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, OCTOBER 19, 2015 9:25 A.M.

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

## APPEARANCES

## COMMITTEE MEMBERS:

- Mr. Henry Jones, Chairperson
- Mr. Bill Slaton, Vice Chairperson
- Mr. Michael Bilbrey
- Mr. John Chiang, represented by Mr. Frank Moore
- 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
- Ms. Theresa Taylor
- Ms. Betty Yee, also represented by Lynn Paquin

### STAFF:

- Ms. Anne Stausboll, Chief Executive Officer
- Mr. Doug Hoffner, Deputy Executive Officer
- Ms. Cheryl Eason, Chief Financial Officer
- Mr. Ted Eliopoulos, Chief Investment Officer
- Mr. Matthew Jacobs, General Counsel
- Mr. Eric Baggesen, Managing Investment Director
- Mr. Dan Bienvenue, Managing Investment Director

## APPEARANCES CONTINUED

## STAFF:

- Ms. Kit Crocker, Investment Director
- Ms. Cheryl Edwards, Committee Secretary
- Mr. Curtis Ishii, Managing Investment Director
- Ms. Diane Sandoval, Investment Manager
- Ms. Anne Simpson, Investment Director
- Mr. Wylie Tollette, Chief Operating Investment Officer
- Ms. Laurie Weir, Investment Director
- Mr. Kevin Winter, Investment Director

## ALSO PRESENT:

Reverend Arsolin Almodiel, Episcopal Church

- Ms. Julia Bonafede, Wilshire Consulting
- Ms. Janet Cox
- Mr. Allan Emkin, Pension Consulting Alliance
- Ms. Alyssa Giachino, UNITE HERE
- Mr. Andrew Junkin, Wilshire Consulting
- Ms. Asela Martinez, UNITE HERE
- Mr. Tom Toth, Wilshire Consulting
- Mr. Jose Turcios, UNITE HERE

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# 1 PROCEEDINGS 2 CHAIRPERSON JONES: I'd like to call the 3 Investment Committee meeting to order. And the first 4 order of business is roll call, please. COMMITTEE SECRETARY EDWARDS: Henry Jones? 5 CHAIRPERSON JONES: 6 Here. 7 COMMITTEE SECRETARY EDWARDS: Bill Slaton? 8 VICE CHAIRPERSON SLATON: Here. 9 COMMITTEE SECRETARY EDWARDS: Michael Bilbrey? 10 COMMITTEE MEMBER BILBREY: Good morning. COMMITTEE SECRETARY EDWARDS: John Chiang 11 represented by Frank Moore? 12 13 ACTING COMMITTEE MEMBER MOORE: Here. COMMITTEE SECRETARY EDWARDS: Richard Costigan? 14 15 COMMITTEE MEMBER COSTIGAN: Here. 16 COMMITTEE SECRETARY EDWARDS: Rob Feckner? 17 COMMITTEE MEMBER FECKNER: Good morning. COMMITTEE SECRETARY EDWARDS: Richard Gillihan 18 19 represented by Katie Hagen? 20 ACTING COMMITTEE MEMBER HAGEN: Here. 21 COMMITTEE SECRETARY EDWARDS: Dana Hollinger? COMMITTEE MEMBER HOLLINGER: 22 Here. COMMITTEE SECRETARY EDWARDS: J.J. Jelincic? 23 2.4 COMMITTEE MEMBER JELINCIC: Here. 25 COMMITTEE SECRETARY EDWARDS: Ron Lind?

2.

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1
             COMMITTEE MEMBER LIND: Here.
 2
             COMMITTEE SECRETARY EDWARDS: Priya Mathur?
 3
             COMMITTEE MEMBER MATHUR:
 4
             COMMITTEE SECRETARY EDWARDS:
                                           Theresa Taylor?
             CHAIRPERSON JONES: Excused.
 5
 6
             COMMITTEE SECRETARY EDWARDS: Betty Yee?
7
             COMMITTEE MEMBER YEE:
                                    Here.
             CHAIRPERSON JONES: Okay. Thank you very much.
8
9
    I would like to take a moment of personal privilege just
10
    to let everyone know that today is Betty Yee's birthday.
11
             (Laughter.)
12
             CHAIRPERSON JONES: So we all wish you a happy
13
   birthday, Betty.
14
             (Applause.)
15
             COMMITTEE MEMBER JELINCIC: That's a secret.
16
             CHAIRPERSON JONES: I know.
                                          She
17
             COMMITTEE MEMBER FECKNER: And we won't sing.
18
             CHAIRPERSON JONES: Right. That's right.
19
             Okay. Thank you.
20
             Now, we move on to the Chief Investment Officer's
   briefing. Executive Report, Mr. Eliopoulos.
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             CHIEF INVESTMENT OFFICER ELIOPOULOS: Good
22
23
   morning, Mr. Chair, members of the Investment Committee.
2.4
             Well, this month is noteworthy in that we take up
25
    a topic that CalPERS has discussed on recurring basis
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really for decades now, and the topic is divestment.

And in order to frame our later agenda items, specifically 7a and 7b, I thought I would review our Investment Beliefs and our Board-adopted divestment policy to provide the lens or the framework by which we look at this topic.

I'll start with our divestment policy itself, which is quite noteworthy in itself for its rather straightforward language. In particular, it states that this policy generally prohibits divesting, but permits CalPERS to use constructive engagement to help divestment initiatives achieve their goals.

Also noteworthy though is the policy also allows for divestment where an investment is deemed to be imprudent and inconsistent with our fiduciary duties.

Our Investment Beliefs, as we have seen in other policy arenas, provides a fuller framework to review complex policy issues that we face. And as we've seen in previous complex policy topics we've taken up from time to time, there is always a certain tension between and among the Investment Beliefs that we've adopted.

A quick survey of these beliefs I think are helpful to frame our discussion. So first, Investment Belief number 3, that CalPERS investment decisions may reflect wider stakeholder views, provided they are

consistent with our fiduciary duty. And the subbeliefs in Investment Belief number 3, I think, also provide some important framing. Particularly sub-belief for number 3, that engagement is our preferred means of addressing stakeholder views. And further and importantly another sub-belief here, which is our primary stakeholders are our members and our beneficiaries, employers, and California taxpayers who bear the economic consequences of our investment decisions. So that's Investment Belief number 3.

Investment Belief number 4, that long-term value creation requires the effective management of three forms of capital, financial, physical, and human. Here again, in the sub-belief, we prefer strong governance and engagement. And here sub-belief is important to note as well, that environmental practices, including climate change and natural resource availability are important and prime engagement topics.

Investment Belief number 9, risk is multi-faceted and not fully captured in measures such as volatility and tracking error. Here again, a sub-belief that was much debated and written. As a long-term investor, CalPERS must consider risk factors such as climate change and natural resource availability that emerge slowly over long time periods, but could have a material impact on

companies that we own or on portfolio returns.

Well, how does that framework of those three Investment Beliefs widen when we consider, and here's where some of the tension comes into the interplay of our beliefs, with Investment Belief number 6?

That strategic asset allocation is the dominant determinant of portfolio risk and return. And here, one of the subbeliefs is also important. CalPERS will aim to diversify its overall portfolio across distinct risk factors and return factors.

Well, let's add to this frame one more piece, which is Investment Belief number 7. CalPERS will only take risk where we have a strong belief that will be rewarded for it. Here again, the subbeliefs are informative. Markets are not perfectly efficient, but inefficiencies are difficult to exploit after costs.

CalPERS will use index tracking strategies where we lack conviction or demonstrable evidence we can add value through active management. So with many of the complex policy issues that this Committee, this Board has to take up, I believe these Investment Beliefs truly provide the Investment Committee with a full lens, a fulsome framework to review, in this case, our current divestment and portfolio exclusions, as well as the coal divestment legislation that has recently been signed into

law.

You, as the Committee, will be asked to weigh the tensions among your Investment Beliefs, to weigh your views of risk, of efficient markets, of active management, and of climate change, risk, and policy. I think that we are very well served by the thoughtful and written belief structure that we have put into place just for these type of policy discussions that you'll be having today.

Mr. Chair, that concludes my remarks. Thank you.

CHAIRPERSON JONES: Okay. Thank you very much.

We have a question.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Ted, since the last meeting, Blackstone has been fined by the SEC for some of its activities in private equity. One of the issues was they're putting their own interests ahead of ours in terms of legal fees and getting a larger discount for themselves than they were getting for us.

The more interesting thing is that they said that they told all of their partners in 2012 about it, and no one complained. And I was just wondering, why did we not complain when we were told that our partner was, you know, putting their interests ahead of our own?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Sure, Mr. Jelincic. As you know, next month, we'll have a workshop

on private equity on the industry. And I do believe that the full context that that discussion will provide will be helpful as we take up some of these individual topics from time to time.

In 2012, our private equity staff had looked at the disclosure that Blackstone had provided at that time. And at that time, our staff reviewed it and did not believe it expressly violated the terms of our partnership agreement. I think apparently all the other limited partners, as you note, came to a similar conclusion.

The SEC used its regulatory powers, under the Investment Advisors Act, to step in and really unwind this practice. And as I've said many times, private equity is in a period of change. There will be important moments coming in the future, in terms of both disclosures that are coming out from the regulatory review by the SEC. And these are important and good for the marketplace.

I do believe through the actions of CalPERS and other limited partners, there will be much more disclosure and transparency coming in the future than has been historic to date. And CalPERS plans on being in the forefront of that.

COMMITTEE MEMBER JELINCIC: And the other thing that they got fined for was collecting monitoring fees after they had exited the interview -- or the portfolio

company. In the order, they said that they had noticed the advisory committee. Were we on the advisory committee and did we get the notice? And again if we got it, why didn't we react?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Well, you know, acceleration of management fees is definitely a topic we'll be discussing next month. And it's dangerous territory to take up individual contracts one by one, because the -- as I've said a number of times, and I think our staff has said, the individual agreements are negotiated individually. So having -- it requires great specificity in replying to a question like that.

So I think for this point in time, I would defer until our workshop on a discussion of this point. But generally, to answer your question, I think at the time that disclosures about acceleration of management fees, in this case, I think it's fair to say that the limited partner agreements really are the most important governor of whether or not it's allowed or not allowed. And in general, the partnership agreements that are in place to date historically within the private equity industry have been very favorable to the general partner as opposed to the limited partners, and generally permissive of these types of actions.

So with that, I'll stop and say that I think

we'll be taking this up in more detail next month.

2.4

COMMITTEE MEMBER JELINCIC: Okay. And then one other --

CHAIRPERSON JONES: Mr. Jelincic, this is the last question, because we've got to get through the whole agenda, so this will be the last question.

COMMITTEE MEMBER JELINCIC: Yeah. The ILPA is working on a new disclosure to capture some of this stuff. The version that I saw, which admittedly is not the last version, it was version 4, doesn't look like it would capture either the legal fee issue or the accelerated monitoring fees after exiting for the fund. Is the final version going to incorporate that or is it -- I guess, that's really the question. If we're going to count on that, and the report doesn't capture it, how do we solve it going forward?

CHIEF INVESTMENT OFFICER ELIOPOULOS: That's a follow-up that I'd be glad to take ILPA as they finalize their work -- their worksheet for November.

COMMITTEE MEMBER JELINCIC: Okay. Thank you.

CHAIRPERSON JONES: Okay. The next item on the agenda is the consent action item, approval of the September 15 meeting minutes. Do we have a motion?

COMMITTEE MEMBER JELINCIC: I'll move.

COMMITTEE MEMBER MATHUR: Second.

CHAIRPERSON JONES: Moved by Mr. Jelincic, second by Ms. Mathur.

All those in favor say aye?
(Ayes.)

2.4

CHAIRPERSON JONES: Opposed?

Hearing none. The item passes.

The next item on the agenda consent item for information purposes. No one has requested any of those items to be removed from the list for discussion, so we move now to the next item, Global Governance Policy Ad Hoc Subcommittee report. And for that, I call on the Vice Chair of the Global Governance Policy Ad Hoc Subcommittee, Mr. Bill Slaton.

VICE CHAIRPERSON SLATON: I've got to find it first. Thank you, Mr. Chair.

The Global Governance Policy did meet on September 15th. The Committee discussed and approved staff recommendations for the first phase of structural changes to the Global Governance Policy.

The Subcommittee received a presentation on the global governance principles alignment with the program core issues. Highlights of what to expect at the next Global Governance Policy Ad Hoc Subcommittee meeting, which I believe is today.

CHAIRPERSON JONES: Wednesday.

VICE CHAIRPERSON SLATON: Wednesday, pardon me.

The second reading of the global governance principles alignment with the program core issues.

And the next meeting will be in October 2015 in Sacramento, California.

CHAIRPERSON JONES: Thank you, Mr. Slaton.

We have Mrs. Hagen.

ACTING COMMITTEE MEMBER HAGEN: I had a question on one of the consent items. Would this be a time to ask that question?

CHAIRPERSON JONES: Yes. Go ahead.

ACTING COMMITTEE MEMBER HAGEN: It's Item 4c,

Attachment 1. I don't know if it's a question or a

request. But I was looking at the risk and return

summary, the three-year realized information ratio, and I

was wondering if it would be possible to see different

snapshots, maybe five or 10 years worth of information?

I thought it might be more helpful to the reader in terms of being able to highlight the manager's ability to add value to the portfolio. It's just a little hard to see in a three-year snapshot. Some of the prior graphics show -- if you look at the total fund, it shows a nice run of 10 years or so where you can see the overall performance. So I've just asked you consider that in going forward showing us a larger piece of time.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Wylie Tollette, CalPERS staff.

Yes, absolutely, Ms. Hagen. That's something we can take up and work to incorporate into the report going forward.

ACTING COMMITTEE MEMBER HAGEN: Thank you.

CHAIRPERSON JONES: Thank you.

I call on Ms. Mathur.

2.4

COMMITTEE MEMBER MATHUR: Thank you, Mr. Chair.

I wanted to just take a moment to update the Committee and the public about the Principles for Responsible Investment.

As you may know, CalPERS has been involved with PRI since before the principles launch in 2006. In fact, our own Anne Stausboll, who was then our Chief Operating Investment Officer, was a key contributor to their drafting.

To recap, the six principles constitute a pledge that investors make on a voluntary basis to incorporate environmental, social, and governance, or ESG issues into investment analysis and decision making to be active owners who incorporate ESG issues into our ownership practices and policies, and to seek ESG disclosure from the entities in which we invest.

The signatories further commit to promote the

principles within the investment industry, to collaborate to enhance our effectiveness, and to report our activities and progress. CalPERS was one of the first signatories -- one of the founding signatories of the Principles for Responsible Investment.

Since its founding in 2006, PRI has grown significantly reaching now 1,400 signatories globally. And the cornerstone of PRI is its reporting and assessment framework. All asset owners and asset managers are obligated to report on their investment activities. And then PRI assesses the signatories' reports and signatories are allowed to the share that assessment or not at their discretion. And I think we did -- we've done very well. We got an A plus score this past year.

It's important to note that PRI is not prescriptive around how the principles are implemented by signatories. Different approaches may be appropriate for different signatories.

So in addition to this mandate that PRI puts on its signatories to report and participate in the assessment, PRI offers implementation support, including case studies, webinars, discussion papers, guidance documents, research, and practical tools to support implementation. Through a platform called the Clearinghouse, PRI provides signatories with a private

forum to pool resources, share information, enhance, influence, and collaboratively engage companies, stakeholders, policymakers, and other actors in the investment value chain on ESG issues across different sectors and regions. And these engagements could either be led and coordinated by PRI or led by the signatories themselves. In many cases, that's the case.

But key engagements include water risks, labor standards, and the agricultural supply chain, anti-corruption, which I know we were very involved in, and incorporating ESG into executive compensation.

PRI also has regional networks globally all over the world. And, in fact, in the U.S., we have two -- we have a regional network manager located in New York and another individual also supporting that effort in New York.

In addition to that, PRI has a policy workstream, which is -- the purpose of which is to engage signatories, policymakers, and regulators to identify and tackle regulatory barriers to responsible investment. Some of the focuses of this effort have been long-term mandates and fiduciary duty. And, in fact, PRI just released a fiduciary duty paper in September at our annual PRI in-person conference, and we'll be really seeing a U.S. focused fiduciary duty paper in November.

There's also an academic network associated with PRI that supports PRI signatories by providing academic research that is thought-provoking, analyzes current thinking and future trends, and provides practical recommendations on topics, such as ESG integration, long term-term investing, and financial performance.

This past year, as you may have heard, has been one of significant transformation for PRI. We did a significant governance review and the outcome of which was 10 recommendations that essentially consolidated two governing bodies into one, and made a few other changes as well.

And then the -- I also wanted to share that the theme of our three-year strategy is moving from awareness, which is sort of where we've put our focus since the founding of PRI, to impact. So now we're focusing more on measuring impact. And out of that came the Montreal Pledge, which Calpers is one of the first five signatories to, which in -- with which investors commit to measure and publicly disclose the carbon footprint of their investment portfolios starting this December.

This past year also PRI purchased the RI Academy, Responsible Investment Academy, a provider of on-line responsible investment education tools. And after rebranding and updating the academy which is now PRI

Academy, today offers three courses, RI Fundamentals, RI Essentials, and Enhanced Financial Analysis, all of which have been approved by the CFA Institute for credit hours.

So looking ahead, and then I'll wrap it up Mr. Chair, 2006 marks PRI's 10th anniversary, an appropriate moment, I think, to reflect on where we've been and to develop a fresh and compelling vision for the future, strengthening, and where necessary redefining, what being a signatory to the principles means. A natural starting point is a review of the six principles themselves, along with PRI's mission statement.

So as you all know, the principles were drafted before the 2007/08 financial crisis and primarily address the relationship between investors and investee companies. Yet, much of our work today is on fiduciary duty, long-term mandates, sustainable stock exchange initiatives and more, which address more systemic issues and principle agent problems within the investment community.

While this is reflected in the PRI's mission, which was drafted after the financial crisis, it raises the question should we consider adding a seventh principle to our -- to the six that we've already adopted. And so that will be an important question that we will consult with signatories over the coming year.

So there's a lot more that I could share. I've

tried to keep it brief, but I will end may remarks there and thank you very much, Mr. Chair, for your indulgence.

CHAIRPERSON JONES: Thank you.

Ms. Yee.

COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.

Ms. Mathur's comments just triggered some thoughts from me with respect to this Board's focus on ESG strategic planning that will be taken up at the off-site. And it seems to me with all this great work that PRI has done, there are many tools out there that I think I would just say that I would like to understand better with respect to how we can incorporate that in our own planning relative to how we incorporate ESG considerations.

So I do think certainly with the 10-year mark coming up that a look at where we can apply some of what's been developed may be appropriate. And I appreciate the half day that's going to be devoted to this effort at the off-site.

CHAIRPERSON JONES: Okay. Thank you very much.

Thank you.

CHAIRPERSON JONES: Okay. Thank you. We'll move now to the next item on the agenda, Revision of Global Equity Policies. Mr. Tollette -- or who's -- all right.

COMMITTEE MEMBER YEE:

INVESTMENT DIRECTOR CROCKER: All right. Thank you and good morning. Kit Crocker, Calpers Investment

Officer staff.

I'm requesting the Committee's approval of the revised and updated investment policy for the Global Equity Program. This item was first presented last month in conjunction with the Global Equity's annual program review. Since that initial review, as outlined in the agenda item, several updates have been incorporated based upon the Committee feedback.

As discussed last month, most of the changes involve reformatting consistent with the overall policy review initiative, as well as reducing tracking error -- the lower boundary for tracking error by 25 basis points to zero.

With that, I will pause for any questions.

CHAIRPERSON JONES: Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you, Mr. Chair.

So on page one of Attachment 1, which is the red-lined version of the policy, the first paragraph in the introduction you've added a section that says, "Included, but not limited to", and a number of things were listed. I'm not sure that that is quite clear enough, because it looks like it's modifying investment programs, and that you're then listing a number of investment programs, when what I think you're actually listing are mostly policies, but -- so I guess I'm

just -- I just think the wording needs -- I'm sorry to say, I think the wording needs to be thought through a little bit more clearly.

INVESTMENT DIRECTOR CROCKER: Okay. Yeah, and I see your point. The intent was to take -- it's actually relocating some language from the third paragraph that's intended to amplify on what the Total Fund Policy contains. So this is really describing components of the Total Fund Policy.

COMMITTEE MEMBER MATHUR: So I can appreciate that. I think maybe the language could be clearer, that that is what it is doing. So perhaps even putting a period and saying the Total Fund Policy sets the overarching investment purpose and objectives by touching on these things. I don't know. And then divestment at the end, these are -- it's really a divestment policy. I think it's a little confusing to say that divestment is an overarching purpose and objective.

INVESTMENT DIRECTOR CROCKER: Okay. Understood.

COMMITTEE MEMBER MATHUR: Does that make sense?

INVESTMENT DIRECTOR CROCKER: Yes.

COMMITTEE MEMBER MATHUR: It just feels like it's not quite telling the right story yet.

So the other question I had is again with respect to the strategic -- well, this is with respect to the

strategic objectives, so A and B. Both of them still mention managing volatility as the primary objective as opposed to managing risk. So while the first part of strategic objective A, which says the program seeks to meet or exceed the absolute return generated by global public equities indicates -- as represented by the benchmark, indicates that you might be looking at sort of more systemic risks, if you're really trying to address the absolute return of the benchmark itself.

The second half is really talking about volatility vis-à-vis the benchmark, which is really about relative performance, so I'm a little bit -- I don't know. I'm a little bit confused about that.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Within the Global Equity Policy -- Wylie

Tollette, CalPERS staff. Within the Global Equity Policy,
the tracking error constraint is, in fact, the primary
risk boundary and constraint. There are other policies,
including the Global Governance Policy, which impact how
we implement global equity, that include considerations of
many other types of risks, as you know, environmental,
social, and governance included in that mix.

In addition, I would suggest that a broader consideration of the risks embedded in the benchmark and in our Global Equity Program be taken up as part of our

benchmark consideration discussion, which I think our next step on that journey is in January at the off-site, when you talk about portfolio priorities and if, in fact, we want to begin selecting a different benchmark. But as it stands today within the Global Equity Policy, their objective and our risk constraint is really captured and primarily focused on that tracking error, in other words, volatility based.

COMMITTEE MEMBER MATHUR: So then why does strategic objective A talk about absolute return as opposed to relative return? And it's talking about absolute return of the benchmark itself.

MANAGING INVESTMENT DIRECTOR BIENVENUE: Dan Bienvenue, Managing Investment Director, Global Equity.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I'm trying to find the word. Sorry.

COMMITTEE MEMBER MATHUR: Oh, sorry. It's on page -- it's still on page one, the first paragraph under strategic objective. It's marked number A, "The program seeks to meet or exceed the absolute return generated by global public equities".

MANAGING INVESTMENT DIRECTOR BIENVENUE: We put the word absolute in there, really just to say that what we're trying to achieve is the return, but it's definitely not absolute return from an Absolute Return Strategies

sense. It's the absolute return from a mathematical sense, which is if it's positive, we expect it to be positive. If it's negative, we expect it to be negative. But that word absolute return is absolute mathematically, as opposed to absolute like an Absolute Return Strategy.

COMMITTEE MEMBER MATHUR: Right.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I have a sense that the use of the word absolute -- the use of the word absolute in sort of a quantitative Investment Manager context means the absolute return disregarding the performance of the benchmark. Whereas, I think in this context, it basically means we just want to make sure we capture the returns of the benchmark. So we might reconsider the use of the word absolute here, because I think it's confusing.

COMMITTEE MEMBER MATHUR: I think it is. I think it is confusing. So maybe optimizing the return or -- I don't know what the right word is. I don't want to wordsmith it to death, but I --

MANAGING INVESTMENT DIRECTOR BIENVENUE: We could just strike the word. Why don't we just strike the word?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Capture. We're happy to strike the word. I think it's a good clarification.

COMMITTEE MEMBER MATHUR: Okay. And thinking

long term, I do hope that we can start thinking a little bit bigger about all of the risks embedded in global equities. And I know -- I know this reflects the current state, but as we move forward. Yeah. Thank you.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: In the introduction, I would actually like to support Priya's position that it really is not clear. In the briefing, I had suggested just leaving it in the last paragraph -- in the third paragraph, because it provides direction on where to look for these things.

But if we're going to strike it in three, then I think we do need to say that in the first paragraph that it is actually the total policy, so that there's a reference on where to look. And I also agree with Priya's comment on absolute in A.

The -- also, in the briefing, I had pointed out on page two of five, where we used asset class tracking error relative to the benchmark, the definition of asset class tracking is relative to the benchmark. So it's somewhat redundant to repeat that. You know, so we're really saying the asset class tracking error relative to the benchmark is the risk relative to the benchmark. So I would actually suggest we strike that a little bit.

And then throughout in Appendix 1, we talk about

the staff shall report concerns, problems, and material changes. And I just want to make sure the material changes is intended to include manager changes and why we changed -- you know, what we -- why we changed the manager, what we thought we were gaining, what we thought we were giving up?

And if that's the intent, then, you know, we'll put it on the record that's the intent and I won't worry about it. If not, then we need to do something.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That is the intent. The -- however, some of those changes are reported in closed session verbally. So the closed session materials do include changes for the Global Equity Program to the manager roster, both hirings and firings. The why's are generally communicated verbally.

COMMITTEE MEMBER JELINCIC: And I don't have a problem with that. I just want -- and I don't have a problem with it being done in closed session. I just want to make sure that I'm not always having to ask the question, well, why, what are we giving up, what are we getting? It ought to be part of the report.

And then the other issue that I have is the tracking error going from zero to 50. I'm not sure that we actually -- that a zero tracking error is really

desirable, because that basically says you're not using any of the risk budget. And I think if we're going to say don't use the risk budget, we ought to have a specific conversation about sacrificing the risk budget.

MANAGING INVESTMENT DIRECTOR BIENVENUE: You know, as far as just making it zero to 50, we really just wanted to remove the lower bounds. We had to choose a lower bound. That lower bound could be zero, it could be five, it could be 10, it could be 25, like it had been. Although that was again a target and not an actual budget. We just didn't want any incentive to take what we would view to be uncompensated risk.

I don't envision the portfolio getting down to zero predicted tracking error, at the same time. We just didn't want to have a lower bound that forced some risk taking, if we weren't comfortable with that risk.

COMMITTEE MEMBER JELINCIC: The only way we get to a zero risk is to be completely indexed or to have -- be mainly indexed, but have two active managers that are taking the opposite risks, in which case, we're paying for active management fees to get to a index position. And I'm just not sure that we really want to write that into policy.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: We would engage in discussions with the Committee before we

decided to eliminate active risk from the program.

COMMITTEE MEMBER JELINCIC: Okay.

CHAIRPERSON JONES: Thank you. This is an action item. Do we have a motion?

COMMITTEE MEMBER JELINCIC: I would like to defer it to next month and give them a chance to do some wordsmithing on the issues we raised.

CHAIRPERSON JONES: But I thought I heard concurrence to the comments that were made on the ones that were pertinent. So you don't believe that you could see the changes when it's actually done?

COMMITTEE MEMBER JELINCIC: Well, I'm just not real comfortable adopting a policy that is not the policy that we're adopting.

CHAIRPERSON JONES: Okay. All right. Yeah, Ted.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I think the change has to do with the introduction or the preamble to the policy that -- in paragraphs 1 and 3, you know, the attempt is to modify the Total Fund Policy with the other related policies, and I think the wording, as it appears here in the preamble, is -- I don't think we can change it on the fly, because there's some confusion over the modifying participle.

So why don't we take a look at it and see if we can get the sentence restructured in a way that meets the

intent of, you know, modifying the policy and not the programs themselves, which is a point well taken.

So with that, we would bring this policy back next month with some suggested changes.

COMMITTEE MEMBER JELINCIC: And the issue in strategic objective A.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Oh, then those are ones we could handle today. So in other words, if we were to strike "absolute", I think that would be worthwhile.

CHAIRPERSON JONES: Well, since you're going to bring it back anyway, so just make all the changes at one time.

CHIEF INVESTMENT OFFICER ELIOPOULOS: We'll do that.

CHAIRPERSON JONES: Okay. Mr. Lind.

COMMITTEE MEMBER LIND: Thank you. At the risk of wordsmithing, I'd hate to see this thing held up over one little language piece is what it appears we have in the introduction. So I just wanted to make a recommendation for what it's worth, and maybe we can get the thing done today.

So on that paragraph, that Priya raised, and I agree that it's confusing, what if we were to say -- it says investment programs, strike the word including, and

then add, "As well as, but not limited to, Investment Beliefs...", et cetera, et cetera. I think that would kind of clear it up. You're dealing with the programs as well as these other items, and I think that might make it clear.

COMMITTEE MEMBER JELINCIC: But it's a policy -CHAIRPERSON JONES: So that we won't go back and
forth, I'm going to direct the staff to bring it back,
because there may be some other changes that need to be
made after you change A. It may affect B or C, so I would
suggest we just wring it back, okay?

All right. Seeing no further comments on that one, this item will return next month.

Okay. We go now to Item 7, Review of CalPERS Divestments.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Good morning, Mr. Chair. Why don't I start off while Andrew and Eric make their way. Before you in Agenda Item 7a is both a staff summary and really attaching analysis by Wilshire that I'll turn it over to Andrew to walk through the analysis.

What I wanted to underscore is a couple things in our staff report. Number one, we do -- this is a new format for the review of the various divestment -- divestments within the portfolio and portfolio exclusions,

to include them all in one place at one time. And we would propose to do this annually in this fashion, so that we'd have all of the divestments that we've taken and exclusions looked at at one time and their impact comprehensively.

So that's feedback from the Committee that we're looking for, whether this format is good one to go forward. I think in years past, we've taken up each review of various divestments and exclusions serially or in different format, different months, different time periods. So that's some feedback that we'd like to have.

In addition, we point out that in February -this coming February, 2016, we'll be reviewing the Board's
overall investment policy with respect to divestment. In
addition to that, we propose to come forward with proposed
procedures, and that staff would use to implement the
various divestments and exclusions that we have in place.
We think it will be a particularly good moment in time to
do that.

Lastly, as we note, if there are any desire by the Committee to have us bring back any specific re-evaluation of any of the divestment activities, we could look for an opportunity in the coming calendar year to do that as well. So with that, I'll stop. Those are my comments, and I'll pause or hand it over to Andrew to

go through his analysis.

MR. JUNKIN: Great. Good morning. Andrew Junkin with Wilshire Consulting.

CHAIRPERSON JONES: Go ahead, please.

MR. JUNKIN: Great. So what you have before you is an up-to-date review of the current and historical CalPERS divestments. This is through 12/31 of 2014. You can see we're reviewing six divestments here, South Africa, tobacco, the permissible markets version of emerging markets screening, the emerging markets principles, Iran, Sudan, and firearms.

We've tried to summarize the impacts on pages one, two, and three. And really just the headline here I think is that the impact has been negative to the tune of four to eight billion dollars in present value dollar terms. And a lot of that is sort compounding from prior historical divestments or exclusions. And of the six divestments or exclusions that we listed, five of the six have had a negative impact, and one of them has a marginally positive impact at this point.

Without going -- and I'm happy to go sort of line by line here, if that's the direction anyone would like, to walk through the tables or each of the particular exclusions. I think it's important to sort of summarize the key points here. One is, as we were preparing this,

it's pretty profound the magnitude of the transaction costs and how, as they compound through time, the impact that they can have. And transaction costs obviously are always negative. So there's always a cost to divestment and to -- if the divestment is lifted to reinvesting, there's two sides of that and you round-trip it.

I would say academic theory, as we point out in the letter, really suggests that constraining the opportunity set often impairs the efficiency and the diversification of the portfolio. And that seems to be borne out in this study. I think we make the point, and it's made in staff's agenda item as well, limiting the number of stocks in the S&P 500 even a bit can have some negative impacts.

That's not to say that all divestments are going to be universally bad. We've seen that. One of them is now positive, but there are some challenges there, and there may be valid reasons to undertake that. We're not making a moral statement about divestments, we're just simply reporting the performance. But it should be a high hurdle. And I think that the CalPERS policy with respect to divestments addresses that very issue.

Our view is that CalPERS' approach to engagement is obviously more constructive than a quick version of divestment, because by divesting you're really giving up

your voice and your ability to influence change, and you've just sold it to somebody else, right? Those shares are going to get voted by somebody else now instead of by you, and you don't get to advance your goals.

And last, because we've had a number of discussions about who owns the performance for any Board-direct policies, this is a point that we make at the bottom of page one here. And I realize that there were two versions of this letter. So this is the updated version. We wanted to include this based on recent discussions.

In reviewing the prior investments, really there is some precedent that if there is a Board-directed policy, such as let's divest of tobacco, what ends up happening is the staff then implements that, the Board effectively owns that performance. The staff now has an X tobacco portfolio that's managed to an X tobacco benchmark.

So their ability to implement effectively is judged without any consideration for the impact of tobacco. You know, was tobacco -- was removing tobacco from the index a good decision or a bad decision from a performance standpoint?

So I just wanted to bring that up, that historically there has been some precedent. In a number

of cases tobacco, Iran, Sudan, firearms, et cetera where the index changes, and functionally speaking what happens is staff is then held to that as their standard for performance.

So again, I'm happy to walk through any of the particular terms here, if anyone would like to you, but I that's really the highlights that I wanted to discuss on the report. And I'd be happy to take any questions.

CHAIRPERSON JONES: Okay. We have some questions then. Mr. Jelincic had an earlier question. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Yeah. I actually -- this was to Ted, and then I'll come back to you, Andrew.

Have we tried to capture the staff costs of monitoring this and doing this, because obviously, you know, the time you spend on it is not free?

CHIEF INVESTMENT OFFICER ELIOPOULOS: That's a good question. I don't know if, in the past -- and I'm looking at Eric, if we've tried to capture that with any particular one of these exclusions in the past to try and see whether or not we've done that. I'm seeing nodding heads no that we haven't. So no, it isn't a cost that we've captured.

COMMITTEE MEMBER JELINCIC: Okay. And you asked for feedback. Speaking as one Board member, I like having

it ail in one place, you know, but that's one Committee member.

Andrew, one, I was kind of shocked at the numbers. The -- you know, they're fairly big. But one of the other things that I noticed is on page two, your summary of findings, if I take your total low estimate and then go to each of the ones and add the low estimate, it doesn't come up to 3.7, it comes up to like to 5.1. And the high estimate was you've got 8.3. And when I add them up, I only get 10 something. And I'm just wondering what did I miss or is there --

MR. JUNKIN: So we had heard that the arithmetic might not match, and we triple checked it again last week, and it does. So I actually, in one of the triple checks, added something again, which served to confuse me further, because then I was getting something else entirely. So I made other people that understood math do this as well.

And it is confusing, because some of the things are estimates about the potential annual impact. So there's a tracking error estimate that essentially -- and now I'm going to get into a little bit of detail. If you look at -- on page two, the projected annual impact of continuing exclusion of tobacco, you can see we're giving ranges there. We take the CalPERS benchmark X tobacco, and then FTSE provides us with, at a holdings level basis,

the CalPERS benchmark, including tobacco. The only difference is tobacco stocks have been added back in. We calculate using our risk model what's the projected tracking error, and then we multiply that times the dollars at risk.

If you start including those into the sums, it throws things off. Those are separate issues. That's a forward looking estimate. It could be positive or negative by that amount, according to our risk model on a one-year basis.

COMMITTEE MEMBER JELINCIC: Okay. We can go over it, because when I add -- you know, when I look at the total low estimate present value at 3.7, but below that South Africa is 1, tobacco is 1.8, which takes us to 2.8.

MR. JUNKIN: So this is the exact problem that I had. The present value of the costs of the tobacco divestment is actually stated in millions.

COMMITTEE MEMBER JELINCIC: I didn't catch that.

MR. JUNKIN: And the next line down is the performance impact, which is back in billions. So I could have listed with lots of zeros on the page. I chose to use words to describe it, but the transaction costs, while \$2 million, pales in comparison to the range of four to eight billion. It's still a pretty significant number, and we chose to Calculate it and show that.

COMMITTEE MEMBER JELINCIC: Okay. That explains why I screwed up on my math.

Thank you.

CHAIRPERSON JONES: Okay. Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you, Mr. Chair. Thank you for this.

To what degree did you include some of the economic impacts of the activities -- of the exclusions? For example, South Africa is now a stable functioning country with industries that are flourishing and a robust economy. It might not have been if it had devolved into, you know, civil war at a grand scale. Did you -- did you think about those impacts, because those are also relevant. And that would have also impacted our portfolio -- or could have impacted our portfolio if we'd retained the holdings that we had. So I guess, did you include -- incorporate those types of considerations?

MR. JUNKIN: No, we did not. I don't have an estimate for what might have happened to South Africa, if it had gone into civil war. A perfectly valid point. So we're just trying to quantify things that we can quantify. There's another great point embedded in here, which is, you know, CalPERS is not just a retirement plan. They're health plans as well. There were some valid reasons from a health plan standpoint to not want to own tobacco

companies, right? You would be, on one hand, potentially profiting in the retirement plan by, you know, supporting companies that were potentially making people sick that were participating in health plans.

COMMITTEE MEMBER MATHUR: I mean, but even looking at our permissible markets list, that whole process -- through that process, we got several countries to change certain things around investor rights and/or how the markets function that improved the situation for us as an investor on the ground there, and for lots of others as well.

And there is conceivably either a transactional cost -- there was some transaction cost issues as well embedded in there, so -- settlement dates, et cetera. So those have a financial impact as well. Did you calculate those?

MR. JUNKIN: No. Again, those are -- you know, we're trying to quantify that which can be quantified.

COMMITTEE MEMBER MATHUR: So that is the -- I mean, I'm not generally a proponent of a divestment as the tool. I definitely, as a general rule, prefer engagement. But I think that one of the things that this -- that it's not articulated clearly enough in your analysis, is that there are some shortcomings to your analysis, because you're only measuring what is easy to measure, and not

what -- and not mentioning even some of the other impacts that have -- could have a financial or economic impact for CalPERS on the portfolio.

MR. JUNKIN: That's a fair point, yeah.

COMMITTEE MEMBER MATHUR: Thank you.

CHAIRPERSON JONES: Ms. Hagen.

ACTING COMMITTEE MEMBER HAGEN: Thank you. I had a question for Mr. Junkin. In your emerging markets, the permissible countries and principles, in your letter, you discuss some annual studies from 2002 through 2007. And I had two questions.

One is, if you could direct me to where I could take a look at the last study that was done in 2007, and then a question to you is do you think there would be any value in updating that study?

MR. JUNKIN: The first question, I'll -- we can find that in our archives, or CalPERS staff can do the same here. So that's maybe not readily accessible, but certainly accessible.

With respect to is there any value in moving that forward? I think that really CalPERS as an organization decided to change the approach from permissible and consequently non-permissible countries to more of a principles-based approach, which really kind of, I think, better follows CalPERS' view that engagement is a better

process to follow.

So going back to the other report, I think, would move away from the engagement process a bit. There are some other organizations that still look at it in that -- in that light. But again, I think it's better to be involved and have a voice at the table than to not.

ACTING COMMITTEE MEMBER HAGEN: Thank you.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Yeah, I want to go back to Priya's point. These are some big numbers, but value is more than just dollars. I mean, some of these may, in fact, be costs that, because of our values, we readily accept. It's nice to know what the dollar cost is, because we can then raise -- measure that against our values. But I think it's important to acknowledge there are values beyond just money.

Thank you.

MR. JUNKIN: We will make sure to include some commentary to that very point in the next report.

CHAIRPERSON JONES: Okay. Seeing no further questions, and your request for direction is this format acceptable? And seeing no further disagreement, and Jelincic had indicated he supports this format, and so do I, so this is the path forward. And so do you need any other direction on this item?

CHIEF INVESTMENT OFFICER ELIOPOULOS: No.

CHAIRPERSON JONES: Okay. Thank you very much.

Okay. Let's now move to the next item on the agenda,

which is information on public market investments in coal

producers.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Okay.

Good morning. Eric Baggesen, Managing Investment Director for Asset Allocation and Risk Management.

I'm also joined by Diane Sandoval, who's one of the Investment Managers in the Asset Allocation and Risk Management team.

This Agenda Item 7b is really just a quick review of where CalPERS stands relative in particular to the SB 185 legislation that the Governor just signed in the last two weeks.

The legislation, in essence, calls for CalPERS to divest of its holdings in publicly-traded companies that produce something called thermal coal. And thermal coal, in the legislation, is defined as coal that is used for the generation of electric power.

The legislation also has some provisions relative to the magnitude of revenue that companies generate from the mining of thermal coal. And the legislation specifically calls for the divestment of companies that have 50 percent or more of their revenue structure related

to the production or the mining of thermal coal.

The legislation also contains information about a timeline as to when the provisions of the legislation have to be executed upon by CalPERS and by CalSTRS. And the legislation particularly calls out CalPERS and CalSTRS as the affected entities.

On page two of the agenda item in Table 1, we lay out a rough timeline of how we see our actions to implement the provisions of the legislation moving forward. The first thing that it requires is by the end of December to identify the companies that we think are applicable or affected by the legislation. Diane will be going into that analysis in a moment. We've already carried out that initial assessment of the companies that we believe are impacted by the legislation.

The next element is a provision to allow engagement of these companies. The legislation makes -- has a provision that allows us to engage companies, and potentially allows companies to change their business practice in a way that they would no longer fall under the elements of the divestment called for in the body of legislation.

In conjunction with the global governance team, we would suggest that we would begin the engagement of these companies following the UN climate conference that

will be taking place at the beginning of December. We think there will be more clarity about the whole evolution around fossil fuels coming out of that conference, so we would suggest that we think the relevant time point to begin engaging these companies will be following that action. So that probably implies basically starting at the beginning of next year.

We then have -- the next significant date within the legislation is really -- it's really a -- well, let me just check here. It's a July 2017 date by which the legislation calls for us to have implemented the divestment should that be the Board's eventual decision to actually sell these companies.

That provides some time for the companies to modify their business practice, and time to actually effectuate a transaction, should that be the decision of this Board.

So we will end up having to work backwards from that date to identify the proper time point to bring an information item to the Board, and probably an action item in closed session for an ultimate decision as to the Board's judgment as to how they would like us to implement the provisions of the legislation.

And then the next date that is attached to the legislation is January 1st of 2018, at which point CalPERS

will have needed to have filed a report with the legislature informing them of the actions that are taken in relation to the legislation.

If you have no questions on the potential timeline as to how staff will be implementing the legislative provisions, I would instead turn this over to Diane and let Diane walk you through the analysis that she and her team have done to identify the potential exposure that CalPERS has to this category of companies.

CHAIRPERSON JONES: Okay. We have a couple questions.

Ms. Yee.

COMMITTEE MEMBER YEE: I guess just one question and then I'll reserve the remainder. The start date of engagement after the UN conference, I just wanted to get a little clarification about what we hope the conference will do in terms of informing us about how to engage.

MANAGING INVESTMENT DIRECTOR BAGGESEN: That's an interesting question. And I would suggest that one of the topics that we want to identify and discuss with these companies is how do they plan to evolve their business practice to remain a going concern, given the elements that come out of that conference, you know, should there be particular elements, such as, you know, one example could be putting a price on carbon emissions, for example.

But regardless of whatever comes out of this conference, these companies need to recognize that the fossil fuel business is changing, in particular for coal. And ultimately, if they desire to be a going concern, they're going to have to be modifying the structure of their business in some fashion. So it's really to provide -- make sure that they have as much information as possible to try to respond to that kind of a question. And I think Anne has joined us, if she wants to answer.

INVESTMENT DIRECTOR SIMPSON: Thank you.

Anne Simpson from the Global Governance Program. It's a very good question. I think the timing is good in that the heads of government will be meeting in Paris for what will be the 21st meeting globally to attempt to address climate change. CalPERS was present at Finance Day in Paris, we were present at the UN General Assembly last month. And we have two messages which have been agreed by a very broad network of many trillions of dollars through the Investor Network on Climate Risk.

And there are two things that we think will have a profound impact on long-term strategy in this sector.

One is, as Eric mentioned, a price on carbon, and the other is a removal of subsidies to fossil fuel companies.

Now, there's a separate track in the negotiations, which is to allow developing countries more

flexibility in the way they make the transition, both for producer companies of coal, like South Africa, and importers and users of coal, like India. However, it's very interesting that India, as part of its plan, it's a very major economy in this space, has put a tax on coal. And that tax is being used to fund renewable energy.

So the country plans are really grappling with this transition in a detailed way. And we think once the agreement is reached in December, companies in this sector will all be rethinking their strategy for the long term. These negotiations will have a profound impact.

COMMITTEE MEMBER YEE: Okay. And then just one more question. So given the bill has now been enacted, are we in the position of where we're not increasing our holdings in coal -- in thermal coal, at this point?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Madam

Controller, yes, that's exactly right. And we included that in our staff report following a -- rightly a question you asked last -- I think last month or two months ago.

So what we are proposing, and again we're seeking input from -- or direction from the Investment Committee. But what we're planning to do following the meeting today is to not make any additional or new investments in the applicable thermal coal companies from today going forward to the time that the Committee makes its decision on

divestment.

COMMITTEE MEMBER YEE: Great. Thank you.

CHAIRPERSON JONES: Okay. Mr. Lind.

COMMITTEE MEMBER LIND: Thank you. So when it comes to engagement, clearly, you know, we're the leaders at Calpers. We do it. We know how to do it. But here, it seems to me it's going to be a little bit different. Number one, there's going to be a bright light shining on this process. A lot of public interest around the work that we do.

And then secondly, it seems to me there's a pretty constricted timeline, not only to do the engagement, but for the companies to change as a result of that engagement. So my question, I don't know if it's to Anne or who, how is our engagement process going to look different in this case?

INVESTMENT DIRECTOR SIMPSON: Thank you. Anne Simpson.

This is a very good question. Typically, CalPERS will engage over a three- to five-year period. Typically, we engage in private, so that plans can be developed out of the glare of publicity. And also, the end game for us usually in an engagement is that we'll file shareholder proposals, and then work with other investors. So we don't -- when we're planning these engagements, we've got

a lot of experience. I think we don't want to abandon the commitment to be thinking long term. We don't want to have the negotiations under a spotlight, and we do want to be talking to other long-term investors like us.

So we will faithfully follow the legislation, but we will make sure that we don't abandon the approach that's worked so well for CalPERS in other settings.

COMMITTEE MEMBER LIND: And does the legislation include any sort of wiggle room of the time. So let's say the -- Ted is shaking his head no. So if we think the companies are making progress, but they need another six months or a year, I guess, there's no room built in.

INVESTMENT DIRECTOR SIMPSON: The way the legislation is set out, the first six months are for the conversations to take place. So we'll prepare between now and the end of the year with Diane Sandoval's team identifying the companies. We'll then make sure we get letters drafted, translated, plan meetings and travel. That's a fair amount of work in itself.

But then during that six-month period, we'll have to hope that we're able to get a good response from the companies, so that when the one-year clock starts ticking towards the decision for divestment, we've actually got that conversation rolling. But we know that for companies to rethink something big like their strategy, it's going

to take time.

However, the fact that we've got the Paris COP21 climate change negotiations in December means this issue is no surprise to anyone. Anyone in this business is thinking hard where will we be in 30 years time when the Paris COP negotiations are over and have sent us in this new direction, which is towards a fossil free energy sector over that 30-year period.

COMMITTEE MEMBER LIND: Well, and, of course, this legislation has been percolating for a long time. So I assume the engagement that we've had with these companies has talked about the possible impact of this legislation, and, you know, it won't -- as you said, it won't come as a surprise when we talk to them now about implementing the bill.

INVESTMENT DIRECTOR SIMPSON: I think that's right. Although in fairness, I think that the legislation has been well covered in the United States. Many of these companies are overseas. But certainly the climate change agenda is global. So we know this will be a topic of discussion anywhere that we go to meet with companies.

COMMITTEE MEMBER LIND: Thank you.

CHAIRPERSON JONES: Mr. Lind, I would just add on the wiggle room piece that the bill does not include any extensions of the dates that Eric underscored, but does

provide for the significant fiduciary duty of the Board.

So in weighing the constructive engagement that we do and the report that's brought back, as the Committee makes its decision on divestment, pursuant to its fiduciary duty, you will be considering whether these companies are or are not transitioning their business models. So that's significant -- I don't want to call wiggle room. It's a significant judgment call that this Committee will make. And the second spot in time that you have to address the engagement process is in the report to the legislature, because it will report out on the engagement process and the divestment decision as well. So you do have, I'll call it significant, judgment and leeway in considering these issues.

CHAIRPERSON JONES: Okay. Thank you.

Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

So just to add -- I just want to make sure I clearly understand. So if we do engagement on -- and I'm looking at Graph 2, the 24 companies that would fall under the current legislation. If they have a plan for transition that we feel that we should be invested in, even given this legislation, then we have the flexibility to report that back out that, in fact, company A may be at over 50 percent today, but understanding their plan would

mean that we feel our fiduciary responsibility would best be met by continuing to invest in that company. Am I correct?

CHIEF INVESTMENT OFFICER ELIOPOULOS: That's correct

VICE CHAIRPERSON SLATON: Okay. So this is going to be a pretty significant workload to do this, but I want to just -- at the risk of staff cringing, I wanted to ask the question, we have 85 companies that are under 50 percent, but are still involved in the production of thermal coal. Is that -- am I reading the chart correctly?

13 CHIEF INVESTMENT OFFICER ELIOPOULOS: (Nods 14 head.)

VICE CHAIRPERSON SLATON: So seeing the handwriting on the wall of where we're trying to get to as a country and as a planet, does it make some sense to do -- and I'll coin a term engagement-lite, with those companies to understand and send the signal for what are you going to do?

Because one thing you certainly don't want is a company that is now at 45 percent to end up at 60 percent and we're back in the same loop again. So do have any thoughts about that, is that possible, not possible?

What's your sense?

CHIEF INVESTMENT OFFICER ELIOPOULOS: So just to make sure I understand the question before I start cringing.

(Laughter.)

CHIEF INVESTMENT OFFICER ELIOPOULOS: So whether we can start an engagement process with 85 companies rather than 24?

VICE CHAIRPERSON SLATON: Correct.

CHIEF INVESTMENT OFFICER ELIOPOULOS: And the 95 companies are those that are coal producers, whether thermal or not, whether they meet -- or fall below the 50 percent or line or not.

VICE CHAIRPERSON SLATON: Correct

CHIEF INVESTMENT OFFICER ELIOPOULOS: So that's really more of a -- it's both a policy question, as you underscored, as well as a staff time and intensity. So I do think it would obviously increase the amount of time and attention that our global governance and public equity staff would be devoted to this. Hard to estimate on the fly. But I don't know if you have any thoughts in terms of -- these engagement processes are fairly time intensive and human intensive.

INVESTMENT DIRECTOR SIMPSON: Agreed, if you do it well. And I think that's always our intention is to be very thorough and very serious about engagement. I think

what we might want to do, Ted, is look at the carbon asset review, which is where we, with other investors through Ceres are engaging close to the largest 50 energy producers. That's not just coal. That's oil and gas. It's the whole spectrum of fossil fuel companies.

And I have to say some of the engagements there are proving very fruitful. You'll have seen what's happening at Shell at the closing of the Arctic exploration plans, and their CEO saying solar is the energy of the future, which from an oil guy is quite something. And also, we've seen companies like BHP Billiton, which is the largest miner in the world, just produced their first risk report. All scenarios within the two degree temperature rise that the Paris meetings are hoping to keep everyone within.

So I think what we might want to do is go back through Ceres, through the Investor Network on Climate Risk, through the PRI, and see whether that might be something that we could do as a shared engagement.

VICE CHAIRPERSON SLATON: Yeah, I guess where I'm going is I hate -- those efforts are very important. And what I fear is less emphasis on that because we're operating under a tight schedule to get this done, and meanwhile we've got a -- it's a war not an individual battle. And I think we have a lot of companies that we

should be engaging with and understanding what those transitions will be with the rest of the investment community as well.

CHIEF INVESTMENT OFFICER ELIOPOULOS: That brings up -- that actually rings a bell to mention at our off-site in January, we'll be reviewing in a quite -- detail our ESG strategy. This discussion is at the forefront of where we spend our resources, what should our priorities be. That -- I think that would be the best time to reevaluate that.

VICE CHAIRPERSON SLATON: All right. Thank you very much.

CHAIRPERSON JONES: Okay. Ms. Mathur.

COMMITTEE MEMBER MATHUR: Just briefly. And I think Ms. Simpson's comments reflect this, but we're obviously not the only asset owner who is subject to this new law. There probably are opportunities to collaborate with others, so that we can spread the workload. It doesn't exactly halve it or anything, but still there might be others who also have resources to put to this that we could work collaboratively with.

CHAIRPERSON JONES: Thank you.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I suspect the next six months are going to be a little busy with the 24. But

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to Bill's point, it might make sense to send a letter to
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   the 85 additional ones that say we just want to make sure
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   you are aware that this legislation exists, this is a
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   trend that will continue, and while you are not being
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   divested under this statute, you ought to start thinking
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   about it. And not particularly follow up on it, but just
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   sort of put them on notice. And I think that can be done
   with a relative minimal additional commitment of time and
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   energy. So I offer that as a suggestion.
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VICE CHAIRPERSON SLATON: Chair, you want to opine on that?

CHAIRPERSON JONES: Well, I will but we're not finished.

VICE CHAIRPERSON SLATON: All right. Okay.

CHAIRPERSON JONES: I don't know if I have to opine on something else.

(Laugher.)

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CHAIRPERSON JONES: Okay. Continue.

19 MANAGING INVESTMENT DIRECTOR BAGGESEN: Okay.

Are we ready to have Diane then walk you through the analysis that's been done to date?

Okay. I think so. Diane.

INVESTMENT MANAGER SANDOVAL: Thank you, Eric. Good morning, Investment Committee members. My name is Diane Sandoval. And I'm an Investment Manager in the

Asset Allocation and Risk Management team.

As Eric said, I will present our analysis of the potential impact of SB 185 on the total fund. And we really looked at this from three perspectives, exposure, performance, and impact on forecasted volatility and tracking error.

With regards to exposure, we have identified 24 thermal coal companies that appear to meet the criteria as defined by SB 185. And as we just discussed with Anne and others, the final number of the SB 185 companies will really depend on the conclusion of a very thoughtful engagement process that will be led by Anne Simpson and the Global Governance team.

This engagement process will be completed hopefully by July 2016. And today's analysis is really predicated on the assumption that these 24 companies ultimately meet all of the parameters established by SB 185.

So with that qualifying statement, we estimate there are 24 SB 185 companies representing approximately 83 million, or 0.03 percent, of the total fund as of June 30th, 2015.

In graph 2 we also illustrate the weight of the SB 185 coal companies relative to a wider universe of fossil fuel companies. And this chart really illustrates

the point that these are pure play thermal coal companies and are less than one percent of the fossil fuel companies.

With regards to performance, Table 3 illustrates the historical performance of SB 185 companies relative to our public market benchmark. Our analysis indicates that these 24 SB 185 coal companies have underperformed our public market benchmark in the last one year and five year periods by 13.7 percent and 10.1 percent respectively, but they've outperformed by 0.5 percent over a longer term period.

Next, in Table 4, we outlined the investment metrics of these SB 185 companies versus the CalPERS global equity benchmark. So when you look at this, with the exception of the three years earnings outlook, this table indicates attractive valuation metrics for the CalPERS -- for these SB 185 companies.

For example, the dividend yield of SB 185 companies is 4.7 percent, and that's compared to dividend yield of 2.3 percent for our global equity benchmark. This is a particularly important metric for CalPERS as the total fund is cash flow negative. Moreover, yield is the most stable and predictable source of return over time. And this was a point that was presented to Wilshire -- by Wilshire to the Board during the 2013 ALM workshop.

Finally, in closing out this analysis, we looked at the impact of divesting all 24 SB 185 companies on forecasted volatility and tracking error. Table 5 shows the final point that excluding the SB 185 companies would have a minimal impact on the total fund with less than one basis point of tracking error. That concludes my comments, unless there's any questions on this analysis.

CHAIRPERSON JONES: We have one. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Have we decided if SB 185 applies to all the affiliate funds too or is it simply the PERF?

MANAGING INVESTMENT DIRECTOR BAGGESEN: I think
Mr. Jelincic, if you actually refer to the legislation, it
specifically calls out the Public Employees' Retirement
System and the State Teachers' Retirement System. But I
think that potentially there's a little bit of ambiguity
about that further down in the sort of the introduction to
the bill. So I would defer an answer to that question
until we actually confer with the Legal Office and make
sure that we answer that with specificity.

COMMITTEE MEMBER JELINCIC: Okay. And I appreciate the legislature apparently left their own retirement system out.

Table 4, the valuation metrics, you know, creates some real pause, at least in my mind. These really are

the kind of returns that we want. I mean, if you apply the DuPont formula to this, you's say we ought to buy a whole bunch more of it. Again, it gets to values versus dollars. But I found that to be a very powerful table and just wanted to call it out and thank you for it.

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CHAIRPERSON JONES: Okay. Thank you. Thank you. A couple of directions that I heard and verify. will follow the legislation, but we will continue to use our engagement process, specifically making sure that we comply with our fiduciary responsibility. We will not make nay additional investments in thermal coal companies as was listed in the report itself. And on the 85 companies with the 50 percent issue, two items. We will be discussing that at the off-site in January. And it was suggested that perhaps a letter could be sent, if that's not too much work, to those companies. And you did indicate that you would review Mr. Slaton's comments and see whether or not it causes you stress, and get back to us in terms at the off-site to explain what your views are in that regard.

So those are the three major ones that I picked up. And if there are others, please indicate.

CHIEF INVESTMENT OFFICER ELIOPOULOS: No, that's a terrific job of summarizing it. Thank you.

CHAIRPERSON JONES: Okay. Thank you very much.

Okay. We will move now to the next item on the agenda -we've got time, yeah -- Enterprise Risk Report,

Investments. Oh, just a minute. I'm sorry. We have a request to speak on 7b before we move to Item 8.

Janet Cox. Are you in the audience? Would you come forward, and take a seat on the right-hand side -- your right-hand side and introduce yourself, and your affiliation. And you will have three minutes. And the clock right below where I am will give you the time left in your comments.

MS. COX: Thank you, Chair Jones and Board
Members --

CHAIRPERSON JONES: Your mic.

MS. COX: Sorry. Thank you, Chair Jones and Board members. I'm Janet Cox, and I am a CalPERS retiree. And I just want to say I really appreciate this discussion. And I've just got a question, which is exactly what would a transition business model look like? What is it specifically that you will be asking the companies to do?

Thank you.

CHAIRPERSON JONES: Okay. Thank you very much for your comments. And I'm sure as we progress through this process, we will be answering that question as we move forward. Thank you very much.

Okay. Now, we will move to the Enterprise Risk Report, Investments.

(Thereupon an overhead presentation was presented as follows.)

CHIEF FINANCIAL OFFICER EASON: Good morning.

CHAIRPERSON JONES: Oh, let me also just acknowledge, Ms. Taylor has arrived also.

CHIEF FINANCIAL OFFICER EASON: Good morning, Mr. Chairman and members of the Investment Committee. Cheryl Eason, Calpers staff. Let me kick off today's agenda item that will be provide an update on the three risk domains overseen by the Investment Committee with the intent to obtain the Committee's input and perspective on staff's assessment of each risk and associated mitigation action.

The Risk and Audit Committee has delegated authority for oversight and approval of the enterprise risk management framework, as well as direct oversight of integrated assurance functions, including compliance, risk, and audit.

But for the first time, similar conversations will take place in each Board Committee this month, in an effort to further integrate the management and oversight of risk into decision making, planning, and prioritization of business activities. These conversations will form the recalibration of the enterprise risk management dashboard

to be presented to the Risk and Audit Committee next month in November.

Before I hand off to Ted and Wylie to talk specifically about the three risks associated with the Investment Committee, let me briefly explain the criteria used in assessing those risks. Risks are assessed based on their impact and likelihood. When we consider the risk impact, five criteria are used, financial, legal, and compliance, operational, reputational, and strategic impacts.

The likelihood of the risk happening is based on criteria ranging from remote to expected, considering criteria such as the effectiveness of risks -- of controls in place, historical experience, industry experience and time horizon.

Velocity, the speed of impact, is also used as a criteria which ranges from early detection opportunities to gradual impact to sudden impact. Each of these criteria are scored creating a ranking for each risk. These scores then create the heat map ranking included in your materials providing a risk assessment of each risk based on low to high impact and likelihood.

And with that, I'll turn this over to Ted and Wylie for specifics on the three risks within this Investment Committee.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Great. Thank you, Cheryl. Wylie Tollette, Investment Office staff.

As Cheryl noted, today's agenda item provides an update on risk domains overseen by the Committee. We'll discuss the current ranking associated with these risks, highlight progress made on associated mitigation strategies, discuss the challenges associated with the risks, and finally provide staff's assessment of our current risk levels. A summary of this is displayed on the screens and in your Board materials under Attachment 2.

As Cheryl noted to the Committee, this is not new information or the first time we've discussed these risks. In fact, we've touched on a majority of these topics quite frequently through monthly discussion of the CIO's performance and risk report for the PERF and the affiliate funds, the annual program and total fund reviews, annual cost effectiveness presentation, and the semiannual INVO Roadmap updates.

All of these discussions touch elements of key risks, but for today's purpose we'll focus the discussion on the three risks of asset allocation, investment risk management, and Investment controls and systems.

I will first cover asset allocation. The current

rank -- this is -- the organization has ranked this as one of the top 10 risks at the enterprise level, and it's remained at a moderate level through 2014. This consistent ranking reflects the mitigation strategies around this are a long-term effort. It also recognizes that the Board of Administration is primarily responsible for the overall selection of the strategic asset allocation, the underlying actuarial assumptions, and the overall selection of the level of funding risk the organization is willing to undertake. That is selected during the quadrennial asset liability management workshops, the last one done in 2013.

The next ALM workshop, which is quite fundamental and primarily drives this asset allocation risk, will be in 2017. And there's a mid-year checkpoint around that next year. In preparation for those workshops, staff have been engaged in a series of activities to provide an examination of the risks and the volatility attached to the market opportunity set available to Calpers.

And recently, we have engaged the Committee in dialogue on identifying portfolio priorities, and are now focused on translating those priorities, our investment and Pension Beliefs into benchmark, selection, and portfolio construction. These activities have the possibility of helping to manage the risks within our

asset allocation over time to a degree.

Related to this, we're also planning to bring agenda items before this Committee over the next year to evaluate the roles, use, and implications of our policy benchmarks as the selection of benchmarks is an essential element in managing both the asset allocation, as well as the investment risk management domain you'll be hearing about in just a moment.

And in addition, as you know, we have an agenda item coming forward through the Finance Committee and the Board around risk mitigation this very month, which also is directly related to this overall risk.

The challenges in asset allocation risk relate to achieving the target rate of return in today's investment environment. We have an increasing focus on liquidity at the plan level, and income due to the cash flow requirements of Calpers, now that we're cash flow negative overall.

We have reduced return expectations across many asset classes that have been driven largely by extraordinarily low interest rates, motivated by monetary policies across many economies.

And finally, there's an increasingly complexity and interrelatedness of global financial markets. So as such, we would propose that we leave this risk level as

moderate, and have the projected trend of upward to ensure an appropriate level of focus remain on this risk area. So with that, I'll pause to see if there's questions related to the asset allocation risk.

CHAIRPERSON JONES: Yes. Mr. Slaton.

VICE CHAIRPERSON SLATON: Yeah. It probably relates to really all three, but in particular the asset allocation one. So this chart has it's every six months. The last one is May of '15. We're now in October of '15. So my question for you, even though it's not reflected on the chart, with a projected trend upward, are you still saying that you would consider the asset allocation to be moderate at this moment, which is six months after this last item in the report?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I believe it is moderate. We -- the trend upward largely reflects the fact that since May we've received updated capital market assumptions from consultants. We haven't adopted, as a Board, those capital market assumptions, but staff has now seen that information. And those capital market assumptions indicate that the rate of return -- our rate of return expectations within the current asset allocation are reduced. And so when we consider those cap market assumptions and consider their adoption at our checkpoint next year, we'll then have the opportunity to

reassess this risk and decide if it should be elevated to a higher risk level, the orange risk level.

VICE CHAIRPERSON SLATON: So let me ask it a different way from a process standpoint. We're sitting in October. And when it comes to risk, I'd like to know about risk sooner rather than later. My question is, from staff standpoint, what process do you have to go through to get the October 15 rankings on these? In other words, do we have to wait till six months from now before we see a listing of October of '15?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Oh, I think I'll turn that over to Cheryl who facilitates our enterprise risk management process. That's how we would do that.

CHIEF FINANCIAL OFFICER EASON: Yes. This process is in a bit of a transition, because this is actually the first time that the Committee has received these rankings. And actually what's happened since May is staff have gone back, and what you're hearing today and the recommendations that you're hearing from Ted and Wylie are actually October's risk assessments. So you are getting the latest in terms of that assessment today.

VICE CHAIRPERSON SLATON: But we're just not -- we're just not seeing them on the chart?

CHIEF FINANCIAL OFFICER EASON: That's right.

That's right. Where it will be reflected is in the -- in November, when we roll this up to the Risk and Audit Committee to the entire dashboard. And then futuristically this Committee will see those rankings on your dashboard. So this is just -- this is sort of a transition today.

VICE CHAIRPERSON SLATON: Okay. Thank you. CHAIRPERSON JONES: Okay. Thank you.

Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you, Mr. Chair.

Well, first, I just want to say thank you for bringing this to the committees. I think it's an important connection to have between the Risk and Audit Committee and the rest of the functional committees that, you know, risk and audit has sort of the enterprise-wide view, but each committee has its role to play in managing risk.

And as Mr. Tollette in his verbal comments highlighted, this Committee is doing a lot of work around mitigating and managing risk. And there's -- so connecting it to the Committee's calendar and the activities of the Investment Office I think is really essential in ensuring that we're all keeping these risks at the forefront of our minds, and of our decision making, and of our effort.

So an important first step. I do think looking forward it might be helpful to have a little bit more sort of written in terms of what Mr. Tollette's comments were about sort of connecting it to our calendar a little bit more, about sort of where are the checkpoints, how are we going to -- what are the mitigation efforts?

I mean, you definitely covered them in your verbal comments, but perhaps linking it a little bit more would be helpful moving forward.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Absolutely.

COMMITTEE MEMBER MATHUR: Thank you.

CHAIRPERSON JONES: Okay. Ms. Hollinger.

COMMITTEE MEMBER HOLLINGER: Thank you.

Yeah, my concern goes to what Mr. Slaton addressed. So I just want to understand this risk is just a snapshot today, because I look at with our population maturing and managing to the seven and a half percent and our payouts, that it would seem to me that gets an elevated --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah. It's a very fair comment. There -- I should highlight one important element, which there's actually a risk called funding risk that the Board considers. It's actually one level above this Committee

risk consideration.

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So funding risk actually is at an elevated level.

COMMITTEE MEMBER HOLLINGER: Oh, I see.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: And you'll see that at the Board level. So I think that may actually answer some of Mr. Slaton's question as well.

So once the level of funding risk is assessed, the Investment Office -- this is strictly covering the Investment Office's components of these risks. And that's where it drills down into asset allocation, because that's the component of that funding risk that we're responsible for. We're responsible for helping to manage that, and effectively delivering the asset allocation that is chosen in the ALM.

So what you see here is the asset allocation risk is our ability to execute on the asset allocation that's chosen. Level of funding risk represents the overall sort of risk level between benefits, contributions, and investment returns that is chosen at the assets liability management workshop.

COMMITTEE MEMBER HOLLINGER: Thank you for clarifying.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: If I can follow up a

25 | little bit on Bill's concern. Normally, this gets

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reported either every seven or five months. But if it had been -- if there was a change in the elevated -- particularly if it went to elevated, would we hear about it even if it wasn't on this -- would we hear about it immediately rather than waiting till, you know, the next regular report?
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CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think the answer is yes. However, our enterprise risk management assessment cycle is coordinated with the reporting cycle. So it would be unusual for us to engage in that process and that assessment. We might decide to call an interim enterprise risk management exercise to do that. And if we did that we, would certainly let the Board know.

In general, the exercise and the reporting are synchronized, so you get them as soon as we change them.

COMMITTEE MEMBER JELINCIC: Thank you.

CHAIRPERSON JONES: Okay. Thank you very much for the report.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

There's two more risks to cover, Mr. Chairman, if I might?

CHAIRPERSON JONES: All right.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Investment systems and controls is the next risk.

You see it there on the slide. This is also one of the top 10 risks. The overall rank has remained moderate since 2014, when it was lowered from elevated. This reflects the significant progress we've made in strengthening the investment infrastructure and systems through the use of a variety systems and technology implementations through the year, including the portfolio -- public markets portfolio management system or the PM2 system. That's used in our global equity area and automated many of the previously manual tasks involved in managing our global equity portfolio.

The implementation of Artemis, which is used currently to manage the asset allocation exercise for the affiliate funds, and is now being extended to manage the asset allocation for the overall PERF, the Public Employees' Retirement Fund. We expect that to take several years, but the implementation of it this year for the affiliate funds is a significant step forward.

And finally, the implementation of our PEARS,

Private Equity Accounting and Reporting System, which

really will allow us to better aggregate and report on a

variety of information in our private equity portfolio.

Those were all accomplished in this most recent past 12 months. So it's very significant progress. And as a result of that progress, we've lowered the risk level

for this particular area.

We continue to focus our efforts on enhancing the infrastructure and internal controls, and actually have multiple current roadmap initiatives in this area, including data management, rebalancing automation, execution services, and other projects. We expect to bring back additional detail on those roadmap initiatives in our December roadmap update to the Investment Committee.

As I previously noted to the Committee in my May 2015 roadmap update, the challenges associated with those risks continue to be the overall complexity and risk associated with our business model, which includes over -- more than 200 external managers and more than 700 individual portfolios.

These challenges really helped shape our overall Investment Office 2020 Vision strategy, where our key focus is on reducing risk, cost, and complexity. That includes focusing on reducing management fees, enhancing governance, and incorporating manager expectations on a path towards fewer, but more strategic partnerships with our external managers.

We expect to, going forward, continue to have a transparent, robust, and competitive evaluation process for those managers to make sure we have the best stable of

managers to maintain competitive returns.

As indicated by the name of our strategic initiative, the 2020 Vision, this effort is expected to take awhile. It's not an overnight change, and presents a risk to further lowering this risk in the near term. For this risk, our staff would propose to leave the risk level at moderate, but we've left the trend constant, as you can see from the arrows on the slide.

So with that, I'll pause and see if there's further questions or comments on this one.

CHAIRPERSON JONES: There are no questions on that one.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Great. Thank you.

Finally, investment risk management is the third of the top 10 -- or the top risks from the Investment Committee's purview. This is not one of the top 10 risks, as the likelihood was -- is actually assessed as slightly lower probability than the other two. However, this does remain a strong focus for the Investment Office.

Senior leadership have directed multiple initiatives and have current roadmap initiatives at the this risk to better define, measure, manage, and report on the wide variety of risks associated with the CalPERS portfolio outside of simple volatility.

These include performance measurement and attribution, manager ESG expectations, and finally liquidity operations within the Investment Office, which seeks to improve and operationalize the reporting and management of fund liquidity.

Staff are also exploring the use of risk factors to construct the asset mix of the portfolio in a way that provides greater understanding and ability to measure risks that are specifically relevant to CalPERS, and incorporate the structure of our liabilities. We're partnering with the Actuarial Office to model and analyze these risk factors in anticipation of use at the next ALM workshop.

Today's market and associated volatilities and the total risk the organization has chosen to be exposed to through our asset allocation and policy benchmarks present challenges to mitigating the investment risk management risk in the near term. For this reason, risk domain is proposed to remain at moderate with a projected trend of constant.

So in conclusion, I'll reiterate the discussion with the Committee around risk is intended to be ongoing. I know staff believes it's a very health thing to talk about risks frequently, and make sure that the Committee really understands our mitigation strategies and

activities to make sure that we've prioritized resources effectively, because that's really what this is all about is sort of where do we point our time and attention to make sure that we're pointing it at the highest priority areas.

So this ends my remarks, and I'd be happy to take any questions.

CHAIRPERSON JONES: Seeing no further questions.

One takeaway is that it was requested that you provide more written narrative around these items, and so that is the only direction I have on this item.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Great. Thank you.

CHAIRPERSON JONES: Thank you.

The next item Fixed Income Program Annual Review.

(Thereupon an overhead presentation was

presented as follows.)

18 | MANAGING INVESTMENT DIRECTOR ISHII: Good

19 morning. Curtis Ishii, Managing Investment Director,

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(Laughter.)

CHAIRPERSON JONES: Good morning.

23 | MANAGING INVESTMENT DIRECTOR ISHII: We are --

24 | I'm going to attempt to talk about how we incorporate

25 | Beliefs into fixed income. Kevin will take you on the

performance and kind of generally of what we've done and some of the things we've done in ESG this year. And then lastly, I think, in Section 9b Wilshire will have their comments as they've conducted a review.

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MANAGING INVESTMENT DIRECTOR ISHII: Okay. So on page three is the review outline of the Investment Beliefs. And I think what's striking in this page is there's quite a bit of green. And this reflects kind of how the Investment Beliefs resonate very strongly with fixed income. You can see on Investment Belief number 1 where liabilities matter, and number 6 on the strategic asset allocation dominates the risk and return, these are principal reasons why you have fixed income.

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MANAGING INVESTMENT DIRECTOR ISHII: Fixed income actually is the low-risk asset from a pension fund standpoint. It's not cash. It's not like individuals. It is your hedging perspective. It gives you a way to reduce your funding gap -- or not funding gap, but, excuse me, your risk of liabilities.

Number 2 is the long-term horizon. And this is a major strategic advantage that we use in fixed income.

Most money managers manage on a monthly to quarterly basis. You've heard me many times say that we try to

manage through a cycle. And this allows us to kind of increase risk during times when premiums are rising and it look likes, gee, should I get in or not get in? We start gradually increasing our risk.

So what you can expect for us is as risks start to increase and you get more premiums, we start to raise our risk. And you can see over the last 30 years, this methodology has proven very useful and has added quite a bit of value.

Number 7 where it says risk is taken where we have strong beliefs that we will be rewarded. And this is a basic tenet that we've done and we do constantly. We constantly look at and review and assess whether we're adding value. And just because we've done it in the past doesn't mean we'll do it in the future. And we are constantly looking at whether should we continue on with the strategy, should we change it and alter it? So this one really resonates well.

Number 8, cost matters, you can see that we have 95 percent of fixed income is managed internally. It's done with significant cost advantages. Staff runs anywhere from two to four basis points, depending on how you measure. External manager costs are typically about 20 basis points.

Number 10, a strong process and deep resources

are needed. So over 30 years that we've -- that have run this -- this investment process we've built and created frameworks on the way we are to add value. We -- a lot of what we do is invest in our people. As they say, your talent walks out the door -- or your key assets walk out the door every day. It's very true. So what we do is we try to train these people and hopefully we recruit and bring them and keep them within our area.

The other four areas where we have yellow is -we put yellow because I think we hope to do better. I
think we do fairly well. Number 3, stakeholders. We
consider stakeholders. We always consider all
stakeholders while we're doing things, but we do focus on
the returns and to our members, the taxpayers of
California, employers.

The three forms of capital, number 4 Belief, you can see that this year -- we have always included the three forms, financial, physical, and human, but this year we formalized it in a document and incorporated a lot of that process, including surveying our external managers to see how they incorporate those factors. But we gave ourselves a yellow, because we can't have green on everything, I think.

(Laughter.)

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MANAGING INVESTMENT DIRECTOR ISHII: Number 5 in

accountability, I think that our process is very accountable. We have -- each of our Investment Managers and Directors are running -- who are running portfolios are running against an index, and we measure their value-added, and try not to keep too short of a perspective. But if I see a trend, we talk about it, and try to figure out is the market changing, are you doing anything different? So we're very focused on that.

The reason why we give ourselves a yellow on this is I think we want to do a little bit more attribution analysis. And Kevin -- both Kevin and Wylie are heading that effort, and we hope to get some major progress in the next year or two.

Lastly, risk is multi-faceted. Fixed income, you can see we do not look at -- or do not run our portfolio based on tracking error. We look at tracking error, but Kevin will be going through a number of the other measures we look at. And we kind of look at it in a way, a mosaic, and we try to put together to try to figure out do we understand all the risks that we're taking in the portfolio, and are they intentional?

So one of the biggest things in managing portfolios is to make sure your portfolio is set up so that it takes advantage of the way you think the world will play out.

That is our 10 Beliefs. If you have any questions, I'd be happy to answer them. If not, I'm going to hand this over to Kevin.

CHAIRPERSON JONES: Proceed.

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INVESTMENT DIRECTOR WINTER: Good morning. Kevin Winter, Investment Director, Global Fixed Income.

Today's presentation is actually three different program areas we'll be talking about. We're talking about global fixed income, inflation assets, and liquidity.

Next, I'll go to our philosophy -- or actually, I'm going to step back.

I'm going to present our philosophy, what the market conditions were for the past year, what our results were, what our outlook is for the next year, and finally discuss how we're integrating ESG into our investment process.

Going to page seven.

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INVESTMENT DIRECTOR WINTER: You see our investment philosophy. And Curtis touched on a lot of these things. And I'll go through them fairly quickly and maybe give a little bit more detailed example on long term and -- or long-term perspective.

For example, one of the levers we can pull and

manage in our portfolio is to deviate from the benchmark on different sectors. You'll have like -- a sector will be defined as corporates, mortgages, governments, international. So we'll focus in on the corporates for example.

What we find is a credit cycle typically follows a business cycle. So at the end of a business cycle you'll see basically leverage going up, compensation for taking risk going down, all of a sudden the Fed will put the brakes on the economy, you'll see default rates go up, spreads on corporates will go out -- remember when spreads go out, that causes the price of the volumes to go down. And typically, markets will also way overreact on the downside as well as the upside.

Given this, we'll tend to start investing in these -- in the corporates. And the hard part is it's not always easy to say, okay, here's the exact bottom, here's the exact top. So typically, the biases will be getting in a little bit early, and that could cause volatility on short-term returns, but over the long run it's been a viable strategy.

Next, we look at active management adds value. I think the only comment I'll have on this is we'll look at some of our numbers that probably supports our position on that.

The fourth one is cost matters. Curtis mentioned that we have a majority of the portfolio internal. And we try to always increase the amount we have internally, but we always don't have the resources to do everything we need.

And final one is it's human capital intensive.

Curtis also mentioned on this. I think I just echo that

we're really focused on improving our current staff,

recruiting good people when we can get them, and if we

don't have the skill set, getting that human capital from

outside via external manager.

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INVESTMENT DIRECTOR WINTER: I'm going to talk a little bit about past year conditions. The U.S. economy actually had a decent year, moderate growth.

Interestingly enough, U.S. interest rates fell. And this sort of hurt our portfolio, because our portfolio was actually slightly short duration to the index. And remember, duration is a measure of interest rate sensitivity. So if we're short duration, we have less sensitivity to interest rates. As Interest rates -- as interest rates go down, bond prices go up. So we actually got -- had a little bit of underperformance versus our index on the duration portion.

commodity prices this year. You probably all felt it at the gas pump. But actually, it definitely affected our portfolio. First off, in high yield, there's -- probably roughly 15 percent of the portfolio is -- or 15 percent of the index was in oil and gas in mainly the shale drillers, which are probably most at risk for this price drop. So as the price went down, we saw default expectations increase massively, spreads really widened out in high yield, and in corporate credit, because it's all a relative value game, so they tend to move together.

Additionally, this sharp drop in oil and commodities also hurt our commodity portfolio, or the inflation portfolio the commodity's subportion of that.

And you'll see those numbers in the results section also.

Additionally, the drop in the commodity markets and all that hurt emerging markets. There's emerging market challenges going on continuing. They actually partially -- were partially responsible for the drop in U.S. interest rates.

On the positive side, the G3 central banks continue to be very supportive. They have supportive monetary policy. Global inflation is actually down, and the U.S. dollar is fairly strong. It actually strengthened quite a bit that year -- the past year, and it's doing quite well now.

So now, I'd like to move over onto results. If we go to page 14.

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INVESTMENT DIRECTOR WINTER: Yeah, there we go.

This is the asset liability management chart.

Basically, the asset allocation chart you guys put

together -- of your recommendations for expected returns
and volatility. So in the middle section right there,
that blue box is what the expectation for the risk and
return is. You can notice that we're mainly to the left
on risk, fairly -- actually, better returns than what we
were expecting, but the three-year number is probably
slightly below what the expectation was, but, you know,
the longer term numbers look good.

I would like to point out the one observation on the far right, the 2009 experience. That was a -- shows you that there can be risks in this portfolio. The other thing I'd mention on -- mention is that actually the portfolio policy -- or the fixed income policy was constrained down after that. So the next big market meltdown we have, we should see that button be way to the left where it is historically.

Page 16.

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MANAGING INVESTMENT DIRECTOR ISHII: I think

that's a good point. This is reflective. We've had much wide -- after 2009, at Board direction, that we should be a diversifier to the equity risk. You decided that instead of going after alpha, that you wanted to stick to this rule. So we cut all the guidelines in half, basically took the risk down quite a bit. We would be in shock if another collapse -- hopefully, it won't happen. We would be over onto the right. It should be cut, at worst case, in half.

And so I think that's a good point. So some of these dots post-2009 should be centered more around that center. You won't see it as wide, both adding value and on risk.

INVESTMENT DIRECTOR WINTER: Going to page 16.

INVESTMENT DIRECTOR WINTER: Here's the actual returns. As you can see, pretty positive through all time periods. I think the one number that's more important to me -- or the two numbers that probably are -- or three, is probably the 10-year beyond. That really shows, okay, this is a sustainable process. I think over time you'll see the one, maybe even the three-year might have some negative performance.

And that goes back to where I was talking we might be early on certain things, but that -- you know, if

we're talking about being a long-term investor, we should be looking at those longer term numbers, which are very, very strong.

Okay. Going to inflation page 22.

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INVESTMENT DIRECTOR WINTER: Again, this is the asset allocation chart. More clustering around where the expectations were. And one comment would be the three-year number is below the expectation for returns, sightly less risky, but -- and outperformed the index.

Moving to page 24.

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INVESTMENT DIRECTOR WINTER: We can see strong relative returns to the benchmark, but I would point out the one-year number really shows that drop in oil. And in this benchmark, commodities represents 25 percent of the benchmark and it's a high percentage of oils in that. So most of that absolute negative absolute return is due to the oil drop.

Next, going to liquidity on page 30.

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INVESTMENT DIRECTOR WINTER: Excuse me, page 32. You can see we have negative returns -- relative returns on this portfolio. Our comment would be is the portfolio has a certain percentage in long-term fixed assets,

government securities and a cash portion. We've had trouble maintaining portfolio neutrality to the benchmark, because of the volatility within cash flows. So that's a majority of what the underperformance is. I will let you know that the benchmark as of July 1st changed to an all cash benchmark, so we shouldn't have that volatility within the portfolio.

Next, I'd like to talk a little bit about our outlook going forward.

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INVESTMENT DIRECTOR WINTER: We sort have see the fed rising fed funds. We don't see a whole big rise, but summarizing to start off the technical cycle. We continue to see expansion in the U.S. economy. We can see continued stress in the emerging markets. And we see continuous strength in the U.S. dollar. We think that inflation will be well constrained, but there might be a bias or a slight increase in inflation, but nothing extravagant.

And finally, oils and commodity -- oil and commodities will be challenged, but not nearly as severe as last year. Next, I'd like to talk a little bit about our ESG integration into our investment management process.

Within corporates, we do a quarterly screen using

the MSCI database for all the overweights in the corporate portfolio. And then we take all the data that comes out of the screening process, we have each analyst look at that data, whatever item they're identifying as a risk, and say, okay, is this really a meaningful risk. And if it is a meaningful risk, are we being properly compensated for it?

We found some interesting things out from doing this process. For example, paper and packaging companies, we realized that water is a really, really important thing to that business, and so it's a risk we need to look at going forward.

Additionally, we found in the governance part, certain governance structures increased our risk for leveraged buyouts. So a pretty important thing to look at. So it's usually very valuable to us.

In international, we use various ESG factors to look at country risk. We have a whole list of things they look at, inequality things, ease of doing business, that kind of stuff. So it's very integrated into the international process also.

Going forward, we're going to work in collaboration with our corporate governance group to improve our governance screening, as well as work on accounting quality screening also.

With that, I'm finished and willing to take questions.

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CHAIRPERSON JONES: Okay. We have a question.
Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Back on slide 6 of 43, we were underweighted in fixed income. And what was the other one that was on there? Why did we decide to underweight in fixed income?

INVESTMENT DIRECTOR WINTER: Basically, that's an asset allocation question. We viewed that the equity markets were more attractive to fixed income.

MANAGING INVESTMENT DIRECTOR ISHII: Yeah, so

Kevin is correct. There -- Kevin is part of the internal kind of investment committee in the office. And we thought that the environment -- and you've heard this from the -- our economist, said the environment is conducive for risk assets.

That being said, we didn't have a gigantic exposure to credit. Where we did have it, and fairly large, was in bank loans. And that was the one sector that did fairly well. Credit moved out quite a bit, but I think our thought process was rates were at two percent, and we thought that equities could beat the two percent.

COMMITTEE MEMBER JELINCIC: So would we have that underweight to fixed income bias going forward for the

next year, year and a half? I mean, I'm sure if interest rates are where they are today 20 years from now, it's because they went up and down at least once or twice.

MANAGING INVESTMENT DIRECTOR ISHII: That's a big discussion within our group. I think there are some people who believe rates a rising, some people who believe that they'll stay here. Over cycles -- I probably shouldn't say. I should defer to our Chief Investment Officer.

(Laughter.)

CHIEF INVESTMENT OFFICER ELIOPOULOS: We'll get you backed to the Fixed Income Program quickly here, but, you know, as we've said a number of times now, our overweight to global equity we've moderated somewhat going into this year, and it's something we continue to focus on, as recently as our last internal review committee.

COMMITTEE MEMBER JELINCIC: Okay. And then clearly, we have been -- we have a risk bias in the portfolio -- or a yield bias in the portfolio, and we've had one at least since '86 when I came here. And we have traditionally been well paid for that.

But to the extent that we have changed the purpose of the fixed income portfolio, does that real bias continue to meet that rule because it really does add to a equity exposure in our fixed income.

MANAGING INVESTMENT DIRECTOR ISHII: So that's a good point. I think if you look at the Wilshire report it tells you. Two-thirds of the fixed income portfolio is governments. So the credit component that you're talking about is a third. I will tell you that I studied this fairly extensively during the eighties and nineties to develop a way to outperform. What I found was, and I believe it still holds true, that in the fixed income market, you are paid to take risk.

Really simple. Take a look at the spread that you get for single A corporates and the default rates. It is a I -- I mean, the default rates are minuscule relative to the spread.

So the question then becomes can you take the volatility? What we've done is by taking down our ranges and our ability to move sectors, it reduces that volatility. The critical component that you're going to want out of fixed income is interest rate -- interest rate risk. We have that. Our benchmark is twice that of many pension funds. And most pension funds have fallen out of this index, because they think rates are going to rise. Many have gotten out way too early.

CalPERS didn't pick it just because we thought rates were going to go down. We picked it. We went back to the -- think of Investment Belief number 1, liabilities

matter. Back in the early eighties, this Board had the forethought to think about liabilities and assets, and we chose that.

So I agree with what you said, but I think we've mitigated a lot of the risks in terms of the deviations. Is our alpha typically going to be correlated with the equity markets? I looked at it and it looks like it is. It wasn't for the first 20 years that I ran it. It is more recently.

Will it be in the future? Maybe, maybe not. I think we're more actively managed. Right now, we're probably as close to the index as I've ever been.

COMMITTEE MEMBER JELINCIC: I've got another question on the index, but I'll wait and ask Wilshire about it and let them defend their position.

Thank you.

CHAIRPERSON JONES: Ms. Yee.

COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.

I just had a question about the liquidity investment,
which the actual investment is three percent of the total
fund. And our strategic target is one percent. I just
wanted to -- was curious about under what scenario would
we be moving more towards that strategic target?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I'm happy to take that. Wylie Tollette, Calpers staff.

Effective July 1st, we actually did reduce the strategic target for the liquidity asset class to one percent of the fund. And we're actually well on our way towards that target. We're not yet there. I think we're at around 1.7 right now.

But we have to come back to the Board with policies and procedures around what we referred to as borrowed liquidity, when we presented this agenda item earlier in the year. We haven't done that yet. So until we come back with those procedures, we're maintaining a little extra liquidity in the actual program.

COMMITTEE MEMBER YEE: Okay. All right, but we're moving in that direction. Okay. Great.

And then I think I'll -- I've got a question for the consultants as well. I guess the risk I am concerned about is the issue about staff retention and succession planning, and if that's something that's specific to fixed income or a problem that we ought to be paying attention to across the fund?

CHIEF INVESTMENT OFFICER ELIOPOULOS: I'll jump in here, because I don't -- I know that was a comment that was made during the -- in Wilshire's comments. So maybe we can wait till that portion of it, and then I'd be glad to address I my view on that as well at that time.

COMMITTEE MEMBER YEE: Great. Thank you.

CHAIRPERSON JONES: Okay. Mrs. Mathur.

review. I am really happy to hear about sort of the ESG integration efforts that you've undertaken and that not only are you doing them, but you're finding utility in the MSCI screen that you'd mentioned. Have you considered how much thought has gone into green bonds. It seems to be the -- one of the topics du jour around particularly fixed income and ESG. And I'm just curious what your current thinking is around that?

MANAGING INVESTMENT DIRECTOR ISHII: So we haven't purchased any. We've -- a lot of it has to do with going back to our role. We want a liquid instrument. Many of these are not similar to our index or aren't large enough. The other thing that they tend to do is many times price through the market. So they want to charge you to buy green bonds.

And I think that what we -- our philosophy to them is if you can price it at equivalent bonds that we will buy, and it has the similar liquidity, we'll buy it. So I've been in discussions with a number of providers over the last two, three years. You can see China is coming out with their green bonds. We met with one of the people who are going to lead this effort. Again, what I told them is it has to be sizeable, it has to be in our

index, and it has to be priced accordingly. So far it hasn't, but that doesn't mean we still have hopes.

COMMITTEE MEMBER MATHUR: Yeah. Just getting back to the question that J.J. asked about, high yield and its correlation to public equities. I think that's -- it's that type of issue that has driven some -- our interest in the factor-based asset allocation process.

And I know that's still sort of a project that's still being undertaken and considered. We haven't quite gotten where we want to be yet to comfortable, but I agree that that -- I feel a little bit like we've short -- we've straight-jacketed fixed income just by defining its role and not giving quite as much flexibility around -- although I appreciate the role it plays. I think it's really essentially, but perhaps high yield might be a better approach than some other equity strategies in terms of driving that kind of value.

Anyway, so that's part of -- to me -- for me, that's one of the attractive things about considering a factor based allocation approach, but we'll continue to talk about that moving forward.

I had one other question, but it is eluding me at the time moment. So thank you all. With that, I'll cede my time.

CHAIRPERSON JONES: Mr. Lind.

COMMITTEE MEMBER LIND: Thank you, and thanks for the review. I always find he Fixed Income Program review very educational and learn something every time. So it's very helpful.

I do have a question because it went kind of fast. Back on page 32, the program performance review, liquidity. You discussed kind of quickly the -- what you thought the reasons were for the underperformance and what we're going to do about it, but it went a little too quickly for me. I wasn't able to follow it, and some sort of mention of a different benchmark.

So could you just take a couple extra minutes and explain that, please?

INVESTMENT DIRECTOR WINTER: Sure. So the benchmark that was on -- related to this one here was a benchmark that had longer dated treasuries, and then a short-term component. The problem we ran into is the short-term component goes up and down like this. So if you're trying to stay within closer to your benchmark, it's very, very difficult or you have to do a lot of transacting within that portfolio -- in the duration longer duration portfolio.

So generally a lot of transaction costs, and you're always going to have some tracking error. So it was sort of felt that it would be more logical to take

that treasury component and put it back into fixed income, so we don't -- we're not trying to chase this liquidity target all over the place.

So given that, it's all going to be 100 percent cash portfolio. The benchmark is probably more appropriate to be a cash benchmark.

MANAGING INVESTMENT DIRECTOR ISHII: Well, I'll get -- here's another way to look at it from an investment. If you put money in short term, you've got zero. I mean, rates are at zero in the short-end. There a -- what Kevin is talking about is a two Ten. We -- there's another part, a quarter of the benchmark was in 210 treasuries. Rates went down. They didn't go up. They went down.

So, you know, unless you had at least 25 percent of the portfolio in that, that returns something above zero. And so that's why the benchmark return is so high. If you just looked at short term, it's basically 0.01 or something.

It's, you know, very low. So we can't forecast cash at this point. It's difficult. It's -- beyond a month it's very difficult. We have a task force that is working on this. I help leading it. And we're going to try to get, from an operational standpoint, a better way.

Because private equity was getting a lot of cash

coming in, unanticipated -- it would I bring up the cash portion. And then, like Kevin said, in order -- we'd have to sit there and start to deploy constantly and quickly and it was just difficult to manage this amount of cash we have in this portfolio.

I think what the asset allocation group decided was let's take that treasury portfolio, let's put it in fixed income, and they can manage that. And they'll provide some liquidity, and then you made sure that you had sufficient liquidity through all these facilities and things of that nature, so that we're not going to have a run. Does that --

COMMITTEE MEMBER LIND: Yeah, thank you.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I want to follow up on Priya's question about the green bonds. I realize one of the discussions going on right now is what is a green bond? And I was wondering if you can share at least the parameters of that discussion with the Committee, so that we have an understanding?

MANAGING INVESTMENT DIRECTOR ISHII: There is no quite standard, but there's a lot of discussions of standard. It's -- the proceeds are supposed to be used for specific projects that are designated green. That's the typical one that I would invest in and look at.

So they will segregate cash flows to say, we'll dedicate it towards this project. And if this project is, by definition, green, in other words, reducing carbon or something of that nature, then it gets a designation.

But you are correct, there's no official stamp. There's no one out there. You could call it -- anybody could call their bonds green.

COMMITTEE MEMBER JELINCIC: And are we participating in that discussion and trying to build a consensus around what this thing is?

MANAGING INVESTMENT DIRECTOR ISHII: The short answer is no, I am not.

COMMITTEE MEMBER JELINCIC: Fair enough. Thank you.

CHAIRPERSON JONES: Okay. Seeing no further questions, we will take a 10-minute break and then we'll reconvene with Wilshire's comments on fixed income.

(Off record: 11:40 AM)

(Thereupon a recess was taken.)

(On record: 11:53 AM)

CHAIRPERSON JONES: Can we reconvene the Investment Committee meeting, please?

Okay. We are now at the consultant review of Fixed Income Programs.

(Thereupon an overhead presentation was

presented as follows.)

MS. BONAFEDE: Good morning. Julia Bonafede from Wilshire.

I just wanted to start with the purpose of this review. Wilshire is slated to conduct reviews of various programs within the Investment Office every year. We did the global equity last month, and this month the global fixed income, and then we'll do timber.

And we approach these reviews by looking at the internal investment organization and comparing it to -- in a large external professional Investment Manager. And so we take the criteria that we typically use in the due diligence evaluations of investment managers on behalf of our clients and we compare the program the internal program that we're reviewing to that type of criteria.

So we do not compare the program to other internal programs at other pension funds. We're looking at investment management organizations, because we feel that's appropriate.

So when we look at this year's review, we really come away with three main points. The first is that the program is doing what it's designed to do. It is designed to diversify equity volatility in the portfolio -- across the total portfolio and it is designed to provide cash to the Calpers organization. And it is fulfilling both of

those requests.

Second of all, you have a strong investment team. You have a time-tested investment process, and very strong performance.

And then third, more on the negative, but not overly negative side, you do have some organizational issues that need to be monitored going forward and are being monitored.

If we move to page two --

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MS. BONAFEDE: -- this reinforces point one that the program is doing what it's designed to do, and really to -- just looking at this chart shows you that the Fixed Income Program is your anchor program. It is providing diversification to equity risk. And you can see in this chart this is 12 months of rolling return for the Global Equity Program relative to the global Fixed Income Program. And you can see the volatility of -- that is natural in the equity markets. And the fixed income returns are really smoothing out that volatility and diversifying that risk.

What I will point you to though is over the last couple of years, you will see more of a divergence in that correlation. And there has been some discussion about how the credit risk in that portfolio does contain equity risk

and will behave like the equity markets, because of the exposure to the economic growth factor, but it's something to monitor. It's something that's inherent in your benchmark. And correlations between stocks and bonds are inherently unstable, and there will be periods where correlations will be more positive to one another. And this is one of those periods, so you will see more of a divergence in the direction of the returns with equity in the Fixed Income Program.

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MS. BONAFEDE: On slide number 3, this is really an overview of the global Fixed Income Program. As Curtis and Kevin have mentioned, it's 95 percent managed internally, five percent allocated to external managers. It has proven to outperform over a full market cycle, but it's not an all-weather strategy for the reasons that we have previously explained. It does have exposure to that economic growth factor, so it will perform in tandem when that factor is in favor or out of favor. And you have though seen a strong performance over time.

It is managed across the credit spectrum, so the portfolio has exposure to U.S. treasuries, corporate credits, mortgages, asset-backed securities, and CLOs. So that is a risk that's being taken in the portfolio. As well as from the inflation program, you have

inflation-linked securities, commodities, and TIPS, and then your short-term program for managing cash.

You have a strong experienced team. The MID,

Curtis, has been -- is the longest tenured investment

professional in the Investment Office. And senior staff

have strong track records, so a well-experienced team.

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MS. BONAFEDE: To synthesize some of this information, we've created a SWOT analysis for you. And what this is doing is just really breaking the attributes of the program into strengths, weaknesses, and opportunities, and threats. And threats is an ominous word, but it's just things to be mindful of the risks of the program going forward.

This strengths, as I've already reiterated, you have an experienced Manager Investment Director, you have an experienced team, a time-tested investment process, and very strong performance.

On the opportunity side, the execution services platform that we discussed during the Global Equity Program review is an opportunity to provide economies of scale in the trading process, and potentially mitigate operational risks in the organization, and should be potentially explored further going forward.

There's also an effort to consolidate cash

management within the organization. It's measured in certain places -- managed in various places right now. And there's a team in place that is looking at where cash is managed across the organization in an effort to consolidate that. That will also bring economies of scale.

There has been an overall effort in risk management to invest in risk systems, to understand the risks that are driving the program, and to further invest more in performance attribution, risk attribution to really have that solid feedback loop in the program.

And then there's an opportunity to explore the overall role of fixed income for the total fund. As the anchor piece of your portfolio, as the hedge of risk in your portfolio, as you pursue risk mitigation strategies, fixed income will play an increasingly more important role in the portfolio, as you look to reduce risk.

As far as weaknesses, we note that there are weaknesses in the organizational structure. You are inherently going to be behind professional asset management organizations because you cannot offer equity to staff. So incentives tend to be a little bit weaker. You will draw a certain kind of person, which is -- has been very fortuitous in the past for you. And so that's something that -- I think actually a very positive

quality. You have compensation constraints because of that structure. And as the job market heats up, those pressures will continue to multiply.

Also, there are some idiosyncratic effects by-products that come from the way the compensation structure is organized that create certain behaviors that probably could be addressed. They may not be able to be addressed within the investment program or there -- or with outside players to evoke any change.

From the threat side, we would say the succession of a Managing Investment Director is probably your number one risk to monitor over the coming years, senior turnover because of the competitive pressures in the job market, and the growing complexity of the investment management function.

The execution services platform is a method to address some of that complexity, but just the nature of the markets, the nature of the instruments that you're investing in, a greater use of derivatives just brings more complexity and the need for more resources.

And then finally, the Vision 2020 Committee responsibilities are effecting positive change in the organization, but they also are populated with the Investment Directors and Managing Investment Directors, putting competing time challenges on those -- their

day-to-day responsibilities with that -- those committees. And so just something to monitor going forward from a resource standpoint and how those resources are utilized and what kind of pressure it puts on the organization.

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MS. BONAFEDE: The global Fixed Income Program, which has already been mentioned, has made great strides this year in terms of incorporating sustainability factors into the program. The team has created sustainable practice guidelines, which describe the process in which they will be integrating ESG factors, as well as regulatory factors and risks into the program. They have developed an external manager due diligence questionnaire, so that when they do conduct evaluations on external managers, they have a very solid framework for evaluating those managers. And they have also gone through a process of surveying all of their managers to see how far along they are in incorporating these objectives.

Now, structural impediments that need to be monitored, and this is more of a Board focus, is 63 percent of the portfolio is invested in U.S. government securities or government sponsored entities. And so what that means, agency bonds, for example, agency securities.

And so there's only 37 percent of the portfolio that can actually be used to incorporate these factors.

And so if any further inroads that you wish to make would have to be made at the policy or benchmark level.

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MS. BONAFEDE: And with that, I will turn it over to Tom.

MR. TOTH: Thanks, Julia. Tom Toth with Wilshire Associates.

If you want to flip ahead to page six, we'll just slight and dice the portfolio a little more finely as Curtis pointed out, and -- Curtis and Kevin, and Julia reiterated.

The portfolio has performed very strongly, both on an absolute basis, as well as on a risk-adjusted basis. You can see very strong risk-adjusted returns. In the memo, it's not up on the slide here, but it has a very high rolling information ratio. So that's the ratio of active return divided by the active risk that was taken in order to generate that return.

And what you also see is that from an absolute risk perspective over the last three and five years, the portfolio, as Kevin's slides pointed out, actually had less risk than the benchmark as a whole.

In terms -- if you look at the upper left-hand chart there, you can also see that over long periods of time, as well as over shorter periods of time, the

portfolio has added value in both up and down markets, so it's not a one-way portfolio or always a risk-on portfolio. And we think that's a very attractive return pattern to have for the program.

And then finally just to reiterate on the lower right-hand side, you can see over the 10-year time frame that the portfolio has outperformed its policy index by a meaningful amount.

Finally, on page seven, the score for the internal Fixed Income Program -- the total score of just over 80 percent or 242 out of the 300 possible points, a very good score reflective of a very strong team in place who have done an outstanding job managing the portfolio as tasked.

A couple of the adjustments relative to the score last year really centered around team. We talked about the risks around leadership succession. We think that's a very real risk, one that is the Board, as well as staff, is cognizant of, but we want to keep that at the forefront.

And then Julia did mention some -- maintaining some balance between the Vision 2020, or 2020 Vision, committees and the work that staff does there with their day-to-day management responsibilities. The longer term strategic vision is very important, but it does take time

to -- and ensuring that resources are dedicated, so that the day-to-day portfolio management is well resourced, we think, is important as well.

The other change in the scoring structure relative to last year, what we decided to do was to take out the points, which in the past, had been allocated to marketing. We felt it was better to shift those into the commitment to improvement as being, I think, more aligned with really the role that the internal fixed income team is providing for the portfolio. They're not doing marketing, and so we figured let's shift those up to a place where they have shown strides. And that's reflected in the new scoring and will be reflected going forward as well.

With that, I'll stop and see if we can answer any questions.

CHAIRPERSON JONES: Yes, we do. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I have a number of questions, but the first one I've already asked staff, but I'd like you to comment on it too is the -- our yield bias in the portfolio tends to encourage more equity like performance. You made reference to it. Can you comment a little bit more beyond what staff had said about what you think we should be doing about that?

MS. BONAFEDE: Well, part of that question needs

to be addressed from the strategic level. So you have an active program, and it is an active bond portfolio. It's aggregate focused, so it does have credit exposure, but you're longer duration by double than the aggregate typically. And there is a good reason for that, you have a very long liability. And the duration of that liability is probably more close to 12 or 15 years. So having a longer duration benchmark over the long term makes more sense.

Now, as far as credit risk, that -- it's very narrowly managed and very risk controlled. But as you go through the process of really establishing the factors, you know, that process will probably evolve in terms of where you want that factor exposure to exist. And that's probably not a question that's easily answered just in terms of we change our benchmark, we don't have credit exposure, because from a tactical perspective, you're not going to move things that much in a risk controlled framing work. But long term, you might decide that the fixed income portfolio needs to be either more pure or, as Ms. Mathur identified, there might be a place where you identify that we're really going to look at this on a factor basis, and we're going to manage the portfolio that way, which would change the framework of your benchmarks.

the execution system, and said fixed income is not using it as much. That was the first time, at least it struck me, that I ever heard of the execution system. Can you describe a little bit about what it is?

MS. BONAFEDE: Sure. The execution services platform was designed to consolidate the -- some of the trading of more liquid securities for CalPERS that are traded across the programs. And the idea is to put it in the middle of global fixed income and the Global Equity Program and to take those trading functions like, for example, securities lending used to exist in the global Fixed Income Program. Now, it has been moved over to the execution services platform.

The collateral management is still with the global fixed income, but the actual lending of the securities is now going through this execution services platform. The currency component, the spot trading of equity is now moving on to this execution services platform. The currency being traded as apart of the Global Fixed Income Program is not.

And there's -- you know, from a best practices standpoint, large institutional firms do have centralized trading platforms that cross all currencies, but it could be also argued that there is information in the trading.

And so from managing a Global Fixed Income Program,

currency and the actual buying of the securities go hand in hand. I mean, those decisions are in concert, and so there is an argument for keeping that practice together.

So I think as the organization matures with respect to this platform, you'll see more risk management resources that can monitor the process, and you'll see a discovery of more efficiencies that can move onto this platform and make it more efficient for the entire organization.

COMMITTEE MEMBER JELINCIC: Thank you. And then in your PowerPoint, weaknesses, you identified promotion restrictions. And given our continuous testing, I'm not sure exactly what you were referring to, so --

MS. BONAFEDE: Well, promotion restrictions, they're more — they're more descriptive of how you do promotions. There are certain restrictions that are in place in the program that have to do with the organization itself that prevent, for example, promotions in place, that prevent an individual from having the team supporting them, because the compensation history doesn't stay with the position. It stays with the person. And so you end up jeopardizing the bonus structures of potential direct reports, because of the structure of it.

And those are just things that will have to be worked out. And that's why we've identified them to INVO

and to the CEO, so that they can work through some of these issues. They were probably unintended consequences of the outcome, but they're there, and so people work around them when they can't fix them correctly.

COMMITTEE MEMBER JELINCIC: So when you're talking about promotion restrictions, you're actually talking about more than just the ability to promote?

Yes.

COMMITTEE MEMBER JELINCIC: Okay. And the other observation I will make, and I won't ask you to comment on it, but you talked about the benchmark being 63 percent govies, and so ESG couldn't fit very well. But that's inconsistent with what you said on page 8 of 28 of your report, where, you know, the govies and government controlled were significantly smaller. And then back in A 2, Attachment 2, where we actually look -- they identified what the portfolio was, you know, we deviated from the -- that benchmark a fair amount. And so I'm just going to suggest there may be more opportunities to incorporate ESG than you reflected in your report.

MS. BONAFEDE: Okay.

MS. BONAFEDE:

COMMITTEE MEMBER JELINCIC: Thank you, Mr. Chair.

CHAIRPERSON JONES: Thank you. Okay.

Mrs. Hagen.

ACTING COMMITTEE MEMBER HAGEN: Thank you. I

actually had a similar question on the promotional restrictions comments. And I think I understood what you were saying. I guess I would just recommend to staff that you forward any restrictions you believe are problematic to Calhr, the organization that I represent. We're in the midst of civil service improvement, and we're actually working on regulation and law changes on this very issue. So we'd like to hear about any impediments that hiring authorities are facing with promos in place.

My second question was relative to on page 15 of Attachment 1, you talk about travel rules and regulations, and that there's challenges in travel rules and regulations. And I'd just like to hear what some of those might be.

MS. BONAFEDE: Well, from the rules and regulations concerning travel can be fairly restrictive. And so it can impede staff going to do research, and to perform general due diligence. I think for the most part, they have, you know, determined a way to move through the process, but it's not always efficient. So I think probably a review of what the travel guidelines -- and it's probably an effect of the budgeting process as well. So those guidelines should probably be reviewed.

ACTING COMMITTEE MEMBER HAGEN: Thank you.

CHAIRPERSON JONES: Okay. Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

On the score sheet, the two categories commitment to improve and market anomaly, we have high scores, but we're not maximum possible. So could you address are those -- are they really achievable to actually end up improving? From the analysis, it seemed like I was having difficulty seeing where there was room to actually improve or are we really at the top of our game?

MS. BONAFEDE: Well, you know, I think from the commitment to improve section is one of those that has actually changed this year, because we --

VICE CHAIRPERSON SLATON: I recognize that.

MS. BONAFEDE: -- easier to recognize that.

So actually from that scoring you're 25 out of 30, which is a fairly healthy score. And I think, you know, no organization is going to get a perfect score, and, you know, just to put this in context, this is a very strong organization, and doing a very good job managing the assets according to the way that you have directed them to.

And there's just going to always be some impediments to a perfect score within this organization, because, you know, you're a public defined benefit plan.

VICE CHAIRPERSON SLATON: Well, but let's go to market anomaly where it's not a perfect -- it's a good

score, but not a perfect score, but yet on the buy/sell discipline it's a perfect score. So help me understand the difference between those two.

MS. BONAFEDE: Okay. Let me actually get it in front of me here.

So from a market anomaly, you have 35 out of 40. Again, we think that's a pretty strong score.

VICE CHAIRPERSON SLATON: Sure.

MS. BONAFEDE: From a buy/sell discipline, that particular score has been strong throughout the organization. And I think that what we have seen in terms of a buy/sell discipline is that there is a very strong -- a lot times in an investment organization, there's a buy discipline. There's not a sell discipline. And this staff is very experienced in being -- knowing when to sell. You know, that's, I think, probably one of the hardest decisions in an investment management organization, at least in the portfolio management process.

And so we think that the staff does a very good job in determining if something is overvalued, it's time to sell it. And so they do a good job there.

From a market anomaly, that's typically do we have information that we can explain market anomalies and, you know, I think it's -- they do a very good job, and I

think it's very difficult to get a perfect score there.

That's -- you know, that means you get everything right all the time.

VICE CHAIRPERSON SLATON: Well, I can tell you looking at the overall scores and the scores in each category, I'm very satisfied. I just want to understand where there's room and where there's not room.

Thank you.

MS. BONAFEDE: Right. It's a thinking process. CHAIRPERSON JONES: Okay. Thank you.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: A couple of things.

And, Bill, in response to you, if you look at the -- back on 18 of 28, where they actually define the market anomalies, it's market anomalies/inefficiencies and it's clear identification how and where. So I think when you read the larger description, you will see where the score came from.

And Ted, early on, you had said, you know, the issue of compensation and the ability to hire at both the IO and PM level came up. And you had said you were going to defer your comments until this part. So I hereby call on you to give me your deferred comments.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I was waiting for the right moment to jump in. So, Mr. Chair,

I'm ready to do that, if that's -- I don't know how many
questions you have pending, so --

CHAIRPERSON JONES: Yeah, we don't have any further questions.

CHIEF INVESTMENT OFFICER ELIOPOULOS: So, you know, looking at the SWOT analysis, the strength, weaknesses, opportunity, and threat analysis, I think it -- one, I would -- in any review of any of our programs, I would love to have the strengths and weaknesses identified here. The fixed income team is an incredibly strong unit with strong leadership and depth of experience and performance that we've talked about here.

So those are all -- those are wonderful attributes to have of a program review and it's been a consistent review during, boy, my eight years here, and watching it successively.

In our Investment Beliefs, it does note that -our Beliefs do note that there are some constraints that
the Investment Office has working within a State
structure. It's just part of our -- part of being an
investment organization within a public agency and a State
agency, and is one of our Investment Belief number 10 just
to recognize that. And I think it's important to have
your independent Board consultant, Wilshire, do these
reviews from time to time. And certainly their review is

comparing, in this case, our fixed income unit to the best organizations globally that they review.

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And pointing out, I think, some of the -- some of the, you know, in their words, constraints and restrictions, I would call them part of -- you know, part of the structure of being within the public organization.

Having said all of that, I do believe, from a compensation perspective, the Perf and Comp Committee is addressing these issues, or -- not issues. I'll just say is addressing compensation for all of the employees at CalPERS, including within the Investment Office. And I think that -- that process is a good one, and ongoing, and one that is never solved. There's never any one point in time that you can say that you have a perfect compensation structure. But certainly the work that is being done in identifying our peer universe, setting a target for compensation are all important elements to making sure that in the case where we have such a strong internal team, where they're internally, actively managing these assets on a full-time basis, we want to make sure that the compensation structure is adequate to hire and retain the talent that we need to do that.

I think from my perspective, we've been remarkably effective in retaining and keeping this fixed income team for quite some time. I mean, it's a

remarkable leadership team that has been assembled and been here for quite some time.

So I think on balance, given all of the global restraints or concerns that we might have, we've been remarkably successful in keeping a team in place and to do a very, very strong job.

I think the issue of promotions in place is something that we've tackled within the CalPERS organization as a whole. And really, I think it's an observation that, you know, makes our investment organization perhaps a little different than private sector employers in some of the abilities to, you know, promote someone in place.

But I think on balance, we've been very successful in working with HR to address career paths, and promotional opportunities, and succession planning for the Investment Office, as well as other divisions within CalPERS.

The last two points I wanted to make sure to cover. One, in terms of travel restrictions, I do think we've been -- you know, while we are an Investment Office operating within a State agency, we've been pretty well able to travel to where we need to go to, to perform the due diligence that we need to in order to satisfy our fiduciary obligations. Are there some differences between

the travel guidelines and rules that we have versus the private sector? Sure.

(Laughter.)

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CHIEF INVESTMENT OFFICER ELIOPOULOS: there -- you know, are there perhaps things that we could do in more depth or have more time or have more capacity? But I don't, at least from what I've seen and what I've heard from our team, there's nothing in this observation that rises to the level of not being able to perform our duties to a satisfactory level and to the level of our fiduciary obligations for sure. And we've done quite a bit of work on the travel rules to make sure our teams are able to go where they need to go, but it's certainly -- I think when you have an independent consultant come in, as is Wilshire, they want to make sure to inform the Committee that in placing our team versus, as I said, other teams in the private sector, do we operate at a slight disadvantage? Sure. But I think what we have in place now allows us to do our jobs and complete our duties satisfactorily and actually to a very high degree.

Last, in terms of the tug and pull of responsibilities by our, you know, Investment Directors, you know, formerly known as Senior Portfolio Managers, and our Managing Investment Directors, yes, we're asking for

more time to be devoted to total fund priorities as part of the Vision 2020 process, as well as the ongoing roadmap process of our heavy lift.

And it is a strain on all of us. We're trying to improve all these various internal control and other roadmap items. We're trying to place more of an emphasis on the total fund return and risk profile. All at the same time, we're asking each of the asset classes to continue with their normal and very robust work process.

So we're well aware of the strain that is placing us, and that's why we continue to outline for this committee, this is a very heavy lift period. It has been since the financial crisis and through to today. All of the reporting that Wylie and Cheryl just did in the risk -- enterprise risk report to be able to move those elevated internal control and risk items from elevated to moderate is reflecting of an incredible amount of work that you can see the team that's in front of you here today. And if we had the rest of Investor Directors from the fixed income unit and the other asset classes, you will see that they were all employed at contributing to those heavy-lift items.

And we don't see a -- we don't see a break between now and 2020 in order to accomplish not just the workplan items or heavy lift items, but also bringing the

Investment Director level talent into some of the overall total fund decision making that we're going to architect over the next three, four years.

So I think Wilshire is very right to point that out as an issue to be aware of. It's one we're extremely aware of, but we think, on balance, that we really don't have an option, but to strive towards really the excellence that we're hoping to get to over the end of this next four and a half year run. And I think we'll look back, as we have now looking back over the last five years, that it's worth the effort. But I don't want to minimize at all the impact on the level of work and strain it puts on the entire Investment Office, as well as other parts of the Calpers organization to make sure that we hit those goals.

CHAIRPERSON JONES: Okay.

COMMITTEE MEMBER JELINCIC: I won't comment on the difficulty of finding breakfast on the island of Manhattan for seven bucks, but I will say that if we ask people to travel and do things on our behalf, we ought to pick up reasonable expenses.

Historically, we've had more difficulty hiring and retaining in the IO series than we have in the 20098 classes, where we can set the salary. Is that still the case?

CHIEF INVESTMENT OFFICER ELIOPOULOS: I would have to -- that's a good question. I would have to defer to Doug Hoffner who has some of the statistics on it, because just looking on -- thinking about it on the surface of it -- oh, he's here.

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DEPUTY EXECUTIVE OFFICER HOFFNER: I'm not sure I heard the total question, so if you could repeat that, it would be helpful.

COMMITTEE MEMBER JELINCIC: Historically, we've had more problems with hiring and retaining at the IO series, the rank and file than we have with the 20098 folks, since we've got the authority to set salaries and make them more reasonable. Is that still the case or --

DEPUTY EXECUTIVE OFFICER HOFFNER: Well, we did a 10-year analysis within the GFI office. And so we look at in the Investment Officer series right now, the tenure is at 7.1 years. Managers are at 13.5 years. And a total of 9.8 for the two groups together.

That's somewhat higher than both the rest of the Investment Office in both the IO and management series within the organization. So they're doing better there in terms of length of tenure in the organization. It doesn't break out further between the different actual classifications of IOs.

COMMITTEE MEMBER JELINCIC: Have we done any work

on how long it takes to hire in those?

DEPUTY EXECUTIVE OFFICER HOFFNER: We have. And so we also did a duration to fill. The global fixed income actually has a range between 42 days and 110 days in the 2014 fiscal year. On average, that's breaking out 71 days to hire an individual. That's better than the rest of the enterprise at 75 days on average, and then the rest of the Investment Office at 111.

COMMITTEE MEMBER JELINCIC: And is there a break between the IOs and the 20098s?

DEPUTY EXECUTIVE OFFICER HOFFNER: This one doesn't include the break by that. We could further drill down on that, but essentially it says they're doing a better job in terms of the overall organization, and substantially, I think, better than the rest of the other positions within that.

So I don't know the number. They have, I think, at this point four IO positions, and one management position vacancy. So to the degree there's a difference there compared to the other parts of the Investment Office, we'd have to look at that analysis.

COMMITTEE MEMBER JELINCIC: Thank you.

CHAIRPERSON JONES: Okay. Well, thank -- yes,

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MANAGING INVESTMENT DIRECTOR ISHII: I just want

one comment. Mr. Jelincic brings up a good point. I think what we do is change the way we recruit, all right? We used to try to recruit experienced people. And if you try to do that, it's going to -- you can't do it. It's going to cost you too much, right? You try to do MBAs, we don't have the salary structure for that.

So what we've done and the reason why I think we're somewhat successful is we've changed the way we recruit. We bring people in. We have an internship program. We'll bring them in as an undergraduate, take a look at them. If they're good, we hire them, and then we train them, right?

It's a different model. And it's the way you have to do it, whereas if you're in the private sector, you let them gain a couple years experience. Then you hire them and you might pay 100 grand.

All right. So CalPERS is just changing the model you have to understand. And we sell ourselves based upon a stable employer, and we're going to teach you. We're going to get you skill sets that maybe we can't pay you, but you're going to -- you can move on and you'll be able to move someplace else, if you need to.

But this is a great place to learn and you get, you know, very experienced staff. And I think that's what we've decided. We did that about 15 years ago when we had

vacancies -- if you look at our vacancy rate 10 years ago, we had 10, 12 number of positions we couldn't recruit. So we changed it.

CHAIRPERSON JONES: Okay. Thank you.

Yes, there was one takeaway towards the end that I think needs mentioning. And this comment does not include activities that may normally go through the Performance, Comp and Talent Management Committee, but I did hear an offer to provide assistance, if there impediments or restrictions around whatever personnel management issues you're dealing with, that they're open.

So we certainly want you to, you know, take advantage of that, if you need to. So that's about the only takeaway that I heard from that discussion.

And I understand you're completed now, Julia? You have -- and I just want to -- I understand, Julia, that this is your last presentation to CalPERS, and I just wanted to extend, on behalf of the Committee, our appreciation for you over the years of the services that you've provided to this Committee, and also wish you the best in whatever endeavor you have, especially on your leadership and support on the asset liability management workshops. So we just want to thank you for your service and wish you well on your new endeavor. Okay.

MS. BONAFEDE: Well, thank you very much. And I

just want to thank the entire Investment Committee and the organization and staff. It has been truly an honor and pleasure to work for an organization that is so committed and so passionate about delivering the mission of Calpers. And I just want to commend you. I've never been in an organization like this.

And I am very excited to move forward, but I just want you to know that you have a wonderful team at Wilshire. And I transferring my responsibilities to Andrew's able hands, and am confident that he will taking care of you going forward. So thank you again for everything.

CHAIRPERSON JONES: Thank you.

Okay. We will now move to the next item on the agenda, Proposed Revision of Fixed Income Program

Policies - Initial review.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you, Mr. Chairman. Wylie Tollette, CalPERS
Investment Office staff.

This is the continuation of the policy revision project initiated with your approval with the total fund policy back in March. We will continue to bring program level policies before the Committee through the remainder of the year following each annual program review, as each separate item is brought forward, including through to the

new year with the affiliate fund, the multi-asset class and the TIPS program policies later.

Our guiding principles in this effort continue to be to ensure that policy revisions provide clarity of roles between staff/Investment Committee, are testable and include clear measurable and specific language, and finally the appropriate level of detail as we continue to try to remove procedural, duplicative, and aspirational language.

One other note is we will plan to incorporate -this is the first reading, so we will plan to incorporate
any of the changes that we discussed earlier in the
meeting with the Global Equity Policy, we'll plan to
incorporate those into the fixed income policy.

Now, specifically to the global fixed income, there's some specific items here. We're proposing that the Committee consider revisions to six fixed income policies. This includes the global fixed income policy, inflation assets, liquidity, the credit enhancement policy, which has now been consolidated into the global fixed income policy, low duration fixed income, and finally, securities lending.

All of the policies have been revised to conform to the new total fund investment policy format, so you'll see that they use tables and appendices. Investment

limits and constraints that were included in both the previous policy, as well as within investment delegations are now included in the policy. There have been no substantive changes to the policy risk limits or constraints. They're consistent with the prior year.

Finally, procedural elements -- any procedural elements that were removed from the policies have now been moved into policy procedure documents. Now, those are overseen by the investment and operating committees within the Investment Office, and will still be subject to the consultant review, as well as all the compliance tests that the current policies are subject to.

So with that, I will pause and see if there's any questions, and actually Curtis has one correction.

MANAGING INVESTMENT DIRECTOR ISHII: I have one correction. Mr. Jelincic appropriately pointed out on page 22, there's a typo for all securities, the minimum credit rating, the middle one should be BBB minus. And he appropriately caught that. That's a good catch. We're going to make the correction.

CHAIRPERSON JONES: Okay. Thank you.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Yeah. The introduction and the reporting, you know, we talked about earlier, so I won't repeat that. But on 10 of 27, the

table at the bottom, I learned during the briefing that the second and third lines are actually subsets of the first line.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That's correct. They should be -- we'll plan to indent them so that that's more evident in the second reading.

COMMITTEE MEMBER JELINCIC: Okay. Because, you know, I got very confused how you can have 80 and 60.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Understandably.

COMMITTEE MEMBER JELINCIC: And that actually was -- you know, the comment about the introduction and what gets reported goes throughout all the policies.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

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COMMITTEE MEMBER JELINCIC: Other than that, I have no comments.

CHAIRPERSON JONES: Okay. Thank you. So seeing no further questions, thank you for the report.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
Thank you.

CHAIRPERSON JONES: And we now move to Item 11, summary of Committee direction. Now, this is a new part of all agendas, and we just happen to be the first

Committee to respond to that. And I've attempted to, during the course of the meeting, is to highlight those directions, so that we wouldn't have to repeat all of them here at this time.

But if there's any that, Ted, you and your staff picked up that perhaps I did not, and you perceived it as a direction, now is the time to let us know.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Okay. Yes, Mr. Chair, very much so. So I -- what I was planning to do was just cover the Committee Chair directions. So I'm hesitating just because I was planning on going through them all, and now I'm trying to piece through the ones that were -- that just came recently. So let me just -- it might be a bit of a hearing it twice, but why don't I just do this and see if I've heard everything.

So the first Committee direction came in Agenda

Item 6A, the review of the global equity policy, where the

Chair directed to bring the policy back next month to

review the questions regarding the introduction. The word

"absolute", and the -- you know, any clarifications if

needed on the reporting item that was brought up. That's

what I took from that.

Agenda Item 7B, the agenda item on investments in coal, the Committee Chair directed that we follow the legislation -- the timetable that was outlined in the

agenda item, and make sure to continue our focus on our fiduciary obligations during that time period.

Number two, to not add to our thermal coal holdings as defined in the legislation during the pendency of this time period from today until the Board makes a divestment decision.

And three, to write a letter to the, I believe, additional 85 companies that don't fall within the 50 percent revenue definition to put them on notice about the -- that this legislation exists, and to -- well, no, to write the letter --

INVESTMENT DIRECTOR WEIR: To take up the question of the 85 companies at the off-site in January.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Oh, well that's a good clarification then.

CHAIRPERSON JONES: Well, no.

CHIEF INVESTMENT OFFICER ELIOPOULOS: No, so I think -- I thought the direction was to go ahead and write the letters, the 85 letters.

CHAIRPERSON JONES: To write the letters. Two directions, two pieces, yeah.

CHIEF INVESTMENT OFFICER ELIOPOULOS: And then last, to take up at the January off-site the approach to the various fossil fuel definitions that we -- the concentric circles that we listed in the item.

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CHAIRPERSON JONES: I'm sorry. I'm sorry, would you repeat it, Ted, the last one?

CHIEF INVESTMENT OFFICER ELIOPOULOS: This last one?

CHAIRPERSON JONES: Yeah.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Yeah. So
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the last one is we would take up at the January off-site the approach that we would take to engagement with the, what I'll call, the various concentric circles that were presented, the various definitions of substrata of fossil fuel to thermal coal to all coal companies will be included in the January off-site discussion of priorities of how to approach ESG.

And I think a good point, we also will follow up with the Legal Office on whether or not the legislation applies to our affiliate funds.

CHAIRPERSON JONES: Okay. Great. Okay. And on that I see Mr. Jelincic has a question. Is it about the summary of the directions, J.J., or something else?

COMMITTEE MEMBER JELINCIC: No, it is --

CHAIRPERSON JONES: Before I call, I want to

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COMMITTEE MEMBER JELINCIC: It was actually on the last item. I didn't punch the button.

CHAIRPERSON JONES: Okay. I'll go back to you in

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    a minute. Okay. So then if the Committee then --
             CHIEF INVESTMENT OFFICER ELIOPOULOS: I have
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    two -- Mr. Chair, I have two more.
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             CHAIRPERSON JONES:
                                 Okay.
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             CHIEF INVESTMENT OFFICER ELIOPOULOS: Sorry, Mr.
    Chair. On Agenda Item 8a, on the enterprise risk reports,
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    I heard the Committee Chair direct staff to provide some
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    more written narrative around the agenda item that we will
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   provide every six months.
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             And lastly, in Agenda Item 9b, on the Wilshire
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    report, the Committee directed staff to work with HR if we
   have any additional items or comments that we'd like to
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    propose to CalHR to assemble those and forward them.
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             CHAIRPERSON JONES: Okay. Very good. Committee
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   members concur?
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             So the process is working.
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             Thank you very much
             CHIEF INVESTMENT OFFICER ELIOPOULOS: Thank you
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CHAIRPERSON JONES: Thanks, Laurie.

to Laurie Weir for helping me.

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Okay. So now we have one more question before we call -- J.J. 22

This goes back COMMITTEE MEMBER JELINCIC: Yeah. to the previous item, particularly the securities lending policy appendices, 27 of 27. We just need to make sure

that the daily, weekly, and monthly are summed up.
They're cumulative, not -- we talked about it in the
briefing, just some language to make sure that that's

clear.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Okay.

COMMITTEE MEMBER JELINCIC: Thank you.

CHAIRPERSON JONES: Okay. Thank.

Now, we move to the last item on the agenda, public comment. We do have a number of requests to speak, and we -- I'm going to call up the first three, Ms.

Giachino, Turcios -- pardon me, if I messed that up -- and Mr. -- Ms. Martinez. That will be the first three. And then they would follow -- would you please identify yourself and your organization. And each of you will have three minutes to speak and the clock is right here before you to apprise you of your time left.

MS. GIACHINO: Okay. Thank you. The four of us are together speaking on the same issue.

My name is Alyssa Giachino. I'm with UNITE HERE. First I want to recognize CalPERS leadership in private equity, particularly recent robust discussions on transparency and accountability.

I'm here to talk about TPG and Leonard Green, both significant partners for CalPERS. Jointly, these two firms own the Palms Casino in Las Vegas. In a moment,

you'll hear from Jose, Asela, and Father Almodiel from Las Vegas.

We've also shared materials with the Committee, including an example of recent media coverage. It also has a petition signed by a majority of Palms workers expressing their desire for a fair process to choose whether to unionize in an environment free from intimidation or hostility.

Palms management has refused to be neutral.

Instead of honoring employees' requests, in August the Palms announced it was outsourcing hundreds of food and beverage jobs effective November 2nd. As a result, the property faces the threat of disrupted revenues or operation due to a labor dispute. We have been reaching out to Leonard Green and TPG for several months seeking labor peace, an agreement that would mitigate labor risk to the investment.

We understand CalPERS has sent a letter to both TPG and Leonard Green expressing concern and encouraging engagement. Neither Leonard Green nor TPG has responded to our calls, especially over outsourcing. Many other employers in Las Vegas have reached agreements that secured labor peace for the 55,000 casino workers we represent. The industry has grown and profited, while ensuring job security, health benefits, and fair wages for

workers.

By breaking with the norm, TPG and Leonard Green create unnecessary risk for LPs, such as CalPERS. We have worked positively with other private equity firms. One example from the same market is Blackstone, which took over the Cosmopolitan Casino earlier this year, Blackstone committed, at that time, to retain all workers and resolve a labor dispute that had lasted for several years under the previous ownership.

We urge CalPERS, as a significant investor with both TPG and Leonard Green, to continue to engage with them and encourage labor peace for the benefit of all stakeholders.

Thank you.

MR. TURCIOS: Good afternoon, everyone. My name is Jose Turcios. I have lived in Las Vegas for 25 years. I am a married father raising three children. I have worked at the Palms Casino Resort for 3 years as a houseman. A houseman job is to remove dirty linen and trash from the floors, also bring fresh linen and supplies for the housekeepers.

I am from El Salvador. I came to Las Vegas to provide a better life for my family. I do the same work as a houseman in union casinos, but I do it for less money and fewer benefits.

A majority of workers at the Palms want a fair process to exercise our right to choose a union. My co-workers and I have met several times with the CEO of the Palms to Todd Greenberg. We ask management to commit to being neutral, so that as workers we could make our own decision without fear of retaliation or intimidation, but Palms management has refused and instead announced they will outsource over 220 jobs.

We are all proud to be employees of the Palms and work hard to serve customers and build the casino's success. We are asking for the same process that 55 other Las Vegas casino workers had in that process, that the union and their members commit to not picketing or running a boycott, because workers are getting a fair process to decide.

I ask you as investors to urge TPG and Leonard Green to commit to labor peace.

Thank you very much.

CHAIRPERSON JONES: Thank you.

MS. MARTINEZ: Good afternoon, everybody. My name is Asela Martinez, UNITE HERE, Local 226, las Vegas, Nevada. I work in the industry for 25 years. I really appreciate, you know, your attention to send the message TPG and Leonard Green.

Thank you very much.

REVEREND ALMODIEL: My name is the Reverend Arsolin Almodiel. I lead a CLUE, Clergy and Laity United for Economic Justice. I am priest of All Saints Episcopal Church. I am here today with Jose Turcios from the Palms, because I shared the worker's concern about the labor situation.

I believe that all of us still subscribe to the phrase, "In God We Trust", and all people are created in the image of God, so that workers like them know how to respond to their situation, and to the unfairness they felt here and now.

As people of faith, we recognize the dignity of all people and all workers. Our religious traditions affirm the right of workers to freely organize themselves, to improve their wages, benefits, and working conditions and assert the right to avoid on the job.

Operation of workers is an insult to human dignity and an affront to God. All workers deserve the opportunity to provide for their families, to participate fully in their communities economically, socially, and spiritually.

Thousands of workers in Las Vegas are represented by unions. Through collective action, they have been able to earn fair wages, enjoy health care for their families, and most important, to have respect on the job.

Our congregation in the faith community in Las
Vegas are made up of all kinds of workers, including many
who are represented by unions. Our communities benefit
when families have job stability and access to affordable
health care.

I am deeply concerned that the private equity firms that own the Palms haven't committed to labor peace and a fair process for those workers. I am even more concerned by the announcement that over 220 Palms workers' jobs will be outsourced in November. I urge you, as investors, to call upon TPG and Leonard Green to ensure labor peace and job security for workers at the Palms.

We have shared with you a letter signed by more than 30 clergies of the Las Vegas faith community calling for fairness for Palms workers to remind us all from Jesus Christ he said do not do unto others what we do not do --we do not want them do unto you. And Jesus taught us to pray about God's name be hallowed. God's kingdom come and God's will be done on earth. I think we can shape the world towards that.

Thank you.

CHAIRPERSON JONES: Thank you for your interest in Calpers. And we appreciate you taking the time to come and share your views with us. And as was mentioned earlier, it is also my understanding that letters have

been written to the private equity managers regarding this issue. And so I would just suggest that you continue to work with staff on this issue.

Thank you again for coming.

That concludes the open session meeting and this meeting is adjourned.

(Thereupon California Public Employees'
Retirement System, Investment Committee
meeting open session adjourned
at 12:56 p.m.)

CERTIFICATE OF REPORTER I, JAMES F. PETERS, a Certified Shorthand

Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Public Employees' Retirement System, Board of Administration, Investment Committee open session meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 23rd day of October, 2015.

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