●	3.86	11.40	11.30
Policy Target ▲	2.15	9.78	9.97

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

Asset Class Rankings

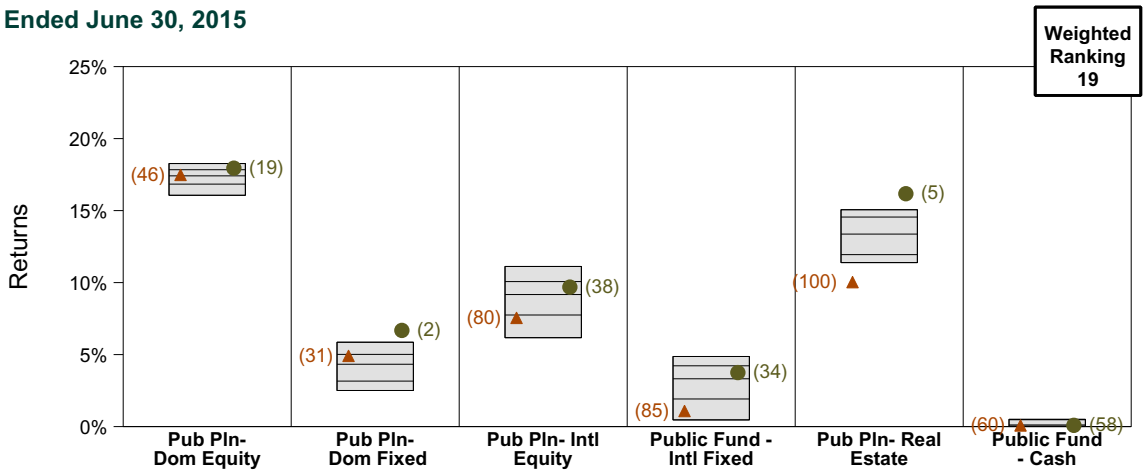
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used 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, 2015



	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	8.67	2.48	(0.42)	3.41	14.41	1.28
25th Percentile	7.90	2.07	(2.27)	(0.89)	12.57	0.26
Median	7.33	1.60	(3.66)	(6.49)	9.87	0.07
75th Percentile	6.71	1.13	(4.32)	(8.89)	7.17	0.01
90th Percentile	5.21	0.26	(5.27)	(13.59)	3.84	0.01
Asset Class Composite ●	8.65	3.39	(2.62)	(9.37)	15.78	0.07
Composite Benchmark ▲	7.26	1.22	(4.34)	(13.19)	8.78	0.02

Total Asset Class Performance
Five Years Ended June 30, 2015



	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	18.27	5.86	11.12	4.87	15.06	0.50
25th Percentile	17.84	5.01	10.07	4.22	14.55	0.48
Median	17.41	4.33	9.17	3.32	13.37	0.11
75th Percentile	16.84	3.16	7.75	1.92	11.94	0.04
90th Percentile	16.06	2.51	6.17	0.46	11.39	0.01
Asset Class Composite ●	17.95	6.68	9.69	3.75	16.17	0.09
Composite Benchmark ▲	17.48	4.91	7.55	1.08	10.03	0.08

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net 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, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	**$1,198,252,356**	**56.96%**	**$(1,837,292)**	**$9,633,673**	**$1,190,455,975**	**56.95%**
Domestic Equity	**$462,462,330**	**21.98%**	**$(257,322)**	**$1,799,934**	**$460,919,718**	**22.05%**
Large Cap	356,228,858	16.93%	(294,822)	786,713	355,736,967	17.02%
Small Cap	106,233,472	5.05%	37,500	1,013,221	105,182,751	5.03%
International Equity	**$320,794,475**	**15.25%**	**$(1,074,134)**	**$7,032,270**	**$314,836,339**	**15.06%**
Developed Intl Equity	258,204,749	12.27%	(636,634)	6,087,226	252,754,157	12.09%
Emerging Markets	62,589,726	2.98%	(437,500)	945,044	62,082,182	2.97%
World Equity	**$333,333,412**	**15.84%**	**$3,827,909**	**$2,665,865**	**$326,839,638**	**15.64%**
Private Equity	**$81,662,139**	**3.88%**	**$(4,333,745)**	**$(1,864,396)**	**$87,860,280**	**4.20%**
GLOBAL FIXED INCOME	**$484,399,254**	**23.02%**	**$7,910,114**	**$(3,942,987)**	**$480,432,127**	**22.98%**
Fixed Income Comp	**$382,647,254**	**18.19%**	**$8,495,739**	**$(1,410,108)**	**$375,561,622**	**17.97%**
Investment Grade Fixed	262,222,313	12.46%	7,019,226	(3,156,671)	258,359,758	12.36%
Below Inv. Grade Fixed Income	120,424,941	5.72%	1,476,513	1,746,563	117,201,864	5.61%
International Fixed Income	**$101,752,001**	**4.84%**	**$(585,625)**	**$(2,532,879)**	**$104,870,505**	**5.02%**
GLOBAL REAL ASSETS	**$391,531,027**	**18.61%**	**$278,409**	**$11,753,933**	**$379,498,684**	**18.16%**
Real Estate	215,922,154	10.26%	1,788,431	12,736,337	201,397,386	9.63%
Timber	81,277,245	3.86%	(11,604)	339,385	80,949,464	3.87%
Infrastructure	94,331,628	4.48%	(1,498,417)	(1,321,789)	97,151,834	4.65%
Cash & Equivalents	**$29,628,231**	**1.41%**	**$(10,289,594)**	**$5,138**	**$39,912,686**	**1.91%**
Total Fund	**$2,103,810,868**	**100.0%**	**$(3,938,363)**	**$17,449,758**	**$2,090,299,472**	**100.0%**

PLEASE REFER TO PAGES 36-38 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Global Equity				
Gross	0.81%	3.51%	14.72%	-
Net	0.77%	3.17%	14.37%	-
Wtd Avg Global Equity Benchmark	0.12%	1.49%	13.48%	-
Domestic Equity				
Gross	0.39%	8.65%	19.01%	17.95%
Net	0.37%	8.47%	18.77%	17.67%
Wtd Avg Domestic Equity Benchmark	0.20%	7.26%	17.81%	17.48%
Large Cap Equity				
Gross	0.22%	9.48%	19.04%	17.97%
Net	0.19%	9.30%	18.81%	17.68%
Benchmark(1)	0.11%	7.37%	17.73%	17.57%
Small Cap Equity				
Gross	0.96%	5.77%	18.77%	17.84%
Net	0.96%	5.57%	18.48%	17.59%
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%
International Equity				
Gross	2.23%	(2.62%)	12.30%	9.69%
Net	2.19%	(2.81%)	11.99%	9.33%
Wtd Avg Intl Equity Benchmark	0.65%	(4.34%)	10.40%	7.55%
Developed Intl Equity				
Gross	2.41%	(3.10%)	13.90%	10.46%
Net	2.35%	(3.34%)	13.59%	10.12%
Benchmark(2)	0.62%	(4.22%)	11.97%	8.37%
Emerging Markets				
Gross	1.53%	(0.86%)	5.28%	6.26%
Net	1.53%	(0.88%)	4.95%	5.85%
Benchmark(3)	0.69%	(5.12%)	3.71%	3.75%
World Equity				
Gross	0.84%	4.68%	14.74%	-
Net	0.75%	3.84%	13.98%	-
MSCI World Index	0.31%	1.43%	14.27%	13.10%
Private Equity				
Net	(2.12%)	(5.38%)	1.57%	4.80%

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

PLEASE REFER TO PAGES 39-43 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Global Fixed Income				
Gross	(0.80%)	0.56%	4.80%	-
Net	(0.88%)	0.30%	4.56%	-
Wtd Avg Global Fixed Inc. Benchmark	(1.11%)	(2.19%)	1.90%	-
Domestic Fixed Income				
Gross	(0.36%)	3.39%	6.26%	6.68%
Net	(0.42%)	3.16%	6.05%	6.56%
Wtd Avg Domestic FI Benchmark	(1.19%)	1.22%	3.29%	4.91%
Inv. Grade Fixed Income				
Gross	(1.19%)	3.65%	4.80%	5.37%
Net	(1.22%)	3.51%	4.70%	5.18%
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%
Below Inv. Grade Fixed Income				
Gross	1.50%	2.53%	9.92%	10.17%
Net	1.39%	2.09%	9.43%	9.73%
Barclays HY Corp 2% Issue	0.01%	(0.39%)	6.81%	8.58%
International Fixed Income				
Gross	(2.42%)	(9.37%)	(0.26%)	3.75%
Net	(2.55%)	(9.73%)	(0.62%)	3.38%
Wtd Avg Intl Fixed Income Benchmark	(0.83%)	(13.19%)	(2.83%)	1.08%
Global Real Assets				
Gross	3.06%	9.52%	9.72%	-
Net	3.01%	9.11%	9.30%	-
Wtd Avg Global Real Assets Benchmark	2.00%	8.82%	8.50%	-
Real Estate				
Gross	6.18%	15.78%	14.49%	16.17%
Net	6.14%	15.25%	13.98%	15.61%
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%
Timber				
Net	0.42%	3.95%	2.37%	-
NCREIF Timberland Index	0.51%	10.02%	9.77%	6.10%
Infrastructure				
Gross	(1.38%)	1.23%	7.60%	-
Net	(1.52%)	0.72%	6.87%	-
CPI-W	1.19%	(0.38%)	1.13%	1.80%
Cash & Equivalents - Net	**0.02%**	**0.07%**	**0.07%**	**0.09%**
3-month Treasury Bill	0.01%	0.02%	0.06%	0.08%
Total Fund				
Gross	0.83%	3.86%	11.40%	11.30%
Net	0.78%	3.52%	11.06%	10.94%
Target*	0.26%	2.15%	9.78%	9.97%

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World Index, 12.0% Barclays Aggregate Index, 11.8% MSCI EAFE Index, 10.0% NCREIF Total Index, 5.0% CPI-W, 5.0% Barclays HY Corp 2% Issue, 5.0% NDSIB TFFR - Private Equity, 5.0% Global Agg ex USD, 5.0% NCREIF Timberland Index, 4.8% Russell 2000 Index, 2.8% MSCI Emerging Mkts - Net and 1.0% 3-month Treasury Bill.

PLEASE REFER TO PAGES 39-43 FOR INVESTMENT MANAGER LEVEL RETURNS.

L.A. Capital
Period Ended June 30, 2015

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.

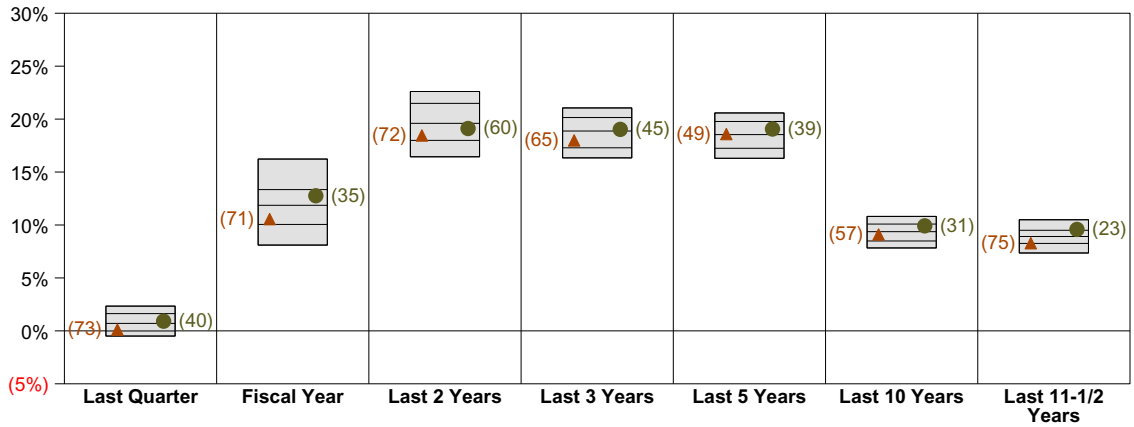
Quarterly Summary and Highlights

- L.A. Capital's portfolio posted a 0.91% return for the quarter placing it in the 40 percentile of the CAI Large Cap Growth Style group for the quarter and in the 35 percentile for the last year.
- L.A. Capital's portfolio outperformed the Russell 1000 Growth Index by 0.79% for the quarter and outperformed the Russell 1000 Growth Index for the year by 2.20%.

Quarterly Asset Growth

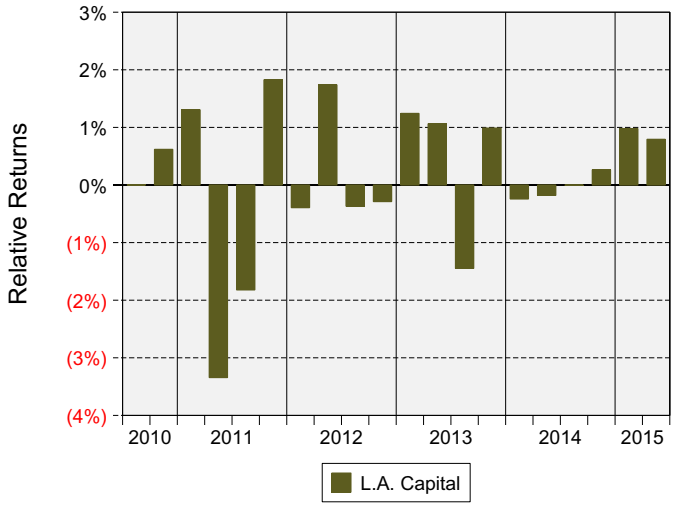
Beginning Market Value	$313,749,458
Net New Investment	$-170,934
Investment Gains/(Losses)	$2,862,397
Ending Market Value	$316,440,921

Performance vs CAI Large Cap Growth Style (Gross)

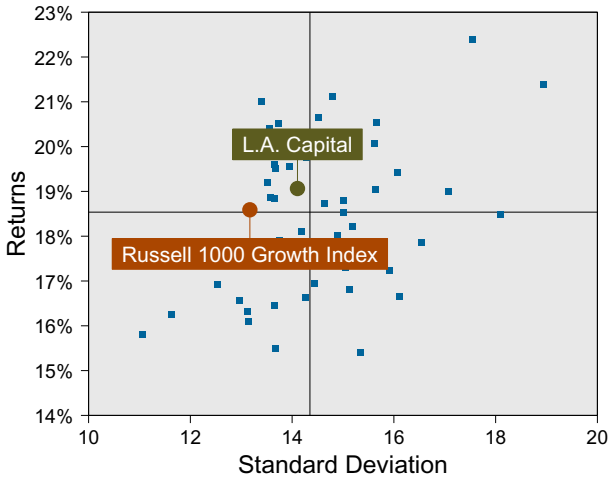


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11-1/2 Years
10th Percentile	2.34	16.23	22.61	21.06	20.58	10.81	10.49
25th Percentile	1.63	13.34	21.49	20.15	19.78	10.09	9.50
Median	0.70	11.86	19.60	18.87	18.54	9.37	8.91
75th Percentile	(0.01)	10.05	17.99	17.29	17.24	8.49	8.26
90th Percentile	(0.49)	8.10	16.44	16.34	16.30	7.83	7.35
L.A. Capital ●	0.91	12.76	19.11	19.03	19.06	9.92	9.58
Russell 1000 Growth Index ▲	0.12	10.56	18.46	17.99	18.59	9.10	8.28

Relative Return vs Russell 1000 Growth Index



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



L.A. Capital Management Enhanced Index
Period Ended June 30, 2015

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.

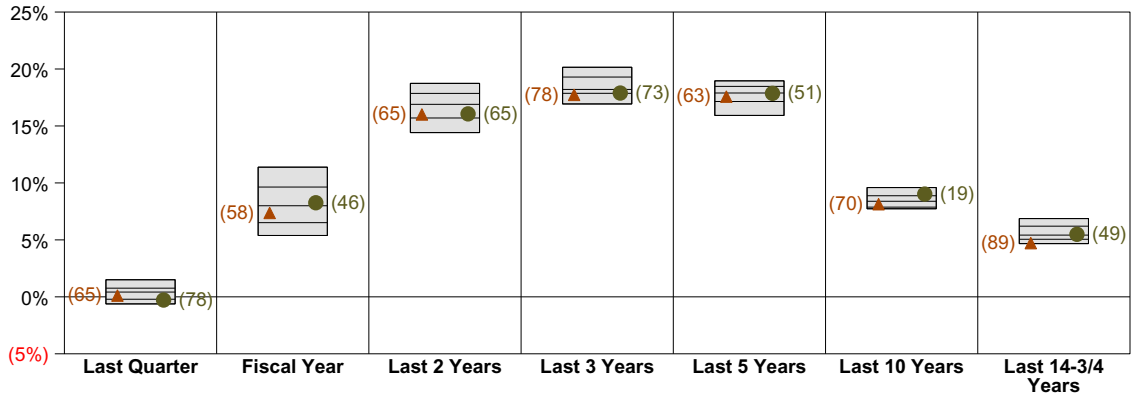
Quarterly Summary and Highlights

- LACM Enhanced Index's portfolio posted a (0.28)% return for the quarter placing it in the 78 percentile of the CAI Large Cap Core Style group for the quarter and in the 46 percentile for the last year.
- LACM Enhanced Index's portfolio underperformed the Russell 1000 Index by 0.39% for the quarter and outperformed the Russell 1000 Index for the year by 0.89%.

Quarterly Asset Growth

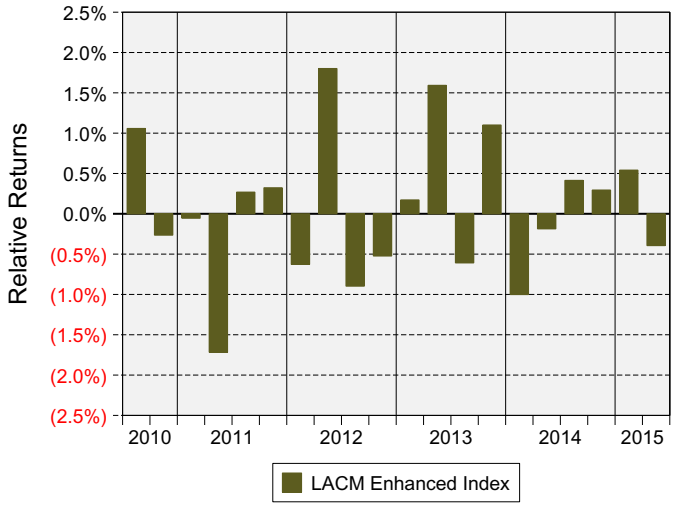
Beginning Market Value	$205,590,160
Net New Investment	$-65,743
Investment Gains/(Losses)	$-576,204
Ending Market Value	$204,948,213

Performance vs CAI Large Cap Core Style (Gross)

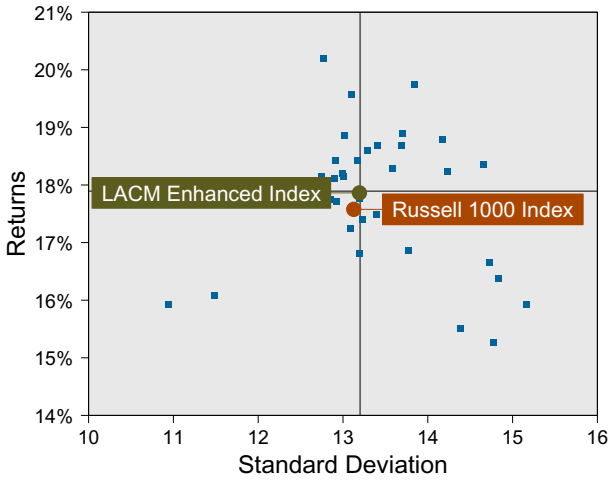


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14-3/4 Years
10th Percentile	1.50	11.38	18.74	20.15	18.96	9.59	6.87
25th Percentile	0.76	9.64	17.86	19.29	18.47	8.87	6.20
Median	0.42	8.00	16.90	18.21	17.89	8.39	5.42
75th Percentile	(0.21)	6.51	15.70	17.86	17.15	7.88	5.05
90th Percentile	(0.62)	5.39	14.42	16.93	15.92	7.73	4.67
LACM Enhanced Index ●	(0.28)	8.26	16.06	17.89	17.86	9.02	5.49
Russell 1000 Index ▲	0.11	7.37	16.01	17.73	17.58	8.13	4.71

Relative Return vs Russell 1000 Index



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



Northern Trust AM Enh S&P500
Period Ended June 30, 2015

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.

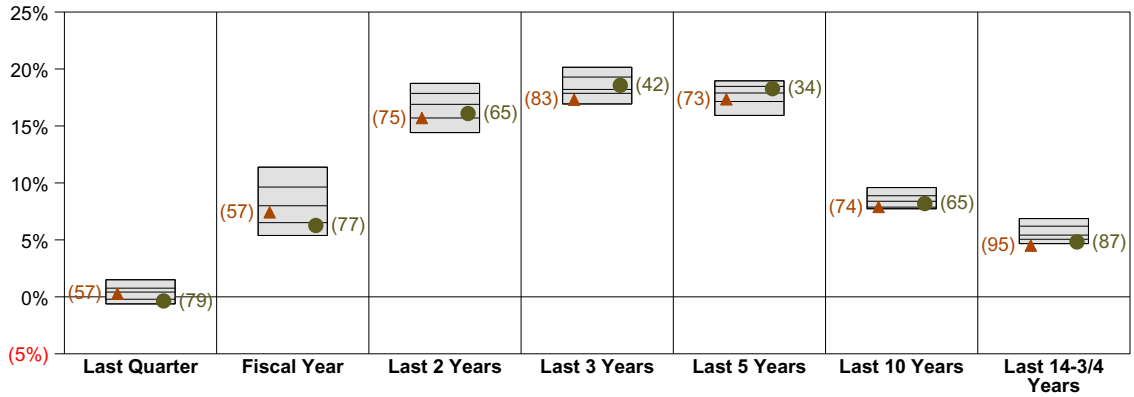
Quarterly Summary and Highlights

- Northern Trust AM Enh S&P500's portfolio posted a (0.36)% return for the quarter placing it in the 79 percentile of the CAI Large Cap Core Style group for the quarter and in the 77 percentile for the last year.
- Northern Trust AM Enh S&P500's portfolio underperformed the S&P 500 Index by 0.64% for the quarter and underperformed the S&P 500 Index for the year by 1.16%.

Quarterly Asset Growth

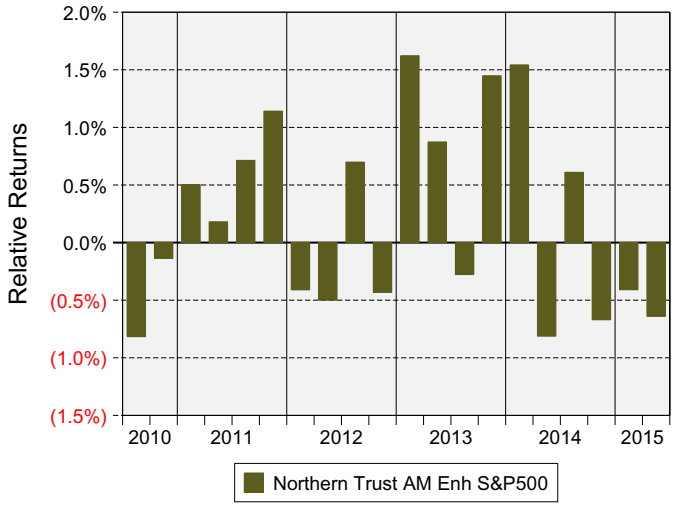
Beginning Market Value	$125,990,554
Net New Investment	$0
Investment Gains/(Losses)	$-456,155
Ending Market Value	$125,534,400

Performance vs CAI Large Cap Core Style (Gross)

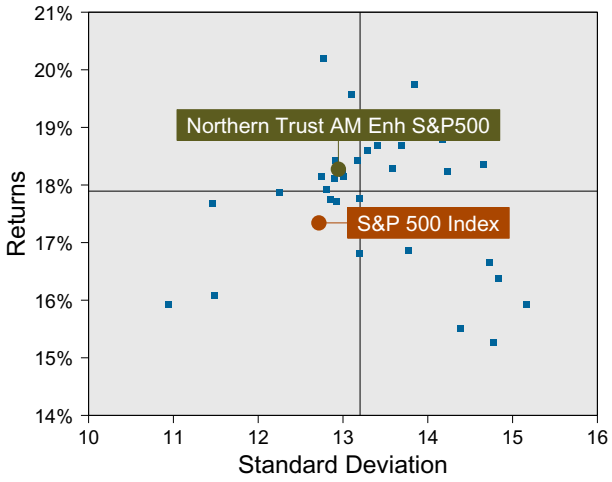


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14-3/4 Years
10th Percentile	1.50	11.38	18.74	20.15	18.96	9.59	6.87
25th Percentile	0.76	9.64	17.86	19.29	18.47	8.87	6.20
Median	0.42	8.00	16.90	18.21	17.89	8.39	5.42
75th Percentile	(0.21)	6.51	15.70	17.86	17.15	7.88	5.05
90th Percentile	(0.62)	5.39	14.42	16.93	15.92	7.73	4.67
Northern Trust AM Enh S&P500 ●	(0.36)	6.26	16.09	18.57	18.27	8.19	4.82
S&P 500 Index ▲	0.28	7.42	15.70	17.31	17.34	7.89	4.50

Relative Return vs S&P 500 Index



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



Parametric Clifton Enh S&P
Period Ended June 30, 2015

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.

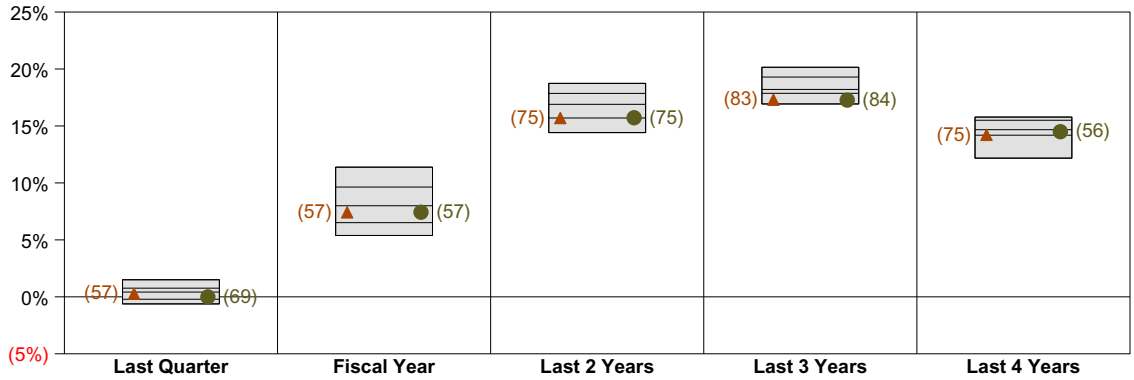
Quarterly Summary and Highlights

- Parametric Clifton Enh S&P's portfolio posted a (0.01)% return for the quarter placing it in the 69 percentile of the CAI Large Cap Core Style group for the quarter and in the 57 percentile for the last year.
- Parametric Clifton Enh S&P's portfolio underperformed the S&P 500 Index by 0.28% for the quarter and outperformed the S&P 500 Index for the year by 0.01%.

Quarterly Asset Growth

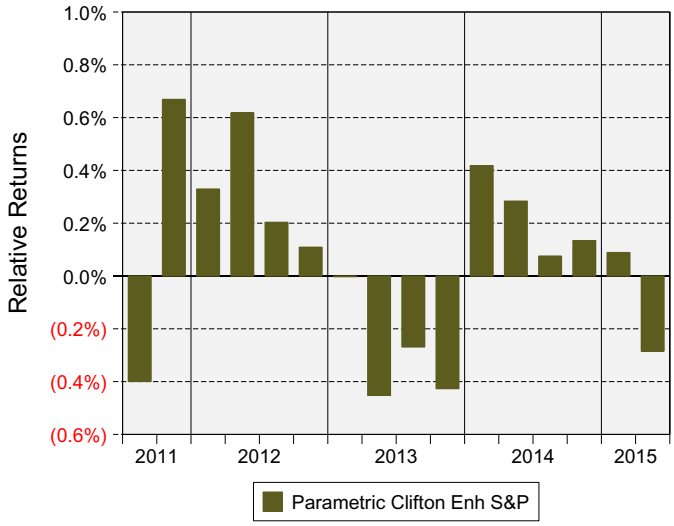
Beginning Market Value	$177,999,705
Net New Investment	$0
Investment Gains/(Losses)	$-11,267
Ending Market Value	$177,988,438

Performance vs CAI Large Cap Core Style (Gross)

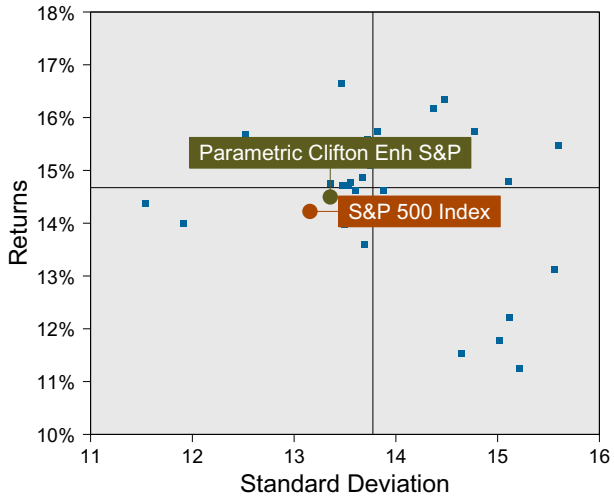


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 4 Years
10th Percentile	1.50	11.38	18.74	20.15	15.78
25th Percentile	0.76	9.64	17.86	19.29	15.50
Median	0.42	8.00	16.90	18.21	14.67
75th Percentile	(0.21)	6.51	15.70	17.86	14.19
90th Percentile	(0.62)	5.39	14.42	16.93	12.18
Parametric Clifton Enh S&P ●	(0.01)	7.43	15.72	17.27	14.50
S&P 500 Index ▲	0.28	7.42	15.70	17.31	14.22

Relative Return vs S&P 500 Index



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



Callan
Period Ended June 30, 2015

Investment Philosophy

The fundamental belief inherent in this strategy is that the stock-weightings reflected in the average portfolio of a broad universe of institutional Small Cap managers is a more efficient representation of the Small Cap market than any of the more mechanical Small Cap indices that are typically employed as benchmarks. Hence, a portfolio designed to generate the return of this average portfolio in the most cost-effective possible manner will consistently out-perform the standard benchmarks on a risk-adjusted basis over time. 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).

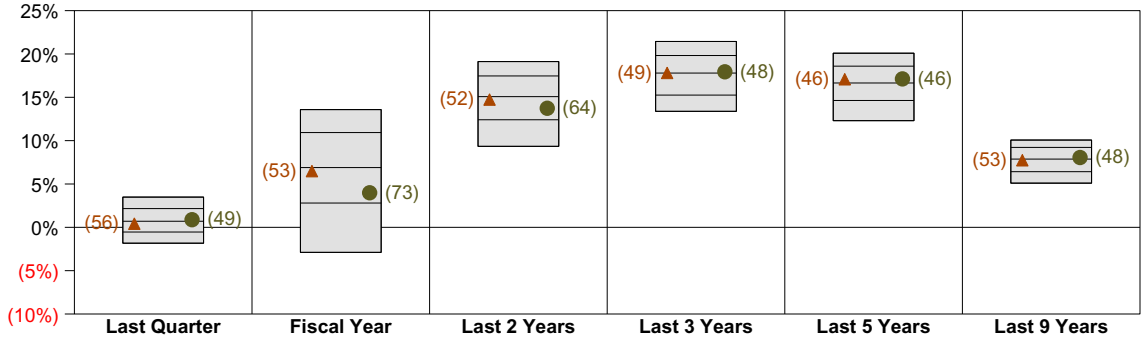
Quarterly Summary and Highlights

- Callan's portfolio posted a 0.88% return for the quarter placing it in the 49 percentile of the CAI MF - Small Cap Broad Style group for the quarter and in the 73 percentile for the last year.
- Callan's portfolio outperformed the Russell 2000 Index by 0.46% for the quarter and underperformed the Russell 2000 Index for the year by 2.50%.

Quarterly Asset Growth

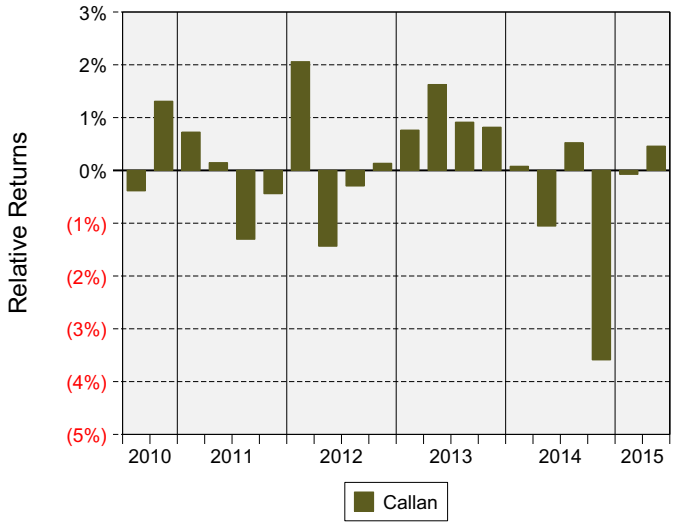
Beginning Market Value	$122,986,715
Net New Investment	$0
Investment Gains/(Losses)	$1,081,829
Ending Market Value	$124,068,544

Performance vs CAI MF - Small Cap Broad Style (Net)

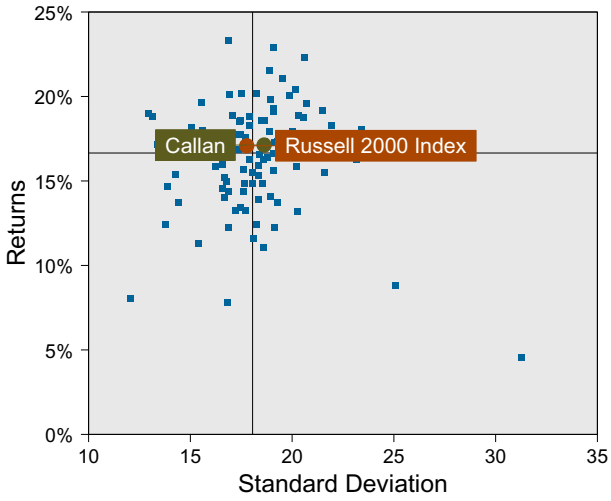


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9 Years
10th Percentile	3.49	13.58	19.12	21.44	20.09	10.07
25th Percentile	2.16	10.93	17.47	19.82	18.59	9.22
Median	0.70	6.89	15.08	17.80	16.65	7.87
75th Percentile	(0.54)	2.80	12.41	15.26	14.64	6.42
90th Percentile	(1.83)	(2.89)	9.34	13.38	12.31	5.10
Callan ●	0.88	3.99	13.74	17.94	17.12	8.05
Russell 2000 Index ▲	0.42	6.49	14.74	17.81	17.08	7.74

Relative Return vs Russell 2000 Index



CAI MF - Small Cap Broad Style (Net) Annualized Five Year Risk vs Return



Parametric Clifton Enh SmCap
Period Ended June 30, 2015

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.

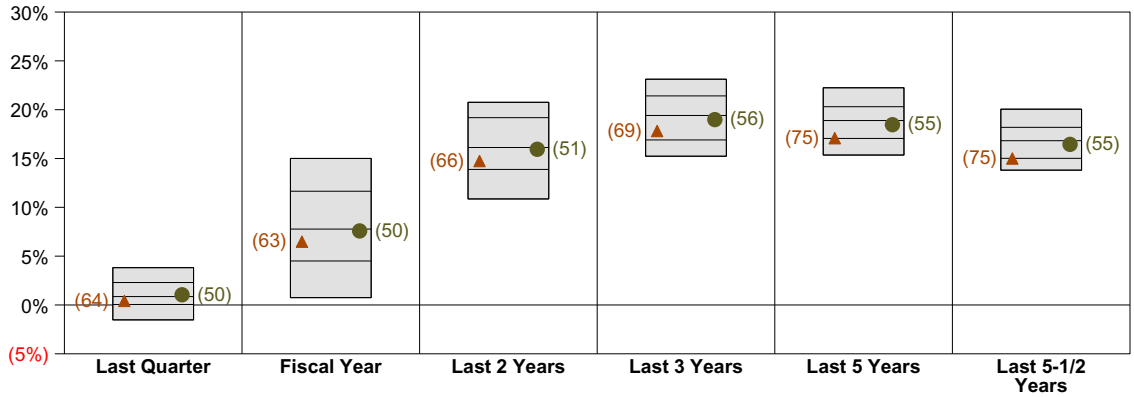
Quarterly Summary and Highlights

- Parametric Clifton Enh SmCap's portfolio posted a 1.04% return for the quarter placing it in the 50 percentile of the CAI Small Capitalization Style group for the quarter and in the 50 percentile for the last year.
- Parametric Clifton Enh SmCap's portfolio outperformed the Russell 2000 Index by 0.62% for the quarter and outperformed the Russell 2000 Index for the year by 1.10%.

Quarterly Asset Growth

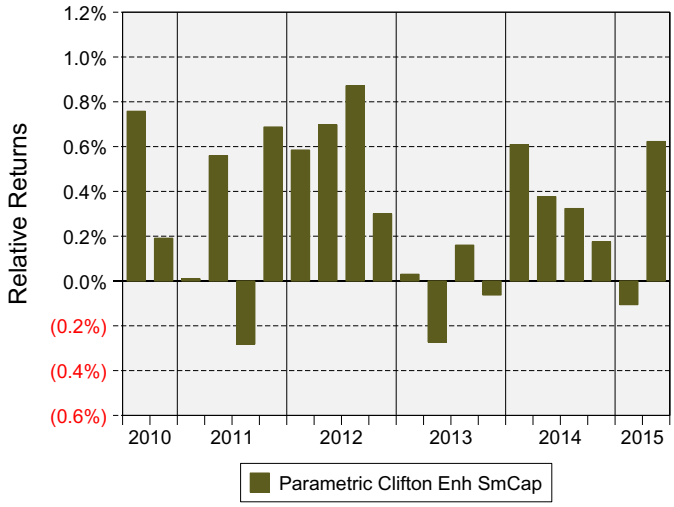
Beginning Market Value	$125,398,764
Net New Investment	$0
Investment Gains/(Losses)	$1,308,505
Ending Market Value	$126,707,269

Performance vs CAI Small Capitalization Style (Gross)

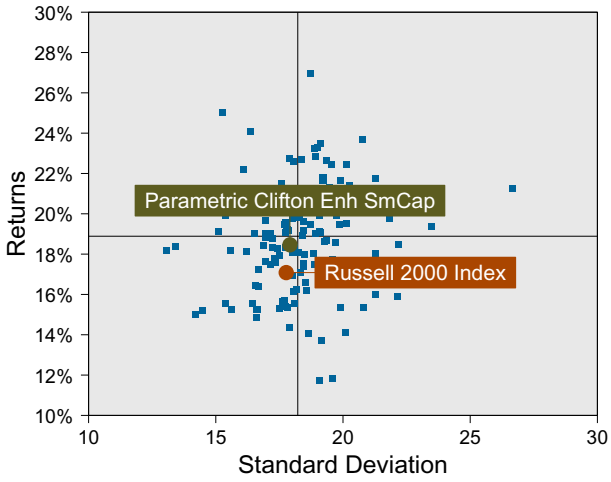


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-1/2 Years
10th Percentile	3.82	15.01	20.76	23.12	22.24	20.05
25th Percentile	2.30	11.65	19.18	21.41	20.30	18.19
Median	0.86	7.77	16.13	19.41	18.89	16.82
75th Percentile	0.05	4.51	13.88	16.90	17.06	15.02
90th Percentile	(1.53)	0.75	10.86	15.23	15.35	13.81
Parametric Clifton Enh SmCap ●	1.04	7.58	15.94	18.98	18.46	16.45
Russell 2000 Index ▲	0.42	6.49	14.74	17.81	17.08	15.00

Relative Return vs Russell 2000 Index



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



Capital Group
Period Ended June 30, 2015

Investment Philosophy

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. ***MSCI EAFE through 12/31/1996, 50% Hedged EAFE through 03/31/2011 and MSCI EAFE again thereafter.**

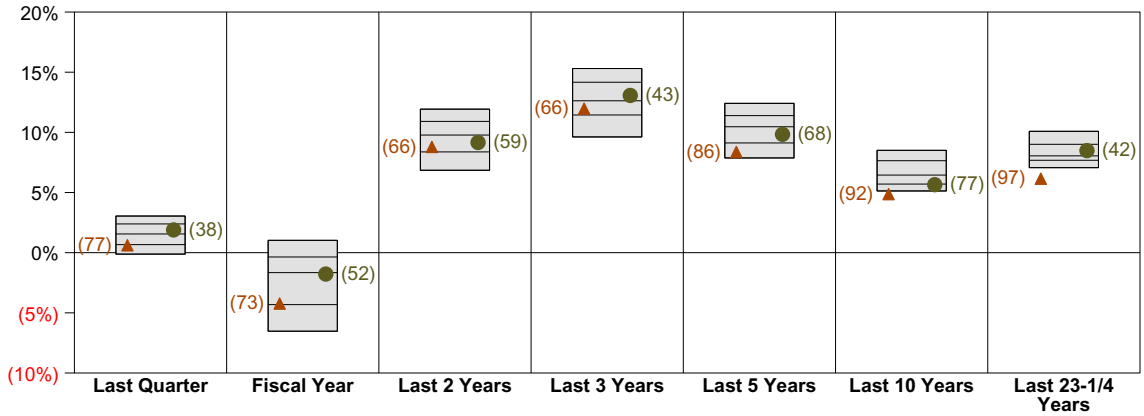
Quarterly Summary and Highlights

- Capital Group's portfolio posted a 1.89% return for the quarter placing it in the 38 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 52 percentile for the last year.
- Capital Group's portfolio outperformed the Benchmark by 1.28% for the quarter and outperformed the Benchmark for the year by 2.45%.

Quarterly Asset Growth

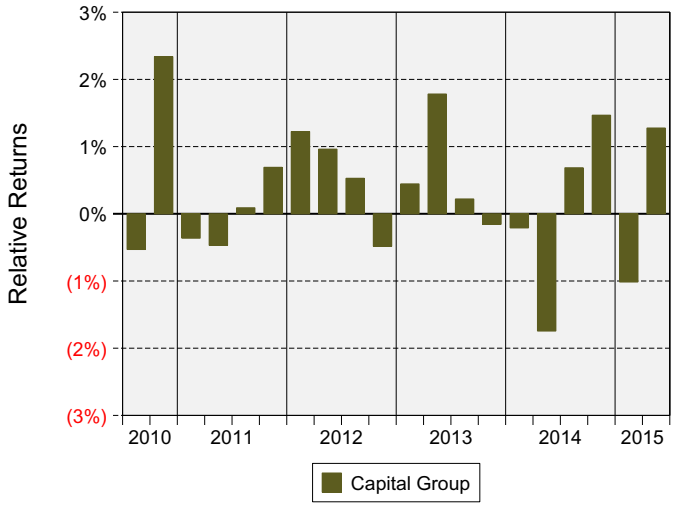
Beginning Market Value	$134,551,420
Net New Investment	$-128,476
Investment Gains/(Losses)	$2,546,869
Ending Market Value	$136,969,814

Performance vs CAI Non-U.S. Equity Style (Gross)

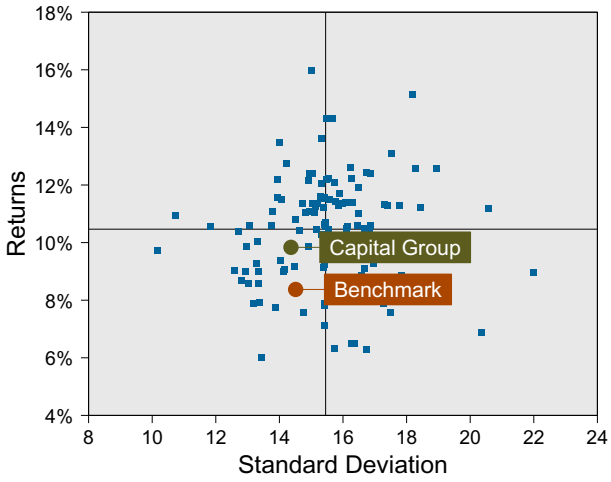


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 23-1/4 Years
10th Percentile	3.05	1.03	11.93	15.31	12.41	8.51	10.09
25th Percentile	2.39	(0.36)	10.91	14.17	11.39	7.64	9.01
Median	1.55	(1.66)	9.78	12.62	10.47	6.45	8.05
75th Percentile	0.67	(4.32)	8.38	11.44	9.12	5.70	7.68
90th Percentile	(0.12)	(6.53)	6.85	9.62	7.87	5.13	7.07
Capital Group ●	1.89	(1.78)	9.16	13.07	9.84	5.65	8.48
Benchmark ▲	0.62	(4.22)	8.79	11.97	8.37	4.87	6.16

Relative Return vs Benchmark



CAI Non-U.S. Equity Style (Gross) Annualized Five Year Risk vs Return



DFA International Small Cap Value Fund
Period Ended June 30, 2015

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.

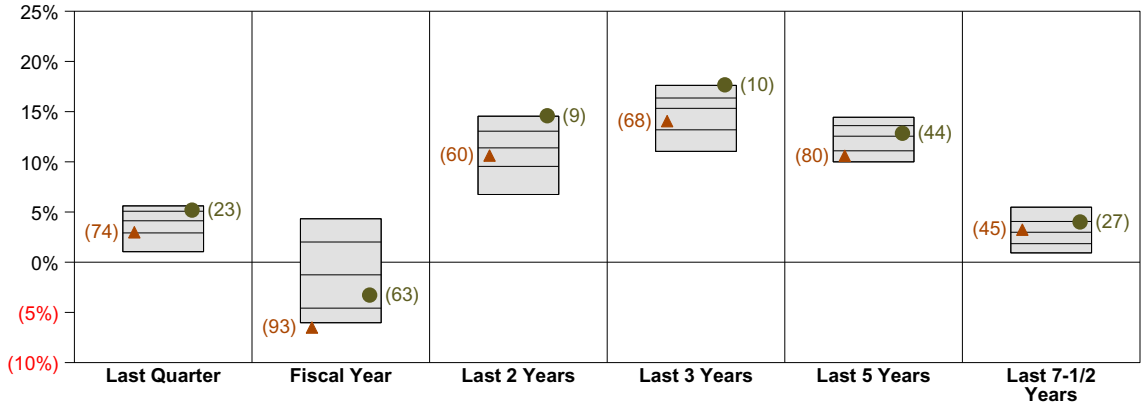
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 5.19% return for the quarter placing it in the 23 percentile of the MF - International Small Cap Obj group for the quarter and in the 63 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 2.21% for the quarter and outperformed the World ex US SC Value for the year by 3.23%.

Quarterly Asset Growth

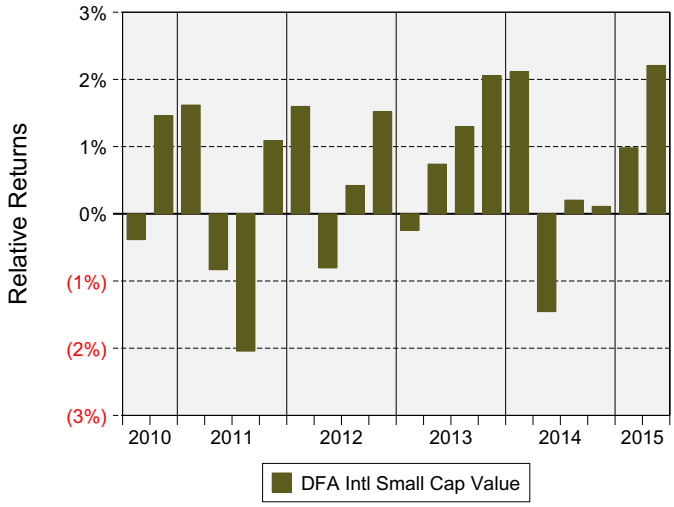
Beginning Market Value	$75,370,886
Net New Investment	$0
Investment Gains/(Losses)	$3,911,123
Ending Market Value	$79,282,009

Performance vs MF - International Small Cap Obj (Net)

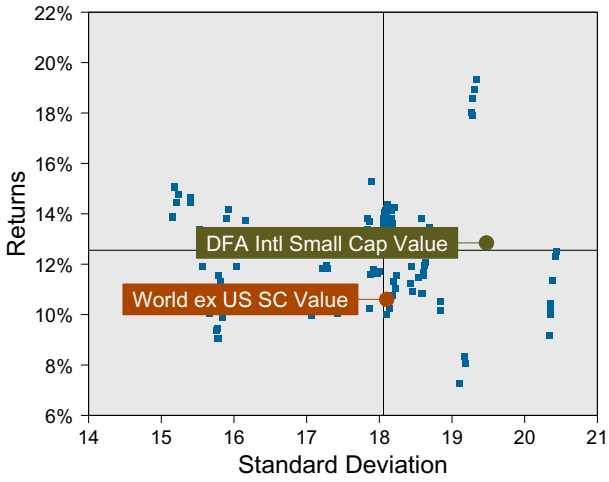


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-1/2 Years
10th Percentile	5.61	4.33	14.54	17.62	14.44	5.48
25th Percentile	5.08	2.01	13.05	16.36	13.60	4.06
Median	4.13	(1.26)	11.39	15.33	12.55	2.98
75th Percentile	2.92	(4.58)	9.55	13.19	11.10	1.85
90th Percentile	1.05	(6.03)	6.75	11.04	10.00	0.93
DFA Intl Small Cap Value ●	5.19	(3.27)	14.59	17.67	12.85	4.01
World ex US SC Value ▲	2.98	(6.50)	10.63	14.05	10.60	3.24

Relative Return vs World ex US SC Value



MF - International Small Cap Obj (Net) Annualized Five Year Risk vs Return



Northern Tr AM Wrld ex US
Period Ended June 30, 2015

Investment Philosophy

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

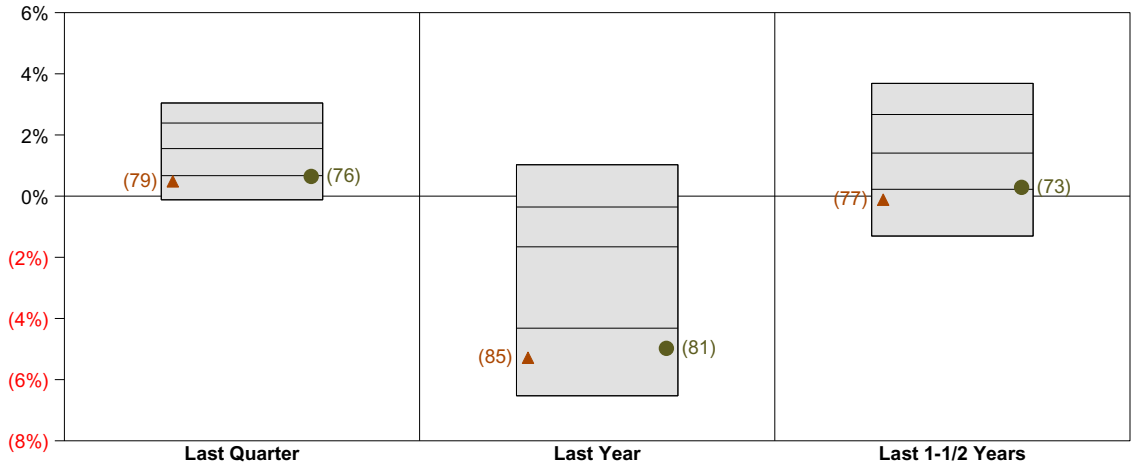
Quarterly Summary and Highlights

- Northern Tr AM Wrld ex US's portfolio posted a 0.64% return for the quarter placing it in the 76 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 81 percentile for the last year.
- Northern Tr AM Wrld ex US's portfolio outperformed the MSCI World ex US by 0.16% for the quarter and outperformed the MSCI World ex US for the year by 0.31%.

Quarterly Asset Growth

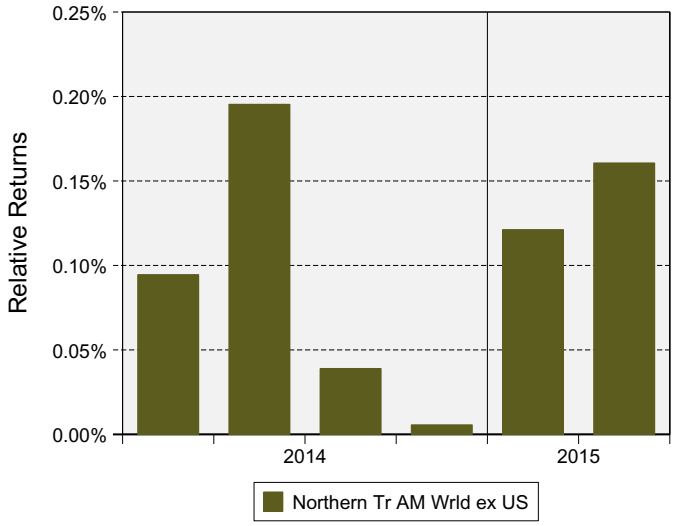
Beginning Market Value	$245,377,689
Net New Investment	$-20,206
Investment Gains/(Losses)	$1,581,404
Ending Market Value	$246,938,887

Performance vs CAI Non-U.S. Equity Style (Gross)

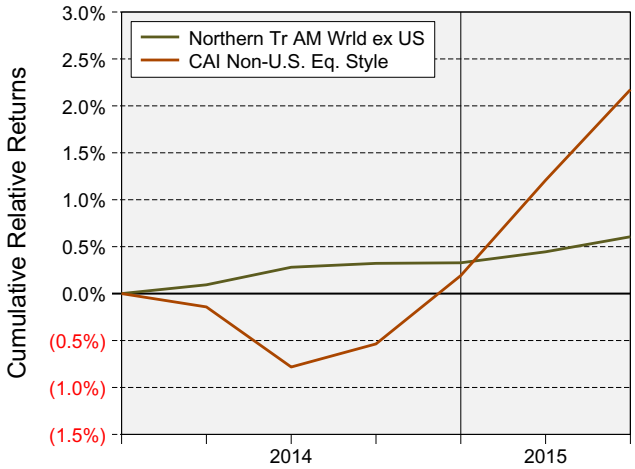


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	3.05	1.03	3.69
25th Percentile	2.39	(0.36)	2.67
Median	1.55	(1.66)	1.41
75th Percentile	0.67	(4.32)	0.22
90th Percentile	(0.12)	(6.53)	(1.30)
Northern Tr AM Wrld ex US ●	0.64	(4.98)	0.29
MSCI World ex US ▲	0.48	(5.28)	(0.12)

Relative Return vs MSCI World ex US



Cumulative Returns vs MSCI World ex US



Wellington Management
Period Ended June 30, 2015

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.

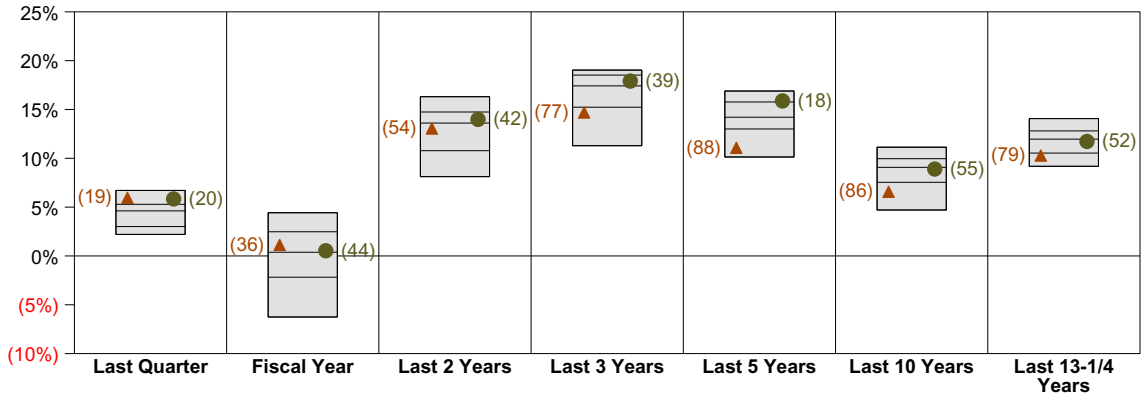
Quarterly Summary and Highlights

- Wellington Management's portfolio posted a 5.84% return for the quarter placing it in the 20 percentile of the CAI International Small Cap Style group for the quarter and in the 44 percentile for the last year.
- Wellington Management's portfolio underperformed the S&P BMI EPAC <$2 B by 0.13% for the quarter and underperformed the S&P BMI EPAC <$2 B for the year by 0.61%.

Quarterly Asset Growth

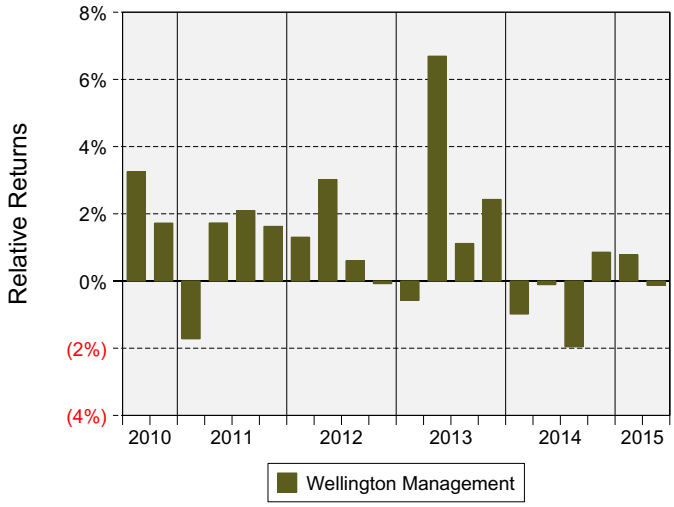
Beginning Market Value	$85,334,223
Net New Investment	$-175,650
Investment Gains/(Losses)	$4,980,818
Ending Market Value	$90,139,390

Performance vs CAI International Small Cap Style (Gross)

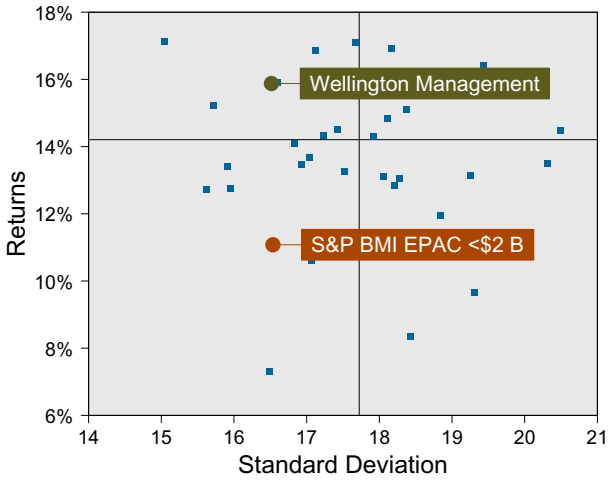


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 13-1/4 Years
10th Percentile	6.71	4.43	16.31	19.04	16.89	11.14	14.07
25th Percentile	5.29	2.48	14.74	18.52	15.77	9.96	12.81
Median	4.61	0.38	13.61	17.42	14.21	9.08	11.96
75th Percentile	3.01	(2.18)	10.78	15.23	13.01	7.54	10.54
90th Percentile	2.20	(6.25)	8.12	11.29	10.13	4.70	9.18
Wellington Management ●	5.84	0.53	13.98	17.91	15.88	8.90	11.72
S&P BMI EPAC <$2 B ▲	5.97	1.14	13.06	14.70	11.08	6.58	10.29

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



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



Axiom Emerging Markets
Period Ended June 30, 2015

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.

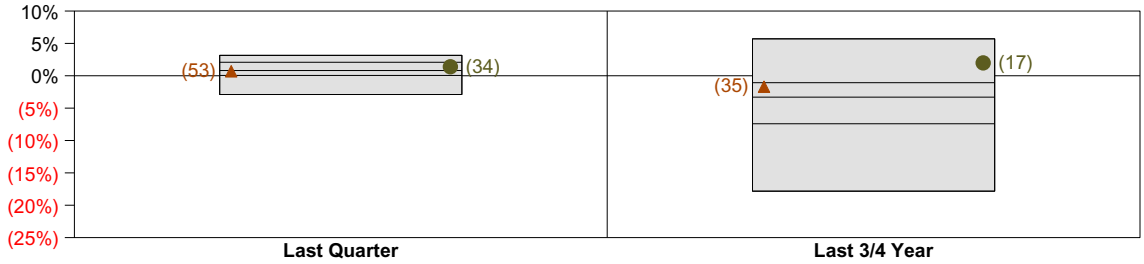
Quarterly Summary and Highlights

- Axiom Emerging Markets's portfolio posted a 1.39% return for the quarter placing it in the 34 percentile of the CAI MF - Emerging Markets Style group for the quarter and in the 17 percentile for the last three-quarter year.
- Axiom Emerging Markets's portfolio outperformed the MSCI Emerging Mkts - Net Idx by 0.70% for the quarter and outperformed the MSCI Emerging Mkts - Net Idx for the three-quarter year by 3.68%.

Quarterly Asset Growth

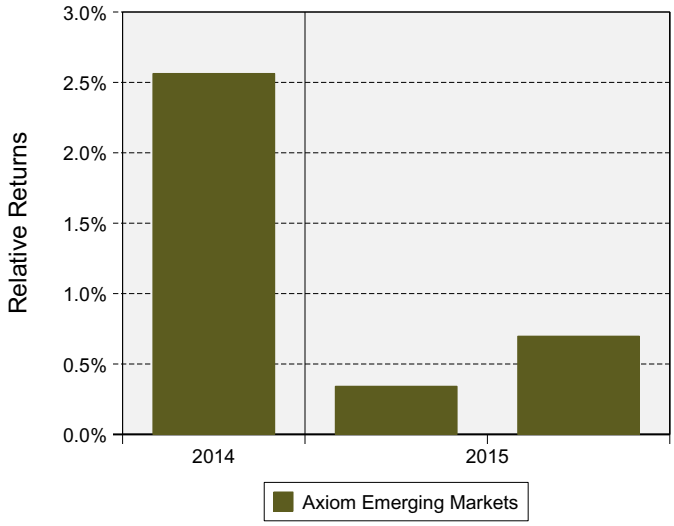
Beginning Market Value	$116,249,388
Net New Investment	$0
Investment Gains/(Losses)	$1,616,909
Ending Market Value	$117,866,297

Performance vs CAI MF - Emerging Markets Style (Net)

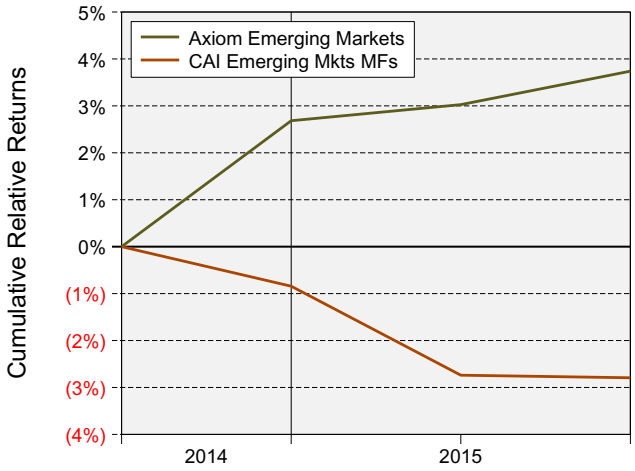


	Last Quarter	Last 3/4 Year
10th Percentile	3.15	5.71
25th Percentile	2.09	(1.07)
Median	0.81	(3.30)
75th Percentile	0.05	(7.41)
90th Percentile	(2.90)	(17.83)
Axiom Emerging Markets ●	1.39	1.99
MSCI Emerging Mkts - Net Idx ▲	0.69	(1.69)

Relative Returns vs MSCI Emerging Mkts - Net Idx



Cumulative Returns vs MSCI Emerging Mkts - Net Idx



DFA Emerging Markets
Period Ended June 30, 2015

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.

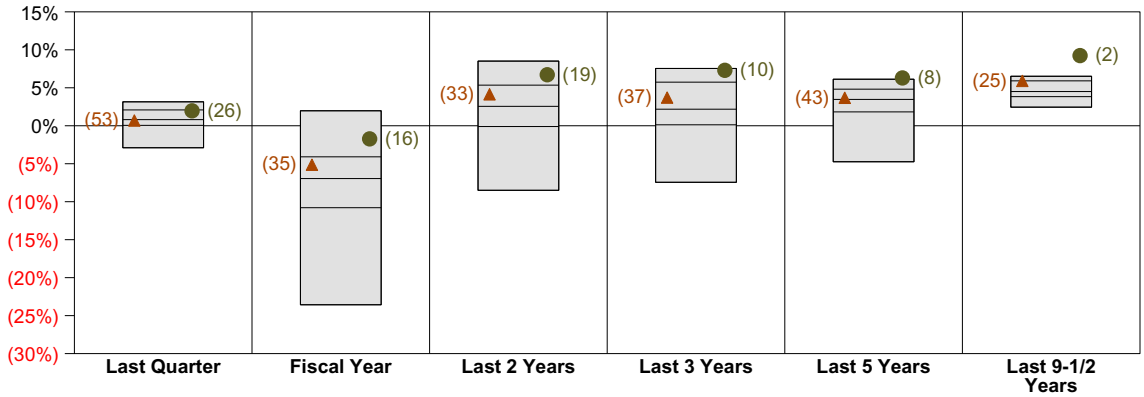
Quarterly Summary and Highlights

- DFA Emerging Markets's portfolio posted a 1.97% return for the quarter placing it in the 26 percentile of the CAI MF - Emerging Markets Style group for the quarter and in the 16 percentile for the last year.
- DFA Emerging Markets's portfolio outperformed the MSCI Emerging Mkts - Net Idx by 1.27% for the quarter and outperformed the MSCI Emerging Mkts - Net Idx for the year by 3.40%.

Quarterly Asset Growth

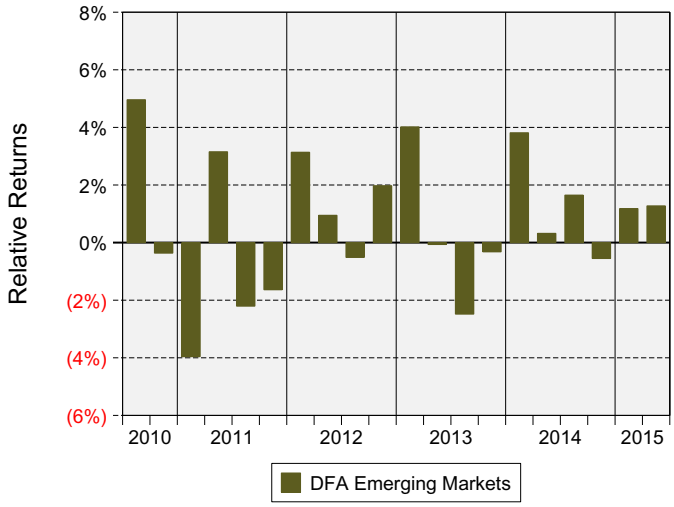
Beginning Market Value	$35,764,280
Net New Investment	$0
Investment Gains/(Losses)	$703,393
Ending Market Value	$36,467,673

Performance vs CAI MF - Emerging Markets Style (Net)

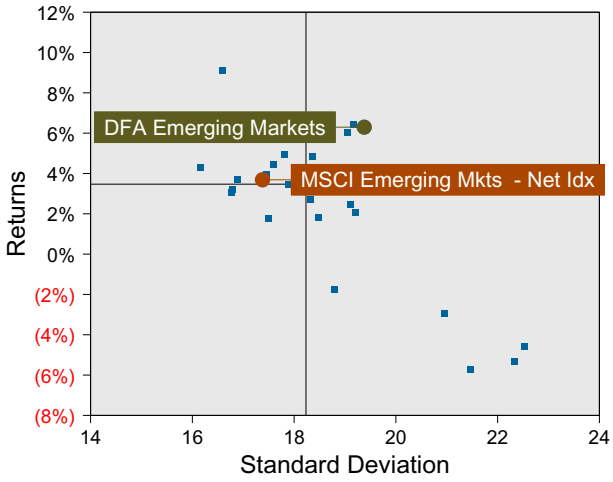


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	3.15	1.97	8.52	7.55	6.13	6.52
25th Percentile	2.09	(4.09)	5.35	5.74	4.82	5.91
Median	0.81	(6.95)	2.56	2.18	3.47	4.51
75th Percentile	0.05	(10.79)	(0.10)	0.13	1.83	3.83
90th Percentile	(2.90)	(23.57)	(8.50)	(7.45)	(4.74)	2.45
DFA Emerging Markets ●	1.97	(1.73)	6.72	7.30	6.30	9.24
MSCI Emerging Mkts - Net Idx ▲	0.69	(5.12)	4.14	3.71	3.69	5.91

Relative Returns vs MSCI Emerging Mkts - Net Idx



CAI MF - Emerging Markets Style (Net) Annualized Five Year Risk vs Return



EPOCH Investment
Period Ended June 30, 2015

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.**

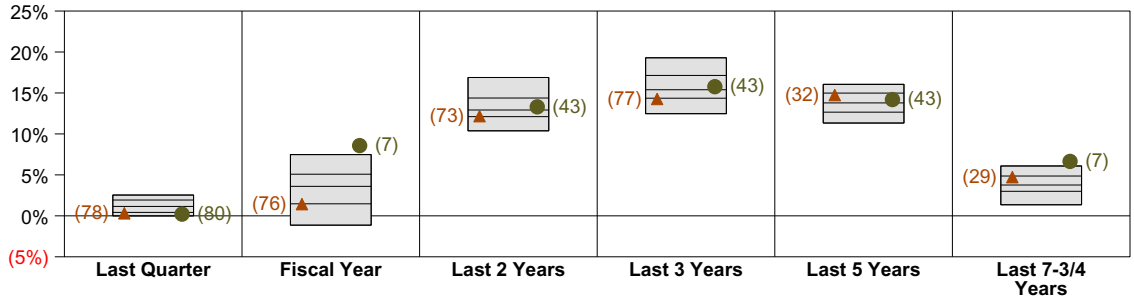
Quarterly Summary and Highlights

- EPOCH Investment's portfolio posted a 0.21% return for the quarter placing it in the 80 percentile of the CAI Global Equity Broad Style group for the quarter and in the 7 percentile for the last year.
- EPOCH Investment's portfolio underperformed the EPOCH Blended Benchmark by 0.10% for the quarter and outperformed the EPOCH Blended Benchmark for the year by 7.14%.

Quarterly Asset Growth

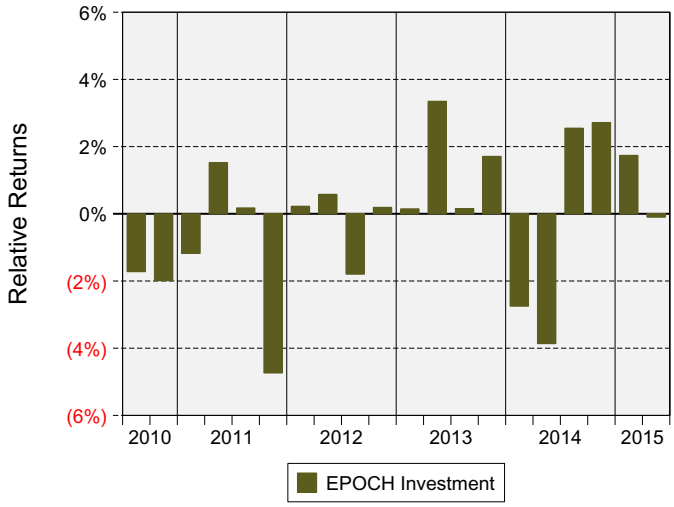
Beginning Market Value	$318,585,338
Net New Investment	$10,485,006
Investment Gains/(Losses)	$521,470
Ending Market Value	$329,591,814

Performance vs CAI Global Equity Broad Style (Gross)

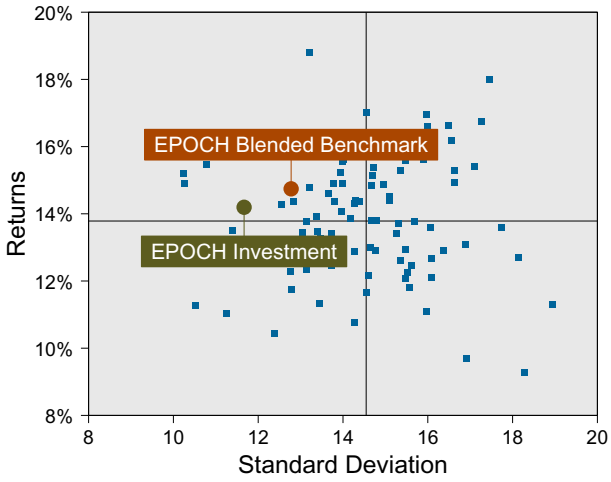


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-3/4 Years
10th Percentile	2.54	7.48	16.89	19.29	16.05	6.09
25th Percentile	1.93	5.08	14.38	17.14	14.98	4.86
Median	1.15	3.60	12.92	15.39	13.79	3.76
75th Percentile	0.42	1.47	12.11	14.36	12.66	3.00
90th Percentile	0.00	(1.14)	10.38	12.47	11.33	1.35
EPOCH Investment ●	0.21	8.57	13.30	15.76	14.19	6.64
EPOCH Blended Benchmark ▲	0.31	1.43	12.17	14.27	14.74	4.72

Relative Returns vs EPOCH Blended Benchmark



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



LSV Asset Management
Period Ended June 30, 2015

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.

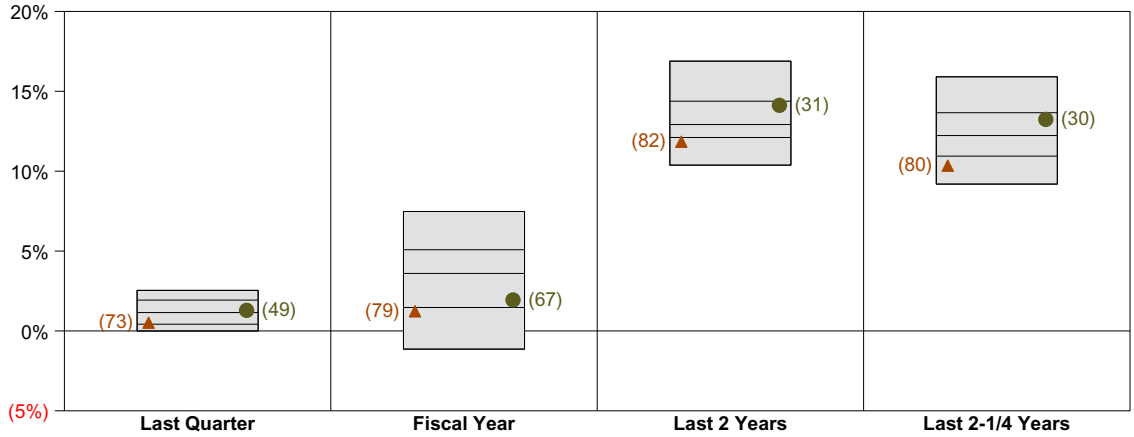
Quarterly Summary and Highlights

- LSV Asset Management's portfolio posted a 1.29% return for the quarter placing it in the 49 percentile of the CAI Global Equity Broad Style group for the quarter and in the 67 percentile for the last year.
- LSV Asset Management's portfolio outperformed the MSCI ACWI Idx by 0.77% for the quarter and outperformed the MSCI ACWI Idx for the year by 0.71%.

Quarterly Asset Growth

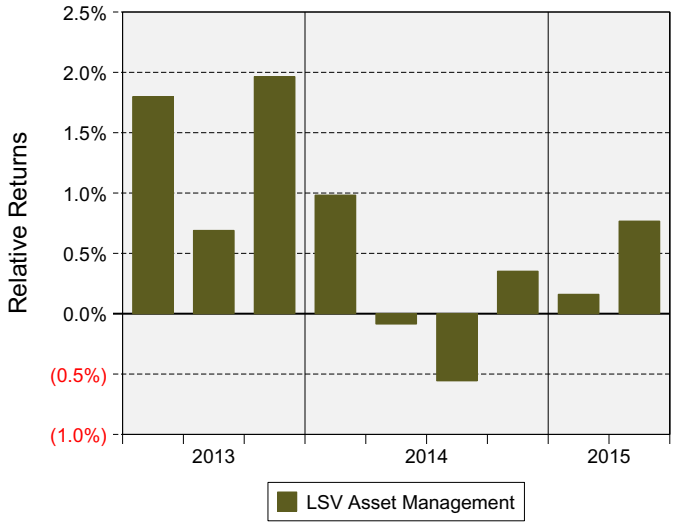
Beginning Market Value	$425,635,595
Net New Investment	$-51,957
Investment Gains/(Losses)	$5,474,623
Ending Market Value	$431,058,260

Performance vs CAI Global Equity Broad Style (Gross)

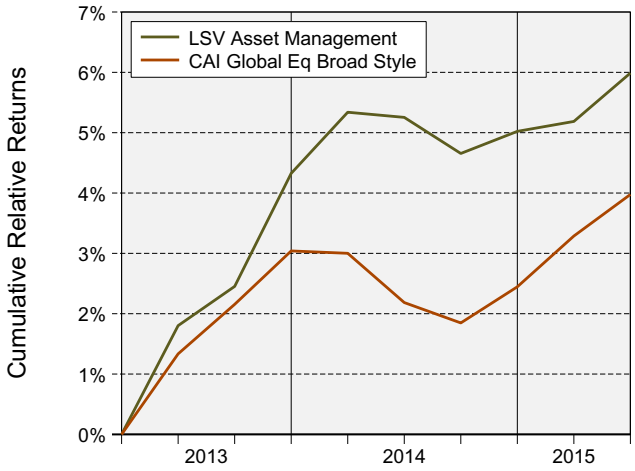


	Last Quarter	Fiscal Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	2.54	7.48	16.89	15.91
25th Percentile	1.93	5.08	14.38	13.66
Median	1.15	3.60	12.92	12.23
75th Percentile	0.42	1.47	12.11	10.94
90th Percentile	0.00	(1.14)	10.38	9.19
LSV Asset Management ●	1.29	1.94	14.12	13.24
MSCI ACWI Idx ▲	0.52	1.23	11.85	10.35

Relative Return vs MSCI ACWI Idx



Cumulative Returns vs MSCI ACWI Idx



Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 26-1/4 Years
Private Equity	**(2.12%)**	**(5.37%)**	**1.67%**	**4.91%**	**8.51%**
Adams Street Direct Co-Invest Fd	0.36%	22.50%	17.56%	16.40%	-
Adams Street Direct Fd 2010	2.07%	4.61%	13.41%	10.50%	-
Adams Street 1998 Partnership	(0.18%)	(0.68%)	5.58%	3.14%	-
Adams Street 1999 Partnership	(1.20%)	(17.94%)	1.82%	5.53%	-
Adams Street 2000 Partnership	(0.63%)	(10.71%)	0.79%	6.58%	-
Adams Street 2001 Partnership	0.16%	(0.25%)	10.23%	12.28%	-
Adams Street 2002 Partnership	(3.42%)	(19.50%)	0.74%	9.23%	-
Adams Street 2003 Partnership	5.23%	13.43%	16.55%	13.77%	-
Adams Street 2010 Partnership	2.23%	18.37%	15.16%	16.38%	-
Adams Street 2008 Fund	1.24%	7.59%	12.29%	10.86%	-
Adams Street 1999 Non-US	(2.69%)	(13.15%)	5.41%	13.75%	-
Adams Street 2000 Non-US	(4.09%)	(4.91%)	(0.39%)	5.62%	-
Adams Street 2001 Non-US	4.14%	16.96%	19.22%	11.76%	-
Adams Street 2002 Non-US	(3.34%)	(7.15%)	2.03%	8.69%	-
Adams Street 2003 Non-US	0.89%	(2.02%)	15.53%	15.20%	-
Adams Street 2004 Non-US	3.00%	(6.29%)	11.90%	11.38%	-
Adams Street 2010 Non-US	(1.71%)	(2.43%)	7.30%	2.57%	-
Adams Street 2010 NonUS Emg	4.70%	21.80%	6.32%	-	-
Adams Street BVCF IV Fund	28.18%	42.10%	30.67%	59.66%	-
CorsAir III	(8.62%)	(8.84%)	(6.62%)	(3.01%)	-
ND Investors	(4.40%)	(5.27%)	0.45%	1.16%	-
CorsAir IV	17.69%	29.73%	17.74%	5.04%	-
Capital International V	(3.14%)	(13.33%)	(4.79%)	3.37%	-
Capital International VI	0.49%	(21.71%)	(16.95%)	-	-
EIG Energy Fund XIV	(14.27%)	(23.62%)	(10.04%)	(2.51%)	-
Lewis & Clark	(32.09%)	(32.09%)	(13.56%)	(5.81%)	-
Lewis & Clark II	(14.35%)	(14.35%)	(8.65%)	(7.39%)	-
Quantum Energy Partners	(28.51%)	(19.31%)	7.92%	14.64%	-
Quantum Resources	(25.57%)	(42.83%)	(13.53%)	4.62%	-
Matlin Patterson I	0.00%	1.12%	6.13%	638.01%	-
Matlin Patterson II	24.49%	19.60%	(3.46%)	(36.19%)	-
Matlin Patterson III	11.02%	(2.43%)	8.43%	23.76%	-
Russell 1000 Index	0.11%	7.37%	17.73%	17.58%	10.22%
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	9.78%

Declaration Total Return
Period Ended June 30, 2015

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.

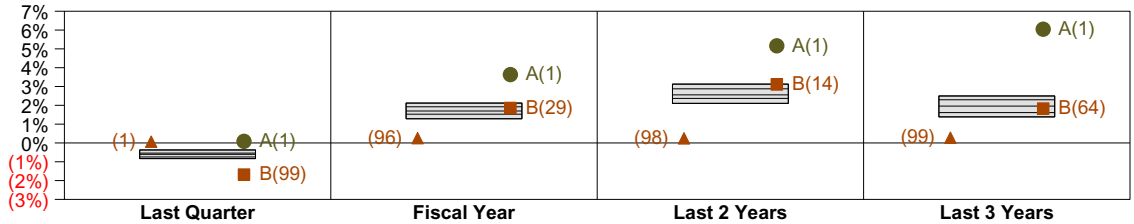
Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a 0.09% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio outperformed the Libor-3 Month by 0.02% for the quarter and outperformed the Libor-3 Month for the year by 3.38%.

Quarterly Asset Growth

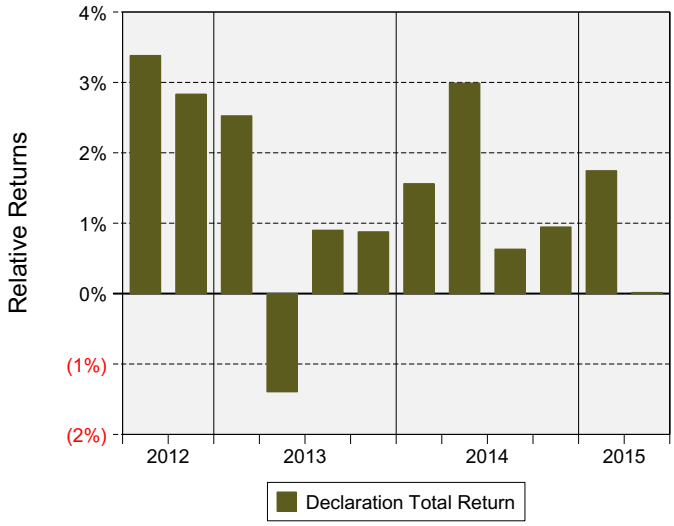
Beginning Market Value	$74,443,289
Net New Investment	$9,974,580
Investment Gains/(Losses)	$71,911
Ending Market Value	$84,489,780

Performance vs CAI Intermediate Fixed-Inc Style (Gross)

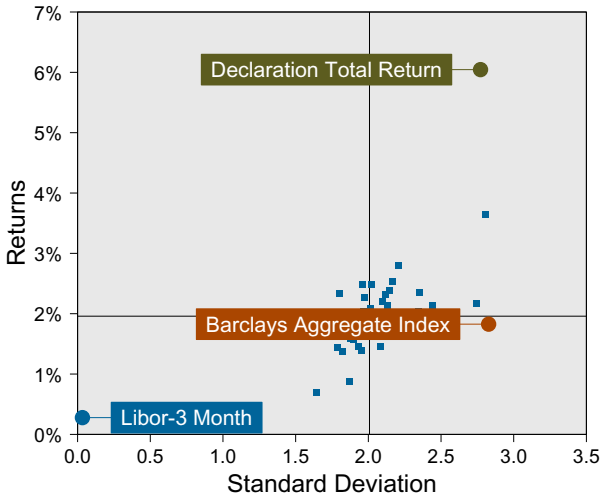


		Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years
10th Percentile		(0.37)	2.12	3.13	2.50
25th Percentile		(0.54)	1.92	2.88	2.30
Median		(0.61)	1.70	2.56	1.96
75th Percentile		(0.74)	1.53	2.37	1.61
90th Percentile		(0.83)	1.29	2.10	1.38
Declaration Total Return	● A	0.09	3.63	5.16	6.05
Barclays Aggregate Index	■ B	(1.68)	1.86	3.11	1.83
Libor-3 Month	▲	0.07	0.25	0.25	0.28

Relative Return vs Libor-3 Month



CAI Intermediate Fixed-Inc Style (Gross) Annualized Three Year Risk vs Return



J.P. Morgan MBS
Period Ended June 30, 2015

Investment Philosophy

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

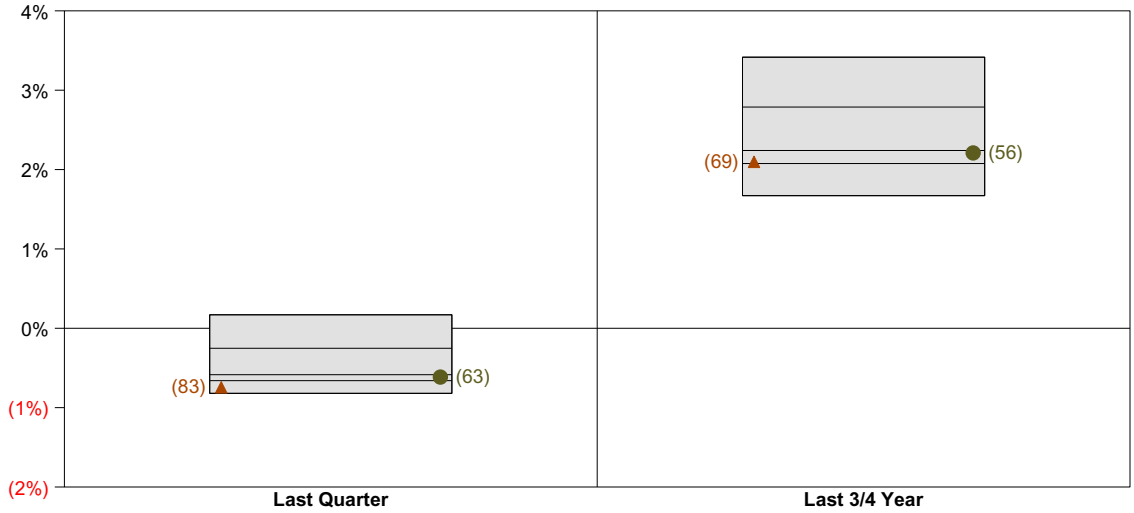
Quarterly Summary and Highlights

- J.P. Morgan MBS's portfolio posted a (0.62)% return for the quarter placing it in the 63 percentile of the CAI Mtg-Backed FI Style group for the quarter and in the 56 percentile for the last three-quarter year.
- J.P. Morgan MBS's portfolio outperformed the Barclays Mortgage by 0.13% for the quarter and outperformed the Barclays Mortgage for the three-quarter year by 0.11%.

Quarterly Asset Growth

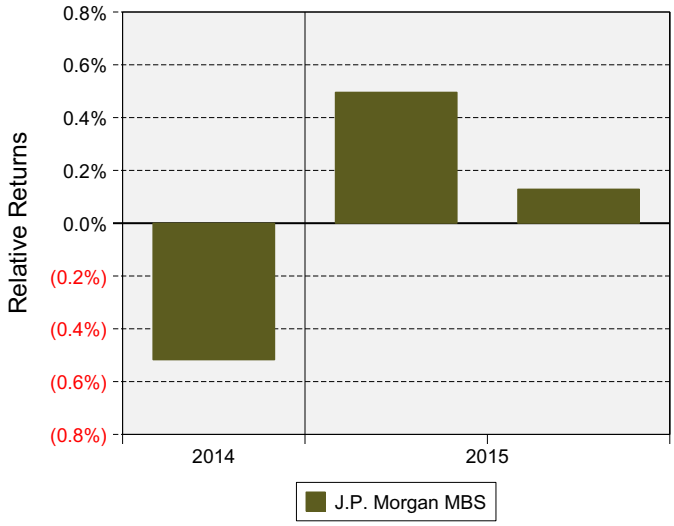
Beginning Market Value	$125,119,267
Net New Investment	$0
Investment Gains/(Losses)	$-769,546
Ending Market Value	$124,349,721

Performance vs CAI Mtg-Backed FI Style (Gross)

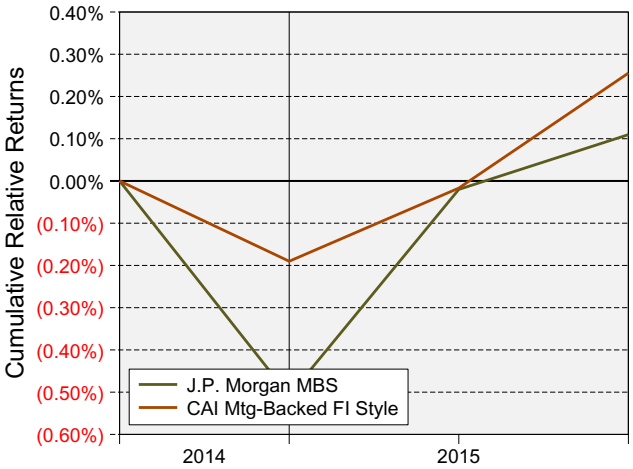


	Last Quarter	Last 3/4 Year
10th Percentile	0.17	3.42
25th Percentile	(0.25)	2.79
Median	(0.58)	2.24
75th Percentile	(0.66)	2.08
90th Percentile	(0.82)	1.67
J.P. Morgan MBS ●	(0.62)	2.21
Barclays Mortgage ▲	(0.74)	2.10

Relative Return vs Barclays Mortgage



Cumulative Returns vs Barclays Mortgage



PIMCO DiSCO II
Period Ended June 30, 2015

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.

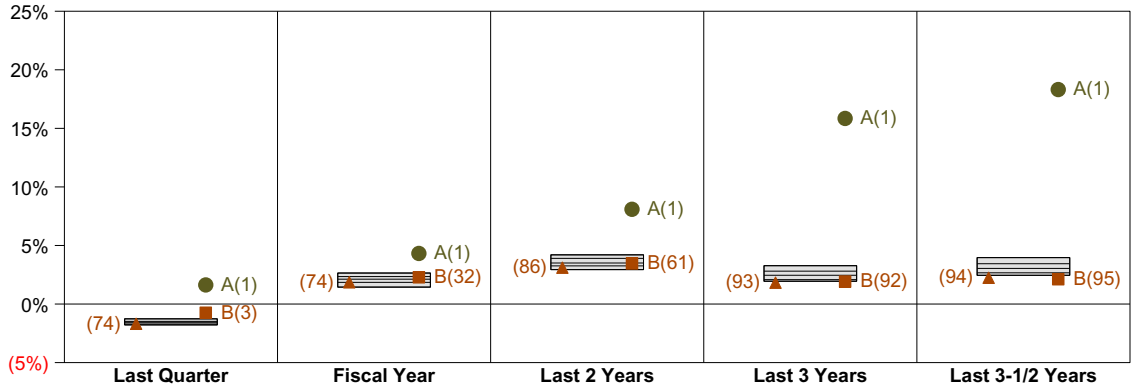
Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 1.63% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Barclays Aggregate Index by 3.31% for the quarter and outperformed the Barclays Aggregate Index for the year by 2.46%.

Quarterly Asset Growth

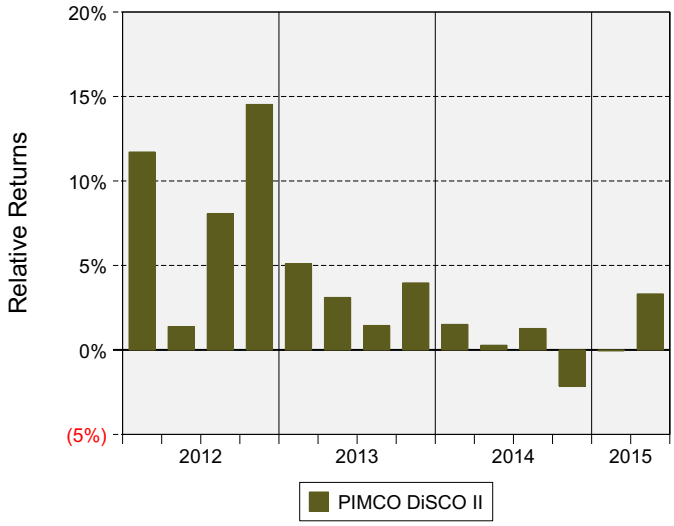
Beginning Market Value	$86,448,363
Net New Investment	$0
Investment Gains/(Losses)	$1,408,836
Ending Market Value	$87,857,199

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

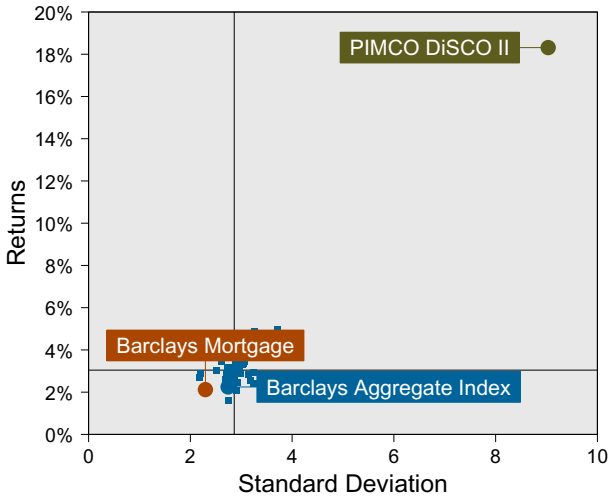


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	(1.26)	2.65	4.20	3.27	3.96
25th Percentile	(1.48)	2.35	3.90	2.81	3.44
Median	(1.56)	2.12	3.50	2.46	3.04
75th Percentile	(1.70)	1.85	3.26	2.08	2.67
90th Percentile	(1.78)	1.45	2.94	1.95	2.45
PIMCO DiSCO II ● A	1.63	4.32	8.09	15.85	18.31
Barclays Mortgage ■ B	(0.74)	2.28	3.46	1.92	2.12
Barclays Aggregate Index ▲	(1.68)	1.86	3.11	1.83	2.25

Relative Return vs Barclays Aggregate Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized Three and One-Half Year Risk vs Return



PIMCO MBS
Period Ended June 30, 2015

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.

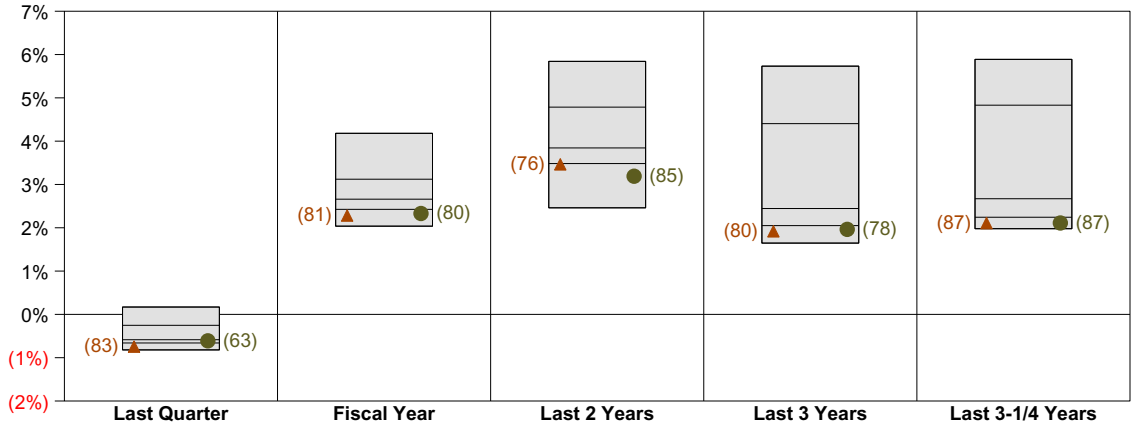
Quarterly Summary and Highlights

- PIMCO MBS's portfolio posted a (0.61)% return for the quarter placing it in the 63 percentile of the CAI Mtg-Backed FI Style group for the quarter and in the 80 percentile for the last year.
- PIMCO MBS's portfolio outperformed the Barclays Mortgage by 0.13% for the quarter and outperformed the Barclays Mortgage for the year by 0.05%.

Quarterly Asset Growth

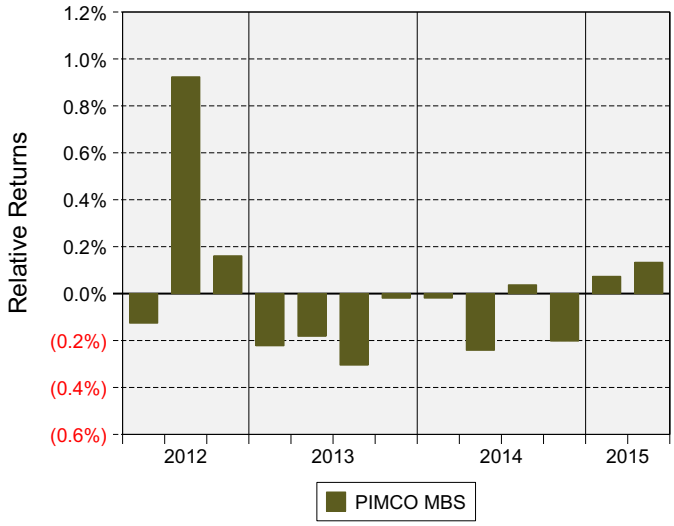
Beginning Market Value	$180,379,226
Net New Investment	$-78,492
Investment Gains/(Losses)	$-1,100,956
Ending Market Value	$179,199,778

Performance vs CAI Mtg-Backed FI Style (Gross)

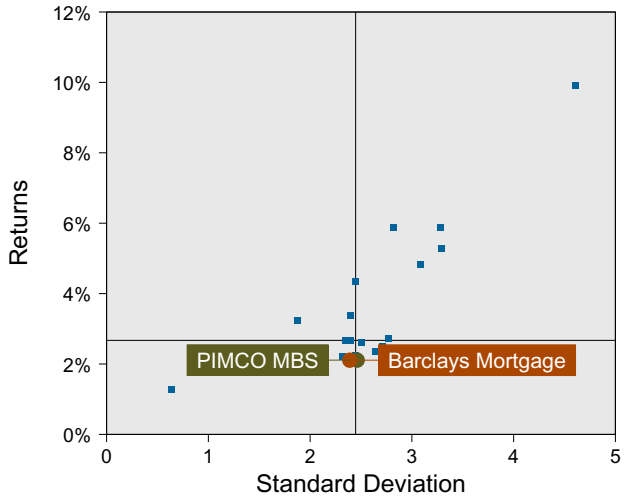


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/4 Years
10th Percentile	0.17	4.18	5.84	5.73	5.89
25th Percentile	(0.25)	3.12	4.79	4.40	4.83
Median	(0.58)	2.66	3.84	2.44	2.67
75th Percentile	(0.66)	2.43	3.48	2.05	2.24
90th Percentile	(0.82)	2.04	2.46	1.65	1.98
PIMCO MBS ●	(0.61)	2.33	3.19	1.96	2.11
Barclays Mortgage ▲	(0.74)	2.28	3.46	1.92	2.11

Relative Return vs Barclays Mortgage



CAI Mtg-Backed FI Style (Gross) Annualized Three and One-Quarter Year Risk vs Return



PIMCO Unconstrained
Period Ended June 30, 2015

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.**

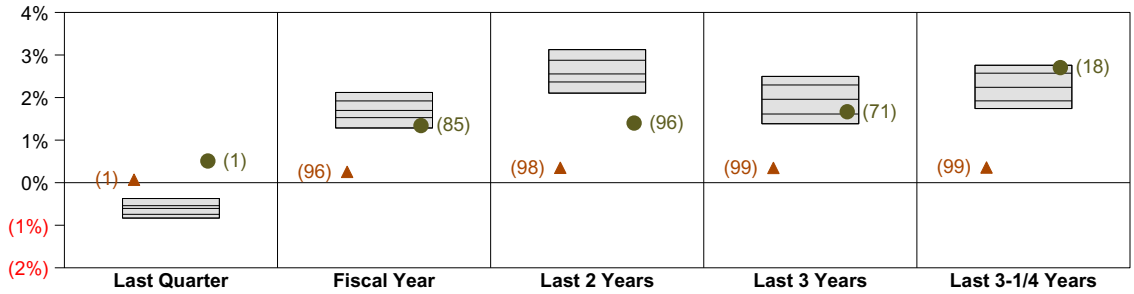
Quarterly Summary and Highlights

- PIMCO Unconstrained's portfolio posted a 0.51% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed-Inc Style group for the quarter and in the 85 percentile for the last year.
- PIMCO Unconstrained's portfolio outperformed the Blended Benchmark* by 0.44% for the quarter and outperformed the Blended Benchmark* for the year by 1.09%.

Quarterly Asset Growth

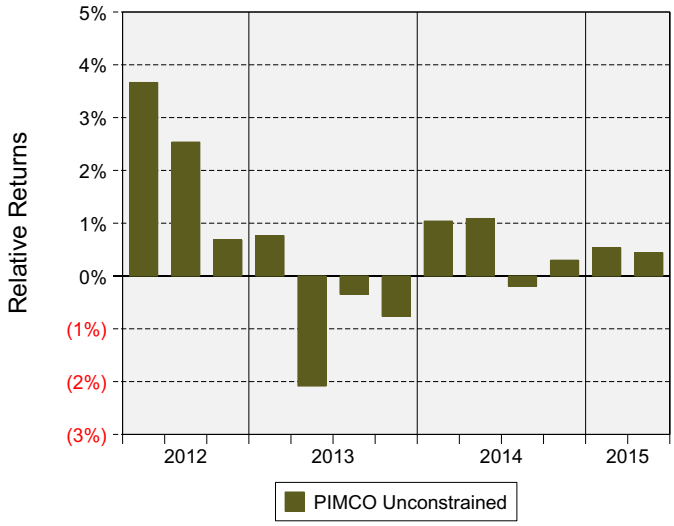
Beginning Market Value	$94,572,586
Net New Investment	$-114,853
Investment Gains/(Losses)	$482,459
Ending Market Value	$94,940,192

Performance vs CAI Intermediate Fixed-Inc Style (Gross)

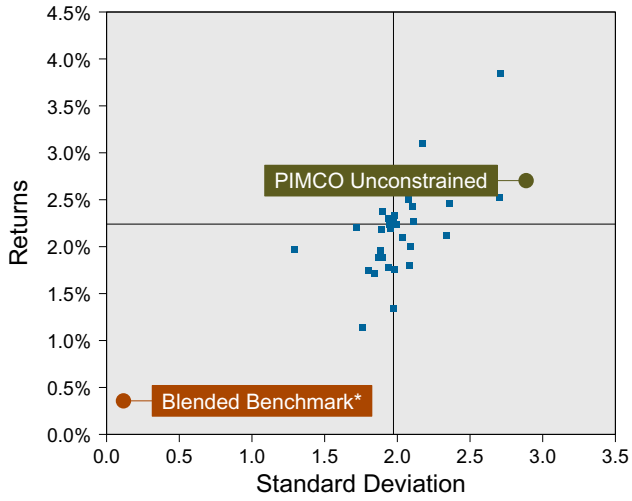


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/4 Years
10th Percentile	(0.37)	2.12	3.13	2.50	2.76
25th Percentile	(0.54)	1.92	2.88	2.30	2.57
Median	(0.61)	1.70	2.56	1.96	2.24
75th Percentile	(0.74)	1.53	2.37	1.61	1.92
90th Percentile	(0.83)	1.29	2.10	1.38	1.74
PIMCO Unconstrained ●	0.51	1.34	1.40	1.67	2.70
Blended Benchmark* ▲	0.07	0.25	0.35	0.35	0.36

Relative Return vs Blended Benchmark*



CAI Intermediate Fixed-Inc Style (Gross) Annualized Three and One-Quarter Year Risk vs Return



SSgA Long US Treas Index
Period Ended June 30, 2015

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.

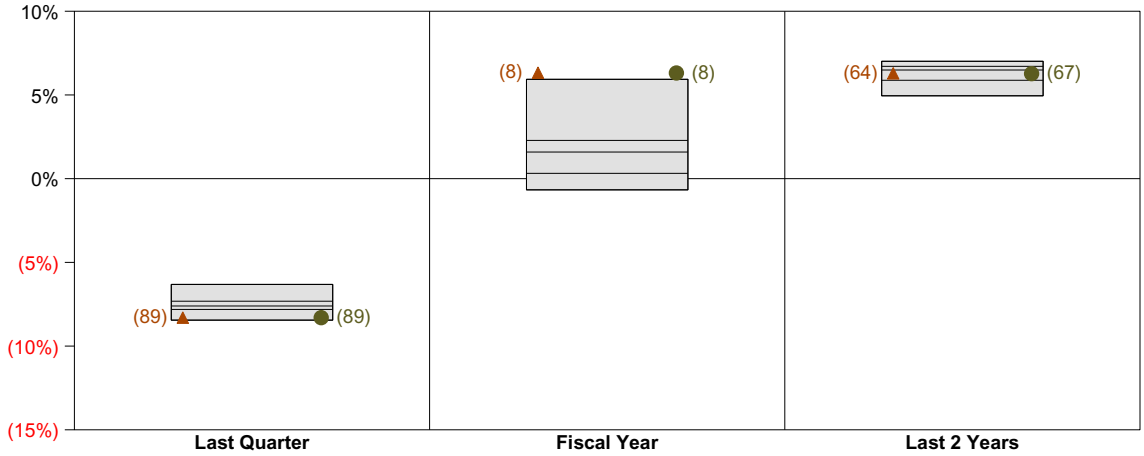
Quarterly Summary and Highlights

- SSgA Long US Treas Index's portfolio posted a (8.30)% return for the quarter placing it in the 89 percentile of the CAI Extended Maturity Fixed-Inc Style group for the quarter and in the 8 percentile for the last year.
- SSgA Long US Treas Index's portfolio underperformed the Barclays Long Treas by 0.00% for the quarter and underperformed the Barclays Long Treas for the year by 0.02%.

Quarterly Asset Growth

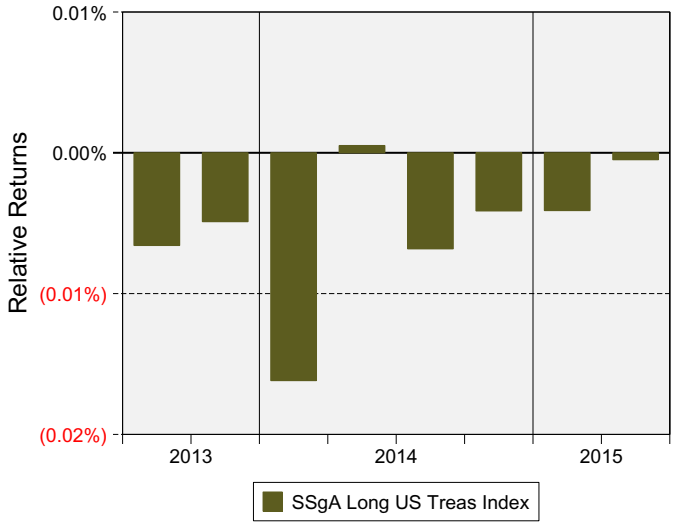
Beginning Market Value	$96,454,295
Net New Investment	$-8,852
Investment Gains/(Losses)	$-8,007,095
Ending Market Value	$88,438,348

Performance vs CAI Extended Maturity Fixed-Inc Style (Gross)

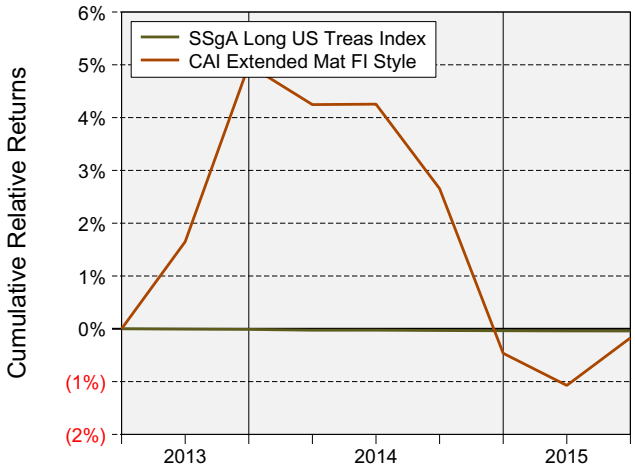


	Last Quarter	Fiscal Year	Last 2 Years
10th Percentile	(6.32)	5.93	7.01
25th Percentile	(7.32)	2.28	6.71
Median	(7.61)	1.59	6.49
75th Percentile	(7.81)	0.32	5.88
90th Percentile	(8.45)	(0.67)	4.95
SSgA Long US Treas Index ●	(8.30)	6.31	6.27
Barclays Long Treas ▲	(8.30)	6.33	6.29

Relative Return vs Barclays Long Treas



Cumulative Returns vs Barclays Long Treas



Goldman Sachs 2006 Offshore
Period Ended June 30, 2015

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 6.29% return for the quarter placing it in the 1 percentile of the CAI High Yield Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Goldman Sachs's portfolio outperformed the Barclays HY Corp 2% Issue by 6.28% for the quarter and outperformed the Barclays HY Corp 2% Issue for the year by 26.04%.

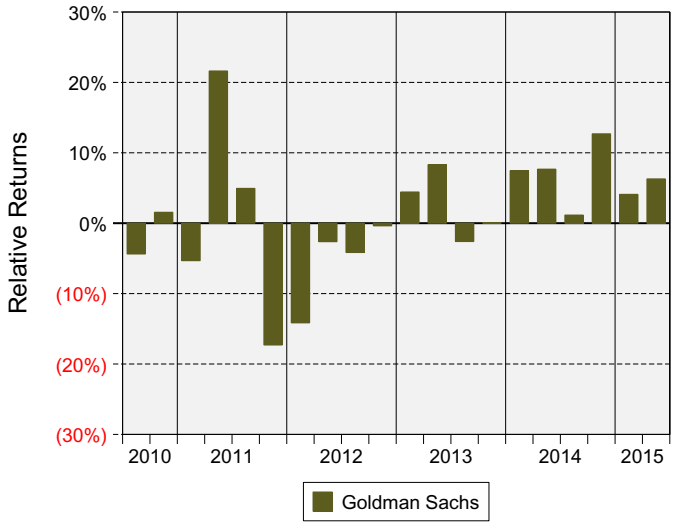
Quarterly Asset Growth

Beginning Market Value	$1,467,672
Net New Investment	$0
Investment Gains/(Losses)	$92,328
Ending Market Value	$1,560,000

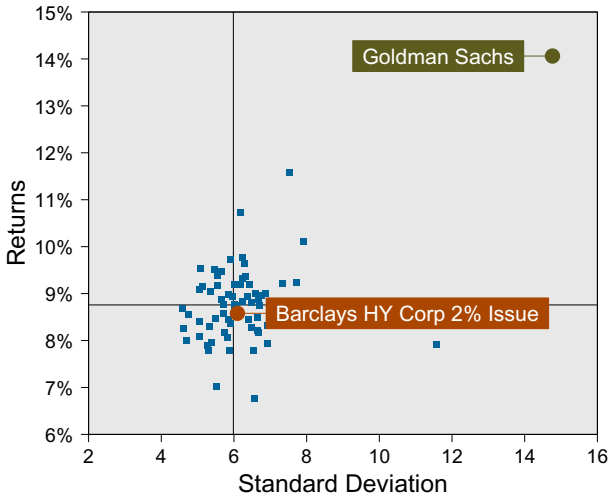
Performance vs CAI High Yield Fixed-Inc Style (Gross)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9 Years
10th Percentile	0.94	2.06	6.88	8.22	9.60	9.25
25th Percentile	0.46	1.32	6.25	7.54	9.19	8.61
Median	0.23	0.24	5.92	7.06	8.76	8.17
75th Percentile	(0.03)	(1.12)	5.26	6.52	8.26	7.59
90th Percentile	(0.28)	(2.33)	4.51	6.08	7.90	7.03
Goldman Sachs ●	6.29	25.65	25.61	23.19	14.06	6.90
Barclays HY Corp 2% Issue ▲	0.01	(0.39)	5.49	6.81	8.58	8.30

Relative Return vs Barclays HY Corp 2% Issue



CAI High Yield Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



Goldman Sachs Offshore Fund V
Period Ended June 30, 2015

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.

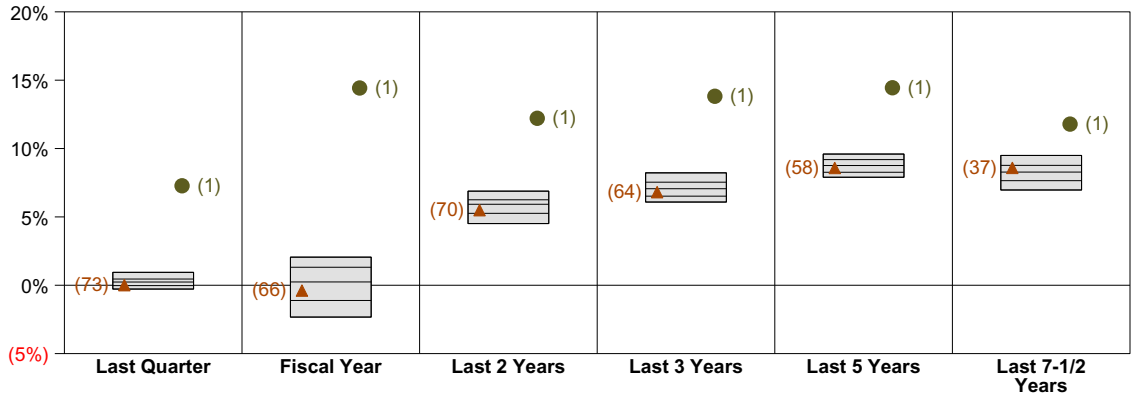
Quarterly Summary and Highlights

- Goldman Sachs Offshore V's portfolio posted a 7.28% return for the quarter placing it in the 1 percentile of the CAI High Yield Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Goldman Sachs Offshore V's portfolio outperformed the Barclays HY Corp 2% Issue by 7.27% for the quarter and outperformed the Barclays HY Corp 2% Issue for the year by 14.82%.

Quarterly Asset Growth

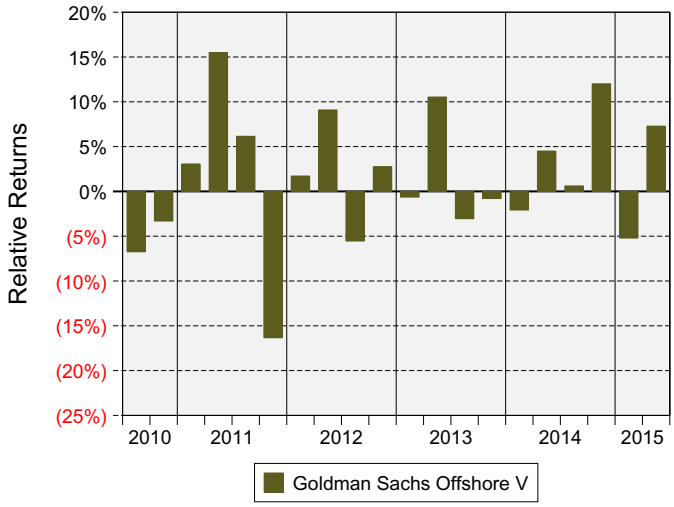
Beginning Market Value	$5,336,700
Net New Investment	$-1,720,702
Investment Gains/(Losses)	$314,002
Ending Market Value	$3,930,000

Performance vs CAI High Yield Fixed-Inc Style (Gross)

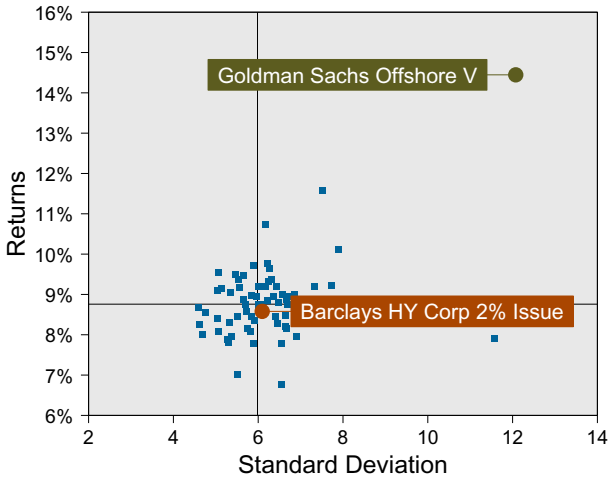


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-1/2 Years
10th Percentile	0.94	2.06	6.88	8.22	9.60	9.50
25th Percentile	0.46	1.32	6.25	7.54	9.19	8.77
Median	0.23	0.24	5.92	7.06	8.76	8.28
75th Percentile	(0.03)	(1.12)	5.26	6.52	8.26	7.65
90th Percentile	(0.28)	(2.33)	4.51	6.08	7.90	6.97
Goldman Sachs Offshore V ●	7.28	14.43	12.21	13.82	14.45	11.79
Barclays HY Corp 2% Issue ▲	0.01	(0.39)	5.49	6.81	8.58	8.59

Relative Return vs Barclays HY Corp 2% Issue



CAI High Yield Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



Loomis Sayles
Period Ended June 30, 2015

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.

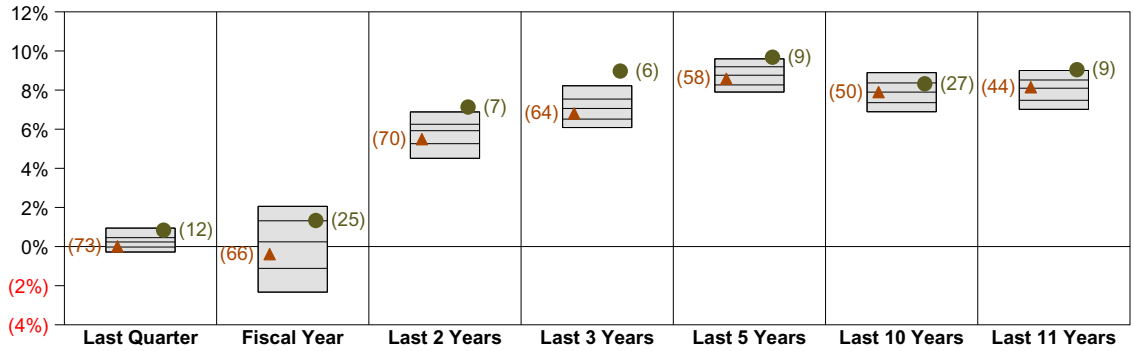
Quarterly Summary and Highlights

- Loomis Sayles's portfolio posted a 0.84% return for the quarter placing it in the 12 percentile of the CAI High Yield Fixed-Inc Style group for the quarter and in the 25 percentile for the last year.
- Loomis Sayles's portfolio outperformed the Barclays HY Corp 2% Issue by 0.83% for the quarter and outperformed the Barclays HY Corp 2% Issue for the year by 1.72%.

Quarterly Asset Growth

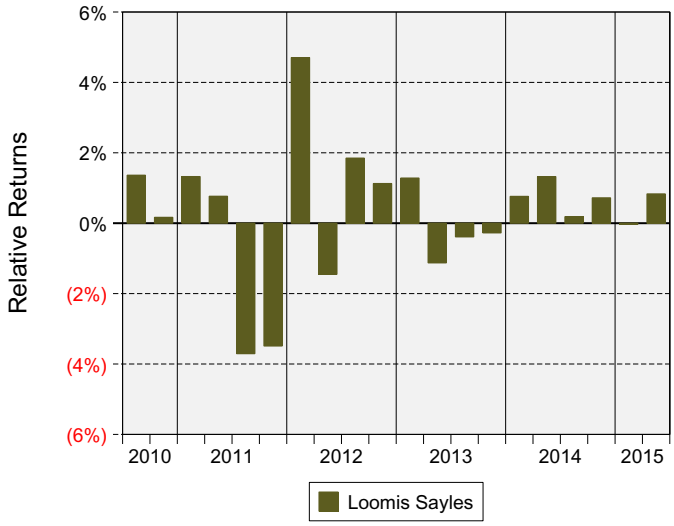
Beginning Market Value	$226,373,367
Net New Investment	$-282,967
Investment Gains/(Losses)	$1,900,532
Ending Market Value	$227,990,933

Performance vs CAI High Yield Fixed-Inc Style (Gross)

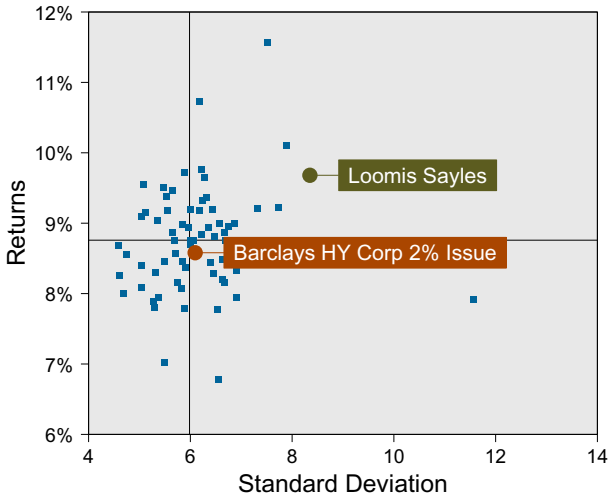


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11 Years
10th Percentile	0.94	2.06	6.88	8.22	9.60	8.89	9.00
25th Percentile	0.46	1.32	6.25	7.54	9.19	8.37	8.52
Median	0.23	0.24	5.92	7.06	8.76	7.90	8.09
75th Percentile	(0.03)	(1.12)	5.26	6.52	8.26	7.36	7.48
90th Percentile	(0.28)	(2.33)	4.51	6.08	7.90	6.89	7.01
Loomis Sayles ●	0.84	1.33	7.13	8.97	9.68	8.32	9.04
Barclays HY Corp 2% Issue ▲	0.01	(0.39)	5.49	6.81	8.58	7.90	8.15

Relative Return vs Barclays HY Corp 2% Issue



CAI High Yield Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



PIMCO Bravo II Fund
Period Ended June 30, 2015

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.

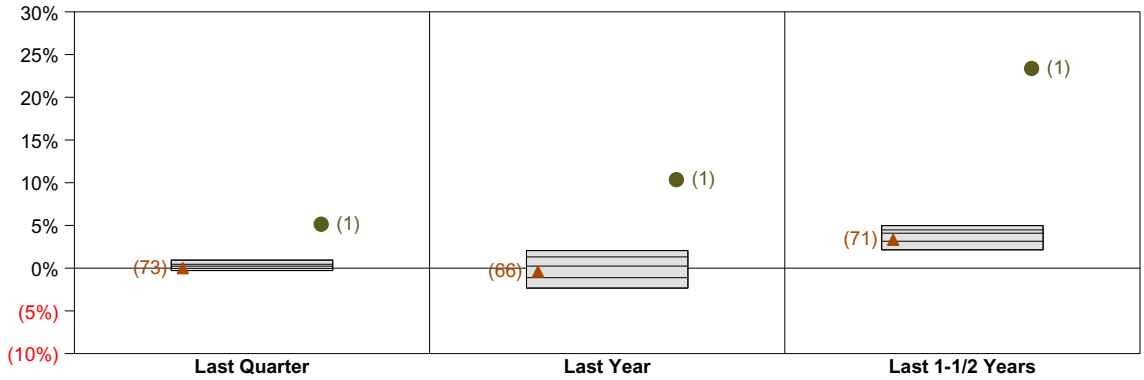
Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 5.14% return for the quarter placing it in the 1 percentile of the CAI High Yield Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Barclays HY Corp 2% Issue by 5.13% for the quarter and outperformed the Barclays HY Corp 2% Issue for the year by 10.75%.

Quarterly Asset Growth

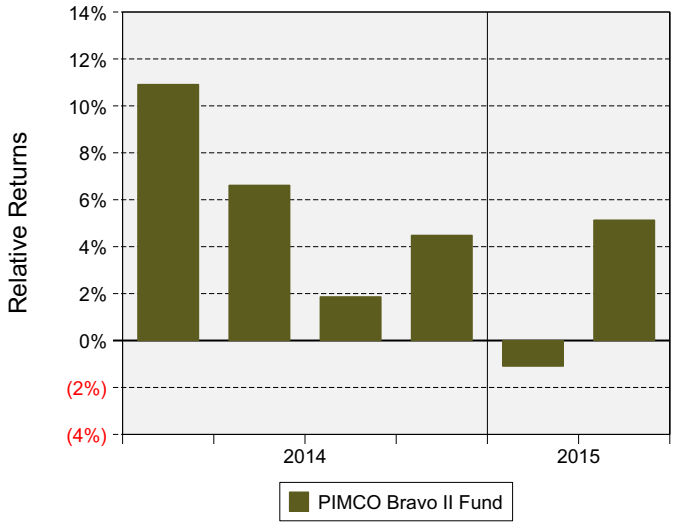
Beginning Market Value	$28,787,322
Net New Investment	$5,000,000
Investment Gains/(Losses)	$1,597,272
Ending Market Value	$35,384,594

Performance vs CAI High Yield Fixed-Inc Style (Gross)

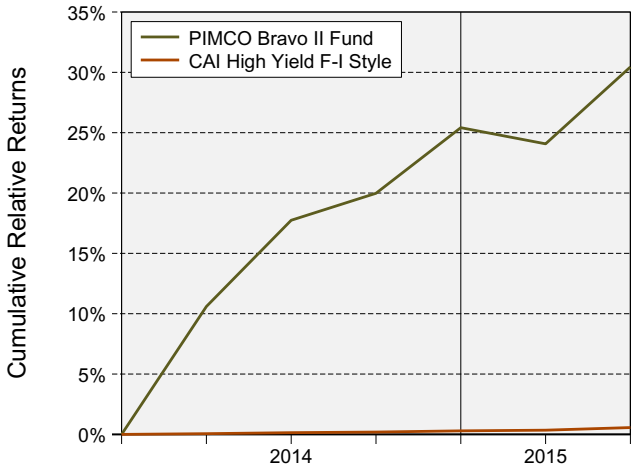


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	0.94	2.06	4.98
25th Percentile	0.46	1.32	4.48
Median	0.23	0.24	4.09
75th Percentile	(0.03)	(1.12)	3.15
90th Percentile	(0.28)	(2.33)	2.14
PIMCO Bravo II Fund ●	5.14	10.36	23.37
Barclays HY Corp 2% Issue ▲	0.01	(0.39)	3.34

Relative Return vs Barclays HY Corp 2% Issue



Cumulative Returns vs Barclays HY Corp 2% Issue



Brandywine Asset Management
Period Ended June 30, 2015

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.

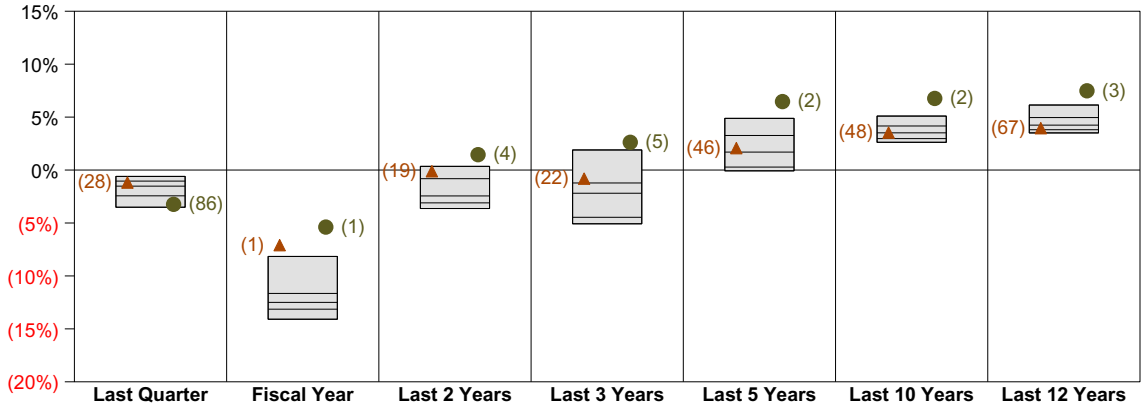
Quarterly Summary and Highlights

- Brandywine's portfolio posted a (3.24)% return for the quarter placing it in the 86 percentile of the CAI Non-U.S. Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Brandywine's portfolio underperformed the Barclays Global Aggregate Index by 2.06% for the quarter and outperformed the Barclays Global Aggregate Index for the year by 1.71%.

Quarterly Asset Growth

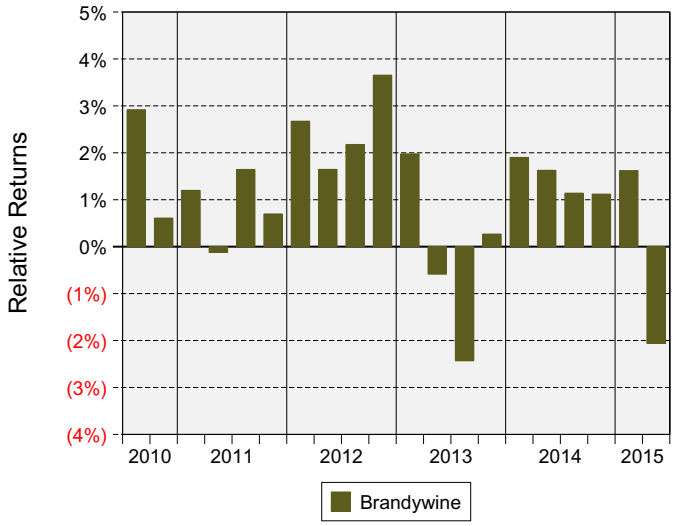
Beginning Market Value	$135,157,741
Net New Investment	$-244,038
Investment Gains/(Losses)	$-4,369,845
Ending Market Value	$130,543,858

Performance vs CAI Non-U.S. Fixed-Inc Style (Gross)

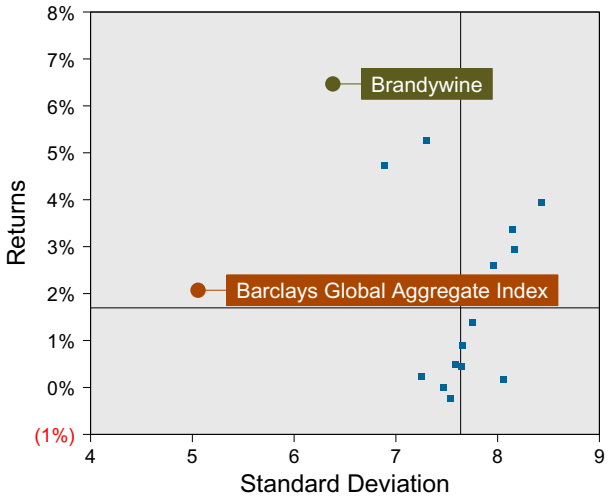


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 12 Years
10th Percentile	(0.60)	(8.16)	0.35	1.90	4.88	5.10	6.14
25th Percentile	(1.05)	(11.65)	(0.81)	(1.22)	3.26	4.16	4.96
Median	(1.52)	(12.50)	(2.44)	(2.19)	1.70	3.52	4.24
75th Percentile	(2.43)	(13.14)	(3.10)	(4.46)	0.28	2.97	3.81
90th Percentile	(3.51)	(14.09)	(3.63)	(5.08)	(0.07)	2.62	3.51
Brandywine ●	(3.24)	(5.39)	1.45	2.62	6.47	6.76	7.48
Barclays Global Aggregate Index ▲	(1.18)	(7.09)	(0.11)	(0.81)	2.07	3.54	3.95

Relative Returns vs Barclays Global Aggregate Index



CAI Non-U.S. Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



UBS Global Asset Management
Period Ended June 30, 2015

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 and the Barclays Global Aggregate ex-US Index thereafter.**

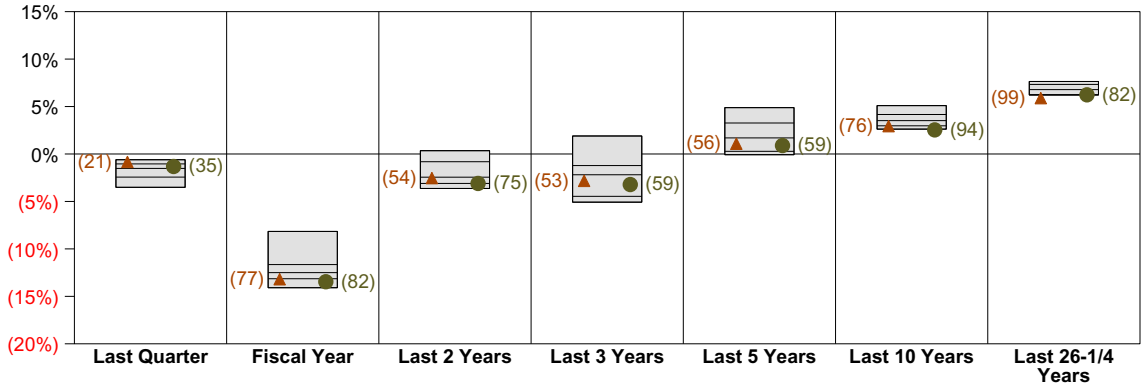
Quarterly Summary and Highlights

- UBS Global Asset Management's portfolio posted a (1.32)% return for the quarter placing it in the 35 percentile of the CAI Non-U.S. Fixed-Inc Style group for the quarter and in the 82 percentile for the last year.
- UBS Global Asset Management's portfolio underperformed the Blended Benchmark* by 0.48% for the quarter and underperformed the Blended Benchmark* for the year by 0.27%.

Quarterly Asset Growth

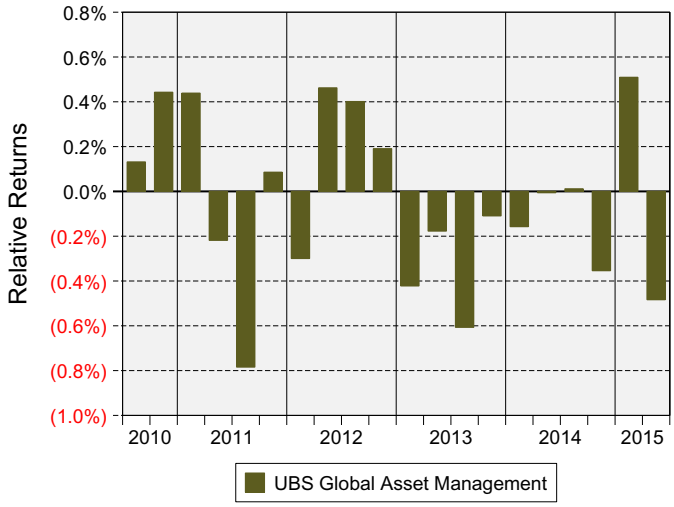
Beginning Market Value	$100,778,318
Net New Investment	$-83,580
Investment Gains/(Losses)	$-1,328,146
Ending Market Value	$99,366,592

Performance vs CAI Non-U.S. Fixed-Inc Style (Gross)

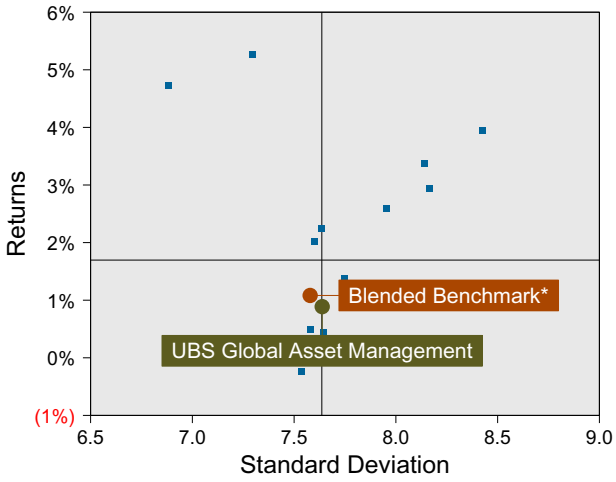


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 26-1/4 Years
10th Percentile	(0.60)	(8.16)	0.35	1.90	4.88	5.10	7.64
25th Percentile	(1.05)	(11.65)	(0.81)	(1.22)	3.26	4.16	7.33
Median	(1.52)	(12.50)	(2.44)	(2.19)	1.70	3.52	6.78
75th Percentile	(2.43)	(13.14)	(3.10)	(4.46)	0.28	2.97	6.25
90th Percentile	(3.51)	(14.09)	(3.63)	(5.08)	(0.07)	2.62	6.22
UBS Global Asset Management ●	(1.32)	(13.46)	(3.10)	(3.22)	0.89	2.54	6.23
Blended Benchmark* ▲	(0.83)	(13.19)	(2.54)	(2.83)	1.08	2.94	5.89

Relative Return vs Blended Benchmark*



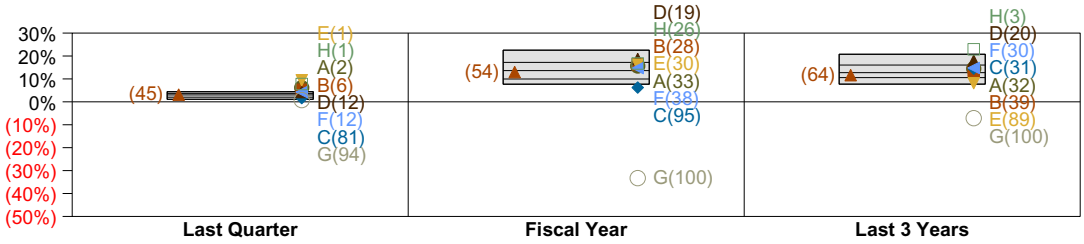
CAI Non-U.S. Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



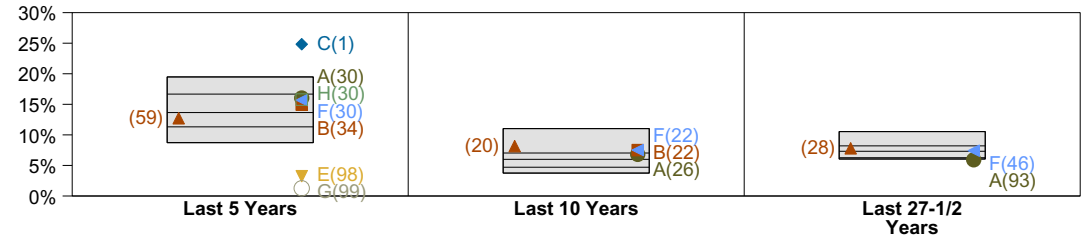
North Dakota State Investment Board Pension Funds
Performance vs Total Real Estate DB
Periods Ended June 30, 2015

Return Ranking

The chart below illustrates fund rankings over various periods versus the Total Real Estate DB. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the Total Real Estate DB. 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		4.43	22.54	20.76
25th Percentile		3.69	17.21	16.05
Median		3.02	13.63	12.73
75th Percentile		2.03	9.96	10.57
90th Percentile		1.12	7.70	7.72
Total Real Estate	● A	6.15	15.63	14.46
Invesco Core Real Estate	■ B	5.26	16.38	13.53
Invesco Real Estate II	◆ C	1.62	6.23	14.50
Invesco Real Estate III	▲ D	4.26	18.70	17.92
Invesco Asia Real Estate	▼ E	9.40	16.19	8.12
JP Morgan Investment	◀ F	4.26	14.71	14.81
JP Morgan Alternative Fd	○ G	0.76	(33.28)	(7.13)
JP Morgan Greater China Fund	□ H	7.78	16.74	22.91
NCREIF Total Index	▲	3.14	12.98	11.63



		Last 5 Years	Last 10 Years	Last 27-1/2 Years
10th Percentile		19.48	11.02	10.54
25th Percentile		16.67	7.03	8.20
Median		13.65	6.00	7.32
75th Percentile		11.31	4.71	6.26
90th Percentile		8.73	3.75	6.05
Total Real Estate	● A	16.03	6.81	5.92
Invesco Core Real Estate	■ B	14.95	7.51	-
Invesco Real Estate II	◆ C	24.83	-	-
Invesco Real Estate III	▲ D	-	-	-
Invesco Asia Real Estate	▼ E	3.24	-	-
JP Morgan Investment	◀ F	15.69	7.52	7.42
JP Morgan Alternative Fd	○ G	1.26	-	-
JP Morgan Greater China Fund	□ H	15.77	-	-
NCREIF Total Index	▲	12.72	8.16	7.80

TIR Teredo
Period Ended June 30, 2015

Investment Philosophy

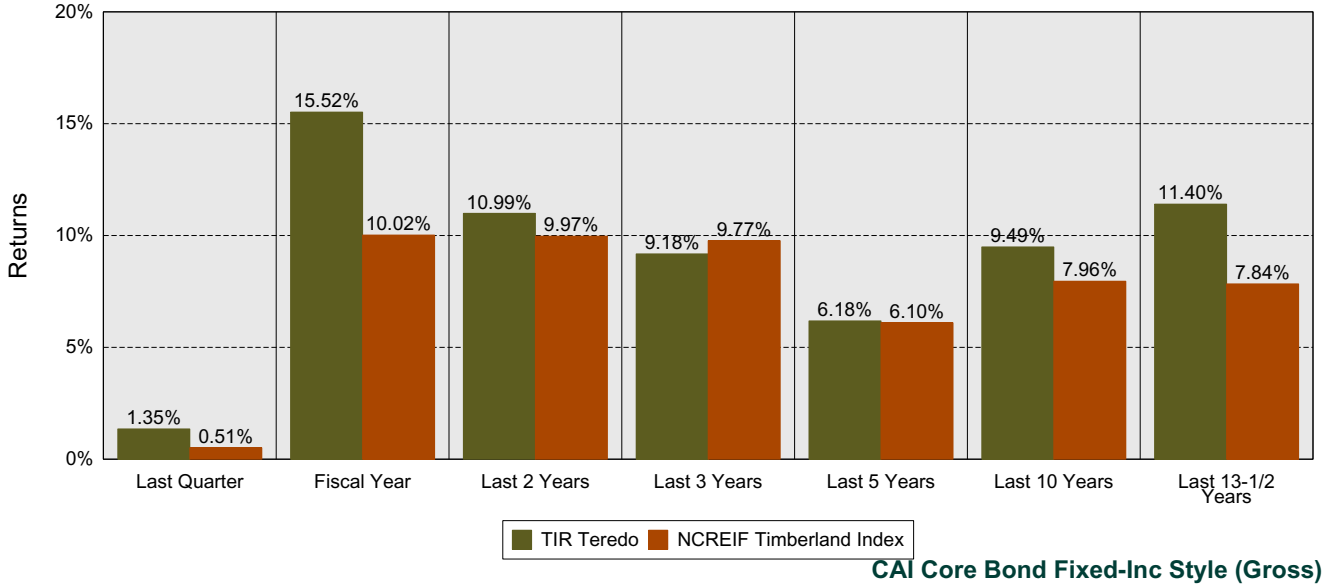
Teredo Timber LLC - The investment objective of Teredo is to provide competitive investment returns from increasing saw timber production through the 20 year term of the partnership. TIR's management strategy is to maximize saw timber volume by applying intensive forest management techniques which accelerate 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

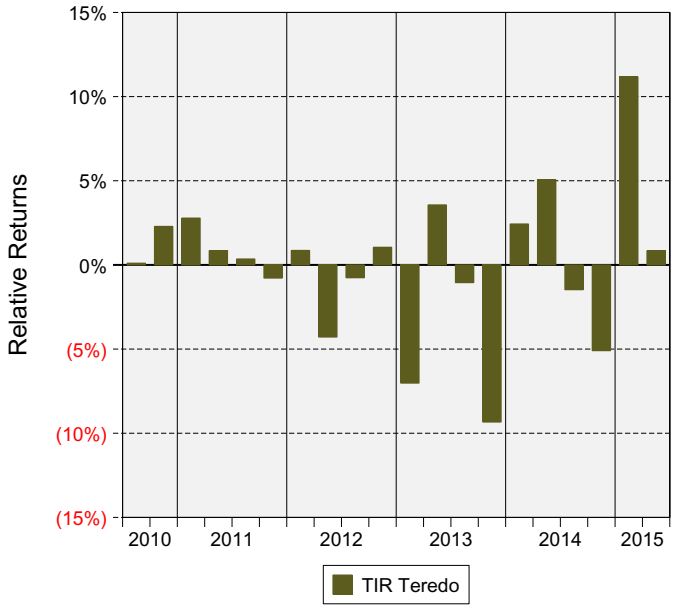
- TIR Teredo's portfolio posted a 1.35% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- TIR Teredo's portfolio outperformed the NCREIF Timberland Index by 0.84% for the quarter and outperformed the NCREIF Timberland Index for the year by 5.50%.

Quarterly Asset Growth

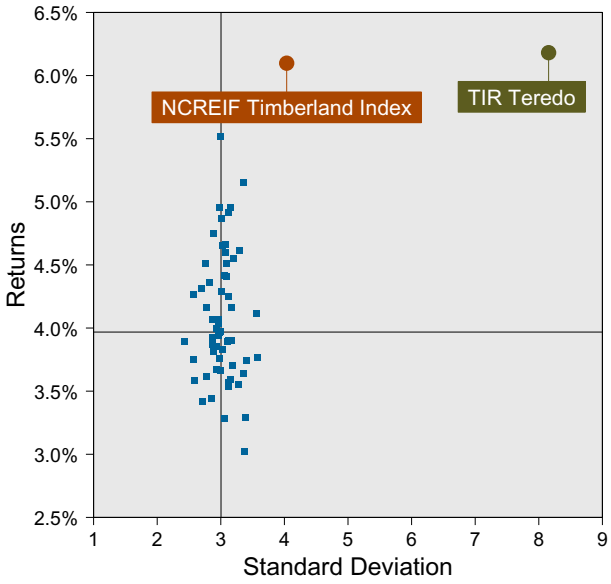
Beginning Market Value	$60,082,211
Net New Investment	$0
Investment Gains/(Losses)	$812,444
Ending Market Value	$60,894,655



Relative Return vs NCREIF Timberland Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



TIR Springbank
Period Ended June 30, 2015

Investment Philosophy

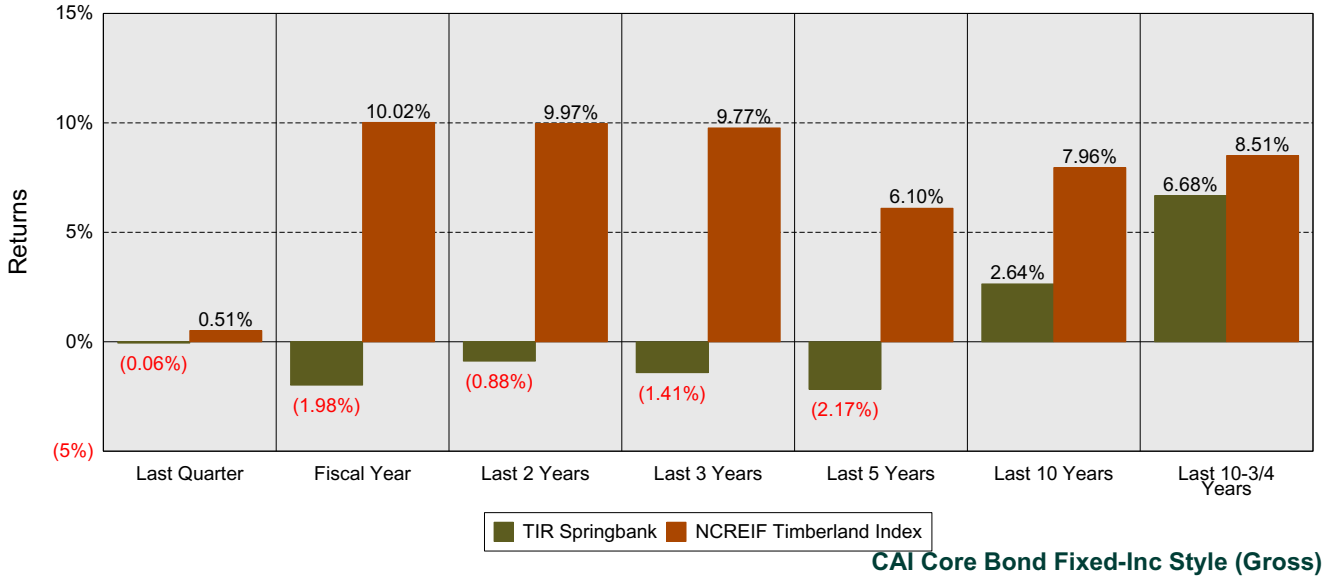
Springbank LLC - The investment objective of Springbank is to maximize long-term investment potential by means of the formation of a dedicated land management group, intensive timber management to increase timber production, the coordination of timber harvesting with land management activities and direct marketing and selective real estate partnerships.

Quarterly Summary and Highlights

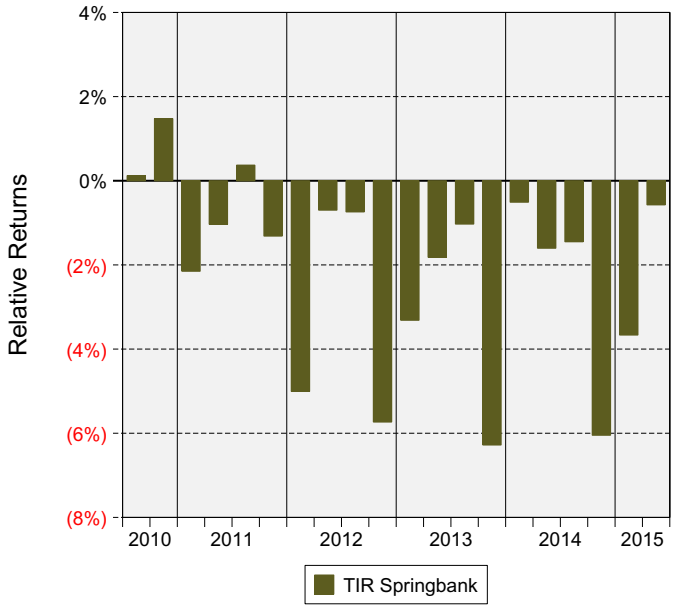
- TIR Springbank's portfolio posted a (0.06)% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 100 percentile for the last year.
- TIR Springbank's portfolio underperformed the NCREIF Timberland Index by 0.57% for the quarter and underperformed the NCREIF Timberland Index for the year by 12.00%.

Quarterly Asset Growth

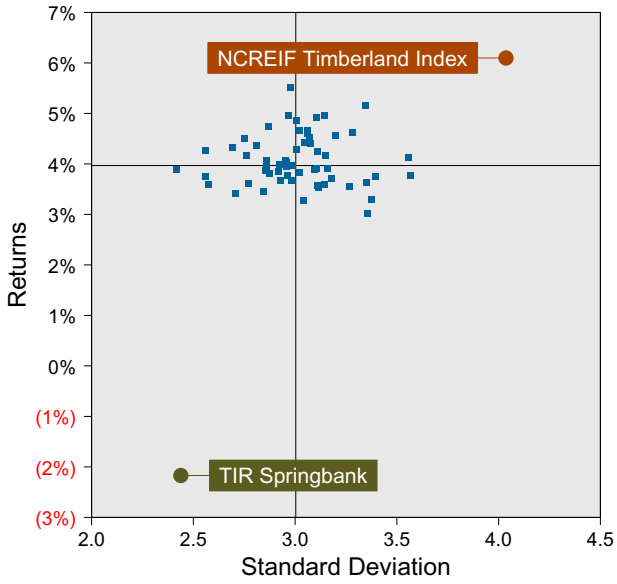
Beginning Market Value	$116,601,499
Net New Investment	$-25,328
Investment Gains/(Losses)	$-71,688
Ending Market Value	$116,504,483



Relative Return vs NCREIF Timberland Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



JP Morgan Asian Infrastructure
Period Ended June 30, 2015

Investment Philosophy

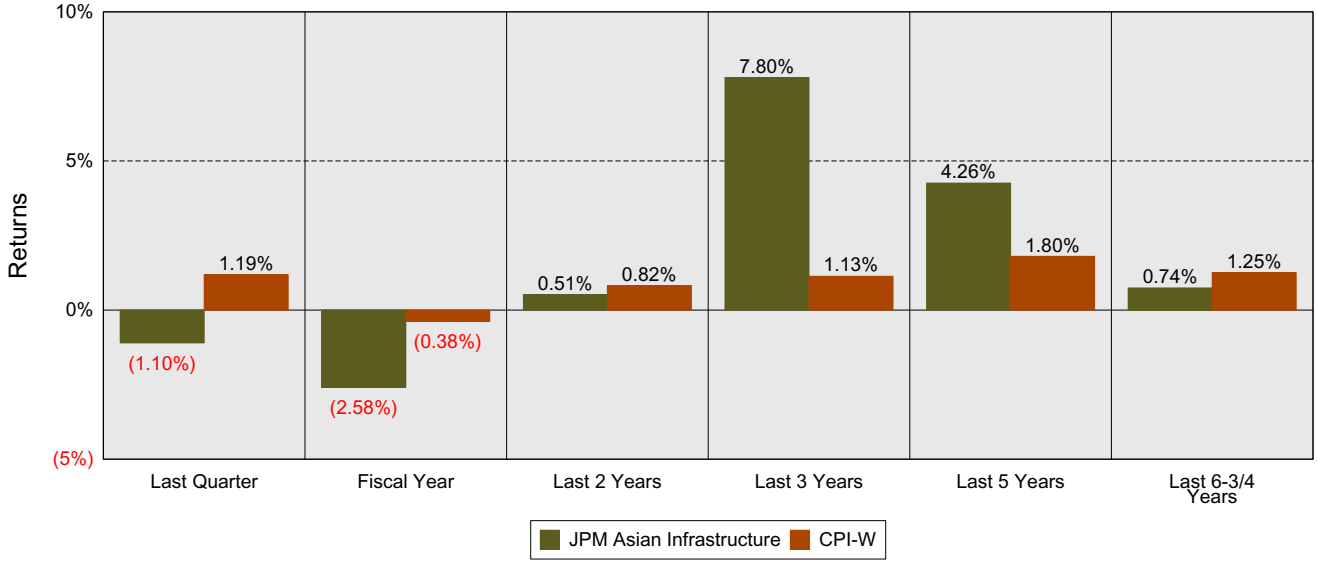
The JPMorgan Asian Infrastructure & Related Resources Opportunity ("AIRRO") Fund seeks to invest in infrastructure and related resources opportunities across the greater Asia Pacific region. The Fund seeks to invest in a broad range of assets, including: core infrastructure, power both from conventional and renewable sources, communications, water and waste-water, public works, urban development and other "social" infrastructure assets and related resources.

Quarterly Summary and Highlights

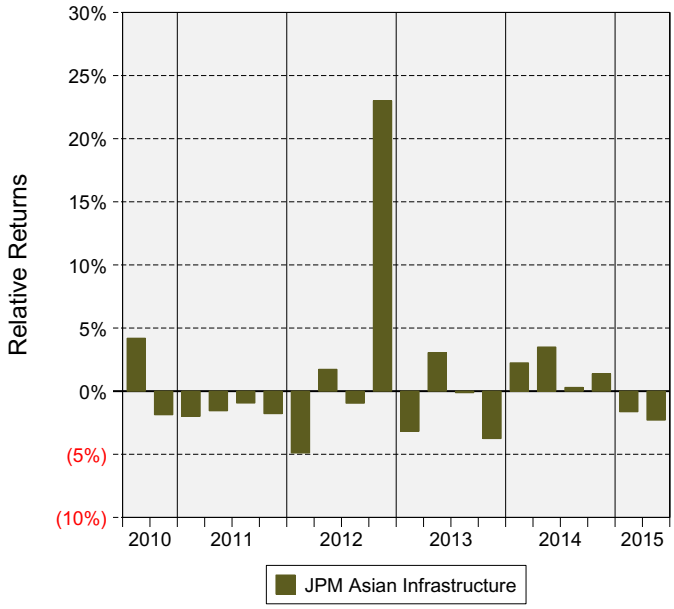
- JPM Asian Infrastructure's portfolio underperformed the CPI-W by 2.29% for the quarter and underperformed the CPI-W for the year by 2.20%.

Quarterly Asset Growth

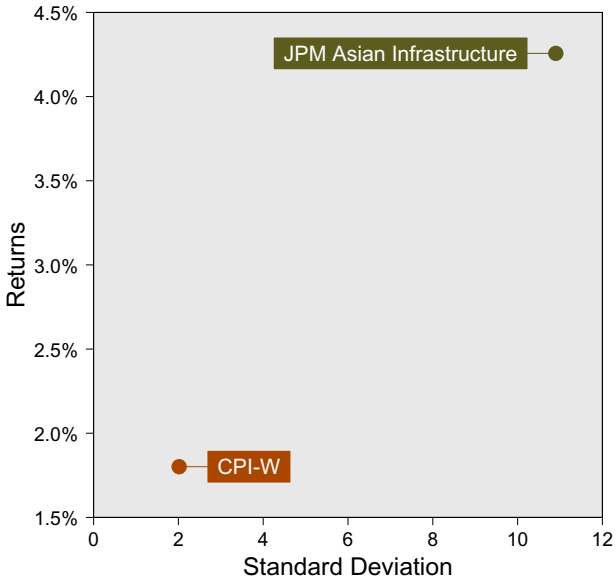
Beginning Market Value	$32,687,927
Net New Investment	$-1,733,861
Investment Gains/(Losses)	$-354,066
Ending Market Value	$30,600,000



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



JPM Infrastructure Fund
Period Ended June 30, 2015

Investment Philosophy

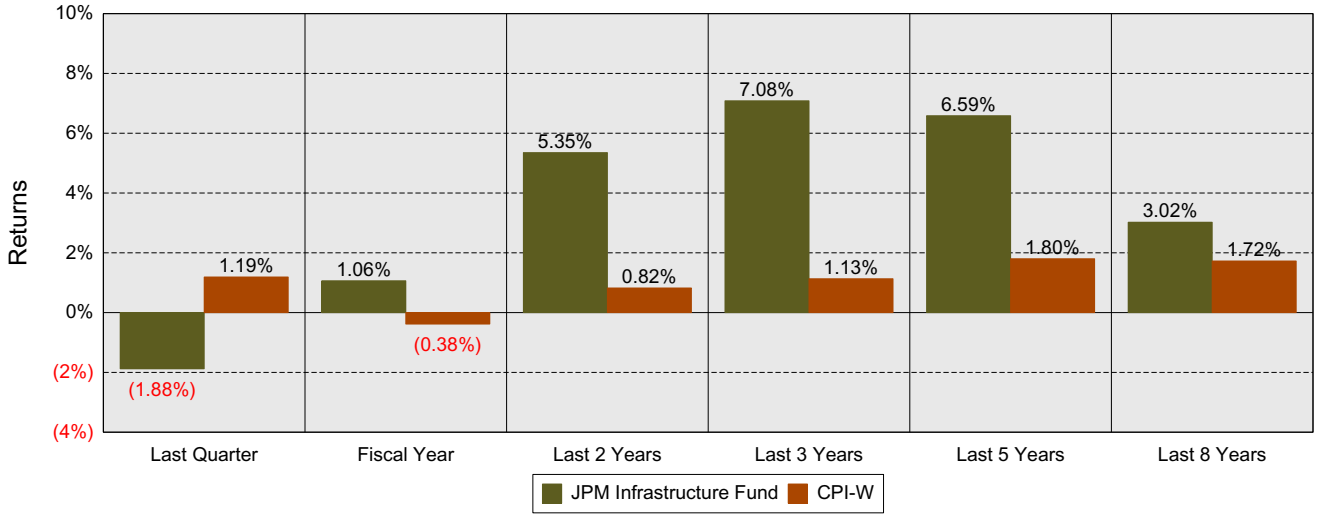
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas 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

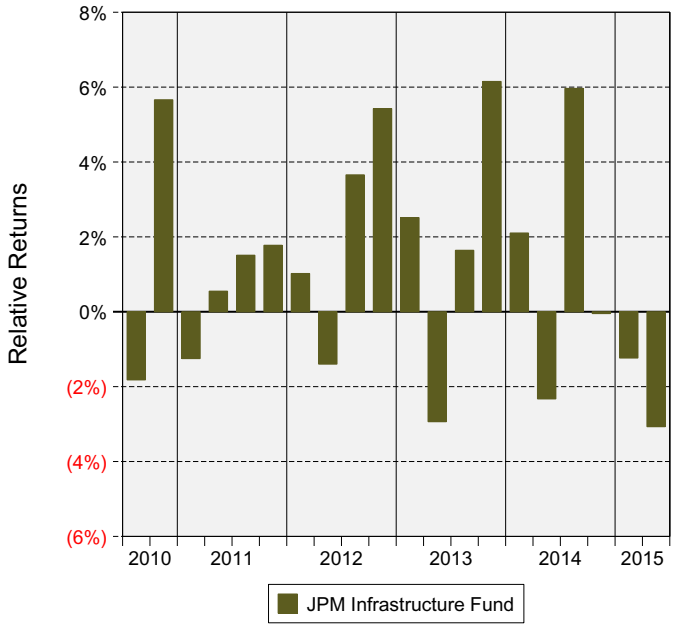
- JPM Infrastructure Fund's portfolio underperformed the CPI-W by 3.07% for the quarter and outperformed the CPI-W for the year by 1.45%.

Quarterly Asset Growth

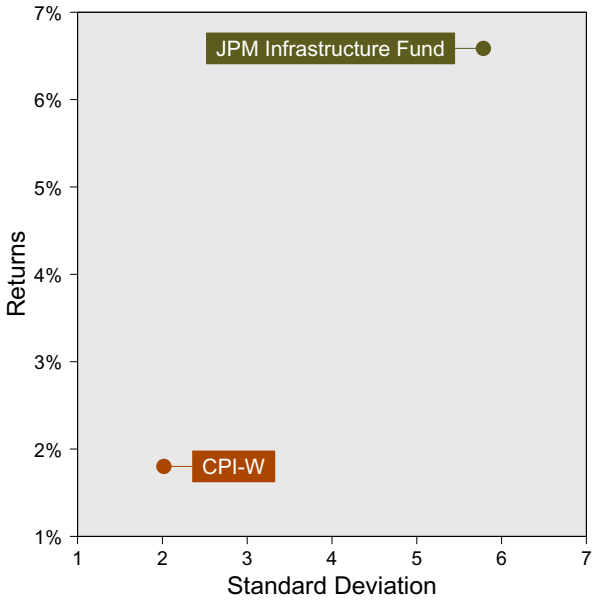
Beginning Market Value	$137,727,908
Net New Investment	$1,916,692
Investment Gains/(Losses)	$-2,524,162
Ending Market Value	$137,120,438



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



Grosvenor Cust. Infrastructure
Period Ended June 30, 2015

Investment Philosophy

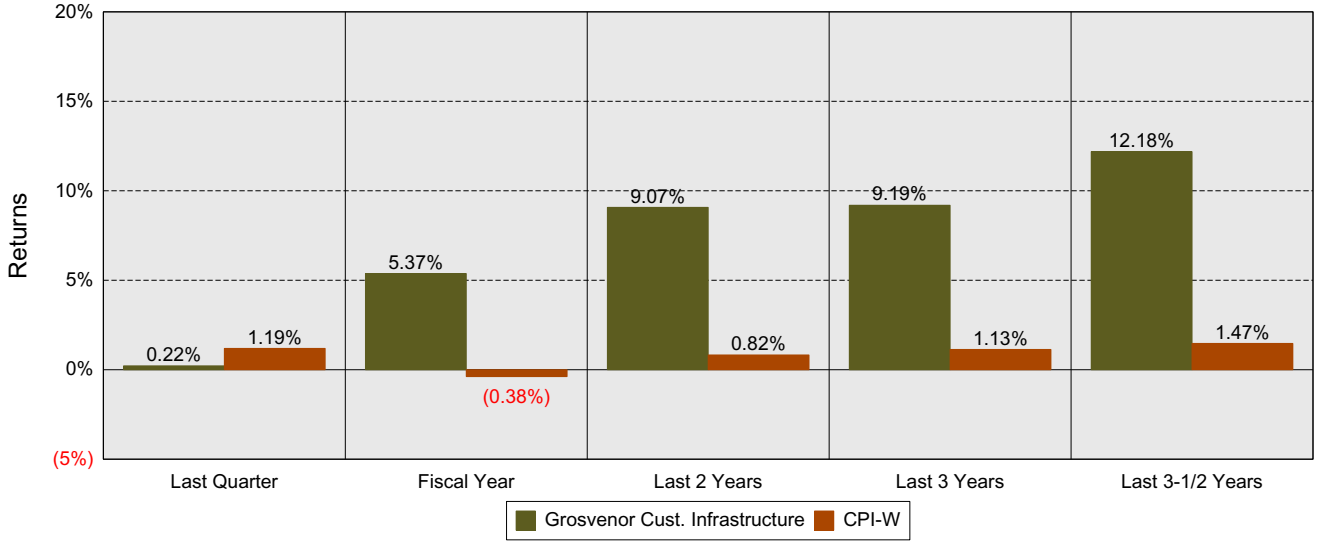
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

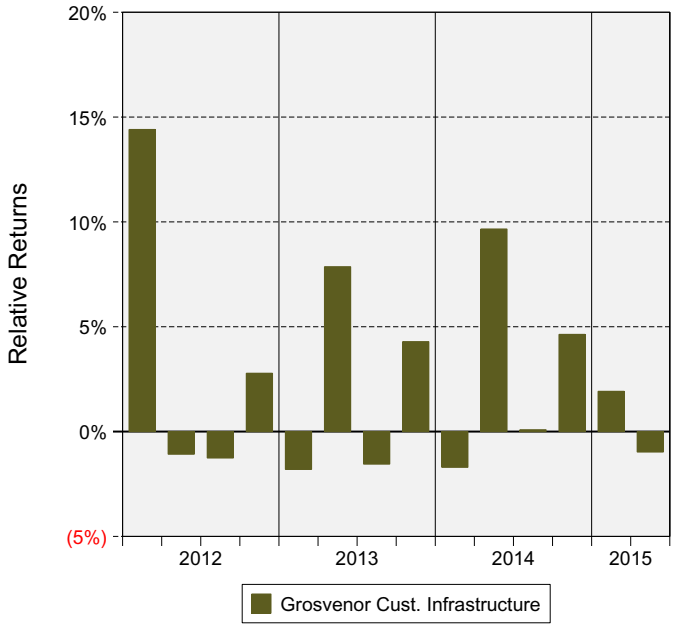
- Grosvenor Cust. Infrastructure's portfolio underperformed the CPI-W by 0.97% for the quarter and outperformed the CPI-W for the year by 5.76%.

Quarterly Asset Growth

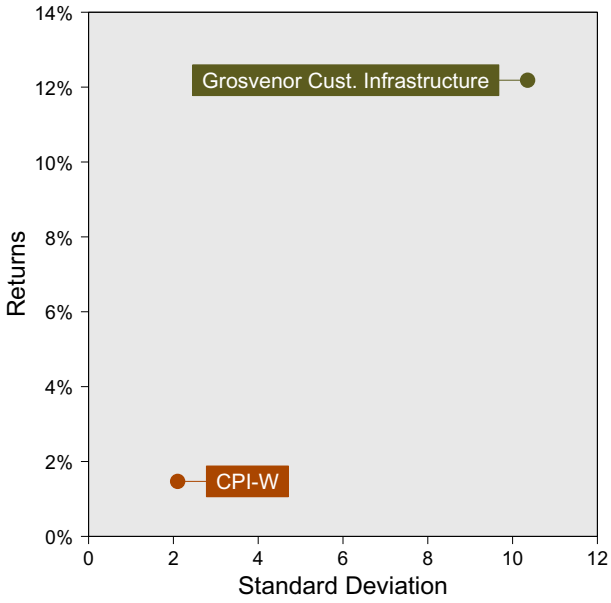
Beginning Market Value	$43,284,804
Net New Investment	$-4,357,371
Investment Gains/(Losses)	$83,765
Ending Market Value	$39,011,198



Relative Return vs CPI-W



Annualized Three and One-Half Year Risk vs Return



Grosvenor Cust. Infrastructure II
Period Ended June 30, 2015

Investment Philosophy

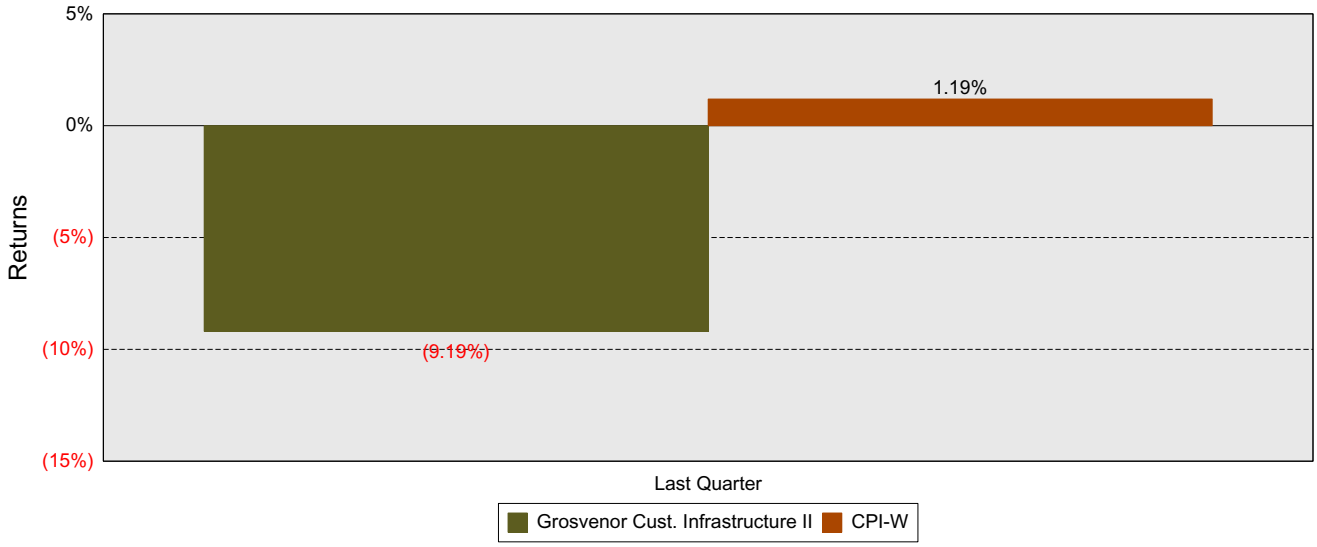
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

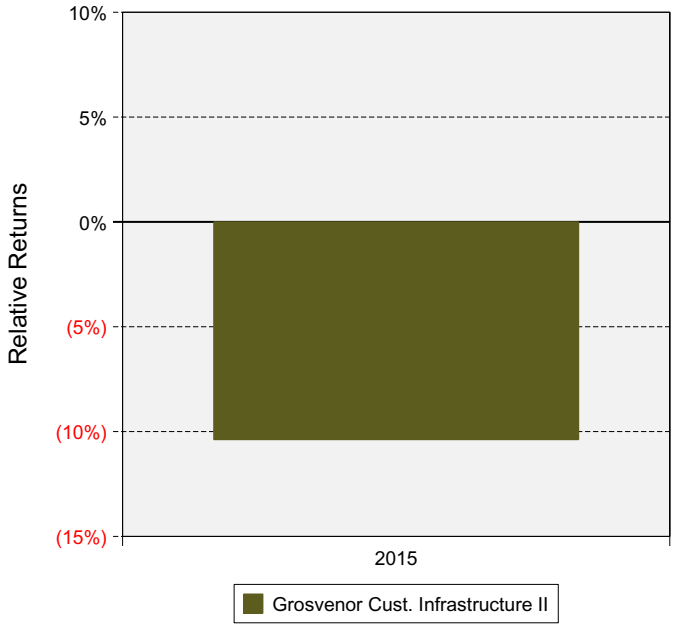
- Grosvenor Cust. Infrastructure II's portfolio underperformed the CPI-W by 10.38% for the quarter.

Quarterly Asset Growth

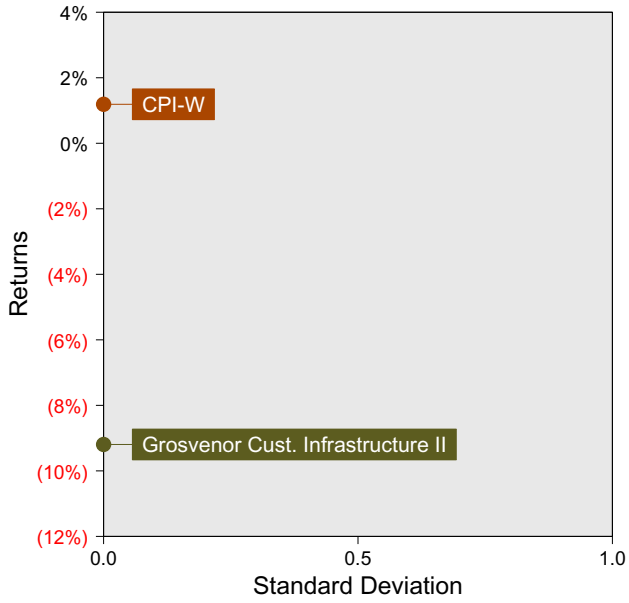
Beginning Market Value	$787,424
Net New Investment	$866,392
Investment Gains/(Losses)	$-123,731
Ending Market Value	$1,530,085



Relative Return vs CPI-W



One Quarter Year Risk vs Return



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INVESTMENTS
INSTITUTE

2nd Quarter 2015

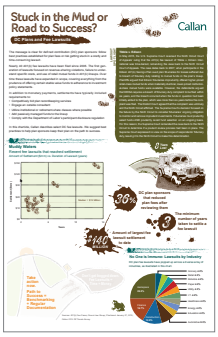
Education

Research and Educational Programs

The Callan Investments Institute provides research that keeps clients updated on the latest industry trends while helping them learn through carefully structured educational programs.

Recent Research

Please visit www.callan.com/research to see all of our publications.



Stuck in the Mud or Road to Success? DC Plans and Fee Lawsuits This charticle describes select fee lawsuits and best practices to help plan sponsors stay on the path to success.

Active Share and Product Pairs Analysis In this paper, author Greg Allen isolates the impact of active share on performance by focusing on "product pairs."

U.S. Equity Benchmark Review, Year-End 2014 This detailed report compares CRSP, Russell, and S&P indices alongside Callan Active Manager Style Groups.

Capital Market Review, 1st Quarter 2015 A newsletter providing insights on the economy and recent performance in the equity, fixed income, alternatives, and real estate markets.

Hedge Fund Monitor, 1st Quarter 2015 Cover story: Bridging the Gap: Multi-Asset Class Strategies.

Private Markets Trends, Spring 2015 A quarterly newsletter that discusses the market environment, recent events, performance, and other issues involving private equity.

DC Observer, 1st Quarter 2015 Cover story: Is Your Target Date Fund Suitable? Plus the Callan DC Index™.

Market Pulse Flipbook, 1st Quarter 2015 A reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, and alternatives.

Inside Callan's Database, 1st Quarter 2015 This report graphs performance and risk data from Callan's proprietary database alongside relevant market indices.

Real Estate Indicators: Too Hot to Touch or Cool Enough to Handle? See seven indicators that have helped signal when the institutional real estate market is overheated or cooled.

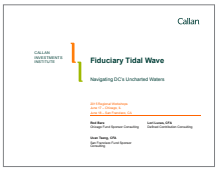
The Game of Retirement–Helping Employees Win This charticle provides a high-level look at the three generations DC plan sponsors must target and how best to communicate with them.

The Investment Vehicle Owner's Manual This charticle highlights the key features of several popular investment vehicles. It also encourages investors to consider six important questions when making an investment vehicle selection.

2015 Defined Contribution Survey Callan's annual survey of DC plan sponsors reveals trends in plan structure and management.

Events

Did you miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: https://www.callan.com/education/CII/



The **June Regional Workshop**'s topic was "Fiduciary Tidal Wave: Navigating DC's Uncharted Waters." Our speakers were Rod Bare, Chicago Fund Sponsor Consulting; Lori Lucas, CFA, Defined Contribution Consulting; and Uvan Tseng, CFA, San Francisco Fund Sponsor Consulting.

Our next event is the **October Regional Workshop**, to be held October 21 in New York and October 22 in Atlanta. Stay tuned for topic and speaker details! Also, save the date for our annual **National Conference** in San Francisco, January 25-27, 2016.

For more information about research or educational events, please contact Ray Combs: institute@callan.com or 415.974.5060

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 27-28, 2015

This session familiarizes fund sponsor trustees, staff, and asset management advisors 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 https://www.callan.com/education/college/ or contact Kathleen Cunnie: 415.274.3029 / cunnie@callan.com

Education: By the Numbers

500	Attendees (on average) of the Institute's annual National Conference	**50+**	Unique pieces of research the Institute generates each year
3,300	Total attendees of the "Callan College" since 1994	**1980**	Year the Callan Investments 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, 2015

List of Managers That Do Business with Callan Associates Inc.

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 06/30/15. Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting. Given the complex corporate and organizational ownership structures of investment management firms, parent and affiliate firm relationships are not listed here. The client list below may include names of parent companies who allow their affiliates to use some of the services included in their client contract (eg, educational services including published research and attendance at conferences and workshops). Affiliates will not be listed if they don't separately contract with Callan. Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Please refer to Callan's ADV Part 2A for a complete listing of TAG's portfolios. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios it oversees. Per company policy these requests are handled by TAG's senior management.

Manager Name	Educational Services	Consulting Services
1607 Capital Partners, LLC		Y
Aberdeen Asset Management	Y	Y
Acadian Asset Management, Inc.	Y	
Advisory Research	Y	
Affiliated Managers Group		Y
AllianceBernstein	Y	
Allianz Global Investors U.S. LLC	Y	Y
Allianz Life Insurance Company of North America		Y
Altrinsic Global Advisors, LLC		Y
American Century Investment Management	Y	
Analytic Investors	Y	
Apollo Global Management	Y	
AQR Capital Management	Y	
Ares Management	Y	
Ariel Investments	Y	
Aristotle Capital Management	Y	
Aronson + Johnson + Ortiz	Y	
Artisan Holdings		Y
Atlanta Capital Management Co., L.L.C.	Y	Y
Aviva Investors	Y	
AXA Rosenberg Investment Management	Y	
Babson Capital Management LLC	Y	
Baillie Gifford International LLC	Y	Y
Baird Advisors	Y	Y
Bank of America		Y
Baring Asset Management	Y	
Baron Capital Management	Y	
BlackRock	Y	
BMO Asset Management	Y	
BNP Paribas Investment Partners	Y	
BNY Mellon Asset Management	Y	Y
Boston Company Asset Management, LLC (The)	Y	Y

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
Boston Partners	Y	Y
Brandes Investment Partners, L.P.	Y	Y
Brandywine Global Investment Management, LLC	Y	
Brown Brothers Harriman & Company	Y	
Cadence Capital Management	Y	
Capital Group	Y	
CastleArk Management, LLC		Y
Causeway Capital Management	Y	
Central Plains Advisors, Inc.		Y
Chartwell Investment Partners	Y	
ClearBridge Investments, LLC (fka ClearBridge Advisors)	Y	
Cohen & Steers	Y	Y
Columbia Management Investment Advisors, LLC	Y	Y
Columbus Circle Investors	Y	Y
Corbin Capital Partners	Y	
Cornerstone Investment Partners, LLC	Y	
Cramer Rosenthal McGlynn, LLC	Y	
Crawford Investment Council		Y
Credit Suisse Asset Management	Y	
Crestline Investors	Y	Y
Cutwater Asset Management	Y	
DB Advisors	Y	Y
DE Shaw Investment Management LLC	Y	
Delaware Investments	Y	Y
DePrince, Race & Zollo, Inc.	Y	Y
Deutsche Asset & Wealth Management	Y	Y
Diamond Hill Investments	Y	
Donald Smith & Co., Inc.	Y	
DSM Capital Partners		Y
Duff & Phelps Investment Mgmt.	Y	Y
Eagle Asset Management, Inc.		Y
EARNEST Partners, LLC	Y	
Eaton Vance Management	Y	Y
Epoch Investment Partners	Y	
Fayez Sarofim & Company		Y
Federated Investors		Y
Fir Tree Partners	Y	
First Eagle Investment Management	Y	
First Hawaiian Bank		Y
First State Investments	Y	
Fisher Investments	Y	
Franklin Templeton	Y	Y

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
Fred Alger Management Co., Inc.	Y	
Fuller & Thaler Asset Management	Y	
GAM (USA) Inc.	Y	
Garcia Hamilton & Associates	Y	
GE Asset Management	Y	Y
Geneva Capital Management	Y	
Goldman Sachs Asset Management	Y	Y
Grand-Jean Capital Management	Y	Y
GMO (fka Grantham, Mayo, Van Otterloo & Co., LLC)	Y	
Great Lakes Advisors, Inc.		Y
The Guardian Life Insurance Company of America		Y
Guggenheim Investments Asset Management (fka Security Global)	Y	
The Hampshire Companies	Y	
Harbor Capital		Y
Hartford Funds	Y	
Hartford Investment Management Co.	Y	Y
Heightman Capital Management Corporation		Y
Henderson Global Investors	Y	Y
Hotchkis & Wiley	Y	
HSBC Global Asset Management	Y	
Income Research & Management	Y	
Insight Investment Management		Y
Institutional Capital LLC	Y	
INTECH Investment Management	Y	
Invesco	Y	Y
Investec Asset Management	Y	
Jacobs Levy Equity Management		Y
Janus Capital Group (fka Janus Capital Management, LLC)	Y	Y
Jensen Investment Management		Y
J.M. Hartwell	Y	
J.P. Morgan Asset Management	Y	Y
KeyCorp		Y
Lazard Asset Management	Y	Y
Lee Munder Capital Group	Y	
Legal & General Investment Management America	Y	
Lincoln National Corporation		Y
Logan Circle Partners, L.P.	Y	
The London Company	Y	
Longview Partners	Y	
Loomis, Sayles & Company, L.P.	Y	Y
Lord Abbett & Company	Y	Y
Los Angeles Capital Management	Y	

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
LSV Asset Management	Y	
Lyrical Partners	Y	
MacKay Shields LLC	Y	Y
Mackenzie Investments		Y
Man Investments	Y	
Manulife Asset Management	Y	
Martin Currie	Y	
Marvin & Palmer Associates, Inc.	Y	
MFS Investment Management	Y	Y
MidFirst Bank		Y
Mondrian Investment Partners Limited	Y	Y
Montag & Caldwell, Inc.	Y	Y
Morgan Stanley Alternative Investment Partners	Y	
Morgan Stanley Investment Management	Y	Y
Mount Lucas Management LP	Y	
Mountain Lake Investment Management LLC		Y
MUFG Union Bank, N.A.		Y
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Newton Capital Management	Y	
Northern Lights Capital Group		Y
Northern Trust Global Investment Services	Y	Y
Nuveen Investments Institutional Services Group LLC	Y	
Old Mutual Asset Management	Y	Y
OppenheimerFunds, Inc.	Y	
Pacific Investment Management Company	Y	
Palisade Capital Management LLC	Y	
Paradigm Asset Management	Y	
Parametric Portfolio Associates	Y	
Peregrine Capital Management, Inc.	Y	Y
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)	Y	
Pinnacle Asset Management	Y	
Pioneer Investment Management, Inc.	Y	
PNC Capital Advisors (fka Allegiant Asset Mgmt)	Y	Y
Polen Capital Management	Y	
Principal Financial Group		Y
Principal Global Investors	Y	Y
Private Advisors	Y	
Prudential Fixed Income Management	Y	
Prudential Investment Management, Inc.	Y	Y
Putnam Investments, LLC	Y	Y
Pyramis Global Advisors	Y	

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Manager Name	Educational Services	Consulting Services
Rainier Investment Management	Y	
RBC Global Asset Management (U.S.) Inc.		Y
Research Affiliates		Y
Regions Financial Corporation		Y
RCM		Y
Rothschild Asset Management, Inc.	Y	Y
RS Investments	Y	
Russell Investment Management	Y	
Sankaty Advisors, LLC	Y	
Santander Global Facilities		Y
Schroder Investment Management North America Inc.	Y	Y
Scout Investments	Y	
SEI Investments		Y
SEIX Investment Advisors, Inc.	Y	
Select Equity Group	Y	
Smith Affiliated Capital Corporation	Y	
Smith Graham and Company		Y
Smith Group Asset Management		Y
Standard Life Investments	Y	
Standish (fka, Standish Mellon Asset Management)	Y	
State Street Global Advisors	Y	
Stone Harbor Investment Partners, L.P.	Y	Y
Systematic Financial Management	Y	
T. Rowe Price Associates, Inc.	Y	Y
Taplin, Canida & Habacht	Y	
Timberland Investment Resources	Y	
TCW Asset Management Company	Y	
Thompson, Siegel & Walmsley LLC	Y	
UBS	Y	Y
USAA Real Estate Company	Y	
Van Eck	Y	
Versus Capital Group		Y
Victory Capital Management Inc.	Y	
Vontobel Asset Management	Y	
Voya Investment Management	Y	Y
Vulcan Value Partners, LLC		Y
Waddell & Reed Asset Management Group	Y	Y
WCM Investment Management	Y	
WEDGE Capital Management		Y
Wellington Management Company, LLP	Y	
Wells Capital Management	Y	
Wells Fargo Private Bank		Y

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
Western Asset Management Company	Y	
William Blair & Co., Inc.	Y	Y

Callan

June 30, 2015

North Dakota State Investment Board Insurance Trust

Investment Measurement Service Quarterly Review

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. Callan does not provide advice regarding, nor shall Callan be responsible for, the purchase, sale, hedge or holding of individual securities, including, without limitation securities of the client (i.e., company stock) or derivatives in the client's accounts. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the conformity of individual security holdings with the client's investment policies and guidelines, nor has it assumed any responsibility to do so. Advice pertaining to the merits of individual securities and derivatives should be discussed with a third party securities expert. Copyright 2015 by Callan Associates Inc.

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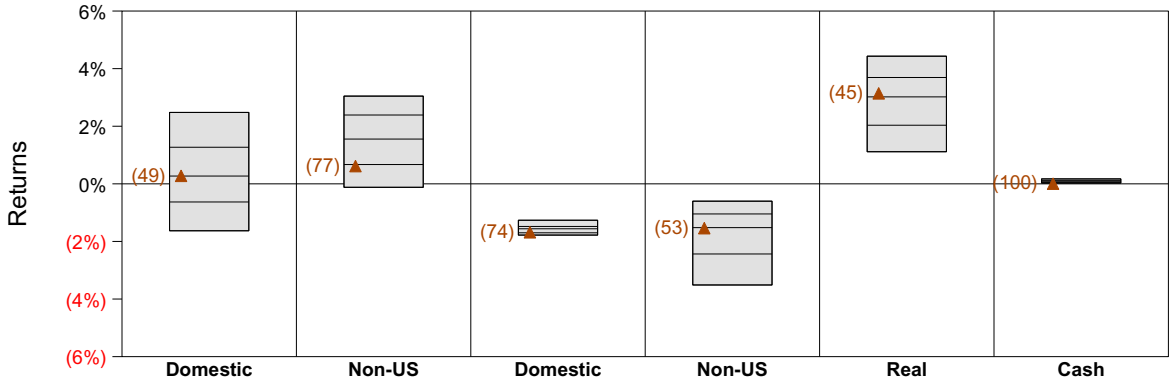
Market Overview
Active Management vs Index Returns

Market Overview

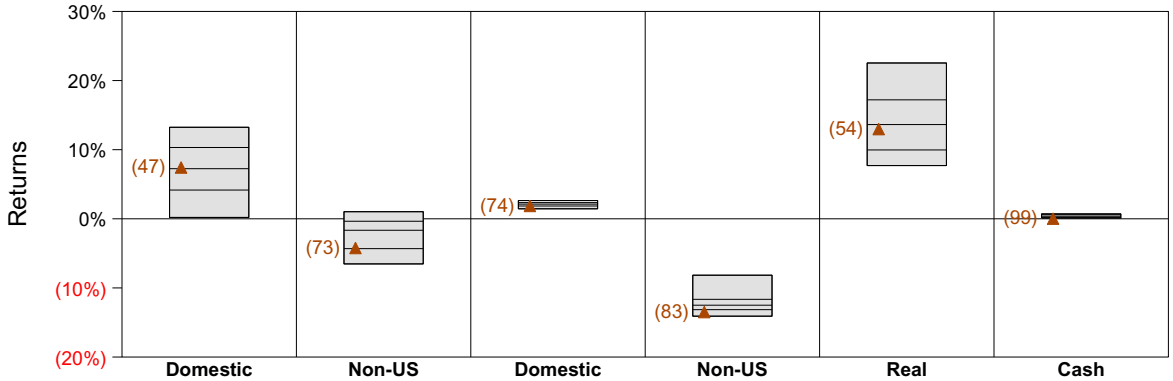
The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also 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 domestic equity manager database.

Range of Separate Account Manager Returns by Asset Class
One Quarter Ended June 30, 2015



	Domestic Equity vs S&P 500	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Barclays Aggr Bd	Non-US Fixed Income vs Citi Non-US Gov	Real Estate vs NCREIF Index	Cash Equivalents vs 3 Mon T-Bills
10th Percentile	2.48	3.05	(1.26)	(0.60)	4.43	0.17
25th Percentile	1.27	2.39	(1.48)	(1.05)	3.69	0.11
Median	0.27	1.55	(1.56)	(1.52)	3.02	0.09
75th Percentile	(0.63)	0.67	(1.70)	(2.43)	2.03	0.04
90th Percentile	(1.63)	(0.12)	(1.78)	(3.51)	1.12	0.03
Index ▲	0.28	0.62	(1.68)	(1.54)	3.14	0.01

Range of Separate Account Manager Returns by Asset Class
One Year Ended June 30, 2015



	Domestic Equity vs S&P 500	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Barclays Aggr Bd	Non-US Fixed Income vs Citi Non-US Gov	Real Estate vs NCREIF Index	Cash Equivalents vs 3 Mon T-Bills
10th Percentile	13.24	1.03	2.65	(8.16)	22.54	0.71
25th Percentile	10.32	(0.36)	2.35	(11.65)	17.21	0.59
Median	7.25	(1.66)	2.12	(12.50)	13.63	0.37
75th Percentile	4.16	(4.32)	1.85	(13.14)	9.96	0.20
90th Percentile	0.20	(6.53)	1.45	(14.09)	7.70	0.09
Index ▲	7.42	(4.22)	1.86	(13.49)	12.98	0.02

Callan

Capital Market Review

Second Quarter 2015

Reversion to the Mean

U.S. ECONOMY

2 PAGE

The U.S. GDP resumed momentum, posting a 2.3% increase. Credit goes to the rise in consumer spending fueled by robust gains in employment and household wealth. Inflation remains well below the Fed's 2% target.

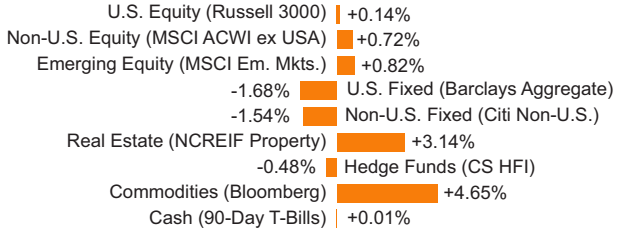
Returns Take a Semester Abroad

FUND SPONSOR

4 PAGE

In the **Callan Fund Sponsor Database**, corporate funds (-0.21%) were the quarter's worst performers while Taft-Hartley plans (+0.33%) were the best at the median. Taft-Hartley funds benefited from a smaller exposure to fixed income versus their corporate peers.

Broad Market Quarterly Returns



Sources: Barclays, Citigroup, Credit Suisse Hedge Index, Merrill Lynch, MSCI, NCREIF, Russell Investment Group, S&P Dow Jones

Underwhelming

U.S. EQUITY

6 PAGE

Large and small cap stocks showed slightly positive returns this quarter (**Russell 1000 Index**: +0.1% and **Russell 2000 Index**: +0.4%) while mid cap trailed considerably (**Russell Mid-Cap Index**: -1.5%). Growth maintained its lead over value in all capitalizations.

Greek Gloom

NON-U.S. EQUITY

9 PAGE

Non-U.S. markets managed to end the quarter with a slight gain (**MSCI ACWI ex USA Index**: +0.72%) despite heightened concerns about Greece and China. Both the developed **MSCI World ex USA Index** (+0.48%) and the **MSCI Emerging Markets Index** (+0.82%) eked out meager returns.

Rates Move Higher

U.S. FIXED INCOME

12 PAGE

The U.S. bond markets experienced a backup in interest rates as Treasuries sold off and spread sectors were mixed. The yield curve steepened. The **Barclays Aggregate Index** declined 1.68%. The **Barclays Corporate High Yield Index** was flat.

Deal or No Deal

NON-U.S. FIXED INCOME

15 PAGE

The debt standoff in Greece and a bull market reversal in developed markets highlighted the sovereign bond market. The unhedged **Citi Non-U.S. World Government Bond Index (WGBI)** declined 1.54%, while the hedged WGBI plunged 3.20% due to a weakening U.S. dollar.

Mixed Messages

REAL ESTATE

17 PAGE

The **NCREIF Property Index** advanced 3.14% (1.26% income return; 1.89% appreciation return). The **FTSE EPRA/NAREIT Developed REIT Index** (USD) declined 6.67% and domestic REITs tracked by the **FTSE NAREIT Equity REITs Index** dropped 9.95%.

A Seller's Market

PRIVATE EQUITY

19 PAGE

Fundraising, venture investment, and IPOs for both buyout and venture leaped in the second quarter. Buyout investment was flat and M&A exit figures for both buyout and venture were mixed. High prices are muting private M&A volumes, but all other activity measures soared.

Momentum Whiplash

HEDGE FUNDS

20 PAGE

The **Credit Suisse Hedge Fund Index** slipped 0.48%. The median manager in the **Callan Hedge Fund-of-Funds Database** inched ahead 0.23%. The quarter's most notable victim was Managed Futures (-10.61%).

TDFs Win Quarter, Asset Flows

DEFINED CONTRIBUTION

21 PAGE

The Callan DC Index™ gained 2.15%, trailing the typical 2035 target date fund (TDF), which rose 2.55%. DC plan balances grew by 2.76%. Nearly 66 cents of every dollar that moved within DC plans flowed to TDFs.

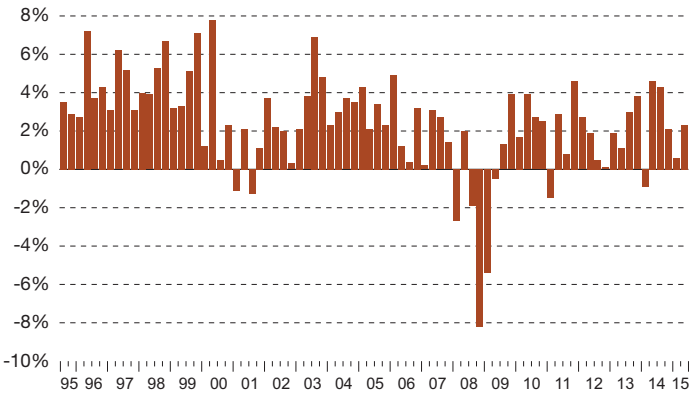
Reversion to the Mean

U.S. ECONOMY | Jay Kloepfer

After stalling in the first part of 2015, the U.S. economic expansion resumed in the second quarter with a 2.3% increase in GDP. Real GDP growth measurement for the first quarter proved to be a bumpy ride: the initial estimate of +0.2% was revised to a 0.7% loss, then to a slighter drop of 0.2%, and the most recent announcement swung back to black, albeit a scant +0.6%. However we measure it, the weakness in the first quarter was attributed to a strong dollar hurting exports, harsh winter weather interfering with general economic activity, and a sharp decline in oil drilling due to plunging oil prices. Labor stoppages in western ports added to the troubles. The resumption in growth in the second quarter came from a rise in consumption spending, fueled by robust gains in employment and household wealth. Consumer confidence rose through much of the quarter, although the events in Greece and China in June likely sapped some of that confidence. The housing market recovery continued to take shape, prodded by the same economic news that drove consumption (jobs, household wealth, and consumer confidence). While some of the data send mixed messages, growth in the U.S. economy is reverting to its underlying 2.5%-3% long-term average rate.

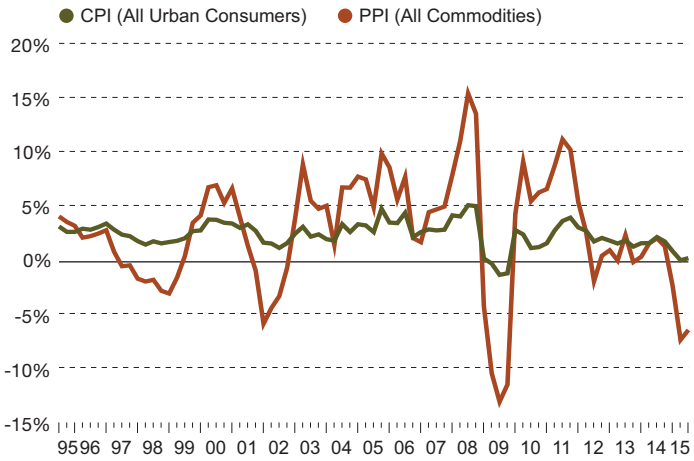
The job market posted solid gains during the first half of 2015, averaging 195,000 per month in the first quarter and 221,000 per month in the second. The year-over-year gain in jobs through June reached just short of three million, the largest gain for the July-June period since 2000. The unemployment rate fell to 5.3% in June. While these data confirm that the first-quarter GDP weakness was an anomaly, the Fed remains concerned about key characteristics of the U.S. labor market. Much of the improvement in the unemployment rate has been the result of discouraged workers leaving the labor force. The labor force participation rate fell to 62.6% in June, a 38-year low. Wage growth has been positive but modest, rising 2% year-over-year through June, suggesting continued slack in the labor market despite the reported job gains.

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

Inflation remains well below the Fed's 2% target. Headline CPI was flat in June compared to one year earlier due to sharply falling energy prices in the latter half of 2014. Core CPI, which excludes food and energy, was up 1.8% in June year-over-year, pushed up by health care and housing costs. The sharp drop in energy prices provided a windfall of sorts for consumers, enabling them to direct spending to other categories, such as cars and other durable goods.

Household net worth reached $85 trillion in the first quarter of 2015, fueled by rising home prices and the strong U.S. stock market. Net worth is now 25% higher than its 2007 pre-financial-crisis peak. This improvement in net worth, combined with the solid job market gains, has led to a buoyed level of consumer confidence and resulted in broad consumer spending, strong auto sales, and perked up interest in the housing market. Home prices are rising everywhere, but at varying rates; gains have averaged 5% year-over-year over the past 12 months. Existing home sales rose 3.2% in June to a 5.49 million-unit annual rate, while new home sales are running at a 545,000-unit rate; both rates are multi-year highs, but substantially below the peaks set prior to 2007. Inventories remain tight, despite the rising prices. One factor is the existing supply of homes that remain under water relative to their mortgage; recent estimates place this inventory at five million.

Capital spending by sector was all over the map during the first half of 2015. Spending on buildings suddenly surged during the second quarter. Spending on R&D and software continues to grow at a solid rate, while spending on equipment has stalled over the past four quarters. These three sectors drove business investment spending for several years after the recession. Spending on mining and oil wells collapsed, formerly another source of recent robust investment growth. Taken as a whole, capital spending stumbled in the fourth quarter of 2014 and suffered a weaker-than-expected first half of 2015, most likely because economic growth was interrupted.

U.S. exports of goods plunged in the first quarter of 2015, sapped by the surging dollar and uncertain economic growth. However, imports continued to increase and the combined effect of net exports (exports minus imports) subtracted 1.9% from GDP growth. Exports rebounded in the second quarter, as the impact of the dollar's surge stabilized and a modest recovery took hold in the euro zone. Exports rose by 5.3% and import growth slipped from 7.1% in the first quarter to 3.5% in the second; as a result, net exports no longer dragged on GDP growth.

The Long-Term View

Index	2015 2nd Qtr	Periods ended December 31, 2014 Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	0.14	12.56	15.63	7.94	9.78
S&P 500	0.28	13.69	15.45	7.67	9.62
Russell 2000	0.42	4.89	15.55	7.77	9.75
Non-U.S. Equity					
MSCI EAFE	0.62	-4.90	5.33	4.43	4.31
MSCI Emerging Markets	0.82	-1.82	2.11	8.78	8.83
S&P Ex-U.S. Small Cap	4.61	-3.42	8.52	6.84	5.48
Fixed Income					
Barclays Aggregate	-1.68	5.97	4.45	4.71	6.49
90-Day T-Bill	0.01	0.03	0.09	1.54	3.24
Barclays Long G/C	-7.22	19.31	9.81	7.36	8.49
Citi Non-U.S. Govt	-1.54	-2.68	0.85	2.64	6.21
Real Estate					
NCREIF Property	3.14	11.82	12.13	8.38	7.61
FTSE NAREIT Equity	-9.95	30.14	16.88	8.31	11.25
Alternatives					
CS Hedge Fund	-0.48	4.13	5.88	5.82	--
Cambridge PE*	--	22.88	17.40	14.02	15.56
Bloomberg Commodity	4.66	-17.01	-5.53	-1.86	--
Gold Spot Price	-0.96	-1.51	1.55	10.45	4.38
Inflation – CPI-U	1.07	0.76	1.69	2.12	2.52

*Private equity data is time-weighted return for period ended December 31, 2014.

Sources: Barclays, Bloomberg, Citigroup, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson/Cambridge.

Recent Quarterly Indicators

Economic Indicators	2Q15	1Q15	4Q14	3Q14	2Q14	1Q14	4Q13	3Q13
Employment Cost–Total Compensation Growth	2.0%	2.6%	2.2%	2.2%	2.0%	1.8%	2.0%	1.9%
Nonfarm Business–Productivity Growth	1.0%*	-3.1%	-2.1%	3.9%	2.9%	-4.7%	3.0%	3.4%
GDP Growth	2.3%	0.6%	2.1%	4.3%	4.6%	-0.9%	3.8%	3.0%
Manufacturing Capacity Utilization	77.2%	77.3%	77.8%	77.5%	77.1%	76.2%	76.4%	76.0%
Consumer Sentiment Index (1966=100)	94.2	95.5	89.8	83.0	82.8	80.9	76.9	81.6

*Estimate

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

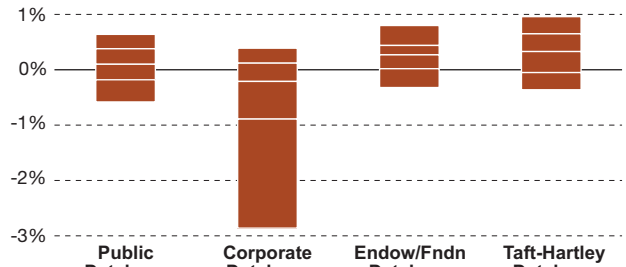
Returns Take a Semester Abroad

FUND SPONSOR | Kevin Nagy

Public markets experienced an up-and-down quarter, with equity indices exhibiting slight gains while fixed income was in the red. Non-U.S. equity markets (**MSCI ACWI ex USA Index**: +0.72%) were able to overcome uncertainty in Greece and a large sell-off in China to beat U.S. equity (**Russell 3000 Index**: +0.14%) for the second straight quarter. Both U.S. and non-U.S. fixed income markets suffered losses (**Barclays Aggregate**: -1.68%, **Citi Non-U.S. World Government Bond Index-Unhedged**: -1.54%).

As seen in the Callan Fund Sponsor Quarterly Returns chart, performance was tepid at best. Corporate funds were the worst performers across all percentiles shown, while Taft-Hartley plans (+0.33%) were the best at the median. The 10th percentile's performance displayed moderate dispersion, with Taft-Hartley plans (+0.96%) coming in first place and endowments/foundations (+0.80%) second. Dispersion in the bottom decile was highest, with endowments/foundations (-0.32%) in the lead and corporate plans (-2.86%) bringing up the rear.

Callan Fund Sponsor Quarterly Returns



	Public Database	Corporate Database	Endow/Fndn Database	Taft-Hartley Database
10th Percentile	0.64	0.39	0.80	0.96
25th Percentile	0.38	0.12	0.44	0.65
Median	0.10	-0.21	0.27	0.33
75th Percentile	-0.18	-0.89	0.02	-0.05
90th Percentile	-0.58	-2.86	-0.32	-0.36

Source: Callan

In terms of asset allocation and its impact on performance, Taft-Hartley funds benefited from a smaller exposure to fixed income when compared to their corporate peers. They were also helped by a strong performance from private real estate (**NCREIF Property Index**: +3.14%). Corporate funds were hurt by larger allocations to U.S. fixed income than the other fund

Database Median and Index Returns* for Periods ended June 30, 2015

Fund Sponsor	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Public Database	**0.10**	**2.43**	**3.20**	**10.30**	**10.41**	**6.57**
Corporate Database	**-0.21**	**2.15**	**2.94**	**9.72**	**10.57**	**6.79**
Endowments/Foundations Database	**0.27**	**2.56**	**2.34**	**10.03**	**9.89**	**6.53**
Taft-Hartley Database	**0.33**	**2.64**	**4.10**	**10.74**	**10.81**	**6.28**
Diversified Manager	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Asset Allocator Style	**-0.25**	**1.46**	**3.89**	**9.98**	**10.51**	**6.77**
U.S. Balanced Database	**-0.19**	**2.00**	**2.76**	**11.30**	**11.55**	**6.65**
Global Balanced Database	**-0.89**	**1.44**	**-0.06**	**8.00**	**8.88**	**6.58**
60% Russell 3000 + 40% Barclays Agg	-0.59	1.12	5.10	11.23	11.98	7.08
60% MSCI World + 40% Barclays Glbl Agg	-0.29	0.33	-2.04	8.04	8.72	5.50

*Returns less than one year are not annualized.

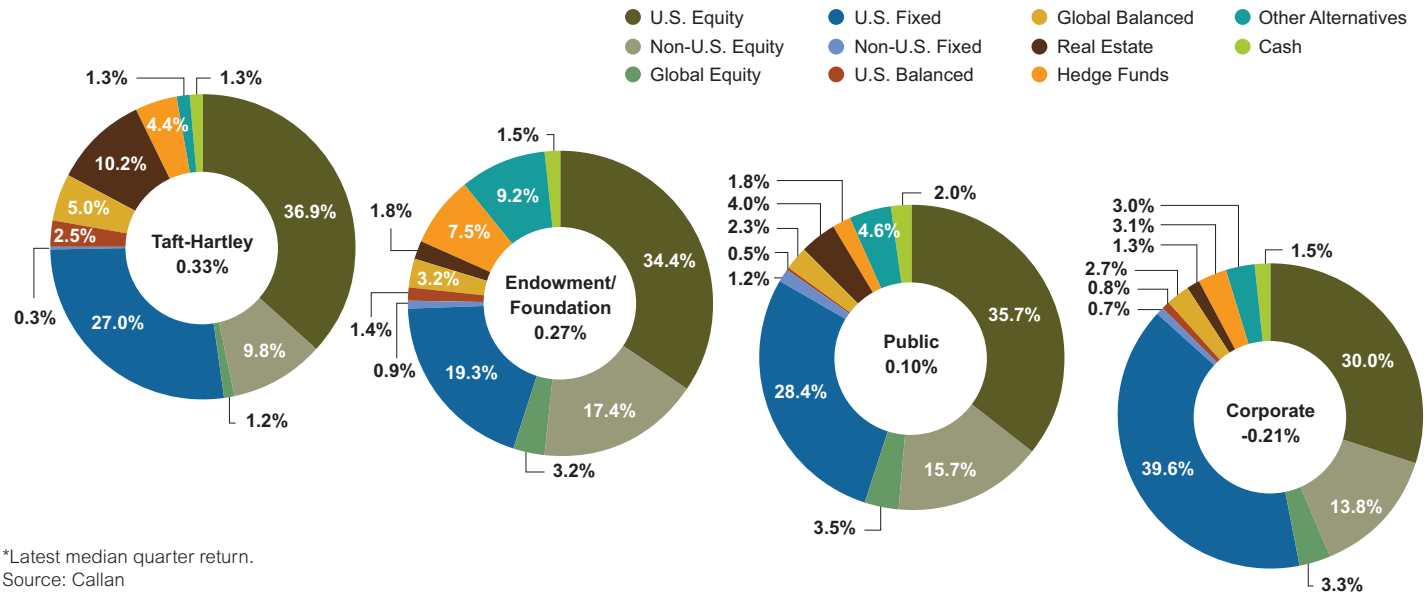
Sources: Callan, Barclays, MSCI, Russell Investment Group

types. As in the first quarter, corporate funds had the widest dispersion between top and bottom percentiles, due to some plans employing liability-driven investment (LDI) programs.

Taft-Hartley funds were the top performers in all noted time periods except for the 10-year period, which went to corporate funds. All fund types for that long-term time period displayed very similar performance in the 6% to 7% range.

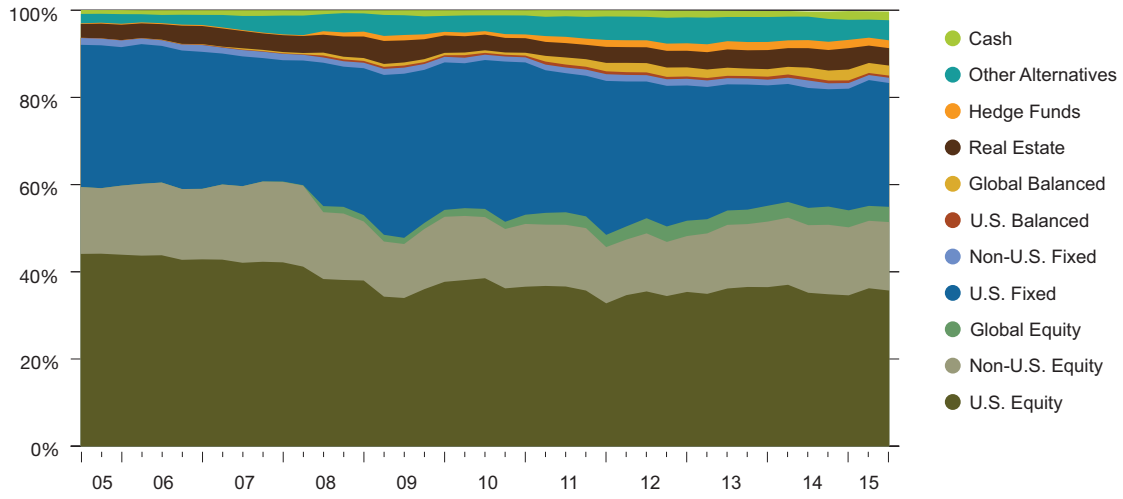
Despite trailing in the most recent quarter, the U.S.-focused 60% Russell 3000 + 40% Barclays Aggregate (-0.59%) has outperformed the global 60% MSCI World + 40% Barclays Global Aggregate benchmark (-0.29%) for every other time period. Callan's U.S. Balanced Database group has also outperformed the Global Balanced Database group in every period shown.

Callan Fund Sponsor Average Asset Allocation



*Latest median quarter return.
Source: Callan

Callan Public Fund Database Average Asset Allocation (10 Years)



Source: Callan

Underwhelming

U.S. EQUITY | Lauren Mathias, CFA

The second quarter got off to a promising start through April and May. In June, however, the **S&P 500 Index** dropped almost 2%, reducing U.S. equity results for the three-month period to 0.28%. Before declining, market indices reached new peaks—most notably the NASDAQ Composite surpassed the all-time high it previously set in March 2000.

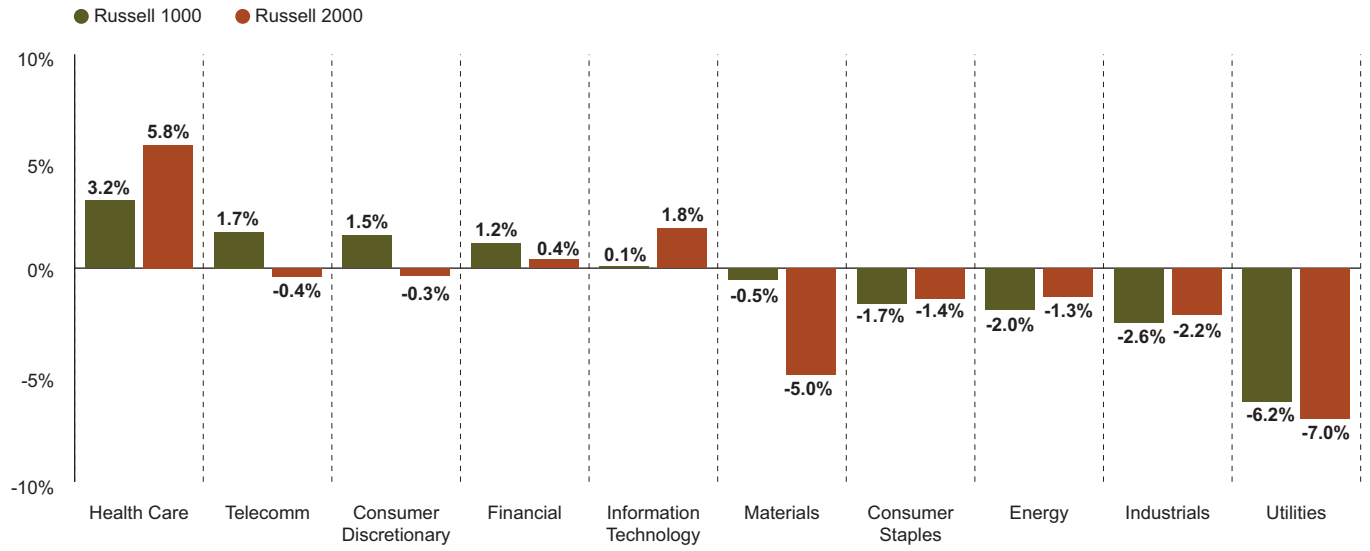
Despite underwhelming equity results, the U.S. economy does have some tailwinds. June's unemployment rate declined to 5.3%, housing improved as more Americans took out mortgages, and consumer confidence ticked higher. However, the Fed's concerns about economic growth persisted, further delaying a potential increase in interest rates. Underlying U.S. fundamentals appear solid, with corporate profit margins near highs and leverage well below historical averages. This is reflected in valuations with current P/E ratios across market capitalizations above 20-year averages.

Large and small cap stocks showed slightly positive returns this quarter (**Russell 1000 Index**: +0.1% and **Russell 2000 Index**: +0.4%) while mid cap trailed considerably (**Russell Mid-Cap Index**: -1.5%). Growth maintained its lead over value in all capitalizations, but most dramatically in small cap (**Russell 2000 Growth Index**: +2.0% and **Russell 2000 Value Index**: -1.2%). Small cap growth continued to beat small cap value in all annualized time periods of less than 10 years. Micro caps and mega caps both advanced (**Russell Microcap Index**: +2.8% and **Russell Top 50**: +1.5%).

Sectors exhibited divergent quarterly results across market capitalizations. Small cap Materials declined sharply versus a slight dip in large cap. Health Care boosted both large and small market caps but was much stronger in small cap. Utilities were the worst-performing sector across capitalizations as interest-rate-sensitive securities declined. On a positive note, M&A activity remained strong, with deal flow increasing across most sectors.

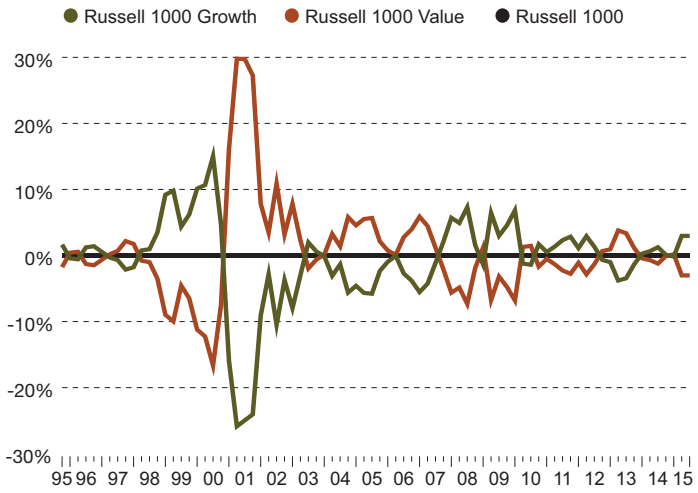
Notably, active management is having the most successful year since the financial crisis; almost half of active large cap managers have outperformed in 2015 thus far. This contrasts with assets that continue to flow to passive strategies, which have grown to be one-third of U.S. equity AUM.

Economic Sector Quarterly Performance



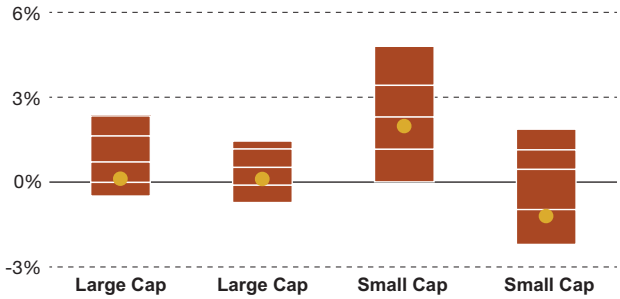
Source: Russell Investment Group

Rolling One-Year Relative Returns (vs. Russell 1000)



Source: Russell Investment Group

Callan Style Group Quarterly Returns



	Large Cap Growth Style	Large Cap Value Style	Small Cap Growth Style	Small Cap Value Style
10th Percentile	2.34	1.45	4.80	1.87
25th Percentile	1.63	1.17	3.42	1.14
Median	0.71	0.52	2.30	0.45
75th Percentile	-0.01	-0.11	1.16	-0.97
90th Percentile	-0.49	-0.72	0.01	-2.20
	R1000 Growth	**R1000 Value**	**R2000 Growth**	**R2000 Value**
Benchmark	0.12	0.11	1.98	-1.20

Sources: Callan, Russell Investment Group

U.S. Equity Index Characteristics as of June 30, 2015

	S&P 500	Rus 3000	Rus 1000	Rus Midcap	Rus 2500	Rus 2000
Cap Range Min ($mm)	1,735	24	354	354	24	24
Cap Range Max ($bn)	722.58	722.58	722.58	28.09	10.80	4.70
Number of Issues	502	3,004	1,029	829	2,494	1,975
% of Russell 3000	80%	100%	92%	28%	19%	8%
Wtd Avg Mkt Cap ($bn)	127.97	103.44	112.50	12.16	4.06	1.89
Price/Book Ratio	2.7	2.6	2.7	2.5	2.2	2.1
Forward P/E Ratio	16.4	17.2	16.9	19.0	19.8	20.9
Dividend Yield	2.1%	1.9%	2.0%	1.6%	1.4%	1.3%
5-Yr Earnings (forecasted)	10.3%	11.2%	11.1%	12.9%	13.0%	13.5%

Sources: Russell Investment Group, Standard & Poor's

Style Median and Index Returns* for Periods ended June 30, 2015

Large Cap Equity	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Large Cap Core Style	**0.42**	**1.82**	**8.00**	**18.21**	**17.89**	**8.39**
Large Cap Growth Style	**0.71**	**4.57**	**11.86**	**18.87**	**18.54**	**9.37**
Large Cap Value Style	**0.52**	**0.86**	**5.23**	**18.26**	**17.08**	**7.69**
Aggressive Growth Style	**1.49**	**6.77**	**10.44**	**17.74**	**17.31**	**9.83**
Contrarian Style	**0.40**	**0.65**	**5.46**	**17.91**	**16.74**	**7.94**
Yield-Oriented Style	**-0.15**	**0.02**	**4.25**	**15.70**	**15.99**	**8.28**
Russell 3000	0.14	1.94	7.29	17.73	17.54	8.15
Russell 1000	0.11	1.71	7.37	17.73	17.58	8.13
Russell 1000 Growth	0.12	3.96	10.56	17.99	18.59	9.10
Russell 1000 Value	0.11	-0.61	4.13	17.34	16.50	7.05
S&P Composite 1500	0.17	1.57	7.31	17.41	17.39	8.08
S&P 500	0.28	1.23	7.42	17.31	17.34	7.89
NYSE	-0.20	0.94	0.79	14.49	15.46	7.67
Dow Jones Industrials	-0.29	0.03	7.21	13.77	15.41	8.32
Mid Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Mid Cap Core Style	**-1.08**	**4.51**	**7.73**	**21.22**	**19.70**	**10.21**
Mid Cap Growth Style	**0.57**	**6.52**	**10.75**	**18.44**	**18.36**	**10.48**
Mid Cap Value Style	**-1.45**	**1.76**	**4.46**	**19.31**	**17.63**	**9.77**
Russell Midcap	-1.54	2.35	6.63	19.26	18.23	9.40
S&P MidCap 400	-1.06	4.20	6.40	18.60	17.82	9.74
Small Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Small Cap Core Style	**0.55**	**5.53**	**7.98**	**20.57**	**19.28**	**9.55**
Small Cap Growth Style	**2.30**	**8.37**	**11.25**	**19.92**	**19.56**	**10.35**
Small Cap Value Style	**0.45**	**3.09**	**4.44**	**18.61**	**17.48**	**8.99**
Russell 2000	0.42	4.75	6.49	17.81	17.08	8.40
S&P SmallCap 600	0.19	4.16	6.72	18.81	18.44	9.27
NASDAQ	2.03	5.90	14.44	20.94	20.26	10.42
Smid Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Smid Cap Broad Style	**0.58**	**7.08**	**8.81**	**19.15**	**18.93**	**10.06**
Smid Cap Growth Style	**1.82**	**8.64**	**10.75**	**19.12**	**19.75**	**10.14**
Smid Cap Value Style	**-0.66**	**2.77**	**4.88**	**19.11**	**17.63**	**9.90**
Russell 2500	-0.34	4.81	5.92	18.66	17.85	9.09
S&P 1000	-0.68	4.20	6.51	18.68	18.02	9.58
Russell 3000 Sectors	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Consumer Discretionary	1.36	6.10	14.73	22.99	23.12	9.98
Consumer Staples	-1.65	-0.42	9.54	14.64	17.00	10.82
Energy	-1.94	-4.13	-24.31	5.19	10.03	6.42
Financials	1.08	0.40	9.09	19.28	14.17	1.40
Health Care	3.38	11.45	26.47	28.19	24.58	12.03
Industrials	-2.53	-2.14	1.70	17.95	17.40	8.58
Information Technology	0.20	1.88	11.20	16.89	17.65	9.88
Materials	-0.97	0.03	-2.31	13.20	14.59	9.38
Telecommunications	1.63	3.56	1.69	7.56	14.16	7.32
Utilities	-6.31	-10.58	-3.88	8.54	12.65	7.02

*Returns less than one year are not annualized.
Sources: Callan, Dow Jones & Company, Russell Investment Group, Standard & Poor's, The NASDAQ Stock Market

Greek Gloom

NON-U.S. EQUITY | Irina Sushch

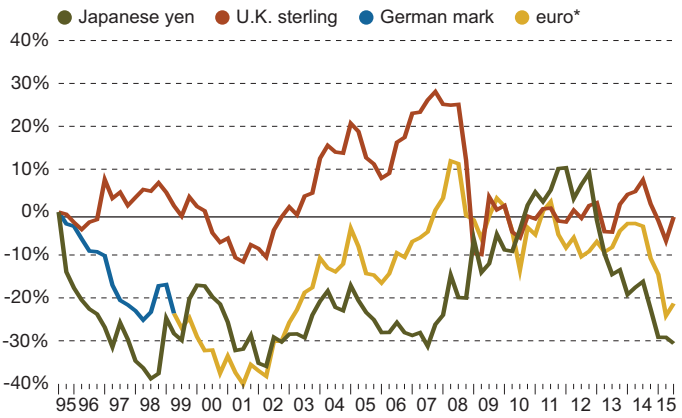
Non-U.S. markets managed to eke out a slightly positive return (**MSCI ACWI ex USA Index**: +0.72%) despite heightened concerns about Greece and China. Even with a "Grexit" looming, China threatened to steal the spotlight—its Shanghai Composite Index dropped nearly 20% in the final weeks of the quarter. Before nosediving, the Index was at a seven-year high and up roughly 150% from year-end 2013.

Both the developed **MSCI World ex USA Index** (+0.48%) and the **MSCI Emerging Markets Index** (+0.82%) delivered meager returns. Small cap stocks continued to climb amid the macro chaos (**MSCI ACWI ex USA Small Cap Index**: +4.22%). In international sectors, Energy (+2.59%) was boosted by rising oil prices. Telecommunications (+3.58%) gained on significant M&A activity. Information Technology (-2.56%) was the weakest sector, dragged down by low earnings in the first quarter. Global uncertainty, stunted earnings, and rising rates undermined the remaining non-U.S. sectors.

European stocks failed to impress (**MSCI Europe Index**: +0.36%). Greece continued to dampen investors' spirits, ending the quarter with a missed €1.55 billion payment to the International Monetary Fund. Germany slipped 5.59%, red across every sector due to slowing GDP growth. Health Care was a big detractor (European Health Care: -1.19%). Information Technology (-2.44%) and Industrials (-1.60%) stocks struggled.

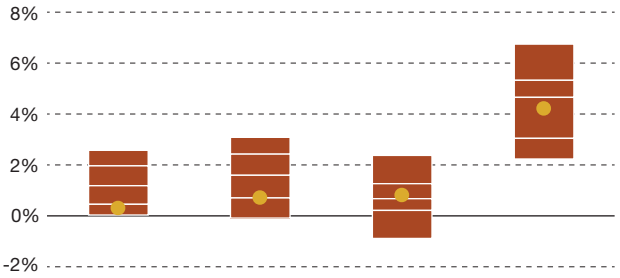
The **MSCI Pacific Index** (+1.14%) surpassed Europe by 78 bps, owing mainly to upbeat markets in Hong Kong (+5.56%) and Japan (+3.09%). Hong Kong experienced a flood of investment from China. Japan's GDP grew at an annualized 3.9% in the first quarter of 2015, and Japanese Financials were up 9.36% as banks benefitted from aggressive central bank policies. New Zealand (-13.08%) and Australia (-6.19%) fell deep into the red as their major exports (dairy and metals, respectively), were heavily affected by the mounting crisis in China's stock market. So far in 2015, the kiwi has fallen 13.3% against the U.S. dollar. Financials in Australia (-7.79%) were hammered by sluggish growth in the second quarter.

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



*euro returns from 1Q99
Source: MSCI

Callan Style Group Quarterly Returns

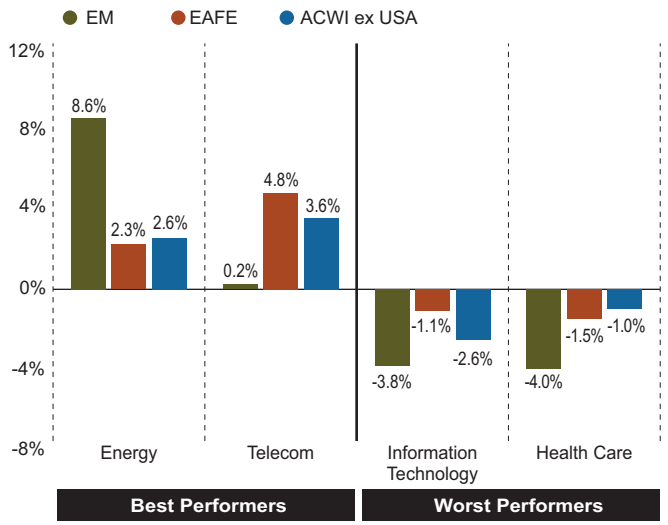


	Global Eq Style	Non-U.S. Eq Style	Emg Mkt Style	Small Cap Style
10th Percentile	2.54	3.05	2.34	6.71
25th Percentile	1.93	2.39	1.23	5.29
Median	1.15	1.56	0.64	4.62
75th Percentile	0.42	0.67	0.18	3.01
90th Percentile	0.00	-0.12	-0.92	2.20
	MSCI World	MSCI ACWI ex USA	MSCI Emg Mkts	MSCI ACWI ex USA SC
Benchmark	0.31	0.72	0.82	4.22

Sources: Callan, MSCI

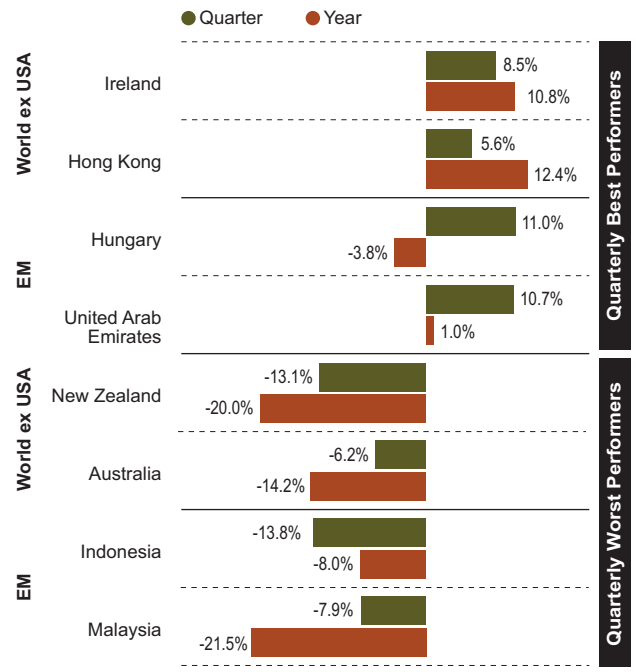
Although emerging market Energy stocks rose 8.62% due to climbing oil prices, the **MSCI Emerging Markets Index** (+0.82%) was hindered by Information Technology (-3.84%). **MSCI Emerging Markets Asia** (-0.04%) was chock full of negative stories. Indonesia (-13.82%), Malaysia (-7.88%), and Thailand (-3.30%) all experienced lethargic economic growth. Tech stocks impeded equity markets in South Korea and Taiwan. In India, subsiding growth along with lower-than-expected IT sales made for a weak quarter (-3.61%). China managed to gain 6.21% due to even lower interest rates and less restrictive real estate policies. However, China's markets were volatile throughout the quarter and crashed in the final two weeks. Russia (+7.70%) and Brazil (+7.02%) were bright spots, both buoyed by climbing commodity prices. Brazil's government is promising budget cuts, and Russia further cut interest rates to 11.5%. In Greece, equities gained 5.35% for the quarter in spite of the ongoing debt crisis, which damaged returns across the globe.

Quarterly Returns: Strong and Struggling Sectors



Source: MSCI

Quarterly and Annual Country Performance Snapshot



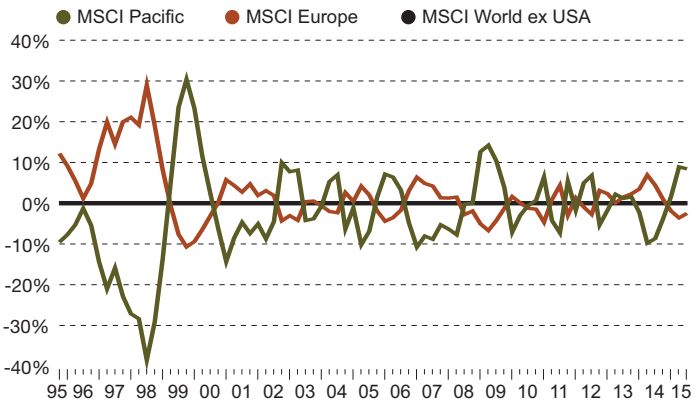
Source: MSCI

Quarterly Return Attribution for EAFE (U.S. Dollar)

Country	Total	Local	Currency	Wtg
Australia	-6.19%	-6.75%	0.61%	6.87%
Austria	3.18%	-0.54%	3.74%	0.17%
Belgium	1.04%	-2.60%	3.74%	1.30%
Denmark	2.36%	-1.48%	3.89%	1.66%
Finland	-3.89%	-7.36%	3.74%	0.82%
France	0.31%	-3.31%	3.74%	9.69%
Germany	-5.59%	-8.99%	3.74%	8.89%
Hong Kong	5.56%	5.56%	0.01%	3.25%
Ireland	8.52%	4.60%	3.74%	0.37%
Israel	-1.50%	-6.57%	5.42%	0.60%
Italy	2.49%	-1.21%	3.74%	2.41%
Japan	3.09%	5.19%	-1.99%	22.88%
Netherlands	2.81%	-0.90%	3.74%	2.77%
New Zealand	-13.08%	-3.62%	-9.81%	0.13%
Norway	3.31%	0.86%	2.44%	0.64%
Portugal	2.00%	-1.68%	3.74%	0.15%
Singapore	-0.06%	-1.86%	1.87%	1.43%
Spain	-2.05%	-5.58%	3.74%	3.51%
Sweden	-2.95%	-6.63%	3.94%	2.93%
Switzerland	1.01%	-2.82%	3.93%	9.23%
U.K.	2.99%	-2.79%	5.94%	20.29%

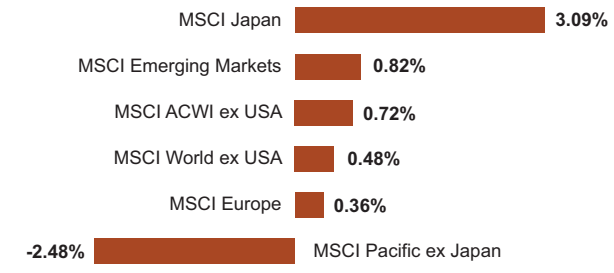
Sources: MSCI, Russell Investment Group, Standard & Poor's.

Rolling One-year Relative Returns (vs. MSCI World ex USA)



Source: MSCI

Regional Quarterly Performance (U.S. Dollar)



Source: MSCI

Style Median and Index Returns* for Periods ended June 30, 2015

Non-U.S. Equity	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Non-U.S. Equity Style	**1.56**	**6.63**	**-1.66**	**12.62**	**10.47**	**6.45**
MSCI EAFE	0.62	5.52	-4.22	11.97	9.54	5.12
MSCI EAFE (local)	-1.82	8.82	11.78	18.08	11.27	5.41
MSCI ACWI ex USA	0.72	4.35	-4.85	9.92	8.23	6.01
MSCI ACWI ex USA Growth	0.74	5.67	-1.70	10.54	8.84	6.37
MSCI ACWI ex USA Value	0.71	2.97	-7.98	9.25	7.58	5.91
Global Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Global Equity Style	**1.15**	**4.24**	**3.60**	**15.39**	**13.79**	**7.63**
MSCI World	0.31	2.63	1.43	14.27	13.10	6.38
MSCI World (local)	-0.69	4.14	8.41	17.01	13.79	6.36
MSCI ACWI	0.52	2.97	1.23	13.61	12.52	6.96
Regional Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
MSCI Europe	0.36	3.82	-7.65	12.37	10.02	5.03
MSCI Europe (local)	-3.91	7.25	6.99	15.16	10.37	5.49
MSCI Japan	3.09	13.62	8.31	13.30	8.80	4.23
MSCI Japan (local)	5.19	15.96	30.83	30.66	16.09	5.27
MSCI Pacific ex Japan	-2.48	0.58	-6.79	7.53	8.70	7.94
MSCI Pacific ex Japan (local)	-2.99	4.75	6.96	14.39	9.59	7.45
Emerging/Frontier Markets	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Emerging Market Style	**0.64**	**2.35**	**-5.34**	**4.86**	**4.67**	**8.97**
MSCI Emerging Markets	0.82	3.12	-4.77	4.08	4.03	8.46
MSCI Emerging Markets (local)	0.82	5.80	6.63	9.01	7.30	10.06
MSCI Frontier Markets	-0.05	-3.15	-13.93	12.96	7.29	0.42
Non-U.S. Small Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Non-U.S. Small Cap Style	**4.62**	**10.78**	**0.38**	**17.42**	**14.21**	**9.08**
MSCI World ex USA Small Cap	4.16	8.36	-3.96	13.60	11.10	6.30
MSCI ACWI ex USA Small Cap	4.22	8.32	-3.07	12.32	9.72	7.38
MSCI Emerging Market Small Cap	4.50	8.25	0.34	7.98	5.04	10.10

*Returns less than one year are not annualized.
Sources: Callan, MSCI

Rates Move Higher

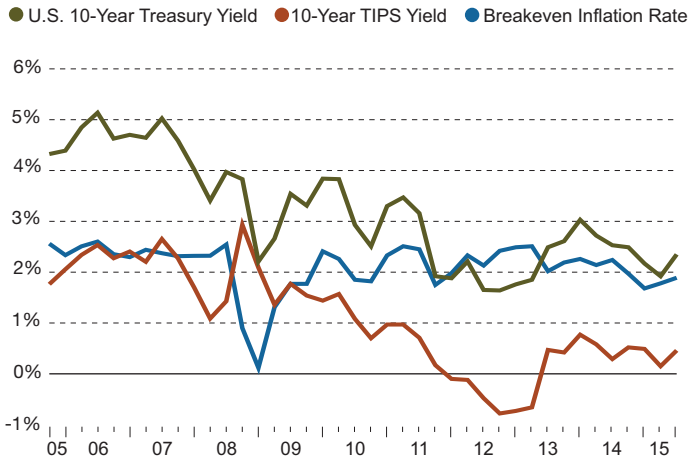
U.S. FIXED INCOME | Kevin Machiz, CFA, FRM

Interest rates moved higher in the second quarter given upward pressure from global interest rates as deflationary fears showed signs of relenting. The yield curve steepened after five consecutive quarters of flattening. The **Barclays Aggregate Index** fell 1.68%.

Short-term rates remained stable, as the Fed continued to peg the federal funds and discount rates at 0.00%–0.25% and 0.75%, respectively. The 10-year U.S. Treasury yield rose 43 bps. Yields on longer-term bonds increased even more (30-year U.S. Treasury yield: +59 bps).

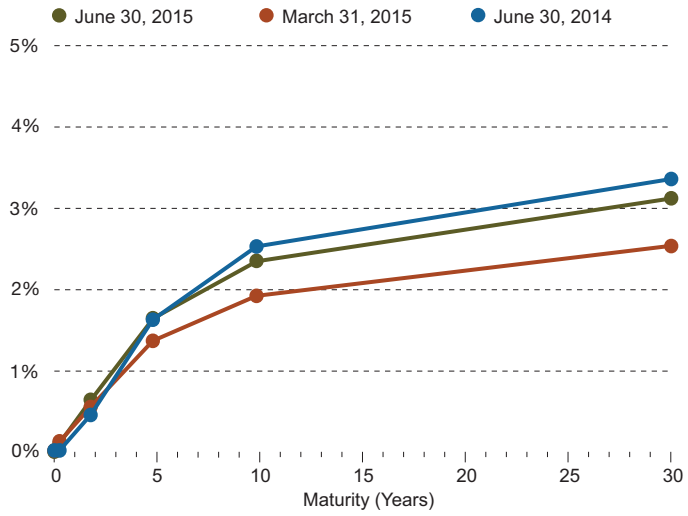
The market's expectation for the first hike in the fed funds rate settled around the end of 2015. The breakeven inflation rate (the difference between nominal and real yields) on the 10-year Treasury increased 12 bps to 1.89% as TIPS outperformed nominal Treasuries.

Historical 10-Year Yields



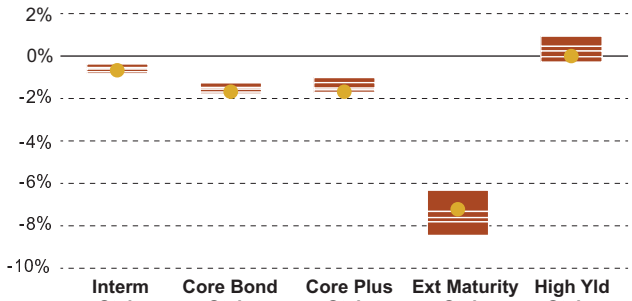
Source: Bloomberg

U.S. Treasury Yield Curves



Source: Bloomberg

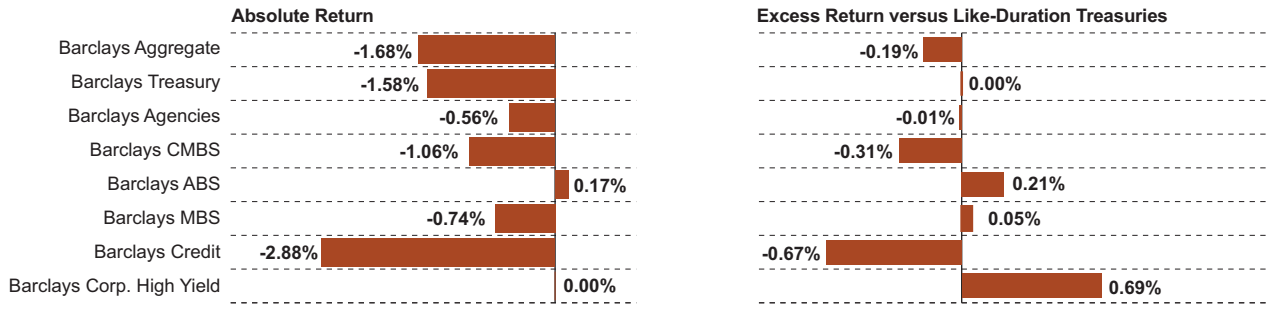
Callan Style Group Quarterly Returns



	Interm Style	Core Bond Style	Core Plus Style	Ext Maturity Style	High Yld Style
10th Percentile	-0.37	-1.26	-1.01	-6.32	0.94
25th Percentile	-0.54	-1.48	-1.25	-7.32	0.46
Median	-0.61	-1.56	-1.51	-7.61	0.24
75th Percentile	-0.74	-1.70	-1.59	-7.81	-0.03
90th Percentile	-0.83	-1.78	-1.71	-8.45	-0.28
	Barclays Interm Agg	**Barclays Agg**	**Barclays Agg**	**Barclays Long G/C**	**Barclays High Yld**
Benchmark	-0.67	-1.68	-1.68	-7.22	0.00

Sources: Barclays, Callan

Fixed Income Index Quarterly Returns

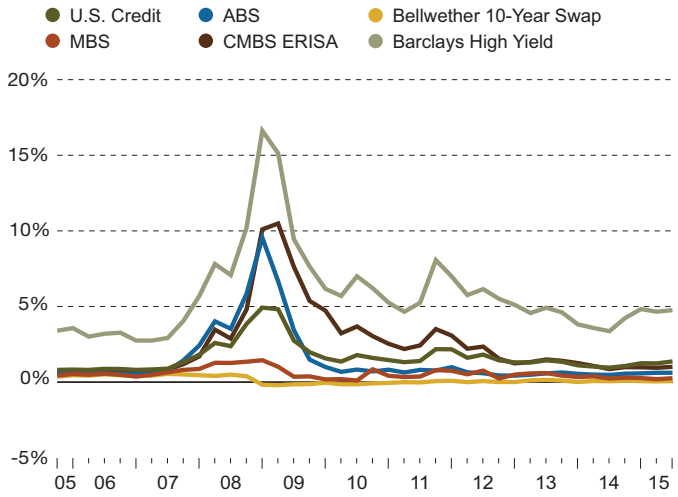


Source: Barclays

Relative to like-duration Treasuries, non-Treasury sectors saw scant gains (MBS: +0.05%; ABS: +0.21%) or negative results. Investment-grade corporate spreads widened with Utilities, Financials, and Industrials underperforming Treasuries by 1.41%, 0.61%, and 0.94% respectively.

High yield corporate bonds were among the best performers in the U.S. fixed income market as some energy companies rebounded strongly. The **Barclays Corporate High Yield Index** ended the quarter unchanged. New issue activity is on pace with the previous three calendar years. Year-to-date, there was approximately $191 billion in new issuance of high yield bonds.

Effective Yield Over Treasuries



Source: Barclays

U.S. Fixed Income Index Characteristics as of June 30, 2015

Barclays Indices	Yield to Worst	Mod Adj Duration	Avg Maturity	% of Barclays G/C	% of Barclays Agg
Barclays Aggregate	2.39	5.63	7.87		100.00%
Barclays Govt/Credit	2.24	6.09	8.33	100.00%	69.31%
Intermediate	1.74	3.94	4.28	79.77%	55.29%
Long-Term	4.20	14.58	24.32	20.23%	14.02%
Barclays Govt	1.47	5.44	6.68	56.76%	39.34%
Barclays Credit	3.25	6.95	10.51	43.24%	29.97%
Barclays MBS	2.78	4.61	7.06		28.11%
Barclays ABS	1.45	2.46	2.63		0.58%
Barclays CMBS	2.49	4.61	5.14		1.94%
Barclays Corp High Yield	6.57	4.36	6.41		

Source: Barclays

Style Median and Index Returns* for Periods ended June 30, 2015

Broad Fixed Income	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Core Bond Style	**-1.56**	**0.14**	**2.12**	**2.46**	**3.97**	**4.94**
Core Bond Plus Style	**-1.51**	**0.37**	**1.92**	**3.23**	**4.97**	**5.42**
Barclays Aggregate	-1.68	-0.10	1.86	1.83	3.35	4.44
Barclays Govt/Credit	-2.10	-0.30	1.69	1.76	3.52	4.38
Barclays Govt	-1.50	0.08	2.27	0.93	2.63	3.99
Barclays Credit	-2.88	-0.78	0.93	3.03	4.93	5.12
Citi Broad Investment Grade	-1.66	-0.06	1.87	1.83	3.31	4.53
Long-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Extended Maturity Style	**-7.61**	**-4.59**	**1.59**	**3.06**	**7.20**	**6.56**
Barclays Long Govt/Credit	-7.22	-4.11	2.32	2.61	6.79	6.18
Barclays Long Govt	-8.10	-4.52	6.20	1.25	6.23	6.12
Barclays Long Credit	-7.26	-4.42	-0.37	3.44	7.04	6.02
Citi Pension Discount Curve	-11.07	-6.78	2.36	2.72	8.74	6.93
Intermediate-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Intermediate Style	**-0.61**	**0.79**	**1.70**	**1.96**	**3.09**	**4.54**
Barclays Intermediate Aggregate	-0.67	0.64	1.89	1.74	2.89	4.22
Barclays Intermediate Govt/Credit	-0.62	0.82	1.68	1.60	2.79	4.02
Barclays Intermediate Govt	-0.43	0.82	1.79	0.90	2.06	3.67
Barclays Intermediate Credit	-0.94	0.82	1.51	2.88	4.19	4.80
Short-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Defensive Style	**0.11**	**0.76**	**1.08**	**1.09**	**1.50**	**3.05**
Active Duration Style	**-0.85**	**0.64**	**1.70**	**1.97**	**3.39**	**4.57**
Money Market Funds (net of fees)	0.00	0.00	0.01	0.01	0.01	1.32
ML Treasury 1–3-Year	0.15	0.67	0.88	0.66	0.82	2.52
90-Day Treasury Bills	0.01	0.01	0.02	0.06	0.08	1.42
High Yield	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
High Yield Style	**0.24**	**2.84**	**0.24**	**7.06**	**8.76**	**7.90**
Barclays Corporate High Yield	0.00	2.53	-0.40	6.81	8.61	7.89
ML High Yield Master	-0.04	2.49	-0.53	6.74	8.38	7.67
Mortgage/Asset-Backed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Mortgage Style	**-0.59**	**0.60**	**2.66**	**2.44**	**3.53**	**4.87**
Barclays MBS	-0.74	0.31	2.28	1.92	2.89	4.56
Barclays ABS	0.17	1.08	1.64	1.38	2.48	3.32
Barclays CMBS	-1.06	0.69	1.91	3.28	5.53	5.12
Municipal	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Barclays Muni	-0.89	0.11	3.00	3.10	4.50	4.45
Barclays Muni 1–10-Year	-0.51	0.32	1.74	2.10	3.22	3.89
Barclays Muni 3-Year	-0.02	0.39	0.57	1.17	1.71	2.97
TIPS	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Barclays TIPS Full Duration	-1.06	0.34	-1.73	-0.76	3.29	4.13
Barclays TIPS 1-10 Year	-0.15	1.06	-1.95	-0.54	2.36	3.70

*Returns of less than one year are not annualized.

Sources: Barclays, Callan, Citigroup, Merrill Lynch

Deal or No Deal

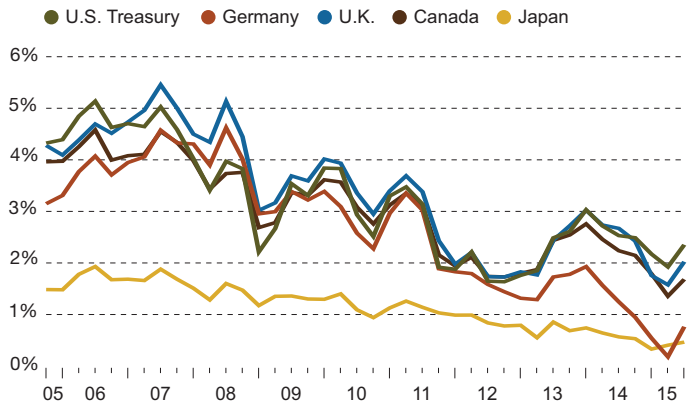
NON-U.S. FIXED INCOME | Kyle Fekete

The developed fixed income markets were characterized by rising interest rates, reversing the downward trend over the past several quarters. In a dramatic reversal, yield on German bunds climbed to 0.76% in June, up from the all-time low of 0.05% in mid-April. Rising interest rates were spurred by brighter news in Europe as both hiring and private sector growth approached four-year highs. In Europe, a whiff of inflation in May (+0.2% month-over-month) provided some evidence that the European Central Bank's asset purchase program was working.

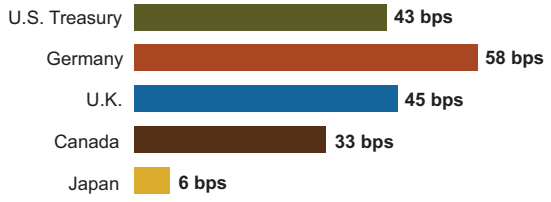
Concerns around Greece spread negativity throughout the markets; Italy and Spain were especially hard-hit. Unhedged returns in developed markets were generally negative in U.S. dollar terms (**Citi Non-U.S. World Government Bond Index:** -1.54%). On a hedged basis, all developed markets dropped as the U.S. dollar lost ground versus most developed market currencies (**Citi Non-U.S. World Government Bond Index:** -3.20%).

Emerging market dollar-denominated debt retreated as the **JPM EMBI Global Diversified Index** dipped 0.34% in spite of strong gains in Ukraine (+36.49%) and Venezuela (+12.73%). Ukraine is negotiating with foreign bondholders to restructure its debt. In spite of the strong quarter, it remains down 4.04% year-to-date and 36.77% over the last 12 months. The local

10-Year Global Government Bond Yields



Change in 10-Year Yields from 1Q15 to 2Q15



Source: Bloomberg

Quarterly Return Attribution for Non-U.S. Gov't Indices
(U.S. Dollar)

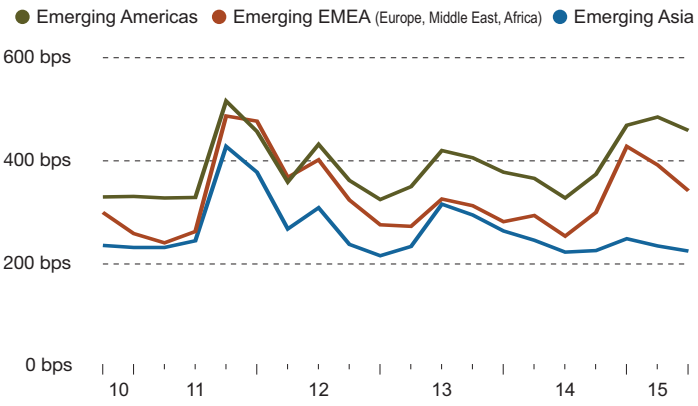
Country	Total	Local	Currency	Wtg
Australia	-2.18%	-2.77%	0.61%	1.95%
Austria	-1.56%	-5.11%	3.74%	1.89%
Belgium	-2.51%	-6.02%	3.74%	2.98%
Canada	-0.01%	-1.43%	1.45%	2.54%
Denmark	-3.10%	-6.73%	3.89%	0.81%
Finland	-0.41%	-4.00%	3.74%	0.68%
France	-1.63%	-5.18%	3.74%	11.23%
Germany	-0.94%	-4.52%	3.74%	8.88%
Ireland	-0.84%	-4.42%	3.74%	0.92%
Italy	-2.71%	-6.22%	3.74%	11.23%
Japan	-2.25%	-0.26%	-1.99%	32.73%
Malaysia	-1.22%	0.64%	-1.84%	0.62%
Mexico	-2.48%	0.44%	-2.91%	1.18%
Netherlands	-1.29%	-4.85%	3.74%	3.04%
Norway	1.67%	-0.74%	2.44%	0.34%
Poland	-2.02%	-2.81%	0.81%	0.67%
Singapore	1.14%	-0.72%	1.87%	0.45%
South Africa	-1.79%	-1.61%	-0.18%	0.64%
Spain	-2.49%	-6.01%	3.74%	6.21%
Sweden	0.34%	-3.46%	3.94%	0.58%
Switzerland	3.55%	-0.37%	3.93%	0.37%
U.K.	2.00%	-3.72%	5.94%	10.07%

Source: Citigroup

bond **JPM GBI-EM Global Diversified Index** also declined (-0.96%). Russia was again the best performer among emerging markets, up nearly 12% for the quarter and 29% year-to-date. Brazil's (+6%) local bonds continued to bounce back from a sell-off earlier in the year, while Turkey and Indonesia fell 5% for the quarter.

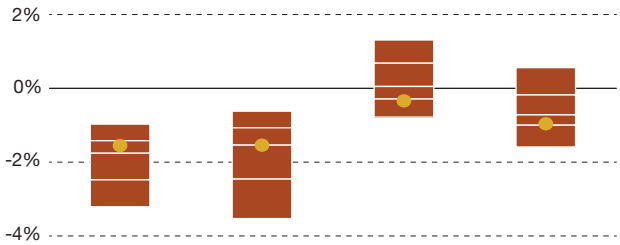
Greece missed a large payment to the International Monetary Fund on June 30, which weighed heavily on investor sentiment. Negotiations between Greece and its lenders continued but remained uncertain. Trading on Greek bonds halted; however, indications from dealers estimated two-year Greek debt yields at about 50% and 10-year debt at nearly 20%.

Emerging Spreads Over Developed (By Region)



Source: Barclays

Callan Style Group Quarterly Returns



	Global Fixed Style	Non-U.S. Fixed Style	Emerging Debt	Emerging Debt Local
10th Percentile	-0.95	-0.60	1.33	0.58
25th Percentile	-1.40	-1.05	0.70	-0.16
Median	-1.74	-1.52	0.07	-0.70
75th Percentile	-2.46	-2.44	-0.27	-0.98
90th Percentile	-3.19	-3.51	-0.76	-1.57
	Citi World Gov	Citi Non-U.S. World Gov	JPM EMBI GI Div	JPM GBI-EM GI Div
Benchmark ●	-1.55	-1.54	-0.34	-0.96

Sources: Callan, Citigroup, JPMorgan Chase & Co.

Style Median and Index Returns* for Periods ended June 30, 2015

Global Fixed Income	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Global Style	**-1.74**	**-3.03**	**-6.49**	**-0.51**	**2.51**	**4.17**
Citi World Govt	-1.55	-4.02	-9.02	-2.45	1.05	3.07
Citi World Govt (Local)	-2.67	-0.61	3.67	3.36	3.56	3.54
Barclays Global Aggregate	-1.18	-3.08	-7.09	-0.81	2.07	3.54
Non-U.S. Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Non-U.S. Style	**-1.52**	**-5.47**	**-12.50**	**-2.19**	**1.70**	**3.52**
Citi Non-U.S. World Govt	-1.54	-5.83	-13.49	-3.88	0.33	2.63
Citi Non-U.S. World Govt (Local)	-3.20	-0.91	4.20	4.37	3.93	3.47
European Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Citi Euro Govt Bond	-1.87	-9.15	-15.07	2.27	3.25	3.49
Citi Euro Govt Bond (Local)	-5.41	-1.34	2.49	6.16	4.85	4.16
Emerging Markets Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
JPM EMBI Global Diversified	-0.34	1.67	0.51	4.30	6.77	7.45
JPM GBI-EM Global Diversified	-0.96	-4.88	-15.39	-3.78	0.94	5.91

*Returns less than one year are not annualized.
Sources: Callan, Citigroup, JPMorgan Chase

Mixed Messages

REAL ESTATE | Mike Pritts

It was a difficult second quarter for U.S. REIT indices as pressure weighed heavily on global prices in anticipation of increased government bond yields. Continued low oil prices caused lingering concerns in U.S. oil-producing sub-markets. Credit markets appeared open, although slowing to a degree. The Fed stated in its June FOMC minutes that financing for commercial real estate remained broadly available, although the expansion of commercial real estate loans on banks' books slowed in April and May. Spreads widened in the commercial mortgage-backed securities (CMBS) market, which can be attributed to a lack of liquidity and potential interest rate hikes.

The **NCREIF Property Index** advanced 3.14% and recorded a 1.26% income return and a 1.89% appreciation return. The NCREIF Property Index cash flow return was 0.87% for the quarter and 3.43% for the trailing four quarters. During the first quarter, there were 134 asset trades, representing $7.1 billion of overall transactional volume. This remains ahead of the $5.3 billion 10-year quarterly transaction average. The peak quarterly transaction volume over the prior 10-year period was $8.7 billion in the second quarter of 2007.

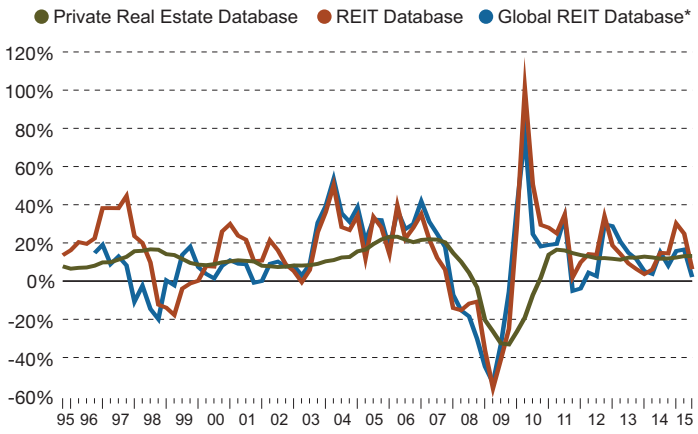
Pricing growth continued to characterize asset trades as equal-weighted transactional capitalization rates dropped to 5.5%. This reflects the lowest measure of the Index since the fourth quarter of 2007. Over the course of the prior cycle, quarterly equal-weighted transactional capitalization rates dipped to a low of 5.46% in the fourth quarter of 2007 and expanded to a peak of 8.46% in the third quarter of 2009. During the second quarter of 2015, appraisal capitalization rates slightly increased from 4.73% to 4.81%. As markets peaked over the prior cycle, appraisal capitalization rates declined to a low of 4.89% in the third quarter of 2008.

On a preliminary basis, the **NCREIF Open End Diversified Core Equity Index** produced a 3.82% total return, comprising a 1.19% income return and a 2.62% appreciation return. In the listed real estate market, the **FTSE EPRA/NAREIT Developed REIT Index** (USD) declined 6.67% and domestic REITs tracked by the **FTSE NAREIT Equity REITs Index** dropped 9.95%.

In the U.S., all sectors declined. Self-Storage (-5.0%) led sector performance, followed by Lodging (-6.2%), Residential (-6.4%), Office (-11.2%), Malls (-11.4%), Industrial (-12.6%), and Healthcare (-14.3%). Domestic REITs raised $17.6 billion (two initial public offerings, $436 million; 28 secondary offerings, $6.7 billion; two preferred equity offerings, $391 million; and 21 unsecured debt offerings, $10.2 billion).

In core Europe, falling unemployment rates, additional rounds of European Central Bank stimulus, and a general inflow of funds have led to a compression of prime office market capitalization rates—but spreads remain wide over sovereign yields. The central London office market continues to have high occupancy rates supported by strong employment growth and tight supply. Overall, European office vacancy rates have continued to decline, led by central London, major German cities, and second-tier markets.

Rolling One-Year Returns

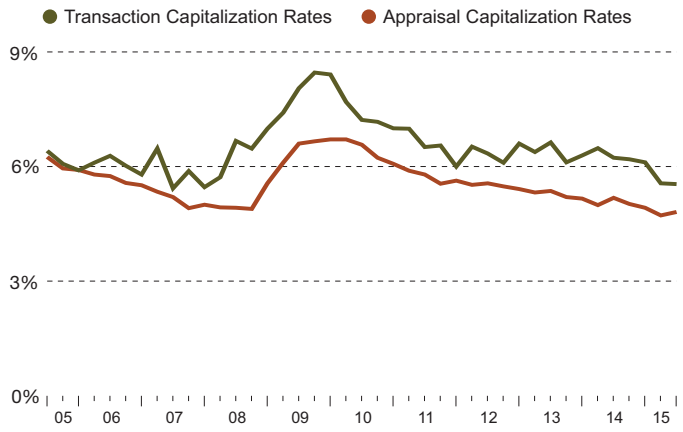


*Global REIT returns from 3Q96
Source: Callan

In Japan the yen's depreciation led to a very active second quarter for real estate markets, which caused further capitalization rate compression in first-tier cities. Transaction volumes in both China and Australia were muted as macro concerns over Chinese market corrections escalated. A weak Australian dollar attracted overseas investors, particularly from within the Asia Pacific region.

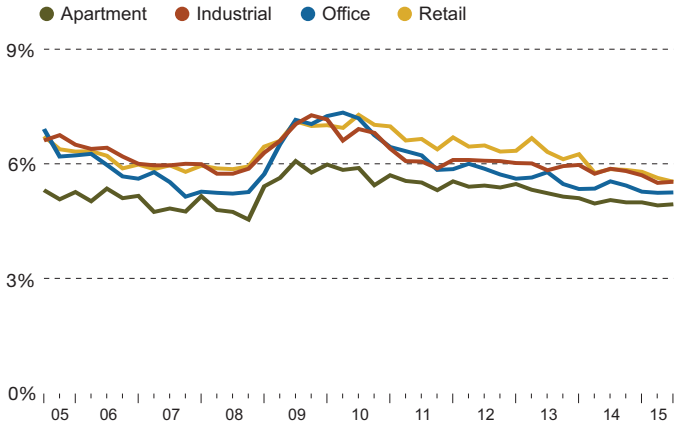
CMBS issuance reached $27.5 billion in the first quarter of the year, ahead of the $27.0 billion of issuance volume from the quarter prior and $20.5 billion in the second quarter of 2014. Total issuance for the trailing 12 months was $107.7 billion, nearing rolling one-year issuance volumes not seen since May 2008. Quarterly issuance volume between 2005 and 2007 ranged from $33.0 billion to a high of $73.6 billion in the second quarter of 2007.

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.

Callan Database Median and Index Returns* for Periods ended June 30, 2015

Private Real Estate	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Real Estate Database (net of fees)	**3.04**	**6.19**	**13.75**	**12.80**	**13.83**	**5.57**
NCREIF Property	3.14	6.83	12.98	11.63	12.72	8.16
NFI-ODCE (value wtd. net)	3.15	6.41	12.92	11.91	13.24	5.81
Public Real Estate	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
REIT Database	**-9.53**	**-5.30**	**5.54**	**9.77**	**15.08**	**8.15**
FTSE NAREIT Equity	-9.95	-5.67	4.33	8.93	14.28	7.01
Global Real Estate	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Global REIT Database	**-6.37**	**-1.96**	**2.02**	**10.40**	**13.16**	**7.17**
FTSE EPRA/NAREIT Developed REIT	-6.67	-2.78	0.41	9.50	12.38	6.20

*Returns less than one year are not annualized.
All REIT returns are reported gross in USD.
Sources: Callan, NAREIT, NCREIF, The FTSE Group. NCREIF statistics are the product of direct queries and may fluctuate over time.

A Seller's Market

PRIVATE EQUITY | Gary Robertson

In fundraising, *Private Equity Analyst* reports that new second-quarter commitments totaled $87.1 billion with 231 new partnerships formed, up 55% from the first quarter's $56.2 billion and 147 partnerships formed. If this momentum continues, 2015 could cross the $300 billion mark. The 10 partnerships that raised the most capital so far in 2015 account for 67% of the first-half total; Blackstone VII was the largest at $17.5 billion.

According to *Buyouts*, the investment pace by funds into companies in the second quarter totaled 358 transactions, up slightly from 333 deals in the first quarter of 2015. The announced aggregate dollar volume was $24.3 billion, down from $34.9 in the first quarter. Nine deals with announced values of $1 billion or more closed in the second quarter, the largest being the $4.1 billion Life Time Fitness and $3.4 billion Riverbed Technology take-private transactions.

According to the National Venture Capital Association, second-quarter investments in venture capital companies totaled $17.5 billion in 1,189 rounds of financing—the largest dollar volume since the fourth quarter of 2000. The dollar volume and number of rounds both increased compared to the first quarter's $13.5 billion and 1,048 rounds. The largest was a $1.5 billion expansion round by Airbnb.

Regarding exits, *Buyouts* reports that 135 private M&A exits of buyout-backed companies occurred during the second quarter, with 49 deals disclosing values totaling $35.8 billion. The M&A exit count was about even with the first quarter, which had 136 private exits but a slightly higher announced value of $36.9 billion. Buyout-backed IPOs jumped to 17 issues in the second quarter floating $6.6 billion, up from the six IPOs totaling $1.1 billion in the first quarter.

Venture-backed M&A exits totaled 70 transactions, with 14 disclosing a total dollar volume of $4.1 billion. The number of exits declined from the first quarter's 94 company sales, but the announced dollar volume increased from $2.2 billion. There were 27 VC-backed IPOs in the second quarter with a combined float of $3.4 billion, 10 more than the first quarter's 17 IPOs and more than double the total issuance of $1.4 billion.

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

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.

Funds Closed January 1 to June 30, 2015

Strategy	No. of Funds	Amt ($mm)	Percent
Venture Capital	151	21,523	15%
Buyouts	139	93,821	65%
Subordinated Debt	17	3,814	3%
Distressed Debt	19	10,793	8%
Secondary and Other	13	6,250	4%
Fund-of-funds	39	7,103	5%
Totals	**378**	**143,304**	**100%**

Source: Private Equity Analyst

Private Equity Performance Database (%) (Pooled Horizon IRRs through December 31, 2014*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	11.8	23.9	18.7	16.5	10.4	5.3	28.0
Growth Equity	0.8	11.1	14.2	14.0	12.6	10.5	15.0
All Buyouts	2.3	9.6	15.2	14.4	12.7	11.4	13.2
Mezzanine	1.9	11.0	12.3	11.9	10.6	8.0	10.3
Distressed	0.2	7.5	14.5	12.5	10.7	11.3	11.6
All Private Equity	**3.3**	**11.8**	**15.5**	**14.4**	**12.0**	**9.8**	**14.6**
S&P 500	4.9	13.7	20.4	15.5	7.7	4.2	9.9

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

Momentum Whiplash

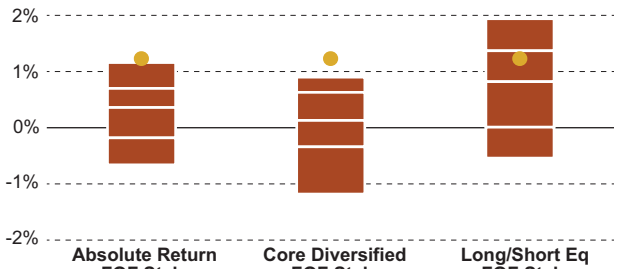
HEDGE FUNDS | Jim McKee

While Greece skidded toward default at quarter's end, the rest of the world's policy makers desperately tried to keep their respective economies on a growth track. As China's nascent stock market surged and rolled over, President Xi Jinping continued his formidable challenge to downshift its investment-led economy to a consumer-powered one. Facing tighter labor markets and greater consumer confidence at home, the U.S. Federal Reserve steered markets resolutely toward rate hikes. After rising early in the quarter, markets backpedaled at the end, with most finishing nearly unchanged. Giving up first-quarter gains, the 10-year Treasury fell 3.05%. The **Barclays High Yield Index** (+0.00%) absorbed widening spreads with its carry.

Illustrating raw hedge fund performance without implementation costs, the **Credit Suisse Hedge Fund Index (CS HFI)** slipped 0.48%. As a proxy to actively managed hedge fund portfolios, the median manager in the **Callan Hedge Fund-of-Funds Database** moved ahead 0.23%, net of all fees. Within the CS HFI, those chasing momentum were hurt badly while those focused on fundamentals survived unscathed, more or less. The quarter's most notable victim was *Managed Futures* (-10.61%). The best-performing strategies for the quarter were *Convertible Arb* (+2.49%), *Equity Market Neutral* (+2.12%), and *Risk Arb* (+1.70%). Despite meager fuel from market beta, *Long/Short Equity* gained 1.66%.

Within Callan's Hedge Fund-of-Funds Database, market exposures provided little traction in the second quarter. Nevertheless, the median *Callan Long/Short Equity FOF* (+0.82%) edged out the *Callan Absolute Return FOF* (+0.36%).

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Eq FOF Style
10th Percentile	1.16	0.90	1.94
25th Percentile	0.70	0.63	1.37
Median	0.36	0.13	0.82
75th Percentile	-0.18	-0.34	0.01
90th Percentile	-0.66	-1.18	-0.54
T-Bills + 5% ●	1.23	1.23	1.23

Sources: Callan, Merrill Lynch

Database Median and Index Returns* for Periods ended June 30, 2015

	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Hedge Fund-of-Funds Database	**0.23**	**2.45**	**3.57**	**7.08**	**5.61**	**4.78**
CS Hedge Fund Index	-0.48	1.99	3.28	7.08	6.17	5.89
CS Equity Market Neutral	2.12	-0.40	-1.07	3.21	3.31	-1.20
CS Convertible Arbitrage	2.49	2.97	-1.05	3.61	4.82	5.05
CS Fixed Income Arbitrage	0.90	0.75	1.70	5.00	6.23	4.04
CS Multi-Strategy	0.24	3.24	6.45	9.00	8.45	6.86
CS Distressed	-0.35	-0.10	-3.74	8.33	6.37	6.13
CS Risk Arbitrage	1.70	2.39	-2.04	2.71	2.57	3.96
CS Event Driven Multi-Strategy	0.73	2.89	-1.31	8.67	5.67	6.55
CS Long/Short Equity	1.66	3.53	6.01	10.84	7.82	6.69
CS Dedicated Short Bias	-4.83	-8.88	-8.12	-17.00	-15.71	-9.68
CS Global Macro	-1.80	2.59	4.79	4.84	5.99	7.68
CS Managed Futures	-10.61	-4.07	12.86	2.92	2.87	3.96
CS Emerging Markets	1.42	2.80	4.52	7.07	5.58	6.61

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

TDFs Win Quarter, Asset Flows

DEFINED CONTRIBUTION | James O'Connor

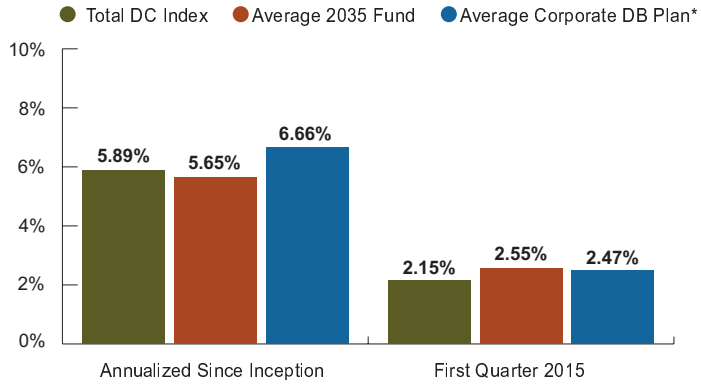
The Callan DC Index™ started the year off on a reasonably sound note, gaining 2.15% for the first quarter. Still, that performance trailed the typical 2035 target date fund (TDF), which gained 2.55%. TDFs benefited from a much higher exposure to non-U.S. equity—one of the best-performing asset classes during the period. Corporate DB plans performed more or less in line with 2035 TDFs, but have outperformed both TDFs and the DC Index since inception by an annualized margin of 1.01% and 0.77%, respectively.

DC plan balances grew by 2.76% in the first quarter, driven primarily by market performance. Inflows added 60 bps to total growth. Since inception, plan sponsor and participant contributions have had a significant impact on balances and are responsible for approximately one-third of the total growth in balances (2.54% annualized).

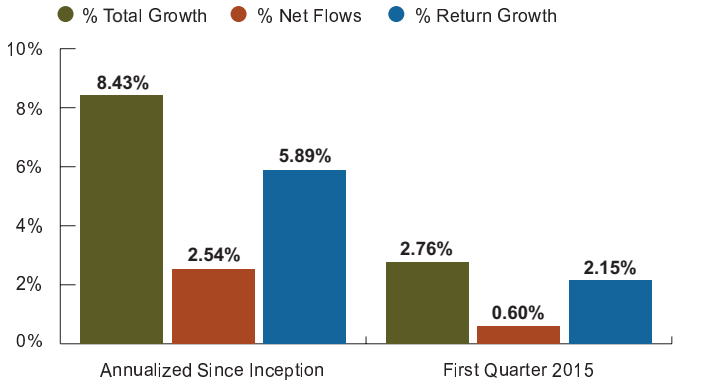
Nearly 66 cents of every dollar that moved within DC plans during the first quarter flowed to TDFs. However, U.S. fixed income and U.S. large cap also made respectable showings in terms of inflows—largely at the expense of stable value. Approximately 43% of outflows came from this asset class during the quarter. This follows five successive quarters of stable value fund outflows. Still, overall turnover was modest at 0.32%, significantly below the historical average of 0.67%.

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 $140 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 2015)*
(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	65.77%
U.S. Fixed Income	12.45%
Company Stock	-25.21%
Stable Value	-42.58%
Total Turnover	**0.32%**

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

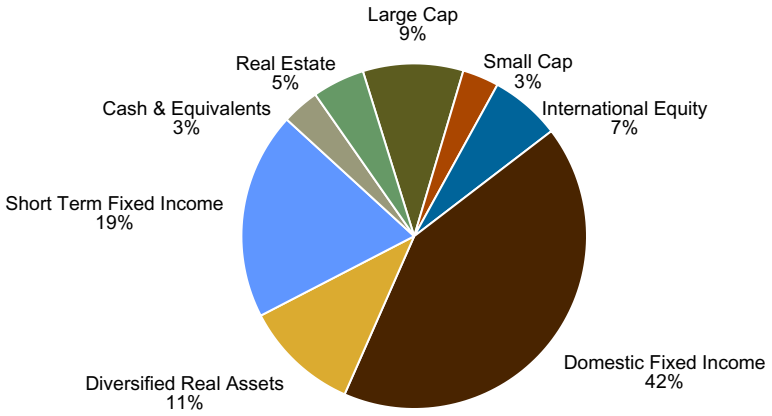
Source: Callan DC Index

*Notes: DC Index inception date is January 2006. DB plan performance is gross of fees. Data provided here is the most recent available at time of publication.

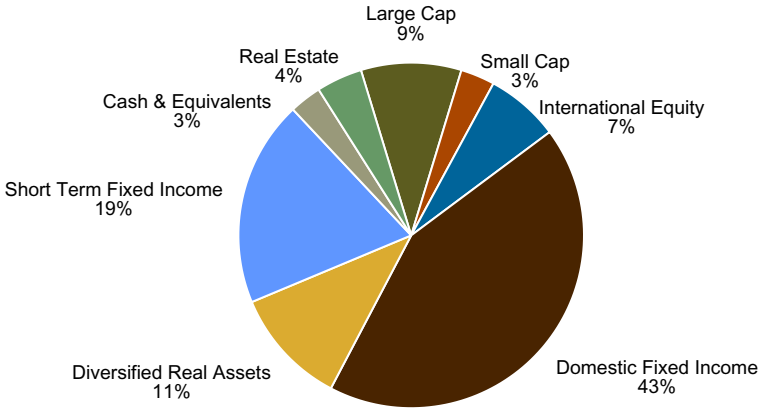
Actual vs Target Asset Allocation
As of June 30, 2015

The first chart below shows the Fund's asset allocation as of June 30, 2015. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



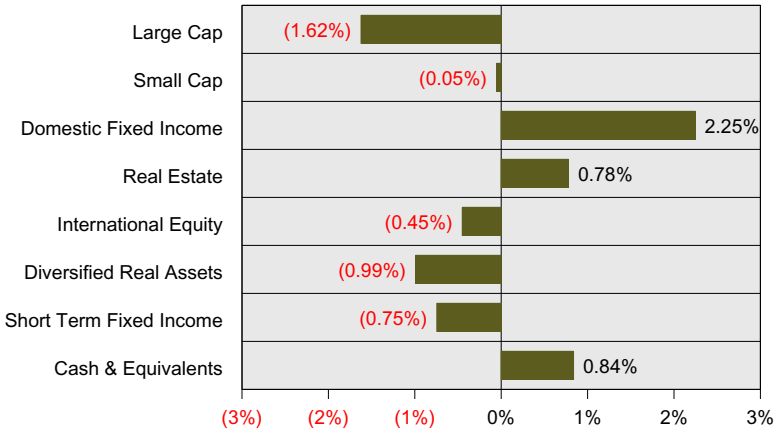
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap	230,769	9.4%	9.4%	0.0%	530
Small Cap	82,681	3.4%	3.2%	0.2%	4,302
International Equity	161,674	6.6%	6.9%	(0.3%)	(7,331)
Domestic Fixed Income	1,028,923	42.0%	42.9%	(0.9%)	(21,845)
Diversified Real Assets	265,626	10.8%	11.0%	(0.2%)	(3,801)
Short Term Fixed Income	475,067	19.4%	19.3%	0.1%	2,343
Cash & Equivalents	84,825	3.5%	3.0%	0.5%	11,345
Real Estate	119,779	4.9%	4.3%	0.6%	14,457
Total	2,449,342	100.0%	100.0%		

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

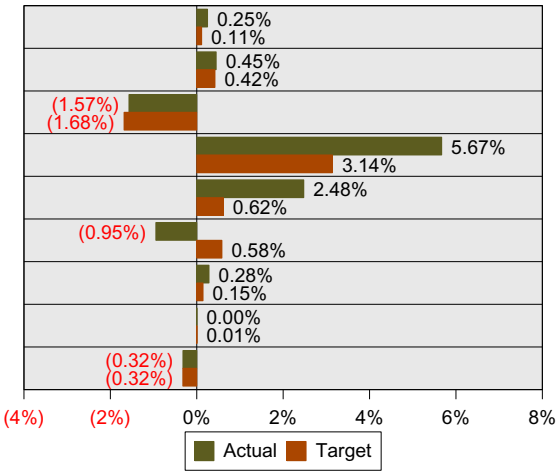
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

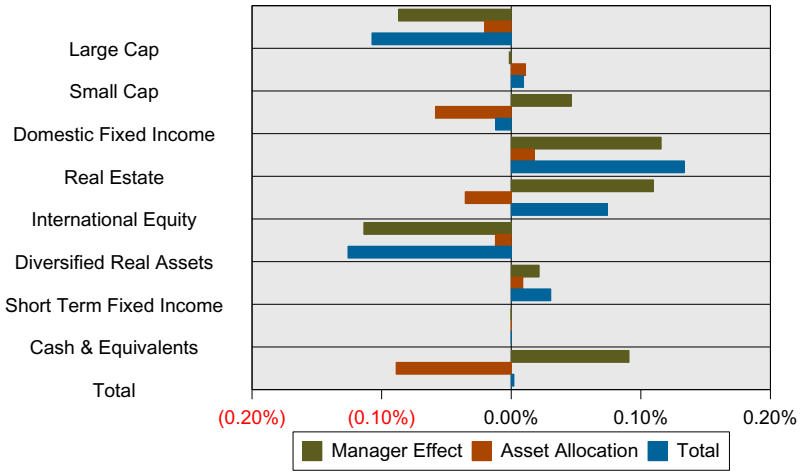
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

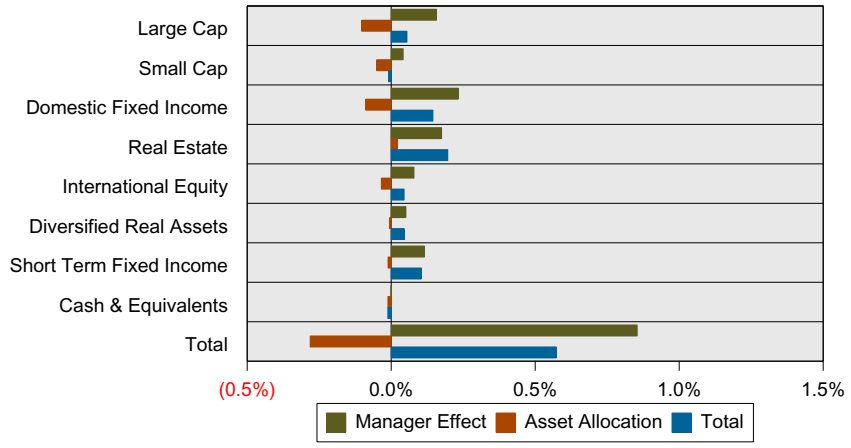
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	15%	16%	0.25%	0.11%	(0.09%)	(0.02%)	(0.11%)
Small Cap	3%	3%	0.45%	0.42%	(0.00%)	0.01%	0.01%
Domestic Fixed Income	42%	39%	(1.57%)	(1.68%)	0.05%	(0.06%)	(0.01%)
Real Estate	5%	4%	5.67%	3.14%	0.12%	0.02%	0.13%
International Equity	6%	6%	2.48%	0.62%	0.11%	(0.04%)	0.07%
Diversified Real Assets	9%	10%	(0.95%)	0.58%	(0.11%)	(0.01%)	(0.13%)
Short Term Fixed Income	17%	18%	0.28%	0.15%	0.02%	0.01%	0.03%
Cash & Equivalents	4%	3%	0.00%	0.01%	(0.00%)	0.00%	0.00%
Total			**(0.32%) =**	**(0.32%) +**	**0.09% +**	**(0.09%)**	**0.00%**

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

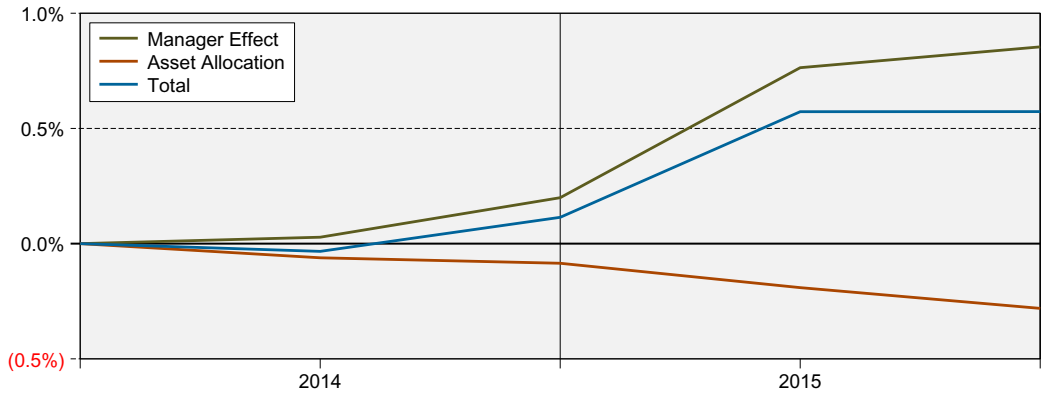
Cumulative Total Fund Relative Attribution - June 30, 2015

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

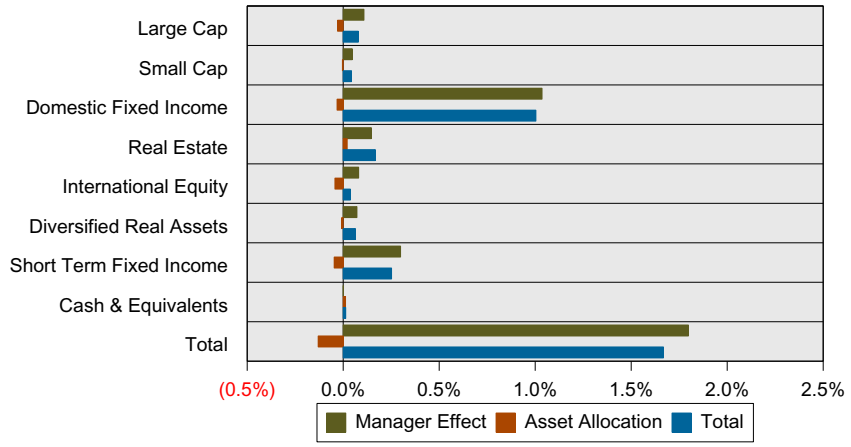
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	16%	17%	9.02%	7.37%	0.16%	(0.10%)	0.05%
Small Cap	5%	5%	7.47%	6.49%	0.04%	(0.05%)	(0.01%)
Domestic Fixed Income	38%	38%	2.40%	1.86%	0.23%	(0.09%)	0.14%
Real Estate	5%	5%	16.36%	12.98%	0.17%	0.02%	0.20%
International Equity	10%	10%	(2.11%)	(4.22%)	0.08%	(0.03%)	0.04%
Diversified Real Assets	8%	9%	(0.56%)	(1.22%)	0.05%	(0.01%)	0.05%
Short Term Fixed Income	15%	15%	1.76%	0.91%	0.12%	(0.01%)	0.10%
Cash & Equivalents	2%	2%	0.01%	0.02%	(0.00%)	(0.01%)	(0.01%)
Total			**2.61%** =	**2.03%** +	**0.85%** +	**(0.28%)**	**0.57%**

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

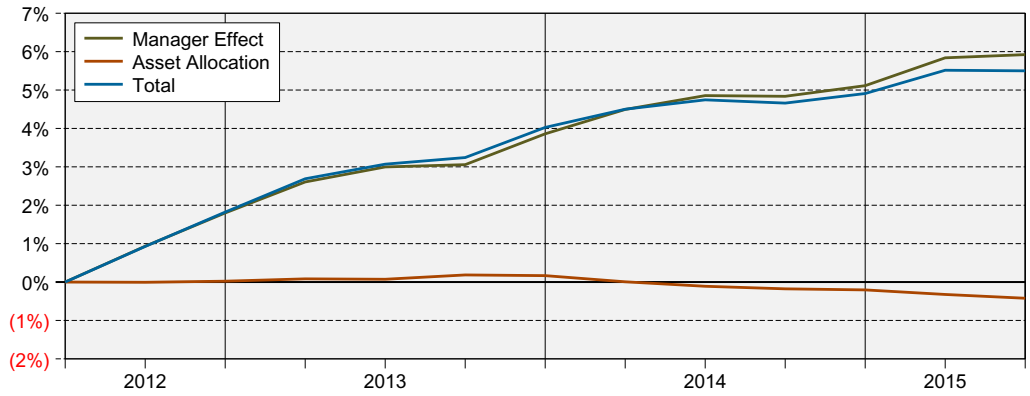
Cumulative Total Fund Relative Attribution - June 30, 2015

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

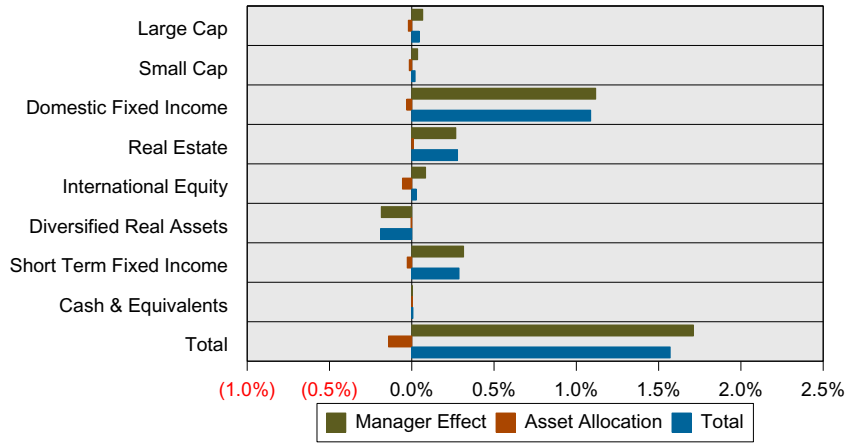
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	11%	19.39%	17.73%	0.11%	(0.03%)	0.08%
Small Cap	3%	3%	19.75%	17.81%	0.05%	(0.00%)	0.04%
Domestic Fixed Income	32%	33%	5.00%	1.83%	1.04%	(0.03%)	1.00%
Real Estate	4%	4%	15.43%	11.63%	0.15%	0.02%	0.17%
International Equity	7%	7%	14.23%	11.97%	0.08%	(0.04%)	0.04%
Diversified Real Assets	10%	10%	3.45%	2.58%	0.07%	(0.01%)	0.06%
Short Term Fixed Income	30%	30%	1.69%	0.68%	0.30%	(0.05%)	0.25%
Cash & Equivalents	3%	2%	0.10%	0.06%	0.00%	0.01%	0.01%
Total			**5.68% =**	**4.01% +**	**1.80% +**	**(0.13%)**	**1.67%**

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

Cumulative Total Fund Relative Attribution - June 30, 2015

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

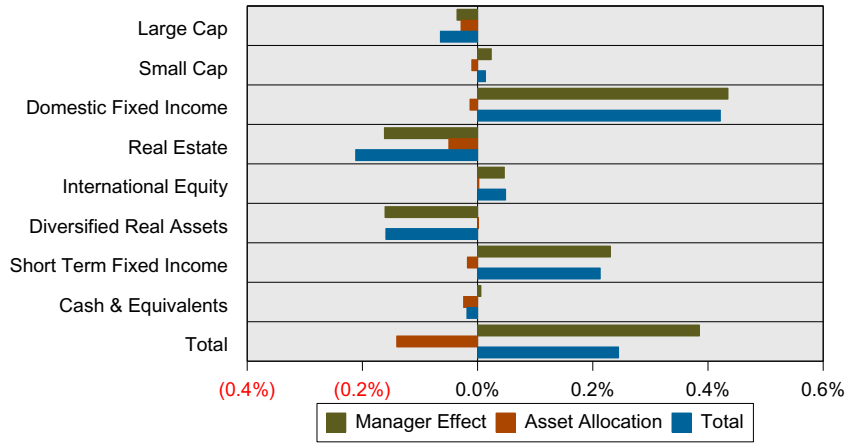
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap	10%	10%	18.49%		17.57%		0.07%		(0.02%)	0.05%
Small Cap	3%	3%	18.45%		17.08%		0.04%		(0.02%)	0.02%
Domestic Fixed Income	36%	36%	6.51%		3.35%		1.12%		(0.03%)	1.09%
Real Estate	4%	4%	19.26%		12.72%		0.27%		0.01%	0.28%
International Equity	6%	7%	10.23%		8.37%		0.08%		(0.06%)	0.03%
Diversified Real Assets	13%	13%	4.60%		5.30%		(0.19%)		(0.00%)	(0.19%)
Short Term Fixed Income	24%	24%	1.89%		0.52%		0.31%		(0.03%)	0.29%
Cash & Equivalents	3%	3%	0.17%		0.08%		0.00%		0.00%	0.01%
Total			**6.79%**	**=**	**5.22%**	**+**	**1.71%**	**+**	**(0.14%)**	**1.57%**

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

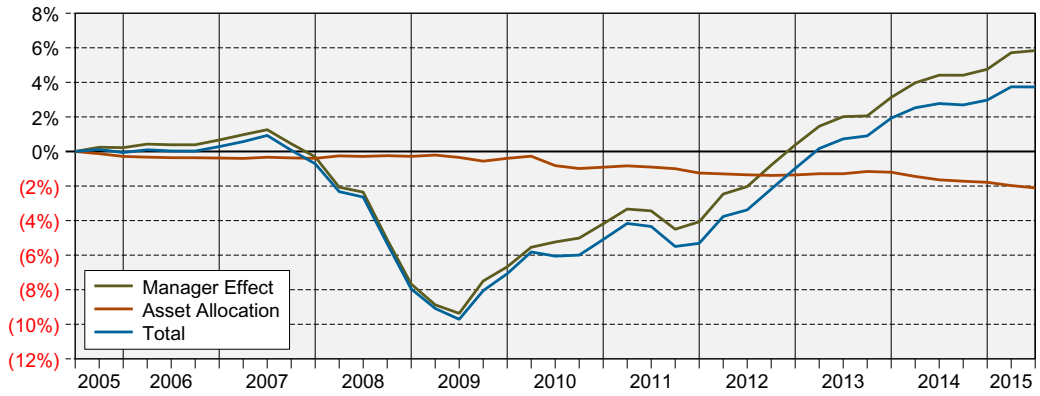
Cumulative Total Fund Relative Attribution - June 30, 2015

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

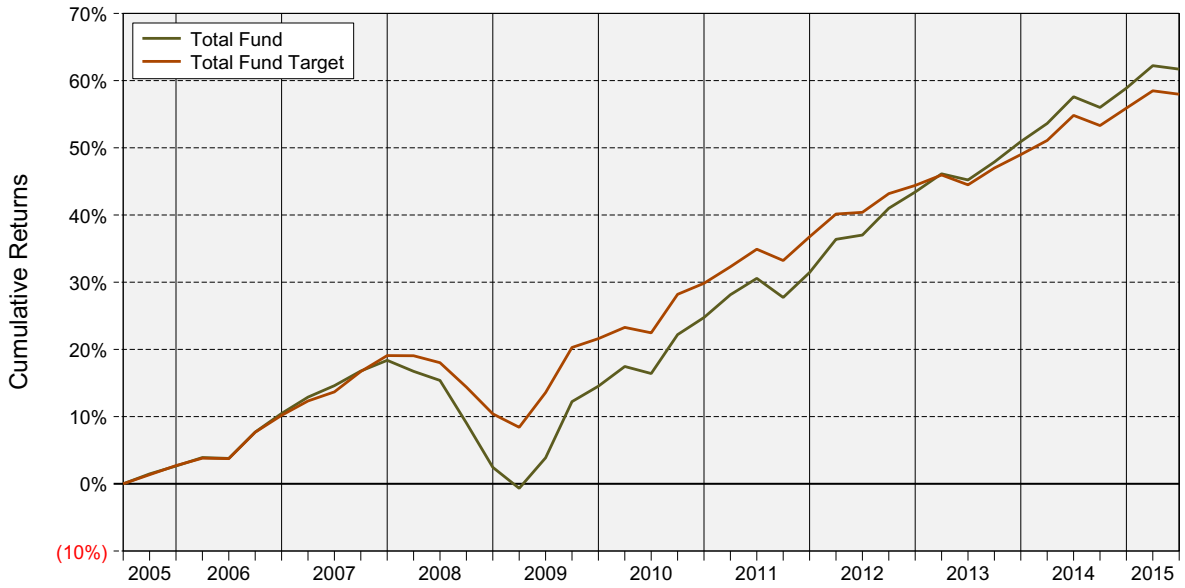
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	10%	7.79%	8.00%	(0.04%)	(0.03%)	(0.06%)
Small Cap	3%	3%	9.06%	8.40%	0.02%	(0.01%)	0.01%
Domestic Fixed Income	42%	42%	5.88%	4.44%	0.43%	(0.01%)	0.42%
Real Estate	4%	5%	3.85%	8.16%	(0.16%)	(0.05%)	(0.21%)
International Equity	7%	7%	5.70%	4.87%	0.05%	0.00%	0.05%
Diversified Real Assets	16%	16%	3.70%	4.31%	(0.16%)	0.00%	(0.16%)
Short Term Fixed Income	13%	13%	-	-	0.23%	(0.02%)	0.21%
Cash & Equivalents	4%	4%	1.54%	1.42%	0.01%	(0.02%)	(0.02%)
Total			**4.92% =**	**4.68% +**	**0.39% +**	**(0.14%)**	**0.24%**

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

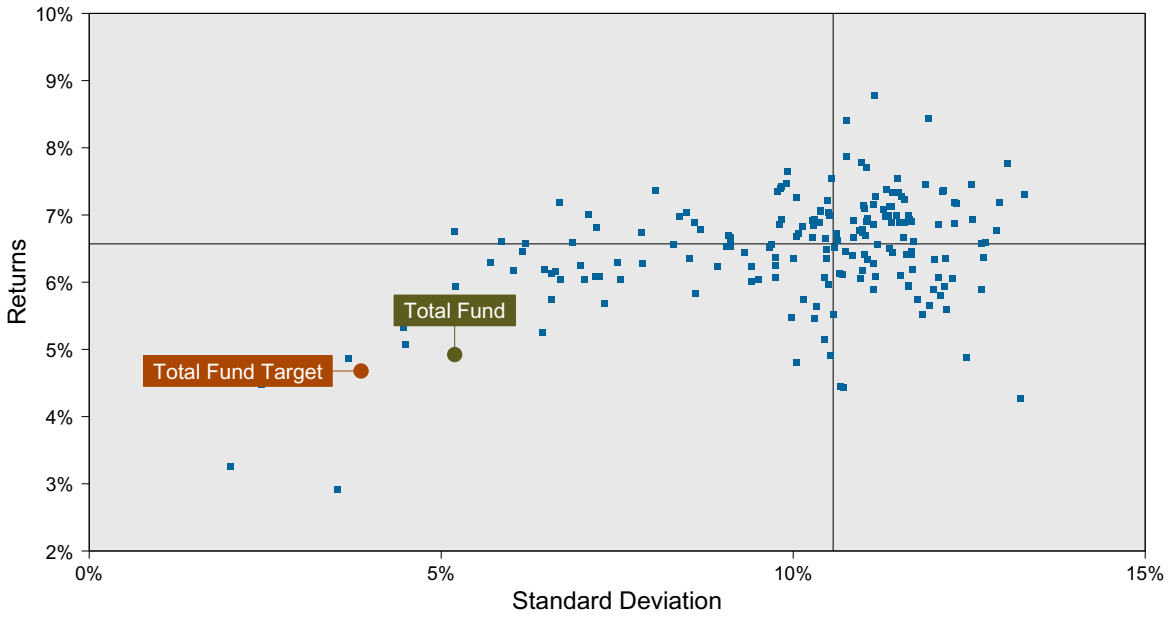
Cumulative Performance Relative to Target

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 Public Fund Sponsor Database.

Cumulative Returns Actual vs Target



Ten Year Annualized Risk vs Return



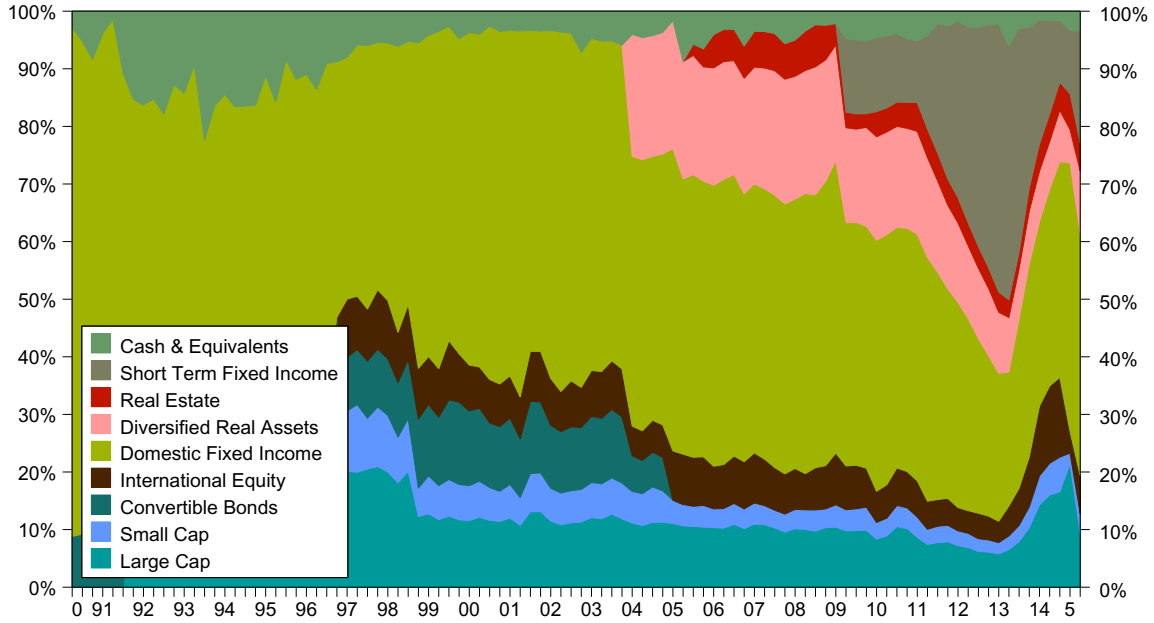
Squares represent membership of the Public Fund Sponsor Database

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

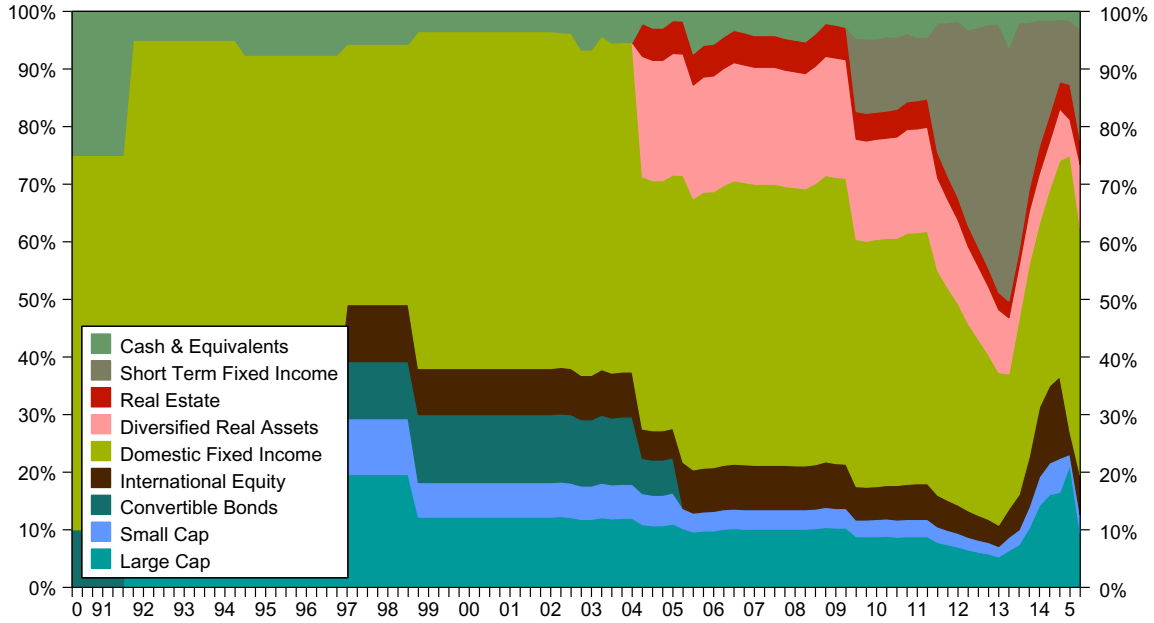
Actual vs Target Historical Asset Allocation

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, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation

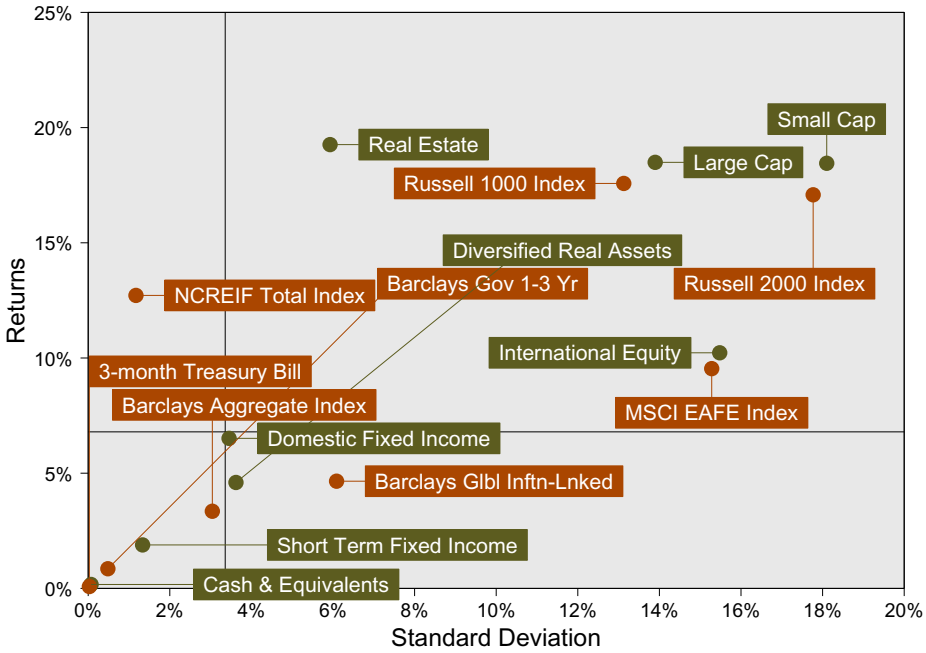


* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

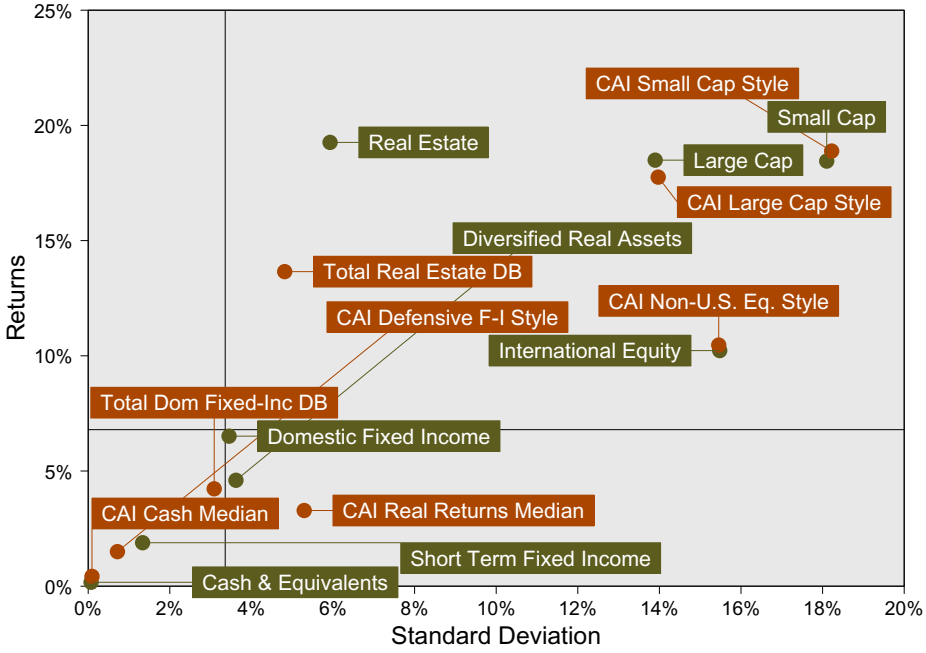
Asset Class Risk and Return

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



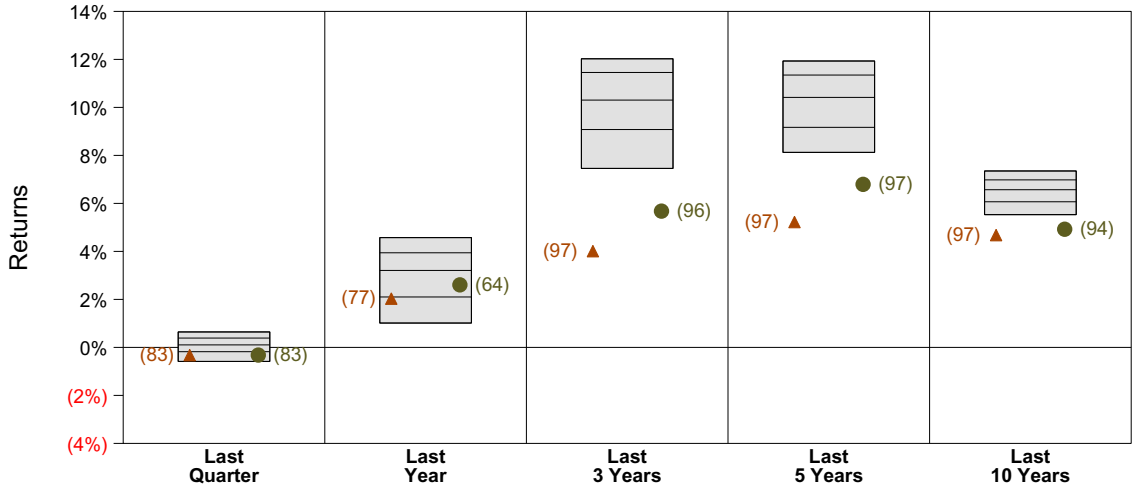
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Total Fund Ranking

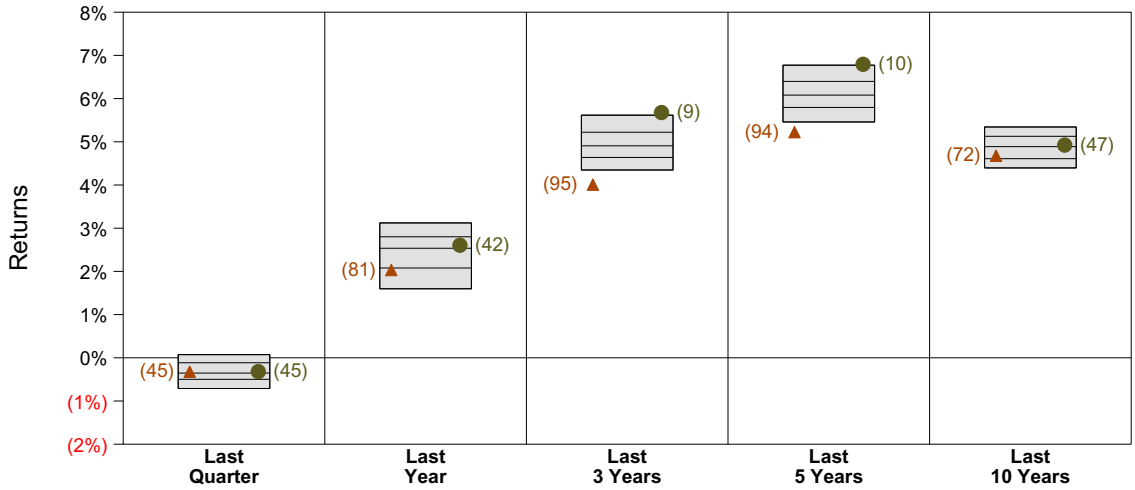
The first two charts show the ranking of the Total Fund's performance relative to that of the Public Fund Sponsor Database for periods ended June 30, 2015. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

Public Fund Sponsor Database



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.64	4.57	12.03	11.93	7.35
25th Percentile	0.39	3.94	11.46	11.35	6.98
Median	0.10	3.21	10.30	10.42	6.57
75th Percentile	(0.18)	2.10	9.08	9.17	6.07
90th Percentile	(0.58)	1.01	7.46	8.13	5.53
Total Fund ●	(0.32)	2.61	5.68	6.79	4.92
Policy Target ▲	(0.32)	2.03	4.01	5.22	4.68

Asset Allocation Adjusted Ranking



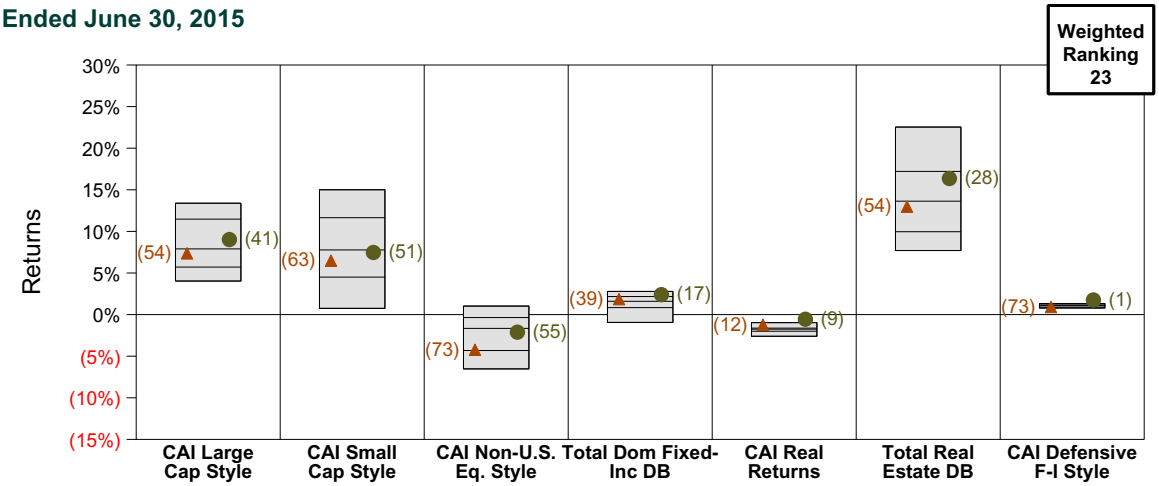
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	0.07	3.12	5.62	6.77	5.34
25th Percentile	(0.11)	2.80	5.22	6.40	5.13
Median	(0.35)	2.54	4.91	6.08	4.89
75th Percentile	(0.50)	2.08	4.64	5.80	4.61
90th Percentile	(0.71)	1.60	4.35	5.46	4.40
Total Fund ●	(0.32)	2.61	5.68	6.79	4.92
Policy Target ▲	(0.32)	2.03	4.01	5.22	4.68

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

Asset Class Rankings

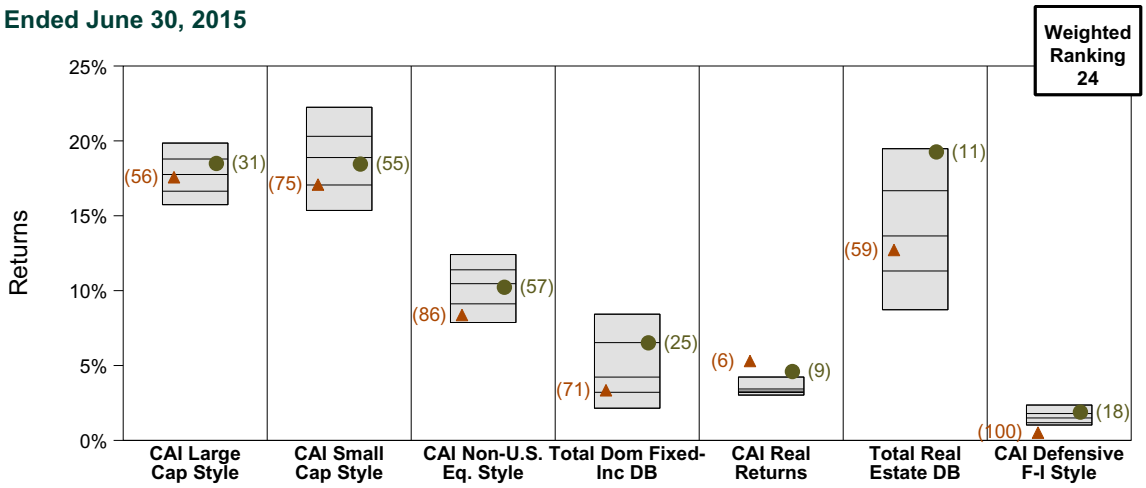
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used 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, 2015



	CAI Large Cap Style	CAI Small Cap Style	CAI Non-U.S. Eq. Style	Total Dom Fixed-Inc DB	CAI Real Returns	Total Real Estate DB	CAI Defensive F-I Style
10th Percentile	13.38	15.01	1.03	2.79	(0.96)	22.54	1.33
25th Percentile	11.47	11.65	(0.36)	2.17	(1.62)	17.21	1.17
Median	7.90	7.77	(1.66)	1.60	(1.75)	13.63	1.08
75th Percentile	5.71	4.51	(4.32)	0.84	(2.00)	9.96	0.90
90th Percentile	4.03	0.75	(6.53)	(0.94)	(2.60)	7.70	0.79
Asset Class Composite ●	9.02	7.47	(2.11)	2.40	(0.56)	16.36	1.76
Composite Benchmark ▲	7.37	6.49	(4.22)	1.86	(1.22)	12.98	0.91

Total Asset Class Performance
Five Years Ended June 30, 2015



	CAI Large Cap Style	CAI Small Cap Style	CAI Non-U.S. Eq. Style	Total Dom Fixed-Inc DB	CAI Real Returns	Total Real Estate DB	CAI Defensive F-I Style
10th Percentile	19.85	22.24	12.41	8.43	4.23	19.48	2.36
25th Percentile	18.79	20.30	11.39	6.53	3.43	16.67	1.79
Median	17.76	18.89	10.47	4.23	3.29	13.65	1.50
75th Percentile	16.64	17.06	9.12	3.21	3.20	11.31	1.18
90th Percentile	15.74	15.35	7.87	2.15	3.03	8.73	1.03
Asset Class Composite ●	18.49	18.45	10.23	6.51	4.60	19.26	1.89
Composite Benchmark ▲	17.57	17.08	8.37	3.35	5.30	12.72	0.52

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 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, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equity	**$313,449,248**	**12.80%**	**$(708,744,071)**	**$1,168,248**	**$1,021,025,071**	**23.28%**
Large Cap	**$230,768,576**	**9.42%**	**$(708,725,492)**	**$798,366**	**$938,695,702**	**21.41%**
Parametric Clifton Large Cap	45,431,169	1.85%	(141,664,264)	1,152,433	185,943,000	4.24%
L.A. Capital Large Cap Growth	70,073,255	2.86%	(213,198,145)	(1,674,007)	284,945,407	6.50%
L.A. Capital Enhanced	45,895,902	1.87%	(140,755,415)	(1,003,822)	187,655,139	4.28%
LSV Large Cap Value	69,368,250	2.83%	(213,107,668)	2,323,762	280,152,156	6.39%
Small Cap	**$82,680,672**	**3.38%**	**$(18,579)**	**$369,882**	**$82,329,369**	**1.88%**
Parametric Clifton Small Cap	58,935,255	2.41%	0	367,677	58,567,578	1.34%
Research Affiliates	23,745,417	0.97%	(18,579)	2,205	23,761,791	0.54%
International Equity	**$161,673,533**	**6.60%**	**$(8,749,139)**	**$4,189,220**	**$166,233,452**	**3.79%**
Capital Group	64,597,626	2.64%	(3,171,951)	1,557,591	66,211,986	1.51%
DFA Int'l Small Cap Value	16,508,931	0.67%	(1,000,000)	851,983	16,656,948	0.38%
LSV Intl Value	63,912,781	2.61%	(3,577,189)	1,238,933	66,251,037	1.51%
Vanguard Intl Explorer Fund	16,654,195	0.68%	(1,000,000)	540,714	17,113,480	0.39%
Domestic Fixed Income	**$1,028,922,658**	**42.01%**	**$(993,368,338)**	**$(21,776,027)**	**$2,044,067,022**	**46.61%**
Declaration Total Return	78,121,573	3.19%	(86,664,717)	69,476	164,716,814	3.76%
PIMCO DiSCO II	78,983,934	3.22%	0	1,266,550	77,717,384	1.77%
PIMCO Bravo II Fund	35,384,594	1.44%	5,000,000	1,597,272	28,787,322	0.66%
Prudential	88,672,172	3.62%	(74,275,065)	(2,192,011)	165,139,248	3.77%
SSgA US Govt Credit Bd Idx	134,918,321	5.51%	(144,536,603)	(2,897,772)	282,352,696	6.44%
Wells Capital	304,057,674	12.41%	(344,363,208)	(12,305,433)	660,726,315	15.07%
Western Asset Management	308,784,390	12.61%	(348,528,745)	(7,314,108)	664,627,243	15.16%
Diversified Real Assets	**$265,626,481**	**10.84%**	**$15,103,145**	**$(2,244,356)**	**$252,767,693**	**5.76%**
Western Asset Management	112,261,432	4.58%	15,970,394	(628,224)	96,919,262	2.21%
JP Morgan Infrastructure	72,599,328	2.96%	1,311,437	(2,421,556)	73,709,448	1.68%
Eastern Timber Opportunities	61,260,132	2.50%	0	763,542	60,496,590	1.38%
Grosvenor Cust. Infrastructure	19,505,589	0.80%	(2,178,686)	41,882	21,642,393	0.49%
Real Estate	**$119,778,975**	**4.89%**	**$(159,305,730)**	**$6,467,207**	**$272,617,498**	**6.22%**
Invesco Core Real Estate	55,974,821	2.29%	(74,602,050)	2,796,863	127,780,008	2.91%
JP Morgan RE	63,804,154	2.60%	(84,703,680)	3,670,343	144,837,490	3.30%
Short Term Fixed Income	**$475,066,575**	**19.40%**	**$(13,061,651)**	**$1,386,450**	**$486,741,775**	**11.10%**
JP Morgan Short Term Bonds	235,792,520	9.63%	(6,000,000)	283,023	241,509,497	5.51%
Babson Short Term Bonds	239,274,055	9.77%	(6,962,286)	1,299,709	244,936,633	5.59%
Babson Short Term - Legacy	-	-	(99,364)	(196,282)	295,646	0.01%
Cash & Equivalents	**$84,824,989**	**3.46%**	**$(57,030,956)**	**$2,639**	**$141,853,307**	**3.23%**
Cash Account	84,824,989	3.46%	(57,030,956)	2,639	141,853,307	3.23%
Total Fund	**$2,449,342,460**	**100.0%**	**$(1,925,156,740)**	**$(10,806,618)**	**$4,385,305,817**	**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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity					
Gross	0.70%	8.48%	19.46%	18.43%	8.13%
Net	0.65%	8.27%	19.19%	18.04%	7.76%
Large Cap Equity					
Gross	0.25%	9.02%	19.39%	18.49%	7.79%
Net	0.21%	8.83%	19.17%	18.20%	7.46%
Benchmark(1)	0.11%	7.37%	17.73%	17.57%	8.00%
Parametric Clifton Large Cap - Gross	(0.41%)	7.17%	17.37%	17.75%	-
Parametric Clifton Large Cap - Net	(0.41%)	7.10%	17.24%	17.37%	-
S&P 500 Index	0.28%	7.42%	17.31%	17.34%	7.89%
L.A. Capital - Gross	0.29%	12.53%	18.94%	19.00%	9.95%
L.A. Capital - Net	0.24%	12.32%	18.71%	18.76%	9.74%
Russell 1000 Growth Index	0.12%	10.56%	17.99%	18.59%	9.10%
L.A. Capital Enhanced - Gross	(0.27%)	8.45%	17.90%	17.94%	9.37%
L.A. Capital Enhanced - Net	(0.31%)	8.31%	17.75%	17.74%	9.20%
Russell 1000 Index	0.11%	7.37%	17.73%	17.58%	8.13%
LSV Asset Management - Gross	1.00%	7.16%	22.14%	18.93%	8.75%
LSV Asset Management - Net	0.93%	6.87%	21.81%	18.58%	8.42%
Russell 1000 Value Index	0.11%	4.13%	17.34%	16.50%	7.05%
Small Cap Equity					
Gross	0.45%	7.47%	19.75%	18.45%	9.06%
Net	0.43%	7.23%	19.34%	17.82%	8.58%
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	8.40%
Parametric Clifton Small Cap - Gross	0.63%	8.24%	19.20%	18.55%	-
Parametric Clifton SmallCap - Net	0.63%	8.03%	18.80%	17.77%	-
Russell 2000 Index	0.42%	6.49%	17.81%	17.08%	8.40%
Research Affiliates - Gross	0.01%	5.51%	19.78%	18.02%	-
Research Affiliates - Net	(0.07%)	5.18%	19.34%	17.53%	-
Russell 2000	0.42%	6.49%	17.81%	17.08%	8.40%
International Equity					
Gross	2.48%	(2.11%)	14.23%	10.23%	5.70%
Net	2.39%	(2.43%)	13.80%	9.88%	5.41%
Benchmark(2)	0.62%	(4.22%)	11.97%	8.37%	4.87%
Capital Group - Gross	2.29%	(1.35%)	12.88%	9.57%	5.76%
Capital Group - Net	2.18%	(1.73%)	12.50%	9.35%	5.63%
Benchmark(2)	0.62%	(4.22%)	11.97%	8.37%	4.87%
DFA Intl Small Cap Value - Net	5.19%	(3.27%)	17.67%	12.85%	-
World ex US SC Va	2.98%	(6.50%)	14.05%	10.60%	6.79%
LSV Asset Management - Gross	1.81%	(3.33%)	14.09%	9.55%	4.72%
LSV Asset Management - Net	1.69%	(3.73%)	13.60%	9.13%	4.39%
Benchmark(2)	0.62%	(4.22%)	11.97%	8.37%	4.87%
Vanguard Intl Explorer Fund - Net	3.17%	0.57%	16.29%	11.80%	7.31%
BMI, EPAC, <$2 B	5.97%	1.14%	14.70%	11.08%	6.58%

(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 and 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Fixed Income					
Gross	(1.57%)	2.40%	5.00%	6.51%	5.88%
Net	(1.60%)	2.27%	4.83%	6.34%	5.70%
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%	4.44%
Declaration Total Return - Net	0.09%	3.55%	-	-	-
Libor-3 Month	0.07%	0.25%	0.28%	0.33%	1.84%
PIMCO DiSCO II - Net	1.63%	4.32%	15.85%	-	-
PIMCO Bravo II Fund - Net	5.14%	10.36%	-	-	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%	4.44%
Prudential - Gross	(1.79%)	2.32%	3.67%	5.72%	-
Prudential - Net	(1.85%)	2.05%	3.41%	5.56%	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	3.35%	4.44%
Wells Capital - Gross	(2.97%)	0.96%	4.65%	6.61%	6.77%
Wells Capital - Net	(3.02%)	0.78%	4.44%	6.39%	6.54%
Barclays Baa Credit 3%	(3.22%)	0.07%	3.68%	5.82%	5.92%
Western Asset - Gross	(1.47%)	2.77%	3.68%	5.54%	5.33%
Western Asset - Net	(1.51%)	2.62%	3.52%	5.37%	5.14%
Barclays Aggregate	(1.68%)	1.86%	1.83%	3.35%	4.44%
SSgA US Govt Cr Bd Idx - Gross	(2.10%)	1.70%	-	-	-
SSgA US Govt Cr Bd Idx - Net	(2.12%)	1.66%	-	-	-
Barclays Govt/Credit Bd	(2.10%)	1.69%	1.76%	3.52%	4.38%
Diversified Real Assets					
Gross	(0.95%)	(0.56%)	3.45%	4.60%	3.70%
Net	(1.04%)	(0.82%)	3.13%	4.25%	3.44%
Weighted Benchmark	0.58%	(1.22%)	2.58%	5.30%	4.31%
Western TIPS - Gross	(0.61%)	(2.91%)	1.14%	3.97%	3.46%
Western TIPS - Net	(0.64%)	(3.04%)	0.98%	3.80%	3.31%
Barclays Glbl Inftn-Linked(1)	0.15%	(4.23%)	1.52%	4.65%	3.99%
JP Morgan Infrastructure - Gross	(3.34%)	(0.10%)	6.70%	6.33%	-
JP Morgan Infrastructure - Net	(3.61%)	(1.04%)	5.55%	5.12%	-
CPI-W	1.19%	(0.38%)	1.13%	1.80%	2.09%
Eastern Timber Opportunities - Net	1.26%	4.42%	5.85%	3.75%	-
NCREIF Timberland Index	0.51%	10.02%	9.77%	6.10%	7.96%
Grosvenor Cust. Infrastructure - Net	0.22%	5.37%	9.19%	-	-
CPI-W	1.19%	(0.38%)	1.13%	1.80%	2.09%

(1) Barclays US TIPS through 12/31/2009 and Barclays 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, 2015. 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, 2015

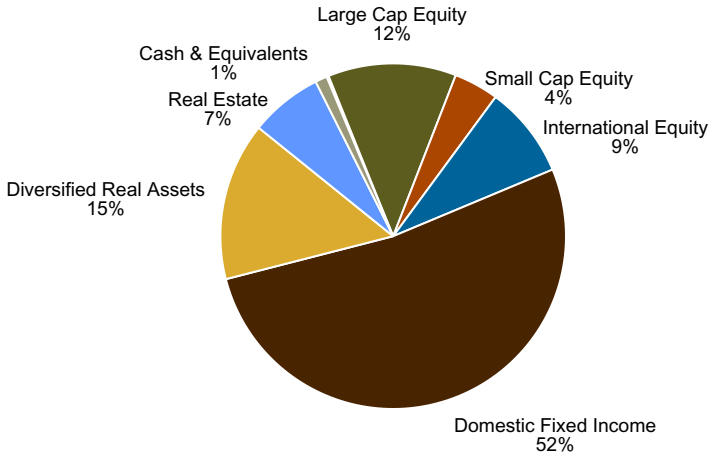
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate					
Gross	5.67%	16.36%	15.43%	19.26%	-
Net	5.45%	15.50%	14.35%	18.09%	-
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%	8.16%
Invesco Core Real Estate - Gross	5.26%	16.38%	-	-	-
Invesco Core Real Estate - Net	5.16%	15.97%	-	-	-
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%	8.16%
JP Morgan - Gross	6.03%	16.68%	16.77%	20.09%	-
JP Morgan - Net	5.71%	15.44%	15.28%	18.67%	-
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%	8.16%
Short Term Fixed Income					
Gross	0.28%	1.76%	1.69%	1.89%	-
Net	0.29%	1.61%	1.58%	1.80%	-
Barclays Gov 1-3 Yr	0.15%	0.91%	0.68%	0.85%	2.60%
Babson Short Term Bonds - Gross	0.53%	2.55%	2.28%	-	-
Babson Short Term Bonds - Net	0.54%	2.43%	2.14%	-	-
Barclays Gov 1-3 Yr	0.15%	0.91%	0.68%	0.85%	2.60%
JP Morgan Short Term Bds - Gross	0.12%	1.11%	1.08%	-	-
JP Morgan Short Term Bds - Net	0.12%	1.01%	0.99%	-	-
Barclays Gov/Credit 1-3 Y	0.13%	0.93%	0.94%	1.17%	2.83%
Cash & Equivalents - Net	**0.00%**	**0.01%**	**0.10%**	**0.17%**	**1.54%**
Cash Account- Net	0.00%	0.01%	0.10%	0.17%	1.54%
90 Day Treasury Bills	0.01%	0.02%	0.06%	0.08%	1.42%
Total Fund					
Gross	(0.32%)	2.61%	5.68%	6.79%	4.92%
Net	(0.36%)	2.39%	5.46%	6.55%	4.68%
Target*	(0.32%)	2.03%	4.01%	5.22%	4.68%

* Current Quarter Target = 42.9% Barclays Aggregate Index, 19.3% Barclays Gov 1-3 Yr, 11.0% NDSIB INS DRA Weighted Benchmark, 9.4% Russell 1000 Index, 6.9% MSCI EAFE Index, 4.3% NCREIF Total Index, 3.2% Russell 2000 Index and 3.0% 3-month Treasury Bill.

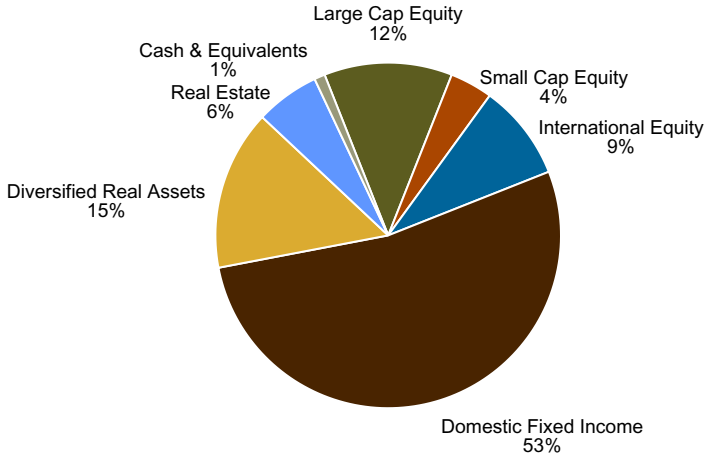
Actual vs Target Asset Allocation
As of June 30, 2015

The first chart below shows the Fund's asset allocation as of June 30, 2015. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



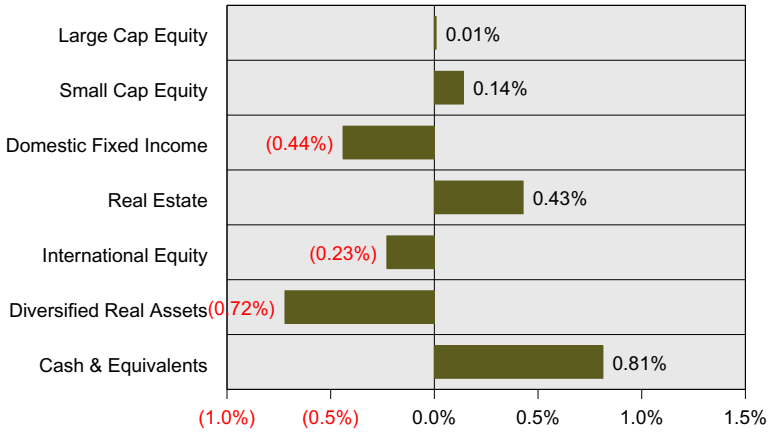
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	212,185	12.0%	12.0%	0.0%	678
Small Cap Equity	74,728	4.2%	4.0%	0.2%	4,226
International Equity	152,260	8.6%	9.0%	(0.4%)	(6,371)
Domestic Fixed Income	922,356	52.3%	53.0%	(0.7%)	(11,801)
Diversified Real Assets	261,500	14.8%	15.0%	(0.2%)	(2,884)
Real Estate	119,711	6.8%	6.0%	0.8%	13,958
Cash & Equivalents	19,821	1.1%	1.0%	0.1%	2,195
Total	1,762,560	100.0%	100.0%		

* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

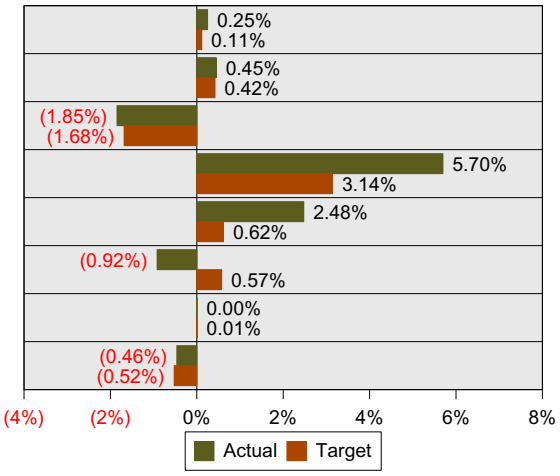
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

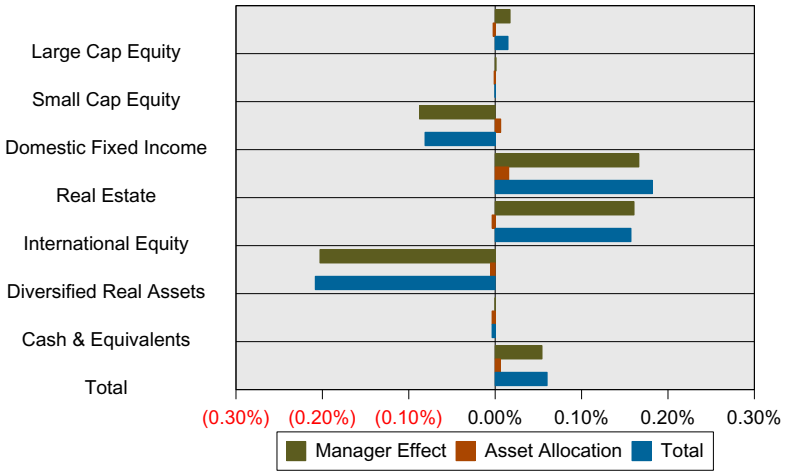
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

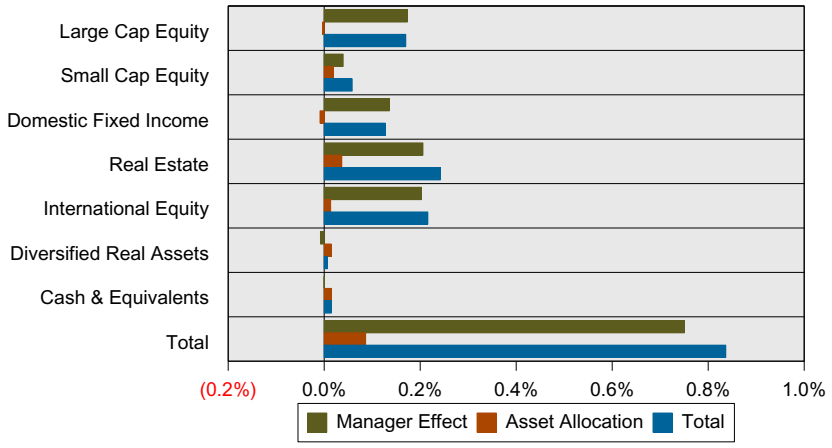
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	0.25%	0.11%	0.02%	(0.00%)	0.01%
Small Cap Equity	4%	4%	0.45%	0.42%	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	53%	53%	(1.85%)	(1.68%)	(0.09%)	0.01%	(0.08%)
Real Estate	6%	6%	5.70%	3.14%	0.17%	0.02%	0.18%
International Equity	9%	9%	2.48%	0.62%	0.16%	(0.00%)	0.16%
Diversified Real Assets	14%	15%	(0.92%)	0.57%	(0.20%)	(0.01%)	(0.21%)
Cash & Equivalents	2%	1%	0.00%	0.01%	(0.00%)	(0.00%)	(0.00%)
Total			**(0.46%) =**	**(0.52%) +**	**0.05% +**	**0.01%**	**0.06%**

* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

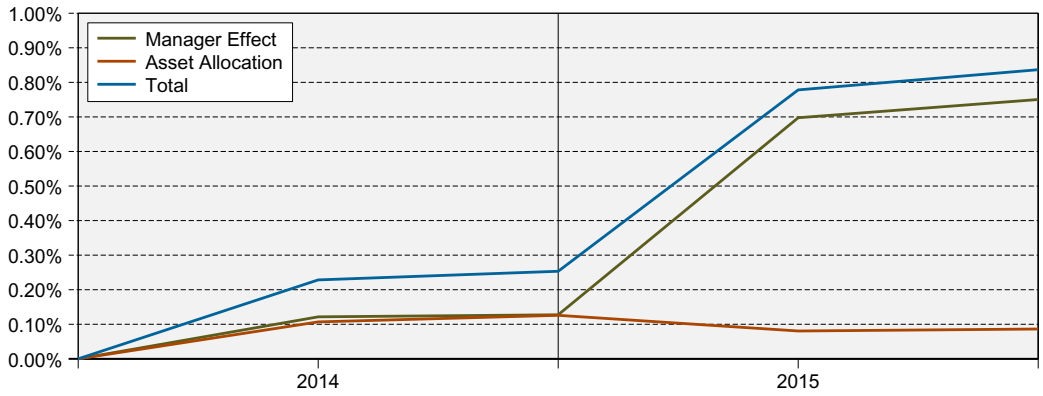
Cumulative Total Fund Relative Attribution - June 30, 2015

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

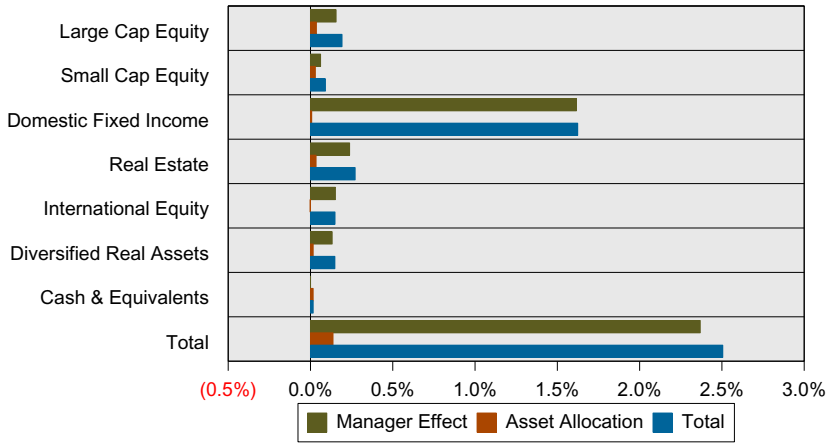
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	12%	12%	8.93%	7.37%	0.17%	(0.00%)	0.17%
Small Cap Equity	4%	4%	7.49%	6.49%	0.04%	0.02%	0.06%
Domestic Fixed Income	53%	53%	2.11%	1.86%	0.14%	(0.01%)	0.13%
Real Estate	6%	6%	16.37%	12.98%	0.21%	0.04%	0.24%
International Equity	9%	9%	(2.11%)	(4.22%)	0.20%	0.01%	0.22%
Diversified Real Assets	15%	15%	0.27%	0.49%	(0.01%)	0.01%	0.01%
Cash & Equivalents	1%	1%	0.01%	0.02%	(0.00%)	0.01%	0.01%
Total			**3.49% =**	**2.66% +**	**0.75% +**	**0.09%**	**0.84%**

* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

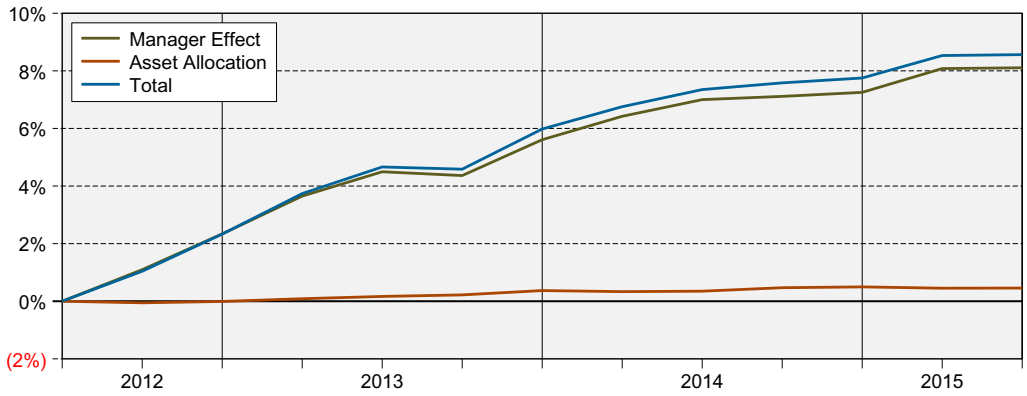
Cumulative Total Fund Relative Attribution - June 30, 2015

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

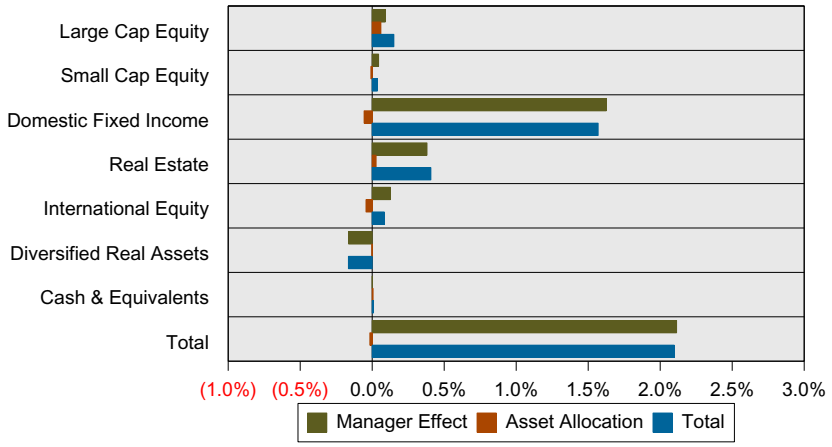
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return		Target Return		Manager Effect		Asset Allocation	Total Relative Return
Large Cap Equity	11%	10%	19.33%		17.73%		0.16%		0.04%	0.19%
Small Cap Equity	4%	3%	19.77%		17.81%		0.06%		0.03%	0.09%
Domestic Fixed Income	51%	52%	4.91%		1.83%		1.62%		0.01%	1.62%
Real Estate	6%	6%	15.40%		11.63%		0.24%		0.03%	0.27%
International Equity	8%	8%	14.04%		11.97%		0.15%		(0.00%)	0.15%
Diversified Real Assets	19%	20%	3.74%		3.17%		0.13%		0.02%	0.15%
Cash & Equivalents	1%	1%	0.10%		0.06%		0.00%		0.02%	0.02%
Total			**7.99%**	**=**	**5.48%**	**+**	**2.37%**	**+**	**0.14%**	**2.51%**

* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

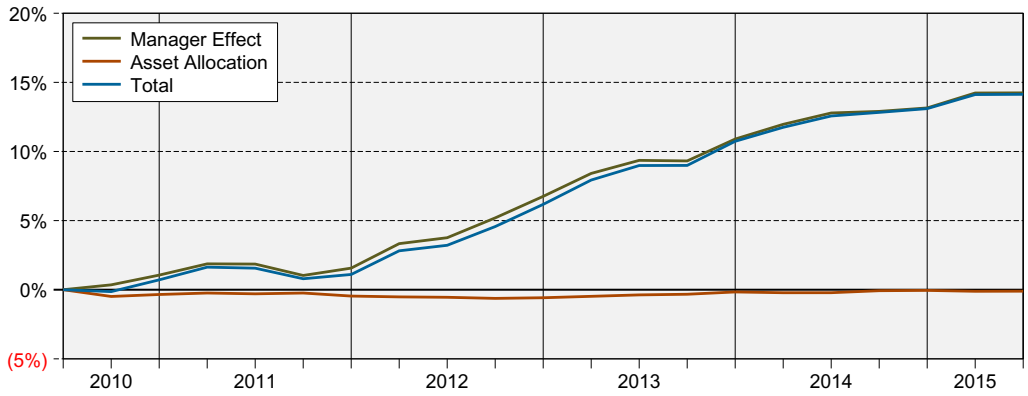
Cumulative Total Fund Relative Attribution - June 30, 2015

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



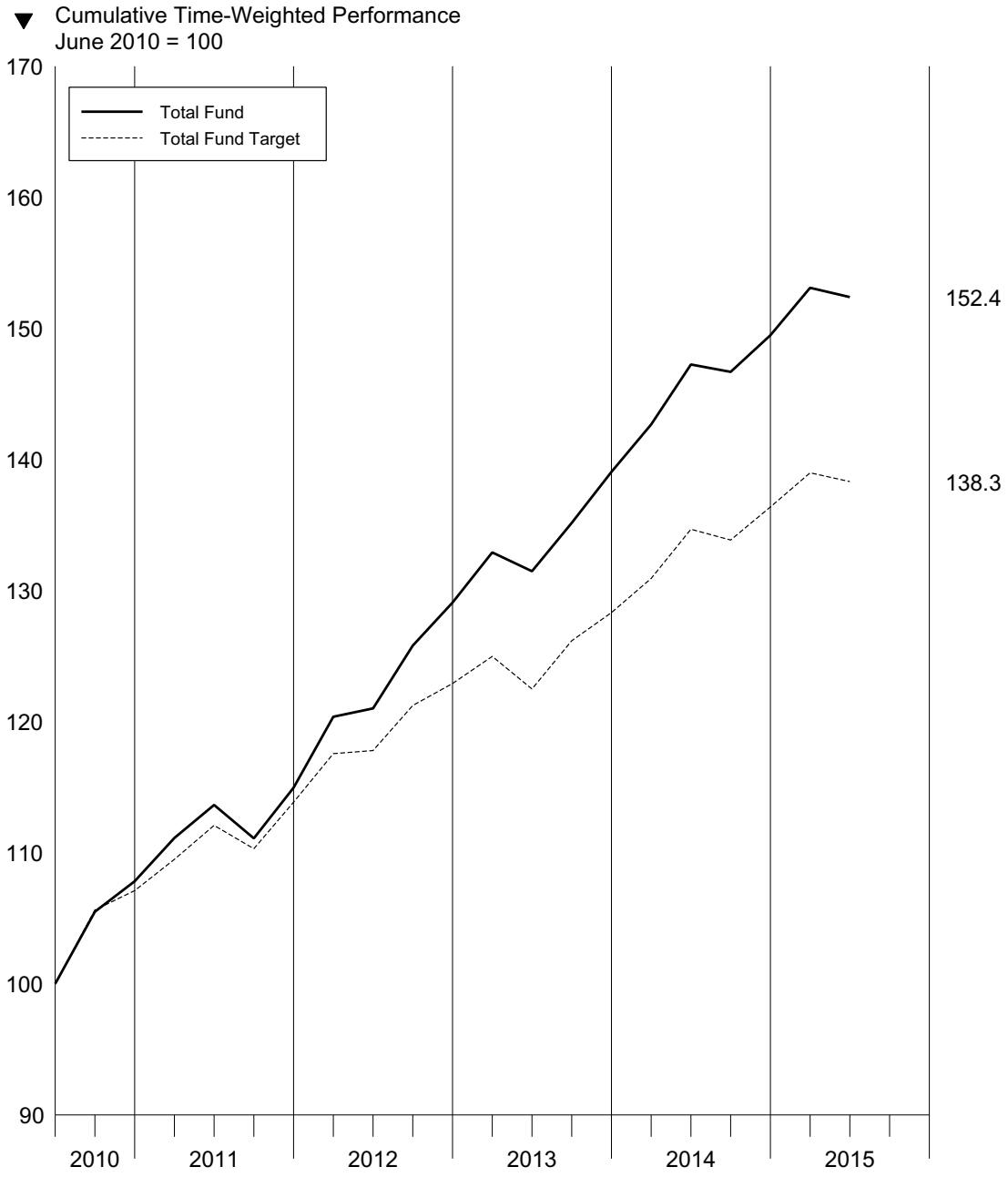
Cumulative Relative Attribution Effects



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%	10%	18.46%	17.58%	0.09%	0.06%	0.15%
Small Cap Equity	4%	3%	18.47%	17.08%	0.04%	(0.01%)	0.04%
Domestic Fixed Income	51%	51%	6.44%	3.35%	1.63%	(0.06%)	1.57%
Real Estate	6%	6%	19.24%	12.72%	0.38%	0.03%	0.41%
International Equity	7%	7%	10.06%	8.37%	0.13%	(0.04%)	0.08%
Diversified Real Assets	20%	21%	4.77%	5.67%	(0.16%)	(0.00%)	(0.16%)
Cash & Equivalents	1%	1%	0.17%	0.08%	0.00%	0.01%	0.01%
Total			**8.79% =**	**6.69% +**	**2.11% +**	**(0.02%)**	**2.10%**

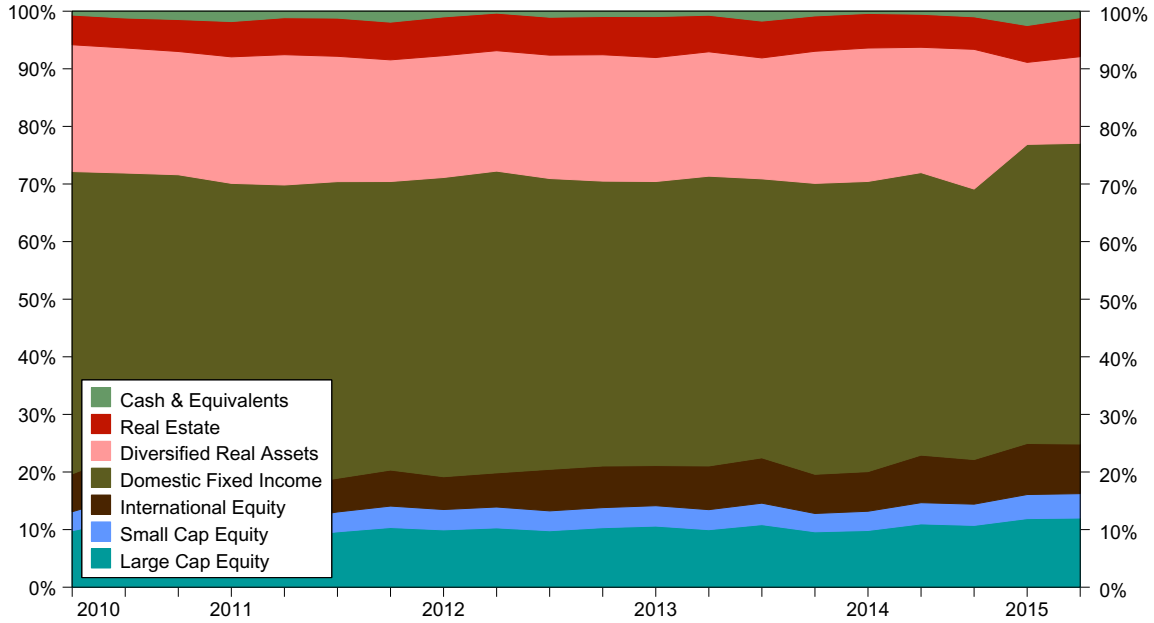
* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.


Cumulative Time-Weighted Performance
June 2010 = 100
Total Fund
Total Fund Target
170
160
150
140
130
120
110
100
90
2010
2011
2012
2013
2014
2015
152.4
138.3

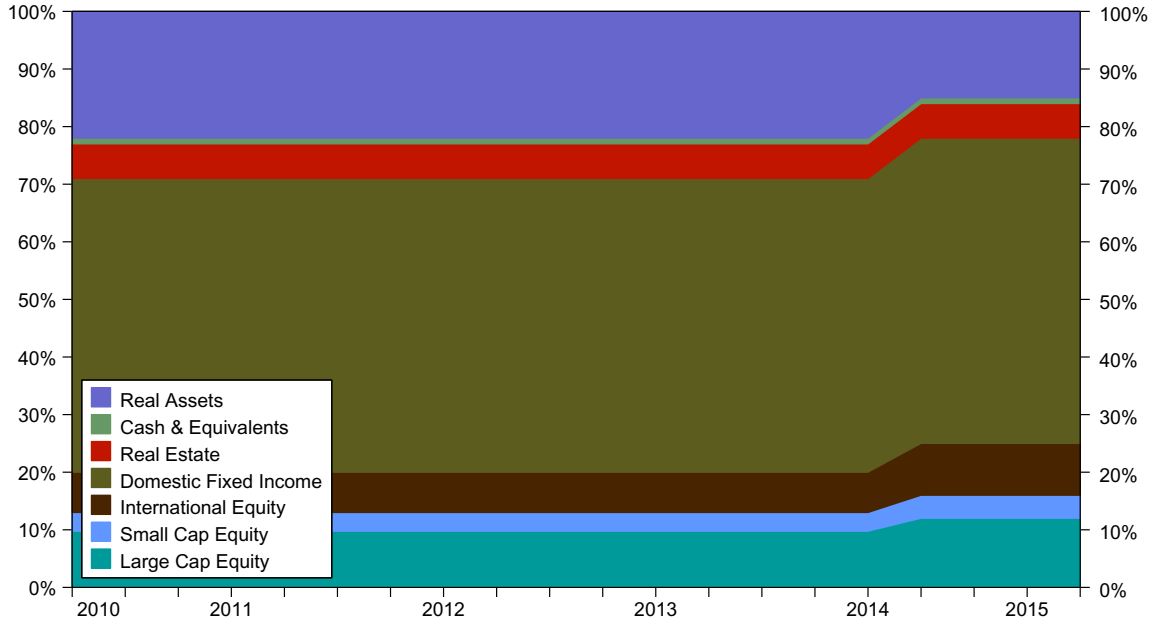
Actual vs Target Historical Asset Allocation

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

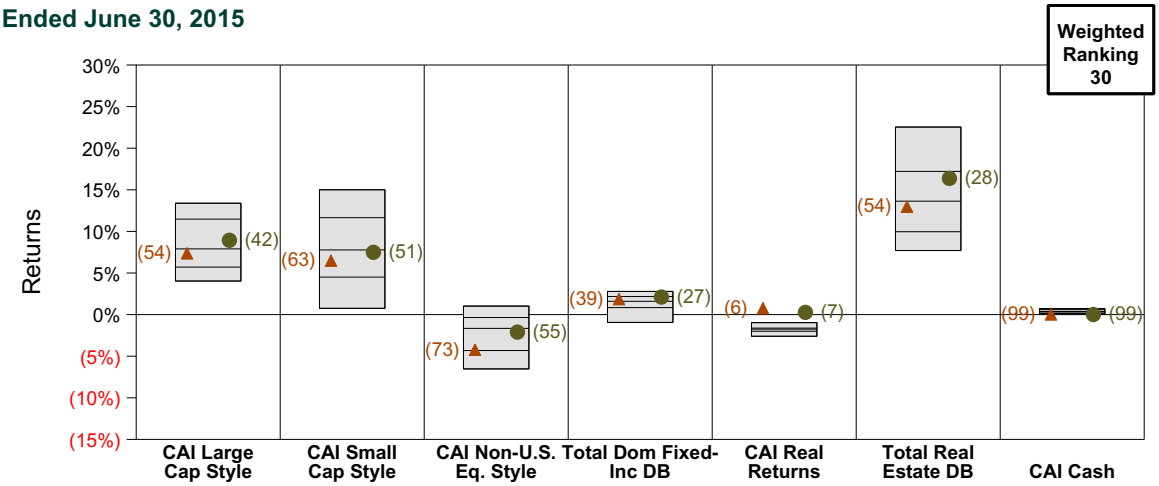


* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

Asset Class Rankings

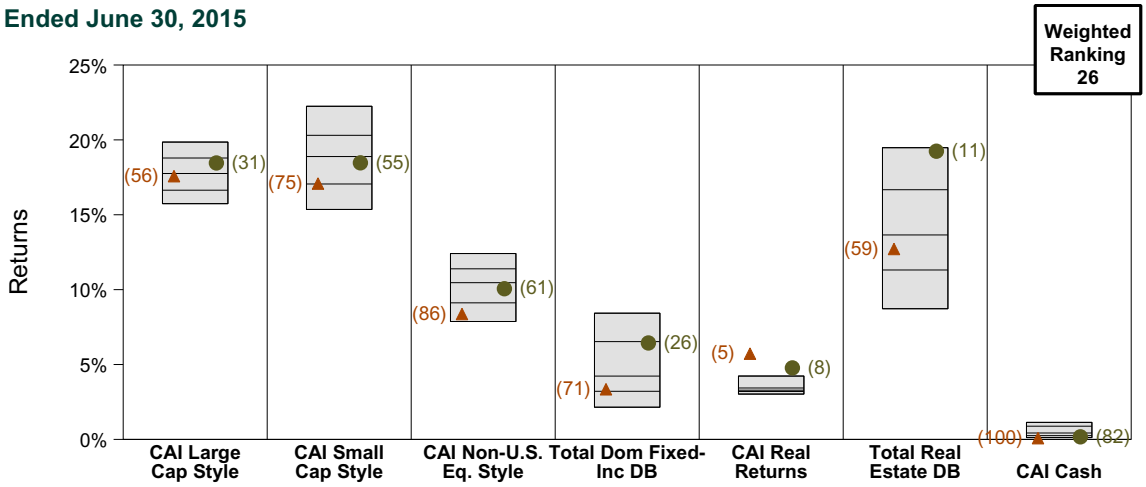
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used 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, 2015



	CAI Large Cap Style	CAI Small Cap Style	CAI Non-U.S. Eq. Style	Total Dom Fixed-Inc DB	CAI Real Returns	Total Real Estate DB	CAI Cash
10th Percentile	13.38	15.01	1.03	2.79	(0.96)	22.54	0.71
25th Percentile	11.47	11.65	(0.36)	2.17	(1.62)	17.21	0.59
Median	7.90	7.77	(1.66)	1.60	(1.75)	13.63	0.37
75th Percentile	5.71	4.51	(4.32)	0.84	(2.00)	9.96	0.20
90th Percentile	4.03	0.75	(6.53)	(0.94)	(2.60)	7.70	0.09
Asset Class Composite ●	8.93	7.49	(2.11)	2.11	0.27	16.37	0.01
Composite Benchmark ▲	7.37	6.49	(4.22)	1.86	0.78	12.98	0.02

Total Asset Class Performance
Five Years Ended June 30, 2015



	CAI Large Cap Style	CAI Small Cap Style	CAI Non-U.S. Eq. Style	Total Dom Fixed-Inc DB	CAI Real Returns	Total Real Estate DB	CAI Cash
10th Percentile	19.85	22.24	12.41	8.43	4.23	19.48	1.14
25th Percentile	18.79	20.30	11.39	6.53	3.43	16.67	0.88
Median	17.76	18.89	10.47	4.23	3.29	13.65	0.43
75th Percentile	16.64	17.06	9.12	3.21	3.20	11.31	0.25
90th Percentile	15.74	15.35	7.87	2.15	3.03	8.73	0.12
Asset Class Composite ●	18.46	18.47	10.06	6.44	4.77	19.24	0.17
Composite Benchmark ▲	17.58	17.08	8.37	3.35	5.72	12.72	0.08

* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 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, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Large Cap Equity	$212,185,488	12.04%	$349,836	$531,226	$211,304,426	11.94%
Small Cap Equity	$74,728,013	4.24%	$205,589	$328,449	$74,193,975	4.19%
International Equity	$152,259,577	8.64%	$(9,055,309)	$3,977,610	$157,337,276	8.89%
Domestic Fixed Income	$922,355,515	52.33%	$18,244,177	$(17,297,387)	$921,408,725	52.04%
Diversified Real Assets	$261,499,609	14.84%	$15,186,805	$(2,208,034)	$248,520,839	14.04%
Real Estate	$119,711,411	6.79%	$(244,948)	$6,463,558	$113,492,800	6.41%
Cash & Equivalents	$19,820,514	1.12%	$(24,332,127)	$795	$44,151,846	2.49%
Total Fund	$1,762,560,127	100.0%	$354,023	$(8,203,783)	$1,770,409,886	100.0%

PLEASE REFER TO PAGE 36 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Large Cap Equity				
Gross	0.25%	8.93%	19.33%	18.46%
Net	0.21%	8.74%	19.11%	18.18%
Benchmark(1)	0.11%	7.37%	17.73%	17.57%
Small Cap Equity				
Gross	0.45%	7.49%	19.77%	18.47%
Net	0.43%	7.25%	19.37%	17.83%
Russell 2000	0.42%	6.49%	17.81%	17.08%
International Equity				
Gross	2.48%	(2.11%)	14.04%	10.06%
Net	2.38%	(2.42%)	13.65%	9.65%
Benchmark(2)	0.62%	(4.22%)	11.97%	8.37%
Domestic Fixed Income				
Gross	(1.85%)	2.11%	4.91%	6.44%
Net	(1.88%)	1.97%	4.74%	6.26%
Barclays Aggregate	(1.68%)	1.86%	1.83%	3.35%
Diversified Real Assets				
Gross	(0.92%)	0.27%	3.74%	4.77%
Net	(1.01%)	(0.07%)	3.39%	4.41%
Weighted Benchmark	0.57%	0.49%	3.17%	5.67%
Real Estate				
Gross	5.70%	16.37%	15.40%	19.24%
Net	5.48%	15.53%	14.35%	18.09%
NCREIF Total Index	3.14%	12.98%	11.63%	12.72%
Cash & Equivalents - Net	**0.00%**	**0.01%**	**0.10%**	**0.17%**
90 Day Treasury Bills	0.01%	0.02%	0.06%	0.08%
Total Fund				
Gross	(0.46%)	3.49%	7.99%	8.79%
Net	(0.52%)	3.26%	7.71%	8.48%
Target*	(0.52%)	2.66%	5.48%	6.69%

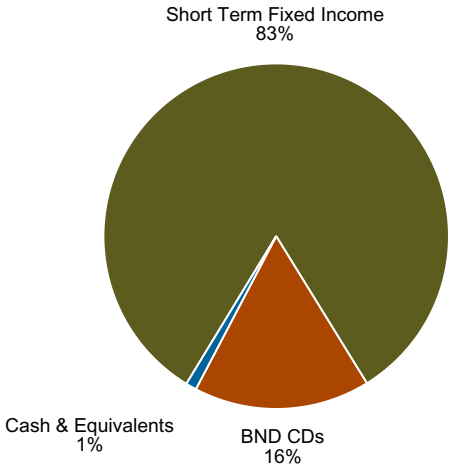
* Current Quarter Target = 53.0% Barclays Aggregate Index, 15.0% NDSIB WSI DRA Weighted Benchmark, 12.0% Russell 1000 Index, 9.0% MSCI EAFE Index, 6.0% NCREIF Total Index, 4.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.
(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.
(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011 and MSCI EAFE again thereafter.

PLEASE REFER TO PAGE 37-39 FOR INVESTMENT MANAGER LEVEL RETURNS.

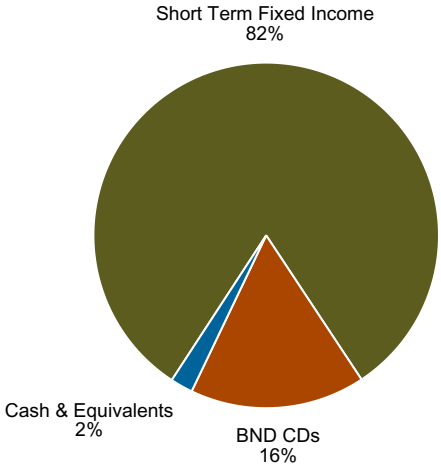
Actual vs Target Asset Allocation
As of June 30, 2015

The first chart below shows the Fund's asset allocation as of June 30, 2015. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



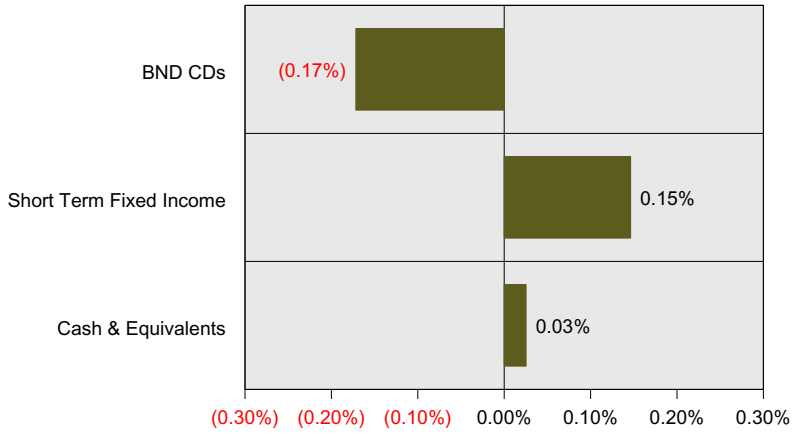
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Short Term Fixed Income	473,649	82.5%	81.5%	1.0%	5,772
BND CDs	94,538	16.5%	16.4%	0.1%	343
Cash & Equivalents	5,824	1.0%	2.1%	(1.1%)	(6,115)
Total	574,011	100.0%	100.0%		

* Current Quarter Target = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 3-month Treasury Bill.

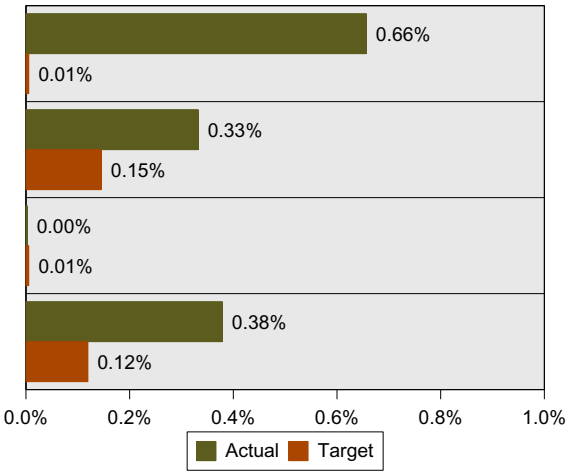
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

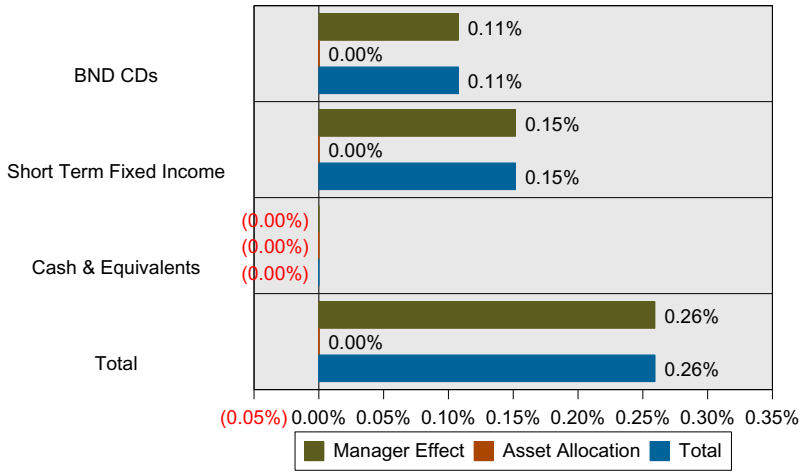
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

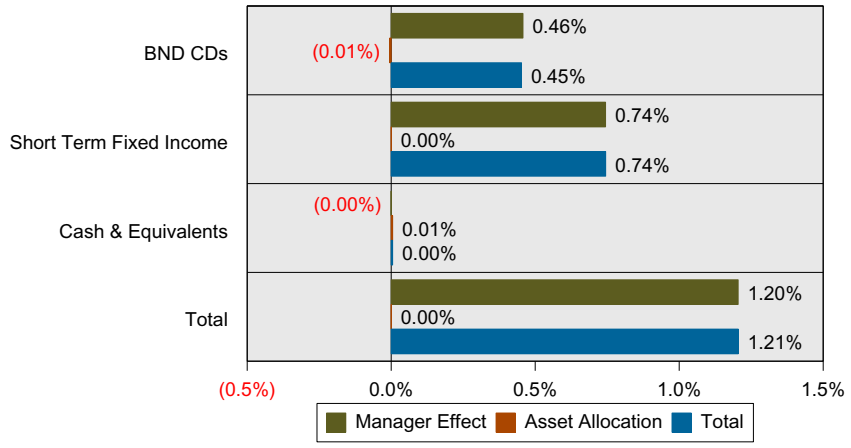
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	17%	17%	0.66%	0.01%	0.11%	0.00%	0.11%
Short Term Fixed Income	82%	82%	0.33%	0.15%	0.15%	0.00%	0.15%
Cash & Equivalents	2%	2%	0.00%	0.01%	(0.00%)	(0.00%)	(0.00%)
Total			**0.38% =**	**0.12% +**	**0.26% +**	**0.00%**	**0.26%**

* Current Quarter Target = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 3-month Treasury Bill.

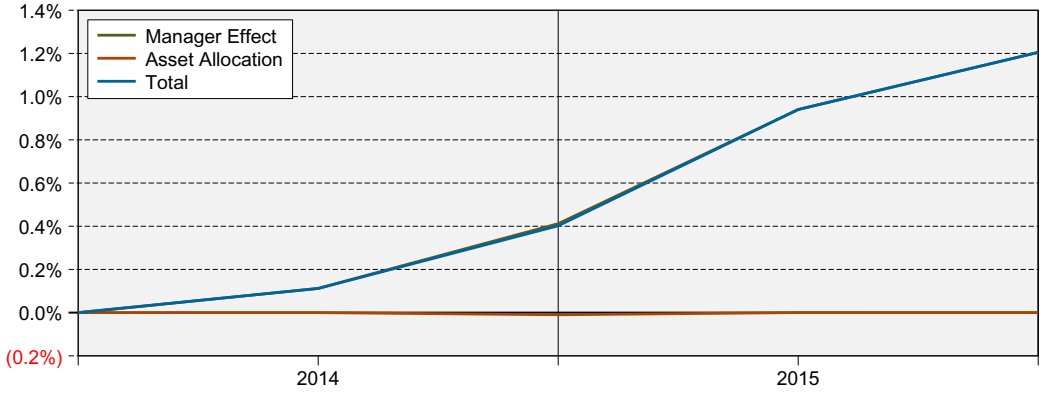
Cumulative Total Fund Relative Attribution - June 30, 2015

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

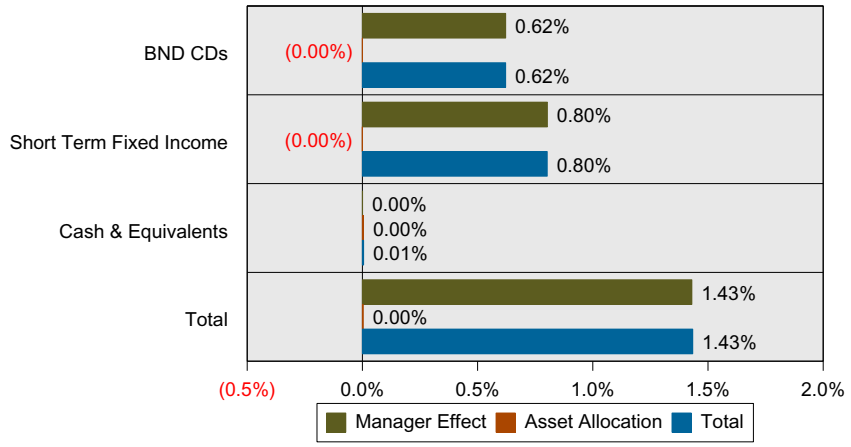
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	17%	17%	2.67%	0.02%	0.46%	(0.01%)	0.45%
Short Term Fixed Income	81%	81%	1.83%	0.91%	0.74%	0.00%	0.74%
Cash & Equivalents	1%	1%	0.01%	0.02%	(0.00%)	0.01%	0.00%
Total			**1.95%**	**= 0.74%**	**+ 1.20%**	**+ 0.00%**	**1.21%**

* Current Quarter Target = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 3-month Treasury Bill.

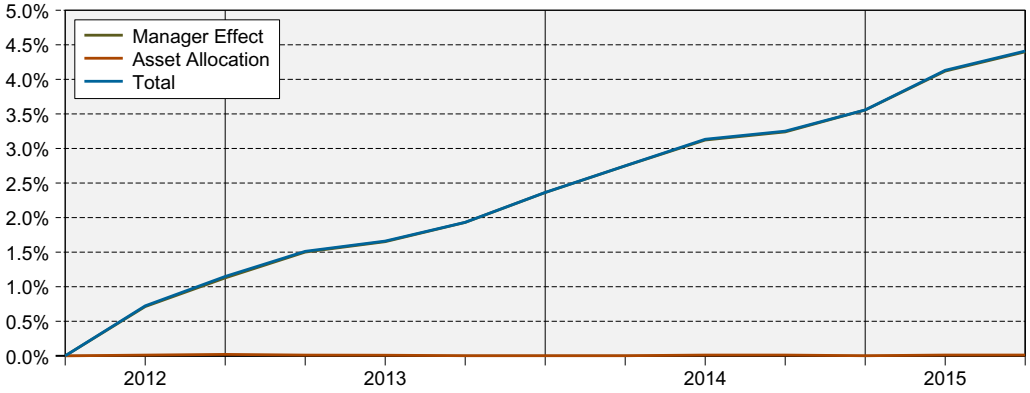
Cumulative Total Fund Relative Attribution - June 30, 2015

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

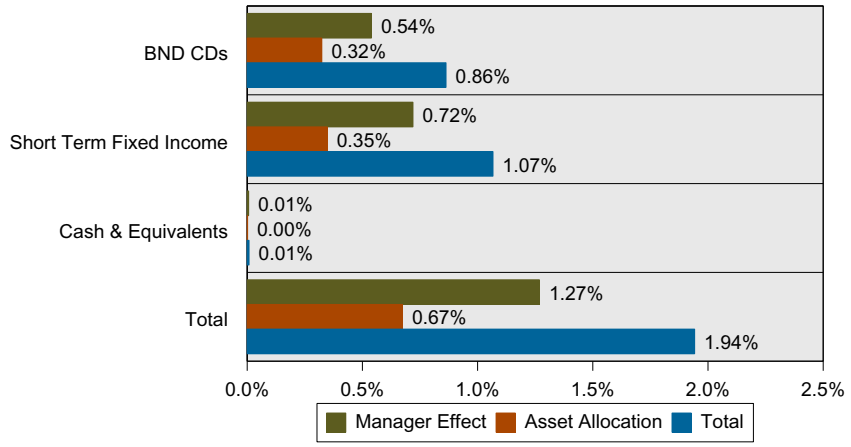
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	21%	21%	3.05%	0.06%	0.62%	(0.00%)	0.62%
Short Term Fixed Income	78%	77%	1.71%	0.68%	0.80%	(0.00%)	0.80%
Cash & Equivalents	2%	2%	0.10%	0.06%	0.00%	0.00%	0.01%
Total			**1.98%**	**= 0.54%**	**+ 1.43%**	**+ 0.00%**	**1.43%**

* Current Quarter Target = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 3-month Treasury Bill.

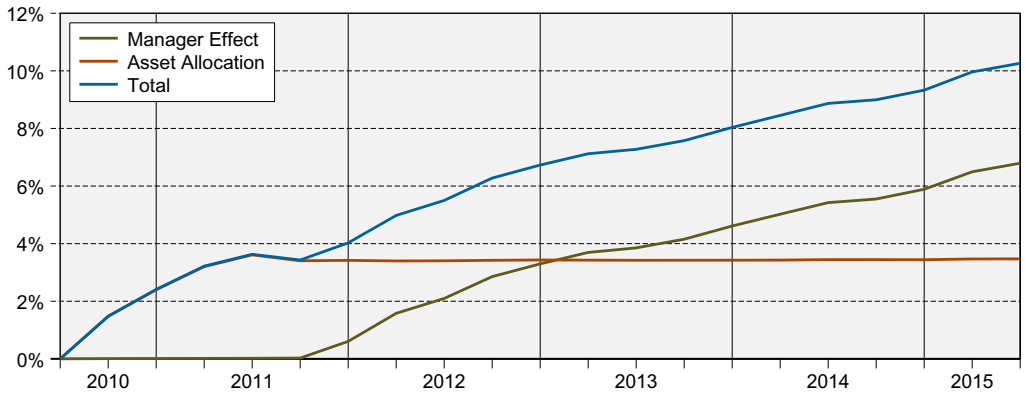
Cumulative Total Fund Relative Attribution - June 30, 2015

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



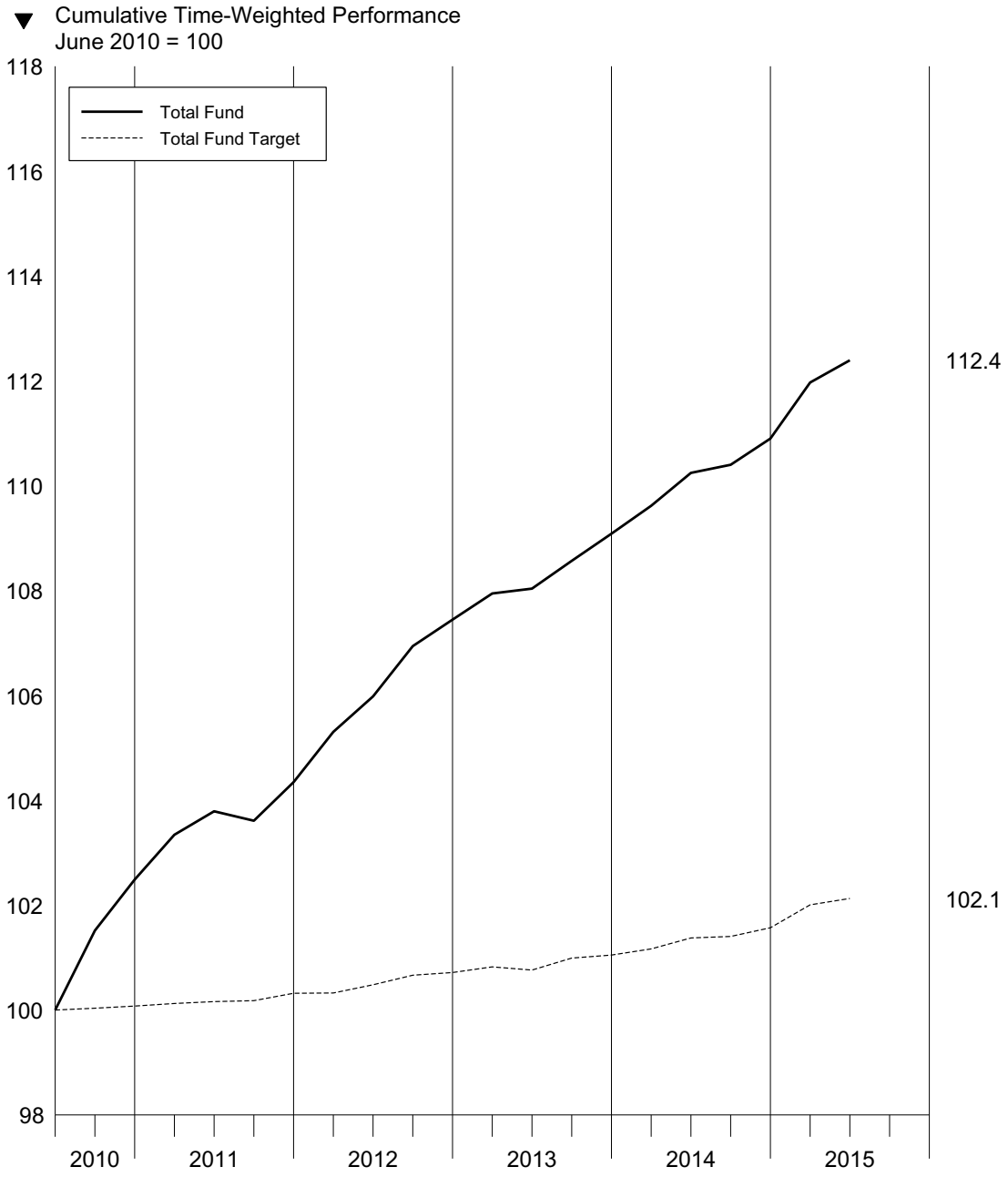
Cumulative Relative Attribution Effects



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	24%	16%	3.59%		1.13%		0.54%		0.32%	0.86%
Short Term Fixed Income	72%	57%	2.05%		1.10%		0.72%		0.35%	1.07%
Cash & Equivalents	5%	26%	0.17%		0.08%		0.01%		0.00%	0.01%
Total			**2.36%**	**=**	**0.42%**	**+**	**1.27%**	**+**	**0.67%**	**1.94%**

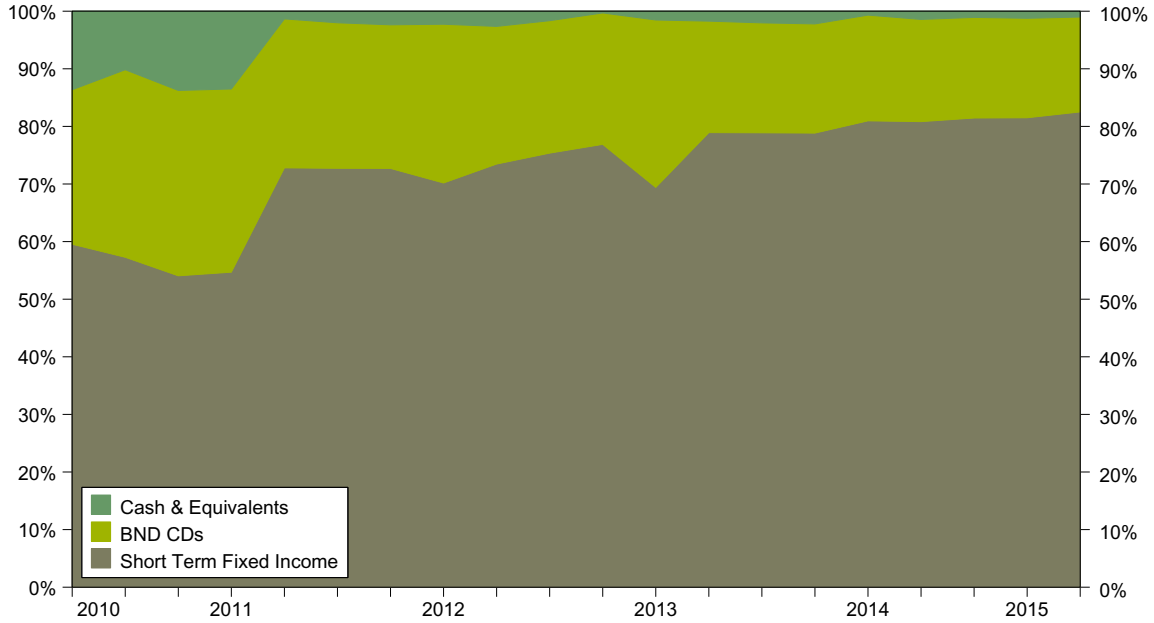
* Current Quarter Target = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 3-month Treasury Bill.


Cumulative Time-Weighted Performance
June 2010 = 100
Total Fund
Total Fund Target
118
116
114
112
110
108
106
104
102
100
98
112.4
102.1
2010
2011
2012
2013
2014
2015

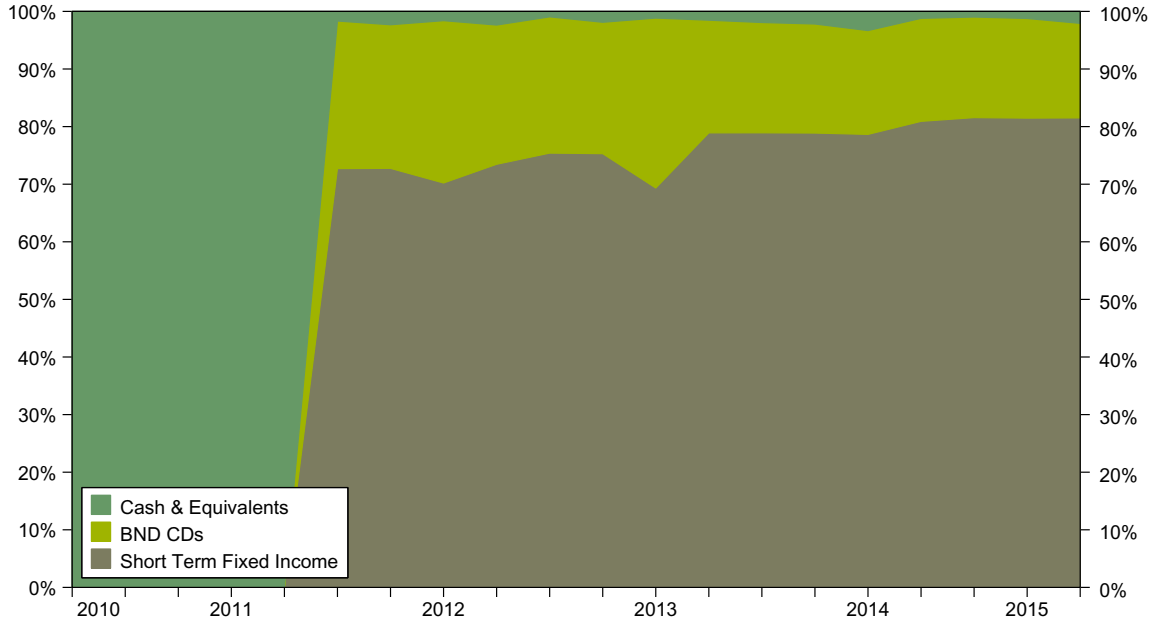
Actual vs Target Historical Asset Allocation

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 = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 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, 2015, with the distribution as of March 31, 2015. 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, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Short Term Fixed Income	$473,648,888	82.52%	$(12,998,000)	$1,615,750	$485,031,138	81.50%
BND CDs	$94,538,294	16.47%	$(8,871,437)	$641,830	$102,767,901	17.27%
Cash & Equivalents	$5,823,968	1.01%	$(1,512,978)	$269	$7,336,677	1.23%
Total Fund	$574,011,150	100.0%	$(23,382,415)	$2,257,849	$595,135,716	100.0%

PLEASE REFER TO PAGE 36 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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Short Term Fixed Income				
Gross	0.33%	1.83%	1.71%	2.05%
Net	0.33%	1.72%	1.60%	1.94%
Barclays Gov 1-3 Yr	0.15%	0.91%	0.68%	0.85%
BND CDs - Net	**0.66%**	**2.67%**	**3.05%**	**3.59%**
3-month Treasury Bill	0.01%	0.02%	0.06%	0.08%
Cash & Equivalents - Net	**0.00%**	**0.01%**	**0.10%**	**0.17%**
3-month Treasury Bill	0.01%	0.02%	0.06%	0.08%
Total Fund				
Gross	0.38%	1.95%	1.98%	2.36%
Net	0.38%	1.86%	1.89%	2.29%
Target*	0.12%	0.74%	0.54%	0.42%

* Current Quarter Target = 81.5% Barclays Gov 1-3 Yr, 16.4% 3-month Treasury Bill and 2.1% 3-month Treasury Bill.

PLEASE REFER TO PAGES 37-39 FOR INVESTMENT MANAGER LEVEL RETURNS.

Parametric Clifton Large Cap
Period Ended June 30, 2015

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.

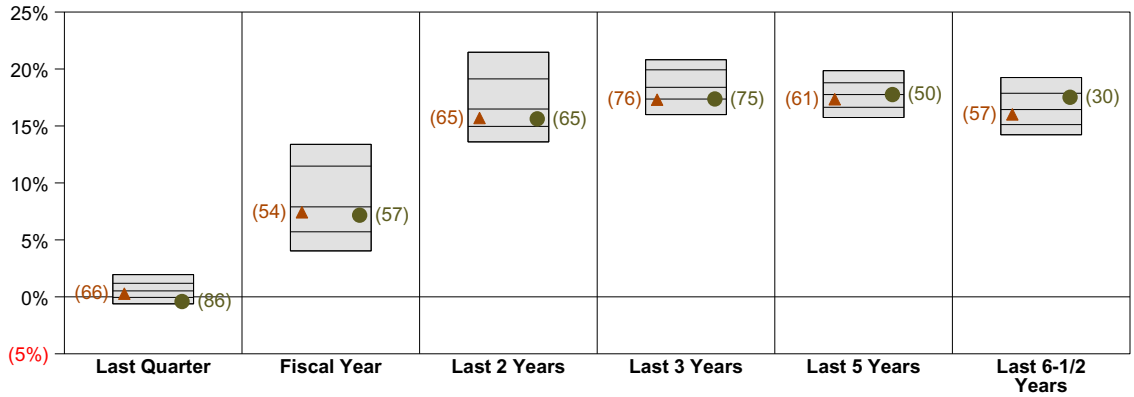
Quarterly Summary and Highlights

- Parametric Clifton Large Cap's portfolio posted a (0.41)% return for the quarter placing it in the 86 percentile of the CAI Large Capitalization Style group for the quarter and in the 57 percentile for the last year.
- Parametric Clifton Large Cap's portfolio underperformed the S&P 500 Index by 0.69% for the quarter and underperformed the S&P 500 Index for the year by 0.26%.

Quarterly Asset Growth

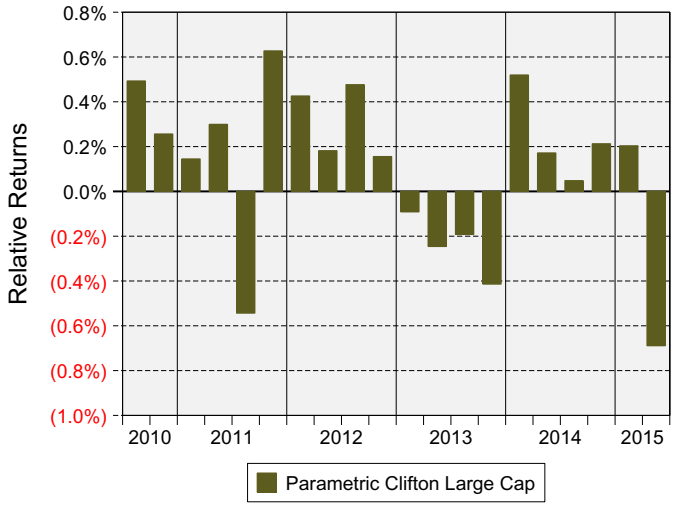
Beginning Market Value	$185,943,000
Net New Investment	$-141,664,264
Investment Gains/(Losses)	$1,152,433
Ending Market Value	$45,431,169

Performance vs CAI Large Capitalization Style (Gross)

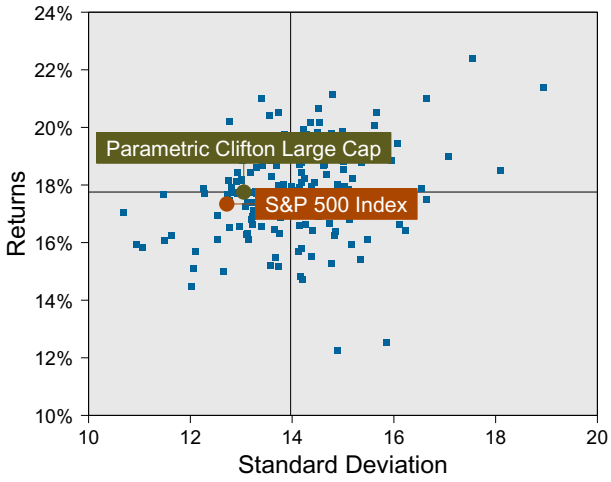


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6-1/2 Years
10th Percentile	1.95	13.38	21.47	20.81	19.85	19.25
25th Percentile	1.19	11.47	19.13	19.93	18.79	17.87
Median	0.52	7.90	16.49	18.39	17.76	16.44
75th Percentile	(0.05)	5.71	14.96	17.36	16.64	15.12
90th Percentile	(0.61)	4.03	13.60	16.00	15.74	14.23
Parametric Clifton Large Cap ●	(0.41)	7.17	15.63	17.37	17.75	17.52
S&P 500 Index ▲	0.28	7.42	15.70	17.31	17.34	16.01

Relative Return vs S&P 500 Index



CAI Large Capitalization Style (Gross) Annualized Five Year Risk vs Return



L.A. Capital
Period Ended June 30, 2015

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.

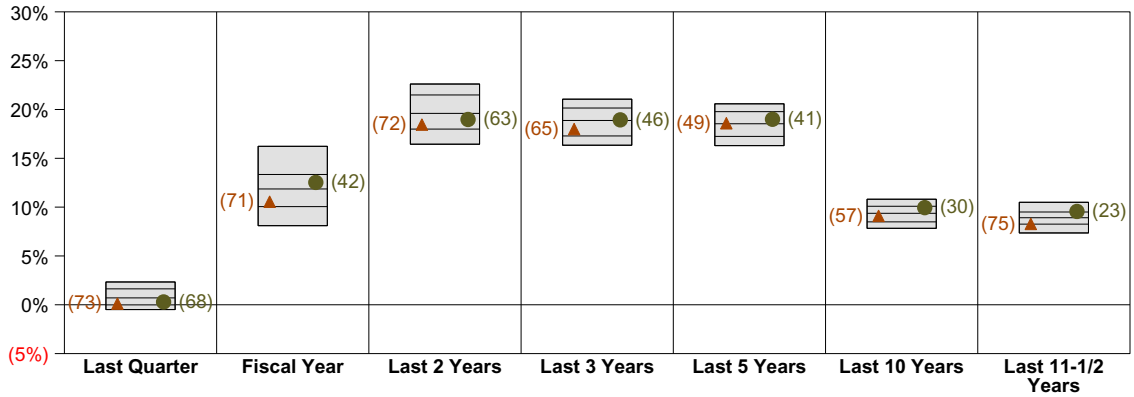
Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a 0.29% return for the quarter placing it in the 68 percentile of the CAI Large Cap Growth Style group for the quarter and in the 42 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio outperformed the Russell 1000 Growth Index by 0.17% for the quarter and outperformed the Russell 1000 Growth Index for the year by 1.97%.

Quarterly Asset Growth

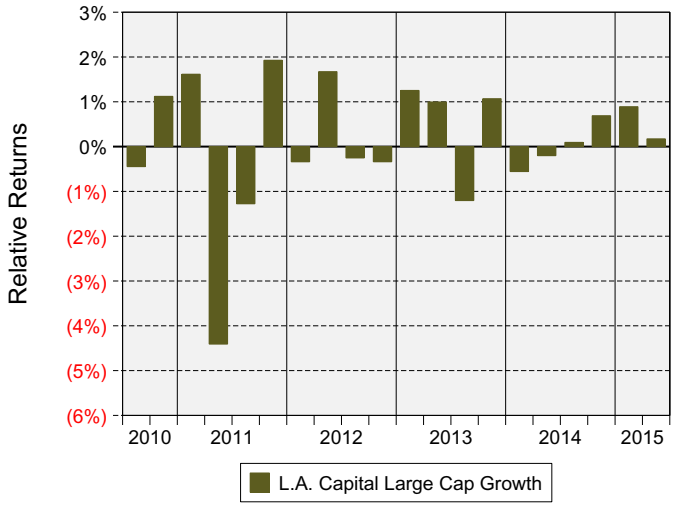
Beginning Market Value	$284,945,407
Net New Investment	$-213,198,145
Investment Gains/(Losses)	$-1,674,007
Ending Market Value	$70,073,255

Performance vs CAI Large Cap Growth Style (Gross)

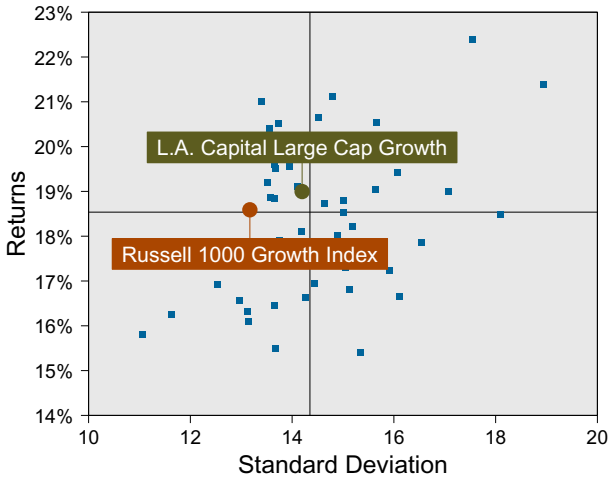


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11-1/2 Years
10th Percentile	2.34	16.23	22.61	21.06	20.58	10.81	10.49
25th Percentile	1.63	13.34	21.49	20.15	19.78	10.09	9.50
Median	0.70	11.86	19.60	18.87	18.54	9.37	8.91
75th Percentile	(0.01)	10.05	17.99	17.29	17.24	8.49	8.26
90th Percentile	(0.49)	8.10	16.44	16.34	16.30	7.83	7.35
L.A. Capital Large Cap Growth ●	0.29	12.53	18.97	18.94	19.00	9.95	9.56
Russell 1000 Growth Index ▲	0.12	10.56	18.46	17.99	18.59	9.10	8.28

Relative Return vs Russell 1000 Growth Index



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



L.A. Capital Enhanced
Period Ended June 30, 2015

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.

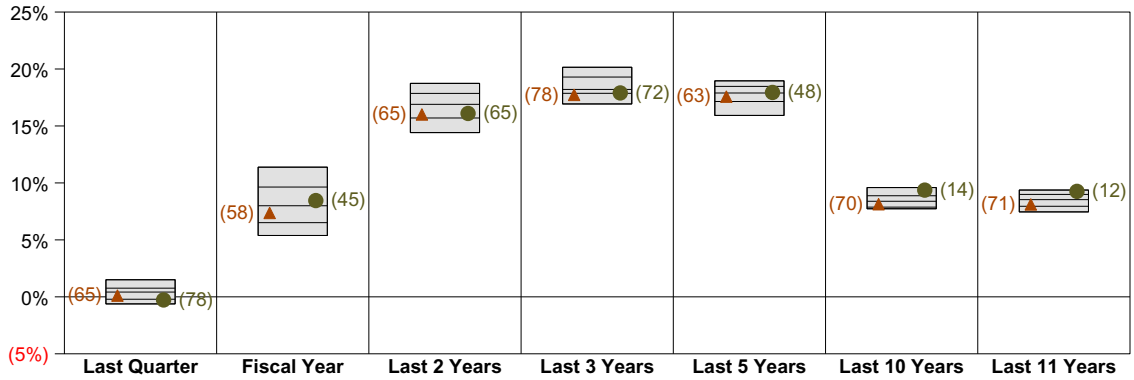
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a (0.27)% return for the quarter placing it in the 78 percentile of the CAI Large Cap Core Style group for the quarter and in the 45 percentile for the last year.
- L.A. Capital Enhanced's portfolio underperformed the Russell 1000 Index by 0.39% for the quarter and outperformed the Russell 1000 Index for the year by 1.08%.

Quarterly Asset Growth

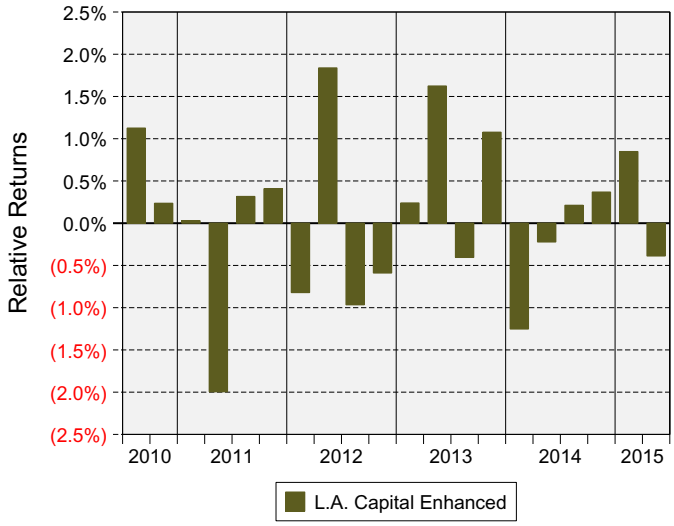
Beginning Market Value	$187,655,139
Net New Investment	$-140,755,415
Investment Gains/(Losses)	$-1,003,822
Ending Market Value	$45,895,902

Performance vs CAI Large Cap Core Style (Gross)

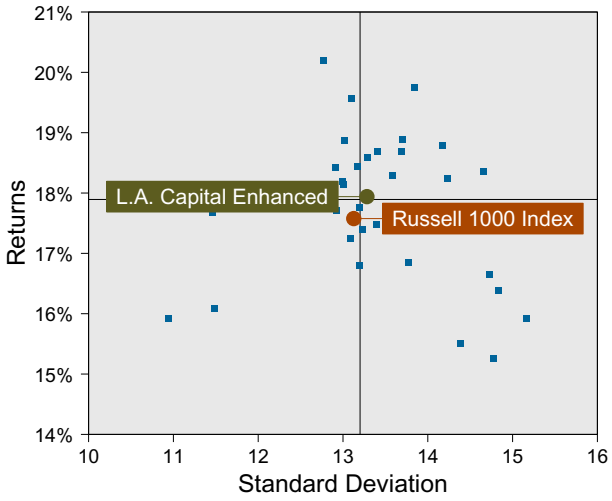


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 11 Years
10th Percentile	1.50	11.38	18.74	20.15	18.96	9.59	9.37
25th Percentile	0.76	9.64	17.86	19.29	18.47	8.87	8.99
Median	0.42	8.00	16.90	18.21	17.89	8.39	8.53
75th Percentile	(0.21)	6.51	15.70	17.86	17.15	7.88	7.95
90th Percentile	(0.62)	5.39	14.42	16.93	15.92	7.73	7.45
L.A. Capital Enhanced ●	(0.27)	8.45	16.10	17.90	17.94	9.37	9.26
Russell 1000 Index ▲	0.11	7.37	16.01	17.73	17.58	8.13	8.11

Relative Return vs Russell 1000 Index



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



LSV Asset Management
Period Ended June 30, 2015

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.

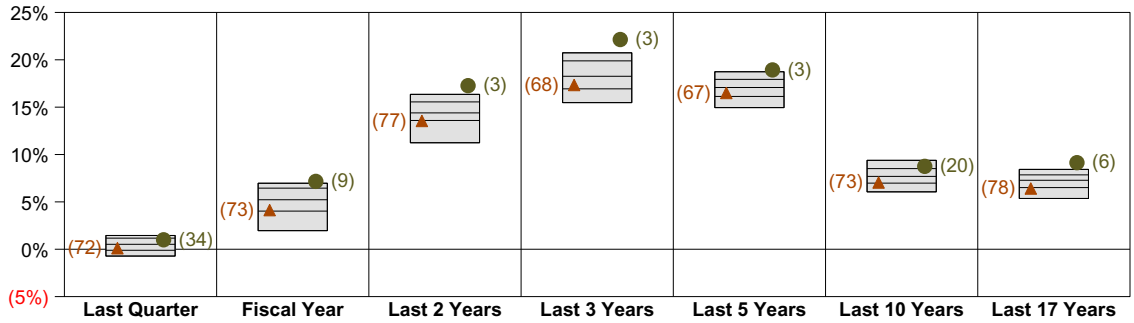
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a 1.00% return for the quarter placing it in the 34 percentile of the CAI Large Cap Value Style group for the quarter and in the 9 percentile for the last year.
- LSV Large Cap Value's portfolio outperformed the Russell 1000 Value Index by 0.89% for the quarter and outperformed the Russell 1000 Value Index for the year by 3.03%.

Quarterly Asset Growth

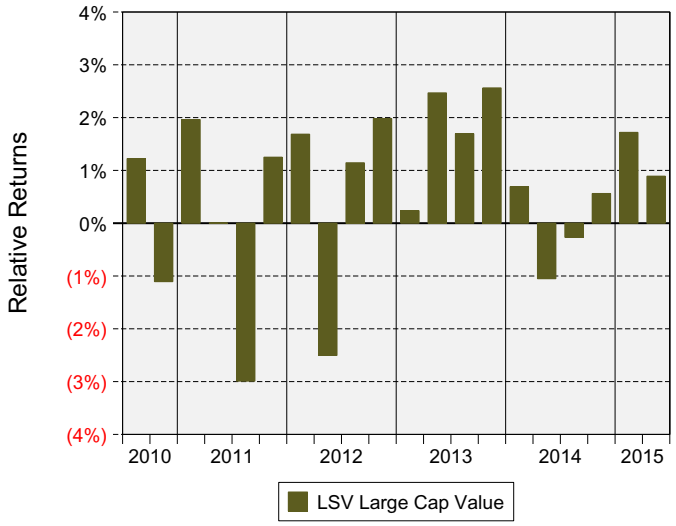
Beginning Market Value	$280,152,156
Net New Investment	$-213,107,668
Investment Gains/(Losses)	$2,323,762
Ending Market Value	$69,368,250

Performance vs CAI Large Cap Value Style (Gross)

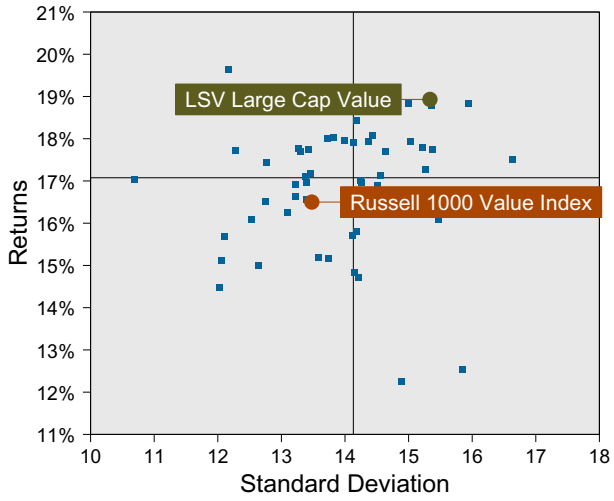


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 17 Years
10th Percentile	1.45	6.97	16.35	20.74	18.74	9.39	8.43
25th Percentile	1.17	6.45	15.56	19.89	17.93	8.51	7.85
Median	0.52	5.23	14.39	18.26	17.08	7.69	7.28
75th Percentile	(0.11)	4.03	13.60	16.93	16.13	6.98	6.51
90th Percentile	(0.72)	1.96	11.24	15.48	14.95	6.06	5.36
LSV Large Cap Value ●	1.00	7.16	17.27	22.14	18.93	8.75	9.14
Russell 1000 Value Index ▲	0.11	4.13	13.55	17.34	16.50	7.05	6.41

Relative Return vs Russell 1000 Value Index



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



Parametric Clifton SmallCap
Period Ended June 30, 2015

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.

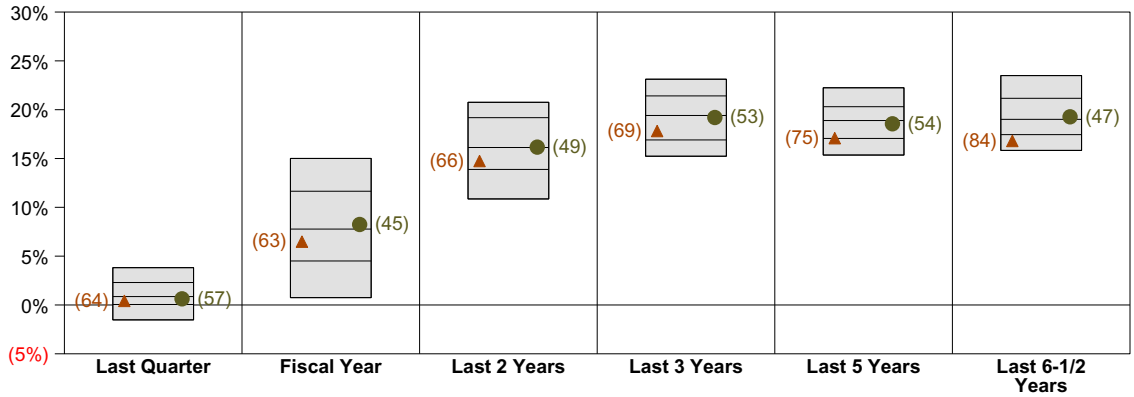
Quarterly Summary and Highlights

- Parametric Clifton SmallCap's portfolio posted a 0.63% return for the quarter placing it in the 57 percentile of the CAI Small Capitalization Style group for the quarter and in the 45 percentile for the last year.
- Parametric Clifton SmallCap's portfolio outperformed the Russell 2000 Index by 0.21% for the quarter and outperformed the Russell 2000 Index for the year by 1.76%.

Quarterly Asset Growth

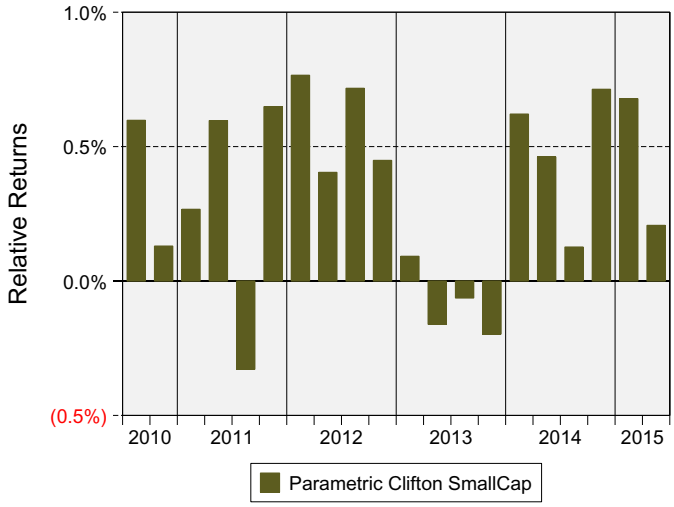
Beginning Market Value	$58,567,578
Net New Investment	$0
Investment Gains/(Losses)	$367,677
Ending Market Value	$58,935,255

Performance vs CAI Small Capitalization Style (Gross)

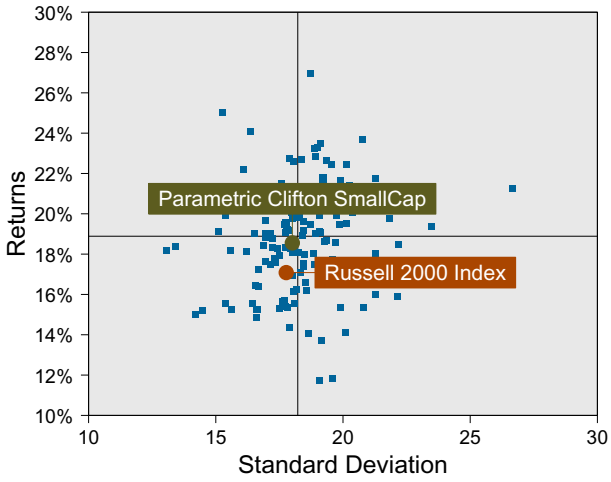


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6-1/2 Years
10th Percentile	3.82	15.01	20.76	23.12	22.24	23.49
25th Percentile	2.30	11.65	19.18	21.41	20.30	21.16
Median	0.86	7.77	16.13	19.41	18.89	19.01
75th Percentile	0.05	4.51	13.88	16.90	17.06	17.44
90th Percentile	(1.53)	0.75	10.86	15.23	15.35	15.83
Parametric Clifton SmallCap ●	0.63	8.24	16.16	19.20	18.55	19.27
Russell 2000 Index ▲	0.42	6.49	14.74	17.81	17.08	16.80

Relative Return vs Russell 2000 Index



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



Research Affiliates
Period Ended June 30, 2015

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.

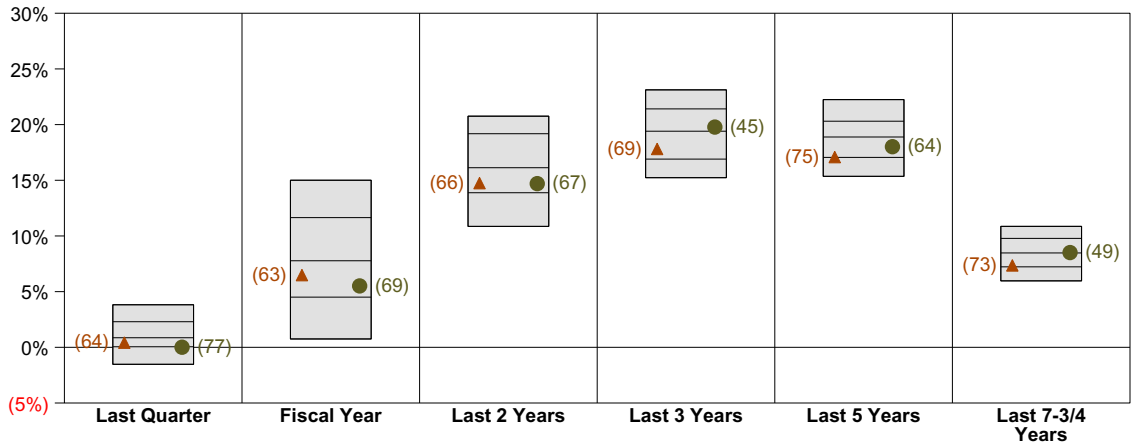
Quarterly Summary and Highlights

- Research Affiliates's portfolio posted a 0.01% return for the quarter placing it in the 77 percentile of the CAI Small Capitalization Style group for the quarter and in the 69 percentile for the last year.
- Research Affiliates's portfolio underperformed the Russell 2000 Index by 0.41% for the quarter and underperformed the Russell 2000 Index for the year by 0.97%.

Quarterly Asset Growth

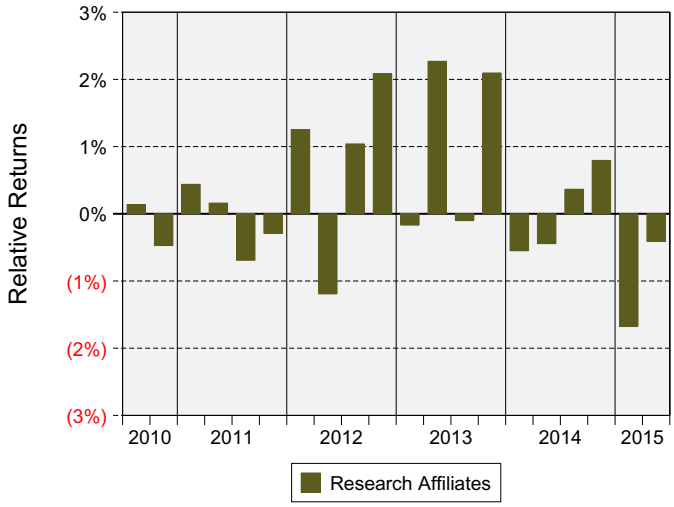
Beginning Market Value	$23,761,791
Net New Investment	$-18,579
Investment Gains/(Losses)	$2,205
Ending Market Value	$23,745,417

Performance vs CAI Small Capitalization Style (Gross)

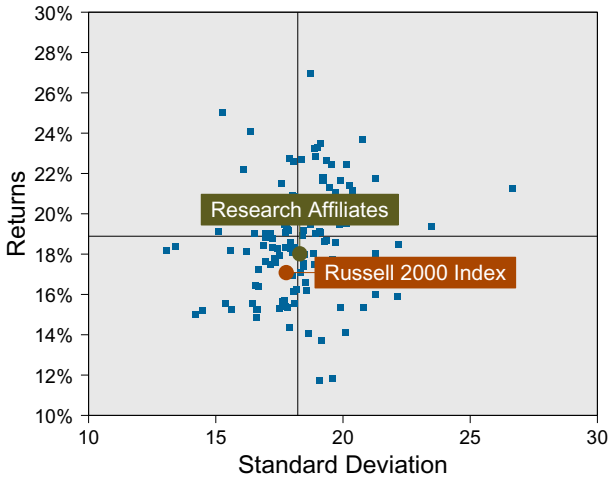


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-3/4 Years
10th Percentile	3.82	15.01	20.76	23.12	22.24	10.86
25th Percentile	2.30	11.65	19.18	21.41	20.30	9.78
Median	0.86	7.77	16.13	19.41	18.89	8.47
75th Percentile	0.05	4.51	13.88	16.90	17.06	7.23
90th Percentile	(1.53)	0.75	10.86	15.23	15.35	5.97
Research Affiliates ●	0.01	5.51	14.70	19.78	18.02	8.51
Russell 2000 Index ▲	0.42	6.49	14.74	17.81	17.08	7.36

Relative Return vs Russell 2000 Index



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



Capital Group
Period Ended June 30, 2015

Investment Philosophy

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. ***MSCI EAFE through 9/30/2000, 50% Hedged EAFE through 3/31/2011 and MSCI EAFE again thereafter.**

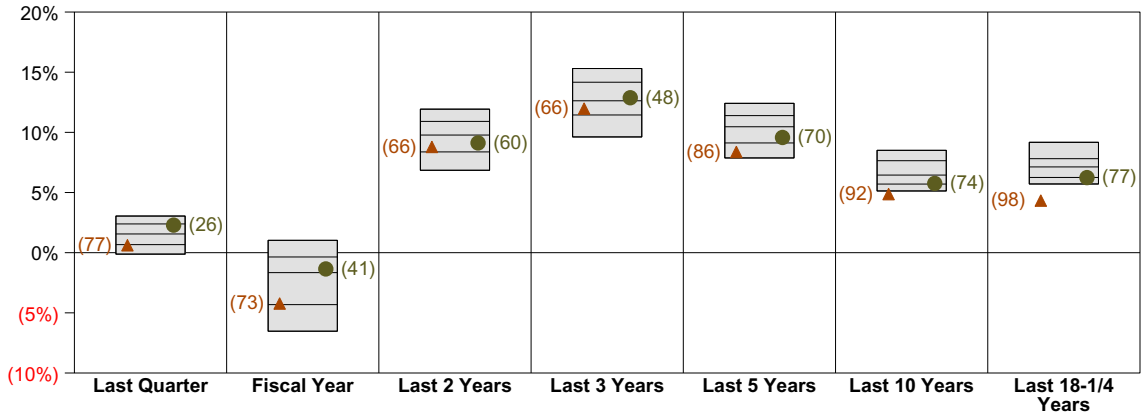
Quarterly Summary and Highlights

- Capital Group's portfolio posted a 2.29% return for the quarter placing it in the 26 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 41 percentile for the last year.
- Capital Group's portfolio outperformed the MSCI EAFE Index by 1.67% for the quarter and outperformed the MSCI EAFE Index for the year by 2.87%.

Quarterly Asset Growth

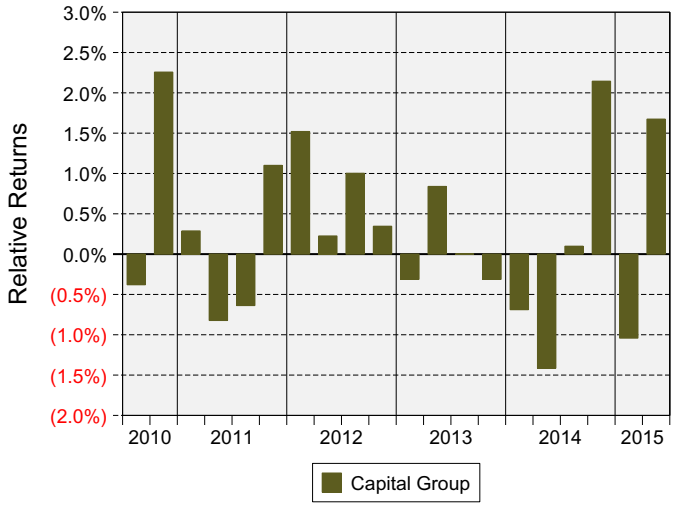
Beginning Market Value	$66,211,986
Net New Investment	$-3,171,951
Investment Gains/(Losses)	$1,557,591
Ending Market Value	$64,597,626

Performance vs CAI Non-U.S. Equity Style (Gross)

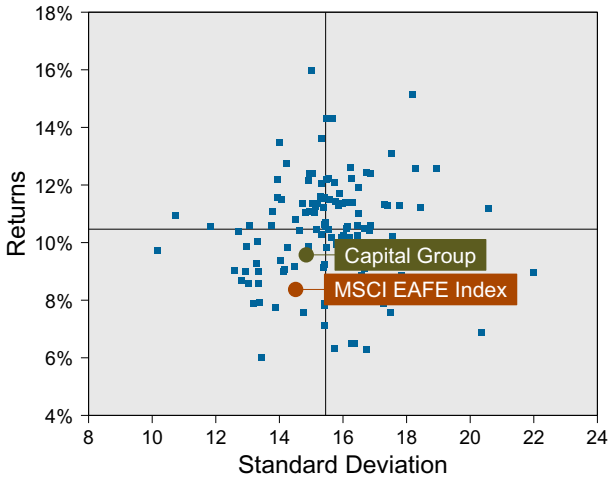


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 18-1/4 Years
10th Percentile	3.05	1.03	11.93	15.31	12.41	8.51	9.17
25th Percentile	2.39	(0.36)	10.91	14.17	11.39	7.64	7.81
Median	1.55	(1.66)	9.78	12.62	10.47	6.45	7.13
75th Percentile	0.67	(4.32)	8.38	11.44	9.12	5.70	6.25
90th Percentile	(0.12)	(6.53)	6.85	9.62	7.87	5.13	5.71
Capital Group ●	2.29	(1.35)	9.12	12.88	9.57	5.76	6.24
MSCI EAFE Index ▲	0.62	(4.22)	8.79	11.97	8.37	4.87	4.33

Relative Return vs MSCI EAFE Index



CAI Non-U.S. Equity Style (Gross) Annualized Five Year Risk vs Return



DFA Intl Small Cap Value
Period Ended June 30, 2015

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.

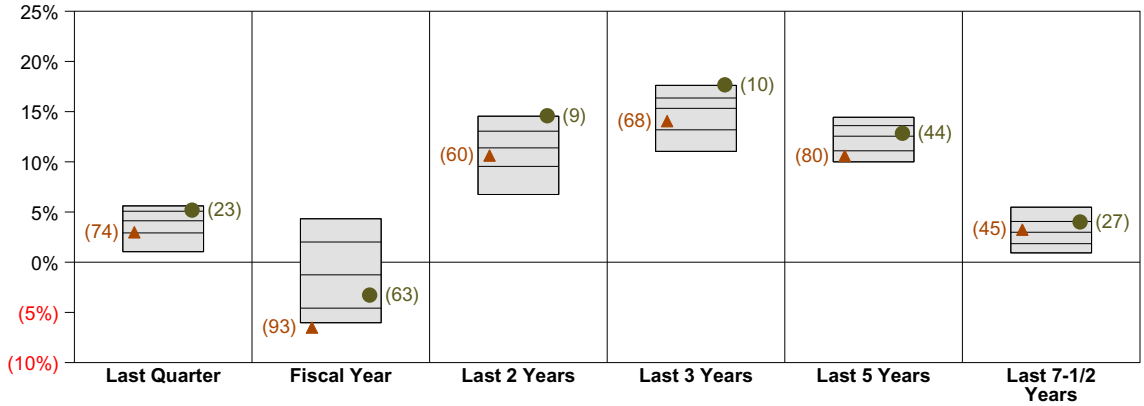
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 5.19% return for the quarter placing it in the 23 percentile of the MF - International Small Cap Obj group for the quarter and in the 63 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 2.21% for the quarter and outperformed the World ex US SC Value for the year by 3.23%.

Quarterly Asset Growth

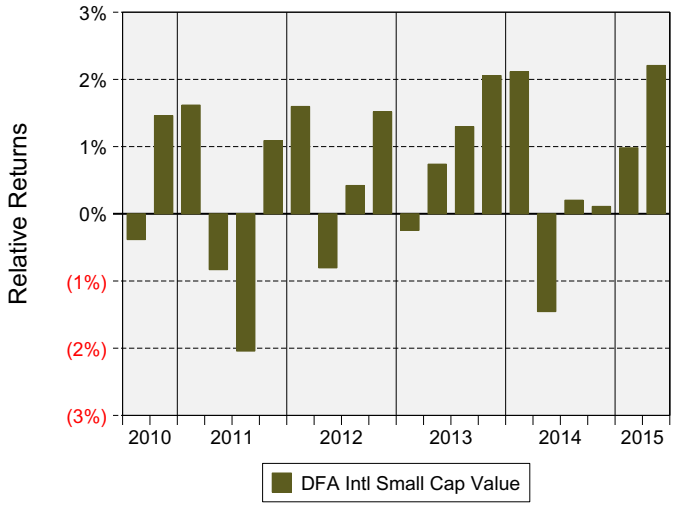
Beginning Market Value	$16,656,948
Net New Investment	$-1,000,000
Investment Gains/(Losses)	$851,983
Ending Market Value	$16,508,931

Performance vs MF - International Small Cap Obj (Net)

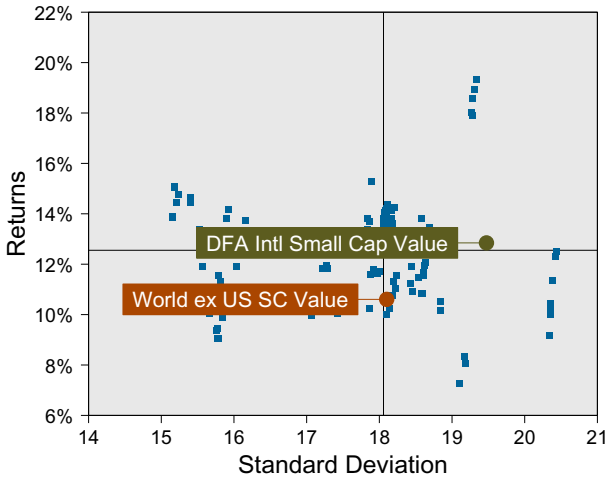


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7-1/2 Years
10th Percentile	5.61	4.33	14.54	17.62	14.44	5.48
25th Percentile	5.08	2.01	13.05	16.36	13.60	4.06
Median	4.13	(1.26)	11.39	15.33	12.55	2.98
75th Percentile	2.92	(4.58)	9.55	13.19	11.10	1.85
90th Percentile	1.05	(6.03)	6.75	11.04	10.00	0.93
DFA Intl Small Cap Value ●	5.19	(3.27)	14.59	17.67	12.85	4.01
World ex US SC Value ▲	2.98	(6.50)	10.63	14.05	10.60	3.24

Relative Return vs World ex US SC Value



MF - International Small Cap Obj (Net) Annualized Five Year Risk vs Return



LSV Intl Value
Period Ended June 30, 2015

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.**

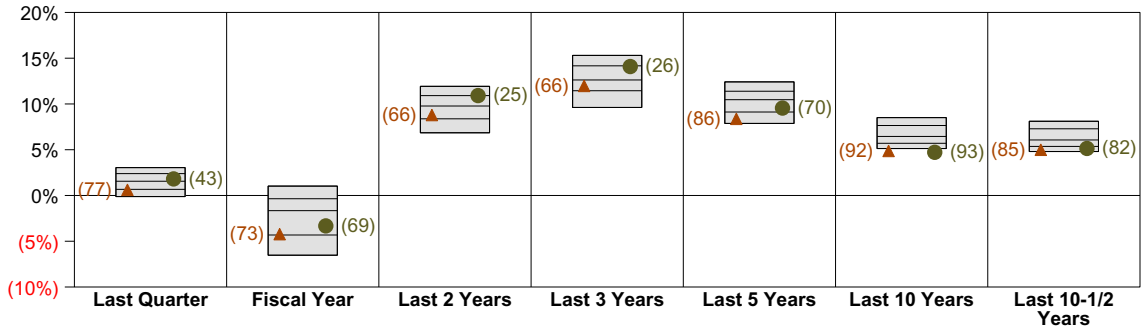
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a 1.81% return for the quarter placing it in the 43 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 69 percentile for the last year.
- LSV Intl Value's portfolio outperformed the Benchmark by 1.19% for the quarter and outperformed the Benchmark for the year by 0.90%.

Quarterly Asset Growth

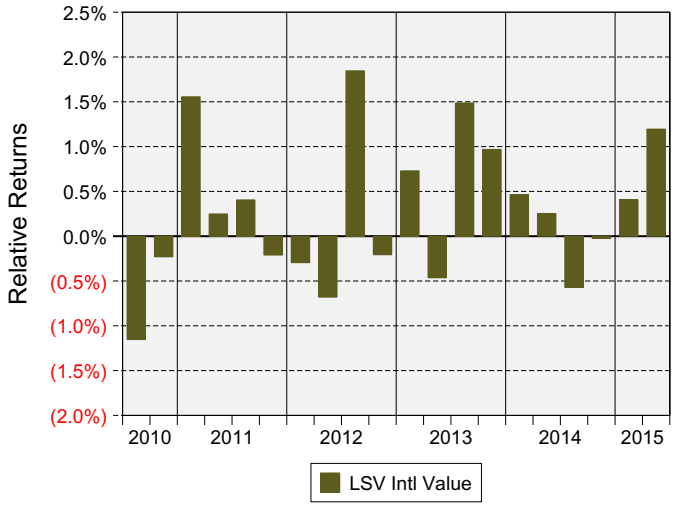
Beginning Market Value	$66,251,037
Net New Investment	$-3,577,189
Investment Gains/(Losses)	$1,238,933
Ending Market Value	$63,912,781

Performance vs CAI Non-U.S. Equity Style (Gross)

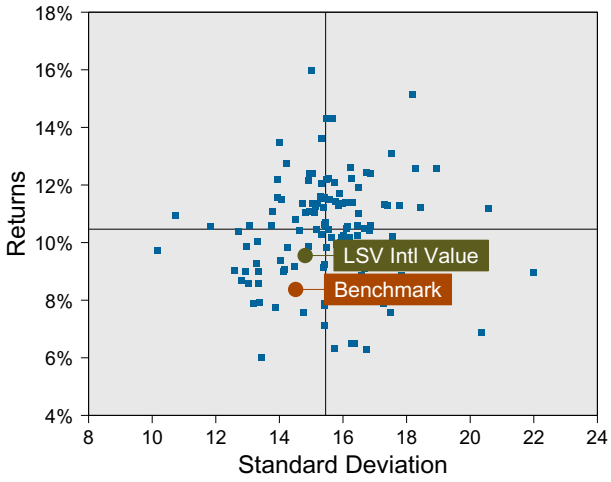


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 10-1/2 Years
10th Percentile	3.05	1.03	11.93	15.31	12.41	8.51	8.11
25th Percentile	2.39	(0.36)	10.91	14.17	11.39	7.64	7.29
Median	1.55	(1.66)	9.78	12.62	10.47	6.45	6.07
75th Percentile	0.67	(4.32)	8.38	11.44	9.12	5.70	5.36
90th Percentile	(0.12)	(6.53)	6.85	9.62	7.87	5.13	4.80
LSV Intl Value ●	1.81	(3.33)	10.91	14.09	9.55	4.72	5.14
Benchmark ▲	0.62	(4.22)	8.79	11.97	8.37	4.87	4.99

Relative Return vs Benchmark



CAI Non-U.S. Equity Style (Gross) Annualized Five Year Risk vs Return



Vanguard Intl Explorer Fund
Period Ended June 30, 2015

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.

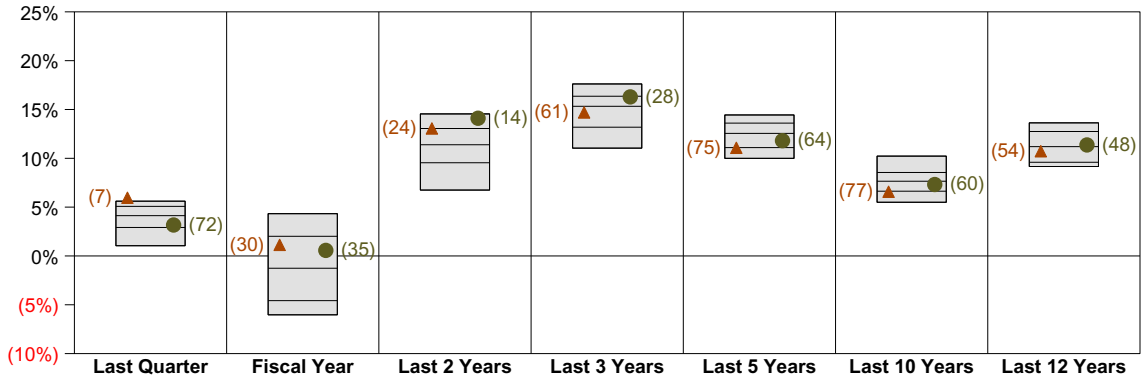
Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a 3.17% return for the quarter placing it in the 72 percentile of the MF - International Small Cap Obj group for the quarter and in the 35 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio underperformed the S&P BMI EPAC <$2 B by 2.80% for the quarter and underperformed the S&P BMI EPAC <$2 B for the year by 0.57%.

Quarterly Asset Growth

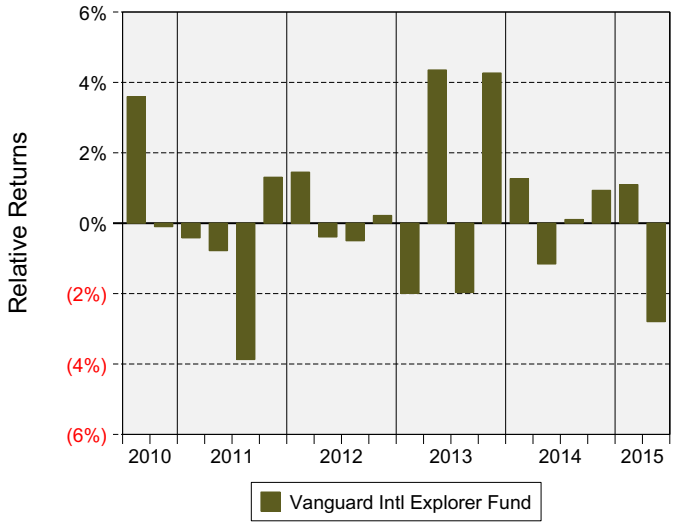
Beginning Market Value	$17,113,480
Net New Investment	$-1,000,000
Investment Gains/(Losses)	$540,714
Ending Market Value	$16,654,195

Performance vs MF - International Small Cap Obj (Net)

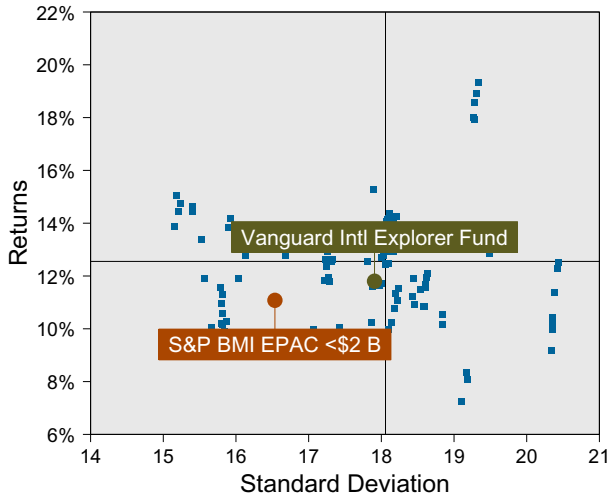


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 12 Years
10th Percentile	5.61	4.33	14.54	17.62	14.44	10.22	13.63
25th Percentile	5.08	2.01	13.05	16.36	13.60	8.55	12.75
Median	4.13	(1.26)	11.39	15.33	12.55	7.65	11.20
75th Percentile	2.92	(4.58)	9.55	13.19	11.10	6.63	9.59
90th Percentile	1.05	(6.03)	6.75	11.04	10.00	5.50	9.16
Vanguard Intl Explorer Fund ●	3.17	0.57	14.10	16.29	11.80	7.31	11.37
S&P BMI EPAC <$2 B ▲	5.97	1.14	13.06	14.70	11.08	6.58	10.72

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



MF - International Small Cap Obj (Net) Annualized Five Year Risk vs Return



Declaration Total Return
Period Ended June 30, 2015

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.

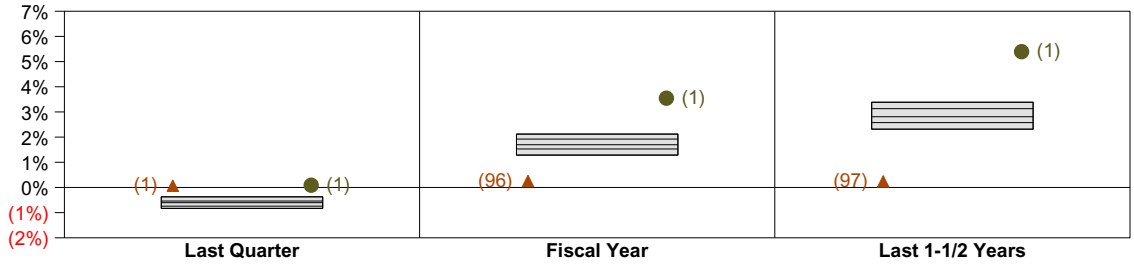
Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a 0.09% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio outperformed the Libor-3 Month by 0.02% for the quarter and outperformed the Libor-3 Month for the year by 3.29%.

Quarterly Asset Growth

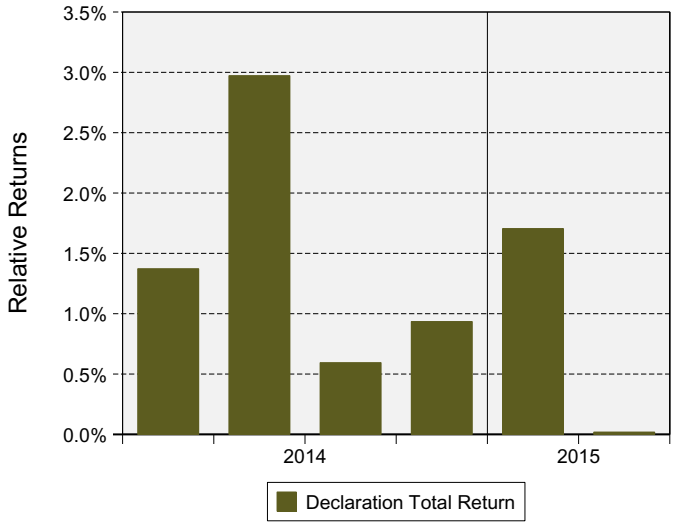
Beginning Market Value	$164,716,814
Net New Investment	$-86,664,717
Investment Gains/(Losses)	$69,476
Ending Market Value	$78,121,573

Performance vs CAI Intermediate Fixed-Inc Style (Gross)

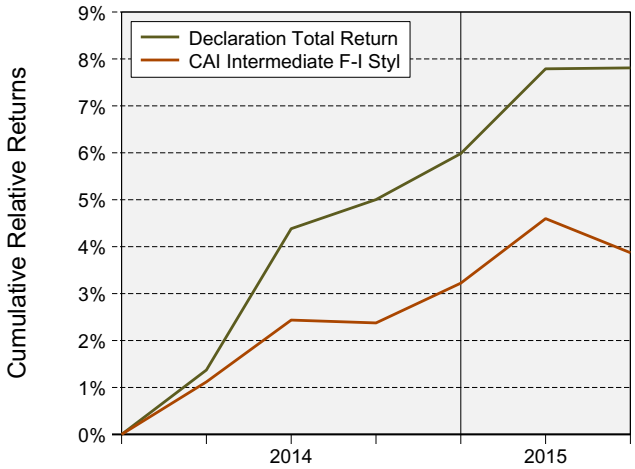


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(0.37)	2.12	3.38
25th Percentile	(0.54)	1.92	3.13
Median	(0.61)	1.70	2.81
75th Percentile	(0.74)	1.53	2.58
90th Percentile	(0.83)	1.29	2.31
Declaration Total Return ●	0.09	3.55	5.39
Libor-3 Month ▲	0.07	0.25	0.24

Relative Return vs Libor-3 Month



Cumulative Returns vs Libor-3 Month



PIMCO DiSCO II
Period Ended June 30, 2015

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.

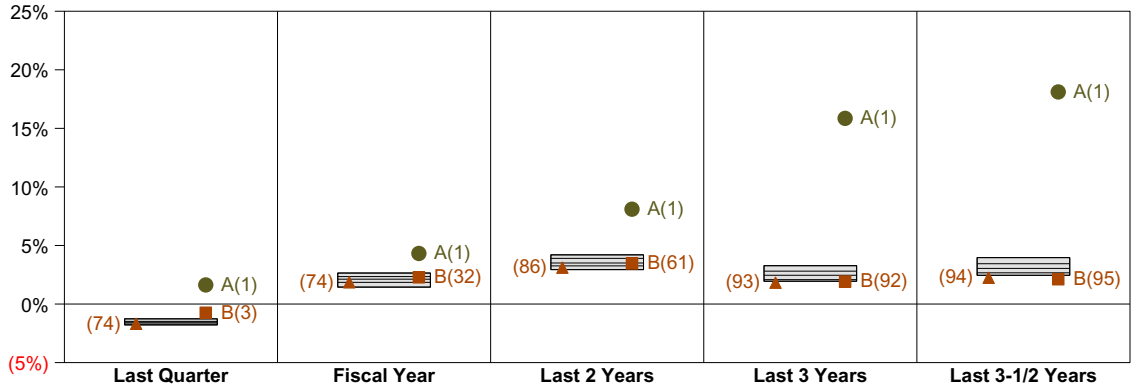
Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 1.63% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Barclays Aggregate Index by 3.31% for the quarter and outperformed the Barclays Aggregate Index for the year by 2.46%.

Quarterly Asset Growth

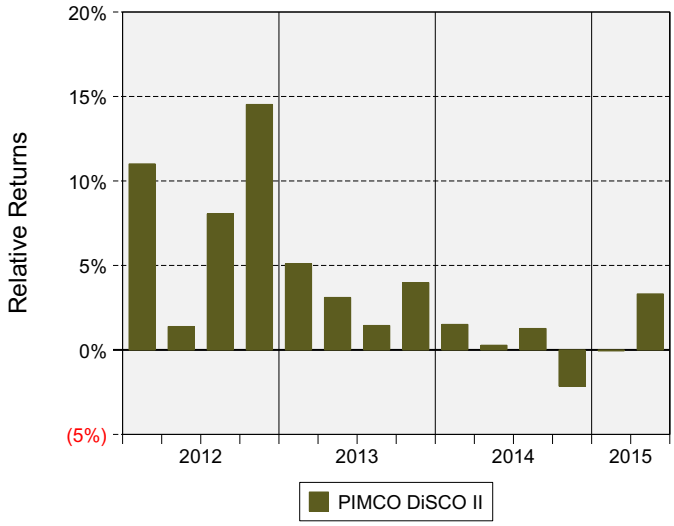
Beginning Market Value	$77,717,384
Net New Investment	$0
Investment Gains/(Losses)	$1,266,550
Ending Market Value	$78,983,934

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

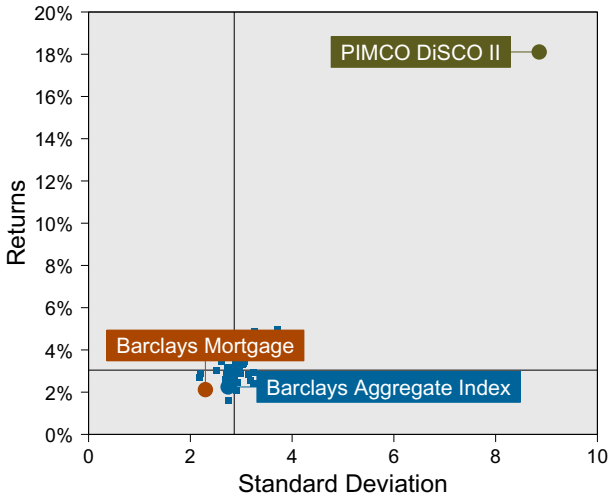


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-1/2 Years
10th Percentile	(1.26)	2.65	4.20	3.27	3.96
25th Percentile	(1.48)	2.35	3.90	2.81	3.44
Median	(1.56)	2.12	3.50	2.46	3.04
75th Percentile	(1.70)	1.85	3.26	2.08	2.67
90th Percentile	(1.78)	1.45	2.94	1.95	2.45
PIMCO DiSCO II ● A	1.63	4.32	8.10	15.85	18.11
Barclays Mortgage ■ B	(0.74)	2.28	3.46	1.92	2.12
Barclays Aggregate Index ▲	(1.68)	1.86	3.11	1.83	2.25

Relative Return vs Barclays Aggregate Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized Three and One-Half Year Risk vs Return



PIMCO Bravo II Fund
Period Ended June 30, 2015

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.

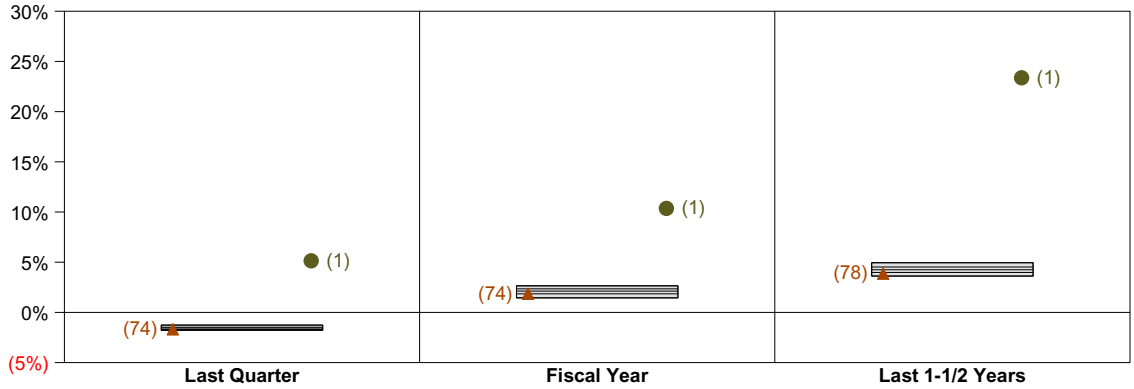
Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 5.14% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Barclays Aggregate Index by 6.82% for the quarter and outperformed the Barclays Aggregate Index for the year by 8.50%.

Quarterly Asset Growth

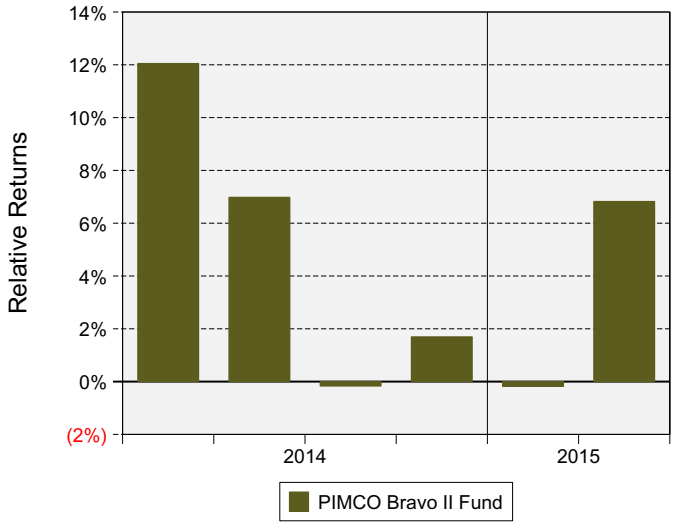
Beginning Market Value	$28,787,322
Net New Investment	$5,000,000
Investment Gains/(Losses)	$1,597,272
Ending Market Value	$35,384,594

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

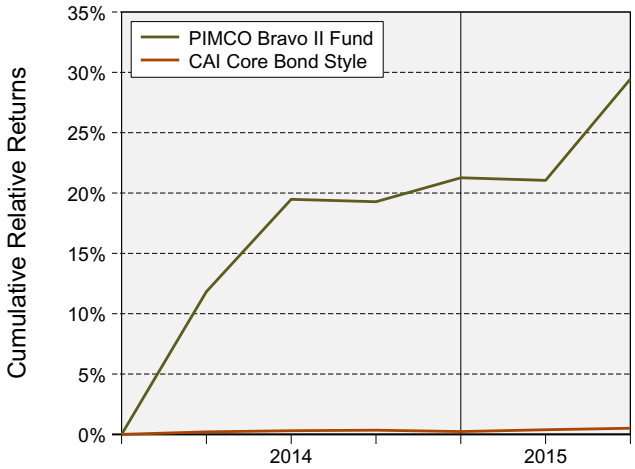


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.26)	2.65	4.95
25th Percentile	(1.48)	2.35	4.52
Median	(1.56)	2.12	4.25
75th Percentile	(1.70)	1.85	3.98
90th Percentile	(1.78)	1.45	3.62
PIMCO Bravo II Fund ●	5.14	10.36	23.37
Barclays Aggregate Index ▲	(1.68)	1.86	3.87

Relative Return vs Barclays Aggregate Index



Cumulative Returns vs Barclays Aggregate Index



Prudential
Period Ended June 30, 2015

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.

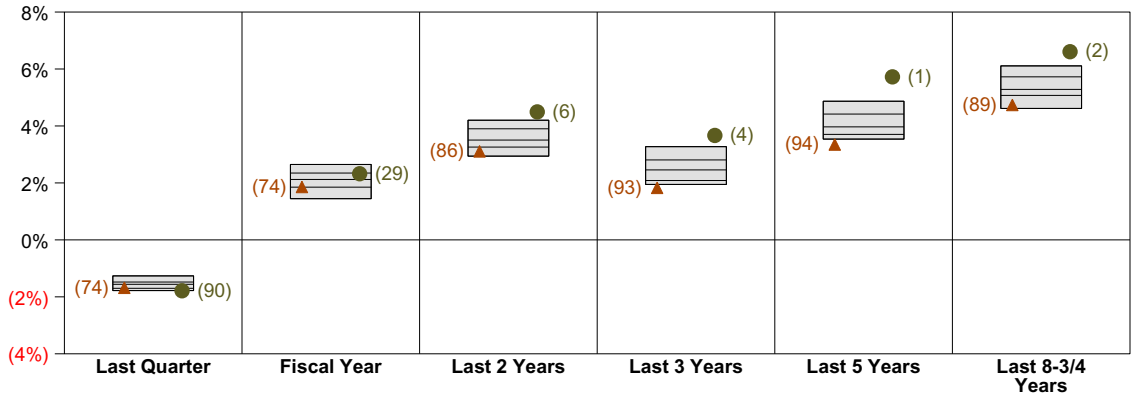
Quarterly Summary and Highlights

- Prudential's portfolio posted a (1.79)% return for the quarter placing it in the 90 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 29 percentile for the last year.
- Prudential's portfolio underperformed the Barclays Aggregate Index by 0.10% for the quarter and outperformed the Barclays Aggregate Index for the year by 0.46%.

Quarterly Asset Growth

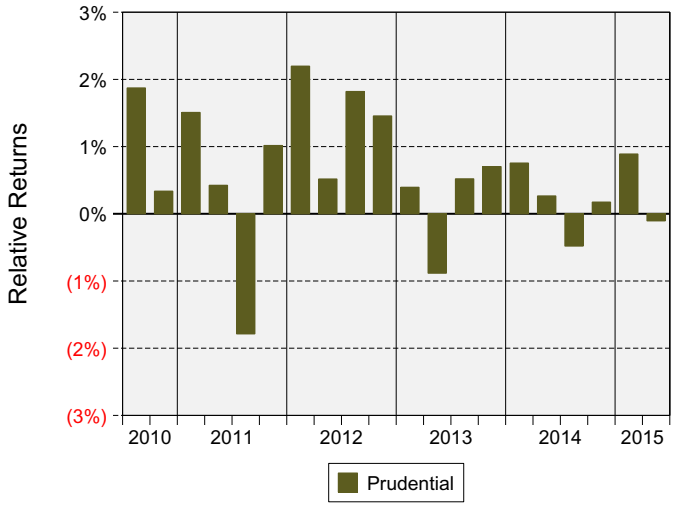
Beginning Market Value	$165,139,248
Net New Investment	$-74,275,065
Investment Gains/(Losses)	$-2,192,011
Ending Market Value	$88,672,172

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

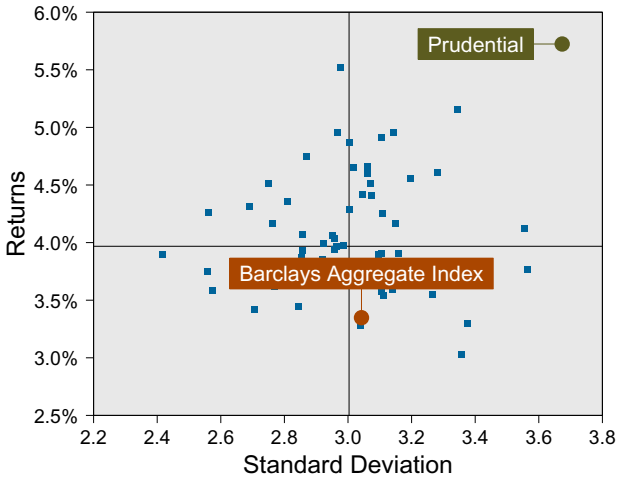


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 8-3/4 Years
10th Percentile	(1.26)	2.65	4.20	3.27	4.87	6.11
25th Percentile	(1.48)	2.35	3.90	2.81	4.42	5.72
Median	(1.56)	2.12	3.50	2.46	3.97	5.28
75th Percentile	(1.70)	1.85	3.26	2.08	3.70	5.07
90th Percentile	(1.78)	1.45	2.94	1.95	3.54	4.62
Prudential ●	(1.79)	2.32	4.49	3.67	5.72	6.61
Barclays Aggregate Index ▲	(1.68)	1.86	3.11	1.83	3.35	4.74

Relative Return vs Barclays Aggregate Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



SSgA US Govt Cr Bd Index
Period Ended June 30, 2015

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.

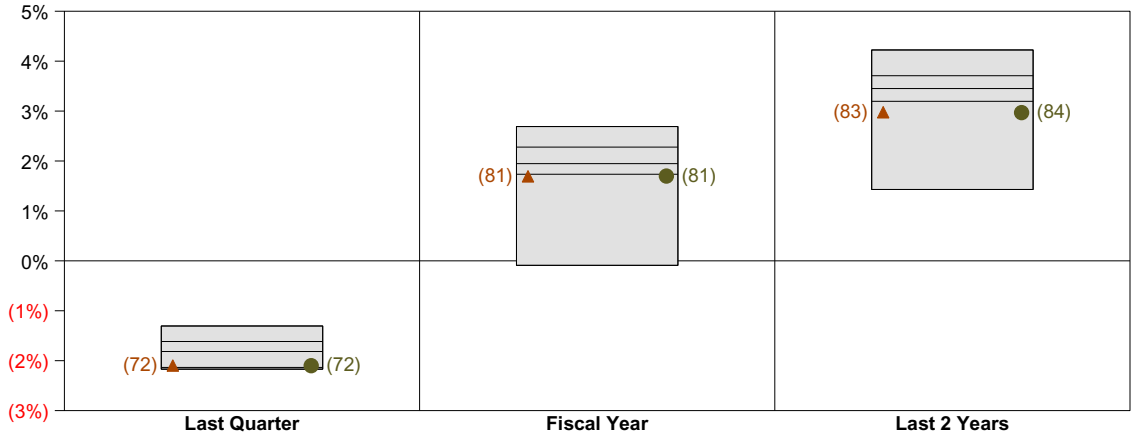
Quarterly Summary and Highlights

- SSgA US Govt Cr Bd Index's portfolio posted a (2.10)% return for the quarter placing it in the 72 percentile of the CAI Govt/Credit Fixed-Income Style group for the quarter and in the 81 percentile for the last year.
- SSgA US Govt Cr Bd Index's portfolio underperformed the Barclays Govt/Credit Bd by 0.00% for the quarter and outperformed the Barclays Govt/Credit Bd for the year by 0.01%.

Quarterly Asset Growth

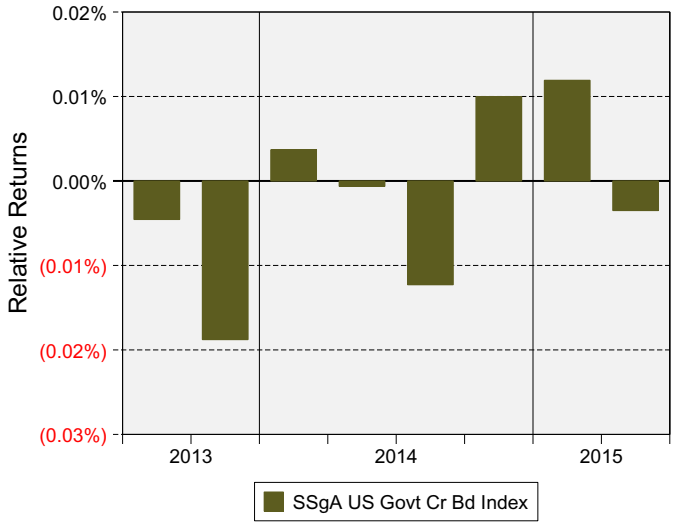
Beginning Market Value	$282,352,696
Net New Investment	$-144,536,603
Investment Gains/(Losses)	$-2,897,772
Ending Market Value	$134,918,321

Performance vs CAI Govt/Credit Fixed-Income Style (Gross)

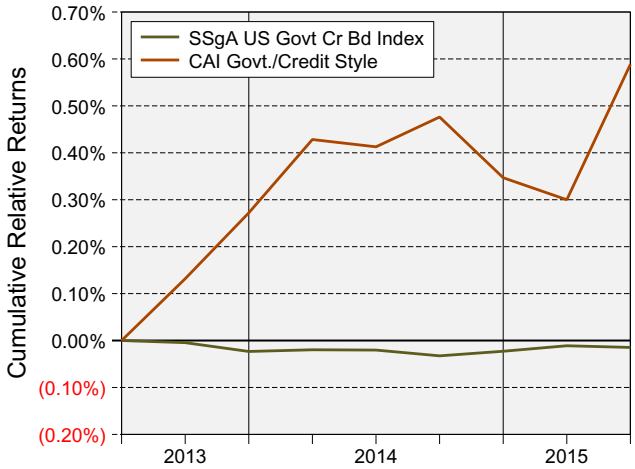


	Last Quarter	Fiscal Year	Last 2 Years
10th Percentile	(1.31)	2.69	4.22
25th Percentile	(1.62)	2.28	3.71
Median	(1.82)	1.95	3.45
75th Percentile	(2.13)	1.73	3.20
90th Percentile	(2.17)	(0.09)	1.43
SSgA US Govt Cr Bd Index ●	(2.10)	1.70	2.97
Barclays Govt/Credit Bd ▲	(2.10)	1.69	2.98

Relative Return vs Barclays Govt/Credit Bd



Cumulative Returns vs Barclays Govt/Credit Bd



Wells Capital
Period Ended June 30, 2015

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.

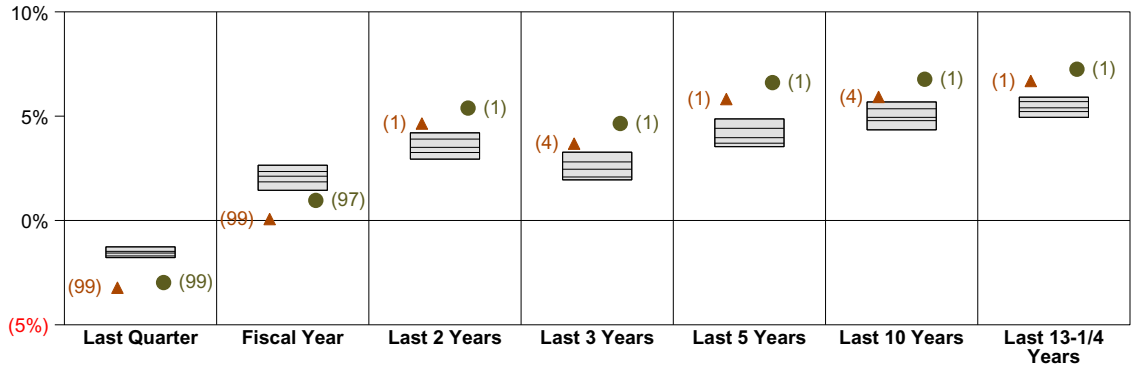
Quarterly Summary and Highlights

- Wells Capital's portfolio posted a (2.97)% return for the quarter placing it in the 99 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 97 percentile for the last year.
- Wells Capital's portfolio outperformed the Barclays Baa Credit 3% In by 0.25% for the quarter and outperformed the Barclays Baa Credit 3% In for the year by 0.89%.

Quarterly Asset Growth

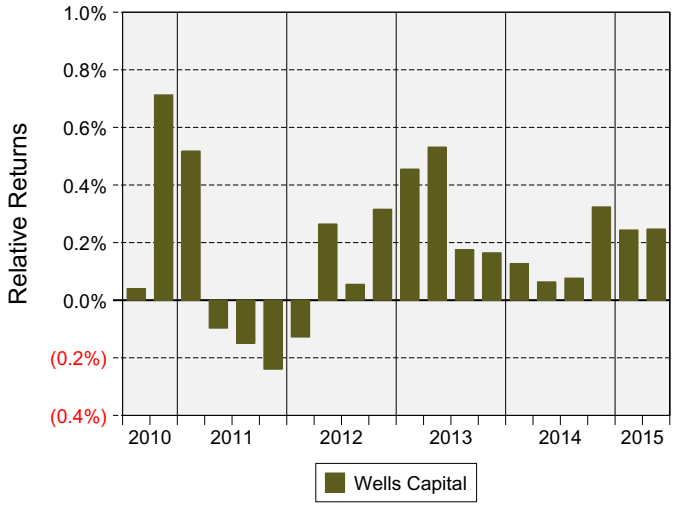
Beginning Market Value	$660,726,315
Net New Investment	$-344,363,208
Investment Gains/(Losses)	$-12,305,433
Ending Market Value	$304,057,674

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

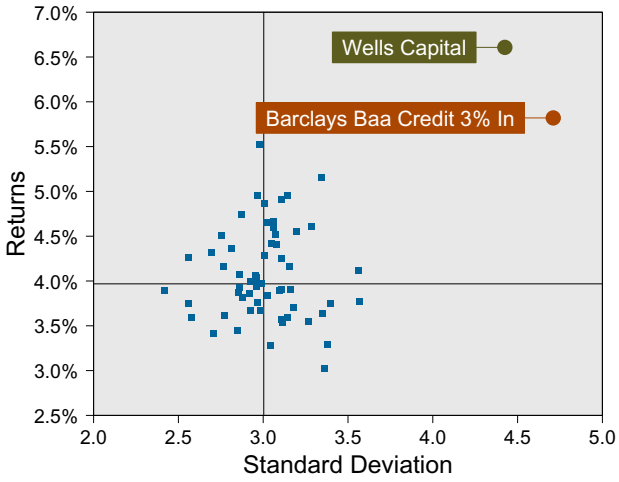


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 13-1/4 Years
10th Percentile	(1.26)	2.65	4.20	3.27	4.87	5.68	5.91
25th Percentile	(1.48)	2.35	3.90	2.81	4.42	5.35	5.70
Median	(1.56)	2.12	3.50	2.46	3.97	4.94	5.40
75th Percentile	(1.70)	1.85	3.26	2.08	3.70	4.79	5.22
90th Percentile	(1.78)	1.45	2.94	1.95	3.54	4.34	4.94
Wells Capital ●	(2.97)	0.96	5.39	4.65	6.61	6.77	7.25
Barclays Baa Credit 3% In ▲	(3.22)	0.07	4.65	3.68	5.82	5.92	6.69

Relative Return vs Barclays Baa Credit 3% In



CAI Core Bond Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



Western Asset Management Company
Period Ended June 30, 2015

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.

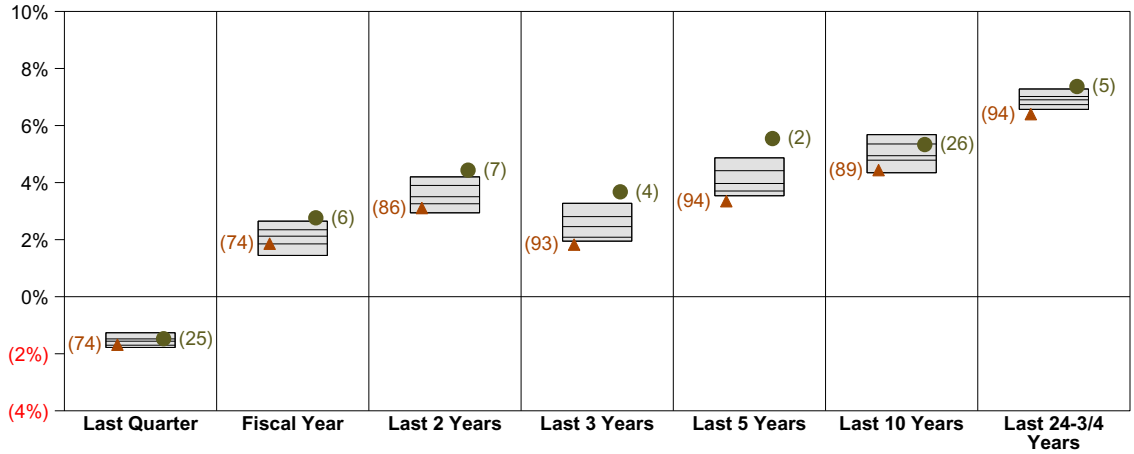
Quarterly Summary and Highlights

- Western Asset's portfolio posted a (1.47)% return for the quarter placing it in the 25 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 6 percentile for the last year.
- Western Asset's portfolio outperformed the Barclays Aggregate Index by 0.21% for the quarter and outperformed the Barclays Aggregate Index for the year by 0.91%.

Quarterly Asset Growth

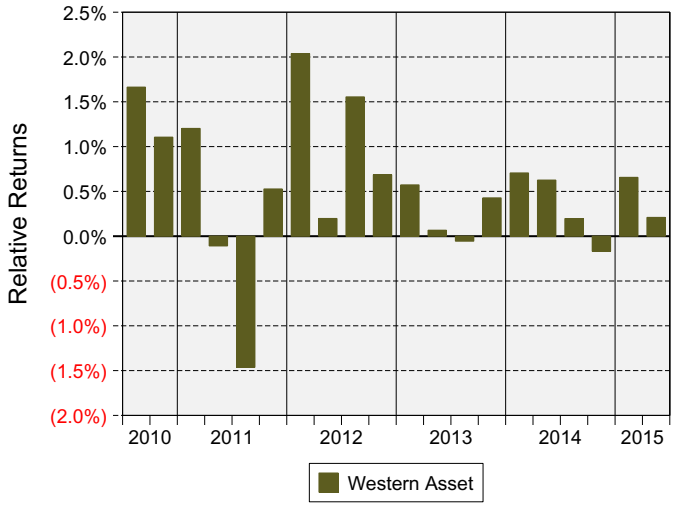
Beginning Market Value	$664,627,243
Net New Investment	$-348,528,745
Investment Gains/(Losses)	$-7,314,108
Ending Market Value	$308,784,390

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

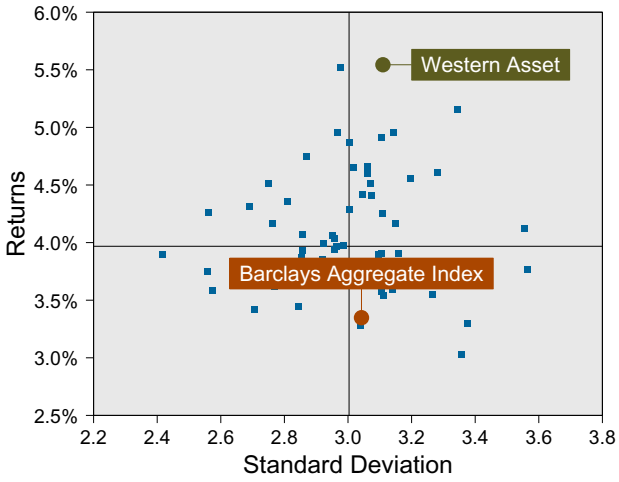


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 24-3/4 Years
10th Percentile	(1.26)	2.65	4.20	3.27	4.87	5.68	7.28
25th Percentile	(1.48)	2.35	3.90	2.81	4.42	5.35	7.02
Median	(1.56)	2.12	3.50	2.46	3.97	4.94	6.90
75th Percentile	(1.70)	1.85	3.26	2.08	3.70	4.79	6.73
90th Percentile	(1.78)	1.45	2.94	1.95	3.54	4.34	6.57
Western Asset ●	(1.47)	2.77	4.44	3.68	5.54	5.33	7.37
Barclays Aggregate Index ▲	(1.68)	1.86	3.11	1.83	3.35	4.44	6.40

Relative Return vs Barclays Aggregate Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



Western TIPS
Period Ended June 30, 2015

Investment Philosophy

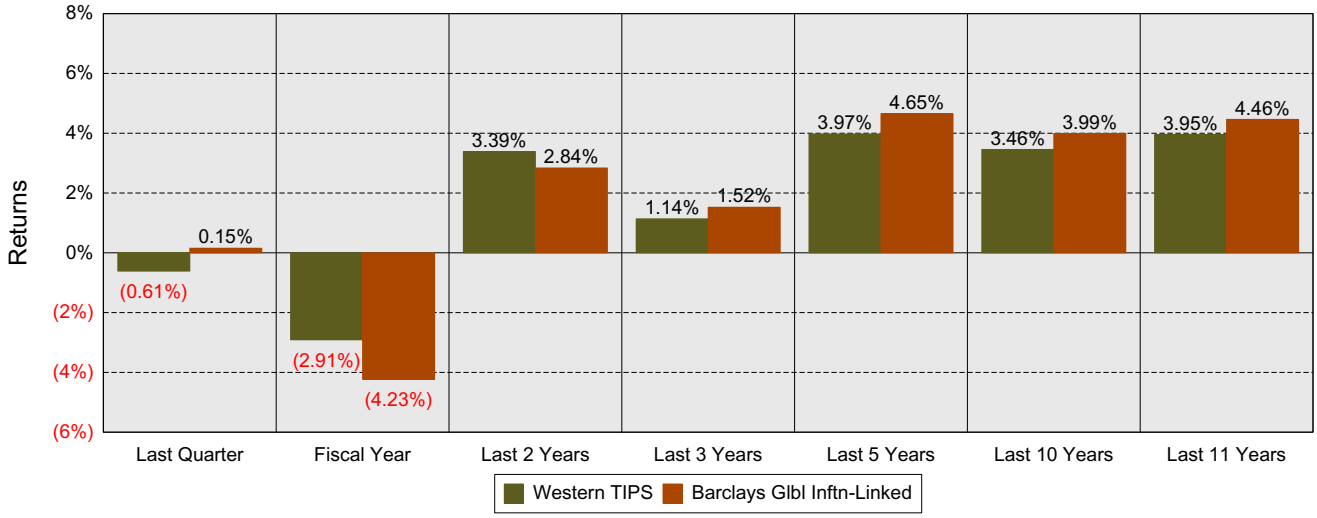
Western Asset's Global Inflation-Linked composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. Constructed primarily of inflation-indexed securities, these portfolios use diversified strategies in seeking to add value while minimizing risk. Value can be added through country selection, term structure, issue selection, duration management and currency management. **Barclays US TIPS through 12/31/2009 and Barclays Glolbal Inflation-Linked thereafter.**

Quarterly Summary and Highlights

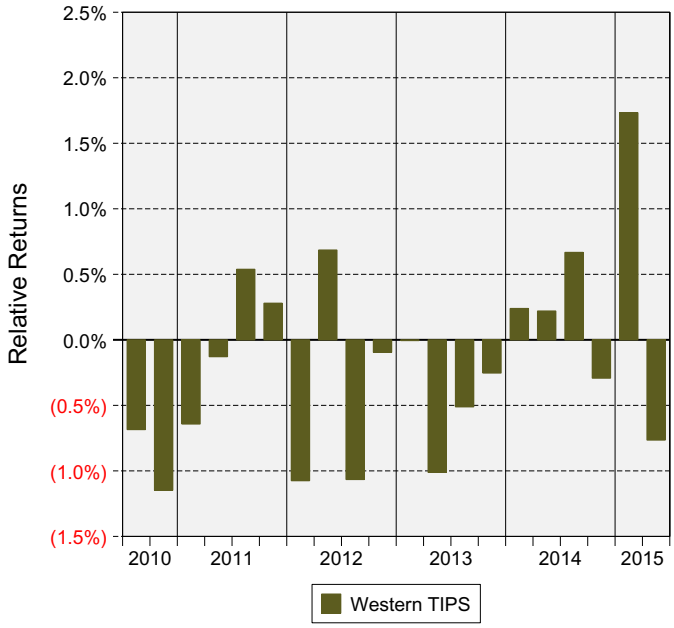
- Western TIPS's portfolio underperformed the Barclays Glbl Inftn-Linked by 0.76% for the quarter and outperformed the Barclays Glbl Inftn-Linked for the year by 1.32%.

Quarterly Asset Growth

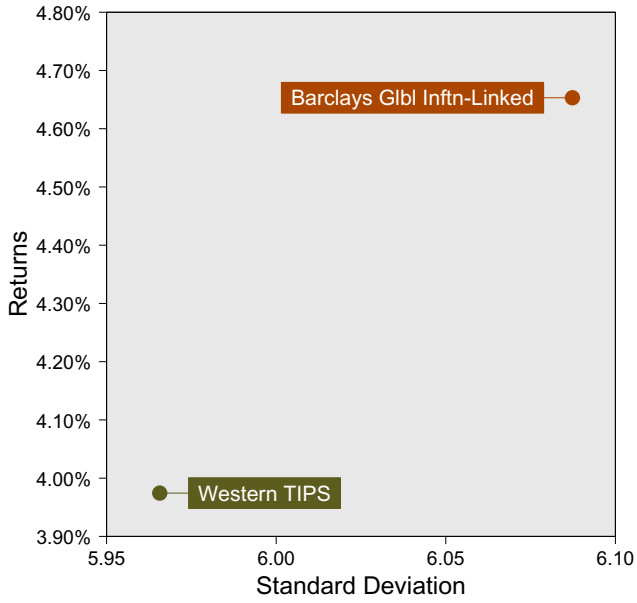
Beginning Market Value	$96,919,262
Net New Investment	$15,970,394
Investment Gains/(Losses)	$-628,224
Ending Market Value	$112,261,432



Relative Return vs Barclays Glbl Inftn-Linked



Annualized Five Year Risk vs Return



Eastern Timber Opportunities
Period Ended June 30, 2015

Investment Philosophy

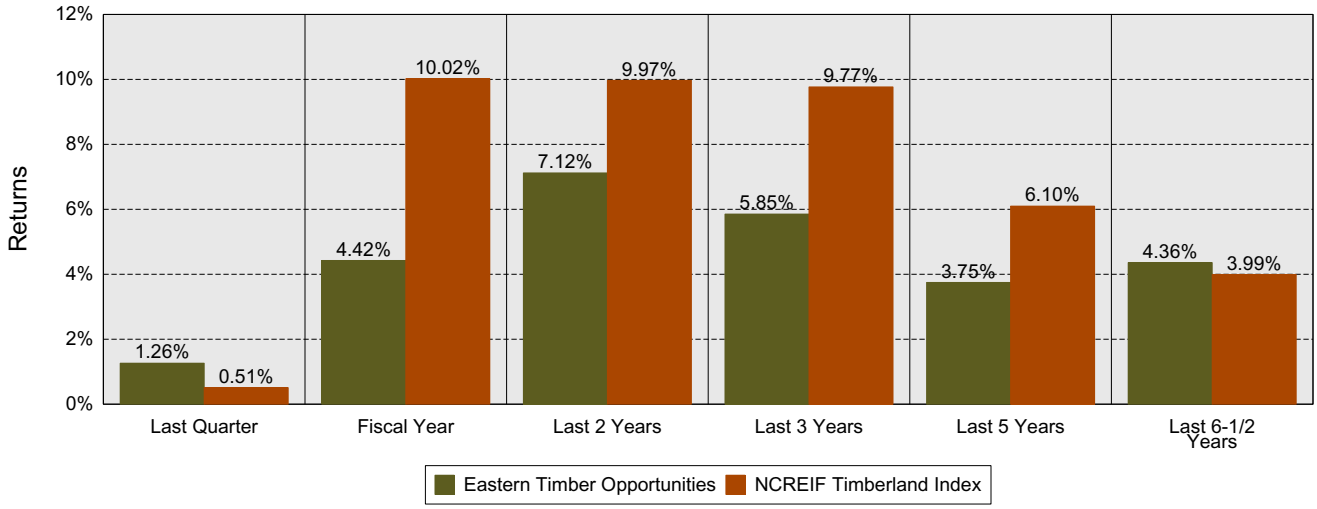
The investment objective of the Eastern Timberland Opportunities fund is to provide competitive timberland investment returns from Eastern US timberland investments by pursuing management strategies to increase timber production and land values through the investment term. TIR will maximize timber values 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

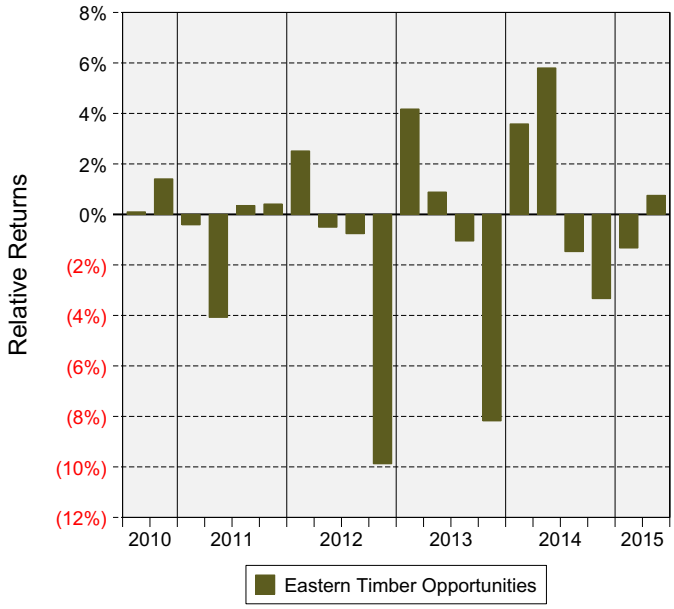
- Eastern Timber Opportunities's portfolio outperformed the NCREIF Timberland Index by 0.75% for the quarter and underperformed the NCREIF Timberland Index for the year by 5.60%.

Quarterly Asset Growth

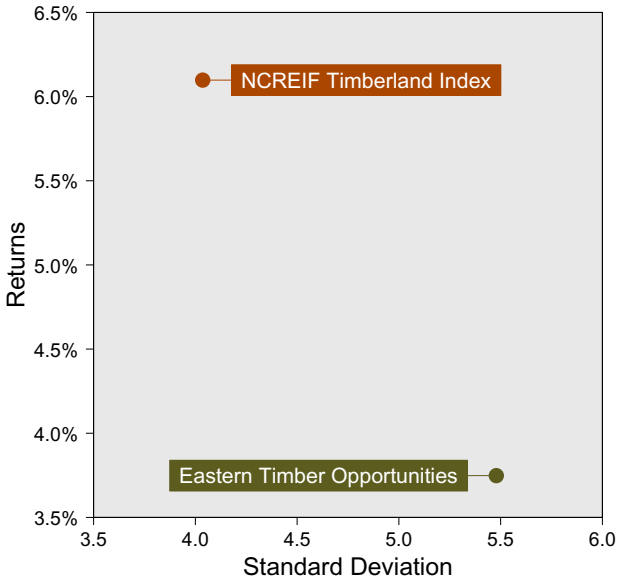
Beginning Market Value	$60,496,590
Net New Investment	$0
Investment Gains/(Losses)	$763,542
Ending Market Value	$61,260,132



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return



JP Morgan Infrastructure
Period Ended June 30, 2015

Investment Philosophy

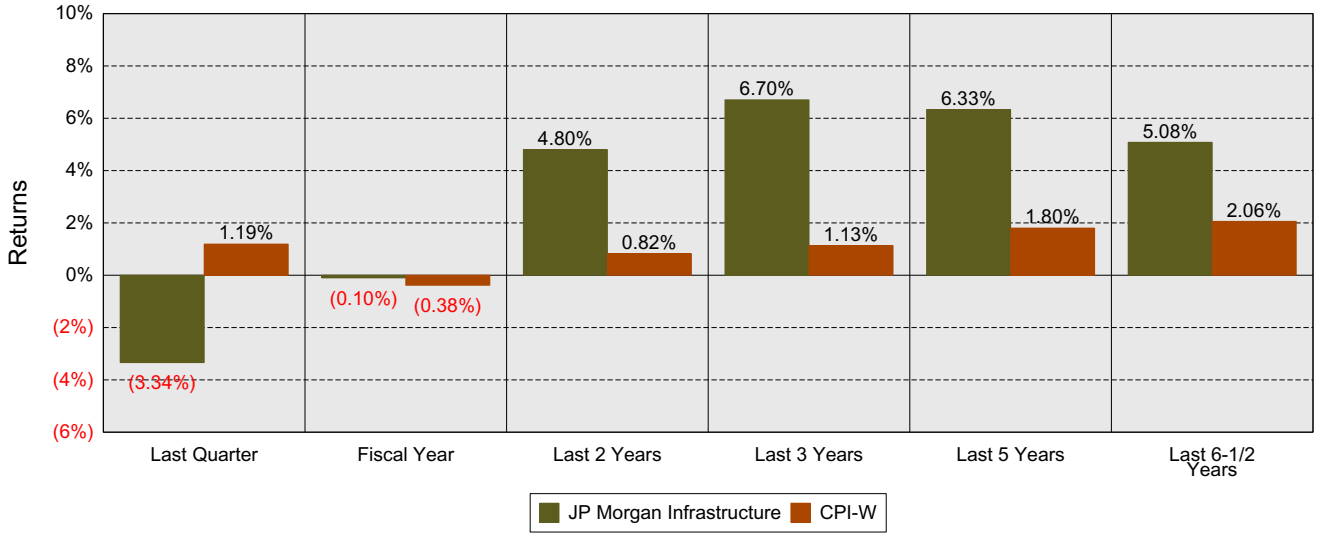
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas 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

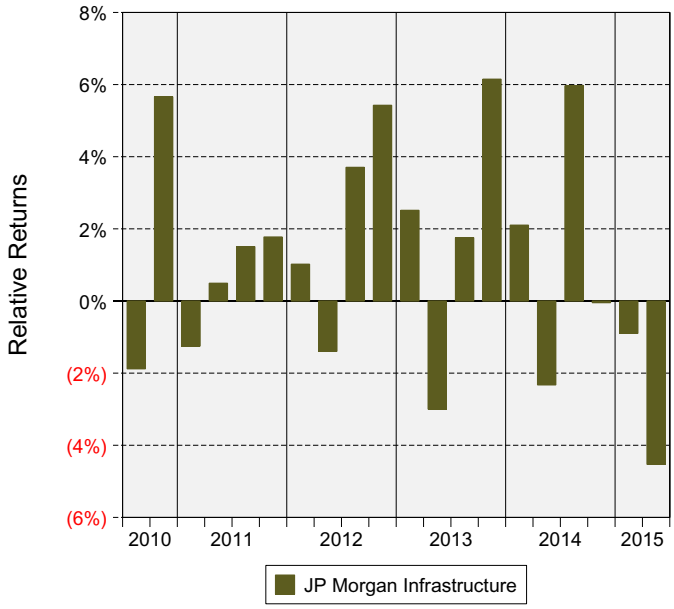
- JP Morgan Infrastructure's portfolio underperformed the CPI-W by 4.53% for the quarter and outperformed the CPI-W for the year by 0.28%.

Quarterly Asset Growth

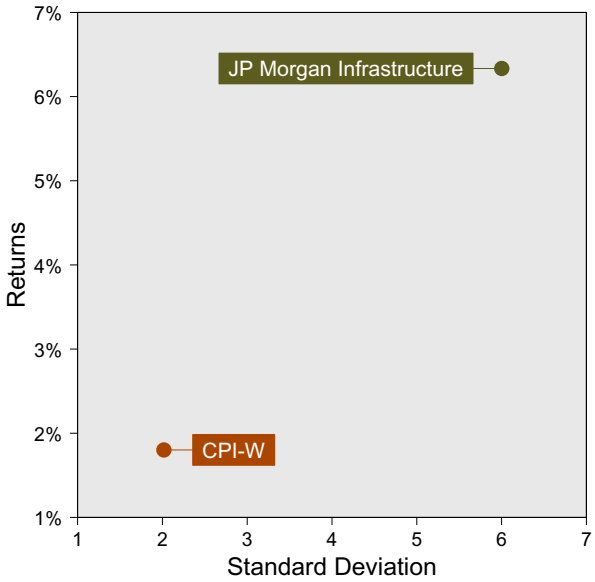
Beginning Market Value	$73,709,448
Net New Investment	$1,311,437
Investment Gains/(Losses)	$-2,421,556
Ending Market Value	$72,599,328



Relative Return vs CPI-W



Annualized Five Year Risk vs Return



Grosvenor Cust. Infrastructure
Period Ended June 30, 2015

Investment Philosophy

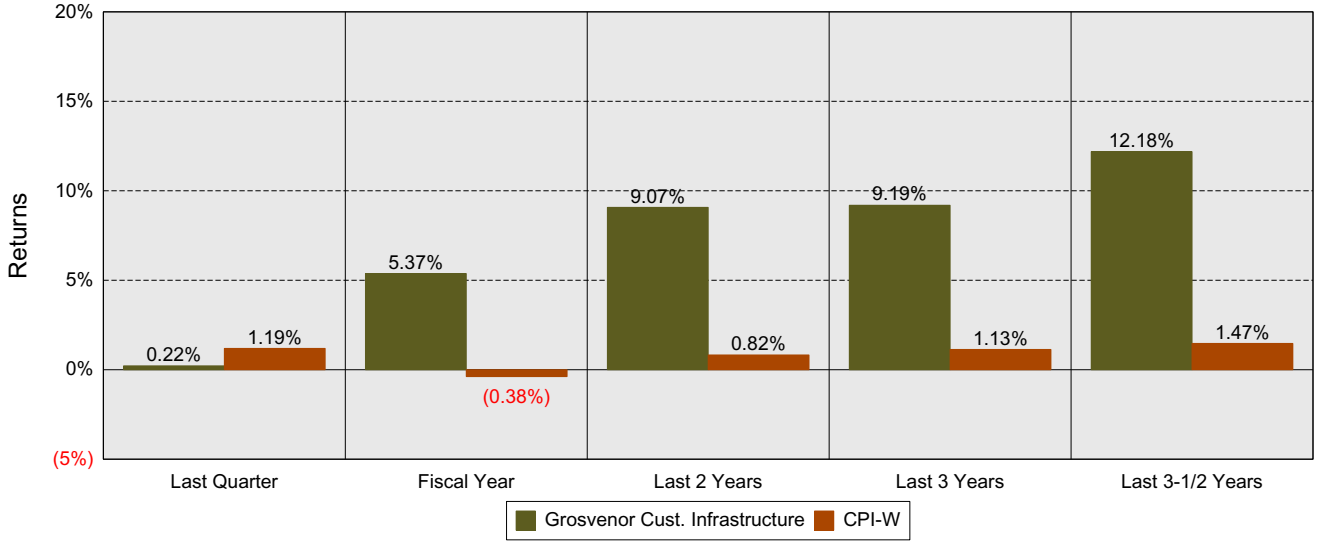
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

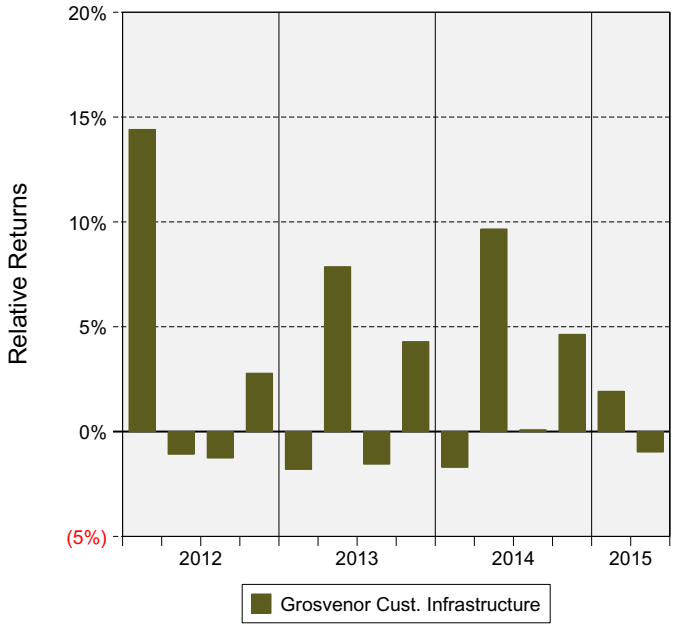
- Grosvenor Cust. Infrastructure's portfolio underperformed the CPI-W by 0.97% for the quarter and outperformed the CPI-W for the year by 5.76%.

Quarterly Asset Growth

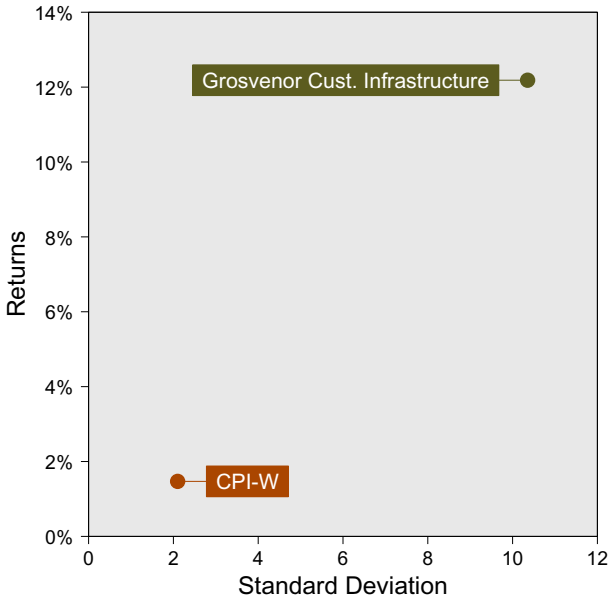
Beginning Market Value	$21,642,393
Net New Investment	$-2,178,686
Investment Gains/(Losses)	$41,882
Ending Market Value	$19,505,589



Relative Return vs CPI-W



Annualized Three and One-Half Year Risk vs Return



Invesco Core Real Estate
Period Ended June 30, 2015

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.

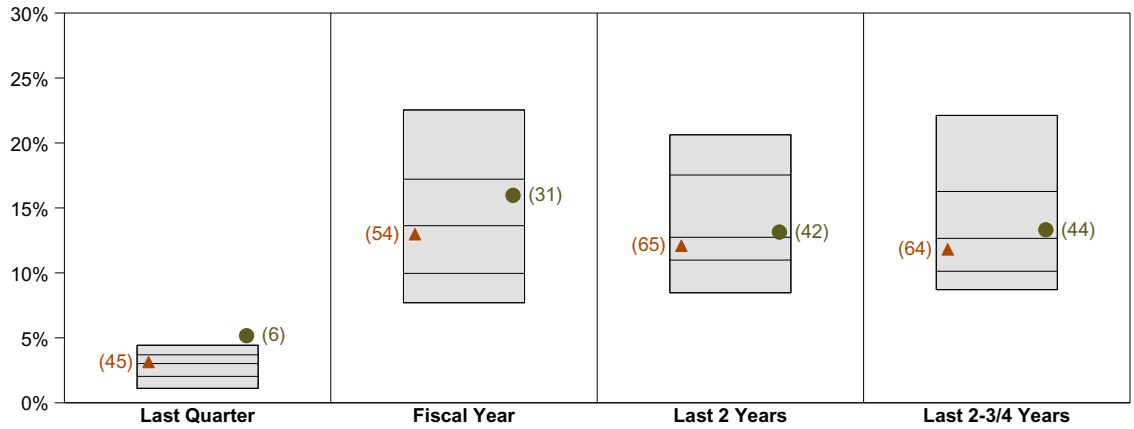
Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 5.16% return for the quarter placing it in the 6 percentile of the Total Real Estate DB group for the quarter and in the 31 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 2.02% for the quarter and outperformed the NCREIF Total Index for the year by 2.99%.

Quarterly Asset Growth

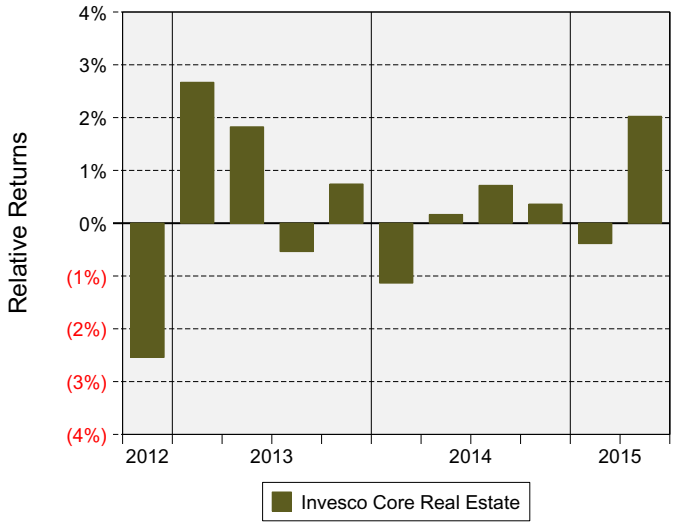
Beginning Market Value	$127,780,008
Net New Investment	$-74,554,166
Investment Gains/(Losses)	$2,748,980
Ending Market Value	$55,974,821

Performance vs Total Real Estate DB (Net)

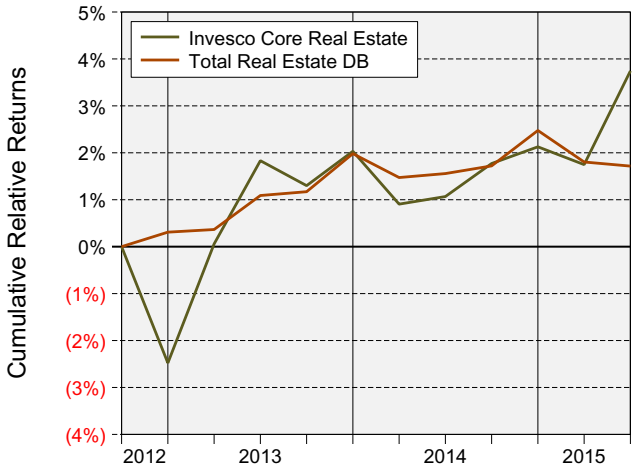


	Last Quarter	Fiscal Year	Last 2 Years	Last 2-3/4 Years
10th Percentile	4.43	22.54	20.63	22.12
25th Percentile	3.69	17.21	17.53	16.27
Median	3.02	13.63	12.74	12.66
75th Percentile	2.03	9.96	10.98	10.12
90th Percentile	1.12	7.70	8.47	8.71
Invesco Core Real Estate ●	5.16	15.97	13.14	13.31
NCREIF Total Index ▲	3.14	12.98	12.09	11.81

Relative Return vs NCREIF Total Index



Cumulative Returns vs NCREIF Total Index



JP Morgan Real Estate
Period Ended June 30, 2015

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 5.71% return for the quarter placing it in the 3 percentile of the Total Real Estate DB group for the quarter and in the 35 percentile for the last year.
- JP Morgan Real Estate's portfolio outperformed the NCREIF Total Index by 2.56% for the quarter and outperformed the NCREIF Total Index for the year by 2.46%.

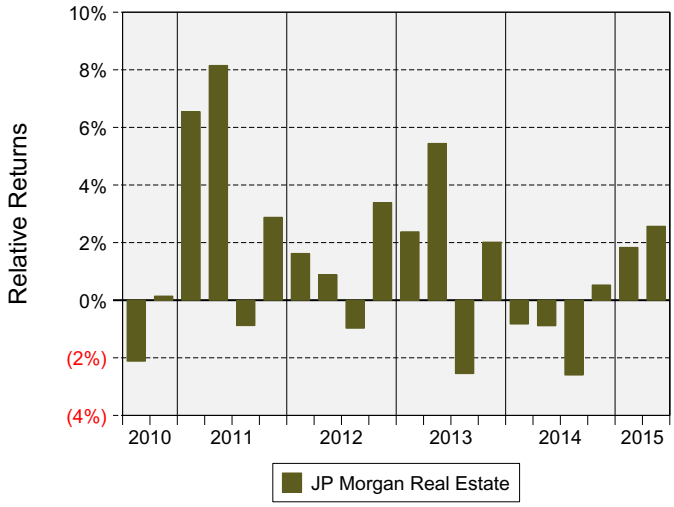
Quarterly Asset Growth

Beginning Market Value	$144,837,490
Net New Investment	$-84,505,894
Investment Gains/(Losses)	$3,472,557
Ending Market Value	$63,804,154

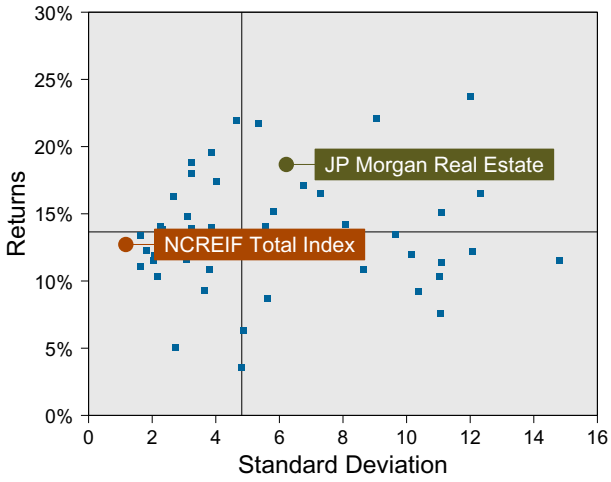
Performance vs Total Real Estate DB (Net)

	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	4.43	22.54	20.63	20.76	19.48	7.79
25th Percentile	3.69	17.21	17.53	16.05	16.67	5.66
Median	3.02	13.63	12.74	12.73	13.65	4.77
75th Percentile	2.03	9.96	10.98	10.57	11.31	2.99
90th Percentile	1.12	7.70	8.47	7.72	8.73	(4.66)
JP Morgan Real Estate ●	5.71	15.44	12.04	15.28	18.67	2.81
NCREIF Total Index ▲	3.14	12.98	12.09	11.63	12.72	7.51

Relative Return vs NCREIF Total Index



Total Real Estate DB (Net) Annualized Five Year Risk vs Return



JP Morgan Short Term Bonds
Period Ended June 30, 2015

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.

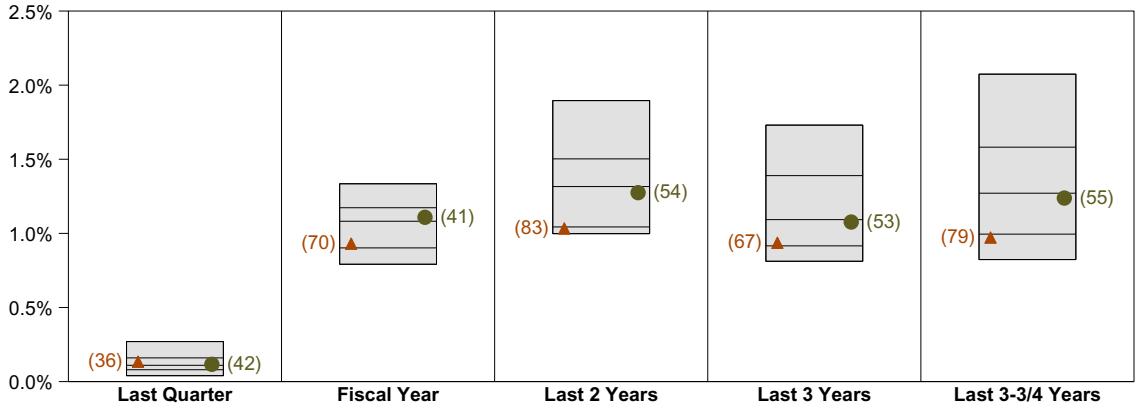
Quarterly Summary and Highlights

- JP Morgan Short Term Bonds's portfolio posted a 0.12% return for the quarter placing it in the 42 percentile of the CAI Defensive Fixed-Inc Style group for the quarter and in the 41 percentile for the last year.
- JP Morgan Short Term Bonds's portfolio underperformed the Barclays Gov/Credit 1-3 Yr by 0.02% for the quarter and outperformed the Barclays Gov/Credit 1-3 Yr for the year by 0.18%.

Quarterly Asset Growth

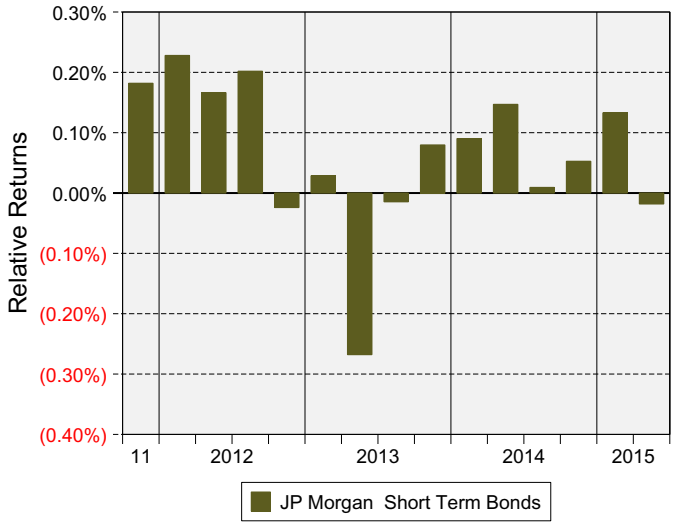
Beginning Market Value	$241,509,497
Net New Investment	$-6,000,000
Investment Gains/(Losses)	$283,023
Ending Market Value	$235,792,520

Performance vs CAI Defensive Fixed-Inc Style (Gross)

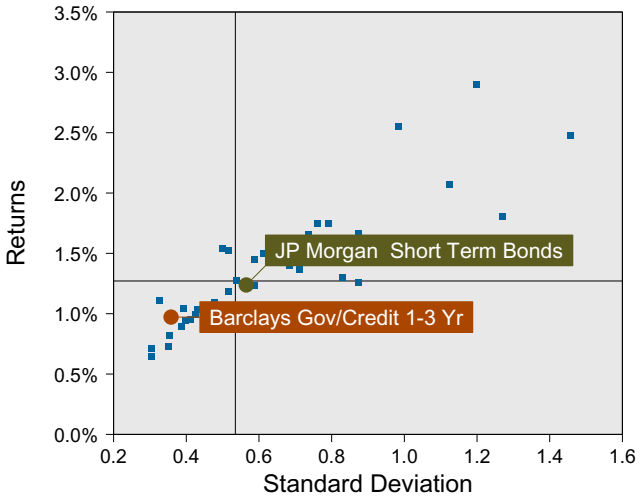


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	0.27	1.33	1.90	1.73	2.07
25th Percentile	0.16	1.17	1.50	1.39	1.58
Median	0.11	1.08	1.32	1.09	1.27
75th Percentile	0.08	0.90	1.04	0.92	0.99
90th Percentile	0.04	0.79	1.00	0.81	0.82
JP Morgan Short Term Bonds ●	0.12	1.11	1.27	1.08	1.24
Barclays Gov/Credit 1-3 Yr ▲	0.13	0.93	1.03	0.94	0.97

Relative Return vs Barclays Gov/Credit 1-3 Yr



CAI Defensive Fixed-Inc Style (Gross) Annualized Three and Three-Quarter Year Risk vs Return



Babson Short Term Bonds
Period Ended June 30, 2015

Investment Philosophy

The investment objective of this account 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.

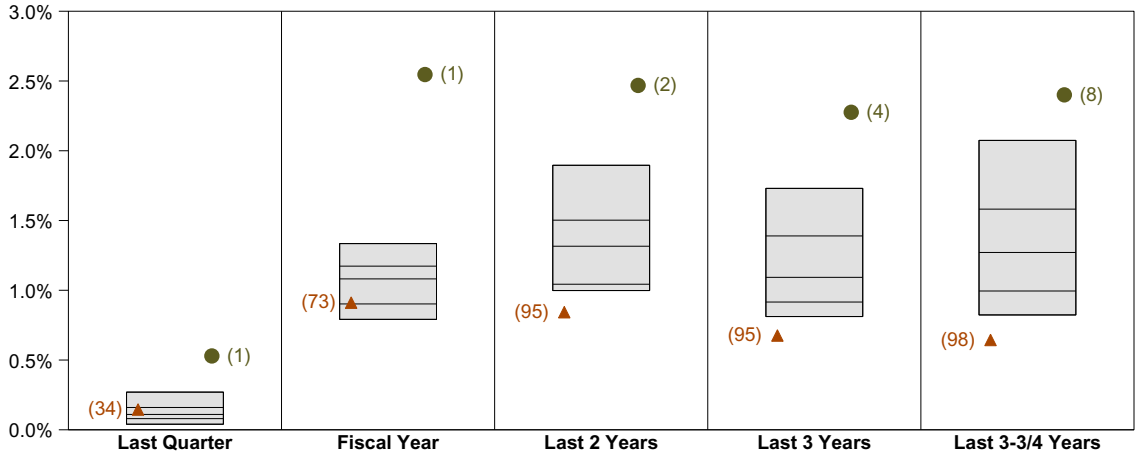
Quarterly Summary and Highlights

- Babson Short Term Bonds's portfolio posted a 0.53% return for the quarter placing it in the 1 percentile of the CAI Defensive Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Babson Short Term Bonds's portfolio outperformed the Barclays Gov 1-3 Yr by 0.38% for the quarter and outperformed the Barclays Gov 1-3 Yr for the year by 1.63%.

Quarterly Asset Growth

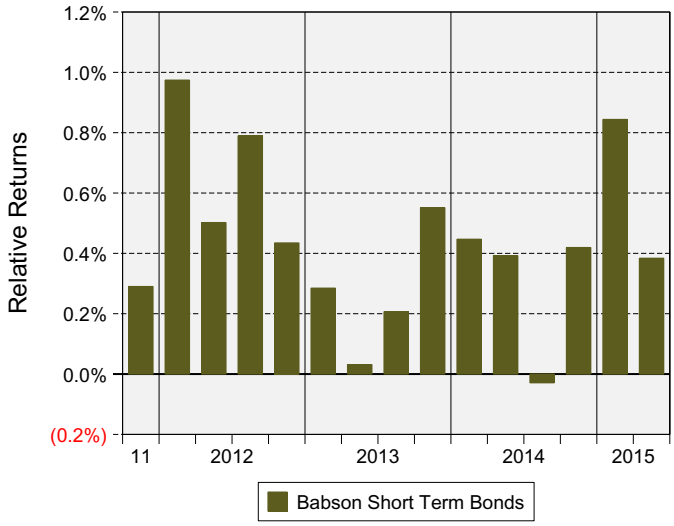
Beginning Market Value	$244,936,633
Net New Investment	$-6,962,286
Investment Gains/(Losses)	$1,299,709
Ending Market Value	$239,274,055

Performance vs CAI Defensive Fixed-Inc Style (Gross)

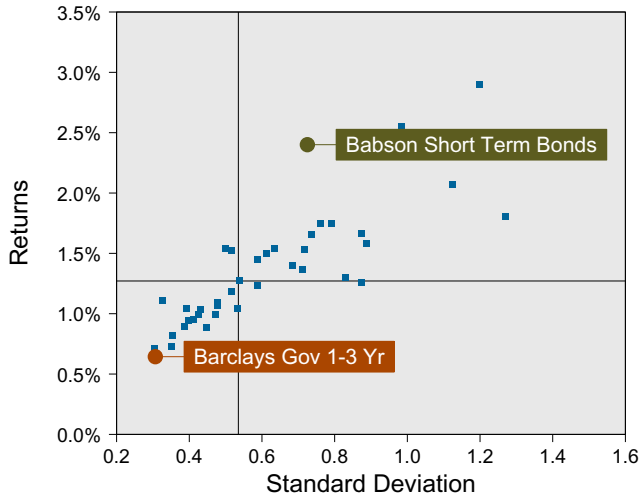


	Last Quarter	Fiscal Year	Last 2 Years	Last 3 Years	Last 3-3/4 Years
10th Percentile	0.27	1.33	1.90	1.73	2.07
25th Percentile	0.16	1.17	1.50	1.39	1.58
Median	0.11	1.08	1.32	1.09	1.27
75th Percentile	0.08	0.90	1.04	0.92	0.99
90th Percentile	0.04	0.79	1.00	0.81	0.82
Babson Short Term Bonds ●	0.53	2.55	2.47	2.28	2.40
Barclays Gov 1-3 Yr ▲	0.15	0.91	0.84	0.68	0.64

Relative Return vs Barclays Gov 1-3 Yr



CAI Defensive Fixed-Inc Style (Gross) Annualized Three and Three-Quarter Year Risk vs Return



Callan

CALLAN
INVESTMENTS
INSTITUTE

2nd Quarter 2015

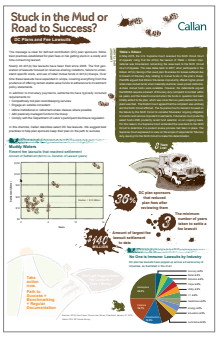
Education

Research and Educational Programs

The Callan Investments Institute provides research that keeps clients updated on the latest industry trends while helping them learn through carefully structured educational programs.

Recent Research

Please visit www.callan.com/research to see all of our publications.



Stuck in the Mud or Road to Success? DC Plans and Fee Lawsuits This charticle describes select fee lawsuits and best practices to help plan sponsors stay on the path to success.

Active Share and Product Pairs Analysis In this paper, author Greg Allen isolates the impact of active share on performance by focusing on "product pairs."

U.S. Equity Benchmark Review, Year-End 2014 This detailed report compares CRSP, Russell, and S&P indices alongside Callan Active Manager Style Groups.

Capital Market Review, 1st Quarter 2015 A newsletter providing insights on the economy and recent performance in the equity, fixed income, alternatives, and real estate markets.

Hedge Fund Monitor, 1st Quarter 2015 Cover story: Bridging the Gap: Multi-Asset Class Strategies.

Private Markets Trends, Spring 2015 A quarterly newsletter that discusses the market environment, recent events, performance, and other issues involving private equity.

DC Observer, 1st Quarter 2015 Cover story: Is Your Target Date Fund Suitable? Plus the Callan DC Index™.

Market Pulse Flipbook, 1st Quarter 2015 A reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, and alternatives.

Inside Callan's Database, 1st Quarter 2015 This report graphs performance and risk data from Callan's proprietary database alongside relevant market indices.

Real Estate Indicators: Too Hot to Touch or Cool Enough to Handle? See seven indicators that have helped signal when the institutional real estate market is overheated or cooled.

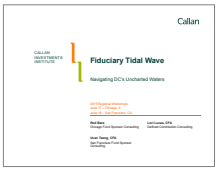
The Game of Retirement–Helping Employees Win This charticle provides a high-level look at the three generations DC plan sponsors must target and how best to communicate with them.

The Investment Vehicle Owner's Manual This charticle highlights the key features of several popular investment vehicles. It also encourages investors to consider six important questions when making an investment vehicle selection.

2015 Defined Contribution Survey Callan's annual survey of DC plan sponsors reveals trends in plan structure and management.

Events

Did you miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: https://www.callan.com/education/CII/



The **June Regional Workshop**'s topic was "Fiduciary Tidal Wave: Navigating DC's Uncharted Waters." Our speakers were Rod Bare, Chicago Fund Sponsor Consulting; Lori Lucas, CFA, Defined Contribution Consulting; and Uvan Tseng, CFA, San Francisco Fund Sponsor Consulting.

Our next event is the **October Regional Workshop**, to be held October 21 in New York and October 22 in Atlanta. Stay tuned for topic and speaker details! Also, save the date for our annual **National Conference** in San Francisco, January 25-27, 2016.

For more information about research or educational events, please contact Ray Combs: institute@callan.com or 415.974.5060

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 27-28, 2015

This session familiarizes fund sponsor trustees, staff, and asset management advisors 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 https://www.callan.com/education/college/ or contact Kathleen Cunnie: 415.274.3029 / cunnie@callan.com

Education: By the Numbers

500	Attendees (on average) of the Institute's annual National Conference	**50+**	Unique pieces of research the Institute generates each year
3,300	Total attendees of the "Callan College" since 1994	**1980**	Year the Callan Investments 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, 2015

List of Managers That Do Business with Callan Associates Inc.

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 06/30/15. Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting. Given the complex corporate and organizational ownership structures of investment management firms, parent and affiliate firm relationships are not listed here. The client list below may include names of parent companies who allow their affiliates to use some of the services included in their client contract (eg, educational services including published research and attendance at conferences and workshops). Affiliates will not be listed if they don't separately contract with Callan. Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

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Manager Name	Educational Services	Consulting Services
1607 Capital Partners, LLC		Y
Aberdeen Asset Management	Y	Y
Acadian Asset Management, Inc.	Y	
Advisory Research	Y	
Affiliated Managers Group		Y
AllianceBernstein	Y	
Allianz Global Investors U.S. LLC	Y	Y
Allianz Life Insurance Company of North America		Y
Altrinsic Global Advisors, LLC		Y
American Century Investment Management	Y	
Analytic Investors	Y	
Apollo Global Management	Y	
AQR Capital Management	Y	
Ares Management	Y	
Ariel Investments	Y	
Aristotle Capital Management	Y	
Aronson + Johnson + Ortiz	Y	
Artisan Holdings		Y
Atlanta Capital Management Co., L.L.C.	Y	Y
Aviva Investors	Y	
AXA Rosenberg Investment Management	Y	
Babson Capital Management LLC	Y	
Baillie Gifford International LLC	Y	Y
Baird Advisors	Y	Y
Bank of America		Y
Baring Asset Management	Y	
Baron Capital Management	Y	
BlackRock	Y	
BMO Asset Management	Y	
BNP Paribas Investment Partners	Y	
BNY Mellon Asset Management	Y	Y
Boston Company Asset Management, LLC (The)	Y	Y

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
Boston Partners	Y	Y
Brandes Investment Partners, L.P.	Y	Y
Brandywine Global Investment Management, LLC	Y	
Brown Brothers Harriman & Company	Y	
Cadence Capital Management	Y	
Capital Group	Y	
CastleArk Management, LLC		Y
Causeway Capital Management	Y	
Central Plains Advisors, Inc.		Y
Chartwell Investment Partners	Y	
ClearBridge Investments, LLC (fka ClearBridge Advisors)	Y	
Cohen & Steers	Y	Y
Columbia Management Investment Advisors, LLC	Y	Y
Columbus Circle Investors	Y	Y
Corbin Capital Partners	Y	
Cornerstone Investment Partners, LLC	Y	
Cramer Rosenthal McGlynn, LLC	Y	
Crawford Investment Council		Y
Credit Suisse Asset Management	Y	
Crestline Investors	Y	Y
Cutwater Asset Management	Y	
DB Advisors	Y	Y
DE Shaw Investment Management LLC	Y	
Delaware Investments	Y	Y
DePrince, Race & Zollo, Inc.	Y	Y
Deutsche Asset & Wealth Management	Y	Y
Diamond Hill Investments	Y	
Donald Smith & Co., Inc.	Y	
DSM Capital Partners		Y
Duff & Phelps Investment Mgmt.	Y	Y
Eagle Asset Management, Inc.		Y
EARNEST Partners, LLC	Y	
Eaton Vance Management	Y	Y
Epoch Investment Partners	Y	
Fayez Sarofim & Company		Y
Federated Investors		Y
Fir Tree Partners	Y	
First Eagle Investment Management	Y	
First Hawaiian Bank		Y
First State Investments	Y	
Fisher Investments	Y	
Franklin Templeton	Y	Y

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
Fred Alger Management Co., Inc.	Y	
Fuller & Thaler Asset Management	Y	
GAM (USA) Inc.	Y	
Garcia Hamilton & Associates	Y	
GE Asset Management	Y	Y
Geneva Capital Management	Y	
Goldman Sachs Asset Management	Y	Y
Grand-Jean Capital Management	Y	Y
GMO (fka Grantham, Mayo, Van Otterloo & Co., LLC)	Y	
Great Lakes Advisors, Inc.		Y
The Guardian Life Insurance Company of America		Y
Guggenheim Investments Asset Management (fka Security Global)	Y	
The Hampshire Companies	Y	
Harbor Capital		Y
Hartford Funds	Y	
Hartford Investment Management Co.	Y	Y
Heightman Capital Management Corporation		Y
Henderson Global Investors	Y	Y
Hotchkis & Wiley	Y	
HSBC Global Asset Management	Y	
Income Research & Management	Y	
Insight Investment Management		Y
Institutional Capital LLC	Y	
INTECH Investment Management	Y	
Invesco	Y	Y
Investec Asset Management	Y	
Jacobs Levy Equity Management		Y
Janus Capital Group (fka Janus Capital Management, LLC)	Y	Y
Jensen Investment Management		Y
J.M. Hartwell	Y	
J.P. Morgan Asset Management	Y	Y
KeyCorp		Y
Lazard Asset Management	Y	Y
Lee Munder Capital Group	Y	
Legal & General Investment Management America	Y	
Lincoln National Corporation		Y
Logan Circle Partners, L.P.	Y	
The London Company	Y	
Longview Partners	Y	
Loomis, Sayles & Company, L.P.	Y	Y
Lord Abbett & Company	Y	Y
Los Angeles Capital Management	Y	

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
LSV Asset Management	Y	
Lyrical Partners	Y	
MacKay Shields LLC	Y	Y
Mackenzie Investments		Y
Man Investments	Y	
Manulife Asset Management	Y	
Martin Currie	Y	
Marvin & Palmer Associates, Inc.	Y	
MFS Investment Management	Y	Y
MidFirst Bank		Y
Mondrian Investment Partners Limited	Y	Y
Montag & Caldwell, Inc.	Y	Y
Morgan Stanley Alternative Investment Partners	Y	
Morgan Stanley Investment Management	Y	Y
Mount Lucas Management LP	Y	
Mountain Lake Investment Management LLC		Y
MUFG Union Bank, N.A.		Y
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Newton Capital Management	Y	
Northern Lights Capital Group		Y
Northern Trust Global Investment Services	Y	Y
Nuveen Investments Institutional Services Group LLC	Y	
Old Mutual Asset Management	Y	Y
OppenheimerFunds, Inc.	Y	
Pacific Investment Management Company	Y	
Palisade Capital Management LLC	Y	
Paradigm Asset Management	Y	
Parametric Portfolio Associates	Y	
Peregrine Capital Management, Inc.	Y	Y
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)	Y	
Pinnacle Asset Management	Y	
Pioneer Investment Management, Inc.	Y	
PNC Capital Advisors (fka Allegiant Asset Mgmt)	Y	Y
Polen Capital Management	Y	
Principal Financial Group		Y
Principal Global Investors	Y	Y
Private Advisors	Y	
Prudential Fixed Income Management	Y	
Prudential Investment Management, Inc.	Y	Y
Putnam Investments, LLC	Y	Y
Pyramis Global Advisors	Y	

List of Managers That Do Business with Callan Associates Inc. (continued)

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Manager Name	Educational Services	Consulting Services
Rainier Investment Management	Y	
RBC Global Asset Management (U.S.) Inc.		Y
Research Affiliates		Y
Regions Financial Corporation		Y
RCM		Y
Rothschild Asset Management, Inc.	Y	Y
RS Investments	Y	
Russell Investment Management	Y	
Sankaty Advisors, LLC	Y	
Santander Global Facilities		Y
Schroder Investment Management North America Inc.	Y	Y
Scout Investments	Y	
SEI Investments		Y
SEIX Investment Advisors, Inc.	Y	
Select Equity Group	Y	
Smith Affiliated Capital Corporation	Y	
Smith Graham and Company		Y
Smith Group Asset Management		Y
Standard Life Investments	Y	
Standish (fka, Standish Mellon Asset Management)	Y	
State Street Global Advisors	Y	
Stone Harbor Investment Partners, L.P.	Y	Y
Systematic Financial Management	Y	
T. Rowe Price Associates, Inc.	Y	Y
Taplin, Canida & Habacht	Y	
Timberland Investment Resources	Y	
TCW Asset Management Company	Y	
Thompson, Siegel & Walmsley LLC	Y	
UBS	Y	Y
USAA Real Estate Company	Y	
Van Eck	Y	
Versus Capital Group		Y
Victory Capital Management Inc.	Y	
Vontobel Asset Management	Y	
Voya Investment Management	Y	Y
Vulcan Value Partners, LLC		Y
Waddell & Reed Asset Management Group	Y	Y
WCM Investment Management	Y	
WEDGE Capital Management		Y
Wellington Management Company, LLP	Y	
Wells Capital Management	Y	
Wells Fargo Private Bank		Y

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Manager Name	Educational Services	Consulting Services
Western Asset Management Company	Y	
William Blair & Co., Inc.	Y	Y

Callan

June 30, 2015

North Dakota State Investment Board Legacy Fund

Investment Measurement Service Quarterly Review

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. Callan does not provide advice regarding, nor shall Callan be responsible for, the purchase, sale, hedge or holding of individual securities, including, without limitation securities of the client (i.e., company stock) or derivatives in the client's accounts. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the conformity of individual security holdings with the client's investment policies and guidelines, nor has it assumed any responsibility to do so. Advice pertaining to the merits of individual securities and derivatives should be discussed with a third party securities expert. Copyright 2015 by Callan Associates Inc.

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June 30, 2015

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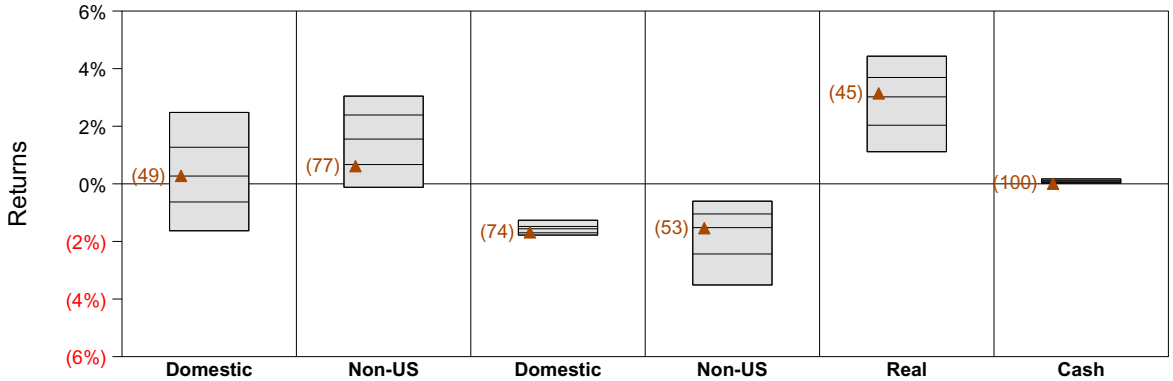
Market Overview
Active Management vs Index Returns

Market Overview

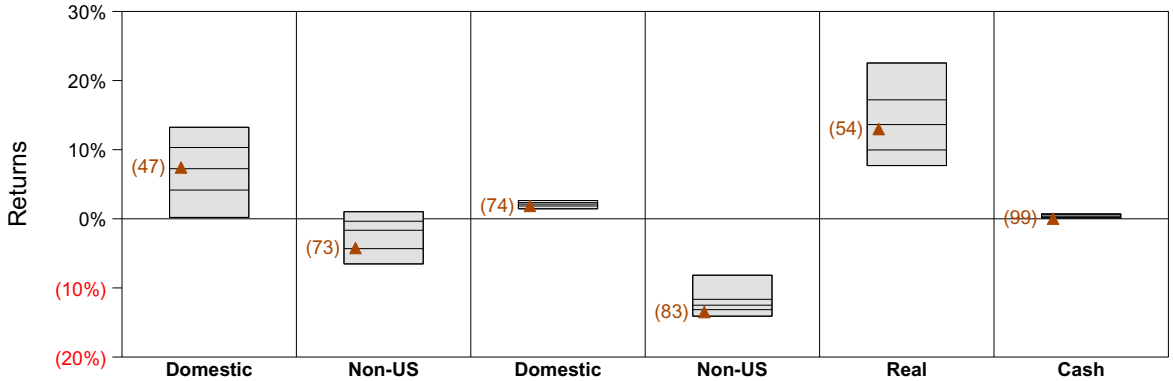
The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also 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 domestic equity manager database.

Range of Separate Account Manager Returns by Asset Class
One Quarter Ended June 30, 2015



	Domestic Equity vs S&P 500	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Barclays Aggr Bd	Non-US Fixed Income vs Citi Non-US Gov	Real Estate vs NCREIF Index	Cash Equivalents vs 3 Mon T-Bills
10th Percentile	2.48	3.05	(1.26)	(0.60)	4.43	0.17
25th Percentile	1.27	2.39	(1.48)	(1.05)	3.69	0.11
Median	0.27	1.55	(1.56)	(1.52)	3.02	0.09
75th Percentile	(0.63)	0.67	(1.70)	(2.43)	2.03	0.04
90th Percentile	(1.63)	(0.12)	(1.78)	(3.51)	1.12	0.03
Index ▲	0.28	0.62	(1.68)	(1.54)	3.14	0.01

Range of Separate Account Manager Returns by Asset Class
One Year Ended June 30, 2015



	Domestic Equity vs S&P 500	Non-US Equity vs MSCI EAFE	Domestic Fixed Income vs Barclays Aggr Bd	Non-US Fixed Income vs Citi Non-US Gov	Real Estate vs NCREIF Index	Cash Equivalents vs 3 Mon T-Bills
10th Percentile	13.24	1.03	2.65	(8.16)	22.54	0.71
25th Percentile	10.32	(0.36)	2.35	(11.65)	17.21	0.59
Median	7.25	(1.66)	2.12	(12.50)	13.63	0.37
75th Percentile	4.16	(4.32)	1.85	(13.14)	9.96	0.20
90th Percentile	0.20	(6.53)	1.45	(14.09)	7.70	0.09
Index ▲	7.42	(4.22)	1.86	(13.49)	12.98	0.02

Callan

Capital Market Review

Second Quarter 2015

Reversion to the Mean

U.S. ECONOMY

2 PAGE

The U.S. GDP resumed momentum, posting a 2.3% increase. Credit goes to the rise in consumer spending fueled by robust gains in employment and household wealth. Inflation remains well below the Fed's 2% target.

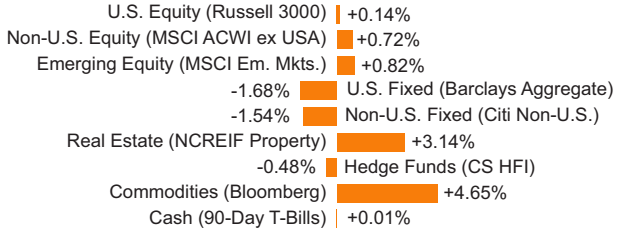
Returns Take a Semester Abroad

FUND SPONSOR

4 PAGE

In the **Callan Fund Sponsor Database**, corporate funds (-0.21%) were the quarter's worst performers while Taft-Hartley plans (+0.33%) were the best at the median. Taft-Hartley funds benefited from a smaller exposure to fixed income versus their corporate peers.

Broad Market Quarterly Returns



Sources: Barclays, Citigroup, Credit Suisse Hedge Index, Merrill Lynch, MSCI, NCREIF, Russell Investment Group, S&P Dow Jones

Underwhelming

U.S. EQUITY

6 PAGE

Large and small cap stocks showed slightly positive returns this quarter (**Russell 1000 Index**: +0.1% and **Russell 2000 Index**: +0.4%) while mid cap trailed considerably (**Russell Mid-Cap Index**: -1.5%). Growth maintained its lead over value in all capitalizations.

Greek Gloom

NON-U.S. EQUITY

9 PAGE

Non-U.S. markets managed to end the quarter with a slight gain (**MSCI ACWI ex USA Index**: +0.72%) despite heightened concerns about Greece and China. Both the developed **MSCI World ex USA Index** (+0.48%) and the **MSCI Emerging Markets Index** (+0.82%) eked out meager returns.

Rates Move Higher

U.S. FIXED INCOME

12 PAGE

The U.S. bond markets experienced a backup in interest rates as Treasuries sold off and spread sectors were mixed. The yield curve steepened. The **Barclays Aggregate Index** declined 1.68%. The **Barclays Corporate High Yield Index** was flat.

Deal or No Deal

NON-U.S. FIXED INCOME

15 PAGE

The debt standoff in Greece and a bull market reversal in developed markets highlighted the sovereign bond market. The unhedged **Citi Non-U.S. World Government Bond Index (WGBI)** declined 1.54%, while the hedged WGBI plunged 3.20% due to a weakening U.S. dollar.

Mixed Messages

REAL ESTATE

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The **NCREIF Property Index** advanced 3.14% (1.26% income return; 1.89% appreciation return). The **FTSE EPRA/NAREIT Developed REIT Index** (USD) declined 6.67% and domestic REITs tracked by the **FTSE NAREIT Equity REITs Index** dropped 9.95%.

A Seller's Market

PRIVATE EQUITY

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Fundraising, venture investment, and IPOs for both buyout and venture leaped in the second quarter. Buyout investment was flat and M&A exit figures for both buyout and venture were mixed. High prices are muting private M&A volumes, but all other activity measures soared.

Momentum Whiplash

HEDGE FUNDS

20 PAGE

The **Credit Suisse Hedge Fund Index** slipped 0.48%. The median manager in the **Callan Hedge Fund-of-Funds Database** inched ahead 0.23%. The quarter's most notable victim was Managed Futures (-10.61%).

TDFs Win Quarter, Asset Flows

DEFINED CONTRIBUTION

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The Callan DC Index™ gained 2.15%, trailing the typical 2035 target date fund (TDF), which rose 2.55%. DC plan balances grew by 2.76%. Nearly 66 cents of every dollar that moved within DC plans flowed to TDFs.

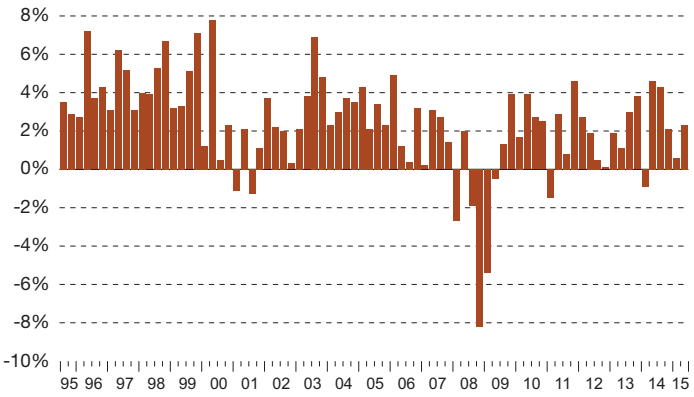
Reversion to the Mean

U.S. ECONOMY | Jay Kloepfer

After stalling in the first part of 2015, the U.S. economic expansion resumed in the second quarter with a 2.3% increase in GDP. Real GDP growth measurement for the first quarter proved to be a bumpy ride: the initial estimate of +0.2% was revised to a 0.7% loss, then to a slighter drop of 0.2%, and the most recent announcement swung back to black, albeit a scant +0.6%. However we measure it, the weakness in the first quarter was attributed to a strong dollar hurting exports, harsh winter weather interfering with general economic activity, and a sharp decline in oil drilling due to plunging oil prices. Labor stoppages in western ports added to the troubles. The resumption in growth in the second quarter came from a rise in consumption spending, fueled by robust gains in employment and household wealth. Consumer confidence rose through much of the quarter, although the events in Greece and China in June likely sapped some of that confidence. The housing market recovery continued to take shape, prodded by the same economic news that drove consumption (jobs, household wealth, and consumer confidence). While some of the data send mixed messages, growth in the U.S. economy is reverting to its underlying 2.5%-3% long-term average rate.

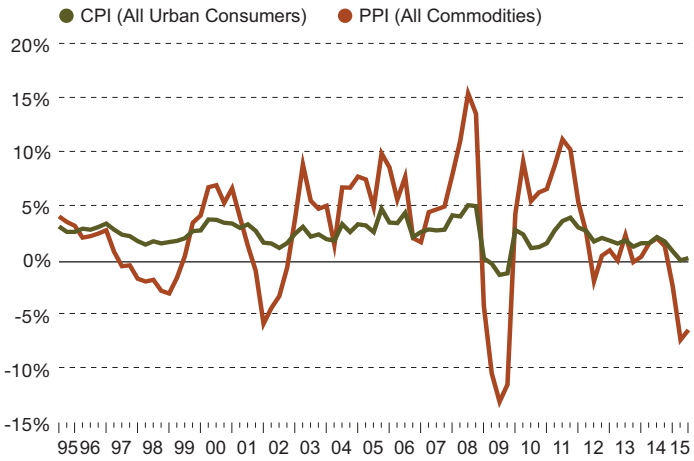
The job market posted solid gains during the first half of 2015, averaging 195,000 per month in the first quarter and 221,000 per month in the second. The year-over-year gain in jobs through June reached just short of three million, the largest gain for the July-June period since 2000. The unemployment rate fell to 5.3% in June. While these data confirm that the first-quarter GDP weakness was an anomaly, the Fed remains concerned about key characteristics of the U.S. labor market. Much of the improvement in the unemployment rate has been the result of discouraged workers leaving the labor force. The labor force participation rate fell to 62.6% in June, a 38-year low. Wage growth has been positive but modest, rising 2% year-over-year through June, suggesting continued slack in the labor market despite the reported job gains.

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

Inflation remains well below the Fed's 2% target. Headline CPI was flat in June compared to one year earlier due to sharply falling energy prices in the latter half of 2014. Core CPI, which excludes food and energy, was up 1.8% in June year-over-year, pushed up by health care and housing costs. The sharp drop in energy prices provided a windfall of sorts for consumers, enabling them to direct spending to other categories, such as cars and other durable goods.

Household net worth reached $85 trillion in the first quarter of 2015, fueled by rising home prices and the strong U.S. stock market. Net worth is now 25% higher than its 2007 pre-financial-crisis peak. This improvement in net worth, combined with the solid job market gains, has led to a buoyed level of consumer confidence and resulted in broad consumer spending, strong auto sales, and perked up interest in the housing market. Home prices are rising everywhere, but at varying rates; gains have averaged 5% year-over-year over the past 12 months. Existing home sales rose 3.2% in June to a 5.49 million-unit annual rate, while new home sales are running at a 545,000-unit rate; both rates are multi-year highs, but substantially below the peaks set prior to 2007. Inventories remain tight, despite the rising prices. One factor is the existing supply of homes that remain under water relative to their mortgage; recent estimates place this inventory at five million.

Capital spending by sector was all over the map during the first half of 2015. Spending on buildings suddenly surged during the second quarter. Spending on R&D and software continues to grow at a solid rate, while spending on equipment has stalled over the past four quarters. These three sectors drove business investment spending for several years after the recession. Spending on mining and oil wells collapsed, formerly another source of recent robust investment growth. Taken as a whole, capital spending stumbled in the fourth quarter of 2014 and suffered a weaker-than-expected first half of 2015, most likely because economic growth was interrupted.

U.S. exports of goods plunged in the first quarter of 2015, sapped by the surging dollar and uncertain economic growth. However, imports continued to increase and the combined effect of net exports (exports minus imports) subtracted 1.9% from GDP growth. Exports rebounded in the second quarter, as the impact of the dollar's surge stabilized and a modest recovery took hold in the euro zone. Exports rose by 5.3% and import growth slipped from 7.1% in the first quarter to 3.5% in the second; as a result, net exports no longer dragged on GDP growth.

The Long-Term View

Index	2015 2nd Qtr	Periods ended December 31, 2014 Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	0.14	12.56	15.63	7.94	9.78
S&P 500	0.28	13.69	15.45	7.67	9.62
Russell 2000	0.42	4.89	15.55	7.77	9.75
Non-U.S. Equity					
MSCI EAFE	0.62	-4.90	5.33	4.43	4.31
MSCI Emerging Markets	0.82	-1.82	2.11	8.78	8.83
S&P Ex-U.S. Small Cap	4.61	-3.42	8.52	6.84	5.48
Fixed Income					
Barclays Aggregate	-1.68	5.97	4.45	4.71	6.49
90-Day T-Bill	0.01	0.03	0.09	1.54	3.24
Barclays Long G/C	-7.22	19.31	9.81	7.36	8.49
Citi Non-U.S. Govt	-1.54	-2.68	0.85	2.64	6.21
Real Estate					
NCREIF Property	3.14	11.82	12.13	8.38	7.61
FTSE NAREIT Equity	-9.95	30.14	16.88	8.31	11.25
Alternatives					
CS Hedge Fund	-0.48	4.13	5.88	5.82	--
Cambridge PE*	--	22.88	17.40	14.02	15.56
Bloomberg Commodity	4.66	-17.01	-5.53	-1.86	--
Gold Spot Price	-0.96	-1.51	1.55	10.45	4.38
Inflation – CPI-U	1.07	0.76	1.69	2.12	2.52

*Private equity data is time-weighted return for period ended December 31, 2014.

Sources: Barclays, Bloomberg, Citigroup, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson/Cambridge.

Recent Quarterly Indicators

Economic Indicators	2Q15	1Q15	4Q14	3Q14	2Q14	1Q14	4Q13	3Q13
Employment Cost–Total Compensation Growth	2.0%	2.6%	2.2%	2.2%	2.0%	1.8%	2.0%	1.9%
Nonfarm Business–Productivity Growth	1.0%*	-3.1%	-2.1%	3.9%	2.9%	-4.7%	3.0%	3.4%
GDP Growth	2.3%	0.6%	2.1%	4.3%	4.6%	-0.9%	3.8%	3.0%
Manufacturing Capacity Utilization	77.2%	77.3%	77.8%	77.5%	77.1%	76.2%	76.4%	76.0%
Consumer Sentiment Index (1966=100)	94.2	95.5	89.8	83.0	82.8	80.9	76.9	81.6

*Estimate

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

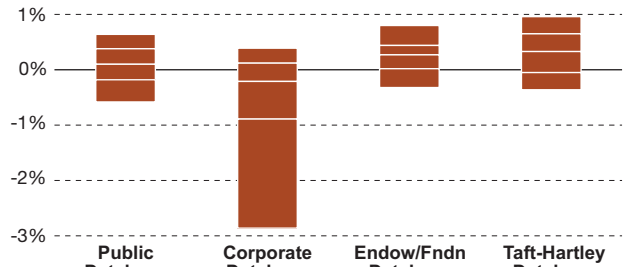
Returns Take a Semester Abroad

FUND SPONSOR | Kevin Nagy

Public markets experienced an up-and-down quarter, with equity indices exhibiting slight gains while fixed income was in the red. Non-U.S. equity markets (**MSCI ACWI ex USA Index**: +0.72%) were able to overcome uncertainty in Greece and a large sell-off in China to beat U.S. equity (**Russell 3000 Index**: +0.14%) for the second straight quarter. Both U.S. and non-U.S. fixed income markets suffered losses (**Barclays Aggregate**: -1.68%, **Citi Non-U.S. World Government Bond Index-Unhedged**: -1.54%).

As seen in the Callan Fund Sponsor Quarterly Returns chart, performance was tepid at best. Corporate funds were the worst performers across all percentiles shown, while Taft-Hartley plans (+0.33%) were the best at the median. The 10th percentile's performance displayed moderate dispersion, with Taft-Hartley plans (+0.96%) coming in first place and endowments/foundations (+0.80%) second. Dispersion in the bottom decile was highest, with endowments/foundations (-0.32%) in the lead and corporate plans (-2.86%) bringing up the rear.

Callan Fund Sponsor Quarterly Returns



	Public Database	Corporate Database	Endow/Fndn Database	Taft-Hartley Database
10th Percentile	0.64	0.39	0.80	0.96
25th Percentile	0.38	0.12	0.44	0.65
Median	0.10	-0.21	0.27	0.33
75th Percentile	-0.18	-0.89	0.02	-0.05
90th Percentile	-0.58	-2.86	-0.32	-0.36

Source: Callan

In terms of asset allocation and its impact on performance, Taft-Hartley funds benefited from a smaller exposure to fixed income when compared to their corporate peers. They were also helped by a strong performance from private real estate (**NCREIF Property Index**: +3.14%). Corporate funds were hurt by larger allocations to U.S. fixed income than the other fund

Database Median and Index Returns* for Periods ended June 30, 2015

Fund Sponsor	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Public Database	**0.10**	**2.43**	**3.20**	**10.30**	**10.41**	**6.57**
Corporate Database	**-0.21**	**2.15**	**2.94**	**9.72**	**10.57**	**6.79**
Endowments/Foundations Database	**0.27**	**2.56**	**2.34**	**10.03**	**9.89**	**6.53**
Taft-Hartley Database	**0.33**	**2.64**	**4.10**	**10.74**	**10.81**	**6.28**
Diversified Manager	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Asset Allocator Style	**-0.25**	**1.46**	**3.89**	**9.98**	**10.51**	**6.77**
U.S. Balanced Database	**-0.19**	**2.00**	**2.76**	**11.30**	**11.55**	**6.65**
Global Balanced Database	**-0.89**	**1.44**	**-0.06**	**8.00**	**8.88**	**6.58**
60% Russell 3000 + 40% Barclays Agg	-0.59	1.12	5.10	11.23	11.98	7.08
60% MSCI World + 40% Barclays Glbl Agg	-0.29	0.33	-2.04	8.04	8.72	5.50

*Returns less than one year are not annualized.

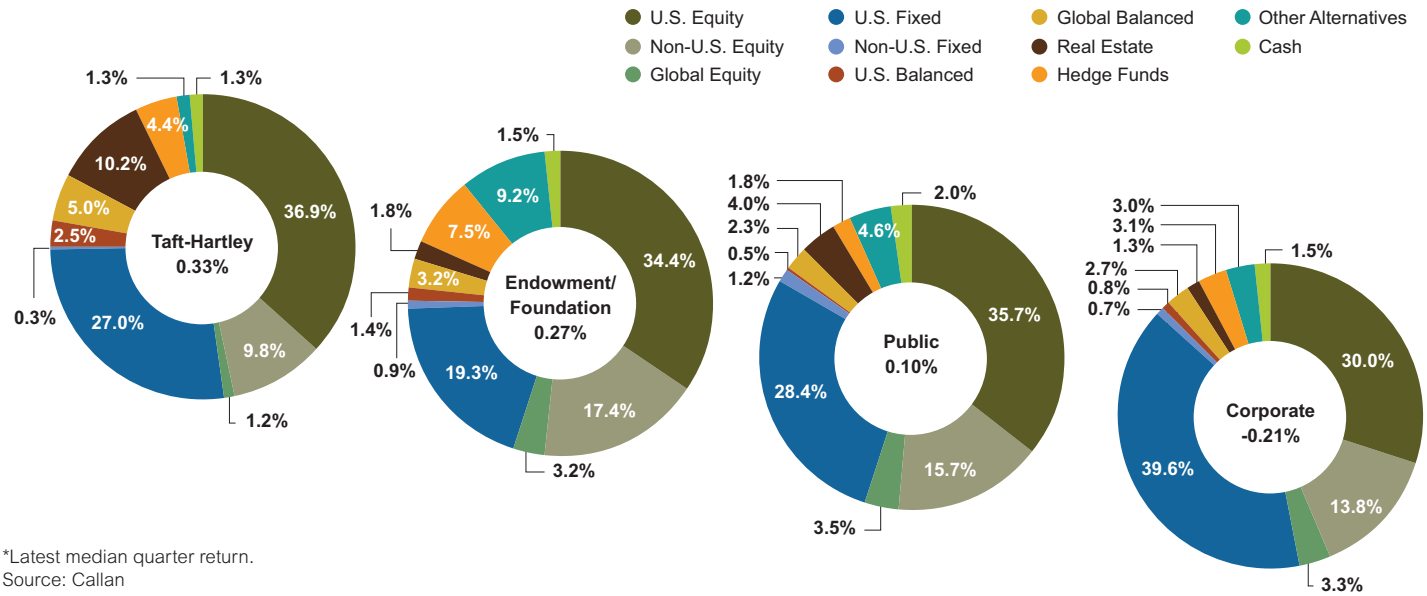
Sources: Callan, Barclays, MSCI, Russell Investment Group

types. As in the first quarter, corporate funds had the widest dispersion between top and bottom percentiles, due to some plans employing liability-driven investment (LDI) programs.

Taft-Hartley funds were the top performers in all noted time periods except for the 10-year period, which went to corporate funds. All fund types for that long-term time period displayed very similar performance in the 6% to 7% range.

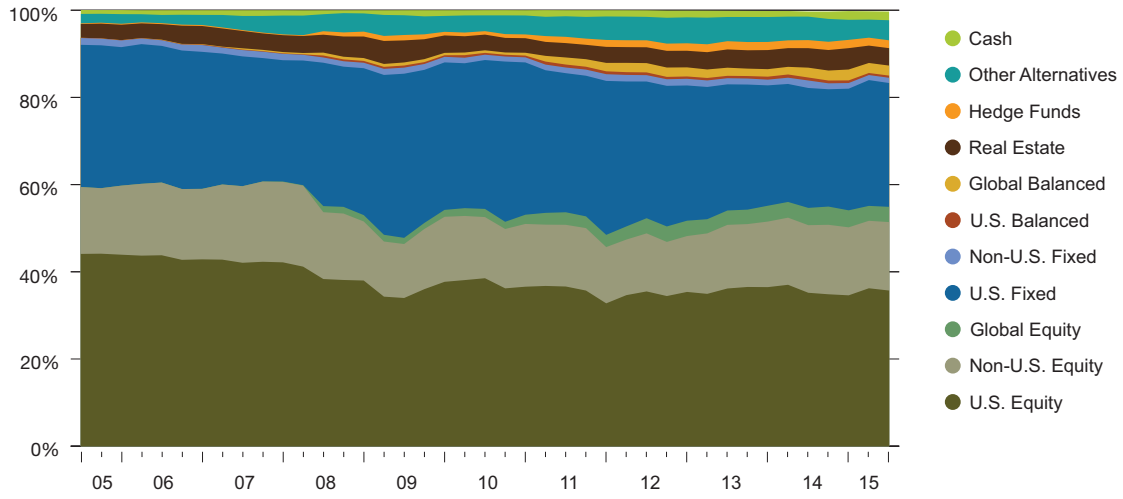
Despite trailing in the most recent quarter, the U.S.-focused 60% Russell 3000 + 40% Barclays Aggregate (-0.59%) has outperformed the global 60% MSCI World + 40% Barclays Global Aggregate benchmark (-0.29%) for every other time period. Callan's U.S. Balanced Database group has also outperformed the Global Balanced Database group in every period shown.

Callan Fund Sponsor Average Asset Allocation



*Latest median quarter return.
Source: Callan

Callan Public Fund Database Average Asset Allocation (10 Years)



Source: Callan

Underwhelming

U.S. EQUITY | Lauren Mathias, CFA

The second quarter got off to a promising start through April and May. In June, however, the **S&P 500 Index** dropped almost 2%, reducing U.S. equity results for the three-month period to 0.28%. Before declining, market indices reached new peaks—most notably the NASDAQ Composite surpassed the all-time high it previously set in March 2000.

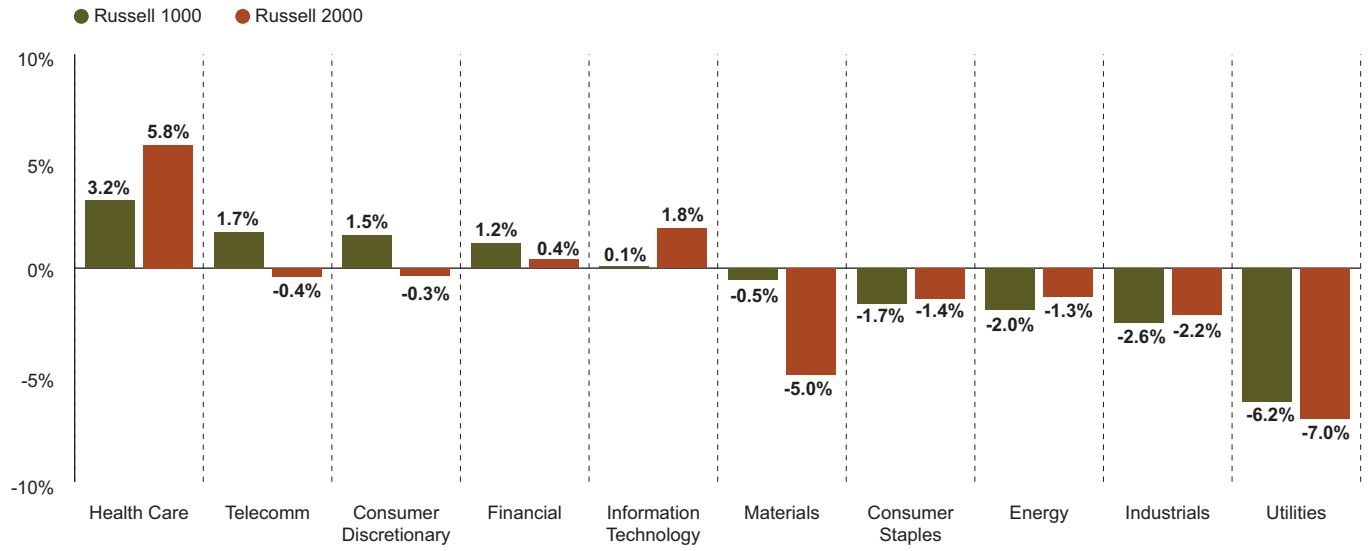
Despite underwhelming equity results, the U.S. economy does have some tailwinds. June's unemployment rate declined to 5.3%, housing improved as more Americans took out mortgages, and consumer confidence ticked higher. However, the Fed's concerns about economic growth persisted, further delaying a potential increase in interest rates. Underlying U.S. fundamentals appear solid, with corporate profit margins near highs and leverage well below historical averages. This is reflected in valuations with current P/E ratios across market capitalizations above 20-year averages.

Large and small cap stocks showed slightly positive returns this quarter (**Russell 1000 Index**: +0.1% and **Russell 2000 Index**: +0.4%) while mid cap trailed considerably (**Russell Mid-Cap Index**: -1.5%). Growth maintained its lead over value in all capitalizations, but most dramatically in small cap (**Russell 2000 Growth Index**: +2.0% and **Russell 2000 Value Index**: -1.2%). Small cap growth continued to beat small cap value in all annualized time periods of less than 10 years. Micro caps and mega caps both advanced (**Russell Microcap Index**: +2.8% and **Russell Top 50**: +1.5%).

Sectors exhibited divergent quarterly results across market capitalizations. Small cap Materials declined sharply versus a slight dip in large cap. Health Care boosted both large and small market caps but was much stronger in small cap. Utilities were the worst-performing sector across capitalizations as interest-rate-sensitive securities declined. On a positive note, M&A activity remained strong, with deal flow increasing across most sectors.

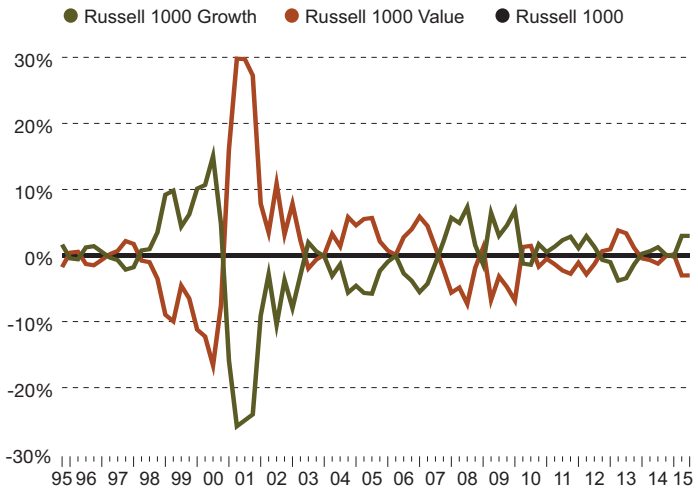
Notably, active management is having the most successful year since the financial crisis; almost half of active large cap managers have outperformed in 2015 thus far. This contrasts with assets that continue to flow to passive strategies, which have grown to be one-third of U.S. equity AUM.

Economic Sector Quarterly Performance



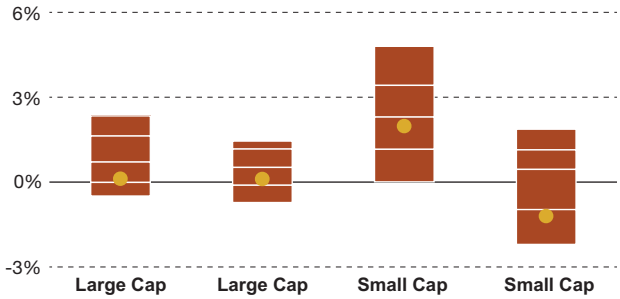
Source: Russell Investment Group

Rolling One-Year Relative Returns (vs. Russell 1000)



Source: Russell Investment Group

Callan Style Group Quarterly Returns



	Large Cap Growth Style	Large Cap Value Style	Small Cap Growth Style	Small Cap Value Style
10th Percentile	2.34	1.45	4.80	1.87
25th Percentile	1.63	1.17	3.42	1.14
Median	0.71	0.52	2.30	0.45
75th Percentile	-0.01	-0.11	1.16	-0.97
90th Percentile	-0.49	-0.72	0.01	-2.20
	R1000 Growth	**R1000 Value**	**R2000 Growth**	**R2000 Value**
Benchmark	0.12	0.11	1.98	-1.20

Sources: Callan, Russell Investment Group

U.S. Equity Index Characteristics as of June 30, 2015

	S&P 500	Rus 3000	Rus 1000	Rus Midcap	Rus 2500	Rus 2000
Cap Range Min ($mm)	1,735	24	354	354	24	24
Cap Range Max ($bn)	722.58	722.58	722.58	28.09	10.80	4.70
Number of Issues	502	3,004	1,029	829	2,494	1,975
% of Russell 3000	80%	100%	92%	28%	19%	8%
Wtd Avg Mkt Cap ($bn)	127.97	103.44	112.50	12.16	4.06	1.89
Price/Book Ratio	2.7	2.6	2.7	2.5	2.2	2.1
Forward P/E Ratio	16.4	17.2	16.9	19.0	19.8	20.9
Dividend Yield	2.1%	1.9%	2.0%	1.6%	1.4%	1.3%
5-Yr Earnings (forecasted)	10.3%	11.2%	11.1%	12.9%	13.0%	13.5%

Sources: Russell Investment Group, Standard & Poor's

Style Median and Index Returns* for Periods ended June 30, 2015

Large Cap Equity	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Large Cap Core Style	**0.42**	**1.82**	**8.00**	**18.21**	**17.89**	**8.39**
Large Cap Growth Style	**0.71**	**4.57**	**11.86**	**18.87**	**18.54**	**9.37**
Large Cap Value Style	**0.52**	**0.86**	**5.23**	**18.26**	**17.08**	**7.69**
Aggressive Growth Style	**1.49**	**6.77**	**10.44**	**17.74**	**17.31**	**9.83**
Contrarian Style	**0.40**	**0.65**	**5.46**	**17.91**	**16.74**	**7.94**
Yield-Oriented Style	**-0.15**	**0.02**	**4.25**	**15.70**	**15.99**	**8.28**
Russell 3000	0.14	1.94	7.29	17.73	17.54	8.15
Russell 1000	0.11	1.71	7.37	17.73	17.58	8.13
Russell 1000 Growth	0.12	3.96	10.56	17.99	18.59	9.10
Russell 1000 Value	0.11	-0.61	4.13	17.34	16.50	7.05
S&P Composite 1500	0.17	1.57	7.31	17.41	17.39	8.08
S&P 500	0.28	1.23	7.42	17.31	17.34	7.89
NYSE	-0.20	0.94	0.79	14.49	15.46	7.67
Dow Jones Industrials	-0.29	0.03	7.21	13.77	15.41	8.32
Mid Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Mid Cap Core Style	**-1.08**	**4.51**	**7.73**	**21.22**	**19.70**	**10.21**
Mid Cap Growth Style	**0.57**	**6.52**	**10.75**	**18.44**	**18.36**	**10.48**
Mid Cap Value Style	**-1.45**	**1.76**	**4.46**	**19.31**	**17.63**	**9.77**
Russell Midcap	-1.54	2.35	6.63	19.26	18.23	9.40
S&P MidCap 400	-1.06	4.20	6.40	18.60	17.82	9.74
Small Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Small Cap Core Style	**0.55**	**5.53**	**7.98**	**20.57**	**19.28**	**9.55**
Small Cap Growth Style	**2.30**	**8.37**	**11.25**	**19.92**	**19.56**	**10.35**
Small Cap Value Style	**0.45**	**3.09**	**4.44**	**18.61**	**17.48**	**8.99**
Russell 2000	0.42	4.75	6.49	17.81	17.08	8.40
S&P SmallCap 600	0.19	4.16	6.72	18.81	18.44	9.27
NASDAQ	2.03	5.90	14.44	20.94	20.26	10.42
Smid Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Smid Cap Broad Style	**0.58**	**7.08**	**8.81**	**19.15**	**18.93**	**10.06**
Smid Cap Growth Style	**1.82**	**8.64**	**10.75**	**19.12**	**19.75**	**10.14**
Smid Cap Value Style	**-0.66**	**2.77**	**4.88**	**19.11**	**17.63**	**9.90**
Russell 2500	-0.34	4.81	5.92	18.66	17.85	9.09
S&P 1000	-0.68	4.20	6.51	18.68	18.02	9.58
Russell 3000 Sectors	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Consumer Discretionary	1.36	6.10	14.73	22.99	23.12	9.98
Consumer Staples	-1.65	-0.42	9.54	14.64	17.00	10.82
Energy	-1.94	-4.13	-24.31	5.19	10.03	6.42
Financials	1.08	0.40	9.09	19.28	14.17	1.40
Health Care	3.38	11.45	26.47	28.19	24.58	12.03
Industrials	-2.53	-2.14	1.70	17.95	17.40	8.58
Information Technology	0.20	1.88	11.20	16.89	17.65	9.88
Materials	-0.97	0.03	-2.31	13.20	14.59	9.38
Telecommunications	1.63	3.56	1.69	7.56	14.16	7.32
Utilities	-6.31	-10.58	-3.88	8.54	12.65	7.02

*Returns less than one year are not annualized.
Sources: Callan, Dow Jones & Company, Russell Investment Group, Standard & Poor's, The NASDAQ Stock Market

Greek Gloom

NON-U.S. EQUITY | Irina Sushch

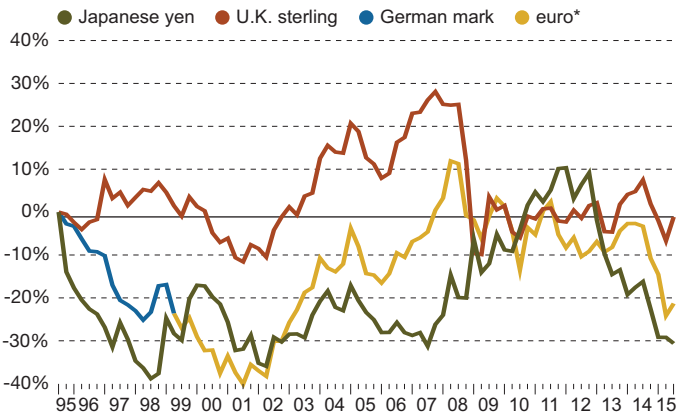
Non-U.S. markets managed to eke out a slightly positive return (**MSCI ACWI ex USA Index**: +0.72%) despite heightened concerns about Greece and China. Even with a "Grexit" looming, China threatened to steal the spotlight—its Shanghai Composite Index dropped nearly 20% in the final weeks of the quarter. Before nosediving, the Index was at a seven-year high and up roughly 150% from year-end 2013.

Both the developed **MSCI World ex USA Index** (+0.48%) and the **MSCI Emerging Markets Index** (+0.82%) delivered meager returns. Small cap stocks continued to climb amid the macro chaos (**MSCI ACWI ex USA Small Cap Index**: +4.22%). In international sectors, Energy (+2.59%) was boosted by rising oil prices. Telecommunications (+3.58%) gained on significant M&A activity. Information Technology (-2.56%) was the weakest sector, dragged down by low earnings in the first quarter. Global uncertainty, stunted earnings, and rising rates undermined the remaining non-U.S. sectors.

European stocks failed to impress (**MSCI Europe Index**: +0.36%). Greece continued to dampen investors' spirits, ending the quarter with a missed €1.55 billion payment to the International Monetary Fund. Germany slipped 5.59%, red across every sector due to slowing GDP growth. Health Care was a big detractor (European Health Care: -1.19%). Information Technology (-2.44%) and Industrials (-1.60%) stocks struggled.

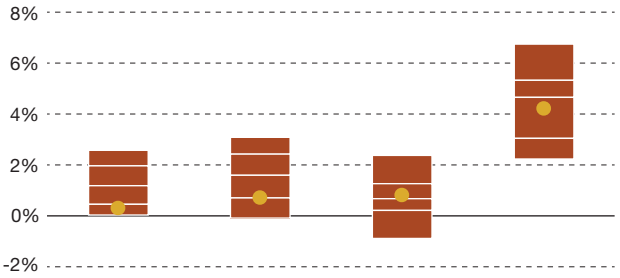
The **MSCI Pacific Index** (+1.14%) surpassed Europe by 78 bps, owing mainly to upbeat markets in Hong Kong (+5.56%) and Japan (+3.09%). Hong Kong experienced a flood of investment from China. Japan's GDP grew at an annualized 3.9% in the first quarter of 2015, and Japanese Financials were up 9.36% as banks benefitted from aggressive central bank policies. New Zealand (-13.08%) and Australia (-6.19%) fell deep into the red as their major exports (dairy and metals, respectively), were heavily affected by the mounting crisis in China's stock market. So far in 2015, the kiwi has fallen 13.3% against the U.S. dollar. Financials in Australia (-7.79%) were hammered by sluggish growth in the second quarter.

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



*euro returns from 1Q99
Source: MSCI

Callan Style Group Quarterly Returns

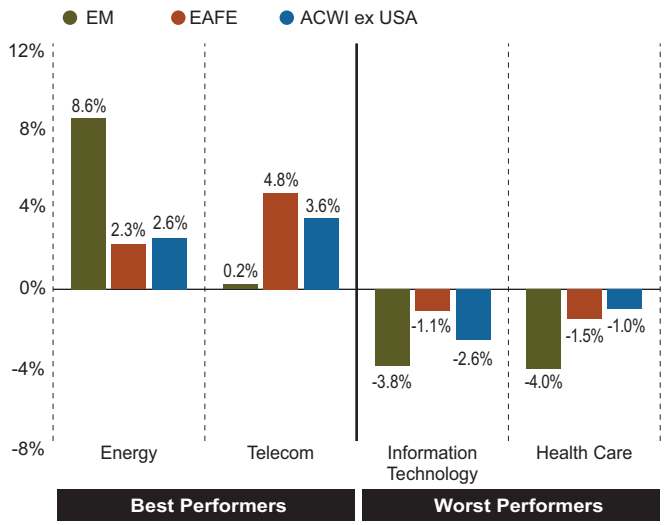


	Global Eq Style	Non-U.S. Eq Style	Emg Mkt Style	Small Cap Style
10th Percentile	2.54	3.05	2.34	6.71
25th Percentile	1.93	2.39	1.23	5.29
Median	1.15	1.56	0.64	4.62
75th Percentile	0.42	0.67	0.18	3.01
90th Percentile	0.00	-0.12	-0.92	2.20
	MSCI World	MSCI ACWI ex USA	MSCI Emg Mkts	MSCI ACWI ex USA SC
Benchmark	0.31	0.72	0.82	4.22

Sources: Callan, MSCI

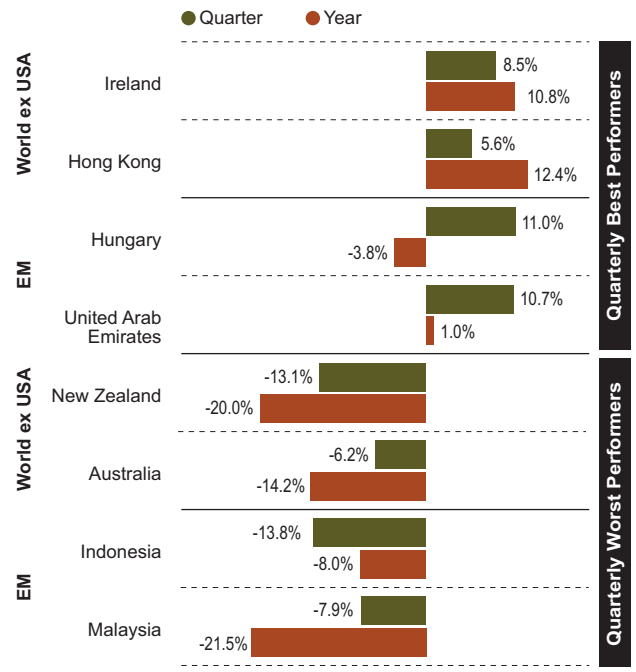
Although emerging market Energy stocks rose 8.62% due to climbing oil prices, the **MSCI Emerging Markets Index** (+0.82%) was hindered by Information Technology (-3.84%). **MSCI Emerging Markets Asia** (-0.04%) was chock full of negative stories. Indonesia (-13.82%), Malaysia (-7.88%), and Thailand (-3.30%) all experienced lethargic economic growth. Tech stocks impeded equity markets in South Korea and Taiwan. In India, subsiding growth along with lower-than-expected IT sales made for a weak quarter (-3.61%). China managed to gain 6.21% due to even lower interest rates and less restrictive real estate policies. However, China's markets were volatile throughout the quarter and crashed in the final two weeks. Russia (+7.70%) and Brazil (+7.02%) were bright spots, both buoyed by climbing commodity prices. Brazil's government is promising budget cuts, and Russia further cut interest rates to 11.5%. In Greece, equities gained 5.35% for the quarter in spite of the ongoing debt crisis, which damaged returns across the globe.

Quarterly Returns: Strong and Struggling Sectors



Source: MSCI

Quarterly and Annual Country Performance Snapshot



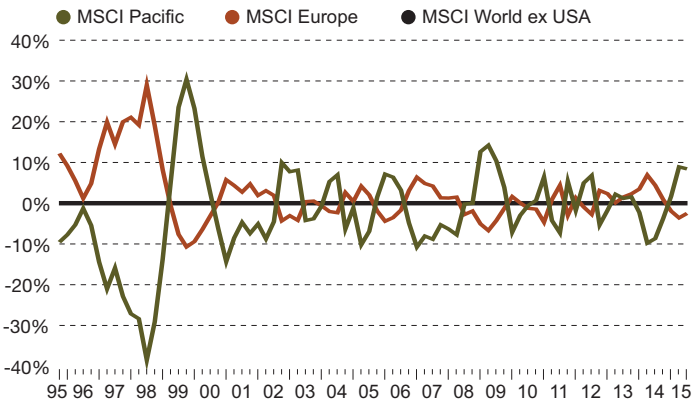
Source: MSCI

Quarterly Return Attribution for EAFE (U.S. Dollar)

Country	Total	Local	Currency	Wtg
Australia	-6.19%	-6.75%	0.61%	6.87%
Austria	3.18%	-0.54%	3.74%	0.17%
Belgium	1.04%	-2.60%	3.74%	1.30%
Denmark	2.36%	-1.48%	3.89%	1.66%
Finland	-3.89%	-7.36%	3.74%	0.82%
France	0.31%	-3.31%	3.74%	9.69%
Germany	-5.59%	-8.99%	3.74%	8.89%
Hong Kong	5.56%	5.56%	0.01%	3.25%
Ireland	8.52%	4.60%	3.74%	0.37%
Israel	-1.50%	-6.57%	5.42%	0.60%
Italy	2.49%	-1.21%	3.74%	2.41%
Japan	3.09%	5.19%	-1.99%	22.88%
Netherlands	2.81%	-0.90%	3.74%	2.77%
New Zealand	-13.08%	-3.62%	-9.81%	0.13%
Norway	3.31%	0.86%	2.44%	0.64%
Portugal	2.00%	-1.68%	3.74%	0.15%
Singapore	-0.06%	-1.86%	1.87%	1.43%
Spain	-2.05%	-5.58%	3.74%	3.51%
Sweden	-2.95%	-6.63%	3.94%	2.93%
Switzerland	1.01%	-2.82%	3.93%	9.23%
U.K.	2.99%	-2.79%	5.94%	20.29%

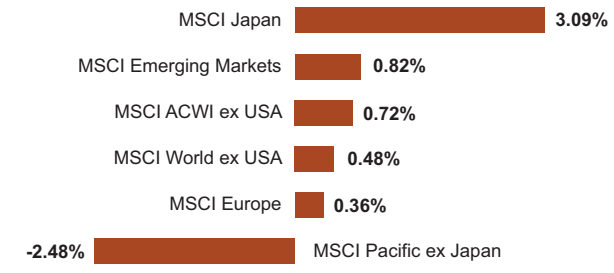
Sources: MSCI, Russell Investment Group, Standard & Poor's.

Rolling One-year Relative Returns (vs. MSCI World ex USA)



Source: MSCI

Regional Quarterly Performance (U.S. Dollar)



Source: MSCI

Style Median and Index Returns* for Periods ended June 30, 2015

Non-U.S. Equity	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Non-U.S. Equity Style	**1.56**	**6.63**	**-1.66**	**12.62**	**10.47**	**6.45**
MSCI EAFE	0.62	5.52	-4.22	11.97	9.54	5.12
MSCI EAFE (local)	-1.82	8.82	11.78	18.08	11.27	5.41
MSCI ACWI ex USA	0.72	4.35	-4.85	9.92	8.23	6.01
MSCI ACWI ex USA Growth	0.74	5.67	-1.70	10.54	8.84	6.37
MSCI ACWI ex USA Value	0.71	2.97	-7.98	9.25	7.58	5.91
Global Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Global Equity Style	**1.15**	**4.24**	**3.60**	**15.39**	**13.79**	**7.63**
MSCI World	0.31	2.63	1.43	14.27	13.10	6.38
MSCI World (local)	-0.69	4.14	8.41	17.01	13.79	6.36
MSCI ACWI	0.52	2.97	1.23	13.61	12.52	6.96
Regional Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
MSCI Europe	0.36	3.82	-7.65	12.37	10.02	5.03
MSCI Europe (local)	-3.91	7.25	6.99	15.16	10.37	5.49
MSCI Japan	3.09	13.62	8.31	13.30	8.80	4.23
MSCI Japan (local)	5.19	15.96	30.83	30.66	16.09	5.27
MSCI Pacific ex Japan	-2.48	0.58	-6.79	7.53	8.70	7.94
MSCI Pacific ex Japan (local)	-2.99	4.75	6.96	14.39	9.59	7.45
Emerging/Frontier Markets	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Emerging Market Style	**0.64**	**2.35**	**-5.34**	**4.86**	**4.67**	**8.97**
MSCI Emerging Markets	0.82	3.12	-4.77	4.08	4.03	8.46
MSCI Emerging Markets (local)	0.82	5.80	6.63	9.01	7.30	10.06
MSCI Frontier Markets	-0.05	-3.15	-13.93	12.96	7.29	0.42
Non-U.S. Small Cap Equity	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Non-U.S. Small Cap Style	**4.62**	**10.78**	**0.38**	**17.42**	**14.21**	**9.08**
MSCI World ex USA Small Cap	4.16	8.36	-3.96	13.60	11.10	6.30
MSCI ACWI ex USA Small Cap	4.22	8.32	-3.07	12.32	9.72	7.38
MSCI Emerging Market Small Cap	4.50	8.25	0.34	7.98	5.04	10.10

*Returns less than one year are not annualized.
Sources: Callan, MSCI

Rates Move Higher

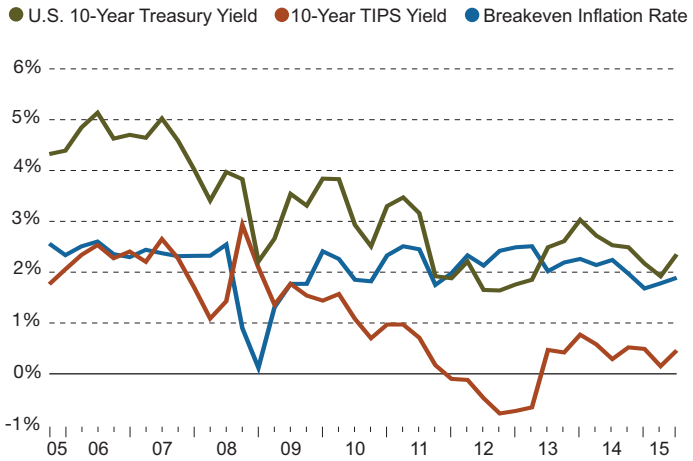
U.S. FIXED INCOME | Kevin Machiz, CFA, FRM

Interest rates moved higher in the second quarter given upward pressure from global interest rates as deflationary fears showed signs of relenting. The yield curve steepened after five consecutive quarters of flattening. The **Barclays Aggregate Index** fell 1.68%.

Short-term rates remained stable, as the Fed continued to peg the federal funds and discount rates at 0.00%–0.25% and 0.75%, respectively. The 10-year U.S. Treasury yield rose 43 bps. Yields on longer-term bonds increased even more (30-year U.S. Treasury yield: +59 bps).

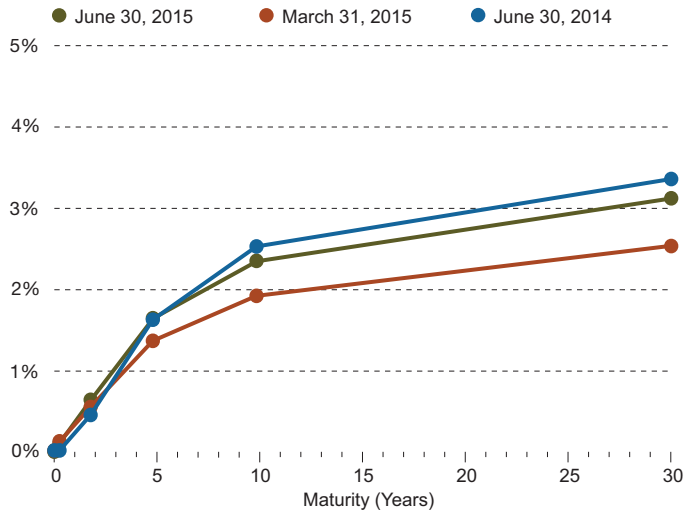
The market's expectation for the first hike in the fed funds rate settled around the end of 2015. The breakeven inflation rate (the difference between nominal and real yields) on the 10-year Treasury increased 12 bps to 1.89% as TIPS outperformed nominal Treasuries.

Historical 10-Year Yields



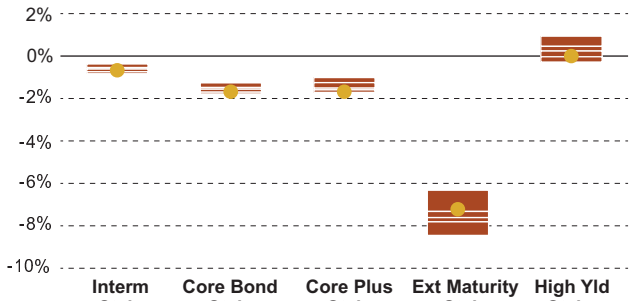
Source: Bloomberg

U.S. Treasury Yield Curves



Source: Bloomberg

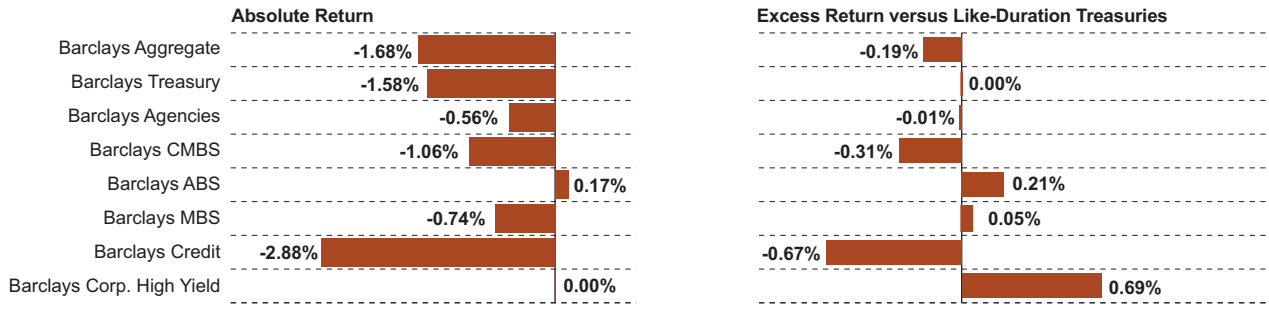
Callan Style Group Quarterly Returns



	Interm Style	Core Bond Style	Core Plus Style	Ext Maturity Style	High Yld Style
10th Percentile	-0.37	-1.26	-1.01	-6.32	0.94
25th Percentile	-0.54	-1.48	-1.25	-7.32	0.46
Median	-0.61	-1.56	-1.51	-7.61	0.24
75th Percentile	-0.74	-1.70	-1.59	-7.81	-0.03
90th Percentile	-0.83	-1.78	-1.71	-8.45	-0.28
	Barclays Interm Agg	**Barclays Agg**	**Barclays Agg**	**Barclays Long G/C**	**Barclays High Yld**
Benchmark	-0.67	-1.68	-1.68	-7.22	0.00

Sources: Barclays, Callan

Fixed Income Index Quarterly Returns

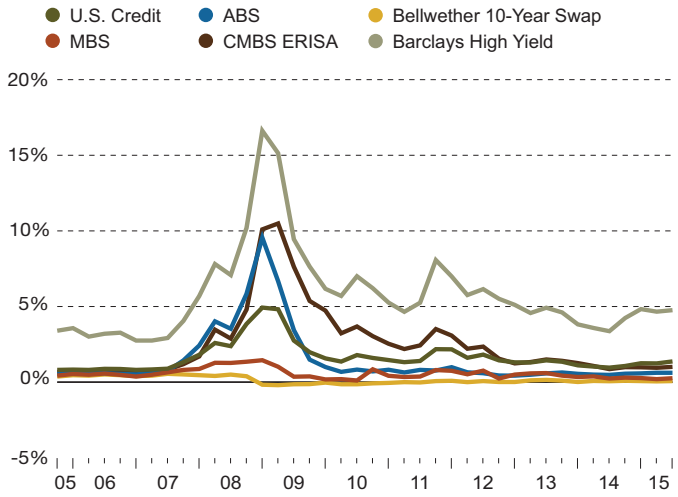


Source: Barclays

Relative to like-duration Treasuries, non-Treasury sectors saw scant gains (MBS: +0.05%; ABS: +0.21%) or negative results. Investment-grade corporate spreads widened with Utilities, Financials, and Industrials underperforming Treasuries by 1.41%, 0.61%, and 0.94% respectively.

High yield corporate bonds were among the best performers in the U.S. fixed income market as some energy companies rebounded strongly. The **Barclays Corporate High Yield Index** ended the quarter unchanged. New issue activity is on pace with the previous three calendar years. Year-to-date, there was approximately $191 billion in new issuance of high yield bonds.

Effective Yield Over Treasuries



Source: Barclays

U.S. Fixed Income Index Characteristics as of June 30, 2015

Barclays Indices	Yield to Worst	Mod Adj Duration	Avg Maturity	% of Barclays G/C	% of Barclays Agg
Barclays Aggregate	2.39	5.63	7.87		100.00%
Barclays Govt/Credit	2.24	6.09	8.33	100.00%	69.31%
Intermediate	1.74	3.94	4.28	79.77%	55.29%
Long-Term	4.20	14.58	24.32	20.23%	14.02%
Barclays Govt	1.47	5.44	6.68	56.76%	39.34%
Barclays Credit	3.25	6.95	10.51	43.24%	29.97%
Barclays MBS	2.78	4.61	7.06		28.11%
Barclays ABS	1.45	2.46	2.63		0.58%
Barclays CMBS	2.49	4.61	5.14		1.94%
Barclays Corp High Yield	6.57	4.36	6.41		

Source: Barclays

Style Median and Index Returns* for Periods ended June 30, 2015

Broad Fixed Income	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Core Bond Style	**-1.56**	**0.14**	**2.12**	**2.46**	**3.97**	**4.94**
Core Bond Plus Style	**-1.51**	**0.37**	**1.92**	**3.23**	**4.97**	**5.42**
Barclays Aggregate	-1.68	-0.10	1.86	1.83	3.35	4.44
Barclays Govt/Credit	-2.10	-0.30	1.69	1.76	3.52	4.38
Barclays Govt	-1.50	0.08	2.27	0.93	2.63	3.99
Barclays Credit	-2.88	-0.78	0.93	3.03	4.93	5.12
Citi Broad Investment Grade	-1.66	-0.06	1.87	1.83	3.31	4.53
Long-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Extended Maturity Style	**-7.61**	**-4.59**	**1.59**	**3.06**	**7.20**	**6.56**
Barclays Long Govt/Credit	-7.22	-4.11	2.32	2.61	6.79	6.18
Barclays Long Govt	-8.10	-4.52	6.20	1.25	6.23	6.12
Barclays Long Credit	-7.26	-4.42	-0.37	3.44	7.04	6.02
Citi Pension Discount Curve	-11.07	-6.78	2.36	2.72	8.74	6.93
Intermediate-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Intermediate Style	**-0.61**	**0.79**	**1.70**	**1.96**	**3.09**	**4.54**
Barclays Intermediate Aggregate	-0.67	0.64	1.89	1.74	2.89	4.22
Barclays Intermediate Govt/Credit	-0.62	0.82	1.68	1.60	2.79	4.02
Barclays Intermediate Govt	-0.43	0.82	1.79	0.90	2.06	3.67
Barclays Intermediate Credit	-0.94	0.82	1.51	2.88	4.19	4.80
Short-Term	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Defensive Style	**0.11**	**0.76**	**1.08**	**1.09**	**1.50**	**3.05**
Active Duration Style	**-0.85**	**0.64**	**1.70**	**1.97**	**3.39**	**4.57**
Money Market Funds (net of fees)	0.00	0.00	0.01	0.01	0.01	1.32
ML Treasury 1–3-Year	0.15	0.67	0.88	0.66	0.82	2.52
90-Day Treasury Bills	0.01	0.01	0.02	0.06	0.08	1.42
High Yield	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
High Yield Style	**0.24**	**2.84**	**0.24**	**7.06**	**8.76**	**7.90**
Barclays Corporate High Yield	0.00	2.53	-0.40	6.81	8.61	7.89
ML High Yield Master	-0.04	2.49	-0.53	6.74	8.38	7.67
Mortgage/Asset-Backed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Mortgage Style	**-0.59**	**0.60**	**2.66**	**2.44**	**3.53**	**4.87**
Barclays MBS	-0.74	0.31	2.28	1.92	2.89	4.56
Barclays ABS	0.17	1.08	1.64	1.38	2.48	3.32
Barclays CMBS	-1.06	0.69	1.91	3.28	5.53	5.12
Municipal	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Barclays Muni	-0.89	0.11	3.00	3.10	4.50	4.45
Barclays Muni 1–10-Year	-0.51	0.32	1.74	2.10	3.22	3.89
Barclays Muni 3-Year	-0.02	0.39	0.57	1.17	1.71	2.97
TIPS	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Barclays TIPS Full Duration	-1.06	0.34	-1.73	-0.76	3.29	4.13
Barclays TIPS 1-10 Year	-0.15	1.06	-1.95	-0.54	2.36	3.70

*Returns of less than one year are not annualized.

Sources: Barclays, Callan, Citigroup, Merrill Lynch

Deal or No Deal

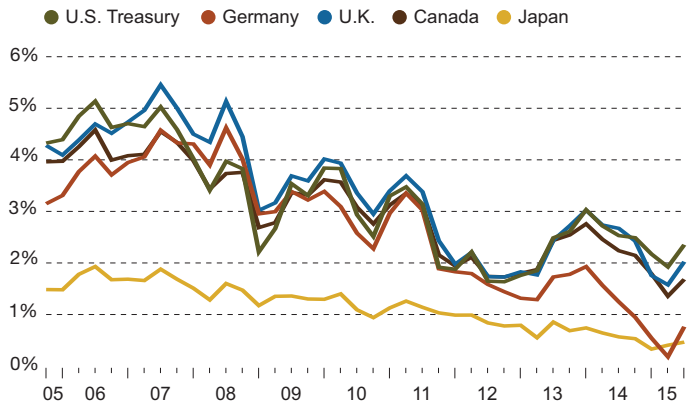
NON-U.S. FIXED INCOME | Kyle Fekete

The developed fixed income markets were characterized by rising interest rates, reversing the downward trend over the past several quarters. In a dramatic reversal, yield on German bunds climbed to 0.76% in June, up from the all-time low of 0.05% in mid-April. Rising interest rates were spurred by brighter news in Europe as both hiring and private sector growth approached four-year highs. In Europe, a whiff of inflation in May (+0.2% month-over-month) provided some evidence that the European Central Bank's asset purchase program was working.

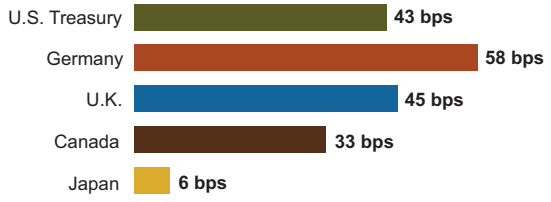
Concerns around Greece spread negativity throughout the markets; Italy and Spain were especially hard-hit. Unhedged returns in developed markets were generally negative in U.S. dollar terms (**Citi Non-U.S. World Government Bond Index:** -1.54%). On a hedged basis, all developed markets dropped as the U.S. dollar lost ground versus most developed market currencies (**Citi Non-U.S. World Government Bond Index:** -3.20%).

Emerging market dollar-denominated debt retreated as the **JPM EMBI Global Diversified Index** dipped 0.34% in spite of strong gains in Ukraine (+36.49%) and Venezuela (+12.73%). Ukraine is negotiating with foreign bondholders to restructure its debt. In spite of the strong quarter, it remains down 4.04% year-to-date and 36.77% over the last 12 months. The local

10-Year Global Government Bond Yields



Change in 10-Year Yields from 1Q15 to 2Q15



Source: Bloomberg

Quarterly Return Attribution for Non-U.S. Gov't Indices
(U.S. Dollar)

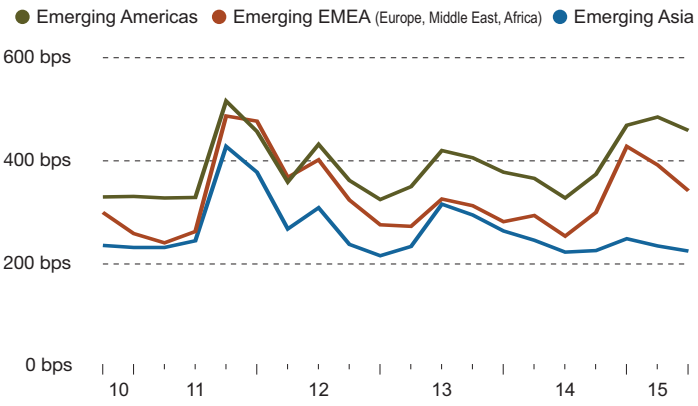
Country	Total	Local	Currency	Wtg
Australia	-2.18%	-2.77%	0.61%	1.95%
Austria	-1.56%	-5.11%	3.74%	1.89%
Belgium	-2.51%	-6.02%	3.74%	2.98%
Canada	-0.01%	-1.43%	1.45%	2.54%
Denmark	-3.10%	-6.73%	3.89%	0.81%
Finland	-0.41%	-4.00%	3.74%	0.68%
France	-1.63%	-5.18%	3.74%	11.23%
Germany	-0.94%	-4.52%	3.74%	8.88%
Ireland	-0.84%	-4.42%	3.74%	0.92%
Italy	-2.71%	-6.22%	3.74%	11.23%
Japan	-2.25%	-0.26%	-1.99%	32.73%
Malaysia	-1.22%	0.64%	-1.84%	0.62%
Mexico	-2.48%	0.44%	-2.91%	1.18%
Netherlands	-1.29%	-4.85%	3.74%	3.04%
Norway	1.67%	-0.74%	2.44%	0.34%
Poland	-2.02%	-2.81%	0.81%	0.67%
Singapore	1.14%	-0.72%	1.87%	0.45%
South Africa	-1.79%	-1.61%	-0.18%	0.64%
Spain	-2.49%	-6.01%	3.74%	6.21%
Sweden	0.34%	-3.46%	3.94%	0.58%
Switzerland	3.55%	-0.37%	3.93%	0.37%
U.K.	2.00%	-3.72%	5.94%	10.07%

Source: Citigroup

bond **JPM GBI-EM Global Diversified Index** also declined (-0.96%). Russia was again the best performer among emerging markets, up nearly 12% for the quarter and 29% year-to-date. Brazil's (+6%) local bonds continued to bounce back from a sell-off earlier in the year, while Turkey and Indonesia fell 5% for the quarter.

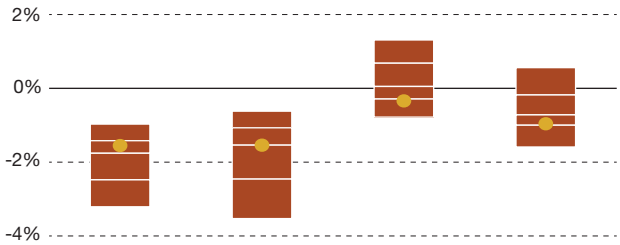
Greece missed a large payment to the International Monetary Fund on June 30, which weighed heavily on investor sentiment. Negotiations between Greece and its lenders continued but remained uncertain. Trading on Greek bonds halted; however, indications from dealers estimated two-year Greek debt yields at about 50% and 10-year debt at nearly 20%.

Emerging Spreads Over Developed (By Region)



Source: Barclays

Callan Style Group Quarterly Returns



	Global Fixed Style	Non-U.S. Fixed Style	Emerging Debt	Emerging Debt Local
10th Percentile	-0.95	-0.60	1.33	0.58
25th Percentile	-1.40	-1.05	0.70	-0.16
Median	-1.74	-1.52	0.07	-0.70
75th Percentile	-2.46	-2.44	-0.27	-0.98
90th Percentile	-3.19	-3.51	-0.76	-1.57
	Citi World Gov	Citi Non-U.S. World Gov	JPM EMBI GI Div	JPM GBI-EM GI Div
Benchmark ●	-1.55	-1.54	-0.34	-0.96

Sources: Callan, Citigroup, JPMorgan Chase & Co.

Style Median and Index Returns* for Periods ended June 30, 2015

Global Fixed Income	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Global Style	**-1.74**	**-3.03**	**-6.49**	**-0.51**	**2.51**	**4.17**
Citi World Govt	-1.55	-4.02	-9.02	-2.45	1.05	3.07
Citi World Govt (Local)	-2.67	-0.61	3.67	3.36	3.56	3.54
Barclays Global Aggregate	-1.18	-3.08	-7.09	-0.81	2.07	3.54
Non-U.S. Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Non-U.S. Style	**-1.52**	**-5.47**	**-12.50**	**-2.19**	**1.70**	**3.52**
Citi Non-U.S. World Govt	-1.54	-5.83	-13.49	-3.88	0.33	2.63
Citi Non-U.S. World Govt (Local)	-3.20	-0.91	4.20	4.37	3.93	3.47
European Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Citi Euro Govt Bond	-1.87	-9.15	-15.07	2.27	3.25	3.49
Citi Euro Govt Bond (Local)	-5.41	-1.34	2.49	6.16	4.85	4.16
Emerging Markets Fixed	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
JPM EMBI Global Diversified	-0.34	1.67	0.51	4.30	6.77	7.45
JPM GBI-EM Global Diversified	-0.96	-4.88	-15.39	-3.78	0.94	5.91

*Returns less than one year are not annualized.
Sources: Callan, Citigroup, JPMorgan Chase

Mixed Messages

REAL ESTATE | Mike Pritts

It was a difficult second quarter for U.S. REIT indices as pressure weighed heavily on global prices in anticipation of increased government bond yields. Continued low oil prices caused lingering concerns in U.S. oil-producing sub-markets. Credit markets appeared open, although slowing to a degree. The Fed stated in its June FOMC minutes that financing for commercial real estate remained broadly available, although the expansion of commercial real estate loans on banks' books slowed in April and May. Spreads widened in the commercial mortgage-backed securities (CMBS) market, which can be attributed to a lack of liquidity and potential interest rate hikes.

The **NCREIF Property Index** advanced 3.14% and recorded a 1.26% income return and a 1.89% appreciation return. The NCREIF Property Index cash flow return was 0.87% for the quarter and 3.43% for the trailing four quarters. During the first quarter, there were 134 asset trades, representing $7.1 billion of overall transactional volume. This remains ahead of the $5.3 billion 10-year quarterly transaction average. The peak quarterly transaction volume over the prior 10-year period was $8.7 billion in the second quarter of 2007.

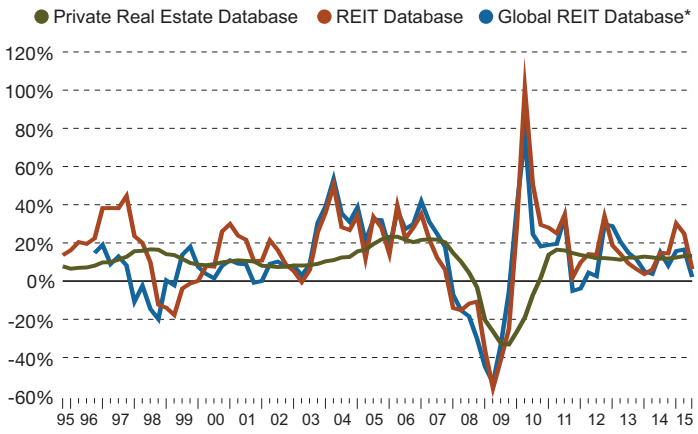
Pricing growth continued to characterize asset trades as equal-weighted transactional capitalization rates dropped to 5.5%. This reflects the lowest measure of the Index since the fourth quarter of 2007. Over the course of the prior cycle, quarterly equal-weighted transactional capitalization rates dipped to a low of 5.46% in the fourth quarter of 2007 and expanded to a peak of 8.46% in the third quarter of 2009. During the second quarter of 2015, appraisal capitalization rates slightly increased from 4.73% to 4.81%. As markets peaked over the prior cycle, appraisal capitalization rates declined to a low of 4.89% in the third quarter of 2008.

On a preliminary basis, the **NCREIF Open End Diversified Core Equity Index** produced a 3.82% total return, comprising a 1.19% income return and a 2.62% appreciation return. In the listed real estate market, the **FTSE EPRA/NAREIT Developed REIT Index** (USD) declined 6.67% and domestic REITs tracked by the **FTSE NAREIT Equity REITs Index** dropped 9.95%.

In the U.S., all sectors declined. Self-Storage (-5.0%) led sector performance, followed by Lodging (-6.2%), Residential (-6.4%), Office (-11.2%), Malls (-11.4%), Industrial (-12.6%), and Healthcare (-14.3%). Domestic REITs raised $17.6 billion (two initial public offerings, $436 million; 28 secondary offerings, $6.7 billion; two preferred equity offerings, $391 million; and 21 unsecured debt offerings, $10.2 billion).

In core Europe, falling unemployment rates, additional rounds of European Central Bank stimulus, and a general inflow of funds have led to a compression of prime office market capitalization rates—but spreads remain wide over sovereign yields. The central London office market continues to have high occupancy rates supported by strong employment growth and tight supply. Overall, European office vacancy rates have continued to decline, led by central London, major German cities, and second-tier markets.

Rolling One-Year Returns

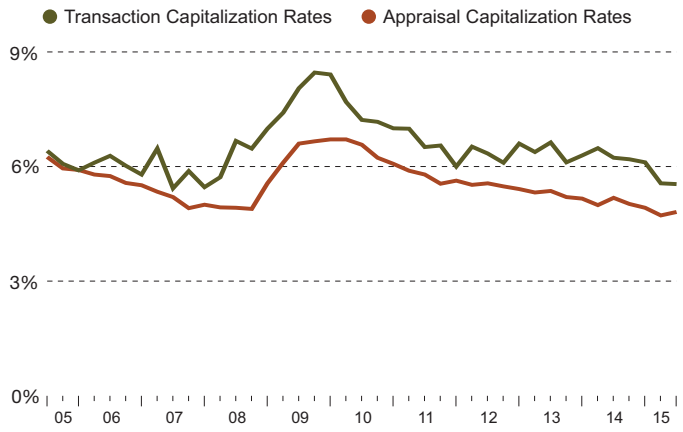


*Global REIT returns from 3Q96
Source: Callan

In Japan the yen's depreciation led to a very active second quarter for real estate markets, which caused further capitalization rate compression in first-tier cities. Transaction volumes in both China and Australia were muted as macro concerns over Chinese market corrections escalated. A weak Australian dollar attracted overseas investors, particularly from within the Asia Pacific region.

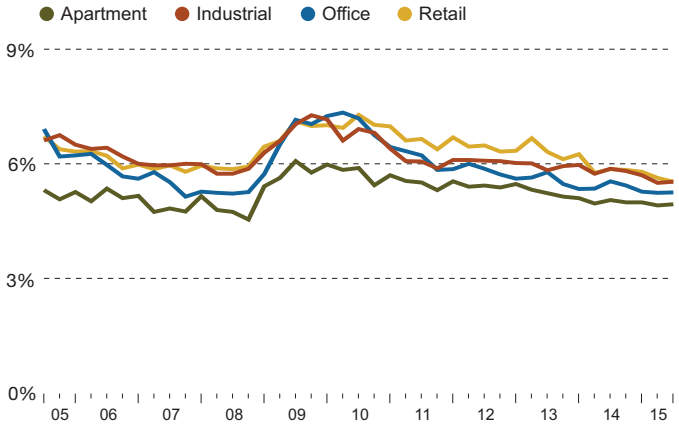
CMBS issuance reached $27.5 billion in the first quarter of the year, ahead of the $27.0 billion of issuance volume from the quarter prior and $20.5 billion in the second quarter of 2014. Total issuance for the trailing 12 months was $107.7 billion, nearing rolling one-year issuance volumes not seen since May 2008. Quarterly issuance volume between 2005 and 2007 ranged from $33.0 billion to a high of $73.6 billion in the second quarter of 2007.

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.

Callan Database Median and Index Returns* for Periods ended June 30, 2015

Private Real Estate	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Real Estate Database (net of fees)	**3.04**	**6.19**	**13.75**	**12.80**	**13.83**	**5.57**
NCREIF Property	3.14	6.83	12.98	11.63	12.72	8.16
NFI-ODCE (value wtd. net)	3.15	6.41	12.92	11.91	13.24	5.81
Public Real Estate	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
REIT Database	**-9.53**	**-5.30**	**5.54**	**9.77**	**15.08**	**8.15**
FTSE NAREIT Equity	-9.95	-5.67	4.33	8.93	14.28	7.01
Global Real Estate	**Quarter**	**2 Quarters**	**Year**	**3 Years**	**5 Years**	**10 Years**
Global REIT Database	**-6.37**	**-1.96**	**2.02**	**10.40**	**13.16**	**7.17**
FTSE EPRA/NAREIT Developed REIT	-6.67	-2.78	0.41	9.50	12.38	6.20

*Returns less than one year are not annualized.
All REIT returns are reported gross in USD.
Sources: Callan, NAREIT, NCREIF, The FTSE Group. NCREIF statistics are the product of direct queries and may fluctuate over time.

A Seller's Market

PRIVATE EQUITY | Gary Robertson

In fundraising, *Private Equity Analyst* reports that new second-quarter commitments totaled $87.1 billion with 231 new partnerships formed, up 55% from the first quarter's $56.2 billion and 147 partnerships formed. If this momentum continues, 2015 could cross the $300 billion mark. The 10 partnerships that raised the most capital so far in 2015 account for 67% of the first-half total; Blackstone VII was the largest at $17.5 billion.

According to *Buyouts*, the investment pace by funds into companies in the second quarter totaled 358 transactions, up slightly from 333 deals in the first quarter of 2015. The announced aggregate dollar volume was $24.3 billion, down from $34.9 in the first quarter. Nine deals with announced values of $1 billion or more closed in the second quarter, the largest being the $4.1 billion Life Time Fitness and $3.4 billion Riverbed Technology take-private transactions.

According to the National Venture Capital Association, second-quarter investments in venture capital companies totaled $17.5 billion in 1,189 rounds of financing—the largest dollar volume since the fourth quarter of 2000. The dollar volume and number of rounds both increased compared to the first quarter's $13.5 billion and 1,048 rounds. The largest was a $1.5 billion expansion round by Airbnb.

Regarding exits, *Buyouts* reports that 135 private M&A exits of buyout-backed companies occurred during the second quarter, with 49 deals disclosing values totaling $35.8 billion. The M&A exit count was about even with the first quarter, which had 136 private exits but a slightly higher announced value of $36.9 billion. Buyout-backed IPOs jumped to 17 issues in the second quarter floating $6.6 billion, up from the six IPOs totaling $1.1 billion in the first quarter.

Venture-backed M&A exits totaled 70 transactions, with 14 disclosing a total dollar volume of $4.1 billion. The number of exits declined from the first quarter's 94 company sales, but the announced dollar volume increased from $2.2 billion. There were 27 VC-backed IPOs in the second quarter with a combined float of $3.4 billion, 10 more than the first quarter's 17 IPOs and more than double the total issuance of $1.4 billion.

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

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.

Funds Closed January 1 to June 30, 2015

Strategy	No. of Funds	Amt ($mm)	Percent
Venture Capital	151	21,523	15%
Buyouts	139	93,821	65%
Subordinated Debt	17	3,814	3%
Distressed Debt	19	10,793	8%
Secondary and Other	13	6,250	4%
Fund-of-funds	39	7,103	5%
Totals	**378**	**143,304**	**100%**

Source: Private Equity Analyst

Private Equity Performance Database (%) (Pooled Horizon IRRs through December 31, 2014*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	11.8	23.9	18.7	16.5	10.4	5.3	28.0
Growth Equity	0.8	11.1	14.2	14.0	12.6	10.5	15.0
All Buyouts	2.3	9.6	15.2	14.4	12.7	11.4	13.2
Mezzanine	1.9	11.0	12.3	11.9	10.6	8.0	10.3
Distressed	0.2	7.5	14.5	12.5	10.7	11.3	11.6
All Private Equity	**3.3**	**11.8**	**15.5**	**14.4**	**12.0**	**9.8**	**14.6**
S&P 500	4.9	13.7	20.4	15.5	7.7	4.2	9.9

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

Momentum Whiplash

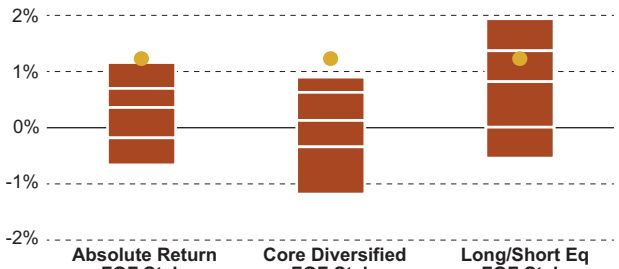
HEDGE FUNDS | Jim McKee

While Greece skidded toward default at quarter's end, the rest of the world's policy makers desperately tried to keep their respective economies on a growth track. As China's nascent stock market surged and rolled over, President Xi Jinping continued his formidable challenge to downshift its investment-led economy to a consumer-powered one. Facing tighter labor markets and greater consumer confidence at home, the U.S. Federal Reserve steered markets resolutely toward rate hikes. After rising early in the quarter, markets backpedaled at the end, with most finishing nearly unchanged. Giving up first-quarter gains, the 10-year Treasury fell 3.05%. The **Barclays High Yield Index** (+0.00%) absorbed widening spreads with its carry.

Illustrating raw hedge fund performance without implementation costs, the **Credit Suisse Hedge Fund Index (CS HFI)** slipped 0.48%. As a proxy to actively managed hedge fund portfolios, the median manager in the **Callan Hedge Fund-of-Funds Database** moved ahead 0.23%, net of all fees. Within the CS HFI, those chasing momentum were hurt badly while those focused on fundamentals survived unscathed, more or less. The quarter's most notable victim was *Managed Futures* (-10.61%). The best-performing strategies for the quarter were *Convertible Arb* (+2.49%), *Equity Market Neutral* (+2.12%), and *Risk Arb* (+1.70%). Despite meager fuel from market beta, *Long/Short Equity* gained 1.66%.

Within Callan's Hedge Fund-of-Funds Database, market exposures provided little traction in the second quarter. Nevertheless, the median *Callan Long/Short Equity FOF* (+0.82%) edged out the *Callan Absolute Return FOF* (+0.36%).

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Eq FOF Style
10th Percentile	1.16	0.90	1.94
25th Percentile	0.70	0.63	1.37
Median	0.36	0.13	0.82
75th Percentile	-0.18	-0.34	0.01
90th Percentile	-0.66	-1.18	-0.54
T-Bills + 5% ●	1.23	1.23	1.23

Sources: Callan, Merrill Lynch

Database Median and Index Returns* for Periods ended June 30, 2015

	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Hedge Fund-of-Funds Database	**0.23**	**2.45**	**3.57**	**7.08**	**5.61**	**4.78**
CS Hedge Fund Index	-0.48	1.99	3.28	7.08	6.17	5.89
CS Equity Market Neutral	2.12	-0.40	-1.07	3.21	3.31	-1.20
CS Convertible Arbitrage	2.49	2.97	-1.05	3.61	4.82	5.05
CS Fixed Income Arbitrage	0.90	0.75	1.70	5.00	6.23	4.04
CS Multi-Strategy	0.24	3.24	6.45	9.00	8.45	6.86
CS Distressed	-0.35	-0.10	-3.74	8.33	6.37	6.13
CS Risk Arbitrage	1.70	2.39	-2.04	2.71	2.57	3.96
CS Event Driven Multi-Strategy	0.73	2.89	-1.31	8.67	5.67	6.55
CS Long/Short Equity	1.66	3.53	6.01	10.84	7.82	6.69
CS Dedicated Short Bias	-4.83	-8.88	-8.12	-17.00	-15.71	-9.68
CS Global Macro	-1.80	2.59	4.79	4.84	5.99	7.68
CS Managed Futures	-10.61	-4.07	12.86	2.92	2.87	3.96
CS Emerging Markets	1.42	2.80	4.52	7.07	5.58	6.61

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

TDFs Win Quarter, Asset Flows

DEFINED CONTRIBUTION | James O'Connor

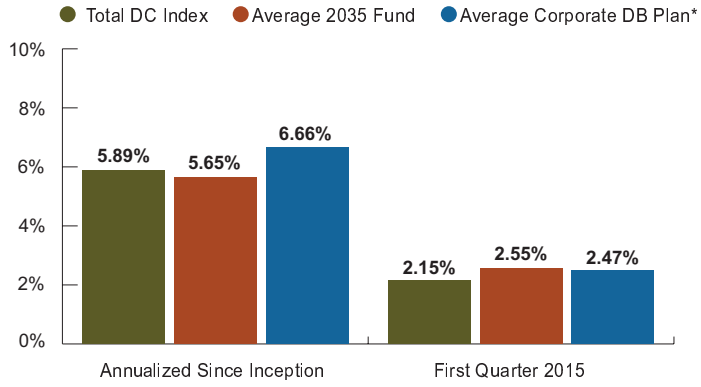
The Callan DC Index™ started the year off on a reasonably sound note, gaining 2.15% for the first quarter. Still, that performance trailed the typical 2035 target date fund (TDF), which gained 2.55%. TDFs benefited from a much higher exposure to non-U.S. equity—one of the best-performing asset classes during the period. Corporate DB plans performed more or less in line with 2035 TDFs, but have outperformed both TDFs and the DC Index since inception by an annualized margin of 1.01% and 0.77%, respectively.

DC plan balances grew by 2.76% in the first quarter, driven primarily by market performance. Inflows added 60 bps to total growth. Since inception, plan sponsor and participant contributions have had a significant impact on balances and are responsible for approximately one-third of the total growth in balances (2.54% annualized).

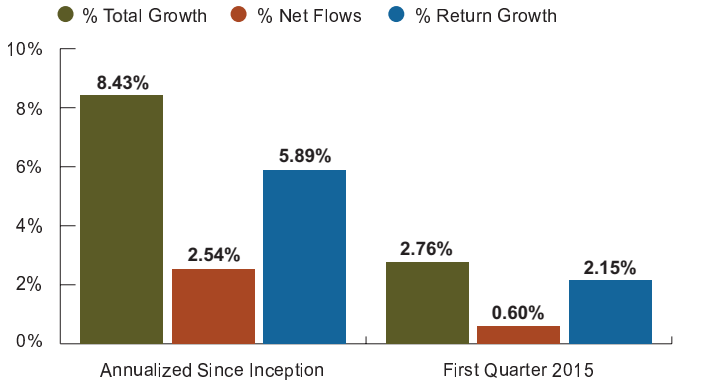
Nearly 66 cents of every dollar that moved within DC plans during the first quarter flowed to TDFs. However, U.S. fixed income and U.S. large cap also made respectable showings in terms of inflows—largely at the expense of stable value. Approximately 43% of outflows came from this asset class during the quarter. This follows five successive quarters of stable value fund outflows. Still, overall turnover was modest at 0.32%, significantly below the historical average of 0.67%.

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 $140 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 2015)*
(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	65.77%
U.S. Fixed Income	12.45%
Company Stock	-25.21%
Stable Value	-42.58%
Total Turnover	**0.32%**

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

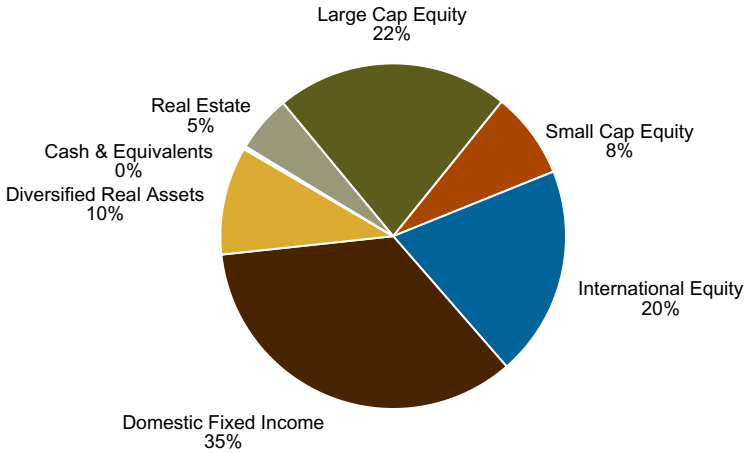
Source: Callan DC Index

*Notes: DC Index inception date is January 2006. DB plan performance is gross of fees. Data provided here is the most recent available at time of publication.

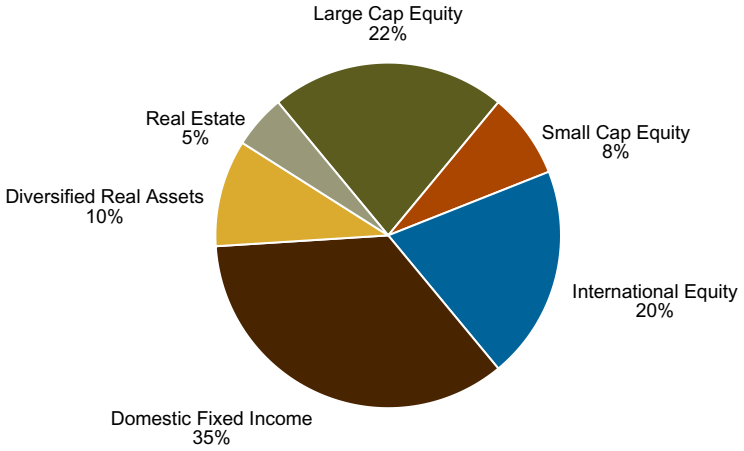
Actual vs Target Asset Allocation
As of June 30, 2015

The first chart below shows the Fund's asset allocation as of June 30, 2015. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



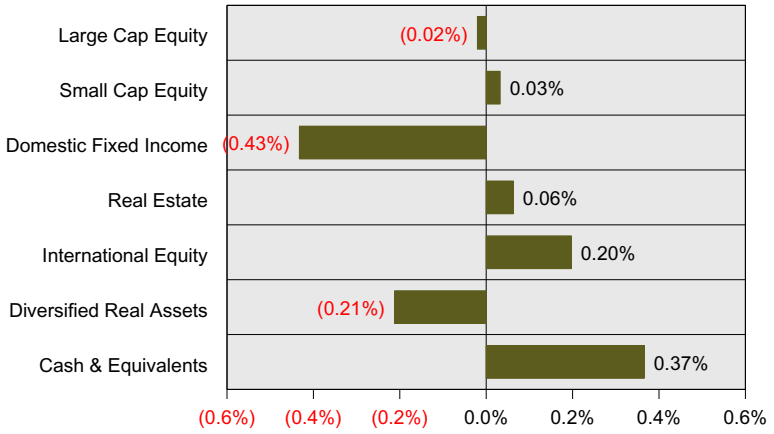
Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Large Cap Equity	726,963	21.8%	22.0%	(0.2%)	(5,329)
Small Cap Equity	268,951	8.1%	8.0%	0.1%	2,663
International Equity	655,907	19.7%	20.0%	(0.3%)	(9,813)
Domestic Fixed Income	1,155,090	34.7%	35.0%	(0.3%)	(9,920)
Diversified Real Assets	336,794	10.1%	10.0%	0.1%	3,934
Cash & Equivalents	9,760	0.3%	0.0%	0.3%	9,760
Real Estate	175,136	5.3%	5.0%	0.3%	8,706
Total	3,328,600	100.0%	100.0%		

* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

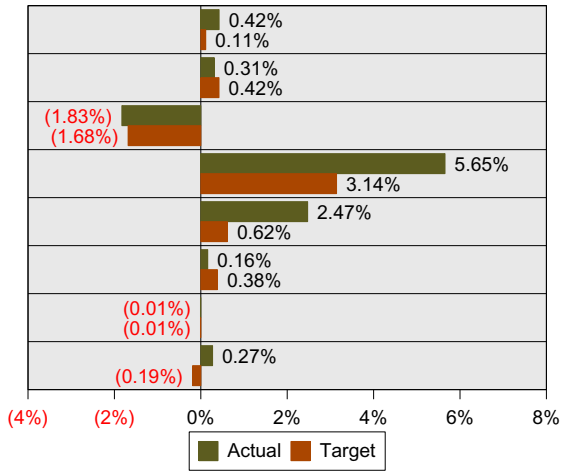
Quarterly Total Fund Relative Attribution - June 30, 2015

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.

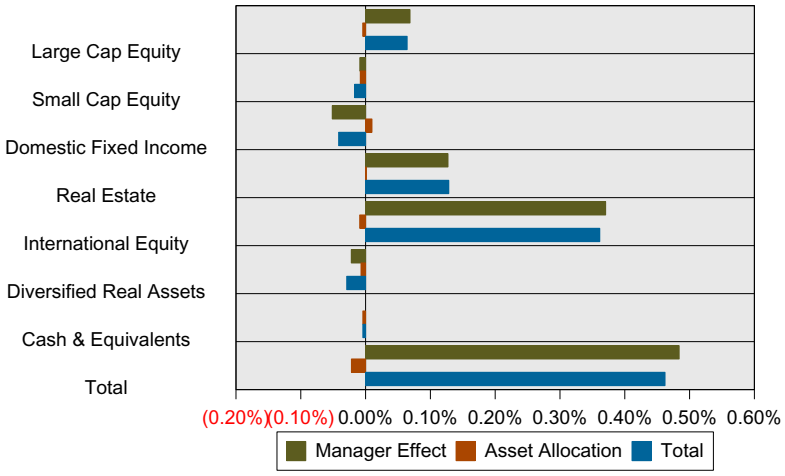
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2015

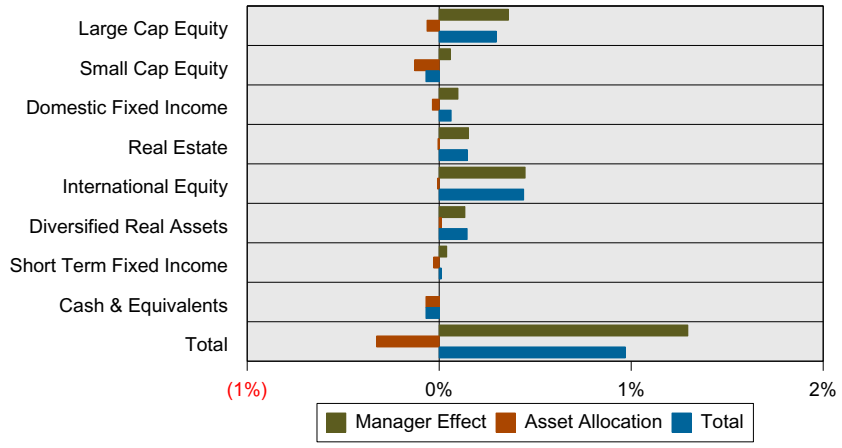
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	0.42%	0.11%	0.07%	(0.00%)	0.06%
Small Cap Equity	8%	8%	0.31%	0.42%	(0.01%)	(0.01%)	(0.02%)
Domestic Fixed Income	35%	35%	(1.83%)	(1.68%)	(0.05%)	0.01%	(0.04%)
Real Estate	5%	5%	5.65%	3.14%	0.13%	0.00%	0.13%
International Equity	20%	20%	2.47%	0.62%	0.37%	(0.01%)	0.36%
Diversified Real Assets	10%	10%	0.16%	0.38%	(0.02%)	(0.01%)	(0.03%)
Cash & Equivalents	0%	0%	(0.01%)	(0.01%)	0.00%	(0.00%)	(0.00%)
Total			**0.27%** =	**(0.19%)** +	**0.48%** +	**(0.02%)**	**0.46%**

* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

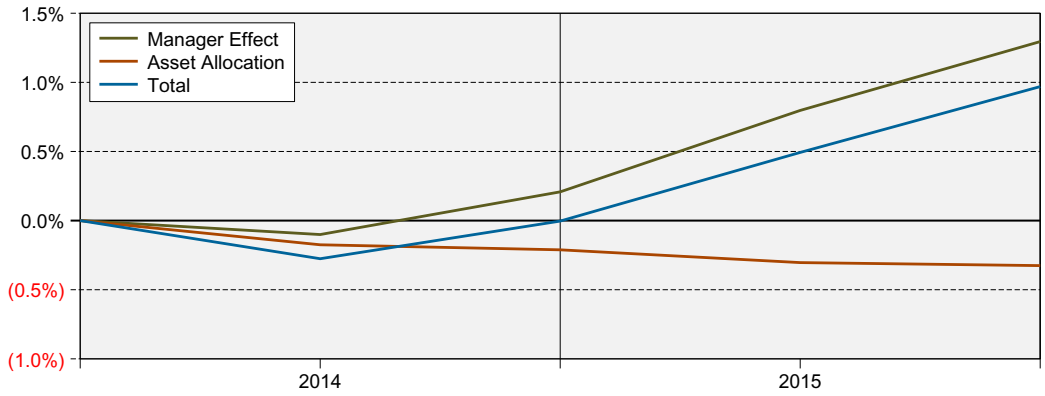
Cumulative Total Fund Relative Attribution - June 30, 2015

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

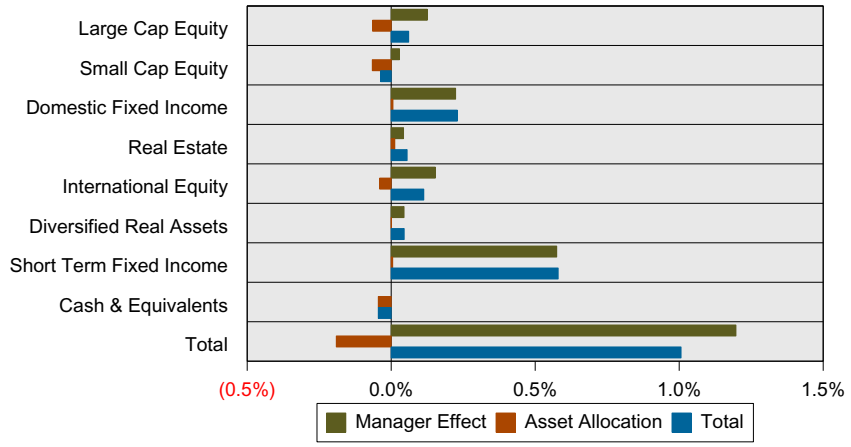
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	22%	22%	9.13%	7.37%	0.36%	(0.06%)	0.30%
Small Cap Equity	8%	8%	7.26%	6.49%	0.06%	(0.13%)	(0.07%)
Domestic Fixed Income	31%	32%	2.13%	1.86%	0.10%	(0.04%)	0.06%
Real Estate	5%	5%	16.33%	12.98%	0.15%	(0.01%)	0.15%
International Equity	20%	20%	(2.17%)	(4.22%)	0.45%	(0.01%)	0.44%
Diversified Real Assets	7%	8%	(1.98%)	(3.57%)	0.13%	0.01%	0.15%
Short Term Fixed Income	7%	5%	(2.41%)	(2.71%)	0.04%	(0.03%)	0.01%
Cash & Equivalents	0%	0%	0.00%	0.00%	0.00%	(0.07%)	(0.07%)
Total			**3.53% =**	**2.56% +**	**1.29% +**	**(0.33%)**	**0.97%**

* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

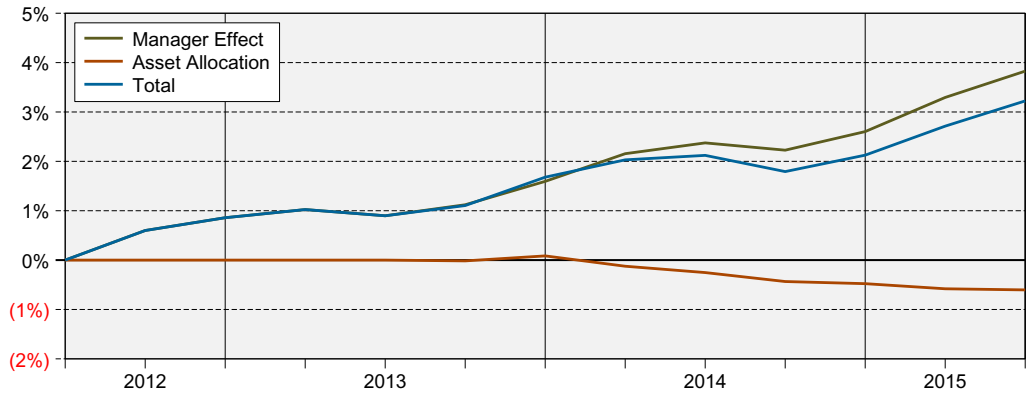
Cumulative Total Fund Relative Attribution - June 30, 2015

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

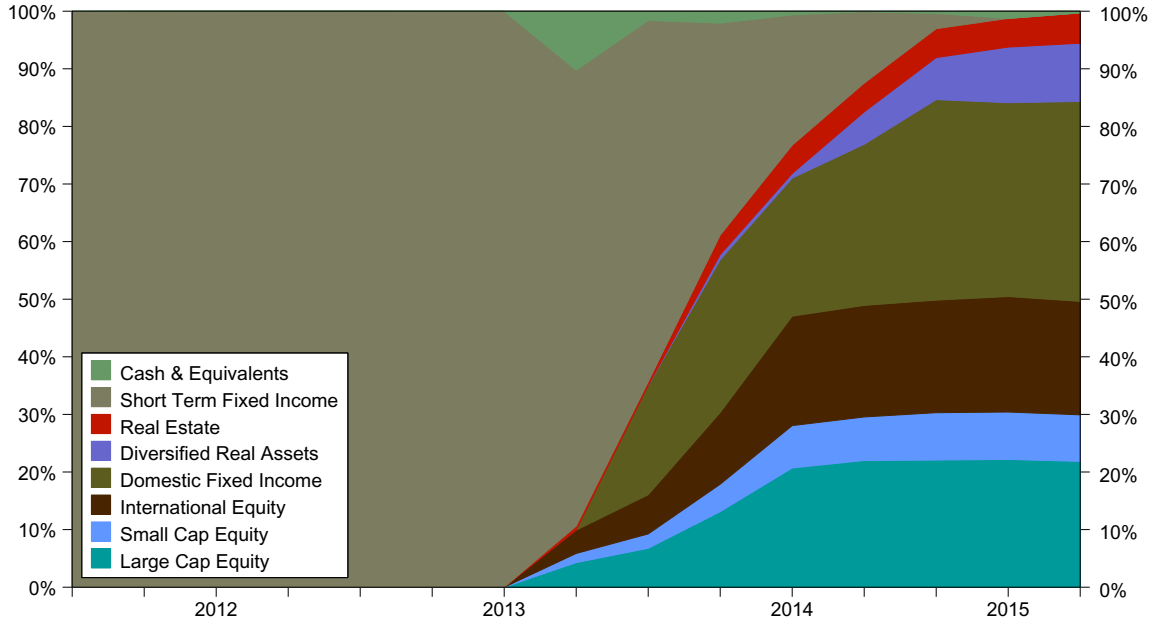
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	10%	10%	-	-	0.13%	(0.06%)	0.06%
Small Cap Equity	4%	4%	-	-	0.03%	(0.07%)	(0.04%)
Domestic Fixed Income	15%	15%	-	-	0.22%	0.01%	0.23%
Real Estate	3%	2%	-	-	0.04%	0.01%	0.06%
International Equity	9%	9%	-	-	0.15%	(0.04%)	0.11%
Diversified Real Assets	3%	3%	-	-	0.04%	0.00%	0.05%
Short Term Fixed Income	56%	57%	0.29%	(0.54%)	0.57%	0.01%	0.58%
Cash & Equivalents	1%	0%	0.08%	0.08%	0.00%	(0.04%)	(0.04%)
Total			**3.84% =**	**2.83% +**	**1.20% +**	**(0.19%)**	**1.01%**

* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

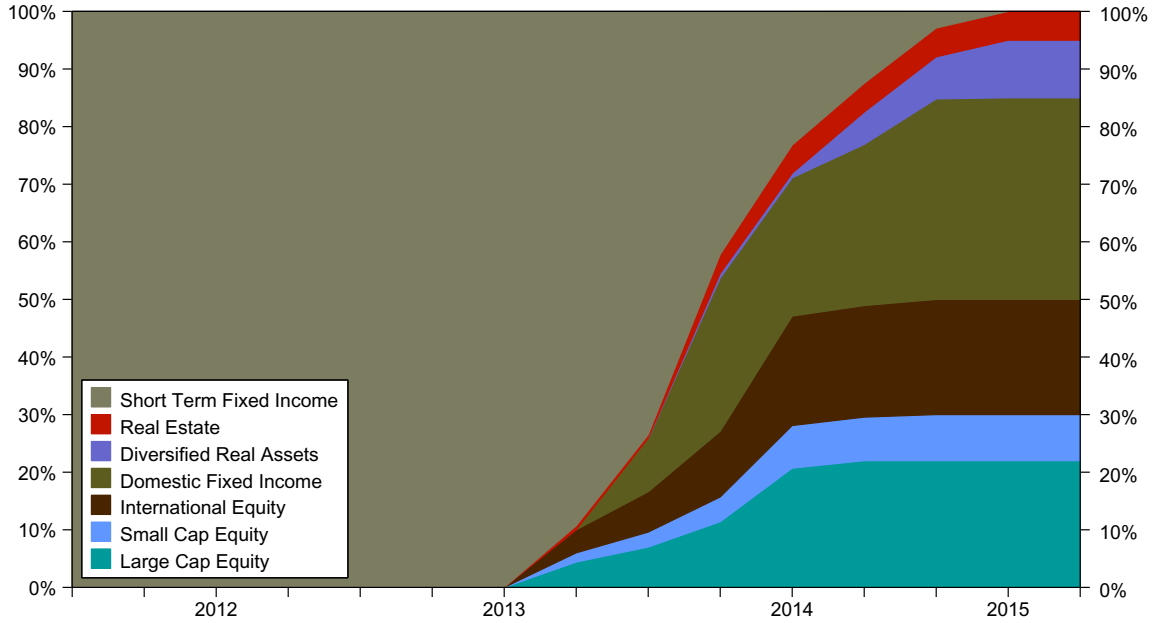
Actual vs Target Historical Asset Allocation

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

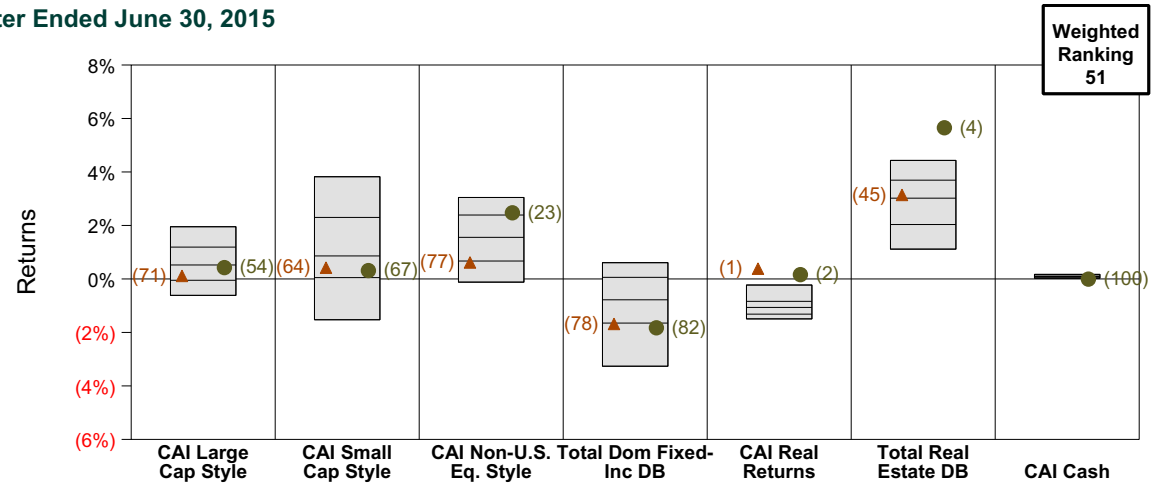


* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

Asset Class Rankings

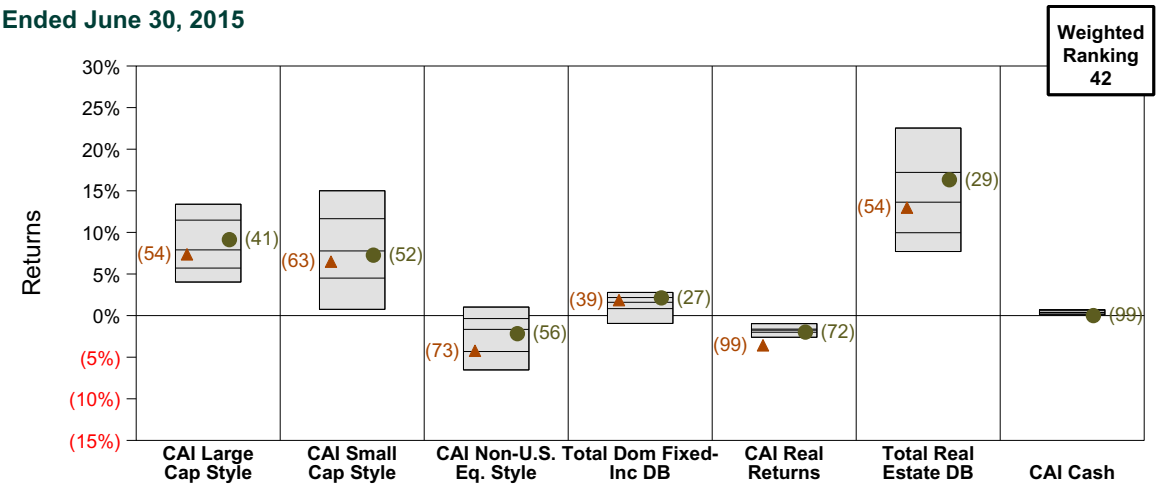
The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used 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 Quarter Ended June 30, 2015



	CAI Large Cap Style	CAI Small Cap Style	CAI Non-U.S. Eq. Style	Total Dom Fixed-Inc DB	CAI Real Returns	Total Real Estate DB	CAI Cash
10th Percentile	1.95	3.82	3.05	0.61	(0.23)	4.43	0.17
25th Percentile	1.19	2.30	2.39	0.06	(0.84)	3.69	0.11
Median	0.52	0.86	1.55	(0.78)	(1.07)	3.02	0.09
75th Percentile	(0.05)	0.05	0.67	(1.65)	(1.32)	2.03	0.04
90th Percentile	(0.61)	(1.53)	(0.12)	(3.26)	(1.49)	1.12	0.03
Asset Class Composite ●	0.42	0.31	2.47	(1.83)	0.16	5.65	(0.01)
Composite Benchmark ▲	0.11	0.42	0.62	(1.68)	0.38	3.14	-

Total Asset Class Performance
One Year Ended June 30, 2015



	CAI Large Cap Style	CAI Small Cap Style	CAI Non-U.S. Eq. Style	Total Dom Fixed-Inc DB	CAI Real Returns	Total Real Estate DB	CAI Cash
10th Percentile	13.38	15.01	1.03	2.79	(0.96)	22.54	0.71
25th Percentile	11.47	11.65	(0.36)	2.17	(1.62)	17.21	0.59
Median	7.90	7.77	(1.66)	1.60	(1.75)	13.63	0.37
75th Percentile	5.71	4.51	(4.32)	0.84	(2.00)	9.96	0.20
90th Percentile	4.03	0.75	(6.53)	(0.94)	(2.60)	7.70	0.09
Asset Class Composite ●	9.13	7.26	(2.17)	2.13	(1.98)	16.33	0.00
Composite Benchmark ▲	7.37	6.49	(4.22)	1.86	(3.57)	12.98	-

* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 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, 2015, with the distribution as of March 31, 2015.

Asset Class Allocation

	June 30, 2015		March 31, 2015	
	Market Value	Weight	Market Value	Weight
Domestic Equity	**$995,913,894**	**29.92%**	**$971,536,453**	**30.41%**
Large Cap Equity	**$726,963,311**	**21.84%**	**$708,399,944**	**22.17%**
L.A. Capital Enhanced	146,006,471	4.39%	141,616,596	4.43%
L.A. Capital Large Cap Growth	220,608,163	6.63%	215,038,068	6.73%
Parametric Clifton Large Cap	140,625,336	4.22%	140,324,506	4.39%
LSV Large Cap Value	219,723,340	6.60%	211,420,771	6.62%
Small Cap Equity	**$268,950,583**	**8.08%**	**$263,136,509**	**8.24%**
Parametric Clifton SmallCap	177,704,668	5.34%	176,833,203	5.54%
Research Affiliates	91,245,915	2.74%	86,303,306	2.70%
International Equity	**$655,907,169**	**19.71%**	**$640,569,665**	**20.05%**
Capital Group	259,231,013	7.79%	254,045,516	7.95%
DFA Intl SmallCap Value	67,627,884	2.03%	64,291,680	2.01%
LSV Intl Value	261,229,566	7.85%	256,497,055	8.03%
Vanguard Intl Explorer Fund	67,818,706	2.04%	65,735,413	2.06%
Domestic Fixed Income	**$1,155,089,653**	**34.70%**	**$1,075,144,306**	**33.65%**
Declaration Total Return	92,477,795	2.78%	86,638,228	2.71%
PIMCO DiSCO II	41,544,199	1.25%	40,878,015	1.28%
PIMCO Bravo II	18,611,691	0.56%	15,141,639	0.47%
Prudential	127,273,624	3.82%	86,860,421	2.72%
SSgA US Govt Credit Bd Idx	161,726,998	4.86%	148,512,691	4.65%
Wells Capital	355,338,999	10.68%	347,530,743	10.88%
Western Asset Management	358,116,346	10.76%	349,582,564	10.94%
Diversified Real Assets	**$336,793,527**	**10.12%**	**$308,359,695**	**9.65%**
Western TIPS	255,623,447	7.68%	231,391,136	7.24%
JP Morgan Infrastructure	77,344,865	2.32%	75,000,000	2.35%
Grosvenor Cust. Infrastructure	3,825,215	0.11%	1,968,559	0.06%
Real Estate	**$175,136,176**	**5.26%**	**$159,060,643**	**4.98%**
Invesco Core Real Estate	85,766,269	2.58%	74,554,165	2.33%
JP Morgan RE Inc & Growth	89,369,907	2.68%	84,506,477	2.65%
Short Term Fixed Income	**-**	**-**	**$295,646**	**0.01%**
Cash & Equivalents	**$9,759,734**	**0.29%**	**$39,796,990**	**1.25%**
Total Fund	**$3,328,600,152**	**100.0%**	**$3,194,763,398**	**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, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 3-3/4 Years
Domestic Equity				
Gross	0.39%	8.65%	-	-
Net	0.36%	8.45%	-	-
Large Cap Equity				
Gross	0.42%	9.13%	-	-
Net	0.38%	8.93%	-	-
Russell 1000 Index	0.11%	7.37%	17.73%	20.24%
L.A. Capital Enhanced - Gross	(0.33%)	8.38%	-	-
L.A. Capital Enhanced - Net	(0.37%)	8.25%	-	-
Russell 1000 Index	0.11%	7.37%	17.73%	20.24%
L.A. Capital LargeCap Growth - Gross	0.36%	12.61%	-	-
L.A. Capital LargeCap Growth - Net	0.31%	12.39%	-	-
Russell 1000 Growth Index	0.12%	10.56%	17.99%	20.30%
Parametric Clifton Large Cap - Gross	0.35%	7.99%	-	-
Parametric Clifton Large Cap - Net	0.35%	7.92%	-	-
S&P 500 Index	0.28%	7.42%	17.31%	19.92%
LSV Large Cap Value - Gross	1.05%	7.22%	-	-
LSV Large Cap Value - Net	0.98%	6.92%	-	-
Russell 1000 Value Index	0.11%	4.13%	17.34%	20.08%
Small Cap Equity				
Gross	0.31%	7.26%	-	-
Net	0.29%	7.03%	-	-
Russell 2000 Index	0.42%	6.49%	17.81%	21.09%
Parametric Clifton Small Cap - Gross	0.49%	8.19%	-	-
Parametric Clifton Small Cap - Net	0.49%	7.98%	-	-
Russell 2000 Index	0.42%	6.49%	17.81%	21.09%
Research Affiliates - Gross	0.02%	5.23%	-	-
Research Affiliates - Net	(0.05%)	4.91%	-	-
Russell 2000 Index	0.42%	6.49%	17.81%	21.09%
International Equity				
Gross	2.47%	(2.17%)	-	-
Net	2.39%	(2.48%)	-	-
MSCI EAFE Index	0.62%	(4.22%)	11.97%	11.29%
Capital Group - Gross	2.13%	(1.38%)	-	-
Capital Group - Net	2.04%	(1.74%)	-	-
MSCI EAFE Index	0.62%	(4.22%)	11.97%	11.29%
DFA Intl Small Cap Value	5.19%	(3.27%)	-	-
World ex US SC Va	2.98%	(6.50%)	14.05%	12.18%
LSV Intl Value - Gross	1.95%	(3.25%)	-	-
LSV Intl Value - Net	1.85%	(3.65%)	-	-
MSCI EAFE Index	0.62%	(4.22%)	11.97%	11.29%
Vanguard Intl Explorer Fund	3.17%	0.57%	-	-
BMI, EPAC, <$2 B	5.97%	1.14%	14.70%	12.54%

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2015. 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, 2015

	Last Quarter	Last Year	Last 3 Years	Last 3-3/4 Years
Domestic Fixed Income				
Gross	(1.83%)	2.13%	-	-
Net	(1.86%)	2.00%	-	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	2.40%
Declaration Total Return - Net	0.09%	3.55%	-	-
Libor-3 Month	0.07%	0.25%	0.28%	0.33%
PIMCO DiSCO II - Net	1.63%	4.32%	-	-
PIMCO Bravo II Fund - Net	5.14%	10.36%	-	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	2.40%
Prudential - Gross	(1.95%)	2.15%	-	-
Prudential - Net	(2.01%)	1.89%	-	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	2.40%
Wells Capital - Gross	(2.91%)	1.03%	-	-
Wells Capital - Net	(3.02%)	0.78%	-	-
Barclays Baa Credit 3% In	(3.22%)	0.07%	3.68%	5.00%
Western Asset - Gross	(1.73%)	2.50%	-	-
Western Asset - Net	(1.77%)	2.36%	-	-
Barclays Aggregate Index	(1.68%)	1.86%	1.83%	2.40%
SSgA US Govt Credit Bd Idx - Gross	(2.10%)	1.70%	-	-
SSgA US Govt Credit Bd Idx - Net	(2.11%)	1.67%	-	-
Barclays Govt/Credit Bd	(2.10%)	1.69%	1.76%	2.44%
Diversified Real Assets				
Gross	0.16%	(1.98%)	-	-
Net	0.14%	(2.07%)	-	-
Weighted Benchmark	0.38%	(3.57%)	-	-
Western Asset TIPS - Gross	(0.59%)	(2.86%)	-	-
Western Asset TIPS - Net	(0.62%)	(2.96%)	-	-
Barclays Glbl Inftn-Lnked	0.15%	(4.23%)	1.52%	2.39%
JP Morgan Infrastructure - Gross	3.13%	-	-	-
JP Morgan Infrastructure - Net	3.13%	-	-	-
CPI-W	1.19%	(0.38%)	1.13%	1.19%
Grosvenor Cust. Infrastructure - Net	(9.19%)	-	-	-
CPI-W	1.19%	(0.38%)	1.13%	1.19%
Real Estate				
Gross	5.65%	16.33%	-	-
Net	5.47%	15.52%	-	-
NCREIF Total Index	3.14%	12.98%	11.63%	11.59%
Invesco Core Real Estate - Gross	5.25%	16.38%	-	-
Invesco Core Real Estate - Net	5.16%	15.97%	-	-
NCREIF Total Index	3.14%	12.98%	11.63%	11.59%
JP Morgan RE Inc & Growth - Gross	6.04%	16.68%	-	-
JP Morgan RE Inc & Growth - Net	5.76%	15.49%	-	-
NCREIF Total Index	3.14%	12.98%	11.63%	11.59%
Cash & Equivalents - Net	**(0.01%)**	**0.00%**	**0.08%**	**0.10%**
90 Day Treasury Bills	0.01%	0.02%	0.06%	0.06%
Total Fund				
Gross	0.27%	3.53%	3.84%	3.38%
Net	0.22%	3.31%	3.69%	3.24%
Target*	(0.19%)	2.56%	2.83%	2.33%

* Current Quarter Target = 35.0% Barclays Aggregate Index, 22.0% Russell 1000 Index, 20.0% MSCI EAFE Index, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

Parametric Clifton Large Cap
Period Ended June 30, 2015

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.

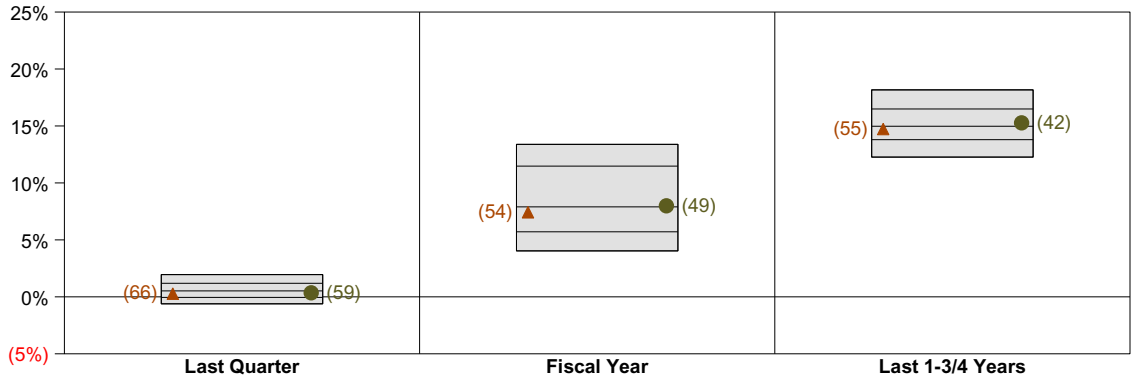
Quarterly Summary and Highlights

- Parametric Clifton Large Cap's portfolio posted a 0.35% return for the quarter placing it in the 59 percentile of the CAI Large Capitalization Style group for the quarter and in the 49 percentile for the last year.
- Parametric Clifton Large Cap's portfolio outperformed the S&P 500 Index by 0.08% for the quarter and outperformed the S&P 500 Index for the year by 0.57%.

Quarterly Asset Growth

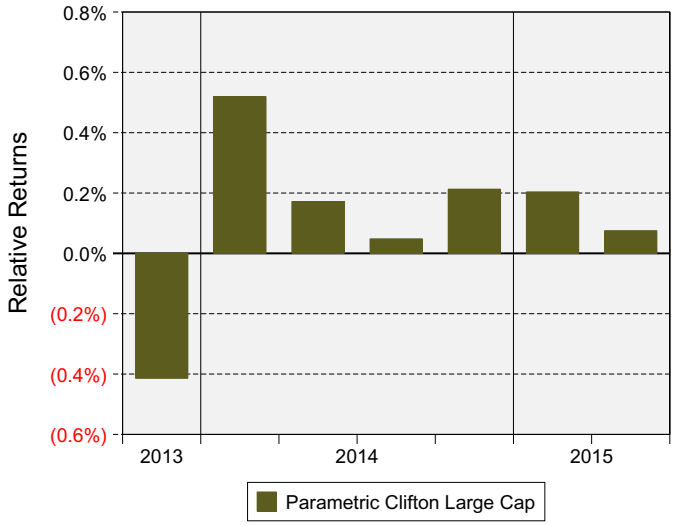
Beginning Market Value	$140,324,506
Net New Investment	$0
Investment Gains/(Losses)	$300,830
Ending Market Value	$140,625,336

Performance vs CAI Large Capitalization Style (Gross)

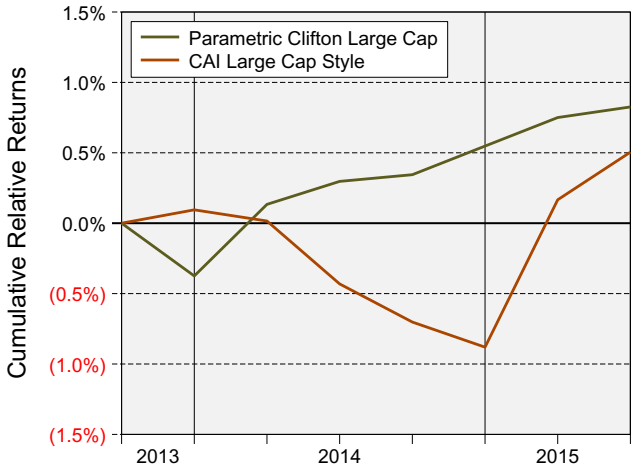


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	1.95	13.38	18.17
25th Percentile	1.19	11.47	16.49
Median	0.52	7.90	14.97
75th Percentile	(0.05)	5.71	13.80
90th Percentile	(0.61)	4.03	12.26
Parametric Clifton Large Cap ●	0.35	7.99	15.27
S&P 500 Index ▲	0.28	7.42	14.73

Relative Return vs S&P 500 Index



Cumulative Returns vs S&P 500 Index



L.A. Capital
Period Ended June 30, 2015

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.

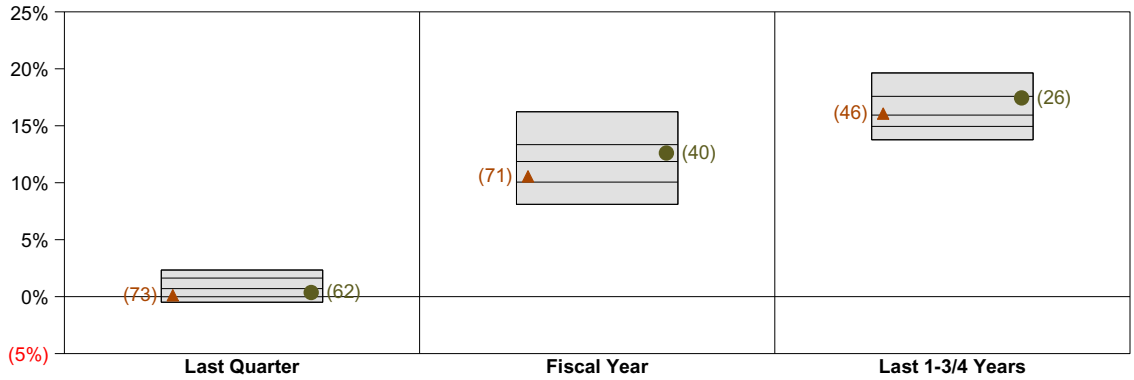
Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a 0.36% return for the quarter placing it in the 62 percentile of the CAI Large Cap Growth Style group for the quarter and in the 40 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio outperformed the Russell 1000 Growth Index by 0.24% for the quarter and outperformed the Russell 1000 Growth Index for the year by 2.05%.

Quarterly Asset Growth

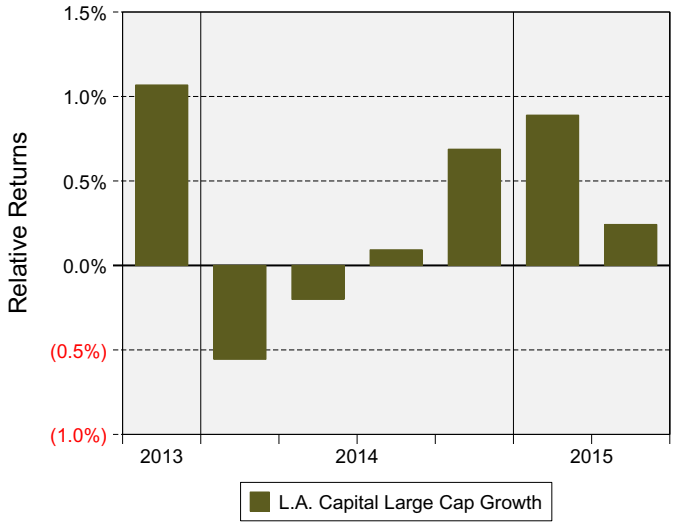
Beginning Market Value	$215,038,068
Net New Investment	$4,891,010
Investment Gains/(Losses)	$679,086
Ending Market Value	$220,608,163

Performance vs CAI Large Cap Growth Style (Gross)

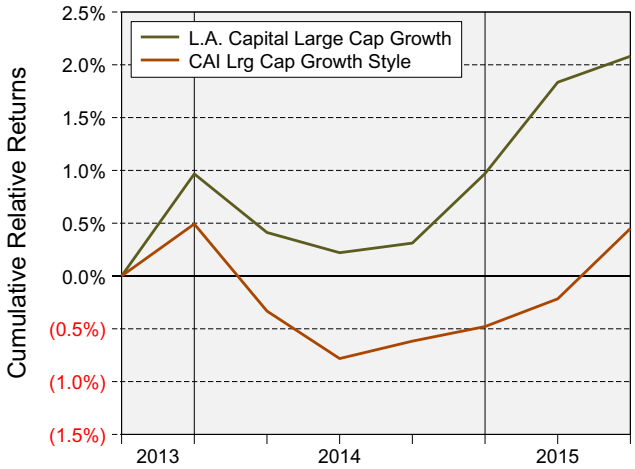


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	2.34	16.23	19.64
25th Percentile	1.63	13.34	17.58
Median	0.70	11.86	15.94
75th Percentile	(0.01)	10.05	14.94
90th Percentile	(0.49)	8.10	13.77
L.A. Capital Large Cap Growth ●	0.36	12.61	17.44
Russell 1000 Growth Index ▲	0.12	10.56	16.07

Relative Return vs Russell 1000 Growth Index



Cumulative Returns vs Russell 1000 Growth Index



L.A. Capital Enhanced
Period Ended June 30, 2015

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.

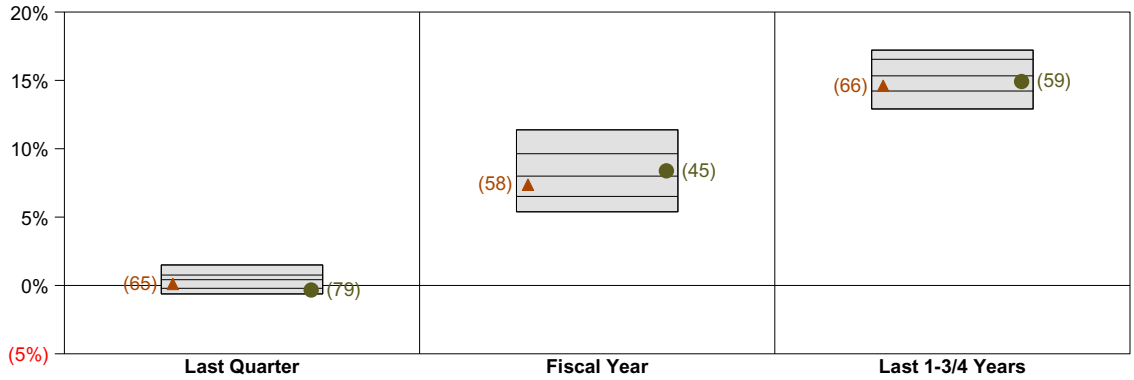
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a (0.33)% return for the quarter placing it in the 79 percentile of the CAI Large Cap Core Style group for the quarter and in the 45 percentile for the last year.
- L.A. Capital Enhanced's portfolio underperformed the Russell 1000 Index by 0.45% for the quarter and outperformed the Russell 1000 Index for the year by 1.02%.

Quarterly Asset Growth

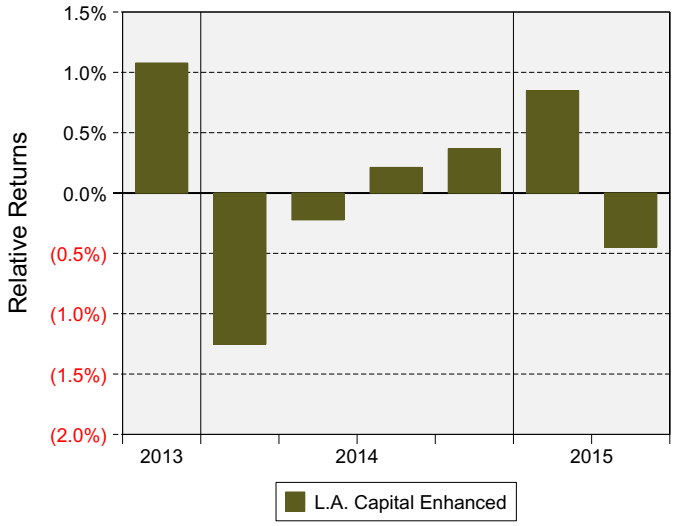
Beginning Market Value	$141,616,596
Net New Investment	$4,952,039
Investment Gains/(Losses)	$-562,163
Ending Market Value	$146,006,471

Performance vs CAI Large Cap Core Style (Gross)

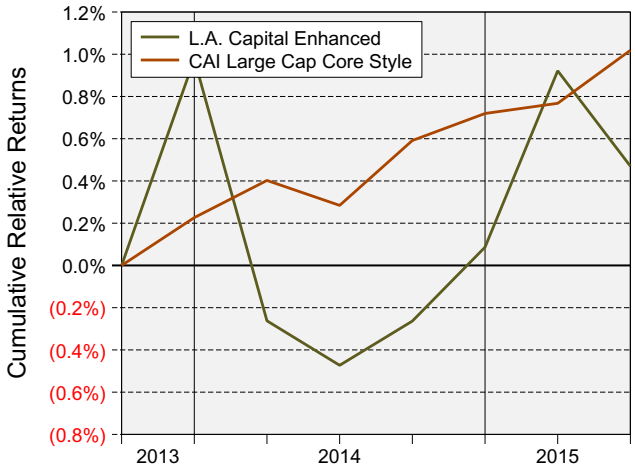


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	1.50	11.38	17.21
25th Percentile	0.76	9.64	16.54
Median	0.42	8.00	15.33
75th Percentile	(0.21)	6.51	14.22
90th Percentile	(0.62)	5.39	12.91
L.A. Capital Enhanced ●	(0.33)	8.38	14.92
Russell 1000 Index ▲	0.11	7.37	14.61

Relative Return vs Russell 1000 Index



Cumulative Returns vs Russell 1000 Index



LSV Asset Management
Period Ended June 30, 2015

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.

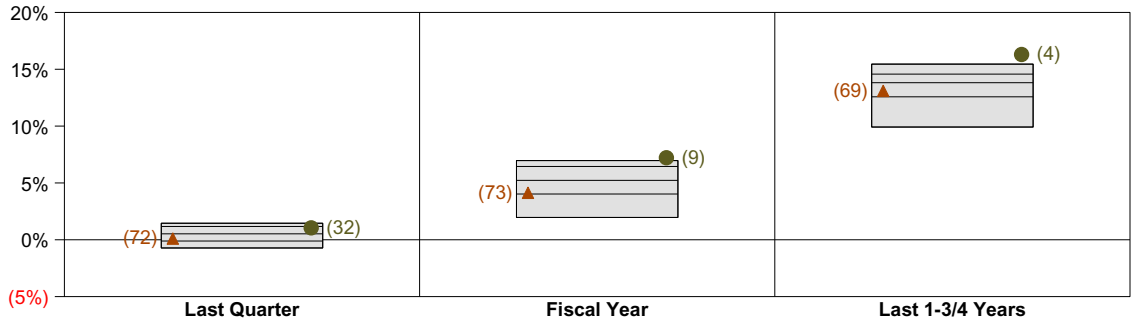
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a 1.05% return for the quarter placing it in the 32 percentile of the CAI Large Cap Value Style group for the quarter and in the 9 percentile for the last year.
- LSV Large Cap Value's portfolio outperformed the Russell 1000 Value Index by 0.94% for the quarter and outperformed the Russell 1000 Value Index for the year by 3.08%.

Quarterly Asset Growth

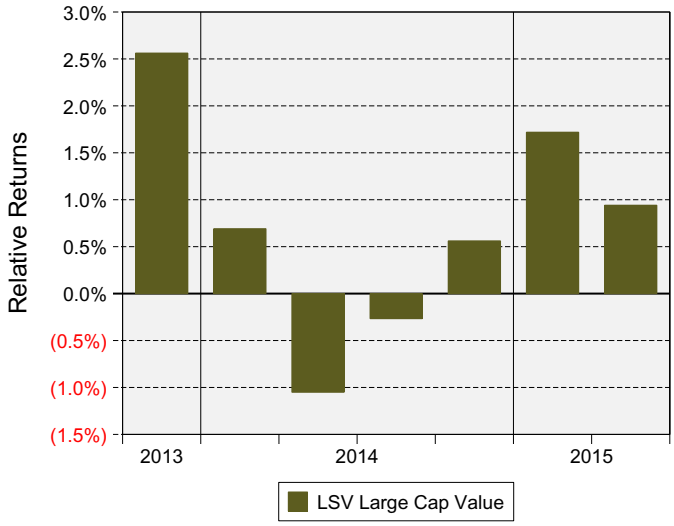
Beginning Market Value	$211,420,771
Net New Investment	$6,300,000
Investment Gains/(Losses)	$2,002,569
Ending Market Value	$219,723,340

Performance vs CAI Large Cap Value Style (Gross)

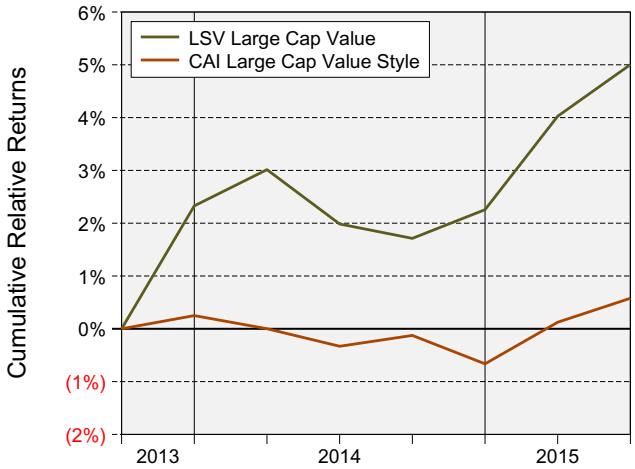


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	1.45	6.97	15.45
25th Percentile	1.17	6.45	14.57
Median	0.52	5.23	13.82
75th Percentile	(0.11)	4.03	12.58
90th Percentile	(0.72)	1.96	9.92
LSV Large Cap Value ●	1.05	7.22	16.30
Russell 1000 Value Index ▲	0.11	4.13	13.10

Relative Return vs Russell 1000 Value Index



Cumulative Returns vs Russell 1000 Value Index



Parametric Clifton Small Cap
Period Ended June 30, 2015

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.

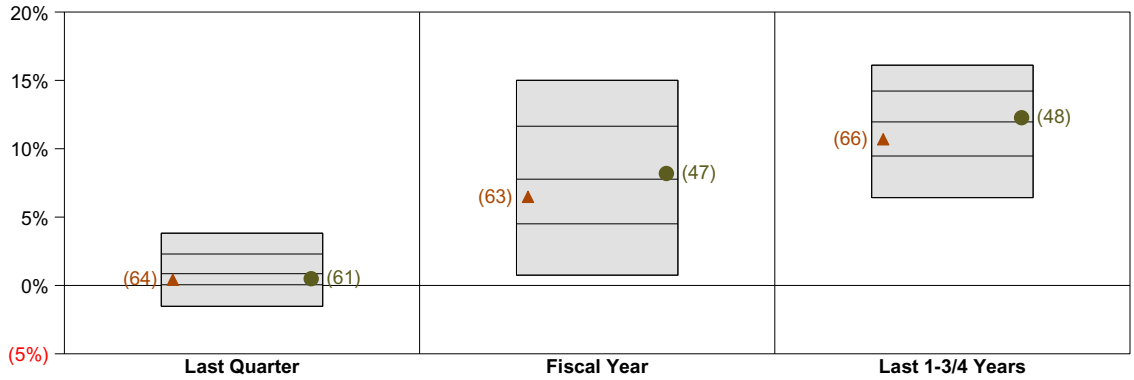
Quarterly Summary and Highlights

- Parametric Clifton Small Cap's portfolio posted a 0.49% return for the quarter placing it in the 61 percentile of the CAI Small Capitalization Style group for the quarter and in the 47 percentile for the last year.
- Parametric Clifton Small Cap's portfolio outperformed the Russell 2000 Index by 0.07% for the quarter and outperformed the Russell 2000 Index for the year by 1.71%.

Quarterly Asset Growth

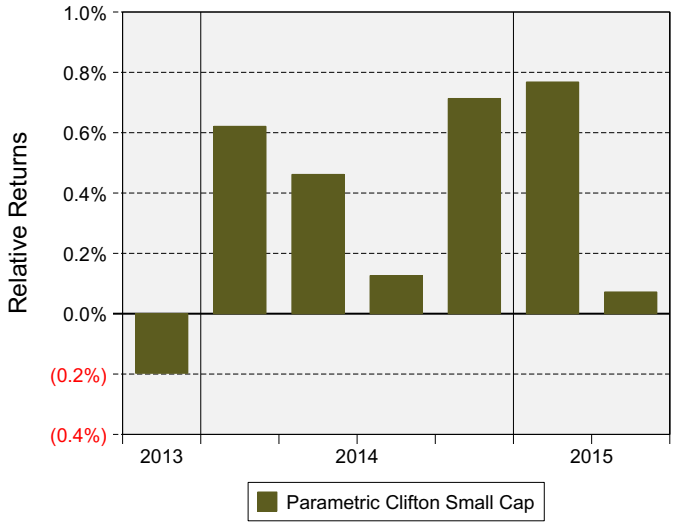
Beginning Market Value	$176,833,203
Net New Investment	$0
Investment Gains/(Losses)	$871,464
Ending Market Value	$177,704,668

Performance vs CAI Small Capitalization Style (Gross)

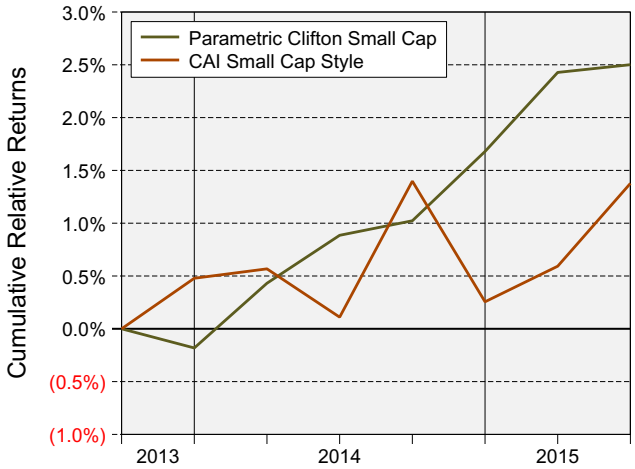


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	3.82	15.01	16.11
25th Percentile	2.30	11.65	14.22
Median	0.86	7.77	11.96
75th Percentile	0.05	4.51	9.47
90th Percentile	(1.53)	0.75	6.42
Parametric Clifton Small Cap ●	0.49	8.19	12.27
Russell 2000 Index ▲	0.42	6.49	10.70

Relative Return vs Russell 2000 Index



Cumulative Returns vs Russell 2000 Index



Research Affiliates
Period Ended June 30, 2015

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.

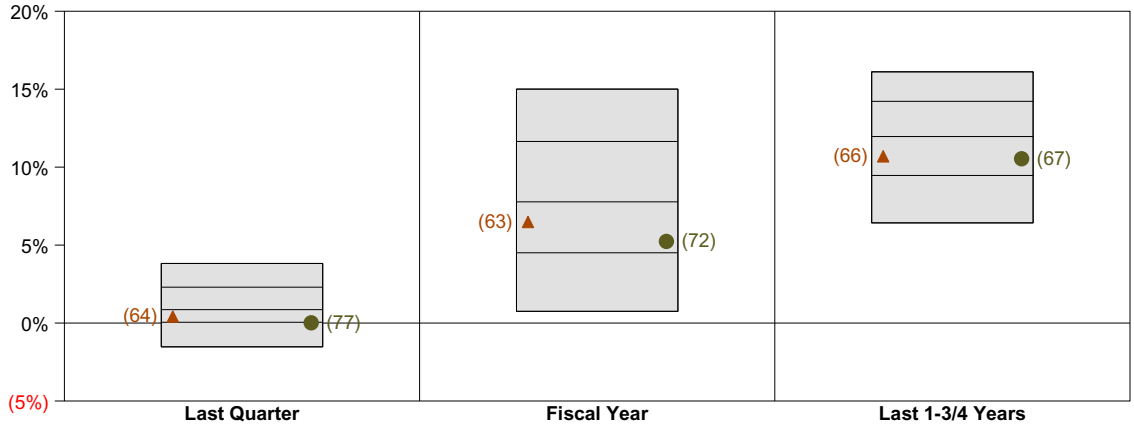
Quarterly Summary and Highlights

- Research Affiliates's portfolio posted a 0.02% return for the quarter placing it in the 77 percentile of the CAI Small Capitalization Style group for the quarter and in the 72 percentile for the last year.
- Research Affiliates's portfolio underperformed the Russell 2000 Index by 0.41% for the quarter and underperformed the Russell 2000 Index for the year by 1.25%.

Quarterly Asset Growth

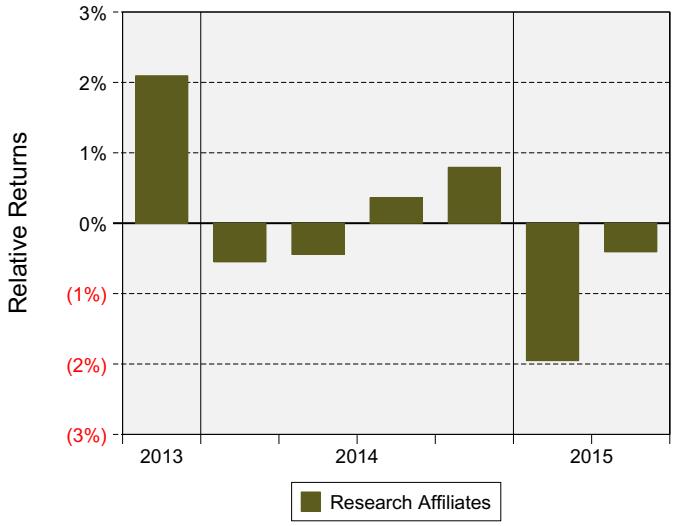
Beginning Market Value	$86,303,306
Net New Investment	$4,941,912
Investment Gains/(Losses)	$698
Ending Market Value	$91,245,915

Performance vs CAI Small Capitalization Style (Gross)

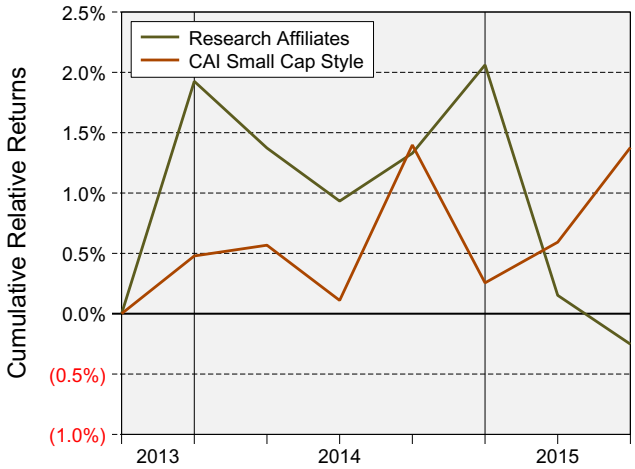


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	3.82	15.01	16.11
25th Percentile	2.30	11.65	14.22
Median	0.86	7.77	11.96
75th Percentile	0.05	4.51	9.47
90th Percentile	(1.53)	0.75	6.42
Research Affiliates ●	0.02	5.23	10.54
Russell 2000 Index ▲	0.42	6.49	10.70

Relative Return vs Russell 2000 Index



Cumulative Returns vs Russell 2000 Index



Capital Group
Period Ended June 30, 2015

Investment Philosophy

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.

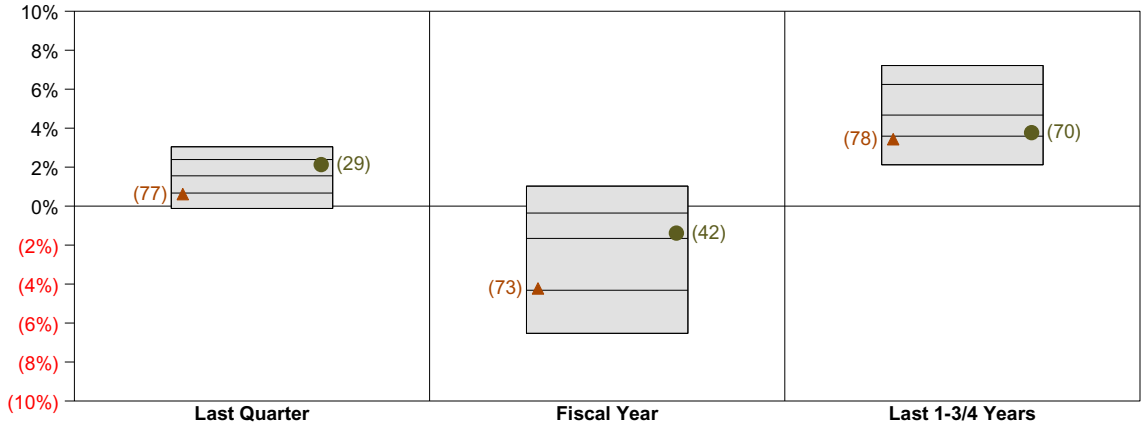
Quarterly Summary and Highlights

- Capital Group's portfolio posted a 2.13% return for the quarter placing it in the 29 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 42 percentile for the last year.
- Capital Group's portfolio outperformed the MSCI EAFE Index by 1.51% for the quarter and outperformed the MSCI EAFE Index for the year by 2.84%.

Quarterly Asset Growth

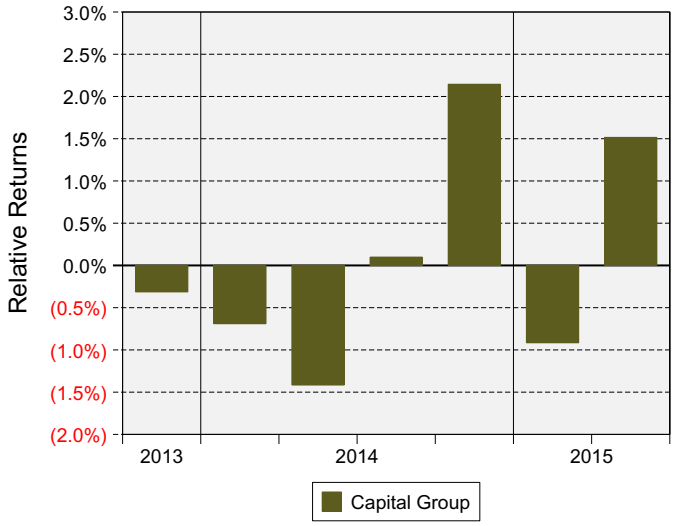
Beginning Market Value	$254,045,516
Net New Investment	$-231,510
Investment Gains/(Losses)	$5,417,007
Ending Market Value	$259,231,013

Performance vs CAI Non-U.S. Equity Style (Gross)

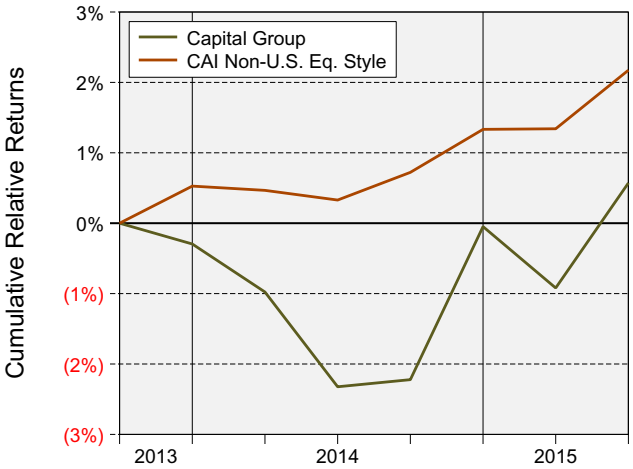


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	3.05	1.03	7.21
25th Percentile	2.39	(0.36)	6.24
Median	1.55	(1.66)	4.67
75th Percentile	0.67	(4.32)	3.59
90th Percentile	(0.12)	(6.53)	2.12
Capital Group ●	2.13	(1.39)	3.77
MSCI EAFE Index ▲	0.62	(4.22)	3.43

Relative Return vs MSCI EAFE Index



Cumulative Returns vs MSCI EAFE Index



DFA Intl Small Cap Value
Period Ended June 30, 2015

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.

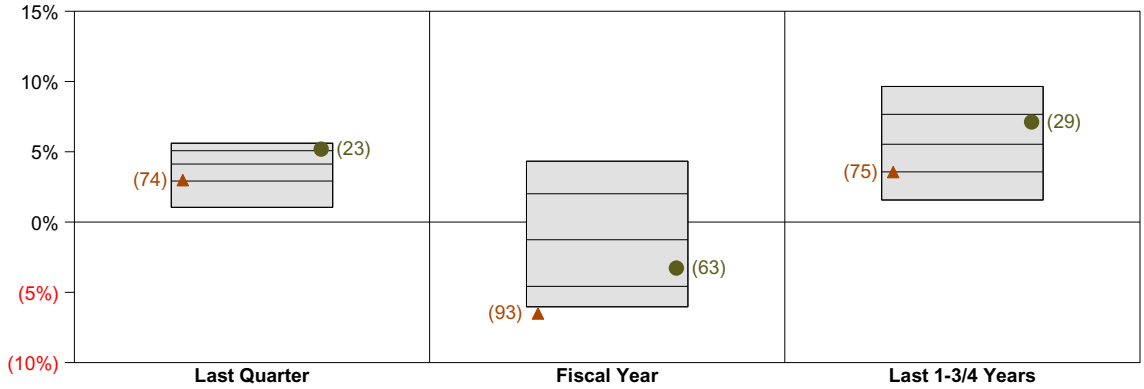
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 5.19% return for the quarter placing it in the 23 percentile of the MF - International Small Cap Obj group for the quarter and in the 63 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 2.21% for the quarter and outperformed the World ex US SC Value for the year by 3.23%.

Quarterly Asset Growth

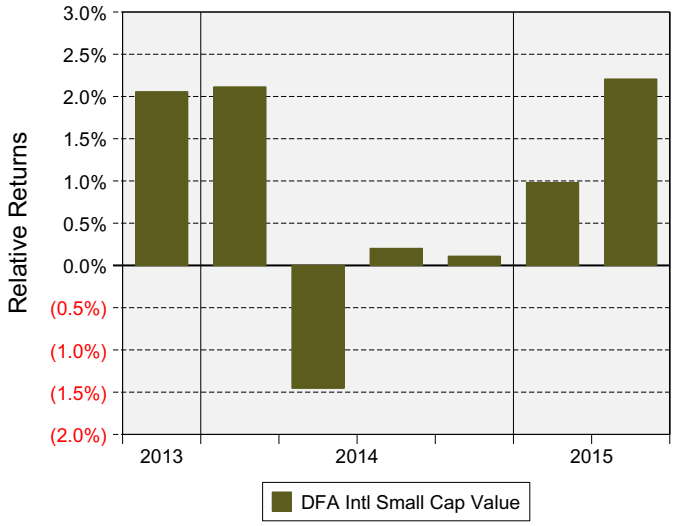
Beginning Market Value	$64,291,680
Net New Investment	$0
Investment Gains/(Losses)	$3,336,204
Ending Market Value	$67,627,884

Performance vs MF - International Small Cap Obj (Net)

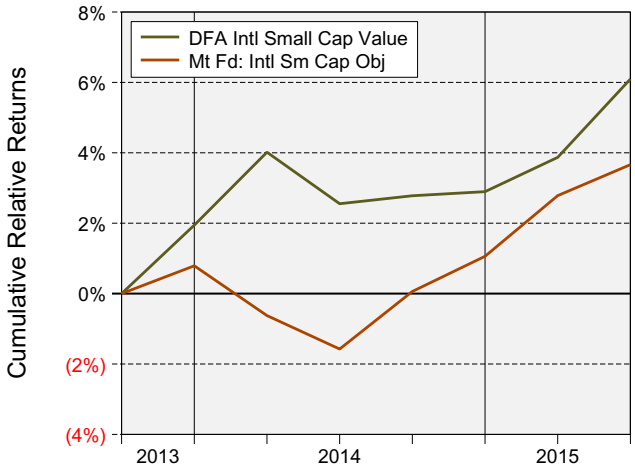


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	5.61	4.33	9.65
25th Percentile	5.08	2.01	7.66
Median	4.13	(1.26)	5.54
75th Percentile	2.92	(4.58)	3.57
90th Percentile	1.05	(6.03)	1.57
DFA Intl Small Cap Value ●	5.19	(3.27)	7.12
World ex US SC Value ▲	2.98	(6.50)	3.56

Relative Return vs World ex US SC Value



Cumulative Returns vs World ex US SC Value



LSV Intl Value
Period Ended June 30, 2015

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.

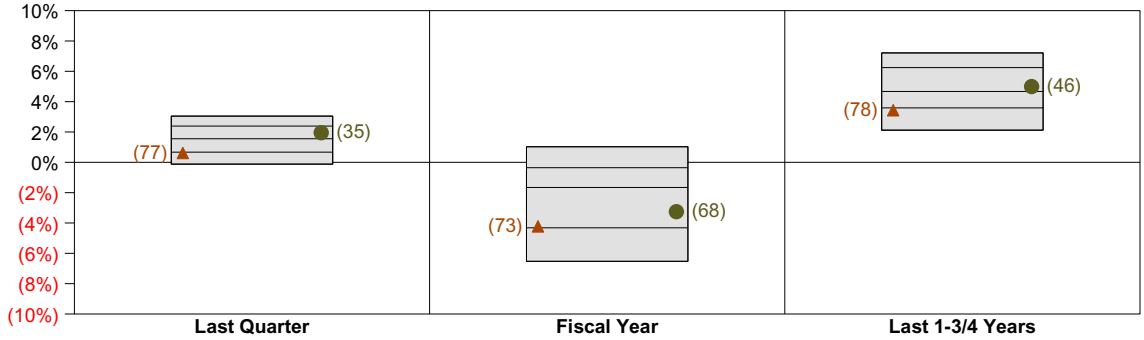
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a 1.95% return for the quarter placing it in the 35 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 68 percentile for the last year.
- LSV Intl Value's portfolio outperformed the MSCI EAFE Index by 1.34% for the quarter and outperformed the MSCI EAFE Index for the year by 0.97%.

Quarterly Asset Growth

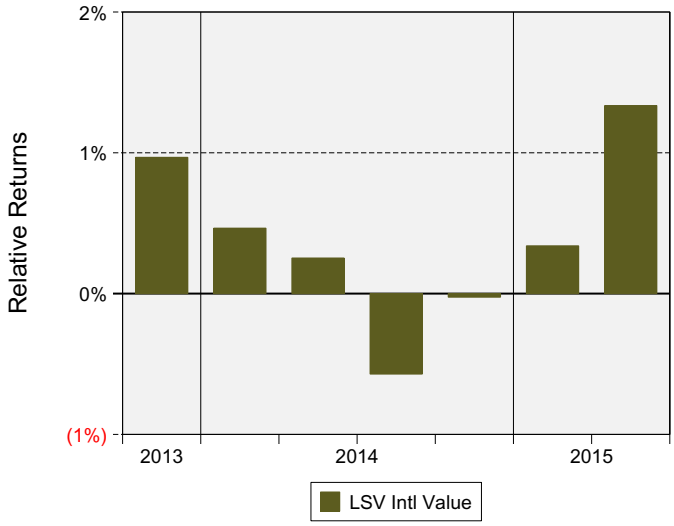
Beginning Market Value	$256,497,055
Net New Investment	$-276,695
Investment Gains/(Losses)	$5,009,206
Ending Market Value	$261,229,566

Performance vs CAI Non-U.S. Equity Style (Gross)

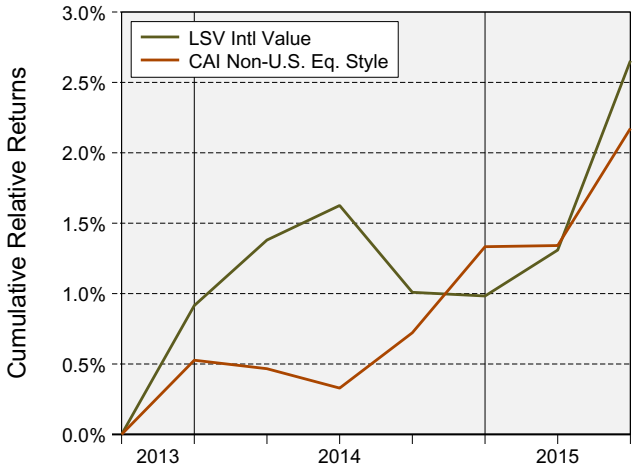


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	3.05	1.03	7.21
25th Percentile	2.39	(0.36)	6.24
Median	1.55	(1.66)	4.67
75th Percentile	0.67	(4.32)	3.59
90th Percentile	(0.12)	(6.53)	2.12
LSV Intl Value ●	1.95	(3.25)	4.99
MSCI EAFE Index ▲	0.62	(4.22)	3.43

Relative Return vs MSCI EAFE Index



Cumulative Returns vs MSCI EAFE Index



Vanguard Intl Explorer Fund
Period Ended June 30, 2015

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.

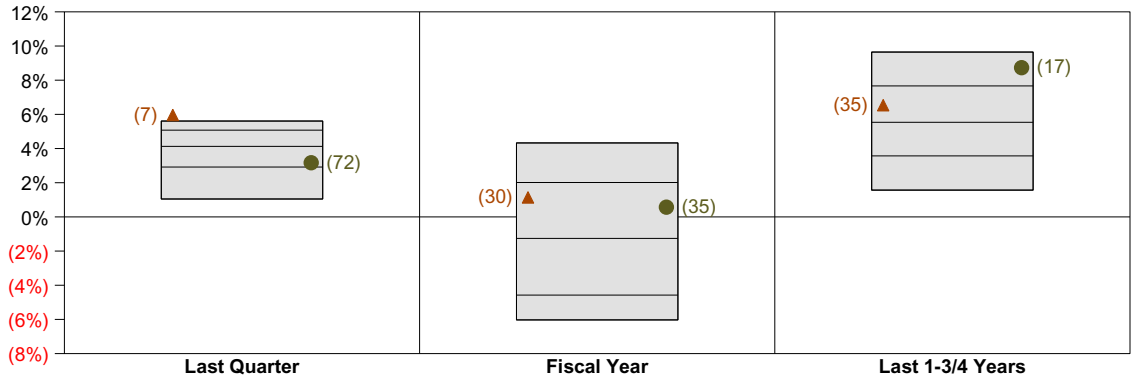
Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a 3.17% return for the quarter placing it in the 72 percentile of the MF - International Small Cap Obj group for the quarter and in the 35 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio underperformed the S&P BMI EPAC <$2 B by 2.80% for the quarter and underperformed the S&P BMI EPAC <$2 B for the year by 0.57%.

Quarterly Asset Growth

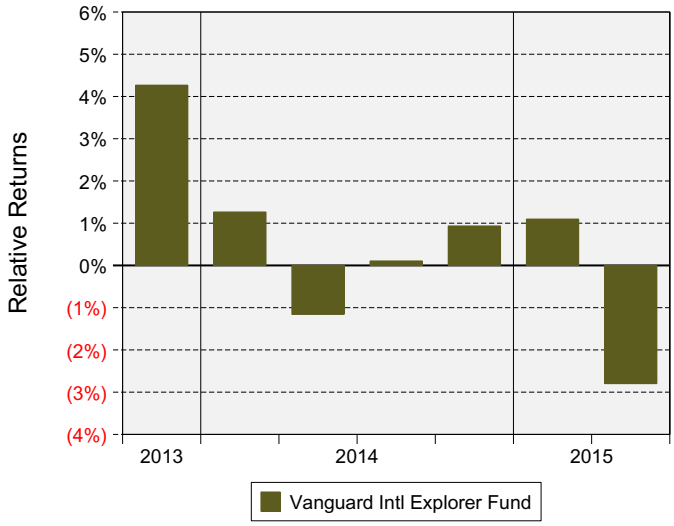
Beginning Market Value	$65,735,413
Net New Investment	$-3
Investment Gains/(Losses)	$2,083,295
Ending Market Value	$67,818,706

Performance vs MF - International Small Cap Obj (Net)

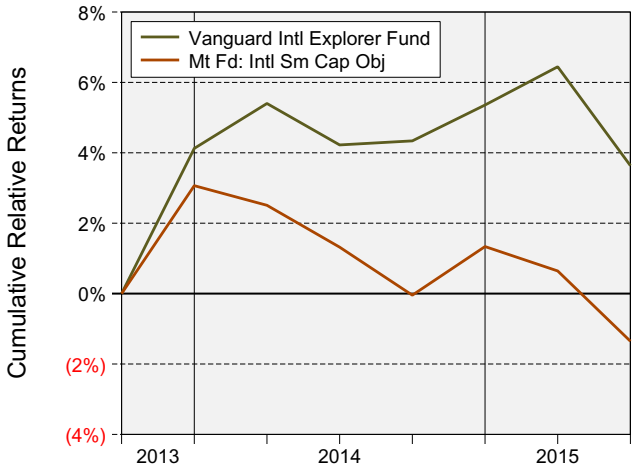


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	5.61	4.33	9.65
25th Percentile	5.08	2.01	7.66
Median	4.13	(1.26)	5.54
75th Percentile	2.92	(4.58)	3.57
90th Percentile	1.05	(6.03)	1.57
Vanguard Intl Explorer Fund ●	3.17	0.57	8.73
S&P BMI EPAC <$2 B ▲	5.97	1.14	6.54

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



Cumulative Returns vs S&P BMI EPAC <$2 B



Declaration Total Return
Period Ended June 30, 2015

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.

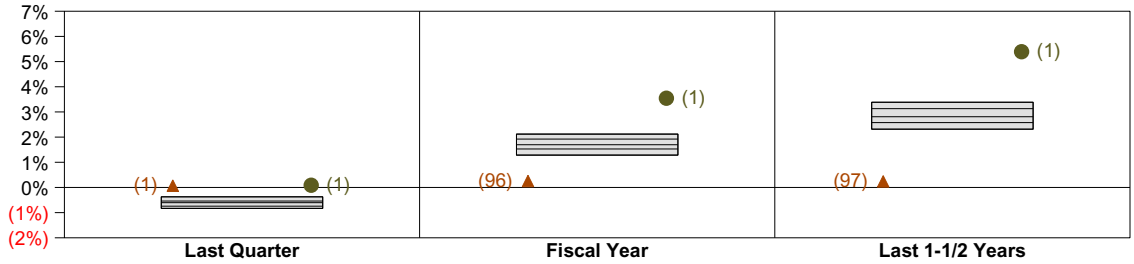
Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a 0.09% return for the quarter placing it in the 1 percentile of the CAI Intermediate Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio outperformed the Libor-3 Month by 0.02% for the quarter and outperformed the Libor-3 Month for the year by 3.29%.

Quarterly Asset Growth

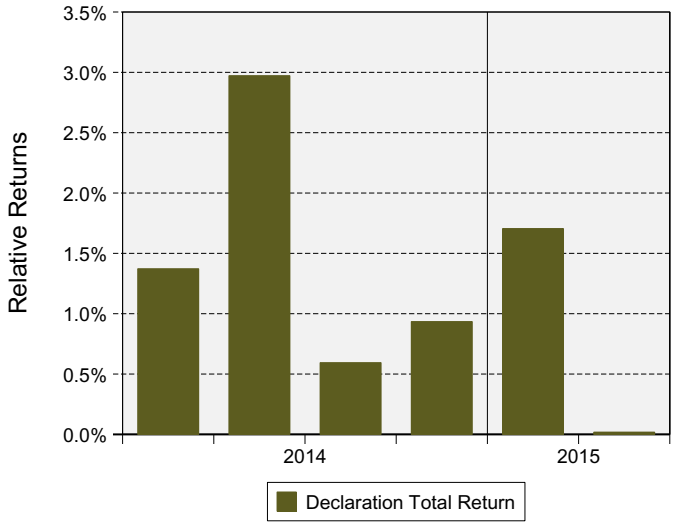
Beginning Market Value	$86,638,228
Net New Investment	$5,770,607
Investment Gains/(Losses)	$68,960
Ending Market Value	$92,477,795

Performance vs CAI Intermediate Fixed-Inc Style (Gross)

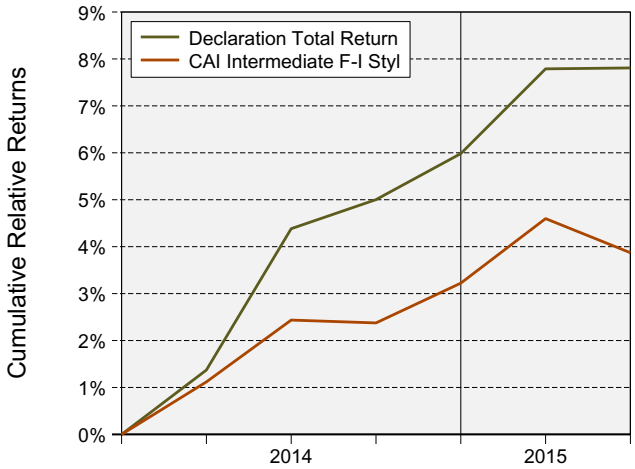


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(0.37)	2.12	3.38
25th Percentile	(0.54)	1.92	3.13
Median	(0.61)	1.70	2.81
75th Percentile	(0.74)	1.53	2.58
90th Percentile	(0.83)	1.29	2.31
Declaration Total Return ●	0.09	3.54	5.39
Libor-3 Month ▲	0.07	0.25	0.24

Relative Return vs Libor-3 Month



Cumulative Returns vs Libor-3 Month



PIMCO DiSCO II
Period Ended June 30, 2015

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.

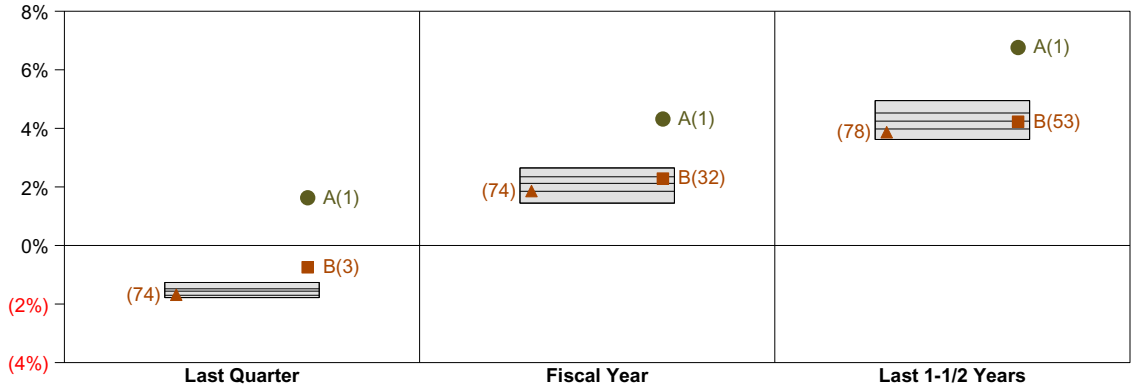
Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 1.63% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Barclays Aggregate Index by 3.31% for the quarter and outperformed the Barclays Aggregate Index for the year by 2.46%.

Quarterly Asset Growth

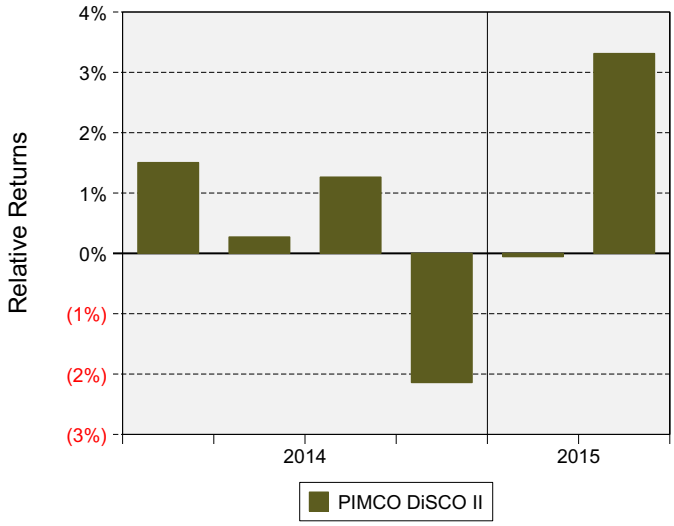
Beginning Market Value	$40,878,015
Net New Investment	$0
Investment Gains/(Losses)	$666,184
Ending Market Value	$41,544,199

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

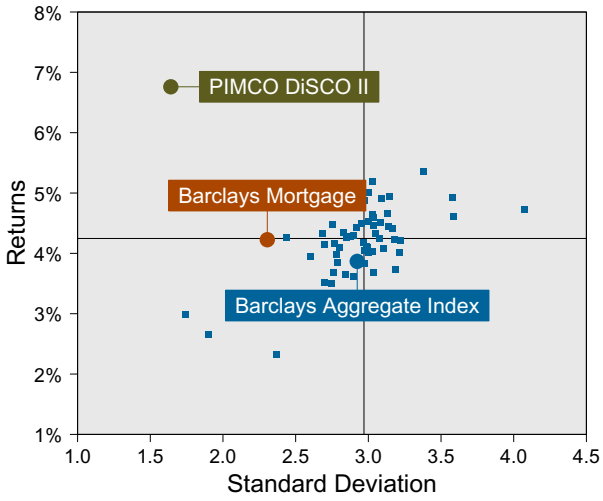


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.26)	2.65	4.95
25th Percentile	(1.48)	2.35	4.52
Median	(1.56)	2.12	4.25
75th Percentile	(1.70)	1.85	3.98
90th Percentile	(1.78)	1.45	3.62
PIMCO DiSCO II ● A	1.63	4.32	6.76
Barclays Mortgage ■ B	(0.74)	2.28	4.23
Barclays Aggregate Index ▲	(1.68)	1.86	3.87

Relative Return vs Barclays Aggregate Index



CAI Core Bond Fixed-Inc Style (Gross) Annualized One and One-Half Year Risk vs Return



PIMCO Bravo II Fund
Period Ended June 30, 2015

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.

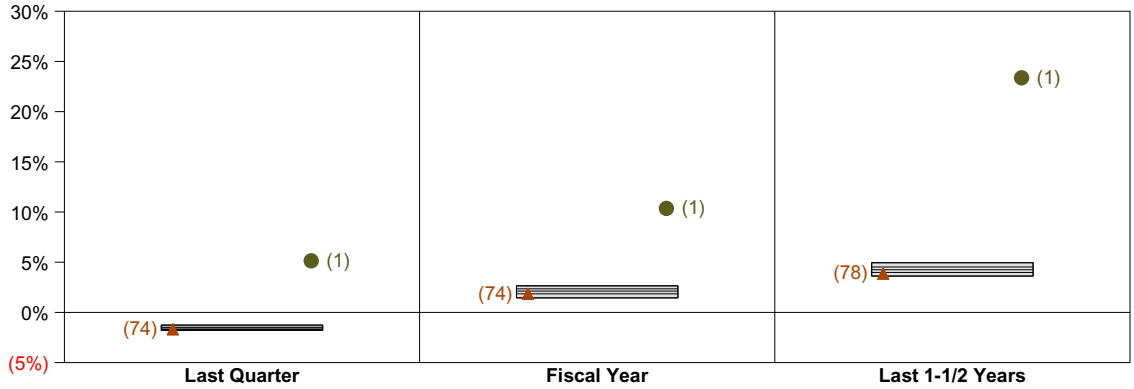
Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 5.14% return for the quarter placing it in the 1 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Barclays Aggregate Index by 6.82% for the quarter and outperformed the Barclays Aggregate Index for the year by 8.50%.

Quarterly Asset Growth

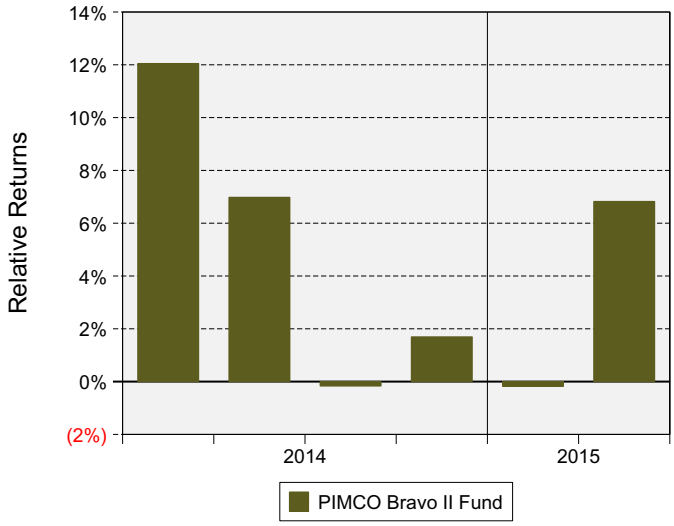
Beginning Market Value	$15,141,639
Net New Investment	$2,629,914
Investment Gains/(Losses)	$840,138
Ending Market Value	$18,611,691

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

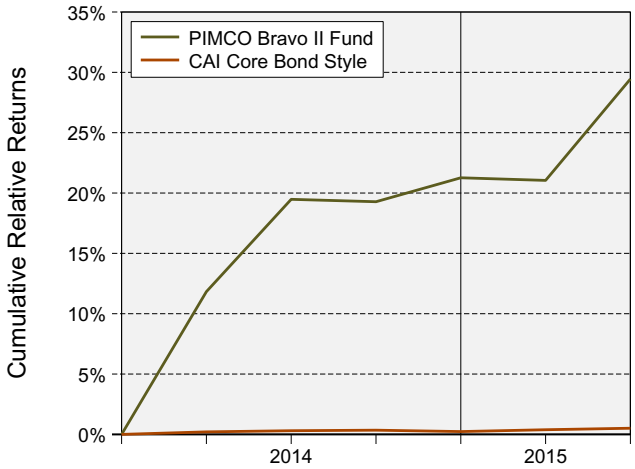


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.26)	2.65	4.95
25th Percentile	(1.48)	2.35	4.52
Median	(1.56)	2.12	4.25
75th Percentile	(1.70)	1.85	3.98
90th Percentile	(1.78)	1.45	3.62
PIMCO Bravo II Fund ●	5.14	10.36	23.37
Barclays Aggregate Index ▲	(1.68)	1.86	3.87

Relative Return vs Barclays Aggregate Index



Cumulative Returns vs Barclays Aggregate Index



Prudential
Period Ended June 30, 2015

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.

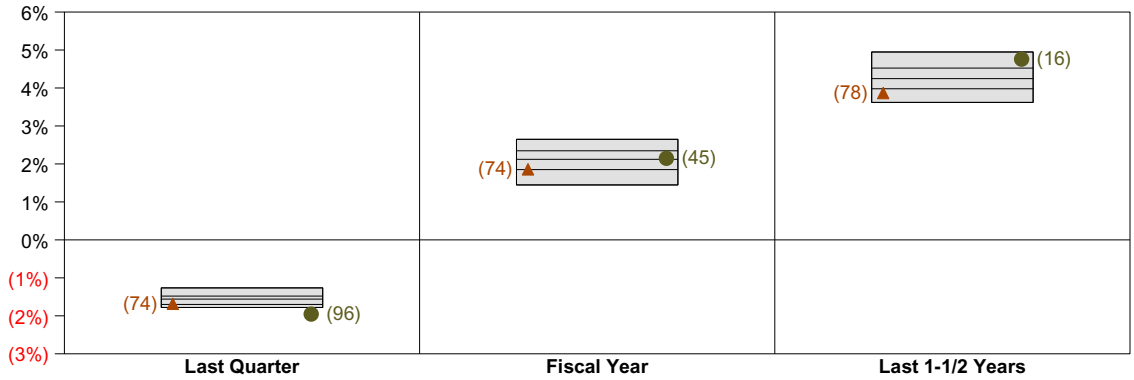
Quarterly Summary and Highlights

- Prudential's portfolio posted a (1.95)% return for the quarter placing it in the 96 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 45 percentile for the last year.
- Prudential's portfolio underperformed the Barclays Aggregate Index by 0.27% for the quarter and outperformed the Barclays Aggregate Index for the year by 0.29%.

Quarterly Asset Growth

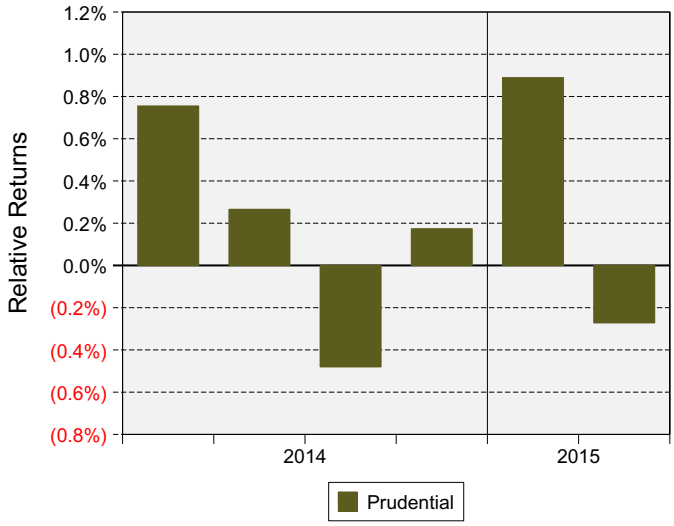
Beginning Market Value	$86,860,421
Net New Investment	$43,037,690
Investment Gains/(Losses)	$-2,624,486
Ending Market Value	$127,273,624

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

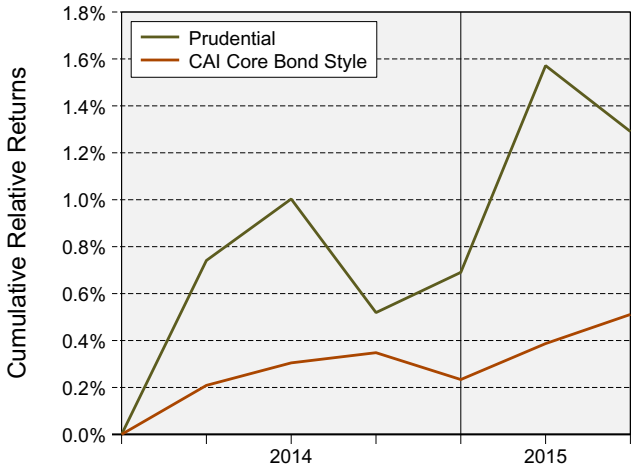


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.26)	2.65	4.95
25th Percentile	(1.48)	2.35	4.52
Median	(1.56)	2.12	4.25
75th Percentile	(1.70)	1.85	3.98
90th Percentile	(1.78)	1.45	3.62
Prudential ●	(1.95)	2.15	4.76
Barclays Aggregate Index ▲	(1.68)	1.86	3.87

Relative Return vs Barclays Aggregate Index



Cumulative Returns vs Barclays Aggregate Index



SSgA US Govt Credit Bd Idx
Period Ended June 30, 2015

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.

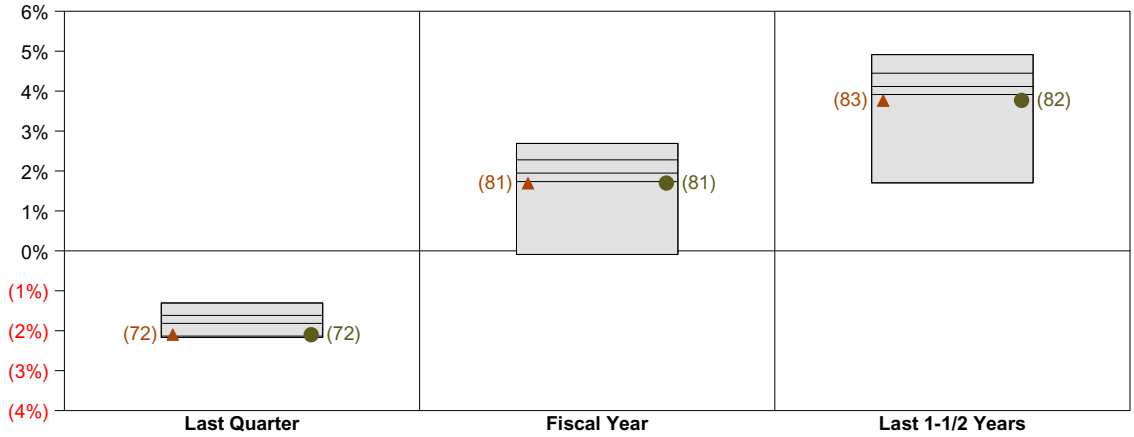
Quarterly Summary and Highlights

- SSgA US Govt Credit Bd Idx's portfolio posted a (2.10)% return for the quarter placing it in the 72 percentile of the CAI Govt/Credit Fixed-Income Style group for the quarter and in the 81 percentile for the last year.
- SSgA US Govt Credit Bd Idx's portfolio underperformed the Barclays Govt/Credit Bd by 0.00% for the quarter and outperformed the Barclays Govt/Credit Bd for the year by 0.01%.

Quarterly Asset Growth

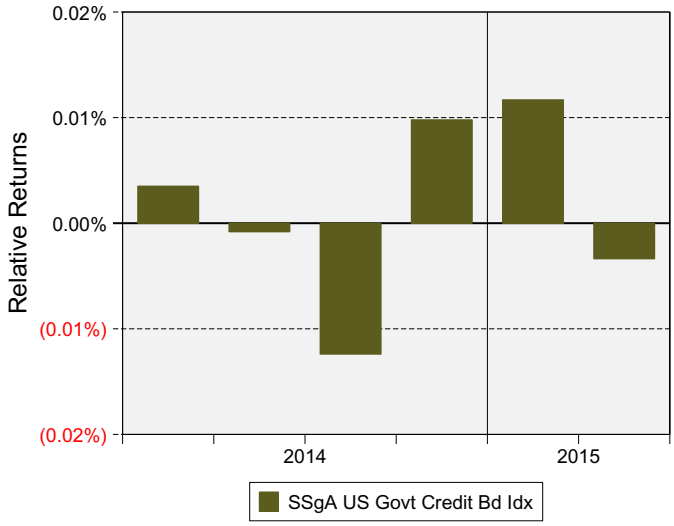
Beginning Market Value	$148,512,691
Net New Investment	$16,600,000
Investment Gains/(Losses)	$-3,385,693
Ending Market Value	$161,726,998

Performance vs CAI Govt/Credit Fixed-Income Style (Gross)

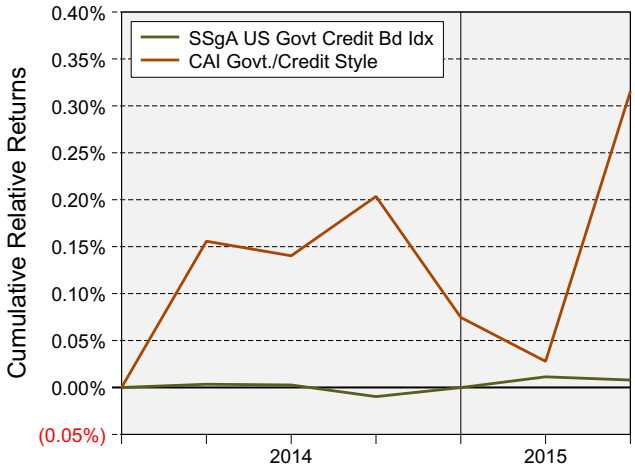


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.31)	2.69	4.91
25th Percentile	(1.62)	2.28	4.45
Median	(1.82)	1.95	4.12
75th Percentile	(2.13)	1.73	3.91
90th Percentile	(2.17)	(0.09)	1.70
SSgA US Govt Credit Bd Idx ●	(2.10)	1.70	3.77
Barclays Govt/Credit Bd ▲	(2.10)	1.69	3.76

Relative Return vs Barclays Govt/Credit Bd



Cumulative Returns vs Barclays Govt/Credit Bd



Wells Capital
Period Ended June 30, 2015

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.

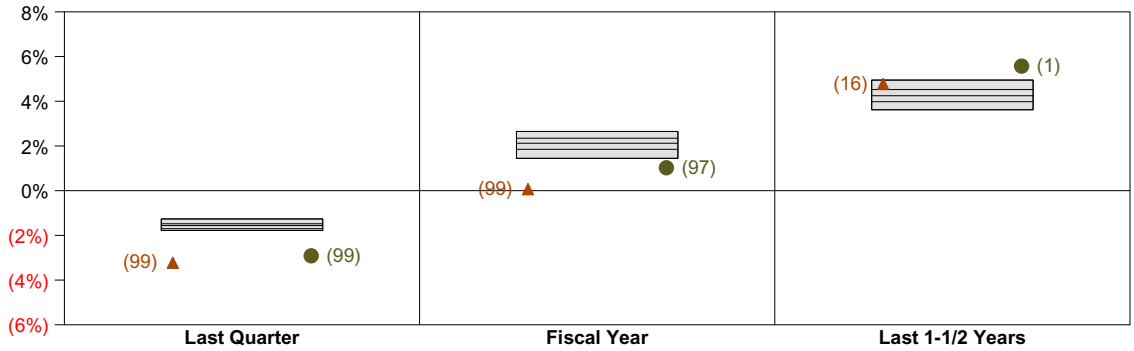
Quarterly Summary and Highlights

- Wells Capital's portfolio posted a (2.91)% return for the quarter placing it in the 99 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 97 percentile for the last year.
- Wells Capital's portfolio outperformed the Barclays Baa Credit 3% In by 0.31% for the quarter and outperformed the Barclays Baa Credit 3% In for the year by 0.96%.

Quarterly Asset Growth

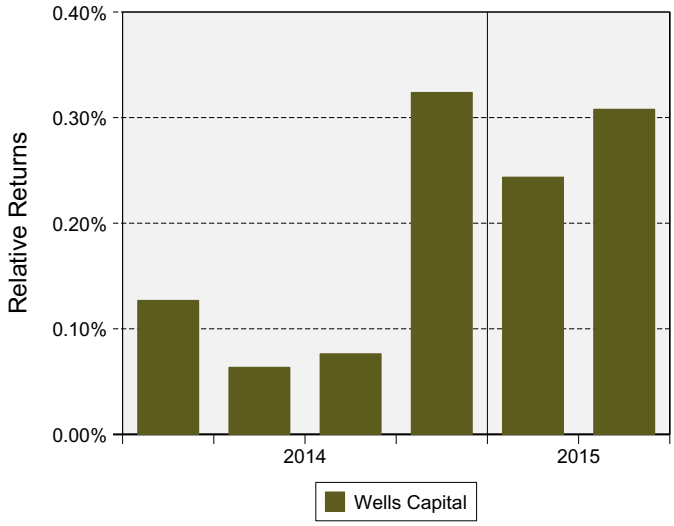
Beginning Market Value	$347,530,743
Net New Investment	$18,442,052
Investment Gains/(Losses)	$-10,633,796
Ending Market Value	$355,338,999

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

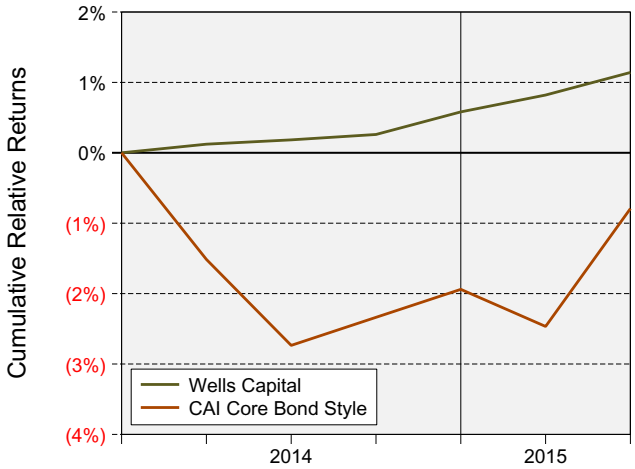


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.26)	2.65	4.95
25th Percentile	(1.48)	2.35	4.52
Median	(1.56)	2.12	4.25
75th Percentile	(1.70)	1.85	3.98
90th Percentile	(1.78)	1.45	3.62
Wells Capital ●	(2.91)	1.03	5.57
Barclays Baa Credit 3% In ▲	(3.22)	0.07	4.78

Relative Return vs Barclays Baa Credit 3% In



Cumulative Returns vs Barclays Baa Credit 3% In



Western Asset Management Company
Period Ended June 30, 2015

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.

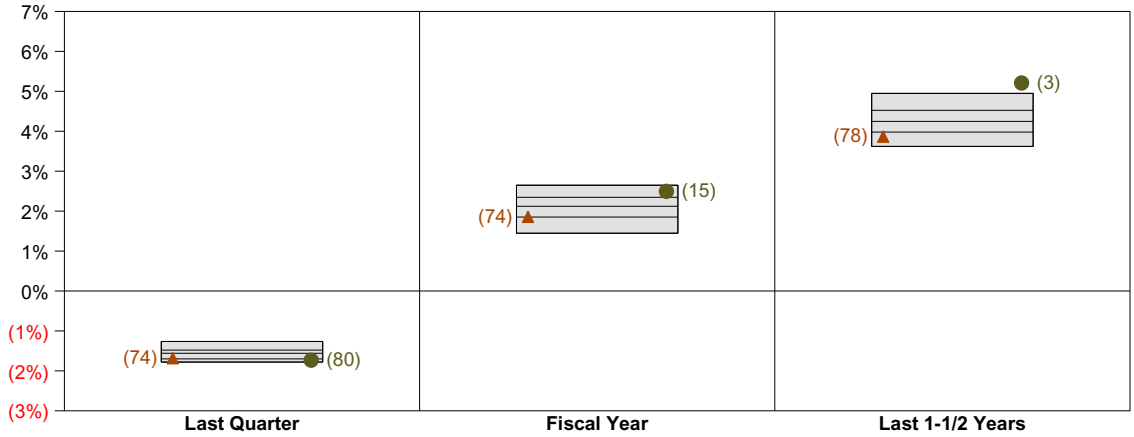
Quarterly Summary and Highlights

- Western Asset's portfolio posted a (1.73)% return for the quarter placing it in the 80 percentile of the CAI Core Bond Fixed-Inc Style group for the quarter and in the 15 percentile for the last year.
- Western Asset's portfolio underperformed the Barclays Aggregate Index by 0.05% for the quarter and outperformed the Barclays Aggregate Index for the year by 0.64%.

Quarterly Asset Growth

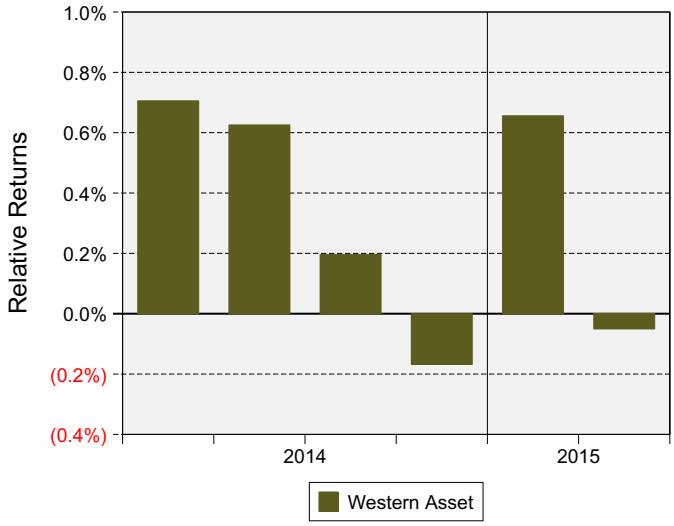
Beginning Market Value	$349,582,564
Net New Investment	$13,770,540
Investment Gains/(Losses)	$-5,236,759
Ending Market Value	$358,116,346

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

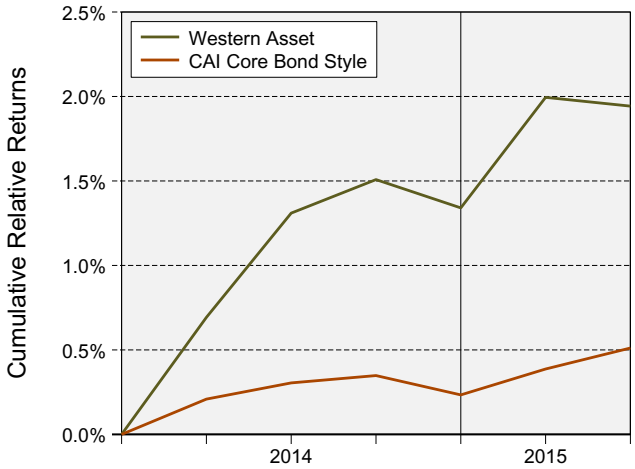


	Last Quarter	Fiscal Year	Last 1-1/2 Years
10th Percentile	(1.26)	2.65	4.95
25th Percentile	(1.48)	2.35	4.52
Median	(1.56)	2.12	4.25
75th Percentile	(1.70)	1.85	3.98
90th Percentile	(1.78)	1.45	3.62
Western Asset ●	(1.73)	2.49	5.21
Barclays Aggregate Index ▲	(1.68)	1.86	3.87

Relative Return vs Barclays Aggregate Index



Cumulative Returns vs Barclays Aggregate Index



Western Asset TIPS
Period Ended June 30, 2015

Investment Philosophy

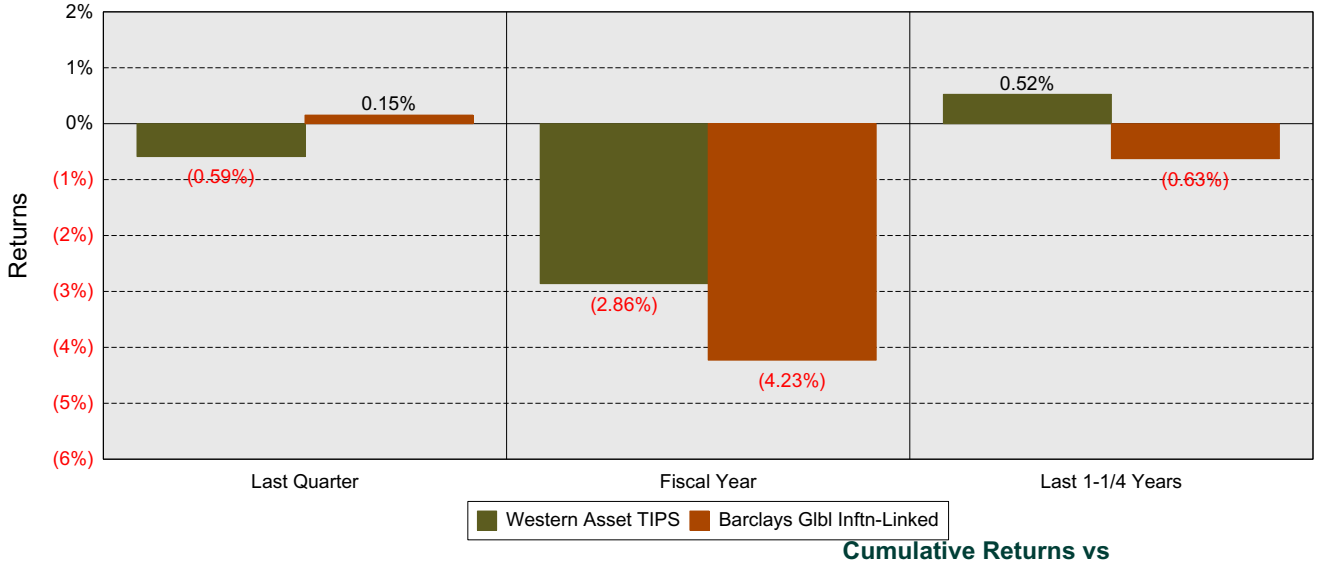
Western Asset's Global Inflation-Linked composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. Constructed primarily of inflation-indexed securities, these portfolios use diversified strategies in seeking to add value while minimizing risk. Value can be added through country selection, term structure, issue selection, duration management and currency management.

Quarterly Summary and Highlights

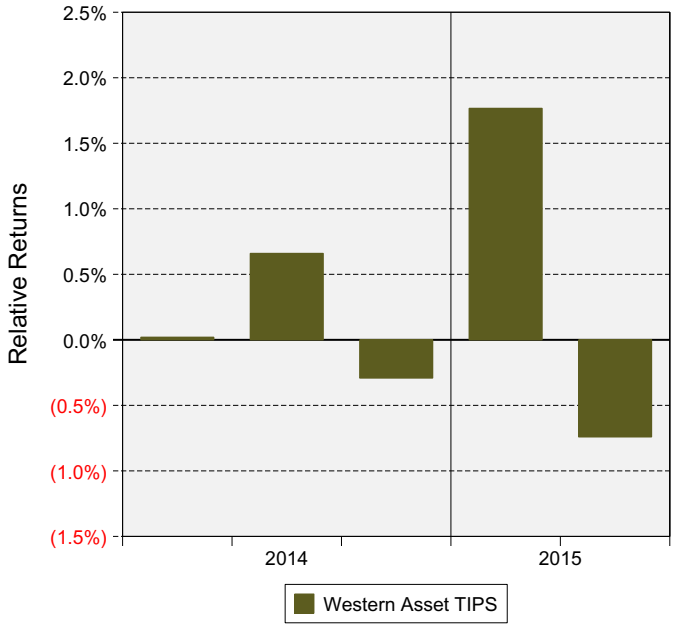
- Western Asset TIPS's portfolio underperformed the Barclays Glbl Inftn-Linked by 0.74% for the quarter and outperformed the Barclays Glbl Inftn-Linked for the year by 1.37%.

Quarterly Asset Growth

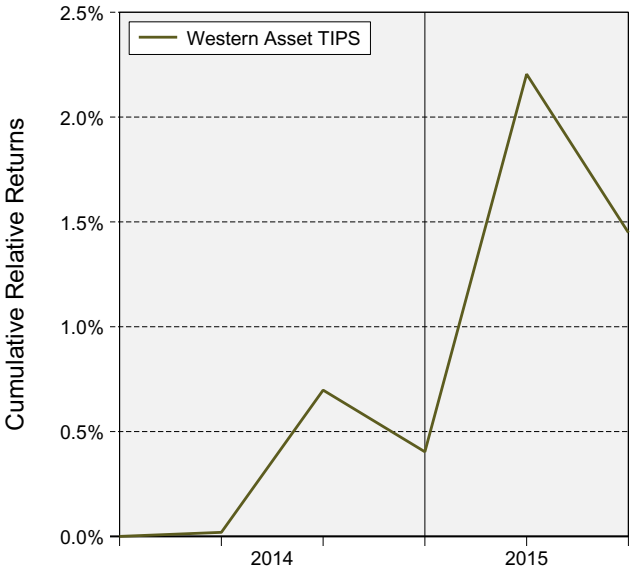
Beginning Market Value	$231,391,136
Net New Investment	$25,930,971
Investment Gains/(Losses)	$-1,698,660
Ending Market Value	$255,623,447



Relative Return vs Barclays Glbl Inftn-Linked



Cumulative Returns vs Barclays Glbl Inftn-Linked



JP Morgan Infrastructure
Period Ended June 30, 2015

Investment Philosophy

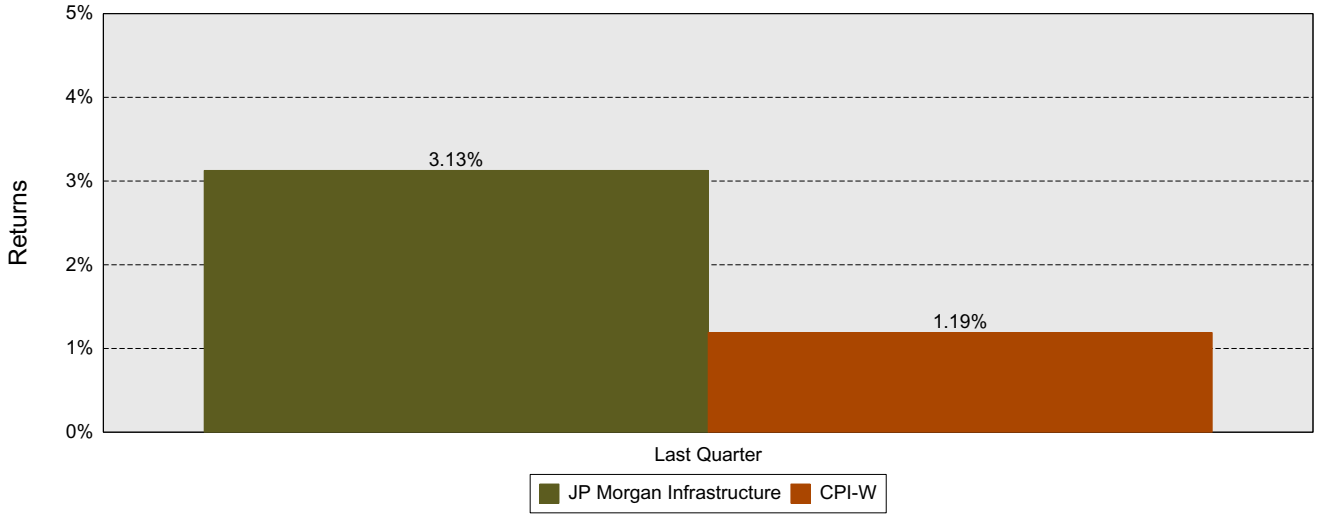
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas 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

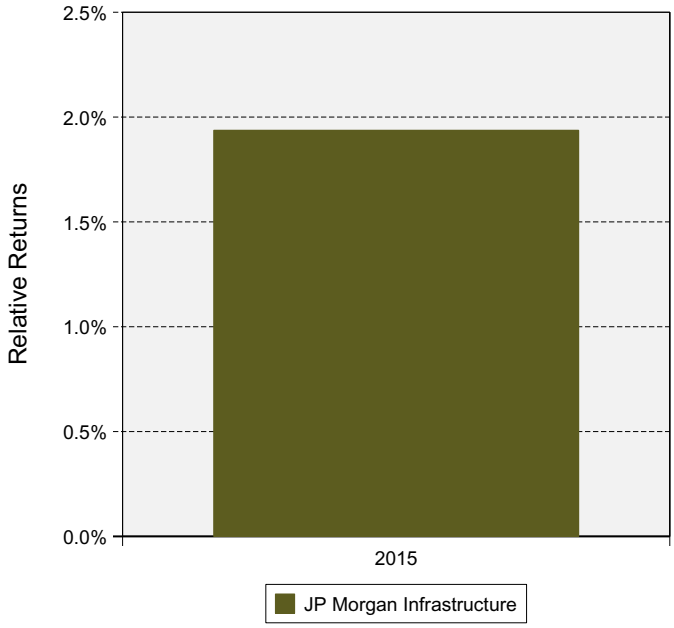
- JP Morgan Infrastructure's portfolio outperformed the CPI-W by 1.94% for the quarter.

Quarterly Asset Growth

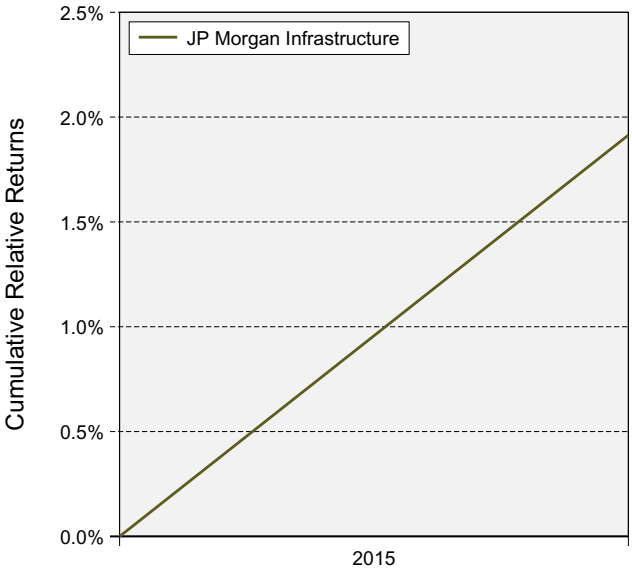
Beginning Market Value	$75,000,000
Net New Investment	$0
Investment Gains/(Losses)	$2,344,865
Ending Market Value	$77,344,865



Relative Return vs CPI-W



Cumulative Returns vs CPI-W



Grosvenor Cust. Infrastructure
Period Ended June 30, 2015

Investment Philosophy

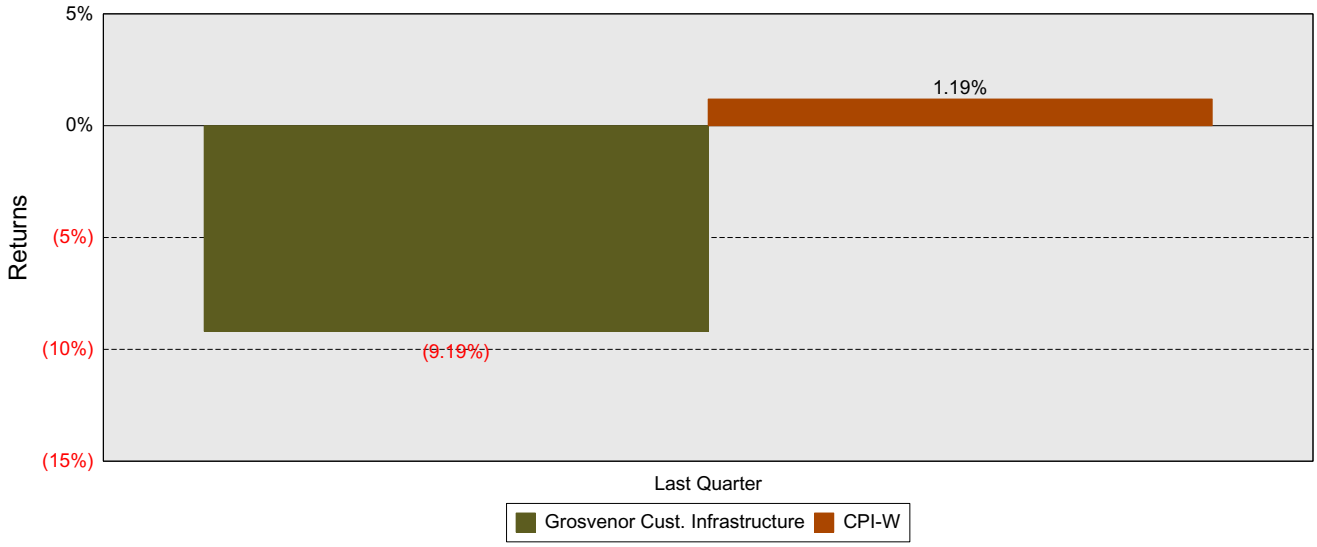
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%).

Quarterly Summary and Highlights

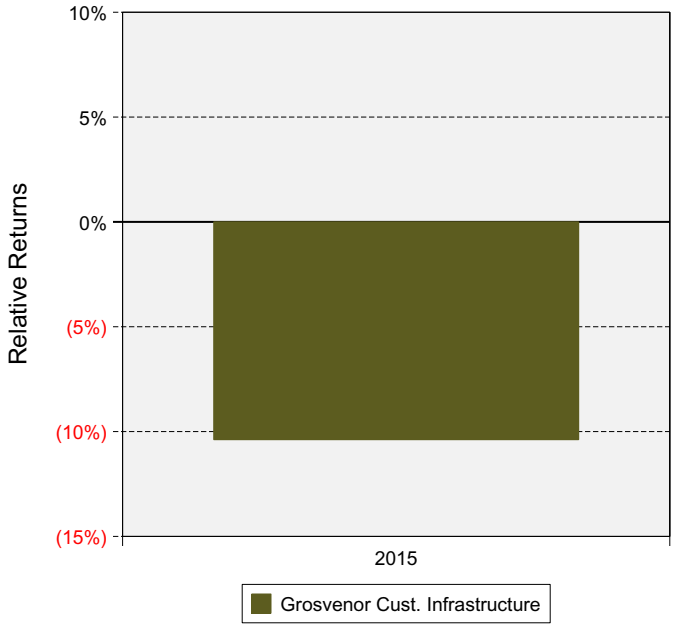
- Grosvenor Cust. Infrastructure's portfolio underperformed the CPI-W by 10.38% for the quarter.

Quarterly Asset Growth

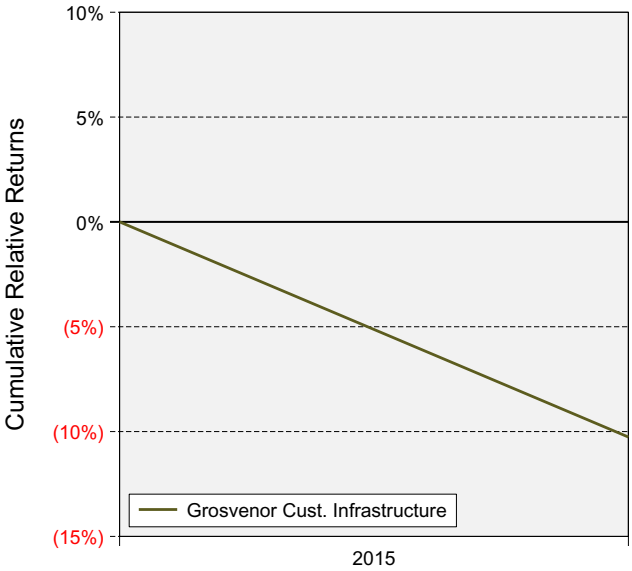
Beginning Market Value	$1,968,559
Net New Investment	$2,165,980
Investment Gains/(Losses)	$-309,324
Ending Market Value	$3,825,215



Relative Return vs CPI-W



Cumulative Returns vs CPI-W



Invesco Core Real Estate
Period Ended June 30, 2015

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.

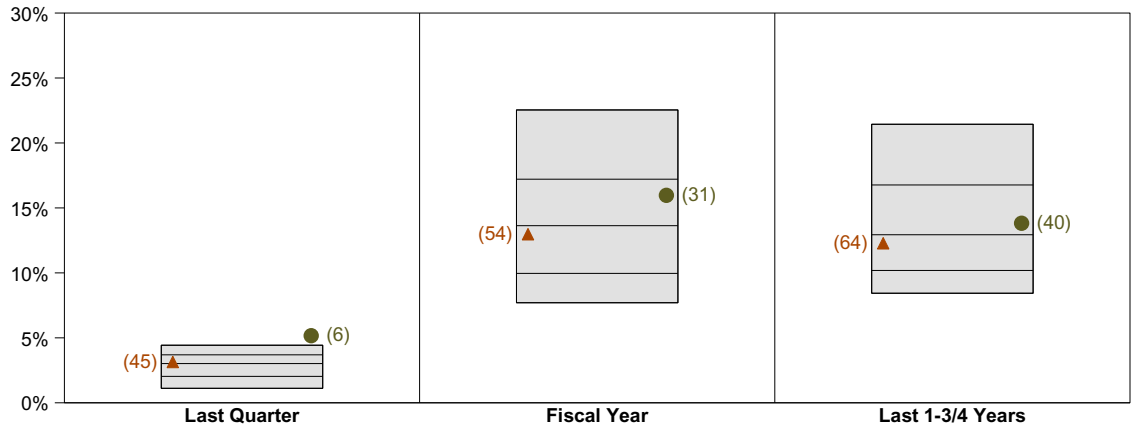
Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 5.16% return for the quarter placing it in the 6 percentile of the Total Real Estate DB group for the quarter and in the 31 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 2.02% for the quarter and outperformed the NCREIF Total Index for the year by 2.99%.

Quarterly Asset Growth

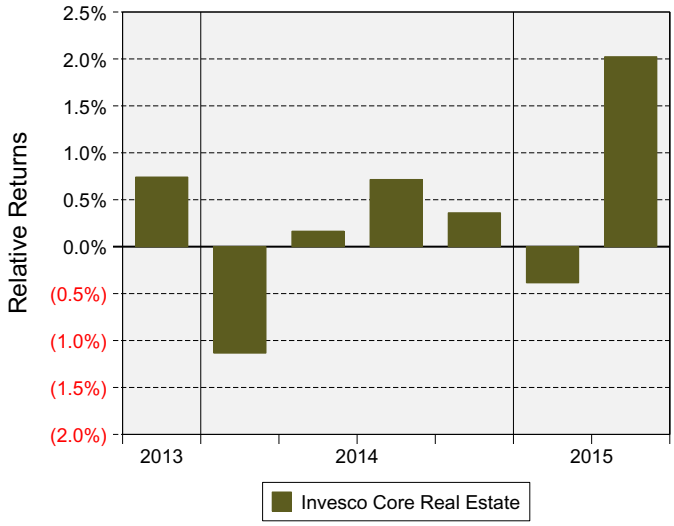
Beginning Market Value	$0
Net New Investment	$7,000,000
Investment Gains/(Losses)	$78,766,269
Ending Market Value	$85,766,269

Performance vs Total Real Estate DB (Net)

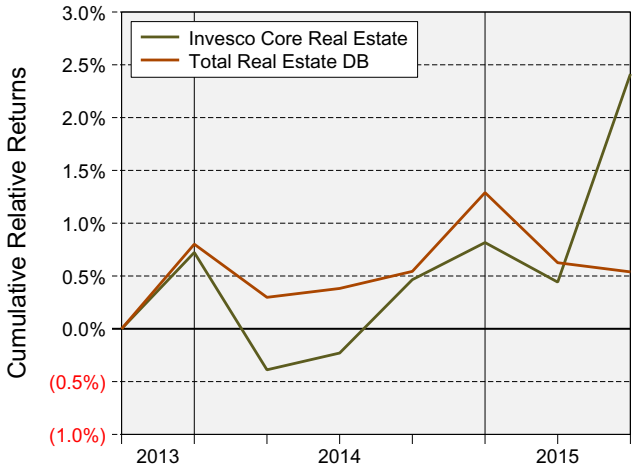


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	4.43	22.54	21.44
25th Percentile	3.69	17.21	16.77
Median	3.02	13.63	12.94
75th Percentile	2.03	9.96	10.19
90th Percentile	1.12	7.70	8.43
Invesco Core Real Estate ●	5.16	15.97	13.82
NCREIF Total Index ▲	3.14	12.98	12.28

Relative Return vs NCREIF Total Index



Cumulative Returns vs NCREIF Total Index



JP Morgan RE Inc & Growth
Period Ended June 30, 2015

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.

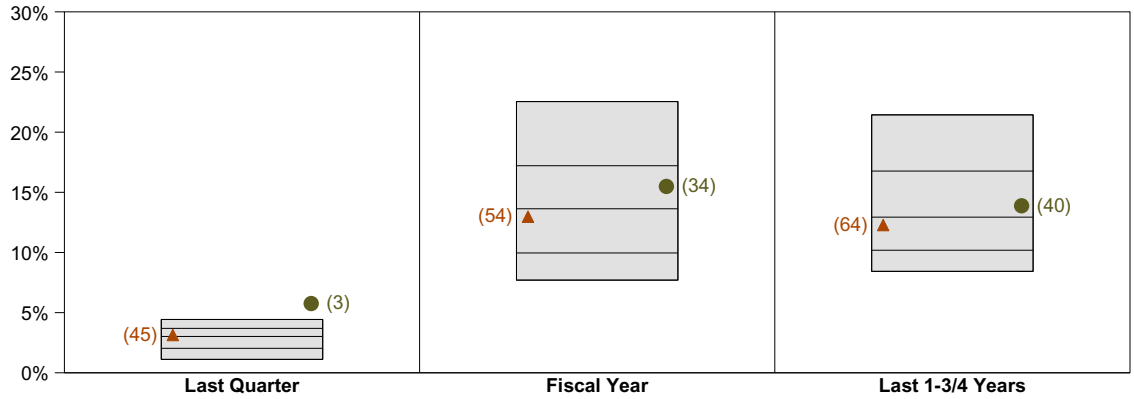
Quarterly Summary and Highlights

- JP Morgan RE Inc & Growth's portfolio posted a 5.76% return for the quarter placing it in the 3 percentile of the Total Real Estate DB group for the quarter and in the 34 percentile for the last year.
- JP Morgan RE Inc & Growth's portfolio outperformed the NCREIF Total Index by 2.61% for the quarter and outperformed the NCREIF Total Index for the year by 2.51%.

Quarterly Asset Growth

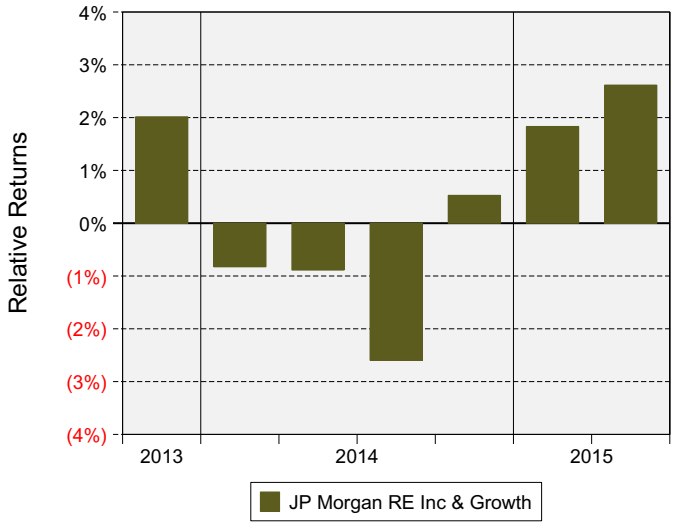
Beginning Market Value	$0
Net New Investment	$84,505,894
Investment Gains/(Losses)	$4,864,013
Ending Market Value	$89,369,907

Performance vs Total Real Estate DB (Net)

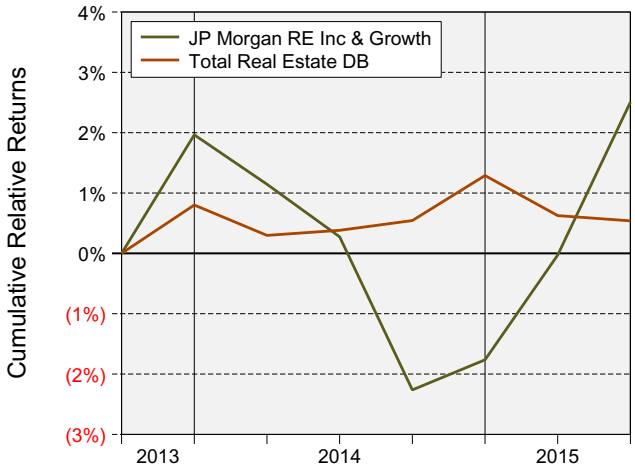


	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	4.43	22.54	21.44
25th Percentile	3.69	17.21	16.77
Median	3.02	13.63	12.94
75th Percentile	2.03	9.96	10.19
90th Percentile	1.12	7.70	8.43
JP Morgan RE Inc & Growth ●	5.76	15.49	13.88
NCREIF Total Index ▲	3.14	12.98	12.28

Relative Return vs NCREIF Total Index



Cumulative Returns vs NCREIF Total Index



Callan

CALLAN
INVESTMENTS
INSTITUTE

2nd Quarter 2015

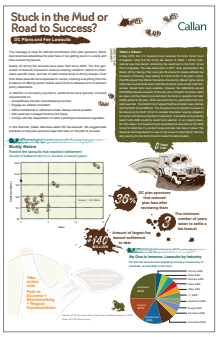
Education

Research and Educational Programs

The Callan Investments Institute provides research that keeps clients updated on the latest industry trends while helping them learn through carefully structured educational programs.

Recent Research

Please visit www.callan.com/research to see all of our publications.



Stuck in the Mud or Road to Success? DC Plans and Fee Lawsuits This charticle describes select fee lawsuits and best practices to help plan sponsors stay on the path to success.

Active Share and Product Pairs Analysis In this paper, author Greg Allen isolates the impact of active share on performance by focusing on "product pairs."

U.S. Equity Benchmark Review, Year-End 2014 This detailed report compares CRSP, Russell, and S&P indices alongside Callan Active Manager Style Groups.

Capital Market Review, 1st Quarter 2015 A newsletter providing insights on the economy and recent performance in the equity, fixed income, alternatives, and real estate markets.

Hedge Fund Monitor, 1st Quarter 2015 Cover story: Bridging the Gap: Multi-Asset Class Strategies.

Private Markets Trends, Spring 2015 A quarterly newsletter that discusses the market environment, recent events, performance, and other issues involving private equity.

DC Observer, 1st Quarter 2015 Cover story: Is Your Target Date Fund Suitable? Plus the Callan DC Index™.

Market Pulse Flipbook, 1st Quarter 2015 A reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, and alternatives.

Inside Callan's Database, 1st Quarter 2015 This report graphs performance and risk data from Callan's proprietary database alongside relevant market indices.

Real Estate Indicators: Too Hot to Touch or Cool Enough to Handle? See seven indicators that have helped signal when the institutional real estate market is overheated or cooled.

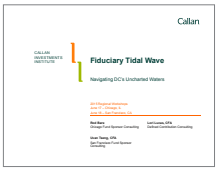
The Game of Retirement–Helping Employees Win This charticle provides a high-level look at the three generations DC plan sponsors must target and how best to communicate with them.

The Investment Vehicle Owner's Manual This charticle highlights the key features of several popular investment vehicles. It also encourages investors to consider six important questions when making an investment vehicle selection.

2015 Defined Contribution Survey Callan's annual survey of DC plan sponsors reveals trends in plan structure and management.

Events

Did you miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: https://www.callan.com/education/CII/



The **June Regional Workshop**'s topic was "Fiduciary Tidal Wave: Navigating DC's Uncharted Waters." Our speakers were Rod Bare, Chicago Fund Sponsor Consulting; Lori Lucas, CFA, Defined Contribution Consulting; and Uvan Tseng, CFA, San Francisco Fund Sponsor Consulting.

Our next event is the **October Regional Workshop**, to be held October 21 in New York and October 22 in Atlanta. Stay tuned for topic and speaker details! Also, save the date for our annual **National Conference** in San Francisco, January 25-27, 2016.

For more information about research or educational events, please contact Ray Combs: institute@callan.com or 415.974.5060

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 27-28, 2015

This session familiarizes fund sponsor trustees, staff, and asset management advisors 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 https://www.callan.com/education/college/ or contact Kathleen Cunnie: 415.274.3029 / cunnie@callan.com

Education: By the Numbers

500	Attendees (on average) of the Institute's annual National Conference	**50+**	Unique pieces of research the Institute generates each year
3,300	Total attendees of the "Callan College" since 1994	**1980**	Year the Callan Investments 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, 2015

List of Managers That Do Business with Callan Associates Inc.

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Manager Name	Educational Services	Consulting Services
1607 Capital Partners, LLC		Y
Aberdeen Asset Management	Y	Y
Acadian Asset Management, Inc.	Y	
Advisory Research	Y	
Affiliated Managers Group		Y
AllianceBernstein	Y	
Allianz Global Investors U.S. LLC	Y	Y
Allianz Life Insurance Company of North America		Y
Altrinsic Global Advisors, LLC		Y
American Century Investment Management	Y	
Analytic Investors	Y	
Apollo Global Management	Y	
AQR Capital Management	Y	
Ares Management	Y	
Ariel Investments	Y	
Aristotle Capital Management	Y	
Aronson + Johnson + Ortiz	Y	
Artisan Holdings		Y
Atlanta Capital Management Co., L.L.C.	Y	Y
Aviva Investors	Y	
AXA Rosenberg Investment Management	Y	
Babson Capital Management LLC	Y	
Baillie Gifford International LLC	Y	Y
Baird Advisors	Y	Y
Bank of America		Y
Baring Asset Management	Y	
Baron Capital Management	Y	
BlackRock	Y	
BMO Asset Management	Y	
BNP Paribas Investment Partners	Y	
BNY Mellon Asset Management	Y	Y
Boston Company Asset Management, LLC (The)	Y	Y

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Manager Name	Educational Services	Consulting Services
Boston Partners	Y	Y
Brandes Investment Partners, L.P.	Y	Y
Brandywine Global Investment Management, LLC	Y	
Brown Brothers Harriman & Company	Y	
Cadence Capital Management	Y	
Capital Group	Y	
CastleArk Management, LLC		Y
Causeway Capital Management	Y	
Central Plains Advisors, Inc.		Y
Chartwell Investment Partners	Y	
ClearBridge Investments, LLC (fka ClearBridge Advisors)	Y	
Cohen & Steers	Y	Y
Columbia Management Investment Advisors, LLC	Y	Y
Columbus Circle Investors	Y	Y
Corbin Capital Partners	Y	
Cornerstone Investment Partners, LLC	Y	
Cramer Rosenthal McGlynn, LLC	Y	
Crawford Investment Council		Y
Credit Suisse Asset Management	Y	
Crestline Investors	Y	Y
Cutwater Asset Management	Y	
DB Advisors	Y	Y
DE Shaw Investment Management LLC	Y	
Delaware Investments	Y	Y
DePrince, Race & Zollo, Inc.	Y	Y
Deutsche Asset & Wealth Management	Y	Y
Diamond Hill Investments	Y	
Donald Smith & Co., Inc.	Y	
DSM Capital Partners		Y
Duff & Phelps Investment Mgmt.	Y	Y
Eagle Asset Management, Inc.		Y
EARNEST Partners, LLC	Y	
Eaton Vance Management	Y	Y
Epoch Investment Partners	Y	
Fayez Sarofim & Company		Y
Federated Investors		Y
Fir Tree Partners	Y	
First Eagle Investment Management	Y	
First Hawaiian Bank		Y
First State Investments	Y	
Fisher Investments	Y	
Franklin Templeton	Y	Y

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Manager Name	Educational Services	Consulting Services
Fred Alger Management Co., Inc.	Y	
Fuller & Thaler Asset Management	Y	
GAM (USA) Inc.	Y	
Garcia Hamilton & Associates	Y	
GE Asset Management	Y	Y
Geneva Capital Management	Y	
Goldman Sachs Asset Management	Y	Y
Grand-Jean Capital Management	Y	Y
GMO (fka Grantham, Mayo, Van Otterloo & Co., LLC)	Y	
Great Lakes Advisors, Inc.		Y
The Guardian Life Insurance Company of America		Y
Guggenheim Investments Asset Management (fka Security Global)	Y	
The Hampshire Companies	Y	
Harbor Capital		Y
Hartford Funds	Y	
Hartford Investment Management Co.	Y	Y
Heightman Capital Management Corporation		Y
Henderson Global Investors	Y	Y
Hotchkis & Wiley	Y	
HSBC Global Asset Management	Y	
Income Research & Management	Y	
Insight Investment Management		Y
Institutional Capital LLC	Y	
INTECH Investment Management	Y	
Invesco	Y	Y
Investec Asset Management	Y	
Jacobs Levy Equity Management		Y
Janus Capital Group (fka Janus Capital Management, LLC)	Y	Y
Jensen Investment Management		Y
J.M. Hartwell	Y	
J.P. Morgan Asset Management	Y	Y
KeyCorp		Y
Lazard Asset Management	Y	Y
Lee Munder Capital Group	Y	
Legal & General Investment Management America	Y	
Lincoln National Corporation		Y
Logan Circle Partners, L.P.	Y	
The London Company	Y	
Longview Partners	Y	
Loomis, Sayles & Company, L.P.	Y	Y
Lord Abbett & Company	Y	Y
Los Angeles Capital Management	Y	

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Manager Name	Educational Services	Consulting Services
LSV Asset Management	Y	
Lyrical Partners	Y	
MacKay Shields LLC	Y	Y
Mackenzie Investments		Y
Man Investments	Y	
Manulife Asset Management	Y	
Martin Currie	Y	
Marvin & Palmer Associates, Inc.	Y	
MFS Investment Management	Y	Y
MidFirst Bank		Y
Mondrian Investment Partners Limited	Y	Y
Montag & Caldwell, Inc.	Y	Y
Morgan Stanley Alternative Investment Partners	Y	
Morgan Stanley Investment Management	Y	Y
Mount Lucas Management LP	Y	
Mountain Lake Investment Management LLC		Y
MUFG Union Bank, N.A.		Y
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Newton Capital Management	Y	
Northern Lights Capital Group		Y
Northern Trust Global Investment Services	Y	Y
Nuveen Investments Institutional Services Group LLC	Y	
Old Mutual Asset Management	Y	Y
OppenheimerFunds, Inc.	Y	
Pacific Investment Management Company	Y	
Palisade Capital Management LLC	Y	
Paradigm Asset Management	Y	
Parametric Portfolio Associates	Y	
Peregrine Capital Management, Inc.	Y	Y
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)	Y	
Pinnacle Asset Management	Y	
Pioneer Investment Management, Inc.	Y	
PNC Capital Advisors (fka Allegiant Asset Mgmt)	Y	Y
Polen Capital Management	Y	
Principal Financial Group		Y
Principal Global Investors	Y	Y
Private Advisors	Y	
Prudential Fixed Income Management	Y	
Prudential Investment Management, Inc.	Y	Y
Putnam Investments, LLC	Y	Y
Pyramis Global Advisors	Y	

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Manager Name	Educational Services	Consulting Services
Rainier Investment Management	Y	
RBC Global Asset Management (U.S.) Inc.		Y
Research Affiliates		Y
Regions Financial Corporation		Y
RCM		Y
Rothschild Asset Management, Inc.	Y	Y
RS Investments	Y	
Russell Investment Management	Y	
Sankaty Advisors, LLC	Y	
Santander Global Facilities		Y
Schroder Investment Management North America Inc.	Y	Y
Scout Investments	Y	
SEI Investments		Y
SEIX Investment Advisors, Inc.	Y	
Select Equity Group	Y	
Smith Affiliated Capital Corporation	Y	
Smith Graham and Company		Y
Smith Group Asset Management		Y
Standard Life Investments	Y	
Standish (fka, Standish Mellon Asset Management)	Y	
State Street Global Advisors	Y	
Stone Harbor Investment Partners, L.P.	Y	Y
Systematic Financial Management	Y	
T. Rowe Price Associates, Inc.	Y	Y
Taplin, Canida & Habacht	Y	
Timberland Investment Resources	Y	
TCW Asset Management Company	Y	
Thompson, Siegel & Walmsley LLC	Y	
UBS	Y	Y
USAA Real Estate Company	Y	
Van Eck	Y	
Versus Capital Group		Y
Victory Capital Management Inc.	Y	
Vontobel Asset Management	Y	
Voya Investment Management	Y	Y
Vulcan Value Partners, LLC		Y
Waddell & Reed Asset Management Group	Y	Y
WCM Investment Management	Y	
WEDGE Capital Management		Y
Wellington Management Company, LLP	Y	
Wells Capital Management	Y	
Wells Fargo Private Bank		Y

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Manager Name	Educational Services	Consulting Services
Western Asset Management Company	Y	
William Blair & Co., Inc.	Y	Y

AGENDA ITEM V.B.

BOARD ACCEPTANCE REQUESTED

TO: State Investment Board

FROM: Dave Hunter and Darren Schulz

DATE: August 21, 2015

SUBJECT: Budget Stabilization Fund Investment Policy Statement

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Background:

RIO reviewed the Budget Stabilization Fund ("BSF" or "Fund") investment policy with the Legacy and Budget Stabilization Fund Advisory Board ("Advisory Board") on December 1, 2014, and received unanimous approval of the proposed revisions as described below:

> ***The investment policy was revised to*** *incorporate recent fund contributions (Section 1) while performance standards (for return and risk) were restated to be consistent with current terminology (Section 4). The guidelines were clarified to note that the Advisory Board serves the role previously provided by OMB. The Advisory Board also recommended that* ***the asset allocation to the Bank of North Dakota Match Loan CD Program ("BND Program") be expressed in percentage terms (of 35%)****(Section 5). Guidelines were also updated to incorporate current investment restrictions.*

At two prior meetings, the SIB requested clarification of the impact of the proposed change to state the BND Program Limit as a percentage allocation instead of a dollar based limit. This request was made in light of legislative proposals which may change the size of the Fund, thereby changing the size of the BND Program (in dollars). The current recommendation of 35% is based on the BSF statutory cap of $572,485,454 which approximates the current $200 million BND Program limit (i.e. $200 million / $572.5 million = 34.9%).

Enhanced BND Program Documentation:

In light of the above BSF investment policy changes, RIO worked with BND to enhance existing documentation for the Match Loan CD Program given its importance within the asset allocation of this "rainy day" fund. BND and RIO mutually agreed that an enhanced level of documentation was beneficial to both parties noting that this program has been in place over 25 years and documentation standards have changed over time. **RIO is pleased to report that the revised letter agreement enhances program documentation by explicitly incorporating agreed upon terms for: 1) expected liquidity; 2) notice periods for termination; 3) ongoing investment policy statement compliance; 4) annual financial reporting and compliance certifications; 5) investment guarantees and 6) the addition of a new interest rate duration covenant test which must be met prior to funding any draw requests.** The latter is deemed important to further mitigate interest rate risk in a potentially rising rate environment.

Recommendation:

RIO recommends the SIB accept the attached investment policy statement for the Budget Stabilization Fund noting that it incorporates the above noted revisions relating to performance standards along with enhanced documentation standards and risk control factors for the BND Match Loan CD Program. This investment policy statement does not increase or decrease the existing $200 million commitment for the BND Match Loan CD program, although it does seek to express this asset allocation into a percentage allocation (of 35%). As previously shared with the SIB, asset allocation decisions are normally expressed in percentage terms, rather than dollar limitations, to easily accommodate changes in funding levels from time to time.

Recent Events (Informational Update):

On August 7, 2015, BND requested RIO to consider a new $100 million Legacy Fund commitment to the Match Loan CD Program in addition to the existing $200 million BSF commitment. After preliminary discussions, RIO suggested a maximum 3% allocation to the Legacy Fund could be considered. However, RIO needs to complete additional due diligence on this latest proposal. Based on the current $3.3 billion size of the Legacy Fund, a 3% allocation would approximate a $100 million facility. **RIO will review the impact of a 3% allocation on the expected risk and return profile of the Legacy Fund and provide a definitive recommendation to the SIB over the next 60 days.** BND expressed no material concerns with the proposed timeline.

Asset Allocation Framework:

Investment guidelines for asset allocation are generally based on percentages, rather than dollars, in order to accommodate changing asset levels. Risk, return and liquidity expectations are also generally based on the relative size of one investment to other investments within an overall pool which lends itself to a percentage based approach.

The asset allocation of the Budget Stabilization Fund is established by the SIB, with input from the Advisory Board. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

The Fund's asset allocation is currently stated as:

Short-term Fixed Income and BND Certificates of Deposit	*Minimum of 90%*
Bank Loans with floating yields	*Maximum of 5%*
Absolute Return Strategies	*Maximum of 5%*

Prior to 2014, the Fund's Investment Policy did not explicitly state any specific limit for the BND Match Loan CD Program. However, SIB meeting minutes confirm that the Board approved a maximum $200 million commitment.

Liquidity Profile:

RIO notes that the BSF serves as a "**rainy day**" fund. As such, it is imperative that the fund provide **a high degree of liquidity** in addition to adhering to prescribed risk and return expectations. The Funds liquidity requirements are based on NDCC Chapter 54-27.2.

Further discussion with OMB confirmed that 100% of the Fund could be used in any given biennium to reduce a General Budget shortfall. Although this liquidity scenario may be deemed to be unlikely, the Fund's overall investment profile has been structured to be highly liquid. Given the importance of liquidity to a "rainy day" fund, RIO reached out to the Funds' three (non-cash) investment managers to specifically confirm their understanding of the Funds' short-term liquidity requirements. Babson and JPMorgan stated that they estimate their investments could be liquidated within "5 to 10 trading days", while BND noted that its' "liquidity is strong" and they "have access to overnight funds in excess of $600 million". **Based on discussion with OMB, the BSF should be prepared to provide liquidity in approximately three months although this expectation is subject to change over time.** Given that approximately 65% of the BSF is expected to provide liquidity within "5 to 10 trading days" and **BND indicating it can provide all remaining liquidity within "90 days",** the BSF is capable of provide significant short-term funding as originally intended. The liquidity provisions of the new letter agreement further support this opinion.

Consultant Observations on the BSF Investment Program – Past and Future:

Callan Associates notes that the overall BSF has performed well and generated an "Actual Return of 1.9%" over the last year with the BND Match Loan CD Program generating an "Actual Return" of 2.6% in the last year. Going forward, Callan also noted that the BSF has a "very small probability (i.e. < 1.5%) of negative investment returns" over the next 5- and 10-year periods. (See page 5 for Callan charts.)

Fiduciary Roles:

The SIB is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The Advisory Board is responsible for developing recommendations for the investment of funds in the BSF under NDCC 21-10-11. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the **prudent investor rule** as provided in NDCC 21-10-07.

The "prudent investor rule" means that in making investments the fiduciaries shall exercise the judgment and care, under circumstances than prevailing, that an institutional investor of ordinary prudence, discretion and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

Summary Rationale:

RIO notes the recommended changes to the BSF investment policy statement will enhance program documentation relating to the BND Match Loan CD Program by explicitly stating key program terms relating to: **1) expected liquidity; 2) notice periods for termination; 3) ongoing investment policy statement compliance; 4) annual financial reporting and compliance certifications; 5) investment guarantees and 6) the addition of a new interest rate duration covenant test which must be met prior to funding any draw requests. Given the Funds' high credit quality and highly liquid investment profile, its reasonable historical and prospective risk and return expectations, and the enhancement of BND Program documentation, RIO recommends the SIB accept the investment policy changes recently approved by the Advisory Board**.

Summary of Prior BND and Advisory Board Requests:

Bank of North Dakota's Prior Requests:

1) The Bank of North Dakota ("BND") previously requested RIO consider a $50 to $100 million increase in the size of the existing $200 million BND Program.
2) RIO made the SIB aware of this request, but did not recommend any change to the SIB. RIO's unwillingness to promote BND's request was based on the existing $200 million BND Program size representing slightly over one-third (or 34.9% of $572.5 million) of the Budget Stabilization Fund's overall capacity.
3) If the BND Program commitment was increased up to $250 million, the BND Program could represent approximately 44% of the investments within the Fund. This is a 25% increase over the maximum threshold based on current guidelines and materially alters the Funds overall risk and return profile. As such, RIO did not recommend any increase in the BND Program limit on a dollar basis.

Advisory Board Request:

1) In response to an Advisory Board request, RIO was amenable to converting the existing BND Program Limit on a "dollar" basis to a "percentage" basis noting that asset allocation guidelines are commonly expressed in % terms (than $ limits).
2) RIO used the existing $200 million BND Program Limit and Budget Stabilization Fund value of $572.5 million to derive an approximate equivalent maximum of 35%.
3) This recommendation was approved by the Advisory Board on December 1, 2014.

Callan Performance Review of Budget Stabilization Fund – June 30, 2015:

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	17%	17%	2.67%	0.02%	0.46%	(0.01%)	0.45%
Short Term Fixed Income	81%	81%	1.83%	0.91%	0.74%	0.00%	0.74%
Cash & Equivalents	1%	1%	0.01%	0.02%	(0.00%)	0.01%	0.00%
Total			**1.95%** =	**0.74%** +	**1.20%** +	**0.00%**	**1.21%**

Asset Class Allocation

	June 30, 2015				March 31, 2015	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Short Term Fixed Income	$473,648,888	82.52%	$(12,998,000)	$1,615,750	$485,031,138	81.50%
BND CDs	$94,538,294	16.47%	$(8,871,437)	$641,830	$102,767,901	17.27%
Cash & Equivalents	$5,823,968	1.01%	$(1,512,978)	$269	$7,336,677	1.23%
Total Fund	$574,011,150	100.0%	$(23,382,415)	$2,257,849	$595,135,716	100.0%

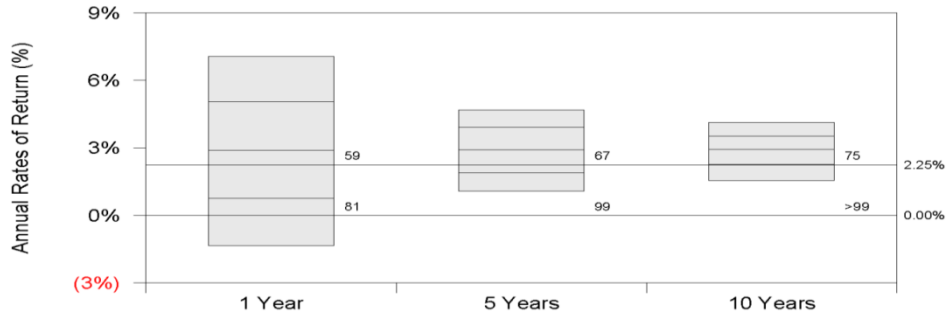
Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
BND CDs	24%	16%	3.59%	1.13%	0.54%	0.32%	0.86%
Short Term Fixed Income	72%	57%	2.05%	1.10%	0.72%	0.35%	1.07%
Cash & Equivalents	5%	26%	0.17%	0.08%	0.01%	0.00%	0.01%
Total			**2.36%** =	**0.42%** +	**1.27%** +	**0.67%**	**1.94%**

Budget Stabilization: Time period projections as of 1/1/15

Very small probability of negative investment returns over most periods

Range of Projected Rates of Return: Budget Stabalization



	1 Year	5 Years	10 Years
10th Percentile	7.1%	4.7%	4.1%
25th Percentile	5.0%	3.9%	3.5%
Median	2.9%	2.9%	2.9%
75th Percentile	0.8%	1.9%	2.3%
90th Percentile	(1.3%)	1.1%	1.5%
Prob > 2.25%	58.7%	67.4%	75.2%
Prob > 0.00%	80.7%	98.6%	>99.0%

BUDGET STABILIZATION FUND
INVESTMENT POLICY STATEMENT

1. FUND CHARACTERISTICS AND CONSTRAINTS.

The Budget Stabilization Fund (Fund) is a special fund created in 1987 under Chapter 54-27.2 of the North Dakota Century Code used to deposit general fund moneys in excess of appropriations. Notwithstanding the provisions of sections 54-27.2-01 and 54-27.2-02, $124,936,548 was required to be transferred by the state treasurer to the budget stabilization fund from the general fund on July 1, 2009 along with $61,414,562 on July 1, 2011 and $181,060,584 on July 1, 2013. These transfers provide over $580 million in the budget stabilization fund as of July 1, 2014. **The statutory cap for the 2015-17 biennium is $572,485,454.** The state investment board shall supervise investment of the budget stabilization fund in accordance with chapter 21-10.

Any interest or other budget stabilization fund earnings must be deposited in the fund. Any amounts provided by law for deposit in the fund and any interest or earnings of the fund which would bring the balance in the fund to an amount greater than five percent of the current biennial state general fund budget, as finally approved by the most recently adjourned special or regular session of the legislative assembly, may not be deposited or retained in the fund but must be deposited instead in the state general fund.

If the director of the office of management and budget projects that general fund revenues for the biennium will be at least two and one-half percent less than estimated by the most recently adjourned special or regular session of the legislative assembly, and if the governor orders a transfer, the state treasurer shall transfer the appropriate funds from the budget stabilization fund to the state general fund to offset the decrease in general fund revenues. The amount transferred from the budget stabilization fund upon order of the governor may not exceed the difference between an amount two and one-half percent below the general fund revenue projections for the biennium and the general fund revenue projections for the biennium by the director of the office of management and budget.

2. RESPONSIBILITIES AND DISCRETION OF THE STATE INVESTMENT BOARD (SIB).

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security

selection is supervisory, not advisory. In accordance with this Investment Policy Statement, the Fund's assets may be invested directly or through collective investment vehicles.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

3. INVESTMENT OBJECTIVES.

The investment objectives of the Fund reflect the relatively unknown life-span and the moderate risk tolerance of the Fund. Operating and statutory considerations shape the Fund's policies and priorities as outlined below:

Objective: Sufficient liquidity is to be maintained to meet known or anticipated financial obligations and preserve the value of the surplus. Cash equivalent investments will be used to achieve this objective.

4. STANDARDS OF INVESTMENT PERFORMANCE.

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

b. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

5. POLICY AND GUIDELINES.

The asset allocation of the Budget Stabilization Fund is established by the SIB, with input from the Legacy and Budget Stabilization Advisory Board. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the fund:

Short-term Fixed Income & BND CDs	Minimum of 90%
Bank Loans w/floating yield	Maximum of 5%
Absolute Return Strategies	Maximum of 5%

Bank of North Dakota Match Loan Certificates of Deposit Program ("BND CD") limit of 35%.

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation

b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.

c. All assets will be held in custody by the State Investment Board's master custodian or such other custodians as are acceptable to the State Investment Board.

d. No funds shall be borrowed excluding a SIB approved securities lending program.

e. No unhedged short sales or speculative margin purchases shall be made.

f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

g.Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

(1) The cost does not exceed the fair market value at the time of investment.
(2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
(3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
(4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

6. EVALUATION AND REVIEW.

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

Approved by:

LEGACY AND BUDGET STABILIZATION FUND ADVISORY BOARD
STATE INVESTMENT BOARD

_____	_____
Representative Keith Kempenich	**David Hunter**
Chairman	**Executive Director/CIO, RIO**
Date: _____	**Date:** _____

To be reviewed by the NDSIB: 8/28/2015

Approved by the Legacy and Budget Stabilization Fund Advisory Board: 12/1/2014 (excluding the statutory cap limit of $572.5 million on page 1).

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

QUARTERLY MONITORING REPORT

Quarter Ended June 30, 2015

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 conducted four office meetings with the full RIO team during the second calendar quarter of 2015 in order to promote an open and collaborative work environment while enhancing team member communication, awareness and engagement.

Michael Dewitt resigned as Data Processing Coordinator for RIO effective May 29, 2015, to pursue other opportunities. We were sad to learn of Michael's decision to leave given the knowledge and experience he brought to our team since joining RIO in April of 2014, but we wish him the best in his future endeavors.

Rich Nagel, as Supervisor of Information Systems, will expand his considerable duties and responsibilities to fulfill our IT needs while we seek a qualified candidate over the next several months.

BUDGETING / FINANCIAL CONDITION

AS OF JUNE 30, 2015

	2013-2015 BUDGET	ADJUSTED APPROPRIATION	EXPENDITURES BIENNIUM TO DATE ACTUAL	BUDGET AVAILABLE	% BUDGET AVAILABLE	% OF BIENNIUM REMAINING
SALARIES AND BENEFITS	$ 3,772,504.00	$ 3,772,504.00	$ 3,371,069.71	$ 401,434.29	10.64%	0.00%
ACCRUED LEAVE PAYMENTS	71,541.00	71,541.00	43,904.34	27,636.66	38.63%	0.00%
OPERATING EXPENDITURES	973,324.00	973,324.00	884,884.00	88,440.00	9.09%	0.00%
CONTINGENCY	82,000.00	82,000.00	61,987.33	20,012.67	24.41%	0.00%
TOTAL	$ 4,899,369.00	$ 4,899,369.00	$ 4,361,845.38	537,523.62	10.97%	0.00%

EXPENDITURE REPORT

QUARTER ENDED JUNE 30, 2015

	INVESTMENT	RETIREMENT	QUARTERLY TOTALS	FISCAL YEAR TO - DATE	BIENNIUM TO - DATE
CONTINUING APPROPRIATIONS					
INVESTMENT EXPENDITURES (SEE ATTACHED DETAIL)	$ 5,717,927.12	$ 0.00	$ 5,717,927.12	$ 27,789,888.83	$ 50,041,740.17
MEMBER CLAIMS					
1. ANNUITY PAYMENTS	0.00	42,104,037.24	42,104,037.24	167,857,847.33	325,453,810.86
2. REFUND PAYMENTS	0.00	1,263,251.59	1,263,251.59	4,447,002.90	9,176,387.19
TOTAL MEMBER CLAIMS	0.00	43,367,288.83	43,367,288.83	172,304,850.23	334,630,198.05
OTHER CONTINUING APPROPRIATIONS	72,370.07	108,956.55	181,326.62	444,329.13	737,783.23
TOTAL CONTINUING APPROPRIATIONS	5,790,297.19	43,476,245.38	49,266,542.57	200,539,068.19	385,409,721.45
BUDGETED EXPENDITURES					
1. SALARIES & BENEFITS					
SALARIES	179,648.46	181,412.40	361,060.86	1,392,198.23	2,497,217.63
OVERTIME/TEMPORARY	0.00	0.00	0.00	0.00	2,950.00
TERMINATION SALARY & BENEFITS	0.00	0.00	0.00	0.00	0.00
FRINGE BENEFITS	56,449.77	69,672.33	126,122.10	476,877.34	870,902.08
TOTAL SALARY & BENEFITS	236,098.23	251,084.73	487,182.96	1,869,075.57	3,371,069.71
2. ACCRUED LEAVE PAYMENTS	58.49	1,111.39	1,169.88	6,760.76	43,904.34
3. OPERATING EXPENDITURES					
DATA PROCESSING	3,851.32	24,544.81	28,396.13	79,786.51	157,425.80
TELECOMMUNICATIONS - ISD	1,444.65	2,035.22	3,479.87	10,475.27	21,548.83
TRAVEL	8,842.77	8,531.29	17,374.06	58,675.18	84,585.82
IT - SOFTWARE/SUPPLIES	129.63	382.48	512.11	7,336.62	9,624.50
POSTAGE SERVICES	2,281.94	5,465.01	7,746.95	45,291.56	85,075.63
IT - CONTRACTUAL SERVICES	638.44	68,098.89	68,737.33	84,309.10	186,029.10
BUILDING/LAND RENT & LEASES	7,536.06	13,121.23	20,657.29	81,129.16	160,796.82
DUES & PROF. DEVELOPMENT	1,786.84	8,103.46	9,890.30	30,094.20	42,343.91
OPERATING FEES & SERVICES	5,406.26	8,852.29	14,258.55	23,438.13	41,394.80
REPAIR SERVICE	132.00	44.00	176.00	176.00	320.25
PROFESSIONAL SERVICES	991.16	1,908.84	2,900.00	7,221.00	20,483.00
INSURANCE	0.00	0.00	0.00	481.84	1,095.37
OFFICE SUPPLIES	460.12	1,230.15	1,690.27	3,401.48	4,963.66
PRINTING	439.46	2,673.06	3,112.52	16,523.06	29,667.52
PROFESSIONAL SUPPLIES & MATERIALS	258.31	0.00	258.31	1,011.58	1,955.18
MISCELLANEOUS SUPPLIES	427.57	851.63	1,279.20	2,229.85	2,929.19
IT EQUIPMENT UNDER $5000	6,293.05	6,838.24	13,131.29	17,098.95	17,659.10
OFFICE EQUIPMENT & FURNITURE UNDER $	3,410.66	8,747.86	12,158.52	16,985.52	16,985.52
TOTAL OPERATING EXPENDITURES	44,330.24	161,428.46	205,758.70	485,665.01	884,884.00
3. CONTINGENCY	0.00	0.00	0.00	0.00	61,987.33
TOTAL BUDGETED EXPENDITURES	280,486.96	413,624.58	694,111.54	2,361,501.34	4,361,845.38
TOTAL EXPENDITURES	$ 5,998,414.08	$ 43,780,913.41	$ 49,960,654.11	$ 202,900,569.53	$ 389,771,566.83

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED JUNE 30, 2015

FOR QUARTER ENDED 12/31/14		
PENSION INVESTMENT GRADE FIXED INCOME POOL		
PIMCO (Unconstrained)		40,893.96
CUSTODIAN		
Northern Trust		233,203.27
TOTAL FOR QUARTER ENDED 12/31/14		**274,097.23**
FOR QUARTER ENDED 3/31/15		
PENSION DEVELOPED INTERNATIONAL EQUITY POOL		
Capital Guardian	128,475.65	
Northern Trust	20,206.25	
Wellington	175,650.00	
TOTAL PENSION INTERNATIONAL EQUITY		324,331.90
PENSION GLOBAL EQUITY POOL		
Epoch	514,993.66	
LSV	104,545.00	
TOTAL PENSION GLOBAL EQUITY		619,538.66
PENSION BELOW INVESTMENT GRADE FIXED		
Loomis Sayles		282,966.71
PENSION INVESTMENT GRADE FIXED INCOME POOL		
JP Morgan		
PIMCO	152,451.39	
State Street	8,851.63	
TOTAL PENSION INVESTMENT GRADE FIXED INCOME		161,303.02
PENSION INFRASTRUCTURE POOL		
JP Morgan		287,535.46
PENSION LARGE CAP EQUITY POOL		
LA Capital		236,677.05
PENSION REAL ESTATE		
Invesco		156,210.78
PENSION INTERNATIONAL FIXED INCOME		
Brandywine	129,585.04	
UBS	83,579.83	
TOTAL PENSION INTERNATIONAL FIXED INCOME		213,164.87
PENSION CASH		
Northern Trust		14,678.37
INSURANCE FIXED INCOME POOL		
Prudential	55,442.01	
State Street	11,334.83	
Wells	142,342.85	
Western Asset	116,669.30	
TOTAL INSURANCE FIXED INCOME		325,788.99
INSURANCE LARGE CAP EQUITY POOL		
LA Capital	51,023.72	
LSV	201,121.00	

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED JUNE 30, 2015

TOTAL INSURANCE LARGE CAP		252,144.72
INSURANCE SMALL CAP EQUITY POOL		
Research Affiliates		18,469.35
INSURANCE INT'L EQUITY		
Capital Guardian	71,950.66	
LSV	77,188.76	
TOTAL INSURANCE INT'L EQUITY		149,139.42
INSURANCE DIVERSIFIED REAL ASSETS		
JP Morgan	196,737.13	
Western Asset	29,466.20	
TOTAL INSURANCE DIVERSIFIED REAL ASSETS		226,203.33
INSURANCE REAL ESTATE		
Invesco	47,883.99	
JP Morgan	452,442.00	
TOTAL INSURANCE REAL ESTATE		500,325.99
LEGACY FIXED INCOME		
Prudential	61,520.02	
State Street	12,577.45	
Wells	157,947.68	
Western Asset	129,459.59	
TOTAL INSURANCE FIXED INCOME		361,504.74
LEGACY LARGE CAP EQUITY		
LA Capital		156,951.22
LEGACY SMALL CAP EQUITY		
Research Affiliates		58,197.61
LEGACY INT'L EQUITY		
Capital Guardian	231,509.97	
LSV	276,695.24	
TOTAL INSURANCE INT'L EQUITY		508,205.21
LEGACY DIVERSIFIED REAL ASSETS		
Western Asset		68,945.69
LEGACY REAL ESTATE		
Invesco		67,071.77
PERS RETIREE HEALTH INSURANCE CREDIT FUND		
SEI		66,185.04
CUSTODIAN		
Northern Trust		234,035.73
CONSULTANT		
Adams Street	36,311.00	
Callan	98,313.19	
TOTAL CONSULTANT		134,624.19
TOTAL FOR QUARTER ENDED 3/31/15		**5,424,199.82**

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED JUNE 30, 2015

FOR QUARTER ENDED 6/30/15

PENSION CASH	
Northern Trust	19,630.07
TOTAL FOR QUARTER ENDED 6/30/15	**19,630.07**
TOTAL FEES PAID DURING QUARTER ENDED 6/30/2015	**5,717,927.12**

Quarterly Report on Ends
Q4:FY15

Investment Program

Continuing due diligence conducted on the following organizations:

Adams Street	Northern Trust
Axiom	Parametric Clifton
Babson	PIMCO
Brandywine	Research Affiliates
Callan Trust Advisory	SEI
Capital Group	State Street (SSgA)
Declaration	TIR
Goldman Sachs	UBS
Grosvenor	Wells
JPMorgan	Western
Loomis Sayles	

Initial due diligence conducted on the following organizations:

AllianceBernstein	Crestline
Arrowstreet	FIA
BlackRock	Molpus
Calvert	Pantheon
Campbell	Pathway
Cerberus	Portfolio Advisors
Corrum	Wilshire

At the April SIB meeting, the Board approved an extension of the existing TIR Springbank operating agreement from June 30, 2015 to September 30, 2015 to allow additional time to negotiate a new operating agreement. Following an evaluation of Timberland Investment Resources and the TIR Springbank investment, Callan Associates presented its findings to the Board at the May 2015 meeting. The Board granted Staff the authority to finalize revised terms for a new operating agreement ending September 30, 2022.

Following discussion at the June meeting regarding the North Dakota Tobacco Prevention and Control Trust Fund, Staff consulted with the client and counsel to develop additional language within the investment policy statement relating to the exclusion of tobacco holdings. Additionally, Staff continues to review implementation options on behalf of the client and a manager structure proposal will be presented to the Board at the August 2015 SIB meeting.

Staff continues to work with the Bank of North Dakota to clarify and document in writing key terms as part of a letter agreement relating to the BND Match Loan CD program within the Budget Stabilization Fund.

Staff attended meetings with the following entities: TFFR Board, NDPERS Investment Subcommittee, City of Grand Forks Board, and the Legacy and Budget Stabilization Fund Advisory Board.

Staff and Paul Erlendson from Callan Associates met with the North Dakota Bankers Association and representatives from North Dakota based investment management firms to discuss SIB and RIO's manager selection process and to gain a better understanding of the investment services offered by the firms in attendance. A due diligence questionnaire was completed by each firm for review by Staff.

Staff is continuing its review of third-party total plan risk management software vendors with the goal of implementing an enhanced risk management system utilizing holdings-based analysis across all investment programs overseen by the SIB.

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, 2015

Retirement Program

This report highlights exceptions to normal operating conditions.

- Governor Dalrymple re-appointed Rob Lech of Jamestown to represent active school administrators on the TFFR Board for a 5-year term from 7/1/15 – 6/30/20.

- Added additional GASB information to TFFR website including: Audited 2014 GASB 68 Schedules of Employer Allocations and Pension Amounts by Employer and a GASB 68 Disclosure Template. All TFFR employers were notified by email that this information is available to be used as they complete their 2015 financial statements.

- TFFR's actuaries presented the results of the 2015 Actuarial Experience study to the TFFR Board. The TFFR Board approved actuarial assumption changes recommended in this study. TFFR staff has begun working on implementing these changes.

NDSIB Watch List

PIMCO data as of 6/30/15

PIMCO MBS (Pen.) *$179,199,778*

	Returns	Index[2]	Excess
1 Year	2.15	2.28	(0.13)
2 Year	3.01	3.46	(0.45)
Inception*	1.95	2.11	(0.16)

*Funded 3/31/2012

PIMCO Unconstrained (Pen.) *$94,940,192*

	Returns	Index[3]	Excess
1 Year	0.93	0.25	0.67
2 Year	1.16	0.25	0.91
Inception*	2.49	0.29	2.20

*Funded 3/12/2012

Callan data as of 6/30/2015

Callan Small Cap Equity *$124,068,544*

	Returns	Index[4]	Excess
1 Year	3.99	6.49	(2.50)
3 Year	17.94	17.81	0.13
5 Year	17.12	17.08	0.04
Inception*	8.05	7.74	0.31

*Funded 05/03/2006

UBS data as of 6/30/2015

UBS Global Bond *$99,366,592*

	Returns	Index[5]	Excess
1 Year	(13.46)	(13.19)	(0.27)
3 Year	(3.22)	(2.83)	(0.39)
5 Year	0.89	1.08	(0.19)
Inception*	6.11	5.81	0.30

*Funded 07/01/1989

Capital Guardian data as of 6/30/2015

Cap Guardian Intl Equity (PEN) *$136,969,814*

	Returns	Index[1]	Excess
1 Year	(1.78)	(4.22)	2.45
3 Year	13.07	11.97	1.09
5 Year	9.84	9.54	0.30
Inception*	8.36	5.51	2.84

*Funded 03/01/1992

Cap Guardian Intl Equity (INS) *$64,597,626*

	Returns	Index[1]	Excess
1 Year	(1.35)	(4.22)	2.87
3 Year	12.88	11.97	0.90
5 Year	9.57	9.54	0.03
Inception*	6.24	4.97	1.27

*Funded 04/01/1997

Cap Guardian Intl Equity (LEG) *$259,231,013*

	Returns	Index[1]	Excess
1 Year			
3 Year			
5 Year			
Inception*			

Note: Performance data for Legacy account is inlcuded in INS data due to the recent transition

*Funded 02/02/2015

[1] MSCI EAFE

[2] Barclays Mortgage Index

[3] Libor 3-Month

[4] Russell 2000

[5] Barclays Global Agg. Ex US

Note: Returns for PIMCO and CALLAN are net of fees, UBS & CAPITAL GUARDIAN use gross due to data availability

Strategic Investment Beliefs
Enhanced RIO Website Transparency

August 24, 2015

NOTE: RIO will enhance website transparency in 2015 noting that this action is consistent with RIO's strategic investment plan and stated investment beliefs. Our Strategic Investment Beliefs are included on page 3 for reference.

Dave Hunter, Executive Director / CIO

ND Retirement & Investment Office (RIO)

State Investment Board (SIB)

Enhance Transparency – August 24, 2015 Update

Strategic Investment Belief / Goal:

Although SIB meetings are open to the public and RIO adheres to all applicable open records laws, RIO strives to enhance our overall level of transparency in order to expand public awareness and understanding, while instilling greater levels of trust and support with our community.

RIO's Preliminary Action Plan (which is subject to change based on IT department input):

1) Enhance public access to our SIB Governance Manual by adding a new hyperlink on our RIO website (which can be easily accessed simply clicking on the Governance Update section);
2) Post our 2015-17 Strategic Investment Plan including our Fundamental Investment Beliefs on our RIO SIB website (under the General Information section);
3) Enhance public access to our SIB Meeting Materials by adding a new hyperlink between our RIO website and our "Reference Library" (under the Publications and Reports section); and
4) Post our SIB Audit Committee Charter and Meeting Materials on our RIO website (under the SIB Board section).

Projected Implementation Timeline:

RIO Action Items 1, 2, 3 and 4 will be rolled out over the next four months (e.g. September, October, November and December for items 1, 2, 3 and 4, respectively). Our Information Technology Team (Rich Nagel) will be instrumental in hitting the targeted implementation dates.

NDRIO 2015-17 Strategic Investment Plan

Fundamental Investment Beliefs

Asset allocation decisions are the primary driver of investment returns, but the prudent use of active investment management is an important contributor towards ensuring our clients attain their stated investment objectives. SIB clients generated $200 million of incremental income via the prudent use of active investment management over the past five years including over $55 million of excess return in 2014.

Strategic Investment Plan

1. Reaffirm the organizational commitment to our current governance structure including a persistent awareness to the importance of continuing board education.

2. Enhance transparency and understanding of our core goals and beliefs.
    a. Remain steadfast in our commitment to the prudent use of active investment management.
    b. Expand awareness to downside risk management which is essential to achieving our long term investment goals.
    c. Given actual and projected growth of SIB client assets and the heightened public awareness of the Legacy Fund, align our investment platforms to promote greater clarity and efficiency in reporting and implementing client investment policies.

3. Expand RIO's influence and ability to create positive and sustainable change by developing relationships with existing clients, organizations and legislative leaders.
    a. Enhance community outreach to build upon public awareness and confidence.
    b. Develop concise presentations which highlight our overall risk, return and cost control framework including our progress towards attaining our long-term goals.

4. Heighten employee engagement by promoting an open and collaborative work environment while encouraging employee participation in staff meetings, offer more opportunities to impact RIO's change initiatives and improve overall compensation levels.
    a. RIO's ability to continue to deliver strong results is dependent on the combined efforts of our highly valuable team members.

5. Enhance our existing risk management tools and processes by developing a more robust risk management framework utilizing proven risk management solutions with a focus on portfolio construction and downside risk management (or "stress test" scenarios).
    a. A robust risk management framework provides a foundation to understand downside risks and our ability to withstand market corrections in varying stress test scenarios.

6. Evaluate and expand the efficient use of technology in our investment program activities including risk management, compliance monitoring, client satisfaction surveys, website design and communications in order to increase overall efficiency and effectiveness.

Annual Board Planning Cycle – Biennial Agenda

Annual Board Planning Cycle
Biennial Agenda

Fiscal 2015-16	July 2015	August	September	October	November	December	January 2016	February	March	April	May	June
	Gov. Offsite - Election of Officers, - Appoint Audit Comm. - Plan Annual Agenda - Plan Board Education	**Annual Investment Performance Review** - Establish Investment Work Plan - Add Invest. Education	**Annual Review of Gov. Manual** *(Done)* - New Board Member Orientation Complete	**Annual Evaluation of RIO vs. *Ends* policies** - Annual Board Evaluation	**Investment Director Report on Investment Work Plan**	No Meeting Scheduled		**Investment Director Report on Investment Work Plan** - Exec. Limit. & CIO Review	**Review Budget Guidelines for next Biennium**		**Investment Director Report on Investment Work Plan** - Investment Guidelines	No Meeting Scheduled

Fiscal 2016-17	July 2016	August	September	October	November	December	January 2017	February	March	April	May	June
The SIB Meeting Agenda has not been establised for Fiscal 2016-17	**Gov. Offsite** - Election of Officers, - Appoint Audit Comm. - Plan Annual Agenda - Plan Board Education	**Annual Investment Performance Review** - Establish Investment Work Plan - Add Invest. Education	**Annual Review of Gov. Manual** - New Board Member Orientation Complete	**Annual Evaluation of RIO vs. *Ends* policies** - Annual Board Evaluation	**Investment Director Report on Investment Work Plan**	No Meeting Planned	- Legislative Update	**Investment Director Report on Investment Work Plan** - Exec. Limit. & CIO Review	**Confirm Budget Guidelines** - Legislative Update	- Legislative Update	**Investment Director Report on Investment Work Plan**	No Meeting Planned

1.) SIB Governance Policy B-7 on Governance Process states that "the Board will follow a biennial agenda which (a) completes a re-exploration of Ends policies annually (April) and (b) continually improves its performance through attention to board education and to enriched input and deliberation."

2.) "In the first three months of the new cycle, the Board will develop its agenda for the ensuing year. Scheduled monitoring will be used to evaluate and adjust the annual agenda as needed."

3.) "The Board will identify areas of education and input needed to increase the level of wisdom forethought it can give to subsequent choices. A board education plan will be developed during July and August of each year."

RIO's Mission Statement

<u>Preface</u>: The remaining slides in this section were presented to the SIB at our March 27, 2015 meeting. These pages are provided for reference purposes only and support management's belief that the SIB and RIO are achieving their "Ends".

<u>Background</u>: RIO's "Mission" is defined in SIB Governance Policy D-1 on "Ends".

"The Retirement and Investment Office serves the SIB and exists in order that:

1) SIB clients receive investment returns, consistent with their written investment policies and market variables, in a cost effective investment manner and under the Prudent Investor Rule.
2) Potential SIB clients have access to information regarding the investment services provided by the SIB.
3) TFFR benefit recipients receive their retirement benefits in a cost effective and timely manner.
4) TFFR members have access to information which will allow them to become knowledgeable about the issues and process of retirement.
5) SIB clients and TFFR benefit recipients receive satisfactory services from the boards and staff of the office."

<u>Summary</u>: Based on SIB and TFFR client survey results and noting that every SIB client with a 3-year or 5-year track is generating positive excess return for the 3- and 5-year periods ended 6/30/2015 while adhering to prescribed risk metrics, the SIB and RIO are achieving its' stated goals and mission.

The AMBACHTSHEER Letter
Sustainable Pension Design • Effective Pension Management

August 2015

DOES 'CULTURE' MATTER IN PENSION ORGANIZATIONS?

"Culture is a system of shared values that define what is important….and norms that define appropriate attitudes and behaviors for members of the organization."

O'Reilly and Chatman

"Culture is a pattern of shared assumptions that has been learned by a group…. that has worked well enough to be considered valid….and therefore to be taught to new members as the correct way to perceive, think, and feel about matters of importance to the organization….".

Schein

Addressing the 'Culture' Question

Given the two definitions above[i], is 'culture' something worth considering in the design, governance, and management of pension organizations? Roger Urwin and Andy Lo certainly think so. Roger has been addressing the culture question recently on the conference circuit. Prof. Lo has just published a 38-page paper on the topic titled "The Gordon Gekko Effect: The Role of Culture in the Financial Industry".[ii]

Reflecting back on previous *Letter* topics, we too have touched on the organizational culture question in such contexts as defining and measuring the 'value' pension organizations should be producing for their stakeholders, setting out the meaning and implications of 'fiduciary duty', communicating clearly with stakeholders, and designing and implementing effective compensation structures. Having said that, this *Letter* is the first to address the culture question head-on. Following the structure of Lo's paper, we explore the meaning of culture, why it is important, and how to foster a 'good' culture in your organization.

Bad Cultures….Bad Outcomes

Lo opens his paper by recalling the famous Gordon Gekko speech in the 1987 movie "Wall Street"….. which leads off with the declaration that "Greed is good". Lo tells us the Gekko character (played by Michael Douglas) is not entirely fictitious. Before he was convicted of insider trading, Ivan Boesky actually gave a speech with that theme at University of California – Berkeley in 1986. Lo tips his hat to Michael Lewis who captured the spirit of those times in his 1989 book "Liar's Poker".

Later in the paper, Lo reviews some of the financial industry's more spectacular post-1980s failures, pointing to the role the organization's culture played in those failures:

- Long-Term Capital Management: LTCM was founded by three individuals (Meriwether, Merton, and Scholes), each supremely confident in his own special skills and capabilities (e.g., market savvy, high intelligence, and superior risk management mathematics). As importantly, LTCM's lenders believed that these special LTCM skills and capabilities created a unique 'no risk' opportunity for everybody to make money. In fact, LTCM was effectively a high-risk, experimental financial engineering firm that would go where no other firm had ever gone before in the use of leverage. All this led to LTCM's demise and a major Wall Street bailout in the

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1998 financial crisis triggered by Russia's default on its GKO bonds.

- American International Group: for a long time AIG was managed in a 'feudalist' style by CEO Hank Greenberg. He demanded lifetime loyalty from his executives and personally kept his finger on AIG's key risk exposures as an insurance underwriter. Fearing 'headline risk', AIG's Board of Directors replaced Greenberg in 2005 with Martin Sullivan, who had risen steadily through the AIG ranks after starting as an office assistant decades earlier. However, Sullivan was no Greenberg. He assumed that AIG's risk management system could operate without Greenberg-like tight oversight. It could not, with the Financial Products Group going rogue through the massive issuance of CDSs (default insurance) on toxic CDOs (packages of high-risk mortgages). All this led to Sullivan's dismissal and yet another massive bailout during the 2008/9 GFC.
- Lehman Brothers: offers another example of a 'feudalist' culture led by 'the Gorilla of Wall Street' Dick Fuld. However, unlike Greenberg, Fuld was no risk management hawk. A key element in Lehman's downfall was Fuld's alleged willingness to conceal its true financial condition and its degree of leverage through accounting tricks to the tune of $50B. While outside law and accounting firms played facilitating roles, these tricks were never disclosed to Lehman's Board of Directors, or to the SEC. Lehman filed for bankruptcy protection in September 2008. To this day, Fuld continues to claim he did nothing wrong.
- Societe Generale: at its peak, low-level trader Jerome Kerviel had managed to accumulate an unauthorized long position in index futures of €49B against the bank's total risk capital of €26B. By the time his positions were unwound, he had lost SG €6.4B. An internal investigation found that his first supervisor had turned a blind eye to Kerviel's small (but above his limit) intra-day trades. This supervisor quit, leaving Kerviel unsupervised for three months. His next supervisor did not use required risk monitoring programs. However, Kerviel's trades were making money, creating a permissive environment up the chain of executive command. Finally, it was SG's accounting/regulatory division that blew the whistle on Kerviel's unauthorized, unsupervised, and now-extreme trading activities. How could this happen? Apparently, because an elitist SG senior executive group thought the prop trading group to be a cash-generating backwater, deserving little senior management attention.
- Securities Exchange Commission: fraudster Bernie Madoff was turned in by his own sons in December of 2008, and pleaded guilty to running a massive Ponzi scheme in March 2009. Prior to these two events, the SEC had eight opportunities to go after Madoff, starting in 1992. These opportunities came in the form of client complaints, expert analyses on the statistical impossibility of Madoff's investment 'performance', and media articles questioning the legitimacy of his business operations. None of these opportunities was seriously pursued by the SEC. The US Government Accountability Office (GAO) was assigned the task to find out why. The GAO uncovered a dysfunctional SEC culture plagued by issues such as 'lack of mission commitment', 'low morale', 'lack of internal communication', and 'high risk aversion to external criticism'. Apparently, GAO's seven recommendations to address these issues are now having a positive effect at the SEC.

If bad cultures produce bad outcomes, do good cultures produce good outcomes?

Good Cultures….Good Outcomes

Lo mentions one good culture/good outcome case in his paper: the U.S. National Transportation Safety Board. Recalling Michael Lewis' 2014 book "Flash Boys", we add the Royal Bank of Canada to the good culture/good outcome list. Here is the way Lewis himself put the "Flash Boys" story: "One of these people…a Canadian of all things…was willing to throw open a window on the American financial world….It still takes my breath away". In short:

- National Transportation Safety Board: the NTSB is a government agency with no regulatory authority. Its mission is to investigate transportation accidents, conduct careful research into their causes, and make recommendations as to how they can be avoided in

the future. It, and other agencies like it elsewhere in the world, have established a remarkable transportation safety record, saving many lives over the course of many decades. In sharp contrast to what the GAO reported in its SEC investigation, the NTSB's culture descriptors include 'clear shared-purpose and accountabilities', 'strong prestige and morale', 'definitive expertise', and 'cohesive, effective teamwork'.

- Royal Bank of Canada: while Brad Katsuyama is the hero in Lewis' "Flash Boys" story (he takes on Wall Street's front-running high-frequency trading culture), RBC was the institution that stood behind him. When Katsuyama and his team developed Thor, an electronic counter-weapon with which to fight the HFT crowd, RBC was faced with a choice. Should it use Thor for its own financial benefit, or as a tool to create a fairer, more transparent market place? To its credit, 'RBC nice' (reflecting its perceived corporate culture) chose the latter route. This decision did not go unnoticed by an appreciative institutional investment community. RBC's quality ranking for institutional equity trading as surveyed by Greenwich Associates shot up from #19 in 2009 to #1 in 2010. Who says nice guys (and nice institutions) have to finish last?

What should we make of these bad cultures/bad outcomes….good cultures/good outcomes stories? What are the drivers of organizational culture?

A Biology Framework

Lo argues that we have to go beyond economics and its 'rational actors' assumptions to understand organizational culture. A biology framework is more useful: what are the transmission mechanisms that create good or bad cultures? He suggests three: 1. Leadership, 2. Group Composition, and 3. Environment.

- Leadership: charismatic leaders such Hank Greenberg or Dick Fuld drive organizational culture for good or bad by sheer force of personality. However, charisma is not the only possible culture transmitter. Factors such as 'mission', 'tradition', 'hubris' and 'greed' can also play important roles. For example, 'saving lives' was a powerful organizational motivator in the NTSB 'good culture' case. Arguably, the 'tradition' factor played important, but very different roles in the SG and RBC cases. In the SG case, the elitist tradition was to consider trading a low-grade function not worthy of senior management's time. In the RBC case, the 'RBC nice' tradition was to be customer-friendly, and to not exploit the informational advantages of the organization vis a vis its clients. Finally, the technical 'hubris' factor nicely explains the downfall of LTCM, with 'greed' explaining the downfall of its lenders.
- Group Composition: organizational hiring processes are an important culture driver. For example, Michael Lewis contrasts Wall Street's 'best and the brightest' hiring practices from famous Ivey League universities with how Brad Katsuyama came to join RBC. He was a talented, but low-key hire from a good, but small, non-famous Canadian university. Lewis notes that RBC has an unwritten 'no assholes' rule. In less colorful language, people who are loud, brash, and think they walk on water will not fit into the 'RBC nice' culture, and hence need not apply.
- Environment: the Madoff story indicates that the SEC's unwritten rule seems to have been to avoid headlines and external criticism at all costs. This cultural trait cost Madoff's victims billions of dollars over decades of time. On a broader scale, Hyman Minsky's Financial Instability Hypothesis suggests all of us become more risk-tolerant in environments when easy money is made without (apparently) taking a great deal of risk. Investment horizons shrink in such environments, as does the capacity of some organizations to see danger lurking behind the easy money. And when the easy money music stops, many of these organizations get trampled running for the exits at the same time.

What happens when we apply this biological framework to exploring 'culture' issues in pension organizations?

'Culture' Issues in Pension Organizations

While there have been outright misdemeanours in pension organizations, they have been few and far between. Using Lo's framework, the reasons for this can be attributed to all three sources of

organizational culture transmission. Pension organizations exist to help members maintain their standard of living after they retire. So logically, pension organizations seek people attracted to that kind of organizational mission. And on paper at least, pension organizations claim to lift their eyes above the short-term ups and downs of financial markets, and to focus on the long-term sustainability of the pension arrangement they manage, and of the economies that these arrangements are part of.

Having said that, there are a number of culture issues worth exploring:

- Legal structure: is the pension organization a stand-alone 'arms-length' organization, or an appendage of some larger parent organization such as a government, a labor union, or a corporation? 'Arms-length' pension organizations have choices in how they intend to achieve their mission. They can choose to be bold and creative…..or conservative and conventional. 'Appendage' pension organizations don't have that option. They have to adopt the cultural stance of their parent. An 'arms-length' example is the bold and creative stance chosen by Ontario Teachers' Pension Plan at its inception in 1991. In contrast, Norway's Government Pension Fund Global exemplifies the constraining consequence of being at the end of a control chain that runs from Parliament, to the Ministry of Finance, to Norges Bank, and only then to the division that actually manages the GPFG (see our March 2012 *Letter* for more on this).
- 'Tone at the top': in addition to legal structure, a pension organization's board of trustees (and how it is selected/elected) is another important determinant of its culture. A recent study by Andonov, Bauer, and Cremers confirms that boards selected through sound merit-based processes are more likely to exhibit independence of thought and action than Boards elected through political processes. Politics-driven governance processes are associated with more risk-taking and lower returns.[iii]
- Investment beliefs: Lo makes an important distinction between the mechanistic Efficient Markets Hypothesis view of financial markets and his more realistic Adaptive Markets Hypothesis. A mechanistic view of how financial markets work leads to mechanistic rules of how to invest. An adaptive view offers scope for creative, contrarian thinking about how to generate excess returns. Our recent *Letter* series on investment beliefs and long-term investing reflect this adaptive stance. Adopting it requires a creative, entrepreneurial culture.
- Organizational structure and compensation: scale creates opportunities to insource rather than outsource investment mandates. However, insourcing also creates reputational risks. Large organizations require more governance and senior management resources than do small ones. Also, insourcing private markets investing means competing for talent in highly -paid labor markets. This can easily lead to public criticism despite the fact that, overall, insourced private markets program can run at as low as 10% of the cost of outsourcing such programs. So once again, significant insourcing of the investment function requires a creative, entrepreneurial culture.

So in conclusion, does 'culture' matter in pension organizations? Yes it does. Just like in other fields of endeavor, pension organizations with good cultures are far more likely to produce good outcomes for their members/clients than organizations with bad cultures. How good is your organizational culture?

Endnotes:

i. O'Reilly and Chatman (1996), "Culture as Social Control: Corporations, Culture, and Commitment", JAI Press, and Schein, (2004), "Organizational Culture and Leadership", Jossey-Bass.
ii. Lo (2015), "The Gordon Gekko Effect: The Role of Culture in the Financial Industry", prepared for the Federal Reserve Bank of New York.
iii. See Andonov, Bauer, and Cremers (2015), "Pension Fund Asset Allocation and Liability Discount Rates", SSRN.

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A Governance Revolution: Growing Results for Students through Policy Governance

By Airick Leonard West

Airick Leonard West is a Kansas City Public Schools (KCPS) board member and served as board chair from 2010–2014. During that time, he led the implementation of Policy Governance® in KCPS and currently consults with other urban school boards throughout the United States looking to effectively implement Policy Governance. Here he tells us about KCPS's journey.

A Portrait of Our School District

Kansas City Public Schools (KCPS) was long considered Kansas City, Missouri's, premier school district in its region. Civic leaders viewed the district as a community asset that served to attract generations of families to Kansas City. White-flight and affluent-flight throughout the 1960s and 1970s largely eroded that perception. The majority white, middle-class district of nearly 90,000 students dwindled to a district of nearly 15,000 students, of whom more than 90 percent were low-income students of color.

The Way We Were

In 1985, the Federal court-imposed desegregation order effectively removed local control of the school district. Although technically there was still an elected nine-member school board, for all practical purposes a court-appointed Desegregation Monitoring Committee made most of the final decisions. For nearly two decades, board members tumbled into a dysfunctional pattern of behavior that bore little resemblance to governance. KCPS board meetings became known throughout the region—thanks in no small part to local media—as a place where yelling, cursing, storming out, grandstanding, and even the occasional tossed beverage took place. Board members spent much of their time carving out micro-fiefdoms and micro-managing whichever district staff they could influence behind the scenes.

(continued on page 2)

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NEWS

Research Galore!

Academia.edu is a platform for academics to share research papers. The company's mission is to accelerate the world's research.

Academics use *Academia.edu* to share their research, monitor deep analytics around the impact of their research, and track the research of academics they follow. According to their website, 21,730,414 academics have signed up to *Academia.edu*, adding 5,844,433 papers and 1,556,083 research interests. All this includes substantial amounts of material on governance issues.

See https://www.academia.edu/

The Secret Corporate Takeover

The United States and the world are engaged in a great debate about new trade agreements, reports Joseph E. Stiglitz, Nobel laureate in economics, professor at Columbia University, and former senior vice president and chief economist of the World Bank. Far from being "free-trade agreements," Stiglitz suggests, they have actually been managed trade agreements, tailored to largely US and European Union corporate interests.

You can read more at http://www.project-syndicate.org/commentary/us-secret-corporate-takeover-by-joseph-e--stiglitz-2015-05#J1YwHTv0Le3Xfl1Q.99

(continued on page 6)

Governance Revolution

(continued from front page)

In 2003, when the court finally lifted the desegregation order, what remained was a district that had endured decades of bickering and infighting within the leadership, including dozens of superintendents who had come and gone. The publicly elected school board that was in place during the desegregation order existed without the authority or responsibility to govern. Newly reempowered by the order's lifting, it was these same unfortunate habits that the board brought with it. Many parents and community partners left the district for private schools and charter schools. Many other parents simply left the city entirely. The district became mired in a bitter history of distrust, abandonment, and apathy.

By 2009, the KCPS board had executed its duties so poorly that the State of Missouri was prepared to take over the district because of both fiscal insolvency and academic failure. The State cited:

- Inadequate financial reserves to comply with State regulations;
- Almost twenty findings—from lack of adequate financial controls, to lack of appropriate bookkeeping, to inability to account for funds—on recent financial audits;
- Around 15 percent of KCPS students were literate and numerate on grade level;
- A graduation rate below 60 percent; and
- Average superintendent tenures of eighteen months.

The message from the State Department of Education to the school board was clear: you have eighteen months to get better, or get dissolved.

Turning Things Around

In an act of desperation, KCPS board members began to contemplate that their system of governance (or rather, the lack thereof) had to change. The board discussed adopting one of several frequently used governance models, but not enough board members were ever willing to follow through. Old habits proved to be simply too powerful to break.

In April of 2010, constituents voted in a new slate of board members. They were ushered into office with a mandate from 70 percent of the voters to do what needed to be done to turn the district around. As the person most aggressively arguing for a reinvention of governance and with a viable strategy for how to accomplish it, I was elected board chair by my fellow board members. Together as a new board we examined how other urban districts around the country operated and what governance models were most effective. In June 2010, the newly elected KCPS board adopted Policy Governance. This governance model empowered the superintendent to make the decisions necessary to regain fiscal solvency and restore student achievement.

Cultural transformation requires one of two things: either causing existing parties to adopt new beliefs that lead to new behaviors, or replacing existing parties with new parties who already hold new beliefs that lead to new behaviors.

Cultural transformation requires one of two things: either causing existing parties to adopt new beliefs that lead to new behaviors, or replacing existing parties with new parties who already hold new beliefs that lead to new behaviors. The school board could be replaced, but the community could not. To sustain this radical shift in governance culture, the board created and implemented several strategies that would prove to be key to success.

To win the hearts and minds of community members and future board members, a series of public trainings called "School Board School" were held to train grassroots leaders in the new vision of governance. Community forums were organized in partnership with grassroots organizations to put public pressure on school board candidates to commit to adhering to Policy Governance. Candidates had to be fully invested. Finally, a political action committee was formed specifically to translate the interests of parents into political power sufficient to fund candidates who championed Policy Governance.

With this newfound board and community support, the superintendent used his delegated authority to bring proposals before the board concerning several dramatic and controversial actions including:

- Closing 40 percent of the school buildings;
- Laying off a third of the district's staff;
- Terminating tenured teachers who were underperforming or violating district policy;
- Reducing the number of vendor contracts from more than 5,000 to less than 800;
- Cutting the central administration's staff size nearly in half; and
- Completely overhauling the district's instructional program.

The KCPS board responded positively by calling for more than a dozen owner engagement sessions to explain these drastic but necessary changes to members of the community. To honor the commitment to transparency, the board created Management Limitation policies that required an unprecedented amount of parent engagement and public process by the superintendent prior to implementation. These

actions to codify parent engagement into Management Limitation policies represented the cultural shift from insider manipulation to professional management. They demonstrated the new board's focus on pursuing the district's Ends by supporting the superintendent. The new board members showed a level of discipline that previous boards simply lacked.

The Way We Are Today

In 2015—five years since adopting Policy Governance—KCPS has:

- More than 100 percent of the State-mandated financial reserves;
- Experienced three years with perfectly clean financial audits;
- Nearly doubled the percentage of children who are literate and numerate on grade level;
- Boasted a graduation approaching 80 percent; and
- Had the same superintendent for four years.

While these statistics do not yet reflect where KCPS intends to be, they clearly represent a complete turnaround from the district's thirty-five-year downward spiral.

How Policy Governance Made the Difference

Few doubt that the credit for such a significant academic and operational turnaround in such a short amount of time belongs primarily to three groups of people: the remarkable students served by KCPS; the dedicated teachers who work day in and day out; and the capable, stable leadership team the superintendent has led.

Standing behind all of that is a board fixated on governing rather than rubber-stamping or micromanaging. This is a board that is fully invested in—some might even say obsessed with—outcomes and results for students. When Policy Governance is working effectively, the model gives space and structure to allow effective operations and management of the district. In turn, this enables student achievement to actually be the primary focus of everyone's activities, including the board's actions.

Clearly distinguishing between governance work and management work freed up the board to focus on monitoring student achievement progress. It also freed the superintendent to make the hard choices student achievement demands.

Can It Last?

Public elections are the blessing and curse of a democracy. As long as the community remains satisfied with the district's direction and convinced that effective governance has played a vital role, the governance transformation is sustainable. But should either of those falter, the masses of individuals disaffected by the transformation—the thousands of vendors without contracts, the hundreds of former employees without jobs, the many who believe that non-micro-managerial boards are morally inept and ethically lazy—will certainly take advantage of an opening to undo all that has been done.

When Policy Governance is working effectively, the model gives space and structure to allow effective operations and management of the district.

Lessons Learned

Those districts that have already adopted Policy Governance as a means to create an environment that meets the needs of today's urban students know that constant and aggressive owner engagement is a vital strategy in maintaining a healthy, responsible elected board. In Kansas City, this is largely achieved via routine board member coaching, regular trainings for owners and board members, and ongoing monitoring of policy adherence led by a Policy Governance professional.

Educators and districts who are looking for a solution that will rescue their communities from the constant turmoil, frequent leadership upheavals, and academic failure that poor governance promises to at-risk children can leverage these daily crises to take dramatic action. Policy Governance can provide the catalyst. Implementing Policy Governance will require a cultural transformation in both the board and the community. This level of transformation will also require continuous and strong owner engagement, owner training, and board training. In addition, successful implementation of Policy Governance cannot be achieved or sustained without ensuring that the superintendent and the senior leadership team are equally proficient in Policy Governance. But it can be done. Kansas City is an example of the transformative power of Policy Governance in urban, public education. ❑

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WRITING FOR *BOARD LEADERSHIP*

Board Leadership **welcomes articles from governance practitioners, researchers, and consultants on topics related to the discovery, explanation, and discussion of innovative approaches to board governance. If you have something new to say or want to provide a new perspective on something already said, please get in touch to discuss your idea further and to get a copy of our publishing criteria. Email: coliver@goodtogovern.com** ❑

For Your Bookshelf ...

Reviewed by Rose Mercier

Governance coach Rose Mercier gives us an overview of what can be learned from Leading with Intent: A National Index of Nonprofit Board Practices, *a recent publication from BoardSource, a US nonprofit dedicated to advancing the public good by building exceptional nonprofit boards and inspiring board service.*

Leading with Intent: A National Index of Nonprofit Board Practices
by BoardSource
Washington, DC: BoardSource, 2015

As someone who has worked with and served on boards of directors and worked for nonprofit organizations for some forty years, I am always interested in learning more about what enables boards to be effective. I am curious about "state of the nation" studies and was intrigued by *Leading with Intent: A National Index of Nonprofit Board Practices*, BoardSource's most recent scan of nonprofit board practices, policies, and performance.

I share BoardSource's deep valuing of the importance of boards' effectiveness in governing the millions of nonprofits around the world and the integral role they play in an organization's successful performance.

FOOD FOR THOUGHT

"Good ideas are not adopted automatically. They must be driven into practice with courageous impatience."

Admiral Hyman G. Rickover, US Navy, retired, "Doing a Job," *Simple ideas, taken seriously* (blog), August 27, 2010, https://bebekim.wordpress.com/2010/08/27/doing-a-job-by-admiral-hyman-g-rickover-u-s-navy-retired/

I also need to declare at this point, that my work with boards over the past eight-plus years has been devoted to helping them implement the Policy Governance approach. And so, in everything I read about boards—articles and books that present governance theories or practices, print and online articles of "real-life" functional (or dysfunctional) boards, or the section on governance in every corporate annual report that arrives in my mailbox—I am looking for a systematic approach. Specifically, I am looking for the board's role to be clearly distinguished and an articulation of what governance means and how it is distinct from managing. I also look for indicators that the board is regularly assessing organizational performance as well as its own effectiveness. In short, I am in search of evidence of advanced systems of governance. With these eyes, I wondered what I would learn from this report's summary and analysis of surveys completed by 846 CEOs and 246 board chairs (of which I was one). How might the responses be the same or different from those of CEOs and board chairs of organizations that use Policy Governance? How would I be able to use the findings?

> Taking accountability for finding the right people is of increasing importance given the growing challenge of finding individuals willing to serve on boards.

In the first section, "People: Board Composition and Structure," the underlying theme is that a board that wants to perform effectively needs to be intentional about its composition, size, and terms of office: "Getting the people right is fundamental." *Leading with Intent* highlights the need to thoughtfully and deliberately plan for board composition and recruit directors or candidates with a view to having the right skills, knowledge, and values, as well as diversity of thought and background. *Leading with Intent* also says that boards need to take responsibility for ensuring that their recruitment process yields the desirable composition of the "right" people. Taking accountability for finding the right people is of increasing importance given the growing challenge of finding individuals willing to serve on boards. No matter the type of board, these are insights to which a board should attend.

The survey responses indicated that boards are making slow progress with respect to race/ethnicity, gender, or age diversity among directors. This is an important wake-up call for any board, particularly for boards that are serving on behalf of the community or public at large. Responses shed light on term length and number of terms served. It appears most of the respondents' boards allow directors to serve up to six consecutive years, and a majority have term limits. And, according to the survey responses, board size is trending down, with a current, still surprisingly large, average of 15 members.

A Policy Governance board might consider this information and reaffirm its responsibility to sustain its own capacity to govern effectively by making explicit the desirable profile for individual directors and ideal composite

character of the board, and translating their commitment to these profiles into written policy. It could also add to the terms of reference of a Nominations or Governance Committee a job that might be stated as "the presentation of a slate or list of nominees consistent with our director and board composition profiles."

Section 2, "Work: Board Responsibilities," is the part of the report where the distinguishing characteristics of Policy Governance created through the application of a coherent set of principles manifests in a different model for the board's job. While a board using Policy Governance might deal with each of the elements listed (Mission, Vision, Programs; Strategic Planning, Strategic Issues; Advocacy & Public Policy, Fundraising; Financial Oversight & Sustainability, Compliance Policies), it would deal with them within the framework of the principles. A Policy Governance board has three jobs that it cannot delegate: linking with those on whose behalf it is governing, setting (and resetting as appropriate) direction about what the organization is to achieve and the risks it is to manage, and assuring requisite organizational performance. Beyond that, everything else is optional; a board can choose any other job it wishes, as long as it does this job in a way that is consistent with the ten principles that together make the Policy Governance system effective. So a Policy Governance board could keep the job of advocacy for itself or—just as or more likely—delegate advocacy to the CEO. Oversight is exercised by clearly letting the CEO know, through written directions, what would be unethical or imprudent advocacy activity and systematically monitoring performance to ensure it is consistent with the relevant written directions. I will not illustrate the ways a Policy Governance board might approach the other listed elements, as that is not the goal of this article.

The third section of *Leading with Intent*, "Culture: Leadership and Board Dynamics," describes the important contribution that board development makes to leadership culture. Role clarity, the report states, is essential for meaningful board development. Practices contributing to clarity among responding organizations were job descriptions, new director orientation, and having the board chair establish and reinforce expectations of board members and confront gaps in a director's behavior. In Policy Governance, role clarity is absolutely fundamental: clarity about the role of the board and the role of the chief executive officer; clarity about the board's role in setting direction and controlling organizational performance through systematic monitoring of CEO/organizational performance; and clarity about the role of the board in expressing values about its own process through written policies.

Among survey respondents, orientation of new directors and board education are underused practices. Only 13 percent of chairs and CEOs strongly agreed that their orientation process is effective. Close to 50 percent (48 percent to be precise) of the CEOs and chairs indicated that it had been more than three years since the board had conducted a formal, written board self-assessment. These are elements that all boards—those using Policy Governance included—need to systematically and rigorously incorporate into their governing process.

Leading with Intent considers three factors under the title CEO Relations: constructive partnership between the board and the CEO, evaluation and compensation, and CEO succession planning. The survey indicates that the majority of respondents experience a productive working relationship among the board and chief executive. That's good news for the nonprofit organizations to which they provide leadership. It also reinforces the importance of having a fair and formal process for setting executive compensation and annual written

(continued on page 8)

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. ❑

News

(continued from front page)

and in his forthcoming book, *Creating a Learning Society: A New Approach to Growth, Development, and Social Progress*, co-authored with Bruce Greenwald, due to be published by Columbia University Press in October 2015.

Governance Challenges: 2015—Imperatives for Board Leadership in a Complex, Changing Environment

The National Association of Corporate Directors (NACD) has compiled guidance from leading boardroom experts on challenges that boards will face in the coming year. The 2015 report covers the following topics:

- Early Engagement: Going Beyond Traditional Board Succession Planning
- On the 2015 Audit Committee Agenda
- Responding to Global Risks: Enhancing Capacity to Assess the Impact of External Threats on Strategic Investments
- Compensation's Role in Strategy: Elevating the Discussion and Expanding the View
- Current Tensions in Corporate Governance

You can download a complimentary copy at https://www.nacdonline.org/governancechallenges2015/d&beblast

Trust and Integrity in the Global Economy

TIGERoadshows (Trust and Integrity in the Global Economy) aim to encourage entrepreneurs and organizations to reflect on their business with fresh eyes. The Roadshows focus on restoring trust and integrity in business and economic life.

You can see some of their talks and papers at http://uk.iofc.org/tige-activities

Pandora's Box?

When Pandora opened her mythical box, it had some very dangerous unintended consequences. According to George Dallas, policy director at the International Corporate Governance Network, the same could be true of European Parliament proposals to provide long-term, investors with additional votes.

In "Could Europe's Push for Shareholder Rights Backfire?" a May 8, 2015, article in *Fortune* magazine, he says there is no evidence that additional votes would be helpful and that "the huge risk is that companies and their shareholders may wind up depending on the benevolence of a controlling shareholder."

According to the article, although US firms primarily usually follow a one-share one-vote standard, other countries' approaches differ. In France, a recently enacted law designed to address shortsighted behavior among investors gives double voting rights to shareholders who hold shares for longer than two years, unless two-thirds of shareholders oppose such a policy.

You can see more about the proposed legislation at http://bit.ly/1SjorUa and the *Fortune* article at http://fortune.com/2015/05/08/france-germany-shareholders/

Corporate Governance Factbook—Organisation for Economic Co-operation and Development (OECD)

Published in April 2015, this report offers up-to-date information about corporate governance practices in OECD countries and a selection of additional jurisdictions. It provides a useful resource for national governments looking to compare their own framework with that of other countries or seeking information about practices in specific jurisdictions.

The Factbook covers:

- The corporate landscape;
- The rights of shareholders and key ownership functions; and
- The corporate board of directors.

You can download a copy at http://www.oecd.org/daf/ca/corporate-governance-factbook.htm ❑

COMING YOUR WAY

WHAT'S COMING UP IN THE NEXT ISSUE OF *BOARD LEADERSHIP*...

Associations are everywhere and they often have highly motivated members whose authority as owners can have a huge impact. These and other challenges are discussed in the next issue of *Board Leadership* by Bill Charney, and his experience shows. Our September/October issue (Issue 141) also features a significant report on the governance of one particular type of association—the student association. Catherine Raso and Ercole Perrone review the report entitled *A Blueprint for Student Driven Professionally Supported Student Association* which was prepared by Michael Hughes for five Canadian student associations: Acadia Students' Union, Cape Breton University Students' Union, Dalhousie Agricultural Students' Association, Saint Mary's University Students' Association, and St. Francis Xavier University Students' Union.

Finally, this issue sees the second in our occasional series in which leading proponents of different models and approaches to governance are invited to answer a series of standard questions. The first article in the series, which appeared in Issue 134, was on Sociocracy written by John Buck. This piece about the Complementary Model of Board Governance comes from Tom Abbott who is Director of AMC NPO Solutions.

Over time, it is hoped that this will result in a body of knowledge that will enable comparison between different models and approaches. Therefore, this series lies at the heart of *Board Leadership*'s mission "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." ❑

CALENDAR OF EVENTS

September 10, 2015

Board Chair Workshop

— Toronto, with Catherine M. Raso, CMR Governance Consulting

For more information visit www.CMRaso.com

September 11–12, 2015

An Introductory Training in Policy Governance

— Atlanta Marriott Buckhead Hotel (formerly the Buckhead Hotel), Atlanta, Georgia, USA

Policy Governance is an integrated set of concepts and principles that describes the job of any governing board. It outlines the manner in which boards can be successful in their servant-leadership role, as well as in their all-important relationship with management. Unlike most solutions to the challenge of board leadership, its approach to the design of the governance role is neither structural nor piecemeal, but is comprehensively theory based. There are no royalties or license fees for use of the model; it is free to all. Service mark protection is intended only to preserve the complete accuracy of the model. No prior knowledge of the Policy Governance model is required. Conducted by Miriam Carver.

For more information see http://www.carvergovernance.com/train.htm

Thinking of publishing in* Board Leadership*? Contact managing editor Caroline Oliver for criteria at coliver@goodtogovern.com

September 16, 2015, or October 6, 2015

The On Target Board Member: 8 Indisputable Behaviours: An Introduction to Policy Governance

— Toronto, with Catherine M. Raso, CMR Governance Consulting

For more information visit www.CMRaso.com

September 17, 2015

Advanced Monitoring Workshop for CEOs and Executive Directors

— Toronto, with Catherine M. Raso, CMR Governance Consulting

For more information visit www.CMRaso.com

September 21–23, 2015

Advanced Policy Governance Training for Board Members and CEOs (Three-Day Session)

— Toronto, with Catherine M. Raso, CMR Governance Consulting

For more information visit www.CMRaso.com

September 23, 2015

International Policy Governance Association Virtual Consultants' Forum: Having Something to Say and Saying It Well

— 11:00 a.m.–1:30 p.m. EST, via Fuze meeting videoconference

Registration now available at http://bit.ly/1Sjryf1

September 26–29, 2015

NACD Global Board Leaders' Summit

— Marriott Marquis, Washington, DC, USA

The National Association of Corporate Directors' (NACD) 2015 Global Board Leaders' Summit will convene more than 1,200 of the world's leading directors and industry experts with a mission to raise the bar for boardroom leadership across the globe.

For more information see https://www.nacdonline.org/conference/index.cfm

October 7, 2015

Administrative Support (Board Secretary) Workshop

— Toronto, with Catherine M. Raso, CMR Governance Consulting

For more information visit www.CMRaso.com ❑

BoardSource

Throughout the year, BoardSource organizes a range of webinars and training events for US nonprofit board leaders.

For more information see http://bit.ly/BdSourceEvents

National Coalition for Dialogue & Deliberation (NCDD)

NCDD also regularly provides useful training events. For more information see http://ncdd.org/events/ncdd2014 ❑

For Your Bookshelf

(continued from page 5)

evaluation. These two elements would be addressed by a Policy Governance board in a specific category of policies that address how the board delegates its authority and how it holds its delegates accountable.

The report also underlines the importance of shared leadership within the board and the need to develop skills in dialogue, collaborative decision making, and deep listening. I would add that having an attitude of servant-leadership within the board contributes to an effective leadership culture; it is a constant reminder that a board is a small group of people governing on behalf of some, usually much larger group of people.

Leading with Intent also points out the importance of considering CEO succession particularly when a long-serving executive may be nearing the end of their tenure. The report's observations about leadership and board dynamics are relevant for all boards, no matter their structure, size, or governing processes.

A recurring message in *Leading with Intent* is that writing things down is essential, as is consistency in application of what is written down. Ensuring that new directors understand and are committed to board-approved policies, continually educating directors about their responsibilities, regularly assessing consistency, and evaluating board performance will contribute to board effectiveness.

Providing a coherent framework for leadership culture is an area where I believe Policy Governance offers a board an important benefit. The board is self-organizing; its processes are explicit and formalized. The board's role and its jobs, the role of the chair, the role of committees, the board's relationship with the CEO, the way in which it will set agendas, how it will invest in its own development (inclusive of education, self-evaluation, and training), the conduct it expects of all directors, and how it will carry out any specific operational jobs that it has decided not to delegate to the CEO (e.g., fund raising, advocacy, investment)—*all* of these elements (and others as it chooses) of the board's governing process are written down in policies determined by the board as a whole. They are subject to regularly scheduled monitoring. And because the whole board has committed to them, the board shares the accountability for ensuring that all of its members act consistently. While the chair may still initiate a discussion with a director who isn't living up to these expectations, the chair can expect that his or her actions will be supported by other board members.

I am hopeful that this article has drawn attention to a report that provides enlightenment about nonprofit board practices, policies, and performance. Any board of a nonprofit organization can gain insights about things it might do to enhance its own effectiveness. After all, providing effective leadership within the limits of the time that a board has at its disposal is indeed a challenge.

Consider, if you will, the average board size (fifteen members), that 90 percent of boards met for 2.5 hours or less, and that two-thirds of respondents had nine or fewer board meetings annually. That would mean the board would be working as a whole for 22.5 hours. Even if you factored in three committees meetings for an equal amount, that is still only 90 hours. Contrast that with even just a single executive working 40 hours a week (seldom the case in a nonprofit organization) for 48 weeks, who will be spending 1,920 hours focused on the operation of the organization. An organization with three staff would result in a time ratio of sixty-four to one. If you think about this, it becomes evident why board effectiveness is so essential. In the number of hours available to it, it must efficiently direct and control organizational performance. It is incumbent on a board to learn all it can about how to be effective. Reading *Leading with Intent* is well worthwhile for the insights it provides and the questions it should stimulate.

The International Policy Governance Association (IPGA), of which I am currently chair, is soon to start a wider conversation with those involved in governance in all sectors about the principles on which all our governance systems might best be based for our global health. I am hopeful that many of the contributors to *Leading with Intent* will wish to engage in this conversation as part of their continued quest for better performance. ❑

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BOARD LEADERSHIP
INNOVATIVE APPROACHES TO GOVERNANCE

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State pension plans putting politics above retirements

By James Saft
July 31, 2015

(Reuters) – State public pension funds love buying shares in local companies, but it is not so much a matter of "buying what you know" as "buying shares of companies with political clout."

A new study of equity holdings of self-managed state public pension funds finds that they have not only a bias towards in-state companies, but in particular towards those with political connections and influence.

What's more, these investments aren't winners; this bias towards in-state politically connected firms costs the typical state pension fund about $225 million in annual decline in fund performance, according to estimates in the study, which is slated to be published in an upcoming Journal of Financial Economics.

"We find that state pension funds overweight these politically active firms and doing so is detrimental to fund equity performance," write authors Daniel Bradley and Xiaojing Yuan of the University of South Florida and Christos Pantzalis of the University of Massachusetts at Lowell. (here)

"Our evidence is most consistent with the political bias hypothesis."

Remember too, state pension funds are hardly in good shape and cannot afford to make poor and politically motivated investments.

The aggregate funding ratio of U.S. public pension funds was only 72 percent of liabilities in 2013, according to a survey by the National Association of State Retirement Administrators. That leaves more than $1 trillion of future liabilities unfunded nationwide.

It has long been known that state pension funds have a tendency to invest in firms within their state. Some argue that this is due to mere familiarity, though were this true it would not affect performance. Others assert that pension funds invest at home because they enjoy some information advantage which they seek to exploit. If this information advantage were due to political connections, then holdings of firms in this group would outperform.

What the study seems to have found, though, is that the allocations are going to local firms for political reasons and that this, because it comes from conflicted political motivations, leads in turn to underperformance.

It should be noted that the study used a relatively small sample size: 16 pension funds which manage their own money and made Securities and Exchange Commission disclosures for at least 20 consecutive quarters between 1999 and 2009. That said, the sample included large and well-known pension funds including the Virginia Retirement System, the California Public Employees' Retirement System (CalPERS) and the New York State Common Retirement Fund.

To determine which companies qualify as politically connected or active, the study constructed measures to weigh the extent that a given fund invests more with firms making political action committee (PAC) contributions to home state politicians or engaging in lobbying.

MISALLOCATION

The finding was that state pension funds will tend to overweight their holdings of local firms that make PAC contributions by 23 percent and those that lobby by 17 percent relative to their neutral weight in a market portfolio.

Interestingly, the only local companies that displayed significant positive outperformance were non-politically connected local firms. Perhaps if you are good enough to overcome a biased, politically influenced system your company might actually be a winning investment.

As well, state pension funds tend to hold on to the stocks of politically connected companies longer. They are also poor at making decisions about when to buy and sell these politically connected stocks: selling winners too soon and riding losses too long. This phenomenon is not present for non-politically active stocks, according to the study.

Unsurprisingly, the degree of political bias in state pension funds is linked to how they are governed. Local political connection bias - the tendency to own the shares of politically connected local firms – is stronger in state pension funds with a higher percentage of politically affiliated trustees.

And while having an influential member of Congress in your home state might help bring home some political bacon in government spending, it is a drawback for pension governance. States with more influential politicians in Congress tend to invest more in politically connected local firms, suffering the underperformance that that implies.

Pension fund managers and trustees have an obligation to the members of their funds as well as taxpayers who ultimately might be called on to make good any shortfall. This trumps any woolly local economic development that might come from providing capital locally.

While it would be good to see a larger sample, a responsible state pension fund ought to be doing this analysis for itself and making changes in the holdings based on what they find.

(James Saft is a Reuters columnist. The opinions expressed are his own)

(At the time of publication James Saft did not own any direct investments in securities mentioned in this article. He may be an owner indirectly as an investor in a fund. You can email him at jamessaft@jamessaft.com and find more columns at blogs.reuters.com/james-saft)

(Editing by James Dalgleish)