MEETING

STATE OF CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM BOARD OF ADMINISTRATION FINANCE & ADMINISTRATION COMMITTEE

> CALPERS AUDITORIUM LINCOLN PLAZA NORTH 400 P STREET SACRAMENTO, CALIFORNIA

TUESDAY, SEPTEMBER 20, 2022

9:00 A.M.

JAMES F. PETERS, CSR CERTIFIED SHORTHAND REPORTER LICENSE NUMBER 10063

# APPEARANCES

COMMITTEE MEMBERS: Lisa Middleton, Chairperson David Miller, Vice Chairperson Rob Feckner Fiona Ma, represented by Frank Ruffino Jose Luis Pacheco Theresa Taylor

BOARD MEMBERS:

Eraina Ortega

Mullissa Willette

Betty Yee, represented by Lynn Paquin

STAFF:

Marcie Frost, Chief Executive Officer Matthew Jacobs, General Counsel Michele Nix, Acting Chief Financial Officer Scott Terando, Chief Actuary Dan Bienvenue, Deputy Chief Investment Officer Julian Robinson, Senior Pension Actuary Dallas Stone, Chief, Operations Support Services Division ALSO PRESENT: Tom Scheibelhut, CEM Benchmarking

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PROCEEDINGS 1 CHAIRPERSON MIDDLETON: Good morning. It is 9 2 a.m. And I call to order the Pens -- the Finance and 3 Administration Committee meeting. 4 5 Roll call, please. COMMITTEE SECRETARY: Lisa Middleton? 6 CHAIRPERSON MIDDLETON: Present. 7 8 COMMITTEE SECRETARY: David Miller? 9 VICE CHAIRPERSON MILLER: Here. COMMITTEE SECRETARY: Rob Feckner? 10 COMMITTEE MEMBER FECKNER: Good morning. 11 COMMITTEE SECRETARY: Frank Ruffino for Fiona Ma? 12 ACTING COMMITTEE MEMBER RUFFINO: Present. 13 COMMITTEE SECRETARY: Jose Luis Pacheco? 14 COMMITTEE MEMBER PACHECO: Present. 15 16 COMMITTEE SECRETARY: Ramon Rubalcava. CHAIRPERSON MIDDLETON: Excused. 17 COMMITTEE SECRETARY: Theresa Taylor? 18 COMMITTEE MEMBER TAYLOR: Here. 19 20 CHAIRPERSON MIDDLETON: All right. Thank you. Next item on the agenda is executive report, and 21 Michele Nix. 2.2 ACTING CHIEF FINANCIAL OFFICER NIX: Good 23 morning, Madam Chair and Committee members. Michele Nix, 24 25 CalPERS team member. I will be serving as the Acting

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Chief Financial Officer while Mr. Cohen is on temporary assignment as the Interim Chief Investment Operating Officer. I look forward to supporting this committee as well as leading the Finance Office in the interim.

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Before we get to tod -- to today's agenda -- can you hear me -- I would like to provide a quick update. Effective October 1st, 2022, CalPERS will be reducing the administrative fees charged to the deferred compensation plan by six basis points to offset the reserve balance.

My second point of interest would be employers had an opportunity to prepay their annual UAL in a one lump sum at -- in July of this year. This is to save them 12 3.5 percent interest. This year, 1,191 employers took 13 advantage of this. And that was 79 percent of the 14 employers made a lump sum payment. This totaled \$4.1 15 16 billion.

The agenda before you today has one action item 17 for your consideration. This item seeks your approval of 18 the Board member's reimbursements for Ms. Willette who was 19 recently elected this last year, I guess, but she's 20 recently on the Board. 21

In addition, we have four information items, the 2.2 23 annual actuarial valuation of the Terminated Agency Pool, often called the TAP, 2021 CalPERS Board of Administration 24 25 special public agency member election results, an overview

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of the CEM benchmarking services that will be -- that were provided to CalPERS. And we will close the presentation today on how investment returns impact employer contribution rates.

The next Finance and Administration Committee is scheduled for November 15th, 2022 here in Sacramento. The November agenda will include the 2022-23 mid-year budget revisions, proposed edits to the CalPERS budget policy, and the 21-22 basic financial statements.

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Thank you, Madam Chair. This concludes my report. I'd be pleased to take questions at this time.

12 CHAIRPERSON MIDDLETON: Okay. Thank you. Are 13 there any questions for Michelle?

Seeing none, we will move on to Item 3, which is action consent items. Nothing has been identified to be pulled. Is there anything that members of the Committee would like to pull?

VICE CHAIRPERSON MILLER: Move approval. 18 COMMITTEE MEMBER PACHECO: Second. 19 20 CHAIRPERSON MIDDLETON: Second. This is a voice vote. All those in favor, please say aye? 21 (Ayes.) 2.2 23 CHAIRPERSON MIDDLETON: Any opposed? Action 3A, B, and C are approved. 24 25 We now move on to information consent items,

which is Item 4A through F. Is there a desire to pull any 1 of these items? 2 All right. Nothing is asked to be pulled. This 3 does not require a vote, so we will move on to Item 5A, 4 5 which is an action item. And that -- for that we will go to Ms. Nix. Thank you. 6 ACTING CHIEF FINANCIAL OFFICER NIX: This is a 7 8 standard item just requesting -- we're requesting Board 9 approval to reimburse Ms. Willette's employer for 61 percent of her time as she serves on the CalPERS Board. 10 I'd be happy to take any questions that you have. 11 CHAIRPERSON MIDDLETON: Are there any questions? 12 VICE CHAIRPERSON MILLER: Move approval. 13 COMMITTEE MEMBER PACHECO: (Hand raised). 14 CHAIRPERSON MIDDLETON: We have a motion to 15 16 approval by Mr. Miller second by Mr. Pacheco. This is a voice vote. All those in favor please 17 say aye? 18 19 (Ayes.) 20 CHAIRPERSON MIDDLETON: Any opposed? Item passes. We will now move on to information 21 Agenda Item 6. Is there any request to pull any of these 2.2 23 items? Then it is approved. 24 Okay. 25 We are finishing our meeting in record time.

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1CHIEF EXECUTIVE OFFICER FROST:Chair Middleton,2we actually had presentations.

3 CHAIRPERSON MIDDLETON: Oh, we have to go through 4 each one?

5 CHIEF EXECUTIVE OFFICER FROST: Yeah, for 6A, B, 6 C and D.

7 CHAIRPERSON MIDDLETON: Here, I through we were 8 going to -- all right. 6A.

9 ACTING CHIEF FINANCIAL OFFICER NIX: 6A is an 10 information item. The annual actuarial terminated agency 11 risk pool. And I'm going to call the actuaries up for 12 this presentation.

Sorry. Julian I wanted to hear your voice.
 CHIEF EXECUTIVE OFFICER FROST: You have to turn
 on your mic.

VICE CHAIRPERSON MILLER: You're good.

(Thereupon a slide presentation.)

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18 SENIOR PENSION ACTUARY ROBINSON: Okay. Good 19 morning, everybody. I'm Julian Robinson in the Actuarial 20 Office, CalPERS team member. Happy to be here to present 21 the TAP -- the TAP results, the terminated agency 22 valuation. We do this valuation every year to look at the 23 status of the Terminated Agency Pool. 24 Is the clicker available?

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1 SENIOR PENSION ACTUARY ROBINSON: Thank you. The 2 Terminated Agency Pool has 119 plans. There was one 3 additional plan added to this year and the funded ratio of 4 the pool is 199 percent.

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SENIOR PENSION ACTUARY ROBINSON: The added ratio -- the added agency this year was the Oroville Mosquito Abatement District, which had a 0.6 million dollar addition to the pool. Relatively small.

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SENIOR PENSION ACTUARY ROBINSON: Every discount 11 rate for the Terminated -- Terminated Agency Pool changes. 12 And this is part of the pol -- the policy that was 13 established years ago. And we use a -- the STRIPS, the 14 15 30-year STRIPS, a treasury measure, which varies from year 16 to year as the discount rate for the pool. As you can see, the discount rate in this June 30, 2021 valuation was 17 2.11 percent and the increase the previous year was 1.48 18 19 percent.

As you're aware, the -- you approved assumptions in November of last year. And those assumptions were used for the PERF valuations as well as the Terminated Agency Pool valuations.

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SENIOR PENSION ACTUARY ROBINSON: Here's the

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numbers for the pool. You can see the 199 percent funded 1 ratio. The accrued liability in the pool is approximately 2 \$200 million. The assets in the pool is approximately 3 \$400 million. And that's how we get a Terminated Agency 4 Pool funded ratio of 199 percent. So just to put this in 5 perspective, the whole system is about 400 billion, so the 6 7 TAP represents about 0.1 percent of the whole system, just 8 to give a -- put things in perspective. -----9 SENIOR PENSION ACTUARY ROBINSON: The investments 10 in the TAP are broken down into two sections. 11 Those in the immunized segment of the assets and a non-immunized 12 segment of the assets. The immunized segment of the 13 assets are invested in government bonds, TIPS, and STRIPS. 14

And the intention there is to match the cash flows out into the future, so that the cash flow is thrown off by these bonds matches approximately what the expected benefit payments are into the future. The surplus is invested with the rest of the PERF. And as you can see, it's about a 50/50 split at the moment.

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22 SENIOR PENSION ACTUARY ROBINSON: We do some 23 sensitivity testing. Actuaries are very sensitive people, 24 so we do some testing too. And we look at mortality 25 rates, the impact of what a 10 percent increase or

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decrease in mortality would be. And as you can see, 1 there's an impact of about six to seven percent on the --2 along the funded status, as you move from a lower 3 mortality or a high mortality. 4 -----5 SENIOR PENSION ACTUARY ROBINSON: We also test 6 the impact of inflation on the -- on the liabilities and 7 8 the funded ratio as well. That's the thrust of the presentation. If there 9 are any questions, I'd be happy to answer. 10 CHAIRPERSON MIDDLETON: All right. Are there any 11 questions for Julian? 12 Julian, thank you. This was an information item, 13 so there's no vote required. 14 SENIOR PENSION ACTUARY ROBINSON: You're very 15 16 welcome. Thank you. CHAIRPERSON MIDDLETON: We'll move on to Item 6B. 17 And for that, I'd like Mr. Stone. 18 OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: 19 20 Good morning, members of the Finance and Administration Committee, Dallas Stone, CalPERS team 21 member. This is an information item on the results of the 2.2 23 2021 special public agency member election. There was one vacancy in this election. This seat was decided by a 24 25 majority vote in the primary election and Mullissa

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Willette was elected with 62.15 percent of the votes. Congratulations to Ms. Willette.

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The following is a summary of those results. 3 The term of office for the elected Board member began 4 immediately upon certification of the official results by 5 the Secretary of State on May 27th, 2022 and will expire 6 on January 15th, 2027. Voter turnout for the election was 7 8 4.99 percent. This is a slight decrease from the 2018 public agency member election where turnout was 6.4 9 percent. We continue to partner with the Office of Public 10 Affairs and Stakeholder Relations to try to increase voter 11 awareness and participation. A number of those outreach 12 efforts included candidate statement videos, toolkits for 13 the employers, spotlight adds and banners on Inside 14 15 CalPERS, press releases, social media through Facebook, 16 Twitter, and Instagram, and hosting a virtual candidate forum streaming live and placing on the CalPERS website 17 for future viewing. 18

Attachment 1 provides a breakdown of voter participation demographics by gender, age group, voting method, top 10 cities, and the top 10 employers. A total of 262,115 ballot packages were sent to eligible active public agency members, and 7,541 paper ballots were returned. There were 5,041 online votes and 436 telephone votes.

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Voter participation by voting stream in this 1 election was a follows. For mail-in votes it made up 2 57.93 percent of the total, online votes made up 38.72 3 percent, and telephone votes were made up by 3.35 percent. 4 Attachment 2 provides a breakdown on voter 5 outreach statistics. This election we had almost 1,100 6 views of the virtual candidate forum from the livestream, 7 8 CalPERS YouTube channel, and Board election webpage. 97.3 percent of voters that requested a PIN, utilized the new 9 online function, and 858 clicks on the vote now button 10 from the Board election webpage. 11 Attachment 3 provides a detailed cost summary of 12 this election. The total cost to conduct this election 13 was \$471,881. The cost per eligible voter was 14 approximately \$1.80. 15 16 This conclude my presentation and I'm happy to answer any questions you have at this time. 17 Thank you. 18 19 CHAIRPERSON MIDDLETON: All right. Are there any 20 questions? In terms of voting patterns, slightly depressed 21 from the last election. How does it compare to other 2.2 23 elections that were special elections? OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: 24 25 Well, I would say the other special election

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we're running right now is the retired election. That's 1 currently going on and it will close next Monday. For the 2 2019 election for the retired, we had approximately 3 116,000 votes. We believe today we'll cross over the 4 100,000 votes when we get our daily report. 5 That was right around 19 percent participation. And I think we're 6 right -- right in between 13 to 15 percent participation 7 8 rate right now for the retired election. And the retirees typically are our -- our highest demographic in terms of 9 voting participation. 10

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CHAIRPERSON MIDDLETON: All right. Thank you. OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: You're welcome.

14 CHAIRPERSON MIDDLETON: And this again was an 15 information item. We will now move on to Item 6C.

COMMITTEE MEMBER FECKNER: Down here.

17 CHAIRPERSON MIDDLETON: Oh, I'm sorry. Mr.18 Pacheco.

19 COMMITTEE MEMBER PACHECO: Yes. I just have one questions. Sorry about that. Oh, did I get the -- yeah. 20 Thank you very much for the presentation. 21 Thank you. Ι just want to ask a question about the fiscal cost. Is 2.2 23 that -- the 471 thousand and change has that been the same amount over time or has it -- has it been increasing or 24 25 decreasing at the very last page, the cost summary?

OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: So in terms of increasing or decreasing, it all depends on how large that voter demographic is. So for our -- our retired election, that's our largest population. It will cost more. So typically we have to cover the printing of the notice of election, if there is one that goes out for that election, the ballot package that gets mailed to each of the members, and then the return envelope postage that we pay, as well as setting up the platforms through our vendors for online and IVR functionality. I would say that this election cycle compared to our last election cycle, which is 2016 through 2020, the cost did increase slightly, but that was mostly due to postage increases.

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15 COMMITTEE MEMBER PACHECO: So it's mostly the 16 postage that's -- that's driving the cost then?

> OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: Correct.

19 COMMITTEE MEMBER PACHECO: Okay. And with 20 respect to technology, I noticed that telephone usage, 21 that the -- you know, the three methods either mail, 22 online, or telephone, it seemed like the telephone 23 wasn't -- wasn't utilized in this particular case. Is 24 there -- is that -- is that something, I mean, an 25 aberration or I'm just curious.

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OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: 1 That's the ongoing trend. We typically see three 2 to five percent in terms of IVR voting. So in 2020, we 3 did bring an off-year package to -- to the Board where we 4 presented our 2016 through 2020 voting statistics and 5 asked the Board what should we offer for the next voting 6 cycle, you know, offering a menu of options, only paper, 7 8 online or paper, and eliminating IVR. The Board did decide to continue to provide all three voting methods. 9 At the end of this election cycle, we will bring a similar 10 11 package to you for -- for feedback. COMMITTEE MEMBER PACHECO: Okay. Very good then. 12 Thank you. 13 OPERATIONS SUPPORT SERVICES DIVISION CHIEF STONE: 14 15 Yep, you're welcome. 16 CHAIRPERSON MIDDLETON: All right. Is there any 17 other questions? Then we will move on to Item 6C, CEM 18 19 benchmarking. 20 (Thereupon a slide presentation.) ACTING CHIEF FINANCIAL OFFICER NIX: Michele Nix, 21 CalPERS team member. Agenda 6C is an information item to 2.2 23 follow up on Chair Middleton's question about benchmarking during the April budget presentation. We've asked CEM 24 25 Benchmarking to join us today to give us an overview of

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the benchmarking services that they provide CalPERS what they measure and how we compare to our peers, highlighting areas where we can excel and we can improve. I will turn 3 the microphone over to Tom Scheibelhut with CEM 4 Benchmarking to walk you through the presentation. 5

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CHAIRPERSON MIDDLETON: Sir, welcome.

MR. SCHEIBELHUT: Good morning. Thank you.

8 I'm going to give you a whirlwind tour of four benchmarking subscriptions that you participate in, but 9 there are some interesting results, so hang on to your --10 hang on to your hats here. I'm going to start by just 11 introducing CEM. 12

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MR. SCHEIBELHUT: There. Just background. 14 It's been about five years since I've presented to the Board, 15 16 so it would be nice. Just so you have some background, CEM benchmarks and works with 500 plans globally, and 17 that's 25 different countries and it's 150 of the 300 18 19 largest plans globally.

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MR. SCHEIBELHUT: And we offer five different 21 benchmarking subscriptions, of which CalPERS participates 2.2 23 in four of them. Not only do you participate in them, you were a founding participant in four -- in the first four 24 25 of them and starting with investment benchmarking in 1992.

And I was asked to distill some of the takeaways.

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MR. SCHEIBELHUT: And I was asked to distill some 3 of the takeaways. And I've distilled them into three, 4 three things that I really want you to remember. And the 5 first, in terms of the transparency of your public 6 reporting, you were number one in the U.S. and number nine 7 8 of the 75 funds we looked at globally. But the takeaway is that you disclosed more than we could find. In fact, 9 your -- if we'd been able to find everything, you would 10 have been second globally. So that's takeaway number one. 11 You're quite transparent and there's -- and -- and even 12 more transparent than what we measured. The thing is to 13 make it more transparent. 14

The second thing is we look at both pension admin 15 16 and investment benchmarking. One of the things we look at is cost relative to a benchmark and in pension admin 17 you're above the benchmark. In investments, you'fe below 18 the benchmark. But when you look at the two together, in 19 20 dollar terms, you are 500 million low cost relative to the benchmark. And that just boggles my mind. I mean, 500 21 million is a big number. And so CalPERS in aggregate is 2.2 23 very low cost relative to its benchmarks.

And then the final takeaway is kind of distilling 15 years of research into investments in global leaders.

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And the takeaway for you to remember is that if you're going to be actively managed, costs matter. What we find almost -- however we look at it, whether it's by asset class or in aggregate, funds that implement actively this is with active management - and lower cost fashion outperformed those that use active management in a higher cost fashion. So costs matter. And so those are the big three takeaways is you're quite transparent, congratulations, you're low cost and costs matter.

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So now, I'm going to take you through -- a little 10 bit through each of the services starting with the 11 transparency benchmarking. And what we do is every year 12 we've got 190 different questions in four different 13 buckets, and we have teams of two looking at each of the 14 And we have about 40 questions per category, 15 buckets. 16 such as performance, governance, cost. And they review all of the public disclosures focusing on the website in 17 the annual report mostly. 18

And they -- these are smart people but they're not heroic, so they find what they can, and they answer it, and they tick off yes/no, you know, you disclose it or not. And when we do that, we show that overall you were, number one, the five systems we looked at in the U.S. We looked at five in 15 different countries, and nineth globally.

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But as you can see for performance, you were 1 number one globally and in the U.S. But as I said, 2 you're -- oh, and the other thing we're looking for is 3 best practices. And CalPERS was cited for two best 4 practices, because they're not just where do you rank, 5 it's how can you get better? And that's a key part of all 6 7 of the service we offer is how can you get better, who can 8 you copy, what can you do to get better. And so you were cited for two, but there was something like 55 best 9 10 practices that we shared with you. --000--11 MR. SCHEIBELHUT: But CalPERS came back and said, 12 but wait, we disclose some of this stuff, and it was true, 13 you do. But you disclose a lot of stuff and it -- some of 14 it's hard to find. And that's the other -- you know, my 15 16 first key takeaway is, yeah, if we had been able to find 17 it, you'd have been second globally. So you are transparent. You do disclose a lot, but some of it is 18 19 hard to find. And, you know, the example is we missed something in the CalPERS trust level review, which was 20 part of your September Board package, but think about the 21 three levels down, and CalPERS trust level review is not 2.2 23 suggestive of something with asset class cost and performance for a summer student from finance that we had 24 25 hired, so he didn't find it. So that's just -- you know,

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that's the biggest example of something we missed. 1 -----2 MR. SCHEIBELHUT: Pension admin. We benchmark 70 3 leading global systems. And it's important that we have 4 this global participation, because the biggest part of the 5 service is we're looking for best practices and sharing. 6 We have a global conference. And it's -- it's -- from the 7 8 systems that are most different from you, that you often get the best ideas. 9 --000--10 MR. SCHEIBELHUT: But we also look at 11 12 performance. And when we look at performance, size matters, because -- because there are huge economies of 13 scale, and country matters. North America and Canada are 14 pretty similar. The UK is very different. 15 The 16 Netherlands is very different. 17 And so we look at you versus these eight of the largest systems in North America. And when we do that, 18 I'm going to take a step back. Before we look at your 19 20 performance, one thing to note is that one of the things we look at is complexity. CalPERS is -- has the most 21 complex rural set for pensions of any of the systems we 2.2 23 benchmark. And when I talk about rural sets, it's customization choices for employers, COLA rural sets, plan 24 25 types. And some of them are options that your employers

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can choose. Some of them are just grandfathered over
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And that matters, because it makes it -- it negatively impacts your ability to provide good service and it increases costs. And before I leave complexity, I'd like to point out one thing, you are the -- one of two plans that has successfully reduced complexity ever. And you've reduced it a little bit over five years. Meanwhile -- and one other plan did it. In fact, that plan even got the IRS to change some of its rules to make their system less complex, but it's rare.

Most systems slowly over time things become grandfathered and grandfathered and that just adds one more rule set over time. So you're one of two that has reduced complexity, but it is not easy to do.

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MR. SCHEIBELHUT: So under -- with that context, how did you perform? Well, in terms of service, you're right at the median of your peers. And in terms of costs --

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MR. SCHEIBELHUT: -- you're above the median. And that's \$58 per member. In terms of dollars, that's about 80 million. But some of that is, I think, California. And I can't pinpoint and this is the problem.

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But when -- whenever we look at California systems, if you look at the right -- lower right-hand and that graph with the green squares, those are California systems. And you can see you're the lowest cost of the California systems. But California systems tend to be high cost generally relative to all the others.

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And I think some of it is just some of the rules of California and some of it is cost environment. But there are -- but -- so relative to California systems, you look good.

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MR. SCHEIBELHUT: Investment benchmarking, the 12 third -- third subscription, as we tear through this. 13 First, we look at -- we have a universe of over 10 14 trillion in assets. And we look at -- whenever we look at 15 16 net value-added and returns, we tend to compare you to one of those universes. And the universe we look at most 17 often is U.S. public universe. But for costs, again size 18 19 matters.

MR. SCHEIBELHUT: In terms of costs, we come up 1 with a benchmark for your plan. And the way to think 2 about that benchmark is you have an asset mix. And if we 3 gave that asset mix to your peers and they incurred their 4 median cost, so if -- for -- for your asset mix, if you 5 paid the median cost of your peers for everything that 6 CalPERS does, your cost would be \$1.4 billion. That's 7 8 your benchmark, but your actual cost is 837 million. So you are low cost by 592 million. 9 So quite low cost. And we slice and dice cost a 10 million ways to Sunday, but the big picture story is 11 you're low cost for two reasons. One, you implement in a 12 lower cost fashion and the biggest -- what we mean by that 13 is mostly you have more indexed management than your 14 And that's about half of the reason why you're low 15 peers. 16 cost. And the other half of the reason is when you look same style by same style at -- for same asset class, you 17 pay less. And that's the other half of the 14 basis 18 points is savings. So low cost style and low cost for the 19 20 same style. So that's what you pay. --000--21 MR. SCHEIBELHUT: What do you get? And again, we 2.2 23 look at performance in many different ways, but one thing we have is what we call our cost effectiveness chart. And 24 25 on this chart anything north of the horizontal is positive

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value-added. They've done good. And anything left of the vertical is low cost relative to benchmark.

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And you can see that you, and quite a few of your 3 peers, are in that desirable, lower-cost, positive 4 value-added quadrant for the five-year period ending 2020. 5 And this is when we're comparing you on a like-for-like 6 7 basis, where we're doing your private equity versus -- I 8 mean, versus lagged investable benchmark. So everybody is on the same basis. And there you can see that are you in 9 that desirable, low-cost, positive value-added quadrant. 10 And I wish all of my clients were there, but two of them 11 are, so thank you. It makes it a lot easier to tell the 12 story. But this kind of segues to the final service. How 13 do you get there? What are the characteristics of funds 14 that add value? 15

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MR. SCHEIBELHUT: And so the final service that 17 we provide you is the global leaders. And there we do 18 19 custom research every year for the biggest of the big. And these are funds like CalPERS that tend to have a lot 20 of internal management and just big programs and that they 21 ask us to do different research every year. And you can 2.2 23 see that some of that -- I mean -- and you can see what we've done over the past -- since 2012 when it started, 24 25 that's the research we've done.

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And so I had to pick out four of the most fun finds, most of the interesting findings. And one of them is the one that I started with that takeaway I want you to remember is that costs matter.

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MR. SCHEIBELHUT: And -- and I could talk about 6 7 this page for probably an hour, because there's so many 8 nuances, but I'm only going to tell you three things. First, one of the thing -- characteristics of funds that 9 do well, that add value is size. Bigger funds have an 10 advantage. And so you can see that if you're under a 11 billion, value-added since 1992 to 2020 has been negative. 12 And what that tells you is that you probably should be 13 indexed if you're under a billion dollars. So if any of 14 you have personal portfolios that don't exceed a billion 15 16 dollars, I hope they're indexed.

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(Laughter)

MR. SCHEIBELHUT: But once you get bigger than a 18 19 billion, you can see that you can add value. And it's 20 kind of -- 1 to 10 billion has added 15 basis points, greater than 10 billion the value-added has averaged 29, 21 but that's kind the second takeaway from this chart is 2.2 23 it's -- it's not a lot. I mean, 29 basis points by the way on say half -- five trillion dollars is a lot of money 24 25 per annum over -- since 1992 is a huge amount of money.

But in terms if your target -- if you're expecting to earn a lot more than 29 basis points, I think you're dreaming, so -- but it is doable and you are in that greater than 3 \$10 billion quadrant, so you have an advantage, and you 4 can do it. 5

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So we've looked at lots of the characteristics of funds that do even better. But without a doubt, the only one I want you to remember is that costs matter, because that's --

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MR. SCHEIBELHUT: The biggest -- we've looked at 11 it for every asset class. We've looked at it in 12 aggregate. We've -- and this has cost -- and you have to 13 be actively managed too, because you can't -- you can't 14 15 add value relative to passive alternatives if you're not 16 active. But once you've chosen the asset classes you want 17 to be actively implementing, at that point, costs matter a lot. And we've looked at it by asset class and we -- the 18 19 findings are consistent whether it's public markets, hedge funds. Up there in the left is infrastructure, on the 20 right is real estate. We've done it for private equity. 21 It's consistent. 2.2

23 And what -- what -- what you see is going from left to right in all of these charts is the lowest cost 24 25 styles, direct internal, direct investments going to core

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funds, to opportunistic funds, to fund of funds, which is the most expensive implementation style, because you're paying the fund-of-fund manager and that fund-of-fund manager is paying another level of managers to -- to have their funds, so that on average, the cost of a fund of fund is round 520 basis points versus internal management for infrastructure is 43 basis points. So a fund of fund costs 10 times as much.

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9 But the difference in performance whenever we 10 look at it is approximately equal to the difference in 11 cost. What that implies is that gross, they all do the 12 same. But net, after costs, the lower cost styles do 13 better. So -- so that's something never to forget, costs 14 matter.

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16 MR. SCHEIBELHUT: And I'm down to my final two And one of the things I know you're looking at, 17 slides. and a lot of your peers are looking at, and a lot of funds 18 in the universe are looking at is co-investment, because 19 20 co-investment is lower cost. And so when we've looked -researched it, it follows the pattern. 21 It has outperformed. I can't say that it's statistically 2.2 23 significant. Yeah, you know, I'd like to say without question it outperforms, but so far, our observations are 24 25 it has outperformed and it doesn't surprise me because it

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is lower cost, but -- and in terms of co-investment, CalPERS has less. In terms of its peers, co-investment, the opportunity comes from your -- the limited partnerships you invest in. And your co-investment is 6.8 percent of all of those limited partnerships. Whereas, for the global leader peers - these are the biggest of the big - it averages 22 percent.

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8 So there is an opportunity there, but I'm going 9 to throw out a caution. And the caution is that suddenly 10 everybody wants to be in co-investment. Ten years ago, it 11 would have been easy to, you know, increase your 12 co-investment, but it's not anymore, because everybody 13 wants to be in it.

And so now suddenly, there's starting to be a 14 whole lot of co-investment vehicles that are -- that cost 15 16 more. And so you've got to remember, I mean, the benefit of co-investment, I believe, is that it's lower cost. 17 So to get into it, you want to do it in a low cost fashion. 18 19 And so be wary of the vehicles that cost more and be aware that the opportunity it may not -- it -- I suspect that 20 22.3 percent you're seeing for your peers is going to come 21 down, just because so many people want to get into it now, 2.2 23 because they say, hey, we can't make money when we're paying 350 basis points we want a lower cost opportunity. 24 25 -----

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MR. SCHEIBELHUT: The final thing. We've looked 1 at benchmarks for private asset classes and most of them 2 just create noise. They -- they don't help you understand 3 performance at all. And not only is that, they're --4 they're different for every one of your peers. So private 5 equity would have a weird S&P 500 plus 500 basis points. 6 We're S&P 500 plus 100 basis points. We're the Brinson 7 8 whatever -- or we're just T bills plus three percent. It's -- there -- a lot of them are random benchmarks with 9 random noise in terms of performance. 10 So one of the things we do is we say, hey, we're 11 going to throw those out and we're going to use an invest 12 benchmark mark. In fact, we use a lagged investable 13 benchmark for private equity. So we do -- so when we look 14 15 at your results, we do do that for your private assets, 16 but we may start doing it for infrastructure as well, just because benchmarks have noise, but the takeaway here is 17 that investable benchmarks are available and they do have 18 19 higher correlations with performance, and they have better statistics. And, you know, I've got my PhD in physics who 20 tells me all these things that matter. But the ones I 21 remember is, hey, if it correlates with performance, 2.2 23 that's a good thing.

And if net value-added is close to zero -- so you don't want a benchmark that's easy to beat. That's good

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too, and -- but there are investable benchmarks for 1 private assets for private equity. There are investable 2 benchmarks for infrastructure that are much better on 3 average than what a lot of funds are using. 4 That was my whirlwind tour. 5 (Laughter) 6 CHAIRPERSON MIDDLETON: Well, you're absolutely 7 8 accurate, you went through an incredible amount of information in a very short period of time. And not 9 surprisingly, my colleagues have guestions. And I'll 10 start with President Taylor. 11 COMMITTEE MEMBER TAYLOR: Thank you, Chair 12 Middleton. I'm not on yet. 13 Thank you Chair, Middleton. 14 I love your excitement. This is -- so it makes 15 16 us more excited about our benchmarks and everything we're doing right. So thank you very much. It was a great 17 presentation. 18 I had -- on slide -- let me make sure I've got 19 20 the right slide up. It says 172 of 192 --(Laughter) 21 COMMITTEE MEMBER TAYLOR: -- so it's 15 -- number 2.2 23 15. There we go. There we go. So global leaders past research topics. 24 So 25 responsible investing comparison of costs and performance

between PRI and non-PRI signatories. Could you get into that a little bit for me. I was curious about that, because I know that -- that's some of our important work here.

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MR. SCHEIBELHUT: What we found is that PRI 5 signatories performed better, but this was not 6 7 statistically significant, but at least it's the first 8 indicative thing that being a responsible investor isn't hurting you. In fact, over the period we looked at, it 9 was helping you, but I think it's a win if we can 10 demonstrate over long periods of time that it doesn't 11 hurt. 12

13 COMMITTEE MEMBER TAYLOR: Oh, great. That's --14 that's exciting, so --

MR. SCHEIBELHUT: But remember, the statistical significance --

COMMITTEE MEMBER TAYLOR: Was insignificant.

18 MR. SCHEIBELHUT: At this point, we're going to 19 need a hundred more studies like the one we did to say 20 without, hey, PRI, I mean, responsible investing is either 21 better or worse, but, you know, at least our first cut, 22 it's better.

23 COMMITTEE MEMBER TAYLOR: That's great. That's 24 good to hear. Hey, our ESG is working then. I appreciate 25 it. Thank you very much.

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MR. SCHEIBELHUT: Okay.

CHAIRPERSON MIDDLETON: All right. And Mr. Feckner.

COMMITTEE MEMBER FECKNER: Thank you, Madam -thank you, Madam Chair.

Again, I'll just -- as President Taylor said, your enthusiasm is great, especially on what's typically a dry topic, so it really was helpful. But I have a question for you. I appreciate the comments about our transparency and how we did in trans -- being transparent.

But unless I misunderstood you, you talked about us having benchmark, making our benchmarks, but you're summer interns say was not able to find those. In your opinion, what can we do to point that out or what could we do to make that more readily available, so that you can see that we're hitting those benchmarks, so you can get a better feel.

MR. SCHEIBELHUT: We have talked to your team. 18 19 And -- but just one example is that one document that says 20 something -- I forget -- I forget what it's called. That's how memorable it is. To just rename it, you know, 21 asset class returns and costs would suddenly -- that would 2.2 23 have popped up right away. But there are even better ways to do that, because there are -- you know, there -- it's 24 25 one thing to have the document. It's one thing to start

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1 thinking about what might an investor be interested in,
2 and if they're interested in costs. Some of your peers do
3 a good job of putting everything about costs in one place
4 and everything about -- and you do a really good job in
5 performance and you put everything about your asset class
6 performance in one place. So there are ways to do even
7 better.

COMMITTEE MEMBER FECKNER: Good. Thank you.

9 MR. SCHEIBELHUT: But it starts with just naming 10 it differently.

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COMMITTEE MEMBER FECKNER: Very good.

CHIEF EXECUTIVE OFFICER FROST: And, Mr. Feckner, 12 that is on Mr. Pacheco, our Pacheco, not Jose Luis. 13 It's on his business initiatives for his performance this year. 14 15 COMMITTEE MEMBER FECKNER: Thank you. 16 CHAIRPERSON MIDDLETON: And, Mr. Ruffino. ACTING COMMITTEE MEMBER RUFFINO: Thank you, 17 Madam -- thank you, Madam Chair. 18

You answered already one of the questions along the line of Mr. Feckner just asked, why so hard to find? And I think you've -- I get it, you know, in terms of renaming it or and select the team that's already working on it.

MR. SCHEIBELHUT: Yes.

ACTING COMMITTEE MEMBER RUFFINO: I share -- you

know, I echo the comments that are already made about your 1 enthusiasm and about the results. I mean, that's great 2 news, but I think it would be remiss if we don't recognize 3 that all this great benchmarking and great results don't 4 happen by accident. And so kudos to CalPERS team, first 5 and foremost to the CEO and the executive team. T'm not 6 7 going to name everyone. You're standing right here. But 8 thanks to your work, this is why we're getting these benchmarks and the entire team, the entire CalPERS team 9 for contributing to this success. 10

It's important because you hear often, and I hear often in the hallways, and always, CalPERS needs to be transparent. Transparent. Transparent is such a heavy 13 used word.

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MR. SCHEIBELHUT: Yeah.

16 ACTING COMMITTEE MEMBER RUFFINO: And sometimes -- and so this today just validates that CalPERS 17 is trying their hardest as they can, and validate on the 18 19 fact that they are number one. So folks, yes, there's always room for improvement, no questions about it, but 20 there is a, it seems to me, definitely an effort on this 21 team to make sure that they are as transparent as they can 2.2 23 possibly be.

That said, it's also great to see that we moved 24 25 to nineth globally versus a couple years ago we were in

the 11th. So what do you think contributed and what can we do, maybe next year or the next couple years, maybe we can move up to fifth, maybe even first in the world so could be dominant totally. So I wonder if you can give us your thoughts about that.

Thank you.

MR. SCHEIBELHUT: I'm confident you will move up. It's not me who's going -- who should be answering that question. It's probably Michele and some of your communications team that should answer the question, but we -- it's not going to take much.

12 CHIEF EXECUTIVE OFFICER FROST: It might be -- it 13 might be interesting to -- so we can get to number two I 14 think was your point, and we have a plan on how to make 15 the search function and renaming some of these documents 16 and really creating more of a stakeholder portal where 17 this information is far easier to find.

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Make sure I talk into the mic for Lisa.

But maybe you could talk to them about the differences between a number two and the number one, even though you can't attribute the name of that number one organization. But what would be the differences, what would be the improvements that would have to be made to move from that number two seat, which you've indicated, to the number one seat?

MR. SCHEIBELHUT: Well, the first thing I want to 1 say is the bar is moving, because number three wants to be 2 number one, number two wants to be number one, and number 3 one wants to be number one. So even if you'd make all of 4 the improvements you want, that would have put you to 5 number two this year, that might put you at number five. 6 7 But that's -- that would be good, because that's part of 8 the reason we do this. We believe transparency matters a lot. And we -- and part of the reason we undertook this 9 initiative is we wanted to encourage that competition and 10 11 improved transparency. So what will get you to number one, some of it is 12 starting to -- I mean, we have 160 questions, but 13 implementing some of the best practice examples we have 14 that answer the questions directly rather than having you 15 16 look at 19 different documents to find the disclosures. Finding them in one place is what's going to get you to 17 number one, but it -- it's not easy. It's not untrivial 18 19 to change how you do stuff. It takes time. So I'm -- I'm not going to, but that -- that's what it will take to get 20 there. 21 CHAIRPERSON MIDDLETON: 2.2 All right. 23 ACTING COMMITTEE MEMBER RUFFINO: Great. Thank

24 you. And it seems like the team is working on it on the 25 plan, so that's good to hear.

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Thank you, Madam Chair.

CHAIRPERSON MIDDLETON: Thank you.

Mr. Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Again, thank you for your enthusiasm. I really enjoyed it, especially when 5 you mentioned you have a PhD in physics, so it's pretty 6 cool. 7

8 MR. SCHEIBELHUT: That's not me. That's Alex Beath who sits next to me. He gets even more passionate 9 about this stuff. 10

COMMITTEE MEMBER PACHECO: Well, as a -- as a --11 as a software engineer by trade, that's pretty cool, so 12 thank you. 13

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MR. SCHEIBELHUT: Yeah.

15 COMMITTEE MEMBER PACHECO: My question is 16 regarding on page 18 of the private equity co-investment 17 has outperformed other implementation styles. And you mentioned to date it's only indicate -- indicative. 18

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MR. SCHEIBELHUT: Yes.

COMMITTEE MEMBER PACHECO: It's not statistically 20 robust. What additional studies do you think we need to 21 get in order to get that statistical robustness that we 2.2 23 would have to go for? Are there other academic centers of excellence that are doing this or --24

MR. SCHEIBELHUT: Just time. We've only started

1 teasing out co-investment from direct internal investing 2 in 2008.

COMMITTEE MEMBER PACHECO: Um-hmm.

MR. SCHEIBELHUT: And there weren't that many doing it at the time. It was like 10 or 15. So it's just time. As our database -- every year, we collect more performance by style. So in another five years I'll be more definitive. We'll have -- we'll have enough observations to have significance.

10 COMMITTEE MEMBER PACHECO: Um-hmm. And so 11 these -- and these observations would be -- you know, 12 provided with us another report, correct?

MR. SCHEIBELHUT: Yes.

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14 COMMITTEE MEMBER PACHECO: Okay. Very good then.
15 Thank you very much.

MR. SCHEIBELHUT: Okay.

CHAIRPERSON MIDDLETON: Thank you.

Just a couple of follow-up questions for you. And this report was really good and very much appreciated. When it comes to transparency, if I'm understanding you correctly, what you found are technical places that we can make it much easier for individuals to find what they're looking for.

MR. SCHEIBELHUT: Correct.

CHAIRPERSON MIDDLETON: Did you find any

instances where we were putting in place artificial bars 1 in order to make it more difficult for people to find 2 things or to not disclose information? 3 MR. SCHEIBELHUT: I didn't do the reviews myself. 4 CHAIRPERSON MIDDLETON: 5 Okav. MR. SCHEIBELHUT: And so I'm doing everything --6 believe -- some of it thirdhand, but most of it's 7 secondhand. But the one thing I heard over and over is 8 there's a fire hose of information. 9 CHAIRPERSON MIDDLETON: Okay. 10 MR. SCHEIBELHUT: And when you just -- CalPERS 11 puts everything on its website. 12 CHAIRPERSON MIDDLETON: Um-hmm. 13 MR. SCHEIBELHUT: And that in and of itself is a 14 15 bar. It's an impediment, because how do you find what 16 you're interested in when there's three billion documents, 17 some of them oddly named. And so that -- that is an impediment, and -- but it's also a reality of living in a 18 19 fish bowl, because suddenly you have to put everything up. 20 And that's a decision, but then it's -- what we're suggesting is you take a step back and say, well, let's 21 think about -- from stakeholder's view --2.2 23 CHAIRPERSON MIDDLETON: Right. MR. SCHEIBELHUT: -- a stakeholder might be 24 25 interested in this activity. How do I take that fire hose

and summarize it?

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CHAIRPERSON MIDDLETON: I think that's an incredibly important point for us as we try to move forward. And I think we've got some comment coming.

DEPUTY CHIEF INVESTMENT OFFICER BIENVENUE: 5 Yeah. I just want to kind of answer in another way Mr. Pacheco's 6 question. While CEM is aggregating their data in terms of 7 co-investment versus funds, there's a lot of data looking 8 at adverse selection or whether there is adverse selection 9 in funds -- I'm sorry, in co-investments. And the only 10 way that a lower cost alternative would not be, you know, 11 better sort of -- you know, net returns, would be if 12 there's adverse selection. And there's a lot of academic 13 work around adverse selection. And almost all of it 14 refutes adverse selection through the lens of 15 16 co-investment and that's one of the reasons why co-investment is such a focus for us. 17

18 MR. SCHEIBELHUT: And a second reason it might do 19 poorly is just idiosyncratic risk --

CHAIRPERSON MIDDLETON: Um-hmm.

21 MR. SCHEIBELHUT: -- so you need to be big. You 22 need to be CalPERS size to take advantage of co-investment 23 and get rid of the -- and get -- eliminate the 24 Idiosyncratic risk.

CHAIRPERSON MIDDLETON: Are there any last

takeaway information that you would like to relate to us that you've not had a chance to say?

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CHAIRPERSON MIDDLETON: Mr. Pacheco.

COMMITTEE MEMBER PACHECO: Thank you. Thank you. First of all, thank you, Dan, for that information. That's what I was looking for. Thank you very much for that.

8 With the question about looking for additional info, you mentioned that it's really difficult to find 9 information on our website. Do you -- do you recommend 10 that perhaps that we could have some sort of -- structured 11 some uniform naming convention that would, you know, 12 identify information more readily or more easily, so it's 13 more -- it's more transparent? And what's your rec --14 what's your suggest -- what your opinion on that? 15

MR. SCHEIBELHUT: First of all, the first place we look is your annual report, and that's pretty good. And it's got some best practices in it, so it's not just your website, but it's -- you know, back to the example of something that could be more better named and more accessible is the CalPERS trust level review and annual program review. What does that mean?

And what we were looking for was costs and performance and they were both in there, but not only were they in there, the title didn't suggest that. Plus, they

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were just attached to your September minutes. So if you 1 really want to make it transparent, it shouldn't be 2 attached to your minutes, it should be either in your 3 annual report, you know, on a summary basis, or somewhere 4 else. And it should certainly be named something 5 indicative of what's in it, which is asset class 6 7 performance and costs. 8 COMMITTEE MEMBER PACHECO: I see. CHAIRPERSON MIDDLETON: Marcia, did you want to 9 10 say something? CHIEF EXECUTIVE OFFICER FROST: Yeah. Thank you, 11 Chair Middleton. I think it's important to realize that 12 much of the information they were able to find. 13 MR. SCHEIBELHUT: Yes. 14 CHIEF EXECUTIVE OFFICER FROST: I don't know the 15 16 individual who was doing the searching, but they were able to find most everything that they were looking for in 17 their -- their questionnaire, which put us in number one 18 for U.S. But that doesn't mean we don't have 19 20 opportunities to improve upon and we now understand where those opportunities lie. We've interacted with CEM 21 directly and now the communications team has that a part 2.2 23 of their business initiatives, so we'd be happy to report out our progress to you all, if that's an area of 24 25 interest.

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COMMITTEE MEMBER PACHECO: That -- that would 1 be -- that would be awesome. 2 CHIEF EXECUTIVE OFFICER FROST: Okay. 3 COMMITTEE MEMBER PACHECO: That would be great. 4 Thank you. 5 CHAIRPERSON MIDDLETON: All right. Thank you. 6 You know, one of the things that I will recall 7 8 from your comment is we've placed a fire hose of 9 information. That means we're trying to get the information out. 10 MR. SCHEIBELHUT: Oh, you are. 11 CHAIRPERSON MIDDLETON: But then it becomes the 12 second question, can someone absorb that fire hose of 13 information? And obviously, there are areas to improve. 14 15 So thank you. 16 Seeing nothing else, we will move on, and thank 17 you, sir. Next, we have Item 6D. And for that, it is 18 19 investment returns and the impact on contribution rates. 20 (Thereupon a slide presentation.) ACTING CHIEF FINANCIAL OFFICER NIX: Madam Chair, 21 I'm going to -- I'm going to turn it over to Scott Terando 2.2 23 to discuss how investment returns impact employer contribution rates. 24 25 CHIEF ACTUARY TERANDO: Good morning, everyone.

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Scott Terando, Chief Actuary, CalPERS.

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Every year, you know, the first question at the -- in July -- in July is what was our return? And then the second question after that is what's the impact on contribution rates? So we have this presentation today to kind of step through how the returns impact contribution rates and kind of give a -- you know, a general rule of numb for how employers can make those estimates.

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CHIEF ACTUARY TERANDO: So we publish the 11 actual -- annual actuarial valuations about a year after 12 the end of the fiscal year. You know, the primary draw of 13 these valuations are the funded status and the new 14 contribution rates for the employers. 15

16 The timing of these contributions vary depending on the type of plan. For State and schools, for example, the '21 valuations both set the contribution requirements for 22-23 and for public agencies, the '21 valuation set 19 the contribution requirements for 23-24.

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CHIEF ACTUARY TERANDO: The requirements are 2.2 based on the actuarial valuations and actuarial 23 assumptions in the report. The last set of assumptions 24 25 were approved back in November of 2021 by the CalPERS

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Board. Contributions tend to fluctuate year to year and it depends on the number of factors and events that occur during the year, investment returns, payroll, the benefits 3 paid, and just, you know, longevity and mortality of the They all work together to influence the changing 5 plan. contributions from a year-to-year basis. One thing to 6 keep in mind is that the investment return on a 7 year-by-year basis probably has the biggest impact on the contribution requirements.

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CHIEF ACTUARY TERANDO: As I mentioned earlier, 11 the investment returns are announced in July. But when we 12 come back and do our annual valuations, the actuarial 13 valuations use the asset values that are displayed in the 14 financial report. And these report -- numbers come out 15 16 and are available in late October or early November. And these are always presented to the -- this committee in 17 November. 18

-----19 20 CHIEF ACTUARY TERANDO: So kind of giving some examples, we can take a look and see what's that -- what 21 those numbers look like over the last two years. Now, if 2.2 23 you see in 2021, the return was announced in July was around 21.3. By the time we got back to November, the 24 25 assets were 477 and the return was approximately 22.4

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1 percent or about one percent higher.

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I think the key -- the key factor in driving this 2 difference is in July the private equity numbers and the 3 real -- real asset numbers are based on a March 31st 4 number. And when you see the November -- the asset values 5 in November, the private equity and the real -- real asset 6 7 numbers have been updated to June 30th. So there's a 8 three month difference in the asset values, and that's driving the difference in, you know, asset values we have 9 here and the returns. 10

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CHIEF ACTUARY TERANDO: So what's this mean for 12 the plan? We took a -- like for a typical miscellaneous 13 plan for example here, the plan is around 80 percent 14 funded, assets would be around \$175 million. 15 So if 16 there's a -- was to say a one percent loss for the plan, how's that translate? One percent loss on 175 million 17 would equate to, you know, a loss of 1.75 million for the 18 19 plan year.

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21 CHIEF ACTUARY TERANDO: We amortize that loss 22 over 20 years. What you can see here is the -- the large 23 bar on the left represents \$1.75 million loss and the 24 small bars on the right along the bottom kind of reflect 25 the payment that plans would see over the next 20 years.

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We have a five-year ramp-up initially for those payments to kind of smooth out any variations on asset losses and gains. And we also have illustrated here a percent of pay, so plans can see what the percent of pay is for the particular plan

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7 CHIEF ACTUARY TERANDO: We also offer what's 8 called our Pension Outlook Tool. This is like the landing 9 screen on this. All these assumptions are available for 10 employers to make adjustments on and they're able to vary, 11 you know, not -- not only discount rate, payroll growth, 12 but also the particular rates of return. When you make 13 those certain adjustments, you can get outputs like this.

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CHIEF ACTUARY TERANDO: This is just the base 15 16 example where you see the contribution rate in the orange line and the funded status in the blue line. When we have 17 different scenarios, employers can get specific 18 information on their contribution rate changes and get 19 some idea of, you know, what particular impact, you know, 20 the rates of returns would have for their -- for their 21 2.2 particular plan.

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24 CHIEF ACTUARY TERANDO: We have some other 25 information on the back of the appendix where we just look

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at some percent pays were included for various 1 miscellaneous plans and safety plans just so you can get a 2 rule of thumb -- so people can use a rule of thumb from 3 some of these numbers or I recommend them just going to 4 Pension Outlook and getting the impact directly from the 5 tool on the web. 6 7 And that pretty much sums up the presentation and 8 I'll open it up for questions. CHAIRPERSON MIDDLETON: All right. Are there 9 questions? 10 11 Ms. Paquin. ACTING BOARD MEMBER PAQUIN: Thank you, Madam 12 Chair, and thank you very much, Mr. Terando for the 13 presentation. I'm just curious if you've seen more 14 employers using the Pension Outlook Tool and trying to, 15 16 you know, keep their contributions rates steady as much as possible as the investment returns have been volatile? 17 CHIEF ACTUARY TERANDO: Yeah. We've seen the --18 19 I don't have the exact number of employers that have used, 20 but the amount of employers that use it have gone up. We always have a session at the Ed Forum going over it and it 21 seems to be well attended. A number of employers are 2.2 23 interested in that, you know, seeing how it works, asking

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questions, and making sure they understand the output.

also offer additional tools where if employers wish to

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make additional contributions to their pension plan what would that impact be on their plan and how would that affect the rate. 3

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So we have a number of tools out there that -- it seems to be -- the tools seem to be fairly popular. We seem to be -- we get feedback from employers and we try and incorporate their suggestions in various iterations, you know, in trying to make improvements, you know, on a steady basis.

ACTING BOARD MEMBER PAQUIN: Well, thank you. 10 And I appreciate the work that you and your team have done 11 on this. And hopefully employers feel that they have a 12 little bit more information as they deal with their own 13 budgets going forward, so thank you. 14

15 CHAIRPERSON MIDDLETON: All right. Any other 16 questions?

Well, Scott, these numbers are still early and 17 we've had an unusual year in the last year. So I think 18 all of us are going to be monitoring very closely as we 19 see how performance moves in the future. 20

CHIEF ACTUARY TERANDO: Yeah. So, you know, for 21 example, you know -- you know, when people are curious of 2.2 23 how the '22 returns impact their rates, you know, I would -- I would suggest, you know, go out to this -- take 24 25 advantage of the tool where employers can go out, they

1 pull up their rates, they can put in the negative returns 2 that we got, and see what kind of impact these are --3 these are having on their -- on their system.

CHAIRPERSON MIDDLETON: So. Tremendous amount of 4 work went into the decisions that were made last November. 5 And certainly from my standpoint, the big questions are as 6 7 we watch performance over the next few months, at what 8 point are we going to be able to -- to make assessments as to whether or not we're achieving the returns that we need 9 to maintain those -- those levels that we established last 10 November. 11

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CHIEF ACTUARY TERANDO: Yeah. CHAIRPERSON MIDDLETON: So thank you. Any other questions?

15 So this was an information item, so we will move 16 on then to summary of committee direction. Ms. Nix.

ACTING CHIEF FINANCIAL OFFICER NIX: Madam Chair, the only thing I took away from this was to report out on the progress of the communication strategies surrounding transparency initiatives.

CHAIRPERSON MIDDLETON: Sounds good.

And I've received no requests for public comment. And with that, we will adjourn this meeting and we will begin at 10:15 the Performance, Compensation and Talent Management Committee meeting.

Thank you. (Thereupon the California Public Employees' Retirement System, Board of Administration, Finance & Administration Committee meeting adjourned at 10:02 a.m.) 

## CERTIFICATE OF REPORTER

1 I, JAMES F. PETERS, a Certified Shorthand 2 Reporter of the State of California, do hereby certify: 3 That I am a disinterested person herein; that the 4 foregoing California Public Employees' Retirement System, 5 Board of Administration, Finance & Administration 6 Committee meeting was reported in shorthand by me, James 7 8 F. Peters, a Certified Shorthand Reporter of the State of 9 California; That the said proceedings was taken before me, in 10 shorthand writing, and was thereafter transcribed, under 11 my direction, by computer-assisted transcription. 12 I further certify that I am not of counsel or 13 attorney for any of the parties to said meeting nor in any 14 way interested in the outcome of said meeting. 15 IN WITNESS WHEREOF, I have hereunto set my hand 16 this 28th day of September, 2022. 17 18 19 fames y fatter 20 21 JAMES F. PETERS, CSR 2.2 23 Certified Shorthand Reporter License No. 10063 24 25