MEETING

STATE OF CALIFORNIA

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BOARD OF ADMINISTRATION

INVESTMENT COMMITTEE

OPEN SESSION

ROBERT F. CARLSON AUDITORIUM

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SACRAMENTO, CALIFORNIA

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

COMMITTEE MEMBERS:

Mr. Henry Jones, Chairperson

Mr. Bill Slaton, Vice Chairperson

Mr. Michael Bilbrey

Mr. John Chiang, represented by Mr. Steve Juarez

Mr. Richard Costigan

Mr. Rob Feckner

Mr. Richard Gillihan, represented by Ms. Katie Hagen

Ms. Dana Hollinger

Mr. J.J. Jelincic

Mr. Ron Lind

Ms. Priya Mathur

Mr. Theresa Taylor

Ms. Betty Yee, also represented by Ms. Karen Greene-Ross

STAFF:

Ms. Marcie Frost, Chief Executive Officer

Mr. Ted Eliopoulos, Chief Investment Officer

Mr. Matt Jacobs, General Counsel

Mr. Eric Baggesen, Managing Investment Director

Ms. Natalie Bickford, Committee Secretary

Mr. Dan Bienvenue, Managing Investment Director

Ms. Sarah Corr, Interim Managing Investment Director

Ms. Kit Crocker, Investment Director

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

STAFF:

Mr. Paul Mouchakkaa, Managing Investment Director

Mr. Wylie Tollette, Chief Operating Investment Officer

Mr. Lou Zahorak, Investment Director

ALSO PRESENT:

Ms. Rose Dean, Wilshire Consulting

Mr. Allan Emkin, Pension Consulting Alliance

Mr. Andrew Junkin, Wilshire Consulting

Ms. Elizabeth Lasensky, Yolo Move On

Mr. RL Miller, Climate Hawks Vote

Ms. Melanie Myers, American Federation of Teachers

Ms. Lynne Nittler

Mr. Brian Snow, Corona Police Officers Association

Mr. Ben Vernazza, Precision Fiduciary Analysis

I N D E X

P R O C E E D I N G S

CHAIRPERSON JONES: I'd like call the Investment Committee meeting to order. The first order of business is roll call, please.

COMMITTEE SECRETARY BICKFORD: Henry Jones?

CHAIRPERSON JONES: Here.

COMMITTEE SECRETARY BICKFORD: Bill Slaton?

VICE CHAIRPERSON SLATON: Here.

COMMITTEE SECRETARY BICKFORD: Michael Bilbrey?

COMMITTEE MEMBER BILBREY: Good morning.

COMMITTEE SECRETARY BICKFORD: Good morning.

John Chiang represnted by Steve Juarez?

ACTING COMMITTEE MEMBER JUAREZ: Here.

COMMITTEE SECRETARY BICKFORD: Richard Costigan?

COMMITTEE MEMBER COSTIGAN: Here.

COMMITTEE SECRETARY BICKFORD: Rob Feckner?

COMMITTEE MEMBER FECKNER: Good morning.

COMMITTEE SECRETARY BICKFORD: Good morning.

Richard Gillihan represented by Katie Hagen?

ACTING COMMITTEE MEMBER HAGEN: Here.

COMMITTEE SECRETARY BICKFORD: Dana Hollinger?

COMMITTEE MEMBER HOLLINGER: Here.

COMMITTEE SECRETARY BICKFORD: J.J. Jelincic?

COMMITTEE MEMBER JELINCIC: Here.

COMMITTEE SECRETARY BICKFORD: Ron Lind?

COMMITTEE MEMBER LIND: Here.

COMMITTEE SECRETARY BICKFORD: Priya Mathur?

COMMITTEE MEMBER MATHUR: Good morning.

COMMITTEE SECRETARY BICKFORD: Good morning. Theresa Taylor?

COMMITTEE MEMBER TAYLOR: Here.

COMMITTEE SECRETARY BICKFORD: Betty Yee?

COMMITTEE MEMBER YEE: Here.

CHAIRPERSON JONES: Okay. Thank you very much. The next item is Invest -- Executive Report, the Chief Investment Officer, Mr. Ted Eliopoulos.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Wonderful Good morning, Mr. Chair, Members of the Investment Committee. Bear with me, I picked up a cold on a bit of recent travel. So I'll try and enunciate well here. And interesting to note the subject of my summary report today is really a travel report of sorts. I and the -- several members of the senior investment team have recently traveled to London and other parts of Europe and thought it would be beneficial to provide the Investment Committee a summary of our review of the economic condition and political climate in the Europe, based on our most recent trips there.

The most basic theme of our review is really a continuation of the uncertain politics with rising markets phenomenon we are seeing really across the globe. The European markets, in tandem with that theme, have really been in a upswing of late, though not at the valuation levels that we see here in the U.S. And those -- that upswing is somewhat offset and muted by the continued strength of the U.S. dollar certainly.

These rising equity markets in Europe are occurring in the face of continued uncertainty around some really important and key political elections and decisions that will be made in some of the primary European markets in the year to come, as well as 2018. To list a few of them, the upcoming French elections, which have seen a resurgent of nationalist sentiments there; the recent just concluded Dutch elections, where Geert Wilders did not win, but his nationalist movement has certainly -- is certainly strong and has not gone away; upcoming German elections, which have seen Chairman Merkel center-right coalition challenged from both the left and the right; continued uncertainty on the Turkey's direction, its democracy and ability to integrate eventually into the European Union; and certainly the continued discussions perennial discussions around Greece's debt restructuring and solvency decisions.

To delve a little deeper into the European economic summary, first, and then conclude with a review of the politics and the elections coming up, the Euro zone has been recovering really since 2012 after weakening very significantly during the global financial crisis. Some metrics, the annual GDP growth averaged 1.7 percent in 2016 versus comparing the year 2012, where it had a contractionary negative 0.85 percent GDP growth.

Compared with the 2010 to 2012 period, we feel from an economic and market perspective that the tail risks in Europe have fallen. The economic recovery looks sustainable to us, and could very well be long lasting. Data are showing signs of growth broadening within the Euro zone, and importantly the breadth of growth a momentum across Europe countries is wide. For instance, we would note, in particular, the improvements in Spain and Portugal's economies.

Certainly key for future growth is the unemployment rate, which has fallend insteadly from 12 percent in 2013 to 9.7 percent in the fourth quarter of 2016.

The European Central Bank, the ECB, continues to keep its policy easing, and is expected to do so for the remainder of this year. The ECB has made it clear that this stimulatory policy will remain in place until pricing pressure pick up. And so far, there's really little evidence so far of pricing pressures coming into play.

Inflation is growing at less than one percent per year across the eurozone, and wage growth is stagnant.

In conclusion, with respect to the economic conditions in Europe, we are relatively optimistic on the economic outlook. We are very cautious as to how strong that growth will be, but we really have no great concerns from an economic perspective about the balance of risks to growth, as we see it at this point in time.

The key risk to the economic outlook that we would identify really is generally the health of the European banking sector, and, in particular, any deterioration of Italy's banking sector, and particularly the level of non-performing loans in the Italian banks and the spillover that may have on confidence and investment decisioning making within the EU.

Turning to the political risk, this is going to be quite a year in Europe. And there remain, you know, quite notable political risks, but these risks differ in each of the really different countries that make up the European block. France and Italy is where we would see the greatest near-term uncertainty. But looking across both France and Italy, and over across Europe, in general, is really part of the same back-drop that we've seen play out for the last year or so, which is a surge in populism globally playing out in response to rising income inequality, particularly in the eurozone, rather than a function of any, you know, specific recent event.

In France, there is a possibility that the far right candidate, Marine Le Pen, may get through the first round of presidential elections. They have a two -- two-step process in France. Polls for the second round suggest her chances are remote, at this point in time, at winning the second contest, if she gets through. She's fallen far behind any of the candidates that are competing.

What's raised I think the risk -- political risk in France really, since we've been making -- been in our trips, the far left candidate has seen a surge in the polling recently, and through this weekend. And his policies from the other end of the political spectrum are also a threat France's economic recovery and participation in the EU as well. Much more to come in France in the coming months.

Germany's election is probably too far in the future, September, to have any certainty around the outcome. But, you know, if a new Chancellor is chosen, and a new coalition government is formed, this has the potential probably to adjust the policies of Germany more at the margin, than more direct -- more dramatically.

The risk concerning Greece's most latest debt restructuring was taken off the table for now, last week following an agreement with the EU and IMF. And lastly, on -- well, continuing on in this frame in that neighborhood, the Turkey -- the Turkish people just voted in a constitutional referendum, which while significant, many, and perhaps most market participants, consider it a formalization of an already consolidated power held by the incumbent President, Erdogan.

To touch briefly on the UK and its Brexit, we do believe it will act eventually as a drag on growth in the eurozone. We do have some concerns around the risks for the future of Great Britain, but these will extend far beyond 2018 as the United Kingdom embarks on its Brexit, its vote on Article 50, the voluntary exit from EU, which it began on March 29th of this year.

The impact of Brexit on the UK economy and the growth outlook is uncertain, as we think this negotiation process is going to be a long one, a dynamic one, a complex one, and one very hard to predict since it hasn't ever been undertaken before.

The last point on politics is a bit of a -- is a bit of a wild card is Italy, where we see probably the larger risk over the course of the next couple of years. It's a large economy. It's the third largest economy in Europe. And based on recent polling, the Italian populous has the least support for remaining part of the EU of the major European countries.

The European -- the Italian growth is sluggish, and is really being dragged down by its banking sector's continuing dealing with the non-performing loan sectors of its banking system. Currently, 15 percent of all loans outstanding are NPLs, and that could deteriorate.

There was a failed referendum in December, as a bit of a split amongst the ruling party in Italy. And there is a growing anti -- really anti-government party known as the Five Start Movement, which is now based on lthe most recent polling its most popular political party.

So while we're not expecting an election in Italy until 2018, there's always the possibility under their parliamentary system for a snap election, so we'll be watching that very closely.

That's perhaps a longer summary of the economic and political situation, but it's an important part of the world, important part of the economy, important part of the marketplace. And really this back-drop of rising markets across the globe at the same time political uncertainty is rising, really, I think, and our team thinks, illustrates what is referred to as the climb -- you know, climbing the wall of worry, that CalPERS and other investors really currently face this dichotomy between the two.

Given that, you know, and in addition, the relatively high valuations across asset classes, we continue to feel that tail-risks are wider than they have been recently, and WE continue to support the current weighting of the portfolio in terms of our equity and cash balances.

And with that, Mr. Chair, I'd be Glad to answer any questions.

CHAIRPERSON JONES: Okay. Well, thank you very much, Ted. And no this is very helpful. And I would suggest you continue to keep updating us on the world economy as we go forward, and begin to embark upon our ALM process. So it's very helpful. We have several requests to ask questions, I guess.

Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you, Mr. Chair.

Thank you very much for that assessment. That was really helpful. As you noted, economic inequality has been a major driver of populism globally in the -- in Europe as well as in the U.S. Do you see the recovery as being -- what do you see as the participation of all segments of the population in this current recovery that you've articulated?

CHIEF INVESTMENT OFFICER ELIOPOULOS: It

hasn't -- it hasn't been robust and certainly felt by most sectors of the economy -- the employment sectors. And I think that's one of the key questions or one of -- is one of the key questions facing policymakers across the globe how to try and stimulate the economy, and do it in a way that is either actually or perceived to be fair to all segments of the population and economic workforce.

COMMITTEE MEMBER MATHUR: And, I mean, I know the G20 have been talking a lot about economic inequality. Do you have any sense that policymakers are approaching some set of solutions -- policy solutions?

CHIEF INVESTMENT OFFICER ELIOPOULOS: I think these elections will be very important and how Brexit is settled on a number of topics. And some of the policymakers that are up for election have wildly divergent views of the right solution coming from, you know, very divergent parts of the spectrum. So I think it's going to be challenging to see any one answer come through.

Certainly in an area like the Eurozone where there's so many different constituent countries with different politics, and there's potentials for different policymakers, and they're preferred choice being elected this coming year. So it's difficult to predict.

COMMITTEE MEMBER MATHUR: I appreciate that.

CHIEF INVESTMENT OFFICER ELIOPOULOS: But we can see the fault lines and uncertainty that's playing out.

COMMITTEE MEMBER MATHUR: And then one last question. I don't know how -- I don't exactly whenyou came back, but was there much discussion about the favorable trade agreement that Trump has indicated he is going to give to China in exchange for help with North Korea? Anything else about that?

CHIEF INVESTMENT OFFICER ELIOPOULOS: You know, it's -- no, we'd -- I was -- my own trip was a few weeks back.

COMMITTEE MEMBER MATHUR: Okay.

CHIEF INVESTMENT OFFICER ELIOPOULOS: There's lots of -- you know, I mentioned that the backdrop of this rising sense of nationalism isn't -- isn't in reaction to any one event, but certainly for Europe, they are looking at the actions that Britain has taken with respect to Brexit. They're looking at the actions that the U.S. government is articulating. And these all have reactions to them as well. And I think my own assessment is that in many of the discussions with our partners in Europe is that the resolve -- the European resolve seems to be growing stronger to make that union work. in response to some of these other factors -- other actions that are going around the globe. So we'll see.

COMMITTEE MEMBER MATHUR: Okay. Thank you.

CHAIRPERSON JONES: Ms. Taylor.

COMMITTEE MEMBER TAYLOR: Thank you, Mr. Chair.

Ted, this is really great information, since I'm kind of the political wonk here, so -- but you'd mentioned -- I kind of feel like there was a little bit of a dichotomy here that tail risk in Europe has fallen, but then at the end, you're supporting the current weighting of the portfolio, but there's still worry over this growth because it seems like it -- I'm going to paraphrase you -- it seems like it may not be real.

So it sounded like you were saying that it's kind of a growth that's not sustainable. So am I misunderstanding those two?

CHIEF INVESTMENT OFFICER ELIOPOULOS: I think I -- let me address the dichotomy, because it was there. So I appreciate you pointing it out.

I think the tail risk -- the economic conditions in Europe seem to be strengthening to us from an economic perspective.

COMMITTEE MEMBER TAYLOR: Okay.

CHIEF INVESTMENT OFFICER ELIOPOULOS: All the signs are unemployment is going down, GDP growth has come up off -- you know, off a negative level to a modest -- a modest level, but it's positive and growing. There's no signs of inflation or wage pressures.

Those are all very positive signs on the economic side. And certainly comparing it to the financial crisis, the time period, the tail risk from an economic perspective has lessened within Europe.

These political events, phenomena, elections have risen. So overall, the biggest risk to the European recovery is political, and that is hard to quantify, and impossible to quantify. The markets are telling us not to worry so much about that, and we take that quite seriously. And that's the dichotomy that we're pointing out is rising asset values, rising equity prices at a time there's very disparate and distinct political risks within this region, as well as the globe. And it's interesting.

COMMITTEE MEMBER TAYLOR: So the tension is there --

CHIEF INVESTMENT OFFICER ELIOPOULOS: The tension is there.

COMMITTEE MEMBER TAYLOR: -- but right now economically we're looking at a pretty stable economy, even though there's this tension of the politics behind --

CHIEF INVESTMENT OFFICER ELIOPOULOS: It's coming -- you have to remember for Europe, it's coming off -- coming off of the mat. It's coming off a very -- a very brutal period following the financial crisis.

COMMITTEE MEMBER TAYLOR: Right.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Very difficult conditions, particularly in southern Europe. And watching the economies in Spain and Portugal strengthen, and seeing some of these other economic numbers strengthen, we think that has legs and should continue.

COMMITTEE MEMBER TAYLOR: That is a good thing.

And then I had a couple of other questions. One was the -- kind of on top of what Ms. Mathur had said. The income inequality issue that seems to be driving the of populism in the United States and all over Europe right now, is it -- well, first, is it helpful if we continue working towards incorporating that into our global governance as an investor, so that we are looking more towards the long term? Because as I see this, or as what you've explained, is this is a huge risk.

This risk of the political that has been driven by income inequality. And I'm sure that's not the only factor, but I think that's a very large part of the factor, and especially in the United States we heard that kite dramatically. So as investors and as -- and as we move forward, is that something that we should be even more adamant about, incorporating into our ESG, and into our global assets, et cetera.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I think it's important that we have it as part of our global governance review this year going forward looking at it from an investor's perspective. The -- the challenge is that this phenomenon and force across the globe is really a -- is, at its heart, a very complex one, and a political issue to be confronted and delt with and changed. What tools and tool -- in the toolkit for investors to affect change on this policy level is -- is a question.

Investors need to -- investors need to and we are monitoring, observing, trying to assess what -- what is -- what are the outcomes that are going to come out of this calderon of disparity. And I think what we're seeing are political events occurring, and elections occurring that are signaling change to current political structures across the globe.

What that change will be and what the effect will be to markets or investment strategies is almost -- is almost impossible to predict, but the -- the risk to these changing political structures is very real, and one that we take into consideration. But as I said, the markets seeing all this information and pricing that risk, at least to date, really are not pricing --

COMMITTEE MEMBER TAYLOR: Right.

CHIEF INVESTMENT OFFICER ELIOPOULOS: -- much of a risk to these tail events, as much perhaps that you might see, in the words I'm using or others use around this. And we tend, as market participants, to rely on the wisdom of market pricing and valuation. And at least to date, those tail risks are not being priced into asset prices.

COMMITTEE MEMBER TAYLOR: Which I find kind of interesting that -- it makes me a little concerned because you did mention that there was still stagnant wage growth, that the -- that Europe is still doing some easing, which we backed off of. Now, granted, they started later. I understand that. And the easing is, of course, as we saw in the United States, it's the easing to the banks. It doesn't help main street.

So I know the eventuality of it is supposed to go down to main street. So this is where I -- I'm concerned that we're looking at something where these markets, and our market as well, is looking at a false positive right now because of -- I don't know why -- because everything else is pointing to a lot of uncertainty and risk.

But I appreciate -- I just have -- and I get the fact that we don't have the tools. It's more of a political tool, et cetera. I think had -- there's all kinds of things that we could have done differently in this country and in Europe during the crash, but we did not. I was just hoping that maybe as investors, there's something that we could do as well.

I appreciate it. Thank you.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: The -- I have some observations, but I also have a couple of questions. The -- the two questions actually probably would have been more helpful earlier to provide context. But when is the French election and when is the German election?

CHIEF INVESTMENT OFFICER ELIOPOULOS: The German election is in September.

COMMITTEE MEMBER JELINCIC: I'm sorry?

CHIEF INVESTMENT OFFICER ELIOPOULOS: September.

COMMITTEE MEMBER JELINCIC: September.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Sorry. Excuse me. And the French election comes in two stages. The first -- the first one is just weeks away, I believe. And the second one is about a month or two subsequent to that.

COMMITTEE MEMBER JELINCIC: Okay. And -- thank you.

The -- you know, you observed that there was not going to be an election in Italy for awhile. I think the only thing we know is there won't be an election this month.

(Laughter.)

CHIEF INVESTMENT OFFICER ELIOPOULOS: That's very wise.

COMMITTEE MEMBER JELINCIC: You know, the last time I calculated it, the average life of a government in Italy, since the Second World War was 17 months, so we're due.

(Laughter.)

COMMITTEE MEMBER JELINCIC: The -- a couple of observations. I think we have to be aware that a big reason the risk may not be priced into the market is that the central banks have just flooded the market with money, and it's got to go some place. And so that may be part of the failure to price risk.

And then reacting to something that Theresa said about inequality driving politics. I'm not -- I'm not convinced that that's actually what's -- the way the directionality goes. The inequality is a result of political decisions we made. We have said, you know, corporations are more important than people, and we've done that consistently. And so I think -- you know, I'm not sure which way the causality goes.

Thank you, Mr. Chair.

CHAIRPERSON JONES: Okay. Thank you.

Okay. That completes the questions. Thank you very much.

And now we will move to the next item on the agenda, the action consent items, approval of the March 13, 2017 minutes.

COMMITTEE MEMBER MATHUR: Move approval.

COMMITTEE MEMBER TAYLOR: Second.

CHAIRPERSON JONES: Moved by Mrs. Mathur, second by Mrs. Taylor.

All those in favor say aye?

(Ayes.)

CHAIRPERSON JONES: Opposed?

Hearing none the item passes. Thank you.

I have no requests to move anything on the consent information items.

So we will now move to Item number 5a, Revision of Total Fund Investment Policy, second reading.

Mr. Tollette.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you, Mr. Chair, and good morning Investment Committee. This is the second reading of the total fund investment policy. We brought the first reading to you in February. And we have Kit Crocker from our Investment Compliance and Operational Risk Team in the Investment Office and Rose Dean from Wilshire here to speak to the policy.

And with that, I'll turn it over to Kit.

INVESTMENT DIRECTOR CROCKER: Yes. Thank you, and good morning. Kit Crocker, CalPERS staff.

The updates fall into four main categories. They're updates to the divestment section; secondly, the incorporation of the previously stand-alone Global Governance Program Policy into the Total Fund Policy; there's an expansion of the liquidity investment universe to include investment grade sovereign debt; and finally, clean-up changes to reflect interim decision making and guidance from the committee, such as the new interim asset allocation targets for the PERF that were established by the Committee last fall.

So the first two sets of changes pertaining to divestment and the Global Governance Program are the outcome of extensive discussions between the Committee and staff in recent years. The changes to the divestment section emphasize our preference for engagement, they add periodic review and monitoring processes to ensure that prior divestments remain supportive of the prudent stewardship of the portfolio. And thirdly, they add notice and voting protocols to ensure the appropriate level of focus and transparency for these important decisions.

Also, I'd note that for the divestment sections in response to Committee feedback, we're also proposing deletion of the additional 72 hours notice to stakeholders to avoid any perceived conflict with the Bagley-Keene notice requirements, which actually provide for a longer notice period.

The newly christened governance and sustainability principles have been updated since the first reading of the Total Fund Policy in February to reflect the addition of a new section on capital allocation as proposed at the March 2017 Committee meeting as of just last month. And with regard to the expanded investment universe for the liquidity program, staff believes that the inclusion of investment grade sovereign debt will increase diversification and potentially enhance the risk return profile of the portfolio.

Then finally in that fourth category of clean-up changes are things such as updating the policy to reflect the new interim asset allocation targets that this Committee approved last fall with appropriate conforming changes to related sections. We've appended the Bloomberg name, wherever the Barclays index was referenced in light of the relatively recent acquisition and co-branding by Bloomberg of the Barclays indices.

We've deleted a reporting duty from the private asset class Board consultant's reporting section that is duplicative with reporting duties of the general pension consultant. And we've updated references to the former TIP, or Targeted Investment Program, to reflect the new program name of Investment Manager Engagement Programs.

So this is an action item, and we're seeking the Committee's approval. And with that, I'll pause and ask for any questions.

CHAIRPERSON JONES: Okay. Yes. We do have Mrs. Yee.

COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.

First, I want to just express my appreciation for the inclusion of the Global Governance Program Policy, which I think will be very useful and an important step to fully integrate ESG considerations into the Investment Office, so very much appreciate that.

I wonder if you could comment a little bit about the sovereign debt. And I know that -- I mean, I just want to get a handle about how much additional return from investing in hedge sovereign debt we might expect, as compared to current investments. I just don't -- it's not something I'm familiar with, so I'm trying to get a handle on it.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

I'll attempt to take that, and I might also ask Lou Zahorak from the Global Fixed Income team, whoc comment more broadly on that.

But on -- this is -- we're talking about -- that's a good question, Controller Yee. The short answer is, is it changes on a day-to-day basis depending on sort of the movements in the short-term -- short-term bond market. What we're talking about here is essentially instruments that mature within 15 months. And that's a very liquid and very competitive marketplace.

There's not a lot of additional sort of alpha to extract in the very short-term markets. The opportunity set currently is quite limited for the fixed income team, and they believe the inclusion of the these short-term fixed income sovereign bond instruments, all investment grade.

And importantly, if you'll notice in the materials actually on -- in your iPads, it would be on page 56 of 100 of attachment 2, the -- you'll notice that the short-term ratings that we're talking about using for these are consistent across the countries and instruments. So even though perhaps the long-term sovereign ratings might be different, the short-term ratings, which are really the ratings that we care about in this particular program, are consistent with A2P2, which is -- they use slightly different terminology in the short-term bond markets than they do for long-term ratings.

So we're not talking about a diminution of the credit quality. We're really talking about just an expansion into sovereign bonds. Other than just the U.S. Sovereign bond market, we're looking at some of the other investment grade countries.

So with that, I'll ask for Lou to also provide some commentary.

COMMITTEE MEMBER YEE: Okay.

INVESTMENT DIRECTOR ZAHORAK: Thank you, Wylie.

There's times in the international markets where there's greater demand

CHAIRPERSON JONES: Indicate your name, please. State your name.

INVESTMENT DIRECTOR ZAHORAK: Lou Zahorak, Investment Director in Global Fixed Income. There's times in the currency markets where there's greater demand for currencies in given countries. For example, if there's a period of time over a short-term window where there's greater demand for Japanese Yen, and there they want to borrow U.S. dollars, let's say, and we can get compensated more by investing our -- our assets in, let's say, a Japanese sovereign bond and hedge it back. So, in fact, we have no currency risk, but we get a higher interest rate for just that term period of time.

So that's the type of investment strategy this is. Again, Wylie said we're looking at investment grade quality investments similar to what we would look for in investing in U.S. Banks or U.S. corporations, so it's of comparable quality.

The one thing we did do in looking at this addition to our strategy is we actually looked at the historical default rates of sovereigns. And when I say the default rate, so, in essence, that sovereign i.e., like a Japan, would have to go into default. And remember, they have the ability to print currency just like any other country can.

And so for a country to go into default, and to fall quickly into default from an investment grade rating, we looked back. It historically happens much, much less frequently than would actually happen relative to corporate exposures.

So we have to actually look at this from a risk expanse standpoint to actually being -- you know, we can actually add some return, and we actually look at it from a true risk standpoint as having even less risk than our current corporate exposures.

In terms of the quantity or how much additional yield, it really varies. I don't want to give you a number. Is it 20 basis points? Is it 30 basis points? It really varies. This isn't a high risk program. Our goal is merely to put the cash to work, generate some cash returns with zero loss rates. That's our real goal.

COMMITTEE MEMBER YEE: Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I was just going to add that it --

INVESTMENT DIRECTOR ZAHORAK: We think it's an appropriate diversification tool.

COMMITTEE MEMBER YEE: Right. Okay.

INVESTMENT DIRECTOR ZAHORAK: And gives us capacity, because that's another thing. We're looking to add capacity, i.e. more line item exposures. And thus this helps us achieve that, because there is large size in the currency markets and much depth.

COMMITTEE MEMBER YEE: So could this have the potential of being the tool that gives us a little bit more of a potential of having some planning relative to how we have the fixed income team come up with kind of a better process for looking at longer term instruments with higher returns?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, that's -- that's a great question actually. This is a little different than that. It's certainly gives the fixed income team the opportunity to expand their investment set. I think the challenge of coming up with what might be called a "term schedule" for our

Liquidity Program is really something that we're planning to build into an element of our asset liability management process, where we have added that as an action item for our own internal staff to come up with that schedule of when we think we'll need different components of that Liquidity Program that might allow us to look at extending the term. We're doing that I'd say very cautiously in the interim, where we don't have a term schedule. We essentially have to make sure to keep maturities very short.

COMMITTEE MEMBER YEE: Right.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: The core emphasis of this program is capital preservation. This is where we want to, in all markets, be able to extract the liquidity, to then redeploy into markets that might be revaluing themselves. This is the program that has to always be available. And in those kinds of situations, we want to be able to rely on maturities rather than having to rely on sales whereever possible.

I think maturities are a much more reliable source of cash in a variety of markets than sales activity, where liquidity can come and go. Whereas, maturities, from a sovereign entity, are, as Lou just indicated, quite a reliable source of liquidity and are in a wide variety and wide spectrum of market environments.

COMMITTEE MEMBER YEE: So from a risk perspective, it sounds like this gives us a little bit more comfort, so currency risk being the major risk.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: That's right. The -- we hedge the -- out of the currency risk and the currency forward markets. So essentially we take out the currency -- the effects fluctuations. And the hedge to the forward currency markets are some of the largest and most liquid markets in the world. They performed without a hiccup basically during the financial crisis. They really are very reliable.

They're also huge. They happen to be the largest turnover markets in the world on any given day. So they're a very reliable source of liquidity.

The one other thing I would emphasize to for the entire committee related to this is this is a more significant change than we generally include in the second reading. And so if the Committee is interested in -- or needs more time to think about this potential change, we're happy to do a third reading and bring it back in May. I'm not suggesting that you have to do that, but I'll really leave that in the Committee's hands.

COMMITTEE MEMBER YEE: Okay. All right. Thank you, Mr. Chairman.

CHAIRPERSON JONES: Okay. Thank you.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: As I raised on the briefing, broker/dealers are not allowed to do international debt in their lending portfolios -- their securities lending. Obviously, the SEC perceives some risk there. Why -- why do we think we should do it in our liquidity portfolio?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think you might be referring to -- are you referring to the proposed change to the securities lending collateral rules, Mr. Jelincic?

COMMITTEE MEMBER JELINCIC: Yes, that would allow them to use international where they currently can't.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: As I understand it, actually broker/dealers are actually allowed to do a wide variety of things with their lending collateral today. And the proposed rule -- the pending rule relates to the fact that I think the SEC is proposing restricting their ability to do that with client assets. They could still do that with their own assets, assets vested to the broker/dealer. But my understanding is, is that the proposed rule would restrict them from doing that with client stocks and bonds and using those as collateral.

And the obvious concern around that is this in rehypothecation strategies, which is what that's called when you relend collateral that you've received. In past financial crises, rehypothecation strategies are notoriously fragile, because wonce you've relent collateral, it is then relent, and many times undoing that daisy chain of lending in a stressed market environment can be very challenging. And all it takes is one failure along that chain of rehypothecation for that chain to come collapsing down, and for someone to be left needing liquidity, and not able to achieve it.

To be clear, we're not -- this is not lending collateral. This is actually our Liquidity Program. And so this is just expanding where we can put that Liquidity Program into additional sovereign entities, not just the treasury sovereign, which is what we can do today, but expanding it to say include Japan, the UK, Euro bonds, hedged back into the dollar.

COMMITTEE MEMBER JELINCIC: And so the -- what's the risk that -- well, I guess you described the risk is they can't get re -- basically redone, which is the risk that the SEC is trying to avoid.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, the SEC's proposed rule -- it's not yet -- it has not yet been approved has proposed a rule to restrict broker dealers from relending their client's assets when it's used for say securities lending purposes.

COMMITTEE MEMBER JELINCIC: Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: So we predict -- and this is a good question to ask Mr. Crowley, perhaps when he's on the phone next month, regarding what the status is of that rule. We expect that until there are -- is a complete sort of SEC Commission itself is restaffed, that that bill will -- that rule will probably remain in limbo.

COMMITTEE MEMBER JELINCIC: Okay. And one of the other things that was said is that part of the reason for this is to increase capacity, and were we to handle the cash we got. That certainly raises the issue of have we overallocated to cash, if we actually have to go looking for new markets to help park it. Not part of the policy, but I think part of the issue that needs to be addressed.

In the policy itself, and I'm working off attachment 2, because it's got the strikeouts and underlines. But on page 17, 165 of the iPad, the first line, fourth paragraph, there -- there's a typo. I just thought I'd point it out. You missed a space.

The --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you for your detailed review.

COMMITTEE MEMBER JELINCIC: On 18 of 100, the strikeout is actually kind of interesting. We're striking out that it may be prudent to retain investment in an actively managed portfolio, but -- or restrain in active, but not in passive. Why did we chose to strike that?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

You'll give us a moment. We're just finding the page.

COMMITTEE MEMBER JELINCIC: Okay. It's 166 of the iPad, 18 of 100 in attachment 2, and it's one -- in the middle.

INVESTMENT DIRECTOR CROCKER: yeah, that was one of two sentences that -- Kit Crocker, CalPERS staff, excuse me -- that we thought was going to, well, in this case a greater level of detail than the rest of the policy. So it seemed to not fit. We don't disagree with it. We just thought it didn't rise to the level of investment policy statement.

COMMITTEE MEMBER JELINCIC: Okay. I at least understand it.

On the next page, 19 of 100 -- and I just lost my iPad number -- 167 of iPad. Up in two, the divestments will be reviewed at five-year intervals. And I would like to suggest that it be at least five year intervals, because there -- and I think that was actually more reflective of the discussion, because stuff happens.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Yeah, I think that's a --

INVESTMENT DIRECTOR CROCKER: Kit Crocker again. Totaly agree. In fact, I picked that up over my weekend reading myself. So thank you.

COMMITTEE MEMBER JELINCIC: I had one other one, but I can't find it right now, so I will go back into the queue, if I find it. Thank you.

CHAIRPERSON JONES: Okay. Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

I want to go back to the sovereign wealth issue again just to --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Sovereign bond.

VICE CHAIRPERSON SLATON: Sovereign -- yeah, those investments -- and I want to make sure that -- I think just to make sure everyone is clear that this requires us to change the credit rating thresholds, if I understand it correctly, slightly down. Still investment grade, but slightly down. And that -- but because of the term that we're investing in, shorter term, that even though the original issue may have a lower credit rating -- sightly lower, because of its longer term, that the portion that we would be acquiring would be an equivalent, if it were to be rerated equivalent with the top ratings we have. Am I correct in that or not?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: We intend to use the exact same short-term ratings for these new sovereign investments, as we would use in the current policy.

VICE CHAIRPERSON SLATON: Okay. I thought there was an adjustment down to BBB plus. There was an adjustment somewhere in here.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: For the longer-term bond ratings. But yeah, for the term that we're talking about, the 15 month and less term that's consistent with -- allowed in the Liquidity Program, it's exactly the same rating.

VICE CHAIRPERSON SLATON: Okay. So are those -- are we buying issues that are already partially -- in other words, that we're originally issued for a longer term, and now have a shorter remaining term on them --

INVESTMENT DIRECTOR ZAHORAK: That is

VICE CHAIRPERSON SLATON: -- in order to get over the 15 months?

INVESTMENT DIRECTOR ZAHORAK: That is a --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

So that's a possibility.

INVESTMENT DIRECTOR ZAHORAK: -- that a bond that was original issued as a five-year bond and rolls down, and now it's -- you know, let's say it was issued five years ago, and it has --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: A year left.

INVESTMENT DIRECTOR ZAHORAK: -- one year left, we could potentially buy that in the marketplace, yes.

VICE CHAIRPERSON SLATON: Okay. So my question --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: As long as it's rated A2P2.

VICE CHAIRPERSON SLATON: Oh, even the original five year had to be rated that. So did I miss something that wasn't there, an adjustment in the ratings to slightly lower ratings in order to buy a longer bond that has a short time left on it, but wouldn't be rerated?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, I think that's accurate. There are -- the. longer-term rating, as you've seen is actually -- it's investment grade and up. It's not A minus A3 or A minus.

VICE CHAIRPERSON SLATON: Right.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

However, we're buying bonds that are within the last 15 months of their maturity spectrum. And in that spectrum, they would have to be A2P2, F2, or the equivalent.

VICE CHAIRPERSON SLATON: Okay. Well, it's the words, "Or the equivalent", so does that mean they -- that that's a different rating scheme or are you talking about if it were to be rerated in that last year, it would get that same top rating?

INVESTMENT DIRECTOR ZAHORAK: We would -- we would only buy a security if, at the point in time of purchase, it would have to meet our minimum ratings requirements.

VICE CHAIRPERSON SLATON: Okay. And are we changing that minimum rating requirement or not?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: No, not within the time period that these bonds are allowed to be purchased.

VICE CHAIRPERSON SLATON: Okay

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

It's the same.

VICE CHAIRPERSON SLATON: All right. Thank you.

CHAIRPERSON JONES: Okay. Thank you.

Yeah, I have a question. I was looking at the Board's consultants opinion letters. And three out of the four made reference to the lack of procedures, matrices, evaluation thresholds, et cetera before they could offer, in one case, a final opinion. So since it seems to be an issue with all three consultants, so could you comment on that, when they would be developed and when they would be implemented.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, I will start the commentary, Mr. Chairman, but I'll again ask Wilshire to provide their commentary. Essentially, what I believe you're referring to is the fact that we've now incorporated this Governance and Sustainability Principles into the actual investment policy.

And so because of that, your consultants are now required to provide opinions on how to measure the effectiveness of those governance and sustainability policies on the actual investment practice. And that -- as we've discussed in even just last month, that's a fairly nascent area in terms of how to measure that -- the impact of that on investments.

Wilshire has obviously done that for many years with our Focus List Program. And that is very clearly measurable, because it's a fairly small universe of stocks, and you're just talking about the G of the ESG. And we take a clear focus that, and they're able to measure the differential performance of the short list of stocks we include in the focus list, versus the broader portfolio.

Now that we've built the Governance and Sustainability Principles right into the investment polity, it now influences, not just the focus list, but all of the activities of the program. And measuring that in a meaningful and quantitative way is really -- that's sort of the Holy Grail frankly. And that's not something that I think CalPERS, or virtually anyone else, has completely figured out how to do.

And so that's -- I believe that's what Wilshire is referring to in their opinion letter. And that's definitely a focus within the five-year plan is to look at exactly how to measure the effectiveness of that and bring that back to the Committee.

CHAIRPERSON JONES: Okay. Yeah, but it was -- it made reference to also our real estate and our private equity.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That's right, because it's now built throughout the program.

CHAIRPERSON JONES: Okay. Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Would you like to Comment, Rose, on that?

MS. DEAN: Rose Dean, Wilshire. No, I think --

CHAIRPERSON JONES: Pull your mic.

MS. DEAN: I'm sorry.

CHAIRPERSON JONES: That's okay.

MS. DEAN: I think Wylie captured the essence of our opinion. I think we are in agreement, as we mentioned in last -- in our last opinion letter regarding these sustainably principle -- Sustainability Principle is that we're in agreement that this aligns the interests of CalPERS with the focus on long-term sustainability of the program.

But as Wylie mentioned, this is something that we -- we and other consultants going forward will figure out how exactly to quantitatively measure this.

CHAIRPERSON JONES: Okay. Okay. Thank you. We'll look forward to you coming back on that item then.

Okay. Mrs. Mathur. Before I call on Mrs. Mathur, we do have four individual that would like to speak to this item before we entertain a motion.

So with that, Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you. So just to follow up on your comments, Mr. Chair, will -- once the procedures are all finalized, will we have an opportunity for consultants to come back and opine at that point?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Yeah, absolutely.

COMMITTEE MEMBER MATHUR: Yes. Okay. Thank you.

So my question is really about the attachment --

appendix 1 of attachment 2, the Governance and Sustainability Strategy, the frequency with which reports will come back to this Committee.

I note that it is a top line item, but then it's also a line item under each of the asset classes to come back at least annually on Governance and Sustainability Strategy and coherence or with -- of the Investment Program Strategy with that strategy.

And so I'm wondering if that means that we will have five reports a year or is that all anticipated to be one consolidated report. I think once a year is not -- probably not frequent enough. But if it's -- it each of those items come back annually, then maybe that is sufficient. So --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think the idea was that we would do a consolidated report across the program at least once a year, much like we did last month. And then in addition, each of the individual investment programs when they bring their annual program review to you, we generally do that in the fall.

Each of those programs would also include specifics on their activities in the governance and sustainability area.

COMMITTEE MEMBER MATHUR: Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: So through that effort you would get at least one consolidated total fund view of that, how we're doing on our five-year plan. And then within each -- within each asset class, you'd get additional details when they come back in the fall. That's the -- that's what was anticipated and incorporated into the policy.

COMMITTEE MEMBER MATHUR: Okay. And additive to that is -- are any reports on proxy voting and other sort of --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Absolutely. That's right. The typical --

COMMITTEE MEMBER MATHUR: -- corporate governance activities, reports we might get --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: The typical reporting we do, you know, several times a year on how our proxy season is going.

COMMITTEE MEMBER MATHUR: Okay. Thank you.

CHAIRPERSON JONES: Mr. Bilbrey.

COMMITTEE MEMBER BILBREY: Thank you, Mr. Chair.

I just wanted to ask further on the question from Mr. Jones and Ms. Mathur. I don't think I caught it. How long will it be before that comes back to us, regarding the consultants letters and all.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: In terms of how we are going to be measuring and reporting on the quantitative impact of our governance and sustainability strategy, Mr. Bilbrey?

COMMITTEE MEMBER BILBREY: Um-hmm.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I'd like to be able to pin it down to a date. I'm not sure I'm entirely comfortable doing that. It's definitely part of our five-year strategic plan to do that. And we're -- we're roughly a year into that. Your Committee approved that in August.

COMMITTEE MEMBER BILBREY: So hopefully less than five years.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah. What we actually anticipate doing is probably doing that sort of -- there are areas where that quantification process is perhaps a little bit more straightforward, and we can bring those back as we complete it, rather than sort of in one fell swoop.

COMMITTEE MEMBER BILBREY: Okay. Well, for me, sooner than later is better.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Understood.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I found my place.

On, again, attachment 2, page 32 of 100, 180 of the iPad, fourth block down, leverage. One of the things that I do not recall -- I won't say it won't happen, because my memory is not perfect, but I don't recall getting a report on subscription leverage, you know, subscription debt that gets taken on in various funds. And yet, it's obviously recourse to the System.

So where does that get reported? And in a -- again, as part of the leverage report, where do we see the leverage within the private equity portfolio? I mean, if Company A, you know, carries a billion dollars worth of debt, you know, it's not directly to us, but it clearly is within our portfolio. And where does that get reported?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Good question, Mr. Jelincic.

Currently, twice a year, we include with the total fund review package, which comes to you in February and August, we include a report of all of the leverage that we -- we believe we are undertaking, both direct leverage that CalPERS makes decisions on, as well as estimates of the leverage that are -- that are included and embedded within our investments.

And that is a part of the risk management report that's -- that we provide to you twice a year. Now, subscription financing is a fairly small component, so it's actually rolled up into other numbers I believe, but I'm happy to provide that link to the Investment

Committee. But you'll see it in both the August and February agenda items.

COMMITTEE MEMBER JELINCIC: Okay. And as I said, I don't remember it being there, but that doesn't mean that it wasn't.

On page 34, number -- down at the bottom, number 8, we're striking, which requires the consultants to do a review of the subcomponents of the program. And why are we striking that?

INVESTMENT DIRECTOR CROCKER: And that is the provision that we considered duplicative of other -- other reporting obligations, specifically for the general pension consultant.

COMMITTEE MEMBER JELINCIC: Okay. But this is specific to the private asset consultants and their specific programs. And obviously the -- you know, the subcomponents of the program are kind of key, because that's kind of what rolls up to the program.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Just to be clear, we definitely anticipate continuing to provide opinions to the Committee on say how our infrastructure investments are doing, or our -- real estate investments are doing within the Real Assets Program.

And so that might be language that we need to alter to make sure that that's clear, that even if we -- even if we're eliminating say a subprogram report, we definitely will continue and look for -- for reporting around the individual components of the asset classes.

INVESTMENT DIRECTOR CROCKER: And it -- I'm sorry, if I can -- may add?

COMMITTEE MEMBER JELINCIC: Please.

INVESTMENT DIRECTOR CROCKER: Kit Crocker, CalPERS staff. If you look at box number 9, that is where most of the duplication was. So I think we are missing the word "subcomponent", but the other aspect of that review were in there.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That's right.

INVESTMENT DIRECTOR CROCKER: So we felt it was confusing to have the two side by side. And, I'm sorry, it wasn't actualy the general pension consultant, which was a different issue.

COMMITTEE MEMBER JELINCIC: So --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

So if we include the word "sub-program" in section 9, I think -- I think we we would satisfy your question.

COMMITTEE MEMBER JELINCIC: I think you would.

And then on 36 of 100, 184 of the iPad,

Investment Office Responsibility. The -- one of the things that is missing there, I think it's understood, but it's actually missing, is that those procedures and guidelines and sub-program guidelines be consistent with the Board-adopted policies.

And I raise that, because we have -- we have had cases where the procedures essentially undercut the policy. And so I think it's important to have language that it's got to be consistent with the policy.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: You're referring section 4, Mr. Jelincic?

COMMITTEE MEMBER JELINCIC: Yes.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think that language is fine. We're happy to add that.

COMMITTEE MEMBER JELINCIC: Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Consistent with Board-approved policy.

COMMITTEE MEMBER JELINCIC: And those were the issues I had.

CHAIRPERSON JONES: Okay. Thank you.

Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

All right. I found where I was looking on the sovereign securities. So if we go to attachment 2, page 56 of 100, 204 on the iPad. So we've added the line for sovereign securities at the time of purchase. We've excluded it in the first section. So the short-term ratings are the same, but the long-term ratings there are have been lowered. And so that's where I thought that what we're doing is buying a -- the 15 months or less of a long-term instrument that was already rated BAA1 or BBB plus by the other two agencies.

And yet, if it were to be rerated, which doesn't typically happen, it would be come in -- it would be an equivalent to the A2P2F2.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Um-hmm.

VICE CHAIRPERSON SLATON: So am I correct or not?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: You are correct. And my understanding of the way this was structured is that you'll see the note that's just beneath that table, where if a security is not rated, that staff's equivalent rating would apply.

So in those situations where, and Lou make sure that I'm staying on sides here. But that if -- if you buy a longer term rating and it's now within the 12 months, that it would have to be the equivalent of A2P2F2.

INVESTMENT DIRECTOR ZAHORAK: So a security that is A minus us, or A3, or BAA1, or BBB plus, those are in the category of A2P2. It's kind of like a range bucket.

The short-term ratings cover securities are rated on a long-term basis in those buckets. And so it would be part and parcel. They would have A2P2 ratings, which means they would qualify.

VICE CHAIRPERSON SLATON: I see. So why did we add the BAA1? Why did we replace the long-term ratings above with these ratings below?

INVESTMENT DIRECTOR ZAHORAK: Right. So as I had mentioned before, for the section on the top, it says all securities except sovereign securities, right? So those other securities, non-sovereign, would be corporate debt instruments or bank debt instruments, right?

VICE CHAIRPERSON SLATON: Correct, correct.

INVESTMENT DIRECTOR ZAHORAK: And as I mentioned before, historical default studies and historical default analysis shows that sovereigns have less frequency of defaults than those corporates. So on the margin, we're saying -- we're asking for permission in a sense to go down one notch in the long-term ratings, but it still qualifies within the short-term rating category.

VICE CHAIRPERSON SLATON: Okay. So a -- from the standpoint of default risk, a BAA1 is equal or better than an A2P2F2?

INVESTMENT DIRECTOR ZAHORAK: Of a corporation -- yes, that's correct.

VICE CHAIRPERSON SLATON: Of the corporate -- on the corporate side.

INVESTMENT DIRECTOR ZAHORAK: That's -- that is the reason we -- yes.

VICE CHAIRPERSON SLATON: Okay. Now, I got it. Thank you very much.

INVESTMENT DIRECTOR ZAHORAK: No problem.

CHAIRPERSON JONES: Okay. Thank you. So that ends the questions from the Board. And now we have four people from the public that would like to speak. And I'm going to call your names. And if you could come on down. And the first two names will come to the table with the mic, and the last two will sit right behind them. And you will be allowed three minutes to speak. And we have a clock right below the desk here, so you will be able to monitor your time, so that you conclude your remarks by -- within the three-minute time frame.

So those individuals are Ben Vernazza, Lynne Nittler, Elizabethy Lasensky, and RL Miller.

Over here to my left, your right. First two, yes, come on up and have a seat, and state your name, and your organization.

MR. VERNAZZA: Am I first?

CHAIRPERSON JONES: Yes, anyone. Go ahead.

MR. VERNAZZA: My name is Ben Vernazza. And I'm from Santa Cruz County. And I'm delivering a letter from my partner Stuart Frank, accredited investment fiduciary analyst, expert witness in many cases on fiduciary matters. And I believe you have this in front of you. I'm just going to read the first and the last paragraph.

"The California Public Employees' Retirement System IPS revision omits any mention of how uncompensated risk is to be managed through diversification". The last sentence, "By omitting a plan to manage uncompensated risk, this IPS causes every fiduciary responsible for risk management to be in breach of their fiduciary duties".

Second page. I've told you in the past several times that we've done a five-county study, which has been completed to see how much -- if they're prudently and reasonably reducing uncompensated risk. And that's the results of the amount of money that's left on the table.

With that knowledge, and knowing your asset allocation, I can tell you that you failed the test too, and that you left $1.2 billion of uncompensated risk that wasn't eliminated on the table.

On the back of that second page is a reference to the study, and all the calculations we made. You'll see that your asset allocation is very close to Tulare County's. The result is a little bit different. They have a negative alpha.

The next page is get information edge as -- versus flipping a coin. Remember Angelo Calvello, I suggest that you listen to what he told you at Rohnert Park last July.

Now, the last page is very familiar for you that are on the Governance Committee. And I will be talking to the Governance Committee this afternoon in a little more detail about this pyramid, which basically you start out with the law. And the law says that if you don't reasonably and prudently reduce uncompensated risk, you're in breach. That's what the third statement of trust law says, which is a guiding principle and guiding papers.

Thank you very much.

CHAIRPERSON JONES: Thank you.

Okay. Thank you for your comments.

MS. NITTLER: I'm Lynne Nitler, retired teacher. My health care is with CalPERS. I was one of the citizens who spoke to you in February regarding the divestment from banks financing the Dakota Access Pipeline. And it did seem that the Board was listening very closely and appreciated perhaps the public input at that time.

This time I want to address the policy you're looking at today with some revisions, including removing divestment as something that you would consider. And I want to address this piece. There's considerable evidence that divesting is an ineffective strategy for achieving social or political goals, since the consequence is generally a mere transfer of ownership of divestment assets from one investor to another.

My point, the mere transfer is not really the point. CalPERS is the largest pension plan in the country. It means that you are a leader that others will follow your actions.

Divestment has worked as a strategy for moral good to end apartheid in South Africa, of which you were a part. To make a case against tobacco, again you were a part of that. Whether others buy up the stock that you divest from is not the point, it's whether you lead, and others will follow your lead. So divesting can be very powerful. There is now a movement building divesting from fossil fuels.

Then a second point, CalPERS -- I'm reading a quoted paragraph statement, "CalPERS wants companies in which it invests to meet high corporate governance ethical and social standards of conduct. CalPERS has a distinguished history of constructively engaging companies that fail to meet CalPERS standards of conduct. Consistent with our Investment Beliefs, CalPERS preferred approach to affecting changes and improvements in corporate behavior is through constructive engagement".

And I have to ask you would constructive engagement have helped end apartheid? Would constructive engagement have done anything to stop the use of tobacco, or the sale of tobacco, or your bringing in money to CalPERS accounts through the sale of tobacco products?

So here's the deal, when it comes to climate change, we have just this one planet earth. And if we spoil it, as we are doing in a variety of ways, that's it for us, for our children, for their children. There's really not anything to talk to them about, to, you know, make little negotiable points about. Is constructive engagement good enough for you, for CalPERS when there's a moral issue at hand. If you remove divestment, and say we can't deal with divestment, then when you're left with an immoral investment, you're stuck you're still going to earn money off of it.

CHAIRPERSON JONES: Your time is up, please.

MS. NITTLER: Okay. Thank you.

CHAIRPERSON JONES: Okay. Thank you.

MS. LASENSKY: Hello. Elizabeth Lasensky, Yolo Move on. A taxpayer from Davis. And I would like to comment further on your proposed change in divestment policy. My understanding of what you're trying to do is to, in fact, take the ability of the taxpayer and the public out of the ability to have a conversation with you about our needs and requirements and our wishes.

And your second point that I'd like to talk about is that your voice would no longer be period if you divested from companies. Well, if ever there was a time that your voice was really needed was through the Dakota Access Pipeline fate, where indigenous peoples were literally attacked by police. And they were unarmed people who are protesting their rights to water and their sacred lands, where was your voice? You could have been there and you were not.

Earlier, somebody mentioned income inequality. Well, there is the issue of excessive CEO salaries. Are you using your voice to address that issue?

So those two issues to me are really important that you're taking the transparency away from the public and taxpayers, and you are not using your voice to the -- to the way it's meant to be used, and so doesn't use that as an argument for not divesting.

Thank you.

CHAIRPERSON JONES: Thank you for your comments.

MS. MILLER: Good morning. Do I need to move to that seat?

CHAIRPERSON JONES: No, you're fine.

MS. MILLER: Okay. Thank you.

COMMITTEE MEMBER MATHUR: Just move the

microphone closer.

MS. MILLER: Sure.

Good morning. My name is RL Miller. I am the Chair of the California Democratic Party's Environmental Caucus, and the co-founder of a group Climate Hawks Vote. And I'm here to say that Jesse Unruh, who pioneered CalPERS activist shareholder strategy, would be horrified. You are deliberately choosing to shun the single most effective tool in an engaged shareholder's toolbox, divestment.

Item 5a can be summed up as no divestment ever follows testimony of more than four dozen angry and engaged Californians at your February meeting, all of them passionately critical of your investment in energy transfer partners, owner of the Dakota Access Pipeline. In a broader context, this policy bans divestment from any actor, no matter how nefarious during an ongoing national struggle in which pension funds, universities, and other fiduciaries are being asked by their stakeholders to divest their holdings in fossil fuels.

In 2015, the California Democratic Party passed a resolution, which I wrote, calling on CalPERS and CalSTRS to divest from fossil fuels. Yet, two of your largest individual stockholdings remain Exxon and Chevron. Your policy that you have proposed is in the -- I speak on behalf California public employees, teachers, retirees, an and all Californians, when I say the extraordinary challenge of climate change to our planet demands an extraordinary response. And the occasional voluntary climate risk reporting that you have so far managed to coax falls far short of that extraordinary response.

By refusing engagement strengthened by the threat of divestment, and by refusing to even consider divestment on its face, the two largest and most influential pension funds in the country are engaging in a form of climate denial.

The fig leaf of shareholder engagement is demonstrated by your actions following the February meeting. After we all spoke in front of your office, we rallied, we demanded divestment, you wrote one letter asking that the pipeline be rerouted. That letter was written after the pipeline was 90 percent built and just a few short weeks before oil began flowing through sacred lands.

In other words, your effect had no -- your letter had no effect whatsoever, except as a -- insofar as it may have enabled you to tell riled up Californians that you've engaged. It was a meaningless gesture. You know it. We know it.

In the mean time, you negotiated amendments with

Assembly Member ash Cal roll the author AB 20, by negotiating amendments, I mean that that bill has been gutted. I'm here to ask you to divest from each of the investors in Energy Transfer Partners to significantly increase your engagement as asset owners, working -- committed to working on behalf of all Californians, to threat -- to combat the threat of climate change to retain the ability to divest when the great moral challenges of our time demand it, and to tell you that the world is watching. Thank you.

CHAIRPERSON JONES: Thank you very much.

We -- Ms. Yee, you have additional questions or -- at this -- comments on this speakers or --

Just a minute. I'm sorry. Go ahead.

COMMITTEE MEMBER YEE: Thank you, Mr. Chairman. I do feel compelled to speak a little bit, if I could.

These are difficult issues. I will say that the policy that is before us is to encourage engagement. I don't it's outright ban on divestment. I mean, it's something that I think we have to look at on a case-by-case basis. I'm just going to remind -- and I -- you and I have had many conversations about this. We wear a very completely different hat. We're fiduciaries on this fund. And our sole focus is how we're going to pay the benefits that our public sector worker and educators have earned during their career. And it's becoming a tougher business to be in as you've heard this morning.

So just because you don't hear us or see us talk about what we do relative to engagement here in a public setting does not mean we're not doing it. In fact, we have a very robust engagement process, headed up by Dan -- just -- I don't think is still Dan is still here -- Bienvenue, and Anne Simpson and the team, that there is a very robust engagement process.

And I'm sorry on the Dakota Pipeline, actually engagement had started, but it didn't get communicated until after the Board meeting and that was misfortunate on our part.

But I do have to say I'm really at a loss here, because I question -- and I do push back a little bit, because I really want to know where are we going to find -- where are we going to find investments that are going to help us fulfill our obligation as fiduciaries?

That is our challenge each and every single day. It's not to say we disagree with the tenor of what's happening. And you all take your protests to the street, and I applaud you for that. We can't do that. We can't do that.

And so I'm just going to say we move together, hopefully respectfully, about how we're going to end up being in a good place relative to -- I'm just a big -- as big of a champion on climate as you are, as I see it being very interconnected to everything we do, and -- but at the same time, we have to be responsible. We are moving. Tremendous partnerships with our other institutional investors on moving companies and engagement, not just here, but globally.

I've been involved in external efforts now to try to move that more quickly, but I just -- I just need to say this, we are fiduciaries of this fund, and our sole focus is, and must continue to be, how we are going to pay the benefits to our public sector workers and our educators who have earned these benefits during their work life.

And as I said, it's becoming more difficult, and I just ask that you -- and I'm glad you're here. Thank you for making the trip. Obviously, hearing the discussion, you get the sense of how difficult this has become. At the same time, I'm going to say that, you know, the policy before us does not prohibit divestment, but it highly encourages engagement. And we are making a lot of headway in engagement.

People do listen when CalPERS speaks up -- speak up. And we are engaging on all these fronts that you've just mentioned, but we don't have frankly the clout to do it on our own, which is why we do it i npartnership. We have lots of collaborations that are going on, some we initiate, others initiated by other institutional investors, but we doing this work. And I just want to assure you, and the others who have testified, that just because you don't hear it in this public setting doesn't mean there's not a lot of work being done on it. And I will say there's been a lot more work done now than ever on this front.

So to the extent that we can be public about that, we will. Obviously, we don't give away strategies and public documents that we put out there, which is why you're probably unhappy with what's being printed as far as reports, but just understand we are not letting up on this. We also -- we also see the risks -- the huge risks, the climate really is going to place on this fund relative to the ability of companies to continue to create long-term value.

MS. MILLER: May I respond for one minute?

CHAIRPERSON JONES: No.

Yeah, go ahead.

MS. MILLER: Thank you. Thank you, Betty. I appreciate everything that you have done, and the fact that you've spoken about this very passionately. There are places where I feel that the activist shareholder strategy makes a big difference. On income inequality, on top CEO pay, I feel that your strategy is very, very well thought out and well -- and well -- and is, in fact, having an impact. And I thank you for that.

The business of -- and I see that the activist strategy works when you are engaging a company that needs to be nudged to act a little bit better. The business of Exxon is to destroy our planet. I'm sorry to be blunt, but that is their business model. And nudging them to not destroy it quite as quickly isn't actually going to work. And that's why in the face of people that are deeply committed to a path whose business model is based on wrongness, the only thing that I contend you need to do is divest.

Thank you.

CHAIRPERSON JONES: Okay. Thank you very much. The -- what's the pleasure of the Committee? I'd be willing to entertain a motion to pass this. And if you make the motion, I would request that you include the three changes that Mr. Jelincic recommended putting "at least" in front of five, and adding "sub" to item number nine on that section. And I missed the third change that staff concurred that was appropriate.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: It was to add the phrase, "Consistent with our Board-approved

Investment Policies", to the IPPG's. And Kit is reminding me there was actually one additional change, which is to the public notice requirements that are specified in the divestment section or the -- of the policy. And that's to remove the 72-hour requirement, because we're actually already subject to a more stringent 10-day public notice requirement, and to -- so I think four changes.

CHAIRPERSON JONES: Okay. Thank you.

Mr. Lind.

COMMITTEE MEMBER LIND: Yeah. I do think this policy has been well thought out, well researched, and today well debated, I think. You know, and thanks to particularly Mr. Jelincic for identifying some good changes.

So I will make the motion that we adopt the proposed policy with the, I guess it's, four now identified --

CHAIRPERSON JONES: Yes.

COMMITTEE MEMBER LIND: -- amendments.

CHAIRPERSON JONES: Okay. Than you. Do I have a second?

COMMITTEE MEMBER HOLLINGER: Second.

CHAIRPERSON JONES: Second by Mrs. Hollinger.

Okay. All those in favor say aye?

(Ayes.)

CHAIRPERSON JONES: Opposed?

Hearing none.

The item passes. Thank you very much.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you, Mr. Chairman.

CHAIRPERSON JONES: So then we will go to Item 6, Private Asset Class Roles and Benchmarks.

(Thereupon an overhead presentation was presented as follows.)

CHIEF INVESTMENT OFFICER ELIOPOULOS: Great. Thank you, Mr. Chair. Why don't I kick this off as we get some of our logistics and movment of people into the right spots here. Seeing a lot of activity.

I'll be -- I'll be turning this over to Eric Baggesen fairly quickly here. This item is a continuation of many of the items that you've seen with respect to our ALM work, ending in the crescendo of a selection of an assets allocation as part of that process.

Today, we're taking a look at the private asset classes, roles, and benchmarks. And it's really broken into two sections. First, a look at our real assets portfolio, and roles, and benchmarks, and segments. And then second, a look at private equity.

I'll have more to say when we get to the private equity discussion. What I want to underscore in this item

I think it's very reflective of a few teams that have been very important to this Committee over the year -- over the years.

Number one, our Investment Belief framework has asked us to look at different ways to view the portfolio from both the long-term nature of our liabilities, and our abilities to invest over long periods of time, as well as the risks that -- that go with that investment strategy.

And the second theme, in combination with the Investment Belief work, was our look at factors, and risk factors in particular. And that has really spanned two ALM cycles now. It's hard to -- it seems like a flash of time.

And that work of looking at factors has translated over the years into a look at segments. And the two themes really merge here, in that if we want to have some more flexibility in the asset allocation decisions that this Committee will have, I think we need to take a look at how we're constructing our overall portfolio hierarchy. And in this case, we're coming with some ideas on how to do that, some recommendations that -- during our discussions, and hopefully during the discussion here today, will show that we're collectively, the Investment Committee and ourselves, really trying to look deeply into how we organize ourselves and our assets, in this case our private asset classes in a way that will give the Committee some meaningful choices during the asset allocation process rather than perhaps just the same old asset classes and asset allocation that the Committee has seen over the course of the last two asset allocations.

And part of the reason I'm stressing this is that in order to really present the Committee with some options, we believe having asset segments as part of that is crucial in having perhaps different ways of looking at the private asset classes will be important to set the Committee up for that during this ALM cycle.

With that, this is an information item, so it's meant to really layout our thinking, layout the pluses and minuses, the benefits and risks of these approaches, and to solicit feedback, so that we can bring back a final item to you on the timeline that we've all agreed to.

So with that, Eric, why don't I turn the item over to you and we'll being.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Sure.

Good morning, everyone. Eric Baggesen, Managing Investment Director for asset allocation and investment risk.

The item that we have in front of you today, as the Ted pointed, is an information item. We're not asking the Committee to make any specific decision. A piece of that not asking to make any specific decision is the fact that we have not asked our Board consultants for specific opinion letters. But I would note that we, in essence, have representatives from Meketa, from PCA, and from Wilshire Associates here that could potentially answer any questions that you might care to ask them.

We also have a number of folks from -- that both the asset allocation team and from the private asset areas that are affected by this agenda item. So you've got Sarah Corr who is our interim after after Réal has left the organization, and we have Paul Mouchakkaa from the real asset area.

I would like to actually mention also that this work is the culmination of a team that was assembled from folks from across the Investment Office. So within the asset allocation team, we had the leadership of Alison Li and Diane Sandoval really working this entire discussion on benchmarks and asset class roles. This is a continuation of some of the discussion that we had with you at the January off-site. And if you recall, we had a fairly extensive discussion on segmentation. We were particularly focusing on the public asset classes during that January off-site.

That same work has moved on over into the private asset areas. If you recall from the discussion that we had in January, we are looking at the different parts of the investment portfolio through the lens of the risk element that is the predominant risk element that affects the valuation of this fund.

And that predominant risk element is the growth related assets that arze related to either economic growth or the equity markets, depending on how you'd care to define the term growth. That's the lens that we've used in assessing all of the different parts of the portfolio. That lens is helped to be determined by the work that John Cole led the organization through on portfolio priorities.

So if you recall, the effects of, one, the existing funded ratio on the portfolio, and the volatility that comes from these growth-related risks caused this issue of drawdown and the potential effect of an adverse outcome within that segment of the marketplace to be particularly important to the organization at this point in time.

I'd also suggest to you that this work on segmentation though is not a piece of work that is ever actually completed. Just like the portfolio priority work identified three dimensions that we would consider. So one was the effective drawdown on the portfolio. Another dimension related to income and the liquidity of the portfolio and the cash flow posture of the portfolio. And another was the effect of all of these things on the employers, and trying to stabilize contributions, particularly at a level that the employers can actually afford to make. Those were three priorities that we sort of considered side by side.

And when we really attempted to understand which of those priorities became the most important at the moment, it's where this -- it's where this issue of drawdown and the sensitivity to the risk emanating from the equity portfolio really came to the forefront.

But I would suggest to you that as the portfolio and the plan evolves through time, potentially difference -- different priorities could rise up in importance. So, for example, if we were more fully funded in this plan, and we had an increase in the amount of money that we're spending every year on benefit payments, certainly that cash flow issue could rise in importance relative to, let's say, the priority around drawdown.

So I'm only trying to suggest that this work will have to continue. So a piece of all of this is trying to set up a mechanism and a process by which we assess the different parts of the portfolio and identify what's most relevant at that point in time.

So this can say nothing about what might be the most relevant thing for CalPERS five years or ten years from now. So the segment work and the outcome of that, as it affects the asset allocation, could easily shift as time evolves basically, and you go through this work on these annual -- on these four-year rolling cycles.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: I'm going to jump around a little bit in the material. And I'm hopefully -- maybe Wylie could help us with the iPad pages, because I don't have all of the iPad pages noted. But one thing I just wanted to point out the different elements. This is our timeline around the asset allocation work that will be taking place through the course of this year.

As you'll recall in the segment discussion that we had in January, a piece of that discussion is going to have to also be held in closed session, and a piece of that discussion can take place obviously in open session, such as this part of the dialogue.

Through the middle of this year in the May/June time frame, we're going to need to be establishing capital market assumptions, which really will set the base line of our market expectations for the parts that we would incorporate in the asset allocation work.

So our objective today is to get some feedback from this Committee, and the degree of either agreement to move in the direction of the segmentation work, or to not move in that direction, because that will help us clarify what we're doing around the setting of the capital market assumptions. And that work kind of really needs to get started probably in the month of May, and will involve all of your consultants, as well as whatever information we can collect from the marketplace.

So as I said, the feedback that we get from you is actually an important -- an important aspect of this.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: Ted mentioned the term "factors". And that was another piece of information that we went through, if you remember Lionel Martellini from EDHEC and John Mulvey basically from Princeton University talked some about the factors, and the evolution to try to move towards factors.

I think what came out of that piece of information was that, one, our expectation that there was a homogenous set of factors that were equally useful to describe our liability structure and the performance of our assets did not actually exist.

So the discussion that, in particular Lionel led us through, emphasized the idea of economic regimes as an element to potentially tie together the liability structure and the assets that we invest in to try to defease those liabilities.

I would suggest to you that the closest thing that we're going to get towards factors at the moment are the five terms that the staff has settled on in an effort to try to clarify the role statements for the different parts of the marketplace that we participate in. Those five statements, three of which you see here in relation to the real asset area, are diversification, income, inflation. The two that you don't see are growth and liquidity.

We have tried to drive clarity into our role statements for the various parts of the market that we participate in simply because we oftentimes actually had conflicting statements within these role statements.

So, for example, incorporated in the real asset role statement of the past was the concept of growth. So you literally had a statement on one hand that would emphasize participation in growth, and then you would also have a statement that actually emphasized diversification. Given that the predominance or the preponderance of our risk comes from growth, literally that conflicts with the idea of diversification.

So we're trying to eliminate these potentially conflicting statements that can cause actually a lot of confusion and a migration for the various asset classes into parts of the portfolio that actually take them away from the preponderant characteristics that we're really trying to emphasize in our asset allocation work.

So a big piece of this has been to go down through all the different teams within the Investment Office, and really try to clarify what are the elements that we really are trying to extract in very simple terminology. Now, we've tried to eliminate some of the more aspirational language and all kinds of things that honestly just creates a lot of confusion and dilutes the concept of actually focusing on the things that are most important.

So for our real asset area, we've got these three statements that are the core elements of the role that we expect these assets to play in the portfolio: diversification, income, and inflation. And inflation sensitivity is obviously a bit of a tricky one.

We've got two specific recommendations in the real asset area. One is actually consolidating segments. So currently, our real asset area has specific call-outs to real estate, forestland, and the infrastructure area. A piece of the work that Diane and Allison led is to really focus on where do we actually have enough potential allocation to actually make a difference in the portfolio.

So this organization has been pursuing infrastructure investments for basically, I'm going to say, seven or eight years at this point. I think infrastructure was first included at least two iterations ago in the asset allocation.

Right now, our exposure to infrastructure is slightly over one percent. I would suggest to you that that is not a material number, and actually driving the outcome to the CalPERS portfolio. So it's not that we don't have a utility for infrastructure, we do, but we have not arrived at a business model that allows us to gain sufficient traction in that marketplace to be actually having an outcome in the overall asset allocation for CalPERS at this time.

And again, I need to emphasize everything I say is relevant at this time. Whoever says this in front of you again a couple three or four years from now, if it's me or someone else, there may be other statements that are relevant at that time, so that this is -- has to be n evolving piece of work.

Forestland, I think you're all familiar with the challenges we've had there. So our recommendation is to basically fold infrastructure and forestland into a single real asset allocation.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: This is particularly supported by the fact that the real asset team are using exactly equivalent expectations and characteristics as they attempt to negotiate a structuring of transactions in these different parts of the marketplace.

So we're literally using the same kinds of expected return, same kinds of risk profiles, volatilities, whatnot as they basically go forward and try to participate in these markets. That also, to our mind, in the asset allocation area, reinforces the idea that these things are not discrete enough to warrant being called out as a separate portion of the asset allocation.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: The other recommendation that we have for real assets is to migrate, for the purposes of asset allocation and strategic asset allocation, from the NCREIF ODCE benchmark to the MSCI IPD benchmark. This recommendation is based on the simple fact that MSCI is -- one, it's potentially the largest benchmark provider on the planet. MSCI is also the provider of our risk system. So there's a tremendous amount of work that actually needs to take place to migrate information from NCREIF and try to assimilate that into our overall risk system to understand what's happening from the real asset exposures, in concert with all the rest of the parts of the CalPERS portfolio.

So we think that NCREIF is a perfectly fine benchmark. And to the extent that the real asset team takes value from the relationship they have with NCREIF, that's perfectly fine to maintain that.

But from the perspective of what we do for the total fund, and the ability to assimilate information into our fund-wide risk system, our recommendation is to migrate to the MSCI IPD data, which much more seamlessly comes into the risk platform that we use to try to understand everything that's going on in that portfolio. The two streams of information are virtually reidentical.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: And that's what you see on this chart. These lines represent three different kinds of returns. They represent an appreciation return, an income return, and a total return. And the fact that the MSCI IPD index and the NCREIF ODCE Index are virtually identical. We're not changing the components that get used in the assessment. What we're trying to do is basically change the ease with which question move into a total fund point of view.

And I think I would just stop at this moment and see if you have any questions in relation to the recommendations that we have for real assets, and answer those maybe before we move on to private equity.

CHAIRPERSON JONES: Okay. Yes, Mr. Bilbrey

COMMITTEE MEMBER BILBREY: Thank you, Mr. Chair.

So consolidating the three parts into one, we would still have the transparency though to see each one separately in some sort of form of reporting. And secondly -- that is a question sorry.

And secondly, in forestland, if I looked at the last report we just got in this -- I think it's from February, it's about a half a percent I think we have in there right now or something, 0.6.

Tell me why it's good that we continue to have this in the portfolio, because I -- since I've been on the Board, I have not seen anything significant that is done to add value.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, that's an interesting question. So let me just attack this concept of consolidation from two dimensions and see if I answer your question, Mr. Bilbrey.

One, we anticipate that we'll provide exactly the same kinds of transparency around all these different parts of the portfolio. So you'll be able to see the same kind of reporting that you see right now. It's really for the purposes of the asset -- setting the asset location that we're recommending consolidation of that.

In relation to forestland, forestland has been very problematic for us to be truthful with you. It's -- CalPERS has a major concentration in the forestland area of the structure of our relationship with the managers and the partners that manage that real estate do not give us a lot of flexibility in trying to restructure those assets. And this continues to be a focus of the real asset team to think about how on earth do they basically change the structure of that transaction.

But as you well know, once CalPERS enters into a contract, we cannot unilaterally change the terms of that contract. So that creates some of the tension in this. We -- from the perspective of asset allocation and forestland in general, we do not believe that forestland ever will represent sufficient liquidity or sufficient bandwidth to be a meaningful part of an asset allocation structure for a plan the size of CalPERS.

This is where the scale of CalPERS actually causes us some real constraints as far as what we can invest in, and what those investments can actually do within the asset allocation construct.

Does that answer your question, sir?

COMMITTEE MEMBER BILBREY: Yes.

MANAGING INVESTMENT DIRECTOR BAGGESEN: I'd make one other quick comment also about the consolidation of forestland and infrastructure into the real asset team. What a lot of this is predicated on is really trying to change the point of view and the interaction of the CalPERS staff within the various teams. We're trying to get people within the Investment Office to focus on the things that are the most important to the outcome for the organization, and really try to actually share and work more across the different discrete small buckets that were contained within the program. So this consolidation actually fits with what Paul is trying to do with that team, which is trying to basically get people to interact together and focus on the commonalities of what they do, and rather than basically distinguishing themsevles on the differences.

And I would suggest to you that those differences are usually of smaller order of magnitude than the commonalities. So a piece of this is actually trying to change the culture of the Investment Office. And that's certainly going to be an element when we get into the private equity recommendations as well. And I don't know, are there more questions, Mr. Jones?

CHAIRPERSON JONES: Mr. --

COMMITTEE MEMBER BILBREY: Let me just a little further. So if I'm hearing you correctly, we can't get out of forestland at all?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Well, I don't know if I would make that statement. I think that's a statement, or a set of conditions, that Paul would be the right person to talk about.

COMMITTEE MEMBER BILBREY: Okay.

MANAGING INVESTMENT DIRECTOR BAGGESEN: But certainly from the perspective of the strategic asset allocation, forestland is small enough that it just doesn't warrant a unique call out from our perspective.

CHAIRPERSON JONES: Paul

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Good morning. Paul Mouchakkaa, Managing Investment Director for real assets. It's no secret the forestland portfolio you see the quarterly returns or semi-annual returns, excuse me. And it has been a struggle. The staff for the past two to three years has been working very hard to restructure that portfolio. We've done it through a number of ways, but it's very important to highlight that it's been an area where we've had a strategic review of the forestland portfolio, in concert with asset allocation.

We're still at the point of reviewing what we're going to do from a go-forward perspective, but from the look-back perspective in terms of what our holdings are.

We have to optimize our returns from that perspective, and always -- it still may not be a -- I think it's about three-quarters of a percent, but it still is, in terms of dollars, one and a half to two billion dollars of equity in the fund. And we are very mindful to manage that to the best possible go-forward solution for CalPERS.

COMMITTEE MEMBER BILBREY: Thank you.

CHAIRPERSON JONES: Okay. Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you. I have a few questions. Would this consolidation mean that the real assets team would be more focused on choosing between opportunities within these three subgroups -- subcategories, so they'd be looking at it more across all of those three. And so at -- so I see you nodding, so that's at a --

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yes. No. Absolutely -- there is absolutely no intent to potentially stop investing in infrastructure or potentially even forestland, if there's an attractive transaction to be had. So, yes, I would suggest the answer to your question is yes.

COMMITTEE MEMBER MATHUR: And clearly, this Board and the public are very interested in CalPERS investing in Infrastructure. So I want to be assured that this does not -- this does not translate to a diminution in our interest in pursuing infrastructure and the sort of vigorousness with which we will do so.

MANAGING INVESTMENT DIRECTOR BAGGESEN: No, I would suggest that's exactly correct. We find many, many attractive attributes to infrastructure. We just simply need to arrive at the business model that will actually allow us to get a meaningful amount of exposure.

COMMITTEE MEMBER MATHUR: Yeah. I recognize that there have been a lot of challenges in the marketplace with respect to infrastructure. A couple of other questions. One of the things that we've talked about in the past about the NCREIF benchmark is that it does not really reflect our level of leverage in the Real Estate Program. DOES the MSCI IPD do a better job of reflecting that or how will we adjust for that in our review of the asset class?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, I think that would depend on what type of potential customization you would do, because again the MSCI IPD, when it is reflective of the components of the portfolio that CalPERS participates in, represents exactly the same fund exposures as are contained in the NCREIF ODCE benchmark. So to the extent that -- you know, to that regard basically, you would have to modify or you would have to customize that calculation to end up with a different outcome than we currently gets from NCREIF.

But that's predicated on -- they are looking at the effect of the actual degree of leverage and how that impacts those funds in its return. I think that tends to be more of an attribution element. And that's what we're actually hopeful that we'll be able to get more information on basically by the MSCI provision. It's a much deeper set of information.

COMMITTEE MEMBER MATHUR: I see, so we're trying to assess to what degree leverage is actually contributing to our returns vis-à-vis this benchmark.

MANAGING INVESTMENT DIRECTOR BAGGESEN: That's right.

COMMITTEE MEMBER MATHUR: Okay. That makes sense.

And then two more questions. Will this have an impact on, or shout it have an impact on what kind of consultants the Board has. Right now, we have a stand-alone infrastructure consultant, and we have real estate consultant separately?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, I think that's an interesting question, and I would suggest that's a question actually that should probably be reconciled between this Board and our Chief Investment Officer, and the real asset team. From the perspective of our asset allocation work, you know, we're completely ambiguous about that.

COMMITTEE MEMBER MATHUR: Okay. And then my final question is with respect to REITs, and actually high yield as well in a way. And maybe this is jumping ahead a little bit to the growth -- to the private equity piece. But if we're -- if the core sort of role of real assets is going to be diversification, income, and inflation, does REITs -- do REITs really fit properly within that -- those three -- that role? Should they be moved over to the growth segment? And similarly, with high yield, fixed income, is it appropriately placed in fixed income?

MANAGING INVESTMENT DIRECTOR BAGGESEN: So basically with REITs, recognize REITs are not called out as a unique portion of the real asset area at this point in time.

COMMITTEE MEMBER MATHUR: Right.

MANAGING INVESTMENT DIRECTOR BAGGESEN: So REITs have been assimilated --

COMMITTEE MEMBER MATHUR: Yes.

MANAGING INVESTMENT DIRECTOR BAGGESEN: -- into the public equity portfolio.

COMMITTEE MEMBER MATHUR: Oh, okay. I thought they were -- for some reason, I had this in my head that they were still in the real estate?

CHIEF INVESTMENT OFFICER ELIOPOULOS: At one point they were.

COMMITTEE MEMBER MATHUR: We've transitioned that.

CHIEF INVESTMENT OFFICER ELIOPOULOUS: We changed that I think the last ALM cycle perhaps.

COMMITTEE MEMBER MATHUR: Okay. Then I mis-remember. Okay. So that's good. So that's already part of the growth segment. But with respect to high yield or that is -- remains part of fixed income?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah. There's certain -- there's certainly equity aspects to high yield. And that will be another part of the discussion that we have later.

COMMITTEE MEMBER MATHUR: Okay. Thank you

CHAIRPERSON JONES: Okay. Ms. Yee.

COMMITTEE MEMBER YEE: Thank you, Mr. Chairman. I really appreciate this discussion and the work that the staff is putting into this. I think in terms of how we think about the different asset classes, it makes sense to look at how we streamline our thinking relative to the roles of each of them. And so I really appreciate that kind of more integrated thought, and that hopefully this will be about, at the end of the day, less pressure to look for deals, but to look for the best deals. And so

I'm hopeful of that.

I wanted to go back to slide 10, because there are a couple of things I wanted to just get a better understanding of of. Can you just talk about what the reference to simplifying vendor relationships means?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Well, right now with the CalPERS, the Total Fund Risk System, we're taking in information from a whole array of outside entities. We then basically have a huge effort that goes on with staff from MSCI to basically take that information and -- I'm going to use the term "proxy", but in essence they try to translate that information about private investments into things where they can actually observe price change and calculate volatilities, because our entire risk system is predicated on being able to measure the change in valuation or price for assets.

So right -- that reality is that -- so we're taking information from the AREIS system. We take in information relative to the NCREIF. We take in tons of information relative to the private equity portfolio. That creates a huge behind-the-scenes amount of work basically to try to assimilate that into that risk system.

So by basically trying to consolidate where it makes sense to, onto a -- onto the same vendor that is doing all that calculation, they'll be basically, in essence, doing a lot more of that work basically attached to the calculation of their basic benchmark, and less customized, in essence, for CalPERS.

COMMITTEE MEMBER YEE: Got it. Okay. And then to the third bullet, I'm just curious if you have any sense of what level of materiality would infrastructure in global real estate have to reach in order to justify a separate benchmark?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah. Right now, these areas again do not warrant calling out as separate segments. But, for example, if we're able to participate in infrastructure and find a different business model, or whatever or the marketplace changes, potentially you could call infrastructure back out as a useful segment, if it is displaying characteristics that fit that sort of definition of discreteness.

In that instance, MSCI is basically developing an IPD version of the whole infrastructure universe, so they're deploying tremendous resources to actually construct a good infrastructure benchmark. It is the belief of our real asset team that that benchmark is not yet really usable. There's not enough data history for it. And also to that extent, they're building global real estate indices. So those global indices will eventually be fractured into regional indices and all kinds of things.

So if we were to get into a position where our international real estate exposures were more material. Potentially again, that could conceivably warrant calling outs. So literally, this just sets you on a path where you have an organization that is actually expanding and growing all these different Permutations of the benchmarks that they calculate. So that just makes that level of detail more available, if it becomes relevant to us.

COMMITTEE MEMBER YEE: Okay. That makes sense. Thank you. Thank you, Mr. Chair.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: A number of things.

You talked about the purpose of real estate. And one of the things you said, well, we've got growth in there. And it really shouldn't be there, because clearly we have an interest in appreciation, but that's not the driver. But we do have a real interest, and I believe it should be a real driver, in growth of the income. So I'm not sure you really want to say growth, you know, is part of real estate.

The -- consolidating the group -- the segment makes some sense, because, quite frankly, the parts of infrastructure and forestland are currently so small that they're sort of hike like hedge funds, why bother.

But I am somewhat concerned about the fact that infrastructure has different risk and return expectations than an office building. And, you know, the difference between that -- those two and the difference between an apartment and an office building, I think, are magnitude of difference. So, you know, I'm somewhat bothered to learn that we're using the same underwriting criteria for two different assets. And so I'd kind of like you to comment on that.

And as you comment on it, you may consider forestland, which at one point actually was a significant asset to this fund, and a significant classification. Now, I have -- you've all heard me say, on more than one occasion, having a forestland product with no exposure to the Pacific northwest is a tad on the mind-blowing side.

But, you know, one of the things that forestland does have is the ability that when it's down, you just let the asset sit there and grow. You don't harvest it.

The -- of course, one of the other things that, you know, they're more subject to forest fires than shopping centers, but, you know, they really are different assets. So I'd appreciate if you'd comment on that.

And I will give you one other concern is as we've talked about different asset classes, what we have consistently said is the index we use drives the investments. You know, we're not going to have a whole bunch more, you know, IBM and the fixed income than the benchmark. We're not going to have a whole bunch more GM or significantly less GM in the stock portfolio, because the index is driving it and the tracking error is driving it.

And so if the index is going to be driving the investment decision, do we really, in fact, want to say, hey, we're, in essence, walking away from infrastructure?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, let me -- let me take a short at the couple of questions actually that got a bit strung together with that -- with your comments, Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Yeah, there are a number of questions embedded in that.

MANAGING INVESTMENT DIRECTOR BAGGESEN: I think to try to answer the first part about the underwriting standards, I'd just point your attention --

COMMITTEE MEMBER JELINCIC: Paul is coming up to help you.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me take a stab, Paul, before you get started. When we adopted capital market assumptions in 2013 for the last exercise of the ALM, for real estate we had an expected compound return of seven percent, had a volatility of 14, and we had a correlation relative to public equities of approximately 0.35.

Our infrastructure in forestland compound return expectations seven percent. We had an 11 volatility, instead of 14. I would suggest that those are not radically different numbers. And we had approximately 0.3 correlation to public equities. So when I look at that from the perspective of the total fund, I do not see the discreteness that warrants a specific call-out in that regard, because we literally were attempting to extract almost identical characteristics, albeit they can certainly be nuanced, that nuance is never risen to the point of materiality in determining the outcome to CalPERS.

So literally we're just trying to get this work focused on the things that actually matter, and the things that are going to have a real effect on the overall portfolio. Certainly, some of the nuance of what you've described is absolutely relevant, but it's not clear to me that it's as relevant when we talk about the overall strategic asset allocation.

And I think I'd let Paul comment.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Yes. The only thing I will add is from a -- from the level down in terms of our underwriting criteria, make no mistake, we -- if it is a port asset versus an office building, we -- in terms of what the underwriting team does, they will get into the nuances of what drives the performance or what may create risk in those specific assets. We don't ignore that.

But what Mr. Baggesen said is exactly the truth. It is a -- it is matter of is this the best way to achieve our role, first and foremost. And secondly, is this specific deal the best way in which to achieve our return on a risk-adjusted basis.

Those elements come in -- come into play. And I believe it was Ms. Yee who said it earlier, really the other part of it is that we're not just chasing to an allocation, but we're really looking at a -- let's say a port versus an office building, and looking at the tension between those two to see what will provide the best risk-adjusted return. Because, in essence, the ownership structures in which we pursue an infrastructure deal and a real estate deal are very similar. They're generally a limited partnership agreement.

We have more proportional interests in infrastructure assets, because obviously they're extremely large. But at the end of the day, the structure in which we pursue it are very similar in either of those two discrete groups.

COMMITTEE MEMBER JELINCIC: But isn't -- yeah, isn't the structure part of our problem -- current problem in real estate -- or in forestland, I'm sorry?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: I would say with respect to infrastructure, we --

COMMITTEE MEMBER JELINCIC: I meant to --

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: -- had -- the business model has been the challenge, and it has to get it to scale. That has been one of the areas that we've been working very hard to address, and work out. And we're hopeful that we are addressing it and moving it in the right direction.

We have increased our allocation to infrastructure over the last couple of years by roughly one and a half billion. So we've made -- we've made some progress. It -- but at the same time, we want to be mindful and be very disciplined in pursuing new investments. But that is the real rub. But we are doing a lot of work to try and get to a repeatable business model, much like what we've achieved in real estate on the infrastructure side.

COMMITTEE MEMBER JELINCIC: On the infrastructure side, I know one of the things that has been raised, and it was raised by the UN was take-out funding. And I haven't noticed that we have done any of that.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: We have.

Is the mic on? Excuse me.

Yes, we have, in fact -- there has been -- the toll road investment we made is an example of a fund that was liquidating. They re few and far between. Sometimes the funds sell to themselves -- sell to another fund manager, I should say, but we are mindful and we pay attention to that part of the market.

COMMITTEE MEMBER JELINCIC: When the UN was raising the issue, they were specifically thinking in Latin America, African continent where people have run the risks, have embedded the utility into people's lives, so you've eliminated a lot of the political risk of it going away, and funds wanting to get out, but -- and I did say infrastructure, but I really meant the forestland, because that's really where the -- our biggest problem, at this point, is the structure we got into.

Now, you didn't negotiate that, and I'm -- and it was done years ago, and hopefully we have learned since. But, you know, when we were doing forestland earlier, we used a different -- it was also a limited partnership structure, but much less, tying our hands. And so there is ways to go there.

So anyhow, so I -- I recognize they're very small and probably -- I mean, it really raises a question is it, infact, worth doing given its size? Although, obviously, infrastructure has some very positive political aspects.

And I'm concerned with moving to an index that tends to drive the way we invest.

So thank you.

CHAIRPERSON JONES: Okay. Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones.

I think I want to just back up a little bit, because not everybody in the room or watching us really understands what we're talking about. Paul, let's talk about just infrastructure. This was a word I hated when I was in the Governor's office. Infrastructure, based upon what happened two weeks ago with the Governor's tax proposal, is about roads, I-5, 99. That's when you talk about infrastructure, right?

A port is both. It's an asset, real estate, and it's an infrastructure. So can we take a little more about that, because we're just -- we're just throwing the word around "infrastructure". We're not going to invest in I-5. We're not going to put money down on I-5. So --

COMMITTEE MEMBER JELINCIC: Unless they make it a toll road.

COMMITTEE MEMBER COSTIGAN: Unless they make it a toll road, which is a distinction, because is that an asset, a real estate asset that's -- that procures a revenue source, is it an infrastructure project, because then you get into the issue of PPPs? So I just want to sort of dial it back a little bit, because we've been throwing the word infrastructure around on -- and let's talk about what we're talking about. So let's -- we're going to -- I have a few more question, but let's define infrastructure very quickly.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: So in our strategic plan, we designated six segments in our real assets portfolio. Literally, it was one year ago almost to the day that the Investment Committee approved the strategic plan for real assets. And those six segments had included in it what we -- we had one area called "commercial", which would have taken into account toll rods, bridges, tunnels, which are more concession-based investments. You don't actually own the road per se, but you --

COMMITTEE MEMBER COSTIGAN: You own the revenue stream.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: -- own a right to --

COMMITTEE MEMBER COSTIGAN: A revenew stream.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: You own a right to charge. And then a port asset is different, but it is part of our bucket that we call transportation.

We also have power and energy.

COMMITTEE MEMBER COSTIGAN: But let's -- I'm sorry. Let's back -- in a port, okay, the shipping industry pays a fee to come in. I mean, there are fees associated with owning -- there are revenues from that that are spun-off from that asset. It's just not the valuation of owning a port, and the value of the land goes up. Just tell a little about the revenue that's spun off.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: You own -- in the port asset in which we've invested recently, we're a landlord. So it operates much more like -- literally almost like an office building might, where there are tracks or lots in which we hope to lease to a commercial importer or exporter at that particular port.

And then there's the -- so there, in that case, you have the ability to maybe move income - I don't remember. I believe it was Mr. Jelincic - to drive more revenue growth. But infrastructure and real estate are very herterogenous asset classes, when you break them down into the individual subcomponents of whether -- or sector.

What we try to do and -- is to try and get it to match the role in which we have with, you know, sort of the Committee and asset allocation works to sort of give us is to invest in the right types of assets that will deliver on income diversification and inflation.

COMMITTEE MEMBER COSTIGAN: So, for example, the solar farm that we've bought in Palm Desert. The revenue is based upon the PPAs, the contracts that you entered into was it LADWP or Southern California Edison?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: It is a PPA.

COMMITTEE MEMBER COSTIGAN: Okay. So, I mean, that's why I'm just trying to -- I want to make sure that as we understand when we talk about infrastructure, the big debate that we just had was about potholes and roads, right? That's what we're paying the gas tax for. And I just want to make sure when we're -- we're understanding, because I think we're mixing a little bit. Infrastructure really is part of real estate from the way that you're looking at going. Because it's not so much just I'm buying or I'm investing in I-5, because there's no revenue source associated -- which is a classic infrastructure project for a State entity, versus the fact that the toll road, the 91, is viewed as an infrastructure project, but it's the revenue derived from the access of the toll and the Fast Pass and the dynamic pricing and all.

I just wanted to get folks more to understand, because we're just throwing the term around, and infrastructure is broadly defined, because the other thing we've talked about in the past, and I think as Ms. Mathur raised it is, is everybody wants us to invest in infrastructure, is that through a private-public partnership, the difference with a PPP is back to Ms. Yee's earlier comments is we have to chase returns to pay the promised benefit.

As much as we'd like to invest with the California Energy Commission on new lights, because it's beneficial to Los Angeles County, and that's an infrastructure plan, there's no revenue derived from that. I mean, I just want to make sure that we're all on the same page when we talk about infrastructure.

Thank you, Mr. Jones.

CHAIRPERSON JONES: Okay. Thank you. We have a few -- a couple more questions, but I see we're over our time for a 10-minute break, so I'm going to pause here for 10 minutes, and then we'll reconvene in 10 minutes give our reporter time.

(Off record: 11:23 a.m.)

(Thereupon a recess was taken.)

(On record: 11:33 a.m.)

CHAIRPERSON JONES: I'd like to reconvene the Investment Committee meeting, please.

COMMITTEE MEMBER HOLLINGER: I'll listen to you, Henry.

CHAIRPERSON JONES: Okay. Thank you.

Okay. Are we ready?

I know we had a -- I guess re-request to speak, because I guess when we closed the meeting, all of the requests disappeared. So if you still want to speak just re-put a request in again.

But I just wanted to also make a comment about the infrastructure. In terms of the business plan, it appears to me, like you said, develop a business plan. If you then take away the infrastructure as a asset class, and then you're kind of waiting for the business plan to be developed by others. And I would suggest that we be more aggressive in developing our own business plan to deal with the infrastructure issues, since we have said that in the past, it had excess returns, I mean, as compared to some of the other asset classes.

We have said that not only does it provide excess returns, but we could do good and well by investing in solar energy and dealing with climate change, and you know, and those -- but if we wait for the business plan to be developed, then we probably will be at the one percent as it is. And I would suggest, because we said that it responds to some of our priorities of income, cash flows, appreciation and all of those factors, that you say are important to the sustainability of the fund. So that's my comment on the infrastructure piece.

CHIEF INVESTMENT OFFICER ELIOPOULOS: If I could respond, and assure you at the same time, the real assets team has very a developed strategic plan that the Investment Committee approved as well as very specific strategies for all of the different segments of infrastructure. What Paul was highlighting is the need to really set the business model up to be able to invest at greater scale, which is a priority of yours and the Committee. And I think they made much progress on that, so they're not -- they're not waiting. They've put in place now, a number of very specialty separate accounts in place in infrastructure that are bearing fruit and growing the number of assets. The solar facility is an example of a separate account that was able to act.

So I think the team feels good that they have in place the business structures now to find the opportunities. And the question will be over time how many opportunities are there, and at what scale, and at what price to bring them within the portfolio.

So I just want to assure you that there's no waiting and there's no waiting, and there's no sitting back to do further planning work. It's more about execution, how to get partnerships in place pursing the right strategies, and then finding the opportunities at scale. And that's the piece that we're still waiting for. The finding the opportunities piece has been slower than we'd hoped for, but this is a very new and emerging investment area. And I think that's another reason for having an index or benchmark here tied to what is more, you know, by far the predominant piece of the asset class, which is the real estate side.

We think that, on balance, is a better comparison benchmark at this stage when infrastructure is so small and real estate is so big, than having our current index for infrastructure, which is, you know, inflation, absolute return index.

So it's a long-winded way of saying we think this addresses both the priorities of the Committee and does it in a way, particularly from a total fund perspective, that holds together much better from our perspective.

CHAIRPERSON JONES: Okay. Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

My question is really a broader question about this roles definition of different the different asset classes. And, you know, I have been a strong advocate for factor-based allocation. I recognize that it's easier said by me than implemented or executed by the team. And that having these role definitions for the different asset classes is sort of a step along the way to getting there.

I guess my question is, is are we losing anything by having such tight role definitions? Are there strategies that we are not able to implement that we otherwise might want to or are there -- given these tighter roles?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah. Let me take a shot at that. I think what we need to do is we need to be very understanding that what we're talking about are the characteristics that we're trying to assemble for the entirety of the fund. And those characteristics need to be generalized, and they need to be discrete enough that they can actually make a difference, because literally if we try to achieve everything with everything, we end up achieving nothing. We lose focus, and that basically has everybody running in multiple directions in a way that is very, very difficult to control the outcome that comes from that.

I don't think that you should interpret though this idea of trying to create, you know, somehow a simple understandable structure at the high level of the total fund should dilute all of the intricacies of what goes on within the different parts of actually managing the portfolio. We still have exposure to over 60,000 assets in this investment program.

So literally trying to distinguish this, which is again -- one of our objectives is to try to basically make that risk system that attends to assimilate all this information together, as useful as possible. That's one of the reasons of what we're recommending. So I'd suggest that the place to try to understand that nuance is when we do all of the program reviews, then they can get into the detail about what they're doing.

But literally, to try to call these things out as unique enough to warrant inclusion at what you do at the most base level, the strategic asset allocation level. Just it's -- we're splitting hairs to be honest with you.

And I'll just quote a message that Allan Emkin passed up to me. And he said, Eric, he said don't create buckets that you can't fill. And he's absolutely right. This has been our challenge, for example, within infrastructure. We've been attaching that asset class literally since Russell Read was the CIO, right? So that pre -- you know, preceded Joe Dear even.

And we've gotten to the point where we have just over one percent of that asset. So there's no point in having that. Every time we've done the strategic asset allocation, we always recognize, oh, we'd love to have three percent or five percent or almost whatever percent we could get of this. And yet, we haven't been able to achieve that. So what we're trying to do at this stage is focus on things that we think are achievable, which is not to say that they're not achievable in the next iteration of this work, and then you potentially could call it back out, if it's relevant at that point in time.

So I just think it's --

COMMITTEE MEMBER MATHUR: Yes.

MANAGING INVESTMENT DIRECTOR BAGGESEN: -- it's important to just keep the context about, you know, what's underlying the recommendation that we're putting in front of you.

COMMITTEE MEMBER MATHUR: So I -- I hear you on that point. I guess my question is slightly different, and that is the mix of strategies that you might employ to achieve the three characteristics of diversification, income, and inflation are different than if you also included growth in that list, for example. And so those strategies that might have been used to achieve more of a growth outcome, do they have a place in our portfolio, and should they be placed somewhere else, and are we -- is the fact that we're not employing them at all the right decision, or employing them in very small quantities?

Is that something that we should be thinking about how do we place that type of strategy elsewhere, because it can deliver value that's for the fund.

MANAGING INVESTMENT DIRECTOR BAGGESEN: No, I -- again, I think that's absolutely a fair question. I think what -- again, what we're trying to be somewhat thoughtful about is -- and maybe this is simply just reflecting back on the last battle that was fought, sort of in the financial crisis, but we literally had growth as a statement that was attached to virtually every asset class that CalPERS had.

And what we ended up with was equity risk in real estate. We had a degree of equity risk in fixed income. We had equity risk obviously in private equity, public equities. It literally was everywhere. It was in the hedge fund portfolio. So when equity risk suddenly went down, our portfolio is getting torched in every component of it simply because that is the risk that had recently been compensated, and everybody started chasing what had recently been compensated.

That's why we need to be a little careful about the terminology that we attach to this. We have plenty of growth risk in this portfolio --

COMMITTEE MEMBER MATHUR: Sure.

MANAGING INVESTMENT DIRECTOR BAGGESEN: -- I would suggest to you. Whether we have a little tiny bit more in one corner of the building or another, probably isn't really going to make a difference to the outcome to

CalPERS. That is our predominant risk right now. So where we're trying to do something other than that growth related risk, we actually need to reinforce and try to maintain the focus in those assets on the thing that we're attempting to extract from them.

COMMITTEE MEMBER MATHUR: Fair enough. And we're confident that we are seeking the best risk-adjusted sort of growth? I guess that's the question. And maybe -- maybe it's so -- such a small differential -- difference that it's not worth. And there, of course, you know, if we're produce -- pursuing a lot of opportunistic and real estate, then that has other implications, because, you know, liquidity implications, et cetera that maybe we don't want to take on. But maybe this is too philosophical a discussion.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I was going to make one -- one quick question. Wylie Tollette, CalPERS staff, that is relative to this infrastructure question, and I think it's relevant to both the Chairman's question about, you know, are we de-emphasizing infrastructure in this decision as well as your question, Ms. Mathur, which is the current benchmark for infrastructure, as Ted indicated, is basically inflation plus 400 basis points.

And not only is that benchmark not investable at all, it really -- it doesn't even like pretend to be investable. It also has zero volatility essentially associated with it. So if you're examining any investment, which invariably have some degree of volatility, they -- when compared to that particular benchmark, they're going to look unattractive.

And not that our Investment staff, you know, adheres sort of slavishly to the benchmark in their investment decisions, but the fact that the benchmark has no volatility certainly could not have helped but influence investment decision making. So by using a benchmark that actually has a degree of volatility, that we think is more realistic of what actual investments have, not only in real assets, or -- excuse me in real estate, but also in infrastructure, there's a possibility that new infrastructure projects that we would have dismissed before, because they have volatility, we may now be able to consider.

COMMITTEE MEMBER MATHUR: Okay. Thank you.

CHAIRPERSON JONES: Okay. That's the last question on that piece. We'll move on to the next section.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Let's move on to the easy part of this discussion.

CHAIRPERSON JONES: That's what you think.

(Laughter.)

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MANAGING INVESTMENT DIRECTOR BAGGESEN: Just, in general though, I was going to make one last comment. When we're -- basically, when we talk about benchmarks, benchmarks get used for many different things within the structure of an organization like CalPERS. And what we're talking about now are the benchmarks from the relevance of the characteristics they bring into this strategic asset allocation process. We're not talking necessarily about benchmarks as they relate to the incentives or the assessment of performance, and we're also not talking about benchmarks particularly in relation to the private asset classes, so much from the point of portfolio construction, because literally there's -- the portfolio construction elements of this are very problematic, and that's actually an element that we'll touch on a little bit within the private equity stage of the discussion.

But I just think it's important to remember that these things have many different purpose, and we're not necessarily trying to solve for everyone in the discussion today. So, Ted.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Okay. Private equity. Before I turn it back to Eric, I thought it would be helpful to set the context a bit for the

Committee --

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CHIEF INVESTMENT OFFICER ELIOPOULOS: -- and what we're trying to achieve today. You can see what's written on this -- on this page. I'm going to cover -- really take us back to November of 2015 during our private equity workshop, and really make sure we remember the context that we discussed at that time, because I think it's relevant for the recommendations that we're making today.

And then secondly, I'm going to cover potential questions we might get about this recommendation, and answer hopefully quite clearly what this recommendation is not, in response to those questions.

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CHIEF INVESTMENT OFFICER ELIOPOULOS: First of all, flash back to November of 2015 during our private equity workshop. We identified a number of challenges of investing in private equity and discussed them at quite some length during that meeting with a lot of materials and discussion points behind it.

This is a chart that -- a summary chart that we used during that workshop. And I'll just highlight really three of the challenges that are relevant for the discussion today and the approaches that we're recommending to hope address in part some of those challenges. There's no way to answer those challenges and solve them forever more. I wish -- I wish there were, but that's part of what makes this investment asset class so challenging.

First of all, controlling private equity exposure. There's a chart in the appendix that just shows how difficult it is with respect to private markets in General - this is the same with real estate to a little lesser degree, but in private equity very hard to control the numerator, you know, the commitments that we make to all the various private equity partners go out in annual allotments that are meant to last for 10, 15, sometimes those funds last 20 years.

So the numerator you're constantly making additional commitments every year. And those commitments are taken down over a number of years. And then the general partner, in taking down those commitments, invest in private companies, and those get valued over time, and they're grown, and hopefully the values goes up, but sometimes the reverse happens.

So controlling the numerator is largely out of our control. And then the denominator, largely our public stock and fixed income portfolio, it moves quite a bit as well. So that having a fixed set allocation to private equity at 10 percent, 12 percent, 14 percent is a challenge, both from the numerator and the denominator standpoint.

Number two, for all host of reasons we talked about in the workshop, and it's reprised here today in the discussion around benchmarks, there's no perfect benchmark for private equity, and that's a challenge, and we're coming forward with a recommendation today that we think is -- we think is a good -- a good recommendation. I was going to say solution. I caught myself.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: A step in the right direction.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Yeah, a step in the right direction to addressing some of the challenges but certainly not solving the benchmark challenge. AnD this is something that is bedeviling all institutional investors. Our sister fund just went through a very -- CalSTRS went through a very significant discussion about this just last month in reviewing their own benchmark.

And lastly, you know, the ability to predict the cash flows coming in and out of the private equity portfolio is challenging. And the need, both from a exposure standpoint, and a cash flow standpoint to try and find a proxy, a public proxy to proxy thde private asset class exposure, or the private equity exposure, is something that we've been thinking a lot about. And we think, again, the recommendations before you are a step in the right direction to address these challenges.

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CHIEF INVESTMENT OFFICER ELIOPOULOS: Now, before I turn it over to Eric, we did think of some of the potential questions that might be posed about this recommendation to -- before the Committee, to really put in one place our growth exposure, both public equity and private equity. Some of the questions that might come up, does this mean CalPERS is eliminating private equity?

And I, emphatically for myself and the team, say that's not the case. The answer is no. We believe, for all the reasons we talked about in the private equity workshop last November and continue to believe, it's an important part of the portfolio, and will be a material and significant part of the portfolio going forward, we believe.

And so this is not, in any way, a message or a foreshadowing or an attempt on behalf of staff, in any way, to signal or attempt to eliminate private equity. That's not the case.

Is the benchmark recommendation that Eric will walk you through, you know, due to, you know, any concerns over underperformance of private equity over the years compared to the various benchmarks that have been used? And in that -- in that regard, I can only say we've used many, I think more than a handful of benchmarks trying to get -- you know, always build a better mouse trap for sure. And so that's why we come to this with some humility in discussing benchmarks, because both this Investment Committee and investment staff over the years have really tried to come up with different ways to compare the private equity portfolio over time. And it's resulted in a -- you know, a very complex benchmark over the -- you know, over the last 20 years of the performance and very difficult to measure performance over that time period without a lot of specificity, because of the changes in benchmarks over those years.

And certainly, depending on which part of that benchmark, which type of benchmark we selected during any given year, any given time, there could be either overperformance or underperformance compared to that different way of measuring, and -- so that's one.

Number two, during the workshop we talked quite a bit about how the net performance of the private equity portfolio, the one thing we could say over just about every time period we looked at 20, 15, 10, 5, and 3, it had met its performance goal of outperforming our own global equity portfolio plus 300 basis points.

Now, it was 200, 250 in some time periods, 500 in others. But over the long period of time, it met that goal. So what we're recommending today is again part of the building of better mouse trap, we actually think that the recommendation that Eric will go through in making really an explicit link to the investment -- investable alternative, like I just did, what we could vote -- what we could actually invest in our own global equity portfolio is probably the best approach going forward.

Third, you know, are we trying to eliminate the excess return requirement, you know, get rid of the, you know, 300 basis point excess return expectations that has been built into just about every capital market assumption that we've done in the ALM process over the last two decades?

And the answer there is no, that question -- no. The excess return expectation will be set by this Committee as part of the asset allocation process. And that has a couple implications. Well, one, just by doing that, it would maintain a excess return expectation. And then number two, as we put in this parentheses, it implies that at point in time we'll probably have to set some sort of minimum target or minimum expectation for how much private equity we'll have in the portfolio over the course of the next -- next four years.

And then lastly, is this, in any way, can it be extrapolated or inferred to reduce the transparency reporting that we have in the portfolio?

And the answer to that is no. We would maintain our commitment to all the enhanced reporting and disclosures that we have in the portfolio today.

So I thought that would be helpful to kind of take those questions, you know, head on up front, and hopefully free our discussion up really to look at the merits of this. And again, as I said, we come to this with humility. There isn't a perfect answer. There isn't a one right answer. We think this fits with the approach that we have, both in our Investment Beliefs, in our portfolio priorities, and in how we're trying to manage the portfolio from the total fund perspective, rather than having silos within the portfolio. And this gets us in the right direction on a lot of metrics.

So with that, I'll hand it back to Eric. And this preamble can conclude and the meat of the -- meat of the recommendation can go forward.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: Okay. Thanks, Ted. Eric Baggesen, CalPERS staff again.

I think I would just point your attention -- I think this is page 317 of the iPad, and it's page 18 of the attachments. And this really just gets into some bullet points on the main rationale behind the recommendation that we basically combine our private equity and our capitalization-weighted public equity exposures into one growth bucket.

We've also, in the role statement for private equity, there were two statements that used to be attached to private equity. One -- one was in relation to growth. That continues. It also had a statement of illiquidity. And honestly, illiquidity is not a characteristic that we're trying to emphasize in the portfolio in contrast to the other side of that coin, which is liquidity. And we don't consider private equity as a place where we would naturally look to to generate liquidity in the portfolio.

And it's not even absolutely crystal clear that the premium that you earn for private equity derives automatically from that illiquidity element. There's a lot of debate about that -- the source of excess return in private equity.

What I think we really want to focus on with this discussion though is -- one is actually trying to shift the management of the allocation to the growth assets in private equity, shifting that up to the responsibility of the total fund. I'm going to jump, as I said, for a moment back to some of the attachments that we have.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: So if you'd bear with me and maybe Wylie can tell us which pages these are within the appendix. This is page 26 of the attachment. Do you have the --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Yeah, it's page 325 on the iPad.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Okay. So this chart that we've got in front of you, the line on the chart -- or the blue line represents the actual allocation to private equity. And you can see how volatile that's been going from basically zero percent up almost to 16 percent, and then back down to its current level of just over eight percent. So it's basically traversed all over the place.

And the red step function line is the target that we've had within the strategic asset allocation exercise. So the first thing I'd point to your attention is that if you notice though, the vast preponderance of the time our actual exposures has been under the target, which is meant we've had a perennial underweight to the highest expected return asset component in the portfolio. So we literally have sat here and handicapped ourselves by assuming that we could have more exposure to an asset class that's been challenging for whatever reasons in order to get that exposure.

The times when this thing has expanded in its representation within the portfolio have all been times when the public markets are falling apart. So literally, you can see, right, the first bump in that line was the 2002 kind of time frame when the market was selling off from the dot com bubble. So again, the denominator was shrinking. Private equity is priced off of models and smoothing and all kinds of things. So literally, it tends to have more stickiness attached to its valuations. So it expanded in its proportion of the portfolio. And then you see the dramatic change that happened in the '08-'09 sort of time period.

So one is this just demonstrates the degree of controllability, or lack thereof, in actually having the ability to hit the target. From an asset allocation perspective, I personally am loathe to have a team setting up a set of targets that we actually can't manage the exposure to. What's the point of the target, if you can't manage actually arriving at the -- at that destination in some rational fashion.

CHAIRPERSON JONES: Eric, before you go back to that previous, Committee members ask that you explain in a little bit more detail on this chart. Is that --

COMMITTEE MEMBER JELINCIC: I can identify it.

CHAIRPERSON JONES: Okay. Go ahead, J.J.

I've got a whole bunch of questions, but focusing specifically on this chart. The blue line is -- the label says it's actual holdings. My -- what I thought I heard you say is that it was our commitments.

MANAGING INVESTMENT DIRECTOR BAGGESEN: No, this is the actual market value, Mr. Jelincic. This is not reflective of the value of the commitments.

COMMITTEE MEMBER JELINCIC: Okay. So our commitment presumably would be closer to the red line?

MANAGING INVESTMENT DIRECTOR BAGGESEN: It -- potentially.

COMMITTEE MEMBER JELINCIC: Our commitments are usually bigger than our holdings.

MANAGING INVESTMENT DIRECTOR BAGGESEN: We'll show on the next slide some of the commitment activity.

COMMITTEE MEMBER JELINCIC: Yeah, so our -- but our commitments are usually bigger than the holdings, because it hasn't all been drawn down.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, I mean, from -- from an asset allocation perspective, though, I mean, we could -- we could definitely -- we could add up the market value plus the value of the commitments. But since we actually don't expect to earn the return on just the committed value until it's drawn, it's not clear to us what's the relevance of that number basically.

COMMITTEE MEMBER JELINCIC: I just, you know, was trying to get to understanding what I was looking at. Thank you.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah. No, this is the actual exposure.

On the next page, this shows some of the commitment activity. So again, you see -- you see the movement basically relative -- this is drawn relative to the S&P 500 index, which you could argue whether or not that's really the relevant baseline for this. But what you see is that when the -- when the equity market has been expanding, our commitment levels have tended to drift up. So again, when the market is going up, the public markets that I'm referring to our representation in private equity tends to be diminishing, because again it prices on models and it's sticky valuation, so it doesn't react to the same act -- level of change that the public markets do, especially in the sort of 2005 to 2007 or '08 time period leading up to the financial crisis.

You see that huge bulge knowledge in commitment activity. So think about the challenge that this presents to the private equity staff, whereon one hand we're asking them to identify the managers that have the most skill in the marketplace, because there's a huge dispersion in outcomes that happen across the private equity managers.

And at the same time, they're basically chasing the structure of the asset allocation by committing money. So you have to ask yourself does the committing of capital to managers actually come in conflict with basically trying to identify the most skillful managers in the marketplace?

Add I would suggest that there's an inherent conflict in those two activities? That kind of asking the staff to achieve multiple objectives, in my mind, is a very good way to actually diminish what you achieve on any of those objectives. Focus is actually a critical element of this.

So a fundamental underlying premise that we're trying to achieve with the recommendation is to really have the private equity team just focus on identifying managers that we believe have the greatest skill in the marketplace, and then trying to create a rational rerelationship with those managers.

We're trying to not make them az sensitive to whether we're under or overallocated to the asset area. From a very simple perspective, CalPERS has almost a limitless appetite for the excess return that we think that we can extract from private equity. I mean, we're literally sitting with 150 odd billion dollars of public equities. If we think we can get excess return from this, we would invest in this thing literally all day long. So it's literally, we would -- just -- but that is predicated again on finding those managers with the most skill in the marketplace, because again, you have a tremendous dispersion of outcomes.

So we're trying to, in essence, just recognize that we have that tradeoff and create focus for the private equity team. That's one of the really fundamental elements of this recommendation.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: One of the other elements that underlies the recommendation though is actually related to portfolio construction. Currently, the way the private equity team is able to operate and the decisions that they get to make within the marketplace is literally just about trying to identify categories of managers. They commit capital to those managers. The managers then draw that capital down and actually make investments with that money for a determination or a duration that's entirely up to the manager's discretion.

The result of that is this kind of tracking error, if you will, relative to -- this happens to be to the existing private equity benchmark, but it's still footed back to the public markets. But you can see that the risk of this program has bounced anywhere on the low side, five percent, all the way up to, you know, in essence, 20 or 30 percent volatility relative to that.

Now, some of this volatility comes from the attributes of private equity. And again, pricing off of models with smoothing and a number of things, but it also comes from the fact that we end up with some very, very idiosyncratic investments in this portfolio.

As those managers try to identify companies that, in general, tend -- they tend to believe have underutilized assets, and they are tying to inter -- interact with those organizations, and try to more efficiently deploy the assets that these corporations represent into the marketplace.

An example of the sort of idiosyncratic exposures that we've had was an exposure that we had sort of in the 2009-2010 time frame, which was LyondellBasell, which is a chemical company. So Apollo, one of our private equity managers, basically, along with CalPERS, invested over a billion dollars of CalPERS' capital into LyondellBasell.

That investment represented a significant overweight to the chemical industry on behalf of CalPERS. It's unclear to me whether or not Apollo or CalPERS was making any statement that they thought the chemical industry was relatively undervalued compared to the rest of the marketplace that we invest in.

Irrespective of whether or not anyone had any accountability for that particular type of a decision, it would -- it nonetheless, was an artifact that came out of the activity attached to that.

A piece of the recommendation that we're making is that it opens the door to the possibility of being able to merge the exposures from private equity with the exposures in the cap-weighted public equity portfolio, and then to basically take offsetting positions to control those kinds of artifacts.

So whether or not you really wanted to have a significant billion dollar overweight to the chemical industry or not, at least you would have the ability -- if that's not the bet that you wanted to make, you would have the ability to potentially offset that by underweighting chemicals in the public equity portfolio. So it allows us to control some proportion of this kind of tracking error volatility that emanates from the private equity portfolio.

Now we already engage in some of this kind of -- it's called completion portfolios. And those of you that have been on the board for a long time will remember we used to have a program we called the dynamic completion fund. That never attempted to deal with anything related to private equity. That was all just about the artifacts coming out of the public equity managers. And we still do some of those kinds of adjustments.

For example, if we have a Japanese focused manager, Dan and the global equity team can actually offset some of that Japanese overweight, because that manager may -- they may be depending on that manager for securities selection within Japan, but it's not clear that manager is making the bet that Japan is the relative value relative to everything else.

So they can offset that from a risk exposure or from a currency exposure. And what we're really talking about is trying to take some of that capability and extend it, where warranted, into the private equity market.

Before you would engage in that activity though, we need the private equity team to have a significantly different dialogue with their managers than I think is currently happening. And a piece of that dialogue is to actually try to understand what exactly is it that the manager thinks, what forecasts are they making. So if I go back to the example of LyondellBasell, if Apollo believed that the chemical industry was relatively undervalued compared to the rest of the marketplace, that might be a bet that you do not want to offset.

But we need to understand the accountability behind that bet. Right now, we've got no understanding of it, and we have no way to offset it, even if we determined that it was simply an artifact that the organization is experiencing in its return stream without anyone making the underlying belief that that's a risk we're going to be rewarded for.

And this again traces back to the Investment Beliefs, where we will take risk where we have a rational belief that we're going to be rewarded for it.

This volatility attached to private equity is the biggest source of active risk in the portfolio. So it's the volatility in the way that it's operated, and it's the volatility of its actual representation in the portfolio relative to the targets.

This uses basically almost two-thirds of our entire risk budget. And for the most part, it's virtually uncontrolled. So what we're suggesting is a mechanism that will help us start to control that. But again, it's not just a simple do this and you get that outcome.

We're really trying to change the focus in the way the team operates. And when I say team, it's not private equity. It's also public equity. If we merge these two pieces of the portfolio together, then you start to have a shared sense of responsibility and accountability for also trying to achieve the excess return target.

As Ted mentioned, we're not going to eliminate the excess return expectation from whatever representation we can have in private equity. Instead we would just impute that over a larger part of the portfolio. Because another piece of this is to try to find additional tools for generating excess return.

We have an appetite in this fund for generating excess return by any mechanisms that we can figure out to generate it. And we need more people in the organization really trying to think up mechanisms that can generate excess return, which is going to come from taking some other kind of investment risk. You do not get return just for aspiring to get it. It's not a commodity that we can purchase from the marketplace. So we have to take some kind of a differential risk in order to achieve that return, whether it's illiquidity in private equity, or it's the manager's skill or who knows what it is, basically. There's some other elements.

But we need more people in this -- in the Investment Office thinking about trying to achieve the kinds of levels of return that we aspire to be adding with this fund.

And a piece of this though is the fact that we are capacity constrained on every avenue that we've been able to identify that can help to generate that excess return, whether it's investing, as we do in the synthetic equity portfolio. If you look at the return history for that, it's been a solid value-added exercise, but it is capacity constrained. If it's private equity, capacity constrained.

So literally, we need as many of these different branches as we can possibly identify. And this is trying to get more people in the organization actually thinking about the alternatives as to how to generate that.

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MANAGING INVESTMENT DIRECTOR BAGGESEN: Let me just go back again for a moment to the bullet points on this. As Ted mentioned, we want to explicitly link private equity to the alternative asset, which tends to be our public equities, because every time we've been underweighted to the private equity area as an asset class, there's been an implied proxy there, whether we can accountability for that or not.

So it's whatever we're overweight basically tends to be the offset to that. Now, we want to make that an explicit linkage basically, instead of just letting that fall to happenstance in that thing. And again, I would suggest to you that I think the most important outcome of doing this though is changing the way the people in the Investment Office think. And it's trying to try to get people to raise their focus up to a larger set of outcomes to a bigger part of the portfolio away from all of the sort of tunneled down small things that so many people in the Investment Office spend tremendous amounts of their time doing, which in and of itself, those all fine activities, but they may not be the activities that are actually going to change the outcome to the portfolio in its aggregation.

And I think I would ask, at this moment, whether you have any questions about this, and then I was going to turn it over to Wylie to talk a little bit about some benchmark mechanics, if you will, in that space.

CHAIRPERSON JONES: Yes. Mrs. Hollinger.

COMMITTEE MEMBER HOLLINGER: Thank you. I appreciate all the time and effort and the enormity of the undertaking.

I told you on our call that theoretically it may sound good on paper, but I'm concerned that it does not recognize the organizational dynamics. Private equity, we have a difference in duration risk. It's illiquid, not traded. Public equity is traded, different skill sets. On the public equity, it's managed top down. Private equity, we have to source to find deals, higher leverage, duration, massively more labor. And my concern is in combining these two, private equity has been an asset class that's given this fund its additional alpha.

So what I'm concerned about is that the team that currently manages our private equity portfolio will become marginalized, because all of a sudden they're a small portion of 55 percent.

And my other concern that I'd like you to address, you were talking about trying to capture this idiosyncratic risk. Well, what I wanted to know is are we getting reporting in real time? What level of granularity does PEARS capture? Are the managers providing us the data to input to determine the attribution factors, for example, geographies, industry rates, so that if we saw an overweight on utilities, or you said we were in chemical, is that being reported in real time or are we getting that after the fact, and then we find out they sold that particular position in private equity?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Why don't I take the staffing one first --

COMMITTEE MEMBER HOLLINGER: Okay.

CHIEF INVESTMENT OFFICER ELIOPOULOS: -- and then I'll hand it over to you on the attribution side, and PEARS side.

I don't -- I don't think that this would marginalize our staff, in particular our private equity staff. And I think it actually would have the opposite effect, at least that's my hope and our hope in doing this. And that it will include -- excuse me, include the private equity staff in the bigger picture of portfolio construction that we're trying to achieve.

And I think by having a siloed staff looking at just one piece of the portfolio, in this case, a eight percent, a 10 percent part of the portfolio, the bigger risk we have is that they're marginalized and isolated and siloed, and -- so that's number one.

Number two, it opens up the ability to think about the private companies we invest in at a much larger scale. In other words, for private equity, many times they're trying to solve their diversification goals in terms of the 10 percent allocation that -- that they're -- that they're given as a target.

And in this case, by including the growth bucket as a whole, really what we're asking this part of the portfolio to do is to invest -- invest in growth opportunities across the globe at a scale commensurate with the overall portfolio. So looking at a chemical company investment, as an example, the private equity team really looked at that in terms of its diversification within private equity, at that time.

And now, the question really is across our whole growth portfolio, what is the risk of that investment over the whole rather than just a portion?

COMMITTEE MEMBER HOLLINGER: Yeah. But when we allocate, let's say, to an Apollo or a Carlyle, do we have that level of granularity of knowing that -- the sectors they're in, the geographies, the weights? Are we getting that in real time?

CHIEF INVESTMENT OFFICER ELIOPOULOS: That's a perfect transition to Wylie.

COMMITTEE MEMBER HOLLINGER: Okay.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Previously, prior to PEARS and other upgrades in our data systems, we didn't have any granularity, much less granularity. We have much more information now on much faster time frames, but it's not, you know, one day granularity. So I'll turn that over to Wylie --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah-- , that's right. Wylie Tollette, CalPERS staff. And I'll take this opportunity to invite up Sarah Corr, our new Interim Head of Private Equity.

COMMITTEE MEMBER HOLLINGER: Welcome, Sarah.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: And just by -- just briefly, two quick comments. The information that we get from our private equity managers is lagged, so there's a time lag clearly. Like almost all the information that we get in private equity, it's reported in financial statements, and in other reports, and then we have teams that help capture that information

COMMITTEE MEMBER HOLLINGER: So how do we -- oh, go ahead.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

But -- just quickly. Sorry. Then the -- and we have it for most of the managers. And I'll let Sarah comment on that. They're always trying to expand that list, but the bulk of them -- the one other comment I'd make in terms of the possibility of completing the portfolio in the way that Eric described, that would only be done for -- you would not do that on a -- on a sort of micromanagement level. You would do that for very large material exposures that would buildup over time.

For example, if you're port -- if your private equity portfolio developed over a number of years a large exposure to the energy industry, that's the kind of thing that isn't going to happen overnight --

COMMITTEE MEMBER HOLLINGER: Right.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

-- and it's not going to decline overnight. It would be something that you could then decide whether you completed -- whether you completed that portfolio in the public space. You wouldn't do that if they just added a tech company, and then offset that at a very sort of micromanagement level, just to be clear. That's -- that would be a much level -- probably that would be a lot of work and effort for very little pay back. I think these would be the types of -- this completion strategy would be something you would do only for the most material risk exposures. And so with that, I'll turn it over to Sarah to provide more details on the PEARS detail.

INTERIM MANAGING INVESTMENT DIRECTOR CORR: Sarah Corr, private equity staff. With PEARS, we are cape -- if when we receive the information, either in a capital call or distribution, it is in real time we do track the industry and geography that those cash flows are associated with. But for a portion of the portfolio, we don't get that information until the quarterly financial statements come in. So it's probably about 30 or 35 percent that is the delayed, and about 70 percent that we get more real time.

COMMITTEE MEMBER HOLLINGER: But let's say we have a legacy portfolio, then we have a strategic portfolio, correct?

INTERIM MANAGEING INVESTMENT DIRECTOR CORR:

Correct.

COMMITTEE MEMBER HOLLINGER: So regarding the legacy portfolio, which is, let's say, half the private equity, are we getting information on those sectors?

INTERIM MANAGING INVESTMENT DIRECTOR CORR: Yes.

COMMITTEE MEMBER HOLLINGER: And then on a go-forward basis?

INTERIM MANAGING INVESTMENT DIRECTOR CORR:

Correct.

COMMITTEE MEMBER HOLLINGER: So I -- I guess what I wanted to be reassured, number one, I'd like to see a snapshot of like the -- just what PEARS looks like or the level of detail, and I'd want to be reassured we're acting in real time, not all of a sudden we saw a spike in chemicals, and because a private equity firm then the next month maybe sold that company, and we're responding, not in real time, but to stale information, because -- so that would be a concern to me.

And let me see if I -- I think that's it, but thank you.

CHAIRPERSON JONES: You're welcome.

Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

Well, I actually think this sounds like a really good idea from the point of view of managing these types of exposures. I think it's a prudent thing to do. It's something we've talked about sort of even broader beyond these two asset classes, but also to include like regional exposures in real estate, or even through shopping malls what kind of exposure are we having to different industries, sort of trying to get a full picture of, you know, are we taking -- are the exposures reflective of our actual view on the markets or are they reflective of some -- you know, the outcomes of just various -- an accumulation of different investment decisions. So I think this is a step in the right direction.

I do have a question, and maybe it's more relevant to the benchmark discussion, so tell me if that is true, but my -- I had always heard that private equity performance lags public equity performance by about a year. And that that is -- and so that has made it hard to compare current private equity performance to the current public equity market. Is that -- is that actually true, and is that -- is that our experience, and how would that be incorporated into our consideration of what an appropriate benchmark and the process would be?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I'll take a crack at that, Ms. Mathur.

There is definitely a lag.

COMMITTEE MEMBER MATHUR: Yeah.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: It's difficult to sort of pin down exactly what that lag might be. In our performance reporting, you'll notice we -- we do actually lag both of the asset -- all of the private asset classes back three months. That's built into the process. So there's not only sort of this mechanical lag that's built into the process, there's also I think what you might be referring to is an actual economic lag, where the private equity managers might be responding to trends in the equity market, so that they take advantage of momentum on the way up, and then perhaps take advantage of values on the way down.

I think anecdotally we would say that that does exist. I'm hesitant to sort of pin it down to a specific year, whether it's year. I suspect that's also very industry dependent, where in somle industries that might -- that lag might be -- they might be much more linked, and much more responsive, and in other industries they might be very de-linked.

So it's probably -- like I said, I'm pretty hesitant to put down a specific number of months where there is a lag, but it's fair to say there is one.

COMMITTEE MEMBER MATHUR: So then how would that impact -- or would that factor in at all to how you are jointly managing this growth asset class or this, you know, of private equity plus public equity?

MANAGING INVESTMENT DIRECTOR BAGGESEN: I think the implication of that is you would basically have to reserve judgment about what's happening to longer term time periods honestly, because literally it's over longer term time periods that you see the value of private equity emerge. So I think that you would have to -- in essence, you would -- you would probably know very little from like one year performance or something like that.

So I think it's basically you'd have to be moving out the measurement assessment period, and then I think the timing lags tend to neutralize each other, when you start to expand that time horizon. And I think that that's the rational way to probably deal with that, but that certainly -- that's a topic that has to be wrestled with, but we don't think that that necessarily obfuscates the rationale as to why we would do this again from an asset allocation perspective.

COMMITTEE MEMBER MATHUR: So in the short term, we'd have to apply some judgment to what's happening and why --

MANAGING INVESTMENT DIRECTOR BAGGESEN: Um-hmm.

COMMITTEE MEMBER MATHUR: Okay. All right. Thank you.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I have a number of questions, but let me start with the big one. Is private equity actually a growth asset?

I mean most of what we do is LBO, which was what they used to call the industry, but it got a bad name, so they started calling it private equity, which is not really growth. It's extraction. It's how much debt can we pile on and take -- take out of it, how much can we squeeze vendors, how much can we squeeze labor?

There was a recent private equity retail company that went belly-up. And I forget who it was. The private -- the general partner said this was a really good investment. We got out three times what we put in. Now, the fact that the company is being liquidated, people are losing their jobs does not suggest to me that it is growth.

So I think there's a real fundamental question. To the extent that we do venture capital and growth investment, which is -- venture capital is becoming less and less, growth is a very small part. The real question is, is it a growth asset?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah. I mean, I think that when we -- when we look at the interaction between private equity and the rest of the equity portfolio -- remember those little smile charts that we put together?

COMMITTEE MEMBER JELINCIC: Yeah.

MANAGING INVESTMENT DIRECTOR BAGGESEN: When you look at that, private equity definitely has the characteristics that are -- that link it to the public equity market. And certainly, I think, you know, irrespective of what you believe to be the elements that the managers are trying to emphasize or not, they basically need economic growth and business activity in order to get out of those deals.

In other words, if they're going to take on a lot -- a bunch of debt, they basically need to be able to convert that debt into some kind of a productive asset. And if they're not able to do that, they're going to run the company into bankruptcy.

So literally, a piece of that is -- basically has to be supported by economic growth and the economy's utilization of whatever it is that that company produces. Without that, there's no ability to pay back the debt. There's no way for them to make any money, or generate a carry for themselves, or return for their investors.

So from our perspective, we definitely believe that it's tied back to economic activity, which is sort of the root of all of these growth-related investments.

COMMITTEE MEMBER JELINCIC: But if I pile on the debt, do a dividend recap, I've got my great IRR to report. The fact that the company ultimately can't pay it is immaterial, because I got my money up front, and the back end where it's not as important, there's a negative.

Part of that return got extracted from the lenders. You know, to the extent that we've squeezed suppliers, or -- suppliers generally, you know, they've paid for it. So I'm not really sure that LBOs really are, in fact, growth.

One of the things I have asked consistently is where is our returns coming from? And the answer is -- that I'm getting is, well, we've got some ideas. We really don't know. We will know in a couple years, because we've started gathering that data. So it's really a concern of whether it is, in fact, a growth.

Yeah, we talk about excess return. Excess return implies a risk adjustment. If we're simply getting higher returns because we're taking more risk, then it's not a very good tradeoff, but -- and we can't do risk adjustments, if we don't understand the risks we are taking. And we don't understand the risks we are tacking if we don't know where the money is coming from, where the profits are coming from. So I think, again, I go back to is it really a growth asset?

You had talked about drawdowns early on. And drawdowns can mean a couple of things. One, it can mean there's actually cash extracted out, you know, because a general partner makes a call.

On the other hand, we also use drawdown to imply a market decline. If we have a market decline and don't liquidate anything, and it goes back up, then it's really kind of a non-event. It's taking advantage of the fact that we're long-term investors. So I think we need to be -- we need to really think about the term, and what -- what we mean when we say drawdown, and maybe we need two different sets of terms.

You talk about the importance of offsetting risk, you know, because the general partner has gone and put a big bet on an industry, for -- was the example you used.

You know, one of the questions becomes, well, do we really want to offset that risk - and it's risk relative to a cap-weighted benchmark - when we have paid this general partner a bloody fortune to identify the risks to take. So if we're going to offset the risk he's taking, how do we justify paying for it?

One -- and Ted had earlier raised the issue of the numerator, and it real -- and there is a real problem there. The general partner controls when they drawdown the money, but they also control when they give it back to us, which creates another problem with trying to figure out what the numerator is. And, you know, they will tend to give it back to us when -- probably at our worst opportunity, because if they had a good opportunity, they wouldn't give it back to us.

And one of the problems we have is we have given them a real option on our capital. And as far as I can tell, we have not priced that option. And, you know, if you want to give me free options, I'll take them, but -- so anyhow that's -- if you'd care to comment on those, and then I'll drop it and I'll come back later with the rest of them.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I can't -- I won't take up the rest of them. I do think it's worth talking a little bit or responding a bit to some of the good questions that you asked. They really are reprise of our workshop, in many ways. And I think with some of these types of questions, there's never one right answer. And I think with respect to the linkage of private equity to economic growth, I think Eric's answer speaks for our view on that.

I think you are correct, as we've discussed, there's some real challenges with private equity and performance attribution, and all limited partners are challenged with the availability of data to do accurate and fulsome performance attribution in private equity.

That's a real handicap for assessing the risk-adjusted return of the asset class as you posed. That's not going to get solved during this ALM cycle. So this Committee is going to have to make the decision, as it always does, whether or not it wants to include private equity in the portfolio or not. That will be a -- that will be a question that the -- that this Committee answers during the asset allocation stage.

As we discussed at the November workshop, those are challenges with the asset class. The net return, not risk adjusted, the net return we think we've been rewarded compared to our investable alternative. So our recommendation will be, as I alluded in my comments, to continue investing in private equity for a number of reasons.

But you're very right to raise these questions. They're not answerable for -- it's a judgment call, particularly on the risk-adjusted side. And I think that's a risk consideration and a return consideration that will really be at the heart of the Committee's deliberations and decision whether or not to include private equity in the portfolio or not.

If the answer to these questions, in any individual Committee member's mind or the Committee as a whole is no, we don't know enough about this asset class to continue investing, then that's certainly an answer that's reasonable to provide, and a conclusion that's reasonable to conclude.

I think our recommendation to the Committee will be to include private equity in the portfolio for all the reasons that we've discussed, but it doesn't belittle or, in any way, diminish the very good and serious questions around private equity that we continue to ask ourselves and continue to have this dialogue about.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Oh, I was just going to make a comment. As Eric indicated a bit earlier, during the actual final stages of asset liability management process, this Committee will have a chance to examine and decide on what type of premium you want to associate with private equity and build into the overall allocation to this growth bucket.

As you know, during the last asset liability management cycle, you built in a 300 basis point premium over the public equity markets, and as well as we used a 25 percent volatility, which is really an estimate of the, sort of, implied volatility. That's not what we observe in the private equity markets for a wide variety of reasons, accounting reasons really, because it's the -- the valuations are lagged. They're accounting braced estimates. They're might be smoothing going on.

So to compensate for that, we assumed a 25 percent annual volatility in the optimization process. That essentially penalized private equity in the overall optimization.

Because of the returns to private equity, if you didn't penalize private equity that way, the optimizer would really load up on it. You'd have an awful lot of it in your allocation --

COMMITTEE MEMBER JELINCIC: Like real estate.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

-- and end up with an awful lot of private equity to the point where you might find yourself in liquidity -- bumping into liquidity constraints. And so during the November workshop, Eric and his team will be bringing back candidate portfolios, as well as a discussion around that return premium that we need to build into this overall growth bucket now that we're proposing that private equity just be a component of that bucket, rather than its own separate slice of the pie so to speak.

CHAIRPERSON JONES: Okay.

COMMITTEE MEMBER JELINCIC: Yeah, I'll hold the rest of my questions until we actually get to benchmarking.

CHAIRPERSON JONES: Mr. Lind.

COMMITTEE MEMBER LIND: Thank you. Just a comment on the recent couple of questions by J.J. I mean, some valid concerns that J.J. continues to raise. You know, I -- in my pre-retirement career, as a union leader in the retail industry, particularly retail grocery, I interacted a lot with private equity, both as, you know, the Chair of the pension fund, but also as the union leader. And we had -- there were success stories both from the aspect of -- for investors, as well as for my members and for the companies that they worked for.

And, of course, there were challenges as well. It's dependent on the general partner, and on the manager, and all the things that we've talked about here. But, you know, I mean, I support the private equity class for us to continue investing in.

With respect to Eric's presentation, and I do want to compliment you, because as usual, you took a very complex topic and explained it in a way that's somebody that's not an investment person every day can understand it, so we can make good decisions. So thank you for that.

I support the, I guess we'll call it for shorthand, the merger concept, because I think it does make sense. There's obvious synergy there. I think the chemical example was a good one.

And then your discussion about changing the focus away from just meeting the allocation, because I think what you're saying is if the focus is there, then maybe we expand the pool of investment managers that we might consider to our detriment. So that shift of focus makes sense to me as well.

I did want to ask you a question though, and this was kind of early on in your presentation and you discussed it quickly. You said that the source of the private equity investment premium is not necessarily illiquidity. It is maybe other factors more than illiquidity, which is kind of contrary to what we learn in investments 101, I think. So can you maybe just talk about that a little bit.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yes, Mr. Lind. Eric Baggesen again, CalPERS staff. Trying to actually identify where private equity managers make their money, to Mr. Jelincic's comments, I mean, this is Absolutely a dilemma that the industry faces. Whether it's the done by leverage, that's certainly probably an element of it, whether it's done by restructuring companies and better deploying those assets or breaking them up and sending them off, you know, a subsidiary of a company to another company that can make better use of it or has a greater synergy, that's also probably a piece of it.

To the extent that you're disabling or taking value from the creditors of the company, I mean, that's certainly -- I'm sure that observation is absolutely true in some circumstances.

Really, the bottom line of this whole recommendation is whatever the source of this activity, the only way we're ever going to get to the bottom of having an opinion about how they generate those returns is basically by one getting more information about it, which I think is -- underlies the whole effort attached to PEARS, and it's also basically trying to get the focus of everybody in the organization to try to like pick a part the layers of that onion to begin to understand that.

Right now, the private equity team is sitting here by themselves for the most part trying to figure out, okay, how do we answer the questions that Mr. Jelincic raised, you know, where are these managers generating return from? How do we get our allocation up to the target allocation? You know, we're basically asking them to do two or three or four different things simultaneously.

And all I'd suggest is that I think the environment that we're suggesting merging these two together will allow some focus on trying to answer the questions that Mr. Jelincic posed, because I'm -- it's not clear to me that we can answer them today. You know, if knew exactly where the source of return is, it would be easy -- it would be easier to identify which managers to participate with?

But, for me personally, I think honestly the source of return for the private equity managers is just dealing with the unknown. In other words, they put a plan together of what they think is going to happen when they go out and invest in or take control of a company. The minute they try to start executing that plan, the marketplace is changing, the world is changing, everything is changing.

So I think their alpha honestly is their ability to dance to whatever tune is being played. It's maintaining a degree with flexibility, whether they need new management, whether they need to restructure the assets, whether they need to change the financial plan, ultimately they're able to come up with some combination of attributes that appears to have generated value-added.

But I think until we have a bit more information about that, it's going to be hard to understand. And I think the more people we have trying to understand that, the better chance we'll have to be able to answer some of those questions. And that's why I actually think a piece of this is sharing some of that accountability for trying to answer those questions and honestly sharing a piece of that with Dan's team to get them focused on trying to answer those questions.

Right now, they just focus on their part of the marketplace, and they leave it to the private equity people to attempt to answer those questions on behalf of this organization. So that's what, as I keep saying, a bunch of this is trying to change solme of the culture within the Investment Office and focus on the higher, bigger level questions, which we don't have good answers for to be honest with you.

COMMITTEE MEMBER LIND: Thanks.

MANAGING INVESTMENT DIRECTOR BIENVENUE: Just -- Dan Bienvenu, Managing Investment Director for global equity. The only thing I would add is, really quickly, I would be a little careful of using the term "merge", because we are talking about for the portfolio context and definitely not the business model contention, right? So the private equity team is a strong empowered team and they -- that -- ever sence I have is that that will stay to be the case.

COMMITTEE MEMBER LIND: I just said it's shorthand. That's all.

MANAGING INVESTMENT DIRECTOR BIENVENUE: Right. Absolutely. Eric used it also, so I just antes to make sure that we were just -- I just want to caution us just so we're all talking about the same thing, that we merged the portfolio management context to some degree. I think one of the really important things is that we'll just start a dialogue, and we'll work closer as a team.

I mean, you know, Sarah and I, and actually many of the people in the private equity team we have a very good rapport, but we don't work on portfolio management topics that much together. And what this does is it pushes together, and we'll ask some, what will probably sound like, really foolish public market questions. And they'll explain to us why those don't make sense. And then others though potentially is we start holding the attribution to a public equity, you know, level of standard, my sense is that while we won get to a public equity standard, we'll make progress, and vice versa.

And, you know, even in some of the comments Mr. Jelincic made about -- about, you know, when a company gets levered up and then what happens to it? Generally, you see those play out in the public markets. And my sense is that we're going to learn a lot from working with the private equity folks on the evolution of a company from private into public and as -- as we do our jobs.

CHAIRPERSON JONES: Okay. Ms. Yee.

COMMITTEE MEMBER YEE: Thank you, Mr. Chairman.

First, I want to just thank the tremendous work that the staff has done to bring this issue forward, much of it driven by the workshop, yes, in November, but I think given where we have been with the private equity asset class and all of the just criticisms that we have received relative to this asset class. In some ways, I think what's driven this is just the frustration of the illiquidity and certainly what we're continuing to improve upon with respect to the transparency of fees, you know, that have gotten us here.

I agree with Mr. Baggesen. I think this is one of the areas where we're going to see a lot of these questions answered within the context of actually pursuing going down this road. I like the idea of, you know, having this -- I think this combination, not merger, concept, because I do think it's going to present new opportunities. Now with that, it also will present equally the same issues that we always grapple with, and that is volatility and, you know, the extent of the return premium with respect to the benchmark. So all those questions don't go away.

But I do think that having more kind of the shared ability to look at kind of shared attributes certainly will help diversify what we do in private equity. I think that's a given, as well as having a more value-added approach, which I think is always helpful as well.

So I really appreciate the road that we're going down. I just had one question and suggest and that is when we take up this issue next, whether a presentation might be I guess a -- a decision tree, or lack of a better term for that, I think there's a threshold question about whether we want to stay in private equity or not as a threshold question. I mean, personally think we should. But from there -- emanating from there, then what does this combined approach look like, and what are some of the other considerations that we need to have.

There's a lot of information here. I am anxious to learn about what the Canadian experience has been, and even, albeit short lived, but if there's so some -- any experiences that are instructive to how we should proceed, that would be helpful. But I think, you know, I look at this as really kind of being driven to this point, given where we've been with private equity. And in some respects I think it will open up a lot more opportunities.

And again, I think both with respect to the real asset conversation we had, and now with private equity, it, I hope, will lessen the pressure about just looking for deals for the sake of deals, and that we are really driven by investing in the right, you know, kind of more -- the right and the best deals.

So I hope that's going to be the outcome. And I feel like with just these added considerations and certainly looking at the more integrated review of the roles, I think we get there. I think we get there.

CHAIRPERSON JONES: Okay. Thank you. I think that Ms. Yee's point about a decision tree is good, but I don't think it starts from whether or not we're going to go into private equity, because I haven't heard any -- any indication that there's a belief that we should not invests in private equity. So I don't -- I just want the public to know that's...

Just a minute, just a minute.

Okay.

COMMITTEE MEMBER YEE: And I trust my colleagues are on the same page as I am. I think from a public perspective and where we've been with respect to the look at this asset class, I think that is an appropriate starting point, because then when we look at going down this direction, we really are incorporating some of the criticism. And, you know, the tradeoff of what we're doing here is really acknowledging the illiquidity, and what we've been through relative to fee transparency. I mean, that's how we got here.

And to Mr. Jelincic's point, I mean, I think a lot of these questions will continue the be there, and will start to be answered as we look at what the experience will be on this combined approach. So I do think that's an appropriate starting point from a public perspective.

CHAIRPERSON JONES: Okay.

Ted.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I think if I can -- I think help clarify or resolve -- and resolve is probably too strong of a word, but comfort the Committee that actually all these viewpoints have a landing spot during this asset allocation and ALM process. Any time the Committee adopts an asset allocation, it chooses whether or not to have an asset class there or not. So whether I explicitly or we explicitly together said are you going to have public equity in the portfolio or not, private equity in the portfolio or not, fixed income, that decision that the Committee will make when it adopts the asset allocation, explicitly we'll make a decision on what assets are -- what asset classes are in, and which Asset classes are out, so that decision will be forth -- will be before the Committee.

CHAIRPERSON JONES: And I was just reiterating, you asked about the policy questions in your opening remarks, whether or not you -- we're going to eliminate private equity. And you're saying that's not a recommendation, and I'm only saying that I haven't heard any Board member that have an interest in eliminating private equity.

Okay. Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

Eric, thank you for this work and your explanations here. I think that, you know, this is always a tough asset class, but it also performs. So just because it's difficult, doesn't mean we shy from it.

The issue is how we're organized about it. And I also want to thank, Mr. Lind, for your comments. You know, the -- every asset class has heroes and villains. And, you know, it's too simplistic to put one of those labels on one asset class, and not realizes that our job is to sift through and to make good prudent decisions so we can deliver the benefits.

I think what this discussion really has been about, and what is -- you're coming forward with this information item is how we organize ourselves. So it's not about the asset class itself, it's about how we're organized to take the most advantage out of it. And I would -- I thought the chart that you did that showed the numerator denominator -- effectively the numerator denominator problem really says it. You know, how much influence do we put on that versus making good appropriate selections and balancing risk and overweight/underweight.

That gets to the heart of the matter, rather than some artificial allocation scheme. So I'm very supportive of the direction you're going, and will look forward to the ALM process and we'll all continue, but thank you.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: The -- I want to make it real clear. I am not saying we should not be in private equity. What I am saying is we don't have enough information to know that we are actually being properly paid for the risks we are taking. I've got a whole bunch of questions, but they go to the benchmark, but the other thing that I want to point out is it can't be just, well, this is good because it gives us high return.

You know, the -- my understanding of the industry is that selling heroin has very high returns, but we're not going to do that just for returns. So it can't be just an absolute these are good returns. It's got to be are they good risk-adjusted returns?

And I'll hold the questions on the benchmark till the benchmark.

Thank you.

CHAIRPERSON JONES: Okay. Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones.

I just wanted to get a clarification from the Controller. I want to make sure I heard it. Is the threshold question private equity at the front-end or private equity at the back-end of the process? Because I was a little confused, I'm sorry, as to -- because I do think it's a great threshold question whether we should be in it or not, but -- was it a -- were you looking at it is it a front-end question or a back-end question?

COMMITTEE MEMBER YEE: Front-end with respect to what Ted referenced that we pose the question relative to every asset class.

COMMITTEE MEMBER COSTIGAN: Okay. Because I -- similar to what Ms. Yes said and Mr. Jelincic raised when you look at the questions, I note, you know, the first one is not, we're not eliminating private equity as a component, but the concerns I've had over the years again with private equity is I still don't quite -- I understand what it is. I still don't understand all the transparency with the cost. I know some of the issues -- other issues Mr. Jelincic has raised as it relates to, you know, we're held over a barrel. We have to agree to certain terms and conditions, the indemnification, all -- the others I don't think we see enough private equity managers in front of this board, whether in closed session or open session.

I think the threshold question Ms. Yee is actually raising is a great question is part of the transparency is we're are they? I think in the time I've been here, I've seen maybe half a dozen, and they were in closed session, which I get they like being in closed session. I don't think they should be in closed session.

There are some questions that the public -- back to this transparency issue. So I think as part of this overall review, I'd like to hear what is going to be our process to deal with the -- are we going to see more of our private equity managers? I recall the first time I came on this Board -- or the -- since I'm still on it, the time I came on the Board, I raised a question about one of our investments and now we're out of it.

And I also think that you guys did a great job. We were a sole investor in a very large private equity fund. The manager took out more money than our entire Investment Office made, which raised some significant concerns, and you guys did the right thing once we brought transparency into it. But when are we going to see more managers? When are we going to sort of have that threshold question on it.

Mr., Jones I guess I -- or is that through you?

CHAIRPERSON JONES: Yes. Okay. Ted.

CHIEF INVESTMENT OFFICER ELIOPOULOS: So I do think on -- just on whether private equity or not, that will be answered when you vote on the asset allocation, and you'll have to weigh all these considerations in your own minds as to whether to include or not. We have as asked that question, and received feedback from the Committee that there's no interest in doing that, but I just want to underscore that's always a potential. If these concerns that are raised from time to time are significant enough to redirect staff away from private equity, that -- we want to know that, and that would -- that -- your opportunity -- the Committee's opportunity to do that is when you vote on an assets allocation whether to include it or not.

So that -- that will -- I think the timeline that we have played out -- or laid out is robust and deep enough to allow for that decision making tree for the Committee to make that decision.

I think on the question of external managers, that really goes to the question of business model and decision making that we choose. And, you know, what is the -- what is the right business model to access - in this case, private equity. It could apply also to real assets as well - and what's the role and function of the Board in overseeing and monitoring the investments as a whole, and the relationships with each of these managers.

So I think that should be part of the discussion perhaps when we look at business models as well, because the question is what's the purpose of that review, what is the hoped for opportunity, and gain for engaging in those types of individual reviews with managers, and what's the role of the Board, vis-à-vis external managers as a whole, as well as private equity, and how -- where does the Board want to put its time and attention in terms of overseeing the overall portfolio. And that will be a question for the Board as a whole to answer.

COMMITTEE MEMBER COSTIGAN: No. And I appreciate that priority. I don't want to micromanage the Investment Office. But some of the main concerns I have is some of these managers, the large managers run a lot of money for the organization. I almost think it's part of their responsibility in running our money is that they show up once in a while in front of the Board as a fiduciary, I mean, we're -- you're asking us, as Ms. Yee raised, the front-end back-end questions on private equity, it would be -- you know, we hear often too that, well, you can't take that clause out, because that's the way the industry is. And then you look at statutes in other states and there are certain private equity contracts where certain indemnification clauses are prohibited.

I think part of it is more hearing from the managers, having them sit in front of us and explain from time to time both their thoughts, because it's an illiquid asset. I mean a lot of it we're taking -- I know we have to have private equity hit the returns. I get that. I mean, otherwise you remove this asset class. You push the returns down, then our members get upset because their contribution rates get up. That I understand.

What I'm just trying to seek is more transparency, more being to bolster you folks as you deal with the private equity folks, because we have to shine the spotlight similar to the folks that were here earlier on the divestment issue. They want us to put the spotlight on public equity, the spotlight on divestment. We need to be doing the same thing with the private equity manager.

So, you know, Mr. Jones, it's just at some point, even if it's just once or twice a year, some of our larger managers coming forward, because Mr. Jelincic has raised some very significant issues in the past, I'd like to just hear from the private equity managers. Why do they justify some of the indemnification classes, and is it a blanket?

I mean, at some point, I will be asking on some of these indemnification, what have we done as a system? Have we indemnified some of these private equity managers, because that goes right back into their fee structure issue.

So thank you, Mr. Jones.

CHAIRPERSON JONES: Okay. And I think in the past, we have had, as you suggested, the few that come in and meet with the Board, and provide an overview of their strategy, their business, et cetera, and -- but because some of those questions get into contractual areas, it's in closed session. So, I mean, I don't see a problem with continuing that process, periodically bringing in and have a presentation to the Committee in closed session to understand where -- how our money is being invested. And I think that's a legitimate question. Okay.

Okay. That's it on the questions that round. Is that it?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

I'll try to propose wrapping this up in just a moment or two. But essentially, I know we're getting on a little bit here, a little bit past our planned time frame for this agenda item.

But on page 21 of 30 --

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CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

-- it's page 320 of iPad, you see the actual proposed benchmark recommendation. And again, you'll be making this decision finally with the full ALM -- set of ALM decisions you'll be making later in the year. But some guidance now or some feedback from the Committee would be helpful, because we're just about to undertake the process of gathering the capital market assumptions for all of the asset classes. And obviously, the benchmark that you select -- that we select together, will make a difference in terms of those capital market assumptions.

And you can see what we're proposing here is essentially to use the same benchmark we used for our public equity portfolio to use that as the underlying benchmark for the growth bucket, plus a return premium that we would determine and bring back to you during the ALM.

What this intends to do is to eliminate sort of an unintended consequence of the existing benchmark, which is it's essentially -- it doesn't mimic our -- it doesn't exactly match our public equity benchmark. And that's created some performance idiosyncrasies, I guess I'll call them, between our private equity portfolio and our actual public equity performance. We use those as -- we use the public equity market essentially as our opportunity cost for this asset class. But when the opportunity cost and the actual investment don't use the same benchmark, it can become, I guess it would say it adds a level of complexity that we'd like to eliminate.

So we'd like to simplify this and really use the same benchmark for both public equity and private, plus the return premium that's obviously built into the overall structure of the total fund.

So with that, I'll pause and see if there's any questions on what we're proposing here.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Well, I actually think their different assets and ought to be -- have different benchmarks. But if we say that we're going to adopt this one benchmark and the -- we're just going to consider private equity a segment of the global equity, then isn't our alternative really fixed income, since it's all one asset class, and if we're not doing equity, then we're going to be doing fixed income. So doesn't that become our opportunity cost?

MANAGING INVESTMENT DIRECTOR BAGGESEN: When you get back to the purpose and the role statement I think for these assets, that would tell you that fixed income is not the substitute for private equity. So I think this all depends on the what are you trying to achieve, Mr. Jelincic, with, you know, the alternatives that are there?

So certainly if we're trying to diversify the characteristics of private equity or public equities, then fixed income becomes the primary category that creates diversification, but I don't believe that it acts certainly as a substitute, in most instances anyway, for that exposure.

COMMITTEE MEMBER JELINCIC: But if we're saying they are the same asset, and therefore we're using the same benchmark, then aren't well really saying it's -- the alternative is fixed income. And if we are not saying they are the same asset, then the question becomes why should we be using the same benchmark?

MANAGING INVESTMENT DIRECTOR BAGGESEN: You certainly can have that interpretation. I think the interpretation that we tend to have adopted is, in essence -- excuse me, private equity as an active managerial bet, if you will, in relation to the equity markets.

So, to me, this is more a question of, for example, when Dan's team runs, our benchmark-oriented exposures internally. And yet, they turn around and hire an external active manager to try to add value. I think that the private equity managers, in essence, act as an alternative to that kind of exercise, because you're definitely taking a differential set of risks, but it still resonates to the same kind of exposure. And ultimately, this gets couched as an equity exposure. You're not necessarily going in as the creditor to the organization, you're going in as an equity, so you're in the first loss position in those investments.

COMMITTEE MEMBER JELINCIC: And on slide 23, 19 of the iPad you point to some people who have consolidated the the public and private equity. But these are also people who run their private equity in-house. And so the firm is making a decision we want to own all, or a major portion, of this company, and that's not what we're doing. So I'm not sure -- I mean, these are interesting, but I'm not sure how they're relevant.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I'd be care at the characterization at the outset. I think with respect to Ontario Teachers they're much more of a direct private equity investor. The Canadian pension plan is a very significant investor in traditional private equity. Their fund exposure I think at the workshop we discussed their actual exposure to the same general partners in general that we have is very commensurate with our portfolio.

In addition to that, they have a very significant co-investment program, which isn't really quite the same as a direct program either, because it's side by side with those general partners, but it does give more control to the LP in shaping the overall portfolio exposure. And I believe -- I'd have to -- there's probably some follow up we could have during the course of this thing is to look at the New Zealand Fund exposure, but I believe they're not 100 percent direct investor either.

So a lot of times the Canadian model all gets subsumed into the gist. It's just all hundred percent direct, and it's much more nuanced than that, and sometimes it's actually quite the opposite of direct, even though the direct model is the acronym for it.

COMMITTEE MEMBER JELINCIC: And on slide 18, you talk about the potential to offset the idiosyncratic exposures, if we use the same. What stops us from doing that now?

MANAGING INVESTMENT DIRECTOR BAGGESEN: There's really nothing that stops you from doing that now, other than the fact that we have no accommodation for that in our existing policies. And certainly the way that we have expressed the risk tolerances around public equity would not accommodate that.

So literally all we're doing is just talking about what we would need to do in order to do exactly that. I mean, we'd have to shift the risk assignments, the risk thresholds. We'd have to change the flow of information. So you're absolutely right, there's nothing that stops us from doing it, except that we're not equipped yet to do it. We don't have a mindset yet to do it.

So really, it's just shifting that perspective and saying, okay, this is a part of the job that we want the staff to take on, in contrast to we've never asked them to do that.

COMMITTEE MEMBER JELINCIC: So it's really we would need to give you bigger risk parameters around the index?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That's right. Right now, public equity I think has a 50 basis point threshold for its tracking error. And if were were to really begin to use it as an overall accommodation for the private equity portfolio, we'd obviously have to look at that as a combined portfolio in some way.

COMMITTEE MEMBER JELINCIC: And an observation on Slide 22. The return performance is not, in fact -- or the premium is not, in fact, all that great. On average, it's one three when you look at the geometric, which is what you need to do.

But I would also point out that, you know, one three is nothing to sneeze at. But on the other hand, the volatility, and the risks that we're taking, and the case that is the closest I think is about 14 percent increase in volatility. In the larger case, and I was just eyeballing it, it looks like it's about 45 percent increase in volatility. And that's a lot of volatility for 1.3 percent, assuming -- since we've become real kind of short-term focused in terms of our priorities.

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, let me just comment on what this -- the table of information is actually putting down. So one is that when you go from an arithmetic return expectation to a compound return expectation, the calculation to do that -- and there is not a precise calculation to do that, so it makes some assumptions, but one of the elements that impacts that calculation is the volatility assumption.

So, for example, when we last set up our capital market assumptions in 2013, we basically said public for equities, we assumed 7.75 rate of return with a volatility of 17.4 percent. For private equity, we assumed a volatility of 25 percent. That then backed into a compound return expectation for private equity of 9.33 percent. So the differences between those two compound returns numbers was 158 basis points, not 300, but 158.

But the volatility measures that are reflected, I think Mr. Jelincic in the table on page 22, represent, in essence, a penalty function, because these numbers typically feed something like an optimization problem.

So these volatility numbers bear actually no resemblance to what you actually see coming through the accounting for private equity. Instead, they are an assumed level of volatility, whether you have adjusted it for the presumed leverage, which is a typical kind of an adjustment that I believe if I asked Wilshire Associates, I think they would say that they assume an excess of leverage, so therefore that imputes a volatility.

But, in essence, these volatilities act as a penalty function, so they optimizer doesn't just completely chop off, right, any public equity investing, because literally, when you're -- if you're chasing a return target, you're just going to say invest in this one asset. And what do you do to basically control for that?

So you either set a constraint on the asset, is one way to control it, which we end up having to do that anyway, or you basically come up with some kind of a volatility penalty?

But I think the leverage type of adjustment that you alluded to in some of your earlier comments I think is what basically drives these volatility numbers that come out of the different purveyors of this kind of information.

COMMITTEE MEMBER JELINCIC: Yeah, but on the other hand, we do have to use the expected volatility, rather than the implied volatility, or the realized volatility.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:
Observed.

COMMITTEE MEMBER JELINCIC: Observed. I mean, because you wind up with absurd situations where private equity has a lower volatility than treasury bills -- I mean, you know, what world is that in?

So thank you.

CHAIRPERSON JONES: Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

And another reason for doing this I think is that we've seen a decline in the number of IPOs. And so the universe of public equities might actually be shrinking relative to the total universe of companies. And so for us to have adequate exposure to the companies that are producing economic activity, we need to be balancing the two -- the two levers.

One -- and I recognize that this is not a perfect benchmark, but sort of the -- the next best idea that has come up around benchmarking. We've tried, as you've noted, many benchmarks over the year -- none of them -- over the years, none of them has completely satisfied us or been truly reflective of the market. And this is, I think, probably a better solution.

But my question is do we have the same global exposure in private equity that we do in public equities?

Because this is utilizing the FTSE All-World, which certainly does reflect our public equity exposure. But I don't think our private equity exposure completely matches that in terms of the distribution between the U.S. and non-U.S. And I'm wondering if you'll adjust for that in some way?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, that's accurate, Ms. Mathur. It does. And our private equity portfolio is U.S. weighted towards the U.S. And I think the previous benchmark attempted to reflect that. And the challenge is is that the benchmark as it's presented here is -- the current benchmark, if you include this return premium, it's not really investable. We can't really use it as an opportunity cost, which is why you've seen some of these other large pension purveyors, like OTP and CPPIB, move away from -- away from non-investable benchmarks, more towards this idea that really you want to try to capture economic growth. And the best benchmark for that that is actually investable that you can actually use as an opportunity cost, and so you can properly evaluate the trade-offs is the -- is what you see here. That's -- but it's recognizing the fact that it's definitely not a perfect solution.

COMMITTEE MEMBER MATHUR: But so you don't -- you don't -- right now, it doesn't indicate that you're going to adjust, in any way, for global --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: That's not our -- not our intention. Now, we could, as Eric mentioned, it -- this sets up the possibility that we could adjust for that in this completion concept. So you could true-up your exposures. If you felt like you really just wanted your private equity managers to focus on company selection, you could take out geographic industry sector exposures using this completion strategy, that's -- that remains to be seen, and to build into our overall portfolio structuring process.

So in other words, that's a decision that we could begin to make consciously. Right now, that's made for us essentially by the -- by the general partners.

COMMITTEE MEMBER MATHUR: Okay. So that would reflect whatever the Investment Office's view is as to where value is going to be derived, U.S. or non-U.S., and which markets, et cetera.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Exactly. Thus, you be --

COMMITTEE MEMBER MATHUR: And that's something you would assess in your -- in the investment strategy group on some periodic basis?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That's exactly right. That's exactly right. And that's a capability, as we discussed earlier, we didn't necessarily have that capability that long ago. Prior to the PEARS system, we didn't necessarily have those types of exposures at the level of detail we now do. So this is a capability that even when this last benchmark was select, I think is in 2011, that wasn't necessarily a capability that we have -- we had. Now, we do.

So this ability to adjust the total growth bucket to match the exposures that we think we want versus the exposures we just happen to get. That's a new capability that we are looking forward to exploring. And as Eric mentioned, it's one of the underlying motivations for this idea.

COMMITTEE MEMBER MATHUR: Thank you.

CHAIRPERSON JONES: Mr. Juarez.

ACTING COMMITTEE MEMBER JUAREZ: Yeah, I just wanted to get clarification on one thing, and that is when the point was being made about the benchmark being the same, in effect, they're not the same. You have -- using the same basis, but then we're going to adjust that basis when we come to measure private equity, is that correct?

MANAGING INVESTMENT DIRECTOR BAGGESEN: Yeah, let me take a shot at that, Mr. Juarez. Right now, the private equity managers that actually control the deployment of the capital into the marketplace, they pay absolutely no attention to whatever benchmark we assign to that. They literally just pursue places where they -- you know, whatever their judgment is, either places that are -- segments of the marketplace that either undervalued or assets that are not being optimally utilized. And certainlty, the folks from Meketa could provide -- probably provide more context than I can about what motivates those managers to pick the companies that they do.

But the one thing that I do know is that they do not pay any attention to any kind of a benchmark in any way, shape, or form engaging in that activity. So that literally just leaves us with a whole array of idiosyncratic exposures for reasons that are unclear to us why they exist. So a piece of this is to try to change the dialogue that happens between us, as CalPERS staff, and those managers to basically make a judgment, this bet is intended by the manager, and therefore we want that bet to stay in the portfolio, or this bet is just an artifact of a different process and should be controlled in a different manner.

But I would suggest that's a big piece of why we're making this recommendation as to try to control something that is now uncontrolled and almost unthought about.

ACTING COMMITTEE MEMBER JUAREZ: Thank you.

MANAGING INVESTMENT DIRECTOR BIENVENUE: And just to add to that Eric used thea word "intended". And I actually think it's a really -- it's a really good word to use, and it's worth under scoring. This is exactly what we do in the public equity space that we have managers, some of who we think actually have some skill in picking countries and sectors and things like that, and some of them we actually think it's all about the valuation.

And those are anecdotal outcomes of their portfolio construction possess, and we wind up with these -- with these risks that may or may not be informed. So we actually have a whole analysis that we call our intended exposure analysis. And the managers where we think -- where they think they have some skill, and we've seen that we tend to agree with them, because there's actually two parts of that, both they have to think they have some skill, but we also have to see some evidence of that, where we have those, those are exposures that we do not complete.

But where we have others where they're really just anecdotal and just an outcome of their portfolio management process, those are exposures that we do tend to complete and we do that currently in public equity. And this would just -- just broaden that. And again, it would just increase the collaboration, I would say, between -- between the private equity team and the public equity team, which I think is always a good thing.

CHAIRPERSON JONES: Okay. Thank you. You know, Mrs. Mathur and Mr. Juarez raised the question about the benchmark regarding private equity. And Eric said Meketa may have some views on that. Not today, but -- and I understand you said because this wasn't a recommendation, you don't have an opinion letter here to represent their views.

But next time, we would like to see what Meketa's views are on the industry-wide of answering Mrs. Mathur and Mr. Juarez question going forward, okay?

Thank you.

Okay. That's -- not more further questions, so...

The next item on the agenda, Summary of Committee Direction. And I'm not looking for direction on all the discussions we had, because that's embodied in your --

CHIEF INVESTMENT OFFICER ELIOPOULOS: No, I only have one.

CHAIRPERSON JONES: Okay.

CHIEF INVESTMENT OFFICER ELIOPOULOS: But it was an offer that Wylie made, and I don't know that you directed it or not, and that was to provide the Committee a link to the last two biennial risk reports that had kind of --

CHAIRPERSON JONES: Oh, yes, yes. Right, right. Yeah, yeah. Give it to the Committee, right.

CHIEF INVESTMENT OFFICER ELIOPOULOS: So if that's Committee Direction, we'll provide it through our CEO.

CHAIRPERSON JONES: Yeah, right. And the other one is Mr. Costigan eventually would like to have -- you know, we've done it before to bring our private equity managers in to address the Committee, at some future date.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Okay.

CHAIRPERSON JONES: Okay. So now we have public comment. We have two requests to speak. We have Mr. Snow and Ms. Myers. If you could come down to the mic, and you will have three minutes to make your comments. And there's a clock right below the name here to let you know where you are on your presentation.

MR. SNOW: My turn?

CHAIRPERSON JONES: Yes.

MR. SNOW: Thank you for allowing us to be here and for the public comments section. My name is Brian Snow. I'm a CalPERS member. I'm also a board member for the Corona Police Officers Association in Southern

California.

I don't -- I don't know if apologize is the right word, but I'm going to try and be direct and pointed in my comments. And it's not directed to each of you individually, but more of CalPERS in general. So please don't take offense to my comments.

I have a vested interest in the decisions made by this Committee, the members of our association, and those that have retired also have a direct vested interest in the decisions made here. It affects the rest of our lives as -- when we receive our retirement. We understand the job that you guys do, and that it can be difficult at times.

The numbers -- the reason why we're here is a number of statistics, reports, and strategies regarding CalPERS investments are troubling to us, enough that my fellow board member and I decided to come up here to Sacramento and to address this Board, and this Committee.

Politics seems to have become a part of the Investment Strategy. And while you may or may not see it, cities and counties are having financial challenges as a direct result of the seemingly failing investment strategies. The fiduciary responsibilities as -- she's not here anymore, but she stated it correctly, the fiduciary responsibilities of CalPERS is to the CalPERS members to fund their retirements.

I might add that the fiduciary duty does not include special interest groups, does not include activist or political motivations. CalPERS is not a social activist group. And from the sounds of it, it sounds like you guys do a wonderful job in the research. A lot of stuff is over my head, and we trust that you guys make those correct decisions and do the correct research to make those decisions.

A 0.6 return investment is completely unacceptable and embarrassing, especially when it seems that other funds are seeing much better returns. The divestment practices of CalPERS are irresponsible towards CalPERS members and to your fiduciary duties and are killing the fund.

Divestment is not a sustainable practice and does nothing to benefit CalPERS members, but rather only satisfies the interests of activists and politics. The impact not only affects CalPERS members, but also services that CalPERS members provide due to cutbacks in personnel and/or services. Public confidence is decreasing and frustration is increasing due to the negative attention pensions are attracting all from CalPERS practices.

Public agencies have been doing their best to balance budgets and largely have been successful. But shortfalls by CalPERS investments are tipping the scale.

It is your fiduciary duty to look out for the best interests of CalPERS members, and we appreciate if you would change and review your divestment procedures.

Thank you.

CHAIRPERSON JONES: Thank you for your comments.

MS. MYERS: Thank you, Chairman Jones and the Board members for the opportunity to speak today. My name is Melanie Myers. I work for the American Federation of Teachers on capital stewardship issues. As you may know, our union represents about 8,000 school employees who are CalPERS members.

In December, you heard from two teachers who work for Alliance for College-Ready Public Schools in Los Angeles about their employer's campaign to harass and intimidate those educators from forming a union, and those educators hopes to have the same rights to advocate publicly for their students as all other public school educators and staff in California currently enjoy.

I want to thank the Board for your concern -- the concern that you expressed regarding this matter. The teachers deeply appreciate CalPERS staff, and the Board's willingness to engage on these difficult issues. As you may recall, the founder of Alliance is Antony Ressler of Ares Management, which manages more than $1 billion in

CalPERS private equity portfolio, and continues to be an active donor to Alliance, as does Ares Management itself, through its matching funds donation policy.

I'd like to share with you today some recent developments on the educators' efforts to organization a union at Alliance. Before I do, it's important to note that what happens with charter school growth in California can, and likely will, have an impact directly on CalPERS directly and on the health of CalPERS school pool.

As you noted in your annual review of funding levels and risks released in September, the growth of charter schools in California can lead to a decline in CalPERS participants for various reasons staff articulated. It was acknowledged that the results of an escalating loss of participants could be disastrous for your school pool. And with employer contribution rates increasing and strong federal level interest in pushing school privatization, we see the incentives mounting rapidly for charter school operators like Alliance to opt out of DB pension.

In March, the Public Employees Relation -- Relations Board issued yet another complaint against Alliance, finding that Alliance broke the law by threatening to arrest an Alliance teacher for distributing union leaflets, and for threatening that if they organize a union, class sizes for students would increase and teachers would be laid off.

According to the findings of a State audit released just last week, Alliance has spent a million dollars opposing teachers' efforts to form a union, all money that should have been spent on improving educational experience of its students.

And equally concerning, a report released this week by In the Public Interest has found that Alliance -- the Alliance Network a Charter Schools has used more than 110 million in federal and State taxpayer dollars to amass a growing empire of privately owned Los Angeles real estate now worth in excess of 200 million.

Given your fiduciary duty to generate sustainable risk-adjusted returns on behalf of plan participants, I also wanted to bring to the Board's attention, a recently released report which found that Ares Management underperforms relative to peers and relative to benchmarks in both the real estate and private equity space. I have shared that report with the Chair. And it draws on public data from Preqin is authored by Unite Here. And I hope that you can take a moment to review it.

Thank you so much. We really appreciate your efforts.

CHAIRPERSON JONES: Thank you for your comments.

And I understand staff has met with you in the past. Okay.

Okay. Well, thank you. And so we're going to adjourn the open session and break for lunch and return for closed session at 2:15.

Does that work for everyone?

(Thereupon California Public Employees' Retirement System, Investment Committee meeting open session adjourned at 1:29 p.m.)

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

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 21st day of April, 2017.

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