

Pension Trust

1000 Mill Street
San Luis Obispo, CA 93408
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www.SLOPensionTrust.org



AGENDA

PENSION TRUST BOARD OF TRUSTEES

Monday, Sept. 25, 2017 9:30 AM

Room 161/162
County Government Center
San Luis Obispo, CA 93408

PUBLIC COMMENT

1. Public Comment: Members of the public wishing to address the Board on matters other than scheduled items may do so when recognized by the Chair. Presentations are limited to three minutes per individual.

ORGANIZATIONAL

None

CONSENT

2. Minutes of the Regular Meeting of August 28, 2017 (Approve Without Correction).
3. Report of Deposits and Contributions for the month of August 2017 (Receive and File).
4. Report of Service Retirements, Disability Retirements and DROP Participants for the month of August (Receive, Approve and File).
5. Applications & Elections to participate in the Deferred Retirement Option Program (DROP) received through September 8, 2017 (Receive, Approve and File).

APPLICATIONS FOR DISABILITY RETIREMENT

None

OLD BUSINESS

None

NEW BUSINESS

6. Asset/Liability Study – Funding and Investment Implications – Scott Whalen, investment consultant and Vance Creekpau, actuary – Verus - (Discuss, and Direct Staff as necessary)
7. Actuarial Projections – Paul Wood, actuary - Gabriel Roeder Smith (Discuss, and Direct Staff as necessary)

INVESTMENTS

8. Investment Policy Statement Amendment - (Review, Discuss, and Direct Staff as necessary).
9. Monthly Investment Report for August 2017 (Receive and File).
10. Asset Allocation - (Review, Discuss, and Direct Staff as necessary).

OPERATIONS

11. Executive Compensation – Personnel Committee Recommendation (Review, Discuss, and Direct Staff as necessary).
12. Staff Reports
13. General Counsel Reports
14. Committee Reports:
 - a. Audit Committee No Report
 - b. Personnel Committee Report
 - c. PAS Replacement Committee Report
15. Upcoming Board Topics (subject to change):
 - a. October, 23, 2017
 - i. PAS Replacement Project Update

- b. November 27, 2017
 - i. Disability Hearing Report
 - ii. PEPRRA Compensation Limit – 2018
 - iii. Interest Crediting Rate – Normal Contributions – 2018
 - iv. Interest Crediting Rate – Additional Contributions - 2018
 - v. Quarterly Investment Report – 3Q17
 - vi. Investment Educational Presentation – Real Assets and Private Equity Outlook

- c. December 18, 2017
 - i. Actuarial Audit status update
 - ii. Actuarial Assumptions – peer comparisons

16. Trustee Comments

REFERRED ITEMS

None

ADDED ITEMS

None

CLOSED SESSION

- 17. PUBLIC EMPLOYEE EVALUATION. The Board will convene in closed session pursuant to Gov. Code section 54957(b)(1) to conduct the annual employee evaluation of the Executive Secretary.

ADJOURNMENT

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Board of Trustees

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AUGUST 28, 2017 MINUTES OF THE REGULAR MEETING OF THE PENSION TRUST BOARD OF TRUSTEES

BOARD MEMBERS PRESENT: Matt Janssen, President
Gere Sibbach
Jim Hamilton
Jeff Hamm

BOARD MEMBERS ABSENT: Will Clemens, Vice President
Guy Savage
Jim Erb

STAFF: Carl Nelson
Andrea Paley
Amy Burke

COUNSEL: Chris Waddell, Esq.

OTHERS: Jennifer Alderete, Pension Trust
Scott Whalen, Verus (consultant)
Michael Hobbs, Human Resources
Dan Andoetoe, Retiree

The meeting was called to order by President Janssen at 9:32 AM, who presided over same.

AGENDA ITEM NO. 1: PUBLIC COMMENT.

None.

ORGANIZATIONAL:

None.

CONSENT:

AGENDA ITEM NO. 2 - 5: CONSENT.

Upon the motion of Mr. Hamm, seconded by Mr. Janssen, and unanimously passed, the following action was taken:

- ITEM 2:** The Minutes of the Regular Meeting of July 24, 2017 were approved without correction.
- ITEM 3:** The Report of Deposits and Contributions for the Month of July 2017, was received and filed.
- ITEM 4:** The Report of Service Retirements, Disability and DROP Retirements for the month of July 2017, was received, approved and filed.
- ITEM 5:** The Report of Applications for participation in the Deferred Retirement Option Program received through August 11, 2017 was received, approved and filed.

APPLICATIONS FOR DISABILITY RETIREMENT:

None.

OLD BUSINESS:

None.

** Investment Items 11 through 15 taken out of order to accommodate Mr. Whalen's travel schedule.

INVESTMENTS:

**AGENDA ITEM NO. 11: INVESTMENT REPORT FOR 2ND QUARTER
PRESENTATION BY SCOTT WHALEN, VERUS.**

Mr. Scott Whalen, Investment Consultant with Verus was present to review current economic matters and the 2nd quarter and year to date performance of the Pension Trust investment portfolio. He answered questions from staff and the Board.

Upon the motion of Mr. Hamm, seconded by Mr. Janssen, and unanimously passed this item was received and filed.

**AGENDA ITEM NO. 12: MONTHLY INVESTMENT REPORT FOR
JULY 31, 2017.**

Upon the motion of Mr. Hamm, seconded by Mr. Hamilton, and unanimously passed the July 31, 2017 Investment Report was received and filed.

**AGENDA ITEM NO. 13: COMMISSION RECAPTURE PROGRAM
TERMINATION.**

Upon the motion of Mr. Hamm, seconded by Mr. Sibbach, and unanimously passed, staff recommendation to terminate the existing Commission Recapture Program with Cowen Plan Sponsor Services, Inc. was approved.

**AGENDA ITEM NO. 14: INVESTMENT EDUCATION PRESENTATION
CURRENCY MANAGEMENT
BY SCOTT WHALEN, VERUS.**

Mr. Whalen, Investment Consultant with Verus was present to provide an educational overview of currency management. The presentation explored different approaches to addressing currency risk including but not limited to uncompensated currency risk and considering a passive and active hedging programs. Mr. Whalen took questions from staff and the board.

Upon the motion of Mr. Janssen, seconded by Mr. Sibbach and unanimously passed the presentation report was received and filed.

** 11:10 AM -President Janssen called the meeting into recess for a short Break at this time

** 11:22 AM – President Janssen resumed the meeting at this time

AGENDA ITEM NO. 15: ASSET ALLOCATION.

Staff reported that no action regarding investment asset allocations were necessary at this time.

NEW BUSINESS:

AGENDA ITEM NO. 6: ACTUARIAL AUDIT – SCOPE OF AUDIT AND FIRM SELECTION.

Upon the motion of Mr. Sibbach, seconded by Mr. Hamm, and unanimously passed, the following action was taken:

- 1) The board approved a Full Replication Actuarial Audit of the 2017 Actuarial Valuation at a not-to-exceed” cost of \$70,000; and
- 2) Staff was authorized to retain Bartel Associates to perform the actuarial audit.

AGENDA ITEM NO. 7: MID YEAR STATUS OF 2017 UNAUDITED FINANCIAL STATEMENTS AND FINAL 2016/2017 ADMINISTRATIVE BUDGET.

Upon the motion of Mr. Sibbach, seconded by Mr. Hamm, and unanimously passed, the following action was taken:

- 1) The unaudited June 30, 2017 mid-year Financial Statements were received and filed; and
- 2) The Final Fiscal Year 2016/2017 Pension Trust Administrative Budget report was received and filed.

AGENDA ITEM NO. 8: FY 2017/2018 BUDGET AMENDMENT.

Upon the motion of Mr. Hamm, seconded by Mr. Janssen, and unanimously passed the following amendments to the Fiscal Year 2017/2018 Pension Trust Administrative Budget were approved as follows:

- 1) Increase the Accounting & Auditing expense by \$5,000 to \$61,000; and
- 2) Increase the Equipment expense by \$8,000 to \$13,000; and
- 3) Decrease the Contingencies by \$13,000 to \$126,000.

** 11:44 AM - Mr. Nelson departed the meeting prior to discussion on this item.

AGENDA ITEM NO. 10: EXECUTIVE SECRETARY EVALUATION TEMPLATE.

Upon the motion of Mr. Hamm, seconded by Mr. Janssen, and unanimously passed, the recommendation of the Personnel Committee to revise the current Executive Secretary Evaluation Template by: 1) reducing the number of ratings from 5 to 3 (Exceeds Expectations; Meets Expectations; or Not meeting Expectations); and 2) adding a ratings category "Board Communications/Relationship between Executive Secretary and Board was approved.

** 11:51 AM - Ms. Burke departed the meeting prior to discussion on this item.

AGENDA ITEM NO. 9: EXECUTIVE SECRETARY COMPENSATION POLICY.

Upon the motion of Mr. Hamm, seconded by Mr. Janssen, and unanimously passed, the recommendation of the Personnel Committee to approve the Executive Secretary Compensation Policy was approved with the following key elements listed below as follows:

- 1) Primary benchmarking to chief executive positions at comparable (asset size; staffing levels; geographic proximity) California public retirement systems; and
- 2) Consideration of general economic factors, including public and private sector wage environment; and
- 3) Biennial salary review commencing in July, 2017, aligned with the release of the biennial CALAPRS salary survey; and
- 4) Provision for "off cycle" reviews where deemed appropriate in order to consider internal salary relationships in the event that other Pension Trust staff whose compensation is benchmarked to County positions receive salary increases based upon such benchmarks.

12:04 PM – Mr. Nelson and Ms. Burke returned to the meeting at this time.

OPERATIONS:

AGENDA ITEM NO. 16: STAFF ORAL REPORTS.

- A)** Staff updated the Board of recent developments with regard to County medical insurance and the impact of changes to retirees who subscribe to the county insurance into retirement. The main change being the termination of the contract with CalPERS and moving to contract with CSAC-EIA;. Medicare Supplements; the PEMCHA contribution; and method in which the county will collect premiums in the future may face potential change as well.
- B)** Staff shared that IT executed a cybersecurity vulnerability assessment of the Pension Trust and made adjustments to fix any matters of concern.
- C)** Staff reported that PAS Deliverable 2 is almost complete.
- D)** Staff updated the Board on the impact of Pension Trust as it related to changes to the County's 457 plan regarding provider changes happening in late September.
- E)** Staff informed the board that the 2018 schedule of board meetings is now posted on the Pension Trust website.

AGENDA ITEM NO. 17: GENERAL COUNSEL ORAL REPORTS.

None.

AGENDA ITEM NO. 18: COMMITTEE REPORTS – AS NEEDED.

- A)** AUDIT COMMITTEE: Nothing to report.
- B)** PERSONNEL COMMITTEE: See Items 10 and 9 above.
- C)** PENSION ADMINISTRATION SYSTEM ADMINISTRATION (PASR) COMMITTEE: Nothing to report other than staff update in item 16 above.

AGENDA ITEM NO. 19: UPCOMING BOARD TOPICS.

The planned topics for the next three board meetings were included in the agenda summary. This is an information item, nothing further to report.

AGENDA ITEM NO. 20: TRUSTEE COMMENTS.

Mr. Sibbach addressed his concerns about the January 1, 2018 changes to the medical insurance offered to County employees but specifically extended to the retirees. He addressed several points of great concern as follows:

He was aware there had been some discussion about research for potential changes done last year. He added that in 2016 SLOCREA did not want to see change to the retiree medical options.

He expressed concern that without further communication to the retirees this year, that decisions had been made and an item was going before the Board of Supervisors to terminate the contract with CalPERS. This year, apparently, all the unions were met with and agreed to the termination of the CalPERS relationship and signing with CSAC-EIA with the exception of the retiree association, SLOCREA.

He appreciated the opportunity for himself and several SLOCREA Members to meet with Human Resources on August 11, 2017, teleconferencing with Alliant staff to go over a presentation on the retiree supplemental options. But he noted that the premiums for retiree supplemental plans were substantially higher than those offered by CalPERS in 2018 and there was discussion that those plans might not be offered in the future for Medicare-eligible retirees, rather the retirees would have an "Medicare insurance exchange" option to utilize as an alternative.

He noted that his understanding for the reasons to change providers was to offer more health care options at a more reasonable cost. The options offered to retirees are limited - while there is a comparable PPO plan, there is not a comparable HMO plan for retirees, and the costs are higher than those associated with the CalPERS comparable options.

He touched on the promise of a continued employer stipend via the PEMCHA contribution, currently at \$128 per month toward the premium if a county retiree was enrolled in the employer sponsored plan. Retirees are on fixed incomes and that stipend is very important as part of their budget to offset the cost on medical insurance.

He also expressed concern that retirees going forward will only have two options to remain covered through their employer as a retiree. The first opportunity is to remain covered or opt in at the point of retirement. The second opportunity is to elect to enroll as a retiree at the point of eligibility for Medicare. Once a retiree elects to "opt out" of coverage, they are out forever with only the exception of turning age 65 (Medicare eligible). The current practice is that a

retiree has the flexibility to re-enroll due to life changes or as an open enrollment event.

He concluded his comments expressing his disappointment and displeasure at the future options available to county retirees for medical insurance coverage through their employer.

REFERRED ITEMS: None.

ADDED ITEMS: None.

CLOSED SESSION: None.

ADJOURNMENT.

There being no further business, the meeting was adjourned at 12:20 PM. The next Regular Meeting was set for September 25, 2017, at 9:30 AM, in Conference Rooms 161/162, New County Government Center, San Luis Obispo, California 93408.

Respectfully submitted,

**Carl Nelson
Executive Secretary**

**REPORT OF DEPOSITS AND CONTRIBUTIONS FOR THE MONTH OF
AUGUST 2017**

PP 16 8/4/2017

By Employer and Tier:	Pensionable Salary	Employer Contributions	Employer Rate	Employee Contributions	Employee Rate	Combined Rate	Additional Contributions	Buy Backs	TOTAL Contributions
County Tier 1	4,164,373.60	920,663.66	22.11%	780,212.15	18.74%	40.84%	1,757.50	901.30	1,703,534.61
County Tier 2	924,391.72	208,981.59	22.61%	112,223.55	12.14%	34.75%	304.13	760.78	322,270.05
County Tier 3	1,916,356.32	403,178.08	21.04%	201,068.73	10.47%	31.51%	-	427.46	604,674.27
Superior Court Tier 1	296,785.76	71,310.76	24.03%	45,361.77	15.28%	39.31%	-	-	116,672.53
Superior Court Tier 3	44,996.19	10,120.11	22.49%	4,522.56	10.05%	32.54%	-	114.54	14,757.21
APCD Tier 1	76,465.38	16,085.91	21.04%	14,062.72	18.39%	39.43%	-	-	30,148.63
APCD Tier 3	6,692.00	1,398.95	20.90%	767.62	11.47%	32.38%	-	-	2,166.57
Pension Trust Staff Tier 1	6,959.59	1,526.93	21.94%	1,421.85	20.43%	42.37%	-	-	2,948.78
Pension Trust Staff Tier 2	7,651.20	1,678.67	21.94%	833.98	10.90%	32.84%	-	-	2,512.65
Pension Trust Staff Tier 3	8,606.42	1,846.07	21.45%	1,014.93	11.79%	33.24%	-	-	2,861.00
LAFCO Tier 1	12,494.29	3,248.51	26.00%	1,996.22	15.98%	41.98%	-	-	5,244.73
	7,465,772.47	1,640,039.24	21.97%	1,163,486.08	15.58%	37.55%	2,061.63	2,204.08	\$ 2,807,791.03

PP 17 8/18/2017

By Employer and Tier:	Pensionable Salary	Employer Contributions	Employer Rate	Employee Contributions	Employee Rate	Combined Rate	Additional Contributions	Buy Backs	TOTAL Contributions
County Tier 1	4,163,786.48	918,794.98	22.07%	780,595.57	18.75%	40.81%	1,687.50	11,683.93	1,712,761.98
County Tier 2	925,714.03	209,573.76	22.64%	112,847.78	12.19%	34.83%	304.13	760.78	323,486.45
County Tier 3	1,958,264.62	412,254.36	21.05%	206,017.03	10.50%	31.55%	-	7,202.50	625,473.89
Superior Court Tier 1	299,881.77	72,017.90	24.02%	45,872.30	15.30%	39.31%	-	-	117,890.20
Superior Court Tier 3	46,062.96	10,403.59	22.59%	4,628.65	10.05%	32.63%	-	114.54	15,146.78
APCD Tier 1	76,129.38	16,016.57	21.04%	14,003.23	18.39%	39.43%	-	-	30,019.80
APCD Tier 3	6,692.00	1,398.95	20.90%	767.62	11.47%	32.38%	-	-	2,166.57
Pension Trust Staff Tier 1	6,959.59	1,526.93	21.94%	1,421.85	20.43%	42.37%	-	-	2,948.78
Pension Trust Staff Tier 2	7,791.20	1,709.38	21.94%	849.25	10.90%	32.84%	-	-	2,558.63
Pension Trust Staff Tier 3	8,403.33	1,802.51	21.45%	990.42	11.79%	33.24%	-	-	2,792.93
LAFCO Tier 1	12,494.29	3,248.51	26.00%	1,996.22	15.98%	41.98%	-	-	5,244.73
	7,512,179.65	1,648,747.44	21.95%	1,169,989.92	15.57%	37.52%	1,991.63	19,761.75	\$ 2,840,490.74

TOTAL FOR THE MONTH

14,977,952.12	3,288,786.68	21.96%	2,333,476.00	15.58%	37.54%	4,053.26	21,965.83	\$ 5,648,281.77
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TOTAL YEAR TO DATE

125,277,268.33	27,263,189.28	21.76%	19,418,635.84	15.50%	37.26%	41,997.49	281,754.06	47,005,576.67
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**REPORT OF SERVICE & DISABILITY RETIREMENTS &
DROP PARTICIPANTS FOR THE MONTH OF:**

AUGUST 2017

RETIREE NAME	DEPARTMENT	DATE	MONTHLY ALLOWANCE
BOKAR, JENNIFER	PUBLIC WORKS / RECIPROCAL	08-05-2017	1054.85
CAMERON, SUSAN	LAW ENFORCEMENT MEDICAL CARE	08-01-2017	Awaiting calcs
CARROLL, ELLEN (DROP)	PLANNING	08-01-2017	10967.90 496.34*
GOMES, KATHRYNE (DROP)	SOCIAL SERVICES	08-01-2017	2459.97
HACKER, JOHN (DROP)	SHERIFF-CORONER	08-01-2017	Awaiting calcs
HEILMAN, DEBORAH	SOCIAL SERVICES	08-15-2017	1318.64 445.44**
HITLIN, RACHEL	SOCIAL SERVICES	08-05-2017	1606.87
HURLA, BERTA	GENERAL HOSPITAL / RESERVE	08-06-2017	Awaiting calcs
McCRUDDEN, LYNN	PUBLIC HEALTH	08-26-2017	Option selection
McGILL, DONALD (DROP)	SHERIFF-CORONER	08-01-2017	4490.13
MORENO, MICHAEL (DROP)	PUBLIC WORKS	08-01-2017	1699.61
PHILLIPS, KIMBERLY ROSE	SHERIFF-CORONER / ALT PAYEE	08-05-2017	Option selection
SCHAMBER, KELLY	SHERIFF-CORONER	08-24-2017	6174.00 19.28*
TOAL, KATHY	SHERIFF-CORONER	08-04-2017	2842.58
VIRGIN, EDWIN	APCD / RECIPROCAL	08-02-2017	2977.25
ADDENDUM:			
TRYON, ROSE	SOCIAL SERVICES / RECIPROCAL	04-01-2017	Awaiting calcs
WALKER, DAVID (DROP)	SHERIFF-CORONER	06-01-2017	5948.80
BULLOCK, BARBARA	LAW ENFORCEMENT MEDICAL CARE	07-23-2017	6372.62 21.23*
DUSI, DEBORAH	SHERIFF-CORONER	07-04-2017	2219.54
ENGLISH, KATHRYN	AUDITOR-CONTROLLER / RECIPROCAL	07-15-2017	Awaiting calcs
FAHEY, SANDRA	MENTAL HEALTH / RECIPROCAL	07-29-2017	Awaiting calcs
LaROSE, PATRICIA	SOCIAL SERVICES	07-28-2017	4598.06 441.32*
LEARY, MICHAEL	PUBLIC WORKS	07-29-2017	6507.84 20.00*
LEWIS, JANN	SHERIFF-CORONER	07-07-2017	2243.81
PRINCIC, GLENN	PARKS	07-15-2017	1208.46
RIVERA, LISA L.	SOCIAL SERVICES	07-29-2017	4363.27 1.22*

* Employee Additional Contribution Allowance (per Sections 5.07, 27.12, 28.12, 29.12, 30.12, and 31.12 of the Plan)

** Social Security Coordinated Temporary Annuity (per Section 13.06 of the Plan)

Board of Trustees

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Date: September 25, 2017
To: Board of Trustees
From: Carl Nelson – Executive Secretary

Agenda Item 5: Applications & Elections to Participate in the Deferred Retirement Option Program (DROP)

Recomendation:

It is recommended that you receive and approve the Application & Election to Participate in DROP for the individuals listed below.

Discussion:

The San Luis Obispo County Pension Trust has received an Application & Election to Participate in DROP from the following members listed below:

OCTOBER 1, 2017
NOVEMBER 1, 2017

Stephen Odom, Sheriff-Coroner
Fred Andrews, Public Works

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Board of Trustees

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Date: September 25, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary
Scott Whalen - Verus

Agenda Item 6: Asset Liability Study – Funding and Investment Implications

Recommendation:

It is recommended that the Board of Trustees receive, consider and thoroughly discuss the Asset/Liability study presented by Verus. No immediate action is recommended. Rather, the purpose of conducting an in-depth asset/liability study is to inform future decisions on funding policy and investment policy.

Discussion:

It is a common and quite prudent practice for defined benefit pension plans to periodically conduct long term Asset/Liability analysis. The last such study done on the Pension Trust was by Verus (then under the name of Wurts & Associates) in 2013. At the 2016 strategic planning session of the Board last September we examined detailed actuarial projections from the Plan's actuary, Gabriel Roeder Smith. Paul Wood of GRS will also be in attendance at this 2017 strategic planning session to help build on the analysis of the Verus Asset/Liability study.

For the 2013 Asset Liability study we made the following comments and they are still relevant and summarized here (with a few edits and numbers updated).

The annual actuarial valuation provided by the Plan's actuary includes 30 year projections on contribution rates and funded status based on deterministic projections assuming certain rates of return. These forward-looking forecasts are quite helpful to demonstrate that – if all assumptions about the future are met – the funding of the Plan will indeed work out - the UAAL will be funded, the funded ratio will approach 100% and the long term cost of the Plan will approximate the Normal Cost portion of the Total ARC. However, the next step in analyzing how to fund the

Plan's liabilities is to look at forward-looking analyses that are based on the question – “what happens if investment returns are different from those assumed?”

Annually we discuss capital market expectations with Verus which is a large part of the overall Asset/Liability puzzle and includes alternative asset mixes. However, approximately every five years it is advisable to extend this investment analysis and the Plan Actuary's analysis in a study of this type.

The purpose of a full Asset/Liability study is to build a better understanding of the role of investment risk and return in funding liabilities. Are we a high risk-taking fund intent on funding as much as possible of the Plan's liabilities from long term investment returns – albeit with high variability of outcomes? Or are we a risk averse fund focused on changes in the necessary, but higher, contribution rates necessary to fund the liabilities? Or are we somewhere in between? What alternative approaches to investment policy may be considered in the long term and what are their anticipated results on pension contributions?

An important item of note in this analysis relates to capital market expectations. The 10 year horizon expected return in Verus' analysis for the Pension Trust's current investment policy is 6.27%. This value is not necessarily inconsistent with a 40+ year return assumption of 7.125% as used in the most recent annual actuarial valuation. Verus' current level of 10 year expected returns are dominated by current market valuation levels. With risk-free interest rates near 1% and relatively high equity valuations, it is quite logical that the near to intermediate term will be impacted by the unwinding of these asset valuation levels. However, expectations for returns over much longer periods of time may be closer to historical averages.

The implications for investment policy contained in this analysis are quite interesting. Even if the consensus of the Board is to not make major changes to investment policy and asset allocation, the exercise of looking at the topic in this way will better inform future decisions.

Respectfully Submitted,



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



SEPTEMBER 2017

Asset/Liability Study

San Luis Obispo County Pension Trust

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VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

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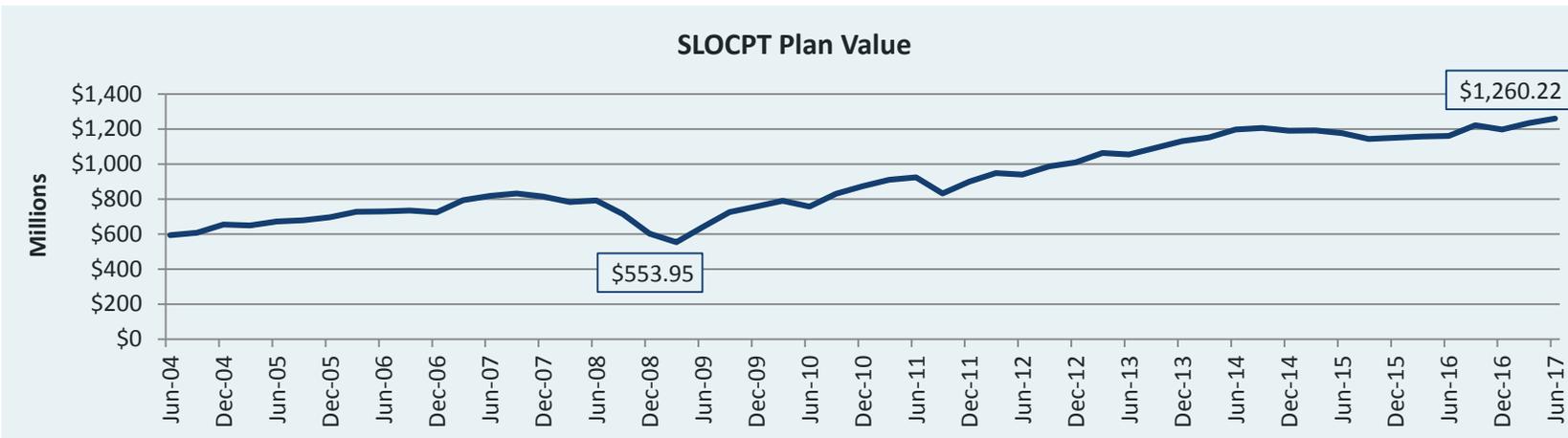
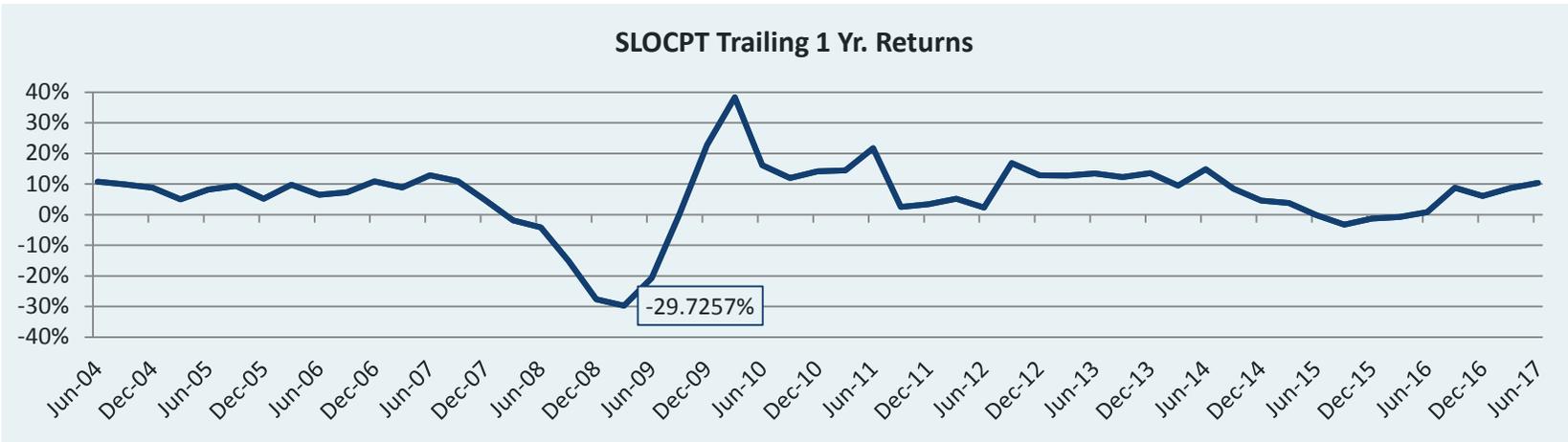
Stochastic forecasts **PAGE 19**

Appendix **PAGE 31**

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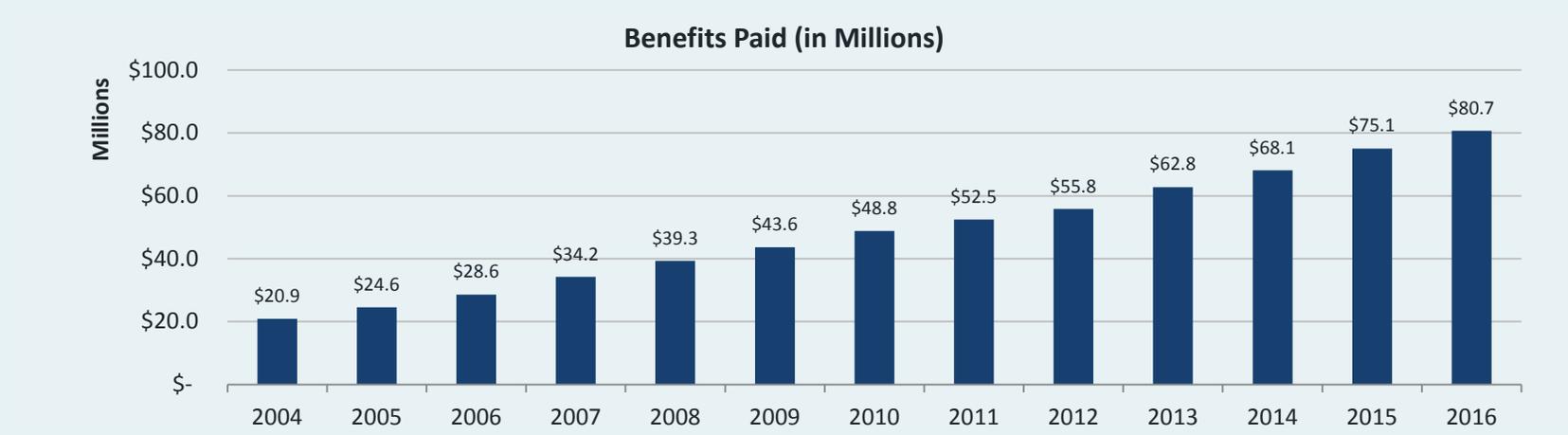
Setting the stage

Rolling returns and plan value

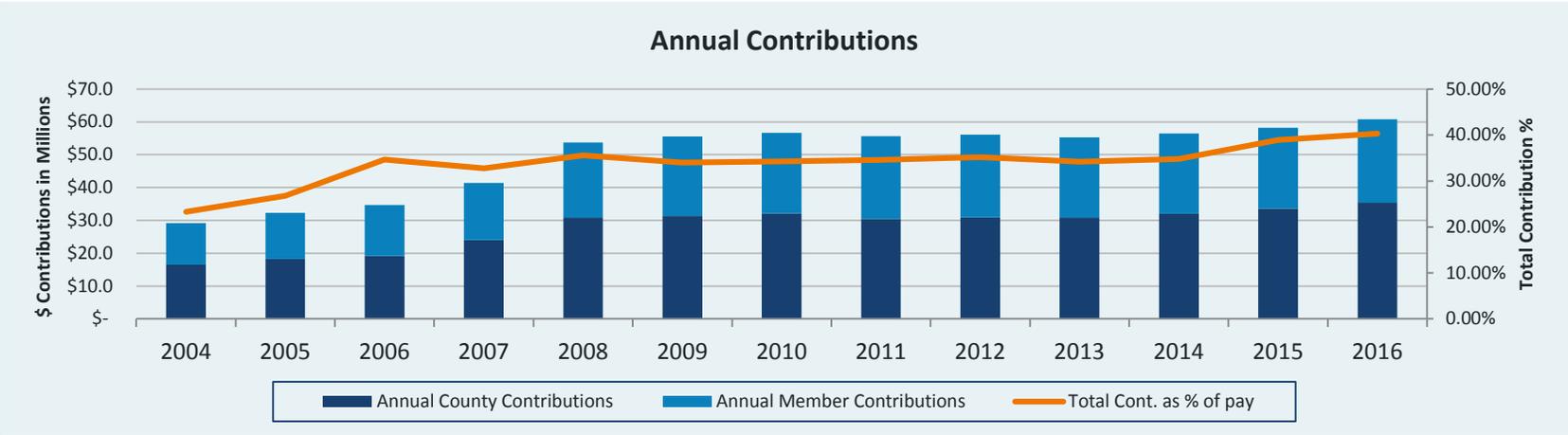


Although historical returns have not consistently met the assumed rate, assets have recovered significantly since the Global Financial Crisis.

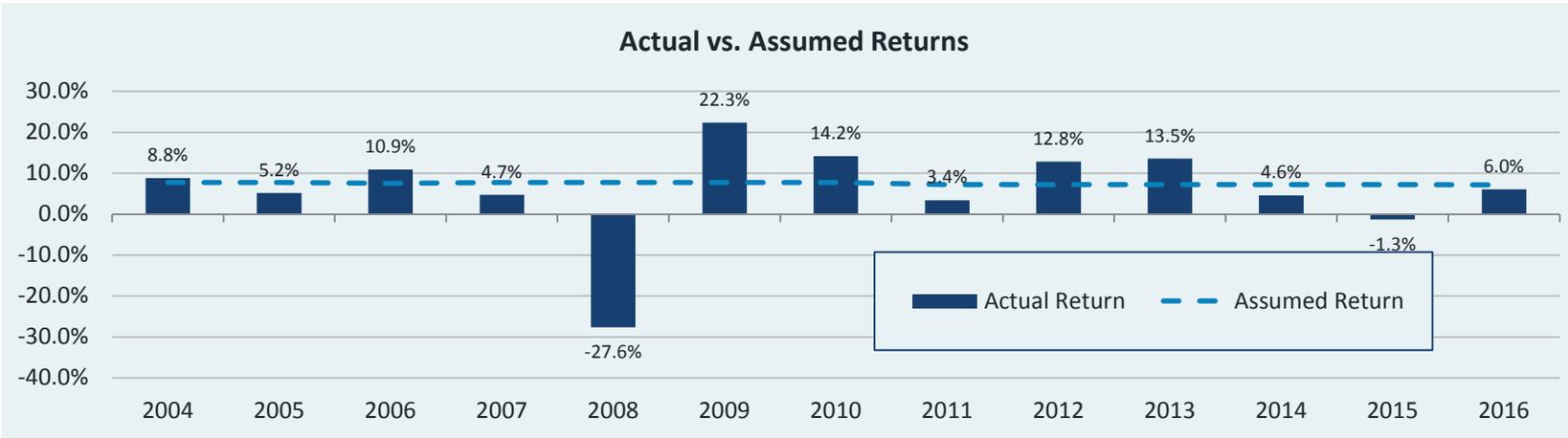
Benefit payments and contributions



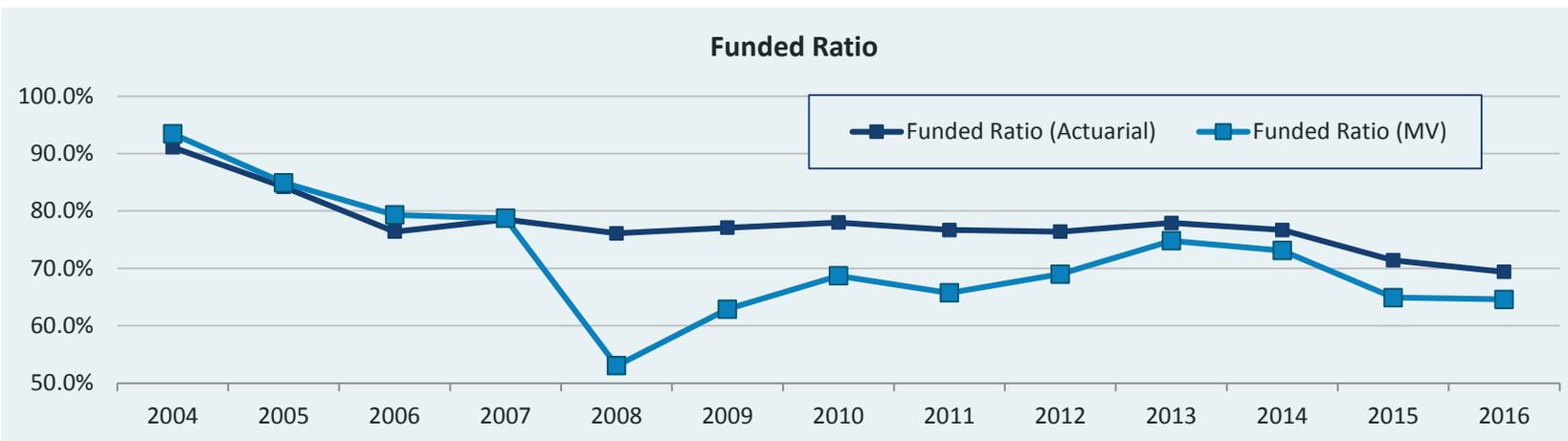
Aggregate benefits have increased steadily, and plan sponsor contributions have risen as well.



Returns and funding

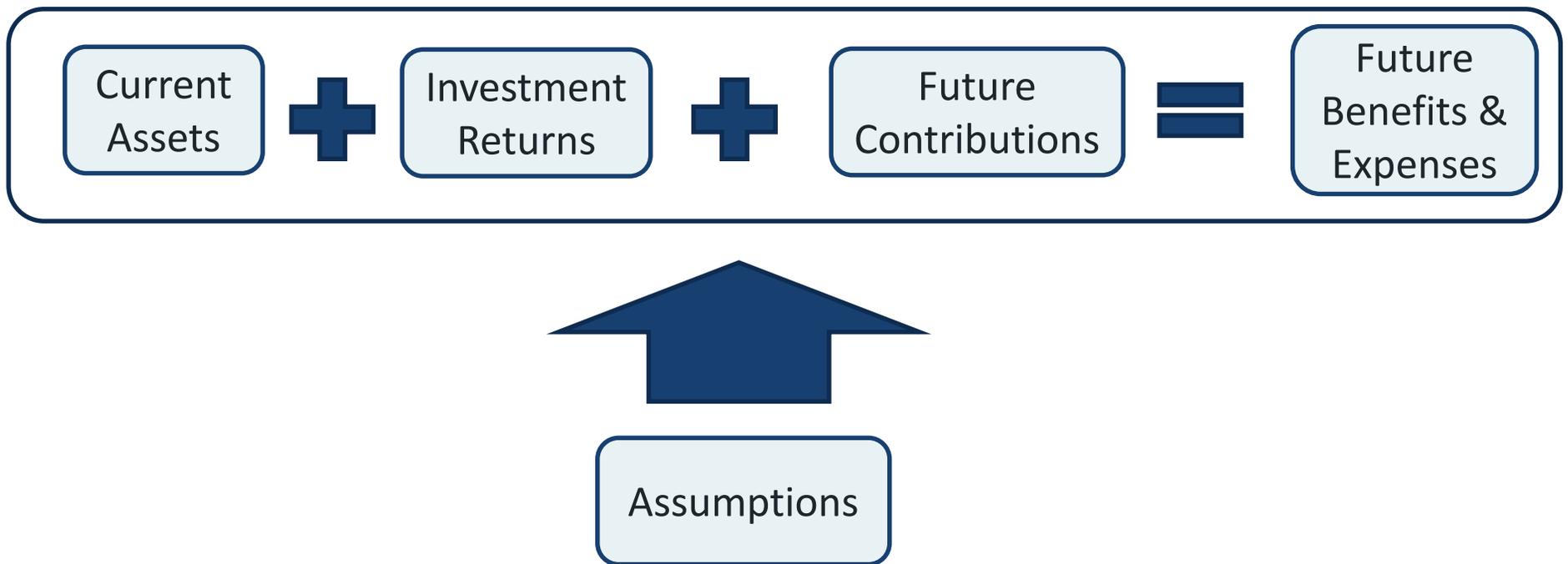


Market returns below the assumed rate has led to declining liability coverage.



Deterministic projections

The pension equation

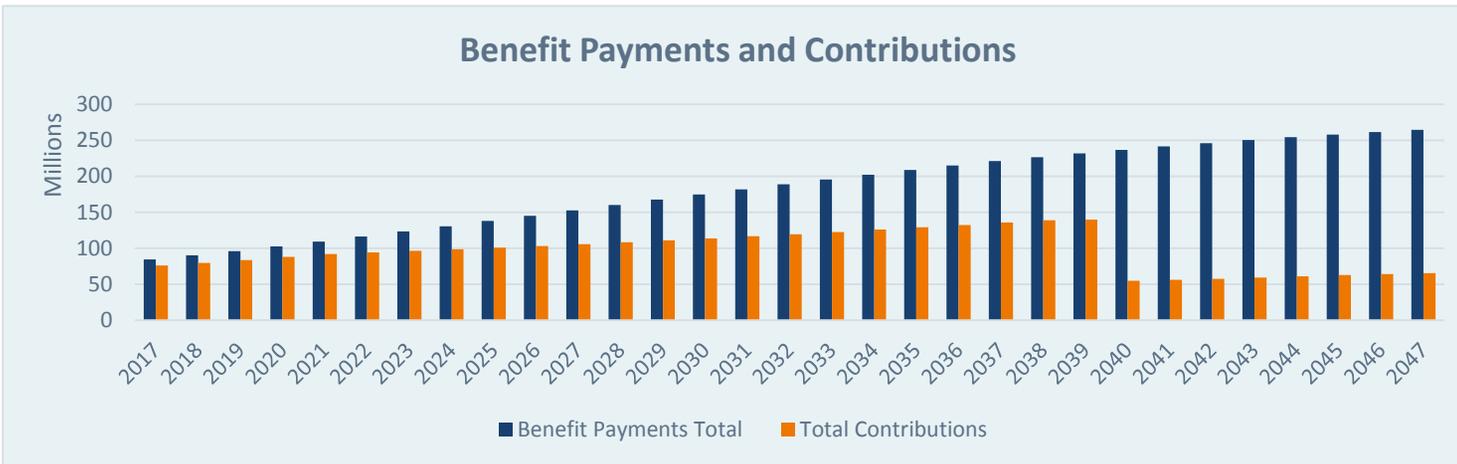


The pension equation in action



Under the current funding policy, the Plan will require approx. \$3.6b of investment returns to become fully funded by 2040.

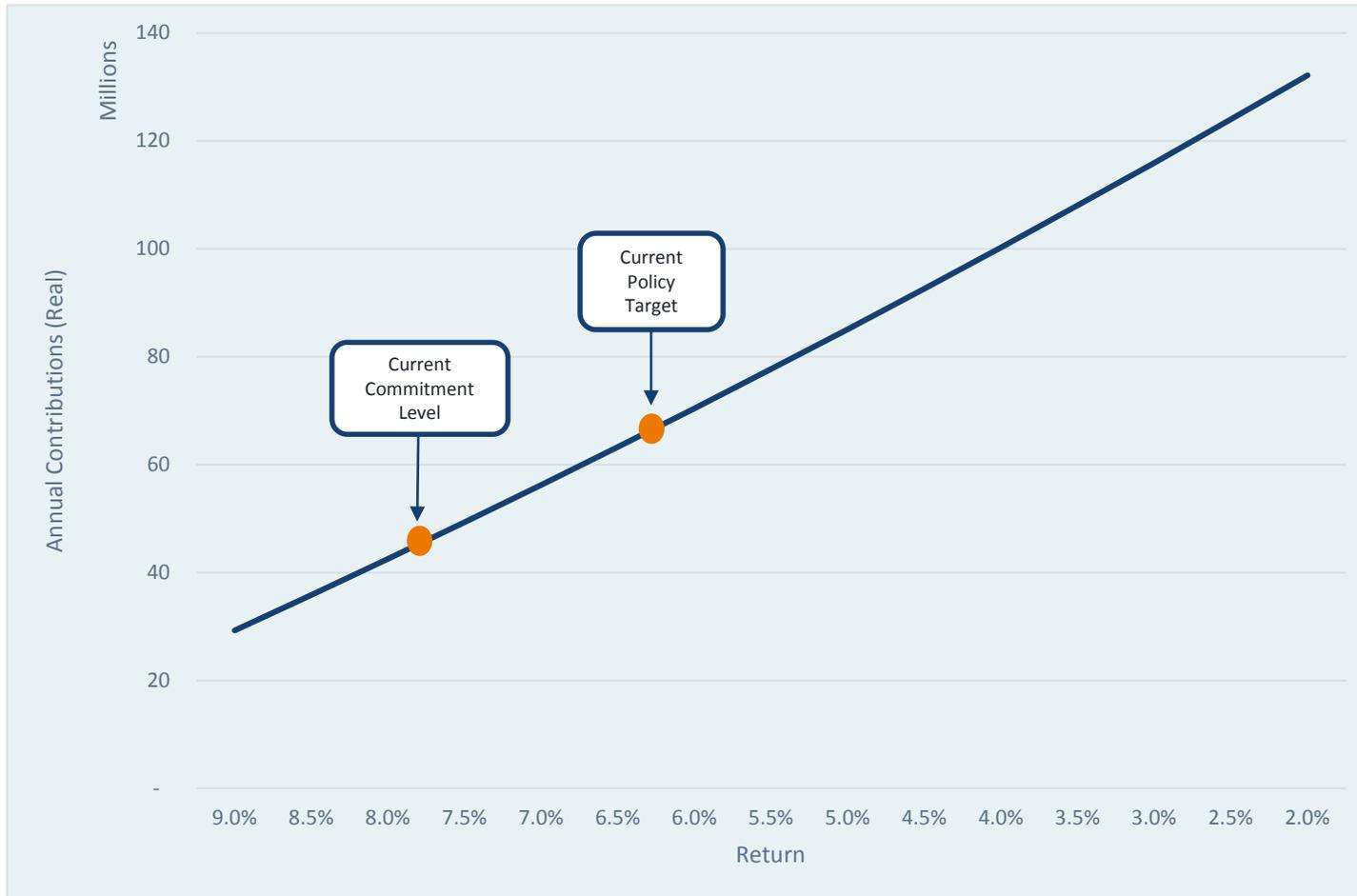
Assuming the current discount rate of 7.125%, contributions will rise steadily until the Plan is fully funded.



If contributions were to be held constant at the current level of \$46mm, the required rate of return increases to 7.8%.

Getting to fully funded: investment returns vs. contributions

THE COST OF FULL FUNDING



Contributions reflected in this graph are displayed as an annual cost in real terms via the inflation assumption of 2.625%. Assumes all other assumptions (mortality, disability, plan growth, etc.) are met exactly.

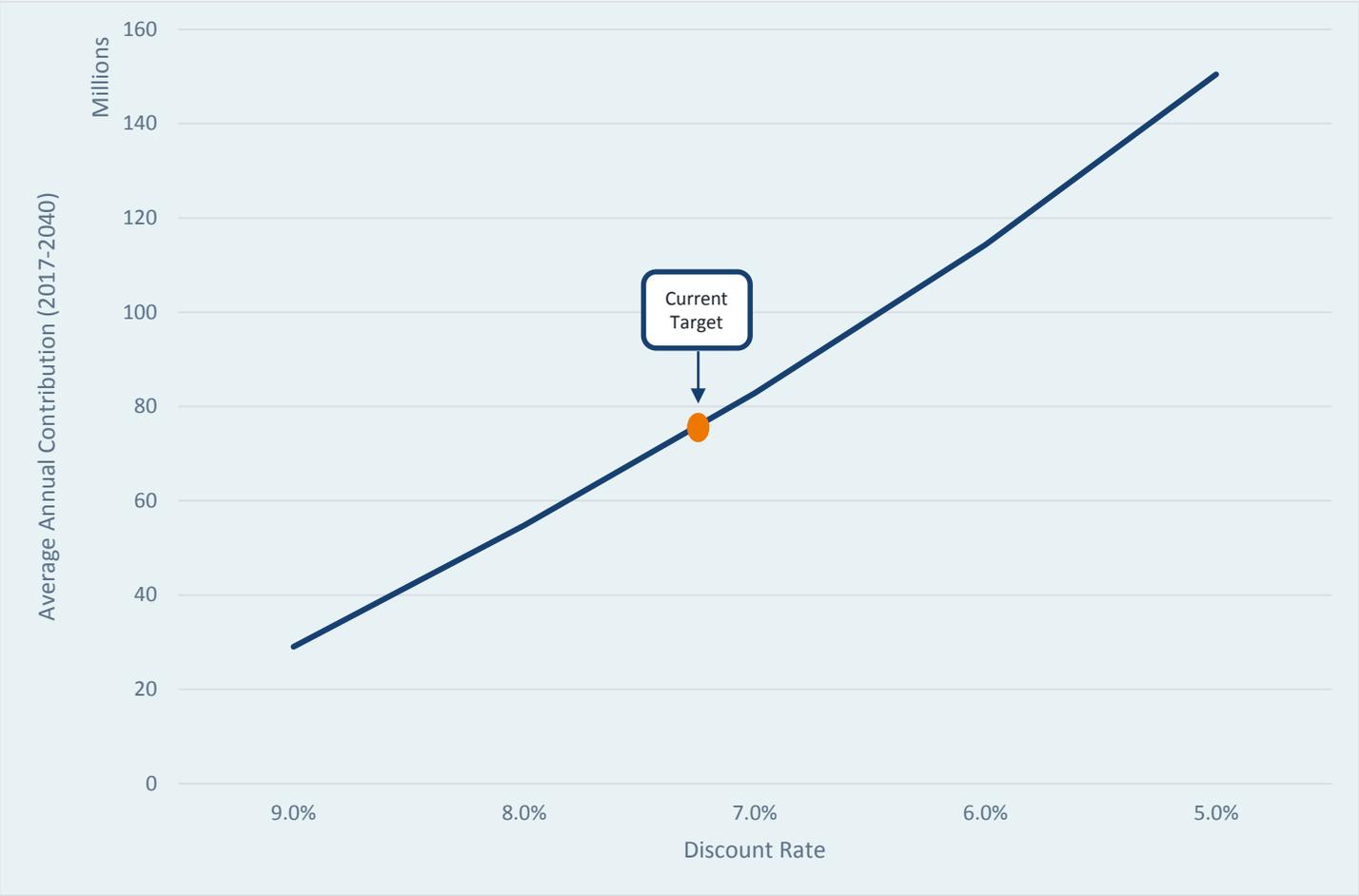
There is a relationship between the contributions the plan makes and the return which it must attain to achieve its goals.

Current contributions amount to roughly 46 million.

The Annual Required Contribution (ARC) contribution plan will (if our projections of the current policy are correct), increase contributions in line with this chart.

Cost of de-risking

THE COST OF DE-RISKING

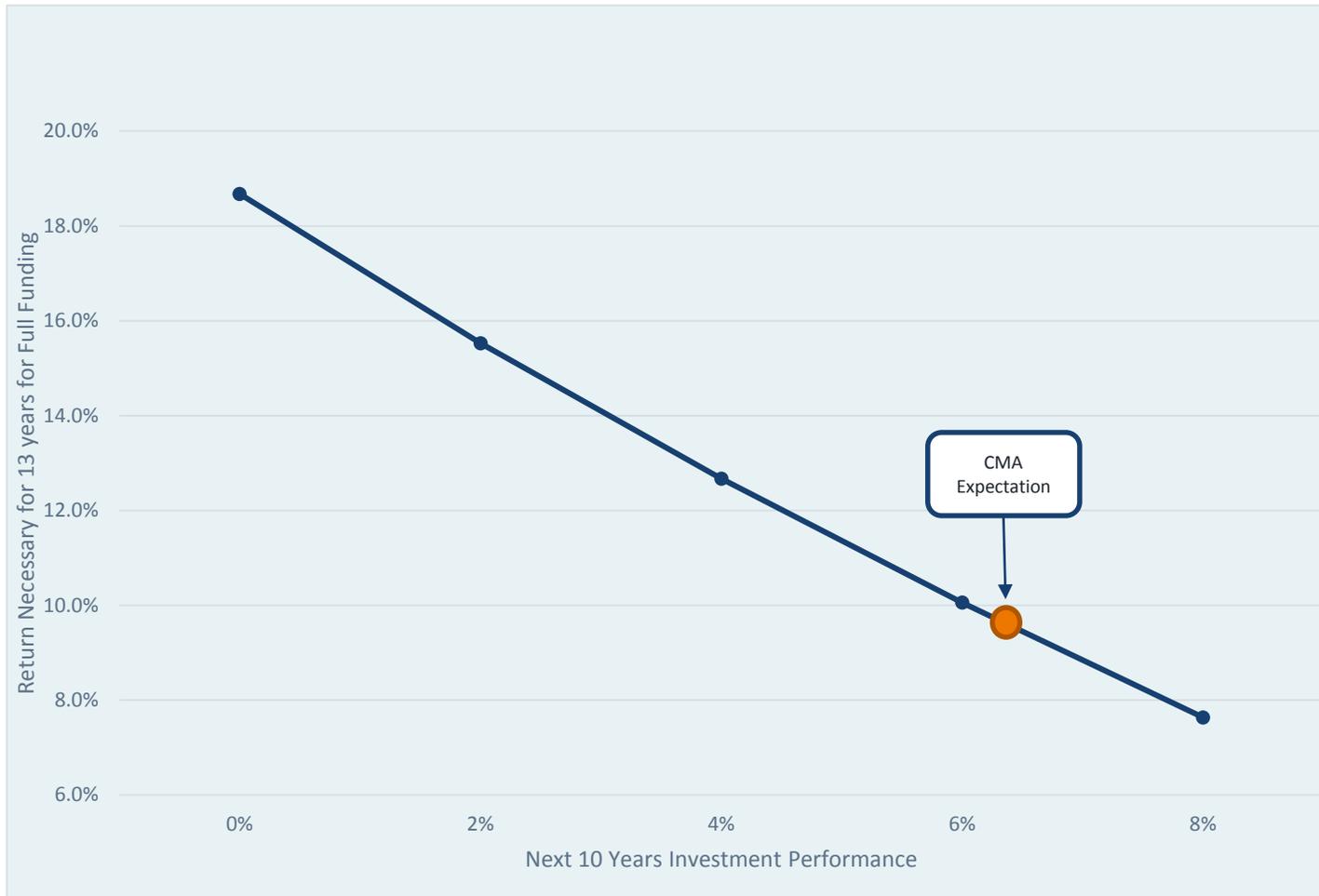


Assuming the current funding policy, a 1% change in the discount rate results in a change of roughly \$30mm in average annual contributions through 2040.

Data displayed in this chart assumes investment returns equal the discount rate for the entire modeling period and all other assumptions (mortality, disability, plan growth, etc.) are met exactly.

Impact of a low-return environment

IMPACT ON RETURN NECESSARY FOR FULL FUNDING GIVEN 10 YEARS OF INVESTMENT EXPERIENCE

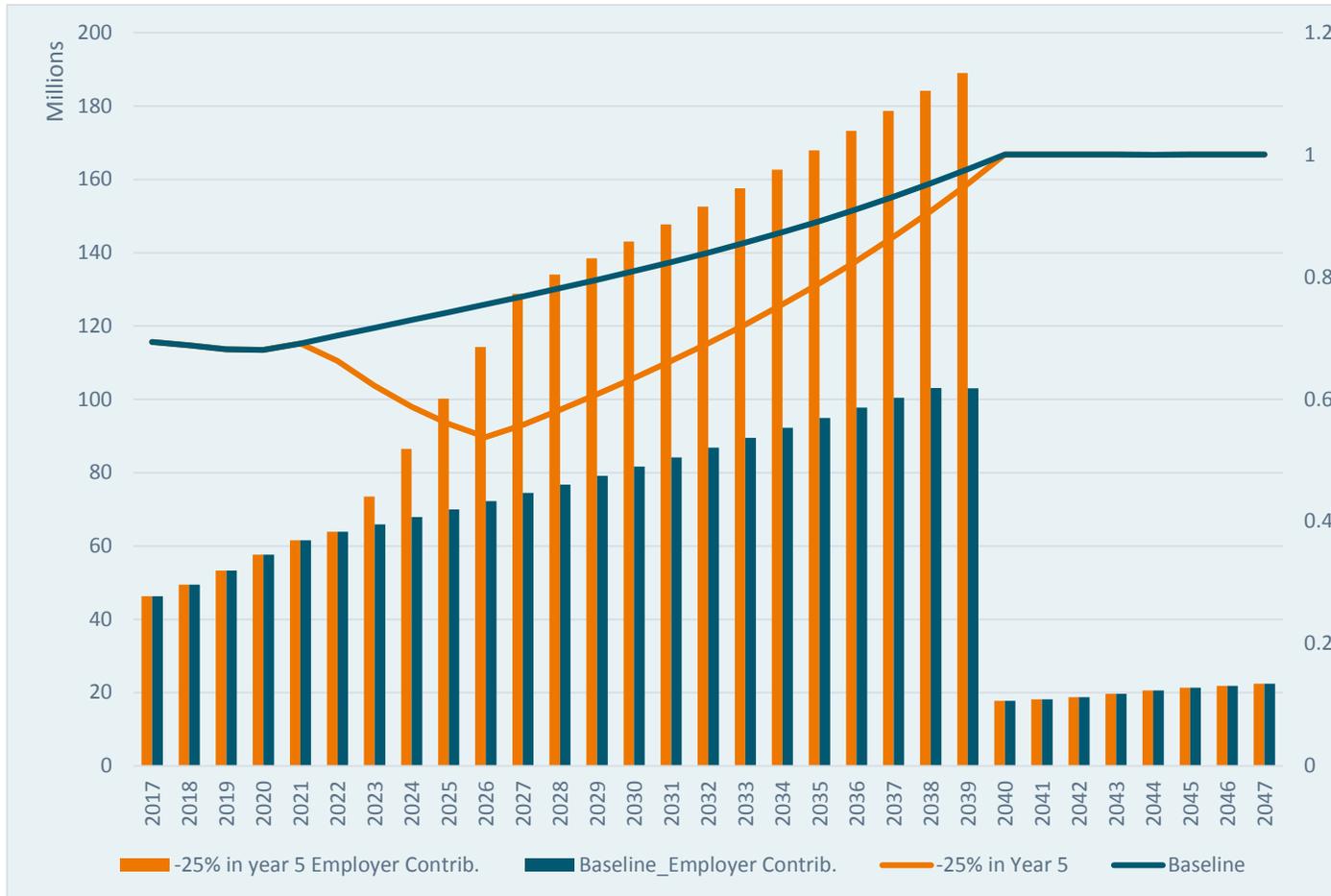


The current low return environment will require significantly higher rates of return after 10 years to be fully funded by 2040.

Contributions for each scenario equal 46 million increasing with inflation (2.625%) each year.

Cost of a drawdown

IMPACT OF 25% DRAWDOWN ON CONTRIBUTIONS (7.125% INVESTMENT RETURN OTHERWISE)

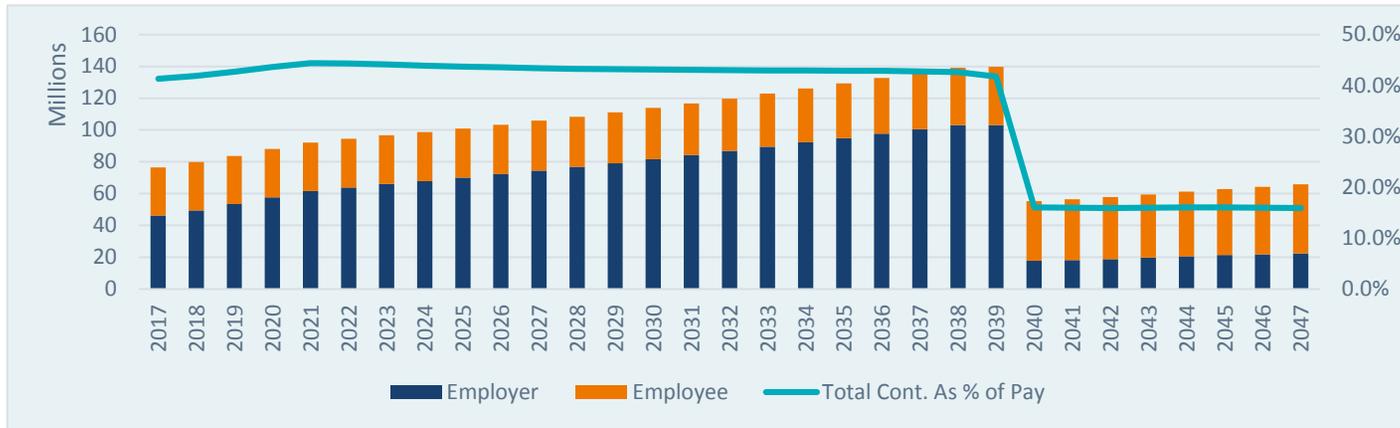


A significant drawdown may require an adjustment to the current funding policy.

Assumes a year to year return of 7.125% before and after the one year drawdown of 25%.

Contributions as a % of pay

BASELINE PROJECTION: 7.125% RETURN SCENARIO



Assuming current funding policy, baseline projections show contributions as a % of pay remaining fairly steady between 43-45% until 2040.

ALTERNATIVE PROJECTION: 6.3% RETURN SCENARIO



If the Plan achieves a return of 6.3% through the period, contributions increase steadily to 78% of pay before decreasing.

Impact of plan demographics

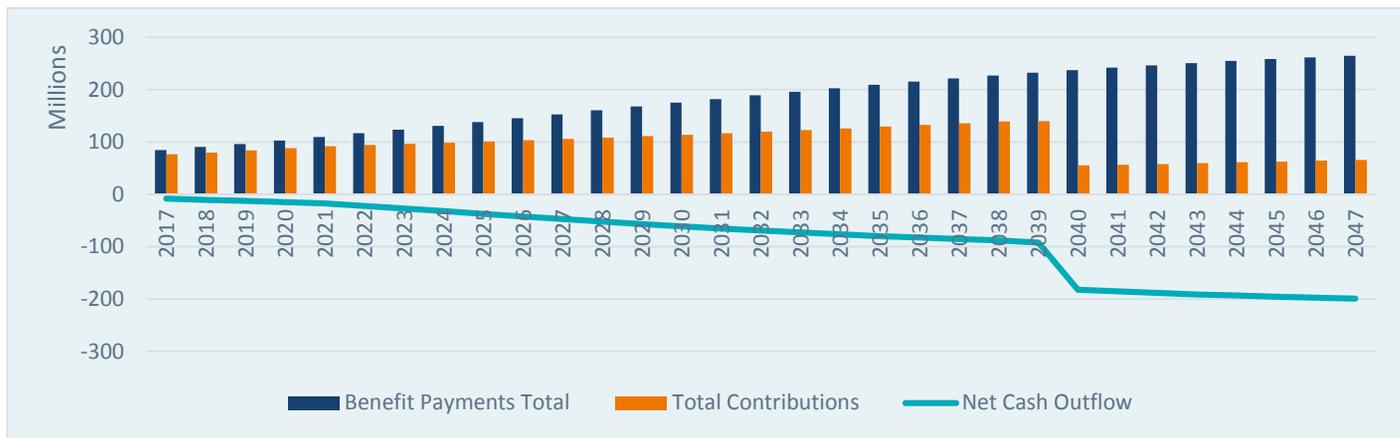
ACTIVE TO INACTIVE RATIO



Inactive count includes retirees, beneficiaries, and terminated vested members.

Assuming zero plan growth, the proportion of active members to retirees declines steadily over the next 20 years.

BENEFIT PAYMENTS, CONTRIBUTIONS, AND OUTFLOW

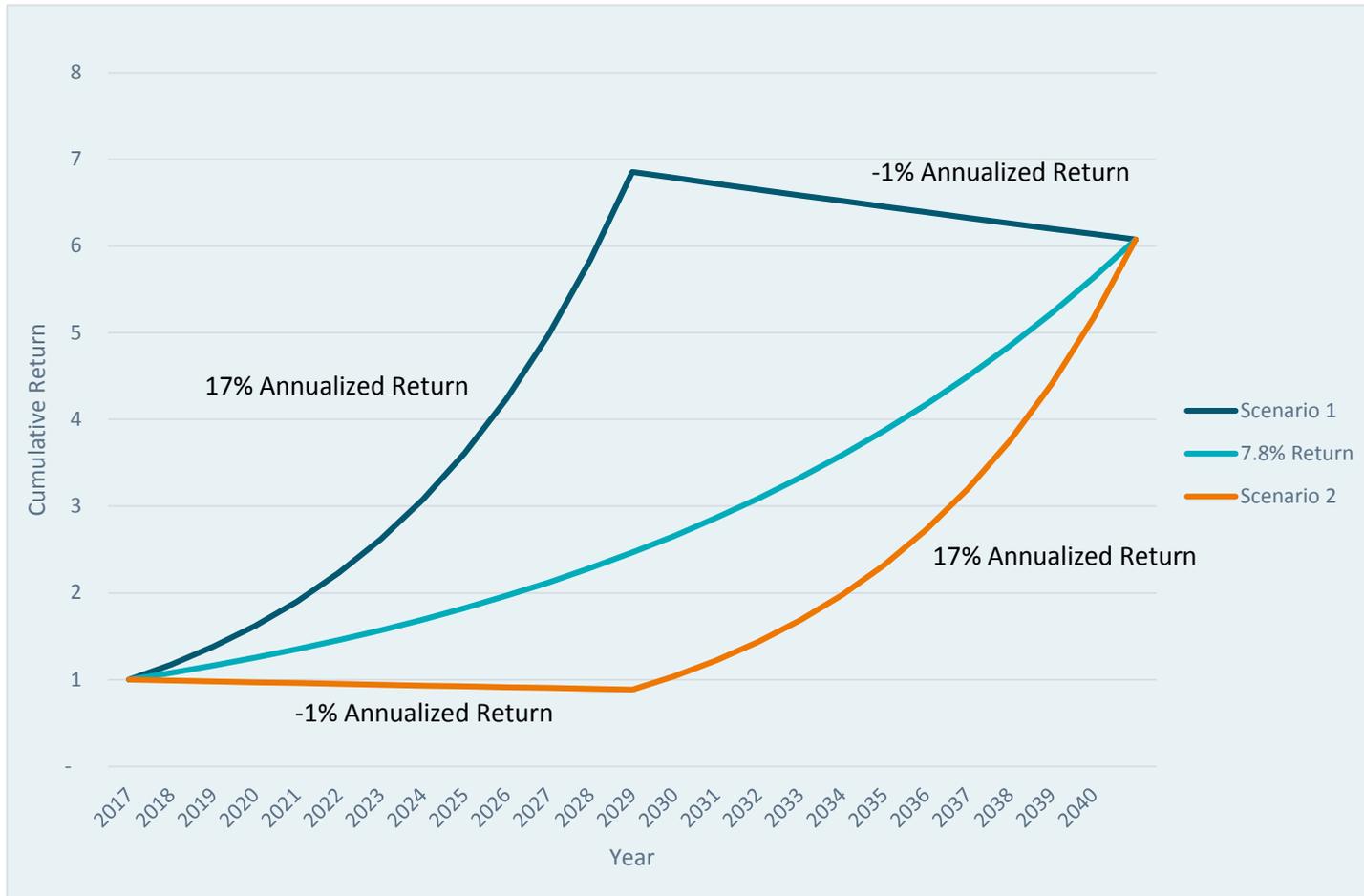


Includes employer and employee contributions projected at a return of 7.125%.

This results in a greater strain on the pension due to increasing negative net cashflow.

Path dependency

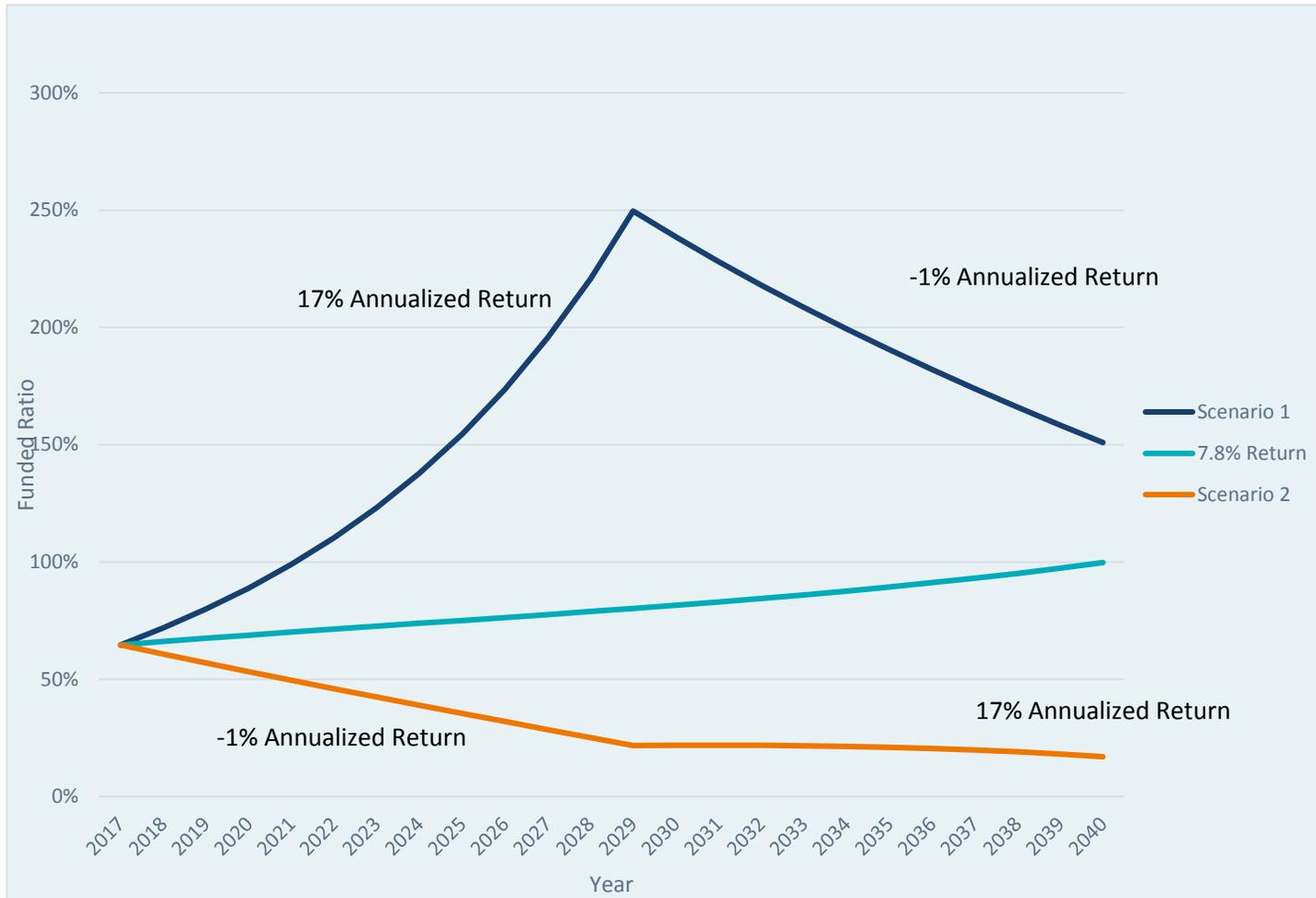
INVESTMENT PERFORMANCE TIMING



Many different return streams can lead to an identical average annualized return outcome...

Path dependency: funded status

IMPACT OF INVESTMENT PERFORMANCE TIMING ON FUNDED RATIO



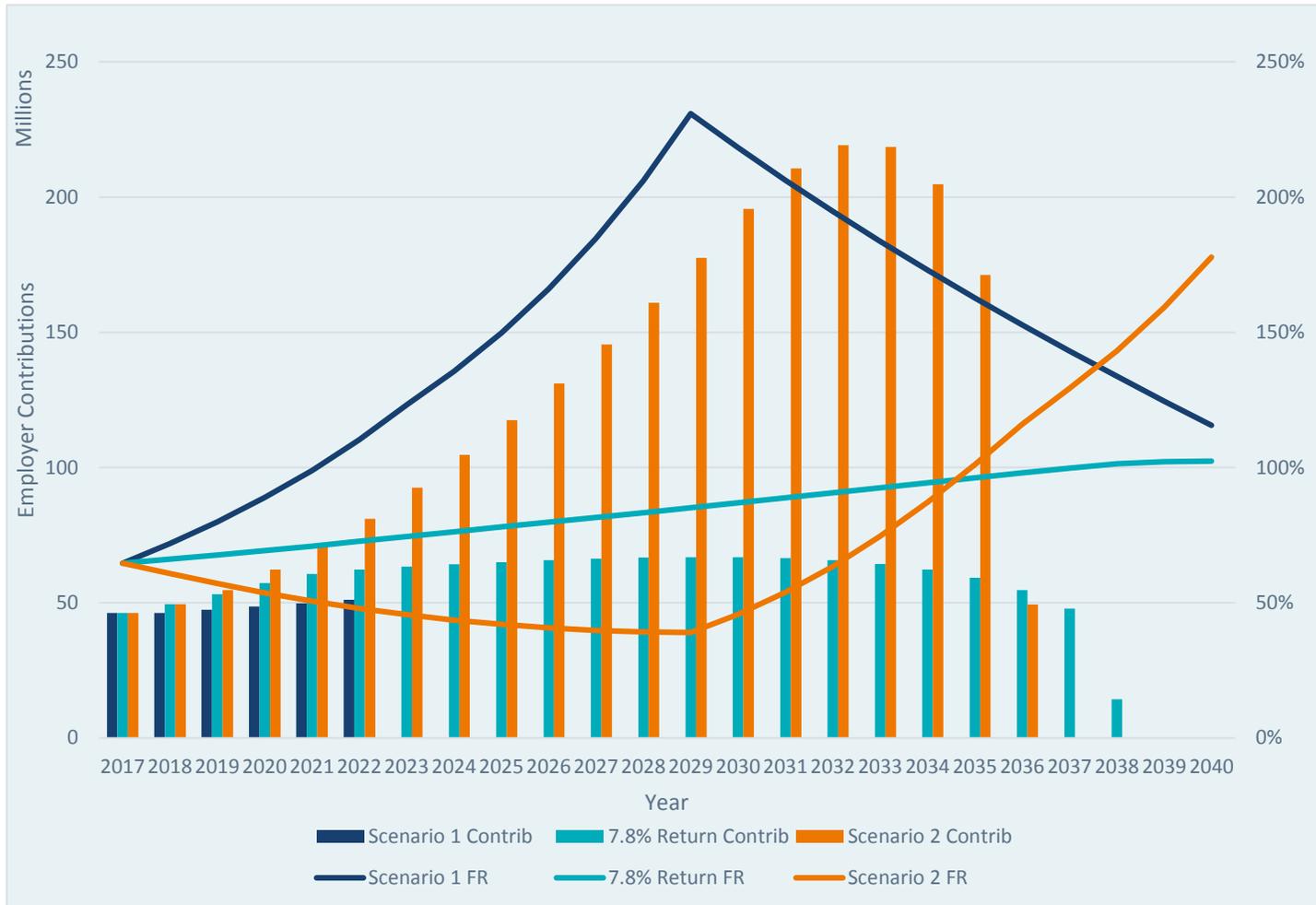
...but completely different liability coverage outcomes.

In this case, assuming stable contributions and an average annualized rate of return of 7.8%, a scenario with drawdowns earlier in the period results in funded status significantly lower than one with delayed drawdowns.

Both scenarios have a geometric mean of 7.8%. Contributions for each scenario equal 46 million increasing with inflation (2.625%) each year.

Path dependency: contributions

IMPACT OF INVESTMENT PERFORMANCE TIMING ON EMPLOYER CONTRIBUTIONS



If we assume the current funding policy is maintained, early losses lead to a significant increase in contributions.

Both scenarios have a geometric mean of 7.8%.

Stochastic projections

10 year return & risk assumptions

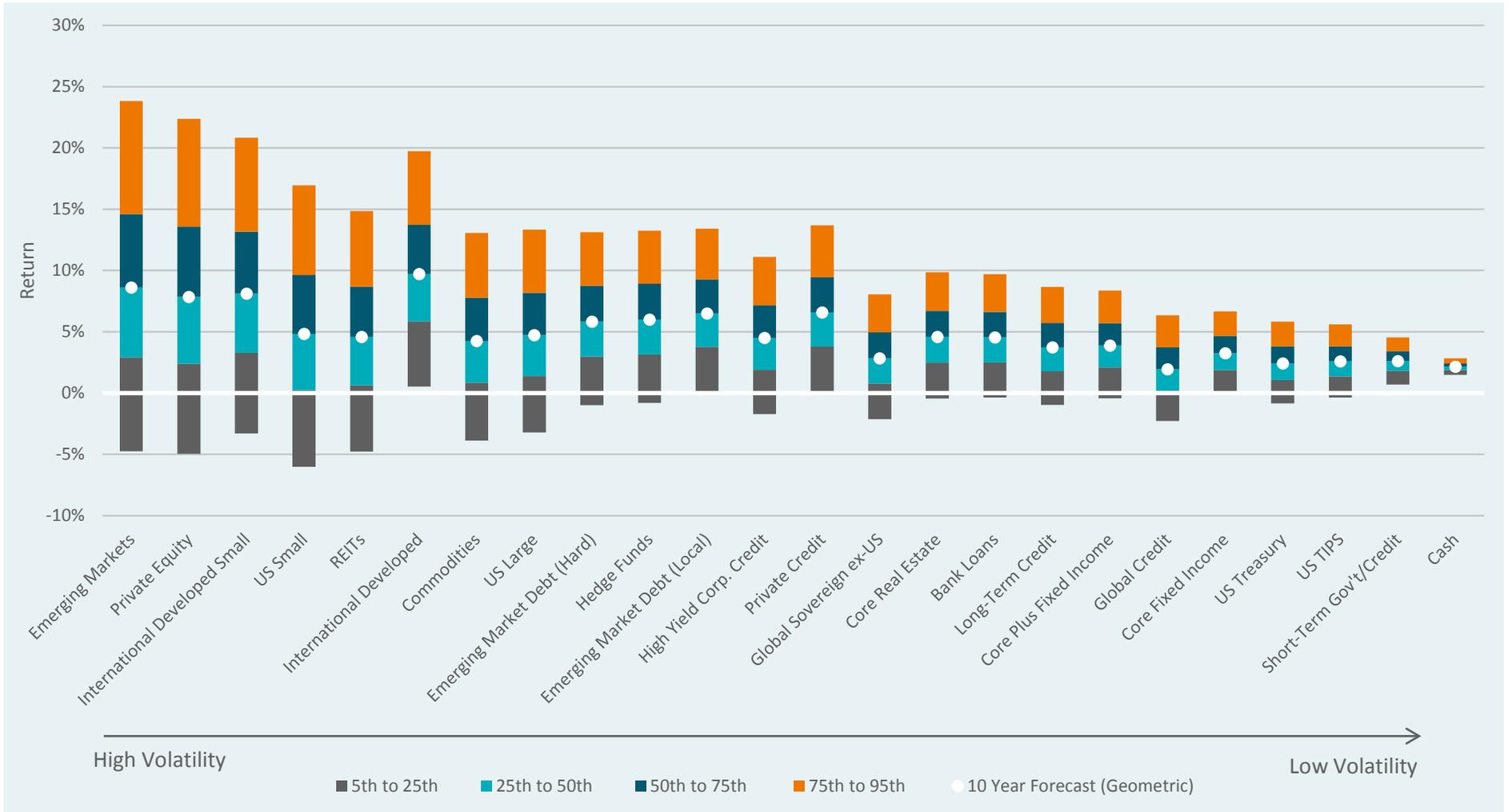
Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio (g) Forecast	Sharpe Ratio (a) Forecast	Ten Year Historical Sharpe Ratio (g)	Ten Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
Equities								
US Large	S&P 500	4.7%	5.9%	15.8%	0.16	0.24	0.39	0.45
US Small	Russell 2000	4.8%	7.0%	21.8%	0.12	0.22	0.30	0.39
International Developed	MSCI EAFE	9.7%	11.3%	18.9%	0.40	0.48	-0.02	0.07
International Small	MSCI EAFE Small Cap	8.1%	10.5%	23.3%	0.26	0.36	0.09	0.19
Emerging Markets	MSCI EM	8.6%	11.8%	27.2%	0.24	0.35	0.04	0.16
Global Equity	MSCI ACWI	7.0%	8.4%	17.9%	0.27	0.35	0.15	0.23
Private Equity	Cambridge Private Equity	7.8%	10.8%	26.2%	0.22	0.33	0.88	0.89
Fixed Income								
Cash	30 Day T-Bills	2.2%	2.2%	1.2%	-	-	-	-
US TIPS	BbgBarc US TIPS 5 - 10	2.6%	2.7%	5.7%	0.08	0.10	0.57	0.59
US Treasury	BbgBarc Treasury 7 - 10 year	2.4%	2.7%	6.9%	0.04	0.08	0.70	0.72
Global Sovereign ex US	BbgBarc Global Treasury ex US	2.8%	3.3%	10.0%	0.07	0.12	0.23	0.27
Core Fixed Income	BbgBarc US Aggregate Bond	3.3%	3.5%	6.5%	0.17	0.20	1.07	1.06
Core Plus Fixed Income	BbgBarc US Corporate IG	3.9%	4.2%	8.5%	0.20	0.24	0.75	0.76
Short-Term Gov't/Credit	BbgBarc US Gov't/Credit 1 - 3 year	2.6%	2.7%	3.7%	0.13	0.14	1.45	1.44
Short-Term Credit	BbgBarc Credit 1 - 3 year	2.8%	2.9%	3.5%	0.17	0.20	1.08	1.07
Long-Term Credit	BbgBarc Long US Corporate	3.7%	4.2%	9.6%	0.17	0.21	0.56	0.59
High Yield Corp. Credit	BbgBarc High Yield	4.5%	5.2%	11.8%	0.20	0.26	0.60	0.63
Bank Loans	S&P/LSTA	4.5%	5.1%	10.8%	0.22	0.27	0.45	0.48
Global Credit	BbgBarc Global Credit	2.0%	2.3%	7.8%	-0.03	0.01	0.50	0.53
Emerging Markets Debt (Hard)	JPM EMBI Global Diversified	5.8%	6.6%	13.0%	0.28	0.34	0.66	0.69
Emerging Markets Debt (Local)	JPM GBI EM Global Diversified	6.5%	7.2%	13.4%	0.35	0.41	0.22	0.28
Private Credit	High Yield + 200 bps	6.5%	7.2%	11.8%	0.37	0.43	-	-
Other								
Commodities	Bloomberg Commodity	4.3%	5.5%	16.1%	0.13	0.21	-0.37	-0.35
Hedge Funds	HFRI Fund of Funds	6.0%	6.8%	13.2%	0.29	0.35	0.08	0.10
Hedge Funds (Fund of Funds)	HFRI Fund of Funds	5.0%	5.8%	13.2%	0.22	0.28	-	-
Core Real Estate	NCREIF Property	4.6%	5.1%	9.9%	0.25	0.29	1.03	1.03
Value-Add Real Estate	NCREIF Property + 200bps	6.6%	8.1%	17.9%	0.25	0.33	-	-
Opportunistic Real Estate	NCREIF Property + 400bps	8.6%	11.5%	26.0%	0.25	0.46	-	-
REITs	Wilshire REIT	4.6%	6.4%	19.7%	0.1	0.21	0.15	0.28
Risk Parity		7.2%	7.7%	10.0%	0.50	0.55	-	-
Inflation		2.1%	-	1.4%*	-	-	-	-

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

*Historical volatility of inflation. This is not a forecast.

Range of likely 10-year outcomes

10 YEAR RETURN 90% CONFIDENCE INTERVAL



Asset mixes

	Policy	Current	7.8% Mix	7.125 Mix	80-20	70-30	60-40	50-50	CMA's (10 Yr)		
									Return	Standard Deviation	Sharpe Ratio
US Large	16.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	4.7	15.8	0.16
US Small	4.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	4.8	21.8	0.12
Total Domestic Equity	20.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0			
International Developed	13.0	18.3	0.0	0.0	0.0	0.0	0.0	0.0	9.7	18.9	0.40
Emerging Markets	7.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	8.6	27.2	0.24
Total Int'l Equity	20.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0			
Global Equity	0.0	0.0	0.0	0.0	80.0	70.0	60.0	60.0	7.0	17.9	
Total Equity	40.0	45.8	0.0	0.0	80.0	70.0	60.0	60.0			
Core Fixed Income	15.0	15.1	0.0	0.0	20.0	30.0	40.0	40.0	3.3	6.5	0.17
Bank Loans	5.0	5.3	2.0	2.4	0.0	0.0	0.0	0.0	4.5	10.8	0.22
Global Credit	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.8	-0.03
Emerging Market Debt (Local)	5.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	6.5	13.4	0.35
US TIPS	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.6	5.7	0.08
Total Fixed Income	30.0	31.8	2.0	2.4	20.0	30.0	40.0	40.0			
Commodities	5.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	4.3	16.1	0.13
Core Real Estate	10.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0	4.6	9.9	0.25
Value Add Real Estate	5.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	6.6	17.9	0.25
Opportunistic Real Estate	0.0	0.0	17.0	14.8	0.0	0.0	0.0	0.0	8.6	26.0	
Total Real Assets	20.0	16.3	17.0	14.8	0.0	0.0	0.0	0.0			
Risk Parity	0.0	0.0	62.0	54.2	0.0	0.0	0.0	0.0	7.2	10.0	
Private Equity	5.0	1.7	10.0	8.7	0.0	0.0	0.0	0.0	7.8	26.2	0.22
Private Credit	5.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	6.5	11.8	0.37
Total Non-Public Investments	10.0	3.2	72.0	62.9	0.0	0.0	0.0	0.0			
Cash	0.0	2.9	9.0	19.9	0.0	0.0	0.0	0.0	2.2	1.2	-
Total Allocation	100.0										

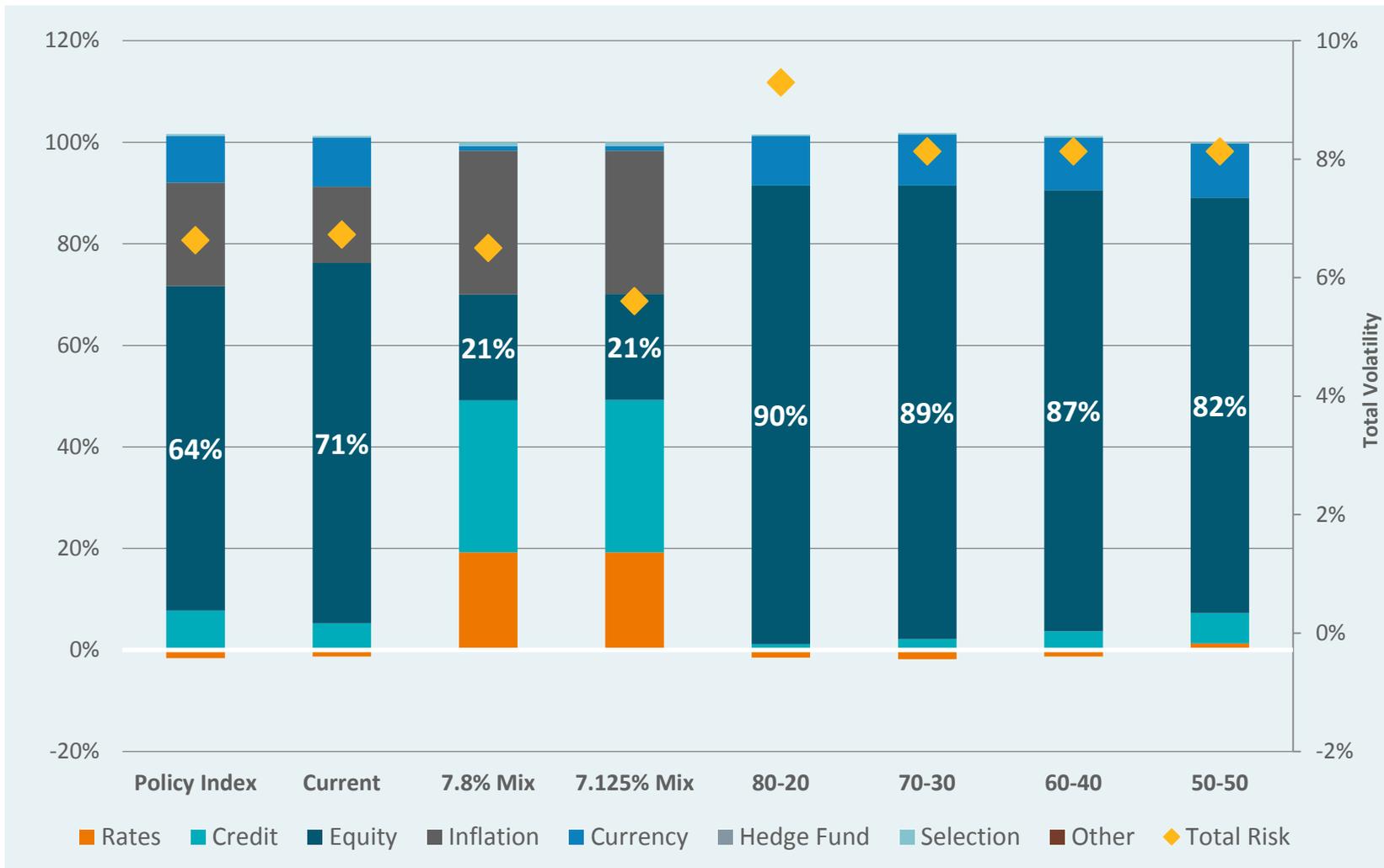
Source: MPI

Mean-variance analysis

	Policy	Current	7.8% Mix	7.125% Mix	80-20	70-30	60-40	50-50
Mean Variance Analysis								
<i>Forecast 10 Year Return</i>	6.27	6.05	7.80	7.13	6.48	6.18	5.86	5.86
Standard Deviation	11.05	10.72	8.14	7.12	14.53	12.89	11.31	11.31
<i>Return/Std. Deviation</i>	<i>0.57</i>	<i>0.56</i>	<i>0.96</i>	<i>1.00</i>	<i>0.45</i>	<i>0.48</i>	<i>0.52</i>	<i>0.52</i>
<i>1st percentile ret. 1 year</i>	<i>-20.54</i>	<i>-20.20</i>	<i>-12.36</i>	<i>-10.52</i>	<i>-34.66</i>	<i>-30.03</i>	<i>-25.73</i>	<i>-25.73</i>
Sharpe Ratio	0.42	0.41	0.73	0.73	0.36	0.37	0.38	0.38

Source: MPI

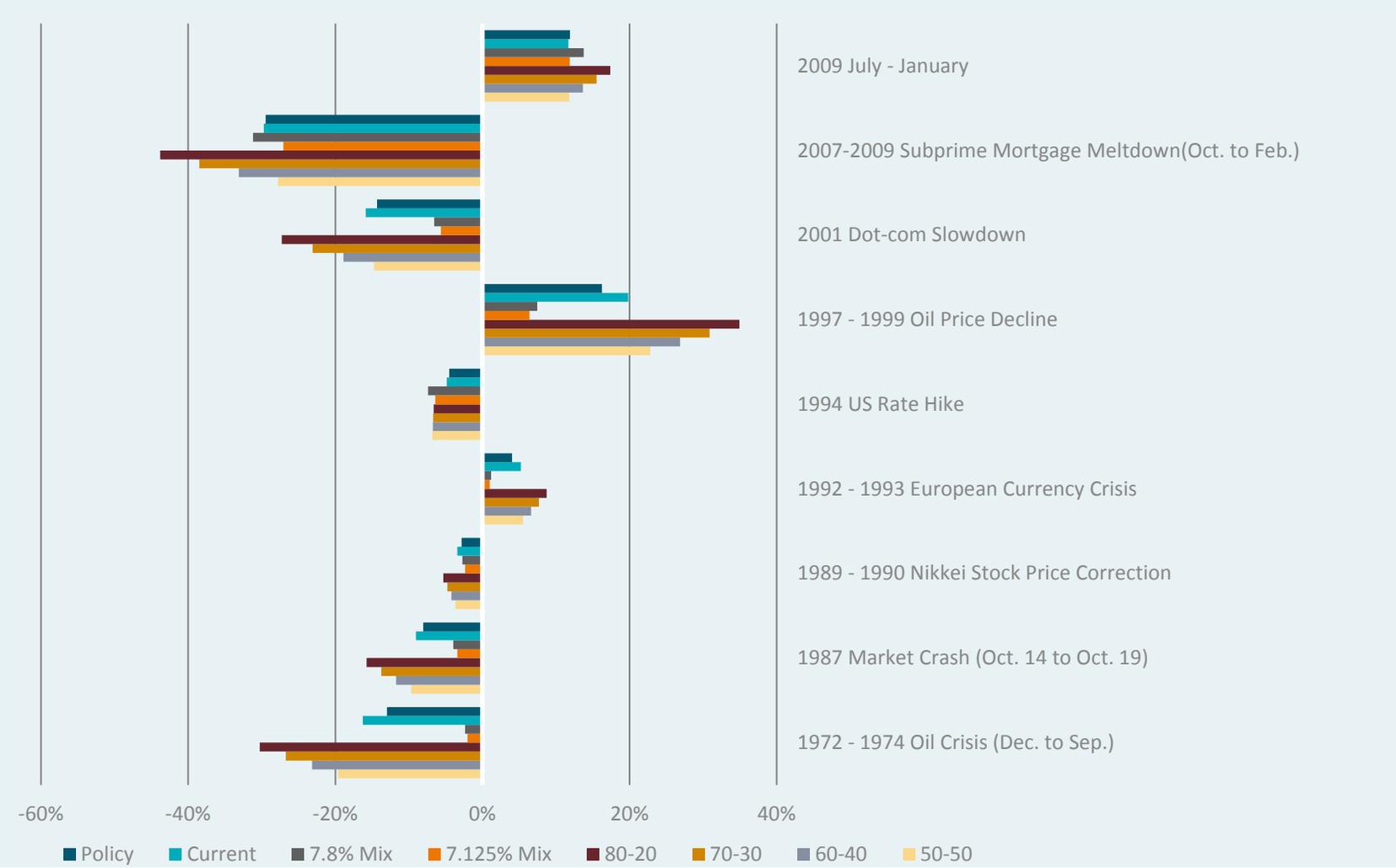
Risk decomposition



The equity risk factor dominates most portfolios.

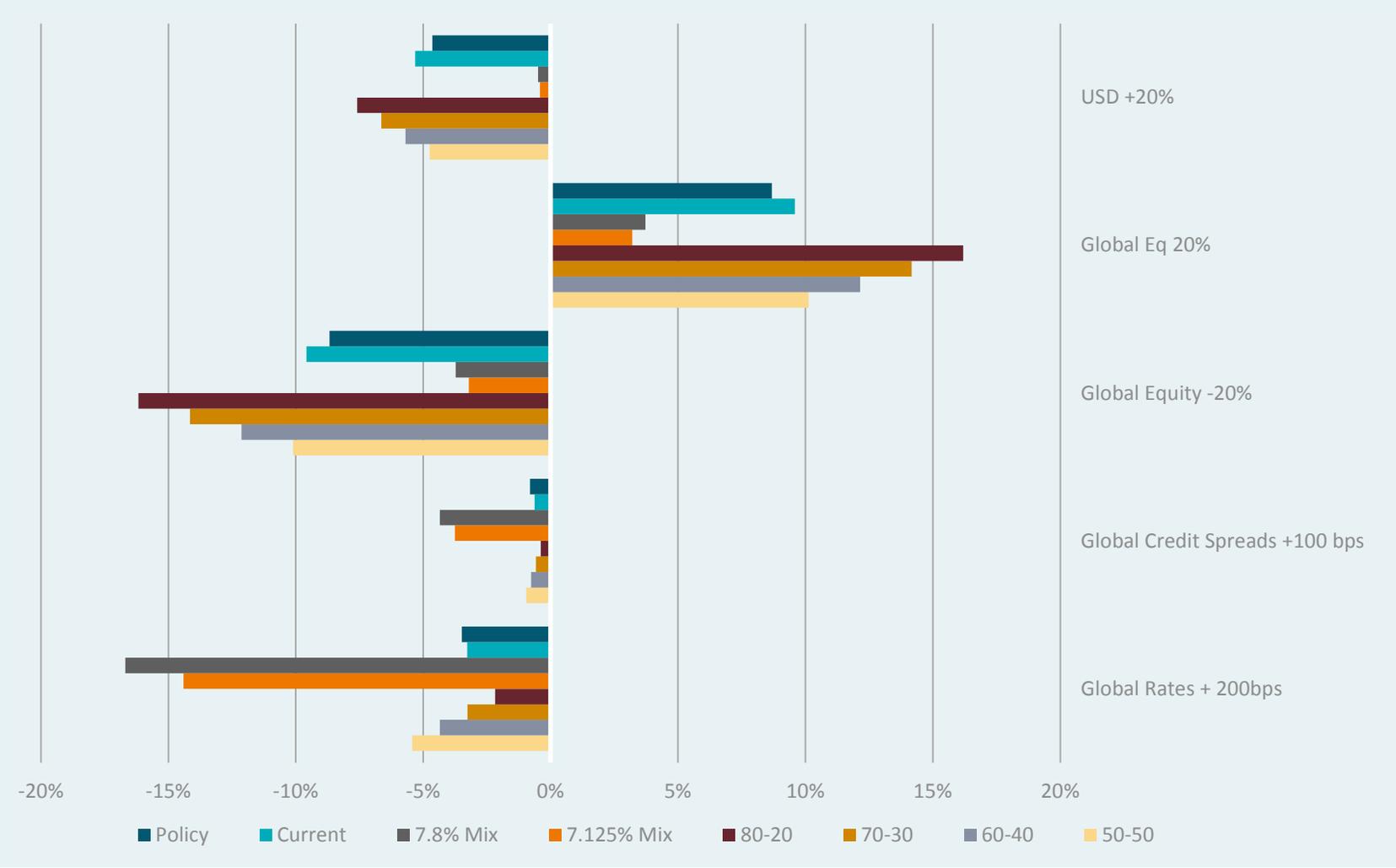
Source: Barra, Ex-Ante Volatility

Scenario analysis



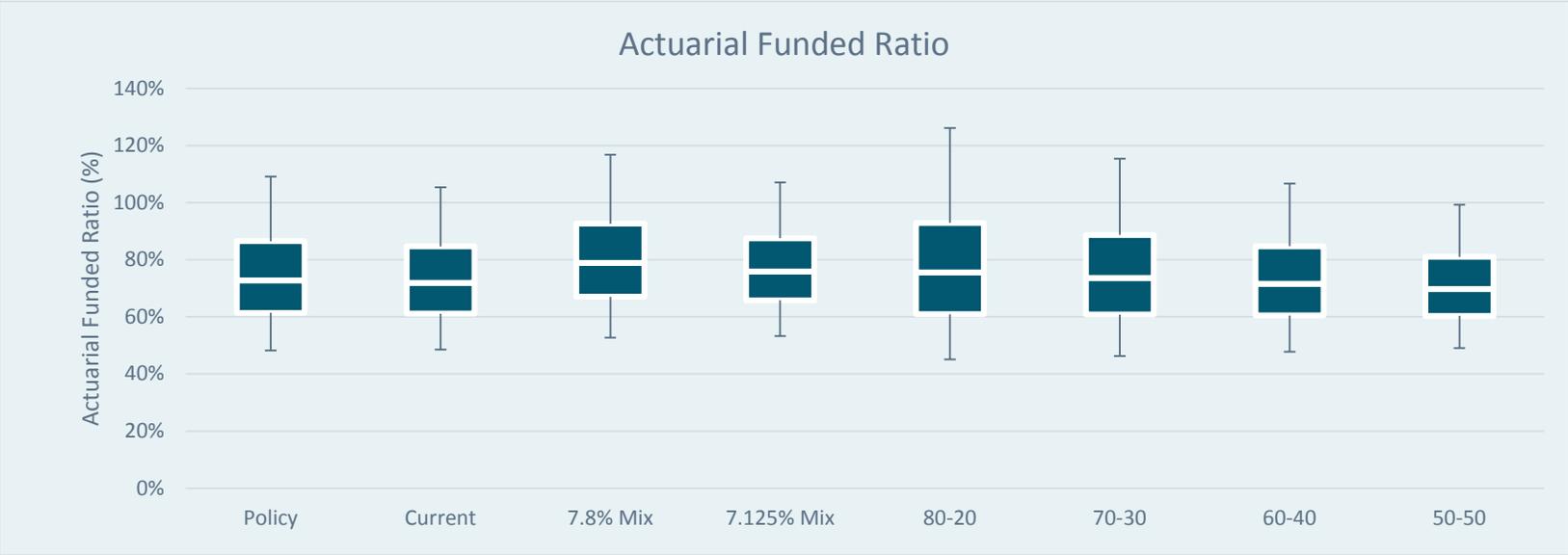
Source: Barra

Stress tests



Source: Barra

Funded status: 10 year forecast

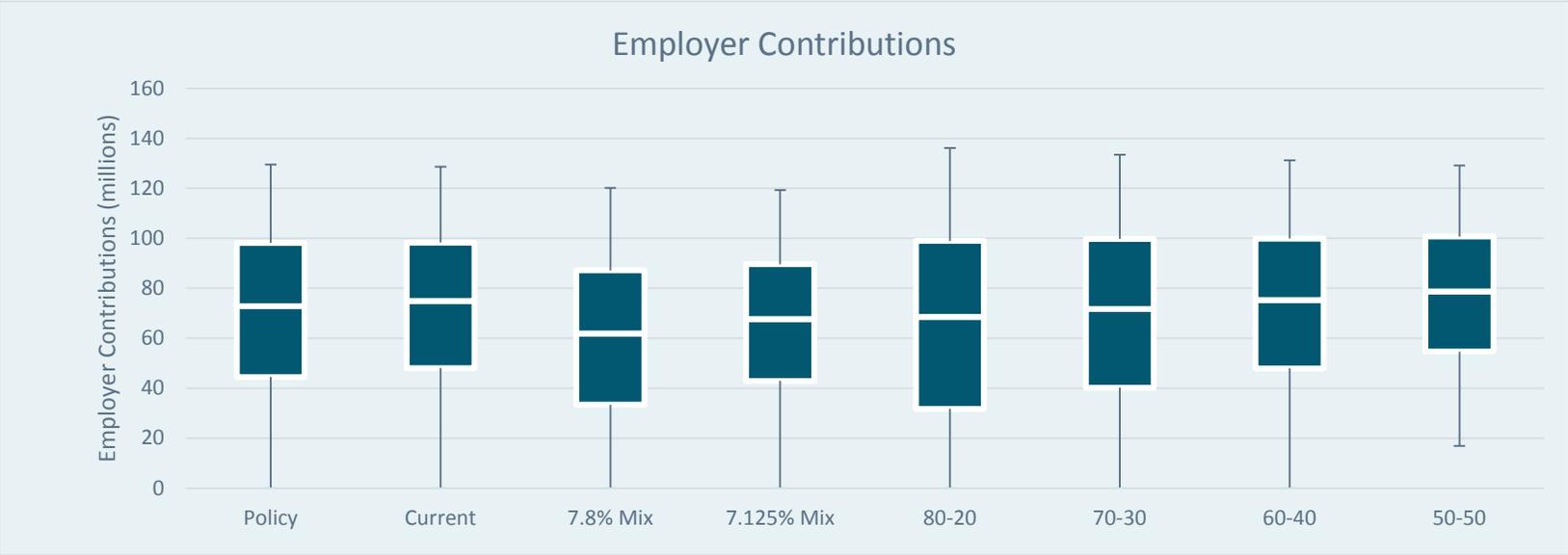


FUNDED STATUS – STOCHASTIC OUTCOMES IN 10 YEARS

	Policy	Current	7.8% Mix	7.125% Mix	80-20	70-30	60-40	50-50
Best Case	109.2	105.3	116.7	107.1	126.1	115.3	106.7	99.2
Median Outcome	72.8	71.9	78.9	75.9	75.5	73.6	71.6	69.8
Worst Case	48.3	48.5	52.8	53.3	45.1	46.3	47.8	49.0

Source: ProVal, Verus

Employer contributions: 10 year forecast

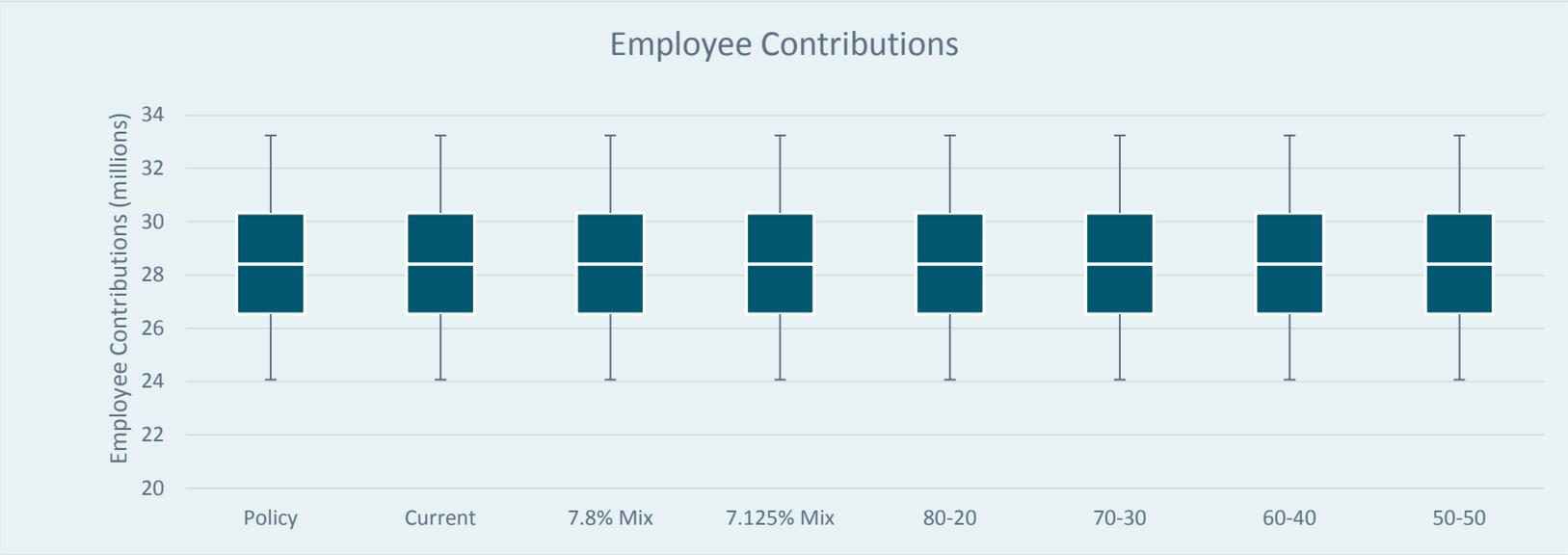


EMPLOYER CONTRIBUTIONS – STOCHASTIC OUTCOMES IN 10 YEARS

	Policy	Current	7.8% Mix	7.125% Mix	80-20	70-30	60-40	50-50
Best Case	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,887,392
Median Outcome	\$72,851,341	\$74,899,888	\$61,915,069	\$67,656,906	\$68,592,339	\$71,786,186	\$75,322,476	\$78,742,968
Worst Case	\$129,516,286	\$128,661,559	\$120,195,624	\$119,318,569	\$136,093,923	\$133,406,437	\$131,218,505	\$129,200,615

Source: ProVal, Verus

Employee contributions: 10 year forecast



EMPLOYER CONTRIBUTIONS – STOCHASTIC OUTCOMES IN 10 YEARS

	Policy	Current	7.8% Mix	7.125% Mix	80-20	70-30	60-40	50-50
Best Case	\$24,070,868	\$24,070,868	\$24,070,868	\$24,070,868	\$24,070,868	\$24,070,868	\$24,070,868	\$24,070,868
Median Outcome	\$28,407,934	\$28,407,934	\$28,407,934	\$28,407,934	\$28,407,934	\$28,407,934	\$28,407,934	\$28,407,934
Worst Case	\$33,237,629	\$33,237,629	\$33,237,629	\$33,237,629	\$33,237,629	\$33,237,629	\$33,237,629	\$33,237,629

Heat map

	Policy	Current	7.8% Mix	7.125% Mix	80-20	70-30	60-40	50-50
Risk/Return Metrics								
Expected Return	6.3%	6.1%	7.8%	7.1%	6.5%	6.2%	5.9%	5.5%
% chance of meeting 7.125%	40.29	37.47	60.39	50.06	44.31	40.75	36.05	30.03
Volatility	11.05	10.72	8.14	7.12	14.53	12.89	11.31	9.83
Sharpe Ratio	0.42	0.41	0.73	0.73	0.36	0.37	0.38	0.39
Daily VaR (95% confidence, \$MM)	\$10.2	\$11.8	\$7.2	\$6.3	\$18.8	\$16.1	\$14.1	\$11.2
Daily CVaR (95% confidence, \$MM)	\$18.4	\$18.4	\$15.6	\$13.6	\$26.5	\$23.7	\$20.9	\$18.3
2007-2009 Drawdown (Simulation)	-35.1%	-34.5%	-16.0%	-11.4%	-43.8%	-38.5%	-33.1%	-27.8%
1st Percentile (1 Year)	-20.5%	-20.2%	-12.4%	-10.5%	-34.7%	-30.0%	-25.7%	-21.3%
Potential impact on Discount Rate	-0.86%	-1.08%	0.68%	0.01%	-0.64%	-0.95%	-1.27%	-1.63%
Other Key Metrics (Expected Yr. 10)								
\$MM Contributions - Employer	\$72.9	\$74.9	\$61.9	\$67.7	\$68.6	\$71.8	\$75.3	\$78.7
% of Pay Cont. - Employer	32.4%	33.3%	27.5%	30.1%	30.5%	31.9%	33.5%	35.0%
\$MM Contributions - Employee	\$28.4	\$28.4	\$28.4	\$28.4	\$28.4	\$28.4	\$28.4	\$28.4
% of Pay Cont. - Employee	12.6%	12.6%	12.6%	12.6%	12.6%	12.6%	12.6%	12.6%
Funded Ratio	72.8%	71.9%	78.9%	75.9%	75.5%	73.6%	71.6%	69.8%
Risk Factors								
Portfolio Complexity	med	med	high	high	low	low	low	low
Leverage	med	med	high	high	low	low	low	low
Peer Risk	low	low	high	high	high	high	high	high
Headline Risk	low	low	high	high	high	high	high	high
Operational Risk								
Liquidity Risk	med	med	high	high	low	low	low	low
Tail Risk	med	med	low	low	high	high	med	med
Equity Risk Allocation	med	high	low	low	high	high	high	high

Source: MPI, Barra, ProVal

Appendix

Notes

- Assumed return: 7.125%
 - 2.625% inflation
 - 4.5% real return
- Plan projections assume constant population (zero plan growth)
- COLA: Plan contains a COLA which changes based on the CPI on maximums which differ based on benefit tier.
 - Tier 2 & 3: maximum of 2%, currently illustrated at 2%.
 - Tier 1: maximum of 3%, currently illustrated at an inflation projection of 2.625%
- Amortization: fixed amortization year of 2040, period type is closed (every year we re-evaluate our debt and amortize to the year 2040). This amortization period began in 2010.
- Asset growth projections are supplied by Verus' 2017 Capital Market Assumptions

Board of Trustees

1000 Mill Street
San Luis Obispo, CA 93408
Phone: (805) 781-5465
Fax: (805) 781-5697
www.SLOPensionTrust.org



Date: September 25, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary

Agenda Item 7: Actuarial Projections

At the 2016 strategic planning meeting of the Board of Trustees an in-depth discussion was held with the Pension Trust's actuary, Leslie Thompson and her colleague, Paul Wood from Gabriel Roeder Smith on long term actuarial projections related to the funding of the retirement system.

This presentation from Paul Wood is an update of the 2016 analysis. More importantly, it is intended to be an interactive dialogue that complements the discussion taking place with the preceding item on the Asset/Liability study performed by Verus. As such, the presentation materials will be available at the meeting and may be iteratively changed as part of the discussion.

Respectfully Submitted,

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Board of Trustees

1000 Mill Street
San Luis Obispo, CA 93408
Phone: (805) 781-5465
Fax: (805) 781-5697
www.SLOPensionTrust.org



Date: September 25, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary

Agenda Item 8: Investment Policy Statement Amendment

Recommendation:

Staff Recommends that the Investment Policy Statement, Section III Investment Philosophy, be amended by the addition of an additional factor on “Drawdown Risk”. Included in the attached draft of the amended IPS (see page 4) is the added Investment Philosophy factor of –

“Drawdown Risk – The Pension Trust is a retirement system in a negative cashflow status (benefits paid exceed contributions received annually), As a result, the Pension Trust’s funded level and required contributions are increasingly sensitive to periods when investment returns are negative even with the expectation that investment markets will recover after such events. As part of its consideration of risk tolerance and asset allocation the Pension Trust will attempt to manage short-term drawdown risk when developing its long-term asset allocation policy and when shifting or rebalancing the portfolio.”

Discussion:

The Investment Policy Statement of the Pension Trust was substantially rewritten in November 2015 and approved by the Board of Trustees. Subsequent amendments to the IPS have been to its Addendum A – Strategic Asset Allocation Policy. The 2016 and 2017 amendments to Addendum A were to modify the strategic asset allocation mix and to update appropriate investment benchmarks for some asset classes (e.g, the addition of Private Credit in 2016 and the specification of a benchmark for Private Credit in 2017).

An important component of an IPS is a statement of Investment Philosophy such as that in Section III of the Pension Trust's IPS. Investment Philosophy points address Time Horizon, Risk Tolerance, Liquidity Needs, Performance Objectives and Compliance. Staff is recommending the addition of a new Investment Philosophy key point on "Drawdown Risk" as show above.

As part of regular analysis and review of the Pension Trust's funding status and policy, the inevitably increased sensitivity of a pension system in a negative cashflow status (benefits are greater than contributions) to years of negative investment returns has been a regular point of discussion. Increasingly an analysis of the impact of large asset drawdowns has been a key part of asset allocation policy considerations with the Pension Trust. Other retirement systems such as CalSTRS have incorporated the consideration of drawdown risk in their statements of Investment Policy or Investment Beliefs.

Staff recommends that a similar inclusion of Drawdown Risk be added to the Pension Trust's IPS to memorialize what is already being used as a point of investment philosophy in Pension Trust asset allocation considerations. Scott Whalen of Verus is in agreement with this amendment.

San Luis Obispo County
Pension Trust
SLOOPT

**SAN LUIS OBISPO COUNTY
PENSION TRUST -**

BOARD OF TRUSTEES

INVESTMENT POLICY STATEMENT

Adopted November 23, 2015
(replacing prior IPS adopted 2000)

Revised and Amended [Sept. 25, 2017]

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I. INVESTMENT POLICY PURPOSE AND AUTHORITY

The San Luis Obispo County Pension Trust Board of Trustees, pursuant to applicable County, State and Federal laws and regulations and in keeping with its fiduciary responsibilities, has established this Investment Policy to govern the investment and reinvestment of the assets of the Pension Trust.

The purpose of this Investment Policy is to provide policy guidance and documentation of the authority, role and governance practices of the Pension Trust relative to the investment of the Trust's assets.

In formulating this Investment Policy, the Board of Trustees has followed the provisions of Article XVI, Section 17 of the California State Constitution which are set forth in pertinent part below:

1. Notwithstanding any other provision of law or of the California Constitution to the contrary, the Board of Trustees shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the Pension Trust.
2. The Board of Trustees shall have the sole and exclusive fiduciary responsibility over the assets of the Pension Trust.
3. The Board of Trustees shall have the sole and exclusive responsibility to administer the Pension Trust in a manner that will assure the prompt delivery of benefits and related services to members, participants and their beneficiaries.
4. The assets of the Pension Trust are trust funds and shall be held for the exclusive purpose of providing benefits to members, participants and their beneficiaries and defraying the reasonable expenses of administering the Pension Trust.
5. That each member of the Board of Trustees shall discharge his or her duty with respect to the Pension Trust solely in the interest of, and for the exclusive purposes of:
 - a. providing benefits to members, participants and their beneficiaries
 - b. minimizing contributions to the Pension Trust
 - c. defraying the reasonable expenses of administering the Pension Trust.
6. The Board of Trustees' duty to its members, participants and beneficiaries shall take precedence over any other duty.
7. Each member of the Board of Trustees shall discharge his or her duty with respect to the Pension Trust with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
8. The Board shall diversify the investments of the Pension Trust so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.

II. INVESTMENT OBJECTIVES

1. The overall objective is to invest the assets of the Pension Trust solely for the benefit of plan members, participants and their beneficiaries while attempting to minimize contributions, investment costs and administration costs.
2. The long-term performance objective for the Pension Trust is to meet or exceed the actuarially assumed rate of return net of fees and expenses, over a complete economic cycle and relevant longer periods.

III. INVESTMENT PHILOSOPHY

1. Time Horizon - The Pension Trust will periodically review the portfolio's alignment with the Retirement Plan's liabilities. The investment policy and guidelines are based on a time horizon of greater than five years. The Pension Trust will consider both intermediate-term and longer-term investment return horizons in formulating expected returns and assessing portfolio risk parameters. The Pension Trust's strategic asset allocation is based on this longer-term perspective. Fluctuations of investment results in the interim should be viewed with an appropriate perspective
2. Risk Tolerance - Investment opportunities in various asset classes have differing risk and return expectations. In general, investments with higher expected returns involve a higher level of risk. The Pension Trust recognizes that some level of risk must be assumed to achieve the long-term investment objectives. The Pension Trust will attempt to achieve its investment return objective with an appropriate level of risk using an efficient combination of investable assets.
3. Drawdown Risk – The Pension Trust is a retirement system in a negative cashflow status (benefits paid exceed contributions received annually). As a result, the Pension Trust's funded level and required contributions are increasingly sensitive to periods when investment returns are negative even with the expectation that investment markets will recover after such events. As part of its consideration of risk tolerance and asset allocation the Pension Trust will attempt to manage short-term drawdown risk when developing its long-term asset allocation policy and when shifting or rebalancing the portfolio.
- 3.4. Liquidity Needs - Sufficient liquidity must be maintained to pay benefits and expenses. Investment income and contributions may or may not exceed projected benefit payments and expenses on an annual basis. Within the constraints of maintaining adequate liquidity for the payment of benefits and expenses, a reasonable portion of the portfolio may be invested in illiquid investments. The liquidity requirements shall be reviewed at least annually.

4.5.Performance Objectives - The expected and actual investment returns of the total fund will depend on the asset allocation targets, the mix of investment styles within asset classes, and individual manager performance. Therefore, performance objectives have been set at three levels: total fund, asset class, and individual portfolios.

a. Total Fund

- i. Meet or exceed the actuarial rate of interest which has taken into account expected composite portfolio returns. Annualized investment returns (net of fees) should exceed the actuarial interest rate over most five-year periods and over complete economic cycles.
- ii. Meet or exceed the policy benchmark. Annualized investment returns (net of fees) to exceed the policy benchmark over five-year periods. The policy benchmark is a composite of the benchmarks of the asset classes in the asset allocation policy. Composition of the policy benchmark is detailed in Addendum A.

b. Asset Class

- i. Annualized returns (net of fees) for the asset classes should exceed their respective benchmarks over a five-year period. The asset class benchmarks will be broad market indices that are representative of the investment structure for that asset class. Current benchmarks for the asset classes are shown in Addendum A.

c. Individual Portfolios

- i. Performance objectives for manager portfolios are stated in the respective investment-manager-agreements. Returns (net of fees) are expected to exceed the respective benchmarks over three to five-year periods. Manager benchmarks will be determined based upon the investment style of the portfolio for which the manager is hired.

5.6.Compliance – The Board believes that investment policies, in aggregate, are the most important determinants of investment success. Compliance with investment policies should, therefore, be monitored diligently.

IV. ASSET ALLOCATION

The current Strategic Asset Allocation – approved asset classes, target allocations and ranges are detailed in Addendum A as approved by the Board of Trustees of the Pension Trust.

The Board of Trustees of the Pension Trust has adopted a strategic asset allocation plan based upon the fund's projected actuarial liabilities and liquidity needs, the Pension Trust's risk tolerances and the risk/return expectations for various asset classes. This asset allocation plan seeks to optimize long-term returns for the level of risk that the Pension Trust considers appropriate. Since projected liability and risk/return expectations will change over time, the Pension Trust will conduct a periodic review of the asset allocation plan, at least triennially, to maintain an optimal allocation, and may also revise the asset allocation in response to significantly changing market conditions that have affected valuations and forward-looking expected returns of asset classes. The Pension Trust will review capital market expectations at least annually.

Portfolio Rebalancing:

The Pension trust recognizes the importance of regular and disciplined rebalancing of its asset allocation to match the target allocations and remain within the approved asset mix ranges as specified in Addendum A to this Investment Policy. Accordingly, the Executive Secretary and/or Chief Investment Officer is authorized by this policy to evaluate the need for rebalancing at least quarterly and effect regular rebalancing of the asset mix as needed, but no less than annually if needed.

V. ASSET CLASSES

The asset classes that may be utilized by the Pension Trust include, but are not limited to, the listing shown below. Not all asset classes listed below may be approved for use at any given time. **The asset classes approved by the Board of Trustees at any given time are specified in Addendum A to this Investment Policy.** The purpose of utilizing multiple asset classes for the investment of Pension Trust assets is to diversify across different assets that respond to economic and capital market conditions differently. The expected returns, volatility of returns, cross-asset-class-correlations, liquidity and cashflow of different asset classes are to be considered in the setting of the Strategic Asset Allocation specified in Addendum A.

Possible Asset Classes:

1. Domestic Equities
2. International / Global Equities
3. International – Developed Market Equities
4. International – Emerging Market Equities
5. Domestic Fixed Income / Bonds
6. International / Global Fixed Income
7. International – Developed Market Fixed Income
8. International – Emerging Market Fixed Income
9. Short Term Cash Equivalents
10. Domestic Real Estate
11. International / Global Real Estate
12. Infrastructure
13. Timber
14. Commodities

15. Private Equity
16. Private Credit
17. Other Alternative Strategies (e.g., Risk Parity, Momentum, Volatility Capture, Currency Beta)

VI. INVESTMENT MANAGERS

Internal vs. External Investment Management: The Board of Trustees may from time to time authorize the Pension Trust staff to provide investment management services directly, on an internally managed basis. Any such internal management must consider the professional qualifications and resources of Pension Trust staff. Any such internal management must be fully specified with a stated investment style and goals equivalent to those applied to external investment managers. **In general, the Pension Trust has a strong bias towards utilizing external investment managers.**

Investment Manager Diversification:

In general the Pension Trust will employ multiple investment managers across asset classes with diversified investment styles. Examples of investment manager diversification may include, but are not limited to the list shown below.

1. Domestic Equities – diversified by -
 - a. Market capitalization (e.g., small cap, mid cap, large cap)
 - b. Industry and across individual companies
 - c. Investment style (e.g., “growth” and “value”)
 - d. Active investment management and index/ passive/ semi-passive strategies.
2. International / Global Equities – diversified by -
 - a. Developed markets
 - b. Emerging markets
 - c. Global markets (including both domestic U.S. and international)
 - d. Individual countries
 - e. Currency exposure and management
 - f. Market capitalization (e.g., small cap, mid cap, large cap)
 - g. Industry and across individual companies
 - h. Investment style (e.g., “growth” and “value”)
 - i. Active investment management and index/ passive/ semi-passive strategies.
3. Domestic Fixed Income / Bonds – diversified by –
 - a. Governmental or corporate issuer
 - b. Credit quality
 - c. Industry
 - d. Collateral (e.g., mortgage backed)
 - e. Maturity and Duration
 - f. Yield
 - g. Active or passive management

- h. Investment Style
- 4. International / Global Fixed Income – diversified by –
 - a. Developed markets
 - b. Emerging markets
 - c. Governmental or corporate issuer
 - d. Country
 - e. Currency exposure and management
 - f. Credit quality
 - g. Industry
 - h. Collateral (e.g., mortgage backed)
 - i. Maturity and Duration
 - j. Yield
 - k. Active or passive management
 - l. Investment Style
- 5. Domestic / International / Global Real Estate Income – diversified by –
 - a. Geographic area
 - b. Property type
 - c. Leverage
 - d. Investment style – e.g., “core”, “value added”
 - e. Open end commingled fund or closed end fund (e.g., a limited partnership)
- 6. Commodities– diversified by –
 - a. Active or passive management
 - b. Derivatives used
- 7. Private Equity and Private Credit – diversified by –
 - a. Type of investment (e.g., venture capital, buyout, debt, secondary market interests, co-investments)
 - b. General Partner
 - c. Vintage year of limited partnership
 - d. Investment Style

Active Investment Management:

The Pension Trust may from time to time utilize active investment managers to the extent that it holds the expectation that active investment management can generate risk adjusted returns greater than relevant, investable benchmarks over an entire market cycle. The use of passive or index based investment management will be preferred by the Pension Trust in the absence of expectations of active management outperformance. The Pension Trust will regularly evaluate all of its active investment managers relative to lower cost alternatives of passive or index based management.

Master Custodian

The Pension Trust will hold its investments to the extent possible through the custody of a qualified trust bank.

Separate Account vs. Commingled Funds:

The Pension Trust may hold its investments in separate accounts managed by investment managers and custodied by a master custodian. The Pension Trust may also hold its investments in pooled, commingled accounts, mutual funds, collective trusts, limited partnership interests or similar arrangements. In general, the Pension Trust has a bias in favor of commingled funds where available.

Environmental / Social / Governance:

The Pension Trust recognizes that the economic value of its investments may be impacted by Environmental / Social / Governance issues. In its capacity as fiduciaries, the Board of Trustees in the interests of prudent diversification may evaluate potential Environmental / Social / Governance issues at the investment manager level as being a reasonable factor when other expected investment alternatives are estimated to be equal in merit (i.e., all else being equal). The Pension Trust delegates consideration of the merits of any such Environmental / Social / Governance issues at the individual investment level to investment managers employed by the Pension Trust. Investment managers employed by the Pension Trust may consider Environmental / Social / Governance factors (e.g., environmentally sustainable business practices, responsible corporate governance and transparency) in the context of their positive impacts on expected investment returns. The Pension Trust expects its investment managers to be aware of Environmental / Social / Governance issues and consider their impact on diversification and risk in their portfolios.

Proxy Voting:

The Pension Trust acknowledges that the ownership of equities requires proxies to be voted and commits to managing its proxy voting rights with the same care, skill, diligence and prudence as is exercised in managing its other assets. As responsible fiduciaries, the Pension Trust will exercise its proxy voting rights in the sole interest of the Plan's members, participants and their beneficiaries in accordance with all applicable statutes. Consequently, all proxies shall be voted by the Pension Trust's equity investment managers consistent with their respective policies on proxy voting and in the best interest of the shareholders. The investment managers will provide a copy of their proxy voting guidelines to the Pension Trust when first hired and whenever there are changes thereafter. The Executive Secretary will monitor the voting of proxies by external investment managers managing separate accounts to ensure that all proxies are being voted and to identify any potential policy concerns with such votes. The Executive Secretary will report to the Board of Trustees as necessary with respect to proxy voting.

Role of Derivatives, Cash Securities, Long/Short Positions, Leverage:

In general Pension Trust investments will be in long positions in cash securities markets. Some asset strategies may employ both long and short positions in derivative securities or which may be acceptable depending on the type of investment manager and/or strategy applicable. Some asset strategies may employ leverage which may be acceptable depending on the type of investment manager and/or strategy applicable.

Some investment exposures may be more efficiently achieved with derivative instruments which are acceptable depending on the type of investment manager and/or strategy applicable. Investment managers may be permitted under the terms of individual investment guidelines to use derivative instruments to implement market decisions and security positions and to control portfolio risk. Derivatives are contracts or securities whose returns are derived from the returns of other securities, indices or instruments including, but not limited to, futures, forwards, options, swaps and options on futures. Examples of appropriate applications of derivative strategies include hedging interest rate and currency risk, rebalancing portfolio exposures, securitizing fund level and manager cash, maintaining exposure to a desired asset class while effecting asset allocation changes, adjusting portfolio duration for fixed income and gaining exposure to commodities. Portfolio liabilities associated with investments (i.e. mortgage forward bond purchases, futures, in-the-money short puts, reverse repurchase agreements, etc.) shall be backed by cash equivalents or deliverable securities. No derivatives positions can be established that create portfolio characteristics outside of portfolio guidelines. Managers must ascertain and carefully monitor the creditworthiness of any third parties involved in derivative transactions.

Investment Manager Guidelines:

All investment managers engaged by the Pension Trust must:

1. Be registered investment advisors with the Securities and Exchange Commission, trust companies that are regulated by State and Federal Banking authorities, or mutual fund companies.
2. Accept fiduciary responsibility and contractually agree to notify the President of the Board of Trustees and the Executive Secretary in writing if they are unable to continue acting in the capacity of a fiduciary or investment advisor.
3. Maintain insurance coverage, including errors & omissions, surety bond, fiduciary liability, ERISA bond, etc. consistent with normal practices for investment management firms managing retirement plan assets.

Each investment manager hired by the Pension Trust shall be governed by this Investment Policy. Moreover, each investment manager shall be hired by the Board of Trustees pursuant to a written agreement which shall incorporate this Investment Policy and which shall provide that the agreement is terminable at any time, with or without cause, at the discretion of the Board of Trustees.

Investment Managers shall agree to:

1. Maintain the investment approach that the manager was hired to implement under any and all capital market environments.
2. Immediately report in writing to the Board any changes in firm structure, firm management, portfolio management personnel, or the manager's investment decision making process.
3. Fully educate the Pension Trust as to the specifics of the manager's investment process.
4. Exclusive of specific Pension Trust investment guidelines, maintain a portfolio that generally conforms to other portfolios managed by the investment manager for other

clients using similar mandates.

5. Otherwise, treat the portfolio managed for the Pension Trust in a manner similar to other comparable portfolios managed for other clients in portfolio construction, trading, and all other aspects.

Members of the investment manager's research and portfolio management teams will comply with the CFA Institute Professional Standards and Code of Ethics. Any industry or regulatory disciplinary action taken against members of the investment manager's investment staff must be immediately reported in writing to the Board.

If the Board delegates proxy voting responsibilities to its investment managers, the investment manager agrees to vote all proxy ballots according to the best economic interest of the Pension Trust and in a manner consistent with any specified Board approved proxy policies.

Investment Manager Due Diligence – Retention and Termination:

The Board of Trustees delegates to Staff, with assistance from its Consultant(s), the process of identifying and recommending investment managers for retention or termination. Staff, working with Consultant(s), will conduct comprehensive due diligence to provide the Board of Trustees with necessary and sufficient information in support of recommendations to retain or terminate external investment managers. The specific elements of due diligence will vary based on the asset class and the characteristics of the individual manager(s) and / or strategies under consideration. The due diligence with respect to underlying investment managers shall include, but is not limited to, an assessment of the merits of investment process and philosophy, resources and talent available to the organization, the likelihood that key resources will remain, risk management processes, internal control and compliance processes and procedures, and other organizational considerations.

Prohibited Transactions, Transactions and Brokerage:

The following transactions will be prohibited: selling on margin; "prohibited transactions" as defined under ERISA; transactions that involve a broker acting as a "principal" where such broker is also the investment manager who is making the transaction; and any or all investment activities forbidden by Securities Exchange Commission or other applicable governing bodies. The Pension Trust hereby instructs its investment managers to seek best execution when conducting all trades. Managers are instructed to seek to minimize commission and market impact costs when trading securities. Also, either internally or through an externally provided transaction cost evaluation service, investment managers are expected to measure the costs associated with their investment trades. When trading securities, best execution is the paramount consideration and this objective is expected to provide for and protect the best economic interest of the Pension Trust.

Placement Agents:

The Pension Trust will not use the services of investment managers secured through the use of external Placement Agents as that term is defined in Section 7513.8(d) of the California Government Code.

VII. INVESTMENT CONSULTANTS

The Board of Trustees of the Pension Trust recognizes that the employment of highly qualified investment consultants is necessary to the discharge of its fiduciary duties. Accordingly, it is the policy of the Pension Trust to consistently employ a general investment consultant. From time to time the Pension Trust may employ more specialized investment consultants as deemed necessary for particular asset classes (e.g., real estate, private equity, other alternatives).

VIII. RESPONSIBILITIES AND DELEGATION OF AUTHORITY

Responsibilities of the Board of Trustees:

In keeping with the provisions of California State Constitution, the Board of Trustees shall have the following responsibilities under this policy:

1. Establish Policy and Policy Guidelines
2. Delegation of Specific Authority to Qualified Investment Personnel or Providers
3. Designate the Executive Secretary of the Pension Trust to act as the Chief Investment Officer (CIO) or designate other staff or service providers/consultants to act as the CIO under the supervision of the Executive Secretary.
4. Establish the Strategic Asset Allocation
5. Monitor Compliance and Adherence to This Policy
6. Retaining and terminating investment managers based on recommendations of the Executive Secretary, CIO and the Investment Consultant.
7. Retaining and terminating key professionals including General Counsel and Investment Consultants.

Responsibilities of the Executive Secretary:

The Executive Secretary shall have the following responsibilities under this policy:

1. Management and Supervision of the investment activities of the Pension Trust
2. Adherence to and Implementation of this Policy
3. Management and Supervision of the Chief Investment Officer and other investment staff if applicable
4. Respond to Information Requests from the Board of Trustees

5. Maintenance of Due Diligence of Custodian Banks, Consultants and External Managers
6. Ensure Policy Compliance, Identify Areas for Review and Revision
7. Implement Asset Allocation Decisions of the Board of Trustees
8. Manage internally managed investment portfolios if directed by the Board of Trustees and execute investment trades as necessary
9. Manage the cashflow of the Pension Trust to ensure the timely payment of benefits.

IX. INVESTMENT ADMINISTRATION

Liquidity Management:

1. Cashflow Analysis - Annually the Executive Secretary shall cause to be prepared a Cashflow Analysis of the Pension Trust addressing contributions, benefit payments, investment cashflows, administrative expenses and the net liquidity needs of the Pension Trust and submit such report to the Board of Trustees.
2. Cash Management – The Executive Secretary will manage the cash transactions of the Pension Trust such that benefit payments are made in a timely manner. A reserve of liquid funds shall be maintained equal to at least three months of expected benefit payments. Such liquidity reserve should not exceed six months of expected benefit payments except to fund upcoming investment cashflows (e.g., capital calls).

Reporting:

1. Monthly reports on the estimated investment performance and status of the Pension Trust shall be made to the Board of Trustees.
2. Quarterly reports on investment performance shall be made to the Board of Trustees and shall include a review of the Pension Trust's adherence to investment style and discipline as set forth by this policy, a review of current strategy, and recent investment performance. Investment performance is to be evaluated on a total return basis.
3. An annual report on asset allocation policy compliance shall be made to the Board of Trustees
4. An annual report on expected capital market returns and recommendations for potential modifications to asset allocation policy shall be made to the Board of Trustees.

Policy Compliance Monitoring:

1. The Executive Secretary and/or the Chief Investment Officer shall monitor the compliance of the Pension Trusts Investment Managers with the requirements of this policy and their respective investment management agreements and report any instances of non-

compliance to the investment consultant and to the Board of Trustees.

Funds Transfers:

1. Funds transfers, including wire transfers, outside of the accounts of the Master Custodian may be necessary for purposes that include –
 - a. Benefit payments
 - b. Administrative expenses
 - c. Transfers to or from commingled investment accounts, mutual funds or limited partnerships.
2. All Wire Transfer Instructions shall –
 - a. Be in writing
 - b. Require the signatures of at least two officers of the Pension Trust as may be designated by time to time by Board of Trustees action
 - c. Wire Transfer Instructions for amounts in excess of \$5,000,000 shall always require the signature of the Executive Secretary or the Deputy Executive Secretary
 - d. Wire Transfers shall be verified by the Bank via telephone with one of the Pension Trust employees authorized as officers with signing authority over the account consistent with the Bank’s policy on wire transfers

X. REVIEW AND REVISIONS

The Board of Trustees reserves the right to amend the Investment Policy Statement at any time they deem such amendment to be necessary, or to comply with changes in federal law as these changes affect the investment of Fund assets.

This Investment Policy Statement shall be reviewed, at a minimum, every three years or as directed by the Board of Trustees. Such reviews will focus on the continuing feasibility of achieving the investment objectives and the continued appropriateness of the investment policy relative to the Pension Trust’s circumstances. It is not expected that the investment policy will change frequently; in particular, short-term changes in the financial markets generally should not require an adjustment in the investment policy. However, specific policy issues may be visited whenever the Board of Trustees deems necessary. Specific occurrences which might suggest to the Board an earlier review include, but are not limited to, a change in the Fund’s circumstances and / or a material change in the capital market environment.

Periodic reviews of the Asset Allocation portion of this Investment Policy as specified in Addendum A will take place as appropriate and no less frequently than annually.

DRAFT

ADDENDUM A – Strategic Asset Allocation Policy
San Luis Obispo County Pension Trust
Amended May 22, 2017

Asset Allocation Policy Adopted May 22, 2017	2017 Policy	2017		Performance
		Min.	Max.	Benchmark
Equities - US				
Large Cap US Equity	16%	11%	21%	varies with Mgr.
Small / Mid Cap US Equity	4%	2%	9%	varies with Mgr.
Equities - US - Total	20%	15%	30%	Russell 3000
Equities - International				
International	13%	8%	18%	MSCI EAFE
International - Emerging Mkt.s	7%	0%	12%	
Equities - Intl. - Total	20%	15%	30%	MSCI ACWI ex. US
EQUITIES - Total	40%	30%	50%	
Fixed Income				
Bonds - Core+	15%	10%	20%	BC Aggregate Bond
Bank Loans	5%	0%	10%	S&P LSTA
Bonds - Global	5%	0%	10%	Citi World Govt. Bond
Bonds - Emerging Market	5%	0%	10%	JPM GBI EM
BONDS - Total	30%	25%	45%	BC Aggregate Bond
Real Estate				
Real Estate - Core	10%	5%	15%	NCREIF
Real Estate - Value Add	5%	0%	10%	NCREIF
Real Estate - Directly owned	0%	0%	4%	NCREIF
REAL ESTATE - Total	15%	5%	20%	NCREIF
Commodities				
Commodities - Active	5%	0%	10%	DJ UBS Commodities
COMMODITIES - Total	5%	0%	10%	DJ UBS Commodities
Alternative Assets				
Private Equity	5%	0%	10%	Russell 3000 + 3%
Private Credit	5%	0%	10%	BC High Yield +2%
ALT. ASSETS - Total	10%	0%	20%	Russell 3000 + 3%
Opportunistic				
Opportunistic	varies	0%	10%	Russell 3000 + 3%
Liquidity				
Cash Equivalents	0% *	0%	5% *	T-Bills
Cash Overlay	0% *	NA	NA *	Policy Mix
LIQUIDITY - Total	0%	0%	5%	T-Bills
TOTAL	100%			

* Net 0% exposure due to Cash Overlay when activated.

Policy level of Treasury cash = 3 mth.s benefits = ~2% of total

Opportunistic Investments:

Opportunistic investments will be considered on a case by case basis as presented by the Pension Trust's investment consultant. Such investments are intended to take advantage of specific market conditions and may include expansion of investments in the current asset allocation or entry into strategies outside of the asset allocation following education regarding the potential investment. Opportunistic investments will be limited to no greater than 10% of the total portfolio at the time of investment. Investments in individual strategies identified as opportunistic may not exceed 3% of the total portfolio.

Cash Overlay:

In order to effectively manage the investment exposure of the portfolio where cash positions are held for liquidity or trading purposes, the Pension Trust may employ a Cash Overlay manager to use derivatives to synthetically mirror the Target Asset Mix. The investment manager or asset classes to have their trading or liquidity cash so overlaid may include:

- Any separate account portfolio where the holding of cash positions is not a primary component of the investment strategy for such portfolio.
- Any commingled account portfolio where the holding of cash positions is not a primary component of the investment strategy for such portfolio and the level of cash positions held is regularly reported.
- The cash position held in Treasury Cash by the County on behalf of the Pension Trust based on a minimum average cash position.

The investment manager or asset classes that should not have their trading or liquidity cash so overlaid may include:

- Fixed income investment portfolios where the holding of cash positions is a duration-management tool in the investment managers stated investment style.
- Real Estate portfolios and Private Equity portfolios
- Portfolios with minimal cash positions

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Board of Trustees

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Date: September 25, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary

Agenda 9: Investment Report for August 2017

	August	Year to Date 2017	2016	2015	2014	2013
Total Trust Investments (\$ 000s)	\$1,320,114		\$1,196,775 year end	\$1,148,315 year end	\$1,190,316 year end	\$1,131,022 year end
Total Fund Return	0.4% Gross	10.7% Gross	6.6 % Gross	-0.8 % Gross	5.1 % Gross	13.8% Gross
Policy Index Return (r)	0.5%	8.5%	7.7 %	-0.5 %	5.2 %	13.4%

(r) Policy index as of Aug. 2016 revision to Strategic Asset Allocation Policy: 20% domestic equity, 20% international equity, 15% core bonds, 5% bank loans, 5% global bonds, 5% emerging market debt, 15% real estate, 5% commodities, 5% private equity, 5% private credit.

The Economy:

Some of the significant factors in the global economy for August and into mid-September have been –

- **Fed Policy** – The Fed continued with its path of 2017 rate increases. After the Fed’s June 14th 0.25% increase in the fed funds rate to a target range of 1.00% to 1.25%, the Fed made no change at its July or August meetings. The Fed reiterated its plans for a gradual unwinding of the extraordinary stimulus it provided in the Global Financial Crisis where it acquired \$1.7 trillion of debt securities. The gradual liquidation of the Fed’s balance sheet from its

unprecedented levels is expected to provide upward pressure on interest rates. The Fed will gradually increase the volume of bonds it allows to mature rather than selling bonds in the open markets. However, it will take years for the Fed to reduce its balance sheet to a more typical level. To date, the fixed income markets appear to have faith in the Fed's ability to unwind its balance sheet gradually enough to avoid major market disruption.

- **Economic Growth - US:** US GDP growth in 2Q17 was revised upwards from a 2.6% to an updated 3.0% rate – the highest quarterly rate of change in two years. This followed the 1Q17 increase at a 1.2% rate. The stronger showing of GDP growth in 2Q17 was largely driven by consumer spending. Market expectations of stimulative fiscal policy (e.g., tax reform and infrastructure spending) are awaiting actual developments out of Washington. Forecasts of 3Q17 GDP growth are in the area of 2.5%. U.S. domestic GDP growth, like that of many western countries, faces the headwinds of lower population growth, aging populations and slowing productivity growth rates. Many of these growth hindering factors in developed economies are significantly less in emerging economies which contributes their potentially much higher growth rates.
- **Economic Growth - Global:** Global growth rates in developed markets continue at modest rates. Emerging market growth is still expected to provide much of the improvement expected in 2017 GDP growth. International capital market returns for US investors continued to benefit from a five month decline in the US Dollar. The US Dollar is down 7.8% year to date relative to a basket of trade-weighted currencies.
- **International Tensions** – While capital markets remain generally positive, some spikes in equity volatility occurred in mid-August in apparent response to political tensions with North Korea. Volatility declined later in August to below-historical levels. The high-yield bond market was flat for August as spreads of high-yield debt vs. Treasuries increased slightly with increasing geopolitical tensions.
- **Employment** - The US unemployment rate was little changed in August at 4.4%. After the June new jobs report of a robust increase of +210k (revised), July came in with an above expectation +189k (revised) new jobs followed in August by a +156k gain. Early reports on applications for unemployment showed a jump in September, possibly related to hurricanes in Texas and Florida. Wage growth remained constrained despite the low unemployment rate with a trailing year average wage increase of 2.5%. A different measure of income – Median Household Income – that includes other factors such as household members returning to paid work, showed strong increases in 2016 as reported by the Census Bureau. For 2016, U.S. Median Household Income rose at an inflation adjusted rate of 3.2% to \$59,039 nationally. The 2016 Median household Income for California was \$66,637.

Investment Markets:

The attached report from Verus covers the investment returns of the SLOCPT portfolio and general market conditions through the end of August. The robust capital market returns year to date have been aided by generally above-benchmark returns from SLOCPT's investment managers.

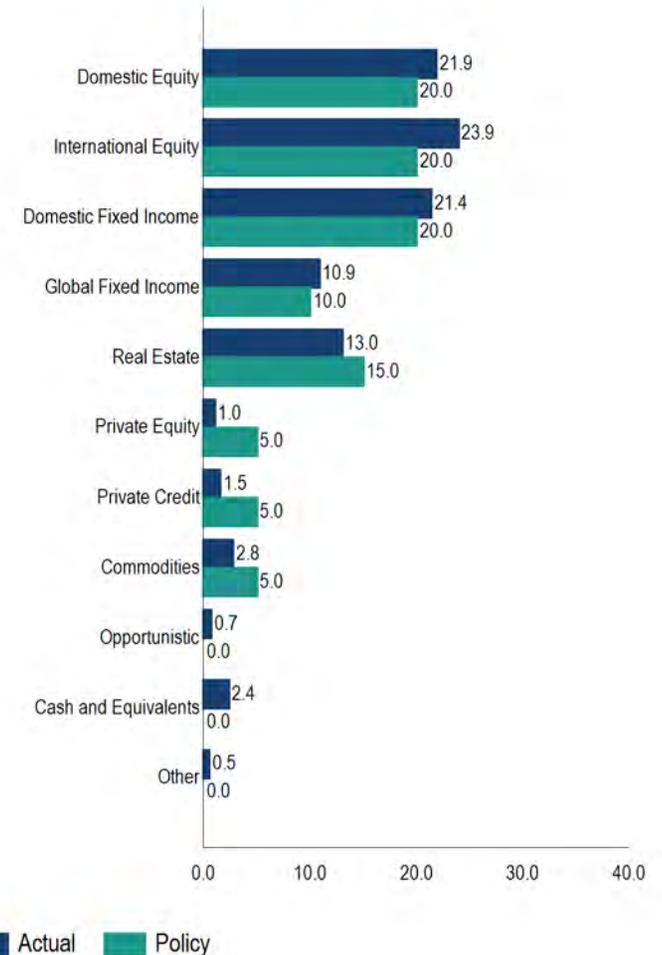
San Luis Obispo County Pension Trust

Executive Summary - Preliminary (Gross of Fees)

Period Ending: August 31, 2017

	Market Value	% of Portfolio	1 Mo	QTD	YTD
Total Fund	1,320,114,443	100.0	0.4	2.3	10.7
Total Fund ex Clifton	1,313,078,920	99.5	0.4	2.4	10.5
Policy Index			0.5	2.1	8.5
Total Domestic Equity	288,558,842	21.9	0.3	2.5	13.7
Russell 3000			0.2	2.1	11.2
SSGA S&P 500 Flag.	11,467,903	0.9	0.3	2.4	11.9
S&P 500			0.3	2.4	11.9
PIMCO RAE Fundamental PLUS Instl	53,642,146	4.1	-0.6	1.1	5.5
S&P 500			0.3	2.4	11.9
Loomis Sayles Large Cap Growth	90,006,812	6.8	2.0	5.3	24.6
Russell 1000 Growth			1.8	4.5	19.2
Boston Partners Large Cap Value	78,319,761	5.9	0.3	1.7	--
Russell 1000 Value			-1.2	0.1	--
Atlanta Capital Mgmt	55,122,221	4.2	-1.3	0.6	11.9
Russell 2500			-0.8	0.2	6.2
Total International Equity	315,778,170	23.9	0.1	3.6	19.8
MSCI ACWI ex USA Gross			0.5	4.3	19.4
Dodge & Cox Intl Stock	164,301,274	12.4	-0.9	3.5	18.9
MSCI EAFE Gross			0.0	2.9	17.5
WCM International Growth	151,476,896	11.5	1.3	3.7	--
MSCI ACWI ex USA Gross			0.5	4.3	--
Total Domestic Fixed Income	282,082,470	21.4	0.5	1.2	3.5
BBgBarc US Aggregate TR			0.9	1.3	3.6
BlackRock Core Bond	95,525,583	7.2	0.9	1.4	--
BBgBarc US Aggregate TR			0.9	1.3	--
Dodge & Cox Income Fund	99,782,805	7.6	0.4	1.2	--
BBgBarc US Aggregate TR			0.9	1.3	--
Pacific Asset Corporate Loan	67,582,204	5.1	0.1	0.8	3.0
S&P/LSTA Leveraged Loan Index			0.0	0.6	2.6
SSGA TIPS	19,179,391	1.5	1.1	1.5	2.4
BBgBarc US TIPS TR			1.1	1.5	2.4

Actual vs Target Allocation (%)



*Other balance represents Clifton Group.

Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 5% Russell 3000 + 300 bp, 5% BBgBarc High Yield + 200 bp lagged. 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. ARA American funded 6/22/2016. ARA American and Direct Real Estate MVs as of 6/30/2017 +/- calls and distributions. Fidelity Real Estate Growth II liquidated 12/31/2015. TPG funded 11/21/16. Loomis Sayles LC Growth funded 12/31/16. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core Bond funded 1/19/2017. Dodge & Cox Income Fund funded 1/19/2017. Boston Partners funded 2/1/2017. WCM Intl Growth replaced Vontobel on 2/15/2017. Pathway 9 funded 4/7/2017. All data is preliminary.

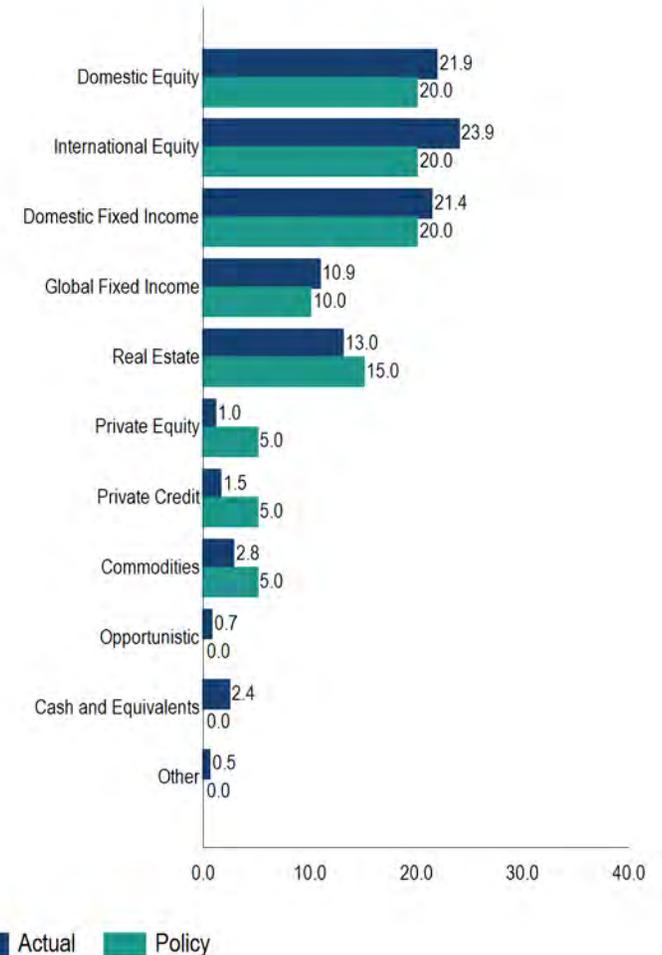
San Luis Obispo County Pension Trust

Executive Summary - Preliminary (Gross of Fees)

Period Ending: August 31, 2017

	Market Value	% of Portfolio	1 Mo	QTD	YTD
Total Global Fixed	143,262,449	10.9	1.2	4.0	14.9
<i>Citi World Govt Bond Index</i>			1.2	3.1	7.7
Brandywine Global Fixed Income	72,335,437	5.5	0.5	3.7	13.4
<i>Citi WGBI Non-USD</i>			1.2	4.0	10.2
Stone Harbor Local Markets Ins	70,927,012	5.4	1.9	4.4	16.4
<i>JPM GBI-EM Global Diversified TR USD</i>			1.8	3.9	14.7
Total Real Estate	172,157,978	13.0	0.3	1.1	5.3
<i>NCREIF Property Index</i>					
JP Morgan Core Real Estate	147,369,404	11.2	0.3	0.9	3.9
<i>NCREIF-ODCE</i>					
<i>NCREIF Property Index</i>					
ARA American Strategic Value Realty	11,414,694	0.9	0.0	2.4	5.2
<i>NCREIF-ODCE</i>					
<i>NCREIF Property Index</i>					
Direct Real Estate	13,153,242	1.0	0.0	1.7	14.4
<i>NCREIF-ODCE</i>					
<i>NCREIF Property Index</i>					
Fidelity Real Estate Growth III	220,637	0.0	-0.2	1.1	-33.4
<i>NCREIF-ODCE</i>					
<i>NCREIF Property Index</i>					
Total Commodities	36,345,720	2.8	1.1	3.6	-0.5
<i>Bloomberg Commodity Index TR USD</i>			0.4	2.7	-2.7
Gresham MTAP Commodity Builder	36,345,720	2.8	1.1	3.6	-0.5
<i>Bloomberg Commodity Index TR USD</i>			0.4	2.7	-2.7
Total Private Equity	13,795,539	1.0			
Harbourvest Partners IX Buyout Fund L.P.	12,385,369	0.9			
Pathway Private Equity Fund Investors 9 L.P.	1,410,170	0.1			
<i>Russell 3000 +3%</i>					

Actual vs Target Allocation (%)



*Other balance represents Clifton Group.

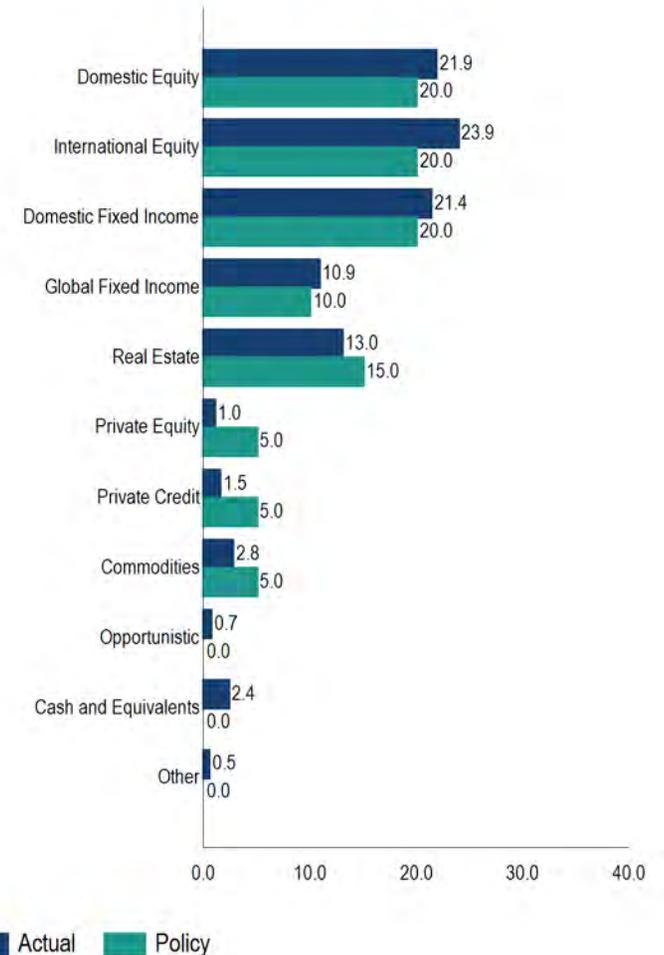
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San Luis Obispo County Pension Trust
 Executive Summary - Preliminary (Gross of Fees)

Period Ending: August 31, 2017

	Market Value	% of Portfolio	1 Mo	QTD	YTD
Total Private Credit	20,407,316	1.5			
TPG Diversified Credit Program	20,407,316	1.5			
BBgBarc High Yield +2% (Lagged)					
Total Cash	31,232,011	2.4	0.0	0.0	0.6
91 Day T-Bills			0.1	0.2	0.5
Cash Account	31,232,011	2.4	0.0	0.0	0.6
91 Day T-Bills			0.1	0.2	0.5
Total Opportunistic	9,458,424	0.7			
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	8,267,444	0.6			
PIMCO Distressed Credit Fund	1,190,980	0.1			
CPI + 5%					

Actual vs Target Allocation (%)



*Other balance represents Clifton Group.

Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 5% Russell 3000 + 300 bp, 5% BBgBarc High Yield + 200 bp lagged. 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. ARA American funded 6/22/2016. ARA American and Direct Real Estate MVs as of 6/30/2017 +/- calls and distributions. Fidelity Real Estate Growth II liquidated 12/31/2015. TPG funded 11/21/16. Loomis Sayles LC Growth funded 12/31/16. PIMCO Core Plus liquidated 1/6/2017. BlackRock Core Bond funded 1/19/2017. Dodge & Cox Income Fund funded 1/19/2017. Boston Partners funded 2/1/2017. WCM Intl Growth replaced Vontobel on 2/15/2017. Pathway 9 funded 4/7/2017. All data is preliminary.



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

AUGUST 2017
Capital Markets Update

Market commentary

ECONOMIC CLIMATE

- Headline CPI increased by 1.9% YoY in August, up 20 bps from July, affected by higher gasoline and shelter prices. Core CPI increased by 1.7% YoY, unchanged from the prior month. Core CPI was led by modest price increases in automobiles and medical services.
- The U.S. dollar depreciated for a fifth consecutive month, decreasing by -1.6% to 100.7 in August against a trade weighted basket of currencies. The currency has fallen -7.8% year-to-date.
- The Conference Board's Consumer Confidence Index, a survey of business and employment sentiment, rose to 122.9 in August, near the fifteen year high of 124.9 set in March.
- Initial unemployment claims jumped in the first week of September to 284,000, above the consensus estimate of 241,000, but well below the 10-year average of 372,000. A significant portion of the increase was attributed to people affected by Hurricanes Harvey and Irma.

DOMESTIC EQUITIES

- Domestic equities continued to appreciate as the S&P 500 returned 0.3% in August, marking the tenth consecutive monthly gain for the index.
- Information Technology outperformed all other S&P 500 sectors – the tech sector index returned 3.5% in August (26.6% year-to-date).
- Implied volatility of the S&P 500 peaked intra-month on August 10th (VIX 16.0) following the North Korean nuclear threat on the U.S. territory of Guam. By month-end the VIX declined back down to 10.6, well below the three-year average of 15.1.

DOMESTIC FIXED INCOME

- Domestic fixed income returns were positive in August as the Bloomberg Barclays U.S. Aggregate Index returned 0.9%.
- Long-term U.S. Treasury rates fell, as the 10-year (-18 bps) and 30-year yields (-16 bps) decreased to 2.12% and 2.73%, respectively.
- The U.S. Treasury curve flattened modestly – the 10-year minus 2-year Treasury yield spread contracted -17 bps to 0.79%.

INTERNATIONAL MARKETS

- International equities narrowly outperformed domestic equities in August (S&P 500 +0.3%) as the unhedged MSCI ACWI ex U.S. Index returned 0.5% (+0.6% hedged). Emerging market equities also outperformed in August, returning 2.2% (+2.0% hedged).
- Eurozone CPI increased by 1.5% YoY in August, up 20 bps from the prior month, but below the recent high in February of 2.0%. CPI ex food and energy was unchanged at 1.2% YoY.
- U.K. unemployment fell 10 bps to 4.3% in July, the lowest rate since 1975, while the labor force participation rate increased to 75.3%, the highest since records began in 1971.
- U.K. citizens experienced negative real wage growth in July, as nominal wages increased by 2.1% YoY (3-month average) while inflation increased at a rate of 2.7% YoY.
- Japan's finalized real GDP grew at a rate of 1.4% YoY in the second quarter (2.4% QoQ annualized). This marked the sixth consecutive quarter of economic expansion, the longest streak since 2006.

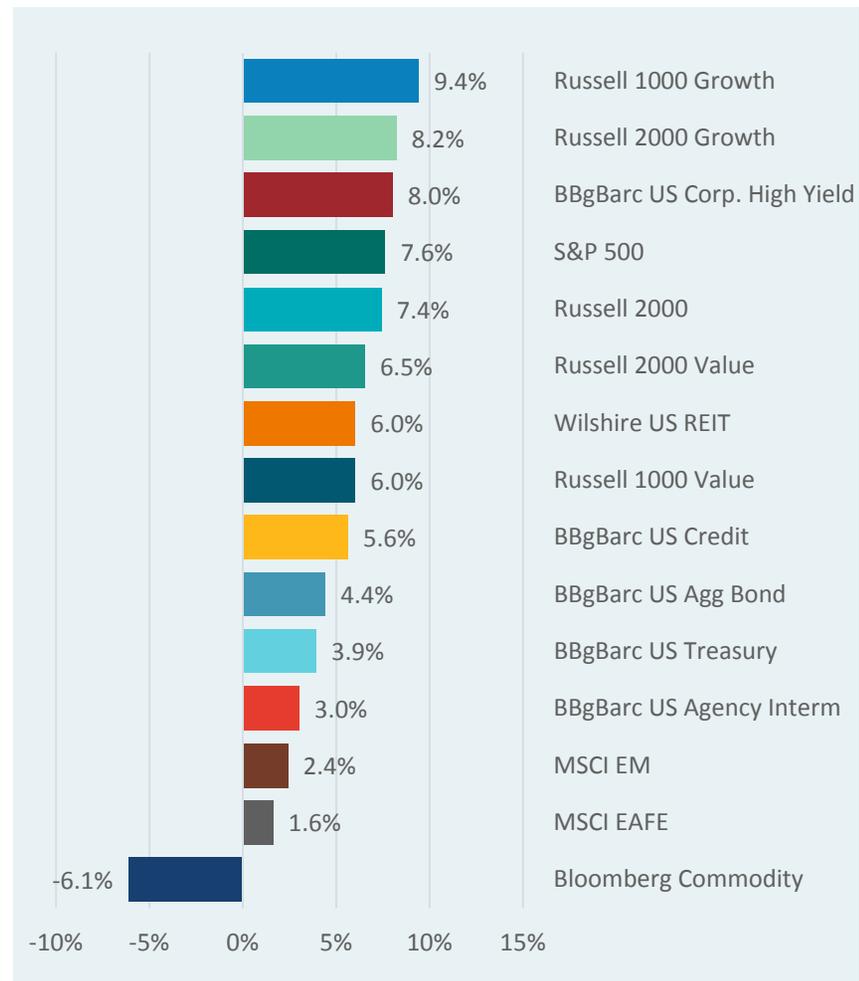
Major asset class returns

ONE YEAR ENDING AUGUST



Source: Morningstar, as of 8/31/17

TEN YEARS ENDING AUGUST



Source: Morningstar, as of 8/31/17

U.S. large cap equities

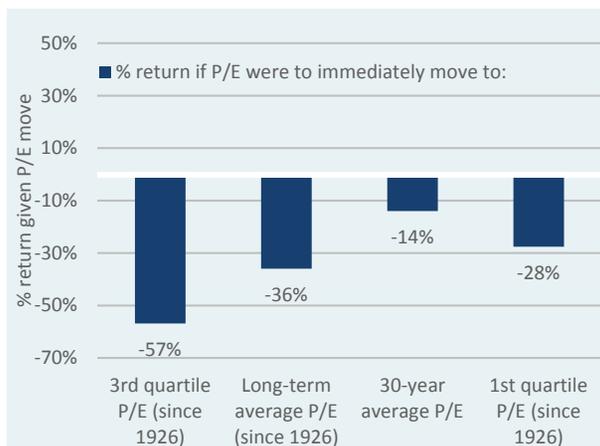
- Large cap equities posted a positive return for a tenth consecutive month (S&P 500 +0.3%).
- According to FactSet, as of September 8th, estimated Q3 earnings and sales growth rates for the S&P 500 were 4.9% and 5.1% YoY, respectively. Energy, Materials and Information Technology led all other sectors with the highest estimated earnings and revenue growth.
- S&P 500 buybacks fell to \$120 billion in Q2. The preliminary figures estimate a decrease of 9.8% quarter-over-quarter and 5.8% from the prior year.
- Energy was the worst performing sector, returning -5.2% (-15.1% year-to-date). Despite Energy leading the S&P in estimated Q3 earnings growth, the sector has experienced the largest relative decrease in forecasted earnings. According to FactSet, 22 of the 32 companies decreased their mean EPS estimates by 10% or greater.

U.S. LARGE CAP EQUITIES



Source: Bloomberg, as of 8/31/17

RETURNS IF TRAILING P/E MOVED TO HISTORIC LEVEL



Source: Yale/Shiller, Verus, as of 8/31/17

S&P 500 VALUATION SNAPSHOT



Source: Bloomberg, as of 8/31/17

Fixed income

- The Bloomberg Barclays U.S. Treasury Long (+3.4%) outperformed the broad U.S. Treasury Index (+1.1%). The long end of the U.S. Treasury curve fell during the month, as the 10-year and 30-year yields decreased by 18 bps and 16 bps, respectively.
- Year-to-date, the U.S. has issued \$318 billion in asset-backed debt securities, 78% higher than the same period in 2016. Asset-backed debt includes auto loans, credit cards, student loans and USD denominated CDO's.

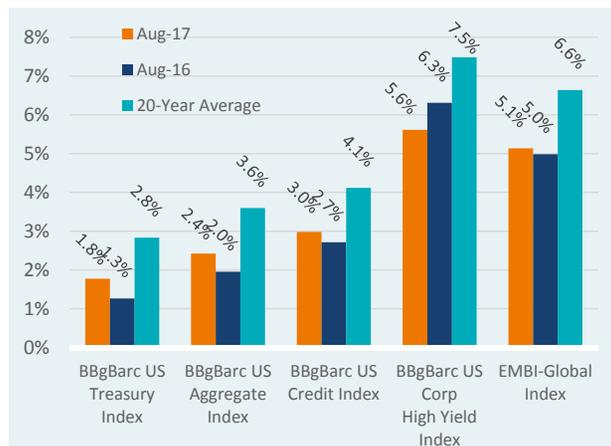
- High yield fixed income underperformed in August, as the Bloomberg Barclays U.S. Corp High Yield Index returned 0.0%. U.S. high yield option-adjusted spreads widened intra-month by 40 bps with rising geopolitical tension. Spreads partially retraced and ended the month up 24 bps at 3.85%.
- A decline in U.S. 10-year real yields (-12 bps) combined with a slight decrease in inflation expectations (-6 bps), which resulted in a decrease in nominal yields over the month.

U.S. TREASURY YIELD CURVE



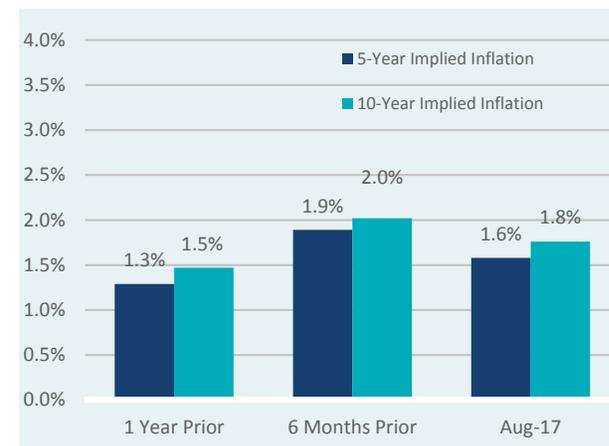
Source: Federal Reserve, as of 8/31/17

NOMINAL FIXED INCOME YIELDS



Source: Morningstar, as of 8/31/17

IMPLIED INFLATION (TIPS BREAKEVEN)

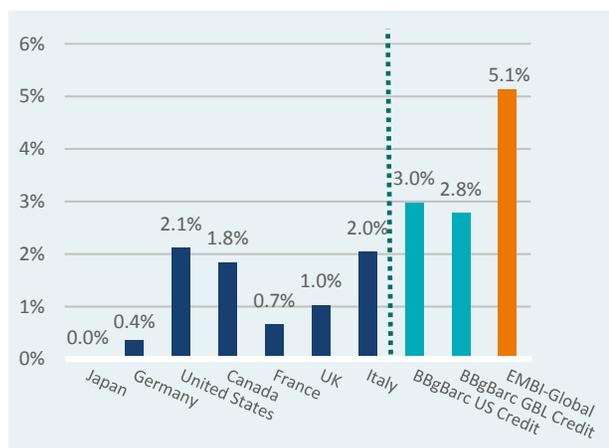


Source: Federal Reserve, as of 8/31/17

Global markets

- Emerging market equities (MSCI EM) returned 2.2% in August (2.0% hedged). The 3-month average trailing P/E ratio of the MSCI EM index was 15.4 in August, above the 10-year average of 13.5.
- Brazil officially emerged from recession in the second quarter. Real GDP grew by 0.2% YoY (1.0% QoQ annualized), the second consecutive quarter of expansion.
- In August, global sovereign 10-year bond yields were down across all nations examined below, decreasing by an average of 15 bps during the month.
- Chinese officials formalized the 2016 foreign investment restrictions to specifically prohibit property, hotels, cinema and entertainment companies. China's foreign direct investment in the U.S. was down an estimated 40% year-to-date.

GLOBAL SOVEREIGN 10 YEAR INDEX YIELDS



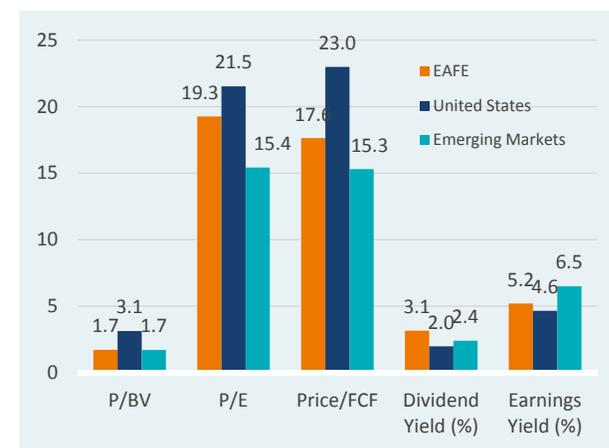
Source: Morningstar, as of 8/31/17

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 8/31/17

MSCI VALUATION METRICS (3 MONTH AVERAGE)



Source: Bloomberg, as of 8/31/17

Style tilts: U.S. large value vs. growth

- Growth equities outperformed value equities in August, as the Russell 1000 Growth and Russell 1000 Value returned 1.8% and -1.2%, respectively.
- Growth equities were driven by a higher relative concentration to the Technology sector. The Russell 1000 Technology sub-index outperformed all of the sectors for a second consecutive month and returned 3.8% in the month (31.3% year-to-date).
- The relative trailing P/E ratio of value to growth equities continued its downward trend in August and ended the month at 0.72. The ratio is below its long-term average of 0.77.
- The Russell 1000 Value was negatively affected by its higher relative allocation to Energy, which returned -5.3% in the month.

RELATIVE TRAILING PE RATIO OF U.S. VALUE VS. GROWTH



Source: Russell, Bloomberg, as of 8/31/17

U.S. VALUE VS. GROWTH ABSOLUTE PERFORMANCE

	RUSSELL 1000 VALUE	RUSSELL 1000 GROWTH
	ANNUALIZED RETURN TO DATE %	
QTD	0.1	4.5
YTD	4.8	19.2
1 YEAR	11.6	20.8
3 YEARS	6.7	11.7
5 YEARS	13.2	15.4
10 YEARS	6.0	9.4
20 YEARS	7.5	6.7
	SHARPE RATIO	
3 YEARS	0.65	1.05
5 YEARS	1.29	1.46
10 YEARS	0.42	0.63
20 YEARS	0.42	0.35

Source: Morningstar, as of 8/31/17

U.S. VALUE VS. GROWTH RELATIVE PERFORMANCE

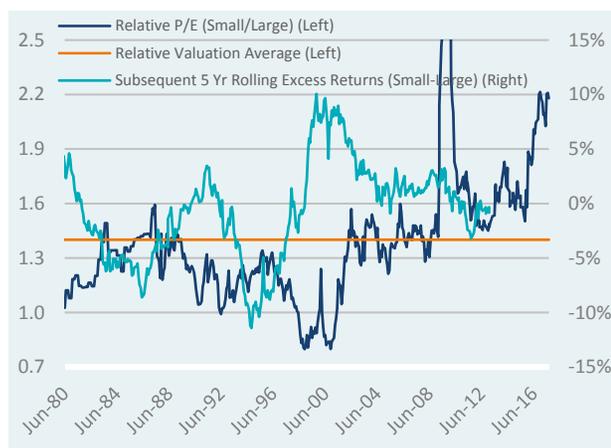


Source: Morningstar, as of 8/31/17

Style tilts: U.S. large vs. small

- U.S. large cap equities continued to outperform small cap equities, as the Russell 1000 index and Russell 2000 index returned 0.3% and -1.3%, respectively.
- Large cap equities have provided superior risk-adjusted returns (Sharpe ratio) relative to small cap equities over all time periods examined below.
- The relative trailing P/E ratio of small to large cap equities remained elevated in August and ended the month near recent highs of 2.2, well above the long-term average of 1.4. According to Bloomberg, the trailing P/E ratio of the Russell 2000 index was near business cycle highs at 47.3.

RELATIVE TRAILING PE RATIO OF U.S. SMALL VS. LARGE



Source: Russell, Bloomberg, as of 8/31/17

U.S. LARGE VS. SMALL ABSOLUTE PERFORMANCE

	RUSSELL 1000 INDEX	RUSSELL 2000 INDEX
	ANNUALIZED RETURN TO DATE %	ANNUALIZED RETURN TO DATE %
QTD	2.3	(0.5)
YTD	11.8	4.4
1 YEAR	16.2	14.9
3 YEARS	9.2	7.7
5 YEARS	14.4	13.2
10 YEARS	7.7	7.4
20 YEARS	7.4	7.6
	SHARPE RATIO	SHARPE RATIO
3 YEARS	0.89	0.55
5 YEARS	1.42	0.95
10 YEARS	0.53	0.44
20 YEARS	0.41	0.37

Source: Morningstar, as of 8/31/17

U.S. LARGE VS. SMALL RELATIVE PERFORMANCE



Source: Morningstar, as of 8/31/17

Commodities

- Gold returned 3.1% in August and ended the month at \$1,306 per ounce. The safe-haven asset has benefitted from rising geopolitical risks, appreciating 12.7% year-to-date.
- The Bloomberg Agriculture sub-index returned -6.9%. Corn prices (-7.0%) were negatively affected by increased 2017 supply estimates. However, an unusually cool August in the Midwest may create supply risks and reverse the trend.
- Industrial Metals continued to rally during the month. The Bloomberg sub-index (+9.6%) significantly outperformed the broad index (+0.4%). Aluminum and Copper, the primary industrial metals, appreciated by 10.4% and 7.2% in the month, aided by the weak U.S. dollar and global demand exceeding supply.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	0.4	2.7	(2.7)	3.0	(12.3)	(10.1)	(6.1)
Bloomberg Agriculture	(6.9)	(6.1)	(9.2)	(7.4)	(9.3)	(12.2)	(2.7)
Bloomberg Energy	1.4	6.1	(15.1)	(2.3)	(28.5)	(17.9)	(16.9)
Bloomberg Grains	(8.5)	(10.6)	(8.0)	(2.9)	(10.7)	(15.1)	(4.5)
Bloomberg Industrial Metals	9.6	14.2	21.4	35.5	(2.3)	(1.7)	(4.5)
Bloomberg Livestock	(6.2)	(10.7)	(0.6)	4.2	(8.7)	(3.4)	(7.8)
Bloomberg Petroleum	(0.4)	8.7	(11.0)	3.2	(28.6)	(18.4)	(11.4)
Bloomberg Precious Metals	4.0	5.8	12.5	(2.2)	(1.0)	(7.1)	5.5
Bloomberg Softs	(4.3)	2.7	(16.2)	(19.9)	(11.0)	(10.0)	(2.5)

Source: Morningstar, as of 8/31/17

COMMODITY PERFORMANCE



Source: Bloomberg, as of 8/31/17

Appendix

Periodic table of returns

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD	5-Year	10-Year
Emerging Markets Equity	16.6	38.4	23.2	35.2	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	28.3	15.4	9.4
Large Cap Growth	8.1	37.8	23.1	32.9	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	19.2	14.4	8.2
International Equity	6.4	37.2	22.4	31.8	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	17.0	13.7	7.7
60/40 Global Portfolio	4.4	31.0	21.6	30.5	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	11.9	13.2	7.4
Large Cap Equity	3.2	28.5	21.4	22.4	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	11.8	13.2	6.5
Small Cap Growth	2.6	25.7	16.5	16.2	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	10.8	12.5	6.4
Hedge Funds of Funds	0.4	19.6	14.4	13.9	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	5.5	10.5	6.0
Large Cap Value	-1.5	18.5	11.3	12.9	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	4.8	8.5	4.4
Small Cap Equity	-1.8	15.2	10.3	10.6	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	4.4	6.7	4.3
US Bonds	-2.0	11.6	9.9	9.7	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	3.6	5.3	2.4
Real Estate	-2.4	11.1	6.4	5.2	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	3.3	4.0	1.6
Cash	-2.9	7.5	6.0	2.1	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	0.5	2.2	1.3
Small Cap Value	-3.5	5.7	5.1	-3.4	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	-1.3	0.2	0.4
Commodities	-7.3	-5.2	3.6	-11.6	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	-2.7	-10.1	-6.1

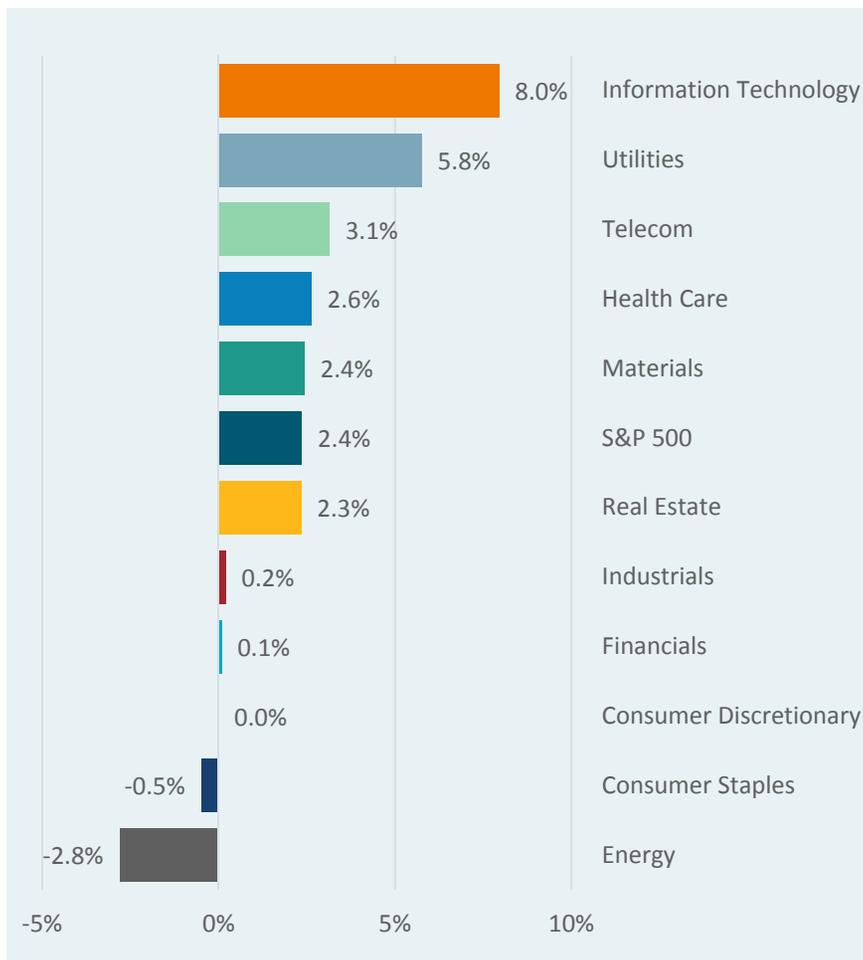
WORST

 Large Cap Equity	 Small Cap Growth	 Commodities
 Large Cap Value	 International Equity	 Real Estate
 Large Cap Growth	 Emerging Markets Equity	 Hedge Funds of Funds
 Small Cap Equity	 US Bonds	 60% MSCI ACWI/40% BBgBarc Global Bond
 Small Cap Value	 Cash	

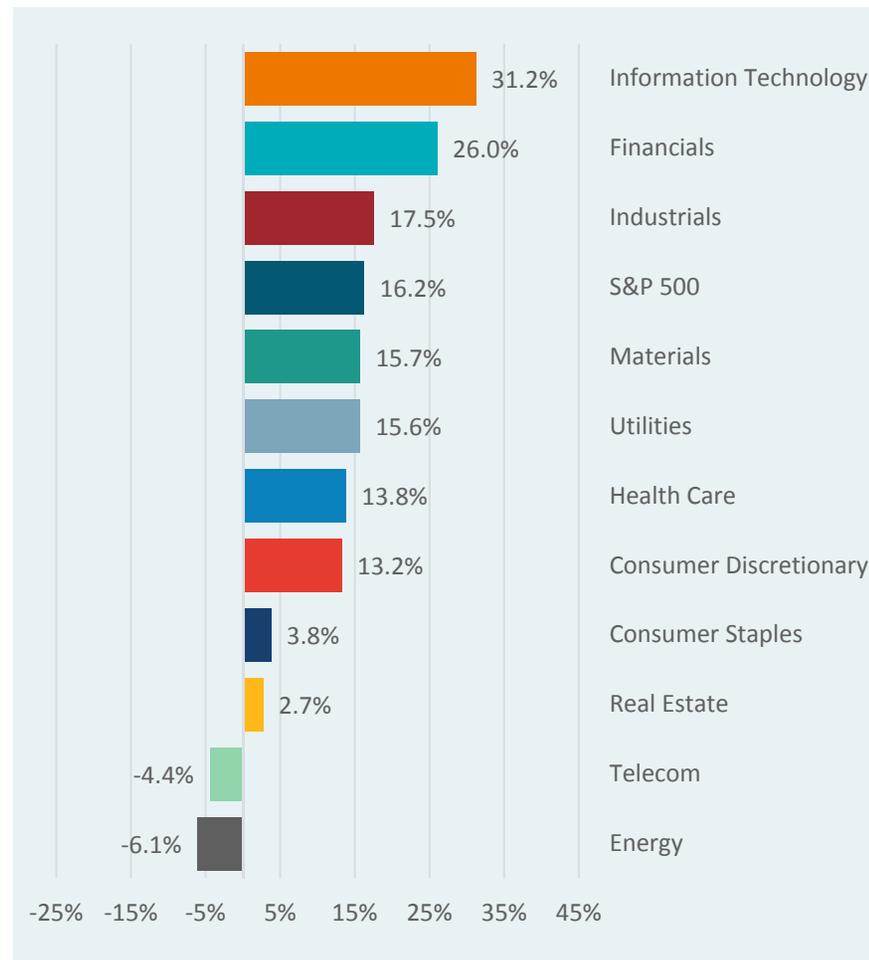
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 6/30/17.

S&P 500 sector returns

QTD



ONE YEAR ENDING AUGUST



Source: Morningstar, as of 8/31/17

Source: Morningstar, as of 8/31/17

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	0.3	2.4	11.9	16.2	9.5	14.3	7.6
S&P 500 Equal Weighted	(0.9)	0.7	8.8	13.0	8.1	14.9	8.9
DJ Industrial Average	0.7	3.3	13.0	22.3	11.5	13.7	7.9
Russell Top 200	0.7	2.9	13.0	17.7	10.0	14.5	7.6
Russell 1000	0.3	2.3	11.8	16.2	9.2	14.4	7.7
Russell 2000	(1.3)	(0.5)	4.4	14.9	7.7	13.2	7.4
Russell 3000	0.2	2.1	11.2	16.1	9.1	14.3	7.7
Russell Mid Cap	(0.8)	0.7	8.7	12.4	7.3	14.1	8.1
Style Index							
Russell 1000 Growth	1.8	4.5	19.2	20.8	11.7	15.4	9.4
Russell 1000 Value	(1.2)	0.1	4.8	11.6	6.7	13.2	6.0
Russell 2000 Growth	(0.1)	0.7	10.8	16.4	8.2	13.7	8.2
Russell 2000 Value	(2.5)	(1.8)	(1.3)	13.5	7.1	12.5	6.5

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	0.4	3.2	15.0	17.1	5.6	10.5	4.2
MSCI ACWI ex US	0.5	4.2	18.9	18.9	2.4	7.4	1.7
MSCI EAFE	(0.0)	2.8	17.0	17.6	2.8	8.5	1.6
MSCI EM	2.2	8.3	28.3	24.5	2.4	5.3	2.4
MSCI EAFE Small Cap	0.8	4.5	21.9	22.0	8.1	13.2	4.5
Style Index							
MSCI EAFE Growth	0.6	3.0	20.2	15.2	4.5	9.0	2.5
MSCI EAFE Value	(0.6)	2.7	14.1	20.0	1.0	7.8	0.6
Regional Index							
MSCI UK	(0.8)	1.8	12.0	12.1	(2.1)	4.7	0.8
MSCI Japan	(0.1)	2.0	12.1	13.7	6.8	10.7	1.7
MSCI Euro	0.2	3.9	21.1	24.4	3.3	9.7	0.2
MSCI EM Asia	1.4	7.0	31.8	25.5	5.9	8.9	3.9
MSCI EM Latin American	4.6	13.3	24.7	22.6	(5.4)	(1.5)	0.2

Source: Morningstar, as of 8/31/17

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US Treasury US TIPS	1.1	1.5	2.4	0.5	1.0	0.3	4.1
BBgBarc US Treasury Bills	0.1	0.2	0.5	0.6	0.3	0.2	0.6
BBgBarc US Agg Bond	0.9	1.3	3.6	0.5	2.6	2.2	4.4
Duration							
BBgBarc US Treasury 1-3 Yr	0.2	0.4	0.9	0.5	0.8	0.7	1.8
BBgBarc US Treasury Long	3.4	2.8	8.4	(5.8)	5.0	2.9	7.2
BBgBarc US Treasury	1.1	1.3	3.1	(0.9)	2.1	1.4	3.9
Issuer							
BBgBarc US MBS	0.7	1.2	2.5	0.8	2.5	2.1	4.2
BBgBarc US Corp. High Yield	(0.0)	1.1	6.1	8.6	4.8	6.5	8.0
BBgBarc US Agency Interm	0.4	0.6	1.7	0.7	1.5	1.1	3.0
BBgBarc US Credit	0.8	1.6	5.3	1.9	3.5	3.4	5.6

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	0.4	2.7	(2.7)	3.0	(12.3)	(10.1)	(6.1)
Wilshire US REIT	(0.4)	0.7	2.5	(2.0)	7.5	9.1	6.0
CS Leveraged Loans	(0.1)	0.6	2.6	5.9	3.6	4.5	4.6
Regional Index							
JPM EMBI Global Div	1.8	2.6	9.0	5.0	5.9	5.3	7.7
JPM GBI-EM Global Div	1.8	3.9	14.7	9.9	(1.4)	(0.3)	4.5
Hedge Funds							
HFRI Composite	0.8	1.9	5.5	7.4	3.0	4.9	3.3
HFRI FOF Composite	1.2	2.2	5.5	6.8	2.1	4.0	1.3
Currency (Spot)							
Euro	0.8	4.2	12.7	6.7	(3.4)	(1.2)	(1.4)
Pound	(2.3)	(0.8)	4.3	(1.6)	(8.1)	(4.1)	(4.4)
Yen	0.4	2.1	6.0	(6.0)	(1.9)	(6.6)	0.5

Definitions

Conference Board Consumer Confidence Index – a barometer of the health of the U.S. economy from the perspective of the consumer. The index is based on consumers' perceptions of current business and employment conditions, as well as their expectations for six months hence regarding business conditions, employment, and income. (www.conference-board.org)

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Board of Trustees

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Date: September 25, 2017

To: Board of Trustees

From: Carl Nelson – Executive Secretary
Amy Burke – Deputy Executive Secretary

Agenda Item 10: Asset Allocation September 2017

This item on the agenda provides a properly noticed opportunity for the Board of Trustees to discuss and take action if necessary regarding asset allocation and related investment matters.

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Pension Trust

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Date: September 25, 2017

To: Board of Trustees

From: Personnel Committee

Agenda Item 11: Executive Compensation—Personnel Committee Recommendation

Recommendation:

The Personnel Committee recommends that the Board of Trustees approve a 3% increase to the salary range for the Executive Secretary retroactive to July 1, 2017. This will also have the effect of increasing the Deputy Executive Secretary's salary range, as her compensation is benchmarked at 80% of the Executive Secretary's salary range.

Background:

Under the Executive Compensation Policy adopted by the Board of Trustees at its August, 2017 meeting, a biennial review of the Executive Secretary's salary range is to be conducted that is timed to coincide with the biennial release of the statewide compensation survey for California public retirement systems issued by the California Association of Public Retirement Systems (CALAPRS). At its September 15, 2017 meeting, the Committee reviewed the CALAPRS survey data for the retirement systems most comparable to the Pension Trust, as reflected in the attached memorandum to the Committee dated September 15, 2017, and discussed the 3% cost-of-living adjustment provided to other Pension Trust staff (excluding the Executive Secretary and Deputy Executive Secretary) effective July 1, 2017 because of the similar increases received by their County-benchmarked positions.

Following this discussion, the Committee voted unanimously to recommend to the Board of Trustees that the salary range for the Executive Secretary be increased by 3% effective July 1, 2017.

Respectfully submitted,

Personnel Committee

Attachment

Board of Trustees

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San Luis Obispo County
Pension Trust
SLOOPT



Date: September 15, 2017

To: Personnel Committee

From: Chris Waddell – General Counsel

Agenda Item 4: Executive Secretary Compensation Benchmarks

Recommendation:

The General Counsel recommends that the Personnel Committee review, discuss and provide direction regarding a recommendation to the Board of Trustees on whether to adjust the Executive Secretary's salary range.

Discussion:

Pursuant to the Personnel Committee's prior recommendation, the Board of Trustees at its August 28, 2017 meeting adopted an Executive Compensation Policy incorporating the following key elements:

- Primary benchmarking to chief executive positions at comparable (asset size; staffing levels; geographic proximity) California public retirement systems;
- Consideration of general economic factors, including public and private sector wage environment;
- Biennial salary review commencing in July, 2017, aligned with the release of the biennial CALAPRS salary survey;
- Provision for "off cycle" reviews where deemed appropriate in order to consider internal salary relationships in the event that other Pension Trust staff whose compensation is benchmarked to County positions receive salary increases based upon such benchmarks;

Pursuant to that policy, this will be the first biennial review of the Executive Secretary's salary range, timed to coincide with CALAPRS' July, 2017 salary survey. A copy of that survey is attached for your reference.

Consistent with the Committee's prior direction, based on the CALAPRS survey I have updated the following chart that summarizes the data for the systems that the Committee identified as ones that it wished to benchmark the Executive Secretary's salary range against:

System	Assets	Membership	Staff FTEs	Salary Range/ Current Salary	Additional Compensation
Santa Barbara County	\$2.2 billion	9,950	24	\$116,879-\$194,102 \$205,827	Auto: \$5,450/yr. Unspecified Differential: \$6,500/yr.
Fresno City	\$2.6 billion	6,194	14	\$133,980 – \$187,584 \$178,500	Auto: \$3,600/yr.
San Joaquin County	\$2.7 billion	12,390	20	\$160,472-\$195,062 \$185,765	Auto: \$7,020/yr. 457: 5% of base pay
Sonoma County	\$2.4 billion	9,936	15	\$184,543 - \$224,303 \$224,303	Auto: \$8,352/yr. Unspecified Differential: \$7,200/yr.
Marin County	\$2.2 billion	6,389	19	\$212,680-\$247,478 \$233,646	Auto: \$9,600/yr.
Stanislaus County	\$1.2 billion	8,248	11	\$100,000- \$150,000 \$150,000	Auto: \$4,800/yr. 457: Up to 2% of pay.
Tulare County	\$1.3 billion	9,287	12	\$137,415-\$206,122 \$166,017	457: \$1,500/yr. Unspecified Differential: \$6,574/yr.
SLO Pension Trust	\$1.3 billion	5,753	11	\$136,235-\$165,568 \$165,568	Auto: \$5,400/yr.
Imperial County ¹	\$740 million	3,630	8	\$142,000	Auto: \$6,600/yr.
Merced	\$600 million	5,100	7	\$125,049-\$152,235 \$148,533	Auto: \$8,400/yr. Unspecified Differential: \$5,400/yr.

Regarding the Committee’s request to obtain data from these systems concerning the percentage of the employee pension contribution, the amount, if any, of that percentage that is paid for by the employer, and whether the amount paid by the employer is creditable for retirement purposes, I had hoped that this information was going to be included in the survey itself but it was not. I am currently working with CALAPRS to do a custom survey of the above systems only to get that information, but will not have that in time for the Committee’s meeting.

As a reminder, as reflected in the attached spreadsheet the rest of the Pension Trust staff, excluding Carl and Amy, received a 3% COLA effective July 1, 2017 based on the similar COLAs received by members of County bargaining units 7 and 11 (The Account Clerk is a temporary position and therefore did not receive a COLA).

¹ Based on 2015 data—no 2017 data provided because position is currently unfilled.

I look forward to discussing any additional questions or issues that you wish to raise at the meeting.

Respectfully Submitted,

Chris Waddell
General Counsel

Attachments (2)