MEETING

STATE OF CALIFORNIA

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BOARD OF ADMINISTRATION

INVESTMENT COMMITTEE

OPEN SESSION

ROBERT F. CARLSON AUDITORIUM

LINCOLN PLAZA NORTH

400 P STREET

SACRAMENTO, CALIFORNIA

MONDAY, JUNE 19, 2017

9:00 A.M.

JAMES F. PETERS, CSR
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A P P E A R A N C E S

COMMITTEE MEMBERS:

Mr. Henry Jones, Chairperson

Mr. Bill Slaton, Vice Chairperson

Mr. Michael Bilbrey

Mr. John Chiang, represented by Ms. Jeree Glasser-Hedrick

Mr. Richard Costigan

Mr. Rob Feckner

Mr. Richard Gillihan, represented by Ms. Katie Hagen

Ms. Dana Hollinger

Mr. J.J. Jelincic

Mr. Ron Lind

Ms. Priya Mathur

Mr. Theresa Taylor

Ms. Betty Yee, also represented by Ms. Lynn Paquin

STAFF:

Ms. Marcie Frost, Chief Executive Officer

Mr. Ted Eliopoulos, Chief Investment Officer

Mr. Matt Jacobs, General Counsel

Mr. Brad Pacheco, Deputy Executive Officer

Mr. Eric Baggesen, Managing Investment Director

Ms. Natalie Bickford, Committee Secretary

Mr. Dan Bienvenue, Managing Investment Director

Mr. Diego Carrillo, Investment Manager

A P P E A R A N C E S   C O N T I N U E D

STAFF:

Ms. Jane Delfendahl, Investment Director

Mr. Curtis Ishii, Managing Investment Director

Ms. Dianne Sandoval, Investment Manager

Ms. Anne Simpson, Investment Director

Mr. Clinton Stevenson, Investment Director

Mr. Wylie Tollette, Chief Operating Investment Officer

ALSO PRESENT:

Dr. Brad Barber, University of California, Davis

Ms. Janet Cox, Fossil Free California

Mr. Dan Crowley, K&L Gates(via teleconference)

Mr. Allan Emkin, Pension Consulting Alliance

Mr. Steve Foresti, Wilshire Consulting

Mr. Steve Hartt, Meketa Investment Group

Ms. Neal Johnson, Service Employees International Union, Local 1000

Mr. Andrew Junkin, Wilshire Consulting

Ms. Steve McCourt, Meketa Investment Group

Mr. Michael Ring, Service Employees International Union

Ms. Sheila Thorne, Fossil Free California

Mr. Tom Woelfel, Pacific Community Ventures

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1 P R O C E E D I N G S
2 CHAIRPERSON JONES: I'd like to call the
3 Investment Committee meeting to order. The first order of
4 business is roll call, please.
5 COMMITTEE SECRETARY BICKFORD: Henry Jones?
6 CHAIRPERSON JONES: Here.
7 COMMITTEE SECRETARY BICKFORD: Bill Slaton?
8 VICE CHAIRPERSON SLATON: Here.
9 COMMITTEE SECRETARY BICKFORD: Michael Bilbrey?
10 COMMITTEE MEMBER BILBREY: Good morning.
11 COMMITTEE SECRETARY BICKFORD: Good morning.
12 John Chiang represented by Jeree Glasser-Hedrick?
13 ACTING COMMITTEE MEMBER GLASSER-HEDRICK: Here.
14 COMMITTEE SECRETARY BICKFORD. Richard Costigan?
15 COMMITTEE MEMBER COSTIGAN: Here.
16 COMMITTEE SECRETARY BICKFORD: Rob Feckner?
17 COMMITTEE MEMBER FECKNER: Good morning.
18 COMMITTEE SECRETARY BICKFORD: Good morning.
19 Richard Gillihan represented by Katie Hagen?
20 ACTING COMMITTEE MEMBER HAGEN: Here.
21 COMMITTEE SECRETARY BICKFORD: Dana Hollinger?
22 COMMITTEE MEMBER HOLLINGER: Here.
23 COMMITTEE SECRETARY BICKFORD: J.J. Jelincic?
24 Ron Lind?
25 COMMITTEE MEMBER LIND: Here.

1 COMMITTEE SECRETARY BICKFORD: Priya Mathur?
2 COMMITTEE MEMBER MATHUR: Good morning.
3 COMMITTEE SECRETARY BICKFORD: Good morning.
4 Theresa Taylor?
5 COMMITTEE MEMBER TAYLOR: Here.
6 COMMITTEE SECRETARY BICKFORD: Betty Yee?
7 COMMITTEE MEMBER YEE: Here.
8 CHAIRPERSON JONES: Okay. Thank you very much.
9 Okay. The next item on the agenda, Executive
10 Report, Chief Investment Officer briefing.
11 Mr. Eliopoulos.
12 CHIEF INVESTMENT OFFICER ELIOPOULOS: Terrific.
13 Good morning, Mr. Chair, members of the Investment
14 Committee. I have some brief comments today.
15 Earlier this month, I had the opportunity to
16 travel to Boston for the ILPA, the Institutional Limited
17 Partners Association, CIO symposium. This was a gathering
18 of CIO's from around the globe from pension funds,
19 sovereign wealth funds, corporate plans, endowment CIOs to
20 discuss private equity investing today and into the
21 future.
22 The ILPA CIO symposium was a good opportunity to
23 check in with our peers on a range of topics with respect
24 to private equity investing. Topics such as asset
25 allocation, business models, progress on the ILPA template

1 and fee and expense reporting, and transparency
2 initiatives, the regulatory environment, and so on.
3 The ILPA meeting was especially timely, given the
4 timing of our own CalPERS asset allocation process, our
5 own review of private equity business models, and our
6 continued progress on fee and expense reporting and
7 transparency.
8 On our agenda today, we consider a significant
9 milestone in the asset allocation process, the adoption of
10 capital market assumptions for each asset class.
11 What you will surely notice is that private
12 equity is the only asset class whose return forecast is
13 above seven percent over the next 10 years. For this
14 reason, and all the other reasons we have discussed in
15 detail the past two years, private equity is an important
16 asset class for our portfolio construction, and vital to
17 maintaining our current discount rate.
18 My peer CIOs - and I would note they are also our
19 competitors in the marketplace - view private equity as an
20 essential cornerstone of their investment portfolios, and
21 I agree. And in that regard, I think it's also important
22 to emphasize that most, if not all, our competitors have a
23 substantial portion of their private equity portfolios
24 invested in the same or similar general partners in the
25 same or similar commingled funds we have discussed so

1 energetically these past two years.
2 Even the famed direct investors have anywhere
3 from 50 to 80 percent of their portfolios in the same
4 general partner and commingled funds that we invest in.
5 Why do I mention this?
6 Because it is vitally important to whether
7 CalPERS can successfully meet our investment objectives
8 over this next 10-year period. I mention it also because
9 over the course of the past two years, and frequently in
10 these monthly Investment Committee meetings, CalPERS staff
11 is attacked and denigrated for our decision to invest in
12 these funds and for the manner and transparency of our
13 reporting of the fees, carried interest, and expenses
14 attached to these funds.
15 Let me take up the topic of reporting and
16 transparency first. CalPERS is an industry leader in how
17 we report private equity returns, fees, and expenses.
18 CalPERS is an industry leader in working with our peers,
19 and importantly ILPA, to work for standardized and make
20 consistent fee and expense disclosure globally.
21 In fact, ILPA has invited CalPERS, and a small
22 number of peers, to meet with the new SEC Chair, in a
23 matter of weeks, to discuss the regulatory environment
24 surrounding private equity investing. And I'm proud to
25 say Wylie Tollette will represent CalPERS at that meeting

1 in July.
2 In addition, we've examined the public reports
3 available by other large investors. And CalPERS, in our
4 review, is now arguably the most transparent. All of that
5 success goes to the hard work of our CalPERS staff, some
6 of whom are here today in our auditorium, our Private
7 Equity staff, our Operations staff, working under Wylie
8 and Matt Flynn, our Finance staff.
9 And the credit also goes to the foresight by Joe
10 Dear and Janine Guillot who over six years ago, before any
11 critic said a word, made the decision to build the systems
12 and data collection to get us to the point where we are
13 today to be a leader in transparency and reporting of fee
14 and expense disclosure in private equity.
15 I am proud to work with this staff. Private
16 equity is a complex evolving, and for many decades,
17 unregulated private asset class. And working for a public
18 institution, this staff has delivered over the past 20
19 years over 12 to 18 billion dollars in extra profit to
20 CalPERS, while building, at the same time, over the course
21 of the last six years, an industry leading reporting
22 system.
23 I mention this because looking to the future, and
24 all investors need to think about -- and think about the
25 future, we would like to have a successful and meaningful

1 allocation to private equity in our portfolio.
2 Unfortunately, the negativity, which I believe is
3 unique to CalPERS in the marketplace - I do not see a
4 similar investment environment at any of our other peers
5 that we're competing with - are making it increasingly
6 difficult for CalPERS to compete successfully in the
7 private equity marketplace.
8 Our brand, which we built up over the past 20
9 years, is being hurt by these attacks, and the private
10 equity investment staff is being harmed by the relentless
11 attacks as well.
12 I recognize that part of the price of our value
13 of transparency and our role as a public agency is to take
14 all the good and bad that comes with transparency, all the
15 good and bad that comes with public comment and public
16 attention. And we do receive both the benefits of that
17 transparency and sometimes the negativity.
18 But the sustained and repetitive attention on our
19 staff and our private equity investment strategy is taking
20 a toll on both our staff and our competitiveness in the
21 marketplace. I read a wonderful quote from the former CEO
22 of the Norges Fund in the Financial Times about investment
23 strategy. He said and I quote, "You should never go for a
24 more advanced investment strategy than your governance
25 allows".

1 We may have reached that point with private
2 equity at CalPERS. And I say that it is not without the
3 support of the great, great majority of this Board, and
4 the Herculean efforts of your Investment staff supported
5 by our Legal staff, our Finance staff, our Communications
6 staff. But the particular public nature and fish bowl of
7 CalPERS may have reached a tipping point for us in private
8 equity.
9 At our off-site next month, we will review the
10 private equity business models available to us. And at
11 their heart is the need for an effective governance system
12 to oversee private equity investing.
13 If we are not successful in finding a better
14 solution for both our traditional model of investing in
15 commingled funds -- because I think that will be a
16 cornerstone in our investment portfolio no matter what
17 alternatives we review, and certainly for any alternative
18 business models that we review. If we are not successful
19 in finding a better solution, the asset allocation process
20 will need to weigh a much reduced allocation to private
21 equity than we would otherwise have hoped for.
22 Mr. Chair, those are my comments, and I'm happy
23 to take any questions.
24 CHAIRPERSON JONES: Yeah. Thank you.
25 (Applause.)

1 CHAIRPERSON JONES: Yeah. Thank you, Mr.
2 Eliopoulos. And I know that this Committee is looking
3 forward to next month to take a deeper dive into the whole
4 -- all of the issues surrounding the private equity,
5 because it's so important, as you mentioned. With the
6 transparency, it is so important being the largest pension
7 fund in the U.S., every time we make one move, it's -- or
8 comments about our moves, it's in the media all over --
9 not only in the United States, but all over the world.
10 In that regard, I think I would like Meketa to
11 come up and make a few comments about what you're seeing
12 in this asset space going forward because recognizing that
13 we'll be taking a deeper dive in this area next month, but
14 I thought I'd entertain what comments you may have in this
15 area.
16 MR. HARTT: Good morning, Steve Hartt from Meketa
17 Investment Group, your Board consultant for private
18 equity. So I would echo the comments that Mr. Eliopoulos
19 has provided the Board. Private equity has historically
20 been a very difficult class to get full register of fees
21 and expenses and sharing of costs, carried interest. It
22 just hasn't been provided historically.
23 And that the efforts made by CalPERS and a number
24 of other investors over the last couple of years to
25 increase that transparency has been noted. The SEC's

1 effort to focus on the general partners to require
2 additional information out to the public, to the investors
3 has been noted as well. And so we think that this is in
4 middle innings of the game. There's still further efforts
5 that need to be done to increase the transparency, but I
6 can certainly observe that CalPERS is one of the leading
7 institutions seeking additional transparency in the
8 marketplace.
9 CHAIRPERSON JONES: Okay. Thank you. And also
10 I'd just like to reiterate -- indicate that last week I
11 was in Washington D.C. and met with a number of senators
12 and assembly -- congress persons on this issue about
13 needing a strong regulatory presence in this whole
14 marketplace. So I think it's on a lot of minds all over.
15 So we look forward to hearing a deeper dive in this area
16 next month.
17 Thank you.
18 MR. HARTT: Sure.
19 CHAIRPERSON JONES: Mr. Costigan.
20 COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones.
21 Mr. Eliopoulos, great report. I couldn't agree
22 with you more. First, private equity is a key component
23 for us being able to meet the benchmark and the discount
24 rate. I have had numerous conversations with
25 representatives of local governments and employee groups

1 over the last several months, and there really is this
2 need to understand that while we may have issues with
3 private equity and with private equity fees, without
4 private equity and without a strong investment in private
5 equity, we're not going to achieve the returns that are
6 necessary to pay the benefits.
7 I agree with you that the vitriol has to stop.
8 The -- I was lucky enough to attend a conference in Canada
9 a couple weeks ago, and I was telling Mr. Feckner, it's
10 this juxtapose position, where CalPERS and everybody looks
11 to us, and then it's you're CalPERS, what's wrong with
12 you? And it is not doing good for us.
13 As I tell folks, I know you don't get up
14 everything morning seeking not to do the best possible.
15 You want the highest rate of return. You want to have all
16 the tools in your toolkit, and it's the distractions. And
17 when you get up and have to open up a newspaper and have
18 to deal with an article, it takes you off your primary
19 mission, and that is to get the highest rate of return to
20 pay the promised benefits.
21 So I appreciate the report. I appreciate all you
22 all do. I think what's really interesting - and I
23 appreciate you giving credit to Joe and to Janine, and you
24 all were all part of that - that's one of the reasons
25 we're having this conversation is we've become more

1 transparent. We provided the information. We've put it
2 in the budget. You've created a computer system. We have
3 more information today than we had yesterday, and tomorrow
4 we'll have more information that we had today. And that's
5 what folks need to understand.
6 Six years go, you're absolutely right, no one was
7 clamoring for it, and we got out there and got ahead of
8 it. And now we've got more information -- now we get
9 criticized, because we have the information, yet we're
10 continuing to get more and more of it.
11 Mr. Tollette, last month's conversation on
12 expenses, we're not taking out of A and giving to B.
13 We're controlling costs on both ends, and we're going to
14 find more ways to report it. Again, I find it really
15 fascinating, we put in the budget the disclosure, we
16 provide the amount of detail, triggers another response,
17 which we're also addressing.
18 But overall, fantastic. I really do appreciate
19 you taking the time to give those comments, because I do
20 think folks need to understand, there are repercussions
21 outside of this building on an international scale, when
22 we're -- when we create a morale issue, and we lose
23 site -- or I always, to a degree, don't want to take
24 someone else's term, but when we take our eyes off the
25 prize, which is what we're doing when we're having to deal

1 with articles and focusing on, you know, whether or not
2 the fees were appropriate or not, as opposed to the fact
3 that what we should be looking at is are we achieving the
4 returns, and how are we achieving toes returns?
5 And that is -- our fiduciary obligation is to
6 ensure that the benefits are paid. So I appreciate all
7 you and your staff have done and continue to do.
8 Thank you.
9 CHAIRPERSON JONES: Ms. Hollinger.
10 COMMITTEE MEMBER HOLLINGER: Thank you.
11 Mr. Eliopoulos, I really appreciate the report.
12 And it's also to applaud you and your staff. You've had a
13 lot of abuse, a lot of scrutiny, and yet you've paved the
14 way for inroads in this asset class for greater
15 transparency, and are really leading the way. And, you
16 know, without the SEC and some other regulatory body
17 coming in, this is just the nature of the asset class.
18 And I'm also grateful for it. I'm grateful to
19 you. I hope you feel my support, and I hope this asset
20 class stays an important part of our portfolio, because it
21 has given us the outside returns. And I recognize that
22 our employers to have to increase contributions to make up
23 where we're going to get that return would be even more of
24 a stress. So I appreciate that. That took a lot of
25 courage, and I applaud you and your staff.

1 Thank you.
2 CHAIRPERSON JONES: Mr. Jelincic.
3 COMMITTEE MEMBER JELINCIC: Yeah. I want to
4 acknowledge that we probably are a leader in PE disclosure
5 and fees.
6 That being said, we still have lots of room to
7 go. And it's a terrible comment on the industry as a
8 whole that we are, in fact, such a leader.
9 As a fiduciary, I get really concerned with not
10 knowing what fees I'm paying. We are spending other
11 people's money and we need to really get a handle on what
12 it is we are doing with that money.
13 As I've said about PE, we don't know what the --
14 or at least to date, we haven't been able to identify and
15 articulate the risks we are taking. And if you don't know
16 the risks, it's kind of hard to argue that you're getting
17 a risk compensation and appropriate risk-adjusted return.
18 I do acknowledge that we have reported great
19 results. But again, if we don't know what risks we're
20 running, I'm not sure how you evaluate those results. And
21 I certainly will acknowledge our returns would have been
22 significantly less without the industry or without this
23 exposure, but we still have room to go, and I will, for at
24 least another few months, I'll keep pushing. But I do
25 acknowledge that, you know, we have made progress.

1 Thank you.
2 CHAIRPERSON JONES: Mr. Slaton.
3 VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.
4 As you pointed out, you know, we don't control
5 this asset class, but I appreciate your comments and the
6 efforts that have gone on for -- even before I got on this
7 Board, that have been directed to trying to get more
8 transparency in the asset class, but you rightfully
9 pointed out what the returns have been, and the fact that
10 we're trying to make sure we can pay the benefits. And
11 that has been an important asset class to making that
12 happen.
13 But I want focus for just a moment on one aspect
14 of what you said, which is that you appreciate the support
15 of a majority of this Board. And I want to point out that
16 from a governance standpoint, we are one Board. So you
17 have the support of the Board of CalPERS in this asset
18 class, and the work that's being done. Although we may
19 make comments as individual Board members, we act as a
20 single Board, and you have that support.
21 So thanks for the effort, and we'll look forward
22 to the discussion next month.
23 CHAIRPERSON JONES: Mr. Feckner.
24 COMMITTEE MEMBER FECKNER: Thank you, Mr. Chair.
25 I too want to add to my fellow colleagues' comments. Mr.

1 Eliopoulos, I thank you for your report, for your poise
2 during your report. I'm sure that part was not easy. I
3 also want to say that along with Mr. Slaton that you
4 certainly have the support of this Committee and this full
5 Board, and you and your staff moving forward.
6 And I find it unfortunate that a lot of what we
7 end up discussing here, and the fires we end up -- you end
8 putting out as a result of, come from an individual that
9 sought to seek employment from us, to be hired and paid by
10 us, to disclose his opinion of private equity fees.
11 And when Joe Dear -- and through Joe Dear and
12 your leadership it was decided we were not going to hire
13 this individual, then all of a sudden this rhetoric began.
14 And I find that to be very unfortunate.
15 So thank you.
16 CHAIRPERSON JONES: Mr. Lind.
17 COMMITTEE MEMBER LIND: Thank you. I -- you
18 know, I'm sorry that you had to do the report in the way
19 you did this morning in sort of a defensive way, but I
20 understand it. And, of course, we can't control what
21 happens from the outside. But look, we -- as everybody
22 said, we are -- the industry is becoming more transparent
23 because of the work that we do, and we need to get more
24 credit for that.
25 And I just hope that now that you've done this,

1 you know, your report this morning, that you don't feel
2 the need going forward to continue to defend the great
3 work that we doing here at CalPERS around this. It is an
4 important asset class.
5 I mean, when we get to the CMA discussions later
6 on, I'm going to push back a little bit about the forecast
7 for private equity, because I think maybe it's better than
8 what -- you know, the forecast that you're outlining is,
9 but we could have that discussion.
10 But I just wanted to say I don't -- get off of
11 defense and just keep moving the ball forward. And I
12 don't think you're going to find much appetite on the
13 Board in moving away from the private equity asset class,
14 because, again, we need the returns that it continues to
15 provide.
16 CHAIRPERSON JONES: Mr. Bilbrey.
17 COMMITTEE MEMBER BILBREY: Thank you, Mr. Chair.
18 Not to belabor the issue, but I want to echo the comments
19 of my fellow Board members, and, in particular, Mr.
20 Slaton's comments about us being one Board.
21 I just recently returned from a series, a week of
22 trainings and all. And we talked a lot about in that with
23 other trustees about being one board, even though we may
24 have our individual comments. At the end of the day, we
25 are a Board together.

1 We wholeheartedly support you and the staff. We
2 thank the staff for all that they have done, and not just
3 this asset class, but our entire portfolio. The bottom
4 line is we have returns. We've all acknowledged that
5 there's more work to be done, and I don't see that we're
6 not going to continue the work to make things better and
7 to push the industry as a whole. So thank you for that,
8 and thank you for the comments today. It's unfortunate
9 you had to make them, but they were long probably overdue.
10 Thank you.
11 CHAIRPERSON JONES: Okay. Thank you very much
12 for your comments to my fellow Committee members. And so
13 that concludes the briefing of the CIO.
14 Now, we will go to the next item on the agenda is
15 consent item, the action consent item. Do we have a
16 motion?
17 COMMITTEE MEMBER TAYLOR: I'll make a motion.
18 COMMITTEE MEMBER MATHUR: Second.
19 CHAIRPERSON JONES: It's moved by Ms. Taylor,
20 second by Ms. Mathur.
21 All those in favor say aye?
22 (Ayes.)
23 CHAIRPERSON JONES: Opposed?
24 Hearing none. The item passes.
25 The consent item for information, I have no

1 requests to pull anything off, so I will move to Agenda
2 Item 5, Asset Allocation, the ALM adoption of the Capital
3 Market Assumptions.
4 (Thereupon an overhead presentation was
5 presented as follows.)
6 CHAIRPERSON JONES: And, Mr. Eliopoulos, is that
7 your staff that you were referring to?
8 CHIEF INVESTMENT OFFICER ELIOPOULOS: Yes.
9 CHAIRPERSON JONES: Let's give them a hand,
10 because they deserve it.
11 (Applause.)
12 CHIEF INVESTMENT OFFICER ELIOPOULOS: Thank you
13 for that.
14 And I can see our asset allocation team
15 assembling here. Hi, guys. Good morning.
16 I think I'm going to kick this off by turning it
17 over to Mr. Baggesen, to Eric. I'm trying to give him
18 time to open his notebook and put his glasses on.
19 This is, as you know, one of the important
20 milestones for asset allocation process.
21 So, Eric.
22 MANAGING INVESTMENT DIRECTOR BAGGESEN: Okay.
23 Good morning, CalPERS Board members. Eric Baggesen, our
24 Managing Investment Director for asset allocation. I'm
25 joined by Dianne Sandoval, one of our team members. And

1 we also, I want to acknowledge, Alison Li. Alison and
2 Dianne basically led the project that allowed us to build
3 a consensus view of what we think the investment
4 opportunity set looks like as far as the capital market
5 assumptions. They also have done a tremendous amount of
6 work around all of the benchmark assessment that's been
7 going on.
8 Dianne is going to carry the majority of this
9 presentation this morning. I just would like to -- and I
10 think we've got our PowerPoint here.
11 --o0o--
12 MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me
13 just get past our thing. The setting of the CMAs is
14 really one of the first major decision points that we have
15 within the structure of the ALM exercise that we go
16 through on four-year rolling cycle.
17 This basically sets the baseline that -- for the
18 work that will continue on throughout the summer and into
19 the fall. And it also sets a baseline by which the
20 actuarial staff will start engaging an array of their
21 work, in addition to their experience, studies, and
22 understanding all of the demographic and whatnot
23 assumptions that go into the -- into the liability
24 structure.
25 The actuarial staff extrapolate the shorter term

1 market expectations set over a much longer time period.
2 So they literally need to have an assumption as to what
3 they think the markets will deliver in order to calculate
4 that liability structure out into the future, and the
5 balancing of the assets versus the liabilities.
6 So this literally sets that exercise in motion as
7 they build from this work, basically, to extrapolate
8 another 50 years on top of that.
9 One of the things that you have to be conscious
10 of though is that literally the setting of capital market
11 assumptions is just -- it's simply a forecast or an
12 estimate. They should not be interpreted to mean that
13 there is an inordinate degree of precision over a
14 specificity attached to any of these numbers.
15 Instead, what you need to recognize is that this
16 is literally just looking at the different parts of the
17 marketplace that we participate in, and establishing
18 relative -- a relative hierarchy of how we think returns
19 will evolve. The returns themselves may be higher, they
20 may be lower, but, in general, we're more interested in
21 the hierarchy of how, let's say, the equity returns relate
22 to fixed income, relate to cash, things of those natures.
23 So it's more important to just recognize that we
24 need to set this imperfect estimate that basically creates
25 the baseline by which we do the further analytic work of

1 actually constructing portfolios.
2 Attached to this agenda item, you'll find letters
3 from your consultants Wilshire Associates, PCA, Meketa.
4 Obviously, these consultants, and their representatives,
5 are here to answer any questions that you might have about
6 their letters. We have not necessarily had an intent to
7 each -- have each of them come up and speak to the
8 letters. But certainly, if you have any questions for
9 them, I think you should, you know, by all means, not
10 hesitate to ask and they can address their points of view.
11 But I think with that, at this stage, I would
12 just turn it over to Diane and let her take you through
13 the work that she and Alison's team have done for the last
14 few months.
15 INVESTMENT MANAGER SANDOVAL: Thank you, Eric.
16 And again, my name is Dianne Sandoval. I'm an Investment
17 Manager in the Asset Allocation and Risk Management team.
18 And I'm going to walk you through the process and
19 methodology that we used to derive the capital market
20 assumptions that we're asking you to adopt today.
21 As we stated in the memo that you have before
22 you, we truly used a very comprehensive and a prudent
23 approach to derive these capital market assumptions. But
24 as my old boss used to like to remind me, models only
25 approximate reality, which is constantly changing. So

1 it's important to keep in mind that this process is truly
2 an art, as well as a science.
3 So while we started with a very scientific,
4 methodical, and quantitative approach in estimating the
5 capital market assumptions, we then overlaid that process
6 with our best judgment about the current and evolving
7 economic environment.
8 By definition, the riskier, or more volatile, an
9 asset class is, the wider the range of potential possible
10 outcomes, either good or bad that we can expect, and the
11 more difficult it is to reach a consensus forecast. So I
12 ask us and invite us to be really careful in not assigning
13 too much of a degree of precision to these forecasts than
14 is warranted, because these forecasts are tendencies not
15 pinpoint forecasts.
16 Given the level of uncertainty of these
17 forecasts, we had a very open, transparent, inclusive, and
18 collaborative approach. And we invited all of the Board
19 consultants, as well as the heads of every asset class,
20 and the members of the Investment Strategy Group to
21 incorporate the best insights into this process, as well
22 as to really challenge ourselves to be consistent with
23 exactly what Eric was talking about, across asset classes
24 so that these assumptions reflect the appropriate level of
25 risk, congruent with the -- appropriate level of return,

1 congruent with the risk being taken.
2 They're also consistent with the historical
3 experience of these asset classes, and the fundamental
4 drivers that compose the returns of what these should be.
5 And they're also consistent with our current And evolving
6 view on the economic environment, and where our current
7 valuation metrics are currently at.
8 So with that, I'll ask us to turn to page three.
9 --o0o--
10 INVESTMENT MANAGER SANDOVAL: And here, what I am
11 showing you is the most common methodologies for
12 forecasting the first component of capital markets
13 assumptions, which re the expected returns. So the
14 building blocks approach is really the graphic that I show
15 you there below.
16 And it's based on modern portfolio theory, that
17 below more tea that investors are rational, and will only
18 accept more risk, if compensated by higher expected
19 return. Inflation and interest rates are at the
20 foundation of estimating all asset classes, because they
21 form the nominal risk-free rate that you can earn from
22 just holding cash, like Investments, such as 90-day
23 treasuries.
24 The next approach we used is various fundamental
25 valuation models. So an example of this, and I think I've

1 listed all of this in the appendices -- and by the way, I
2 should say we have plenty of time this morning, and -- I
3 should have said this at the beginning. So please feel
4 free to interrupt me, at any time with any questions that
5 you may have. I think it will just make for a more
6 engaging and inclusive dialogue which, you know, is more
7 in line with the spirit of our whole process. So don't
8 let me just talk at you all morning. If you have a
9 question, please feel free to interrupt me at any time.
10 Going back to the various fundamental valuation
11 models, an example of that would be the dividend discount
12 model that we use in the forecast for global equities.
13 And essentially, that is the sum of all future dividend
14 payments discounted back to the present value.
15 The third item I have on here are predictions of
16 valuation metrics, such as earnings yields, credit
17 spreads, and cap rates. So the best example of this is
18 the yield maturity that we use to forecast fixed income.
19 And I'll get back to this point in a minute when we -- in
20 the next few pages, but this is -- essentially has very
21 high predictive power, and gives us a sense -- it really
22 allows us to understand where we currently are relative to
23 history.
24 Finally, we review a number of other industry
25 estimates to challenge our own assumptions, and that

1 approach, and that's really the industry survey. And if
2 you go to the next page --
3 --o0o--
4 INVESTMENT MANAGER SANDOVAL: -- what we show you
5 is the forecast -- Wilshire has been in this business of
6 forecasting returns for quite some time. And so we've
7 asked them to show us how these return prospects have been
8 declining for decades following the downward trend in
9 interest rates. And really I want to reiterate the point
10 I was making earlier that inflation and the return on cash
11 are the building blocks common in all other asset classes.
12 As they have fallen, so have return prospects for every
13 other asset class.
14 Another point I wanted to make here though is
15 that we do believe this is stabilizing.
16 --o0o--
17 INVESTMENT MANAGER SANDOVAL: So if you look on
18 the next page, page five, we show how fixed income
19 forecasts remain low, because the going-in yield or the
20 current yield has a very strong predictive power of what
21 the next 10-year realized return will be, and the current
22 yield is pretty low. So on the left chart, we show the
23 predictive power of the starting yield as a valuation
24 metric. That's that -- and, I'm sorry, we should have
25 done a better job at making this color-blind friendly.

1 But the blue line is the core bond yield, and the red line
2 is the next 10 years realized return. So it's a very high
3 predictive power in that chart.
4 The chart on the right shows how current low
5 interest rates lie relative to long-term averages. So
6 essentially the green line, which is the line farthest to
7 the left, is the 20-year average. And, you know,
8 everything -- the orange line is kind of the 10-year
9 average, and then 2015 -- December 2015 and December 2016
10 are really the dashed lines and the lines at the lowest
11 level.
12 So this really reiterates the point that our
13 current yields are low by historical standards. And
14 therefore, that's kind of what's at the base of why our
15 return expectations have fallen.
16 And again, it's important to note that this
17 erosion, if you look at where current bond yields are,
18 that blue line, that dashed line on the left chart is
19 pretty -- is stabilizing. And we saw last week that the
20 fed actually raised interest rates for the third time.
21 And it's also important to note that it would not
22 be rational for investors to not earn a return for taking
23 risks, so we wouldn't expect this, you know, to continue
24 to go into negative territory. And so we have seen, and
25 we do expect to see the stabilization of return forecasts.

1 CHAIRPERSON JONES: Ms. Sandoval, yeah. I have a
2 question then another member has a question.
3 On the previous chart, the forecast through
4 time --
5 INVESTMENT MANAGER SANDOVAL: Yes.
6 CHAIRPERSON JONES: Are those 10-year returns or
7 30-year returns or annual returns?
8 INVESTMENT MANAGER SANDOVAL: These are 10-year
9 return forecasts.
10 CHAIRPERSON JONES: Okay. Thank you.
11 Mr. Jelincic.
12 COMMITTEE MEMBER JELINCIC: Yeah. Now, I've got
13 to get it back.
14 The -- I blew it up so I could see it, and now I
15 can't find my page.
16 On page five of 13, the -- being the color blind
17 one --
18 INVESTMENT MANAGER SANDOVAL: Sorry about that,
19 yeah.
20 COMMITTEE MEMBER JELINCIC: That's okay -- you at
21 least labeled the lines. So if I understand them, the
22 dashed line is the current, the line above that is the
23 10-year -- or is it -- I guess it's the --
24 INVESTMENT MANAGER SANDOVAL: So it's opposite.
25 The dashed line is December 2015 - sorry about that --

1 COMMITTEE MEMBER JELINCIC: Okay.
2 INVESTMENT MANAGER SANDOVAL: -- and then the
3 line right above that, slightly above that, is December
4 2016.
5 COMMITTEE MEMBER JELINCIC: Oh. Okay. So then
6 the --
7 INVESTMENT MANAGER SANDOVAL: And then the
8 10-year average is right. So there's four lines. Let me
9 start from the bottom.
10 COMMITTEE MEMBER JELINCIC: Okay.
11 INVESTMENT MANAGER SANDOVAL: The first line at
12 the bottom is the dashed line December 2015 yield curve.
13 COMMITTEE MEMBER JELINCIC: Okay.
14 INVESTMENT MANAGER SANDOVAL: The next line is A
15 solid line December 2016. The third line is an orange
16 line. It's a 10-year average. And the fourth line is a
17 green 20-year average.
18 COMMITTEE MEMBER JELINCIC: Okay. And then the
19 diamonds with the labels, what are the diamonds?
20 INVESTMENT MANAGER SANDOVAL: On this page, I
21 don't see a diamond. Are you referring to the next page?
22 CHAIRPERSON JONES: It's a diamond.
23 COMMITTEE MEMBER JELINCIC: On page five --
24 INVESTMENT MANAGER SANDOVAL: Oh, those. I'm
25 sorry.

1 CHAIRPERSON JONES: Yeah, it's a diamond there.
2 (Laughter.)
3 INVESTMENT MANAGER SANDOVAL: Sorry about that.
4 Okay. I also have bad eyesight. Sorry about that.
5 (Laughter.)
6 COMMITTEE MEMBER JELINCIC: Hey, but at least
7 you're not color blind. Different problems.
8 (Laughter.)
9 INVESTMENT MANAGER SANDOVAL: I'm trying to
10 actually see this.
11 MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me
12 take --
13 INVESTMENT MANAGER SANDOVAL: I think those are
14 treasury points. Those are treasure points, key treasury
15 points along the yield curve. Sorry, I'm blind as well,
16 and it's too small of a chart.
17 So you see three to five years, seven to 10
18 years. So these are the key -- so not every treasury bond
19 is as liquid. So these are the most liquid points, and
20 therefore the most accurate reflections of where
21 treasuries currently are at --
22 COMMITTEE MEMBER JELINCIC: Okay. So that's --
23 INVESTMENT MANAGER SANDOVAL: -- for each of
24 those historical points.
25 COMMITTEE MEMBER JELINCIC: So that's actually

1 even more current than the December 16. That's where it
2 is two weeks ago when the chart got made, or three weeks
3 ago.
4 INVESTMENT MANAGER SANDOVAL: It was December
5 31st that they did that.
6 COMMITTEE MEMBER JELINCIC: December 31st?
7 INVESTMENT MANAGER SANDOVAL: Correct.
8 COMMITTEE MEMBER JELINCIC: So they should be
9 actually on the blue line. Okay. Okay.
10 INVESTMENT MANAGER SANDOVAL: There are on the
11 December 16 line.
12 COMMITTEE MEMBER JELINCIC: Thank you.
13 CHAIRPERSON JONES: And to follow up Mr.
14 Jelincic's question about the diamonds, I can't tell those
15 small numbers, but is that the duration that those
16 numbers --
17 INVESTMENT MANAGER SANDOVAL: Yes, those are --
18 CHAIRPERSON JONES: Okay.
19 INVESTMENT MANAGER SANDOVAL: Exactly. So those
20 are three to five years. I'm sorry. I also struggled.
21 CHAIRPERSON JONES: Okay.
22 INVESTMENT MANAGER SANDOVAL: Three to five
23 years, seven to 10 years. Those are the maturities at
24 each of those --
25 CHAIRPERSON JONES: Okay. Thanks. Okay.

1 INVESTMENT MANAGER SANDOVAL: Are there anymore
2 questions on this page?
3 CHAIRPERSON JONES: No
4 INVESTMENT MANAGER SANDOVAL: Okay. So let me
5 turn to --
6 --o0o--
7 INVESTMENT MANAGER SANDOVAL: -- page six. So
8 here, I wanted to illustrate the range of dispersion
9 regarding the expected returns for each asset class. And
10 our proposed forecast are represented by the triangles.
11 Sorry, this was the triangles I thought you were referring
12 to, J.J. And the median forecasts are represented by the
13 squares.
14 And what you see is that there's a limited range
15 of dispersion on global equity and globe fixed income
16 where there's widely available information and more
17 industry consensus on fundamental valuation models than
18 you see in private equity and real assets, where there
19 are just multitude of variations amongst benchmarks,
20 methodologies, and leverage assumptions used to forecast
21 the private equity and real assets return expectations.
22 CHAIRPERSON JONES: We have a couple questions on
23 this slide --
24 INVESTMENT MANAGER SANDOVAL: Yes.
25 CHAIRPERSON JONES: -- chart starting off with

1 one, how many funds are included in this survey?
2 INVESTMENT MANAGER SANDOVAL: Nine.
3 CHAIRPERSON JONES: Nine?
4 INVESTMENT MANAGER SANDOVAL: Yes.
5 CHAIRPERSON JONES: Okay. Thank you.
6 Mr. Jelincic.
7 COMMITTEE MEMBER JELINCIC: My question was also
8 about the survey. Who are they? I mean, who did we
9 survey?
10 INVESTMENT MANAGER SANDOVAL: I didn't bring the
11 full list, but it included each of our consultants, as
12 well as respected industry forecasters, such as BNY
13 Mellon, JP Morgan, R.V. Kuhns also participated in that.
14 I'm having a hard time remembering all of them, but I can
15 come back to you on that.
16 COMMITTEE MEMBER JELINCIC: Okay. Well, you
17 don't actually have to come back. I'm just trying to
18 figure out who the universe is, so it's not other pension
19 funds, it's --
20 INVESTMENT MANAGER SANDOVAL: That's correct.
21 COMMITTEE MEMBER JELINCIC: -- it's the
22 consultant --
23 INVESTMENT MANAGER SANDOVAL: That's correct.
24 COMMITTEE MEMBER JELINCIC: It's the consultant
25 community --

1 INVESTMENT MANAGER SANDOVAL: And other banks and
2 asset managers.
3 COMMITTEE MEMBER JELINCIC: All of whom do
4 consulting.
5 INVESTMENT MANAGER SANDOVAL: Asset managers that
6 invest, so such as BNY Mellon and JP Morgan.
7 COMMITTEE MEMBER JELINCIC: Okay. Thank you.
8 CHAIRPERSON JONES: Ms. Mathur.
9 COMMITTEE MEMBER MATHUR: Yeah. Thank you. As
10 you noted, there is a much wider dispersion on private
11 equity and real assets. In determining where the staff's
12 proposed compound return is, did you weight some -- some
13 respondents more heavily than others?
14 Just curious, did -- did certain opinions in
15 public equity matter more than -- or in private equity
16 matter more than others? How did you come to those
17 proposed compound returns?
18 INVESTMENT MANAGER SANDOVAL: Yeah. So the
19 staff, headed my myself and Alison Li, came up with
20 what -- we went through each of the forecasts, and we
21 essentially came 6up with what we thought was the most
22 reasonable approach, and made very specific customizations
23 given our private equity portfolio, and real estate
24 portfolio.
25 So examples of that are we looked at what our

1 exposure to venture capital is, which is almost
2 non-existent. We looked at what our exposure to buyouts
3 are, and we looked at the amount of actual leverage that
4 our portfolio consists of. So we made very specific -- it
5 was a very detailed and methodical process that we use to
6 forecast our private equity and real assets.
7 COMMITTEE MEMBER MATHUR: Okay. So each of the
8 respondents not only provided a number, but also the
9 methodology that they used --
10 INVESTMENT MANAGER SANDOVAL: Correct.
11 COMMITTEE MEMBER MATHUR: -- to come to that
12 number?
13 INVESTMENT MANAGER SANDOVAL: Correct. Yes.
14 COMMITTEE MEMBER MATHUR: Okay. That's helpful.
15 And these proposed returns they reflect not just
16 the -- do they reflect only sort of the beta or the --
17 what the market is going to deliver --
18 INVESTMENT MANAGER SANDOVAL: That's correct.
19 COMMITTEE MEMBER MATHUR: -- not the alpha --
20 INVESTMENT MANAGER SANDOVAL: Yes.
21 COMMITTEE MEMBER MATHUR: -- not any skill that
22 might --
23 INVESTMENT MANAGER SANDOVAL: That is correct.
24 The only somewhat caveat to that really is on the private
25 equity side, where again, we are reflecting our specific

1 composition of our portfolio.
2 COMMITTEE MEMBER MATHUR: Okay.
3 INVESTMENT MANAGER SANDOVAL: But it's still
4 beta -- it's -- it's --
5 COMMITTEE MEMBER MATHUR: Yeah. Okay. And have
6 we mapped out sort of historically how our capital market
7 assumptions have performed versus the market? I mean,
8 what the -- I didn't see -- I don't think I saw it in this
9 presentation, but have we looked at that, and do we -- I
10 know we're not supposed to rely too heavily on them --
11 INVESTMENT MANAGER SANDOVAL: Yeah, you're right.
12 You're right.
13 COMMITTEE MEMBER MATHUR: -- and that they are
14 not predictions, but --
15 INVESTMENT MANAGER SANDOVAL: You know, we -- I
16 know that we have looked at that in the past. I didn't
17 include any of that in this analysis, but I even remember,
18 actually, I think -- go ahead, Eric.
19 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, let
20 me take a shot at that. Actually, if you look at Agenda
21 Item 4c on page two of four, in your materials, you'll
22 actually see -- at the bottom of page two, you'll see a
23 chart that lists the assumptions versus the realized. So
24 this information gets presented to you every month in the
25 standardize reporting.

1 Now, this is just one interval and whatnot, so
2 you could obviously raise questions, you know, how does it
3 look over 10 years, or three years, or two years, or
4 whatever. But you'll see that -- you know, you see the
5 imprecision, but you also see the, in general, the
6 estimates fall into -- usually into the neighborhood of
7 what ultimately the outcome ends up being, but that's part
8 of that -- that's part of that imprecision.
9 And this is probably very, very time period, or
10 episodic, if you will, as well, as far as how that all
11 relates. But that's what this chart really tries to relay
12 to you.
13 CHAIRPERSON JONES: What page was that, Mr.
14 Baggesen?
15 MANAGING INVESTMENT DIRECTOR BAGGESEN: It's
16 Agenda Item 4c, so it's in the consent material,
17 attachment 1, page two of four.
18 CHAIRPERSON JONES: Okay. Thanks.
19 COMMITTEE MEMBER MATHUR: And the expected --
20 this is the chart labeled Expected Return Versus Five Year
21 Actual Return?
22 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yes,
23 realized risk and return, so it looks at both volatility
24 and the actual return. So you see that basically the
25 triangles are the expected -- expectations for the

1 different asset classes, and the squares are the actual
2 realized. And again, this is probably a little bit
3 difficult for the color challenged there, but we could --
4 if you have specific questions about that, we could bring
5 back, let's say, a simplified version of this material and
6 really make this information more explicit. But this does
7 get reported to you on a monthly basis.
8 COMMITTEE MEMBER MATHUR: Okay. Thank you. And
9 it does look like generally, although certainly not in all
10 cases, the asset classes have somewhat outperformed. I
11 mean, obviously, forestland is a -- it's not a good
12 example. But have generally outperformed the
13 expectations, is that fair?
14 MANAGING INVESTMENT DIRECTOR BAGGESEN: Again, I
15 would suggest that this is episodic.
16 COMMITTEE MEMBER MATHUR: Yeah.
17 MANAGING INVESTMENT DIRECTOR BAGGESEN: So
18 literally, if you measured this information, for example.
19 Let's say at the depths of 2008 or 2009, all those things
20 would have demonstrated higher risk and lower returns.
21 COMMITTEE MEMBER MATHUR: Yeah.
22 MANAGING INVESTMENT DIRECTOR BAGGESEN: So I'm
23 not sure that it's fair to draw any categorization as to,
24 you know --
25 COMMITTEE MEMBER MATHUR: Fair enough.

1 MANAGING INVESTMENT DIRECTOR BAGGESEN:
2 -- normally where the returns fall relative to
3 the expectations set. I think what we could do would be
4 to -- we could -- we could take that comment and go away
5 and think about is there another way of showing this
6 information, so that you could see potentially the
7 migration of outcomes around the expectation set for
8 different time periods.
9 COMMITTEE MEMBER MATHUR: Yeah. I think it would
10 helpful to get a sense of just how accurate or not
11 accurate these capital market assumptions are, and sort of
12 how much reliance to have on them.
13 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah,
14 that -- and again I would -- you know, not to -- not to
15 belabor the point, but I think what is important with this
16 is to also just recognize the positioning of the outcomes,
17 in other words, the areas that we think -- are the areas
18 that we think are going to systematically generate higher
19 levels of return, is that, in essence, what gets
20 reflected?
21 COMMITTEE MEMBER MATHUR: Yeah.
22 MANAGING INVESTMENT DIRECTOR BAGGESEN: And
23 because you shouldn't, and none of us should,
24 overinterpret the specificity of any specific set of
25 numbers. It's more about having to fix a relationship, so

1 that you can actually go forward and rationally just move
2 forward and make some decisions, given the uncertainty
3 around those decisions. But as I say, I think we could
4 probably do more in this area.
5 COMMITTEE MEMBER MATHUR: Okay. Thank you.
6 Appreciate it.
7 CHAIRPERSON JONES: Okay. Mr. Jelincic.
8 COMMITTEE MEMBER JELINCIC: Yeah. At some point,
9 I hope we discuss the discussion and what -- you know, the
10 pros and cons, and what the arguments were internally.
11 But on this particular slide, one of the things I
12 noticed is, you know private, equity, fixed income,
13 liquidity are really kind of bunched together. The -- for
14 private equity and real assets, our assumption is higher
15 than the median. And at some point -- and this may be the
16 appropriate place, but if it's going to come up later, why
17 are we higher than the median. And in inflation why are
18 we assuming lower than the median?
19 INVESTMENT MANAGER SANDOVAL: So most of those
20 differences have to do with the differences in benchmarks
21 that are used as proxies for those estimates versus our
22 customized benchmarks. So again, going back to
23 specifically private equity, one of the things that we
24 took out of our estimation, because of the creation of the
25 Opportunistic Strategies Team, is the credit related

1 segment within that. And the credit related segment tends
2 to have a lower return. And so if you take that out, you
3 actually get a slightly higher return than what you would
4 see on average.
5 On the real assets, the difference was driven by
6 leverage differences, in terms of how much leverage we
7 have in our specific benchmark relative to other
8 benchmarks. And then in inflation, the difference was
9 really driven by TIPS. So inflation assets are 75 percent
10 Treasury Inflation-Protected Securities, and 25 percent
11 commodities.
12 And the reason that we're lower is because the 75
13 percent of the TIPS, the proxies that most of the surveys
14 reflect are U.S. treasuries. Whereas, our specific
15 portfolio actually incorporates 33 percent international
16 linkers, global linkers. And those international global
17 linkers, at least today, have a lower yield than the U.S.
18 component, and therefore our benchmark is lower.
19 COMMITTEE MEMBER JELINCIC: Okay. Thank you.
20 CHAIRPERSON JONES: Ms. Taylor.
21 COMMITTEE MEMBER TAYLOR: Yes. Thank you.
22 So, Mr. Baggesen, I just thought it was
23 interesting that your first few minutes we heard from you
24 and Ms. Sandoval was talking about that this is basically
25 not a very accurate -- what we're looking at isn't

1 accurate, and to keep in mind that these are best guesses,
2 basically is what you're saying.
3 So I wanted to bring that up, along with what Ms.
4 Mathur was talking about, and yeah, I do see this every
5 month, our expected return versus five year actual return.
6 And I was wondering though, because we do -- and I think
7 this is my first time sitting through a capital market
8 assumption.
9 So is there a way that when we do this, you could
10 do it for a 10-year period, since our capital market
11 assumption is for 10 years? I'm -- it would give us a --
12 kind of a reflection back on what the best guess was at
13 the time, and then where we ended up. Could we see
14 something like that?
15 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah.
16 No, I think that's absolutely possible. And I would
17 potentially suggest that we could try to identify a
18 display of the information over not just a five year or a
19 10-year, but potentially over different time horizons,
20 because I think what you would see is that these things
21 migrate around --
22 COMMITTEE MEMBER TAYLOR: Right.
23 MANAGING INVESTMENT DIRECTOR BAGGESEN: -- the
24 expectation sets. So I think there's information in
25 understanding that migration.

1 COMMITTEE MEMBER TAYLOR: That would be great. I
2 would really -- yeah.
3 MANAGING INVESTMENT DIRECTOR BAGGESEN: So I
4 think that could constructed basically, so that, you know,
5 you'd have more context, I guess, about the imprecision.
6 COMMITTEE MEMBER TAYLOR: I think that context
7 exactly would be good.
8 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah,
9 just --
10 COMMITTEE MEMBER TAYLOR: So can -- Mr. Chair,
11 can we ask for direction for the staff to do that?
12 CHAIRPERSON JONES: Yes, I think that will be a
13 direction, so --
14 COMMITTEE MEMBER TAYLOR: Okay. Great.
15 CHAIRPERSON JONES: Okay.
16 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, I
17 mean, just one of the -- just as a bit of additional
18 comment on this. Allan Emkin just tapped me on the
19 shoulder and he said, really, we're talking about a range
20 of potential outcomes. It's not about necessarily a point
21 estimate. It's just about having a reasonable range of
22 expectations, because literally our expectations will be
23 exceeded probably in some environments, and will be
24 underachieved in other environments, so it's just about
25 pick your place, basically.

1 COMMITTEE MEMBER TAYLOR: Sure. All right.
2 Thank you.
3 COMMITTEE MEMBER JELINCIC: And pick your time
4 period.
5 CHAIRPERSON JONES: Right.
6 Ms. Hollinger.
7 COMMITTEE MEMBER HOLLINGER: Yeah. Thank you.
8 A quick question for Mr. Baggesen. It seemed
9 when you were responding to Priya - and this is just
10 something I want to understand - you were looking at these
11 ranges, and you said, look, it also includes basically our
12 ability to pivot, depending on markets, right or wrong --
13 MANAGING INVESTMENT DIRECTOR BAGGESEN: Well, I
14 mean --
15 COMMITTEE MEMBER HOLLINGER: -- because I'm just
16 trying to understand, because I thought because of our
17 size, how do we respond to different directions if we have
18 trouble making -- having that ability to pivot?
19 MANAGING INVESTMENT DIRECTOR BAGGESEN: Sure. I
20 think what you're relaying to, Ms. Hollinger, is it's
21 really they dynamic nature of managing around --
22 COMMITTEE MEMBER HOLLINGER: Right.
23 MANAGING INVESTMENT DIRECTOR BAGGESEN: -- the
24 targets. So we establish a target. We ultimately
25 establish a range around that target, and then it's sort

1 of what do you do with it -- do with that range? Do you
2 use --
3 COMMITTEE MEMBER HOLLINGER: Right.
4 MANAGING INVESTMENT DIRECTOR BAGGESEN: -- it
5 just and let the market drift, the portfolio exposures, or
6 do we actually try to manage deliberately the exposures.
7 And we're working into trying to create a more dynamic
8 capability, but we have to be humble about that potential.
9 So I think that we do have some capacity to
10 dynamically move that, but I would say that whole dynamic
11 issue is a completely separate issue from what we're doing
12 with this body of work.
13 What we're doing here is we're literally just
14 trying to set up a set of expectations. Those
15 expectations are absolutely impacted by the current
16 valuations of the marketplace. So for example, when you
17 start out with, let's say, global equity PE ratios of 20
18 or 25, that reduces your forward running expectation
19 compared to if you started with a PE ratio of 10.
20 COMMITTEE MEMBER HOLLINGER: Right.
21 MANAGING INVESTMENT DIRECTOR BAGGESEN: You know,
22 so literally these --
23 COMMITTEE MEMBER HOLLINGER: So we're managing
24 expectations.
25 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yes.

1 These expectations do reflect the current market
2 conditions to the extent that that's possible, knowable.
3 Exactly. So I wouldn't overinterpret the degree of that,
4 but it certainly is informed by that beginning place.
5 CHAIRPERSON JONES: Yeah. Thank you, Mr.
6 Baggesen. And you -- the key word I heard would be
7 informed in the decision-making process going forward.
8 And I think many of the questions would lead me to my
9 question, which was going to be much later in this
10 presentation, but I -- eventually when we get to a set of
11 recommendations, I think it would be helpful to back-date
12 those recommendations, particularly for 2008 and see what
13 our returns have been.
14 We lost 24 percent. So if we now adopt these,
15 would it protect us -- to what degree it protects us for a
16 major event like 2008. I think that would also be very
17 helpful.
18 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, if
19 I'm interpreting that question correctly, what you're
20 really asking for is scenario analysis around the
21 portfolios that are recommended basically for you to make
22 decisions.
23 CHAIRPERSON JONES: Right.
24 MANAGING INVESTMENT DIRECTOR BAGGESEN: And that
25 absolutely will be a piece of the information that we'll

1 bring forward to you later on in the process, when we
2 actually construct portfolios.
3 CHAIRPERSON JONES: Okay. Thank you.
4 Ms. Mathur.
5 COMMITTEE MEMBER MATHUR: Yeah, thank you.
6 Just one more question reflecting a little bit on
7 what Sandoval said about specifically how you arrived at
8 the proposed compound returns for private equity, which --
9 where you really tried to reflect the actual composition
10 of our portfolio there.
11 Now, given that we are having a conversation just
12 next month on what our options are around private equity,
13 which the CIO previewed this morning a little bit, this
14 might change what the -- how -- the composition, and
15 how -- and what that would reflect in terms of a proposed
16 compound return could be different after those
17 discussions, and any decisions we might make, is that
18 right?
19 MANAGING INVESTMENT DIRECTOR BAGGESEN: Actually,
20 let -- if I could take a shot at that one, Ms. Mathur.
21 I would encourage you not to think that the
22 decisions or the discussion that will happen in July would
23 change these numbers, because literally, it's going to
24 take a very long time to pivot around a different business
25 model.

1 So our results that we obtain from private equity
2 are going to be largely reflected on the commitments, and
3 the money we've already got in the ground, in contrast to
4 what we might do, let's say, tomorrow or the next year, or
5 the year after that.
6 But at some point, if we are able to shift our
7 business model and the approach to private equity, then
8 absolutely that would start to be reflected, but I would
9 encourage you not to think that it's going to be reflected
10 for this particular iteration of this work.
11 COMMITTEE MEMBER MATHUR: But these are ten --
12 sorry. You finish, and then I'll --
13 CHIEF INVESTMENT OFFICER ELIOPOULOS: And Eric is
14 exactly right it's a great question that you asked. They
15 are 10-year expected returns. Our capital market
16 assumption and asset allocation process is every four
17 years with a two-year mid-point check.
18 Any changes to the private equity portfolio
19 business model, or otherwise, will take years to have
20 effect. We'll have an opportunity at the check-in point
21 at half time in two years from now to review whether or
22 not, you know, these assumptions need to be modified
23 because of any business model approaches we may or may not
24 be able to affect.
25 And certainly at the end of the four-year period

1 whether we'll get back at this again in four years, there
2 will be 10-year return forecasts. But with respect to
3 business model, I think reviewing it in two years and four
4 years makes sense, rather than trying to assume, at this
5 point, any changes to the return or volatility
6 assumptions.
7 COMMITTEE MEMBER MATHUR: So you don't think
8 there's anything that we will learn in the next couple of
9 months that will impact this composition?
10 CHIEF INVESTMENT OFFICER ELIOPOULOS: I don't. I
11 think what we might learn in the discussion is what
12 comfort level in terms of constraints or level -- you
13 know, the target of private equity. We have, in years
14 past, you know, targeted as much as 14 or 12 or 10 percent
15 of the portfolio. We currently have about eight percent
16 in the portfolio currently, and it will be a challenge for
17 a number of reasons, not just the ones that I mentioned
18 this morning, to project that level of investment and
19 private equity going forward.
20 So the main -- I think, the main emphasis, as we
21 look at candidate portfolios, once the Committee is, you
22 know, comfortable and satisfied with the capital market
23 assumptions, when we look at the candidate portfolios, the
24 question will then turn to levels of expected investment
25 into the private markets, which, as you know, has been a

1 challenge. That's certainly been an area where we've had
2 big appetite, and less ability to execute in the markets
3 than we otherwise would want to. And I think that will be
4 the same dynamic for private equity as we approach
5 November when we'll be looking at that issue.
6 COMMITTEE MEMBER MATHUR: Okay. Thanks.
7 CHAIRPERSON JONES: Ms. Glasser-Hedrick.
8 ACTING COMMITTEE MEMBER GLASSER-HEDRICK: Thank
9 you. I appreciate all your work on this topic, but I had
10 a quick question. On slide four, you've demonstrated the
11 relationship between inflation and rates of return. And
12 so fast forwarding to your surveyed ranges that you have
13 articulated, how much -- it appears as if you're
14 projecting higher rates of inflation over the coming
15 period. And I just wanted to confirm that the expected
16 returns have that assumption embedded in them. So absent
17 inflation increasing, the returns likely would not have
18 been as robust as what is currently projected?
19 INVESTMENT MANAGER SANDOVAL: Yeah, that's a very
20 good clarification. So just to be very clear, what we're
21 showing on page four is our inflation, meaning CPI
22 forecasts. So this is an economic variable.
23 What we're showing on inflation -- and that's
24 around two percent. What we're showing for inflation as
25 an asset class on page six -- let me just jump to that

1 page -- is the asset class. So this is how will the asset
2 class perform over the next 10 years, and it's composed of
3 two elements, one are Treasury Inflation-Protected
4 Securities, that essentially are securities that are
5 linked to inflation. So the higher the inflation rate is,
6 the higher your return will be.
7 And the other is our commodities. And what we're
8 showing here is the weighting of our benchmark, which is
9 57 percent Treasury Inflation-Protected Securities, and 25
10 percent commodities. Is estimated to be around 2.8
11 percent.
12 And that is a lower estimate than the median
13 estimate, and it's because of what I was saying to J.J.,
14 which is the TIPS component has more global international
15 linkers, which have a lower yield than where the U.S. is
16 at currently.
17 That's a great question.
18 ACTING COMMITTEE MEMBER GLASSER-HEDRICK: Thank
19 you.
20 CHAIRPERSON JONES: Mr. Lind.
21 COMMITTEE MEMBER LIND: Just briefly back to the
22 conversation that Ted and Priya were having about private
23 equity and asset allocation and the difficulties. I guess
24 the big problem is we're not the only institutional
25 investor that's now looking at capital market assumptions,

1 and saying oh, crap, we need to do private equity in order
2 to meet our return, right?
3 So we're all looking at the same sort of set of
4 assumptions, generally. And there's only so much private
5 equity that is investable, and that's -- there's one of
6 our dilemmas, right?
7 CHIEF INVESTMENT OFFICER ELIOPOULOS: That's
8 exactly right. One of our dilemmas, and one of -- one of
9 the forces that is driving up the valuations in private
10 equity as well. So it makes for a number of challenges
11 going forward, one from a competitive standpoint, and
12 getting access to private equity managers, and their skill
13 set. There's lots -- lots -- lots of institutional
14 investors pouring into this space, and it also has an
15 affect on valuation as well.
16 So it makes for a very challenging environment
17 and pouring one that again I think in November, as we look
18 at candidate portfolios, we have to have a very honest
19 reflection of how much capital we can expect to invest in
20 private asset classes.
21 CHAIRPERSON JONES: Okay.
22 --o0o--
23 INVESTMENT MANAGER SANDOVAL: If there's no
24 further questions, I'll go on to page seven.
25 And here, we're illustrating the range of

1 dispersion regarding the expected volatilities for each
2 asset class. And again, our proposed forecasts are
3 represented by the triangles, and the median forecasts are
4 represented by the squares.
5 So here, you see a very similar pattern, where
6 there's much greater dispersion for the private asset
7 classes than there is for the public asset classes. And I
8 should note that the volatility forecast we used were
9 largely based on the BarraOne risk system. And we made
10 some very conservative -- well, not very, but conservative
11 upward adjustments to the BarraOne system to the extent
12 that we felt it was necessary, because the BarraOne system
13 we know puts more weight on recent behavior and volatility
14 has been abnormally low by historical standards in the
15 recent five-year period.
16 --o0o--
17 INVESTMENT MANAGER SANDOVAL: On page eight --
18 I'm sorry, are there any questions with this page?
19 CHAIRPERSON JONES: No. I'll let you know.
20 INVESTMENT MANAGER SANDOVAL: On page eight, we
21 simply show the full capital market assumptions that we're
22 asking you to approve today. And I've already discussed
23 the return and volatility assumptions, so let me spend a
24 bit of time on correlation.
25 First, what is correlation, and why does it

1 matter?
2 So correlation describes the interaction between
3 asset classes, and how similar or dissimilar they behave
4 on average. And it's important, because one of the key
5 objectives in asset allocation is to minimize risk by
6 utilizing diversification. So investing in things that
7 behave differently in different market economic
8 environments.
9 The lower the correlation, the more
10 diversification benefits the portfolio is able to realize.
11 So diversification is the one free lunch that you have in
12 finance.
13 Another important assumption on this page is the
14 one that affects both the assets and the liabilities, and
15 that is inflation. So our inflation estimate for the next
16 10 years is at two percent. And it was largely based on
17 the markets-implied estimate for future inflation as
18 determined by the difference between -- the difference in
19 spread between the yield on the current U.S. 10-year
20 treasury, and the real yield of the 10-year Treasury
21 Inflation-Protected Security.
22 This inflation forecast is also consistent with
23 the fed's target policy of two percent, and the slowing
24 demographics that we're seeing in developed markets.
25 CHAIRPERSON JONES: We have a question.

1 Ms. Mathur.
2 COMMITTEE MEMBER MATHUR: Thank you.
3 Yeah, a couple of questions. One is I guess I'm
4 surprised by the very, very low correlation between fixed
5 income and global equity. 0.01 is lower than I would have
6 thought. And maybe you could just share a little bit
7 about how -- how it got -- why it's that level.
8 INVESTMENT MANAGER SANDOVAL: Yes, yes. So
9 that's actually a really great question. And we spent a
10 lot of time. This is actually -- you've identified
11 probably the most important correlation matrix on this
12 page, by the way.
13 So the equity bond relationship is critical,
14 because that goes directly towards how much
15 diversification you get from your fixed income asset
16 class. And when we looked historically, you could really
17 see two very explicit regimes with regards to the
18 correlation between bonds and equities. So if you looked
19 at prior to 2000 -- sorry, not 2000, 1990, there was
20 probably like a 20-year period there where that
21 correlation was actually positive, but during that period,
22 inflation on average was around four percent.
23 So we were talking about a period of time when --
24 and during that period the correlation, by the way, was
25 0.3. So during periods of higher inflation, we've seen

1 for, you know, at least a 20-year period, the correlation
2 between bond and equities of around 0.3.
3 In the more recent period, so today versus -- and
4 probably going back to 1990s, we saw correlations that
5 were actually negative 0.3. So it literally flipped from
6 positive 0.3 to negative 0.3. And what we also see is
7 that during that period, inflation was much lower, closer
8 to two percent. The actual realized inflation over the
9 last 10 years was about -- has been 1.8 percent.
10 And so what we did is we also saw in this trend
11 that the correlation between bonds and equities has also
12 started to creep up, and we would expect it to creep up if
13 we were to get higher inflation. But the reason we used a
14 very low correlation, closer to zero, is to build in some
15 level of conservatism as to, you know, the more negative
16 we make it, the more diversification and optimistic we are
17 in our scenarios, and we felt that as 0.01 to be exact was
18 more reflective of our expectations and our evolving views
19 on the economic environment.
20 COMMITTEE MEMBER MATHUR: Okay. I have a second
21 question, and it's not with respect to correlations. It's
22 really about the proposed compound returns. So for global
23 equity, did we look at -- so we have a global -- a truly
24 global benchmark, and a truly global portfolio. Did we
25 look at what a U.S. -- a more U.S.-centered portfolio

1 would deliver, and compare the two at all?
2 I mean, I know we've been resistant to changing
3 the allocation, and I'm not necessarily suggesting that we
4 ought to, but we've had quite a period of underperformance
5 relative to our peers as a result of this, sort of no home
6 country bias. And just wondering if you've looked at that
7 looking out --
8 INVESTMENT MANAGER SANDOVAL: You know, that
9 actually goes back to the whole benchmark analysis that we
10 did, when we were looking at asset segments and what was
11 the most appropriate way to realize risk premia within the
12 global equity space, and geographic distinctions was
13 another element that we looked at.
14 But really what we felt strongly, and the global
15 equity team I'm sure is here and can reiterate this point,
16 is that looking at global equity through the lens of risk
17 premia or factors was a more theoretically compelling way.
18 And we've seen it empirically as well to really realize
19 risk premia within the global equity asset segment set.
20 MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me
21 just add also an incremental comment on the question that
22 you asked Ms. Mathur.
23 If we looked at this from the U.S. Equity
24 perspective, that return expectation would be lower.
25 COMMITTEE MEMBER MATHUR: It would be lower.

1 MANAGING INVESTMENT DIRECTOR BAGGESEN: So
2 literally the better returns that have been generated over
3 the call at the last five or six years by the U.S. market
4 would actually diminish your expectation for the equity
5 return going forward.
6 COMMITTEE MEMBER MATHUR: Okay.
7 MANAGING INVESTMENT DIRECTOR BAGGESEN: That's
8 where that starting condition has an impact on it.
9 COMMITTEE MEMBER MATHUR: Okay. That's helpful.
10 Thank you.
11 CHAIRPERSON JONES: Mr. Lind.
12 COMMITTEE MEMBER LIND: Yeah. A question. So
13 inflation is obviously the foundation of all the rest of
14 the assumptions. And I'm not questioning necessarily our
15 two percent inflation assumption, but I want to maybe
16 better understand how this works. So if our assumption
17 was three percent, how dramatically would that impact the
18 other numbers?
19 INVESTMENT MANAGER SANDOVAL: Well, there's
20 a -- yeah, so there's a very -- because that would compose
21 your risk-free rate, everything is priced relative to that
22 risk-free rate, so it would step up. But I should mention
23 that this is the most material number for us to think
24 about, not just because it impacts the assets, but it
25 equally impacts the liabilities.

1 So the more that you increase that inflation
2 number, the more our actual liabilities, meaning the, you
3 know, projected benefit payments and the contribution
4 rates needed to meet those payments, will also increase.
5 COMMITTEE MEMBER LIND: Right. But can you just
6 give me some sort of level, or range, or whatever? I
7 mean, is it dramatic? You know, I -- I got --
8 INVESTMENT MANAGER SANDOVAL: Is it a linear
9 relationship --
10 COMMITTEE MEMBER LIND: I studied history, not
11 math in college, right --
12 (Laughter.)
13 COMMITTEE MEMBER LIND: -- so give me a little
14 more information.
15 INVESTMENT MANAGER SANDOVAL: Yeah, I don't have
16 the actual calculations in front of me, but it's something
17 I could --
18 COMMITTEE MEMBER LIND: Just, in general, I don't
19 need specifics.
20 INVESTMENT MANAGER SANDOVAL: It is pretty
21 linear. It is pretty much of a step function. If you
22 looked, you know, at this chart, you know, when inflation
23 was at four percent, you had U.S. stocks at 12, I mean,
24 versus inflation at two percent, and U.S. stocks were
25 closer to eight. So I think this chart gives you that

1 sense.
2 COMMITTEE MEMBER LIND: Great. Thank you.
3 CHAIRPERSON JONES: Okay. Ms. Yee.
4 COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.
5 Just a question. Whether the recent fed action
6 on raising rates changes our thinking with respect to the
7 expected short-term inflation rates.
8 INVESTMENT MANAGER SANDOVAL: Absolutely, yes.
9 That's a great question. We did -- when we did the cash
10 forecast that we show on you page six, the liquidity --
11 the 90-day liquidity, cash forecasts today are well below
12 what we're showing you as this estimate.
13 And this really is a reflection of the fact that
14 the fed will increase rates over the next 10 years
15 probably to around three to three and a percent, but on
16 average you should realize two percent over that period.
17 COMMITTEE MEMBER YEE: Okay. Good. And then one
18 other question. So with this two percent assumed
19 inflation rate, do we expect that that will lead to
20 excessive volatility, and if so, I'm just trying to think
21 about how we manage that?
22 INVESTMENT MANAGER SANDOVAL: Will the two
23 percent lead to excessive volatility in the portfolios
24 that we're asked to --
25 COMMITTEE MEMBER YEE: Yeah.

1 INVESTMENT MANAGER SANDOVAL: I just want to make
2 sure I understand your question.
3 COMMITTEE MEMBER YEE: Yeah. What I'm thinking
4 about is just, you know, all the work that obviously the
5 investment staff has done in terms of de-risking the
6 portfolio. So is there, I guess, any additional
7 volatility risk with the two percent assumed inflation
8 rate that may not be able to be managed with respect to
9 the work that's been Done on re-risking the portfolio
10 overall?
11 CHIEF INVESTMENT OFFICER ELIOPOULOS: I think
12 the -- it's a good point. And I think what -- what you're
13 pinpointing is this dilemma with low interest rate, low --
14 COMMITTEE MEMBER YEE: Right.
15 CHIEF INVESTMENT OFFICER ELIOPOULOS: -- return
16 projected environment in order to compose a portfolio to
17 meet, you know, a higher rate of return, it requires
18 taking on more risk and volatility. So we will come to
19 that when we have candidate portfolios before you later in
20 the year, and that's the essential risk return tradeoff
21 that --
22 COMMITTEE MEMBER YEE: Right, right.
23 CHIEF INVESTMENT OFFICER ELIOPOULOS: -- you'll
24 be wrestling with. I think the pre-condition of that --
25 the precursor to all of that is to get a set of

1 assumptions that, while not perfect and not precise,
2 provide the building blocks to look at a range of
3 portfolios, that give you trade-offs on the return and the
4 risk profile.
5 COMMITTEE MEMBER YEE: Okay. And you'll
6 incorporate all of the work that you've done to date on
7 this?
8 CHIEF INVESTMENT OFFICER ELIOPOULOS: Yes, very
9 much so.
10 COMMITTEE MEMBER YEE: Okay. Good Thank you.
11 CHAIRPERSON JONES: Okay. Mr. Jelincic.
12 COMMITTEE MEMBER JELINCIC: Yeah. I also have
13 some serious concerns about the two percent inflation.
14 You know, I believe we're going to see higher inflation
15 going forward, and I'm not sure that's reflected here.
16 But the other issue that I want to touch on is
17 the global equity. You know, I think that, you know,
18 we've paid a price for being non-U.S. centric in the short
19 term. In the long term, I think that's a subject of
20 debate that is, I think, well worth having.
21 But I remember reading some place that the
22 average depth of water ina bathtub is 3/8th of an inch,
23 and that's because most of the time they're empty. When
24 you look at global equity and come up with a number, you
25 have averaged a whole bunch of things into it. So I was

1 wondering if you -- and I'd appreciate comments from any
2 of the consultants on it as well -- if you could discuss,
3 you know, domestic versus international, if you can
4 discuss what we could do with small cap, what we could do
5 with value?
6 The -- one of the things we clearly have to do is
7 get our assets working harder. And there's lots and lots
8 of historical academic work that says small cap pays,
9 value pays, quality pays. And so if you can break out
10 those in terms of how we reach a consensus number? And
11 just as a heads up so that people can think about it,
12 private equity I'm going to ask, you know, where do we
13 think the returns are coming from?
14 And in real assets, which is largely real estate
15 for us, how the different food groups, you know, our
16 expectations for the different food groups are, you know,
17 apartment versus office buildings versus shopping. So
18 that's a question that's coming, and Paul can think about
19 it.
20 But in terms of global equity, can you give us
21 what your breakdown is on small versus value?
22 MANAGING INVESTMENT DIRECTOR BAGGESEN: You know,
23 the -- we've been having this discussion in one form or
24 another basically for as long as I've been in this
25 organization, and honestly, Mr. Jelincic, as long as

1 you've been on this Board. And we have exposure to small
2 cap. We have exposure to value. We have exposure to
3 growth. We have exposure to all of these different
4 things.
5 And the observation that one category or one
6 delineation of equities, you know, may or may not perform
7 differently than the other categories in any particular
8 time point, that all tends to be incredibly episodic. So
9 literally, that end up -- what you're describing is
10 basically the foundations of making active bets within the
11 structure of the equity market.
12 In other words, if you want to be a small cap
13 investor, that's simply an active bet. If you want to be
14 a U.S. investor instead of a global investor, that's an
15 active bet. Global is also an active bet. The selection
16 of benchmarks, the selection of all of these betas is
17 ultimately an active bet.
18 The question is, is does it -- do the
19 characteristics attached to that provide enough support
20 for the things that we're trying to achieve with this
21 fund, whether or not, you know -- I think it's arguable
22 whether you can say that investing, for example, in small
23 cap makes the money work harder. It's not crystal clear
24 to me that that's a statement that I personally would
25 agree with, because that's just -- that's an active bet.

1 And, in essence, what you are expressing are your
2 priors about which active bets basically in your belief,
3 you know, generate a superior return profile.
4 But those things have also tended to come with
5 risk profiles. So, for example, you know, let's take
6 value investors. GMO, one of the most noted value
7 investors out there is currently in the process of
8 shutting down strategies and firing people, because value
9 investing has not been working.
10 You know, small cap investing brings with it
11 higher levels of volatility and uncertainty, and certainly
12 is, again, very episodic as to when it generates returns.
13 So it's not crystal clear that small-cap investing
14 generates the equivalent of what would be a higher Sharpe
15 Ratio outcome, which is return scaled for the unit of risk
16 or the amount of risk being taken to achieve it.
17 And then the question becomes for this
18 organization is can the entities that are bearing this
19 market risk afford to be bearing that risk that comes with
20 that?
21 I mean, we could literally bring up the risk in
22 the portfolio simply by leveraging the different assets
23 that we invest in, by making active bets, by doing all
24 kinds of things. But ultimately, it ends up being an
25 overall portfolio construction, and an overall risk return

1 profile.
2 And truthfully, I don't think any of us in the
3 staff believe that there is some magical different
4 definition of what constitutes the market or an active
5 bet. That's what we were really trying to get into with
6 the benchmark assessment, with the portfolio priority
7 work, with all of those things, is to try to understand
8 what are the things that this organization is sensitive
9 to?
10 And certainly, you could come to different
11 decisions about what are those priorities. In other
12 words, you could say that the priority could be seeking
13 the absolute highest level of return, independent of the
14 potential risk impact for that, but the decision of this
15 organization, when confronted with that reality, has been
16 that we definitely want return, but we also need to be
17 sensitive to the risk, because if that return happens to
18 work against us, or that risk happens to work against us
19 for any time period, the funded ratio could crater to a
20 point where it would be very difficult for this
21 organization to come back from that.
22 And it's not clear that the employers that bear
23 the market risk of this portfolio have the ability and the
24 depth of their budget to be able to immunize any form of
25 those risks.

1 So I'm not sure that there's an answer really to
2 your question. That's the real bottom line of this. I
3 think what you're expressing is your beliefs about what
4 active bets potentially could payoff in the marketplace.
5 And as many people as we would care to have a
6 discussion with would have different beliefs potentially
7 around which of those bets would payoff. But we don't
8 believe that those things are systematic enough that it
9 warrants an all-in piling into, let's say, small cap, or
10 even all domestic, or all international, or all emerging
11 markets, or whatever you want to call it. As an active
12 bet, we just -- we just do not think that that is the
13 rational place for this organization to, you know,
14 structure its asset allocation.
15 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
16 I -- this is Wylie Tollette from the Investment
17 Office staff. I just wanted to make a quick comment
18 regarding inflation. And on that note, as Dianne
19 mentioned a bit earlier, the two percent is actually the
20 fed target. And the current 10-year break-even, which is
21 the market's current estimate of what inflation will be
22 over the next 10 years, is right about 1.8. So the market
23 is actually predicting that we're not going to get quite
24 to 10 -- to two percent over the next 10 years.
25 So I think Dianne and Eric can walk you through

1 the various steps we went through to arrive at two
2 percent. Quite a bit of discussion and dialogue with our
3 consulting community went into that number. And I think
4 the staff overall feels like it's reasonable estimate, but
5 the market is actually more conservative than that at
6 present. It's at 1.8.
7 COMMITTEE MEMBER JELINCIC: Okay. May I respond?
8 CHAIRPERSON JONES: Yeah.
9 COMMITTEE MEMBER JELINCIC: A couple of things.
10 One, we have a much longer time horizon than GMO. And so
11 one of the things that I have actually advocated is we
12 ought to figure out how to make sure we can cover -- we
13 have the cash flow to cover the next four year's payments,
14 and then take more risk with the larger part of the
15 portfolio.
16 Yes. It -- moving away from cap market -- cap
17 weighted index is a market bet, and I have argued that the
18 big advantage of cap weighted is it minimizes training and
19 it guarantees you're in every bubble.
20 The -- but if we do not look at the probable
21 rewards of market bets, then we can't make a informed
22 decision not to make that bet.
23 The -- I will acknowledge that value, or growth,
24 or any factor will not outperform the cap-weighted index
25 100 percent of the time. It just doesn't happen, but

1 there is a long, long, long academic history showing that
2 value and small cap outperform over the long run, not any
3 particular period. And if we have covered ourselves for
4 the next four years, then we really can afford to at least
5 consider some of those active bets.
6 So my question goes back to what's in that
7 average of, you know, 3/8th of an inch of water in a
8 bathtub?
9 MANAGING INVESTMENT DIRECTOR BAGGESEN: You know,
10 again, small cap is there, right? Our Global Equity
11 Program has --
12 COMMITTEE MEMBER JELINCIC: But we could --
13 you're right, if you do a cap-weighted index, you've got
14 all of that in there. But you do have the option of not
15 being cap weighted and making a --
16 MANAGING INVESTMENT DIRECTOR BAGGESEN:
17 Absolutely.
18 COMMITTEE MEMBER JELINCIC: -- but that small cap
19 will pay for -- will reward us over the long term. Next
20 six months, you know, it's probably a coin flip. But over
21 the long term, the same is true -- and I see Ben is coming
22 up to help.
23 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, why
24 don't we let Dan --
25 COMMITTEE MEMBER JELINCIC: Dan. I'm sorry.

1 MANAGING INVESTMENT DIRECTOR BAGGESEN: -- have a
2 statement as to what they're doing.
3 MANAGING INVESTMENT DIRECTOR BIENVENUE: Yes.
4 Dan Bienvenue, Managing Investment Director for Global
5 Equity.
6 And, Mr. Jelincic, you know, the work that went
7 into this, you know, the averages was, as Eric said, work
8 with the consultants, it was work with the global equity
9 staff, the asset allocation staff. So we are definitely
10 unified on the benchmark and then also on the sort of the
11 CMAs.
12 I will say that we do take those active bets
13 within the global equity portfolio. Currently, we're
14 overweight small cap. Currently, we're overweight value,
15 quality, the factors that you mentioned. So we do take
16 those active bets, but we think definitely those are
17 better taken in the active management within the equity
18 portfolio, than in a much more systematic way, because to
19 Eric's point, I mean, you know, you mentioned that there
20 is academic literature that talks about the outperformance
21 of small cap.
22 About five years ago, a lot of that literature
23 started to turn, because small caps had underperformed
24 about eight or 10 years. And that's the challenge is that
25 you're starting point and your ending point will determine

1 what your empirical results are. And we think that needs
2 to be a more dynamic nature, and therefore happens better
3 within the global equity portfolio.
4 Just really quickly on the comments on
5 international, and I was trying to stay seated back there
6 as long as I could. But I'll just make it really quickly.
7 To Eric's point it is the case that international stocks,
8 and specifically emerging market stocks, are much cheaper
9 from a valuation standpoint now. And it's because of the
10 run that the U.S. domestic markets have had, and that has
11 hurt us for the past several years. We think those things
12 tend to be mean reverting, and this would be the worst
13 time to change that candidly.
14 The other thing is the arguments that we've made
15 in the past about the population being largely outside the
16 United States, more GDP happens outside the United States.
17 The United States represents over half of our public
18 equity benchmark and portfolio. And we actually think
19 that a lot of the sort of economic dynamics are tilted the
20 other way.
21 Now, there are multi-nationals, and there are a
22 lot of my mitigating factors, but we do think that the
23 most broadly diversified portfolio that we can have again,
24 as a in perpetuity is the best we can do. And those
25 are -- you know, that underlies our concerns around

1 divestment, that underlies our concerns around, you know,
2 just breadth of depth of market participation.
3 CHAIRPERSON JONES: Okay. Thank you.
4 COMMITTEE MEMBER JELINCIC: And just one final
5 comment on the inflation. You know, the market tends to
6 be -- have -- just have a massive anchor bias, that which
7 is true today will always be true. The only thing we know
8 is that anchor bias is wrong. We just don't know when
9 it's going to be wrong. But it is something that I think
10 we need to think out. Our big advantage is we have a much
11 longer term horizon than the market as a whole, and we
12 need to figure out someway to monetize that longer term
13 horizon. And that's part of the reason why I think we
14 need to take serious look at what are our potentials and
15 long term bets.
16 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
17 Again, Wylie Tollette, CalPERS Investment Office.
18 I think Curtis might be coming up to talk specifically to
19 our inflation asset class. I think Dianne displayed a
20 chart a bit earlier, Mr. Jelincic, that showed the
21 accuracy of the going in yields as a estimator of 10-year
22 returns. And we believe that is actually quite relevant
23 in this context. The going in yield is essentially the
24 market's estimate of that 10-year break-even that I was
25 referring to.

1 MANAGING INVESTMENT DIRECTOR ISHII: This is
2 Curtis Ishii, Managing Investment Director, Fixed Income.
3 So I think you've heard what the market is
4 telling us. And I think there is people on both sides of
5 what -- I think what J.J. is talking about is his thoughts
6 that the fed is going to allow this thing to go for a
7 while and you get inflation.
8 Let's remember, there are people on the other
9 side, and some of them are inside our office. And it is
10 an average period over 10 years. So if you have a
11 sustained period of under -- of low inflation, which we
12 think may happen over the next few years, and you have
13 some higher inflation, it is our belief that they have the
14 playbook already written on high inflation, and they can
15 take this down at any time.
16 But it appears that globally it's difficult to
17 generate inflation. It is -- there is something to the
18 demographic arguments, there's something to a low interest
19 rate and its suppression of consumption.
20 So it appears, I think, in summary, the two
21 percent over this period is fair. And I think there's
22 strength in the discussion of the fed's outlook. There's
23 strength in the discussion of looking not just in the
24 United States, but in Japan and Europe, and the low levels
25 of inflation, and the demographic dampering of inflation.

1 So, in summary, I'm supportive of the two percent.
2 CHAIRPERSON JONES: Okay. Continue on Ms.
3 Sandoval.
4 INVESTMENT MANAGER SANDOVAL: Eric.
5 MANAGING INVESTMENT DIRECTOR BAGGESEN: Mr.
6 Jones, this is Eric Baggesen again. If I could actually
7 make a suggestion. I think it -- to -- on the points that
8 Mr. Jelincic was raising, I think it might be worth while
9 to actually ask your investment consultants to address
10 the -- really the question as to how much, or how little
11 basically, the elements that Mr. Jelincic was pointing to
12 are elements that are incorporated in an asset allocation
13 framework.
14 Those are -- you know, I would -- I've contended
15 that those are certainly elements around an active bet,
16 but I actually think the question that he's raising is to
17 the extent by which those elements rise into the overall
18 asset allocation effort.
19 So if I could make that suggestion, sir, just to
20 allow the consultants to address that, I think that might
21 help --
22 CHAIRPERSON JONES: Yes.
23 MANAGING INVESTMENT DIRECTOR BAGGESEN: -- bring
24 some additional context.
25 CHAIRPERSON JONES: Consultants, would you come

1 to the table and address that issue?
2 MR. FORESTI: There we go. Good morning. Steve
3 Foresti from Wilshire Consulting.
4 I guess I'll start by responding by just sharing
5 our philosophical belief and back that up in terms of the
6 assumptions that we put together.
7 When it comes to some of the subsegments within,
8 in this case, the equity market, namely growth value,
9 large small, these are not areas that we forecast from an
10 asset allocation standpoint. So we -- we would view those
11 very much as structural type of decisions within the asset
12 class. I think that's consistent with the points that Dan
13 was just making about some of the tilt in the portfolio.
14 I did want to also make a general comment about
15 probabilistic outcomes, the level of confidence that we
16 may have in different assumptions. And while we don't
17 have precision on what these forecasts are, the way I was
18 think about the numbers we put forth is we're putting a
19 number out there that we think has an equal chance of
20 being too low and too high.
21 So -- and I think that fixed income chart that
22 we've looked at a couple of times this morning is really a
23 strong anchor point for why the assumptions have come down
24 over time. It's -- as a starting point, to look at that
25 chart and say okay, when it comes to high quality fixed

1 income, it's very difficult to move too far from what that
2 yield tells us.
3 Now, the door is still open to think about other
4 asset classes where there's less certainty in the future
5 cash flows. Equity -- there's a chart that we haven't
6 gotten too and I suppose we can refer there, if we need
7 to, that looks at some of the return drivers of equities.
8 And while there's more variability around our confidence
9 to predict what some of those contributions may be, I do
10 think it also helps to anchor. Eric made the point
11 earlier about the current environment and how that factors
12 in, and -- well here's the chart.
13 --o0o--
14 MR. FORESTI: So if you think about some of the
15 drivers of equity performance. You know, dividend income
16 that connects to yields, and that's certainly a piece that
17 when you compare current assumptions to maybe what we've
18 historically been able to generate from equity markets,
19 clearly, what's priced into equity markets today with
20 respect to the income component of return is substantially
21 lower than what it has been in this -- in a post-World War
22 II environment.
23 The inflation rate, which we've just spent a bit
24 of time talking about, that has a natural component of the
25 nominal growth rate of earnings. Now, there's a real

1 growth rate component, and then there's this inflation
2 piece. And then there's the real earnings growth rate.
3 And then the hardest piece of all to predict,
4 which is valuation. That happens to be the component
5 that, you know, over the long run probably washes out, and
6 adds almost nothing to the realized return that we're
7 going to have. Certainly as an institution that has a
8 horizon as long as CalPERS, but it's the single most
9 important contributor to the risk of the asset class, in
10 terms of those wiggles through time.
11 And if we go back and compare future projections
12 of 10-year returns to what's realized, we'll notice that
13 it's that valuation component that adds all the
14 variability, and it's going to almost without doubt
15 underperform the estimated periods of time, and sometimes
16 very dramatically, as we saw in 2008. And there's other
17 times where it will outperform rather dramatically, you
18 know, think late nineties type of environment.
19 But I think this is a sobering way to look at
20 what we might expect from asset classes. And the columns
21 to far right are essentially the realized return in this
22 post-World War period of time versus from Wilshire's
23 perspective, at least on U.S. equities, what we're
24 expecting, which is at six and a half.
25 And it -- you know, if one looks at the historic

1 number and says, well, you know, we ought to be able to
2 think about a 10 percent type of number, why six and a
3 half? I think it's a sobering and -- I think it's a good
4 exercise to go through those components, and think about,
5 well, which one do we think might drive that performance.
6 And you can make a very strong case again that since all
7 the variability comes from valuations, you know, maybe we
8 can expect that the valuations will provide that.
9 We can do that, but I think that's a very, very
10 low kind of probability, and it's more -- it strikes me as
11 more hope than I think a best case, or a best estimate of
12 what we might expect.
13 So with that, I'll give Allan an opportunity to
14 comment.
15 CHAIRPERSON JONES: Allan.
16 MR. EMKIN: Mr. Chairman, members, Allan Emkin.
17 A few quick comments. Underscore that setting
18 these assumptions is much more of an art than it is a
19 science. They use science to come up with the background
20 and the data, but it is an art. It's very, very important
21 to keep that in mind.
22 In terms of fixed income, the reason we can be so
23 precise is you have a contractual date when you're going
24 to get paid. The 10-year treasury bond in 10 years is
25 going to mature. And you know exactly what you will get

1 at maturity. And the only thing that's unknown is the
2 reinvestment rate.
3 So we can estimate that with a great degree of
4 precision, because it's contractual. Unless you believe
5 that the government is going to default, there is no
6 credit risk involved in that treasury assumption. In
7 terms of the use of factors growth, value, et cetera, to
8 change the expected return of the equity portfolio, I
9 would just urge you to remember that those factors are not
10 highly correlated.
11 And, in fact, if that's the case, they'll offset
12 each other. And, in fact, the more diversified you are,
13 the more you'll average what the broad market will over
14 time. There will be periods when you'll outperform, and
15 there will be periods when you underperform.
16 And I would argue it's legitimate to look at
17 those, very legitimate in terms of how you structure the
18 equity portfolio, but not in terms of strategic asset
19 allocation.
20 Thank you, Mr. Chairman.
21 CHAIRPERSON JONES: Okay. Thank you.
22 Ms. Mathur.
23 COMMITTEE MEMBER MATHUR: Yeah. Thank you.
24 I want to return to this -- this chart that Mr.
25 Foresti brought up. And I'm sorry, my Diligent Boardbooks

1 has just closed on me.
2 But thank you. You've gone to it, so the one
3 that shows the dividend income, and that's really the --
4 it reflects the dividend discount model et cetera, right?
5 So isn't it true that -- isn't there evidence that
6 companies are returning more and more capital through
7 share buybacks as opposed to dividends today? And so is
8 this under-reflecting the capital that's being returned to
9 investors?
10 MR. FORESTI: I think through that -- through
11 that dividend income component, it very well might be.
12 But those reinvested assets are assets that aren't paid
13 back, or that are used to -- to purchase shares, would
14 show up in a growth estimate. So you'll note at least,
15 from the way we're looking at things, we're not showing a
16 deterioration in real growth.
17 I think if you look across the industry, many
18 make a very strong case that we're in a kind of a slower
19 growth environment. And I think absent the point you're
20 making about how that capital is either returned to
21 investors, you know, whether it's through a cash flow and
22 a dividend, or through a buyback, and an accretion in
23 ownership, it comes back in one of those two forms,
24 whether it's a dividend income component, or in the growth
25 component by having, in essence, a larger stake of the

1 future earnings of the company.
2 COMMITTEE MEMBER MATHUR: So they would equal
3 each other -- or cancel each other out is what you're
4 saying?
5 MR. FORESTI: Yeah, I though you'd see a
6 deterioration in that growth number, if the dividend
7 policies had remained constant through time, that's right.
8 COMMITTEE MEMBER MATHUR: Okay. Thank you.
9 CHAIRPERSON JONES: Okay. Ms. Taylor.
10 COMMITTEE MEMBER TAYLOR: Yes. Thank you.
11 I appreciate, Mr. Emkin, what you were talking
12 about in terms of, you know, not knowing exactly -- I'm
13 just trying to get to the page I was going to -- not
14 knowing exactly what our returns are going to be, but that
15 one of the things I was wondering is Meketa -- I don't see
16 Meketa up here. Are they? Oh, there we are -- had a bit
17 of a different outlook for both global and private
18 equities. So I was wondering if we could go into that a
19 little bit.
20 I know everybody is looking at this as not
21 us -- absolute science, and I heard the term art but I'd
22 like to hear the difference.
23 MR. McCOURT: Steve McCourt, Meketa Investment
24 Group, private equity consultant.
25 As staff highlighted in a previous slide, they

1 collected long-term return assumptions, and risk and
2 correlation assumptions from a variety of groups. And
3 you're going to get a wide variety of data from those
4 groups.
5 To us, the most important item I would highlight,
6 and Eric mentioned at the beginning of the presentation,
7 is the hierarchy of returns across the asset class, not
8 the absolute numbers themselves, because the asset
9 allocation process is about allocating assets across these
10 asset classes.
11 None of us up here knows what the return will be
12 for U.S. stocks, or international stocks, or private
13 equity or real assets over the next 20 years. But what we
14 can do with some degree of confidence, based on history
15 and current market conditions, is to measure the relative
16 returns and risks of these assets classes. And so our
17 long-term global equity assumption is bit higher than what
18 your staff is recommending. But you're talking about
19 false precision in that difference.
20 I think what's important from the private equity
21 assumption perspective is that the premium that we would
22 expect you get from private equity is roughly the same as
23 what staff is estimating.
24 COMMITTEE MEMBER TAYLOR: Okay. And then I -- my
25 other question is, and I don't remember who talked about

1 it, maybe Mr. Baggesen did, the problem with, you know,
2 investing here, investing there to get better returns, et
3 cetera. I'm also concerned I think with too low of an
4 assumption. I know that we talked about there being a
5 problem with -- making a market assumption that's too
6 high, and the risk that it poses to our employers, but
7 there's also too low of an assumption also forecasts a
8 possibility of a discount rate reduction, and that can
9 also negatively impact our employers.
10 So I'm wondering where do we find happy median?
11 MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me
12 take a shot at that. Eric Baggesen again.
13 I flipped back to page four of the material,
14 which I think is this long run chart that Wilshire has
15 provided. And, you know, Ms. Taylor, exactly as you've
16 identified, there's absolutely a risk that will be too
17 low, will be too high, will be off the mark.
18 The question is, is what is reasonable? And what
19 you're seeing here is that as interest rates have come
20 down since the early 1980s, so now we're talking about a
21 time period that literally extends more than 30, almost 40
22 years of declining interest rates to -- you know, and
23 the -- we hope that basically we're sort playing -- that
24 game has sort of played out, that it's not necessarily
25 going to continue to erode.

1 But at the same time, basically our return
2 assumptions have hung up significantly higher than this
3 chart would indicate. So the question is, is at some
4 point in time, to the extent that you have a set of
5 expectations that are not borne out in the marketplace,
6 that becomes a risk. Whether it's too high or too low,
7 that's a risk that ultimately the employers absorb the
8 effect of.
9 So I think CalPERS and you as the Board are
10 charged with balancing that expectation sets against, you
11 know, the impacts on the employers, which will be the
12 discussion that we have basically in November when we
13 bring actual portfolios to you. We bring all of that
14 information to you.
15 When we went into this exercise on the capital
16 market assumptions setting, what Ted asked us to do is to
17 let the information suggest a rational place to land on
18 this expectation set giving all of the imprecision, all of
19 the -- yeah, as Steve Foresti just identified, we're
20 attempting to set up something that we think on average is
21 approximately correct, where the probability that you'll
22 have a higher outcome is approximately equal to the
23 probability you'd have a lower outcome.
24 So, you know, we have no specific way of setting
25 that. This is just our best judgment looking through all

1 the information, through all of the nuance that Dianne and
2 Alison and their teams brought to this. And then we took
3 all of that information in and had a discussion with the
4 consultants, and the asset classes, and ourselves
5 basically together to say, okay, what's rational to assume
6 at that midpoint where you've got that probability of high
7 or low is basically, you know, how do you judge that
8 you're in the middle of that -- of that place?
9 That's -- this is our best judgment about that
10 data. And then you, as a Board, will have to take that
11 data, assuming that you approve, you know, this
12 recommendation. If we basically sit there and we --
13 whatever, we push the scale too low or we push the scale
14 up, it's not clear that that's going to change any of the
15 outcomes to the employers. It's just what do you set up
16 as a rational place as the beginning point of that
17 exercise?
18 COMMITTEE MEMBER TAYLOR: So I guess then my
19 question is -- and I hate to jump to conclusions, but my
20 question is if we adopt this assumption, are we -- are we
21 thereby binding ourselves to a future rate reduction --
22 additional rate reduction, because I feel very adverse to
23 that.
24 CHIEF INVESTMENT OFFICER ELIOPOULOS: It's
25 a -- it's a good question to ask openly, because I know

1 it's in your -- you know, in everyone's minds as you go
2 through this process.
3 I'm tempted to answer it in two different ways.
4 And I think I will.
5 COMMITTEE MEMBER TAYLOR: Go for it.
6 CHIEF INVESTMENT OFFICER ELIOPOULOS: I think I
7 will. All right.
8 And the first way is to say our process is really
9 specifically set up to try and separate out those two
10 questions, the capital market assumption setting period,
11 to really be based on the advice of your professional
12 staff, and your independent consultants, and then this
13 discussion, the interplay which I think the questions have
14 all been very thoughtful, very good, very important to --
15 you know, to have that discussion.
16 And then to set these capital market assumptions
17 based on the data and the judgment that we collectively
18 have in this room, and keep that separate from what will
19 come later, which is we're going to provide candidate
20 portfolios to the Committee to consider the risk and
21 return considerations for different candidate portfolios,
22 which each will produce a different expected return, and
23 expected risk, based on --
24 COMMITTEE MEMBER TAYLOR: Ted, are the candidate
25 portfolios provided based on this assumed --

1 CHIEF INVESTMENT OFFICER ELIOPOULOS: Based on
2 these --
3 COMMITTEE MEMBER TAYLOR: -- rate of return?
4 CHIEF INVESTMENT OFFICER ELIOPOULOS: Based on
5 these --
6 COMMITTEE MEMBER TAYLOR: I'm sorry.
7 CHIEF INVESTMENT OFFICER ELIOPOULOS: -- capital
8 market assumptions.
9 COMMITTEE MEMBER TAYLOR: Yeah, capital market
10 assumptions.
11 CHIEF INVESTMENT OFFICER ELIOPOULOS: So that's
12 the first way of answering to say separate the two out,
13 and try and silence the voice in your head saying, "All
14 right, but what does this mean about discount rate"?
15 That's the first part.
16 The second way of looking at it is to say,
17 listen, well, we just went through this process in
18 December that resulted in a reduction of the discount rate
19 from -- you know, gradually from seven and a half to
20 seven.
21 And while, you know, we need this process to come
22 to a much more precise answer, these capital market
23 assumptions that are presented today are close to the
24 capital market assumptions that we talked about in
25 December, primarily borrowing Wilshire's capital market

1 assumptions in December of last year.
2 So these assumptions are within the ballpark of a
3 candidate portfolio to be constructed, that gets you to a
4 seven percent return, so that we are likely to have -- and
5 there's much more work that needs to be done, particularly
6 by the actuaries, who did not, as part of the last review,
7 you know, reset the long-term assumptions, years 11
8 through 60. So there's much more work that you'll be
9 doing, and we collectively will be doing, over the next
10 three, four months to get a much more precise estimate.
11 But we're relatively in the ballpark of the
12 capital market assumptions that we borrowed from Wilshire,
13 that yielded at least a candidate portfolio that could
14 get -- that could get to a seven percent discount rate.
15 COMMITTEE MEMBER TAYLOR: Okay.
16 CHIEF INVESTMENT OFFICER ELIOPOULOS: Now, I
17 don't want to give too much comfort. I think what --
18 there's a lot of work to be done going forward, but I
19 would expect that we would be able to deliver a range of
20 candidate portfolios based on these capital market
21 assumptions, that at least some of the candidate
22 portfolios that to select from would allow a seven percent
23 discount rate to stand.
24 Now, I hesitated in saying that, just because of
25 everything I said about the first way of doing that.

1 COMMITTEE MEMBER TAYLOR: Right, right, right.
2 CHIEF INVESTMENT OFFICER ELIOPOULOS: And I think
3 intellectually and otherwise the best practice is to
4 separate out the two. But I know those thoughts are
5 swirling around in everyone's -- in everyone's head.
6 COMMITTEE MEMBER TAYLOR: Sorry, it's just me --
7 CHIEF INVESTMENT OFFICER ELIOPOULOS: No, I'm
8 really glad. It's the elephant -- yeah, a bit of an
9 elephant in the room. So it's good to have it out in the
10 open to discuss.
11 I don't want to over-promise, because I think
12 these capital market assumptions, given the volatility --
13 you know, the volatilities of each of these asset classes,
14 getting back to Mr. -- I think Mr. Lind and Ms. Mathur's
15 points about the risk levels that a low interest rate
16 environment pushes you into portfolios that have higher
17 levels of risk, which we have to balance with our overall
18 portfolio priority of protecting against severe downside.
19 So with all of that, I guess what I'm saying
20 is -- and the second way of looking at it is we'll be
21 bringing back, you know, eight to 10 different candidate
22 portfolios. We might look at more in this process, but
23 that's generally what we do. I would think with these
24 assumptions at least -- at least, one or two of them would
25 be able to approximate, you know, where we ended up.

1 But I don't want to overpromise, because we'll
2 let the data lead us to where it does. And particularly,
3 we need a lot of work and input from the actuaries that we
4 don't have yet that will be consequential.
5 COMMITTEE MEMBER TAYLOR: Okay. Thank you
6 CHAIRPERSON JONES: Okay. Ms. Mathur.
7 COMMITTEE MEMBER MATHUR: Thank you.
8 I want to continue on this line a little bit if I
9 could. And I'm sorry, I know just tried to address it
10 completely, but, you know, given Mr. McCourt's comments
11 about that the hierarchy matters more than the actual
12 numbers, I guess I can't quite get comfortable with that,
13 because a 6.8 percent expected return on global equity is
14 materially different in terms of what scenarios we come up
15 with than a seven percent, so -- because global equity is
16 such a significant component of the portfolio.
17 Likewise, an 8.3 percent expected return on
18 private equity is materially different than a 9.6 percent
19 return on private equity, because of its impact on the
20 perform -- total overall performance of the portfolio.
21 So in terms of a discount rate, which is the
22 other side of this coin is sort of the liability side, and
23 it's not -- it's not -- it's not unimportant to be -- and
24 I get that we're trying to be pure, but it's very hard to
25 be pure when these numbers are so -- I don't want to say

1 fuzzy, because it's not that they're not based on
2 anything.
3 Obviously, a lot of work has gone into coming up
4 with these numbers, but they are not perfect numbers that
5 you can hang a hat on. So those -- so even the 10th of a
6 percent, I think, does make a big difference. And so
7 I'm -- that's where my -- and I'm not saying I want to
8 push it with -- outside of the realm of what's appropriate
9 or comfortable, but I do see that that maybe slight
10 changes might still be within the realm of, you know, what
11 is -- where roughly half of the results we expect would
12 be -- still be higher and roughly half will be lower, so
13 anyway. Those are my thoughts.
14 INVESTMENT MANAGER SANDOVAL: I'm going to take a
15 shot at that.
16 COMMITTEE MEMBER MATHUR: Yeah, please.
17 INVESTMENT MANAGER SANDOVAL: And actually, I
18 think, if you look at the -- if you turn to the last page
19 of our presentation, which is page nine, I think we'll
20 reiterate the point that Ted's been making. And here,
21 really what I'm showing you is that the proposed capital
22 market assumptions, while they have fallen from where we
23 were in 2013, we are not seeing materially different
24 numbers than where we were when we did the 2016 interim
25 evaluations.

1 And the key point that this chart is trying to
2 make is that the capital market assumptions that are being
3 presented to you today are not materially different from
4 the set of information that was used when the Board made
5 the decision to reduce the discount rate to seven percent
6 in December.
7 So really the whole point of this slide is to
8 reiterate that point. Now, and as Ted said, there's a lot
9 more work that the actuaries have to do in estimating
10 years 11 through 60. And those estimates are likely to be
11 materially different than our short-term estimates, which
12 are anchored by current valuation levels. Also, the
13 actuaries are going to complete their experience study,
14 and essentially review the actuarial assumptions that
15 they've made on mortality, and other assumptions, and
16 inflation over the long term, which could be different, by
17 the way, than what we've projected over the short term.
18 And that will all result in updating our
19 liabilities. And then we'll choose portfolios with
20 regards to those liabilities that best match what those
21 expected liabilities are likely to be.
22 COMMITTEE MEMBER MATHUR: Thank you. Mr. Emkin,
23 I think maybe had something. Do you mind, Mr. Chair, if
24 Mr. Emery responds as well.
25 CHAIRPERSON JONES: Yeah, go ahead.

1 COMMITTEE MEMBER MATHUR: Thank you.
2 MR. EMKIN: Ms. Mathur, I'll be very quick.
3 Dianne just hit it. Years 11 through 60, everyone is
4 already building in higher inflation and higher returns on
5 cash, which will lever up every single asset class using a
6 building block methodology, and that's what the actuarial
7 will be looking at.
8 And so you'll discounting those years, and that's
9 a lot of years, at a higher number, which will, in fact,
10 create an average higher number over the whole planning
11 horizon. So just looking at these, and extrapolating it,
12 this would understate what that expected return should be.
13 How much, I don't know.
14 COMMITTEE MEMBER MATHUR: Okay.
15 CHAIRPERSON JONES: Okay. Mr. Lind.
16 COMMITTEE MEMBER LIND: Thank you. I'm on this
17 same issue, but -- and Ted your explanation was great on
18 how we should be pure, and divided, and all that. But the
19 reality is I think that given these capital market
20 assumptions, that the candidate portfolios that we get
21 that would get us to seven percent, are going to be
22 riskier than they would have been under more rosy
23 predictions, right?
24 It's going to be -- so we're going to be -- have
25 the internal and external pressure around taking on more

1 risk to get to the seven percent based on these capital
2 market assumptions.
3 CHIEF INVESTMENT OFFICER ELIOPOULOS: I think
4 I'll let Eric -- I think if he's ready to jump in at the
5 last question. I don't think we're talking about changing
6 any of the fixed income and inflation assumptions really.
7 It's really a question of the risk assets, and setting a
8 modestly higher expected return for global equity and
9 private equity.
10 It's not a straightforward answer to how much the
11 modeling will drive you into those asset classes. So, for
12 instance, private equity will be much more, I think,
13 affected by whatever constraints we put on private equity,
14 in terms of the size of the portfolio, based on our
15 practicality of how much we think we can invest in private
16 equity, than by a change expected return.
17 So -- so the modeling is a little more complex
18 than straightforward, because you have to take into
19 consideration what you might actually be able to invest,
20 but I'll let -- I'll let Eric jump in on the --
21 essentially, the question if we higher -- if we put a
22 higher expected rate of return for global equity and
23 private equity, well that allow us to -- what are the
24 implications for portfolio -- candidate portfolios that we
25 might be able to -- that we will be able to present to the

1 Committee in a few months. I think that's the question.
2 COMMITTEE MEMBER LIND: Yes. Thank you.
3 MANAGING INVESTMENT DIRECTOR BAGGESEN: Eric
4 Baggesen, CalPERS staff again.
5 Let me just point your attention back to one of
6 the charts that Dianne spoke to. So if you basically look
7 at the global equity portfolio -- the public equity
8 portfolio is on the left-hand side of this chart. So you
9 literally see the expectation is sitting right around the
10 median observation, right? For the private equity
11 portfolio you see it a notch above the median expectation.
12 And again, all these things are within some realm of
13 reasonability.
14 When you get into though the relationship between
15 these, which as Dianne was pointing to, is the last chart,
16 what you see, for example -- the last time we did this
17 exercise in 2013, the compound return spread between
18 private equity and public equities was 158 basis points.
19 Under the current assumptions that are in front
20 of you, that compound return spread is 150 basis points.
21 So it's literally eight basis points different. I would
22 suggest to you that there's no meaning in that.
23 And this is the point that Ted was just making.
24 The outcome and the kinds of portfolios that get put in
25 front of you will be much more impacted by the actual

1 allocations that we attach to these assets, in contrast to
2 slight differences in the return assumptions that are
3 there. So the constraints around the assets will have a
4 much bigger impact.
5 But the other thing is that depending on the --
6 when you're really building a portfolio, you're basically
7 building a portfolio on a mix of assets. So let me again
8 flip back for a second to the real asset example. So our
9 estimate on the real assets, for example, is also a notch
10 higher than the median expectation around the -- that
11 category. So to the extent that real assets become a more
12 attractive asset within the overall portfolio construction
13 process, that potentially ratchets up the expected rate of
14 return marginally, let's say compared to investing in
15 fixed income, but it also acts as a diversifier. So it
16 has a risk impact.
17 So I don't think it's a foregone conclusion that
18 we end up with a riskier portfolio. Although, there
19 certainly is probably riskier portfolios that you could
20 choose that will be put in front of you. So I think that
21 literally you have to let the information evolve and
22 develop in that regard, and also has been mentioned,
23 there's an impact on how the actuaries establish a very
24 long-term expectation set.
25 That long-term expectation set includes time

1 periods where returns to these assets were significantly
2 higher than they are today. You know, let me go back to
3 the Wilshire chart, you can see -- when the actuaries
4 average across all of this, you can see what they're
5 averaging across. And they go back typically as far as
6 there is a history of data to be looked at.
7 But you literally see, you know, the mix between
8 the shorter term and the longer term expectations will end
9 up being the sort of averaging process that ultimately
10 determines, you know, where, let's say, the discount rate
11 ultimately gets set.
12 So I would echo Ted's comment. I don't think we
13 should try to solve a hypothetical problem at this stage
14 of the game, because literally what -- in order to change
15 from the numbers that have been recommended to you, we'd
16 just be making up an adjustment. Literally, there would
17 be -- you know, and it could be absolutely correct, but
18 it's unknowable to do that.
19 And what we would be doing is stepping away from
20 a process by which we arrived at this data to simply
21 making an adjustment or a hypothetical selection based on
22 what? It would be based on basically an attempt to try to
23 solve a problem that we don't know that we have yet.
24 So I'd be a little bit cautious about moving away
25 from the recommendations, you know, that -- it's just not

1 clear that that would be based on anything other than a
2 concern for like the final step of the process basically.
3 And I think that that's, to Ted's point, you know, getting
4 too far ahead of the -- too far ahead of the analysis.
5 COMMITTEE MEMBER LIND: Right, but they are --
6 they are recommendations, which means that we have to make
7 a determination as a Board, which is why we're having all
8 this sort of discussion.
9 And so the recommendation from staff, or I guess
10 you describe it as a consensus recommendation, which is
11 great, but there probably were voices within the folks
12 making this recommendation during the process that had
13 different projections, either a higher inflation rate or,
14 you know, a higher global equity prediction, right, and
15 just sort of brought all this together?
16 And then a question. I want to drill down with
17 Meketa just for a minute. In your report, you talked
18 about the private equity estimate being somewhat higher,
19 than staff's estimate. I think it's kind of in between
20 somewhat insignificant, but you say it's related to the --
21 to Meketa's projection for global equity. Can you just
22 tell us what is Meketa's global equity estimate.
23 MR. McCOURT: Yeah. So, first of all, for
24 clarity what we're showing in our memorandum is a 20-year
25 return estimate. Meketa's global equity estimate is 8.2

1 percent over the 20-year period, and then private equity
2 is 9.4 percent.
3 COMMITTEE MEMBER LIND: Okay. Thank you.
4 CHAIRPERSON JONES: Okay. I -- we are a little
5 north of two hours about give minutes, so we're going to
6 take a break for 10 minutes, so we'll reconvene at 11:15.
7 (Off record: 11:05 a.m.)
8 (Thereupon a recess was taken.)
9 (On record: 11:15 a.m.)
10 CHAIRPERSON JONES: I would like to reconvene the
11 Investment Committee Meeting, please.
12 Okay. Is everyone here?
13 Okay. We do have several additional questions.
14 But before we go to the additional questions, I think it
15 may be helpful, based on the last exchange about the
16 process you went through, and what were the dispersion of
17 those numbers, primarily on the global equity, and your
18 comments about, well, you could pick a number, but here's
19 how we got to this process. So it maybe helpful to
20 understand how you got to that -- those conclusions.
21 CHIEF INVESTMENT OFFICER ELIOPOULOS: Before I
22 turn it over to Eric and Dianne on that point, I think it
23 might be helpful to hear from Steve at Meketa. He was
24 able to get his 10 -- the 10-year numbers, because the
25 20-year number is higher than the 10-year numbers, but the

1 10-year numbers is very consistent with the assumptions
2 that we arrived at.
3 CHAIRPERSON JONES: Okay.
4 MR. McCOURT: Yeah. So for the 10-year horizon,
5 Meketa's global equity assumption is 6.7 percent. 8.2
6 percent over the 20-year, and 6.7 percent over the
7 10-year.
8 CHAIRPERSON JONES: Okay. Thank you.
9 Eric.
10 MANAGING INVESTMENT DIRECTOR BAGGESEN: So maybe
11 at this point -- this is Eric Baggesen again, CalPERS
12 staff. What I think I'll ask -- do is ask Dianne to
13 actually walk you through the array of data and the exact
14 process that was used to arrive at a sort of consensus
15 point of view about what to do. And I think, again,
16 Dianne is ready to talk to -- what don't we just pick on
17 global equity, since that's our biggest asset exposure,
18 just as an example. And I think that, you know, we'll see
19 what questions come out of that discussion.
20 INVESTMENT MANAGER SANDOVAL: Well, thank you,
21 Eric. So I think I should reiterate by saying that
22 when -- just to give you a little bit of the background
23 for this process, the members of our staff, in asset
24 allocation and risk management, came up with a separate
25 view. And we literally prepared an 80-page deck that

1 after reviewing all of the assumptions and methodologies
2 and approaches -- sorry I can hear myself. It's like oh.
3 (Laughter.)
4 INVESTMENT MANAGER SANDOVAL: Sorry.
5 So we essentially took this 80-page deck and we
6 had no black boxes. We shared it with all of the
7 consultants, all of the members of the ISG. We went
8 through exactly what our model were predicting, what
9 models we were using and what were the key assumption
10 each -- in each of those models.
11 So for global equities, the model that we relied
12 on was the dividend discount model. And our estimate that
13 we came out with was 6.8. And just to give a range of
14 estimates, the maximum estimate from the surveys that I
15 showed you in this chart was 7.15. And that was PCA's
16 estimate. The minimum estimate was 6.32, that was R.V.
17 Kuhns. And the average was 6.71, which actually that was
18 pretty much where Meketa came out at 6.7.
19 And since -- since there was such a narrow range
20 of dispersion around that, for this specific asset class,
21 the ISG members and the Board members felt comfortable
22 with going forward with our 6.8 recommendation, which was
23 the output from our model, the dividend discount model.
24 So that's one example of how we kind of went
25 through this process, and we literally did this asset

1 class by asset class.
2 CHAIRPERSON JONES: Okay. Thank you.
3 MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me
4 add a little bit more context to that also. So basically
5 Dianne and Alison's team took all the data and
6 established, in essence, a prior. So they basically took
7 their own forecast models. They took the demographic
8 data, if you will -- and when I say demographic data, it's
9 the result of all that surveying of organizations that
10 provide this kind of information. So all your
11 consultants, and then these external entities, JP Morgan
12 for example, R.V. Kuhns, and whatnot.
13 That data was then brought into a room. We sent
14 it around to all the consultants and the asset classes,
15 and we basically then convened everyone into a discussion.
16 And I think we spent about three hours in that discussion,
17 literally going down asset by class asset class saying
18 here's the data, here's the central tendency, and our
19 judgment around that date. And when I say "our", it's the
20 trust level portfolio management team, which is your asset
21 allocation team. Basically, here's our guess as to what
22 the tells us.
23 And then we have a discussion about should the
24 number of go up, should it go down, should the volatility
25 shift? And we literally drove that discussion

1 predominantly on the return number, with the request that
2 we really drive the volatility numbers and the correlation
3 numbers basically from the output of the BarraOne risk
4 system, so that we have a degree of internal consistency
5 across all the different asset segments when it comes to
6 the diversification, dimensions of these forecasts.
7 But that discussion then just takes place, and
8 anyone who believes that the return, for example, should
9 have been higher that be 6.8 for global equities was
10 absolutely welcome to make their case. Anyone who thought
11 the return should be lower, should make their case.
12 Particularly in the case of global equity, the
13 dispersion of expectations was narrow enough that no one
14 felt strongly on their number, whether it was 10 basis
15 points higher or lower, no one felt that that was worth
16 the argument truthfully, because all of these things are
17 in the same neighborhood.
18 And I think it's important also to think that
19 irrespective of where we set this set of expectations
20 around the capital market assumptions, that will lead us
21 to pick a portfolio. We will then implement that
22 portfolio, and then the organization will start to
23 generate whatever experience it generates. So the
24 outcomes will be the outcomes.
25 If we systematically have assumed too

1 conservative or too low a expected return on the
2 portfolio, then basically the experience that the
3 organization has will be generating returns that are
4 higher than those expectations, and that will then turn
5 around and be an element that the actuaries will then
6 adjust. Every single year they adjust the expected
7 contribution levels for the employers.
8 And, in essence, if you have a better experience
9 than the assumptions going into this, then that becomes a
10 positive experience that gets amortized over, I think, a
11 30-year time period, I believe, is their current
12 mechanism.
13 And if we've assumed too high a set of
14 expectations, then we have an underperformance that will
15 end up being assimilated. So again, this is just an
16 effort to try to set what we think is the median or the,
17 you know, average, or however you want to think about it,
18 position to enable that process to really start happening.
19 Because that is the reality of CalPERS is that
20 all of these things are adjusted for on basically an
21 annual basis, as far as the contribution levels and the
22 affect on the employers in that space. And I think that
23 that's -- it's important to retain that context that this
24 just sets up a set of expectations that that process works
25 from. It doesn't set up the realities that that process

1 works from basically. So it's just important to recognize
2 that, you know, in this body of work.
3 CHAIRPERSON JONES: Thanks.
4 So Mrs. Hollinger.
5 COMMITTEE MEMBER HOLLINGER: Thank you.
6 I want to bring up the other elephant in the
7 room, and that's that we're 65 percent funded. And that's
8 a lot of hardship. At 65 percent funded, that also
9 impacts our risk level, and it's a difficult equation to
10 come up with a balance of trying to manage to a particular
11 return assumption, knowing that our downside risk is
12 asymmetrical, and we can end up in a free fall. And I
13 also, even though we can think of inflation over the long
14 term, inflation in terms of our COLA rider, would also
15 increase employer contributions if down road. So it's not
16 that that can necessarily save us, because we have the
17 COLA rider. And when we do come back with our actuarial
18 assumptions, people are living on average seven years
19 longer.
20 So people have to understand that these benefits
21 that we're paying out, we also have longevity risk. And
22 it's a balance to balance longevity risk with our risk to
23 intergenerational equity, our new members coming in. So
24 we're in a very challenging time. And while we're -- I
25 think we're all looking together to best manage these

1 hurdles, there is no cure. I mean it's weighing options.
2 So I think when we do come up with the risk, you
3 look at things differently when you'r 65 percent funded.
4 And that also impacts, I'm sure, staff's recommendation
5 knowing that and managing to certain returns. So it's a
6 challenging time. And I just want people to be aware, and
7 we do have less people because of PEPRA coming into the
8 system.
9 And thank you.
10 CHAIRPERSON JONES: Okay. Mr. Jelincic.
11 COMMITTEE MEMBER JELINCIC: The one thing we know
12 for sure is these numbers are wrong. What we hope is that
13 they are unbiased, that there is likely to be
14 upside -- miss on the upside as the downside, which is
15 part of the reason why I think the conversation is
16 important. And you talked a little bit about equity, but
17 quite frankly, that's got a very narrow band, and wasn't a
18 really very interesting conversation. If you would look
19 at real estate and private equity, where there is a bigger
20 band, that -- sharing that conversation might be more
21 enlightening.
22 The other point I want to make is that these
23 numbers are important, and we want to be very realistic
24 about them, but we also need to recognize that the level
25 of confidence shouldn't be all that high. I would point

1 out that in August our asset allocation and our
2 assumptions were hunky-dory and the consultant liked it,
3 and the staff liked it, and the Board liked it, and in
4 September we changed the asset allocation.
5 Now, why we did that and what changed in the
6 meantime, and what the impact on the employers and
7 employees, and how much that was discussed are all secret.
8 But in November -- and we did it in closed session because
9 we were going to be, as we've now publicly announced,
10 selling a lot of equity.
11 And in November, we reported that we had an asset
12 allocation change and we would discuss it in December.
13 And then the following day, I leaked - or so I've been
14 accused of - that we had changed the asset allocation.
15 And in December we had a real discussion about it. But so
16 or confidence level should not in fact be all that high.
17 But I really do want to get back to the
18 discussion, particularly on the ones, you know, with real
19 estate and private equity, where there really was
20 obviously some dispersion, and hopefully, give my own
21 experience, probably some very good conversation about it.
22 But help the Board understand why the guy at the
23 top was wrong and the bottom was wrong, and the consensus
24 is where we ought to be?
25 CHAIRPERSON JONES: Can you respond to --

1 COMMITTEE MEMBER JELINCIC: Oh, and one other
2 thing I should point out, just because I've got my note
3 here, when we sold our $15 billion worth of equity, that
4 was 0.2 percent of the global equity public market. So
5 I'm not sure how much we really could have moved it, but
6 we're a much bigger part of public -- or private equity.
7 So, okay. Thank you.
8 MANAGING INVESTMENT DIRECTOR BAGGESEN: Sure.
9 I'm letting Dianne hunt through here information, so she
10 can speak probably to the private equity thing as an
11 example basically of that. I think do you feel ready,
12 Dianne?
13 INVESTMENT MANAGER SANDOVAL: Yeah. Okay. So
14 I'm going to our 80-page deck. So the private equity, the
15 range of forecasts essentially the minimum was seven
16 percent, the maximum was 9.3. Our internal process came
17 up with an estimate of 8.3. And these are all, sorry,
18 geometric return forecasts. And the way that we
19 essentially came up with our private equity return was we
20 kind of very much borrowed -- and I will give credit to
21 Wilshire because we found their approach very robust with
22 regards to looking at private equity. And what we started
23 with was the assumption that buy-out is a weighted average
24 of equity and fixed income indices.
25 Then essentially, we adjusted -- we estimated

1 private equity returns by adjusting the capital structure
2 adjustments. So we Essentially looked at how much
3 leverage does buyout have versus an average company, and
4 what is the cost of that leverage. So we came up with an
5 estimated arithmetic return of buyout.
6 That number was then one dimension of it. Then
7 we separately modeled out the private equity returns for
8 venture capital. So we essentially estimated buyout,
9 which was leverage equity. Then we estimated venture
10 capital. And venture capital what we used was the
11 regression model where we regressed the venture capital
12 returns with the five quarter lagged MSCI ACWI return, so
13 global equity returns, and applied the beta to the capital
14 asset pricing model for expected returns.
15 So when we did that -- and by the way, the
16 underlying data we used for the venture capital was based
17 on Cambridge's venture capital data, because we wanted to
18 use beta returns, not our actual portfolio returns. So
19 that gave us another estimate for how much venture capital
20 should generate.
21 Then, the third component was really the credit
22 piece. So what we looked at was mezzanine debt and
23 distressed debt. And there, we assumed that mezzanine
24 debt was a blend of 60 percent high yield, and 40 percent
25 buyout.

1 That gave us an estimated value, based on where
2 high yield and buyout were also forecast separately, of
3 around nine -- nine and a half percent. Then we assumed
4 for distressed debt a 25 basis points premium over
5 mezzanine debt to get us to around 9.8 percent return.
6 These are all in arithmetic terms.
7 Then we looked at the actual weighting of our
8 portfolio, based on the policy portfolio in private
9 equity, where venture capital only has five percent, and
10 buyout has around 87 and a half percent. Mezzanine debt
11 we actually put at zero, and distressed debt we put at
12 seven and a half.
13 And those weightings essentially got us to an
14 arithmetic return of 1126. So then we converted that
15 arithmetic return into a compound return. And the way
16 that we did that was forecasted the volatility. And we
17 looked at volatility at least three different ways.
18 Volatility is a very difficult number to predict in
19 private equity, because you have smoothed returns, because
20 you only get valuations every quarter, and it's really
21 only the annual valuations that are audited that you see
22 the big jumps in returns.
23 So when I look historically at what our private
24 equity realized annual returns over the longest period we
25 have available, it's around 17.7 percent. But what we did

1 was we kind of looked at a leveraged equity portfolio as a
2 proxy for what that volatility should be, if they were
3 actually to be marked to market the way that global equity
4 is. And that volatility came out to around 25 and a half
5 percent, which essentially brought us to a geometric
6 return of 8.3.
7 So this is what we laid out. We went through all
8 the assumptions with everyone in the room, and then asked
9 people -- invited people to take apart our assumptions, or
10 challenge them in any way. In the end, because the people
11 were comfortable with the way that we had gotten to our
12 approach, the Investment Strategy Group, and the Board
13 consultants agreed to stay with the 8.3 percent return
14 that we are recommending.
15 CHAIRPERSON JONES: Okay. Thank you.
16 Wait a minute.
17 COMMITTEE MEMBER JELINCIC: So you laid this out,
18 and the person who was at nine percent on private equity
19 said, "I give, you win", and the person who was seven
20 said, "I give, you win", or was there some discussion?
21 And what I'm trying to get is what was the discussion?
22 What were the arguments on each side?
23 INVESTMENT MANAGER SANDOVAL: So the -- you know,
24 I could ask --
25 COMMITTEE MEMBER JELINCIC: And it could be they

1 just said, yeah, you were persuasive. I quit.
2 INVESTMENT MANAGER SANDOVAL: Yeah, I mean -- you
3 know, I think there -- again, because this is such a
4 difficult asset class to project, in this particular case,
5 I think people were comfortable that we had a robust
6 enough process, and we weren't too far on one extreme or
7 the other, that they did give in.
8 There were other estimate -- there were other
9 parts of the analysis where there was much more
10 disagreement, and we actually did give. Like, we meaning
11 the trust level portfolio management team did agree with
12 revising our initial estimates, but not in this case.
13 COMMITTEE MEMBER JELINCIC: And where was that
14 case where you --
15 INVESTMENT MANAGER SANDOVAL: Commodities.
16 COMMITTEE MEMBER JELINCIC: What?
17 INVESTMENT MANAGER SANDOVAL: Commodities.
18 Commodities is another -- it is a very difficult asset
19 class to forecast.
20 COMMITTEE MEMBER JELINCIC: And such a small
21 component of our portfolio, it really doesn't make much
22 difference.
23 INVESTMENT MANAGER SANDOVAL: That's correct.
24 COMMITTEE MEMBER JELINCIC: Thank you.
25 CHAIRPERSON JONES: Okay. We're going to move

1 on.

2 Ms. Mathur.

3 COMMITTEE MEMBER MATHUR: Thank you. I have some

4 questions about a couple of the other assets classes. I

5 know we've spent a lot of time on public and private

6 equity. In fixed income, are you assuming any component

7 of high yield? Is that embedded in that? How did that --

8 INVESTMENT MANAGER SANDOVAL: Yes, that's

9 correct.

10 COMMITTEE MEMBER MATHUR: Okay.

11 INVESTMENT MANAGER SANDOVAL: The weightings, I

12 can give you, that are in the -- let me just go through my

13 notes and make sure I have the exact weightings. So the

14 current weightings in our fixed income portfolio are 36

15 percent U.S. treasuries, 27 percent MBS, three percent

16 sovereigns, three percent high yield, 22 percent

17 investment grade, and 10 percent international GDP IFII.

18 Those are the weightings for our global fixed income.

19 COMMITTEE MEMBER MATHUR: Okay. And just for the

20 audience, MBS is mortgaged-backed securities, right?

21 INVESTMENT MANAGER SANDOVAL: I'm sorry, yes,

22 mortgaged-backed securities.

23 COMMITTEE MEMBER MATHUR: Thank you. Not

24 everybody knows our internal jargon.

25 INVESTMENT MANAGER SANDOVAL: No, no, Sorry.

1 COMMITTEE MEMBER MATHUR: That's all right.
2 INVESTMENT MANAGER SANDOVAL: Thank you.
3 COMMITTEE MEMBER MATHUR: Thank you for that.
4 And three percent is that historical? I know it's not a
5 consistent number necessarily, but that's historically
6 sort of about the average of what we have in high yield in
7 our portfolio.
8 It is. I see nods.
9 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, our
10 fixed income benchmarks actually fix those proportions.
11 COMMITTEE MEMBER MATHUR: Okay. They do.
12 MANAGING INVESTMENT DIRECTOR BAGGESEN: We do not
13 capitalization-weight fixed income --
14 COMMITTEE MEMBER MATHUR: Yeah.
15 MANAGING INVESTMENT DIRECTOR BAGGESEN: -- simply
16 because that would tend to pile you into the most highly
17 indebted, and you could argue potentially the most highly
18 likely to default, so that --
19 COMMITTEE MEMBER MATHUR: The riskiest --
20 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah,
21 those weights tend to be fixed.
22 COMMITTEE MEMBER MATHUR: Okay. Thank you.
23 Then on real assets, we've made -- from 2013,
24 there's been quite a considerable reduction in the returns
25 on real assets. Is that due -- and also the risk has

1 also -- is also going down from the 2016 interim to this
2 current proposal. So could you talk about how much of
3 that is driven by the composition of the real assets
4 portfolio, or what else is driving those changes?
5 INVESTMENT MANAGER SANDOVAL: Yes, of course.
6 That's a great question.
7 So the real assets -- the biggest component that
8 was driving down those rates are cap rates. And cap rates
9 we estimated at around four and a half percent. Then we
10 also looked at capital expense loss -- capital
11 expenditures, and we also looked at what the long-term net
12 operating income growth is expected to be. And then we
13 overlaid that with the amount of leverage that we have in
14 our benchmark.
15 COMMITTEE MEMBER MATHUR: And that has changed
16 materially? So the cap rates --
17 INVESTMENT MANAGER SANDOVAL: Well, the cap rates
18 is the biggest component.
19 COMMITTEE MEMBER MATHUR: Yeah.
20 INVESTMENT MANAGER SANDOVAL: That has -- and I
21 don't have a chart to show you, but I could follow up with
22 you. Yeah, maybe Allan could comment on that in the real
23 estate side.
24 MR. EMKIN: The easiest way to look at that is
25 the performance of the real estate, and it's really

1 outperformed historical averages. And so what you're
2 looking at is some form of reversion to the mean. And the
3 cap rate is the mathematical way of looking at that.
4 COMMITTEE MEMBER MATHUR: Um-hmm. Okay. Okay.
5 CHAIRPERSON JONES: Thank you.
6 COMMITTEE MEMBER MATHUR: And in terms of the
7 volatility. So that while the returns don't look
8 substantially different from the 2016 interim, the
9 volatility has gone down, which is --
10 MR. EMKIN: And that's because of the
11 restructuring of the portfolio, and making it more core
12 like and more income oriented. It's doing exactly what
13 you intended it to do.
14 COMMITTEE MEMBER MATHUR: Okay. But that's
15 changed from the interim in 2016? I mean, the assumption
16 looks quite a bit different just from six months ago.
17 MANAGING INVESTMENT DIRECTOR BAGGESEN: It just
18 basically -- the data that was being considered at the end
19 of 2016 was really return data. It was not necessarily on
20 a -- changing all of the assumptions --
21 COMMITTEE MEMBER MATHUR: Okay.
22 MANAGING INVESTMENT DIRECTOR BAGGESEN: In other
23 words, that wasn't a complete ALM exercise. So there
24 was -- it was really just return driven. So at that
25 point --

1 COMMITTEE MEMBER MATHUR: Okay. But some of the
2 other asset classes look like they had quite a bit of --
3 so maybe -- so in real assets, you didn't look at the
4 volatility so much in the interim, but in some of the
5 other asset classes you did?
6 MANAGING INVESTMENT DIRECTOR BAGGESEN: I think
7 what you're seeing in this chart, if I'm looking at the
8 same chart, is it chart number nine, Ms. Mathur?
9 COMMITTEE MEMBER MATHUR: That's the same chart
10 I'm looking at, yeah.
11 MANAGING INVESTMENT DIRECTOR BAGGESEN: Yes.
12 Basically, what you're seeing is that you've got
13 observations from the 2013 ALM exercise. Then you've got
14 basically the information for the current recommendation
15 that's there. And then in the middle of that, you have
16 information. And that middle information, it was
17 basically Wilshire's data, which may or may not have
18 coincided exactly with our benchmarks that we use.
19 COMMITTEE MEMBER MATHUR: I see.
20 MANAGING INVESTMENT DIRECTOR BAGGESEN: So these
21 were indicative. The work that Steve and the team at
22 Wilshire do, basically they've got their own
23 interpretation. So, for example, in the fixed income
24 world, they might have been looking at the ag relative to,
25 you know, our long liability benchmark or in the real

1 estate world, they could be looking at a more average real
2 estate exposure and contrast, a very much a core focused
3 thing.
4 COMMITTEE MEMBER MATHUR: I see --
5 MANAGING INVESTMENT DIRECTOR BAGGESEN: So I
6 think that, you know what we're doing is there's a little
7 bit --
8 COMMITTEE MEMBER MATHUR: -- so it's not that
9 meaningful.
10 MANAGING INVESTMENT DIRECTOR BAGGESEN:
11 -- there's a little bit Apples and oranges
12 attached to this.
13 COMMITTEE MEMBER MATHUR: Yeah. Okay. That's
14 helpful. Thank you.
15 CHAIRPERSON JONES: Okay. Mr. Lind.
16 COMMITTEE MEMBER LIND: Thank you.
17 First, I just wanted to thank Dianne and Eric for
18 the lengthy explanation of did process, which to one of my
19 earlier comments is a good example of why I majored in
20 history and not economics or math.
21 (Laughter.)
22 COMMITTEE MEMBER LIND: But here's why it's
23 important to get this explanation of the process and for
24 us to ask these questions is because it's -- it's
25 difficult. We, as the Board, have to make this decision.

1 And in your process, you had robust discussions, you got
2 the 80-page deck, you got all the data, you know, multiple
3 meetings, however long your process worked, and we've got
4 a 13-page distillation on which to act.
5 And it -- you know, so it's sort of difficult the
6 way the process works. And, you know, for us to say,
7 well, we like your capital market assumptions, but we
8 think we ought to change global equity from 6.8 to 6.9 or
9 to 7, that's kind of a -- you know, a difficult road to go
10 down, so we need to do the deep dive.
11 And J.J. always brings this up to his credit
12 about, okay, what were some of the dissenting voices, and
13 what did we not hear in the augments, because we need --
14 we need that kind of information to make this important
15 decision, which is sort of the foundation of all the other
16 decisions we're going to make over the next four or five
17 months. So I appreciate you taking the time to walk us
18 through it.
19 MR. FORESTI: Could I -- would it be okay if I
20 just touched on the process a little bit from our
21 perspective --
22 CHAIRPERSON JONES: Sure.
23 MR. FORESTI: -- at Wilshire?
24 So Steve Foresti from Wilshire. Because I think
25 understanding some of gaps in the assumptions and how

1 ultimately everyone in that room and that discussion
2 gained comfort with what the final results were was a
3 robust and open conversation. And what those ranges
4 imply, I think, is more of a disagreement than is actually
5 there.
6 And I think kind of in real time today you saw
7 evidence of that, where, you know, this seemingly outlier
8 on the high side in terms of the, you know, private equity
9 return. When we sat in that room and said, okay, let's --
10 you know, it wasn't that the lowest estimate and the
11 highest estimate capitulated and said, you know, let's
12 just go with the median, it was exploring why is that
13 number there, what's the underlying support, what's the
14 rationale, what drives it?
15 And in that conversation, you explore what the
16 building blocks were, how they led to it. Was it 20 years
17 versus a 10 year? And more often than not, we understood
18 that the differences where they were significant had more
19 to do with the understanding the way they were modeled,
20 that there were just some differentiations. You know, one
21 example today was 20 versus 10 years in the area of fixed
22 income. We customized, but we also needed to make
23 adjustments for what duration did, you know, one firm
24 assume versus another?
25 And in the end, those were the largest

1 differences in that distribution you see. It was not
2 this, you know, argument where one party felt like they
3 put their hands up. I don't want to speak for everybody
4 here, but I know, as we came out of those discussions, we
5 were all very comfortable that the process was robust, it
6 considered those outliers very carefully, and in the end
7 we just debated through the merits of one approach to
8 another.
9 And I guess more than anything the point I want
10 to make is there's much less disagreement than I think
11 those ranges imply. Those ranges have more to do with the
12 customization underneath those numbers. And once we
13 normalized around those understandings of the way the
14 assumptions should be built, not from the modeling
15 approach, but what they are meant to reflect from a
16 benchmarking or index approach, those differences narrowed
17 considerably.
18 CHAIRPERSON JONES: Thank you.
19 Ms. Taylor.
20 COMMITTEE MEMBER TAYLOR: Yes. Thank you.
21 I just want to make sure that I'm not confused,
22 which I am a little bit. So when I was looking at
23 Meketa's, it didn't say thinking about 20 years. So now
24 we're saying it was a 20-year outlook for your assumed --
25 your rates that you were looking at.

1 Okay. Which actually, you know, when you look at
2 it, we're a long-term investor, so that's -- the long-term
3 rate being higher is something we should, I think, take
4 into consideration as well, instead of just the 10-year
5 rate.
6 And then I wanted to -- and again, I don't
7 remember who said -- I should have written down who was
8 talking about it at the same time, but it seems like we
9 talk about, you know, the assumed capital market
10 assumption being too high. It can, you know, cause
11 portfolio problems et cetera, but it's -- also, if it's
12 too low, my thinking is then we're not able to -- we're
13 precluding any risk that we could be taking to gain those
14 ex -- I'm sorry, excess returns.
15 And I think it was Eric now that I think about
16 it. And you were talking about how we could be getting
17 excess returns, even if we assume it too low. But I think
18 based on what we did previously, when we looked at this
19 for our interim asset allocation, we actually took
20 ourselves out of that market and were not able to do that
21 as well, and we have lower returns because of that.
22 So I think it's a self-fulfilling prophecy, and I
23 said that earlier. So I'm concerned about adopting the
24 lower rate, especially a 10-year rate. But again, this is
25 my first time through this process, so I'm sort of feeling

1 my way through it, if anybody wants to comment on that.
2 CHIEF INVESTMENT OFFICER ELIOPOULOS: Sure. Let
3 me -- let me take a couple of those.
4 First of all, these are capital market
5 assumptions for a 10-year period. Investment Committee
6 sets the 10-year capital market assumptions. And then as
7 we -- we've been pointing out a few times today, the
8 actuary then take years 11 through 60.
9 So that -- the actuary's -- actuary's assumptions
10 will take the years 11 through 20, for instance, of
11 Meketa's projections for private equity.
12 COMMITTEE MEMBER TAYLOR: Right.
13 CHIEF INVESTMENT OFFICER ELIOPOULOS: So what we
14 don't want to do is double count that. In other words,
15 we'll set the 10-year numbers, which in the case of global
16 equity, the projects are right on top of each other.
17 Meketa's, others.
18 Years 11 through 60, the actuaries will see some
19 of that reversion to the mean and those return
20 expectations will be higher. So we definitely don't want
21 to double count that, and that's why --
22 COMMITTEE MEMBER TAYLOR: Right.
23 CHIEF INVESTMENT OFFICER ELIOPOULOS: -- the
24 discussions about methodology and truing-up making sure we
25 had as much apples to apples comparison amongst the

1 differences is very important.
2 So just to assure you on the long-term investor
3 side, this is the methodology we've used consistently for
4 decades here at CalPERS where the investment capital
5 market assumptions one through 10 years and then actuaries
6 look at the longer term. So I think from a methodology
7 standpoint, we're on very, very solid ground.
8 So we shouldn't -- even though we did a good job
9 of mixing that up just in the presentation the materials
10 to you, you shouldn't let it get mixed up in your mind, in
11 terms of 20-year and 10-year numbers. I think we're very
12 consistent on that.
13 COMMITTEE MEMBER TAYLOR: Well, yeah, because
14 I -- I don't think anywhere in -- yeah, in Meketa's
15 process does it say it was a 20-year return. So we were
16 assuming I think that PCA, Meketa, Wilshire were all the
17 same. So that's -- and it was actually 1.4 percent higher
18 than -- in global equity than --
19 CHIEF INVESTMENT OFFICER ELIOPOULOS: So that's
20 been cleared up now.
21 COMMITTEE MEMBER TAYLOR: Yeah.
22 CHIEF INVESTMENT OFFICER ELIOPOULOS: So I don't
23 think there's any real question on the global equity
24 return expectation. They've been pretty --
25 COMMITTEE MEMBER TAYLOR: Yeah, it was 6.7 at the

1 10 year.
2 CHIEF INVESTMENT OFFICER ELIOPOULOS: -- right on
3 top of each other. For what we're recommending, there
4 isn't a huge dispersion around that. Now, there is lots
5 of question, you know, around the precision of it.
6 They're just judgment calls. But in terms of what's
7 reasonably been put in front of the Committee from the
8 consensus standpoint, they're right on top of each other.
9 And then I think once you do that, the private
10 equity return is pretty consistent as an incremental 150,
11 157 basis points above, on a compound basis, which equates
12 to about 300 basis point on an arithmetic basis. So I
13 think what happens then once you -- I think Mr. Foresti
14 did a good job of explaining it. Once you take out some
15 of these methodological and other disparities, you have a
16 stack of return and volatility assumptions that make sense
17 to each other in terms of their relation to one another.
18 That's the recommendation in front of the
19 Committee. I think each Committee member has done a
20 really good job of burrowing in and, you know, looking at
21 I the --
22 COMMITTEE MEMBER TAYLOR: Oh, is somebody okay?
23 CHIEF INVESTMENT OFFICER ELIOPOULOS: No one
24 fainted -- looking at -- you know, probing for the
25 weaknesses and ranges of -- and the ranges of expectations

1 around this. But at the end of the day, it's very
2 important that the assumptions are built on, you know, a
3 sound basis. And I think what you're probing is you're
4 seeing the work that the team and your independent
5 consultants, because to Mr. Lind's point, the Board can't
6 devote as much time to this analysis, and that's why
7 you've hired an independent set of consultants to
8 represent you, the Board, as well as hiring professional
9 staff to go through this. And this is our best judgment.
10 And I think the spot to worry about the return
11 and risk implications of building a portfolio based on
12 these assumptions is comes in the next two or three steps,
13 and --
14 COMMITTEE MEMBER TAYLOR: So I'm overstepping
15 my --
16 CHIEF INVESTMENT OFFICER ELIOPOULOS: No, I
17 just --
18 COMMITTEE MEMBER TAYLOR: Or I'm quicker than
19 my --
20 CHIEF INVESTMENT OFFICER ELIOPOULOS: It is.
21 You're going -- I know you're -- there will be -- there
22 will be plenty of time to really debate these risk and
23 return trade-offs for the fund, but that comes next. I
24 think it's very important for this committee to set these
25 capital market assumptions, and then the next stages will

1 come where there will be robust debates. We heard some of
2 it break out here today during this conversation about how
3 much risk we should be taking or not.
4 But at least we won't be debating the return and
5 volatility assumptions that are -- that form the basis for
6 this. So I would just urge the Committee to take up the
7 recommendation and make a decision, so we can move forward
8 into the next steps where all of these viewpoints will be
9 taken into account.
10 COMMITTEE MEMBER TAYLOR: Thank you.
11 CHAIRPERSON JONES: Thank you.
12 Mr. Jelincic.
13 COMMITTEE MEMBER JELINCIC: First, an
14 observation. The guy who took the dive was one of the
15 actuaries.
16 (Laughter.)
17 COMMITTEE MEMBER JELINCIC: And I'm one of the
18 few people on the Board who's actually looked at the
19 actuary's model. And it's essentially a regression to the
20 mean, which says that over the long term, the rates are
21 going to yield the long term. But regressions work both
22 ways. And if we actually believe that the market is fully
23 valued at this point, or even overvalued, that regression
24 will lead to lower returns in the long term, but it is
25 what it is.

1 One of the questions I'd asked earlier, and I
2 think I drove Paul out of the room, was what's going on in
3 the food groups and the -- in real estate? You know, do
4 we expect, you know, one food -- hi, Jane -- one food
5 group to significantly outperform others or underperform
6 others? I mean, one of the interesting things having
7 spent some time in real estate is, you know, office
8 buildings are never the highest performing, but they're
9 also rarely the worst performing, so...
10 CHIEF INVESTMENT OFFICER ELIOPOULOS: So we have
11 Jane Delfendahl, Investment Director in our Real Assets
12 group. I'll just note Paul had a pre -- pre-arranged
13 medical appointment that he had to get to, so that's --
14 don't imply that he ran screaming from the room because he
15 didn't want to talk about apartment and offices, because
16 he loves talking apartments and offices.
17 COMMITTEE MEMBER JELINCIC: Fair enough, I was
18 being a little facetious.
19 (Laughter.)
20 CHIEF INVESTMENT OFFICER ELIOPOULOS: Yeah, I
21 know. So with that --
22 COMMITTEE MEMBER JELINCIC: But I guess that
23 doesn't always come through on transcripts, so I'm glad
24 you pointed it out.
25 CHIEF INVESTMENT OFFICER ELIOPOULOS: So with

1 that, Jane, maybe talk a little bit about it.
2 INVESTMENT DIRECTOR DELFENDAHL: Jane Delfendahl,
3 Investment Director in Real Assets.
4 Basically, we are expecting about 4 to 4.5
5 percent in the cap rates for all the food groups. Our
6 portfolio is very high quality, and it's become even
7 higher quality over the year and even the past year. So
8 we're expecting them all to hover around the same rate.
9 And as you probably know, we do the annual investment
10 process every year. And we just completed that, so we may
11 be above or below benchmark weight depending on that,
12 depending on where our current portfolio is, and where we
13 think things are going. But we're pretty much assuming
14 the same return, which is about 5.75 for all the sectors.
15 COMMITTEE MEMBER JELINCIC: Thank you.
16 CHAIRPERSON JONES: Okay. I want to just thank
17 the staff and the consultants for this robust discussion,
18 and taking a very, very complex issue and making it
19 understandable. So we appreciate all the work that you
20 do, and the presentation was very easily to follow, and we
21 appreciate that.
22 So this is an action item, but I see a couple of
23 more requests.
24 Ms. Yee.
25 COMMITTEE MEMBER YEE: Actually, I was just

1 prepared to make a motion --
2 CHAIRPERSON JONES: Okay. Please.
3 COMMITTEE MEMBER YEE: -- but I wanted to thank
4 the staff first and certainly my fellow Committee members
5 from this really great robust discussion. And as I
6 understand the -- our action today will then guide the
7 development of the portfolio. So we'll come back in
8 November, at which time we will have another opportunity
9 to look at any other adjustments, if necessary, at that
10 point in time.
11 So with that, Mr. Chairman, I'd like to make a
12 motion to adopt the capital market assumptions as
13 presented.
14 CHAIRPERSON JONES: Okay. Moved by Ms. Yee.
15 COMMITTEE MEMBER HOLLINGER: Second.
16 CHAIRPERSON JONES: Second by Ms. Hollinger.
17 Okay. Thank you very much.
18 And now, we will move to the next item.
19 COMMITTEE MEMBER HOLLINGER: We have to vote.
20 (Laughter.)
21 CHAIRPERSON JONES: I'm sorry. Okay. Your
22 comment, you're -- on the motion?
23 COMMITTEE MEMBER JELINCIC: It's on the motion.
24 CHAIRPERSON JONES: Okay. We have a first and a
25 second.

1 Discussion?
2 Mr. Jelincic
3 COMMITTEE MEMBER JELINCIC: Yeah, I thoroughly
4 expect the mowing to pass. I am concerned about global
5 equity just as an aggregate, not looking at the various
6 components and -- and based on -- you know, the 3/8ths of
7 an inch bathtub number may be right, but I'm not sure that
8 it is something I'm comfortable with. But other than
9 that, I -- they're at least all reasonable.
10 CHAIRPERSON JONES: Thank you, Mr. Jelincic.
11 COMMITTEE MEMBER JELINCIC: Wrong, but
12 reasonable.
13 (Laughter.)
14 CHAIRPERSON JONES: I don't know. I take back my
15 thank you.
16 (Laughter.)
17 CHAIRPERSON JONES: The motion is on the floor.
18 All those in favor say aye?
19 (Ayes.)
20 CHAIRPERSON JONES: Opposed?
21 (No.)
22 CHAIRPERSON JONES: One. Record Mr. Jelincic as
23 a no.
24 Thank you very much. And again, thank you for
25 your work.

1 CHAIRPERSON JONES: Okay. We now will move to
2 Item 6, Investment Manager Engagement Program Update.
3 (Thereupon an overhead presentation was
4 presented as follows.)
5 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
6 Good morning, Mr. Chairman. Wylie Tollette,
7 Investment Office team member. I'd like to introduce
8 Clint Stevenson and Diego Carrillo from my Investment
9 Manager Engagement Program team.
10 Clint and Diego will be covering several items.
11 First, an update on our Emerging and Transition Managers
12 Plan, second an update on our External Manager Engagement
13 Initiative, and last, Clint will be introducing the 2016
14 CalPERS for California Report, that the IMEP team helps
15 coordinate. So with that, I'll turn it over to Clint and
16 Diego.
17 CHAIRPERSON JONES: Just a point, Mr. Tollette.
18 We do have a request to speak on 6a. So when we complete
19 that, we need to take pause for a moment to allow for
20 public comment. Okay. Thank you.
21 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
22 Excellent.
23 INVESTMENT DIRECTOR STEVENSON: All right.
24 Thanks, Wylie. Clinton Stevenson, CalPERS Investment
25 Director.

1 --o0o--

2 INVESTMENT DIRECTOR STEVENSON: I'm pleased to
3 provide an update on the Investment Manager Engagement
4 Programs. The programs are composed of the five
5 components on this slide, page two.

6 My colleague Diego Carrillo and I will take --
7 will address the first two this morning. We will talk
8 about the California Initiative next in Item 6b. We're
9 scheduled to discuss the Diversity and Inclusion
10 Initiatives in September. And Carrie Douglas-Fong on my
11 staff will discuss that. And then I guess we'll do the
12 labor relations and the Responsible Contractor Programs in
13 December.

14 --o0o--

15 INVESTMENT DIRECTOR STEVENSON: So you may recall
16 that Laurie Weir gave an update on the Targeted Investment
17 Programs in December of 2016. That Targeted Investment
18 Programs have evolved in what we're now calling the
19 Investment Manager Engagement Programs, or IMEP.

20 It's an independent group to evaluate all of the
21 asset classes. The ultimate goal of the program is to
22 work with the asset classes and the program areas staff to
23 ensure consistency, to ensure transparency --

24 --o0o--

25 INVESTMENT DIRECTOR STEVENSON: -- and ensure

1 accountability in all asset classes. So let's start with
2 the first of the five programs, Emerging and Transition
3 Manager Programs. That's on slide 4.
4 So this is the fifth and final year of the
5 CalPERS Emerging Manager five-year plan. It concludes
6 this month. Staff completed all of the objectives laid
7 out in the original workstream for our Emerging Manager
8 Programs. The significant accomplishments, including --
9 included a restructuring of the Global Equity Manager
10 Program, and the establishment of a Transition Manager
11 Program for firms that have grown beyond the definition of
12 emerging managers to -- but not quite reached the level of
13 an established manager.
14 We've got over $7 billion invested with 265
15 emerging managers. That's a major commitment, and an
16 important part of our portfolio.
17 The new Emerging and Transition Manager 2020
18 Plan, as outlined on slide 5, was developed in partnership
19 with the participating asset classes. It will focus on
20 six key initiatives listed here, and it's intended to
21 maintain CalPERS leadership in this space. Many of these
22 are the same workstreams that were established in the
23 original five year plan. In addition, we're preparing for
24 a transition manager solicitation in both global equity
25 and private equity that's set for this July. We'll do

1 real estate after real estate has done their segment
2 planning and identified portfolio needs.
3 One of the things we want to do is to leverage
4 our relationships with our emerging and transition
5 managers. We want to share more information. They can
6 learn from us, we can learn from them. And we will
7 continue to -- our efforts to communicate with emerging
8 transition and diverse managers and other interested
9 stakeholders.
10 Diego and I just got back from New York just last
11 week, where we were meeting with managers, meeting with --
12 and telling -- telling our story.
13 --o0o--
14 INVESTMENT DIRECTOR STEVENSON: Slide 6 is a
15 snapshot of our current emerging manager structures,
16 strategies, and definitions. As I said, it's impressive,
17 $7 billion. But this understates the impact of this
18 program. They're echo effects.
19 For example, one of our investment partners tells
20 us that they met firms that are emerging, transition, and
21 diverse manager day, that they subsequently hired for
22 their other -- for their other programs.
23 So it's much larger than this slide indicates.
24 And what our hope is that through our efforts, we'll set
25 an example for others, not only public plans, but also

1 foundations that are beginning to look at this space and
2 corporations that will turn to us to see how to make
3 progress here.
4 So my title is Investment Director of the
5 Investment Manager Engagement Programs. But it will be my
6 role as a fisherman casting a wider net to make sure that
7 we're partnering with the very best investment managers we
8 can. That's what we were doing with the Diversity Forum
9 last May, casting a net to try to understand the
10 impediments that women and others face as they make their
11 progress through the investment management industry.
12 That's what we will be doing with the emerging
13 transition and diverse manager day in October, casting a
14 wider net to try to find those overlooks new or smaller
15 managers that can add alpha, and delivery retirement
16 benefits to our 1.8 million members and their
17 beneficiaries.
18 And that's what we'll be doing with the
19 transition manager solicitation in July, casting a net to
20 find firms that are ready to move up from emerging manager
21 to the next rung.
22 So we remain committed to the emerging manager
23 space, and we think it's a important component of the
24 external manager ecosystem. And so to talk about that
25 ecosystem, let me introduce my colleague Diego Carrillo to

1 discuss how we plan to go about selecting the best from
2 the net.
3 --o0o--
4 CHAIRPERSON JONES: Mic. Your mic.
5 INVESTMENT MANAGER CARRILLO: Oh, sorry. Rookie
6 mistake.
7 (Laughter.)
8 INVESTMENT MANAGER CARRILLO: Diego Carrillo,
9 Investment Manager, CalPERS team member.
10 The next portion of the presentation will focus
11 on, what we call, the External Manager Monitoring and
12 Evaluation Program.
13 At the December Investment Committee meeting, I
14 introduced our business plan for the fiscal year, and the
15 overarching programs goals. Our work directly supports
16 the strategic objectives of the enterprise and the
17 Investment Office. Program goals include reducing risk,
18 cost, and complexity; improving external manager
19 monitoring tools and capabilities; developing a deeper
20 understanding of our external managers; and implementing a
21 simple and sensible centralized technology support
22 framework.
23 Since December, our progress includes
24 understanding how asset classes currently monitor and
25 evaluate external managers, understanding current tools

1 and capabilities related to customer relationship
2 management, contact management, and investment research;
3 and meeting with market participants to better understand
4 industry best practices, documenting findings of internal
5 and external outreach efforts including current successes
6 and strengths, and drivers of increased risk, cost, and
7 complexity; and lastly, developing a technology solution
8 model.

9 --o0o--

10 INVESTMENT MANAGER CARRILLO: Ultimately, the
11 Investment Manager Engagement Program is working in tandem
12 with key stakeholders, including executive and asset class
13 staff, external managers and peer organizations to develop
14 and implement the following initiatives:

15 To provide a holistic view of external manager
16 ecosystems; evaluate external managers independent of the
17 asset classes; ensure CalPERS forges aligned relationships
18 with its external managers; and built partnerships that
19 lead to greater and more effective information sharing.

20 Working in partnership with asset classes is
21 fundamental to this project, and is critical to its
22 success. I want to thank asset class staff for the
23 continued team work and leadership on this project. I
24 look forward to presenting my progress at future
25 Investment Committee meetings.

1 This concludes my portion of the presentation.
2 I'm happy to answer any questions you may have.
3 CHAIRPERSON JONES: Okay. We have Mr. Bilbrey.
4 COMMITTEE MEMBER BILBREY: Can you tell me how
5 many external managers have moved out of that class over
6 -- since the inception of this program -- have moved out
7 and then have moved into our regular investment portfolio?
8 INVESTMENT DIRECTOR STEVENSON: Well, I was --
9 we've had some wonderful successes. One of our, one of
10 our global equity managers would have been characterized
11 as an emerging manager, and they've gone and -- one of our
12 most valued relationships. But in terms of the exact
13 number?
14 CHIEF INVESTMENT OFFICER ELIOPOULOS: Yeah, let
15 me -- let me jump in and help. It's definitely hard when
16 you're just starting for some of that --
17 (Laughter.)
18 CHIEF INVESTMENT OFFICER ELIOPOULOS: -- some of
19 that history. We don't have as much data looking back
20 over the last 20 years, in the sense that we did not have
21 the formal definitions of our -- of what an emerging
22 manager is. We didn't identify specific Emerging Manager
23 Programs, whether it was in global equity or private
24 equity or real estate over time.
25 So the answer to your question is more anecdotal.

1 Over time, we know lots of successes within the global
2 equity portfolio, lots of successes within private equity.
3 Many of the established managers we have today, including
4 even a firm like Blackstone, was once an merging manager.
5 And, in fact, BlackRock was a portfolio company
6 within an emerging manager at that point in time. So it
7 gives you a sense of the extents of -- extent of scaling
8 that can happen over time.
9 One of the main reasons to formalize our Emerging
10 Manager Program and to create an independent team to help
11 assess, and track, and quantify this choreography, this
12 ecosystem that Clint and Diego described is to have better
13 data to see how -- how are we doing in finding the new and
14 next generation manager and Emerging Manager Program, how
15 many out of that very -- those very specific and defined
16 Emerging Manager Programs have graduated into the
17 transition program, and we're just starting with that now.
18 And then how many of those emerging managers and
19 transition managers graduated to establish.
20 That's what we'll be tracking quite explicitly in
21 this five year plan, so that as we assess how we're doing
22 over the next of this five years, the next 10 years, the
23 next 20 years, we'll have more systematic analysis and
24 information to provide you, rather than the anecdotal
25 information, I, and Laurie Weir, and now Clint and Diego

1 have been provided in the past.
2 COMMITTEE MEMBER BILBREY: Very good. And we'll
3 also see from your year what the increase of managers are,
4 as well as in that tracking?
5 CHIEF INVESTMENT OFFICER ELIOPOULOS: That's
6 correct.
7 COMMITTEE MEMBER BILBREY: Great. Perfect.
8 Thank you.
9 VICE CHAIRPERSON SLATON: You can continue.
10 CHAIRPERSON JONES: Are they finished?
11 Okay.
12 INVESTMENT DIRECTOR STEVENSON: I think -- I
13 don't -- that concludes our presentation on this. Did you
14 want to move to the --
15 CHAIRPERSON JONES: Okay. Yeah, we do have a
16 request for public speakers on this item. So if Janet
17 Cox, Sheila Thorne, and Michael Ring, if you can come down
18 to the -- my left side of the dais, and introduce
19 yourself, and we will allow -- allow you three minutes to
20 make your comments.
21 And welcome to the Investment Committee meeting.
22 MS. COX: Thank you, Mr. Chair and Board members.
23 I'm Janet Cox. I'm a CalPERS retiree. And I'm working
24 with Fossil Free California.
25 Thank you for taking this comment. We were

1 having a discussion earlier trying to figure out when we
2 could fit this question into the agenda. And I'm afraid
3 this is kind of an interruption and I apologize for that.
4 But what I'd like to know is what the Board is
5 going to do about compliance with SB 185, and divestment
6 from thermal coal? I think that you took this up in
7 executive session, but the public, and the legislature,
8 and everyone else who watches CalPERS needs to know what
9 you're deciding to do about the divestment deadline, which
10 is July 1st of this year. So this is just a request that
11 you let us know.
12 Thank you.
13 CHAIRPERSON JONES: Okay. Thank you for your
14 comments.
15 MS. THORNE: I'm Sheila Thorne. And I'm a PERS
16 member -- retired member of PERS. And I want to thank you
17 for all the great work you do in providing me my benefits.
18 But I'm also very concerned about whatever
19 investments you may still have in thermal coal. I'm a
20 grandmother, and I think a lot about the future of
21 my -- of those children and all generations of the future.
22 And unless we reduce our carbon footprint, the future is
23 disastrous.
24 So I think that completely divesting from coal is
25 not only the moral thing to do, but it also is the

1 fiscally responsible thing to do. Goldman Sachs predicted
2 2015 that coal will decline and never come back. And now
3 BP statistical review of world energy reveals that global
4 demand for coal has fallen for the second year in a row.
5 And everybody predict it's going the continue to
6 tall. And clearly, the future lies not in fossil fuels,
7 but in renewable energy, and investments should invest in
8 the future.
9 Thank you.
10 CHAIRPERSON JONES: Thank you very much.
11 MR. RING: Good morning to the Committee -- or
12 afternoon, I guess, we're at -- Michael Ring, Service
13 Employees International Union. Just real quick on this
14 agenda item. As this committee know, our national and
15 local leadership launched an initiative in 2015 calling
16 for invert -- an increased diversity inside the financial
17 industry, as -- in particular, inside the public pension
18 fund world where we have so many members who are
19 beneficiaries, and with a focus because of our union's
20 commitment to racial justice, on specifically lifting up
21 the opportunities for people of more diverse, ethnic, and
22 racial backgrounds in the industry.
23 And so in that context, just three comments, and
24 then a summary comment. One is think we've seen that
25 studies have shown that this is not only the right thing

1 to do, from a social justice point of view, which is where
2 SEIU enters into this world, but also specifically it
3 provides better returns.
4 And I think McKinsey and others have provided
5 excellent date that help us see that diversifying is a
6 really important process, and you earning the returns the
7 beneficiaries need.
8 Secondly, I just, again, as I reiterated last
9 month, I wanted to thank CalPERS and CalSTRS for your
10 leadership expressed specifically at the Forum in May. I
11 thought it was a terrific event, and our leaders much
12 appreciated the work that you did there, and in particular
13 your staff did to pull that together.
14 And third, I want to specifically offer our
15 organization's support for the ideas that are laid out,
16 and that Diego and Clinton just went through on page 11.
17 We support the continued monitoring of managers and
18 finding the best managers, and to use Clinton's own words,
19 the fishing process that's going on to find excellence.
20 We support the solicitation process to open up
21 this new and exciting Transition Manager Program, which we
22 think is critical to expanding your work in this area and
23 are excited to see. We, of course, support the
24 integration of the manager expectations and the ESG
25 factors into your overall Investment Manager Engagement

1 Program, as you're doing throughout your portfolio.
2 And finally, it was great to see the 2020 plan,
3 and we look forward to your support in executing the plan.
4 So thank you very much.
5 CHAIRPERSON JONES: Okay. Thank you, Mr. Ring,
6 and thank you for your continued support of these
7 initiatives.
8 We have a couple of comments.
9 Ms. Mathur.
10 COMMITTEE MEMBER MATHUR: Thank you.
11 Yeah, I just wanted to add my voice that how much
12 I appreciate this program. I think it is -- it really
13 does add value both to CalPERS, but also to the market, as
14 a whole. And, I'm sorry, I know you all sat back --
15 (Laughter.)
16 CHIEF INVESTMENT OFFICER ELIOPOULOS: We're
17 getting used to this choreography.
18 COMMITTEE MEMBER MATHUR: But -- and I'm not --
19 I'm not going to ask any questions you're going to have to
20 respond to, but I just -- I do think this is important
21 work. It helps to build the investment marketplace in a
22 more robust way that will help us as a -- you know, as a
23 long-term universal owner of companies and a long-term
24 universal investor. It's important to us that the
25 investors of tomorrow be developed. And so I think this

1 is really an essential piece of that, and -- and -- so
2 anyway, I appreciate all the work that you, Clint, and
3 also Diego are doing, and your whole teams in support of
4 this -- these important programs.
5 So I look forward to seeing what the 2020 plan
6 brings. There's a lot -- lot more to be done.
7 Thank you.
8 CHAIRPERSON JONES: Okay. Mrs. Taylor.
9 COMMITTEE MEMBER TAYLOR: So I'm going to sound
10 like a parrot here, but I want to echo my colleague's
11 thoughts here. And I want to thank Mr. Stevenson and Mr.
12 Carrillo for a great presentation as well, as -- what was
13 it Mr. Carrillo called himself a rookie, it was good to
14 see you up here.
15 And then also I'm just very excited to see us
16 moving forward and the 2020 program moving forward. I'm
17 very excited about that program, but I'm also -- I'm so
18 happy that we've really invested so much time and energy,
19 and the work that we've done for the Emerging Manager
20 Program, because I do think it adds value to CalPERS. And
21 I think it gives us the ability to be developing new
22 managers that will be great managers for us.
23 Thank you.
24 CHAIRPERSON JONES: Okay. Ms. Yee.
25 COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.

1 I also want to thank the staff. And I guess one of the
2 elements that I'd like to see maybe come back on a regular
3 basis, since we're streamlining the program, but also very
4 sensitive to costs, is some tracking of cost savings that
5 would result from reduced fees or reduced staff resources
6 devoted to the program over time. So if I could make that
7 request.
8 And then I just had a question with respect to
9 the private equity emerging managers, whether we're
10 anticipating any, I guess, further streamlining of that
11 segment, because there are numerous emerging managers
12 there.
13 And any thoughts there?
14 CHIEF INVESTMENT OFFICER ELIOPOULOS: I think
15 first on the reporting on costs and performance of this
16 program.
17 COMMITTEE MEMBER YEE: Yes.
18 CHIEF INVESTMENT OFFICER ELIOPOULOS: Yes, that
19 will be coming back on a, you know, a regular basis, and
20 at some intervals as well, the diversity of managers in
21 this program and in our established base as well. So that
22 you will continue to see. I just want to assure you that
23 that would come.
24 In private equity, and -- in private equity, I'll
25 start there, we are streamlining managers. So across the

1 established manager base and our current roster of
2 emerging managers, we'll see fewer managers going forward
3 from, I'll call it our -- the legacy portion of our
4 portfolio, what we have invested today. We are going to
5 have less managers in the future than we've had in the
6 past.
7 What page -- what page six, from the Emerging
8 Manager Program summary -- I don't -- I guess we don't
9 have it up here now. But the basics of the Emerging
10 Manager and Transition Plan for private equity, as well as
11 global equity and real assets is a very substantial
12 investment going forward over the next five years. So
13 we'll also be increasing.
14 So I guess the simple answer is, we will -- as
15 your question underscored, we will be seeing fewer
16 emerging managers from our legacy portfolio, and we'll be
17 seeing additions as part of this five year plan to
18 emerging managers and transition managers over the next
19 five years.
20 COMMITTEE MEMBER YEE: Okay. Great. And then I
21 was happy to hear Mr. Ring bring up the issue of manager
22 expectations as it relates to ESG integration. How long
23 do you expect the roll-out of that to take place and then
24 kind of the whole evaluation aspect of effectiveness of
25 that?

1 CHIEF INVESTMENT OFFICER ELIOPOULOS: I'll take
2 the first piece of that. It is a core part of our five
3 year strategic plan.
4 COMMITTEE MEMBER YEE: Yeah.
5 CHIEF INVESTMENT OFFICER ELIOPOULOS: So five
6 years for the roll-out. And then I expect it to be an
7 always-evolving area. There's never going to be a point
8 where we have concluded the perfect way to integrate ESG
9 factors into investment decision making. And so that's
10 why having teams devoted to making sure that our process
11 is looking at these factors, and our decision making is so
12 important, because I don't think there ever will be -- I
13 think it's 100 years. I guess, it's 100 years or more we
14 will be integrating this work into the overall work of
15 investment.
16 COMMITTEE MEMBER YEE: Okay. And then the --
17 finally just a question. Obviously, this is a -- I guess,
18 a major -- I guess it's a refinement to the program, but
19 what's been the reaction from aspiring emerging managers
20 with respect to the revised program, any feedback?
21 CHIEF INVESTMENT OFFICER ELIOPOULOS: I think --
22 and again, I'll pause for sure if Clint and Diego want to
23 add to that. I think there's quite a bit of excitement
24 for the announced plans for all three asset classes,
25 global equity, private equity, and real assets, in

1 particular the transition program as well. It's a
2 significant amount of capital. So I think that provides,
3 you know, support and excitement for the strategy we've
4 laid out.
5 There is some concern that's been expressed over
6 time that limiting the number of overall external managers
7 that we have to about 100, as we've discussed many -- you
8 know times, you know, could have an impact on some
9 managers. But we think that's what's in the best interest
10 of CalPERS. So I don't -- there's excitement for what
11 we're doing, but there's also tempered by some concern
12 over the concentration of capital into fewer managers'
13 hands.
14 And then the last piece is timing. How -- you
15 know what's the timing of deploying this capital? And
16 there, CalPERS is never -- you know wins the race in terms
17 of speed. So we're very deliberate. And that's something
18 I've asked Clint and Diego to look at in terms of our
19 processes and how our asset classes are deploying the
20 capital, is our process efficient, and is it working in a
21 way that will deploy this capital over this time period in
22 the ways that we hoped for, not that we guaranteed, but
23 that we hoped for?
24 And I think that's what we'll be reviewing as a
25 team and as a Committee, how is the progress against this

1 plan year in, year out?
2 COMMITTEE MEMBER YEE: All right.
3 INVESTMENT DIRECTOR STEVENSON: Trustee Yee, I'd
4 have to confess that it is not going unnoticed that the
5 number of -- amount of dollars devoted to this space is
6 not the same as the amount of dollars devoted to this
7 space a number of years ago.
8 One of our challenges is to make sure that the
9 community understands that we really are committed to this
10 space, and that we really are looking for the best
11 managers to partner with, and that there is no barrier to
12 getting into here, if you're good at what you do.
13 COMMITTEE MEMBER YEE: Thank you.
14 CHAIRPERSON JONES: Mr. Jelincic.
15 COMMITTEE MEMBER JELINCIC: Yeah. You called out
16 funds of funds, particularly I private equity and said
17 we've got 236 managers within that. In real estate, we
18 don't use fund of funds, if I'm correct. We just have the
19 Capital Canyon Program, and they've got like five
20 managers. Do we use fund of funds in any of the other
21 asset classes, and if so, how many?
22 We don't.
23 CHIEF INVESTMENT OFFICER ELIOPOULOS: No, we
24 don't.
25 COMMITTEE MEMBER JELINCIC: Okay. Then you don't

1 have to answer the second question on how many people we
2 have in it.
3 Thank you.
4 CHAIRPERSON JONES: Okay. Ms. Mathur.
5 COMMITTEE MEMBER MATHUR: Yeah, I'm sorry. Your
6 answer has triggered another question for me, about how --
7 you know, we were talking earlier about capital market
8 assumptions and our asset allocation process. And one of
9 the things you raised is that we might have to reduce our
10 allocation to private equity, that the constraint might be
11 lower.
12 To what extent is that driven by our reduction in
13 managers, and increasing the number of manage -- would
14 increasing the number of managers allow us to have a
15 higher allocation?
16 CHIEF INVESTMENT OFFICER ELIOPOULOS: And that is
17 the -- that's the conundrum with private equity,
18 especially at our scale. Yes, it would allow us to deploy
19 more capital. We would also, you know, increase the pool
20 of managers that we would have to access. And it's
21 difficult enough to try and, you know, select the top
22 performing external managers. I'm not talking about the
23 Emerging Manager Program now. I'm over the entirety of
24 the program as it is. So increasing the number brings
25 some challenges, in terms of identifying the top

1 performing managers, and also with our monitoring of those
2 managers.
3 But the true -- the true conundrum is that if you
4 select all of the managers, or, you know, a great number
5 of managers, the more likely you are to get the index
6 return of private equity.
7 COMMITTEE MEMBER MATHUR: Sure.
8 CHIEF INVESTMENT OFFICER ELIOPOULOS: And that we
9 have seen would not be worth the effort -- all the efforts
10 to invest in private equity would not be worth it if we
11 get the index return of the average of private equity
12 investors. You need to outperform and have higher
13 performing managers.
14 COMMITTEE MEMBER MATHUR: Right, and I totally --
15 I totally get that. I guess there's two things. There's
16 size, and then there's performance. And it's not true
17 that only the biggest are the best performers. So
18 concentrating with the biggest, which is what our strategy
19 sort of is doing, does reduce risk in certain ways
20 obviously, because the monitoring is simpler and there's
21 less falling through the cracks, fewer managers to
22 oversee, and monitor
23 But it does -- but it -- but it's not giving us
24 access to all -- the entire universe of top performers,
25 because there are some smaller top performers. So I guess

1 I would -- if you are going to bring back a lower
2 allocation, I would ask that you really seriously consider
3 what an expansion program would look like, not going all
4 the way down to 100, but having some next tier of size in
5 terms of managers, would look like, and what resource
6 requirements that would entail for the Committee to
7 consider, particularly given private equity's unique role
8 as really the driver of returns to get us to our target
9 rate of return.
10 CHIEF INVESTMENT OFFICER ELIOPOULOS: I think
11 this will be a part of the conversation for sure in
12 looking at alternative business models. And you know one
13 of the difficulties is that -- and what we've seen in
14 terms of dispersion of returns is particularly high, the
15 smaller and newer the manager is in private equity. So we
16 take all that into consideration. But yes, you'll see
17 lots -- lots of this information brought to you.
18 COMMITTEE MEMBER MATHUR: Thank you.
19 CHAIRPERSON JONES: Okay. We had -- I thought we
20 weren't going to have any further questions, so my
21 schedule is changing before my eyes, because we had K&L
22 gets our federal representative was going to be on a call
23 and they had a time certain to stop.
24 So before we move into the second part of 6,
25 meaning 6B on the California Report, I'm going to move the

1 item of federal investment policy representative update to
2 right now, and then we will return to 6b.
3 MR. CROWLEY: Hello.
4 CHAIRPERSON JONES: Okay. Hello. You're on in
5 the auditorium. And this is the Investment Committee
6 Meeting. And Brad will be starting off this item -- this
7 agenda item.
8 DEPUTY EXECUTIVE OFFICER PACHECO: Mr. Chair,
9 members of the Committee, Brad Pacheco, CalPERS team. At
10 the beginning of June, I was given the opportunity and the
11 pleasure to begin working with our Legislative Affairs
12 Division. So I'm joined by Mary Anne Ashley our Chief,
13 and also Gretchen Zeagler our Assistant Chief over federal
14 legislation
15 Today, we're going to hear an oral report from
16 Dan Crowley with K&L Gates, around our activities at the
17 federal level. And specifically Mr. Crowley is going to
18 devote some time to our engagement efforts on the
19 Financial CHOICE Act, which is very important to us. This
20 includes some visits that we did in late May with Dan
21 Bienvenue from our Investment Office, and also last week
22 with Mr. Jones and Gretchen Zeagler and James Andrus.
23 So with that, I'd like turn the floor over to Mr.
24 Crowley.
25 MR. CROWLEY: Well, thank you very much. Can you

1 hear me?
2 CHAIRPERSON JONES: Yes.
3 MR. CROWLEY: Okay. Thank you. Well, to start
4 off with, I should say that I think we've made very good
5 progress on the objectives we discussed at the Board
6 off-site in January. And, in particular, we've started
7 the process of having senior CalPERS officials come to
8 Washington specifically for the purpose of engaging with
9 policymakers on issues of importance to CalPERS.
10 As Ted mentioned, Financial CHOICE Act is sort of
11 top of the list. It has now passed the House of
12 Representatives. We do not expect it to be considered in
13 the Senate, although it is sort of a reference point now,
14 along with a series of reports that are going to be issued
15 by the Treasury Department. The first one came out last
16 week having to do with banks and orderly liquidation
17 authority and that sort of thing.
18 We expect three more reports that are going to
19 come out on different areas, capital markets, et cetera,
20 that will be probably closer to the center, if you will,
21 from the Financial CHOICE Act. And both pieces, the
22 treasury reports and the FCA will inform Senate
23 deliberations. But both the chairman and the ranking
24 member of Senate Banking Committee have made clear that
25 they intend to identify areas where there's bipartisan

1 agreement.
2 And so it is in that context that we had, I
3 think, several days of successful meetings starting with
4 Dan Bienvenue on May 22nd and 23rd. We had, I think, very
5 constructive meetings on a bipartisan basis on both sides
6 of the Capitol House and Senate, Democrats and
7 Republicans, as well as at the SEC with the investor
8 advocate. And the theme of those meetings was primarily
9 Financial CHOICE Act related and expressing specific
10 concerns that CalPERS has about SEC procedures and lack of
11 adequate funding, the role -- the important role of proxy
12 advisors and the regulation of proxy advisory firms, the
13 need to maintain transparency with respect to private
14 equity, and the like. All of the things that we've been
15 commenting to the House Financial Services Committee on
16 for the last year or so.
17 That was followed up, you know, June 13th and
18 14th by the Investment Committee Chairman Henry Jones.
19 And I should say that Gretchen Zeagler has played an
20 important role in all of these meetings. And with respect
21 to Mr. Jones meetings, James Andrus also participated.
22 And those were also, I think, very constructive bipartisan
23 meetings on both sides of the Hill.
24 And interestingly, we had an opportunity to flesh
25 out some of the other issues we discussed at the Board

1 off-site, and, in particular, the problem that is created
2 by the lack of IPOs, and the -- what can be done as
3 Congress and the regulators begin to consider capital
4 markets issues to encourage more companies to go public.
5 And while CalPERS certainly is able to invest in private
6 equity, and is less concerned about investment options as
7 a retail investor might be, it is also the case that
8 CalPERS is very active on corporate governance issues.
9 And obviously, there's much more of a role for investors
10 to play once a company is public in terms of voting the
11 shares and providing input on board matters and that sort
12 of thing.
13 But this theme again that we discussed in January
14 is, I think, going to be one that CalPERS is very well
15 positioned to be in an opinion leader on over the next --
16 certainly through the rest of this year, and probably
17 through the rest of this Congress.
18 I think it's important to note that Anne Simpson
19 is on the SEC Investor Advisory Committee, which will also
20 be taking up these capital market issues, again with an
21 eye toward encouraging more IPOs. Your General Counsel,
22 of course, is the Board of the Council of Institutional
23 Investors, which is also going to be engaged on those
24 issues.
25 So again, I think CalPERS is very well positioned

1 on -- in a very broad set of policy issues relating to
2 both regulation of financial markets and encouraging the
3 capital formation process.
4 So let with me stop there. I'd be happy to take
5 any questions.
6 CHAIRPERSON JONES: Okay. Mr. Jelincic.
7 COMMITTEE MEMBER JELINCIC: Hi. You -- in your
8 report, you referred to the SEC funding and the
9 elimination of the SEC reserve fund that's in the
10 President's budget. What's your reading of the tea leaves
11 on our success in getting the SEC adequately funded?
12 MR. CROWLEY: Well, Mr. Jelincic, I'd be tempted
13 to tell you that that's a significant uphill climb, so
14 that we can declare victory down the road. But the
15 reality is that this is a perennial fight, and in many
16 ways, is a -- is Kabuki theater. We know how it's going
17 to turnout, but we have to watch the rest of the play
18 anyway.
19 The SEC is one of the very few self-funding
20 regulatory agencies in Washington. Section 31 of the '34
21 Act provides that for every equity's trade there's a very
22 small fee that is collected and sent to the general fund
23 of the treasury. On an annual basis, those funds are
24 subject to appropriations to fund the SEC. And so as a
25 practical matter, the SEC is a self-funding agency,

1 albeit, subject to the congressional appropriations
2 process.
3 So I think a lot of these, you know, whether it's
4 the President's budget, or the Financial CHOICE Act, or
5 other people who talk about trying to restrict the SEC, at
6 the end of the day, those efforts invariably fail. And
7 the SEC has had consistent, sustained funding at or above
8 the previous year, as long as I've been engaged in this
9 process.
10 So a very good question. I think, you know, the
11 threat is relatively de minimis, particularly now that Jay
12 Clayton has been confirmed as Chairman and he will
13 undoubtedly advocate for full funding.
14 COMMITTEE MEMBER JELINCIC: Okay. And you also
15 referred to the CFTC Request for Information about making
16 regs simpler, less burdensome, and less costly. One of
17 the things that I do not see on that list is making them
18 more useful. Is there any discussion about making them
19 actually more useful for investors?
20 MR. CROWLEY: Well, I don't know that it's
21 explicit. You know, we clearly have covered a lot of
22 ground and had significant input in that area over the
23 last seven or eight years. And I'm thinking in particular
24 about CalPERS hard work on what became Title 7 of
25 Dodd-Frank, the new regulatory regime for over-the-counter

1 derivatives.
2 And most of those regulations are finalized in
3 place. Importantly, they -- you know, limited
4 counterparty risk required central clearing, limited
5 margins, and that sort of thing, the amount of leverage.
6 And so I think the system is inherently better off today
7 than it was in 2008, 2009.
8 I think what Chairman Giancarlo was trying to get
9 at there is the ongoing struggle having to do with
10 coordination with international regulators, the
11 cross-border issues, different regulatory regimes in
12 Europe and in the U.S. And, of course, he has to continue
13 to engage with his counterparts in Europe, and now the UK,
14 in the wake of Brexit, to make sure that not only is the
15 U.S. regulatory regime with respect to derivatives as
16 robust as it can be, and quite frankly as user friendly,
17 but that it is coordinated with the international
18 regulators to address some of these cross-border issues.
19 It's very interesting though that it is, to my
20 mind, similar to the recent request for comment issued by
21 the SEC Chairman on the question of fiduciary duties. In
22 both cases, they were simply invitations to be informed
23 rather than a formal rulemaking process with a proposal
24 submitted soliciting comment that would then turn into a
25 rule.

1 So both with respect to the CFTC, RFI, and the
2 SEC request for comment, I think there are genuine efforts
3 to solicit information pre-rulemaking. And the question
4 in my mind is does that eventually lead to rulemaking?
5 I think with respect to the SEC and the whole
6 question of fiduciary duties, the answer to that question
7 is probably yes, and probably in a matter weeks not
8 months. I'm less convinced that that's the case with
9 respect to the CFTC.
10 COMMITTEE MEMBER JELINCIC: Thank you.
11 CHAIRPERSON JONES: Okay. Thank you. There are
12 no further questions, Dan, but I'd just like to thank you,
13 and Gretchen, and James for the awesome effort of
14 scheduling those meetings. We had 14 different meetings
15 in a two-day span with the Senator offices, and also the
16 representatives. And so I think a takeaway is that they
17 welcome our input, and they're matter of fact looking
18 forward to our continued effort to come and share with
19 them our concerns and issues regarding financial reform,
20 et cetera. So I want to thank you guys for that.
21 Okay.
22 MR. CROWLEY: Well, than you Mr. Chairman. And
23 we look forward to doing more of it. I think it's
24 absolutely essential to have principal to principal
25 engagement with senior CalPERS officials, and

1 policymakers. There's really no substitute for it.
2 So thank you very much.
3 CHAIRPERSON JONES: Okay. Thank you.
4 Okay. Thank you.
5 DEPUTY EXECUTIVE OFFICER PACHECO: Thank you.
6 CHAIRPERSON JONES: We now will return to our 6b
7 item.
8 (Thereupon an overhead presentation was
9 presented as follows.)
10 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
11 Yes, Mr. Chairman. Wylie Tollette, CalPERS team
12 member. I wanted to -- before Clint introduces our
13 CalPERS for California Report, I thought I'd at least
14 provide the option to the Committee to simply ask if there
15 are any questions. And if there not, we could take the
16 report as read and proceed accordingly, but I'll leave
17 that to your discretion.
18 CHAIRPERSON JONES: Well, I don't see any
19 questions. And so we do have a little time before lunch.
20 So why don't you just give a high level overview of the
21 salient points.
22 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
23 Okay. Excellent. With that, I'll turn it over
24 to Clint.
25 INVESTMENT DIRECTOR STEVENSON: All right. Thank

1 you. Clinton Stevenson, CalPERS Investment Director.
2 I'd like to -- I'd be remiss if I didn't start by
3 first recognizing all the hard work of Dave Merwin and
4 IMEP team back here. Now, that's important, but if you
5 did have the questions, he would be the guy who would be
6 answering them.
7 (Laughter.)
8 INVESTMENT DIRECTOR STEVENSON: So the CalPERS
9 for California Report is compiled each year by Pacific
10 Community Ventures, or PCV. PCV is based in San
11 Francisco. We've worked with PCV for 12 years.
12 Presenting the report today is Tom Woelfel, Director of
13 PCV's research arm, PCV InSight.
14 Tom.
15 MR. WOELFEL: Great. Well, good to be with you
16 all today, and thank you for the introduction, Clinton.
17 As Clinton mentioned, I'm Tom Woelfel. I'm with Pacific
18 Community Ventures. And yeah, we're pleased to be with
19 you for the 12th consecutive year to be sharing detail on
20 CalPERS investments in the State of California. And I
21 will try to keep my remarks brief, so that everyone can
22 get to lunch.
23 --o0o--
24 MR. WOELFEL: So I'll begin with kind of the
25 highlights from the CalPERS for California Report. So in

1 the 2016 CalPERS for California Report, the kind of main
2 highlight is that there's $27.3 billion invested in the
3 State of California across asset classes, which represents
4 approximately 9.3 percent of the total fund.
5 And in addition to seeking to understand how much
6 capital is invested in the State of California, we also
7 try to explore ancillary benefits that are generated by
8 these investments in the State.
9 So one of the highlights from an ancillary
10 benefit standpoint is the jobs that are supported as a
11 result of CalPERS investments. And so within the CalPERS
12 for California Report, we examined jobs that are supported
13 through the private markets asset classes. So looking at
14 private equity, real estate, and infrastructure. And as
15 of June 30th, 2016, over 262,000 jobs were supported a
16 cross the State.
17 Now, separately within the report, we also seek
18 to understand the total employment of companies, public
19 companies that are headquartered in the state, that may be
20 receiving investment from CalPERS global equities and
21 global fixed income asset classes. And as June 30th,
22 2016, over one million people were employed at these
23 companies.
24 Now, it's important to note that we treat this
25 figure separately from the private markets jobs supported

1 number, given there is a much more indirect relationship
2 from CalPERS provision of capital to the underlying
3 activities of these public companies, given CalPERS is one
4 of thousands of investors with these companies.
5 --o0o--
6 MR. WOELFEL: So moving on to the next slide, you
7 can see the depiction of the location of each of CalPERS
8 investments in the State of California. The different
9 color dots represent the different assets classes, and the
10 larger the sized dot, the larger the investment.
11 And you can see there's quite a bit of geographic
12 dispersion. However, the majority of investments are
13 concentrated in the major population centers of the State,
14 both the Bay Area and the greater Los Angeles area, where
15 there is kind of a significant amount of activity, at
16 least economic activity.
17 And it's important to remember that the State of
18 California really is one of the largest economies in the
19 world. It's the 6th largest economy as of June 30th,
20 2016. So as a result, it makes sense that CalPERS would
21 have a significant investment presence in the State.
22 --o0o--
23 MR. WOELFEL: And last to warp up with findings
24 from this year's 2016 California Initiative Report, just
25 as a reminder, the goals of the California Initiative,

1 first and foremost, are to achieve appropriate
2 risk-adjusted financial returns that meet or exceed
3 industry benchmarks. And then there are several ancillary
4 objectives for the California Initiative.
5 First to be investing in areas of the State that
6 have traditionally been bypassed by institutional equity
7 capital; to be investing in companies that employ workers
8 from disadvantage communities, as well as to support
9 companies that employ women and minorities in leadership
10 and management roles
11 So as of June 30, there were a total of 113
12 active companies that reported data as part this report.
13 They represent $296 million of investment. And the
14 ancillary benefits that have been generated through
15 provision of capital to those 113 companies are 54 percent
16 employment growth since the time of investment, which
17 meets and exceeds both California employment growth, as
18 well as U.S. employment growth.
19 There has been 36 percent of capital invested in
20 companies that have at least one woman officer, as well as
21 55 percent of capital invested in companies that have at
22 least one minority officer. So again, showing CalPERS
23 commitment to investing in companies that have
24 representation of women and minorities in leadership and
25 management roles at these companies.

1 In addition, the companies that CalPERS helps
2 financial, 44 percent of employees are classified as low
3 to moderate income, so coming from disadvantaged areas of
4 the State of California. And lastly, 20 percent of the
5 capital that's invested in the California Initiative is in
6 these communities where traditional private equity has not
7 typically been deployed.
8 So those are the current June 30th figures based
9 on the active companies within the California Initiative.
10 If we take a broader view and look at the total companies
11 that have received investment over the life of the
12 California Initiative, and look at since inception
13 results, we see that the California Initiative has created
14 over 36,000 jobs with 14,000 of those jobs based in the
15 State of California.
16 And so with that, that concludes my presentation.
17 I'm happy to take any other questions. Otherwise, I'm
18 happy to break for lunch.
19 CHAIRPERSON JONES: Okay.
20 (Laughter.)
21 CHAIRPERSON JONES: You're a smart man.
22 (Laughter.)
23 CHAIRPERSON JONES: Thank you.
24 Ms. Yee.
25 COMMITTEE MEMBER YEE: I'm sorry, I'll be brief.

1 Given that there's considerable legislative interest in
2 what we do relative to investments in California, I just
3 wanted to ask the question, in terms of, you know, when
4 you look at these investments every year, do you look at
5 it from a targeted amount in terms of what we want to
6 invest, or do you look at it just with respect to
7 opportunities that come up, or both?
8 CHIEF INVESTMENT OFFICER ELIOPOULOS: Probably a
9 question better addressed by me. Sorry. So for the
10 private equity group, they look at it from the respect of
11 their total portfolio, and how the various categories
12 break down.
13 In addition to that, there was this initiative in
14 2001 to specifically look at investing in California. And
15 that's what's being measured and reported here. Since
16 that time, the private equity team looks more holistically
17 at the overall portfolio, and doesn't have a separate -- a
18 separate initiative other than the one that we're tracking
19 and reporting on here today.
20 COMMITTEE MEMBER YEE: Right. Okay. And then I
21 know you have the aggregate in terms of the active
22 investments, but what's a typical, I guess, average size
23 of a real estate or a Private equity investment?
24 MR. WOELFEL: Let's see. Well, you can see that
25 it varies if you look at the map in terms of the different

1 size of the dots. But, yeah, I think if you look at it
2 just base on the sized, I mean you're looking at kind of
3 1.1 to 5 million range --
4 COMMITTEE MEMBER YEE: Uh-huh.
5 MR. WOELFEL: -- is where we've seen, you know, a
6 lot of the investment activity across the state. And the
7 others, obviously, some pretty sizable investments,
8 greater than $25 million. Some of those happen to be
9 public companies that receive investment via global
10 equities.
11 COMMITTEE MEMBER YEE: Yeah. Okay. Mr.
12 Chairman, if I might, because we have been getting a lot
13 of inquiries from legislative offices on CalPERS
14 investments in California. I'm just wondering if there's
15 a way to translate this to where it becomes a little bit
16 of a briefing or an orientation to our legislative -- to
17 our legislators.
18 Obviously, they want to see more investment in
19 California. But at the same time, I think in terms of how
20 we structure this program, it might be informative with
21 respect to, one, communicating that there have been
22 tremendous opportunities in this area, and also just
23 giving them a little bit of a history of the program and
24 where we expect it to go going forward.
25 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

1 And I'll take that one. It's a great --
2 CHAIRPERSON JONES: Excellent suggestion.
3 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
4 Yeah, it's a great suggestion, and it is actually
5 what we attempt to do. These reports are provided to
6 every member of the legislature. And on a biannual basis
7 your leadership team at CalPERS gets a chance to talk
8 about it with pension committees from both the Assembly
9 and the Senate.
10 So definitely, just in case they didn't read the
11 entire report, we attempt to emphasize it when we get a
12 chance to speak to our legislative partners. So it's
13 definitely -- definitely something that we like to bring
14 forward whenever we can.
15 COMMITTEE MEMBER YEE: Okay. Terrific. Thank
16 you
17 CHAIRPERSON JONES: Okay. Great.
18 Okay. Seeing no further questions, that's the --
19 concludes that item. We're going to break for lunch, and
20 we'll return at 1:50. We have a time certain at 2:00
21 o'clock.
22 Okay. Thank you -- and that item is the
23 Sustainable Investment Research Initiative Refresh Update.
24 (Off record: 12:49 p.m.)
25 (Thereupon a lunch break was taken.)

1 A F T E R N O O N S E S S I O N
2 (On record: 1:50 p.m.)
3 CHAIRPERSON JONES: Okay. We'd like to reconvene
4 the Investment Committee meeting, and we will start with
5 item -- we had a time certain for 2:00 o'clock, and -- but
6 our guest is here, so I guess we could proceed. And the
7 Sustainable Investment Research Initiative Research
8 update.
9 So we will -- Mr. Eliopoulos.
10 CHIEF INVESTMENT OFFICER ELIOPOULOS: Great. Mr.
11 Chair, members of the Committee. Thank you very much.
12 (Thereupon an overhead presentation was
13 presented as follows.)
14 CHIEF INVESTMENT OFFICER ELIOPOULOS: We are
15 pleased to welcome Professor Brad Barber of UC Davis, who
16 will be present highlights from his recent review of
17 academic literature in the field of ESG in what is our
18 second round of research under the Sustainable Investment
19 Research Initiative, or SIRI as we refer to it.
20 I am going to have -- let me introduce Professor
21 Barber. And I have maybe a couple minutes of prefatory
22 comments just to give the Committee time, and then I'll
23 hand it over to Professor Barber.
24 In addition to that, we have Wylie, Anne Simpson,
25 and Dan Bienvenue here, and we'll be available to answer

1 questions or provide comments during the
2 question-and-answer period.
3 Professor Barber is the Gallagher Professor of
4 Finance and Director of the Center for Investor Welfare
5 and Corporate Responsibility at the Graduate School
6 Management at UC Davis.
7 Professor Barber has been recognized as one of
8 the 50 most cited financial economists in the world. I
9 believe your current ranking is somewhere around 38th in
10 the world, if I read that correctly.
11 Get back to work Professor Barber.
12 (Laughter.)
13 CHIEF INVESTMENT OFFICER ELIOPOULOS: I took
14 particular note, as I mentioned to Professor Barber, on a
15 phone call of recent citation when I was reading the Nobel
16 Laureate Professor Daniel Kahneman's book *Thinking Fast
17 and Slow*. And Professor Kahneman cites two of Professor
18 Barber's papers, the first entitled *Trading is Hazardous
19 to Your Health*, and the second *Boys Will Be Boys*.
20 And as Professor Kahneman summarizes really the
21 groundbreaking research that Professor Barber has
22 participated in and led, both papers show the
23 overconfidence of active traders and the particular
24 overconfidence of men who acted oftentimes on useless data
25 more often than women investors. Quite a citation from

1 the Nobel Laureate.
2 Professor Barber has compiled an exceptionally
3 comprehensive review of close to 1,000 new academic papers
4 for this SIRI refresh today. The refresh of the
5 literature forms part of our strategic plan on ESG, as we
6 continue to focus on evidence around our investment
7 approach to integration, engagement, and advocacy across
8 the total investment fund.
9 The SIRI refresh brings new scholarship to the
10 table, and significantly broadens the range of analysis we
11 have in this field. We'll be launching a new database
12 later this year, so that our peers and partners can have
13 access to this important body of evidence.
14 I think the whole team wants to underscore that
15 we're very much still in the foothills of understanding
16 sustainability as a theme in investment. ESG covers a
17 wide range of evolving topics and the connections to
18 investment strategy are complex.
19 We know that researchers face daunting challenges
20 as they consider both the theory and the evidence. And
21 certainly one of the most daunting of barriers that we all
22 face is the lack of data.
23 CalPERS has acknowledged the need for better
24 corporate reporting and improving the quality of
25 investment grade data by making this issue one of our six

1 strategic priorities. We're working closely with our
2 partners, such as SASB, and through our work with
3 regulators to improve both the quality and quantity of
4 reporting on ESG. We're clearly not there yet, and this
5 will be a long haul, but it is vital work.
6 Another consideration is the inevitable time lag
7 between data being made available, and the research work
8 of academics who are building models, testing theses, and
9 going through the very rigorous process of peer review and
10 publication in respected journals.
11 This careful disciplined analysis takes time and
12 usually several years. We welcome and respect the
13 scholarship, the diligence, the objectivity which academia
14 brings to the table. But this clearly is not an area for
15 the impatient. In the meantime, market practitioners, who
16 can act more quickly, have also been publishing and
17 commenting in this field and bringing their own fresh
18 analysis, which is also a helpful set of information for
19 investors.
20 CalPERS has heard from leaders in the field who
21 have presented their work that we have shared with this
22 Investment Committee on such topics -- ESG topics as
23 diversity, diversity and performance, the materiality of
24 climate risk reporting, and alignment of interest. So the
25 Committee is familiar with some of the market

1 practitioner-based research that we have cited.
2 The practitioner body of research is rich and
3 dynamics. It gives us the ability to think through
4 strategy, while we evaluate the important and patient work
5 of the academic field that is well underway, and that will
6 continue.
7 We look forward to Professor Barber's remarks.
8 And as he discusses some of these themes from this second
9 major review of the literature, and we invite the
10 Investment Committee's questions and comments as the work
11 evolves.
12 So with that, Mr. Chair, I would turn it over to
13 Professor Brad Barber.
14 DR. BARBER: Thanks very much, Ted.
15 There we go. Thank you.
16 INVESTMENT DIRECTOR SIMPSON: You're welcome.
17 DR. BARBER: Technology assist.
18 So I'm very grateful to have the opportunity to
19 speak with you. I have great respect for what you all on
20 the Board do, and the service you provide to CalPERS and
21 its constituents.
22 Let me just set the stage. And I think Ted did a
23 really nice job of that, in that I view myself as a
24 scientist, somebody who's trying to understand how markets
25 work, and in particular a financial economist. And as a

1 financial economist, we rely on both economic theory and
2 data to support out conclusions.
3 I have no particular objective other than to
4 understand how things work, and that's really what I think
5 the value that the academic community brings to the table,
6 and I hope I represent that community well in my remarks
7 today.
8 And I viewed this as a way to come to this table
9 and sort of think about what's the best way you can take
10 on these ESG themes from the perspective of large a
11 institutional shareholder or one that's trying to
12 represent the beneficiaries of this case, CalPERS. So let
13 me just give you a bit of background on actually what we
14 did.
15 --o0o--
16 DR. BARBER: Many of you were around for our
17 first bibliography that we did. In 2013, I presented to
18 the Board, along with Robert Jackson who's at the Columbia
19 University School of Law. And at that time, we had 700
20 articles. We also had a symposium where many of the hot
21 papers, if you will at the time, were presented. It was a
22 quite lively debate on many of the topics. I know some of
23 you were able to attend that, and then we had a Board
24 presentation.
25 In this round, we finished the second refresh

1 about a year ago, and added 1,200 additional articles on
2 ESG themes. So the literature has been exploding, if you
3 will, on these topics. But it's still hotly debated and
4 nascent literature, partic -- particularly on
5 environmental and social issues as I'll elaborate on more.
6 And, of course, here, I am today to sort of
7 update you on where we stand in the academic community.
8 Let me just say too in these articles, you know, there's
9 errors of inclusion, and there's errors of exclusion. So
10 I, by no means, represent this database as the definitive
11 database. More will be added. But what we tried to do
12 was focus on the top quality academic outlets that are
13 subject to the most strenuous peer review.
14 So that in the database you would have the most
15 influential, or potentially most impactful papers as
16 related to these ESG issues. Much is written on these
17 topics, but I think you really have to be careful about
18 sorting the wheat from the chaff when it comes to these
19 sorts issues. And the way that we approached that was
20 looking for the most influential, the most scholarly
21 academic outlets.
22 I will say that we did also include working
23 papers. Working papers are early analyses that we thought
24 might be highly relevant and hold promise. But you should
25 understand that these working papers have not yet been

1 peer reviewed, and so don't have the same level of
2 scrutiny from an academic perspective as those published
3 outlets. So just to give you a pretty graph of what we've
4 done --
5 --o0o--
6 DR. BARBER: -- if I can get to it. There's the
7 2013 bar on the left, and the 2016 bar on the right. And
8 what I've done here is just bend these papers into G for
9 governance, S for social themes, E for environmental. And
10 then there's a slice that's ESG, which is it touches on
11 all three of the themes, which is a way of saying that I
12 think a lot of these environmental, social, and governance
13 themes have been tackled in sort of conjunction with each
14 other, as the literature started to grow.
15 A couple points to make about this graph is G is
16 still the lion's share of this literature. There's a lot
17 of research focused on governance, and specific aspect of
18 governance. For example, open access might lead to a
19 collection of a dozen papers. Proxy fights might be
20 another 20 papers. Poison pills might be another 10. So
21 there's a whole literature on each of these very specific
22 topics that debate the pros and cons or when these
23 particular items might be warranted from the perspective
24 of a shareholder or deleterious from the perspective of a
25 shareholder. So context matters quite a bit.

1 The other thing to point out is, of course, the
2 environmental and social parts of the bar are starting to
3 grow. That's good news. But I think we still are at a
4 point where we don't have strong overarching themes on the
5 E and the S. And so we're still trying to understand what
6 are some of the ways in which they facilitate and work
7 with the investment management side of things.
8 By the way, as I go along here, feel free to
9 interrupt. Professors like questions, and I'm -- I like
10 questions as well.
11 --o0o--
12 DR. BARBER: So this slide is actually from the
13 2013 presentation. And I'm going to repeat two slides
14 from that presentation, this one and the next one, because
15 I think this really is a useful way of thinking -- trying
16 to get inside my mind and other economists' minds. These
17 are the perspective from which we think about these
18 issues.
19 And there's really five overarching themes. One
20 is valuation. So economists generally go back to very
21 basic principles. We value financial securities as the
22 present value of their future cash flows. You just have
23 to discount those cash flows in an appropriate risk level.
24 That's a very basic overarching tenet of how we think
25 about valuation.

1 So whenever you're thinking about how things
2 might affect value, you think about does it affect the
3 cash flow stream, or does it affect the risk of the asset.
4 That's what affects valuation.
5 The second point is we think there's a
6 relationship between risk and return. And I can tell you
7 from teaching many decades of finance, students also think
8 there's a relation between risk and return. It just makes
9 sense.
10 But actually when we bore down into it, we often
11 get the intuition of that wrong. We often think the high
12 risk investments have the lower returns, because they're
13 scary investments, and those scary investments are the
14 risk investments, which, in fact, should have the high
15 rates of return.
16 So I think we all agree there should be a
17 relationship between risk and return, but sometime the
18 intuition fails us when it comes to that relationship.
19 The third thing I think we all agree as
20 economists is externalities matters. So firms,
21 corporations, and even private firms, and even governments
22 have activities that may impose costs on society. The
23 classic example, of course, is factories pollute. And so
24 if that pollution is not factored into the cost of
25 production, somehow making those -- taxing that pollution

1 or making that activity revealed, if it will, and prices
2 would be beneficial to society as a whole.
3 That's a tricky one to navigate as an investor
4 and I'll talk a little bit about that later, because
5 sometimes reducing pollution may entail increasing costs
6 to the corporation, and that has affects for the cash
7 flows that is in the valuation that I talked about a
8 moment ago.
9 Fourth, we all agree that competition matters.
10 And, in particular, financial markets are very
11 competitive. And so this is where the notion of market
12 efficiency comes into play. There's a debate about how
13 efficient markets are, but we all agree they're very
14 competitive. And so it's not easy enough to say, well,
15 that firm has a good product, so let's invest in it, or
16 that firm doesn't have very good governance, so let's not
17 invest in it. That's a very simplistic way of viewing
18 investment, and it's a misguided way, and most economists
19 view of viewing investment, because it's a very
20 competitive place. And those governance characteristics,
21 and those other characteristics will be priced into the
22 firm. And so it doesn't necessarily relate to the return
23 that one would earn.
24 And finally -- and I have to say CalPERS has been
25 a vanguard in this on agency issues. There's a separation

1 of ownership and control which we've known for over 50
2 years between management and shareholders. And management
3 does not always act in the best interests of shareholders.
4 Sometimes they do things that are in their own best
5 interest, and not in the interest of shareholders.
6 And so by adopting governance that aligns the
7 interest of management and shareholder, you can improve
8 the valuation of the firm. That redounds to the benefit
9 of both investors and, in this case, society at large by
10 creating value for the corporation.
11 I think this is -- it really just sets the stage.
12 These are the frameworks from which economists think about
13 these ESG-related themes.
14 --o0o--
15 CHAIRPERSON JONES: Okay. Dr. Barber --
16 DR. BARBER: Sure.
17 CHAIRPERSON JONES: -- you want us to take
18 questions by page, so Mr. Jelincic has a question.
19 DR. BARBER: Sure.
20 COMMITTEE MEMBER JELINCIC: A couple of
21 questions. Risk and return.
22 DR. BARBER: Sure, yeah.
23 COMMITTEE MEMBER JELINCIC: You said that
24 intuitively we don't always get it right.
25 DR. BARBER: Yeah.

1 COMMITTEE MEMBER JELINCIC: Can you expand a
2 little bit on what you meant?
3 DR. BARBER: Sure. So I think, you know,
4 generally if you think about an investment that has high
5 market risk, people would say, oh, that should have a
6 higher rate of return. But when we take it into other
7 arenas. For example, tobacco firms maybe have high levels
8 of regulatory risk, or they may produce products that may
9 be subject to regulation. That makes tobacco a high risk
10 firm, and therefore they should have high returns, right?
11 And so we take it in certain areas and it makes
12 sense. But then when we apply it in other areas, we'll
13 say, well, we should divest of this, because it's risky.
14 And that's where the intuition sometimes breaks down.
15 So I think that's the basic intuition here is
16 that whenever you say something is risky, or looks ugly to
17 investors, it's a symptom that it may be a high risk, high
18 return situation.
19 COMMITTEE MEMBER JELINCIC: And in this context,
20 what do you mean by risk?
21 DR. BARBER: So risk would be, in an economist's
22 view, a systematic risk that could not be diversified
23 away. So, for example, climate risk may be one of those
24 risks, right? If there's a whole swash of the economy
25 that's subject to climate risk, there may be certain firms

1 that may have a high risk in a certain state of the
2 economy, with high levels of global warming do very
3 poorly. Those may be high risk firms, right?
4 If that's taken into account by the market, those
5 firms should have very low valuations. Firm investors
6 should be spurning those investments. Because of that
7 risky state of the world in which they might appear. So
8 there's -- there's -- you know, there's lots of potential
9 systematic risks. Economic risks are probably the most
10 come that are given, so recessions, financial crises,
11 market corrections, or severe market corrections are the
12 most severe one, and the most commonly used to explain in
13 introductory finance classes, if you will.
14 COMMITTEE MEMBER JELINCIC: And then on
15 externalities.
16 DR. BARBER: Yeah.
17 COMMITTEE MEMBER JELINCIC: We're a pension
18 fund --
19 DR. BARBER: Yeah.
20 COMMITTEE MEMBER JELINCIC: -- and we have an
21 obligation to the interest of our beneficiaries.
22 DR. BARBER: Yeah.
23 COMMITTEE MEMBER JELINCIC: And I'm old enough to
24 remember when the sunsets in Los Angeles we're much
25 prettier than they are now.

1 (Laughter.)
2 COMMITTEE MEMBER JELINCIC: But clearly, to have
3 eliminated some of that smog, clearly had a cost, as
4 reduced returns, but it's not -- from our viewpoint as
5 trustees, it's not just dollars and cents. I mean, the
6 fact that people can now actually breath it without a gas
7 mask, has the return that I think we need to --
8 DR. BARBER: Oh, I completely agree with you. So
9 I think oftentimes -- and one of the themes in my later
10 slides is oftentimes investors do value those positive
11 externalities from those investments. And there's
12 emerging evidence that investors are willing to invest in
13 companies that are doing good, because they feel it will
14 lead to a better world in which we live, and I completely
15 agree with that.
16 You know, will that lead to better returns
17 though? The sort of doing well by doing good is a hotly
18 debated and less supported by the academic evidence. So
19 you know, personally, I think it would be great if we
20 could more incorporate those concepts into how we invest,
21 but we also need to think about how it feeds into the
22 logic of the financial returns that the investments will
23 earn.
24 COMMITTEE MEMBER JELINCIC: So the -- as
25 investors, should we be interested in eliminating those

1 things that the society pays for, rather than the company
2 or...
3 DR. BARBER: Well, it depends a little bit on who
4 bears those costs, right? If it's the capital owners that
5 bear the cost, or if it's society at large, will it lead
6 to better economic growth and better long-term returns?
7 So there's a host of unanswered questions there.
8 And so I can't definitively say it will lead to
9 better financial returns. And there's reasons -- you
10 know, if you impose additional costs on companies, that
11 could potentially lead to worse returns. So, you know,
12 there's a tradeoff there. And I think you just need to
13 get that balance right.
14 Just to take an extreme example, if I asked an
15 oil company to completely eliminate their greenhouse gas
16 emissions tomorrow, that would destroy a lot of value in
17 your portfolio very quickly, if you mandated that. And I
18 don't anyone is advocating that drastic of a step.
19 COMMITTEE MEMBER JELINCIC: Some might.
20 DR. BARBER: Some might.
21 On the other hand, if I say you need to be aware
22 of the risks on the horizon and manage for that, then that
23 would be a step in a direction that might have -- put them
24 in a better place to deal with the risks long term.
25 COMMITTEE MEMBER JELINCIC: Thank you.

1 CHAIRPERSON JONES: Okay. We have a couple more,
2 Dr. Barber.
3 Ms. Mathur.
4 COMMITTEE MEMBER MATHUR: Thank you. I'm on this
5 page four also. The perspective of this slide seems to
6 be, and correct me if I'm wrong, as if we are the owner of
7 just an individual company, but we actually are universal
8 owners. So we own more than 10,000, you know --
9 DR. BARBER: Sure. Sure.
10 COMMITTEE MEMBER MATHUR: -- shares in more than
11 10,000 companies. And we're interested not just in the
12 health and performance of those companies today, but also
13 in the health of the market as a whole over the long term.
14 DR. BARBER: Sure.
15 COMMITTEE MEMBER MATHUR: And this doesn't seem
16 to take that in -- this construct doesn't seem to take
17 that into account.
18 DR. BARBER: I would disagree. So, for example,
19 the risk and return bit, just to be clear, it's not risk
20 at the company level that I care about. So you as a large
21 shareholder at CalPERS can diversify away a lot of
22 regulatory risks that may be very company specific. But
23 you may not be able to diversify away market risk, right?
24 So you certainly have to think about market risk.
25 You may not be able to diversify away climate

1 risk, if it's sufficiently systematic, it affects a
2 sufficiently broad swath of your portfolio, right? So the
3 real issue is systematic. Is it systematically going to
4 affect a large part of your portfolio? And that's not a
5 black and white thing. There's a lot of grayness between
6 what's systematic and what's not.
7 On valuation, I would agree with you that that
8 sort of valuation is done at the company level, but
9 ultimately that's the price you end up paying for the
10 company. And so I still think that that's a useful
11 concept to think about, particularly when you think about
12 engaging an individual company at CalPERS. You should
13 think about how that engagement affects either the risk or
14 the cash flows of the company.
15 COMMITTEE MEMBER MATHUR: Sure. I'm not sure we
16 should exclusively think about that, but I do think -- I
17 do agree that we ought to be thinking about that.
18 DR. BARBER: Sure. One other thing I want to
19 point out too --
20 COMMITTEE MEMBER MATHUR: Yeah.
21 DR. BARBER: -- is that it certainly matters how
22 these issues, climate risk, for example, income
23 inequality, diversity feed into broader economic growth,
24 and what the long-term economic growth implications of
25 that might be, but that's an open question. I just have

1 to be honest about that. I think there's been a bit of
2 work done on climate risk and economic growth, but the
3 models are highly subjective. There clearly will be
4 winners and losers, depending upon which path we end up
5 on. That's for sure. The overall effect though depends a
6 little bit on how we model it out, et cetera.
7 So, you know, clearly that's the question we
8 should be asking, what is the effect of these things on
9 economic growth and overall growth of the economy, but
10 it's one that we haven't found a definitive answer to yet.
11 COMMITTEE MEMBER MATHUR: Okay. And then the
12 other piece is about, you know, you said that the market
13 prices all the risk of a company.
14 DR. BARBER: Yep.
15 COMMITTEE MEMBER MATHUR: But some of those risks
16 are not disclosed. We don't have information about all of
17 those risks, so how can they possibly be priced into the
18 company?
19 DR. BARBER: Well, in fact, I would argue if
20 things are unknown by the market that it may, in fact,
21 cause the market to even price the firm lower, if they
22 don't have -- so your engagement and disclosure may cause
23 those firms prices to increase. Why? Because there's
24 more transparency about those firms.
25 So I think one could make the argument that by

1 reducing - I'm going to use a buzz word here of
2 economists - information asymmetry between investors and
3 the managers who run firms - that just means making things
4 transparent between investors and managers - that that
5 might be a way for you to make the firms less risky and
6 get higher valuations for the cash flows that they're
7 generating.
8 COMMITTEE MEMBER MATHUR: But I'm not even sure
9 it's just about transparency between the managers and
10 investors, I don't think the managers even know all the
11 risks that are embedded in their companies.
12 DR. BARBER: That's possible. I mean I don't --
13 I'm not an expert on these issues.
14 COMMITTEE MEMBER MATHUR: Yeah.
15 DR. BARBER: I don't sit in the CEO's shoes, so I
16 wouldn't even begin to pass judgment on them, but it's
17 possible they don't.
18 COMMITTEE MEMBER MATHUR: Okay. Thank you.
19 DR. BARBER: Yeah.
20 CHAIRPERSON JONES: Ms. Taylor.
21 COMMITTEE MEMBER TAYLOR: Thank you, Mr. Chair.
22 Thank you very much. I'm -- just really quick I
23 had a couple of questions as well.
24 DR. BARBER: Sure.
25 COMMITTEE MEMBER TAYLOR: You talked about top

1 quality academic outlets.
2 DR. BARBER: Yes.
3 COMMITTEE MEMBER TAYLOR: So I'm just curious
4 what outlets?
5 DR. BARBER: So in economics and finance, there's
6 American Economic Review, Journal of Political Economy,
7 and Quarterly Journal of Economics, those are the three
8 top economics outlets. In finance, there's the Journal of
9 Finance, Journal of Financial Economics, and Review of
10 Financial Studies.
11 We -- those are widely considered the most
12 premier outlets where the most impactful work appears. We
13 expanded the search beyond those to other journals that
14 appear on a list of influential journals that's maintained
15 by the financial times. So they maintain a journalist of
16 the most impactful business research journals, and we
17 looked at those as well.
18 COMMITTEE MEMBER TAYLOR: So we are looking at
19 leading in these arenas, right?
20 DR. BARBER: Yeah, that's correct.
21 COMMITTEE MEMBER TAYLOR: We kind of want to be
22 the alpha. There are academic outlets that are also
23 leading in these -- in the research of this that isn't in
24 the Financial Times or these economic journals. They are
25 found elsewhere. And I know that I've seen articles -- I

1 don't have any handy right now, of course, but one of the
2 things is I was wondering - and maybe this is a question
3 for Ted, I don't know - did we talk about also having the
4 Berkeley Labor Center come in and talk -- talk about this
5 as well?
6 Not to say that your information isn't good, but
7 it just feels like it's just kind of one-sided. It feels
8 like it's just -- we've got all these financial economic
9 reviews, but we're not looking at it from a -- like you
10 said, it's nascent type of research. So maybe we should
11 be looking at it from others that are doing research
12 into --
13 DR. BARBER: Well, they're on the financial times
14 list. There are many management-, sociology-,
15 labor-related journals. So it's not just finance, but
16 you'll find less work on these issues in those journals.
17 So naturally most of the work that we identify appears in
18 the economics and finance journals. But there is -- there
19 is work from -- there's working papers. I mean, the way
20 the --
21 COMMITTEE MEMBER TAYLOR: Right.
22 DR. BARBER: I mean, I don't want to get into the
23 making of the sausage here, but we go to these articles.
24 We look at the references. We pull all the references as
25 well as the article that we pull. We also looked at other

1 databases that have been compiled by other authorities
2 including one --
3 COMMITTEE MEMBER TAYLOR: What do the databases
4 have in them? What database?
5 DR. BARBER: So in particular Lloyd Kurtz who's
6 at -- teaches at Berkeley had a database that he shared
7 with us of ESG-related articles. And all of that he was
8 nice enough to allow us to put that in as well.
9 Lloyd Kurtz is -- teaches at Berkeley.
10 So and he --
11 COMMITTEE MEMBER TAYLOR: Okay. And he keeps a
12 database a journals, is that what you're saying --
13 DR. BARBER: Yeah.
14 COMMITTEE MEMBER TAYLOR: -- of journalistic
15 reviews and stuff.
16 DR. BARBER: Well, it was -- it was academic
17 work.
18 COMMITTEE MEMBER TAYLOR: Academic work, okay.
19 DR. BARBER: Yeah. I mean, I -- we did confine
20 ourself mostly to academic work, because we wanted to have
21 peer-reviewed work and -- with the exception of the
22 working papers.
23 COMMITTEE MEMBER TAYLOR: Okay. Great. That's
24 what I was trying to find out.
25 DR. BARBER: And, you know, we made mistakes.

1 Let me just say, there's no way that we have everything.
2 And, Theresa, if you find something you think we should
3 include, send it our way, we'd love to include it.
4 COMMITTEE MEMBER TAYLOR: Sure. I appreciate it.
5 Thank you.
6 DR. BARBER: Sure. Is that it?
7 CHAIRPERSON JONES: Yes.
8 DR. BARBER: For now.
9 --o0o--
10 DR. BARBER: Okay. So this is a slide also from
11 the last presentation. And this is summarizing the
12 environmental and social factors. And I think at that
13 point, you were adopting the CalPERS Investment Beliefs,
14 in -- and I think you did a really nice job of framing the
15 beliefs in a way that was consistent with where the
16 literature stands then, and I think it's also consistent
17 with where the literature stands now.
18 And all I've done is sort of highlighted these
19 points. We've talked about some of these. So economists
20 agree that externalities are created by firms are
21 important. This includes both externalities on
22 environmental or social factors.
23 However, shareholder engagement on environmental
24 or social issues could potentially lower shareholder
25 return. So it needs to be done carefully. And I gave you

1 the example before, where we -- you know, if we tell an
2 oil company to stop greenhouse gas emissions tomorrow,
3 that would be a shock to the company, and certainly would
4 not redound to the benefit of shareholders.
5 So that's an extreme example. I don't think
6 CalPERS is doing anything that extreme, but you need to be
7 thoughtful about how you engage companies on these issues.
8 The other thing to point out is that among
9 academics, I think the impact of these sustainability
10 factors, the E and the S, in particular, here are on risk
11 and return are ambiguous. And there's three buckets I
12 want you to think about here, because most of the
13 literature on ESG falls into one of these three buckets on
14 the E and the S.
15 So the first bucket is about how these factors
16 affect risk. So is it a systematic risk factor. And here
17 you can think about climate risk, for example. And we
18 talked about that already, so I won't belabor that
19 example.
20 The second point is that some argue these
21 sustainability factors are positively correlated with
22 return, because markets systematically overlook the
23 information. So just to be clear, this is a type of
24 market inefficiency. And there's a whole collection of
25 papers that fall into this bin. One that I highlight here

1 was by Alex Edmans in 2011. Alex is at the London School
2 of Economics. And he identifies that companies with high
3 employee satisfaction ratings tend to earn strong returns.
4 Now, he characterized that -- characterizes that
5 as a bit of puzzle, because you would expect markets to
6 sort of get that right, if you will. But he thinks it may
7 be because markets undervalue soft information, like are
8 the employees being treated well, and does that redound to
9 the benefit of the company? So there's a bucket of
10 articles in that particular market inefficiency or
11 overlooked information bin.
12 And finally, there's a bucket of articles that
13 argue sustainability factors are negatively correlated
14 with returns. So this is the other side of that coin.
15 And this is because investors might overvalue companies
16 that do good things, and undervalue companies that do bad
17 things. It's all about investor preferences.
18 So if you think about it, if everybody starts
19 divesting of tobacco, then tobacco stocks are priced low
20 for the earnings they generate, an example I gave before.
21 And, in fact, there's evidence on this from Harrison Hong
22 and Marcin Kacperczyk where they look tobacco, gambling,
23 and guns, the so-called sin stocks. And over the last 80
24 years or so, those stocks tend to earn very good returns,
25 which is consistent with this investor preference story,

1 if you will.
2 So there's these three channels that you need to
3 about, when thinking about how these E and S factors might
4 play into the return space -- financial return space to be
5 clear. Going back to J.J.'s point, it's not the total
6 return, which would include some of the externalities
7 generated here.
8 CHAIRPERSON JONES: Okay. Dr. Barber, we have a
9 question on this page.
10 DR. BARBER: Sure.
11 CHAIRPERSON JONES: Mr. Lind.
12 COMMITTEE MEMBER LIND: Thank you. And thanks
13 for being here, Professor.
14 This page five sort of lays out this broad sort
15 of statement or premise about large institutions and
16 treading carefully on, yeah, environmental and social
17 factors. And you go on to say that, you know, there's a
18 lot more evidence around the G than the E and S. But the
19 question is, is this a premise that you had going in to
20 the research, or is this based on the research that you've
21 done? Because it seems like going further on in the
22 report, the few examples that you highlighted for us sort
23 of support this premise, which, in my mind, is a little
24 bit more of a short-term investment premise than long
25 term.

1 I mean, could somebody just as easily looked at
2 the research and said that there's a growing sort of body
3 of evidence round E and S factors that we need to
4 identify?
5 DR. BARBER: So, Ron, I'm sure you could have
6 brought somebody in to say that. I'm doing my best, my
7 honest level best --
8 COMMITTEE MEMBER LIND: I'm not questioning that.
9 DR. BARBER: I know -- to give you a overview of
10 where I think the academic literature stands. So I think
11 if you surveyed the academic profession on this, I would
12 say 8o to 90 percent of financial economists would agree
13 with me. But you could get somebody from that 10 to 20
14 percent who would take a position more stridently on one
15 side or the other of that.
16 COMMITTEE MEMBER LIND: Yeah, I was just trying
17 to get to the methodology of the work that you've done.
18 DR. BARBER: So, I mean, I view myself as
19 somebody who keeps a careful eye on this literature. And
20 in addition to that, we try to cull through all of the
21 articles - I did this with a couple of RAs - highlighting
22 the articles that were of particular relevance to CalPERS,
23 and I did my best to review those. And based upon that
24 review, and presenting what I think to be the state of the
25 literature.

1 COMMITTEE MEMBER LIND: I just -- And I
2 appreciate that.
3 DR. BARBER: Sure.
4 COMMITTEE MEMBER LIND: And I just think it would
5 have been, I think, maybe useful to say, but here's a
6 contrary opinion that we found. I mean, you mentioned, in
7 passing Piketty, for example. You did that.
8 DR. BARBER: Well, I think I just gave you two
9 contrary examples. I just said, sustainability factors
10 positively relate to returns and they negatively relate to
11 returns. So I'm trying to give you a balanced overview of
12 the literature. Alex Edmans says that soft information is
13 overlooked in prices, and that leads to good returns.
14 Harrison Hong and Marcin Kacperczyk says the opposite.
15 That strikes me as balanced. And I'm not balanced in the
16 journalistic sense as I have one paper from both sides.
17 COMMITTEE MEMBER LIND: RIGHT.
18 DR. BARBER: But in the sense that I think there
19 are a lot of papers on both sides, and I gave you two
20 examples.
21 COMMITTEE MEMBER LIND: Okay. Thank you.
22 --o0o--
23 DR. BARBER: Okay. So academic literature on G
24 ES&G. So the broad overview. G is on solid ground.
25 Again, the way I think you should think about my talk is

1 I'm doing my best to represent the consensus view of
2 academics here. And I think you get 80 to 90 percent of
3 academics -- of financial economists agreeing with me on
4 this. G is on solid ground. There is a consensus
5 theoretical framework. There's a separation of ownership
6 and control. This goes back 50 years. There's a
7 consensus regarding the empirical evidence, that is giving
8 shareholders rights, generally redounds to the benefit of
9 investors.
10 There is a few notable caveats, but those caveats
11 are in the execution of how you do the -- engage the
12 governance. Just as one example here, there's recent work
13 by Johnson, Karpoff, and Yi that argues take-over defenses
14 may redound to the benefit of newly listed companies,
15 because they preserve business relationships when a
16 company is young.
17 They don't argue that they should always have
18 these defenses. But when a firm is first public, you want
19 to make sure that they're not quickly taken over or
20 quickly merged, because the business relationship between
21 the stand-alone company and their suppliers or customers
22 is important. And so having some anti-takeover defense in
23 place may redound to the benefit of shareholders.
24 So that -- that's a nuance, if you will, and
25 there's nuances all over in the literature that you need

1 to be aware of.
2 In contrast on the E and S, you know, it again
3 remains a nascent literature with limited sort of
4 actionable findings. You know, there's just not a
5 consensus theoretical framework where there is in
6 governance. There's just not a consensus regarding
7 empirical evidence. Again, I could come here and make a
8 really strong case that it does positive things for
9 returns and I could make a really strong case that it does
10 negative things for returns. That's the debate going on
11 in the academic literature right now.
12 And finally, I think there is a consensus
13 emerging on one issue that I just wanted to pay some
14 attention to, which is, I think, moral motives are
15 important, and they affect how investors allocate capital.
16 There's emerging evidence that I think it is true that
17 investors take into consideration environmental and social
18 issues when investing, and how they allocate capital.
19 It's not clear how that will feed into risk and returns,
20 but it is clear it's something that's emerging as an
21 important theme in how capital is allocated.
22 CHAIRPERSON JONES: Okay. Questions.
23 Ms. Yee.
24 DR. BARBER: It's not fair. You can see who --
25 when you have questions and I can't.

1 (Laughter.)
2 COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.
3 I guess the way I look at this is that it's kind
4 of a little bit of a snapshot, because obviously things
5 continue to evolve --
6 DR. BARBER: Sure.
7 COMMITTEE MEMBER YEE: -- right?
8 So -- and I think it's probably the use of the
9 words consensus that's kind of rubbing me the wrong way.
10 Obviously, there are nuances in the literature. I think
11 in terms of our focus with respect to investment
12 decisions, I mean, it could be that over time, you know,
13 what we consider to be a prudent investment today may not
14 be, you know, tomorrow, or down the road.
15 So I guess what I'm -- I mean, given that we're
16 kind of trying to implement this five-year ESG plan that
17 CalPERS has been a leader with respect to trying to look
18 at arriving at some agreement about a reporting framework,
19 you know, kind of and other endeavors in which we're
20 involved.
21 I wanted to kind of figure out how we ought to
22 kind of look at what you're providing us, because
23 obviously this isn't kind of the end-all be-all. At the
24 same time, I think there's a lot happening out in this
25 space.

1 So given that we're long-term institutional
2 investors, and that I think the nature of the investment
3 decisions we're going to make are going to keep evolving,
4 I just want to figure out how to couch what you're
5 presenting, because it seems to kind of go a little
6 counter to kind of the thrust that I thought our ESG plan
7 is kind of taking us, with respect to -- I mean, it's
8 the --
9 DR. BARBER: I don't think that's --
10 COMMITTEE MEMBER YEE: -- underlying -- I mean,
11 it's the underlying --
12 DR. BARBER: I don't think that's necessarily
13 true --
14 COMMITTEE MEMBER YEE: Okay.
15 DR. BARBER: -- and I don't want to necessarily
16 give that --
17 COMMITTEE MEMBER YEE: So do you think the reason
18 why they're isn't, I guess, more of a -- is it because we
19 don't have, I guess, agreement on an underlying reporting
20 framework, or the lack of data kind of giving us kind of
21 all these different perspectives that you're finding? I
22 mean, what's kind of the bottom line of --
23 DR. BARBER: Yeah. So I think there's a lack of
24 data on these issues, so we don't know which sort of
25 companies have huge exposure. I mean, there's the --

1 there's some very limited evidence on this, but it's very
2 difficult to identify the firms that have high levels of
3 climate risk right now.
4 So how could I even begin to answer the question
5 of is that affecting their valuations in any systematic
6 way without it being able to identify those companies?
7 So I think it's just very difficult to do so.
8 And let me just back up, because I want to be very clear
9 that I think CalPERS has, in general, been appropriately
10 cautious in how they've implemented some of these
11 environmental and social issues. And I think that's
12 appropriate given where the literature is.
13 So, you know, again, I view my role as providing
14 a representation of the academic perspective on this. And
15 I just -- on G, I can give you academic endorsement carte
16 blanche almost. On the E and S I can't yet. And so I
17 just need to be clear about that. That doesn't mean what
18 you're doing is wrong, or ill-advised. It merely means
19 that the academic literature can't be used to support what
20 you're doing at this particular juncture.
21 COMMITTEE MEMBER YEE: Okay. And maybe this is
22 a --
23 DR. BARBER: You know, dealing in a world with
24 uncertainty, and academics don't -- they don't like to see
25 it go out on an arm and say --

1 COMMITTEE MEMBER YEE: No, I get that part. So I
2 guess I'm trying to -- so how --
3 DR. BARBER: One other thing, which is -- and I
4 have this slide at the end, which is to strongly recommend
5 that you focus on a particular question of interest in
6 engaging the academic community, because I could -- I
7 could talk to you for an hour about diversity, something
8 that I am doing work on right now, and why women only
9 represent 20 percent of investment professionals. I could
10 talk about that particular issue, which is diversity in
11 investment management. I could talk to you about
12 diversity on boards for an hour, and there's a whole
13 literature there.
14 UC Davis is at the -- we're starting to think
15 about having a conference in December on income inequality
16 and economic growth. I could talk to you for several
17 hours on that.
18 And so I think the approach -- you know, I'm
19 going to run out of time in an hour here to talk about ESG
20 is the point.
21 COMMITTEE MEMBER YEE: Right, right.
22 DR. BARBER: And so I can give you this broad
23 overview and, I mean, at the end of the day, you just have
24 to trust that I'm trying to give you an accurate
25 representation of the academic perspective on this,

1 because if I went through 2,000 papers, it would be, you
2 know, about a second a paper.
3 COMMITTEE MEMBER YEE: No, no, and I appreciate
4 that. No, that's a big endeavor.
5 I guess a question to Ted or to Anne. So I guess
6 kind of how do we put a frame around what we're hearing
7 from the professor, because obviously we're in real time
8 doing corporate engagement. We're learning a lot more
9 each day. We are partnering with so many others who are
10 also learning. But so kind of put this in a frame for us.
11 CHIEF INVESTMENT OFFICER ELIOPOULOS: Sure, I'll
12 start, and then I'll turn it over to Anne and Dan, if they
13 want so supplement the commentary. But we actually think
14 our five-year plan is very consistent with the thrust of
15 the academic findings that Professor Barber is presenting.
16 That certainly all of our activities around the G in
17 governance are very well supported. And we felt very
18 strongly about this for over a decade at CalPERS, that
19 that's the case.
20 With respect to E and S, we've spent quite a bit
21 of time together trying to prioritize which activities
22 under the rubric of E and S we should focus on. And in
23 doing that, we are careful in thinking through what
24 activities to engage on, whether they be investment
25 decisions, engagement or advocacy. And we look through

1 our plan, we have chosen overwhelmingly in our five-year
2 plan to really focus on engagement and advocacy, rather
3 than on, for instance, divestment or portfolio tilting, or
4 particular investment strategies that are trying to
5 overweight or underweight, you know, based on S and G
6 themes.
7 But we've also decked out resources to study
8 these areas more, because to your point, it is evolving.
9 And we think it's a best practice to set our strategy for
10 this five year. We think it's Supported by our own
11 professional judgment, but also by the academic reviews,
12 which are giving sort of green lights and flashing yellow
13 lights to parts of this -- of these endeavors.
14 And that, we will come back rigorously to look at
15 the academic data, at intervals to see whether the case is
16 strengthening or weakening over time.
17 And the last thing I'll say just before I turn it
18 over to see if anne and Dan want to supplement, that is
19 we're also working with lots of partners. We have a very
20 strong network of peers and peer institutions to network
21 and think about these issues.
22 Groups like Ceres and PRI and many others that,
23 you know, bring together practitioners to discuss these
24 issues, and think through the pros and cons of undertaking
25 various activities. And we think those collaborations

1 allow us to learn from our peers. And it also means that
2 we don't have to take the lead on every single issue,
3 because as the Professor underscores, there's just --
4 there's so many potential themes to run down, that it's
5 hard for a leader of a research study to assemble them
6 all. It's very difficult for an investment team to act on
7 everything.
8 So it's a long-winded way of saying we believe,
9 and we've looked at this report, and as a team got
10 together and assessed it against our strategy. And we
11 think we've struck the right balance of being aggressive
12 where we think it is in our interest to be aggressive, and
13 to be cautious, as well as very aggressive in building up
14 the data, which will allow investors to make decisions on
15 these themes into the future.
16 INVESTMENT DIRECTOR SIMPSON: Thank you. And
17 thank you to Brad for doing this overview. I think it's
18 very important that we learn by doing. I think that's
19 really what Ted is saying. And in the engagement that
20 we're just to take an example of climate change, the data
21 that we put together to map our carbon footprint came from
22 voluntary reporting from companies, you know, which
23 CalPERS has called for many years.
24 But we only had that for a portion of the
25 portfolio, and then we had to model -- thank you, Divya

1 Mankikar who did this brilliantly -- but actually modeled
2 for the rest of the portfolio. And on the basis of that,
3 we've distilled our 100 systemically important carbon
4 emitters as we're calling them, and we're moving ahead
5 with that strategy.
6 Now, as we see more success with companies
7 reporting, and we hope initiatives like the Financial
8 Stability Board recommendations on climate risk reporting
9 get taken up, I hope we'll have a data set that we can
10 hand to academics to be studied.
11 But in the meantime, I think the market
12 information, which investors traditionally turn to, is
13 producing a lot of useful material for us. I think what
14 we're keen to do is make sure that we check in with the
15 academic analysis, so that we're not drifting in a
16 direction or dispersed in too many ways, so that we're not
17 effective.
18 And I think on that Ted summed it up well, that
19 the strategies that we've got focusing on integration,
20 advocacy, engagement through partnerships, this feels, I
21 can't say, endorsed, but I don't see literature that's
22 come through this second review which is in conflict with
23 the strategy that we've got.
24 It's more of an endorsement perhaps on the
25 governance issue, as Professor Barber rightly says. But

1 what I would be checking in for at this stage is to see
2 whether we've headed in a direction, and there are
3 important academic studies coming out saying, no, you're,
4 you know, off to hell in a handcart with this.
5 I think what we've identified on human capital,
6 physical capital, financial capital still feels robust. I
7 don't know, Dan, do you want to add to that?
8 MANAGING INVESTMENT DIRECTOR BIENVENUE: Sure.
9 The only thing I would add really is just to underscore
10 what both Anne and Ted said, which is that I don't think
11 there's anything in Professor Barber and company's
12 findings that are inconsistent with our strategic plan.
13 And I think this Board knows that my background is
14 entirely that of an investor, you know, sort of -- you
15 know, I was actually a UC Davis alum as an economics
16 major, but, you know, definitely come from an investment
17 background.
18 And when I look at both the findings and what I
19 see as consistent with my beliefs as an investor, I don't
20 see anything inconsistent with our strategic plan, right?
21 Our six priorities are manager expectations, right,
22 incorporating -- having our managers and our internal
23 strategies incorporate these in the investment
24 decision-making process.
25 It's about data disclosure. And we talked about

1 our private equity fee disclosure. We talked about that,
2 you know, this morning. Certainly, data in corporate
3 reporting, the information that investors need to make
4 decisions. The diversity work. It's very hard for me to
5 question that investment decision making and corporate
6 investment -- and corporate investment -- and corporate
7 decision making won't be better with a diverse set of
8 perspective. That's a really -- it seems very obvious to
9 me.
10 The Montreal, you know, Pledge, engaging these
11 companies that we think are going to go through this
12 transition to a lower carbon economy. And then research,
13 those are completely consistent to me with Professor
14 Barber's findings, with -- you know, with our Investment
15 Beliefs, and the way we approach the marketplace as an
16 investor.
17 Add to that, our work in proxy voting, our work
18 in all the core activities, it's very -- it's very
19 consistent me. The key point to me, I think, and that --
20 in that I think that both Ted, and Professor Barber, and
21 Anne, we're all making is that we just have to be careful.
22 We have to -- we can operate as of practitioner. I know a
23 lot of times the practitioner community will get there
24 before the academic community, we just want to apply
25 balance, apply judgment, and really think through these

1 things.
2 And, you know, that's the diversity of our own
3 set of investment decisions and perspectives. So I, for
4 one, am just as committed to our strategic plan, you know,
5 before this research is after, and if not more so.
6 COMMITTEE MEMBER YEE: Thank you.
7 CHAIRPERSON JONES: We have a couple of more
8 questions.
9 Mr. Jelincic.
10 COMMITTEE MEMBER JELINCIC: Clearly, everybody
11 wishes there was more academic support for their own bias.
12 DR. BARBER: I certainly do.
13 (Laughter.)
14 COMMITTEE MEMBER JELINCIC: The -- but one of the
15 things when I look at this page, G is on solid ground. I
16 remember, before the Council of Institutional Investors
17 got started and Jesse Unruh got his, there was not a lot
18 of support for governance. In fact, there was academic
19 work that says staggered boards are a good thing. Green
20 mail is a good thing. Over time, you know, is that it's
21 been researched and developed, it now is on solid ground.
22 We haven't had the Chamber of Commerce come and
23 tell us we shouldn't be doing corporate governance for a
24 while. But my question is, the E and the S are still
25 relatively knew. And how -- do you have any sense how

1 much its governance has long history, and therefore has a
2 solid record, and the S and the G are still relatively
3 new, and so is being more aggressively debated.
4 DR. BARBER: Well, you know, this is the bane of
5 being a social scientist is we aren't able to run
6 experiments and find drugs that cure cancer. And I'd like
7 to be able to run experiments and tell you, you know, it
8 makes sense to do X to improve the environmental
9 performance of companies and they'll earn higher returns.
10 It's just -- it's hard to do that.
11 So the literature evolves more slowly in
12 economics and social science than it does in physics and
13 medicine. And I think that's just the reality of the
14 situation.
15 So could it evolve in the same way that
16 governance did? Yes, but I can't stand here and predict
17 that with any -- with a high degree of certainty.
18 COMMITTEE MEMBER JELINCIC: Okay. Let me try my
19 question again.
20 DR. BARBER: Okay.
21 COMMITTEE MEMBER JELINCIC: I recognize that what
22 gets written about sort of depends in part who funds
23 grants. But how much of the uncertainty in the E and the
24 S do you think has contributed to the fact that it is a
25 relatively new field or new area of academic research?

1 DR. BARBER: You know --
2 COMMITTEE MEMBER JELINCIC: I'm asking you to
3 speculate.
4 DR. BARBER: Yeah. No, I understand. So I'll
5 play the speculation game. You know, I think that it's
6 still evolving, and that obviously the incentives here for
7 a scholar is to think of an overarching framework that
8 make sense of the E and the S. So, you know, I just don't
9 think we're there yet. And there certainly is a lot of
10 competition and exploding interest in the field.
11 Will it lead to breakthroughs? Not necessarily.
12 There's certainly a lot of interest, but it doesn't
13 necessarily mean that it will lead to an overarching --
14 we've been trying to find a cure for cancer for how long,
15 right?
16 So whether it will lead to some sort of cohesive
17 way of thinking about these issues or not, I'm not sure.
18 COMMITTEE MEMBER JELINCIC: Okay. Thank you.
19 DR. BARBER: Yeah.
20 CHAIRPERSON JONES: Okay. Ms. Mathur.
21 COMMITTEE MEMBER MATHUR: Thank you.
22 I recognize that you -- we haven't let you get
23 very far in your slide deck, and I apologize for that.
24 DR. BARBER: It's your time. Use it as best you
25 see.

1 COMMITTEE MEMBER MATHUR: I'm interested in what
2 kind of articles you looked, what kind of studies you
3 looked at, and whether you looked at only where investors
4 intervened, only investor practices with respect to ES&G,
5 or actual linkages between corporate performance and
6 certain ES&G factors.
7 And so I'll say like, for example, corporate tax
8 practices, tax evasion, tax avoidance, did you look at how
9 that can impact corporate performance, or did you only
10 look at how investor engagement around that issue could
11 impact the performance of the company?
12 DR. BARBER: So there are some papers on that
13 very issue, so off-shoring of taxes, et cetera, in the
14 database. Am I talking about it here? No.
15 Do I remember the exact finding of those papers?
16 No, but they are in the database, so it's fairly broad on
17 topic. And what we did was highlight and hopefully in a
18 useful way - Anne can you tell whether it's useful or
19 not - is papers among the 2,000 that we thought were
20 highly relevant for a large institutional investor like
21 CalPERS.
22 And this might be because it was about
23 engagement. And so it might help you shape your thinking
24 about how engagement is done and when it's valuable.
25 It might be because it talked about systemic

1 risks, and how these issues might be into systemic risks
2 So there are a lot of things in our minds. The RA team
3 and me that -- that elevated this to a paper that might be
4 particularly interesting.
5 And again, Anne can tell you whether we did a
6 reasonable job of highlighting those articles that are of
7 particular interest. And again, it's not -- certainly
8 there are articles we missed. We did the, again, best
9 effort.
10 COMMITTEE MEMBER MATHUR: Yeah. And did
11 you -- did you -- I mean, we're obviously seeing this
12 presentation, but did --
13 DR. BARBER: Yeah.
14 COMMITTEE MEMBER MATHUR: And in what -- I don't
15 know what you delivered to the team.
16 DR. BARBER: Sure.
17 COMMITTEE MEMBER MATHUR: Did you organize it in
18 such a way that it could -- that they could sort of
19 dig -- I mean, obviously, there's probably things --
20 DR. BARBER: It's a spread sheet --
21 COMMITTEE MEMBER MATHUR: It's a spread sheet.
22 DR. BARBER: -- with -- searchable spreadsheet.
23 And we can obviously turn this into a lot of different
24 databases that one could use. I mean, you have to keep in
25 mind that each of these 2,000 paper is a 40 to 55 --

1 COMMITTEE MEMBER MATHUR: Sure.
2 DR. BARBER: -- 40 to 50 page paper --
3 COMMITTEE MEMBER MATHUR: Yeah.
4 DR. BARBER: -- with a lot of dense equations,
5 and dah, dah, dah. It's not something that you should
6 expect the staff to be able to thumb through. And that's
7 why I encourage the Board to really focus. Like, what is
8 the one issue you really want to make progress on and
9 engage the academic community in.
10 And maybe your answer to that after hearing me is
11 none. Please go away academic community. But hopefully,
12 you'll say, well, there might be some promise to engaging
13 the academic community on diversity issues. What can we
14 learn about diversity issues, and where is it important,
15 and why is it important? What are the facts about
16 diversity and investment management, or corporate Boards,
17 et cetera?
18 So the papers that I highlighted I would -- in
19 the presentation - I haven't really talked about any of
20 them yet - were designed to be teasers. There's more
21 underneath each of these papers. And they're teasers that
22 were selected, based upon my discussions with Anne and her
23 team, about issue that were of importance to the Board.
24 And so really it's just giving you some ideas of
25 the type of work that's out there right now on issues like

1 diversity, governance in general, water, and income
2 inequality to name a few of the topics that pulled out as
3 just examples, if you will.
4 COMMITTEE MEMBER MATHUR: So you looked both at
5 the specific categories of ES&G --
6 DR. BARBER: Exactly.
7 COMMITTEE MEMBER MATHUR: -- in certain content
8 areas, as well as the strategies and tactics that
9 practitioners might employ?
10 DR. BARBER: Well, it depends on what the authors
11 of the article were looking at.
12 COMMITTEE MEMBER MATHUR: Yeah.
13 DR. BARBER: But often, one influential study,
14 for example, done by Elroy Dimson, which we saw in our
15 first, and his team, Kai Li, at University of British
16 Columbia and coauthor. They looked at the engagement on
17 environmental, social, and governance related issues, and
18 found that there were positive valuation effects for
19 environmental and social. It's the only paper that's been
20 done on the E and the S to positive period, and they find
21 positive valuation.
22 I mean, that paper is very intriguing, right,
23 particularly from the perspective of Anne and her team,
24 like what are -- what are -- how are they doing that, what
25 is the engagement? And Anne probably knows and talks to

1 these folks, but I'd say that that's the first paper.
2 And so unlike the governance stuff, where I have
3 30 papers I can talk to you about, there's literally one
4 on the engagement on the E and the S. So that's just as
5 an exampled, where I think that the academic community is
6 still kind of debating mechanisms, like what is the
7 mechanism by which we improve value when we engage on the
8 E and the S, and we don't know the answer to that.
9 Whereas, when we engage on G, we think we
10 understand the mechanism. Managers make it -- decisions
11 in their own interests not in shareholder interests.
12 And when we can identify situations when they do
13 so and improve the governance of the firm, guess what, the
14 value of the firm goes up.
15 COMMITTEE MEMBER MATHUR: Okay. Thank you.
16 And I do have suggestions around papers that you
17 might want to consider or look at, should Email you and
18 send it to Anne --
19 DR. BARBER: Shoot me an email or Anne, and I
20 don't want to violate protocol here.
21 COMMITTEE MEMBER MATHUR: Okay. I'll make sure
22 to get some to you.
23 Thank you.
24 DR. BARBER: Okay. So let me, in the interests
25 of some examples --

1 --o0o--

2 DR. BARBER: -- climate risk and market
3 efficiency is the title of a paper by Harrison Hong and
4 his co-authors. And they are the first paper that I am
5 aware of that looks at the interplay of drought risk and
6 returns. So this is kind of an interesting take on -- and
7 drought risk is related to climate risk. And they
8 basically make the observation that increasing global
9 temperatures, increased drought risk.
10 And they then go on to show that this drought
11 risk is not fully reflected in market prices and leads to
12 predictable returns. Just to quote from the paper, they
13 showed that, "Prolonged drought in a country...forecasts
14 both declines and profitability in stock returns of food
15 companies in that country".
16 So what they're looking at is specifically a
17 slice of the market that's going to be really affected by
18 drought risk food companies, and show that if you're on a
19 bad drought trend in that country, the food companies in
20 that country do pretty lousy, both profitability and
21 return-wise.
22 Now, they characterize this as a market
23 inefficiency. And they say just to quote, "Stock markets
24 are inefficient with respect to information about
25 prolonged drought...", and, "Our findings confirm

1 regulatory worries about markets underreacting to climate
2 risk can support the need for disclosure of corporate
3 exposures".
4 So, you know, here's a paper that sort of is in
5 line with I think the tack that Anne and her team is
6 taking is let's disclose some of -- some of these risks.
7 Footnote here, this is a working paper. It has not been
8 subject to peer review. My own read of the paper is that
9 it will certainly appear in a high quality outlet, but
10 that's a forecast at this stage.
11 --o0o--
12 DR. BARBER: The next slide is just showing you
13 the actual evidence from that paper. This is a -- you can
14 I think of each of these bars, if you will, as a long
15 short strategy across countries, where you invest in
16 countries where the drought is on a positive trajectory,
17 meaningless drought, and you short the industry and
18 countries where drought is on negative perspective. And
19 what you see here is that food and beverage at the bottom
20 is the one where you predictably get the biggest spread.
21 It doesn't really matter systematically in these other
22 countries.
23 Utilities comes in as another industry where it
24 seems to matter, and the paper argues that utilities
25 itself might also be affected by drought risk as well. So

1 that's the evidence from the paper.

2 --o0o--

3 DR. BARBER: Just to show you that I'm not alone
4 at least in my sort of take on these issues. Climate
5 finance is a -- had a call for papers. The Review of
6 Financial Studies, one of the top journals that I
7 highlighted before, and Harrison Hong who wrote the prior
8 paper, and Jose Scheinkman, at Columbia University, two
9 very well known and prominent economists, have developed
10 this call for papers on what they refer to as climate
11 finance, "To promote research on issues that bear on the
12 financial economics of climate change...".

13 And in their call they write, "The organizers
14 recognize that this proposed body of research is new and
15 there are few quality working papers at this point. This
16 process is designed to encourage researchers to engage in
17 innovative research on this new emerging topic". It's
18 supposed to be November of this year. We obviously are
19 keeping a close eye on what comes out of that.

20 It's very innovative in the way they've done this
21 call because they're actually looking for proposals. And
22 so I think that might be particularly interesting for the
23 CalPERS folks to see kind of what proposals come out, as
24 to how to think about these issues.

25 But I just wanted to highlight in their call,

1 they say that there is quote, "Few quality working papers
2 at this point". So it's not just me that sort of has this
3 nascent literature here.
4 --o0o--
5 DR. BARBER: This is paper -- again, I
6 highlighted this one with Anne and her team, by Denes,
7 Karpoff, & McWilliams. It was a survey paper of over 30
8 articles on governance. And I'll go through this fairly
9 quickly, because I think we're all on the same page here.
10 CalPERS again has been really at the vanguard of these
11 governance related issues.
12 What this paper highlights is that the returns
13 from activism are generally positive, and they're
14 increasingly positive the larger the stake that the
15 investor has in the company in which they engage in the
16 activism.
17 So each dot on this slide is a study. And at the
18 bottom on the horizontal axis, they're binned into studies
19 about shareholder proposals, reading from the left,
20 negotiations -- negotiations, by the way, is the bin that
21 the CalPERS engagement falls into, so there's been a few
22 studies of CalPERS and it falls into the negotiations Bin.
23 Hedge fund activism is the next bin. This is
24 where a hedge fund takes a hold in a company and then
25 engages the company to make changes.

1 Proxy fight is the next bin, which is very
2 similar to hedge fund, but it's not part of a hedge fund.
3 It's rather a to hold investor engages a company in -- to
4 make changes. And for reference, the authors of the
5 survey also put in takeovers, where, of course, the
6 acquiring company has a big stake in the firm as well.
7 And the point here is as you move from the left
8 to the right, you're getting bigger and bigger investments
9 in the company when the engagement occurs and the
10 valuation effects of the engagement tend to be bigger the
11 bigger the stake.
12 So again, I think most folks would agree that
13 engagement on the governance-related issues is well
14 warranted, and this survey provides solid evidence on
15 that.
16 --o0o--
17 DR. BARBER: Okay. The next paper that I give
18 it, by way of example, is on something that I think the
19 Piketty book really has highlighted, which is how do we
20 think about income inequality and how does that redound to
21 the benefit of growth, and how does that redound to the
22 returns that are earned by owners of capital.
23 And one paper that I think does a nice job of at
24 least analytically laying out the channels by which income
25 inequality or labor interacts with returns to capital

1 holders is a paper by Greenwald, Lettau, and Ludvigson.
2 Martin Lettau is down at Berkeley. I'm sure he'd be happy
3 to come up here and present his paper on his own, but I'll
4 do the best that I can to sort of summarize what they talk
5 about.
6 And they basically break down three components
7 that feed into the returns that you earn on capital. One
8 is risk, investors willingness to bear risk. One is
9 productivity or economic gains that might be enjoyed. And
10 the other is the labor share of the return, which is how
11 the gains are allocated between labor and capital owners.
12 --o0o--
13 DR. BARBER: So just to lay this out, the paper
14 talks about the economic pie. And the three channels that
15 affect returns are productivity, which is the size of the
16 pie; labor, capital share, which is how the pie is sliced;
17 and risk affects how much you're willing to pay for the
18 pie.
19 And so just to go through each of these channels,
20 let's say there's a productivity shock. And if I go from
21 the left pie to the right pay, we've had a negative
22 productivity shock, right? Hopefully, we get positive
23 ones, like the advent of the Internet or electricity
24 that's a positive productivity shock and it grows the pie.
25 That's going to lead to better returns or worse returns

1 depending upon the nature of the productivity shock. SO
2 that's about the size of the pie. That's one channel
3 through which you get better or worse returns.
4 --o0o--
5 DR. BARBER: The second channel is risk. And
6 this is about the willingness to hold stock or how risky
7 you view stock to be.
8 And so it doesn't change the size of the pie.
9 You can think of the size of the pie as how much earnings
10 the pie throws off. That's one way of thinking about it.
11 The price of the pie is how much you pay for it. And so
12 on the left here I say what if we're in a low-risk
13 environment, and stock is just not that risky?
14 Well, I might expect a low return in that
15 low-risk environment, and I'm going to have high
16 valuations in that low-risk environment, right?
17 On the right, it's a risky environment. And
18 again, this feeds into a lower evaluation. I'm
19 discounting those cash flows, and so the pie hasn't
20 changed, the cash flows haven't changed, but I just price
21 it at a lower level. And that lower pricing leads to
22 higher future returns. And so that's the second channel
23 by which you can variation in returns over time is maybe
24 people's appetite for risk changes.
25 --o0o--

1 DR. BARBER: And the third channel is how the pie
2 is sliced. So again, I'm holding fixed the other two
3 channels. If labor takes a bigger chunk of the pie, then
4 capital gets less. If labor takes a smaller chunk of the
5 pie, capital gets more. And so that's another channel
6 that affects the return to capital.
7 And all three of these channel are certainly at
8 play in how we think about financial returns. What this
9 paper does is try to understand which of them has been
10 important and when.
11 --o0o--
12 DR. BARBER: And so just to give you one example
13 out of their paper, this is a figure that shows the
14 correlation between the compensation share and the
15 corporate after-tax profit share of value added by
16 corporations. And the red line is the compensation share.
17 That's -- you can think of that as kind of labor's slice,
18 if you will. And the blue line is the profit share. You
19 can kind of think of that as the sort of capital share, if
20 you will.
21 And you can see in the post-World War II era
22 there, even using eyeball statistics, there's a negative
23 correlation between the two. When the labor share is
24 higher, the corporate share is a bit lower. And what you
25 can -- if you focus on -- does this work? No, you won't

1 be able to see it. But if you focus on 2000 -- say 2000
2 onward, you can see that the labor share hits its peak at
3 about 2000, and has really been steadily going down
4 whereas the corporate share has been going up since then.
5 One of the whole points of the paper is that the
6 stock market returns since 1980 -- so if you look at 1980
7 on this, you can see the labor share was still fairly high
8 at 1980, they argue most of the stock market returns since
9 1980 can be traced to sort of this differentiation between
10 the labor share of the pie.
11 So just a quote from their paper. They argue,
12 "In the long run, the market is profoundly affected by
13 shocks that reallocate the rewards of a given level of
14 production between workers and shareholder". Since 1980,
15 rewards were persistently redistributed away from workers
16 and towards shareholders. "Indeed, without these shocks,
17 today's stock market would be roughly 10 percent lower
18 than it was in 1980".
19 And again, this feeds into the Pikkety notion
20 that income inequality is surging because the return to
21 capital is greater than the productivity gains in the
22 economy.
23 And so this is just one paper that's trying to
24 understand how that feeds into the returns that we get in
25 financial markets, and I think is an interesting and

1 provocative way to at least think about these issues in a
2 cohesive way.
3 CHAIRPERSON JONES: Professor Barber.
4 DR. BARBER: Questions.
5 CHAIRPERSON JONES: Ms. Taylor, is your question
6 on this page or the previous one?
7 COMMITTEE MEMBER TAYLOR: This page.
8 CHAIRPERSON JONES: Okay.
9 COMMITTEE MEMBER TAYLOR: So thank you. This one
10 actually does kind of show what we were looking for, that
11 when we are looking at income inequality, it's obvious
12 when it -- from 1980 forward as the market share went
13 towards the employer, it created -- or towards the
14 shareholder, it went -- it created some income inequality
15 here.
16 DR. BARBER: Sure.
17 COMMITTEE MEMBER TAYLOR: So that actually did
18 show what -- some of the stuff that we were looking into,
19 I think. And more research that -- I think, Anne weren't
20 we doing some more research anyway into income inequality
21 around this issue and the Piketty book and --
22 INVESTMENT DIRECTOR SIMPSON: Yes. Thank you.
23 You'll recall when we did our review of the principles
24 last year, we had a list of issues that we needed to
25 follow up through the strategic plan, and income

1 inequality was one of them. And we went to PRI, because
2 we know that other big asset owners like CalPERS are also
3 thinking about this topic.
4 And PRI has initiated a project on this whole
5 theme. And it's got a briefing paper which sets out the
6 issues, I think, very well. And they've been hosting
7 workshops in different countries. There was one in New
8 York which Divya -- Divya attended. And I know Priya
9 Mathur has been involved in these as well. There's one
10 coming up, I think, in Norway quite soon.
11 So what the PRI is going to do, once these
12 discussions have taken place in different markets, is draw
13 together what's been learned, and then commission
14 research, which investors can turn to.
15 So we're anchoring that project through the PRI,
16 because it's something we really want to do
17 collaboratively. It makes a lot of sense to do it with
18 our partners.
19 COMMITTEE MEMBER TAYLOR: Sure. Sure. Thank
20 you.
21 CHAIRPERSON JONES: Yeah. Professor Barber,
22 looking at the second bullet on this page, "since 1980,
23 rewards were persistently distributed away from the worker
24 and towards shareholders". But then again it goes on to
25 say, "Indeed if these stocks today -- if these stocks

1 today -- in today's market would be roughly 10 percent
2 lower".
3 DR. BARBER: Um-hmm.
4 CHAIRPERSON JONES: We are a shareowner. So does
5 that mean our returns would have been lower?
6 DR. BARBER: Yes. That's the conclusion of this
7 study. They're talking about market returns in this. So
8 to the extent you think you would have earned a market
9 rate of return, they're arguing the market rate of return
10 would have been lower absent the reallocation that took
11 place from workers to shareholders.
12 CHAIRPERSON JONES: Okay. Thank you.
13 Oh, Mrs. Mathur.
14 COMMITTEE MEMBER MATHUR: Thank you. Yes. I'm
15 interested in this paper also.
16 DR. BARBER: Yeah.
17 COMMITTEE MEMBER MATHUR: And what I -- and I
18 obviously haven't read this paper, so I --
19 DR. BARBER: Bu the way it's a working paper, so
20 yeah.
21 COMMITTEE MEMBER MATHUR: Or this working paper,
22 but have they taken into account the value that the
23 workers themselves can add, if they are happier, better
24 compensated, have appropriate sick leave, et cetera,
25 things --

1 DR. BARBER: No. No.
2 COMMITTEE MEMBER MATHUR: -- things of that
3 nature. So it just assumes that there is a fixed pie
4 between shareholders and labor that is distributed.
5 DR. BARBER: I think that's a little bit too
6 simplistic. They don't -- they don't assume fixed pie,
7 because they do assume that shocks to productivity can
8 lead to higher returns. And what they do in the paper is
9 try to identify what were the sources of the market return
10 over time in general, and all three channels are
11 important. Over the last three decades, the one that's
12 been particularly important is the reallocation away from
13 workers towards capital owners. So they -- productivity
14 gains are clearly important, and they document that in the
15 paper.
16 COMMITTEE MEMBER MATHUR: Okay. But I'm just --
17 and maybe I -- maybe I'm misspoke or maybe I didn't
18 articulate it clearly enough --
19 DR. BARBER: Okay.
20 COMMITTEE MEMBER MATHUR: -- but are they
21 assuming in this second bullet where they say, "Without
22 these shocks, today's stock market would be 10 percent
23 lower", but they're assuming that there couldn't have
24 been -- that if the workers were better compensated there
25 couldn't have been productivity increases generated from

1 that?

2 DR. BARBER: Yeah, I mean, they're --

3 COMMITTEE MEMBER MATHUR: They're assuming that

4 productivity is somehow exogenous to how workers are

5 treated?

6 DR. BARBER: That's a fair statement. That's a

7 fair statement, yeah.

8 COMMITTEE MEMBER MATHUR: Okay. Thank you.

9 DR. BARBER: Yeah, that was well said.

10 CHAIRPERSON JONES: Okay. Ms. Hollinger

11 COMMITTEE MEMBER HOLLINGER: Yeah, just a quick

12 question. Do you tribute that to technology?

13 DR. BARBER: When you say "attribute that", you

14 mean this result that the work market would have been

15 lower absent this reallocation?

16 COMMITTEE MEMBER HOLLINGER: Well, tech -- the

17 use of technology creating greater --

18 DR. BARBER: Oh, the reallocation?

19 COMMITTEE MEMBER HOLLINGER: Yes.

20 DR. BARBER: Oh, okay. That's a whole other area

21 that we actually just had a conference on about -- there's

22 two channels that we suspect have been squeezing workers

23 in the U.S. The two channels are imports, trade, and

24 technology.

25 COMMITTEE MEMBER HOLLINGER: Right.

1 DR. BARBER: And there's a debate about those two
2 channels, which is more important, et cetera. But I think
3 everyone agrees those are probably two channels that have
4 a role, the debate is about how big each of those roles
5 are. There's also papers now about robots --
6 COMMITTEE MEMBER HOLLINGER: Right.
7 DR. BARBER: -- and how that's squeezing workers
8 as well. And again, the conference that we're organ --
9 trying to organize for December is trying to bring in
10 scholars on all of these issues, because it's something
11 that's particularly of interest to several scholars at
12 Davis.
13 DR. BARBER: That's it. The question queue is
14 up?
15 CHAIRPERSON JONES: Yeah. No. Ms. Taylor.
16 DR. BARBER: Oh, darn.
17 (Laughter.)
18 COMMITTEE MEMBER TAYLOR: Oh, Priya made me think
19 of something -- so on -- there I am.
20 So Ms. Mathur was saying something that made me
21 think of this. On the inequality, it seems to me like the
22 market has kind of viewed this inaccurately, because I
23 think one thing that made me think about it is when we're
24 paid better as workers, then we consume more. So I'm not
25 sure if this paper took into account consumption, because

1 it's just automatically -- it shifted 10 percent. And I'm
2 just -- it would be interesting to see if they took more
3 into account when they're -- when they're measuring that.
4 Because it would seem to me that if workers
5 were -- from '47 to '64, right, we had a pretty fair equal
6 economy in terms of income. And it seemed like we were
7 very much a consumer market and it seemed like our stocks
8 were doing pretty good at the time. But I think it's also
9 a place where -- this might be a place where we can like
10 value our workers better, and look into it. I
11 just -- it's just interesting that it wasn't part of the
12 paper. It was just kind of stark.
13 DR. BARBER: Well, I think their goal was simply
14 to understand the origins of returns and financial
15 markets. And so, you know, I agree it leaves many
16 questions unanswered. To me, the big question is how does
17 inequality feed into economic growth?
18 And I -- there are a few papers out there on this
19 topic, but it's a big open question, in my mind.
20 COMMITTEE MEMBER TAYLOR: It just doesn't seem
21 sustainable. You know what I mean, it seems like if the
22 inequality becomes so great that, you know, people are not
23 able to sustain themselves, then eventually the market
24 would see itself sustainable.
25 DR. BARBER: Certainly income equality -- you

1 know, I hope you're right. Let me just leave it at that.
2 (Laughter.)
3 COMMITTEE MEMBER TAYLOR: One hopes.
4 All right. Thank you.
5 CHAIRPERSON JONES: Okay. Mr. Lind.
6 COMMITTEE MEMBER LIND: Thank you. Professor, I
7 was just hoping you could maybe elaborate a little bit on
8 the conference -- the potential conference you referred to
9 in December inequality --
10 DR. BARBER: Yeah, so --
11 COMMITTEE MEMBER LIND: -- and what that may look
12 like, is there an opportunity to recommend participants
13 and so on?
14 DR. BARBER: We're happy to take your
15 suggestions. Right now, we're collecting papers on this
16 theme. So as Anne knows the Moskowitz Prize is a paper
17 that -- is an award that's given in the ESG sort of
18 related area. And several of the papers this year that
19 submitted -- were submitted were on this theme of income
20 inequality. So we're planning to invite a couple of those
21 authors.
22 But generally, the conference will bring together
23 people who are looking for feedback on working papers, as
24 opposed to bringing in people who have published work.
25 And so it's a day for us to get together and debate about

1 these ideas as academics.
2 We'd be more than happy to take suggestions that
3 you might have to further our understanding of these
4 issues. And we're also interested in hosting a panel to
5 sort of have a Q&A with these scholars. So, you know, if
6 CalPERS wants to be involved feel free to do so.
7 COMMITTEE MEMBER LIND: Thank you.
8 DR. BARBER: Yeah.
9 CHAIRPERSON JONES: Okay.
10 DR. BARBER: That's it?
11 CHAIRPERSON JONES: Yeah, that's it for now.
12 --o0o--
13 DR. BARBER: Thank you.
14 Gender and diversity. This is something that is
15 a research topic that I have taken up in the last year,
16 along with the CFA Institute. And my coauthor Renee Adams
17 on that has written a nice review paper. This is sole
18 authored by Renee. And in this slide I'm just laying out
19 the problem, if you will, at least with respect to gender.
20 Unfortunately, with respect to other
21 underrepresented groups, we don't have good data with
22 respect to gender. We have much better data.
23 So the red line here is basically the proportion
24 of board members who are women from the Catalyst Study,
25 which is quite famous, if you will. It uses a sample of

1 the Fortune 500. Below that is a sample that's much
2 broader. This is from Adams and Kirchmaier, 2015. And it
3 represents several thousand companies. And you'll notice
4 that once we get outside the Fortune 500 that things look
5 even worse. That is that the representation of women back
6 in '95 was about 10 percent in the Catalyst, or Fortune
7 500 sample, and it's gone up to about 14 percent, but
8 progress is slow and pitiful at best.
9 And so one of the things that I wanted to point
10 out, there's lots of arguments you can make for diversity,
11 particularly from the psychology and decision-making
12 literature about how diversity can improve the outcomes in
13 decision making context.
14 --o0o--
15 DR. BARBER: The diversity and performance length
16 though is often sort of, I think, captured as a way to
17 justify diversity. And I just wanted to be clear that the
18 academic literature there is quite mixed. And so just to
19 give you a sense, there's two review papers that came out
20 in the last three or four years, one by Rhode and Packel
21 in a law journal, one by Renee Adams in a management
22 journal.
23 And Adams writes the research in general on
24 diversity and performance, "...faces three main
25 challenges: data limitations, selection, and causal

1 inference". And correlation of evidence is often cited,
2 but potentially misleading. And she particularly points
3 to the Catalyst Study, which has a often quoted
4 correlation between return on equity and gender
5 representation, and shows how that's sensitive to whether
6 you include firm size, as an explanatory variable in the
7 analysis.
8 That's not to say there is not a link between
9 diversity and performance. It's merely to say it's very
10 hard to prove there's a link between diversity and
11 performance. Rhode and Packel write, "In sum, the
12 empirical research on the effect of board diversity on
13 firm performance is inconclusive and the results are
14 highly dependent on methodology".
15 That's not to say that diversity can't be
16 encouraged for reasons related to how it would improve
17 decision making, et cetera. I just would like to
18 personally see one be judicious about invoking the
19 academic literature saying it's going to help performance
20 when the literature is a little bit mixed on that
21 particular issue.
22 CHAIRPERSON JONES: Just a minute.
23 Mr. Lind.
24 DR. BARBER: Question queue.
25 COMMITTEE MEMBER LIND: Yeah, my turn again. So

1 I know that CalPERS, we've been pretty aggressively
2 advocating around performance and board diversity, saying
3 that there is a body of evidence around it. I mean, I've
4 said that anecdotally, because I've heard it from our, you
5 know, leadership team saying it in various forums.
6 So maybe the question is to Anne, we don't seem
7 to think there's a lot of big question around this is at
8 least the professor is highlight here in these two
9 particular articles. So where is the sort of mismatch
10 here?
11 INVESTMENT DIRECTOR SIMPSON: Thank you.
12 We've been basing our research or conclusions on
13 market research. I think you'll remember last year we had
14 presentations, for example, from Julia Dawson from Credit
15 Suisse. And what she was looking at was their own data
16 set, which they're not handing over to academics. This is
17 their proprietary staff that they analyze for selling
18 services to clients. And she was plotting measures of
19 diversity against financial measures.
20 And her analysis concluded that there is an
21 association. Now, not thinking about this from an
22 academic point of view, is it that good companies are good
23 on diversity as well as good on performance or is
24 diversity itself driving performance. I don't think she
25 was really going into that.

1 But I think what she was able to conclude is
2 that, for example, their measure of whether companies were
3 welcoming to the LGBTQ community, and she had her signs of
4 that, whether there was a member on the board, or the
5 chief executive was comfortable and public about their
6 gender identity or their sexuality, that was her measure.
7 And she could plot that against financial performance. So
8 it's that type of analysis that's come from the investment
9 banks, or the market practitioners that we've been
10 tracking.
11 But this is the next stage, which is academic
12 scrutiny, which, you know, as Ted said at the beginning,
13 the market response is quicker. It's often based on
14 private data sets, and obviously based on the opinion of
15 the investment house that you're working with. But that's
16 really the -- provided the, I think, confidence that we've
17 had that diversity is a relevant factor for company
18 performance. And I would quite comfortably stand on that.
19 COMMITTEE MEMBER LIND: Yeah, so it seems like a
20 big takeaway for us here, not only on the diversity issue,
21 but on all the issues that we've been talking about the
22 last hour is, all right, we've got, you know, the
23 practitioners, and we've got the academics. And it's up
24 to us to sort of look at the mix and kind of determine
25 what our steps are going to be, right? They're both

1 important sort of streams that we can work through.
2 DR. BARBER: I think that's true. And, you know,
3 I'll just say that the only funding and objective that I
4 have is the CalPERS grant that came from here. I get my
5 university salary, and I'm looking for objective evidence
6 here, and I hope you ask the same question of every
7 industry person who comes here.
8 COMMITTEE MEMBER LIND: Great.
9 --o0o--
10 DR. BARBER: Okay. So the next slide is CalPERS
11 ESG strategy. And so I was asked to review and comment on
12 the ESG strategy. And so Anne was kind enough to send me
13 the slide deck from about a year ago, where you reviewed
14 the strategy with the Board. And let me just be clear, I
15 haven't been extensively briefed on the direction CalPERS
16 is taking, so Anne hasn't talked to me about specific
17 engagements. Probably can't do that.
18 But I was pleased to see the basic framework here
19 is on engagement and advocacy rather than divestment,
20 because I think that while divestment may be morally
21 satisfying, and even justified in the minds of many
22 investors, I think the financial argument for divestment
23 is not as strong as the argument for engagement and
24 advocacy. So, you know, I think that most folks could
25 agree with that.

1 --o0o--

2 DR. BARBER: And the last few slides are just
3 sort of talking about a few things that I think you should
4 keep in mind as you sort of think about these issues.
5 Economists think about risk and return in sort of
6 investment opportunity space. I'm sure you've seen these
7 graphs out of the Investment Office before.

8 I took the liberty of making this graph up in
9 presentation -- in preparation for this presentation. The
10 dots here are 50 industries. So all I did was slice up
11 the U.S. market into 50 non-overlapping buckets, if you
12 will, and put each company into its primary industry code.

13 And what you see there is the returns on all
14 those 50 industries. And the risk is measured by the
15 volatility or standard deviation of the return. And, of
16 course, the curve there -- the line represents how
17 investment opportunities, or those dots, could be blended
18 to create a well-diversified portfolio. We want to move
19 to the left on risk. We want to move up on expected
20 return.

21 --o0o--

22 DR. BARBER: And so divestment obviously
23 restricts those 50 dots, if you will. So take an extreme,
24 let's say we can only itself in two industries. That
25 obviously limits us mathematically to the red line there,

1 in terms of what we can get in terms of risk and return.
2 And so that's why I think most economists would argue you
3 want to be very careful about sort of divestment
4 strategies when you think about how to deal with some of
5 these issues on the ESG front is you're, by its very
6 nature, limiting risk and return.
7 Now, you can argue that maybe doing so in one
8 industry is not particularly meaningful. It doesn't
9 meaningfully restrict your risk and return, but it is a
10 slippery slope where you -- when you go down that path.
11 And I just think it's a much more robust framework to
12 think about engagement and advocacy versus divestment.
13 --o0o--
14 DR. BARBER: Just -- I couldn't help but do this.
15 This is the 50 industry returns we just looked at, so this
16 is a quiz. I'm a professor. I have to give you a quiz.
17 This is from January 2001 to March of 2017. And
18 I've given you the total value of a dollar invested in the
19 S&P 500 at the top. It's grown to $2.50 roughly, $2.47 to
20 be precise as of March. And then each of the 50
21 industries are there. So just think silently. I won't
22 call on you. But think silently about which of these bars
23 represent the best performers. So you see the big one out
24 there grew to about $13 over the course of this 17 year
25 period. There's a couple that grew to over $10.

1 --o0o--

2 DR. BARBER: And the answer is.

3 Oh, it's hidden.

4 Well, I have the answer.

5 (Laughter.)

6 DR. BARBER: The answer is tobacco had the
7 highest returns. So it's tobacco out there with a $13
8 return. The two second ones are guns and ships. Ship
9 building, if you will.

10 And I don't think if I was standing -- I know for
11 a fact if I was standing in January of 2001, and you asked
12 me to pick the industry that would have the best return, I
13 would not have picked guns, ships, and tobacco. I would
14 have probably said technology or biotech. No.

15 So I think it's very difficult for us to view
16 what's going to be the big winner over the course of the
17 next decade or two.

18 --o0o--

19 DR. BARBER: Let me give you a more near-term
20 example. Because you guys work in markets, you might know
21 the answer to this one. This is since January of 2016.
22 So just turn your mind back. That was in the middle of
23 the Presidential election primary. And so the S&P 500
24 since then has grown about 20 percent, $1.00 invested grew
25 to about $1.19. And we've got a couple industry

1 stand-outs there.
2 So again, think to yourself about what those
3 industries would be. And the answer is the industries
4 that have done very well are coal and gold.
5 Now, if you stood back in January of 2016, would
6 you have picked coal and gold as the two industries that
7 would have done well. And you said, well, Donald Trump
8 won the election, and that's got to be good for coal,
9 right?
10 In fact, all of the gains for coal occurred
11 before the election, from January through October of 2016.
12 Coal has been down since the election. So your intuition
13 about how these things might unfold is often wrong is the
14 point of this. And when you take a divestment approach,
15 based upon a cohesive story about a particular industry,
16 you run the risk of being wrong about that story.
17 Whereas, you can engage companies about the risks they
18 face, and ask them to deal with them in a way that reduces
19 or mitigates the harm that they may encounter should those
20 risks unfold.
21 And so the whole point of these last few slides
22 is again just that I think it's a much more robust
23 framework.
24 CHAIRPERSON JONES: Professor Barber, on that
25 slide that you made reference to tobacco --

1 DR. BARBER: This one, yeah.
2 CHAIRPERSON JONES: -- companies, is that the
3 product of the company or is that the overarching company
4 products, because many of these companies are
5 diversified --
6 DR. BARBER: Sure.
7 CHAIRPERSON JONES: -- and they have income from
8 a variety of sources.
9 DR. BARBER: So I used objectively an industry
10 data set that's put together by Gene Fama, a Nobel
11 Laureate, and Ken French, his frequent co-author. And
12 they divide the economy up into different industries based
13 upon their primary SIC code, Standard Industrial
14 Classification. So some of these tobacco companies would
15 be diversified, but it would be their primary line of
16 business, tobacco.
17 CHAIRPERSON JONES: Okay. Thanks.
18 DR. BARBER: Was that the only question?
19 CHAIRPERSON JONES: Yes.
20 DR. BARBER: All right. Good. You have the
21 question queue, so I never know.
22 (Laughter.)
23 --o0o--
24 DR. BARBER: All right. So the last thing --
25 last slide here, process recommendations. I've already

1 made these, which is identify questions that are of
2 particular interest and then we can -- again, I could have
3 a whole hour of this discussion on income inequality, or
4 climate risk, or wage inequality, shareholder activism,
5 diversity.
6 I, again, have given you examples not overarching
7 conclusions on each of these topics. I think one of the
8 things that I would say though is that as you move forward
9 to also think about counterfactual evidence as you move
10 forward, not just evidence supporting your claim.
11 It is very easy to cherry-pick studies to support
12 how you're advancing. But I think for you to navigate in
13 a world where CalPERS will be under scrutiny and even
14 criticism for the path that they take, it's important to
15 know ex-ante what the Studies are that may not support the
16 path that you're taking.
17 And, in fact, I've tried to highlight some of
18 those studies. And I hope you don't take it the wrong
19 way. It's more so that you're aware of the landmines that
20 are there for you in the academic literature and you can
21 deal with them head on.
22 I'd be happy to identify papers and scholars on
23 any of these topics. I'm not an expert on all of them for
24 sure, but I certainly am engaged in the academic community
25 and could certainly point you to people who would have

1 expertise in a particular area.
2 And there's lots of different ways you can
3 engage. And you guys know best what the best way to do
4 that is. Is it Board workshops? Is it seminars at
5 CalPERS? Is it conferences? You know, we'd be happy to
6 have you participate in anything that we do at Davis.
7 Berkeley also does a lot of this, as does Stanford. And
8 those are all fairly close by. So it's a good way for you
9 all to engage with the academic community.
10 Let me just close by saying I think the academic
11 community has a lot to offer. We really want to help
12 investors get it right. We view ourselves as scientists.
13 I know it's not in vogue these days, but it will come back
14 in fashion.
15 (Laughter.)
16 DR. BARBER: And I think if you engage with us,
17 we can help you make sensible decisions. We can't always
18 give you the answer that you want, because we like to
19 think about things in a very careful way, but I think we
20 can help you engage in a way that's thoughtful and moves
21 the ball in the right way. So thanks very much for having
22 me.
23 CHAIRPERSON JONES: Okay. Well, thank you very
24 much for a very clear presentation. And it created a lot
25 of discussion and robust dialogue. So we really

1 appreciate that.
2 DR. BARBER: Thank you.
3 CHAIRPERSON JONES: I think just looking at your
4 questions of interest, they're consistent with our
5 strategies on ESG integration. So certainly, those are
6 the questions we -- the Committee has been raising for
7 some time, so those are appropriate.
8 And I think identify papers and scholars, and
9 also someone suggested members to serve on a panel. I
10 would just ask Committee members to send them through the
11 Investment Office, so that we're not all sending
12 information directly to Professor Barber, if you have
13 those.
14 And then I think the Committee we need to see
15 whether or not we want to have a Board workshop in this
16 area, or just a seminar at CalPERS. So we'll talk through
17 that possibility going forward. But I know we want to do
18 something in this regard, but we'll talk about it and see
19 which one is the best avenue.
20 So again, thank you very much for your
21 presentation. And before we close, we do have one request
22 to speak on this item. Neal Johnson, are you still here?
23 There he is.
24 MR. JOHNSON: Neal Johnson, SEIU 1000. I thank
25 you for the opportunity.

1 Several things that I was going to say got sort
2 of said during this discussion, and particularly going
3 back to slide 16 and 17. It reminded me -- one of the
4 things that struck me was a quote I got from a professor
5 in graduate school in the early 1970s that made the
6 comment that Marx was wrong, it was not religion that was
7 open to the people, but monetary economic growth.
8 We have -- you know, in this discussion of the
9 shift from 1980 forward on amount -- or returns to labor
10 versus capital, and essentially labor has been flat, that
11 got sort of screened by money incomes going up, but real
12 wages have dropped. Certainly some people have done all
13 right. But, you know, we are becoming a society both here
14 in this country and even more so globally, of income, and
15 more appropriately wealth inequality. The rich get richer
16 and the -- it reminds me of the article in The Economist a
17 number of years ago that George Diehr -- Joe Dear, excuse
18 me, made reference to once of the march of the giants.
19 And if you lined the people of the earth up and walked
20 them along, you would spend half of the march and never
21 see anyone. And then at the end you would see the march
22 of the giants.
23 And, you know, we have really seen that happen.
24 And the big -- one of the big problems is that for the
25 working people, is they are both the workers, but they're

1 also consumers. The people who consume the goods -- you
2 know, this is one of the basic truisms of this economy is
3 we're a consumption economy, and so you cannot have labor
4 being pushed to the bottom, the whole system becomes
5 essentially non-sustainable.
6 Anyway, I thank you very much for this
7 presentation, and thank you very much.
8 CHAIRPERSON JONES: Okay. Thank you, Mr.
9 Johnson.
10 Okay. Ted, do -- you and Wylie can come back to
11 dais.
12 And summary of Committee direction?
13 CHIEF INVESTMENT OFFICER ELIOPOULOS: Okay. I
14 think we have it down for you. First, to bring back to
15 the Committee a better display of return -- capital market
16 assumption return estimates versus actual over varying
17 time frames. We will do that. That's number one.
18 Number two, for the coming candidate portfolios,
19 as part of that asset allocation process, to do scenario
20 analysis, including the scenario the financial crisis.
21 And then the third, I'm not quite sure if it was
22 Committee directed, but the suggestion was that we, as
23 part of the asset allocation review and looking at the
24 constraints that might apply to private equity or not,
25 that we include a discussion at that time of the -- you

1 know, the number of external managers and how that might
2 affect it. And that's certainly something we can do.
3 CHAIRPERSON JONES: Yeah, that should be
4 included.
5 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I
6 had one additional one. I think that just happened, which
7 was that if -- I think you directed -- actually, your
8 committee, that if they have suggestions on scholarly
9 papers for Dr. Barber to review, that you just direct it
10 through Ted or I --
11 CHAIRPERSON JONES: Yes.
12 CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
13 -- and we can make sure that they're provided to
14 Dr. Barber.
15 CHAIRPERSON JONES: Sounds great.
16 Okay. Good job. Thank you very much.
17 That brings us to public comment. I don't have
18 any requests to speak at this time. If there's anyone in
19 the audience that would like to speak at this time, let us
20 know.
21 If not, this meeting is adjourned.
22 (Thereupon California Public Employees'
23 Retirement System, Investment Committee
24 meeting open session adjourned at 3:34 p.m.)
25

1 C E R T I F I C A T E OF R E P O R T E R

2 I, JAMES F. PETERS, a Certified Shorthand
3 Reporter of the State of California, do hereby certify:
4 That I am a disinterested person herein; that the
5 foregoing California Public Employees' Retirement System,
6 Board of Administration, Investment Committee open session
7 meeting was reported in shorthand by me, James F. Peters,
8 a Certified Shorthand Reporter of the State of California,
9 and was thereafter transcribed, under my direction, by
10 computer-assisted transcription;
11 I further certify that I am not of counsel or
12 attorney for any of the parties to said meeting nor in any
13 way interested in the outcome of said meeting.
14 IN WITNESS WHEREOF, I have hereunto set my hand
15 this 23rd day of June, 2017.
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