

Stanislaus County Employees' Retirement Association

832 12th Street, Ste. 600, Modesto, CA 95354 • PO Box 3150, Modesto, CA 95353 • www.stancera.org • 209-525-6393 • 209-558-4976 Fax

AGENDA

BOARD OF RETIREMENT 832 12th Street Ste. 600, **Wesley W. Hall Board Room** Modesto, CA 95354

August 28, 2018 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.

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.

- Call Meeting to Order
- 2. Roll Call
- 3. Announcements
- 4. Public Comment
- 5. Consent Items
 - a. Approval of the July 24, 2018 Meeting Minutes View
 - b. Monthly Staff Report Agenda Item <u>View</u>
 - c. Legal/Legislation Update View
 - d. 3 Month Investment Work Plan View
 - e. Approval of Service Retirement(s) Government Code Sections 31499.14, 31670, 31662.2 & 31810
 - 1. Avila, Jose DER Effective 08-18-2018
 - 2. Barrett, Dawn CSA Effective 07-12-2018
 - 3. Barter, Bettina Clerk Recorder Effective 06-13-2018
 - 4. Britt, Lola DCSS Effective 08-02-2018
 - 5. Brock, Harlan City of Ceres Effective 08-25-2018
 - 6. Brooks, Chris GSA Effective 07-07-2018
 - 7. Craig, Colleen County Counsel Effective 08-01-2018

5. Consent Items (Cont.)

- 8. Gallasso, Brandon Sheriff Effective 08-18-2018
- 9. Hunter, Michele CSA Effective 08-18-2018
- 10. Macedo, Steven Sheriff Effective 08-18-2018 *
- 11. Maloy, Patricia City of Ceres Effective 08-11-2018
- 12. Medina, George CSA Effective 08-02-2018
- 13. Quezada, Teresa HSA Effective 08-08-2018
- 14. Ramirez, Jesse DER Effective 08-31-2018

* Indicates Safety Personnel

- f. Approval of Deferred Retirement(s) Government Code Section 31700
 - 1. Cuellar, Yvonne CSA Effective 6-30-18
 - 2. Damin, Nicole, DER Effective 5-18-18
 - 3. Machado, Matthew PW- Effective 6-1-18
 - * Indicates Safety Personnel
- g. Approval of Disability Retirement Government Code Section 31724
 - 1. Alvarez Jr., Frank City of Ceres, Service-Connected. Effective March 21, 2018
- 6. <u>Verus Investment Consultant</u>
 - a. July Flash Report View
 - b. Investment Performance 2018 Quarter 2 Review View
- 7. <u>Investment</u>
 - a. Private Markets Investment Policy

Agenda Item <u>View</u> Attachment 1 <u>View</u>

b. Updates to Existing Governance Docs Agenda Item View

Attachment 1 View Attachment 4 View Attachment 2 View Attachment 5 View Attachment 6 View

- 8. Administrative
 - a. Information Technology Solutions (ITS) Project Update View
 - b. Board Room Committee 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)
- 10. Members' Forum (Information and Future Agenda Requests Only)
- 11. Adjournment

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BOARD OF RETIREMENT MINUTES July 24, 2018

1. Call Meeting to Order

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

2. Roll Call

Trustees Present: Mike Lynch, Jim DeMartini, Donna Riley, Sam Sharpe, Darin Gharat,

Lauren Klein, Mandip Dhillon, Jeff Grover and Michael O'Neal

Trustees Absent: NONE

Alternate Trustee: Rhonda Biesemeier, Alternate Retiree Representative

Staff Present: Rick Santos, Executive Director

Chris Wisdom, Retirement Investment Officer

Dawn Lea, Member and Employer Services Manager

Natalie Elliott, Fiscal Services Manager Kellie Gomes, Executive Board Assistant

Others Present: Frances Fort for Fred Silva, General Legal Counsel

Ed Hoffman, Verus Investment Consultant

3. <u>Announcements</u>

Natalie Elliott welcomed Carmen Gusman to StanCERA as our new Retirement Accountant

4. Public Comment

None

5. Consent Items

- a. Approval of the June 26, 2018 Meeting Minutes
- b. Monthly Staff Report
- c. Legal/Legislation Update
- d. StanCERA Complaint Log of April 1 June 30, 2018
- e. Executive Director Goals Update Quarter 2 2018

5. Consent Items (Cont.)

- f. Approval of Service Retirement(s) Government Code Sections 31499.14, 31670, 31662.2 & 31810
 - 1. Abernathy-Bongiorno, Stefani Stan Reg 911 Effective 07-06-18
 - 2. Becker, Carrie BHRS Effective 07-07-18
 - 3. Bohnet, Nanette CSA Effective 07-07-18
 - 4. Brinton, Michael City Of Ceres Effective 06-30-18

- 5. Cisneros, Mario Sheriff Effective 07-15-18 *
- 6. Davis, Kathryn Library Effective 07-21-18
- 7. De Anda, Maria CSA Effective 06-30-18
- 8. De La O, Paulina Stan Reg 911 Effective 07-15-18
- 9. Della, Stacey BHRS Effective 07-01-18
- 10. Finney, Daryl Assessor Effective 07-07-18
- 11. Goddard, Dana Assessor Effective 07-21-18
- 12. Hapin, Henry BHRS Effective 07-10-18
- 13. Miller, Byron BHRS Effective 07-07-18
- 14. Overstreet, Mary Stan Reg 911 Effective 07-06-18
- 15. Peacock, Rhonda HSA Effective 07-01-18
- 16. Prasad, Padma BHRS Effective 07-07-18
- 17. Scott, Cynthia Library Effective 07-07-18
- 18. Serros, Wanda DER Effective 07-20-18
- 19. White, Timothy BHRS Effective 06-13-18
- 20. Williams, Homer Probation Effective 07-04-18*

* Indicates Safety Personnel

- g. Approval of Deferred Retirement(s) Government Code Section 31700
 - 1. Acosta, Mario PW- Effective 6-14-18
 - 2. Flores, Romona CSA- Effective 5-31-18
 - 3. Humphreys, Delicia DA- Effective 6-22-18
 - 4. Lockett, Dusty BHRS- Effective 4-27-18

Motion was made by Trustee O'Neal and seconded by Trustee Grover to accept the consent items as presented

Motion carried unanimously

6. Investment

a. Due Diligence Report

Chris Wisdom presented the report on the trip completed by the Due Diligence Committee in June.

7. Verus – Investment Consultant

a. June Flash Report

^{*} Indicates Safety Personnel

- b. Annual Asset Allocation Review
 - I. Private Equity
 - II. Emerging Market Debt
 - III. Asset Allocation

Motion was made by Trustee Riley and seconded by Trustee Klein to accept Mix A as presented on page 15 of the Item 7.b.

Roll Call Vote was as follows:

No
Yes
Yes
No
Yes
Yes
Yes
Yes
No

Motion passed 6/3

8. Administrative

- a. Information Technology Solutions (ITS) Project Update
- b. Board Room Committee Update
- 10. Members' Forum (Information and Future Agenda Requests Only) This Item was heard out of order.

Trustee Klein congratulated Trustee Riley on her election results for the Treasure Tax Collector which will begin on August 1, 2018.

The Board thanked Trustee Klein for her service to the Board of Retirement.

9. Closed Session

Motion was made by Trustee Gharat and seconded by Trustee Grover to go in to closed session at 2:59p.m.

- a. Interview Investment Consultant for Private Markets Consulting Services Government Code Section 54957(b)(1)
- b. 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)
- c. 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)

Motion was made by Trustee Grover and seconded by Trustee O'Neal to go in to open session at 3:13p.m

9. Closed Session (Cont.)

Kellie Gomes provided the read out from close session as follows:

Item 9.a.

Motion was made by Trustee O'Neal and seconded by Trustee Dhillion to accept staff recommendation to contract with Verus to serve as the non-discretionary consultant for StanCERA's private markets program under the terms of Schedule B of our existing Agreement executed August 24, 2015. Authorize staff to execute an amendment to the Agreement detailing the scope of services, start date, and terms of payment

Roll Call Vote was as follows:

Mike Lynch	No
Jim DeMartini	No
Donna Riley	Yes
Sam Sharpe	Yes
Darin Gharat	Yes
Lauren Klein	Yes
Mandip Dhillon	Yes
Jeff Grover	Yes
Michael O'Neal	Yes

Motion passed 7/2

No other Items to report out.

11. Adjournment

Meeting adjourned at 3:14p.m.

Respectfully submitted,

Rick Santos, Executive Director

APPROVED AS TO FORM:

Fred Silva, GENERAL LEGAL COUNSEL

Frances Fort for Fred \$ilva, General Legal Counsel



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August 28, 2018

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 2018, Member and Employer Services Staff processed 46 new hires (5 Safety and 41 General), 40 terminations, 16 member requests resulting in 44 estimates and 5 member requests resulting in 11 buy back contracts. There were 26 individual counseling sessions.

The annual Pre-Retirement Seminar was held on July 20, 2018 at the Veteran's Center with 135 members and spouses in attendance.

Staff continues to devote many hours to meeting with the Tegrit Analysts to continue defining the business rules necessary to ensure that StanCERA's needs will be met with the Arrivos system.

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) Investment Governance and Compliance In July, Staff focused on follow-up items as a result of the June due diligence visits. Additionally, Staff spent some time researching administrative issues pertaining to StanCERA's current investments, such as benchmarking, etc. Finally, as a result of the newly approved Asset Allocation, Staff worked on a plan of proposed fund transfers in order to efficiently implement the new allocations.
- c) Fiscal Services Employer and employee contributions totaling \$8,221,331 were received through 15 different payroll batches in July. 19 contribution refunds and death benefit payouts totaling \$253,255 were processed which includes refund of contributions for one retired member. The retiree payroll for July totaled \$10,418,471 and was processed as scheduled.

Staff continues to partner with Member Services in defining the business rules for the new pension software. Employer Reporting has been tested and the business system rules are finalized. The employers are working on developing the new import file for upload. Work has been completed on the Buy Back calculations and the Interest Posting calculations and testing will begin in September for those. We continue to be on time and within budget for this project.

Staff met with the County Capital Projects team regarding the Board Room tenant improvements. We are moving forward with getting these out to bid and getting a contractor to do the work. Staff will be meeting with the 12th Street Management Committee to coordinate the work and discuss any concerns with the other tenants in the building.

Retirement Board – August 28, 2018 Monthly Staff Report Page 2

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

Rick Santos, Executive Director

Dawn Lea, Member and Employer Services Manager

Natalie Elliott, Fiscal Services Manager

Chris Wisdom, Retirement Investment Officer

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August 28, 2018

Retirement Board Agenda Item

TO: Retirement Board

FROM: Dawn Lea, Member and Employer Services Manager

I. SUBJECT: Legislation Update

II. ITEM NUMBER: 5.c

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: None

V. ANALYSIS: H.R. 6290, known as the "Public Employee Pension Transparency Act" is currently moving through Congress. This bill would amend the Internal Revenue Code of 1986 and would prohibit state and localities from issuing tax-exempt bonds unless they file annual reports regarding their public employee retirement pension plans. This bill was introduced by Representative Devin Nunes of California.

If a StanCERA plan sponsor wants to issue a tax-exempt bond, they will be required to submit a report to the Secretary setting forth the following information. This information would need to be provided by StanCERA via its actuary.

- A statement of the plan liability, the value of plan assets, the amount by which (if any) the plan liability exceeds the value of plan assets, and the funding percentage of the plan.
- A schedule of all contributions by the plan sponsor for the plan year that indicates which contributions are taken into account on the statement describing the plans liability and funding levels.
- Projections for each of the 60 subsequent plan years of the cash flows associated with the plan liability
- A statement of the actuarial assumptions used for the plan year, including the rate of return
 on investment of plan assets and assumptions as to such other matters as the Secretary
 may prescribe by regulation.
- The number of participants that are separated from service and receiving benefits, separated from service and entitled to future benefits, accruing and receiving benefits, and those accruing benefits.
- A statement of the plan's investment returns, including the rate of return, for the plan year and the 5 preceding plan years.
- An explanation of the plan's funding policy and a statement of the degree to which, and manner in which, the plan sponsor expects to eliminate any unfunded liability for the plan year and the extent to which the plan sponsor has followed the plan's funding policy for each of the preceding 5 plan years.
- A statement of the amount of any pension obligation bonds outstanding.

- A statement of the current cost of the plan for the plan year determined according to the plan's funding method.
- A statement of the plan's administrative and investment expenses.

The requirements of this section shall not be treated as met unless the required statements are submitted to the Secretary no later than 210 days after the end of each plan year beginning on or after January 1, 2019

The plan sponsor would have to value their pension assets and liabilities using a riskless rate of return based on interest rates pegged to the Treasury spot rate yield curve.

Representative Nunes has submitted similar bills in the past which have not passed. Nineteen groups, including National Association of State Retirement Administrators, National League of Cities, National Conference of State Legislatures, and the Government Finance Officers Association, have written to the Chairman of the House Ways and Means Committee asking him to oppose any such legislation.

H.R. 6276, known as the Strengthening Pensions Through Investments in Infrastructure Act, was introduced by Representative Mike Bishop of Michigan. This bill is currently with the House Ways and Means Committee.

This bill would modify current tax rules to allow public pension funds to invest in infrastructure projects that were financed with tax-exempt bonds without causing the bonds to be treated as private activity bonds that might be taxable.

There does not appear to be any opposition to this bill.

- 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: Based on a common sense reading of the bill's requirements, actuarial costs on an annual basis could increase significantly.

Dawn Lea, Member and Employer Services Manager



StanCERA Investment Program 3-Month Workplan

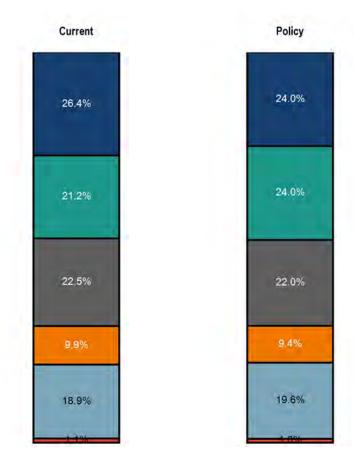
	Time Changes from prior month
August, 2018	1:15
Flash report and 3-month workplan	0:05
Quarterly investment performance report	0:30
Annual review of IPS and related governance documents	0:20
Private markets policy draft	0:20
September, 2018	0:25
Flash report and 3-month workplan	0:05
Private markets pacing study	0:20
October, 2018	0:05
Flash report and 3-month workplan	0:05

Total Fund Flash Report (Net of Fees) - Preliminary

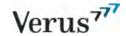
Period Ending: July 31, 2018

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Total Fund	2,139,442,572	100.0	1.3	2.1	1.3
Policy Index			1.6	2.1	1.6
US Equity	564,802,891	26.4	3.4	7.3	3.4
US Equity Blended			3.1	7.1	3.1
Russell 3000			3.3	6.6	3.3
Northern Trust Russell 1000	160,285,023	7.5	3.5	6.4	3.5
Russell 1000			3.5	6.4	3.5
BlackRock Russell 1000 Growth	129,355,181	6.0	2.9	10.4	2.9
Russell 1000 Growth			2.9	10.4	2.9
BlackRock Russell 1000 Value	77,553,603	3.6	4.0	2.2	4.0
Russell 1000 Value			4.0	2.2	4.0
Dodge & Cox-Equity	84,447,839	3.9	4.5	5.8	4.5
Russell 1000 Value			4.0	2.2	4.0
Capital Prospects	113,161,218	5.3	2.6	6.2	2.6
Russell 2000 Value			1.8	7.3	1.8
International Equity	452,674,848	21.2	2.1	-2.1	2.1
MSCI ACWI ex USA Gross			2.4	-1.1	2.4
LSV Asset Mgt	227,796,571	10.6	2.7	-2.9	2.7
MSCI ACWI ex USA Gross			2.4	-1.1	2.4
Fidelity	224,878,276	10.5	1.5	-1.3	1.5
MSCI ACWI ex USA Gross			2.4	-1.1	2.4
US Fixed Income	481,969,741	22.5	0.1	-0.5	0.1
BBgBarc US Aggregate TR			0.0	-1.6	0.0
Insight	217,218,496	10.2	0.2	-0.6	0.2
BBgBarc US Govt/Credit 1-5 Yr. TR			0.0	-0.3	0.0
DFA	207,035,844	9.7	0.2	-0.3	0.2
ICE BofAML 1-5 Yrs US Corp & Govt TR			0.0	-0.3	0.0
Northern Trust Intermediate Gov't Bond	43,210,381	2.0	-0.2	-0.9	-0.2
BBgBarc US Govt Int TR			-0.2	-0.9	-0.2
Northern Trust Long Term Gov't Bond	14,505,021	0.7	-1.5	-4.4	-1.5
BBgBarc US Govt Long TR			-1.5	-4.4	-1.5

	Current	%	Policy	%
Domestic Equity	\$564,802,891	26.4%	\$513,466,217	24.0%
International Equity	\$452,674,848	21.2%	\$513,466,217	24.0%
Domestic Fixed Income	\$481,969,741	22.5%	\$470,677,366	22.0%
Real Estate	\$211,297,255	9.9%	\$201,107,602	9.4%
Alternatives	\$405,361,998	18.9%	\$419,330,744	19.6%
Cash and Equivalents	\$23,335,838	1.1%	\$21,394,426	1.0%
Total	\$2,139,442,572	100.0%	\$2,139,442,572	100.0%

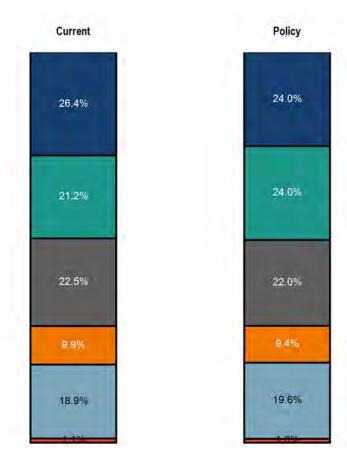


Policy Index (7/1/2017): 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 7.7% NCREIF Property, 1.7% NCREIF Property +2%, 0.6% CPI +5%, 5% BBgBarc US High Yield +2%, 14% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. All data is preliminary.

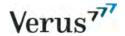


	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Real Estate	211,297,255	9.9	0.3	3.5	0.3
DJ US Select RESI			0.6	2.4	0.6
Prime Property Fund	19,075,735	0.9	0.0	3.9	0.0
NCREIF-ODCE			0.0	4.3	0.0
American Strategic Value Realty	41,123,661	1.9	0.0	5.5	0.0
NCREIF Property Index			0.0	3.5	0.0
BlackRock US Real Estate	129,687,232	6.1	0.5	2.4	0.5
DJ US Select RESI TR USD			0.6	2.4	0.6
Greenfield Gap VII	16,205,811	0.8	0.0	7.3	0.0
Greenfield Gap VIII	5,204,817	0.2	0.0		0.0
Direct Lending	94,492,070	4.4	0.0	4.0	0.0
Medley Capital	17,001,104	0.8	0.0	-5.1	0.0
Raven Capital	16,757,253	8.0	0.0	11.3	0.0
Raven Opportunity III	31,238,437	1.5	0.0	6.7	0.0
White Oak Pinnacle	29,495,276	1.4	0.0	4.3	0.0
Risk Parity	281,512,782	13.2	-0.6	-1.4	-0.6
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			1.7	0.9	1.7
AQR Global Risk Premium - EL	142,991,636	6.7	-0.6		-0.6
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			1.7		1.7
PanAgora Risk Parity Multi Asset	138,521,146	6.5	-0.7	-2.2	-0.7
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			1.7	0.9	1.7
Infrastructure	29,357,146	1.4	0.0	3.6	0.0
MS Infrastructure Partners II	29,357,146	1.4	0.0	3.6	0.0
Cash Account					

	Current	%	Policy	%
Domestic Equity	\$564,802,891	26.4%	\$513,466,217	24.0%
International Equity	\$452,674,848	21.2%	\$513,466,217	24.0%
Domestic Fixed Income	\$481,969,741	22.5%	\$470,677,366	22.0%
Real Estate	\$211,297,255	9.9%	\$201,107,602	9.4%
Alternatives	\$405,361,998	18.9%	\$419,330,744	19.6%
Cash and Equivalents	\$23,335,838	1.1%	\$21,394,426	1.0%
Total	\$2,139,442,572	100.0%	\$2,139,442,572	100.0%



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. All data is preliminary.









PERIOD ENDING: JUNE 30, 2018

Investment Performance Review for

Stanislaus County Employees' Retirement Association

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VERUSINVESTMENTS.COM

SEATTLE 206-622-3700 LOS ANGELES 300-297-1777 SAN FRANCISCO 415-362-3484

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VERUSINVESTMENTS.COM

SEATTLE 206-622-3700 LOS ANGELES 310-297-1777 SAN FRANCISCO 415-362-3484

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2nd quarter summary

THE ECONOMIC CLIMATE

- U.S. economic data generally surprised to the upside in Q2, leading to a strong quarterly GDP growth estimate of 3.4%.
 Economic growth in the second and third quarters will likely see the biggest boost from fiscal stimulus. The U.S. is currently outshining other developed economies. p. 7, 18
- The synchronized global growth story of the past year has shifted somewhat as economies have displayed more disparate performance. The change has not been too dramatic – growth continues to be positive, but at a more moderate pace. p. 17

PORTFOLIO IMPACTS

- Emerging market equity and local debt delivered losses of 8.0% and 10.4% in Q2 (MSCI Emerging Markets Index, JPM GBI-EM Global Diversified). Much of the losses were due to currency movement. We believe emerging market assets offer attractive value – recent movements appear to have been driven by a shift in short-term sentiment and currency depreciation. p. 27, 34
- The U.S. implemented a first round of tariffs on Chinese imports on July 6th, which impacted \$34 billion worth of goods. So far, only a small portion of the discussed tariffs have been enacted. p. 8, 9

THE INVESTMENT CLIMATE

- Strong corporate earnings growth is expected again in the second quarter. According to FactSet, the bottom-up analyst forecast for the S&P 500 is 20.0% YoY. p. 31
- Short-term U.S. Treasury yields rose, resulting in a flatter yield curve. The spread between the 10- and 2-year yield was 27 bps, a new cycle low. p. 23
- Fears were raised over Italy's role in the European Union after a coalition of the anti-establishment Five Star Movement and League Party formed a new government. Italian sovereign bond yields spiked severely during the move, but have since moderated somewhat. p. 19

ASSET ALLOCATION ISSUES

- Following the February selloff equity markets have been range bound. As corporate earnings rise further equity valuations have been pushed down to more attractive levels closer to the long-term historical average. p. 31, 37
- While we believe trade negotiations and geopolitical uncertainty are potential causes for concern, the backdrop of positive global growth and strong corporate earnings may allow for healthy risk-asset performance. p. 18, 31

A neutral to mild risk overweight may be warranted in today's environment

What drove the market in Q2?

"Trade tariff worries keep stocks under pressure"

TOTAL PROPOSED GOODS SUBJECT TO U.S. TARIFFS (\$BILLIONS)

Jan	Feb	Mar	Apr	May	Jun
10	10	106	206	481	881

Article Source: Financial Times, June 21st, 2018

"Economic growth in U.S. leaves world behind"

U.S. Q2 GDP CONSENSUS EXPECTATION (%)

Jan	Feb	Mar	Apr	May	Jun
2.6	2.7	3.0	3.1	3.1	3.4

Article Source: WSJ, June 14th, 2018

"Rising dollar sparks tumult in emerging markets"

MSCI EMERGING MARKETS MONTHLY CURRENCY IMPACT

Jan	Feb	Mar	Apr	May	Jun
1.6%	-0.7%	0.0%	-1.6%	-1.3%	-1.7%

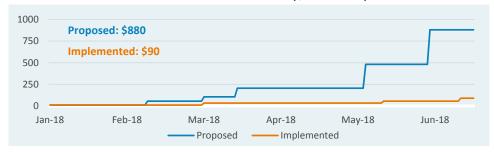
Article Source: WSJ, May 21st, 2018

"Investors are getting worried about an inverted yield curve"

U.S. 10- MINUS 2-YEAR YIELD SPREAD (BPS)

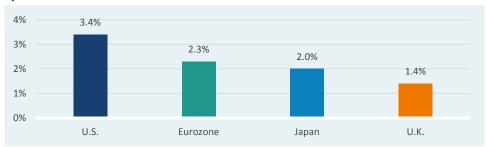
Jan	Feb	Mar	Apr	May	Jun	
56	61	47	46	42	33	
Article Source: Bloomberg, April 18 th , 2018						

PROPOSED VS. IMPLEMENTED U.S. TARIFFS (\$BILLIONS)



Source: Verus, as of 7/6/18

Q2 GDP EXPECTATIONS



Source: Bloomberg, as of 7/11/18

MSCI EMERGING MARKETS USD VS. LOCAL



Source: Bloomberg, as of 6/30/18



Economic environment



U.S. economics summary

- GDP growth was 2.8% year-overyear in the first quarter (2.0% quarterly annualized rate). The slightly slower pace of expansion was influenced by more conservative consumer spending than in previous quarters.
- The rate of inflation picked up moderately throughout the quarter. Core CPI rose 2.3% over the past year, reaching the upper end of its range during the current cycle. The year-over-year rate was impacted by a low base effect – the 3-month annualized core inflation rate was only 1.7%.
- Job gains during the quarter were strong, despite traditional employment measures indicating a tight labor market. Additions to nonfarm payrolls averaged 211,000 per month and the U-3 unemployment rate fell slightly from 4.1% to 4.0%.

- The broadest measure of labor market health, the ratio of employed individuals to the total population, indicates there may still be room for further improvement. More narrow indicators, such as the U-3 unemployment rate, may be overstating labor market tightness.
- The back and forth on trade between the U.S. and much of the rest of the world intensified. The White House has threatened to enact tariffs on up to \$550 billion of Chinese goods over unfair trade practices and intellectual property theft. To this point, tariffs have only been implemented on around \$40 billion of Chinese goods.
- The Fed raised interest rates for a second time this year in June to a target rate of 1.8% to 2.0%. Two more rate hikes are expected by the end of the year based on the Fed dot plot.

Most Recent	12 Months Prior
2.8%	2.0%
3/31/18	3/31/17
2.3%	1.7%
6/30/18	6/30/17
2.2%	1.8%
6/30/18	6/30/17
1.75 – 2.00%	1.00 – 1.25%
6/30/18	6/30/17
2.9% 6/30/18	2.3% 6/30/17
4.0% 6/30/18	4.3% <i>6/30/17</i>
7.8%	8.5%
6/30/18	6/30/17
	2.8% 3/31/18 2.3% 6/30/18 2.2% 6/30/18 1.75 - 2.00% 6/30/18 2.9% 6/30/18 4.0% 6/30/18 7.8%



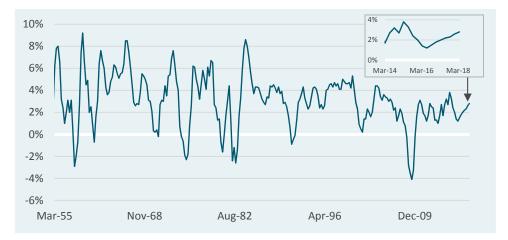
GDP growth

Real GDP growth rose 2.8% from the previous year in the first quarter (2.0% quarterly annualized rate). After a strong fourth quarter, consumers were more conservative with their purchases. Consumer spending contributed only 0.6% to the first quarter growth rate, compared to a 2.8% contribution in the previous quarter. Corporate capital investment was the biggest contributor to growth at 1.2%.

Strong growth is expected throughout the rest of the year as the benefits of fiscal stimulus begin to flow through to the economy. According to the Bloomberg consensus estimate, real GDP growth is expected to be 3.4% in the second quarter. The big question is whether the economic benefits from fiscal stimulus are a one-off or whether they will have a more lasting impact on the economy that will help counter the headwind from monetary tightening.

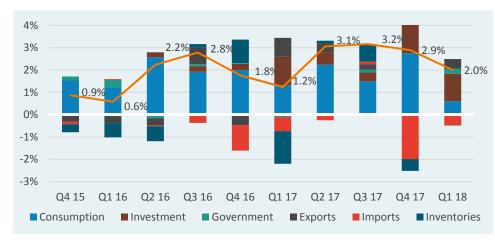
While much of the tax cut windfall has been returned to shareholders via share buybacks there has been a meaningful pick up in corporate fixed investment to more normal levels, which may help sustain growth in the coming quarters.

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 3/31/18

U.S. GDP COMPONENTS



Source: Bloomberg, annualized quarterly rate, as of 3/31/18



Global trade

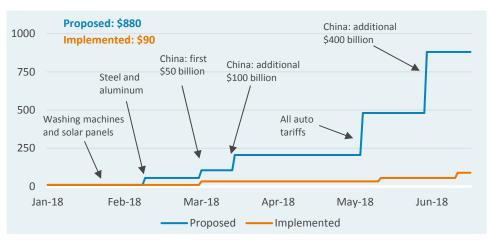
The war of words over trade between the U.S. and much of the rest of the world intensified in recent months, particularly with China. A first round of 10% tariffs on \$34 billion of Chinese goods was implemented on July 6th.

Thus far, there has been a large discrepancy between tariffs that have been proposed and tariffs that have been implemented. The U.S. has only enacted tariffs on \$90 billion of global imports. In comparison, the White House has proposed placing tariffs on a total of \$880 billion of imported goods. It is important to remember that tariffs are an avoidable tax on corporations conducting business in the U.S. Assuming a 10%

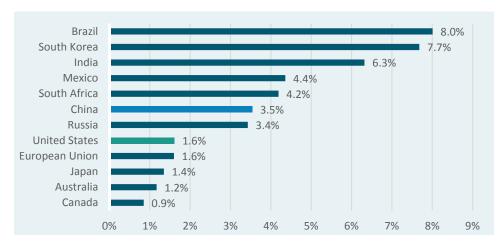
tariff rate on all proposed goods would result in a maximum tax of \$88 billion, a relatively small amount when thinking about the U.S. economy as a whole.

Tariffs in place so far are likely to have a minimal impact on the global economy. We believe that financial markets may be more sensitive to an escalation in the trade conflict than the actual economic impact. Much of the discussion on trade has ignored the fact that the U.S. has upheld less protectionist trade policies than many of its trading partners. While the trade conflict creates potential market downside risks, it also creates potential benefits if the end result is freer trade.

PROPOSED VS. IMPLEMENTED U.S. TARIFFS (\$BILLIONS)



AVERAGE TARIFF RATE

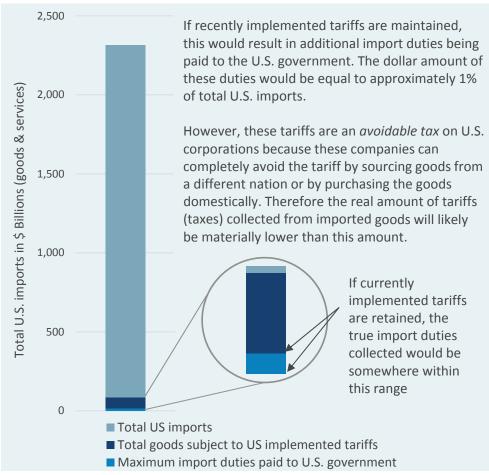


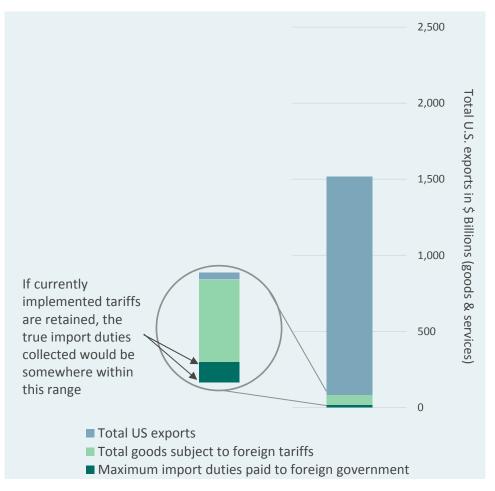
Source: Verus, as of 7/6/18 Source: WTO, 2016



Putting tariffs into perspective

Tariff duties are better thought of as an avoidable tax. The impact of recently enacted tariffs is small, especially once substitution effects are accounted for.





Source: U.S. Census Bureau, Verus

Analysis conservatively assumes a 25% tariff rate for an estimated \$90 billion of tariffs on both imports and exports, both goods and services are included



Inflation

The year-over-year core CPI inflation rate was 2.3% in June, up from 2.1% three months prior. The increase in the yearly rate slightly overstates the size of the move because it was impacted by a low base effect – the annualized 3-month core inflation rate was only 1.7%.

While investors' concerns over inflation have bubbled up occasionally throughout the year, we have yet to see a material increase in price levels. Consumer price inflation

has been held back by a lack of wage growth as well as structural factors such as globalization and automation which have weighed down the prices of goods.

The Fed's response to inflation data is potentially more important to investors than actual changes in inflation, barring an unforeseen shock to the upside. To this point, the central bank appears to be tolerant of inflation slightly higher than the stated 2% target.

Core inflation remained modest

U.S. CPI (YOY)



INFLATION BY PRODUCT TYPE (YOY)



Source: Bloomberg, as of 5/31/18

INFLATION EXPECTATIONS



Source: Bloomberg, as of 6/30/18



Source: FRED, as of 5/31/18

Labor market

Conditions in the U.S. labor market tightened further in Q2 as unemployment moved from 4.1% to 4.0%. The unemployment rate that includes discouraged and part time workers fell from 8.0% to 7.8%. Despite these headline readings, we believe there may be considerable slack in the U.S. labor force which is not captured in traditional unemployment measures. This suggests further labor market gains in the U.S. expansion may be reflected in higher participation rates rather than solely through a decline in the unemployment rate.

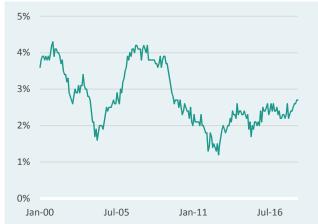
Perhaps the greatest question mark in today's labor market is the degree to which long-term unemployed workers decide to resume their job search. This decision to return to work may be influenced by greater job prospects that come handin-hand with a strong economy, or may be influenced purely by necessity (many Americans are not adequately prepared for retirement). Traditional unemployment metrics may understate labor market slack

Average hourly earnings growth ticked up to 2.7%, continuing a mild positive trend since the bottom of the U.S. recession.

UNEMPLOYMENT RATE

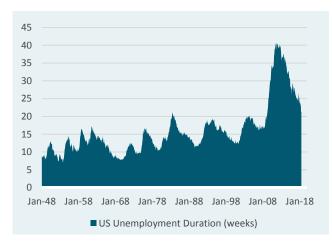


AVERAGE HOURLY EARNINGS (YOY)



Source: Bloomberg, as 5/31/18

UNEMPLOYMENT DURATION

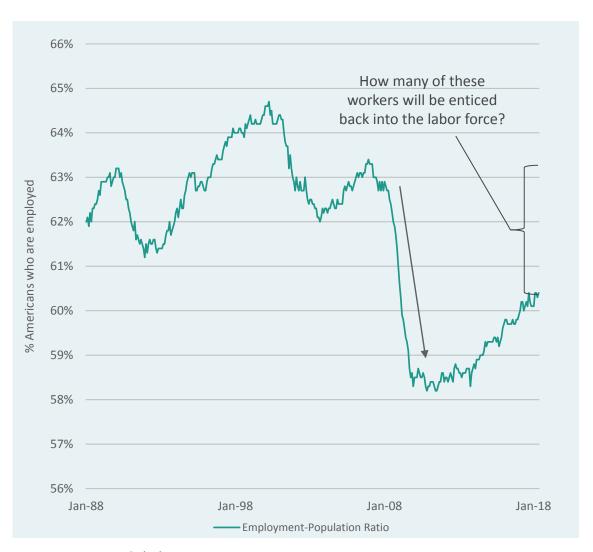


Source: FRED, as of 6/30/18

Source: FRED, as of 6/30/18

How tight is the job market?

- According to the most frequently touted measures of unemployment, the U.S. job market is at the strongest level seen in nearly 50 years. But looking at unemployment through a different lens the number of Americans employed paints a very different picture. A significant portion of America remains unemployed relative to 10 years ago.
- During past U.S. economic downturns, between 2% and 3% of Americans lost their jobs, though most or all of those jobs were recovered throughout the subsequent economic recovery. In comparison, 5% of Americans exited the workforce during the latest recession, and less than half of these lost jobs have been regained.
- Some of this shortfall has been fueled by demographic shifts, and some by workers giving up and permanently leaving the workforce. But the remainder of the shortfall is comprised of very discouraged workers who will eventually seek employment. If it turns out that this third category is large, the current U.S. job market may not be as tight as commonly believed, which implies more potential upside to the U.S. economic expansion.



Source: FRED, Verus, as of 6/30/18



The consumer

Economic conditions such as low unemployment, moderate wage gains, and restrained inflation remain broadly supportive of the U.S. consumer. Personal spending growth was 4.6% year-over-year in May, in line with the conservative spending habits seen throughout this expansion.

Consumers have also been timid with credit use during the current cycle. Households deleveraged following the financial crisis primarily through less mortgage debt, although this trend has flattened out more recently. Despite this

deleveraging, household debt levels are still high relative to history at 91.5% of disposable income.

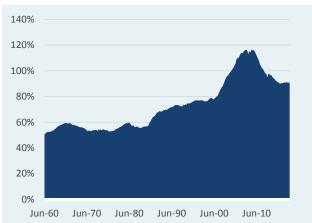
Given the more conservative use of credit, dissaving has been an important driver of consumer spending. The personal savings rate was only 3.2% in May, near historical lows. Low interest rates and high asset prices likely helped push down the savings rate. If these conditions were to moderate, it would lead to a more normal balance between spending and savings.

Economic conditions are still supportive of consumer spending

CONSUMER SPENDING GROWTH (YOY)



HOUSEHOLD DEBT (% OF DISPOSABLE INCOME)



Source: Bloomberg, as of 3/31/18

PERSONAL SAVINGS RATE



Source: FRED, as of 5/31/18

Source: Bloomberg, as of 5/31/18

Sentiment

Consumer and business sentiment readings are impressively high. The Bloomberg U.S. Weekly Consumer Confidence Index is in the 90th percentile, since 1985. The University of Michigan Consumer Sentiment Survey is in the 87th percentile, since 1978. Survey respondents provided favorable views on jobs and wages, and broadly expect modest gains in U.S. employment. Cited concerns included rising inflation, higher energy prices, and the economic risks posed by tariffs.

The NFIB Small Business Optimism Index was 107.2 at the end of the quarter – its 6th highest reading in survey history. NFIB noted that "small business owners continue to report astounding optimism as they celebrate strong sales, the creation of jobs, and more profits." Business owners are concerned about the inability to find qualified employees for open positions, consistent with the historically high number of unfilled job openings reported by the Bureau of Labor Services.

CONSUMER COMFORT INDEX



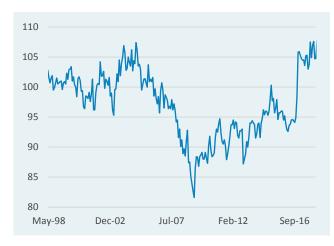
Source: Bloomberg, as of 6/30/18 (see Appendix)

CONSUMER SENTIMENT



Source: University of Michigan, as of 6/30/18 (see Appendix)

NFIB SMALL BUSINESS OPTIMISM INDEX



Source: NFIB, as of 6/30/18 (see Appendix)



Housing

Single-family home prices have risen steadily thus far this year. As of April, the Case-Shiller National Home Price Index was up 6.4% from the previous year, and was 8.8% above the pre-crisis peak. Since the housing market bottomed in February of 2012, home prices have jumped by nearly 50% while personal incomes were up only 24% during the same period. Despite the outsized gain in home prices, demand for single-family housing has been strong, aided by low mortgage interest rates. Rising mortgage rates may make it difficult for many potential home buyers to enter the market at current prices. However, mortgage rates are still low and home affordability is high

relative to history – the median income is over 1.5 times the amount required to qualify for a mortgage on a median priced home.

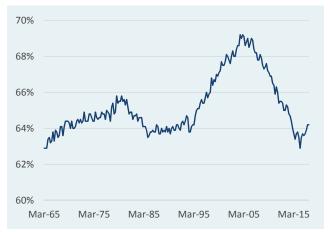
The homeownership rate rose in 2017 for the first time in 13 years. This rate bottomed at 62.9% in the middle of 2016 and sits at 64.2% as of the end of the March. The rise in homeownership has been driven by younger, first time owners (i.e. Millennials). Mortgage lending standards have moderated after years of very tight standards following the financial crisis, which has helped younger buyers enter the market.

Home ownership rose for the first time in 13 years

HOUSING AFFORDABILITY INDEX

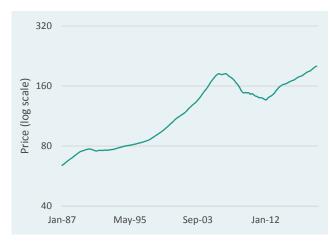


HOME OWNERSHIP RATE



Source: FRED, as of 3/31/18

U.S. HOME PRICE INDEX



Source: Case-Shiller National Home Price Index, as of 4/30/18



Source: Bloomberg, as of 3/31/18

International economics summary

- The synchronized global growth story of the past year has shifted somewhat as greater performance disparity is visible across global economies. Growth continues to be positive but is more moderate in places.
- Developed market economies are expected to grow less quickly in the coming years while emerging economy growth rates are expected to rise.
- The U.S. implemented a first round of tariffs on Chinese imports on July 6th, which impacted \$34 billion of goods. So far, only a small portion of the discussed tariffs have been enacted.
- In June, Mario Draghi officially announced the end of Europe's bond buying program. Asset purchases are scheduled to end in December, and it was promised that interest rates will remain unchanged through the summer of

- 2019. This message was seen by markets as more dovish than expected.
- Fears were raised over Italy's uncertain role in the EU, following a new coalition of the antiestablishment Five Star Movement and League Party taking over the government. Italian bond yields spiked severely during the move, but have since moderated.
- The Eurozone Composite PMI rose for the first time in five months to 54.8 in June. PMIs in most developed and emerging markets remain above 50, indicating expansion.
- The U.S. dollar appreciated 5% during the quarter. Certain emerging market currencies have devalued sharply, such as the Argentine peso, which is down more than 35% against the USD on the year.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.8% 3/31/18	2.8% 5/31/18	4.0% 6/30/18
Eurozone	2.5% 3/31/18	2.0% 6/30/18	8.6% 3/31/18
Japan	1.1% 3/31/18	0.7% 5/31/18	2.2% 5/31/18
BRICS Nations	5.8% 3/31/18	2.5% 6/30/18	5.6% 3/31/18
Brazil	1.2% 3/31/18	4.4% 6/30/18	12.8% 6/30/18
Russia	1.3% 3/31/18	2.3% 6/30/18	4.7% 5/31/18
India	7.7% 3/31/18	5.0% 6/30/18	8.8% 12/31/17
China	6.8% 3/31/18	1.9% 6/30/18	3.9% 3/31/18



International economics

The synchronized global growth story of the past year has shifted as economies display more disparate economic performance. The change has not been too dramatic - growth continues to be positive but more moderate in places. Since 2016 we have been discussing political and economic risks which exist in Europe. These fears were confirmed in recent quarters as Eurozone economies missed expectations in a variety of areas including GDP growth, retail sales, and industrial production – casting some doubt over the European recovery story.

The Eurozone and Japan exhibited inflation well below central bank targets in the second quarter, while the U.S. delivered a moderate rise. Overall, inflation conditions remain benign which has allowed (or necessitated) easier central bank policy.

Synchronized global growth has moderated

Labor markets tightened broadly, in line with an environment of positive economic expansion. However, joblessness remains stubbornly high in some Eurozone countries such as Italy, Spain, and Greece.

REAL GDP GROWTH (YOY)

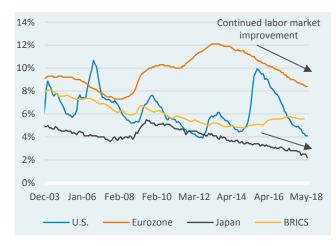


INFLATION (CPI YOY)



Source: Bloomberg, as of 5/31/18

UNEMPLOYMENT RATE



Source: Bloomberg, as of 5/31/18 or most recent release



Source: Bloomberg, as of 3/31/18

GDP growth expectations

Economic growth expectations for the rest of 2018 and 2019 have begun to show widening differentials between the U.S. and the rest of the developed world. GDP expectations for the U.S. have been revised upward over the past six months partly due to an expected boost from fiscal stimulus, while growth expectations for other developed countries have been revised slightly lower. This disparity has led to skepticism regarding the story of accelerating synchronized global growth which economies experienced towards the second half of 2017.

In 2019, growth is expected to moderate in every major developed country as risks develop further, such as tighter monetary conditions. Achieving the right balance of monetary tightening at this stage of the economic cycle becomes increasingly difficult, and the risk of a policy mistake is greater. However, cyclical conditions in most economies (i.e. moderate inflation, wage gains) may allow central banks to be patient, extending the cycle even further. Emerging market economy growth premiums are expected to increase – these markets are earlier in their economic and monetary policy cycles than developed markets.

GDP GROWTH EXPECTATIONS (%)



YTD NET CHANGES IN GDP EXPECTATIONS



Source: Bloomberg, as of 7/5/18

Source: Bloomberg, as of 7/5/18



Political shakeup in Italy

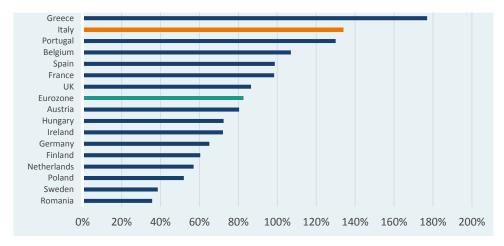
Fears were raised over Italy's possible exit from the Eurozone following a coalition of the anti-establishment Five Star Movement and League Party. Italian bond yields spiked severely during the move, but have since moderated.

The greatest immediate risk seems to be coalition talks of significant spending increases. Per the Maastricht Treaty – the founding document of the European Union (EU) – member nation fiscal budgets are limited to a debt-to-GDP level of 60% and a budget deficit of 3% of GDP. Italy's debt-to-GDP is over 130%, while for now the country is running a more reasonable budget deficit of 1.6%. If Italy forges ahead

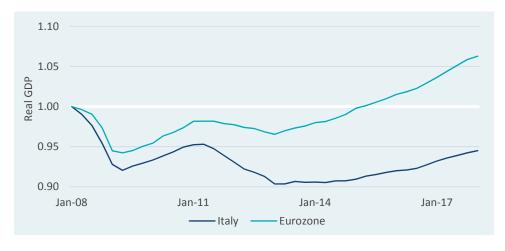
with fiscal stimulus, this may result in further conflict with Maastricht Treaty guidelines and may place the new emboldened leaders head-to-head with the EU.

The political events in Italy tie into a broader European trend – the growing power and influence of populism. Populist movements have been fueled by severe economic disparity between some Eurozone economies as well as controversial EU policies relating open borders and immigration. This populist trend will likely pose an ongoing threat to the stability of European economies and the EU as a whole.

DEBT-TO-GDP



EUROZONE VS. ITALY REAL GDP



Source: ec.europa.eu, as of 2017 Q3

Source: Bloomberg, as of 3/31/18



Fixed income rates & credit



Interest rate environment

- The Fed raised interest rates in June for the second time this year to a target range of 1.8-2.0%. The balance sheet unwind continued as planned with approximately \$18 billion in Treasuries and \$12 billion in MBS coming off each month during the quarter.
- According to the Fed dot plot, officials are expecting two additional rate hikes this year, while market pricing suggests only one more hike. Quicker than expected Fed tightening would represent a key risk to the economy and asset prices.
- The 10-year U.S. Treasury yield ticked up modestly during the quarter to 2.9% while the short-end of the curve rose further. The spread between the 2- and 10-year yields fell to a cycle low of 33 bps at quarter end. By another measure of curve shape, the 10-year yield minus 3-month yield, the curve remains at a level of steepness closer to the longer-term average (92 bps vs. 184 bps average).
- Historically, an inverted yield curve has preceded recessions, but the timing between inversion and recession has

- been anywhere from one to three years.
- In June, Mario Draghi officially announced the end of the Eurozone's bond buying program. The ECB stated that purchases will end in December, and interest rates will remain unchanged through summer of 2019. The markets interpreted this as dovish and yields fell on the news.
- Italian sovereign yields spiked after it appeared the country was headed for new elections later in the year. The 2year yield jumped 186 bps in one day to 2.8% as risk premiums rose. In the end, a coalition government was formed between the Five Star and League parties and the country avoided going back to the polls.
- Emerging market local and hard yields moved higher, influenced by a general risk-off sentiment towards EM as well as idiosyncratic risks in several vulnerable countries, such as Turkey and Argentina.

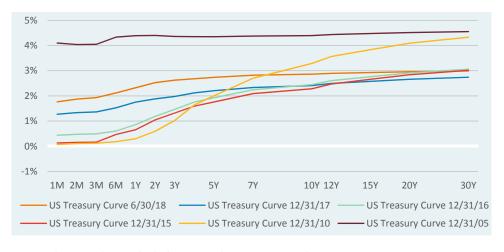
Area	Short Term (3M)	10 Year
United States	1.91%	2.86%
Germany	(0.59%)	0.30%
France	(0.63%)	0.67%
Spain	(0.42%)	1.32%
Italy	(0.12%)	2.68%
Greece	1.04%	3.96%
U.K.	0.61%	1.28%
Japan	(0.14%)	0.04%
Australia	1.92%	2.63%
China	3.01%	3.48%
Brazil	6.45%	11.68%
Russia	6.62%	7.81%

Source: Bloomberg, as of 6/30/18

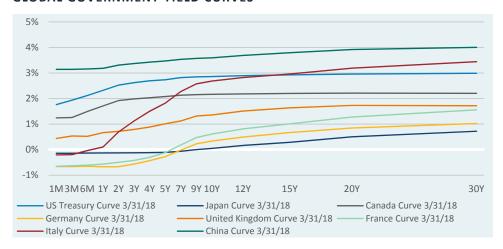


Yield environment

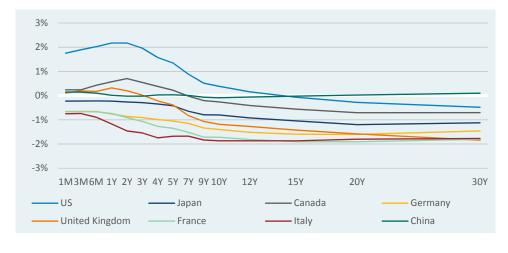
U.S. YIELD CURVE



GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



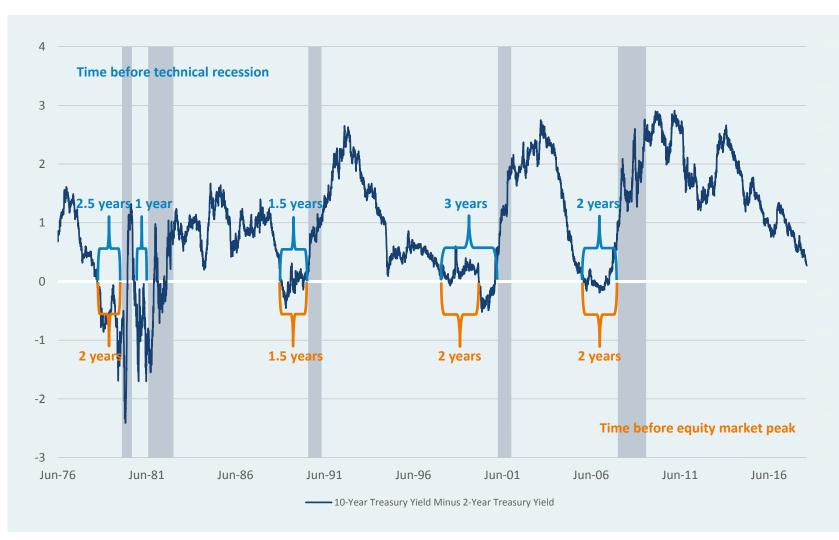
IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/18



What does an inverted curve indicate?



Yield curve inversions often occur during the late-cycle

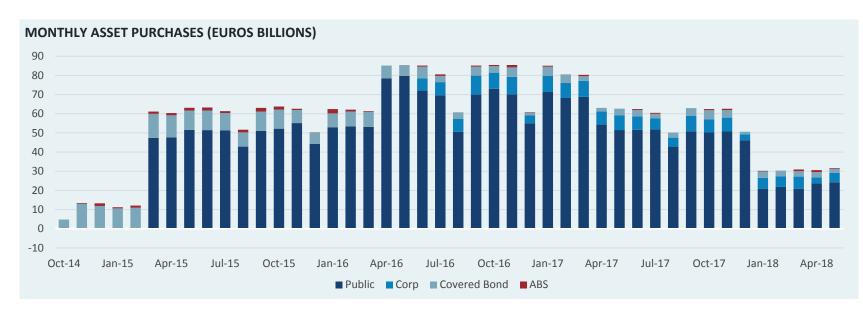
Recession and equity market peaks typically do not occur immediately after an inversion

Source: FRED, Verus — time that passed between initial yield curve inversion and the next technical recession, and time that passed between initial yield curve inversion and next equity market peak

Note: There was not a clear equity market peak during the early 1980's expansion. A "time before equity market peak" was therefore not calculated.



ECB bond buying program



European
Central Bank
bond
purchases are
expected to
end in
December

These
purchases
have acted as
a major
support to
bond prices in
recent years

Country	Debt Purchased by ECB	% of Total Sovereign Purchases	% of Total Country Debt
Germany	€ 485.6	26.6%	23.2%
France	€ 396.7	21.8%	17.9%
Italy	€ 344.8	18.9%	15.0%
Spain	€ 244.4	13.4%	21.4%
Netherlands	€ 108.5	5.9%	26.1%
Belgium	€ 69.2	3.8%	15.3%
Austria	€ 54.9	3.0%	18.9%
Portugal	€ 33.7	1.8%	13.9%



Credit environment

Credit spreads in both leveraged loans and high yield have widened slightly since the beginning of the year, but are still sitting well below their historical averages. Loans outperformed high yield bonds during eight of the past nine months. LIBOR has steadily risen since 2016, surpassing the LIBOR floors which exist in senior loans, causing them to be fully floating-rate instruments.

U.S. high yield option-adjusted spreads widened slightly in the second quarter to 3.6% – the asset class generated a

1.0% total return. Tight credit spreads in both high yield bonds and loans have been driven by strong corporate fundamentals, manageable debt maturities and general macroeconomic improvement. Credit spreads have historically been a good indicator of future performance relative to Treasuries.

Based on low interest rates and tight spreads, we recommend an underweight to U.S. investment and high yield credit.

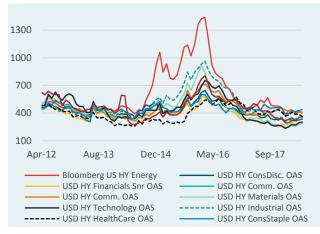
Credit spreads are tight across the capital structure

Credit Spread

SPREADS



HIGH YIELD SECTOR SPREADS (BPS)



Market	(6/30/18)	(1 Year Ago)
Long US Corporate	1.8%	1.6%
US Aggregate	1.2%	1.0%
US High Yield	3.6%	3.6%
US Bank Loans	3.5%	3.7%

Credit Spread

Source: Bloomberg, as of 6/30/18

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/18



Source: Barclays, Bloomberg, as of 6/30/18

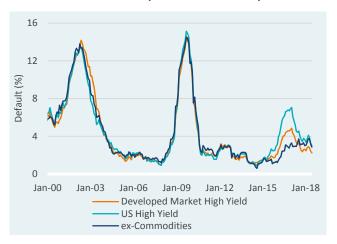
Issuance and default

Default activity has been low and stable in the U.S. and international credit markets. The par-weighted U.S. default rate remains below its long-term average of 3.0-3.5% and is currently at 2.0%. In the second quarter, \$1.5 billion of defaults occurred - the lowest quarterly total since Q4 2013.

Senior loan and high yield markets are recovering from a wave of defaults seen in 2015-2016, generated from energy and metals/mining sectors. Recovery rates for high yield bonds have vastly improved since that time.

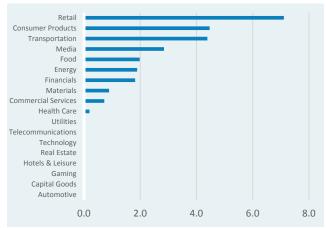
Issuance in high yield bonds totaled \$126 billion compared with \$176 billion across the first half of 2017. Similarly, issuance in leveraged loans totaled \$501 billion, compared with over \$577 billion in the first half of 2017. New issue spreads continue to compress with strong demand supported by significant retail and institutional inflows into both high yield and senior loan asset classes, as well as CLO formation.

HY DEFAULT TRENDS (ROLLING 1 YEAR)



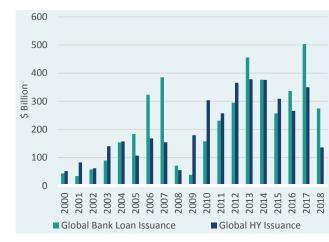
Source: BofA Merrill Lynch, as of 6/30/18

HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 6/30/18 - par weighted

GLOBAL ISSUANCE (BILLIONS)



Source: Bloomberg, BofA Merrill Lynch, as of 6/30/18



Emerging market debt

Emerging market debt experienced a difficult quarter, particularly in local currency bonds. The JPM EMBI Index (hard) and JPM GBI-EM Index (local) returned -3.5% and -10.4%, respectively. Much of the negative performance in local debt was driven by currency depreciation and rising risk premiums in several vulnerable countries. Excluding Venezuela, there has not yet been any defaults, delayed payments or credit downgrades in this space – Argentina narrowly avoided defaulting after securing a \$50 billion bailout from the IMF.

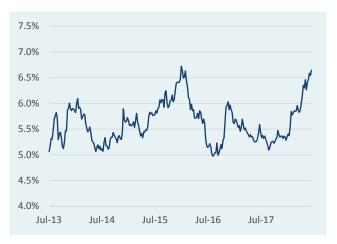
Currency movement in local debt accounted for approximately 80% of the losses in the second quarter. While many currencies

moved due to broad strengthening of the U.S. dollar, several countries with high external debt loads and current account deficits, including Brazil, Argentina, and Turkey, saw their currencies depreciate sharply.

Outside of a few countries, we believe the economic backdrop remains positive for emerging market debt. Most markets have come a considerable way in trimming external debt over the past few years which has made them less reliant on dollar funding. The recent sell-off has created value opportunities that might be taken advantage of – active management is preferred in this asset class.

We maintain a positive outlook on emerging market debt

EMD HARD YIELDS



EMD LOCAL YIELDS



Source: Bloomberg, as of 6/30/18

YTD CURRENCY LOSSES VS USD



Source: Bloomberg, as of 6/30/18



Source: Bloomberg, as of 6/30/18

Equity



Equity environment

- We maintain an overweight position to equities through a positive tilt to emerging markets.
 We do not believe recent price swings reflect any major fundamental change to the trajectory of emerging markets.
 Equity bull runs in these markets have typically incurred a 10% or larger drawdown sometime during the rally.
- Outside of emerging markets, equities have remained fairly range bound following the February selloff. As corporate earnings rise and prices stay flat, equity valuations have been pushed down to more attractive levels closer in line with the historical average.
- Concerns over global trade contributed to a choppy month for equities, although no major breakthroughs or setbacks occurred. Global equities were up +2.9% on a hedged basis but currency depreciation acted as a drag (+0.5% unhedged).

- The value premium has delivered anomalously poor performance the worst 10-year return on record (since 1926). However, because performance differences were due to earnings growth disparity rather than moves in valuation, the price difference between value and growth stocks has remained fairly normal. A tactical opportunity to overweight value is not yet apparent we believe investors should stay the course.
- Equity volatility moved to belowaverage levels once again, following February's spike. The VIX averaged 15.3 during Q2.
- Currency volatility has frequently been greater than equity market volatility in recent years, causing return disparity for investors with unhedged international assets. A hedging program could allow investors to significantly reduce or eliminate this uncompensated risk.

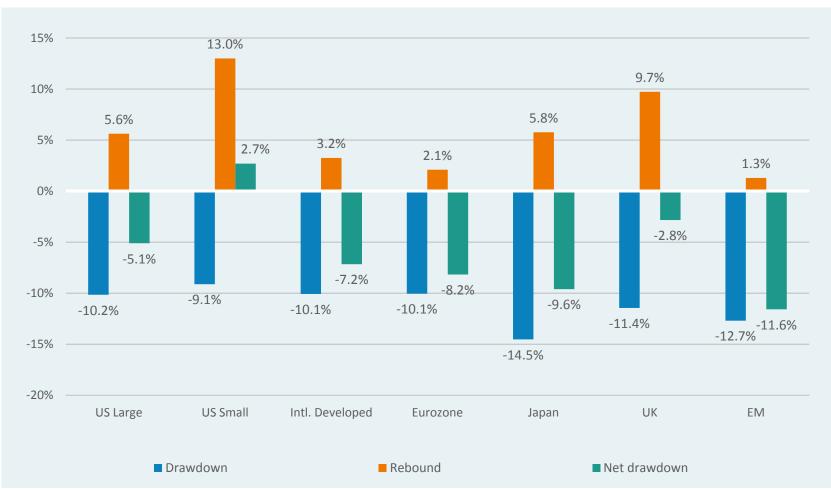
	QTD TOTAL	L RETURN	YTD TOTAL	. RETURN	1 YEAR		
	(unhedged)	(hedged)	(unhedged)	(hedged)	(unhedged)	(hedged)	
US Large Cap (Russell 1000)	3.6	%	2.9	%	14.5	5%	
US Small Cap (Russell 2000)	7.8	%	7.7	%	17.6	5%	
US Large Value (Russell 1000 Value)	1.0	%	-2.0)%	6.0%		
US Large Growth (Russell 1000 Growth)	5.8	%	7.3	%	22.5	5%	
International Large (MSCI EAFE)	(1.2%)	3.9%	(2.7%)	0.0%	6.8%	7.9%	
Eurozone (Euro Stoxx 50)	(2.3%)	3.6%	(3.7%)	0.5%	3.7%	3.7%	
U.K. (FTSE 100)	(3.1%)	9.8%	(0.9%)	2.2%	10.2%	9.9%	
Japan (NIKKEI 225)	0.2%	4.4%	0.5%	(1.1%)	15.1%	13.2%	
Emerging Markets (MSCI Emerging Markets)	(8.0%)	(3.6%)	(6.7%)	(3.0%)	8.2%	9.5%	

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 6/30/18



2018 peak to trough

PEAK TO TROUGH



Most equity markets remain range bound since the February selloff

U.S. small caps have fully recovered while E.M. has stayed depressed

2018 peak to trough, local returns, as of 7/2/18 - the trough (market bottom) date for each market is as follows: US Large (2/8), US Small (2/8), Intl. Dev. (3/26), Eurozone (3/23), Japan (3/23), UK (3/26), EM (6/28)



Domestic equity

U.S. equities were range bound over the quarter – the S&P 500 Index posted a positive return of 3.4% and traded within a tight range between 2600 and 2800. The ups and downs of trade negotiations, particularly those between the U.S. and China, impacted equity markets during the quarter. However, considerable uncertainty surrounding the outcome of these negotiations likely helped keep equities from breaking out of their range in either direction.

Strong year-over-year earnings growth is expected to continue for the second quarter. According to FactSet, the bottom-up analyst earnings growth forecast for the S&P 500 is 19.9%. Forward 12-month earnings growth expectations were revised higher throughout the quarter while equity prices leveled out. Given that prices tend to following earnings, there may be potential upside to prices if the expected high growth is realized. Alternatively, higher discount rates from Fed tightening may offset the impact of strong earnings growth.

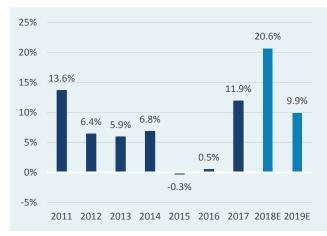
Fundamentals appear unchanged despite falling prices

U.S. EQUITIES



Source: Russell Investments, as of 6/30/18

CALENDAR YEAR EARNINGS GROWTH



Source: FactSet, as of 7/6/18

S&P 500 PRICE & EARNINGS



Source: Bloomberg, as of 6/30/18



Domestic equity size & style

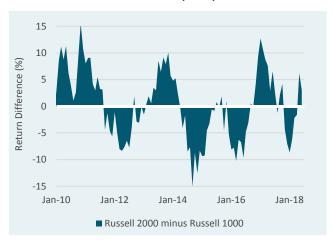
Large cap equities (Russell 1000 3.6%) underperformed small cap (Russell 2000 7.8%) during the quarter. Value stocks continued to lag growth (Russell 1000 Value 1.2% vs. Russell 1000 Growth 5.8%).

Value has delivered anomalously negative returns – the worst 10-year run on record (since 1926). Because performance differences were due to earnings growth disparity rather than moves in valuation, the price difference between value and growth stocks has remained normal. Earnings trends can be somewhat attributed to the global financial crisis where financials lagged considerably, followed by a bull market for

technology stocks (value is concentrated in financials while growth is concentrated in tech). In other words, much of value's underperformance was macroeconomic in nature.

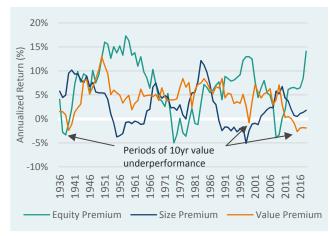
We do not yet see a catalyst for a value comeback, and it is possible that when value bounces back there will not be obvious signals beforehand. Poor recent performance is not always a solid standalone indicator of future reversal. Relative valuations are fairly in line with history, and the economic environment is positive (growth often performs well during later stages of economic cycles). We recommend that value investors stay the course.

SMALL CAP VS LARGE CAP (YOY)



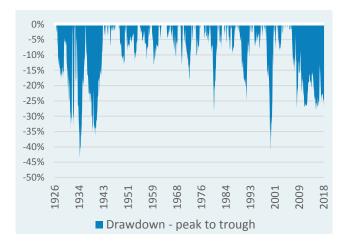
Source: FTSE, as of 6/30/18

FACTOR PERFORMANCE (10YR ROLLING)



Source: Kenneth French Library, as of 5/30/18

VALUE - PEAK TO TROUGH



Source: Kenneth French Library, as of 5/30/18



International developed equity

Unhedged international equities underperformed U.S. equities during Q1 (MSCI EAFE -1.2% vs. S&P 500 +3.4%). On a hedged basis, international equities delivered returns of 3.9%, outpacing the U.S. market. Currency volatility has frequently been greater than equity market volatility in recent years, causing considerable return disparity for investors with unhedged investments in international assets. Equity returns in most markets have been positive year-to-date on an ex-currency basis.

Earnings growth remains strong and will likely be supportive of equity prices going forward. The U.S. has taken back the lead in year-over-year earnings growth, alongside a large boost from U.S. tax reform and a relatively strong economy.

P/E multiples have moved lower as equity prices remain range bound and earnings grow at a brisk pace. Equity valuations are now closer to the longer-term average – a notable change from recent years.

EFFECT OF CURRENCY (1-YEAR ROLLING)



EARNINGS GROWTH (YOY)



Source: MSCI, as of 6/30/18 – YoY growth in forward earnings

FORWARD P/E



Source: MSCI, as of 6/30/18



Source: MSCI, as of 6/30/18

Emerging market equity

Emerging market equities delivered losses of -8.0% in Q2, but remain up +8.2% on a year-over-year basis. Currency movement caused -4.4% of losses during the quarter.

We maintain an overweight position to equities through a positive tilt to emerging markets. Equity bull runs in these markets through history typically incur at least a 10% drawdown sometime during the rally (see next page). Recent price swings were driven by valuation changes rather than by a fundamental change in earnings.

Developed markets are expected to grow less quickly in the coming years while emerging economic growth is expected to rise. A positive growth premium of emerging economies relative to developed economies has historically acted as a tailwind for EM outperformance.

remain positive for EM equity

Conditions

We believe positive emerging economy growth trends, attractive valuations, a strong earnings environment, and depressed currencies should provide an environment of strong equity performance across these markets.

EQUITY PERFORMANCE (3YR ROLLING)



Source: Standard & Poor's, MSCI, as of 6/30/18 Sou

EM GROWTH PREMIUM



Source: IMF

EARNINGS GROWTH (YOY)

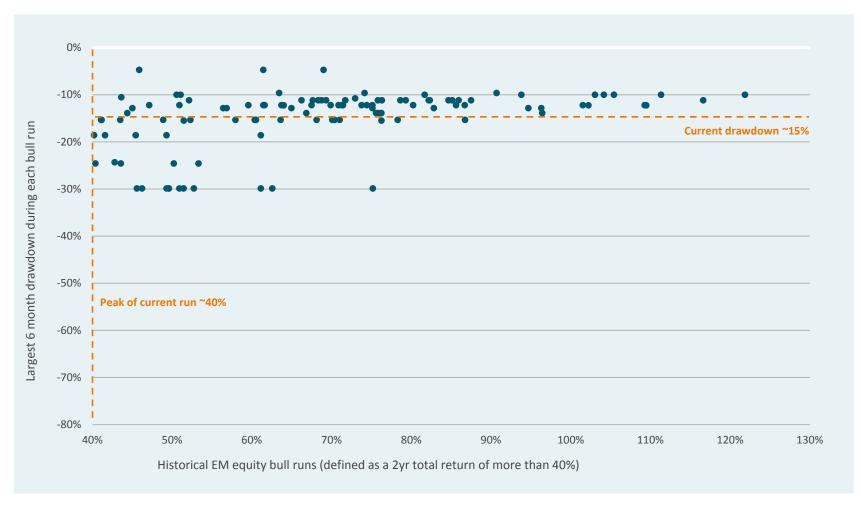


Source: MSCI, as of 6/30/18



Emerging market volatility

Drawdowns of 10% or more are typical during EM bull runs

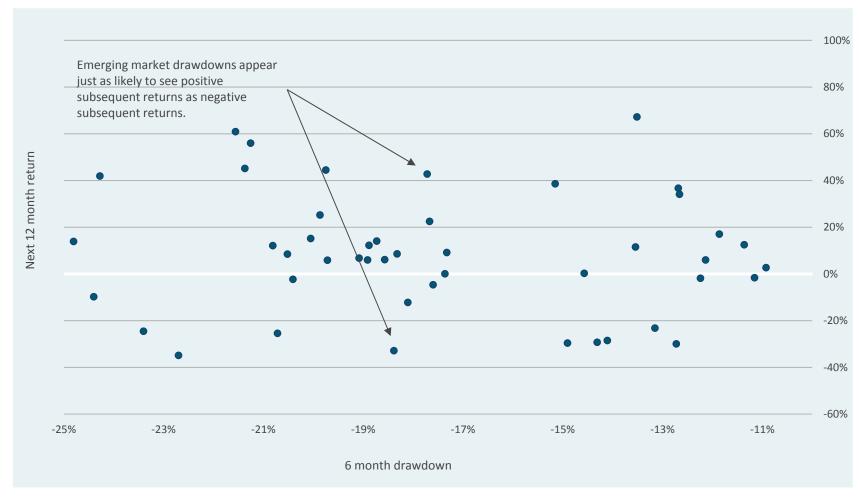


The average drawdown experienced during all 2 year periods of 40%+ returns was -14.8%



Emerging market volatility

The recent drawdown does not imply heightened risk of further losses



Source: MSCI, Verus



Equity valuations

Equity valuations have moved lower year-to-date as prices fell and earnings increased at a strong pace. U.S. equity valuations have fallen the most as domestic earnings growth recently took the lead year-over-year against other markets.

The trailing P/E ratio of the S&P 500 is notably high, but as we have seen throughout the expansion more expensive markets may deliver consistent outperformance if fundamentally driven by robust earnings. On a forward P/E basis, the U.S. is now only slightly rich relative to valuations of the past 15 years (16.5 today vs. an average of 15.1). Price is an important component of equity investing, but higher prices may be indicative of

greater future earnings, which suggests investors cannot rely on price alone when forming expectations.

When examining equity markets through our carry, value, trend, and macro lens, carry has improved through lower prices (higher dividend and earnings yields), value has improved through lower equity multiples (range bound prices with rising earnings has pushed multiples downward), trend has flattened on a short-term basis but remains positive on a 12-month basis, and the macro environment has moderated a bit (notable weakness in Europe but strength in the U.S.)

FORWARD P/E RATIOS



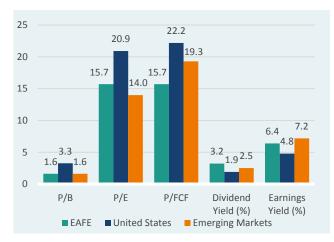
Source: MSCI, as of 6/30/18 Source

MOMENTUM (1YR)



Source: Standard & Poor's, MSCI, as of 6/30/18

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, as of 6/30/18 - trailing P/E



Equity volatility

U.S. equity volatility retreated in the second quarter after a period of elevated risk following the February volatility spike. The VIX Index of implied volatility declined steadily throughout the quarter and averaged 15.3, compared to an average of 17.4 in the first quarter.

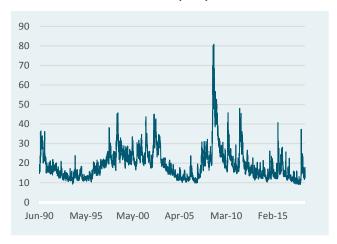
Realized volatility was below average in domestic and international equity markets in the second quarter, despite the concerns over a global trade war. Emerging markets experienced the greatest volatility, although the annualized standard deviation of daily returns in Q2 were

only 13.4% (MSCI Emerging Markets). International developed markets (MSCI EAFE) had a standard deviation of only 9.0%.

The implied volatility curve (i.e. skew), which looks at the differences in implied volatility at various option strike prices, has recently steepened. A steeper volatility curve means that investors are paying a higher premium for equity downside protection.

Equity volatility subsided back to below average levels

U.S. IMPLIED VOLATILITY (VIX)

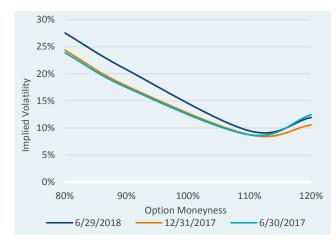


REALIZED 1-YEAR ROLLING VOLATILITY



Source: Bloomberg, as of 6/30/18

U.S. IMPLIED VOLATILITY CURVE



Source: Bloomberg, as of 6/30/18



Source: CBOE, as of 6/30/18

Long-term equity performance





Other assets



Currency

The U.S. dollar appreciated 5% during the guarter, which erased the positive equity returns of many international markets. Relative strength of the U.S. economy, paired with Federal Reserve tightening, likely helped lead the U.S. dollar higher.

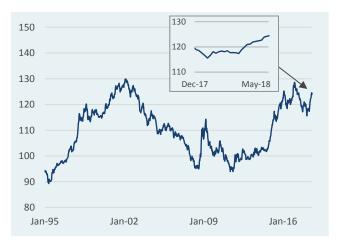
Interest rate differentials between the U.S. and the rest of the developed world have been steadily widening over the past 10 months. The spread between the U.S. 10-year Treasury yield and the yield on a basket of developed sovereign debt rose approximately 80 bps to 2.3% during this

time. Higher relative interest rates has historically been a shortterm driver of currencies.

Emerging market currencies fell 9.1% in Q2, based on the JPM EM Currency Index. The performance of most currencies were in line with expectations based on U.S. dollar appreciation against developed market currencies. Several countries with large current account deficits that are heavily reliant on dollar funding, such as Argentina and Turkey, saw their currencies fall sharply. As a whole, emerging market currencies are significantly undervalued based on purchasing power parity.

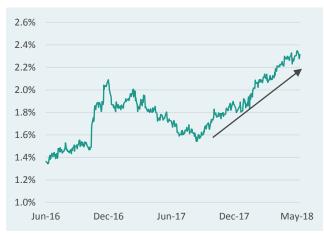
The U.S. dollar materially appreciated, reversing a multi-year downtrend

U.S. DOLLAR TRADE WEIGHTED INDEX



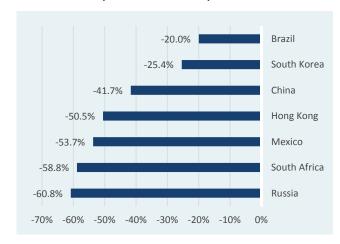
Source: Verus, Bloomberg, as of 6/30/18

U.S. VS. DEVELOPED INTEREST RATE SPREAD



Source: Bloomberg, as of 6/30/18

PURCHASING POWER PARITY VALUATIONS VS. U.S. DOLLAR (BIG MAC INDEX)



Source: Federal Reserve, as of 6/30/18

Alternative beta

Alternative beta strategies have posted losses in Q2 and year-to-date. Equity value exposures accounted for the largest component of strategy losses in Q2 and year-to-date. Short volatility, a strong performing strategy over the past 10 years, also suffered a severe drawdown in Q1 and affected returns.

Correlation characteristics often benefit strategies with diversified factor exposure (some factors provide losses while others provide gains), but several factors including momentum and carry have not counterbalanced losses in value as they have often done historically.

We do not believe that alternative beta strategies are "broken" per se, but instead have reflected coinciding factor drawdowns as well as muted equity market returns more broadly.

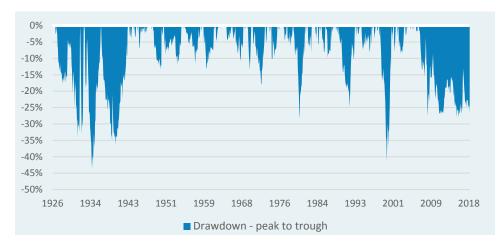
Attribution analyses on the Alt Beta strategies we follow confirm that recent performance is in line with 8-12% target volatility levels of each strategy. We are closely monitoring these funds through an environment of heightened volatility and are continuing discussions with managers. These losses are significant but are within the range we would expect, given the underlying factor exposure.

SHORT VOLATILITY PERFORMANCE



Source: CBOE, HFRI, as of 6/30/18

VALUE - PEAK TO TROUGH



Source: Kenneth French Library, Verus, as of May 2018 – shows value factor peak to trough drawdowns through time



Appendix

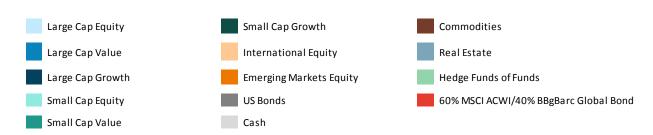


Periodic table of returns

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	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD	5-Year	10-Year
Small Cap Growth	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	37.3	9.7	16.4	11.8
Small Cap Equity	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	30.2	7.7	13.6	11.2
Large Cap Growth	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	25.0	7.3	13.4	10.6
Small Cap Value	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	22.2	5.4	12.5	10.2
Large Cap Equity	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	21.7	2.9	11.2	9.9
Real Estate	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	17.1	1.7	10.3	8.5
Hedge Funds of Funds	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	14.6	1.2	10.0	6.1
Cash	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	13.7	0.8	6.4	4.8
Commodities	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	7.8	0.0	6.3	3.7
60/40 Global Portfolio	-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	7.7	-0.8	5.0	2.8
US Bonds	-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	5.1	-1.6	3.6	2.3
Large Cap Value	-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	3.5	-1.7	2.3	1.5
International Equity	-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	1.7	-2.7	0.4	0.4
Emerging Markets Equity	-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	0.9	-6.7	-6.4	-9.0



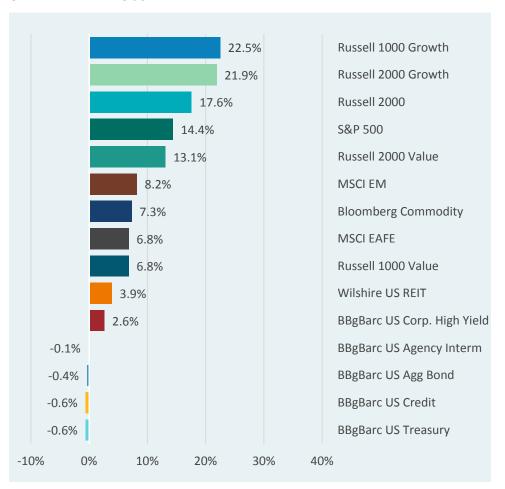


Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 3/31/18.

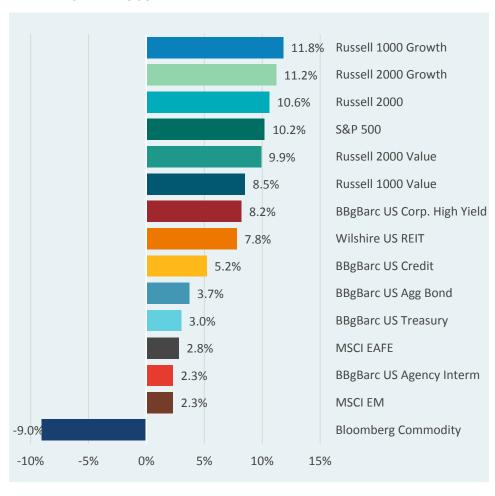


Major asset class returns

ONE YEAR ENDING JUNE



TEN YEARS ENDING JUNE

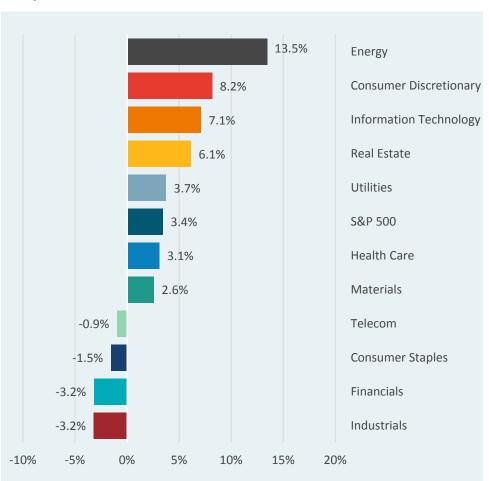


Source: Morningstar, as of 6/30/18

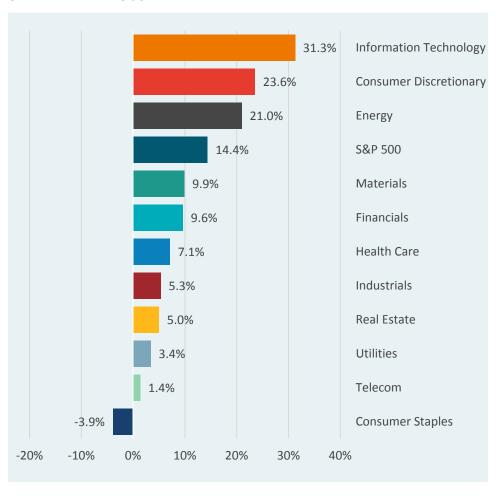


S&P 500 sector returns

2ND QUARTER



ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/18



Detailed index returns

DOMEST	IC EQ	UITY
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June Q2 YTD 1 Year 3 Year 5 Year 10 Year Core Index S&P 500 10.2 0.6 3.4 2.6 14.4 11.9 13.4 S&P 500 Equal Weighted 2.8 11.6 0.9 1.8 12.0 10.5 12.8 DJ Industrial Average (0.5)1.3 (0.7)16.3 14.1 13.0 10.8 Russell Top 200 0.6 3.9 3.1 15.4 12.5 13.8 10.2 Russell 1000 0.6 13.4 10.2 3.6 2.9 14.5 11.6 Russell 2000 0.7 7.8 7.7 17.6 11.0 12.5 10.6 Russell 3000 0.7 3.9 10.2 3.2 14.8 11.6 13.3 Russell Mid Cap 0.7 2.8 2.3 9.6 12.3 12.2 10.2 Style Index Russell 1000 Growth 1.0 5.8 7.3 22.5 15.0 16.4 11.8 Russell 1000 Value 0.2 1.2 (1.7)6.8 8.3 10.3 8.5

9.7

5.4

21.9

13.1

10.6

11.2

13.6

11.2

0.8

0.6

7.2

8.3

FIXED INCOME

	June	Q2	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	0.4	0.8	(0.0)	2.1	1.9	1.7	3.0
BBgBarc US Treasury Bills	0.2	0.5	0.8	1.3	0.7	0.4	0.4
BBgBarc US Agg Bond	(0.1)	(0.2)	(1.6)	(0.4)	1.7	2.3	3.7
Duration							
BBgBarc US Treasury 1-3 Yr	0.0	0.2	0.1	0.0	0.4	0.6	1.3
BBgBarc US Treasury Long	0.2	0.3	(3.0)	(0.1)	3.4	4.5	6.1
BBgBarc US Treasury	0.0	0.1	(1.1)	(0.6)	1.0	1.5	3.0
Issuer							
BBgBarc US MBS	0.0	0.2	(1.0)	0.1	1.5	2.3	3.5
BBgBarc US Corp. High Yield	0.4	1.0	0.2	2.6	5.5	5.5	8.2
BBgBarc US Agency Interm	0.0	0.2	(0.2)	(0.1)	0.8	1.1	2.3
BBgBarc US Credit	(0.5)	(0.9)	(3.0)	(0.6)	2.9	3.4	5.2

INTERNATIONAL EQUITY

Russell 2000 Growth

Russell 2000 Value

Broad Index							
MSCI ACWI	(0.5)	0.5	(0.4)	10.7	8.2	9.4	5.8
MSCI ACWI ex US	(1.9)	(2.6)	(3.8)	7.3	5.1	6.0	2.5
MSCI EAFE	(1.2)	(1.2)	(2.7)	6.8	4.9	6.4	2.8
MSCI EM	(4.2)	(8.0)	(6.7)	8.2	5.6	5.0	2.3
MSCI EAFE Small Cap	(1.9)	(1.6)	(1.3)	12.4	10.1	11.3	6.8
Style Index							
MSCI EAFE Growth	(1.2)	0.1	(0.9)	9.4	6.4	7.4	3.5
MSCI EAFE Value	(1.3)	(2.6)	(4.6)	4.3	3.3	5.4	2.2
Regional Index							
MSCI UK	(1.0)	2.9	(1.0)	10.0	3.1	4.9	2.7
MSCI Japan	(2.5)	(2.8)	(2.0)	10.5	6.2	7.4	3.5
MSCI Euro	(0.7)	(2.8)	(3.2)	5.0	5.3	7.1	1.1
MSCI EM Asia	(4.7)	(5.8)	(5.1)	10.1	7.3	8.3	5.6
MSCI EM Latin American	(3.1)	(17.8)	(11.2)	(0.2)	2.0	(2.4)	(3.7)

OTHER

11.2

9.9

OTHER							
Index							
Bloomberg Commodity	(3.5)	0.4	(0.0)	7.3	(4.5)	(6.4)	(9.0)
Wilshire US REIT	4.5	9.7	1.5	3.9	7.8	8.4	7.8
CS Leveraged Loans	0.2	1.0	2.3	4.5	4.2	4.1	5.0
Alerian MLP	(1.5)	11.8	(0.6)	(4.6)	(5.9)	(4.1)	6.5
Regional Index							
JPM EMBI Global Div	(1.2)	(3.5)	(5.2)	(1.6)	4.6	5.1	6.7
JPM GBI-EM Global Div	(2.9)	(10.4)	(6.4)	(2.3)	2.0	(1.4)	2.6
Hedge Funds							
HFRI Composite	(0.1)	0.8	1.2	5.2	2.6	4.2	3.5
HFRI FOF Composite	(0.2)	0.9	1.2	5.6	2.1	3.6	1.5
Currency (Spot)							
Euro	0.0	(5.1)	(2.8)	2.4	1.6	(2.1)	(3.0)
Pound	(0.8)	(5.9)	(2.4)	1.6	(5.7)	(2.7)	(4.0)
Yen	(1.9)	(4.0)	1.7	1.4	(3.4)	(2.2)	(0.3)



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)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic 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)

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 Federal 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, 2018

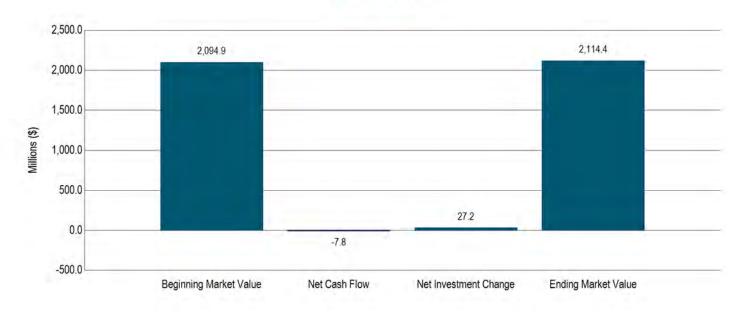


SEATTLE 206-622-3700 LOS ANGELES 310-297-1777 SAN FRANCISCO 415-362-3484

Portfolio Reconciliation

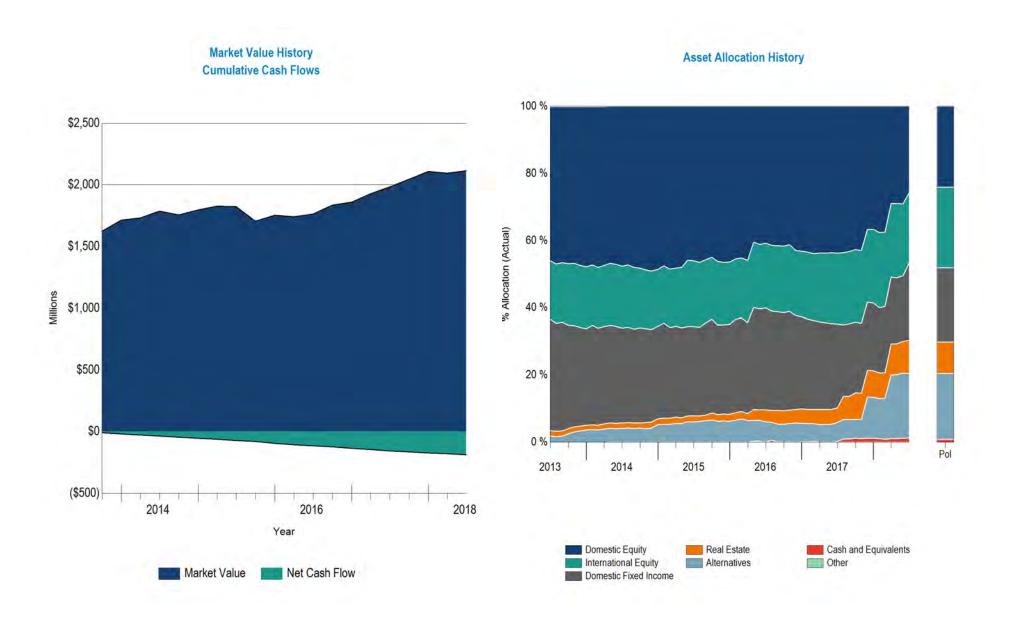
	Last Three Months	Fiscal Year-To-Date	Year-To-Date
Beginning Market Value	\$2,094,945,402	\$1,983,082,534	\$2,108,788,448
Net Cash Flow	-\$7,785,228	-\$27,402,585	-\$12,521,313
Net Investment Change	\$27,237,758	\$158,717,982	\$18,130,796
Ending Market Value	\$2,114,397,932	\$2,114,397,932	\$2,114,397,932

Change in Market Value Last Three Months



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







Difference

\$45,017,600

-\$5,970,165

-\$64,180,019

\$18,577,990

\$6,655,875

-\$11,066,513

\$16,670,758

\$1,482,896

-\$12,773,268

\$5,584,846

\$0

Policy Range

14.0% - 23.0%

1.0% - 10.0%

15.0% - 33.0%

15.0% - 29.0%

5.0% - 11.0%

0.0% - 10.0%

0.0% - 10.0%

0.0% - 3.0%

0.0% - 5.0%

9.0% - 19.0%

0.0% - 1.5%

Policy

18.5%

5.5%

24.0%

22.0%

7.7%

0.0%

5.0%

0.6%

1.7%

14.0%

1.0%

100.0%

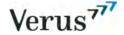
Within IPS

Range?

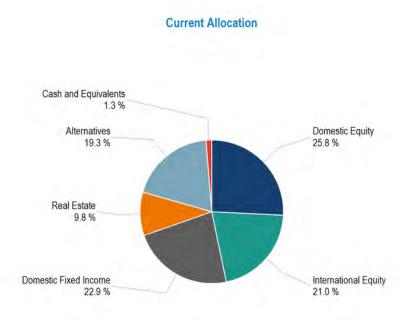
Yes

Current	Policy	Current Balance	Current Allocation
1		U.S. Equity Large Cap \$436,181,217	20.6%
		U.S. Equity Small Cap \$110,321,721	5.2%
Contract of	18.5%	International Equity \$443,275,485	21.0%
20.6%	18.5%	U.S. Fixed Income \$483,745,535	22.9%
		Real Estate \$169,464,516	8.0%
		Private Equity	
A STATE OF THE PARTY OF THE PAR	5.5%	Direct Lending \$94,653,384	4.5%
5.2%		Infrastructure \$29,357,146	1.4%
		Value Added \$37,427,661	1.8%
		Risk Parity \$283,242,442	13.4%
24.207	24.0%	Cash and Equivalents \$26,728,826	1.3%
21.0%	24.0%	Total \$2,114,397,932	100.0%
22.9%	22.0%		
8.0% 4.5% 1.4%	7.7% 0.0% 5.0% 0.6%		
13.4%	14.0%		

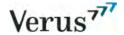
Cash Account includes cash held at Northern Trust for all closed end funds.



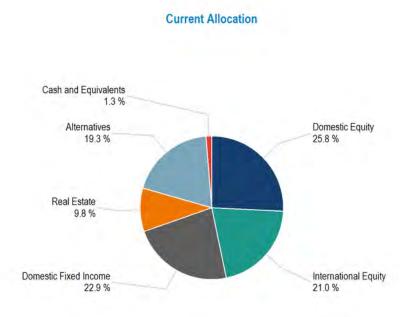
	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	1.3	0.9	8.3	8.3	7.1	8.6	7.6
Policy Index	0.7	0.5	7.5	7.5	7.0	8.0	7.0
InvestorForce Public DB Gross Rank	27	42	42	42	40	20	9
US Equity	3.9	3.9	14.3	14.3	10.7	13.1	10.3
US Equity Blended	4.4	3.8	15.2	15.2	11.6	13.3	10.4
Russell 3000	3.9	3.2	14.8	14.8	11.6	13.3	10.2
InvestorForce All DB US Eq Gross Rank	50	33	66	66	71	53	40
International Equity	-3.3	-4.0	6.7	6.7	6.0	7.1	3.8
MSCI ACWI ex USA Gross	-2.4	-3.4	7.8	7.8	5.6	6.5	3.0
InvestorForce All DB ex-US Eq Gross Rank	62	69	66	66	45	45	39
US Fixed Income	0.3	-0.6	0.3	0.3	2.8	3.3	5.3
BBgBarc US Aggregate TR	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7
InvestorForce All DB US Fix Inc Gross Rank	13	27	44	44	44	43	36
Real Estate	7.1	3.2	6.8	6.8	8.8	10.5	5.4
DJ US Select RESI	10.0	1.8	4.2	4.2	7.7	8.3	6.3
Direct Lending	1.4	4.0	4.4	4.4	3.6	6.2	
9% Annual	2.2	4.4	9.0	9.0	9.0	9.0	
Risk Parity	1.1	-0.8				-	
60% MSCI ACWI Net/40% BBgBarc Global Aggregate	-0.8	-0.8					
Infrastructure	1.4	3.6	26.6	26.6	14.6	-	
CPI + 5%	2.2	4.7	8.0	8.0	6.9		



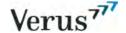
Policy Index (7/1/2017): 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 7.7% NCREIF Property, 1.7% NCREIF Property +2%, 0.6% CPI +5%, 5% BBgBarc US High Yield +2%, 14% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. US Equity Blended: 80% Russell 1000, 20% Russell 2000.



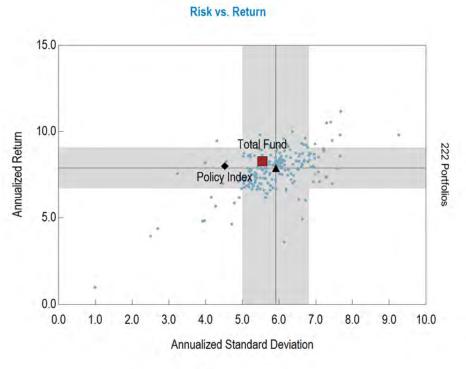
	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	1.3	0.8	8.1	8.1	6.7	8.3	7.2
Policy Index	0.7	0.5	7.5	7.5	7.0	8.0	7.0
US Equity	3.8	3.8	14.1	14.1	10.4	12.8	10.0
US Equity Blended	4.4	3.8	15.2	15.2	11.6	13.3	10.4
Russell 3000	3.9	3.2	14.8	14.8	11.6	13.3	10.2
International Equity	-3.4	-4.2	6.2	6.2	5.5	6.6	3.4
MSCI ACWI ex USA Gross	-2.4	-3.4	7.8	7.8	5.6	6.5	3.0
US Fixed Income	0.2	-0.6	0.2	0.2	2.7	3.2	5.1
BBgBarc US Aggregate TR	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7
Real Estate	7.1	3.1	6.8	6.8	8.1	9.8	4.5
DJ US Select RESI	10.0	1.8	4.2	4.2	7.7	8.3	6.3
Direct Lending	1.4	4.0	4.4	4.4	2.7	4.1	
9% Annual	2.2	4.4	9.0	9.0	9.0	9.0	
Risk Parity	1.1	-0.8				-	
60% MSCI ACWI Net/40% BBgBarc Global Aggregate	-0.8	-0.8					
Infrastructure	1.4	3.6	26.6	26.6	10.2	-	
CPI + 5%	2.2	4.7	8.0	8.0	6.9		



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



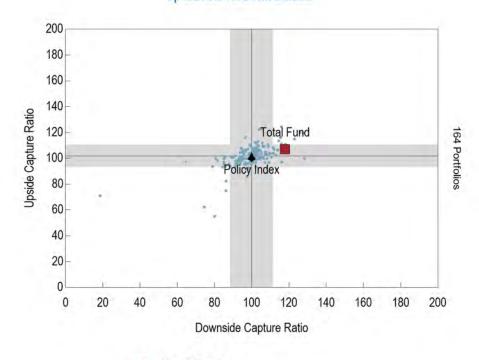
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	8.28%	0.28%	5.54%	-1.18%	1.18	1.67%	0.93	1.42	0.17	107.05%	117.83%





- Policy Index
- Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

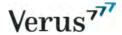
Up Markets vs. Down Markets



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

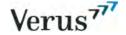
	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013	Inception I	Inception Date
Total Fund	2,114,397,932	100.0	1.3	0.9	8.3	8.3	7.1	8.6	7.6	15.6	8.3	-0.2	6.9	19.8	9.4	Dec-94
Policy Index			0.7	0.5	7.5	7.5	7.0	8.0	7.0	14.3	8.5	0.2	7.5	15.4	8.1	Dec-94
InvestorForce Public DB Gross Rank			27	42	42	42	40	20	9	45	29	60	23	12		
US Equity	546,502,938	25.8	3.9	3.9	14.3	14.3	10.7	13.1	10.3	19.7	12.4	-0.2	10.9	36.9	7.6	Jun-01
US Equity Blended			4.4	3.8	15.2	15.2	11.6	13.3	10.4	20.3	13.9	-0.1	11.6	34.3	7.5	Jun-01
Russell 3000			3.9	3.2	14.8	14.8	11.6	13.3	10.2	21.1	12.7	0.5	12.6	33.6	7.3	Jun-01
InvestorForce All DB US Eq Gross Rank			50	33	66	66	71	53	40	72	58	63	54	13		
Northern Trust Russell 1000	154,923,982	7.3	3.6	2.8											11.9	Aug-17
Russell 1000			3.6	2.9											12.0	Aug-17
eV US Large Cap Equity Gross Rank			36	39												
BlackRock Russell 1000 Growth	125,738,010	5.9	5.8	7.2	22.5	22.5	15.0	16.4		30.2	7.2	5.7	13.1	33.5	17.3	Jun-10
Russell 1000 Growth			5.8	7.3	22.5	22.5	15.0	16.4		30.2	7.1	5.7	13.0	33.5	17.2	Jun-10
eV US Large Cap Growth Equity Gross Rank			43	55	46	46	29	43		42	26	42	37	56		
BlackRock Russell 1000 Value	74,727,887	3.5	1.2	-1.6	6.9	6.9	8.3	10.4		13.8	17.3	-3.6	13.5	32.6	13.0	Jul-09
Russell 1000 Value			1.2	-1.7	6.8	6.8	8.3	10.3		13.7	17.3	-3.8	13.5	32.5	12.9	Jul-09
eV US Large Cap Value Equity Gross Rank			65	71	85	85	71	71		86	26	62	31	59		
Dodge & Cox-Equity	80,791,310	3.8	2.9	1.3	11.2	11.2	10.9	12.8	10.1	17.1	21.4	-3.9	10.9	39.1	12.4	Dec-94
Russell 1000 Value			1.2	-1.7	6.8	6.8	8.3	10.3	8.5	13.7	17.3	-3.8	13.5	32.5	10.0	Dec-94
eV US Large Cap Value Equity Gross Rank			19	18	37	37	17	14	34	52	6	64	72	15		
Capital Prospects	110,321,721	5.2	5.7	3.9	15.5	15.5	11.8	12.8		15.5	28.1	-7.0	5.8	37.9	16.1	Dec-08
Russell 2000 Value			8.3	5.4	13.1	13.1	11.2	11.2		7.8	31.7	-7.5	4.2	34.5	13.2	Dec-08
eV US Small Cap Value Equity Gross Rank			50	49	30	30	35	30		18	40	72	51	53		
International Equity	443,275,485	21.0	-3.3	-4.0	6.7	6.7	6.0	7.1	3.8	27.9	6.0	-3.5	-4.2	20.0	6.2	Jun-01
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8	6.4	Jun-01
InvestorForce All DB ex-US Eq Gross Rank			62	69	66	66	45	45	39	61	21	50	70	35		
LSV Asset Mgt	221,820,511	10.5	-5.2	-5.2	5.8	5.8	5.9	7.3	4.1	28.2	8.8	-5.1	-4.0	20.4	7.3	Aug-04
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8	6.9	Aug-04
eV ACWI ex-US Equity Unhedged Gross Rank			95	88	80	80	63	66	67	67	10	86	65	46		· ·
Fidelity	221,454,975	10.5	-1.3	-2.6	7.5	7.5	5.6	6.6	3.5	27.3	2.4	-2.0	-4.5	19.6	4.3	Apr-06
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8	3.8	Apr-06
eV ACWI ex-US Equity Unhedged Gross Rank			33	50	67	67	68	77	79	74	46	66	70	55		•

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



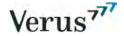
	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013	Inception I	nception Date
US Fixed Income	483,745,535	22.9	0.3	-0.6	0.3	0.3	2.8	3.3	5.3	3.9	5.4	0.3	6.2	0.3	5.5	Jun-01
BBgBarc US Aggregate TR InvestorForce All DB US Fix Inc Gross Rank			-0.2 13	-1.6 27	-0.4 44	-0.4 44	1.7 44	2.3 43	3.7 36	3.5 68	2.6 47	0.6 42	6.0 42	-2.0 21	4.4	Jun-01
Insight	219,045,755	10.4	0.2	-0.7	0.0	0.0									0.0	Jun-17
BBgBarc US Govt/Credit 1-5 Yr. TR eV US Short Duration Fixed Inc Gross Rank			0.2 95	-0.3 99	-0.2 98	-0.2 98				 				 	-0.2	Jun-17
DFA	206,680,953	9.8	0.3	-0.4											-0.5	Jul-17
ICE BofAML 1-5 Yrs US Corp & Govt TR eV US Short Duration Fixed Inc Gross Rank			0.2 68	-0.3 99											-0.5	Jul-17
Northern Trust Intermediate Gov't Bond	43,294,431	2.0	0.1	-0.6						_				_	-1.0	Jul-17
BBgBarc US Govt Int TR			0.1	-0.7											-1.0	Jul-17
eV US Government Fixed Inc Gross Rank			87	48												
Northern Trust Long Term Gov't Bond	14,724,396	0.7	0.3	-2.9											0.6	Jul-17
BBgBarc US Govt Long TR			0.3	-3.0											0.5	Jul-17
eV US Government Fixed Inc Gross Rank	_		12	99											_	
Real Estate	206,892,176	9.8	7.1	3.2	6.8	6.8	8.8	10.5	5.4	7.5	7.5	12.1	28.3	1.4	4.3	Feb-08
DJ US Select RESI			10.0	1.8	4.2	4.2	7.7	8.3	6.3	3.8	6.6	4.5	31.9	1.3	5.3	Feb-08
Prime Property Fund	19,075,735	0.9	1.8	3.9	8.4	8.4				8.8	10.4				9.7	Sep-15
NCREIF-ODCE			2.1	4.3	8.4	8.4				7.6	8.8				8.8	Sep-15
American Strategic Value Realty	37,427,661	1.8	2.9	5.5	10.2	10.2	13.2			10.1	13.1	21.4			14.2	Dec-14
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3			7.0	8.0	13.3			9.1	Dec-14
BlackRock US Real Estate	128,978,153	6.1	10.0	1.9	4.3	4.3	7.7	8.3		3.8	6.6	4.4	31.9	1.4	8.6	Sep-12
DJ US Select RESI TR USD			10.0	1.8	4.2	4.2	7.7	8.3		3.8	6.6	4.5	31.9	1.3	8.6	Sep-12
eV US REIT Gross Rank			15	23	61	61	75	81		90	68	58	39	91		
Risk Parity	283,242,442	13.4	1.1	-0.8											0.3	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.8	-0.8											0.3	Nov-17
AQR Global Risk Premium - EL	143,809,104	6.8	2.2							-				-	2.7	Mar-18
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.8												-1.1	Mar-18
PanAgora Risk Parity Multi Asset	139,433,338	6.6	0.0	-1.6											-0.4	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.8	-0.8											0.3	Nov-17

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

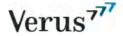


	Market Value F	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013	Inception I	nception Date
Total Fund	2,114,397,932	100.0	1.3	0.8	8.1	8.1	6.7	8.3	7.2	15.3	7.8	-0.6	6.5	19.2	9.1	Dec-94
Policy Index			0.7	0.5	7.5	7.5	7.0	8.0	7.0	14.3	8.5	0.2	7.5	15.4	8.1	Dec-94
US Equity	546,502,938	25.8	3.8	3.8	14.1	14.1	10.4	12.8	10.0	19.4	12.1	-0.4	10.7	36.5	7.2	Jun-01
US Equity Blended			4.4	3.8	15.2	15.2	11.6	13.3	10.4	20.3	13.9	-0.1	11.6	34.3	7.5	Jun-01
Russell 3000			3.9	3.2	14.8	14.8	11.6	13.3	10.2	21.1	12.7	0.5	12.6	33.6	7.3	Jun-01
Northern Trust Russell 1000	154,923,982	7.3	3.6	2.8											11.9	Aug-17
Russell 1000			3.6	2.9											12.0	Aug-17
BlackRock Russell 1000 Growth	125,738,010	5.9	5.8	7.2	22.5	22.5	15.0	16.4		30.2	7.2	5.7	13.1	33.5	17.3	Jun-10
Russell 1000 Growth			5.8	7.3	22.5	22.5	15.0	16.4		30.2	7.1	5.7	13.0	33.5	17.2	Jun-10
BlackRock Russell 1000 Value	74,727,887	3.5	1.2	-1.7	6.9	6.9	8.3	10.4		13.8	17.3	-3.6	13.5	32.6	13.0	Jul-09
Russell 1000 Value			1.2	-1.7	6.8	6.8	8.3	10.3		13.7	17.3	-3.8	13.5	32.5	12.9	Jul-09
Dodge & Cox-Equity	80,791,310	3.8	2.8	1.2	11.0	11.0	10.7	12.6	9.9	16.9	21.2	-4.0	10.7	38.8	12.2	Dec-94
Russell 1000 Value			1.2	-1.7	6.8	6.8	8.3	10.3	8.5	13.7	17.3	-3.8	13.5	32.5	10.0	Dec-94
Capital Prospects	110,321,721	5.2	5.5	3.5	14.6	14.6	10.9	12.0		14.7	27.1	-7.5	5.2	36.8	15.3	Dec-08
Russell 2000 Value			8.3	5.4	13.1	13.1	11.2	11.2		7.8	31.7	-7.5	4.2	34.5	13.2	Dec-08
International Equity	443,275,485	21.0	-3.4	-4.2	6.2	6.2	5.5	6.6	3.4	27.4	5.3	-3.8	-4.5	19.4	5.7	Jun-01
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8	6.4	Jun-01
LSV Asset Mgt	221,820,511	10.5	-5.3	-5.5	5.3	5.3	5.4	6.9	3.6	27.5	8.2	-5.4	-4.2	19.8	6.7	Aug-04
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8	6.9	Aug-04
Fidelity	221,454,975	10.5	-1.3	-2.8	7.2	7.2	5.2	6.2	3.0	27.0	1.8	-2.3	-4.9	19.1	3.9	Apr-06
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8	3.8	Apr-06
US Fixed Income	483,745,535	22.9	0.2	-0.6	0.2	0.2	2.7	3.2	5.1	3.8	5.2	0.2	6.1	0.1	5.4	Jun-01
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0	4.4	Jun-01
Insight	219,045,755	10.4	0.2	-0.8	-0.1	-0.1				-			-		-0.1	Jun-17
BBgBarc US Govt/Credit 1-5 Yr. TR			0.2	-0.3	-0.2	-0.2									-0.2	Jun-17
DFA	206,680,953	9.8	0.3	-0.5						-			-		-0.6	Jul-17
ICE BofAML 1-5 Yrs US Corp & Govt TR			0.2	-0.3											-0.5	Jul-17
Northern Trust Intermediate Gov't Bond	43,294,431	2.0	0.1	-0.7						-			-		-1.1	Jul-17
BBgBarc US Govt Int TR			0.1	-0.7											-1.0	Jul-17
Northern Trust Long Term Gov't Bond	14,724,396	0.7	0.3	-2.9											0.5	Jul-17
BBgBarc US Govt Long TR			0.3	-3.0											0.5	Jul-17

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

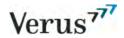


	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013	Inception I	Inception Date
Real Estate	206,892,176	9.8	7.1	3.1	6.8	6.8	8.1	9.8	4.5	7.5	6.6	10.5	27.4	1.3	3.4	Feb-08
DJ US Select RESI			10.0	1.8	4.2	4.2	7.7	8.3	6.3	3.8	6.6	4.5	31.9	1.3	5.3	Feb-08
Prime Property Fund	19,075,735	0.9	1.8	3.9	8.4	8.4				8.8	9.2				9.1	Sep-15
NCREIF-ODCE			2.1	4.3	8.4	8.4				7.6	8.8				8.8	Sep-15
American Strategic Value Realty	37,427,661	1.8	2.9	5.5	10.2	10.2	12.1			10.1	11.7	18.3			13.0	Dec-14
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3			7.0	8.0	13.3			9.1	Dec-14
BlackRock US Real Estate	128,978,153	6.1	10.0	1.8	4.2	4.2	7.6	8.2		3.7	6.6	4.4	31.9	1.3	8.6	Sep-12
DJ US Select RESI TR USD			10.0	1.8	4.2	4.2	7.7	8.3		3.8	6.6	4.5	31.9	1.3	8.6	Sep-12
Risk Parity	283,242,442	13.4	1.1	-0.8											0.3	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.8	-0.8											0.3	Nov-17
AQR Global Risk Premium - EL	143,809,104	6.8	2.2												2.7	Mar-18
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.8	-											-1.1	Mar-18
PanAgora Risk Parity Multi Asset	139,433,338	6.6	0.0	-1.6											-0.4	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.8	-0.8											0.3	Nov-17



Date Na Real Estate 7/31/2014 Gre 6/30/2018 Gre			\		Ve	erus Internal Ana	llysis			
W. S.	Manager Name/Fund Name	Estimated Market Value as of 6/30/2018 ³	Total Commitment	Capital Called	% Called	Remaining Commitment	Total Distributions	Distrib./ Paid-In (DPI) ¹	Tot. Value/ Paid-In (TVPI) ²	Latest Valuation
Real Estate		100.00	and the same				Calcabia.			A
7/31/2014	Greenfield Gap VII	\$16,205,811	\$15,000,000	\$14,335,328	96%	\$664,672	\$3,098,470	21.6%	134.7%	3/31/2018
6/30/2018	Greenfield Gap VIII	\$5,204,817	\$40,000,000	\$5,204,817	13%	\$34,795,183	\$0	N/A	N/A	N/A
	Total Real Estate	\$21,410,628	\$55,000,000	\$19,540,145	36%	\$35,459,855	\$3,098,470	15.9%	125.4%	
	% of Portfolio (Market Value)	1.0%								
Direct Lend	ling	and the second							0.36	Y
5/31/2013	Medley Capital	\$18,033,766	\$30,000,000	\$29,000,453	97%	\$999,547	\$20,362,240	70.2%	132.4%	3/31/2018
5/31/2013	Raven Capital	\$16,757,253	\$40,000,000	\$34,505,763	86%	\$5,494,237	\$20,937,722	60.7%	109.2%	3/31/2018
7/31/2015	Raven Opportunity III	\$29,782,392	\$50,000,000	\$26,477,341	53%	\$23,522,659	\$772,223	2.9%	115.4%	3/31/2018
8/31/2013	White Oak Pinnacle	\$30,079,973	\$40,000,000	\$40,000,000 4	100%	\$5,153,060	\$36,819,659	92.0%	167.2%	3/31/2018
	Total Direct Lending	\$94,653,384	\$160,000,000	\$129,983,557	81%	\$35,169,503	\$78,891,844	60.7%	133.5%	
	% of Portfolio (Market Value)	4.5%								
nfrastructu	ıre									
5/31/2015	MS Infrastructure Partners II	\$29,357,146	\$50,000,000	\$32,376,553	65%	\$17,623,447	\$7,186,060	22.2%	112.9%	3/31/2018
	Total Infrastructure	\$29,357,146	\$50,000,000	\$32,376,553	65%	\$17,623,447	\$7,186,060	22.2%	112.9%	
	% of Portfolio (Market Value)	1.4%								

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



^{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

Real Estate	Inception	Fund Level (G)	StanCERA (G)	Fund Level (N)	StanCERA (N)	IRR Date
		A CONTRACTOR OF THE PARTY OF TH		TO THE OWNER OF THE OWNER	The state of the s	- Vind Diddle
Greenfield Gap	7/31/2014	17.9%	19.1%	14.4%	14.1%	3/31/2018
Direct Lending	and the same		4500	27.		
Medley Capital	5/31/2013	7.0%	5.8%	5.2%	3.6%	3/31/2018
Raven Capital	5/31/2013	6.1%	6.1%	3.1%	3.1%	3/31/2018
Raven Opportunity III	7/31/2015	9.7%	9.7%	1.6%	1.6%	3/31/2018
White Oak Pinnacle	8/31/2013	11.7%	11.9%	7.6%	7.6%	3/31/2018
Infrastructure						1
MS Infrastructure Partners II	5/31/2015	25.3%	25.3%	13.6%	11.1%	3/31/2018

7.60%

-0.07%

9.41%

99.47%

100.29%

-1.73

0.73

					3 Years						
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Growth	14.99%	0.02%	8.08%	0.03%	1.00	0.04%	1.00	1.77	0.46	100.13%	100.07%
BlackRock Russell 1000 Value	8.33%	0.07%	8.29%	0.10%	1.00	0.07%	1.00	0.92	1.00	100.35%	99.36%
Dodge & Cox-Equity	10.73%	2.48%	10.30%	1.62%	1.10	4.75%	0.79	0.97	0.52	123.19%	99.28%
Capital Prospects	10.94%	-0.28%	11.54%	0.87%	0.90	2.99%	0.95	0.89	-0.09	91.23%	83.07%
LSV Asset Mgt	5.37%	-0.19%	12.59%	-0.61%	1.08	3.35%	0.93	0.37	-0.06	105.18%	110.10%
Fidelity	5.21%	-0.35%	10.80%	0.00%	0.94	2.21%	0.96	0.42	-0.16	96.83%	100.41%
American Strategic Value Realty	12.13%	3.88%	1.43%	1.43%	1.30	0.70%	0.81	7.98	5.57	152.59%	-

1.00

0.04%

-0.05%

1.00

					5 Years						
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Growth	16.37%	0.01%	7.55%	0.03%	1.00	0.05%	1.00	2.11	0.24	100.10%	100.07%
BlackRock Russell 1000 Value	10.42%	0.08%	7.75%	0.11%	1.00	0.06%	1.00	1.29	1.32	100.45%	98.98%
Dodge & Cox-Equity	12.61%	2.27%	9.26%	1.61%	1.06	4.17%	0.80	1.32	0.54	121.96%	95.96%
Capital Prospects	12.02%	0.84%	11.06%	2.04%	0.89	3.02%	0.94	1.05	0.28	97.58%	81.17%
LSV Asset Mgt	6.85%	0.38%	11.74%	-0.17%	1.08	2.71%	0.95	0.55	0.14	110.33%	108.53%
Fidelity	6.18%	-0.30%	9.96%	0.21%	0.92	2.31%	0.95	0.58	-0.13	92.64%	93.90%
BlackRock US Real Estate	8.22%	-0.05%	12.31%	-0.04%	1.00	0.05%	1.00	0.63	-1.08	99.61%	100.13%

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



BlackRock US Real Estate

Total Fund Investment Fund Fee Analysis

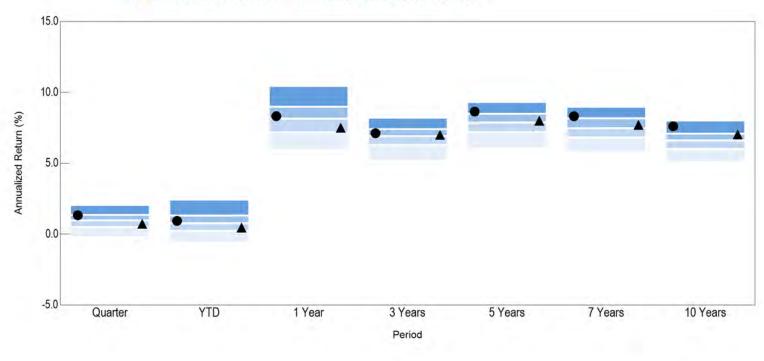
Period Ending: June 30, 2018

Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Northern Trust Russell 1000	Domestic Equity	0.02% of Assets	\$154,923,982	\$23,239	0.02%
BlackRock Russell 1000 Growth	Domestic Equity	0.02% of Assets	\$125,738,010	\$25,148	0.02%
BlackRock Russell 1000 Value	Domestic Equity	0.02% of Assets	\$74,727,887	\$14,946	0.02%
Dodge & Cox-Equity	Domestic Equity	0.40% of First 10.0 Mil, 0.20% of Next 90.0 Mil, 0.15% Thereafter	\$80,791,310	\$181,583	0.22%
Capital Prospects	Domestic Equity	0.75% of Assets	\$110,321,721	\$827,413	0.75%
LSV Asset Mgt	International Equity	0.75% of First 25.0 Mil, 0.65% of Next 25.0 Mil, 0.55% of Next 50.0 Mil, 0.45% Thereafter	\$221,820,511	\$1,173,192	0.53%
Fidelity	International Equity	0.25% of Assets	\$221,454,975	\$553,637	0.25%
Insight	Domestic Fixed Income	0.12% of Assets	\$219,045,755	\$262,855	0.12%
DFA	Domestic Fixed Income	0.20% of First 25.0 Mil, 0.10% Thereafter	\$206,680,953	\$231,681	0.11%
Northern Trust Intermediate Gov't Bond	Domestic Fixed Income	0.05% of First 25.0 Mil, 0.04% Thereafter	\$43,294,431	\$19,818	0.05%
Northern Trust Long Term Gov't Bond	Domestic Fixed Income	0.05% of First 25.0 Mil, 0.04% Thereafter	\$14,724,396	\$7,362	0.05%
Prime Property Fund	Real Estate	0.84% of Assets	\$19,075,735	\$160,236	0.84%
American Strategic Value Realty	Real Estate	1.25% of First 10.0 Mil, 1.20% of Next 15.0 Mil, 1.10% of Next 25.0 Mil, 1.00% Thereafter	\$37,427,661	\$441,704	1.18%
BlackRock US Real Estate	Real Estate	0.09% of First 100.0 Mil, 0.07% Thereafter	\$128,978,153	\$110,285	0.09%
AQR Global Risk Premium - EL	Alternatives	0.38% of Assets	\$143,809,104	\$546,475	0.38%
PanAgora Risk Parity Multi Asset	Alternatives	0.35% of Assets	\$139,433,338	\$488,017	0.35%
Cash Account	Cash and Equivalents	0.10% of Assets	\$26,728,826	\$26,729	0.10%
Total			\$1,858,655,025	\$5,094,318	0.27%

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. Northern Trust aggregates StanCERA's Northern Trust Bond Funds.



Total Fund Cumulative Performance vs. InvestorForce Public DB Gross



5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
of Portfolios

Total Fund
 Policy Index

eturn (Ra	nk)												
2.0		2.4		10.4		8.2		9.3		9.0		8.0	
1.4		1.3		9.0		7.4		8.5		8.2		7.1	
1.0		0.8		8.1		6.9		7.9		7.5		6.6	
0.5		0.2		7.2		6.3		7.2		6.8		6.0	
-0.2		-0.6		5.9		5.2		6.1		5.8		5.1	
249		247		245		238		222		210		190	
1.3	(27)	0.9	(42)	8.3	(42)	7.1	(40)	8.6	(20)	8.3	(18)	7.6	(9)
0.7	(64)	0.5	(64)	7.5	(68)	7.0	(46)	8.0	(47)	7.7	(42)	7.0	(28)

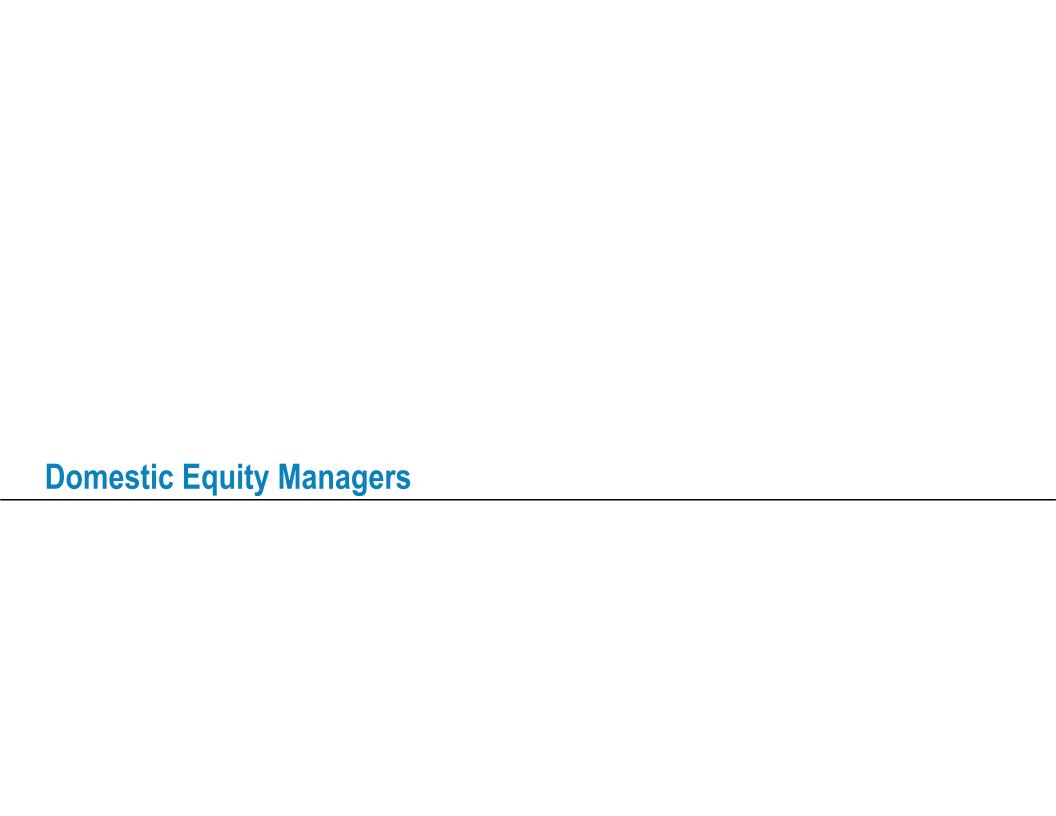


5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
of Portfolios

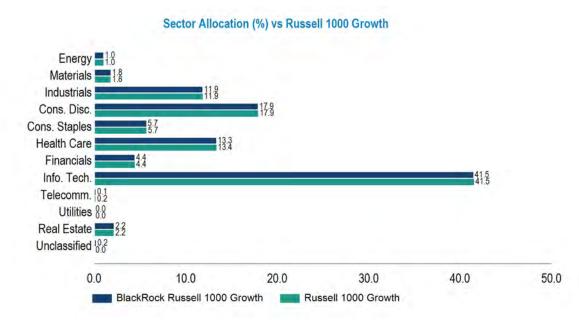
Total FundPolicy Index

	9.4		0.0																
			2.2		8.0		20.8		14.6		3.6		15.4		27.0		-10.1		
	8.4		0.9		6.8		18.0		13.4		1.9		14.0		22.4		-20.1		
	7.7		0.1		5.8		15.5		12.4		0.9		12.9		20.2		-24.9		
	6.9		-0.9		4.6		13.3		10.7		-0.3		11.7		15.9		-27.6		
	5.3		-2.6		3.2		8.5		7.8		-2.5		8.6		10.5		-30.3		
	305		316		248		231		236		206		188		184		181		
(45)	8.3	(29)	-0.2	(60)	6.9	(23)	19.8	(12)	14.3	(10)	-0.3	(75)	13.6	(35)	29.3	(1)	-29.8	(92)	
(71)	8.5	(23)	0.2	(46)	7.5	(12)	15.4	(52)	12.3	(53)	1.4	(35)	13.3	(42)	22.0	(29)	-23.2	(37)	
		7.7 6.9 5.3 305 (45) 8.3	7.7 6.9 5.3 305 (45) 8.3 (29)	7.7 0.1 6.9 -0.9 5.3 -2.6 305 316 (45) 8.3 (29) -0.2	7.7 0.1 6.9 -0.9 5.3 -2.6 305 316 (45) 8.3 (29) -0.2 (60)	7.7 0.1 5.8 6.9 -0.9 4.6 5.3 -2.6 3.2 305 316 248 (45) 8.3 (29) -0.2 (60) 6.9	7.7 0.1 5.8 6.9 -0.9 4.6 5.3 -2.6 3.2 305 316 248 (45) 8.3 (29) -0.2 (60) 6.9 (23)	7.7 0.1 5.8 15.5 6.9 -0.9 4.6 13.3 5.3 -2.6 3.2 8.5 305 316 248 231 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8	7.7 0.1 5.8 15.5 6.9 -0.9 4.6 13.3 5.3 -2.6 3.2 8.5 305 316 248 231 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12)	7.7 0.1 5.8 15.5 12.4 6.9 -0.9 4.6 13.3 10.7 5.3 -2.6 3.2 8.5 7.8 305 316 248 231 236 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3	7.7 0.1 5.8 15.5 12.4 6.9 -0.9 4.6 13.3 10.7 5.3 -2.6 3.2 8.5 7.8 305 316 248 231 236 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10)	7.7 0.1 5.8 15.5 12.4 0.9 6.9 -0.9 4.6 13.3 10.7 -0.3 5.3 -2.6 3.2 8.5 7.8 -2.5 305 316 248 231 236 206 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3	7.7 0.1 5.8 15.5 12.4 0.9 6.9 -0.9 4.6 13.3 10.7 -0.3 5.3 -2.6 3.2 8.5 7.8 -2.5 305 316 248 231 236 206 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75)	7.7 0.1 5.8 15.5 12.4 0.9 12.9 6.9 -0.9 4.6 13.3 10.7 -0.3 11.7 5.3 -2.6 3.2 8.5 7.8 -2.5 8.6 305 316 248 231 236 206 188 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75) 13.6	7.7 0.1 5.8 15.5 12.4 0.9 12.9 6.9 -0.9 4.6 13.3 10.7 -0.3 11.7 5.3 -2.6 3.2 8.5 7.8 -2.5 8.6 305 316 248 231 236 206 188 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75) 13.6 (35)	7.7 0.1 5.8 15.5 12.4 0.9 12.9 20.2 6.9 -0.9 4.6 13.3 10.7 -0.3 11.7 15.9 5.3 -2.6 3.2 8.5 7.8 -2.5 8.6 10.5 305 316 248 231 236 206 188 184 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75) 13.6 (35) 29.3	7.7 0.1 5.8 15.5 12.4 0.9 12.9 20.2 6.9 -0.9 4.6 13.3 10.7 -0.3 11.7 15.9 5.3 -2.6 3.2 8.5 7.8 -2.5 8.6 10.5 305 316 248 231 236 206 188 184 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75) 13.6 (35) 29.3 (1)	7.7 0.1 5.8 15.5 12.4 0.9 12.9 20.2 -24.9 6.9 -0.9 4.6 13.3 10.7 -0.3 11.7 15.9 -27.6 5.3 -2.6 3.2 8.5 7.8 -2.5 8.6 10.5 -30.3 305 316 248 231 236 206 188 184 181 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75) 13.6 (35) 29.3 (1) -29.8	7.7 0.1 5.8 15.5 12.4 0.9 12.9 20.2 -24.9 6.9 -0.9 4.6 13.3 10.7 -0.3 11.7 15.9 -27.6 5.3 -2.6 3.2 8.5 7.8 -2.5 8.6 10.5 -30.3 305 316 248 231 236 206 188 184 181 (45) 8.3 (29) -0.2 (60) 6.9 (23) 19.8 (12) 14.3 (10) -0.3 (75) 13.6 (35) 29.3 (1) -29.8 (92)





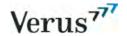
	Portfolio	Russell 1000 Growth
Number of Holdings	541	542
Weighted Avg. Market Cap. (\$B)	246.80	247.27
Median Market Cap. (\$B)	11.96	11.99
Price To Earnings	45.05	27.41
Price To Book	10.18	8.07
Price To Sales	5.56	5.49
Return on Equity (%)	30.55	30.43
Yield (%)	1.24	1.25
Beta	1.00	1.00

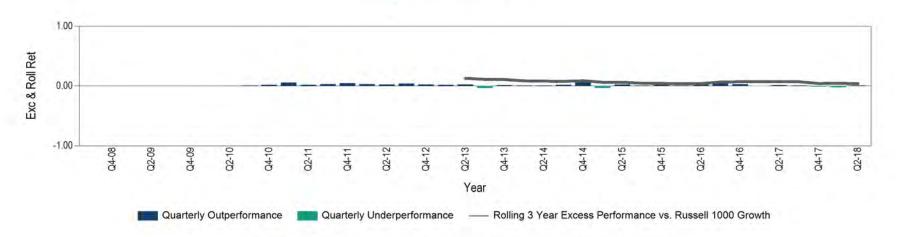


Largest Holdings		Top Contributors		Bottom Contributor	S
End Weight	Return	Avg Wgt Return	Contribution	Avg Wgt	Re

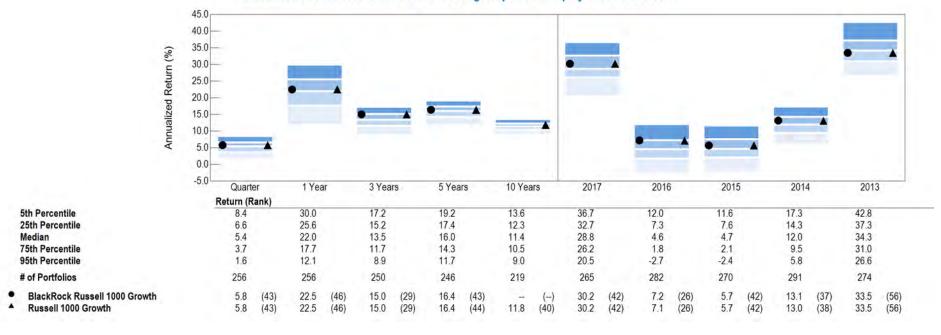
	End Weight	Return		Avg Wgt	Return	Contribution	on	Avg Wgt	Return	Contribution
APPLE	7.10	10.76	AMAZON.COM	1.50	17.44	0.26	3M	0.33	-9.78	-0.03
MICROSOFT	5.52	8.51	APPLE	2.19	10.76	0.24	STARBUCKS	0.20	-15.17	-0.03
AMAZON.COM	5.39	17.44	FACEBOOK CLASS A	0.97	21.61	0.21	APPLIED MATS.	0.15	-16.61	-0.03
FACEBOOK CLASS A	3.60	21.61	MICROSOFT	1.76	8.51	0.15	ALTRIA GROUP	0.31	-7.75	-0.02
ALPHABET 'C'	2.65	8.13	NETFLIX	0.31	32.53	0.10	LOCKHEED MARTIN	0.19	-12.02	-0.02
ALPHABET A	2.63	8.88	UNITEDHEALTH GROUP	0.53	15.05	0.08	CELGENE	0.17	-10.97	-0.02
VISA 'A'	1.85	10.90	ALPHABET A	0.79	8.88	0.07	INTERNATIONAL	0.23	-7.95	-0.02
UNITEDHEALTH GROUP	1.83	15.05	ALPHABET 'C'	0.80	8.13	0.07	BUS.MCHS.	0.23	-1.33	-0.02
HOME DEPOT	1.75	10.06	VISA 'A'	0.56	10.90	0.06	NORTHROP GRUMMAN	0.15	-11.54	-0.02
BOEING	1.44	2.84	HOME DEPOT	0.54	10.06	0.05	BRISTOL MYERS SQUIBB	0.13	-11.94	-0.02
							CATERPILLAR	0.19	-7.48	-0.01

Unclassified sector allocation includes cash allocations.

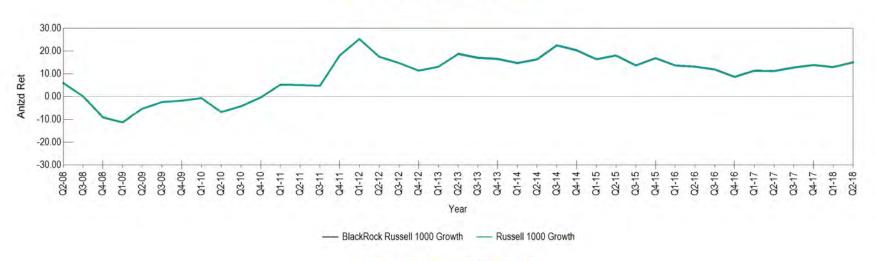




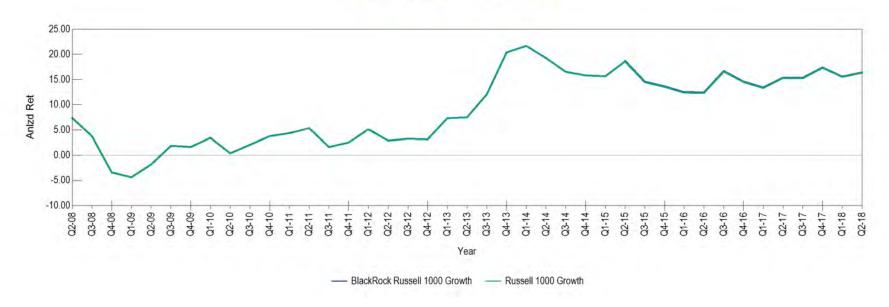
BlackRock Russell 1000 Growth vs. eV US Large Cap Growth Equity Gross Universe

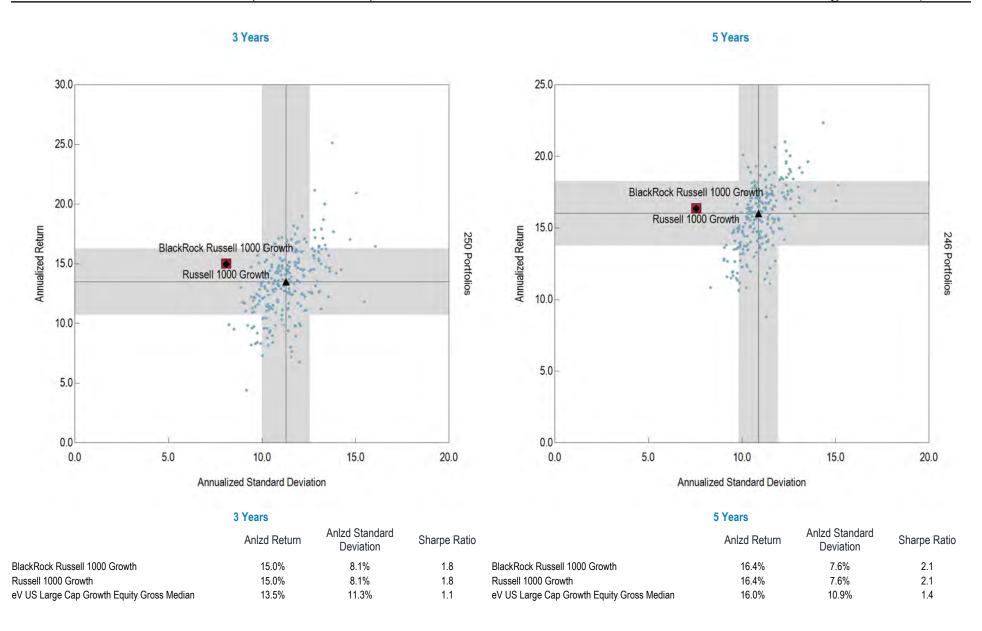






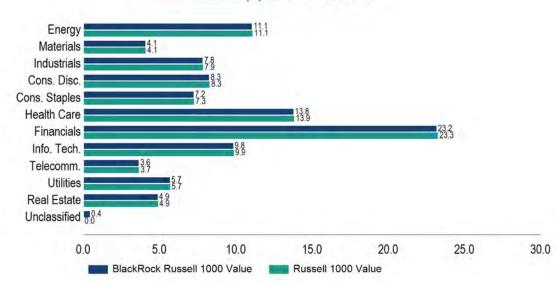
Rolling 5 Year Annualized Return (%)





	Portfolio	Russell 1000 Value
Number of Holdings	730	729
Weighted Avg. Market Cap. (\$B)	110.23	110.69
Median Market Cap. (\$B)	9.55	9.57
Price To Earnings	21.17	20.09
Price To Book	2.45	2.59
Price To Sales	3.01	2.99
Return on Equity (%)	12.78	12.33
Yield (%)	2.51	2.48
Beta	1.00	1.00



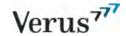


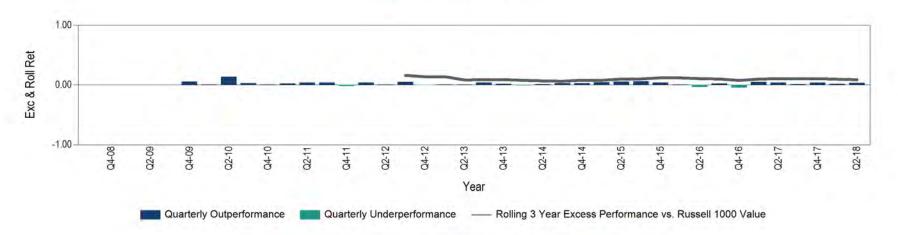
Largest Holdings

Top Contributors

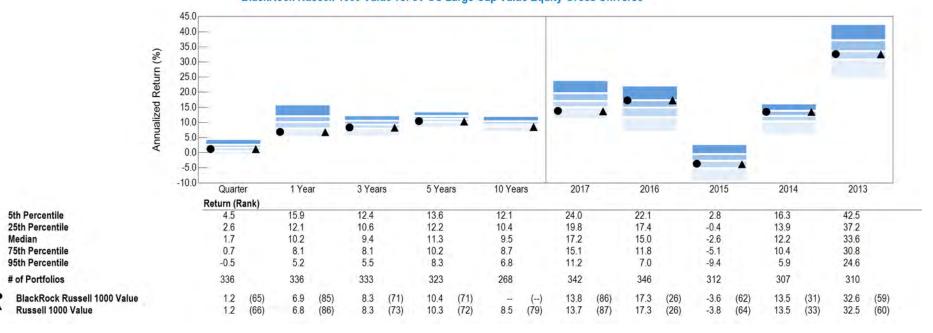
Bottom Contributors

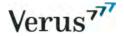
900.										
	End Weight	Return		Avg Wgt	Return	Contributio	n	Avg Wgt	Return	Contribution
JP MORGAN CHASE & CO.	2.70	-4.77	EXXON MOBIL	0.87	12.00	0.10	PHILIP MORRIS INTL.	0.39	-17.61	-0.07
EXXON MOBIL	2.68	12.00	CHEVRON	0.59	11.82	0.07	BERKSHIRE HATHAWAY	1.06	-6.43	-0.07
BERKSHIRE HATHAWAY 'B'	2.42	-6.43	MERCK & COMPANY	0.39	12.31	0.05	'B'	1.00	0.40	0.07
JOHNSON & JOHNSON	2.04	-4.61	WELLS FARGO & CO	0.64	6.58	0.04	AT&T	0.60	-8.65	-0.05
BANK OF AMERICA	2.04	-5.61	OCCIDENTAL PTL.	0.14	29.98	0.04	JP MORGAN CHASE & CO.	1.05	-4.77	-0.05
WELLS FARGO & CO	1.86	6.58	TWENTY-FIRST CENTURY FOX CL.A	0.10	35.43	0.04	BANK OF AMERICA	0.79	-5.61	-0.04
CHEVRON AT&T	1.84 1.79	11.82 -8.65	CONOCOPHILLIPS	0.19	17.90	0.03	JOHNSON & JOHNSON	0.81	-4.61	-0.04
INTEL	1.77	-4.01	EOG RES.	0.15	18.40	0.03	GOLDMAN SACHS GP.	0.24	-12.12	-0.03
PFIZER	1.61	3.22	TWITTER	0.05	50.53	0.03	INTEL	0.68	-4.01	-0.03
	1.01	0.22	VALERO ENERGY	0.11	20.30	0.02	MORGAN STANLEY	0.19	-11.73	-0.02
							PNC FINL.SVS.GP.	0.20	-10.21	-0.02



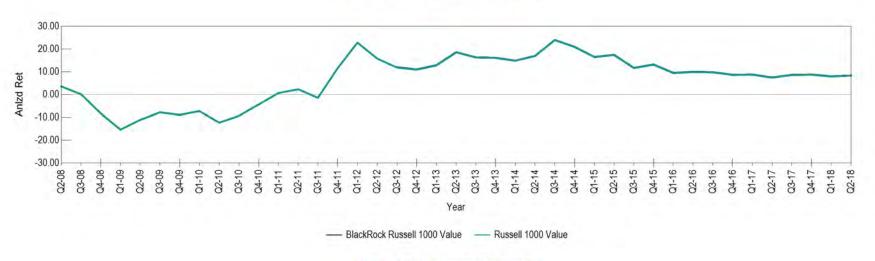


BlackRock Russell 1000 Value vs. eV US Large Cap Value Equity Gross Universe

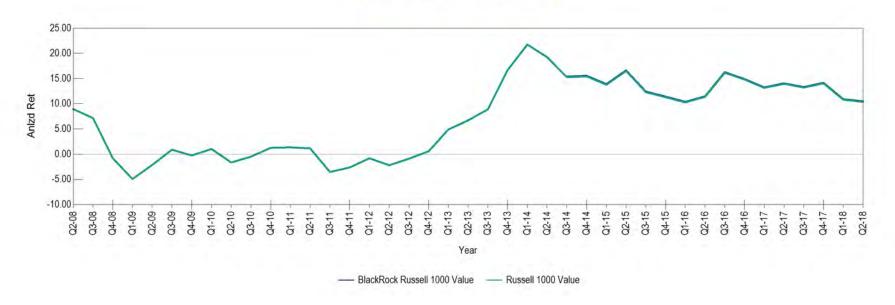


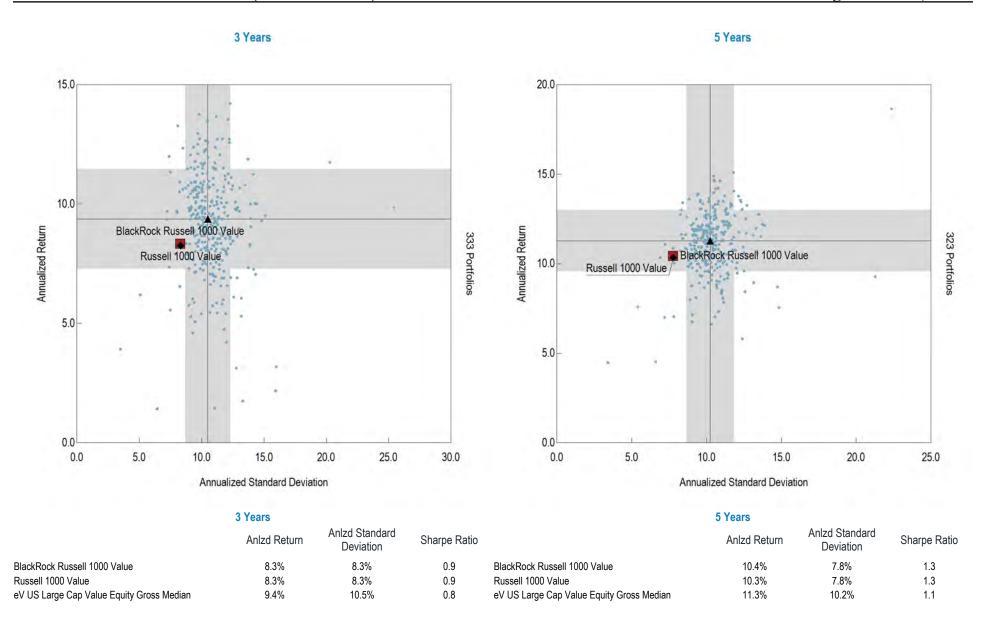






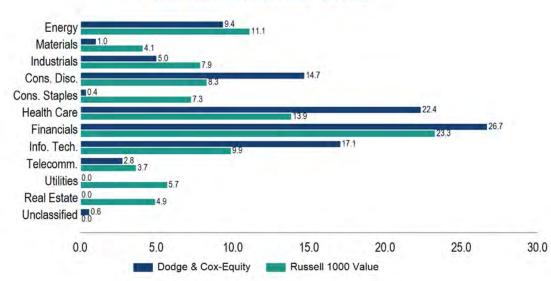
Rolling 5 Year Annualized Return (%)





	Portfolio	Russell 1000 Value
Number of Holdings	68	729
Weighted Avg. Market Cap. (\$B)	107.12	110.69
Median Market Cap. (\$B)	41.34	9.57
Price To Earnings	17.45	20.09
Price To Book	2.96	2.59
Price To Sales	2.93	2.99
Return on Equity (%)	13.16	12.33
Yield (%)	2.05	2.48
Beta	1.10	1.00

Sector Allocation (%) vs Russell 1000 Value



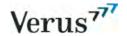
Largest Holdings

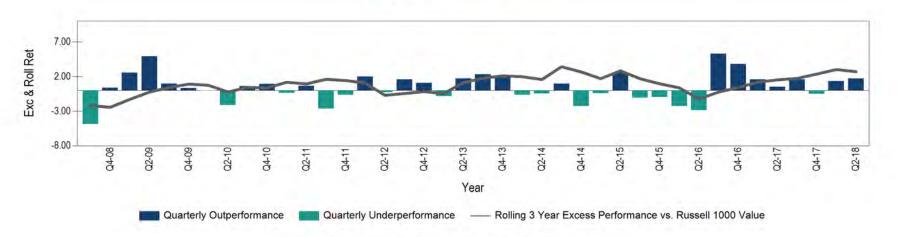
Top Contributors

Bottom Contributors

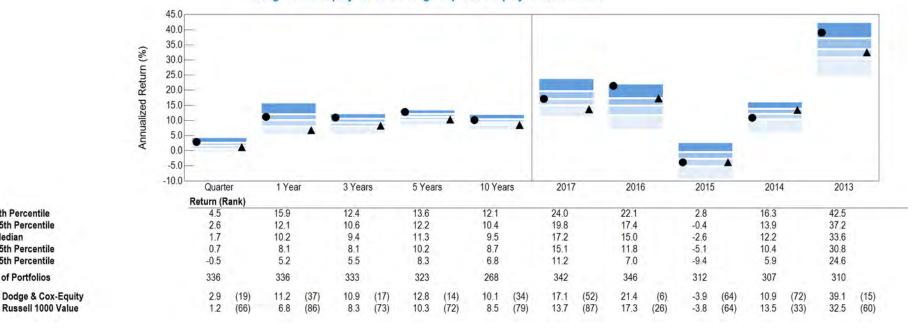
Largest Holanigs			Top Contributors				Bottom Contributors				
	En	d Weight	Return		Avg Wgt	Return	Contribution	n	Avg Wgt	Return	Contribution
WELLS FARGO & CO		3.88	6.58	ANADARKO PETROLEUM	2.52	21.68	0.55	HEWLETT PACKARD	2.09	-16.11	-0.34
COMCAST 'A'		3.66	-3.44	MICROSOFT (SGO)	2.98	10.83	0.32	ENTER.	2.00	10.11	0.04
CAPITAL ONE FINL.		3.53	-3.68	EXPRESS SCRIPTS	2 20	11 77	0.27	GOLDMAN SACHS GP.	2.25	-12.12	-0.27
CHARLES SCHWAB		3.48	-1.98	HOLDING	2.28	11.77	0.27	BANK OF AMERICA	3.53	-5.61	-0.20
BANK OF AMERICA		3.31	-5.61	APACHE	1.16	22.22	0.26	NOVARTIS 'B' SPN.ADR	2.78	-6.57	-0.18
MICROSOFT (SGO)		3.30	10.83	WELLS FARGO & CO	3.53	6.58	0.23	1:1			
ALPHABET 'C'		3.04	8.13	ALPHABET 'C'	2.71	8.13	0.22	BRISTOL MYERS SQUIBB	1.50	-11.94	-0.18
CHARTER COMMS.CI	Δ	2.99	-5.79	UNITEDHEALTH GROUP	1.40	15.05	0.21	CHARTER COMMS.CL.A	2.50	-5.79	-0.14
EXPRESS SCRIPTS H		2.87	11.77	BAKER HUGHES A	1.03	19.53	0.20	CAPITAL ONE FINL.	3.49	-3.68	-0.13
ANADARKO PETROLE		2.86	21.68	NATIONAL OILWELL	4.00		0.40	TE CONNECTIVITY	1.31	-9.43	-0.12
ANADARRO PETROLI	ZUIVI	2.00	21.00	VARCO	1.02	18.04	0.18	JP MORGAN CHASE &	2.51	-4.77	-0.12
				ELI LILLY	1.61	11.05	0.18	CO.	2.31	-4.77	-0.12
								FEDEX	2.24	-5.18	-0.12

Unclassified sector allocation includes cash allocations.





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





5th Percentile

25th Percentile

75th Percentile

95th Percentile

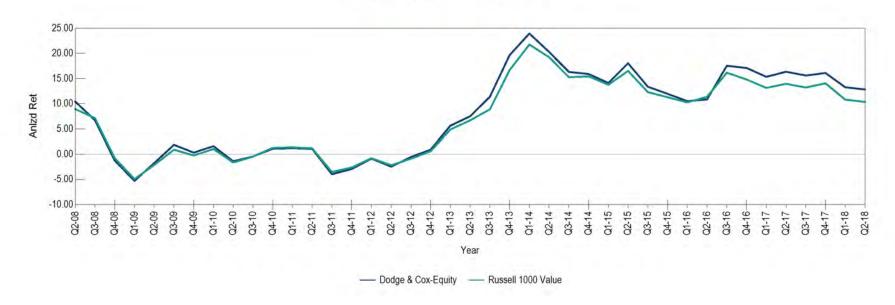
of Portfolios

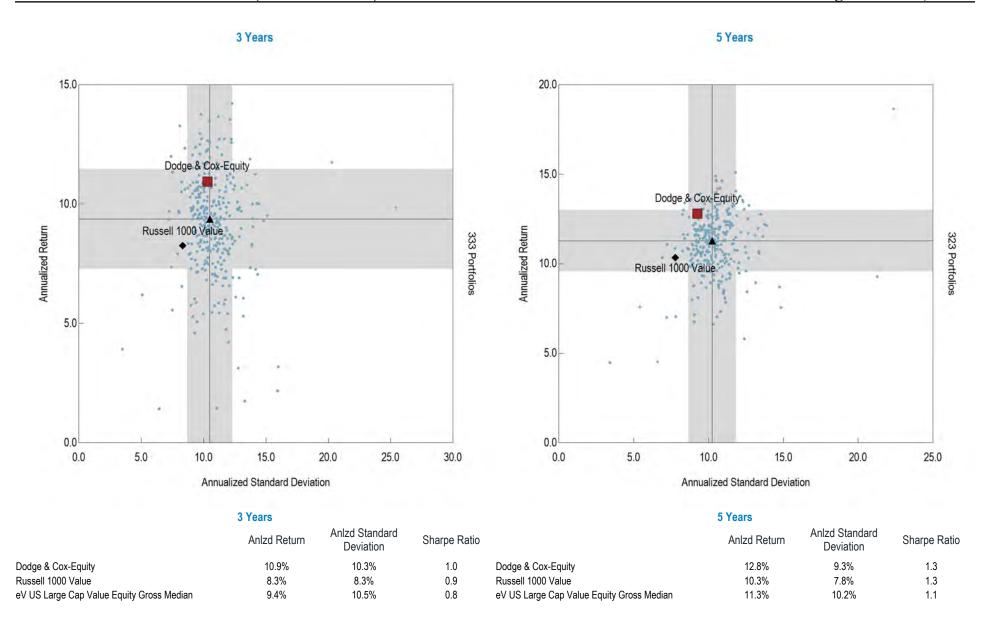
Median

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)

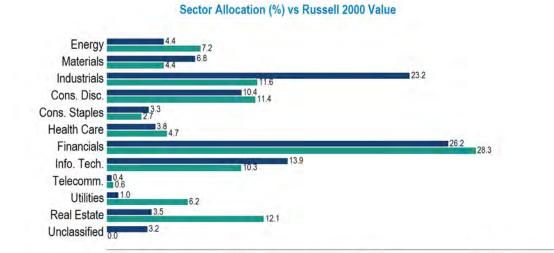




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Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	292	1,364
Weighted Avg. Market Cap. (\$B)	2.39	2.05
Median Market Cap. (\$B)	1.42	0.81
Price To Earnings	18.68	15.57
Price To Book	2.89	1.73
Price To Sales	2.43	2.59
Return on Equity (%)	14.52	7.16
Yield (%)	1.52	1.78
Beta	0.90	1.00



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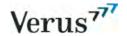
Capital Prospects

Largest Holdings Top Contributors Bottom Contributors

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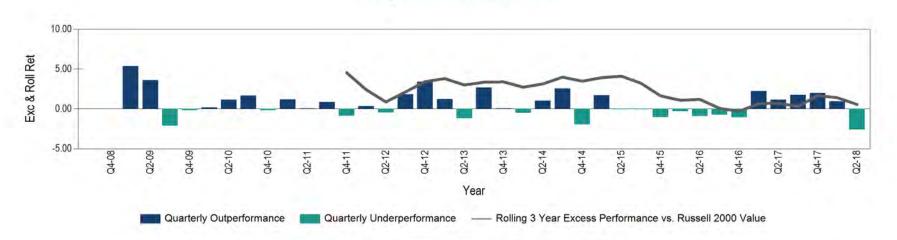
	End Weight	Return		Avg Wgt	Return	Contribution	on	Avg Wgt	Return	Contribution
HOSTESS BRANDS CL.A	1.46	-8.05	DMC GLOBAL	0.61	67.92	0.42	ARCONIC	0.90	-25.91	-0.23
LITTELFUSE	1.39	9.79	VERSO 'A'	1.18	29.22	0.35	HOSTESS BRANDS CL.A	1.61	-8.05	-0.13
VERSO 'A'	1.13	29.22	OFG BANCORP	0.72	35.02	0.25	OCH-ZIFF	0.46	-26.99	-0.13
HILLENBRAND	1.08	3.18	PCM	0.30	82.53	0.25	CAP.MAN.GP.CL.A	0.40	-20.33	-0.13
PAC.PREMIER BANC.	1.06	-5.10	BOTTOMLINE TECHS.	0.74	28.59	0.21	MODINE MANUFACTURING	0.85	-13.71	-0.12
AMERICAN EQ.INV.LF.HLDG.	0.95	22.62	AMERICAN	0.90	22.62	0.20	OWENS ILLINOIS NEW	0.49	-22.39	-0.11
ARTISAN PTNS.ASTMGMT.	0.94	-7.79	EQ.INV.LF.HLDG.	0.50	22.02	0.20				
AIR LEASE	0.92	-1.31	FREIGHTCAR AMERICA	0.62	25.30	0.16	QUANTUM	0.21	-39.56	-0.08
MODINE MANUFACTURING	0.84	-13.71	EVERCORE A	0.68	21.48	0.15	ARTISAN PTNS.ASTMGMT.	1.07	-7.79	-0.08
ARCONIC	0.82	-25.91	AVANOS MEDICAL	0.60	24.24	0.14		0.44	40.00	0.00
			ZAGG	0.33	41.80	0.14	CALLON PTL.DEL.	0.44	-18.88	-0.08
				0.00		•	STIFEL FINANCIAL	0.63	-11.60	-0.07
							BELDEN	0.62	-11.27	-0.07

Unclassified sector allocation includes cash allocations.

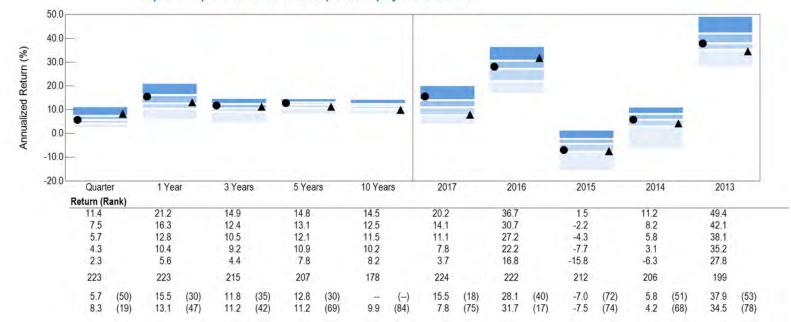


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Russell 2000 Value



Capital Prospects vs. eV US Small Cap Value Equity Gross Universe

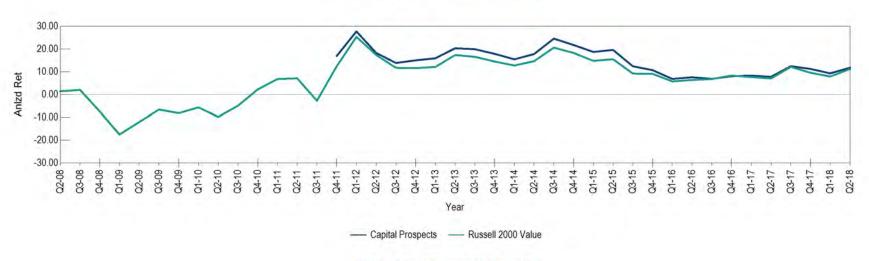


5th Percentile
25th Percentile
Median
75th Percentile
95th Percentile
of Portfolios
Capital Prospects

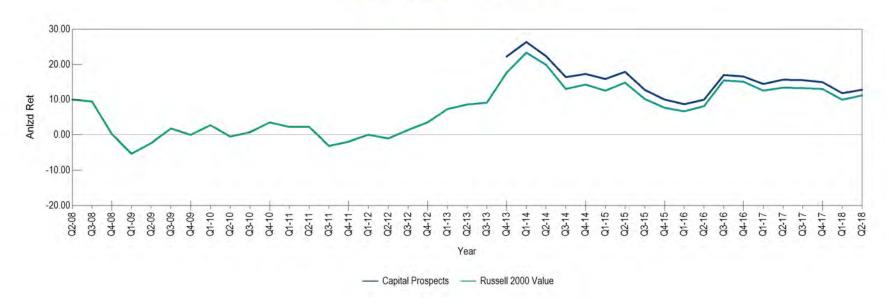
Russell 2000 Value

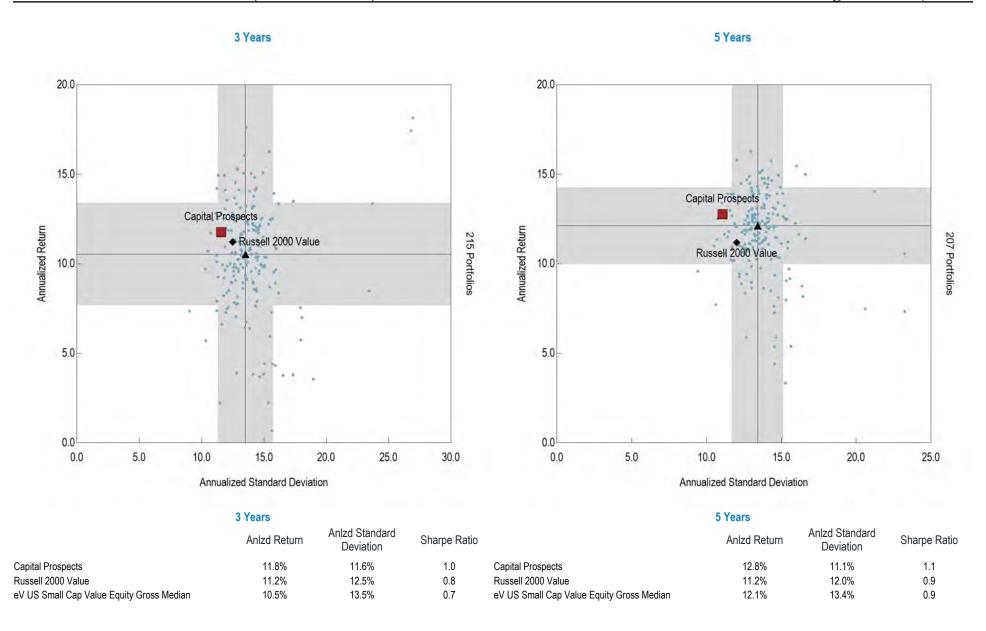


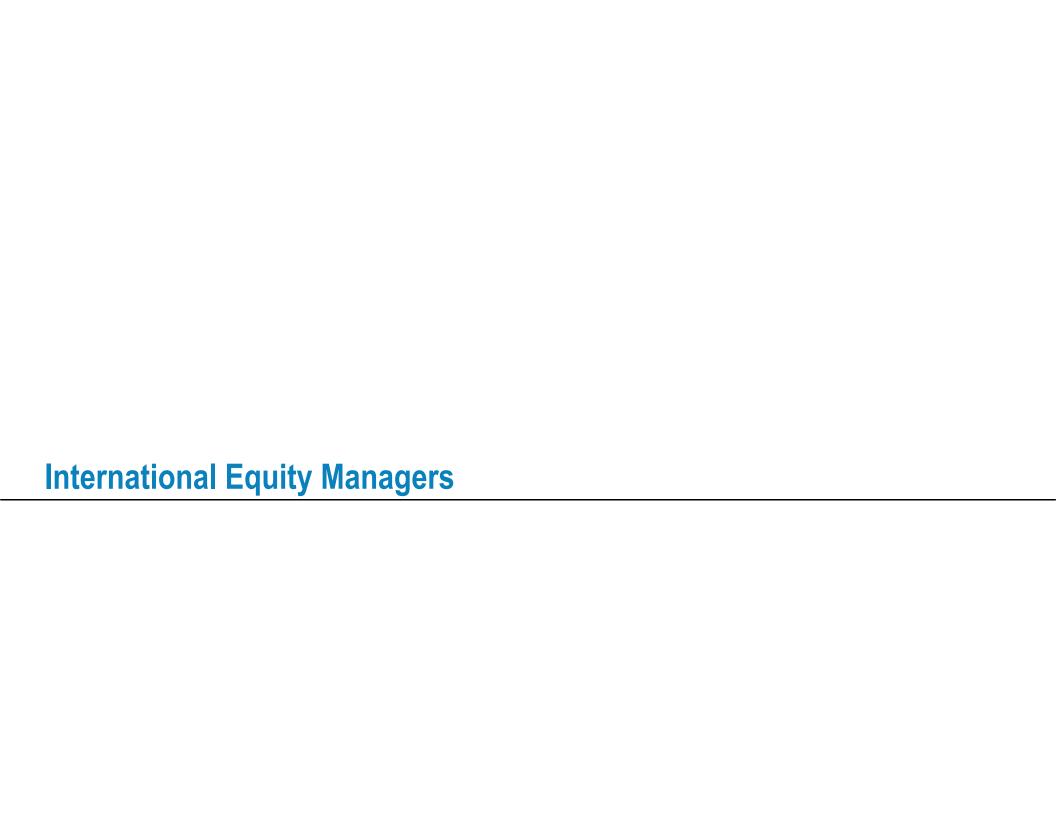
Rolling 3 Year Annualized Return (%)

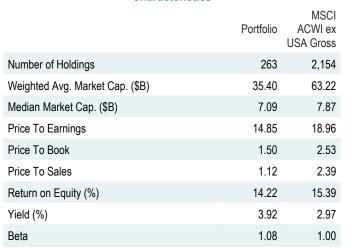


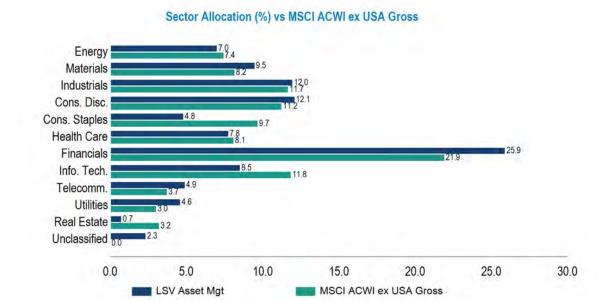
Rolling 5 Year Annualized Return (%)







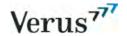


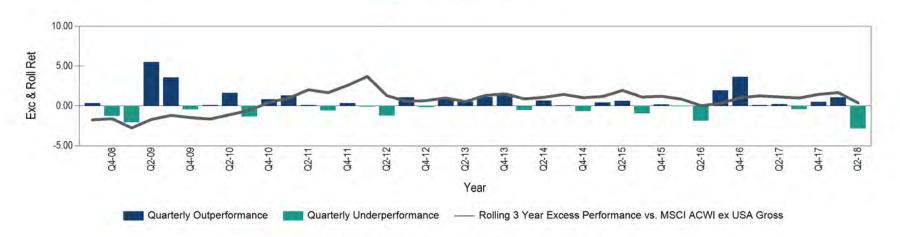


Largest Holdings Top Contributors Bottom Contributors

	End Weight	Return		Avg Wgt	Return	Contribution	on	Avg Wgt	Return	Contribution
SAMSUNG ELECTRONICS	2.09	-9.35	TIANNENG POWER INTL.	0.63	35.86	0.23	SAMSUNG ELECTRONICS	2.24	-9.35	-0.21
SANOFI	1.71	4.50	BRP	0.67	25.72	0.17	OLD MUTUAL LIMITED	0.83	-21.13	-0.18
ROYAL DUTCH SHELL B	1.51	13.61	MACQUARIE GP LTD	0.76	19.06	0.14	(LON)	0.00	-21.10	
KDDI	1.47	7.13	SAINSBURY J	0.45	29.55	0.13	DAIMLER	0.84	-19.71	-0.17
BAE SYSTEMS	1.41	7.00	ROYAL DUTCH SHELL B	0.77	13.61	0.11	RHEINMETALL	0.76	-21.00	-0.16
MAGNA INTL.	1.40	3.79	CHINA RESOURCES	0.51	10.40	0.40	DEUTSCHE POST	0.60	-23.06	-0.14
NIPPON TELG. & TEL.	1.39	-1.32	CEMENT HOLDINGS	0.51	19.49	0.10	BANK NEGARA	0.63	-21.92	-0.14
GLAXOSMITHKLINE	1.33	4.61	KDDI	1.37	7.13	0.10	INDONESIA	0.00	21.02	0.1 4
ALLIANZ	1.28	-5.09	BP	0.63	15.06	0.09	BANCO DO BRASIL ADR	0.33	-41.31	-0.13
ENEL	1.27	-9.13	BAE SYSTEMS	1.32	7.00	0.09	1:1	0.57	00.00	0.40
			REPSOL YPF	0.63	13.66	0.09	AIR CHINA 'H'	0.57	-22.99	-0.13
				0.00		0.00	WH GROUP	0.55	-21.45	-0.12
							ENEL	1.30	-9.13	-0.12

Unclassified sector allocation includes cash allocations.

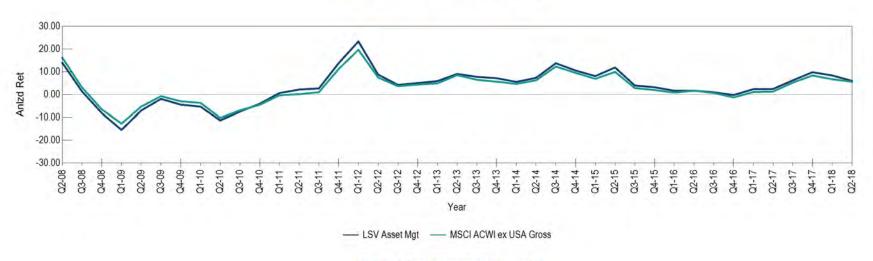




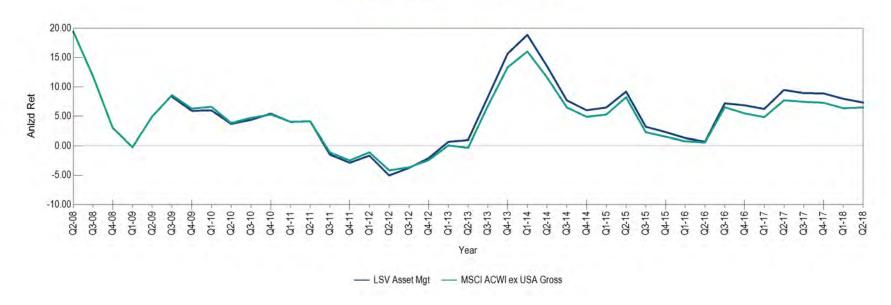
LSV Asset Mgt vs. eV ACWI ex-US Equity Unhedged Gross Universe

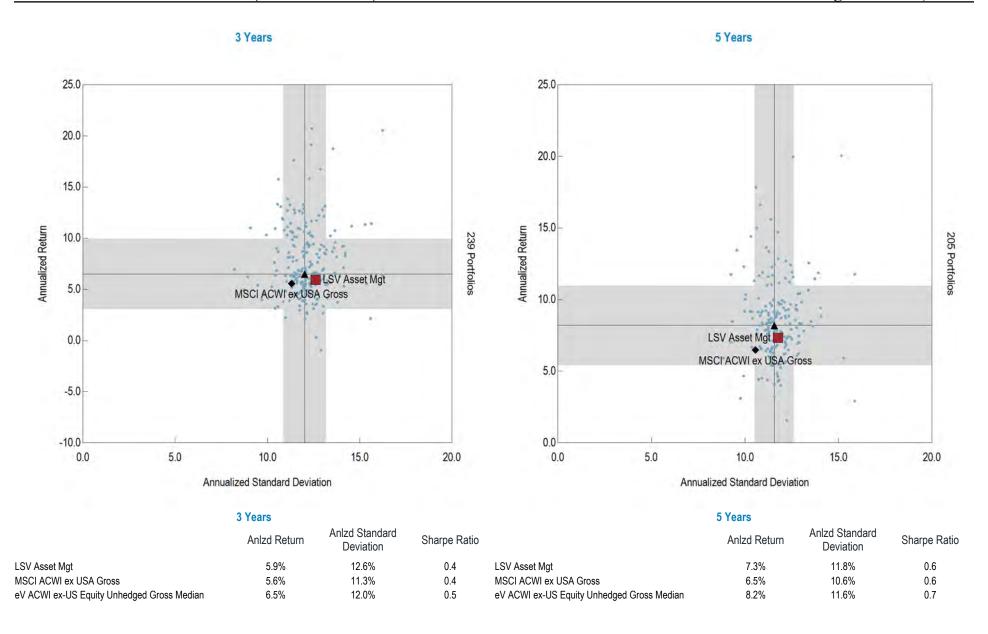




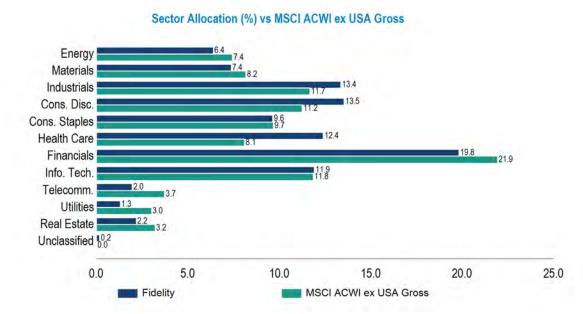


Rolling 5 Year Annualized Return (%)





	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	255	2,154
Weighted Avg. Market Cap. (\$B)	57.86	63.22
Median Market Cap. (\$B)	13.30	7.87
Price To Earnings	20.21	18.96
Price To Book	4.00	2.53
Price To Sales	3.17	2.39
Return on Equity (%)	19.47	15.39
Yield (%)	2.48	2.97
Beta	0.93	1.00



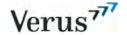
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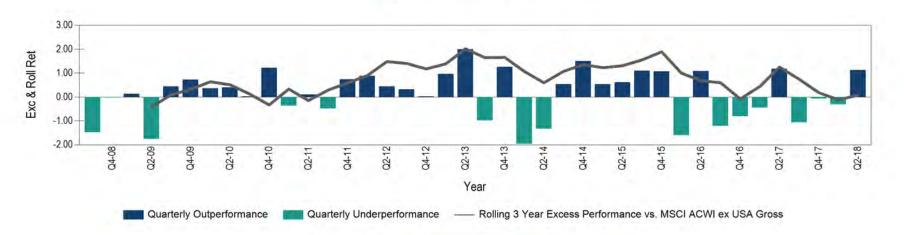
Bottom Contributors

	End Weight	Return		Avg Wgt	Return	Contributio	n	Avg Wgt	Return	Contribution
SAP	1.80	12.04	SAP	1.57	12.04	0.19	NINTENDO	0.75	-25.83	-0.19
NESTLE 'R'	1.59	1.15	BP	1.23	15.06	0.19	DEUTSCHE POST	0.72	-23.06	-0.17
ROYAL DUTCH SHELL A	1.54	11.06	ROYAL DUTCH SHELL A	1.41	11.06	0.16	BRITISH AMERICAN TOBACCO	1.07	-11.64	-0.12
AIA GROUP	1.45	4.44	KERING	0.53	28.09	0.15		1.07	11.04	-0.12
BP	1.40	15.06	LINDE (TENDERED) (XET) SHARES	0.75	17.90	0.13	ORIX	1.06	-10.36	-0.11
SONY	1.18	5.68					BNP PARIBAS	0.88	-11.40	-0.10
ROCHE HOLDING	1.17	-2.93	SHIRE	1.01	12.42	0.12	BARCLAYS	0.68	-13.86	-0.09
SHIRE	1.10	12.42	ROYAL DUTCH SHELL	0.97	12.25	0.12	FANUC	0.42	-21.63	-0.09
PHILIPS ELTN.KONINKLIJKE	1.07	13.48	A(LON)	0.01	12.20		KEYENCE	0.99	-9.05	-0.09
KEYENCE	1.07	-9.05	SAFRAN	0.70	16.72	0.12	ILIAD	0.38	-23.13	-0.09
		0.00	PHILIPS ELTN.KONINKLIJKE	0.74	13.48	0.10	UNICREDIT	0.46	-18.70	-0.09
			EXPERIAN	0.59	16.23	0.10				

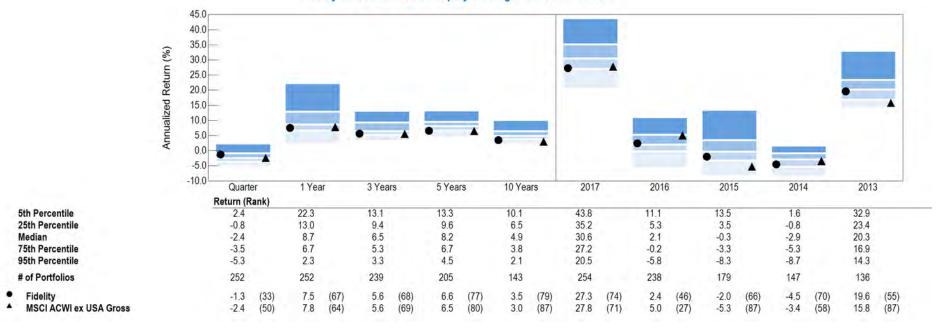
Top Contributors

Unclassified sector allocation includes cash allocations.





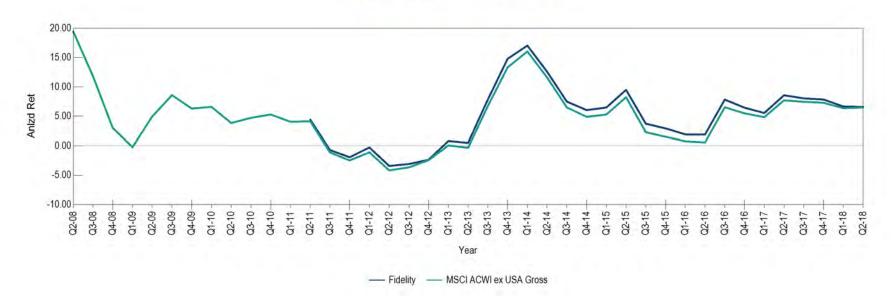
Fidelity vs. eV ACWI ex-US Equity Unhedged Gross Universe

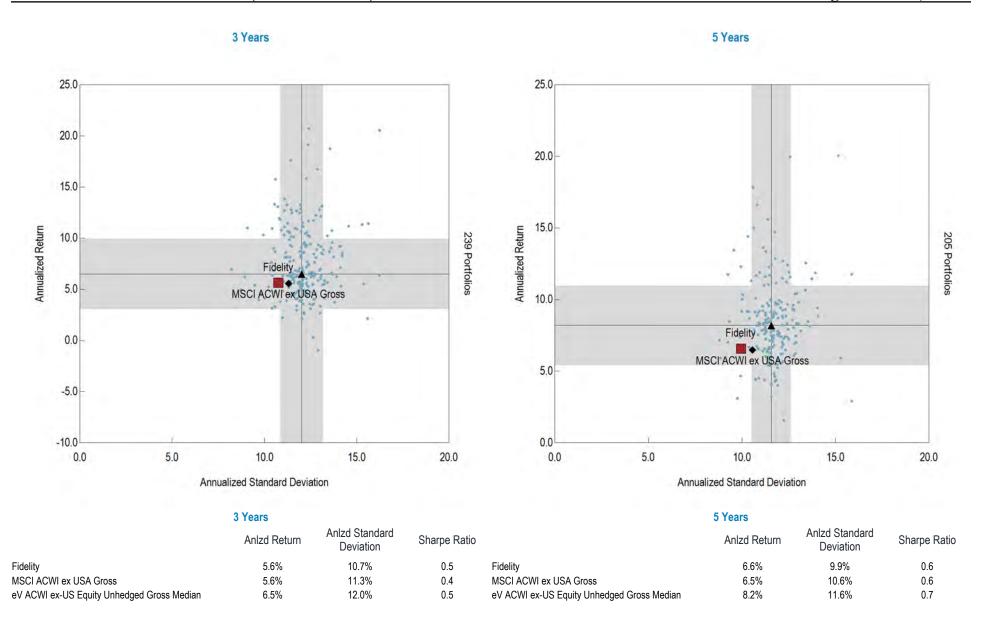


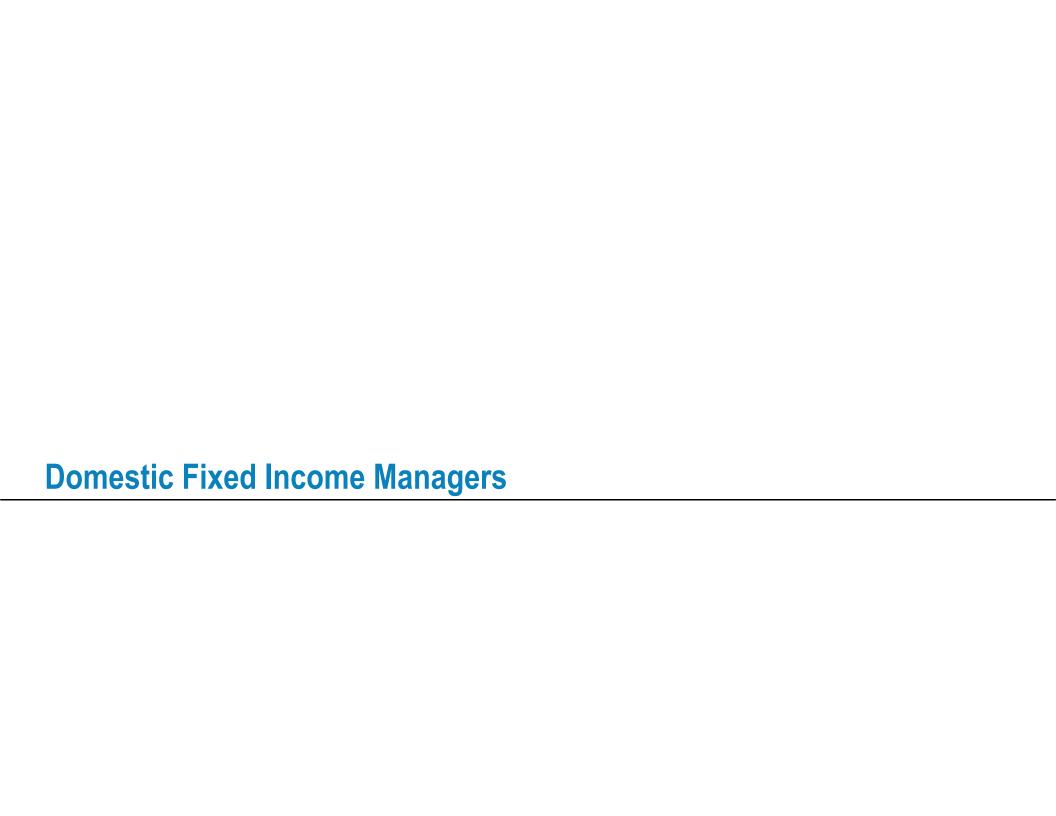




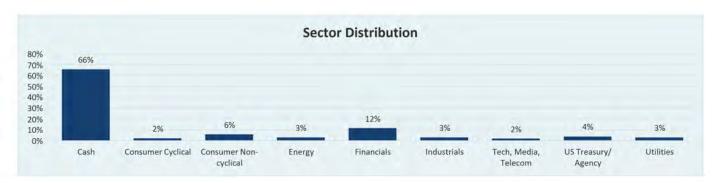
Rolling 5 Year Annualized Return (%)



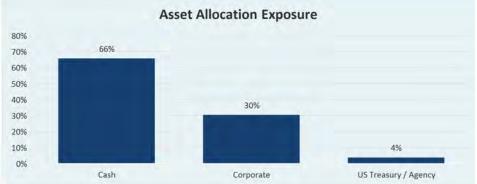




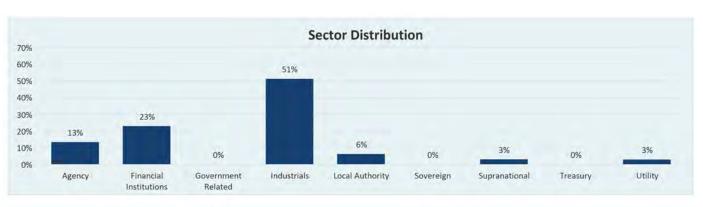
Summary	Portfolio
Average Quality	AA+
Effective duration (years)	1.08
Average Coupon	3.89%
Yield to Worst	2.70%



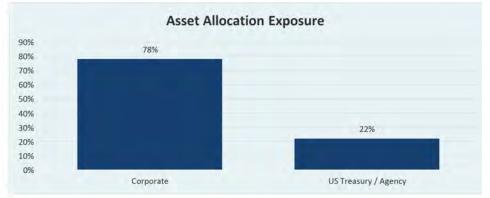




Summary	Portfolio
Average Quality	Α
Effective duration (years)	2.86
Average Coupon	2.80%
Yield to Worst	3.32%







Performance Return Calculations

Performance is calculated using 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	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
Northern Trust Russell 1000	8/31/2017	Mellon	Prime Property Fund	9/30/2015	Prime Property
BlackRock Russell 1000 Growth	6/30/2010	BlackRock	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
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
Fidelity	4/30/2006	Northern Trust	Raven Opportunity III	7/31/2015	Raven Capital
Insight	6/29/2017	Northern Trust	White Oak Pinnacle	8/31/2013	White Oak
DFA	7/31/2017	Northern Trust	PanAgora Risk Parity Multi Asset	11/30/2017	PanAgora
Northern Trust Intermediate Gov't Bond	7/31/2017	Northern Trust	AQR Global Risk Premium - EL	3/5/2018	AQR
Northern Trust Long Term Gov't Bond	7/31/2017	Northern Trust	MS Infrastructure	5/31/2015	Morgan Stanley

Policy & Custom Index Composition

Policy Index (7/01/2017): 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.

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

Prior 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%.

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.

As of 3/31/2018, Total Fund market value includes liquidation value of \$120,838.27 for Jackson Square.



Glossary

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: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

Beachmark 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.

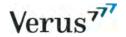
Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard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



Disclaimer

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The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management, (c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

Verus will make every reasonable effort to obtain and include accurate market values. However, if managers or custodians are unable to provide the reporting period's market values prior to the report issuance, Verus may use the last reported market value or make estimates based on the manager's stated or estimated returns and other information available at the time. These estimates may differ materially from the actual value. Hedge fund market values presented in this report are provided by the fund manager or custodian. Market values presented for private equity investments reflect the last reported NAV by the custodian or manager net of capital calls and distributions as of the end of the reporting period. These values are estimates and may differ materially from the investments actual value. Private equity managers report performance using an internal rate of return (IRR), which differs from the time-weighted rate of return (TWRR) calculation done by Verus. It is inappropriate to compare IRR and TWRR to each other. IRR figures reported in the illiquid alternative pages are provided by the respective managers, and Verus has not made any attempts to verify these returns. Until a partnership is liquidated (typically over 10-12 years), the IRR is only an interim estimated return. The actual IRR performance of any LP is not known until the final liquidation.

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.



Stanislaus County Employees' Retirement Association

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August 28, 2018

Retirement Board Agenda Item

TO: Retirement Board

FROM: Chris Wisdom, Retirement Investment Officer

I. SUBJECT: Private Markets Investment Policy

II. ITEM NUMBER: 7.a

III. ITEM TYPE: Discussion and Action

IV. STAFF RECOMMENDATION: Adopt a Private Markets Investment Policy (Attachment 1).

V. EXECUTIVE SUMMARY: The Board has previously approved target allocations to Private Equity and Private Credit, and StanCERA has partnered with Verus as its implementation partner for these types of investments. Staff and Verus have collaborated to create a proposed Private Markets Investment Policy which will govern all investments made in the private equity and private credit asset classes made by StanCERA.

This is an opportunity for the Board to set overall parameters for the private markets program, as well as to formally delegate certain duties to Staff or the Consultant, as the Board sees fit. Some items which may warrant special consideration in the proposed policy are:

<u>Section 3.B.3</u> – Staff's ability to approve certain investment proposals from the Consultant when they are below a certain dollar limit. It is considered best practice to allow Staff to have some level of discretion here, in order to more efficiently implement the investment program.

Section 5 – Minimum and maximum allocations of sub-asset classes.

<u>Section 6</u> – This section describes how the program will be diversified and sets important investment parameters around things like geography and sectors.

<u>Section 7</u> – Describes the actions that the Consultant and Staff will be expected to perform with regards to due diligence.

- VI. RISK: The risk in not adopting a Private Markets Investment Policy is that StanCERA will not have documented guidelines on how to manage the private markets investment program. Further, it could lead to ambiguity regarding the delegation of roles and responsibilities among the Board, Staff and the Consultant.
- 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

Chris Wisdom, Retirement Investment Officer

CK.CA

Rick Santos, Executive Director

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7.a. Attachment 1



Stanislaus County Employees' Retirement Association

Private Markets Investment Policy Statement

Adopted: August xx, 2018

Private Markets Investment Policy Statement Page 2 of 11

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1. Scope

This Private Markets Investment Policy ("PM Policy") governs all investments in the private equity and private credit asset classes made by StanCERA. The PM Policy is subject to all provisions of applicable law and the applicable limitations and requirements of StanCERA's Investment Policy Statement ("IPS") and related directives and procedures. If there is any conflict between this PM Policy and StanCERA's IPS pertaining to investments in the Private Markets asset class, the PM Policy prevails.

The StanCERA Board ("Board") reserves the right to amend, supplement, or rescind this PM Policy at any time. This PM Policy is a living document and changes will be made from time—to-time to reflect experience, evolving investment products, and opportunities and changes in the economic and capital market environment.

2. Purpose

The purpose of this Policy is to 1) set forth the private markets policies and guidelines which are deemed to be appropriate and prudent; 2) establish criteria against which private markets opportunities are to be measured; and 3) serve as a review document to guide the ongoing oversight of StanCERA's Private Markets Portfolio ("PM Portfolio") on a consistent basis. The Policy also defines roles and responsibilities of the Board, the StanCERA Staff ("Staff"), the StanCERA PM Consultant ("Consultant"), and the Investment Managers ("Investment Managers") hired by StanCERA to manage its assets.

3. Governance

The delineation of roles and responsibilities is important for effective administration of StanCERA's PM Portfolio. The duties and responsibilities of the Board, Staff, Consultant, and Investment Managers are as follows:

A. Board

The Board retains responsibility for approving this PM Policy and approving the annual investment plan of StanCERA's PM Portfolio. The Board, with input from Staff and Consultant, shall review this PM Policy to determine whether amendments are necessary. The Board also retains responsibility for reviewing and approving all Private Markets investments with individual commitments exceeding Staff's delegated authority as described in paragraph B.

B. Staff

Staff shall be responsible for oversight of StanCERA's PM Portfolio. Staff's responsibilities shall include:

- 1. Developing and recommending all necessary changes to this PM Policy with input from Consultant:
- 2. Developing and maintaining specific procedures, if necessary, to comply with the approved PM Policy;
- 3. Approving Consultant's Private Markets investment proposals (both new proposals and "re-ups" with existing managers) with each individual commitment up to 10% of the target allocation of the total PM Portfolio or \$25 million (whichever is lesser) to managers in good standing upon completion of a thorough review and due diligence



process with satisfactory results. Staff and Consultant shall provide the Board with reports as described in Appendix I and Appendix II.

- 4. Monitoring the PM Portfolio for performance and compliance with this PM Policy;
- Monitoring the performance of the underlying Investment Managers and their compliance with a) the investment guidelines as set forth in their respective contracts;
 b) this Policy; and c) applicable requirements of StanCERA's IPS, Directives, and Procedures;
- 6. Conducting annual reviews of StanCERA's PM Portfolio;
- 7. Reporting to the Board any violations of the PM Policy with appropriate recommendations;
- 8. Assisting StanCERA's counsel in contract negotiations with the selected Investment Managers;
- 9. Evaluating Private Market investment opportunities with Consultant's input on an ongoing basis; and
- 10. Evaluating and making recommendations for retention and termination of Investment Managers.

C. Consultant

The Consultant is hired by the Board as a fiduciary to StanCERA. Consultant shall independently and continuously monitor and analyze the performance of StanCERA's PM Portfolio and make related recommendations to serve the best interests of the Plan. Consultant shall assist Staff in developing this PM Policy and recommending all necessary changes to it. Consultant shall also be responsible for the following:

- 1. Analyzing the asset allocation of the PM Portfolio by type, implementation vehicle, geography, industry, and vintage year, and making recommendations for reallocation of assets, as appropriate;
- 2. Developing an investment plan for StanCERA's PM Portfolio every 1 to 3 years;
- 3. Developing a search strategy for highly qualified Private Markets investments and maintaining a robust database containing information on Investment Managers;
- 4. Recommending highly qualified Private Markets fund investments to Staff and/or the Board upon completion of a thorough due diligence process and providing the required reports listed in the Appendix I of this PM Policy to Staff;
- 5. Ongoing monitoring of the investment performance of StanCERA's PM Portfolio and individual investments in the Portfolio;
- Conducting ongoing due diligence of Investment Managers, notifying StanCERA of any significant developments and adverse events and providing analysis and advice on such issues;
- 7. Ongoing monitoring of Investment Managers' compliance with a) their respective investment guidelines as set forth in their contract; b) this PM Policy; and c) applicable requirements of StanCERA's IPS, Directives, and Procedures;
- 8. Assisting Staff in contract negotiations with the selected Investment Managers;
- 9. Making recommendations for retention or termination of Investment Managers;
- 10. Attending meetings as needed; and
- 11. Performing other duties in accordance with the terms of its contract and applicable State and Federal law.

D. Investment Managers

Investment Managers are fiduciaries and shall prudently manage StanCERA's assets in the best interest of StanCERA and its members. Investment Managers shall abide by all applicable policies and procedures established by StanCERA, and fully comply with applicable law. Investment Managers shall be responsible for compliance with a) the specific investment guidelines as set forth in their respective contracts; b) this PM Policy; and c) applicable requirements of StanCERA's IPS, Directives, and Procedures. Investment Managers shall be responsible for all aspects of portfolio management as set forth in their respective contracts with StanCERA. They shall also:

- 1. Communicate with Staff and/or Consultant promptly regarding investment strategy, investment results, and any non-conforming issues that may have significant and/or negative impact on the portfolio;
- 2. Cooperate fully with Staff, Consultant, StanCERA's custodian, and other StanCERA vendors concerning requests for information;
- 3. Submit reports to Staff and Consultant in accordance with their contract terms; and
- 4. Attend meetings as needed, either in-person or via conference call.

4. Objectives of investing in Private Markets

The Board believes the Fund's overall returns can be enhanced, on a risk-adjusted basis, by investing a portion of its assets in private equity and private credit. The strategic objective of such investments is to generate returns superior to those available in the public equity and credit markets to compensate for the long-term and illiquidity associated with private investing.

The Board recognizes that performance of investments in private equity and private credit may be difficult to measure during the first several years and possibly longer. However, this PM Policy establishes ongoing monitoring and reporting duties for each investment and for the PM Portfolio as a whole. These duties are designed to address these challenges and are described in detail later in this PM Policy.

Portfolio construction will be designed to produce a diversified mix of returns, subject to the guidelines and constraints outlined under each sub-category. Diversifiable risks associated with this Portfolio include position in the capital structure, the timing and amounts of cash flows, the size of the individual investments, and their sensitivities to business cycles. The risks associated with Private Markets will be viewed within the context of the entire Fund.

5. Strategic Allocation to Private Markets

The long-term target allocation to the Private Equity and Private Credit asset classes is measured by market value of the investments (not by dollars committed to the investment strategies). As portfolio construction shall be driven by careful manager selection, and due to the illiquid nature of investments, the allocation to Private Markets can range from 0% to 16%, with exposure to sub-asset classes as follows:

Private Markets Investment Policy Statement Page 6 of 11

	<u>Allocations</u>	as a percent of total	plan assets
	<mark>Min</mark>	Target	Max
Private Equity	<mark>0%</mark>	<mark>6%</mark>	<mark>8.0%</mark>
Benchmark: Russell 3000 +	<mark>3%</mark>		
Buyouts	<mark>0%</mark>	<mark>4%</mark>	<mark>5.0%</mark>
Venture Capital	<mark>0%</mark>	<mark>2%</mark>	<mark>3.0%</mark>
Private Credit	0%	<mark>6%</mark>	8.0%
Benchmark: S&P / LSTA Lev	<mark>/eraged Loa</mark>	n Index + 2%	
Direct lending	<mark>0%</mark>	<mark>4%</mark>	<mark>5.0%</mark>
Special situations	<mark>0%</mark>	<mark>2%</mark>	<mark>3.0%</mark>

While the target allocations outlined above will be used to ensure consistency with the investment program's strategic asset allocation, the range between the minimums and maximums may be used to improve the risk and return positioning based on an assessment of the relative attractiveness of all available opportunities.

As commitments and investments are expected to be made over time, the Private Markets Portfolio is expected to reach and maintain its long-term target allocation within 4-6 years (subject to availability of quality managers and general market conditions) from the most recent date of change in allocation targets.

Over commitment. Because timing of both contributions and distributions is at the discretion of each private fund manager, commitments do not equal money at work. In order to reach target allocations, it is, therefore, necessary to commit more than the stated target of 12% to reach the Plan's target exposure within the four- to six-year timeframe. Pacing studies are effective tools to manage the level of over commitment. At times, particularly during corrections in public equity markets, it is possible that the Plan's level of over commitment may result in the allocation to private markets exceeding the maximum of 16%. If such a situation were to arise, the pacing study would, if possible, reflect lower future allocations until the Plan's exposure returns to appropriate levels.

6. Guidelines

StanCERA will gain exposure to private markets investments by hiring external investment managers either directly or through participation in secondary markets. Typically, the Plan will subscribe as a limited partner to limited partnership vehicles sponsored by specialty external investment managers.

The Private Markets Portfolio is to be diversified over 4 to 6 years from the most recent date of change in allocation targets as follows:

A. Sub-asset class

The private markets sub-asset classes include private equity buyout strategies, venture capital, and debt-related / special situations strategies. The target allocations and ranges are outlined in the Strategic Allocation to Private Markets section.

B. Vintage year

It is expected that roughly equal amounts of new funding will be committed in each calendar year, with deviations permitted to accommodate market opportunities and to facilitate initial entry into the asset class.

C. Investment manager

No more than 20% of the target allocation to the private markets may be committed to any one investment vehicle.

D. Geography

While the investments made by each investment strategy will be governed by the investment guidelines corresponding to each strategy, the overall private markets exposure is expected to have the majority of its investments domiciled in the United States.

E. Sector

As noted in the Strategic Allocation to Private Markets section above, it is expected that the Private Markets exposure will be diversified by sector as follows:

1. BUYOUTS

Buyout investments typically involve the purchase of a control position (primarily majority positions, with some minority positions) in an established, privately held company. Investments are typically made in years one through three and returns typically occur in years three through six of the limited partnership.

No more than 35% of the target value of capital invested of the buyout portfolio may be invested in a single sector of the domestic or international economy.

2. VENTURE CAPITAL

Venture Capital investments are typically made in privately-held companies at varying stages of development. Investments are often made in years one through five and returns typically occur in years four through ten of the limited partnership. Depending on stage or risk profile of investments, a large portion of investments may result in losses, while a few provide substantially outsized returns. Other types of Private Equity Investments with similar risk/return profiles may be considered for the Fund under this category.

No more than 50% of the target value of capital invested in the venture capital portfolio may be invested in a single industry within a particular sector.

3. PRIVATE CREDIT

Private Credit investments are highly negotiated, private debt investments in middle market companies through a variety of transactions including growth financings, recapitalizations, and acquisition-related financings. Investments are typically made in years one through three of the partnership with a high level of current income. Special Situations investments can encompass any variety of private investments in

debt or equity, typically to generate returns from the turnaround or dissolution of stressed and distressed assets, including opportunistic real estate investments.

No more than 20% of the target value of capital invested in the private credit portfolio may be invested in any single partnership.

7. Due diligence process for Private Markets Investment Selection

StanCERA recognizes that a proper due diligence process is essential to control the risks associated with Private Markets investments and, therefore, establishes the following due diligence processes for both its Consultant and Staff:

A. Consultant

Consultant shall conduct extensive, documented due diligence before making any Private Markets investment recommendations to Staff and the Board. Consultant shall involve Staff in the due diligence process, as necessary. Duties of the Consultant include:

- Assess the reputation of the individuals who manage the investments, consider background checks, internet searches, and in-person meetings or conference calls with these individuals, etc.;
- Conduct on-site visits to the offices of the Investment Managers;
- Check references from other investors that have invested in these investments, and, when advisable, from competitors;
- Determine that the investment funds are audited, at least annually, by a reputable and recognized external independent auditing firm;
- Review Investment Managers investment strategies, policies, operating procedures, and historical performance;
- Review and understand the valuation procedures employed by the Investment Managers;
- Review business terms of all legal agreements and other related documents for the investments under consideration, such as offering memorandum, legal agreements, and Forms ADV, as available;
- Review the investments for potential exposure to Unrelated Business Taxable Income (UBTI); and
- Assess what exit strategies exist to liquidate existing investments owing to poor performance and, if necessary, to avoid future investments in similar funds

B. Staff

Staff shall ensure that Consultant has conducted extensive, documented due diligence on all Private Equity investment proposals recommended to Staff and the Board. Staff shall participate in Consultant's due diligence process when appropriate and shall also be responsible for:

- Reviewing the comprehensive analysis report prepared by Consultant on its recommended investments;
- Verifying the compliance of each recommended investment with this PM Policy, the annual investment plan for StanCERA's portfolio and other applicable investment policies;



Private Markets Investment Policy Statement Page 9 of 11

- Discussing all issues related to the recommended investments with Consultant and if necessary, with Investment Managers;
- Arranging presentations of select investment opportunities to the Board as described under Section 3.B.3;
- Conducting an on-site due diligence visit to each manager's headquarters office when necessary and practicable; and
- Completing Appendix II of this document for each proposal.

8. Portfolio Monitoring

In addition to the portfolio monitoring responsibilities outlined in the IPS, the Consultant and Staff will closely monitor and analyze the PM Portfolio so that the strategic objective of the Portfolio can be met.

Investment Managers shall submit all reports to Staff, Consultant, StanCERA's custodian, and other StanCERA vendors in accordance with their respective contracts.

9. History of Policy Revisions

POLICY APPROVAL DATE: August xx, 2018

Policy Review

This Board shall review this policy at least every three years.

Rick Santos, Executive Director	
Rick Santos, Executive Director	
Approval/Adoption Date:	



Appendix I

List of Reports Required for Each Investment Recommendation/Approval

Report	Source
Recommendation/Approval memo	Staff
Recommendation/Approval memo	Consultant
Executive Summary of the Fund	Consultant
Compliance Checklist	Staff
Comprehensive Due Diligence Report (available to Trustees upon request due to confidentiality)	Consultant
Manager Pitchbook	Investment Manager

Staff will provide an abbreviated Executive Summary Report that is available for review upon request by the Trustees.



Appendix II

Executive Summary Report [Template]

[Fund Name]

Section I: General Information

Fund Name; Total AUM of the Firm; Current Target Fund Size; Previous Fund

Size; Fund Focus; etc.

Section II: Investment Management

Organization Structure; Management Group; Experience; Personnel Turnover;

etc.

Section III: Investment Strategy

Investment Philosophy; Investment Strategy; Investment Process; Investment

Objective; etc.

Section IV: Risk Management

Risk Control Methodology; Exit Strategy; etc.

Section V: Investment Rationale

Section VI: Investment Concerns

Section VII: Performance (example)

Benchmark:

Performance History

YTD 1-yr 3-yr 5-yr Since Inception

Fund

Benchmark

Out/(under)performance

Section VIII: Key Terms

Fund Term; Preferred Return; Investment Period; Management Fee; Other Fees; General Partner Carry; GP Commitment; Advisory Board; Clawback; No-Fault Divorce; Key-Person Events; Closing Schedule; Drawdown Schedule; etc.

List of items to be addressed as appropriate.



Stanislaus County Employees' Retirement Association

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August 28, 2018

Retirement Board Agenda Item

TO: Retirement Board

FROM: Chris Wisdom, Retirement Investment Officer

I. SUBJECT: Updates to Governance Documents

II. ITEM NUMBER: 7.b

III. ITEM TYPE: Discussion and Action

- IV. STAFF RECOMMENDATION: Adopt updated Investment Policy Statement and Investment Directives. Eliminate existing Emerging Manager Policy.
- V. EXECUTIVE SUMMARY: StanCERA has previously adopted the following investment-related governance policies:

Investment Policy Statement (Redlined version – Attachment 1)

Directive 1 – Asset Allocation (Redlined version – Attachment 2)

Directive 2 – Investment Strategy Disposition (Redlined version – Attachment 3)

Directive 3 – Proxies for Illiquid Strategies (Redlined version – Attachment 4)

Directive 4 – Onsite Due Diligence Visits (Redlined version – Attachment 5)

Emerging Manager Policy (Attachment 6)

With assistance from Verus, Staff has reviewed these policies and is suggesting several updates to reflect current StanCERA practices as well as to streamline the documentation, when possible.

"Redlined" versions are included here as attachments in order to better visualize and understand the recommended changes.

Staff is recommending that the Board eliminate the Emerging Manager Policy. This policy, now nearly 10 years old, does not provide constructive guidance to the Board above and beyond what the standard Investment Policy Statement provides. It should be noted that eliminating this policy does not preclude StanCERA from investing with an emerging manager. Rather, it means that all investment managers will be held to the same high standards, regardless of their size.

- VI. RISK: The risk in not updating StanCERA's governance documents is that the policies may not accurately reflect current practices in administering the plan.
- 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.

Retirement Board – August 28, 2018 Updates to Governance Documents Page 2

VIII. ADMINISTRATIVE BUDGET IMPACT: None

Chris Wisdom, Retirement Investment Officer

Rick Santos, Executive Director

7.b. Attachment 1



Stanislaus County Employees' Retirement Association

Investment Policy Statement

Adopted: April 27, 1999

Restated January 24, 2017 August 28, 2018



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The Stanislaus County Employees' Retirement Association ("StanCERA") is a public employee retirement system that was established by the County of Stanislaus on July 1, 1948. StanCERA is administered by the StanCERA Board of Retirement ("the Board") to provide service retirement, disability, death and survivor benefits for county employees and [xx] other participating agencies under the County Employees Retirement Law of 1937, California Government Code Section 31450 *et. seq.* (CERL) and the California Public Employees' Pension Reform Act of 2013, California Government Code Section 7522 *et. seq.* (PEPRA) and other applicable laws.

1. Purpose

StanCERA has established an investment program ("Investment Program") designed to provide sufficient assets in a timely manner to pay the benefits due to participants today and in the future, over the long-term. The purpose of this Investment Policy Statement ("IPS") is to establish the policies that will guide the Investment Program. This IPS is intended to provide guidance to the Board and to its delegates, the Staff and third-party professionals. This IPS is supported by the Board's Investment Directives, the Investment Processes ("Processes"), and other Board policies that reflect the needs of the defined benefit plan ("Plan") that the Board administers. The Investment Directives, Policies and other Board documents hereto are incorporated into this IPS and made a part hereof by this reference.

2. Authority

The Investment Program shall be managed in accordance with applicable law, including but not limited to the following:

- The assets of the Plan are trust funds and shall be held for the exclusive purposes of providing benefits to the participants in the Plan and their beneficiaries and defraying reasonable expenses of administering the Plan (Cal. Const. art. XVI, sec. 17(b); Cal. Govt. Code sec. 31595).
- The Board and its officers and employees shall discharge their duties with respect to the system:
 - a) Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.
 - b) With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
 - c) Shall diversify the investments of the system so as to <u>seek an appropriate risk-adjusted rate of return consistent with the financial characteristics of the sponsors minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.</u>

(Cal. Const. art. XVI sec. 17(b), (c) and (d); Cal. Gov. Code Sec. 31595 (a), (b) and (c)).



3. Governance

The Board hereby adopts a governance model whereby specific authority, responsibility, and accountability are either retained by the Board or delegated to others based on areas of expertise and appropriate oversight. The Board retains sole responsibility governing the Plan, setting investment policy, and monitoring the Investment Program. It may choose to delegate specific areas of responsibility provided it retains appropriate oversight of the delegated activity.

A. Roles and Responsibilities

BOARD OF RETIREMENT

The Board maintains the sole and plenary authority and fiduciary responsibility for the Investment Program. The Board also understands it may delegate certain responsibilities under the Investment Program for purposes of administrative efficiency and expertise. The areas of the Investment Program the Board may not delegate include:

- The governance model of the Investment Program
- Establishing and maintaining investment policy, including:
 - Investment philosophy
 - This IPS
 - Investment objectives
 - o Strategic asset allocation
 - o Allocation-level performance benchmarks
 - Risk philosophy
- Engaging Board consultants and service providers
- Monitoring the Investment Program

2. STAFF

StanCERA Staff ("Staff"), is broadly responsible for supporting the Board in the effective execution of its fiduciary duties. The Executive DirectorStaff has been delegated authority to execute specific elements of the Investment Program as outlined in the Guidelines and Procedures.

3. GENERAL INVESTMENT CONSULTANT

The General Investment Consultant ("Consultant") is engaged by the Board to provide independent, objective investment advice. The Consultant is and shall agree to be a fiduciary to the Plan under California law. The Consultant works with Staff in the development of recommendations while recognizing its fiduciary duty is to provide prudent investment advice to the Board. The Consultant provides advice without discretionary authority to execute on its advice. The specific duties of the Consultant are contained in the Revised Model Agreement for Investment Consulting Services, and generally include providing advice with respect to:

- Investment strategy development and implementation
- Investment policy development
- Asset allocation among classes and subclasses

- Investment manager selection, evaluation and termination
- Investment performance monitoring
- Investment risk monitoring
- Investment fee analysis and negotiation
- Capital markets projections
- Coordination with the Plan's actuary in conducting periodic asset/liability studies and other required reporting
- Board education

4. SPECIALTY INVESTMENT CONSULTANTS

Specialty consultants may be hired by the Board to work with Staff, the Consultant, and/or the Board. These will typically be asset class consultants (e.g., real estate, private equity, hedge funds) that may operate on a discretionary or non-discretionary basis, as directed by the Board, to meet the objectives of the Investment Program.

5. INVESTMENT MANAGERS

Investment Managers are delegated the responsibility of investing and managing Plan assets in accordance with this IPS and all other applicable laws and the terms of the applicable investment documents evidencing StanCERA's acquisition of an interest in an investment vehicle, and other controlling documents. Each Investment Manager must be (1) an investment advisor registered under the Investment Advisors Act of 1940; (2) a bank, as defined in that Act; (3) an insurance company qualified under the laws of more than one state to perform the services of managing, acquiring or disposing of the Plans' assets; (4) a trust operating as an investment company under the Investment Company Act of 1940; or (5) a state-chartered trust company authorized to carry on a trust banking business. Each Investment Manager shall agree that it is a fiduciary of the Plan under California law. Subject to this IPS and their specific contractual obligations to the Plan, Investment Managers are responsible for making all investment decisions on a discretionary basis regarding assets placed under their jurisdiction and will be accountable for achieving their investment objectives. Such discretion shall include decisions to buy, hold, and sell investments in amounts and proportions that are reflective of the stated investment mandate.

6. CUSTODIAN BANK

The Custodian Bank, selected by the Board to act as the principal custodian of assets of the trust, is delegated the responsibility of holding the assets and evidence of interests owned by StanCERA in investment vehicles and cash (and equivalents). The Custodian Bank accepts a fiduciary duty to hold such assets separate and apart from its own assets (other than cash that is held as a deposit obligation with its banking department). The Custodian Bank also accepts fiduciary duties with respect to any Plan assets for which it maintains or exercises any discretionary authority. The Board may authorize the Custodian Bank to invest in temporary short-term fixed income investments both for the investment strategies and as a part of the cash

portion of Plan assets. Such investments will be managed in general accordance with short-term fixed income investment guidelines as detailed in the Custodial Agreement. Cash managed for investment strategies shall be considered to be subportions of the assets managed by the directing Investment Managers.

4. Investment Philosophy

The Investment Philosophy represents the foundational principles on which the Investment Program is based. Every investment decision should be made with these foundational principles in mind to promote the fulfillment of the fiduciary obligations. The statements below set forth the Board's Investment Philosophy:

Plan objectives should guide all decision making

The Investment Program is designed to provide benefits to participants over a long term without accepting undue risks that could be detrimental to the participants or Plan sponsors. The Investment Program, therefore, must be managed in a prudent manner recognizing the relationships between the benefits promised to participants and their beneficiaries, the financial health of the Plan sponsors, and the exposures within the Investment Program.

Asset allocation drives portfolio volatility and returns

It is impossible to accurately and consistently predict the future; therefore, the Plan is required to be prudently diversified across and within asset classes in anticipation of various economic conditions. In a well-diversified portfolio, the overall volatility of investment returns is principally driven by the asset allocation and secondarily driven by the individual investment strategies. As such, asset allocation is the primary tool by which the Board can manage the expected risk/return profile of the Plan.

Short-term investing

Over shorter investment periods of up to five (5) years, volatility can be more detrimental to the success of the Investment Program. Because paying benefits to participants and their beneficiaries occurs continuously, the forced selling of assets during broad market corrections to meet these payments could result in the long-term impairment of investable capital. By maintaining a portion of the portfolio invested in low-volatility, highly liquid securities and investment strategies, the Investment Program will be able to mitigate or avoid the forced selling of assets during broad market corrections.

Long-term investing

Over longer investment periods, volatility can be managed more effectively to produce beneficial results for the Investment Program. Market corrections will occur and when they do, patient and well-capitalized investors are able to wait until the market recovery takes place. Additionally, broad market corrections have historically provided investment opportunities for those with available capital and the foresight to make additional investments.

Fees

Fees directly impact the investment results of the Investment Program but are necessary to appropriately compensate the investment management of the Investment Program. Fees must, therefore, be measured closely against the value the Investment Program expects to earn and aligned to ensure incentives are consistent with the objectives of the Plan.

5. Investment Objectives

The investment objectives of the Investment Program are:

- To provide liquidity to meet retiree benefit payments in a timely manner;
- To produce long-term growth to meet future retiree benefit payments and, if applicable, to close a funding gap over time; and
- To protect the assets against the adverse impacts of rising inflation and investment market volatility.

Investment objectives specific to the individual investment strategies are further defined in the Board's Investment Strategy portion of this IPS.

6. Investment Strategy

The Board has chosen to employ an investment strategy that seeks to align the Investment Program with the investment objectives listed in Section 5 of this IPS. The strategy divides the portfolio into three functional sub-portfolios—Liquidity, Growth, and Diversifying—to address each investment objective highlighted in Section 5. The Liquidity Sub-portfolio is dedicated to funding near-term benefit payments. It is joined with the longer-term Growth Sub-portfolio as well as the Diversifying Sub-portfolio, which is intended to offset some of the investment risks embedded in the Growth Sub-portfolio. While the three sub-portfolios are aligned with the investment objectives individually, collectively they allow the Investment Program to provide appropriate risk and return characteristics.

A. Asset Allocation

The Board has adopted a strategic asset allocation based on the Plan's projected actuarial liabilities, liquidity needs, risk tolerance and the risk/return expectations for various asset classes. This asset allocation seeks to optimize long-term returns for the level of risk the Board considers appropriate. The current asset allocation table may be found in Directive #1the Asset Allocation Investment Resolution.

Since projected liability and risk/return expectations will change over time, the Board will conduct a periodic review of the strategic asset allocation to maintain an expected optimal allocation. The Board may also revise the asset allocation in response to significantly changing conditions that have affected valuations and forward-looking expected returns of asset classes. The Board will review capital market expectations annually. The result of this review will be used to update the Investment Directives as needed.



B. Functional Sub-portfolios

As noted previously, the investment strategy for the Investment Program employs three functional sub-portfolios to construct the comprehensive asset allocation. The allocation to the Liquidity Sub-portfolio is assessed annually and is based on the projected benefit payments and expenses of the Plan. The remaining assets are invested in the Growth and Diversifying sub-portfolios. Annually the Board shall review the relative size and composition of these sub-portfolios and revise them as necessary through Investment Directives. The functional sub-portfolios are set forth below:

1. LIQUIDITY SUB-PORTFOLIO

The purpose of the Liquidity Sub-portfolio is to ensure adequate assets are available to pay benefits over an extended timeframe as outlined in the Investment Directives. The Board https://haswill established a target allocation amount of a specific number of 72 months of the difference between contributions and benefit payments plus expenses ("shortfall") in the Liquidity Sub-portfolio. The assets will be invested in highly liquid, low volatility securities expected to generate modest levels of return while preserving capital throughout a market cycle. This portfolio will contain assets such as cash, short-term bonds, laddered government bonds, and other investments that provide fixed, contractual cash flows with a minimum level of credit risk. As a secondary purpose, a portion of the Liquidity Sub-portfolio may be allocated to the Growth Sub-portfolio during broad market corrections so long as at least 48 months of projected shortfall is maintained in the Liquidity Sub-portfolio.

The success of the Liquidity Sub-portfolio will be measured by its ability to directly fund each year's annual benefit payments without having to draw from other sources of capital or add any unfunded liabilities to the System to meet this obligation. It will accomplish this objective through low-risk, cash flowing investments, as well as providing a stable offset to the rest of the portfolio during periods of severe market stress.

2. GROWTH SUB-PORTFOLIO

The purpose of the Growth Sub-portfolio is to grow invested assets over the long term in order to pay future benefits. Assets from the Growth Sub-portfolio may be sold over time and transferred to the Liquidity Sub-portfolio as needed. This portfolio is characterized by a long investment horizon and can, therefore, accept a higher level of volatility. Assets in this portfolio may be volatile, have reduced liquidity, and derive the bulk of their return from capital appreciation. These assets include public and private equity, corporate and other debt with credit risk premiums, private real estate and other private assets.

The success of this portfolio will be measured primarily by compounded annual growth rates in conjunction with the annualized standard deviation of returns as the primary measure of risk. Performance evaluation will, therefore, focus on the long-term total risk-adjusted return of the portfolio.

3. DIVERSIFYING SUB-PORTFOLIO

The purpose of the Diversifying Sub-portfolio is to offset the investment risk of the Growth Sub-portfolio. Investment strategies in the Diversifying Sub-portfolio are expected to have return profiles that have a low correlation to those in the Growth Sub-portfolio. This is expected to effectively dampen the market volatility across the entire portfolio. As a secondary objective, the investment strategies in the Diversifying Sub-portfolio will offer additional sources of return to those in the Liquidity and Growth sub-portfolios. Assets in the Diversifying Sub-portfolio may be sold during times of market stress or when the assets in the Growth Sub-portfolio are impaired in order to fund the Liquidity Sub-portfolio.

The success of the Diversifying Sub-portfolio will be measured by its ability to offset declines in value in the Growth Sub-portfolio, as well as its ability to provide liquidity during times of market stress.

4. INTERACTION BETWEEN THE FUNCTIONAL SUB-PORTFOLIOS

The allocations to the Liquidity, Growth, and Diversifying sub-portfolios will vary over time. The Liquidity Sub-portfolio will operate as a drawdown vehicle to pay benefits and expenses. The Growth and Diversifying sub-portfolios will be subject to the volatility of the markets in which each functional sub-portfolio invests. In order to reallocate between the functional sub-portfolios, the Board will conduct two annual reviews: an annual capital markets review to assess the relative value and risks associated with each asset class; and an annual funding plan to determine how to replenish the Liquidity Sub-portfolio.

An annual review of the capital markets will be delivered to the Board by the Consultant. The Consultant will provide the Board current forward-looking risk and return assumptions for all major asset classes. In conjunction with this review, the Consultant will also provide a recommendation of how best to allocate assets within each functional sub-portfolio. If necessary, the Consultant will recommend changes in target allocations to the underlying asset classes in order to deploy the Investment Program's assets effectively in the upcoming year.

Additionally, and in coordination with the capital markets review, Staff will present an annual funding plan, which will provide a recommendation of how best to replenish the Liquidity Sub-portfolio program to maintain the required <u>number of72</u> months of shortfall coverage. Staff will provide an annual report to the Board on the progress of funding the Liquidity Sub-portfolio through a combination of harvesting income from the Growth and Diversifying sub-portfolios, asset sales in the Growth and/or Diversifying sub-portfolios or the use of contributions. Under normal market conditions, the balance in the Liquidity Sub-portfolio is expected to vary between 60 and <u>8472</u> months of projected benefit payments and expenses.



C. Investment Strategy Attributes

All investment strategies, whether currently used by the Investment Program or being considered for inclusion in the Investment Program, will be evaluated on their own unique risk and return characteristics as well as their contribution to the overall Investment Program's risk and return characteristics. Other risks pertaining to the individual investment strategies and/or the firm managing the strategy will also be considered.

Fees and expenses of the investment strategies will be closely evaluated against competitive strategies and the value provided for the services rendered. While lower fees are clearly preferred over higher fees, the Plan seeks to identify investment strategies capable of providing value for participants by generating investment returns in excess of benchmark returns plus fees. Fee structures will be evaluated to ensure appropriate incentives are provided to achieve the desired outcomes for the Investment Program.

D. Rebalancing

The Board recognizes there may be a cost to maintaining strict adherence to a target asset allocation in terms of both transaction costs and opportunity costs. The Board also recognizes that the benefit of cost minimization must be balanced against the assumption of active risk associated with allowing variances to asset allocation targets.

Portfolio rebalancing shall be conducted in order to meet two distinct objectives. The first objective is to maintain the long-term strategic asset allocation targets approved by the Board. The second is to capture valuation-based opportunities by deviating from the long-term strategic asset allocation targets as deemed appropriate by the Board.

Special consideration will be given to illiquid asset classes recognizing that the funding and redemption processes are different than those of the liquid asset classes. As such, each illiquid asset class is assigned a specific liquid asset class to function as a holding asset class while the corresponding illiquid strategies are being funded.

E. Managing Investment Strategies

While the Board believes the vast majority of investment return over the long term is dependent on the asset allocation decision, it recognizes additional risk and return may be generated by how the asset allocation is implemented.

1. HIRING A NEW MANAGER

The Consultant shall conduct all investment due diligence activities in connection with hiring new managers. In all cases, the hiring process must be consistent with the requirements for vendor selection detailed in the Processes and other Plan policy documents (e.g., Procurement of Products and Services Policy, Placement Agent Disclosure Policy, Conflict of Interest Code). The Executive Director shall have authority to execute the contracts consistent with the Processes.

<u>Quiet period.</u> During the process of hiring a new manager, a "quiet period" will apply during the evaluation process, during which time no Board member may knowingly have any communication with any actual or potential candidate for the mandate,

unless authorized by the Board in connection with the due diligence process in selecting managers. The quiet period shall cease upon the Board's entering into a contract for the Investment Manager(s) selected for the mandate. The Consultant is responsible for alerting the candidates to the quiet period and its restrictions. A violation of the quiet period rule may result in disqualification of the candidate or other appropriate Board action.

i. Investing in a new closed-end fund with an existing manager

In the case of closed-end funds with a limited investment lifecycle, additional investments are periodically required to maintain asset allocation targets. For such "follow-on" investments, Staff shall have the authority to make additional investments in an amount necessary to maintain the intended exposure, as estimated by a detailed funding analysis. Any additional investment beyond that which is required to maintain the intended exposure must be pre-approved by the Board.

In all cases, the hiring process must be consistent with the requirements for vendor selection detailed in the Procedures and other Plan policy documents (e.g., procurement policy, placement agent policy).

2. TERMINATING EXISTING MANAGERS

The Board recognizes investments may need to be adjusted or removed from the Plan portfolio from time to time for a variety of reasons, including:

- Organizational changes including those to the people and processes in place
- Manager's style has deviated from initial investment thesis
- A manager's style, strategy, ethics, or philosophy is no longer appropriate for the Investment Program
- Underperformance relative to benchmark or other expectations
- Uncompetitive pricing vis-à-vis available alternatives

Absent emergency circumstances (described below), prior to terminating a manager, the Consultant and/or Staff shall present a detailed termination memo to the Board that includes:

- Purpose of the mandate
- Reason(s) for termination
- Specific plan to replace or temporarily invest the assets

Emergency termination. An "emergency" will be deemed to exist when an investment strategy suffers the resignation or other loss of an investment manager and no appropriate replacement is available; when an investment manager dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business; when an investment manager is actually or effectively "shut down" by a regulatory agency of a state or the Federal government or is accused of theft or fraud by a regulatory agency or other government body; when the Plan's

investment is in jeopardy of material loss; or when such other developments with the investment manager give concern to the Consultant or StaffExecutive Director that the investment is no longer prudent for the Program. Action to transfer management of the affected investment strategy shall be taken as soon as possible after StanCERA learns of the emergency. In the case of an emergency, Staffthe Executive Director, or in the Executive Director's absence, the [Kathy's title] will attempt to notify the Chair and Vice Chair of the Board immediately; notify the Custodian Bank that the Investment Manager's Managed Account is to be frozen and, except for those trades which are pending, no further trading is authorized; and may call an emergency meeting of the Board to take further action.

7. Risk Philosophy

The Board recognizes that the assumption of investment risk is necessary to meet the Plan's objectives. Investment risk is viewed as both the annualized standard deviation of investment returns (volatility) and drawdown exposure. Drawdown exposure measures the expected investment loss during a market correction. Additional sources of risk include regulatory, governmental, counterparty, environmental, social and currency, among others. Investment risk, in and of itself, is neither intrinsically good nor bad; it is a condition accepted in the pursuit of investment returns. The goal in managing investment risk is to ensure that an acceptable level of risk is being taken at the total Plan portfolio level. To accomplish this goal, the Plan invests in broad asset classes, via specific investment strategies within those asset classes, which have desirable expected return, risk, and correlation characteristics. While the individual strategies have a wide range of risk and return characteristics, the correlations between the strategies allow for effective portfolio diversification.

The approach used in constructing the portfolio further focuses on the risk characteristics by ensuring the preservation of the Liquidity Sub-portfolio assets as detailed previously in this IPS. Because these assets are invested in lower risk and lower return investments, the assets are well protected. This then allows for the Growth Sub-portfolio to assume greater investment risk in pursuit of higher expected returns. The Diversifying Sub-portfolio then offsets a portion of the investment risk embedded in the Growth Sub-portfolio to protect against drawdown risks.

8. Portfolio Monitoring

Delegation of investment functions by the Board requires proper oversight. Reporting processes are, therefore, designed to provide the Board with this oversight. Accurate, timely, and clear reporting to the Board of the Plan's assets, investment returns and risks, portfolio costs, and investment decisions are essential to assisting the Board in discharging its fiduciary duties.

As part of the portfolio monitoring process, StanCERA will perform investment manager due diligence visits. The guidelines for these visits are outlined in Directive #4.

The Executive Director, with the assistance of the Consultant and Specialty Consultants, shall conduct periodic on-site due diligence activities in connection with evaluating managers. The

Executive Director shall invite the involvement of one or more Board members in the due diligence process. Additionally, the Board may from time to time determine that it is in the best interest of the participants and beneficiaries for one or more Board members to visit the offices of an investment manager, in order to further the Board members' understanding of the manager's strategy and its role in the StanCERA portfolio.

Policy Review

This Board shall review this policy at least every three years.

9.	Histo	ry of	Policy	Revision	S
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Revised 8/28/2018

POLICY APPROVAL DATE:	April 27, 1999
Revised 4/2000.	
Revised 7/2000.	
Revised 5/2005.	
Revised 7/2006.	
Revised 2/2007.	
Revised 9/2007.	
Revised 3/2008.	
Revised 12/2008.	
Revised 07/2009.	
Revised 05/2010.	
Revised 10/2010.	
Revised 7/2011.	
Revised 11/2013.	
Revised 6/24/2014.	
Revised 7/22/2014.	
Revised 1/24/2017	

Reviewe	d and amend	ed by the Bo	ard of Retirem	ent
Rick Sar	ntos, Executivo	e Director		
	I/Adoption Da			



Stanislaus County Employees' Retirement Association

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7.b. Attachment 2

Investment Policy Statement - Directive # 1

StanCERA Asset Allocation Targets and Ranges

Asset Class	_	Α	llocation	
Investment Strategy	Asset Class Benchmark	Min.	Target	Max.
Liquidity Sub-Portfolio		16	21	28
Cash	30 Day T-Bills	0	1	4
Short-Term Gov't/Credit	Bloomberg Barclays US Gov't/Credit 1 - 3 year	16	20	24
Insight		8	10	12
DFA		8	10	12
Growth Sub-Portfolio		50	63	76
US Large	Russell 1000	6	10	14
BlackRock Russell 1000 Growth		3	5	7
Dodge & Cox Stock		3	5	7
US Small	Russell 2000	0	3	6
Capital Prospects		0	3	6
Private Equity	Russell 3000 + 3%	0	6	10
Various	Nussell 3000 + 370	U	U	10
International Developed	MSCI ACWI ex-USA	18	27	36
LSV Eidolity		9	13.5 13.5	18 18
Fidelity		-		-
Core Real Estate	NCREIF Property	0	5	10
Morgan Stanley Prime Property Fund PGIM US Real Estate Debt		0	2.5	5 5
PGIW US Real Estate Debt		U	2.5	Э
Value Add Real Estate	NCREIF Property + 2%	0	5	10
American Strategic Realty		0	2.5	5
Greenfield GAP VIII Greenfield GAP VIII		0	0.8 1.7	1.6 3.4
		•		
Infrastructure	CPI + 5%	0	1	5
Morgan Stanley North Haven		0	1	5
Private Credit	S&P/LSTA Leveraged Loan Index + 2%	0	6	10
Various				
Risk-Diversifying Sub-Portfolio		8	16	24
US Treasury	Bloomberg Barclays Treasury 7 - 10 year	0	3	6
NT Intermediate Government Bond		0	2	4
NT Long-term Government Bond		0	1	2
Risk Parity	60% MSCI ACWI / 40% BBgBarc Global Aggregate	8	13	18
AQR		4	6.5	9
PanAgora		4	6.5	9
Total Allocation			100	



Investment Policy Statement – Directive # 1 Asset Allocation Targets and Ranges Page 2 of 2

II. Review

This Board shall review this policy / directive at least every three years.

III. History

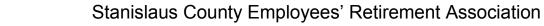
Adopted by the Retirement Board on May 24, 2016

Reviewed and Amended by the Board of Retirement on May 23, 2017 Reviewed and Amended by the Board of Retirement on 08/28/2018

Adopted by the Board of Retirement

Rick Santos, Executive Director

Approval / Adoption Date: 08/28/2018





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7.b. Attachment 3

Investment Policy Statement – Directive # 2

Investment Strategy Disposition

Background

Terminating investment strategies can be a highly subjective process incorporating quantitative data, qualitative characteristics, and the fit of the investment strategy into the investment program. Behavioral biases must also be recognized as a contributing factor of the individual and collective decision-making process of the Board. For these reasons, it is necessary to develop a coherent evaluation process that seeks to minimize behavioral biases while properly evaluating all pertinent facts in the investment strategy evaluation process.

Quarterly evaluation of all investment strategies takes place through the review of performance. At this review, each strategy is compared to its appropriate benchmark and peer universe where applicable. Also during this review, changes to the portfolio are noted along with key drivers of performance. Key drivers of performance are expected to align with the stated investment strategy being employed and differences should be noted. Changes to the investment manager of the strategy are also discussed including: organizational changes, regulatory examinations, notable decline of assets under management, and changes to investment philosophy and process.

Annual Periodic reviews provided directly by the investment managers are another method of analyzing underperformance of an investment strategy. These discussions further reflect changes to the firm as it seeks to effectively employ the strategy.

An investment directive is needed to provide clarity for the Board, Staff, and outside professionals what is to be considered in the termination process of an investment strategy. This directive would not apply to the portfolio rebalancing due to asset allocation decisions.

Directive

This Directive adopts a generalized approach to investment strategy and investment manager evaluation along the following 6 criteria:

- People and organizational stability:
- Investment philosophy;
- Investment process;
- Pricing against the competitive and passive universe for similar strategies;
- Investment performance on both absolute and relative bases; and
- Regulatory considerations.

This list is intended to provide a framework for investment strategy evaluation, but it is not all-inclusive and other considerations may be incorporated.

When this framework is applied to an investment strategy, the Board shall appoint the General Investment Consultant or Specialty Investment Consultant and Staff, if employed,



Investment Policy Statement – Directive # 2 Investment Strategy Disposition Page 2 of 2

to analyze the investment strategy as outlined and provide a written recommendation to the Board.

Included in the recommendation should be the process by which the assets would be reallocated within the Plan to ensure conformity to the desired asset allocation.

II. Review

This Board shall review this policy / directive at least every three years.

III. History

Adopted by the Retirement Board on 02/28/17

Reviewed and Amended by the Board of Retirement on _8/28/2018_____

Adopted by the Board of Retirement

Rick Santos, Executive Director

Approval / Adoption Date: <u>02/28/2017</u> 08/28/2018_





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7.b. Attachment 4

Investment Policy Statement – Directive #3

Proxies for Illiquid Strategies

Background

At the May 2016 Board Meeting, the Board of Retirement approved the "FFP 6-year" asset allocation. This asset allocation increases the Plan's allocation to private credit strategies and introduces private equity strategies. At the January 2017 Board Meeting, the Board took a first step towards the FFP 6-year approach by approving the Phase I asset allocation.

Because <u>real estate, infrastructure,</u> private equity and private credit (collectively private market) strategies typically require years to draw committed capital and because they typically begin returning capital before ever being fully funded, it is necessary to identify proxy strategies so that the Plan achieves its desired asset allocation. The identified proxy strategies work in concert with the private markets strategies to fulfill capital calls, absorb distributions, and contribute the desired risk and return characteristics to the investment program.

Staff shall have discretion to select the specific investment vehicle based on available options, market conditions and the expected time horizon that the proxy is expected to be in use.

The concept applied to private markets strategies may also be considered for real estate, infrastructure, and other asset classes as determined by future asset allocations.

Directive

This investment strategies identified in this Directive are to serve as proxy strategies listed in the following table:

[Approved Proxy Strategies to be determined by the Board of Retirement]

Private Market StrategyPublic Market ProxyPrivate EquityRussell 3000 Index

Private Credit Bloomberg Barclays US High Yield 2% Cap Index

Real Estate US REITS
Infrastructure US REITS

II. Review

This Board shall review this policy / directive at least every three years.

III. History



Investment Policy Statement – Directive # 3 Investment Strategy Disposition Page 2 of 2

Adopted by the Retirement Board on 02/28/17
Reviewed and Amended by the Board of Retirement on _8/28/2018

Adopted by the Board of Retirement	
Rick Santos, Executive Director	-
Approval / Adoption Date: <u>02/28/2017</u> 8/28/18	



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7.b. Attachment 5

Investment Policy Statement - Directive # 4

I. Investment Manager Onsite Due Diligence Visits

Rationale

StanCERA acknowledges that onsite diligence visits are only undertaken once every 4 years. In that regard, the diligence team understands that it doesn't have a lot of time to spend onsite and it wishes to extract the most value from these visits. Further, StanCERA also acknowledges that performance matters are generally discussed each month at regular investment meetings and as such, this policy places slightly more weight on qualitative rather than quantitative issues. *Purpose*

The purpose of the policy is to:

- 1. Identify warning signs of adverse changes in an existing manager's organization
 - a. Has anything fundamentally changed in the manager's operations?
 - b. Is the change significant?
 - c. What are the likely ramifications of the change?
- 2. Pick up on indications of future poor performance
- 3. To reassure StanCERA that we would again hire the manager in question today

Policy

Questionnaire: A questionnaire will be sent to the investment manager at least 6 weeks prior to the onsite visit and should be returned to StanCERA at least 4 weeks prior to the onsite visit. The completed questionnaire covering all aspects of the Organization will be submitted by the investment manager to StanCERA's investment consultant and/or internal investment officer. This version will be kept on hand and reviewed by the consultant and/or investment officer prior to the visit and also handed out and emailed to the diligence committee. A shorter, succinct version may will also be given to the diligence committee approximately 2 to 3 weeks prior to the visit and this version will focus on those questions that may reveal any recent changes within the Organization that could help fulfill the purpose above.

Onsite Interview: The goal of the onsite interview is to allow the diligence committee the ability to address any concerns that may have arisen from the questionnaire and reassure themselves that StanCERA would again hire the firm today. *The committee should drive the discussion*, much the same as in an interview setting. The diligence team <u>may will</u> meet prior to the diligence trip with StanCERA's investment consultant to discuss what concerns they would like addressed and to formulate a general strategy of discussion points and questions.

The onsite interview should have The investment manager should make available, at a minimum, the individual(s) that are in charge of driving the investment process for the StanCERA portfolio. Individuals that can articulate past, current and prospective investment philosophies and performance should be involved as well.



Investment Policy Statement – Directive # 4 Investment Manager Onsite Due Diligence Visits Page 2 of 2

Onsite Inspection: Onsite inspection allows the team the ability to visually "inspect" certain aspects of the Organization that may reveal operational risk. It is not the intent of this policy to proscribe methodologies to determine whether operational risk exists. Instead, after a thorough review of the completed questionnaire, the consultant and/or investment officer may suggest some areas that the diligence committee may want to explore while onsite.

II. Review

This Board shall review this policy / directive at least every three years.

III. History

Adopted by the Retirement Board on 11/25/14(as part of I.P.S)

Reviewed and Amended by the Board of Retirement on _8/28/2018_

Adopted by the Board of Retirement

Rick Santos, Executive Director

Approval / Adoption Date: 11/25/2014 08/28/2018

Stanislaus County Employees' Retirement Association

StanCERA

EMERGING INVESTMENT MANAGER POLICY

December 10, 2008

StanCERA EMERGING INVESTMENT MANAGER POLICY

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I. SCOPE

This Emerging Investment Manager Policy ("EM Policy") governs the Emerging Investment Manager Program ("EM Program") of the Stanislaus County Employees' Retirement Association ("StanCERA") and shall apply to any asset class of StanCERA's Trust Fund ("Fund"). The EM Policy is subject to all provisions of applicable law and the applicable limitations and requirements of StanCERA's Statement of Investment Policy. The StanCERA Board ("Board") reserves the right to amend, supplement or rescind this EM Policy at any time.

II. PURPOSE

The purpose of this EM Policy is to establish a framework for the development and administration of StanCERA's EM Program, consistent with the Board's fiduciary responsibilities in investment of the Fund.

III. LEGAL AUTHORITY

This EM Policy is established in accordance with Article XVI, Section 17 of the California Constitution and California Government Code sections 31594 and 31595, which establish the exclusive authority and fiduciary responsibility of the Board for the investment and administration of the Fund.

IV. DEFINITION OF EMERGING INVESTMENT MANAGERS

For purpose of this EM Policy, StanCERA defines emerging investment managers ("EMs") – also known as portfolio managers - as investment managers who generally have total assets under management of less than \$2 billion, and, in addition, may have more limited time in business and/or a more limited track record in the specific products under consideration than would ordinarily be required in StanCERA's standard institutional investment manager search process.

V. EMERGING INVESTMENT MANAGER PROGRAM

StanCERA's EM Program is an investment program, developed and managed in accordance with this EM Policy. The EM Program is designed to identify investment firms with the potential to add value to StanCERA's investment portfolio that would not be identified in StanCERA's standard institutional investment manager search process. Studies have shown that some smaller investment firms may be able to generate superior performance due to increased market flexibility associated with smaller asset bases. StanCERA plans to utilize Manager-of-Managers ("MOMs") for the EM Program. The allocations to the EM Program will be determined by the Board in consultation with the Investment Consultant.

VI. STRATEGIC OBJECTIVE AND GOALS OF THE EMERGING INVESTMENT MANAGER PROGRAM

The strategic objective of the EM Program is to add incremental value to the Fund through the hiring of the most talented EMs to manage StanCERA's assets.

The primary goals of the EM Program are to 1) identify and gain early access to the most talented investment managers in their early business stages; 2) generate superior Fund return performance through the EM Program; and 3) further diversify the Fund's overall investment program, so as to enhance risk-adjusted returns of the Fund.

StanCERA may consider an EM investment when the Investment Consultant, after due diligence and investigation, have determined that:

- 1) The risk and return characteristics of the EM investment are no less favorable than comparable non-EM opportunities available; and
- 2) The EM investment is in compliance with this Policy.

VII. STANDARDS FOR EMERGING INVESTMENT MANAGERS

All investment managers selected through the EM Program shall comply with and be subject to any and all performance-related and other standards, requirements, and expectations set forth in StanCERA's Statement of Investment Policy, other than requirements regarding criteria for inclusion in StanCERA's standard institutional investment managers search process.

All investment managers selected through the EM Program shall also comply with and be subject to any and all other StanCERA Board policies, procedures and guidelines that pertain to investment managers, including without limitation, obligations regarding disclosure by investment managers of actual or potential conflicts of interest, as well as any and all other obligations imposed on StanCERA's investment managers by State and Federal law.

Agreements (contracts) with MOMs shall contain the general legal language used in other StanCERA investment management agreements (contracts) along with specific language related to the investment manager's asset allocation, performance and fees. Dollar amounts for various insurance requirements may be adjusted in light of proportionately smaller asset allocations but may not be less than a minimum amount that is deemed prudent to protect StanCERA's interests.

VIII. ROLES AND RESPONSIBILITES

The delineation of roles and responsibilities is important for the effective administration of StanCERA's EM Program. The duties and responsibilities of the Board, Staff, Investment Consultant, counsel to StanCERA's Retirement Board ("Fiduciary Counsel") and EMs/MOMs in relation to the EM Program are stated below:

A. Board

The Board shall be responsible for approving the EM Policy that governs the EM Program and approving the implementation of the EM Program at StanCERA. The Board, with input from the Investment Consultant, shall review this EM Policy annually to determine whether modifications are necessary. The Board shall be responsible for the retention and termination of MOMs. The Board shall receive notice of the MOMs' retention and termination of EMs. The Board also has the authority to retain or terminate EMs following appropriate due diligence and recommendation by its Investment Consultant.

B. Investment Consultant

The Investment Consultant hired by the Board is a fiduciary to StanCERA and its Board. The Investment Consultant shall independently and continuously monitor and analyze the effectiveness of StanCERA's EM Program and make related recommendations in order to serve the best interests of the plan participants. The Investment Consultant shall also assist Staff in crafting the EM Policy and implementing the EM Program. In addition, The Investment Consultant shall be responsible for:

- 1. Ongoing monitoring of the performance of StanCERA's EMs and MOMs;
- 2. Monitoring EMs' and MOMs' compliance with a) their respective investment guidelines as set forth in their contract; b) this EM Policy; and c) applicable requirements of StanCERA's Statement of Investment Policy;
- 3. Conducting MOM searches and searches related to EMs (with Board approval) and assist staff in contract negotiations;
- 4. Submitting performance evaluation reports and conducting comprehensive reviews of the EMs and MOMs quarterly to the Board in conjunction with the regular quarterly performance report and review;
- 5. Making recommendations for retention or termination of MOMs;
- 6. Making recommendations for retention or termination of EMs if the Investment Consultant has information for such action and a MOM has not taken action deemed prudent;
- 7. Attending meetings as needed; and
- 8. Performing other duties in accordance with the terms of its contract and applicable State and Federal law.

C. Staff

Staff shall be responsible for accounting for and monitoring of the EM Program. Staff's responsibilities shall include, but not be limited to the following:

- 1. Developing and maintaining specific procedures to insure compliance with the approved EM Policy;
- 2. Developing and recommending changes to the EM Policy in consultation with the Investment Consultant and Counsel:
- 3. Assuring that the implementation of the EM Policy and management of the EM Program is in accordance with Board directives;
- 4. Assisting Fiduciary Counsel in contract negotiations with MOMs.

D. Fiduciary Counsel

Fiduciary Counsel is a fiduciary to StanCERA and its Board. Fiduciary Counsel shall provide legal, but not investment, advice to the Board and Staff regarding all aspects of StanCERA's EM Policy. Fiduciary Counsel shall also provide legal, but not investment, advice on StanCERA's EM Program upon request. Fiduciary Counsel shall prepare investment management agreements (contracts) in consultation with the Investment Consultant and Staff.

E. Emerging Investment Managers

EMs are fiduciaries and shall prudently manage StanCERA's assets in the best interest of StanCERA and its members. EMs shall abide by all of StanCERA's policies and procedures, and fully comply with applicable law. EMs shall be responsible for compliance with a) the specific investment guidelines as set forth in their respective contracts; b) the EM Policy; and c) applicable requirements of StanCERA's Statement of Investment Policy. EMs shall be responsible for all aspects of portfolio management as set forth in their respective contracts with StanCERA. EMs shall also:

- 1. Communicate with MOMs as needed regarding investment strategy and investment results:
- 2. Cooperate fully with Staff, Investment Consultant, StanCERA's custodian, StanCERA approved auditors, governmental regulators and MOMs concerning requests for information;
- 3. Submit reports to MOMs, Staff and the Investment Consultant in accordance with their contract terms; and
- 4. Attend meetings as needed.

F. Manager-of-Managers

MOMs are fiduciaries and shall prudently manage StanCERA's assets in the best interest of StanCERA and its members. MOMs shall abide by all of StanCERA's policies and procedures, and fully comply with applicable law. MOMs are responsible for compliance with a) the specific investment guidelines as set forth in their respective contracts; b) the EM Policy; and c) applicable requirements of StanCERA's Statement of Investment Policy. Within these parameters, MOMs shall also:

- 1. Maintain a comprehensive database of emerging investment managers and continuously conduct due diligence evaluation of prospective EMs;
- 2. Construct a diversified portfolio of EMs based on the objectives and benchmarks established by the MOM;
- 3. Have the authority to retain and terminate EMs based on the evaluation criteria established by the MOM;
- 4. Monitor and report on the performance of the individual EMs in the MOM portfolio and the MOM-managed portfolio itself; and
- 5. Attend meetings as needed.

IX. PERFORMANCE EVALUATION CRITERIA

The specific performance evaluation criteria for EMs and MOMs shall be established in the StanCERA Statement of Investment Policy.

X. MONITORING AND REPORTING

The Investment Consultant and Staff will closely monitor and analyze the EM Program to ensure compliance with the EM Program's strategic objective and goals. EMs and MOMs are required to submit all reports to the Investment Consultant and Staff in accordance with their respective contracts and applicable requirements set forth in the StanCERA Statement of Investment Policy.

The Investment Consultant will perform comprehensive evaluations of StanCERA's EM Program, the EMs and MOMs annually, and will report the findings to the Retirement Board.

XI. QUALIFICATIONS OF EMERGING INVESTMENT MANAGERS AND MANAGER-OF-MANAGERS AND StanCERA DUE DILIGENCE

StanCERA seeks to retain the most talented EMs to manage StanCERA's assets. Those EMs and MOMs that comply with Federal and State laws, StanCERA's Statement of Investment Policy, specific investment manager agreement (contract) and produce superior investment results (as measured and verified by the Investment Consultant) that meet the objectives and goals of the EM Program will be retained. All investment managers are subject to a comprehensive due diligence review process by StanCERA and its Investment Consultant.

XII. EFFECTIVE DATE

This Policy shall become effective upon adoption by the Board.

Historical Notes

Approved by the Board of Retirement on December 10, 2008.



PAS IMPLEMENTATION LINEA BI-WEEKLY STATUS UPDATE

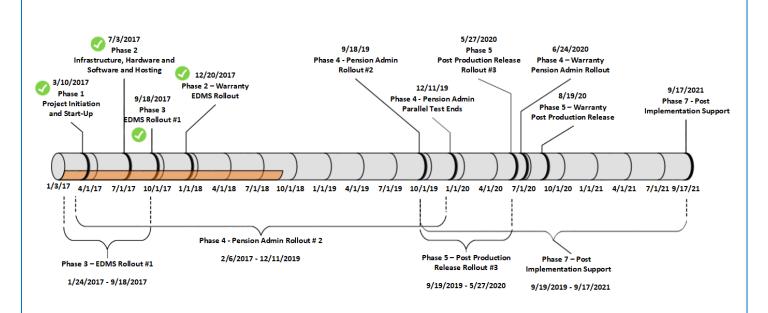


Sponsor:

Rick Santos

REPORT DATE:

08-24-2018



STATUS

■ Expended ■ Remaining 100% 80% 60% 40% 20% 0% Budget Duration Linea Budget as of 04/30/18

Baseline 12/01/2016

Risks & Issues:

No new high-level risks have been identified at this time.

Accomplishments:

- > Coordinated investigation and communication of process adjustments and issue resolution related to Imaging Release 6.
- Developed and issued test cases to retest 25 resolved PIRs that had been derived from prior UAT.
- Facilitated a second meeting with StanCERA to further define and progress calculator test case collection efforts.

Upcoming:

- > Begin receiving and testing file upload employer test files for testing in Arrivos.
- Continue to provide support to StanCERA SMEs in development of benefit calculator unit test cases and population of test case templates.
- Lead retesting of resolved PIRs to achieve closure.
- Participate in the start of calculator testing.

Ongoing Project Contributions

- Facilitate weekly Project Manager's meetings and create meeting minutes.
- Facilitate monthly Steering Committee Meetings and create meeting minutes.
- Participate in Tegrit work sessions, review meeting minutes, and compile resulting decision logs and action items (Calculators).
- Regularly review action items for follow up and completion.
- Review and hold group review sessions for BSRD deliverables made by Tegrit (BSR036).
- Track requirements, as discussed in work sessions and BSRDs, using the RTM and meet with StanCERA PM to update requirements confirmation.
- Manage and participate in system testing efforts, including review of test scripts, compiling of results, input of PIRs, and tracking of issue resolution.

