MEETING

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PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BOARD OF ADMINISTRATION

INVESTMENT COMMITTEE

OPEN SESSION

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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JAMES F. PETERS, CSR
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APPEARANCES

COMMITTEE MEMBERS:

David Miller, Chair

Theresa Taylor, Vice Chair

Malia Cohen, represented by Deborah Gallegos

Fiona Ma, represented by Frank Ruffino

Lisa Middleton

Eraina Ortega

Jose Luis Pacheco

Kevin Palkki

Ramón Rubalcava

Yvonne Walker

Mullissa Willette

Dr. Gail Willis(Remote)

STAFF:

Marcie Frost, Chief Executive Officer

Michael Cohen, Chief Operating Investment Officer

Stephen Gilmore, Chief Investment Officer

Scott Terando, Chief Actuary

Travis Antoniono, Investment Director

Dan Bienvenue, Deputy Chief Investment Officer

Fanny Bourdais de Charbonniere, Investment Director

Peter Cashion, Managing Investment Director

APPEARANCES CONTINUED

STAFF:

Nelson Da Conceicao, Investment Manager

Sterling Gunn, Managing Investment Director

Drew Hambly, Investment Director

Anton Orlich, Managing Investment Director

Tamara Sells, Associate Investment Manager

Mike Silva, Associate Investment Manager

ALSO PRESENT:

Jared Gaby Biegel, United Food and Commercial Workers

Terry Brennand, Service Employees International Union, California

Xamiel Campos-Espinoza

Jason Opeña Disterhoft, Majority Action

Jacob Evans, Sierra Club California

Dan Fuchs

Lauren Gellhaus, Wilshire Advisors

Alyssa Giachino, Private Equity Stakeholder Group

Maria Lourdes, Gonzales, United Food and Commercial Workers

Ali Kazemi, Wilshire Advisors

Judith Kirk

Greg Lichtenstein

Dr. Shae O'Riordan

APPEARANCES CONTINUED

ALSO PRESENT:

Ingracia Ramos, United Food and Commercial Workers

Bobby Roy, Service Employees International Union Local 1000

Frank Ruiz

Dan Schoorl, Service Employees International Union Local 1000

Mark Swabey

Sara Theiss, Fossil Free California

Melechor Torres, United Food and Commercial Workers

Tom Toth, Wilshire Advisors

Maria Vargas, United Food and Commercial Workers

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PROCEEDINGS

CHAIR MILLER: Good morning. We'll now call to order the Investment Committee open session. Please call the roll.

BOARD CLERK ANDERSON: David Miller.

CHAIR MILLER: I am here.

Theresa Taylor.

Malia Cohen?

Frank Ruffino for Fiona Ma.

ACTING COMMITTEE MEMBER RUFFINO: Present.

BOARD CLERK ANDERSON: Lisa Middleton.

COMMITTEE MEMBER MIDDLETON: Present.

BOARD CLERK ANDERSON: Eraina Ortega.

COMMITTEE MEMBER ORTEGA: Here.

BOARD CLERK ANDERSON: Jose Luis Pacheco.

COMMITTEE MEMBER PACHECO: Present.

BOARD CLERK ANDERSON: Kevin Palkki.

COMMITTEE MEMBER PALKKI: Good morning.

BOARD CLERK ANDERSON: Ramón Rubalcava.

COMMITTEE MEMBER RUBALCAVA: Present.

BOARD CLERK ANDERSON: Yvonne Walker.

COMMITTEE MEMBER WALKER: Here.

BOARD CLERK ANDERSON: Mullissa Willette.

COMMITTEE MEMBER WILLETTE: Here.

BOARD CLERK ANDERSON: Dr. Gail Willis?

COMMITTEE MEMBER WILLIS: Present.

CHAIR MILLER: Okay. And Theresa is here somewhere. I didn't realize she hadn't slipped back in

So. Okay. This morning we're going to do something a little different this morning. We're going to take public comments first to accommodate two members of the public who have requested an ASL interpreter, American Sign Language interpreter. Bagley-Keene provides that speakers with an interpreter will get twice the applicable time limit, so each of these speakers and their interpreter will have up to six minutes for public comment.

We have one commenter in Zoom who will need American Sign Language interpreters as well. Staff, please let the remote commenter know how to turn on their camera. And I'll note for the record that Theresa has rejoined us.

BOARD CLERK ANDERSON: The public comment on Zoom can now begin.

SHAE O'RIORDAN(through ASL interpreter): All right. Good morning. I am here representing the ASL IU. The American Sign Language Interpreter's Union.

As a deaf woman with 25 years of experience, I being deaf, growing up with a deaf family, we saw the struggles daily to communicate. My deaf family struggled for access. And I faced the same struggles with access 41 years later. I see many deaf people in the community struggle and why, due to language deprivation in our community. Language oppression is real.

I became a deaf interpreter specializing in medical and legal interpretation, so I could bridge the gap and provide important linguistic interpreting skills that most hearing interpreters can't provide, because they are a non-native signer.

And today I'm here to explain how VRS impacts the lives, my life, as a deaf woman, and as deaf native ASL signer, as a deaf interpreter with generations of sign language before me. I hold three PhDs. And for each degree, I relied on interpreters to access my education. And without that access to interpreting services, like video relay, my life would be dramatically different. VRS services provide critical access to various everyday needs, including Zoom meetings for work, legal discussions with lawyers, setting up medical appointments, and even having therapy through the phone, and so much more.

I use an interpret through the VRS every single day and I am affected and impacted by the quality of VRS services which is not good. Recently, the quality of access has declined sharply. The companies that you financially support provide critical services for millions of deaf, hard of hearing, and deaf-blind people. And this has become a major part of the problem.

After being bought out, VRS services have gotten worse. Deaf staff have lost their jobs. There are no deaf opinions sought on how our language is used. Deaf mentor positions have been eliminated. No deaf interpreters are provided for important linguistic situations, like 911 calls. Experienced interpreters are quitting and why? Because they are overworked and paid low or unfair wages or harassed to pick up more work.

Access is becoming increasingly difficult, not because the need is not there, but because companies are prioritizing profit over people. They're hiring inexperienced interpreters, intentionally understaffing interpreters, and de-prioritizing teams, all of which leads to poor quality interpretation and less access for deaf people.

This is a direct result of companies cutting wages, which also means that seasoned interpreters are intentionally forced to quit due to unfair labor practices, low pay, and poor benefits. But I believe a solution is possible. It is possible for companies to be both profitable and accessible. That is why I advocate for a union, a union that will ensure companies hire qualified interpreters, offer better training, and provide deaf interpreters for critical calls where a native signer is needed.

A union will also ensure that companies commit to fair labor practices and stop prioritizing profit over people's access to vital services. I urge you to take action, support the workers fighting for better conditions, and commit to a card check neutrality agreement in the union's campaign to organize. Access matters and your support can make a real difference.

Thank you.

CHAIR MILLER: Thank you for your comments.

And I'm reminded seeing that we've got Dr. Gail Willis on the line, that because we're not all present in the same room and Board members are participating from remote locations that are not accessible to the public, Bagley-Keene requires the remote Board members to make certain disclosures about any other persons present with them during open session. Accordingly, the Board members participating remotely must each attest, either that they are alone or if there are one or more persons present with them who are at least 18 years old, the nature of the Board member's relationship to each person. At this time, I'll ask each remote Board member to verbally attest accordingly.

Please conduct the roll call.

BOARD CLERK ANDERSON: Dr. Gail Willis.

COMMITTEE MEMBER WILLIS: Yes. I attest to that I am alone. Thank you.

CHAIR MILLER: Great. Thank you.

We also have one commenter in the auditorium who will need an American Sign Language interpreter. Okay. If you'll come up and you'll have six minutes for your comments, including the interpretation and if you'll identify yourself and begin, the timer will start.

XAMIEL CAMPOS-ESPINOZA(through ASL interpreter):

Great. Hello, all. Hello to the Board members. My name is Xamiel Campos-Espinoza. I'm a member of deaf community here in Sacramento and I am also in support of the ASL Interpreter Union. I've been involved in the interpreting community as a deaf interpreter for over 25 years and I've also worked as a staff person, and also as a freelance interpreter as well.

And my comments here are for the specific purpose of talking about the video relay service. I grew up as a deaf individual, I was born to a hearing family and as such, as technology started to come about, I even remember the old days of the TDD device that we had to type into to use the telephone. We -- I remember when captioning started. I remember even when pagers came about. And all of that technology came about, as such helped us as the deaf community find our level of independence that we need.

Now, all of those services then turned into video relay service and that helped more of us have access such that we could have access to the world as well as employment. It gave us opportunities to call the bank, call to make a doctor's appointment, a car mechanic, anything that you need for what we need for our life to be independent. With that said, I have all that experience with me and my family, and so on that I shared with you.

And on top of that, my employment experience. I worked for a company called Hands On VRS. And that's when VRS was in its infancy. I was an independent contractor in the beginning and then it was set -- it was then sold to Go America, then it became Purple. And I was a sales manager at that time when it became Purple Communications.

The work culture and such was requiring more diversity at the time. And eventually, I found out that it was going to be Purple was going to then sell out to ZVRS. And at that time, I started to notice that in the employment space, there was a lot of racism and a lot of audism, and a lot of discrimination.

My upper management had approached me and said that I had an option, I could stay, however, I would not keep that level of job that I was in in sales and I would have to move over to tech. And when I asked why that was, they said, well, we need more diversity. And we need -- and you're the only one here and we need others to get here. They cut my pay in if I was going to take that transition over to that other job. And sure enough that did happen. I experienced even more discrimination and more racism in that position.

And so the point being that I decided to finally step away from that position and I left the company. In 2021, I decided to apply for ZVRS as an deaf interpreter. They recruited me. And when they require -- they -- when they responded to me, the recruiter said, well, you live in California, so we're not going to be able to hire you. We can't have anybody who lives in California work for us.

And I thought, wow, that's -- this is why it's important for you here in California to think about where you're investing your funds. And I'm just wanting to make sure that you're aware of where the money that you invest goes to. You have that responsibility obviously to make sure those employers are doing the best that they can for their employees and provide that service -- those services, so that company remains stable.

A lot of these companies have gone to private funds, and as a result, the services have declined. And as a deaf person from the deaf community, I field like it's my responsibility to speak up about these funds that are taking over our VRS companies and to speak up to you as the Board who works on investing in these companies. You have a responsibility in that as well, as much as I do.

I do understand that you are here to make money. And that's part of business and that's what we should be doing, right? But at the same time, we have a responsibility, an ethical responsibility. So if the goal is to make a profit, but if the service then declines, you're not going to make -- they're not going to make that profit. And we don't want companies to take advantage of us. We want them to take advantage of having a good business. We want to have them have those qualified services. Those quality services. And all of the VRS companies have been making a profit and that's good, but at the expense of the level of service.

Thank you so much for allowing me to give the comment today.

CHAIR MILLER: All right. Thank you for your comments.

Okay. We now -- so thank you for your comments and we'll now return to our agenda, so starting with Executive report.

CHIEF INVESTMENT OFFICER GILMORE: Thank you.

Thank you, Chair.

In these comments, which will follow, I'll talk a little bit about recognizing a couple of team members, if you may allow me to do that and I'll also talk a little bit about some of the things we've been doing within the Investment team. I'll leave the comments on the performance of the portfolio and sort of market developments until that later section of the agenda.

But first of all, recognizing our people really important and I want to recognize two people, both of whom are well known to you. The first is that Tamara Sells who has received the Modern Governance 100 ESG Diversity and Climate Trail Blazer award, which I think is wonderful. And I'll quote from that award and recognition. It recognizes her for being, "A forward thinker, putting initiatives in place to measure and report on ESG in a meaningful way, helping their organization to do better and stay accountable to stakeholders, communities, and the planet." So congratulations to Tamara.

And also --

(Applause).

CHIEF INVESTMENT OFFICER GILMORE: And also, I want to call out the gentleman to my right, Michael Cohen, who has made Time's List of 100 Climate Leaders. Now, Michael is the Chair of the Steer Co of Climate 100+. So a big thanks to Michael. I know he's put an amazing effort there and will continue do, so appreciate his efforts.

(Applause).

CHIEF INVESTMENT OFFICER GILMORE: The last time I spoke to you, I talked about three priority for the Investment Branch and I talked about people in culture, you know, talent development. I also talked about process, and I spoke a bit about portfolio construction.

With a view to the first area, people, and talent development, and culture, I've asked Michelle Tucker, Chief of Human Resources to spend more time working with the Investment Branch, and she's agreed. She will be spending approximately two to three days a week over the next six to 12 months working on a number of initiatives.

The first one is about -- is focused on talent development and succession development. Second, she'll be looking at talent acquisition, so broadening that pull of people we search for. And third, she'll be looking at reward and recognition. This is, I guess, a trial. It's the first time we've done this. This is something both Michelle and I wanted to support. It's also an opportunity for our HR team to partner more closely with the various branches. So really quite excited that she's decided or agreed to spend time with us.

So, with that, I'll turn to the agenda for today. With the agenda for today, we'll talk around the performance update, the quarterly update. And as I said, I'll talk a little bit about the performance of the portfolio and also comment on some of economic developments. We will also have a session on the asset liability management review. And this is really quite conceptual. And I've deliberately decided to throw a lot of things into this discussion. It's really for discussion.

I could have taken it step by step, but I thought I would instead just present a lot of concepts and ask for, I guess, some feedback and hopefully have a fairly question and answer session, noting that we will have an opportunity in January to have a much deeper dive educational session. We also have a couple of annual reviews.

We have the Total Fund Portfolio Management team reporting, so Sterling and colleagues will report on that, and we have the sustainable investment annual review, so Peter will be joined by a number of colleagues to discuss that.

We have a couple of other items following on from that. We have the emerging and diverse manager report and we also have Investing for California. And then finally we will have one of our colleagues from Wilshire report on CalPERS divestments through time.

And with that, I'll pass it back to the Chair.

CHAIR MILLER: Okay. Thank you. I don't see any requests for clarification from anybody, so we'll move on to our action consent items.

VICE CHAIR TAYLOR: Move approval.

COMMITTEE MEMBER PACHECO: Second.

CHAIR MILLER: Approval move by Taylor, seconded by Director Pacheco. And discussion on the items?

I'll call for the question.

All in favor?

BOARD CLERK ANDERSON: We do have --

CHAIR MILLER: Do we have to do a roll call vote?

Okay.

BOARD CLERK ANDERSON: Theresa Taylor?

VICE CHAIR TAYLOR: Aye.

BOARD CLERK ANDERSON: Deborah Gallegos?

ACTING COMMITTEE MEMBER GALLEGOS: Aye.

BOARD CLERK ANDERSON: Frank Ruffino?

ACTING COMMITTEE MEMBER RUFFINO: Aye.

BOARD CLERK ANDERSON: Lisa Middleton?

COMMITTEE MEMBER MIDDLETON: Aye.

BOARD CLERK ANDERSON: Eraina Ortega?

COMMITTEE MEMBER ORTEGA: Aye.

BOARD CLERK ANDERSON: Jose Luis Pacheco?

COMMITTEE MEMBER PACHECO: Aye.

BOARD CLERK ANDERSON: Kevin Palkki?

COMMITTEE MEMBER PALKKI: Aye.

BOARD CLERK ANDERSON: Ramón Rubalcava?

COMMITTEE MEMBER RUBALCAVA: Aye.

BOARD CLERK ANDERSON: Yvonne Walker?

COMMITTEE MEMBER WALKER: Aye.

BOARD CLERK ANDERSON: Mullissa Willette?

COMMITTEE MEMBER WILLETTE: Aye.

BOARD CLERK ANDERSON: Dr. Gail Willis?

COMMITTEE MEMBER WILLIS: Aye.

CHAIR MILLER: Okay. The ayes have it. The motion passes.

I will note for the record that Deborah Gallegos for Controller Cohen has arrived and is with us.

Okay. Now, we move to our information consent items. I have no requests to pull any of these.

Seeing no last minute requests, so we'll move forward.

Okay. So 5A, Quarterly Chief Investment Officer report. Back to, Mr. Gilmore.

CHIEF INVESTMENT OFFICER GILMORE: Thank you very much indeed. I think we have some slides. Hopefully, we can get those up.

(Slide presentation).

CHIEF INVESTMENT OFFICER GILMORE: Try that again.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: It's working. I put a summary slide up here showing the performance of the portfolio. I would focus on a couple of things.

The fiscal year to date, that's the three months since the end of June, the return is 5.3 percent, so very good to see that return. What that 5.3 percent return for that three-month period means is that the one-year return of the portfolio, PERF, is now 18 percent. So, good to see that. And that's lifted the 10-year return to 6.9 percent. If you recall at our last meeting when we looked at the financial year-end, the 10-year return was 6.2. So good to see that outcome.

The biggest drivers for that return have been equity market. And our equity portfolio has been up approximately 30 percent over the last year. Fixed income portfolio also strong contributor, more man 15 percent returns. You'll see also that there's been a little bit of a drag on value-add. That's primarily because of our private equity portfolio, which has been a good contributor and absolute returns, but has lagged the benchmark. Again, the same theme from last time, which is the listed equity market performing strongly, particularly tech stocks. I would note also that private equity portfolio, evening though it's lagged our benchmark, has done very well relative to industry benchmarks and peers, and that's really I guess the early signs -- continuing signs of the revamped strategy coming through in terms of driving that performance. And just to reiterate, that strategy has really been about focusing more on our higher conviction managers and increasing the extent of the co-investment that we undertake.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: We've put up a chart here just showing Central Bank policy rates. And this is obviously a moving target. The Fed has now cut 75 basis points. And until fairly recently, markets were anticipating there would be fairly substantial additional cuts. That's changed a bit. It's changed, because inflation has been maybe a little bit stickier than might have been anticipated and we've had comments out of the Fed indicating that they aren't really in a great hurry.

I would note that over the last couple of months, there's been fairly interesting developments in the market. Interest rates, U.S. Treasuries, 10-year yields have gone up by about 80 percent -- Sorry, 80 basis points. Not 80 percent, 80 basis points, since the middle of September. And when you see those sorts of rises in rates, you ask the question, is that being driven by inflation expectations? Is it being driven by expected higher growth or maybe is it being driven by supply or thoughts about supply of additional debt.

When I look at the inflation swaps markets and the nominal swaps markets, I try to decompose how much of that increase in rates is based on high growth expectations, how much is based on inflation expectations, and from my perspective, my reading of the data is that it's primarily related to somewhat stronger growth expectations over the last couple of months. Inflation expectations have ticked up a little, but it's primarily a growth -- a growth factor. And that primarily relates to the U.S. And you can see that the U.S. -- well, you may have seen that the U.S. dollar has strengthened somewhat over the past few months and the equity market has also rallied again consistent with that higher -- somewhat higher growth expectation.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: As for the portfolio, not really very much of a change from the last time we met. Most asset classes are very much in line with targets. The one that continues to be a little bit behind in terms of targets is real assets, which is not necessarily a bad thing, given that that has actually detracted from portfolio performance, even though it has -- that area has been the benchmark. And with that, I'll turn it over to questions, Chair.

CHAIR MILLER: I'm not seeing any requests.

Okay. Okay. We'll move it along.

Oh, what have I got here? Oh, okay. There we go. So I guess asset liability management is our next topic of.

CHIEF INVESTMENT OFFICER GILMORE: May we have the slides, please.

(Slide presentation).

CHIEF INVESTMENT OFFICER GILMORE: Okay. I've taken a bit of a risk here. I have wanted to introduce a of lot of concepts and a potential framework. And this is really for discussion. Hopefully, it will prompt a few questions.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: The idea for me is to go through some high level concepts on the portfolio construction, also to talk about risk and some of the trade-offs, to talk a little bit about one of the, I guess, developments in assets ownership and that is to focus more on a total portfolio approach, rather than the traditional strategic asset allocation, but I'll go through that shortly, and also to talk a bit about the 2025 asset liability management review, which will be a dominant part of the work over the next year or so. And I have Michele and Scott with me, because they're key parts of that process as well.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: As far as the framework considerations are concerned, I want to talk a little bit about how we can potentially proxy our existing portfolio in more simplistic terms. Because there are key drivers of that portfolio, particularly the equity market, but also the fixed income market. And if we can actually look at these things more simplistically, it helps us from a modeling perspective and probably also helps us from a communication perspective.

I'll talk quite a bit about risk and the trade-offs and I've put together on a single page some of the considerations we need to think about when thinking about our risk appetite, some of trade-offs.

I've also updated our capital market assumptions. When I say our capital market assumptions, our survey of the market. So you can see what the market is pricing in for the expected returns of various assets classes. And then I'll hand over to Scott to make a couple of comments on the asset liability management process, risk appetite and prospective returns.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: But first of all, I wanted to show you this chart. This cart shows in blue our actual portfolio fiscal year returns. So that's the 11 or 12 asset classes, and I say 12, if you separate our infrastructure as a 12th asset class. That's the actual performance in blue. The orange line that you can see is our effort to proxy that portfolio using just two asset classes, so just using equities and treasuries, so fixed income, two asset classes. You can see for the most part, we can do a really good job of proxying our actual more complex portfolio just using a couple of asset classes. There's been a bit of a difference, of course, more recently where you can see that the simple two asset classes portfolio and rallied more quickly than our actual portfolio over the past couple of years.

And that really relates to the big moves in the listed equity markets and private market valuations being smooth somewhat. But this whole idea of being able to proxy more complex portfolio simply can be very helpful from a modeling perspective, so we can focus on that simple portfolio in thinking about risk appetite, when thinking about the potential scenarios.

It's also a good way of testing us. You know, have we as a management team done a good job? We should be able to beat that very simple portfolio. Through time, we've -- in the doing proxying, the weights for equities and bonds have changed a little bit, but it's approximately a 70 percent equity portfolio and the 30 percent bond portfolio. So keep that in mind. That's going to be an important part of the conversation going forward I hope. But we can even look at the portfolio more simply.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: We can look at what's really driving most of the returns and most of the volatility in the portfolio and it's really equities. So here, we've plotted just an equity portfolio against our actual more complex portfolio. You can see that the equity portfolio is more volatile, so bigger increases and bigger dips, but it really is an important driver of the actual portfolio outcomes.

You'll also note in the trust level review, when we go through all the detail, there was a page in there setting out the contributions to volatility of that portfolio. And by far, the bulk of the volatility comes from listed equities, from private equity, and then a little bit more from real assets. So all those assets are very much growth orientated. So equities are dominant driver of volatility and returns for the overall portfolio. So we could, if you wanted to, essentially proxy out the portfolio using some sort of ratio of equities. It would do a reasonable job of proxying the portfolio.

I want to take that concept a little bit further and to look at --

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: -- different assets classes. What we've done here is to look at what I've referred to as an equity equivalent exposure or an equity beta. So looking at the sensitivity of different asset classes to moves in the equity market. And you can see that PERF, the strategic asset allocation that we have, the 11 or 12 asset classes is approximately like having 70 percent of the portfolio in equities and the rest in cash or bonds.

We've also looked at how other asset classes tend to respond or tend to be associated with moves in the equity market. And we've taken this from BlackRock's Aladdin risk model. You can see that let's say for a 10 percent move in equities, we would expect high yield bonds to move somewhere between two and three percent. We would expect real assets to move somewhere around six percent. So if you get a six percent increase in equities -- sorry.

If you get a 10 percent increase in equities, you'd expect real assets to go up by about six percent. Likewise, if equities went down by 10 percent, you would expect real assets to be down by around six percent.

You can also see that private equity here is more sensitive, so it has a higher beta than listed equities or an equity equivalent exposure is more than one. In reality, the valuations are smooth, so might not see that happen immediately. What would tend to happen is the valuations will lag, both up and down. But that idea of looking at an equity-equivalent exposure or an equity beta can be quite helpful when thinking about the portfolio.

So it means, with our actual portfolio, if we have a 10 percent move in the equity market, rule of thumb, we can expect our actual portfolio to move by around seven percent in terms of return. It's not going to be exactly that, but it's a reasonable guide

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: I also wanted to talk a bit about the authority that the Board has given management, and you give us quite a few, let's say, policy ranges. Equities we can increase by seven percent or reduced by seven percent, fixed income plus or minus six percent, other asset classes plus or minus five. What we've done is we've essentially tried to go out there and see how much risk we could take using the authority that the Board has given us. So, for instance, if we're investing in private equity, we could increase the exposure to venture capital, which is going to be a higher equity beta.

And we've done this exercise to look at the theoretical leeway we have. Just thinking in terms of, you know, equity equivalent exposure or equity beta terms, and you can see that we have quite a bit of latitude to take down risk or to increase risk. The realty is we don't. We tend to stick very closely to the benchmark. But conceptually, we could actually move the risk quite a bit and we can talk a bit about why we tend not to do that.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: I also wanted to throw out this page of risk trade-offs. Now, in doing this, when we originally put the slides together, we thought of putting this over a few pages, because there are lots of different risks here. But I thought it was helpful to actually put them -- put most of them on a page, because it just shows the complexity. These are all the trade-offs, or some of the trade-offs we need to think about when constructing the portfolio. And from my perspective, the most important, you know, question we have to answer when going through the asset liability management exercise is what is our risk appetite? How do we construct the portfolio?

And there are trade-offs. For example, there's a tradeoff between the contribution rate and the funded level and the amount of market risk we take in the portfolio. And Scott will talk a little bit about that shortly afterwards. There's a tradeoff on the liquidity side, for instance. When we make an investment, we could lock it up and we might not get our money back for five, 10 years. If we do that, we would expect to get some additional return. But by doing so, we've lost some optionality. So it's more difficult for us to take advantage of other opportunities. And so we need to be thinking about what's our appetite for that illiquidity. We can get paid for it, but how much do we need to get paid? And we have these discussions internally in terms of what the right amount of reward is for locking up liquidity.

We also have questions like do we do these things internally. Do we do the investing internally or do we outsource to managers. And there are lots of questions there. When you do it internally, it creates additional resourcing needs. It can create complexity. It can also be cheaper. But it may be that we don't have the right incentives in some areas. It may be we have some natural advantages in some areas, so we need to be thinking about that.

But I won't really go through all of these different items. I really just wanted to highlight there are lots of different trade-offs.

So President Taylor.

VICE CHAIR TAYLOR: My system shut down.

CHIEF INVESTMENT OFFICER GILMORE: Oh, okay.

VICE CHAIR TAYLOR: I'm shaking my head at that. Sorry.

CHIEF INVESTMENT OFFICER GILMORE: Okay. Okay. I'll keep going.

VICE CHAIR TAYLOR: Something is going on.

CHAIR MILLER: I've got a blank screen. That's all. But fortunately my mic is on, so I can just jabber at you for a while.

(Laughter).

CHAIR MILLER: There it goes.

VICE CHAIR TAYLOR: There we go.

CHAIR MILLER: Okay. So I do have a couple questions and first I've got Theresa.

Oh, that didn't work. Back

VICE CHAIR TAYLOR: You want a stylus pen?

CHAIR MILLER: Tiny, tiny, tiny little spot. Oh, I think we got it. There we go.

VICE CHAIR TAYLOR: Yeah, there we go. Thank you. Sorry about that.

CHAIR MILLER: It's a little wacky today.

VICE CHAIR TAYLOR: So there's A lot you covered here. And I really appreciate all the information. I'm kind of depressed that our returns are sort of like a normal, you know -- or a regular portfolio of an index fund, which is kind of depressing. But what I -- I think what I wanted to ask -- I had a couple of questions and I think you talk a lot about the risk appetite and what the risk is that we're willing to take for this asset allocation, and moving from -- it looks like into a total portfolio management. So there's two questions. One is what -- what and -- is this liquidity that you're talking about? Where is it coming from?

So -- and then what do you mean by the risk that we're willing to take to lock up that liquidity? And then how is this different and better than the separate asset liability management?

CHIEF INVESTMENT OFFICER GILMORE: Okay. I think we're going to be exploring this probably in more detail in January at the education session.

VICE CHAIR TAYLOR: Sure.

CHIEF INVESTMENT OFFICER GILMORE: But very briefly with liquidity, obviously we need to make pension payments. We will also want to ensure that we don't have to sell assets that we don't -- when we don't want to sell them. So, we don't want to take discounts, you know, to have to raise liquidity to make payments, and we also want to be opportunistic at times. So you can look at modeling how much we need to get paid for giving away the option to buy cheap assets. And that's going to depend on how much liquidity we have in the portfolio. And I'll come back to what I mean, by liquidity.

It's going to depend on how much liquidity we have in the portfolio and how long we're locking it up for. It's actually quite a complex exercise, but essentially, the first illiquid investments you make, you don't need much of an additional return. But at some point, you've got so many of illiquids that the expected return for investing in more illiquid assets has to be really high.

And when I talk about liquidity, I'm really talking about those assets that -- the asset classes that are liquid by their nature. And that could be equities. It could be fixed income. In fact, there are some parameters around the fixed income portfolio, which make sure that some of those asset classes are quite liquid. But we will -- we will talk about those trade-offs in more detail in January. But that's -- those are the basic ideas that the initial cost for illiquidity when you've got a very low level of illiquid assets is quite low, but the more illiquids you have in the portfolio, the higher the price or the higher the return you will need to get for locking up illiquidity.

VICE CHAIR TAYLOR: Okay. So you're -- and then I guess my -- having lived through asset liability management after the Great Recession, locking in liquidity can be risky if we have a big downturn, right?

CHIEF INVESTMENT OFFICER GILMORE: It can be. It can work both ways. If we need to sell something to raise liquidity, it will be costly.

VICE CHAIR TAYLOR: Correct.

CHIEF INVESTMENT OFFICER GILMORE: However, what happens in times like let's say the -- you know, the financial crisis, behavioral instincts tend to lead to investors selling, because they get concerned. So, if you -- you've come procyclical. If the markets go down and you get worried and you sell, that is very much contrary to the long horizon we have. When those assets are selling off and are cheaper, we should probably be leaning in and buying at those points in time. But to be able to do that, we need to have the liquidity to buy those assets. So if we've locked up our investments in illiquid, this says we can't do that.

VICE CHAIR TAYLOR: Right.

CHIEF INVESTMENT OFFICER GILMORE: On the other side is we can't easily sell them and that may be a good thing, because you don't sort of react adversely and you try and look through that downturn. But, of course, you've got to have enough liquidity to journey through, you know, the long term.

VICE CHAIR TAYLOR: So what's that delicate balance is what -- it sounds it's a like very delicate balance.

CHIEF INVESTMENT OFFICER GILMORE: It is a delicate balance. And certainly in my previous roles, it was a huge area of focus trying to work out how liquid the portfolio should be and what the pricing should be. I would say that it is one of the advantages that I think CalPERS has, because the distributions of pension payments are very close to the contributions that come in.

VICE CHAIR TAYLOR: Right.

CHIEF INVESTMENT OFFICER GILMORE: And our currency, the U.S. dollar, is one which tends to strengthen during times of risk-off, and that could be an advantage for us. So it's one of the things I think we need to be thinking about when constructing the portfolio, so it can be an advantage.

VICE CHAIR TAYLOR: And as we -- and I don't think we covered the part of the difference between the asset liability management and total portfolio management.

CHIEF INVESTMENT OFFICER GILMORE: We'll get to that.

VICE CHAIR TAYLOR: Okay. Okay.

CHIEF INVESTMENT OFFICER GILMORE: If I can -- I've got a couple of slides later, which I'll -- which I'll talk to on that.

VICE CHAIR TAYLOR: Okay.

CHIEF INVESTMENT OFFICER GILMORE: But you're right. I mean, going back to your earlier comment around the performance looks very much like an index fund, that's true, and that's going to be true for most of our peers actually. However, I think there are a couple of things we can undue to improve the odds of beating that index fund. And one is to take more of a total portfolio approach. The other one is to delivery the advantages we have. And I'll talk a bit about that as well.

VICE CHAIR TAYLOR: Okay. Perfect. I appreciate it. Thank you, Stephen.

CHAIR MILLER: Okay. Next, I have Director Pacheco.

Oh, no. Turn it on again. Let's try it again.

COMMITTEE MEMBER PACHECO: Hello. Oh, now it's working. Thank you, Mr. Gilmore, for your comments there.

The first question I have is actually on page six on the equity equivalent exposure. How is the equity equivalent exposure to our -- how is it related to our understanding of our risk appetite? And I feel like this is -- this has -- this plays a role into that, if you can elaborate more on that.

CHIEF INVESTMENT OFFICER GILMORE: I think it's something we'll discuss over the coming months, but at its most basic, I would like to think that when we're modeling the portfolio -- let's say we're looking at our current portfolio, which is approximately a 70 percent equity portfolio, we can look at how that performance, given various shocks or given various market scenarios, we can work out the likelihood that there are going to be, you know, negative returns any one year or over a period of years. And we can form a view as to whether we're comfortable running the risk that we have those negative returns. So we can choose different equity equivalent exposures or different equity betas and then have a look at how that portfolio performs.

So it's a very -- it's a simple way of coming up with a portfolio and doing some analysis. So, like I said, if we're doing it with our current portfolio, it's going to be approximately a 70 percent equity exposure.

COMMITTEE MEMBER PACHECO: But with respect to this model, it doesn't -- it does not -- sorry. It does not take into consideration any illiquid assets.

CHIEF INVESTMENT OFFICER GILMORE: Absolutely right. So when we're doing it with just purely equities, it's a -- it's a completely liquid portfolio.

COMMITTEE MEMBER PACHECO: Um-hmm.

CHIEF INVESTMENT OFFICER GILMORE: And then we construct the actual portfolio, we will have some illiquids as well. So it's a more complex risk analysis.

COMMITTEE MEMBER PACHECO: So this is very more simpler risk and then we start building up more and more of the complexity of the risk.

CHIEF INVESTMENT OFFICER GILMORE: Absolutely. It's exactly --

COMMITTEE MEMBER PACHECO: Okay. Very --

CHIEF INVESTMENT OFFICER GILMORE: It's exactly that.

COMMITTEE MEMBER PACHECO: That's -- that was my -- I was trying to get my understanding around that. Thank you so much, sir.

CHIEF INVESTMENT OFFICER GILMORE: Thank you.

CHAIR MILLER: Okay. Next, I have Deborah Gallegos for Controller Cohen.

ACTING COMMITTEE MEMBER GALLEGOS: Thank you.

And Director Pacheco asked one of my questions, so thank you for that.

Another question I have is you said that -- or when you say you're looking at how much risk you can take in the portfolio that you're not currently taking, I just want to clarify, you're not taking risk -- or you're not looking at taking risks for risk's sake. You're looking at the opportunity set that you have not tapped into.

CHIEF INVESTMENT OFFICER GILMORE: It's exactly that.

ACTING COMMITTEE MEMBER GALLEGOS: Okay.

CHIEF INVESTMENT OFFICER GILMORE: Yes. It's just saying that you have said to us, okay, you can shape the portfolio to effectively get a risk in that range, which highlighted by that dotted line. So we have the ability to do that.

ACTING COMMITTEE MEMBER GALLEGOS: Okay.

CHIEF INVESTMENT OFFICER GILMORE: You've given us that authority.

ACTING COMMITTEE MEMBER GALLEGOS: And the total portfolio approach, how does that -- I'm still trying to make the connection between that being able to be more opportunistic in the portfolio and what you mean by a total portfolio approach.

CHIEF INVESTMENT OFFICER GILMORE: Okay. Would

you mind if I cover that as we -- as we go through --
ACTING COMMITTEE MEMBER GALLEGOS: No problem, sure
CHIEF INVESTMENT OFFICER GILMORE: -- because, I mean, these are -- these are key questions, right? And we can talk about the concept and also the practicalities --
ACTING COMMITTEE MEMBER GALLEGOS: Yep.
CHIEF INVESTMENT OFFICER GILMORE: -- and how we do that. And actually between Sterling and myself, we've worked at four of the asset owners that do follow this sort of approach. So they will do it slightly differently. And, of course, if we were to go more down that route, we would do it our own way as well, but we'll talk about that.
ACTING COMMITTEE MEMBER GALLEGOS: One. Just one last question. If we could go back to the slide that slows the choices that we have, the different -- yes, that's it, the risk considerations and trade-off. You are asking the Board to look at this and say, okay, where we -- where are we on the spectrum of each of these items and how important are these to us?
CHIEF INVESTMENT OFFICER GILMORE: Absolutely, one of the most important decisions the Board makes is what is the risk appetite of the Board? And that will help us when thinking about how to construct the

portfolio, how much equity risk we should be taking, how much exposure we should have to illiquids for example.

ACTING COMMITTEE MEMBER GALLEGOS: Okay. Great. Thank you.

CHIEF INVESTMENT OFFICER GILMORE: And also, there are questions around time horizon, which we can talk about, and some of trade-offs between contributions now versus contributions in the future, or the funded ratio. All these things come into play.

ACTING COMMITTEE MEMBER GALLEGOS: Great. Thank you.

CHAIR MILLER: Okay. Next, I have Director Rubalcava.

COMMITTEE MEMBER RUBALCAVA: Thank you. Thank for the presentation. I think it's very important that we see the options in front of us. And I think it's telling that all the questions so far have been about risk appetite. And I'm looking at page three of 20, the framework consideration, I think you laid out very well what we need -- the Board has to consider. And so I'm trying to understand it -- and I know that there will be more educational almost every meeting. But I still want to understand a little bit more what is being put in front us. There was -- if you could go to slide seven, I think it was, where -- there we go. Whoops. Yeah, right there.

Right there.

So one of the statements or -- reflected here is that there already is opportunity for the Board -- for the staff to exercise flexibility in implementing. And so are we saying that under this new approach, the staff should use the full flexibility they have or is there a request to have more flexibility?

CHIEF INVESTMENT OFFICER GILMORE: No. I don't think there's any request to have more flexibility, but I would like to think adjustments to the framework will see us using more than we currently use. We don't use very much, because what happens is each asset class has its own benchmark and tends to track that benchmark very closely. With more of a total portfolio approach, the focus is on the whole, rather than each individual asset classes.

COMMITTEE MEMBER RUBALCAVA: So -- and these adjustments, instead of the side or asset classes to the whole, will there still be sort of guidelines -- or still within certain guidelines? I mean, I'm just trying to understand what the role of the Board is vis-à-vis the staff.

CHIEF INVESTMENT OFFICER GILMORE: These are early days. I would think -- you know, I'm really wanting to float a few concepts, and in the end, obviously, the Board will have to comfortable with whatever -- with whatever we do.

Some organizations will look to the Board to set overall risk appetite to say what that is. And it could be, for instance, if you're at Future Fund, the Board will agree on an equity equivalent exposure for the portfolio. So they will say it should be, I don't know, maybe 65 or something like that. And then the staff will have some discretion to move around that, but the Board will set that risk appetite.

For organizations that have a reference portfolio. Let's say my former employer New Zealand Super, the Board will set that. In that case, it's an 80/20, an 80 equity, 20 bond portfolio. CPP also had a reference portfolio. Although, they're paying less attention to that now, and that was an 85/15. So the Board sets that. It sets the high level risk.

Then the Board will subdelegate perhaps an active risk limit to the staff. And the staff or the management can then operate within that, but the Board sets the risk parameters. The Board may also set parameters around, you know, liquidity and so on.

So it's very transparent. In terms of what we currently have, perhaps it's less transparent, because we have all these assets classes with all these limits and these policy ranges. But when you add them all up, you can actually technically move the portfolio quite a long way and it may not be obvious to everyone that the risk is quite a long way from, in this case, the strategic asset allocation. So I think the total portfolio approach is probably more transparent in terms of the risk that is being taken.

COMMITTEE MEMBER PACHECO: I appreciate the answer and I look forward to more education. Another area where I would like to have more education and discussion, and I'll let you proceed, is the relationship you've already mentioned in an earlier slide between the risk assumption and the -- and the funded ratio, and that im -- the impact it would have on the employer contribution particularly, because something I think stakeholders are really sensitive to. And we've -- this Board has done certain decisions based on that. And so that's one thing I think we should -- the Board -- at least I would be interested in, as we go forward and have more discussions.

CHIEF INVESTMENT OFFICER GILMORE: Well, I'll get Scott to talk a little bit about that. Do we want to just move to that now, given that's quite topical and then we --

CHAIR MILLER: That would be fine.

COMMITTEE MEMBER PACHECO: I think other people have questions. Thank you.

CHAIR MILLER: Director Walker.

COMMITTEE MEMBER WALKER: Thank you. I just have a really simple question and you've probably explained this already, but just a simplistic explanation of the difference between the -- I lost my word -- the total fund portfolio and then the benchmarks, right? What is the -- simplistic key differences? Because otherwise -- yes, that would be helpful to me.

CHIEF INVESTMENT OFFICER GILMORE: Okay. At it's most basic, a total portfolio approach asks the team to construct a portfolio to achieve the objective. It's direct. So everything is focused on the whole of portfolio. So in our case, it's trying to, you know, to beat the discount rate, trying to improve the funded ratio. That's the objective and everyone thinks about that.

With the strategic asset allocation, you've got, in this case, our case, 11, or possibly 12, different asset classes. And each one has its own of benchmark. And because each asset class has its own benchmark, each of the heads of those program areas will try to beat that individual benchmark.

And what happens is that they end up particularly creating fairly diversified portfolios in each asset class. And they end up over-diversifying at the whole of portfolio level. That's the first thing.

I think the second thing is because you're looking at 11 or 12 different asset classes, you can't be sure that the next dollar you invest is going to be the most attractive place across the whole portfolio. It could be some -- when it's just filling out that asset class bucket. But it could be that you're better off investing it somewhere else. So that's really the idea, the total portfolio approach is really focusing on the whole, rather than sort of asset class by asset class.

But to make it work, you need to have that collaboration. You need to have a common language for looking at returns across asset classes and you need to have collaboration at the team level. But we can talk in more detail about what that looks like.

COMMITTEE MEMBER WALKER: Thank you.

CHAIR MILLER: Okay. Let's proceed.

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CHIEF INVESTMENT OFFICER GILMORE: Now, I wanted -- I wanted to pass over to Scott, because it goes to, you know, a couple of the questions that Board members have asked in terms of some these risk trade-offs. And this is the one that, you know a tradeoff between contribution rate, funded ratio, and the amount of risk in the portfolio.

Scott.

CHIEF ACTUARY TERANDO: All right. Thank you, Stephen. So, as Stephen mentioned, one of the key trade-offs that was discussed in the previous slide is the contributions and funding level. So what we've done here is we've taken two simple portfolios. One is just a 60/40 portfolio, 60 percent equities, 40 percent fixed income, and then 80/20, 80 percent equity, 20 percent fixed income. And what we did is we ran, you know, 5,000 trials of scenarios, simulated investment returns over 20 years for each of these portfolios.

And we've kind of summarized the results here as things that you can consider when we're looking at what type of risk we want. So if we concentrate on the green boxes at the top for the moment, if you look at the 60/40 portfolio, you can see the employer contribution rate was around 30 percent and we're around 70 -- around the 79 percent funded ratio.

With the 80/20, you know, contribution rates are lower, and the funded status is a little bit higher, which you would think, you know, if you take more risk, a more aggressive portfolio with an 80/20, you know, you would -- your returns are going to be higher. And then you can see it in the example here that was the case, and you can kind of see the blue -- or the purple box around it that says that's the advantage of an 80/20 portfolio versus the 60/40. Higher funded ratio -- higher expected funded ratio and expected contributions to be lower.

But when you go down and you actually plot all these results on this graph, what you can see is on the dot plot, on the left-hand side for the 60 port -- 60/40 portfolio, you can see that around 17 percent of the trials result in a funded ratio of 50 percent. When you look at the 80/20 portfolio, you can see that number jumps to 29 percent. So what happens is while the expected funded status is supposed to be higher and expected contributions are to be lower, there's a larger dispersement of ranges.

And you can see there will be many more situations where plans will find themselves lower funded and higher contributions. As you can see, the contributions show up -- the 40 -- the 40 -- the 60/40 is in the green, the 80/20 is in the blue. And when you look at that graph on the right, you can see how there's lower funded status and higher contributions for a number of those trials.

So that's just an illustration of the differences that we are going to be asking the Board to consider, in terms of risk is where do you fall on this? Are you more comfortable with possibly higher contributions and a little bit lower funded status, but less chance of dropping below 50 percent or did you want to be a little bit more aggressive, expected contributions to be lower, expected funded status to be higher with a much higher probability that we could end up with a wider range of funded status with possibly a lower funded status and a higher contribution in a particular case.

So I think this is kind of just illustrating the difference in trade-offs between the two portfolios, as an example of one of those risks that we talked about in the previous page.

CHIEF INVESTMENT OFFICER GILMORE: And that, of course, is just one of those risk trade-offs.

CHAIR MILLER: Okay. I have a question from Deborah Gallegos.

ACTING COMMITTEE MEMBER GALLEGOS: I just want to -- (clears throat) excuse me -- repeat back what I think I heard, because if I can't repeat it back, then I don't think I understand it.

So of the two -- the examples that you're giving here are on the lower -- on the left side, the contribution rate would be higher and the funded status lower, but there's less variability.

CHIEF ACTUARY TERANDO: Correct.

ACTING COMMITTEE MEMBER GALLEGOS: There's less risk that we wouldn't make that target -- or one of those targets that --

CHIEF ACTUARY TERANDO: That's right. If you look at the dispersement, you know, of all those trials --

ACTING COMMITTEE MEMBER GALLEGOS: Right.

CHIEF ACTUARY TERANDO: -- you can see the distributions is a little bit more compact --

ACTING COMMITTEE MEMBER GALLEGOS: Tighter.

CHIEF ACTUARY TERANDO: -- and tighter.

ACTING COMMITTEE MEMBER GALLEGOS: Yeah.

CHIEF ACTUARY TERANDO: And so we have less variability. So, that would translate to contributions being more stable.

ACTING COMMITTEE MEMBER GALLEGOS: Right.

CHIEF ACTUARY TERANDO: And vice versa for the other one.

ACTING COMMITTEE MEMBER GALLEGOS: And we could pick anywhere in between those two?

CHIEF ACTUARY TERANDO: Yeah. These -- this was just the example --

ACTING COMMITTEE MEMBER GALLEGOS: This is just the example of --

CHIEF ACTUARY TERANDO: -- of we wanted to was illustrate, you know, 60/40, which is, you know, fairly common.

ACTING COMMITTEE MEMBER GALLEGOS: Right.

CHIEF ACTUARY TERANDO: And then we wanted to kind of show that there -- the difference between the two portfolios. But obviously, during the ALM process, we'll explore, you know, different portfolios --

ACTING COMMITTEE MEMBER GALLEGOS: Okay.

CHIEF ACTUARY TERANDO: -- and different risk levels.

ACTING COMMITTEE MEMBER GALLEGOS: Great. Thank you.

CHIEF ACTUARY TERANDO: Sure.

CHAIR MILLER: Okay. Continue.

CHIEF INVESTMENT OFFICER GILMORE: Thank you.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: I wanted to put this up, because this is an update to the capital market assumptions that you're very familiar with. This is our survey of the market. And it shows the surveyed results as of Q2, 2024. It may have changed a little bit now with that backup in yields in the fixed income market. But what you can see is that the aggregate expectation for our policy portfolio has -- there's little change since the middle of 2023. The expectation is return around 6.9 percent, so very close to our discount rate.

What I would note is the wide range in expected returns across some of these asset classes, particularly things like private equity. If you look at the, I guess, the middle of that range, we're talking around 8.3 percent, which is interesting for the asset class as a whole, if it represents, let's say, a medium management. It's not exactly that, but if it does, it has implications for the way the business model works, given, you know, the performance incentives and so on. Obviously, we're trying to identify those manages we have higher conviction in where we expect higher returns than that.

I would also note, you know, one other feature of this plot is that the look-forward returns are for the liquid fixed income. Assets are somewhat higher than they were a year ago, and on private debt, somewhat lower.

Of course, some of you may have seen some of the individual investment bank look-forward returns in some of these markets. And one that attracted quite a lot of attention was Goldman Sachs forecast for 10 year returns in U.S. equities, saying that they were forecasting three percent nominal returns over the next 10 years. Of course, what we're looking at here is a third of the market and we're looking at global rather than just U.S.

I wanted to also look at a simplified version of this --

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CHIEF INVESTMENT OFFICER GILMORE: -- which is going back to that sort of off-the-shelf liquid portfolio that we talked about before. If we used, let's say, a 70 equity, 30 bond portfolio, those capital market assumptions show expected return of 6.4 percent, which of course is not enough for us. So we've got to think about how we construct the portfolio in terms of choice of asset classes and in terms of, you know, adding some value to skill to try and boost that return. And you can see the policy portfolio actually captures some of that through the asset class selection.

So just having that liquid, you know, off-the-shelf portfolio, we don't think will be enough to achieve the sorts of returns we need to achieve.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: I also wanted to show this one, and hopefully the pointer will work. Maybe it does. If it doesn't -- in any case, this chart here shows the relationship between equity valuations and future returns. Lots of dots. Lots of different colors, but you can see that the higher the, in this case, cyclically adjusted PE. Just think of this as the price of equities to the earnings generated by those equities. And this is over a 10-year heard period. This is using Shiller.

But essentially the expensive equities are, the lower the forward-looking return on those equities. That's the general pattern that we've observed through time. That's not precise, because if you think about, you know, some periods in the past, we've had quite low valuations, but also fairly low forward-looking returns. But generally, the higher the valuation, the lower the forward-looking return.

And you can see right now, we've got a current CAPE of 34.8. That was actually as of June. If we look at the cyclically adjusted PE now, it's probably around 37, given the rally in the equity market. So it's just that the look-forward returned are probably going to be quite low relative to history.

But, of course, you know, these things are not precise, but it is, you know, one of the inputs we think about when thinking about forward-looking returns.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: Now, total portfolio approach. This is where we've had quite a few questions. What we've done here is we've taken some diagrams or some images from the Willis Towers Watson Thinking Ahead Institute. They commissioned a study sponsored by Future Fund of 26 large asset owners, we were part of that survey. Those 26 asset owners have more than six trillion of assets under management. Very extensive survey. More than a hundred questions.

But one of the things the survey looked at was the returns to different styles of investing or different asset allocation models. And they looked at the returns from those that adopted or had a strategic asset allocation, and they looked at the returns for those that more of a pure total portfolio approach, and also some that were in between. And you can see from that 10-year annualized real net return example that the organizations that followed that strategic asset allocation approach, very sort of segmented siloed approach generated lower returns.

Here, I think the return difference is about 180 basis points. Roger Urwin tells me it's actually around 170. But there's quite a big difference between the returns from the strategic asset allocation to the returns from the total portfolio approach. And I can understand conceptually why there should be a difference. I don't expect that on a forward-looking basis, that return difference will be as great. But logically, conceptually, it makes sense that if you're optimizing for the whole, you're going to get better outcomes than if you optimize across a lot of, you know, sort of siloed, you know, asset classes.

That approach or that performance outcome has encouraged a number of asset owners to move, or to wish to move, or want to move more in the direction of a total portfolio approach. That doesn't mean they're going to go to -- you know, to the extreme of a total portfolio approach, but there is a desire to move more in that direction, and you can see it from the peers average slide that we have there. You know, the average peer is somewhere in the middle, but they want to move more towards a total portfolio approach.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: Then the question is what does that mean? And Director Walker already asked that questions, but at a high level -- I won't go through all these elements here, but at a high level, it's about focusing on the fund goals. It's about having that competition for capital across the portfolio. It's about having collaboration. It's about having a common, you know, language. It's about having the analytics, the data, the visibility to be able to do that.

There, you also see Board-centric process versus CIO-centric processes. I would say in our case that's not really an issue, because there is already a lot of authority that's given to management. But essentially, you know, those are the high level thoughts, rather than looking at 11 or 12 different benchmarks, you're looking at the overall portfolio objectives. Rather than having all those, you know, the benchmarks become much, much simpler, becomes a much easier process than saying have you done a good job. And actually, I think it puts more accountability on management.

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CHIEF INVESTMENT OFFICER GILMORE: I talked before about how we could potentially do better than just the liquid alternatives, and one of those steps was to be focusing more on a total portfolio approach. The other is to use the inherent strengths we have. I've talked about these strengths before, but one of them is size. Size matters. You know, on the one hand, there are some things we can't scale, so it can be limiting, but size allows us to negotiate better. It allows us to be an important partner for our partners and it's one of the reasons we've developed the strategy in private equity that we have. We think we can be one of the most important LPs, if not the most important LP, for a number of general partners and that gives us some advantages.

So size can add value to us. It also means we have more options in terms of how we invest. We could do stuff internally, for instance, but I would say, you know, at heart, it improves our negotiating position, gives us access. I've mentioned a long horizon. That is something that we can use. The question is whether we really do use it. Do we look through the ups and downs? We talked before about liquidity and sort of retaining, I guess, the strategy. One of the things that can't happen is that, you know, behavioral biases can interfere. What is not unusual is that when markets sell off, people get nervous and they take down risk.

If you've got a long horizon and a fairly stable risk appetite, you use that as an opportunity to divide cheap. One of the things, you know, I think about when you're looking at discount rates and what we do at the portfolio level is to think, well, if we're targeting a discount rate -- and this -- and Scott will talk to this. If we're targeting a discount rate, if assets are cheap, we don't need to take as much risk to achieve the discount rate. But if assets are expensive, we need to take a lot more risk. We should be doing the opposite. So if assets are cheap and look-forward returns are high, we should considerably be taking more risk rather than less, but we can -- we can talk a little bit more about that.

I mentioned the brand. We can get access to people. That can be very valuable. I mentioned the internal knowledge. We have interactions with so many different parties across the investment network. We have that access. We have the internal information. We need to do a better job collating it, but that can be an advantage. All those things can help us add value over that simple off-the-shelf portfolio that I mentioned.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: Also, I wanted to talk about that long horizon and the benefits of that long horizon. This chart here shows equity returns, real equity returns, one year all the way out to the 30 years. In any one year, the return dispersion can be extremely high. But the longer the period we look at, the lower that dispersion. So you can look at the 30 years. It's actually quite a tight range of potential returns, if we look at those rolling returns for 30 years. So if we can have that true long horizon and sense that risk -- that return risk is somewhat lower than if we have that very short horizon. Again, it's a benefit of having that long time horizon.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: But of course, there's always uncertainty with any of these forecasts. If you look on the right-hand side, you'll see projected treasury returns versus actual outcomes, a very, very good fit, not surprising, because you've got fixed cash flows with treasuries. Equities, of course, that dispersion is a lot wider. There's a lot more certainty. But you can see that relationship that I referred to before with a diagram of all those other plots. Essentially, you can do a reasonable job of forecasting returns over longer horizon.

[SLIDE CHANGE]

CHIEF INVESTMENT OFFICER GILMORE: And with that, I want to pass it over to Scott again.

CHIEF ACTUARY TERANDO: Okay. Thank you, Stephen. So I want to talk about this issue brief that came out from the American Academy of Actuaries a number of years ago. And it kind of aligns with what we're doing in our ALM. And, you know, it talks about, you know, the difference and the similarities between discount rate and investment return and which comes first. You know, do you set the investment risk and rate and then the discount rate follows or vice versa?

And, you know, this kind of -- it's a quick four-page issue brief. And it just basically kind of, you know, illustrates and solidifies, you know, the process that we're talking, in that what we want to do is, you know, you want to set your risk appetite. And from that, you can structure your portfolio and you set your investment rate of returns, and then your discount rate kind of falls from that.

We want to avoid kind of just setting the discount rate saying we want an X percent discount rate and then working backwards to get a portfolio to meet that. You run into the issues that you don't get a clear picture of the risk you're taking. And you run into impossible risk management going the opposite way. So this kind of just solidifies, you know, that -- the process -- that yield process is, you know, we set the appetite, and we move forward, and we come up with portfolios, and we base our discount rate based on the expected returns that we get from those portfolios.

Next slide.

[SLIDE CHANGE]

CHIEF ACTUARY TERANDO: Here, we talk about how the rate of return and discount rate don't need to match. You know, here's a number of examples of different funds. It has different equity exposures, the expected investment return is different, and the discount rates are all different. And I think the key takeaway is each plan is different, whether it's closed or it's an open plan. Long-term care, you know, has different characteristics. The risk portfolio and in terms of the risks that we want to take for a particular plan. They are all different. And so, this kind of just illustrates that, you know, based on funded ratio, benefit types, and so on, there's a wide range of discount rates and investment returns. And they don't all have to line up to be the exact same.

And then finally on the last slide --

[SLIDE CHANGE]

CHIEF ACTUARY TERANDO: -- here is we have the asset liability management timeline. It kind out outlines the major events throughout the next year in 2025 and then the first few months in 2026. I want to highlight, you know, the Board education day in January. We're going to be covering a lot more of this material in depth and get a sense from the Board on where they stand in terms of their risk levels.

And then finally, if you move throughout the timeline, you can see in September is anticipated to be the first proposed release of potential portfolios and actuarial assumptions. Ideally coming back in November for a second reading.

And with that, that wraps up our presentation and we'll be happy to take additional questions.

CHAIR MILLER: And you will not be surprised that there are some questions for you.

Okay. We'll start with Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Thank you. Thank you, Chairman Miller and thank you, Mr. Gilmore. Thank you, Scott, for your input and so forth.

My question is back to slide number -- page 14 of 20, the total portfolio approach, the SAA to TPA spectrum. And it's around the principle, the fourth one, the diversification principle via asset classes and via risk factors. As you mentioned earlier, because of the way we set up our prev -- our current system, we benchmark each of our assets individually. And then within that, we diversify within those assets classes. And in some way, we've kind of over-diversificate -- or over-diversified in many aspects.

Now, with respect to this new approach, the risk factors, what risk factors are you -- will you take into consideration that will lead us to that new flavor and if you can elaborate on that.

CHIEF INVESTMENT OFFICER GILMORE: That's a -- that's a good question. When I've been going through this presentation, I've looked at a couple of different risk factors. So if you go back to this early slide, here I've looked at growth or an equity factor and a rates factor. So you can refer to those things as factors, so you could look at growth, you could look at inflation, you could look at real rates, or you could look at term in terms of interest rates or credit.

I wouldn't say we've landed on factors per se, but in terms of doing this modeling, we have looked at two different factors. Here, we've looked at decomposing the portfolio just using equities and fixed income. And on this one, we looked at decomposing the portfolio just using equity or growth as a factor.

That growth factor will explain most of the variability in the portfolio, but we could go beyond that. Some organizations have more factors.

COMMITTEE MEMBER PACHECO: Right.

CHIEF INVESTMENT OFFICER GILMORE: I don't know how much additional value we would have going beyond, you know, two or three different factors --

COMMITTEE MEMBER PACHECO: But it --

CHIEF INVESTMENT OFFICER GILMORE: -- but the one that's going to dominate is equities.

COMMITTEE MEMBER PACHECO: What we -- eventually, we will have to land on a certain set of risk factors.

CHIEF INVESTMENT OFFICER GILMORE: Correct.

COMMITTEE MEMBER PACHECO: And -- but we're still exploring that right now.

CHIEF INVESTMENT OFFICER GILMORE: Yes. This is -- this is -- this is high level conceptual --

COMMITTEE MEMBER PACHECO: Right.

CHIEF INVESTMENT OFFICER GILMORE: -- to think about how we can create, you know, a simple portfolio for analytical purposes for discussion. And, of course, we want to be able to do better than that simple portfolio.

COMMITTEE MEMBER PACHECO: Yes. As we build more and more.

CHIEF INVESTMENT OFFICER GILMORE: Yes. Yes.

COMMITTEE MEMBER PACHECO: That's perfect. That's all I wanted -- that's all of my questions. Thank you.

CHAIR MILLER: Okay. President Taylor.

VICE CHAIR TAYLOR: So I guess I want it put more succinctly or layperson-wise, what's the difference between our benchmarks and a risk factor, and then how are we measuring, if we don't have benchmarks?

CHIEF INVESTMENT OFFICER GILMORE: We'll have a benchmark. Right now, we have 11 benchmarks.

VICE CHAIR TAYLOR: Correct.

CHIEF INVESTMENT OFFICER GILMORE: All of them are customized. What we would do ultimately is probably say, we're going to have one. We're going to look at one for the whole portfolio. And we'll allocate capital based on how much exposure each of those investments has to whatever factors we choose. That will basically be it, the main difference.

VICE CHAIR TAYLOR: That makes. Okay. So we have one benchmark. And it takes into account then, because private equity is so hard to measure. We measure it against all of this other stuff. Private debt, I don't know that we have an accurate benchmarking for that either. So you take this one benchmark and you hope it's correct, because -- do you change it by the year, if you see that it's not measuring up or --

CHIEF INVESTMENT OFFICER GILMORE: What you normally do is you end up doing some regression analysis. You look at the relationship between the underlying asset class and your factors. In the case of private equity, we already benchmark that against a listed equity market.

VICE CHAIR TAYLOR: Which may not be correct a lot of folks have said, right?

CHIEF INVESTMENT OFFICER GILMORE: Which may or not -- there are lags, of course, in terms of the valuations. And when you saw that chart that I showed with the equity equivalent exposure, private equity had a higher beta than we're using, but it's -- it can be fairly close. I would say that if you do go -- if we do go down the route of using that simple, you know, let's say single benchmark, going through and checking on whether we've got the right equity beta or the right relationship will be quite important, because if we don't have that, it means there's -- you know, we're not reporting the risk accurately.

But I would say that it's a simpler approach to have that high level benchmark for the whole portfolio. We can easily see whether we've done better than an off-the-shelf portfolio. Things get obscured when you've got 11 or 12 different asset classes and different benchmarks. And then it becomes quite complex when you're actually phasing in, when you're transitioning in to a particular target level. That's quite complicated as well.

What would happen at those organizations that have, let's say, a reference portfolio or an equity equivalent exposure, there's none of that, because let's say in the case of an organization with a reference portfolio, they will start with their reference portfolio, let's say 70/30, and they would fund individual investments out of that. So if they're building towards a target, you don't need to have this glide path for the investment process, because you're already funding it out of, you know, let's say, you know, a 70/30 and you would -- let's say you're buying infrastructure, you might say that's equivalent to 60 percent equities, 40 percent bonds depending on the -- so essentially it becomes a simpler exercise. I'm probably not explaining it very well. It's something we can go through in more detail at the education session.

VICE CHAIR TAYLOR: You have a high conceptual --

CHIEF INVESTMENT OFFICER GILMORE: Conceptual. Conceptual.

VICE CHAIR TAYLOR: -- way of communicating. So -- and I guess I have worries about one benchmark and how we recognize -- (hit the microphone) whoops -- each asset class anyway, and then how we stop the culture of just meeting the benchmark

(Laughter).

VICE CHAIR TAYLOR: And you have one benchmark, so I'm like, okay, how?

CHIEF INVESTMENT OFFICER GILMORE: Well, it's much -- it's probably much easier to say, well, have you added value over what we could get by taking something off the shelf?

VICE CHAIR TAYLOR: Well, that --

CHIEF INVESTMENT OFFICER GILMORE: And that's a much simpler question.

VICE CHAIR TAYLOR: I see what you're saying and I understand that, so I'm not clear on the advantage yet that you're proposing with this and how -- I saw -- I saw the slide and I can't remember what -- wait. There it is. On page 13, where it says that apparently based on this study, that 7.23 percent is for the TPA versus a six percent -- or 5.47 percent for SAA, which is a significant difference. And this is on a peer group-wide average, so that's hopeful.

CHIEF INVESTMENT OFFICER GILMORE: So -- yeah, so that's 26 peers including us.

VICE CHAIR TAYLOR: Yeah.

CHIEF INVESTMENT OFFICER GILMORE: Total assets more than six trillion. So each one -- you know, the median size is more than 100 billion. I don't think the future will be as stark as that, but --

VICE CHAIR TAYLOR: I'd love it to be as stark as that.

(Laughter).

CHIEF INVESTMENT OFFICER GILMORE: Well, not if -- not if we're an SAA.

(Laughter).

CHIEF INVESTMENT OFFICER GILMORE: I would -- I would suspect it's going to continue to be value-adding, but I wouldn't expect it to be 170 or 180 basis points.

VICE CHAIR TAYLOR: Not just this.

CHIEF INVESTMENT OFFICER GILMORE: But if 50 to 100 would be very valuable.

VICE CHAIR TAYLOR: Okay. Okay. So that helped put it in language that I understand. So I appreciate that.

CHIEF INVESTMENT OFFICER GILMORE: No. No. No, that's okay. I think also you've got think about those organizations that have followed a TPA. They've tended to be newer, so they've been able to look at, you know, the experience of the past and set up the arrangements to be able to work more like this. They've had the technology, so they've got the visibility across the portfolio. They have teams, which are, you know, collaborative and focus on the whole rather than individual silos. So there's a very important cultural aspect to it.

VICE CHAIR TAYLOR: So that brings me to that question I asked earlier, which is how do we make sure our team is ready for that? Because we're not -- we're -- a lot of our team has been here for a while. You're saying this is a newer concept -- or newer organizations have taken up this concept. How do we make sure our team gets on board with this and works it?

CHIEF INVESTMENT OFFICER GILMORE: It's probably the most difficult part of the process in terms of getting that collaboration and focusing on the whole. Having said that, we do have large parts of the portfolio that are already, in some ways, benchmarked to equities -- obviously listed equities --

VICE CHAIR TAYLOR: Sure.

CHIEF INVESTMENT OFFICER GILMORE: -- private equity. I do believe that the fixed income team would like to be a bit more active. So I see, you know, pockets of this across the organization. But coming up for common language is difficult, because each asset class tends to have its own specific way of looking at returns.

If you talk to private equity people, they tend to look at internal rates of return. They look at various multiples. More recently, they might look at a public market or equivalent to look at equities or a direct offer. So they'll have that language. If you're talking to infrastructure people, they'll talk about discount rates. If you're talking to real estate property people, they'll talk about cap rates. So they're all slightly different. So you've got to come up with something that they can all agree makes sense for comparative purposes, because ultimately we want to get to a position where we can say, oh, we'd prefer to allocate this additional dollar to private equity versus an infrastructure deal or a real estate deal, or listed equities, or something else. So you need to be able to do that comparison and people need to see that it's a reasonable comparison.

VICE CHAIR TAYLOR: And weren't we doing this when all of the teams were getting together and talking about their investments. I thought we were trying to break down those silos and then, you know, what's a good idea, what's a bad idea. What happened with that?

CHIEF INVESTMENT OFFICER GILMORE: No. You do do that. But when you've got your individual benchmark and your individual target, you focus on that.

VICE CHAIR TAYLOR: Okay.

CHIEF INVESTMENT OFFICER GILMORE: So this is about -- we're making it a bit more uncomfortable actually, because you've got to compete for capital across the portfolio under a total portfolio approach.

VICE CHAIR TAYLOR: Okay. All right. Thank you. I'm going to leave it alone, because I know there's others that want to talk.

CHAIR MILLER: Okay. Director Rubalcava.

COMMITTEE MEMBER RUBALCAVA: Thank you, Mr. Miller. I want to go to the actuarial chart. I guess 11 -- I'm sorry 18 and 19. Scott talked about what comes first and you made reference to a -- this article by the American Academy of Actuaries. And it's true that there is confusion - I've had it many times - about differences between investment return assumption, return target, discount rate, you know, what have you, and what comes first.

But the other thing that the article brought forward is that -- is the maturity of the plan. And that's one thing that I've raised sometimes before, I think, is that -- and according to the article, as plans mature, there's a need for more -- with the focus of negative cash flow and the need for liquidity. So maybe in our educational process, we should bring that element in there to the maturity of the plan.

Thank you.

CHIEF ACTUARY TERANDO: Sorry. Yeah, I agree. I think consideration on the -- when you think about the maturity of the plan, what happens is, you know, your liabilities are much higher, your assets are much higher. And so your -- the volatility is enhanced for each -- you know, for each risk measure. So for each amount of risk, liabilities and assets are much higher and it contributes to the volatility. And so I think that's a key consideration. You mentioned that the cash flow. I think that's just -- you know, our benefits and contributions are fairly close to one another right now. It's a consideration though as we move forward. And as our plan becomes, you know, a little bit more mature and as our funded status increases, obviously, you know, higher funded status. As we get better funded, our contributions are going to come down. Our benefits are going to continue to increase. So that difference in cash flows, that's going to become more negative as we progress forward.

So all of those are definitely considerations that we'll look at when we look at the portfolio construction, liquidity constraints, and all that.

COMMITTEE MEMBER RUBALCAVA: Yeah. Thank you. That's something to be mindful of.

CHAIR MILLER: Okay. I'm going to go to Deborah Gallegos.

ACTING COMMITTEE MEMBER GALLEGOS: Thank you.

Just going back to something Ms. Taylor had mentioned in of her questions. The idea of the total portfolio approach, or one benchmark, is to get everyone rowing in the same direction, right, and to break down some of these silos, and to have more collaboration across the team.

I guess I would just ask that when we do do the education session, you really lay out the plan for how you're going to deal with the change management, because even though some teams may already be thinking in this way, others may not. And it -- that is going to be a huge, I think, portfolio shift for us.

Similarly, I wanted to get your thoughts and again bring it back to the education session, because I'm sure there's a lot that needs to be worked out, but how much turnover should we expect to see in the portfolio as we move from one approach to another. Do you envision that this will result in some allocation shifts between the asset classes?

CHIEF INVESTMENT OFFICER GILMORE: I don't know the answer to that --

ACTING COMMITTEE MEMBER GALLEGOS: I understand.

CHIEF INVESTMENT OFFICER GILMORE: -- right now.

ACTING COMMITTEE MEMBER GALLEGOS: I understand.

CHIEF INVESTMENT OFFICER GILMORE: But I wouldn't necessarily expect that much more turnover on a, you know, day-to-day basis --

ACTING COMMITTEE MEMBER GALLEGOS: Okay.

CHIEF INVESTMENT OFFICER GILMORE: -- but we can discuss that at the education session.

ACTING COMMITTEE MEMBER GALLEGOS: Thank you.

CHIEF INVESTMENT OFFICER GILMORE: Thanks for the questions.

CHAIR MILLER: Okay. At this -- oh, no, I have Director Walker.

COMMITTEE MEMBER WALKER: I'm sorry. And for the education session too, when we're talking about change management, it would be interesting to know do you -- if we take this approach, do you have the staffing you need. What additional staffing would you need? What does it look like would be helpful too.

CHIEF INVESTMENT OFFICER GILMORE: We can discuss that then. But typically, a lot of the burden falls on the Total Fund Portfolio Management team. The burden will also fall on the, I guess, the technology and visibility across the portfolio. And, of course, we've got work underway in that area and Rob will talk about that tomorrow at the FAC, but those things are usually quite important. But I think ultimately it's a cultural thing. And this is sort of directionality rather than let's say going to one extreme necessarily. But having more collaboration.

I mean, in fact, we've seen some examples of that more recently when, let's say, one of our teams, the private debt team, might be looking at an investment. The private equity team will also be looking -- working alongside them and we're seeing more of that collaboration. And I think that leads to better outcomes than would be the case if the teams are siloed.

CHAIR MILLER: Okay. I think -- at this point, I think I'd ask Wilshire if they would like to come up and make a few remarks about particularly vis-à-vis the benchmarking, benchmarks.

TOM TOTH: Good morning. Tom Toth with Wilshire Advisors. I think from a, you know, benchmarking standpoint, we would work closely with staff and with the Board to set that benchmark appropriate to the risk tolerance. And one of the really important things I've talked to a few of you about that is the answer to the question of what is the right risk tolerance. There isn't one eight answer. It really comes down to the Board sense for that -- those trade-offs, which we talked about just a few slides, I think, before this one around the objectives of the plan, contribution rates, contribution volatility, and the like.

So I think a lot of the education that we'll doing, as we move forward in this process, is getting that sense from the Board and then ultimately triangulating on what that right risk level is, given your risk tolerance. And then we can come up with the so-called reference portfolio benchmark which aligns with that, and then talk through what portfolio construction, and deviations, and the flexibility that is delegated to staff looks like through time.

CHAIR MILLER: President Taylor.

VICE CHAIR TAYLOR: Tom, thank you very much. Is this a -- so our risk tolerance. I don't think the Board has ever been -- had a problem with risk, I mean, closer to the Great Recession maybe, but -- to make sure that we can pay benefits and read our -- reach our rate of return and our funding status. I don't think we've had a problem with risk tolerance. But I think having a different way of looking at the portfolio, I don't know that the risk tolerance looks the same. So I'm hoping that maybe in the education session, we look at that difference and then Wilshire can also give some information on that as well.

TOM TOTH: Absolutely. And we'll be very involved in the discussions around benchmarking and what that means both for implementation and then -- and then reporting --

VICE CHAIR TAYLOR: Okay.

TOM TOTH: -- in transparency to the Board, because that's going to be a critical component of the approach going forward.

VICE CHAIR TAYLOR: Thank you. Thank you very much.

CHAIR MILLER: Okay. I'm not seeing any other questions from the Board. Thank you.

TOM TOTH: Thank you.

CHAIR MILLER: Okay. Let's see, yeah, I think it's time for us to take a break. We're now at almost two and a half hours, so 10 minutes.

VICE CHAIR TAYLOR: Take 10 minute.

CHAIR MILLER: Yeah, we'll take about a 10 minute break and then we'll resume.

(Off record: 11:24 a.m.)

(Thereupon a recess was taken.)

(On record: 11:40 a.m.)

CHAIR MILLER: Okay. We're back in session. And

I'll just remind everybody if you turned your phones on for the break, please turn them back off now that we're in here. Otherwise, if I hear one, I'm going to yell, "What the hell is that," and, you know, everyone will be a bit more disturbed.

So, okay. It's a race back to their seats.

Okay. Let's jump back in.

And where are we here?

We're on 5C, Total Fund Portfolio Management annual program review. The moment we've all been waiting for.

(Slide presentation).

CHIEF INVESTMENT OFFICER GILMORE: I guess the first of our two annual reviews this meeting. And I'd like to invite Sterling to join us.

MANAGING INVESTMENT DIRECTOR GUNN: Oh, now it's working. Better. Chairperson Miller and Committee members. Sterling Gunn, head of the Total Portfolio Fund Management and team member of CalPERS.

Just as a note, I'll be referring to TFPM throughout the presentation. That's my team. I have some prepared notes and for a change, I'm hoping to stick fairly closely to them here.

It's also a coincidence that we're talking about the annual review today of TFPM at a time when Stephen was talking to us about total portfolio approach. And Stephen mentioned, you know, we've -- between the two of us, we've worked at four organizations that have done that. And I am kind of hoping that I'm working at the fifth. That would be great.

Let me start by just observing that the CalPERS PERF portfolio in particular is quite complex. And it takes on this complexity with the expectation of creating additional value relative to a simple portfolio and creating that value for our members. This complexity also has costs, and so the CalPERS Investment Office works to minimize those costs associated with that complexity and needed to support the investment strategy.

Now, the complexity involves a number of different versions of equity, and fixed income, and real assets. And I say many versions, in that as each broad asset class has many different segments and also comes in public and private flavors, and so we need to merchandise all of that complexity as an organization. Now, some of that complexity is managed within the asset classes themselves. That's what we would expect. But quite a bit of that complexity rests outside of any single asset class, and that's why we require a total portfolio management function like TFPM.

There are also risk factors that are common to many or all of the asset class strategies, such as liquidity, climate change, country, sector, foreign exchange risks. All these things cut across asset classes and need to be managed at a total portfolio level. Economic factors such as growth and rates that were mentioned earlier are also important drivers of a lot of the returns in these asset classes. So again, another reason for having a total portfolio approach.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: Now, these factors are features of the total portfolio rather than any single asset class, as I mentioned, and they are managed at the total fund level. We have additional total fund strategies to manage the day-to-day activities in the portfolio, including our rebalancing, our financing, our completion strategies, liquidity, and sustainable investment strategies. These cross-asset class strategies manage, in part, the complexity of the total portfolio. Now, apart from the Sustainable Investment Strategy, the Total Fund Portfolio Management team manages the other total fund strategies.

And with that preamble, the remainder of my presentation is going to cover a review of TFMP roles and functions, some examples illustrating those functions, including their performance for the last year, and finally a review of our initiatives over the past year and the initiatives we're considering for the year going forward.

So let me move on to the review.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: Excellent. TFM -- PM's current role consists of the following functions: day to day management of the PERF portfolio, which includes financing of strategic and active strategies while maintaining the total portfolio risk at the target levels; we also perform research and analysis to support investment decision-making, and as well, we provide guidance, and strategy, and active risk allocation.

I'll discuss each of those functions in a few moments. But before I do, I just wanted to touch on the metrics that you see here. So we listed three metrics. The first one is a tracking error of five basis points for portfolio completion and rebalancing, and that minimizes unintended risks. And by that I mean that our completion and rebalancing strategies ensure our default risk exposures are the strategic asset allocation. Any exposure differences from the strategic asset allocation are purposeful and taken by the Investment Office active strategies, such as differentiating the different roles at the moment.

Now, our net financing of $27 billion supports our strategic asset allocation and our active strategies. And finally, the recent mid-cycle adjustment to our strategic allocation, which we talked about in March, is anticipated to add roughly $500 million per year on a long-term basis. So this is examples outcomes associated with some of the activities that we performed within TFPM.

Now, our activities are also informed by all of our Investment Beliefs. I'm just going to pick on two of them here just to illustrate. First, CalPERS believes that the liabilities must influence the asset structure.

Now, earlier Stephen discussed the current ALM cycle. TFPM has an important role in the ALM cycle. We work closely with CalPERS actuary and financial offices to develop a strategic asset allocation consistent with funding that PERF liabilities. Going forward, you know, the particular mechanics of that may change as we discuss the total portfolio approach, but fundamentally, it's the same kind of work.

A second belief CalPERS holds, that we must articulate our investment goals and performance measures and ensure clear accountability for their execution. Now, TFPM on behalf of CIO leads the investment budget -- risk budgeting process. And risk budgeting is an important part of the total portfolio approach Stephen discussed earlier. That sets expectations, so we have an idea of what we should get and then we can compare over time if we actually get that or not.

Let me move on to some of our key responsibilities on the next slide.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: Next slide after that, please.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: So first, TFMP is responsible for many implementing several critical total portfolio functions. We manage the liquidity of the PERF, ensuring that there's adequate cash to meet our funding needs now and in the future. And we manage liquidity over two horizons.

First, near-term liquidity is managed to ensure we have sufficient cash and liquidity to meet our internal and external obligations. Second, over the long horizon, we take a long view on the future sources of uses in liquidity to assure again that we will not paint ourselves into a corner sometime in the distant future by the decisions we make today.

We call that approach staying on strategy, insofar as we look at all the uses of liquidity, not just paying benefits, but the ability to support all our strategies, whether it's active strategies or rebalancing. And we ask that we have sufficient liquidity to maintain all those activities.

And I just wanted to make a comment about liquidity that came up earlier. Stephen mention having a simple portfolio consisting of public equities and treasuries. So we would have had roughly 300 billion in equities and 200 billion dollars in treasuries today with that simple portfolio. You know, with our use of liquidity we have now today with private assets and the active strategies, we still have more than enough liquid assets on hand. So we probably have, I'm going to say, close to $300 billion worth of very liquid assets in our portfolio today. And I'll talk a little bit later on about some of the work we do to make sure that that's more than sufficient.

Now, we also manage the total portfolio to mean risk at target levels, through day-to-day portfolio completion and regular rebalancing of the portfolio. And we do so by adjusting public market exposures, to accommodate changes in our private asset exposure. By doing that, we're thinking about factors, equity exposures overall rather than just public equity and private equity in isolation. We consider the total package and ask are we maintaining the total exposures that we would like to have.

And finally, finance, which raises the funding needed to support our strategic allocation and our active strategies. And the treasury team focuses on raising the funds in a very cost efficient manner, and I'll get into that in a little bit. In addition, the team adds value by opportunistically making our excess liquidity available to the market for a fee.

So I mentioned earlier, we have lots of liquid assets. We don't need all of that for even in -- when we're stress testing. So where we feel we have extra liquidity, we try to make a little bit of extra money on the side.

Can we got to the next slide, please, analytics and research.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: So here, TFPM is an important internal source of research and analysis supporting management of the PERF and the affiliated trusts. Now, this research includes continually reviewing the state of external markets and the economies, and focusing on identifying risk implications for the current PERF portfolio.

TFPM also provides regular analysis of the PERF including reporting on active strategies and comparing risk and return against expected outcomes, leading the annual investment strategy review, and during that review of the investment strategies, reaffirm their investment thesis and provide a forward-looking view on strategy outcomes. We also review the strategy's actual performance, compare this performance against expectations. And the strategies explain any differences that may have come up between actual performance and the expected performance.

And finally, we also lead the risk budgeting process, which reviews the active strategy allocations based on that information that we get during the annual reviews and just talking with the asset classes. And we assess the future risk and return potential of the aggregate active portfolio.

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MANAGING INVESTMENT DIRECTOR GUNN: Finally, TFPM has a lead role in the development of investment strategies for the PERF of and the affiliate trusts. We, along with Actuarial and Financial offices, provide the asset liability review that sets the PERF and affiliate strategic asset allocations. Strategic asset allocation sets the total portfolio target risk exposures, and I've mentioned those earlier, that that's our default position, absent any active strategies.

Now, we also review the active strategies and the active risk allocations. And I anticipate the coming year, we'll see the Investment Office become more active in its risk taking and TFPM will have an active role in designing that active portfolio.

Now, I mentioned earlier, TFPM does the PERF liquidity planning. And this planning analyzes the liquidity over the coming decade using stress tests and stochastic analysis to assess PERF liquidity adequacy. And finally, we developed strategies that do not fit neatly into any single asset class. An example, is a diversifying multi-strategy program, which we've talked about for the last little while, and we'll be incorporating that into the coming ALM process.

Finally, as I mentioned earlier when discussing our Investment Beliefs, these strategic decisions determine most of the risk return in our portfolio.

Just before I leave this, I did want to make one comment about, you know, change in attitude. Today, you know, we've talked very much about we have targets for our asset allocations. And one shift in attitude Would simply be really talking about targets. We ask about, when we have that range, where should we be in the range? It's a slightly different conversation than how do I get to my target?

If we could go to the next slide, please.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: Now, the ALM process is going to Provide many opportunities to talk about the marketplace. Here, we're just going to touch on one that's specifically relevant to our financing activities, as an example. We borrow through many different channels, each of which has its own cost. And the costs depend on many factors, supply and demand, the regulatory environment, and the kind of collateral that we provide to support our borrowing activities.

Equity financing is one such channel and where we will borrow by posting equity as collateral. Now, the equity funding spread that you see in the chart is -- starts in October 2010. You see the history there. It's varied quite a bit and has varied between 10 and 90 basis points. And that will probably continue to do that going forward. It's hard to predict exactly when it will -- where it will be, but that's the kind of variability we could expect.

Now, the cost of other channels will also vary. But the important thing is, just like any other portfolio, by having a variety of financing channels, we can diversify our exposure to any single one, and that should improve the overall quality of our financing and the resiliency of that portfolio.

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MANAGING INVESTMENT DIRECTOR GUNN: We haven't just talked a little bit about cash flow management. This is one of the complexities that I talked about earlier when it comes to managing across the portfolio. So there is a need to monitor and manage our cash position. That's one of the complexities that we deal with it. And this exhibit we show three major types of PERF cash flows for the last year. The vertical access is marked in billions of dollars.

Now, the first cash flows are the regular monthly cash flows associated with benefit distributions. They're represented by that lightly gray slashed bars there, the negative bars. And those are really quite stable and quite predictable. The second cash flows are the pension contributions. These are the darker hashed bars and they're a little bit more variable than the benefits that are paid out. And the third set of cash flows are the blue ones. Those are associated with asset -- private asset calls and distributions. And you can see they're actually quite variable.

So taken together in aggregate, cash flows do vary over time, and are not predictable, and our liquidity processes that I mentioned earlier, both in the short term and in the long term try to account for that variability and ensure that we maintain sufficient liquidity now and in the future.

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MANAGING INVESTMENT DIRECTOR GUNN: Another complexity is maintaining portfolio risk at the target levels. And as mentioned, to do so, we use the public markets in response to changes in valuations, along with the cash flows and market returns.

Now, the trading activity associated with maintaining the total portfolio risk exposures is presented in exhibit. There's a whole lot more information that I really want to speak to here, but hopefully you get the overall sense that there's lots of ins and outs into the portfolio over time. And what we are doing here is we are using the public assets again to balance the exposures to equities and to fixed income broadly speaking in the portfolio to make sure that we maintain a target -- our target risk level.

Now, the heightened trading activity by the way at the very end there is just associated with when we transition the portfolio after the change in the SAA during the mid-cycle review.

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MANAGING INVESTMENT DIRECTOR GUNN: So I touched on this earlier, but another source of complexity is the financing of our strategic and active strategies. I mentioned earlier the treasury function manages the PERF funding across diverse collateral types and channels. And our current funding uses a variety of collateral including equities, mortgages, treasuries, and investment grade corporate bonds. And I just want to clarify something here. When you see the word "mortgages" here, we are not taking out mortgages in the treasury function. What we are doing though are using mortgage-backed securities as collateral. So I just wanted to be really, really clear on that point.

So the exhibit on the right shows our progress in expanding our funding channels over the last four years or so. The key message on this page that we've diversified our funding channels and we've improved our funding resiliency. And we will continue to work on broadening our funding channels beyond what we have here today.

Next page.

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MANAGING INVESTMENT DIRECTOR GUNN: I mentioned earlier, the TFPM is focused on minimizing both costs, unintended risks associated with managing the total portfolio. This past year, the combination of our activities happened at two basis points. We focused though on maintaining the portfolio risk, managing liquidity. We did not have an active risk program. That may change going forward depending on what we do with total portfolio.

I also want to call out the rather dramatic looking red bar. Stephen talked earlier about pub -- that's private equity. It actually did have a good year delivering 10.9 percent in total. It did do better than a peer private equity benchmark. It just happened to be a year where public equities did a whole lot better, and public equities are its benchmark. So it looks like it's underperformed relative to public. But it did make a good solid contribution above expectations to the total portfolio.

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MANAGING INVESTMENT DIRECTOR GUNN: Now, I mentioned, that the TFPM works to keep PERF risk exposures at target levels. And we do so through our allocation and implementation strategies. And like all other strategies, we have return and risk expectations. We expect this strategy will cost roughly two basis points a year with a volatility of about five basis points. Now, since December of 2019, we can see that the strategy costs have been pretty flat, except for that very early period during COVID.

So that's good news, but the real -- the intent here is, you know, give or take, we are not here to generate a lot of value in this process. This is rather to maintain that default position outside of whatever the active strategies are doing. The important thing is we do not have a material impact on the active portfolio. You can see that when you can put that comparison on the previous page.

Go to the next page.

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MANAGING INVESTMENT DIRECTOR GUNN: Just very briefly here talking about our financing strategy, it also has a benchmark and volatility expectations. Expected costs of 50 basis points over the three-month treasury bill with a volatility of 100 basis points. And we can see that strategy has slightly exceeded performance expectations over the last year or so, while staying well within the risk expectations.

All right. Next page.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR GUNN: Around our initiatives. We've continued to build out the treasury function diversifying our financing channels. We've also further centralized our liquidity management and deepened our liquidity analysis. We've continued to work on the diversified multi-strategy, a program intended to improve total portfolio resiliency. We've continued to refine our strategy review and risk budgeting processes. And we've also reviewed the impact of the customized transition index that was approved in March, its effect on the total portfolio.

As to opportunities for improvement, we need to improve our total portfolio data and technology capabilities. I expect that the data and technology strategy, which has being discussed, I believe, tomorrow, that will be a significant step forward in establishing the capabilities that we do need.

And finally, we expect to be working with Stephen to align our current processes with his vision for implementing the total portfolio approach here. That concludes my remarks.

CHAIR MILLER: President Taylor.

There you go.

VICE CHAIR TAYLOR: Hi. Thank you, Sterling, for the very good presentation. Pretty simple to understand.

I had a couple of questions on -- hold on, what side was that? Page 11.

Okay. So since 2022, "Funding Channel Expansion Milestones," initialize -- I'm sorry, "Initial, Utilized Equity and Treasury Derivatives." So Treasury and mortgage repo, meaning repossession?

MANAGING INVESTMENT DIRECTOR GUNN: Um-hmm, correct.

VICE CHAIR TAYLOR: And we are -- how do you -- how are we doing that? What are we doing?

MANAGING INVESTMENT DIRECTOR GUNN: So we could either post collateral or we can take collateral from someone, either way.

VICE CHAIR TAYLOR: Okay. And we are -- have been doing that since '22.

MANAGING INVESTMENT DIRECTOR GUNN: Yes.

VICE CHAIR TAYLOR: Also, corporate grade repossession, which --

MANAGING INVESTMENT DIRECTOR GUNN: Um-hmm, correct.

VICE CHAIR TAYLOR: Cool. Okay.

So mortgage derivatives concern me, because that's kind of where we were during the Great Recession. So where do you see the advantage of that?

MANAGING INVESTMENT DIRECTOR GUNN: It's

flexibility and liquidity.

VICE CHAIR TAYLOR: What do we do to avoid what happened before, because we really went all in on that?

MANAGING INVESTMENT DIRECTOR GUNN: So I think the big difference here is that centralized liquidity and cash management where we go to great lengths to understand everything that we're doing and how well these pieces fit together. And then we get to ask ourselves how comfortable we are under stress scenarios, and under stochastic analysis. Do we -- are we comfortable with our total liquidity? That's one of the advantages of the total portfolio approach. I would say 15 years ago with all the silos, it wasn't necessarily clear what was happening from one silo to the next from a liquidity perspective. And the organization has come a long way in the last 15 years to resolve that.

VICE CHAIR TAYLOR: And so we're saying that we would be talking to each other and saying if we saw a prospective possibility of this kind of a meltdown again, then everybody would be talking to each other and we wouldn't be like surprised.

MANAGING INVESTMENT DIRECTOR GUNN: We hope to not be surprised. We have a weekly meeting now that involves 30 or 40 people to talk about all these issues and how these pieces are fitting together.

VICE CHAIR TAYLOR: Okay. That was my question. I appreciate it.

MANAGING INVESTMENT DIRECTOR GUNN: Thank you for the question.

CHAIR MILLER: Okay. Director Rubalcava.

Let's try it again.

COMMITTEE MEMBER RUBALCAVA: Am I still here?

CHAIR MILLER: There you go.

COMMITTEE MEMBER RUBALCAVA: Okay. Thank you, Sterling. My question actually -- I mean, you're -- I really appreciate all -- what you presented and how you guys are -- have a very key in the management of cash and liquidity. But in reading the Wilshire letter, it also shows how there's been a lot of function changes. And then one of the challenges is deep resourcing and staffing -- reduced staffing I guess is the last. So how are you handling that and do you need more staffing? How can we help?

MANAGING INVESTMENT DIRECTOR GUNN: Right. First of all, just explain the departures. We're a good source, I think, of talent for the rest of the organization. So a number of the departures have really been to other parts of the organization. So it's not really been a loss to CalPERS as such. Right now, I think what we need to do is work through how we want to implement total portfolio management. Once we've done that, then it will become clear what the resources might -- our requirements might need. I'm not suggesting we actually do anything at this moment in time, rather we sort through over the next, you know, four, six months what total portfolio approach will look like for CalPERS and then we'll have a much better idea.

COMMITTEE MEMBER RUBALCAVA: Okay. So if you're not worried, I'm not worried.

MANAGING INVESTMENT DIRECTOR GUNN: I wouldn't.

COMMITTEE MEMBER RUBALCAVA: Thank you.

CHAIR MILLER: Okay. Next, I have Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Thank you. Thank you, Chairman Miller. Thank you, Mr. Gunn, for your presentation. I just have a question on page 13 of 17, the portfolio performance and risk. I've noticed here that when we're -- when we're creating these probabilities of standard deviation one plus -- standard deviation of one or plus two, that we seem to be trailing -- the actual performance is trailing with the theoretical expected trailing. With respect to approaching our new asset allocation process, how would that change or if you can explain that.

MANAGING INVESTMENT DIRECTOR GUNN: So we're actually trailing here. If you just look at the very beginning on the left there, you see that large spike up and then down, which is the COVID period. And since then, it's been pretty much a horizontal line. So if we had actually made this chart starting in March of 2021, you would have seen us outperforming the line, because we basically had zero costs on average, whereas the benchmark is the cost of two basis points.

So I would say, having gotten past the COVID part, we're actually doing quite well relative to the benchmark.

COMMITTEE MEMBER PACHECO: So it's a base -- because we've set it up from the -- from the COVID period, that's why we're seeing this trailing --

MANAGING INVESTMENT DIRECTOR GUNN: It's that original significant drop at the beginning, and then since then, we've been pretty much horizontal.

COMMITTEE MEMBER PACHECO: Pretty much horizontal then. Thank you very much for your question -- answer.

MANAGING INVESTMENT DIRECTOR GUNN: Thank you.

CHAIR MILLER: Okay. I think that -- more questions. Oh, yes. Frank Ruffino for Fiona Ma.

ACTING COMMITTEE MEMBER RUFFINO: Yeah. Thank you, Mr. Chair. I just want to do a quick follow up. Mr. Rubalcava asked the question regarding staffing and I wanted to understand a little bit more. I know that -- I believe we have five openings or four openings right now. But the question is over the years, I think we went from having 60 positions to I believe there's 41 FTEs, which is a -- you know, so I would like for you comment on that. I mean, is 41 enough and -- number one, and number two, is the five positions it -- I'm sure we're recruiting. Are we having difficulty finding qualified, recruiting people, or there's been challenges in that? Thank you.

MANAGING INVESTMENT DIRECTOR GUNN: Yeah. Just to clarify, in my time here, we haven't really had any more than about 40 people. In terms of recruiting, it takes time not matter where we are. But at the moment, like I said, I really would like to take the time to understand what we need to be. And then based on that, we can discuss what any changes we need to make. I think we have the time to do that.

ACTING COMMITTEE MEMBER RUFFINO: So we will know --

MANAGING INVESTMENT DIRECTOR GUNN: I think through the process that we're going to be going through and discussing total portfolio and how we want to do that, that will then determine how we -- what form we should take. And that's probably the right time to start answering some of these questions more precisely.

ACTING COMMITTEE MEMBER RUFFINO: We're not losing positions, given the new requirement, if we don't field position, we -- no. Okay. I see the CEO -- that was my main concern. We don't want to lose any, FYI. Okay. Perfect. Thank you.

MANAGING INVESTMENT DIRECTOR GUNN: Thank you for the question.

ACTING COMMITTEE MEMBER RUFFINO: Thank you, Mr. Chair.

CHAIR MILLER: Okay. President Taylor.

VICE CHAIR TAYLOR: Just one quick question to follow up. So part of your bringing forward, I hope, for our education in January, is the macroeconomics and market research, as we look forward in the new administration. I'm hoping to see that and its impact on what we're considering here.

MANAGING INVESTMENT DIRECTOR GUNN: That would certainly be part of the considerations. There's a lot of different moving pieces to that, but yeah, we have to think --

VICE CHAIR TAYLOR: Sure. And I know we won't know everything. I hope to know a lot more by the time we make the decision, but --

MANAGING INVESTMENT DIRECTOR GUNN: I'm learning how to talk like an economist. So I have one hand and I have another hand. But, yes, it will be like -- we'll talk about it.

VICE CHAIR TAYLOR: I appreciate it. I do want it included. Thank you.

CHAIR MILLER: Okay. Nothing from the Board on this one. I'll just see Wilshire wants to opine.

ALI KAZEMI: Thank you, Mr. Miller, and happy to provide some context. I know the Wilshire letter was referenced, so maybe a little bit of context. As you'll note in the letter, you know, we've seen the functional responsibilities for TFPM evolve significantly over the last five years. The current responsibilities Sterling already broke those down into kind of the portfolio implementation, analytics and research, and strategy development functions.

And with that, the change in those functional responsibilities over the last five years, you would expect, you know, some degree of turnover. And to Sterling's comments, a lot of those resource have just gone onto other areas within the organization.

You know, I think it also is representative that, you know, the team has been adaptable and been able to, you know, service the needs of the organization as those needs have adapted. And what I think -- and I think Sterling kind of hit this nail on the ahead, in terms of resources going forward, I think the most critical thing is first to define what is the long-term objectives for what TFPM is going to be providing to the organization. In the previous session, talking about the total portfolio approach, certainly there's going to be a big involvement from the TFMP team and ensuring that the -- you know, the resources are there to meet all of the needs for that.

But relative to that, the active risk budgeting that's ongoing, the introduction of a multi-asset framework, or introducing multi-asset strategies as ongoing. So there are a lot of initiatives and our scoring, which did reflect, you know, a modest decrease, keeping it still in the fourth decile, which it was similarly last year, but is a reflection not necessarily of any imminent concerns that we have about the team currently as it stands. The team, as it stands now, is full of really bright, really thoughtful investors that do great work.

Our scoring is more reflective about the forward-looking risks potentially, as more of these initiatives are rolled in and what are the potential trade-offs that would be -- need to be taken to address all of these initiatives without additional bodies coming in.

But, I think just the last point is we don't have, you know, imminent concerns about anything. The scoring is meant to be forward-looking in nature. And we'll continue to monitor things and provide our insights to the Board, but happy to take any questions.

CHAIR MILLER: Seeing no questions, thank you. And thank you, Sterling, and thank the whole team. This represents a lot of great work and it continues to be very encouraging.

Okay. Well, we're at 12:13. I think this is pretty good time to take our lunch break and reconvene at one o'clock for our next item, which is the sustainable investment annual program review at one o'clock.

Okay. We're recessed till one.

(Off record: 12:13 p.m.)

(Thereupon a lunch break was taken.)

AFTERNOON SESSION

(On record: 1:01 p.m.)

CHAIR MILLER: Okay. Welcome back, everybody, to the Investment Committee. It's a couple minutes after one. We're back. So let's jump right back in with our sustainable investment annual program review.

CHIEF INVESTMENT OFFICER GILMORE: Thank you. I'll just pass it through to Peter and the team.

MANAGING INVESTMENT DIRECTOR CASHION: Thank you, Stephen. Good afternoon everyone. Peter Cashion, Sustainable Investments. It's my pleasure today to present to you the SI 2030 program review. We're very excited to provide you with an update on our progress, overview view of the SI model, and an assessment of the 11 KPIs. I'd like to start out by thanking the Board for your support and guidance, particularly in the areas of human capital management and providing us with the resources to develop and implement this SI strategy.

You've entrusted us with this and we are committed to deliver. I'd like to reflect on the past 18 months. It's hard to believe that 12 months ago, we were sitting before you to present the 2030 strategy. Reflecting back to last year, we achieved a lot in my first six months when we developed the strategy. And now as we assess the first 12 months of implementation, I believe that we have achieved even more.

Before we jump into the strategy, I'd like to share more on the CalPERS sustainable investment model. Our model is built on three foundations, alpha, resilience, and equity. We take these three elements and applied them across the total fund in an integrated team effort. We do this by incorporating human capital, integrating ESG, advocacy and engagement with Drew Hambly's team, along with our emerging managers and, of course, our climate investing across the total fund.

The alternative would be for SI to undertake such work in our own silo. This would be, in fact, easier, but we believe not effective. The power of the model comes from working from total -- across total fund integration. We implement the model by assembling the experts in each one of these areas, human capital, advocacy, climate - these are the folks sitting alongside here me -- alongside me today - and we partner with the asset classes to add value across the business lines.

The progress that we're showing today is attributable to this partnership between the asset classes and the SI team. What makes this possible? It's culture, a culture of collaboration and working across INVO. And we have it, and we will continue to build it, and it's working.

I'd like to share more on the climate aspects of our strategy, given the prominence of the CalPERS climate commitment. As we presented in July, climate is one of the three mega trends that we're seeing play out globally, alongside deglobalization, and AI. Climate also represents the fourth economic revolution in our history. We ignore this climate revolution at our own peril, particularly if we are to be long-term stewards of pension assets. Climate change is creating new climate risks, but also significant opportunities.

As such, we've incorporated it into the strategy in three ways, through a hundred billion climate commitment, increased portfolio resilience, and also our net zero commitment. Another distinguishing factor of our SI model is that we're focused on generating alpha from climate solutions, as a first priority.

Decarbonization, that's a consequence, and it's clearly a good one. It puts us on a pathway to net zero and many of our peers have prioritized the first, meaning decarbonization, over returns. And we think this is an important distinction and benefit for CalPERS.

If we go to the first slide.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR CASHION: So -- yes. Do I'd like to now cover some -- cover some of our key accomplishments in this first year. With respect to the portfolio, we have reached 50 billion in climate solution investments. And that -- and in addition, there's another 3.6 billion in pipeline. Portfolio emissions have reduced by nine percent and we've committed 6.3 billion to diverse managers and two billion to emerging managers.

Under the banner of human capital management, we've successfully implemented the Labor Principles. We've shown global leadership in this, which has been followed by other asset managers. We've updated the RCP, which is well underway and in progress. We've completed the Lenox Park DEI survey and also the AB 890 report.

In terms of the SI team, we've significantly advanced on our team build-out. We have six of the ten new hires completed, with the remaining in advanced stages. We've really assembled some incredible talent and we're really excited to have them partner with us across the asset classes.

In terms of process, with respect to ESG, we've completed an external review of our ESG program and two of our appointments for the new staff will be ESG integration specialists. We remain very active in regulatory advocacy and taking a leading role in corporate engagement, and with Michael Cohen as the CA 100+ Steering Committee Chair.

I'd now like to look towards the future and what we see next. The biggest development, of course, will be the new administration. We need to be very aware and attentive to the Republican energy agenda. It will be pro oil and gas, target green subsidies and incentives, reduce climate disclosure, and loosen air regulations amongst others. This is a clearly headwind for some low-carbon industries in the U.S. There are implications for our ongoing investment plan, which we are actively assessing, but there are multiple reasons why our plan is resilient to such changes.

First, we underwrite our investments without factoring in any green subsidy, as do our managers. The IRA benefit is primarily in red and purple states with over 80 percent of the employment and investment taking place in those states. So it will be harder and less incentive to try to dismantle that in any large way.

If we determine that climate investment opportunities are lower in the U.S., we will also be open to looking more into non-U.S. markets. And interestingly, these energy policies are, in fact, a good argument for non-divestment from oil and gas, because those companies can potentially outperform. Despite these political and regulatory changes, there are supply-demand dynamics and cost saving strategies that will continue to be a tailwind for climate solutions. If we take AI and data centers, for example, the need for power will only increase and in many cases renewable energy can be the lowest cost format, and permitting and grid access may actually be accelerated under the new administration.

There's an interesting consequence to the new policies, as it relates to climate risk. Climate risk, as you know, consists of physical risk. We see that weekly in Valencia, Ventura, Asheville, and transition risk, which is a vulnerability of a business to -- owing to its own emissions.

In our view, the transition risk, at least for U.S. companies, is now reduced or extended, while the physical risk may actually increase. Although this may be unfortunate, it does create investment opportunities in the area of resilience, resilience meaning the response to climate change. So, investments in heat-resistant crops, power generators, air conditioning, fire suppression, these are all -- these will become more interesting investment opportunities. It also underscores the importance of incorporating climate risk into our investment assessment.

I'd like to provide some concluding remarks before we jump into the broader presentation. First, I'd like to thank the asset classes for their leadership, for -- to Private Equity for their work in emerging manager and climate investments, infrastructure for their large-scale renewable energy investments and in transition, global public equity for their climate transition index, and all of the asset classes for our intensive ongoing work.

As we implement this strategy, we'll do so with patience, prudence, and humility. As discussed in July, there are a few straight lines in investing. We will take a long-term investment horizon, as it can take multiple years for climate thematics to play out. We believe -- we will invest towards the hundred billion target with prudence, adapt to a changing political environment and always on a commercial basis, and as a core part of our fiduciary duty.

Next slide, please.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR CASHION: So let's revisit the objectives that we presented last year in November. The five ones you probably recall, generating outperformance, portfolio resilience, putting ourselves on a pathway to net zero, promoting inclusion and representation, and an efficient and equitable capital markets -- financial markets.

So next slide, please.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR CASHION: So with each of these five objectives that you see on the left, we have come up with key performance indicators along with a target. And one of the main objectives of today's session is to provide you with an update on each one of these KPIs and targets. I'm very happy to present that we have either met the KPI, or if it's a multi-year achievement KPI, it's well in progress and in target.

And if we take an example of the first one, generate outperformance, we are coming up with the mechanisms to be able to, of course, flag the investments and then measure the performance and compare it to other equivalent asset classes -- investments in the asset class.

It's next now my pleasure to present -- pass it to my colleague, Fanny Bourdais, who will walk us through the first objective.

Thank you.

INVESTMENT DIRECTOR BOURDAIS de CHARBONNIERE:

Good after -- oops, sorry. Fanny Bourdais, one of the newer hire of the Sustainability Investment team, after about almost 10 years with CalPERS infrastructure team.

So as previously mentioned by Peter, one of our primary objectives is to generate outperformance by investing in the transition to a low-carbon economy separately with Emerging and Diverse Manager Program, which Mike will cover in greater detail later in this presentation.

[SLIDE CHANGE]

INVESTMENT DIRECTOR BOURDAIS de CHARBONNIERE: So investments in climate solutions will undergo the same rigorous process as any CalPERS investment and will be underwritten to outperform the relevant benchmark. So while we are committed to achieving our hundred billion dollar target for investments in climate solutions, our fiduciary duty remains the priority. So as Peter mentioned, we have made significant progress over the best years. So key steps since our last presentation to the Board include finalizing the business plans for each asset class, refining the framework with -- together with Mercer, allocating five billion to a customized CalPERS FTSE climate transition index on the public equity side and approximate -- and investing approximately 3.6 billion in closed deal and commitments on the private asset side between November '23 and now.

So next steps involve continuing to develop the reporting framework and performance tracking mechanisms to ensure we can measure both financial returns and the effectiveness of our climate strategy. I will note that perform measurement for private assets is challenging and still premature.

So we will continue to monitor progress and adjust our approach as necessary to align our climate objectives with our fiduciary responsibilities. And with that, I will let Travis cover the next slide.

[SLIDE CHANGE]

INVESTMENT DIRECTOR ANTONIONO: Great. Thank you, Fanny. Travis Antoniono, Investment Director for Sustainable Investments.

All right. So as we speak about increasing portfolio resilience, it's important to think about risk management, ESG and climate analysis, due diligence at each phase of the investment process, and all those processes that are in place that CalPERS staff follows.

First, I'll direct you to the third bullet that's on the slide that speaks to acquisition of technology. The amount of data that we have access to in our portfolio is increasing each year, but when assessing ESG and climate risk of a portfolio as large as CalPERS, it is important to have the right technology in place to properly interpret and analyze the data. So this evolution and access to the right technology will always continue to evolve, but I want to highlight one live example that's underway.

And that example is actually on ESG Data Convergence Initiative. And this is what you might have heard of before known as EDCI. As you recall, EDCI was co-founded by CalPERS and Carlyle. Carlyle is one of our private equity general partners. The goal of EDCI is to create a critical mass of meaningful, performance base, and comparable ESG data from private companies.

The focus, or metrics that have been more of a focus area, have been on greenhouse gas emissions, net zero strategy, renewable energy, diversity, work-related accidents, net new hires, and employee engagement. And each of these segments actually have additional metrics or some metrics within them.

And the good news is that EDCI has continued to expand its presence. In fact, today, we about 450 plus GPs, or general partners and limited partners that have joined the organization representing about $38 trillion of assets under management. This also represents about 6,200 portfolio companies.

For CalPERS private equity, about 51 of CalPERS general partners have actually joined EDCI, a pretty significant accomplishment being the fact that this is a relatively new organization, as it only existed over that last few years.

With 51 GPs as a member of EDCI, that could be a lot of time spent for staff going back and forth for individual data requests. If you think about 51 GPs, each one having a significant number of portfolio companies, the numbers can get pretty large, pretty quickly. But fortunately, EDCI has invested in their data and technology capacity that will soon allow CalPERS staff to access a private portal to review the GP and portfolio company EDCI data. This is going to save a significant amount of time, not only for CalPERS staff, but also for our GPs. So the GPs are going to be able to upload their information in this private portal, give access rights to individuals LPs that have access -- that have exposure to those type of portfolio companies, and this will ultimately avoid hundreds of emails that are currently needed to be actually be able to pull and compare this type of data.

Now, looking beyond the acquisition of technology and back to the first couple of bullets on the slide, an external consultant has wrapped up its review of CalPERS ESG policies and procedures. With this now complete, we're even more excited to be hiring two ESG integration specialists, one on the public markets and one on the private markets. These individuals will be able to take what the consultant has advised, as well as expand our current ESG integration scope and activities.

Now, I'll pass it over off to Nelson, who will be able to dive into our climate risk profile.

[SLIDE CHANGE]

INVESTMENT MANAGER DA CONCEICAO: Thanks, Travis. Good afternoon. Nelson Da Conceicao, Sustainable Investments. Portfolio resilience is the portfolio's ability to withstand and recover from shocks. Climate change and the global transition to a decarbonized economy will be a growing source of economic, regulatory, and environmental shocks. Therefore, integrating climate risk management in the investment process strengthens portfolio resilience.

Climate risk management involves measuring and mitigating physical and transition risks, as Peter mentioned. This slide highlights some of the metrics that we use to assess our portfolio exposure to these risks. The first metric in the center of the slide is called implied temperature rise. It is a measure of portfolio temperature alignment or, in other words, an expectation of global warming should the world economy mirror our portfolio's present and projected emitting patterns.

With an implied temperature of 2.5 degrees, our portfolio outperforms common proxies of the world's economy, such as the traditional cap-weight index, which runs closer to three degrees warm. However, we are far from aligned with the Paris Agreement objective of containing global warming well below two degrees, and therefore, we are exposed to policy risks around the world tied to stricter alignment targets.

Another metric, which is related to the previous one, in fact, partly explains it, is the share of portfolio companies with approved net zero commitments aligned with the Paris Agreement objectives. Here, while a third of our portfolio value has pledged to such objectives, only 13 percent of companies have done so. These metrics highlights the challenge of aligning the portfolio with the Paris Agreement today. As a matter of fact, doing so would lead to a significant loss in portfolio diversification. This metric also underlines the potential in active corporate engagement, Drew's team, to accelerate climate commitments.

Finally, and I'm turning now to the right block of numbers on the right side of the slide. As fiduciaries, it is crucial that we translate climate risk exposures into potential impact on performance. We use commercial models to do that. Although, we do believe that the output from these models should be taken as directional insights rather than precise forecasts, even the complexity and uncertainty around the factors that are involved.

The MSCI climate VAR is one of those models. Today, it is telling us that transition risks associated with policy, technology, and shifts in demand could lower portfolio returns by 70 basis points annually under an orderly two degree scenario and by 100 basis points under a more disruptive 1.5 degree transition. It's also telling us that physical risks associated with changes in weather patterns and extreme events could reduce returns by 40 basis points annually. In our opinion, this estimate is even understated, as the true impact of physical risk, even the models, are unlikely to capture the true future frequency of events, their severity, and their cost, therefore, thus the opportunity that Peter also mentioned.

Overall, the three groups of measures that I just shared here with you underscore the importance of integrating climate risk analysis and the magnitude of the task ahead, to bolster portfolio resilience to climate risks, a task that SI is undertaking in partnership with the asset classes, the technology, and is a top priority for my new team members specifically.

With that, I will pass Tamara.

ASSOCIATE INVESTMENT MANAGER SELLS: Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SELLS: Good afternoon. Tamara Sells, Sustainable Investments. The Sustainable Investment 2030 Strategy also looks to increase our portfolio resistance through a unified approach to implementing our Labor Principles. The CalPERS Labor Principles apply across all asset classes. And in furthering this work, the SI team collaborates to systematize, and identify, and manage, and mitigate material labor-related risks and deviations from CalPERS's Labor Principles.

Our holistic approach to implementation is captured through three channels, CalPERS's active ownership, through fundamental actively managed internal portfolios, as well as externally managed assets.

With respect to our active ownership approach, we use proxy voting corporate engagements and shareholder campaigns to influence the mitigation of material ESG risks. The Corporate Governance team monitors portfolio holdings to identify companies with material ESG risks and regularly engages on labor issues consistent with the stakeholder engagement process.

The actively managed global fixed income portfolios use a comprehensive approach to determine the relative value with fundamental analysis, security pricing, and various ESG factors. With respect to our externally managed assets, since rollout, all new private market investments have included CalPERS Labor Principles attestation and all public managers, including affiliates, have attested to CalPERS's Labor Principles.

I will now turn it over to Dan who will do a deep dive into the Labor Principles implementation of capital market.

DEPUTY CHIEF INVESTMENT OFFICER BIENVENUE:

Thanks, Tamara. Dan Bienvenue, Deputy CIO, Capital Markets.

And as Tamara said, I'm here to talk about how we've formalized the implementation of the CalPERS Labor Principles across capital markets, which is the public market asset classes of global equity, global fixed income, and then also the affiliate trusts, where importantly we've applied the Labor Principles to the affiliate trust as well.

So as Tamara said, the most impactful and longest running place where our principles around labor and other sustainability topics are reflected has to do with our stewardship work of proxy voting, corporate engagement, and shareholder campaigns. And we'll talk more about that on the next slide.

But also while this stewardship work applies primarily to our equity holdings, it's important to note that it also applies to our corporate fixed income holdings across both investment grade and high yield, and that this stewardship work applies to all of the assets, regardless of the management strategy. So that's the external assets and the internally managed assets, active assets, and indexed managed assets, and quantitative as well as fundamental.

And in addition to the stewardship work, for our fundamentally managed fixed income portfolios, specifically the internally managed investment grade credit and emerging market sovereign bond portfolios, the CalPERS Labor Principles are a part of the analysis of the -- and portfolio management work that lead to our investment decisions there also.

Finally, the last way that we formalize the application of the CalPERS Labor Principles to the public asset class relates to our external managers. And as Tamara said, with our external managers and in alignment with what we did in private markets, we've had all of our capital markets managers, including the affiliate portfolio managers attest to both their awareness of and broad alignment with the CalPERS Labor Principles, in a similar fashion to what we did with our general partners in private markets.

Can we get the next -- oh, I'm sorry we're there.
Back one, please.

[SLIDE CHANGE]

DEPUTY CHIEF INVESTMENT OFFICER BIENVENUE: Thank you.

Okay. So on this slide, we talk specifically about global public equity. And as I mentioned, the most impactful applications of the Labor Principles has to do with our stewardship work, specifically proxy voting, corporate engagement, and shareholder campaigns. And here we have a systematic process to monitor for and to identify concerns about numerous sustainability topics including labor and human capital management concerns.

From there, we engage with companies to express our concerns, as well as listening to their thoughts around remediation. And finally, we vote our proxies in alignment with our principles. And we have voted and we continue to vote against Board members where engagement is unsuccessful or unsatisfying.

And it's worth noting that another way -- specific -- or another specific example of this approach is that after we pivoted from implementation on the private market side to focusing on the public markets, Drew Hambly and team send letters to 360 of our public equity holdings, representing approximately 90 percent of the capitalization of the U.S. domestic equity portion of the portfolio, pointing out our labor principles, and letting these companies know of their existence and of their importance to us.

And on the right-hand side of this slide, you can see other examples of how we've engaged on this topic over the years.

Can I get the next slide, please.

[SLIDE CHANGE]

DEPUTY CHIEF INVESTMENT OFFICER BIENVENUE:

Finally, and as related to global fixed income, I'll highlight the investment grade credit and emerging market sovereign bonds portion of the portfolio where reflection of the CalPERS Labor Principles is most applicable and therefore most apparent.

In investment grade credit, labor topics are a critical part of the analysis leading to our weightings in the portfolio. One example of this would relate to some of the high profile strikes that we've seen catch media attention recently. A strike, of course, impacts the company's production of whatever products it is that they sell. And production impacts, of course, have sales impacts, which has cash flow impacts. And because these cash flows are what supports the company's credit rating, and their ability to service their coupon payments and principal repayments, these labor topics are a critical part of our team's fundamental analysis and resultant portfolio weightings.

With respect to emerging Market sovereigns, the analysis is more macroeconomic in nature. And, of course, labor, as a macro aspect, is one of the country's critical economic factors of production. And here too, an inefficient approach to a country's factors of production can impact that country's ability to service its debt. So here again, because we as an investor make money on these countries' ability to service their debt and make their required coupon and principal payments, labor issues are another critical part of the investment analysis leading to our portfolio weightings.

And just one more time, across all three capital market sleeves of public equity, public fixed income, and the affiliates, we've had all of our external managers attest to their awareness of and broad alignment with the principles and we will continue to do that on a go-forward basis. So I hope that helps speak to the formal application of the CalPERS Labor Principles to capital markets portion of the portfolio.

And with that, I'll turn it back over to Nelson to continue this on.

[SLIDE CHANGE]

INVESTMENT MANAGER DA CONCEICAO: Thank you, Dan. A few slides earlier, I described key metrics that we use to assess our portfolio climate risk profile, what are we doing about it.

Last year, the SI '20 strategy let out a blueprint of how CalPERS intends to mitigate its exposure to climate risk, while enhancing portfolio performance. I'm referring to the objective of investing 100 billion dollars in climate solutions by 2030. As of July 2024, we accounted for $50 billion in climate solutions. The $3 billion increase from 2023 reflects the impact of several new investments, including the contribution from our location to the climate transition index in public equities, the precision of existing climate solutions, but also adjustments in portfolio tagging method. It excludes the $3.6 billion in commitments that Fanny mentioned earlier.

While our net-zero strategy primary KPI is dollar investments in climate solutions, CalPERS is also committed to provide transparency in our portfolio carbon footprint. Total financed emissions in the center of the slide, or emissions attributable to our portfolio holdings, total 21.1 million tons of CO2 have equivalent, down about nine percent compared to last year. While we welcome with reduction, its reduction is largely technical, due to market effects.

It is worth noting though that 2023 real-world emissions, which are partially embedded in this 2024 estimate, are roughly flat globally year over year, with a significant divergence between developed and emerging markets, where the carbon footprints of the rapidly growing energy demand remains a major challenge.

Emissions intensity, defined as tons of CO2 equivalent per million of dollars invested, is the other KPI that we committed to report on. The overall portfolio intensity is down as indicated -- as indicated by the green arrow. It is a positive step in the right direction, as it reflects real trend of served-across sectors in the global economy, where energy efficiency is progressing steadily.

Another key takeaway here is that emissions intensity varies significantly across asset classes with real estate at seven tons of CO2 per million dollar invested, contrasting with corporate credit. And it's 120 tons per million dollars. This disparity reflects structural, sectoral, composition differences across asset classes. It also highlights the potential for further carbon intensity optimization, especially in areas like corporate credit whose investment universe naturally leans towards high emitting sectors.

Next slide.

[SLIDE CHANGE]

INVESTMENT MANAGER DA CONCEICAO: Thank you.

I briefly mentioned change in -- previous slide. I briefly mentioned a change in methodology. I'd like to add a few words here on that. In 2024, we evolved our climate solutions accounting methodology, following some recommendations from Mercer Investments, who reviewed our -- and benchmarked our process after reviewing our strategy earlier in 2023. The changes that we made are meant -- the small changes we made are meant to improve accuracy and to promote and even more conservative tagging of climate solutions in our portfolio. The table below -- on the bottom of the slide lists changes made to our climate solutions accounting method in public markets.

To name a few, we increased the number of providers or green revenue data. They received five potential errors in estimates. We also expanded our sources of net zero plan validation. And finally, we also retired inputs such as green patents data acknowledging the uncertainty of R&D outcomes on green revenues by 2030. In short, the message I'd like to leave with you and our stakeholders is that as climate solutions frameworks evolve and as data improves, we expect our methodology to also gradually evolve.

Next slide.

[SLIDE CHANGE]

INVESTMENT MANAGER DA CONCEICAO: I'll pass it now to Mike.

ASSOCIATE INVESTMENT MANAGER SILVA: Mike Silva, Sustainable Investments. I'm here to provide you with an update on our efforts to promote greater diversity, equity and inclusion in the financial industry. The Investment Office does this through a variety of ways, including investing with emerging and diverse managers, through our DEI survey of external managers, and engaging with stakeholders, including public corporate boards and diverse ownership and membership. CalPERS investments with emerging and diverse managers has seen a significant increase over the last two years.

In the last fiscal year, CalPERS made commitments to 11 emerging managers for a total of two billion, and commitments to 27 diverse managers, for a total of 6.3 billion. Since January 2022, CalPERS has committed $4 billion to emerging managers, and 13.6 billion to diverse managers.

Our investments with emerging and diverse managers are not limited to our dedicated Emerging Manager Program, Mosaic. The overwhelming majority of these investments were made directly by our private equity asset class. I's also like to provide you with a brief update on mosaic. Since we last spoke, each of the funds have made allocations to new investment managers. The Elevate fund's second Investment is a hundred million strategic seeding partnership with Invidia Capital Management, a New York based private equity firm founded by Jo Natauri.

Invidia is focused on upper middle market companies in the health care sector. And we anticipate Elevate to make a third investment by the end of the calendar year. And given the current pacing of the fund, I expect capital deployment into mid-2026.

Last week, TPG announced their third investment, a $70 million strategic seeding partnership with Demopolis Equity Partners, a technology-focused growth and buyout firm. To date, TPG has committed 40 percent of the fund and I anticipate TPG to announce a fourth investment in the coming months that would bring the portfolio north of 50 percent. I expect capital deployment to last through 2025.

I'm also happy to announce that we have begun planning for the second Catalyst event, which we co-host with CalSTRS to bring together institutional investors and allocators to meet and engage with emerging and diverse managers. The conference will be May 12 and 13 and held here in Sacramento. More details will be announced in the next month or two.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: The CalPERS Diversity, Equity and Inclusion survey of our external managers is designed to gather DEI data from our external managers. This information could help to better understand the characteristics of our portfolio as it relates to DEI, as well as measure our progress over time and compared to our peers, as it relates to this space. Importantly, the survey also helps us to understand how our external managers approach human capital management, including sourcing, and retention. This is our third year surveying or external managers, and we were pleased to see upward trends on a variety of data points.

The response rate was 91 percent, an 18 percent improvement over last year and 11 percent higher than the industry average. Across the 152 managers that provided detailed demographic information, notable data points include 41 percent of the 94,000 combined workforce represented in our survey are women, a five percent increase over last year, and 35 percent are people of color, an increase of 8.5 percent.

CalPERS portfolio performs above the median in terms of representation of women, and people of color across ownership, leadership, and workforce. However, a representation gap still exists for both women and people of color in equity ownership compared to leadership positions across organizations.

We found an error in the number reflected on the slide here due to double counting. It should read 44 of the 133 privately held managers who provided information or diverse owned. This represents a 33 percent of respondents and 22 percent of the total portfolio originally receiving the survey. This places us roughly in the top quartile amongst the Lenox Park universe.

Next slide.

[SLIDE CHANGE]

INVESTMENT DIRECTOR ANTONIONO: Great. Thank you, Mike. Improving financial markets incorporates CalPERS corporate engagement work as well as our work on advocacy, policy, and regulatory action. For this slide, each of the three lower boxes represent one of the KPIs.

Starting off on the left side, we continued to have 100 percent of managers attest to the compliance with the Responsible Contractor Program Policy. Moving over to the middle, CalPERS Corporate Governance team tracks the number of engagements that it has. Through just the first nine months of the calendar year, the team has already been able to engage 51 percent of the global public equity assets under management. And finally on the third, or far right side, you'll be able to see the number of -- number of stats that the corporate governance team provided back in March of this year as part of their annual proxy voting and corporate engagement update.

Beyond these three KPIs, CalPERS has had an active year of advocacy work. A slide in the appendix dives into several examples of comment letters, an amicus brief and several different sign-on statements. This slide also highlights some of our meetings and engagements with various government regulators, and this includes several that we've had with the SEC, U.S. Treasury, and Department of Energy.

We can progress to the next slide.

[SLIDE CHANGE]

INVESTMENT DIRECTOR ANTONIONO: Now, the other 20 or so slides in the presentation speak to much of the sustainable investments work. But if that wasn't enough, this slide shows a bit of a show of force. It really brings home the breadth of additional responsibilities, reports, committees, activities that we all work on. This is a work that the team before you participates in, but it's also the work as Peter stressed earlier on in his comments, the work that all other staff members across investments and also many including across enterprise participate in, both on the program areas and on the asset class areas.

This work is important to CalPERS portfolio. It's important to improving the financial markets, and it's important to keeping CalPERS as a leader in the sustainable investments space.

Thank you and back off to Peter to wrap us up.

MANAGING INVESTMENT DIRECTOR CASHION: Next slide, please.

[SLIDE CHANGE]

MANAGING INVESTMENT DIRECTOR CASHION: So it's been quite a journey through these slides today. We've covered a lot and we thank you for your active interest, and we really look forward to questions.

Before we do, I'll just touch on our ongoing piece of -- pieces of work. We're working diligently on the Responsible Contractor Program Policy refresh. And all the activities we've listed here today to work -- so we work towards meeting the KPIs for next year in November 2025. We'll, of course, be back to present that at that time. And as I said earlier, we're really excited about onboarding our new staff. Six of ten have been essentially brought on board with the other four pending. This will -- next year as well, November 2025, is when we'll present the TCFD report that's presented each three years, as well as Senate Bill 964.

So with that, we'll conclude and open it up for any questions.

CHAIR MILLER: Thank you very much. Thank you, Peter and the team. We really appreciate the report and all the hard work that you and the rest of the team have done behind the scenes as well.

So first, we'll go to Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Thank you, Mr. Cashion, and thank you, team, for your presentation. I really appreciate it and very a thorough update and review on the SI 2030 plan.

My first question is back on page five of 25 on the performance measures for private markets investments is still premature at this early stage. And I was just wondering what is your timeline when you will see that having some measurable response -- some measurable results?

MANAGING INVESTMENT DIRECTOR CASHION: Is this specifically for mosaic or private markets in general?

COMMITTEE MEMBER PACHECO: Private markets in general. It's the commitment for the 2.6 billion in the private equity and infrastructure climate --

MANAGING INVESTMENT DIRECTOR CASHION: Correct.

COMMITTEE MEMBER PACHECO: -- that part.

MANAGING INVESTMENT DIRECTOR CASHION: Right. So the steps that we are doing is, first, we need to tag the investments, which is already under way. Second, we need -- particularly for company level tracking, we still need to improve some of the data collection to be able to collect performance data at a company level. However, at a fund level, we can already collect that, because if it's a climate fund, that information is reported to us.

So, once we have that information in hand, we can then compare it to the performance of the overall asset class.

COMMITTEE MEMBER PACHECO: And that's when we would have some sort of measurable data at that time then?

MANAGING INVESTMENT DIRECTOR CASHION: Correct. So to look at it more simplistically, if we focused initially on funds --

COMMITTEE MEMBER PACHECO: Um-hmm.

MANAGING INVESTMENT DIRECTOR CASHION: -- because there we know we will have the data. We would also want to compare it to funds that are similar vintage, because if we go -- if it's a new fund investment, it could well go through a J-curve. So it may not perform to the overall portfolio average of say private equity, but if we compared it to similar vintages, that would give a good comparison.

COMMITTEE MEMBER PACHECO: Very good then. Thank you very much for that response.

The second question is number two on page six. And it's basically -- I'm just trying to get my question here. So it says here the equity data conversion initiative is a -- is key among all the GPs to drive availability for key ESG metrics on private equity. How are we recruiting more GPs to join the effort with respect to the data conversion project.

INVESTMENT DIRECTOR ANTONIONO: Well, the first thing is just education and communication.

COMMITTEE MEMBER PACHECO: Um-hmm.

INVESTMENT DIRECTOR ANTONIONO: We regularly have an opportunity to be able to have conversations with each of our GPs. Each of the portfolio -- you know, respective staff members within private equity, you know, meet on a regular basis with their managers. They also tend to have an opportunity to attend annual meetings or LPACs as well. In each of these type aspects, they have the opportunity to bring this up. So it's just repetitiveness to be able to continue to bring this. Also, it's harder initially at the beginning to get that adoption.

COMMITTEE MEMBER PACHECO: Yeah.

INVESTMENT DIRECTOR ANTONIONO: As we go forward, it's going to get more and more likely. The other component that I do want to be able to highlight is the fact of private equity is -- has several different sleeves or strategies, buyout, venture, growth equity. EDCI has been more focused on the traditional buyout type of component.

COMMITTEE MEMBER PACHECO: Right.

INVESTMENT DIRECTOR ANTONIONO: So you may not necessarily ever see a full hundred percent adoption of EDCI, but you might see other components and the increases of data availability through other venues that look more applicable to those sleeves.

COMMITTEE MEMBER PACHECO: Now, do you see more -- as you mentioned, you're right, there has been a lot more traditionally on the buyouts. But do you see more happening more in the growth equity and venture maybe in the future?

INVESTMENT DIRECTOR ANTONIONO: Yeah. I see buyout and growth equity perhaps being the primary targets, you know, for the time being. And then in private debt, there has been already another organization -- similar organization, but different that has began doing some progress as well on similar EDCI type of metrics too.

COMMITTEE MEMBER PACHECO: Similar, but --

INVESTMENT DIRECTOR ANTONIONO: Similar, yeah. Similar. Not exactly the same, but, you know, similar. Those are unique characteristics that are obviously going to be, you know, custom for the type of tenure, and length of time, and also the way that we actually do invest too. So there are some unique aspects to each different type of sleeve.

COMMITTEE MEMBER PACHECO: All right. Very good then. Those are my questions. Thank you so much.

CHAIR MILLER: Okay. President Taylor.

VICE CHAIR TAYLOR: Thank you. Thanks, everybody, for that report. I lost track of all of it. It was so much all at once, so I'm going to go backwards. So on the last page that we covered, which was 17 of 25, November 2025 going forward, CalPERS response to the task force on climate-related financial disclosure and Senate Bill 964 to be provided next November, so a year from now. Have we figured out -- I mean, this goes to the State of California, so it doesn't necessarily have to, but are we using commonly used measurements that's being used over the world or are we trying to set our own standard for these measurements for TCFD -- or TFCDs. TCFD, I was right the first time.

INVESTMENT DIRECTOR ANTONIONO: Yeah. Sure, I'll take the first crack at that. Definitely. We want to be able to continue to progress the most widespread adoption, and TCFD was that for a number of years. You know, I would say that CalPERS has been a leader in that type of space. We've had countless conversations with a lot of peers. I can probably get up to about 20 different peers that I've had conversations with as they reviewed our report and wanting to know and better understand how they can be able to provide a similar report as well.

But with that said, TCFD is no longer its own entity. It's now been absorbed up into ISSB and IFRS. You might hear some terminology, and I'm not going to get too technical in here, but IFRS S2. That's essentially the updated version of TCFD. It's going to be looking very, very similar.

VICE CHAIR TAYLOR: Okay.

INVESTMENT DIRECTOR ANTONIONO: I don't want to make any announcements as far as, you know, how --

VICE CHAIR TAYLOR: That's fine.

INVESTMENT DIRECTOR ANTONIONO: -- our project goes. But I can rest -- you know, provide you assurance that we want to make sure that we are leaders in this space and that we are also utilizing metrics and a reporting framework or works that position as leaders.

VICE CHAIR TAYLOR: Awesome. So I appreciate that. So that's good. We're updating what we use, so...

Responsible Contractor Program Policy refresh, we all know that we're working on that, so I appreciate that.

One of the things that I didn't know you guys were doing, so I'm going to the next page, 16, is all of these reports. So thank you very much for all your hard work on these reports to whomever you are participating with, legi -- financial, regulatory, and legislative headlines updates, Climate Action 100. I'm just very -- thank you very much. This is all really good work and I appreciate it. I don't want to name it all. We'd be here all day.

So then as I'm moving back and I'm watching -- or looking at everything we're trying to meet our KPIs for our climate, diversity, equity and inclusion. And I think we're -- I think -- we went over the current admin -- I'm sorry, the future administration really quickly and we didn't really do it for diversity, equity, and inclusion. You did do it a little bit for climate. Could you give me an idea of what you think, Peter, that our work on diversity, equity, and inclusion how it may have to change with our new administration or what we have to do differently, or do you think it will be the same, because of the way we look at it?

MANAGING INVESTMENT DIRECTOR CASHION: Right. So particularly, if we look at the Emerging and Diverse

Manager Program, one of our objectives is to invest in these managers to generate outperformance. And we believe that they have a unique strategy, a niche strategy that targets a group of companies that are underserviced and my have underpriced assets, that can be a competitive advantage.

You know, we -- there is always the consideration that diversity, along with other factors, has to be all looked at within the scope of requirements and the law. So obviously, we are always very attuned and aware of that.

There has been a lot of rhetoric in the election period and then we'll have to see exactly what the final rules or changes the reality will be. So we're also just in the monitoring stage at this point and to see what may transpire.

VICE CHAIR TAYLOR: Okay. I kind of figured, but there is a lot pointing to that this will change for sure. I don't know what rules or rules and what policy is just policy and that they can change, you know what I mean, so...

In addition, I just had an overarching question, which is as we're moving to our $50 billion invested, do -- this might be better for closed session, so just tell me if it is. Are we looking at moving money from other places to fund that, that may not be implementing their own climate solutions or whatever?

MANAGING INVESTMENT DIRECTOR CASHION: So do you mean asset managers or companies that are not --

VICE CHAIR TAYLOR: Whether it's in our index or in private equity, are we looking at maybe not funding those as much or underfunding to pay for the climate solutions, and will the -- is that something that you can't really answer?

MANAGING INVESTMENT DIRECTOR CASHION: No, I think what we can say is that every dollar needs to compete and we will look for those investments that we will think -- that we think will generate the highest return. And we see a unique opportunity within climate solutions. And we worked over the last year with each of the six asset classes to identify sector, subsectors, and thematics that we would help achieve that, at the same time also doing manager market mapping to see who has the best skill set in those areas.

So I don't see it as a question of having to take from one pocket to another, but rather it's an open playing field where we identify the best opportunities, and they could be not climate. That's perfectly great too, but we do see unique opportunities in climate that you actually have to search out in some cases, because they won't necessarily come to you. And if you do that extra diligence to identify those new areas, whether it's in infrastructure climate credit, which is quite niche and it is, but there are really interesting risk return opportunities.

VICE CHAIR TAYLOR: So then how do we -- lastly, that ties into this, how do we continue oil and gas, because we see there's profit there, right, to be made, given the upcoming administration, without impacting the climate targets that we want?

MANAGING INVESTMENT DIRECTOR CASHION: Um-hmm. So, you know, we're not -- we're not in favor of divestment. We're opposed to that.

VICE CHAIR TAYLOR: No, and I'm not saying that.

MANAGING INVESTMENT DIRECTOR CASHION: We in favor of engagement.

VICE CHAIR TAYLOR: But you said more. It sounded like you said more. We're going to continue and/or increase, depending on the opportunity, I thought I heard you say.

MANAGING INVESTMENT DIRECTOR CASHION: Well, definitely we were targeting to do an additional 50 billion in climate solutions

VICE CHAIR TAYLOR: No, I'm talking about oil and gas I thought I heard.

MANAGING INVESTMENT DIRECTOR CASHION: Oh, okay. Oil and gas.

VICE CHAIR TAYLOR: Yeah.

MANAGING INVESTMENT DIRECTOR CASHION: No, I didn't say we would -- we were planning to do more there. I just said there may be good opportunities given new policies, and that it could be a sector that would outperform. And had we divested, that would be a inoculated.

VICE CHAIR TAYLOR: Oh, absolutely. Yeah, we would have lost quite a bit of money. And I agree with that, but I think what we need to look at is if we're going to continue to find new opportunities in oil and gas, I think we're looking -- whether that's, you know, investing in pipelines, I don't know, but doesn't that undermine our ability to cut or meet the target -- cut our carbon footprint, meet the targets we want to meet?

MANAGING INVESTMENT DIRECTOR CASHION: Right. So I'm not advocating today that we do more of it. I think we just need to assess it. As Nelson presented in our slides related to climate intensity, we are below the average, if we're at two and a half degrees. And if we take our transition investments, which are actually often in high emitters, we invest in them to reduce their intensity, so -- and even with oil and gas, they've also been leaders where it comes to carbon capture, reducing methane, and we're keen to support that as well.

VICE CHAIR TAYLOR: So I'm not -- we'll have another discussion I think in closed session about this, because I'm not clear that carbon capture is the best use of our funds. Methane capture, I don't know, but let's discuss that more in closed session.

MANAGING INVESTMENT DIRECTOR CASHION: Sure.

VICE CHAIR TAYLOR: Thank you.

CHAIR MILLER: Okay. It sounds like the last -- second to last question kind of almost sounded like a total fund management kind of question to me, but moving right along to Director Willette.

COMMITTEE MEMBER WILLETTE: All right. Thank you so much. Thank you so much to the staff for this report, this presentation. Really good. I just had a couple questions and probably try an address who's at the table. So I'll start with the Lenox Park DE&I survey. I think you mentioned that we got better results or more information was coming to us. And I just want to acknowledge that's probably indicative of our team's leadership and the respect that we're earning. So congratulations on that.

But I do see that we're -- the 13.6 billion cumulative invested with diverse managers over the two-year period and 6.3 billion to diverse managers over the last -- that last year period could indicate or it could be construed as less money being implemented to our diverse and emerging managers. And I know that this team knows that increasing inclusion and representation in our portfolio will help generate that outperformance that we are committed to. And the diverse perspectives will lead to better investment outcomes, and in general, right? If we contributing to an inclusive investment industry, then we'll better serve a diverse society. So what measures are being taken to increase that assets under management of diverse managers going forward?

ASSOCIATE INVESTMENT MANAGER SILVA: Well, for the Mosaic Program, we still have both funds in place. So again, we expect TPG Next to be north of 50 percent. They expect to be out of capital by 2025. And GCM Elevate expects to be out of capital by mid-2026. As of now, each of the asset classes -- you know, private equity, obviously is a strong participant in the emerging and diverse manager space. I don't want to speak for Anton, but they have been investing with emerging and diverse managers consistently over the last two and a half years.

CHIEF INVESTMENT OFFICER GILMORE: And maybe we could have a couple of words from Anton, because private equity -- well, we'll talk about the detail in closed. We can talk conceptually here now, if you wish or we can talk specifics in the closed session.

CHAIR MILLER: Yeah. I think we'll leave it for closed session.

COMMITTEE MEMBER WILLETTE: Yeah. I mean, if you want to make a comment generally, I guess that would be okay.

CHAIR MILLER: Broad.

MANAGING INVESTMENT DIRECTOR ORLICH: At a high level, we've expanded the opportunities with diverse emerging managers by moving to smaller funds. And there is an irony that the smaller opportunities are the ones that are going to be more likely to change the landscape. So it's very hard to use the dollar amount as a proxy for the impact. If one invests with a very established firm that's already DEI, according to the survey, it's hard to make the argument that our incremental dollar will change the landscape. But with smaller firms that are diverse and emerging, we can have a more, you know, inclusive opportunity set.

Now, I want to make very clear that when we look for opportunities, we're pursuing managers that we think will outperform, independent of the identity of the managers. But was we've moved from managers that are the large scale asset gatherer, large buyout type firms to more middle market, growth, venture, we've found more and more opportunities to develop an inclusive portfolio. And we do think that that's a key part of the story about why, over the last couple of years, we've outperformed relative to the private equity universe and to peers.

COMMITTEE MEMBER WILLETTE: Thank you.

My next question is on the labor principles implementation. So I'm not sure if I heard correctly, but what percentage of managers have signed the attestations?

ASSOCIATE INVESTMENT MANAGER SELLS: Thank you for the question, Director Willette. On the private market side for existing managers that we asked to attest, we've received approximately 90 percent of the attestations. But for all new investments as of May since rollout, they have included the attestation language inside letters and all public managers including affiliates have attested.

COMMITTEE MEMBER WILLETTE: And then just broadly, for those that have not signed, what is the major themes or what's the reasons for the hesitancy?

MANAGING INVESTMENT DIRECTOR CASHION: Ms. Willette, I should add as well that the vast majority, if not all, are managers with whom we may not continue and reup. We also need to understand that there's no requirement or legal obligation for a manager to sign on, so I think it's already quite impressive that approximately 90 percent of managers have signed on, because they value, one, the relationship with CalPERS, but two, they appreciate the importance of labor principles.

COMMITTEE MEMBER WILLETTE: Yeah. Thank you.

MANAGING INVESTMENT DIRECTOR CASHION: And I'll just add that all the public managers as Dan Bienvenue mentioned have signed on.

COMMITTEE MEMBER WILLETTE: And then our -- are the managers that have signed on, are they -- knowing that there's no legal requirement, et cetera, the caveat, are they implementing labor principles across their entire portfolios or just with investments that CalPERS has?

MANAGING INVESTMENT DIRECTOR CASHION: The attestation they give is that they will be aware and operate in broad alignment. So I think from -- that would imply a broader coverage.

COMMITTEE MEMBER WILLETTE: Okay. Thank you.

And then I have one final question, maybe piggy-backing on President Taylor's question on the $50 billion in climate solution investments that have already happened, how does one know what those investments are? How do we track or how do we make -- have we made public or when is the plan to make public what those investments are that create the $50 billion?

MANAGING INVESTMENT DIRECTOR CASHION: On the public market side, we are able to identify the individual companies we attribute the climate solution. On the private market side, although we have identified the -- sometimes using proxy, sometimes individual company data, the private market information is not necessarily publicly disclosable.

COMMITTEE MEMBER WILLETTE: Okay. For the public information, when is that going to be available to the public, to stakeholders, that want to see that from CalPERS.

MANAGING INVESTMENT DIRECTOR CASHION: So we do -- we are actually doing that work currently. So, after it goes through the relevant channels, I would assume that that would be available to a Board member.

COMMITTEE MEMBER WILLETTE: Thank you. That's all my questions. Thank you.

CHAIR MILLER: Okay. Thank you.

Next, Director Middleton.

COMMITTEE MEMBER MIDDLETON: Thank you. Peter and to the people, thank you. This is an incredible amount of work. Very pleased to see it.

At the end of the day, we've got to be able to demonstrate to an increasingly skeptical public that this is not only good for the climate, it's good for us from an investment standpoint. So can you give us a description as to when and how we're going to be able to demonstrate that the performance against peer organizations that are not engaging in these kinds of strategies, as well as our performance against alternatives that we could internally make decisions to invest in, if we were not making these investments.

MANAGING INVESTMENT DIRECTOR CASHION: Thank you, Director Middleton. The -- to identify the individual performance of climate solution investments, it will be easier in public markets, because the data is readily available, and also comparable across investors.

It may be a challenge to compare it specifically with other peer, other asset owners, unless they're providing the data in the same similar fashion format was we are.

I would say that our approach does result in better diversification and amplitude of opportunities, because we're looking at it across the portfolio, each asset class. And if we see strong opportunities in one, we may do proportionally more in one asset class and less in another, so we do have that embedded flexibility.

And as I mentioned to Director Pacheco, on the private market side, it is a process to identify that data, particularly at a company level, but at a fund level, we are able to identify and compare. Granted, we're just starting out. So, you know, in the next six months, we won't have that much more, but we will as it -- as performance is attributable.

COMMITTEE MEMBER MIDDLETON: I and this Board are very encouraged by the direction that we're taking. But we've stated to the public that we believe this is the next big new investment opportunity. It's up to us to be able to prove that we are correct.

MANAGING INVESTMENT DIRECTOR CASHION: Thank you.

CHAIR MILLER: Okay. Deborah Gallegos.

ACTING COMMITTEE MEMBER GALLEGOS: A couple questions here. On the Diverse and Emerging Manager Program, I think it was Mr. Silva, you referenced some strategic seeding that is done by TPG and GCM. What does that mean? What exactly is strategic seeding?

ASSOCIATE INVESTMENT MANAGER SILVA: Sure. These part -- these founders and being seeded or staked. In exchange for startup capital, CalPERS is receiving a portion, a fee return -- a find management of the fee.

ACTING COMMITTEE MEMBER GALLEGOS: And TPG and GCM, are they also receiving a portion of the GP or are they simply receiving a fee from us for making those -- identifying those investments?

ASSOCIATE INVESTMENT MANAGER SILVA: They are an investment -- they have a small percentage of investment in the fund.

ACTING COMMITTEE MEMBER GALLEGOS: They do as well.

ASSOCIATE INVESTMENT MANAGER SILVA: Yes.

ACTING COMMITTEE MEMBER GALLEGOS: Okay. So glad to hear that the deployment will be complete over the next few years. And I hope we're able to continue this method of seeding investors or diverse and emerging managers. I would encourage staff to look for diverse and emerging managers who can deploy that capital as well, because they're out there and hopefully they participate in whatever process it is you have to select the next TPG and GCM, so that they also can participate in seeding and or capital.

ASSOCIATE INVESTMENT MANAGER SILVA: Thank you.

ACTING COMMITTEE MEMBER GALLEGOS: Another question on the EDCI program. Do we advertise, for lack of a better word, to other LPs to utilize the EDCI framework or program? It seems that that would help us get more and more GPs to participate, if our colleagues were also recommending EDCI.

INVESTMENT DIRECTOR ANTONIONO: Yes, absolutely, we do. You know, just to kind of go back to that one slide, you know, I think it was 450 plus GPs and LPs are currently participating, so there has been significant adoption across the greater financial markets. If you look at that, the largest LPs, there is a significant number of LPs. I can't give you the exact number of those LP -- or the percentage of LPs above a hundred billion dollars of AUM that are currently participating, but it is going to be a significant amount.

If you talk to the Canadians, it's, you know, almost universally, you know, participation. You talk to the New York funds, you know, A lot of participation. If you talk to a lot of these, you know, larger funds, there is participation. We're having a lot of conversations. Just even in climate week that Peter and I attended, we had a number of conversations, about 40 different asset managers -- asset owners in a room and talking about the benefits. And overwhelmingly, the majority of them were actually already members and were even trying to, you know, provide some encouragement to some other local funds to be able to participate as well.

ACTING COMMITTEE MEMBER GALLEGOS: Great. Terrific. And just two more questions. One is on the Responsible Contractor Policy. What is the timing of that?

ASSOCIATE INVESTMENT MANAGER SELLS: I don't want to get too ahead of myself, but right now, we are doing fiduciary testing and additional research work that the Board has asked us to do back in June.

ACTING COMMITTEE MEMBER GALLEGOS: Um-hmm.

ASSOCIATE INVESTMENT MANAGER SELLS: I won't commit to a time just yet, but the hope is to bring that back within March, but it is contingent on the work that -- the ongoing work that we're doing on fiduciary testing.

ACTING COMMITTEE MEMBER GALLEGOS: Great. Thanks. And then lastly on the Labor Principles. Are -- we rely a lot on proxy voting to voice our opinion and make change, if engagement doesn't work. And I'm just wondering if our voice alone is enough and how we're engaging with our peers who have similar views, so that we can amplify our message. We've had a couple disappointing proxy outcomes lately. And as much as we thought our voice would carry the day, it didn't.

So how can we engage more with our peers, not just the LP community, but also very large owners of these assets?

CHIEF EXECUTIVE OFFICER FROST: So I'm going to ask Drew to come to the table, because a lot of those conversations are happening at the Council of Institutional Investors, which I know many of you attend those events, but we also have processes that we can use to first, you know, convey the expectation that we have as a -- as a large allocator, a large investor, and then Drew I think can talk more about how do we bring like a CalSTRS in with us, how do we bring a Washington State Investment Board in with us. But Drew, go ahead.

INVESTMENT DIRECTOR HAMBLY: Yeah.

ACTING COMMITTEE MEMBER GALLEGOS: And, sorry, one other thing. But those are not the only investors. We're talking about other very large index fund investors as well who may -- who may --

CHIEF EXECUTIVE OFFICER FROST: Yes. Those are a little more complicated.

(Laughter).

CHIEF EXECUTIVE OFFICER FROST: But Drew has some experience there as well.

INVESTMENT DIRECTOR HAMBLY: Yes. So hi. Thank you. Drew Hambly, Investment Director, Global Equities.

So I would also think of engagement proxy voting. We don't of those separately. We use those hand in hand, right? So we continuously engage. If we don't think we're making much progress, we may vote against continuing engaging. You're right, we can't go it alone and so we do need some help. So a couple things we've done. We believe, for example, on the Exxon vote, the votes against the lead independent director was down four percent year over year. And we believe most of that vote came from the asset owner community, where we didn't see much change in the asset manager community.

I was at a conference recently with a bunch of funds from Australia that have similar views to us that we're engaging with. We engage with folks across the CII and I meet regularly with our folks across the river to talk about issues that are important to us.

In addition to that, this summer, we contacted 12 managers that we use that have proxy voting teams. So, you know, some of the private equity ones don't have a proxy voting team, but if you had a proxy voting team, you had. We met with all 12 of them twice this summer to talk about our proxy voting and engagement program. We have follow-up conversations before next proxy season on key issues to us. Now, we don't tell them how to vote, but we tell them how we're thinking about voting and the things that are important to us. And, you know, hopefully that type of engagement with those folks over time will help.

ACTING COMMITTEE MEMBER GALLEGOS: Great. Thank you very much. Appreciate it.

Thank you, Mr. Chair.

CHAIR MILLER: Okay. Frank Ruffino.

ACTING COMMITTEE MEMBER RUFFINO: Thank you, Mr.

Chair. A quick question about emerging and diverse manager with respect asset class representation. And the question is are there certain asset classes where diverse or emerging manager representation is disproportionately low. And if it is and if it's so, what are the plans to address the imbalance.

ASSOCIATE INVESTMENT MANAGER SILVA: Most of our investment with emerging and diverse managers is done threw our private classes. That's where most of our external managers lie. So, that -- there is a healthy program in private equity and real estate is currently reviewing the viability of an emerging manager program and is looking at several managers who could manage that program.

ACTING COMMITTEE MEMBER RUFFINO: Okay. Thank you. Thank you.

Thank you, Mr. Chair.

CHAIR MILLER: Okay. Director Palkki.

COMMITTEE MEMBER PALKKI: Thank you, all of you, for your presentation. And I had similar comments to Ms. Middleton, so I'm not going to repeat that. But I feel like we've had this argument throughout the years, whether it was AC power versus DC power, flip phones versus smartphones, or CDs versus music subscriptions.

So I really just want to encourage you to keep looking for that next opportunity that will sustain our fund into the future. So thank you.

CHAIR MILLER: Okay. That looks like all the questions. Okay. Well, seeing no more requests to speak from the Board, I think we'll now go to our public comments. And we have quite a few commenters today. Each commenter will have three minutes from time they identify themselves and start to talk. Those with interpreters will have six minutes, so their interpreter can assist them. So I'll call people up two or three at eye time and we will also have a few on the phone as well. So we'll start with Alyssa Giachino, John Armstrong, and Alexandria Sadler. If you'd come on up and down to my left. And just go ahead and grab a seat and -- okay. You can go right ahead. You have the floor.

ALYSSA GIACHINO: Thank you so much, Committee and staff. Alyssa Giachino with the Private Equity Stakeholder Project. CalPERS climate leadership is more urgent now than ever. We commend you for the work you've put in to identify and manage climate risks to build an investment portfolio that maintains its focus on long-term sustainability that serves the interest of your beneficiaries and stakeholders. Your Sustainable Investments Strategy includes among the most ambitious commitments to seeking opportunities in climate solutions, as the world pivots towards a low-carbon economy.

In some cases, private markets managers are looking to be part of scaling up renewables and other viable climate solutions. But many of your private market managers are lagging in addressing climate risk in their own portfolios.

I'm speaking today to share the 2024 private equity climate risk scorecard. The scorecard analyzed 21 private equity firms and found that two-thirds of the companies and their energy portfolios are invested in fossil fuels. CalPERS is invested in around 10 of the PE firms in the scorecard, including Apollo, Ares, Brookfield, EQT, Global Infrastructure Partners, KKR, Oaktree, Blackstone, Carlyle, and TPG which among them had a wide range of scores and emission footprints.

The scorecard finds that the fossil fuel assets across all of the 21 firms are responsible for 1.17 billion metric tons of CO2 equivalent of emissions in a year. The emissions calculated were from upstream oil and gas, LNG, liquefied natural gas, terminals, and coal-fired power plants. That gigaton level of emissions is three times as much as the energy used to power all the homes in America. It exceeds the global aviation industry and is on the scale of the 2023 Canadian wildfires.

Private equity firms unfortunately are not transparent making it difficult for the public and often even for investors to access clear and comparable data in their investment -- on their investments. Based on laborious independent research of data that the firms are not required to disclose to the public, the scorecard offers a window into an opaque and largely unregulated industry.

These firms largely avoid liability for the damage their fossil fuel investing causes front-line communities, the planet, and the impacts on your beneficiaries. The scorecard was researched by the Private Equity Stakeholder Project, Americans for Financial Reform, and Global Energy Monitor and endorsed by 22 environmental and community organizations. We invite you to view peclimaterisks.org as a resource with details on each of the private equity firms featured in the scorecard. We hope CalPERS will continue to build toward your climate policy goals and set expectations for your private market managers to align their portfolios with 1.5 degrees.

Thank you.

CHAIR MILLER: Thank you.

Next, we have John Armstrong. Alexandria Sadler, and I'll also call Bobby Roy. And more than one person can sit down here, so com on down and take a seat.

Okay. I see some people coming down. Any of these seats with the microphones over here, folks.

There we go. Welcome.

It's already on. You have the floor, sir.

BOBBY ROY: Okay. Thank you. Good afternoon members. My name is Bobby Roy. I'm live in Sacramento, California and I am an SEIU Local 1000 member, state workers, and CalPERS enrollee. My family is from the Northern Philippines where a landside caused by super typhoon Man-yi killed at least seven people and destroyed dozens houses in the Nueva Vizcaya Province as the Northern Philippines suffered its sixth major storm in under a month.

I share this to emphasize that actions here are also impactful in places we might be able to tire ourselves to in terms of Motherland. My comments are in relation to this item. And despite CalPERS and other investor's efforts to engage with Exxon, the corporation remains committed to a business model that is fueling the climate crisis and rebuffing engagement efforts by this organization. In alignment with the CalPERS 2050 target for achieving net zero and the work so many are doing, including Michael Cohen, who received recognition as Chair of Climate Action 100+ this morning, and the other speakers today, it makes sense to issue a moratorium on new Exxon bond investments. There many problems economically, morally, and existentially which have been -- which will be brought up -- which have been brought up and will be brought up, so I won't restate them here.

But when thinking of the sustainability risk considerations of climate change and institutional priority, which were talked about this morning, it's obvious to me that Exxon is ignoring any awareness and education of climate related risks and opportunities that CalPERS is making, and therefore creating the imperative for CalPERS to withdraw capital Exxon, which is not fully aligned with CalPERS values.

As executives of the nation's largest public pension fund your commitment to stop purchasing bonds from Exxon can set a powerful example for investors, who understand the financial risks posed by its climate change, ending the purchasing of bonds from Exxon will protect the economic security of millions of Californians who depend on the stability of CalPERS investments.

Also, I have with me copies of a letter reiterating our points for you. This letter was signed by 1,742 members and supporters the Sierra Club, California, Fossil Free California, and the Alliance of Californians for Community Empowerment, ACCE, Action. Please note that we verified that about 15 percent, 251, of the signers include CalPERS beneficiaries like me.

Thank you for considering this vital action

CHAIR MILLER: Thank you.

Next, we'll have Melechor Torres, Ingracia Ramos, and Maria Lourdes Gonzales, if you'd come down.

Oh, yeah, Bobby. Staff will take it, if you'll --

VICE CHAIR TAYLOR: Yeah, wait till they come up and then take it over to our folks over on this side.

CHAIR MILLER: All right. Welcome. And then you start the time will start.

MELECHOR TORRES(through interpreter): Good afternoon. My name is Melechor Torres. I'm here -- I'm a Cardenas worker and I'm here to let you know a little bit more about your investment in Apollo. So I suffer from epilepsy, and -- but I work hard. One day I had a epileptic attack at the store after a supervisor threw flowers in my face, because she was mad about something else. I was very humiliated by that. After I recovered, but my hours unfortunately did not. They were reduced from 40 hours to 30. When I went to go talk to my general manager about why I needed my hours to pay for my medicine, he told me that that was not his problem. I'm very disappointed that they have not given my hours back.

Yet, other workers with less time there have even worked extra hours. I believe that my coworkers and I would be -- doa better job and be a better investment -- work better for your investment, if we were treated as human beings. I'm speaking out here today, so we can change the way that this company treats us, not only for us but also for your investment.

Thank you so much. Gracias.

CHAIR MILLER: Thank you.

MARIA GONZALES: Hello. My name is Maria Gonzalez. I've worked at Cardenas Market in Arizona for five years. Cardenas is one of your investors through Apollo. My son Daniel also worked at the same store. And he told me there was a guy from the union in the store and he gave me a flier. I said okay. And I took it home. A couple of days later, another coworker gave me some information about the union and she told me they were going to be having a meeting at Child's, an ice cream parlor next to the store. I said okay. I will try to attend, if I can. If not, if I am not able to attend, can you please let me know how it went?

When she came back from the meeting, she told me that the union rep was there to represent us and give us some information about the union. I've never spoke to anyone from the union. A couple of days later, I got a call from a -- I got a call after hours from the acting store director at the time. At the time, Eduardo he said, "Maria, were you talking to the Union?" I told him I don't know who the union representative is. I've never spoke to him, which is true. He said, oh, well, they told me they saw you talking to the union. I repeated that I've never spoken to anyone from the Union. He said okay. And that was the end of the conversation.

After the store manager called me, I called the cowork -- I called my coworker who invited me to the union and I asked her, did you get a phone call from Eduardo? She said, I haven't. I said, Eduardo just called me right now and asked me if I was talking to the union. And I said -- and she said you never talk to the union. You don't even know who they are.

I am the one who gave you the information. Yeah, I know, but somebody told him that I was the one talking to the union. I told her I'm really scared to lose my job because of that reason calling me at home. And she's like, no, he didn't call me. I said, okay. I just wanted to know if -- I just wanted to know if he called you, because he just called me.

My manager shouldn't intimidate me. If I want to learn more about the union, this activity does not live up to your Labor Board principles.

CHAIR MILLER: Thank you.

INGRACIA RAMOS(through interpreter): Good afternoon. My name is Ingracia Ramos and I work at a Cardenas in Mesa, Arizona and I've worked there for three years. I want to talk to you this afternoon about the experiences that I have had working there.

So I have a 21 year old daughter that recently joined the military, the Army, and when she was graduating from basic training, I asked for time off to go assist her graduation. He said, "No, ma'am. You can't go right now, especially right now that it's so busy in these holidays -- this holiday season." At that moment, I put in my two weeks notice to quit, as I was determined to be there on her day.

Fortunately, somebody told me to seek out the union, which I did, and I was able to resolve that matter without having to quit my job and I was table to go. But equally whenever they give to us or whatever we get, they also take. So during that time, I asked -- I asked permission, right, to get Sundays off to fortify my faith and be able to go to church at that time. So they went ahead and, yeah, they granted me some Sundays off to go to church, But at the same time, they took my 40 hours away and they reduced me to 30.

So I believe that Cardenas would be better if they treated us like humans. I believe that your investment would be better off, if they -- if they did so as well. Thank you.

CHAIR MILLER: Thank you.

JARED GABY BIEGEL: Good morning, Chair -- or good afternoon at this point, Chair and members of the Board. My name is Jared Gaby Biegel with the United Food and Commercial Workers International Union. I'm here to give you a brief update about the labor record at Cardenas markets, a California-based grocery chain owned by Apollo Fund IX, a fund CalPERS has invested $550 million in.

Since we last spoke before this Board, the National Labor Relations Board filed a complaint against Cardenas Markets after investigating two unfair labor practice charges that UFCW filed in 2022 and 2023. The Government's complaint alleges that Cardenas terminated Rosalvo Martinez as a result of her union and protected activity and that Cardenas Mar -- Cardenas managers allegedly threatened to discipline employees who spoke to Ms. Martinez or the union.

The complaint also alleges coworker Juan Gonzalez's hours were reduced because he spoke with Ms. Martinez and the union. NLRB's complaint alleges that by these acts quotes, "The Respondent has been interfering with restraining and coercing employees in the exercise of their rights guaranteed under the National Labor Relations Act to choose freely whether or -- or whether they want to form a union or not. A judge will hear the case in February.

Ms. Martinez told part of her story at the CalPERS Board meeting in January 2023, almost two years ago, describing that she was ill at work and that a manager quote, "Asked me to take a breathalyzer, and a drug test, and even a pregnancy test," end quote. That year Apollo's Head of Impact Investing, Joanna Reiss, who is a member of the Board of Cardenas's parent company told another LP that the stories of Ms. Martinez and another worker were quote, "Simply not true," unquote.

Over the last year, we have made the case before you that Apollo is violating CalPERS' private equity Labor Principles at Cardenas Markets. Litigation and charges over labor practices include three class action settlements in California in three years, costing $10 million without admitting wrongdoing, an ongoing lawsuit alleging sexual harassment, and multiple charges at the NLRB, two of which are now a part of the agency's complaint against Cardenas.

We believe these cases and Cardenas workers who have told you their experience are examples of violations of all but one of your Labor Principles, Freedom of

Association, elimination of discrimination, and safe and healthy working environment principles. As we have noted before, Apollo know how to protect its investors against labor risks and it should do so here. Apollo protected investors in Fund IX against labor risks in Las Vegas at the Venetian, by negotiating a neutrality agreement, which guarantees workers can exercise their right to join a union or not without management intimidation in exchange for limitations on labor actions during organizing, which protects your investment.

Apollo has told us that it cannot make Cardenas Markets, which it controls, change its labor practices. If Apollo maintains its position that it cannot manage risks and enforce CalPERS Labor Principles at portfolio companies, then we urge the CalPERS Board to withhold future investment commitments to Apollo and to consider other actions to enforce the Investment Principles at Apollo Fund IX.

Thank you.

CHAIR MILLER: Thank you.

At this time, I think we have Maria Vargas on the phone from UFCW.

STAFF SERVICES MANAGER I FORRER: First, we have Daniel -- yeah, Chairman Miller, we have Daniel Schoorl from SEIU Local 1000 to speak to 5D.

CHAIR MILLER: Oh. Oh, hang on. Hang on. Hang on. Okay. Those other -- well, I'll come back for those phone callers. I'm trying to do them in the order I've got them here. So, I was looking for Maria Vargas, but we'll come back and we'll do all the phone callers after we have our last couple in-person people. How is that?

Okay. Next Terry Brennand, followed by Jacob Evans.

Welcome. You know the drill.

TERRY BRENNAND: I'm well aware of the drill. Thank you very much.

Mr. Chairman, members, Terry Brennand on behalf of SEIU California. I wanted to speak about two things today. Specifically Exxon, their issuing of bonds. You have a long history with Exxon. We've seen how they treat their shareholders, their activist shareholders, or anybody who is forward looking. They choose to take you to court, ignore you, they have no plan for transitioning out of dirty energy. And you have a project, your $100 billion, you know, net zero by 2050 and half there by 2030. You can't get there with partners like this. It's time to stop, commit not to purchasing any more of their new bonds. Without rewarding the good actors in that sector, the energy sector, and disassociating yourself from the bad actors, no one is going to take you seriously.

Related to that, I was glad to hear from Mr. Cashion that this project is going to be the most transparent one we've seen in CalPERS for a while. I look forward to seeing that, but it has to be something that everyone can see. Ms. Gallegos asked how do we get our other partners involved? You lead the way. You show them. You demonstrate what you've done. You don't just talk about it. You do it. You show them. And they'll either follow or they'll not, but at least you're not doing it.

Thank you very much for your time.

CHAIR MILLER: Thank you.

Mr. Evans.

JACOB EVANS: Hello. Good afternoon, Board members. My name is Jacob Evans. I'm a Policy Strategist with Sierra Club California. I'm speaking on behalf of a CalPERS member today. We had three beneficiaries with us today that we naively thought that the item would be brought before the Board before today, so they had to leave.

The three members with us were John Armstrong, Alexandria Sadler. And today I'm sharing some comments from Alexandria Sadler who's a CalPERS member living in the Bay Area. This on the transparency and disclosure issue around the sustainability investments fund.

So to understand the rigor and advocate effectively for the integrity of the Claim Action Plan, CalPERS must establish real transparency accessible to all stakeholders that includes four things. First, regular granular updates on what investments across asset classes are included in the Climate Action Plan is available to both the Board and stakeholders, including the $50 billion already allocated. This will protect against greenwashing and transition washing, the ineffective or deceitful use of sustainable funds, which would expose CalPERS to more significant systemic comment risks as well as regulatory legal and social risks.

Second, disclosure of the exclusion criteria of high emitters without credible transition plans. For example, do the criteria exclude companies on the Climate Action 100 list that fail the net zero company benchmark.

Third, a clear and thorough description of the criteria used to determine which investments should be included in the sustainability fund.

How does the CalPERS -- how does CalPERS define adaptation, mitigation, and transition finance. Is the fund utilizing recognized science-based standards?

And the next. Transparent definitions, practices, and measures of success make CalPERS efforts more replicable and effective among peers. Greater market participation will increase the overall success of CalPERS climate strategy, improving returns, and reducing real-world emissions.

And finally, clear expectations to ensure high integrity investments in the transition category. Will the program require companies to have transition strategies that apply to the entire company? Will those transition plans and targets be required to align with the best available science.

Thank you.

CHAIR MILLER: Thank you.

Okay. Next, we have our phone callers. So we'll just go ahead and bring them on in turn.

STAFF SERVICES MANAGER I FORRER: Okay. Daniel Schoorl, are you still on the line?

DANIEL SCHOORL: I am. Thank you.

STAFF SERVICES MANAGER I FORRER: Go ahead.

DANIEL SCHOORL: Good afternoon, Chair Miller, President Taylor, and Committee members. My name is Daniel Schoorl. I work as a legislative advocate at SEIU Local 1000. I apologize for not being in person today. I'm currently under the weather. I still wanted to speak briefly to Item 5d. While aligning my comments with those of Bobby Roy and Terry Brennand. I wanted to start by sharing that both SEIU Local 1000 respectfully calls on the Board to place a moratorium on new Exxon bond investments.

Exxon is a company that opposes efforts to address climate change and not a company whose value aligns with CalPERS' sustainability standards. Beyond the issue of investing to align with investment goals it's a question of timeline. These bonds do not mature until 2074. The timeline is decades longer than typical corporate bonds.

Do not align -- again, not align with CalPERS standards and becomes a potential long-term threat to guaranteeing retirement security to public sector workers. Local 100 appreciates your consideration in placing a moratorium on new Exxon bonds and I thank you for your time.

CHAIR MILLER: Thank you.

Next caller.

STAFF SERVICES MANAGER I FORRER: Chairman Miller, we have Jason Disterhoft from Majority Action to speak to 5 -- Item 5d.

JASON DISTERHOFT: Hi. My name is Jason Opeña Disterhoft with Majority Action, an advocacy group focusing on climate change and racial inequity and proxy voting tools to mitigate those risks to shareholder value.

We appreciate trustee's and staff's ongoing efforts regarding sustainable investment and stewardship, and thank you for the presentation and discussion today. CalPERS has a long track record of setting the bar for these vital issues. And the Fund's leadership role will be more important than ever in the coming years.

I wanted to raise a question regarding the figures on slide seven, regarding the Fund's working assumptions on climate risk. The slide reports that MSCI climate VAR estimates that 1.5 to 2 degrees of climate change would cost the fund between 0.7 percent and 1.5 percent due to the transition risk, in terms of a drag on performance, and physical risk is projected to cost the fund 0.5 -- or, sorry 0.4 percent.

So the slide acknowledges that the physical risk figure is like -- quote, "Likely underestimated." I want to raise the possibility that all of these figures need to be increased significantly. For example, this month, the Network for Greening the Financial System projected that global economic growth could slow by 30 percent due to climate change by the end of the century. And even this finding has been criticized as likely an underestimate for not taking into account the impact of tipping points such as the slow down of the Atlantic current, the AMOC.

Another study this year from Bilal and Känzig, economists at Stanford and Northwestern found that each degree of climate change leads to a persistent 12 percent hit to GDP. So these very alarming findings suggest that we need to look again at the MSCI assumptions. And that raises a further question. CalPERS current sustainability investment and storage of strategies are based on a particular set of assumptions. If those assumptions are too low, what revisions of the strategies would be called for. The concern, of course, is that a bad enough hit to beta will swamp CalPERS's portfolio resilience efforts, threatening returns going forward.

To put things another way, say the threat is much worse than we think, what more would the fund be doing?

For example, some of these topics have been addressed already today. Are there changes called for in terms of allocation screens, bond purchases, or solutions -- investment in solutions? Is there anything more the fund can do not only as an active owner, but also as an active client, ensuring that its managers and private equity partners are full aligned with climate action.

In our own view, the massive threat of climate change calls for a robust precautionary approach, prioritizing action to avoid the worst case scenarios. As I noted, CalPERS' work continues to be absolutely vital.

It has been for many years.

Thank you again for your leadership and we look forward to CalPERS continuing to set the bar going forward.

CHAIR MILLER: Thank you.

Do we have another caller?

STAFF SERVICES MANAGER I FORRER: Yes, Chairman Miller. We have Greg Lichtenstein to speak to Item 5d.

GREG LICHTENSTEIN: Hi, there. This is Greg Lichtenstein. I am a CalPERS retiree after 33 years of service as a physician and administrator at San Diego State University. Thank you for the opportunity to discuss portfolio sustainability and risk.

The burning of fossil fuels is the major driver of climate change and significantly impact the long-term performance of our retirement portfolio as you know. I appreciate Mr. Cashion and his team prioritizing decarbonization as well as returns. However, I was surprised to hear that the portfolio managers have been considering a purchase of Exxon bonds that mature five decades from now.

I believe it was mentioned earlier that we're not looking for new investments of this kind. We must stop funding environmental destruction starting with major offenders like ExxonMobil. Since the 1970s, Exxon has denied climate change while concealing its own scientist's global warming projections. The company has resisted shareholder efforts, including those by CalPERS to transition from fossil fuels to cleaner energy, and even sued activist investors who sponsored these resolutions leading CalPERS to a no-confidence vote against Exxon's entire Board of directors earlier this year.

Additionally, our state has joined a lawsuit with several other states against Exxon -- other major fossil fuel companies and the American Petroleum Institute for misleading the public about their role in global warming.

Recently, our state's own Attorney General sued Exxon for deceiving the public about recyclability of single use plastics that are now polluting our oceans, lands, and bodies. As discussed by today's speakers, CalPERS has a fiduciary duty to focus more on climate-related risks in its modeling. Given the fossil fuel industry's volatility and its exposure to environmental damage-related lawsuits.

The retirement fund's managers also need to consider impacts on the future performance of its other investments, including those in insurance and real state sectors that are affected by climate change. You should not purchase Exxon bonds that mature beyond CalPERS own net zero deadline, and encourage further extraction of fossil fuels, their leaky transportation, and their combustion. Because of our fund size, CalPERS sets an example for other investors.

I urge the Board and its fund managers to do what's right from a sustainability and fiduciary perspective and channel more of our investments into promoting clean energy rather than into Exxon.

Thank you.

CHAIR MILLER: Thank you.

Do we have any other callers?

STAFF SERVICES MANAGER I FORRER: Yes, Chairman Miller. We have Sara Theiss from Fossil Free California to speak to Item 5d.

SARA THEISS: Hi. Good afternoon. Im Sara Theiss a member of Fossil Free California. And as a CalPERS retiree, thank you for my wonderful retirement and for the thoughtfulness of the 2023 sustainable investing plan, including its attention to greenwashing. And I welcome Mr. Gilmore and look forward to seeing his impact on investment strategy.

I have three points to make. First, I agree with the others today who've spoken against using our pension money to support Exxon, especially for another 74 years. I know you understand how recalcitrant Exxon continues to be in terms of a smooth transition, despite Darren Woods claiming to favor the Paris Agreement.

Moreover, according to the International Energy Agency, no fossil fuel extraction projects are needed in its net zero emissions by 2050 plan, and other than projects already committed as of 2021, there can be no new oil and gas fields approved for development in the IEA pathway of 1.5 degrees centigrade.

Second, I appreciate that CalPERS is working hard at climate solution investments. Yet, as today's slide show recognizes, these rely on various unknown risks, for example, emerging solutions, financial transition risk, committed risk, loan documents et cetera. On the other hand, cutting off Exxon's access to bonds will have immediate known impacts, and CalPERS as a leader will influence others to do the same.

Solutions can only go so far if we continue to cause the problem we're trying to solve. For these reasons, I also suggest the continued investment, such as the 75 year Exxon bond early buys.

My final point relates to remarks earlier that I understood to mean that the incoming administration may provide an opportunity for additional profits vis-à-vis the LAO and gas industry. I hope you really look into that, because just in the past week, I've read a couple of articles that, according to the IEA's World Energy Outlook

2024, it forecasts and oil supply surplus of over one billion barrels next year. And the industry also faces the fact that the surge in supply is our -- set to outstrip demand, which will create an NL -- sorry, liquid natural gass supply glut that's likely to persist well into the 1930s. And, of course, an oil glut presents further risk by driving down prices for LNG sold under oil-linked contracts. Another reason not to get these Exxon bonds.

And, you know, I can only imagine how taxing these multiple day meetings are, so thanks for listening and Happy Holidays, and see you next year.

Thanks.

CHAIR MILLER: Thank you. Do we have anymore callers?

STAFF SERVICES MANAGER I FORRER: Yes, we do, Chairman Miller. We have John and Judith Kirk. Go ahead.

JUDITH KIRK: Judith Kirk, Redwood City, California and my health insurance is through CalPERS.

You've already heard excellent reasons to stop these bond purchases, some of which are Exxon's bullying behaviors to those who question what they're doing, which burning up the planet. I'm speaking to Exxon's impact on me, my community, and on the planet Exxon and friends have already damaged beyond fixing completely. But hopefully something can be done to help life survive on this planet, but not in any of the ways involving fossil fuels we're used to.

Exxon, and other fossil fuel giants, have already made the survival of my children and grandchildren questionable. Bluntly, they face a dystopian future, because of Exxon and others sociopathic greed and lying. I think this is reason enough to stop these bond purchases. All of this quote, "rational and financial," end quote, talk is beside the point. The point is to stop burning up the only planet we have to live on.

Thank you.

CHAIR MILLER: Thank you. Do we have any more callers?

STAFF SERVICES MANAGER I FORRER: Yes, Chairman Miller. We have Maria Vargas. She's on the phone with -- and her translator is there in the auditorium.

CHAIR MILLER: Okay. Let's wait till we get the translator down here.

Oh, okay. Whenever you're ready.

MARIA VARGAS(through interpreter): Good afternoon. My name is Maria Vargas. I'm 72 years old and I've worked at the same Cardenas Market store for almost with years, most of the time in the kitchen. So for the past two months, I've been working in the maintenance department. So managers took advantage of me, because I cannot read or write. For example, after three years of not taking any vacation, I put in for a week of vacation, only -- and the only approved two days and paid out two days, but not until a week after I came back from vacation, and that week my paycheck was very short.

So when I went to inquire about why my check was less than normal, they turned around and looked at me and said, I thought you didn't know how to read or write. I may not know how to read or write, but I'm not dumb. There was two other workers there, managers, that laughed at me. So since then, I have not worked. I've only worked in maintenance and they haven't really shorted -- given me my full hours. I've since been relegated to actually pulling together all the shopping carts outside, sometimes in a hundred degree weather. I think it's in the hopes of having me quit.

So I've noticed that they put folks such as myself that are older to do that job, I think so that we get frustrated and quit. I believe that Cardenas should treat us folks that are folder with more respect, since we're the ones that have been the most time through the company and have produced more.

So I think Cardenas should treat us with respect. And we -- if -- and if we were valued for what we contribute to the company, even at the end of our working careers. Thank you.

CHAIR MILLER: Thank you.

MARIA VARGAS: Thank you.

CHAIR MILLER: Thank you very much. Is that -- any more callers?

STAFF SERVICES MANAGER I FORRER: Chairman Miller, our last caller is Dan Fuchs to speak to Item 5d.

DAN FUCHS: Good afternoon, Chairman -- good afternoon, Chairman Miller and Board. My name is Dan Fuchs. I live in mid-town Sacramento. I am a CalPERS beneficiary and frankly hope to retire in the next four to five years. I very much welcome and commend the Board for its sustainability engagement and listened with great interest to the presentation this afternoon. Like several of your other callers and speakers, I am here to ask that the Board exit from Exxon and not buy any more Exxon bonds.

As we've seen in the presentation today, and we acknowledge, that engagement can be a powerful tool for shareholders to persuade companies to improve their practices. However, for successful engagement to work, a company needs to be willing to change.

Exxon is not such a company. It has responded to engagement by suing its shareholders, and has then threatened to double down with the threat of additional lawsuits against investors like CalPERS that dare to challenge its practices.

In this case Exxon is not only unwilling to change to meet shareholder pressure, to improve sustainability practices, but is putting shareholders, like CalPERS, at risk through lawsuits.

So Exxon, as an example, where engagement has just not been enough. Rather than adjust to the fiduciary goals and approaches That CalPERS is pushing for, Exxon attacks shareholders, lied to consumers and the public, and has incurred dozens of lawsuits, including, as you heard, by the State of California itself.

Exxon's October bond issuance had a maturity date of 2074, 24 years after CalPERS's net zero deadline. We admire CalPERS's debt net zero deadline, and we wish it to be met. But given Exxon's clear intransigence, it is time for CalPERS to take the next step and adopt a moratorium on any new bond investments in Exxon.

Thank you.

CHAIR MILLER: Thank you.

Do we have another caller?

STAFF SERVICES MANAGER I FORRER: No, no more callers.

CHAIR MILLER: Okay. I believe that concludes the public comment on 5d.

And, yeah, let's go on to 5e before we take a break, diversity in the management of investments AB 890.

(Slide presentation).

CHIEF INVESTMENT OFFICER GILMORE: Thanks. I'll just pass it over to Peter and Mike.

ASSOCIATE INVESTMENT MANAGER SILVA: Mike Silva, Sustainable Investments.

AB 890 requires CalPERS staff to submit an annual report on the participation of emerging and/or diverse managers within the CalPERS investment portfolio.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: Next slide.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: The Legislature is primarily interested in being updated on new allocations within the last fiscal year to firms that meet our definition of emerging and/or diverse manager. AB 890 is intended to ensure transparency and promote the inclusion of women- and minority-owned managers in the asset management industry. This presentation identifies the notable items included in the report that will be delivered to the Legislature as well as the accompanying report as an attachment.

Next slide.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: The year three report is based on contracts entered on and after July 1st, 2023 and up through June 30, 2024 and must include the name of the manager, the year first engaged, amount managed with emerging and/or diverse managers by asset class, as well as the total amount allocated by asset class during the fiscal year, and the total assets under management of each asset class.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: It is CalPERS belief that organizational cultures promoting diversity are vital to improving the long-term performance of our organization, as well as the businesses and markets we invest in, and it is woven into our Investment Beliefs.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: Our Emerging Manager Program objective is to generate appropriate, risk-adjusted returns by identifying early stage funds that demonstrate a strong potential for success, access unique investment opportunities that may otherwise be overlooked, and cultivate the next generation of external portfolio management talent.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: Our emerging manager definition is based on the overall firm's assets under management, length of track record, and the specific fund's size when applic -- when applicable. The minimum qualification thresholds vary across asset classes for reasons related to the nature of respective asset class in the public and private realm.

Next slide.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: Our diverse manager definition is based on the total percentage of firm ownership and/or fund economics, and a firm -- and a firm or fund must meet a minimum of 25 percent ownership based on race, gender, ethnicity, or sexual orientation.

Next slide.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: As outlined in the year three annual report, CalPERS allocated to 11 managers directly for the total allocation of approximately two billion between July 1, 2023 through June 30, 2024. During that same period, CalPERS allocated to 27 managers that met the definition of diverse for an allocation approximately 6.3 billion.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: This slide outlines our allocations to emerging managers, diverse managers, and all external managers as well as our total AUM across asset classes with external investments during this period.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: Our next steps are to work with the Office of Public Affairs on producing a publication copy of the report and to put it in such a manner that meets CalPERS external reporting standards. The report is due to the Legislature March 1st, 2025 and we will work with the Legislative Affairs Division to ensure that it is properly delivered on time.

Next slide.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SILVA: Happy to answer any questions you may have.

CHAIR MILLER: Okay. We have Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Thank you. Thank you, Mr. Silva for your -- for this excellent report. I always appreciate the AB 890 report every year.

I just wanted to ask you two questions. The first question is on page seven of 11. It is the categories of public assets in private debt. I noticed that the private debt is there. Is that a new category for this career?

ASSOCIATE INVESTMENT MANAGER SILVA: No, that is all of the private asset classes were lumped together for definition purposes, so those have been in place since the Board approved in 2022.

COMMITTEE MEMBER PACHECO: Very good then. And then the other -- the last -- just a clarification on the last slide 10 -- page 10. I was noticing that it may not be required by statute, but is it possible that we could get a percentage? You know, how you would have a -- divide the allocation of emerging managers divided by total assets under management as another column or is that something that is not necessary?

ASSOCIATE INVESTMENT MANAGER SILVA: It's not being requested by the Legislature, but I'm happy to provide that in the report.

COMMITTEE MEMBER PACHECO: Fantastic then. That would be wonderful analysis. And is there any way to compare that to let's say other peer public pension systems throughout the system or is that not available?

ASSOCIATE INVESTMENT MANAGER SILVA: That information is not available.

COMMITTEE MEMBER PACHECO: Okay.

ASSOCIATE INVESTMENT MANAGER SILVA: But we can try to procure some of that information across some of our peers.

COMMITTEE MEMBER PACHECO: That would be interesting to see. Thank you so much. Those are my questions.

ASSOCIATE INVESTMENT MANAGER SILVA: You're welcome.

CHAIR MILLER: Yeah, and we'll take that as Committee direction for our next report to the Committee on this topic.

COMMITTEE MEMBER PACHECO: Thank you, sir.

CHAIR MILLER: Thank you.

Next, we have Frank Ruffino for Fiona Ma.

ACTING COMMITTEE MEMBER RUFFINO: Thank you. Thank you, Mr. Chair and thank you, Mr. Silva. Just a quick question about the data analysis on this report. Do you see any trends or key insight that have emerged from the data collected and are there any notable changes compared to the previous year?

ASSOCIATE INVESTMENT MANAGER SILVA: There's been a trend in the last -- so this is the third report.

ACTING COMMITTEE MEMBER RUFFINO: Um-hmm.

ASSOCIATE INVESTMENT MANAGER SILVA: And the trend that I would identify is there has been a trend of allocations increasing, both to emerging and diverse managers, but that -- you know, that changes every year, so...

ACTING COMMITTEE MEMBER RUFFINO: That's a good trend.

ASSOCIATE INVESTMENT MANAGER SILVA: But it's a good trend so far.

ACTING COMMITTEE MEMBER RUFFINO: And lastly, what role can the Board play in supporting your efforts to strengthen diversity among the invested manager? If you can -- have any ideas, we'd love to hear them.

ASSOCIATE INVESTMENT MANAGER SILVA: No ideas at the moment, but very appreciative of the Board -- the efforts of the Board, this Board, and our executive leaders in the organization and the Investment Office. And there's strong support for this program.

ACTING COMMITTEE MEMBER RUFFINO: Great. Thank you, Mr. Chair.

CHAIR MILLER: Okay. I see no more requests to speak. So thank you for the report and appreciate the work of the team.

Okay. At this time, we'll take a break. Let's come back at 3:20 and we'll jump right back into our agenda.

(Off record: 3:08 p.m.)

(Thereupon a recess was taken.)

(On record: 3:20 p.m.)

CHAIR MILLER: Okay. Let's come on back. I'ts now 3:20 and we're going to move on to the CalPERS for California report.

(Slide presentation).

CHIEF INVESTMENT OFFICER GILMORE: I'll pass through to Tamara.

ASSOCIATE INVESTMENT MANAGER SELLS: Thank you. Good afternoon. Tamara Sells, Associate Investment Manager, Sustainable Investments.

Today, I will cover highlights from the CalPERS for California 2023 Report, which examines the economic impact of CalPERS's California based investments and the ancillary benefits that our investments have in creating and supporting jobs and investments in communities in California.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SELLS: The vendor for this report is Tideline Advisors, LLC -- Tideline Advisory, LLC, who analyzed our portfolio holdings across CalPERS's asset classes as of June 30th, 2023 and researched the reported ancillary benefits from this exposure, including the broad economic and community impacts of CalPERS's private market investments in California.

As highlighted in the 2023 CalPERS for California Report, as of June 30th, CalPERS had invested approximately 13.1 percent of its $465 billion investment portfolio in California. And Tideline's IMPLAN analysis estimates that over 170,000 jobs were supported from CalPERS's private market investments in California.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SELLS: This slide shows a breakdown of the estimated jobs supported by asset class and an overview of the broad economic impact in California. CalPERS's private market investments indirectly supports the communities in which they are located. The ancillary benefits related to the economic activity generated from private market investments in California, for instance, include the support of local jobs, infrastructure for communities and commerce, and business expansion.

Tideline's IMPLAN analysis estimates that the total number of jobs supported through CalPERS's California investments in private markets was 17,591.

Tideline also analyzes how CalPERS's private market investments are distributed across high unemployment areas, high minority areas, and low- and moderate-income areas.

So a breakout of that, the 170 figure, includes 18,000 -- over 18,000 jobs supported from our private equity investments in California, which I will address later on in the presentation, a specifically breakout of private equity.

For real estate investments, which were predominantly in high minority areas and low- and moderate-income areas, those investments are estimated to support 141,481 jobs across the state. This includes sales and leasing jobs and income from these properties that supports workers and property management, service, security, and other related industries, and also development and construction jobs supported through the purchase of goods and services needed for construction projects, and through personal consumption by construction workers on these projects.

In this 2023 report, the analysis of the private debt asset class or private debt California-based investments, was included for the first time as private debt became an established asset class after the date of the last report. It is estimated that our private debt

California investments supported over 11,000 jobs in California across more than eight industries.

Lastly, this slide also highlights an estimated $45.2 billion in total economic activity across the state, including direct, indirect, and induced benefits, which I will go into detail on the next slide.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SELLS: This slide highlights the economic impact of CalPERS's private market investments in California. So in total, CalPERS's private market investments are estimated to have generated 45.2 billion in total economic activity across the state, benefiting not only businesses and projects receiving the allocated capital from CalPERS, but also suppliers, workers, and the public sector more broadly through tax revenues. And the breakdown of that figure includes an estimated 12 billion in indirect effects, which are defined as economic impacts across the supply chain. This is economic activity that is generated as a result from increased output of the capital recipients, which increases the demand and purchases of goods and services, as well as drives additional hiring.

An estimated 24.5 billion in economic activity comes from direct effects of capital received directly from CalPERS, which increases the output of good and serve -- goods and services, as a result of our investments in California businesses and projects.

And lastly, 8.8 billion in economic activity was captured through induced effects of increased household spending as a result of hire incomes for employees at companies that receive capital from CalPERS, their suppliers, and their companies.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SELLS: So these next two slides we will focus on a bit and do deep dive on private equity's economic impact. So the CalPERS private equity investments in California are estimated to generate 5.9 billion in economic activity across the state. This includes 1.3 billion of economic activity attributed to indirect effects, 3.1 billion of economic activity attributed to direct effects, and lastly, 1.6 billion in economic-induced effects from CalPERS private equity investments in California.

Next slide, please.

[SLIDE CHANGE]

ASSOCIATE INVESTMENT MANAGER SELLS: In this last slide, we provide some key observations of private equity investments in California. As of June 30th, 2023, 5.1 percent of private equity portfolio -- of the private equity portfolio was invested in California investments. The ancillary benefits of CalPERS's private equity investments in California is estimated to support over 18,000 jobs in the State, and investments in community of -- communities of interest, including areas with high unemployment, high minority, as well as low- and moderate-income areas.

In addition to the 3.1 billion in private equity invest -- investments, an estimated 35.7 billion has been invested alongside CalPERS by other investors. However, these investments are not directly attributable to CalPERS investment.

And lastly, CalPERS's private equity investments in California generated 5.9 billion in total economic activity across the state through the multiplier effect, which includes direct, indirect, and induced effects within the California economy.

And that concludes the CalPERS for California Report presentation and I'm happy to address any questions that you have.

CHAIR MILLER: Yeah. Thank you for that fine report. And we have Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Thank you, Ms. Sells. Thank you again for this awesome -- I always enjoy -- again, I enjoy the California Impact Report.

It's actually really great to see how our -- how our investments are doing in the -- in our state of California for -- not only for our -- for the community, but for the people and for everyone else.

Just I have one question. It's kind of -- it's kind of inferred in the -- in the report, but I -- maybe perhaps you may have an estimate. Based on the jobs that are supported, which I think there were about 171,000 estimated jobs supported in California from CalPERS's private market investments, how many of those do you think are associated with -- or an estimate of -- are union jobs?

ASSOCIATE INVESTMENT MANAGER SELLS: That's an excellent question. And I would -- something I would have to look into and come back to you on.

COMMITTEE MEMBER PACHECO: All right. We could --

CHIEF EXECUTIVE OFFICER FROST: Maybe we could invite Tom Toth up.

COMMITTEE MEMBER PACHECO: Sure.

CHIEF EXECUTIVE OFFICE FROST: He's done -- just based on some assumptions on the labor workforce in California relative to this number, he can give you a ballpark estimate.

COMMITTEE MEMBER PACHECO: A ballpark would be great.

CHIEF EXECUTIVE OFFICER FROST: Is Tom still here?

CHAIR MILLER: I don't see Tom.

VICE CHAIR TAYLOR: I don't see Tom, yeah.

CHAIR MILLER: He was here all day.

CHIEF EXECUTIVE OFFICER FROST: Okay. So I will read it into the record, because this was a question that we had entertained over the weekend. So, if you assume that 16 percent of the California workforce is unionized, about half of that is public sector, so eight percent of non-public jobs are union related, CalPERS for California resulted in 171,000 jobs times eight percent is an estimate of 13,680 union jobs. Admittedly, a rough estimate, but just based on those assumptions.

COMMITTEE MEMBER PACHECO: That is an excellent number. That's great. That's just -- that's great to see that we are actually putting a -- our monies are working for union workers. Thank you so much for that information. I appreciate it very much.

CHAIR MILLER: Okay. President Taylor.

VICE CHAIR TAYLOR: Yes. Thank you, Chair Miller. Tamara, great report. I haven't read through the whole thing, but I used to take it with me everywhere, because my members loved to hear about it. I will say that I was wondering -- so I'd love the key observations of the private equity. And I'm wondering -- and this probably isn't a question you can answer, maybe Peter can answer, but I'm thinking are we going to be investing more in California through private equity in the future, because it does obviously help our economy?

I don't know. Where did he go?

Oh, there's Anton. He was hiding in a corner.

CHIEF INVESTMENT OFFICER GILMORE: Maybe I'll make a comment before Anton does. I think, you know, the private equity strategy is to focus more on growth and venture than the past. And so California is probably a very good place to be doing that, but I'll see what Anton says.

MANAGING INVESTMENT DIRECTOR ORLICH: He stole my thunder.

(Laughter).

MANAGING INVESTMENT DIRECTOR ORLICH: So we have been not investing in venture until the last couple of years for approximately a decade. A couple years ago, we began a venture program. Venture is disproportionately represented in California.

VICE CHAIR TAYLOR: Correct.

MANAGING INVESTMENT DIRECTOR ORLICH: Now, that doesn't mean that every single California venture firm we invest with will be making investments in California, but there is obviously with Silicon Valley an ecosystem here, you know, for start-ups. And so that should lead to California investments. Also, we are doing more middle market.

VICE CHAIR TAYLOR: That's right.

MANAGING INVESTMENT DIRECTOR ORLICH: The middle market is much more likely to be invested in the United States, because we're pursuing those firms for their sector specialization. And those domestic firms, because California is such a large part of the U.S. economy are more likely to generate hits in California.

VICE CHAIR TAYLOR: Excellent. Thank you very much.

Other than that, you guys, thank you very much for the report.

CHAIR MILLER: Okay. Next, we have Frank Ruffino.

ACTING COMMITTEE MEMBER RUFFINO: Thank you, Chairman Miller. And before I ask the question, I want to again congratulate you and your well deserved recognition.

So a couple questions. The first one, the report mentions allocation to high minority, high unemployment, and low - to moderate-income areas. What strategies are in place to increase CalPERS impact in these communities and how is success measured?

ASSOCIATE INVESTMENT MANAGER SELLS: Thank you for the question, Mr. Ruffino. This touches on what Anton was speaking to, which is that the Investment Office currently does not have a policy or to man -- or a mandate to invest in California. So, it will simply depend on how capital is deployed and which industries are impacted. If we see that investments are concentrated obviously in labor intensive industries, we would inspect -- we would expect some type of change or impact to IMPLAN's estimations of our footprint in California.

ACTING COMMITTEE MEMBER RUFFINO: And by the way, you know, from the key observation and all defined, this is a great report. This is great news. Very proud, you know, to hear that -- of our work and our investment in California all the way. You know, I know we invest in the whole world, but first and foremost in our own backyard.

Let me also ask you real quick a question about accountability in reporting. So with respect to future reporting enhancement, there -- is there any plans to refine the methodologies used in this report to better capture and communicate the impact of investments in California?

ASSOCIATE INVESTMENT MANAGER SELLS: Yes. The short answer to that is yes. And I do have the vendor present as well who can also speak to that, but we have anticipated within their scope of work, as well as the deliverables that we would like to be able to do year over year analysis for 2024's report against 2023's report going forward. So we are looking to further enhance the way that the data is reported, but also the value of the information that we provide year over year.

ACTING COMMITTEE MEMBER RUFFINO: That's great. That great. Thank you.

And lastly, and this may be better answered by the communication or the outreach folks, but with respect to transparency, you know, how does CalPERS ensure that the ancillary benefits described in this report are communicated effectively to stakeholders, including legislators, the public, and the community. Any thoughts on that?

ASSOCIATE INVESTMENT MANAGER SELLS: No. It's a great question. And I think President Taylor touched on this, which is using this as an education and a communication tool as we're engaging stakeholders more broadly. Because this isn't a mandate, this is simply a result of our regular portfolio construction process and our regular investment strategy. So we will continue to carry this around with us as we engage with our peers, as well as broadly in the market with the -- and highlighting the impact of our investments even without a mandate that we are still showing an outsized and substantially positive impact of our investments even without that mandate.

ACTING COMMITTEE MEMBER RUFFINO: Thank you. And again, you know, great work. Thank you for this report. This is almost like a little cheat sheet Bible to keep in our hands any time that we're out there, and to talk about particularly whenever we don't meet exactly, you know, our goal is. Well, here it is, look what are we doing for California.

ASSOCIATE INVESTMENT MANAGER SELLS: Exact.

ACTING COMMITTEE MEMBER RUFFINO: Mr. Chair, Thank you.

CHAIR MILLER: Yeah. Thank you. Yeah, and I'll just reiterate this is a great report. It's one of those things that I refer people to all the time and I'm might be looking forward to my handy deluxe vest pocket edition and all, that I can --

VICE CHAIR TAYLOR: If it's a pocket edition, it's going to be that thick.

(Laughter).

CHAIR MILLER: Yeah. But, yeah, so thank you. I see no more requests to speak on this item, so -- okay. Thank you.

CHIEF INVESTMENT OFFICER GILMORE: Thanks. I'll just note that that -- those estimates are probably an underestimate, because they don't include the affiliate funds. And that's one thing we'd like to add, so the numbers will be larger on hopes going forward.

CHAIR MILLER: Great. Okay. Well, that brings us to our review of the CalPERS divestments with our consultants

Welcome.

LAUREN GELLHAUS: Thank you. And Good afternoon, Board members. I am Lauren Gellhaus of Wilshire Advisors. My comments today will be brief. However, I did want to take a few minutes to provide context and background on the divestment report within Agenda Item 5g.

I will quickly walk through the why we do the analysis, how we complete the analysis, and then touch on the results.

First off, the why. Within policy, there are two divestment items addressed. First is that active divestments come back to the board for reaffirmation at least every five years. The last reaffirmation was completed in March of 2021. The second divestment item addressed in policy is that in between those reaffirmations, an annual update is provided. This update is a forensic analysis of the financial impact of CalPERS active divestments, of which there are currently four, tobacco, Iran, firearms and thermal coal. The letter summarizes the analysis for the annual review of these active divestments.

Next is the how. So to complete this analysis, we received data from CalPERS index vendors. For each of the active divestments, we have indexed without the divested securities removed and another with the divested securities removed. Said another way, there is data on the portfolio pre-in -- pre-divestment and then post-divestment. We then do comparisons of a simulated portfolio.

Next, we run -- we run that through a process to estimate the financial impact of the difference in the two return streams. This shows us how those securities not been removed, how the portfolio would have performed either positive or negatively.

We then accumulate the impact through time and those are the numbers that are summarized. Within the letter, we show that since the last affirmation, which again was in March of 2021, that one out of the four divestments had a positive impact on the market value of the portfolio, and the other three had a negative impact. Further detail around the analysis can be found within the divestment report.

Given that the last affirmation was of March 2021, this analysis includes 13 quarters of data, the second quarter of 2021, and then the quarters within the last three fiscal years.

That concludes my prepared. However, at this point, I am happy to take any questions you may have.

CHAIR MILLER: Okay. Thank you for the report. Appreciate it. I'm not seeing any requests for questions, so, thank you. It's appreciated.

Okay. Summary of Committee direction.

CHIEF OPERATING INVESTMENT OFFICER COHEN: Thank you, Mr. Chair. I've got one item in the AB 890 to add the percentages going forward in future reports, as well as thank you for all the feedback regarding the asset liability management process. We'll integrate that into the January Board Education and stakeholder days.

CHAIR MILLER: Excellent. I do have -- I think we have a few more people for public comment at this point.

So I'll call up Frank Ruiz and Mark Swabey. Swabey. Sorry about that.

Yeah, come on down. It's been a long day. I appreciate you all hanging in there with us. And your time will start when you identify yourself and begin speaking.

MARK SWABEY. Chairman Miller, members of the Board. I want to thank you for this opportunity to speak today at the close of this open session. I'm a CalPERS -- I'm a CalPERS beneficiary and I speak to the private equity report.

The Private Equity Program lost money in the 2022-2023 fiscal year and showed a relatively anemic valuation of 10.9 percent for the 23-24 fiscal year, lagging public equity, and perhaps valuations, and maybe even returns. The current finance leaders announced that CalPERS had 363 private equity contracts as of July 24 with 72 billion invested. That has now been -- as CalPERS now has 85 billion invested -- or committed to the Private Equity Program going forward.

The Private Equity Program could divest itself or exit from several contracts that were funded by 2016. Carry fees and exit fees will reduce any returns from these contracts, but they'll still be a lag on performance. Going forward, CalPERS has committed $50 billion to co-investments with four-year terms, locking those -- locking 50 billion away. And these may incur reduced fees, but they also may show anemic returns and they'll lose, in a comparison with public equity investments, up to 16 dividend payments, and they will also be left out of several semi -- of eight semiannual payments from the bonds that are publicly traded.

This doesn't sound like a money maker to me. And that's where I'm going next is the actual dollars. Eight-five billion dollars committed going forward. Reports should show revenue return from CalPERS that should show a significant return -- revenue back to CalPERS from the PE program, enough to not only cover reinvestment and that, but they should also be contributing $10 billion a year for pension and benefit and other CalPERS obligation payments.

This is what we want to see we want to see the PE program paying into the -- into the 10 billion -- paying $10 billion into CalPERS pension and benefits. Thank you.

CHAIR MILLER: Thank you.

FRANK RUIZ: Thank you, Mr. Chairman, Mr. Miller, and Board members for allowing me to speak. I am a CalPERS retiree. Frank Ruiz.

Welcome back to the grand wonderful, wonderland, wonderland of nightmare investing. "I'm late, I'm late, I'm late," says the white rabbit in Alice in Wonderland. So says CalPERS, "I'm late, I'm late, I'm late," in the grand wonderful world of wonderland nightmare investing. CalPERS's is chasing and falling down, down, down the white rabbit hole, trying to catch its own white rabbit, the lost 10 years of private equity investing and outsized returns.

In fact, CalPERS has been trying to catch outsized returns since 1998, never received, always illusive, and out of reach, yet always promised, always promised, promised. With 2024, the additional $13 billion increased from 72 billion to 85 billions in the Private Equity Program, CalPERS is once again drinking from the bottle labeled "Drink Me".

So CalPERS, like Alice, is shrinking, shrinking, shrinking. CalPERS has shrunk so low that the Caterpillar asks CalPERS, "Who are you, who are you," to which Alice said, "I don't know. I don't know."

So who is CalPERS? Yes, CalPERS wants to make money, but is investing billions and billions in the pet program that has failed to produce outsized returns since 1998. But again, this year, CalPERS has drunk from the Kool-Aid and shrunk even more and lost billions in future investment returns. Thirteen billion and no returns for X number of years, no returns for X number of years, no returns for X number of years. The shrinking will continue. It will continue. It will continue.

When will CalPERS wake up from this nightmare? When will CalPERS recognize what is going on here? This program is not working. We need $10 billion from this program to pay for the increased costs that are occurring, the long-term costs that were announced in September. Who's paying for that? The members are paying for that and the other increased costs.

So, CalPERS, please wake up from this nightmare that you're in. Please recognize that there are other avenues of investment that will return $10 billion to CalPERS and to its pensioners and to all the other organizations involved with CalPERS.

Thank you for your time.

CHAIR MILLER: Thank you very much.

I believe that concludes public comment.

And at this point, we will recess now into closed session for Items 1 through 7 from the closed session agenda. We'll immediately reconvene in open session after the closed session.

Thank you.

(Off record: 3:47 p.m.)

(Thereupon the meeting recessed into closed session.)

(Thereupon the meeting reconvened open session.)

(On record: 5:39 p.m.)

CHAIR MILLER: Okay. We've just finished closed session. We're back in open session. And hearing no objections, we are adjourned. We're adjourned.

(Thereupon, the California Public Employees' Retirement System, Investment Committee meeting open session adjourned at 5:39 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 November, 2024.

JAMES F. PETERS, CSR
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