comments or questions from the Board.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Hey, Scott, I'm sorry to jump in.

I would like to -- I think it would probably make sense to hear what Wilshire has to say.

So Scott says it's very likely that we'll be back with Portfolio A subject to hearing our assumptions either validated or in terms of the risk at tolerance and the like.

But I thought it made sense maybe to hear from Wilshire, and then we can take questions, if that works.

CHAIRPERSON MILLER: Yeah.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah, so maybe Tom Toth and Steve Foresti can join us at the dais real quick.

MR. FORESTI: Good morning. Thanks.

I guess we'll -- I'll spend a couple of minutes just talking about process. And then maybe just summarize what I think are some of the key points that you just heard.

So first on process, we've been engaged with the team throughout this process, in fact having weekly catch-up calls where we've been providing our feedback and just being integrated to the process.

So I'll just concur, we're one of the 15 -- I believe we're one of the 15. We participated in the survey, in that asset class assumption survey - so part of that - and just specifically looking at our views on capital markets going forward. Entirely consistent with what you saw, which is to say, as yields have come up in the past couple of years, these relationships between asset classes have changed in a, you know, pretty dramatic and fundamental way and have shifted the competitiveness of different asset classes into some of the comments you've heard today. Fixed income - where two years ago and we were looking at fixed income, it was a very challenging asset class. Indeed it felt like it lost -- that asset class had lost a lot of its utility to institutional portfolios - has in large part been resurrected by the improvement in yields, which passed through to investor in terms of income and expected return.

So our view of the world is very similar to what those survey results show.

Now I want to shake out a couple of I think what are the really critical comments that Sterling and others shared this this morning, and that is around process. So two main points.

If you think about that shift in the world and you're at a mid-cycle asset allocation review, I think your default prior coming into it would be, okay, well, if fixed income has become more competitive, you know, all else equal, I would expect to see, you know, a shift potentially, you know, towards fixed income and away potentially from some of these other assets.

Sterling made the point about constraints. There's a lot of inputs that change through a process - capital market assumptions, the actuarial side in terms of what the objectives are. But the constraints in the process are also an important part of that process. And for years, CalPERS has had a desire for more private market exposure than collectively staff and others have felt was possible just from a capacity and a processing and putting the commitments into deploying that capital.

You've heard today a bit of a change in perspective on that view, and there's a variety of reasons for that. But the point is, in addition to the capital market assumptions, you think about this process you're going through now as having slightly different constraints, being a bit less constrained on these private market assets. And Dan early this morning in his comments talked about this overarching commitment to private markets. So I think consistent with those constraint changes and that overarching desire in understanding the value of private market assets, that's one thing that may differ a bit from what that prior would be coming in: Oh, I'm going to see -- you know, going to see this big shift towards fixed income.

Point number 2 that Sterling made that I'd like to just kind of underscore because I think it's an important one, is as you look at optimal portfolios and you try to identify different candidate portfolios, you have to anchor on something. And so what Sterling suggested on anchoring on was the expressed risk from the full cycle back in 2021, which makes perfect sense. I think it makes perfect sense as you come through a mid-cycle review. I would say as we come around in a couple of years to the full-cycle review, that would be something that I think makes sense to explore further. Because, you know, anchoring on a decision made two years ago and then thinking about that in perpetuity going forward as being always the right risk level to anchor to probably doesn't make sense over the very, very long run; but I think in a mid-cycle review it makes sense.

So I'll pause there. Happy to take any other questions. And if my colleague Tom wants to add anything, I'd welcome that as well.

CHAIRPERSON MILLER: Okay. I've got questions from -- we'll start with Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes, Thank you. Thank you, Chairman Miller.

Again, thank you very much for this presentation on the ALM process, and, Wilshire, for your comments.

I'd like to actually go back on that capacity question and -- so staff mentioned back in 2021 that private assets was constrained because of our limited capacity to originate private debt.

Now from what I've read, it seems like our capacity has increased to originate private assets.

You know, what has changed specifically in that two-year horizon. And you guys can elaborate on that.

Thank you.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Maybe I'll start and then I'll let others jump in. I guess a couple of things. One thing - and we're going to talk about some of this more in closed session - but the way that we are deploying in private assets as specifically through the lens of co-investment has really changed with Anton Orlich and the team in the way that they're approaching that body of work. And so we'll talk about that in closed session because we do think there's some IP there.

IP meaning intellectual property.

The other thing is I do think that we have actually seen some traction. We've seen assets flow sort of in the global economy from the public markets to the private markets, and we've seen specifically traction in both private equity and private debt. So that's, I would say, would be another one.

The last one I would share - and this of course is an unfortunate one - but as the denominator of the portfolio came down a little bit with the drawdown that we experienced in the public markets, you also do see the weights go up. So I would say that's sort of the third factor.

But, again, we can dig more into all of those. But those are kind of the main -- I would say the main reasons for what you're seeing is is a -- and, you know, as I say, we will likely be back with Portfolio A. What you'll see in Portfolio A is: Number 1, an increase in private equity at the expense of public equity; number 2, an increase in private debt at the expense of public debt; and then, number 3, of a slight lead into private -- I'm sorry -- into fixed income, because, as I said, what you're seeing is, for some reason, more creative assets in the fixed income space, and then an increased liquification of the public markets. So that as you add private assets, and as we add leverage, we need the public assets to be more liquid because they become a very critical liquidity provider.

COMMITTEE MEMBER PACHECO: Thank you for that question.

Just one more question on the candidate portfolio. Now, you mentioned that you had selected 15 managers, I guess, with -- to assess the candidate portfolios on page 12 of 19.

Was that selected by randomization or was there -- what was the methodology around that, to mitigate any inherent bias?

MANAGING INVESTMENT DIRECTOR GUNN: So it's just been a growing survey over time. So we've just been adding more and more manage -- so it's not entirely random. There's an element of familiarity, who can recall, who can we talk to, who will commit to regularly giving us this kind of information. But it is our intent to grow this survey and to be more prob --

COMMITTEE MEMBER PACHECO: So we move -- so the increase -- the N would increase then over time.

MANAGING INVESTMENT DIRECTOR GUNN: Yes.

COMMITTEE MEMBER PACHECO: All right. Very good then.

Thank you very much.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And it is worth mentioning that, yes, Wilshire is one of those survey respondents for us.

COMMITTEE MEMBER PACHECO: Yes. Thank you. Thank you very much.

CHAIRPERSON MILLER: Okay. President Taylor.

VICE CHAIRPERSON TAYLOR: Yes. Thank you.

So I guess my question is why A? Because it has the highest risk. Right? It has -- it raises the rate of Return to 7. And then it lowers our fixed income of which we're doing very well. So that's why I was --

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: What we did -- can we get slide 12 back up, please, which is page 304 out of 420 in the packet.

Thank you.

Sorry, Sterling. Go ahead.

MANAGING INVESTMENT DIRECTOR GUNN: So that's the -- the risk is actually the same as the current portfolio. So if you were to look at --

VICE CHAIRPERSON TAYLOR: True.

MANAGING INVESTMENT DIRECTOR GUNN: -- current policy, 21.5 percent drawdown. Now Policy A was designed to have the same level of risk. It says 21.4. That's just a statistical thing because of the way we actually -- the tools that we use. So they have the same level of risk. So then the -- what comes with that, it just happens a modest increase in the projected return. But it's designed fundamentally to have the same risk that was approved two years ago.

VICE CHAIRPERSON TAYLOR: Okay. So it's the return -- the modest increase in the return that we're looking at?

MANAGING INVESTMENT DIRECTOR GUNN: Uh-huh.

VICE CHAIRPERSON TAYLOR: Because why -- and why I ask that is, so we're increasing our deployment of private equity but we're decreasing fixed -- yeah, fixed income?

MANAGING INVESTMENT DIRECTOR GUNN: Uh-huh.

VICE CHAIRPERSON TAYLOR: But I thought we were doing really well on fixed income and it was -- I understand it with the lagging returns private equity right now isn't doing all that well.

MANAGING INVESTMENT DIRECTOR GUNN: Right. So this is a long-term portfolio --

VICE CHAIRPERSON TAYLOR: Right

MANAGING INVESTMENT DIRECTOR GUNN: -- first of all.

Dan also mentioned a few features though. All else being the same, we would have had more fixed income. But we do think we're a growth oriented portfolio. We do want more equity in the portfolio. We think private equity is the more attractive part of the equity space. So we're increasing that allocation.

In addition, we're increasing the private debt. Dan mentioned that does sort of then chip away at the public fixed income.

So there's a slight change in the fixed income, not because its circumstances aren't better now than they we're two years ago but because of all the other moving parts in the portfolio.

VICE CHAIRPERSON TAYLOR: So it's just --

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And I think the -- well, here's what I would add -- quote, I would add to that, is that total equity will go down a little bit. So if you look at current policy, it's 42 percent public equity and 13 percent private equity. And we view there is some sort of public/private market equivalent there. So that's a total of -- what is that? 55 percent, right?

You move on to Portfolio A, 37 and 17. So that's 54 percent, right. So it comes down by a percent.

Then the opposite you're seeing happen in fixed income, right, that fixed income and private debt, again they're trying to public and private corollaries to one another. The total is 35. When you go to 28 and 8, the total is 36. So you'll see fixed in -- the overall public and private combination goes slightly down in public equity, slightly up in fixed income, though very modest;

and this goes back to again what Steve from Wilshire was saying, we think modest changes are appropriate in mid-cycle review, with potentially larger changes in the full-blown every-four-year review.

VICE CHAIRPERSON TAYLOR: So and this is -- I will say this is the first time we've ever done this. So -- since I've been here, I should say.

So I question why we need to do this. But before that question gets answered, the other question I had is, what's the long term? So fixed income has had bad returns, right, for a long time, it seems. And then we've had the last couple years of really good returns. What is different on the driving of that? And then, what's the long-term view of those returns still giving us a good profile of returns?

Anybody.

MANAGING INVESTMENT DIRECTOR GUNN: So in the CMAs that we showed earlier, those are the long-term projected returns.

VICE CHAIRPERSON TAYLOR: On fixed income?

MANAGING INVESTMENT DIRECTOR GUNN: On fixed income. For all of the asset classes. That's on page 8 of these materials.

VICE CHAIRPERSON TAYLOR: Page 8, yeah.

MANAGING INVESTMENT DIRECTOR GUNN: So you can see this is significant improvement in fixed income returns compared to what people thought two years ago.

VICE CHAIRPERSON TAYLOR: Right.

MANAGING INVESTMENT DIRECTOR GUNN: Now you could ask about why they thought that two years ago, but the circumstances were pretty rough, right? We were still coming into the GFC. Fed policy was keeping rates incredibly low. And that's changed. In the last two years we've had a number of events that have led to inflation, that have led to the fed increase in short-term rates. And the whole curve was adopted to that -- that world view. And that's closer to what we would expect in the long run.

So those rates are I think long-run rates.

VICE CHAIRPERSON TAYLOR: Okay. Okay. And then -- now I already forgot my second question.

Why now? I think was my second question. Why are we doing this now? It seems like -- again it seems a little new for us to do this. So why now?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Maybe I'll start it now, Sterling. Then others jump in.

I think the main reason is because what I mentioned in my opening comments that we're starting to bump up against the bands and the private markets, right.

So that, you know, when we adopted the candidate -- the portfolio, we also had an implementation plan. And that implementation plan was to graduate peace into private assets again. That's what we thought we could achieve in the deployment. We have achieved that faster, which means that right now we are -- we can be ±5 percent let's say in private equity. We're overweight about 4 percent. And so if we got another drawdown, we would actually breach the band.

What we really want to do is just stay consistent and we -- you know, we've talked about this several times and I know Ms. Middleton asked this question several times. I would say the biggest mistake that we have -- that arguably we've made in my entire tenure here but certainly we've made coming out of the financial crisis, was that we stopped committing to private equity and those vintages after 2008, '9, '10, '11, with conservative assumptions we believe that cost us something like $11 billion. We don't want to recommit that mistake. What we really want to do is just stay consistent in our deployment. So while this feels like a change, and Anton can talk to this again when we get into closed session, our allocation budget is not changing. Really what we're trying to do in private equity is continue to commit the same amount of money year after year so that we can try to not make that same mistake.

VICE CHAIRPERSON TAYLOR: Okay. And so here's another question I have then. Sorry about this, guys.

So if we are bumping up against the band, right, are we measuring this -- using the right measurement to measure this, number one? Should we use a percentage, should we use a dollar amount? But additionally, since most of this deployment is coming within the last couple of years, how do we stop bumping up against the limit because we're still need the deploy but we don't have any -- that much old stuff so that we could -- you know, that gets liquidate and then we can do -- and keep at a certain either dollar figure or percentage, right. So it seems to me that we're -- in my head, the way my math works - and I'm not math person - but that seems to me that that would end up with us continuing to deploy and then raising the cap because we don't have enough to sell to keep us at a -- either -- a solid percentage that we agree on, the 17 percent, or a dollar figure.

So there's two questions in that. Number one: Why did we use percentage? Because maybe that could be the problem. And could we use a dollar figure or something else to measure? And then how do we do this when this is, you know, 10-year investments, and almost everything we have right now is new?

MANAGING INVESTMENT DIRECTOR GUNN: So this is the first question. We started our analysis with dollars so we could work very closely with the asset class. And it is all about dollars. They're deploying dollars. That's what managers get. They get dollars; they don't get percentages.

It falls on total portfolio. Then to try to interpret that and understand the range of outcomes in terms of that percentage. And that's something I'll also talk about a little bit later on.

The second part is capital goes out but it also comes back.

VICE CHAIRPERSON TAYLOR: Right.

MANAGING INVESTMENT DIRECTOR GUNN: And all of that work is focused on what the commitments are, and then what kind of behaviors do we get? And if you make a commitment today when it's the capital call, then once the capital is called, when does it come back? So a lot of work goes into try to understand that. And again, no certainty in that work, but it's a lot of statistical work.

So we will see an increase in the dollars in the portfolio. And a lot of our conversation then, what's the right pacing? On average, what's the right pacing that the team should commit to in terms of dollars? And then we interpret that and say, "That gets to a reasonable outcome as a percentage."

So both those pieces.

Sorry, Dan.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: No, I agree with everything you've said.

I would say, Ms. Taylor, you're picking at something that our senior investment team has spent a lot of time picking at, because -- and Sterling alluded to what we have -- our pacing models. And we have pacing models across private assets, and what they do is they look at what the portfolio and what the ratio of sort of fund investments and co-investments, it looks like. And then what we expect from that as we continue to commit both in terms of what's going into the ground and what's coming out. And like I said, there are a lot of assumptions to those models. They're models. They're very informative, and that's what a lot of the debate has been. We do think that where we land with those pacing models, that that sort of Portfolio A, lifting private equity from 13 percent to 17 and lifting private debt from 5 to 8, is the right way to do our pacing. We can still handle the liquidity and we'll lean into the more attractive asset classes.

VICE CHAIRPERSON TAYLOR: Doesn't answer though the question I was asking, which is how do we avoid having to come back in two years and increase this cap again? That's what I'm thinking that we're going go, because I -- I see -- you guys gave us a long-term look at the economy, which is looking like it's slowing, right. We're not going to have, it sounds like -- I mean we could -- but we're not going to have these great returns that we had before the Great Financial Crisis. I think we had one year or two years of really, really good returns from 2008 to '17 or something like that, or '20 or whatever it was.

So how do we -- how do we stop that where we're going to end up having -- are we going to keep allocating until we're at 30 percent of the fund its private markets.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: I would say it's probably now -- I would say right now we're at 32 percent private markets in the Total Fund. Right now that's private equity, private debt --

VICE CHAIRPERSON TAYLOR: Okay. So let me say private equity then.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Okay. Private equity.

A 30 percent allocation to private equity would be a very large allocation to private equity. I can't say that that's not something that -- I would not rule that out, because I do think again if you look at the capital market assumptions, private equity is our highest returning asset class and it's got all those really -- those really attractive characteristics.

On our current pace we think it'll get us to about that 17 percent. And because we think it'll get us to about that 17 percent, that's why that's what we're recommending this time. But it is very possible that in two years' time we would look to raise that again as we continue to allocate them that way.

MANAGING INVESTMENT DIRECTOR GUNN: If I could just add to that.

All these pacing conversations lead to very healthy conversations. Dan mentioned earlier, I mentioned earlier, the private assets, it's about doing better than the public equivalents. So as an ongoing conversation, even though these are long-term projections, that is this asset class attractive relative to the public equity market, for example? If it is, then the allocation will likely increase.

However, at the same time we have to manage liquidity, and that's where there's the pushback. So striking the right balance -- and we do an awful lot of work interpreting the pacing models and asking again the stress tests on the liquidity side, do we have a balance that we know we have lots of liquidity both now and in the future based on the models that we're using to better understand the private assets?

Fundamentally though it's trying to strike a balance of maximizing the value.

So might we get to a 30 percent? If the relative merits were there and if we had the liquidity to sustain that over 20 or 30 years, that's something that we would contemplate. Obviously we'd have to come here as part of the SAA to make that proposal. We're not there today. Might we get there in the future? It's possible again, but based on the relative merits and our liquidity situation.

VICE CHAIRPERSON TAYLOR: Okay. I'm going to end with, I'm going to ask you guys to -- and I appreciate that.

First of all, private equity's hard to benchmark, right? So it's hard to say that we're going to do much better with it or more of it. But also, for the last few years it has not been all that great. So -- but I also don't want -- I don't want us to stop. I understand that was our big mistake. But I don't want us to go the other way either. I don't want to overinvest in an asset class that is very illiquid but at the same time it is showing signs of weakness over the last five years or so, comparatively speaking, to what it was. I mean the returns used to be in the teens, right -- 20s and teens. We're down in the single digit returns now most of the time. Sometimes up in the 11s, 12s, 13s. But I just -- I caution you guys -- are we going some place where I'm not supposed to go on this conversation?

Okay. I caution you guys that we don't overreact and do too much.

Thank you.

CHAIRPERSON MILLER: Next we have Director Rubalcava.

COMMITTEE MEMBER RUBALCAVA: Thank you, Mr. Chair.

I appreciate the presentation. One thing I appreciate about CalPERS, it has a long-term horizon. And one thing that also drives that because there's a long-term horizon, we always look at actuarial assumptions. And as Scott pointed out, there's no recommendation to make any change in the long-term assu -- in the assumptions. And those are always driven by experience studies. And there's always been like a concept we don't tweak them; you look -- we wait for the experience study.

So before I get to the experience-study question, I want to talk about the capital market assumptions, as people have been focused on this page 8 of 19, fixed income returns have increased more than were expected. And at the same time, even though private equity still continues to be very attractive, I mean they still have higher returns, it's a lot lower than previously expected two years ago. So it seems counterintuitive, if it's lower expectation, why would we say we should increase our allocation as private equity? It seems counterintuitive to me. If somebody could speak to that.

And then I'll go to the actuarial question.

Thank you.

MANAGING INVESTMENT DIRECTOR GUNN: So we'd be happy to speak to that.

That was the conversation about constraints. So two years ago we just didn't think we were capable of doing more. Frankly, if we had the capabilities, then we probably would have actually asked for a higher allocation two years ago than we did this year. If there were no constraints, then it's possible, you know, the allocation would have maybe stayed the same. But what we were saying this year is still -- the highest returning asset class is still attractive, and we would like to get closer to the levels that we would have liked to have done in the first place.

So basically we lacked seeing the constraints. That's the result of the increase in the allocation.

Still justified by the returns.

COMMITTEE MEMBER RUBALCAVA: Okay.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: I'm not sure if that makes sense, Mr. Rubalcava. But let me try saying it another way, because it is counter -- no, I agree, it's counterintuitive.

If we didn't have a constraint on private equity in 2021, the optimizer would have allocated something like 25 or 30 percent to private equity. Because we didn't think we could deploy that fast, we capped it at 13 percent, and the optimizer went right there.

Now we just raised -- and I could show you -- because we found that we can deploy faster. Again, if you run it in an unconstrained way, it will still allocate into the 20s. But when you remove that constraint or you move it up to 17 percent, it goes there.

So it is unequivocally counterintuitive. And I think we all looked at that question, "Really, that's counterintuitive. The returns have come down and yet our allocation is going up." But it really is as Sterling said, it's a function of the fact that we have found that we can go faster, so we've raised the constraint and have optimized, it allocates right to the constraint.

COMMITTEE MEMBER RUBALCAVA: So I guess it drives another question before I get to the actuarial.

So do we need to adjust anything in the investment policy that we can make a change in the mid-cycle instead of waiting for the regular process?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: That's what'll change will be in the investment. Right now, the Total Fund Policy states that private equity is allocated at 13 percent. But remember that we talked in closed session with this Board on the implementation plan. So the policy level is actually a little bit lower than that. This update, if we do this in March - and again, remember, this is an information item and we really -- we want to hear all of this feedback and these questions and all of these -- you know, all of this discussion. But then we would be back -- if there is appetite to do what we would recommend given what we know of the risk appetite, our collective risk appetite, we would be back in March with an item that increases private equity and private debt, reduces public equity and public credit, and then slightly leans into fixed income. And then that would drive an update to the Total Fund Policy for those allocations.

COMMITTEE MEMBER RUBALCAVA: Okay. Let me go back to my actuarial, I like the term you use, "anchor." That's what I understand coming to this Board, the actuarial stuff more than the investment side. And there's like a long-range patience kind of thing. And I'm sensitive to what was said, the term I like was the lost decade, you know. But I think that reflected I think a reactive responding to the immediate economic conditions as opposed to a steady roadmap, so to speak. And so I have a question on the actuarial assumptions.

The timeline, page 3, November -- November 2020 we have the experience study. In June of 2025, there will be a look at the economic assumptions.

When do we -- and I know in November 2025 we'll -- hope -- we'll look at the experience study. But when -- when are the demographic assumptions presented to the Board? We have to wait till November 2025?

CHIEF ACTUARY TERANDO: Yeah, that's -- we normally come to the Board in November and present the demographic assumptions. What we do is during 2025 while the, you know, various portfolios and new CMAs are being factored in, we are reviewing the experience we've had over the last four years, comparing it to what we had over the last 20 years, and developing new assumptions on the demographic side. And we kind of bring those forward and present those to the Board in November.

We do have -- in September, I think what we do is we bring a draft of the results of the experience study in September so the Board has a chance to see our findings, and then we come back in November for final approval. It's similar to the portfolios presented, where the Board sees everything in September and then they have several months to look over the material before making any decisions on it.

So it's like -- like a first -- you can think about it as first reading in September, and then a final -- or possibly approval in November.

COMMITTEE MEMBER RUBALCAVA: Yeah, I'm very cognizant that actuarial assumptions impact contribution rates. So the experience study it would also talk about the economic assumptions. So I feel more comfortable seeing both together.

CHIEF ACTUARY TERANDO: Yeah, and they do come together. In June I think what happens is we come back -- we were talking about capital market assumptions, which is similar to the survey results that Sterling presented earlier this morning, where you saw on the survey results and the various ranges. That's -- that will be the CMA's discussions. And then in terms of economic discussions, that's mostly on inflation.

And when you talk about -- we don't really get into any demographic stuff. You know, if we have preliminary demographic materials we can possibly bring some of that -- or, yeah, preliminary findings in June as well so the Board can at least get a flavor for what's going on and what we're seeing. I think we could do that.

COMMITTEE MEMBER RUBALCAVA: Yeah, because I think I saw something or read something where -- something about the retirement trends are changing, shifting. And I know that how much income comes into the system, it's also employer and employee contribution, so that would impact something I think of how much money we have to invest.

CHIEF ACTUARY TERANDO: I think -- you know, we saw a spike in retirement rates with COVID but now they've dropped down. And so when we -- when we -- in two years we'll have a, you know, four-year period to kind of review the retirements and see, you know, both what we saw during COVID and what we saw post-COVID and see where we are. So are we kind of like -- when you factor all four of those years, are we back to kind of like back to normal in terms of what we're seeing; and when you look over that four-year period you just have a spike and then the drop and then we're just back to where we were before. And so, you know, that will be a lot of what we'll be looking at when we do an analysis in a couple years.

COMMITTEE MEMBER RUBALCAVA: Yeah. You know, one thing, when I first came on the Board I think one of the first votes I took was to adopt the final leg of the risk mitigation strategy or program. I can't remember the right term. So I would -- and I'm very cognizant, very mindful that we -- you know, we have an obligation to meet the return bogey, you know, make sure that we can provide the secure retirement benefit. But at the same time I want to make sure we're driven by experience and not short-term immediate fluctuations in the market, you know.

So just looking forward to more reports and -- before we make any changes.

Thank you very much. Appreciate the response back on the questions. Thank you.

CHAIRPERSON MILLER: Okay. Director Middleton.

COMMITTEE MEMBER MIDDLETON: All right. Thank you.

And thank you for what's very interesting and very strong reports.

So a couple of general questions. Then I want to dig into a couple of specific items.

But if I understand right, with scenario A you're telling us that there is an opportunity to potentially get to 7 percent return; is that correct?

MANAGING INVESTMENT DIRECTOR GUNN: Under the current survey, there's always that potential. So if you think about the way these work. Yeah.

COMMITTEE MEMBER MIDDLETON: So is that largely driven by an increase in our risk appetite or is the market itself changing?

MANAGING INVESTMENT DIRECTOR GUNN: I think that's just more a reflection of the survey results through the market changing. We haven't changed our risk appetite for that portfolio.

COMMITTEE MEMBER MIDDLETON: All right. As we look at these kind of changes - and this is really directed more to Steve and Tom - what are the areas that you see are the risk to us with these changes?

MR. FORESTI: I think -- and Ms. Taylor touched on one of them, which is that the -- you know, the premiums that are assumed to be there in the private markets don't materialize over time as they have in the past. So that's -- that's one of them.

Dan, you know, mentioned earlier the importance of managing liquidity as a private part of the portfolio increases. That's a risk. It's a manageable risk, but it's a risk.

So I -- I'd touch on those two in particular. But in general these are capital market assumptions and, you know, I think we have a lot of confidence directionally and we've had such a profound change from two years ago that, while there's uncertainty in capital market assumptions, I think to ignore that change would be to just throw our hands up and say we don't really know anything about the future. And I don't think that's true.

So while we have uncertainty, we do -- you know, we have strong modeling, strong techniques. Yes, there's uncertainty around that. But there's always that general risk. You could see in the survey results Sterling showed how wide a variance. I mean I found that to be remarkable just how different the expected return on that same portfolio is from 15 different providers.

I will say, that doesn't mean that their asset allocation results would necessarily be dramatically different from what the suggested portfolio is, if you worked off of those. Because it's really the relative relationship between asset class returns. It's just as that for a static portfolio, that's a range. But I think that's speaks volumes to the level of uncertainty. But hopefully that helps at laying out what I think some of the risks might be.

COMMITTEE MEMBER MIDDLETON: All right. Thank you.

One of the things I noticed with all of the scenarios is the percentage of real assets stays stable at 15 percent. Yet over the last few years, particularly since COVID, we've seen a lot of turn in commercial real estate market. Do you see there being a different mix of real estate assets that we will be holding and do you continue to believe that real estate -- or that real assets will carry out its traditional responsibility as a stable investment?

MANAGING INVESTMENT DIRECTOR GUNN: So in terms of the mix, that's probably a question best addressed to Sarah. I think the mix probably does change given everything that we've been seeing going on in the market.

In terms of the allocation itself, we've sort of held the line at 15 percent. If you've been really, really restrict in the sensitivity analysis, you might have seen that allocation actually reduced. And if we were actually to have abided by that, we would have been selling in a market where we probably didn't want to be selling. So the sensitivity analysis that we've already looked at, if we hold the line as opposed to maybe coming to the market, it ends up it makes very little difference at the total portfolio level.

So, you know, we talk about, you know, analytics and so on. We also try to impose some common sense and try to avoid doing things that we might regret in the future.

COMMITTEE MEMBER MIDDLETON: Thank you.

Doesn't really hit on the issue of the ALM, but I was a bit surprised when the slide was up on fixed income that it showed 78 percent of it was internally managed compared to a lot of others that were in the 90s. It would -- as someone who's not an investment professional, it would seem that fixed income would be an area that would be more amenable to internal management.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah, but it is substantially internally managed, right. But it is down from mid-90s. And I would say that has to do with two things. Number 1, the addition of emerging market sovereigns as a sleeve. Remember, we did that in 2021. We think there's opportunity for active management there. And a result we've moved some externally.

And then number 2, we had been managing high yield primarily internally. We actually think that there's some real opportunity for active management and excess returns and high yield. But that's -- it's very hard to attract a high yield team; and as a result, we would -- we have moved a substantial portion of that external also.

COMMITTEE MEMBER MIDDLETON: All right. Thank you.

Moving towards the end of my questions. But I really do appreciate the commitment to stability and private equity investing and trying to assess the pacing models that you're speaking to.

The media has had paid a lot of attention to another announcement that we've made going into this meeting, and that's the recommendation to come close to doubling the amount of investment that we have in - for want of a better word - climate-related green energy.

Does a greater commitment in private equity make it easier for us to move in that field, or is it even relevant to that discussion?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: It may be that we should get Anton and Peter up here for that. Or we can take that up under Item 4 -- or 6, I'm sorry, D if you'd like.

Yeah, you know, I would say that in general, yes, it would -- actually does create opportunities for us. But to get any more detail than that, I would want those two to answer that question.

CHAIRPERSON MILLER: Yeah, let's hold it till D.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Okay.

COMMITTEE MEMBER MIDDLETON: We'll defer that question till later.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And I'll let them know that they are going to have to answer that question in 6d.

COMMITTEE MEMBER MIDDLETON: So really the last question.

And we started the day with some pretty harrowing commentary coming in from individuals in the workforce. And that's all private-equity-driven investment. So -- I appreciate where we're trying to go. But I'm also chastened by the knowledge that the greater investment that we put in private equity, the increased responsibility that we have to ensure that we are working with partners that actually do share our values and our long-term values.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Agreed.

COMMITTEE MEMBER MIDDLETON: Okay.

CHAIRPERSON MILLER: Okay. Thank you.

We're on to Director Pacheco.

COMMITTEE MEMBER PACHECO: Thank you.

I just want to compliment my board members, President Taylor, Mr. Rubalcava and Ms. Middleton, about this private equity, and the allocation proposed here with number A from 13 to 17 percent as well as the private debt from 5 to 8 percent. And, you know, from my understanding, you know, these assets are illiquid in nature. They are about a 10-year life cycle horizon.

But I want to know if in part -- is part of this analysis that -- are we going to incorporate the private equity data conversion project, which is -- brings out some more information about what's going on? You know, understanding some analytics about private equity, I know inherently it's kind of difficult to find out what's going on under the hood. But is that something that we are, you know, considering working with in words or milestone in that? Because I don't think we've talked about that a lot.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah. So the private equity data convergence project continues our pace. And we've been very pleased with the uptake. We're continuing to focus on it. So you'll see more on that. And, again, Anton would be the expert, and I'm happy to have Anton come up. But it is definitely the case that we are continuing on the private equity data convergence project.

To your comment on liquidity, yes, private equity and private debt are illiquid assets. I would say the actual -- the fund life cycles are about 10 years in private equity and about 6 to 7 years in private debt. And I would say that the asset holds are -- again are about half that, maybe 5 to 6 years in private equity and again maybe 3 years in private debt.

But there is a liquidity component on all of that is what weighs into those pacing models. And, again, that was the area that President Taylor was picking at earlier.

COMMITTEE MEMBER PACHECO: All right. Thank you very much.

CHAIRPERSON MILLER: Okay. Thank you.

I don't see any requests to speak further on this item from the Board.

And I believe we have one public commenter on the phone for item 6b.

Do we have Ernest Tanga on the phone?

Oh, in the room.

Okay. Welcome. And when you introduce yourself and start to speak, your time will appear; and it will start when you begin.

ERNEST TANGA: Good morning, Investment Board. My name is Ernest Tanga. I'm a ramp agent. I work at Dulles International Airport outside Washington D.C. I work for Swissport U.S.A.

I want to tell you what it's like to work for Swissport U.S.A. In March this year, that's -- excuse me -- in February 13 this year, I was actually injured on the job because the type of bag loader I had to use on the flight was loading bags onto -- it wasn't safe and had caught between it and plane. I lift heavy bags and my legs slipped in between the plane and the bag loader. I was totally trapped and in pain. Still I have -- still I have pain in my leg. That's my knee precisely. And some days I -- it makes it hard to work. I heard the work even -- a worker even died because of a similar situation at another airport. I'm also not the only Swissport worker that has been hurt at work before.

Honestly, because we don't have enough workers, I feel like working at Swissport is getting more and more dangerous for workers like me. Swissport was recently named one of -- was included as one of the dirty dozen by the National Council of Occupational Safety and Health, which is at least of employee -- employers whose work are more from to hazard that the company can prevent.

Just recently my co-workers and I also realized we were missing wages for hours that we worked. Personally, I was missing over $500 in just an 8-week period. I knew many Swissport workers across the country are facing similar issues with the errant paid correctly for the hours they worked.

I'm sure you can see how this isn't good for investors like you. I don't -- I don't always feel safe at work and I am overworked and not paid correctly. I ask you to listen to our stories and do what you can to help us.

Thank you very much.

CHAIRPERSON MILLER: Thank you.

Okay. I don't see any other requests to speak on this item. So that will bring us to Item 6c, Total Fund Portfolio Management, the Annual Program Review.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes. Thank you, Mr. Chair. And it's fortunate that we have Sterling up here with us because he will take us through the Total Fund Portfolio Management Annual Program Review.

Sterling, over to you.

CHAIRPERSON MILLER: Very good.

(Thereupon a slide presentation).

MANAGING INVESTMENT DIRECTOR GUNN: Thank you, Dan. And I was kind of pleased earlier when Dan described the SI review as another exciting review. Which kind of implied that maybe this one would also be exciting.

I'm not so sure.

Anyway, I'll carry on.

So I just want to go over TFPM and make sure that it's a -- a few things. One, give an overview of what our objectives are and how we're organized.

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MANAGING INVESTMENT DIRECTOR GUNN: We'll speak to a few market-related themes and, you know, some concerns we see on the horizon. We've already talked to a number of those already but I'll just touch base with them.

A review of few performance indicators for our team.

And finally a talk about some the initiatives in the coming year.

And I would like to say, you know, TFPM, as we call ourselves, if we do our jobs well, no one notices. That's sort of the kind of work that we do for the most part on a day-by-day basis. You know, the asset classes have a -- get a lot of attention, and deservedly so. They're generating, you know, value-add relative to benchmarks. And our job, as we'll see, is more to make sure that we stick to the broad mix as expressed by our benchmarks.

So let's go to the next page, please, page 3 of the presentation.

Thank you.

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MANAGING INVESTMENT DIRECTOR GUNN: So we're very much focused on maintaining the PERF's total portfolio risk at target level. So, you know, we talked earlier about risk in the context of the ALM. Most of that's set, so then it's our job to kind of maintain that level. And we do that by looking at the asset class mixes and maintaining that mix.

And some activities related to that:

One is portfolio completion. And that's just sort of a day-to-day management of -- managing cash flows into and out of the PERF, including when we have capital calls on private assets and so on.

And then another more visible activity is more quarterly, and that's the rebalancing of the portfolio.

Over time, because of the return that will occur in the quarter, the asset mixes will differ from where we'd like them to be. And so it's our role to rebalance that portfolio. So we work with the asset classes to do that work.

Now, support of those efforts and others, such as strategic asset allocation, we do have research that supports the deployment of risk.

And actually I've mentioned the SAA, but also the risk budgeting, which we'll talk about in a minute.

And we also work to monetize the balance sheet. So basically there are a lot of assets that we have invested passively. So we do our best to put them to work on a short-term basis to try and improve our returns.

And we have few metrics, which I think are on the next page.

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MANAGING INVESTMENT DIRECTOR GUNN: Or perhaps not.

So come back -- this -- we contribute very little to tracking error, so come back to that.

We also have about $34 billion outstanding right now of financing activities. That supports the leverage in the portfolio, both the strategic leverage as well as active activities.

And we've helped set a current risk budget for the year where we have projected returns, a 5-year average of about $800 million.

And in the strategic plan we've been working on for the last year with the Board we've been talking to, the idea is to try to increase that outcome to perhaps as much as $3 billion.

We'll go to the next page to just talk briefly about the functionality. I won't go through this line by line.

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MANAGING INVESTMENT DIRECTOR GUNN: But we have a role in developing asset class strategies. We have a role in the SAA, as I mentioned. We also have a role in meeting the needs of internal stakeholders, whether it's the economic reporting, having views on what's going on in the markets, and so on. We also have a role in providing ongoing risk assessment of what's actually in the portfolio and our portfolio position. And that includes regularly reports to the Board here.

And, finally, we also work for the asset classes to assist in the ongoing cash and liquidity needs. So we talked earlier, for example, about the pacing models that we're developing with the asset classes to make sure that we're very comfortable with our liquidity situation. And again both now, which is maybe the easy part; but also we were talking about, you know, if these asset classes grow and become a more important feature of the portfolio, will we have sufficient liquidity in the future? And I'm very comfortable in saying, yes, we will with our current assumptions and our current attitude towards those asset classes.

So there are key accomplishments on the next page.

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MANAGING INVESTMENT DIRECTOR GUNN: So we undertook a number of issues this past year in support of the strategies overall. One was top of the list, improving our liquidity and financing processes. These are actually coupled together. How we finance ourselves actually is part of the balance sheet, and then the balance sheet provides our liquidity. So we focus on that.

We've coordinated the transition of the SAA. And we'll talk a bit about that and then perhaps enclose those details. But how do we go from what was approved two years ago, that starting point, to how do we get to it was approved? That's the transition. We helped manage that.

We led the active risk innovation initiative, which set a framework in governance for incorporating new ideas into the portfolio. I think a few months ago we spoke about our desire to increase our active portfolio with a desire to creating more dollar value-add. To do that, part of that is to have new ideas, at least new to us, and incorporate it into the active portfolio. How do we do that?

Mentioned that we socialize the new risk budget and incomes for that.

And -- I guess we can go to the next page around strategy and portfolio positioning.

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MANAGING INVESTMENT DIRECTOR GUNN: And I've mentioned it a few times, but it's well worth mentioning again here. And we'll see the quantif -- we'll quantify this in a minute. But maintain total portfolio risk and how we do that through portfolio completion, through rebalancing. And also how do we maintain our financing.

In terms of our strategy, having recommended strategic asset allocation to harvest our long-term risk premium, that's the primary reason for trying to maintain the risk at the levels that were approved, as well as designing and facilitating that risk budgeting process, which leads to higher DVA in the long run.

Next slide, please.

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MANAGING INVESTMENT DIRECTOR GUNN: Well, we've talked through some of the questions from the Board and we've talked about some of these. But I'm going to touch on them again.

So current concerns. Although they are current, they are not new. In fact, I would say most of them are actually par for the course, and it's just a matter of degree now they vary over time.

So we talked a bit about the private assets. And Steve mentioned earlier about one of the concerns is can we maintain the relative merits of privates relative to publics? Do they maintain that relative advantage? It's always a concern. So that's why we have a regular review, not just as to pacing but also there are assumptions that drop that pacing.

Geopolitics. We touched on that very briefly earlier. I would say they become less predictable, they got more volatile. The world's quickly changing. But I do believe global markets still have a role in our portfolio. One of the key tools we had to manage geopolitical risk is diversification. Rather than making a single bet on just one or two countries, having a diversified portfolio, but then over time also mentoring that; just as we do with our assumptions about the private assets, we can monitor our assumptions about countries over time. And if we feel adjustments are made, we can try to do that.

And also another thing that we touched in our concern we've discussed earlier is about the future just in general around growth and inflation. On that point, I do kind of feel that we're going to be in a world of long-run trends, slightly higher inflation, perhaps maybe a little bit lower growth. It's a more challenging world. It means we'll have to work harder. And SO two years from now we'll go through the ALM and we'll have a conversation around those details again. But I do think that's probably a part of the world in the future. So we're involved in all those -- all three of those themes or those concerns, we also like to talk about here.

On the investment themes we talked about harvesting risk premium. We talked about that also a few months ago. Provide some exhibits about what actually looks like and how that's a long-term strategy. I didn't include the exhibits here, but it was in the public document that we shared, about equity risk premium, for example. Even on a 10-year rolling basis you can still have negative returns. And that happens about 10 percent in the history that we've presented there.

So it can be a bumpy road, but it's an important road to take because we need to find those returns to meet our discount rate.

And then the last theme we have here is simply working with Peter and the asset classes to make sure we do incorporate sustainable investing practices into our portfolio.

And as I opened with on the ALM, that's -- I don't think that's incongruous with actually trying to maximize returns. I think it's consistent.

Go to the next page, please

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MANAGING INVESTMENT DIRECTOR GUNN: Already speak to this -- fairly briefly, but we highlighted the red part. As I mentioned, we rebalanced the portfolio to maintain risk, to maintain the mix that we want in the portfolio. So the column we've highlighted, Total Policy Benchmark. The policy portfolio is a benchmark for -- to the Investment Office. And we try to maintain the mix, to maintain that benchmark.

So this is just a summary of the 10-year performance, which is a reasonable horizon over which to measure. And you see it's a 7 percent return. It generated about $234 billion in total over that period of time. And that's not the work done solely by my team at all. Far from it. But rather collectively, that's we've done together. And my team's contribution is to maintain the overall mix at the target levels.

And also mentioned $2.8 billion of dollar-value-add there over the 10 years. And, again, that's an area of interest for us, where we believe we can create a larger active portfolio that can generate additional dollar-value-add over the coming years. That's part of our strategy that we're developing.

Next page.

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MANAGING INVESTMENT DIRECTOR GUNN: Just very briefly. A short discussion on tracking error. We throw the term around a lot. Really it only applies to the public asset classes. That's the only place where it's really actually meaningful.

We do measure it for the private asset classes. When we -- there was a comment earlier that, you know, benchmarks -- you can't really have a good benchmark from the private asset class. It's very hard. So we do measure it. We can remonitor it. It's not a policy element. The policy element applies to how the -- how different are the public asset classes from their benchmarks. That's measurable, and that is meaningful. So we can measure that.

What you can see here in this table highlighted in the red box there, historically reviewed is very, very little. What's available to us in terms of tracking error? The policy says we can use up to 100 basis points. We're currently using about 15. And again it's our intent as we build a stronger active portfolio that you should see that increase over time.

We can go to the next slide, please.

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MANAGING INVESTMENT DIRECTOR GUNN: So this sort of a measure of our day-to-day activities and so on. We set a benchmark for ourselves, you know, buying and selling in the markets. There are some frictions in the markets. There are some costs associated with that. And so we allowed ourselves 2 basis points as an expected cost over the year.

What this chart shows us is a few pieces of information. That red line is the expected outline -- outcome. It's a cost, so slow decline.

The cones, the dashed lines, and the dotted lines are the sort of error bars, as it were, the tolerance for being different from the expected outcome.

And then the blue line -- the variable blue line is what we've actually done over time. And you can see very early, on around June 20, there's a bit of a glitch there. That's COVID. It's hard to manage through those kind of exciting times, but we did a pretty good job since then. We've actually done better than expectation. We're pretty much flat, almost no cost. And again this goes back to, as a team, if no -- if you're not hearing about us, it's probably because we're doing a good job as opposed to the other way around.

So go to the next slide.

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MANAGING INVESTMENT DIRECTOR GUNN: The other activity that we're involved in is raising finances, for the leverage, for the active portfolio. And we are benchmark on those costs. What does it cost for us to raise funds? And here our benchmark they mention, it's 3-month T-bills plus 50 basis points.

So it's measuring again how well are we doing relative to that benchmark. It's a little bit noisy here and there, but we're well within the bands that we expected and set for ourselves. So again, if we do a good job no one really notices. No surprises.

Next page, please.

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MANAGING INVESTMENT DIRECTOR GUNN: We have completed several initiatives this year going forward. We do see a number of areas for refinement. And really it's just ongoing improvements of stuff that we've already started.

In terms of operational capabilities that would include some new hires and some investments in our technology.

Second, working on enhancing our total portfolio diversification. I mentioned earlier research. So we are looking at, are there additional strategies we can be pursuing. And they would probably start in the active portfolio to improve diversification.

And that plays into, you know, we are trying to increase the size of the active portfolio by working with the asset classes.

And one last item, I've talked about financing. There are many, many different ways in the world one can raise financing. We are trying to improve our capabilities and broaden the number of channels that we can access.

So some of that financing might be related to, for example, you know, treasuries as collateral. If we can expand the list of securities we can use as collateral, then that strengthens our ability to borrow when we post collateral.

So those are the activities we've been engaged in, we expect to engage in in the coming year.

And that concludes my discussion of how the team's done over the last year and where we hope to be going in the coming year.

And probably disappointed Dan. Not as exciting as the SI review will be.

CHAIRPERSON MILLER: Well, I think it was plenty exciting.

(Laughter).

CHAIRPERSON MILLER: I appreciate the report and all the good information.

And I think we've got some questions and comments. And I'll start with Director Pacheco.

COMMITTEE MEMBER PACHECO: Thank you. Thank you, Chairman Miller, again.

Thank you, Mr. Gunn, with respect to your report.

I'd like to go back to the question, I think it was on the last slide you just mentioned, on the area for refinement and you mentioned improved operational capacity. Now when I was reading Wilshire's letter, there were some concerns regarding vacancies in your department. And I wanted to know how -- what steps are being taken to address that. Because if we're going to move forward with this, we should also be addressing that as well.

MANAGING INVESTMENT DIRECTOR GUNN: No, I agree, and we are working to fill those positions that we have available to us.

COMMITTEE MEMBER PACHECO: Okay.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And, Mr. Pacheco, to your question, I think it's probably worth asking Wilshire since they provided an opinion to comment on the overall --

COMMITTEE MEMBER PACHECO: Yes, that would be good.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Ali, over to you.

MR. KAZEMI: Great. Good morning, everybody. Ali Kazemi from Wilshire Advisors here to present some brief remarks in regards to the letter that Director Pacheco just referenced, which should serve as a complement to kind of a more detailed review that Sterling gave on the overall TFPM program.

You know, we've been covering the TFPM program for several years now that the name of the team, the design of the team has changed somewhat over those years. But the -- you know, the core nature of it in terms of serving as a central hub for all things related to portfolio construction and implementation continue to be at the forefront of what that group does.

In terms of a higher level view of the core functions, we focus on four things: one is research, trading, portfolio strategy, and then overall portfolio design. And I'll briefly walk through those four pieces in terms of kind of our evaluation of them.

The trading team oversees the performance funding desk, manages the majority of performance trading, which includes overall balance sheet management which Sterling addressed. Over the last year some of the specific asset class trading has shifted from the TFPM team into the specific asset classes, so the scope and the size of the resources have changed somewhat. But overall in terms of our scoring for that group, it's steady in terms of on how we evaluate that from a qualitative standpoint.

In terms of the portfolio design team, that was introduced as a carve-out of TFPM last year, with the intention of kind of complementing the overall portfolio construction process by simply helping to guide how the approved asset segments come together overall in the portfolio.

We've seen an expansion of that team over the last year and our scoring continues to be strong, which is truly a reflection of what we think is, you know, high caliber contributions from that segment of the TFPM structure.

The portfolio strategy team manages the strategic asset allocation implementation. We saw a little bit of the fruits of those labors say in the mid-cycle review, and also what we can talk about later in closed session. But in addition to implementation of the strategic asset allocation, strategy development and complementary asset class research is also a component of what the portfolio strategy team does. And, again, that team has been highly stable in terms of its construction and in terms of personnel. And similar to the portfolio design team, we observe, you know, above average contributions from that team, and it's reflected in our overall forecasting score for TFPM.

The last component which Director Pacheco I think addresses the point that you raise from our letter is in regards to the research team. That group supports PERF centrally providing research across the board and assisting support on various projects for other programs, again within the broader investment team. That team has been impacted by turnover. And it's low in terms of its resources relative to past years.

There are some open positions but currently they're around four individuals kind of managing the overall research with three open positions. So you're running at about 60 percent of kind of the target range of what the team has kind of laid out. So that certainly has an impact in terms of the bandwidth of that team. And from our standpoint that was the one area where we did decrease overall scoring in terms of depth and breadth of resources.

So that was the one area to speak to in terms of the overall resources of the broader TFPM team.

When we factor in everything overall, our scoring for TFPM as a whole remains in the same decile in terms of it being above average. There are components of the scoring that have decreased that numerically -- to a slight degree. But that has been really offset by again outstanding contributions from the existing team across those four functions. And you've seen again some of that in the work that's been presented today.

So I'll pause there. Hopefully that addresses what was mentioned in our letter. But happy to address any other questions.

COMMITTEE MEMBER PACHECO: Oh, it does address most of it. I just -- I'm just curious. I mean, I know that earlier in the year we -- earlier this year we were pushing -- it was -- I think there was an advertisement called "Invest In Us" or "Invest From Us," that we were trying to recruit more folks in the Investment Office. And I -- so I brief we also had the rapid recruitment process, we were trying to recruit people that way.

I'm just wondering if there are other tools that we could utilize that would also help in that respect, but I'm just -- if you can elaborate on that, that would be great.

MR. KAZEMI: So I'll -- you know, in terms of the mechanics, the specifics of recruiting, an organization like CalPERS I could probably defer to staff to walk through those details. You know, our view as the Board's consultant is just to provide context to what we observe, and our dialogue with the team, and then the potential impact that it may have going back historically but also in the future. And then that's kind of I think where we would go back to staff on that.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah. And I would say it continues to be a tight labor market. It continues to be a -- you know, the challenges that have been ours, you know, continue. But I will also say that a partnership with Michele Tucker and team has been really helpful. That rapid recruitment I think was actually quite successful. We landed several IOs. You have seen our, you know, size of the staff grow. There are still vacancies. We are still making progress on those vacancies. We have started using search firms more. So I think you're seeing progress and you're seeing a very supportive organization, like I commented on in my opening comments. But it's a challenged job market and we'll continue to work through it.

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

CHAIRPERSON MILLER: Okay. Next questioner is President Taylor.

VICE CHAIRPERSON TAYLOR: Okay. Thank you, Chair Miller.

Don't leave, because I do have a question for you. So, the fourth decile you said was above average, but it still doesn't sound too good. So -- and then you said we were down -- you scored us a little lower because of the vacancies and such. So what is -- why would we be kind of just above average normally? And are we trending up?

MR. KAZEMI: So fourth decile is still kind of above average in terms of the way the Wilshire model works. Again, we base that scoring on trying to compare CalPERS organization like we would any external asset management firm. And so, certainly there are going to be some limitations and differences in terms of how we can evaluate an external asset management firm versus an organization like CalPERS. Part of the weighting of that scoring is also impacted by the overall firm and team score. So some of that is related to stuff that's not specific to the TFPM team. So I think that should be noted. And so some of that was discussed in September when we talked about some of the issues relating to the departure of Nicole at the CIO level.

In terms of the other point you asked about in terms of scoring, there are areas such as forecasting, where we've increased the scoring; we've seen the benefits of that. That was somewhat offset by the depth and breadth of resources within the research group that we did decrease the score. So there are components within the overall scoring that are kind of moving in different directions. But overall we add everything up together; it kind of leaves you at that same level, the fourth decile, which is again above average in our model.

VICE CHAIRPERSON TAYLOR: Okay. Then that's above average. Okay. Thank you.

My next question is on page 5, you talked about the Executed Active Risk Innovation Business Initiative, and then "Developed and socialized new risk budgeting framework."

What is the former, Executed Active Risk Innovation Business Initiative? What is that?

MANAGING INVESTMENT DIRECTOR GUNN: So the Active Risk Initiative was the idea of research, to find new strategies that we can include in the portfolio. And our focus is on cross-asset-class strategies. Whereas each asset class obviously has its own activities. Where there are opportunities across asset class, we're focusing on those. And the idea's to find strategies that will improve the active portfolio in the near term and perhaps even become part of the strategic asset allocation in a longer term.

VICE CHAIRPERSON TAYLOR: Okay. So it has nothing to do with like our risk policy or anything?

MANAGING INVESTMENT DIRECTOR GUNN: No, no.

VICE CHAIRPERSON TAYLOR: It's you guys using new research to find new things to invest in --

MANAGING INVESTMENT DIRECTOR GUNN: Correct.

VICE CHAIRPERSON TAYLOR: -- that could increase our risk?

MANAGING INVESTMENT DIRECTOR GUNN: Correct.

VICE CHAIRPERSON TAYLOR: Gotcha.

Okay. That was my last question.

Thank you very much for the report.

CHAIRPERSON MILLER: Okay. Thank you for the report.

I'm not seeing any more requests to speak from the Board.

And I don't see any public requests to speak on this item.

So thank you to you and the whole team. And it's all very encouraging. Looking forward to more to come as the time goes on.

So at this point I think it's a good time for us to break for lunch. It's been almost two hours again. So we'll come back at 1:45 and jump right back in.

(Off record: 12:35 a.m.)

(Thereupon a lunch break was taken.)

(On record: 1:46 p.m.)

CHAIRPERSON MILLER: Okay. I have 1:46 up there. So we'll jump back in and get rolling.

We finished Item 6c, and so now we're on to Item 6d, which is CalPERS Sustainable Investments 2030 Strategy.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes, Thank you, Mr. Chair. And I see Peter Cashion joining me here. And then we'll ask the rest of his team to come up too. And that's why I bounced down one was to create plenty of room for everybody.

As you say, this is our review of the Sustainable Investments 2030 Strategy providing some objectives, some KPIs and the like to really dig in. This is a strategy we're very excited about. So with no further ado, I'll turn it over to Peter to take us through the item.

(Thereupon a slide presentation).

MANAGING INVESTMENT DIRECTOR CASHION: Great. Thank you, Dan. Pleasure to be back. We'll try to make this as exciting as the earlier presentations from Sterling on portfolio management. I don't know if we'll achieve that but we'll certainly do our best.

CHAIRPERSON MILLER: Tough act to follow.

(Laughter).

MANAGING INVESTMENT DIRECTOR CASHION: Mr. Chairman, members of the Committee. It's our pleasure. We're very excited to present to you today the CalPERS Sustainable Investments 2030 Strategy. We have the team assembled here to do that. This strategy really builds off the strong foundation and historical global leadership of CalPERS in the area of advocacy, DEI, and stewardship.

We will now expand this global leadership into the area of sustainable investments.

In July we brought to you our thinking about what lies ahead for CalPERS when it comes to sustainable investments. At that time, we were evaluating different approaches, and your input at the July Board off-site provided valuable guidance.

Today we're sharing with you what is really the roadmap for the next seven years on this topic.

We'll cover a lot of material today. It's really quite dense. However, I think we can distill the strategy down to three simple key words. And I'd like to share that with you.

The first is "100 billion."

The second word is "resilience."

And the third word is "equity."

Let me elaborate a bit on each one.

With respect to a hundred billion. So we will increase our sustainable investments in climate solutions up to that number to achieve two objectives:

The first is outperformance. We believe by investing in that strategy, we can achieve outperformance.

The second objective relates to the portfolio Carbonization Lev -- or Level of Carbon in our portfolio.

We believe by 2030 we will be able to reduce the carbon intensity of the portfolio by 50 percent. And a significant contributor to that will be the hundred billion.

The second item, resilience. So we believe that the portfolio resilience will increase by enhancing our integration of ESG into our diligence process; and by further incorporating climate risk assessment both in our individual investment assessments but also from a top down portfolio review.

The third item is equity. So promoting equity diversity inclusion in our investment program and through our engagement activities, and also promoting an efficient and equitable financial markets through advocacy work.

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MANAGING INVESTMENT DIRECTOR CASHION: Apologies for the slide.

One more.

There.

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MANAGING INVESTMENT DIRECTOR CASHION: Okay. So the SI strategy's really centered around five objectives. And the team will walk you through each one of these five parameters. And as you can see, those three key words I mentioned really resonate in these -- through these items.

I also wanted to say that in anticipation of questions or comments about: "This may be good but how do you achieve it?" Because I think that was always a -- that was a question from this morning: How are we going to measure? How are we going to achieve? And this was very much in our thoughts when we constructed this strategy.

And later in the presentation, specifically on side 20, we'll walk you through for each of these five items: How we going to have key performance indicators and targets?

And as you can see, the first one relates to outperformance. And this includes the hundred billion, increasing portfolio resilience. Travis will walk us through that.

We're also excited to share more information on the Net Zero Plan and how again this hundred billion ties into that number. As you know, we've had an independent review by Mercer, the consulting firm, on that.

And then Mike and Tamara will walk us through how we're using this to promote greater inclusion and representation in the financial industry and build efficient and equitable financial markets.

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MANAGING INVESTMENT DIRECTOR CASHION: So let me jump into the first item related to the five, which is Generate Outperformance. And we'll do this by investing in the transition to a low carbon economy, including climate solutions, and by investing in opportunities through emerging and diverse manager program. And also including targets for both those items.

If we look at the four bullet points, we'll have climate related investment targets for 2030. We're currently coming up with investment plans with each of the asset classes to determine what is the best approach for increasing the exposure to these asset classes. And the allocation -- so this incremental 55 billion in investments over the coming seven years. And we'll work jointly with the asset classes to deploy those funds and it will be essentially a joint allocation between sustainable investments and the asset class.

And then further we'll build on our commitment to emerging and diverse manager program, which has been very successful, and Mike Silva's played a lead role in that.

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MANAGING INVESTMENT DIRECTOR CASHION: In terms of generating outperformance, why do we think that's possible? So first maybe let me define what climate solutions is.

Across the top, we have the different categories:

Mitigation, Adaptation, and Transition. So any investment that results in a mitigation, reduction in GHG emissions; adaptation, which is an investment that reduces the harm or the impacts from climate change; and, third, transition. So if we have an investment in a hard-to-abate sector, a high emitting sector, if we can make investments that will move that from a brown to green, that would qualify as a climate solution.

So an investment that meets one of those categories, one of those criteria.

Under mitigation, so why is this a good time to be investing?

Well, we're seeing it -- through this transition to a low carbon economy, there's significant opportunities that are evolving for new companies or companies taking on tapping into that growth through either new technologies or modifying existing technologies.

And this is a real -- the opportunity is significant now. So why now? In part because of legislation such as the IRA, and just the increase in interest and demand from consumers.

And in terms of transition, what we're seeing there in terms of why this is a good opportunity, well, companies that are in these hard-to-abate sectors, particularly in the energy sector, have valuations that are quite low. And there's's an opportunity to come in at an attractive price, work with them to increase the amount of clean energy, and generate significant returns.

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MANAGING INVESTMENT DIRECTOR CASHION: I won't go into detail on this slide, but we thought it was important as well to give some concrete examples as to what represents climate solution, giving some tangible examples. So Mitigation, renewable energy; Adaptation, water management or agricultural adaptation; and Transition, fossil-fuel base, power generation, going from brown to green.

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MANAGING INVESTMENT DIRECTOR CASHION: I'll pass to Travis for the next section.

INVESTMENT MANAGER ANTONIONO: Great. Thanks, Peter.

Yeah, Travis Antoniono, Investment Director of Sustainable Investments. Great to be here with everyone today.

So as you can see here, in number 2, increase portfolio resilience. When you think about portfolio resilience, it's how we navigate towards whatever destination that we're doing, understanding now there's going to be barriers, there's going to be some type of risk management programs that are going to be deployed by staff as well as our investment partners as well; and to make sure that we're actually doing everything possible to be able to understand what those risks might be and how we actually overcome them or get through them.

So one focus area that I would like to be able to highlight today on this increase portfolio resilience would be the incorporation of ESG at each phase of investment management process.

Later on in an appendix, in a slide that you've seen before, highlights different tools and levers that we do deploy at different phases of an investment management process.

But we did conduct more of a benchmark and assessment to a best practices across many different firms, both in North America, Canada and other places as well. What we found is that we can actually be doing a bit more during some of the due diligence and ongoing investment management of the assets that we own.

And unfortunately these can be quite labor intensive and very time intensive as well. So one thing going forward that we identified is that it's best to be able to increase the amount of resources, specifically staffing, involved in the ESG integration to be exclusively dedicated to be able to undertake these endeavors. So, in doing so, as you can see on one of the bullets, we will be establishing an ESG integration team within the sustainable investments program. This team will be working directly with each of the different asset classes to help facilitate the due diligence as well as being about to engage with those GPs and external managers even post-investment as well.

So I think this is going to be definitely something that's going to be taking us from not only having good practices but really having best-in-class practices.

So you can transition to the pathway to Net Zero, Peter already alluded to some of these aspects. But really what lays before you are five main components of CalPERS Net Zero Plan. What is shown is ultimately a very significant evolution of the previous net zero activities that the fund previously pursued. And I can't say or stress really enough just how important some of these aspects are, and particularly the hundred-billion-dollar target that is laid out in Point 1 of the Net Zero Plan. Obviously these will help -- these investments should help the fund meet its return objectives, but also help decarbonize the fund and ultimately decarbonize the world as well.

Now, outside of that aspect on number 1 we'll continue to engage portfolio companies and advocate for policy and regulation. We're going to be able to develop a process that is referred to as an enhanced engagement, which we'll dive into in another slide. We'll be able to advance the way we integrate climate within investment decisions. And that was already alluded to in a previous slide. And we'll be able to continue to measure and report on progress, ultimately coming back to the Board, presenting on the progress on an annual basis, most likely in November of each year.

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INVESTMENT MANAGER ANTONIONO: So what you see before you is moving beyond engagement. This is becoming more and more referred to as enhance engagement. And as you can see, it's developing a process subject to fiduciary duty investment analysis to exit or decrease the exposure to certain securities. And I think the one thing that I want to really stress here is just this aspect of incurring towards this investment analysis. It's going to be a vital component that -- for us to be able to focus on and make sure that we're adhering to our fiduciary duty during every single step of this development of this type of framework.

But a couple of other points that I do want to highlight, as I know there's probably some interest in what exactly do we mean by this. Well, first of all I'd like to just highlight the work that the stewardship team, corporate governance team has done in the past. And you know, we have had -- it's very successful. A number of engagements and engagement process in place, and we'll continue to be able to have that in place for years to come.

But we also realize that, you know, there are a number of different tools that are in our box, and so it makes most sense for us to be reflective of everything that we have and deploy, utilize everything that's available to us.

So, as the world transitions to a low carbon economy, the lack of a transition by specific companies can ultimately translate to potential financial loss for the fund. And it maybe makes sense in certain cases for us to be able to decrease our exposure to some of these companies.

So, ultimately -- you know, we will be coming back in summer of 2024. We'll be developing a thoughtful process in the meantime, to be able to utilize essentially two different components, both climate analysis and then also investment analysis. And then in that summer 2024 when we come back, we'll be able to provide much more details into not only the framework itself, but also a governance model and then many of the different variables and metrics of consideration too.

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INVESTMENT MANAGER ANTONIONO: Peter earlier on mentioned that Mercer conducted an evaluation of our pathway to Net Zero. And we did so for a few different things. One, when we thought it was going to be important for us to be able to get and obtain an independent evaluation; and then second asked is to make sure that we are actually aligned as planned -- that we're presenting towards you all today is aligned with best practices.

Upon reflection, Mercer ultimately provided a thorough evaluation and found that not only are we importing -- or incorporating in best practices, but we're also pursuing a plan that is well aligned to achieve CalPERS' Net Zero objectives.

And more can be seen within the attachment as well to this Board agenda item.

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INVESTMENT MANAGER ANTONIONO: To sum up the Net Zero Plan, I think it's good to be able to just reiterate the fact that it will be continuing to use engagement advocacy across the board. We'll be utilize engagement with corporates, we'll be utilizing engagement to - I don't know - amongst our general partners and our investment managers. And we'll be utilizing advocacy efforts across policymakers and regulators, and doing so in a much more proactive way particularly in climate-oriented issues.

On the second aspect we'll be able to develop an enhanced engagement strategy which was highlighted already and which will be elaborated on more thoroughly come this summer.

And then, finally, we'll make investments that meet our investment return -- risk and return objectives and then ultimately help finance the low carbon transition.

I'm going to pass it over to Mike.

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INVESTMENT OFFICER SILVA: Michael Silva, Investment Officer, Sustainable Investments. It's nice to be with you again.

It is CalPERS' belief that we can achieve stronger investment returns when companies we invest in value diversity. CalPERS seeks diversity of internal staff, corporate boards, and external managers in an effort to secure high functioning teams that incorporate different ways of seeing and solving problems.

We will continue to promote DEI through a variety of measures, including engagement and advocacy, reporting out on our emerging and diverse managers, hosting the Cal list forum either events, capturing more and better data from our external managers.

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INVESTMENT OFFICER SILVA: Lenox Park is the consultant that administered our DEI survey of our external managers. We recently completed a comprehensive opinion DEI survey, which included questions on harassment, pay equity, disability, recruitment and retention, and diversity across all levels. The survey is to help us better understand how our external managers approach human capital management. And it also messages to our managers and the marketplace that we are tracking this data.

I'm going to pass this on.

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ASSOCIATE INVESTMENT MANAGER SELLS: Tamara Sells, Associate Investment Manager, sustainable Investments. My pleasure to be before you again today.

I'm going to touch just a little bit on our fifth objective where our focus will be to promote efficient and equitable financial markets through our regulatory and policy advocacy work. In furthering this objective the SI team will engage with our financial regulators, communicating CalPERS' strategy; our federal and legislative priorities; and our thought leadership to these regulatory bodies, the legislature and standard-setting organizations to address material long-term sustainability risk and public policy that's driving long-term value creation.

We will increase our advocacy efforts around climate risk -- climate risk and disclosure and also drill down further on evolving human capital trends, including the intersection of climate and human capital and responsible sustainable business practices.

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ASSOCIATE INVESTMENT MANAGER SELLS: With the focus on the quality and quantity of corporate reporting we will advocate for disclosures of climate and human capital management metrics and broader reporting requirements that will strengthen our understanding and ability to achieve our targeted investment returns through managing risks and opportunities. We will engage the SEC, and focus on accounting modernization with accounting standards boards, global sustainability disclosure standards, as well as pursuing a more proactive approach with targeted engagement with new regulatory bodies that we have not engaged with before, including the California Air Resources Board and the California Public Utilities Commission.

So we'll be moving from a more comment-letter-driven approach to a more proactive engagement with these regulators.

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ASSOCIATE INVESTMENT MANAGER SELLS: Our human capital focus areas will include the development and adoption of U.S. Disclosure standards, exploring opportunities for integration of human capital data, and mitigation of material risks to the portfolio guided by our CalPERS labor principles.

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ASSOCIATE INVESTMENT MANAGER SELLS: On the stewardship front, we will continue to use proxy voting company engagement and shareholder campaigns to hold companies accountable and drive positive changes, mitigate risks to the portfolio. And climate diversity and governance will be the stewardship-focus areas, and you'll get further updates from our corporate governance team on the progress on that, which is typically done in March.

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ASSOCIATE INVESTMENT MANAGER SELLS: Lastly, this is just a reminder of all of the sustainability reporting and assessments that are completed by this team, we work in collaboration with the asset classes to ensure that these investment-related reports and assessments are completed in a timely fashion. We also have committee and strategic -- committees that we sit on as well as strategic partnerships that we'll continue to use as levers to move the SI strategy forward.

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MANAGING INVESTMENT DIRECTOR CASHION: As I mentioned earlier, we've developed targets and KPIs for each one of the five objectives. So then the left side you have the five items that we've walked you through.

Now, on an annual basis at least we will report back typically in November on these items.

We did color code them in two different -- green and yellow. So the green is the new KPIs. So these are ones that we've newly developed.

And let's just say that a lot of these were already existing; but we've in some cases updated the KPI. So I think this will be really important for us to measure, monitor, and report back. And as I said, we'll do this on an annual basis.

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MANAGING INVESTMENT DIRECTOR CASHION: In terms of next steps, so we're presenting -- we'll begin implementation in November of the 2030 strategy. We will return in March and present the review from the Responsible Contractor program, which is well underway at this point.

And then beginning November 2024, and annually thereafter, we'll provide updates on the strategy itself.

So that concludes our presentation. I think we were even more efficient than I thought. So -- because there was a lot of material.

But just as we close, I'll just leave those three words with you: Hundred billion, resilience, equity. I think it's a good way to kind of cap it off and keep it handy.

Thank you.

CHAIRPERSON MILLER: All right. Thank you. Thank you to the whole team.

And we have some eager board members here with questions.

So we'll start with Director Pacheco.

COMMITTEE MEMBER PACHECO: Thank you. Thank you, Chairman Miller. And thank you, Peter and team, for your awesome presentation here.

I'd like to go right into it. So on page 8 of 28, to increase the portfolio resilience. I'm really impressed by this.

How do you see the recently enacted legislation of SB 253 and SB 261 play out with our increased portfolio resilience objectives in our sustainable investment 2030 strategy? Do you see an alignment here? Your thoughts would be greatly appreciated.

MANAGING INVESTMENT DIRECTOR CASHION: Thank you, Mr. Pacheco. Yes, very much in alignment. In fact, it's critically important that we have disclosure of emissions by companies. And so this is a really positive step forward in that regard.

And it will make the job of identifying where risks may exist much easier.

I'll see if Travis has anything to add on that.

INVESTMENT MANAGER ANTONIONO: Yeah, as we seek different investors across the world, it demonstrates once again just the leadership that CalPERS and particularly California actually has within the role it plays within the greater financial markets and also outside of the markets as well.

You know, this is one prime example of that, because time and time again I've been hearing and being reached out to by a number of institutional peers, asking how this is going to be effective, what type of changes might come about from future legislation as well.

And I will say that most are seeing this as California being a champion, taking -- going above and beyond then perhaps what even other regulators are considering at this point in time.

I think the scale of it is quite significant, meaning up to 5,000 different companies are going to be getting affected by this, both on the public side as well as on the private side as far as the number of companies that are above a billion dollars that deal business with California. So I think that speaks very loud -- very much towards just how pervasive this is going to be towards affecting the greater financial markets and making something that is -- something that we all strive to do something that is just best common practice.

Which ultimately is going to be very much a good thing to make sure that we have much more accurate data; and then that will also lend into having an increase in the data that feeds into other participation and partnerships such as EDCI, which you mentioned earlier today.

COMMITTEE MEMBER PACHECO: Very good. Thank you. Thank you very much for that, Travis.

My next question is on page 13 of 28, Diversity, Equity & Inclusion. And with respect to utilizing advocacy to promote the regulatory requirements for more DEI disclosure such as at the federal level, for instance, the S-2007, improving corporate governance through the Diversity Act of 2023. I think it's authored by Mr. -- Senator Robert Menendez. It is necessary to promote inclusion and representation in this space.

How do you see our DEI leadership in this aspect in terms of additional legislation around this? If you guys can elaborate on that.

ASSOCIATE INVESTMENT MANAGER SELLS: Thank you for the question.

So you're absolutely right. We will continue to work in collaboration with our Legislative Affairs Division to be able to assess as these bills and the legislations are rolling out with respect to expanding DEI disclosures and improving corporate governance. We will be focused not just at the board level on those DEI disclosures but also workforce disclosures as well.

COMMITTEE MEMBER PACHECO: Wonderful.

And my last question is on page 15 of 28, improving the financial markets. With respect to building and promoting efficient and equitable financial markets through advocacy and regulatory action, including the promotion of responsible business practices for workers, what other trends may you foresee from our present focus on the evolving human capital trends such as labor constraints and demographics may spur in this conversation? Perhaps a thought on additional metrics associated with the accounting -- the accounting issues around labor. You know, they have those -- currently we only include the -- in the United States the general selling and administrative. Perhaps that one might be expanded later and to include more robust statistics on labor. Your thoughts on that. And how do you think our strategy can play into that?

ASSOCIATE INVESTMENT MANAGER SELLS: You're absolutely correct. So our strategy around these disclosures is to start advocating for a baseline of disclosures. Right now we don't have any universal disclosures, which makes comparability extremely difficult. So starting with the baseline metrics, we've been promoting four labor-related metrics through our partnership -- strategic partnership with the Human Capital Management Coalition. Getting a start will help us then drive more disclosures and more progress later on. But this is just to get our baseline. So that would include turnover, for example, workforce demographics, total workforce cost. And so that drills down on the accounting piece that you were asking about. And then also those DEI disclosures.

COMMITTEE MEMBER PACHECO: And as a follow-up, we will be coordinating ourselves with the -- with the accounting bo -- the accounting board -- sorry -- the accounting regulatory boards that are in charge of this, right. Because I believe in the past they've had some -- they've been very neutral on this subject matter. And I'm hoping that our leadership and our strategy here can move things forward in that respect.

ASSOCIATE INVESTMENT MANAGER SELLS: That is correct. So with both FASB as well as the IASB; we will be working with both accounting standards that are -- to try to expand the accounting piece specifically around those total workforce costs and just aggravation of those costs so we can actually attribute them to, you know: Is it development, is it turnover? So, yes, you will see some drill down there with both of those accounting standards boards.

COMMITTEE MEMBER PACHECO: Thank you so much.

ASSOCIATE INVESTMENT MANAGER SELLS: Thank you.

COMMITTEE MEMBER PACHECO: Appreciate it.

CHAIRPERSON MILLER: Okay. Director Willette.

COMMITTEE MEMBER WILLETTE: Thank you so much.

So I just wanted to thank you, Peter and team and everyone, for this report. I really like seeing the incorporation of the feedback that was discussed in July. That is really, really positive, and I appreciate that.

I was really excited to read this report. And according to my CalPERS news alerts, a lot of people were excited to read this report. So I'm glad we're having the discussion today. I'm looking forward to seeing the implementation and staying updated, you said every November at least. And then we have different other kind of timelines in there.

With, you know, revisions, new initiatives, I want to make sure, as you said, we stay best in class; and that doesn't become a stale kind of document that we're looking back towards and not forward thinking.

There's a lot of good stuff in here. And I have a couple of questions and some pieces that I want to elevate.

The first is just as a standout. I would like to see us setting expectations for emissions reductions by 2030 as well as other medium- and long-term benchmarks. That would help track progress and help us know which asset classes specifically, if we can delineate by asset class, are on track to meet the 1.5 degrees and which classes need to do more, right.

So I think those benchmarks would help us going forward.

Looking at pillar 1. So of course allocating capital towards climate solutions makes sense. I appreciate the vision here.

Couple of questions. On slide 5, there's a bullet that "We will develop asset class Sustainable Investment plans that will identify thematics and managers." So one set of data points. What I would appreciate, and I think would help us identify themes, is if we could again identify the top like 10 or 15 biggest polluters in each asset class, and then what is the plan to get those biggest polluters to reduce their emissions frankly. That would be helpful.

On slide 6 - yeah - for the mitigation strategy, the -- or the mitigation substrategy of the strategy, to reduce or enable the reduction of GHG emissions at scale.

So my question is, how will those emissions reductions happen across all the different asset classes? And maybe we need to come back with that information, or if you have a short response.

MANAGING INVESTMENT DIRECTOR CASHION: Okay. Thank you very much.

So let me take those in order. Regarding your first comment/question regarding the 2030 reduction in carbon intensity of the portfolio. So we will -- we do have a 2030 target, which is to reduce by 50 percent the carbon intensity of the portfolio. We don't have a 2040; we do have a 2050, which was announced in December 20 -- 2019 of Net Zero.

We have asset-class-level investment plans. But at this point we don't really -- we haven't -- we don't have formal targets for decarbonization by asset class. That will be something we could look into. But we -- yeah, we really are looking more at a portfolio basis at the moment, because that is where you're really summing everything up.

Regarding your comment on slide 5, regarding the largest emitters, so there we already are very active in engaging with those largest emitters, both through our Corporate Governance unit but also Climate Action 100. So that's a well established level of engagement.

The interesting element of the 2030 strategy is that in addition to just engaging, we will also look more deeply into the individual companies to see where are the investment opportunities to promote those companies that have chosen to put themselves on a lower carbon trajectory; and that can translate into outperformance. To do that, though, they'll need capital. So this is -- introduces a good opportunity both -- for CalPERS both in the private markets and the public markets to finance that transition from brown to green; because it's one thing to engage and advocate, but it's something more powerful if we can actually finance that work.

And then slide 6 on the mitigation, so -- sorry, can you repeat that question.

COMMITTEE MEMBER WILLETTE: Yes. How can we reduce the emissions or target the emission reductions across all the different asset classes? Like how are we doing it to making sure that each asset class is doing that?

MANAGING INVESTMENT DIRECTOR CASHION: Right. So part of the hundred billion investment will be -- make an important contribution to that, because 55 billion will be incremental investments. So -- then that will be divided across all asset classes. And not surprisingly, those investments have a lower carbon intensity than our overall portfolio. So an important piece or benefit of having this plan is that by investing in that manner, we will reduce the overall intensity -- carbon intensity of the portfolio.

Team, anything to add or complement.

INVESTMENT MANAGER ANTONIONO: I think on the last point, I think the integration component and then the engagement with actual investment manager, the general partner is also vital. And the reason behind that is that fortunately I guess what tell when that's going to be on the aspect of decarbonization is just the fact that energy is becoming more and more expensive. And so there's been much more of a financial point now without even a price on carbon to be able to take steps to be able to provide that capital expenditure to be able to lower your energy cost. And those steps are very much in alignment with the hundred billion dollar and many other types of investments that we'll be able to pursue.

I'm still with it or not?

It's us doing it directly or one of our underlying portfolio companies that already exist across public equities or private markets. They're going to be making investments themselves as well to be able to further provide better value proposition for themselves. But then the byproduct of doing so is actually decarbonizing their own company. So that's one tailwind we do have, you know, with us.

The other aspect that I would highlight is that though you can do asset-class-based decarbonization or asset-class-based accounting and that is done and we have, you know, done that largely, as far as setting targets and goals, it's typically best practice just to be looking at the industries or the sectors instead, understanding that some sectors will cut -- you know, actually most sectors will cut across many different asset classes, whether it be private debt, whether it be public or fixed income, or whether it be private equity as well. And there might be more constraints based upon the industry or the sector than there would be based upon one asset class versus another asset class.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: I would just jump in with one quick distinction that I want to clar -- because I -- one of the things that I don't think this team wants to pat themselves on the back, but I think that what this team has come up with is something that's really thoughtful.

If you think about decarbonizing the portfolio, there are two reservations that I think I have with just decarbonizing the portfolio. Number one, it's just your portfolio and it's not the economy. And what we care about, right, is the decarbonization. And through the lens of decarbonization, we really care about decarbonizing the economy.

Climate solutions leans towards decarbonizing the economy.

The second thing is that if you just decarbonize the portfolio, I think you probably miss some opportunities that are in the place where the decarbonization of the economy and our investments sort of align. And so what we're looking at much more is not just decarbonizing the portfolio but actually leaning into opportunities that we think would generate outperformance. And the way that they calculated it, then my question to the team was, "Okay, what does this mean to the ones of decarbonizing of the portfolio? And it was a really positive byproduct, that we do get to more than 50 percent by 2030. But again the emphasis is on leaning into opportunities and the decarbonization of the portfolio happens to go with it. But I actually think it's a really -- it's a nuance but it's a really thoughtful nuance and I think this team has done a really nice job of. So I did just want to kind of underscore that.

COMMITTEE MEMBER WILLETTE: Thank you. I appreciate that. I really love leaning into opportunities. We have in decarbonizing the economy where it aligns with our portfolio; and in financing the brown-to-green transition. So...

But just bear with me as a follow-up. How are we going -- and maybe this is also -- I'm cross-pillaring here. So how are we going to deal with portfolio companies or asset managers who are not making meaningful progress to meet our goals, whether that is, you know, to decarbonate the portfolio or the econ -- you know, the economy, which go to hand in hand? So there's that question. And if you want to respond or...

MANAGING INVESTMENT DIRECTOR CASHION: Well, certainly on the public-company side this is already been actively done. So we're engaging with those. I think as we go forward, and we look at our enhanced engagement, we will evaluate if there's a financial risk to staying invested in that company at the same level. And fundamentally they'll be driven by valuation. And does that company present a higher financial risk because it hasn't gotten on board with this transition. And then we can look at that at a company level.

We would expect that our general partners in the private equity space to similarly undertake such analysis. And this is really going to be facilitated by, first, greater disclosure in the public markets, to Mr. Pacheco's earlier comment. But also through our work with the EDCI, the data convergence project. Now more data's available in the public mark -- sorry -- private markets to allow us and the GPs to make that determination.

So I think it's really just good business. So we want to align with companies and GPs that are following that practice.

COMMITTEE MEMBER WILLETTE: Okay. Thank you so much.

Yeah, I'm a believer that policymakers follow trends. And I think the SB 253 and 261 are definitely symbolic of the fact that CalPERS and others were leading on this work, and now we might as well put it into a policy for those disclosures. So I'm excited about that.

A comment in regard to pillar 3 is -- I just want to make a comment. The team has our full -- my full support with accountability efforts to place demands on emitters. I think we're doing that already well and the engagement well.

A comment on pillar 4. I think I'm getting my pillars right.

Okay. For diversity and inclusivity, it's really important I think to achieving our goals. I want to Thank you for recognizing that diversity has to be part of the solution with our portfolio companies, their boards and also internally. I'll leave that.

But I stated earlier also that I think metrics are critical to doing the work. And I want to make sure that tracking though isn't the end. Right? That tracking is a means to achieving benchmarks and objectives, and that we do have those benchmarks and objectives with regards to diversity and inclusivity.

I'll get to a question here. So I'm pleased to see the engagement of -- the use of engagement and shareowner rights to implement corporations to take action. I think there's one on our strategy under "Diversity."

And I do wonder if it's time to update our proxy voting policy. Do we have on the calendar coming up a review and update of our proxy voting policy?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: We have a review of the Total Fund Policy that will be in March and then June. And we can certainly include the governance sustainability principles in that. I mean we -- you know, today's work was to incorporate the labor principles into those principles.

But certainly we can calendar that as appropriate.

COMMITTEE MEMBER WILLETTE: So through the Chair I'd like to request that, if possible.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: So we'll take that as Chair direction.

COMMITTEE MEMBER WILLETTE: Thank you.

On the workforce capital pillar, pillar 5, so I think I think it was page 15. Oftentimes during reviews and strategy discussions like this, we naturally highlight and think about the deltas and we overlook the things that we're already doing really, really well. And so I just wanted to make sure that we have highlighted and we broadcast that clearly, that -- what we're doing well. We're already engaging, right. So I see it's not on here and that maybe we need to be more explicit like we were with pillar 4, that we're engaging with companies.

I think it's important that we broadcast because we -- as we heard testimony today, we heard it last September, and I actually think every meeting I've been to since I was elected to this board I have heard testimony from workers stating that there are huge workforce risks at these companies that we are invested in that we have to mitigate in order to be able to pay benefits now and into the future.

So, again to be really explicit, just like we stated on pillar 4, the use of engagement and shareowner rights to influence corporations take action, I know we're already doing it under pillar 5. But I think we should be explicit in doing so. I think it's also listed in page 16 in the chart. But it's not listed as a strategy.

And then I would also like to see us work with our stakeholders. Again, I believe it's listed in the chart on page 16, but it's not listed as a strategy. And I know we're already doing it. So it's just doubling down on the good work that we're already doing. We want to find ways to establish industry norms where workers can verify also the data reported to us.

I like adding the new KPIs on page 20. I appreciate the color coding for those of us who like color coding. But I also think we need to add an additional KPI related now to our labor principles, which we just adopted this morning. So no one's behind or anything, but recognizing that we're moving in our organic environment here.

And I want to just uplift, as someone who's been a member of CalPERS, contributing for over 10 years, which is like not a lot for some of you all. But I'm just really proud the role, that leadership role that CalPERS has taken in this space. I think if it wasn't for CalPERS we would not see SB 253, we wouldn't see 261, we wouldn't see others -- others doing what they're doing. And so I'm really proud of that work, and thank you to the team. Before us, the team broadly is out there in the world. Appreciate that. Thank you.

That's all I have.

CHAIRPERSON MILLER: Okay. Thank you.

Next we have President Taylor.

VICE CHAIRPERSON TAYLOR: Oh. Thank you very much.

So great report, you guys. I've read it a while ago and I was just very impressed. I'm extremely happy we're moving in this direction. And I just want to say that great ideas. I think this is all really exciting to watch us implement and watch us become successful with this.

I had a couple of questions, and I think it was Mr. Pacheco that brought it up. He was talking about the accounting. So having -- I'm on the board of another -- of ICGN, which international, right. So they're already working on accounting standards for all of this stuff, right. I think they're required to by their governments, which we are not.

Is there -- I heard you say that we're working with GASB and -- FASB, yeah. That -- wasn't there another organization that was specifically for climate? Was it SASB?

INVESTMENT MANAGER ANTONIONO: Yes. And SASB has been rolled over. So ISSB.

VICE CHAIRPERSON TAYLOR: Oh.

INVESTMENT MANAGER ANTONIONO: So there's been some roll-ups. But ISSB has issued guidance both on sustainability factors and disclosure, as well as another set of guidance specifically on climate.

VICE CHAIRPERSON TAYLOR: That's what I thought. Okay.

So that's something you guys are using as well.

INVESTMENT MANAGER ANTONIONO: And it's largely adopted and being followed, and many other organizations are embracing the ISSB guidance. And so the vast majority of the world as far as from a reporting standpoint will be utilizing that as a standard.

VICE CHAIRPERSON TAYLOR: So we have a standard, Yay. That's something we --

INVESTMENT MANAGER ANTONIONO: I won't go as far as to say a universal standard. But it's one of a few different standards now. Consolidation perhaps is a good thing, yeah.

VICE CHAIRPERSON TAYLOR: Getting closer. Getting closer. That's a good thing.

So I wanted to ask if we could do a couple of things. One was on pillar 2, I don't know if Mullissa already talked about this. "Call out the interplay between workforce DE&I and Net Zero. And how the three forms of capital working together, aligns together, leads to more resilience."

I think fully supporting that alignment would help us move forward.

And then, again I just want to say that I think we did -- you guys did a really, really good job with this. Can't wait to see as we move forward what those measurements are. I had mentioned earlier today that I wanted to see - and I think Ms. Willette had also talked about it just now - I wanted to see some measurements in the work -- the labor issues and the implementation and how we're implementing it, what's the success of that mean, because I don't think we even thought of that. So I just want to reiterate that.

So Thank you very much.

CHAIRPERSON MILLER: Okay. Next, Director Middleton.

COMMITTEE MEMBER MIDDLETON: Thank you. Thank you all. This was a truly outstanding report to receive and some incredibly strong messages.

So I want to turn things just a bit. Our critics - and unfortunately we have quite a few of them - are going to argue that this is not an investment strategy but a strategy that's motivated by goals that do not necessarily have to do with the rate of return that we're going to receive.

So you can take as short or as long an answer as you want, but to those who would argue that this is not the best use of our funds and our investment strategy, what would be the answer.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Peter, maybe I'll take a first crack at it, and then I'll turn it to you.

As someone who spent his career here as an investor beginning in the equity markets, that's why I drew the nuance to the previous question, is that there are investment strategies that are grounded in having a social impact. I actually view this one - and one of the things that I'm so proud of our work on this - is that this is about leaning into places where we think there are opportunities.

We can go more into closed session, we can talk more in closed session. We plan to.

But I will tell you, many markets, equity markets for sure, they do -- public equity markets do a pretty good job of pricing risks, in my opinion, in the three months, maybe six months, even out to 12 months. But they do a pretty poor job of pricing long-dated risks. The things that we're talking about leaning into are places where we have underpriced risks, basically underpriced optionality that we can lean into, and over time lean into the winners and lean away from the losers. And that's in the public equity part of the portfolio, that's in the private assets part of the portfolio. Over time that'll be in the fixed income part of the portfolio. But this is grounded in -- as Peter said, this is about generating returns and going in a direction that -- we've talked about the regulatory environment -- going in a direction that the environment is going in and trying to go there -- go to where the puck is going to be, so to speak.

MANAGING INVESTMENT DIRECTOR CASHION: Critics will say that investors should only focus on economically relevant factors. And to that I actually fully agree. And in fact, climate and transition to low carbon economy is incredibly economically irrelevant. In fact, we are going through a real economic fundamental shift in the economy as we transition to lower carbon. So as an investor, both from an opportunity set but also a risk mitigation set, it's so critical that you're aware of these not only in a broad-base portfolio, but individual asset classes and individual investments. So to do so would be really missing, on one hand, opportunities and, the second, assuming risks that you are not aware that you have.

So really there's going to be winners and losers that come out of this transition. And frankly, all investors have some of those in their portfolio today. The critical piece is that we identify as early as possible who are going to be the winners - and it can be industries or sectors as well, not just individual companies. And who are those that are more at risk? Particularly sectors.

So for us, you know, to do otherwise would really not be playing our fundamental roles, an investor, and fulfilling our fiduciary duty. So that's why for us this is so exciting. Because we believe we're still in the very early stages of this game and that by having this strategy, by having each of the asset classes focused on it, and tapping into that opportunity, we will have a much broader-based set of opportunities and result in this outperformance.

Team, I don't know if you want to add.

COMMITTEE MEMBER MIDDLETON: All right. Thank you.

Personally I could not agree more. I think history is incredibly important, and always we need to use data to drive the decisions that we are making.

But our responsibility is to make calculated responsible decisions as to where the market is going. And there is every reason to believe that the energy sources that drove the 20th Century are not going to be the energy sources that are going to be the primary drivers of the middle and latter half of the 21st Century. And so I'm very proud that we're making these kinds of calculated efforts to invest where there are going to be winners.

Thank you.

CHAIRPERSON MILLER: Okay. Next we have Frank Ruffino for Fiona Ma.

ACTING COMMITTEE MEMBER RUFFINO: Thank you, Mr. Chair. And Thank you to the team for your hard work and for this great report, as has been said over and over. And it is.

So I want to begin to say that Treasurer Ma has long been an advocate, as you all know, for more aggressive climate action, not only here at CalPERS but at CalSTRS as well. This Sustainable Investment 230 strategy that was presented at the off-site in July has a lot of strong principles and good guidance. And today is you coming back to the Board with further details and updates. We hope that this strategy crystallize CalPERS' plan to reach Net Zero by 2050 through a structured analytical framework to account for high-emitting companies in the portfolio that showed little interest in working towards the world's shared climate goals.

CalPERS has been a leader in responding to the material risks related to climate change. And for that, CalPERS should be commended. But strong climate risk management requires - which is very important for the treasurer - transparency and accountability. Concrete planning and robust corporate governance. This strategy is a significant bold step in the right direction.

The strategy must include clear, transparent guidelines, defining which investments are considered as climate solutions, and ensure that climate risk disclosure and management is included in the process for selecting and evaluating external asset managers and private equity firms, which includes and establishing a robust climate risk guidance for hiring, engaging and evaluating all external asset managers.

So 2030, it's just seven years away. It seems to be that far away. And I know we have committed today the big word that you started with, a hundred billion. Although we already committed 47 billion. So 50 plus for the next seven years, by 2030. Which means approximately 7-and-a-half billion a year.

Now, I've attended conferences and educational opportunities which they've said that this space, the opportunities in this space are in the trillions.

So three quick questions:

Number one, how did you come up with this very round number of a hundred billion?

Number two, is this ambitious enough? Not sure.

And number 3, how is CalPERS ensuring that its portfolio companies align with that target?

MANAGING INVESTMENT DIRECTOR CASHION: Thank you for the comments, Mr. Ruffino, and the questions.

First, before I jump into the three questions, let me just confirm that in terms of defining climate solutions we fully agree. So there it's the adaptation, mitigation, and transition, as we showed. And we also agree that in terms of engagement with companies through public markets but also GPs, that climate risk requirements assessments are very important.

Now, and to your three questions.

So a hundred billion. Yes, it's a big number and, yes, we're already at 47 and a half. So we actually had significant debate internally on this. Because we wanted something that's really ambitious and achievable. But more importantly, we wanted it to meet with the real objectives of the fund, which is, one, to generate outperformance and, second, to improve resilience. And given the opportunities we really believe that that hundred billion will translate into outperformance by tapping into these new opportunities.

We could -- we did debate smaller and larger numbers. I believe that we will exceed that target by 2030. But we also -- we don't want to constrain people's investment decisions. We don't want a target that would restrict. Originally, we looked at having investing only in low -- an index that was essentially low carbon. So all it did was tilt away from high emitters. But what we realize is that it avoids -- or that presents two problems. One, we don't finance the transition for the broader economy. We just cause medically improve our own portfolio. And we didn't feel that that was right. So we wanted to have more investment including transition.

And so that's how we essentially landed on a hundred billion number. And I think in a debate when some people say it's too high, some people say it's too low, then probably that upper middle point is a good one.

Is it enough? So, indeed we do see that -- and those who presented in July, there was a 3 trillion estimated need to finance transition annually over the next years. So, not that all that of course is bankable but there is a certainly enormous opportunity.

And we -- and I think this is where it also comes into play bringing other investors, other asset owners with us, in terms of making them aware of these opportunities. And also even making other market participants aware. So that it's not just our dollars at work but hopefully others. And we take a very active role in terms of presenting at conferences and advocating, engaging with regulators to go beyond just the dollars that we can bring, given how much need there is and that it's well beyond the ability of an asset owner, our own balance sheet.

And in terms of ensuring alignment, so that was --

ACTING COMMITTEE MEMBER RUFFINO: How's CalPERS ensuring that its portfolio companies align with that target?

MANAGING INVESTMENT DIRECTOR CASHION: Right.

ACTING COMMITTEE MEMBER RUFFINO: And by the way, a hundred billion, I don't have no clue. I've never seen it. So I get it, that's a big --

MANAGING INVESTMENT DIRECTOR CASHION: Right. So -- yeah, I think, you know, it will really be up to us to make the investment allocation decisions to invest it in a way that prudently takes us toward that number.

Now, in terms of alignment, usually there we're thinking on alignment with a Net Zero pathway. And not only will the companies in this hundred billion but more broadly we will be encouraging them to be on a pathway towards Net Zero. That's particularly relevant for public companies where we engage with them.

And to some earlier comments on engagement, last year over 300 -- the corporate governance team engaged with over 350 companies in our public equity portfolio, representing more than 50 percent of the assets. So that's something that will be further continued, and climate and emissions is always a topic in those engagements.

ACTING COMMITTEE MEMBER RUFFINO: Well, thank you for that, and thank you for qualifying that perhaps, you know, we may go -- we may exceed by 2030 it'll be a hundred million. We don't -- we're not going to be holding ourselves --

MANAGING INVESTMENT DIRECTOR CASHION: We won't constrain ourselves to go below if we're at 99. But, you know, we only do some -- as I say regularly to the management team, we should only invest if we think this is a good investment and it's at least as good or better than any comparable - that's what we lead with, because we really take this outperformance aspect seriously - and that we're not investing to achieve some ulterior -- other motive even if it's something great like reducing emissions. But fundamentally we're there to invest to make the highest risk adjusted return.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: I think I would just add a couple of quick things. One is that the way that outperforming it, like beating the target would look like, is probably it would look like getting at a hundred billion sooner than 2030, getting there by 2028, 2029. And if that were the case, then we would look to basically increase what the number is that we're shooting for. And as I say -- as Peter said, there was a lot of debate about this number, because we do think that it's ambitious but it's achievable.

The other thing is that -- to your question on the monitoring the footprint, I mean you will see that under the second one under pathway or Net Zero on slide 20 is an annual report on the carbon footprint.

INVESTMENT MANAGER ANTONIONO: And the only other I think that I've mentioned is the fact that there aren't many peers that are even having targets such as this; and essentially, you know, in the United States none at all to this type of scale. Even outside of the United States, there's only a couple out there that are even coming close and, frankly, the size or projected size of those firms are going to be larger than our own -- than even us.

Additionally, what they count as climate solutions is a bit more loose than what we have from our methodology. So we've purposely, you know, constricted it and made sure that it is much more of a pure type of a definition as well.

The other aspect that I would say is that over the next 10 -- you know, five years, seven years that we do expect a number of other firms to be able to come out and publicly state goals of investing into the transition. In fact I think that largely most financial mar -- market participants will transition away from just exclusively focusing in on the greenhouse gas emissions of the portfolio and instead understanding what are they actually doing or what is their portfolio doing to be able to help finance the decarbonization effort of a real world -- the real economy.

So perhaps we're early on, but hopefully this will inspire others as well to be able to also make public announcements.

ACTING COMMITTEE MEMBER RUFFINO: Thank you to the team and thank you, Mr. Chair.

CHAIRPERSON MILLER: Thank you.

Next we have Director Ortega.

COMMITTEE MEMBER ORTEGA: Thank you, Mr. Chair. Just a couple of quick questions. And, again, I also want to thank you for the great report. I really appreciate how straightforward it is. It's very clear, easy to understand and grasp kind of the key points.

I do want to second Ms. Willette's request for asset-class-based information. I think that will be helpful. I'm just thinking about our conversation this morning about the ALM in two years. I think that is information we would want to be thinking about in that context and knowing what kind of decisions we're making in two years and how that affects the targets and the overall goals of this proposal.

The other thing that I would hope to be able to see more detail on, the KPI page. That slide's very helpful on a sort of overall what we're going to be measuring, and I think it's a good starting point. But I don't know what the plan is for bringing more detail back to the Board, but I would like to understand more what the baselines are, what the targets are and sort of what's the cadence of getting information about where we are on those items going forward. So that would be information I'd like to see come back as well.

Thank you.

MANAGING INVESTMENT DIRECTOR CASHION: Okay. Thank you.

Regarding the KPIs, we will be reporting back annually I believe for most of them, if not all.

But, yes, we're happy to look into more granularity and specifics. Frankly, we had quite a few here. So -- yeah, we didn't want to run out of space or provide kind of an -- too much information.

And then we will also be -- in terms of the asset class level information, in the following session today we'll be getting into more detail on how this breaks down amongst the asset classes.

CHAIRPERSON MILLER: Okay. Well, Thank you very much. Superlative job with the presentation and dialogue. Really appreciate it. And again very encouraging. We look forward to all the progress going forward.

At this point I have quite a few people who want to provide public comment; and so I'll be making sure we get everyone.

So I will start -- let's see, first I've got J.J. Jelincic for Item 6d.

J.J. JELINCIC: Dave, you may want to call the next few so they can start lining up.

VICE CHAIRPERSON TAYLOR: We can't hear you.

J.J. JELINCIC: You may want to call the next few so they can start lining up.

CHAIRPERSON MILLER: Yeah.

J.J. JELINCIC: J.J. Jelincic, Beneficiary.

Climate change, reproductive rights, winning the war in Ukraine, peace in the Middle East, stopping gun violence, feeding the hungry, housing the homeless - These are all important goals. However, they are not your job. You're not investing your money. You are investing beneficiaries' money to pay benefits, not to save the world.

If you believe something is not a good investment, you should not invest in it, and vice versa. You are the prudent experts. If you have decided that you know better than the market, you cannot claim to be an index. You cannot say, "I own this because it is part of the index." You're an active manager. And that should make Fossil Fuels Calif -- or Fossil Free California happy.

It also means that you have a reason for holding an investment beyond reflecting the investable universe. I and the taxpayers should expect higher returns for the greater risk being taken on. It also means you are subject to greater scrutiny. I know you want it both ways, but life is not like that. At some point you will be held to account. It may take a pissed-off ex-spouse or a television at an NBA playoff game. But the chickens will come home to roost at some point. Are you ready to account for your actions?

And I see I've got some time. I'd like go back briefly to 5b. This Board says at least the 1990s has heard reports of labor abuse, abuse of renters. And the Board always says, "Staff, go talk to them." And they go talk to them, and they say, "Well, okay, we understand you don't like it. We will be better." And then we here about it the next month and the next quarter and the next quarter and the next quarter. Until you actually say, "That's it. We are cutting off the money," it's just words. So I urge you to think about cutting off the money even if it's just putting people in the penalty box for a year, the world will get out -- the word will get out that you are serious.

It's about the money, not the words.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next I have Alyssa Giachino.

ALYSSA GIACHINO: Good afternoon, committee and staff. My name is Alyssa Giachino with the Private Equity Stakeholder Project.

As the human and economic costs of climate change accelerates, it's crucial that companies' end investors re-examine and renew their investment approach to ensure we stay within a 1.5 degree trajectory. CalPERS Sustainable Investments 2030 strategy represents an important step forward, and we commend the leadership of the Board and your staff for your work to enact policies to meet your commitment to the Paris Agreement. CalPERS' commitment to double investments and climate solutions and consider exits from companies for failing to credibly transition are key components of positioning your portfolio for a low-carbon economy and mitigating climate risk.

As a watchdog organization that focuses on private market asset managers, we're particularly interested in how these objectives will ensure laggard private equity and infrastructure managers rapidly cut emissions and transition away from the risks of fossil fuels. We support the plan's commitment to set sustainable investment guidelines by asset classes. We recommend CalPERS set clear expectations that private market managers align their full portfolios with a 1.5 degree pathway with a priority focus on carbon intensive industries.

The private equity industries have made insufficient progress in the energy transition including major CalPERS partners like Blackstone, Carlyle, KKR, and Energy Capital Partners. Private equity and infrastructure firms hold billions in polluting fossil fuel assets, including coal and gas power plants, pipelines, fracking and drilling operators. They are investing to expand fossil fuel infrastructure including new drilling permits, pipelines and LNG terminals, even as the IEA has called for no expansion of supply and predicts the demand for oil, gas and oil -- excuse me -- oil, gas and coal will peak before 2030. Private markets are the least visible part of your portfolio and the opacity leads to unmeasured and unmitigated climate risks.

You are even considering additional allocations under the ALM discussion from earlier today. Private markets require greater vigilance. Before making additional private equity and infrastructure commitments CalPERS should ensure private market managers are committed to invest in alignment with the IEA pathway and 1.5 degrees. They should disclose groups 1, 2 and 3 emissions, cut absolute emissions in half by 2030, with additional benchmarks through 2050. And, most importantly, ensure a just transition for workers and communities.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next we'll have Sheila Thorne and Mirian Gide come up.

SHEILA THORNE: Hello. I'm Sheila Thorne. I'm a CalPERS beneficiary and a member of -- retired member of CFA. And I'm glad that CalPERS is now open to exiting assets that fail to present a credible Net Zero Plan, I guess a real step forward. However, how long do you plan to engage with these companies before making that determination?

Exxon just made its biggest acquisition in 25 years, spending $60 billion to buy Pioneer and its dirty shale oil fields in the Permian Basin. As the New York Times put it, instead -- quote, Instead of investing in clean energy, it is choosing to produce more oil and gas. The ruthless logic of the marketplace is pushing Exxon and other big oil companies to double down on fossil fuels instead of investing in green technology, end quote.

And Shell has abandoned offshore wind, hydrogen and biofuel projects and has scrapped its climate pledges in order to maintain 2022 levels of production until the end of this decade.

Carbon Tracker reports that in 2021 and the first quarter of 2022, Chevron, NE, Shell, TotalEnergies and other companies approved approximately $58 billion of investments that will only be needed if oil and gas demand grows to the point where it pushed global temperatures beyond 2.5 degrees. And therefore, asset owners seeking 1.5 degrees aligned portfolios cannot credibly own financial interest in companies that continue to invest in new conventional oil and gas projects. Which all the oil majors are doing.

According to the latest UN-backed 2023 report, if current projections hold the U.S. will drill far more oil and gas in 2023 than at any point in history, as will

Russia and Saudi Arabia. All the oil majors have already failed in credible Net Zero plans, and it's time to exit from these companies now before it's too late.

Waiting any longer will send California into a permanent spiral of drought, wildfires, floods and loss of shoreline. California workers' pensions should be funding a just transition now and should not be funding the inevitable destruction of their quality of life and perhaps even their homes.

Thank you.

CHAIRPERSON MILLER: Thank you.

MIRIAM EIDE: Hello. My name is Miriam Eide. I'm the executive director at Fossil Free California.

I'm going to say this is an unusual day that I'm going to start off with just sincerely thanking you all for your work on sustainable investments. Some big progress. So congratulations.

And, yes, this 2030 strategy is a big step forward. And there's a few things that I was particularly excited about. First off, I think this is the biggest recognition I've seen from your staff and your board about financial risk in relationship to the climate crisis. And that is crucial to making strategy.

The next part is the discussion of an engagement-plus plan. Which, let's be frank, that's in many ways exactly what we've been talking about with divestment. If it's easier for you to term it that way, I'm happy to call it exiting or and engagement-plus plan.

And the addition of consequence for noncompliance with a Net Zero Plan is crucial, because otherwise you will continue to fund the climate crisis rather than funding a solution to it, which I need in order to survive. I'm much younger than most of you all here.

But I did notice one pretty big hole in your overall plan. Actually I would say it might be big enough to drive an industry through. It seems that there's an exception for the fossil fuel industry, and that you're willing to continue investing in this industry while holding other companies that have a smaller contribution to the crisis to account for their Net Zero plans. I really hope that your next iteration of this plan closes that loophole and says that fossil fuel companies as well will be divesting if they don't have a credible Net Zero Plan.

And I would also point to bills such as SB 252 as having a strong understanding of which companies are not going to meet the standards by any means, those top 200 emitters.

One final thought to leave you all with is, back in September the Governor and Attorney General announced a lawsuit against the biggest five fossil fuel companies for their willingness to destruct and intentionally decept the world -- or deceive the world about the impact of their industries on our globe.

And we have the State of California making this lawsuit. This is a big step - and they're not alone. There's so many other states and entities suing fossil fuel companies. Do you really want to still be investing in these companies when they're held to account financially for their destruction of our planet? Or do you want to be one of the ones that's already out and protect our state workers from those impacts as fossil fuel companies are held accountable for their destruction?

Thank you.

CHAIRPERSON MILLER: Thank you.

Next I have Ruth Holton Hodson.

RUTH HOLTON HODSON: Thank you, and good afternoon. Ruth Holton Hodson. I am a CalPERS beneficiary, also a member of Third Act, a new national organization that's engaging seniors in the fight for climate and democracy.

Like others have said, I really appreciate the work that staff has done. And it's exciting, and it's a very exciting first step; and many of the things that you've laid out we strongly support.

What is giving us real problems is your timeline of a Net Zero -- Net Zero timeline by 2050.

Science is telling us there is really no time to waste for exiting high polluting companies. The climate crisis if not addressed immediately may well make the planet unlivable by 2050.

CalPERS is in an extraordinary position to really -- as one of the few institutions in the world, to make a huge difference in how fast we transition into a carbon-free economy. I would urge you to really step up and become the international leader that you can be in addressing the climate crisis, just as you have led on governance issues over the years. If CalPERS commits to bold action now, other institutional investors will follow, leading to even faster development of new technologies and industries that support a healthy planet and healthy investment returns.

Your decision on how fast to proceed will not only affect investments but also the health side of the house. Climate change, especially rising temperatures, is already having a serious impact on marginalized communities and older populations. The longer it takes to make a transition to sustainable energy, the higher the risk to our members' health and the greater the cost to CalPERS.

As you have undoubtedly heard, this year was the hottest year in a hundred and twenty-five thousand years. CalPERS, I would urge you, be bold, commit yourselves to investments and a Net Zero timeline that keeps the planet livable for all of us, ensuring CalPERS' beneficiaries will still be here to be able to benefit from their pensions.

Thank you.

CHAIRPERSON MILLER: Thank you.

I think that's all the public comment in the room.

I have a series of folks on the phone. And so I will call on staff to queue them up and bring them on board.

STAFF SERVICES MANAGER I FORRER: Yes, Chairman Miller. We have Julia Stein on the line to comment on Agenda Item 6d.

Go ahead, Julia.

JULIA STEIN: Thank you.

Good afternoon. And thank you for CalPERS' continued leadership in responding to the considerable financial risk posed by the changing climate, and for the opportunity to comment today.

I'm Julia Stein, the Deputy Director of the Emmett Institute on Climate Change and the Environment at

UCLA School of Law.

Before saying more I do want to note that I'm speaking in my individual capacity and my comments do not reflect the institutional positions either of the Emmett Institute or UCLA law.

Together with the Emmett Institute, Board member Phillip Angelides and other colleagues, I've spent the last several months researching and assessing the approaches our state pension funds are taking to address climate risk.

CalPERS has been a true leader in this space and we were heartened to see the updated Sustainable Investments 2030 strategies commitment to 100 billion of investment and climate solutions continued engagement with portfolio companies to ensure the credibility of Net Zero plans, and enhanced measurement and reporting of CalPERS portfolio emissions.

Effective climate risk management requires accountability, transparency, clear and tangible quick plans, and strong corporate governance. This strategy is a very meaningful step in the right direction and an important signal to other institutional investors across the globe.

But to further strengthen this plan, we recommend that the Board also consider a set of enhancements to the strategy.

First, because as the strategy recognizes, net zero portfolio goals must be backed by credible plans to achieve them, we recommend that quantitative interim goals be set at no greater than 10-year increments. This strategy laudably already includes an emissions reduction goal for 2030, CalPERS should commit to establishing an emissions reduction goal for 2040 as well.

Second, because Net Zero portfolio goals must be supported with regular standardized public reporting about efforts to reach those goals, CalPERS should annually release its portfolio emissions tracking methodology and results. Critically, it should also publicly release its internal analysis that shows the strategies put on track to meet its 2030 goal of reducing portfolio emissions by 50 percent.

Third, CalPERS should clearly define the key elements of climate solutions investment to help ensure that such investments result in real and permanent emissions reduction; and to disclose the specifics of its existing $47 billion in climate solutions investments, to allow the public to better understand and assess the nature of those investments.

Finally, to further advance the strategy's goals, CalPERS should work with the State Treasurer's Office and the State Controller's Office to adopt minimum standards requiring disclosure of contractor financial institution's emissions, climate risk, and risk mitigation strategies, which those institutions must meet to do business with CalPERS.

These standards should also include consideration of whether contractor financial institutions are opposing climate disclosure efforts or other forms of progress in other fora.

Thanks again for the opportunity to comment today. And I look forward to a continued engagement with CalPERS on these issues.

CHAIRPERSON MILLER: Thank you.

Next caller.

STAFF SERVICES MANAGER I FORRER: Chairman Miller, we have Jason Disterhost from Majority Action on the line to comment on Agenda Item 6d.

JASON DISTERHOST: I'm in.

Hi. And thank you. My name is Jason Disterhost with Majority Action, an advocacy group focusing on systemic risk to shareholder value, and proxy voting tools to mitigate those risks.

Thank you to the staff and trustees for the hard work and productive dialogue on the Sustainable Investment 2030 strategy - to me, it's groundbreaking - including for the thorough updates today.

As CalPERS begins to implement that strategy, I wanted to note a few elements we would urge the fund to prioritize.

First, climate change as a systemic risk. As we all know, the worst risk that climate change poses to shareholder value is the threatening portfolios overall, from real estate to agriculture and to financial but beyond, the tipping point that require a prudential approach. And the strategy is being implemented in that context. But this means, for example, that the value of the objectives of outperformance and portfolio resilience would be sharply curtailed if we see a broad climate-induced depression sparked by physical and/or transition risks in the coming decade.

So we urge CalPERS to continue its work in championing the idea that climate change is a systemic risk that investors should mitigate consistent with fiduciary duties.

Second, stewardship, especially proxy voting. We're glad to see stewardship emphasized in objectives 3 and 5. And thank you to the trustees and staff for the exchange on this earlier. Your job was to build on this leadership here and cushion portfolio companies to phase out their contributions to climate risk. The fund can do even more to set clear public expectations for portfolio companies and apply director accountability to those expectations.

For example, in earlier presentations we were glad to see the IEA Net Zero roadmap and urged CalPERS to include those milestones. Like you asked another wealthy country utility's phasing out coal by 2030. As have been noted, we're closing in on the 2030 deadlines to cut global emissions in half on an absolute basis. CalPERS could make clear that it expects companies to set targets consistent with this and demonstrate real emissions reductions aligned with those targets. CalPERS reinforce those expectations by making clear that it will vote against directors at companies that do not meet them. Director accountability is a powerful tool on which CalPERS already has a strong track record and is a key part of our comprehensive stewardship approach like the ones staff has detailed today.

Furthermore, CalPERS could continue to amplify key proxy votes leveraging its leadership role in the investor ecosystem, building on its record and declaring two votes have advanced, flagging those votes and publishing rationale.

Third, and last, we urge CalPERS to fully utilize its influence of the client. And thanks again to trustees for an earlier exchange on this topic.

The Fund has best-in-class influence of the client as asset manager, proxy advisor and other service providers, and should ensure its service provider is aligned with climate expectations.

We applaud CalPERS' new plan first and foremost for the protection it promises to provide the beneficiaries' returns in the coming decade. We look forward to the strongest possible implementation in the next month and years.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller.

STAFF SERVICES MANAGER I FORRER: Chairman Miller, next we have Brad Anderson on the line to comment on Agenda Item 6d.

BRAD ANDERSON: Hello?

Yes. Hi. My name's Brad Anderson.

Hi. My name is Brad Anderson. I live in the city of Rancho Mirage out in Riverside County. And I wanted to speak on Item 6d. And this is -- well, anyway, you already know what it's about.

But I'm just kind of shocked listening to the Committee's statements. So I would -- I would I guess consider that being already approved by what I've heard.

But I'm in strong opposition to this -- this aspect, because it's really just a policy of discrimination against certain entities.

And the DEI narrative and the F -- ESG scheme, that's all part of it.

But bottom line, this is out of your wheelhouse. This is not anything that you should be involved with. And by going ahead with this -- well, anyway, I just wanted to voice my opinion. And I will definitely be more involved in these committee meetings in the future.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller.

STAFF SERVICES MANAGER I FORRER: Chairman Miller, next we have Mary Cerulli from Climate Finance Action, to comment on Agenda Item 6d.

MARY CERULLI: And -- hello?

CHAIRPERSON MILLER: Go ahead.

MARY CERULLI: I'm sorry.

My name is Mary Cerulli, and I'm the founder and executive director at Climate Finance Action. We work to advance policies and strategies for impactful, durable climate finance solutions within public pension funds and in other public investments. And we recognize the importance or aptitude of CalPERS of trustees to build the people power capacity needed to address climate risk, and recognize the opportunities of a green economy.

We also recognize CalPERS leadership and stewardship in sustainable investing so far. We expect CalPERS to continue to lead with bolder ambitions to mitigate the climate crisis and other social issues that are material to the portfolio companies, especially in the fixed income asset class and the larger economic system.

So in order to improve CalPERS portfolio resistance, and both to ensure that climate risk is appropriately test, managed, priced, and mitigated -- and I'm glad that I heard this rather long board meeting. But I am specifically interested in CalPERS' existing benchmarks, in public equity but also fixed income. And whether those indices provided -- provide room to address and mitigate climate risk. Other alternative options that have the potential to deliver similar or even better risk return profiles, and what indices are other asset owners using? We'd like to know.

And what ESG risk, including climate and physical, are the portfolio managers being forced into by virtue of the current benchmarks? We all know that pension funds are not just assets. They represent the compensation of workers, many of whom are represented by unions. And those public employees and their unions are key partners for this work.

Workers not only have a stake in CalPERS. They also have a stake in the future. Their children, grandchildren and the communities and State of California where they live.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller.

STAFF SERVICES MANAGER I FORRER: Next, we have Sandy Emerson on the line to comment on Agenda Item 6d.

Go ahead, Sandy.

SANDY EMERSON: Thank you. I'm Sandy Emerson. I'm a research volunteer with Fossil Free California.

The Sustainable Investment 2030 Plan is a very welcome initiative, especially for its dramatic increase in green investments.

The plan also opens the door to a protective action that CalPERS can take to safeguard its portfolio by exiting from fossil fuel companies. It's my opinion that fossil fuel companies will never have credible Net Zero Plans, so they already meet the exit criteria.

CalPERS has objected to the divestments called for by SB 252 on the grounds of fiduciary duties. But one of the duties of loyalty to beneficiaries is impartiality, which is the duty to consider the overall best interests of all the members and beneficiaries. Pension board should not privilege the needs of current beneficiaries over those of future beneficiaries. This has particular relevance in the context of climate change. Addressing climate-related financial risks protects the interests of future beneficiaries.

Oil producers currently plan to produce more than twice the amount of oil that they should in order to prevent climate chaos.

They have already identified more than three times as much in proven reserves as it is safe to monetize. Their reckless expansion will perpetuate and accelerate physical risks such as wildfires, floods, heat waves, and other signs of climate chaos. Not only do they not have credible transition plans; they are also walking back previous commitments and building in increased production.

In response to the SB 252 divestment legislation, CalPERS has identified 101 of the highest emitting fossil fuel producers in its portfolio. Almost half the total 9.4-billion-dollar market value of these investments is represented by just five companies - Exxon, Chevron, Shell, BP, and ConocoPhillips. These are the same companies that the State of California is suing for lying about the risks of climate change and delaying action for years.

Why should our public pension dollars stay invested in these companies and why should CalPERS stay invested in fossil fuels?

I urge you to protect the future and head for the exit.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller, please.

STAFF SERVICES MANAGER I FORRER: Next, we have Sarah Theiss from Fossil Free California on the line to comment Agenda Item 6d.

Go ahead, Ms. Theiss.

SARAH THEISS: Hi. I'm Sarah Theiss, CalPERS retiree and part of Fossil Free California. Due to time limits I'm going to agree with and will not repeat all the positive accomplishments the plan includes, which are many. I do have three questions as to other aspects of the plan. And as usual, I'll -- I'll supply citations for all the facts I rely on in my comments and questions.

First, I don't see a mention of limiting temperature increase to 1.5 degrees centigrade above pre-industrial levels, which is in the focus of CalPERS' prior plan. I do appreciate Ms. Willette's comments in this regard.

So my question is really what happened to 1.5? I hope that you would, the Board, will query staff on this and let us know.

My second question is -- and I've had this for a long time -- I just don't understand why CalPERS continues to try to make saints out of sinners. And I have two point on this.

One is, how solid are the fundamentals of the oil majors? As of this August, 3 of the 5 biggest companies, ExxonMobil, Chevron, and Total had to dip into their cash reserves in order to maintain dividends and share buybacks. And this is really the pattern from 2005 through 2020 where they collectively paid about 325 billion more to investors than they generated in free cash flow.

They generated cash surplus enough to replenish cash reserves and pay down debt in only three of those years. And as a layperson this seems risky to me. And we're already of course -- as you very well recognize, and this is a very risky area in terms of, you know, the markets as to fossil fuels in general, geopolitical issues, and the unfolding climate disaster.

And my second -- the other point about this is that financial -- fossil fuels have poor financial outcomes. As the New York Controller recently stated, basically whenever there's a market performance, there's a support the system's decision to stop investing in fossil fuels over a five-year period before they decided emerging stocks lost more than 35 percent of their value while the broader stock market increased in value by more than 50 percent. And through our alert early August 2023, energy stocks have lost 1.3, while the broader market has gained 7.2 percent.

Now, obviously myself and others have been raising this question for years now and I -- I just really don't understand that.

My third question is really questioning reliance on Mercer's approval of this plan given the plan's undetermined timeline to exit the fossil fuel industry. And this of course is incompatible -- incompatible with science. For example, the fact that according to the IPCC, existing and currently planned fossil fuel projects are already more than the climate can handle.

When I and my siblings were teenagers growing up in Queens, New York, I wanted to do something that our parents didn't approve of, we argued that everyone else was allowed to do X. And my father always responded, "Just because everyone else jumps off the Brooklyn Bridge doesn't mean you have to."

But here we're not jumping into the East River, but really on to a journey to Climate Hell.

Thank you very much. And I'd love to hear answers to my questions.

CHAIRPERSON MILLER: Thank you.

Next caller, please.

STAFF SERVICES MANAGER I FORRER: Next, we have Beverly Ortiz from Climate Finance Action to comment on Agenda Item 6d.

BEVERLY ORTIZ: Good afternoon.

Can you hear me?

CHAIRPERSON MILLER: Yes. Please go ahead, caller.

BEVERLY ORTIZ: Oh. Thank you.

My name is Beverly Ortiz. I'm the organizing director for Climate Finance Action. We're a nonprofit organization directly engaging key stakeholders, unions, and public leaders in creating a pathway for change to ensure that public funds not only hold companies accountable for a just transition, but support a dramatic shift towards an economy that operates in favor of people and the planet.

We recognize CalPERS' leadership and stewardship and sustainable investing. It is encouraging to see that CalPERS will use a science-based target initiative framework Net Zero setting for companies.

In order to achieve 2025 and 2030 carbon intensity targets, CalPERS must engage companies through shareowner actions, use engagement with portfolio companies to drive change by setting and maintaining standards of transparency for portfolio investments, including public equities, corporate bonds and other assets.

Also CalPERS must ensure accountability for companies that -- in energy, transport and industrial and material factors -- sectors, you know, these companies that aren't doing what they need to do. And these companies that refuse to make meaningful change, there needs to be a public plan created for accountability, to hold them accountable.

Lastly, on the energy transition, we need a just transition, which must include workers with high quality jobs, with neighbor principles, a just transition that addresses racial and economic equality, and creates a more equi -- or creates more equitable communities.

Thank you very much.

CHAIRPERSON MILLER: Thank you.

Next caller, please.

STAFF SERVICES MANAGER I FORRER: Chairman Miller, next we have Simone Bowers on the line to comment on our Agenda Item 6d.

Go ahead, call.

SIMONE BOWERS: Hello?

Yes, hi. I'm Simone Bowers. And I'm a grateful California beneficiary, living on my late husband's CalPERS pension and Social Security.

Last year, which was the third year I was living near a dry creek bed, it suddenly became a raging river during the rainy season, and nearly washed away my residence. I was less than 30 feet away from going to the public shelter.

Most of us did not expect to see climate degradation get to its current level so fast. While I very much applaud CalPERS for developing a sustainable investment plan, its timelines does not fully take into account the fact that the earth has basically run out of time. Continuing to invest in the fossil fuel industry will hasten the destruction of our planet.

I call on CalPERS to devise wiser, more rapid strategies that will result in a fossil-free California.

Let's protect our pensions, workers and communities by protecting the environment.

Thanks. Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller, please.

STAFF SERVICES MANAGER I FORRER: Next, we have

Claire Brown to comment on Agenda Item 6d.

Go ahead, Ms. Brown.

CLAIRE BROWN: Hello. Good afternoon. I'm Claire Brown, Professor of Economics at UC Berkeley.

The CalPERS' expanded sustainability strategy is a step forward. However, I'm here because of my concern about CalPERS not being transparent about much of their data related to sustainability policies and strategies, which were often made without any data or evidence provided, and so it is hard to evaluate.

An example includes the cost and performance data related to the sustainability policies divestment.

For example, one is the stakeholders forum in January 2023, CIO Musicco's statement:

Quote: If CalPERS sold off all of its energy-related assets it would amount to 160-billion-dollar divestment.

2: Analysis of SB 252 in the spring 2023 estimated at 75 to 125 million in transactions costs would result from divesting 9.4 billion of fossil fuel investment.

3: The administrative cost to complying with SB 252 SB 252, quote: Would be in the hundreds of thousands of dollars annually.

4: In June 2023 report to the board, Marcie

Frost stated: "Our team has indicated that the Bill results in a 4.4 basis points per year loss over 10 years and 3.6 basis point loss over a 20-year time period, with a net cost for public service employers of more than 6-and-a-half billion dollars by mid century."

Also CalPERS justifies not providing evidence for data related to their sustainability policies and strategies because the records are exact from legal disclosure, indicating that public interest in disclosure have clearly outweighed by the public interest in non-disclosure.

The research done by UC Berkeley research team finds different outcomes in the CalPERS data. We find that transactions' costs for divestment tend to be minimal and that large portfolios have financially benefited from fossil fuel divestment.

As an economics professor, I'm concerned about data presented without evidence. And lawmakers are expected to take the data as stated even when research indicates that the data may not be correct or is outdated or not applicable.

The public as taxpayers pay for public pensions and the CalPERS members depend upon their retirement pensions. And they both -- well, both groups need to know how CalPERS makes calculations that would affect the pension risk and portfolio performance, especially for a policy such as divestments, which is necessary for CalPERS investment strategy to be aligned with California climate-related laws and climate goals.

I sent a CPRA request to CalPERS to the four examples given, and was told the information was exempt from disclosure. I requested the Investment Committee board members ask the CalPERS staff to provide the evidence for the sustainability presented including the cost related to SB 252.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller, please.

STAFF SERVICES MANAGER I FORRER: Next, we have Sakeena Baxamusa to comment on Agenda Item 6d.

Go ahead, caller.

SAKEENA BAXAMUSA: Thank you.

Hello. I'm Sakeena Baxamusa, a student at UC Berkeley working with the with Institute for Research on Labor and Employment. We study the economic impacts of investment in fossil fuels on the CalPERS Pension Fund. Our team of researchers has spent the past month understanding the benefits of risks associated with the significant investments that CalPERS has in fossil fuel companies.

CalPERS currently has $9.4 billion invested in fossil fuel companies. If we look at previous examples of nonrenewable energy investments such as coal, which is the forerunner of all fossil fuels, we can see that the market value decreases significantly as the U.S. moved away from coal-powered energy sources.

While CalPERS has significant investments in coal, the top 13 national coal companies lost 92 percent of their aggregate value between 2010 and 2016, showing the volatility and financial risk associated with antiquated fossil fuel investments.

CalPERS has a fiduciary duty to anticipate the climb of fossil fuel investment value and divest before losing large assets.

Over the past 12 years, the MSCI All-Country World Index without fossil fuel has outperformed the MSCI ACWI with fossil fuel even when accounting for fluctuations like the Ukraine invasion. Over this 12-year period, which is a time frame that's broad enough to speak to the actuarial considerations of long-term investors, Exxon market capitalization was so volatile that it dragged down overall returns.

CalPERS currently owns 0.2 percent of Exxon, 0.2 percent of Chevron, 0.2 percent of Occidental Petroleum and portions of other fossil Fuel companies as well.

Aside from being financially irresponsible investments, this contradicts the CalPERS plan to reach Net Zero emissions by 2050. (Inaudible) of this CalPERS sustainable investment by 2030 strategy is a huge success for this effort, it's still a bit too indeterminate. As it is, the CalPERS sustainable investment by 2030 strategy is far too vague and lacks the direct option of enforceability that is benefit to stakeholders financially and by meeting State climate goals. By investing in this plan is on a to-be-determined basis that needs to be outlined more clearly.

Additionally, there's no enforceability on the time allotted on engagement responses with companies that currently have no credible Net Zero plans. The energy transition is unstoppable, and CalPERS by staying invested in fossil fuel companies increases its exposure to the funds to destabilization of (inaudible).

Finally, investing in climate solutions like carbon capture and storage which are being purchased by the fossil fuel industry have environmental justice implications that CalPERS needs to consider before investing in. I urge CalPERS to create a concrete plan with a specified timeline to divest in fossil fuel companies.

Thank you.

CHAIRPERSON MILLER: Thank you.

Next caller, please

STAFF SERVICES MANAGER I FORRER: Next, we have Barbara Fletcher on the line to comment on Agenda Item 6d.

Go ahead, caller.

BARBARA FLETCHER: I'm Barbara Fletcher, a CalPERS beneficiary. (Inaudible) a group of seniors trying to help our planet. Thank you for your work on the new sustainable investment policy you're presenting today. Actually, I feel, however, that your timeline is far too slow. Your report proposes that CalPERS investments in fossil fuels will go to Net Zero by 2050. Yet that's wrong after experts predict we will no longer be able to limit global heating. Because I'm concerned about the quality of life that my grandchildren will experience on our planet, I've divested my own investment portfolio from fossil fuels and invested in funds that are working with sustainable energy.

I believe your timeline should be dramatically shortened. Also your policy should focus on divestment as a strategy and not count on influencing fossil fuel companies from the inside because that's a strategy that has failed so often.

CalPERS should protect workers, retirees, and the planet by shortening the time frame of its goals to reduce its investment in fossil fuel.

Thank you.

CHAIRPERSON MILLER: Thank you.

I believe that's the last of our phone-in participants.

Is there anyone else on the phone?

STAFF SERVICES MANAGER I FORRER: Yep. Chairman Miller, we have one more caller.

CHAIRPERSON MILLER: Okay.

STAFF SERVICES MANAGER I FORRER: Lucy Fried would like to comment on Agenda Item 6d.

All right, caller.

LUCY FRIED: I thank you.

My name is Lucy Fried and I'm a student at UC Berkeley, also working with the Institute for Research on Labor and Development to understand the economic impacts of fossil fuel investment on the millions of current and future CalPERS beneficiaries. While the sustainable investment strategy puts CalPERS in the right direction by focusing on climate solutions through increased investments, CalPERS should move to that faster. I have written fossil fuel companies for environmental and financial reasons.

CalPERS has $9.4 billion in fossil fuel investments as of 2022 across all of their asset classes, of which 49 percent are in the large -- the five largest fossil fuel emitters. Despite this, the world's demand for oil and gas we're set to have in the coming years according to the International Energy Agency. However, investments in new projects are expected to surge by 11 percent in 2023, which according to the IEA report is not enough to achieve Net Zero emissions by 2050.

CalPERS continued investments in these fossil fuel companies is thus contradictory to its plan of being on a pathway to Net Zero by 2050, especially if your companies do not have credible Net Zero Plan and they're all scaling back on their renewable energy product. Through fiduciary duty's perspective, all of CalPERS investments in the Big 5 fossil fuel companies have declined in market value between 2018 and 2022, with a divestment of these three declining 46.34 percent, Exxon at minus 49 percent, and the rest around 20 percent each.

California's current lawsuit against these five companies as well as the projected decline in oil consumption, the conservative projection is a continuing decline in market value.

CalPERS sustainability plans uses language that mentions divestment, which ultimately leads to divestment, but it doesn't provide the best science or the (inaudible) or enough urgency to be effective enough. Instead CalPERS continues to rely on engagements, which has resulted in some companies Net Zero by 2050 pledges, but usually without the company's specific and tangible plans.

As discussed earlier, working towards decarbonizing the economy is crucial, but it does not need to be mutually exclusive with decarbonizing the portfolio. In order to reach its goals and reduce emissions, CalPERS should adopt more specific protocols and should divest in fossil fuel investment before the decline of oil and gas and in order to uphold the financial and environmental fiduciary duties to members and stakeholders.

Thank you.

CHAIRPERSON MILLER: Thank you, caller.

Okay. Was that the last of our callers on the phone?

STAFF SERVICES MANAGER I FORRER: No more callers on the phone.

CHAIRPERSON MILLER: Okay. I think that pretty much wraps it up for Item 6d.

And so we will move now to 6e, Responsible Contractor Policy Annual Review.

(Thereupon a slide presentation).

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Thank you, Mr. Chair.

This is our annual update on compliance with

CalPERS Responsible Contractor Program Policy. I do bear in mind that we'll be back in March to work through potential updates to the policy. But this is the update on the current policy.

And Tamara Sells will be leading us through this item. So I'll turn it over to Tamara.

ASSOCIATE INVESTMENT MANAGER SELLS: All right. Thank you so much. Tamara Sells, Associate Investment Manager, Sustainable Investments.

It is my pleasure to present you with our Responsible Contractor Program Policy Annual Report for 2022, 2023 fiscal year.

Today I will provide a brief overview of our Responsible Contractor Policy and its history, some of which may be familiar to you; but it's important to orient where we've gone to know where we're headed.

Also, I'll provide a summary of the compliance results, I'll touch a bit on the communication and engagement flow, I'll provide a snapshot of the total compliance and contracting over the past eight years. And then as Dan alluded to, I'll touch a bit more on our RCP, the policy refresh activities and the timeline.

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ASSOCIATE INVESTMENT MANAGER SELLS: Okay. The Responsible Contractor Policy exists to ensure prudent and careful action while managing the Responsible Contractor Program, demonstrating our fiduciary principles to support and encourage fair wages and benefits for workers employed by our contractors and subcontractors, and further contributing to our competitive returns in our real estate and infrastructure investments.

The Responsible Contractor Policy applies to domestic real estate and infrastructure assets where CalPERS holds a greater than 50 percent interest and on contracts equal to or greater than 100,000.

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ASSOCIATE INVESTMENT MANAGER SELLS: So as familiar to you, this policy has existed for more than two and a half decades, and the key takeaway here is that we are currently undergoing our third policy review. And that engagement process is underway. And I will touch a bit more on the detailed activities later in the presentation.

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ASSOCIATE INVESTMENT MANAGER SELLS: So as mentioned, our Responsible Contractor Policy seeks to secure the condition of workers without adverse effect on our investment returns, access to investment opportunities or significant cost. And with that I'm happy to report 100 percent compliance by all CalPERS responsible contractor managers for the fiscal year 2022 to 2023.

All managers have certified that they, their contractors and subcontractors have complied with the policy. Certified responsible contractors received over $816 million and over 7 billion over the last eight fiscal years under the policy.

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ASSOCIATE INVESTMENT MANAGER SELLS: The policy continues to provide an avenue for communication and engagement between our external managers, contractors, responsible contractors, union and labor stakeholders, and CalPERS staff in order to assess stakeholder inquiries on which projects are applicable to RCP, mitigating human capital management and reputational risks, as well as to facilitate that contractor notification process between the union and labor stakeholders and the managers.

CalPERS Investment staff communicate regularly with our stakeholders as well as our real asset in infrastructure managers regarding implementation of the policy. And we work to address labor issues in a timely manner and in accordance with the Responsible Contractor Policy and our fiduciary duty.

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ASSOCIATE INVESTMENT MANAGER SELLS: But policy establishes communication channels and responsibilities between managers, unions, contractor -- and contractors with respect to bidding and notification. The RCP Policy is a part of each applicable contract, requiring information on wages and benefits from our contractors during the bidding process as well as the annual certification. Our union and labor organizations can be asked and are encouraged to put their names on the manager distribution lists for information -- updated information on ongoing RCP projects and contracts.

In addition, unions may provide managers with lists of signatory contractors. Some managers will employ an automatic notification. Some use websites, some use portals. But in any event, the policy requires that managers and their delegates provide both a process and a contact for these to -- the unions -- excuse me -- to receive RCP bidding opportunities.

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ASSOCIATE INVESTMENT MANAGER SELLS: For the fiscal year ending June 30th, 2023, managers reported 100 percent compliance with the policy. And as previously mentioned, certified responsible contractors received over 7 billion over the last eight fiscal years under the policy.

Capital projects were the largest driver of the fluctuation and the total amount paid to certified responsible contractors relative to last fiscal year. And although some managers reported delays in obtaining necessary permits, there were others that moved forward with a purchase of new assets which required capital work.

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ASSOCIATE INVESTMENT MANAGER SELLS: So as I mentioned, staff are currently undergoing a policy refresh. The recommended policy revisions will reflect the collective input of staff, legal, office, our board's fiduciary counsel, external managers, stakeholders and consultants. This refresh activity began in August with a series of meetings followed by an open invitation for our stakeholders to both comment and also request meetings and engagements with staff where they can delve into -- and share their perspective on the recommendations that they would like to see for RCP.

Currently underway, we are compiling those comments. That comment period closed on October 31st. However, to date we're still receiving comments. So we are compiling those comments and scheduling the stakeholder engagements. Staff are planning to return to the Board March 2024 with a first read of the proposed policy changes.

Overall, application of the responsible contractor policy has resulted in positive outcomes for

CalPERS, our stakeholders, as well as investments, and continues to serve us well.

I'm happy to address any questions that you have.

CHAIRPERSON MILLER: Okay. Thank you for that presentation. I appreciate it.

Doesn't look like we have any requests from the Board to speak.

I have a few members of the public that want to speak. So I'll ask Jeremy Smith and Michael Mark to come down to the microphone. And as always, whenever you begin to speak the time will start. And you can track it up here in front of me.

JEREMY SMITH: Thank you, Mr. Chair, members of the committee. Jeremy Smith, Chair, on behalf of the State Building and Construction Trades Council of California. We are a council of construction trade unions that represent over 450,000 union workers in craft construction unions up and down the states.

Thank you for the opportunity to address you today on your Responsible Contractor Policy revision. We're pleased to be part of the stakeholder process, and look forward to engaging staff on our recommendations.

And want to remind you all that in addition to your primary fiduciary responsibilities it is important to remember that the sheer size of CalPERS means that you all and the fund can really be a force for progressive pro-worker change.

The recommendations we outlined in our letter of October 31st will ensure that the RCP can act as that change, and mirror what was intended by the RCP according to CalPERS' own statement of investment policy for Responsible -- for the Responsible Contractor Program. That is, to hire contractors that, quote, support many of the ideals espoused by labor unions and encourage participation by labor unions and their signatory contractors in the development and management of CalPERS real estate and infrastructure investments.

CalPERS believes that an adequately compensated and trained worker delivers a higher quality product and service. We could not agree more with that -- with your own policy statement.

But recognize that it is difficult for CalPERS to monitor contractor behavior on construction projects. And once poor behavior is discovered, it is often too late to take corrective action. The issue such as wage theft, health and safety violations, and poor quality construction are not readily apparent during a construction project, and largely come to light only after construction is complete, but happen primarily on projects carried out by so-called low-road contractors.

However, violations such as those I just described and of the RCP create investment risks for CalPERS as an asset owner.

Again, wage theft, health and safety viola -- issues, project delays and construction defects, often not reported by workers for fear of reprisal, may lead to fines and penalties by public agencies in litigation by end users. These negative outcomes are financial risks that can eat away at a construction project's investment returns and can be difficult to mitigate once a problem has been allowed to develop.

When construction project managers do not consider the qualifications of potential contractors, low quality irresponsible contractors are chosen simply because they submit the lowest cost construction bids.

For these reasons construction project managers are best served by engaging in a, quote, best value contracting model, rather than a lowest-cost auction winner selection process.

Best value contracting is a procurement process that considers other factors in addition to the price and the award and execution of construction contracts

Furthermore, the most practical approaches to mitigate risks in construction contracting is to avoid irresponsible contractors by pre-qualifying firms with proven track records, requiring the use of project labor agreements, and/or requiring the use of a skilled and trained workforce to carry out the projects as defined at Public Contract Code Section 2600.

Any of these construction delivery techniques incentivizes suppliers to maintain or improve their conduct.

In closing, we believe that fostering a competitive market with the active participation of responsible contractors increases investment returns, expands employment opportunities for California workers and improves social welfare in the long run.

Thank you.

CHAIRPERSON MILLER: Great. Thank you.

Next we have Michael Mark.

MICHAEL MARK: Board members, thank you, thank you for letting me speak to you today.

Again, my name is Michael Mark. I'm here with Sheet Metal Workers Local 104. We are an affiliate of the State Building Trades Council.

I think one thing that -- there was a commonality today was let's make some change for California, let's do the right thing, and one thing within is the RCP. I think Director Pacheco asked earlier of the California investments. There was that great report that was done.

And I think one of the numbers that I saw was $18 billion of real assets within California. And like how do we make the change of making sure that the RCP applies to all of those projects? Because these are your brothers and sisters in California. And how do we uplift the community?

So when we're talking about $18 billion, sometimes those numbers are so astronomical, you know, with this entire pension plan of -- of almost 500 billion. These numbers are so, so -- on paper, it's like but each time when we're talking about how this RCP applies, I think I heard earlier $816 million of a construction work was applied within this RCP. Think about this: That dollar represents one hour for a construction person -- worker to work on the said project. So every time you have an hour, that's another paycheck for that particular family. There is additional food and additional health care for those individuals. So that's how like the world here together, we're all connected somehow.

So when we're talking about change within California and CalPERS' responsibility within, there is so much information that is done. And we're talking about ESG and a 100 billion dollars of capital being possibly invested in, there's also the making sure that those jobs that are created with that investment are actually going to be benefiting, let's say, union construction workers. Let's make sure the investment is correct.

So I spoke about some of the items. So I'll give you one instance where the RCP could be very helpful. The CIM Group, which was not in -- they listed that they didn't have any projects within their RCP. But they're listed. There is an upcoming project in Alameda County that's -- it's going to be a big tower. And right now they're not actually doing outreach with the local labor leaders. And the goal is to make conversation to see how can we best partner to make sure that CIM Group on this project in Oakland, in Alameda County, that they're going to use a union workforce with sheet metal workers in the building trades.

But partly the confusion is there are so many like different commingled funds that that fund CIM is working --

CHAIRPERSON MILLER: Your going to wrap it up here. You're out of time there. So if you could wrap it up quickly.

MICHAEL MARK: Wow, that was fast.

So, in the end -- again, Michael Mark with Sheet Metal Workers Local 104. How can we make sure this RCP applies? And I did submit comments. And I appreciate hearing back from staff.

Thank you.

CHAIRPERSON MILLER: Great. Thank you very much.

Okay. I don't believe we have any other public comments requested for this item.

VICE CHAIRPERSON TAYLOR: We have, the phone.

CHAIRPERSON MILLER: Oh, we got one on the phone. Okay.

Now let's bring our phone caller on.

STAFF SERVICES MANAGER I FORRER: Yes, Chairman Miller, we have Valentina Davos from Private Equity Stakeholder Project, to comment on Agenda Item 6e.

Go ahead, caller.

VALENTINA DAVOS: Good afternoon, Board. My name is Valentina Davos with the Private Equity Stakeholder Project.

CalPERS Responsible Contractors Policy has been a valuable tool for ensuring contractors provide quality jobs and stable workforces in the system's real estate and infrastructure investments. We applaud CalPERS for revisiting its policy to ensure it stays ahead of changing needs in the asset classes since its 2015 update.

Requiring responsible contractors within the real estate and infrastructure portfolio is conducive to the value proposition of those investments that provide high quality services and products and workforce ability consistent with fiduciary duties.

CalPERS could consider a few updates for the policy aligned with current best practices. We suggest adopting language to encourage labor, peace and strengthen neutrality, help protect CalPERS' investments from the impact of labor disputes.

We also suggest adopting language similar to the policy of the pure funds like the New York State Common Retirement Fund or New York City Pension Fund, including encouraging employer-paid safety training by contractors, avoiding partners that pose a regulatory or reputational risk, enhancing the language to apply to commingled funds, co-investments, separate accounts or other ownership exposure under a 50 percent stake.

Thank you so much for your attention to these critical matters and for your transparency. And we -- and for your request for feedback in the process. We look forward to further dialogue with you and other stakeholders.

CHAIRPERSON MILLER: Thank you for your comments.

Okay. I think that wraps up public comment on Item 6e. So we'll move to Item 6f, Consultant Review of CalPERS Divestments.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes, thank you, Mr. Chair. I think Lauren Gellhaus from

Wilshire Advisors will be joining us in a while. She's on her way up here. I'll just share a couple of things.

First, you'll recall that the CalPERS Total Fund Policy requires two things through the lens of divestment activities. The first is an annual review of the economic impact on divestments -- or from divestments.

And the second is an every-five-year thorough review of all of our divestments; and then either reaffirming those divestments or removal of some of them. This is the annual economic review.

Lauren is here. So I'll let her take us through the item.

LAUREN GELLHAUS: Thank you.

Thank you, and good afternoon, Board members. I am Lauren Gellhaus of Wilshire, and my comments today will be brief. But I did want to walk you through the context and the background of the analysis concluded for the divestment report.

I'm going to walk you through why we complete the analysis, which Dan has just touched on; how we complete the analysis; and then finally wrap up with a short overview of the results of the analysis.

So the Why. Dan noted, within policy there are two divestment items that are addressed. First is the fact that active divestments will come back to the Board for that reaffirmation process at least every five years. The last reaffirmation was completed in March of 2021.

The second part of it is that in between those reaffirmations there's an annual review of an update provided to the Board, that being this today.

So within the update that is completed there's a forensic analysis that is done to show the financial impact of CalPERS' active divestments of which there are currently four. Those are tobacco, Iran, firearms, and thermal coal.

So that the letter summarizes that analysis for the annual review of the active divestments.

So then the How. So to complete this analysis we received data from your vendor providers. For each active divestment we had the index without the securities divested, and then another with the divested securities removed.

Said another way, there's data on the portfolio pre-divestment and post-divestment. We then do comparisons of simulated portfolios.

So next we run through that process to estimate the financial impact of the difference in the two return streams. And this shows us how the securities would have done had the portfolio -- how the portfolios would have done had the securities not been removed, and showing the difference either positively or negatively.

We then accumulate that impact through time, and that's what is summarized in the report.

So then for the results, within the letter we do show that two out of the four divestments had a positive impact on the market value of the portfolio and yet that you had a negative impact on the portfolio.

Further details around the analysis can be found in the investment report itself. Given that the last affirmation was in March of 2021, this analysis includes nine quarters of data; that being the second quarter of 2021. And then the quarters within the last two fiscal years.

That concludes my prepared remarks. But I'm happy to address any questions that the Board may have.

CHAIRPERSON MILLER: Okay. I have a question from Director Pacheco.

COMMITTEE MEMBER PACHECO: Yes. Thank you. Thank you, Chairman Miller. And thank you, Lauren, for your report.

I just have a question regarding the tobacco. You know, what -- may be contributing to the negative present value observed in the tobacco category? I -- from previous, from 2021 to now I just want to note your analysis of what's the contributing factor? Is it in the economy or -- if you can just elaborate on that.

LAUREN GELLHAUS: Yes. For this analysis we look at it from two different lens of the segment 1 and segment 2. And we saw most of the detraction from segment 2, which was a more concentrated set of securities. And so if you think about any kind of divestment activity reduces that pool further, concentrating it, so any of the impacts you're going to see are going to be more pronounced. And that could be positively or negatively. This year we did see over the cumulation of those nine quarters a negative impact. But if you can recall back to 2020, there was positive across all the active divestments. So these are volatile and they can change year over year.

COMMITTEE MEMBER PACHECO: So and because of the concentration and the securities that you mentioned, that's what's attributing to the negative present value estimate?

LAUREN GELLHAUS: Yes. Pronounced in Q1 and Q2 of this year.

COMMITTEE MEMBER PACHECO: Thank you very much for your comment.

LAUREN GELLHAUS: Thank you.

CHAIRPERSON MILLER: Okay. Thank you for your presentation.

I don't see any further questions. I don't believe we have any public comment on this item.

So we will move on to 6g, Summary of Committee Direction. And this will be another exiting item, I'm sure.

INVESTMENT DIRECTOR DEMING: I've noted one Chair-directed item that we will update, the proxy voting policy, and bring it back for Board's input at the appropriate time in the future.

That was the only directed item. But I have noted a number of other then Board member comments, and we will find the right way to be responsive to those as well.

That's it.

CHAIRPERSON MILLER: Okay. I thought we had more than one.

CHIEF EXECUTIVE OFFICER FROST: Yeah, Mullissa had a couple.

CHAIRPERSON MILLER: Yeah. Well, let's double check that.

CHIEF EXECUTIVE OFFICER FROST: We'll pull the transcript and find them, Mullissa, then I'll follow up with the Board?

CHAIRPERSON MILLER: Okay. Well, with that, I'm looking at Item 6h. I don't believe we have any more public comment on 6.

And so we will now -- we're going to take a break, and then we're going to go into closed session.

So let's take a 10-minute break and we'll reconvene for closed session. So we can go ahead and start to clear the room.

And then we will return after closed session.

Oh, yeah. Yeah, we'll adjourn out of...

(Off record: 4:04 p.m.)

(Thereupon the meeting recessed into closed session.)

(Thereupon the meeting reconvened open session.)

(On record: 6:04 p.m.)

CHAIRPERSON MILLER: We'll reconvene here in open session. And hearing no objection, I will say we are adjourned for the day for Investment Committee.

Adjourned.

(Thereupon, the California Public Employees' Retirement System, Investment Committee meeting open session adjourned at 6:05 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 27th day of November, 2023.

James F. Peters

JAMES F. PETERS, CSR
Certified Shorthand Reporter
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