



# Stanislaus County Employees' Retirement Association

832 12th Street, Ste. 600, Modesto, CA 95354 • PO Box 3150, Modesto, CA 95353 • [www.stancera.org](http://www.stancera.org) • 209-525-6393 • 209-558-4976 Fax

## AGENDA

### BOARD OF RETIREMENT

832 12<sup>th</sup> Street Ste. 600, **Wesley W. Hall Board Room**  
Modesto, CA 95354

**August 22, 2017**  
**1:30 p.m.**

The Board of Retirement welcomes you to its meetings, which are regularly held on the fourth Tuesday of each month. Your interest is encouraged and appreciated.

**CONSENT/ACTION ITEMS:** Consent matters include routine administrative actions and are identified under the Consent Items heading. All other items are considered to be action items "Action" means that the Board may dispose of any item by any action, including but not limited to the following acts: approve, disapprove, authorize, modify, defer, table, take no action, or receive and file.

**PUBLIC COMMENT:** Matters under jurisdiction of the Board, may be addressed by the general public before or during the regular agenda. However, California law prohibits the Board from taking action on any matter which is not on the posted agenda unless it is determined an emergency by the Board of Retirement. Any member of the public wishing to address the Board during the "Public Comment," period shall be permitted to be heard once up to three minutes. Please complete a Public Comment Form and give it to the Chair of the Board. Any person wishing to make a presentation to the Board must submit the presentation in written form, with copies furnished to all Board members. Presentations are limited to three minutes.

**BOARD AGENDAS & MINUTES:** Board agendas, minutes and copies of items to be considered by the Board of Retirement are customarily posted on the Internet by Friday afternoon preceding a meeting at the following website: [www.stancera.org](http://www.stancera.org).

Materials related to an item on this Agenda submitted to the Board after distribution of the agenda packet are available for public inspection at StanCERA, 832 12th Street, Suite 600, Modesto, CA 95354, during normal business hours.

**AUDIO:** All Board of Retirement regular meetings are audio recorded. Audio recordings of the meetings are available after the meetings at <http://www.stancera.org/agenda>.

**NOTICE REGARDING NON-ENGLISH SPEAKERS:** Board of Retirement meetings are conducted in English and translation to other languages is not provided. Please make arrangements for an interpreter if necessary.

**REASONABLE ACCOMMODATIONS:** In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary at (209) 525-6393. Notification 72 hours prior to the meeting will enable StanCERA to make reasonable arrangements to ensure accessibility to this meeting.

1. Call Meeting to Order
2. Roll Call
3. Announcements
4. Public Comment
5. Consent Items
  - a. Approval of the July 25, 2017 Meeting Minutes [View](#)
  - b. Monthly Staff Report [View](#)
  - c. Legal/Legislation Update [View](#)
  - d. Approval of Service Retirement(s) – **Government Code Sections 31499.14, 31670, 31662.2 & 31810**
    1. Campbell, John – Sheriff – Effective 08-19-17 \*
    2. Ford, Gordon – Treasurer/Tax Collector – Effective 08-01-17
    3. Gaudio, Gregory – Workforce Development – Effective 08-09-17
    4. Hall, Ilif – DER – Effective 08-05-17
    5. Iehan, Margaret – Library – Effective 08-04-17
    6. Miranda, Daniel – City of Ceres – Effective 08-05-17
    7. Nelson, Ron – CSA – Effective 08-19-17
    8. Nicholes, Brian – City of Ceres – Effective 08-12-17 \*
    9. Reyes, Joseph – City of Ceres – Effective 08-05-17
    10. Risen, Stanley – CEO – Effective 08-12-17
    11. Silim, Keo – BHRS – Effective 03-31-17
    12. Slate, Lynn – Probation – Effective 08-11-17 \*

13. Thomlison, Cynthia – CEO – Effective 08-26-17
14. Young, Anita – Library – Effective 08-18-17  
\* *Indicates Safety Personnel*

e. Approval of Deferred Retirement(s) – **Government Code Section 31700**

1. Barlan, Kristina – DER – Effective 07-22-17
2. Bumgardner, Mandy - CSA – Effective 05-26-17
3. Cadeaux, Lili – HSA – Effective 05-20-17
4. Daniels, Rodney – Probation – Effective 07-08-17 \*
5. De Jong, Elizabeth – DA – Effective 06-24-17
6. Ernest, Sheila – Animal Services – Effective 05-06-17
7. Franco, Lilia – City of Ceres – Effective 05-13-17
8. Garcia, Susan – GSA – Effective 06-16-17
9. Garner, Deborah – HSA – Effective 04-29-17
10. Gelfond, Matthew – DA – Effective 06-30-17
11. Gonzalez, Juan – Public Works – Effective 07-14-17
12. Hampton, Carlos – City of Ceres – Effective 02-25-17 \*
13. Hicks, Phillip – Sheriff – Effective 03-16-17 \*
14. Hernandez, Carmen – HSA – Effective 05-17-17
15. Hernandez, Monica – HSA – Effective 12-27-16
16. Lewis, Jeremy – City of Ceres – Effective 10-28-14 \*
17. Lopez-Smith, Ninfa – Alliance WorkNet – Effective 08-19-16
18. Mazariegos, Leisser – City of Ceres – Effective 06-28-17
19. Munoz, Evelyn – CSA – Effective 06-01-17
20. Ocampo, Adriana – CSA – Effective 03-18-17
21. Oshana, Josephine – CSA – Effective 07-01-17
22. Randle, Laliah – City of Ceres – Effective 04-13-17
23. Reed, Adrienne – DCSS - Effective 07-14-17
24. Riley, James – City of Ceres – Effective 03-24-16 \*
25. Rios, Grizelle – BHRS – Effective 04-08-17
26. Sandoval, Samuel – Courts – Effective 06-03-17
27. Stewart, Daniel – StanCOG – Effective 05-02-17
28. Wood, Whitney – Planning – Effective 03-10-17  
\* *Indicates Safety Personnel*

f. Approval of Reciprocal Disability Retirement - **Section 31838.5**

1. Horal, Julie - Probation, Service-Connected, Effective 07.13.17 \*
2. Jeffries, Kevin - Sheriff, Service-Connected, Effective 03.13.17 \*  
\* *Indicates Safety Personnel*

6. Executive Director – Investment

7. Verus – Investment Consultant

- a. Workplan [View](#)
- b. July 27, 2017 Flash Report [View](#)
- c. Investment Performance Quarter 2 Review [View](#)
- d. Private Market Education [View](#)

8. Executive Director – Administrative
  - a. Information Technology Solutions (ITS) Project Update [View](#)
9. Closed Session
  - a. Discussion and Action: Risk Parity Contract Negotiation – Government Code Section 54956.81
  - a. Conference with Legal Counsel – Pending Litigation – One Case:  
O’Neal et al v. Stanislaus County Employees’ Retirement Association  
Stanislaus County Superior Court Case No. 648469  
Government Code Section 54956.9(d)(1)
  - b. Conference with Legal Counsel – Pending Litigation – One Case:  
Stanislaus County Employees’ Retirement Association v. Buck Consultants,  
LLC, Mediation Pursuant to Evidence Code Sections 1115, 1119, 1152  
Government Code Section 54956.9d)(4)
10. Members’ Forum (Information and Future Agenda Requests Only)
11. Adjournment



## BOARD OF RETIREMENT MINUTES

July 25, 2017

1. Call Meeting to Order

Meeting called to order 1:30 p.m. by Trustee Gharat, Chair

2. Roll Call

**Trustees Present:** NOTE Seat 3 and Seat 8.a is vacant as of June 30, 2017, Darin Gharat, Mike Lynch, Sam Sharpe, Jim DeMartini, Michael O'Neal, and Jegan Raja for Gordon Ford

**Trustees Absent:** Gordon Ford, Jeff Grover and Mandip Dhillon

**Alternate Trustee** Vacant, Alternate Retiree Representative

**Staff Present:**  
Kellie Gomes, Executive Board Assistant  
Natalie Elliott, Interim Fiscal Services Manager  
Dawn Lea, Member and Employer Services Manager

**Others Present:** Fred Silva, General Legal Counsel

Donna Riley  
Joan Clendenin

3. Announcements

Seat 3 and Seat 8.a is vacant as of June 30, 2017. Elections for both seats are underway with the final filing date for ballots on August 8<sup>th</sup> at 5:00 p.m.

5.f.7.Pinto, Justine – CSA – Effective 07-08-17 should not have been identified as a safety member and will be corrected in the minutes.

4. Public Comment

None

5. Consent Items

- a. Approval of the June 27, 2017 Meeting Minutes
- b. Monthly Staff Report
- c. Legal/Legislation Update
- d. Executive Director Goals Update Quarter 2, 2017
- e. StanCERA Complaint Log: April 1 and June 30, 2017



f. Approval of Service Retirement(s) – **Government Code Sections 31499.14, 31670, 31662.2 & 31810**

1. Canapi-Williams, Norma – Public Works – Effective 07-01-17
2. Collyer Jr., Stephen – Sheriff – Effective 07-03-17 \*
3. Cruz, Silvia – DER – Effective 07-06-17
4. Dunham, Cathrine – Courts – Effective 07-06-17
5. Fregoso, Marisa – Probation – Effective 06-20-17
6. Gunnoe, Constance – Sheriff – Effective 07-22-17 \*
7. Pinto, Justine – CSA – Effective 07-08-17
8. Reed, David – StanCOG – Effective 7-06-17
9. Reuben, Julie – Library – Effective 07-01-17
10. Rocha, Robert – Public Works – Effective 07-09-17
11. Yonan-Powers, Claire – CSA – Effective 07-22-17

*\* Indicates Safety Personnel*

g. Approval of Deferred Retirement(s) – **Government Code Section 31700**

1. Casillas-Franco, Elaine – DA – Effective 06-24-17
2. Young, Melissa - CSA – Effective 06-10-17

*\* Indicates Safety Personnel*

h. Approval of Disability Retirement – **Government Code Section 31724**

1. Borges, Dedra - Police Department, Service-Connected, Effective 04.17.15\*

*\* Indicates Safety Personnel*

i. Approval of Death Benefit – **Government Code Section 31781**

1. Gooden, Hilma, Deceased July 18, 2017, HSA - Active Member

Motion was made by Trustee O'Neal and seconded by Trustee Raja to accept the consent items as presented with the exception of the correction to agenda item 5f.7 as noted in announcements.

Motion carried unanimously

6. Executive Director – Investment

- a. Functionally Focused Portfolio Update

7. Verus – Investment Consultant.

Ed Hoffman joined by phone at 1:33 p.m

1:33 p.m. Trustee Sharpe arrived

- a. 12-Month Investment Program Workplan
- b. June 30, 2017 Flash Report

8. Executive Director – Administrative

- a. Information Technology Solutions (ITS) Project Update
- b. 2017 Due Diligence Trip Update

9. Closed Session

- a. Conference with Legal Counsel – Pending Litigation – One Case:  
O’Neal et al v. Stanislaus County Employees’ Retirement Association  
Stanislaus County Superior Court Case No. 648469  
Government Code Section 54956.9(d)(1)
- b. Conference with Legal Counsel – Pending Litigation – One Case:  
Stanislaus County Employees’ Retirement Association v. Buck Consultants,  
LLC, Mediation Pursuant to Evidence Code Sections 1115, 1119, 1152  
Government Code Section 54956.9d)(4)

No Closed Session Held

10. Members’ Forum (Information and Future Agenda Requests Only)

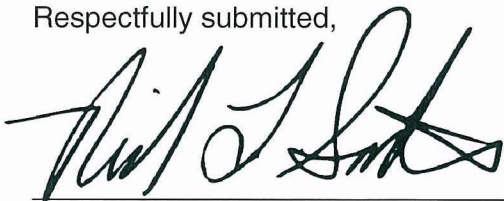
Trustee O’Neal announced the date (August 19) for the RESSCO Picnic and extended an offer to pay for anyone on the Board who would like to attend the annual Picnic.

Donna Riley expressed support for sending the Executive Board Assistant to the Due Diligence visits and expressed how beneficial it is to have someone taking notes and reporting out on the trip.

11. Adjournment

Meeting adjourned at 1:52 p.m.

Respectfully submitted,



Rick Santos, Executive Director

APPROVED AS TO FORM:  
Fred Silva, GENERAL LEGAL COUNSEL

By:   
Fred Silva, General Legal Counsel



**August 22, 2017**

Retirement Board Agenda Item

TO: Retirement Board

FROM: Rick Santos, Executive Director

I. SUBJECT: Monthly Staff Report

II. ITEM NUMBER: 5.b

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: None

V. ANALYSIS:

- a) *Member & Employer Services* – During the month of July 2017, Member and Employer Services Staff processed 40 new hires (7 Safety and 33 General), 15 terminations, 34 estimates and 15 buy backs. There were 27 individual counseling sessions.

Staff continues to devote many hours to meeting with the Tegrity Analysts to continue defining the business rules necessary to ensure that StanCERA's needs will be met with the Arrivos system. Staff have also begun utilization testing of the member demographics screens.

Staff completed the quality assurance review on a sampling of files from each box of scanned files that were prepared and scanned by FNTI.

Staff continues to audit member files in anticipation of the data conversion that will be required with the implementation of the Arrivos pension administration system.

- b) *Fiscal Services – Fiscal Services* – Employer and employee contributions totaling \$6,841,928 were received through 11 different payroll batches in June. In addition, 26 contribution refunds and death benefit payouts totaling \$196,408 were processed. The retiree payroll for August totaled \$9,839,352 and was processed as scheduled. Staff is working with the auditors on the fiscal year end audit. Interim field work has been completed and final field work will start August 28th. Staff continues to partner with Member Services in defining the business rules for the new pension software. Staff has started meeting with Tegrity to define employer payroll upload business rules for the Arrivos system. Partnering with our employers, County payroll individuals are being invited to attend some of these meetings.

- c) *Investment Governance and Compliance* – Staff continues to work on the StanCERA Investment database and upload processes. Staff is also working with the County on the Investment Officer recruitment and we anticipate beginning formal interviews the first week of September.

VI. RISK: None

VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently\*

VIII. ADMINISTRATIVE BUDGET IMPACT: NONE

A handwritten signature in black ink, appearing to read "Rick Santos", written over a horizontal line.

Rick Santos, Executive Director

A handwritten signature in black ink, appearing to read "Dawn Lea", written over a horizontal line.

Dawn Lea, Member and Employer Services Manager

A handwritten signature in black ink, appearing to read "Natalie Elliott", written over a horizontal line.

Natalie Elliott, Interim Fiscal Services Manager



**August 22, 2017**

Retirement Board Agenda Item

TO: Retirement Board

FROM: Dawn Lea, Member and Employer Services Manager

I. SUBJECT: Legal Update: Citizens Pension Reform Initiative (CPRI)

II. ITEM NUMBER: 5.c

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: None

V. ANALYSIS:

*Current Information:* On July 26, 2017, the Supreme Court voted unanimously to review the April ruling by the Fourth District Court of Appeal. It is rare for the state Supreme Court to issue a notice of review, which means that the court considers some element of the appellate court ruling worthy of judicial review and possible change. Arguments in this case aren't expected to be heard until 2018 or 2019.

*Historical Information:* In November 2010, City of San Diego Mayor Sanders publicly announced that he would pursue a ballot measure to amend the San Diego city charter to provide 401(k) style retirement benefits, instead of a defined benefit pension to newly hired employees.

In April 2011, while proponents of the Citizens Pension Reform Initiative (CPRI) were collecting signatures for the measure to be placed on the Ballot, Mayor Sanders started touting the measure in public speeches and interviews.

In July 2011, labor unions representing City employees wrote to Mayor Sanders demanding that the City meet and confer before placing the CPRI on the ballot. The City declined the demand, replying that if the proponents obtained enough valid signatures, state law required the City Council to place the measure on the ballot and thus there was no policy decision over which to meet and confer.

Enough valid signatures were eventually collected and the City Council passed a resolution placing the measure on the ballot for the June 2012 primary election.

In January 2012, the unions filed unfair practice charges with the Public Employment Relations Board (PERB) alleging that the City violated its duty to meet and confer before placing the CPRI on the ballot. PERB issued a complaint and set an expedited hearing on the charges. They also unsuccessfully sought an injunction to keep the initiative off the ballot.

In June 2012, a majority of the electorate voted in favor of the CPRI.

After a hearing, a PERB Administrative law judge (ALJ) ruled that the City violated the Meyers-Milias-Brown Act (MMBA), because Mayor Sanders was acting as an agent of the City when he supported the CPRI and therefore the City was obligated to meet and confer. On appeal, PERB affirmed the ALJ's decision and ordered "make whole" relief that essentially required the City to ignore the city charter provisions that resulted from the voters' approval of the CPRI.

In April 2016, the California Fourth District Court of Appeal heard arguments in *The City of San Diego vs. PERB*. Ultimately, the court of appeal annulled PERB's decision, finding that the City had no obligation to meet and confer over the CPRI. The court found that the MMBA's meet and confer requirements do not apply to citizens' initiatives.

It is also important to note that the court's decision was based in part on the limited power and special duty that elected officials have in connection with citizen initiatives. The court emphasized that, under the Elections Code, the city council was required to place the initiative on the ballot without alteration, and was not legally authorized to do otherwise. Thus, there was no policy decision over which the City could have met and conferred.

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently\*
- VIII. ADMINISTRATIVE BUDGET IMPACT: NONE



Dawn Lea, Member and Employer Services Manager



Rick Santos, Executive Director



**StanCERA Investment Program 12-Month Workplan**

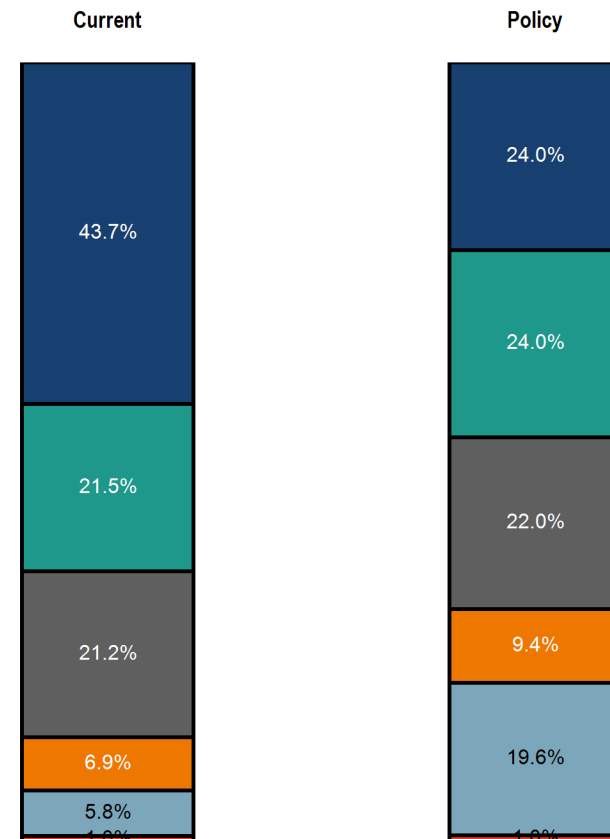
|   | Time        |
|---|-------------|
| <b>June, 2017</b>   | <b>0:05</b> |
| Flash report and 12-month workplan  | 0:05        |
| <b>July, 2017</b>   | <b>0:05</b> |
| Flash report and 12-month workplan  | 0:05        |
| <b>August, 2017</b>   | <b>1:05</b> |
| Flash report and 12-month workplan  | 0:05        |
| Quarterly investment performance report                                   | 0:30        |
| Private markets approaches  | 0:30        |
| <b>September, 2017</b>  | <b>0:20</b> |
| Flash report and 12-month workplan  | 0:05        |
| Propose search for private markets  | 0:10        |
| Launch Value-Add Real Estate search                                       | 0:05        |
| <b>October, 2017</b>  | <b>1:05</b> |
| Flash report and 12-month workplan  | 0:05        |
| Present search for private markets  | 0:30        |
| Present search for Vaue-Add Real Estate mandate                           | 0:30        |
| <b>November, 2017</b>   | <b>1:05</b> |
| Flash report and 12-month workplan  | 0:05        |
| Quarterly investment performance report                                   | 0:30        |
| Finalist(s) for Private Markets mandate                                   | 0:30        |
| <b>December, 2017</b>   | <b>0:35</b> |
| Flash report and 12-month workplan  | 0:05        |
| Finalists for Vaue-Add Real Estate mandate                                | 0:30        |
| <b>January, 2018</b>  | <b>0:20</b> |
| Flash report and 12-month workplan  | 0:05        |
| Present funding & implementation plans for Private Markets & Value-Add RE | 0:15        |
| <b>February, 2018</b>   | <b>0:35</b> |
| Flash report and 12-month workplan  | 0:05        |
| Quarterly investment performance report                                   | 0:30        |
| <b>March, 2018</b>  | <b>0:25</b> |
| Flash report and 12-month workplan  | 0:05        |
| Annual review of FFP with updated capital market assumptions              | 0:20        |
| <b>April, 2018</b>  | <b>0:05</b> |
| Flash report and 12-month workplan  | 0:05        |
| <b>May, 2018</b>  | <b>0:35</b> |
| Flash report and 12-month workplan  | 0:05        |
| Quarterly investment performance report                                   | 0:30        |

# Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: July 31, 2017

|  | Market Value         | % of Portfolio | 1 Mo       | YTD         | Fiscal YTD |
|--|----------------------|----------------|------------|-------------|------------|
| <b>Total Fund</b>                        | <b>2,010,556,942</b> | <b>100.0</b>   | <b>1.5</b> | <b>9.2</b>  | <b>1.5</b> |
| <i>Policy Index</i>                      |                      |                | 1.7        | 8.6         | 1.7        |
| <b>US Equity</b>                         | <b>878,699,277</b>   | <b>43.7</b>    | <b>1.9</b> | <b>10.7</b> | <b>1.9</b> |
| <i>US Equity Blended</i>                 |                      |                | 1.7        | 10.3        | 1.7        |
| <i>Russell 3000</i>                      |                      |                | 1.9        | 11.0        | 1.9        |
| Mellon S&P 500                           | 94,316,446           | 4.7            | 2.1        | 11.6        | 2.1        |
| <i>S&amp;P 500</i>                       |                      |                | 2.1        | 11.6        | 2.1        |
| BlackRock Russell 1000 Growth            | 105,417,549          | 5.2            | 2.7        | 17.0        | 2.7        |
| <i>Russell 1000 Growth</i>               |                      |                | 2.7        | 17.0        | 2.7        |
| Jackson Square                           | 148,897,082          | 7.4            | 4.4        | 19.4        | 4.4        |
| <i>Russell 1000 Growth</i>               |                      |                | 2.7        | 17.0        | 2.7        |
| BlackRock Russell 1000 Value             | 119,013,497          | 5.9            | 1.3        | 6.1         | 1.3        |
| <i>Russell 1000 Value</i>                |                      |                | 1.3        | 6.0         | 1.3        |
| Dodge & Cox-Equity                       | 210,596,170          | 10.5           | 1.8        | 8.6         | 1.8        |
| <i>Russell 1000 Value</i>                |                      |                | 1.3        | 6.0         | 1.3        |
| Legato Capital                           | 95,511,308           | 4.8            | -0.2       | 9.5         | -0.2       |
| <i>Russell 2000 Growth</i>               |                      |                | 0.9        | 10.9        | 0.9        |
| Capital Prospects                        | 104,947,226          | 5.2            | 0.2        | 3.7         | 0.2        |
| <i>Russell 2000 Value</i>                |                      |                | 0.6        | 1.2         | 0.6        |
| <b>International Equity</b>              | <b>431,364,679</b>   | <b>21.5</b>    | <b>3.1</b> | <b>18.4</b> | <b>3.1</b> |
| <i>MSCI ACWI ex USA Gross</i>            |                      |                | 3.7        | 18.7        | 3.7        |
| LSV Asset Mgt                            | 218,876,667          | 10.9           | 3.4        | 18.3        | 3.4        |
| <i>MSCI ACWI ex USA Gross</i>            |                      |                | 3.7        | 18.7        | 3.7        |
| Fidelity                                 | 212,488,012          | 10.6           | 2.9        | 18.5        | 2.9        |
| <i>MSCI ACWI ex USA Gross</i>            |                      |                | 3.7        | 18.7        | 3.7        |
| <b>US Fixed Income</b>                   | <b>427,082,496</b>   | <b>21.2</b>    | <b>0.2</b> | <b>3.1</b>  | <b>0.2</b> |
| <i>BBgBarc US Aggregate TR</i>           |                      |                | 0.4        | 2.7         | 0.4        |
| Dodge & Cox-Fixed                        | 794,248              | 0.0            | 1.5        | 4.6         | 1.5        |
| <i>BBgBarc US Aggregate TR</i>           |                      |                | 0.4        | 2.7         | 0.4        |
| PIMCO                                    | 7,212,074            | 0.4            | 0.4        | 2.7         | 0.4        |
| <i>BBgBarc US Aggregate TR</i>           |                      |                | 0.4        | 2.7         | 0.4        |
| Insight                                  | 96,730,756           | 4.8            | 0.3        | --          | 0.3        |
| <i>BBgBarc US Govt/Credit 1-5 Yr. TR</i> |                      |                | 0.4        | --          | 0.4        |

|                       | Current                | %             | Policy                 | %             |
|-----------------------|------------------------|---------------|------------------------|---------------|
| Domestic Equity       | \$878,699,277          | 43.7%         | \$482,533,666          | 24.0%         |
| International Equity  | \$431,364,679          | 21.5%         | \$482,533,666          | 24.0%         |
| Domestic Fixed Income | \$427,082,496          | 21.2%         | \$442,322,527          | 22.0%         |
| Real Estate           | \$138,028,183          | 6.9%          | \$188,992,353          | 9.4%          |
| Alternatives          | \$115,722,816          | 5.8%          | \$394,069,161          | 19.6%         |
| Cash and Equivalents  | \$19,659,490           | 1.0%          | \$20,105,569           | 1.0%          |
| <b>Total</b>          | <b>\$2,010,556,942</b> | <b>100.0%</b> | <b>\$2,010,556,942</b> | <b>100.0%</b> |



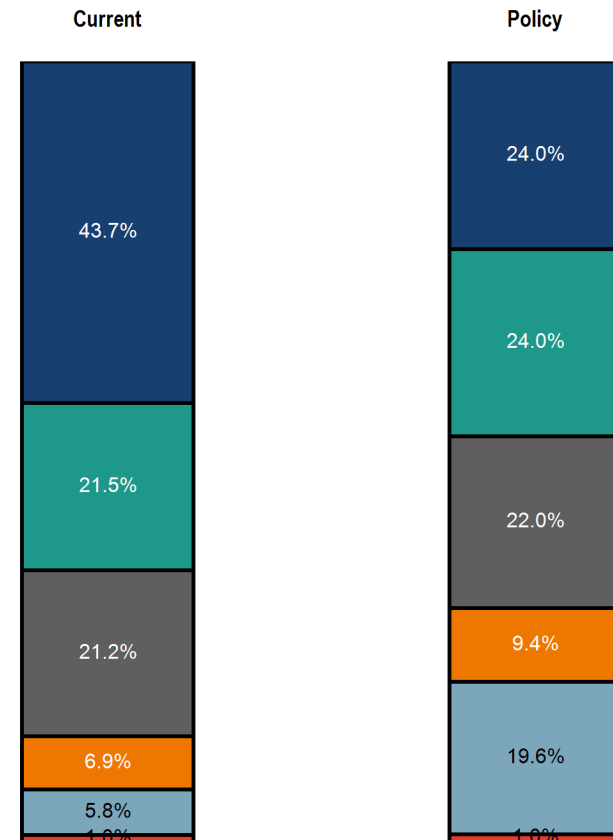
Policy Index (7/1/2017): 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex-USA, 19% BBgBarc US Govt/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 7.7% NCREIF Property, 1.7% NCREIF Property +2%, 0.6% CPI +5%, 5% BBgBarc US High Yield +2%, 14% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. All data is preliminary.

# Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: July 31, 2017

|   | Market Value       | % of Portfolio | 1 Mo       | YTD        | Fiscal YTD |
|---|--------------------|----------------|------------|------------|------------|
| DFA   | 263,930,234        | 13.1           | --         | --         | --         |
| <i>BofA Merrill Lynch US Corp &amp; Gov 1-5 Yrs</i> |                    |                | --         | --         | --         |
| Northern Trust Intermediate Gov't Bond              | 43,765,618         | 2.2            | --         | --         | --         |
| <i>BBgBarc US Govt/Credit Int TR</i>                |                    |                | --         | --         | --         |
| Northern Trust Long Term Gov't Bond                 | 14,649,566         | 0.7            | --         | --         | --         |
| <i>BBgBarc US Govt/Credit Long TR</i>               |                    |                | --         | --         | --         |
| <b>Real Estate</b>                                  | <b>138,028,183</b> | <b>6.9</b>     | <b>0.2</b> | <b>4.0</b> | <b>0.2</b> |
| <i>DJ US Select RESI</i>                            |                    |                | 0.9        | 2.3        | 0.9        |
| Prime Property Fund                                 | 17,599,725         | 0.9            | 0.0        | 4.2        | 0.0        |
| <i>NCREIF-ODCE</i>                                  |                    |                | 0.0        | 3.5        | 0.0        |
| American Strategic Value Realty                     | 22,166,437         | 1.1            | 0.0        | 5.3        | 0.0        |
| <i>NCREIF Property Index</i>                        |                    |                | 0.0        | 3.3        | 0.0        |
| BlackRock US Real Estate                            | 85,444,701         | 4.2            | 0.9        | 2.3        | 0.9        |
| <i>DJ US Select RESI TR USD</i>                     |                    |                | 0.9        | 2.3        | 0.9        |
| Greenfield Gap                                      | 12,817,321         | 0.6            |            |            |            |
| <b>Direct Lending</b>                               | <b>96,580,267</b>  | <b>4.8</b>     |            |            |            |
| Medley Capital                                      | 22,996,174         | 1.1            |            |            |            |
| Raven Capital                                       | 15,453,392         | 0.8            |            |            |            |
| Raven Opportunity III                               | 22,167,651         | 1.1            |            |            |            |
| White Oak Pinnacle                                  | 35,963,051         | 1.8            |            |            |            |
| <b>Infrastructure</b>                               | <b>19,142,549</b>  | <b>1.0</b>     |            |            |            |
| MS Infrastructure Partners II                       | 19,142,549         | 1.0            |            |            |            |
| Cash Account  | 19,659,490         | 1.0            | 0.1        | 0.6        | 0.1        |

|                       | Current                | %             | Policy                 | %             |
|-----------------------|------------------------|---------------|------------------------|---------------|
| Domestic Equity       | \$878,699,277          | 43.7%         | \$482,533,666          | 24.0%         |
| International Equity  | \$431,364,679          | 21.5%         | \$482,533,666          | 24.0%         |
| Domestic Fixed Income | \$427,082,496          | 21.2%         | \$442,322,527          | 22.0%         |
| Real Estate           | \$138,028,183          | 6.9%          | \$188,992,353          | 9.4%          |
| Alternatives          | \$115,722,816          | 5.8%          | \$394,069,161          | 19.6%         |
| Cash and Equivalents  | \$19,659,490           | 1.0%          | \$20,105,569           | 1.0%          |
| <b>Total</b>          | <b>\$2,010,556,942</b> | <b>100.0%</b> | <b>\$2,010,556,942</b> | <b>100.0%</b> |



Policy Index (7/1/2017): 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 7.7% NCREIF Property, 1.7% NCREIF Property +2%, 0.6% CPI +5%, 5% BBgBarc US High Yield +2%, 14% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. Cash Account includes cash held at Northern Trust for all closed end funds and cash held by BlackRock. All data is preliminary.



# **PERSPECTIVES** THAT DRIVE ENTERPRISE SUCCESS



**PERIOD ENDING: JUNE 30, 2017**

Investment Performance Review for

**Stanislaus County Employees' Retirement Association**

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Investment Landscape

TAB I

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Investment Performance  
Review

TAB II





**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

3<sup>RD</sup> QUARTER 2017  
Investment Landscape



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# 2<sup>nd</sup> quarter summary

## THE ECONOMIC CLIMATE

- Developed and emerging economies have exhibited coordinated positive growth for the first time in this recovery. Absolute growth remains subdued relative to history. [p. 15](#)
- Economic releases have begun to miss expectations in the U.S. and U.K. after much upside surprise. The Eurozone continued to deliver positive surprises, but by a smaller margin. Heightened expectations help to explain some of the recent data disappointment. [p. 10](#)
- Despite a healthy economy and longer than average expansion there is little indication of overheating in the U.S. This suggests the current expansion may have more room to run. [p. 7](#)

## MARKET PORTFOLIO IMPACTS

- Treasury yields fell slightly over the quarter. [p. 19](#)
- Credit spreads are tight, implying limited upside performance potential. U.S. credit markets have stabilized from recent defaults in the energy and metals/mining sectors. [p. 20](#)

## THE INVESTMENT CLIMATE

- Central banks communicated a more hawkish tone across developed markets. The Fed announced plans for balance sheet reduction, the ECB is expected to reduce easing starting next year, and Mark Carney of the BOE indicated he is receptive to tightening under the right conditions. Central bank governors have shown less concern over the recent decline in inflation than in the past. [p. 18](#)
- U.S. equities are expected to deliver robust earnings growth in Q2 of 6.8% YoY. Energy sector earnings have provided much of this improvement after a challenging period a year ago. [p. 30](#)

## ASSET ALLOCATION ISSUES

- Earnings growth beat expectations in recent quarters leading to a broad fall in equity price-to-earnings multiples, causing equities to become more attractive. [p. 29](#)
- Realized and implied market volatility is at historic lows across assets classes. This could be a sign of market complacency. [p. 31](#)

We maintain  
a neutral to  
slightly  
overweight  
risk stance

# What drove the market in Q2?

## “Bonds Continue Decline as Central Banks Signal Waning Stimulus”

### 10-YEAR GOVERNMENT YIELDS (%)

| U.S.                |                     | U.K.                |                     | Germany             |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Jun 1 <sup>st</sup> | Jul 7 <sup>th</sup> | Jun 1 <sup>st</sup> | Jul 7 <sup>th</sup> | Jun 1 <sup>st</sup> | Jul 7 <sup>th</sup> |
| 2.21                | 2.38                | 1.07                | 1.31                | 0.30                | 0.57                |

Article Source: New York Times, June 30<sup>th</sup> 2017

## “Investors Look to Global Growth for Earnings Power”

### EQUITY EARNINGS GROWTH BY REGION (YOY)

| ACWI ex U.S. | U.S. | Emerging Markets |
|--------------|------|------------------|
| 12.0%        | 8.8% | 18.5%            |

Article Source: Reuters, April 7<sup>th</sup> 2017

## “Dollar Has Worst Week in Over a Year Amid Political Uncertainty”

### USD TRADE WEIGHTED INDEX

| Jan 31 <sup>st</sup> | Feb 28 <sup>th</sup> | Mar 31 <sup>st</sup> | Apr 30 <sup>th</sup> | May 31 <sup>st</sup> | Jun 30 <sup>th</sup> |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 127                  | 126                  | 124                  | 124                  | 123                  | 122                  |

Article Source: Reuters, May 19<sup>th</sup> 2017

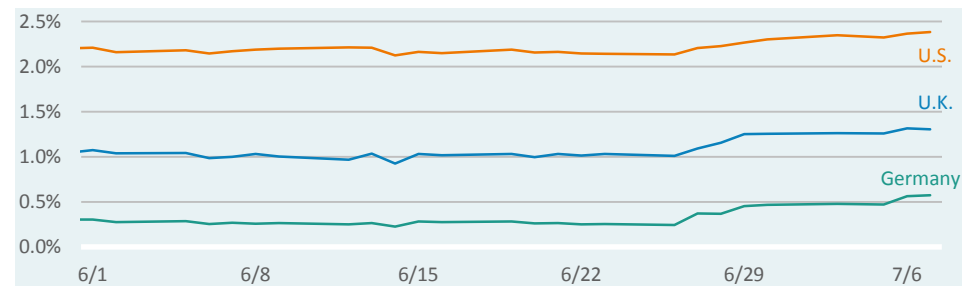
## “Tumbling U.S. Inflation Expectations Challenge the Fed”

### 10-YEAR BREAK-EVEN INFLATION RATE (%)

| Jan 31 <sup>st</sup> | Feb 28 <sup>th</sup> | Mar 31 <sup>st</sup> | Apr 30 <sup>th</sup> | May 31 <sup>st</sup> | Jun 30 <sup>th</sup> |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 2.1                  | 2.0                  | 2.0                  | 1.9                  | 1.8                  | 1.7                  |

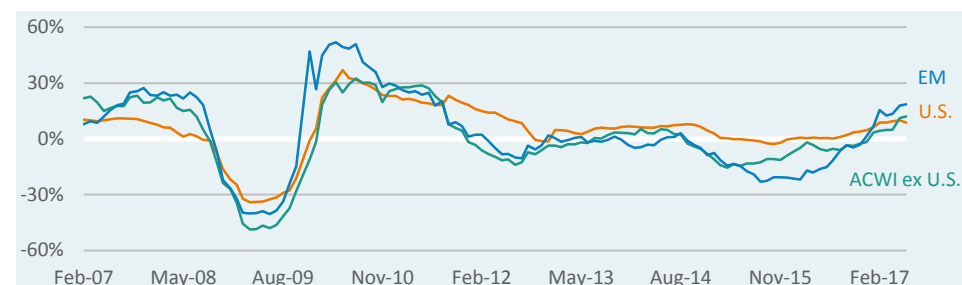
Article Source: Financial Times, June 15<sup>th</sup> 2017

### DEVELOPED 10-YEAR YIELDS



Source: Bloomberg, 7/7/17

### EARNINGS GROWTH (YOY)



Source: Bloomberg, as of 6/30/17

### USD TRADE WEIGHTED INDEX



Source: FRED, as of 6/28/17

# Economic environment

# U.S. economics summary

- U.S. real GDP grew 2.1% YoY in Q1, on par with the level of economic expansion in recent quarters. Consumer spending and business investment were the primary drivers of growth.
- Headline inflation decelerated from 2.4% in February to 1.6% in June. The slowdown was partially influenced by the effect of lower oil prices falling out of the year-over-year calculation, but the fall in price level was not solely due to energy. Lower telecom prices helped lead to a drop in core CPI, which fell from 2.0% to 1.7%.
- For a third consecutive quarter, the Fed raised the target federal funds rate by 25 bps. FOMC members looked past the recent soft patch in inflation and cited improving overall economic conditions.
- The Fed also released details on its balance sheet normalization plan, although timing remains unclear. Once the program begins, \$6 billion in Treasuries and \$4 billion in mortgage-backed securities will roll off the balance sheet each month. These amounts will increase every three months until a total cap of \$50 billion per month is reached.
- The economy added 194,000 jobs per month in the second quarter, on average. This marks the best quarter for job growth since the second quarter of 2010. Many of these jobs have been created in lower paying sectors such as leisure and hospitality, which may be helping to keep overall wage growth subdued.

|  | Most Recent      | 12 Months Prior  |
|--|------------------|------------------|
| GDP ( <i>annual YoY</i> )                        | 2.1%<br>3/31/17  | 1.6%<br>3/31/16  |
| Inflation<br>( <i>CPI YoY, Headline</i> )        | 1.6%<br>6/30/17  | 0.9%<br>6/30/16  |
| Expected Inflation<br>( <i>5yr-5yr forward</i> ) | 1.8%<br>6/30/17  | 1.5%<br>6/30/16  |
| Fed Funds Rate                                   | 1.25%<br>6/30/17 | 0.50%<br>6/30/16 |
| 10 Year Rate                                     | 2.3%<br>6/30/17  | 1.5%<br>6/30/16  |
| U-3 Unemployment                                 | 4.4%<br>6/30/17  | 4.9%<br>6/30/16  |
| U-6 Unemployment                                 | 8.6%<br>6/30/17  | 9.6%<br>6/30/16  |

# U.S. economics – GDP growth

Real GDP grew 2.1% YoY in Q1 (1.4% quarterly annualized rate), slightly below expectations. First quarter growth has disappointed over the past few years, and investors seemed to overlook this release as second quarter growth forecasts were revised upward.

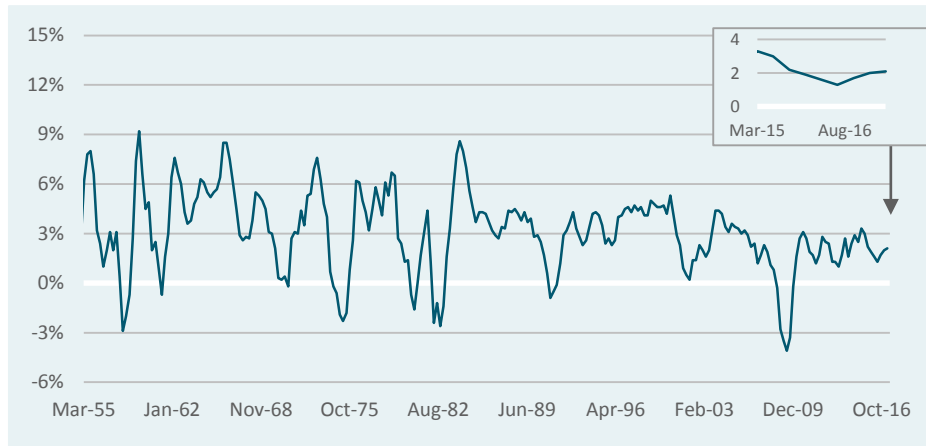
Personal consumption cooled in the first quarter, but was still a positive contributor to GDP. A temporary decline in utilities spending from milder winter weather across the country contributed to the softer growth.

Business investment increased the most in more than three years, and was the largest contributor to growth, suggestive of a rise in business confidence as companies put cash to work. Slower accumulation of private inventories was the largest detractor from GDP.

Economists are forecasting moderate economic growth throughout the rest of the year. Fundamentals for consumers and businesses remain strong even as the Fed is gradually tightening monetary policy.

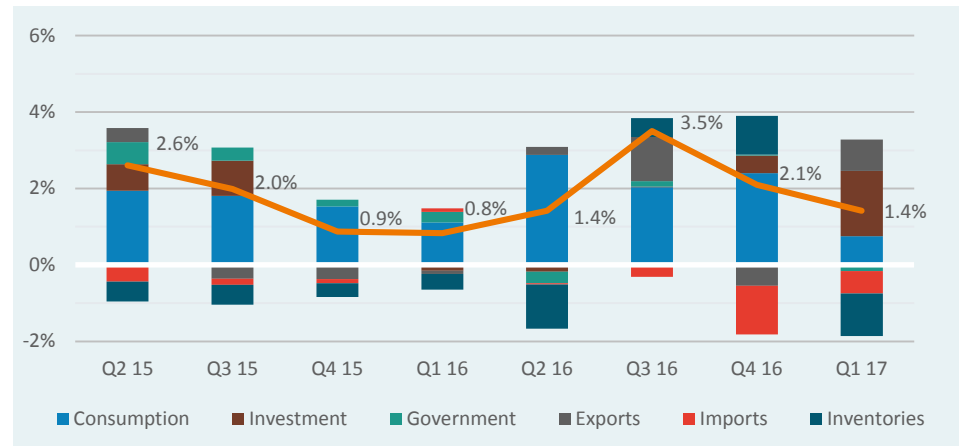
The trend of steady, moderate growth was sustained in Q1

U.S. REAL GDP GROWTH (YOY)



Source: FRED, as of 3/31/17

U.S. GDP COMPONENTS



Source: BEA, annualized quarterly rate, as of 3/31/17



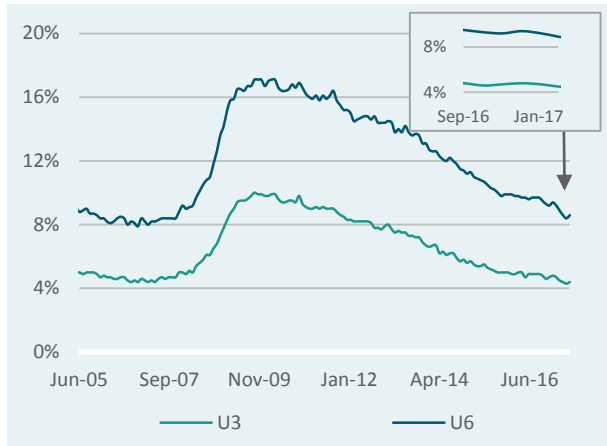
# U.S. economics – Labor market

Although low unemployment suggests a tight labor market, the economy still added jobs at a solid pace. Payrolls added an average of 194,000 jobs per month during the second quarter, compared to the expansion average of 198,000. The headline unemployment rate dropped 0.1% to 4.4%, and the broader U-6 unemployment rate fell 0.3% to 8.6%. The U-6 rate, which includes discouraged workers, has come down materially since the beginning of the year as people have reentered the labor force and been able to find work.

Despite low unemployment and other indicators of a tight labor market, workers have yet to experience strong wage gains. Average hourly earnings rose 2.5% on a nominal basis from the previous year and 0.6% on a real basis. Historically, wage growth has been higher during similar times of low unemployment. Mild wage growth is likely tied to the inflow of previously discouraged, less skilled, and less productive workers into the workforce. As these workers begin to participate in the economy they may provide continuing support for expansion.

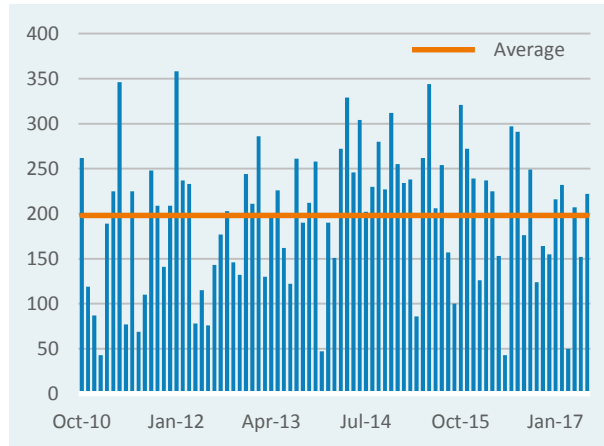
Job growth has been strong, while wages have seen less improvement

U.S. UNEMPLOYMENT



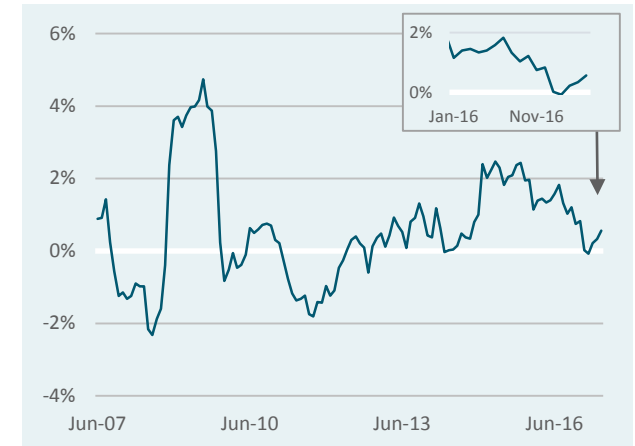
Source: FRED, as of 6/30/17

CHANGE IN NONFARM PAYROLLS (THOUSANDS)



Source: FRED, as of 6/30/17

REAL AVERAGE HOURLY EARNINGS (YOY)



Source: FRED, as of 5/31/17

# U.S. economics – The consumer

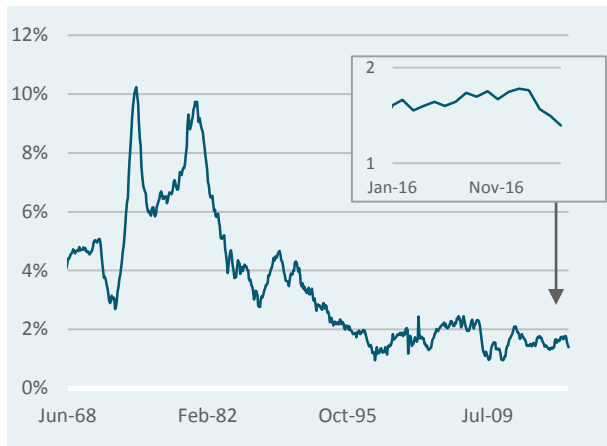
Consumer spending growth has slowed slightly this year, but is within a normal range. The move was partially due to a temporary decline in utilities expenditures. Despite the recent cooling, the fundamental picture for consumers is still positive. Low inflation, low unemployment, and moderate wage gains should provide a backdrop for further spending growth even though it appears less likely that the post-election jump in consumer sentiment will translate into a large increase in spending.

In addition, households have experienced a significant deleveraging over the past few years, and consumers have used credit sparingly in this cycle relative to history. Healthy balance sheets and a low interest burden should also support moderate spending in the future.

A potential risk to the consumer is that borrowing costs such as credit card, auto and student loan interest rates, are expected to rise along with Fed monetary tightening. This will act as a headwind to income and spending, but at this point these borrowing rates have only experienced a slight increase.

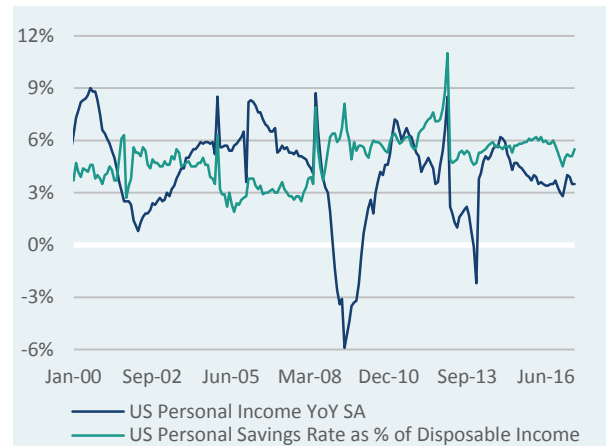
Consumer spending has cooled, but is still an important contributor to growth

CONSUMER SPENDING (YOY GROWTH)



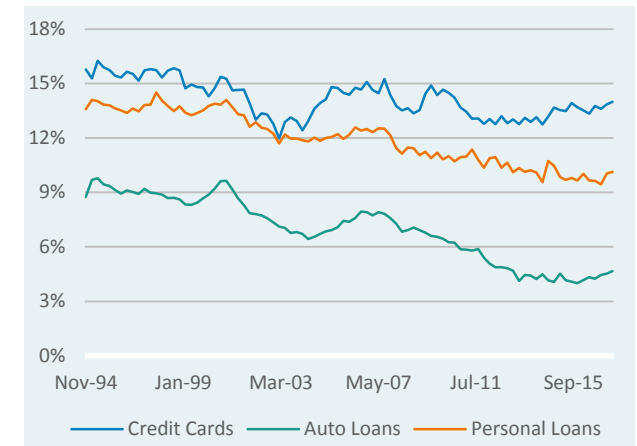
Source: Bloomberg, as of 5/31/17

SAVINGS & INCOME (YOY)



Source: FRED, as of 5/31/17

CONSUMER INTEREST RATES



Source: FRED, as of 5/31/17

# U.S. economics – Sentiment

Consumer sentiment indicators have trended downward from post-election highs, but remain elevated from a historical perspective. The University of Michigan Consumer Sentiment Index, which tracks both consumers' perception of current conditions and expectations of future conditions, fell from 96.9 to 95.1 during the quarter, its lowest level since the election.

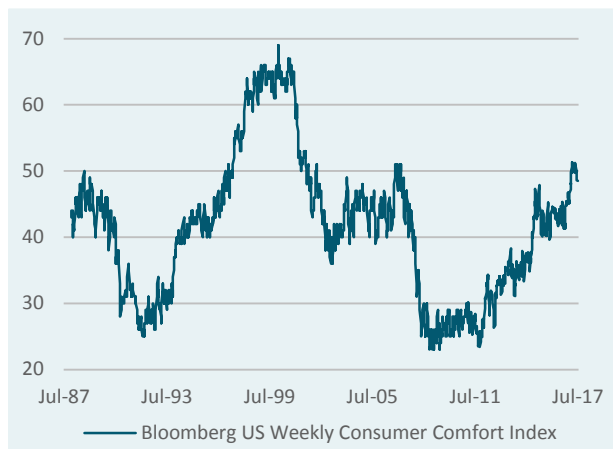
Weakened confidence was fueled by uncertainty surrounding fiscal policies, as reported by the University of Michigan Sentiment Survey. Consumers expect a low likelihood of successful policy implementation. Progress

from the Trump administration on these policies could lead to a positive surprise.

In aggregate, U.S. economic data came in below expectations during the quarter as the Citi Economic Surprise Index fell from 48 to -73. Although the drop is somewhat concerning, this indicator tends to be mean-reverting in nature and some of the decline should be expected. A positive (negative) reading of the Economic Surprise Index suggests that economic releases have on balance been beating (missing) consensus.

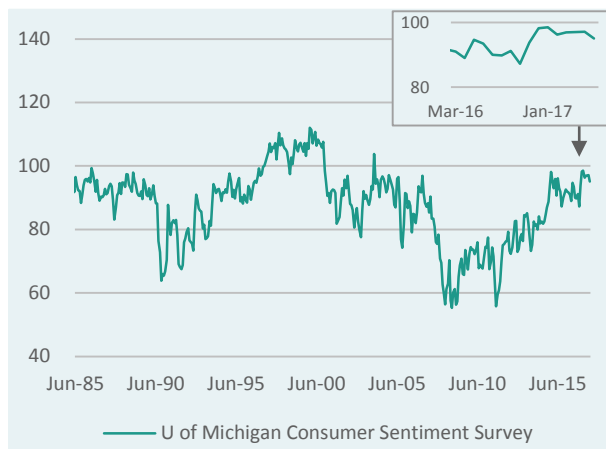
Consumer sentiment has faded since the post-election peak

**CONSUMER COMFORT INDEX**



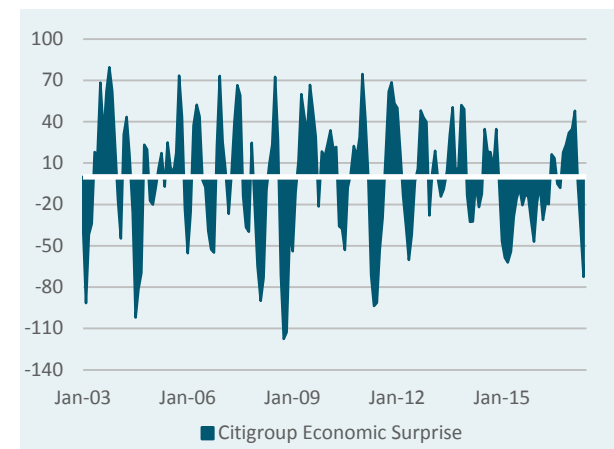
Source: Bloomberg, as of 7/2/17 (see Appendix)

**CONSUMER SENTIMENT**



Source: University of Michigan, as of 6/30/17 (see Appendix)

**U.S. ECONOMIC SURPRISE**



Source: Bloomberg, as of 6/30/17 (see Appendix for details)

# U.S. economics – Housing

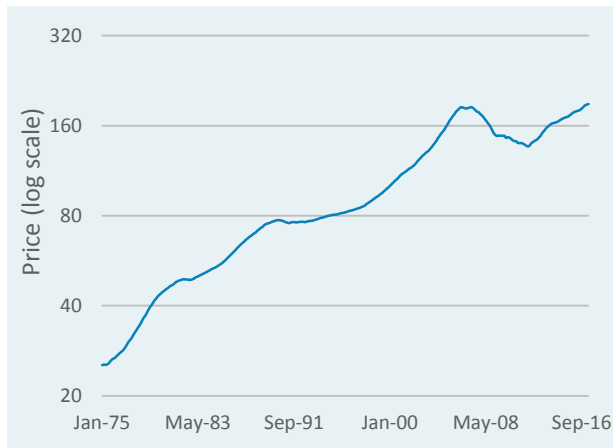
Single family home prices increased at a steady rate amid strong demand and low supply. Over the past 12 months, the Case-Shiller National Home Price Index rose 5.5%. Seattle, Portland, and Dallas reported the highest yearly growth among the top 20 metropolitan areas.

Tighter mortgage lending standards by banks have led to a higher quality pool of borrowers than in the previous real estate cycle. In addition to tighter lending standards, household deleveraging and lower interest rates have

been important drivers of lower delinquency and default rates. Mortgage rates spiked following the election, but have since come down slightly.

Housing starts and permits declined throughout the quarter, indicating a slowing of construction activity that could weigh on economic growth. The market is already constrained by low supply, and if new construction were to decline further, it may add upward pressure to housing prices.

**CASE-SHILLER HOME PRICE INDEX**



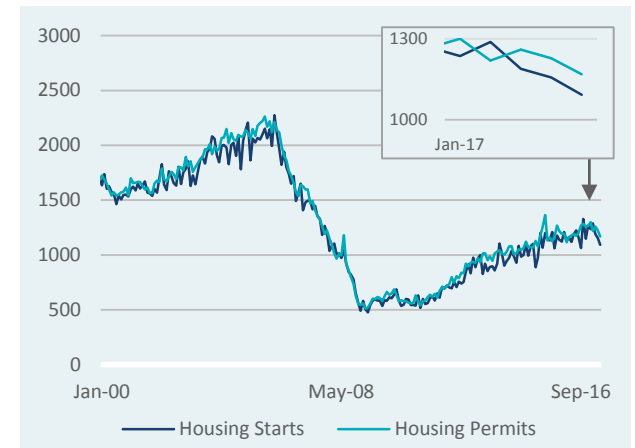
Source: FRED, as of 4/30/17

**30-YEAR MORTGAGE RATE**



Source: FRED, as of 7/6/17

**HOUSING STARTS AND PERMITS**



Source: FRED, as of 5/31/17

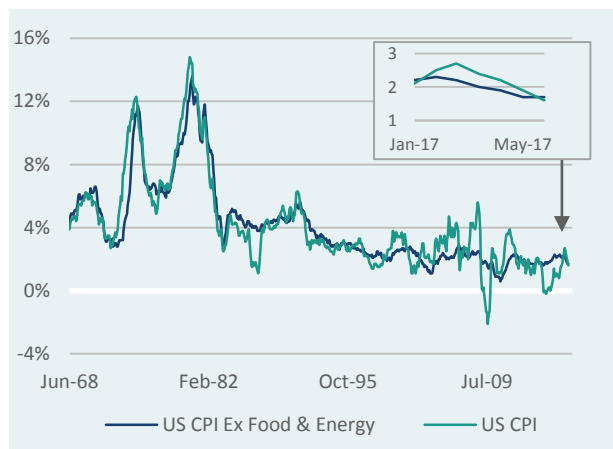
# U.S. economics – Inflation

Inflation decelerated during the quarter, falling back below the Fed's target of 2%. Headline CPI fell 0.8% to 1.6% and core CPI (ex food and energy) declined 0.3% to 1.7%. Much of the decline in the headline number was due to lower energy prices, though weakness in telecommunication, apparel, and health care prices also contributed to lower inflation. In her testimony to the Senate, Janet Yellen acknowledged the recent weakness in inflation as a concern, but said she still believes price levels will move gradually higher to reach the Fed's target. Further softness in inflation could give the Fed pause when considering additional tightening.

Lower realized inflation, which missed estimates for three consecutive months, helped lead the market to reprice inflation expectations. The 10-year TIPS breakeven inflation rate fell from 2.0% in March to 1.7% in June. Market-based inflation expectations are low compared to history, and participants may simply be naively projecting the current low inflation environment into the future. Late stage cyclical conditions including moderate economic expansion and a tightening labor market could place gradual pressure on inflation.

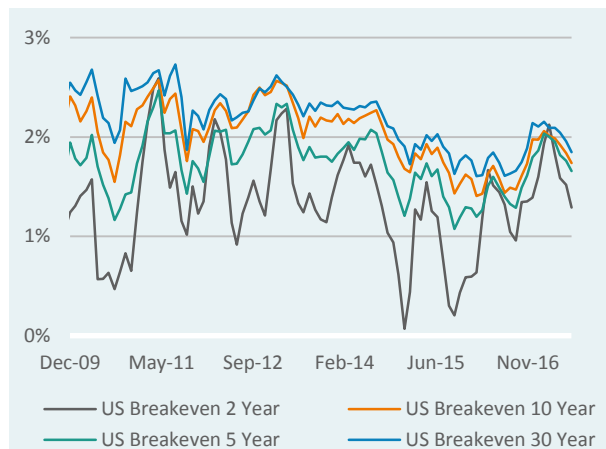
**Inflation decelerated in the second quarter**

**U.S. CPI (YOY)**



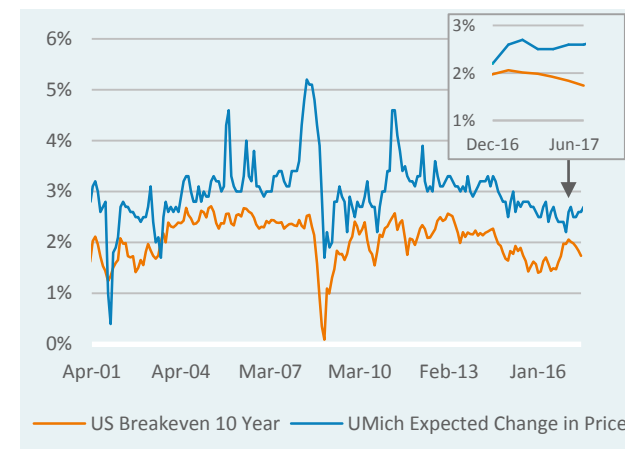
Source: FRED, as of 6/30/17

**U.S. TIPS BREAKEVEN RATES**



Source: FRED, as of 6/30/17

**INFLATION EXPECTATIONS**



Source: Bloomberg, as of 6/30/17

# International economics summary

- Developed and emerging economies have exhibited coordinated positive growth momentum from low absolute growth rates relative to history. A continuation of this trend may be self reinforcing, lifting weak and strong economies alike.
- Economic releases have missed expectations in the U.S. and U.K. after extended upside surprise. The Eurozone has delivered positive surprise, but by a smaller margin.
- Oil further contributed to commodity underperformance due to oversupply, disagreements within OPEC regarding production cuts, and concerns over the magnitude of U.S. production.
- Developed world inflation remained within a normal range, though slightly below levels targeted by central banks.
- In May, Emmanuel Macron defeated Marine Le Pen in the French presidential election, calming fears over populist politics gaining an increased foothold in Europe.
- On June 8th, the U.K. held a snap election in which the Conservative party surprised polls and gave up their majority in Parliament, potentially weakening their position in the upcoming Brexit negotiations.
- On June 27th, ECB President Mario Draghi surprised markets with comments perceived as hawkish compared to previous comments. In the following two days the Euro appreciated 2.3% against the U.S. dollar and developed global rates moved upward - German bunds in particular.

| Area           | GDP<br>(Real, YoY) | Inflation<br>(CPI, YoY) | Unemployment     |
|----------------|--------------------|-------------------------|------------------|
| United States  | 2.1%<br>3/31/17    | 1.6%<br>6/30/17         | 4.4%<br>6/30/17  |
| Western Europe | 1.8%<br>3/31/17    | 1.3%<br>6/30/17         | 8.1%<br>3/31/17  |
| Japan          | 1.3%<br>3/31/17    | 0.4%<br>5/31/17         | 3.1%<br>5/31/17  |
| BRICS Nations  | 5.4%<br>3/31/17    | 2.3%<br>3/31/17         | 5.6%<br>12/31/16 |
| Brazil         | (0.4%)<br>3/31/17  | 3.0%<br>6/30/17         | 13.5%<br>6/30/17 |
| Russia         | 0.5%<br>3/31/17    | 4.4%<br>6/30/17         | 5.5%<br>3/31/17  |
| India          | 6.1%<br>3/31/17    | 2.2%<br>5/31/17         | 8.4%<br>12/31/16 |
| China          | 6.9%<br>3/31/17    | 1.5%<br>5/31/17         | 4.0%<br>12/31/16 |



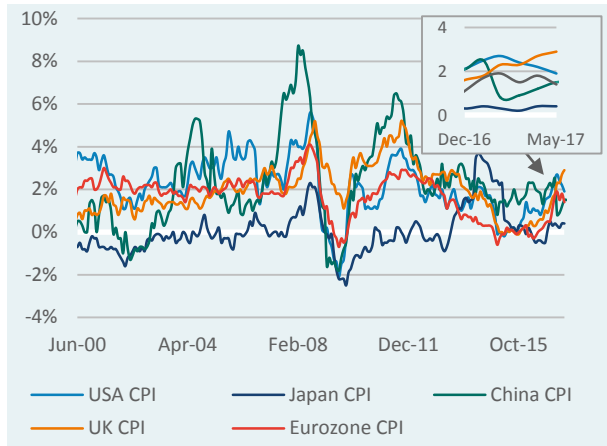
# International economics

Eurozone CPI was 1.3% YoY in June, arguably within the bounds of the European Central Bank mandate “...to maintain inflation rates below, but close to, 2% over the medium term.” Inflation below 2% likely implies a more dovish central bank stance.

Japan CPI remained low at 0.4% YoY in May. Bank of Japan Governor Haruhiko Kuroda explained in June that “...there is still a long way to go until the price stability target of 2 percent is achieved.” The Bank of Japan maintains its aggressive stimulus policy which separates the bank from those of other developed economies.

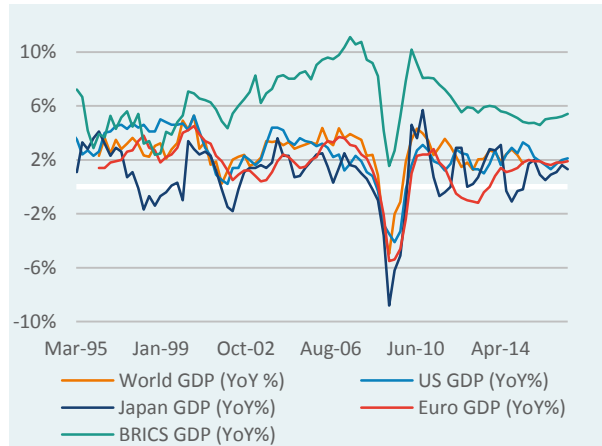
Employment has improved markedly across the globe, recovering to pre-crisis levels in most economies. Europe remains the exception in terms of aggregate employment, with labor markets displaying disparate levels of health from one country to the next. Core countries such as Germany and France have experienced a much greater fall in unemployment than periphery countries such as Spain and Italy.

## INTERNATIONAL INFLATION



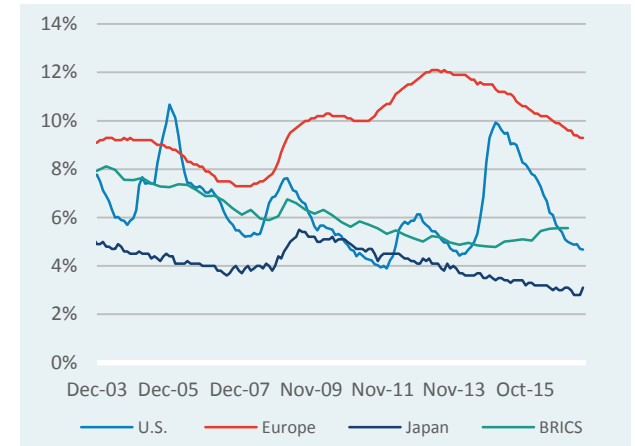
Source: Bloomberg, as of 5/31/17

## REAL GDP GROWTH



Source: Bloomberg, as of 3/31/17

## GLOBAL UNEMPLOYMENT



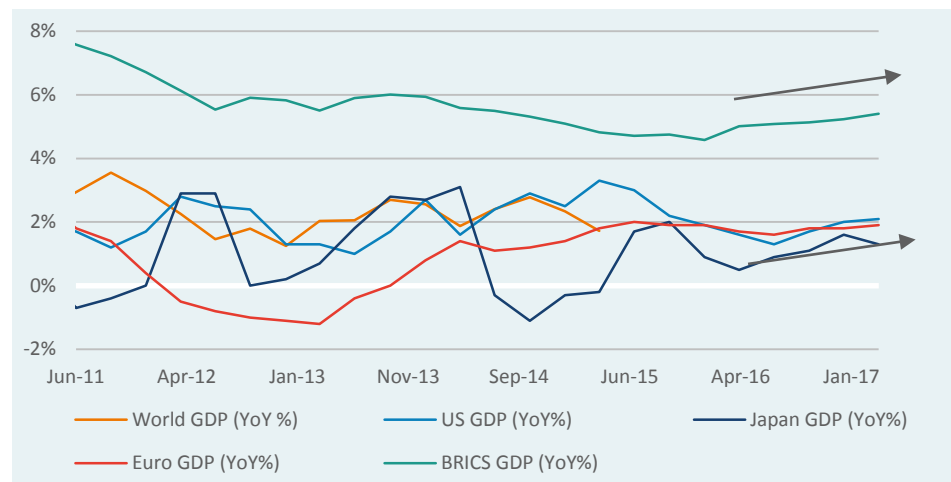
Source: Bloomberg, as of 5/31/17 or most recent release

# Synchronized global growth

Developed and emerging economies have begun to accelerate. A confluence of low inflation, higher employment (but weak wage pressure), improving consumer/business sentiment, and relatively accommodative central bank policy may lead to a unified global expansion. We expect that this trend would deliver outsized gains to open, export-focused economies. Emerging markets may be noteworthy beneficiaries within this environment, as these economies tend to be highly exposed to global growth trends.

The U.S. economy is arguably further along in its economic cycle than other economies; however, it is important to note that American corporations derive a significant portion of sales from overseas. S&P 500 foreign sales make up more than one third of total index revenue. U.S. corporations could participate substantially in global growth despite a more mild domestic expansion scenario.

## REAL GDP GROWTH



Source: Bloomberg, as of 3/31/17

## GLOBAL PMI

|                                | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <strong>Manufacturing</strong> |        |        |        |        |        |        |        |        |        |        |        |        |
| Global                         | 51     | 51     | 51     | 52     | 52     | 53     | 53     | 53     | 53     | 53     | 53     | 53     |
| Developed                      | 52     | 51     | 52     | 53     | 53     | 54     | 54     | 54     | 54     | 54     | 54     | 54     |
| US                             | 52     | 49     | 52     | 52     | 54     | 55     | 56     | 58     | 57     | 55     | 55     | 58     |
| Eurozone                       | 52     | 52     | 53     | 54     | 54     | 55     | 55     | 55     | 56     | 57     | 57     | 57     |
| Japan                          | 49     | 50     | 50     | 51     | 51     | 52     | 53     | 53     | 52     | 53     | 53     | 52     |
| EM                             | 50     | 50     | 50     | 51     | 51     | 51     | 51     | 51     | 52     | 51     | 51     | 51     |
| <strong>Services</strong>      |        |        |        |        |        |        |        |        |        |        |        |        |
| Global                         | 52     | 52     | 52     | 53     | 53     | 53     | 54     | 53     | 54     | 54     | 54     | 54     |
| Developed                      | 51     | 52     | 52     | 54     | 54     | 54     | 55     | 54     | 54     | 54     | 54     | 55     |
| US                             | 55     | 52     | 57     | 55     | 56     | 57     | 57     | 58     | 55     | 58     | 57     | 57     |
| Eurozone                       | 53     | 53     | 52     | 53     | 54     | 54     | 54     | 56     | 56     | 56     | 56     | 55     |
| Japan                          | 50     | 50     | 48     | 51     | 52     | 52     | 52     | 51     | 53     | 52     | 53     | 53     |
| EM                             | 53     | 53     | 52     | 53     | 54     | 54     | 54     | 56     | 56     | 56     | 56     | 55     |

Source: Bloomberg, as of 6/30/17 – (blue stronger / orange weaker)

# Fixed income rates & credit

# Interest rate environment

- On June 14th, the Federal Reserve raised the federal funds rate by 25 bps to a target range of 1.00% - 1.25%.
- The Fed's own forecast indicates one more rate hike this year, and three more hikes in each of the next two years. Rates are expected to normalize at 3% at the end of 2019. We believe the probability that the Fed undershoots its target is significant, given persistent low inflation and a high degree of risk if policy is tightened too quickly.
- The Fed announced plans to begin reducing their balance sheet sometime this year. The initial plan is to runoff \$6 billion of Treasuries and \$4 billion of mortgage-backed securities per month. This will be scaled up commensurately every 3 months to \$50 billion per month.
- Markets expect the ECB to reduce monetary easing gradually throughout 2018, with a tapering plan announcement this fall.
- In May, the Bank of Japan raised its economic forecasts. The central bank implemented a "yield curve control" policy at its September meeting along with a mandate to keep the 10-year yield at 0%. The BoJ plans to maintain an easy stance until inflation hits its 2% target.
- Credit spreads remain broadly tight. Spread levels have historically been a strong predictor of credit performance relative to Treasuries, which at current levels implies muted future performance.
- We favor emerging market debt due to higher yields relative to other bond markets.

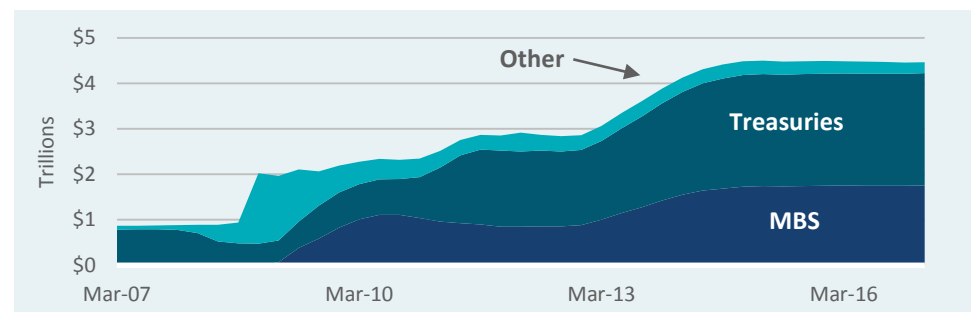
| Area          | Short Term (3M) | 10 Year |
|---------------|-----------------|---------|
| United States | 1.01%           | 2.30%   |
| Germany       | (0.82%)         | 0.47%   |
| France        | (0.60%)         | 0.82%   |
| Spain         | (0.44%)         | 1.54%   |
| Italy         | (0.38%)         | 2.16%   |
| Greece        | 2.43%           | 5.42%   |
| U.K.          | 0.17%           | 1.26%   |
| Japan         | (0.10%)         | 0.09%   |
| Australia     | 1.63%           | 2.73%   |
| China         | 2.63%           | 3.57%   |
| Brazil        | 9.41%           | 10.54%  |
| Russia        | 8.16%           | 7.90%   |

Source: Bloomberg, as of 6/30/17

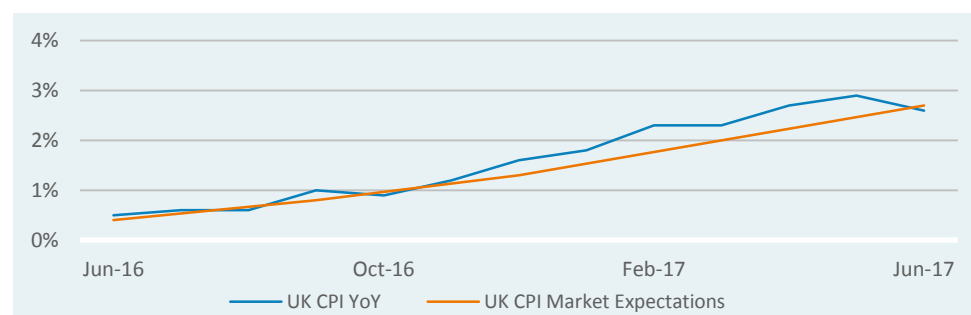
# Central bank confidence

- The U.S. Federal Reserve announced plans to begin reducing its balance sheet, which is expected to begin later this year. The initial plan is to runoff \$6 billion of Treasuries and \$4 billion of mortgage-backed securities per month. This will be scaled up commensurately every three months to a total of \$50 billion per month. Considering the Fed balance sheet has grown to \$4.5 trillion in size, it would take nearly seven years of uninterrupted runoff to fully unwind the balance sheet to the pre-crisis level. Central banks are likely aiming to build up more dry powder in order to address future economic downturns.
- Markets expect the ECB to announce a gradual tapering plan to its asset purchase program in the fall that will most likely begin sometime in 2018. More policy timing clues are anticipated from the ECB at the September 7<sup>th</sup> meeting.
- In the U.K., the argument for a rate hike is building after higher than expected inflation in May. This has likely contributed to recent British Pound appreciation. Mark Carney seems more receptive to rate hikes but has stated that business investment would need to grow to offset weaker consumer spending in order for him to push for a hike.
- The Bank of Japan announced that it would buy unlimited quantities of government bonds to keep yields from rising too far – recently this seems to be defined as 0.1% yield on the 10-year government bond. The bank plans to stick to policy until inflation hits the 2% target.

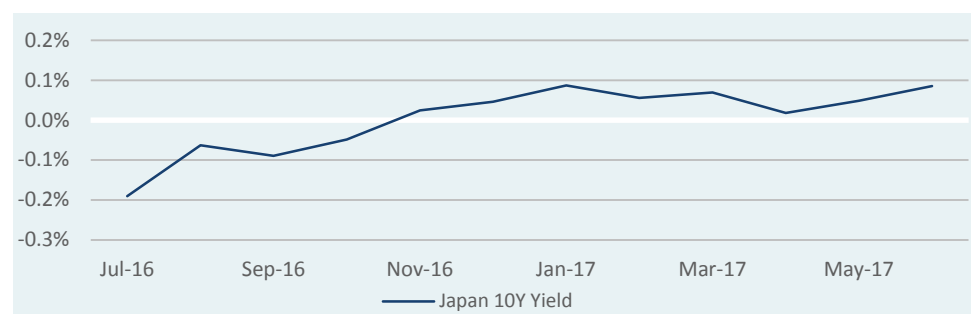
**FEDERAL RESERVE BALANCE SHEET**



**U.K. CPI YOY VS MARKET EXPECTATIONS**

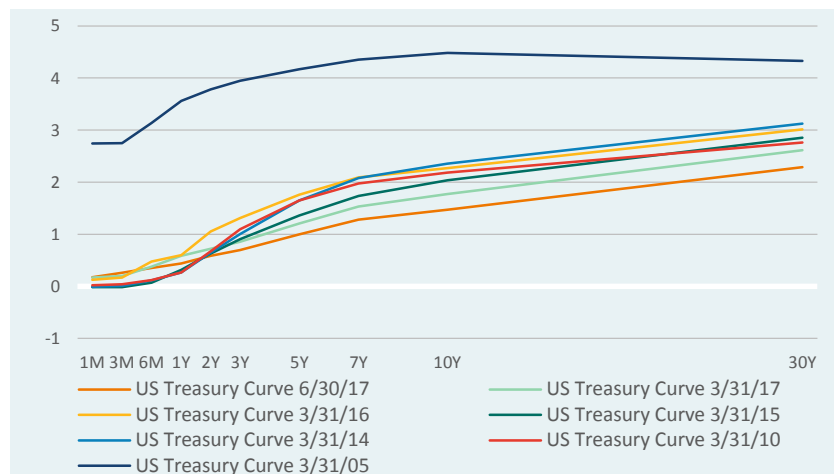


**JAPAN 10Y YIELD**

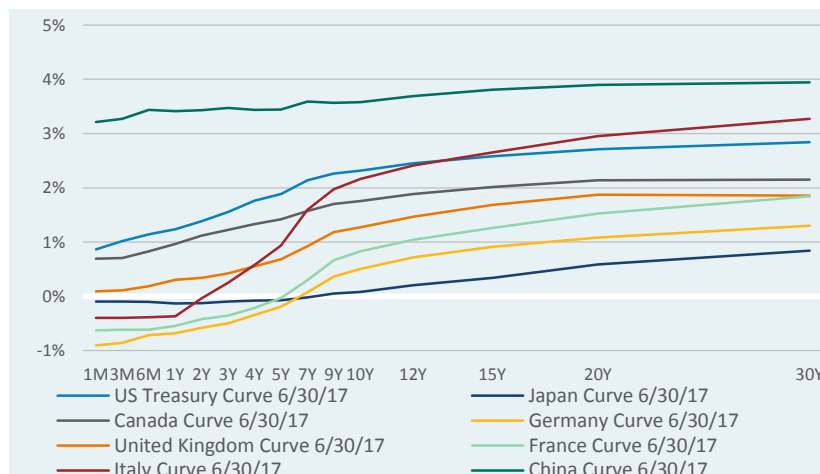


# Yield environment

U.S. YIELD CURVE

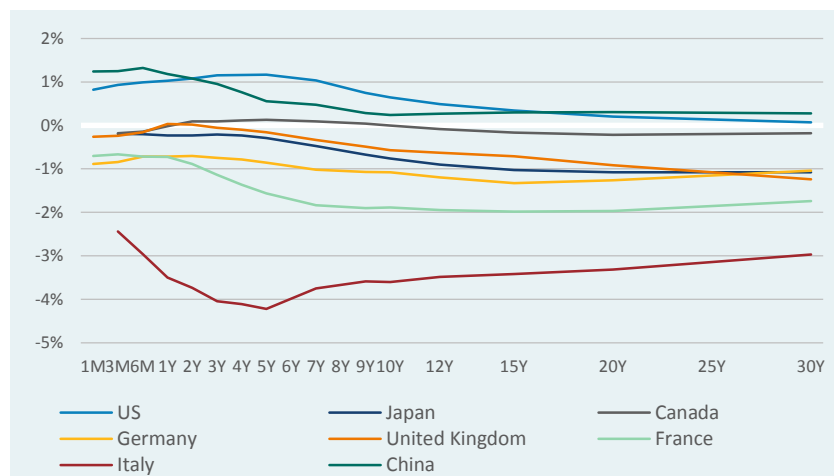


GLOBAL GOVERNMENT YIELD CURVES

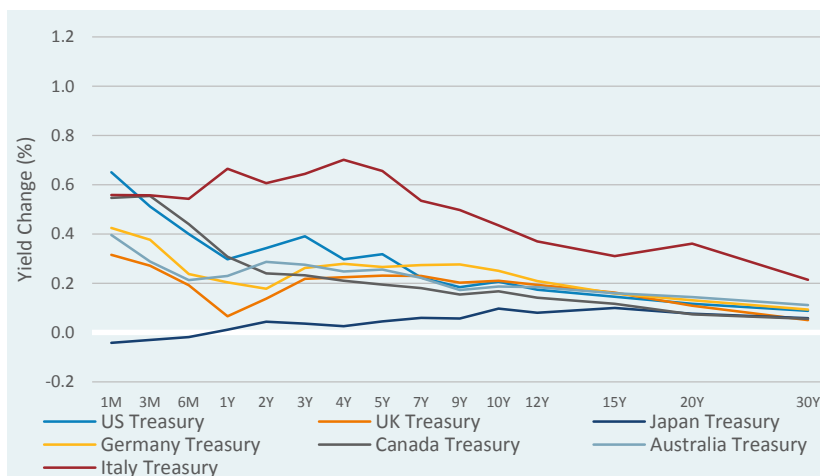


Across developed markets, U.S. Treasuries offer higher yields

YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/17

# Credit environment

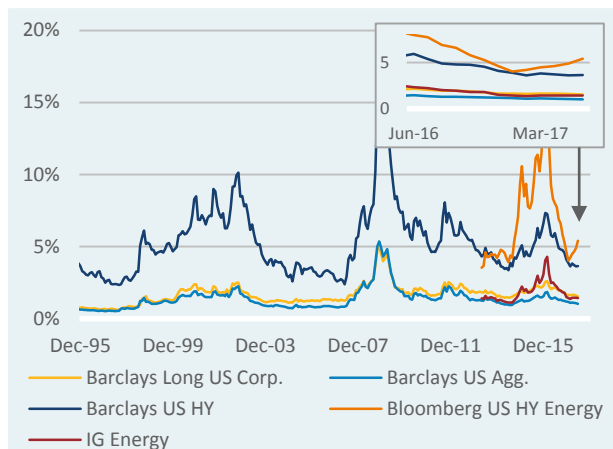
U.S. high yield option-adjusted spreads compressed in the second quarter to 3.6%, and the asset class generated a 2.2% total return (BBgBarc U.S. Corp. High Yield Index). High yield spreads are tighter than those of bank loans on a duration neutral basis.

The U.S. labor market remained strong, which helped the Fed to justify a rate increase of 0.25% in June. Investors continued to favor credit. A combination of tighter credit spreads and additional carry (greater yield) over Treasuries led credit to broadly outperform Treasuries in Q2. Spreads are near historic lows, though these levels

have been witnessed in later stages of previous credit cycles. Credit spreads have historically been a good indicator of future performance relative to Treasuries.

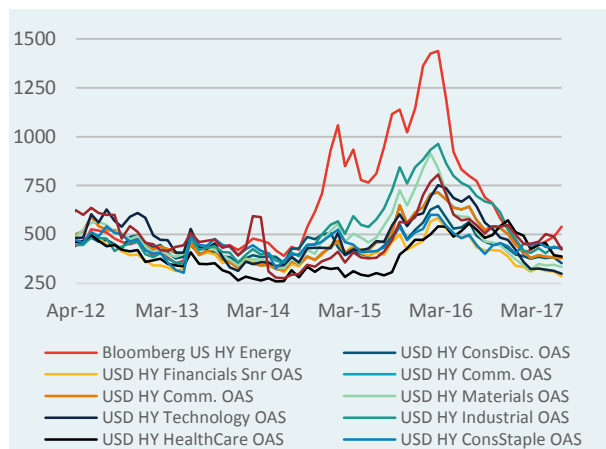
High yield energy spreads widened over the quarter to 5.4% - a very moderate rise relative to what was witnessed following the 2014 commodity drawdown. This lesser magnitude can be partly attributed to better credit ratings of companies in the index today. Additionally, innovation and technological gains have helped lower costs, which allows businesses to stay profitable at lower price levels.

## CREDIT SPREADS



Source: Barclays Capital Indices, Bloomberg, as of 6/30/17

## HIGH YIELD SECTOR SPREADS



Source: Bloomberg, as of 6/30/17

## SPREADS

| Market               | Credit Spread (6/30/17) | Credit Spread (1 Year Ago) |
|----------------------|-------------------------|----------------------------|
| Long US Corporate    | 1.6%                    | 2.2%                       |
| US Aggregate         | 1.1%                    | 1.6%                       |
| US High Yield        | 3.6%                    | 5.9%                       |
| US High Yield Energy | 5.4%                    | 8.0%                       |
| US Bank Loans        | 3.7%                    | 3.9%                       |

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/17

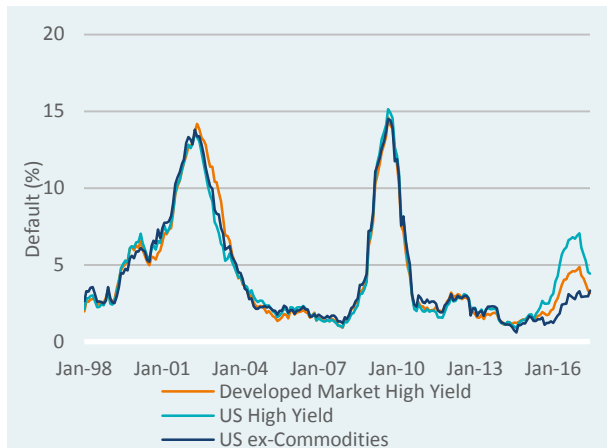
# Issuance and default

Both U.S. senior loan and high yield markets are stabilizing with the majority of par defaults last year coming from energy and metals/mining sectors. Rolling default rates should fall as commodity prices recover and commodity price-induced credit problems have a lesser impact on the credit universe. Active management may offer value to investors in the high yield space.

Global high yield and bank loan issuance has grown at a faster pace than what was seen last year. Lower spread levels have resulted in more attractive borrowing costs for these issuers. The direction of interest rates will likely impact future debt issuance levels.

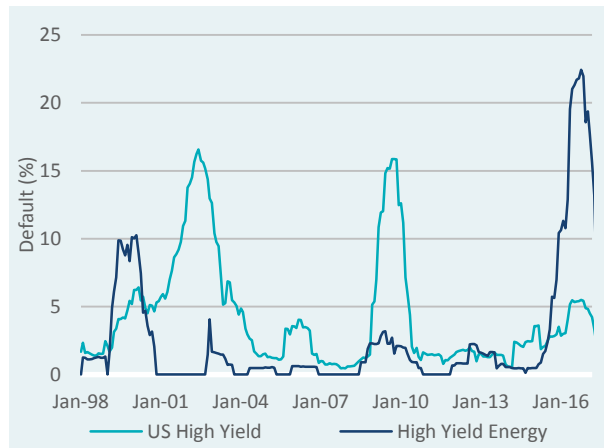
The effects of commodity related defaults are subsiding

HY DEFAULT TRENDS (ROLLING 1 YEAR)



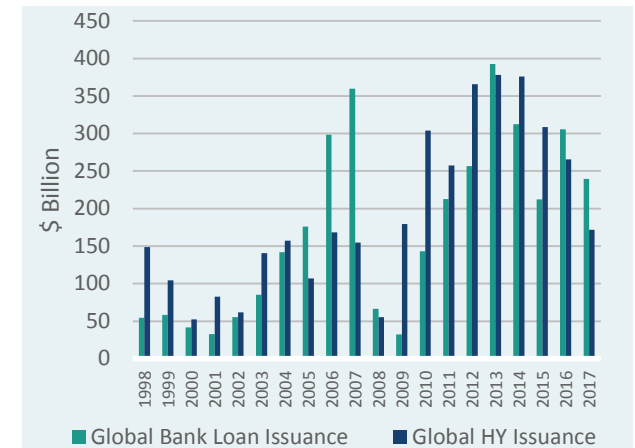
Source: BofA Merrill Lynch, as of 6/30/17

ENERGY DEFAULT TRENDS



Source: BofA Merrill Lynch, as of 6/30/17

GLOBAL ISSUANCE



Source: Bloomberg, BofA Merrill Lynch, as of 6/30/17



# Equity

# Equity environment

- We maintain a moderate overweight to equities with a preference for emerging markets due to attractive valuations and better growth prospects relative to developed markets.
- Global equity markets delivered another positive quarter, driven by strong earnings growth across regions. Earnings were strongest in Western Europe and emerging markets. These regions outperformed on a relative basis during the quarter.
- According to FactSet, the estimated Q2 earnings growth rate of the S&P 500 is 6.8% YoY. Energy companies are expected to contribute the most to overall growth due to stabilizing oil prices and a low earnings base one year ago.
- Increased uncertainty surrounding the Brexit negotiations following the Conservative party's surprise loss of a majority in Parliament likely helped lead to underperformance in U.K. equities. The FTSE 100 Index returned -4.9% in Q2.
- MSCI approved the inclusion of 222 mainland Chinese companies (China A Shares) into the MSCI Emerging Markets Index. This represents only a small portion of the overall market. Starting in 2018, these domestic shares will represent approximately 0.7% of the index. While initially this decision will have a minimal effect on index performance, it opens the door for additional China A shares to be added. If the entire market was included, it would represent 12.8% of the MSCI index.

|  | QTD TOTAL RETURN |          | YTD TOTAL RETURN |          | 1 YEAR TOTAL RETURN |          |
|--|------------------|----------|------------------|----------|---------------------|----------|
|  | (unhedged)       | (hedged) | (unhedged)       | (hedged) | (unhedged)          | (hedged) |
| US Large Cap (Russell 1000)              | 3.1%             |          | 9.3%             |          | 18.0%               |          |
| US Small Cap (Russell 2000)              | 2.5%             |          | 5.0%             |          | 24.6%               |          |
| US Large Value (Russell 1000 Value)      | 1.3%             |          | 4.7%             |          | 4.7%                |          |
| US Large Growth (Russell 1000 Growth)    | 4.7%             |          | 14.0%            |          | 20.4%               |          |
| International Large (MSCI EAFE)          | 6.1%             | 3.1%     | 13.8%            | 16.1%    | 20.3%               | 23.5%    |
| Eurozone (Euro Stoxx 50)                 | 6.5%             | 3.8%     | 19.1%            | 22.5%    | 26.6%               | 28.3%    |
| U.K. (FTSE 100)                          | 4.9%             | 1.2%     | 10.0%            | 5.0%     | 13.6%               | 17.5%    |
| Japan (NIKKEI 225)                       | 5.1%             | 6.5%     | 9.6%             | 6.6%     | 19.9%               | 32.0%    |
| Emerging Markets (MSCI Emerging Markets) | 6.3%             | 6.1%     | 18.4%            | 11.6%    | 23.8%               | 19.3%    |

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 6/30/17

# Domestic equity

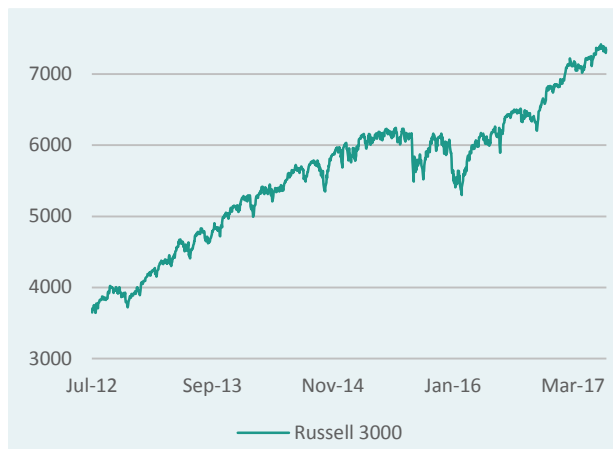
U.S. equities moved higher on robust earnings growth. According to FactSet, the estimated Q2 earnings growth rate of the S&P 500 is 6.8% YoY. Energy companies are expected to contribute the most to overall growth due to a low earnings base one year ago and stabilizing oil prices. The earnings outlook for the rest of the year is strong, and the expected growth rate for the 2017 calendar year is 9.8%. Positive global growth trends could help lift earnings further since a substantial portion of U.S. corporate revenues come from abroad.

All major U.S. banks passed the Fed's stress test in June, citing strong capital levels and ability to lend during a recession. The news drove financials upward as the positive results allowed banks to increase their future dividends and buybacks.

As discussed in recent quarters, we are relatively bullish on U.S. earnings growth in the near term, but investors may be paying for this excess growth upfront through higher valuations. We maintain a neutral weight to U.S. equities.

We maintain  
a neutral  
weight to  
U.S. equities

## U.S. EQUITIES



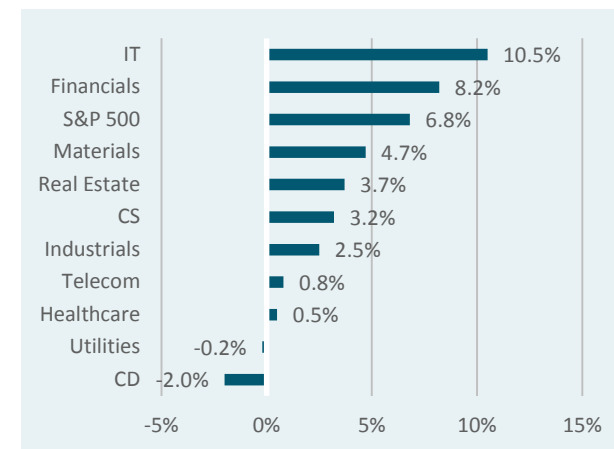
Source: Russell Investments, as of 7/7/17

## S&P 500 EPS GROWTH



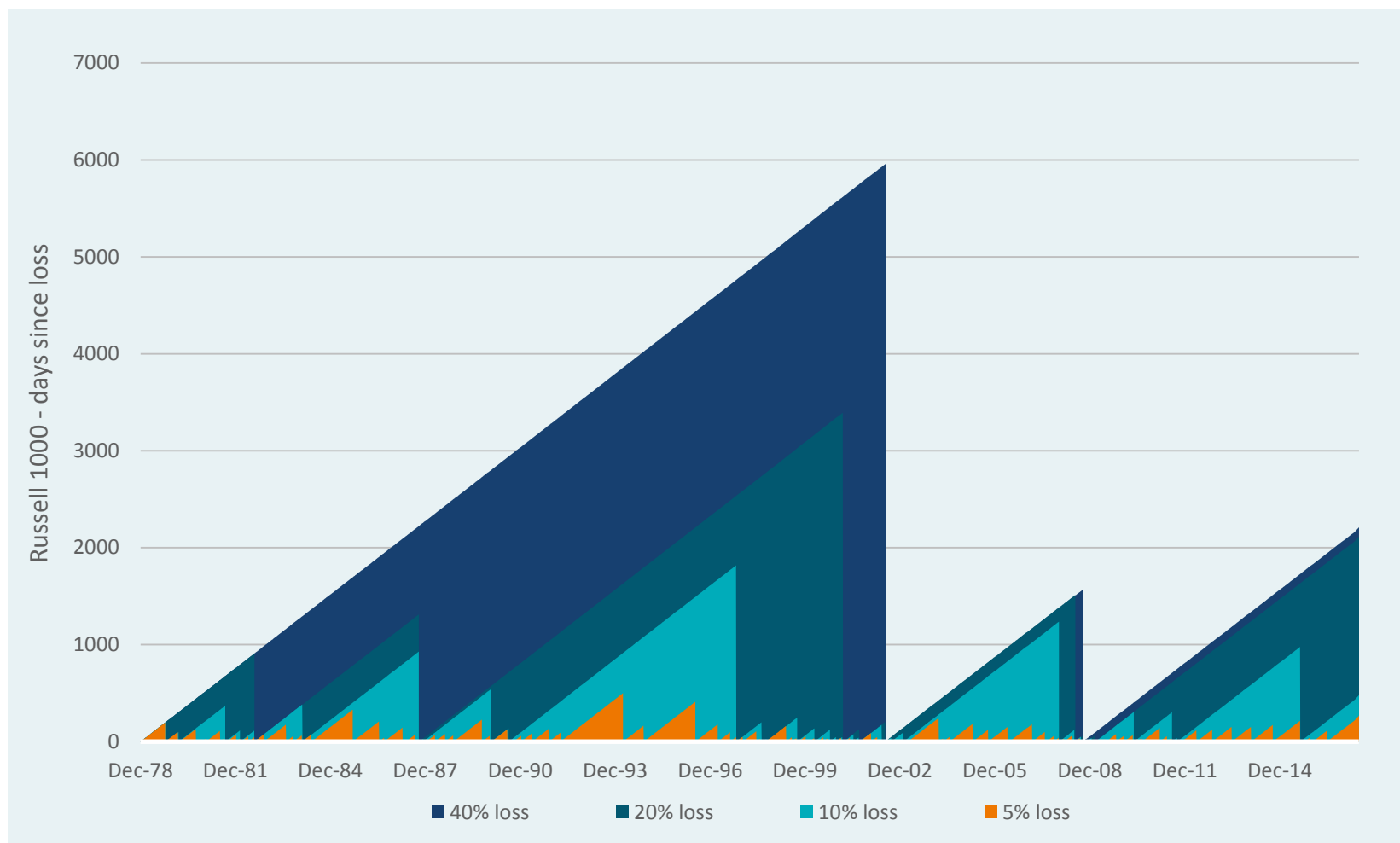
Source: Bloomberg, as of 6/30/17

## Q2 FORECAST EPS GROWTH



Source: FactSet, as of 7/14/17 - excludes energy sector

# Expect surprises



Market surprises are normal and in most cases should not affect long-term portfolio planning

Source: Bloomberg

# Domestic equity size and style

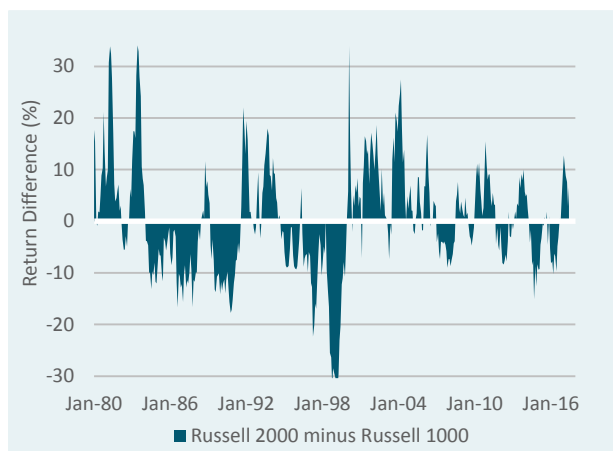
Despite a short selloff in June, strong returns from the tech sector helped lead to positive relative performance of growth over value during the quarter. Much of the gains were concentrated in the well known mega-cap stocks, including Apple, Amazon, and Microsoft. Momentum in growth stocks has continued to perform well so far this year.

In the second quarter, the Russell 1000 Growth Index and the Russell 1000 Value Index returned 4.7% and 1.3%, respectively. Falling oil prices were a headwind to energy

companies, which were the largest detractor from the value index.

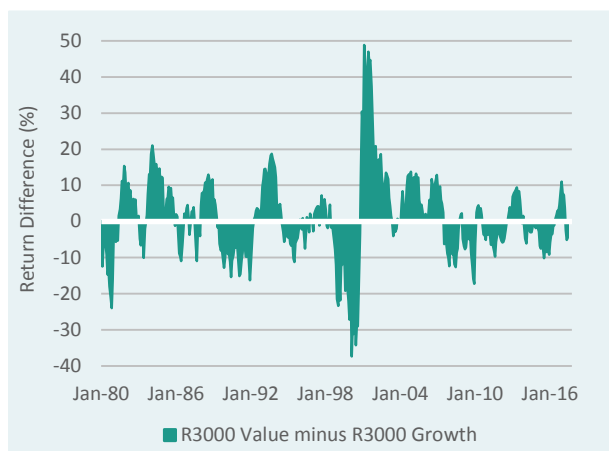
Large cap equities narrowly outperformed small cap equities. Much of the optimism surrounding Trump's pro-small business policies after his victory, including deregulation and tax reform, appears to have faded so far this year. If progress on these measures is made, smaller companies could receive another boost in the second half of 2017.

**SMALL CAP VS LARGE CAP (YOY)**



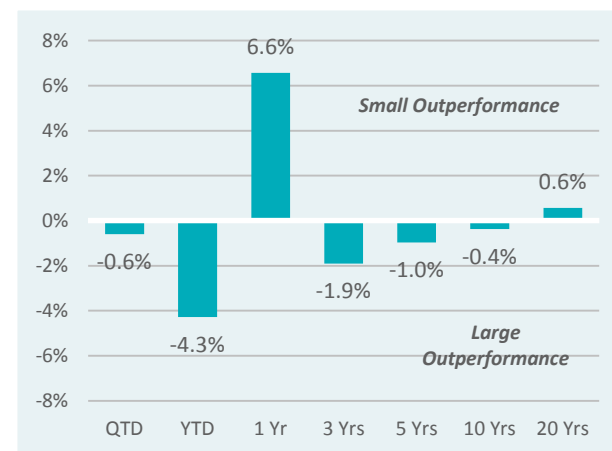
Source: Russell Investments, as of 6/30/17

**VALUE VS GROWTH (YOY)**



Source: Russell Investments, as of 6/30/17

**U.S. LARGE VS. SMALL RELATIVE PERFORMANCE**



Source: Morningstar, as of 6/30/17

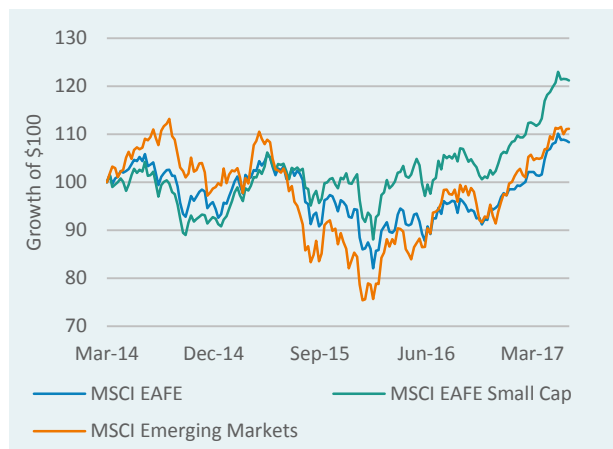
# International equity

International equities outperformed domestic equities over the quarter. The MSCI ACWI ex U.S. returned 5.8% on an unhedged basis while the S&P 500 returned 3.1%.

The U.S. dollar has steadily depreciated in value year-to-date against major currencies, down around 7%. This currency movement has added volatility to investors with unhedged currency exposure, with the MSCI EAFE Index returning 13.8% unhedged vs. 16.1% hedged, and the MSCI Emerging Markets Index returning 18.4% unhedged vs. 11.6% hedged.

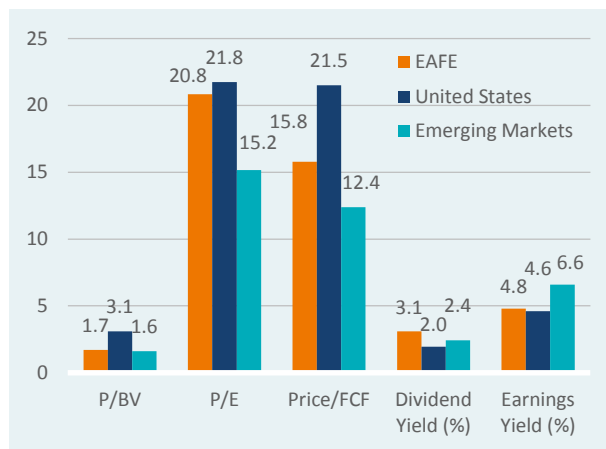
International equities are trading at lower multiples than domestic equities, based on various metrics. Valuations and earnings growth both play an important role in equity return outcomes and risk. Higher equity valuations imply greater optimism surrounding growth expectations, and greater optimism presents investors with more downside risk as the possibility of disappointment rises. Because of lower valuation levels, international markets may possess greater upside potential through either valuation expansion or positive earnings growth surprise. However, due to apparent tail risks in these markets we maintain a neutral weight in portfolios.

## GLOBAL EQUITY PERFORMANCE



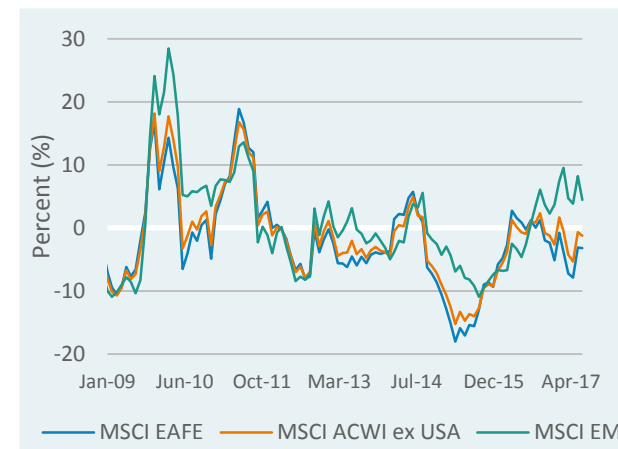
Source: Bloomberg, as of 6/30/17

## VALUATIONS



Source: Bloomberg, MSCI, as of 6/30/17 - 3 month average

## EFFECT OF CURRENCY (1 YEAR ROLLING)



Source: MSCI, as of 6/30/17

# Emerging market equity

We maintain an overweight to emerging markets due to attractive valuations and better growth prospects relative to developed markets.

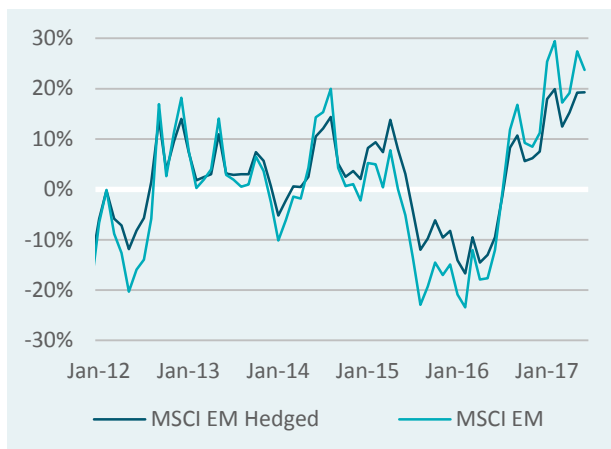
Emerging market equities continue to outperform developed markets, delivering 4.8% in Q2 and 17.1% year-to-date. Currency movement has been additive. Emerging market equity earnings are now expected to grow 22% YoY in 2017, which is a material increase from the 13% YoY increase expected at the beginning of 2017.

Interestingly, valuations have come down slightly despite very strong equity returns, as earnings rise faster than price.

If economic growth turns upward across the globe, we would expect major exporting economies to experience a significant tailwind. Emerging markets in particular tend to provide high exposure to global growth. Stabilizing commodities in this type of environment would likely provide an additional tailwind.

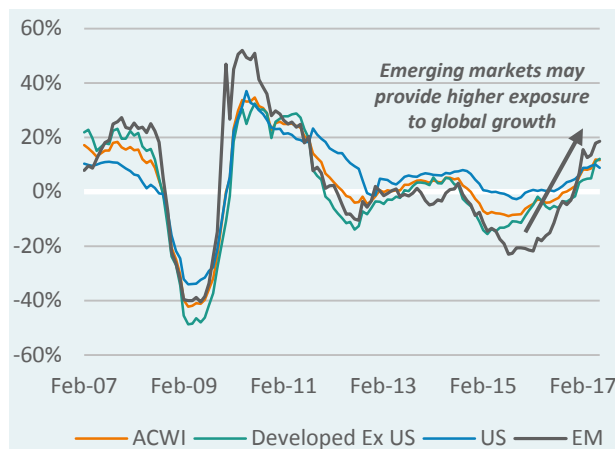
Accelerating global growth should have a positive effect on EM economies

12-MONTH ROLLING PERFORMANCE



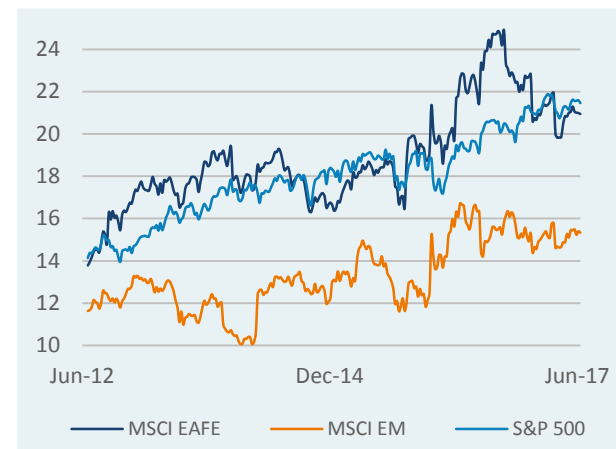
Source: MPI, as of 6/30/17

EM EARNINGS GROWTH (YOY)



Source: Bloomberg, as of 6/30/17

TRAILING P/E RATIOS



Source: Bloomberg as of 6/30/17

# Equity valuations

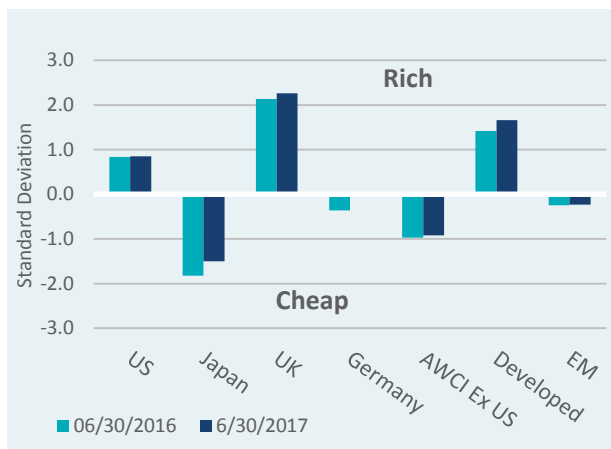
Strong global earnings in the first quarter and an increase in expected earnings growth throughout the rest of the year led to lower valuation multiples, especially in international developed markets. A pick up in earnings growth could help normalize P/E ratios.

Despite the recent strong earnings growth, valuation measures remain elevated relative to history. The trailing P/E for the S&P 500 was 21.5 at the end of June, above the 30-year average of 19.2. Higher P/E ratios imply lower future returns, but valuations can stay elevated for long periods of time, and changes are unpredictable.

Looking at the historical differences between regional P/E ratios and the global P/E ratio (ACWI) shows that Japan and emerging markets are the cheapest, while the U.K. and U.S. are the richest. Emerging markets are attractive on a variety of valuation measures. Strong global economic and earnings growth could give these cheaper markets more upside potential than richer markets such as the U.S.

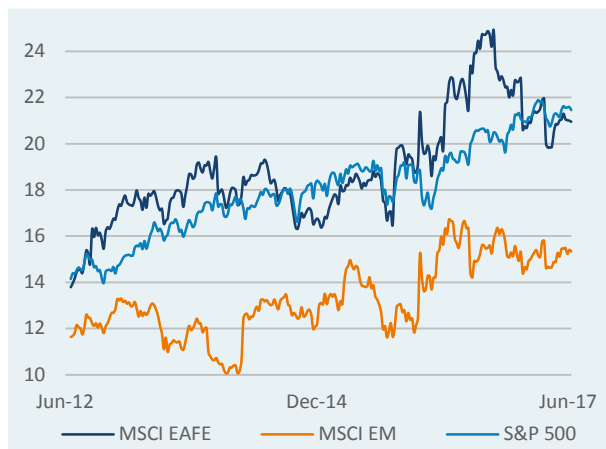
Valuations are elevated, but relative opportunities exist

RELATIVE PE TO ACWI



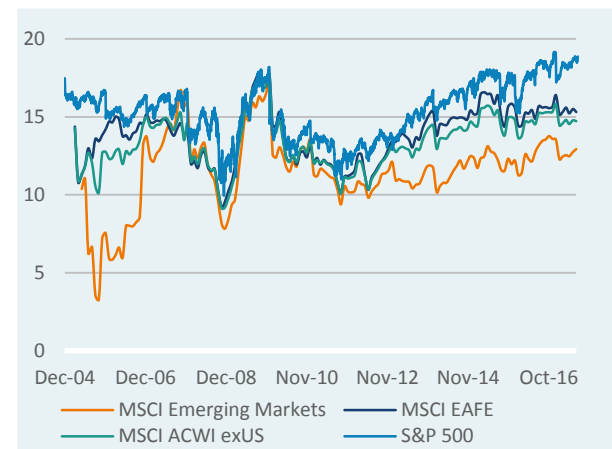
Source: Bloomberg, as of 6/30/17

TRAILING P/E RATIOS



Source: Bloomberg, as of 6/30/17

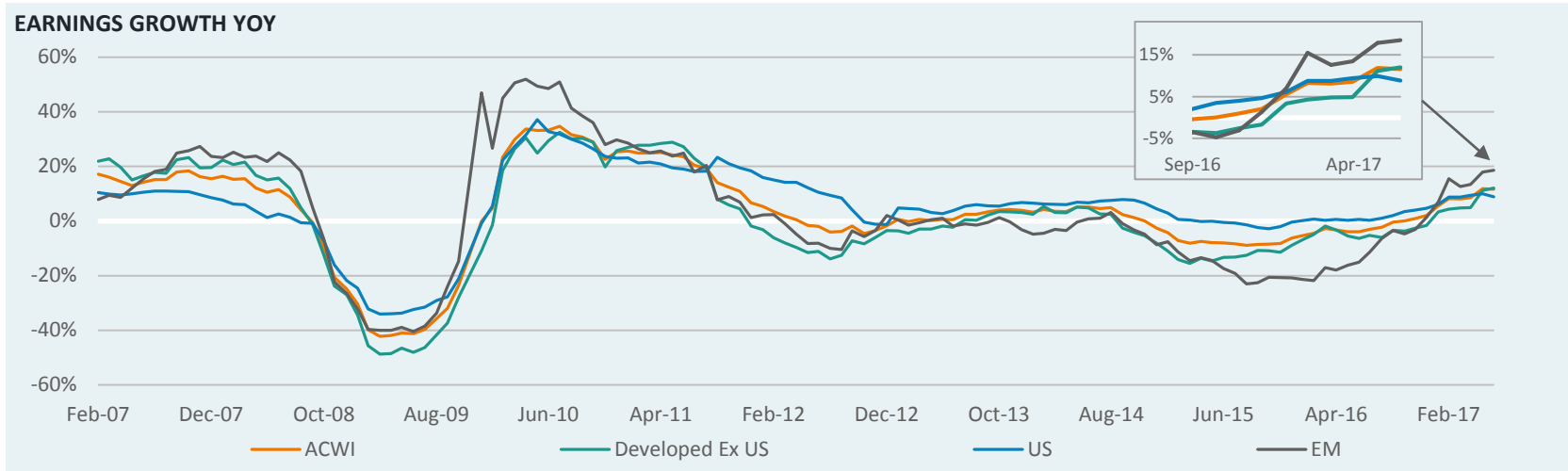
INTERNATIONAL FORWARD P/E RATIOS



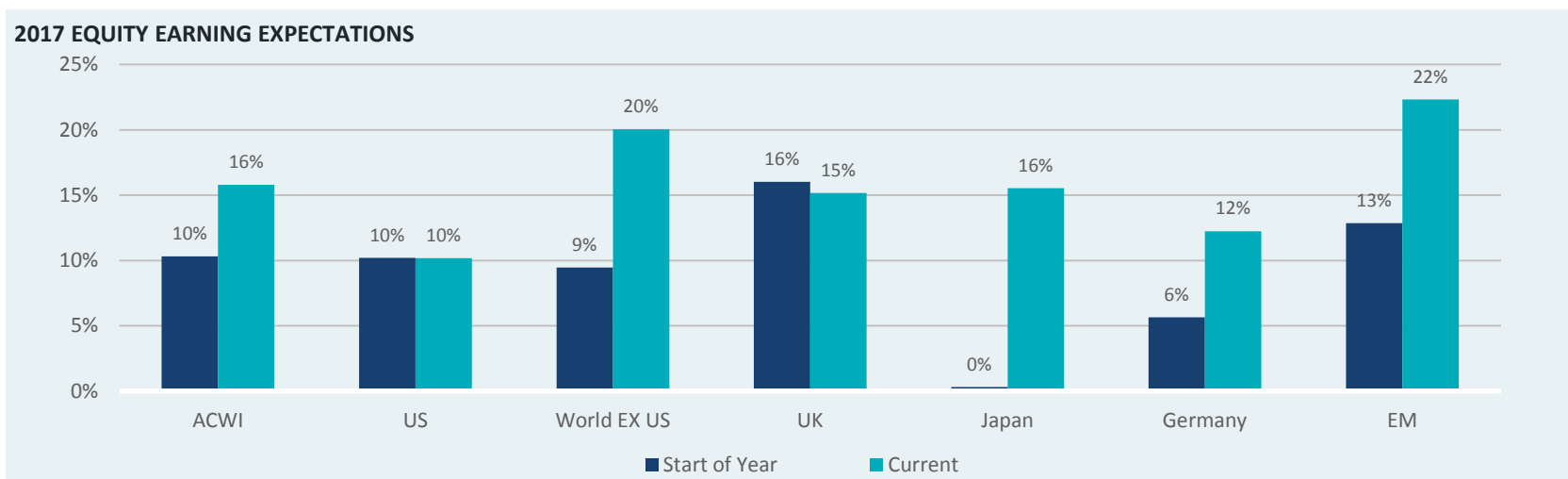
Source: Bloomberg, as of 6/30/17



# Global earnings growth



Earnings & earnings expectations have risen considerably across global markets



Source: MSCI, as of 6/30/17

# Equity volatility

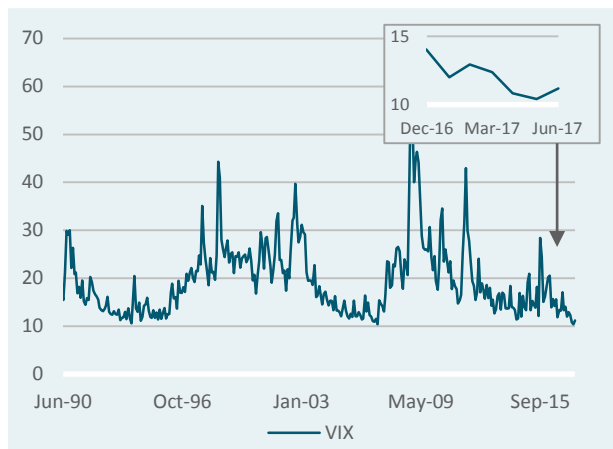
Both realized and implied volatility remains low relative to history across global equity markets. Although there have been a few spikes in implied volatility, including immediately after the first round of the French presidential election and the British general election, these have been short lived. For example, during the recent sell off in U.S. tech companies, the VIX jumped to 15, but fell back down within hours. While low equity market risk has been persistent, volatility can return quickly in an often unpredictable manner. For this reason,

judging portfolio volatility based on the current environment may understate the actual risks.

The CBOE Skew Index, which looks at the steepness of the volatility curve is above its historical average, indicates investors are paying a premium for large downside protection.

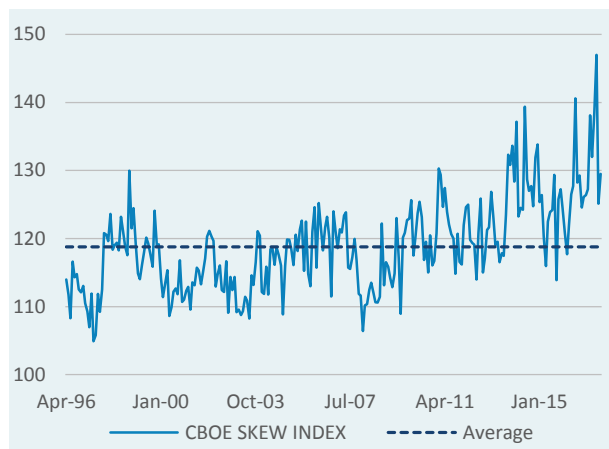
Equity volatility is well below average, but within a range consistent with past bull markets

U.S. IMPLIED VOLATILITY



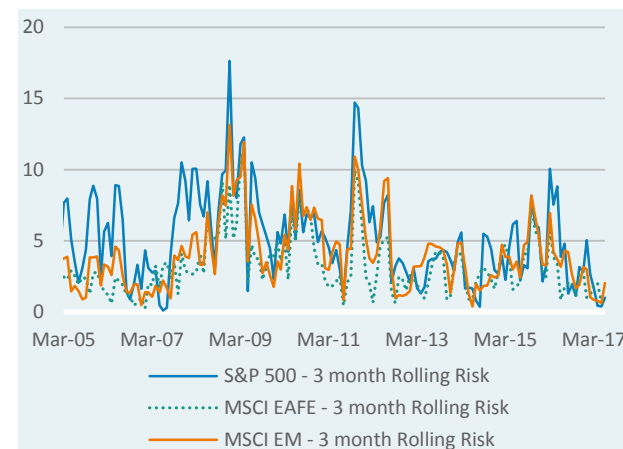
Source: CBOE, as of 6/30/17

U.S. VOLATILITY SKEW



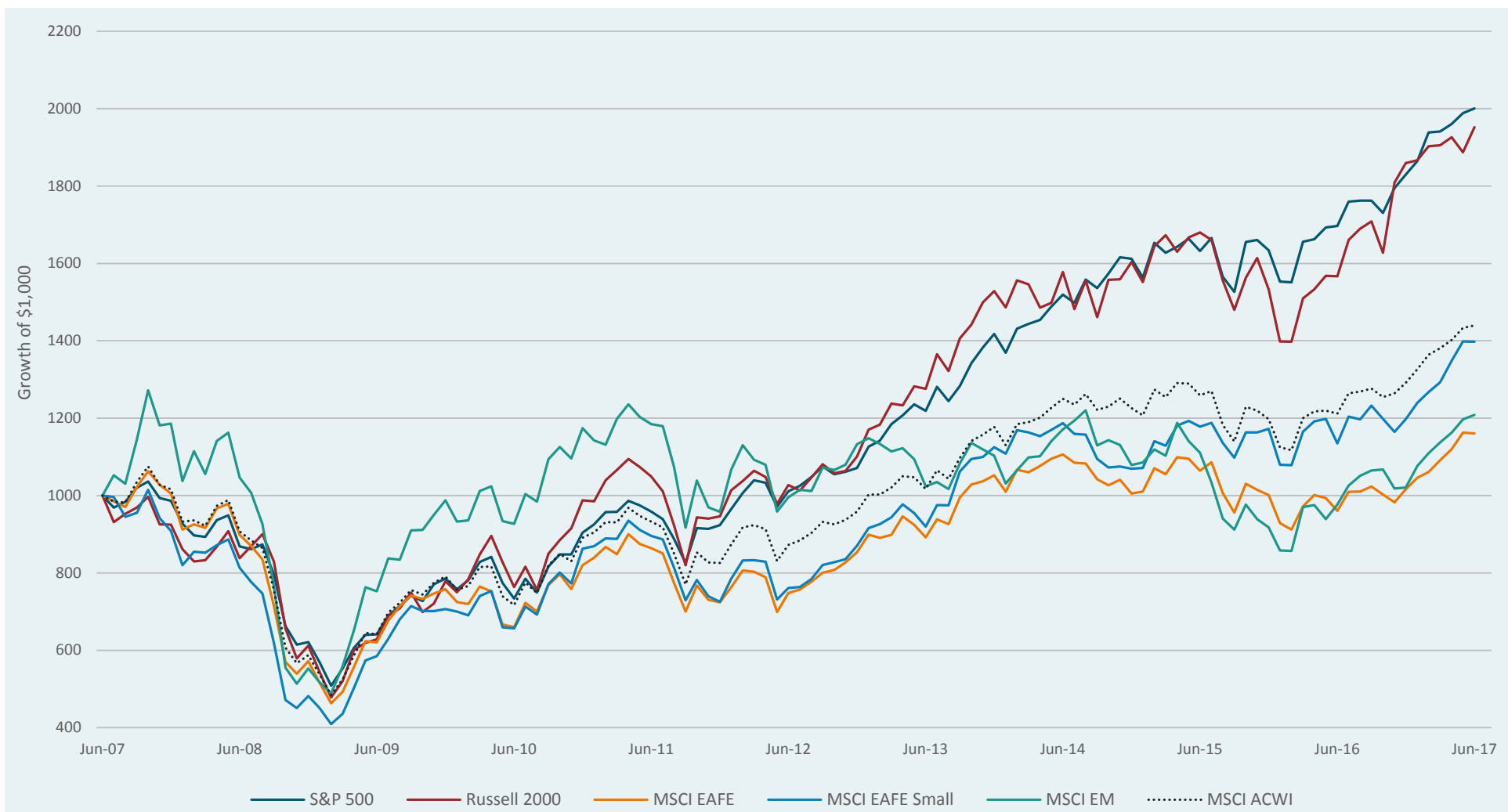
Source: CBOE, as of 6/30/17

INTERNATIONAL EQUITY VOLATILITY



Source: MSCI, as of 6/30/17

# Long-term equity performance



Source: MPI, as of 6/30/17

# Other assets

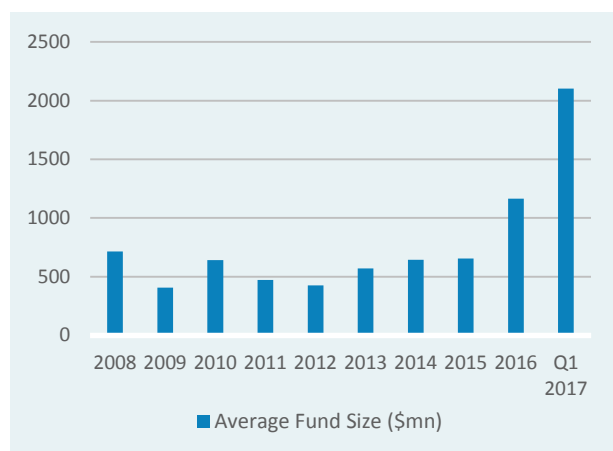
# Infrastructure

Global infrastructure performed strongly in the second quarter, with S&P Global Infrastructure Index up 14.4% for the year through June. Transaction multiples in several infrastructure sectors seemed to have peaked over the last year, impacted by rising interest; however, falling Treasury yields during the quarter sent yield-oriented investments higher in value.

Demand remains quite strong for infrastructure assets with institutional investors allocating to commingled funds and an influx of Asian buyers seeking higher yielding investments both in the U.S. and Europe.

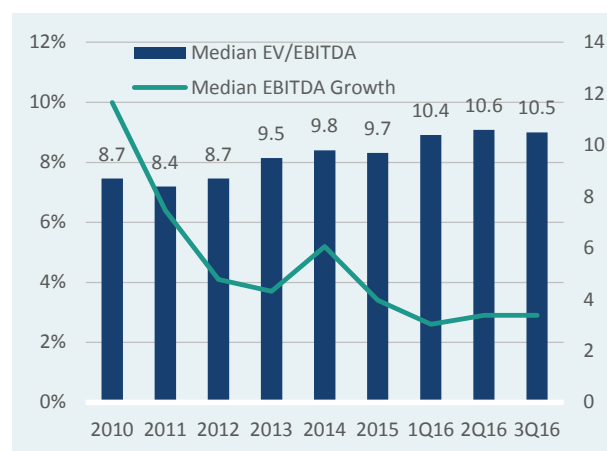
We are favorable towards value-add relative to core infrastructure as the risk/reward appears more attractive today. Interest rate sensitivity is generally lower in value-add infrastructure and pricing levels, though elevated, are below comparable core valuations. Within value-add we focus on sector specialists or teams with a track record of successful project development. As an example, in the utility/energy sectors there could be some interesting opportunities in merchant power generation where low natural gas prices and an influx of renewables have put downward pressure on spot power prices.

## INFRASTRUCTURE AVERAGE FUND SIZE



Source: Preqin

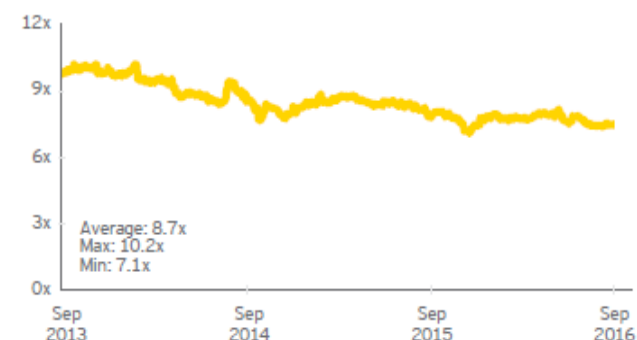
## LISTED INFRASTRUCTURE VALUATIONS/GROWTH



Source: Capital IQ

## VALUATIONS IN MERCHANT POWER

Average enterprise value/earnings before interest, taxes, depreciation and amortization (EV/EBITDA) trading multiples for select IPPs (on FY2 consensus EBITDA estimates, 2013-Q3 2016)



Source: E&Y

# Currency

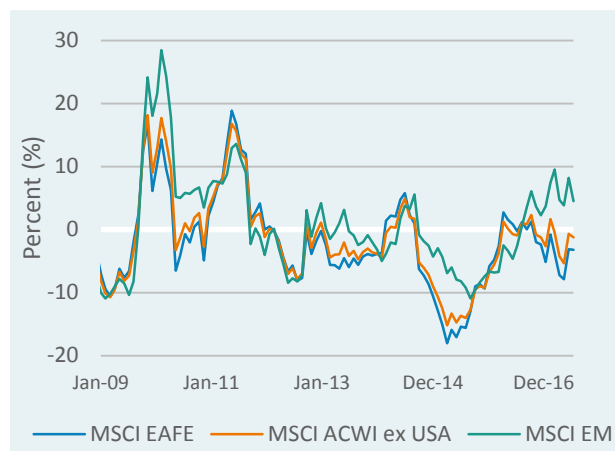
The U.S. dollar has steadily depreciated in value year-to-date against major currencies, down approximately 7% through quarter-end. Global central bank hawkishness, relative interest rate expectations, and improving international growth have likely guided the U.S. dollar lower.

Emerging market currencies exhibited further strength in Q2 and have appreciated 4.8% year-to-date according to

the JP Morgan Emerging Market Currency Index.

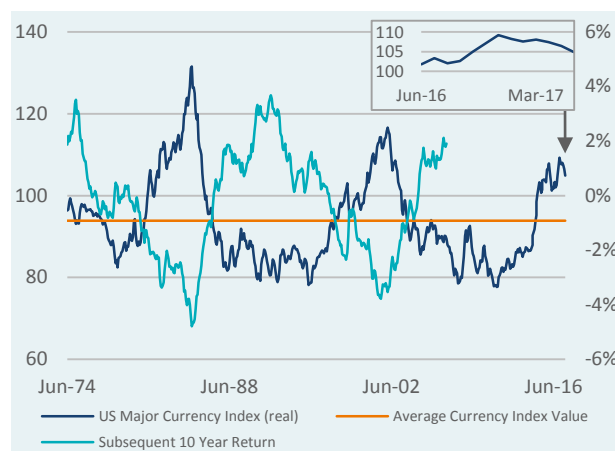
Currency movement has recently had a positive impact on the performance of unhedged foreign asset exposure. Dollar weakness has also acted as a tailwind for corporate earnings for those U.S. companies with revenues in foreign currency.

**EFFECT OF CURRENCY (1YR ROLLING)**



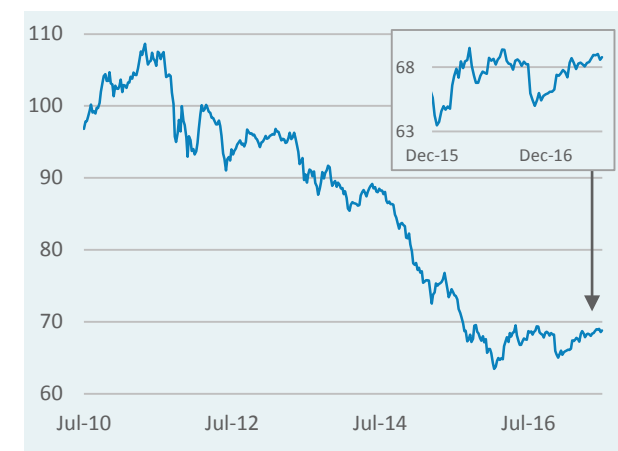
Source: MPI, as of 6/30/17

**U.S. DOLLAR MAJOR CURRENCY INDEX**



Source: Federal Reserve, as of 6/30/17

**JPM EM CURRENCY INDEX**



Source: Bloomberg, as of 6/30/17

# Appendix

# Periodic table of returns

|                         | 1994 | 1995 | 1996 | 1997  | 1998  | 1999 | 2000  | 2001  | 2002  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008  | 2009  | 2010 | 2011  | 2012 | 2013 | 2014  | 2015  | 2016 | YTD  | 5-Year | 10-Year |
|-------------------------|------|------|------|-------|-------|------|-------|-------|-------|------|------|------|------|------|-------|-------|------|-------|------|------|-------|-------|------|------|--------|---------|
| Emerging Markets Equity | 16.6 | 38.4 | 23.2 | 35.2  | 38.7  | 66.4 | 31.8  | 14.0  | 25.9  | 56.3 | 26.0 | 34.5 | 32.6 | 39.8 | 5.2   | 79.0  | 29.1 | 14.3  | 18.6 | 43.3 | 13.5  | 13.3  | 31.7 | 18.4 | 15.3   | 8.9     |
| Large Cap Growth        | 8.1  | 37.8 | 23.1 | 32.9  | 27.0  | 43.1 | 22.8  | 8.4   | 10.3  | 48.5 | 22.2 | 21.4 | 26.9 | 16.2 | 1.4   | 37.2  | 26.9 | 7.8   | 18.1 | 38.8 | 13.2  | 5.7   | 21.3 | 14.0 | 14.7   | 7.8     |
| International Equity    | 6.4  | 37.2 | 22.4 | 31.8  | 20.3  | 33.2 | 12.2  | 7.3   | 6.7   | 47.3 | 20.7 | 20.1 | 23.5 | 15.8 | -6.5  | 34.5  | 24.5 | 2.6   | 17.9 | 34.5 | 13.0  | 0.9   | 17.3 | 13.8 | 14.0   | 7.3     |
| Small Cap Growth        | 4.4  | 31.0 | 21.6 | 30.5  | 19.3  | 27.3 | 11.6  | 3.3   | 1.6   | 46.0 | 18.3 | 14.0 | 22.2 | 11.8 | -21.4 | 32.5  | 19.2 | 1.5   | 17.5 | 33.5 | 11.8  | 0.6   | 12.1 | 10.0 | 13.9   | 6.9     |
| Large Cap Equity        | 3.2  | 28.5 | 21.4 | 22.4  | 16.2  | 26.5 | 7.0   | 2.8   | 1.0   | 39.2 | 16.5 | 7.5  | 18.4 | 11.6 | -25.9 | 28.4  | 16.8 | 0.4   | 16.4 | 33.1 | 6.0   | 0.0   | 11.8 | 9.3  | 13.7   | 6.7     |
| 60/40 Global Portfolio  | 2.6  | 25.7 | 16.5 | 16.2  | 15.6  | 24.3 | 6.0   | 2.5   | -5.9  | 30.0 | 14.5 | 7.1  | 16.6 | 10.9 | -28.9 | 27.2  | 16.7 | 0.1   | 16.3 | 32.5 | 5.6   | -0.4  | 11.3 | 8.6  | 13.4   | 5.9     |
| Small Cap Equity        | 0.4  | 19.6 | 14.4 | 13.9  | 8.7   | 21.3 | 4.1   | -2.4  | -6.0  | 29.9 | 14.3 | 6.3  | 15.5 | 10.3 | -33.8 | 23.3  | 16.1 | -2.1  | 15.3 | 23.3 | 4.9   | -0.8  | 11.2 | 5.0  | 10.7   | 5.6     |
| Large Cap Value         | -1.5 | 18.5 | 11.3 | 12.9  | 4.9   | 20.9 | -3.0  | -5.6  | -11.4 | 29.7 | 12.9 | 5.3  | 15.1 | 7.0  | -35.6 | 20.6  | 15.5 | -2.9  | 14.6 | 12.1 | 4.2   | -1.4  | 8.0  | 4.7  | 8.7    | 4.5     |
| Hedge Funds of Funds    | -1.8 | 15.2 | 10.3 | 10.6  | 1.2   | 13.2 | -7.3  | -9.1  | -15.5 | 25.2 | 11.4 | 4.7  | 13.3 | 7.0  | -36.8 | 19.7  | 13.1 | -4.2  | 11.5 | 11.0 | 3.4   | -2.5  | 7.1  | 3.7  | 6.7    | 4.0     |
| US Bonds                | -2.0 | 11.6 | 9.9  | 9.7   | -2.5  | 11.4 | -7.8  | -9.2  | -15.7 | 23.9 | 9.1  | 4.6  | 10.4 | 5.8  | -37.6 | 18.9  | 10.2 | -5.5  | 10.5 | 9.0  | 2.8   | -3.8  | 5.7  | 2.3  | 4.9    | 3.0     |
| Real Estate             | -2.4 | 11.1 | 6.4  | 5.2   | -5.1  | 7.3  | -14.0 | -12.4 | -20.5 | 11.6 | 6.9  | 4.6  | 9.1  | 4.4  | -38.4 | 11.5  | 8.2  | -5.7  | 4.8  | 0.1  | 0.0   | -4.4  | 2.6  | 1.6  | 4.0    | 1.9     |
| Small Cap Value         | -2.9 | 7.5  | 6.0  | 2.1   | -6.5  | 4.8  | -22.4 | -19.5 | -21.7 | 9.0  | 6.3  | 4.2  | 4.8  | -0.2 | -38.5 | 5.9   | 6.5  | -11.7 | 4.2  | -2.0 | -1.8  | -7.5  | 1.0  | 0.5  | 2.2    | 1.0     |
| Cash                    | -3.5 | 5.7  | 5.1  | -3.4  | -25.3 | -0.8 | -22.4 | -20.4 | -27.9 | 4.1  | 4.3  | 3.2  | 4.3  | -1.6 | -43.1 | 0.2   | 5.7  | -13.3 | 0.1  | -2.3 | -4.5  | -14.9 | 0.5  | 0.4  | 0.2    | 0.4     |
| Commodities             | -7.3 | -5.2 | 3.6  | -11.6 | -27.0 | -1.5 | -30.6 | -21.2 | -30.3 | 1.0  | 1.4  | 2.4  | 2.1  | -9.8 | -53.2 | -16.9 | 0.1  | -18.2 | -1.1 | -9.5 | -17.0 | -24.7 | 0.3  | -5.3 | -9.2   | -6.5    |

Large Cap Equity

Large Cap Value

Large Cap Growth

Small Cap Equity

Small Cap Value

Small Cap Growth

International Equity

Emerging Markets Equity

US Bonds

Cash

Commodities

Real Estate

Hedge Funds of Funds

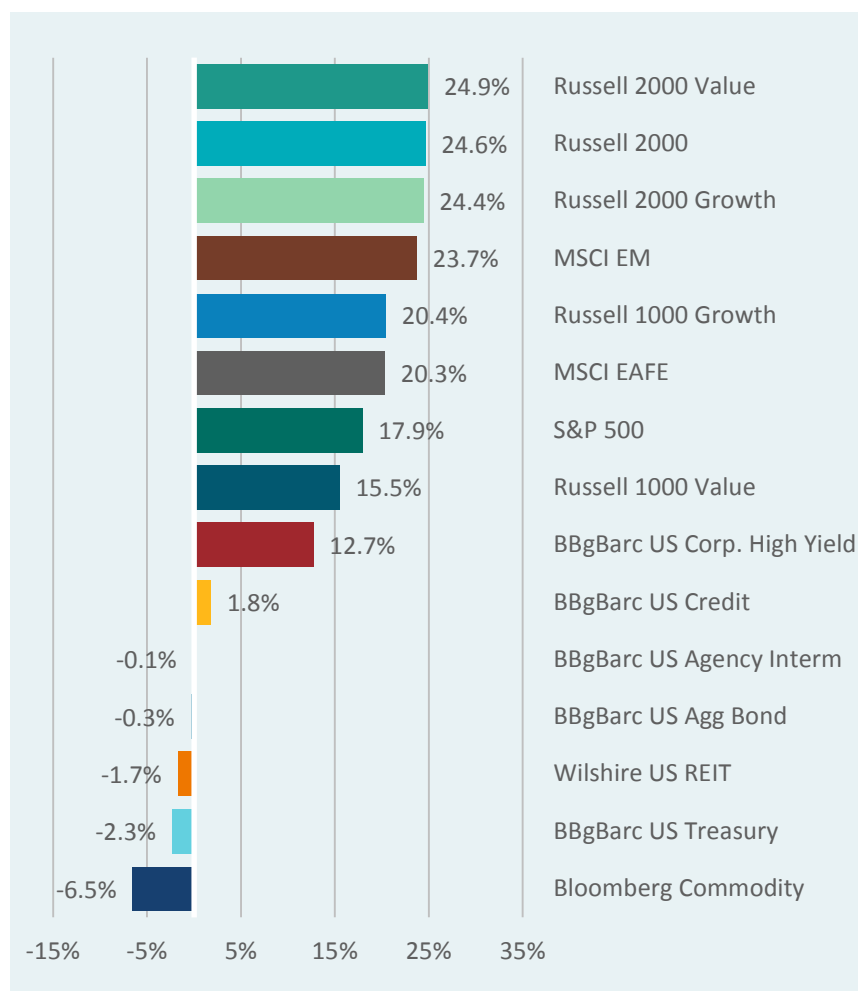
60% MSCI ACWI/40% BBgBarc Global Bond

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 3/31/17.



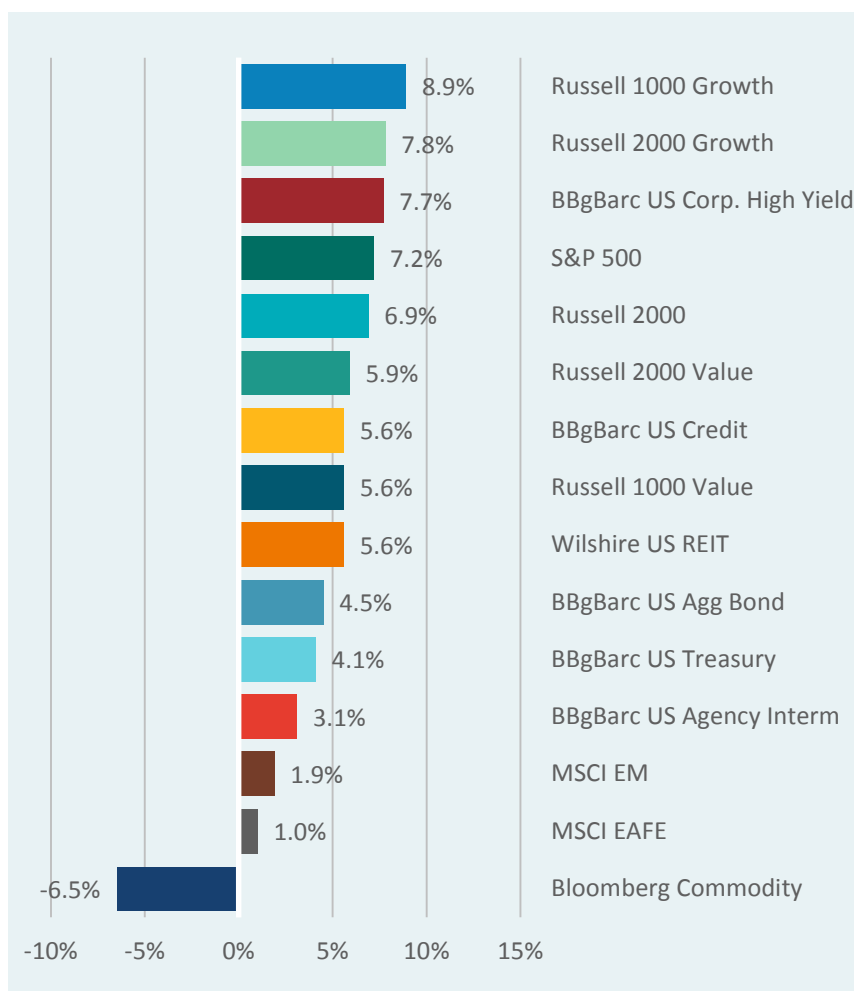
# Major asset class returns

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/17

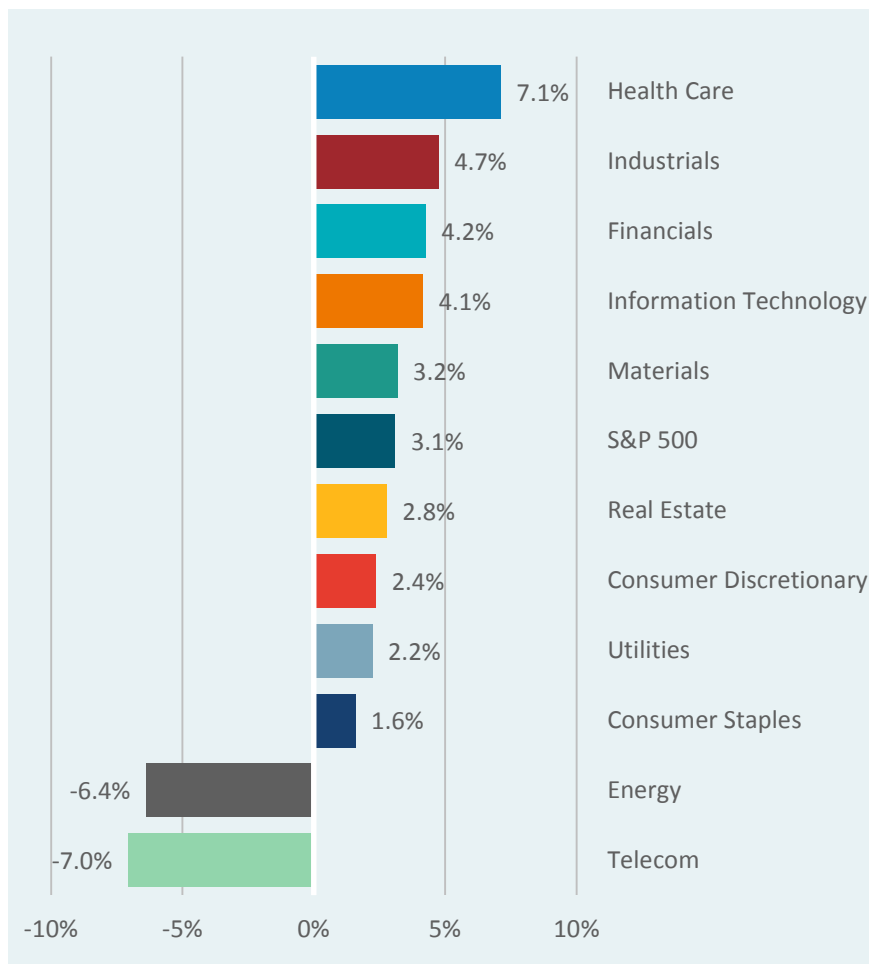
TEN YEARS ENDING JUNE



Source: Morningstar, as of 6/30/17

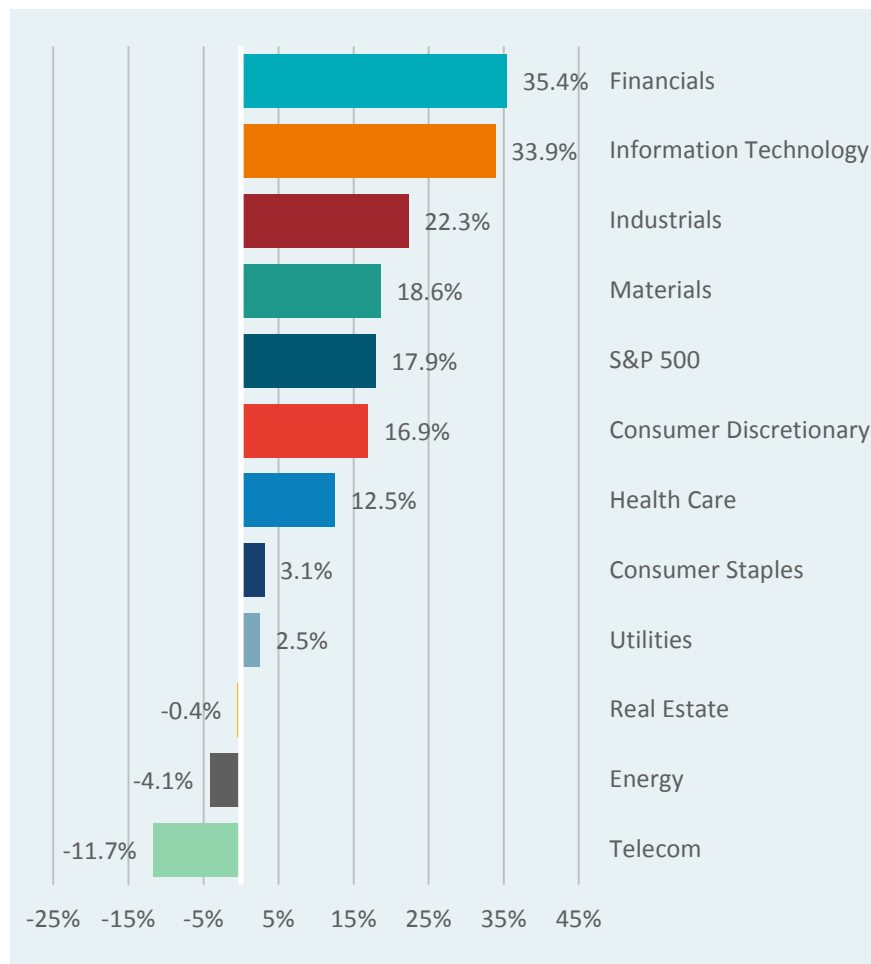
# S&P 500 sector returns

2<sup>ND</sup> QUARTER



Source: Morningstar, as of 6/30/17

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/17

# Detailed index returns

## DOMESTIC EQUITY

|                        | Month | QTD | YTD  | 1 Year | 3 Year | 5 Year | 10 Year |
|------------------------|-------|-----|------|--------|--------|--------|---------|
| <b>Core Index</b>      |       |     |      |        |        |        |         |
| S&P 500                | 0.6   | 3.1 | 9.3  | 17.9   | 9.6    | 14.6   | 7.2     |
| S&P 500 Equal Weighted | 1.2   | 2.5 | 8.1  | 17.3   | 8.5    | 15.5   | 8.3     |
| DJ Industrial Average  | 1.7   | 4.0 | 9.3  | 22.1   | 11.0   | 13.5   | 7.6     |
| Russell Top 200        | 0.6   | 3.2 | 9.8  | 18.6   | 9.9    | 14.6   | 7.2     |
| Russell 1000           | 0.7   | 3.1 | 9.3  | 18.0   | 9.3    | 14.7   | 7.3     |
| Russell 2000           | 3.5   | 2.5 | 5.0  | 24.6   | 7.4    | 13.7   | 6.9     |
| Russell 3000           | 0.9   | 3.0 | 8.9  | 18.5   | 9.1    | 14.6   | 7.3     |
| Russell Mid Cap        | 1.0   | 2.7 | 8.0  | 16.5   | 7.7    | 14.7   | 7.7     |
| <b>Style Index</b>     |       |     |      |        |        |        |         |
| Russell 1000 Growth    | (0.3) | 4.7 | 14.0 | 20.4   | 11.1   | 15.3   | 8.9     |
| Russell 1000 Value     | 1.6   | 1.3 | 4.7  | 15.5   | 7.4    | 13.9   | 5.6     |
| Russell 2000 Growth    | 3.4   | 4.4 | 10.0 | 24.4   | 7.6    | 14.0   | 7.8     |
| Russell 2000 Value     | 3.5   | 0.7 | 0.5  | 24.9   | 7.0    | 13.4   | 5.9     |

## INTERNATIONAL EQUITY

|                        |       |       |      |      |       |       |       |
|------------------------|-------|-------|------|------|-------|-------|-------|
| <b>Broad Index</b>     |       |       |      |      |       |       |       |
| MSCI ACWI              | 0.5   | 4.3   | 11.5 | 18.8 | 4.8   | 10.5  | 3.7   |
| MSCI ACWI ex US        | 0.3   | 5.8   | 14.1 | 20.5 | 0.8   | 7.2   | 1.1   |
| MSCI EAFE              | (0.2) | 6.1   | 13.8 | 20.3 | 1.1   | 8.7   | 1.0   |
| MSCI EM                | 1.0   | 6.3   | 18.4 | 23.7 | 1.1   | 4.0   | 1.9   |
| MSCI EAFE Small Cap    | (0.0) | 8.1   | 16.7 | 23.2 | 5.6   | 12.9  | 3.4   |
| <b>Style Index</b>     |       |       |      |      |       |       |       |
| MSCI EAFE Growth       | (0.7) | 7.5   | 16.7 | 15.7 | 2.8   | 9.2   | 2.1   |
| MSCI EAFE Value        | 0.3   | 4.8   | 11.1 | 25.0 | (0.6) | 8.1   | (0.1) |
| <b>Regional Index</b>  |       |       |      |      |       |       |       |
| MSCI UK                | (1.9) | 4.7   | 10.0 | 13.3 | (3.0) | 5.3   | 0.2   |
| MSCI Japan             | 1.1   | 5.2   | 9.9  | 19.2 | 5.5   | 9.6   | 1.2   |
| MSCI Euro              | (1.2) | 7.5   | 16.6 | 27.7 | 0.1   | 10.4  | (0.5) |
| MSCI EM Asia           | 1.7   | 8.6   | 23.2 | 27.9 | 5.0   | 7.7   | 3.8   |
| MSCI EM Latin American | 0.7   | (1.7) | 10.1 | 15.0 | (6.6) | (3.8) | (1.1) |

## FIXED INCOME

|                             | Month | QTD   | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|-----------------------------|-------|-------|-----|--------|--------|--------|---------|
| <b>Broad Index</b>          |       |       |     |        |        |        |         |
| BBgBarc US Treasury US TIPS | (0.9) | (0.4) | 0.9 | (0.6)  | 0.6    | 0.3    | 4.3     |
| BBgBarc US Treasury Bills   | 0.1   | 0.2   | 0.3 | 0.5    | 0.3    | 0.2    | 0.7     |
| BBgBarc US Agg Bond         | (0.1) | 1.4   | 2.3 | (0.3)  | 2.5    | 2.2    | 4.5     |
| <b>Duration</b>             |       |       |     |        |        |        |         |
| BBgBarc US Treasury 1-3 Yr  | (0.1) | 0.2   | 0.5 | (0.1)  | 0.7    | 0.6    | 2.0     |
| BBgBarc US Treasury Long    | 0.4   | 4.0   | 5.4 | (7.2)  | 5.6    | 2.8    | 7.3     |
| BBgBarc US Treasury         | (0.2) | 1.2   | 1.9 | (2.3)  | 2.0    | 1.3    | 4.1     |
| <b>Issuer</b>               |       |       |     |        |        |        |         |
| BBgBarc US MBS              | (0.4) | 0.9   | 1.3 | (0.1)  | 2.2    | 2.0    | 4.3     |
| BBgBarc US Corp. High Yield | 0.1   | 2.2   | 4.9 | 12.7   | 4.5    | 6.9    | 7.7     |
| BBgBarc US Agency Interm    | (0.1) | 0.5   | 1.0 | (0.1)  | 1.4    | 1.1    | 3.1     |
| BBgBarc US Credit           | 0.3   | 2.4   | 3.7 | 1.8    | 3.4    | 3.7    | 5.6     |

## OTHER

|                        |       |       |       |       |        |       |       |
|------------------------|-------|-------|-------|-------|--------|-------|-------|
| <b>Index</b>           |       |       |       |       |        |       |       |
| Bloomberg Commodity    | (0.2) | (3.0) | (5.3) | (6.5) | (14.8) | (9.2) | (6.5) |
| Wilshire US REIT       | 2.4   | 1.8   | 1.8   | (1.7) | 8.3    | 9.3   | 5.6   |
| CS Leveraged Loans     | (0.1) | 0.8   | 2.0   | 7.5   | 3.5    | 4.8   | 4.2   |
| <b>Regional Index</b>  |       |       |       |       |        |       |       |
| JPM EMBI Global Div    | (0.1) | 2.2   | 6.2   | 6.0   | 5.4    | 5.7   | 7.4   |
| JPM GBI-EM Global Div  | 0.5   | 3.6   | 10.4  | 6.4   | (2.8)  | (0.7) | 4.0   |
| <b>Hedge Funds</b>     |       |       |       |       |        |       |       |
| HFRI Composite         | (0.6) | 0.2   | 2.6   | 5.8   | 1.3    | 3.7   | 0.8   |
| HFRI FOF Composite     | 0.4   | 1.1   | 3.7   | 8.0   | 2.6    | 4.9   | 3.0   |
| <b>Currency (Spot)</b> |       |       |       |       |        |       |       |
| Euro                   | 1.4   | 6.6   | 8.1   | 2.7   | (5.9)  | (2.1) | (1.7) |
| Pound                  | 0.6   | 3.9   | 5.1   | (2.8) | (8.8)  | (3.7) | (4.3) |
| Yen                    | (1.6) | (0.8) | 3.8   | (8.7) | (3.4)  | (6.6) | 0.9   |

Source: Morningstar, as of 6/30/17

# Definitions

**Bloomberg US Weekly Consumer Comfort Index** - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. ([www.langerresearch.com](http://www.langerresearch.com))

**University of Michigan Consumer Sentiment Index** - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. ([www.Bloomberg.com](http://www.Bloomberg.com))

**Citi Economic Surprise Index** - objective and quantitative measures of economic news. Defined as weighted historical standard deviations of data surprises (actual releases vs Bloomberg survey median). A positive reading of the Economic Surprise Index suggests that economic releases have on balance been beating consensus. The indices are calculated daily in a rolling three-month window. The weights of economic indicators are derived from relative high-frequency spot FX impacts of 1 standard deviation data surprises. The indices also employ a time decay function to replicate the limited memory of markets. ([www.Bloomberg.com](http://www.Bloomberg.com))

**Merrill Lynch Option Volatility Estimate (MOVE) Index** – a yield curve weighted index comprised of a weighted set of 1-month Treasury options, including 2.5.10 and 30 year tenor contracts. This index is an indicator of the expected (implied) future volatility in the rate markets. ([www.Bloomberg.com](http://www.Bloomberg.com))

**OECD Consumer Confidence Index** - based on households' plans for major purchases and their economic situation, both currently and their expectations for the immediate future. Opinions compared to a "normal" state are collected and the difference between positive and negative answers provides a qualitative index on economic conditions. (<https://data.oecd.org/>)

**OECD Business Confidence Index** - based on enterprises' assessment of production, orders and stocks, as well as its current position and expectations for the immediate future. Opinions compared to a "normal" state are collected and the difference between positive and negative answers provides a qualitative index on economic conditions. (<https://data.oecd.org/>)

**NFIB Small Business Outlook** - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federation of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

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# Stanislaus County Employees' Retirement Association

Investment Performance Review

Period Ending: June 30, 2017



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[VERUSINVESTMENTS.COM](http://VERUSINVESTMENTS.COM)

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

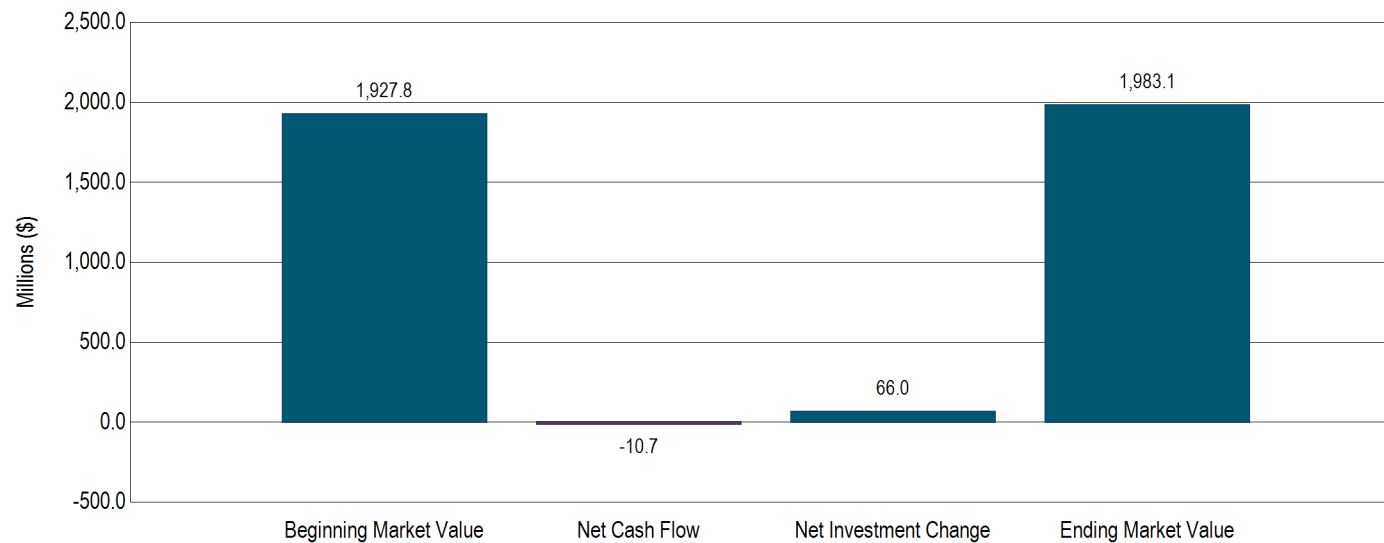
# Total Fund Portfolio Reconciliation

Period Ending: June 30, 2017

## Portfolio Reconciliation

|                        | Last Three<br>Months | Fiscal Year-To-Date | Year-To-Date    |
|------------------------|----------------------|---------------------|-----------------|
| Beginning Market Value | \$1,927,763,267      | \$1,763,136,187     | \$1,859,742,905 |
| Net Cash Flow          | -\$10,652,097        | -\$37,297,105       | -\$19,090,855   |
| Net Investment Change  | \$65,971,365         | \$257,243,453       | \$142,430,485   |
| Ending Market Value    | \$1,983,082,534      | \$1,983,082,534     | \$1,983,082,534 |

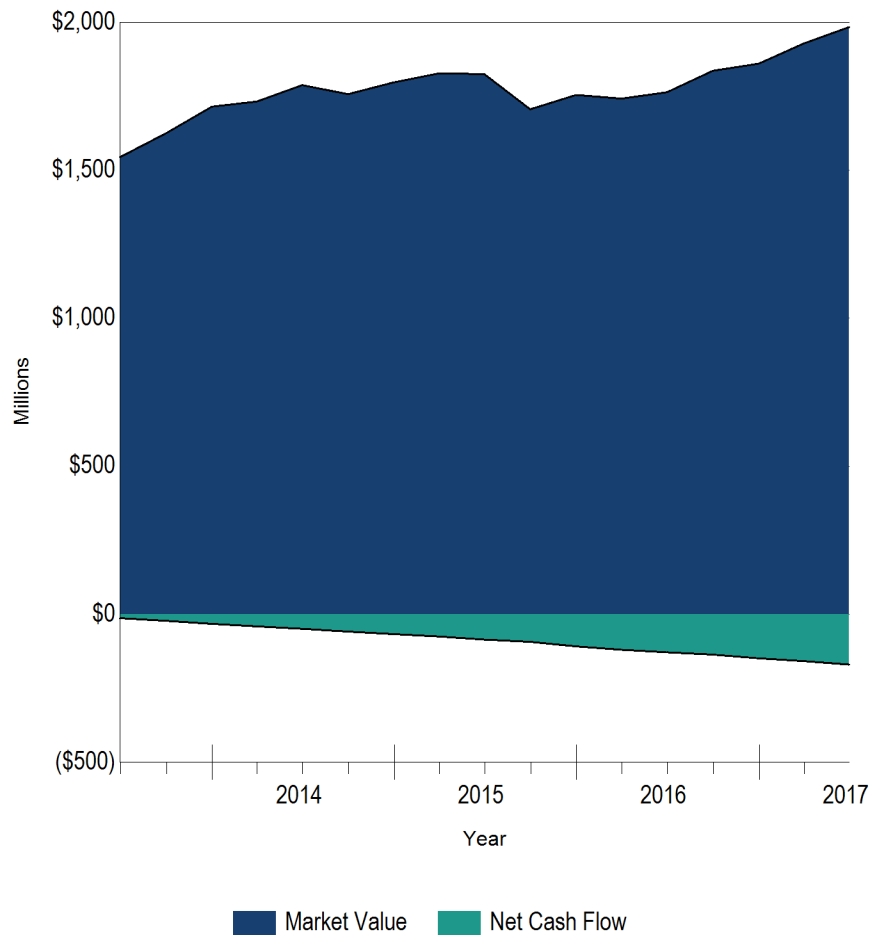
## Change in Market Value Last Three Months



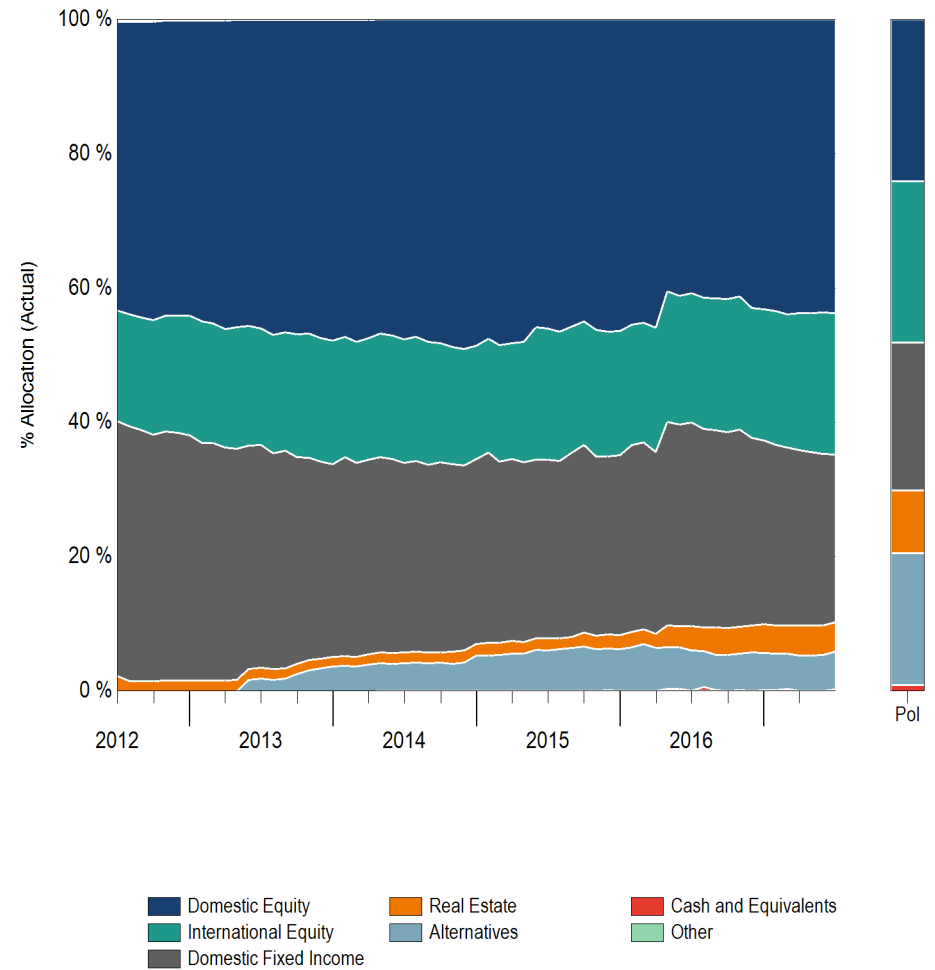
Contributions and withdrawals may include intra-account transfers between managers/funds.



Market Value History  
Cumulative Cash Flows

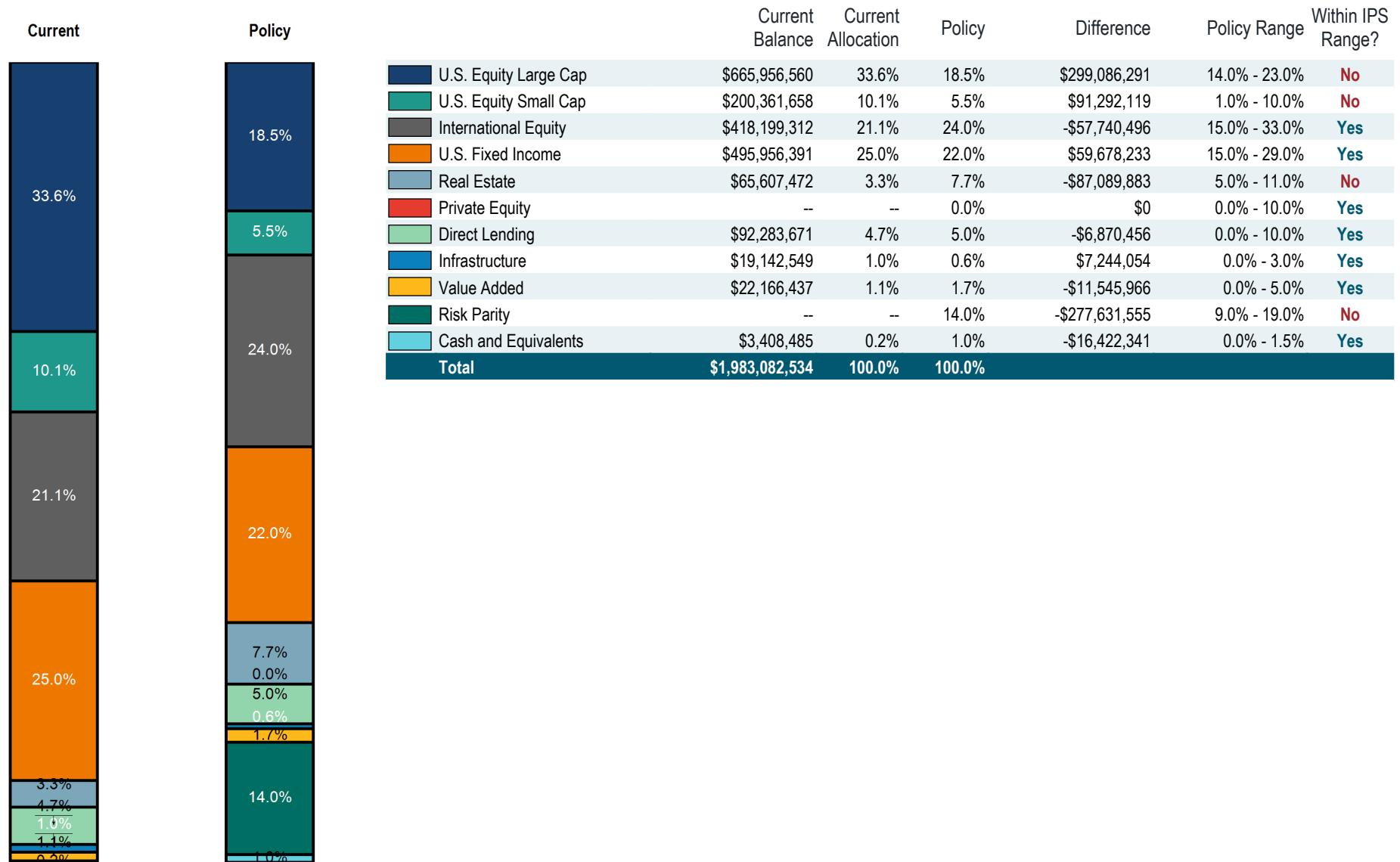


Asset Allocation History



# Total Fund Asset Allocation vs. Policy

Period Ending: June 30, 2017



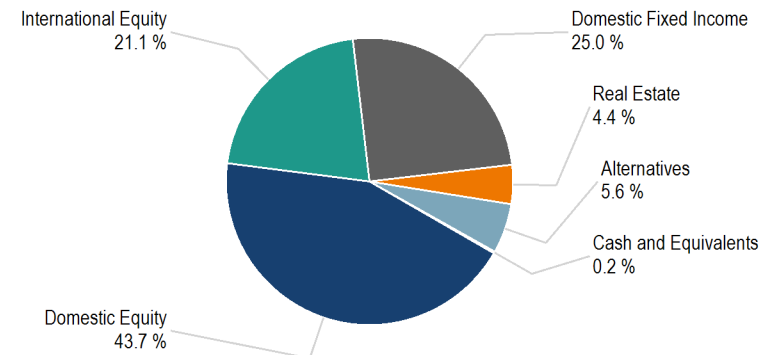
Cash Account includes cash held at Northern Trust for all closed end funds.

# Total Fund Executive Summary (Gross of Fees)

Period Ending: June 30, 2017

|  | QTD        | YTD         | Fiscal<br>YTD | 1 Yr        | 3 Yrs       | 5 Yrs       | 10 Yrs     |
|--|------------|-------------|---------------|-------------|-------------|-------------|------------|
| <b>Total Fund</b>                          | <b>3.4</b> | <b>7.7</b>  | <b>14.7</b>   | <b>14.7</b> | <b>5.7</b>  | <b>9.9</b>  | <b>5.8</b> |
| Policy Index                               | 2.8        | 6.8         | 11.3          | 11.3        | 5.6         | 8.8         | 5.8        |
| InvestorForce Public DB Gross Rank         | 19         | 40          | 10            | 10          | 32          | 13          | 26         |
| <b>US Equity</b>                           | <b>3.4</b> | <b>8.9</b>  | <b>21.9</b>   | <b>21.9</b> | <b>8.6</b>  | <b>14.9</b> | <b>6.9</b> |
| US Equity Blended                          | 3.0        | 8.4         | 19.4          | 19.4        | 9.0         | 14.5        | 7.4        |
| Russell 3000                               | 3.0        | 8.9         | 18.5          | 18.5        | 9.1         | 14.6        | 7.3        |
| InvestorForce All DB US Eq Gross Rank      | 25         | 50          | 10            | 10          | 57          | 20          | 62         |
| <b>International Equity</b>                | <b>6.7</b> | <b>15.0</b> | <b>23.7</b>   | <b>23.7</b> | <b>2.5</b>  | <b>9.0</b>  | <b>2.2</b> |
| MSCI ACWI ex USA Gross                     | 6.0        | 14.5        | 21.0          | 21.0        | 1.3         | 7.7         | 1.6        |
| InvestorForce All DB ex-US Eq Gross Rank   | 42         | 68          | 20            | 20          | 47          | 38          | 40         |
| <b>US Fixed Income</b>                     | <b>1.6</b> | <b>2.9</b>  | <b>3.0</b>    | <b>3.0</b>  | <b>3.4</b>  | <b>3.7</b>  | <b>5.7</b> |
| BBgBarc US Aggregate TR                    | 1.4        | 2.3         | -0.3          | -0.3        | 2.5         | 2.2         | 4.5        |
| InvestorForce All DB US Fix Inc Gross Rank | 51         | 52          | 28            | 28          | 41          | 43          | 42         |
| <b>Real Estate</b>                         | <b>1.8</b> | <b>3.8</b>  | <b>4.6</b>    | <b>4.6</b>  | <b>10.8</b> | <b>12.4</b> | <b>--</b>  |
| DJ US Select RESI                          | 1.6        | 1.4         | -2.4          | -2.4        | 8.0         | 10.2        | --         |
| <b>Direct Lending</b>                      | <b>1.3</b> | <b>-0.7</b> | <b>1.5</b>    | <b>1.5</b>  | <b>4.8</b>  | <b>--</b>   | <b>--</b>  |
| 9% Annual                                  | 2.2        | 4.4         | 6.7           | 6.7         | 8.2         | --          | --         |
| <b>Infrastructure</b>                      | <b>1.8</b> | <b>-1.0</b> | <b>3.0</b>    | <b>3.0</b>  | <b>--</b>   | <b>--</b>   | <b>--</b>  |
| CPI + 5%                                   | 1.7        | 4.0         | 5.2           | 5.2         | --          | --          | --         |

Current Allocation



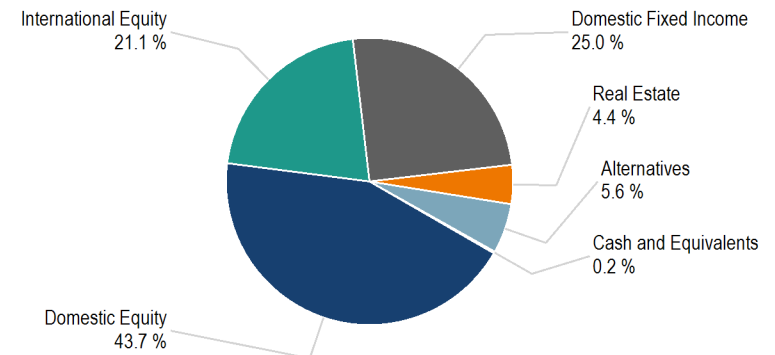
Policy Index: 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4.0% Russell 2000 Value, 3.7% Russell 2000 Growth, 18.0% MSCI ACWI ex USA, 29.8% BBgBarc US Aggregate, 3.5% DJ US Select RESI, 7.5% 9% Annual, 3% CPI + 4%. US Equity Blended: 80% Russell 1000, 20% Russell 2000.

# Total Fund Executive Summary (Net of Fees)

Period Ending: June 30, 2017

|                                | QTD        | YTD         | Fiscal<br>YTD | 1 Yr        | 3 Yrs      | 5 Yrs       | 10 Yrs     |
|--------------------------------|------------|-------------|---------------|-------------|------------|-------------|------------|
| <b>Total Fund</b>              | <b>3.4</b> | <b>7.6</b>  | <b>14.4</b>   | <b>14.4</b> | <b>5.3</b> | <b>9.5</b>  | <b>5.5</b> |
| <i>Policy Index</i>            | 2.8        | 6.8         | 11.3          | 11.3        | 5.6        | 8.8         | 5.8        |
| <b>US Equity</b>               | <b>3.3</b> | <b>8.7</b>  | <b>21.5</b>   | <b>21.5</b> | <b>8.3</b> | <b>14.6</b> | <b>6.6</b> |
| <i>US Equity Blended</i>       | 3.0        | 8.4         | 19.4          | 19.4        | 9.0        | 14.5        | 7.4        |
| <i>Russell 3000</i>            | 3.0        | 8.9         | 18.5          | 18.5        | 9.1        | 14.6        | 7.3        |
| <b>International Equity</b>    | <b>6.6</b> | <b>14.8</b> | <b>23.2</b>   | <b>23.2</b> | <b>2.1</b> | <b>8.5</b>  | <b>1.7</b> |
| <i>MSCI ACWI ex USA Gross</i>  | 6.0        | 14.5        | 21.0          | 21.0        | 1.3        | 7.7         | 1.6        |
| <b>US Fixed Income</b>         | <b>1.6</b> | <b>2.9</b>  | <b>2.8</b>    | <b>2.8</b>  | <b>3.2</b> | <b>3.5</b>  | <b>5.6</b> |
| <i>BBgBarc US Aggregate TR</i> | 1.4        | 2.3         | -0.3          | -0.3        | 2.5        | 2.2         | 4.5        |
| <b>Real Estate</b>             | <b>1.8</b> | <b>3.8</b>  | <b>4.3</b>    | <b>4.3</b>  | <b>9.7</b> | <b>11.4</b> | <b>--</b>  |
| <i>DJ US Select RESI</i>       | 1.6        | 1.4         | -2.4          | -2.4        | 8.0        | 10.2        | --         |
| <b>Direct Lending</b>          | <b>1.3</b> | <b>-0.7</b> | <b>0.9</b>    | <b>0.9</b>  | <b>3.2</b> | <b>--</b>   | <b>--</b>  |
| <i>9% Annual</i>               | 2.2        | 4.4         | 6.7           | 6.7         | 8.2        | --          | --         |
| <b>Infrastructure</b>          | <b>1.8</b> | <b>-1.0</b> | <b>-1.5</b>   | <b>-1.5</b> | <b>--</b>  | <b>--</b>   | <b>--</b>  |
| <i>CPI + 5%</i>                | 1.7        | 4.0         | 5.2           | 5.2         | --         | --          | --         |

Current Allocation



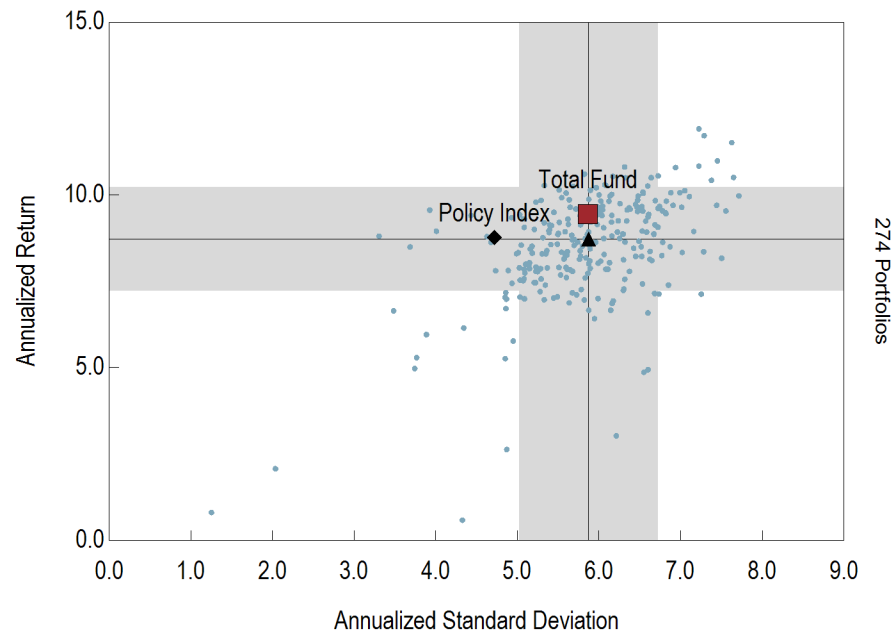
Policy Index: 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4.0% Russell 2000 Value, 3.7% Russell 2000 Growth, 18.0% MSCI ACWI ex USA, 29.8% BBgBarc US Aggregate, 3.5% DJ US Select RESI, 7.5% 9% Annual, 3% CPI + 4%. US Equity Blended: 80% Russell 1000, 20% Russell 2000.

# Total Fund Risk Analysis - 5 Years (Net of Fees)

Period Ending: June 30, 2017

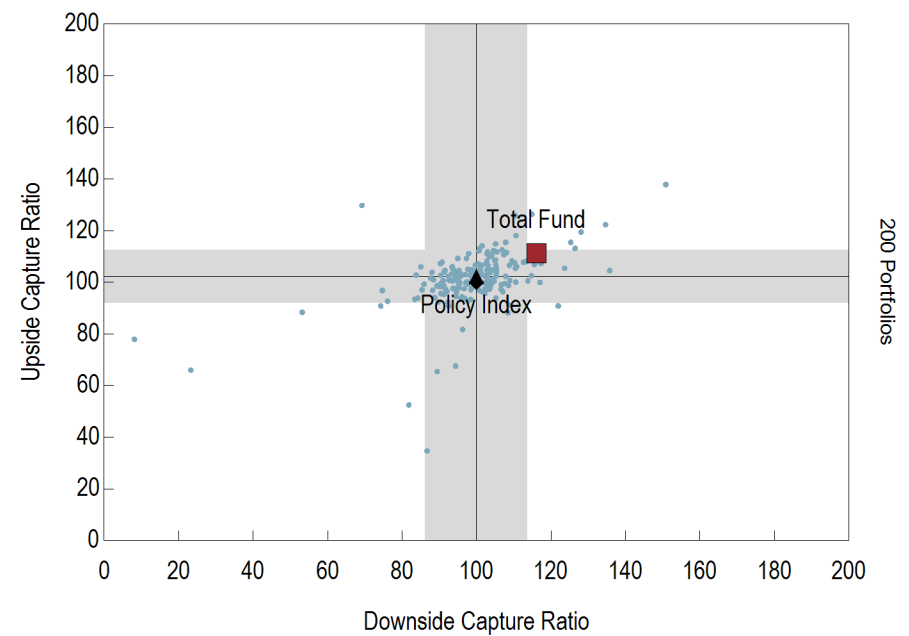
|            | Anlzd Ret | Ann<br>Excess BM<br>Return | Anlzd Std<br>Dev | Anlzd<br>Alpha | Beta | Tracking<br>Error | R-Squared | Sharpe<br>Ratio | Info Ratio | Up Mkt<br>Cap Ratio | Down Mkt<br>Cap Ratio |
|------------|-----------|----------------------------|------------------|----------------|------|-------------------|-----------|-----------------|------------|---------------------|-----------------------|
| Total Fund | 9.45%     | 0.68%                      | 5.87%            | -1.11%         | 1.20 | 1.75%             | 0.94      | 1.58            | 0.39       | 111.12%             | 116.06%               |

Risk vs. Return



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

Up Markets vs. Down Markets



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

# Total Fund Performance Summary (Gross of Fees)

Period Ending: June 30, 2017

|  | Market Value         | % of Portfolio | 3 Mo       | YTD        | Fiscal YTD  | 1 Yr        | 3 Yrs      | 5 Yrs       | 10 Yrs     | 2016        | 2015        | 2014        | 2013        | 2012        |
|--|----------------------|----------------|------------|------------|-------------|-------------|------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| <b>Total Fund</b>                        | <b>1,983,082,534</b> | <b>100.0</b>   | <b>3.4</b> | <b>7.7</b> | <b>14.7</b> | <b>14.7</b> | <b>5.7</b> | <b>9.9</b>  | <b>5.8</b> | <b>8.2</b>  | <b>-0.3</b> | <b>6.9</b>  | <b>19.8</b> | <b>14.3</b> |
| Policy Index                             |                      |                | 2.8        | 6.8        | 11.3        | 11.3        | 5.6        | 8.8         | 5.8        | 8.2         | 0.2         | 7.5         | 15.4        | 12.3        |
| InvestorForce Public DB Gross Rank       |                      |                | 19         | 40         | 10          | 10          | 32         | 13          | 26         | 31          | 61          | 23          | 12          | 10          |
| <b>US Equity</b>                         | <b>866,318,219</b>   | <b>43.7</b>    | <b>3.4</b> | <b>8.9</b> | <b>21.9</b> | <b>21.9</b> | <b>8.6</b> | <b>14.9</b> | <b>6.9</b> | <b>12.4</b> | <b>-0.2</b> | <b>10.9</b> | <b>36.9</b> | <b>18.8</b> |
| US Equity Blended                        |                      |                | 3.0        | 8.4        | 19.4        | 19.4        | 9.0        | 14.5        | 7.4        | 13.9        | -0.1        | 11.6        | 34.3        | 16.7        |
| Russell 3000                             |                      |                | 3.0        | 8.9        | 18.5        | 18.5        | 9.1        | 14.6        | 7.3        | 12.7        | 0.5         | 12.6        | 33.6        | 16.4        |
| InvestorForce All DB US Eq Gross Rank    |                      |                | 25         | 50         | 10          | 10          | 57         | 20          | 62         | 58          | 63          | 54          | 13          | 6           |
| Mellon S&P 500                           | 96,405,453           | 4.9            | 3.1        | 9.3        | 17.9        | 17.9        | 9.6        | 14.7        | 7.2        | 12.0        | 1.4         | 13.7        | 32.4        | 16.0        |
| S&P 500                                  |                      |                | 3.1        | 9.3        | 17.9        | 17.9        | 9.6        | 14.6        | 7.2        | 12.0        | 1.4         | 13.7        | 32.4        | 16.0        |
| eA US Large Cap Core Equity Gross Rank   |                      |                | 47         | 44         | 47          | 47          | 28         | 40          | 65         | 31          | 41          | 42          | 58          | 40          |
| BlackRock Russell 1000 Growth            | 102,682,320          | 5.2            | 4.7        | 14.0       | 20.5        | 20.5        | 11.2       | 15.4        | --         | 7.2         | 5.7         | 13.1        | 33.5        | 15.4        |
| Russell 1000 Growth                      |                      |                | 4.7        | 14.0       | 20.4        | 20.4        | 11.1       | 15.3        | --         | 7.1         | 5.7         | 13.0        | 33.5        | 15.3        |
| eA US Large Cap Growth Equity Gross Rank |                      |                | 57         | 53         | 53          | 53          | 33         | 39          | --         | 26          | 42          | 37          | 56          | 53          |
| Jackson Square                           | 142,614,259          | 7.2            | 6.6        | 14.7       | 18.2        | 18.2        | 7.7        | 13.7        | 8.9        | -4.4        | 5.9         | 13.8        | 35.6        | 17.0        |
| Russell 1000 Growth                      |                      |                | 4.7        | 14.0       | 20.4        | 20.4        | 11.1       | 15.3        | 8.9        | 7.1         | 5.7         | 13.0        | 33.5        | 15.3        |
| eA US Large Cap Growth Equity Gross Rank |                      |                | 17         | 43         | 73          | 73          | 88         | 79          | 50         | 98          | 39          | 32          | 39          | 36          |
| BlackRock Russell 1000 Value             | 117,446,306          | 5.9            | 1.4        | 4.7        | 15.6        | 15.6        | 7.5        | 14.0        | --         | 17.3        | -3.6        | 13.5        | 32.6        | 17.6        |
| Russell 1000 Value                       |                      |                | 1.3        | 4.7        | 15.5        | 15.5        | 7.4        | 13.9        | --         | 17.3        | -3.8        | 13.5        | 32.5        | 17.5        |
| eA US Large Cap Value Equity Gross Rank  |                      |                | 71         | 71         | 66          | 66          | 52         | 48          | --         | 26          | 62          | 31          | 59          | 30          |
| Dodge & Cox-Equity                       | 206,808,222          | 10.4           | 1.9        | 6.8        | 28.3        | 28.3        | 8.9        | 16.3        | 6.5        | 21.4        | -3.9        | 10.9        | 39.1        | 22.3        |
| Russell 1000 Value                       |                      |                | 1.3        | 4.7        | 15.5        | 15.5        | 7.4        | 13.9        | 5.6        | 17.3        | -3.8        | 13.5        | 32.5        | 17.5        |
| eA US Large Cap Value Equity Gross Rank  |                      |                | 53         | 37         | 2           | 2           | 20         | 9           | 51         | 6           | 64          | 72          | 15          | 3           |
| Legato Capital                           | 95,654,751           | 4.8            | 5.5        | 10.2       | 22.7        | 22.7        | 6.5        | 13.3        | --         | 6.4         | -0.7        | 3.0         | 47.3        | 18.1        |
| Russell 2000 Growth                      |                      |                | 4.4        | 10.0       | 24.4        | 24.4        | 7.6        | 14.0        | --         | 11.3        | -1.4        | 5.6         | 43.3        | 14.6        |
| eA US Small Cap Growth Equity Gross Rank |                      |                | 40         | 63         | 62          | 62          | 69         | 72          | --         | 79          | 52          | 57          | 41          | 24          |
| Capital Prospects                        | 104,706,907          | 5.3            | 1.8        | 3.9        | 27.0        | 27.0        | 7.7        | 15.6        | --         | 28.1        | -7.0        | 5.8         | 37.9        | 23.8        |
| Russell 2000 Value                       |                      |                | 0.7        | 0.5        | 24.9        | 24.9        | 7.0        | 13.4        | --         | 31.7        | -7.5        | 4.2         | 34.5        | 18.1        |
| eA US Small Cap Value Equity Gross Rank  |                      |                | 32         | 23         | 21          | 21          | 47         | 30          | --         | 40          | 72          | 51          | 53          | 9           |

Individual closed end funds are not shown in performance summary table.

# Total Fund Performance Summary (Gross of Fees)

Period Ending: June 30, 2017

|  | Market Value       | % of Portfolio | 3 Mo       | YTD         | Fiscal YTD  | 1 Yr        | 3 Yrs       | 5 Yrs       | 10 Yrs     | 2016       | 2015        | 2014        | 2013        | 2012        |
|--|--------------------|----------------|------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|
| <b>International Equity</b>                | <b>418,199,312</b> | <b>21.1</b>    | <b>6.7</b> | <b>15.0</b> | <b>23.7</b> | <b>23.7</b> | <b>2.5</b>  | <b>9.0</b>  | <b>2.2</b> | <b>5.7</b> | <b>-3.7</b> | <b>-4.2</b> | <b>20.0</b> | <b>18.0</b> |
| MSCI ACWI ex USA Gross                     |                    |                | 6.0        | 14.5        | 21.0        | 21.0        | 1.3         | 7.7         | 1.6        | 5.0        | -5.3        | -3.4        | 15.8        | 17.4        |
| InvestorForce All DB ex-US Eq Gross Rank   |                    |                | 42         | 68          | 20          | 20          | 47          | 38          | 40         | 24         | 51          | 70          | 35          | 63          |
| LSV Asset Mgt                              | 211,624,045        | 10.7           | 6.2        | 14.8        | 28.1        | 28.1        | 2.4         | 9.5         | 2.0        | 8.8        | -5.1        | -4.0        | 20.4        | 16.7        |
| MSCI ACWI ex USA Gross                     |                    |                | 6.0        | 14.5        | 21.0        | 21.0        | 1.3         | 7.7         | 1.6        | 5.0        | -5.3        | -3.4        | 15.8        | 17.4        |
| eA ACWI ex-US Equity Unhedged Gross Rank   |                    |                | 68         | 71          | 10          | 10          | 61          | 54          | 79         | 10         | 86          | 65          | 46          | 78          |
| Fidelity                                   | 206,575,267        | 10.4           | 7.2        | 15.2        | 19.5        | 19.5        | 2.5         | 8.6         | 2.4        | 2.4        | -2.0        | -4.5        | 19.6        | 19.3        |
| MSCI ACWI ex USA Gross                     |                    |                | 6.0        | 14.5        | 21.0        | 21.0        | 1.3         | 7.7         | 1.6        | 5.0        | -5.3        | -3.4        | 15.8        | 17.4        |
| eA ACWI ex-US Equity Unhedged Gross Rank   |                    |                | 49         | 64          | 62          | 62          | 60          | 73          | 69         | 46         | 66          | 70          | 55          | 55          |
| <b>US Fixed Income</b>                     | <b>495,956,391</b> | <b>25.0</b>    | <b>1.6</b> | <b>2.9</b>  | <b>3.0</b>  | <b>3.0</b>  | <b>3.4</b>  | <b>3.7</b>  | <b>5.7</b> | <b>5.4</b> | <b>0.3</b>  | <b>6.2</b>  | <b>0.3</b>  | <b>7.9</b>  |
| BBgBarc US Aggregate TR                    |                    |                | 1.4        | 2.3         | -0.3        | -0.3        | 2.5         | 2.2         | 4.5        | 2.6        | 0.6         | 6.0         | -2.0        | 4.2         |
| InvestorForce All DB US Fix Inc Gross Rank |                    |                | 51         | 52          | 28          | 28          | 41          | 43          | 42         | 47         | 42          | 42          | 21          | 48          |
| Dodge & Cox-Fixed                          | 278,953,694        | 14.1           | 1.7        | 3.1         | 3.6         | 3.6         | 3.5         | 4.0         | 5.8        | 5.9        | 0.2         | 6.5         | 0.9         | 8.4         |
| BBgBarc US Aggregate TR                    |                    |                | 1.4        | 2.3         | -0.3        | -0.3        | 2.5         | 2.2         | 4.5        | 2.6        | 0.6         | 6.0         | -2.0        | 4.2         |
| eA US Core Fixed Inc Gross Rank            |                    |                | 27         | 9           | 2           | 2           | 7           | 4           | 7          | 3          | 89          | 26          | 3           | 9           |
| PIMCO                                      | 117,063,806        | 5.9            | 1.4        | 2.5         | 1.0         | 1.0         | 2.8         | 2.5         | --         | 3.7        | 0.9         | 5.0         | -2.2        | 5.8         |
| BBgBarc US Aggregate TR                    |                    |                | 1.4        | 2.3         | -0.3        | -0.3        | 2.5         | 2.2         | --         | 2.6        | 0.6         | 6.0         | -2.0        | 4.2         |
| eA US Core Fixed Inc Gross Rank            |                    |                | 80         | 56          | 21          | 21          | 50          | 73          | --         | 29         | 49          | 83          | 89          | 54          |
| Insight                                    | 99,938,891         | 5.0            | --         | --          | --          | --          | --          | --          | --         | --         | --          | --          | --          | --          |
| BBgBarc US Govt/Credit 1-5 Yr. TR          |                    |                | --         | --          | --          | --          | --          | --          | --         | --         | --          | --          | --          | --          |
| eA US Short Duration Fixed Inc Gross Rank  |                    |                | --         | --          | --          | --          | --          | --          | --         | --         | --          | --          | --          | --          |
| <b>Real Estate</b>                         | <b>87,773,909</b>  | <b>4.4</b>     | <b>1.8</b> | <b>3.8</b>  | <b>4.6</b>  | <b>4.6</b>  | <b>10.8</b> | <b>12.4</b> | <b>--</b>  | <b>7.5</b> | <b>12.1</b> | <b>28.3</b> | <b>1.4</b>  | <b>5.6</b>  |
| DJ US Select RESI                          |                    |                | 1.6        | 1.4         | -2.4        | -2.4        | 8.0         | 10.2        | --         | 6.6        | 4.5         | 31.9        | 1.3         | 16.1        |
| Prime Property Fund                        | 17,599,725         | 0.9            | 2.2        | 4.2         | 9.6         | 9.6         | --          | --          | --         | 10.4       | --          | --          | --          | --          |
| NCREIF-ODCE                                |                    |                | 1.7        | 3.5         | 7.9         | 7.9         | --          | --          | --         | 8.8        | --          | --          | --          | --          |
| American Strategic Value Realty            | 22,166,437         | 1.1            | 2.4        | 5.3         | 11.4        | 11.4        | --          | --          | --         | 13.1       | 21.4        | --          | --          | --          |
| NCREIF Property Index                      |                    |                | 1.8        | 3.3         | 7.0         | 7.0         | --          | --          | --         | 8.0        | 13.3        | --          | --          | --          |
| BlackRock US Real Estate                   | 35,190,427         | 1.8            | 1.6        | 1.3         | -2.4        | -2.4        | 8.0         | --          | --         | 6.6        | 4.4         | 31.9        | 1.4         | --          |
| DJ US Select RESI TR USD                   |                    |                | 1.6        | 1.4         | -2.4        | -2.4        | 8.0         | --          | --         | 6.6        | 4.5         | 31.9        | 1.3         | --          |
| eA US REIT Gross Rank                      |                    |                | 67         | 87          | 83          | 83          | 83          | --          | --         | 68         | 58          | 39          | 91          | --          |

Individual closed end funds are not shown in performance summary table.



# Total Fund Performance Summary (Net of Fees)

Period Ending: June 30, 2017

|  | Market Value         | % of Portfolio | 3 Mo       | YTD         | Fiscal YTD  | 1 Yr        | 3 Yrs      | 5 Yrs       | 10 Yrs     | 2016        | 2015        | 2014        | 2013        | 2012        | Return     | Since         |
|--|----------------------|----------------|------------|-------------|-------------|-------------|------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|------------|---------------|
| <b>Total Fund</b>                        | <b>1,983,082,534</b> | <b>100.0</b>   | <b>3.4</b> | <b>7.6</b>  | <b>14.4</b> | <b>14.4</b> | <b>5.3</b> | <b>9.5</b>  | <b>5.5</b> | <b>7.7</b>  | <b>-0.6</b> | <b>6.5</b>  | <b>19.2</b> | <b>14.0</b> | <b>9.2</b> | <b>Dec-94</b> |
| <i>Policy Index</i>                      |                      |                | 2.8        | 6.8         | 11.3        | 11.3        | 5.6        | 8.8         | 5.8        | 8.2         | 0.2         | 7.5         | 15.4        | 12.3        | 8.2        | Dec-94        |
| <b>US Equity</b>                         | <b>866,318,219</b>   | <b>43.7</b>    | <b>3.3</b> | <b>8.7</b>  | <b>21.5</b> | <b>21.5</b> | <b>8.3</b> | <b>14.6</b> | <b>6.6</b> | <b>12.1</b> | <b>-0.4</b> | <b>10.7</b> | <b>36.5</b> | <b>18.5</b> | <b>6.8</b> | <b>Jun-01</b> |
| <i>US Equity Blended</i>                 |                      |                | 3.0        | 8.4         | 19.4        | 19.4        | 9.0        | 14.5        | 7.4        | 13.9        | -0.1        | 11.6        | 34.3        | 16.7        | 7.0        | Jun-01        |
| <i>Russell 3000</i>                      |                      |                | 3.0        | 8.9         | 18.5        | 18.5        | 9.1        | 14.6        | 7.3        | 12.7        | 0.5         | 12.6        | 33.6        | 16.4        | 6.8        | Jun-01        |
| Mellon S&P 500                           | 96,405,453           | 4.9            | 3.1        | 9.3         | 17.9        | 17.9        | 9.6        | 14.6        | 7.2        | 11.9        | 1.4         | 13.7        | 32.4        | 16.0        | 9.3        | Apr-03        |
| <i>S&amp;P 500</i>                       |                      |                | 3.1        | 9.3         | 17.9        | 17.9        | 9.6        | 14.6        | 7.2        | 12.0        | 1.4         | 13.7        | 32.4        | 16.0        | 9.3        | Apr-03        |
| BlackRock Russell 1000 Growth            | 102,682,320          | 5.2            | 4.7        | 14.0        | 20.5        | 20.5        | 11.2       | 15.3        | --         | 7.2         | 5.7         | 13.1        | 33.5        | 15.4        | 16.5       | Jun-10        |
| <i>Russell 1000 Growth</i>               |                      |                | 4.7        | 14.0        | 20.4        | 20.4        | 11.1       | 15.3        | --         | 7.1         | 5.7         | 13.0        | 33.5        | 15.3        | 16.5       | Jun-10        |
| Jackson Square                           | 142,614,259          | 7.2            | 6.5        | 14.4        | 17.6        | 17.6        | 7.3        | 13.2        | 8.4        | -4.9        | 5.5         | 13.4        | 34.9        | 16.6        | 8.9        | Aug-06        |
| <i>Russell 1000 Growth</i>               |                      |                | 4.7        | 14.0        | 20.4        | 20.4        | 11.1       | 15.3        | 8.9        | 7.1         | 5.7         | 13.0        | 33.5        | 15.3        | 9.8        | Aug-06        |
| BlackRock Russell 1000 Value             | 117,446,306          | 5.9            | 1.4        | 4.7         | 15.6        | 15.6        | 7.4        | 14.0        | --         | 17.3        | -3.6        | 13.5        | 32.6        | 17.6        | 13.8       | Jul-09        |
| <i>Russell 1000 Value</i>                |                      |                | 1.3        | 4.7         | 15.5        | 15.5        | 7.4        | 13.9        | --         | 17.3        | -3.8        | 13.5        | 32.5        | 17.5        | 13.7       | Jul-09        |
| Dodge & Cox-Equity                       | 206,808,222          | 10.4           | 1.8        | 6.7         | 28.0        | 28.0        | 8.7        | 16.1        | 6.3        | 21.2        | -4.0        | 10.7        | 38.8        | 22.1        | 12.2       | Dec-94        |
| <i>Russell 1000 Value</i>                |                      |                | 1.3        | 4.7         | 15.5        | 15.5        | 7.4        | 13.9        | 5.6        | 17.3        | -3.8        | 13.5        | 32.5        | 17.5        | 10.1       | Dec-94        |
| Legato Capital                           | 95,654,751           | 4.8            | 5.3        | 9.7         | 21.8        | 21.8        | 5.8        | 12.5        | --         | 5.6         | -1.3        | 2.5         | 46.0        | 17.4        | 15.3       | Dec-08        |
| <i>Russell 2000 Growth</i>               |                      |                | 4.4        | 10.0        | 24.4        | 24.4        | 7.6        | 14.0        | --         | 11.3        | -1.4        | 5.6         | 43.3        | 14.6        | 16.0       | Dec-08        |
| Capital Prospects                        | 104,706,907          | 5.3            | 1.6        | 3.5         | 26.0        | 26.0        | 7.1        | 14.9        | --         | 27.1        | -7.5        | 5.2         | 36.8        | 23.2        | 15.4       | Dec-08        |
| <i>Russell 2000 Value</i>                |                      |                | 0.7        | 0.5         | 24.9        | 24.9        | 7.0        | 13.4        | --         | 31.7        | -7.5        | 4.2         | 34.5        | 18.1        | 13.2       | Dec-08        |
| <b>International Equity</b>              | <b>418,199,312</b>   | <b>21.1</b>    | <b>6.6</b> | <b>14.8</b> | <b>23.2</b> | <b>23.2</b> | <b>2.1</b> | <b>8.5</b>  | <b>1.7</b> | <b>5.0</b>  | <b>-4.0</b> | <b>-4.5</b> | <b>19.4</b> | <b>17.5</b> | <b>5.6</b> | <b>Jun-01</b> |
| <i>MSCI ACWI ex USA Gross</i>            |                      |                | 6.0        | 14.5        | 21.0        | 21.0        | 1.3        | 7.7         | 1.6        | 5.0         | -5.3        | -3.4        | 15.8        | 17.4        | 6.3        | Jun-01        |
| LSV Asset Mgt                            | 211,624,045          | 10.7           | 6.1        | 14.5        | 27.4        | 27.4        | 2.0        | 9.0         | 1.4        | 8.2         | -5.4        | -4.2        | 19.8        | 16.2        | 6.8        | Aug-04        |
| <i>MSCI ACWI ex USA Gross</i>            |                      |                | 6.0        | 14.5        | 21.0        | 21.0        | 1.3        | 7.7         | 1.6        | 5.0         | -5.3        | -3.4        | 15.8        | 17.4        | 6.8        | Aug-04        |
| Fidelity                                 | 206,575,267          | 10.4           | 7.2        | 15.2        | 19.2        | 19.2        | 2.1        | 8.1         | 1.9        | 1.8         | -2.3        | -4.9        | 19.1        | 18.8        | 3.6        | Apr-06        |
| <i>MSCI ACWI ex USA Gross</i>            |                      |                | 6.0        | 14.5        | 21.0        | 21.0        | 1.3        | 7.7         | 1.6        | 5.0         | -5.3        | -3.4        | 15.8        | 17.4        | 3.4        | Apr-06        |
| <b>US Fixed Income</b>                   | <b>495,956,391</b>   | <b>25.0</b>    | <b>1.6</b> | <b>2.9</b>  | <b>2.8</b>  | <b>2.8</b>  | <b>3.2</b> | <b>3.5</b>  | <b>5.6</b> | <b>5.2</b>  | <b>0.2</b>  | <b>6.1</b>  | <b>0.1</b>  | <b>7.7</b>  | <b>5.7</b> | <b>Jun-01</b> |
| <i>BBgBarc US Aggregate TR</i>           |                      |                | 1.4        | 2.3         | -0.3        | -0.3        | 2.5        | 2.2         | 4.5        | 2.6         | 0.6         | 6.0         | -2.0        | 4.2         | 4.7        | Jun-01        |
| Dodge & Cox-Fixed                        | 278,953,694          | 14.1           | 1.6        | 3.0         | 3.5         | 3.5         | 3.4        | 3.9         | 5.7        | 5.7         | 0.1         | 6.4         | 0.8         | 8.3         | 6.7        | Dec-94        |
| <i>BBgBarc US Aggregate TR</i>           |                      |                | 1.4        | 2.3         | -0.3        | -0.3        | 2.5        | 2.2         | 4.5        | 2.6         | 0.6         | 6.0         | -2.0        | 4.2         | 5.8        | Dec-94        |
| PIMCO                                    | 117,063,806          | 5.9            | 1.3        | 2.3         | 0.7         | 0.7         | 2.5        | 2.2         | --         | 3.4         | 0.6         | 4.7         | -2.5        | 5.5         | 3.6        | May-10        |
| <i>BBgBarc US Aggregate TR</i>           |                      |                | 1.4        | 2.3         | -0.3        | -0.3        | 2.5        | 2.2         | --         | 2.6         | 0.6         | 6.0         | -2.0        | 4.2         | 3.4        | May-10        |
| Insight                                  | 99,938,891           | 5.0            | --         | --          | --          | --          | --         | --          | --         | --          | --          | --          | --          | --          | --         | Jun-17        |
| <i>BBgBarc US Govt/Credit 1-5 Yr. TR</i> |                      |                | --         | --          | --          | --          | --         | --          | --         | --          | --          | --          | --          | --          | --         | Jun-17        |

Individual closed end funds are not shown in performance summary table.

Total Fund  
Performance Summary (Net of Fees)

Period Ending: June 30, 2017

|                                 | Market Value      | % of Portfolio | 3 Mo       | YTD        | Fiscal YTD | 1 Yr       | 3 Yrs      | 5 Yrs       | 10 Yrs    | 2016       | 2015        | 2014        | 2013       | 2012       | Return     | Since         |
|---------------------------------|-------------------|----------------|------------|------------|------------|------------|------------|-------------|-----------|------------|-------------|-------------|------------|------------|------------|---------------|
| <b>Real Estate</b>              | <b>87,773,909</b> | <b>4.4</b>     | <b>1.8</b> | <b>3.8</b> | <b>4.3</b> | <b>4.3</b> | <b>9.7</b> | <b>11.4</b> | <b>--</b> | <b>6.6</b> | <b>10.5</b> | <b>27.4</b> | <b>1.3</b> | <b>2.7</b> | <b>3.1</b> | <b>Feb-08</b> |
| <i>DJ US Select RESI</i>        |                   |                | 1.6        | 1.4        | -2.4       | -2.4       | 8.0        | 10.2        | --        | 6.6        | 4.5         | 31.9        | 1.3        | 16.1       | 5.4        | Feb-08        |
| Prime Property Fund             | 17,599,725        | 0.9            | 2.2        | 4.2        | 9.1        | 9.1        | --         | --          | --        | 9.2        | --          | --          | --         | --         | 9.6        | Sep-15        |
| <i>NCREIF-ODCE</i>              |                   |                | 1.7        | 3.5        | 7.9        | 7.9        | --         | --          | --        | 8.8        | --          | --          | --         | --         | 9.0        | Sep-15        |
| American Strategic Value Realty | 22,166,437        | 1.1            | 2.4        | 5.3        | 10.9       | 10.9       | --         | --          | --        | 11.7       | 18.3        | --          | --         | --         | 14.2       | Dec-14        |
| <i>NCREIF Property Index</i>    |                   |                | 1.8        | 3.3        | 7.0        | 7.0        | --         | --          | --        | 8.0        | 13.3        | --          | --         | --         | 9.8        | Dec-14        |
| BlackRock US Real Estate        | 35,190,427        | 1.8            | 1.6        | 1.3        | -2.5       | -2.5       | 7.9        | --          | --        | 6.6        | 4.4         | 31.9        | 1.3        | --         | 9.5        | Sep-12        |
| <i>DJ US Select RESI TR USD</i> |                   |                | 1.6        | 1.4        | -2.4       | -2.4       | 8.0        | --          | --        | 6.6        | 4.5         | 31.9        | 1.3        | --         | 9.6        | Sep-12        |

Individual closed end funds are not shown in performance summary table.

# Total Fund

## Closed End Funds - Investment Summary

Period Ending: June 30, 2017

| Verus Internal Analysis       |                               |   |                  |                           |          |                      |                     |                                      |   |                  |
|-------------------------------|-------------------------------|---|------------------|---------------------------|----------|----------------------|---------------------|--------------------------------------|---|------------------|
| Inception Date                | Manager Name/Fund Name        | Estimated Market Value as of 6/30/2017 <sup>3</sup> | Total Commitment | Capital Called            | % Called | Remaining Commitment | Total Distributions | Distrib./ Paid-In (DPI) <sup>1</sup> | Tot. Value/ Paid-In (TVPI) <sup>2</sup> | Latest Valuation |
| Real Estate                   |                               |   |                  |                           |          |                      |                     |                                      |   |                  |
| 7/31/2014                     | Greenfield Gap                | \$12,817,321  | \$15,000,000     | \$11,021,141              | 73%      | \$3,978,859          | \$1,137,413         | 10.3%                                | 126.6%                                  | 3/31/2017        |
| Total Real Estate             |                               | \$12,817,321  | \$15,000,000     | \$11,021,141              | 73%      | \$3,978,859          | \$1,137,413         | 10.3%                                | 126.6%                                  |                  |
| % of Portfolio (Market Value) |                               | 0.6%  |                  |                           |          |                      |                     |                                      |   |                  |
| Direct Lending                |                               |   |                  |                           |          |                      |                     |                                      |   |                  |
| 5/31/2013                     | Medley Capital                | \$22,996,174  | \$30,000,000     | \$29,000,453              | 97%      | \$999,547            | \$16,489,758        | 56.9%                                | 136.2%                                  | 3/31/2017        |
| 5/31/2013                     | Raven Capital                 | \$15,453,392  | \$40,000,000     | \$34,505,763              | 86%      | \$5,494,237          | \$20,439,805        | 59.2%                                | 104.0%                                  | 3/31/2017        |
| 7/31/2015                     | Raven Opportunity III         | \$18,090,723  | \$50,000,000     | \$17,214,515              | 34%      | \$32,785,485         | \$200,411           | 1.2%                                 | 106.3%                                  | 3/31/2017        |
| 8/31/2013                     | White Oak Pinnacle            | \$35,743,382  | \$40,000,000     | \$40,000,000 <sup>4</sup> | 100%     | \$5,153,060          | \$29,602,846        | 74.0%                                | 163.4%                                  | 3/31/2017        |
| Total Direct Lending          |                               | \$92,283,671  | \$160,000,000    | \$120,720,731             | 75%      | \$44,432,329         | \$66,732,820        | 55.3%                                | 131.7%                                  |                  |
| % of Portfolio (Market Value) |                               | 4.7%  |                  |                           |          |                      |                     |                                      |   |                  |
| Infrastructure                |                               |   |                  |                           |          |                      |                     |                                      |   |                  |
| 5/31/2015                     | MS Infrastructure Partners II | \$19,142,549  | \$50,000,000     | \$20,016,500              | 40%      | \$29,983,500         | \$122,400           | 0.6%                                 | 96.2%                                   | 3/31/2017        |
| Total Infrastructure          |                               | \$19,142,549  | \$50,000,000     | \$20,016,500              | 40%      | \$29,983,500         | \$122,400           | 0.6%                                 | 96.2%                                   |                  |
| % of Portfolio (Market Value) |                               | 1.0%  |                  |                           |          |                      |                     |                                      |   |                  |

1 (DPI) is equal to (capital returned / capital called)

2 (TVPI) is equal to (market value + capital returned) / capital called

3 Last known market value + capital calls - distributions

4 Includes deemed contributions, which are amounts withheld from distributions and applied to fulfill capital calls.

Total Fund  
Closed End Funds - IRR Summary

Period Ending: June 30, 2017

| Real Estate                   | Inception | Fund Level (G) | StanCERA (G) | Fund Level (N) | StanCERA (N) | IRR Date  |
|-------------------------------|-----------|----------------|--------------|----------------|--------------|-----------|
| Greenfield Gap                | 7/31/2014 | 17.3%          | 18.8%        | 13.6%          | 13.3%        | 3/31/2017 |
| <b>Direct Lending</b>         |           |                |              |                |              |           |
| Medley Capital                | 5/31/2013 | 8.7%           | 7.7%         | 6.8%           | 5.3%         | 3/31/2017 |
| Raven Capital                 | 5/31/2013 | 5.3%           | 5.3%         | 1.7%           | 1.7%         | 3/31/2017 |
| Raven Opportunity III         | 7/31/2015 | 5.2%           | 5.2%         | -10.8%         | -10.8%       | 3/31/2017 |
| White Oak Pinnacle            | 8/31/2013 | 13.3%          | 14.5%        | 8.4%           | 8.6%         | 3/31/2017 |
| <b>Infrastructure</b>         |           |                |              |                |              |           |
| MS Infrastructure Partners II | 5/31/2015 | 9.1%           | 9.1%         | -1.7%          | -5.4%        | 3/31/2017 |

IRR information provided by managers.

# Total Fund

## Performance Analysis - 3 and 5 Years (Net of Fees)

Period Ending: June 30, 2017

### 3 Years

|                               | Anlzd Ret | Ann Excess<br>BM Return | Anlzd Std Dev | Anlzd Alpha | Beta | Tracking Error | R-Squared | Sharpe Ratio | Info Ratio | Up Mkt Cap<br>Ratio | Down Mkt Cap<br>Ratio |
|-------------------------------|-----------|-------------------------|---------------|-------------|------|----------------|-----------|--------------|------------|---------------------|-----------------------|
| Mellon S&P 500                | 9.61%     | 0.00%                   | 6.96%         | 0.00%       | 1.00 | 0.02%          | 1.00      | 1.35         | -0.03      | 99.93%              | 99.75%                |
| BlackRock Russell 1000 Growth | 11.16%    | 0.05%                   | 7.53%         | 0.05%       | 1.00 | 0.05%          | 1.00      | 1.45         | 1.06       | 100.48%             | 100.07%               |
| Jackson Square                | 7.30%     | -3.81%                  | 11.32%        | -7.29%      | 1.31 | 5.99%          | 0.76      | 0.62         | -0.64      | 73.85%              | 136.05%               |
| BlackRock Russell 1000 Value  | 7.45%     | 0.09%                   | 8.02%         | 0.12%       | 0.99 | 0.07%          | 1.00      | 0.90         | 1.21       | 100.45%             | 98.83%                |
| Dodge & Cox-Equity            | 8.70%     | 1.34%                   | 10.13%        | 0.67%       | 1.09 | 5.09%          | 0.75      | 0.83         | 0.26       | 117.21%             | 107.58%               |
| Legato Capital                | 5.80%     | -1.84%                  | 13.43%        | -1.65%      | 0.98 | 2.62%          | 0.96      | 0.41         | -0.70      | 92.48%              | 107.96%               |
| Capital Prospects             | 7.05%     | 0.03%                   | 12.52%        | 0.91%       | 0.88 | 2.86%          | 0.97      | 0.54         | 0.01       | 88.05%              | 81.92%                |
| LSV Asset Mgt                 | 1.97%     | 0.71%                   | 12.53%        | 0.62%       | 1.07 | 2.78%          | 0.95      | 0.14         | 0.25       | 111.20%             | 102.19%               |
| Fidelity                      | 2.12%     | 0.86%                   | 10.97%        | 0.93%       | 0.94 | 2.21%          | 0.96      | 0.17         | 0.39       | 105.39%             | 95.46%                |
| Dodge & Cox-Fixed             | 3.42%     | 0.94%                   | 2.62%         | 1.81%       | 0.65 | 1.84%          | 0.71      | 1.22         | 0.51       | 95.87%              | 39.36%                |
| PIMCO                         | 2.51%     | 0.03%                   | 2.93%         | 0.39%       | 0.85 | 0.70%          | 0.97      | 0.77         | 0.04       | 90.31%              | 77.07%                |
| BlackRock US Real Estate      | 7.92%     | -0.09%                  | 12.59%        | -0.08%      | 1.00 | 0.03%          | 1.00      | 0.61         | -3.18      | 99.41%              | 100.34%               |

### 5 Years

|                               | Anlzd Ret | Ann Excess<br>BM Return | Anlzd Std Dev | Anlzd Alpha | Beta | Tracking Error | R-Squared | Sharpe Ratio | Info Ratio | Up Mkt Cap<br>Ratio | Down Mkt Cap<br>Ratio |
|-------------------------------|-----------|-------------------------|---------------|-------------|------|----------------|-----------|--------------|------------|---------------------|-----------------------|
| Mellon S&P 500                | 14.62%    | -0.01%                  | 7.68%         | 0.00%       | 1.00 | 0.02%          | 1.00      | 1.88         | -0.52      | 99.87%              | 99.71%                |
| BlackRock Russell 1000 Growth | 15.34%    | 0.04%                   | 8.05%         | 0.05%       | 1.00 | 0.05%          | 1.00      | 1.88         | 0.84       | 100.30%             | 99.79%                |
| Jackson Square                | 13.20%    | -2.10%                  | 11.04%        | -6.00%      | 1.25 | 4.88%          | 0.84      | 1.18         | -0.43      | 86.03%              | 119.01%               |
| BlackRock Russell 1000 Value  | 14.00%    | 0.06%                   | 8.51%         | 0.11%       | 1.00 | 0.06%          | 1.00      | 1.63         | 1.05       | 100.31%             | 98.83%                |
| Dodge & Cox-Equity            | 16.14%    | 2.20%                   | 9.88%         | 1.52%       | 1.05 | 4.19%          | 0.82      | 1.62         | 0.53       | 120.66%             | 107.58%               |
| Legato Capital                | 12.49%    | -1.49%                  | 13.06%        | -1.72%      | 1.02 | 2.67%          | 0.96      | 0.94         | -0.56      | 92.94%              | 107.96%               |
| Capital Prospects             | 14.88%    | 1.49%                   | 11.74%        | 2.35%       | 0.94 | 3.03%          | 0.94      | 1.25         | 0.49       | 104.02%             | 81.92%                |
| LSV Asset Mgt                 | 8.98%     | 1.27%                   | 11.67%        | 0.74%       | 1.07 | 2.28%          | 0.97      | 0.76         | 0.56       | 113.26%             | 100.66%               |
| Fidelity                      | 8.11%     | 0.41%                   | 10.19%        | 0.98%       | 0.93 | 2.38%          | 0.95      | 0.78         | 0.17       | 97.41%              | 89.70%                |
| Dodge & Cox-Fixed             | 3.93%     | 1.72%                   | 2.65%         | 2.28%       | 0.74 | 1.52%          | 0.76      | 1.42         | 1.13       | 114.88%             | 27.38%                |
| PIMCO                         | 2.16%     | -0.05%                  | 2.96%         | 0.10%       | 0.93 | 0.68%          | 0.95      | 0.67         | -0.08      | 94.40%              | 91.33%                |

Performance Analysis excludes closed end funds and those funds without 3 and 5 years of performance.

# Total Fund Investment Fund Fee Analysis

Period Ending: June 30, 2017

| Name                            | Asset Class           | Fee Schedule   | Market Value           | Estimated Fee Value | Estimated Fee |
|---------------------------------|-----------------------|--|------------------------|---------------------|---------------|
| Mellon S&P 500                  | Domestic Equity       | 0.04% of Assets  | \$96,405,453           | \$33,742            | 0.04%         |
| BlackRock Russell 1000 Growth   | Domestic Equity       | 0.02% of Assets  | \$102,682,320          | \$20,536            | 0.02%         |
| Jackson Square                  | Domestic Equity       | 0.50% of First \$100.0 Mil,<br>0.45% Thereafter  | \$142,614,259          | \$691,764           | 0.49%         |
| BlackRock Russell 1000 Value    | Domestic Equity       | 0.02% of Assets  | \$117,446,306          | \$23,489            | 0.02%         |
| Dodge & Cox-Equity              | Domestic Equity       | 0.40% of First \$10.0 Mil,<br>0.20% of Next \$90.0 Mil,<br>0.15% Thereafter                              | \$206,808,222          | \$380,212           | 0.18%         |
| Legato Capital                  |                       | 0.77% of Assets  | 95,654,751             | \$736,542           | 0.77%         |
| Capital Prospects               |                       | 0.75% of Assets  | 104,706,907            | \$785,302           | 0.75%         |
| LSV Asset Mgt                   | International Equity  | 0.75% of First \$25.0 Mil,<br>0.65% of Next \$25.0 Mil,<br>0.55% of Next \$50.0 Mil,<br>0.45% Thereafter | \$211,624,045          | \$1,127,308         | 0.53%         |
| Fidelity                        | International Equity  | 0.25% of Assets  | \$206,575,267          | \$516,438           | 0.25%         |
| Dodge & Cox-Fixed               | Domestic Fixed Income | 0.40% of First \$4.0 Mil,<br>0.30% of Next \$6.0 Mil,<br>0.20% of Next \$10.0 Mil,<br>0.10% Thereafter   | \$278,953,694          | \$312,954           | 0.11%         |
| PIMCO                           | Domestic Fixed Income | 0.50% of First \$25.0 Mil,<br>0.38% of Next \$25.0 Mil,<br>0.25% Thereafter                              | \$117,063,806          | \$386,410           | 0.33%         |
| Insight                         | Domestic Fixed Income | 0.12% of Assets  | \$99,938,891           | \$119,927           | 0.12%         |
| Prime Property Fund             | Real Estate           | 0.84% of Assets  | \$17,599,725           | \$147,838           | 0.84%         |
| American Strategic Value Realty | Real Estate           | 1.25% of First \$10.0 Mil,<br>1.20% of Next \$15.0 Mil,<br>1.10% of Next \$25.0 Mil,<br>1.00% Thereafter | \$22,166,437           | \$270,997           | 1.22%         |
| BlackRock US Real Estate        | Real Estate           | 0.09% of First \$100.0 Mil,<br>0.07% Thereafter  | \$35,190,427           | \$31,671            | 0.09%         |
| Cash Account                    | Cash and Equivalents  | 0.10% of Assets  | \$3,408,485            | \$3,408             | 0.10%         |
| <b>Total</b>                    |                       |  | <b>\$1,858,838,993</b> | <b>\$5,588,539</b>  | <b>0.30%</b>  |

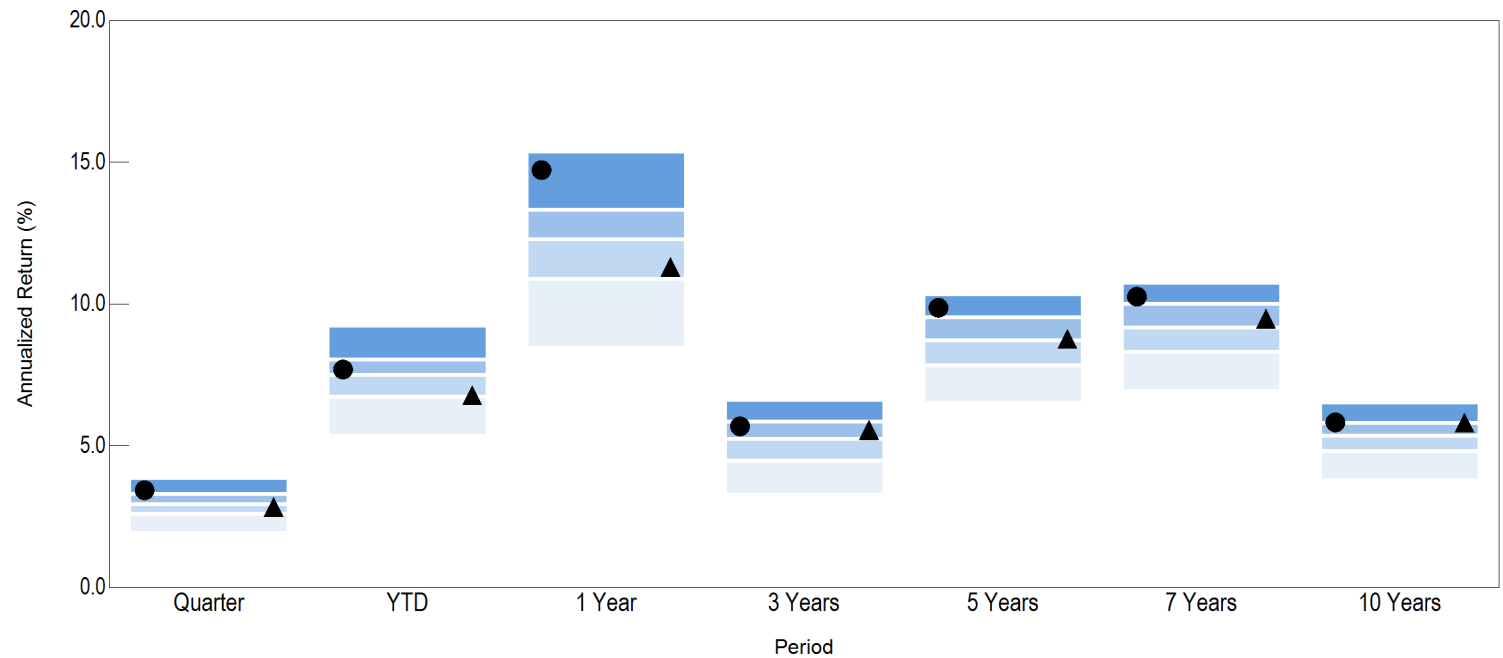
Closed end funds excluded from fee analysis. Fidelity has performance based fees which are not included in the analysis above; fee shown is the annual base fee only.

# Total Fund

## Peer Universe Comparison: Cumulative Performance (Gross of Fees)

Period Ending: June 30, 2017

Total Fund Cumulative Performance vs. InvestorForce Public DB Gross



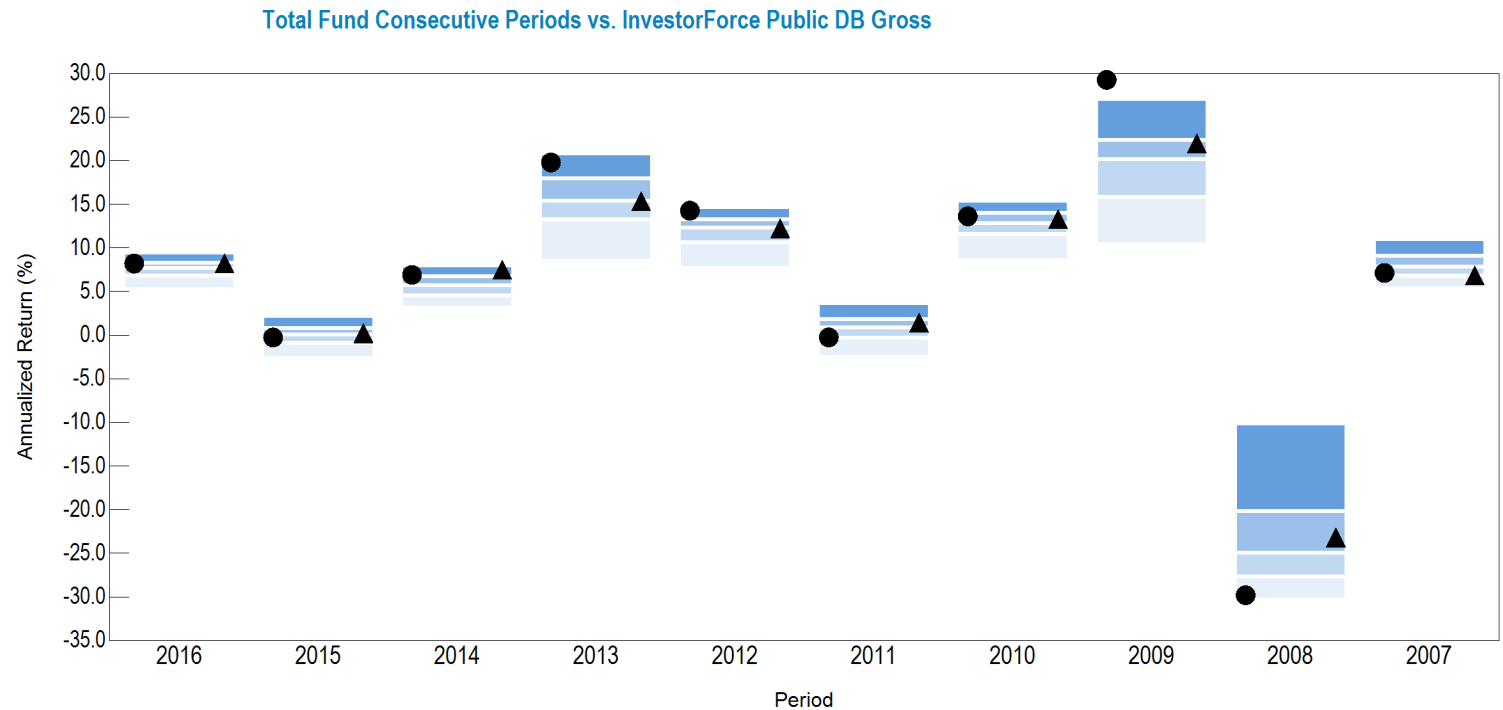
|                 | Return (Rank) |          |           |          |          |           |          |
|-----------------|---------------|----------|-----------|----------|----------|-----------|----------|
| 5th Percentile  | 3.8           | 9.2      | 15.4      | 6.6      | 10.3     | 10.7      | 6.5      |
| 25th Percentile | 3.3           | 8.1      | 13.3      | 5.9      | 9.5      | 10.0      | 5.8      |
| Median          | 2.9           | 7.5      | 12.3      | 5.3      | 8.7      | 9.2       | 5.4      |
| 75th Percentile | 2.6           | 6.8      | 10.9      | 4.5      | 7.9      | 8.3       | 4.8      |
| 95th Percentile | 1.9           | 5.4      | 8.5       | 3.3      | 6.5      | 7.0       | 3.8      |
| # of Portfolios | 330           | 329      | 326       | 296      | 274      | 245       | 223      |
| ● Total Fund    | 3.4 (19)      | 7.7 (40) | 14.7 (10) | 5.7 (32) | 9.9 (13) | 10.3 (16) | 5.8 (26) |
| ▲ Policy Index  | 2.8 (57)      | 6.8 (74) | 11.3 (68) | 5.6 (36) | 8.8 (49) | 9.5 (41)  | 5.8 (27) |



# Total Fund

## Peer Universe Comparison: Consecutive Periods (Gross of Fees)

Period Ending: June 30, 2017



|                 | Return (Rank) |           |          |           |           |           |           |           |            |          |
|-----------------|---------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|------------|----------|
| 5th Percentile  | 9.4           | 2.2       | 8.0      | 20.8      | 14.6      | 3.6       | 15.4      | 27.0      | -10.1      | 11.0     |
| 25th Percentile | 8.4           | 0.9       | 6.8      | 18.0      | 13.4      | 1.9       | 14.0      | 22.4      | -20.1      | 9.1      |
| Median          | 7.7           | 0.1       | 5.8      | 15.5      | 12.4      | 0.9       | 12.9      | 20.2      | -24.9      | 7.9      |
| 75th Percentile | 6.9           | -0.9      | 4.6      | 13.3      | 10.7      | -0.3      | 11.7      | 15.9      | -27.6      | 6.9      |
| 95th Percentile | 5.3           | -2.6      | 3.2      | 8.5       | 7.8       | -2.5      | 8.6       | 10.5      | -30.3      | 5.4      |
| # of Portfolios | 305           | 316       | 248      | 231       | 236       | 206       | 188       | 184       | 181        | 177      |
| ● Total Fund    | 8.2 (31)      | -0.3 (61) | 6.9 (23) | 19.8 (12) | 14.3 (10) | -0.3 (75) | 13.6 (35) | 29.3 (1)  | -29.8 (92) | 7.1 (68) |
| ▲ Policy Index  | 8.2 (29)      | 0.2 (46)  | 7.5 (12) | 15.4 (52) | 12.3 (53) | 1.4 (35)  | 13.3 (42) | 22.0 (29) | -23.2 (37) | 6.9 (76) |

## Domestic Equity Managers

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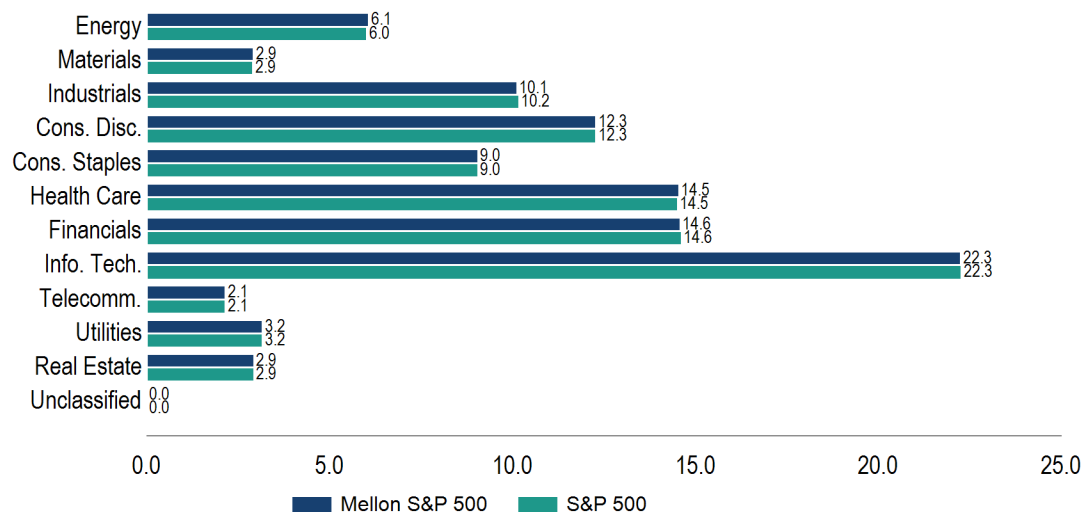
# Mellon S&P 500 Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | S&P 500 |
|---------------------------------|-----------|---------|
| Number of Holdings              | 500       | 505     |
| Weighted Avg. Market Cap. (\$B) | 155.57    | 154.74  |
| Median Market Cap. (\$B)        | 20.54     | 20.58   |
| Price To Earnings               | 25.18     | 24.69   |
| Price To Book                   | 5.36      | 4.59    |
| Price To Sales                  | 3.62      | 3.35    |
| Return on Equity (%)            | 20.27     | 18.97   |
| Yield (%)                       | 2.01      | 2.00    |
| Beta                            | 1.00      | 1.00    |

## Sector Allocation (%) vs S&P 500



## Largest Holdings

|                        | End Weight | Return |
|------------------------|------------|--------|
| APPLE                  | 3.62       | 0.66   |
| ALPHABET 'C'           | 2.64       | 9.54   |
| MICROSOFT              | 2.56       | 5.25   |
| AMAZON.COM             | 1.85       | 9.19   |
| JOHNSON & JOHNSON      | 1.72       | 6.91   |
| FACEBOOK CLASS A       | 1.72       | 6.29   |
| EXXON MOBIL            | 1.65       | -0.64  |
| JP MORGAN CHASE & CO.  | 1.56       | 4.65   |
| BERKSHIRE HATHAWAY 'B' | 1.55       | 1.61   |
| WELLS FARGO & CO       | 1.20       | 0.24   |

## Top Contributors

|                    | Avg Wgt | Return | Contribution |
|--------------------|---------|--------|--------------|
| ALPHABET 'C'       | 2.63    | 9.54   | 0.25         |
| AMAZON.COM         | 1.81    | 9.19   | 0.17         |
| MICROSOFT          | 2.57    | 5.25   | 0.13         |
| JOHNSON & JOHNSON  | 1.66    | 6.91   | 0.11         |
| NVIDIA             | 0.34    | 32.85  | 0.11         |
| UNITEDHEALTH GROUP | 0.80    | 13.52  | 0.11         |
| FACEBOOK CLASS A   | 1.70    | 6.29   | 0.11         |
| MCDONALDS          | 0.56    | 18.90  | 0.11         |
| CITIGROUP          | 0.81    | 12.10  | 0.10         |
| ORACLE             | 0.66    | 12.88  | 0.09         |

## Bottom Contributors

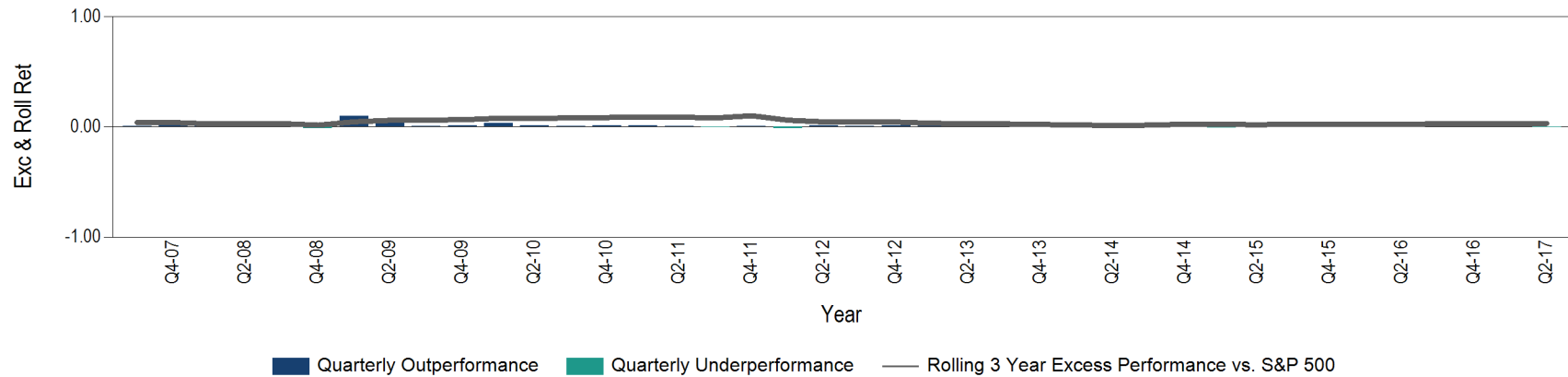
|                         | Avg Wgt | Return | Contribution |
|-------------------------|---------|--------|--------------|
| GENERAL ELECTRIC        | 1.22    | -8.61  | -0.11        |
| AT&T                    | 1.20    | -8.10  | -0.10        |
| SCHLUMBERGER            | 0.50    | -15.08 | -0.08        |
| INTERNATIONAL BUS.MCHS. | 0.68    | -10.80 | -0.07        |
| VERIZON COMMUNICATIONS  | 0.94    | -7.30  | -0.07        |
| CISCO SYSTEMS           | 0.81    | -6.59  | -0.05        |
| WALT DISNEY             | 0.80    | -6.30  | -0.05        |
| INTEL                   | 0.83    | -5.77  | -0.05        |
| ANADARKO PETROLEUM      | 0.16    | -26.80 | -0.04        |
| CONOCOPHILLIPS          | 0.29    | -11.36 | -0.03        |

Unclassified sector allocation includes cash allocations.

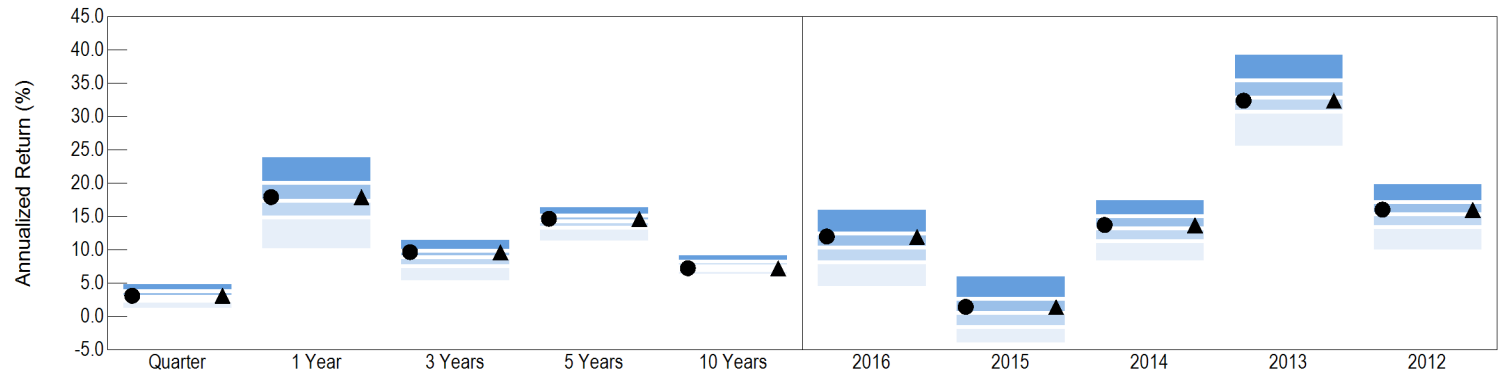
# Mellon S&P 500 Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017

Rolling Annualized Excess Performance



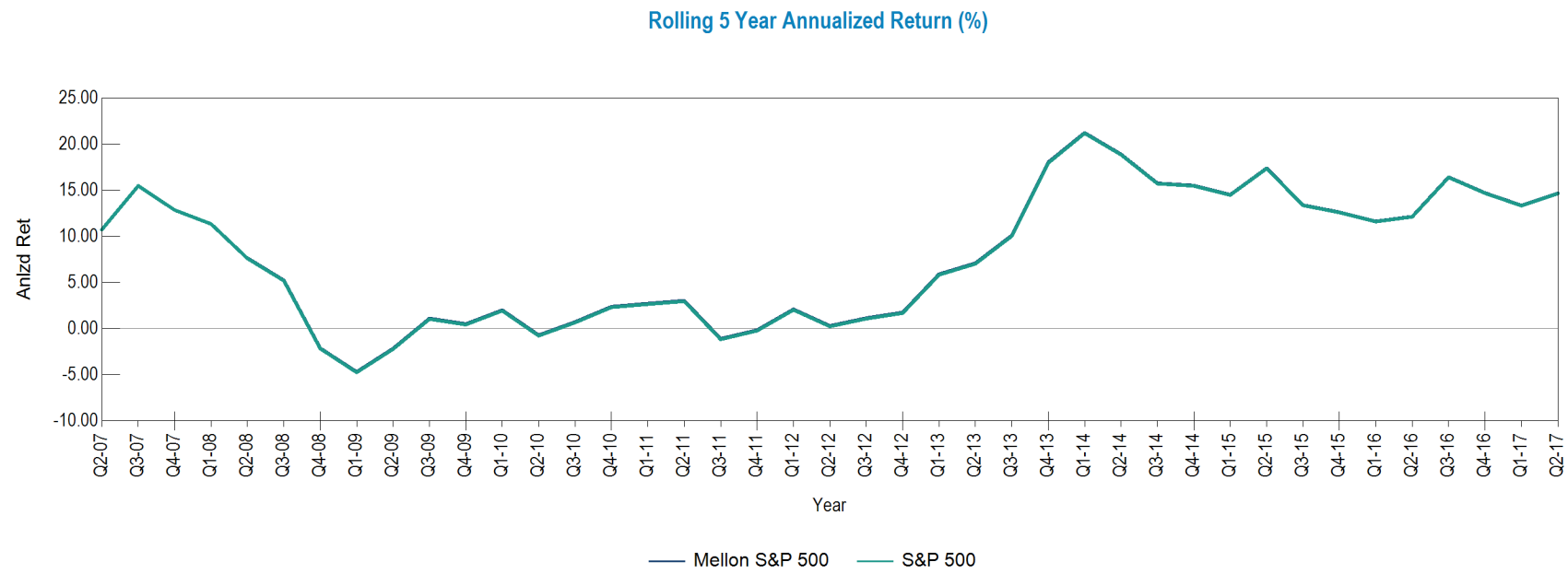
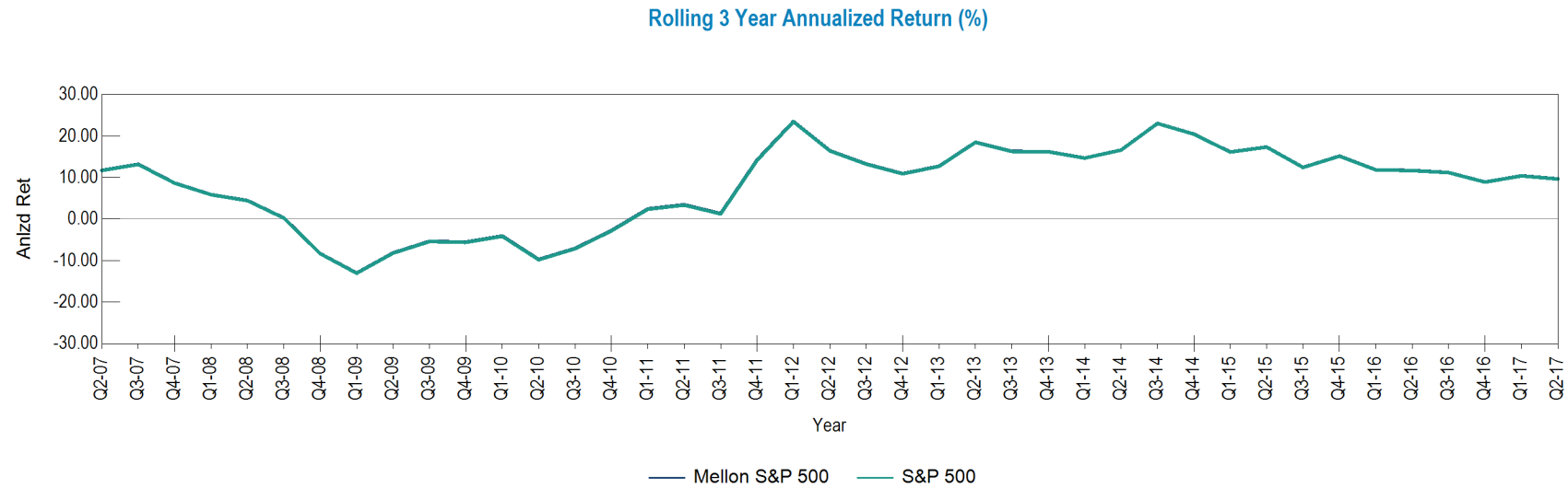
Mellon S&P 500 vs. eA US Large Cap Core Equity Gross Universe



|                  | Return (Rank) |      |      |      |      |      |      |      |     |      |      |      |      |      |      |      |      |      |
|------------------|---------------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|
| 5th Percentile   | 5.1           |      | 24.2 |      | 11.7 |      | 16.6 |      | 9.5 |      | 16.3 |      | 6.3  |      | 17.7 |      | 39.6 |      |
| 25th Percentile  | 3.8           |      | 20.1 |      | 9.9  |      | 15.2 |      | 8.2 |      | 12.5 |      | 2.7  |      | 15.1 |      | 35.5 |      |
| Median           | 3.0           |      | 17.4 |      | 8.9  |      | 14.3 |      | 7.6 |      | 10.4 |      | 0.6  |      | 13.3 |      | 32.9 |      |
| 75th Percentile  | 2.4           |      | 14.9 |      | 7.6  |      | 13.4 |      | 7.0 |      | 8.2  |      | -1.6 |      | 11.4 |      | 30.8 |      |
| 95th Percentile  | 1.0           |      | 10.0 |      | 5.2  |      | 11.1 |      | 6.1 |      | 4.3  |      | -4.1 |      | 8.2  |      | 25.4 |      |
| # of Portfolios  | 324           |      | 324  |      | 313  |      | 283  |      | 232 |      | 308  |      | 267  |      | 267  |      | 261  |      |
| ● Mellon S&P 500 | 3.1           | (47) | 17.9 | (47) | 9.6  | (28) | 14.7 | (40) | 7.2 | (65) | 12.0 | (31) | 1.4  | (41) | 13.7 | (42) | 32.4 | (58) |
| ▲ S&P 500        | 3.1           | (47) | 17.9 | (47) | 9.6  | (29) | 14.6 | (41) | 7.2 | (67) | 12.0 | (31) | 1.4  | (42) | 13.7 | (42) | 32.4 | (58) |

Mellon S&P 500  
Rolling Manager Performance (Gross of Fees)

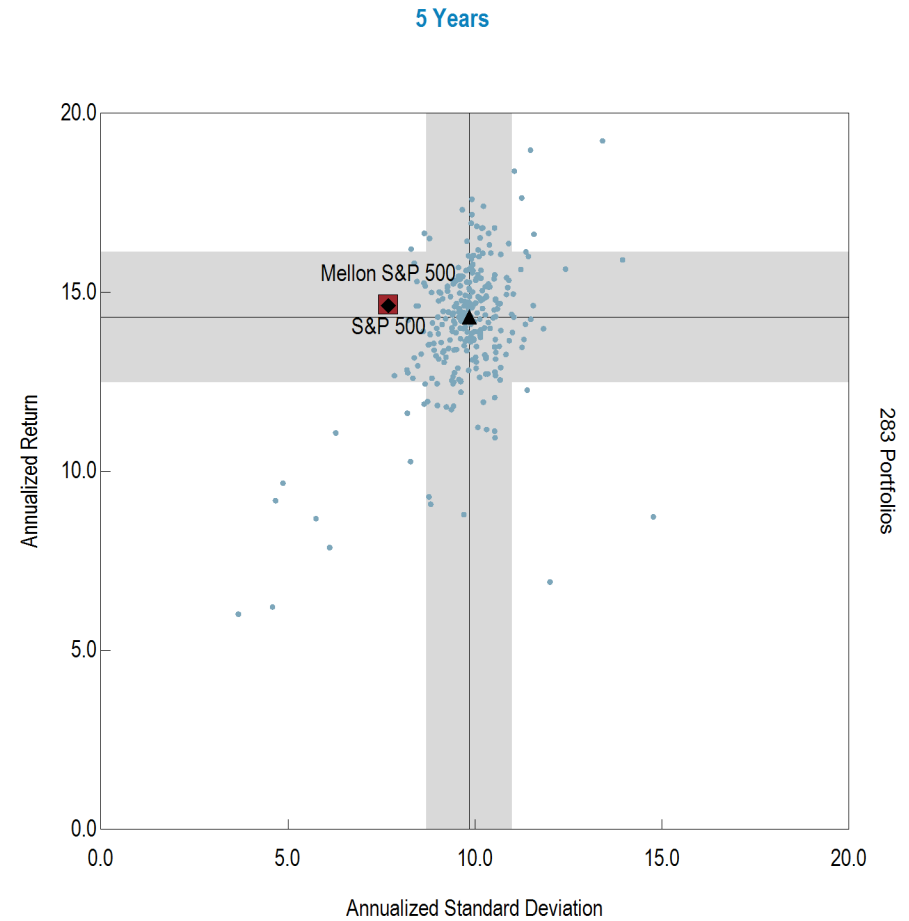
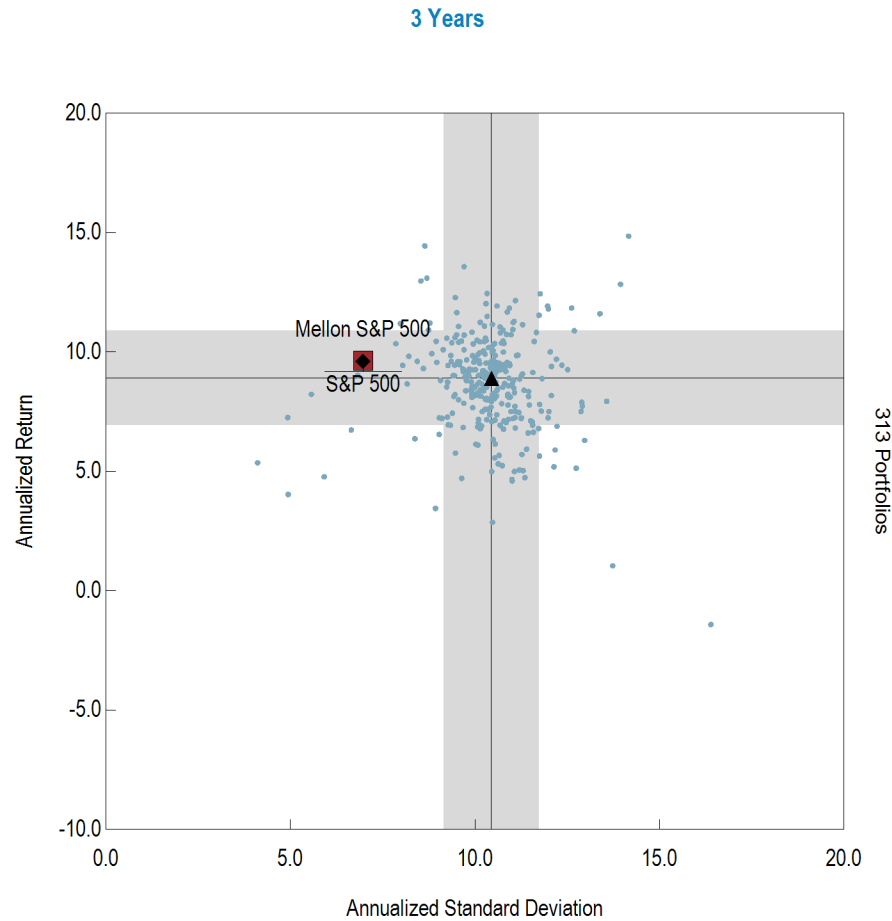
Period Ending: June 30, 2017



# Mellon S&P 500

## Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017



|  | <b>3 Years</b> |                          |              |
|--|----------------|--------------------------|--------------|
|  | Anlzd Return   | Anlzd Standard Deviation | Sharpe Ratio |
| Mellon S&P 500                           | 9.6%           | 7.0%                     | 1.4          |
| S&P 500                                  | 9.6%           | 7.0%                     | 1.3          |
| eA US Large Cap Core Equity Gross Median | 8.9%           | 10.4%                    | 0.8          |

|  | <b>5 Years</b> |                          |              |
|--|----------------|--------------------------|--------------|
|  | Anlzd Return   | Anlzd Standard Deviation | Sharpe Ratio |
| Mellon S&P 500                           | 14.7%          | 7.7%                     | 1.9          |
| S&P 500                                  | 14.6%          | 7.7%                     | 1.9          |
| eA US Large Cap Core Equity Gross Median | 14.3%          | 9.8%                     | 1.5          |

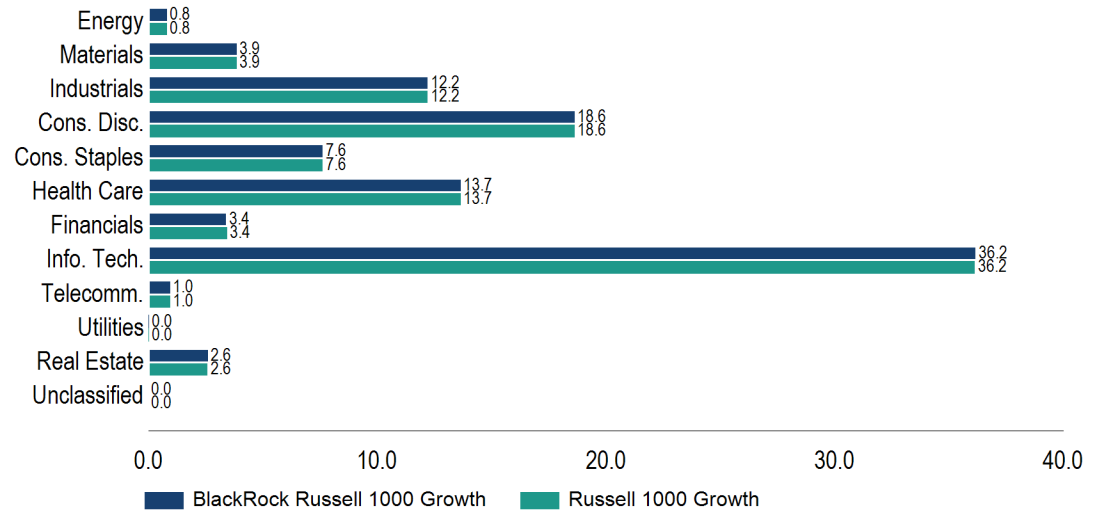
# BlackRock Russell 1000 Growth Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | Russell<br>1000<br>Growth |
|---------------------------------|-----------|---------------------------|
| Number of Holdings              | 555       | 557                       |
| Weighted Avg. Market Cap. (\$B) | 170.55    | 170.43                    |
| Median Market Cap. (\$B)        | 10.04     | 10.00                     |
| Price To Earnings               | 28.67     | 27.97                     |
| Price To Book                   | 8.24      | 6.99                      |
| Price To Sales                  | 4.47      | 4.21                      |
| Return on Equity (%)            | 27.22     | 26.97                     |
| Yield (%)                       | 1.43      | 1.43                      |
| Beta                            | 1.00      | 1.00                      |

## Sector Allocation (%) vs Russell 1000 Growth



## Largest Holdings

|                    | End Weight | Return |
|--------------------|------------|--------|
| APPLE              | 6.62       | 0.66   |
| MICROSOFT          | 4.56       | 5.25   |
| AMAZON.COM         | 3.39       | 9.19   |
| FACEBOOK CLASS A   | 3.11       | 6.29   |
| ALPHABET 'A'       | 2.44       | 9.66   |
| ALPHABET 'C'       | 2.42       | 9.54   |
| HOME DEPOT         | 1.62       | 5.08   |
| UNITEDHEALTH GROUP | 1.57       | 13.52  |
| VISA 'A'           | 1.53       | 5.71   |
| COMCAST 'A'        | 1.49       | 4.39   |

## Top Contributors

|                    | Avg Wgt | Return | Contribution |
|--------------------|---------|--------|--------------|
| AMAZON.COM         | 3.13    | 9.19   | 0.29         |
| MICROSOFT          | 4.43    | 5.25   | 0.23         |
| ALPHABET 'A'       | 2.32    | 9.66   | 0.22         |
| ALPHABET 'C'       | 2.29    | 9.54   | 0.22         |
| MCDONALDS          | 1.00    | 18.90  | 0.19         |
| UNITEDHEALTH GROUP | 1.39    | 13.52  | 0.19         |
| FACEBOOK CLASS A   | 2.85    | 6.29   | 0.18         |
| NVIDIA             | 0.52    | 32.85  | 0.17         |
| BOEING             | 0.94    | 12.68  | 0.12         |
| PAYPAL HOLDINGS    | 0.46    | 24.76  | 0.11         |

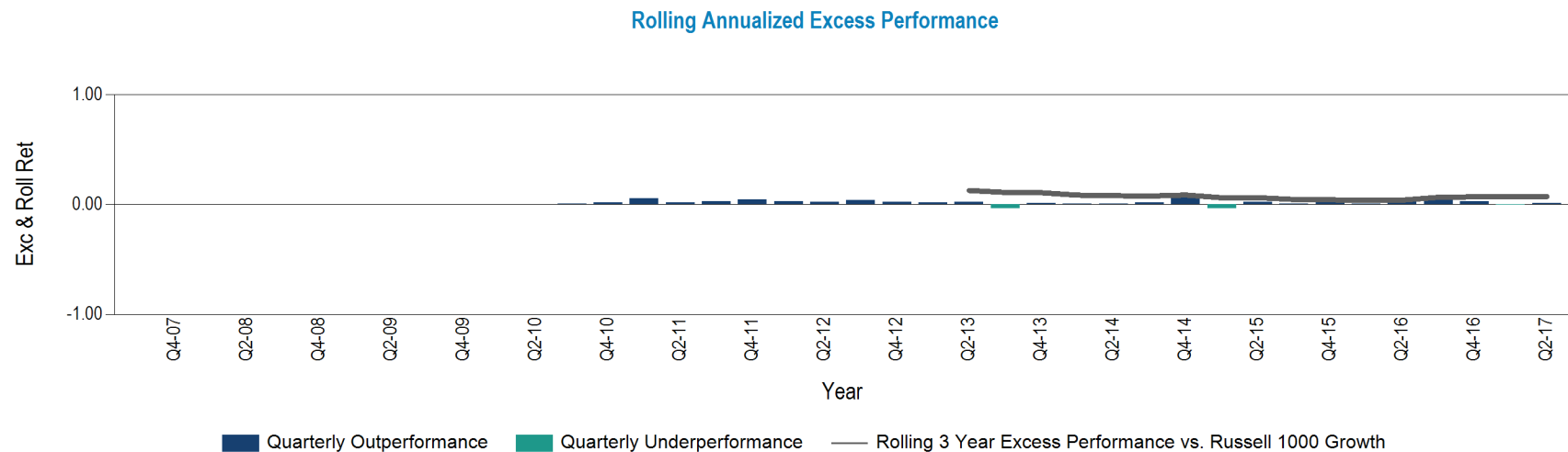
## Bottom Contributors

|                            | Avg Wgt | Return | Contribution |
|----------------------------|---------|--------|--------------|
| WALT DISNEY                | 1.57    | -6.30  | -0.10        |
| INTERNATIONAL<br>BUS.MCHS. | 0.84    | -10.80 | -0.09        |
| VERIZON<br>COMMUNICATIONS  | 0.83    | -7.30  | -0.06        |
| KROGER                     | 0.24    | -20.61 | -0.05        |
| O REILLY AUTOMOTIVE        | 0.21    | -18.94 | -0.04        |
| TJX                        | 0.44    | -8.38  | -0.04        |
| GENERAL ELECTRIC           | 0.42    | -8.61  | -0.04        |
| AUTOZONE                   | 0.17    | -21.10 | -0.04        |
| LOWE'S COMPANIES           | 0.63    | -5.30  | -0.03        |
| VIACOM 'B'                 | 0.11    | -27.59 | -0.03        |

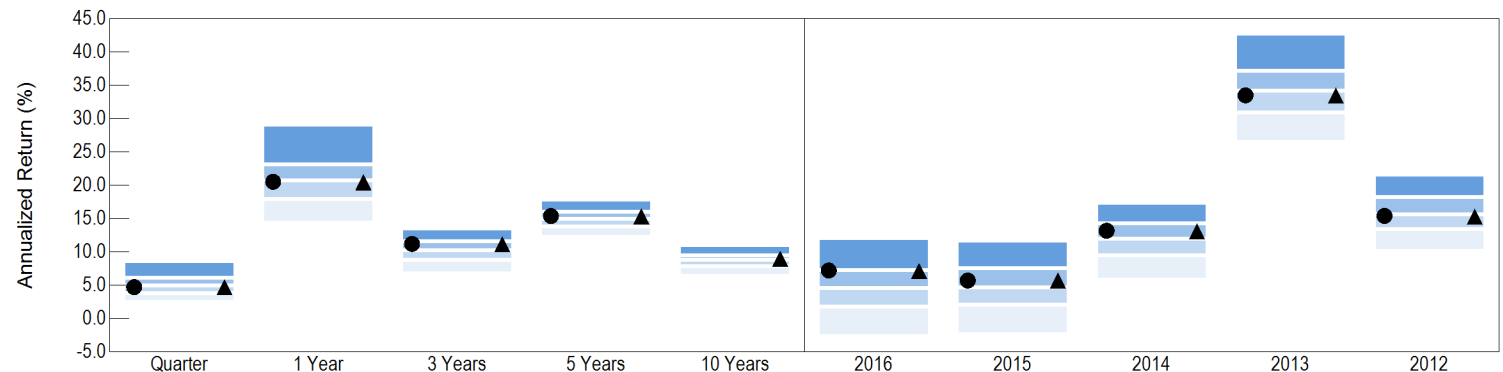
Unclassified sector allocation includes cash allocations.

# BlackRock Russell 1000 Growth Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017



## BlackRock Russell 1000 Growth vs. eA US Large Cap Growth Equity Gross Universe



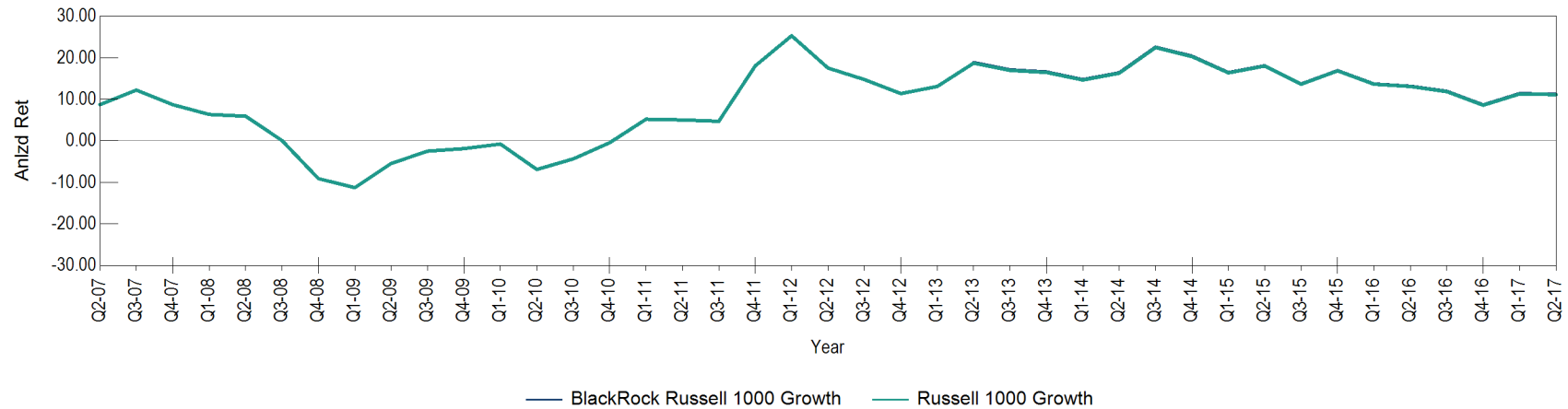
|                                 | Quarter  | 1 Year    | 3 Years   | 5 Years   | 10 Years | 2016     | 2015     | 2014      | 2013      | 2012      |
|---------------------------------|----------|-----------|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|
| <b>Return (Rank)</b>            |          |           |           |           |          |          |          |           |           |           |
| 5th Percentile                  | 8.5      | 29.1      | 13.4      | 17.8      | 11.0     | 12.0     | 11.6     | 17.3      | 42.8      | 21.6      |
| 25th Percentile                 | 6.1      | 23.2      | 11.6      | 16.1      | 9.5      | 7.3      | 7.6      | 14.3      | 37.3      | 18.2      |
| Median                          | 5.0      | 20.7      | 10.3      | 15.0      | 8.8      | 4.6      | 4.7      | 12.0      | 34.3      | 15.7      |
| 75th Percentile                 | 3.9      | 18.0      | 8.8       | 13.9      | 7.9      | 1.8      | 2.1      | 9.5       | 31.0      | 13.4      |
| 95th Percentile                 | 2.5      | 14.4      | 6.8       | 12.3      | 6.5      | -2.7     | -2.4     | 5.8       | 26.6      | 10.2      |
| # of Portfolios                 | 272      | 272       | 267       | 251       | 221      | 282      | 270      | 291       | 274       | 274       |
| ● BlackRock Russell 1000 Growth | 4.7 (57) | 20.5 (53) | 11.2 (33) | 15.4 (39) | -- (--)  | 7.2 (26) | 5.7 (42) | 13.1 (37) | 33.5 (56) | 15.4 (53) |
| ▲ Russell 1000 Growth           | 4.7 (58) | 20.4 (54) | 11.1 (35) | 15.3 (42) | 8.9 (49) | 7.1 (26) | 5.7 (42) | 13.0 (38) | 33.5 (56) | 15.3 (55) |



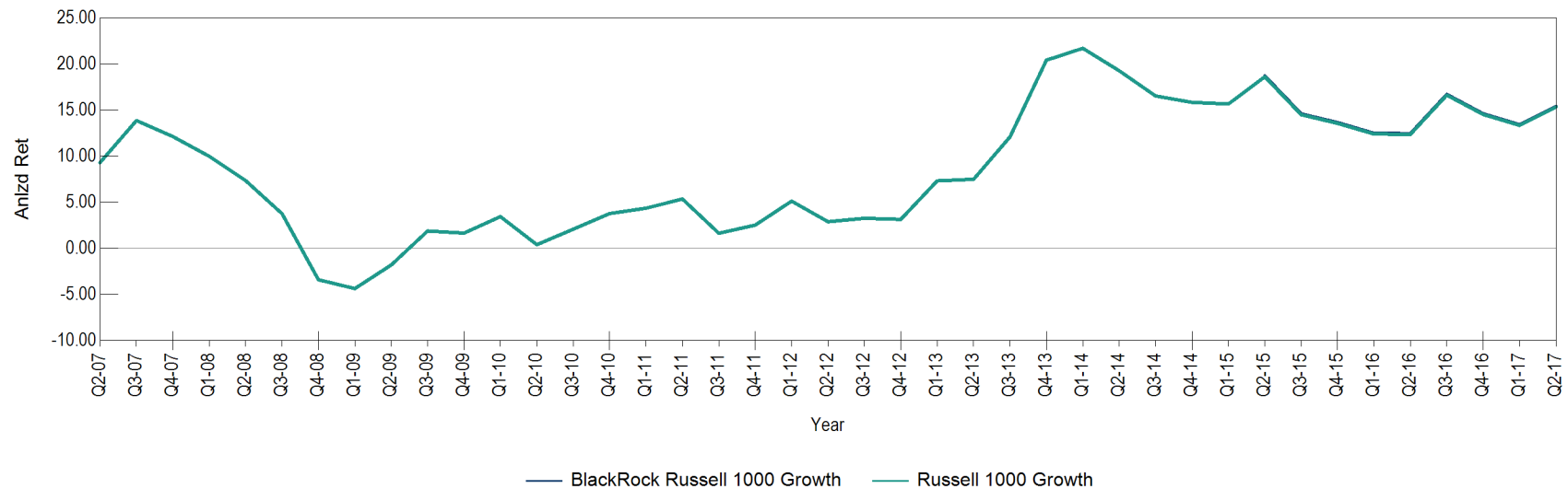
# BlackRock Russell 1000 Growth Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

Rolling 3 Year Annualized Return (%)



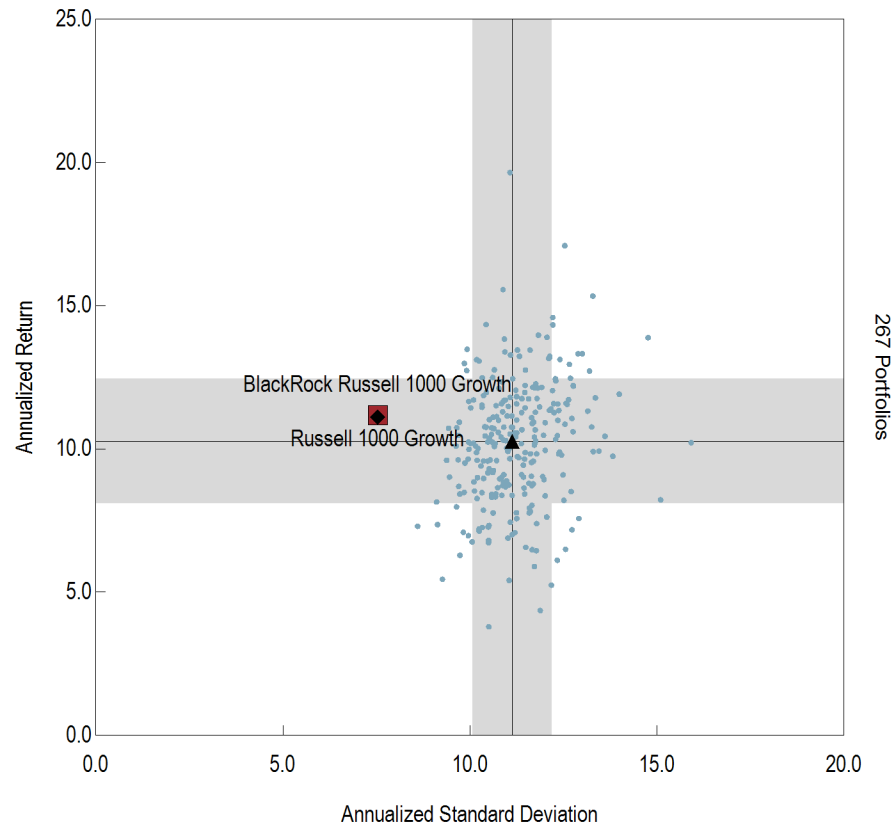
Rolling 5 Year Annualized Return (%)



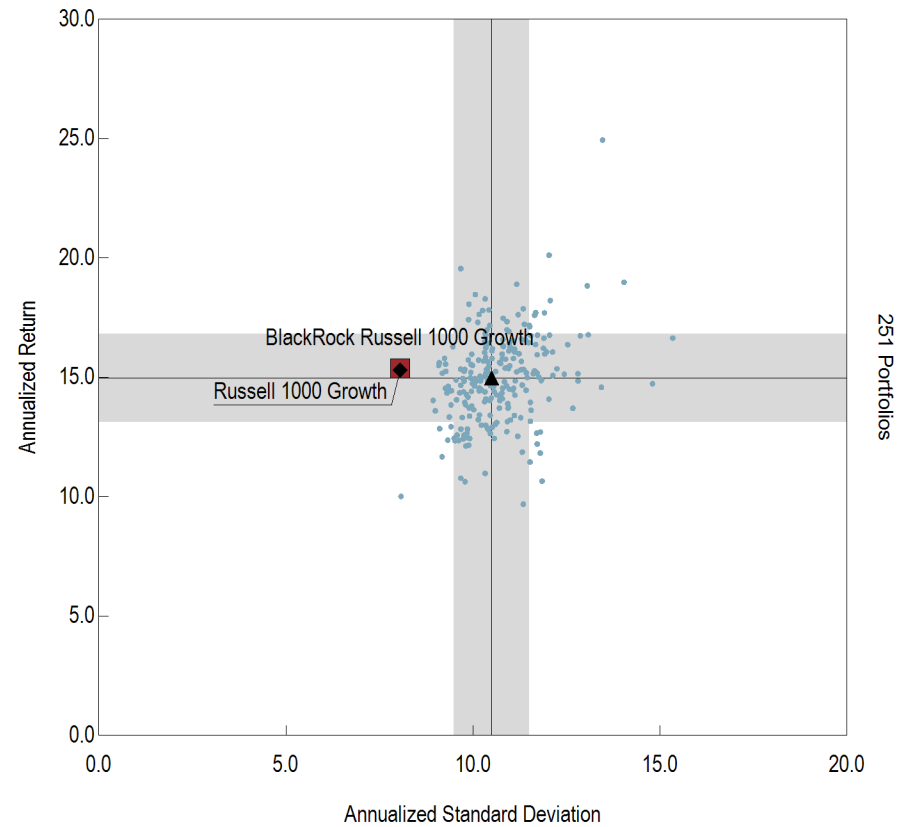
# BlackRock Russell 1000 Growth Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

3 Years



5 Years



3 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| BlackRock Russell 1000 Growth              | 11.2%        | 7.5%                     | 1.5          |
| Russell 1000 Growth                        | 11.1%        | 7.5%                     | 1.4          |
| eA US Large Cap Growth Equity Gross Median | 10.3%        | 11.1%                    | 0.9          |

5 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| BlackRock Russell 1000 Growth              | 15.4%        | 8.1%                     | 1.9          |
| Russell 1000 Growth                        | 15.3%        | 8.1%                     | 1.9          |
| eA US Large Cap Growth Equity Gross Median | 15.0%        | 10.5%                    | 1.4          |

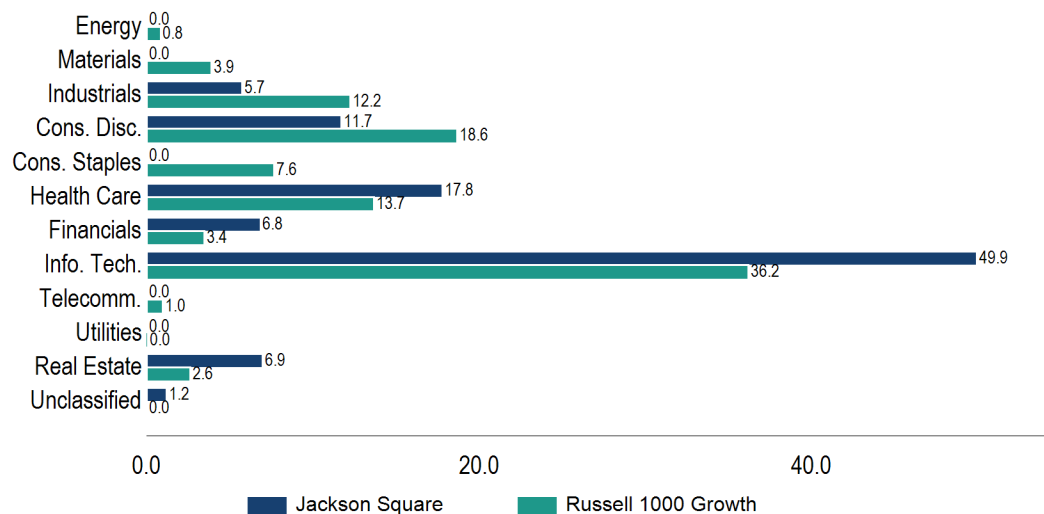
# Jackson Square Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | Russell<br>1000<br>Growth |
|---------------------------------|-----------|---------------------------|
| Number of Holdings              | 32        | 557                       |
| Weighted Avg. Market Cap. (\$B) | 114.95    | 170.43                    |
| Median Market Cap. (\$B)        | 37.80     | 10.00                     |
| Price To Earnings               | 35.42     | 27.97                     |
| Price To Book                   | 6.93      | 6.99                      |
| Price To Sales                  | 6.10      | 4.21                      |
| Return on Equity (%)            | 20.31     | 26.97                     |
| Yield (%)                       | 0.78      | 1.43                      |
| Beta                            | 1.32      | 1.00                      |

## Sector Allocation (%) vs Russell 1000 Growth



## Largest Holdings

|                              | End Weight | Return |
|------------------------------|------------|--------|
| PAYPAL HOLDINGS              | 6.53       | 24.76  |
| MICROSOFT                    | 5.91       | 5.25   |
| VISA 'A'                     | 5.68       | 5.71   |
| CELGENE                      | 5.60       | 4.37   |
| MASTERCARD                   | 4.64       | 8.20   |
| CROWN CASTLE INTL.           | 4.45       | 7.06   |
| EBAY                         | 4.29       | 4.02   |
| LIBERTY INTACT.QVC GROUP 'A' | 4.22       | 22.58  |
| ALPHABET 'A'                 | 3.98       | 9.66   |
| INTERCONTINENTAL EX.         | 3.87       | 10.45  |

## Top Contributors

|                              | Avg Wgt | Return | Contribution |
|------------------------------|---------|--------|--------------|
| PAYPAL HOLDINGS              | 6.01    | 24.76  | 1.49         |
| LIBERTY INTACT.QVC GROUP 'A' | 3.84    | 22.58  | 0.87         |
| ELECTRONIC ARTS              | 3.75    | 18.10  | 0.68         |
| ALPHABET 'A'                 | 4.08    | 9.66   | 0.39         |
| INTERCONTINENTAL EX.         | 3.66    | 10.45  | 0.38         |
| MASTERCARD                   | 4.65    | 8.20   | 0.38         |
| FEDEX                        | 3.23    | 11.63  | 0.38         |
| QUINTILES TRNAT.HDG.         | 3.28    | 11.14  | 0.36         |
| VISA 'A'                     | 5.78    | 5.71   | 0.33         |
| MICROSOFT                    | 6.17    | 5.25   | 0.32         |

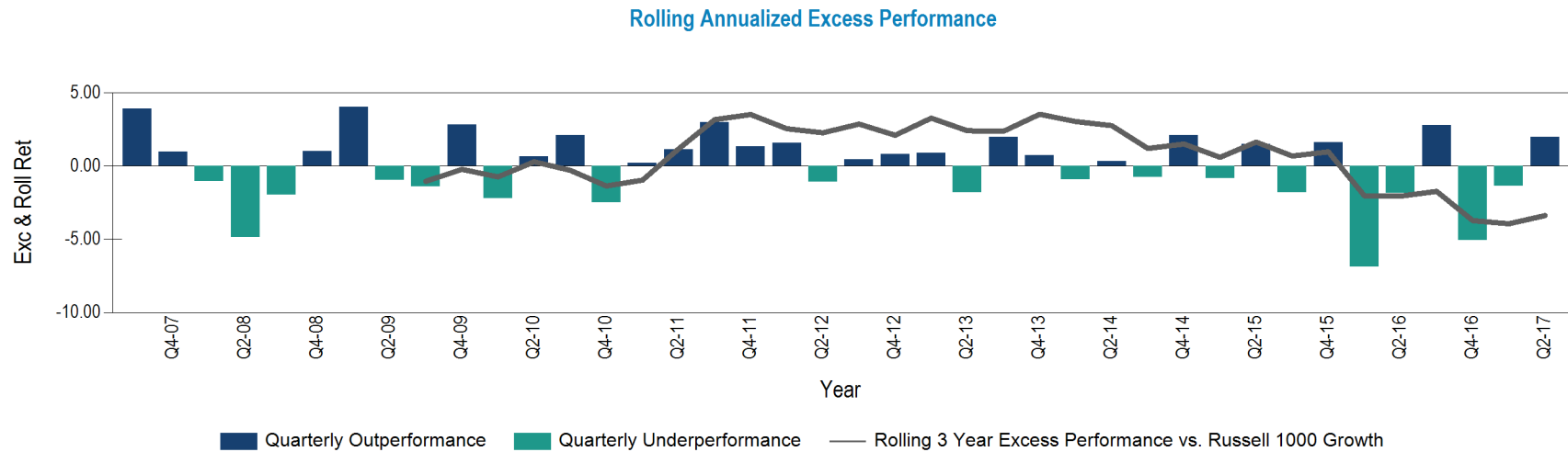
## Bottom Contributors

|                     | Avg Wgt | Return | Contribution |
|---------------------|---------|--------|--------------|
| LIBERTY GLOBAL SR.C | 2.49    | -11.02 | -0.27        |
| TRIPADVISOR 'A'     | 2.38    | -11.49 | -0.27        |
| SYMANTEC            | 3.23    | -7.69  | -0.25        |
| NIELSEN             | 2.18    | -5.59  | -0.12        |
| LIBERTY GLOBAL CL.A | 0.65    | -10.45 | -0.07        |
| QUALCOMM            | 1.32    | -2.74  | -0.04        |
| WALGREENS BOOTS     | 0.43    | -5.29  | -0.02        |
| ALLIANCE            | 0.43    | -5.29  | -0.02        |
| ASML HLDG.ADR 1:1   | 1.52    | -0.90  | -0.01        |
| ALLERGAN            | 2.89    | 2.06   | 0.06         |
| DOLLAR GENERAL      | 1.86    | 3.77   | 0.07         |

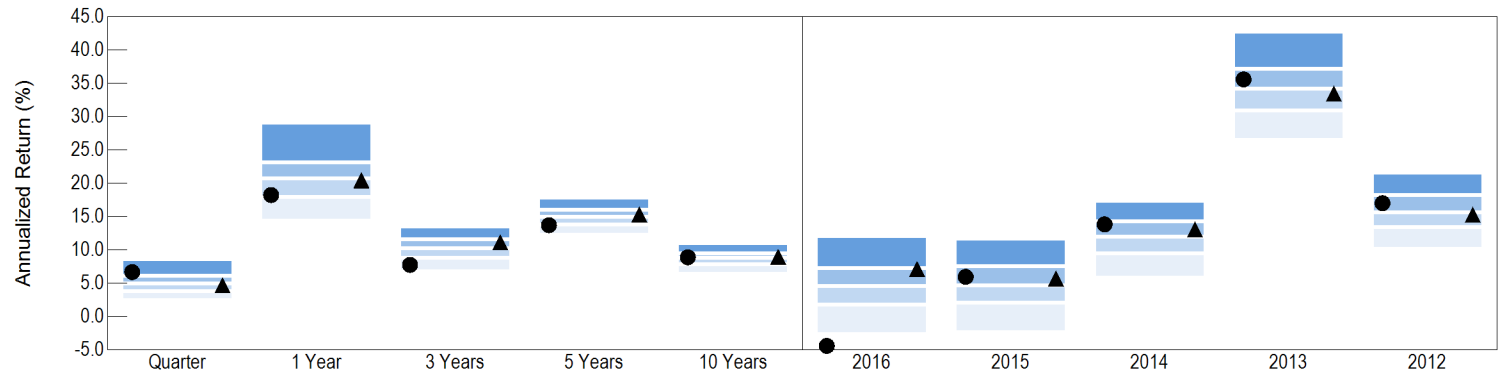
Unclassified sector allocation includes cash allocations.

# Jackson Square Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017



## Jackson Square vs. eA US Large Cap Growth Equity Gross Universe



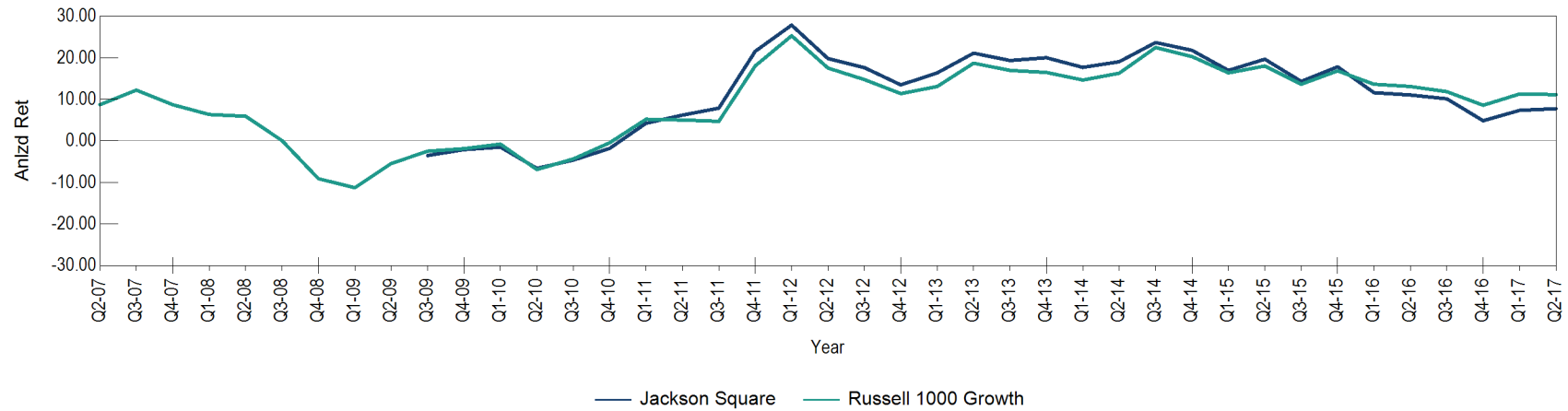
|                       | Return (Rank) |           |           |           |          |           |          |           |           |           |
|-----------------------|---------------|-----------|-----------|-----------|----------|-----------|----------|-----------|-----------|-----------|
| 5th Percentile        | 8.5           | 29.1      | 13.4      | 17.8      | 11.0     | 12.0      | 11.6     | 17.3      | 42.8      | 21.6      |
| 25th Percentile       | 6.1           | 23.2      | 11.6      | 16.1      | 9.5      | 7.3       | 7.6      | 14.3      | 37.3      | 18.2      |
| Median                | 5.0           | 20.7      | 10.3      | 15.0      | 8.8      | 4.6       | 4.7      | 12.0      | 34.3      | 15.7      |
| 75th Percentile       | 3.9           | 18.0      | 8.8       | 13.9      | 7.9      | 1.8       | 2.1      | 9.5       | 31.0      | 13.4      |
| 95th Percentile       | 2.5           | 14.4      | 6.8       | 12.3      | 6.5      | -2.7      | -2.4     | 5.8       | 26.6      | 10.2      |
| # of Portfolios       | 272           | 272       | 267       | 251       | 221      | 282       | 270      | 291       | 274       | 274       |
| ● Jackson Square      | 6.6 (17)      | 18.2 (73) | 7.7 (88)  | 13.7 (79) | 8.9 (50) | -4.4 (98) | 5.9 (39) | 13.8 (32) | 35.6 (39) | 17.0 (36) |
| ▲ Russell 1000 Growth | 4.7 (58)      | 20.4 (54) | 11.1 (35) | 15.3 (42) | 8.9 (49) | 7.1 (26)  | 5.7 (42) | 13.0 (38) | 33.5 (56) | 15.3 (55) |

# Jackson Square

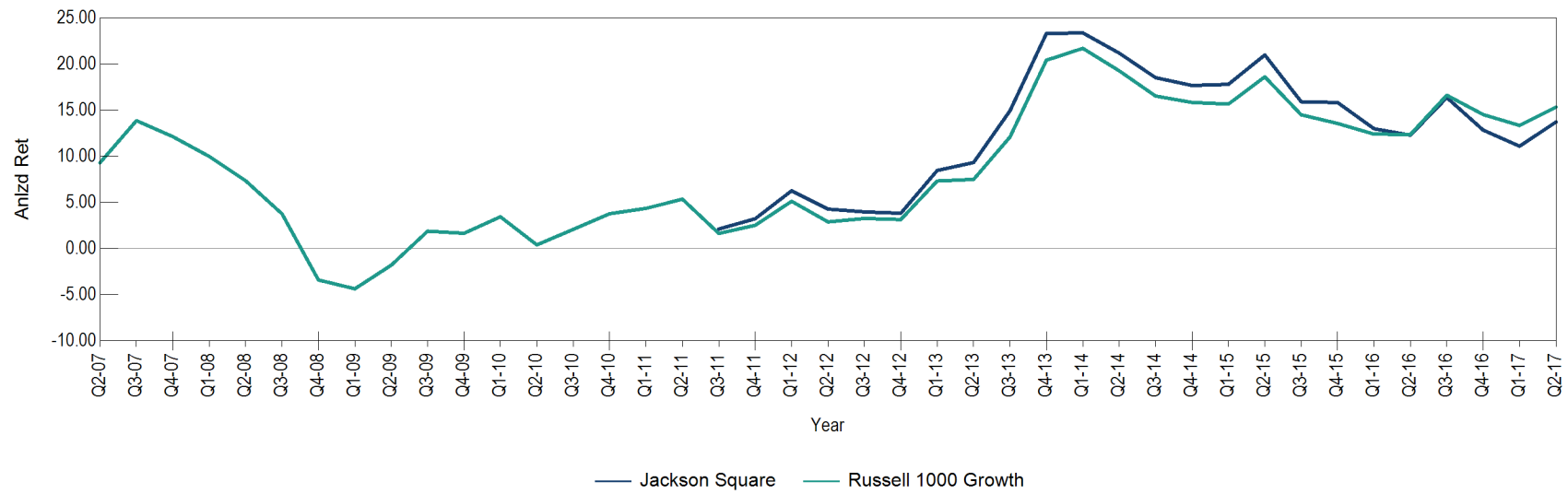
## Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

Rolling 3 Year Annualized Return (%)



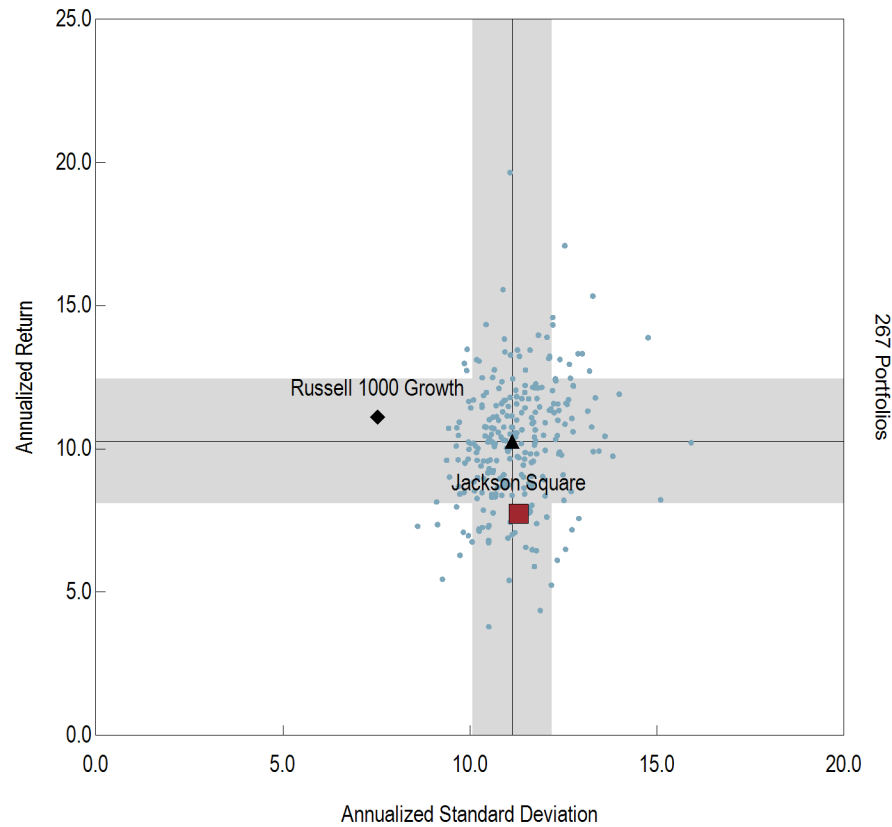
Rolling 5 Year Annualized Return (%)



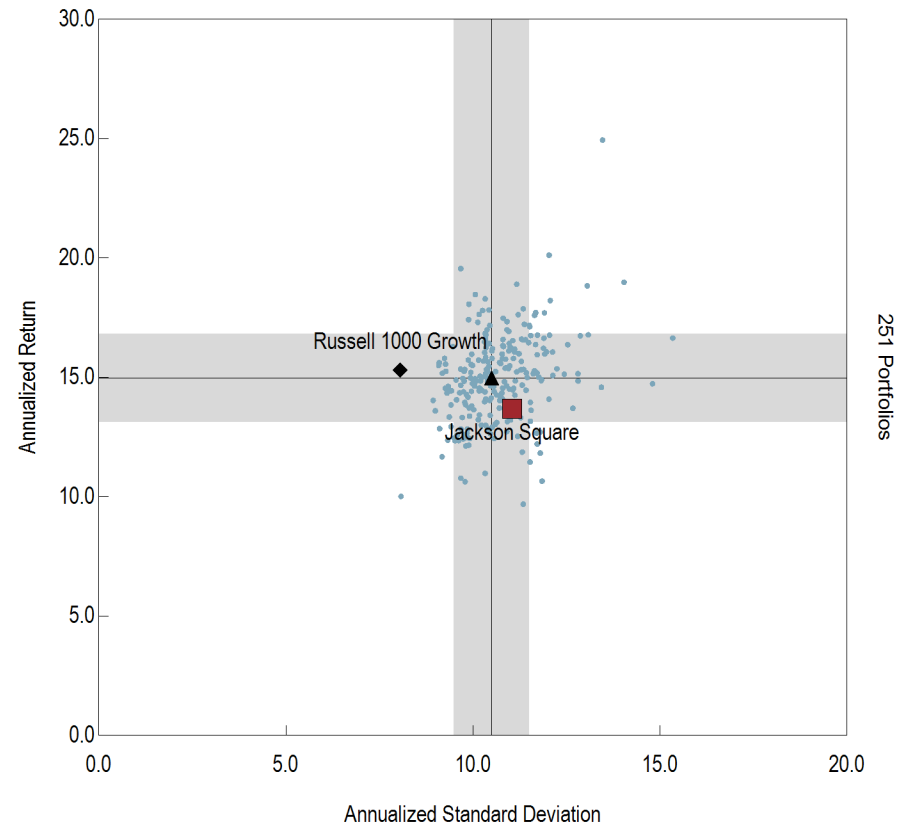
# Jackson Square Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

3 Years



5 Years



3 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| Jackson Square                             | 7.7%         | 11.3%                    | 0.7          |
| Russell 1000 Growth                        | 11.1%        | 7.5%                     | 1.4          |
| eA US Large Cap Growth Equity Gross Median | 10.3%        | 11.1%                    | 0.9          |

5 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| Jackson Square                             | 13.7%        | 11.0%                    | 1.2          |
| Russell 1000 Growth                        | 15.3%        | 8.1%                     | 1.9          |
| eA US Large Cap Growth Equity Gross Median | 15.0%        | 10.5%                    | 1.4          |

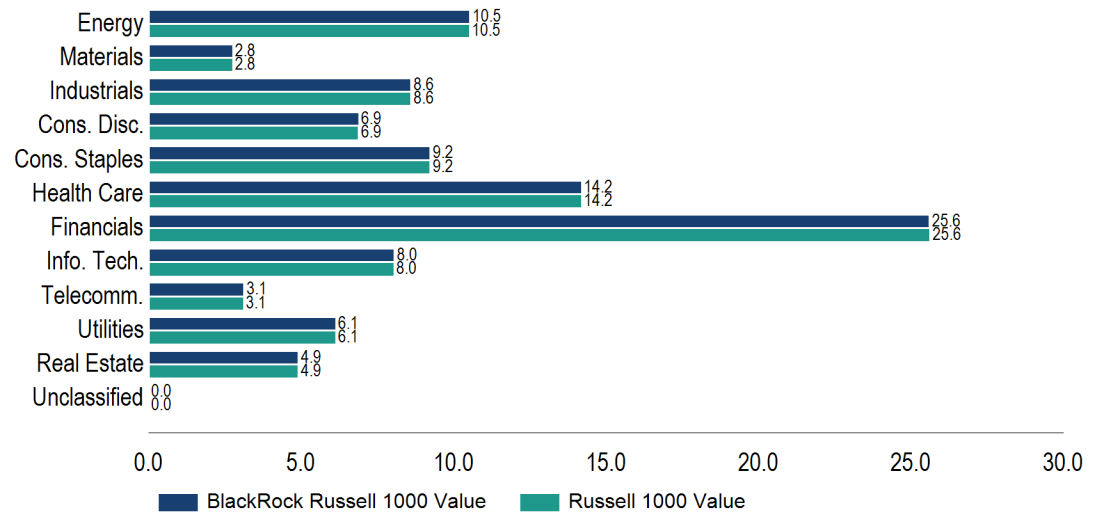
# BlackRock Russell 1000 Value Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | Russell<br>1000 Value |
|---------------------------------|-----------|-----------------------|
| Number of Holdings              | 716       | 719                   |
| Weighted Avg. Market Cap. (\$B) | 108.84    | 108.85                |
| Median Market Cap. (\$B)        | 8.54      | 8.46                  |
| Price To Earnings               | 22.36     | 20.93                 |
| Price To Book                   | 2.33      | 2.56                  |
| Price To Sales                  | 2.89      | 2.85                  |
| Return on Equity (%)            | 13.27     | 12.04                 |
| Yield (%)                       | 2.45      | 2.44                  |
| Beta                            | 1.00      | 1.00                  |

## Sector Allocation (%) vs Russell 1000 Value



## Largest Holdings

|                        | End Weight | Return |
|------------------------|------------|--------|
| EXXON MOBIL            | 2.89       | -0.64  |
| BERKSHIRE HATHAWAY 'B' | 2.75       | 1.61   |
| JP MORGAN CHASE & CO.  | 2.73       | 4.65   |
| JOHNSON & JOHNSON      | 2.55       | 6.91   |
| WELLS FARGO & CO       | 2.10       | 0.24   |
| BANK OF AMERICA        | 2.04       | 3.18   |
| AT&T                   | 1.96       | -8.10  |
| PROCTER & GAMBLE       | 1.79       | -2.26  |
| PFIZER                 | 1.68       | -0.86  |
| CHEVRON                | 1.66       | -1.83  |

## Top Contributors

|                       | Avg Wgt | Return | Contribution |
|-----------------------|---------|--------|--------------|
| CITIGROUP             | 1.48    | 12.10  | 0.18         |
| JOHNSON & JOHNSON     | 2.55    | 6.91   | 0.18         |
| ORACLE                | 1.07    | 12.88  | 0.14         |
| JP MORGAN CHASE & CO. | 2.79    | 4.65   | 0.13         |
| MEDTRONIC             | 1.04    | 10.17  | 0.11         |
| CATERPILLAR           | 0.50    | 16.79  | 0.08         |
| UNITED TECHNOLOGIES   | 0.81    | 9.42   | 0.08         |
| CSX                   | 0.43    | 17.64  | 0.08         |
| PHILIP MORRIS INTL.   | 1.42    | 4.93   | 0.07         |
| BANK OF AMERICA       | 2.12    | 3.18   | 0.07         |

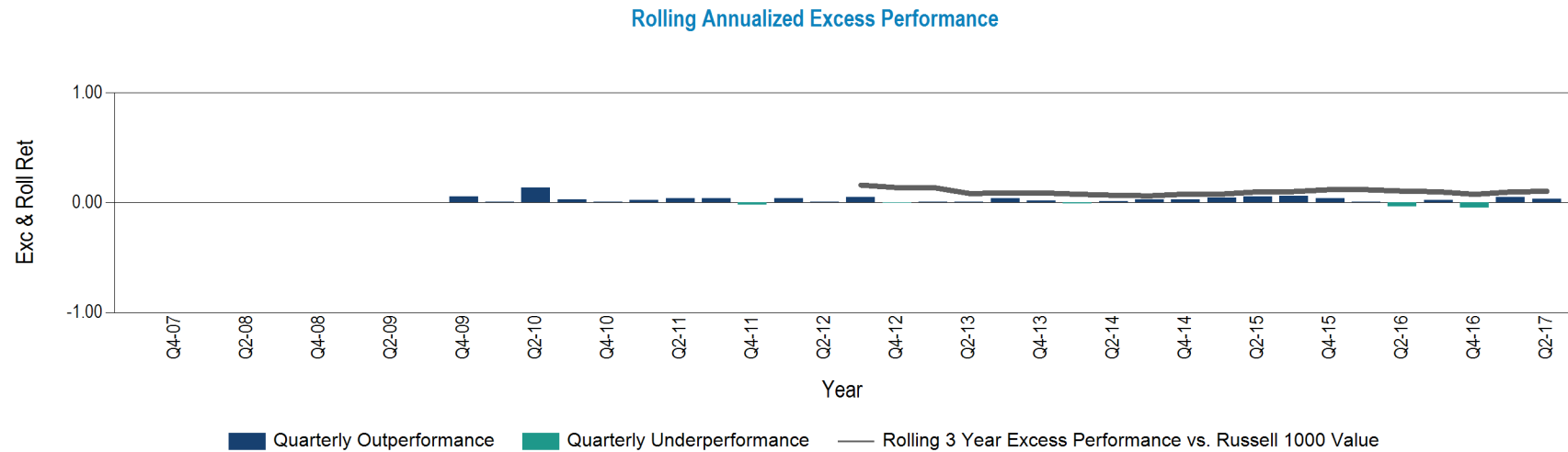
## Bottom Contributors

|                    | Avg Wgt | Return | Contribution |
|--------------------|---------|--------|--------------|
| AT&T               | 2.20    | -8.10  | -0.18        |
| GENERAL ELECTRIC   | 1.80    | -8.61  | -0.16        |
| SCHLUMBERGER       | 0.91    | -15.08 | -0.14        |
| CISCO SYSTEMS      | 1.49    | -6.59  | -0.10        |
| INTEL              | 1.39    | -5.77  | -0.08        |
| ANADARKO PETROLEUM | 0.28    | -26.80 | -0.08        |
| VERIZON            | 0.86    | -7.30  | -0.06        |
| COMMUNICATIONS     | 0.53    | -11.36 | -0.06        |
| CONOCOPHILLIPS     | 0.53    | -11.36 | -0.06        |
| HALLIBURTON        | 0.36    | -12.86 | -0.05        |
| PROCTER & GAMBLE   | 2.02    | -2.26  | -0.05        |

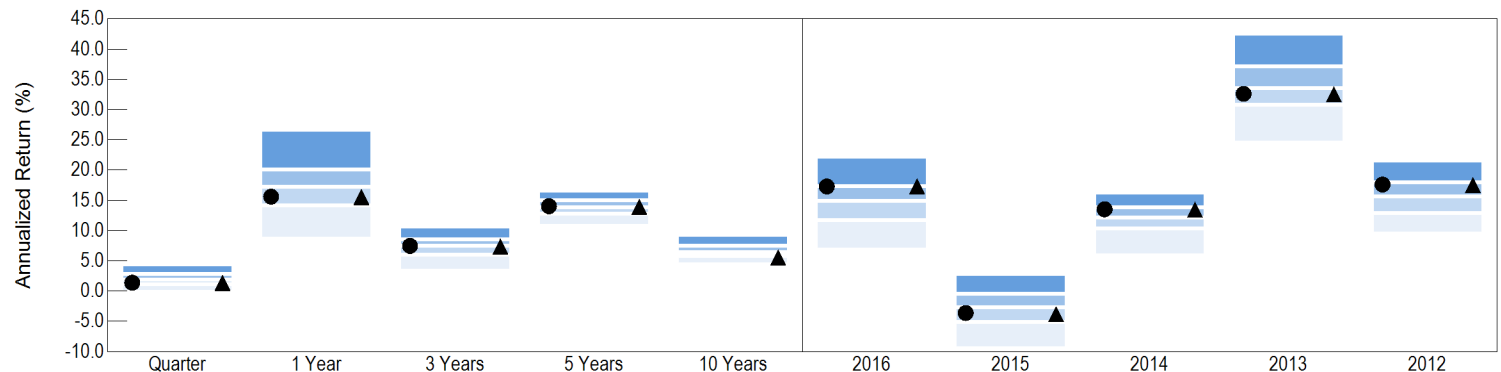
Unclassified sector allocation includes cash allocations.

# BlackRock Russell 1000 Value Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017



## BlackRock Russell 1000 Value vs. eA US Large Cap Value Equity Gross Universe



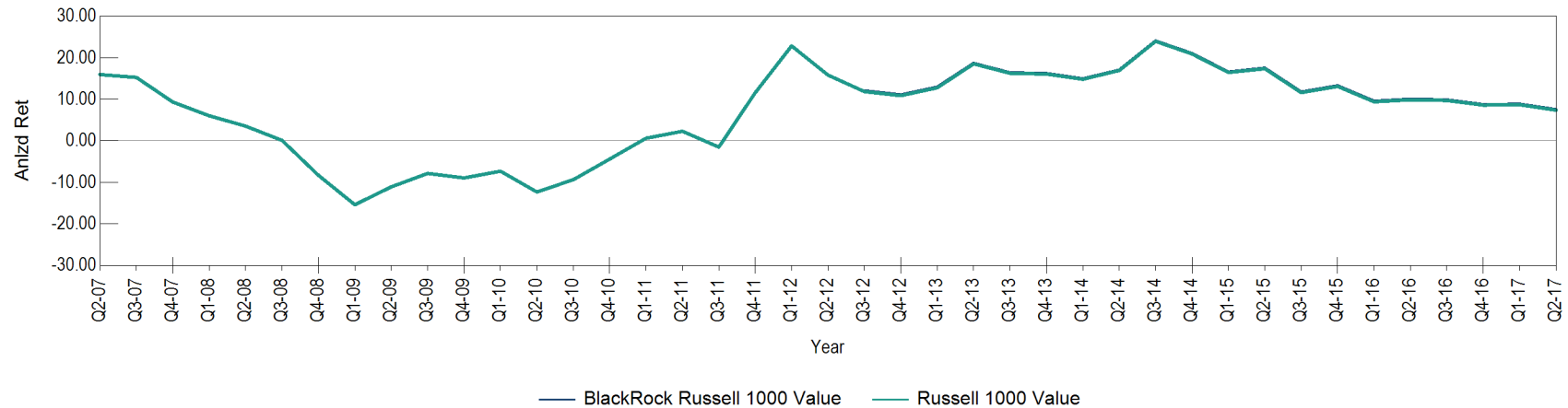
|                                | Return (Rank) |      | 1 Year |      | 3 Years |      | 5 Years |      | 10 Years |      | 2016 |      | 2015 |      | 2014 |      | 2013 |      | 2012 |      |
|--------------------------------|---------------|------|--------|------|---------|------|---------|------|----------|------|------|------|------|------|------|------|------|------|------|------|
| 5th Percentile                 | 4.4           |      | 26.6   |      | 10.6    |      | 16.6    |      | 9.3      |      | 22.1 |      | 2.8  |      | 16.3 |      | 42.5 |      | 21.5 |      |
| 25th Percentile                | 2.9           |      | 20.2   |      | 8.7     |      | 15.1    |      | 7.5      |      | 17.4 |      | -0.4 |      | 13.9 |      | 37.2 |      | 18.0 |      |
| Median                         | 1.9           |      | 17.3   |      | 7.5     |      | 13.9    |      | 6.5      |      | 15.0 |      | -2.6 |      | 12.2 |      | 33.6 |      | 15.7 |      |
| 75th Percentile                | 1.2           |      | 14.2   |      | 6.0     |      | 12.8    |      | 5.8      |      | 11.8 |      | -5.1 |      | 10.4 |      | 30.8 |      | 13.0 |      |
| 95th Percentile                | -0.1          |      | 8.7    |      | 3.5     |      | 10.8    |      | 4.5      |      | 7.0  |      | -9.4 |      | 5.9  |      | 24.6 |      | 9.6  |      |
| # of Portfolios                | 347           |      | 347    |      | 340     |      | 325     |      | 266      |      | 346  |      | 312  |      | 307  |      | 310  |      | 303  |      |
| ● BlackRock Russell 1000 Value | 1.4           | (71) | 15.6   | (66) | 7.5     | (52) | 14.0    | (48) | --       | (--) | 17.3 | (26) | -3.6 | (62) | 13.5 | (31) | 32.6 | (59) | 17.6 | (30) |
| ▲ Russell 1000 Value           | 1.3           | (71) | 15.5   | (68) | 7.4     | (54) | 13.9    | (50) | 5.6      | (83) | 17.3 | (26) | -3.8 | (64) | 13.5 | (33) | 32.5 | (60) | 17.5 | (30) |



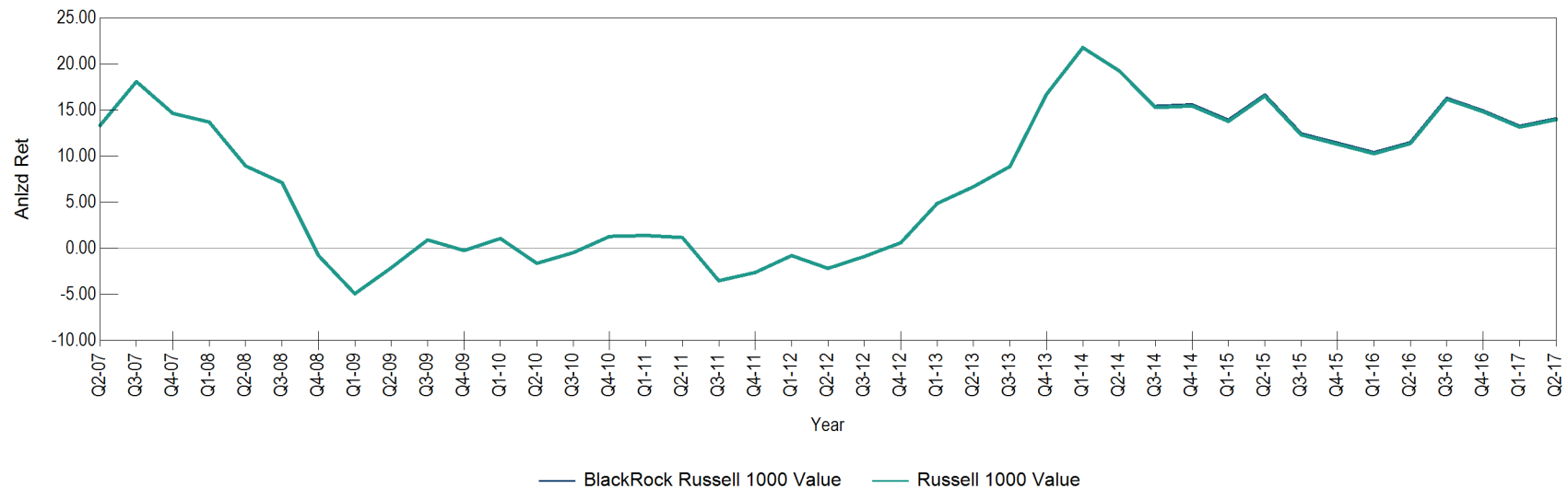
# BlackRock Russell 1000 Value Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

Rolling 3 Year Annualized Return (%)



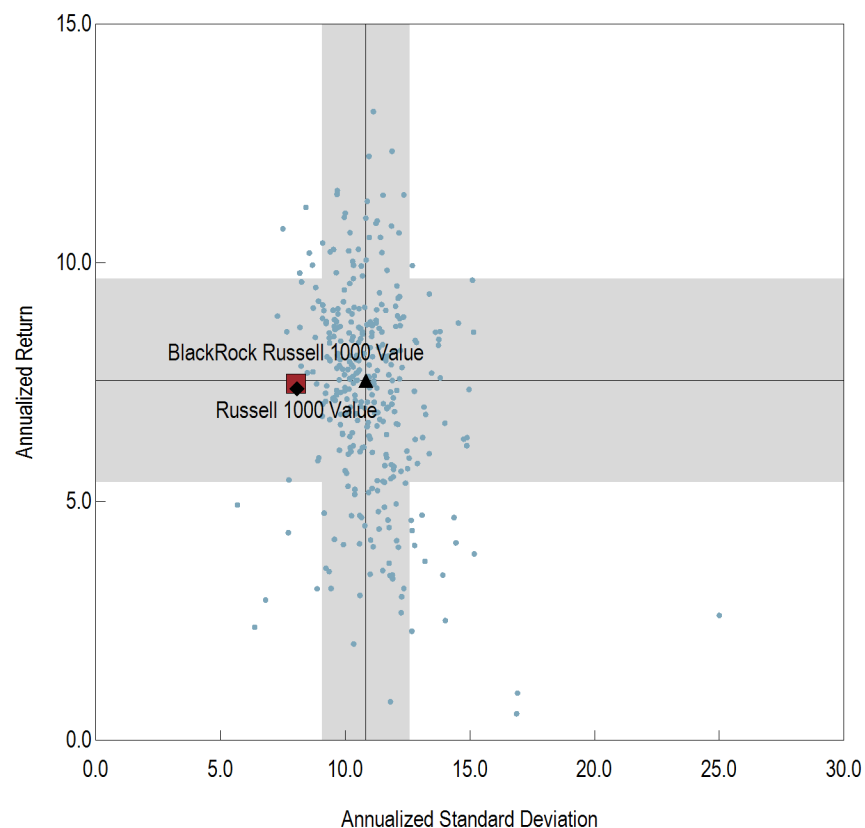
Rolling 5 Year Annualized Return (%)



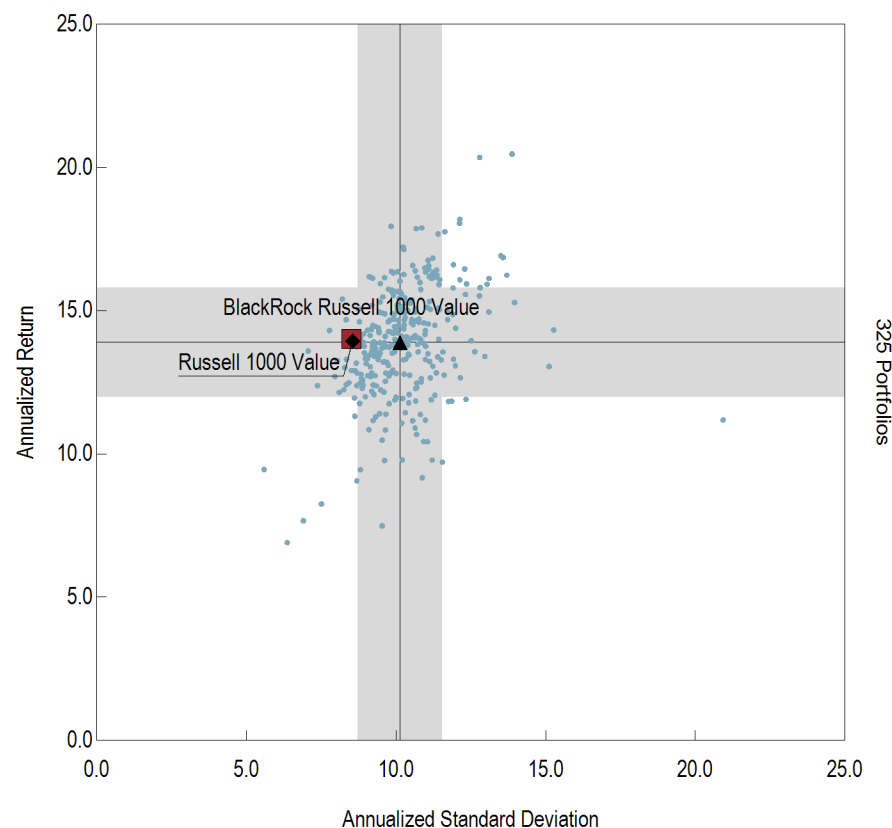
# BlackRock Russell 1000 Value Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

3 Years



5 Years



3 Years

|   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|---|--------------|--------------------------|--------------|
| BlackRock Russell 1000 Value              | 7.5%         | 8.0%                     | 0.9          |
| Russell 1000 Value                        | 7.4%         | 8.1%                     | 0.9          |
| eA US Large Cap Value Equity Gross Median | 7.5%         | 10.8%                    | 0.7          |

5 Years

|   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|---|--------------|--------------------------|--------------|
| BlackRock Russell 1000 Value              | 14.0%        | 8.5%                     | 1.6          |
| Russell 1000 Value                        | 13.9%        | 8.5%                     | 1.6          |
| eA US Large Cap Value Equity Gross Median | 13.9%        | 10.1%                    | 1.4          |

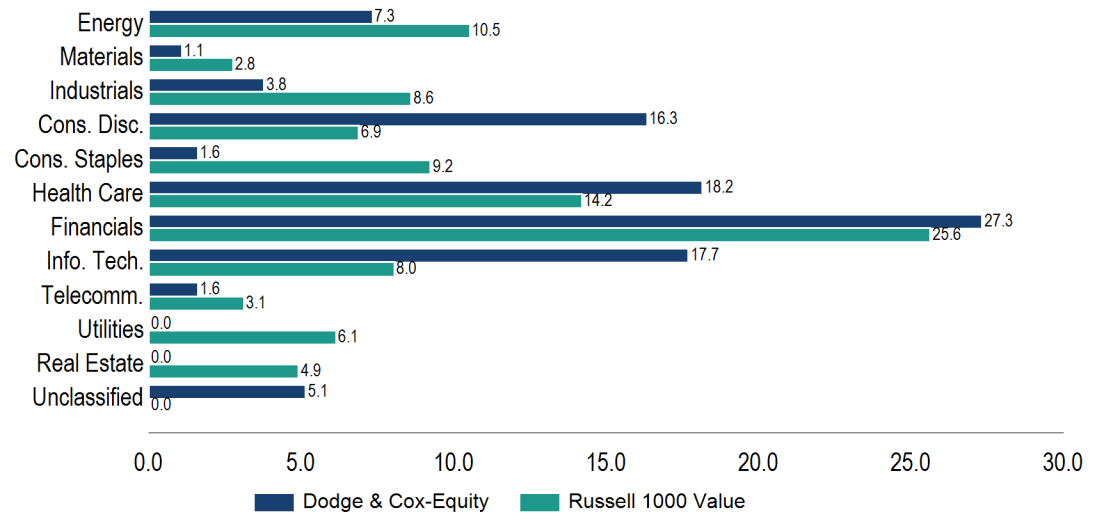
# Dodge & Cox-Equity Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | Russell<br>1000 Value |
|---------------------------------|-----------|-----------------------|
| Number of Holdings              | 66        | 719                   |
| Weighted Avg. Market Cap. (\$B) | 116.45    | 108.85                |
| Median Market Cap. (\$B)        | 39.11     | 8.46                  |
| Price To Earnings               | 19.58     | 20.93                 |
| Price To Book                   | 2.98      | 2.56                  |
| Price To Sales                  | 2.87      | 2.85                  |
| Return on Equity (%)            | 16.00     | 12.04                 |
| Yield (%)                       | 1.73      | 2.44                  |
| Beta                            | 1.09      | 1.00                  |

## Sector Allocation (%) vs Russell 1000 Value



## Largest Holdings

|                          | End Weight | Return |
|--------------------------|------------|--------|
| CHARLES SCHWAB           | 3.83       | 5.48   |
| BANK OF AMERICA          | 3.75       | 3.18   |
| WELLS FARGO & CO         | 3.62       | 0.24   |
| CAPITAL ONE FINL.        | 3.40       | -4.19  |
| CHARTER COMMS.CLA        | 3.26       | 2.91   |
| NOVARTIS 'B' SPN.ADR 1:1 | 3.03       | 12.39  |
| TIME WARNER              | 3.01       | 3.18   |
| COMCAST 'A'              | 2.99       | 4.39   |
| SANOFI ADR 2:1           | 2.97       | 9.47   |
| MICROSOFT                | 2.75       | 5.25   |

## Top Contributors

|                          | Avg Wgt | Return | Contribution |
|--------------------------|---------|--------|--------------|
| NOVARTIS 'B' SPN.ADR 1:1 | 2.89    | 12.39  | 0.36         |
| SANOFI ADR 2:1           | 3.17    | 9.47   | 0.30         |
| CIGNA                    | 1.86    | 14.27  | 0.27         |
| FEDEX                    | 2.09    | 11.63  | 0.24         |
| ALNYLAM                  | 0.41    | 55.63  | 0.23         |
| PHARMACEUTICALS          | 2.34    | 9.54   | 0.22         |
| ALPHABET 'C'             | 1.56    | 13.52  | 0.21         |
| UNITEDHEALTH GROUP       | 3.57    | 5.48   | 0.20         |
| CHARLES SCHWAB           | 1.98    | 8.46   | 0.17         |
| BANK OF NEW YORK MELLON  | 1.73    | 9.47   | 0.16         |
| ASTRAZENECA SPN.ADR.2:1  |         |        |              |

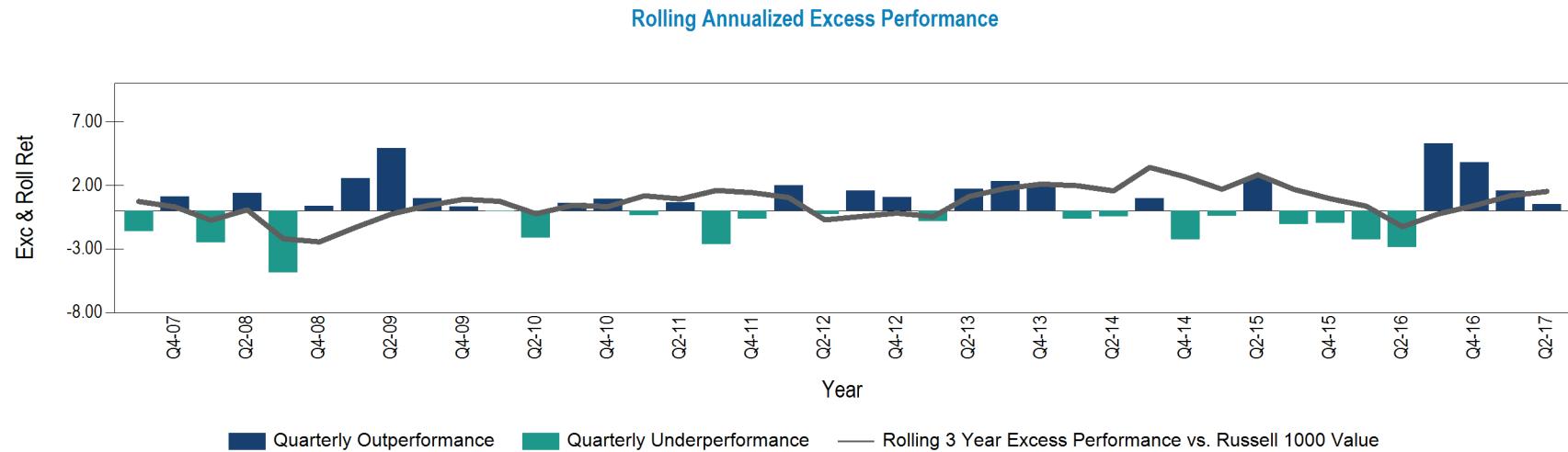
## Bottom Contributors

|                        | Avg Wgt | Return | Contribution |
|------------------------|---------|--------|--------------|
| ANADARKO PETROLEUM     | 1.21    | -26.80 | -0.32        |
| SCHLUMBERGER           | 1.94    | -15.08 | -0.29        |
| HEWLETT PACKARD ENTER. | 2.92    | -6.20  | -0.18        |
| NATIONAL OILWELL VARCO | 0.97    | -17.71 | -0.17        |
| CAPITAL ONE FINL.      | 3.40    | -4.19  | -0.14        |
| CISCO SYSTEMS          | 1.99    | -6.59  | -0.13        |
| BAKER HUGHES           | 1.40    | -8.61  | -0.12        |
| WEATHERFORD INTL.      | 0.22    | -41.80 | -0.09        |
| GOLDMAN SACHS GP.      | 2.78    | -3.07  | -0.09        |
| APACHE                 | 1.32    | -6.26  | -0.08        |

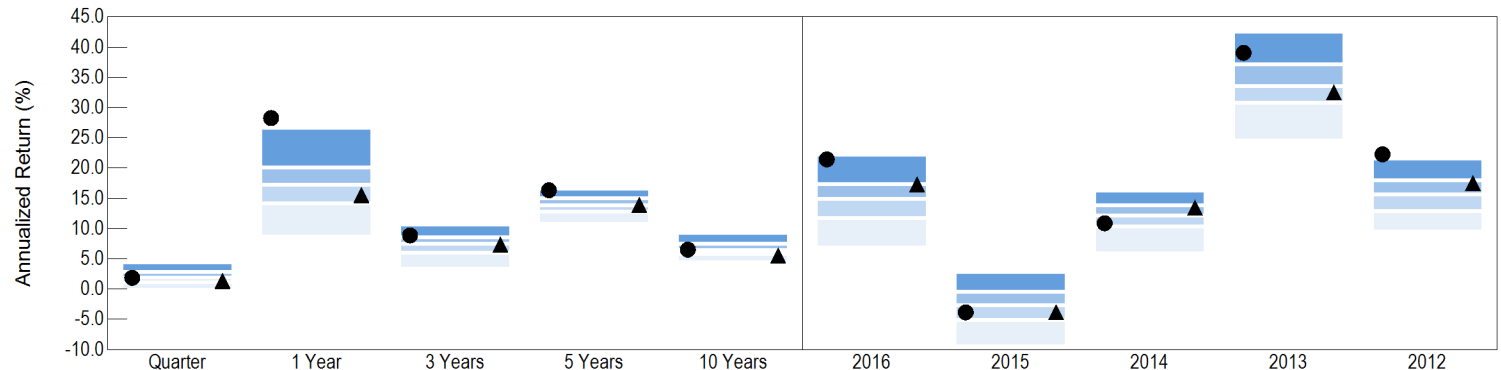
Unclassified sector allocation includes cash allocations.

# Dodge & Cox-Equity Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017



## Dodge & Cox-Equity vs. eA US Large Cap Value Equity Gross Universe

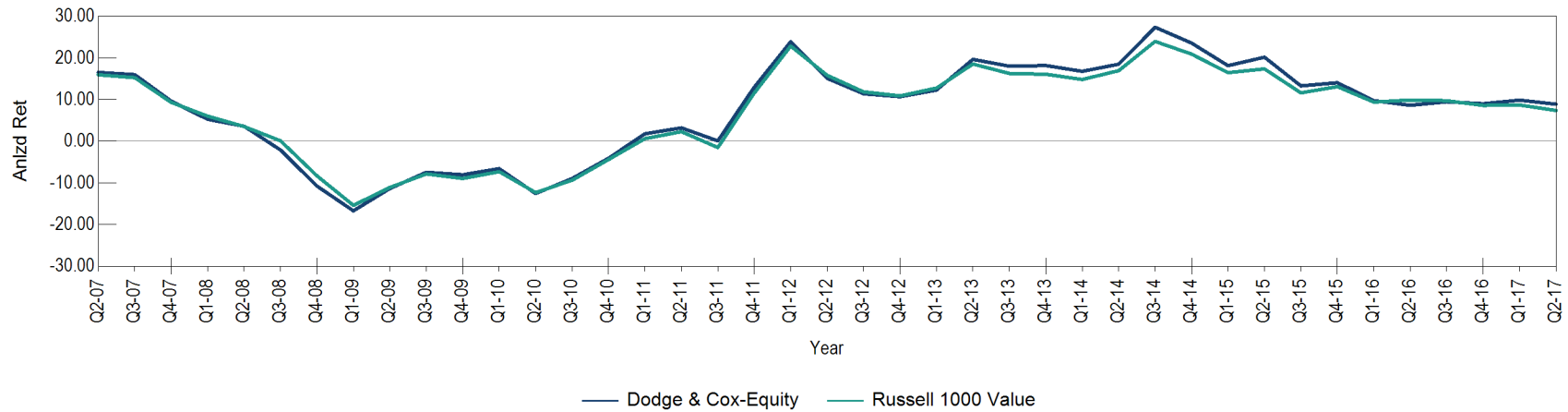


|                 |                    | Return (Rank) |      |      |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------|--------------------|---------------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 5th Percentile  |                    | 4.4           | 26.6 | 10.6 | 16.6 | 9.3 | 22.1 | 2.8  | 16.3 | 42.5 | 21.5 |      |      |      |      |      |      |      |      |      |      |
| 25th Percentile |                    | 2.9           | 20.2 | 8.7  | 15.1 | 7.5 | 17.4 | -0.4 | 13.9 | 37.2 | 18.0 |      |      |      |      |      |      |      |      |      |      |
| Median          |                    | 1.9           | 17.3 | 7.5  | 13.9 | 6.5 | 15.0 | -2.6 | 12.2 | 33.6 | 15.7 |      |      |      |      |      |      |      |      |      |      |
| 75th Percentile |                    | 1.2           | 14.2 | 6.0  | 12.8 | 5.8 | 11.8 | -5.1 | 10.4 | 30.8 | 13.0 |      |      |      |      |      |      |      |      |      |      |
| 95th Percentile |                    | -0.1          | 8.7  | 3.5  | 10.8 | 4.5 | 7.0  | -9.4 | 5.9  | 24.6 | 9.6  |      |      |      |      |      |      |      |      |      |      |
| # of Portfolios |                    | 347           | 347  | 340  | 325  | 266 | 346  | 312  | 307  | 310  | 303  |      |      |      |      |      |      |      |      |      |      |
| ●               | Dodge & Cox-Equity | 1.9           | (53) | 28.3 | (2)  | 8.9 | (20) | 16.3 | (9)  | 6.5  | (51) | 21.4 | (6)  | -3.9 | (64) | 10.9 | (72) | 39.1 | (15) | 22.3 | (3)  |
| ▲               | Russell 1000 Value | 1.3           | (71) | 15.5 | (68) | 7.4 | (54) | 13.9 | (50) | 5.6  | (83) | 17.3 | (26) | -3.8 | (64) | 13.5 | (33) | 32.5 | (60) | 17.5 | (30) |

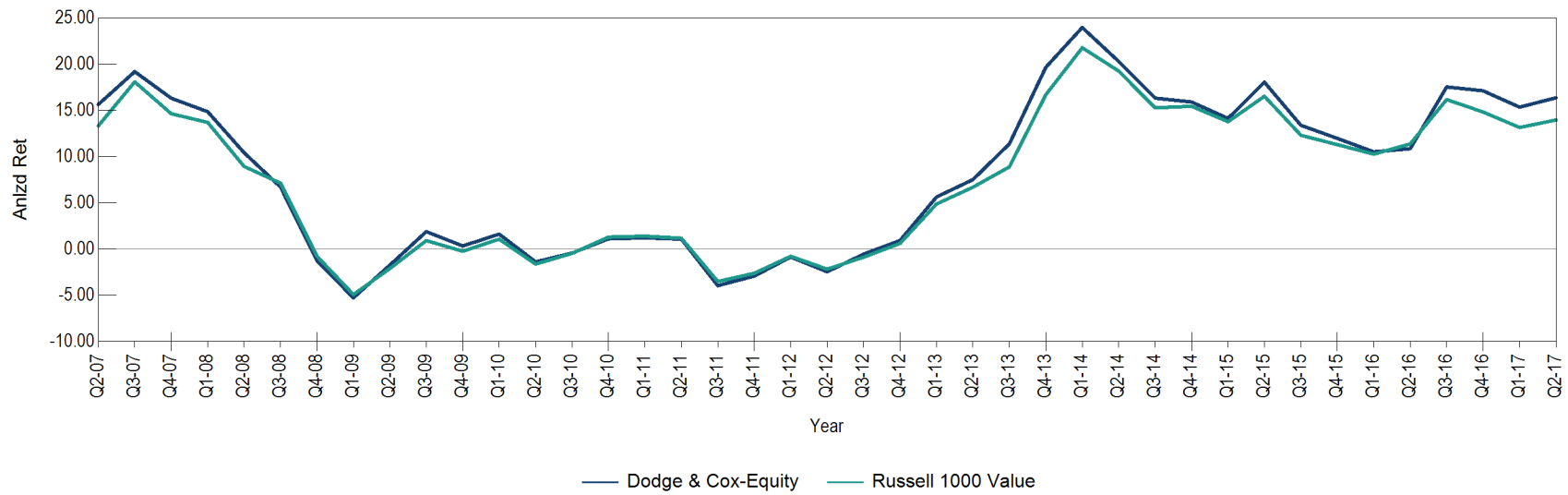
Dodge & Cox-Equity  
Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

Rolling 3 Year Annualized Return (%)

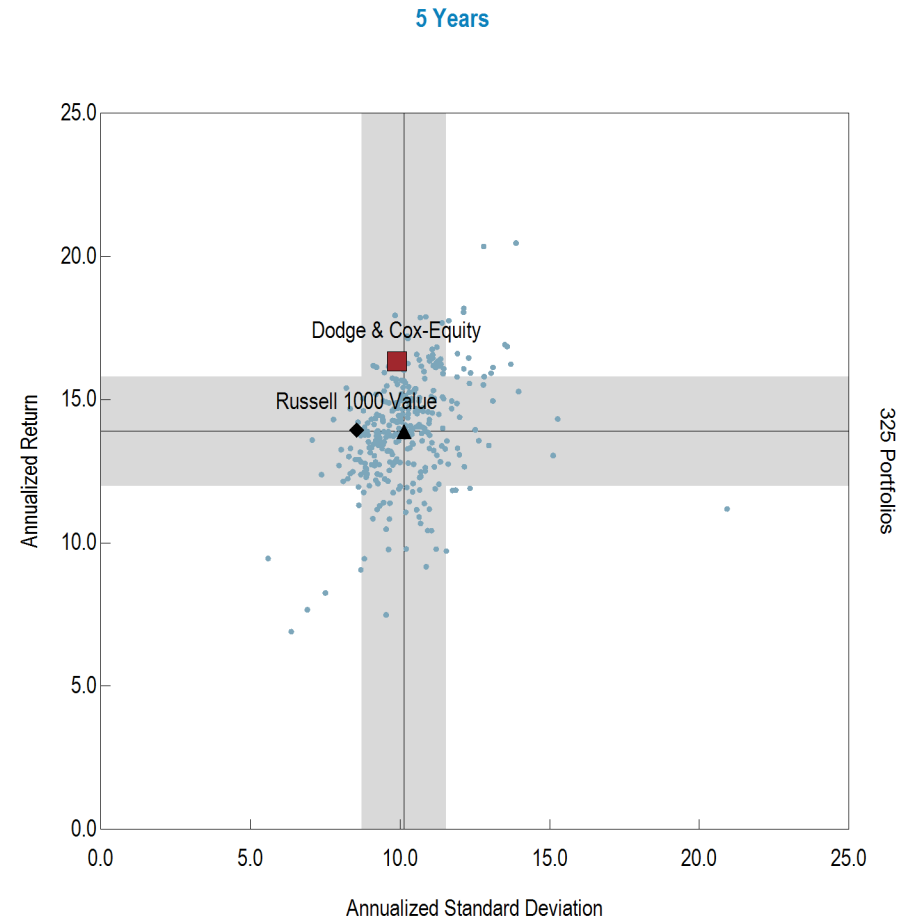
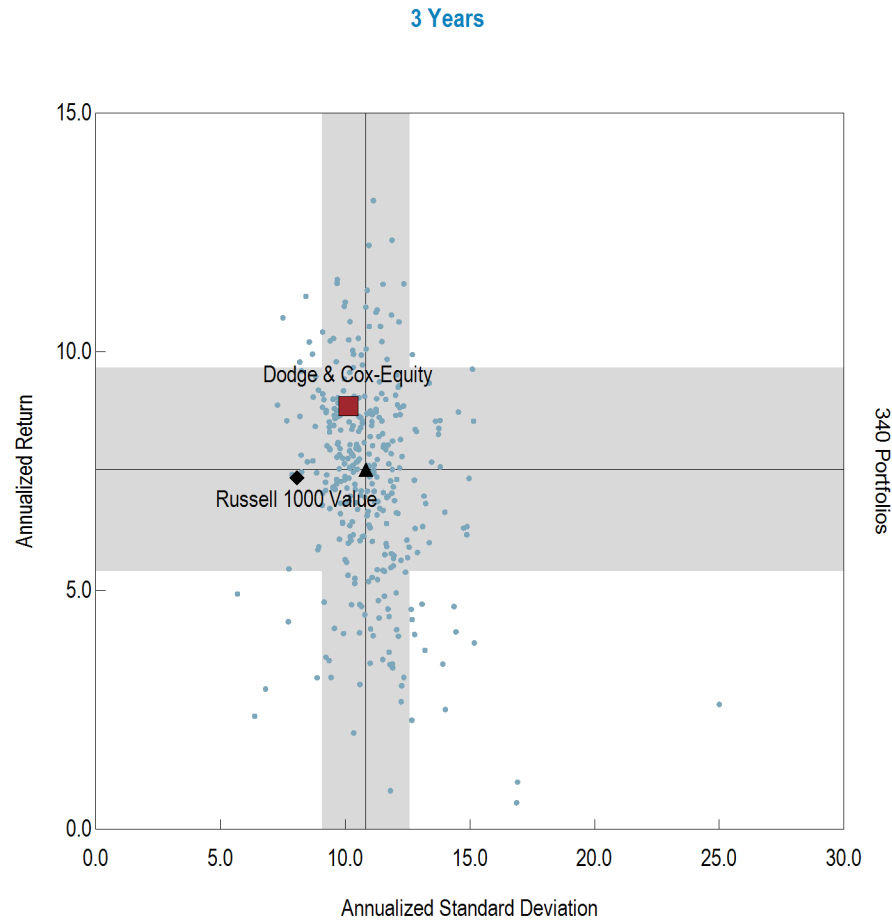


Rolling 5 Year Annualized Return (%)



# Dodge & Cox-Equity Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017



|   | 3 Years      |                          |              |
|---|--------------|--------------------------|--------------|
|   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| Dodge & Cox-Equity                        | 8.9%         | 10.1%                    | 0.9          |
| Russell 1000 Value                        | 7.4%         | 8.1%                     | 0.9          |
| eA US Large Cap Value Equity Gross Median | 7.5%         | 10.8%                    | 0.7          |

|   | 5 Years      |                          |              |
|---|--------------|--------------------------|--------------|
|   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| Dodge & Cox-Equity                        | 16.3%        | 9.9%                     | 1.6          |
| Russell 1000 Value                        | 13.9%        | 8.5%                     | 1.6          |
| eA US Large Cap Value Equity Gross Median | 13.9%        | 10.1%                    | 1.4          |

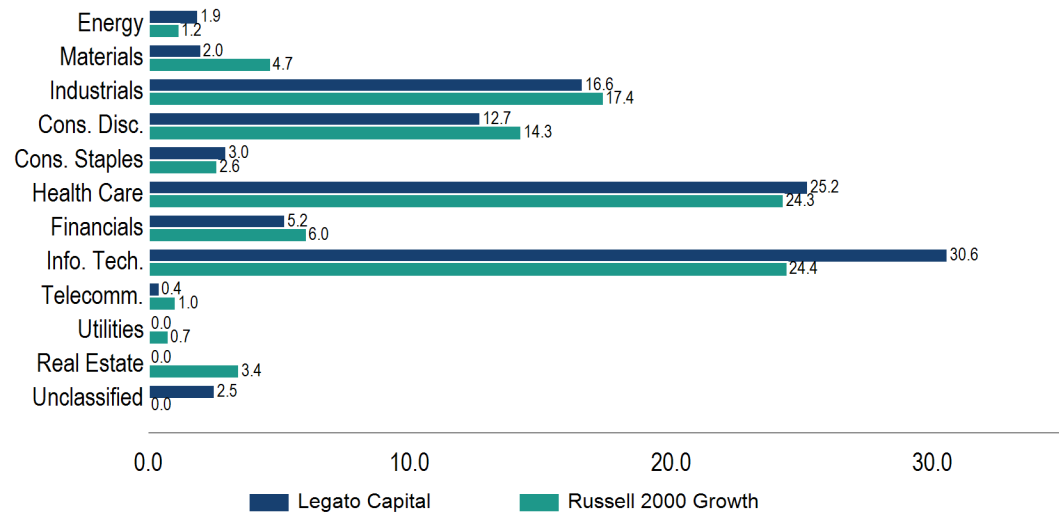
# Legato Capital Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | Russell<br>2000<br>Growth |
|---------------------------------|-----------|---------------------------|
| Number of Holdings              | 234       | 1,171                     |
| Weighted Avg. Market Cap. (\$B) | 2.22      | 2.20                      |
| Median Market Cap. (\$B)        | 1.39      | 0.89                      |
| Price To Earnings               | 32.03     | 28.74                     |
| Price To Book                   | 5.46      | 5.04                      |
| Price To Sales                  | 3.18      | 3.32                      |
| Return on Equity (%)            | 16.33     | 15.87                     |
| Yield (%)                       | 0.40      | 0.57                      |
| Beta                            | 0.97      | 1.00                      |

## Sector Allocation (%) vs Russell 2000 Growth



## Largest Holdings

|                          | End Weight | Return |
|--------------------------|------------|--------|
| LIGAND PHARMS.'B'        | 2.47       | 14.70  |
| STAMPS.COM               | 2.44       | 30.86  |
| SUPERNUS PHARMACEUTICALS | 1.57       | 37.70  |
| ISHARES RUSSELL 2000 GW. | 1.54       | 4.40   |
| DREW INDS.               | 1.46       | 3.17   |
| CRITEO ADR 1:1           | 1.33       | -1.88  |
| POOL                     | 1.32       | -1.17  |
| DAVE & BUSTER'S ENTM.    | 1.10       | 8.87   |
| ECHO GLOBAL LOGISTICS    | 1.05       | -6.79  |
| TETRA TECH               | 1.01       | 12.24  |

## Top Contributors

|                            | Avg Wgt | Return | Contribution |
|----------------------------|---------|--------|--------------|
| STAMPS.COM                 | 2.95    | 30.86  | 0.91         |
| ALBANY                     | 1.41    | 54.67  | 0.77         |
| MOLECULR.RESH.             |         |        |              |
| SUPERNUS PHARMACEUTICALS   | 1.63    | 37.70  | 0.62         |
| LIGAND PHARMS.'B'          | 3.09    | 14.70  | 0.45         |
| CEVA                       | 1.32    | 28.03  | 0.37         |
| INC RESEARCH HOLDINGS CL.A | 1.28    | 27.59  | 0.35         |
| MERIT MEDICAL SYS.         | 0.84    | 32.01  | 0.27         |
| IGI LABORATORIES           | 1.28    | 17.16  | 0.22         |
| INNERWORKINGS              | 1.21    | 16.47  | 0.20         |
| TETRA TECH                 | 1.60    | 12.24  | 0.20         |

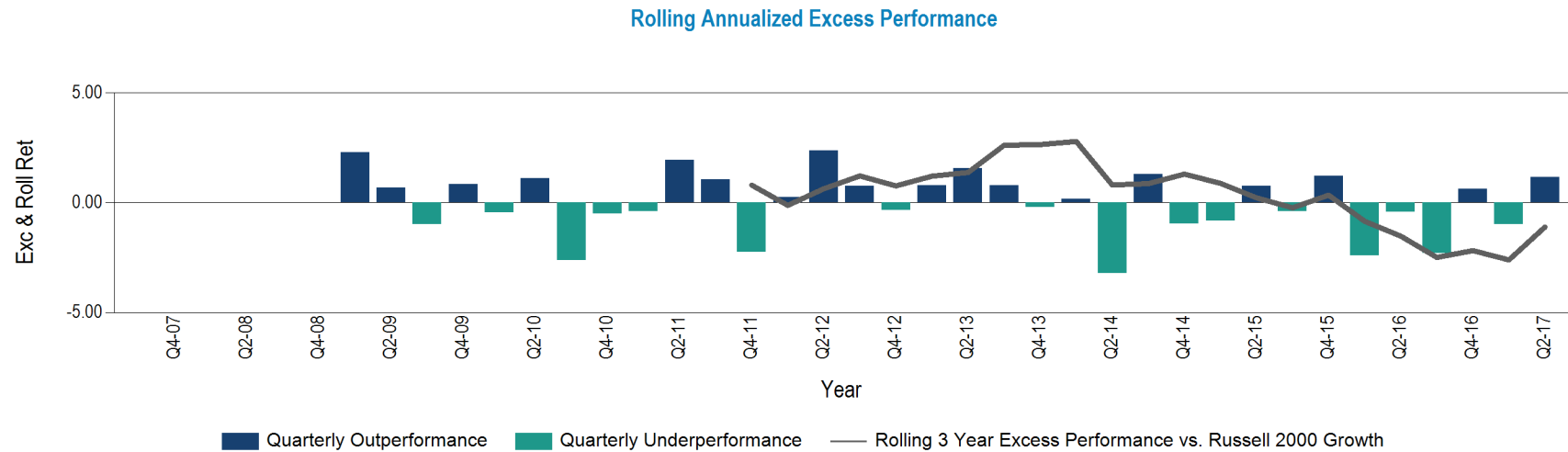
## Bottom Contributors

|                       | Avg Wgt | Return | Contribution |
|-----------------------|---------|--------|--------------|
| CARDTRONICS           | 1.11    | -29.71 | -0.33        |
| CHEESECAKE FACTORY    | 1.23    | -20.29 | -0.25        |
| NEKTAR THERAPEUTICS   | 1.40    | -16.70 | -0.23        |
| SMART & FINAL STORES  | 0.73    | -24.79 | -0.18        |
| BUFFALO WILD WINGS    | 1.03    | -17.05 | -0.18        |
| CALLON PTL.DEL.       | 0.78    | -19.38 | -0.15        |
| SNYDERS LANCE         | 1.09    | -13.74 | -0.15        |
| PROGENICS PHARMS.     | 0.53    | -28.07 | -0.15        |
| ECHO GLOBAL LOGISTICS | 1.66    | -6.79  | -0.11        |
| BANK OF THE OZARKS    | 1.12    | -9.56  | -0.11        |

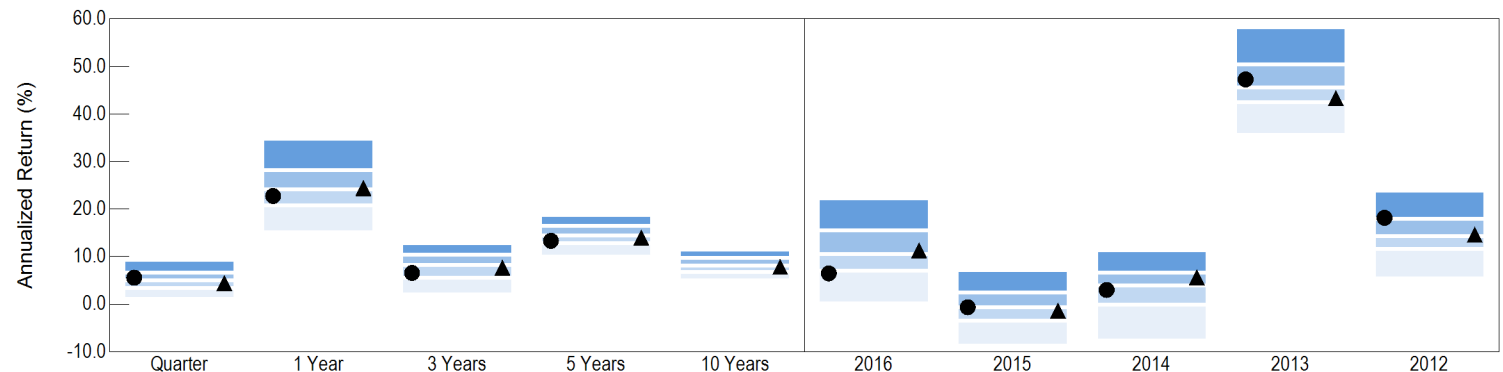
Unclassified sector allocation includes cash allocations.

# Legato Capital Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017

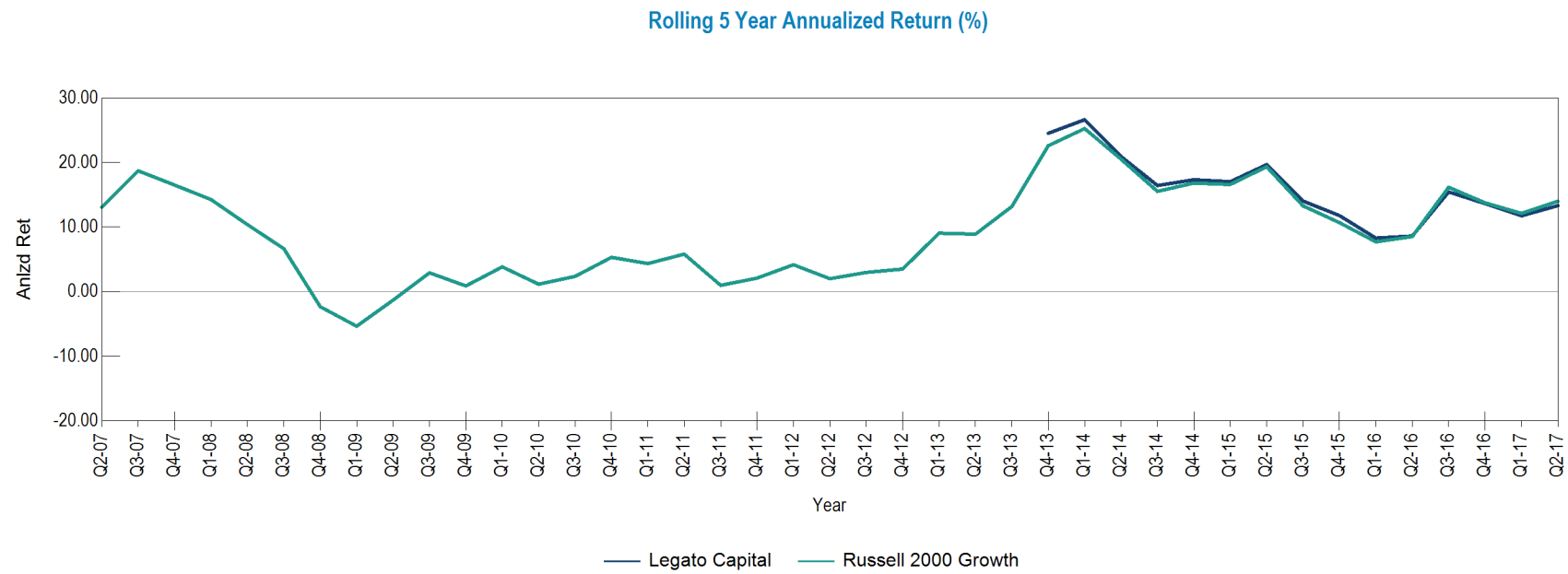
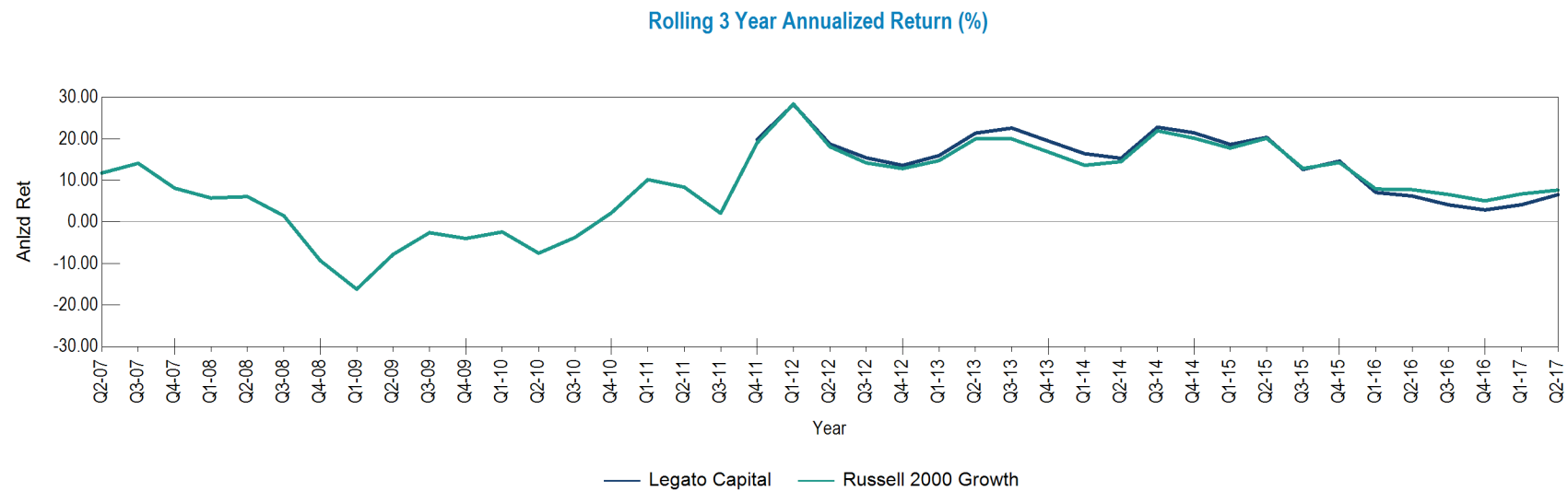


## Legato Capital vs. eA US Small Cap Growth Equity Gross Universe



|                       | Quarter  |  | 1 Year    |  | 3 Years  |  | 5 Years   |  | 10 Years |  | 2016      | 2015      | 2014     | 2013      | 2012      |
|-----------------------|----------|--|-----------|--|----------|--|-----------|--|----------|--|-----------|-----------|----------|-----------|-----------|
| <b>Return (Rank)</b>  |          |  |           |  |          |  |           |  |          |  |           |           |          |           |           |
| 5th Percentile        | 9.2      |  | 34.7      |  | 12.7     |  | 18.6      |  | 11.4     |  | 22.2      | 7.1       | 11.3     | 58.2      | 23.8      |
| 25th Percentile       | 6.7      |  | 28.2      |  | 10.5     |  | 16.5      |  | 9.7      |  | 15.5      | 2.5       | 6.7      | 50.6      | 18.0      |
| Median                | 5.0      |  | 24.2      |  | 8.3      |  | 14.5      |  | 8.2      |  | 10.6      | -0.6      | 3.9      | 45.6      | 14.3      |
| 75th Percentile       | 3.5      |  | 20.9      |  | 5.6      |  | 12.8      |  | 6.8      |  | 7.1       | -3.5      | -0.1     | 42.6      | 11.6      |
| 95th Percentile       | 1.1      |  | 15.2      |  | 2.1      |  | 10.0      |  | 5.1      |  | 0.2       | -8.7      | -7.6     | 35.6      | 5.4       |
| # of Portfolios       | 171      |  | 171       |  | 165      |  | 157       |  | 133      |  | 170       | 154       | 161      | 160       | 162       |
| ● Legato Capital      | 5.5 (40) |  | 22.7 (62) |  | 6.5 (69) |  | 13.3 (72) |  | -- (--)  |  | 6.4 (79)  | -0.7 (52) | 3.0 (57) | 47.3 (41) | 18.1 (24) |
| ▲ Russell 2000 Growth | 4.4 (59) |  | 24.4 (50) |  | 7.6 (59) |  | 14.0 (63) |  | 7.8 (59) |  | 11.3 (49) | -1.4 (59) | 5.6 (32) | 43.3 (70) | 14.6 (48) |

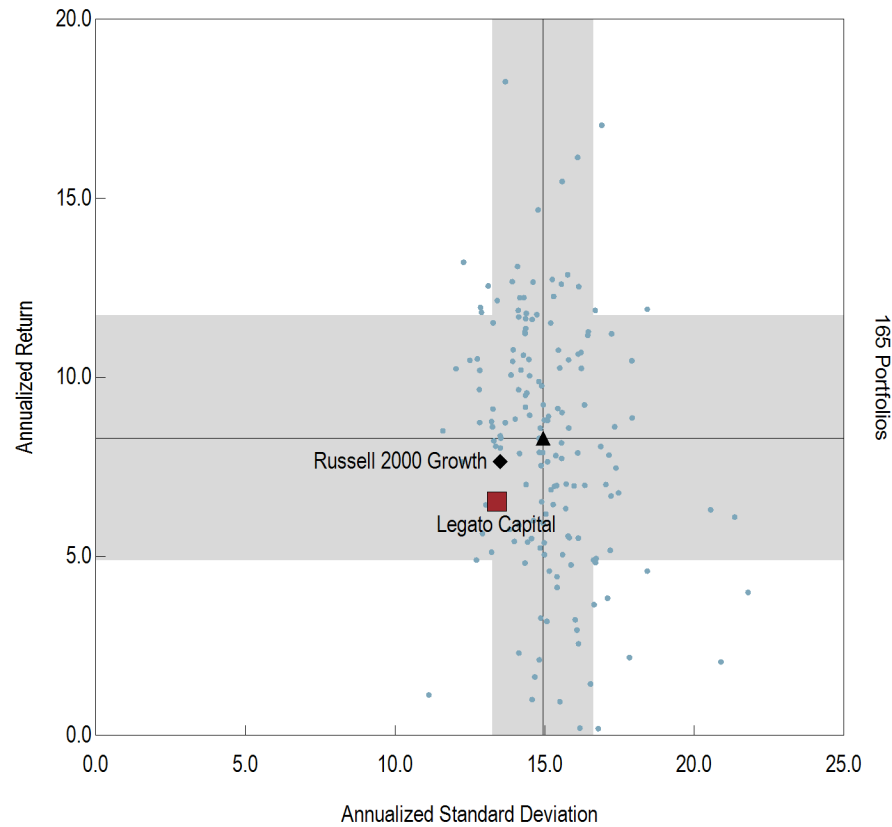




# Legato Capital Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

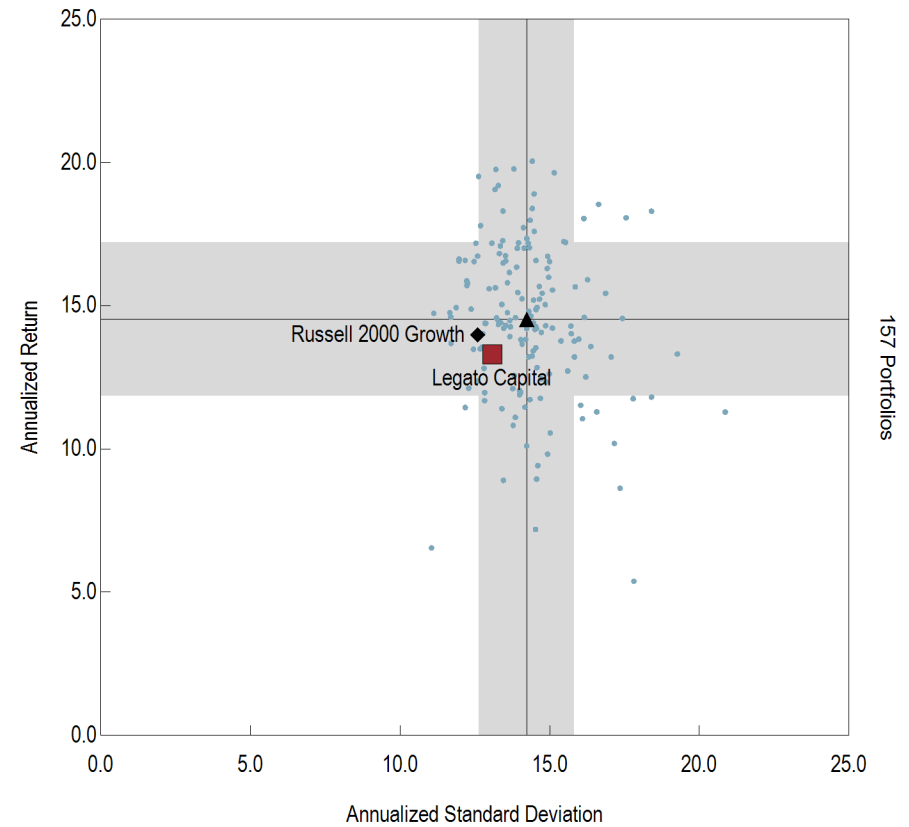
3 Years



3 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| Legato Capital                             | 6.5%         | 13.4%                    | 0.5          |
| Russell 2000 Growth                        | 7.6%         | 13.5%                    | 0.5          |
| eA US Small Cap Growth Equity Gross Median | 8.3%         | 14.9%                    | 0.6          |

5 Years



5 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| Legato Capital                             | 13.3%        | 13.1%                    | 1.0          |
| Russell 2000 Growth                        | 14.0%        | 12.6%                    | 1.1          |
| eA US Small Cap Growth Equity Gross Median | 14.5%        | 14.2%                    | 1.0          |

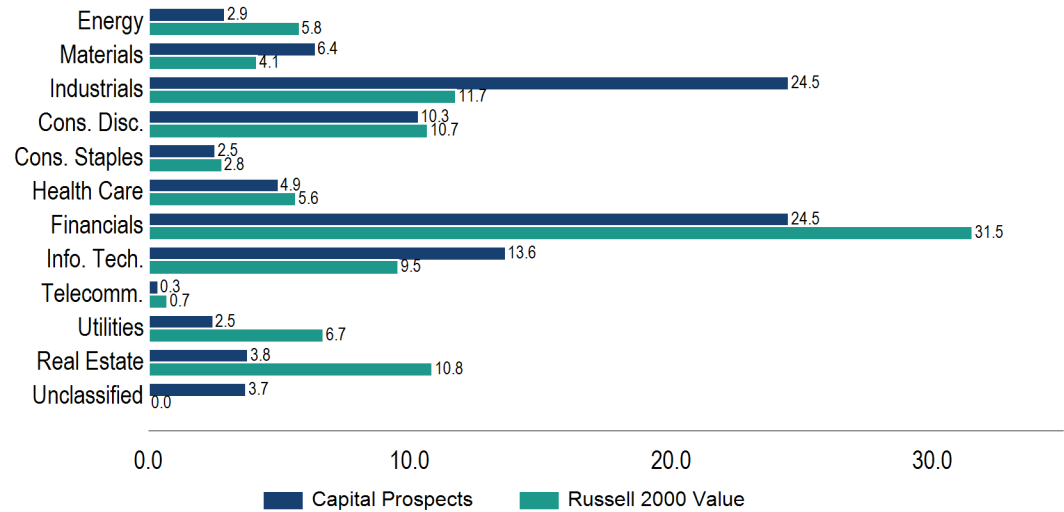
# Capital Prospects Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | Russell<br>2000 Value |
|---------------------------------|-----------|-----------------------|
| Number of Holdings              | 295       | 1,399                 |
| Weighted Avg. Market Cap. (\$B) | 2.17      | 1.83                  |
| Median Market Cap. (\$B)        | 1.23      | 0.66                  |
| Price To Earnings               | 23.21     | 20.07                 |
| Price To Book                   | 2.85      | 1.71                  |
| Price To Sales                  | 2.29      | 2.72                  |
| Return on Equity (%)            | 13.09     | 7.40                  |
| Yield (%)                       | 1.57      | 1.70                  |
| Beta                            | 0.87      | 1.00                  |

## Sector Allocation (%) vs Russell 2000 Value



## Largest Holdings

|                          | End Weight | Return |
|--------------------------|------------|--------|
| ALLETE                   | 1.38       | 6.68   |
| GORES HOLDINGS CL.A      | 1.36       | 1.45   |
| LITTELFUSE               | 1.30       | 3.39   |
| HILLENBRAND              | 1.15       | 1.26   |
| MB FINANCIAL             | 1.14       | 3.33   |
| ABM INDS.                | 0.94       | -4.39  |
| ARTISAN PTNS.ASTMGMT.    | 0.94       | 13.62  |
| AIR LEASE                | 0.93       | -3.40  |
| JOHN BEAN TECHNOLOGIES   | 0.93       | 11.56  |
| AMERICAN EQ.INV.LF.HLDG. | 0.85       | 11.21  |

## Top Contributors

|                    | Avg Wgt | Return | Contribution |
|--------------------|---------|--------|--------------|
| CAI INTERNATIONAL  | 0.44    | 49.94  | 0.22         |
| MODINE             | 0.59    | 35.66  | 0.21         |
| MANUFACTURING      | 0.52    | 39.50  | 0.21         |
| FREIGHTCAR AMERICA | 0.65    | 23.94  | 0.16         |
| CATALENT           | 0.23    | 54.67  | 0.12         |
| ALBANY             | 0.28    | 41.30  | 0.12         |
| MOLECULR.RESH.     | 0.85    | 13.62  | 0.12         |
| STERLING           | 0.27    | 42.12  | 0.12         |
| CONSTRUCTION       | 0.81    | 14.05  | 0.11         |
| ARTISAN            | 0.72    | 15.34  | 0.11         |
| PTNS.ASTMGMT.      |         |        |              |
| ASURE SOFTWARE     |         |        |              |
| POLYONE            |         |        |              |
| MSA SAFETY         |         |        |              |

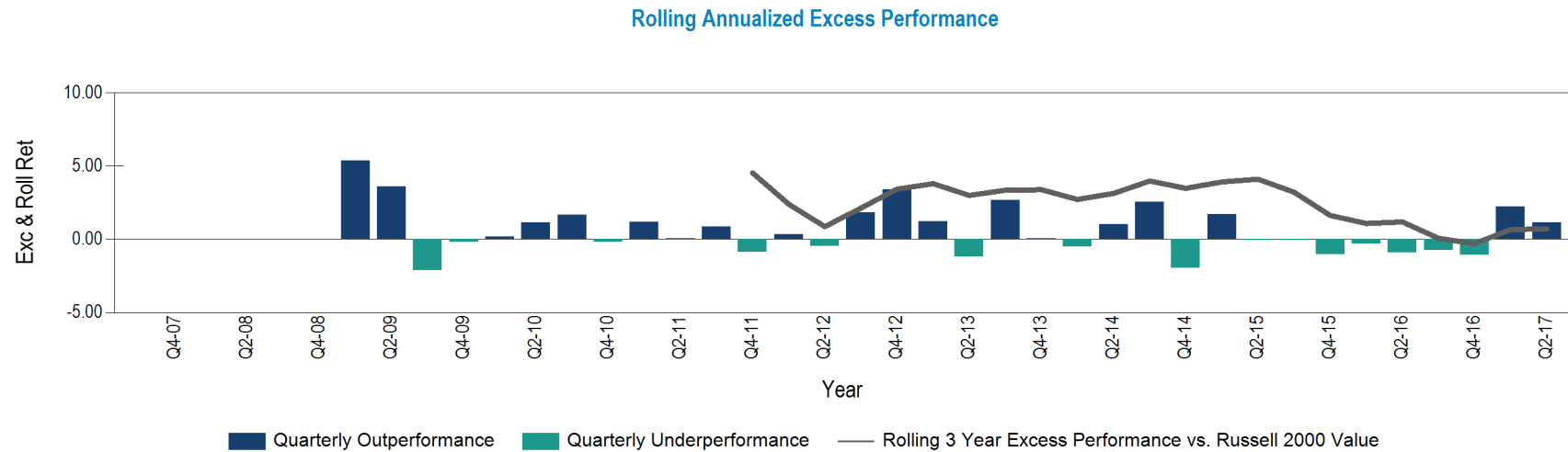
## Bottom Contributors

|                     | Avg Wgt | Return | Contribution |
|---------------------|---------|--------|--------------|
| PCM                 | 0.35    | -33.16 | -0.12        |
| STEELCASE 'A'       | 0.67    | -15.66 | -0.10        |
| TOWER INTERNATIONAL | 0.60    | -16.80 | -0.10        |
| CINEMARK HOLDINGS   | 0.81    | -11.74 | -0.10        |
| RANGE RES.          | 0.44    | -20.31 | -0.09        |
| VERSO CL A ORD      | 0.41    | -21.83 | -0.09        |
| TWIN DISC           | 0.41    | -21.54 | -0.09        |
| CRH MEDICAL         | 0.29    | -30.28 | -0.09        |
| LAREDO PETROLEUM    | 0.31    | -27.95 | -0.09        |
| OIL STS.INTL.       | 0.45    | -18.10 | -0.08        |

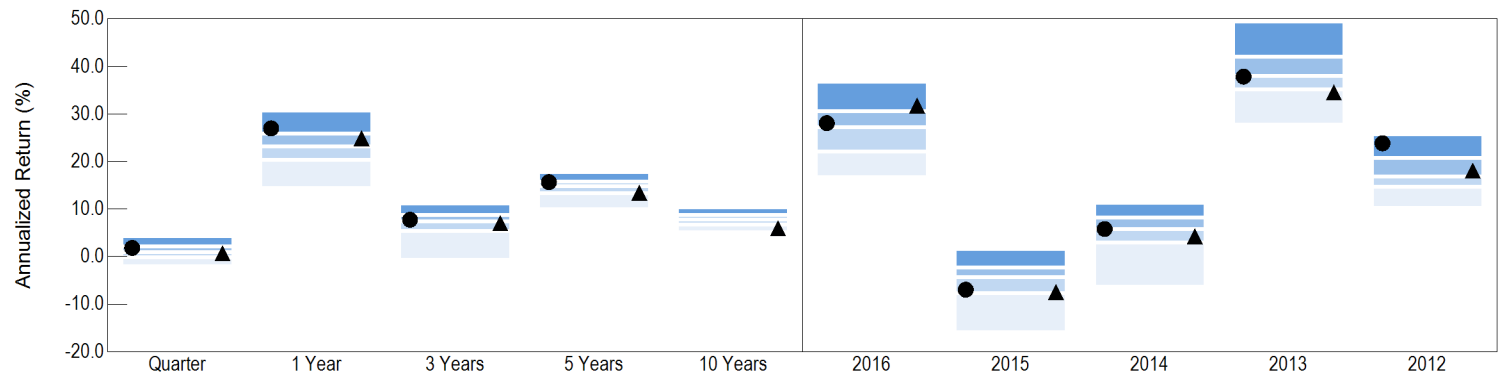
Unclassified sector allocation includes cash allocations.

# Capital Prospects Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017



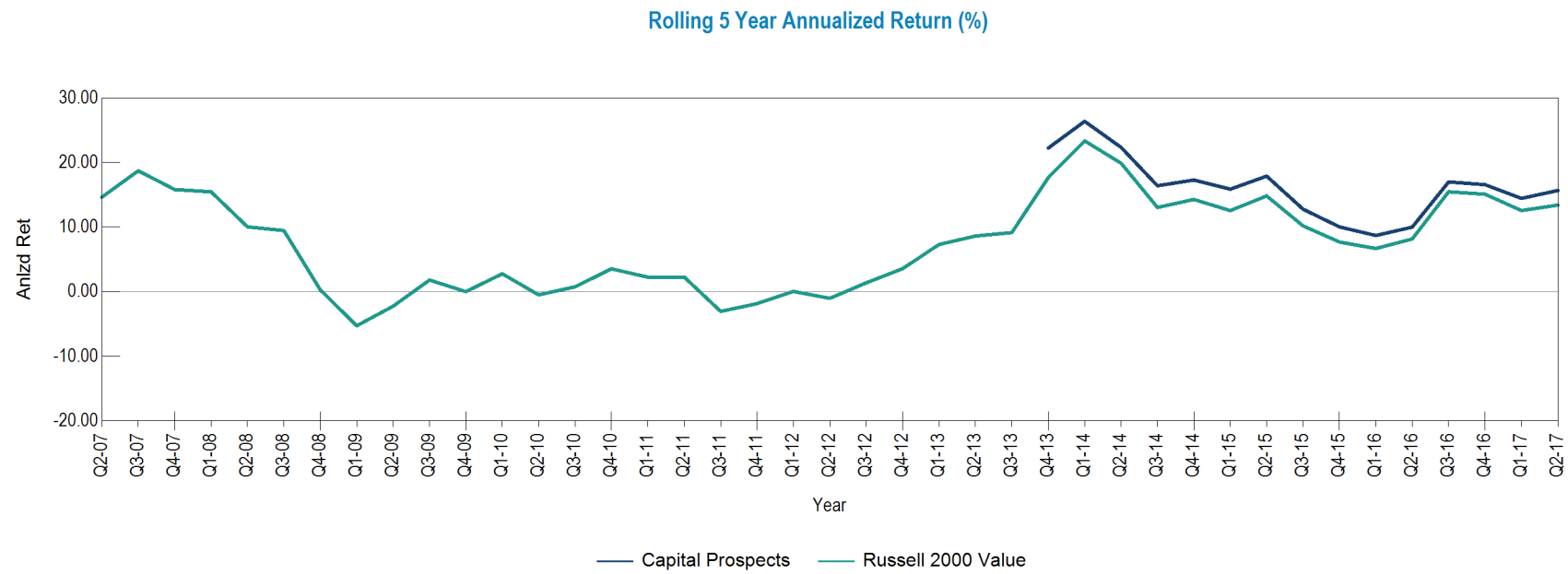
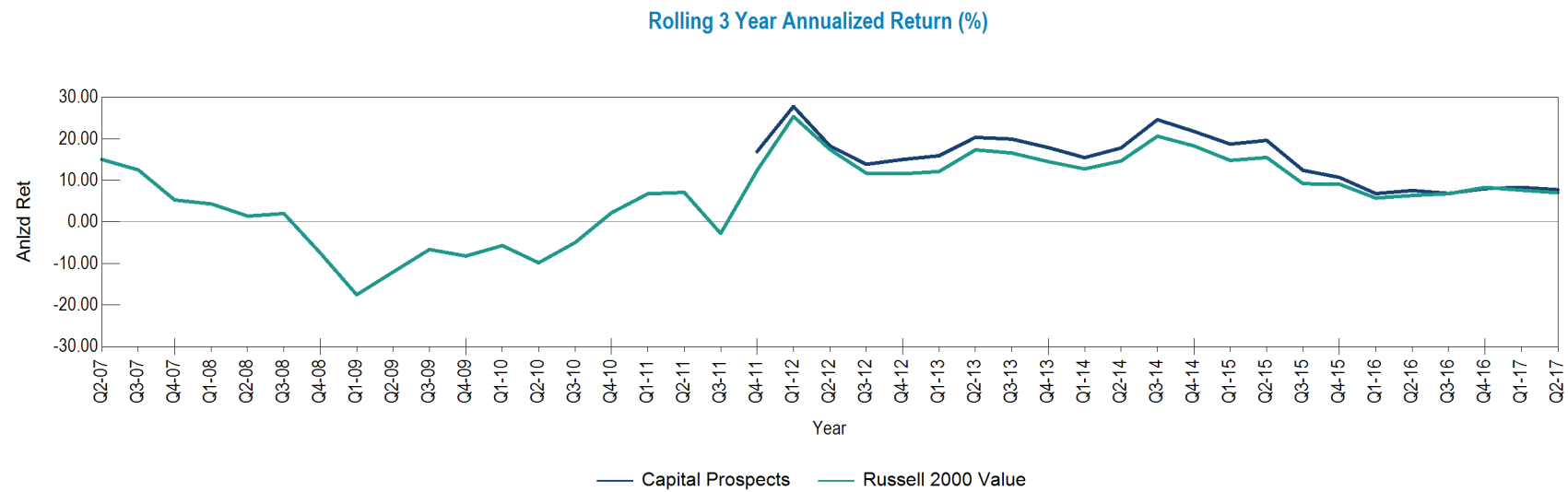
## Capital Prospects vs. eA US Small Cap Value Equity Gross Universe



|                      | Quarter  | 1 Year    | 3 Years  | 5 Years   | 10 Years | 2016      | 2015      | 2014     | 2013      | 2012      |
|----------------------|----------|-----------|----------|-----------|----------|-----------|-----------|----------|-----------|-----------|
| <b>Return (Rank)</b> |          |           |          |           |          |           |           |          |           |           |
| 5th Percentile       | 4.3      | 30.7      | 11.1     | 17.7      | 10.3     | 36.7      | 1.5       | 11.2     | 49.4      | 25.7      |
| 25th Percentile      | 2.1      | 26.0      | 8.9      | 15.9      | 8.8      | 30.7      | -2.2      | 8.2      | 42.1      | 20.8      |
| Median               | 1.0      | 23.2      | 7.5      | 14.8      | 7.9      | 27.2      | -4.3      | 5.8      | 38.1      | 16.9      |
| 75th Percentile      | -0.1     | 20.4      | 5.5      | 13.4      | 6.8      | 22.2      | -7.7      | 3.1      | 35.2      | 14.7      |
| 95th Percentile      | -2.0     | 14.4      | -0.7     | 10.0      | 5.1      | 16.8      | -15.8     | -6.3     | 27.8      | 10.3      |
| # of Portfolios      | 226      | 226       | 216      | 207       | 171      | 222       | 212       | 206      | 199       | 187       |
| ● Capital Prospects  | 1.8 (32) | 27.0 (21) | 7.7 (47) | 15.6 (30) | -- (--)  | 28.1 (40) | -7.0 (72) | 5.8 (51) | 37.9 (53) | 23.8 (9)  |
| ▲ Russell 2000 Value | 0.7 (55) | 24.9 (35) | 7.0 (63) | 13.4 (76) | 5.9 (89) | 31.7 (17) | -7.5 (74) | 4.2 (68) | 34.5 (78) | 18.1 (43) |

Capital Prospects  
Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

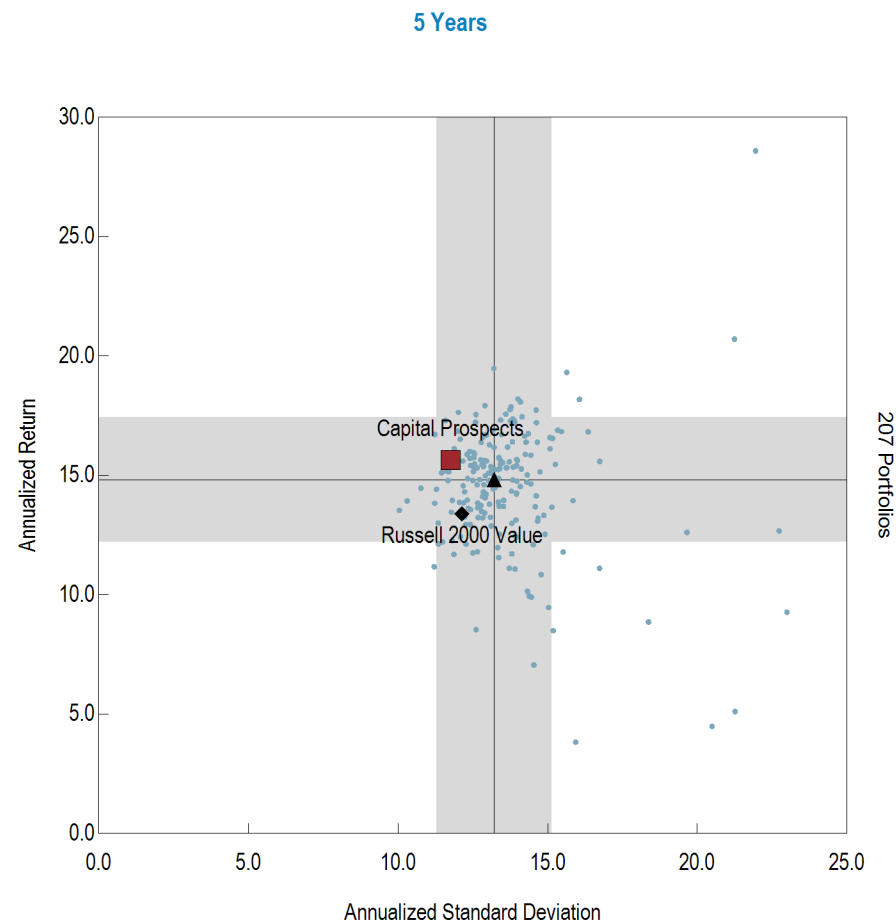
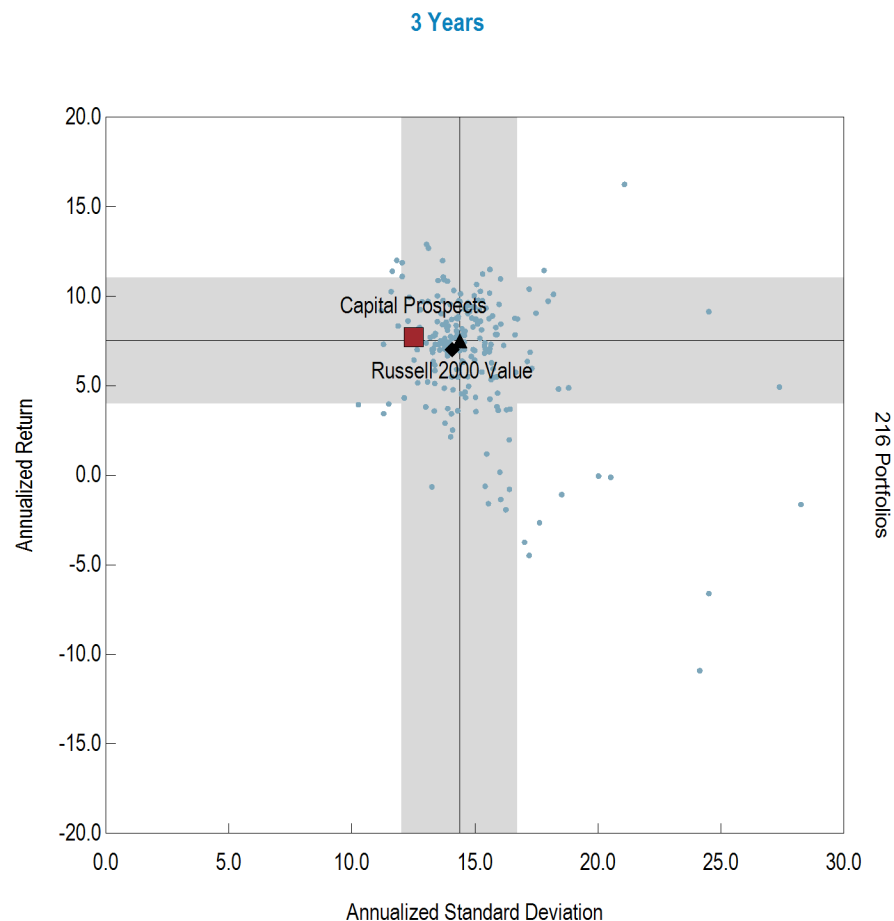
Period Ending: June 30, 2017



# Capital Prospects

## Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017



|   | 3 Years      |                          |              |
|---|--------------|--------------------------|--------------|
|   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| Capital Prospects                         | 7.7%         | 12.5%                    | 0.6          |
| Russell 2000 Value                        | 7.0%         | 14.1%                    | 0.5          |
| eA US Small Cap Value Equity Gross Median | 7.5%         | 14.4%                    | 0.5          |

|   | 5 Years      |                          |              |
|---|--------------|--------------------------|--------------|
|   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| Capital Prospects                         | 15.6%        | 11.8%                    | 1.3          |
| Russell 2000 Value                        | 13.4%        | 12.1%                    | 1.1          |
| eA US Small Cap Value Equity Gross Median | 14.8%        | 13.2%                    | 1.1          |

## International Equity Managers

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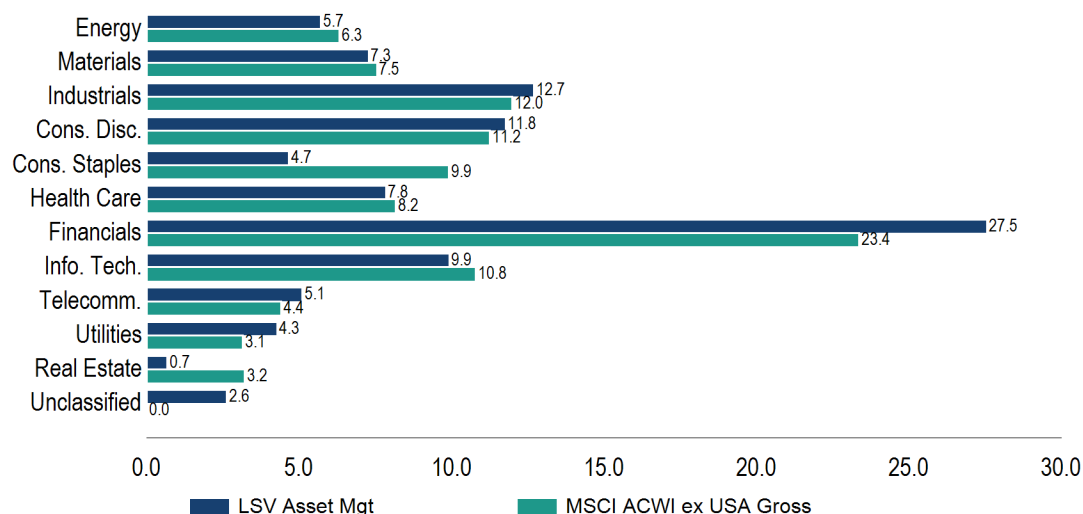
# LSV Asset Mgt Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | MSCI<br>ACWI ex<br>USA Gross |
|---------------------------------|-----------|------------------------------|
| Number of Holdings              | 251       | 1,866                        |
| Weighted Avg. Market Cap. (\$B) | 34.15     | 57.75                        |
| Median Market Cap. (\$B)        | 7.47      | 7.61                         |
| Price To Earnings               | 14.34     | 20.98                        |
| Price To Book                   | 1.66      | 2.57                         |
| Price To Sales                  | 1.07      | 2.16                         |
| Return on Equity (%)            | 13.65     | 14.01                        |
| Yield (%)                       | 3.54      | 2.88                         |
| Beta                            | 1.07      | 1.00                         |

## Sector Allocation (%) vs MSCI ACWI ex USA Gross



## Largest Holdings

|                     | End Weight | Return |
|---------------------|------------|--------|
| SAMSUNG ELECTRONICS | 2.16       | 12.78  |
| SANOFI              | 1.76       | 9.00   |
| NIPPON TELG. & TEL. | 1.52       | 10.82  |
| BAE SYSTEMS         | 1.30       | 4.52   |
| ALLIANZ             | 1.27       | 11.16  |
| MAGNA INTL.         | 1.17       | 8.15   |
| ENEL                | 1.14       | 13.41  |
| SWISS LIFE HOLDING  | 1.10       | 8.20   |
| KDDI                | 1.02       | 0.97   |
| BAYER               | 1.02       | 14.59  |

## Top Contributors

|                        | Avg Wgt | Return | Contribution |
|------------------------|---------|--------|--------------|
| SAMSUNG ELECTRONICS    | 2.09    | 12.78  | 0.27         |
| BYD ELECTRONIC (INTL.) | 0.61    | 43.33  | 0.27         |
| OMV                    | 0.70    | 34.76  | 0.24         |
| QANTAS AIRWAYS         | 0.40    | 47.85  | 0.19         |
| DEUTSCHE LUFTHANSA     | 0.36    | 44.92  | 0.16         |
| SANOFI                 | 1.80    | 9.00   | 0.16         |
| NIPPON TELG. & TEL.    | 1.50    | 10.82  | 0.16         |
| BAYER                  | 1.01    | 14.59  | 0.15         |
| ALLIANZ                | 1.27    | 11.16  | 0.14         |
| AIR CHINA 'H'          | 0.46    | 29.52  | 0.14         |

## Bottom Contributors

|                                    | Avg Wgt | Return | Contribution |
|------------------------------------|---------|--------|--------------|
| JBS ON                             | 0.28    | -38.53 | -0.11        |
| FUFENG GROUP                       | 0.28    | -32.19 | -0.09        |
| BANCO BRASIL SPN.ADR 1:1           | 0.36    | -24.01 | -0.09        |
| CIA PARANAENSE DE ENERGIA COPEL PN | 0.35    | -23.26 | -0.08        |
| MOBL.TELSMS.OJSC SPN.ADR 1:2       | 0.32    | -24.03 | -0.08        |
| TECK RESOURCES 'B'                 | 0.29    | -20.28 | -0.06        |
| NORTHGATE                          | 0.32    | -16.31 | -0.05        |
| KOREA ELECTRIC POWER               | 0.34    | -14.15 | -0.05        |
| FORTESCUE METALS GP.               | 0.29    | -15.75 | -0.05        |
| CHINA RAILWAY CON.'H'              | 0.48    | -8.04  | -0.04        |

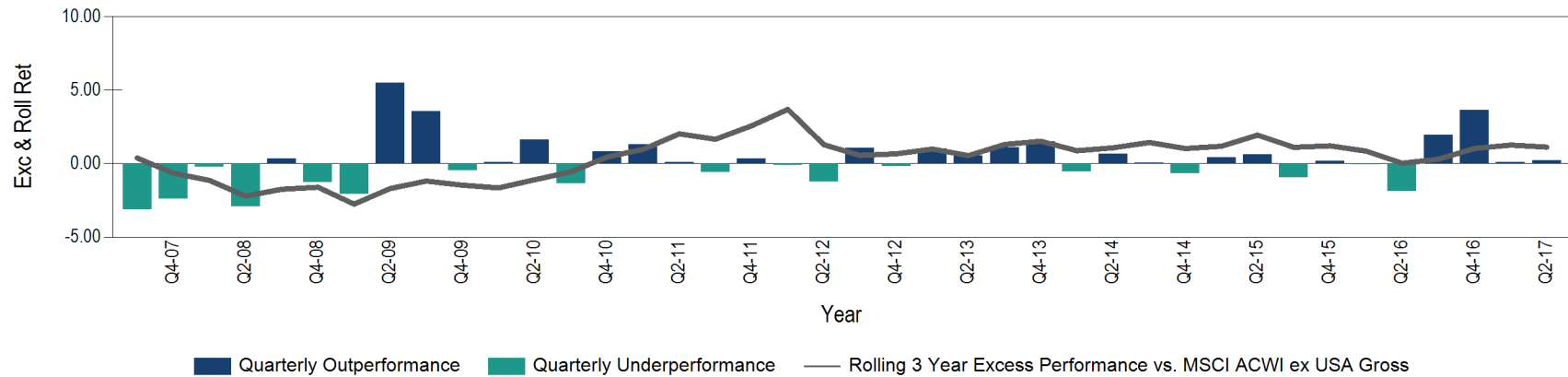
Unclassified sector allocation includes cash allocations.



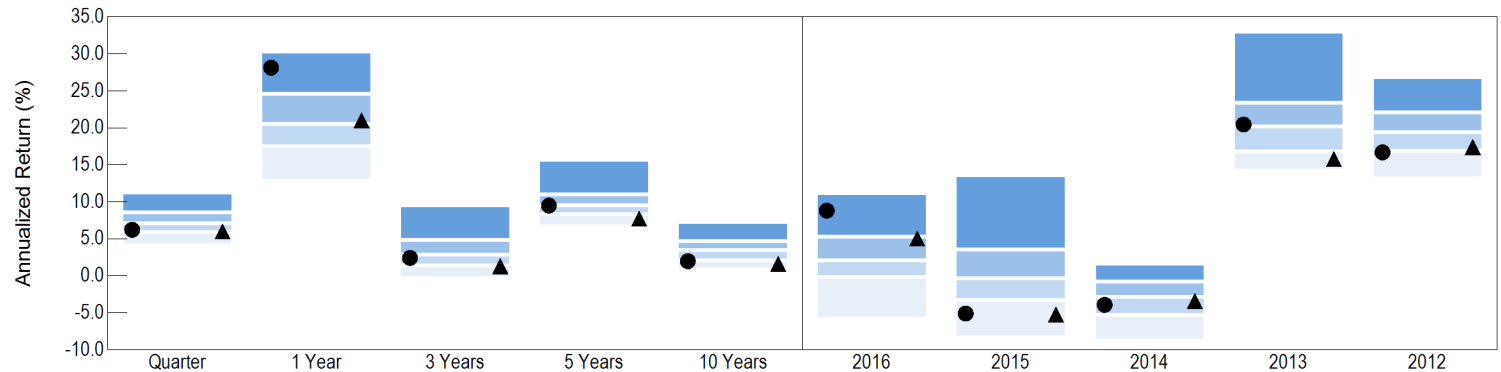
# LSV Asset Mgt Manager Performance Comparisons

Period Ending: June 30, 2017

Rolling Annualized Excess Performance

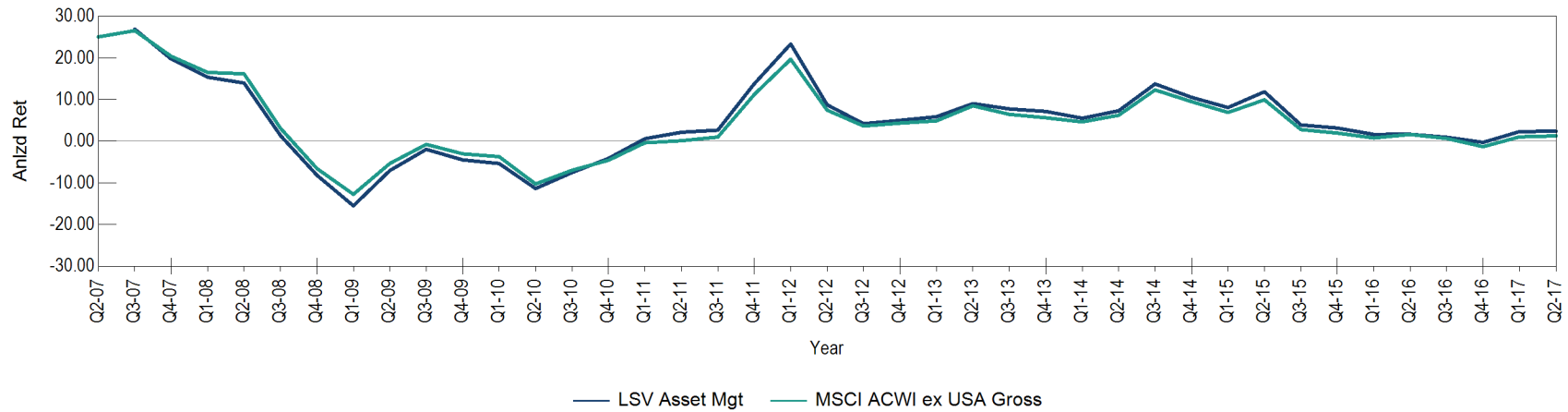


LSV Asset Mgt vs. eA ACWI ex-US Equity Unhedged Gross Universe

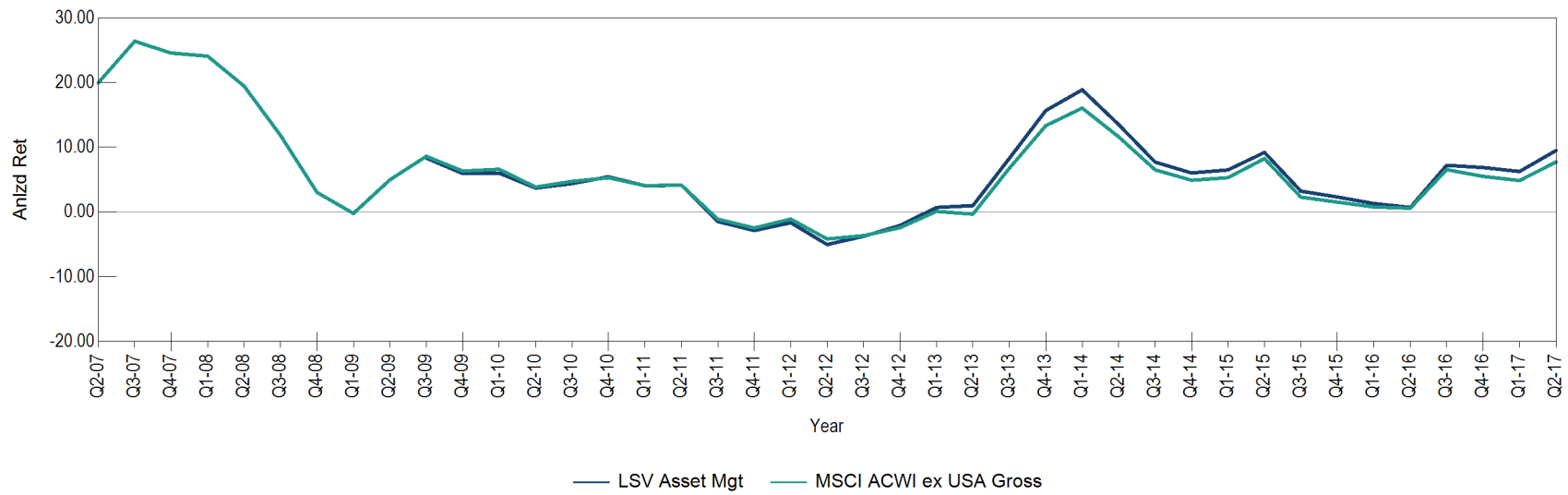


|                          | Quarter  | 1 Year    | 3 Years  | 5 Years  | 10 Years | 2016     | 2015      | 2014      | 2013      | 2012      |
|--------------------------|----------|-----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| <b>Return (Rank)</b>     |          |           |          |          |          |          |           |           |           |           |
| 5th Percentile           | 11.2     | 30.2      | 9.5      | 15.6     | 7.2      | 11.1     | 13.5      | 1.6       | 32.9      | 26.8      |
| 25th Percentile          | 8.6      | 24.7      | 4.8      | 11.0     | 4.7      | 5.3      | 3.5       | -0.8      | 23.4      | 22.1      |
| Median                   | 7.1      | 20.6      | 2.9      | 9.6      | 3.5      | 2.1      | -0.3      | -2.9      | 20.3      | 19.5      |
| 75th Percentile          | 5.9      | 17.5      | 1.4      | 8.3      | 2.1      | -0.2     | -3.3      | -5.3      | 16.9      | 16.9      |
| 95th Percentile          | 4.2      | 12.8      | -0.3     | 6.7      | 0.9      | -5.8     | -8.3      | -8.7      | 14.3      | 13.2      |
| # of Portfolios          | 254      | 254       | 230      | 204      | 131      | 238      | 179       | 147       | 136       | 127       |
| ● LSV Asset Mgt          | 6.2 (68) | 28.1 (10) | 2.4 (61) | 9.5 (54) | 2.0 (79) | 8.8 (10) | -5.1 (86) | -4.0 (65) | 20.4 (46) | 16.7 (78) |
| ▲ MSCI ACWI ex USA Gross | 6.0 (73) | 21.0 (46) | 1.3 (78) | 7.7 (85) | 1.6 (87) | 5.0 (27) | -5.3 (87) | -3.4 (58) | 15.8 (87) | 17.4 (74) |

Rolling 3 Year Annualized Return (%)



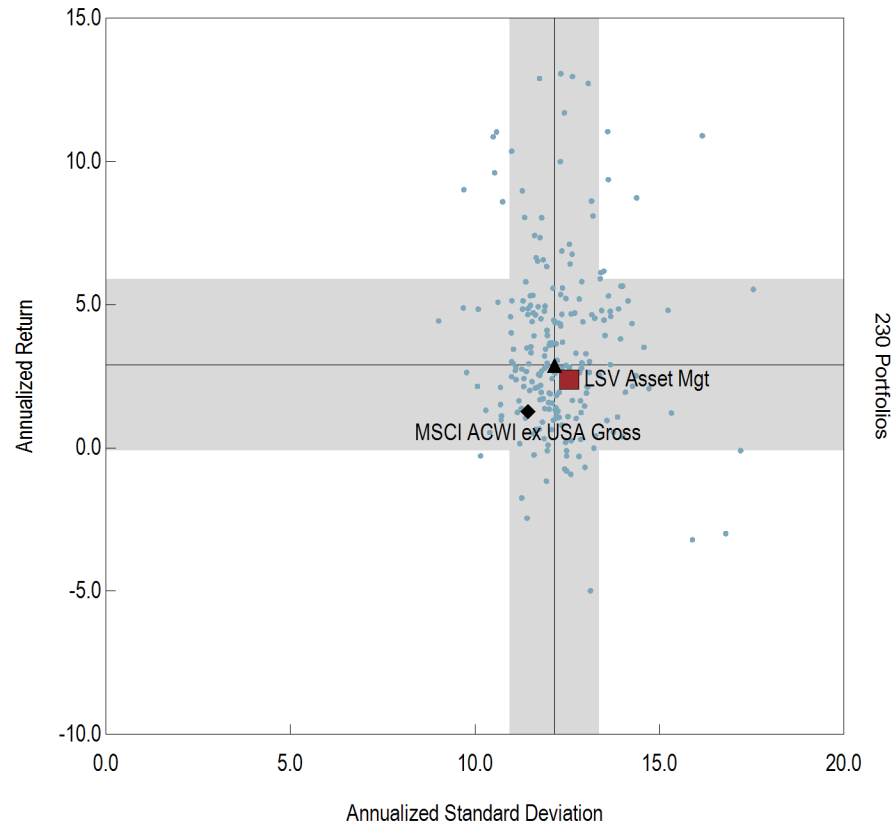
Rolling 5 Year Annualized Return (%)



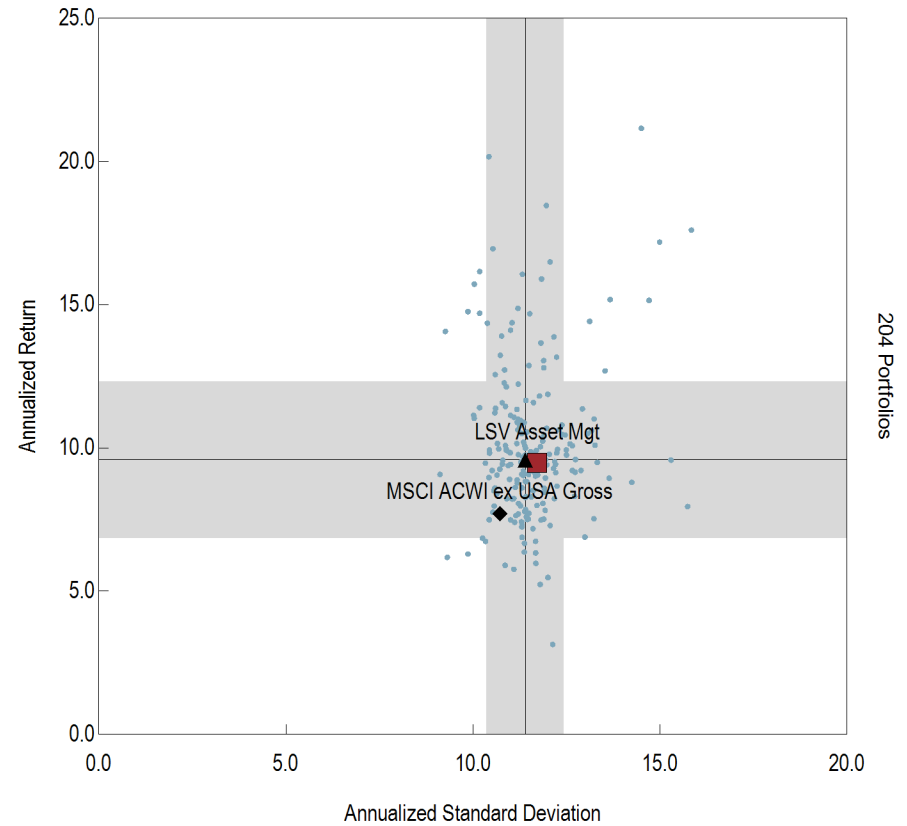
LSV Asset Mgt  
Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

3 Years



5 Years



3 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| LSV Asset Mgt                              | 2.4%         | 12.6%                    | 0.2          |
| MSCI ACWI ex USA Gross                     | 1.3%         | 11.4%                    | 0.1          |
| eA ACWI ex-US Equity Unhedged Gross Median | 2.9%         | 12.2%                    | 0.2          |

5 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| LSV Asset Mgt                              | 9.5%         | 11.7%                    | 0.8          |
| MSCI ACWI ex USA Gross                     | 7.7%         | 10.7%                    | 0.7          |
| eA ACWI ex-US Equity Unhedged Gross Median | 9.6%         | 11.4%                    | 0.8          |

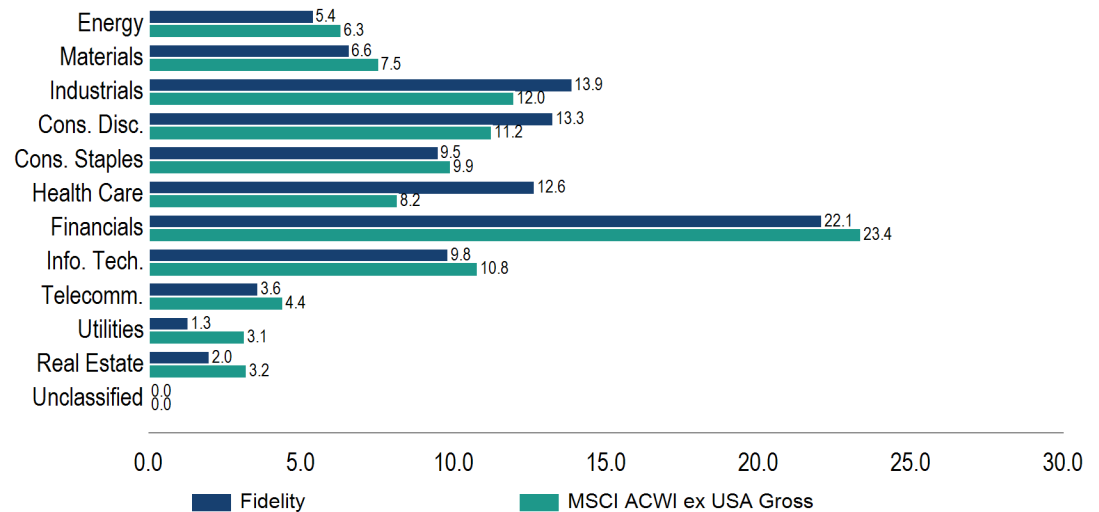
# Fidelity Manager Portfolio Overview

Period Ending: June 30, 2017

## Characteristics

|                                 | Portfolio | MSCI ACWI ex USA Gross |
|---------------------------------|-----------|------------------------|
| Number of Holdings              | 289       | 1,852                  |
| Weighted Avg. Market Cap. (\$B) | 54.00     | 57.05                  |
| Median Market Cap. (\$B)        | 13.13     | 7.63                   |
| Price To Earnings               | 24.65     | 21.46                  |
| Price To Book                   | 3.80      | 2.55                   |
| Price To Sales                  | 2.76      | 2.17                   |
| Return on Equity (%)            | 17.85     | 13.88                  |
| Yield (%)                       | 2.55      | 2.84                   |
| Beta                            |           | 1.00                   |

## Sector Allocation (%) vs MSCI ACWI ex USA Gross



## Largest Holdings

|                          | End Weight | Return |
|--------------------------|------------|--------|
| NESTLE 'R'               | 1.87       | 16.95  |
| SAP                      | 1.47       | 7.87   |
| ROCHE HOLDING            | 1.34       | -0.22  |
| BRITISH AMERICAN TOBACCO | 1.23       | 2.58   |
| PHILIPS ELTN.KONINKLIJKE | 1.19       | 12.79  |
| ROYAL DUTCH SHELL A      | 1.18       | 2.38   |
| AIA GROUP                | 1.13       | 17.25  |
| NASPERS                  | 1.10       | 12.50  |
| BAYER                    | 1.07       | 14.59  |
| SAMSUNG ELECTRONICS      | 0.95       | 12.78  |

## Top Contributors

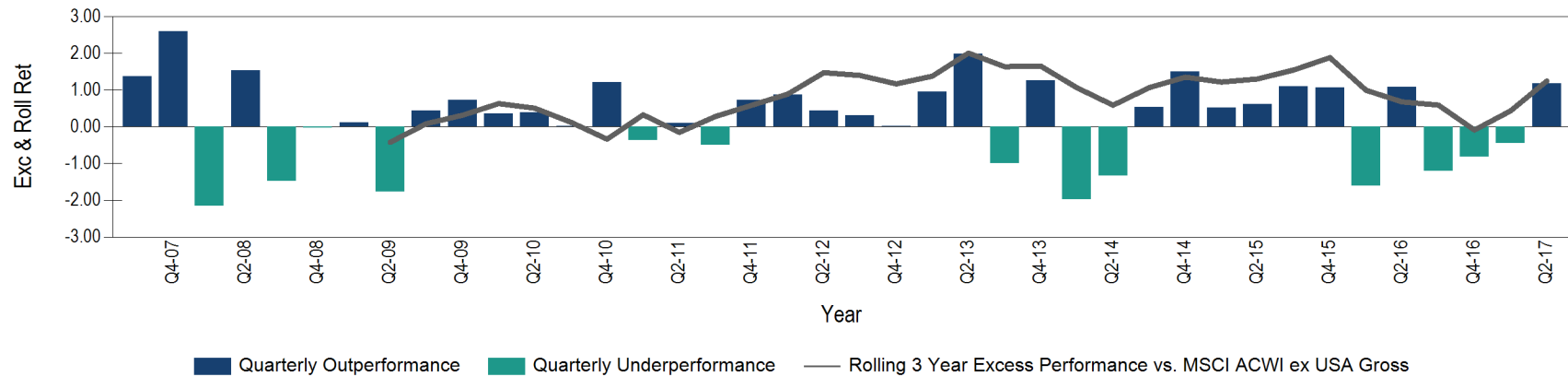
|                          | Avg Wgt | Return | Contribution |
|--------------------------|---------|--------|--------------|
| NESTLE 'R'               | 1.73    | 16.95  | 0.29         |
| PIRAMAL ENTERPRISES      | 0.51    | 47.63  | 0.24         |
| NINTENDO                 | 0.49    | 44.64  | 0.22         |
| AIA GROUP                | 1.12    | 17.25  | 0.19         |
| PHILIPS ELTN.KONINKLIJKE | 1.17    | 12.79  | 0.15         |
| ING GROEP                | 0.89    | 16.75  | 0.15         |
| BAYER                    | 1.02    | 14.59  | 0.15         |
| GUARANTY TRUST BANK      | 0.40    | 35.97  | 0.15         |
| NOVO NORDISK 'B'         | 0.60    | 24.16  | 0.14         |
| KERING                   | 0.42    | 32.59  | 0.14         |

## Bottom Contributors

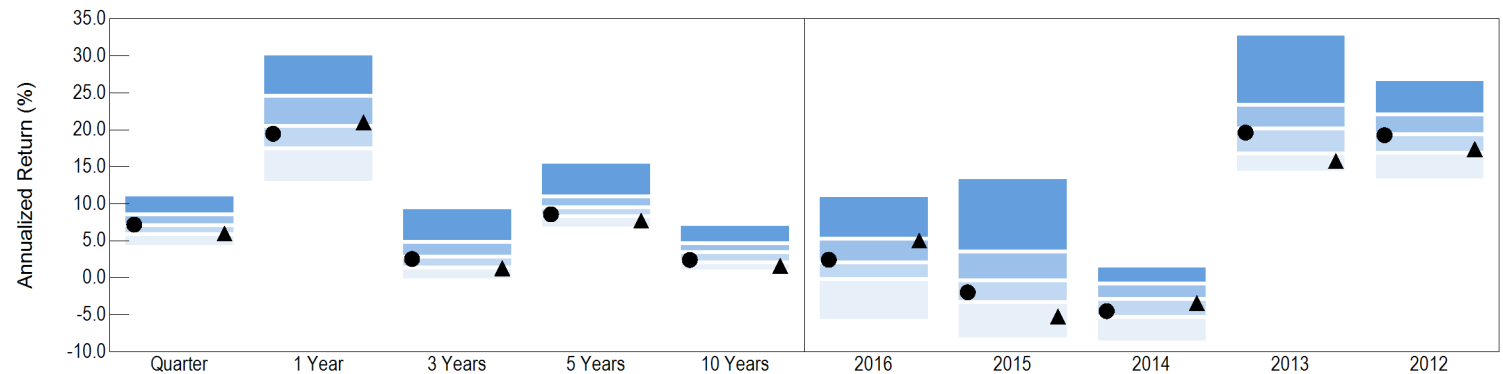
|                              | Avg Wgt | Return | Contribution |
|------------------------------|---------|--------|--------------|
| HIKMA                        | 0.26    | -22.20 | -0.06        |
| PHARMACEUTICALS              | 0.51    | -11.09 | -0.06        |
| DENTSU                       | 0.18    | -30.41 | -0.05        |
| VALID SOLUCOES E SERVICOS ON | 0.93    | -5.55  | -0.05        |
| SHIRE                        | 0.39    | -13.22 | -0.05        |
| DAIRY FARM INTL.HDG.         | 0.34    | -14.42 | -0.05        |
| CCL PRODUCTS (INDIA)         | 0.72    | -6.44  | -0.05        |
| BARCLAYS                     | 0.40    | -10.49 | -0.04        |
| WOOD GROUP (JOHN)            | 0.42    | -9.86  | -0.04        |
| WESTPAC BANKING              | 0.33    | -12.60 | -0.04        |
| NSK                          |         |        |              |

Unclassified sector allocation includes cash allocations.

Rolling Annualized Excess Performance

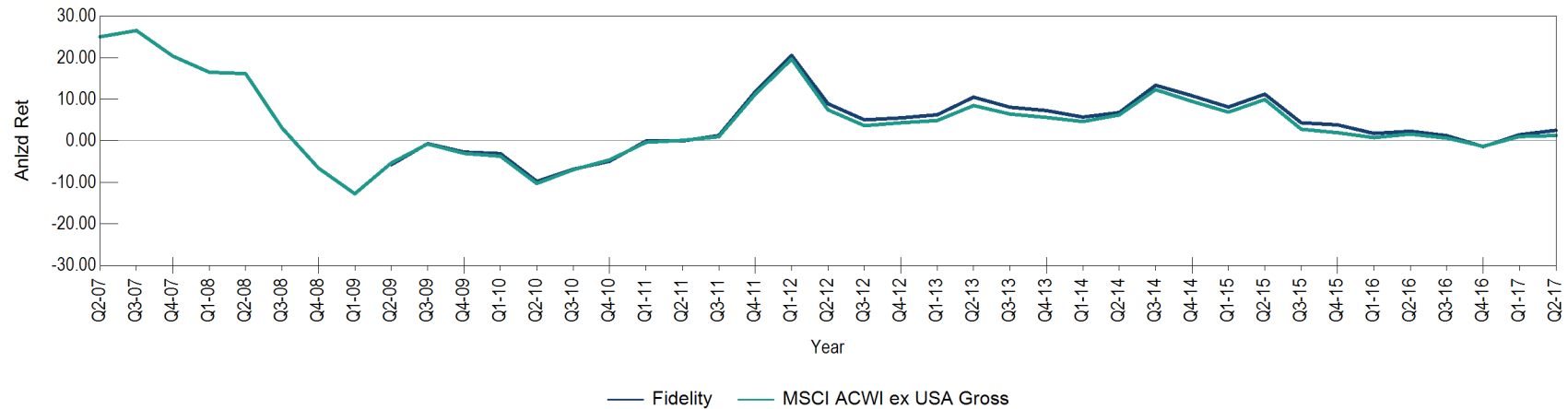


Fidelity vs. eA ACWI ex-US Equity Unhedged Gross Universe

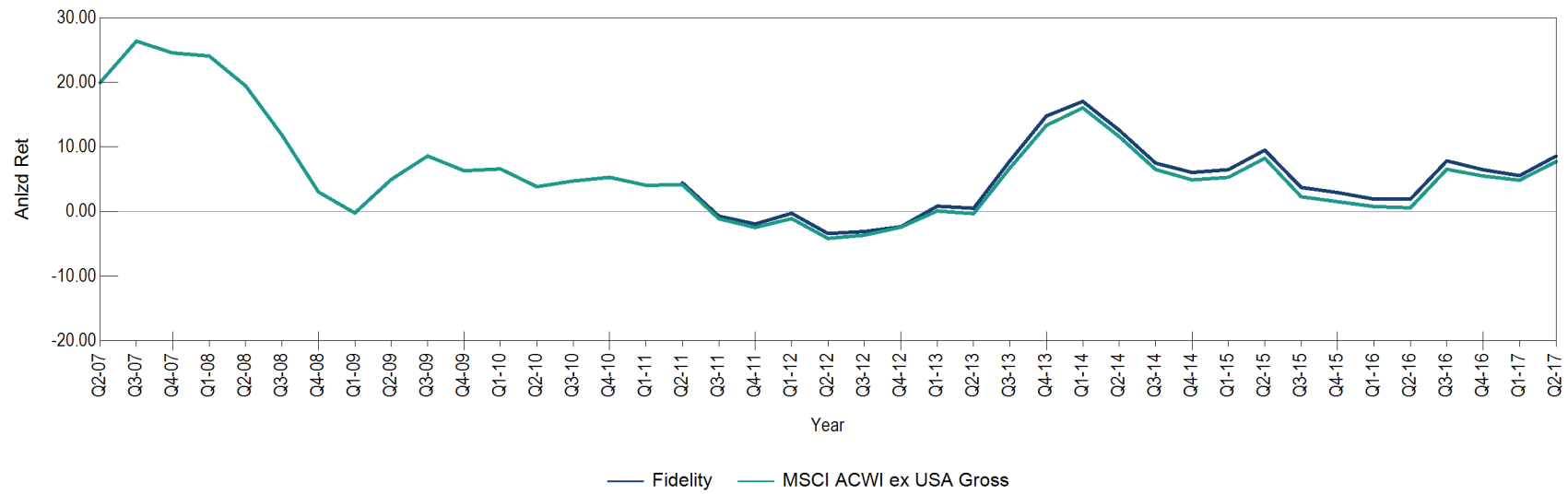


|                          | Quarter  | 1 Year    | 3 Years  | 5 Years  | 10 Years | 2016     | 2015      | 2014      | 2013      | 2012      |
|--------------------------|----------|-----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| <b>Return (Rank)</b>     |          |           |          |          |          |          |           |           |           |           |
| 5th Percentile           | 11.2     | 30.2      | 9.5      | 15.6     | 7.2      | 11.1     | 13.5      | 1.6       | 32.9      | 26.8      |
| 25th Percentile          | 8.6      | 24.7      | 4.8      | 11.0     | 4.7      | 5.3      | 3.5       | -0.8      | 23.4      | 22.1      |
| Median                   | 7.1      | 20.6      | 2.9      | 9.6      | 3.5      | 2.1      | -0.3      | -2.9      | 20.3      | 19.5      |
| 75th Percentile          | 5.9      | 17.5      | 1.4      | 8.3      | 2.1      | -0.2     | -3.3      | -5.3      | 16.9      | 16.9      |
| 95th Percentile          | 4.2      | 12.8      | -0.3     | 6.7      | 0.9      | -5.8     | -8.3      | -8.7      | 14.3      | 13.2      |
| # of Portfolios          | 254      | 254       | 230      | 204      | 131      | 238      | 179       | 147       | 136       | 127       |
| ● Fidelity               | 7.2 (49) | 19.5 (62) | 2.5 (60) | 8.6 (73) | 2.4 (69) | 2.4 (46) | -2.0 (66) | -4.5 (70) | 19.6 (55) | 19.3 (55) |
| ▲ MSCI ACWI ex USA Gross | 6.0 (73) | 21.0 (46) | 1.3 (78) | 7.7 (85) | 1.6 (87) | 5.0 (27) | -5.3 (87) | -3.4 (58) | 15.8 (87) | 17.4 (74) |

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)

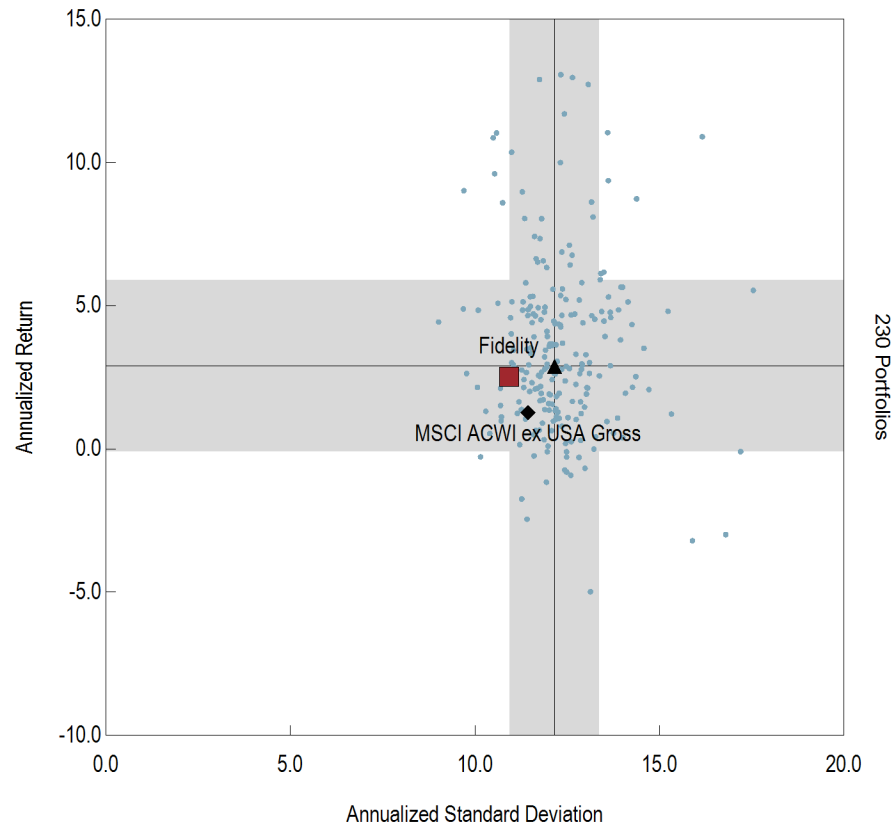


# Fidelity

## Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

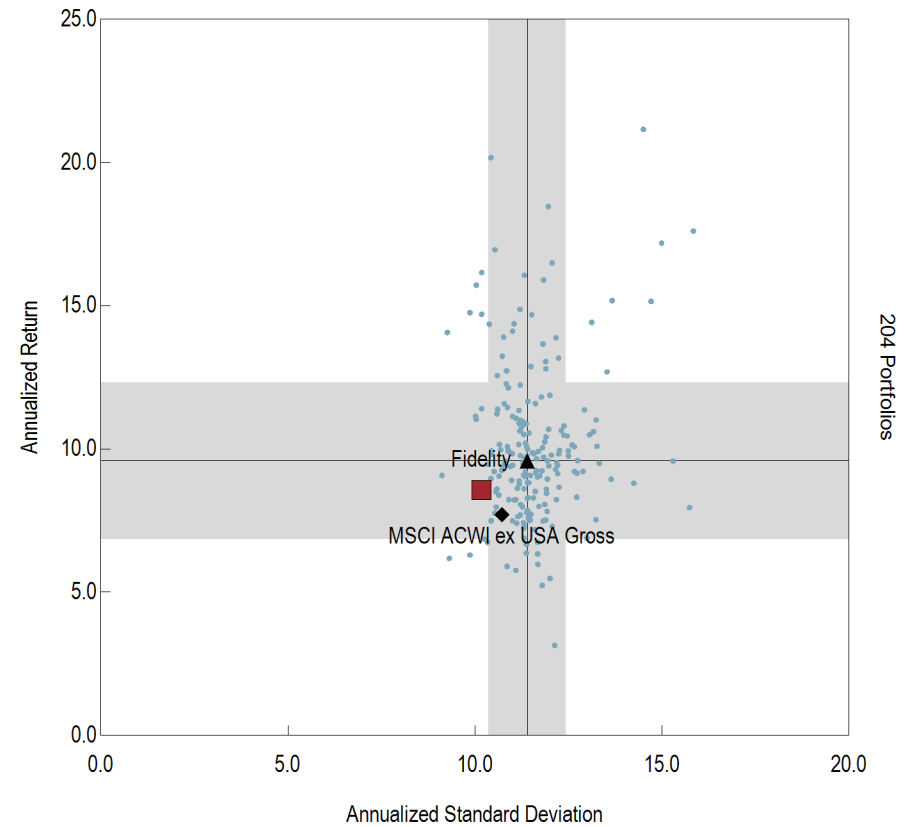
3 Years



3 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| Fidelity                                   | 2.5%         | 10.9%                    | 0.2          |
| MSCI ACWI ex USA Gross                     | 1.3%         | 11.4%                    | 0.1          |
| eA ACWI ex-US Equity Unhedged Gross Median | 2.9%         | 12.2%                    | 0.2          |

5 Years



5 Years

|  | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
|--|--------------|--------------------------|--------------|
| Fidelity                                   | 8.6%         | 10.2%                    | 0.8          |
| MSCI ACWI ex USA Gross                     | 7.7%         | 10.7%                    | 0.7          |
| eA ACWI ex-US Equity Unhedged Gross Median | 9.6%         | 11.4%                    | 0.8          |

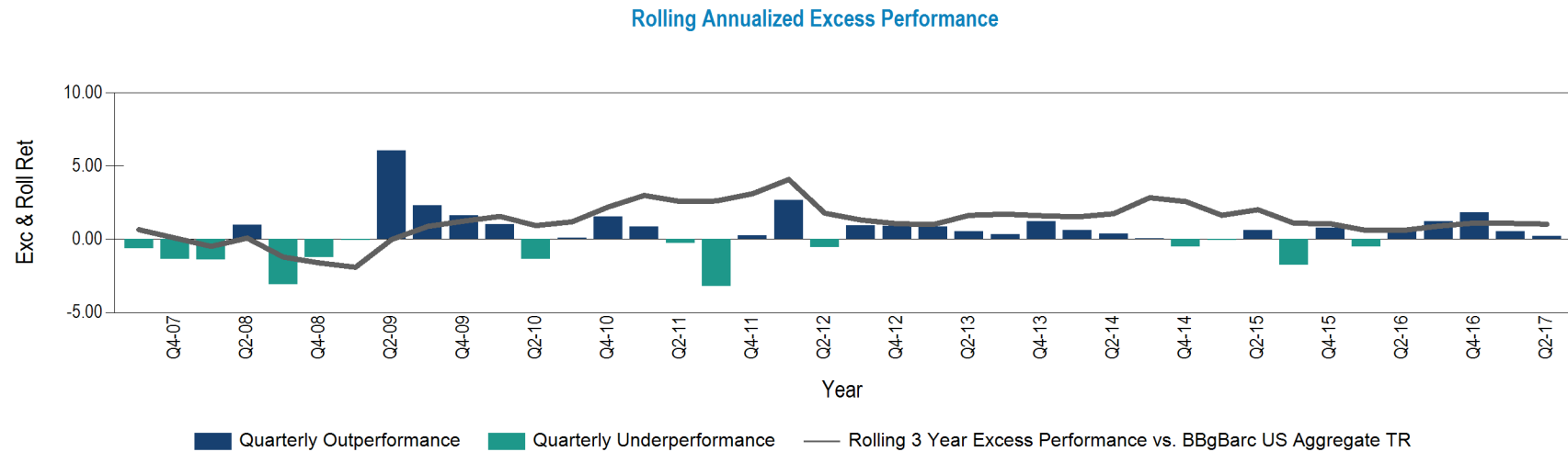
## Domestic Fixed Income Managers

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# Dodge & Cox-Fixed Manager Performance Comparisons (Gross of Fees)

Period Ending: June 30, 2017



## Dodge & Cox-Fixed vs. eA US Core Fixed Inc Gross Universe

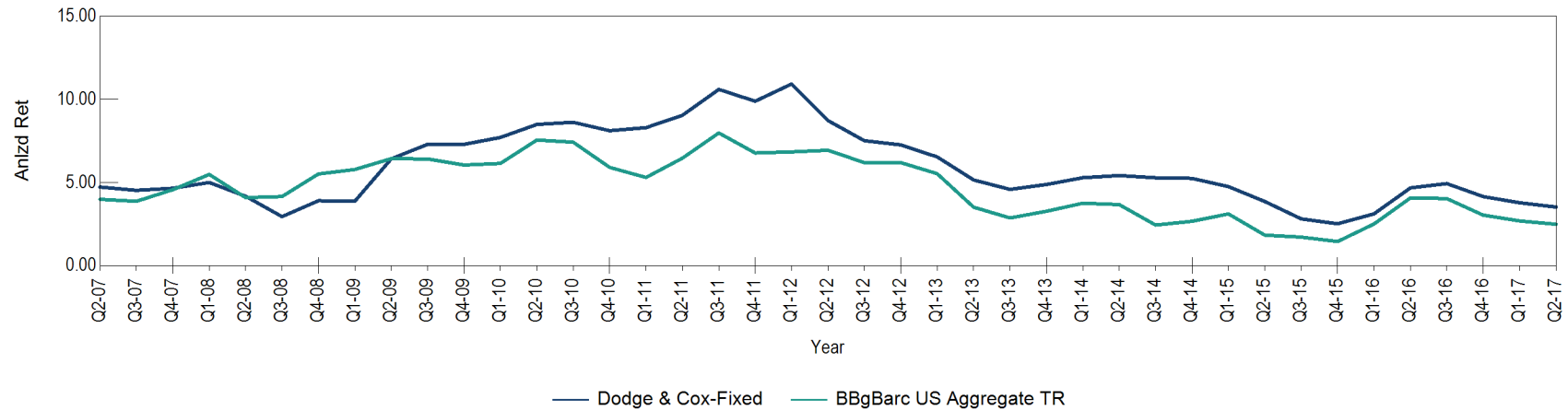


|                         | Return (Rank) |      |      |      |     |      |     |      |     |      |     |      |      |      |     |      |      |      |     |      |
|-------------------------|---------------|------|------|------|-----|------|-----|------|-----|------|-----|------|------|------|-----|------|------|------|-----|------|
| 5th Percentile          | 1.9           |      | 2.1  |      | 3.7 |      | 3.9 |      | 6.0 |      | 5.1 |      | 1.9  |      | 7.7 |      | 0.5  |      | 9.4 |      |
| 25th Percentile         | 1.7           |      | 0.9  |      | 3.1 |      | 3.1 |      | 5.4 |      | 3.8 |      | 1.3  |      | 6.5 |      | -0.8 |      | 7.0 |      |
| Median                  | 1.6           |      | 0.3  |      | 2.8 |      | 2.7 |      | 5.0 |      | 3.2 |      | 0.9  |      | 6.0 |      | -1.4 |      | 5.9 |      |
| 75th Percentile         | 1.4           |      | -0.1 |      | 2.6 |      | 2.4 |      | 4.8 |      | 2.7 |      | 0.5  |      | 5.4 |      | -1.9 |      | 4.9 |      |
| 95th Percentile         | 1.1           |      | -0.7 |      | 2.2 |      | 2.0 |      | 4.2 |      | 2.0 |      | -0.1 |      | 2.9 |      | -2.7 |      | 3.7 |      |
| # of Portfolios         | 222           |      | 222  |      | 221 |      | 218 |      | 198 |      | 223 |      | 196  |      | 213 |      | 209  |      | 228 |      |
| Dodge & Cox-Fixed       | 1.7           | (27) | 3.6  | (2)  | 3.5 | (7)  | 4.0 | (4)  | 5.8 | (7)  | 5.9 | (3)  | 0.2  | (89) | 6.5 | (26) | 0.9  | (3)  | 8.4 | (9)  |
| BBgBarc US Aggregate TR | 1.4           | (73) | -0.3 | (86) | 2.5 | (83) | 2.2 | (89) | 4.5 | (90) | 2.6 | (77) | 0.6  | (75) | 6.0 | (52) | -2.0 | (82) | 4.2 | (90) |

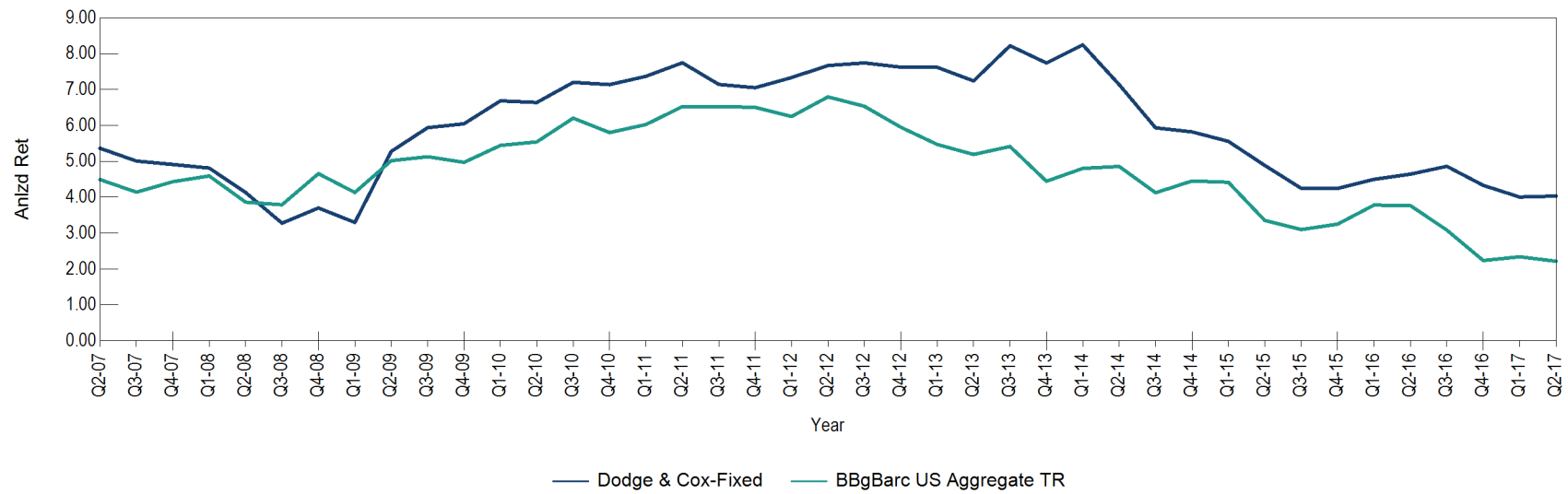
# Dodge & Cox-Fixed Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: June 30, 2017

Rolling 3 Year Annualized Return (%)

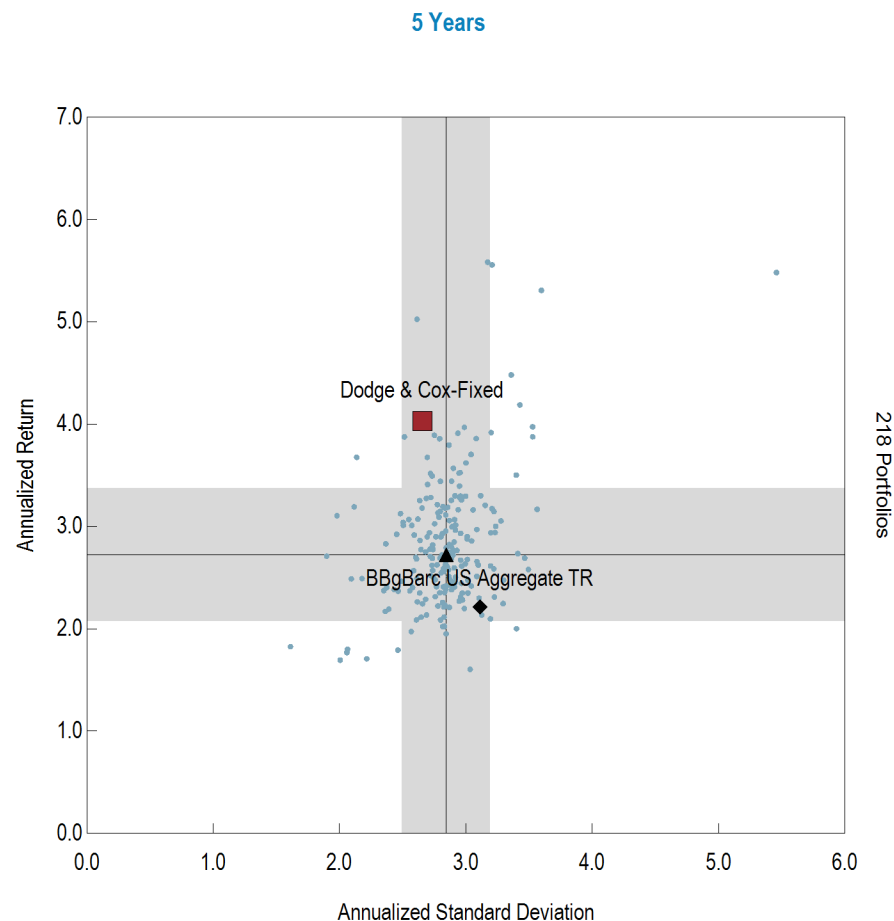
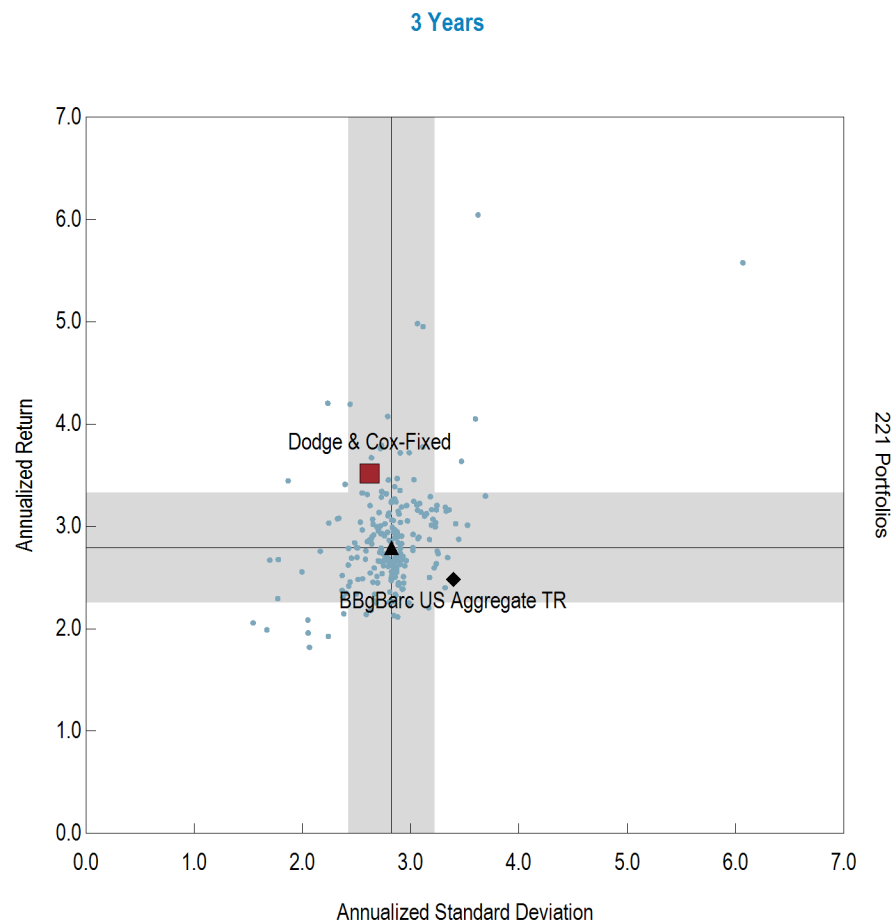


Rolling 5 Year Annualized Return (%)



# Dodge & Cox-Fixed Risk vs. Return 3 & 5 Year (Gross of Fees)

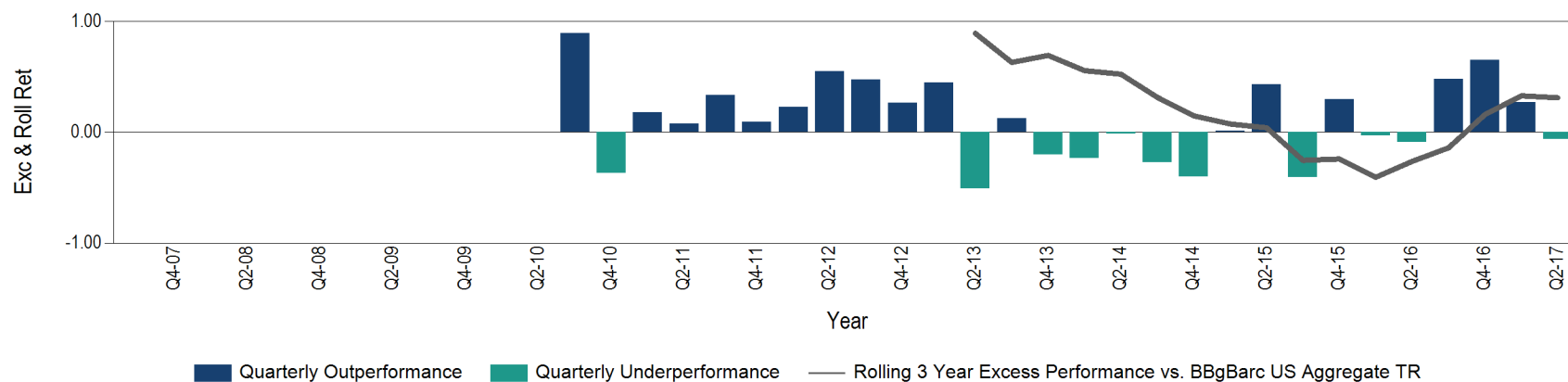
Period Ending: June 30, 2017



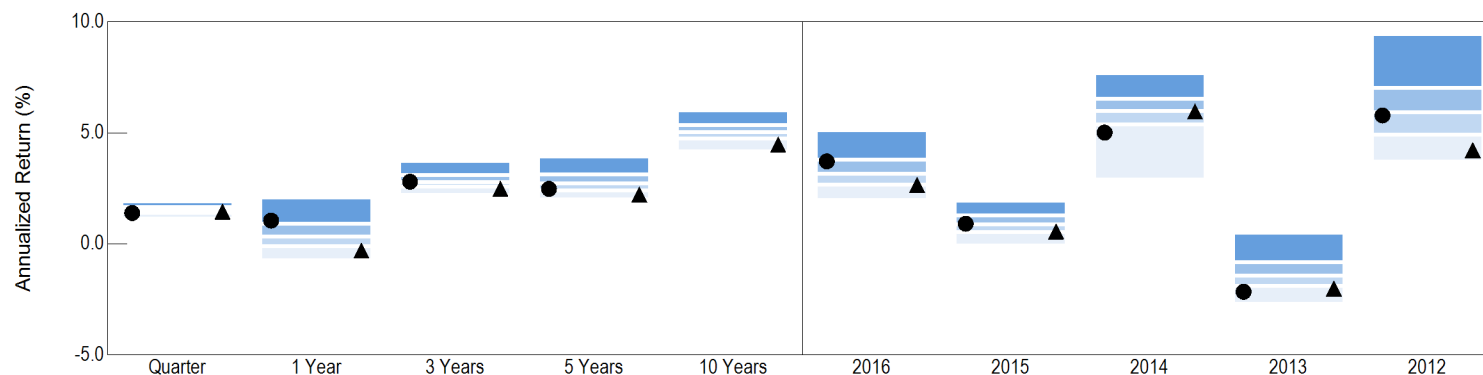
|                                   | 3 Years      |                          |              |
|-----------------------------------|--------------|--------------------------|--------------|
|                                   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| Dodge & Cox-Fixed                 | 3.5%         | 2.6%                     | 1.3          |
| BBgBarc US Aggregate TR           | 2.5%         | 3.4%                     | 0.7          |
| eA US Core Fixed Inc Gross Median | 2.8%         | 2.8%                     | 0.9          |

|                                   | 5 Years      |                          |              |
|-----------------------------------|--------------|--------------------------|--------------|
|                                   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| Dodge & Cox-Fixed                 | 4.0%         | 2.7%                     | 1.5          |
| BBgBarc US Aggregate TR           | 2.2%         | 3.1%                     | 0.7          |
| eA US Core Fixed Inc Gross Median | 2.7%         | 2.8%                     | 0.9          |

Rolling Annualized Excess Performance

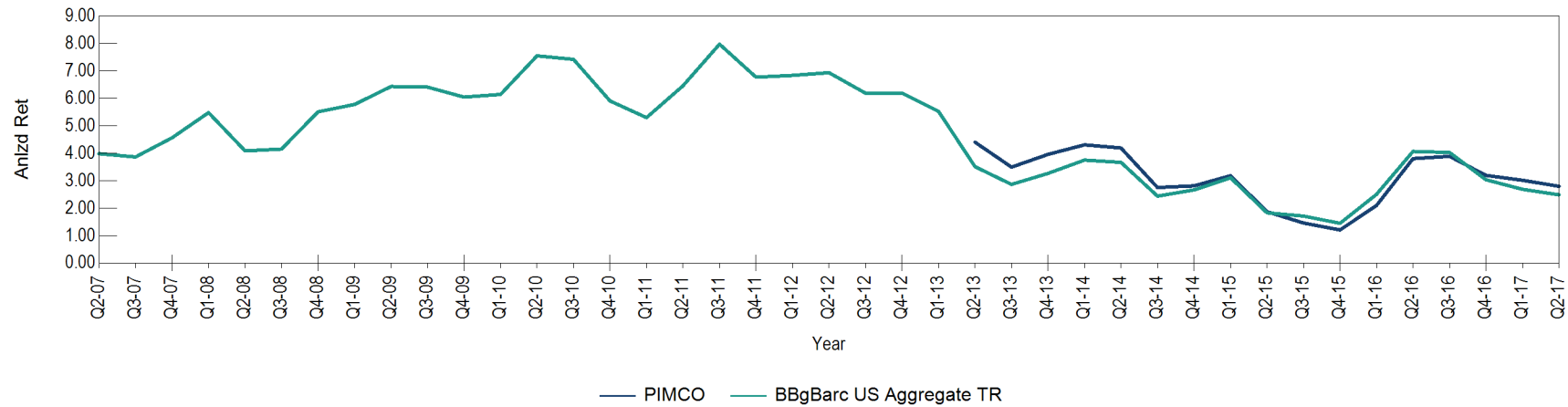


PIMCO vs. eA US Core Fixed Inc Gross Universe

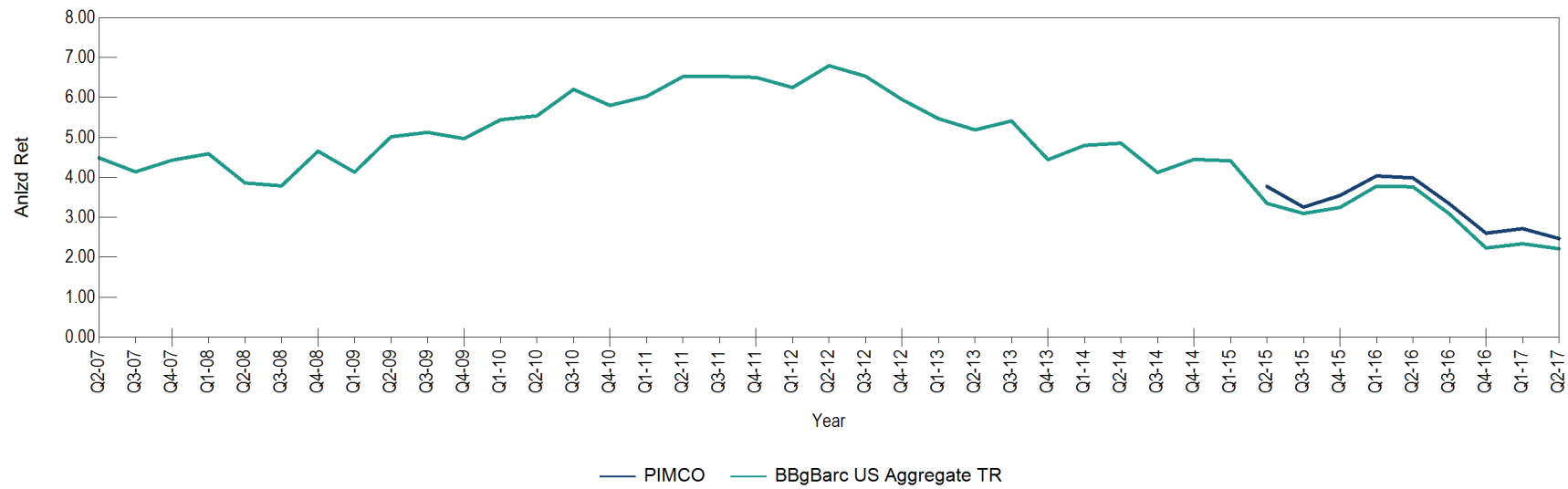


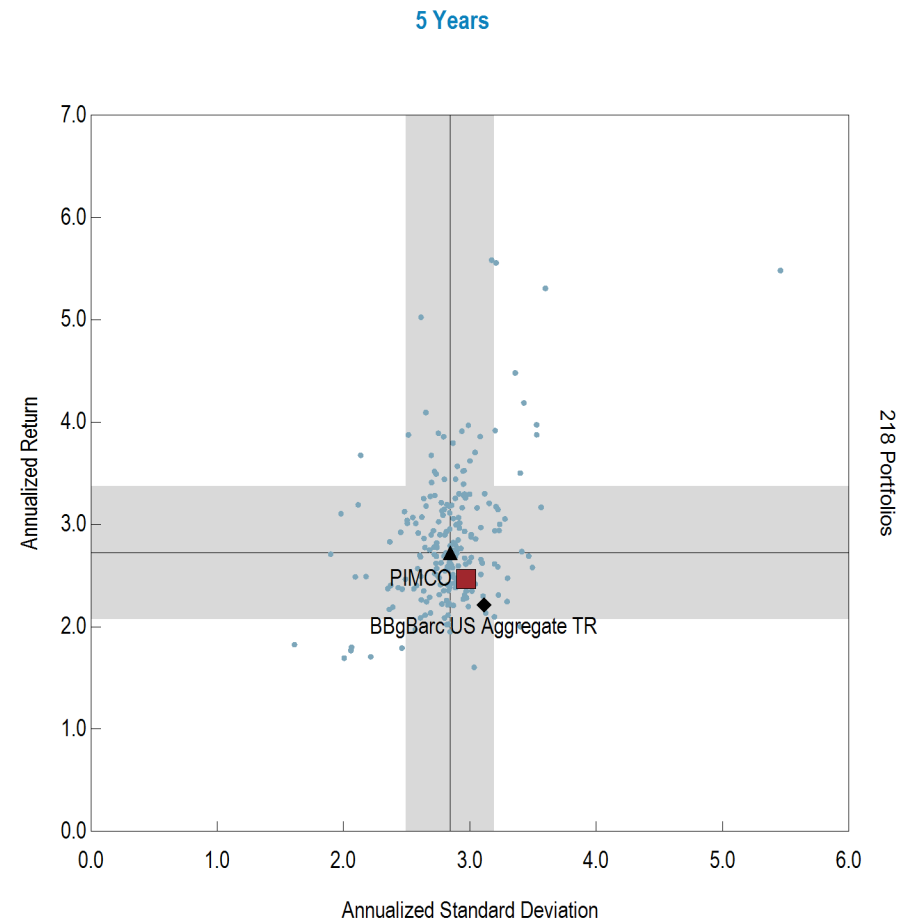
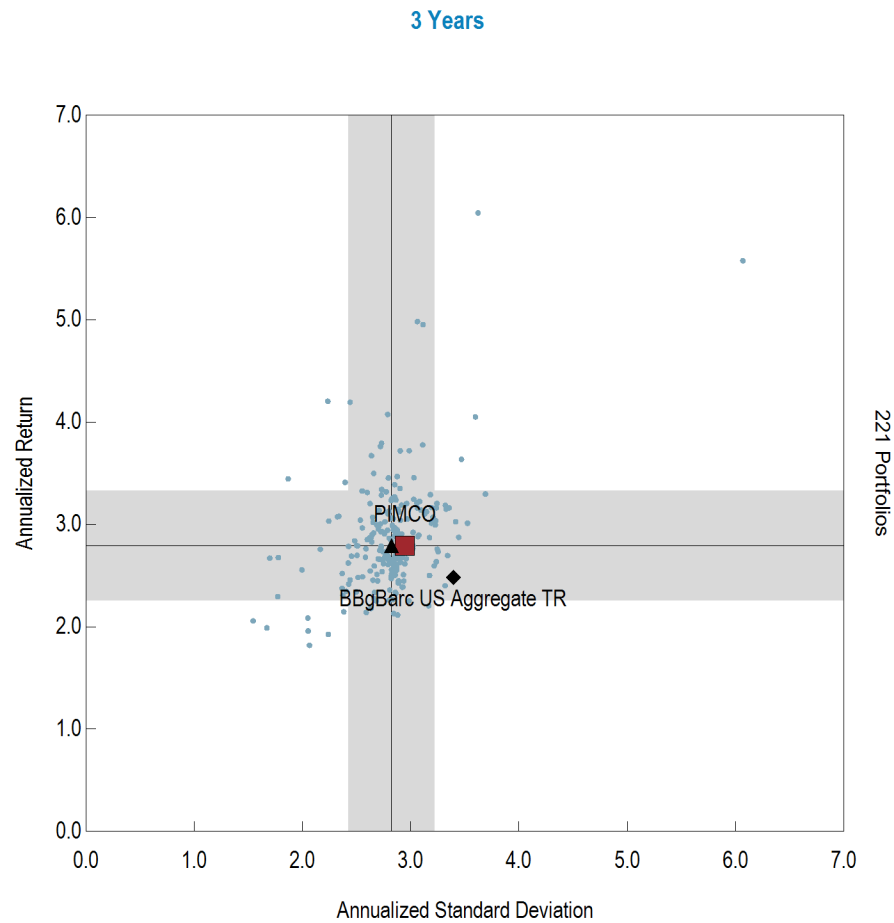
|                           | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  | Return (Rank) |  |
|---------------------------|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|
| 5th Percentile            | 1.9           |  | 2.1           |  | 3.7           |  | 3.9           |  | 6.0           |  | 5.1           |  | 1.9           |  | 7.7           |  | 0.5           |  |
| 25th Percentile           | 1.7           |  | 0.9           |  | 3.1           |  | 3.1           |  | 5.4           |  | 3.8           |  | 1.3           |  | 6.5           |  | -0.8          |  |
| Median                    | 1.6           |  | 0.3           |  | 2.8           |  | 2.7           |  | 5.0           |  | 3.2           |  | 0.9           |  | 6.0           |  | -1.4          |  |
| 75th Percentile           | 1.4           |  | -0.1          |  | 2.6           |  | 2.4           |  | 4.8           |  | 2.7           |  | 0.5           |  | 5.4           |  | -1.9          |  |
| 95th Percentile           | 1.1           |  | -0.7          |  | 2.2           |  | 2.0           |  | 4.2           |  | 2.0           |  | -0.1          |  | 2.9           |  | -2.7          |  |
| # of Portfolios           | 222           |  | 222           |  | 221           |  | 218           |  | 198           |  | 223           |  | 196           |  | 213           |  | 209           |  |
| ● PIMCO                   | 1.4 (80)      |  | 1.0 (21)      |  | 2.8 (50)      |  | 2.5 (73)      |  | -- (--)       |  | 3.7 (29)      |  | 0.9 (49)      |  | 5.0 (83)      |  | -2.2 (89)     |  |
| ▲ BBgBarc US Aggregate TR | 1.4 (73)      |  | -0.3 (86)     |  | 2.5 (83)      |  | 2.2 (89)      |  | 4.5 (90)      |  | 2.6 (77)      |  | 0.6 (75)      |  | 6.0 (52)      |  | -2.0 (82)     |  |

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





|                                   | 3 Years      |                          |              |
|-----------------------------------|--------------|--------------------------|--------------|
|                                   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| PIMCO                             | 2.8%         | 2.9%                     | 0.9          |
| BBgBarc US Aggregate TR           | 2.5%         | 3.4%                     | 0.7          |
| eA US Core Fixed Inc Gross Median | 2.8%         | 2.8%                     | 0.9          |

|                                   | 5 Years      |                          |              |
|-----------------------------------|--------------|--------------------------|--------------|
|                                   | Anlzd Return | Anlzd Standard Deviation | Sharpe Ratio |
| PIMCO                             | 2.5%         | 3.0%                     | 0.8          |
| BBgBarc US Aggregate TR           | 2.2%         | 3.1%                     | 0.7          |
| eA US Core Fixed Inc Gross Median | 2.7%         | 2.8%                     | 0.9          |

**Performance Return Calculations**

Performance is calculated using Modified Dietz and for time periods with large cash flow (generally greater than 10% of portfolio value), Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

**Data Source**

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

**Illiquid Alternatives**

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

**Manager Line Up**

| <u>Manager</u>                | <u>Fund Incepted</u> | <u>Data Source</u> | <u>Manager</u>                  | <u>Fund Incepted</u> | <u>Data Source</u> |
|-------------------------------|----------------------|--------------------|---------------------------------|----------------------|--------------------|
| Mellon S&P 500                | 4/30/2003            | Mellon             | Insight                         | 6/29/2017            | Northern Trust     |
| BlackRock Russell 1000 Growth | 6/30/2010            | BlackRock          | Prime Property Fund             | 9/30/2015            | Prime Property     |
| Jackson Square                | 8/31/2006            | Northern Trust     | American Strategic Value Realty | 12/31/2014           | American Realty    |
| BlackRock Russell 1000 Value  | 7/31/2009            | BlackRock          | BlackRock US Real Estate        | 9/30/2012            | BlackRock          |
| Dodge & Cox - Equity          | 12/31/1994           | Northern Trust     | Greenfield Gap                  | 7/31/2014            | Greenfield         |
| Legato Capital                | 12/31/2008           | Northern Trust     | Invesco                         | 2/29/2008            | Mellon             |
| Capital Prospects             | 12/31/2008           | Northern Trust     | Medley Capital                  | 5/31/2013            | Medley Capital     |
| LSV Asset Mgt                 | 8/31/2004            | Northern Trust     | Raven Capital                   | 5/31/2013            | Raven Capital      |
| Pyramis                       | 4/30/2006            | Northern Trust     | Raven Opportunity III           | 7/31/2015            | Raven Capital      |
| Dodge & Cox - Fixed           | 12/31/1994           | Northern Trust     | White Oak Pinnacle              | 8/31/2013            | White Oak          |
| PIMCO                         | 5/31/2010            | Northern Trust     | MS Infrastructure               | 5/31/2015            | Morgan Stanley     |

**Policy & Custom Index Composition**

Policy Index: 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4.0% Russell 2000 Value, 3.7% Russell 2000 Growth, 18.0% MSCI ACWI ex USA, 29.8% BBgBarc US Aggregate, 3.5% DJ US Select RESI, 7.5% 9% Annual, 3% CPI + 4%.

US Equity Blended: 80% Russell 1000, 20% Russell 2000.

**Other Disclosures**

Fiscal Year End: 6/30

Cash Account includes cash held at Northern Trust for all closed end funds and cash held by BlackRock.

Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

All data prior to 6/30/2015 provided by the previous consultant.

# Glossary

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**Allocation Effect:** An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

**Alpha:** The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as:  $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$ .

**Benchmark R-squared:** Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

**Beta:** A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Book-to-Market:** The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

**Capture Ratio:** A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

**Correlation:** A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

**Excess Return:** A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

**Information Ratio:** A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

**Interaction Effect:** An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

**Portfolio Turnover:** The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

**Price-to-Earnings Ratio (P/E):** Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

**R-Squared:** Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

**Selection Effect:** An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

**Sharpe Ratio:** A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as:  $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$ .

**Sortino Ratio:** Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

**Style Analysis:** A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

**Style Map:** A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.



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Verus receives universe data from InvestorForce, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.



# **PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS**



**AUGUST 22, 2017**

Private Markets Education

**Stanislaus County Employees' Retirement Association**

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# Approaches to private market investing

# Overview of private equity

- Investments in privately held companies:
  - Generally illiquid / limited liquidity
  - Few established industry benchmarks
  - Sub-classes differ in cash-flow and performance attributes
- Long term investment horizon: 3-12+ years
- Primary reason to invest: **Return Enhancement**

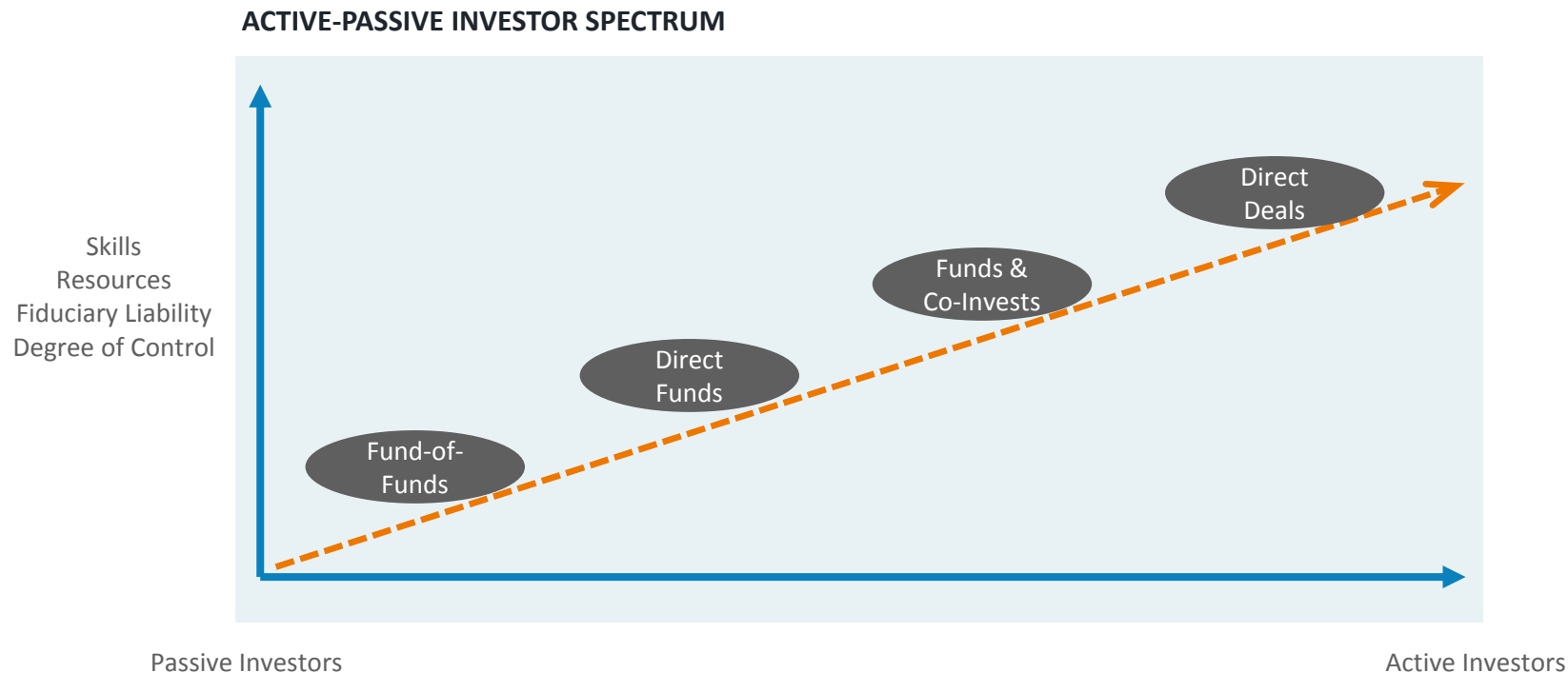
|                           | 1 Year       | 3 Years     | 5 Years      | 10 Years    | 20 Years     |
|---------------------------|--------------|-------------|--------------|-------------|--------------|
| Venture Capital           | 3.84         | 11.34       | 14.05        | 10.09       | 22.85        |
| Buyouts                   | 12.21        | 12.25       | 15.18        | 10.34       | 12.19        |
| Debt-Related              | 11.76        | 7.39        | 11.41        | 9.49        | 10.31        |
| <b>All Private Equity</b> | <b>9.48</b>  | <b>9.51</b> | <b>12.64</b> | <b>9.66</b> | <b>13.06</b> |
| <b>S&amp;P 500</b>        | <b>11.96</b> | <b>8.87</b> | <b>14.66</b> | <b>6.95</b> | <b>7.68</b>  |
| <b>Russell 3000</b>       | <b>12.73</b> | <b>8.43</b> | <b>14.67</b> | <b>7.07</b> | <b>7.86</b>  |
| Barclays Aggregate        | 2.65         | 3.03        | 2.23         | 4.34        | 5.29         |
| Cash                      | 0.30         | 0.12        | 0.10         | 0.65        | 2.12         |

Source: Thomson Reuters Cambridge Universe: U.S. Private Equity Funds sub asset classes as of December 31, 2016.

# Alternative approaches to implementation

Implementation approach driven by each investor's:

- Investment objectives
- Internal skills and resources
- Tolerance for control, risks, cost



# Alternative approaches to implementation

|                                      | Fund of Funds                                 | Direct Funds   | Funds & Co-Invests   | Direct Deals                                      |
|--------------------------------------|---|--|--|---|
| <b>Level of Customization</b>        | Best for the Fund                             | Best for a smaller number of clients                                       | Closely aligned with client needs                                | Most aligned with client needs                    |
| <b>Skills Required</b>               | Minimal                                       | Manager selection  | Manager selection and underwriting                               | Various direct private market                     |
| <b>Additional Resources Required</b> | None  | Minimal  | 1-3 dedicated  | Generally 10+ dedicated                           |
| <b>Fiduciary Liability</b>           | Selecting single manager                      | Selecting potentially multiple managers                                    | Selection potentially multiple managers and Co-Invest deals      | Selecting all deals                               |
| <b>Degree of Control</b>             | Low - Funds selected by Fund of Funds Manager | Medium - Funds selected by Client  | Higher - Funds & Co-Invests selected by Client                   | Highest - all investments selected by Client      |
| <b>Investment Costs</b>              | Generally highest due to Fund of Fund fees    | Generally lower than Fund of Funds due to elimination of Fund of Fund fees | Lower than Direct Funds due to favorable pricing from Co-Invests | Lowest due to elimination of General Partner fees |



Passive Investors

Active Investors

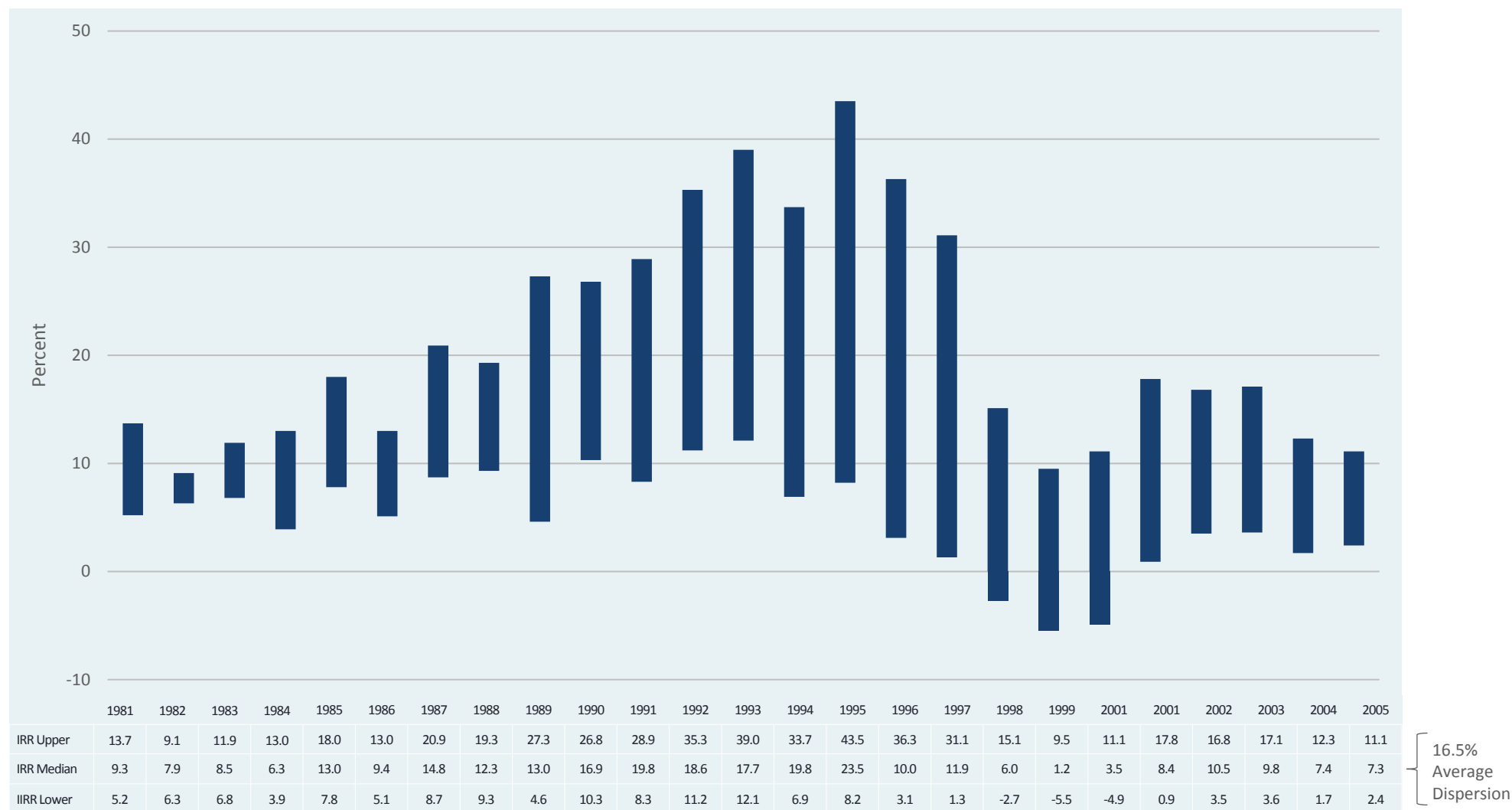
# Summary comparison of approaches

|   |  | Fund-of-Funds  | Secondary Funds | Direct via Staff | Direct via Advisor |
|---|--|--|-----------------|------------------|--------------------|
| Typical Portfolio   | GPs (#)  | 1-3+   | 1-3+            | 4-15+            | 4-15+              |
|   | Funds (#)  | 15-30+   | 20-30+          | 10-30+           | 10-30+             |
|   | Portfolio Cos. (#)   | 225-450+   | 250-450+        | 150-450+         | 150-450+           |
| Exposure  | Years to reach target  | 5-7  | 3-4             | 4-6              | 4-6                |
| Diversification   | Vintage year   |  |                 |                  |                    |
|   | Sub-asset class  |  |                 |                  |                    |
|   | Geography  |  |                 |                  |                    |
|   | Sector/industry  |  |                 |                  |                    |
| Required Staff  | Portfolio construction/oversight   |  |                 |                  |                    |
|   | Manager selection  |  |                 |                  |                    |
|   | Legal diligence  |  |                 |                  |                    |
|   | Ongoing administration<br>(capital flows, stock distributions,<br>ammendments) |  |                 |                  |                    |
|   | Monitoring   |  |                 |                  |                    |
|   | Performance tracking / reporting   |  |                 |                  |                    |
|   |  |  |                 |                  |                    |
| Pooled Returns  | Last 10-years (U.S.)   | 9.7%   | 10.5%           | 11.3%            | 11.3%              |
|   | Last 20-years (U.S.)   | 9.4%   | 9.4%            | 14.8%            | 14.8%              |
| Implementation Costs<br>(estimate, per \$100M commitment) |  | \$930k/year  | \$800k/year     | Varies           | Varies             |
|   |  | <div> <div>High</div> <div>Med</div> <div>Low</div> </div> |                 |                  |                    |



# Direct funds investment process

# Manager selection is critical to results



Source: Thomson Reuters C/A U.S. All Private Equity returns, as of June 30, 2016. For illustrative purposes only as dispersion of returns varies by sub-asset class.

# Verus' *disciplined* process for offers visibility and structure

## ESTABLISH PARAMETERS

*Timing: 1-2 weeks*

### Main objectives

- Determine goals of the program and fit/role within the overall portfolio
- Specify general approach (i.e., fund of funds vs. direct) and targeted strategies
- Develop return expectations, risk tolerances and desired liquidity profile
- Define roles and responsibilities of Staff and Verus
- Draft “roadmap” and Investment Guidelines, if necessary

## SOURCING / SCREENING

*Timing: Ongoing*

### Main objectives

- Proactively identify new investments from a variety of sources (e.g., personal networks, LPs, clients, prime brokers, industry publications, 3rd party databases)
- Log all relevant documents/data and store on internal database in preparation for initial review
- Regularly attend conferences and annual investor meetings in order to broaden our network of contacts

## PRELIMINARY EVALUATION

*Timing: 1 week*

### Main objectives

- Gain an understanding of the firm, its business model, team, client base and experience managing client relationships
- Evaluate the investment strategy, process and historical track record
- Develop an investment thesis and make sure it matches client needs
- Initial evaluations discussed at regular internal staff meetings, or ad hoc if required by client timeframe

## MONITORING & REPORTING

*Timing: Ongoing*

### Main objectives

- Establish communication and information flow to client and Verus
- Review performance and portfolio exposures on monthly or quarterly basis
- Provide quarterly reports to client
- Conduct follow-up meetings or onsite visits as needed, but at least annually
- Evaluate impact of any macro events or firm-specific developments, opine as to amendments, option to redeem, etc.

## EXECUTION

*Timing: 2-4 weeks*

### Main objectives

- Review all legal documents in conjunction with client's legal counsel
- Facilitate information requests and client-manager communications
- Negotiate terms and conditions, assist with drafting of any side letters
- Assist Staff with the preparation of reports/memos
- Work with client, service providers and manager to meet relevant deadlines

## DUE DILIGENCE

*Timing: 4-12 weeks*

### Main objectives

- Gain an in-depth understanding of the strategy and how the team operates
- Identify the manager's value proposition or “edge” over peers...is it repeatable?
- Establish expectations, key drivers of return and main sources of risk
- Focus on incentives, alignment of interests and potential conflicts
- Perform reference checks and utilize multiple sources to validate findings

*Process subject to change, as appropriate.*

# Building the portfolio with clients

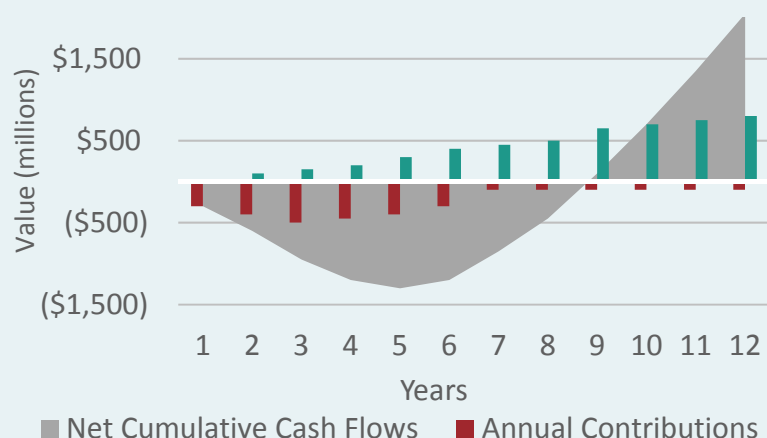
## Representative Process for Working with Clients



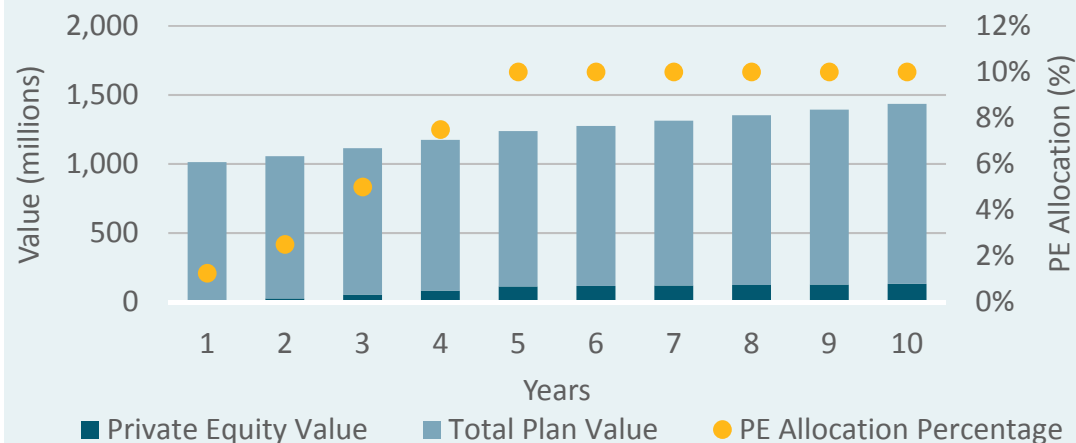
# Commitment planning

|                          |   |
|--------------------------|---|
| <b>Purpose</b>           | Plan future commitments given varying cash flows and valuations of existing fund commitments  |
| <b>Process</b>           | <ul style="list-style-type: none"> <li>— Each underlying existing commitment projected</li> <li>— Projections aggregated to total portfolio level to determine PE allocation in future years</li> <li>— Once future PE allocations forecasted, adjust future commitments to reach PE allocation target by certain year</li> </ul> |
| <b>Benefits</b>          | <ul style="list-style-type: none"> <li>— Flexibility in adjusting future commitments</li> <li>— Ability to conduct scenario analysis</li> </ul>   |
| <b>Verus Assumptions</b> | <ul style="list-style-type: none"> <li>— Organized by sub-class</li> <li>— Iteratively developed over years</li> <li>— Based on Venture Economics, Private I, and vast knowledge and experience of our private markets team</li> </ul>  |

## TOTAL PRIVATE EQUITY - CASH FLOWS

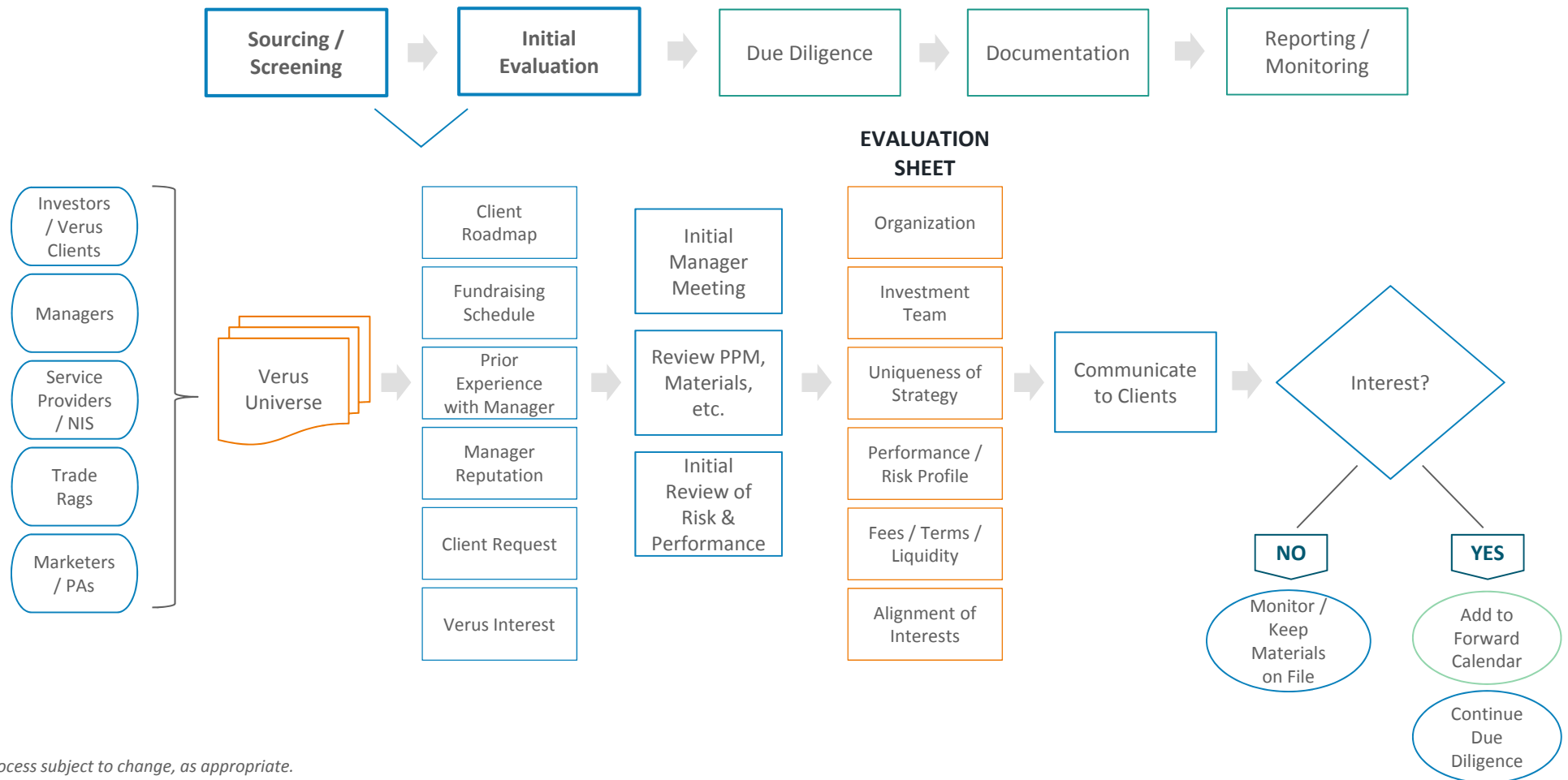


## PRIVATE EQUITY ALLOCATION



# Due diligence process: Sourcing & preliminary evaluation

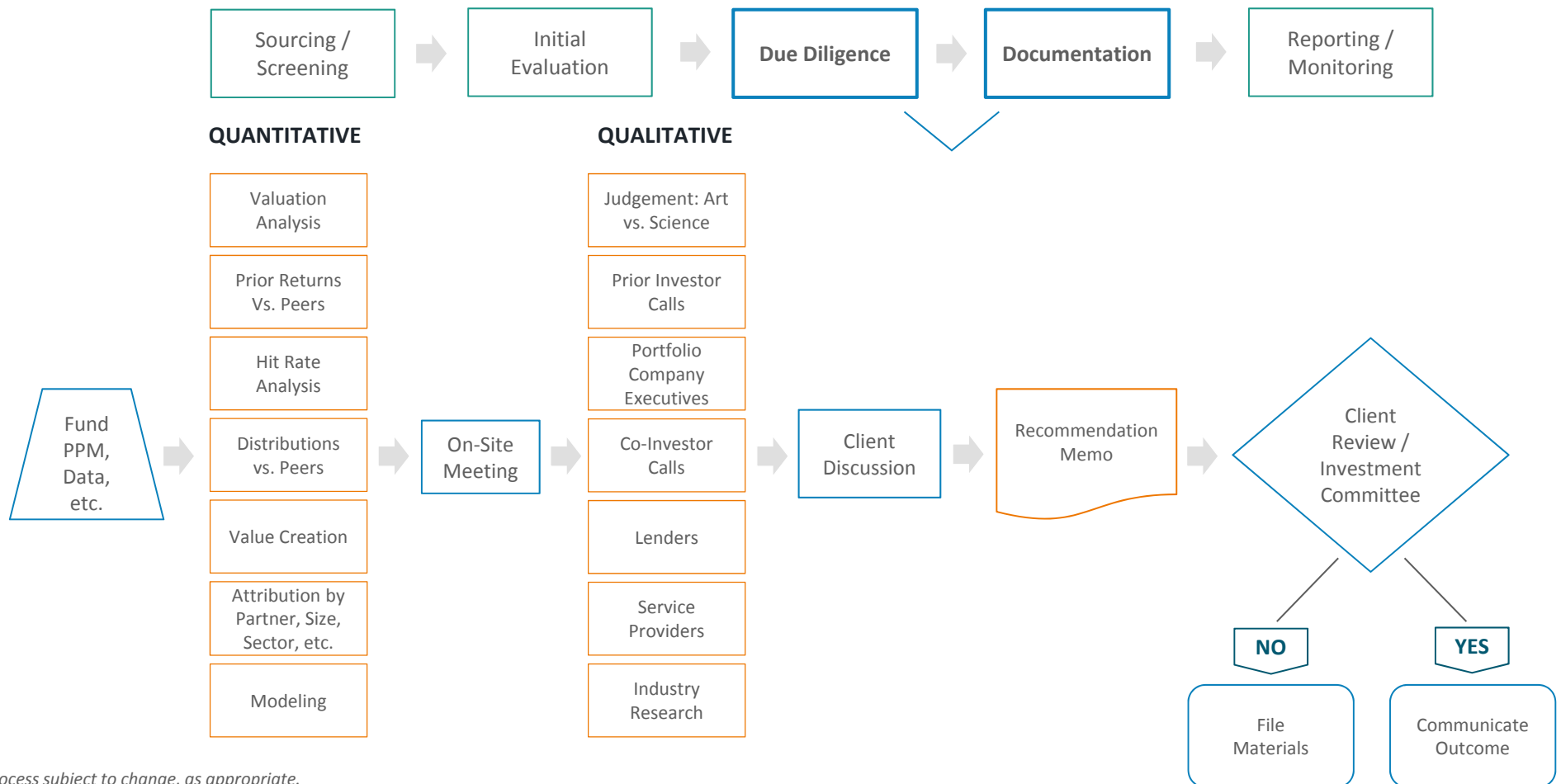
We deliberately avoid a “cookie-cutter” approach that can lead to sub-optimal returns.



Process subject to change, as appropriate.

# Disciplined process: Full due diligence

Diligence process typically takes two to three months per fund. We seek to identify sources of “value creation.” Information *not* provided is often more important than that which is provided!



Process subject to change, as appropriate.

# Value drivers: Venture capital

- Losers tend to appear more quickly than winners
- Returns generated from ~45% of the portfolio, with the remainder partial or total losses
- Portfolio companies often held at last financing round valuation

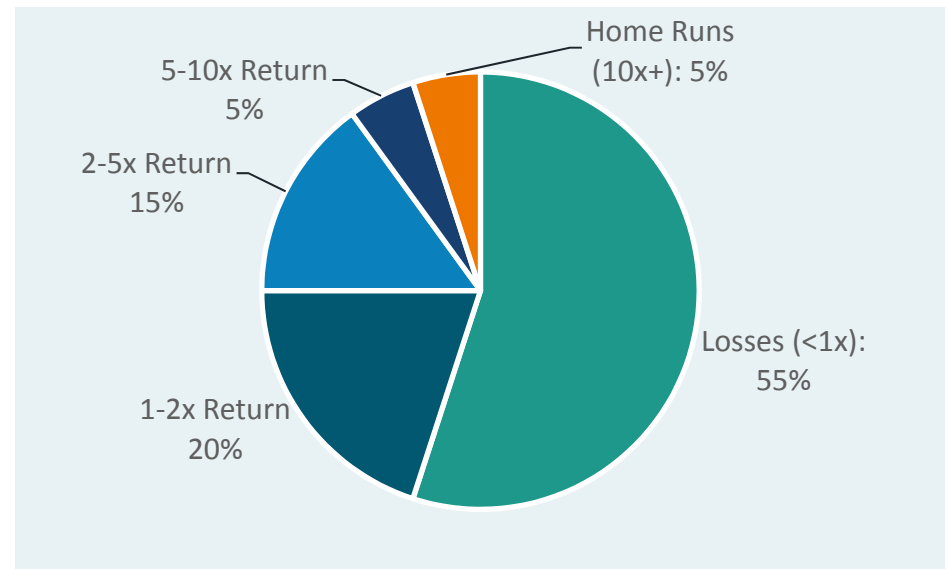
## Managing Risks at the Early Stage

- Manage the optionality: the earlier the stage, the less capital required to test big ideas
- Follow-on financing:
  - Pending achievement of milestones
  - Other people's money
- GP reputation matters

## Managing Later Stage Risks

- Sector/company selection, and...
- ...invest at reasonable value.
- Otherwise, manage to market cycles.

**TOP-QUARTILE RETURN PROFILE**





# Value drivers: Buyouts

| Sources of Return           | Repeatability<br>Dependent On          | Metrics  |
|-----------------------------|--|--|
| Improved Company Operations | — Operating Skills                     | — Growth in Revenue<br>— Margin Expansion  |
| Multiple Expansion          | — Value Orientation<br>— Market Cycles | — Performance in Up & Down Markets<br>— Entry/Exit Multiples versus Industry Peers |
| Leverage                    | — Market Cycles                        | — Debt/EBITDA, relative to...<br>— ...Growth Rates                                 |



## VERUS VALUE CREATION ANALYSIS

### Key Input Variables

- Company operating parameters over time
- Entry & exit/current valuations
- Capitalization: equity, debt, syndicate partners
- Deal source, method of exit

### Attribution of Prior Returns by

- Sector/sub-sector
- Geography
- Size
- Investment professional
- Realized vs. unrealized deals

# Value drivers: Debt-related funds

| Type of Debt Fund   | Sources of Return   | Repeatability Dependent On   | Metrics   |
|---------------------|---|--|---|
| Senior Debt         | <ul style="list-style-type: none"> <li>— Market Interest Rates</li> <li>— Syndication Fees &amp; Rights</li> </ul>                          | <ul style="list-style-type: none"> <li>— Market Cycles</li> <li>— Credit Analysis</li> <li>— Protective Covenants</li> </ul>   | <ul style="list-style-type: none"> <li>— Current Yields</li> <li>— Returns from Yield vs. Fees &amp; Penalties</li> <li>— Loss Ratio</li> </ul>   |
| Mezzanine           | <ul style="list-style-type: none"> <li>— Market Interest Rates</li> <li>— Equity Upside</li> <li>— Loss Mitigation</li> </ul>               | <ul style="list-style-type: none"> <li>— Market Cycles &amp; Competing Products</li> <li>— Company Selection</li> </ul>  | <ul style="list-style-type: none"> <li>— Performance in Up &amp; Down Markets</li> <li>— Entry/Exit Multiples versus Industry Peers</li> </ul>  |
| Distressed: Trading | <ul style="list-style-type: none"> <li>— Entry vs. Exit Price to Par</li> <li>— Recycling of Proceeds</li> </ul>                            | <ul style="list-style-type: none"> <li>— Market Opportunity</li> <li>— Value Orientation</li> </ul>  | <ul style="list-style-type: none"> <li>— Timing of Fundraising</li> <li>— IRR vs. Peers &amp; Hi Yield in Similar Markets</li> </ul>  |
| Distressed: Control | <ul style="list-style-type: none"> <li>— Ability to Gain Control</li> <li>— Improved Company Operations and/or Capital Structure</li> </ul> | <ul style="list-style-type: none"> <li>— Market Opportunity</li> <li>— Value Orientation</li> <li>— Credit/Security Analysis</li> <li>— Restructuring Skills</li> <li>— Control Buyout Skills</li> </ul> | <ul style="list-style-type: none"> <li>— Timing of Fundraising</li> <li>— Control vs. Non-Control Deals (%)</li> <li>— Role on Creditor Committee</li> <li>— Entry Price/EBITDA</li> <li>— Entry vs. Exit Debt Levels</li> <li>— Changes in Company Revenue/Margins</li> <li>— Hit Rates &amp; Loss Ratios</li> </ul> |



**DEBT FUNDS HEAVILY DEPENDENT ON MARKET CYCLES:**

**SEEK ALTERNATIVE SOURCES OF RETURNS WITH SIMILAR CHARACTERISTICS FOR PERMANENT ALLOCATION**

# Terms & conditions

Alignment of interests is paramount in achieving return objectives.

## Economic Terms

- GP commitment
- Fees/carried interest
  - Management fee
  - Carried interest
  - Preferred return
  - Fee offsets
  - Organizational expenses

## Governance Terms

- LP advisory board
- Key man
- No fault
- Clawback

### SAMPLE FEE MODELING OUTPUT

Modeling net LP returns based on economic terms informs legal negotiations.

### EXCERPT FROM VERUS FUND EVALUATION SHEET

(1-5 on a point scale) represents 20% of “rating” for each fund evaluated.

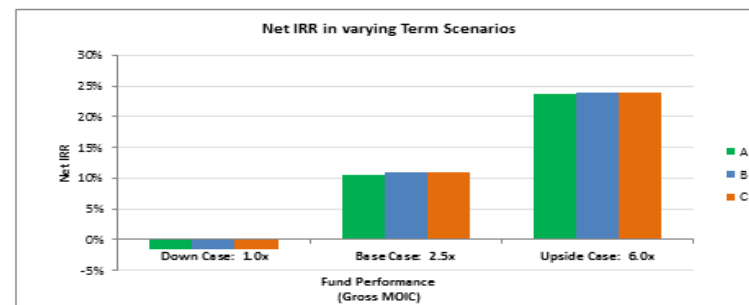
| Alignment of Interests  | 20% | 14% |  |
|-------------------------|-----|-----|--|
| GP Commitment           | 60% | 2   | - \$225mm or 3% of commitments. Jim Davidson committing \$50mm - prior fund, committed \$30mm<br>- may co-invest up to 5% each year of equity available to the fund for the next 4 succeeding qtrs   |
| Fees / Carried Interest | 20% | 3   | - Management Fee (% of): 1.5%/1.0% - \$250-1.425%; >=\$300-1.375%; \$250-\$500- 1.4%<br>- Carry: - 20% - deal by deal<br>- Fees offset Management Fee by: 100% offset<br>- Organizational Expenses up to: - Pro-rata share<br>- Subject to LP Preferred Return: yes - 8%<br>- Commitment Period: Six years |
| Downside Protection     | 20% | 3   | - Clawback: - yes - 10% holdback<br>- No Fault: yes - 80%<br>- Advisory Board: - yes - 5 LPs<br>- Key-Men (Identify): 3 of 5 must be active - Mike Single, Jim Davidson, Egon Durban, Kenneth Hao and Greg Mondre  |

### Fee and Carry Analysis August 2017

| Down Case (1.0x gross fund performance) |                |                  |                                      | Net TVPI | IRR (down) |
|---|----------------|------------------|--------------------------------------|----------|------------|
| Terms Favoring:                         | Management Fee | Preferred Return | Carried Interest                     |          |            |
| No Threshold [A]                        | 1.00%          | 10%              | 25%                                  | 0.90x    | -1.52%     |
| 2.00x Net Threshold [E]                 | 1.00%          | 10%              | 20% before Threshold; 25% afterwards | 0.90x    | -1.52%     |
| 3.00x Net Threshold [C]                 | 1.00%          | 10%              | 20% before Threshold; 30% afterwards | 0.90x    | -1.52%     |

| Base Case (2.5x gross fund performance) |                |                  |                                      | Net TVPI | IRR (base) |
|---|----------------|------------------|--------------------------------------|----------|------------|
| Terms Favoring:                         | Management Fee | Preferred Return | Carried Interest                     |          |            |
| No Threshold [A]                        | 1.00%          | 10%              | 25%                                  | 2.00x    | 10.60%     |
| 2.00x Net Threshold [E]                 | 1.00%          | 10%              | 20% before Threshold; 25% afterwards | 2.04x    | 10.91%     |
| 3.00x Net Threshold [C]                 | 1.00%          | 10%              | 20% before Threshold; 30% afterwards | 2.04x    | 10.93%     |

| Upside Case (6.0x gross fund performance) |                |                  |                                      | Net TVPI | IRR (up) |
|---|----------------|------------------|--------------------------------------|----------|----------|
| Terms Favoring:                           | Management Fee | Preferred Return | Carried Interest                     |          |          |
| No Threshold [A]                          | 1.00%          | 10%              | 25%                                  | 4.36x    | 23.80%   |
| 2.00x Net Threshold [E]                   | 1.00%          | 10%              | 20% before Threshold; 25% afterwards | 4.40x    | 23.96%   |
| 3.00x Net Threshold [C]                   | 1.00%          | 10%              | 20% before Threshold; 30% afterwards | 4.37x    | 23.82%   |



#### Model Assumptions used to generate scenarios

- (1) Fund size is \$1.2 billion
- (2) Fund Life is 13 years
- (3) Investment period is six years.

# Operational due diligence

We advocate use of the ILPA Due Diligence Questionnaire to research key GP operational issues, including risk management, compliance, financial controls, and systems. Use of this tool promotes maximum transparency, while minimizing administrative burden.

## Areas of Focus

- Firm history and organization
- Legal, tax, and regulatory
- Risk management
- Compliance
- Finance and reporting
- Financial controls
- Insurance
- Information management Systems
- Disaster recovery process

The image shows the cover page and Appendix A of the ILPA Due Diligence Questionnaire Tool. The cover page is titled "Institutional Limited Partners Association Due Diligence Questionnaire Tool" and includes the version "VERSION 1.0" and date "OCTOBER 2013". Appendix A, titled "Appendix A - Requested Documents (if applicable)\*\*", lists 12 items: 1. Fund Limited Partnership Agreement (current version); 2. Fund Limited Partnership Agreement (black-lined version from the previous fund); 3. Private Placement Memorandum (PPM) of the Fund; 4. PPM and Limited Partnership Agreement of the previous fund; 5. Annual General Meeting materials for last 2 years; 6. Firm's most recent regulatory body registration/disclosure form (e.g. Form ADV); 7. The Partnership Agreement of the GP; 8. All audited annual & unaudited quarterly reporting packages sent to limited partners for each active prior fund; 9. The audited financial statements of the Firm for the last 3 years; 10. Examples of capital call and distribution notices; 11. The Investment Advisory Agreement between the Fund and the General Partner; 12. Presentation materials and minutes of all LP Advisory Board meetings held over the last 2 years.

Verus applauds and endorses the standardized ILPA DDQ tool. ILPA compiled this DDQ from over a dozen sample questionnaires provided by LPs, GPs, and third parties and went through a 6-month public comment period.

# Annual portfolio review

## INVESTMENT PLAN – OVERVIEW

- Purpose - As per existing policy, review Plan:
  - Policy: Proposed changes to
    1. Reflect plans sub-asset classes without Commodities (and associated benchmarks);
    2. Modify the authority delegated to Staff for small investments, allowing “re-ups” with existing managers in good standing, pending in-depth due diligence results.
  - Investment Plan: Proposed updates to future annual commitments
- Key Updates:
  - Increase in Plan Value (December 31, 2015 projection: \$7.2 billion)
  - Versus Long-Term Growth Rate Assumption: 7.4%
  - No Updates to Plan Contribution and Distribution Assumptions (source: Segal Co., 2014)

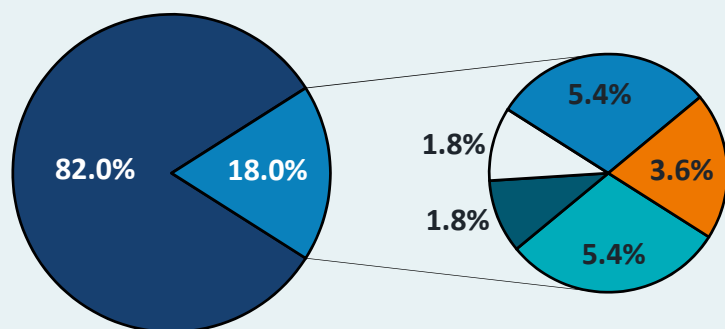
| Current Outlook / Key Assumptions  | Implications   | Impact on Investment Plan   |
|--|--|---|
| 1. Continued stability in capital markets  | — Future growth of the Plan likely in line with Long-Term expectations | — Commitment plan in line with long-term Policy target: Alt 10%, PE 5% (no change from 2014)  |
| 2. Improved liquidity for private assets – M&As and IPOs up                          | — Deal prices up in both Buyouts and VC                                | — Recommendations subject to compelling opportunities only  |
| 3. Continued, but moderating risk of capital “overhang” in U.S. and European Buyouts | — GP capacities constrained  | — Emphasize “back to basics:” <ul style="list-style-type: none"> <li>▪ Alignment of interests</li> <li>▪ Disciplined, value-oriented</li> <li>▪ Proprietary sourcing/capabilities</li> <li>▪ Operating value-add</li> </ul> |
| 4. General availability of Debt...   |  |   |
| 5. ...less so for smaller companies  | — Pockets of opportunity remain in Debt/Special Situations             | — Continue 10% overweight to Debt/Special Situations (2014 target)  |
| 6. Sovereign Debt risk in Europe   |  |   |
| 7. Downside risk on par with 2010 / higher than 2009                                 | — Hedge funds can add value  | — Begin deploying capital to hedge funds (via fund-of-funds)  |
| 8. Volatility likely to continue   |  |   |

*Subject to change, as appropriate.*

# Annual portfolio review

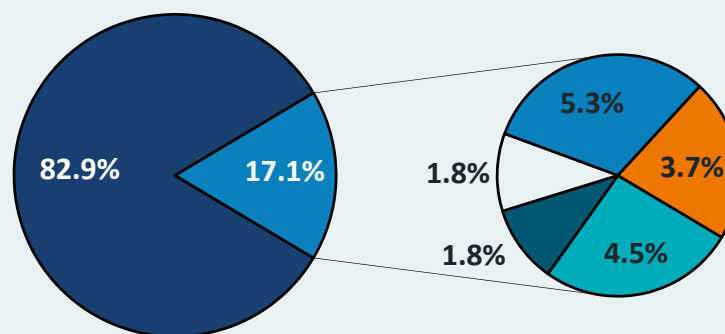
## Total Plan Allocation\*

### LONG-TERM TARGETS



■ Plan  
■ Venture Capital  
■ Other Alternatives  
■ Buyouts  
■ Debt Related  
■ Absolute Return

### INVESTMENT PLAN: 2018 TARGET ALLOCATIONS



■ Plan  
■ Venture Capital  
■ Other Alternatives  
■ Buyouts  
■ Debt Related  
■ Absolute Return

*Subject to change, as appropriate*

*\*Allocations are market value of funded commitments.*

# Annual portfolio review

| TOTAL PROJECTED ALLOCATIONS   | 12/31/2013            | 12/31/2014            | 12/31/2015            | 12/31/2016              | 12/31/2017              | 12/31/2018              |
|---|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------|
|   | Actual Allocation     | Actual Allocation     | Projected Allocation  | Projected Allocation    | Projected Allocation    | Projected Allocation    |
| Buyouts   | \$ 118,126,044        | \$ 178,461,715        | \$ 220,434,886        | \$ 258,545,499          | \$ 314,962,653          | \$ 378,961,228          |
| Venture Capital   | \$ 70,411,809         | \$ 118,402,809        | \$ 150,208,506        | \$ 163,244,974          | \$ 169,967,492          | \$ 180,010,882          |
| Debt-Related/Special Situations   | \$ 75,097,866         | \$ 70,125,754         | \$ 75,742,542         | \$ 113,934,521          | \$ 164,429,075          | \$ 184,549,446          |
| <b>Total Private Equity</b>   | <b>\$ 263,635,719</b> | <b>\$ 366,990,278</b> | <b>\$ 446,385,934</b> | <b>\$ 535,724,994</b>   | <b>\$ 649,359,219</b>   | <b>\$ 743,521,556</b>   |
| Absolute Return   | \$ 119,574,000        | \$ 123,448,000        | \$ 232,376,712        | \$ 257,280,965          | \$ 283,977,426          | \$ 310,707,558          |
| Other Alternatives  | \$ 57,059,205         | \$ 113,064,086        | \$ 118,623,274        | \$ 220,864,942          | \$ 303,028,072          | \$ 446,134,019          |
| <b>Total Non-PE Alternatives</b>  | <b>\$ 176,633,205</b> | <b>\$ 236,512,086</b> | <b>\$ 350,999,986</b> | <b>\$ 478,145,908</b>   | <b>\$ 587,005,499</b>   | <b>\$ 756,841,577</b>   |
| <b>Total PEARLS Portfolio</b>   | <b>\$ 440,268,924</b> | <b>\$ 603,502,364</b> | <b>\$ 797,385,920</b> | <b>\$ 1,013,870,901</b> | <b>\$ 1,236,364,718</b> | <b>\$ 1,500,363,133</b> |
| Approximate Plan Value - Beginning of Year  | \$ 5,665,616,724      | \$ 6,636,723,477      |                       | \$ 7,170,294,074        | \$ 7,559,569,381        | \$ 7,956,670,982        |
| + SIS Growth Assumption (7.40% per year)  |                       |                       | \$ 7,206,076,153      | \$ 530,601,761          | \$ 559,408,134          | \$ 588,793,653          |
| + Plan Contributions per Segal (12/31/2013)                                       |                       |                       | \$ 151,319,781        | \$ 334,466,790          | \$ 339,372,510          | \$ 345,098,164          |
| - Plan Distributions per Segal (12/31/2013)                                       |                       |                       | \$ 187,101,860        | \$ 475,793,244          | \$ 501,679,044          | \$ 528,885,457          |
| = Plan Value - End of Year  | \$ 6,636,723,477      | \$ 6,784,209,377      | \$ 7,170,294,074      | \$ 7,559,569,381        | \$ 7,956,670,982        | \$ 8,361,677,341        |
| <b>Private Equity as a % of Plan (Target ~9.0%)</b>                               | <b>3.97%</b>          | <b>5.41%</b>          | <b>6.23%</b>          | <b>7.09%</b>            | <b>8.16%</b>            | <b>8.89%</b>            |
| Absolute Return as a % of Plan (Target ~3.6%)                                     | 1.80%                 | 1.82%                 | 3.24%                 | 3.40%                   | 3.57%                   | 3.72%                   |
| Other Alternatives as % of Plan (Target ~5.4%)                                    | 0.86%                 | 1.67%                 | 1.65%                 | 2.92%                   | 3.81%                   | 5.34%                   |
| <b>Non-PE Alternatives as a % of Plan (Target ~9.0%)</b>                          | <b>2.66%</b>          | <b>3.49%</b>          | <b>4.90%</b>          | <b>6.33%</b>            | <b>7.38%</b>            | <b>9.05%</b>            |
| VC % of Total Private Equity<br>(Target 20% / Range 0%-30%)                       | 27%                   | 32%                   | 34%                   | 30%                     | 26%                     | 24%                     |
| Buyouts % of Total Private Equity<br>(Target 60% / Range 40%-80%)                 | 45%                   | 49%                   | 49%                   | 48%                     | 49%                     | 51%                     |
| Debt/Special Situations % of Total Private Equity<br>(Target 20% / Range 10%-30%) | 28%                   | 19%                   | 17%                   | 21%                     | 25%                     | 25%                     |
| Absolute Return % of Total Alternatives<br>(Target: 40%: 0-60%)                   | 68%                   | 52%                   | 66%                   | 54%                     | 48%                     | 41%                     |
| Other Alts. % of Total Alternatives<br>(Target 60% / Range 0%-80%)                | 32%                   | 48%                   | 34%                   | 46%                     | 52%                     | 59%                     |
| PEARLS Total contributions  | \$ 110,722,400        | \$ 145,906,624        | \$ 184,288,116        | \$ 264,339,090          | \$ 294,305,328          | \$ 297,103,727          |
| PEARLS Total distributions  | \$ 82,717,322         | \$ 60,278,687         | \$ 58,804,090         | \$ 142,702,255          | \$ 183,173,054          | \$ 158,455,784          |
| PEARLS Year-by year commitments   | \$ 35,000,000         | \$ 217,500,000        | \$ 270,250,000        | \$ 350,000,000          | \$ 310,000,000          | \$ 275,000,000          |

Subject to change, as appropriate.

# Annual portfolio review

## IMPLEMENTATION ROADMAP – AS OF JULY 1, 2011 ANNUAL COMMITMENTS\*

| PEARLS category               | 2013                 | 2014                  | 2015                  | 2016                  | 2017                  | 2018                  |
|-------------------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                               | Actual Commit (\$)   | Actual Commit (\$)    | Projected Commit (\$) | Projected Commit (\$) | Projected Commit (\$) | Projected Commit (\$) |
| Venture Capital               | \$ 10,000,000        | \$ 10,000,000         | \$ 15,000,000         | \$ 25,000,000         | \$ 35,000,000         | \$ 35,000,000         |
| Buyouts                       | \$ -                 | \$ 97,500,000         | \$ 105,250,000        | \$ 85,000,000         | \$ 85,000,000         | \$ 85,000,000         |
| Debt-Related/Spec Sit         | \$ -                 | \$ 20,000,000         | \$ 50,000,000         | \$ 120,000,000        | \$ 70,000,000         | \$ 35,000,000         |
| Absolute Return               | \$ -                 | \$ 40,000,000         | \$ 100,000,000        |                       |                       |                       |
| Other Alternatives            | \$ 25,000,000        | \$ 50,000,000         | \$ -                  | \$ 120,000,000        | \$ 120,000,000        | \$ 120,000,000        |
| <b>Total PEARLS Portfolio</b> | <b>\$ 35,000,000</b> | <b>\$ 217,500,000</b> | <b>\$ 270,250,000</b> | <b>\$ 350,000,000</b> | <b>\$ 310,000,000</b> | <b>\$ 275,000,000</b> |
|                               | Actual Commit (#)    | Actual Commit (#)     | Projected Commit (#)  | Projected Commit (#)  | Projected Commit (#)  | Projected Commit (#)  |
| Venture Capital               | 1                    | 1                     | 2                     | 2 - 3                 | 4 - 5                 | 4 - 5                 |
| Buyouts                       | 0                    | 4                     | 2                     | 2 - 3                 | 2 - 3                 | 2 - 3                 |
| Debt-Related/Spec Sit         | 0                    | 1                     | 1                     | 2 - 3                 | 2                     | 1                     |
| Absolute Return               | 0                    | 1                     | 1                     | 0                     | 0                     | 0                     |
| Other Alternatives            | 1                    | 1                     | 0                     | 0-4                   | 0-4                   | 0-4                   |
| <b>Total PEARLS Portfolio</b> | <b>2</b>             | <b>8</b>              | <b>6</b>              | <b>6 - 13</b>         | <b>8-14</b>           | <b>7-13</b>           |

Subject to change, as appropriate.



# Capital flows: Market reviews

## Rising default rates creating opportunity

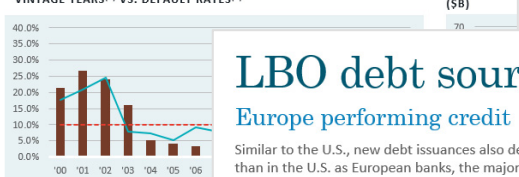
### Global distressed private equity

Defaults spiked in 2015, underscoring the potential for attractive distressed PE returns. However, most of the defaults have been in energy, where commodity price movements can lead to binomial outcomes, an unsuitable environment for trading-oriented distressed debt investors. PE managers capable of taking control of distressed companies can

— **Mature fund returns:** Historically, distressed PE funds have generated double-digit returns. The 2015 default rates climbed above 10% (excluding 2003 and 2011). The 2015 default rates climbed above 10% in 2014. Defaults have primarily been in energy as default rates for non-energy

— **Current capital overhang:** Since 2010, excluding 2012, distressed PE firms have been growing capital overhang. In 2015, firms raised \$31.5 billion in capital, a slight increase from \$29.6 billion raised in 2014. Distress PE firms were expected to have defaults in 2015.

GLOBAL DISTRESSED PRIVATE EQUITY RETURNS FOR MATURE VINTAGE YEARS<sup>(1)</sup> VS. DEFAULT RATES<sup>(2)</sup>



Source: Thomson CA and Deutsche Bank  
(1) Mature vintage years represent funds closed  
(2) Default rates are defined as proportion of issu

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## Lower debt issuance slows buyouts

### U.S. performing credit

New debt issuances declines as appetite for riskier debt abates. While spreads have widened, interest coverage (EBITDA/Cash Interest) is above its 10 year rolling average suggesting that companies have ample ability to make interest payments.

— **New issuance volume:** New issuances of U.S. LBO loans and high yield totaled \$472 billion in 2015, a decrease of 15% from prior year. New issuance volume is below its all time peak reached in 2013 of \$677 billion.

— **Spreads:** U.S. high yield spreads continue to widen reaching 695 bps at the end of the year. The last time spreads had hit this level

## LBO debt sourcing capital from high yield

### Europe performing credit

Similar to the U.S., new debt issuances also declined. While spreads have widened, European LBO terms are much more conservative than in the U.S. as European banks, the major source of LBO credit, continue to limit lending due to tighter banking regulations.

— **New issuance volume:** New issuances of European LBO loans and high yield totaled €137 billion in 2015, a decrease of 19% from prior year. The current volume of new issuance is close to the peak reached last year. However, even at its peak, the volume of new issuances don't approach the current magnitude of new issuance in the US. Unlike 2006/2007, most of the new issuances come from the high yield market as bank lending have been stymied by increasing regulation.

— **Spreads:** European high yield spreads continue to widen reaching 535 bps at the end of the year. The current levels were last reached in 2013.

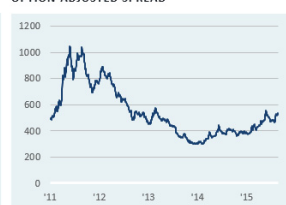
— **LBO terms:** Total leverage (Debt/EBITDA) declined slightly to 5.01x versus 5.09x in 2014. Interest coverage (EBITDA/Cash Interest) continued to exhibit healthy levels at 3.83x, more than its 10 year rolling average of 3.4x.

EUROPEAN LBO LOANS (€B)



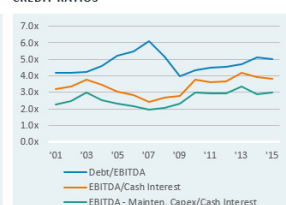
Source: S&P/LCD

BOFA MERRILL LYNCH EUROPEAN HIGH YIELD OPTION-ADJUSTED SPREAD



Source: FRED

CREDIT RATIOS



Source: S&P LCD

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July 2016

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## KEY MARKET DATA

### Debt-Related:

- Availability/new issuance
- Cost
- Terms

### Buyouts:

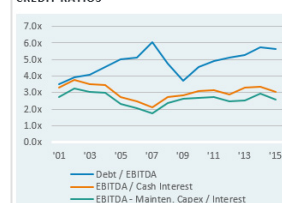
- Fundraising volume
- Entry valuations

### Venture Capital:

- Fundraising volumes
- Entry valuations
- Exit activity – IPOs / M&As

coverage (EBITDA/Cash Interest) continued

CREDIT RATIOS



Source: S&P LCD

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Subject to change, as appropriate.

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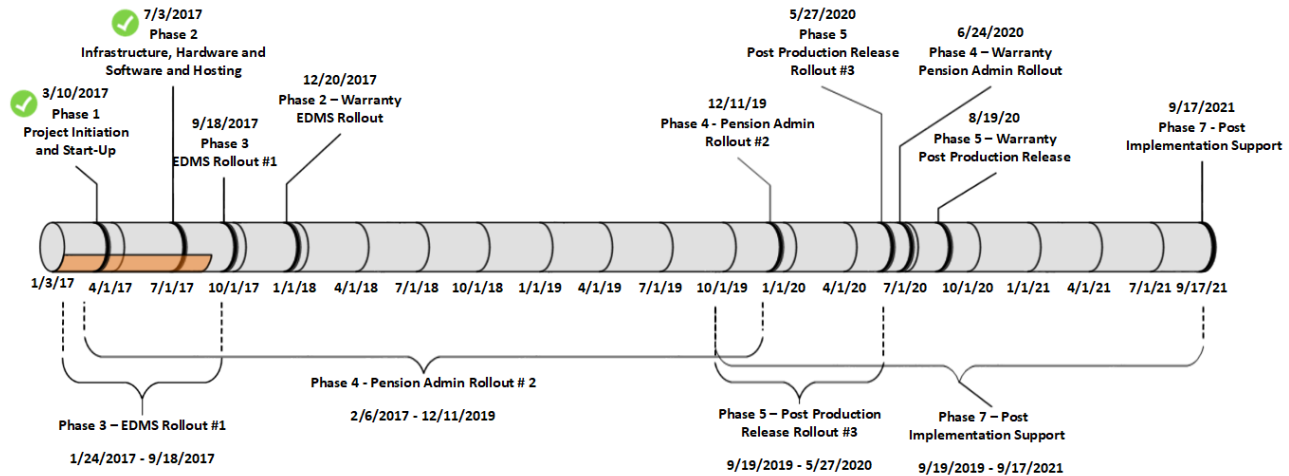
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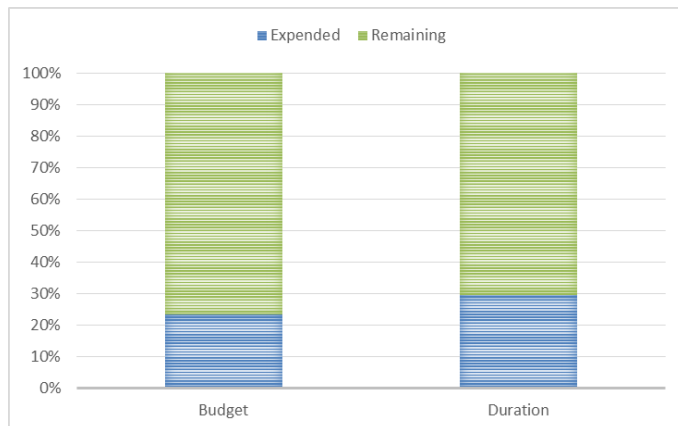
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# PAS IMPLEMENTATION LINEA BI-WEEKLY STATUS UPDATE

**SPONSOR:** Rick Santos**REPORT DATE:** 08-11-2017**Baseline 12/01/2016****STATUS****Risks & Issues:**

No high-level risks have been identified.



Budget as of 07/31/17

**Accomplishments:**

- Facilitated the weekly Project Manager's meeting.
- Generated Project Manager meeting minutes.
- Conducted a group review of BSR004 and facilitated review and approval of BSR005.
- Participated in Tegrit work sessions conducted by Paul Booth and several ad-hoc meetings or discussions.
- Reviewed Tegrit JAD session meeting minutes and compiled decision logs and action items, as needed.
- Tracked requirements discussed in work sessions using the RTM and met with StanCERA PM to update requirements confirmation.

**Upcoming:**

- Facilitate the weekly Project Manager meetings.
- Facilitate the monthly Steering Committee Meeting.
- Participate in any Tegrit work sessions and other meetings scheduled each week.
- Continue tracking requirements discussed in work sessions using the RTM.
- Continue to review Tegrit meeting minutes, decision logs, and action items, as needed.
- Continue to compile and track decisions and action items generated during meetings.
- Review and hold group review sessions for BSR deliverables made by Tegrit.

## Accomplishments: (Contd.)

- Met with Tegrit and StanCERA to review and discuss any outstanding imaging requirements not already confirmed through the development process.
- Continued work with StanCERA and Tegrit to finalize Imaging system folder, document type, and keyword structure development.
- Continued to execute test scripts, assisted StanCERA SMEs with UAT work, logged system bugs, and compiled UAT results for delivery to Tegrit.

## Upcoming: (Contd.)

- Continue to work with StanCERA to review and complete action items.
- Continue to meet with StanCERA PM to perform additional requirements confirmation on those requirements Tegrit has included in BSRDs.
- Assist with the preparations, kick-off, and ongoing management for the Imaging UAT period.
- Review UAT test cases, develop UAT Strategy, log system bugs, and track UAT progress for the Imaging UAT.

