MEETING

STATE OF CALIFORNIA

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BOARD OF ADMINISTRATION

INVESTMENT COMMITTEE

OPEN SESSION

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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, also represented by Mr. Steve Suarez, Mr. Eric Lawyer

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, represented by Ms. Lynn Paquin

STAFF:

Ms. Marcie Frost, Chief Executive Officer

Ms. Cheryl Eason, Chief Financial Officer

Mr. Ted Eliopoulos, Chief Investment Officer

Mr. Matt Jacobs, General Counsel

Ms. Mary Anne Ashley, Chief, Legislative Affairs Division

Mr. Eric Baggesen, Managing Investment Director

Ms. Natalie Bickford, Committee Secretary

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

STAFF:

Mr. Dan Bienvenue, Managing Investment Director

Ms. Kit Crocker, Investment Director

Mr. Réal Desrochers, Managing Investment Director

Ms. Christine Gogan, Ivestment Director

Mr. Mahboob Hossain, Investment Director

Mr. Mike Inglett, Ivestment Manager

Mr. Paul Mouchakkaa, Managing Investment Director

Ms. Wylie Tollette, Chief Operating Investment Officer

Mr. Ed Yrure, Investment Director

ALSO PRESENT:

Mr. David Altshuler, StepStone

Mr. Andrew Bratt, Pension Consulting Alliance

Mr. Allan Emkin, Pension Consulting Alliance

Ms. Christy Fields, Pension Consulting Alliance

Mr. Andrew Junkin, Wilshire Consulting

Mr. Mike Moy, Pension Consulting Alliance

I N D E X

I N D E X   C O N T I N U E D

P R O C E E D I N G S

CHAIRPERSON JONES: I'd like to call the Investment Committee Meeting to order.

The first order of business is the 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 represented 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: Ron Lind?

COMMITTEE MEMBER LIND: Here.

COMMITTEE SECRETARY BICKFORD: J.J. Jelincic?

COMMITTEE MEMBER JELINCIC: 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 represented by Lynn Paquin?

ACTING COMMITTEE MEMBER PAQUIN: Here.

CHAIRPERSON JONES: Okay. Thank you very much.

The next order of business is the Executive Report - Chief Investment Officer Briefing.

For that I call on the CIO Mr. Eliopoulos.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Good morning Mr. Chair, members of the Investment Committee.

I and the team thought it important to take a few minutes here at the onset to provide some initial and preliminary thoughts about the United States elections held last week and the potential investment and economic implications for CalPERS.

It is assuredly much too early to talk with any precision about these implications since we know very little about the specific policies that will be proposed and enacted by the incoming administration and Congress.

I do believe this election is going to have a significant impact on matters small and large for CalPERS and investors globally. We will be operating in a different environment than before the election, and we will need to adjust as policies become clearer in the years to come.

The United States capital markets have been the core and in many aspects the model for the global system. On many dimensions this election has the potential to make significant change.

Under any circumstance we should prepare for a period of greater uncertainty and volatility until the new administration and Congress have implemented their policy, plans, and decisions.

Now looking back prior to last week, prior to the election, there were a number of themes we have discussed that reflected a growing consensus by your Investment staff and most investors throughout the globe.

Such things as a low inflation environment despite quantitative easing around the globe. A moderate growth globally that has been slowing. Despite all the monetary policies throughout the globe, we've been living and have been living in a world of low interest rates.

Demographic challenges globally, principally in Japan and Europe and China, and to a lesser degree in the

United States. Global trade networks that were and are a hallmark of the economy but coming under new pressures and threats.

Now, looking after this election, the incoming administration and Congress have outlined some broad policy goals. Among them:

A growth agenda for the United States economy, with the President-elect announcing a goal of as much as a 4 percent GDP growth target.

Large tax cuts. Some have estimated those could be in the range of 4 to 7 trillion dollars, including corporate tax cuts and personal income tax cuts.

Increased spending on infrastructure and defense.

A lessening or repeal of Dodd-Frank and a potential for renegotiation and withdrawal from global trade arrangements.

Now, on the one hand certainly the broad mix of policy goals, of tax cuts, infrastructure, spending, and reduced regulation can be viewed as positive for growth and corporate earnings. But as in many things, the devil will be in the details, and we don't know the details. As we've observed, in fact, we've seen a 3 percent upsurge in the U.S. stock market this past week.

The biggest potential risks of these broad policy goals are unintended inflation and global trade destabilization that could drive economic growth downward.

Now, the potential for inflation has already been incorporated somewhat into bond pricing as bond yields have moved 25 basis points this past week and the inflation break-even has moved 20 basis points this past week.

For now, we do not see any reasons to change our investment allocations and profile, which we recently adjusted an will be discussing at our December meeting.

Dramatic changes based on this election would be premature as there are still too many questions left to be answered in the coming months and years. It would be wise however to incorporate into our investment outlook higher potential volatility going forward across many capital markets, as a result of the increased uncertainty around economic policies going forward.

We do need to be prepared to address a much different policy environment, new economic and investment challenges and opportunities, and be ready to adjust, act, and govern ourselves accordingly.

Mr. Chair, those are my comments, and I'd be happy to take any questions you or the committee may have.

CHAIRPERSON JONES: Okay. Thank you very much, Mr. Eliopoulos. There are no questions, but thanks for getting out in front of this issue and at least giving us the framework as we go forward to deal with some of these potential issues.

Moving to the next item on the agenda is consent action items.

Do I have a motion?

COMMITTEE MEMBER TAYLOR: Move.

CHAIRPERSON JONES: Moved by Ms. Taylor.

COMMITTEE MEMBER BILBREY: Second.

CHAIRPERSON JONES: Seconded by Mr. Bilbrey.

All those in favor, aye.

(Ayes.)

CHAIRPERSON JONES: Opposed?

None.

The item passes.

The next item on the agenda is Information Consent Items. I have no requests to move anything from the consent information items, so we move to Agenda Item 5, California Public Divestment from Iran Act.

Who's going to present that?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you, Mr. Chair. Wylie Tollette, Investment Office staff.

Kit Crocker, Investment Director of Investment Compliance and Operational Risk will be presenting that item.

INVESTMENT DIRECTOR CROCKER: Thank you and good morning.

Item 5a is in response to the California Divest from Iran Act which requires an annual review of the portfolio for companies that may require divestment under the Act. Staff is required to notify and engage with any companies potentially engaged in the activities targeted by the Act. And a failure to take substantial action to curtail such activities makes the company subject to divestment.

After engaging with the three companies that are identified in your agenda item materials, staff has concluded that they do not meet the threshold criteria for divestment under the Act, and will be seeking the committee's approval to remove them from the list.

Given recent events though, let me please just say a few words about the federal Iran deal. The parties to that deal in addition to Iran were the members of the U.N. Security Council, and Germany. The deal isn't a treaty, wasn't formally ratified and/or signed, and wasn't ratified by the U.S. Government.

Importantly in terms of the California divestment statute, the deal did not have the effect of removing Iran from the federal government's list of state sponsors of terror. Therefore, the conditions to the sunsetting of the California statute were not satisfied.

So the bottom line is, while the U.S. can unilaterally withdraw from the Iran deal and re-impose federal sanctions, either way, whether that deal stays or goes, does not have an impact on the CalPERS' obligation to respond to the California Divest from Iran Act.

With that I'll pause for any questions.

CHAIRPERSON JONES: Yes, we do.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Do we have any holdings in these three companies currently?

INVESTMENT DIRECTOR CROCKER: Yes, we do.

COMMITTEE MEMBER JELINCIC: Any idea roughly what size we're talking about?

INVESTMENT DIRECTOR CROCKER: I don't. But we can get that.

COMMITTEE MEMBER JELINCIC: I was just looking -- is it a -- let me re -- is it a big number, is it a small number, I mean, or do you have any sense?

INVESTMENT DIRECTOR CROCKER: You know, I'd rather not say. I don't believe it's a big number, but I'd rather not say. We can find out.

COMMITTEE MEMBER JELINCIC: Okay. I'll move staff's recommendation.

CHAIRPERSON JONES: Okay. It's been moved by

Mr. Jelincic.

COMMITTEE MEMBER MATHUR: Second.

CHAIRPERSON JONES: And seconded by Mrs. Mathur.

And this is a roll call vote. We need to...

MS. HOPPER: It's coming up.

(Thereupon an electronic vote was taken.)

CHAIRPERSON JONES: Electronic, yeah. Mine is blank. My screen is blank.

MS. HOPPER: It's up there.

CHAIRPERSON JONES: Okay. It passes. But something's wrong with my screen. Okay.

There you go. Thank you.

INVESTMENT DIRECTOR CROCKER: Thank you.

CHAIRPERSON JONES: Okay. Thank you very much.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you.

CHAIRPERSON JONES: And by the way, Ted, could we follow up on Mr. Jelincic's question on the Iran to provide that information?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Yes, sir.

CHAIRPERSON JONES: Okay. Thank you.

So moving to the next item on the agenda is Item 6a, State Legislative Proposal: Authorized Collateral for Security Loan Agreements.

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: Good morning, Chair Jones and members of the committee. Mary Anne Ashley, CalPERS team member. I'm presenting Agenda Item 6a, which is a legislative proposal, and it is an action item. The analysis of the proposal is included in your board materials for your reference.

The CalPERS investment team seeks committee approval to sponsor legislation that would expand the types of eligible marketable securities that CalPERS can accept as collateral when engaging in security lending agreements with borrowers while still maintaining existing collateral levels consistent with current law.

CalPERS is currently authorized to enter into security loan agreements. However, current law limits the acceptable forms of collateral to cash, bonds, other interest-bearing notes, and as otherwise restricted.

Over the last several years, however, increased regulatory requirements have resulted in the greater use of non-cash collateral among borrowers entering into security lending agreements. The current restrictions imposed on CalPERS are dated and do not reflect today's global investment market.

Recently CalPERS had to decline a winning bid of over $15 million due to the statutory limitations on accepting certain non-cash collateral. This restriction can limit the flexibility to manage the CalPERS investment portfolio in a cost-effective manner.

The investment team recommends seeking legislative changes to expand the type of collateral that CalPERS can accept in security lending agreements to include public equity securities and international government bonds, which will help align CalPERS' program with current financial marketplace methods.

This change would allow CalPERS to maximize the amount it can earn through security loan agreements and also provide flexibility to manage the CalPERS investment portfolio in a cost-effective, transparent, and risk-aware manner.

And with that, myself and the investment team would be happy to answer any questions.

Thank you.

CHAIRPERSON JONES: Okay. Thank you for the report. We do have a couple questions.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I would point out that, yes, the market is changing; but part of what got us in trouble earlier is we chased the changes in the market response and increased some significant risks. So I think we need to think about whether these actually are positive changes. So that's just an observation.

On the risks - you know, I've talked about this before - you know, the only risk apparently is that the -- we're increasing the complexity. But clearly we are increasing the volatility of the collateral. We're accepting riskier assets this part of the collateral. So we're increasing the risks as well as the complexity, and it's not reflected here. So I want to again encourage staff to think more broadly about what are the risks, so that we actually are in a better position to weigh the pros and cons of the action

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you for those comments, Mr. Jelincic. I'll attempt to address your points.

The requested change to the PERL essentially allows us to put into our own investment -- securities lending investment policies the types of risk controls and constraints around the securities lending program that we think fit with the modern marketplace. STRS and many other pension plans have actually been working under this type of framework for many years; I think in the case of STRS more than 20 years. It essentially allows us to accept liquid equities and liquid international bonds into the collateral pool. And what that does is it allows us to expand our lending universe outside the U.S. The current rules really restrict us to basically taking in cash and treasuries.

So you think about many global investors don't necessarily have a lot of U.S. dollars or U.S. treasuries sitting on their book. Does it increase the volatility? Yes, it does. However, that volatility many cases offsets the actual risk of the lent security. If you think about when securities lending is most active, it's most actively taken up by investors who are taking a short position in the stock. So if they give us stock, and the price of that stock increases, the value of our collateral increases in the same proportion that the liability of that borrower increases. So the two move almost as a natural hedge.

That is actually not the case currently with the way that U.S. dollar and treasuries move in conjunction with the stock markets. They're not as correlated.

So I think from our perspective, we think this is a reasonable approach to expand the types of collateral. We did in -- we do include in the agenda item the requirement that those stocks be liquid, freely transferrable on an electronic exchange; so that means we can move them back and forth between ourselves and other investors readily.

And last but not least, priced on a daily basis. The reason that that's important is these collateral requirements in the current PERL were written at a time where collateral moved much more slowly than it does today. Today collateral moves on a daily basis; and, in fact, it can actually move intra-day if you feel like you're exposed. And so a lot of the electronic sort of transfer mechanisms around collateral are far more sophisticated and worked very well during the financial crisis to secure collateral. The problems in collateral that you're referring to were not necessarily in this area. They were actually in the area where collateral was rehypothecated or reinvested into riskier elements. This is not that activity. This is simply the types of collateral we can take in.

So I hope that addresses some of your questions. Although I'm of course happy to take others.

COMMITTEE MEMBER JELINCIC: It does. And I'm not arguing against this change. But the argument that, well, this is where the market is moving so we ought to move with it is -- you know, we made the same argument when we decided we were going to invest in mortgage-backed securities that were backed by liar loans. Well, that's where the market went, so we went with it.

I don't think that this is the same level of incremental risk. But then at the time we didn't think, you know, mortgage-backed securities even if backed by liar loans were particularly risky.

So I just need to -- I want to emphasize we need to really think these things through.

And you didn't comment on the risk element of the write-up, but I didn't expect you to. But that will be an ongoing issue. You know, if we're to balance benefits and risks, we need to think more broadly about, well, what the risks are. And they are clearly broader than just, well, it's more complex or, well, we won't get the benefits.

Thank you.

CHAIRPERSON JONES: Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you. I think you answered my question, but let me just -- I'll just ask it anyway.

So this is a legislative fix; but then any change in CalPERS' own approach would actually come back as part of the policy, so there'd be --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: That's correct.

COMMITTEE MEMBER MATHUR: So there'd be a chance to more fully debate and discuss implications for our own portfolio.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: That's exactly right.

COMMITTEE MEMBER MATHUR: Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

And, Ms. Mathur, we felt it was not necessarily appropriate to include all the detailed risk controls and elements in the legislation. This legislative change merely requests the freedom to include those things in our own policy, which would come back to the Committee we expect in February of next year.

COMMITTEE MEMBER MATHUR: Thank you.

So then I'll move staff's recommendation.

CHAIRPERSON JONES: Its been moved by Mrs. Mathur.

COMMITTEE MEMBER HOLLINGER: Second.

CHAIRPERSON JONES: Seconded by Mrs. Hollinger.

We have a couple more questions.

Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones. So just a few.

So, first of all, are we repealing the 1975 statute or are we amending it? Because I don't see any mock-up language. And I know that's probably more technical than you want to get into, but I am curious because you reference back. So are we repealing it? I mean, what's the action going to be?

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: We would be amending it, not repealing it.

COMMITTEE MEMBER COSTIGAN: Okay. So what's in the rest of the statute? I mean, if the -- so if you're -- and I know this is probably more of a theoretical discussion, but we're looking at something from 1975. What else is wrong with -- if you're going to go try and fix it, okay, what else in the statute either we'd like to change -- have you done that analysis so you can live with everything else in the 1975 legislation?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think we would need to validate that we liked everything else in that component of the legislation. We were primarily focused on this section of it

COMMITTEE MEMBER COSTIGAN: So I would encourage actually -- I mean, don't do -- I hate piecemeal. I hated it when I was in the Governor's office. I hate it today. So a comprehensive approach because -- sort of as Mr. Jelincic alluded to, and Ms. Mathur, you'll bring something back, but let's get it right.

Second is, who's going to oppose it? Because I -- I mean, who supports it, who's opposed? Other than CalPERS staff, who supports this change?

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: We haven't had any opposition. We have run the idea through some capital consultants and they understood, and they didn't voice any opposition to it.

COMMITTEE MEMBER COSTIGAN: I'm sorry, what's a capital consultant?

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: The committee consultants.

COMMITTEE MEMBER COSTIGAN: Oh, the committee consultants.

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: PERS committee.

COMMITTEE MEMBER COSTIGAN: I'm sorry. I was thinking little A as in money people.

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY:
Sorry.

COMMITTEE MEMBER COSTIGAN: Okay. So legislative staff seems to be open to the idea.

So, again I would just encourage from the standpoint of -- what I don't see, and maybe on a kind of a going-forward basis is kind of a support opposition, kind of anticipate. I mean, what are we walking into? It seems innocuous. It doesn't seem that controversial until you put the legislation across. And I'd like to see a little more of a mock-up at some point of it. But, you know -- and then I was looking at the cost of the system.

So right now what you're saying is failure to act has cost the system at least $15 million -- 15.5 million?

MANAGING INVESTMENT DIRECTOR BIENVENUE: Failure to act has caused us to miss a $15.5 million deal. We still were able to do another deal, if I recall correctly, so -- but I do think the costs are in the millions.

I think your point about looking holistically at the language definitely makes sense to see what all we'd like.

To Ms. Ashley's point, we don't believe there will be opposition, at least, you know -- currently we are the only ones supporting the legislation. And what we're looking at is a very tactical change.

Really to me what it comes to is, you know -- and as Wylie mentioned, number one, I think policy language is probably the better place to govern this than in the PERL just because of the dynamic nature of the market, first of all.

And then, secondly, while counterintuitive to Mr. Jelincic's point, it -- while counterintuitive, actually using non-cash collateral, using equity for equity in a lending-type collateral arrangement is actually lower risk than it is higher risk just because of the correlation characteristics.

COMMITTEE MEMBER COSTIGAN: Is CalSTRS -- will this impact CalSTRS?

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: It will not, because in 1985 CalSTRS sponsored legislation which I believe CalSTRS believes removes that -- this restriction from their Education Code.

COMMITTEE MEMBER COSTIGAN: Okay. That's why I like holistic approaches. This piecemeal -- because then the question is, why in 1985 -- and again, Mr. Jones, we can have a longer discussion -- why in 1985 did our system not support that type of change?

Anyway, I mean I know that's a little bit of historical. But that's talking about issue making substantial changes in investment strategy in the legislature. Again, what are those unintended or intended consequences?

So I would strongly encourage going forward particularly with the Department of Finance. The 15.5 million, you should begin identifying, going back to 1975, the potential cost. I think that's a great argument to make of our lost opportunity or additional cost to the system.

So thank you. Thank you, Mr. Jones.

CHAIRPERSON JONES: Thank you, Mr. Costigan. And, yeah, as staff mentioned, the policy side will be brought back to this committee for further discussion, Mr. Costigan, so hopefully with the drilldown and those kinds of questions as we go forward.

Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

Will this be part of another package of legislation or it will be a stand-alone effort?

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: This would be a stand-alone bill.

VICE CHAIRPERSON SLATON: Okay. And what do you think the timing's going to be if everything goes -- the stars are aligned right, when would this become law?

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: If the committee approves moving forward sponsoring legislation, we would begin to seek an author in December, and submit language to ledge counsel by the due dates in January, and hopefully meet the bill introduction date which would be in February.

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

CHAIRPERSON JONES: Okay. Thank you.

Yeah, I have one question. On the international government bonds, are -- would these investments be subjected to similar restrictions like in China with alternative investments where there was a big issue of getting our returns money out of China?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Capital -- yeah, you're talking about capital controls where currency or bonds are restricted from leaving the country, Mr. Jones?

CHAIRPERSON JONES: Yeah.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

We would not allow that type of instrument as collateral. It would not meet the requirements of being liquid, transferable that we've outlined in the policy.

CHAIRPERSON JONES: Okay. Thank you.

Okay. So this item has been moved by Mrs. Mathur, seconded by Ms. Hollinger.

So all those in favor say aye.

(Ayes.)

CHAIRPERSON JONES: Opposed?

Hearing none.

The item --

ACTING COMMITTEE MEMBER HAGEN: Abstain.

CHAIRPERSON JONES: Ms. Hagen is abstaining.

Okay. Thank you very much. The item passes.

Now we move to the next item --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you.

CHAIRPERSON JONES: -- on the agenda, Item 7a, Annual Review of Legislative Policy Engagement Guidelines - First Reading.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Great. Thank you, Mr. Jones. Again, Wylie Tollette. CalPERS staff.

This item is part of the annual review of the legislative and policy engagement guidelines. This is a first reading of staff's proposed updates. And we've updated, as you might notice in the mock-up that's included in your materials, the introduction, the general guidelines in the Investment sections.

The purpose of the annual process -- update process is to ensure that the guidelines represent at all times a clear and up-to-date formulation of this Committee's legislative and policy priorities. The primary impetus for this year's updates is to ensure that the recently approved global governance principles, which your committee and Global Governance Subcommittee recently reviewed and fully updated, and we wanted to incorporate those into these guidelines. To that end, previous language that attempted to paraphrase the global governance principles has basically been eliminated, and we've referenced the actual global governance principles specifically within the guidelines.

It essentially requires both staff and your federal representatives to refer back to the actual principles documents. We felt that there was something lost in translation when we put the old -- when we took a look at the older guidelines, and so you'll see that change in there.

As this committee is well aware, state and federal legislative and regulatory activity doesn't always conform to a time frame consistent with the Board's meetings. It's important to equip staff and the Board's federal policy representatives with both the level of mandate and the clarity of direction required for a timely legislative or regulatory response.

As the committee might remember, in September, with regards to State legislation, staff has historically and will continue to seek specific board approval for taking an official "support" or "oppose" position with State legislation.

However, where feasible, given the important role -- stakeholder role played by our state legislature, we feel that that board's direct impact and opinion on state legislative proposals is important.

However, at the federal level, we do not generally have a direct -- federal legislation does not generally affect the system directly. It usually affects the companies we invest in. And so that compliance burden is generally placed on the companies that we invest in rather than CalPERS itself.

In our view this distinction allows the use of these guidelines to provide direction to your representatives and to staff in how we address federal --

developing federal legislative items. Of course if there was a federal item that came to the table that required the Board's specific "oppose" or "support" position, we would of course bring that here.

Last I'll just mention that this is a first reading; and given the recent election and the many changes that that election is likely to drive, what we're planning to do is rather than bring this back for a second reading in December, we would propose bringing it back in February or early next year, following perhaps a discussion at the January off-site regarding the impact of the new Congress and the new administration on many of our legislative and policy priorities.

So again, first reading. Second reading proposed for next spring.

So with that, I'm all pause and I'll see if there's any questions.

CHAIRPERSON JONES: Yes, we do.

Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones. And thank you for bringing this back.

So I -- I was the one that raised the original concern because -- I'm still confused and this policy still confuses me as to when positions are taken. Because what happened was that the federal representatives took support/oppose positions on legislation. And I understand the argument you're making about the California Legislature, more of a direct impact.

What I'm trying to figure out is how do we just get it to you? At the end of the day, we've set a series of policies. And whether you support or oppose a piece of legislation should stay with you until the bill comes down for a recommendation to the Governor. I mean, taking a position -- or this Board taking a position early on, I think -- you either have to be consistent, because there's lots of bills out there, or set these policies out. I'm not sure what "advocate" -- if I'm sitting in a representative's office now, "Now, Wylie, I'm advocating for House Resolution No. 1." "What, do you support the Bill?" "No, I'm advocating for it."

I mean, I'm still not sure if the policy's correct, because what does "advocate" mean? The original intent when I raised this issue was the support and opposition, so that someone could walk in and say I support or oppose the bill. And the confusion I had is that it seemed that the system had taken a position on federal legislation - which I didn't recall voting on - yet we take positions on state legislation.

I'd rather, the recommendation is, tell you what the policies are and then go forth and advocate support and oppose.

I think this language actually creates confusion because I -- having been on the receiving end, "Wylie, you're advocating. Do you support or oppose" -- "does your board support or oppose?" "They told me I could come advocate for the bill" or "I could advocate against the bill."

What does that -- so can I -- what does that actually mean? So if I'm sitting in a member's office and the question is do you support the legislation, what's the answer?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: You want to try to take that one?

(Laughter.)

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: So the federal representatives would not be able to state that the Board officially took a support or an oppose position. Advocating would mean that the CalPERS generally is in support or opposition of the policy that's in the bill. So -- but they would not be able to speak on behalf --

COMMITTEE MEMBER COSTIGAN: What's the distinction then with state and federal legislation? Because you have that same missive to go to the state capitol and -- so that's all I'm trying to get at is again

I think I've advocated. I want you guys once the policies are adopted to take positions on bills, and not bring them back, I mean, because you have the policies.

Now what we're still doing is creating two distinctions, is that we're going to have the federal representatives going out and say they can't a position on the bill till it comes in front of the Board. And over here you can't take a position for state legislation until the Board's voted on it. So we're kind of inconsistent.

CHIEF INVESTMENT OFFICER ELIOPOULOS: That's a great framing of the question. That's really feedback we'd like to get from the committee. We're trying to do the committee's bidding. You know, we really want to make sure we're on the same page.

So the "advocate" language with respect to federal policy was softened, as you really articulated well.

If the committee's comfortable having "support" and "oppose" legislation -- or "support" and "oppose" language essentially delegated to staff, you know, that's a consequential policy decision for the committee. We're just trying to put ourselves collectively, I think, the Board and the staff, in the position best able to serve our interests. At the state level it seems to be working quite well. I think we're -- we've been able to identify which, you know, pieces of legislation a formal oppose or support or neutral position is. I don't remember many occasions where we've -- you know, where we've missed a bill or we haven't been in a position to support or oppose a bill of importance.

At the federal level, there's lots of bills that we've sent representatives to, whether your staff or lobbyists, to advocate on our behalf. I just don't -- this is really an -- and you know this area so well, as does many members of this committee and our legislative staff -- it's really outside the purview of the Investment Office. We just want to make sure we have clear direction.

COMMITTEE MEMBER COSTIGAN: Well, and I understand it. And, Mr. Jones, at some point -- maybe this is a longer discussion. Similar to the way we do investments is we don't tell you direct investments. We give you guidelines. We can set public policy and the policies of the Board and say then go forth. But I'm still struggling, we have two -- two standards, and I think that creates confusion. I think it's confusion for the federal representatives. I think it creates confusion for congressional members, because I know you-all hear from them, I hear from them. And sometimes we're not articulating very well when we take positions here.

But I think it's a great -- again, I appreciate you guys trying to clarify this and move forward. Because it -- really is at the end of the day I would be as a board member comfortable with saying, "Here's the policies," and then you guys going forth and doing what you do.

CHAIRPERSON JONES: And, Mr. Costigan, since this will be an item for the off-site in January, maybe that would -- we can include that discussion at that time to hopefully clarify this item going forward.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones.

CHAIRPERSON JONES: Okay. Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

I don't -- I guess I don't have a strong feeling one way or the other. I feel very comfortable that the staff has been representing the Board's intentions, desires, guidance all along at the federal level, so I'm not uncomfortable with either if it says "support" language or the "advocate" language.

My question is really about, in a number of places there are "advocate for" certain types of proposals but no "advocate against, sort of the contrary type of proposals. And I'll give you an example. It happens many places, but I'll give you an example.

On page 3 of 4 of Attachment 1 under D,

Sustainability, number 1, "advocate for proposals that foster a strong and durable global economy," et cetera, et cetera, but nothing -- "and against proposals that would undermine such a thing," for example.

And I think it would be helpful to have sort of both sides embedded in this -- in the guidelines. So I guess I would just ask between this reading and the next reading just sort of re-review and, where appropriate, add that kind of language, because -- so we can advocate on both sides of an issue.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think it's a fair comment. I think we had sort of perhaps made the unspoken assumption that "advocate for" was sort of the -- that the converse was also true if something came up that was moving us in the other direction. But perhaps what -- I think what you're saying is that maybe that should be explicitly stated rather than implicit.

COMMITTEE MEMBER MATHUR: And it is -- it's sort of explicitly stated for some things and not for others, so it -- so I think it would be clearer if it was explicitly stated for everything.

Thank you.

CHAIRPERSON JONES: Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Well, the introduction, there's a lot of wordsmithing there. I'm not sure it necessarily makes it any better. But on the other hand, I'm not sure that it makes it any worse.

We had the discussion about the support/advocate on the briefing, and I'm not sure that I really understand what the real difference between the two is. You know, you can't advocate for something you don't support and you can't support something -- well, I guess you could support something but not advocate for it. But that'd be kind of silly.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think, just if I might, the attempt - I'm not sure we were entirely successful - but the attempt was that the word "support" would be reserved for those situations where the Board actually took a formal support, oppose, or neutral position.

Advocate would be in situations where we were merely reflecting our existing policy priorities or guidelines.

COMMITTEE MEMBER JELINCIC: Okay. And then throughout we talk about "the Board's representative shall..." And we have traditionally used the Board's representative to reflect our federal lobbyists. And yet the policy by its terms in fact affects both the federal lobbyists and our staff. And I'm just thinking that given how we have used that term, maybe we ought to incorporate both.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, I think that's a good change, a good comment. We should do that.

COMMITTEE MEMBER JELINCIC: And then on the sustainability, D, you know, "promote the alignment of interests in transportation policies to stimulate new technologies that will enhance competitiveness," you know not all new technologies are necessarily positive. Frequently there's unintended consequences, and sometimes even predictable unintended consequences. So it just -- yeah, we do want to encourage new technologies, but there's got to be some give and take on that.

CHAIRPERSON JONES: Okay.

COMMITTEE MEMBER JELINCIC: Thank you.

CHAIRPERSON JONES: Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you.

I want to focus just a moment on the federal side. I've spent the last 14 years on behalf of SMUD, our public utility, as well as American Public Power Association lobbying in Washington on The Hill.

And, you know, unlike the state, which where we also lobby a lot, where we tend to take very crisp positions on bills as they move through the process, at the federal level it's so much give and take and so much time goes by when legislation is being considered, and many times they're so complex and there's so much wording moving around, in sometimes a quick fashion, sometimes a very slow fashion, that the word "advocate" really says taking CalPERS' views on these subjects and expressing how that relates to the particular item in the bill or in the legislation. And it's an iterative process.

So my concern would be, I'm not sure that we need to be so prescriptive on -- you know, you shall do this, you shall do that, you should do this; and that, you know, we have set of principles of how we conduct this organization, both on the investment side, on the health, side, all the ways we do it, and we have a very crisp understanding between management and the Board about the directions we want this organization to take and how we want legislation to affect it or not affect it.

So to me, it's such an iterative process that I would be an advocate for being a little less prescriptive in us having to define every possible thing we want our lobbyist to do or not do, and rely on staff to take our values that we've expressed in a lot of policies and represent those on The Hill as we go through this very iterative process of federal legislation.

So that's my opinion.

CHAIRPERSON JONES: Okay. Thank you, Mr. Slaton.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Bill, I want to react to that. It seems to me what we have described here really are general principles and practices and concepts, and say, you know, go implement, you know, and pursue these goals. You're obviously reading something different into it, and I'm confused.

CHAIRPERSON JONES: Yes. Mr. Slaton.

VICE CHAIRPERSON SLATON: So I guess where I am is I see the changes that are being made are going that direction of being more general in nature.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

They were an attempt in fact to do that and to point both staff and the federal representatives back to the source documents --

VICE CHAIRPERSON SLATON: Right.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

-- the source policies, the Governor's principles originally, rather than some other sort of translated interpretation of those documents.

VICE CHAIRPERSON SLATON: Yeah. And I guess what I'm also reacting to -- and I understand Ms. Mathur's concern about, and I do want to have a policy that's consistent through it. But I don't think that we need to go to: "We want you to advocate for this and against that." I'm not sure we need to go to that level. It's pretty -- to me it's self-evident. If you're advocating for something, if it doesn't deliver that, then in fact we should be expressing a concern.

So that's where I was going with -- trying to keep it as simple as we possibly can, and leave -- give as much flexibility to staff.

CHAIRPERSON JONES: Okay. Mr. Jelincic, this is -- I'm not going -- I'm going to allow this -- if -- this is to Bill?

COMMITTEE MEMBER JELINCIC: Yeah, this is --

CHAIRPERSON JONES: Okay. This will be the last time.

COMMITTEE MEMBER JELINCIC: Well, sometimes conversations get a little awkward.

CHAIRPERSON JONES: Yeah, I understand.

COMMITTEE MEMBER JELINCIC: Bill, if we put a -- just sort of a global statement in at the beginning that says -- and, you know -- you know, rather than say lobby against things in contradiction to this, if we just made a global statement that these are the things we support and we oppose things that move in the opposite direction, would that --

CHAIRPERSON JONES: As I said, I think this is coming to the off-site, so I think that's where we have this further discussion on this. J.J., you have an opportunity. And we have a dialogue at the off-site before this comes back for a vote. Okay?

COMMITTEE MEMBER JELINCIC: Well, okay. But I'm trying to understand Bill's position.

CHAIRPERSON JONES: Okay. And also, I see where a similar policy is going to the Pension and Health Benefits Committee on Tuesday. So when they have this similar discussion, then that piece would also come back to the off-site so that we have a coherent, cohesive policy.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I think that's the expectation, that's right, Mr. Jones.

CHAIRPERSON JONES: Okay. Thank you.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I would just add to that, Mr. Jones, that at the off-site you'll have your federal lobbyists there to give you a briefing on what the changes are, what they expect, new committee members, all the change that is going with the new administration and Congress. But that will give the Committee that opportunity to actually talk to the -- at least the federal representatives and ask them about -- this is a good preparation for the committee and its members to talk to your representatives who are really skilled at this with respect to the federal apparatus; and ask them, "Does it make a difference if it says advocate versus oppose? How important is that?" "How do you know whether to support something or oppose it based on these policies documents?" "Is it helpful to you to have something more specific in this policy, the legislative guidelines, or is it more helpful to have it more general and give you discretion?" I think that's -- that's what we're hoping for, give you time at the off-site in addition to learning about the substantive policy pieces and priorities to see if there's any adjustments that need to be made.

CHAIRPERSON JONES: Good.

Okay. Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Ted, you may not be the one to answer the question. Maybe it's Marcie.

But do you know if we're going to have all three of our lobby -- federal lobbyist groups there?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Yeah, I don't -- I don't know.

LEGISLATIVE AFFAIRS DIVISION CHIEF ASHLEY: I believe they -- that the -- excuse me -- the three of them will be there.

COMMITTEE MEMBER JELINCIC: Yeah, Marcie's nodding her head yes.

Okay. Thank you.

CHAIRPERSON JONES: Okay. Very good.

Okay. Thank you for the report.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you.

CHAIRPERSON JONES: Now we'll move on to the program reviews. Private Equity Annual Program Review.

(Thereupon an overhead presentation was

Presented as follows.)

CHAIRPERSON JONES: And before we introduce this item, this is the program status for the period ending June 30th, 2016. And as mentioned in the agenda item, the private equity team will present an overview of the program and details on investment performance, overall program expenses, accomplishments, and objectives.

For the second year in a row, they will also present data from the Private Equity Analytical and Reporting System, also known as PEARS. Staff will also give an update on their work with the Institutional Limited Partners Association, also known as ILPA, and progress regarding the adoption of ILPA template.

I know staff has worked with ILPA over the past year to encourage general partners to adopt the template and increase transparency in the private equity asset class.

I'll go ahead and turn it over now to Ted to talk about the process on this item.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Great. Thank you, Mr. Chair, members of the Committee. I'm thrilled and ready to turn this over to Réal and his team to talk, but I thought I'd just emphasize a couple points up front. Once just process procedural.

If you remember, coming out of the Board's last off-site it really encouraged staff to use no more than 5 or 6 PowerPoints. So we are conforming to that as well.

So we have -- I think staff will be looking to present the first 5 or 6 slides. Obviously, this format of the -- you know, all 30 pages are so -- is very familiar to the committee by now. And if you have any questions on any of the detailed information, please feel free to do so.

That's the same for the Real Assets presentation that will come after this.

And, lastly, before I turn it over to Réal, we've had quite a bit of discussion on private equity over the course of the last year and a half. I think that has given us a really robust and fairly detailed collective understanding of the dynamics in that marketplace and some of the challenges with that marketplace as well. I think all that work has served us well in approaching and looking at how last year went for private equity.

And with that, Réal, I'll turn it over to you and the senior team from Private Equity.

MANAGING INVESTMENT DIRECTOR DESROCHERS: Thank you very much, Ted. Good morning Investment Committee members. My name is Réal Desrochers. I'm the Managing Investment Director of Private Equity. And I will be the one presenting the 5 slides. But I want to introduce like the Investment Director of the Private Equity team.

On my left-hand side is Sarah Corr. She is the -- her role is to, what we call, risk return performance analytics. She's been a very key member with Matt in -- that is sitting in here with Wylie Tollette's team to work on the PEARS program over the last four years.

Then there is Christine Gogan, Investment Director responsible for what we call IMG, Investment Management Group, which is really all of the monitoring of the portfolio.

And at the far left is Mahboob Hossain. He's responsible for the underwriting. Mahboob was co-investment and is now assuming the role of the underwriting team.

So what we're going to tell you today I think is the portfolio has met the ALM objective. The market is very pricey. We're really taking a deliberate approach into the market right now, and we have been for year and a half.

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MANAGING INVESTMENT DIRECTOR DESROCHERS: And the program has provided a record number of distribution over the last 2-and-a-half years, $14.5 billion.

The program is invested in funds for the most part, approximately 90 percent. So they are 10-year life. So we look at the performance from a 10-year window. So the program over the last 10 years has had strong absolute performance of 10.2 percent. The program has underperformed its benchmark by 260 basis points. And relative to global equity over the same period it has provided 520 basis points.

So the program has met -- this how we see the program has met the objective of the ALM, which is to exceed the public market by 300 basis points.

I want to have a comment on the one-year return, which was 170 basis points, which is low for private equity. And we attribute this to the energy exposure in the portfolio. And also the portfolio is made up of 13 percent of public market stock, so that had a headwind as well.

So if we move to slide number 3.

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MANAGING INVESTMENT DIRECTOR DESROCHERS: I wanted to -- we wanted to give you a characteristic of the portfolio. What is the portfolio made of? So if we -- and we wanted to see -- also to show the evolution of the portfolio since 2012 to 2016.

So the portfolio, like I said, is invested approximately 90 percent in funds. So you see, if you look on the left-hand side there, we see that in 2012 the portfolio was 92 percent invested in fund and fund of fund, and in 2016 it's about 82 percent.

The 10 percent Delta when, if you look to the separate account, which is the bottom line of the left-hand side -- left there, so separate account where have been moved from 3 percent to 11 percent of portfolio. Separate account typically we negotiate privately for CalPERS to be the sole investors in a bucket. And fee are paid on invested capital. And the carry is reduced. And we have better control on the asset we think because there are commitment typically for three years.

The interesting factor here also, if you look at the fund of funds, which we stopped doing for 4 or 5 years ago, has increased from 12 percent to 15 percent. And this is due to the large distribution hasn't changed. It's $3.8 billion dollars, while it was 4 billion. But we got so much distribution that this has stayed about the same, so increased the number, the percentage to the total portfolio.

And you see later in the presentation that we say fund of funds are slow to distribute cash, did not perform very well for this portfolio.

Now, if we look at the geographic distribution of the portfolio, it's 83 percent invested in the developed market. This is with a U.S.-centric portfolio at 61 percent.

The 13 percent that you have up there is an emerging market, and that would be mostly China, and this is gone through fund of funds

Now, if we look at the other metric that we have is the exposure by industry. So you see that the portfolio is relatively well diversified. The largest component is consumer related at 23 percent. The other sector, information technology, financial industry, oil, is -- it is about -- well diversified.

Now, if we go to the next slide.

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MANAGING INVESTMENT DIRECTOR DESROCHERS: If we look at the 2015 and '16 accomplishments, PEARS, which has been a major endeavor, this is why we have much better data that we can -- for the first time we can have really data on the portfolio and the metrics like Mr. Jones was explaining, and Ted. PEARS went parallel in April 2015, so we wanted -- we wanted to have with the other system a parallel period to really control and test the system.

It went live in September 2015.

PEARS, like I said, Sarah Corr was really spend a lot of time in there. We owe her to have brought that program to I think success. We developed that program over a 3-phase period. Phase 1, phase 2, and we're done with phase 2. We planned to be done by the end of the year 2017. And so we start -- we have the results. It's working. There is some more to complete. And the program has been done under budget. So we think it's good.

And the other thing that we've done a secondary transaction. We've done a secondary sale. We have 32 funds and 20 GP that were reduced in the portfolio. That will make a disclosure. Plus at the end of year, the fiscal year, we did a further secondary. So there is 53 less funds in this portfolio in 28 less GP as we speak right now.

We -- the ILPA template you have on transparency, we have ILPA template in here. The ILPA template we worked really continuously with the ILPA on -- without our large pension funds to develop what we call the new template. Because we adopted in 2011 a template that they were there but with more transparency. And it was adopted in January 16.

And we really are working with other GP, other LP to get -- you see the adoption. I think it's -- I can say, to me I'm not surprised but I think the effort are bearing fruit. It will take probably couple years before we get where we want to be, because many of the GPs that they have they need time to recaliber their system.

And the -- we committed to separate account. This is what I talk about that. The separate account is what we call the customize investment account where CalPERS is the sole LP. And we have reduced economics in there.

The objective for the next year is to allocate up to $4 billion into private equity. The benchmark will be reviewed with Eric Baggesen's group, the ALM group of people. We continue to work on reducing complexity. And there's a group working to examine a business model, is there a better way of doing private equity than what we're doing right now.

And we will further PEARS integration.

So now if we go to the next page.

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MANAGING INVESTMENT DIRECTOR DESROCHERS: Page 5, which is the program expense.

CalPERS private equity has paid $206.5 million in fees -- in management fees over the last year. The gross management fees that we're paid by CalPERS were $258 million. We also paid -- you also paid $75 million in terms of partnership expense. The gain resulting for this portfolio was $3.2 billion and the GP received a profit sharing of $539 million.

So I would like to summarize what we covered here.

So we see the private equity has met the expectation of the as -- the asset class as an asset class. We continue to progress with significant restructuring and portfolio rebalancing. I don't know -- if you look further down in the presentation, we see the portfolio has been broken down in two groups - strategy portfolio and what we call legacy portfolio.

PEARS has been operational for a year and functional they continue to be build out. And the plan is to be done by the end of the year 2017.

We also have integrated the ASG principle into our investment process. And my feeling is that we're progressing well, reducing costs and complexity.

So with that, we are available to answer questions you may have with the senior team around the table here.

CHAIRPERSON JONES: Okay. Thank you. Yeah, we have several questions.

Just thank you for the report and thank you for the accomplishments that you've identified here.

On the PEARS, I just want to put in perspective, when you first conceived this idea of this new template, how long ago -- what was your goal in terms of number of years when you said that we're going to go down this path, and we will accomplish this by 2016?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Good question, Mr. Jones. Wylie Tollette, CalPERS staff.

And I was not part of CalPERS at the time. But the project was originally conceived in fiscal year 2011, 2012. And at that time, the -- there was one type of ILPA template that was available. It was actually released in the fall of 2012. It's called the capital call-in distribution template. And it's -- you can think of it sort of as a transaction-based template. Every time cash moved, either came to CalPERS or left, CalPERS to the GP, it was accompany -- the attempt was to accompany it with one of these templates that would provide details on the underlying nature of that cash transfer.

At that time, the uptake by the general partner community was quite low.

Also at that time, CalPERS staff began

implementing the PEARS technology solution; and in conjunction with that, undertook an effort to work with our general partners to really over time build their capabilities at completing that template fully.

And for many years - and I would encourage Sarah and Christine and Mahboob to comment on this as well - but for many years, CalPERS was receiving a low percentage of those templates or the templates that were received were not completely filled out.

However, starting in 20 -- late 2014, 2015, a much more -- the technology was coming on line and the staff put in place basically a much harder line with the receipt of those templates and their completion by the general partners That culminated in the ability to go live with the PEARS system last October.

Earlier this year, as Réal mentioned, ILPA released a new template that provides a much more comprehensive detail on the types of fees that are both charged by the GPs, that are paid by the portfolio companies, that are paid by the LPs, other types of expenses. It's not a transaction-based template. It's actually a quarterly snapshot in time template that mimics the financial statements that the GPs provide.

The staff and the GPs are now in the process of implementing that new template, which provides much more information around fees and expenses within the private equity investments of CalPERS as well as other LPs. An in fact your staff has been involved in the last year or so really promoting the use of this new template both among the GP community as well as amongst our fellow LPs.

So that's sort of the -- the last, you know, 4 or 5 years have really been undertaken to implement this system, which is both a technology solution, as well as supporting efforts with the ILPA -- use of the ILPA templates to gather all the data.

CHAIRPERSON JONES: Yeah. And the purpose for asking the question is that to remind us sometimes we need to be patient, because you set these goals, that they're very complex, and it requires interaction, dialogue with industry people that we have no control over sometimes.

So I just wanted to make sure that we were reminded that it takes time to implement some of these very complex tools that we're -- where we are today.

So I just want to congratulate you on that.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Yeah. In that regard, Mr. Jones, at our -- with our corporate Global Governance Strategic Plan that this committee adopted last year, one of the goals is increased transparency. And with respect to the ILPA template - and this is included in some of your materials, I think it's on page 27 of your materials - the goal that the strategic key performance indicator that the Investment Committee adopted for a hundred percent completion of the ILPA templates that Wylie described, by our strategic portfolio we set a goal within five years, and that gets us some of your -- you know, the complexity of this. But we're progressing very well. As those numbers show, we're getting close to three-quarters of our strategic partners now completing that template.

And our staff -- let me just put a commercial, you know, announcement for our private equity staff, and Wylie - have really crisscrossed the country and into Canada really advocating amongst general partners and our fellow LPs for a widespread industry adoption of this template, and that's bearing fruit. It's really happening.

CHAIRPERSON JONES: Okay. Thank you very much.

Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

My question is really around sort of corporate governance and environmental and social issues and whether -- you know, we've been moving towards integration as part of our strategic plan, is sort of integrating more of the meat of the work into the public equity asset class specifically. But I've been hearing about an approach in the private equity space called the Maple approach I guess in Canada - I don't know if you've heard about this, Réal - where a pension fund identifies companies that are sort of failing on certain corporate governance metrics and environmental social governance -- social metrics, and then take them private in order to rectify some of those problems.

So they address board diversity, for example, or the quality of the board, or various other issues that they've identified as driving underperformance of those companies. And I'm wondering if we've ever considered that kind of an approach in the public -- in our private equity portfolio?

MANAGING INVESTMENT DIRECTOR DESROCHERS: I would like Christine Gogan to explain what we do and to the ESG because she -- if I may.

COMMITTEE MEMBER MATHUR: Yeah.

MANAGING INVESTMENT DIRECTOR DESROCHERS: I haven't heard of the Maple approach, by the way. So --

(Laughter.)

COMMITTEE MEMBER MATHUR: Well, we'll just put you in touch with the VC plan.

MANAGING INVESTMENT DIRECTOR DESROCHERS: Okay. Thank you.

INVESTMENT DIRECTOR GOGAN: Christine Gogan, Investment Director, Private Equity. Thank you for the question.

To be perfectly candid, I'm not familiar with the Maple approach. I'm happy to tell you kind of where we are and give you a snapshot of what we hope to present in December in partnership with Anne Simpson.

So one of the things that we've been doing in our pilot phase is we have modified our due-diligence questionnaire. And Mahboob and his team have been asking the UNPRI questions to our partners, and they're concentrating around how do ESG-related policies influence investment beliefs. How do managers identify and manage material ESG-related risks? And what factors are creating and driving value, which may or may not be related to the Maple approach?

And then, finally, another area that staff has really been focused on with respect to the due-diligence questionnaire is how are general partners communicating ESG issues back to the limited partners and then how are the limited partners engaging the GPs at the limited partner advisory committee meetings.

One of the things that the monitoring team does is we've committed to documenting all ESG issues that are raised at the meeting. And the team proactively engages, if the partner isn't already bringing up ESG issues at the meeting, with respect to how are the partners thinking about ESG. It's early days, but I can assure that our staff has a robust dialogue.

COMMITTEE MEMBER MATHUR: Great. Okay. Well, that's good.

I think it might be -- it's an -- I think it's an interesting approach that -- you know, sort of as an ancillary to our public equity approach where we obviously engage certain companies. But there might be value that's being left on the table of certain companies that we might want to consider.

So, anyway, I will just -- maybe I'll just put you in touch with some of the folks I talk to at PCIMC, and maybe there's some there that we might want to think about.

INVESTMENT DIRECTOR GOGAN: We'd very much appreciate that.

COMMITTEE MEMBER MATHUR: Thank you.

CHAIRPERSON JONES: Okay. Mr. Lind.

COMMITTEE MEMBER LIND: Thank you.

Réal just a -- I think just a basic question. At the previous pension fund where I served, which, you know, was 1/100th the size of this one, you know, we had a lot of discussion with our consultants around fund of funds versus funds. And I was just wondering what the decision-making process is around that. Because obviously in a fund of funds you've got this other level of fees there. So how do we make those determinations? Is it just availability at the time or sector based, or what is sort of the process there?

MANAGING INVESTMENT DIRECTOR DESROCHERS: There are quite a few considerations. CalPERS is one of the world largest fund of funds if you take a step back and you look at it. Because that's what we do, is we invest 90 percent in funds. So we're one of the world large -- I would say we are one of world's largest funds of funds.

There is -- and we look at the performance. There's a double layer of fees. And so the fund of funds -- and I would like Mahboob if he has any comment to add to that. He's in the writing. But the fund of funds that we -- where we want to have very specialized expertise like we have fund of funds with emerging manager, that's to get that specialized expertise, which is where we're going to have, I would say, probably a bigger exposure, with very specialized manager. That's really what we -- we've been doing. So that was the decision.

Looking at the performance, looking at why do we want to be in fund of funds, looking also in 2011 we look at who were the fund of funds manager? And you -- we have -- you have exposure to fund of funds managers that are in emerging markets.

If you travel and you see these people were competing to get to the same highly sought fund managers. So there's a logic. There's a business logic that I think if you have the staff, if you have the knowledge, you want to be -- you want to manage your process.

And fund of funds would be exclusively for extremely specialized niche in the market in our case. And we -- this is the -- the emerging manager.

I don't know if Mahboob Hossain wants to add something to that.

INVESTMENT DIRECTOR HOSSAIN: Thank you, Réal.

As Réal mentioned, we have --

CHAIRPERSON JONES: Mention your name.

INVESTMENT DIRECTOR HOSSAIN: Oh, sorry. Mahboob Hossain, Investment Director.

As Réal mentioned, we have discontinued selecting fund of funds except this one manager who specialized in selecting emerging managers. We are concerned about extra layer of fees. And we do think that we have the in-house expertise in selecting the appropriate funds for our portfolio.

COMMITTEE MEMBER LIND: Thank you.

CHAIRPERSON JONES: Ms. Paquin.

ACTING COMMITTEE MEMBER PAQUIN: Thank you. Thank you for the report. And I understand it's a slow process to work with all the GPs on the reporting requirements, and I appreciate the efforts and dedication on that.

I was wondering if you've experienced any general partners who are balking at the new fee disclosure requirements from the PEARS system or the requirements under AB 1833.

MANAGING INVESTMENT DIRECTOR DESROCHERS: Again, I would ask Mahboob to explain the underwriting process. To my knowledge we have not. But there's -- I don't know if there are people that would want to come here and they do not. I don't know. Maybe Mahboob wants to explain the gating process, what we do before we underwrite any new fund.

INVESTMENT DIRECTOR HOSSAIN: Sure. Thank, you, Réal. Again, Mahboob Hossain, Investment Director.

We have -- one of our basic requirements for selecting any managers before we formally engage, as Réal mentioned, there would be gating requirements. Every manager that we select has to agree to fulfill our disclose requirements, and that includes AB 2833. So the new managers that we are now going into, we are exclusively asking them to incorporate that as part of our side letter requirement. So they will have to agree to disclose all those under AB 2833.

ACTING COMMITTEE MEMBER PAQUIN: And for the existing managers, have you had much feedback with them or anybody who has said that they don't want to comply?

INVESTMENT DIRECTOR HOSSAIN: You want to comment, Christine.

INVESTMENT DIRECTOR GOGAN: Christine Gogan. Yes, happy to answer that question.

With respect to the bifurcation of the portfolio, with those strategic managers, as Ted, Réal and Wylie have pointed out, we're enjoying a higher rate of compliance overall. What we have been told with respect to our strategic partners and in -- by the way, staff is engaging on a weekly basis with all of our managers to try to obtain this template as well as engaging with other limited partners to try to help garner support in the broader market to get these templates. With respect to the strategic partners - we have a couple that are working on their systems similar to what Réal and Wylie had described about the PEARS system - we're expecting compliance on the strategic portfolio within the five years.

With respect to some of those legacy partnerships, we have a mixed response. We have some partners that are working on their system. Some, as Réal pointed out, we had sold in a secondary sale, so they were not motivated to fill out the template. And then we have some partners that are small and they're struggling with the system's cost to implement it because other limited partners are not requesting it. So it would certainly help if others in the marketplace would join us in asking for those templates.

ACTING COMMITTEE MEMBER PAQUIN: Okay. Thank you.

CHAIRPERSON JONES: Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones.

First of all, great report overall. I mean, you just -- again, the amount of transparency and discuss -- disclosure, I really do appreciate.

So some technical questions and some questions on the report.

I note in the report you talk about your staffing levels at 50 folks. Not to micromanage. Do you believe that's an appropriate level? Do you need more staff? Do you think the program has enough staff?

You can look to the Chair of the Budget Committee as you answer that question.

(Laughter.)

COMMITTEE MEMBER COSTIGAN: I just -- because I note that you do put it in your report, and I just want to -- again, I know there's a process. But do you feel that 50 staff is an appropriate amount of staff to effectively manage the program?

MANAGING INVESTMENT DIRECTOR DESROCHERS: Yes -- the short answer is yes. And like we put in here, there's a working group that is looking for a new business model. And I -- depending what your comment is. But I think -- as we are operating right, I think it's okay.

COMMITTEE MEMBER COSTIGAN: Okay.

MANAGING INVESTMENT DIRECTOR DESROCHERS: I'm sorry, Mr. Costigan, if I might say. Over the last four years there were a lot of things put in place, like Sarah Corr with the risk and research, the quarterly template. And we have the Investment Review Committee that is particular to IRC. What we have done, I think we have put, I would say, the foundation in place. And today what I'm look -- what I'm doing is looking to be, I would say, more effective, looking what we're doing. Can we work smarter? Can we get the same result without having additional resources? This is a venture that we have taken about the last four or five months, and it's -- I think it's good. I think it's a -- we have enough resources for what we're doing right now.

COMMITTEE MEMBER COSTIGAN: Okay. Well, again, it's just we're -- we are asking a lot of you-all. And I just notice you put it up there. I just wanted to ensure to bring back to both this committee and Finance and Admin at some point. I mean, there's this inverse. You guys are cracking down on fees, you're cracking down on the private equity - which is good for the system. At the same time it's for bringing more in-house and looking at resource, and so I just want to make sure that we're appropriately staffed since you did raise it.

MANAGING INVESTMENT DIRECTOR DESROCHERS: I'm sorry if I...

Where we have -- when I look at the staff that we've -- because we're losing staff. We've lost -- and I say, its a compensation issue. Some staff that they go -- I look at the staff that -- where they went. Some goes to corporate pension plans, some goes to family office, whereas this is at the senior level.

And then we have for the younger people, I would say the IO-I, IO-II -- I say younger or people that are entry level -- they would want to go to -- to have a career path and also more money. So -- but we have enough staff. This is the dynamic of the age we're under.

COMMITTEE MEMBER COSTIGAN: And that's always going to be difficult in public service, I mean; and that's something we recognize. And we'll continue -- I know that Mr. Bilbrey has been working on that in his committee.

I have some questions on Attachment 3. Were you going to go over that, or can I ask you some questions?

MANAGING INVESTMENT DIRECTOR DESROCHERS: No, go ahead, please.

COMMITTEE MEMBER COSTIGAN: So I'm just a little confused just -- first of all, great report -- so, I mean, along the lines that the Controller' office raised about, how do you know who's complying or not complying? Not necessarily adding another line. What I don't actually see in this chart -- and if there's another document in the report -- are they beating the benchmark? I mean, there's nothing that -- all I can see are fees and profit sharing. But it doesn't tell me whether they're performing, underperforming, overperforming. I mean, is -- we're going to create kind of this one place, one document to shop to do a comparison.

What I don't see in the footnote, for example, is why is Apollo -- on one of their funds it's negative, under Fee Management or Net Management Fees. And so Apollo European has a net negative, and yet they show profit sharing. So I -- I'm not as technically smart in this area as you-all, so I'm trying to understand why, because it jumps out at me.

And then I have a couple more questions.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Okay. Mr. Costigan, I'll take the first part of your question regarding the performance. We do actually release the performance of the individual funds twice a year with the trust-level review. In one of the attachments to that, the detailed fund level attachment to that you'll see the performance of every one of these strategies.

And we can take it under consideration as to start to include it with the fee information. This was specifically focused on disclosure fees and carry.

The other thing I'll do, as long as I've got the mic, quickly is to -- in addition to the 50 staff in private equity, we also support Réal's team in our operations units and our technology units and in our compliance teams. So surrounding private equity we've really tried to build up the foundation of that. And the Finance Office as well, under Cheryl Eason, also supports the cash movements that are associated with private equity. So in addition to the 50 folks in private equity, there's quite a strong and capable team that helped build the PEARS system that surrounds them with sort of the policy and compliance framework.

COMMITTEE MEMBER COSTIGAN: No, and I know that.

And it was just more of a global question. I mean, I know, and Réal knows, he can't do it by himself; there's a whole team. I just want to make sure from -- as for this specific unit was the staff right, Mr. Tollette.

And why -- at some point if I want to know how well Apollo is doing -- and I know we now have multiple sets of documents -- how do we compile that into one so when I can look and say, "Oh, the Apollo European is not beating the benchmark," you know, whatever it may be, is that something, Mr. Jones, that we're going to eventually get to to make this easier to read? Because now there are two sets of documents. If I just want to pick -- and I'm going to pick on some folks in a minute -- and I want to know more about them, I have to look in multiple places.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Well, to be clear, the performance information that we do release twice a year for every fund, including Apollo, it's presented on a net basis, so net of all fees and all profit sharing. So you can see very clearly whether their returns meets our expectations.

The benchmarks of course as presented at a portfolio level, because each individual fund has its own particular strategy, and it may or may not, you know, meet the benchmark, the high level objective is to beat the ALM assumption, the benchmark, and our public equity as presented on the first slide.

COMMITTEE MEMBER COSTIGAN: No, and I understand that. I'm just saying from the standpoint as I'm trying to read across more information.

And then everyone that's listed on here is someone that currently runs money for us? Is that the way I'm supposed the read --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

It's a current active general partner, that's right.

COMMITTEE MEMBER COSTIGAN: And if there's no information, sort of along the Controller's question, is that they didn't provide it, they refused to, we don't have it, why is it that this chart's completely filled out?

MANAGING INVESTMENT DIRECTOR DESROCHERS: Sarah, you want to take it?

INVESTMENT DIRECTOR GOGAN: Yeah, that's a very good question.

And so some of the values are blank for a variety of reasons. For instance, in the Profit Sharing column, if a -- if it's blank there, there the no profit sharing taken in that particular time period.

With respect to the Net Management Fee column, there's also a variety of reasons that there would be a blank there, such as there are no management fees charged after the investment period or there are no net management fees because they've been offset.

COMMITTEE MEMBER COSTIGAN: Okay. So -- and that sort of goes back to the other column about all these folks that there's nothing next to their name, are they worthy investments? Which sort of leads me to some questions. Who, for example -- I mean, as I was looking them up quickly. Like a Celator Pharmaceuticals, Fitbit GoPro, those aren't private equity funds. Those are --

MANAGING INVESTMENT DIRECTOR DESROCHERS: Those are distribution that we receive from the fund. We have -- those are stock that would be distributed to CalPERS from the fund. And --

COMMITTEE MEMBER COSTIGAN: So tell me about GoPro, for example. Which I'm familiar with since I use their device. Why is it listed? And if they're underneath a fund -- or Fitbit. I mean, there are a few in here. Lending Club.

MANAGING INVESTMENT DIRECTOR DESROCHERS: Right. They would be --

COMMITTEE MEMBER COSTIGAN: Sprouts Farmers Market.

MANAGING INVESTMENT DIRECTOR DESROCHERS: Right. They would be stock distribution that we receive from the manager. Because the manager has the option to distribute cash or in some occasion distribute stock.

And we have a stock -- a manager that will specialize in managing these distributions.

COMMITTEE MEMBER COSTIGAN: Well, just -- I'm sorry, because I'm just confused. Why is, for example, Sprouts on here? Why is Sprouts Market, or GoPro? I mean, so they're not a directed -- a redirect investors or --

MANAGING INVESTMENT DIRECTOR DESROCHERS: They're not a direct investment. They would be -- I don't know which fund that distributed them to CalPERS. But they say, when they do a realization, they will distribute the paper to us.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: I might be able to help.

So when a private equity fund exits a particular investment, they can either distribute cash to us -- in certain cases they actually will distribute the stock of the company that they have exited from. And in certain cases we'll hold that stock for a period of time. So a portion -- as Réal mentioned in his introductory comments, a portion of the private equity portfolio is actually held in public stocks.

COMMITTEE MEMBER COSTIGAN: And I understand that. Why are they on here then? I mean, because we can't -- is it -- are we just creating a busy chart, I mean, adding stuff? Because -- and not to pick on sprouts, because I shop there as well. But --

(Laughter.)

COMMITTEE MEMBER COSTIGAN: -- I don't understand why its on here. I get that we probably invested in a private equity company and they spun the stock off to us. And the same thing with Fitbit. But if they're now a public equity that we're holding, why are we still treating them in the private equity space?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Because they had expenses and profit sharing associated with that particular investment.

COMMITTEE MEMBER COSTIGAN: In a prior holding period?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Um-hmm.

COMMITTEE MEMBER COSTIGAN: Because they're not reflected. So at some point, a Sprouts will rotate off?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

They'll rotate off, right.

COMMITTEE MEMBER COSTIGAN: Okay. All right.

Thank you, Mr. Jones. Thank you.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: I do want to get to a policy issue. But I will hold off on that until we've finished whatever questions are there.

Réal, did I hear you say that 13 percent of the private equity portfolio is actually in public stocks?

MANAGING INVESTMENT DIRECTOR DESROCHERS:

Correct. As of the date of that report, correct.

COMMITTEE MEMBER JELINCIC: Okay. Looking at slide 4, the PEARS, 1 and -- phase 1 and 2 are live. We're working on 3. Have we gotten to the point yet where we are getting information about attribution analysis?

MANAGING INVESTMENT DIRECTOR DESROCHERS: Sarah.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Sarah and I will take that one.

We are getting to the point where we have a year and a half of data, which we can use as the foundation to build an attribution analysis and the portfolio company information, much of it. So we're in the process of starting to do that.

It's early days yet. I think we're probably 18 months to 2 years before we see meaningful results from that. As you know well, Mr. Jelincic, attribution requires some period of time to elapse. And so we actually have to let some of the data accumulate in order to gain any time series of information to make that attribution reliable.

COMMITTEE MEMBER JELINCIC: Okay. And that information is coming from phase 2, not from phase 3?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

It's actually coming from sort of the whole system. Primary the portfolio company information that's now included in PEARS that many times before we didn't have aggregated into one system like we do now, that's really what we're using. We expect that the attribution analysis will analyze questions like: How much does leverage at the portfolio company level affect the returns? How much does operating leverage improvements or earnings before depreciation interests, amortization and taxes, how much do changes in that affect the returns? How much does timing by the general partner in terms of entry and exit points, how much does that affect return?

So all those questions we can begin to poke at now that we have the actual foundation of data in the PEARS system.

COMMITTEE MEMBER JELINCIC: And let's not forget to look at how much of that return is coming from wage suppression and termination of defined benefits.

For the objectives for '16-'17, obviously they're not done yet or they wouldn't be objectives, but can you give us some insight into what you were thinking on the private equity benchmark and possible changes to the business model?

MANAGING INVESTMENT DIRECTOR DESROCHERS: When -- I would like Eric Baggesen. I don't know if I may ask him. Is he here? That's his -- that's his shop.

But I think when we look at the benchmark that we have -- when you look at the -- if we go back to the slide -- the first slide there -- we have...

CalPERS has changed benchmark over the last -- for 3, 5, and 10 years -- four times changed the benchmark. So four times the benchmark was changed.

When we look at the performance to beat the benchmark, we don't, except on one year and long-term -- long period of time.

What the benchmark should be, I think it should be an equity type of benchmark. It should have a premium over the public market. But I will stop here because I will leave it to the man I think that his main job is to look at the --

MANAGING INVESTMENT DIRECTOR BAGGESEN: Sure.

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

Réal is exactly right. During the lead-in to the ALM exercise we'll be going into the private equity benchmark as well as our other investment benchmarks.

In general, the benchmark for private equity is not useful as a portfolio construction tool. It's simply an indicator. And in that regard, our prior going into the analytic work that we'll put in front of you is probably to move towards a benchmark that reflects the opportunity costs, because truthfully we invest in private equity as an alternative to the public equity investments that we make.

And if you even look at the performance - I think it was page 2 of the attachment - you see -- yeah, it's up on the screen now also -- you actually see that the Private Equity Program has achieved its objectives of beating the public equity alternative by several hundred basis points in virtually any time period, and in some cases more than that.

What we have for a policy benchmark currently is just an artificial construct that does not match what we invest in publicly and it does not provide any real information as to the construct or guidance in the construction of the private equity portfolio.

So it's just an artificial thing that hangs out there without any particular real relevance other than the fact that it's there.

So that will be an issue, as I say, that we'll take up during the ALM exercise; and we can have a discussion about it at that point.

Does that answer, Mr. Jelincic, the question?

COMMITTEE MEMBER JELINCIC: Well, in part. But -- so we're going to have a discussion about it. Obviously you've given some thought to what the benchmark ought to be. And I was just wondering if you could give us a hint to what you're -- at least the range of possibilities that you've looked at, and then the business model.

MANAGING INVESTMENT DIRECTOR BAGGESEN: That's exactly right. And I think the other thing about the benchmark as it currently stands is that the Private Equity Program and the whole structure of how they invest money is significantly divorced from the pattern of returns that you see in the public markets. So that another element that creates actually real problems I think in the private equity benchmark area is its usage as a measuring stick, if you will, to gauge how well the staff are doing their job or not doing their job.

Because of this complete divergence of the way the private equity and public and private company marketplace works from these public-equity-type linked benchmarks. So this may be an area where we actually need to utilize multiple benchmarks where you're picking a benchmark that is fit for the purpose that you're trying to achieve. And that's one of the topics that we've been bringing up as we've started this discussion around benchmarking, is that you actually may need multiple benchmarks to really achieve the objectives that you have. And private equity I think would be an area where that's highly likely to be the case.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I'll take the business model if no other questions on the -- on the benchmark.

COMMITTEE MEMBER JELINCIC: No.

CHIEF INVESTMENT OFFICER ELIOPOULOS: So on the alternative potential business models, we can maybe turn to page 3 just to help me.

You can see on page 3, if we do nothing else looking forward to July of 2020, what -- what we'll see in terms of the private equity portfolio is that we'll have significant investment in funds - that line item will stay robust - we'll likely see our fund of funds decline over the course of the three, four years because, as the team mentioned, they're not going to be investing in any new fund of funds except for the Emerging Manager Program; we'll have some modest level of co-investment done, and a material amount of separate account work done. So if we do nothing else, the makeup of the program will be in the business model of funds; some co-investment; and some level of separate account, targeting about 30 general partners around the globe as our main partners or counterparties.

So as I said, if we did nothing else, you know, blink our eyes to July 2020 and our portfolio will be constructed and composed in that manner.

What I and the senior team thought worthwhile beginning this year and significantly looking into this next year's workplan is to look at alternate business models to -- certainly to the fund model. And I've asked John Cole to lead up that effort to sort of conceptualize and look at different alternatives. And Mahboob is on that team as well. And I and Réal and the whole senior team are giving input and direction to that team as they do that.

And they're going to look at all the possibilities. Certainly co-investments and direct investments are one of the alternative business models to look at.

Separate accounts, also another business model to look at there. There's questions being -- questions being analyzed, looked at in terms of generalist separate account managers versus specialist, as it makes sense to have sector-specific or geographic-specific separate accounts versus more generalized ones.

And then looking at other business models such as a separate company that could be created and staffed to either do direct investing or do other things.

So really look at all of the available alternatives out in their marketplace that are peers have used, look at some of the options, alternatives to invest either directly with public companies or taking public companies private. Those are other alternative modes.

All with -- all with the hope of looking at what advantages and, importantly, what risks would we bear to try and do something that's different than how the private equity industry has evolved at least to date.

And one of the things that for sure is an impetus for that inquiry is, as we've discussed from the traditional model of private equity, the fund model, there are a relatively small number of general partners that have the track -- persistent track record over time, and there's lots of capital flowing into those managers. So they're very expensive vehicles to invest into.

Now, as I always say once I finish saying that, very much respect the marketplace of talent. You know, we're investors, we're used to invest in various marketplaces. And talent is a marketplace. And at least to date the private equity fund model, with a relatively small set of persistent winners in that space, have delivered the returns that Eric and the team and we keep on referring to. So it is particularly an area of risk where the dispersion of returns in private equity is so wide, that in considering an alternative model we have to take into account the risk of moving away from a business model that at least to date has been successful.

So whole long-winded way of saying we have a team focused on it, and we'll be looking at these alternatives and bringing back periodic reports to the Committee for input.

COMMITTEE MEMBER JELINCIC: I didn't find it to be --

CHAIRPERSON JONES: Wait a minute, J.J.

Go ahead.

COMMITTEE MEMBER JELINCIC: I didn't find it to be long winded at all, because what I was asking for was the range of things we were looking at, and you covered that.

On page 5, slide 5, 529, attachment 1, there's a significant difference in the fees paid. But they also don't measure exactly the same things it's not an apples to...

So can you talk about the difference between those two numbers; I mean, what's included and what's not?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yes, we can talk about the differences. The key differences that -- in the prior fiscal year, fiscal year 2014-15, the PEARS system was not implemented and available. So that 414.1 essentially comes from the prior method which had been used for many years at CalPERS of compiling private equity fee information, which is from the K-1s, the tax statements that each partner receives.

The first thing to note about the K-1s is they're calendar-year documents.

The second thing to note about the K-1s is that on many of the K-1s received, fees and other partnership expenses were many times inseparable. Now that the PEARS system is live and available, we have more precision as to what the actual fees are versus other partnership expenses; and other partnership expenses includes things like audit fees, legal fees, banking fees, things like that, that all partners are paying. And because of that, we're able to more precisely analyze the breakdown of that.

For this year, for example, only fees are included in that fee line, External Management Net. You'll notice down in the footnote D, that other partnership expenses are disclosed. They were 75 million for the year. So that represents part of the difference between last year and this year.

Another part of the difference is that the actual portfolio is roughly 13 percent smaller. And so fees would just naturally decline given the fact that they're generally charged on capital.

The other thing that I'll note regarding the difference between last year and this year is that, in prior years, again using the K1-based compilation process, fund of -- the fees on underlying fund of funds - so the funds that are within a fund of fund, where CalPERS is not actually privy to the contract - we contract with the fund-of-fund manager, but the fund-of-fund manager contracts and collects the fee information from the subfund. Many of those were actually included in the K-1s. This year, we've only included the fees in the 2065, the fees that we paid to our -- the managers that we have contracts with. You'll see we do disclose the total fees paid to those underlying funds in the fund of funds below in footnote C, and they were 46 million.

The 2065, we worked with the Financial Office very closely in an effort to make sure that what we represent as management fees paid for the private equity matches our CAFR and is information that we feel comfortable and confident in providing to the Committee.

COMMITTEE MEMBER JELINCIC: Does either one of those include carry, both paid and accrued -- and/or accrued?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

The short answer the no. The carry information is included just below for this fiscal year. As you can, see 539 million in profit sharing distributed. And CalPERS -- that was about 14 percent if you do that -- do the math. And then CalPERS collected 3.2 billion, about 86 percent of that profit.

COMMITTEE MEMBER JELINCIC: Okay. So that is what was actually paid out; it doesn't include any accrued accounting or accrued --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: It does not include accrued, that's right.

COMMITTEE MEMBER JELINCIC: Okay. And neither of these include portfolio fees or offsets or waivers, all of which ultimately come out of our pocket?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

The -- taking those perhaps in turn. The total offsets for this year were about 52 million. So that would essentially take that 2065. And if you -- if we didn't receive any offsets, those are portfolio company fees paid to the GP that offset fees that we would otherwise pay. There are about 52 million. So if you gross that number up to the gross fee level, it would be about 258 million.

COMMITTEE MEMBER JELINCIC: And does that include waivers? Which are sort of not paid but paid in a different form.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: It does not include waivers.

COMMITTEE MEMBER JELINCIC: Okay.

On slide 16, one of the -- it looks to me like equity, the EBITDA is the same, the -- you know, the total valuations are down some, but it looks like the equity's the same. Is that the case?

INVESTMENT DIRECTOR HOSSAIN: Let me answer that.

I think it's a scale issue. What -- what we have seen generally is -- because of the OCC guidelines on risk management of federal banks and other financial institutions, equity components for leveraged deals have gone up slightly compared to what happened in the past. If you look back, you will see that sort of equity component right now should be one of the highest in the near history.

So I would say that component has slightly gone down and equity component has slightly gone up.

COMMITTEE MEMBER JELINCIC: Okay. And then on slide 17, the exits and liquidity. One of the frustrations that at least I have is, you know, we get an exit when a GP sells it to a GP. So we have now had a realized gain that we have paid a fee on but we still own the same asset; we just hold it under a different manager at a higher cost.

Do we have any idea how much of the exits that we're dealing with are GP to GP rather than GP to something we're not invested in?

INVESTMENT DIRECTOR HOSSAIN: First, well, I share your frustration as well.

What we have seen again in the market is that generally sponsor-to-sponsor transaction has gone up. I don't have the exact number though for you. I can -- I can see if I can find some numbers. But generally sponsor-to-sponsor transactions have gone up.

COMMITTEE MEMBER JELINCIC: And so they're paying higher prices and moving it from one pocket to the other and we're still involved?

INVESTMENT DIRECTOR HOSSAIN: That is correct. That is correct.

However, one case that some general partners make is that -- that generally private equity companies -- private equity companies are well managed. So if you're looking at sort of universe of investments to be made, sometimes they find that there are more reasons to add or more value add that a particular manager can do, even if a company was previously owned by a private equity manager.

COMMITTEE MEMBER JELINCIC: Which -- to rephrase that, the second GP can add value that the first GP couldn't or wouldn't?

INVESTMENT DIRECTOR HOSSAIN: Exactly, exactly. That's a case that has been made, yes.

COMMITTEE MEMBER JELINCIC: And for that we will pay more fees?

INVESTMENT DIRECTOR HOSSAIN: Correct.

COMMITTEE MEMBER JELINCIC: Okay. Do you want me to deal with the policy issues, or should I -- if there's more questions, I can wait.

CHAIRPERSON JONES: No, you could see what the question is. I don't know what the question is.

Go ahead.

COMMITTEE MEMBER JELINCIC: Okay. Back in the agenda item itself, one of the issues that I had raised in -- a year ago was the issue of policy that says that we will not enter into new -- any LP -- new LPAs unless we knew and the partner identified what fees they were going to charge; not necessarily an amount but the kinds of fees.

And we had a discussion in November and we had another discussion in December of '15, and staff said basically that if we did that, then people wouldn't play with us. And so we put off.

But they did specifically say we would have that conversation again this year. And so what I noticed in the agenda item is -- and I fell out of the iPad, which is why I'm fumbling.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Page 86.

COMMITTEE MEMBER JELINCIC: Yeah, 86.

As a result, staff does not propose changes to the policy at this time.

But basically they've said they've already implemented it. They said that a year ago. They've said it now. And it seems to me that the only reason not to put it in the policy is the ability to not do it. I remember the case we had with Blackstone, and I think KKR was another case where it happened, where the GP actually was misallocating labor costs -- or legal costs, and we -- you know, the SEC basically said you're ripping them off, you've got to give them some money back.

But we had been noticed and said, well, we can't even complain because it's not in -- it's not an explicit violation of our LPA. We had nothing in there that says, "You will not rip us off."

And so I think we really do need policy that says that they have to disclose the fees and the carries and the discounts and the other forms of economic rent.

And I can give you a whole bunch of quotes on how, "Yeah, we want to do that and it's important policy, it's important practice, but we don't want to put in the policy." And I think it really belongs in the policy. We ought to telegraph to the world that these are our standards, and if you want to play with us, you're going to play by our standards.

I would point out that Rhode Island has actually taken a pretty aggressive position on it, and has had nobody walk away from them. They have the same people competing for their business.

So I think there is a very low risk in the world saying, "I will not go after that pot of money because I have to identify what kind of fees I'm going to charge." It's not even what -- how much the fees are going to be, but the kinds to fees.

And, you know, if somebody is not willing to disclose to us the kinds of fees, I'm not sure it's somebody we want to play with.

CHAIRPERSON JONES: Okay. I'm going to ask Mr. Eliopoulos to comment on that and talk to what degree that we are collecting said information and that part that we're not collecting and what are the risks if we were to collect those fees.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Sure. And

I'm going to turn it over to Wylie to go through that more specifically.

But, you know, this is an area that's evolving. We had that long discussion about the ILPA template and all that's going on in the industry.

So among other things in terms of what we're actually collecting right now and some real ambiguity about some of the language around economic rent and discounts and rebates, the other is just the fluidity of this. We had state legislation passed just this year which will go into effect. So among other things, I just -- I think I still, and our whole staff, believes it's a little too premature to put into our actual policy language when we have that level of fluidity.

But with that, maybe Wylie could talk a little bit about what we are requiring right now and where there are gray areas.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, thank you, Ted.

And I'll begin by saying we understand and support where Mr. Jelincic is going. And I think our interest is in really understanding and presenting a full picture of the costs of all investments in addition to private equity. And we feel like we're making great progress down that path and actually are -- for a fund of our size to disclose this type of information, we feel like it's put us in a leadership position around that.

Currently, when this policy proposal came up for discussion, it was prior to the passage of legislation which now requires us as a fund, along with a lot of other California pensions, to disclose much of this information including fees - management fees, portfolio company fees, and the carry paid.

The areas of the policy proposal which Ted mentioned which I think still give us some pause, and would legitimately give any of our business partners pause, are those areas that -- where the definitions are still quite unclear as to what is being asked for.

So, for example, in economic rent, that's -- I think we're struggling a bit to really understand what that represents. Now, as the SEC steps in and examines our private equity partners more carefully, I think some of those areas that you highlighted, Mr. Jelincic, are coming -- are becoming more clear, and in essence they're clarifying, sort of in the form of precedent, of regulatory precedent, those areas that are sort of within the boundaries and outside the boundaries.

And that's very helpful for us and it's helpful for our -- I think I would argue it's helpful for the general partner community too because it's creating more of a bright line area as to how to define something. And then once it's definable, then it can be accounted for and disclosed.

Where specifically the terms "discounts" and "economic rent" are just too unclear at this point for us to define and to put into policy.

But I would sort of close on the idea that we're absolutely aligned in terms of wanting to understand and present all of the costs of this type of investing, and I think we've made great progress. There's still more work to do clearly, but I think we're well on the way.

I think it's still too premature to put it in a policy. And, as I said, in addition, the legislation and our existing practices, which really are a gatekeeper. We will not sign up with a partner who does not agree to use the ILPA template.

And we have a supplemental template that we're collecting for fees collected from portfolio companies that are not in the offset. So that's another piece of information that we're collecting and including that's above and beyond what the legislation specifically requires.

So overall, we feel like we're in a good position. There's still more work to do, still more clarification to be had, so that's really something that we're continuing to stay focused on.

COMMITTEE MEMBER JELINCIC: Well, discounts that accrue to the GP is clear enough for the SEC to fine people.

The objection to other forms of economic rent was actually put -- you know, I proposed that language specifically to address the issue you and I think Mr. Slaton had raised. Well, if we define it, if we give them a list, we will get -- "well, that wasn't on the list, so we can charge you that." And -- but clearly if it is putting money out of the fund into the GP, it's some form of economic rent. So I think it is a term that it has enough economic and academic support, that it can be dealt with; while at the same time not having a list that says all these -- including but not limited to all of these things.

So I really think that it actually belongs in policy and was disappointed that after last year you didn't bring it forth as a real item to be discussed.

And I can count votes so I'm going to move to amend it into the policy. But it really is a problem if we say we will deal with people who are not telling us what they are going to charge us. And if they are going to tell us what they're going to charge us, then we shouldn't have a problem putting it into the policy.

CHAIRPERSON JONES: Okay. Thank you, Mr. Jelincic.

My direction is that continue to pursue these areas and periodically report back to the Committee on whether or not it's time to move into that area, in conjunction with what the policy should be. Okay?

Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Thank you, Mr. Jones.

I just want to say I agree with Mr. Jelincic from the standpoint of putting more pressure on our managers -- external managers. And here's the concern, Mr. Jones -- and I agree, I think the direction you gave is appropriate and not to be amended. But we need to be much more diligent on this. Given what we think the new administration is going to do and some of the reforms that we've been pushing what a future SEC may look like, I really think as Mr. Jelincic was speaking, similar to the way the Controller and Ms. Mathur have led on some of the environmental changes, we've got to use our contracting and our funds to effect change. I'm not sure it's going to be the statutory -- I understand we have to deal with the Treasurer's legislation going through. But a lot has changed. And I don't want us to lose sight, as the way that Mr. Jelincic is raising, I've never quite understood, given who we are, the reluctance of managers to disclose this information.

And quite honestly, I wouldn't do business with people that refused to give us the information or don't adhere to it. And I get the pressure on returns and all that. But sometimes -- what's the phrase, the hammer and the nail? They should be the nail and we're the hammer. And I just -- I'm just curious a little bit more as to where you guys see -- I know our fallback is SEC legislation. But I often look at the terms of our contracts as giving us much more. And we're the gold standard. I mean, we see that in the Emerging Manager Program. Everyone wants to do business with us because it leverages everything else in the chart you guys just showed us.

Every one of those funds should be disclosing. And if they're not, or they're refusing to, we shouldn't be doing business with them.

So I don't know, Wylie, where you want to go. How is it that we can be more of a hammer and not necessarily wait on legislation or...

MANAGING INVESTMENT DIRECTOR DESROCHERS: Mr. Costigan, I think we are really quite the hammer right now. I think we are. Like we said, we asked for a full set of disclosure for the ILPA template, plus the CalPERS disclosure. Like Mahboob was explaining, we will not underwrite -- not even start looking at the funds unless the manager accept to provide a lot of that information. To me, I'm adamant about that, because it's a matter of allocating resources also. So people, if they want to have CalPERS' money, before we start the due-diligence process, they have to accept to disclose.

COMMITTEE MEMBER COSTIGAN: So then what Mr. Jelincic is asking for, we're already doing?

MANAGING INVESTMENT DIRECTOR DESROCHERS: I think what Mr. Jelincic is asking for is the -- in lieu of a fee, I mean the economic rent. I don't -- to my knowledge, I don't -- I think that has changed since the SEC findings, which was two years ago. But I don't -- I will not stake my neck on it. But I think that has changed. The behavior has changed, because people were fine on that.

COMMITTEE MEMBER COSTIGAN: But on a going-forward basis at least with us for now, we are making these requirements from our managers; and if they're not complying, we're not moving forward with them?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: That's right. It's a gatekeeping item.

COMMITTEE MEMBER COSTIGAN: Thank you. Thank you.

Thank you, Mr. Jones.

CHAIRPERSON JONES: Okay. Thank you.

Mr. Juarez. And welcome.

ACTING COMMITTEE MEMBER JUAREZ: Yes. My initial comments, it's actually a question for staff.

Given the passage of AB 2833, I'm curious what our approach will be going forward to incorporate those provisions into the policy if that hasn't been done already. So if you can school me a little bit on that, I would appreciate it.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Happily.

Our PEARS system anticipated many of the elements of AB 2833. So we are largely compliant now. And we won't -- as we said just a moment ago, we won't sign up with a new GP. And that's -- that was implemented earlier this year. And even though the requirements from AB 2833 don't kick in until I think January 1st, we've been living by its precepts for a year now.

ACTING COMMITTEE MEMBER JUAREZ: Okay.

CHIEF INVESTMENT OFFICER ELIOPOULOS: And then the further answer -- to answer the question. We don't typically in our policies put in that we'll -- other than I think broad term of we always will and we do comply with State law across all of the enterprises' activities.

So in this case, in our investments, we will comply with the State law and other -- and all others.

ACTING COMMITTEE MEMBER JUAREZ: Okay. Thank you.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Yeah, that's a great point. We don't typically reproduce elements of the State law within our investment policies. There's -- there are assumed to be overarching principles that we have to abide by.

ACTING COMMITTEE MEMBER JUAREZ: Excellent.

CHAIRPERSON JONES: Thank you.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Last year we said we were basically complying. This year we say we're basically complying. We are not willing to put it into our policy.

But I think we need to have a serious hammer, especially when somebody like Schwarzman is saying, as he -- on his earnings call he mentioned that one large institution that is in the process of reducing its number of general partners to 30 from 100 - I can guess who that one is - that institution, quote, basically asked us how much money, more or less, they could just give us?

And that is -- then he went on say -- he added, "but it's going to be repeated in a variety of different areas."

So he doesn't think we have much bargaining power. A year ago you told us we don't have much bargaining power.

At some point we need to say, "These are the standards. And if you can't meet our standards, we won't play."

You know, when I came across this Schwartzman quote, it was really kind of boggling.

The other one that I came across was Tony James' comment that over a long period of time a diversified asset portfolio should earn 8 to 9 percent. And he said that a couple of months ago. So that also kind of snapped my head.

But the Schwartzman quote is I think really serious.

CHAIRPERSON JONES: Okay. So, anyway, I've given direction.

Go ahead. Mr. Eliopoulos.

CHIEF INVESTMENT OFFICER ELIOPOULOS: And we understand the direction, for sure.

Let me just say one thing. I think it's very important in this fee transparency area to work through ILPA. Here we have -- that's where you have -- actually have a hammer, a big one, and one that can, you know, govern the marketplace and move the marketplace. And much of the progress that we've collectively made - and we've been an absolute leader in that regard - is getting this template put together.

Some of these gray areas around rebates and economic rent are debated in that forum. And it's really quite difficult to get to precision, but not that we won't. So I think it does make sense as time evolves to see whether or not we can drive change through that organization to the extent that we think that it -- that it's beneficial to CalPERS and that it is actually driving change in the marketplace if at some point in time we believe that it's time to go it alone, and make our own statement to the marketplace, or really segregate ourselves out from all the other LPs in the marketplace.

There may come a point in time that CalPERS chooses to do that. But at that point in time it's not a game of chicken. We need to be sure that when we do that, and act individually, that we are ready -- as we discussed at our workshop and as we discussed in many subsequent meetings on private equity, that we are ready to either -- to live with the consequence of not investing. Because at this point in time our approach has been to make sure through ILPA that we really drive transparency and fee changes broadly amongst the LPs so that we aren't isolated.

That's not to say I don't hear the argument and really understand it and admire in many cases the desire for CalPERS to change the entire marketplace. But in this particular case, the overwhelming amount of capital flowing into private equity and to a relatively small number of general partners, I think the language that you cited and our own comments for the past two years is that the market is favoring the general partners much -- dramatically in favor of the general partners versus the LPs. And we need to monitor that and continue to discuss it over time.

CHAIRPERSON JONES: Okay. Thank you very much.

Okay. We're going to recess for 10 minutes for our recorder. Say 11:40 we will reconvene.

And when we reconvene, we will then hear from the consultant's review on private equity, from PCA.

Okay thank you.

(Off record: 11:32 a.m.)

(Thereupon a recess was taken.)

(On record: 11:42 a.m.)

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

Ask Board members to return to the dais.

I've got a quorum, right?

Okay. So at this time, we're going to go to the consultant's review of the Private Equity Program.

Mr. Mike Moy.

(Thereupon an overhead presentation was Presented as follows.)

MR. MOY: Good morning. Mike Moy from PCA. Andrew and I are going to split up the presentation. And we will -- because you covered a lot of ground in far more depth than I had expected you would, so we'll be very brief in our comments. But we'd be happy to answer any questions towards the end.

I would like to make a couple of, let's call them, factual references just for context. ILPA is something that we have been talking about for quite some time in terms of the adoption of the template, the importance of it, et cetera.

At the end of October, this year, nine general partners had adopted the ILPA template out of, I don't know, 3,000, 6,000. I'm not sure what the real number of general partners is. So there's been very limited adoption by general partners of the template.

And the primary reason they give for that is that the complexity of requests from limited partners is so vast that it is hard for them to design a system that's going to generate the information they need to be responsive to all limited partner requests.

On the other hand, only 56 limited partners have endorsed the template. And that's out of a population of probably, I don't know, 3,000 limited partners around the country.

So I want to commend staff and the institution for its efforts. You are the leaders I think in terms of developing a system that enables you to capture and report out information that is compliant with the ILPA template.

But right now, you're not alone, but you're darn near it. There's a few people out there that are reporting information. They have not developed the interface that's necessary to do it easily. They have developed methodology where they bring in others to help them aggregate the information and report it out.

But you've taken that step several years ago, so you're leaders in coming up with something that was going to enable you to be compliant with the ILPA template.

Okay. Going to I guess it's page 2 of 9.

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MR. MOY: This data, you've seen it. I guess I just want so sort of put it in the context so show where you've -- where you've been and where you're going.

You went through a period of time from 2008 to 2012 where your private equity portfolio grew by 38 percent. And then it contracted down through June 30, '16, by 23 percent. From 2008 to 2016 it basically grew only 23 percent.

The importance of that is sort of contextual in that, as you attempt to move towards a strategic portfolio of 30 managers, and you go through a new asset liability study, you're going to encounter dynamics that are going to be in conflict. Because if you say "I'm going to have to have 9 percent allocation or a 10 percent allocation to private equity," the issue is going to be whether you can find sufficient number of managers who can handle the amount of capital that it takes for you to be able to have that allocation. And it's going to be an interesting tension to watch.

Don't know what the answer's going to be. It's been working now but you've been kind of coming down. When you get into a maintenance mode, I think it could very well be different.

The current environment is highly competitive. The good managers are having absolutely no trouble getting commitments from investors, which presents a real problem. Because when you look at the playing field, the -- the field is tilted towards the general partners, and they're very reluctant to give any kind of ground in the negotiations because of that.

The fact that you have a wonderful reputation with many of them, you've been successful with those; the fact that AB 2833 goes into effect in January is going to be an incentive for everybody to, if they're interested in getting honey from California pension funds, to conform.

But that's sort of in the future. And how that's going to play out, I don't have a good answer. I'm guessing there's going to be a high level of compliance, but there's a possibility that some may feel sufficiently arrogant that they say, "No, we're not interested in that kind of restraint."

You can see that the number of manager relationships has diminished from 2008 to 2016. It's come down by 35 percent. And it's got a long way to go till you get to the number 30.

Having said that, now I'll turn it over to Andrew, and he can give you some observations; and you'll come back to me on some of the other issues.

MR. BRATT: Good morning. Andrew Bratt, PCA.

Just a few observations that were touched on a little earlier. I'll reiterate them.

Your portfolio has underperformed the policy benchmark over the 3-, 5-, and 10-year periods, while beating the benchmark over the 1- and 20-year periods.

In addition, the program has exceeded the Total Fund's expected rate of return of 7-and-a-half percent as well as the expected return for the asset class of 9.3 percent over the 3-, 5-, 10-, and 20-year periods.

We haven't yet spoken about the strategy composition of the portfolio. It's largely based bias towards buyouts, which is consistent with the overall opportunity-set in the private equity market.

Venture capital on the other hand is a very small percentage of your private equity portfolio, at around 5 percent now.

In terms of your program -- I'm now looking at slide 4 of 9.

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MR. BRATT: -- we've discussed PEARS a little bit. The senior team discussed the changes that they had at that level. There's been a few investment officer departures, particularly in the underwriting areas. But those positions are in the process of being filled.

And the table at the bottom of slide 4 shows your contractual management fees and carried interest over the last four fiscal years. Now, these are not net numbers and they don't take into account offsets and waivers and other fees of that nature.

But what this does show is the base management fees and carried-interest numbers are coming down. It's largely a product of separate accounts, customized investment accounts, which have more flexibility on fees; and co-investments, which are often done on a no-fee, no-carry basis. So to the extent those two areas are continued - and Ted mentioned that they are likely to be continued - the fees may either stay at this level or potentially come down a bit further.

Now moving to slide 5, just a few of the challenges.

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MR. BRATT: These are these that have been discussed.

Retaining talent specifically at the analyst or investment officer level is important. The transparency, we've discussed that.

The one point that hasn't really been discussed is we have a -- we mention in the middle of this page "consider expanding due-diligence procedures to augment those of the SEC." What we're getting at here is we think limited partners generally, not just CalPERS, but generally would be served by an independent accounting or law firm to come in and look at each partnership and determine compliance with the terms of the LPA.

So this would be an independent firm, not hired by the GPs - it would obviously be a fund expense - but something that -- a firm that could come in and determine that whether or not the firm has been compliant on economic arrangements such as allocation of fees and distributions of carried interest, which we think is a logical next step for LPs to seek. It's not something we've seen yet in the market, but it's something that we think LPs would be well served to request and potentially negotiate for.

So the other items have largely been discussed. I'll pass it back to Mike for some other remarks.

MR. MOY: One of the challenges that we highlight on this page is the fifth bullet. It talks about escalating CalPERS' role with ILPA. When you look at it from a policy level and you attempt to understand everything that's going on, we have transparency as a goal, and we have a template that's been developed which allows general partners to report the information to the limited partners that's necessary to accommodate that transparency need.

But what you don't have if you go up to the top level is you don't have an organization that represents the limited partners. There is no organization that uniformly represents you in the private equity space. In the Council of Institutional Investors, yes, there is, but it's in the governance space. It's not in the private equity space.

So when you go to negotiate with the general partners, they do a divide-and-conquer routine. They have you, they have themselves, and they have the vast group of people that are not at the table. And they can use them as point-counterpoint in terms of making deal points, in terms of we want this because they got it from so-and-so, et cetera.

If you want to correct a basic deficiency in the general partner / limited partner relationship, you've got to have an organization that's strengthened and represents the limit partners on a uniform basis. You don't have that right now. ILPA's the closest thing. But in my view, it's really focused on the, lets call it, from the ground up as opposed to from the top down where the policy level occurs.

So I would encourage you as an institution to escalate your involvement and attempt to move ILPA in that direction. I think its new CEO is attempting to move the organization in that direction. And I would encourage you to support it in every way you can; because to me, that really benefits you and the rest of the limited partner community.

Okay. Let's go to strengths and weaknesses.

This is a very difficult chart to put together, primarily because people say, well, what's important, what isn't it important, et cetera.

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MR. MOY: I think we see the strengths that you all possess. I don't think they really require any more enumeration. I think the Q&A that went on between you and staff to me demonstrated the strengths.

Along the weaknesses, benchmarking's been discussed. Junior investment officers have been talked about.

Cost of participation in the asset class. You were doing everything you can to bring that down. But I do think there are some structural things that need to occur to bring that down further; and that's to escalate the class of limited partners in terms of getting uniformity among the demands of the investors.

Opportunities. The regulatory legislative oversight of private equity. I don't know what's going to happen after last Tuesday. But we were observing that it was diminishing, that the SEC was really not given resources that were necessary to continue their level of pursuit that they were using in performing audits. Which is what gives rise to the idea of each limited partnership having an independent CPA and attorney go in and do sort of a forensic audit of compliance with the contractual terms.

But I think you need to pay attention to that. You need to be concerned about it; because it is an opportunity, but it's going to require some effort on the part of the limited partners, limited partner advisory committees, and the staff that works on those.

Among the threats. Low returns I think are a threat. I think many general partners will say, "Oh, our returns are not going to get lower." I don't think the evidence supports that. I think they are -- they are diminishing. To what extent that will continue, I don't know, but it is an alarming trend.

The fifth bullet under "Threats," the Managing Investment Director succession. I guess I am particularly qualified to say that you need to have a management succession plan. And some people would say I'm overqualified because I'm older than Réal.

But I do think as an institution, you need to have a plan in place, because at some point in time you'll need to implement it. I don't know when this is. I think Réal is in -- sort of in my camp in terms of "I want to keep doing this as long as I possibly can." And he's the only one who can govern that. But I would encourage you to be focused on that.

And the other question is, there are much larger limited partners coming into the marketplace. Sovereign wealth funds who have a very different agenda. They're not as, let's call it, principle focused as you are. They're much more return focused. And they recognize this is an asset class where the returns are the best that you can get across the asset classes. So when you get a large GP, or -- excuse me -- a large LP that doesn't have the same principles that you all seek, that creates real difficulty in the negotiations with general partners in terms of providing information, adhering to principles, operating in certain ways.

So how that ultimately pays off or how it evolves, I don't have an answer for you. But it is something that I think you should be watching.

The last two pages we deal with are the recitation of the investment police and how they apply to private equity. And that's similar to what staff has provided to you in their information, so I won't go through it and repeat it.

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MR. MOY: But we'll be happy to answer any questions.

CHAIRPERSON JONES: Okay. Thank you.

We do have a couple questions.

Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you, Mr. Chair.

You mentioned I think in your opening comments, Mr. Moy, and also on page 8 of your report, that the 30 -- that moving towards the 30 strategic managers may limit our ability to achieve and maintain our target allocations. Could you expand on that and also whether you think we should continue to move in this direction of limiting the number of managers to quite a low -- such a low level, or if you think it's something we should reconsider, you know, balancing sort of the risks of having too many -- so many relationships to manage versus the risks of -- the other risks that you've identified here.

MR. MOY: I think the goal of reducing the number of managers is the right direction. The problem becomes one, if you just do some math, and let's say your allocation is you need to have 30 billion of NAV and you have 30 managers, are there 30 managers out there who can effectively manage a billion dollars of NAV? I mean, that's the -- right now I don't know where the cutoff is in terms of how much money is being managed by your limited partners. But the top five probably are the ones that easily can do it. The next five probably not so much. And then you go below that. So it's just a math issue.

I think -- is it feasible? Yes.

Is it a goal? Yes.

Will you achieve it? I think 2020 is the timeline for it to be executed. I just want to point out that from a math perspective it is a very difficult thing to achieve.

COMMITTEE MEMBER MATHUR: Okay. Then the other thing that you mentioned -- well, you mentioned a number of things, but it's this question of doing forensic audit or some sort of validation of compliance with the limited partner agreement terms. How costly would such an undertaking be, do you think? And you -- I guess you do believe that it would be worth the cost. And it would be borne I think, as you -- I think you said by the fund.

MR. MOY: By the fund, right.

I've heard at a meeting where the CIO's participated the answer on how costly would it be is -- you know, look at how much money is invested. If it's a fund that's, you know, 5 billion, 10 billion in terms of being managed. So you pay whatever the number is for forensic stuff. It's really minuscule compared to the returns that are being generated.

So it may -- in an absolute sense, you know, you say it's a half a million dollars, or whatever the numbers, I really don't know. But the ones where it's then done, they've been very satisfied with the outcome.

And it's not something you potentially have to do every year. What you try to do is supplement or augment what the SEC has been doing. So as opposed to the SEC being the expected enforcer, you would have a vehicle available to you as a limited partner where you could, you know, effectively say to a GP, "Well, this year we want to have this done."

COMMITTEE MEMBER MATHUR: So then this is a right we would negotiate as part of the --

MR. MOY: Yes.

COMMITTEE MEMBER MATHUR: -- at the outset?

MR. MOY: Right

COMMITTEE MEMBER MATHUR: -- as part of the -- okay.

Is it something that we are thinking about incorporating or have already --

CHIEF INVESTMENT OFFICER ELIOPOULOS: I guess I'd call Réal up if he wants to amplify this at all. But, yeah, this is something that LP would have talked about for a decade now. And it's a matter of bargaining to get the agreement amongst all the LPs, and the GP to have an independent -- have this right for independent auditor and legal firm to come in and audit compliance. And I think it's a good idea in addition to that, but --

COMMITTEE MEMBER MATHUR: And if we moved more toward separate accounts, then we would bear the full cost of that case then?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: That's right.

CHIEF INVESTMENT OFFICER ELIOPOULOS: In the case of a separate account, yes.

Réal.

MANAGING INVESTMENT DIRECTOR DESROCHERS: I agree it would be a -- it's a good idea. I think I agree absolutely.

It's a negotiation aspect. I mean, it's -- like that was said earlier here, some of the GP today that are good performers, good governance, they have so much money going out there. It's -- the negotiation takes another aspect.

COMMITTEE MEMBER MATHUR: Okay. Thank you.

CHAIRPERSON JONES: Okay.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: Well, I was just going to add, Ms. Mathur, we have undertaken an effort internally to create what we call our waterfall review team. Where internally, we actually in all of our agreements have the ability to access the books and records of the GP. And that's something that is included in all of our agreements. And we've undertaken -- we've put together a small team. It's in the process of being fully built out and sort of operationalized. But we're in the process of building out that waterfall review team in order to do a more comprehensive job ourselves of doing that type of review of all of the cash flows and the waterfalls for our process, regardless of -- I still think this idea of an independent auditor to come in as a partnership expense would be a positive thing. But in the meantime we've undertaken an internal effort.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Yeah. On ILPA, I'm glad you're again pointing out that it is largely funded by the GPs and doesn't necessarily represent the interests of the LPs; and, yes, we need to push that.

The due-diligence audit that you suggested I think is a really good idea. But one of the things that needs to be looked at is not just -- are the fees we are -- are they collecting the fees according to the LPA, but are they also not collecting fees that the agreement doesn't contemplate or provide for? That's one of the things that the SEC has hammered them on.

Maintain consistent investment pacing. The -- can you expand on that a little bit? And I will tell you what's leading to the question.

If it is tilted to the GPs, and there is massive amounts of money chasing limited investment opportunities, is it in fact time to maybe step back and wait until it blows up and people say, "Well, gee, I'm not getting the risk-adjusted returns I was expecting and money disappears"? You know, it will -- I think there will be some cyclicality to it.

So why the value of consistency?

MR. MOY: Vintage year exposure is sort of paramount to a successful portfolio construction. And the reason it's paramount is it gives you exposure to the economic cycles over long periods of time. And the -- it becomes particularly acute when you look at -- the commitments that you all made in 2008 and '9, which were suppressed because the financial crisis came along, the cashflow issues came along, and the idea of making further commitments where cash -- that would negatively impact cashflow, there was a compression in the commitments that were being made.

So we're just encouraging you to sort of maintain the commitment level, achieve what you've got in your pacing model. And that to us is the important component.

The idea that the multiples have grown and the market has grown because a lot of people are rushing in, I think you've got sufficient filters in your own system that you are avoiding sort of the run to the finish line that a lot of people are going on, where they really don't care about principles, they don't care about a lot of things. They just want to get their money out the door.

You have got a very structured approach. And I think you're going to see that achieving your goals, achieving in terms of making commitments is going to be monitored and handled internally very well.

COMMITTEE MEMBER JELINCIC: Okay. The -- you know, I think we have an obligation to push the industry, going back to the previous discussion. I mean, corporate governance would not be where it is today if we didn't have a bunch of arrows in our back.

I can -- you know, we're all creatures of our own experience. But I can remember when public equity managers were at 150, 175 basis points, and we said we're going to pay 50. And we moved the world. I think we can move the world again.

Buyouts --

MR. MOY: I think it depends on how you define "we."

COMMITTEE MEMBER JELINCIC: Somebody has to lead. You know, you can't just say "I am the leader." At some point you have to lead.

Again, I am troubled by the fact that we're heavy in buyouts. You know, that tends to be extractive rather than growth or new investments. But that's a decision that's going on.

I have asked you in the past, Mike, about defined benefits plans and the termination of it. You have had difficulty identifying cases where that has happened. I would like to suggest that you look at the Harvard Paper where they've identified 51 cases where they've wiped out defined benefit plans.

There may be something to learn from that. I remain troubled by saying "I will fund my defined benefit plan by eliminating yours."

MR. MOY: I believe I read a synopsis of that. And if I recall correctly, I think the 51 was over a fairly extended period of time.

COMMITTEE MEMBER JELINCIC: Yeah, it was over --

MR. MOY: I -- if -- implementing that kind of a change, you know, would kind of be driven if there was a lot of current activity where that was occurring. And I -- the currency of that number is -- my recollection is that it was fairly limited. But we can look at it again.

COMMITTEE MEMBER JELINCIC: Okay. And my last question. One of the weaknesses is staff compensation limitations. Can you talk about that and talk about what you think we need to do in order to make that something other than a weakness.

MR. MOY: You were around back when the institution looked at the -- and I'm drawing a blank on what the title of it was -- but effectively you were going to insource all the commitments that were being made and --

COMMITTEE MEMBER JELINCIC: The merchant bank?

MR. MOY: Merchant bank, right.

And compensation was kind of the killer in terms of that occurring, because of the disparity that would result by paying market prices to people that effectively were protected by a system, and you were going to be very different than everybody else in the system.

To the extent that you're looking at new business models, I think you're going to run into similar issues to deal with. And that's why I would raise the subject or raise the topic and say, you know, that to us is going to be a very difficult sort of bridge to cross. And it's purely -- you'd be coming at the issue and coming at the space from two very different directions. And reconciling those two very different directions is going to be I think a tough struggle.

COMMITTEE MEMBER JELINCIC: And yet the truth is we pay those salaries anyhow. It's just that it's subpaying it to our employees. We pay it to outside folks.

Thank you.

CHAIRPERSON JONES: Yeah, thank you.

Yeah, a comment on J.J.s comment about -- I guess he was referring to CII, your comment about trying to find a trade association to help push this agenda item. And as you know, CalPERS was one of the founding members of CII, and a number of us on the Committee have participated in their annual meetings. And so it's the membership that helped -- or can drive what you want this organization to do.

And so I would, you know, like to ask Ted to think about, and also Matt and Marcie, to think about how that may work out where we want to put something on the table for CII in that regard of identifying this whole ILPA issue to push that, because it's the membership that determines what they do. And we've been a very vocal part of that membership. And matter of fact, recently we've required that -- requested that they have individual training for trustees, which they hadn't done before. And so now they're doing that at these meetings.

So I'd just like to get a feel for what those members think about that and what are the pitfalls or something.

MR. MOY: We looked at that very superficially. Because when we started focusing on the issue about a year ago, we started looking around and saying, "Where's the place that made the most sense?" And CII is so focused on governance, and our conversations with some of the people that were involved in CII was they weren't sure that trying to diversify their focus was in their best interests. Which is why we -- we promote the idea of ILPA.

CHAIRPERSON JONES: Yeah, but -- but I'm talking about the members' best interests now rather than organization.

MR. MOY: I understand.

CHAIRPERSON JONES: Yes, Ted.

CHIEF INVESTMENT OFFICER ELIOPOULOS: I find it always good to reflect and look at what partnerships -- web of partnerships we have, you know, to try and progress our goals. I think one of the challenges at finding a forum, whether it's CII or any other hundred percent LP forum, to get together and negotiate better fees in terms of conditions and private equity is an anti -- is the antitrust laws.

So, you know, we would want to work very closely with our General Counsel. One of the reasons that CalPERS, among other LPs - and CalPERS led the formation of ILPA - was to have a forum that did have both GPs and LPs so that, among other things, it wasn't constituted to actually negotiate terms and conditions. And certainly if there were best practice templates to be developed, it would be a joint exercise. So antitrust laws would be something we'd have to keep our eye on.

CHAIRPERSON JONES: Thank you. That's why I asked the question. Okay.

Okay. Ms. Taylor.

COMMITTEE MEMBER TAYLOR: Yes, thank you.

I wanted to thank you, Mr. Moy. I love these recommendations. I'm very impressed at your report and all of these recommendations. And to kind of piggyback on what J.J. and Henry were talking about, somehow or another I see how we have to have an organization like ILPA or CII - but I hadn't thought about CII, but it's a good idea, - to help us have that leverage we need, because I just think it's very interesting that we're in -- we're on the cutting edge of this, so much so that I think we've put ourselves in a situation where it makes it difficult for us to continue to invest and get great returns like we are. So I think that as we try to increase our leverage, it's a great idea to figure out a way to do that, however we want to do that.

And I don't know the answer to that. But you know, whether that's in -- looking into CII or ILPA or however that is, I would be interested in seeing that happen.

And then, lastly, the only other thing I was going to talk about is the risk I'm very happy that we are being so transparent with private equity. But the risk that we've put our -- the situation we've put ourselves in, which is being unable to get the best deals, concerns me considering this is one of our west performing asset classes. So I wonder if we could just talk about that a little bit. Are we -- is this as -- are we seeing a direct -- the rest of institutional investors and others moving in the same direction we are? Are we the only ones out there kind of hanging out there by ourselves. And so that's what I'd like you to talk about a little bit.

MR. MOY: I would say you are in a leadership position. And to use the analogy that J.J. used, you know, the arrows are coming and they're going to get you in the back. There are others that are -- you know, are not of the same, let's call it, size and importance that are sort of alongside of you. But you're the biggest target. And the issue is it's -- I think it's very early stages in terms of getting some place. You can tell by the number of groups that have endorsed the principles, you know, that it's really -- to me it's nascent stages.

So I think it's an issue of being consistent and going after what you're seeking and being vocal about it in a way that's leadership oriented as opposed to any other way.

So it's a -- to me it's a long race, it's a marathon. It's not something that's going to be done in a mile or 2 miles or 3 miles. This is a marathon.

COMMITTEE MEMBER TAYLOR: So you're basically saying patience, number one.

And as we go forward and we are the leading voice in this, are we -- are we looking at whether or not that organization that we create, is that going to be our organization since we're the -- you know, the standard bearer at this point?

MR. MOY: I would encourage that that not be the case.

COMMITTEE MEMBER TAYLOR: Okay.

MR. MOY: I believe it -- you need to have a group of people who are willing to lead it. But it's purely to represent the entire population of limited partners. I think to the extent that it gets focused on a group of public pension plans or private pension plans, I think that would be a mistake tactically or strategically.

COMMITTEE MEMBER TAYLOR: Right.

MR. MOY: It needs to synthetic across the entire limited partner community.

COMMITTEE MEMBER TAYLOR: Okay. Great.

And that would make sense considering I think it was mentioned earlier that you -- one of the problems we run into is limited partners with a total different view of how this should be done. So I appreciate that. Thank you.

MR. MOY: You're welcome.

CHAIRPERSON JONES: Okay. Mr. Lawyer.

ACTING BOARD MEMBER LAWYER: Yeah, I just wanted to point out regarding the consideration of an independent auditor to look at limited partnership agreements. I just wanted to point out that CalSTRS has been looking into a similar auditor. So it could be some valuable lessons learned from those efforts.

And then I thought Mr. Moy made a really compelling case for the need for a limited partners association. But I was kind of curious of what we as a board could do to kind of help foster that. I know we've touched on it to a certain extent.

MR. MOY: I think we've progressed pretty substantially today with the directive from the Chair to start looking at stuff.

Because to my knowledge, I don't see involvement and I don't hear of involvement from the governing bodies of the limited partners that are involved in it. It's a -- it's for the most part purely staff driven. And they've been so focused on the transparency question because that's where all of the notoriety and the publicity has occurred. So it's really focused on from a ground up. And starting to look at it from the top down is kind of a fresh approach to what's going on.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Wylie Tollette, CalPERS staff. I'll just make a couple of quick comments on that end.

In terms of forensic auditing, CalPERS does occasionally contract with forensic auditors to do specific reviews. You might be aware of that. We've to date -- they're expensive. So to date we've targeted them at specific funds where we feel that's appropriate.

And then the second comment relative to sort of the creation of a -- a limited partner group, antitrust considerations sort of notwithstanding. In the interim your staff has been undertaking quite a significant effort to work within ILPA. Actually Mike and I work with the ILPA framework with other limited partners. Mike and I happened to be in a -- at a meeting of many state plans in Milwaukee earlier in the fall. And then I have gone to four other different meetings of limited partners, including limited partners from the private sector pension industry, in Washington D.C., with ILPA's CEO in October, really in an effort to bring more limited partners on board the new ILPA template, and to really drive the transparency agenda. Mike is exactly right, that that's been our focus. But we feel like from that transparency effort really a lot of other good things will occur in the private equity industry.

So the fact that we did not have an October meeting -- board meeting, we took advantage of that and really went out and really started to canvass other limited partners so that we can bring more people along with CalPERS, because this -- as Mike points out, we're very much in the leadership position. And so if we're going to take arrows, we want some company.

Thank you.

MANAGING INVESTMENT DIRECTOR DESROCHERS: I would like, if I may, to add also that -- to your point, Ms. Taylor. The industry is changing I think fairly fast over the last, I would say, 2, 3 years, because there were the SEC findings, and there is regulatory change. I don't what's going to be coming. But there is an adoption also, the good -- I would say the very good GP that I call in terms of performance, and people that want to grow their business are moving to have better governance transparency. People understand that. And ESG people understand that. I think there's a move.

There's a -- people that we probably will never invest with, but that's okay. I think if we have enough -- and we have enough good managers that we can be with that wants to have CalPERS as a partner with our requirement -- and I always say we come with baggage. We have -- and people -- I mean, we get there -- our element -- the point is the industry is changing. They were under pressure from the SEC. That we -- people understand, many people, many good managers really understand that and are changing their practice in my view.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: You know, we're getting good returns at least currently. One of the weaknesses is we're not really aware of the risks we are taking, so it's kind of hard to say we're getting good risk-adjusted returns. You can't adjust them if you don't know what the risks are.

You raised the issue of antitrust. Quite frankly - I have said it before - I welcome the GP who wants to sue me because I'm not letting them rip off the taxpayers enough.

But my question is for ILPA. Would it be helpful to have trustees attend in terms of escalating just the level of --

CHIEF INVESTMENT OFFICER ELIOPOULOS: I think your Governance Committee is taking up this very topic of, you know, all the pros and cons of -- and ramifications of board and -- you know, Board member -- CalPERS Board member involvement with different associations on a board level and otherwise. So I think that's probably a good forum to have that discussion.

I do think in this arena, you know, CalPERS is, you know, anywhere from 1 -- you know, 1 percent, 2 percent of the overall capital in this marketplace. And on the list of the top 20 LPs in the world investing in private equity, you know, we've gone -- I'm trying to recall our workshop -- we've gone from being one of the -- you know, 1 or 2. Were down -- I think we're still clinging into the top 10. We're at 8, but that -- I expect that to go down. So we have less and less influence.

And so I think we -- I think the ILPA association is -- has some drawbacks, but it has some real strengths to it. And the current framework of having your investment professionals interact with our counterparts at ILPA to work on these transparency issues is working well. I mean, that's my -- that's my answer.

COMMITTEE MEMBER JELINCIC: And I was thinking well beyond CalPERS. I mean part of what made CII get going and become the organization it was was heavy trustee leadership at the involvement early on. Over times it's shifted to a largely staff-dominated organization.

But, you know, part of its initial implementation was, you know, Jesse Unruh getting offended when Boone Pickens decided to hang up on him. And so Jesse's next call was to New York.

And so it's -- in that broader context, would it help elevate the whole level of discussion to get board members involved, not necessarily just PERS?

CHIEF INVESTMENT OFFICER ELIOPOULOS: Do you want me to take a second chance in answering that or --

COMMITTEE MEMBER JELINCIC: Sure.

MR. MOY: Ted, let me help you out a little bit.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Well, no, I --

MR. MOY: ILPA is -- the CEO, the new one, he's just in -- he's been in place a year now. His strategic plan in his 2015 annual report shows that he would like to expand their educational component, which is pretty substantial, which they typically have done for staff people and people in the accounting function and elsewhere. He wanted to see it expanded to CIOs and trustees. That's his strategic plan.

So they recognized that they have been focused on sort of the reporting function as opposed to the policy function. And they want to, I think, upgrade it.

COMMITTEE MEMBER JELINCIC: Thank you.

CHAIRPERSON JONES: Mr. Costigan.

COMMITTEE MEMBER COSTIGAN: Okay. Well, I had several points. First of all, working in reverse order.

I certainly hope ILPA is watching and listening. And maybe at some point the new CEO could pay us a visit and explain what he's going to be working on. So that's one way to get their attention.

The other is, I will respectfully disagreed a little bit, Ted. I don't think we have less influence. I think at the end of the day -- I think sometimes sitting in Sacramento we do forget. And it gets a little hard when you constantly seem to be taking the incoming. But I mean, people look to you guys. I mean you set -- you're the gold standard. It may be that the amount of dollars dropping. But they don't have the microphone, they don't have the influence that you do. So I don't want you to lose sight, where dollars may be shrinking, your volume and your voice are not lost.

And I think you -- again, look at the stuff that Ms. Simpson and others have done, what you've effected change in the Board room. I mean, you can say the same thing, we only own the weighted average of companies, yet they still -- they parade over here constantly to see you and your staff, and they listen to what we say. So, you know, you might only own X percent -- 2 percent of a company, but you get their attention when you partner with others.

So I just want to say, I think often times we don't tell you enough, your voice is very strong. Don't lose site on that.

The other point just is I'm trying to understand, and as I was looking at the DOJ's website, I don't get the antitrust. We're not a competitor. I don't understand, how is there antitrust associated where we're a government agency? So when we talk -- and I know Mr. -- General Counsel, that this is probably putting you on the spot. But I don't -- I mean, we're batting it around. But when I look at it, Mr. Jacobs, I don't see -- we're a government agency. We're not a compet --

CHAIRPERSON JONES: Mr. Costigan, can we give them a chance to look at that issue rather than trying to respond. I know in --

COMMITTEE MEMBER COSTIGAN: Well, I'm just curious because we've been throwing it around.

CHAIRPERSON JONES: Yeah, I know.

COMMITTEE MEMBER COSTIGAN: And I'd like to know what's the basis for why we think we are governed by the Sherman Act. I mean --

GENERAL COUNSEL JACOBS: Well, the --
CHAIRPERSON JONES: Go ahead.
GENERAL COUNSEL JACOBS: Do you want me to address that very briefly?
CHAIRPERSON JONES: Okay.
GENERAL COUNSEL JACOBS: This is Matt Jacobs, General Counsel.
We are. We are governed by the Sherman Act. And the concern would be some kind of deal or agreement that we would make with other LPs, both public and private. We are not exempted from the Sherman Act because we are a public agency. It provides us certain defenses. But, you know, once you're getting into the -- once you are into the defenses, you've already kind of gone pretty far down the road. So...
COMMITTEE MEMBER COSTIGAN: And I understand -- I would like, Mr. Jones, further discussion why --
CHAIRPERSON JONES: Sure.
COMMITTEE MEMBER COSTIGAN: -- on it, because I don't want that to be a blanket that we're hiding behind and we can never have a conversation. Because then we -- there's any leverage. I just --
GENERAL COUNSEL JACOBS: Oh, we can definitely have conversations.
COMMITTEE MEMBER COSTIGAN: I'm sorry?

GENERAL COUNSEL JACOBS: We can definitely have conversations.

COMMITTEE MEMBER COSTIGAN: Well, I know. I just don't want this blanket that we can't have it because -- I mean, we need to have a further discussion. So I don't want to make it as a definitive statement that it's going to prevent us from having sort of the conversations Ms. Taylor and others raised about getting ILPA's attention.

Thank you, Mr. Jones.

CHAIRPERSON JONES: Yeah, that's right, Mr. Costigan, because that's one of the items. There may be some others after Ted and Marcie and Matt get together to respond to our original direction. So that certainly would be one of the items to -- for them to bring back. Okay?

Okay. Thank you.

Okay. I think that's it --

MR. MOY: Thank you.

CHAIRPERSON JONES: -- on this item.

So now we will move to Item C on the 8, Program Review, and that's Real Assets Annual Program Review.

CHIEF INVESTMENT OFFICER ELIOPOULOS: Do you want start with the real assets now or break for lunch? What is your pleasure?

CHAIRPERSON JONES: No, we're going to go with that.

(Thereupon an overhead presentation was Presented as follows.)

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Good afternoon. Paul Mouchakkaa, Managing Investment Director for the Real Assets unit. It's a pleasure to be here, as always. I'm joined by three folks from the real assets team: Mike Inglett, an Investment Manager in the Portfolio Analytics Research and Risk Group; Ed Yrure, an Investment Director in the New Investments Group; and Beth Richtman, an investment manager in the Portfolio Management Group.

The outline for our presentation today is quite simple. I will go over what we've been working on, the performance over the last year. Mike will discuss a more granular review of each of the individual programs, the forestland, real estate, and infrastructure. And then Beth Richtman and Ed Yrure will discuss our summary of accomplishments and our current initiatives.

In short, if I were to just, you know, slap a headline down, "Measurable Progress has been made within Real Assets Group," the three programs in the past year have been integrated into really one unit with one strategic plan and one role that the Board approved in

April of 2016.

We've been very busy. And we've been operating in a market environment for real assets that I would characterize with three general broad themes:

First, the demand and competition for real assets is fairly fierce and intense, largely driven by the low-yield environment; and in particular cash-yielding assets are really in favor.

The second element I would highlight is that the supply or new supply of product has been largely in check. You don't see a lot of development, which is meant. But fundamentals -- space fundamentals have been either stable or strong in the various sectors.

And then the last point, a recurring theme that we've heard many times, is returns have been very strong for the past five years but they are beginning to moderate. And you can see that in our portfolio and in our benchmark over the last year.

One big lesson we learned in the last cycle was that going up the risk curve when you're in the middle or late part of the cycle - I'll avoid any baseball analogies - but it can be a very dangerous and tempting game. Tempting from the point of view of, boy, it'll be a lot easier to invest and deploy capital. Dangerous insofar that it will create a lot more vintage year risk to the system.

Thus the main focus for our staff has been to de-risk the portfolio over the last year. Really premising that on Investment Belief No. 7.

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MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: So how have we done, As I've said about measurable progress being made?

One key element that we worked on over the past year was the secondary sale of our legacy commingled funds. The size and scale of that approximated about $3 billion and resulted in a decline of manager relationships within real assets from 58 when I sat here a year ago to 32 today.

This very much synchs up with the Vision 2020 Plan to reduce complexity and risks to the system.

The benefits we hope will be shown in the future. However, we did take short-term pain in the previous fiscal year. And it meant that we missed our benchmark, turning in approximately a 6 percent return versus an 11 percent benchmark return within real assets.

Infrastructure was a great bright spot, turning in a very solid and strong return.

Forestland struggled and it continues to struggle. However, Mike and Ed will discuss some of the actually positive news that we've gotten out of the Forestland Program in the last year.

And then real estate turned in actually a very strong and solid 7 percent return, although well below its benchmark. The attribution as to why we missed the benchmark was really driven by the non-core exposures and the aforementioned secondary sale. Our core portfolio however did perform very well in the past 12 months.

I want to also highlight that all the returns presented here are net of all fees and expenses, both internal and external. When you cut across all the real assets' three individual programs, our fees and expenses across the board approximate about 144 basis points. That is about 78 basis points lower than last year, largely driven again by that secondary sale eliminating the higher fee model in the commingled funds.

The main bright spot, and we kind of circled it here on this chart, is the long term. In a private asset class the long term is really the main focus. And over the past five years, after the adoption of the 2011 Strategic Plan for Infrastructure and 2011 Strategic Plan for Real Estate, I want to highlight that infrastructure, real estate, and real assets all beat their individual benchmarks and the total benchmark.

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MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: I also don't want to gloss over the importance of that strategic plan that the Board and the staff embarked upon five years ago. One of the main things that came out of it was really clarifying, defining a role that real assets can play within the large composite CalPERS portfolio. And with any private asset class, it takes significant amount of time, energy, and focus to effectuate change, as we've been discussing even earlier this morning. And the value of governance and controls is one that's very hard to measure in a single number, but the size and the scale and complexity of CalPERS is an important element to have.

Looking at our report card - so this is sort of what we put together as our report card - of the three tenets of the role of real assets, being stable cash yield, inflation protection, and diversification of equity risk.

I want to highlight in the table just a few points. First on the cash yield in the top part of the slide, you can see that a large transformation in the cash yield from 2011 to 2012, from a meager 0.6 percent to a fairly solid 3.7 percent, and actually comfortably above our benchmark income return. This was largely driven by a near doubling of the core exposures in the Real Assets portfolio.

Second, the role of inflation protection has also been a transformational item for the Real Assets portfolio. In the early stages after our last -- our 2011 strategic plan, we had negative appreciation, or depreciation; and that has now transformed into appreciation. And those numbers are not annual numbers. Those are five-year rolling numbers, which is a longer-term view.

Lastly, the diversification of equity risk is another key part of our role. And over the last five years, we've had relatively low volatility and a low correlation to our global equity benchmark.

So I will now pass it off to Mike Inglett. He will give a more granular review of each of the individual three programs.

INVESTMENT MANAGER INGLETT: Okay. Thank you, Paul. And good afternoon, members of the Board. My name is Mike Inglett. I am an investment manager in the Real Assets unit. I'm going to review with you the Real Assets portfolio positions for each of the programs.

Private investments in real assets are illiquid in nature, and are typically evaluated over long periods of time. As Paul mentioned in its opening, one key goal that we have made is considerable progress in lowering our total manager number. Over the last five years, we have also made significant progress in repositioning the Real Assets portfolio. Some important shifts that have taken place include: Number 1, growing our core exposure; 2, increasing our income returns; and, 3, lowering our leverage loan-to-value percentage.

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INVESTMENT MANAGER INGLETT: These things -- these changes have led to a significant shift in our risk positioning of the Real Assets portfolio.

Now that I have briefly touched on a few of the significant five-year changes in the portfolio, we can turn to slide 4 to discuss the portfolio position changes over the last fiscal year.

For presentation purposes, I will go across each row to elaborate on the three distinct programs: Real Estate, Infrastructure, and Forestland.

First for real estate. A large portion of the shift in increased core exposure occurred during fiscal year '15-'16. It was primarily driven by the $3 billion commingled fund secondary sale of non-core assets combined with the purchase of several large core assets during the year.

The appreciation of real estate assets underperform the real estate benchmark. This underperformance was attributed to the commingled fund secondary sale and our international market holdings. On a positive note, for our real estate returns, the income return was strong and did outperform the real estate benchmark.

Going over to leverage, the loan-to-value percentage was relatively unchanged for the year.

Due to the large secondary sale we were overall net sellers during the fiscal year. But we're still active in the market with several large acquisitions. We have also improved the governance over the course of the past fiscal year. Real estate already had a solid governance structure in place with the majority of the partnerships in the separate account model. Our achilles heel was our lack of governance in the commingled funds, which have now been predominantly sold off through the secondary sale.

We are now in a stronger and improved governance position overall in the Real Estate portfolio compared to last year.

Proceeding to infrastructure, we had a very good one-year performance, return beating the benchmark by 410 basis points. There were both strong valuation growth and solid income returns that were derived from the Infrastructure portfolio.

It should be noted that the loan-to-value percentage did take up slightly during the year. Finally we have been an active participant in the infrastructure market. This past year the NAV grew by 18 percent, from 2.2 to 2.6 billion.

Moving to forestland. Last year during the annual program review, we presented to the Board that Forestland Program was under review. It is still currently under review, and will be further evaluated as CalPERS goes through the upcoming asset liability management process.

With that said, through the work of staff this past year, we have made significant progress in gaining higher governance, better controls, and added flexibility in the Forestland portfolio.

Moving forward, we will continue to manage the portfolio and look at ways to optimize and improve the program returns and value.

I'm now going to pass it over to Ed Yrure and Beth Richtman, who will discuss the real assets fiscal year '15-'16 accomplishments and the fiscal year '16-'17 initiatives.

INVESTMENT DIRECTOR YRURE: Thank you, Mike.

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INVESTMENT DIRECTOR YRURE: Good afternoon, members of the Board. Ed Yrure, Investment Director, Real

Assets. I'm going to review fiscal year-end accomplishments as well as current fiscal year initiatives in three key areas: 1, organization and governance; 2, portfolio repositioning; and, 3, alignment and cost. Each of these are highlighted on pages 5 and 6 in the presentation before you.

We came to the Board a year ago, and we were in the early phases of merging infrastructure and forestland together with real estate to form the Real Assets unit.

We are now a year into that effort, and the three programs have effectively come together and overall the integration has gone well.

The team continues to be dedicated to the role of real assets and achieving the objectives consistent with the Total Fund's expectations of constructing a portfolio that provides diversification of equity risk; inflation protection; and delivers a stable, predictable cash yield to the system.

In addition, staff brought forward in April a strategic plan that reinforced: 1, our role; 2, our continued focus on core investing; and, 3, a tried-and-tested business model with governance and alignment with our partners.

Our focus is now to align with the integration of our organization and to manage the portfolio at the real assets level, subdividing it into segments.

Real assets also brought forward to the Board in June a revised policy and delegated authority which was approved in its second reading in August of this year.

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INVESTMENT DIRECTOR YRURE: Continuing with organization and governance, our initiatives this fiscal year following the adoption of the strategic plan, the team launches segment planning effort, with a goal to complete the evaluation and the implementation plans for select segments by the end of this fiscal year.

Further, Mike's team is hard at work at updating the AREIS system and our databases to accommodate portfolio hierarchy integration across real assets.

Lastly, the ALM workshop will kick off in 2017. The real assets team is looking forward to the opportunity to review its benchmark and its target allocation.

With regard to portfolio repositioning accomplishments, you have heard us mention a few times the large secondary sale served to lower our manager count and further increase our percentage of core holdings.

Earlier, Mike touched on the fact that we are net buyers in the Infrastructure portfolio, and infrastructure's NAV grew year over year. One of the transactions closed was the purchase of our first renewable solar plant in Southern California. We also closed two transactions in a transportation space this fiscal year, further increasing our exposure to infrastructure.

As a result, these acquisitions bring the Infrastructure Program to its interim target allocation and demonstrates our commitment to investing in infrastructure.

In terms of initiatives, I touched earlier on segment planning. It is this effort that establishes the direction of the strateg -- for implementing -- excuse me -- the plan within underlying real estate, infrastructure, and forestland sectors.

Moving on to alignment and costs. As you know, with private real asset investments we rely heavily on external managers to execute a large portion of our investment activity, which means alignment and costs are absolutely critical. This points directly to Investment Belief No. 8, Cost Matters, and to INVO 2020 Vision statement that says, "We seek alignment of interests with our primary stakeholders, with our business partners, and ourselves."

First, what we accomplished earlier this year was to strengthen the operating platform in our industrial portfolio. We discussed this with the Board in December

2015, and have now established strong alignment under this platform.

Second, as Mike briefly mentioned, we have materially improved our governance and controls in our Forestland portfolio.

Further, staff is working on restructuring our alignment model and Real Estate Program with the goal to further reduce cost, improve fee predictability, and improve alignment with our strategic partners.

If successful, this will trigger approximately 535 million in incentive fees this fiscal year. I would like to highlight, however, that these fees have been accrued on our books and further have been factored into our returns Paul referenced earlier in his presentation.

This initiative remains a work in progress and, like other fiscal year '16 and '17 initiatives, we will bring forward the next year's annual program review our accomplishments over the balance of this year.

At this time point I would like to turn it over to Beth Richtman who will summarize our accomplishments and initiatives specific to ESG and the Emerging Manager Program.

Thank you very much.

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INVESTMENT MANAGER RICHTMAN: Thank you, Ed.

Beth Richtman, Real Assets Investment Manager.

This has been a big year for our ESG integration effort. We completed our manager expectations pilot and then we revised our sustainable investment practice guidelines according to what we learned during that pilot.

Then we took those sustainable investment practice guidelines and we put them into our procedures manual. This makes them part of the fabric of how staff does everything, from manager selection to contracting to asset and manager monitoring.

As you know, CalPERS is a co-founder of GRESB infrastructure, which is a sustainable investment performance benchmarking and monitoring tool focused on infrastructure assets.

We recently completed our first survey year of our infrastructure assets and we're evaluating the results.

GRESB actually started out focusing on real estate. In this past year, after careful review and discussions with our real estate managers, we decided to start using the GRESB platform for our real estate assets as well. Our managers will start reporting into the GRESB platform in 2017. This will enable real assets to have a single tool for comprehensive ESG monitoring and benchmarking across our whole portfolio.

Now I'd like to talk to you about another ESG initiative for real assets. In August the Investment Office senior management presented the Investment Office's five -- ESG Five-Year Strategic Plan. One aspect is research. In line with that plan, I'm pleased to report that real assets has launched an energy optimization initiative. This initiative is researching options for our Real Estate portfolio, including energy efficiency, demand response, and on-site renewable energy generation.

We have an energy optimization kick-off roundtable in September, bringing in a diverse group of our managers and also some outside industry experts. We discussed the landscape of opportunity and what our managers are already doing related to energy optimization.

Our managers are actually doing some pretty innovative things, from offering Los Angeles's first net-zero apartment rentals, to using sensors to optimize their energy use in the buildings based on actual tenant use of energy, to collaborating with the utilities to lower building energy use at times of peak energy demand for the system.

We're currently considering all the input we've received and working on a plan for the path forward for this initiative.

This energy optimization initiative is important for real assets. We think it fits well with Investment Belief No. 4, as we believe that economically and environmentally optimizing our energy use is effective management that will create long-term value for our Real Assets portfolio.

Now, turning to the Emerging Manager Program. We are in the fourth year of the program. It's going well so far, and we allocated additional capital in this fiscal year. As part of that new allocation, our mentoring manager is evaluating the addition of new emerging managers to the existing pool.

Now back to Paul Mouchakkaa for closing thoughts.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Thank you, Beth.

So in conclusion, it has been a very eventful year within the real assets team across all facets: The organization, our strategic planning efforts, our policy and procedures, our ESG and emerging manager efforts, focusing on fee reduction, and obviously the management and positioning of our Real Assets portfolio.

The IC has a strong and dedicated team within real assets. Looking ahead, our goal is to continue to deliver on the role of real assets as prescribed by the Investment Committee and to contribute to the strategic objectives of the CalPERS fund and greater organization in a positive manner.

The staff and the Board consultants are all working very hard to reflect and implement the investment beliefs the Investment Committee designed and developed as the foundation.

We're all happy to take any questions.

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

Mr. Lind.

COMMITTEE MEMBER LIND: Thank you.

Paul, you mentioned that there was going to be some good news with respect to forestland. And I guess that was the improved governance and controls.

How do we think that might lead to a positive return? Which I don't think I've seen in the four years that I've been here. And if not, when do we decide that forestland goes the way of our Legacy of Real Estate portfolio?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Well, it's go -- as I mentioned in my comments, governance is something that is critical in the management of private real assets. And as I said, it's very hard to put one specific number on it. But one of the more frustrating aspects in managing our Forestland portfolio has been a lack of control that we have had in effectuating some of what we want to do going forward.

The staff has worked very hard to gain significantly a greater amount of control on a couple of the holdings within the Forestland portfolio.

In terms of what we will do in terms of going forward. As we mentioned, we're still reviewing it, and it will be covered in the asset we're working with Eric Baggesen and his team. We're discussing it at the ISG level, we're discussing it internally within real assets.

No matter what it is, we will always work to optimize the value of any holding we have. And that was exactly the same premise that we followed in working on any of our second -- through the secondary sale. Had we not optimized the value of that, we wouldn't have gone forward.

COMMITTEE MEMBER LIND: I appreciate that. But can you just give some sort of anecdotal example of how increased control might lead to a better return for us? I mean, what's a real-life example of that?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: A real example may be controlling the sale of an asset. Where we may feel it is an appropriate time to exit something or potentially even deleveraging an asset, it may be the right time to actually pay off debt.

By having that type of control can effectuate a better investment return.

COMMITTEE MEMBER LIND: Okay. Thanks.

CHAIRPERSON JONES: Okay. Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

Well, it certainly feels like we're moving in the right direction. And I appreciate sort of the thoughtfulness in the -- with which you're approaching the program and sort of avoiding some of the -- as you put it, the tempting and dangerous draw of seeking more risk. I think that's something we need to -- that I think is actually -- I see it across the whole Investment portfolio, and I think it's really wise caution that's being exhibited.

My question is about agriculture. And as you're looking at forestland, are you also considering agriculture?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: So as Ed Yrure touched upon, we're doing our segment planning. It's a -- it's going to take us a little bit of time to work through the six segments that we've redesigned our portfolio. And the purpose of that segment planning is really to look at -- so, for example, our essential bucket, which agriculture would fall in, as well as forestland or power investing, energy utilities.

And really first and foremost is to scour what is the universe of options for CalPERS to invest in and what is the institutional quality of that individual strategy or individual segment?

And we want to make sure that no matter what we do, it is in line with the Vision 2020 formulation or strategy. And one of those key principles is that anything we do will have to be repeatable, predictable, scalable strategy. It has to matter.

But we're not that far -- we haven't gone down the road yet in terms of doing our essential bucket at this point in time, but it is on the to-do list.

COMMITTEE MEMBER MATHUR: Okay. Thank you.

CHAIRPERSON JONES: Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: Well, Paul, I think the real headline should have been "Returns get much better when '08 and '09 fall off the chart."

But I have a couple of questions and an observation. Infrastructure. One of the things that I know you've looked at, because I've asked about it, is becoming the take-out person for a lot of these partnerships that are, you know, reaching the end of their lives, particularly some of the infrastructure and power in the African continent as that's developed. I noticed we don't have any. Can you talk a little bit about the difficulty in doing that and what progress we may or may not be making.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: So first, we have one of the transportation investments that Ed Yrure touched upon was a take-out. Actually it was a take-out that we got syndicated into.

But we have -- our infrastructure team has been consistently looking at various exits. Some fit, some don't fit. And in terms of investing in emerging markets, it's in our bucket. But right now the opportunity set that you see in infrastructure have primarily come from in the power space within the United States, and then significantly a more broad array in different segments or different sectors in Australia and to some extent the United Kingdom. In Australia there's a significant amount of privatizing of assets that has been going on. And so that has created more opportunity in that space.

There hasn't been as much coming from the emerging market area.

And when we look at our sort of risk return paradigm, the U.S. has consistently been a better place to place capital particularly in the power area.

COMMITTEE MEMBER JELINCIC: Okay.

On forestland, as you go through your evaluation, it's really difficult for me to understand how we have a Forestland Program without anything in the Pacific

Northwest. So, you know, as you review it, I urge you to take that into consideration. I suspect we have a CEO that would have an interest in that.

On I think it was the infrastructure, I was surprised at how much non-core we have relative to core. And can you comment on that?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Yes. Some of it is semantics. Actually I think all of it is semantics. The Infrastructure portfolio was classified with different terminology prior to the integration of the units. It was classified as defensive, defensive plus, and extended. We took the most conservative approach. We're in the throes of -- as Ed mentioned, Mike is in the throes of reorganizing our system and our hierarchy. We took the most conservative approach and just took only the defensive component of our portfolio and classified that as core.

There are pieces of the defensive-plus category that will drift into core. Some will stay in value-add. We wanted to be more prudent and only represent what we know at this point to be core.

COMMITTEE MEMBER JELINCIC: Okay. And --

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: So that number will change. By how much, I don't know.

COMMITTEE MEMBER JELINCIC: And this -- I had marked up slide 32, which you don't have to go to, to point out that defensive, defensive plus, and extended reappeared. I thought we had, you know -- so...

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: I can answer that if you'd like.

COMMITTEE MEMBER JELINCIC: Sure.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: We're about to finalize the IPPGs, which is what we agreed upon in August with the Investment Committee. Once we finalize the IPPGs, the new policy will take into -- will take effect. We're operating under the old policy as of June 30th. Again, we wanted to do the most prudent thing.

COMMITTEE MEMBER JELINCIC: Okay. Thank you.

So if this is the last time I see that, that's good. Thank you, thank you, thank you.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Sure.

CHAIRPERSON JONES: Mr. Slaton.

VICE CHAIRPERSON SLATON: Thank you, Mr. Chair.

Just a couple of items here. First of all, the Energy Optimization Program, I think that's excellent. I'm looking forward to seeing more reports on that.

I just encourage you as you proceed with that, that located less than five miles away you have an electric utility called SMUD, who's very vested in these type of projects and are also members of CalPERS.

So they have a real interest in helping you with advanced strategies on energy efficiency in particular. So I encourage you to reach out to them. And I'd be happy to help if you need it.

And lastly, I want to compliment you on the presentation and the way you've done it today and the shorter num -- the "no death by PowerPoint." I think what it's done is it's got us to focus, with your help and leadership, on what are the important characteristics, what are the important points that we need to think about. And I think the quality of your presentation has resulted maybe in being more time efficient for all of us and yet not missing anything. So my compliments.

CHAIRPERSON JONES: Okay. Thank you for that comment, Mr. Slaton.

We're going to break for lunch, and we'll reconvene at 2:00; and at which time we will have the consultant's review of Real Assets Program from Pension Consult -- PCA, Wilshire and StepStone. Okay.

(Off record: 1:05 p.m.)

(Thereupon a lunch break was taken.)

A F T E R N O O N   S E S S I O N

(On record: 2:00 p.m.)

CHAIRPERSON JONES: I would like to reconvene the Investment Committee meeting.

And we will now go to Item 8d, Consultant's Review of Real Assets Program.

Ted, who's going first?

(Thereupon an overhead presentation was Presented as follows.)

CHIEF INVESTMENT OFFICER ELIOPOULOS: I believe Christy and PCA; is that right?

MS. FIELDS: Yes, that's correct.

I think what we decided was that I will start with comments on the Real Estate portfolio and then take any questions on the Real Estate portfolio or my comments before handing it off to David, I guess, who will go next on Infra, and then finally Andrew on Forestland.

CHAIRPERSON JONES: Okay.

MS. FIELDS: So if we can start on slide 2 please.

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MS. FIELDS: Let's see. Observations.

The Board-level takeaway -- and I won't spend too much time on this because I think the staff did a great job in highlighting performance and the investment environment.

But the Board-level takeaway on performance is that the portfolio is producing steady, solid returns, and that the complexion of those returns in the risk profile is very much in line with the role of the asset class.

During the past year the core risk assets continued to be a bigger portion of the portfolio. And by the fiscal year-end the non-core risk assets or non -- the legacy assets had been materially diminished in size. Related to this, the proportion of the return coming from income off the assets as opposed to capital value appreciation was also increasing.

So as Mike Inglett pointed out, even for the shorter term when you had total portfolio performance lagging the benchmark, your income proportion, which was 4.82 percent on a gross basis and 4.2 percent on a net basis, exceeded the income in the benchmark.

So with this focus on kind of lower volatility income streams, the Real Estate portfolio is doing what it's supposed to do to support the total portfolio.

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MS. FIELDS: If we go to page 3 and take a step back and look at the environment in which you're investing, from a supply-and-demand fundamentals perspective the domestic real estate space markets are still quite healthy, with only small pockets of abundant new supply, and that's primarily in the multi-family space.

Your experience, however, over the last few years of being able -- will continue insofar as you will only be able to invest a certain portion of that which you approve to be invested, and not simply due to competition in the market and how many people there are out there, including sovereign wealth funds, other institutional investors, retirement plans, flight capital, who are also seeking the same kind of investments.

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MS. FIELDS: Okay. If we go to page -- I'd like to go to page 4 and page 5. And this is what I really like to highlight, is how much work has been done by the Real Asset unit over the last year. A lot of it doing with meaningful updates and revisions to many elements of the governance framework and the operational framework that guides the unit. And most of this has been done with the purpose of reducing risk by enhancing alignment and accountability and cohesion, both within the Real Asset unit itself and also between the Real Asset unit and other parts of the organization.

The Real Asset unit also continues to engage on a fairly aggressive list of enterprise-level initiatives, including those associated with the Vision 2020, ESG, and Cost Management programs.

Each of these entails a significant amount of work behind the scenes. And staff is doing yeoman's work in enhancing portfolio management through all of these things, including the integration of the Real Asset Program, and the map -- either remapping of assets in the AREIS database, the development IPPGs and desktop procedures in support of the new policy, and the recasting of strategic partner fee structures in the goal of further alignment and cost management, and the pioneering of energy optimization and manager expectations projects. These among many other -- are many other projects.

So I would just be a little bit hesitant to pile on additional workload at this point on to their plates until they've had some time to digest that -- those workloads, which are critical to the ongoing success of the program.

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MS. FIELDS: Now if we turn ahead, I will make just a few comments on slide 7, which is the real estate version of the SWOT analysis.

Among the strengths, we note in particular the actual and relative performance, which are strong; the direction of the Board via the Investment Beliefs, which continue to be integrated in finer and finer ways throughout the investment decision-making process; the significant reduction of risk in the portfolio; and the stability of the business plan in the Real Estate portfolio.

Among the opportunities we note, that while there's been good progress to date on the ESG initiatives in the Real Estate portfolio, there are opportunities to do more, and staff is clearly on top of that.

Finally, with the portfolio de-risk and better aligned with the role of the asset class, staff is freer to turn their attention to the proactive identification and pursuit of opportunities that are aligned with the strategic plan.

If we look at weaknesses, we note that senior staff is managing a significant amount of change. And they're managing that change while they are experiencing a fair amount of change in their own composition due to a couple of key retirements and other human resource issues that just come about as a normal course of business. So it is something you kind of want to keep an eye on.

Finally, relative to threats, we highlight again, as you've heard multiple times today, the competitive market that CalPERS faces in the pursue of quality real estate investments that meet its objectives.

We support staff in the continued discipline and focus in building a defensive portfolio to hold through investment cycles.

To conclude, the pasture has been -- has seen good progress for the Real Estate portfolio in achieving the performance and implementing processes which will benefit the system as a whole. These improvements are visible -- visible both in the quality of the portfolio and in the operations day to day of the department.

The next year will certainly bring a different set of challenges. The returns that have been experienced over the last three years are unlikely to be replicated. And of course the change in federal administration will impact the real estate sector in ways that are as yet unclear.

Nevertheless the movement toward -- forward of the Real Estate portfolio will continue to serve CalPERS and provide a stable source of income and value.

With that, I take any questions.

CHAIRPERSON JONES: Okay. Thank you for the report.

Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: You identify that benchmarking remains challenging. Can you talk a little bit about that challenge and any potential solutions you see.

MS. FIELDS: Well, I think as with some of the other asset classes, you'll probably get into a more nuance discussion of this at another time. But the benchmark is -- for real estate is the ODCE, which is, as you're aware, representative of -- which is comprised of large open-end core funds. And so your portfolio to date differentiates from -- is different from that in respect to you have more leverage deployed in the ODCE funds. I think the ODCE funds currently run 22 percent LTV. And you have some investments in -- that are offshore - the ODCE is strictly U.S. - and some investments in other like land holdings that are not represented in the benchmark.

So there are some clear places where your portfolio -- as earlier the benchmark does not necessarily inform the way that you've constructed your portfolio or parallel it with respect to risks.

COMMITTEE MEMBER JELINCIC: Have you looked at other benchmarks that may work better for us?

MS. FIELDS: We have. And we're -- those are kind of ongoing discussions that will hopefully, you know, be talked about more I think in the ALM study, right?

COMMITTEE MEMBER JELINCIC: Okay. And then on your weaknesses, staff has resourced constraints. Can you talk a little bit about what that is?

And I will tell you, I'm also going to ask about the last bullet.

MS. FIELDS: So I tried to provide a little bit more detail. I think my -- the point of that bullet point was just that in addition to managing a very large and sophisticated Investment portfolio, staff is consumed with a lot of other initiatives. And so I'm just trying to make sure everyone's kind of cognizant of how much is going on. They're kind of like the ducks sitting on the water, right? They look so graceful and quiet on top, and underneath there's this kind of mad churning of their webbed feet to keep everything going.

So that's -- that was the point there.

COMMITTEE MEMBER JELINCIC: And so what additional resources do you think they need?

MS. FIELDS: It's a good question. I would defer to Paul since he's clearly more involved in the day-to-day.

I think a lot of the work that's being done right now will, as Réal mentioned, serve the system in the longer run with respect to kind of producing efficiencies in places where they can leverage their human resources on top of some of the technology and the other frameworks that are helping them. But I think it's certainly something to watch.

COMMITTEE MEMBER JELINCIC: And then the reliance on external managers. And, you know --

MS. FIELDS: So this is a blessing and a curse for you. I mean, I think your external managers -- and this is particularly with respect to the separate account managers who have provided really strong performance for you and who we expect to continue to do that. They are -- as you know, some of them are small and captive to CalPERS. And they themselves will be facing kind of internal succession issues. It's certainly been discussed with staff, and they are doing that. But it's one of the risks that comes with having these very large separate accounts with captive managers.

COMMITTEE MEMBER JELINCIC: And is the captive manager a plus or a minus?

MS. FIELDS: For you guys it's been a huge plus. I mean, it's worked very, very well.

COMMITTEE MEMBER JELINCIC: Thank you.

CHAIRPERSON JONES: Okay. Ms. Mathur.

COMMITTEE MEMBER MATHUR: Thank you.

We've been hearing more and more about sort of the dearth of affordable housing and the dearth of available housing in many markets, particularly in the Bay Area, but other parts of the country as well. And in some markets people are spending as much as 70 percent of their take-home pay on housing.

So my question for you is, is that an opportunity in terms of development? And I know we're trying to move more towards core investments. But are there opportunities that we should be thinking about?

MS. FIELDS: Well, I think you --

COMMITTEE MEMBER MATHUR: Or maybe that's to Paul as well. But --

MS. FIELDS: Right. I think you have -- I think staff did a good job of recognizing that fairly early on and they've added a kind of a Class B or workforce multi-family housing account to the program to address that to sink beneath the kind of Class A Multi-family, that's kind of the traditional institutional asset class.

And I think this is a problem that everyone's thinking about. I just heard someone at Google speak. And then Google's actually trying to -- they're going to step into this space and start developing housing. So I think that's one way of doing it. Some of the affordable housing with tax credits are a little bit tougher to accomplish.

Paul, do you want to add anything?

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Paul Mouchakkaa, Managing Investment Director.

Yes. I think Christy hit it on the head. It is more difficult in the affordable housing due to the tax structure or tax credit financing that's available for financial institutions to pursue that strategy.

We also have an existing land and home building strategy sitting in our real estate portfolio still to this day. Some of it is from the legacy, but has been sort of reoriented and restructured and realigned.

And so we still have exposure to that. And that program invests -- or will develop homes -- either develop land or build homes, depending on the -- you know, the actual lot across all the sectors, whether that's affordable or a starter home or a -- you know, a move-up category or higher end. So it is a blended strategy.

So we are -- we are accomplishing that to some extent through that program.

COMMITTEE MEMBER MATHUR: Okay. Thank you.

CHAIRPERSON JONES: Okay. Mr. Juarez.

ACTING COMMITTEE MEMBER JUAREZ: Yes, Christy.

You have the advantage of working with other pension funds and having been on a board that -- a much smaller board that used to look up and say, "Well, we wonder what CalPERS is doing" in this -- let's say in real assets, and would hopefully take some lesson from that. I'm curious if there are things that we can learn from some of your other clients in terms of what their approach is to real assets and if there's anything that they may be doing that the Board and the staff might learn from.

MS. FIELDS: It's a great question. You are so unique just given your size and your governance structure and many other factors. I think you're tremendously advantaged in some ways by your size and that they give you the ability to deploy capital through these scalable separate accounts that are very focused, usually by sector and geography, but who can be very, very effective at covering markets and being -- and identifying opportunities on your behalf.

I think your size hurts you in some ways. You're not able to access perhaps some of the smaller segments, and this has been talked about before. You're just too big. You would own the market. It wouldn't necessarily move the needle for you. And then you'd have to dedicate additional resources to that.

So I think the system's done a great job in understanding how their size can be used advantageously and then also recognize the constraints associated with that.

And in a way you really are your own planet in space.

ACTING COMMITTEE MEMBER JUAREZ: Thanks.

CHAIRPERSON JONES: Okay. I see no further questions. Thank you for the report.

MS. FIELDS: Thank you.

CHAIRPERSON JONES: And so who's next?

MR. ALTSHULER: Good afternoon. David Altshuler from StepStone.

You heard during staff presentation about the performance of the program, so I don't want to spend too much time on that today. It's all positive, which is another reason why I don't need to really dwell on that. But it is just the numbers the program has returned, and that 9 percent on a one-year basis and 14.9 and 11.7 percent over the 3- and 5-year periods respectively.

Another important observation we had is that while performance has been consistent and strong, the risk profile of the overall program is continuing to shift more towards lower risk defensive investment. So that allocation increased from 33 to 37 percent during the fiscal year.

So strong performance without taking on additional risk.

You've heard from us at StepStone and from colleagues at PCA and from your own staff about the challenges in the market; in terms of competition and infrastructure, has not been immune to that. I would highlight there were two funds this year that on a combined basis raised $30 billion to invest in infrastructure. Two managers. And with the lion's share of that targeting developed OECD core, core-plus infrastructure of the type that CalPERS has liked in the past.

And so it's been a very busy time for infrastructure investors this year.

Despite that though, I do want to highlight that CalPERS has not only succeeded in acquiring stakes in essential high quality infrastructure here in California, with the acquisition of a stake in a solar facility out east, with a direct stake in the Indiana Toll Road, which is a very core essential piece of infrastructure and it has over 60 years left on the concession.

As well as through one of its accounts, a stake in one of the largest ports in Australia. So -- and that all happened during a fiscal year. So I think it's worth highlighting the fact that even in these incredibly competitive conditions, the program has succeeded in putting capital to work in very -- in a manner that's very consistent with the objectives of the program.

And I think also using the tools that the program has in its toolbox, which is an ability to work through separate accounts and the ability to make these -- the direct investments.

The other comment I'll make - and I know you're aware of this - but there were a lot of changes in the organizational side as well and those had a big impact on the Infrastructure Program. You have a new Real Asset Policy. You have a new strategic plan. And you have a dramatically reorganized team. And as you know, those changes were all implemented with the objective of streamlining the policy plan organization and to bring it in line with the other programs in the Investment Office. And I think that the changes will make policy and implementation easier, and to navigate -- those trying to navigate as well as to manage the program.

It's not finalized yet, this whole process. There are a lot of the details that were in the policy in particular that are being moved into separate documents. And we're working closely with staff on trying to highlight I think what really benefits from being streamlined and where there are distinct characteristics that are tied to the asset class and should be preserved and retained within the different documents in the process.

There are things like the risk classifications and aspects of the market that are different for the respective asset classes. And I think CalPERS as a sophisticated investor has benefited from having this domain knowledge there and working collaboratively. I think across the programs is the best way forward.

So I can take any questions about the organization or the market.

CHAIRPERSON JONES: Okay. Yes, we have Mr. Jelincic.

COMMITTEE MEMBER JELINCIC: As the Board's independent eyes and observer, you point out that core infrastructure is highly competitive particularly in North America, the UK, and Australia, which is where we're focused. Should we focus elsewhere, what's the pluses and minuses of that?

MR. ALTSHULER: Sure. It's a question, and I recall you asking a similar question this morning. And the short answer is yes. I do think that a sophisticated program of CalPERS' size should have a global program for infrastructure. Infrastructure is a global opportunity set. That doesn't mean it can't have a bias towards certain markets. But I think maybe different than real estate. For example, the industry and the professionalization of infrastructure evolved actually outside of the U.S., and the use of private capital to finance infrastructure has happened outside of that. So some of that has been in the UK, a lot of that has been in Europe. And, quite frankly, even in emerging markets we're seeing conditions for investment. You have to be very opportunistic and selective and select the right partners. But the driver's there. Electrification rates, for example, are so low. And the demand for new infrastructure is so high, capital is valued more in markets where there's less competition. And there are increasingly safeguards in place that, quite frankly, provide attractive downside protection. We've seen transactions where, for example, project -- PPAs have been guaranteed by the World Bank and have been cross-collateralized with guarantees from the government. So basically a default on a PPA is a default on World Bank loans to the country. Just one example of ways that sovereign risk can be mitigated.

Having said that, I think the bulk of the opportunity for CalPERS will remain in developed markets.

COMMITTEE MEMBER JELINCIC: And how do we access some of that opportunity?

MR. ALTSHULER: It's through the managers that have developed an expertise really. And a lot of it is having to spend a lot of time, like we do, meeting with the managers. And for us it's really about a track record among those managers of returning capital really, because it's -- there's a lot of investment opportunity. But what we want to see is an ability to not only put capital to work but also return capital. So it's continuing to meet with managers and understanding who's positioned best in the respective markets.

COMMITTEE MEMBER JELINCIC: Okay. And then you talk about the returns, which are impressive. But what kind of risks are we running? I mean, what are those like if we, you know, try risk adjusting them?

MR. ALTSHULER: Yeah.

COMMITTEE MEMBER JELINCIC: And what are the elements that go into that risk adjustment?

MR. ALTSHULER: Yeah, it's a good question. And I think that the returns you're seeing are reflective of both the newer approaches of the program, which has been primarily focused on investing through new relationships with managers and in a custom account structure, as well as some of the legacy investments that actually have continued to perform well. So I think what you're seeing is an aggregation of a couple of different underlying risk factors in the portfolio.

I think the program has really been focused on minimizing revenue variability, increasing revenue certainty, and that is through really the very small number of means. One is focusing on investing, as is the case with the renewables investment in California in projects that have long-term contracted power purchase agreements.

There's not -- there's always a risk at projects, so there's risk with potential repayment. But if you can understand the credit risk of your counterparty and you understand the demand environment around that, then I think you can have a higher certainty around a revenue. Same with regulation. And the same with strong market positioning, which allows CalPERS to invest in more GDP sensitive assets where the fundamentals in the markets around these assets are very strong where they're very high barriers to entry. It's very difficult to build a competing port. It's not impossible, but it's very difficult. And so there are -- CalPERS has been focusing on projects where there are market protections.

COMMITTEE MEMBER JELINCIC: Thank you.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: Mr. Chair?

CHAIRPERSON JONES: Yes, Paul.

MANAGING INVESTMENT DIRECTOR MOUCHAKKAA: If I just may add. I also -- similar to the real estate story, I do want to emphasize this. Returns are moderating even with the infrastructure space. You know, David mentioned the amount of capital fundraising by just two managers. And the amount of capital chasing infrastructure investing. There is a moderation that's happening there similar to real estate just due to the weight of capital and interest at this point on the cycle.

CHAIRPERSON JONES: Okay. Thank you.

Okay. The last one on the list is Wilshire.

MR. JUNKIN: Thank you. Good afternoon. Andrew Junkin.

I feel like I've given this exact report for several years because the assets in the portfolio haven't changed and a lot of the challenges that you face with this portfolio haven't really changed. So I won't drag it out.

Timber prices over the last year have generally been flat. We saw the returns earlier. The portfolio's really been in a standstill mode. There have been no acquisitions, no dispositions.

And as Paul noted, the role of forestland is being reviewed during the upcoming asset liability workshop.

Ideally forestland plays a really interesting role for a public pension fund, particularly as a diversified part of an inflation protection or Real Assets portfolio. Your portfolio is not all that diversified. We've talked about that a lot, of concentration in the southeast. And that's historically been a headwind for performance.

You know, one of the nice things about forestland is timber growth is not really -- it's not related to the economy. It's not related to interest rates. It has very different performance drivers than really anything else in the portfolio.

And if you don't like the prices people are paying for timber, then you can wait if you have the right governance structures in place. And so this brings up, you know, some of the challenges, which Paul mentioned governance being a pretty big one. That's getting better.

And Mr. Lind asked a question, how does governance really interact and become a part of returns? And I think Paul sort of talked about how leverage and the ability to control leverage as an investor can make a difference. But if you think about it, if there's debt service due and you don't have the governance in place to control the leverage, then you're going to be forced into selling assets at prices you may not like just to service the debt.

And in the long run that can be a problem for returns. So I think that that's one of the factors that getting better control of the governance is going to mitigate.

And I'd just end with something that we talked about last year, which is, you know, making forestland -- despite the characteristics that we may like, in general, making forestland a significant part of the CalPERS portfolio is problematic given your size. And this goes to the point that Christy made. You're sort of your own planet. And, you know, if you said, well, we need a 5 percent allocation for it to be a meaningful part of our portfolio, you've got to not double, not triple, but quintuple the size of the portfolio or more to get there, and you'd have to be the largest buyer of forestland in the U.S. for probably a decade or so.

And so there's some significant issues in terms of capacity there.

Happy to take any questions. But I might just point you back to the 2015 report or the 2014 report.

(Laughter.)

CHAIRPERSON JONES: Okay. You heard that, Mr. Jelincic.

(Laughter.)

COMMITTEE MEMBER JELINCIC: I heard that.

(Laughter.)

COMMITTEE MEMBER JELINCIC: But I'm going to go back even further.

MR. JUNKIN: Even further.

COMMITTEE MEMBER JELINCIC: Being our own, you know, planet, that's a good observation. But I can remember being at a paper conference put on by the -- at that point, Aimer, and they talked about how the entire institutional investment in timberland was $750 million. And I was sitting there knowing where 500 million of it is.

You know, so we were two-thirds of the entire market. And yet it worked out pretty well. We got out later and made a lot of money. But, you know, there are some rewards sometimes for being the whole island.

CHAIRPERSON JONES: Okay. Thank you.

So that concludes that item. And thank you again for the report.

That moves us to Item 9, Summary of Committee Direction.

Mr. Eliop -- Wylie.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Thank you, Mr. Chairman.

So we have I think, let's see, four items to cover. And so with your assurance here, Mr. Chairman, we'll go through them.

So the first was -- the first question was to come back with holdings in the Iran Act -- the three Iran Act companies. And we actually have that information. So rather than delay it, I'll go ahead and just read out the holdings information and just take care of it.

CHAIRPERSON JONES: Great.

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: So the first company, M-S -- MISC Berhad, we have no current holdings.

In Alfa Laval, we have about $12 million in current holdings.

And, by the way, these are all as of June 30th. So we normally don't release holdings as of today, because that would position -- potentially position the fund at a disadvantage. So...

And then the last organize -- the last firm on the list was Legrand SA, and we have 93.3 million in Legrand SA today.

Totaling 105 -- roughly 105 million.

CHAIRPERSON JONES: And that's all U.S. dollars?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

That's all converted to U.S. dollars, that's right.

The second Chair-directed item was to engage in a discussion at the January off-site around our legislative guidelines, with our federal representatives and some senior members of staff, to really discuss the purpose and the structure of those guidelines.

The third item was to continue to report on progress around our disclosure -- our capture and disclosure of the various types of fees charged within the private equity structure.

And last but not least, to engage with other limited partners and ILPA to find ways -- further ways to promote our common interests. That came out of the private equity consultant's conversation.

So that's what we've captured. So if there's other items that you think we should have on the list, now is a good time for us to capture them

CHIEF INVESTMENT OFFICER ELIOPOULOS: On that last one, I think -- I was reading your notes. You said engage with others, but it's explore opportunities -- explore rather than engage --

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE: No, explore opportunities, yeah.

CHIEF INVESTMENT OFFICER ELIOPOULOS: So we can conceptualize the concept of doing that.

CHAIRPERSON JONES: Exactly. Okay.

Okay. I think that's what I have also.

So, Mrs. Mathur.

COMMITTEE MEMBER MATHUR: Yeah, I just have a question on next month's agenda. I just want to make sure -- we had talked about having the manager expectations pilot report. And is that the Investment Manager Engagement Program's piece that's on the agenda?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

I think the Manager Expectations Report is I believe coming forward with -- from Anne Simpson and Dan. Actually they're completing that.

COMMITTEE MEMBER MATHUR: So is that part of the governance sustainability update?

CHIEF OPERATING INVESTMENT OFFICER TOLLETTE:

Part of the governance sustainability update.

COMMITTEE MEMBER MATHUR: Okay. Just wanted to double-check. Thank you.

CHAIRPERSON JONES: Okay. Thank you.

So that moves us then to Public Comment. I have no requests to speak.

So this concludes the open session meeting. And we will allow for 10 minutes, and we'll convene our closed session Investment Committee meeting in 10 minutes.

(Thereupon California Public Employees' Retirement System, Investment Committee meeting open session adjourned at 2:34 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.

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