AGENDA

RETIREMENT BOARD MEETING

****AMENDED****

SECOND MONTHLY MEETING
April 23, 2014
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 26, March 20 and 26, 2014 meetings.

4. Presentation of Actuarial Audit Report by Milliman.

5. Consider and take possible action on ad-hoc investment consultant search committee's recommendation to retain Cortex to assist in the search.

6. Consider and take possible action on Segal Consulting's recommendation of the investment return assumption to use for financial reporting purposes.

7. Consider authorizing the attendance of Board and/or staff:
   a. Emerging Markets Forum, Institutional Investor, May 7 – 8, 2014, New York, NY (note conflict with Board meeting).
   b. Governmental Accounting and Auditing Conference, CalCPA, May 13, 2014, Sacramento, CA.
   c. Client Conference, Adams Street Partners, June 4 – 5, 2014, Chicago, IL.
   d. Advanced Trustee Institute, IFEBP, June 23 – 25, 2104, Las Vegas, NV (note conflict with Board meeting).
   e. International Investing and Emerging Markets, IFEBP, July 28 – July 30, 2014, San Francisco, CA.

8. Miscellaneous
   a. Staff Report
   b. Outside Professionals' Report
   c. Trustees' comments

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.

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3. Approve minutes from the February 26, March 20 and 26, 2014 meetings.

4. Presentation of Actuarial Audit Report by Milliman.

5. Consider and take possible action on ad-hoc investment consultant search committee's recommendation to retain Cortex to assist in the search.

6. Consider and take possible action regarding the inclusion of CCCERA unrepresented staff in the County's (1) change of effective date of previously approved 2% cost-of-living adjustment; and (2) $500 lump sum payment effective April 1, 2015

7. Consider and take possible action on Segal Consulting's recommendation of the investment return assumption to use for financial reporting purposes.

8. Consider authorizing the attendance of Board and/or staff:
   a. Emerging Markets Forum, Institutional Investor, May 7 – 8, 2014, New York, NY (note conflict with Board meeting).
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9. Miscellaneous
   a. Staff Report
   b. Outside Professionals' Report
   c. Trustees' comments

Meeting Date
04/23/14
Agenda Item
#3

CONTRA COSTA COUNTY CCCERA
Employees' Retirement Association

MINUTES

RETIREMENT BOARD MEETING

SECOND MONTHLY BOARD MEETING
9:00 a.m.

February 26, 2014

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

Present: Debora Allen, Scott Gordon, Brian Hast, Jerry Holcombe, Karen Mitchoff, John Phillips, William Pigeon, Gabe Rodrigues, Jerry Telles and Russell Watts

Absent: Louie Kroll

Staff: Marilyn Leedom, Retirement Chief Executive Officer; Kurt Schneider, Deputy Retirement Chief Executive Officer; Timothy Price, Retirement Chief Investment Officer; Vickie Kaplan, Retirement Accounting Manager; and Christina Dunn, Retirement Administration Manager

Outside Professional Support:	Representing:
Harvey Leiderman	Reed Smith LLP
Bob Helliesen	Milliman
Marty Dirks	Milliman
Dorian Young	Milliman
Paul Angelo	Segal Company
John Monroe	Segal Company

1. Pledge of Allegiance

Hast led all in the *Pledge of Allegiance.*

2. Accept comments from the public

Leedom announced she would be retiring effective March 8th as the Chief Executive Officer (CEO) of CCCERA.

Hast noted that the CEO's publicly announced March 8th date of retirement did not come until after the agenda had been posted, and the Board will not be able to discuss related personnel issues until the next Board meeting, which is scheduled after the CEO's departure. Because there was a need to take immediate action before the Board could timely agendize a closed session for its next meeting, Hast asked for a motion, to be approved by a 2/3rds vote of the Board, pursuant to Section 54954.2(b) of the Brown Act, to add a closed session to the current agenda. The closed session is authorized under Section 54957(b)(1) of the Brown Act (personnel matters).

After discussion it was **M/S/C** to add a closed session item to the agenda, as requested by the Board. (Yes: Allen, Gordon, Hast, Mitchoff, Phillips, Pigeon, Rodrigues and Watts. Abs: Telles)

3. Approval of Minutes

It was **M/S/C** to approve the minutes of the January 22, 2014 meeting. (Yes: Allen, Gordon, Hast, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts.)

4. Consider and take possible action to adopt the CCCERA Funding Policy – Paul Angelo and John Monroe

Paul Angelo reviewed the recommended changes to the funding policy.

The Board discussed the following additional changes to the funding policy:

- Under the Goals of Actuarial Funding Policy #1 change the wording to "To determine future contributions that, together with current plan assets, are expected to be sufficient to provide for all benefits provided by CCCERA;

- Under the Asset Smoothing Method, change the 2nd paragraph to read "This policy anticipates that future circumstances may warrant adjustments to change the pattern of the recognition of the net deferred investment gains or losses after a period of significant market change followed by a period of market correction, upon receiving an analysis from CCCERA's actuary. Such adjustments would be appropriate when the net deferred investment gains or losses are relatively small (i.e., the actuarial and market values are very close together) and the following conditions are met:"

- Under the Amortization Policy, bullet #4 change the wording to:

  "Unless the Board adopts an alternative amortization period after receiving an actuarial analysis:

  a. with the exception noted in b., below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 10 years;

  b. the entire increase in UAAL resulting from a temporary retirement incentive will be funded in full upon adoption of the incentive. If the increase in UAAL is due to the impact of benefits resulting from additional service permitted in Section 31641.04 of the 1937 CERL (Golden Handshake), the entire increase in UAAL will be funded in full upon adoption of the Golden Handshake."

- Under the Amortization Policy, bullet #7, 2nd paragraph change the wording to "If the surplus exceeds 20% of the AAL per Section 7522.52 of the Government Code, then the amount of such surplus in excess of 20% of the AAL (and any subsequent surpluses in excess of that amount) will be amortized over an "open" amortization period of 30 years, but only if the other conditions of Section 7522.52 have also been met. If those are not met, then the surplus will not be amortized and the full Normal Cost will be contributed."

- Under Policy Considerations, Adjustment for 18-Month Delay in Rate Implementation, 1st paragraph, line one, to remove the word "the" before the word employers.

It was **M/S/C** to adopt the revised CCCERA funding policy with the requested changes listed above and the changes recommended by Segal. (Yes: Allen, Cabral, Gordon, Hast, Mitchoff, Phillips, Pigeon, Telles and Watts)

After further discussion on the funding policy it was **M/S/C** to amend the CCCERA funding policy by removing the word "etc." on page 5, first line of the last paragraph. (Yes: Allen, Gordon, Hast, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts)

5. **Presentation regarding the application of administrative expenses under GASB 67 and GASB 68** – Paul Angelo and John Monroe

Angelo reviewed the background of GASB 67 and 68 noting GASB 67 governs the Associations financial reporting and GASB 68 governs the employers' financial reporting. He discussed the difference between funding and GASB financial reporting noting GASB requires for financial reporting the investment return assumption be net of investment expenses but not net of administrative expenses. Currently, CCCERA's investment return assumption used for the annual funding valuation is developed net of both investment and administrative expenses. He explained this would result in the Association having two slightly different investment return assumptions, one for funding and one for financial reporting.

Gordon was no longer present for subsequent discussion and voting.

He discussed possible approaches if the Board wished to develop a single investment return assumption for both funding and financial reporting purposes.

After discussion, the Board directed Segal Consulting to keep the investment return assumption for funding unchanged and to come back with a recommendation for the investment return assumption to use for financial reporting disclosure purposes.

It was the consensus of the Board to move to Item 7.

7. **Presentation from Adams Street regarding potential commitment to the 2014 Adams Street Global Fund** – Gary Fencik and Hanneke Smits

Prior to the presentation, Fencik waived the confidentiality disclaimer on the presentation materials, noting this is a public meeting and any information discussed will be available to the public.

Fencik provided an overview of the firm and the 2014 global private equity fund noting CCCERA has been invested in the last six Adams Street global private equity funds.

Smits discussed the investment teams and strategy noting their goal is to invest about 80% of the intended allocation within the first year.

Fencik discussed fees noting they will apply a credit for prior subscriptions reducing the average fund-of-funds management fee by 15%.

8. **Consider and take possible action on staff recommendation regarding a commitment to the 2014 Adams Street Global Fund.**

Price reviewed the staff recommendation to invest $50 million to the Adams Street global private equity fund. He discussed the long standing relationship with Adams Street Partners and the performance of the fund.

It was **M/S/C** to accept the staff recommendation and invest $50 million to the 2014 Adams Street Global Fund subject to due diligence, on-site visits and authorize the CEO or Board designee to sign the necessary contracts. (Yes: Allen, Hast, Holcombe, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts)

9. Presentation from Paladin Cybersecurity Fund I – Michael Steed, Niloofar Howe and Lt. General Kenneth Minihan

Prior to the presentation, Steed waived the confidentiality disclaimer on the presentation materials, noting this is a public meeting and any information discussed will be available to the public.

Steed discussed the thirty-one cyber related investments Paladin has invested in during the last ten years noting they are a leader in investing in homeland security. He discussed the firm's milestones and the investment team's primary focus.

Minihan discussed the need for a fund of this type. He noted this is really security in the cyber age not cybersecurity. He discussed the unique relationship Paladin has with the federal government and the deep understanding of disruptive technologies which helps them identify market drivers.

Howe discussed the investment philosophy and noted Paladin is differentiated from other investments because they live and breathe value add investments. She explained the premise of the fund is to be mission oriented and noted they focus on products, services and technologies that serve both private enterprise and governmental needs.

Steed discussed the fund performance, fund size and anticipated closing date.

10. Consider and take possible action on commitment to Paladin Cybersecurity Fund I

After discussion on the advantages and disadvantages of investing in a unique private equity fund of this type it was **M/S** to not make an investment with Paladin Cybersecurity Fund I.

A substitute motion was **M/S** to invest $20 million with Paladin Cybersecurity Fund I subject to a minimum fund size of $60 million. (Yes: Mitchoff, Pigeon, Rodrigues and Telles. No: Allen, Hast, Holcombe, Phillips and Watts). **Motion failed**.

The original motion was **M/S/C** to not make an investment with Paladin Cybersecurity Fund I. (Yes: Allen, Hast, Holcombe, Phillips and Watts No: Mitchoff, Pigeon, Rodrigues and Telles.)

CLOSED SESSION

The Board moved into closed session pursuant to Govt. Code Section 54957(b)(1).

The Board moved into open session.

There was no reportable action.

Mitchoff was not present for subsequent discussion and voting.

6. Review of total portfolio performance

Young reviewed the market and the key points of the quarterly report noting the CCCERA total fund returned 4.9% for the fourth quarter and 16.5% for the year ending December 31, 2013. He stated the CCCERA Total Fund performance has been first quartile over the trailing three-through five-year periods. He also reviewed the cumulative performance statistics for all funds.

Pigeon and Telles were no longer present for subsequent discussion and voting.

It was **M/S/C** to accept the Quarterly Report presented by Milliman. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)

a. <u>Consideration of any managers already under review or to be placed under review</u>

Dirks reported on the managers on the Watch List. Dirks stated they recommend removing INTECH Large Cap and Global Portfolios, INVESCO IREF I, II and Long Wharf Real Estate Growth Fund II & III from the watch list.

It was **M/S/C** to remove INTECH Large Cap and Global Portfolios from the Watch List as recommended by Milliman. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)

It was **M/S/C** to remove INVESCO IREF I, II from the Watch List as recommended by Milliman. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)

It was **M/S/C** to remove Long Wharf Real Estate Growth Fund II & III from the Watch List as recommended by Milliman. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)

b. <u>Consideration of any changes in allocations to managers</u>

There were no changes in allocations to managers.

11. <u>Conference Seminar Attendance</u>

a. It was **M/S/C** to authorize the attendance of two Board members at the Annual Conference, NCPERS, April 26 – May 1, 2014, Chicago, IL. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)
b. It was **M/S/C** to authorize the attendance of 2 Board members and 1 staff member at the Spring Conference, Council of Institutional Investors, May 7 – 9, 2014, Washington, DC. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)
c. It was **M/S/C** to authorize the attendance of 2 Board members at the Spring Conference, CRCEA, April 7 – 9, 2014, Costa Mesa, CA. (Yes: Allen, Hast, Holcombe, Phillips, Rodrigues and Watts.)

12. <u>Miscellaneous</u>

(a) Staff Report –

<u>Leedom</u> reminded the Board members that their premiums for "non-recourse" coverage under their fiduciary insurance are due.

She noted 95% of the other retirement systems have pictures of their Board members in their CAFR and we would like to have the same.

She reported Rebecca Byrnes our outside Disability Counsel is retiring at the end of March. Staff will work on issuing an RFP for this service.

She also reported staff are working on a blend and extend on the current Willows Office space lease to assist with paying for the re-models needed to accommodate increased staffing.

She reported staff has invited employers to an educational meeting in March on GASB 67 and 68 presented by Segal Consulting and Brown Armstrong.

<u>Price</u> reported the Investment consultant committee should have an RFP released within a month.

He reported that the growth team at Delaware is forming a joint venture with the parent company that will be known as Jackson Square Partners. Jeff Van Harte will present to the Board in the near future to explain the new organization.

He also reported at the March 20th Board meeting there will be panel discussions from the investment managers. The topics will include the balance of risk and opportunities, opportunities in real assets and fixed income defense in times of rising interest rates.

He reported Bonnie Harkins is leaving Adelante and was not on the investment team so it should not affect our account.

(b) Outside Professionals' Report –

Dirks reported he and Helliesen visited Ocean Avenue capital partners, a private equity investor and was impressed. They would like them to meet with the Board at a future meeting.

(c) Trustees' comments –

Hast reported the Board meeting on March 12th has been cancelled so the next Board meeting will be on March 20th.

The members of the Board thanked Marilyn for her service and expressed their gratitude for her assistance throughout the years.

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

______________________________ ______________________________

Brian Hast, Chairman | Jerry Telles, Secretary

Meeting Date
04/23/14
Agenda Item
#3

CONTRA COSTA COUNTY CCCERA
Employees' Retirement Association

MINUTES

RETIREMENT BOARD MEETING

SPECIAL BOARD MEETING
9:00 a.m.

March 20, 2014

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

Present: Scott Gordon, Brian Hast, Jerry Holcombe, Louie Kroll, Karen Mitchoff, John Phillips, William Pigeon, Gabe Rodrigues, Jerry Telles and Russell Watts

Absent: Debora Allen

Staff: Kurt Schneider, Retirement Deputy Chief Executive Officer; Timothy Price, Retirement Chief Investment Officer; Karen Levy, Retirement General Counsel; Vickie Kaplan, Retirement Accounting Manager; and Christina Dunn, Retirement Administration Manager

Outside Professional Support:	Representing:
Marty Dirks	Milliman
Dorian Young	Milliman

1. **Pledge of Allegiance**

Hast led all in the *Pledge of Allegiance.*

2. **Accept comments from the public**

No members of the public offered comment.

3. **Discussion with consultant and staff regarding managers scheduled to present**

Price noted this was the first time we were going to have panel discussions of this type. He provided an outline of the panel discussion topics noting the presenters will not discuss portfolio management.

4. **Manager panel discussions:**

Panel Discussion Topic: Balance of risk and opportunities – What lies ahead?
Investment Managers: Dan Heflin, Torchlight; Kimball Brooker and Greg Cassano, First Eagle; and Jeff Urbina and Wally Fikri, William Blair.

Panel Discussion Topic: Opportunities in Real Assets
Investment Managers: John West, Research Affiliates; Rick Wurster, Wellington; Sean Goodrich, Aether; and Greg Jansen, Commonfund.

Panel Discussion Topic: Defense in times of rising interest rates
Investment Managers: Saumil Parikh, PIMCO; Rob Lee, Lord Abbett; and Mike Goosay, Goldman Sachs.

The Board discussed the panel discussions noting they were educational.

5. Consider and take possible action on SACRS Voting Proxy Form

It was **M/S/C** to appoint Jerry Telles as CCCERA's Voting Delegate and Gabe Rodrigues as the Alternate Voting Delegate at the upcoming SACRS Conference. (Yes: Gordon, Hast, Holcombe, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts).

6. Conference Seminar Attendance

a. It was **M/S/C** to authorize the attendance of all appropriate Board and staff members at the Spring Conference, SACRS, May 13-16, 2014, Sacramento, CA (Yes: Gordon, Hast, Holcombe, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts)

7. Miscellaneous

(a) Staff Report –

Price reported MSCI, the parent company of Institutional Shareholder Services (ISS), is selling the ISS division of the Risk Metrics Group to Vestar Capital Partners.

He also reported he, Holcombe and Phillips attended the PIMCO onsite visit and felt the firm was very candid with them regarding the mistakes made and the direction the firm is now going.

He reported he attended the Oaktree client conference and noted Oaktree Fund IV will most likely be fully committed by the end of the year.

He reported Allen, Pigeon, Chu and Dirks will attend the Adams Street onsite visit.

He noted at the April 2nd Board meeting there will be a presentation from Delaware Investments on the creation of Jackson Square Partners, a presentation from Ocean Avenue Capital Partners on a possible commitment, an educational presentation from Parametric Clifton on cash overlay strategies and a closed session item on the structure of the Siguler Guff investment.

(b) Trustees' comments –

Holcombe reported on the PIMCO onsite visit and felt it was very interesting and noted they took responsibility for the poor communication of the staffing changes.

Phillips reported on the PIMCO onsite visit and noted PIMCO seems to welcome the change and feels they are a high quality organization.

It was **M/S/C** to adjourn the meeting. (Yes: Gordon, Hast, Holcombe, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts)

____________________________ ____________________________

Brian Hast, Chairman Jerry Telles, Secretary

Meeting Date
04/23/14
Agenda Item
#3

CONTRA COSTA COUNTY CCCERA
Employees' Retirement Association

MINUTES

RETIREMENT BOARD MEETING

SECOND MONTHLY BOARD MEETING
9:00 a.m.

March 26, 2014

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

Present: Debora Allen, Scott Gordon, Brian Hast, Jerry Holcombe, Louie Kroll, Karen Mitchoff, John Phillips, William Pigeon, Gabe Rodrigues, Jerry Telles and Russell Watts

Absent: None

Staff: Karen Levy, Retirement General Counsel; and Christina Dunn, Retirement Administration Manager

Outside Professional Support: Representing:
None

1. **Pledge of Allegiance**

   Hast led all in the *Pledge of Allegiance.*

2. **Accept comments from the public**

   No members of the public offered comment.

CLOSED SESSION

The Board moved into closed session pursuant to Govt. Code Section 54957 – public employee appointment. Title: Retirement Chief Executive Officer.

The Board moved into open session.

3. There was no reportable action related to Govt. Code Section 54957.

4. **Miscellaneous**

   (a) Staff Report – None

   (b) Outside Professionals' Report - None

   (c) Trustees' comments – None

It was **M/S/C** to adjourn the meeting. (Yes: Allen, Gordon, Hast, Mitchoff, Phillips, Pigeon, Rodrigues, Telles and Watts)

Brian Hast, Chairman	Jerry Telles, Secretary

Contra Costa County
Employees' Retirement Association

Actuarial Audit of December 31, 2012 Actuarial Valuation

and

2010-2012 Experience Study

Prepared by:

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Daniel R. Wade, FSA, EA, MAAA
Consulting Actuary

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April 10, 2014

Mr. Kurt Schneider
Deputy Chief Executive Officer
Contra Costa County Employees' Retirement Association
1355 Willow Way, Suite 221
Concord, CA 94520-5728

Re: Actuarial Audit Report

Dear Mr. Schneider:

The enclosed report presents the findings and comments resulting from a detailed review of the December 31, 2012 actuarial valuation and 2012 Experience Study performed by Segal Consulting (Segal) for the Contra Costa County Employees' Retirement Association (CCCERA). An overview of our major findings is included in the Executive Summary section of the report. More detailed commentary on our review process is included in the latter sections.

All calculations are based on CCCERA's plan provisions and the actuarial assumptions adopted by the Retirement Board. The plan provisions, assumptions and methods used are the same as those disclosed in Section 4 of Segal's December 31, 2012 actuarial valuation report. As discussed in our report, we believe the package of actuarial assumptions and methods is reasonable (taking into account the experience of CCCERA and reasonable expectations). Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following:

- Plan experience differing from the actuarial assumptions,
- Future changes in the actuarial assumptions,
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as potential additional contribution requirements due to changes in the plan's funded status), and
- Changes in the plan provisions or accounting standards.

Due to the scope of this assignment, we did not perform an analysis of the potential range of such measurements.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by CCCERA's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the audit results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

Milliman's work product was prepared exclusively for CCCERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning CCCERA's operations, and uses CCCERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

We would like to express our appreciation to both the Segal and CCCERA staff for their assistance in supplying the data and information on which this report is based.

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 contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Daniel R. Wade, FSA, EA, MAAA
Consulting Actuary

NJC/DRW/nlo

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Section 1 Summary of the Findings

Purpose and Scope of the Actuarial Audit

This actuarial audit reviews the December 31, 2012 actuarial valuation and the Experience Study for the period January 1, 2010 to December 31, 2012 performed by CCCERA's retained actuary, Segal. The purpose of this audit is to verify that the results of the valuation are accurate and that the assumptions the valuation is based upon are reasonable. The following tasks were performed in this audit:

- ✓ Evaluation of the data used in the valuation and Experience Study;
- ✓ Full independent replication of the Experience Study;
- ✓ Full independent replication of the key valuation results;
- ✓ Evaluation of assumptions used in the valuation; and
- ✓ Analysis of valuation results and reconciliation of material differences

Audit Conclusion

Overall

From an actuarial perspective, the results of this audit are very positive. We found no material concerns. Specifically, we want to highlight the following:

- **Strong Contributions toward Funding**. CCCERA funds its Unfunded Actuarial Accrued Liability (UAAL) over a shorter period than most public sector retirement plans.
- **Reasonable Assumptions**: CCCERA's investment return assumption of 7.25% is lower than about 90% of large public sector retirement systems. Given the continued decline in expectations of future returns, we believe that CCCERA is ahead of the curve in having a lower assumption.
- **Accurate Calculations**: Our independent calculations matched Segal's closely in all material aspects of the valuation.

Experience Study

Based upon our review of the Experience Study for the period ended December 31, 2012, we found the package of recommended assumptions is reasonable and appropriate. We have some comments for Segal and CCCERA to consider in the future; however, these changes are based on minor differences of opinions, rather than differences of facts, and we are not proposing any changes be reflected in the 2012 valuation.

Actuarial Valuation

Based upon our review of the December 31, 2012 actuarial valuation, we found the actuarial work performed by Segal was reasonable, appropriate, and accurate. The following table shows that our independent calculations are very close to those determined by Segal and should give the Board a high level of confidence that the results of the valuation are accurate based on the current assumptions.

	Segal	Milliman
Aggregate Employer Contribution Rate	49.82%	49.53%
Funded Percentage	70.6%	71.0%

We have made a few recommendations regarding the valuation; however, we do not consider any of these potential changes to be material to the overall results of the valuation.

Changes Since Last Actuarial Audit

We previously performed an actuarial audit of CCCERA as of December 31, 2007. There have been significant changes since that time. We have included analysis of these changes in this report:

- **Depooling**: CCCERA, with Segal's assistance, depooled the assets and liabilities effective with the contribution rates calculated in the December 31, 2008 valuation. We have reviewed the new structure as of the December 31, 2012 valuation, but we have not gone back to assess the original depooling.
- **New Plans**: New plans were added effective January 1, 2013. Although there were no active members in the plans as of December 31, 2012, we have confirmed the calculated contribution rates are reasonable based on the same hypothetical population used by Segal.
- **Terminal Pay**: The treatment of terminal pay for valuation purposes was revised for members entering the system after December 31, 2010. Additionally, new terminal pay assumptions were adopted with the most recent experience study. We reviewed these assumptions for reasonableness.
- **Amortization Method**: CCCERA changed from a closed to a layered amortization method since our last audit. This addressed our concerns that we had at that time about potential significant contribution rate volatility. We believe the new method strikes an appropriate balance between strong funding and contribution rate stability.
- **CAAP**: The California Actuary Advisory Panel (CAAP) has published papers on both model actuarial funding policies and model disclosure elements for actuarial valuation reports. These are just guidelines for actuarial work for California plans and not requirements. In our analysis, we found a high level of consistency between these guidelines and Segal's valuation report and CCCERA's funding policy.

Statement of Key Findings

Membership Data

We performed tests on both the raw data supplied by CCCERA staff and the processed data used by Segal in the valuation and the Experience Study. Based on this review, we feel the individual member data used in both projects is appropriate and complete. Note that this included analysis by cost group. A summary is shown in the chart below:

	Segal	Milliman	Ratio Segal/Milliman
Active Members			
Total Number	8,640	8,619	100.2%
Average Service	10.2	10.1	100.6%
Average Compensation	$ 75,499	$ 75,411	100.1%
Retirees and Survivors			
Total Number	8,517	8,482	100.4%
Average Monthly Pension	$ 3,518	$ 3,521	99.9%

Actuarial Value of Assets

We have reviewed the calculation of the actuarial value of assets used in the December 31, 2012 valuation. We also reviewed the allocation of the valuation value of assets into the various cost groups. We found the calculations to be reasonable and the methodology to be appropriate and in compliance with Actuarial Standards of Practice.

Actuarial Liabilities and Normal Cost

We independently calculated the normal cost rates and liabilities of CCCERA. We found that all significant benefit provisions were accounted for in an accurate manner, the actuarial assumptions and methods are being applied correctly, and that our total liabilities matched those calculated by Segal closely. This was true both in aggregate and by cost group.

A summary of the results for the system in aggregate is shown in the chart below. Further breakdowns by cost group, as well as employer contribution rates for the new plans, are shown in Section 4. The Actuarial Accrued Liability is shown in millions.

	Segal	Milliman	Ratio Segal/Milliman
Actuarial Accrued Liablity	$ 7,761.3	$ 7,723.2	100.5%
Employer Normal Cost	19.20%	19.21%	99.9%

Statement of Key Findings
(continued)

Member Contribution Rates

We reviewed the current member contribution rates. We found that both the basic and COLA rates were determined in an appropriate manner.

The following chart compares the member contribution rates determined by Milliman with those calculated by Segal for a member entering at age 35 who entered prior to 2011. Member rates for all plans at selected entry ages are shown in Section 5, including those for post-2010 hires.

	Entry Age 35 Member Contribution Rate[1]		
Group	**Segal**	**Milliman**	**Segal / Milliman**
General Members (Pre-2011)			
Tier 1	12.26%	12.05%	101.8%
Tier 1 Enhanced	11.42%	11.42%	100.0%
Tier 3 Enhanced	10.79%	10.85%	99.4%
Safety Members (Pre-2011)			
Tier A	17.89%	17.63%	101.5%
Tier A Enhanced	19.31%	19.37%	99.7%
Tier C Enhanced	15.31%	15.21%	100.6%

[1] *Rates shown are for monthly pay greater than $350 and exclude subvention.*

Funding

We reviewed the application of the funding method and find it is reasonable and that it meets generally accepted actuarial standards. Based on the system's funding methods and assumptions, we believe the employer contribution rates for each cost group are appropriately calculated.

There are a number of adjustments to account for prior pension obligation bonds that add to the complexity of the employer rate calculations. We feel that making these adjustments is a reasonable approach to allocating costs by employer.

Statement of Key Findings
(continued)

Funding (continued)

A summary of the average employer rate for each cost group is shown in the following chart.

Cost Group	Segal	Milliman	Ratio Segal/Milliman
Cost Group #1	41.59%	41.29%	100.7%
Cost Group #2	37.08%	36.73%	101.0%
Cost Group #3	73.93%	72.43%	102.1%
Cost Group #4	47.04%	45.88%	102.5%
Cost Group #5	42.81%	43.10%	99.3%
Cost Group #6	32.16%	32.01%	100.5%
Cost Group #7	89.83%	89.99%	99.8%
Cost Group #8	89.79%	90.76%	98.9%
Cost Group #9	81.53%	79.96%	102.0%
Cost Group #10	80.03%	79.72%	100.4%
Cost Group #11	95.39%	96.95%	98.4%
Cost Group #12	110.02%	110.56%	99.5%
Total Employer Rate	**49.82%**	**49.53%**	**100.6%**

Actuarial Assumptions (Economic)

We reviewed the economic assumptions used in the valuation and found them to be reasonable. The economic assumptions used were adopted based on Segal's Review of Economic Actuarial Assumptions completed in February 2013.

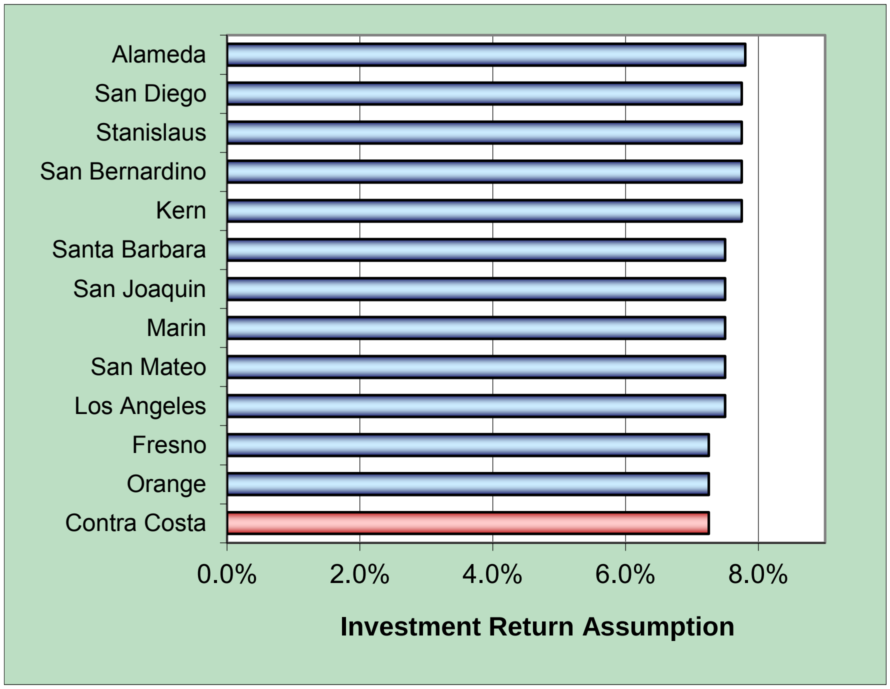
We have the following comments regarding the economic assumption:

- Our analysis supports the expected rate of return of 7.25%, given the building block approach and CCCERA's assumptions for inflation and expenses. The 7.25% is in line with recommendations we have made to our retained clients.
- The inflation assumption of 3.25% is reasonable, but it is toward the higher end of our best-estimate range.
- It should be noted that a recent change in the actuarial standards of practice pertaining to economic assumptions provides a more restrictive definition of what is "reasonable." The new standard will first be applicable for CCCERA with the December 31, 2014 valuation. This could impact the selection of the economic assumptions; however, based on the economic environment when the new assumptions were adopted, we believe they would satisfy the new actuarial standards of practice (if they had applied at that time).

Statement of Key Findings
(continued)

Actuarial Assumptions (Economic) (continued)

Although assumptions should not be set based on what other systems are doing, it is informative to see how CCCERA compares. Looking at other selected '37 Act systems, CCCERA's current assumption is below average, with the return assumptions for most systems being either 7.50% or 7.75%. Similar to statewide systems throughout the country, the trend among '37 Act Systems has been toward lower investment return assumptions.



Actuarial Assumptions (Demographic)

We performed a full replication of the Experience Study. Based on this analysis, we reviewed the demographic assumptions used in the valuation and found them to be reasonable. We are making a few comments to consider for the next Experience Study. A more detailed summary of our analysis is shown in Section 8.

Valuation & Experience Study Reports

Overall, we found Segal's reports to be clear and complete. We have made a few comments for consideration where additional information could be included to enhance the understanding of an outside reader.

Recommendations and Other Considerations

We are not recommending any changes be reflected in the December 31, 2012 valuation. There are a few changes that we are recommending CCCERA and Segal consider in the future.

Recommended Changes with a Material Impact

We are not recommending any changes that would have a material impact on the valuation.

Other Recommended Changes

We recommend that Segal implement the following change:

- ✓ **Refundability Factor [page 22]:** Revise the method used in the calculation of the refundability factors. (Section 5)

Considerations for the Future

We recommend that Segal consider the following actions for future valuations or experience studies:

- ✓ **Payroll used in Amortization [page 23]:** Revising the method used to determine the valuation year payroll in the amortization of the Unfunded Actuarial Accrued Liability (UAAL).

- ✓ **Mortality Table [page 42]:** Increasing the margin in the post-retirement mortality assumption. The current assumption has some margin for future increases in life expectancies; however, a recent study by the Society of Actuaries indicates that an increased margin may be appropriate.

- ✓ **Termination Rates at More than 20 Years of Service [pages 46-47]:** Reducing the rates of termination for years of service at 20 years and later.

- ✓ **Assumed Deferred Safety Member Retirement [page 47]:** Lowering the age at which deferred Safety members are assumed to retire from age 54 to age 50.

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Section 2 Membership Data

Audit Conclusion

We performed tests on both the raw data supplied by CCCERA staff and the processed data used by Segal in the valuation and the Experience Study. Based on this review, we feel the individual member data used in both projects is appropriate and complete. In particular, Segal has a detailed process to allocate the members correctly by cost group which we believe is reasonable.

Comments

Overall, the data process appears to be thorough and accurate. We would add the following comments:

- Raw Data: We were provided with the same data that was given by CCCERA staff to Segal for use in the actuarial valuation (and the preceding actuarial valuations for the Experience Study).
  - ✓ **Completeness:** The data contained all the necessary fields to perform both the actuarial valuation and the Experience Study.
  - ✓ **Quality:** Although we did not audit the data at the source, we performed some independent checks to confirm the overall reasonableness of the data. We compared the total retiree and beneficiary benefit amounts on the CCCERA data with the actual benefit payments made, as reported in CCCERA's asset statements. We also compared the total active member compensation on the CCCERA data with the estimated active payroll for the prior year. The estimated payroll was based on the actual employer and member contribution amounts divided the applicable rates for the prior year. Based on this analysis, we found the data to be reasonable.

Comments (continued)

- Parallel Data Processing: We performed independent edits on the raw data and then compared our results with the valuation data used by Segal. We found our results to be consistent.

  Our results do not match exactly. This is understandable since Segal, as the retained actuary, has more extensive data editing procedures. Overall, each key data component matched within an acceptable level and we believe the individual member data used by Segal was appropriate for valuation purposes.

  One area we did note some small differences in CCCERA's data and the processed data used by Segal in the valuation was the allocation by cost group. Segal informed us that these differences were primarily due to a detailed check they do each year to make sure the cost group allocations for individuals are consistent with the original "depooling" of assets. We identified a number of individuals and sent them to CCCERA staff, who confirmed that Segal was assigning these individuals appropriately. We adjusted our data process to reflect this.

  A summary of the data in aggregate is shown in Exhibit 2-1. In all cases, we matched Segal's valuation data at a reasonable level. The "Milliman" column reflects the CCCERA data after adjustments by Milliman. The "Segal" column reflects the actual data used in Segal's valuation.

Exhibit 2-1
Member Statistics as of December 31, 2012

	Segal	Milliman	Ratio Segal/Milliman
Active Members			
Total Number	8,640	8,619	100.2%
Average Age	45.9	45.9	100.0%
Average Service	10.2	10.1	100.6%
Average Projected Compensation	$ 75,499	$ 75,411	100.1%
Retirees and Survivors			
Total Number	8,517	8,482	100.4%
Average Age	69.0	69.1	99.9%
Average Monthly Pension[1]	$ 3,518	$ 3,521	99.9%
Vested Terminated Members			
Total Number	2,288	2,304	99.3%
Average Age	46.8	46.9	99.8%

Section 3 Actuarial Value of Assets

Audit Conclusion

We have reviewed the calculation of the actuarial value of assets used in the December 31, 2012 valuation. We also reviewed the allocation of the valuation value of assets into the various cost groups. We found the calculations to be reasonable and the methodology to be appropriate and in compliance with Actuarial Standards of Practice.

Comments

The method used to determine the gross actuarial value of assets smoothes investment gains and losses by reflecting 10% of the difference between the market-related value and the expected market value for every six months over a five-year period. This value is then adjusted to remove any non-valuation reserves (currently equal to the Post-Retirement Death Benefit reserve), which results in the valuation assets used in the funding calculations.

We reviewed the calculation of the actuarial value of assets and found it to be reasonable, and all adjustments were appropriate. This calculation is performed by CCCERA. Because the calculation is done on a six-month basis and full financial statements are not created on a six-month basis, we were not able to verify the results in full.

We were able to verify that the total contributions for the past year matched the financial statements and that the benefit payments matched within 0.1%. We also verified that the formulas used matched our understanding of what the formulas should be, and thus the calculations are correct as long as the correct June 30 market values of assets are used between valuations.

The valuation assets are allocated to each cost group as part of the valuation process. Segal adjusts the beginning of year balance by the cash flow for the year and then allocates the total earnings for the fund on a proportional basis. We believe this is an appropriate method.

In order to calculate cash flow for the year, the total member contributions, employer contributions, and benefit payments were determined by cost group. Segal also made adjustments based on the extra UAAL payments made by the City of Pittsburg during 2012.

Comments (continued)

For contribution amounts, CCCERA provided spreadsheets with both the member and employer contribution rates by employer and additional breakdowns necessary to assign contributions to cost groups. After these contributions were allocated to each cost group, an adjustment was necessary because the total contributions in the spreadsheets differed from the total contributions in the financial statements by approximately 0.5%. We were able to match Segal's calculations for the contributions precisely.

For benefit payments, CCCERA provided a large file with benefit payments by member for each month. We then assigned each payment to the appropriate cost group based on the valuation data. Again, an adjustment was necessary because the total benefit payments did not precisely match the total benefit payments from the financial statements. Segal's calculations appeared reasonable.

Based on the stated methodology, we were within 0.5% of Segal's calculations for each cost group.

As discussed above, CCCERA uses an asset smoothing method to reduce volatility. The five-year smoothing method is the most commonly used among large public retirement systems. We believe the use of an asset smoothing method is appropriate, and we generally recommend this to our clients, particularly in systems where contribution rates change annually. We also believe a five-year period is reasonable.

When a smoothing method is applied, the actuarial value of assets will deviate from the market value of assets. Many public retirement systems apply a corridor; that is, the actuarial value of assets is not allowed to deviate from the market value by more than a certain percentage. The purpose of a corridor is to keep the actuarial value of assets within a reasonable range of the market value.

The current asset method does not have a corridor limiting the actuarial valuation of assets to be within a certain percentage of the market value (e.g., between 80% and 120% of market value). The downside of using a corridor is that it can cause significant contribution rate volatility when the assets are outside the corridor, which is likely to occur with many systems as the current market decline is reflected in the future. We believe a five-year smoothing period is short enough that a corridor is not necessary for compliance with ASOP No. 44, the actuarial standard of practice for the selection and use of asset valuation methods for pension valuations.

Comments
(continued)

The California Actuary Advisory Panel (CAAP) has published a paper on model actuarial funding policies which includes guidelines for asset smoothing. CCCERA's method of five-year smoothing without a corridor falls in the "Acceptable Practices" category under these guidelines (categories described below for reference). The only difference between CCCERA's method and the method described in the "Model Practices" is that the model practice method includes a corridor of no greater than 50% to 150%, and CCCERA has no corridor for five-year smoothing.

Categories Under CAAP Guidelines	
Model Practices	Those practices most consistent with the Level Cost Allocation Model (LCAM) developed by CAAP.
Acceptable Practices	Generally those which, while not consistent with the LCAM, are well established in practice and typically do not require additional analysis.
Acceptable Practices with Conditions	May be acceptable in some circumstances either to reflect different policy objectives or on the basis of additional analysis.
Non-Recommended Practices	Systems using these practices should acknowledge the policy concerns identified in the CAAP Guidelines.
Unacceptable Practices	No description provided by CAAP, but implication appears to be clear.

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Section 4 Actuarial Liabilities

Audit Conclusion

We independently calculated the normal cost rates and liabilities of CCCERA. We found that all significant benefit provisions were accounted for in an accurate manner, the actuarial assumptions and methods are being applied correctly, and that our total liabilities matched those calculated by Segal closely. This was true both in aggregate and by cost group.

Comments

We incorporated the following information into our valuation system:

- ✓ **Data** – We used the data provided by CCCERA. As discussed in Section 2, we confirmed that this data was consistent with the valuation data used by Segal.
- ✓ **Assumptions** – We used the assumptions disclosed in the December 31, 2012 actuarial valuation report. This information was provided to us electronically by Segal. We confirmed the assumptions were consistent with those adopted based on the recent experience study report.
- ✓ **Methods** – We used the actuarial methods disclosed in the December 31, 2012 actuarial valuation report. This was supplemented by discussions between Segal and Milliman on the technical application of these methods.
- ✓ **Benefits** – We obtained this information from the CCCERA website and the relevant law.

We then performed a parallel valuation as of December 31, 2012. Based on this valuation, we completed a detailed comparison of the actuarial accrued liability (AAL) computed in our independent valuation and the amount reported by Segal. Exhibit 4-1 shows a summary of this analysis for each member type. The results for each member group were reasonable, and our calculated AAL values match very closely with those reported in the valuation.

Exhibit 4-1
Actuarial Accrued Liability by Member Type
(Dollar Amounts in Millions)

	Segal	Milliman	Ratio Segal/Milliman
Retirees & Beneficiaries	$ 4,990.8	$ 4,983.7	100.1%
Inactive Members	206.7	197.7	104.6%
Active Members	2,563.8	2,541.8	100.9%
Total AAL	**$ 7,761.3**	**$ 7,723.2**	**100.5%**

Comments
(continued)

Exhibit 4-2 shows the total (accrued and future) present value of benefits (PVB) for active members by benefit type. Similar to the AAL, our calculated PVB was close to Segal's in total. A summary of the total present value of benefits for active members is shown in the following chart:

Exhibit 4-2
Active Present Value of Benefits by Benefit Type
(Dollar Amounts in Millions)

	Segal	Milliman	Ratio Segal/Milliman
Service Retirement	$ 3,590.6	$ 3,608.4	99.5%
Vested Term & Refund	191.4	181.5	105.5%
Disability	298.3	304.6	97.9%
Death from Active Status	63.0	62.2	101.3%
Total Active PVB	**$ 4,143.3**	**$ 4,156.7**	**99.7%**

Exhibit 4-3 shows the PVB for all members by cost group. Our calculated PVB was within normal actuarial tolerances in all cases. A summary is shown in the following chart:

Exhibit 4-3
Present Value of Benefits by Cost Group
(Dollar Amounts in Millions)

	Segal	Milliman	Ratio Segal/Milliman
Cost Group #1	$ 1,635.3	$ 1,631.3	100.2%
Cost Group #2	3,603.0	3,602.3	100.0%
Cost Group #3	380.0	376.3	101.0%
Cost Group #4	60.6	60.0	101.0%
Cost Group #5	55.1	55.2	99.8%
Cost Group #6	7.1	7.1	100.0%
Cost Group #7	1,872.8	1,874.7	99.9%
Cost Group #8	1,029.4	1,031.1	99.8%
Cost Group #9	74.0	75.6	97.9%
Cost Group #10	195.2	195.1	100.1%
Cost Group #11	386.0	387.0	99.7%
Cost Group #12	42.3	42.6	99.3%
Total PVB	**$ 9,340.8**	**$ 9,338.3**	**100.0%**

Note that there will always be differences in the calculated liabilities when different software is used by different actuaries; however, the results should not deviate significantly. The level of consistency we found in this audit provides a high level of assurance that the results of the valuation accurately reflect the liabilities of CCCERA based on the plan provisions, assumptions and methods.

Comments
(continued)

There is a relatively minor technical issue with the timing of the benefit payments for future retirees. In a valuation, the actuary first projects the future benefit payments based on the data and assumptions. The actuary then places a value on each future benefit expected to be paid based on the investment return assumption. A dollar paid in the future is worth less than a dollar paid today due to the time value of money.

Segal is effectively treating benefit payments for a given month as being paid on the first of that month in its calculations. CCCERA's benefit payments are actually made at the beginning of the following month for new retirees. For example, a member's payment for October is made in early November. Segal is treating the payment as being made on the retirement date.

We adjusted our valuation to be consistent with Segal's approach so this did not cause any differences. If we had not made this adjustment our numbers for the current active population would have been slightly lower (about ½%). Although we think that using our usual method (payments at the end of the month) better reflects CCCERA's processes, we believe Segal's method is reasonable. Note that currently retired members do receive the first payment after the valuation date at the beginning of January, so Segal's methodology for current retirees is not an issue.

We also looked at the normal cost rate (the allocated cost of benefits earned during the year). Exhibit 4-4 shows the aggregate results. In the many audits we have performed, this is usually the area where we see the greatest differences. Although there were some differences, the overall match was close and deviation by cost group fell within an acceptable level in all cases.

Exhibit 4-4
Comparison of Employer Normal Cost Rate
(Expressed as a Percent of Payroll)

	Segal	Milliman	Ratio Segal/Milliman
Employer NC Rate (Total)			
Basic	14.70%	14.92%	98.5%
COLA	4.50%	4.29%	105.0%
Total	19.20%	19.21%	99.9%

Although there were no members subject to PEPRA included in the valuation, there will be when the contribution rates take effect. Therefore, Segal determined Normal Cost rates for the new tiers that are used in determining the employer and member rate.

Comments (continued)

Exhibit 4-5 shows the results for the new tiers. Note that this exhibit shows the gross Normal Cost rate; whereas, the previous exhibit showed the employer Normal Cost rate. The net employer Normal Cost rate would be approximately one-half of the gross Normal Cost rate, since members pay for approximately half of the cost.

Exhibit 4-5
Comparison of Gross Normal Cost Rate (PEPRA)
(Expressed as a Percent of Payroll)

	Segal	Milliman	Ratio Segal/Milliman
Total NC Rate (New Tiers)			
General 4 (Maximum 2% COLA)	19.60%	19.82%	98.9%
General 5 (Maximum 2% COLA)	18.66%	19.18%	97.3%
General 4 (Maximum 3% COLA)	21.92%	22.03%	99.5%
General 5 (Maximum 3% COLA)	20.80%	21.02%	99.0%
Safety D (Maximum 3% COLA)	34.34%	34.92%	98.3%
Safety E (Maximum 2% COLA)	29.34%	29.46%	99.6%

Based on these results, we feel that Segal is valuing all significant plan provisions in an accurate manner.

Section 5 Member Contribution Rates

Audit Conclusion

We reviewed the current member contribution rates. We found that both the basic and COLA rates were determined in an appropriate manner.

Comments

Member contributions are of two types: Basic contributions and cost-of-living contributions. Basic contributions for each tier are defined in the County Employees Retirement Law as follows:

Tier	Formula
General 1 Non-Enhanced	1/120th of 1-Year FAC at age 55
General 1 Enhanced	1/120th of 1-Year FAC at age 60
General 3 Enhanced	1/120th of 1-Year FAC at age 60
Safety A Non-Enhanced	1/100th of 1-Year FAC at age 50
Safety A Enhanced	1/100th of 1-Year FAC at age 50
Safety C Enhanced	1/100th of 3-Year FAC at age 50

FAC = Final Average Compensation

Basic member contributions are determined using the Entry Age Normal Actuarial Cost Method and the following actuarial assumptions:

1. Expected rate of return on assets
2. Individual salary increase rate (wage growth + merit)
3. Mortality for members after service retirement

The determination of the member cost-of-living contributions is based on Section 31873 of the County Employees Retirement Law. This section requires that the cost of this benefit be shared equally between members and the employer.

For both the basic and COLA portions, we found our results to be consistent with Segal's. Member contribution rates for sample ages are shown in the following exhibit.

Milliman

Exhibit 5-1
Sample Member Contribution Rates
Pre-2011 Hires

	Member Contribution Rate[1]		
Group	**Segal**	**Milliman**	**Segal / Milliman**
General Tier 1 Non-enhanced Members			
Entry Age 25	10.68%	10.51%	101.6%
Entry Age 35	12.26%	12.05%	101.8%
Entry Age 45	14.24%	14.00%	101.7%
General Tier 1 Enhanced Members			
Entry Age 25	9.96%	9.97%	99.9%
Entry Age 35	11.42%	11.42%	100.0%
Entry Age 45	13.15%	13.13%	100.1%
General Tier 3 Enhanced Members			
Entry Age 25	9.41%	9.47%	99.3%
Entry Age 35	10.79%	10.85%	99.4%
Entry Age 45	12.42%	12.48%	99.5%
Safety Tier A Non-enhanced Members			
Entry Age 25	15.56%	15.35%	101.4%
Entry Age 35	17.89%	17.63%	101.5%
Entry Age 45	21.28%	20.95%	101.6%
Safety Tier A Enhanced Members			
Entry Age 25	16.79%	16.86%	99.6%
Entry Age 35	19.31%	19.37%	99.7%
Entry Age 45	22.97%	23.02%	99.8%
Safety Tier C Enhanced Members			
Entry Age 25	13.31%	13.25%	100.5%
Entry Age 35	15.31%	15.21%	100.6%
Entry Age 45	17.63%	17.49%	100.8%

[1] *Rates shown are before any employer subvention and are on a refundable basis.*

Exhibit 5-2
Sample Member Contribution Rates
Hires in 2011 and 2012

	Member Contribution Rate[1]		
Group	**Segal**	**Milliman**	**Segal / Milliman**
General Tier 1 Non-enhanced Members			
Entry Age 25	10.25%	10.21%	100.4%
Entry Age 35	11.76%	11.70%	100.5%
Entry Age 45	13.66%	13.60%	100.5%
General Tier 1 Enhanced Members			
Entry Age 25	9.75%	9.70%	100.5%
Entry Age 35	11.19%	11.12%	100.7%
Entry Age 45	12.88%	12.78%	100.7%
General Tier 3 Enhanced Members			
Entry Age 25	9.12%	9.17%	99.5%
Entry Age 35	10.46%	10.50%	99.6%
Entry Age 45	12.04%	12.08%	99.7%
Safety Tier A Non-enhanced Members [2]			
Entry Age 25	15.06%	15.05%	100.1%
Entry Age 35	17.32%	17.29%	100.2%
Entry Age 45	20.61%	20.55%	100.3%
Safety Tier A Enhanced Members			
Entry Age 25	16.30%	16.23%	100.4%
Entry Age 35	18.74%	18.65%	100.5%
Entry Age 45	22.30%	22.16%	100.7%
Safety Tier C Enhanced Members			
Entry Age 25	13.13%	13.06%	100.5%
Entry Age 35	15.11%	15.00%	100.8%
Entry Age 45	17.39%	17.24%	100.9%

(1) *Rates shown are before any employer subvention and are on a refundable basis.*
(2) *Used Segal's COLA load.*

New Plans Subject to PEPRA

Member contribution rates for members first hired after December 31, 2012 are subject to the California Public Employees' Pension Reform Act (PEPRA) and are equal to one-half of the total Normal Cost Rate. The rates do not vary based on entry age. Further, for the December 31, 2012 actuarial valuation, these rates are rounded to the nearest ¼%. We verified that Segal's calculations were reasonable.

	Segal	Milliman	Ratio Segal/Milliman
Total NC Rate (New Tiers)			
General 4 (Maximum 2% COLA)	9.75%	10.00%	97.5%
General 5 (Maximum 2% COLA)	9.25%	9.50%	97.4%
General 4 (Maximum 3% COLA)	11.00%	11.00%	100.0%
General 5 (Maximum 3% COLA)	10.50%	10.50%	100.0%
Safety D (Maximum 3% COLA)	17.25%	17.50%	98.6%
Safety E (Maximum 2% COLA)	14.75%	14.75%	100.0%

It is our understanding that after the valuation was completed CCCERA elected to no longer apply the ¼% rounding. Recent changes in the law made this an option instead of a requirement. We believe that this change is reasonable and is consistent with the trend among our clients and other '37 Act systems.

Refundability Factors

Segal calculates refundability factors. These factors are based on the portion of annual member contributions that are expected to be refunded. Note that these could also be referred to as "non-refundability" factors, since, for example, a factor of 0.9800 indicates that there is a 98% probability that the contributions will not be refunded and a 2% probability the factors will be refunded at some point in the future.

The refundability factors are used to adjust both the member and employer subvention contributions. Additionally, they are used by Segal in the determination of the COLA load portion of the member contribution rates.

We observed some differences in our calculations in certain cost groups. We discussed these differences with Segal and they felt that a modification in their calculation method would be appropriate. The overall impact of this change is expected to be small.

Section 6 Funding

Audit Conclusion

We reviewed the application of the funding method and find it is reasonable and that it meets generally accepted actuarial standards. Based on the system's funding methods and assumptions, we believe the employer contribution rates for each cost group are appropriately calculated.

There are a number of adjustments to account for prior pension obligation bonds that adds to the complexity of the employer rate calculations. We have reviewed these adjustments and feel they are a reasonable approach to allocating cost by employer.

Comments

Total Employer Contribution Rates

We independently calculated the aggregate employer contribution rates based on our parallel valuation. We found that all rates were reasonable and matched Segal's calculations very closely in total. A summary comparison of our results is shown below.

Exhibit 6-1
Comparison of Combined Employer Contribution Rate
(as a Percentage of Payroll)

Cost Group	Segal	Milliman	Ratio Segal/Milliman
Employer NC Rate	19.20%	19.21%	99.9%
UAAL Rate	30.62%	30.31%	101.0%
Total Employer Rate	**49.82%**	**49.53%**	**100.6%**

Segal uses a slightly different method in determining the UAAL contribution rate than we do. Specifically, Segal projects the payroll used in the first year of the amortization calculation assuming no change in the active population (i.e., no terminations, retirements, new hires, etc.). This effectively assumes that the payroll will increase by the wage growth and the merit assumptions which results in an increase of about 5.3%. In each succeeding year, they assume the payroll increases by the actuarial assumption of 4.0%. We start with the prior year's annualized pay for the current active population and assume the payroll will increase by 4.0% in each succeeding year. Using our method would result in a slightly lower future payroll and therefore a slightly higher UAAL rate, as the UAAL is paid as a percentage of payroll. We have used Segal's method in our analysis for consistency.

Individual Employer Contribution Rates

Additionally, we reviewed the employer contribution rates for each individual cost group and found them to be reasonable. A complete list of all employer groups within each cost group is shown in Exhibit A-1 in Appendix 1.

Exhibit 6-2
Comparison of Employer Contribution Rates
(as a Percentage of Payroll)

Cost Group	Segal	Milliman	Ratio Segal/Milliman
Cost Group #1	41.59%	41.29%	100.7%
Cost Group #2	37.08%	36.73%	101.0%
Cost Group #3	73.93%	72.43%	102.1%
Cost Group #4	47.04%	45.88%	102.5%
Cost Group #5	42.81%	43.10%	99.3%
Cost Group #6	32.16%	32.01%	100.5%
Cost Group #7	89.83%	89.99%	99.8%
Cost Group #8	89.79%	90.76%	98.9%
Cost Group #9	81.53%	79.96%	102.0%
Cost Group #10	80.03%	79.72%	100.4%
Cost Group #11	95.39%	96.95%	98.4%
Cost Group #12	110.02%	110.56%	99.5%
Total Employer Rate	**49.82%**	**49.53%**	**100.6%**

Contribution Adequacy

The Government Accounting Standards Board (GASB) provides general guidelines on the appropriate annual pension cost for financial reporting purposes. The Annual Required Contribution (ARC) of the employer is based on certain minimum requirements and is measured on the basis of an actuarially sound funding methodology. These requirements for determining a system's ARC are generally the same as those used for funding purposes. Thus, the GASB requirements are often used as a benchmark for determining funding adequacy for a retirement system.

In general, the guidelines expect each system to receive contributions equal to the normal cost plus a payment to amortize either the UAAL or any surplus amount. Under GASB, the payment on a positive UAAL amount should be at least equal to a 30-year amortization payment. We generally recommend a shorter period, consistent with CCCERA's current practice.

Contribution Adequacy (continued)

It should be noted that GASB recently adopted Statements No. 67 and No. 68 dealing with accounting disclosure for public retirement systems; however, these new statements are not effective for the December 31, 2012 valuation and associated reporting. Under the new standards, accounting and funding are explicitly separated. Therefore, it is unlikely that the funding of CCCERA, nor virtually any retirement system, will match the expense calculation in its accounting disclosures in the future.

CCCERA is funding the UAAL over closed (i.e., declining) 18-year periods (referred to as bases or layers). This approach is in line with what we have recommended to a number of our clients. It will almost always exceed the generally accepted minimum requirements for the ARC, and we believe it is appropriate for use by CCCERA.

We would note that it is possible, albeit unlikely, for a calculated contribution rate under this method to be less than the contribution rate under a 30-year amortization of the aggregate UAAL, which is the minimum required under the ’37 Act. This comparison should be done every year to make sure that the contribution rate meets this requirement.

CCCERA’s funding policy falls in the “Model Practice” category under the Actuarial Funding Policies and Practices for Public Pension Plans guidelines issued by the California Actuarial Advisory Panel.

Actuarial Cost Method

CCCERA uses the Entry Age Actuarial Cost Method. We agree that it is appropriate for valuing the costs and liabilities of CCCERA, and it is the cost method that we usually recommend.

Purpose of a Cost Method: The purpose of any cost method is to allocate the cost of future benefits to specific time periods. Most public plans follow one of a group of generally accepted funding methods, which allocate the cost over the members’ working years. In this way, benefits are financed during the time in which services are provided.

Most Common Public Plan Cost Method (Entry Age): The most common cost method used by public plans is the Entry Age Actuarial Cost Method. The focus of the Entry Age Cost Method is the level allocation of costs over the member’s working lifetime. For a public plan this means current taxpayers pay their fair share of the pensions of the public employees who are currently providing services. Current taxpayers are not expected to pay for services received by a past generation, nor are they expected to pay for the services that will be received by a future generation. The cost method does not anticipate increases or decreases in allocated costs.

Actuarial Cost Method (continued)

The 2012 Public Fund Survey shows that about 70% of the retirement systems surveyed are using the Entry Age Cost Method. We believe that the use of this cost method satisfies the requirements of CERL 31453.5.

Note that when GASB Statements No. 67 and No. 68 become effective, the Entry Age Actuarial Cost Method will be the only permissible cost method for financial reporting purposes.

The Entry Age Actuarial Cost Method with separate Normal Cost rates calculated for each tier falls in the "Model Practice" category under the Actuarial Funding Policies and Practices for Public Pension Plans guidelines issued by the California Actuarial Advisory Panel.

GASB Reporting

We reviewed the items shown in Exhibits I, II, & III of Section 4 in the December 31, 2012 valuation report. Based on our review of the valuation, we believe the valuation performed for funding purposes meets the guidelines for financial reporting specified by GASB applicable at the time of the valuation.

Section 7 Actuarial Assumptions (Economic)

Audit Conclusion

We reviewed the economic assumptions used in the valuation and found them to be reasonable. The economic assumptions used were adopted based on Segal's Review of Economic Actuarial Assumptions completed in February 2013.

We have the following comments regarding the economic assumption:

- Our analysis supports the expected rate of return of 7.25%, given the building block approach and CCCERA's assumptions for inflation and expenses. The 7.25% is in line with recommendations we have made to our retained clients.
- The inflation assumption of 3.25% is reasonable, but it is toward the higher end of our best-estimate range.
- It should be noted that a recent change in the actuarial standards of practice pertaining to economic assumptions provides a more restrictive definition of what is "reasonable." The new standard will first be applicable for CCCERA with the December 31, 2014 valuation. This could impact the selection of the economic assumptions; however, based on the economic environment when the new assumptions were adopted, we believe they would satisfy the new actuarial standards of practice (if they had applied at that time).

Comments

The purpose of the actuarial valuation is to analyze the resources needed to meet the current and future obligations of the system. To provide the best estimate of the long-term funded status of the system, the actuarial valuation must be predicated on methods and assumptions that will estimate the future obligations of the system in a reasonably accurate manner.

An actuarial valuation uses various methods and two different types of assumptions: economic and demographic. Economic assumptions are related to the general economy and its long-term impact on the system, or to the operation of the system itself. Demographic assumptions are based on the emergence of the specific experience of the system's members.

Actuarial Standard of Practice No. 27: Selection of Economic Assumptions

The Actuarial Standards Board has adopted Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. This standard provides guidance to actuaries giving advice on selecting economic assumptions for measuring obligations under defined benefit plans, such as CCCERA.

A revision to ASOP 27 was adopted in September 2013. Since this Standard will first be effective for any actuarial work product with a measurement date on or after September 30, 2014, the focus of our analysis will be on the Standard that is currently in effect. The first scheduled valuation for the new Standard will be December 31, 2014 and the new Standard should be considered at the time of the 2015 Review of Economic Actuarial Assumptions.

As no one knows what the future holds, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes. These estimates are based on a mixture of past experience, future expectations, and professional judgment. The actuary should consider a number of factors, including the purpose and nature of the measurement, and appropriate recent and long-term historical economic data. Both the current and the new Standard explicitly advise the actuary not to give undue weight to recent experience.

Recognizing that there is not one “right answer,” the current Standard calls for the actuary to develop a best-estimate range for each economic assumption, and then recommend a specific point within that range. Each economic assumption should individually satisfy this Standard.

After completing the selection process, the actuary should review the set of economic assumptions for consistency. This may require the actuary to use the same inflation component in each of the economic assumptions selected.

An actuary’s best-estimate range with respect to a particular measurement of pension obligations may change from time to time due to changing conditions or emerging plan experiences. Even if assumptions are not changed, we believe that the actuary should be satisfied that each of the economic assumptions selected for a particular measurement complies with Actuarial Standard of Practice No. 27, unless that assumption has been prescribed by someone with the authority to do so.

Economic Assumptions

Based on the information and economic environment present as of the date of Segal's analysis, we believe the economic assumptions used by Segal in the December 31, 2012 actuarial valuation are reasonable. In our opinion, the inflation assumption is toward the top of the best-estimate range, and the investment return assumption is reasonable and in line with what we have been recommending to our other clients.

The current economic assumptions are as follows:

Assumption	Rate
Price Inflation	3.25%
Real Investment Return	4.00%
Total Investment Return	7.25%
Price Inflation	3.25%
Real Wage Growth	0.75%
Total Wage Growth	4.00%
Payroll Growth	4.00%

The Board should be aware that the liabilities and normal cost are directly impacted by these important assumptions. The most critical assumption in determining the present value of benefits is the total investment return assumption.

In our opinion, the current package of economic assumptions is reasonable. The following portion of this report discusses four of the key economic assumptions (inflation, wage growth, investment return, and COLA).

Inflation

Use in the Valuation: Inflation, as referred to here, means price inflation. The inflation assumption has an indirect impact on the results of the actuarial valuation through the development of the assumptions for investment return, general wage increases, payroll increase, and the cost-of-living adjustments for retirees and survivors. Please see the end of Section 7 for further discussion of the COLA assumption.

There is expected to be a long-term relationship between inflation and the investment return assumption. The basic principle is that the investors demand a "real return" – the excess of actual investment returns over inflation. If inflation rates are expected to be high, investors will demand expected investment returns that are also expected to be high enough to exceed inflation, while lower inflation rates will result in lower demanded expected investment returns, at least in the long run.

Historical Perspective: The data for inflation shown below is based on the national Consumer Price Index, US City Average, All Urban Consumers (CPI-U) as published by the Bureau of Labor Statistics.

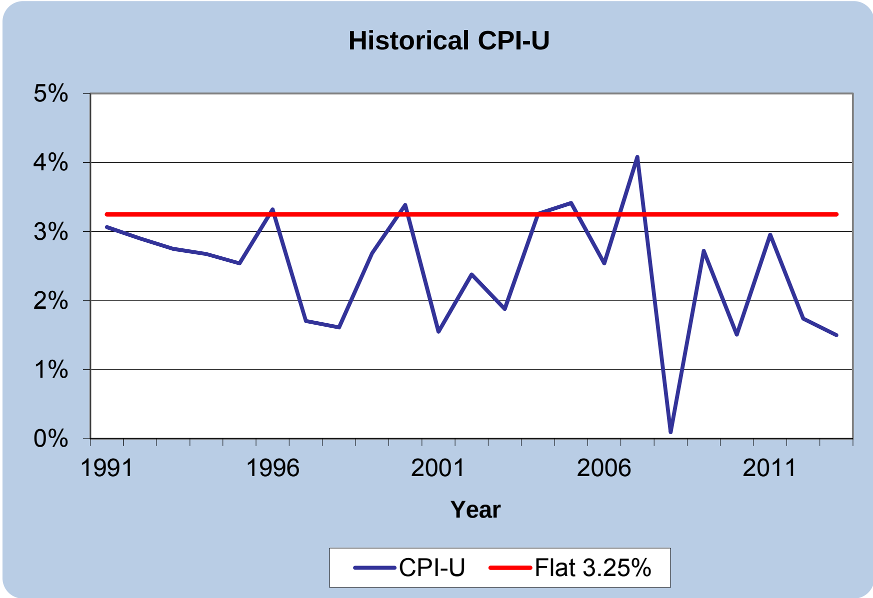
There are numerous ways to review historical data, with significantly differing results. Segal used 15-year and 30-year moving averages for its summary of historical CPI. Using moving averages, in particular 30-year periods, gives significantly more weight to old information than it gives to recent information. For instance, it includes 30-year-old information 30 times, while only considering the past year's information for one of the 30-year periods.

The table below shows the compounded annual inflation rate for the last five 10-year periods, and for the 75-year period ended in December 2012.

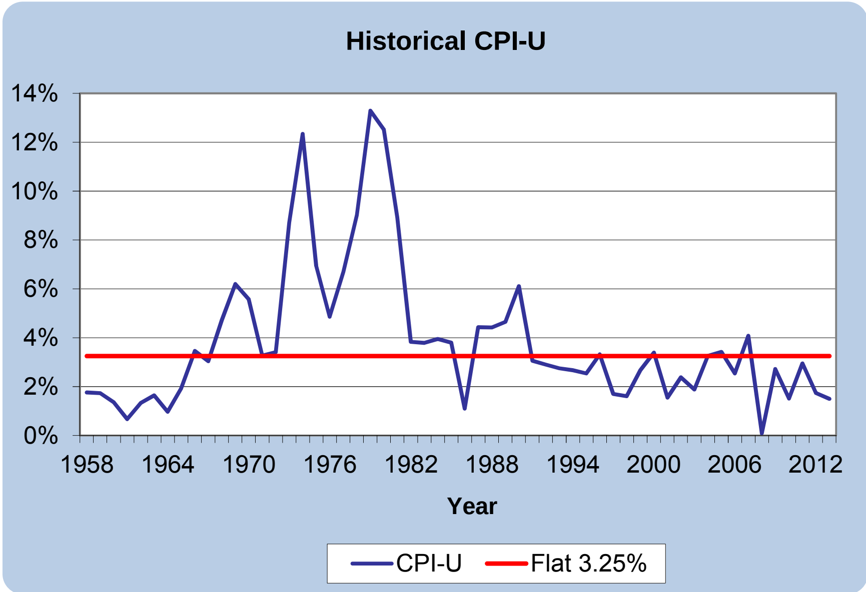
Decade	CPI Increase
2003-2012	2.4%
1993-2002	2.5%
1983-1992	3.8%
1973-1982	8.7%
1963-1972	3.4%
Prior 75 Years	
1938-2012	3.8%

Inflation (continued)

The following graphs show historical national CPI increases after 1990. Note that the actual CPI increases have been less than 3.25% for all but four of the past 22 years.



Before that time, high inflation was more common and inflation exceeded the current assumption 39 times in the past century.



Inflation (continued)

Forecasts of Inflation: Since the U.S. Treasury started issuing inflation indexed bonds (TIPS), it is possible to determine the approximate rate of inflation anticipated by the financial markets by comparing the yields on inflation indexed bonds with traditional fixed government bonds. As of February 2014, market prices suggested investors expected inflation to be about 2.25% over the next thirty years. As Segal noted, TIPS yields provided an estimate of 2.55% for inflation at the time of the Review of Economic Actuarial Assumptions for the December 31, 2012 Actuarial Valuation.

Although most investment consultants and economists forecast lower inflation, they are generally looking at a shorter time horizon than is appropriate for a pension valuation. To consider a longer, similar time frame, we looked at the expected increase in the CPI by the Office of the Chief Actuary for the Social Security Administration. In the 2013 Trustees Report, the projected average annual increase in the CPI over the next 75 years under the intermediate cost assumptions was 2.80%. The low-cost, high-cost range was stated as 1.80% to 3.80%.

Peer System Comparison: Although assumptions should not be set based on what other systems are doing, it is informative to see how CCCERA compares.

According to the 2013 *Public Fund Survey* (a survey of approximately 100 statewide systems), the average inflation assumption for statewide systems has been steadily declining. As of the most recent study, the average rate is 3.17%, the median was 3.00%, and 3.00% was the most common.

Reasonable (Best Estimate) Range: We believe that a range for inflation between 2.00% and 3.50% is reasonable for an actuarial valuation of a retirement system. It should be noted that the current inflation assumption is lower than what had been used for the actuarial valuations from 2009 through 2011. We believe that the change in 2012 was a step in the right direction, but that the Board should consider further reductions.

Consumer Price Inflation	
Current Assumption	3.25%
Best-Estimate Range	2.00% - 3.50%

Investment Return

Use in the Valuation: The investment return assumption is one of the primary determinants in the calculation of the expected cost of CCCERA's benefits, providing a discount of the estimated future benefit payments to reflect the time value of money. This assumption has a direct impact on the calculations of actuarial accrued liabilities, normal cost, and member and employer contribution rates.

The discount rate is the rate used to discount future benefit payments into an actuarial present value. The traditional actuarial approach used in the public sector sets the discount rate equal to the expected investment return. Under current standards set by the GASB, the terms "discount rate" and "investment return assumption" are used interchangeably and that rate "should be based on an estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits, with consideration given to the nature and mix of current and expected plan investments."[1]

It should be noted that GASB has recently revised the accounting and financial reporting for pension plans. While GASB has made many fundamental changes, the discount rate will still be based on the "long-term expected rate of return," provided that the plan is not expected to be depleted of assets. Further, GASB's provisions only apply to accounting and are not intended to impact a system's funding.

The current net investment return assumption of 7.25% per year includes two components: (1) inflation of 3.25%, and (2) a net real rate of return equal to 4.00%. This approach of dividing the net return into separate pieces is called the "building block" method.

Method to Determine Best-Estimate Range for Investment Return: The following chart sets out CCCERA's target asset allocation as of December 31, 2012.

Asset Class	December 31, 2012 Target Asset Allocation
US Equity	19.4%
International Equity	23.2%
US Core Bonds	16.1%
International Bonds	3.3%
High Yield Bonds	5.0%
Long Duration Fixed Incom	5.0%
Real Estate	12.5%
Private Equity	10.0%
Other Investments	5.0%
Cash & Equivalents	0.5%
Total	100%

[1] Governmental Accounting Standards Board (GASB) Statement No. 27, paragraph 10.c, and GASB Statement No. 45, paragraph 13.c.

Investment Return (continued)

We used a model to project future returns based on Milliman's capital market assumptions as of December 31, 2012, the asset allocation, and assumed annual rebalancing. The result was a median real return of about 4.53% over the next 30 years, net of investment expenses. After adding the 3.25% assumption for inflation and subtracting 0.12% based on recent administrative expenses, the median expected rate of return was 7.66%, which is higher than the 7.25% assumed. However, as mentioned above, we feel that the 3.25% assumption for inflation is toward the top of the reasonable range.

Note that we also considered capital market assumptions as of December 31, 2013. Those show slightly lower expectations for equity returns, but this would not impact our conclusion that the 7.25% investment return assumption is reasonable.

We agree with Segal's approach of not including any additional returns for alpha from active management.

Using properties of the lognormal distribution, we calculated the 25th and 75th percentiles of the long-term total return distribution. This becomes our best-estimate range because 50% of the outcomes are expected to fall within this range and it is the narrowest symmetric range with 50% of the probable outcomes.

The results are summarized below:

Expected Return with 3.25% Inflation and Milliman's Expected Rate of Return
(net of investment and administrative expenses)

Horizon In Years	Percentile Results for Nominal Rate of Return: 5th	25th	50th	75th	95th
1	-10.1%	0.0%	7.66%	15.9%	29.0%
5	-0.7%	4.1%	7.66%	11.3%	16.7%
10	1.7%	5.2%	7.66%	10.2%	14.0%
20	3.4%	5.9%	7.66%	9.5%	12.1%
30	**4.2%**	**6.2%**	**7.66%**	**9.1%**	**11.3%**

Over a 30-year time horizon, we estimate there is a 25% chance the nominal rate of return will be less than 6.2% and a 25% chance the return will be greater than 9.1% (bold numbers on the bottom line in the table above). Therefore, we can say the return is just as likely to be within the range from 6.2% to 9.1% as not.

Investment Return (continued)

Excess Earnings: Section 31592.2 of the 1937 Act provides the Retirement Board with the authority to set aside earnings of the retirement fund during any year in excess of the total interest credited to contributions when such surplus exceeds one percent of the total assets of the retirement system. Based on the law, the excess earnings are considered on a year-by-year basis, so excess earnings are not based upon overall funded status. This means that the Board can choose to distribute excess earnings at a time when actuarial accrued liabilities exceed assets.

Also, if earnings are diverted from funding the base pension benefits when returns exceed the assumption, these earnings will not be available to make up the difference when earnings are less than assumed. Ultimately, this will result in a decrease in the long-term investment return.

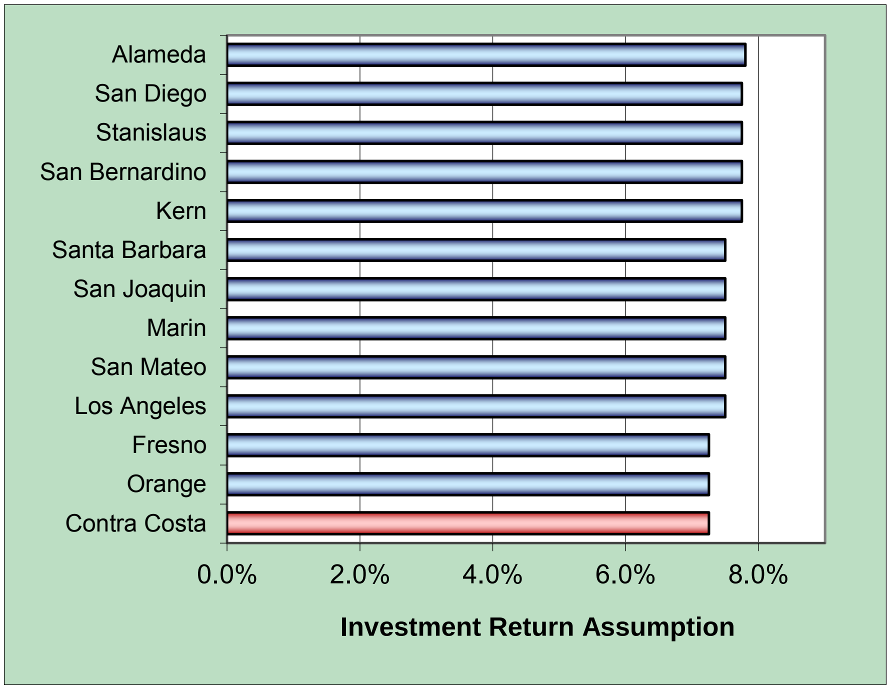
CCCERA has addressed these issues with the Board's Interest Crediting and Excess Earnings Policy.

One of our main concerns about excess earnings is that money may be diverted from funding the pension liability, even if the system is poorly funded. By requiring earnings in excess of the targeted return to be first used to make up for prior shortfalls through the Contra Tracking Account, CCCERA has mostly alleviated this concern. As of December 31, 2012, the Contra Tracking Account was approximately $1.7 billion.

Even with this policy, it is still possible that there will be some impact on the long-term investment return due to excess earnings; however, this depends on the future investment returns of CCCERA and the Board's discretion. We have not made any adjustments in our analysis of the investment return assumption due to the potential impact of excess earnings.

Investment Return (continued)

Peer System Comparison: Looking at other selected ’37 Act systems, CCCERA’s current assumption is below average, with the return assumptions for most systems being either 7.50% or 7.75%. Similar to statewide systems throughout the country, the trend among ’37 Act Systems has been toward lower investment return assumptions.



The investment return assumptions shown above are based on the latest available valuation reports as of December 2013.

Conclusion: We find Segal’s recommendation for a 7.25% investment return assumption to be reasonable.

General Wage Growth

Use in the Valuation: Estimates of future salaries are based on two types of assumptions. Rates of increase in the general wage level of the membership are directly related to inflation, while individual salary increases due to promotion and longevity (referred to as the merit scale) occur even in the absence of inflation. This section will address the general wage growth assumption (price inflation plus productivity increases). The merit scale is discussed in Section 8 of this report (demographic assumptions).

The current wage growth assumption is 0.75% above the price inflation rate, or 4.00% per year. Note that the 4.00% includes increases in wages due to productivity as discussed below.

Historical Perspective: We have used statistics from the Social Security Administration on the National Average Wage back to 1951. For years prior to 1951, we studied the Total Private Nonagricultural Wages as published in *Historical Statistics of the U.S., Colonial Times to 1970*.

There are numerous ways to review this data. For consistency with our observations of other indices, the table below shows the compounded annual rates of wage growth for various 10-year periods, and for the 75-year period ended in 2012.

Decade	Wage Growth	CPI Increase	Real Wage Inflation
2003-2012	2.8%	2.4%	0.4%
1993-2002	3.8%	2.5%	1.3%
1983-1992	4.7%	3.8%	0.9%
1973-1982	7.4%	8.7%	-1.3%
1963-1972	5.2%	3.4%	1.8%
Prior 75 Years			
1938-2012	5.1%	3.8%	1.3%

The excess of wage growth over price inflation represents the increase in the standard of living, also called the real wage inflation rate.

Forecasts for Future Wage Growth: Wage inflation has been projected by the Office of the Chief Actuary of the Social Security Administration. In the 2013 Trustees Report, the long-term annual increase in the National Average Wage is estimated to be 1.1% higher than the Social Security intermediate inflation assumption of 2.8% per year. The range of the assumed real wage growth in the 2013 Trustees Report was from 0.5% to 1.7% per year.

General Wage Growth (continued)

Best-Estimate Range: We believe that a range between 0.00% and 1.25% is reasonable for the actuarial valuation. We believe that the current estimate of 0.75% is a reasonable estimate. Note that over the last 50 years, real wage inflation has averaged 0.60% per year.

Real Wage Inflation	
Current Assumption	0.75%
Reasonable Range	0.00% - 1.25%

Payroll Increase Assumption

The UAAL is amortized as a level percentage of payroll in determining contribution rates as a percentage of pay. The current payroll increase assumption is equal to the general wage growth assumption of 4.00%. It is our general recommendation to set these two assumptions equal, unless there is a specific circumstance that would call for an alternative assumption; therefore, we agree with this assumption. Note, however, that we do feel that the inflation assumption upon which it is based is at the top of the reasonable range. If the inflation assumption is lowered, both the general wage growth and payroll increase assumptions could be lowered.

Post-Retirement Cost-of-Living Adjustments (COLA)

The current assumption is that retiree COLAs will be equal to the maximum COLA level provided by the Association when the maximum is under the inflation assumption, and COLAs equal to the inflation assumption if that is less than the maximum COLA level. In other words, the valuation effectively assumes that the COLA will be the minimum of the inflation assumption or the maximum COLA allowable.

It is expected that actual inflation in the future will sometimes be greater than the assumption and sometimes less. The result is that there is some probability that the actual COLA paid will average less than the maximum amount, even when considering the COLA bank provision.

As Segal states in its Review of Economic Assumptions, there is some indication (based on stochastic modeling) that a lower assumption could be considered for those with a 3% maximum COLA. The current assumption will result in some actuarial gains for years in which the maximum COLA is not granted. However, in years where the assumption is met there would be an actuarial loss if a lower COLA was assumed. For this reason, we generally recommend using the lower of the maximum COLA and the inflation assumption, consistent with Segal's approach. If there is a further decrease in the inflation assumption, this assumption should be reviewed.

Post-Retirement Cost-of-Living Adjustments (continued)

Because the current inflation assumption is higher than the maximum COLA applied to almost all members and given the CCCERA has a COLA bank, we feel it is appropriate to use an assumption that the COLA will equal the 2% or 3% maximum each year for members with that maximum. In addition, those with a 4% maximum and a COLA bank should see average increases close to inflation. Therefore, we agree with Segal's approach.

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Section 8 Actuarial Assumptions (Demographic)

Audit Conclusion

We performed a full replication of the Experience Study. Based on this analysis, we reviewed the demographic assumptions used in the valuation and found them to be reasonable. We are making a few comments to consider for the next Experience Study.

Comments

Studies of demographic experience involve a detailed comparison of actual and expected experience. If the actual experience differs significantly from the overall expected results, or if the actual pattern does not follow the expected pattern, new assumptions are considered. Recommended revisions normally are not an exact representation of the experience during the observation period. Judgment is required to predict future experience from past trends and current evidence, including a determination of the amount of weight to assign to the most recent experience.

Actuarial Standard of Practice No. 35: Selection of Demographic Assumptions

Actuarial Standard of Practice No. 35 (ASOP 35) governs the selection of demographic and other noneconomic assumptions for measuring pension obligations. ASOP 35 states that the actuary should use professional judgment to estimate possible future outcomes based on past experience and future expectations, and select assumptions based upon application of that professional judgment. The actuary should select reasonable demographic assumptions in light of the particular characteristics of the defined benefit plan that is the subject of the measurement. A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Actual-to-Expected Ratio

In performing an Experience Study, an actuary will compare the actual results of the study with those the assumptions would have predicted. This comparison is called the “Actual-to-Expected” (A/E) ratio. If, for example, the A/E ratio for service retirement is 120%, this would indicate that the actual number of service retirements exceeded the number expected by the assumptions by 20%. For purposes of our analysis, we have used the assumptions from the December 31, 2012 valuation as the expected amounts.

Post-Retirement Mortality – Healthy Retirement

We studied the probability of death at each age for healthy retired members (service retirements). Overall our results are similar to Segal's. Based on these results, we believe that the current assumptions are reasonable; however, consideration should be given to changing the assumption to reflect increased life expectancies with the next triennial experience study.

The overall actual-to-expected ratio is 110% in Segal's study, so there were fractionally more deaths than the assumptions predicted (i.e., retirees did not live quite as long as expected). However, we generally like to see a higher actual-to-expected ratio. The two main reasons for this are:

- **Margin for Anticipated Improvements in Mortality:** It is generally accepted that life expectancies will continue to increase, and it is prudent to either have a "margin" in the rates used (i.e., predict fewer deaths in the future than actually occurred in the past) or project future mortality improvements directly. Segal mentions that "general actuarial practice is to include some margin for improvements in mortality in the future"; however, we generally like to see a margin greater than 9% (the A/E ratio reported by Segal for healthy retirees was 109%). We normally look to have a margin above 10%, although a 10% margin is in the mainstream of actuarial practice. A recent study from the Society of Actuaries has indicated greater increases in life expectancies than previously predicted. This also argues for an increased margin.

- **Differences by Benefit Amount:** Our analysis has shown that retirees with above-average benefit amounts tend to live longer than those with below-average benefit amounts. This means that although the current assumptions may be accurately predicting the number of deaths, they are overstating the release of liability expected when retirees die, which is what impacts the valuation. Based on our analysis with other systems, an additional adjustment of 5% to 10% in the actual-to-expected ratio is needed to account for this.

The following table shows a comparison of the results of our study of mortality on a count basis with the results reported by Segal.

	Healthy (Milliman)			Healthy (Segal)		
Group	Actual	Expected	Act/Exp	Actual	Expected	Act/Exp
General	373	336	111%	373	339	110%
Safety	40	40	100%	39	39	100%
Total	**413**	**376**	**110%**	**412**	**378**	**109%**

Post-Retirement Mortality – Disabled Retirement

We performed a similar study of mortality for disabled retirements. The results of our study were consistent with those reported by Segal. Segal's actual-to-expected ratio was 115% which indicates there is some margin for future increases in life expectancies. We believe the current mortality assumptions for disabled retirees are reasonable.

The following table shows a comparison of the results of our study of mortality on a count basis with the results reported by Segal.

	Disabled (Milliman)			**Disabled (Segal)**		
Group	Actual	Expected	Act/Exp	Actual	Expected	Act/Exp
General	58	51	114%	57	50	114%
Safety	28	21	133%	26	22	118%
Total	**86**	**72**	**119%**	**83**	**72**	**115%**

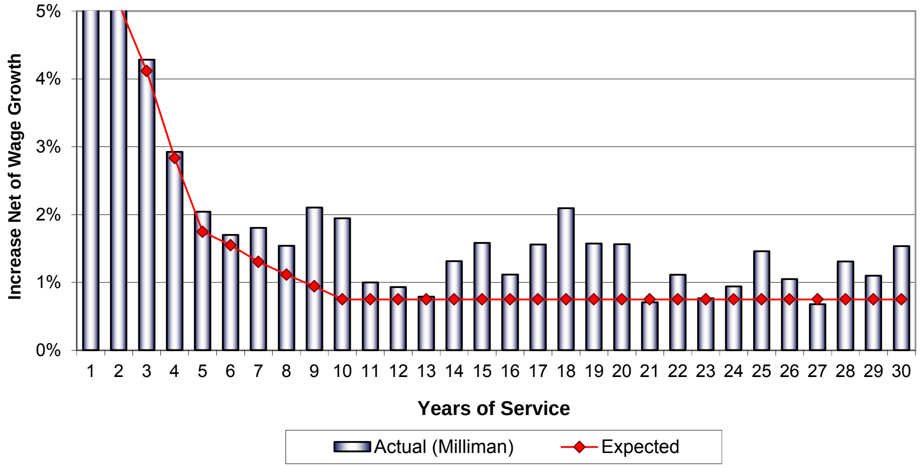
Merit and Longevity Salary Increases

We studied the individual salary increases due to promotion and longevity – the merit component of salaries. These increases are in addition to the assumed increases due to general wage inflation (price inflation plus real "across the board" increases). We believe the current assumption is reasonable.

The method varies merit increases based on service. Members earlier in their career (i.e., low levels of service) are expected to receive larger increases than those later in their career. We agree that service is the most significant factor in expected future merit increases, and this is the approach we generally recommend.

Merit and Longevity Salary Increases (continued)

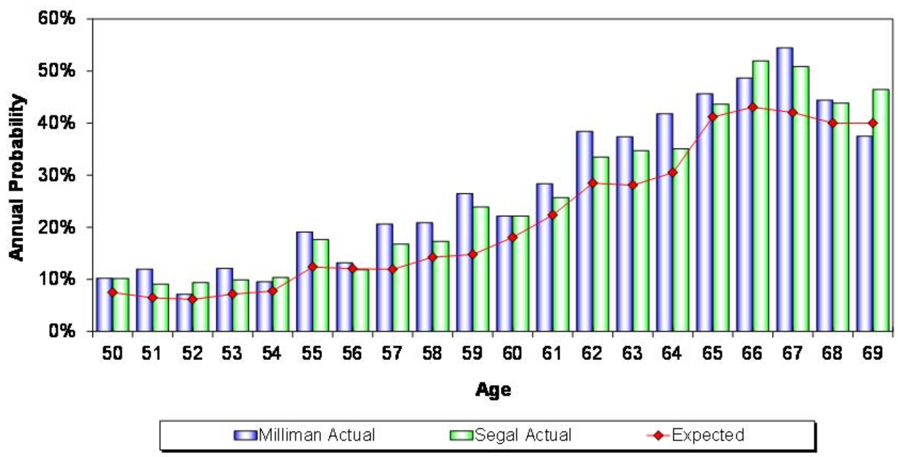
The following graph shows how CCCERA's actual merit increases (blue bars), as calculated by Milliman, are somewhat higher than the assumption, but consistent with the results of Segal's study. Segal only gave partial recognition to the recent experience, so the assumption is less than the experience. We agree with this approach, particularly in light of the somewhat anomalous period where across-the-board increases (salary increase exclusive of merit) were slightly negative.



Rates of Service Retirement

We studied service retirement rates for both General and Safety members. We found our results to be generally consistent with Segal's and believe the current assumptions are reasonable.

The following chart shows the results of our analysis for all retirements from active service. Note how the blue (Milliman) and green (Segal) bars tend to be close in height. This indicates that the observed rates of Milliman and Segal are consistent. Both clearly indicate that the experience during the period exceeded the assumption. This may be a short-term fluctuation or a long-term trend. Our understanding is that flat-to-declining pay during the period may have prompted more people to retire. In any case, we believe that Segal's approach of only partially recognizing this experience in their recommendation was appropriate.



Rates of Disability Retirement

We studied rates of disability retirement for both General and Safety members. We found our results to be reasonably consistent with Segal's and believe the current assumptions are reasonable. Results of our study are shown by group below.

Group	All Disability Retirements by Group			
	Expected	Actual (Milliman)	Actual (Segal)	S/M Ratio
General Tier 1	11	9	*	*
General Tier 3	26	16	*	*
Safety	52	42	*	*
Total	**89**	**67**	**66**	**102%**

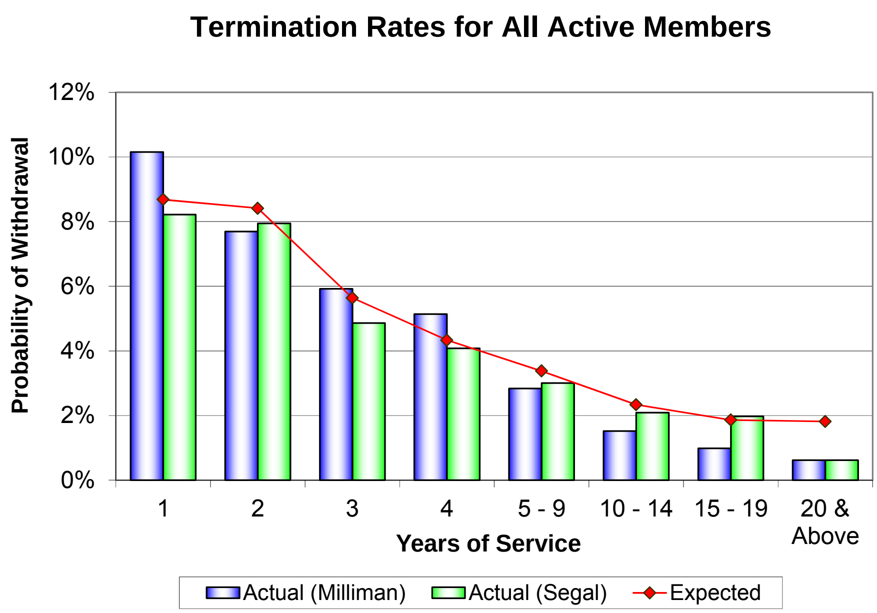
Additionally, we reviewed the split between service-connected and nonservice-connected disabilities and found that to be reasonable also.

Type	All Disability Retirements by Type			
	Duty	Non-Duty	% Duty	Assumption
General Tier 1	6	3	67%	70%
General Tier 3	7	9	44%	35%
Safety	39	3	93%	100%

Rates of Termination (Withdrawal and Vested Termination)

We studied rates of termination for both General and Safety members. We found our results to be generally consistent with Segal's and believe the current assumptions are reasonable.

The following graph shows a comparison of the rates of termination for all active members by years of service.



Rates of Termination (continued)

Our one comment for future consideration would be to reflect gradual decreases in rates of termination for members with service at 20 years and above. It has been our experience with other systems that these rates continue to decline later in a member's career, and this appears to be consistent with CCCERA's data.

Other Assumptions

We reviewed the remaining assumptions and have the following comments:

✓ **Commencement Age for Deferred Vested Members:** For current and future Safety members who terminate with a deferred vested benefit, it is assumed that they will retire at age 54. Given that Safety Enhanced members can get their full retirement benefit with a COLA starting at age 50, it seems unlikely that many would wait until age 54, with the possible exception of reciprocal members. Based on our analysis, we found this was the case.

Given that this assumption has a very small impact on the valuation, some simplification may be appropriate. As the overall retirement age for the Safety group averaged age 52.7 based on our analysis, we recommend that consideration be given to lowering this assumption with the next triennial experience study.

For current General members the actual experience was in line with the assumption.

Class	Milliman Results	Assumption
General	Age 59.3	Age 59
Safety	Age 52.7	Age 54

✓ **Percent Married (or with an Eligible Domestic Partner):** Segal studied the percentage of recent retirees who had an eligible survivor. They found that the actual percent was somewhat lower. Based on their results Segal recommended the current assumption be retained, males set at 75% and females at 50%. This is in line with the results of our study and studies we have done for other California counties, and we believe it is a reasonable assumption.

Other Assumptions
(continued)

✓ **Terminal Pay:** Segal studied the amount of terminal pay that is included in the final compensation at retirement. We did not have complete data isolating the terminal pay component, but we estimated the amount of terminal pay at retirement by analyzing the expected benefit without terminal pay based on the valuation the year before retirement and the actual benefit for each member who retired during that period. For some cost groups, the data was not sufficiently significant to be included in our study. For those with at least 20 retirements during the period, the results were as follows. These results indicate the current assumptions are reasonable.

Cost Group	Assumption	Actual
Cost Group #1	12.50%	11.15%
Cost Group #2	8.00%	9.86%
Cost Group #3	24.00%	21.39%
Cost Group #7	12.00%	12.05%
Cost Group #8	10.50%	8.71%

Section 9 Valuation and Experience Study Reports

Audit Conclusion

Overall, we found Segal's reports to be clear and complete. We have made a few comments for consideration where additional information could be included to enhance the understanding of an outside reader.

Comments

In our opinion, Segal's valuation report includes all the necessary information for a valuation report. In particular, we believe it satisfies Actuarial Standard of Practice No. 41 dealing with actuarial communication. Further, the report includes all the basic disclosures included in the model disclosure elements published by the California Actuarial Advisory Panel.

We also believe that Segal's reports reviewing the economic assumptions and studying the actuarial experience satisfy the relevant actuarial standards. We offer the following comment on the Actuarial Experience Study report. This comment pertains to additional disclosure and does not impact the valuation results.

- On page 24 of the experience study report, results for the study of Post-Retirement Mortality are shown for males and females combined and split out by year of death. In our opinion, it would be informative to the reader to show the results separately for males and females, as they have different mortality and consequently different assumptions. To avoid a proliferation of numbers, a breakdown by gender could replace the current subtotals by each year of the study.

Appendix A Supporting Exhibits

Exhibit A-1
Employer Contribution Rate Detail

Cost Group	Employer	Hire Date	Segal	Milliman	Ratio Segal/Milliman
Cost Group #1	County	Pre-2011	38.15%	37.99%	100.4%
		2011-12	39.16%	38.22%	102.5%
	(3% COLA)	Post-2012	32.17%	31.92%	100.8%
	(2% COLA)	Post-2012	31.10%	30.82%	100.9%
	Districts w/out POB	Pre-2011	48.36%	48.20%	100.3%
		2011-12	49.37%	48.43%	101.9%
		Post-2012	42.38%	42.14%	100.6%
	Districts w/POB	Pre-2011	34.48%	34.32%	100.5%
		2011-12	35.49%	34.56%	102.7%
		Post-2012	28.50%	28.26%	100.9%
Cost Group #2	County	Pre-2011	37.10%	36.77%	100.9%
		2011-12	36.44%	35.83%	101.7%
	(3% COLA)	Post-2012	31.55%	31.42%	100.4%
	(2% COLA)	Post-2012	30.66%	30.50%	100.5%
	Districts w/out POB	Pre-2011	47.31%	46.98%	100.7%
	Districts w/out POB	2011-12	46.65%	46.04%	101.3%
	Districts w/out POB	Post-2012	41.76%	41.63%	100.3%
Cost Group #3	CCCSD	Pre-2011	74.25%	72.79%	102.0%
		2011-12	71.81%	70.03%	102.5%
		Post-2012	63.94%	62.75%	101.9%
Cost Group #4	CC Housing Authority	Pre-2011	47.06%	45.93%	102.5%
		2011-12	46.22%	44.20%	104.6%
		Post-2012	41.76%	40.50%	103.1%
Cost Group #5	CCCFPD	Pre-2011	42.71%	43.05%	99.2%
		2011-12	44.04%	43.69%	100.8%
		Post-2012	37.17%	37.39%	99.4%
Cost Group #6	Districts w/out POB	Pre-2011	32.48%	31.98%	101.6%
		2011-12	30.80%	32.15%	95.8%
		Post-2012	25.00%	25.90%	96.5%

Exhibit A-1 (Continued)
Employer Contribution Rate Detail

Cost Group	Employer	Hire Date	Segal	Milliman	Ratio Segal/Milliman
Cost Group #7	County Tier A / D	Pre-2011	89.77%	89.95%	99.8%
		2011-12	92.45%	91.49%	101.1%
		Post-2012	74.55%	74.84%	99.6%
Cost Group #8	CCCFPD	Pre-2011	86.52%	87.88%	98.5%
		2011-12	83.33%	82.59%	100.9%
		Post-2012	72.81%	73.60%	98.9%
	East CCCFPD	Pre-2011	131.27%	132.63%	99.0%
		2011-12	128.08%	127.34%	100.6%
		Post-2012	117.56%	118.35%	99.3%
Cost Group #9	County Tier C / E	Pre-2011	82.51%	80.91%	102.0%
		2011-12	80.28%	78.73%	102.0%
		Post-2012	72.05%	72.11%	99.9%
Cost Group #10	Moraga-Orinda Fire	Pre-2011	80.03%	79.72%	100.4%
		2011-12	75.59%	75.05%	100.7%
		Post-2012	65.83%	65.77%	100.1%
Cost Group #11	San Ramon Valley FD	Pre-2011	95.58%	97.25%	98.3%
		2011-12	92.98%	93.27%	99.7%
		Post-2012	81.62%	82.87%	98.5%
Cost Group #12	Rodeo-Hercules FD	Pre-2011	110.02%	110.56%	99.5%
		2011-12	107.08%	107.16%	99.9%
		Post-2012	100.32%	101.91%	98.4%
Total Employer Rate			**49.82%**	**49.53%**	**100.6%**

Meeting Date
04/23/14
Agenda Item
#5

CONTRA COSTA COUNTY CCCERA
Employees' Retirement Association

MEMORANDUM

Date: April 15, 2014

To: CCCERA Board of Retirement

From: Consultant Committee

Subject: Request for Board Approval to Contract with Cortex Applied Research

The Committee charged with the responsibility to lead the Investment Consultant search process is comprised of Debora Allen, Will Pigeon, John Phillips and Jerry Telles. Tim Price is assisting the committee in the administration of the search process. The committee met on Monday, March 31, 2014 to establish a formal methodology for conducting the consultant search.

As part of this meeting, the Committee looked at the option of having an outside expert administer the RFP process, while retaining the ultimate due diligence and selection responsibility within CCCERA. The Committee reviewed a draft proposal from Cortex for providing Investment Consultant search services, as well as several sample reports. The Committee also interviewed Tom Iannucci of Cortex for approximately two hours and discussed specific components of the role Cortex would play and its capabilities and costs, including:

- Firm Profile – Established in 1991 with 4 current employees, Cortex is a management consulting firm specializing in assisting large pension plans with strategic planning and governance issues.
- The 37 Act plans that Cortex has provided similar consulting services to include: Kern, Los Angeles, Santa Barbara, Sonoma, Stanislaus and others.
- The envisioned engagement would consist of two components:
    1. Administration of the search – with the final deliverable to be a short-list of firms from which the Board would select the winner.
    2. Assistance with establishing and documenting the roles and responsibilities of the Board, Investment Consultant and internal investment staff in the Board's ongoing investment process.
- The estimated fee for completing these services over a 5-6 month time frame would be approximately $50,000, including out-of-pocket expenses.

The Committee is requesting that the Board authorize staff to enter into a contract with Cortex to provide the services described above at approximately the fees summarized herein.

CONTRA COSTA COUNTY CCCERA Employees' Retirement Association

Meeting Date
04/23/14
Agenda Item
#6

MEMORANDUM

Date: April 23, 2014

To: CCCERA Board of Retirement

From: Kurt Schneider, Deputy Retirement Chief Executive Officer

Subject: Investment Return Assumption for use in Accounting and Financial Reporting

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The current investment return assumption, which CCCERA uses for both funding and financial reporting, was developed net of both investment and administrative expenses. The new GASB Statements 67 and 68 stipulate that the investment return assumption for financial reporting purposes be developed net of investment expenses but not administrative expenses.

At the February 27, 2013 meeting, the System's actuary, Segal Consulting, alerted the Board to this issue when they presented the Review of Economic Actuarial Assumptions for the December 31, 2012 Actuarial Valuation. On Page 10, Segal outlined some complications regarding the issue and their recommendation to the Board was to defer the decision regarding the assumption for financial reporting until more analysis could be performed. Following the presentation, the Board adopted all of Segal's recommendations within that report.

The December 31, 2013 Actuarial Valuation is the first valuation that will be used for financial reporting under the new GASB standards, and Gov. Code §31598 requires that our financial statements comply with GASB standards.

At the February 26, 2014 meeting, Segal again outlined the issue and some of the complications. The purpose of this presentation was to get direction from the Board so the actuary can develop an investment return assumption to be used for financial reporting purposes. While Segal believes there are a number of reasons why it is desirable for the investment return assumption to be identical for both funding and financial reporting purposes, the Board determined that no change should be made to any funding assumptions at this time and directed Segal to return with a recommendation for a GASB compliant investment return assumption to be used for financial reporting only.

In the attached letter Segal recommends that the issue be considered again during the next full review of economic assumption and in the meantime use the "Interim Approach" which is for the Board to adopt an investment return assumption for financial reporting purposes that is net of investment expenses and not net of administrative expenses equal to 7.25% per year.

SEGAL

THE SEGAL COMPANY
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April 17, 2014

Mr. Kurt Schneider
Deputy Chief Executive Officer
Contra Costa County Employees' Retirement Association
1355 Willow Way, Suite 221
Concord, CA 94520

**Re: Contra Costa County Employees' Retirement Association
Developing an Investment Return Assumption for use in Accounting and Financial Reporting under GASB Statements 67 and 68**

Dear Kurt:

In our enclosed letter dated February 19, 2014, we included information concerning a potential adjustment to exclude administrative expenses in developing the investment return assumption for funding purposes in order to maintain consistency with new Governmental Accounting Standards Board (GASB) financial reporting. We are providing some additional information concerning that issue, along with another possible approach that could be used on an interim basis.

If the Board wishes to develop a single investment return assumption for both funding and financial reporting purposes, then one approach would be to exclude the administrative expense component of 0.12% from the development of the investment return assumption.

At the February 26, 2014 meeting, the Board discussed this option and indicated that it did not want to make a change in any funding assumptions at this time, which effectively defers any action on this approach until the next review of economic assumptions in 2016 (for use in the December 31, 2015 valuation). Ultimately, we believe this is the preferred long-term approach.

That leaves open how to address this issue on an interim basis for the December 31, 2013 and 2014 valuations.

Maintain an Investment Return Assumption for Funding on a Net of Administrative Expenses Basis but use that Same Assumption for Financial Disclosure Development on a Gross of Administrative Expense Basis ("Interim Approach")

The interim approach that we recommend would be to use the same investment return assumption for both funding and financial reporting, but have them represent two different expected returns, one net of administrative expense (for funding) and one gross of such expenses (for financial reporting). In other words, we believe that the Board could use the 7.25% assumption for funding (and continue the current implicit approach to funding the administrative expenses) and then use that same 7.25% for financial disclosure purposes under GASB. In effect, this means that even though the same rate is used, it would be considered net of administrative expenses for funding but gross of administrative expenses for financial disclosures. This would 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% when it is used for funding purposes to 54% when it is used for financial disclosure purposes.

Since we believe that both assumptions would be compliant with Actuarial Standards of Practice (ASOPs), it is our understanding that this approach should be acceptable under the new GASB statements. This is because the new GASB statements do not appear to require that the funding and financial reporting assumptions be the same, but only that the assumptions comply with ASOPs.

The following table summarizes the components of the investment return assumption as currently used for funding (net of administrative expenses) and as proposed for financial disclosure purposes (gross of administrative expenses) under this interim approach:

Calculation of Net Investment Return Assumption

Assumption Component	December 31, 2013 Alternative for Funding (Same as Current)	December 31, 2013 Alternative for Financial Disclosure
Inflation	3.25%	3.25%
Plus Portfolio Real Rate of Return	4.90%	4.90%
Minus Investment Expense Adjustment	(0.53%)	(0.53%)
Minus Administrative Expense Adjustment	(0.12%)	(0.00%)
Minus Risk Adjustment	(0.25%)	(0.37%)
Total	7.25%	7.25%
Confidence Level	53%	54%

Following the adoption of this interim approach, we would recommend revisiting this issue as part of the 2016 review of economic actuarial assumptions. This would be along with any other changes that may affect that study, including guidance from the revised ASOP 27 regarding investment expenses and active and passive returns. We believe that, when adopted in conjunction with that complete review of the economic assumptions, the Board may find that the first approach described at the beginning of this letter is a preferable approach to adopt for a long-term resolution of this issue.

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

Please feel free to call us with any questions and we look forward to discussing this.

Sincerely,

John Monroe

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

John Monroe, ASA, MAAA, EA
Vice President & Associate Actuary

bqb
Enclosure (5289676)

Segal Consulting

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February 19, 2014

Ms. Marilyn Leedom
Chief Executive Officer
Contra Costa County Employees' Retirement Association
1355 Willow Way, Suite 221
Concord, CA 94520

**Re: Contra Costa County Employees' Retirement Association
Adjustment to Exclude Administrative Expenses in Developing Investment Return Assumption to Maintain Consistency with GASB Financial Liability Reporting**

Dear Marilyn:

The Governmental Accounting Standards Board (GASB) has adopted Statements 67 and 68 that replace Statements 25 and 27 for financial reporting purposes. This letter discusses a recommended change in how CCCERA develops its investment return assumption that will allow the Association to maintain consistency in its liability measurements for funding and financial reporting purposes.

Background

GASB Statement 67 governs the Association's financial reporting and is effective for plan year 2014, while GASB Statement 68 governs the employers' financial reporting and is effective for employer 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 Association determines funding requirements for its employers. 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 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 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 <u>investment</u> expenses <u>but not</u> net of <u>administrative</u> 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 the Association 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 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. To review, using the same 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.

The table below is from our report entitled "Review of Economic Actuarial Assumptions for the December 31, 2012 Actuarial Valuation" that was released early in 2013. It contains the information used to develop the expense assumption that was used in our recommendation for the investment return assumption shown in that report.

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 %
2007	$5,029,276	$5,942	$26,322	0.12%	0.52%	0.64%
2008	5,295,961	5,601	26,942	0.11	0.51	0.62
2009	5,304,262	7,359	26,717	0.14	0.50	0.64
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
Average				0.12%	0.53%	0.65%

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 roughly 0.12% from the 7.25% investment return. One way to do this would be to increase the investment return assumption by roughly 0.12% resulting in an irregular assumption of 7.37%.

Another possible approach would be to leave the investment return assumption at 7.25% instead of increasing it by 0.12%. This would result in an increase in the margin for adverse deviation or "confidence level" associated with this assumption from 53% to 54%. Note that under either of these approaches, the reduction in investment return would be replaced by an explicit loading for administrative expenses, as discussed below.

There is a substantive complication associated with eliminating the administrative expense in developing the investment return assumption used for funding that relates to the allocation of administrative expense between the employers and employees:

1. Even though GASB requires the exclusion of the administrative expense 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 <u>explicitly</u> by the anticipated annual administrative expense.

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 employee's contribution requirements, these administrative expenses have been funded implicitly by both the employer and the employees.

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 employees, 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 employees. However, the rest of the implicit expense funding is in the (Unfunded) Actuarial Accrued Liability, which is funded by the employers.

4. It will not be straightforward to quantify the current implicit sharing of administrative expenses between employers and employees. This means that reproducing that allocation on an explicit basis will be difficult to develop and to explain. This in turn means that CCCERA would need to develop a new basis for sharing the cost of administrative expenses. 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 employee. 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 employees. This would not necessarily continue when the administrative expense loading is developed separate from the Normal Cost.

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 employees. Possible approaches could include the following:

- Continue to allocate the expenses to both employers and the employees on some basis. This approach would need to be developed from scratch as the current implicit allocation will be difficult to reproduce.

- Allocate the expenses to the employer only which would be a change from current practice.

We request direction from the Board to return with options for implementation.

Unless otherwise noted, all of the above calculations are based on the December 31, 2012 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.
We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please feel free to call us with any questions and we look forward to discussing this with the Board.

Sincerely,

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

John Monroe
John Monroe, ASA, MAAA, EA
Vice President & Associate Actuary

/bqb

cc: Kurt Schneider

Institutional Investor
FORUMS

Meeting Date
04/23/14
Agenda Item
#7a.

4TH ANNUAL

Emerging Markets Forum

MAY 7-8, 2014 | APELLA | NEW YORK

Identifying and Accessing the Opportunities

Identifying and Accessing the Opportunities

What is that investors do NOT want when it comes to their emerging markets investments? Access they can already get through the indices.

It is apparent that investors' attitude to the emerging markets has changed dramatically as evidenced by their continuing interest in the opportunities to be found in these regions. In previous years, when the investment fundamentals took a downward turn in developing economies, investors pulled out and redeployed cash elsewhere. This year, even as some of the growth forecasts have declined and other macroeconomic and geopolitical factors have interfered, most institutions remain committed to investing in the emerging markets. Many are rather notably increasing their allocations.

What has changed is that institutional investors are increasingly discerning in evaluating the opportunities and in deciding which strategies and managers are best able to deliver on that potential. In addition, many institutions are re-evaluating the advantages and disadvantage of the BRICS countries and their ability to offer risk-adjusted, value-added investment opportunities.

What has stayed largely the same is that investors continue to be interested in such topics as using local managers with "boots on the ground" to complement their global managers, identifying opportunities in the frontier markets, and increasingly using private markets strategies.

All EM investors are re-assessing the managers and the strategies—indeed their fundamental investment thesis—in how to get the best risk-adjusted returns and diversification from these markets.

The 4th Annual Emerging Markets Forum will continue this meeting's traditional focus on how North American pension funds, endowments, and foundations are moving their emerging markets strategies from a focus on "how much" to allocate to these markets to a discussion of how best to execute those investments..

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Newton Investment Management
Prudential Fixed Income Management

Presentations and Panel Discussions

Local v. Global Managers: How Do You Get the Information You Need Without Making the Trip?

- ❖ Identifying which managers have good processes and good macro ability
- ❖ Is the quality of EM data getting better? How does this affect your manager selection?

Challenges of Constructing an Effective EM Portfolio

- ❖ Do you use ETFs? How often do you rebalance the ETFs?
- ❖ Using partially active/partially passive strategies
- ❖ How much concentration is good?
- ❖ Overcoming the first-mover advantage
- ❖ Are there benefits to shorting?
- ❖ Understanding the consequences of currency on EM portfolio construction
- ❖ Should you have a country strategy or a regional one? Public markets or private markets or both?

Current and Future Role of Frontier and Horizon Markets

- ❖ Overcoming capacity constraints
- ❖ Benchmarking issues

Which Factors Will Have the Greatest Impact on Your EM Investments

- ❖ Does EM growth depend on the commodities supercycle?
- ❖ Shifts in current account balances in these countries
- ❖ Continuing growth of the consumer-driven sectors
- ❖ How the sovereign wealth funds will change the opportunity set in EM investments
- ❖ Which EM currencies will be most volatile, and why?

QE Tapering and the Impact on EM Assets

- ❖ What will be the real effects with quantifiable numbers?

Making the Case for Emerging Markets Small Cap

- ❖ Understanding the industry characteristics—getting away from commodities and financials
- ❖ Gaining exposure to emerging companies

EM Credit

- ❖ Bottom up, fundamental standalone

Case Studies

The China Super Session: A Fair Assessment of the Opportunities and the Risks

To many investors, China is the key driver of future global growth. What are the expert insights into governmental policy and how successful will the leadership in Beijing be in implementing those plans? What will the resulting market impacts be?

- ❖ What are the linear consequences of key policies happening or not happening?
- ❖ What will be the role of state-owned enterprises? How will they continue to influence the investment landscape?
- ❖ Consequences of social benefits reform
- ❖ Emergence of the renminbi as a global currency

How Better Corporate Governance Can Benefit Emerging Markets Companies

Why Debt is the New and Best Way to Access Africa

Using Multi-Strat Funds to Access EM Opportunities

Interview

Are There Any Opportunities in the BRICS?

- ❖ Currency risk
- ❖ How major global risk factors will affect your allocation
- ❖ Risks from QE tapering

Interviewer:
Arvind Rajan, *Managing Director, Quantitative Research and Risk Management*, **Prudential Fixed Income Management**

Interviewee:
Robert Tipp, **Prudential Fixed Income Management**

Lunch with Guest Speaker

The Forthcoming Consumption Boom: Some Ramifications for EM Investors

When population meets income, almost everything will change. A rapidly emerging global middle class is likely to accelerate demand for a wide variety of commodities—resulting in significant geopolitical and economic uncertainty. Dr. Mansharamani will show how more than 50% of the world is on the verge of a significant increase in consumption, and what this means for the global investment community. Attendees will leave this session with a greater appreciation for the dynamics behind these trends as well as what could derail the consumption boom thesis.

Vikram Mansharamani, PhD
Author and Yale Lecturer

Advisory Board

Josee Mondoux, *Director of Investments*, **The Canadian Medical Protective Association**

Joseph Boateng, *Chief Investment Officer*, **Casey Family Program**

Anurag Pandit, *Director of Investments*, **Children's Hospital Boston**

Brian Jandrucko, *Managing Director*, **Church Pension Group**

Josh Fenton, *Head of Public Equity*, **Helmsley Trust**

Stephanie Gleeson, *Manager of International Equity*, **Minnesota State Board of Investment**

Karen Paardecamp, *Manager, Emerging Markets*, **State of New Jersey, Division of Investments**

Scott R. Adams, *Director*, **Ohio State University**

Tanya Lai, *Vice President, Public Markets*, **Ontario Pension Board**

Ying T. Hosler, *Associate Director of Portfolio Management*, **Penn State University**

Fernando Torres-Torija, *Senior Investment Officer-Global Emerging Markets*, **UN Joint Staff Pension Fund**

David W. Thatcher, *Investment Officer-Public Equity*, **Washington State Investment Board**

Michael Charette, *Senior Investment Officer and Portfolio Manager*, **Municipal Employees' Retirement System of Michigan**

Chairperson

Cynthia Fryer Steer, *Head of Manager Research*, **BNY Mellon**

Speakers to date

Tanya Lai, *Vice President, Public Markets*, **Ontario Pension Board**

Victor Li, *Portfolio Manager*, **EJF Capital**

Vikram Mansharamani, PhD, *Author and Yale Lecturer*

Josee Mondoux, *Director of Investments*, **The Canadian Medical Protective Association**

Julie Moore, *Partner and Co-Head of Equity Research*, **Rocaton Investment Advisors, LLC**

Anurag Pandit, *Director of Investments*, **Children's Hospital Boston**

Arvind Rajan, *Managing Director, Quantitative Research and Risk Management*, **Prudential Fixed Income Management**

David W. Thatcher, *Investment Officer-Public Equity*, **Washington State Investment Board**

Robert Tipp, **Prudential Fixed Income Management**

Institutional Investor
FORUMS

Agenda at a Glance

Monday, May 7, 2014

8:00 – 8:40 am
Registration and Continental Breakfast

8:40 – 12:30 pm
Panel Sessions, Presentations & Workshops

12:30 – 1:45 pm
Lunch

1:45 – 6:30 pm
Panel Sessions, Presentations & Workshops

6:00 pm
Cocktail Reception

7:00 pm
Evening Free for Private Functions

Tuesday, May 8, 2014

8:15 – 8:45 am
Breakfast

8:45 – 12:15 pm
Panel Sessions, Presentations & Workshops

12:15 – 1:45 pm
Lunch

1:45 pm
Forum Concludes

Information

For more information, please contact:
Katarina Storfer
Phone: (212) 224-3073
Fax: (212) 224-3802
kstorfer@institutionalinvestor.com

Institutional Investor
225 Park Avenue South
New York, NY 10003

Venue

Apella
450 East 29th Street
2nd Floor
New York, NY 10016
Phone: (212) 706-4100
www.apella.com

www.iiforums.com/emf

Institutional Investor FORUMS

4TH ANNUAL

Emerging Markets Forum

MAY 7-8, 2014 | APELLA | NEW YORK

For registration inquiries: Katarina Storfer,
Tel (212) 224-3073 **Fax** (212) 224-3802 **Email** kstorfer@institutionalinvestor.com
Institutional Investor 225 Park Avenue South, 7th floor New York, NY 10003

Registration Form
fax to: (212) 224-3802

DM1

☐ **YES, I would like to attend the Emerging Markets Forum.**
Please send me the bio form in order to complete my registration.

☐ **YES, I am interested but would like more information.**
Please send me updates of the program.

Name:

Organization:

Job Title:

Direct Telephone: (area code) (number)

Main Telephone: (area code) (number)

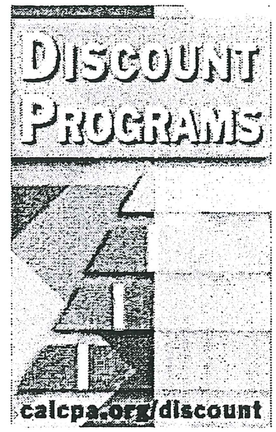
Email:

Total Revenues $ (in millions):

Meeting Date
04/23/14
Agenda Item
#7b.

Thursday, Apr. 17, 2014

CalCPA | CalCPA EDUCATION FOUNDATION



Event Information

Governmental Accounting and Auditing Conference | 5141266A
Date: May 13, 2014
Event Start time: 8:30 AM **End time:** 4:30 PM
Location: Sacramento Area
Instructor(s):
Sefton Boyars, CPA
Michael Coleman
William W Holder, CPA
Alan Milligan
David Eric Sundstrom, CPA
Nancy L Young

Facility: Hyatt Regency Sacramento
Get Directions

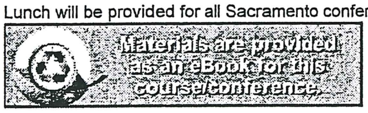
Register Group | Register

Member: **$325**
Nonmember: **$425**

CPE Credits:

8.00 CPE: Continuing Professional Education Technical
8.00 AA: Auditing & Accounting
8.00 GT: Government
8.00 YB: Yellow Book

The governmental accounting and auditing landscape is ever-changing and this conference will get you caught up with the latest issues and regulations that are critical today, and look ahead to what's coming. Among the topics that will be covered include new accounting and reporting standards for pensions and for government mergers, acquisitions and transfers of operations. We'll also cover what's happening at the California level regarding CalPERS updates and what's happening with state finances. **View the online brochure.**
Lunch will be provided for all Sacramento conference attendees.



Objectives:
- Review current updates and issues affecting government entities.
- Find out about key changes and pronouncements at GASB related to pensions and government operations.
- Learn what's happening with California's finances.

Major Subjects:
- GASB annual update
- CalPERS proposals
- GASB statements 65, 66, 69 and 70
- Pension reporting: GASB statements 67, 68 and 71
- AICPA Audit and Yellow Book update
- Fraud in government

Level of Difficulty:
Update

Field of Interest:
Accounting (Governmental)

Prerequisites:

08:30 **Welcome and Introductions**

Gary M. Caporicci, CPA, CGFM, CFF
Conference Co-Chair
Pun & McGeady LLP

Vanessa I. Burke
Conference Co-Chair
City of Stockton

08:35 **What's on the Horizon at GASB**
You won't want to miss what is in the pipeline at GASB. Find out what's new and exciting and learn what to expect in the years ahead.

William W. Holder, CPA
GASB Board Member (Retired)
Dean, USC Leventhal School of Accounting
Alan Casden Dean's Chair of Accountancy

09:35 **GASB Annual Update**
Get an expert's perspective on *GASB No. 65: Items Previously Reported as Assets and Liabilities* and how to apply it. You'll also receive practical guidance on *GASB No. 66: Technical Corrections – 2012, No. 69: Government Combinations and Disposals of Government Operations* and *No. 70: Accounting and Financial Reporting for Nonexchange Financial Guarantees.*

David E. Sundstrom, CPA
GASB Board Member
Governmental Accounting Standards Board

10:30 **{Break}**

10:40 **State and Local Fiscal Update**
Hear an overview of California's latest budget and legislative developments, including changes in the law of municipal revenues and the local fiscal conditions impacting next year's outlook. You'll also have the opportunity to learn about federal issues that are likely to affect you in the future.

Michael Coleman, MPA
Fiscal Policy Advisor
CaliforniaCityFinance.com

11:40 **Lunch {provided}**

12:40 **CalPERS Proposals**
Straight from the source, you will have the opportunity to learn the status of CalPERS implementation of GASB 68 and 71, as well as other key matters of interest for the upcoming year.

Alan Milligan
Chief Actuary
CalPERS

01:25 **GASB 67, 68 and 71**
GASB No. 67: Financial Reporting for Pension Plans and *No. 68: Accounting and Financial Reporting for Pensions* drastically changed the accounting and reporting standards for pensions. Join industry leaders for an up-close look at these new standards and *GASB No. 71: Pension Transition for Contributions Made Subsequent to the Measurement Date.* Explore current proposals and the rate implications of the changes, see examples of financials/disclosures, and learn about calculating pension expense under the new rules.

David G. Bullock, CPA
Macias Gini & O'Connell LLP

02:25 **{Break}**

02:35 **The Supercircular: Changes Coming for Federal Grants Rules**
On Dec. 26, 2013, the Office of Management and Budget issued the "Supercircular." This issuance impacts all of the general requirements for federal grants: administrative rules, cost principles and Single Audit requirements. The new rules go into effect after Dec. 25, 2014. All persons who deal with federal grants will need to be aware of and prepared for the coming changes.

Sefton Boyars, CPA, CGFM
Regional Inspector General (Retired)
U.S. Dept. of Education

03:30 **Fraud in the Government Arena**
When an organization has established internal controls why don't those controls prevent and detect fraud? This session will cover fraud cases and the controls that failed; how to identify the opportunity points for fraud to occur and why controls are not preventing and detecting fraud.

Nancy L. Young, CPA, CISA, CFE
Moss Adams LLP

04:30 **{Adjourn}**

SESSION DETAILS

Adams Street Partners
2014 Client Conference
Four Seasons Hotel
120 East Delaware Place
June 4 – 5, 2014

ADAMS STREET
PARTNERS

Meeting Date
04/23/14
Agenda Item
#7c.

CHICAGO AGENDA

Wednesday, June 4	
1:30 pm to 5:00 pm	**Additional Sessions** Four Seasons Hotel · PE in DC Plans - Educational session with Northern Trust and KPMG · Secondary Investor Forum · Direct Fund Advisory Board Meeting *(see detailed agenda attached)*
6:00 pm to 9:00 pm	**Welcome Reception/Dinner** Ditka's Restaurant 100 East Chestnut

Thursday, June 5	
7:30 am	**Registration and Breakfast:** Four Seasons Hotel *(Ballroom)*
8:15	**Opening Remarks** Kevin Callahan
8:30	**State of the Private Equity Market** Hanneke Smits
9:15	**Venture Capital Strategy** • Kelly Meldrum • John Connors, Partner, Ignition Partners
10:00	**ASP Venture Growth Equity Update** Jeff Diehl, Robin Murray
10:30	**Break**
10:45	**Buyout Strategy** • Jeff Burgis **Healthcare Private Equity** • Lester Knight, Founding Partner Roundtable Healthcare Partners
11:30	**ASP Co-Investment Update** Dave Brett, Sachin Tulyani
12:00 pm	**Lunch**

1:15	**Emerging Markets Strategy** • Piau-Voon Wang **Private Equity Investing in Asia** • Ky Tang, Chairman & Managing Partner, Affinity Equity Partners
2:15	**Secondary Market Update** Jeff Akers, Jason Gull
2:45	**Closing Remarks** Bon French
3:00	**Reception**

ADAMS STREET
PARTNERS

Chicago Additional Sessions Agenda

Four Seasons Hotel Chicago

Wednesday, June 4, 2014

This year we will be offering three additional sessions on June 4th for all conference attendees that are interested in attending. The session topics are as follows:

1:30 – 3:00 pm

Private Equity in Defined Contribution Plans – Educational Session with The Northern Trust and KPMG

- The investment case for adding private equity to DC Plans
- Daily valuation – How can it work with private equity?
- The auditor's perspective on getting comfortable with a daily valuation methodology

3:30 – 5:00 pm

Direct Fund Advisory Board Meeting

- Update on ASP's venture/growth equity investment business
- Update on the venture capital and growth equity landscape
- Review of Direct investment portfolio

Secondary Fund 5 Investor Forum

- Update of new secondary transactions
- Update on global secondary market trends
- Review of Secondary Fund 5 portfolio

Adams Street Partners, LLC, One North Wacker Drive, Suite 2200, Chicago, IL 60606 telephone **312.553.7890** fax **312.553.7891**
www.AdamsStreetPartners.com

Advanced Trustees Institute

Designed for the experienced multiemployer trustee. Previous attendance at the New Trustees Institute is strongly recommended.

Meeting Date
04/23/14
Agenda Item
#7d.

SUNDAY, JUNE 22

4:00-6:00 p.m.

Registration/Exhibit Hall Open/Welcome Reception

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

MONDAY, JUNE 23

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 Update ⓐ

Joint session with Administrators, Accountants and Auditors

Economist Brian Beaulieu will provide an overview of the current state of the economy and an assessment of where we have been and insights on where the economy is heading in the future.

- 2013 results and 2014 forecast
- U.S. and global recovery
- Economic indicators

Speaker: **Brian L. Beaulieu,** Chief Executive Officer, ITR Economics™, Boscawen, New Hampshire

9:00-10:15 a.m. **Concurrent Sessions**

ACA: Implementation Status Update ⓘ ⓐ

Joint session with Administrators

This session will provide an update on the implementation of PPACA and its impact on multiemployer plans.

- Recent and proposed regulations
- Time lines to heed
- Review of the exchanges
- Plan design implications
- Impact on multiemployer plans
- Issues for employers and employees

Speaker: **Tamara S. Killion,** Partner, Groom Law Group, Chartered, Washington, D.C.

The International Foundation offers the educational content needed for trustees to advance and develop their skills and tool sets.

Clinton Suggs
Executive Director
Parkersburg Marietta Contractors Association

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

MONDAY, JUNE 23 (Cont.)

9:00-10:15 a.m. **Concurrent Sessions (Cont.)**

Confronting the Sunset of PPA—What's Next? ⓘ Ⓐ

Joint session with Administrators

This session is intended to analyze the impact of the sunsetting of PPA provisions and review some of the legislative proposals and ideas being discussed to cope with the impact.

- Overview of provisions that will end
- What this means to multiemployer pension plans and zone certification
- PBGC report and role
- Legislative activity and possible outcomes
- Trustee responsibilities

Speakers:

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

Jay K. Egelberg, ASA, FCA, MAAA, EA, Consulting Actuary, First Actuarial Consulting Inc., New York, New York

10:30-11:45 a.m. **Concurrent Sessions**

Year One of the Exchanges

Joint session with Administrators

With the rollout of the exchanges on January 1, 2014, the benefits market is changing rapidly. Come to hear an update on how the rollout went and how the exchanges are changing the landscape.

- How are SHOP and AHBE exchanges working?
- What's happening in the states?
- Impact on the market
- Implications for multiemployer plans

Speaker: **Cindy Gillespie,** Senior Managing Director, McKenna Long & Aldridge, LLP, Washington, D.C.

Plan Assumptions Debate

Joint session with Accountants and Auditors

Assumptions really do matter and have implications for your fund. Using a debate format, this session will discuss assumptions and allow the audience to weigh in. This is a great way to learn the key considerations when setting your assumptions and how prevalent assumption rates impact your unfunded liabilities.

Speakers:

Mary Ann T. Dunleavy, ASA, MAAA

Jay K. Egelberg, ASA, FCA, MAAA, EA

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

Lunch/Exhibit Hall Open

1:15-2:30 p.m. **Concurrent Sessions**

Workshop: How Do Taft-Hartley Plans Survive and Thrive Post-ACA? ⓘ Ⓐ

As we approach the full implementation of ACA, the challenges for multiemployer plans are many. This workshop will consider how plans can manage through the increasing cost of compliance, their competitive stance in the marketplace and strategies to remain viable for years to come.

Speakers:

James K. Estabrook, Esq., Shareholder, Lindabury, McCormick, Estabrook & Cooper, P.C., Westfield, New Jersey

John E. Slatery, CEBS, Director, Benefits Department, International Brotherhood of Teamsters, Washington, D.C.

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.*

MONDAY, JUNE 23 (Cont.)

1:15-2:30 p.m. **Concurrent Sessions (Cont.)**

Withdrawal Liability

Joint session with Administrators

Always a hot topic, this session will review the many issues surrounding withdrawal liability, including:

- Procedure for determining withdrawal
- Triggers and demands
- Calculation, assessment and collections
- Role of the PBGC
- FASB compliance requirements.

Speakers:

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

Philip R. O'Brien, Esq., Shareholder, Reinhart Boerner Van Deuren s.c., Milwaukee, Wisconsin

2:45-4:00 p.m.

Communication With Contributing Employers

It's important that contributing employers understand the value of the plan and keep timely in their payments and their role in communicating with participants. This session will discuss best practices in communicating with contributing employers from legal requirements to messaging.

Speakers:

Martha M. Henrickson, CEBS, Director of Workforce Relations, Associated General Contractors (AGC) of Minnesota, St. Paul, Minnesota

Hannah E. Sutton, CEBS, President and Chief Executive Officer, The William C. Earhart Co., Inc., Portland, Oregon

Cathleen Wolf, M.A., ABC, Founding Principal, Communicate Write, San Diego, California and Columbus, Ohio

4:00-5:00 p.m.

Networking Reception/Exhibit Hall Open

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

TUESDAY, JUNE 24

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.

Legal and Fiduciary Update

Joint session with Administrators

This session will review key recent employee benefit legal decisions that impact you as a trustee. Prior topics have included subrogation, DOMA, challenges to ACA and withdrawal liability. Find out what the issues of today are and how such rulings are instructive to your plans.

Speaker: **Neal S. Schelberg,** Partner, Proskauer Rose LLP, New York, New York

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.*

TUESDAY, JUNE 24 (Cont.)

9:00-10:15 a.m. **Concurrent Sessions**

Mental Health in the Workplace ⓘ

Joint session with Administrators

Mental health issues are on the rise and they impact the workplace on many levels. This session will cover:

- Impact of mental health, drugs and alcohol on the work environment
- Red flags
- Employer responsibility
- Benefits: medical, managed mental health, disability management and EAP.

Speaker: **Andy Johnson,** Administrator, Teamster Center Services Fund, New York, New York

Retirement Security Panel Discussion

The erosion of retirement security in the United States has many roots from low interest rates and cost shifting to increasing life expectancy and the cost of health care. This panel discussion will focus on identifying the retirement security issues that your members are facing and a discussion about potential solutions.

Speakers:

Diane Oakley, Executive Director, National Institute on Retirement Security (NIRS), Washington, D.C.

Earl Pomeroy, Senior Counsel, Alston & Bird LLP, Washington, D.C.

10:30-11:45 a.m. **Concurrent Sessions**

Employee Assistance Programs ⓘ ⓐ

Joint session with Administrators

Employee assistance programs help your members navigate some of the challenges they face. These plans can be a wonderful resource with many benefits. This session will cover all aspects of EAPs, including:

- What is an EAP and what benefits are offered?
- How they operate
- Considerations and pricing
- Plan design—linking to your other plans
- Reporting and data analysis
- Privacy concerns.

Speakers:

Jay Johnson, Sales and Marketing Consultant, Mental Health Consultants, Inc., North Wales, Pennsylvania

Elizabeth E. Manzo, Esq., Shareholder, Lindabury, McCormick, Estabrook & Cooper, P.C., Westfield, New Jersey

Financial Literacy: The Prerequisite to Retirement Security

Joint session with Administrators

This session is a followup to the Retirement Security Panel Discussion to examine how financial literacy education and programs can help your members achieve retirement security.

- What everyone should know
- Programs for participants
- Tools and resources
- Measuring success

Speaker: **Rick Garnitz,** President, LifeSpan Services, Inc., Atlanta, Georgia

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

Lunch/Exhibit Hall Open

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.*

TUESDAY, JUNE 24 (Cont.)

1:15-2:30 p.m. **Concurrent Sessions**

Wellness in the Multiemployer World

This session will address value-based health care concepts from a wellness perspective that can significantly impact your plan and members.

- Data analysis and ROI
- Plan design issues for multiemployer plans
- ACA requirements
- Engagement

Speaker: **Brett Powell,** Regional Vice President, URAC Accredited American Institute for Preventive Medicine, Farmington Hills, Michigan

Latest Designs in DB, DC and Hybrid Plans

Plan designs are constantly changing with the times. This session will look at the pros, cons and issues with the most popular plans.

- Comparisons
- Design options
- Compliance and regulations
- Communication

Speaker: **Kelly Coffing, FSA, EA, MAAA,** Principal and Consulting Actuary, Milliman, Seattle, Washington

2:45-4:00 p.m.

Implications of the DOMA Decision on Benefit Plans

Joint session with Administrators

The 2013 Supreme Court decision on DOMA has many implications on employee benefits. This session will cover:

- What is DOMA?
- How did the Supreme Court rule and what does the ruling mean?
- Implications for plan sponsors
- What trustees and administrators need to do now.

Speaker: **Jeffrey S. Endick,** Principal, Slevin & Hart, P.C., Washington, D.C.

WEDNESDAY, JUNE 25

6:30-11:45 a.m.

Registration/Information

6:30-7:30 a.m.

Continental Breakfast

7:30-8:45 a.m. **Concurrent Sessions**

Recruiting the Next Generation of Trustees

It's a thankless job. Why be a trustee in today's environment? Yet, many trustees will tell you that the work is incredibly rewarding. The model of trustees managing plans is very efficient and provides millions of participants with meaningful benefits. Take a look at the attraction and retention of new trustees to perpetuate good fund management.

- What kind of person makes a good trustee and where do you find them?
- Desired skill sets
- Concerns and issues for employers and labor
- Plan sponsor duties
- Professional trustees

Speakers:

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

Martha M. Henrickson, CEBS, Director of Workforce Relations, Associated General Contractors (AGC) of Minnesota, St. Paul, Minnesota

WEDNESDAY, JUNE 25 (Cont.)

7:30-8:45 a.m. **Concurrent Sessions (Cont.)**

Understanding the Collection Process ⓐ

Joint session with Administrators

This session will provide an overview of the collection process, including:

- Collective bargaining agreements
- Delinquency process
- Contracts
- Audits
- Legal
- Settlements
- Conclusions

Speaker: **Karen L. Sollars, CEBS,** Attorney, Ledbetter, Parisi, Sollars LLC, Miamisburg, Ohio

9:00-10:15 a.m. **Concurrent Sessions**

Investing in an Uncertain Interest Environment

Political and economic turbulence has created some uncertainty with respect to interest rates of late. This session will cover investing in these times, including:

- Strategic planning
- Reviewing your investment policy
- Asset allocation strategies
- Investment classes
- Best practices.

Speaker: **Thomas R. Noonan,** Registered Investment Advisor, Thomas R. Noonan Inc., Ft. Lauderdale, Florida

Insurance for Trustees ⓘ ⓐ

This session will discuss insurance for trustees, including:

- Fiduciary liability
- Other coverages
- Amount needed
- RFP process.

Speaker: **Brian L. Smith,** Chief Operating Officer, Segal Select Insurance Services, Inc., New York, New York

10:30-11:45 a.m.

Workshop on Dispute Resolution in the Benefits World

Joint session with Administrators

There are many issues that arise that can create the need for a formalized dispute resolution process. Dealing with withdrawal liability triggers, collections, bankruptcy or other benefits issues is very complex and often gives rise to discord. This workshop will discuss best practices in dispute resolution to help you address issues in a productive manner.

Speakers:

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

Peter M. Rosene, Esq., Shareholder, Felhaber Larson, St. Paul, Minnesota

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.*

Meeting Date
04/23/14
Agenda Item
#7e.

International Investing and Emerging Markets

Monday, July 28 - Wednesday, July 30, 2014
Wharton | San Francisco, San Francisco, CA

Register Online   Register Fax/Mail

Visit a
Prestigious Wharton Campus
Learn from
Respected Faculty
Make
Sound Investment Decisions

This 2½-day specialty course is designed to give you 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.

Key Takeaways

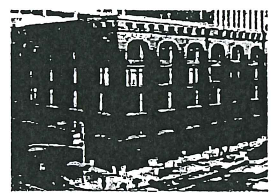
- Obtain a solid understanding of the opportunities and risks surrounding international investing
- Discuss the impact of the global economy on your investment portfolio
- Learn what you should consider when investing in emerging markets
- Hear what strategies your peers are using
- Learn from world-class faculty who are skilled educators and researchers, award-winning authors and leading authorities in the international investment field.

Registration Includes

- Comprehensive take-home materials
- Certificate from the Wharton school
- Three continental breakfasts
- Two luncheons
- Morning and afternoon snacks and beverage breaks

For course content call Tiffany Ulbing at (262) 373-7652; or e-mail tiffanyu@ifebp.org.

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



Hotel Information

Please make your reservations directly with the hotel.

Omni San Francisco Hotel
(415) 677-9494
Rate: $259.00 Single/Double Mention International Foundation for special rate until June 30, 2014

Who Should Attend

ME PE CORP Training Paths

Introductory   Intermediate   Advanced