



AGENDA

RETIREMENT BOARD MEETING

SECOND MONTHLY MEETING
April 27, 2016
9:00 a.m.

Retirement Board Conference Room
The Willows Office Park
1355 Willow Way, Suite 221
Concord, California

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

1. Pledge of Allegiance.
2. Accept comments from the public.
3. Approve minutes from the February 25, 2016 meeting.
4. Presentation from Segal Consulting: *Review of Economic Actuarial Assumptions*.
5. Consider and take possible action to adopt the economic assumptions recommended by Segal Consulting to be utilized in the December 31, 2015 actuarial valuation report.
6. Presentation and recommendation from Verus on Updated Asset Allocation and Implementation Plan.
7. Consider and take possible action to adopt governance models as recommended by Verus, including delegation of authority of the following investment functions to CCCERA staff:
 - a. Rebalancing
 - b. Investment Manager Hiring
 - c. Investment Manager Termination
8. Presentation from Verus on Angelo Gordon personnel changes.
9. Consider authorizing the attendance of Board and/or staff:
 - a. California Public Plan Roundtable, PIMCO, May 9, 2016, Newport Beach, CA.
 - b. A Road Map for Growing Your Institution's Investment Assets, Commonfund, May 16, 2016, San Francisco, CA.
 - c. 2016 Adams Street Partners Client Conference, Adams Street Partners, June 1-2, 2016, Chicago, IL.
 - d. Equilibrium's Fifth Annual Forum, Equilibrium, June 16, 2016, San Francisco, CA.
 - e. DBL 2016 Annual Meeting, June 16-17, San Francisco, CA.
 - f. 2016 Trustees and Administrators Institutes, IFEBP, June 27-29, 2016, Las Vegas, NV.

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

- g. International and Emerging Market Investing, IFEBP, July 25-27, 2016, San Francisco, CA. (Note: Conflict with meeting)
- h. Principles of Pension Management, CALAPRS, August 9-12, 2016, Malibu, CA. (Note: Conflict with meeting)
- i. Public Pension Funding Forum, NCPERS, August 21-23, 2016, New Haven, CT.

10. Miscellaneous

- a. Staff Report
- b. Outside Professionals' Report
- c. Trustees' comments



Meeting Date
04/27/16
Agenda Item
#3

MINUTES

RETIREMENT BOARD MEETING MINUTES

SPECIAL BOARD MEETING

February 25, 2016

9:00 a.m.

Retirement Board Conference Room

The Willows Office Park

1355 Willow Way, Suite 221

Concord, California

Present: Debora Allen, Candace Andersen, Scott Gordon, Brian Hast, Jerry Holcombe, Louie Kroll, John Phillips, William Pigeon, Gabe Rodrigues, Todd Smithey, Jerry Telles and Russell Watts

Absent: None

Staff: Gail Strohl, Chief Executive Officer, Timothy Price, Chief Investment Officer; Karen Levy, General Counsel; Wally Dutkiewicz; Compliance Officer, Christina Dunn, Administrative/HR Manager; Timothy Hoppe, Retirement Services Manager; and Alexis Cox, Member Services Manager

Outside Professional Support:
Harvey Leiderman
Scott Whalen
Ed Hoffman
Tom Iannucci

Representing:
Reed Smith LLP
Verus Consulting Group
Verus Consulting Group
Cortex Applied Research

1. **Pledge of Allegiance**

Telles led all in the *Pledge of Allegiance*.

Allen was present for subsequent discussion and voting.

2. **Accept comments from the public**

The following employees from AFSCME, Local 2700 spoke regarding the classification study for represented employees:

Rhonda Jones, Kelli Ingersoll, Nannette Mendoza, Lori Giacomelli and Charice Jimenez.

3. **Approval of Minutes**

It was M/S/C to approve the minutes of the December 16, 2015 Board meeting with amendment to Item 4, changing the last sentence in paragraph 1 to read "She stated the increase is largely due to delayed hires which are anticipated to be hired in 2016." (Yes: Allen, Andersen, Gordon, Hast, Phillips, Rodrigues, Smithey, Telles and Watts)

CLOSED SESSION

The Board moved into closed session pursuant to Govt. Code Section 54956.81.

The Board moved into open session.

4. There was no reportable action related to Govt. Code Section 54956.81.

Gordon was no longer present for subsequent discussion and voting.

5. Presentation from Cortex and Verus on governance issues

Price distributed an Investment Strategy & Board Governance booklet. He gave a brief overview of the agenda and the goals for the day noting this item will be in a workshop setting.

Whalen described effective governance in the decision making process including authority, responsibility, and accountability.

Gordon was present for subsequent discussion and voting.

Whalen reviewed the session objectives and the process to date including establishing an enterprise risk tolerance, developing an investment philosophy and selecting an investment strategy. He also reviewed the purpose, portfolio construction and performance evaluation of CCCERA's investment philosophy.

Iannucci gave a brief overview of internal governance & management commenting on the importance of having a well-aligned investment organization. He discussed the challenges in internal roles & responsibilities noting the fund should be managed for the long-run. He reviewed the different types of risk control; asset allocation risk, fiduciary risk, fortitude risk, excessive investment costs, human resources risk and manager risk.

He reviewed the background concepts of roles and responsibilities including delegation & fiduciary duty, prudence standards, accountability, and the anatomy of decisions.

Pigeon was present for subsequent discussion and voting.

Iannucci reviewed different governance models – Board-dominant, team-based, and staff-dominant noting a team-based model is best practice.

The Board identified where they are today and where they would like to be in relation to being Board-dominant. They identified leaning more towards a team-based model. The focus was on manager selection.

Whalen reviewed the prospective benefits of delegating authority including remaining well informed due to continuation of relevant and detailed discussions, more time for the Board to spend on addressing critical policies and process issues and a higher level of decision-maker accountability.

He reviewed 2 different scenarios for rebalancing: 1) back to target, where the policy remains largely unchanged, and 2) tactically away from target, where revisions provide for additional flexibility for staff to use judgment during dislocated markets.

Youngman distributed a sample monthly cash flow report.

Kroll and Phillips were no longer present for subsequent discussion and voting.

Whalen reviewed Opportunistic Investing with the current policy and recommended revisions.

The Board discussed the current money manager structure, manager hires and manager fires and recommended revisions.

Youngman distributed a sample work flow report, a sample research chart and a sample manager engagement form.

Gordon was no longer present for subsequent discussion and voting.

There was a lengthy discussion on money manager structure and the current policy/process as well as recommended revisions for hiring and firing money managers.

Andersen was no longer present for subsequent discussion and voting.

It was the consensus of the Board to continue this item at another meeting and have staff and Verus provide draft language of the Board's governance model and corresponding delegations of authority.

6. Consider and take possible action to adopt governance models from Cortex and Verus

This item was continued to a future meeting.

7. Consider and take possible action to authorize a search to identify prospective liquidity mandate managers

Hoffman reviewed the goals and constraints of the short-term government/credit mandate noting this is a highly customized search. He also reviewed the process for the Request For Information (RFI) and the Request For Proposal (RFP) for short-term government/credit mandate.

It was M/S/C to authorize a search to identify prospective liquidity mandate managers. (Yes: Allen, Hast, Holcombe, Rodrigues, Smithey, Telles and Watts)

Allen was no longer present for subsequent discussion and voting.

8. Review of total portfolio performance for period ending December 31, 2015

Hoffman gave an update on Verus noting their merger with Strategic Investment Solutions closed on December 31, 2015 and Verus now has an office in San Francisco.

He gave a forward looking analysis on U.S economics including the GDP, inflation, the Federal Funds Rate and unemployment. He discussed the increase in the Federal Reserve interest rate and the S&P 500 sector returns for the 4th quarter.

Rodrigues was no longer present for subsequent discussion and voting.

Hoffman reported on cash reconciliation for the period ending December 31, 2015 noting the ending market value of the total fund portfolio is \$7,047,505,832. He reviewed the asset allocation vs. the long term target policy. He also reviewed the total fund performance noting there was pretty strong performance from PIMCO StocksPlus. He commented on Jackson Square Partners stating they had a pretty strong quarter but will be monitoring their assets since they have parted ways with Delaware. He stated Jackson Square Partners have given them comfort that if all of the assets left they would be

fine. Trustee Watts asked if they should be on the Watch List. Price noted they have planned for a worst case scenario in their budget. If there is a loss in the mutual fund business then would evaluate it again. He reviewed the Closed End Funds noting the latest market valuation for all of the Torchlight funds are as of 12/31/15. He noted the investment fund fees are in line with our expectations. Leiderman commented on gross of fees vs. net of fees noting we pay benefits on net of fees.

Hoffman reviewed the Risk Dashboard commenting on portfolio risk, equity beta, interest rate risk, and credit risk. He reviewed exposure allocation by asset class. He stated a definition of each chart is on page 14 of the report.

9. Consider and take possible action to add or remove managers from the Watch List

It was M/S/C to approve the recommendation to not add or remove any managers from the Watch List. (Yes: Hast, Holcombe, Pigeon, Smithey, Telles and Watts)

10. Consider authorizing the attendance of Board and/or staff:

- a. It was M/S/C to authorize the attendance of 1 Board member and 2 staff members at the ARES EIF 27th Annual Meeting and Energy Industry Conference, May 9-11, 2016, San Diego, CA. (Yes: Hast, Holcombe, Pigeon, Smithey, Telles and Watts)
- b. It was M/S/C to authorize the attendance of 3 Board members at the NCPERS Annual Conference & Exhibition, May 14-19, 2016, San Diego, CA. (Yes: Hast, Holcombe, Pigeon, Smithey, Telles and Watts)
- c. There was no reportable action on this item.
- d. It was M/S/C to authorize the attendance of 1 Board member and 1 staff member at the Siguler Guff & Company's 2016 Annual Conference, May 4-5, 2016, New York, NY. (Yes: Hast, Holcombe, Pigeon, Smithey, Telles and Watts).
An amended motion was M/S/C to authorize the attendance of 2 Board members and 1 staff member at the Siguler Guff & Company's 2016 Annual Conference, May 4-5, 2016, New York, NY. (Yes: Hast, Holcombe, Pigeon, Smithey, Telles and Watts)

Telles was no longer present for subsequent discussion and voting.

- e. It was M/S/C to authorize the attendance of 3 Board members at the 2016 CRCEA Spring Conference, April 11-13, 2016, Bakersfield, CA. (Yes: Hast, Holcombe, Rodrigues, Smithey and Watts)

11. Miscellaneous

- (a) Staff Report –

Strohl reported she may need to cancel the March 17, 2016 Board meeting and the item will be on the next agenda for consideration; she anticipates bringing panel management pay back at the next meeting; and, we will be transitioning information technology services from the County to CCCERA today.

Price reported Adams Street will be presenting their new venture capital offering at the March 9, 2016 meeting.

- (b) Outside Professionals' Report -

None

(c) Trustees' comments –

Hast reported he will not be at the March 9, 2016 meeting.

It was **M/S/C** to adjourn the meeting. (Yes: Hast, Holcombe, Pigeon, Smithey and Watts)

John Phillips, Chairman

Scott Gordon, Secretary

**Contra Costa County Employees'
Retirement Association**

★ Segal Consulting

Economic Assumptions Study

April 27, 2016

Meeting Date

04/27/16

Agenda Item

#4

Paul Angelo, FSA

John Monroe, ASA

Segal Consulting, San Francisco

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Economic Assumptions

- Price Inflation (CPI):
 - Investment Return, Salary Increases, COLA
- Salary Increases
 - “Across the board” increases (wage inflation)
 - Includes price inflation plus real wage growth
 - Promotional & Merit: based on experience
 - Really is a “demographic” assumption
- Investment Return (Investment Earnings)
 - Components include price inflation, real return, expenses (administrative and/or investment)
 - Generally based on passive returns
- Leave Cashouts: also a “demographic” assumption

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Selection of Actuarial Assumptions

- Objective, long term
- Recent experience of future expectations
 - Demographic: recent experience
 - Economic: not necessarily!
- Client specific or not
- Consistency among assumptions
- Desired pattern of cost incidence
 - Good assumptions produce level cost
 - Beware “results based” assumptions!

Always remember

$$\mathbf{C + I = B + E}$$

**Contributions + Interest Income
equals
Benefit Payments + Expenses**

- Actuarial valuation determines the current or “measured” cost, not the ultimate cost
- Assumptions and funding methods affect only the timing of costs

Current Economic Assumptions

- Last full review was for 12/31/2012 valuation
 - Price inflation (CPI): 3.25%
 - Wage inflation: 4.00%
 - So real wage growth is 0.75%
 - Investment return: 7.25%
 - So net real return is 4.00%
 - Assumed return is net of investment and administrative expenses

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Economic Assumptions - Recommended

- Price inflation (CPI)
 - Decrease from 3.25% to 3.00%
- Salary increases
 - Decrease price inflation from 3.25% to 3.00%
 - Reduce the real wage growth from 0.75% to 0.50%
 - Total wage inflation reduced from 4.00% to 3.50%
 - Promotional and Merit: demographic assumption report
- Investment return: Maintain at 7.25%
 - Change from net of administrative expenses to gross
- Explicit Administrative Expenses
 - 1.0% of payroll allocated between the employer and member

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Economic Assumptions - Recommended

	<u>12/31/2012 Val'n</u>		<u>Recommended</u>	
	<u>Return</u>	<u>Pay</u>	<u>Return</u>	<u>Pay</u>
Price Inflation	3.25%	3.25%	3.00%	3.00%
Real Wages	n/a	0.75%	n/a	0.50%
Merit (8+ years)*	n/a	0.75%	n/a	0.75%
Net Real Return	4.00%	n/a	4.25%**	n/a
Total	7.25%	4.75%	7.25%	4.25%

* Will be reviewed as part of the demographic experience study

** Recommended return is gross of administrative expense with separate explicit loading for administrative expenses

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Price Inflation (CPI)

- Historical Consumer Price Index
 - Median 15-year moving average = 3.4%
 - Median 30-year moving average = 4.1%
- 15-year averages have been declining due to recent low inflation
- NASRA Survey
 - Median inflation assumption is 3.00%
- Social Security Forecast = 2.7%
- Recommend reducing from 3.25% to 3.00%
 - For tiers with a 4% maximum COLA, decrease assumed COLA from 3.25% to 3.00%
 - Considered but do not recommend stochastic approach to COLA

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Salary Increase Assumption - Recommended

- Three components
- Price inflation: decrease from 3.25% to 3.00%
- Real increases: decrease from 0.75% to 0.50%
 - Department of Labor: Annual State and Local Government real productivity increase: 0.6% - 0.9% over 10 - 20 years
- Promotional & Merit: from experience study
 - Varies by service, review in demographic study

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Payroll Growth Assumption

- Active member payroll based on wage inflation
- Includes price inflation and real wage increases
 - Price inflation: reduce from 3.25% to 3.00%
 - Real increases: decrease from 0.75% to 0.50%
 - Total is reduced from 4.00% to 3.50%
- Used to project total payroll for UAAL amortization

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Investment Earnings Assumption

- Also called the discount rate
- Used for contribution requirements
- Affects timing of Plan cost
 - Lower assumed rate means higher current cost
 - Ultimately, actual earnings determine cost
 - $C + I = B + E$
 - “Can’t pay benefits with assumed earnings!”

Setting the Earnings Assumption

- Four components
 - Inflation: consistent with salary increase assumption
 - Real returns by asset class
 - Weighted by asset allocation
 - Reduced by assumed expenses
 - Currently both investment and administrative
 - Recommend reflecting only investment expenses, with separate assumption for administrative expenses
 - Reduced by “risk adjustment”
 - Margin for adverse deviation
 - Expressed as confidence level above 50%

CCCERA Earnings Assumption

Preview: Components of Preliminary Investment Return Assumption

	Current	Recommended
Assumed Inflation	3.25%	3.00%
Portfolio Real Rate of Return	4.90%	5.19%
Assumed Expenses *	(0.65%)	(0.75%)
Risk Adjustment	<u>(0.25%)</u>	<u>(0.19%)</u>
Assumed Investment Return	7.25%	7.25%
Confidence level	53%	53%

* Includes both investment and administrative expenses

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When to Change Earnings Assumption?

- Easy: change in asset allocation
- Hard: change in estimated future real returns for asset classes
- Source of data:
 - Investment consultants (industry)
 - Investment consultant (your Fund)
- Actuaries are neither economists nor investment consultants

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Real Returns by Asset Class

- Segal uses an average of eight investment advisory firms retained by Segal public clients
 - Used results from Verus for asset categories unique to CCCERA
- Increase in real return is due to a combination of:
 - Changes in the target asset allocation (+0.33%)
 - Changes in real return assumptions in survey (-0.09%)
 - Effect of the interaction between these two changes (+0.05%)

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CCCERA Real Rate of Return

Asset Class	Target Allocation	Real Return	Weighted Return*
Large Cap U.S. Equity	6.0%	5.75%	0.35%
Developed Int'l Equity	10.0%	6.99%	0.70%
Emerging Market Equity	14.0%	8.95%	1.25%
Short-Term Govt/Credit	24.0%	0.20%	0.05%
U.S Treasury	2.0%	0.30%	0.01%
Real Estate	7.0%	4.45%	0.31%
Cash & Equivalents	1.0%	-0.46%	0.00%
Risk Diversifying Strategies	2.0%	4.30%	0.09%
Private Credit	17.0%	6.30%	1.07%
Private Equity	17.0%	8.10%	1.38%
Total	100.0%		5.19%

* Results may not add due to rounding

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Administrative and Investment Expenses

Administrative and Investment Expenses as a Percentage of Actuarial Value of Assets (All dollars in 000's)

FYE	Actuarial Value of Assets	Administrative Expenses	Investment Expenses	Administrative %	Investment %	Total %
2010	\$5,355,971	\$5,283	\$30,475	0.10%	0.57%	0.67%
2011	5,441,120	6,290	30,694	0.12	0.56	0.68
2012	5,497,194	6,030	34,363	0.11	0.63	0.74
2013	5,922,449	6,776	38,158	0.11	0.64	0.75
2014	6,572,560	6,980	41,600	<u>0.11</u>	<u>0.63</u>	<u>0.74</u>
Average				0.11%	0.61%	0.72%

- Based on this experience, we have increased the future expense component from 0.65% to 0.75% for investment and administrative expenses.

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Risk Adjustment Model and Confidence Level

- Compares the Association's risk position over time
- Confidence level is a relative, not absolute measure
 - Can be reevaluated and reset for future comparisons
- Confidence level is based on standard deviation
 - Measure of volatility based on portfolio assumptions
- Results should be evaluated for reasonableness

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Risk Adjustment Model and Confidence Level

- Most useful for comparing risk position over time
 - 12/31/2009: 7.75% assumption gave 55% confidence
 - 12/31/2012: 7.25% assumption gave 53% confidence
 - 12/31/2015: 7.25% recommendation still gives confidence level of 53%
 - » Inflation decrease from 3.25% to 3.00%
 - » Portfolio real return increase from 4.90% to 5.19%
 - » Portfolio standard deviation decrease from 12.44% to 10.80%

CCCERA Earnings Assumption

Components of Preliminary Investment Return Assumption

	Current	Recommended
Assumed Inflation	3.25%	3.00%
Portfolio Real Rate of Return	4.90%	5.19%
Assumed Expenses *	(0.65%)	(0.75%)
Risk Adjustment	<u>(0.25%)</u>	<u>(0.19%)</u>
Assumed Investment Return	7.25%	7.25%
Confidence level	53%	53%

* Includes both investment and administrative expenses

Earnings Assumption

- Comparison with other systems
 - National median is 7.75% but trending downwards nationwide
 - California public systems – many at 7.25%
 - Fresno CERA recently adopted 7.00%

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Developing an Investment Return Assumption for use in GASB 67 and 68 Financial Reporting

- For funding, current investment return assumption is net of both investment and administrative expenses
- For financial reporting, GASB 67 and 68 require this assumption to be gross of administrative expense
- Advantages to using same assumption for funding and for financial reporting
 - Take advantage of consistency between new GASB rules and current funding practices
 - Entry Age cost method
 - Discount rate based on expected investment return
 - Consistency of liability and normal cost measures
 - The only difference is in how changes in liability are recognized

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Developing an Investment Return Assumption for use in GASB 67 and 68 Financial Reporting

- Complication associated with eliminating administrative expenses from this assumption
- Administrative expense funded implicitly by employer and employees
 - Difficult to precisely reproduce current implicit cost sharing
- Allocate explicit load to employer/employees based on portion of contributions paid by each
 - Employee NC, Employer NC, Employer UAAL payment
- Current implicit method may “overcharge” for admin expenses
 - 0.11% of assets not the same as a 0.11% change in investment return assumption
 - 0.11% of assets is about \$7 million annually or 1.0% of payroll
 - 0.11% change in return assumption increases contributions by about \$12 million annually or 1.7% of payroll

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Developing an Investment Return Assumption for use in GASB 67 and 68 Financial Reporting

- Review: Advantages to using same assumption for funding and for financial reporting
 - Consistency of liability and normal cost measures
- Two ways to do this:
 - Option “A” – Set the investment return assumption for funding on a gross of administrative expenses basis
 - Use same assumption for financial reporting
 - Add and allocate explicit contribution load for admin. expenses
 - Option “B” – Continue to set investment return assumption for funding on a net of administrative expenses basis
 - Use same value for assumption for financial reporting gross of administrative expenses
 - » That return is net of administrative expenses for funding
 - » Same return is gross of administrative expenses for financial reporting

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Option A – Investment Return Assumption for Funding on a Gross of Administrative Expenses Basis

- Same investment return assumption for both funding and financial reporting that is gross of administrative expenses
- Introduce explicit administrative expense loading of 1.0% of payroll or \$7 million annually (allocated 0.77% employer and 0.23% member)

	Recommended if Used only for Funding	Recommended for both Funding and Financial Reporting
Assumed Inflation	3.00%	3.00%
Portfolio Real Rate of Return	5.19%	5.19%
Assumed Expenses	(0.75%)	(0.64%)
Risk Adjustment	<u>(0.19%)</u>	<u>(0.30%)</u>
Assumed Investment Return	7.25%	7.25%
Confidence level	53%	54%
Administrative Expense Load	Not Applicable	1.0% of pay

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Option B – Investment Return Assumption for Funding on a Net of Administrative Expenses Basis

- “Same” investment return assumption for both funding and financial reporting
 - Recommended 7.25% return is net of administrative expenses for funding
 - Recommended 7.25% return is gross of administrative expenses for financial reporting

	Recommended if Used only for Funding	Recommended for Financial Reporting
Assumed Inflation	3.00%	3.00%
Portfolio Real Rate of Return	5.19%	5.19%
Assumed Expenses	(0.75%)	(0.64%)
Risk Adjustment	<u>(0.19%)</u>	<u>(0.30%)</u>
Assumed Investment Return	7.25%	7.25%
Confidence level	53%	54%
Administrative Expense Load	Not Applicable	Not Applicable

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Anticipated Impact on Valuation Results

Modeled as of December 31, 2014 for illustration

- Decrease in Actuarial Accrued Liability (-\$77 million)
- Total decrease in average employer rate (-0.32% of payroll)
 - Decrease in average employer Normal Cost (-0.88% of pay)
 - Decrease in average employer UAAL rate (-0.21% of pay)
 - Portion of explicit administrative expense allocated to employer (+0.77% of payroll)
 - Primarily due to lowering inflation assumption and total payroll growth assumption, offset to some extent by introducing explicit administrative expense
- Decrease in average member rate (-0.38% of payroll)
 - Includes explicit administrative expense allocated to member (+0.23% of payroll)
- Impacts vary separately by cost group

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Asset Allocation and Earnings Assumption

- Investment return assumption is based on the asset allocation
 - Asset allocation results from a balance of risk and return, reflecting a plan's tolerance for risk
- Asset allocation is NOT based on the earnings assumption!
 - Earnings assumption is NOT a target, benchmark, hurdle or goal that the allocation seeks to achieve
 - Do not set asset allocation to "chase" your current earnings assumption

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Always remember

$$\mathbf{C + I = B + E}$$

**Contributions + Interest Income
equals**

Benefit Payments + Expenses

- Actuarial valuation determines the current or “measured” cost, not the ultimate cost
- Assumptions and funding methods affect only the timing of costs

Meeting Date
04/27/16
Agenda Item
#4

**CONTRA COSTA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION**

Review of Economic Actuarial Assumptions
for the December 31, 2015 Actuarial Valuation



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APRIL 2016**



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April 19, 2016

Board of Retirement
Contra Costa County Employees' Retirement Association
1355 Willow Way, Suite 221
Concord, CA 94520

**Re: Review of Economic Actuarial Assumptions
For the December 31, 2015 Actuarial Valuation**

Dear Members of the Board:

We are pleased to submit this report of our review of the economic actuarial assumptions for use in the Contra Costa County Employees' Retirement Association (CCCERA) December 31, 2015 actuarial valuation. This report includes our recommendations and the analysis supporting their development.

Please note that December 31, 2015 is also the year of the CCCERA's triennial non-economic actuarial experience study. The non-economic actuarial assumption recommendations will be provided in a separate report once we complete our analysis.

We are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We look forward to reviewing this report with you and answering any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Angelo".

Paul Angelo, FSA, EA, MAAA, FCA
Senior Vice President and Actuary

A handwritten signature in black ink, appearing to read "John Monroe".

John Monroe, ASA, EA, MAAA
Vice President and Actuary

MAM/hy

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I. INTRODUCTION, SUMMARY, AND RECOMMENDATIONS

To project the cost and liabilities of the pension fund, assumptions are made about all future events that could affect the amount and timing of the benefits to be paid and the assets to be accumulated. Each year actual experience is compared against the projected experience, and to the extent there are differences, the future contribution requirement is adjusted.

If assumptions are changed, contribution requirements are adjusted to take into account a change in the projected experience in all future years. There is a great difference in both philosophy and cost impact between recognizing the actuarial deviations as they occur annually and changing the actuarial assumptions. Taking into account one year's gains or losses without making a change in the assumptions in effect assumes that experience was temporary and that, over the long run, experience will return to what was originally assumed. Changing assumptions reflects a basic change in thinking about the future, and it has a much greater effect on the current contribution requirements than recognizing gains or losses as they occur.

The use of realistic actuarial assumptions is important to maintain adequate funding, while fulfilling benefit commitments to participants already retired and to those near retirement. The actuarial assumptions do not determine the "actual cost" of the plan. The actual cost is determined solely by the benefits and administrative expenses paid out, offset by investment income received. However, it is desirable to estimate as closely as possible what the actual cost will be so as to permit an orderly method for setting aside contributions today to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

This study was undertaken in order to review the economic actuarial assumptions. The study was performed in accordance with Actuarial Standard of Practice (ASOP) No. 27, "Selection of Economic Assumptions for Measuring Pension Obligations." This Standard of Practice puts forth guidelines for the selection of the economic actuarial assumptions utilized in a pension plan actuarial valuation.

Please note that the investment return assumption recommended in this report has been developed without taking into consideration the impact of any "excess earnings" as described in the Board's Interest crediting and Excess Earnings Policy.

We are recommending changes in the inflation and “across the board” salary increase assumptions. The merit and promotional salary increase assumptions will be reviewed in the triennial experience study of non-economic assumptions being performed this year. Our recommendations for the economic actuarial assumptions for the December 31, 2015 Actuarial Valuation are as follows:

Inflation – Future increases in the Consumer Price Index (CPI) which drive investment returns and active member salary increases, as well as COLA increases to retired members.

Recommendation: *Reduce the rate from 3.25% to 3.00% per annum. We also recommend decreasing the assumed COLA for those tiers with a 4.00% maximum COLA from 3.25% to 3.00% per year.*

Investment Return - The estimated average future rate of return, net of investment expenses, on current and future assets of CCCERA as of the valuation date. This rate is used to discount liabilities.

Recommendation: *Maintain the investment return assumption at 7.25% per annum. This would be consistent with the Board’s past practice of having margin for adverse deviation under the risk-adjusted model used by Segal. We further recommend changing to an explicit treatment of administrative expenses in the selection of an investment return assumption for use both in funding and in financial reporting required by the Governmental Accounting Standards Board (GASB).*

Individual Salary Increases - Increases in the salary of a member between the date of the valuation and the date of separation from active service. This assumption has three components:

- Inflationary salary increases,
- Real “across the board” salary increases, and
- Merit and promotional increases.

Recommendation: *Reduce the current inflationary salary increase assumption from 3.25% per annum to 3.00% per annum and reduce the current real “across the board” salary increase assumption from 0.75% to 0.50%. This means that the combined inflationary and real “across the board” salary increases will decrease from 4.00% to 3.50%. Please note that the merit and promotional increase assumption ranges from 0.75% to 9.50% for General and 0.75% to 10.00% for Safety. The merit and promotional increases will be reviewed as part of our triennial experience study of non-economic assumptions.*

Section II provides some background on basic principles and the methodology used for the review of the economic actuarial assumptions. A detailed discussion of each of the economic assumptions and reasons behind the recommendations is found in Section III.

II. BACKGROUND AND METHODOLOGY

For this study, we analyzed “economic” assumptions only. Our analysis of the “non-economic” assumptions for the December 31, 2015 valuation will be provided in a separate report at a later date. The primary economic assumptions are inflation, investment return and salary increases.

Economic Assumptions

Economic assumptions consist of:

Inflation - Increases in the price of goods and services. The inflation assumption reflects the basic return that investors expect from securities markets. It also reflects the expected basic salary increase for active members and drives increases in the allowances of retired members.

Investment Return – Expected long term rate of return on CCCERA’s investments after expenses. This assumption has a significant impact on contribution rates.

Salary Increases – In addition to inflationary increases, it is assumed that salaries will also grow by “across the board” real pay increases in excess of price inflation. It is also assumed that members will receive raises above these average increases as they advance in their careers. These are commonly referred to as promotional and merit increases. Payments to amortize any Unfunded Actuarial Accrued Liability (UAAL) are assumed to increase each year by the price inflation rate plus any “across the board” pay increases that are assumed.

The setting of these assumptions is described in Section III.

III. ECONOMIC ASSUMPTIONS

A. INFLATION

Unless an investment grows at least as fast as prices increase, investors will experience a reduction in the inflation-adjusted value of their investment. There may be times when “riskless” investments return more or less than inflation, but over the long term, investment market forces will generally require an issuer of fixed income securities to maintain a minimum return which protects investors from inflation.

The inflation assumption is long term in nature, so it is set using primarily historical information. Following is an analysis of 15-year and 30-year moving averages of historical inflation rates:

Historical Consumer Price Index – 1930 to 2015

(U.S. City Average - All Urban Consumers)

	<u>25th Percentile</u>	<u>Median</u>	<u>75th Percentile</u>
15-year moving averages	2.5%	3.4%	4.6%
30-year moving averages	3.1%	4.1%	4.9%

The average inflation rates have continued to decline gradually over the last several years due to the relatively low inflationary period over the past two decades. Also, the more recent 15-year averages are lower as they do not include the high inflation years of the mid-1970s and early 1980s.

For 2015, the public fund survey published by the National Association of State Retirement Administrators (NASRA) no longer contains the distribution of the inflation assumptions used by the responding retirement systems included in their survey. We contacted the NASRA staff and we were able to obtain the inflation assumptions used by 76 large public retirement funds in their 2014 valuations. The median value of those inflation assumptions is 3.00%. In California, CalPERS and Marin County use an inflation assumption of 2.75% while CalSTRS, LACERA, OCERS and nine other 1937 Act CERL systems use an inflation assumption of 3.00%.

CCCERA’s investment consultant, Verus, anticipates an annual inflation rate of 2.10%. Note that, in general, investment consultants use a time horizon for this assumption that is shorter than the time horizon we use for the actuarial valuation. The average inflation rate used by a sample of eight investment advisory firms is 2.45%.

To find a forecast of inflation based on a longer time horizon, we referred to the 2015 report on the financial status of the Social Security program. The projected average increase in the Consumer Price Index (CPI) over the next 75 years under the intermediate cost assumptions used in that report was 2.70%. We also compared the yields on the thirty-year inflation indexed U. S. Treasury bonds to comparable traditional U. S. Treasury bonds. As of March 2016, the difference in yields is 1.69%, which provides a current measure of market expectations of inflation.

Based on all of the above information, we recommend that the current 3.25% annual inflation assumption be reduced to 3.00% for the December 31, 2015 actuarial valuation.

Retiree Cost-of-Living Increases

We are also recommending a change to the assumptions we use to value the post-retirement COLA benefit. We recommend decreasing the assumed COLA for tiers with a maximum 4% COLA from 3.25% to 3.00% per year. The current and proposed COLA assumptions are shown below:

Maximum COLA	Current Assumption	Proposed Assumption
2%	2.00%	2.00%
3%	3.00%	3.00%
4%	3.25%	3.00%

In developing the COLA assumption, we also considered the results of a stochastic approach that would attempt to account for the possible impact of low inflation that could occur before COLA banks are able to be established for the member. Although the results of this type of analysis might justify the use of a lower COLA assumption, we are not recommending that at this time. The reasons for this conclusion include the following:

- The results of the stochastic modeling are significantly dependent on assuming that lower levels of inflation will persist in the early years of the projections. If this is not assumed, then the stochastic modeling will produce results similar to our proposed COLA assumption.
- Using a lower long-term COLA assumption based on a stochastic analysis would mean that an actuarial loss would occur even when the inflation assumption of 3.00% is met in a year. We question the reasonableness of this result.

We do not see the stochastic possibility of COLAs averaging less than those predicted by the assumed rate of inflation as a reliable source of cost savings that should be anticipated in our COLA assumptions. Therefore, we continue to recommend setting the COLA assumption based on the long-term annual inflation assumption, as we have in prior years.

B. INVESTMENT RETURN

The investment return assumption is comprised of two primary components, inflation and real rate of investment return, with adjustments for expenses and risk.

Real Rate of Investment Return

This component represents the portfolio's incremental investment market returns over inflation. Theory has it that as an investor takes a greater investment risk, the return on the investment is expected to also be greater, at least in the long run. This additional return is expected to vary by asset class and empirical data supports that expectation. For that reason, the real rate of return assumptions are developed by asset class. Therefore, the real rate of return assumption for a retirement association's portfolio will vary with the Board's asset allocation among asset classes.

Following is CCCERA's current target asset allocation and the assumed real rate of return assumptions by asset class. The first column of real rate of return assumptions are determined by reducing Verus' total or "nominal" return assumptions by their assumed 2.10% inflation rate in their December 2015 report. The second column of returns (except for Short-Term Govt/Credit, U.S. Treasury, Risk Diversifying Strategies, Private Credit and Private Equity) represents the average of a sample of real rate of return assumptions, where each firm's nominal returns have been reduced by that firm's assumed inflation rate. The sample includes the expected annual real rates of return provided to us by Verus and by seven other investment advisory firms retained by Segal's California public sector retirement clients. We believe these averages are a reasonable consensus forecast of long term future market returns in excess of inflation.¹

¹ Note that, just as for the inflation assumption, in general the time horizon used by the investment consultants in determining the real rate of return assumptions is shorter than the time horizon we use for the actuarial valuation.

**CCCERA's Target Asset Allocation and Assumed Arithmetic Real Rate of Return
Assumptions by Asset Class and for the Portfolio**

<u>Asset Class</u>	<u>Percentage of Portfolio</u>	<u>Verus' Assumed Real Rate of Return⁽¹⁾</u>	<u>Average Real Rate of Return from a Sample of Consultants to Segal's California Public Sector Clients⁽²⁾</u>
Large Cap U.S. Equity	6%	4.60%	5.75%
Developed International Equity	10%	8.90%	6.99%
Emerging Markets Equity	14%	11.80%	8.95%
Short-Term Govt/Credit	24%	0.20%	0.20% ⁽³⁾
U.S. Treasury	2%	0.30%	0.30% ⁽³⁾
Real Estate	7%	3.80%	4.45%
Cash & Equivalents	1%	0.00%	-0.46%
Risk Diversifying Strategies	2%	4.30%	4.30% ⁽³⁾
Private Credit	17%	6.30%	6.30% ⁽³⁾
Private Equity	<u>17%</u>	<u>8.10%</u>	<u>8.10%⁽³⁾</u>
Total Portfolio	100%	5.67%	5.19%

⁽¹⁾ *Derived by reducing Verus' total rate of return assumptions by their assumed 2.10% inflation rate.*

⁽²⁾ *These are based on the projected arithmetic real returns provided by the investment advisory firms serving the county retirement associations of Contra Costa, Sonoma, Alameda, Mendocino, Ventura, the LA City Employees' Retirement System, the East Bay Municipal Utility District Retirement Plan and the LA Fire & Police Pensions. These return assumptions are gross of any applicable investment expenses.*

⁽³⁾ *For these asset classes, the Verus' assumption is applied in lieu of the average because either this is an unique asset class from the firms survey or there exists a large disparity in returns for these asset classes among firms surveyed and because using Verus' assumption should more closely reflect the underlying investments made specifically for CCCERA.*

The above are representative of "indexed" returns and do not include any additional returns ("alpha") from active management. This is consistent with the Actuarial Standard of Practice (ASOP) No. 27, Section 3.8.3.d, which states:

"Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (pessimistic). The actuary should not assume that superior or inferior returns will be achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy unless the actuary believe, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period."

The following are some observations about the returns provided above:

1. The investment consultants to our California public sector clients have each provided us with their expected real rates of return for each asset class, over various future periods of time. However, in general, the returns available from investment consultants are projected over time periods shorter than the duration of a retirement plan's liabilities.
2. Using a sample average of expected real rates of return allows CCCERA's investment return assumption to reflect a broader range of capital market information and should help reduce year to year volatility in CCCERA's investment return assumption.
3. Therefore, we recommend that the 5.19% portfolio real rate of return be used to determine CCCERA's investment return assumption. This is 0.29% higher than the return that was used three years ago in the review to prepare the recommended investment return assumption for the December 31, 2012 valuation. The difference is due to changes in CCCERA's target asset allocation (+0.33%), changes in the real rate of return assumptions provided to us by the investment advisory firms (-0.09%) and the effect of the interaction between those two changes² (+0.05%).

Association Expenses

For funding purposes, the real rate of return assumption for the portfolio needs to be adjusted for investment expenses expected to be paid from investment income. As further discussed later in this report, current practice for CCCERA also adjusts for expected administrative expenses. The following table provides these expenses in relation to the actuarial value of assets for the five years ending December 31, 2014.

² This includes the joint effect of the changes in CCCERA's target asset allocation and the changes in the average real rate of return assumptions for each asset category as provided to us by the investment advisory firms.

Administrative and Investment Expenses as a Percentage of Actuarial Value of Assets
(All dollars in 000's)

FYE	Actuarial Value of Assets ⁽¹⁾	Administrative Expenses	Investment Expenses ⁽²⁾	Administrative %	Investment %	Total %
2010	\$5,355,971	\$5,283	\$30,475	0.10%	0.57%	0.67%
2011	5,441,120	6,290	30,694	0.12	0.56	0.68
2012	5,497,194	6,030	34,363	0.11	0.63	0.74
2013	5,922,449	6,776	38,158	0.11	0.64	0.75
2014	6,572,560	6,980	41,600	<u>0.11</u>	<u>0.63</u>	<u>0.74</u>
Average				0.11%	0.61%	0.72%

⁽¹⁾ *As of end of plan year*

⁽²⁾ *Excludes securities lending expenses. Because we do not assume any additional net return for this program, we effectively assume that any securities lending expenses will be offset by related income.*

The average expense percentage over this five year period is 0.72%. Based on this experience, we have increased the future expense component from 0.65% to 0.75%. This assumption will be re-examined in subsequent assumption reviews as new data becomes available.

Note related to investment expenses paid to active managers – As cited above, under Section 3.8.3.d of ASOP No. 27, the effect of an active investment management strategy should be considered “net of investment expenses...unless the actuary believes, based on relevant data, that such superior or inferior returns represent a reasonable expectation over the measurement period.”

We have not performed a detailed analysis to measure how much of the investment expenses paid to active managers might have been offset by additional returns (“alpha”) earned by that active management. We believe that such a review would not have a significant impact on the recommended investment return assumption developed using the above expense assumption. For now, we will continue to use the current approach of treating any “alpha” that may be identified as an increase in the risk adjustment and corresponding confidence level in developing the investment return assumption rather than as an offset to any related active management expenses.³

³ As noted earlier, Actuarial Standard of Practice (ASOP) No. 27, Section 3.8.3.d states “Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (pessimistic). The actuary should not assume that superior or inferior returns will be achieved, **net of investment expenses**, from an active investment management strategy compared to a passive investment management strategy unless the actuary believe, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period.” (emphasis added). We believe this means that assuming only enough superior return to cover related investment expenses would not require the relevant supporting data referenced in ASOP No. 27.

Adjustment to Exclude Administrative Expenses in Developing Investment Return Assumption for use in GASB Financial Reporting

In 2012, GASB adopted Statements 67 and 68 that replace Statements 25 and 27 for financial reporting purposes. GASB Statements 67 and 68 are effective for plan year 2014 for the Retirement Association and fiscal year 2014/2015 for the employer⁴.

According to GASB, the investment return assumption for use in financial reporting purposes should be based on the long-term expected rate of return on a retirement system's investments and should be net of investment expenses but not of administrative expenses (i.e., without reduction for administrative expenses). As can be observed from the above development of the expense assumption, if the Board wishes to develop a single investment return assumption for both funding and financial reporting purposes, then it would be necessary to exclude the roughly 0.11% administrative expense from the above development and to develop a separate treatment of administrative expenses.

The issues associated with eliminating the consideration of administrative expenses when developing the investment return assumption used for funding, and the alternatives that are available to the Board in developing the investment return assumption for use in GASB financial reporting purposes are provided at the end of this Section. While we do recommend that the Board adopt an investment return for funding that is gross of administrative expenses (as discussed in the end of this Section), the preliminary discussion that follows has first been completed on a net of administrative expenses basis, to allow an "apples to apples" comparison with the current assumption.

⁴ The new Statements (67 and 68) will require more rapid recognition for investment gains or losses and much shorter amortization for actuarial gains or losses. Because of the more rapid recognition of those changes, retirement systems that have generally utilized the previous Statements (25 and 27) as a guideline to establish the employer's contribution amounts for both funding and financial reporting purposes would now have to prepare two sets of cost results, one for contributions and one for financial reporting under the new Statements.

Risk Adjustment

The real rate of return assumption for the portfolio is adjusted to reflect the potential risk of shortfalls in the return assumptions. CCCERA's asset allocation determines this portfolio risk, since risk levels are driven by the variability of returns for the various asset classes and the correlation of returns among those asset classes. This portfolio risk is incorporated into the real rate of return assumption through a risk adjustment.

The purpose of the risk adjustment (as measured by the corresponding confidence level) is to increase the likelihood of achieving the actuarial investment return assumption in the long term.⁵ The 5.19% expected real rate of return developed earlier in this report was based on expected mean or average arithmetic returns. This means there is a 50% chance of the actual return in each year being at least as great as the average (assuming a symmetrical distribution of future returns). The risk adjustment is intended to increase that probability somewhat above the 50% level. This is consistent with our experience that retirement plan fiduciaries would generally prefer that returns exceed the assumed rate more often than not. Note that, based on the investment return assumptions recently adopted by systems that have been analyzed under this model, we observe a confidence level generally in the range of 50% to 60%.

Three years ago in the last full review of the economic assumptions, the Board adopted an investment return assumption of 7.25%. That return implied a risk adjustment of 0.25%, reflecting a confidence level of 53% that the actual average return over 15 years would not fall below the assumed return, assuming that the distribution of returns over that period follows the normal statistical distribution.⁶

In our model, the confidence level associated with a particular risk adjustment represents the likelihood that the actual average return would equal or exceed the assumed value over a 15-year period. For example, if we set our real rate of return assumption using a risk adjustment that produces a confidence level of 60%, then there would be a 60% chance (6 out of 10) that the average return over 15 years will be equal to or greater than the assumed value. The 15-year time horizon represents an approximation of the "duration" of the fund's liabilities, where the duration of a liability represents the sensitivity of that liability to interest rate variations.

⁵ This type of risk adjustment is sometimes referred to as a "margin for adverse deviation."

⁶ Based on an annual portfolio return standard deviation of 12.44% provided by Milliman USA in 2013. Strictly speaking, future compounded long-term investment returns will tend to follow a log-normal distribution. However, we believe the Normal distribution assumption is reasonable for purposes of setting this type of risk adjustment.

If we use the same 53% confidence level to set this year’s risk adjustment, based on the current long-term portfolio standard deviation of 10.80% provided by Verus, the corresponding risk adjustment would be 0.22%. Together with the other investment return components, this produces a net investment return assumption of 7.22%, which is slightly lower than the current assumption of 7.25%. This result supports maintaining the current assumption of 7.25% that would include a risk adjustment of 0.19% and confidence level of 53%.

The table below shows CCCERA’s investment return assumptions and, for the years when an analysis was performed, the risk adjustments and corresponding confidence levels as determined in those prior studies.

Historical Investment Return Assumptions, Risk Adjustments and Confidence Levels Based on Assumptions Adopted by the Board

Year Ending December 31	Investment Return	Risk Adjustment	Corresponding Confidence Level
2005	7.90%	0.84%	60%
2006 - 2008	7.80%	0.86%	60%
2009 - 2011	7.75%	0.41%	55%
2012 - 2014	7.25%	0.25%	53%
2015 (Recommended)	7.25%	0.19%	53%

As we have discussed in prior years, the risk adjustment model and associated confidence level is most useful as a means for comparing how CCCERA has positioned itself relative to risk over periods of time⁷.

The use of a 53% confidence level should be considered in context with other factors, including:

- As noted above, the confidence level is more of a relative measure than an absolute measure, and so can be reevaluated and reset for future comparisons.
- The confidence level is based on the standard deviation of the portfolio that is determined and provided to us by Verus. The standard deviation is a statistical measure of the future volatility of the portfolio and so is itself based on assumptions about future portfolio volatility and can be considered somewhat of a “soft” number.

⁷ In particular, it would not be appropriate to use this type of risk adjustment as a measure of determining an investment return rate that is “risk-free.”

- A lower level of inflation should reduce the overall risk of failing to meet the investment return assumption. Maintaining or even lowering the confidence level to some extent could be justified as consistent with the change in the inflation assumption.
- While a confidence level of 53% is within the range of about 50% to 60% that corresponds to the risk adjustments used by most of Segal’s other California public retirement system clients, we want to note that most public retirement systems that have recently reviewed their investment return assumptions have considered adopting more conservative investment return assumptions for their valuations, in part to maintain some likelihood that future actual market return will meet or exceed the investment return assumption.
- As with any model, the results of the risk adjustment model should be evaluated for reasonableness and consistency. This is discussed in the later section on “Comparison with Other Public Retirement Systems”.

Taking into account the factors above, our preliminary recommendation is to maintain the net investment return assumption at 7.25%. As noted above, this return implies a 0.19% risk adjustment, reflecting a confidence level of 53% that the actual average return over 15 years would not fall below the assumed return.

Preliminary Recommended Investment Return Assumption

The following table summarizes the components of the preliminary investment return assumption developed in the previous discussion. For comparison purposes, we have also included similar values from the last study.

Calculation of Net Investment Return Assumption		
Assumption Component	December 31, 2015 Preliminary Recommended Value	December 31, 2012 Adopted Value
Inflation	3.00%	3.25%
Plus Portfolio Real Rate of Return	5.19%	4.90%
Minus Expense Adjustment	(0.75%)	(0.65%)
Minus Risk Adjustment	<u>(0.19%)</u>	<u>(0.25%)</u>
Total	7.25%	7.25%
Confidence Level	53%	53%

Based on this analysis, our preliminary recommendation is to maintain the investment return assumption at 7.25% per annum. Our final recommendation follows later in this section after discussion regarding a recommended change in how expected administrative expenses are handled.

Comparing with Other Public Retirement Systems

One final test of the recommended investment return assumption is to compare it against those used by other public retirement systems, both in California and nationwide.

We note that 7.25% is still one of the most common investment return assumptions among those California public sector retirement systems. In particular, the 7.25% assumption is used by seven county employees retirement systems (including CCCERA's current assumption). To our knowledge, there is only one California county employees retirement system who has recently adopted a 7.00% investment return assumption.

The following table compares the CCCERA recommended net investment return assumptions against those of the nationwide public retirement systems that participated in the NASRA 2015 Public Fund Survey for 125 large public retirement funds in their 2014 valuations:

Assumption	CCCERA	NASRA 2015 Public Fund Survey		
		Low	Median	High
Net Investment Return	7.25%	6.50%	7.75%	8.50%

The detailed survey results show that more than one-half of the systems that have an investment return assumption in the range of 6.75% to 7.75%. The survey also notes that several plans have reduced their investment return assumption during the last year, and others are considering doing so. State systems outside of California tend to change their economic assumptions less frequently and so may lag behind emerging practices in this area.

The recommended assumption of 7.25% provides for some margin for adverse deviation within the risk adjustment model and is consistent with the Association's current practice relative to other public systems.

Developing an Investment Return Assumption for use in Accounting and Financial Reporting under GASB Statement 67 and 68

The Governmental Accounting Standards Board (GASB) has adopted Statements 67 and 68 that replace Statements 25 and 27 for financial reporting purposes. We now discuss the issues and policy alternatives available to CCCERA in developing its investment return assumptions in a manner that will allow the Plan to maintain consistency in its liability measurements for funding and financial reporting purposes.

Background

GASB Statement 67 governs the Plan's financial reporting and is effective for plan year 2014, while GASB Statement 68 governs the employers' financial reporting and is effective for fiscal year 2014/2015. The new Statements specify requirements for measuring both the pension liability and the annual pension expense incurred by the employers. The new GASB requirements are only for financial reporting and do not affect how the Plan determines funding requirements for its employer. Nonetheless, it is important to understand how the new financial reporting results will compare with the funding requirement results. The comparison between funding and GASB financial reporting results will differ dramatically depending on whether one is considering measures of the accumulated pension liability or measures of the current year annual pension contribution/expense:

- When measuring pension liability GASB will use the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as CCCERA uses for funding. This means that the GASB "Total Pension Liability" measure for financial reporting will be determined on generally the same basis as CCCERA's "Actuarial Accrued Liability" measure for funding. This is a generally favorable feature of the new GASB rules that should largely preclude the need to explain why CCCERA has two different measures of pension liability. We note that the same is generally true for the "Normal Cost" component of the annual plan cost for both funding and financial reporting.
- When measuring annual pension expense, GASB will require more rapid recognition of investment gains or losses and much shorter amortization of changes in the pension liability (whether due to actuarial gains or losses, actuarial assumption changes or plan amendments). Because of GASB's more rapid recognition of those changes, retirement systems that have generally used the same "annual required contribution" amount for both funding (contributions) and financial reporting (pension expense) will now have to prepare and disclose two different annual cost results, one for contributions and one for financial reporting under the new GASB Statements.

This situation will facilitate the explanation of why the funding and financial reporting results are different: the liabilities and Normal Costs are generally the same, and the differences in annual costs are due to differences in how changes in liability are recognized. However, there is one other feature that will make the liability and Normal Cost measures different unless action is taken by CCCERA.

Treatment of Expected Administrative Expenses when Measuring Liabilities

As noted above, according to GASB, the discount rate used for financial reporting purposes should be based on the long-term expected rate of return on a retirement system's investments, just as it is for funding. However, GASB requires that this assumption should be net of investment expenses but not net of administrative expenses (i.e., without reduction for administrative expenses). Currently, CCCERA's investment return assumption used for the annual funding valuation is developed net of both investment and administrative expenses.

While CCCERA could continue to develop its funding investment return assumption net of both investment and administrative expenses, that would mean that CCCERA would then have two slightly different investment return assumptions, one for funding and one for financial reporting. To avoid this apparent discrepancy and to maintain the consistency of liability and Normal Cost measures described above, we believe that it would be preferable to use the same investment return assumption for both funding and financial reporting purposes. This means that the assumption for funding purposes would be developed on a basis that is net of only investment expenses, with an explicit assumption for administrative expenses.

To review, using the same investment return assumption for both purposes would be easier for CCCERA's stakeholders to understand and should result in being able to report CCCERA's Actuarial Accrued Liability (AAL) for funding purposes as the Total Pension Liability (TPL) for financial reporting purposes.

Development of Investment Return Assumption For Funding on a Gross of Administrative Expenses Basis so the Same Assumption Can Also Be Used for Financial Reporting ("Option A")

If the Board wishes to develop a single investment return assumption for both funding and financial reporting purposes, then it would be necessary to exclude the administrative expense component of about 0.11% from development of the 7.25% investment return preliminary recommendation. Under this approach, because these economic assumptions are generally changed in ¼% increments, there would be no change in the recommended investment return assumption as developed earlier in this report. Instead,

there would be an increase in the risk adjustment of 0.11% (from 0.19% to 0.30%), with a corresponding increase in the confidence level from 53% to 54%.

Under this approach, there would also be an explicit loading for administrative expenses. There are various ways to set the explicit administrative expense load assumption, but ultimately the method should result in an assumption that is approximately equivalent to about \$7 million annually, or 1.0% of payroll.

This approach and our final recommendation for the investment return assumption is presented in the following table.

Calculation of Net Investment Return Assumption

Assumption Component	December 31, 2015 Recommended Values if Used only for Funding (Net of Admin. Expenses)	December 31, 2015 Recommended Values for both Funding and Financial Reporting (Gross of Admin. Expenses)
Inflation	3.00%	3.00%
Plus Portfolio Real Rate of Return	5.19%	5.19%
Minus Expense Adjustment	(0.75%)	(0.64%)
Minus Risk Adjustment	<u>(0.19%)</u>	<u>(0.30%)</u>
Total	7.25%	7.25%
Confidence Level	53%	54%
Increase in combined Employer and Employee Contributions Due to Explicit Load for Administrative Expenses (Cost as % of Payroll)	Not Applicable	1.0% of payroll

There is an additional complication associated with eliminating the administrative expenses in developing the investment return assumption used for funding that relates to the allocation of administrative expenses between the employers and members:

1. Even though GASB requires the exclusion of the administrative expenses from the investment return assumption, such expense would continue to accrue for a retirement system. For private sector retirement plans, where the investment return is developed using an approach similar to that required by GASB (i.e., without deducting administrative expenses), contribution requirements are increased explicitly by the anticipated annual administrative expense. That approach is illustrated in the table above.

2. Under CCCERA's current approach of subtracting the administrative expense in the development of the investment return assumption, such annual administrative expense is funded implicitly by effectively deducting it from future expected investment returns. Since an investment return assumption net of investment and administrative expenses has been used historically to establish both the employer's and the member's contribution requirements, these administrative expenses have been funded implicitly by both the employer and the members.
3. A switch from the method described in (2) to the method described in (1) may require a new discussion on how to allocate administrative expenses between employers and members, including possibly establishing a new method to allocate the anticipated annual administrative expense between them. Under current practice, part of the implicit funding of administrative expenses is in the Normal Cost and so is shared between the employer and the members. However, the rest of the implicit expense funding is in the (Unfunded) Actuarial Accrued Liability, which is funded solely by the employers.
4. It is not straightforward to quantify precisely the current implicit sharing of administrative expenses between employers and members. This means that an exact reproduction of that allocation on an explicit basis will be difficult to develop. This in turn means that CCCERA would need to develop a new basis for sharing the cost of administrative expenses, one that if desired, approximately reproduces the current allocation. Alternatively, CCCERA could decide to treat administrative expenses as a loading applied only to the employer contribution rates, which is the practice followed by private plans, both single employer and multi-employer.
5. As the Board is aware, legislative changes under AB 340 imposed major modifications to both the level of benefits and the cost-sharing of the funding of those benefits for county employees' retirement systems. Included in such modifications is the requirement (for future hires) to fund the Normal Cost on a 50:50 basis between the employer and the member. As noted in (3) above, under current practice, part of the implicit funding of administrative expenses is in the Normal Cost and so would be shared between the employer and the members. This would not necessarily continue when the administrative expense loading is developed separate from the Normal Cost.

If, as we recommend, the Board wishes to continue to develop a single investment return assumption for both funding and financial reporting purposes, it is our recommendation that the Board adopt a change in the funding of administrative expenses from the method described in (2) above with an implicit allocation of administrative expenses to the method described in (1) above with an explicit allocation of administrative expenses.

In addition, we recommend that the total explicit administrative expense load assumption be set at 1.0% of payroll, which is approximately equivalent to about 0.11% of assets or \$7 million annually. This assumption would be reviewed with each triennial experience study, along with the other economic assumptions.

The more significant issues mentioned in (3), (4) and (5) above concern whether or not the costs associated with the administrative expenses should continue to be allocated to both the employers and the members. Unless the Board wishes to charge administrative expenses only to the employers, we propose a method whereby the costs associated with the explicit assumption for administrative expenses continue to be allocated to both employers and members. We recommend a straightforward way to do that in a manner generally consistent with current practice, which is to allocate expenses based on the components of the total contribution rate (before expenses) for employers and members. These components would be member Normal Cost contributions, employer Normal Cost contributions and employer UAAL contributions. **Under this recommended approach, of the total administrative expenses of about \$7 million or 1.0% of payroll, about \$1.6 million or 0.23% of payroll would be allocated to the members and \$5.4 million or 0.77% of payroll would be allocated to the employers in the aggregate. This illustrative allocation is based on the 40.06% and 11.84% contribution rates paid by the employers and the members, respectively, in the December 31, 2014 valuation.**

Development of Investment Return Assumption for Funding on a Net of Administrative Expenses Basis but use that Same Assumption for Financial Disclosure Development (“Option B”)

If the Board decides to leave the recommended investment return assumption of 7.25% on a net of administrative expense basis for funding purposes, we believe there still is a way to use that same 7.25% for financial reporting purposes under GASB. Under this approach, what appears to be the same 7.25% assumption would actually be used as two slightly different assumptions: an assumption net of administrative expenses for funding, and an assumption gross of administrative expenses for financial reporting. This would indirectly result in an increase in the margin for adverse deviation or “confidence level” associated with the use of the recommended 7.25% assumption from 53% as used for funding purposes to 54% only as used for financial reporting purposes.

The Board had previously adopted this Option B on an interim basis for use in performing the December 31, 2013 and 2014 actuarial valuation and the December 31, 2014 GASB 67 report.

The following table summarizes the components of the investment return assumption under this approach, using the recommended assumption for both funding (net of administration expenses) and financial reporting (gross of administration expenses):

Calculation of Net Investment Return Assumption

Assumption Component	December 31, 2015 Recommended Values if Used only for Funding (Net of Admin. Expenses)	December 31, 2015 Alternative Values for Financial Reporting (Gross of Admin. Expenses)
Inflation	3.00%	3.00%
Plus Portfolio Real Rate of Return	5.19%	5.19%
Minus Expense Adjustment	(0.75%)	(0.64%)
Minus Risk Adjustment	<u>(0.19%)</u>	<u>(0.30%)</u>
Total	7.25%	7.25%
Confidence Level	53%	54%

Note that under both Option A and Option B the confidence level for financial reporting increases from 53% to 54% (because the risk adjustment increases from 0.19% to 0.30%). The difference is that under Option A the same confidence level increase would apply for funding purposes, along with the addition of an explicit loading on the contribution rates for administrative expenses.

C. SALARY INCREASE

Salary increases impact plan costs in two ways: (i) by increasing members' benefits (since benefits are a function of the members' highest average pay) and future normal cost collections; and (ii) by increasing total active member payroll which in turn generates lower UAAL contribution rates. These two impacts are discussed separately below.

As a member progresses through his or her career, increases in pay are expected to come from three sources:

1. Inflation – Unless pay grows at least as fast as consumer prices grow, employees will experience a reduction in their standard of living. There may be times when pay increases lag or exceed inflation, but over the long term, labor market forces will require an employer to maintain its members' standards of living.

As discussed earlier in this report, we are recommending that the assumed rate of inflation be reduced from 3.25% per annum to 3.00% per annum. This inflation component is used as part of the salary increase assumption.

2. Real “Across the Board” Pay Increases – These increases are sometimes termed productivity increases since they are considered to be derived from the ability of an organization or an economy to produce goods and services in a more efficient manner. As that occurs, at least some portion of the value of these improvements can provide a source for pay increases. These increases are typically assumed to extend to all employees “across the board.” The State and Local Government Workers Employment Cost Index produced by the Department of Labor provides evidence that real “across the board” pay increases have averaged about 0.6% - 0.9% annually during the last ten to twenty years.

We also referred to the annual report on the financial status of the Social Security program published in July 2015. In that report, real “across the board” pay increases are forecast to be 1.2% per year under the intermediate assumptions.

The real pay increase assumption is generally considered a more “macroeconomic” assumption, that is not necessarily based on individual plan experience. However, recent salary experience with public systems in California as well as anecdotal discussions with plans and plan sponsors indicate lower future real wage growth expectations for public sector employees. We note that for CCCERA's active members, the actual average inflation plus “across the board” increase (i.e., wage inflation) over the three-year period ending December 31, 2014 was actually negative, at -0.5%.

Considering these factors, we recommend reducing the real “across the board” salary increase assumption from 0.75% to 0.50%. This means that the combined inflation and “across the board” salary increase assumption will decrease from 4.00% to 3.50%.

3. Individual Merit and Promotional Increases – As the name implies, these increases come from a member’s career advances. This form of pay increase differs from the previous two, since it is specific to the individual. For CCCERA, this assumption is structured as a function of a member’s service. The assumed increases range from 0.75% to 9.50% for General members and 0.75% to 10.00% for Safety members. This assumption is derived from member-specific information as part of the triennial experience study.

Recommended merit and promotional assumptions will be studied as part of our triennial experience analysis.

All three of these forces will be incorporated into a salary increase assumption which is applied in the actuarial valuation to project future benefits and future normal cost contribution collections.

Active Member Payroll

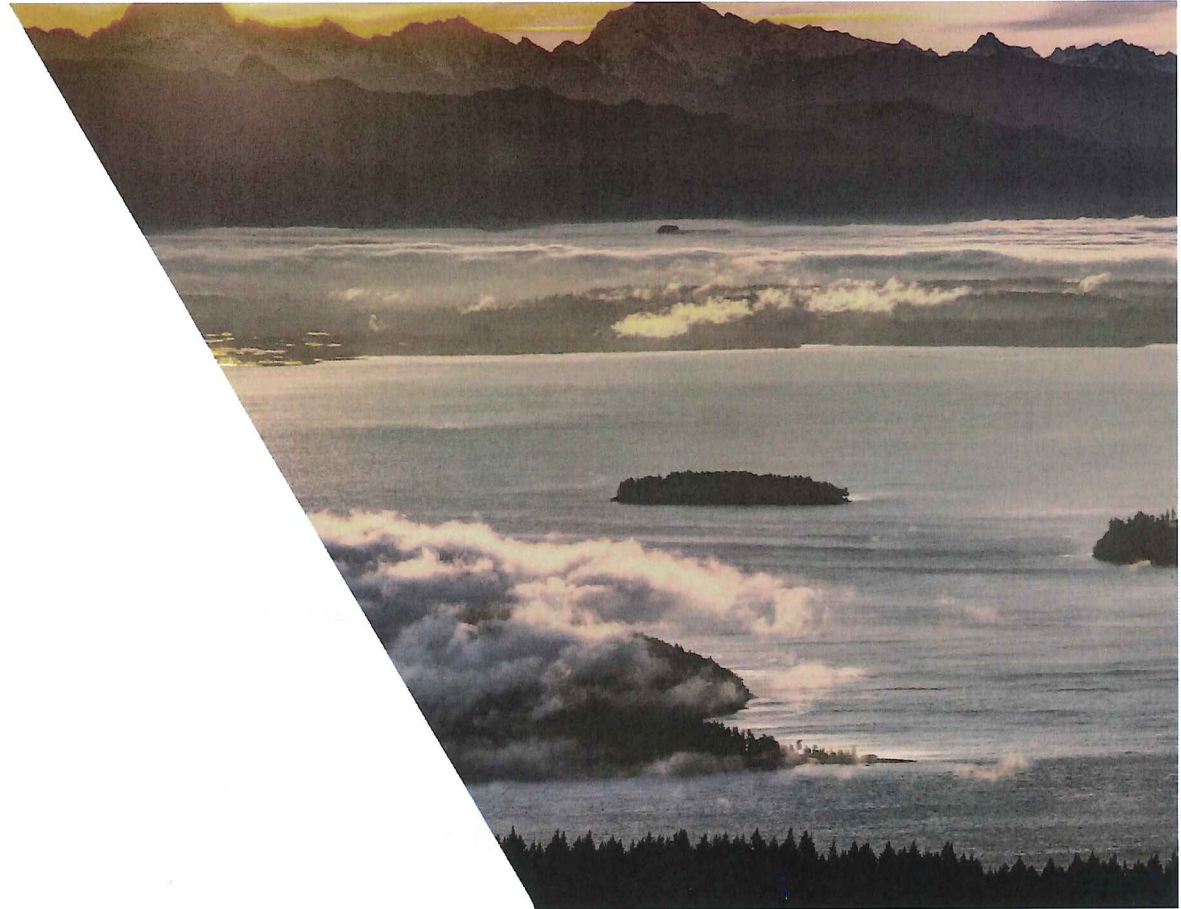
Projected active member payrolls are used to develop the UAAL contribution rate. Future values are determined as a product of the number of employees in the workforce and the average pay for all employees. The average pay for all employees is assumed to increase only by inflation and real “across the board” pay increases. The merit and promotional increases are not an influence, because this average pay is not specific to an individual.

We recommend that the active member payroll increase assumption be decreased from 4.00% to 3.50% annually, consistent with the combined inflation plus real “across the board” salary increase assumptions.

Meeting Date
04/27/16
Agenda Item
#6



**PERSPECTIVES
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APRIL 2016

Meeting Materials for

Contra Costa County Employees' Retirement Association

Session objectives

- Review asset allocation decisions incorporating 2016 capital market assumptions (CMAs)
 - When FFP was adopted in December, it was agreed that the Growth and Risk Diversifying portions would be reviewed annually based on updated CMAs
- Discuss “risk diversifying strategies” in more detail to understand what they are and how they can be used effectively
- Identify key implementation milestones
- Revisit CCCERA’s approach to private markets

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I. Asset allocation analysis

Asset allocation analysis

	Policy	2015	2016	A	B	C	2016		
							Return (10 Yr)	Standard Deviation	Sharpe Ratio
Domestic Equity									
US Large	-	6.0	6.0	6.0	6.0	6.0	5.9	15.1	0.26
	-	6.0	6.0	6.0	6.0	6.0			
International Equity									
International Developed	-	10.0	10.0	10.0	10.0	10.0	9.2	18.5	0.39
Emerging Markets	-	14.0	14.0	14.0	10.0	10.0	11.3	23.6	0.39
	-	24.0	24.0	24.0	20.0	20.0			
Global Equity	42.6	-	-	-	-	-	7.7	16.9	0.34
Total Equity	42.6	30.0	30.0	30.0	26.0	26.0			
Fixed Income									
Core Fixed Income	19.5	-	-	-	-	-	3.2	3.2	0.37
US Treasury	-	2.0	2.0	4.0	3.0	3.0	2.3	6.5	0.04
Short-Term Gov't/Credit	-	24.0	24.0	24.0	24.0	24.0	2.5	1.3	0.37
High Yield Corp. Credit	7.4	-	-	-	-	-	7.1	10.6	0.48
Global Sovereign ex-US	1.3	-	-	-	-	-	2.6	7.8	0.07
Global Credit	1.3	-	-	-	-	-	2.4	6.9	0.06
US TIPS	1.3	-	-	-	-	-	2.7	6.3	0.11
	30.7	26.0	26.0	28.0	27.0	27.0			
Real Assets									
Commodities	1.3	-	-	-	-	-	4.0	18.2	0.11
Core Real Estate	1.6	1.4	1.4	-	-	-	4.7	13.2	0.20
Value-Add Real Estate	3.2	2.8	2.8	4.0	4.0	4.0	6.7	23.3	0.20
Opportunistic Real Estate	3.2	2.8	2.8	4.0	4.0	4.0	8.7	33.2	0.20
REITs	4.5	-	-	1.0	1.0	1.0	4.7	26.4	0.10
	13.8	7.0	7.0	9.0	9.0	9.0			
Alternatives									
Risk Diversifying Strategies	-	2.0	2.0	4.0	9.0	4.0	6.0	9.0	0.44
Risk Parity	-	-	-	5.0	-	5.0	7.0	10.0	0.50
Private Equity	12.4	17.0	17.0	13.0	12.0	12.0	8.2	23.7	0.26
Private Credit	-	17.0	17.0	10.0	16.0	16.0	9.1	10.9	0.65
	12.4	36.0	36.0	32.0	37.0	37.0			
Cash	0.5	1.0	1.0	1.0	1.0	1.0	2.0	0.6	-
Total Allocation	100	100	100	100	100	100			

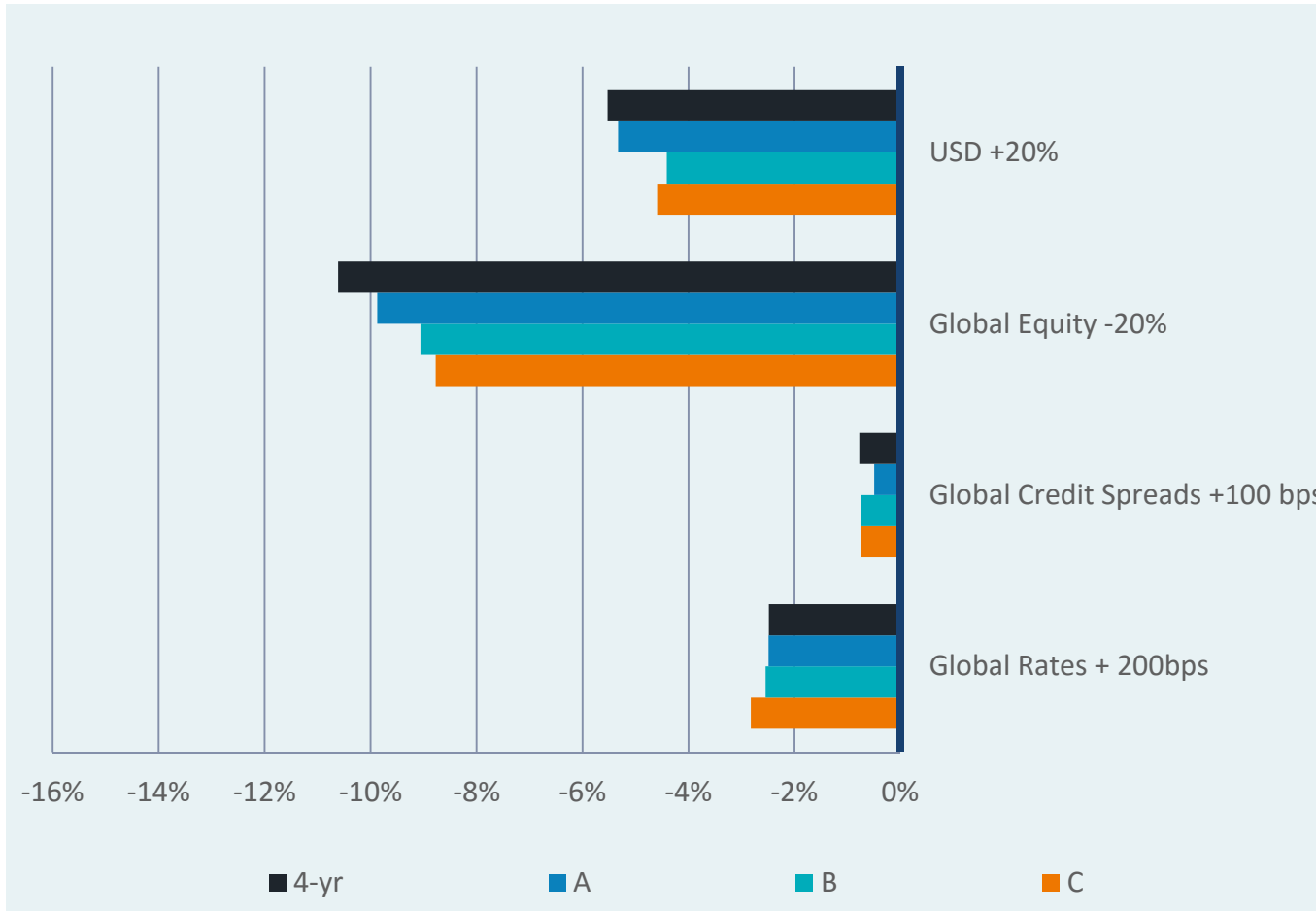
Asset allocation analysis

	Policy	2015	2016	A	B	C
Mean Variance Optimizer Analysis						
Forecast 10 Year Return	7.1	7.2	7.9	7.6	7.5	7.6
Standard Deviation	12.1	10.8	11.0	10.3	9.8	9.6
Return/Std. Deviation	0.6	0.7	0.7	0.7	0.8	0.8
1st percentile ret. 1 year	-28.8	-25.9	-23.8	-21.4	-21.2	-20.4
Sharpe Ratio	0.48	0.52	0.58	0.59	0.61	0.62
Verus Scenario Analysis						
10 Year Return Forecast						
Stagflation	6.3	6.2	7.2	6.9	7.1	6.9
Weak	3.0	3.3	4.3	4.0	4.2	4.3
Base CMA	6.8	6.7	7.4	7.0	6.9	6.9
Strong	10.4	9.8	10.3	9.7	9.6	9.5
Range of Scenario Forecast	7.3	6.5	6.0	5.7	5.4	5.2
Shock (1 year)	-23.3	-23.1	-21.8	-19.5	-18.6	-17.9
10 Year <u>Real</u> Return Forecast						
Stagflation	0.2		1.1	0.8	1.0	0.8
Weak	1.9		3.2	2.9	3.1	3.2
Base CMA	4.7		5.3	4.9	4.8	4.8
Strong	7.8		7.7	7.1	7.0	6.9
Range of Scenario Forecast	7.5		6.6	6.4	6.0	6.1

Scenario Analysis utilizes February 2016 Verus Capital Market Assumptions

Stress test

TAIL RISK – STRESS TEST



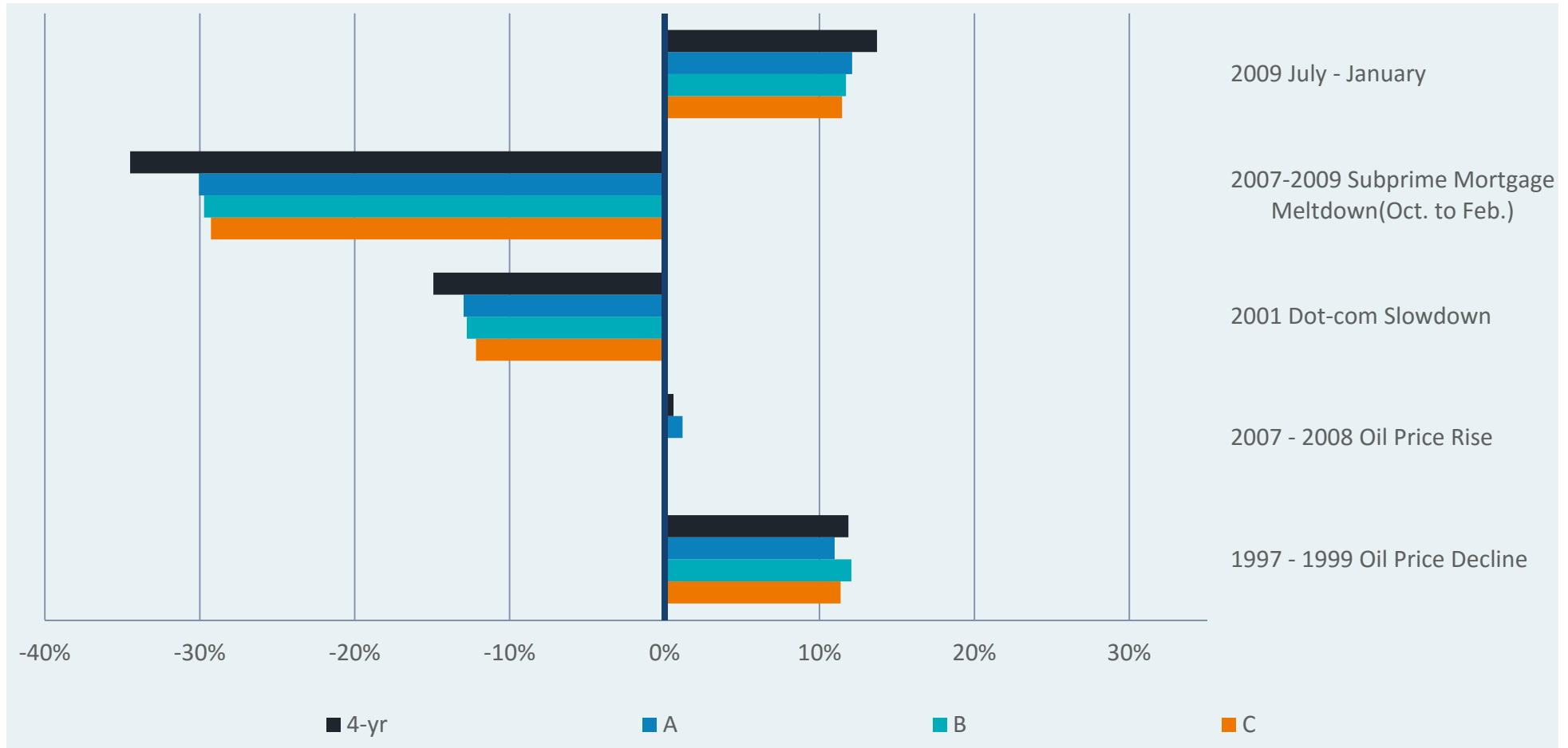
Scenario analysis based on risk factors in current policy index and computed as hypothetical scenarios using MSCI Barra One

BarraOne's risk decomposition analysis can hypothesize how the different portfolios would have performed in certain hypothetical stress tests or historical environments.

This analysis is based on how the risk factors inherent in the current index holdings reacted in those environments.

Historical scenario analysis

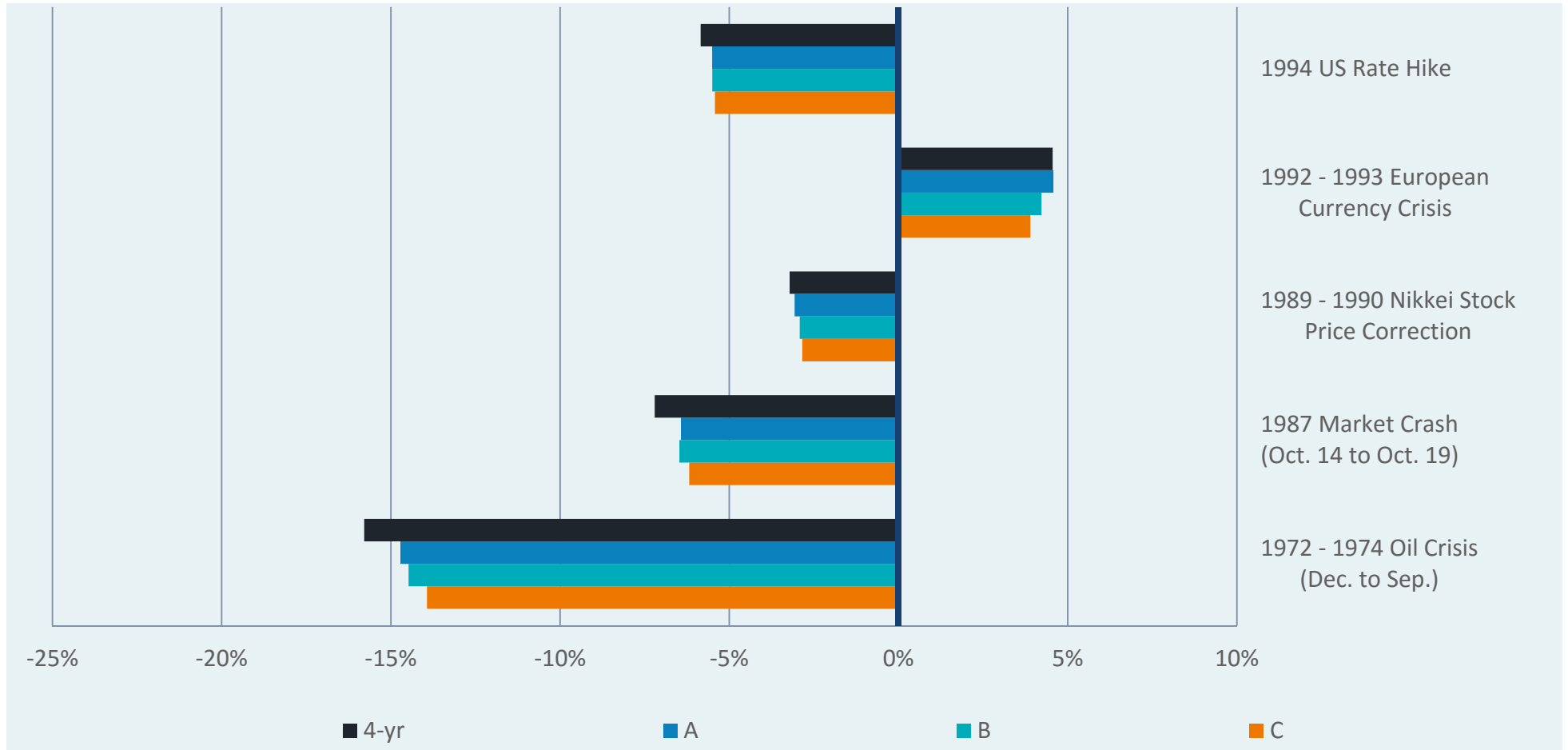
TAIL RISK – SCENARIO ANALYSIS



Scenario analysis based on risk factors in current policy index and computed as hypothetical scenarios using MSCI Barra One

Historical scenario analysis

TAIL RISK – SCENARIO ANALYSIS



Scenario analysis based on risk factors in current policy index and computed as hypothetical scenarios using MSCI Barra One

II. Risk diversifying strategies

Risk diversifying strategies

The term “risk diversifying strategies” refers to strategies that have low correlations to traditional asset classes. The low correlation is often achieved through exposure to multiple asset classes and strategies within the fund.

Strategies currently in the CCCERA portfolio considered to be risk diversifying include:

— **AFL-CIO**

- Fixed income strategy specializing in government and agency issued, guaranteed, or insured multifamily mortgage-backed securities (MBS) that have call/prepayment protection
- Assets primarily include government/agency multifamily mortgage securities

— **PIMCO All Asset**

- Tactical multi-asset class real return strategy with a primary focus on inflation protection and a secondary focus on enhanced returns
- Assets include equities, commodities, REITs, fixed income, and alternatives

— **Wellington Real Return**

- Tactical multi-asset class real return strategy with a focus on managing risk of active strategies used to gain exposure to attractive assets
- Active strategies include: equities, commodities, fixed income, currency, risk management, and active market exposures

Risk parity and certain hedge fund approaches are also considered to be risk diversifying strategies because of their low correlations with traditional asset classes.



**PERSPECTIVES
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NOVEMBER 2015
Hedge Fund Environment

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Executive summary

In this annual hedge fund review, we shed some light on the market environment and resulting headwinds or tailwinds facing common hedge fund strategies. Most investors allocate to hedge fund strategies to capture return streams that are uncorrelated to equity and bond markets. This simplistic goal has been hard to achieve in an environment flooded with monetary stimulus, characterized by low security dispersion and limited areas of distress. Managers work harder to find unique ideas that can scale. As a now-\$3 trillion industry pursuing similar strategies, capturing alpha is proving much harder than in years past. There is no short rebate available to short sellers, the borrow is often more costly and almost everywhere they turn, hedge fund peers already hold significant stakes in portfolio companies securities. We suspect episodic sell-offs and rebounds driven by liquidity concerns and “crowded-ness” could become more normal than unique.

The macroeconomic environment may be evolving from one of continued easing to one of inability to ease, or even tightening. Tightening could impact corporate confidence which has driven M&A activity and could set off a new distressed cycle. While many activist and merger strategies have benefitted over the past two years, many other equity managers have suffered as their short positions rise in anticipation of potential takeovers.

Slowing global growth has impacted commodity-oriented sovereigns and corporate securities, and oil prices continue to remain volatile. This should be helpful for CTA and global macro managers able to identify strong directional trends and differentiate between countries and currencies positioned to benefit or suffer from lower oil prices.

Still-high equity valuations suggest potential for alpha in short books since further return potential from margin improvement or P/E expansion appears more difficult. Distressed strategies bemoan a dearth of existing opportunities, but salivate at what may be just around the corner, especially in the energy complex. Funding costs for levered strategies remain extremely low, but then again so does volatility; selling any sizable position is likely to incur significantly lower realizations from what we hear.

While our annual hedge fund environment will generalize many hedge fund styles, we recognize each hedge fund is unique in a number of ways; there is a very wide distribution of individual skills, styles and approaches. Paying careful attention to the headwinds and tailwinds that may affect hedge fund betas is an important part of hedge fund selection, as is careful diligence on managers that are capable of producing unique alpha.

Despite a few growing concerns and disappointing recent returns, many hedge fund strategies continue to provide the diversification and capital preservation roles they are intended to serve in the broader portfolio.

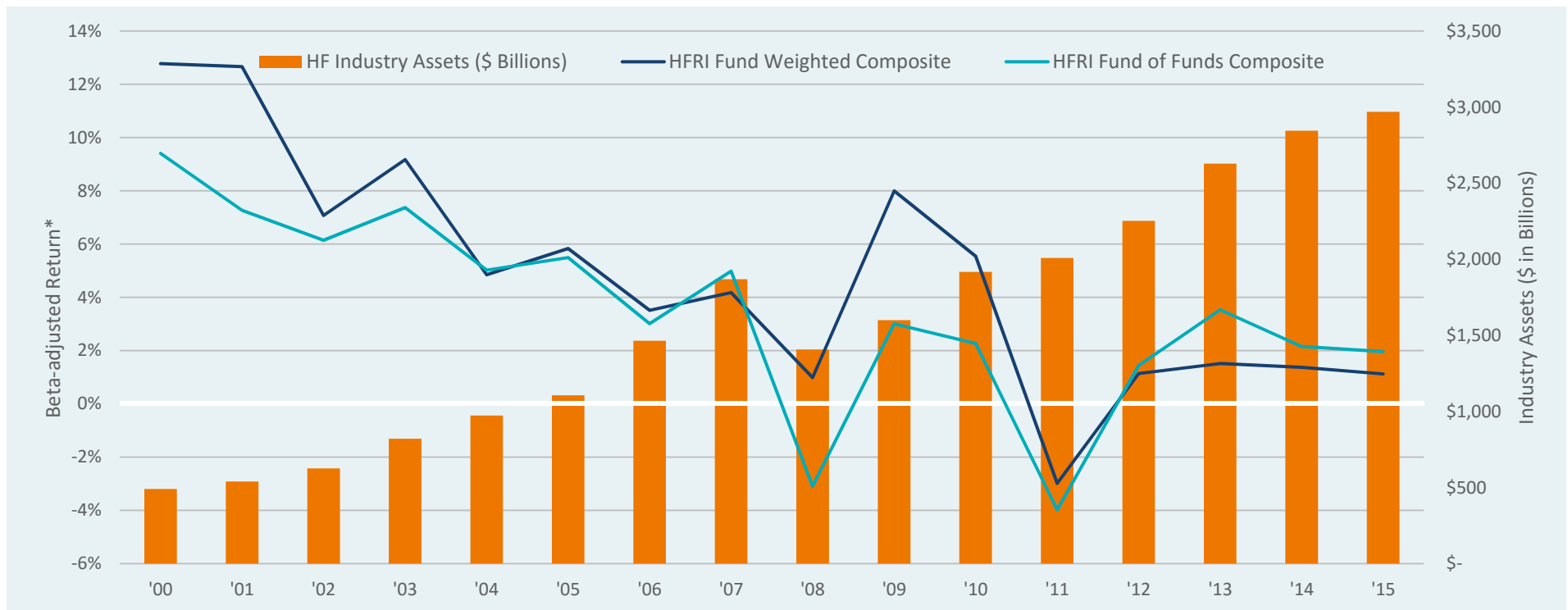
Industry overview

Hedge fund industry growth

Is capital crowding out alpha potential?

As hedge fund assets have grown to nearly \$3 trillion, beta-adjusted returns suggest broadly declining ability to capture alpha.

INDUSTRY ALPHA VS. INDUSTRY GROWTH



*12 month return reduced by rolling 36 month beta vs. MSCI ACWI Index. Source: Barclays Hedge, HFR, Verus

Hedge fund performance (1-year)

One tough year

Recent negative hedge fund returns are partly a function of their underlying exposure to broad based equity and credit markets. These environments have been challenging; so has hedge fund performance.

HFRI composite

Return	Beta (to S&P)
(1.1%)	0.3

Long/short equity

Return	Beta
(2.6%)	0.4

Fundamental value	Fundamental growth
--------------------------	---------------------------

Return	Beta	Return	Beta
(2.1%)	0.5	(6.9%)	0.5

Event driven

Return	Beta
(3.6%)	0.3

Distressed / restructuring	Activist
-----------------------------------	-----------------

Return	Beta	Return	Beta
(8.7%)	0.3	(1.8%)	0.6

Macro

Return	Beta
(2.5%)	0.1

Discretionary / thematic	Systematic / diversified
---------------------------------	---------------------------------

Return	Beta	Return	Beta
(0.2%)	0.2	(5.7%)	0.1

Relative value

Return	Beta
(0.2%)	0.2

Fixed income - corporate	Multi-strategy
---------------------------------	-----------------------

Return	Beta	Return	Beta
(3.3%)	0.2	(1.0%)	0.1

*Net returns as of August 2015. All beta figures shown relative to the S&P 500. Source: Morningstar, HFR, Verus

Hedge fund performance (7-years)

End points still dominate the optics

Over the past seven years, which includes the last half of 2008, broad equity market exposure retains significant explanatory power over hedge fund returns – exposure investors may not recognize or want.

HFRI composite

Return	Beta (to S&P)
(3.5%)	0.3

Long/short equity

Return	Beta
(3.3%)	0.5

Fundamental value Fundamental growth

Return	Beta	Return	Beta
(4.7%)	0.5	(2.6%)	0.6

Event driven

Return	Beta
(4.5%)	0.4

Distressed / restructuring Activist

Return	Beta	Return	Beta
(4.3%)	0.3	(4.0%)	0.7

Macro

Return	Beta
(2.0%)	0.1

Discretionary / thematic Systematic / diversified

Return	Beta	Return	Beta
(1.0%)	0.2	(2.7%)	0.0

Relative value

Return	Beta
(5.6%)	0.2

Fixed income - corporate Multi-strategy

Return	Beta	Return	Beta
(4.7%)	0.3	(5.0%)	0.2

*Net returns as of August 2015. All beta figures shown relative to the S&P 500. Source: Morningstar, HFR, Verus

Hedge fund styles review

Alternative beta

Good climate for momentum, mild to harsh conditions for others

Alternative or “exotic” beta strategies hinge on the existence of common factors that many hedged strategies employ to generate a substantial portion of their overall returns. Many of these factors can be obtained with relatively less expense.

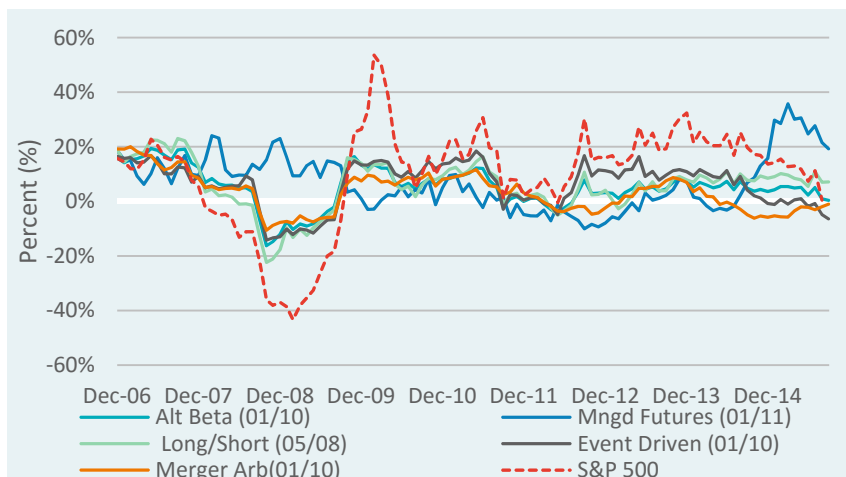
Examples of “naïve” strategy or factor replication include merger arbitrage or delta hedged convertible bond trading.

Over longer periods of time, some of these factors have demonstrated persistent ability to explain significant proportions of active hedge fund manager returns; this in turn argues for active risk benchmarks or explicit fee reductions.

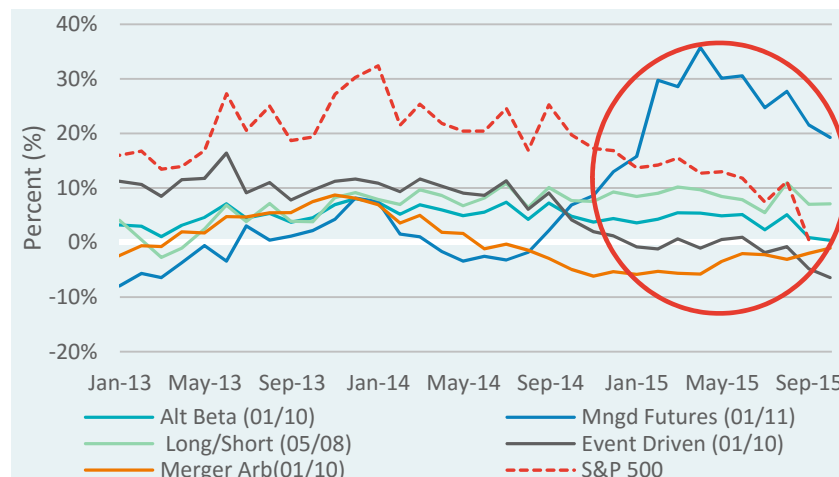
The data presented below suggests the performance of a set of factors, while variable, has generally been positive. Recent experience reflects the significant influence of momentum throughout 2014, but a reversal has been coincident with weakness in the S&P 500.

Dispersion of these factor returns enhances the risk-adjusted return for strategies that employ a mix of these strategies despite lower aggregate return expectations; active sizing decisions among these factors may enhance value-added returns.

ALT BETA - ROLLING 1 YEAR RETURN COMPARED TO THE S&P 500



MOST RECENT TWO YEARS



Source: Credit Suisse, CSLAB “Liquid” indexes, data as of 9/30/15; hypothetical performance until date noted in legend.

Event driven

The house is getting crowded

Event Driven strategies target equity or debt securities involved in mergers, acquisitions, corporate spinouts, debt refinancing and distressed, bankruptcy and restructuring. This category of funds represents 10% of the broad index and 900 funds.

These strategies are driven by M&A volume and deal spreads, debt maturities leading to defaults, credit availability, the level of activism and general corporate activity.

Many claims related to crisis-period vintage bankruptcies are now being realized; biopharma and other healthcare-related M&A has been strong the past 9-12 months.

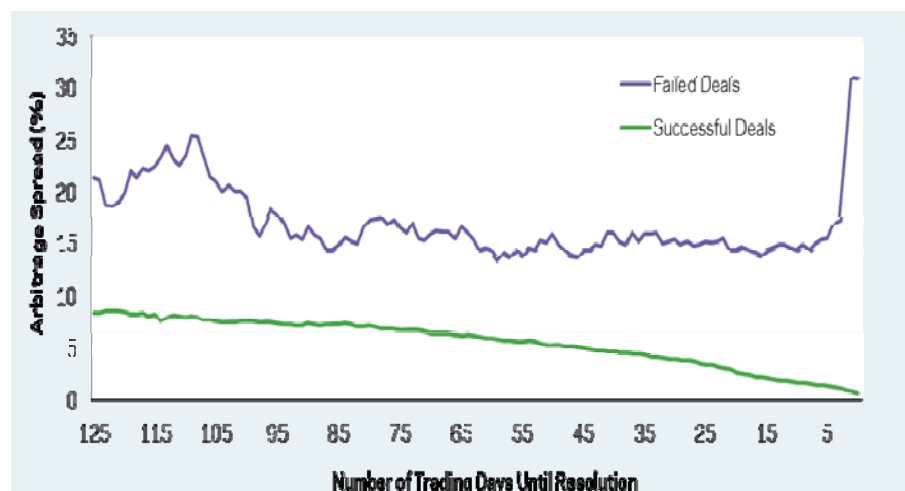
Anecdotally, managers admit short positions and forays into the energy space appear to have been so far premature.

Best opportunities for investment have typically been near inflection points in the economic cycle: beginning of pro-growth upturn or beginning of distressed cycle brought about by slowing economy; we are likely closer to the latter today.

HF DARLINGS	Sector	Equity Cap (\$B)	# Funds w/ stock (6/30/15)	Funds w/ position in Top 10 (6/30/15)	% equity owned by HFs (8/15/15)	Total Return YTD (8/15/15)
ALLERGAN PLC	Health Care	\$124	90	46	12%	22%
VALEANT PHARMA.	Health Care	\$84	50	20	16%	72%
CHARTER COMM.	Consumer	\$20	48	18	17%	8%
CHENIERE ENERGY	Energy / MLP	\$16	43	17	27%	-2%
TIME WARNER CABLE	Consumer	\$53	48	16	13%	22%
JD.COM	Consumer	\$38	41	15	28%	22%
SUNEDISON	Technology	\$4	48	13	67%	-26%
WILLIAMS COS	Energy / MLP	\$39	43	11	17%	19%
AIR PRODS & CHEMS	Industrial	\$32	42	11	16%	2%
AERCAP HOLDINGS	Technology	\$9	36	11	23%	24%
Average of the Top 50 Names		\$113	45	13	9%	14%

Source: HedgeMind-VIP: 50 Stocks That "Matter Most" to Hedge Funds

MORE MERGER FAILURES MEANS HIGHER RISK, LESS REWARD



Source: "Characteristics of Risk and Return in Risk Arbitrage" by Mark Mitchell and Todd Pulvino, *The Journal of Finance*, 2001. Research extended by CNH.

Long/short equity

Strong trends for growth and quality continue for now

Fundamental long/short equity strategies pursue views of intrinsic value or growth estimates that differ from consensus. More than 3,400 funds representing 27% of the index apply this most common strategy.

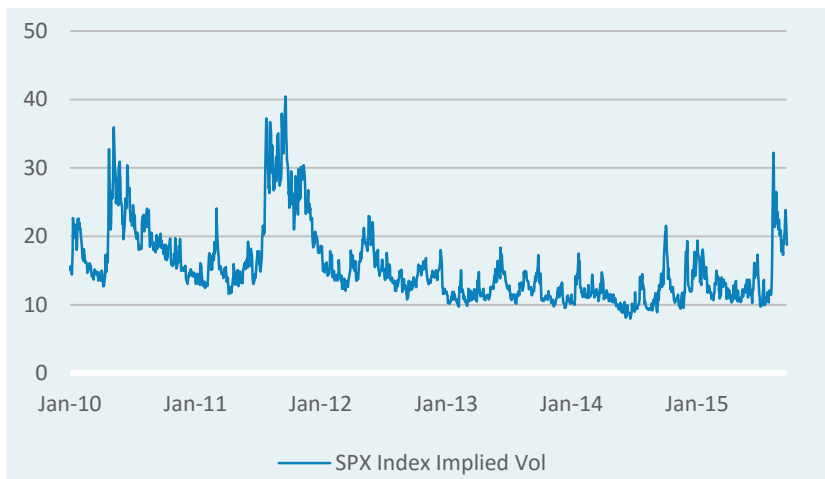
These strategies are driven by dispersion of fundamentals, operating margins and general M&A activity in addition to volatility in the market.

Companies that have levered the balance sheet (at the expense of bold holders) or which have pursued accretive acquisitions have been rewarded with higher stock prices by growth oriented investors.

Anecdotally, most short positions have been a drag on performance; more recently they have offset some of the damage done by abrupt market sell-offs but not enough to overcome losses on net long positions.

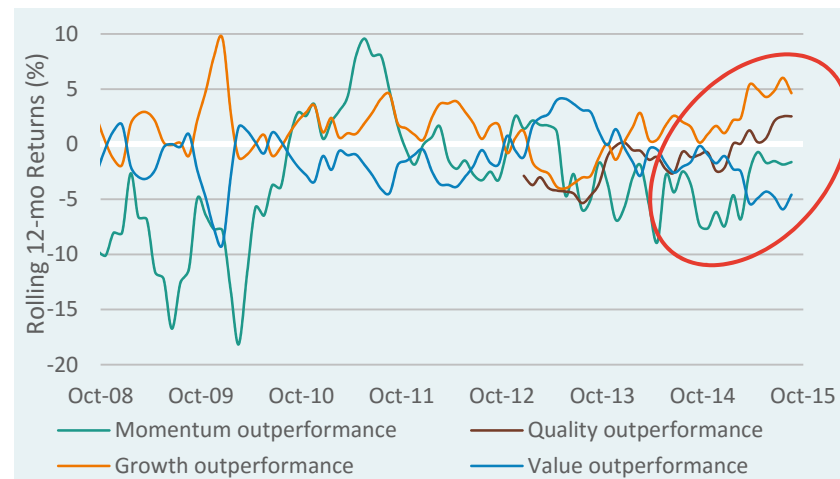
Many managers state they expect increased market volatility will be helpful to their cause because it will push their short “poor outlook” companies down more than their “quality company” holdings.

S&P 500 IMPLIED VOLATILITY APPEARS TO BE MOVING UP



Source: Bloomberg, as of 9/30/15

MSCI FACTOR PERFORMANCE VALIDATES GROWTH BIAS



Source: MSCI, as of 8/31/15. MSCI USA factor indices minus MSCI USA Index.

CTA and global macro

Shared consensus in both positions and outlook raises concerns

Systematic CTAs seek trends they can exploit across sovereign rates, equities and commodities, while discretionary macro managers attempt to position portfolios to benefit from anticipated market direction. Approximately 2,800 firms classify themselves as systematic or discretionary macro representing a third of all hedge fund assets.

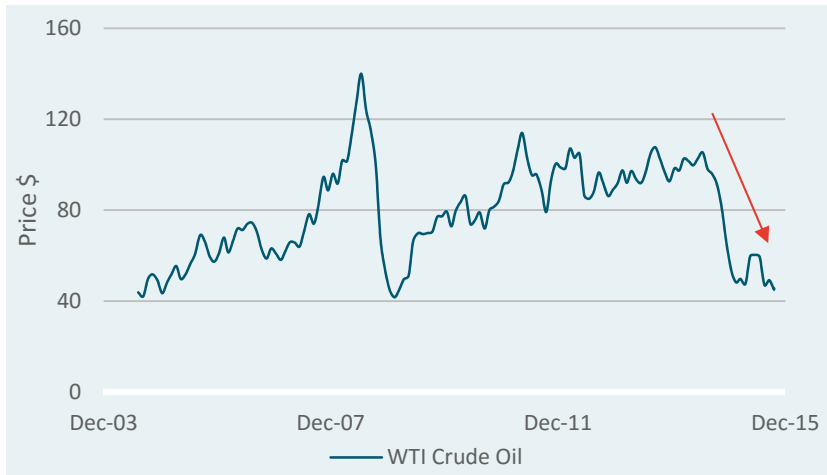
These strategies are driven by central bank policies, currency volatility and strong directional trends.

Positions in long dollar, short commodities and short emerging markets have worked well for the past year, but positions on interest rates have been far less consistent.

Abrupt reversals and short trends have been fairly common over recent quarters; anticipation of central bank divergence is a broadly held consensus view and this is problematic since a “rush to exit” could exacerbate global asset volatility.

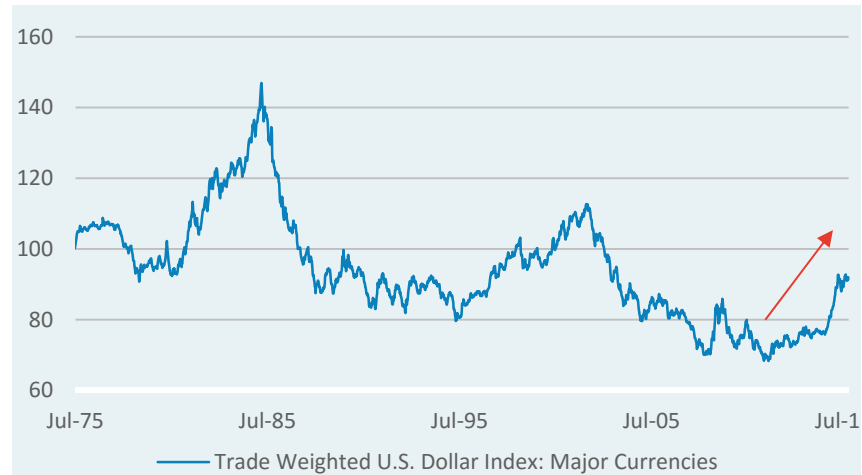
Some managers expect a sanguine, slow growth outlook while a few others are aggressively bearish on longer-term prospects for low commodity prices, low global growth and low inflation in a world with a slower-growing China no longer a tailwind.

SLIPPERY SLOPE FOR THE FRONT MONTH FUTURES CONTRACT



Source: Bloomberg, as of 10/2/15

US DOLLAR INDEX STRENGTH – WILL IT CONTINUE OR PLATEAU?



Source: FRED, as of 9/25/15

Relative value

Minding the gaps and earning the spread offers non-directional returns

Relative value strategies span a broad spectrum of securities (rates, credit, structured) and often employ significant leverage to magnify small differences in pricing. These mostly quantitative strategies remain neutral to market volatility and direction. Approximately 1,500 funds represent 17% of hedge fund assets.

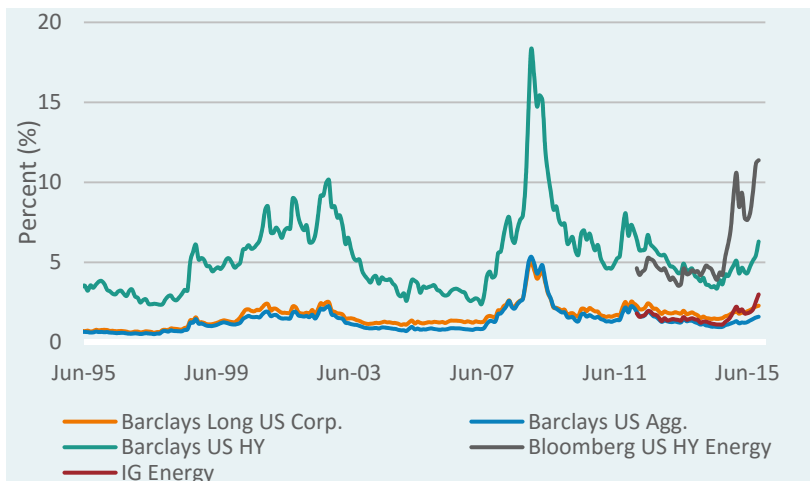
These strategies are driven by frequency and size of sovereign issuance and corporate M&A activity as well as credit tightness, pace of mortgage repayments and ability to margin trades.

Cash vs. futures rates trades, legacy structured securities and low quality vs. high quality trades worked quite well recently.

Auction rate strategies, trading in recently structured asset-backed products and their hedges as well as capital structure arbitrage related to energy, metals or mining have not worked for managers throughout 2015.

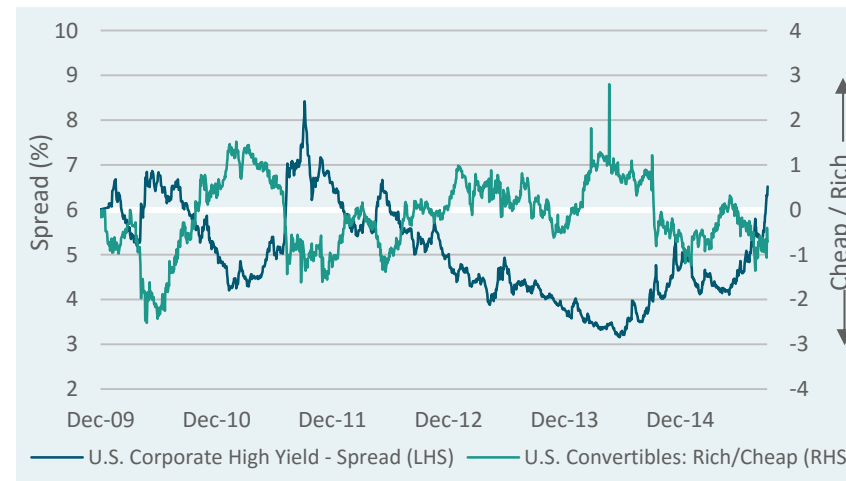
Recent quality spreads and convertible bond strategies appear more profitable now; as volatility increases, the opportunity set available to fixed income RV strategies could improve.

CREDIT SPREADS DIFFERENTIATING BY QUALITY AND SECTOR



Source: Barclays Capital Indices, Bloomberg, as of 8/31/15

CONVERTIBLE BOND VALUATIONS REMAIN "CHEAP"



Source: Barclays, as of 9/30/15

Summary

Forward-looking views across styles

We recognize the broad, categorical statements and role definitions below do not capture the diversity of managers' approaches. While no two managers within a given strategy are the same, we believe this framework is useful for setting investors' expectations for performance and portfolio diversification given the likely market environment impacting their exposures.

Strategy	Strategy Role in Portfolio	Current Opportunity Set	Intermediate Outlook
Multi-Strategy / Alternative Beta	Diversifier	<ul style="list-style-type: none"> — QE unwind should lead to increased influence of fundamentals, increased price dispersion within and across markets (sectors, countries), and differentiation among factor returns. 	Favorable
Event Driven	Return Enhancing	<ul style="list-style-type: none"> — M&A volume remains robust, but credit market volatility may dampen confidence. — Stressed commodity producers and emerging markets may indicate a coming distress cycle. 	Neutral
Long/Short Equity	Lower Volatility Higher Sharpe	<ul style="list-style-type: none"> — Fundamental earnings growth should overcome blind multiple expansion characterized by the recent beta-driven market which favored longer-biased strategies. — Relatively high valuations evokes potential alpha for managers with short stock-picking skill. 	Favorable
CTA / Macro	Risk Reducing	<ul style="list-style-type: none"> — “Unconventional” monetary policy will take some time to unwind; this suggests a slowly diminishing headwind to macro strategies, but many participants share the same views. — Divergent policy responses to differing macro challenges (wind down of QE, Japanese & ECB reflation theme, slowing growth in China) creates opportunities for discretionary strategies. 	Neutral
Relative Value	Diversifier	<ul style="list-style-type: none"> — Fed-provided liquidity dampened volatility for short-term interest rates and tightened spreads across all assets which has been a headwind to relative value strategies trying to capture divergence in fair value amongst various sovereigns, agencies, and credits. — The decoupling of policy cycles across developed markets should lead to increasing market volatility and provide an array of relative value and flow-driven opportunities. 	Favorable

Notices & disclosures

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III. Risk parity education

What is risk parity?

A long-only portfolio seeking to generate returns through persistent exposure to Global Equity, Global Fixed Income, and Global Inflation-Protected Assets

- Global Equities for upside participation in periods of strong growth
- Global Fixed Income for downside protection in periods of weaker growth
- Commodities and Global Inflation-Linked Bonds to preserve real rates of return in inflationary periods

Seeks balanced exposure for consistent performance across market environments

Source: PanAgora Asset Management, Inc.

Portfolio construction

The Traditional Approach to portfolio construction

- Accepts the volatility level of the asset classes available in the marketplace
- Constructs a portfolio with those asset classes

Each asset class contributes a different level of risk to the portfolio

The Risk Parity Approach to portfolio construction

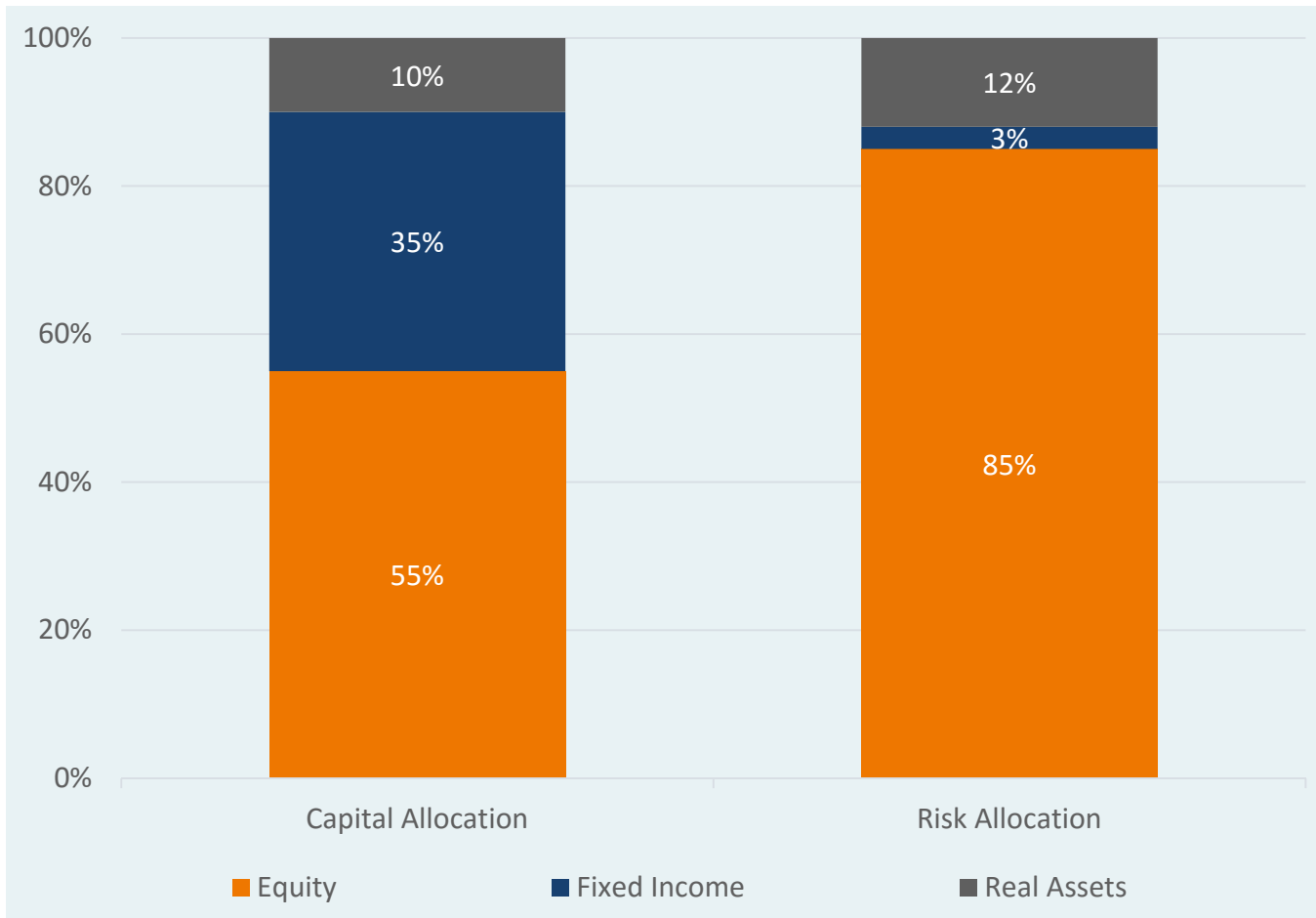
- Uses leverage to adjust the volatility of each asset class to the same level
- Weights the asset class exposures so that each asset class contributes an equal amount of expected volatility to the portfolio

Each asset class contributes the same level of risk to the portfolio

Risk Parity is about how you choose to buy betas in your portfolio. It is not primarily an alpha-based strategy.

Traditional portfolio

CAPITAL AND RISK ALLOCATION

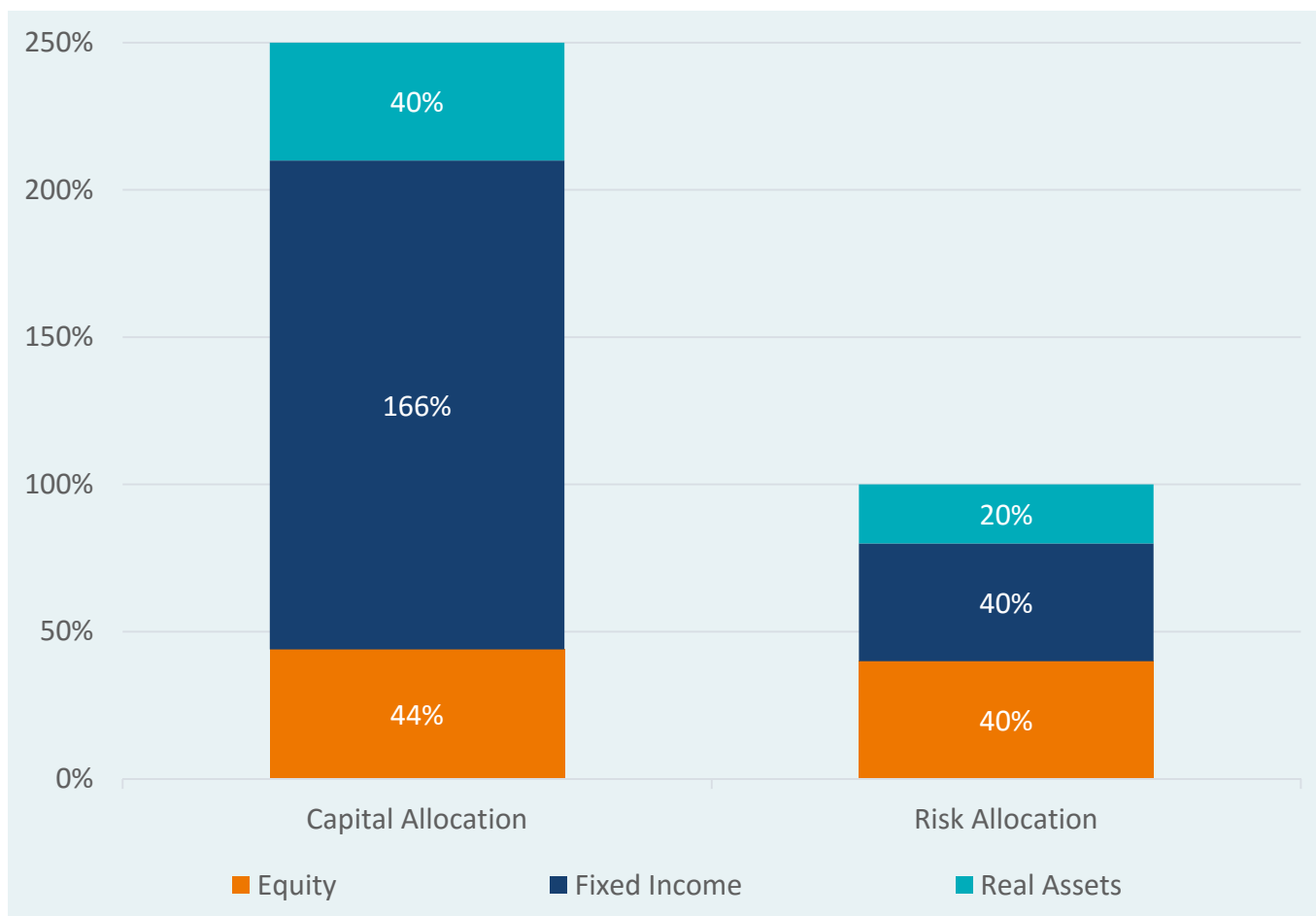


The Traditional Approach may result in the Plan closely tracking the outcome of the equity market.

Source: PanAgora Asset Management, Inc.

Risk parity portfolio

CAPITAL AND RISK ALLOCATION



The Risk Parity Approach, through the use of leverage, weights assets so that all investments influence the portfolio similarly.

Source: PanAgora Asset Management, Inc.

Leverage in portfolios

Just like Risk Parity, most investments contain leverage

- Public and Private Equity, Real Estate, Infrastructure, and Hedge Funds
 - Leverage is embedded throughout the portfolio but often encapsulated
- Securitization (or in the case of Risk Parity – commingled fund) allows it to be non-recourse leverage

In Risk Parity, leverage is generally obtained through the use of derivatives.

Risks of leverage can be controlled with good risk management

- Levering a diversified portfolio of liquid assets
- Active rebalancing to target constant and balanced market risk
- Maintaining high levels of unencumbered cash
- Utilizing instrument leverage through exchange-traded and centrally cleared futures (not borrowed leverage)

Adding risk parity to client portfolios

As we add Risk Parity, we improve outcomes

- A benchmark portfolio had incremental amounts of Risk Parity added
- Other asset allocations were simply reduced proportionally
- Sharpe ratios increased through the addition of Risk Parity
- 50th percentile return increased with the addition of Risk Parity
- The poorest outcomes were mitigated with Risk Parity

	Typical Peer	+5% RP	+10% RP	+20% RP
Volatility	10.0	9.9	9.8	9.5
Sharpe Ratio	0.43	0.45	0.46	0.48
Median (50 th percentile) Forecasted Return	5.99	6.06	6.13	6.26
1 Year (1 st Percentile) Drawdown	-23.29	-22.56	-21.90	-20.62

As of December 31, 2015

Note: Typical Peer is based on BNY Mellon Universe data of DB Plans >\$2 Billion and is composed of 45% Global Equity, 35% Core Fixed Income, 5% Private Equity, 5% Real Estate, 5% Hedge Funds, and 5% Commodities

Risk parity overview

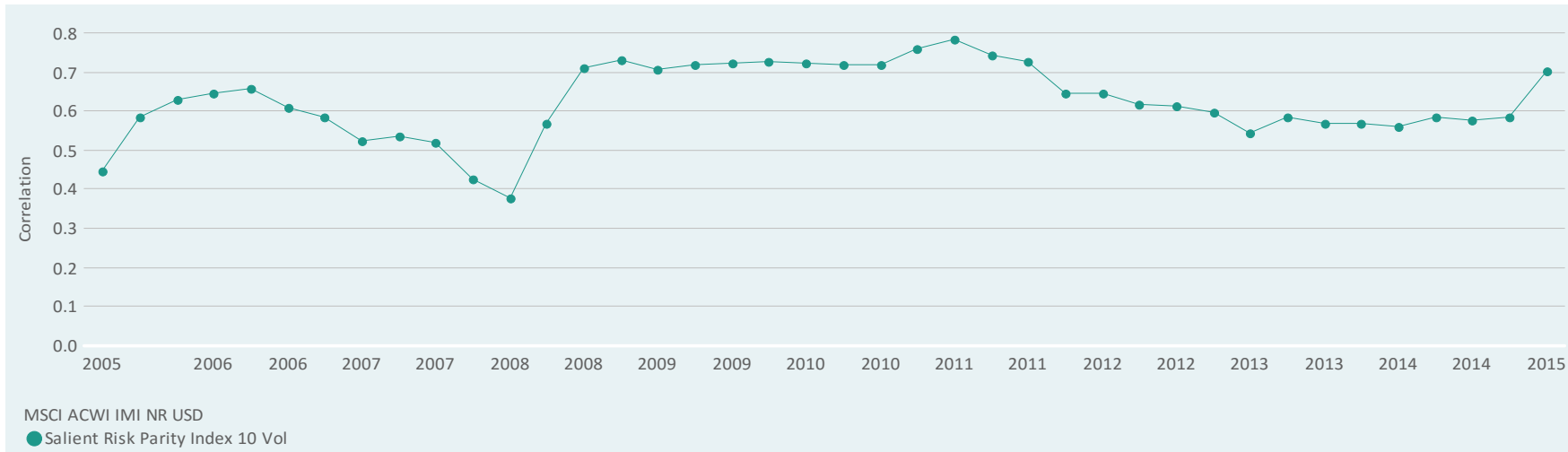
ANNUAL PERFORMANCE



12 MO. EXCESS PERFORMANCE VS. GLOBAL EQUITIES



3 YR. ROLLING CORR. W/ GLOBAL EQUITIES



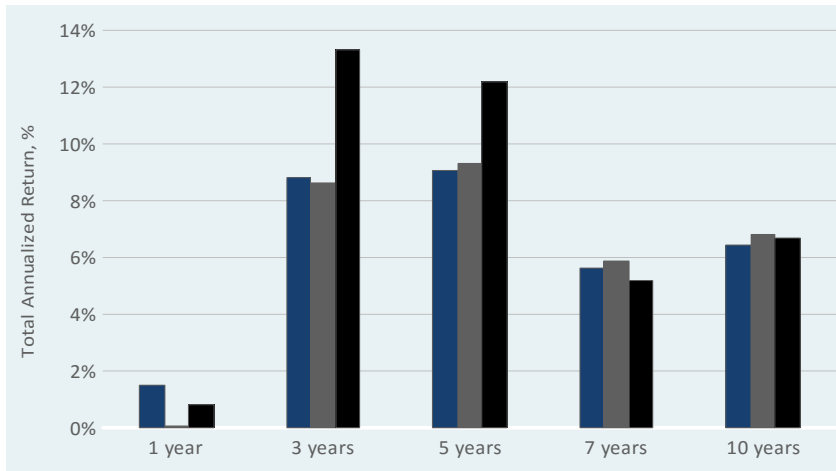
As of December 31, 2015

Benchmark: Salient Risk Parity Index 10 vol

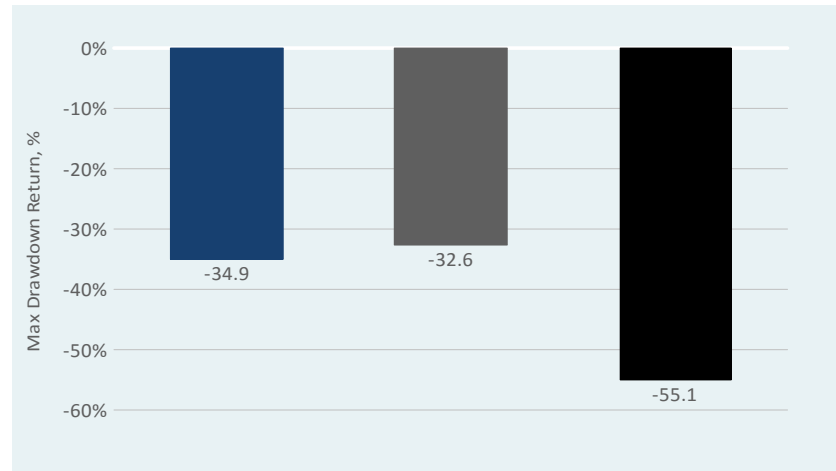
Adding risk parity to a 60/40 portfolio

● 60-40 Global Equity - US Bond ● 48-32-20 Gl Eq-US Bond-RP10 + MSCI ACWI IMI NR USD

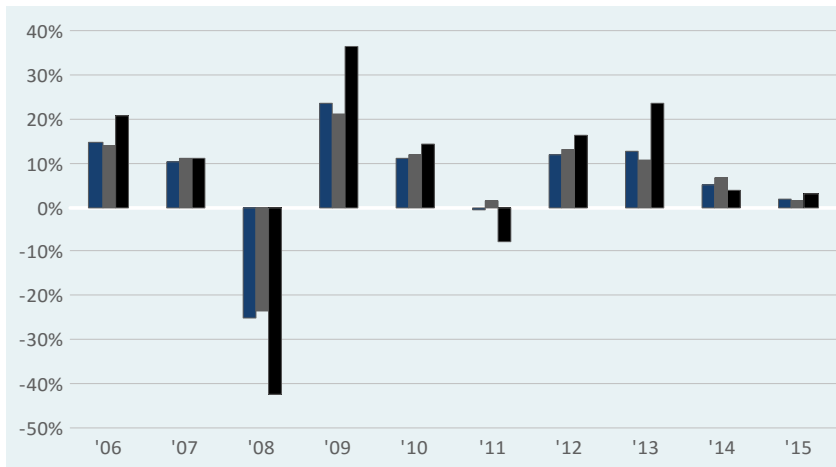
PERFORMANCE TO DATE



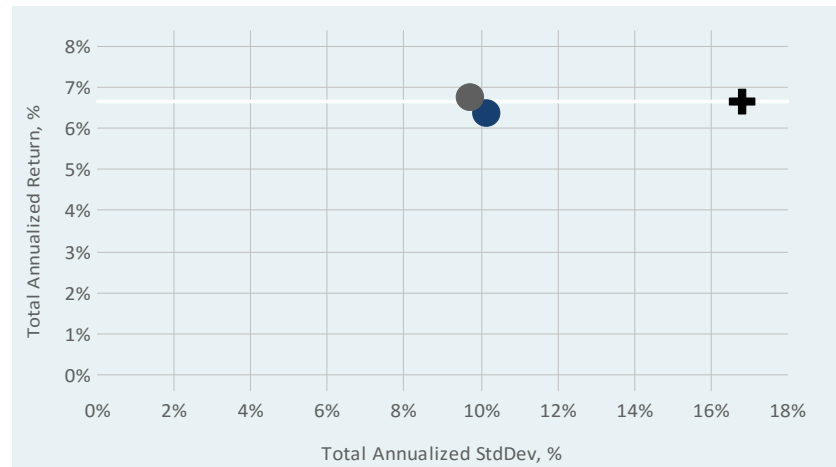
MAX DRAWDOWN, JUL-05 TO JUN-15



CALENDAR YEAR PERFORMANCE



RISK VS. RETURN, JUL-05 TO JUN-15



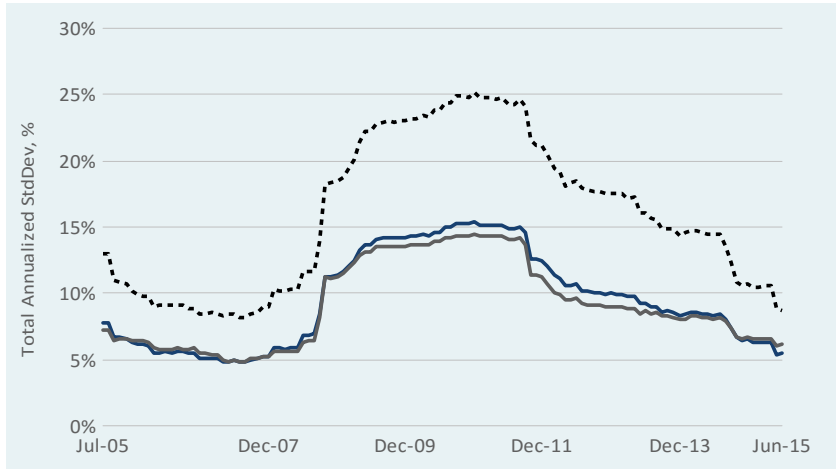
As of December 31, 2015

Benchmark: Salient Risk Parity Index 10 vol

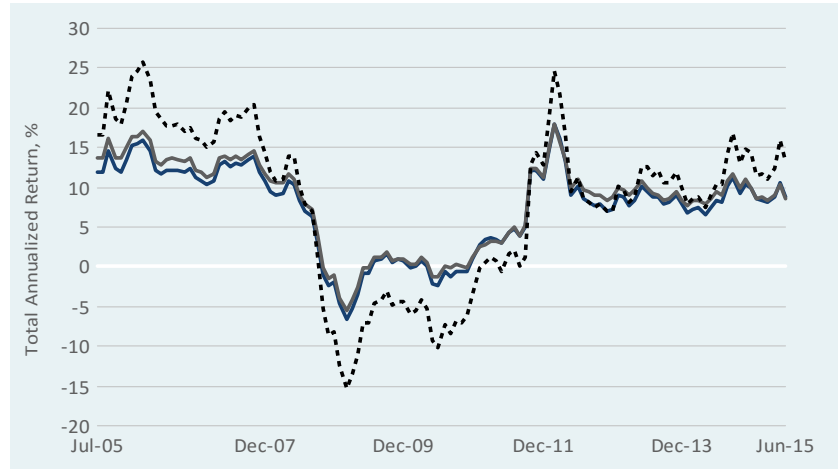
Adding risk parity to a 60/40 portfolio

● 60-40 Global Equity - US Bond ● 48-32-20 Gl Eq-US Bond-RP10 + MSCI ACWI IMI NR USD

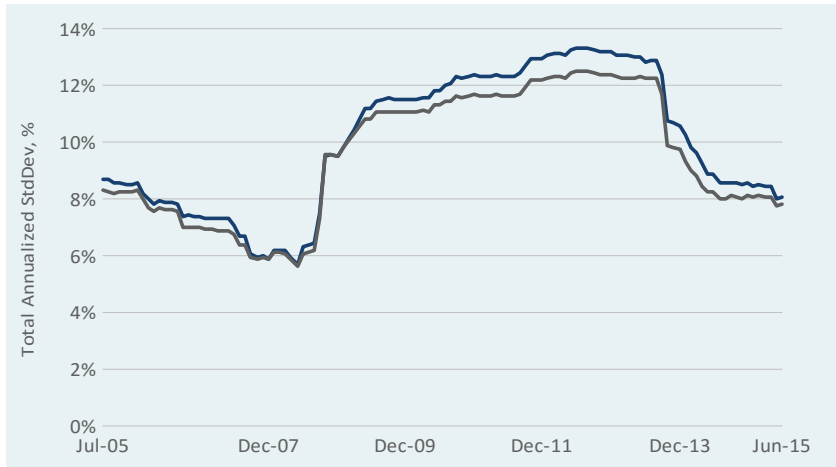
36 MONTH ROLLING RISK



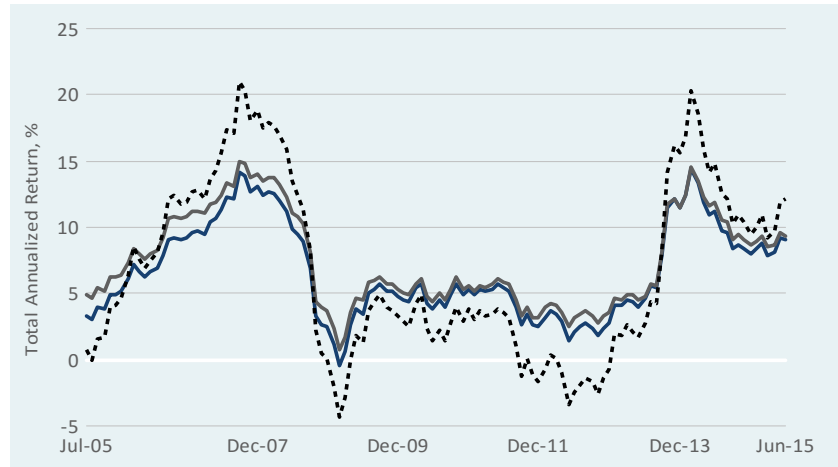
36 MONTH ROLLING PERFORMANCE



60 MONTH ROLLING RISK



60 MONTH ROLLING PERFORMANCE



As of December 31, 2015

Benchmark: Salient Risk Parity Index 10 vol

Implementation

Implementation milestones

- Establish overlay and transition management providers
- Establish liquidity strategy
- Transition assets among public equity and fixed income strategies to begin migrating current portfolio to target asset allocation
- Conduct education & searches for new mandates
- Identify “holding” strategies suitable for achieving risk/return characteristics until capital is called into illiquid strategies

Approach to private markets

Approach to private markets

- Incremental increases and changes to private market allocations requires a revisit to the approach previously implemented
- The introduction of private credit is in itself a new asset class
- A variety of solutions exist; determining which model is best suited to fulfill these mandates needs to be evaluated separately

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**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



Meeting Date
04/27/16
Agenda Item
#7

APRIL 27, 2016

Governance Discussion Guide

Contra Costa County Employees' Retirement Association

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Session objectives

- Advance discussion on delegation of decision making authority and controls for staff in the following areas:
 - Rebalancing
 - Managing managers
- Obtain sufficient direction from Board to be able to develop policy language

Progress report

Establish risk tolerance



Develop investment philosophy



Select investment strategy



Select strategic asset allocation



Define governance structure

In progress

Develop investment policy

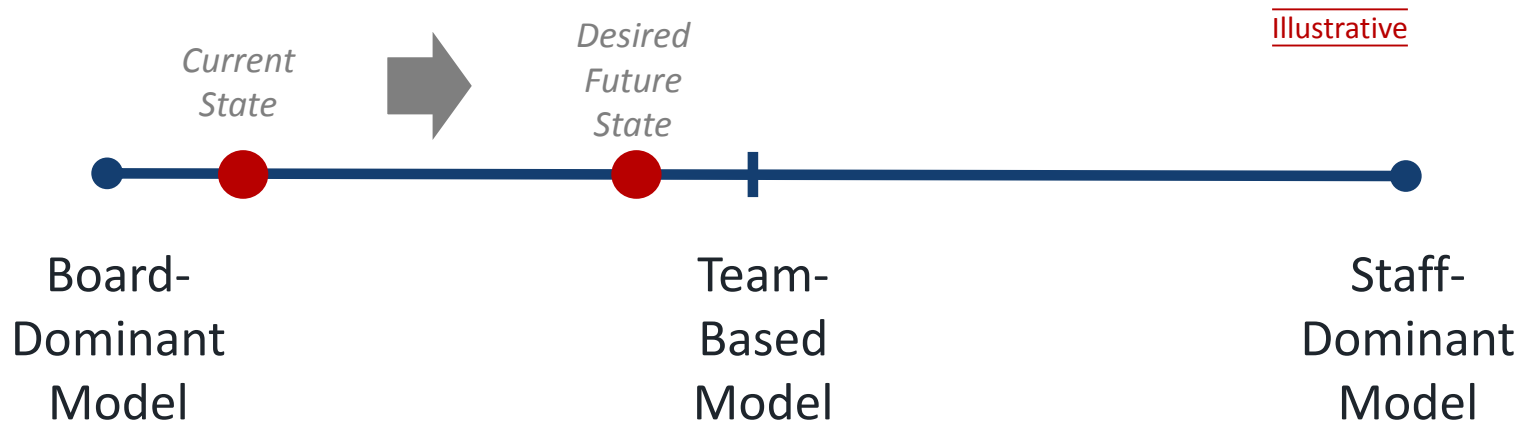
In progress

Implement

In progress

Recap of current status

When we met in February, the Board selected a preferred governance model, with broad consensus for additional movement toward a team-based model...



...and asked us to come back with additional input on the delegation of decision making authority for staff and provide context for how it will fit into the Investment Policy Statement.

Investment policy development principles

- Starting with “blank sheet of paper” (rather than editing current policy)
- Simplicity / less is more (supported by well-documented procedures manual in some cases)
- Recognition that the IPS is a road map that Trustees and staff will use to guide decision-making
- Intended to be a living document that will change to meet the needs of the Trust over time; it will live beyond the tenure of current Board and staff, but should also provide stability across time and personnel changes through a well-constructed and logical framework
- **In all cases, any delegation of authority included in the Investment Policy will not be implemented until workflow, compliance, and reporting procedures are clearly defined, reviewed, and approved**

IPS Topics

Current Structure

- I. Introduction
- II. Authority
- III. Asset Categories
- IV. Investment Objectives
- V. Custodian Bank and County Treasurer
- VI. Investment Manager Selection
- VII. Investment Manager Monitoring
- VIII. Authority of Investment Managers
- IX. Investment Guidelines
- X. Separately Held Real Estate
- XI. Securities Litigation

Potential Structure

1. Purpose
2. Authority
3. Investment Philosophy
4. Investment Objectives
5. Constraints
- 6. Governance**
7. Investment Strategy
8. Asset Allocation
9. Risk Management
10. Portfolio Monitoring
11. Reference to other Policy and Operational Documents (e.g., Securities Litigation, Proxy Voting)

Benefits of Delegation

- Authority and responsibility reside with fully-dedicated, expert resources
- More time for Board to spend on addressing critical policy and process issues
- Higher level of decision-maker accountability
- Staff flexibility within clearly defined constraints provides opportunity for additional value capture
- Board remains well informed due to continuation of relevant, detailed reporting and discussion

Delegation discussion: Rebalancing

Current Policy

- Plan cash flow used to rebalance
- Primarily time-based, reviewed least semi-annually (Jul and Jan)
- Rebalancing may also occur “at any other time deemed appropriate” at Board or Staff discretion
- Board allows staff to rebalance without Board approval

Potential Adjustment

- Recognition that rebalancing may occur to: 1) maintain policy targets or 2) effect tactical tilts
 - Maintain policy targets
 - Plan cash flow used to rebalance
 - Primarily range-based with narrow ranges, reviewed at least monthly
 - Rebalancing may occur at any time
 - Board notification after policy rebalancing
 - Effect tactical tilts
 - Authority limited by Board-established ranges
 - Board notification with business case prior to execution
 - Opportunity for negative consent (i.e., veto)

Delegation discussion: Manager Hires

Current Policy

- Defines process for identifying, evaluating, and selecting candidates
 - Any board member, the CIO, or the Investment Consultant may raise an investment idea for consideration
 - Upon approval, standard search process ensues
 - Detailed manager profile
 - Quiet period
 - Consultant conducts initial screening (Board and Staff may submit candidates for consideration)
 - Consultant presents search and recommended finalists
 - Board approves finalist list and may direct on-site due diligence
 - Investment Manager Agreement is subject to final due final due diligence (including an on-site visit) following Board approval
 - A non-standard process may be followed, e.g, unique opportunity with few suitable candidates, follow-on investments
 - Staff and Investment Consultant evaluate merits of investment and identify competitive managers
 - Board approves, subject to additional due diligence, documentation and legal review

Delegation discussion: Manager Hires

Potential Update

— Hiring New Managers

- Staff given authority to hire new managers up to pre-defined limit (e.g., \$100 million)
- Detailed report to the Board **prior to** execution of investment manager agreement provides opportunity for negative consent
- Board members may participate in on-site due diligence visits
- Assignments > \$100 million will follow the “standard search process”

— Investing in Follow-on Funds

- Recognition that due diligence requirements are not as high as for original investment
- Staff given authority to make additional investments necessary to maintain originally intended exposure (as estimated by detailed funding analysis)
- Detailed report to the Board prior to document execution provides opportunity for negative consent (i.e., veto)

Delegation discussion: Manager Termination

Current Policy

— Managers under review

- Board decides if a manager “should be under review”
- Staff to notify manager
- Quarterly re-evaluation for managers under review to:
 - Decide the manager is no longer under review
 - Keep the manager under review
 - Terminate

— Emergency situations (e.g., accusation of fraud by regulatory agency)

- Staff immediately notifies Chair and Vice Chair
- Staff notifies custodian to stop trading
- Emergency Board meeting called to determine long-term solution

Delegation discussion: Manager Termination

Potential Update

- Normal circumstances
 - Staff has the authority to terminate a manager
 - Detailed report to the Board **prior to** termination provides opportunity for negative consent
- Emergency situations
 - Chair notified immediately
 - Staff given authority to terminate and find suitable short-term alternative
 - Staff presents long-term remediation plan to Board as soon as practical, thereby providing opportunity for negative consent (i.e., veto)

Next Steps

- Incorporate Board feedback into Investment Policy Statement
- Develop detailed workflow, compliance, and reporting procedures
- Review with legal and compliance
- Present draft to Board for approval

Memorandum

To: Consultants and Clients of Verus
From: Manager Research Group
Date: April 20, 2016
RE: Angelo, Gordon & Co.: Larry Schloss Departure

<u>Meeting Date</u> 04/27/16 <u>Agenda Item</u> #8

Summary

On March 18th, Angelo, Gordon & Co. (“Angelo Gordon”) announced that Larry Schloss, the President of Angelo Gordon has left the firm. Larry was at Angelo Gordon for two years, did not have investment responsibilities, and was primarily engaged in the marketing, strategic planning and general oversight of the firm. He was not listed as a Key Man and his departure has no immediate impact on the funds in which Verus clients have exposure. Michael Gordon, co-founder, CEO and CIO will continue to lead the firm.

In addition to Larry’s departure, in the last year, Angelo Gordon has had nine senior investment professional departures, six were voluntary and three were involuntary. Of these nine departed professionals, two were Portfolio Managers. Angelo Gordon has hired 31 investment professionals over this same time period. Of these 31 new employees, 10 are either managing directors or directors. Six of these ten senior hires are part of the Middle Market Direct Lending team in Chicago. The balance were additions to four areas: Energy (Houston), RMBS (NY), Real Estate (Frankfurt), and Distressed Debt (NY). The firm currently has 148 investment professionals, of which 76 are either directors or managing directors.

The number and seniority of departures that have occurred in last year, while some involuntary, are unusual relative to Angelo Gordon’s history. We are encouraged by quality of talent that has been acquired in the last year and are comfortable with the current heads of the respective business units in which Verus clients have exposure. However, we will continue to monitor firm activity to assess whether these recent departures are indicative of a larger trend.

PIMCO California Public Plan Roundtable

Meeting Date
04/27/16
Agenda Item
#9a.

Agenda

- | | |
|---------------------------|--|
| 10:30 – 11:45 a.m. | Visit to Research Affiliates <i>(Optional)</i> |
| 12:00 – 1:00 p.m. | Lunch |
| 1:00 – 1:15 p.m. | Welcome
Michael Chandra, <i>Executive Vice President, Account Manager</i>
Stephanie King, <i>Executive Vice President, Account Manager</i> |
| 1:15 - 1:45 p.m. | Asset Allocation
Analysis of Three Approaches
Ashish Tiwari, <i>Executive Vice President, Product Manager, Solutions</i> |
| 1:45 – 2:40 p.m. | Discussion
Opening remarks by
Timothy Price, <i>Chief Investment Officer,</i>
Contra Costa County Employees' Retirement Association
Steve Sexauer, <i>Chief Investment Officer,</i>
San Diego County Employees' Retirement Association |
| 2:40 – 3:10 p.m. | Trade Floor Tour & Introduction to PIMCO's Investment Committee
Scott A. Mather, <i>Chief Investment Officer, Managing Director</i> |
| 3:10 – 3:20 p.m. | Break |
| 3:20 – 4:10 p.m. | Private Credit: Filling the Gap Left by the Banks
Daniel J. Ivascyn, <i>Group Chief Investment Officer, Managing Director</i>
Sai S. Devabhaktuni, <i>Executive Vice President, Portfolio Manager</i>
Neal J. Reiner, <i>Executive Vice President, Product Manager</i> |
| 4:10 – 4:40 p.m. | Discussion
Opening remarks by
Peter Tirp, <i>Chief Investment Officer,</i>
Kern County Employees' Retirement Association |
| 5pm | Reception to follow
The Deck
627 Sleepy Hollow Lane,
Laguna Beach, CA 92651 |

Monday, May 9, 2016

10:30 am – 5:00 pm PT

commonfund

Meeting Date
04/27/16
Agenda Item
#9b..

COMMONFUND'S CIO, MARK ANSON, ON:

A Road Map for Growing Your Institution's Investment Assets

RSVP to attend

Join us on Monday,
May 16th for an informal
discussion with other
long-term investors.

Will Attend

Won't Attend

Join Us

Market stress, policy prescriptions; volatility in the global markets have institutional investors asking if further weakness in oil, widening credit spreads, and general contagion in other sectors are on the horizon.

- ? Should asset allocations be reexamined?
- ? What tactical opportunities are developing?
- ? What are the areas of highest risk going forward?

Please join **Mark Anson, Commonfund's new Chief Investment Officer**, former CIO of CALPERS and the Bass Family Office, and a select group of investment leaders for breakfast on **Monday, May 16th, from 8:00 am to 9:30 am**, at Loews Regency San Francisco (The California Room), 222 Sansome Street, San Francisco, CA. **rsvp now**

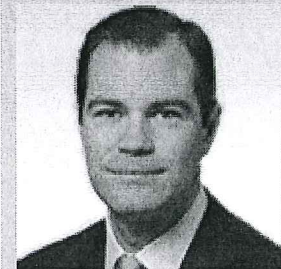
Going beyond the headlines and highlighting best practice strategies for portfolio positioning, Mark Anson will lead a discussion around current market conditions and potentially attractive opportunities for institutional investors. **read Mark's full bio**

If you would like for us to invite an additional member of your investment committee or staff to the breakfast, please contact Toni Boucher at (203) 563-5171 or toni.boucher@commonfund.org.

Your Hosts



Mark Anson
Chief Investment
Officer, Commonfund



Steve Lanzo
Managing Director,
Commonfund

Date & Time

Institutional Investors Roundtable Breakfast
Monday, May 16th | 8:00 am to 9:30 am
save this event to your calendar

Location

Loews Regency San Francisco
(The California Room)
222 Sansome Street
San Francisco, CA 94104
get directions

RSVP by Monday, May 9th
rsvp now

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Commonfund | 15 Old Danbury Road Wilton, CT 06897 | Tel: 888 TCF FUND

Adams Street Partners
2016 Client Conference
Four Seasons Hotel
120 East Delaware Place
June 1 – 2, 2016

ADAMS STREET
PARTNERS

Meeting Date
04/27/16
Agenda Item
#9c.

CHICAGO AGENDA

Wednesday, June 1

Additional Sessions: Four Seasons Hotel

- 2:30 pm to 3:30 pm ■ Private Credit Market Overview
- 3:30 pm to 5:00 pm ■ Secondary Investor Forum
- Direct Fund Advisory Board Meeting

Welcome Reception/Dinner

- 6:00 pm to 9:00 pm Swift & Sons
 1000 W Fulton Market

Thursday, June 2

Registration and Breakfast

- 7:30 am Four Seasons Hotel (Ballroom)

Opening Remarks

- 8:00 Scott Hazen

Adams Street Partners Overview

- 8:15 Jeff Diehl

Venture Capital Market Update

- 8:45 ■ Kelly Meldrum
 ■ Danny Rimer, Index Ventures

Break

9:45

Small / Mid Market Buyout Investing

- 10:00 ■ Jim Korczak
 ■ Jesse Rogers, Managing Director, Altamont Capital Partners

Private Credit

- 11:00 Bill Sacher and Shahab Rashid

Lunch

11:45 am

Global Buyout Market Update

- 1:00 ■ Saguna Malhotra
 ■ Kevin Callaghan, Managing Director, Berkshire Partners

Secondary Market Update

- 1:45 Jeff Akers and Pinal Nicum

Closing Remarks

- 2:30 Bon French

Reception

2:45

You are invited to the following event:

EQUILIBRIUM'S FIFTH ANNUAL FORUM

Event to be held at the following
time, date, and location:

Thursday, June 16, 2016 from
7:30 AM to 4:30 PM (PDT)

**The Presidio: Golden Gate
Club**

135 Fisher Loop
San Francisco, CA 94129

[View Map](#)

[Attend Event](#)

Meeting Date
04/27/16
Agenda Item
#9d.

Sustainability – The New Investing Standard

Equilibrium's Fifth Annual Forum will continue our exploration of economic implications and investable strategies at the intersection of sustainability and real assets. The 2016 agenda will build on insights around accelerating trends since Equilibrium's Forum '15 ([Highlight video of Forum '15](#)), in particular on Sustainability becoming both an essential element and objective in portfolios.

Our invited guests comprising senior officers of institutional investors, their advisors, and experts from industries and leading schools, will hear from guest speakers and panelists and will be asked to share their own thoughts and explore ideas together.

This year's agenda* will include:

- Welcome and opening remarks, including the view from and of Equilibrium
- Taking stock of the volatile and challenging market and economy, including the perspective of leading institutions
- Exploring Sustainability as an essential component of good investing and the Climate Change risk framework
- Taking a fresh look at opportunities in: Food and Agriculture, Renewable Energy, Real Estate, and Water and Wastewater
- Getting an update on developments in China and implications for the rest of us
- Assessing how innovation in investing is effectively done and can present opportunities

Guests will be invited to join us after the day's sessions for a reception beginning at 4:30pm and, for those interested, to explore the San Francisco food cart scene taking place the same evening at the Presidio.

****Subject to change***

Speakers at 2016 Forum:

- Mark Edlen – Managing Partner of Gerding Edlen
- Hal Harvey – CEO of Energy Innovation
- Janine Guillot – Director of Capital Markets Policy and Outreach at SASB (and Equilibrium's Director)
- Lionel Johnson – Chief Executive Officer of Pacific Pension Institute
- Verena Kempe – Director of Private Equity at Feri Trust (Germany)
- Martin Nagell – Head of Asset Management of Masdar Energy (UAE)
- Bruce Sherrick – the Marjorie & Jerry Fruin Professor of Farmland Economics, and Director of the TIAA-CREF Center for Farmland Research in the Department of Agricultural and Consumer Economics at the University of Illinois
- Paul Tregidgo – Vice Chairman Debt Capital Markets of Credit Suisse

Other speakers will be announced in the coming weeks.

We expect the final agenda to result in a very interesting and informative day that will provide attendees with engaging discussion as well as new thoughts that could help shape their ideas around risks and opportunities. Very importantly, we expect all our guests to learn about how Sustainability is becoming an essential element of productive, long-term investing in the coming years.

Hotel Suggestions:

- Monte Cristo Inn, 2.1 miles from The Presidio (\$195-\$335)
- Hotel Majestic, 3.4 miles from The Presidio (\$180-\$280)
- Best Western Plus Americana, 4.8 miles from The Presidio (\$235-\$315)
- Hotel Sausalito, 4.5 miles from the Presidio (\$225-\$315)

Friendly note: The Laurel Inn and Hotel Kabuki are two additional close options, please note that both will be under renovation.

For those who arrive on Wednesday, June 15, 2016, we invite you to join us for cocktails at 6:15pm at the Presidio's Golden Gate Club.

We look forward to seeing you in June!

Equilibrium



DBL INVESTORS

DOUBLE BOTTOM LINE VENTURE CAPITAL

Bay Area Equity Fund I LP DBL Equity Fund – BAEF II LP 2016 Annual Meeting

Meeting Date
04/27/16
Agenda Item
#9e.

Agenda

Thursday, June 16, 2016

5:30 PM – Cocktails
6:00 - 8:00 PM – Dinner
General's Residence
Fort Mason
1 Franklin Street
San Francisco CA 94123

Friday, June 17, 2016

JPMorgan Conference Center
560 Mission Street- 20th Floor
San Francisco
Dial in: 1-866-398-9973 (931773#)

10-10:30 AM Fund I Update

10:30 AM-11:15 AM Fund II Update

11: 15AM-11:45 AM Labcyte, Brad Nelson, Sr. Director, Corp Dev & Strategy – Fund I

11:50 PM-12:20 PM Revolution Foods, Kristin Richmond, CEO – Fund I

12:25 PM-1:00 PM Break/Fund I Advisory Board Meeting/Lunch served

1:05 PM-1:45 PM SolarCity – Lyndon Rive, CEO – Fund I & II

1:50 PM-2:30 PM Farmer Business Network, Amol Deshpande, CEO – Fund II

2:35 PM-3:00 PM Kateeva, Alain Harrus, CEO – Fund II

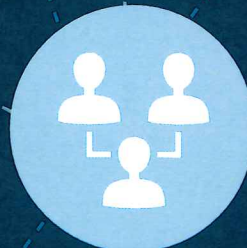
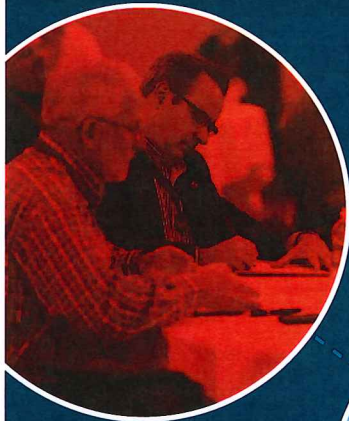
3:05 PM-3:15 PM Concluding remarks, Adjourn, Fund II Advisory Board Meeting

2016 Trustees and Administrators Institutes

*New Trustees Institute | Advanced Trustees and Administrators Institute
Accounting and Auditing Institute for Employee Benefit Plans*

June 27-29, 2016 | MGM Grand Las Vegas | Las Vegas, Nevada
Preconference: June 26, 2016

Meeting Date
04/27/16
Agenda Item
#9f.



www.ifebp.org/trusteesadministrators
www.ifebp.org/accountants

International Foundation
OF EMPLOYEE BENEFIT PLANS 
Education | Research | Leadership

Mission: Education



The International Foundation of Employee Benefit Plans recently updated our mission statement to reflect our passion and dedication to serving as your top source for employee benefits education and information.

International Foundation Mission

The International Foundation of Employee Benefit Plans is the premier educational organization dedicated to providing the diverse employee benefits community with objective, solution-oriented education, research and information to ensure the health and financial security of plan beneficiaries worldwide.

Your Kind of Learning

Reputation

The International Foundation has earned the respect of the benefits community by providing superior education for over 60 years. You can count on relevant, in-depth information to be delivered when you need it.

Content From the Source

Our content is developed and delivered by industry leaders. Learn from those who work in the field and relate to the challenges you face.

Timely Information

We live and breathe employee benefits. We are prepared with resources so you can react quickly to changing laws, regulations and best practices.

Education From Anywhere

The International Foundation offers different delivery formats so you can choose the educational methods that work best for you. From print to web to face-to-face programs, our educational materials and presentations are designed to be professional and engaging.

Vendor-Free

We provide multiple perspectives on the issues at hand, allowing you to make decisions based on balanced facts. You won't find sales presentations disguised as education.

Contents

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Advanced Trustees and Administrators Institute	Pages 7-13	Registration Form.....	Page 19
Accounting and Auditing Institute for Employee Benefit Plans	Pages 14-15		

Preconference Workshop

SUNDAY, JUNE 26, 2016

8:00 a.m.-1:00 p.m.

Raising the Bar on Your Benefits Communication

Trustees and administrators are often called upon to communicate with a variety of audiences from plan participants and vendors to contributing employers and retirees. Whether you are fulfilling a legal obligation, managing and working with your vendors or fund staff, sharing plan information, or negotiating change, it is critical that you are strategic in your approach to communications.

This workshop is designed to help you “raise the bar” on your benefits communications skills as you learn:

- Some fundamentals that lower barriers to communicating
- Key interpersonal skills that enhance your own ability to communicate.

It will also show you how to:

- Identify and determine your objectives (both personal and fund-related)
- Understand the dynamics of your audiences
- Develop the key messages you need to communicate
- Select the appropriate media to communicate health care.

Once we have covered these key areas, we will explore the keys to:

- Communicating about health care and retirement security
- Designing an effective communications strategy/program.



Tupper Hillard
Vice President, Senior Communications Consultant
The Segal Company
Tempe, Arizona

Mr. Hillard is vice president and senior communications consultant for the Segal Company. He focuses his practice on the design and implementation of communications strategies and initiatives for multiemployer and public sector clients. He is an expert in the effective execution of all aspects of employee and management communications surrounding compensation, employee benefits and strategic planning to meet business goals and objectives. Mr. Hillard is a graduate of West Point. He also has a master of science degree in systems management from the University of Southern California and a master of arts degree in English literature from the University of North Carolina at Chapel Hill. Mr. Hillard is a certified Bridges Transition (M&A) specialist.

2016 Trustees and Administrators Institutes

Nearly a thousand trustees, administrators and plan professionals gather each year to attend one of the Institutes. The consistent attendance over the years speaks to the importance of the issues facing the benefits world and the quality education provided by the International Foundation. Don't miss this time-honored educational event. Developed by active trustees, administrators and professional advisors, each session is designed to address the issues you face today and prepare you for what lies ahead. In these challenging times, you can count on the International Foundation to deliver timely, relevant and balanced education on the trends, issues and future direction of the industry. Register today!

Who Should Attend

- The **New Trustees Institute** is designed for trustees who have served for less than two years or who have not previously attended an International Foundation educational program. The curriculum will focus on your role as a trustee, an understanding of the key issues in managing your pension and health and welfare funds, and the complexities of trust fund management and administration.
- The **Advanced Trustees and Administrators Institute** is designed for experienced trustees (those who have attended the New Trustees Institute and have served as trustees for more than three years) and administrators (salaried and contract) of all experience levels. Sessions will focus on the current and emerging issues in pension, health and welfare plans, regulatory compliance and operations.
- The **Accounting and Auditing Institute for Employee Benefit Plans** is designed for internal and external accountants who serve employee benefit plans. Sessions will appeal to both new and seasoned practitioners who serve single employer and multiemployer plans.

Why You Should Attend

- Learn from industry experts about the current state of affairs and latest reform initiatives—Be prepared for what lies ahead.
- Network with peers who face similar challenges—Learn from their mistakes, benchmark your performance and gather workable ideas and solutions to implement.
- Bring home helpful resource materials to share with colleagues—From sample documents to checklists and case studies, the value of your attendance will continue long after you've left the program.

I learned more about my duties and responsibilities that I thought I needed to know. Valuable information and proper overlap. I needed the training and am glad I had the experience.

David Nix
Heat and Frost Insulators and
Allied Workers Local 5

New Trustees Institute

The **New Trustees Institute** is designed for Taft-Hartley multiemployer plan trustees who have served for less than two years or who have not previously attended an International Foundation educational program. It is also ideal for collective bargaining and other personnel who want a better understanding of their role and responsibilities in working with trustees.

Note: The New Trustees Institute is also offered each year as a preconference to the Annual Employee Benefits Conference. For 2016, the institute will be held November 12-14, 2016 at the Orange County Convention Center in Orlando, Florida.

SUNDAY, JUNE 26, 2016

4:00-6:00 p.m.

Registration/Exhibit Hall Open/Welcome Reception

(Refreshments and light hors d'oeuvres will be served.)

MONDAY, JUNE 27, 2016

6:30 a.m.-4:30 p.m.

Registration Open

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-11:30 a.m.

Trustee Responsibility and Legal Environment **i** **@**

- History of benefits/legislation
- Governing documents
- Fiduciary responsibilities under ERISA
- Relationship of trustees and parties to the
- Conducting effective trustee meetings

Robert M. Projansky, Partner, Proskauer Rose LLP, New York, New York

Peter M. Rosene, Esq., Shareholder, Leonard, O'Brien, Spencer, Gale & Sayre, Ltd., Minneapolis, Minnesota

11:30 a.m.-12:30 p.m.

Lunch/Exhibit Hall Open

12:30-4:30 p.m.

Overview of Health and Welfare Plans **i** **@**

- Overview of health and welfare programs
- Plan funding
- Plan design
- Administration and financing metrics
- Communication needs and requirements
- Data collection and analysis
- Cost-control initiatives
- Health care reform, legal/legislative developments

William J. Einhorn, Trustee, Pennsylvania Employee Benefits Trust Fund, Harrisburg, Pennsylvania, Consulting Administrator, Pennsauken, New Jersey

Dee Shaw, Senior Consultant, Horizon Actuarial Services, LLC, Los Angeles, California

4:30-5:00 p.m.

Networking Reception/Exhibit Hall Open

(Refreshments and light hors d'oeuvres will be served.)

Continuing Education Credit—Submit one yellow CE form

i Insurance CE **@** Attorney CLE | *Note: CE for other professions can be administered based on submission of yellow forms.*

New Trustees Institute

TUESDAY, JUNE 28, 2016

6:30 a.m.-4:30 p.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-11:30 a.m.

Overview of Retirement Plans ① ②

- Purpose and objectives
- Defined benefit pension plans
- Actuarial concepts
- Administration
- Managing the money
- Defined contribution and hybrid plans
- Accounting changes
- Market performance
- Legal and legislative developments
- The future of retirement

Kelly S. Coffing, Principal and Consulting Actuary, Milliman Inc., Seattle, Washington

R. Scott Gregory, President, R. Scott Gregory, Inc., Annapolis, Maryland

11:30 a.m.-12:30 p.m.

Lunch/Exhibit Hall Open

12:30-4:30 p.m.

Investing Health and Welfare and Pension Assets ②

- Investing process
- Investment terminology
- Risk and return
- Investment objectives and policy
- Asset classes
- Asset allocation
- Market performance
- Selecting managers and monitoring performance

Sandy Lincoln, Investment Strategist, Lake Forest, Illinois

WEDNESDAY, JUNE 29, 2016

6:30-11:30 a.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast

7:30-11:30 a.m.

Governance ① ②

- Financial statements
- Internal controls
- Administration
- Documents, records and meeting minutes
- Working with plan professionals
- Defining a good trustee and how to become one
- Communication
- Best practices

Lawrence R. Beebe, Partner, Bond Beebe, Accountants and Advisors, Bethesda, Maryland

David Evangelista, CPA, Principal, MSPC Certified Public Accountants and Advisors, PC, Cranford, New Jersey/New York, New York

Corey J. Wirth, CEBS, Executive Director, IBEW-NECA Service Center, Inc., St. Louis, Missouri

Continuing Education Credit—Submit one yellow CE form

① Insurance CE | ② Attorney CLE | Note: CE for other professions can be administered based on submission of yellow forms.

Advanced Trustees and Administrators Institute

The **Advanced Trustees and Administrators Institute** is designed for experienced multiemployer trustees (those who have attended the New Trustees Institute and have served as trustees for more than three years) and administrators (salaried and contract) of all experience levels. This year, all sessions will be open to both advanced trustees and administrators.

SUNDAY, JUNE 26, 2016

4:00-6:00 p.m.

Registration/Exhibit Hall Open/Welcome Reception

(Refreshments and light hors d'oeuvres will be served.)

MONDAY, JUNE 27, 2016

6:30 a.m.-4:30 p.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-8:45 a.m.

Opening Session: Economic Outlook*  

As trustees of pension and health and welfare funds, you base many of your decisions on the economy. This session will give you an overview of investment markets, labor statistics and other key economic indicators so you can effectively manage your funds and plan for the future. This is especially important in a presidential election year when economic measures are sure to be in the press with regularity.

Edward J. Sullivan, Chief Economist and Group Vice President,
Portland Cement Association, Skokie, Illinois

* *Joint Session with Accountants*

Hotel Information

June 27-29, 2016

MGM Grand Hotel | Las Vegas, Nevada

MGM Grand truly lives up to its name, not only in sheer size but also in its vast offerings.

Located at one of the busiest intersections in Las Vegas, it provides a world of entertainment, dining and unwinding—both day and night. Recently, the resort completed a \$160 million remodel to upgrade all of its rooms and suites and has added a brand-new nightclub and several new restaurants. Shopping is plentiful along The District and in The Underground, two neighborhoodlike areas at the resort.

The International Foundation has secured a reduced room rate of \$182 single/double on Friday/Saturday and \$119 single/double Sunday-Thursday for Institute attendees. You must book your room through the Foundation by specifying your hotel needs on your registration form.



Advanced Trustees and Administrators Institute

MONDAY, JUNE 27, 2016

9:00-10:15 a.m.

Concurrent Sessions

Pension Legislative Update* ① ②

The Pension Protection Act and, more recently, the Multiemployer Pension Reform Act have altered the defined benefit landscape. Strategies for “Green Zone” plans are far different than those for deeply troubled plans. This session will look at the pension legislative and regulatory environment to help you understand your options and obligations. Topics include:

- Recent laws and regulations
- Your zone status and your options
- Communication.

Melissa Conklin Kolle, EA, FCA, MAAA, Associate Director of Member Relations and Compliance, The Cultural Institutions Retirement System (CIRS), New York, New York

Larry Magarik, Esq., Independent Fiduciary and Benefits Attorney, New York, New York

ACA Compliance* ① ②

Trustees, administrators and contributing employers must all deal with the complexity of the Affordable Care Act. This session will focus on:

- Dealing with part-time, seasonal and freelance employees
- Active and retiree options
- Creative ancillary and supplemental benefits
- Flexible plan designs
- Cadillac tax
- Penalties—When and how to absorb
- Administrative burden and calculations.

Daniel R. Brice, Esq., Partner, Blitman & King LLP, Syracuse, New York

William A. Sokol, Esq., Partner, Weinberg, Roger & Rosenfeld, Oakland, California

10:30-11:45 a.m.

Concurrent Sessions

Key Pension Decisions Part 1:

Making Realistic Plan Assumptions ① ②

Assumptions really do matter and have implications for your fund. This session will focus on the key considerations when setting your assumptions and how assumption rates impact your unfunded liabilities. Topics include:

- Why do assumptions matter?
- What assumptions should be made?
- Who is responsible for making assumptions?
- Questions the DOL may ask
- How to make your assumptions realistic.

Victor P. Harte, Principal and Consulting Actuary, Milliman Inc., Woodland Park, New Jersey

Michael A. Ledbetter, J.D., CEBS, Attorney/Partner, Ledbetter Parisi, LLC, Dayton, Ohio

Bill O'Donnell, M.B.A., CHP, Managing Senior Consultant, Alan Biller and Associates, Boston, Massachusetts

Roundtable Discussion: ACA Issues ① ②

This session will help you understand your options for dealing with ACA issues and give you the opportunity to hear how other funds are strategizing and dealing with health care challenges.

Daniel R. Brice, Esq.; William A. Sokol, Esq.

* Joint Session with Accountants

Continuing Education Credit—Submit one yellow CE form

① Insurance CE | ② Attorney CLE | Note: CE for other professions can be administered based on submission of yellow forms.

Advanced Trustees and Administrators Institute

MONDAY, JUNE 27, 2016

10:30-11:45 a.m.

Concurrent Sessions (Cont.)

Reporting Requirements for Administrators ①

With a myriad of reporting requirements from SSA to 1094 and 1095, administrators are working diligently to stay compliant and meet deadlines. This session will focus on best practices, timing, electronic submissions, and what to do if you didn't meet the requirements. Join your peers for an interactive discussion and take away actionable plans to stay ahead of the curve.

Paula D. Allphin, Administrator, Stoner & Associates, Cincinnati, Ohio

Melissa L. Wetzel, CEBS, Fund Administrator, Toledo Electrical Welfare Fund, Local 8 IBEW/NECA Benefits Office, Toledo, Ohio

11:45 a.m.-1:15 p.m.

Lunch/Exhibit Hall Open

1:15-2:30 p.m.

Concurrent Sessions

Key Pension Decisions Part 2: Advanced Investment Strategies ①

In the postrecession era, asset allocation continues to be a key factor in maximizing return and mitigating risk. This session will look at asset allocation models and consider risk/reward, time frame, performance and funding policy.

Victor P. Harte; *Michael A. Ledbetter, J.D.*, CEBS; *Bill O'Donnell, M.B.A.*, CHP

Alternatives to Traditional Medical Insurance and Plan Designs ①

Whether you are in a rural area with limited provider access or a large metropolitan area with many options, plan sponsors are continuing to explore alternatives for access and cost. This session will focus on innovative approaches including:

- Clinics
- Closed networks
- Self-insured indexed fee-based plans
- Patient-centered medical homes/
accountable care organizations
- Coalitions, co-ops and private exchanges.

Peter J. Kaehler, CLU, REBC, RHU, President, Labor Health Consulting, Woodbury, Minnesota

Aruna Vohra, Senior Consultant, Horizon Actuarial Services, LLC, Miami, Florida

Staffing Issues and Training

Recruiting, training and retaining quality employees are essential components in the administration of benefit plans. This session will deal with the host of issues related to both your front-line and back-of-house employees including:

- Finding the right employees
- Turnover
- Succession planning
- Dealing with staff cuts
- Training and development.

Moirra J. Kelly, President, Kelly Consulting LLC, New Berlin, Wisconsin

Alan R. Parham, Joint Benefit Funds Coordinator, Laborers' District Council of the Metropolitan Area of Philadelphia and Vicinity, Philadelphia, Pennsylvania

Continuing Education Credit—Submit one yellow CE form

① Insurance CE | ① Attorney CLE | Note: CE for other professions can be administered based on submission of yellow forms.

Advanced Trustees and Administrators Institute

MONDAY, JUNE 27, 2016

2:45-4:00 p.m.

Concurrent Sessions

Changing Longevity and Its Impact on Benefits

Increasing longevity has many implications for society. This session will discuss the risk that comes with increased longevity, new mortality tables, implications for benefits and what can be done to mitigate the challenges.

Mary Ann T. Dunleavy, ASA, EA, MAAA, Consulting Actuary, Horizon Actuarial Services, Silver Spring, Maryland

Andrew J. Peterson, EA, FCA, FSA, MAAA, Senior Staff Fellow for Retirement, Society of Actuaries (SOA), Schaumburg, Illinois

Administrators Open Forum

This session will be devoted to addressing administrative challenges and opportunities. Join your peers to share ideas, discuss problems and develop solutions. Topics may include staffing challenges, reporting, communication, strategic planning, excepted benefits and other current issues.

James E. Schreiber, ASM, President, TIC International Corporation, Lansing, Michigan

Melissa L. Wetzel, CEBS

4:00-5:00 p.m.

Networking Reception/Exhibit Hall Open

(Refreshments and light hors d'oeuvres will be served.)

TUESDAY, JUNE 28, 2016

6:30 a.m.-4:30 p.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-8:45 a.m.

Legal and Legislative Update

This session will review recent legal decisions that impact employee benefits. Previous topics have included challenges to ACA, breach of fiduciary duty and subrogation. Find out the issues of today and how key legal rulings impact your plans.

Neal S. Schelberg, Partner, Proskauer Rose LLP, New York, New York

9:00-10:15 a.m.

DOL Audits: Real-Life Stories and Lessons Learned*


Be prepared when the auditor comes knocking. This session will feature real-life stories of DOL audits. Learn policies and procedures you should have in place, how to prepare for an audit and best practices to survive an audit.

David P. Dorsey, CPA, Managing Partner, Bond Beebe, Accountants and Advisors, Bethesda, Maryland

Geoffrey Piller, Managing Partner, Beeson, Tayer & Bodine, PC, San Francisco, California

* *Joint Session with Accountants*

Continuing Education Credit—Submit one yellow CE form

 Insurance CE

 Attorney CLE

| *Note: CE for other professions can be administered based on submission of yellow forms.*

Advanced Trustees and Administrators Institute

TUESDAY, JUNE 28, 2016

10:30-11:45 a.m.

Concurrent Sessions

Specialty Drugs

The rise in specialty drugs has contributed to a significant increase in costs to plans. Understand the world of specialty drugs as this session covers:

- What's happening on the specialty drug scene
- How to deal with costs
- Plan design options.

Susan Hayes, AHFI, CPhT, Principal, Pharmacy Outcomes Specialists, Lake Zurich, Illinois

Administrative Technology

Administrators rely on technology to assist in communication, fund office efficiency and reporting and disclosure. This session will survey administrative tools including:

- Website
- Social media
- New ideas
- Best practices.

Anton Ames, IT Management Consultant, Anton Ames Group, Omaha, Nebraska

Hard-to-Value Assets*

There are certain assets that are hard to value. This session will focus on the process to value assets in this class, including what types of assets are hard to value, due diligence and fiduciary implications.

Paul O. Catenacci, Partner, Novara Tesija, P.L.L.C., Southfield, Michigan

James M. Heinzman, CFE, CPA, Partner, Schultheis & Panettieri, LLP, Hauppauge, New York

David A. Russell, CFA, Senior Portfolio Strategist, Senior Consultant, Investment Performance Services, LLC, Newtown, Pennsylvania

11:45 a.m.-1:15 p.m.

Lunch/Exhibit Hall Open

1:15-2:30 p.m.

Concurrent Sessions

Key Pension Decisions Part 3: Advanced Investment Strategies: Focus on Your Investment Team

This session will focus on maximizing your relationships and resources in managing your investments. Topics include:

- Effective use of investment committees
- Role of the investment consultant
- Hiring/transitioning to a new investment manager
- Women and minority managers.

Victor P. Harte; Michael A. Ledbetter, J.D., CEBS; Bill O'Donnell, M.B.A., CHP

* *Joint Session with Accountants*

*I have been to several of these programs, and they
always provide information I can't easily get elsewhere.
The information is current and not outdated.*

Patrick Pine

Robert F. Kennedy Farmworkers Medical Plan
Juan De La Cruz Farmworkers Pension Plan

Advanced Trustees and Administrators Institute

TUESDAY, JUNE 28, 2016

1:15-2:30 p.m.

Concurrent Sessions (Cont.)

Dealing With Retiree Health

Many plan sponsors have changed their approach to retirees in recent years. From taking a defined contribution approach to setting up a voluntary employees' beneficiary association, there are many options for retirees. This session will focus on plan options for retirees including:

- Retiree premiums
- Contributions
- Prefunding, seeding and health reimbursement arrangements
- Communications.

Kathryn L. Bakich, Senior Vice President, National Health Compliance Practice Leader, The Segal Company, Washington, D.C.

DOL Conflict of Interest Rule

The final regulations on the conflict of interest rule are anticipated in 2016. The proposed regulations focus on payments, fees and investment advice. This session will help you understand the intent and practical implications of the regulations as well as the DOL's intent relating to enforcement of consumer protections. Take away an understanding of how this rule change will impact your plan, service providers and participants.

Dennis R. Johnson, Managing Member, Johnson & Krol, LLC, Chicago, Illinois

2:45-4:00 p.m.

Concurrent Sessions

Data Breaches, Hacking and Privacy*

Securing systems and data has garnered regular attention in the media of late as many high-profile organizations have been breached. This session will focus on:

- Your fiduciary responsibility
- Due diligence
- Liability and insurance
- Best practices
- Dealing with vendor and business partners
- Communicating with participants.

Ben Scaff, Vice President, Comprehensive Consulting Solutions, Columbia, Maryland

Communicating in a Rapidly Changing Environment

Everyone suffers from information overload. How do you engage your fatigued participants in this rapidly changing world? This session will focus on:

- Key messages
- Knowing your audience
- Use of technology
- Best practices that change behavior.

Cliff Price, President, MultiEmployer.com, Inc., Berkeley, California

WEDNESDAY, JUNE 29, 2016

6:30-11:45 a.m.


Registration/Information


6:30-7:30 a.m.

Continental Breakfast

* *Joint Session with Accountants*

Continuing Education Credit—Submit one yellow CE form

 Insurance CE

 Attorney CLE

| Note: CE for other professions can be administered based on submission of yellow forms.

Advanced Trustees and Administrators Institute

WEDNESDAY, JUNE 29, 2016

7:30-8:45 a.m.

Concurrent Sessions

Succession Planning for Your Administrator

This session will focus on succession planning for your administrator, including:

- Process and timing
- Third-party administrator vs. salaried
- Search vs. homegrown
- Skills and training
- Cost
- Smooth transitions.

William J. Einhorn, Trustee, Pennsylvania Employee Benefits Trust Fund,
Harrisburg, Pennsylvania, Consulting Administrator, Pennsauken, New Jersey

Case Studies: Retirement Security ①

This session will feature examples of retirement programs that are working and will include research and results, return on investment and how such programs are implemented, monitored and communicated.

Annette Grabow, CEBS, Retirement Program Manager, Sonepar USA, Charleston, South Carolina

Linda K. Stone, WISER Fellow, Bryn Mawr, Pennsylvania

9:00-10:15 a.m.

Concurrent Sessions

Training the Next Generation of Trustees

This session will explore best practices for recruiting and training the next generation of trustees. Topics include:

- Mentoring programs
- Succession planning
- Recruitment
- Education policy
- Training.

Donald D. Crosatto, Senior Area Director, Machinists Automotive Trades District 190,
Local Lodge 1546, Oakland, California

Martha M. Henrickson, CEBS, Director, Craft Workforce, Mortenson Construction,
Minneapolis, Minnesota

Ryk Tierney, CEBS, Director, IAM National Pension Fund; IAM National 401(k) Fund, Washington, D.C.

Case Studies: Wellness Programs That Work ①

This session will feature examples of wellness programs that are working and will include research and results, return on investment and how such programs are implemented, monitored and communicated.

Brett Powell, CWPC, Wellness Consultant, Vice President, American Institute for Preventive
Medicine, Farmington Hills, Michigan

10:30-11:45 a.m.

Closing Session: Trustees and Administrators Working Together

This session will feature a panel of trustees and administrators discussing:

- Trustees' expectations of administrators
- Administrators' expectations of trustees
- Common areas of concern
- Best practices to promote communication and productivity.

Christopher E. Brecht, GBA, RPA, Chief Executive Officer, Carday Associates, Columbia, Maryland

Nicholas G. Comstock, Business Manager (Retired), International Brotherhood of Electrical
Workers (IBEW) Local 82, Dayton, Ohio

Maira J. Kelly

Stephen J. O'Sick, Fund Administrator, Bricklayers and Allied Craftworkers Local #2, New York
Joint Benefits Funds, Albany, New York

Cherie Pleasant, Chief Executive Officer, Associated General Contractors (AGC) of Metropolitan
Washington, D.C., Washington, D.C.

Accounting and Auditing Institute for Employee Benefit Plans

Held in conjunction with the Trustees and Administrators Institutes

There has been much attention in the accounting profession on audit quality following an assessment by the Department of Labor in 2015. Education is an essential component of achieving quality. Plan now to attend the 2016 Accounting and Auditing Institute for Employee Benefit Plans. This program is designed for focused learning in your practice area.

As accountants and auditors who work with benefit plans, you know the importance of staying up to date on the latest reporting and disclosure requirements and keeping informed of the changing benefits industry. Take advantage of this opportunity to earn continuing professional education (CPE) credit while networking with peers as well as trustees and administrators who are attending the accompanying programs.

Who Should Attend

The Accounting and Auditing Institute for Employee Benefit Plans is designed for internal and external accountants who serve employee benefit plans. Sessions will appeal to both new and seasoned practitioners who serve single employer and multiemployer plans.

Special Registration Discounts

Pair Up With a Colleague—Bring individuals from your firm or fund who have NOT previously attended the Institute, and they will receive a \$400 discount with your paid registration (at the regular rate). New attendees should enter code 16NEWG1 when registering.

SUNDAY, JUNE 26, 2016

4:00-6:00 p.m.

Registration/Exhibit Hall Open/Welcome Reception

(Refreshments and light hors d'oeuvres will be served.)

MONDAY, JUNE 27, 2016

6:30 a.m.-4:30 p.m.

Registration Open

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-8:45 a.m.

Opening Session: Economic Outlook

9:00-10:15 a.m.

Pension Legislative Update

ACA Compliance

10:30-11:45 a.m.

Financial Statement Disclosures: Presenting to Board of Trustees or Management

11:45 a.m.-1:15 p.m.

Lunch/Exhibit Hall Open

Concurrent Sessions

Concurrent Sessions

Accounting and Auditing Institute for Employee Benefit Plans

MONDAY, JUNE 27, 2016

1:15-2:30 p.m.

Accounting and Auditing Update Part 1

2:45-4:00 p.m.

Accounting and Auditing Update Part 2: Followup Workshop

4:00-5:00 p.m.

Networking Reception/Exhibit Hall Open

(Refreshments and light hors d'oeuvres will be served.)

TUESDAY, JUNE 28, 2016

6:30 a.m.-4:00 p.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-8:45 a.m.

Advanced Issues in Government Reporting and Disclosure

9:00-10:15 a.m.

Hot Topics in DC Plans

DOL Audits: Real-Life Stories and Lessons Learned

10:30-11:45 a.m.

Hard-to-Value Assets

11:45 a.m.-1:15 p.m.

Lunch/Exhibit Hall Open

1:15-2:30 p.m.

Guided Open Forum

2:45-4:00 p.m.

Data Breaches, Hacking and Privacy

Concurrent Sessions

To register for the Accounting and Auditing Institute for Employee Benefit Plans, visit www.ifebp.org/accountants

WEDNESDAY, JUNE 29, 2016

6:30-11:45 a.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast/Exhibit Hall Open

7:30-8:45 a.m.

Welfare Claims Testing

9:00-10:15 a.m.

Auditors and Fund Accountants Working Together

10:30-11:45 a.m.

DOL Update

Exhibit and Sponsorship Opportunities

Build new relationships, grow existing ones and expand your network through exhibits and sponsorships. Exhibits and sponsorships are available for the June Institutes.

Exhibits

The exhibit hall at the Trustees and Administrators Institutes presents a unique and valuable opportunity for exhibitors:

- Reach a concentrated audience of 400-500-plus attendees (projected).
- Over 75% of attendees at Institutes do not traditionally attend the Annual Conference.
- Exhibiting will give you exposure to a new group of attendees.
- Exhibiting companies represent an array of products and services of interest to those who work in the employee benefits industry.

For information, contact Sandra Lange at (262) 373-7657 or sandral@ifebp.org.

Sponsorships

Food and beverage sponsorship opportunities are available for the June Institutes. Maximize your visibility with:

- Your company name and logo on signage and table tent cards
- Complimentary or discounted registrations (depending on the level) with sponsor ribbons affixed to your attendees' name badges
- Your company brochure placed in the Sponsor Resource Area
- Company listing with contact information in the *Directory of Exhibits* and Service Provider Showcase
- Acknowledgment in *Benefits Magazine* and on the International Foundation's website.

For information, contact Diane Mahler at (262) 373-7656 or dianem@ifebp.org.



62nd Annual Employee Benefits Conference

November 13-16, 2016
Orange County Convention Center | Orlando, Florida

For 62 years the International Foundation has been the source for trusted education for benefit plan fiduciaries. The 62nd Annual Employee Benefits Conference offers you the most comprehensive education available on the topics that matter most to you. Make education a priority in 2016 and wrap up the year with the best education available to you and your funds.



**Arrive early to attend these
preconference options to make
the most of your time away.**

AMP November 12-13, 2016 Administrators Masters Program (AMP®)

Attend the Administrators Masters Program (AMP®) to enhance the skills required for employee benefit plan administration—leadership and management, communications and customer service, project management and strategic dialogue.

TMP November 12-13, 2016 Trustees Masters Program (TMP)

The Trustees Masters Program (TMP) is a personalized and unique learning opportunity created specifically for experienced trustees to gain deeper insights into the role of a trustee.

CAPPP November 12-13, 2016 Certificate of Achievement in Public Plan Policy (CAPPP®) Pensions and Health Part I

Obtain a solid knowledge base in the legal, legislative, plan design and fiduciary aspects of public sector benefit plans by attending the CAPPP® program.

TMP November 13, 2016 TMP Advanced Leadership Summit

The TMP Advanced Leadership Summit is an opportunity to delve deeper into relevant topics critical to a fund's overall strategy.

POLICIES

Visit www.ifebp.org/policies for complete registration/cancellation/refund/record retention/photo release and privacy policies. Specific policies as they relate to educational programs are listed below:

- Late fee is charged for registrations submitted within 45 days of a meeting.
- Payment of registration fee (and hotel deposit if applicable) is due in full upon registration.
- Registration with credit card payment may be faxed to (262) 364-1818 or can be submitted online.
- All payments are due prior to attending class or upon check-in at registration.
- Payment accepted in U.S. funds by check, money order or credit card (VISA, MasterCard, Discover and American Express).
- Registration with check payment—Mail U.S. payments to:
International Foundation
P.O. Box 689954, Chicago, IL 60695-9954
- Cancellation/transfer requests must be in writing and are subject to a fee of \$50 per meeting day for cancellations and \$50 per program for transfers.
- Administrative fee for cancellation received within 30 days of a meeting is 50% of the registration fee.
- Cancellations received on or after the opening day of a program are subject to forfeiture of all registration fees.
- Educational transcript request form: www.ifebp.org/aboutus/policies/Pages/recordretention.aspx.

CONTINUING EDUCATION CREDIT

Programs sponsored by the International Foundation of Employee Benefit Plans are consistently accepted for credit by agencies governing continuing education for license renewal and professional recertification. Please note that preapproval by the governing agency is sometimes necessary. It is important therefore to register at least 45 days prior to the program taking place.

Note: Requests made for continuing education credit do not guarantee administration of credit.
For further information on continuing education credit, please call (262) 786-6710, option 2.



Educational sessions at this program can qualify for CEBS continuing professional education (CPE) credit. Visit www.cebscpe.org for additional information.

RELATED READING

Trustee Handbook: A Guide to Labor-Management Employee Benefit Plans

Seventh Edition

Claude L. Kordus, Editor and Contributor

Widely regarded as an indispensable tool for every multiemployer plan trustee and administrator, this comprehensive handbook has been revised and updated to include essential fiduciary information without the legalese. Topics include fiduciary responsibility under ERISA, health care benefits, pension and retirement benefits, accounting and auditing, investment management, plan administration and communication, and much more. The handbook also includes practical tips and checklists, sample materials and short summaries of important legal decisions. (International Foundation)

453 pages. 2012. Item #7068.

\$97 (Members: \$75). Price includes shipping and handling.

www.ifebp.org/books.asp?7068



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#IFTrustAdmin

REGISTRATION/2016**Trustees and Administrators Institutes****CUSTOMER INFORMATION (Please print clearly)**


Priority code 1609W Individual ID# or CEBS® ID# _____
 Full first name _____ M.I. _____ Last name _____
 Employer _____
 Title _____
 Address _____ Business Home
 City _____ State/Province _____ Country _____ ZIP/Postal code _____
 Phone _____ Fax _____
 E-mail _____
 Last 4/3 digits of SSN/SIN _____ Date of birth (mm/dd/yyyy) _____
 See policies regarding registration/cancellation/refund/record retention/photo release and privacy at www.ifebp.org/policies.

NOT A MEMBER? JOIN NOW AND SAVE!

Individual \$325* Organizational \$960* Join now and pay the lower member rate.
 *Membership dues are reduced quarterly. Visit www.ifebp.org/join for current rates.

REGISTRATION INFORMATION

Organization representing _____
 Organization # _____
 Badge name _____ Badge title _____
 Special dietary requirements—specify _____
 Form completed by _____ Phone _____

 Special assistance?
 Yes No

Trustees and Administrators Institutes**June 27-29, 2016 • Las Vegas, Nevada****(#09-1609)**Required—Check (✓) track attending: New trustee Advanced trustee, administrator

	Until May 16	After May 16
Member fee	<input type="checkbox"/> \$1,245	<input type="checkbox"/> \$1,495
Nonmember fee	<input type="checkbox"/> \$1,575	<input type="checkbox"/> \$1,825
Sunday preconference member fee	<input type="checkbox"/> \$ 415	<input type="checkbox"/> \$ 540
Sunday preconference nonmember fee	<input type="checkbox"/> \$ 525	<input type="checkbox"/> \$ 650

Fee includes reception, course materials, continental breakfast and lunch.

2016 CANCEL POLICY: Early cancel fee is \$50/meeting day. Within 30 days of meeting, cancel fee is 50% of registration fee.**HOTEL**Reservation deadline is **May 23, 2016**. (Include \$350 hotel deposit)MGM Grand \$119 Sunday-Thursday/\$182 Friday-Saturday# of Adults _____ # of Children _____ King bed Two beds

Arrival date _____ Departure date _____

Special requests—describe _____

**RELATED READING**

Trustee Handbook: A Guide to Labor-Management Employee Benefit Plans Item #7068 \$97 (Members: \$75)
 (Price includes shipping and handling.) Additional information at www.ifebp.org/bookstore.

CONTINUING EDUCATION CREDIT

\$25 continuing education service charge due at time of registration (if applicable). The International Foundation will apply for CE credit based on requests. You must indicate the profession(s) for which credit is requested.

Actuary **Attorney** **CFP** **CIMA** **CPA**
 Insurance producer* **PHR/SPHR/GPHR** **Other, specify** _____

Licensed in the state(s) of _____ License# _____

*Preapproval of programs/seminars is required in ALL insurance states. This process can take up to 90 days. Late requests could preclude insurance producers from earning credit. **NOTE: Requests made for CE credit on this form do not guarantee administration of credit.**

CEBS CPE \$25 CE fee does not apply. Visit www.cebscpe.org for additional information on reporting CEBS CPE credit hours.

PAYMENT INFORMATION

Full payment in U.S. funds must accompany order.
 Make check payable to International Foundation.

 Check # _____ \$ _____ VISA MasterCard Discover American Express

Credit card # _____

Exp. date _____

Cardholder's name (print) _____

REGISTRATION/ORDER SUMMARY

Membership fee \$ _____

Registration fee \$ _____

Preconference fee \$ _____

Hotel deposit (\$350) \$ _____

Book(s) \$ _____

Continuing education fee (\$25) \$ _____

Total (U.S. funds) \$ _____Register online at www.ifebp.org

Mail the registration form with check or credit card number to:
 International Foundation—Conference,
 P.O. Box 689954, Chicago, IL 60695-9954



Fax your registration with credit card number:
 (262) 364-1818

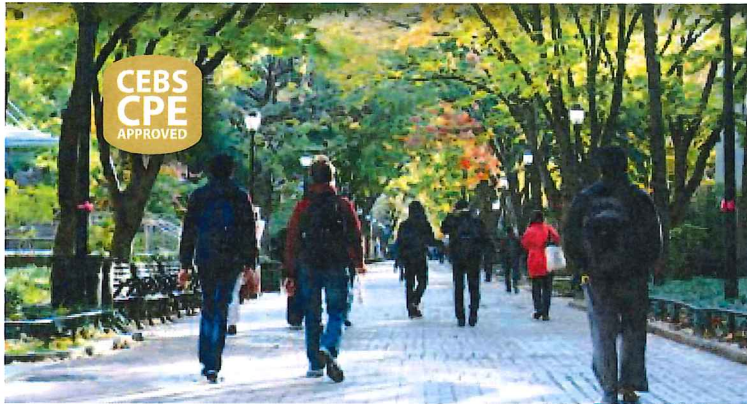


For information, e-mail edreg@ifebp.org, or phone toll-free
 (888) 334-3327, option 2, or (262) 786-6710, option 2.

Investment Programs Through Wharton Executive Education

In partnership with the International Foundation of Employee Benefit Plans

 #IFWHARTON



Meeting Date
04/27/16
Agenda Item
#9g.



Last call to register

Early registration discount ends June 13

2016 Offerings

Portfolio Concepts and Management

May 2-5, 2016 | Philadelphia, Pennsylvania
www.ifebp.org/portfolio

International and Emerging Market Investing

July 25-27, 2016 | San Francisco, California
www.ifebp.org/intlinvesting



The Wharton School Investment Programs 2016



Investment programs offered in conjunction with the Wharton School provide investment management education for those with differing educational needs and levels of experience. These programs can build your skills in portfolio oversight and give you the tools you need to make informed investment decisions.

Who Should Attend

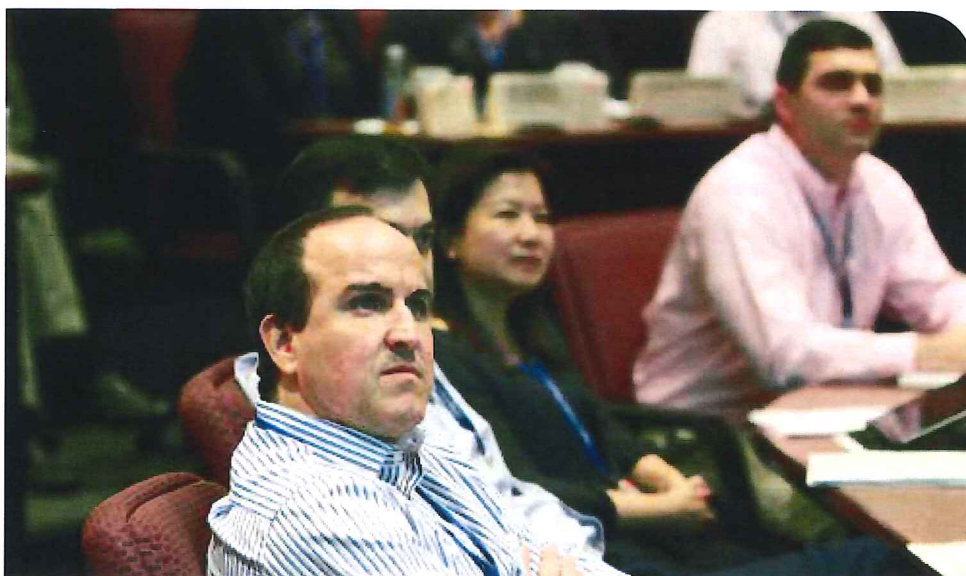
The Wharton investment programs are designed to meet the needs of fiduciaries from both defined benefit and defined contribution plans who represent various industries, sizes and geographic areas (United States and Canada), including:

- Multiemployer and public plan trustees
- Administrators and staff
- Human resources and benefits professionals
- Corporate officers and executives
- Finance personnel
- Investment professionals.

The programs are independent units that may be completed in any sequence. However, we recommend individuals with little investment experience complete the Portfolio Concepts and Management program prior to attending the International and Emerging Market Investing or specialized programs.

Why You Should Attend

Learn the core concepts and tools needed for effective portfolio oversight and continue to refine and heighten your knowledge with advanced and specialized programs—all led by faculty of the prestigious Wharton School.



About the Wharton School Partnership

The International Foundation takes great pride in its longstanding relationship with the Wharton School of the University of Pennsylvania. Spanning over 35 years, this alliance has resulted in high-quality investment programs as well as the Certified Employee Benefit Specialist® (CEBS®) program in the United States.*

The International Foundation of Employee Benefit Plans is the largest educational association serving those in the benefits industry. For over 60 years, the International Foundation has served as the premier source of benefits education and information, providing objective, accurate and timely information. Services include in-person training, distance learning and publications covering a broad range of topics. Programs are available for all levels, from basic concepts to advanced strategies. The International Foundation also sponsors the CEBS designation program with the Wharton School of the University of Pennsylvania in the United States and Dalhousie University in Canada.

The International Foundation offers membership with services such as personalized research, live and recorded webcasts, online peer networking, publications, survey results and daily industry news delivery. In addition, members receive discounts on educational programs, e-learning and books. Learn more about how the International Foundation can help you—Visit www.ifebp.org or call (888) 334-3327, option 2, to request information by mail.

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*Canadian CEBS partner is Dalhousie University.

Portfolio Concepts and Management

Monday, May 2-Thursday, May 5, 2016

The Wharton School | University of Pennsylvania | Philadelphia, Pennsylvania

Portfolio Concepts and Management is a 3½-day program that offers lecture/discussion sessions, problem-solving exercises and an interactive case study. Portfolio Concepts and Management is offered every year at the Wharton School on the University of Philadelphia campus.

Objective

This program lays the groundwork for the core principles of portfolio theory and investment performance measurement, offering the practical tools and experiences needed to make sound investment management decisions. It is intended for those who have had exposure to investment concepts, with limited experience with academic coursework—or those looking to refresh their past experience.

Outline

MONDAY, MAY 2

7:30-8:30 a.m.

Registration and Breakfast

Steinberg Conference Center

8:30 a.m.-12:00 noon

Introduction and Overview
of Financial Assets

- The difference between a bond and a stock
- How bonds and stocks are evaluated
- Discounted value of coupons
- What happens to bonds when interest rates change?
- Call features
- Rating services
- Different types of indexes
- Different definitions of earnings

12:00 noon-1:00 p.m.

Lunch

Provided at the conference center

MONDAY, MAY 2 (Cont.)

1:00-4:15 p.m.

Fundamentals of Portfolio Theory

- Time-weighted and value-weighted rates of return
- Principles of diversification
- The concept of efficiency
- How to construct well-diversified portfolios
- How to build portfolios for a targeted risk level

TUESDAY, MAY 3

7:30-8:30 a.m.

Breakfast

Provided at the conference center

Portfolio Concepts and Management

TUESDAY, MAY 3 (Cont.)

8:30 a.m.-12:00 noon

Performance Evaluation

- Elements of manager monitoring
- Risk-adjusted measures
- Factors behind the numbers
- Role of investment style
- What do the numbers in a performance evaluation report mean?
- Using your performance measurement tools (practical framework)
- Impact of investment policy

12:00 noon-1:00 p.m.

Lunch

Provided at the conference center

1:00-4:15 p.m.

The Current Markets

- Recent trends
- Determining the discount rate
- Historical risk and return patterns
- The capital asset pricing model
- Price distortions

4:15-4:30 p.m.

Introduction to Case Study

WEDNESDAY, MAY 4

7:30-8:30 a.m.

Breakfast

Provided at the conference center

8:30 a.m.-12:00 noon

Macroeconomic Issues and Financial Markets

- Basics of price and return
- Monetary and fiscal policy structures and current stances
- Exchange rates and international factors

12:00 noon-1:00 p.m.

Lunch

Provided at the conference center

WEDNESDAY, MAY 4 (Cont.)

1:00-4:15 p.m.

Fundamentals of Valuation

- How does an analyst determine the price of stock?
- What determines the volatility of a bond?
- Mechanics of compounding and discounting
- Valuation of annuities
- Present and future value

4:15-5:30 p.m.

Case Study Group Work

(Dinner on your own)

THURSDAY, MAY 5

7:30-8:30 a.m.

Breakfast

Provided at the conference center

8:30-11:00 a.m.

Asset Allocation and Impacts of Risk on Return

- Trends in pension management
- Investment policy
- Overall asset allocation and allocation within asset class
- Rebalancing vs. reinforcing asset allocation

11:00 a.m.-12:00 noon

Case Study

Attendance required to earn a certificate

The Portfolio Concepts is intense, and all the topics are good and provide risk-free discussions that are very informative. All topics discussed were very useful. Overall, this conference is very educational.

Raymond R. Santander
Trustee
New York City Employees
Retirement System

International and Emerging Market Investing

Monday, July 25-Wednesday, July 27, 2016

Wharton | *San Francisco* | San Francisco, California

International and Emerging Market Investing is a 2½-day specialty course that includes lecture/discussion sessions and small group breakout sessions.

Objective

This course is designed to provide insight into the global marketplace and how it impacts your funds' investment strategy. You will discuss the opportunities and risks of several international and emerging countries, as well as how to navigate these risks. This course is designed for individuals who have a solid base in investment management principles and who seek to explore the opportunities available through international investing.

Outline

MONDAY, JULY 25

7:30-8:30 a.m.

Registration and Breakfast

Provided at Wharton | *San Francisco*

8:30-10:00 a.m.

Globalization and Global Economic Markets

- Key global economic trends
- Recent political-economic headlines (especially Europe and the Middle East)
- Shifting balance of global economic power
- Global demographic trends
- Principal factors driving globalization
- Foreign exchange markets
- Global financial markets
- Risks of globalization

10:15 a.m.-12:00 noon

Emerging Markets: Opportunities and Risks

- The rise of emerging markets
- The BRIC, N-11 and beyond
- Sources of growth and competitiveness
- Investment trends and opportunities
- Economic risks
- Political and legal risks
- Observations and key challenges

MONDAY, JULY 25 (Cont.)

12:00 noon-1:00 p.m.

Lunch

Provided at Wharton | *San Francisco*

1:00-2:00 p.m.

Emerging Markets: A Financial Force

- Emerging markets financial environment
- Emerging markets financial systems
- Foreign financial opportunities in emerging markets
- The rise of emerging markets financial firms
- Case study: ICBC in South Africa

2:00-2:45 p.m.

Discussion of Current Events and Day One Q&A

3:00-5:00 p.m.

Emerging Markets Financial Markets: Case and Group Analysis

- HSBC in China case
- Country, sector analysis and selection

International and Emerging Market Investing

TUESDAY, JULY 26

7:30-8:30 a.m.

Breakfast

Provided at Wharton | *San Francisco*

8:30-10:00 a.m.

Group Presentations and Discussion

10:15 a.m.-12:00 noon

Mechanics of International Diversification

- Mathematics of portfolios
- Key measures: Correlations, Sharpe ratios, alpha vs. beta
- Classic portfolio optimization with U.S. stocks and bonds

12:00 noon-1:00 p.m.

Lunch

Provided at Wharton | *San Francisco*

1:00-2:30 p.m.

Developed Market Equities

- Global equity market capitalization
- International return and portfolio mathematics
- History of risks and returns
- Optimal portfolio allocations with U.S. and foreign equity

2:45-5:00 p.m.

Emerging Market Equity

- Classification of emerging market countries
- Market capitalization within the emerging market segment
- Emerging market indices
- The emerging market “growth trap”
- Frontier markets

WEDNESDAY, JULY 27

7:30-8:30 a.m.

Breakfast

Provided at Wharton | *San Francisco*

8:30-10:00 a.m.

Global Bonds and Exchange Rates

- Risk of bonds
 - Duration risk
 - Interest risk
 - Foreign exchange risk
- Geography of the global bond market
- Impact of hedging currency risk in foreign stocks

10:15 a.m.-12:00 noon

Foreign Investment Vehicles—Funds, MNCs, ADRs and Electronically Traded Funds (ETFs)

- Funds
 - Country funds
 - Closed-end funds
 - International funds
 - Foreign funds
 - Index funds
- Individual stocks

“An incredibly deep dive into emerging markets that broadened not only my understanding of the markets but my fiduciary responsibilities.”

James Rossler Jr.
Trustee

Ohio School Employees Retirement System

Earning Your Certificate

A certificate of completion from the Wharton School will be awarded to those who attend all sessions (please note, programs have early-evening group work sessions).

If you wish to earn a certificate, please make your travel plans accordingly and leave early evenings open as indicated on the program schedule.



Registration Includes

- A curriculum binder including teaching materials and up-to-date resources
- A certificate from the Wharton School upon fulfilling attendance and participation requirements
- Daily breakfasts, lunch on all days that programs extend into the afternoon and refreshment breaks in the mornings and afternoons.

Additional Class Notes

- Registrants will be notified by e-mail when select materials are posted on the Wharton website that will serve as prereading for the program.
- Please note that the scheduling of specific sessions and/or faculty is subject to change.
- For questions on curriculum, please e-mail tiffanyu@ifebp.org or call (262) 373-7652.

Continuing Education Credit

Most state boards/departments that license professionals will accept International Foundation courses for their continuing education requirements if the course content is applicable. As a service to attendees, CE accreditation procedures have been implemented. This additional service is provided at a nominal administrative fee (\$25) and must be paid by those requesting the service. If you are an insurance professional, please note that state insurance departments do not consider investment topics as appropriate for insurance continuing education credit. Therefore, insurance credit is not available for the Wharton investment courses. Visit www.ifebp.org/education/continuing for information regarding earning continuing education credit for your profession.

The Foundation and Wharton continue to provide a stellar investment program. The curriculum and faculty present real-world information that I can take home and apply immediately. There is no doubt I will be a better trustee because of it.

Michael Brown
Board Chairman
Municipal Employees' Retirement System of Michigan

Experience the Wharton School— Transforming Insight Into Practice

Founded as the first U.S. business school in 1881, the Wharton School of the University of Pennsylvania has consistently driven change in business education and research.

Wharton has approximately 4,600 undergraduate, M.B.A. and doctoral students and an alumni network of more than 80,000 worldwide. Wharton's Aresty Institute of Executive Education serves up to 8,000 mid- to senior-level executives annually. Taught by acclaimed Wharton faculty, more than 200 open enrollment and custom programs are offered in such areas as finance, leadership, strategy/management and marketing. World-class faculty teaching the courses include skilled educators and researchers, award-winning authors and leading authorities in the investment management field.

Wharton Investment Programs

The International Foundation's partnership with the Wharton School includes four investment programs, which are offered on a rotating schedule.

Core Programs (Held at the Steinberg Conference Center in Philadelphia, Pennsylvania)

- Portfolio Concepts and Management (*held annually*)
- Advanced Investments Management (*look for offering in 2017*)

Specialty Programs (Held at the Wharton | *San Francisco* facility)

- Alternative Investment Strategies (*look for offering in 2018*)
- International and Emerging Market Investing

The Wharton School Learning Environment

Steinberg Conference Center
Wharton School—University of Pennsylvania
Philadelphia, Pennsylvania

The Steinberg Conference Center on the University of Pennsylvania campus offers a state-of-the-art, comfortable environment conducive to adult learning. Breakout rooms allow for small group discussions. Direct interaction with faculty is encouraged and aided by the limited class size. You will have access to the university bookstore and recreation facilities as well.



Wharton Faculty

Wharton faculty members are skilled educators and researchers, award-winning authors and leading authorities in the investment management field.

Following are the biographies of faculty members who taught sessions in the International Foundation/Wharton programs in the recent past.

Jeffrey F. Jaffe

*Associate Professor of Finance
The Wharton School*



Dr. Jaffe is an active researcher, with particular interest in the effect of inflation on the returns of stocks and bonds, valuation of the firm and the effect of regulation on trading by corporate insiders. His articles have appeared in the *Quarterly Economic Journal*, the *Journal of Finance*, the *Journal of Financial and Quantitative Analysis*, the *Journal of Financial Economics* and the *Financial Analysts' Journal*.

*Portfolio Concepts and Management
Advanced Investments Management*

Christopher C. Geczy

*Adjunct Associate Professor
of Finance
Academic Director of
Wharton Wealth
Management Initiative
The Wharton School*



Dr. Geczy researches and consults for clients in the areas of asset allocation, hedge fund portfolio analysis and development, financial risk management and the development of investment and trading strategies. He has a Ph.D. degree in finance and econometrics from the Graduate School of Business of the University of Chicago.

*Alternative Investment Strategies
Advanced Investments Management*

A. Craig MacKinlay

*Joseph P. Wargrove
Professor of Finance
The Wharton School*



Dr. MacKinlay is a research associate of the National Bureau of Economic Research, a member of the *Journal of Investment Consulting* Advisory Board and a member of Morgan Stanley Institutional Equity Trading Academic Board. He received his doctorate and an M.B.A. degree from the University of Chicago and an M.B.A. degree from the University of Western Ontario. His research interests include asset pricing models, measuring investment performance and statistical methods in finance.

*Portfolio Concepts and Management
Advanced Investments Management*

Todd Sinai

*Associate Professor
of Real Estate, Business
Economics and Public
Policy
The Wharton School*



Dr. Sinai is a faculty research fellow at the National Bureau of Economic Research and a visiting scholar at the Federal Reserve Bank of Philadelphia. Current research projects include housing prices, public policy and housing markets, the airline industry and real estate investment trusts. He received his Ph.D. degree from the Massachusetts Institute of Technology.

Alternative Investment Strategies

Wharton Faculty

Gordon M. Bodnar

*Morris W. Offit Professor of
International Finance and
Director of the International
Economics Program*



*The Wharton School
Paul H. Nitze School of Advanced
International Studies (SAIS)
The Johns Hopkins University*

Dr. Bodnar teaches international finance in Wharton's Executive M.B.A. program and is a frequent lecturer in several of its executive education programs. He has held appointments as a research fellow at the National Bureau of Economic Research and as a visiting scholar at the International Monetary Fund. His research focuses largely on the intersection of international finance and corporate finance.

*Portfolio Concepts and Management
Advanced Investments Management
International and Emerging Market Investing*

Geoffrey Gerber

*President & Chief Investment
Officer*

*TWIN Capital Management
Faculty Member*

*The Wharton School Aresty
Institute*



As founder of TWIN Capital Management, Dr. Gerber is responsible for overseeing the management of the firm and the entire investment process and is recognized as a specialist in institutional quantitative investment management. Dr. Gerber is a faculty member for the Aresty Institute's Wharton Executive Education Program on pension funds and investment management. He received his Ph.D. degree in economics and finance from the University of Pennsylvania.

*Portfolio Concepts and Management
Advanced Investments Management*

“Thought-provoking, mind-expanding yet understandable teaching from these professors who are very knowledgeable and experts in their fields. Will continue onward in the Wharton pathway of education for the board trustees.”

Barbara M. Phillips
School Bus Driver

Ashland City Schools and Board Trustee
Ohio's School Employee Retirement System

Program Location and Hotel Information

The Wharton School of the University of Pennsylvania

Portfolio Concepts and Management

The Wharton School
University of Pennsylvania
Aresty Institute of Executive Education
Steinberg Conference Center
255 South 38th Street
Philadelphia, PA 19104-6359
Phone: (215) 386-8300
Fax: (215) 573-3426

A ten-minute walk from Sheraton Philadelphia University City Hotel.

Hotel Reservation Information

Sheraton Philadelphia University City Hotel
3549 Chestnut Street
Philadelphia, PA 19104
Phone: (215) 387-8000
Fax: (215) 387-7920
Reservations phone: (888) 627-7071
www.philadelphiasheraton.com

2016 rate: \$172 single/double occupancy (15.5% tax) (Credit card guarantee will be required.)

The Sheraton is conveniently located on the campus of the University of Pennsylvania.

Amtrak's 30th Street Station is just steps from the hotel.

Please contact the hotel directly to make your reservation. Be sure to mention the International Foundation when booking your hotel stay to ensure you receive the negotiated conference guest room rate.



Program Location and Hotel Information

Wharton | *San Francisco*

International and Emerging Market Investing

Wharton | *San Francisco*

2 Harrison Street
San Francisco, CA 94105
Phone: (415) 777-1000
Fax: (415) 369-0598

One mile from Omni San Francisco Hotel.

Wharton | *San Francisco* is a state-of-the-art educational facility designed to facilitate the learning style that Wharton has pioneered. Wharton | *San Francisco* is conveniently located in San Francisco's business and financial district in the historic Hills Brothers Building. Programs at Wharton | *San Francisco* draw their faculty and courses from the same world-renowned resources available at Wharton's Philadelphia campus.

Hotel Reservation Information

Omni San Francisco Hotel

500 California Street (at Montgomery)
San Francisco, CA 94104
Phone: (415) 677-9494
Fax: (415) 273-3038
www.omnihotels.com

2016 rate: \$334 single/double occupancy (16.445% tax)

Please contact the hotel directly to make your reservation. Be sure to mention the International Foundation when booking your hotel stay to ensure you receive the negotiated conference guest room rate.



REGISTRATION POLICIES

- See our policies regarding your registration/cancellation/refund/record retention/photo release and privacy at www.ifebp.org/policies.
- Cancellation/transfer requests must be in writing and are subject to a fee of \$50 per meeting day for cancellations and \$50 for transfers.
- Cancellation fee is 50% of registration fee for registrations canceled within 30 days of meeting.
- Cancellations received on or after the opening day of a program are subject to forfeiture of all registration fees.
- For more information regarding administrative policies such as complaint and refund, please contact Registrations at edreg@ifebp.org or (262) 786-6710, option 2.

FEATURED BOOK

The books in the International Foundation Bookstore cover the entire spectrum of benefits. Industry professionals offer in-depth information on health care, pension, multiemployer trusts, government benefit programs and more. Get the insight and know-how to succeed.

Visit www.ifebp.org/bookstore to view books offered.

The Tools & Techniques of Investment Planning

Stephan R. Leimberg; Robert J. Doyle, Jr.;
Thomas R. Robinson; Robert R. Johnson

623 pages. National Underwriter. 2014.

\$191.25 (Members: \$183) Prices include shipping/handling.

www.ifebp.org/books.asp?9029.



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#IFWHARTON

REGISTRATION/2016

Wharton Investment Programs

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Phone Fax
E-mail
Last 4/3 digits of SSN/SIN Date of birth (mm/dd/yyyy)

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*Membership dues are prorated quarterly. Visit www.ifebp.org/join for current U.S. and Canadian membership rates.

REGISTRATION INFORMATION

Organization representing Organization # Special assistance? Yes No
Badge name Badge title
Special dietary requirements—specify
Form completed by Phone

Portfolio Concepts and Management (04-1604)

May 2-5, 2016 | The Wharton School, University of Pennsylvania | Philadelphia, Pennsylvania
Member fee Until March 21 After March 21
Nonmember fee

International and Emerging Market Investing (H6-16H6)

July 25-27, 2016 | Wharton | San Francisco | San Francisco, California
Member fee Until June 13 After June 13
Nonmember fee

2016 CANCEL POLICY: Early cancel fee is \$50/meeting day. Within 30 days of meeting, cancel fee is 50% of registration fee.

HOTEL

Mention the International Foundation for special rate. After the deadline, reservations and rate will be based on availability (credit card will be required).

May: Sheraton Philadelphia University City Hotel, Philadelphia, Pennsylvania Reservations phone: (888) 627-7071
Rate: \$172 single/double (15.5% tax) Reservation deadline: April 11

July: Omni San Francisco, San Francisco, California Reservations phone: (800) 843-6664
Rate: \$334 single/double (16.445% tax) Reservation deadline: June 22

CONTINUING EDUCATION CREDIT

\$25 continuing education service charge due at time of registration (if applicable). The International Foundation will apply for CE credit based on requests. You must indicate the profession for which credit is requested.

Actuary CFP CIMA CPA
PHR/SPHR/GPHR Other, specify

Licensed in the state of
License/NPN/BAR/CPA #

Note: Request made for CE on this form does not guarantee administration of credit.

CEBS CPE Continuing education forms are not required to earn CEBS CPE credit. By checking this box you will be provided with continuing education forms in your registration packet. These forms can be turned in at the program for a CPE certificate for documentation and to assist you with self-reporting your CEBS CPE credits. \$25 CE fee does not apply. Visit www.cebscpe.org for additional information on reporting CEBS CPE credit hours.

PAYMENT INFORMATION

Full payment in U.S. funds must accompany order. Make check payable to International Foundation.

Check # \$
VISA MasterCard Discover
American Express

Credit card #
Exp. date
Cardholder's name (print)

REGISTRATION/ORDER SUMMARY

Membership fee \$
Registration fee \$
Registration fee \$
Continuing education fee (\$25) \$
Total (U.S. funds) \$

Register online at www.ifebp.org

Mail the registration form with check or credit card number to: International Foundation—Conference, P.O. Box 689954, Chicago, IL 60695-9954

Fax your registration with credit card number: (262) 364-1818

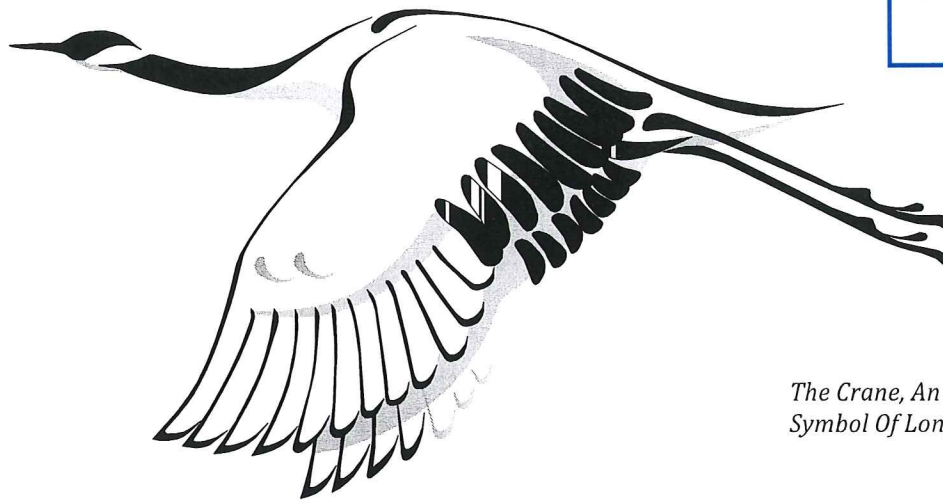
For information, e-mail edreg@ifebp.org, or phone toll-free (888) 334-3327, option 2, or (262) 786-6710, option 2.



PRINCIPLES OF PENSION MANAGEMENT

A COURSE FOR TRUSTEES

Meeting Date
04/27/16
Agenda Item
#9h.



*The Crane, An Age-Old
Symbol Of Long Life*

Sponsored By

CALAPRS

EDUCATION • COMMUNICATION • NETWORKING
California Association of Public Retirement Systems

to be held at the

Pepperdine University

Villa Graziadio Executive Center

August 9-12, 2016

PRINCIPLES OF PENSION MANAGEMENT

A Course For Trustees

A COURSE FOR TRUSTEES

CALAPRS' MISSION

"CALAPRS sponsors educational forums for sharing information and exchanging ideas among Trustees and staff to enhance their ability to administer public pension benefits and manage investments consistent with their fiduciary duty."

ABOUT THE COURSE

Public Pension Fund Trustees bear a heavy fiduciary burden. On a cumulative basis, California's Constitution holds our members' **350** Trustees accountable for the stewardship of more than **\$450** Billion in retirement fund assets. **40** California public pension systems belong to CALAPRS. Over the past ten years, Trustees of our member retirement systems have participated in this unique training program presented exclusively for California public retirement system board members. This training focuses on the practical aspects of our Trustees' duties.

Now in its second year at the Pepperdine University Executive Center, adjacent to Pepperdine's graduate schools, CALAPRS continues to offer the same high-caliber coursework and faculty it has offered for the past twenty years on the Stanford University campus.

WHO SHOULD ATTEND?

The course is for Trustees. Attendance is recommended within the first year after assuming office. Experienced Trustees will use the program as a comprehensive refresher course.

For more experienced Trustees, the Advanced Principles of Pension Management course at UCLA is suggested. This course is a pre-requisite for admission to the UCLA course.

WHY ATTEND?

- To gain insight into public pension policy issues
- To discuss alternative solutions to common problems
- To understand the complexities involved in administering public pension plans
- To appreciate the differences and similarities among California public pension plans
- To network with other Trustees and pension professionals
- To increase familiarity with pension terminology and concepts
- To receive the ethics training required for new Trustees

FACULTY

The Course will be taught by public pension practitioners, including Trustees, Consultants, Actuaries, Investment Managers, Attorneys & Administrators.

THE CURRICULUM COMMITTEE

Principles of Pension Management is managed by CALAPRS' Curriculum Committee led by the course Dean: David Kehler, Retirement Administrator, Tulare County Employees' Retirement Association.

LOGISTICS

California Association of Public Retirement Systems:

Kerry Parker, Administrator

Alison Corley, Administrator

Chezka Solon, Meeting Manager

PRINCIPLES OF PENSION MANAGEMENT

A Course For Trustees

THE CURRICULUM

Each participant must attend the full 3 days of intensive training. Sessions combine team teaching, case studies and mock board problem solving. All course materials are based on actual California public pension fund law, policies, practices and problems.

The *Wednesday Evening Case Study* will provide practical experience in a disability hearing. The *Thursday Evening Session* will consist of a 90-minute **TEAM CASE STUDY** to resolve significant Board of Retirement issues.

TUESDAY – AUGUST 9

6:00 PM *Reception & Dinner*
7:30 PM **Pensions & Trustees - What, Who, How, Why?**

WEDNESDAY – AUGUST 10

8:00 AM **What's the Big Deal About Being A Fiduciary?**
AB1234 Ethics Training for Public Fund Trustees
What Benefits Do We Provide and What is the Board's Role?
What are the Key Issues in Disability Retirement?
How Do Trustees Resolve Disability Issues?
5:30 PM *Reception & Dinner*
6:30 PM **Case Study: Disability Hearing**

THURSDAY – AUGUST 11

8:00 AM **How Should We Manage Our Pension Liabilities?**
Investment Policy Basics
How Should We Manage Our Investment Program?
5:45 PM *Networking Dinner*
6:30PM **Case Study: Who Are Our Stakeholders and What Are Our Roles?**

FRIDAY – AUGUST 12

8:00 AM **How Should a Board Function?**
Course Summary
12:30 PM *Certificate Luncheon* and **Final Course Evaluation**

CERTIFICATE OF COMPLETION

Participants who successfully complete the course will receive a Certificate of Completion as well as a Certificate for completion of the AB1234 Ethics in Public Service. Trustees must attend all sessions to receive a completion certificate, at the discretion of the course faculty, and attendees who do not complete the course may return the following year to make up missed sessions at no additional charge.

LOCATION & LODGING

The program and lodging will be located at Villa Graziadio Executive Center, Pepperdine University, 24255 Pacific Coast Highway, Malibu, CA 90263. Lodging will be provided on campus for the nights of August 9, 10, and 11 and will be arranged by CALAPRS as part of the course for all participants. Meals will also be provided beginning with dinner on August 9 and ending with lunch on August 12.

ENROLLMENT

Minimum 20, Maximum 34 Trustees.

APPLICATION & TUITION

All applications must be received no later than **JUNE 3, 2016**. Unsigned applications will be returned to the sender for signature. Accepted applicants will be notified via email between **JUNE 6-7, 2016**. Tuition of \$2,500 (includes lodging, meals and materials) must be paid no later than **JULY 15, 2016**.

APPLICATION FOR ENROLLMENT 2016

APPLICATIONS WITH BOTH REQUIRED SIGNATURES MUST BE RECEIVED BY JUNE 3, 2016.

Applicants must be trustees of a California public employee pension system. Attendance is recommended within the first year after assuming office. Experienced trustees will use the program as a comprehensive refresher course. Each system may enroll one Trustee as a "Delegate" and designate one additional Trustee as "1st Alternate" with the remainder as "2nd Alternate". Delegates will be admitted first. If vacancies remain, 1st Alternates will be admitted in the order received, followed by 2nd Alternates. Accepted applicants will be notified June 6-7, 2016.

Applicant Information

Trustee's Name (for certificate/name badge): _____

Retirement System: _____

Trustee Type: Elected Appointed Ex-Officio Date Became a Trustee: _____ Date Term Expires: _____

Trustee's Mailing Address: _____

Trustee's Phone: _____ Trustees' Email: _____

Administrative Contact (name, email): _____

Emergency Contact (name, phone): _____

Dietary Restrictions (if any): _____

BIOGRAPHY: Email Trustee's biography (≤150 words) to register@calaprs.org for printing in the attendee binder.

COURSE MATERIALS (select preference): Printed materials in a binder OR *Go Green* Digital materials (PDF and mobile compatible links to be sent out in advance)

Applicant Agreement

If admitted, I agree to attend the Advanced Principles program in full and acknowledge that missing one or more sessions may result in forfeiture of my Certificate of Completion, as determined by the Faculty.

Trustee Signature (required) _____ Date: _____

Administrator Approval

Applicant Designation: Delegate 1st Alternate 2nd Alternate

Administrator Name: _____ Email: _____

Administrator Signature (required): _____

Tuition Payment

Tuition of \$2,500 must be paid in full by July 15, 2016 and includes all meals, materials, and lodging. Payable by check only (no credit cards) to "CALAPRS". This application form serves as an invoice. No additional invoice will be sent. Cancellation refunds may be provided to the extent that costs are not incurred by CALAPRS.

On campus lodging is mandatory for all participants. CALAPRS will make the reservations and payment for the nights of August 9, 10 and 11 at the Villa Graziadio Executive Center on the Pepperdine campus.

**RETURN COMPLETED APPLICATION BY
JUNE 3, 2016**

Mail, email or fax form and payment to
CALAPRS
575 Market Street, Suite 2125
San Francisco, CA 94105
Phone: 415-764-4860 Fax: 415-764-4915
register@calaprs.org www.calaprs.org



If, due to a disability, you have any special needs, call 415-764-4860 to let us know. We will do our best to accommodate them.

Public Pension Funding Forum

Meeting Date

04/27/16

Agenda Item

#9i.

ABOUT THIS CONFERENCE

The issue of pension funding gap, real or not, is often used to change pension plans as we know them. The most common solutions revolve around increasing employee and employer contributions, reducing benefits, and converting lifetime guarantee of defined benefit pensions into do it yourself pension schemes. Regardless of whether these fixes will work in the long run, they do have serious consequences for all stake holders, including employees, employers, taxpayers, local businesses and economies. Analysis of empirical data suggests that undermining pensions increases income inequality which in turn puts a drag on the economy, and in the end everyone suffers.

The Public Pension Funding Forum will examine the obstacles that stand in the way of closing public pension funding gap and explore new solutions to overcome such obstacles, including better risk management in economic cycles, use of new and improved debt instruments, and closing tax loopholes.

The overarching goal of the Forum is to inject some new thinking that might solve the funding challenges without dismantling public pensions, and hence enhance prosperity for all.

WHO SHOULD ATTEND?

- Trustees of state and local pension funds
- Administrators of state and local pension funds
- Officials of state and local finance department/treasurer's office
- Legislators
- Members of Municipal Bond Community
- Members of Investment Community
- Members of Public Pension Advocacy Community
- Academic and Pension Research Community

This conference is open to members and non-NCPERS members.

SAVE THE DATE (<http://www.ncpers.org/files/Conference%20Docs/PPFF/2016/Save%20the%20Date.pdf>)

2016 Public Pension Funding Forum

August 21- 23

Omni New Haven Hotel at Yale

New Haven, CT

2016 Featured Guest Speaker

Robert J. Shiller is an American Nobel Laureate, economist, academic, and best-selling author. He currently serves as a Sterling Professor of Economics at Yale University and is a fellow at the Yale School of Management's International Center for Finance. He is ranked among the 100 most influential economists of the world. His forthcoming book, *Phishing for Phools: The Economics of Manipulation and Deception*, implies that by converting pensions into do-it-yourself defined contribution plans, we are exposing people to the economics of manipulation and deception, and hence setting them up for failure in retirement. Professor Shiller is well



known for accurately predicting bubbles.

National Conference on Public Employee Retirement System
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Tel: 1-877-202-5706 Fax: 202-624-1439

 (http://www.membershipsoftware.org/)