MEETING

STATE OF CALIFORNIA

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BOARD OF ADMINISTRATION

INVESTMENT COMMITTEE

OPEN SESSION

CALPERS AUDITORIUM

LINCOLN PLAZA NORTH

400 P STREET

SACRAMENTO, CALIFORNIA

MONDAY, NOVEMBER 15, 2021

9:34 A.M.

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

APPEARANCES

COMMITTEE MEMBERS:

Theresa Taylor, Chairperson

David Miller, Vice Chairperson

Margaret Brown

Rob Feckner

Henry Jones

Fiona Ma, represented by Frank Ruffino

Lisa Middleton

Eraina Ortega

Ramon Rubalcava

Shawnda Westly

Betty Yee

STAFF:

Marcie Frost, Chief Executive Officer

Dan Bienvenue, Interim Chief Investment Officer

Matt Jacobs, General Counsel

Scott Terando Chief Actuary

Kelly Fox, Chief, Stakeholder Relations

Sterling Gunn, Managing Investment Director

Pam Hopper, Committee Secretary

Kristin LaMantia, Assistant Division Chief, Enterprise Strategy and Performance Division

APPEARANCES CONTINUED

STAFF:

Arnie Phillips, Interim Deputy Chief Investment Officer

Christine Reese, Investment Director

ALSO PRESENT:

Aaron Avery, California Special Districts Association

Sandra Barreiro, California School Employees Association

Margarita Berta-Ávila, California Faculty Association

Terry Brennan, Service Employees International Union, California

Carlos Davidson, California Faculty Association

Sarah Duckett, Rural County Representatives of California

Miriam Eide, Fossil Free California

Richard Godfrey, M.D., UCSF

Sara Greenwald

Matthew Hawkesworth, City of Pasadena

J.J. Jelincic

Jonathan Karpf, California Faculty Association

Sara Lamnin, City of Hayward

Leyne Milstein, City of Sacramento

Geoff Neill, California State Association of Counties

Lynne Nittler, Fossil Free California

Tammi Royales, City of La Mesa

Lori Sassoon, City of Rancho Cucamonga

APPEARANCES CONTINUED

ALSO PRESENT:

Cindy Silva, League of California Cities

Philip Smith, United Mine Workers of America

Todd Snider

Lisa Sparaco, California Faculty Association

Dana Stokes, Fossil Free California

Sara Theiss, Fossil Free California

Sheila Thorne, Fossil Free California

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PROCEEDINGS

CHAIRPERSON TAYLOR: Good morning, everybody. Let me make sure I'm on. Can everybody hear me?

Thank you for your patience. We're all getting use to our new little environment here. I'm going to call the Investment Committee open session to order. And first order of business is roll call.

Ms. Hopper.

COMMITTEE SECRETARY HOPPER: Theresa Taylor?

CHAIRPERSON TAYLOR: Here.

COMMITTEE SECRETARY HOPPER: Margaret Brown?

COMMITTEE MEMBER BROWN: Here.

COMMITTEE SECRETARY HOPPER: Rob Feckner?

COMMITTEE MEMBER FECKNER: Good morning.

COMMITTEE SECRETARY HOPPER: Henry Jones?

COMMITTEE MEMBER JONES: Here.

COMMITTEE SECRETARY HOPPER: Frank Ruffino for Fiona Ma?

ACTING BOARD MEMBER RUFFINO: Present.

COMMITTEE SECRETARY HOPPER: Lisa Middleton?

COMMITTEE MEMBER MIDDLETON: Present.

COMMITTEE SECRETARY HOPPER: David Miller?

VICE CHAIRPERSON MILLER: Here.

COMMITTEE SECRETARY HOPPER: Stacie Olivares?

CHAIRPERSON TAYLOR: Excused.

COMMITTEE SECRETARY HOPPER: Eraina Ortega?

COMMITTEE MEMBER ORTEGA: Here.

COMMITTEE SECRETARY HOPPER: Ramon Rubalcava?

COMMITTEE MEMBER RUBALCAVA: Here.

COMMITTEE SECRETARY HOPPER: Shawnda Westly?

COMMITTEE MEMBER WESTLY: Here.

COMMITTEE SECRETARY HOPPER: Betty Yee?

COMMITTEE MEMBER YEE: Here.

COMMITTEE SECRETARY HOPPER: Madam Chair, all is in attendance with an excused for Stacie Olivares.

CHAIRPERSON TAYLOR: All right. Thank you very much. So we have change it up a little bit and we are moving into public comment as our second order -- item for order. And I'm going to go ahead and take our phone comments first. If Mr. Kelly -- or Mr. Fox, I'm sorry.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. We have several callers on the line right now. It's going to take just a moment to get --

CHAIRPERSON TAYLOR: Mr. Fox, we can hardly hear you. Can you speak up a little bit?

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. We'll do our best.

All right. Our first caller is from Fossil Fuel, Mr. Jonathan Karpf.

CHAIRPERSON TAYLOR: So Mr. Fox, I'm still having a hard time --

MR. KARPF: Hello.

CHAIRPERSON TAYLOR: -- hearing you.

MR. KARPF: Can you hear me now? This is Jonathan Karpf.

CHAIRPERSON TAYLOR: That's a little better, yeah. Speak up if you can or turn your volume up.

MR. KARPF: Okay. My name is Jonathan Karpf. I'm a member of the Retired Committee of the California Faculty Association, having retired about two years ago after teaching anthropology at San Jose State University for 32 years.

Despite being retired, I am the retirement specialist for the CFA. And as a consequence, I am both well aware of and very appreciative of the fiduciary responsibilities that the CalPERS Board has toward its members. And it's towards that fiduciary responsibility that I'd like to speak today.

You're well aware that of the existential crisis facing this planet. Unstable fossil fuel prices have made investment to fossil fuel extraction a far more risky investment opportunity. West Texas Intermediate crude oil fell in value from $107 per barrel in January 2014 to $50 per barrel by June 2015. This led Goldman Sachs to state in January 2015 that if oil were to stabilize at $70 per barrel, $1 trillion of planned oil field investment would not be profitable.

Since its inception in 2012, the S&P 500's Fossil Fuel Free Total Return Index has consistently outperformed the S&P overall. I mean this has led to commentator Jim Cramer to declare I'm done with fossil fuel stocks.

Who's divested from fossil fuels? As of April 2020, the number of education institutions, foundations, government organization, states, cities, and pension funds has grown to 1,192 with a total combined asset value of 14.14 trillion. As of 2021, 1,300 institutions possessing investments valued at 14.6 trillion have divested from the fossil fuel industry.

More of the point, Audi and BMW have pledged to stop producing gas-producing engines. Ford Europe has pledged to stop producing gas-producing engines by 2026. General Motors has pledged to stop producing internal combustion engines by 2035. Toyota has pledged by 2040, but note the Japan is banning internal combustion engines as of 2030, 10 years before Toyota is stopping making them. And finally, we have our own Governor Newsom who's pledged that California will ban the use of gas auto vehicles as early as 2016.

So not only is there a moral imperative for CalPERS to divest from a fossil fuel investments, there's a financial --

CHAIRPERSON TAYLOR: Sire, we're going to have to move on. Can you --

MR. KARPF: -- and a fiduciary risk.

CHAIRPERSON TAYLOR: Sir, can you complete your comments.

MR. KARPF: Yes, I will.

CHAIRPERSON TAYLOR: Your time is up.

MR. KARPF: Yes. Okay. I'm asking the Board to divest from all fossil fuel holdings. Thank you very much.

CHAIRPERSON TAYLOR: Thank you.

Next caller, Mr. Fox.

And before we go to next caller, can we -- I can hear it going that way, but it seems like the Board can't really hear it.

BOARD MEMBER MIDDLETON: I can't hear it.

CHIEF EXECUTIVE OFFICER FROST: Why don't we take a pause on the phone callers -- commenters and go to the in-person commenters and we'll see if we can improve the quality.

CHAIRPERSON TAYLOR: Okay. We've got a lot of in-person, so it will be a bit of time.

Okay. Mr. Fox, we're going to take a pause on the phone comments while we try to fix the sound for the

Board. And we'll start with in-person comments. Once, we're finish with those -- so tell our -- apologize to our phone folks and let them know that we'll get to them.

Thank you.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair.

CHAIRPERSON TAYLOR: Okay. So I have -- I'm going to call three people up. Sheila Thorne, Margarita Berta-Álvia and Sara Theiss. It looks like we've got two seats available, so one of you will have to sit behind.

Sheila Thorne is first.

MS. THORNE: Hello. I'm a CalPERS member.

CHAIRPERSON TAYLOR: Sheila, I'm sorry. Put your mask on and pull your mic closer to you.

MS. THORNE: Oh.

CHAIRPERSON TAYLOR: Don't take that off the mic.

Thank you.

MS. THORNE: Okay. I'm a grateful CalPERS member and also retired member of CFA. The CalPERS Governance and Sustainability Principles of September 2019 state corporations should adopt maximum progressive practices towards the elimination of human rights violations in all countries or environments in which they operate. And yet, CalPERS continues to hold investments in such heavy coal burning corporations as Duke Energy and Southern Company, which have spread toxic coal ash into the air, and mercury and arsenic into the water of surrounding communities contributing to disease and death.

In North Carolina, where Duke operates six coal plants, coal's toxic waste contributes to cancer, stroke, heart disease, and upper respiratory disease, four of five leading causes of death.

And according to a 2014 EPA analysis, it is people of color who are more likely than White people to live within a mile of a facility that releases pollution, and who suffer disproportionately the impacts of coal use.

Nationally, 76 percent of the two million Americans living within three miles of the top dirtiest coal power plants, such as Duke Energy and Southern Company, are people of color. According to Abt Associates study commissioned by the Clean Air Task Force, fine air article pollution from Southern Company coal plants is responsible annually for 1,224 deaths, 20,770 asthma attacks, 871 hospital admissions, 1,255 hospital asthma ER visits, and 1,710 heart attacks.

There is no excuse to hold on any longer to coal in any form. It is deadly to people and to the planet. All countries at the Glasgow Conference, except for India, advocate the immediate phase-out of coal. CalPERS coal holdings and coal-supported energy plants support environmental racism. CalPERS should divest these holdings immediately to live up to its own ESG principles and to act against climate catastrophe.

CHAIRPERSON TAYLOR: Thank you.

Magarita.

MS. BERTA-ÁVILA: Good morning. My name is Margarita Berta-Ávila and I am with the California Faculty Association. I'm chapter president at Sacramento State, as well as a statewide officer. We represent close to 29,000 constituents. Those constituents represent tenure line faculty, lecture faculty, coaches, librarians, and counselors.

In the spring of 2021, we voted unanimously, overwhelmingly a resolution demanding CalPERS to divest our pension from fossil fuel companies. As stated by my colleague just right now, climate change is an issue of environmental justice disproportionately impacting indigenous communities, communities of color, and low income communities due to historical oppression, and equity of power, and lack of access to resources.

Addressing climate change is also an opportunity to address injustice, but most importantly for our members, 29,000, 23 campuses, is to not be made complicit to the acts of injustices through these actions.

Thank you very much.

CHAIRPERSON TAYLOR: Thank you.

Ms. Sara Theiss.

MS. THEISS: Yes. Hi. As I think you all know, I'm a CalPERS retiree and member of Fossil Free California. I hope the information I share today will be helpful as you all work hard both to make decisions consistent with your fiduciary duty and to respond on a personal and professional level to the unfolding climate disaster haunting all of us.

I want to share a recent article from Climate Policy journal that looked at the financial impact of fossil fuel divestment on investment performance. It was based on data from 1973 to 2016 and almost 7,000 global companies. Here are several of their conclusions.

First, as to diversification, the authors conclude that screening out fossil fuel stocks has no significant impact on the returns and risks of a global well diversified portfolio. There is nothing unique about fossil fuel holdings in terms of the global investment universe.

Second, the authors analyze the impact of divestment during both a delayed energy transition or a smooth one. To me, their conclusions relate to whether it's necessary from a fiduciary point of view to keep fossil fuel holdings because of the current high performance or predicted high performance. They found that while earnings for fossil fuel holdings are higher in the delayed transition, the difference between portfolios with and without fossil fuel stock holdings are statistically insignificant. In other words, diversifying won't cause you to miss out on bonanza returns from the oil majors in the near or medium future.

Third, as to the impact of engagement, the authors point out that in a smooth energy transition, fossil fuel companies will lose their profitability and ability to invest. They're therefore unlikely to finance the energy transition. And I just want to note that this data did not include the last five years or the possibility of, you know the growing climate chaos, further impacts, and other -- further pandemics and other major economic shocks.

And finally, regarding engagement, the Dutch Pension Fund, you might know this, APB, just announced it would begin to divest from oil, gas, and coal, which represents almost three percent of its $600 billion fund. Most assets will be sold by the first quarter of 2023. The company based its decisions on recent reports from the IEA and the UN Climate Panel showing that CO2 emissions must be reduced quickly and drastically.

In terms of engagement, APB's Chairwoman said we see sufficient -- insufficient opportunity for us as shareholders to push for the necessary significant acceleration of the energy transition at these companies. And I will send you the article. It's quite technical. And thank you so much for listening.

It's great to be back.

CHAIRPERSON TAYLOR: Thank you. Thank you.

Aaron Avery, Lynn Nittler -- Nittler, I'm sorry, and Miriam Eide. I don't know if I'm saying that correctly. If you could come up front I've got Aaron Avery and Lynne Nittler first.

MR. AVERY: Hello. My name is Aaron Avery. I'm with the California Special Districts Association. CSDA represents approximately 1,000 independent special districts in the state of California, many of which are CalPERS employers. I'm here today to just briefly touch on the Investment Committee's decisions with respect to portfolio selection and discount rate selection.

Can you hear me okay?

CHAIRPERSON TAYLOR: Um-hmm.

MR. AVERY: Okay. First of all, I've read the materials that the staff has prepared and want to note that we are aware that private equity is in the mix for a continued investment vehicle. CSDA supports the use of private equity and understands that this Committee needs to go into new areas and accentuate others, in order to achieve its investment objectives.

Speaking with respect to the discount rate selection question that's before the Committee today. CSDA's position is that we simply want the discount rate to be as accurate as possible. And specifically, there are a number of portfolio options before the Committee today that will allow the Committee to achieve its investment objectives, while not lowering the discount rate, and to do so in a responsible manner that will not increase costs on employers, such as CSDA's members. We want to encourage the Committee not to select a discount rate that goes below the current discount rate of 6.8 percent.

Finally, I want to thank the Committee and, in particular, the CalPERS Stakeholder Relations Investment -- or Stakeholder Relations management team for robust and continuous engagement on this issue. It has been appreciated and noticed.

Thank you.

CHAIRPERSON TAYLOR: Thank you, Mr. Avery. Lynne Nittler.

MR. NITTLER: Yes. I'm a CalSTRS retiree with my health care right here at CalPERS for which I am most grateful. Carbon Tracker recently released a report taking stock of coal risks, which finds that worldwide 220 billion of investment in coal plants could be stranded if the world takes action to achieve the temperature goals set out in the Paris Agreement. Stranding risk is most prevalent on the Asian stock exchanges, which account for almost 110 billion or 90 percent of the total.

The report looked at a total of 174 companies. I didn't check all of these, but I can tell you that CalPERS has investments in six of the top 10 companies most at risk for stranded assets.

Investments in the six top companies at most advice -- I'm sorry, over 50 percent of the listed stranded asset is concentrated in these companies, JSW Energy, Adani, Tata, KEPCO, Tohoku, and Reliance Industries. Those are all in CalPERS. I plan to look -- sorry.

U.S. companies are not immune from these stranded asset risks. Exchanges in New York hold seven billion of potential asset-stranding related risks. Twenty-three percent of this amount, that's 1.6 billion, relates to coal assets held by Duke Energy followed by Dominion Energy, and American Electric Power. Each accounts for 10 percent, 700 million worth. The website was down -- your website was down over the weekend, so I couldn't check, but I believe they're your companies.

Although the main focus of the report is to highlight the stranding risk for operating coal, the report separately analyzes new capacity. CalPERS also invests in some of the top 10 companies in this category. A new coal plant typically implies a commitment of 40 years. According to the report, this is a very risky bet, since these coal plants are highly unlikely to generate a return above their cost of capital over the project lifetime, as a combination of carbon pricing, lower cost renewables continuing to displace fossil fuels, and tight carbon budgets in the wake of net zero announcements leave limited space for running polluting coal plants. This may in turn lead to early closures driven by policy decisions.

This is a signal to investor to avoid committing capital to listed companies investing in new coal projects. And finally, the report warns investors that by investing in companies which own coal plants, there is a significant risk of either not recouping the investment or achieving an investment return below that originally expected.

CHAIRPERSON TAYLOR: Thank you.

Miriam.

MS. EIDE: Thank you. My name is Miriam Eide and I'm both a young person and I also work for Fossil Free California.

And I'm here today to ask you all why I feel like you're not listening. We've come to you for years asking you to listen to the planet, to the people, to the literal experience that you all have as you watch fires and drought reshape what it means to be a Californian. And I imagine that, like myself, you are all in a privileged space, where you don't have to worry about what would happen if I was displaced would I have some place to go? You could probably name a friend or a family member whose house you would stay at. You could identify the finances that you would be able to put aside to move to be away from your job, if that were so necessary.

But that is not true of everyone. And increasingly it will be true of fewer people, because the risks are rising. I am 23 right now. I have at least probably 60 years left in my life. And every year, I look at more and more fear that regardless of where I chose to live anywhere in the world, I will be facing displacement, whether temporary or permanent, because of climate change.

And I know you care. I don't think that the CalPERS Board or the CalPERS pension would have shown up in Glasgow, if you didn't, at least in name, care about the future of this planet. And yet, you're willing to show up in Glasgow to call for change and yet do nothing yourself. You want other people to do that work for you.

You want to be able to say, yeah, I asked them to change and they changed enough that we're clear.

But I'm telling you now, fossil fuel companies are not the future. Fossil fuel companies are not going to save your investments. They're going to be the end of the world. So please consider investing in the future, not the end.

Please consider looking at people like myself, people who have many years yet to live, and ask yourself do I really want to be part of why she, they, he will have to move many times in their life to escape fire, to escape grout, to escape tornadoes, to stay safe. Already, I can point to reasons why I have asthma. I can point to reasons why I wake up regularly in the middle of the night unable to breathe. And I can tell you it has a lot to do with the fact there's a train track or there's 20 plus trains a day with fossil fuels that go past my house within a thousand feet of my house.

I can tell you it's because I'm growing up in a polluted environment and you have a choice to make. Will you divest from fossil fuels?

CHAIRPERSON TAYLOR: Thank you.

If you guys can go. Mr. Brennand, and then we will go to the callers.

MR. BRENNAND: Good morning, Madam Chair, members. Terry Brennand on behalf of SEIU California. I'm here today to comment about the ALM decisions and process. I sort of echo the remarks of the representative from the Special Districts that we should at a minimum be adopting the portfolio and discount rate that matches the rate you currently have. I understand there's concerns about doing this without a sitting CIO, but my feeling is this is a choice for the Board, and far less dangerous than your actuarial formula that got us to the 6.8 percent and created this situation where we had the highest return in the last two decades of CalPERS, yet my members and employers are paying more into the system.

The perverse incentive or understanding of that is difficult for my members to grasp. You earned over 20 percent, yet they're paying somewhere between half a percent to one and a half percent more out of their paycheck, as are the employers. And that decision was not made by this Board, not in an open session. You adopted a formula that created this and now we're talking about potentially going to 6.5. That's not something my members are interested in. So we're supporting at least a 6.8. Option 2 seems to make the most, since it has lower risk and lower downside.

So we would encourage you to adopt that today and at some future meeting consider abandoning the risk mitigation actuarial formula that automatically triggers a reduction in the discount rate and an increase in member contributions without open session discussions, and meetings, and Board.

Thank you.

CHAIRPERSON TAYLOR: Thank you, Mr. Brennand.

That's the end of our in-person comments, is that correct?

Okay. Mr. Fox, we can move on to the callers. It sounds like they fixed the sound.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. Can you hear me now?

CHAIRPERSON TAYLOR: I can. Much better. Thank you.

STAKEHOLDER RELATIONS CHIEF FOX: All right. Our next caller is from the City of La Mesa, Tammi Royales.

MS. ROYALES: Hi. Good evening. Can everyone hear me okay?

CHAIRPERSON TAYLOR: Yes. Thank you.

TAMMI ROYALES: Thank you. Good afternoon or good morning. My name is Tammi Royales and I'm the Director of Finance for the City of La Mesa.

First off, we do appreciate the hard work by those who work at CalPERS on a daily basis and have the responsibility to invest to the best of their ability to get the highest return possible. We also appreciate the Board and the decisions that you have to make without having that Crystal ball that will give you the answers.

As we all know, back in 1991, then Governor Pete Wilson took 1.5 billion from CalPERS to help balance the State's budget. Then in 1999, then Governor Gray Davis increased pension benefits due to CalPERS doing so well, only to have the dot-com bust a year later.

This statement is not to be political, but to better understand the history and how CalPERS has been struggling to catch up due to past decisions and the prices being paid by the municipalities that do not have a say in those decisions.

At the City of La Mesa, our underfunded pension liability has been 14 percent of our annual budget and increasing to as much as 17 to 20 percent in the coming years. This puts extreme financial strain on our local resources as projects have to be deferred or canceled due to lack of funding as we budget for increased UAL costs. As we come out of the pandemic and inflationary numbers start to rise, we cannot ask our constituents to pay the price for past decisions.

Our residents are already hurting and it's our responsibility to maintain sound financial governance. The rate of return in fiscal year '21 was an anomaly. And while the rules state that it automatically resets the discount rate, I think we can all agree that the last 18 months have not been the norm.

The economy is currently on shaky ground and budgets will be strained already throughout California. Lowering the discount rate that will increase UAL payments even more so only hurts all of us further. We are asking you to make a sound decision of leaving the discount rate at seven percent, or no lower than 6.8 percent that is assumed.

Thank you very much.

CHAIRPERSON TAYLOR: Thank you.

Mr. Fox, next caller.

STAKEHOLDER RELATIONS CHIEF FOX: Madam Chair, the President of Cal Cities, Cindy Silva.

MS. SILVA: Thank you very much. Good morning. I'm Cindy Silva, President of the League of California Cities. And on behalf of the nearly 500 cities across California representing 32 million residents, I want to thank you for the opportunity to share comments on the challenges our cities face regarding pension sustainability, and specifically related to Item 7B on your agenda today.

Before I make a few remarks, I would like to thank all of the CalPERS Board members and staff members who have taken the time to speak with Cal Cities and engage with us on the impact of the decision you have before you today. In particular, I'd like to thank CalPERS CEO Marcie Frost for recently taking the time to meet with representatives from across the state from our cities. And I'd be remiss if I didn't acknowledge your Board Member Lisa Middleton Mayor Pro Tem of the City of Palm Springs for her work and her voice on behalf of our cities on your Board.

I'll start by saying that our cities understand the asset liability management challenges that you face. You need to balance the risks of pursuing higher investment returns with the need to protect the long-term sustainability of the pension system for our public employees in turn. We hope you can understand the potential catastrophic impact to our cities if you decide to again adjust the discount rate this year. Quite simply, any additional lowering of the discount rate will increase city pension costs, and, in turn, the adjustment will impact city services.

Let me give you an example. I am City Council member and three-time Mayor from the City Walnut Creek, a full service city in the San Francisco East Bay. We are a city of about 70,000 residents, but because we are a center of commerce, our daytime population grows to more than 125,000 people, which significantly increases the demand for essential services for public safety and public works.

For Walnut Creek this year, pension payments will be about $13.4 million, the equivalent of 15 percent of this year's $87 million operating budget. If you drop the discount rate just a half point Walnut Creek's pension costs will jump another three-quarters of a million dollars, or the equivalent of four fully burdened police officers.

And let's remember, we just had to come through the pandemic and the economic impacts. We are working hard to basically recover from that. And for the City of Walnut Creek, the pandemic meant we had to cut services and reduce staffing to cover more than 20 million in anticipated revenue losses, and the ARPA funds only cover about 40 percent of that.

It's because of the potential disastrous impact to our cities' budgets that the League of California Cities cannot, at this time, support an additional lowering of the discount rate. However, we assure you that Cal Cities remains committed to working hand in hand with CalPERS to find balanced solutions that safeguard retirement security, while ensuring local governments have the resources needed to deliver essential services to our communities.

I thank for your time and consideration.

CHAIRPERSON TAYLOR: Thank you, Ms. Silva.

Mr. Fox, next caller, please.

STAKEHOLDER RELATIONS CHIEF FOX: Madam Chair, the next caller is with the California State Association of Counties, Geoff Neill.

MR. NEILL: Good morning, Madam Chair and members. Geoff Neill here with the California State Association of Counties. Thank you for the opportunity to speak to you today. I want to start also by thanking the CalPERS executive team and the Stakeholder Relations team who have, in my opinion, done an extraordinary job talking about these complicated issues with all of us over the past months.

We recognize at CSAC that the decisions you'll be making related to the system's asset liability management are difficult to say the least. It's a complicated issue and we know it's not simply a question of higher or lower costs for employers and employees, but a question of whether the cost risks should be taken in the short term or the long term, as well as, to a certain extent, how those costs will be shared.

We also recognize that the change -- that the discount rate has changed quite a bit over the last few months and few years. And now at 6.8 percent represent -- as you know from the presentations that you've seen and will be receiving today from your team is a discount rate that is achievable with a reasonable investment portfolio.

We think would echo the comments of many here encouraging the Investment Committee and the Board not to -- to keep in mind the financial help of local agencies whose revenue gains have not been as strong as the State's in almost every case, when undertaking these decisions. And look forward to engaging with you later in the week as well.

Thank you.

CHAIRPERSON TAYLOR: Thank you.

Next caller, Mr. Fox.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. From the City of Pasadena Matthew Hawkesworth.

MR. HAWKESWORTH: Good morning. Matthew Hawkesworth, Director of Finance for the City of Pasadena. I's like to start by thanking you for taking the time at the start of today's meeting to hear our comments and the comments from concerned members and agencies. Pasadena sent a letter to all Board members on November 8th, 2021, regarding our concerns for the ALM proposals being considered today.

While CalPERS is a long-term investor, it continues to make shortsighted decisions with ever-changing methodologies, often abandoning policies in just a few years. The constant manipulation of how unfunded accrued liabilities are accounted for and paid down by member agencies is an example of ever-changing targets and policies.

From a rolling 30-year, to a fixed 30-year, to a ramp up and down 30-year, to the current 20-year without ramps. This constant manipulation of methodologies to appease the loudest voices only harms the overall health of the plan long term. This was never more evident than when CalPERS adopted the ramp-up and ramp-down methodologies during the Great Recession that ultimately cost member agencies hundreds of millions of dollars in added capitalized interest costs.

Today, the Board is considering investment options that CalPERS cannot achieve without policy changes that require legislation.

CalPERS CEO stated as recently as October 14th at the workshop with Cal Cities that CalPERS intends to and must seek legislation to be able to achieve the private equity and debt targets.

The CalPERS Board should refuse to approve any ALM methodology that it cannot achieve when adopted. If CalPERS cannot achieve the private equity and debt targets without legislation to expand its ability to conduct investments in closed session without appropriate public disclosure, Pasadena asks why is CalPERS considering approval in the first place?

CalPERS has been unsuccessful the last two years in getting legislation approved, but yet it is going to approve a methodology based on that failed legislation? It makes no sense.

Lastly, when cities speak up that they do want their rates raised and they cannot afford large increases in pension costs, it's assumed that CalPERS must take on risk to achieve greater investment returns. There is a disconnect from the mission from the statement. Cities and member agencies cannot afford the volatility in contribution rates that CalPERS will likely incur when chasing discount rates. The UAL payment plan of 20 years without ramps means that gains and losses are going to create added volatility to our rates.

Taking on risk that may make the gains and losses even greater will only harm the member agencies in the long run. We need stable and sustainable rates, not rates based on increased risk and volatility. We ask that the Board push back on the proposals and insist AM solutions -- ALM solutions that do not require legislation to achieve.

Thank you for your time.

CHAIRPERSON TAYLOR: Thank you.

Mr. Fox, next caller.

STAKEHOLDER RELATIONS CHIEF FOX: Yes. Madam Chair, the next caller from the City of Sacramento, Leyne Milstein.

MS. MILSTEIN: Good morning. This is Leyne Milstein, Assistant City Manager with the City of Sacramento. Thank you for the opportunity to provide comments on Item 7B, as you can consider ALM options.

Before I begin, I really want to thank your Stakeholder Relations staff for their engagement, along with your executive, Marcie Frost, and Board Member Lisa Middleton for their efforts to engage and educate your city officials on the scenarios you will be considering today.

Sacramento and many cities have struggled to keep pace with the pension, contribution increases of 2016, resulting in a discount rate of seven percent. This increase costs for the City of Sacramento by nearly $67 millon or more than 10 percent of our general fund making pension costs currently 17 to 18 percent of our general fund budget.

Further, we are already working on building in the effective, the move to 6.8 percent, which to be clear is not neutral, but results in increased costs over the next several years.

Given already pending fiscal Challenges of COVID and recent rate changes, we are supportive of the models that keep the discount rate at seven percent or, if we must, at 6.8 percent. As local governments continue to recover from the negative economic impacts of the pandemic on city budgets and services, we cannot support further lowering of the discount rate without devastating effects on some cities at this time.

It is imperative that the committee consider employer affordability for the long-term sustainability of the fund. Additional changes at this time would impose significant burdens on cities, while focus should be on supporting local government's pandemic recovery efforts. Strong local government finances are essential to the health of the pension system.

Thank you.

CHAIRPERSON TAYLOR: Thank you.

Mr. Fox, next caller.

I think we're not hearing.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. Madam Chair, the next caller is from Rancho Cucamonga, Lori Sassoon.

MR. SASSOON: Good morning. Thank you. Can you hear me?

CHAIRPERSON TAYLOR: Yes, I can.

MS. SASSOON: Yes. Wonderful. Good morning. My name is Lori Sassoon and I'm speaking today on behalf of the city of Rancho Cucamonga and the Rancho Cucamonga Fire Protection District to provide comment on Item 7B regarding the discount rate selection.

Echo the other commenters that we appreciate the efforts of the board and the staff to work with us, and to reduce risk and improve the funded status of our plans. However, we would urge the Board to consider the downstream impacts of those changes on public employer budgets.

We would note that page 23 of Attachment 1 to this item shows even, with the current discount rate, public agency employers are facing mean safety pension rates of more than 40 percent with many agencies having rates at or near the 50 percent of payroll level. As Leyne mentioned from the -- Leyne from Sacramento mentioned, those rates have been a result of the changes made in 2016 that we continue to wrestle with.

Those types of rates put pressures on our agencies to hold the line and even reduce payroll, which, as you know, creates other types of adverse pressures on the plan. It also reduces our budget ability to work on pre-paying our UAL balances, as increases in normal costs puts furthers pressures on our budget.

So we would urge you to continue to hold the discount rate at current levels and consider other modifications to the portfolio that balance risk and return, while aligning with your CalPERS overall objectives for the fund.

Thank you.

CHAIRPERSON TAYLOR: Thank you.

Mr. Fox, the next caller.

STAKEHOLDER RELATIONS CHIEF FOX: Yes. Madam Chair, the next caller Sarah Duckett from Rural County Representatives of California.

CHAIRPERSON TAYLOR: Thank you.

MS. DUCKETT: Good morning, Board. Sarah Duckett on behalf of the rural county representatives of California, commenting on Item 7B.

First, we would like to thank CalPERS staff for all their work in bringing forth varied options in the selection of a discount rate and investment portfolio. We believe that actuarial, investment, and financial offices have taken a thoughtful measured approach that prioritizes CalPERS Investment Beliefs, including a long-term investment horizon strategic asset allocation and taking risks where there's a strong belief the fund will be rewarded.

Reflecting on RCRC's input several years ago, our member counties continued to seek predictability and stabilize contributions. A lower level of volatility helps our counties better plan for the future. While we are not providing a position on each candidate portfolio, we do note that Candidate Portfolio B2 with a proposed discount rate of 6.8 percent and a five percent leverage seems to best meet our mutual goal.

Thank you for this opportunity to comment.

CHAIRPERSON TAYLOR: Thank you very much.

Mr. Fox, the next caller.

STAKEHOLDER RELATIONS CHIEF FOX: Yes. Madam Chair, the next caller from the California School Employees Association, Sandra Barreiro.

MS. BARREIRO: Yes. Good morning Madam Chair and members. Sandra Barreiro on behalf of the California School Employees Association. CSEA supports an ALM portfolio that assumes a higher discount rate to reduce the potential for future employee contribution increases.

CalPERS saw historic returns this year and members are questioning why they are paying more rather than less out of their paychecks. Our economic recovery outpaced predictions and selecting an ALM portfolio with increased will help keep money in our member's pockets.

Thank you.

CHAIRPERSON TAYLOR: Thank you.

Mr. Fox, the next caller.

STAKEHOLDER RELATIONS CHIEF FOX: Yes. Madam Chair, the next caller from the United Mine Workers of America, Philip Smith.

MR. SMITH: Good morning and thank you for making some time for me. My name is Philip Smith. I'm the Director of Communications and Government Affairs for the United Mine Workers. I want to bring to your attention an issue that we are suffering with Apollo Global Management, a private equity firm that you may be familiar with.

On April the 1st about a thousand of our members went on strike at a company called Warrior Met Coal in Alabama. This is a company that produces metallurgical coal that's used to make steel not a company produces thermal coal that's used to generate electricity.

Warrior Met Coal was created from the bankruptcy of a company called Walter Energy in Alabama in 2016. They group that led Walter Energy out of -- Warrior Met Coal out of bankruptcy was led by policy. During the proceedings in 2016, Apollo let creditors pursue a restructuring strategy that depended on cuts of up to $6 an hour in workers wages, the elimination of retiree health care benefits and the elimination of payments into the UMWA Health and Retirement Fund's pension plan. In all, the company was relieved of about $1.1 billion in responsibilities to workers, again including moving forward on their pension plan.

Since then, the company did an IPO in 2017. Warrior Met Coal is part of the equity owners, including Apollo, and a special cash distribution 1.9 -- I'm sorry, $190 million. And seven months after the IPO, the company's Board paid another special cash dividend of $600 million to the shareholders. Again, the largest returns were Apollo funds, Blackstone's GSO funds, Franklin funds and KKR.

Now, these dividends were financed from the proceeds of one hundred -- a $350 million private bond offering and $260 million in cash on hand. Apollo had, at the time of the emergency from bankruptcy, two board members on Warrior Met's board. And at this time, they only have one, even though they have completely divested themselves, as far as we can tell, from any financial aspect of this company, but a board member still remains.

We believe that this Board Member, Mr. Gareth Turner, can -- bears considerable responsibility for having demanded so much of the workers while extracting hundreds of million of dollars from the company via dividends to themselves and their co-investors. They have a moral responsibility to help settle this strike. However, Warrior Met Coal refuses to make up any of the sacrifices that the workers made in 2016. That allowed it to come out of bankruptcy, hence we are still on strike eight months later.

From our perspective and from your perspective we think most importantly, we think Apollo's role at Warrior Met Coal raises alignment questions for CalPERS, in terms of what your -- you know what your pension policies are, when you're looking at investments.

And lastly, we are sending you a letter, which you will receive within the next couple days, regarding this, and we will look forward to following up with you and your staff as we move forward.

Thank you very much.

CHAIRPERSON TAYLOR: Thank you very much.

And, Dan, can we -- once we get that letter, can you respond to them.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes, Madam Chair, we'll dig in definitely.

Thank you.

CHAIRPERSON TAYLOR: All right. Thank you. And I don't know if we're in the fund that he's talking about or not, but...

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

We'll dig into all of that whether we're invested, if so, what approach we should take. We'll take that as Chair direction.

CHAIRPERSON TAYLOR: Thank you very much.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Thank you.

CHAIRPERSON TAYLOR: Okay. Next caller, please, Mr. Fox.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. Sara Greenwald

MS. GREENWALD: Hello.

CHAIRPERSON TAYLOR: Hello. We can hear you.

MS. GREENWALD: Hello. Okay. My name is Sarah Greenwald. You erudite, ladies and gentlemen, are ones I do not need to tell about climate change. You know that what's needed for the world to cut its carbon emissions output is going to be difficult. But the good news is that what you need to do is relatively easy. You also heard the estimates that if CalPERS had divested 10 years ago, they would have increased their profits by billions of dollars. So I ask -- get your money out of a losing investment. This is a double win that CalPERS has not been taking advantage.

Well, change that now. Our nation and all nations have a lot of work ahead of us. We must invest in that work, not in old fashioned fossil fuels that need to go anyway.

Thank you.

CHAIRPERSON TAYLOR: Thank you very much.

Next caller, please.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair, the next caller Lisa Sparaco from the California Faculty Association.

MS. SPORACO: Good morning and thank you for taking my call and seriously considering the comments of my colleagues this morning. My name is Lisa Sporaco. I'm an annuitant, a retired CalPERS pensioner at San Diego State University. I'm also a member of CFA representing over 29,000 academic workers in the CalPERS system. I'm a voter in California and a global citizen concerned about the climate crisis impacting all of us. I'm calling to urge CalPERS to divest from fossil fuels. The role of fossil fuels on climate change is indisputable across the fields of science and knowledge.

Last spring, CFA passed a resolution calling on CalPERS divestment from fossil fuels, which received broad support from members across our 23 campuses. We will also be doing more actions related to this to encourage CalPERS to divest. As academic workers in the CSU, we have scientific research and academic data indicating that it would be fiscally sound to divest our pension funds from fossil fuels.

In short, fossil fuel is no longer a viable investment option, decreasing returns, especially for pension funds, not to mention the moral imperative to do the right thing for our children's children.

The UC system has already divested as have other Ivy League schools like Harvard and Rutgers. Many CTA Chapters and State Treasurer Fiona Ma are encouraging CalSTRS to divest from fossil fuels. And many other industries, as shared by others this morning, are divesting and diversifying without risk to their funds and portfolios.

To the contrary, their increased earnings speak loudly to divesting from fossil fuels. Working for the State of California has been a source of pride for me. And throughout my retirement process, the folks at CalPERS have been consistently helpful allowing me to focus on other matters. Without good health care, I would not be able to enjoy a healthy lifestyle. And any risk for CalPERS is a risk to my personal well-being. Investing in fossil fuels is risky business. It's not sustainable fiscally nor environmentally.

Climate change resulting from the extraction, consumption, and resulting pollution from fossil fuels is the greatest threat to our collective well-being, including the employees and workers of CalPERS.

I'm a new grandmother and I'm quite aware of the consequences of fossil fuel consumer habits on generations to come. In sum, CalPERS must act now for three basic reasons, public health is in dire distress due to the ongoing pandemic, and the cost of pension funds from preventable illnesses stemming from the use of fossil fuels are not sustainable. Research and development are urgently needed in all energy and technology. And divesting from fossil fuels will allow CalPERS to leverage its economic stature, to find solutions, and shape public policy leading to government action. And third, investing in fossil fuels is not fiscally found policy, as evidenced by a growing number of universities, public and private sector organizations, around the world. Current and future employees in the state of California deserve greater economic security.

So in closing, divesting from fossil fuels is fiscally sound, socially responsible, scientifically supported, and morally just. It's time to do the right thing, divest CalPERS from fossil fuels from the --

CHAIRPERSON TAYLOR: Thank you, Ma'am, your out of time.

MS. SPORACO: -- people you serve and in the name of climate justice.

CHAIRPERSON TAYLOR: Thank you.

MS. SPORACO: Thank you.

CHAIRPERSON TAYLOR: Next caller, please, Mr. Fox.

STAKEHOLDER RELATIONS CHIEF FOX: Madam Chair, we have Todd Snider.

MR. SNIDER: Good morning, everyone. Thank you for the opportunity to speak to you today.

The fiduciary responsibility of CalPERS is to vest the money that the California public employees contribute. And as we can see, that the most heavily subsidized industry in the history of our economy is failing. I demand that you divest immediately from the fossil fuel industry that is contributing to the climate emergency, and that you think of your grandchildren and your families and what kind of world you're going to leave them.

Going to COP26 in Glasgow Scotland is a gesture, but what we really care about is action. So your PR stunt and palling around with merchants of death and their lobbyists may get you a few days of headlines and good press, but you still have $9 billion invested in merchants of death. Please wake up, invest in clean energy. Do your fiduciary responsibility and divest all of your holdings from the merchants of death.

CHAIRPERSON TAYLOR: Is that it?

Thank you. Mr. Fox, next caller.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. Carlos Davidson with the California Faculty Association.

MR. DAVIDSON: Good morning, CalPERS Board. Thank you for the opportunity to speak today. I'm a member of the California Faculty Association, which represents 29,000 faculty librarians, counselors, and coaches in the California State University system. We are all CalPERS members.

As you heard from several other speakers, earlier this year, our union overwhelmingly passed a resolution calling on CalPERS to divest from fossil fuel companies. I understand that CalPERS prefers shareholder engagement with fossil fuel companies over divestment. I believe your efforts, while well-intentioned, are actually detrimental to addressing climate change.

Former SEC Commissioner Bevis Longstreth put it this way, quote, "Indeed engagement is likely to assist big oil and big coal in postponing the day when governments limit the burning of fossil fuels. The International Energy Agency reckons that if governments act to compel adherence to the carbon budget necessary to have a chance of holding the planet to only 3.6 degrees Fahrenheit rise in temperature from pre-industrial levels, it will cause big oil and big coal to lose about $1 trillion a year. Engagement with investors, like Harvard -- institutional investors like Harvard, gives the fossil fuel giants the protective cover they need to stretch out the transition process to renewables for as long as they can. It legitimizes talk over action", unquote.

Despite more than a decade of yours and many others' efforts at shareholder engagement, fossil fuel companies remain the single most powerful obstacle to government's addressing climate change. A recent CNN headline is painfully illustrative. It was quote, "Big oil goes all out to defeat Biden climate rules in Build Back Better Plan", unquote.

Shareholder engagement is a failure for climate change. Please divest from fossil fuels now. Thank you very much.

CHAIRPERSON TAYLOR: Thank you.

Next caller, Mr. Fox.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair, Mr. Richard Godfrey, UCSF retired faculty.

DR. GODFREY: Good morning. Thank you all for the opportunity of addressing the issue of CalPERS investment in item 4 of your agenda. My name is Rich Godfrey. I worked as an employee with Highland Hospital and UCSF. I was a surgical oncologist and currently work in the field of primary care.

I have good news, because Americans have diligently worked to reduce air pollution in urban areas, life expectancy has increased by 18 percent as documented in the Journal of Epidemiology. All of you are aware that using coal to produce electricity is cheap and provides up to 30 percent of our usage, but the true cost is from the release of carbon monoxide, sulfur dioxide, mercury, and heavy metals. As many as 300,000 infants will have developmental defects as a result of fine particular matter pollution. And for adults, we encounter asthma, emphysema, cancer, and premature death.

The good news is you can help prevent this. Please divest from all coal-related companies and corporations. And I thank you for making wise and moral decisions on behalf of all CalPER -- all CalPERS employees.

CHAIRPERSON TAYLOR: Thank you.

Next caller, please.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair, from Fossil Free California, Dana Stokes.

MS. STOKES: Good morning, Board Chair, and other

Board members. Thank you for this opportunity to address CalPERS investment. And also, I greatly appreciate your placing this comment period at the beginning of the meeting. It makes it much more accessible for all public commenters. Appreciate it.

And my comments specifically address CalPERS engagement with its emissions creating holdings. It's become obvious that the only way we can avert catastrophic climate change is to transform the existing fossil fuel based economy into a fossil free one as quickly as possible. This obviously requires altering our individual and collective investment and consumption behavior.

CalPERS claims it is contributing to this transition by engaging as a shareholder with gross emitter Climate Action 100 companies. But this engagement so far has produced no measured greenhouse gas reduction results from these companies, at least as far as I can find on the Climate Action 100 website.

That website indicates that only 38 percent of targeted oil and gas sector Climate Action 100 companies has adopted this -- have adopted short-term, and only 21 percent have adopted medium-term Scope 1 and 2 greenhouse gas emissions reduction benchmark targets. Only 54 percent of those companies have adopted long-term net zero by 2050 emissions reduction targets.

In addition, 68 percent of upstream oil and gas-focused companies in Climate Action 100, they're unsanctioned projected oil and gas caused capital expenditures - this is from 2020 to 2040 - do not meet the demand constraints of the international energy agencies beyond two degrees scenario.

Additionally, the Carbon Tracker Initiative recently recorded that 94 of the 167 Climate Action 100+ target companies do not account for climate related risks in their financial statements and audits.

CalPERS has -- from what I can see on the Climate Action 100 website, CalPERS has not established carbon reduction pledge deadlines for Climate Action 100+ companies. It has not established emissions reduction reporting requirements or timelines for those companies. And I can find no consequences for inaction by those companies --

CHAIRPERSON TAYLOR: Ma'am, can you --

MS. STOKES: -- such as divestment.

CHAIRPERSON TAYLOR: Can you end up -- end your comments, because you're at the end of your time.

MS. STOKES: Yeah. CalPERS pension holders like me want to see real measured climate risk reduction in the CalPERS portfolio. Please stop greenwashing and incorporate real measurable costs and consequences for company inaction in your Climate Action 100 shareholder engagement.

Thank you.

CHAIRPERSON TAYLOR: Thank you.

Mr. Fox, next caller, please.

STAKEHOLDER RELATIONS CHIEF FOX: Madam chair, that concludes public comment for this time frame.

CHAIRPERSON TAYLOR: Okay. Thank you very much. And thank you, everyone, who came in person and who stayed on the phone. I want to thank our people from our cities and local agencies. We hear you. And SEIU, we do hear you.

And also, Mr. Bienvenue, I was wondering if we could look at -- and I don't know if you have to work with Anne for this, but to look at where -- if we're going to meet the Paris Accords, where our stranded assets might be and have a report. I mean obviously, we're in the middle of ALM. I don't expect it now. But after the first of the year, if we could look at that and have you and Anne work together on that. That would be really helpful for this situation, because I agree I'm reading a whole lot of articles where all the people that made these Climate Action 100+ commitments and net zero commitments -- and I know we need more data and stuff, but they're not holding to these commitments and they're continuing to, you know, pour more money into dirty fuel. So if we could look at that, that would be very helpful, I think.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Certainly. We can -- we can dig that -- dig into that exact topic. Certainly stranded assets is something that is -- you know, occupies a lot of our, you know, time and energy looking at -- you know, through the imple -- the integration of -- into our investment decision-making process, but we can definitely come up with a report for this committee and then take it from, if that works.

CHAIRPERSON TAYLOR: Great. I'd appreciate that. Thank you very much.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Okay. We'll take that as Chair direction also.

CHAIRPERSON TAYLOR: Okay. That brings us, I believe, to the end of -- oh, I'm sorry. I did see two people here and I almost forget.

Okay. And I did want to say one other thing real quick that we -- before I start with Ms. Brown first, that somebody addressed our private debt issue. And I just wanted to make sure everybody knows that we're trying to bring private debt in-house. It has nothing to -- we can do private debt, but somebody made a comment about having to do legislation to meet our rate of return and that's -- we don't have to do legislation. We would like to bring that in-house to make sure our State employees can do that work.

So, Ms. Brown, you're next. Let me make sure I get you on. It looks like you're on. Go ahead.

Let me try -- not, it went off.

Try again.

There you go.

COMMITTEE MEMBER BROWN: Now, it's red. Thank you. Thank you, Madam Chair. I'd like to, first of all, thank the staff for putting public comments at the front. I know that it's very difficult a hold on the phone or wait here all afternoon to make your comments. And so I do appreciate the fact that we did change up the agenda to allow public comments first.

I wanted to respond to the gentleman from United Mine Workers. I don't know about the issue, but I know that Mr. Bienvenue will look into that. I, too, have concerns with private equity when it takes money off the back of workers. And I hope we will be able to influence what's going on with that investment, if we are, in fact, invested in that.

I also want to thank all the people who provided comments about the ALM adoption. And I do share the City of Pasadena's concerns that we should adopt a solution that is both stable and sustainable. As somebody with an accounting and finance background, I do know that the volatility in the payments and the changing of the methodologies are problematic and we need to give cities and agencies some stability in what's coming forward.

And then lastly, I would like to say I truly and sincerely appreciate the public comments and emails from persons and organizations concerned about our environment. I want you to know, I hear you. And I think it is in with -- it is within this Board's purview to direct the staff to divest from thermal coal and fossil fuel companies. I don't know why we don't do that. And I honestly think we should take a harder look at what we're doing, because I don't believe engagement is working. And I would sincerely hope that this Board in the future does that.

I don't have my seat after January, so I won't be able to help, but I'm bringing it here publicly saying here out loud that I think we need to go in a different direction.

Thank you.

CHAIRPERSON TAYLOR: Ms. Middleton. Oh, hit it again.

COMMITTEE MEMBER MIDDLETON: Am I on?

CHAIRPERSON TAYLOR: No, you're not. Try one more time.

There you go. Here we go.

COMMITTEE MEMBER MIDDLETON: All right. Thank you. I'd like to thank all of the public comment that we received. It was very important and I as well appreciate that we did it at the beginning of the meeting. As we move forward, one of the issues that we do need to look at is the building of a energy grid and system that incorporates green energy. And I'd like to request that the Investment Office come forward to us with a listing of all of the renewable energy projects that we are involved in, those organizations that are taking and building solar power plants and farms, those that are building wind energy, so that we have a good description of what we're doing to invest in the kind of energy that is going to make a difference as we move forward.

Thank you.

CHAIRPERSON TAYLOR: Dan, I guess we just added another thing to your plate.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes.

CHAIRPERSON TAYLOR: And I do appreciate it.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Absolutely. I saw you nodding there, Madam Chair, so we'll take that as direction there also that we'll bring back a report that includes all of our renewable projects.

CHAIRPERSON TAYLOR: I think that will help and go kind of hand in hand with what we're looking for here.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yep, definitely.

CHAIRPERSON TAYLOR: Thank you very much.

Ms. Yee. Oh, hold on, Ms. Yee. I don't have you clicked yet. There you go. Ms. Yee.

COMMITTEE MEMBER YEE: Great. Thank you, Madam Chair. I want to be mindful about the requests that are being made that, in fact, this information has been shared in a number of different ways. And rather than adding new workload to the staff, we do have our Green Report, or SB 964 report, that actually has really been a model for how we begin to look at employing the TCFD framework. And so I would ask that maybe it be done in that context, because it is integrated with all the activities around how we look at sustainability in some of our investments going forward, so -- and also tracks our progress with respect to reaching our goal of getting to net zero.

So I think that would be really proper to bring forward. Maybe orient the Board about, you know, just really Building on that, because it really has been seen as a model for how we look at our integration work with other institutional investors around the world.

CHAIRPERSON TAYLOR: Thank you, Ms. Yee. And I think I get what you're talking about, because that helps us with the data and keeps it consistent, but I'm still looking for the answer about those stranded assets. I think --

COMMITTEE MEMBER YEE: Yeah, and I think that could be even within that context. The problem is that we're, on the one hand, trying to do integration, so you're going to see a lot of that embedded in some of the asset classes, and not necessarily kind of distinct investments. And so, you know, whether it's our real assets or other asset classes. So -- and the staff can tease all that out, but I really want to kind of stick to this framework, because that -- the major problem, as someone pointed out, is data and how we're reporting this. And I think we just have to be part of the leadership in building, you know, how we look at the data that we're all trying to operate under in moving to our net zero goals -- net carbon goals.

CHAIRPERSON TAYLOR: Thank you. Yes, I agree. That makes sense. So I appreciate that.

And I appreciate all our speakers again. Thank you very much. I'm very happy that we did move this to the beginning of the meeting. Thank you very much staff for doing that.

At this point interest, we're going to recess now into closed session for Items 1 through 7 from the closed session agenda, and the open session -- I just want to make sure nobody else wants to talk -- the open session Investment Committee meeting will reconvene following the closed session. Again, thank you everyone. And I would say, let's give it 15 minutes, because I think our court reporters need a break anyway. So at 10:30, we will reconvene into closed session in here, yeah.

(Off record: 10:46 a.m.)

(Thereupon the meeting recessed into closed session.)

(Thereupon the meeting reconvened open session.)

(On record: 3:00 p.m.)

CHAIRPERSON TAYLOR: We'll reconvene open session, and after public comment -- first of all, I want to make sure, because I'm not sure I said this earlier. Please be aware that the meeting is being transcribed by our court reporters remotely. And I want to move on to Item number 3, approval of the November 15th, 2021 Investment Committee timed agenda. I need a motion.

VICE CHAIRPERSON MILLER: So moved.

CHAIRPERSON TAYLOR: Moved by Mr. Miller.

COMMITTEE MEMBER JONES: Second.

CHAIRPERSON TAYLOR: Seconded by Mr. Jones.

Ms. Hopper, can you take our vote, please? And this is an electronic vote guys. So all those in favor --

Okay. All those in favor?

(Ayes.)

CHAIRPERSON TAYLOR: All right. All those against?

Okay. Thank you.

Moving on to Item 4, Executive Report. Dan.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes. Thank you, Madam Chair. Good afternoon. Before I get to my opening remarks, I do want to take a moment to acknowledge some Simiso Nzima who is with us here today, as our newly appointed Managing Investment Director for Global Equity. Simiso has a wealth of experience, including both equity analysis and portfolio management before joining CalPERS, some 16 years ago, and then here at CalPERS in roles including emerging markets portfolio management, synthetic equity management, and more recently leading our corporate governance activity within global equity.

So we're really very fortunate to have Simiso as part of our investment leadership team. I'm certainly honored to recognize him as our Managing Investment Director for Global Equity, so I just wanted to take a second to congratulate Simiso.

CHAIRPERSON TAYLOR: Congratulations, Simiso. Is he here?

There he is.

(Applause.)

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: All right. Now as I was preparing my opening remarks and looking at the agenda, it occurred to me that we had one kind a common theme about today's agenda, and that is that CalPERS being a long-term investor. You know, we speak to this clearly in our Investment Beliefs that a long time horizon is a responsibility and an advantage. Specifically, long time horizon requires that CalPERS consider the impact of its actions on future generations of taxpayers and that we encourage our investment companies and our external managers to consider the long-term impact of their actions.

And while we reflect these Beliefs, really every day throughout the portfolio and the portfolio management process, I did want to highlight one such example from our Private Equity Program. Greg Ruiz and his team, working with leading global general partners and limited partners, helped to create the ESG Data Convergence Projects to advance an initial standardized set of ESG metrics and a mechanism for comparative reporting.

So this group's objective is to streamline the private equity industries historically fragmented approach to collecting and reporting ESG data, in order to create material, comparable, performance-based ESG data from portfolio companies. And, of course, that data is really critical in our sustainability efforts for the fund and for our fund's ability to manage risk and generate returns over the long term.

So I really just wanted to take a moment to also congratulate the private equity team for their role in leading this very important work.

(Applause.)

CHAIRPERSON TAYLOR: Thank you.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Now, or Investment Beliefs also state that a key success measure for the CalPERS investment program is the delivery the long term return target for the fund. And the emphasis on long-term return is intentional in those Beliefs. And we really only need to look back over the past two quarter ends to see the reasons why. It looks like we've got the slides up here.

(Thereupon a slide presentation.)

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: So what you have in front of you is the PERF's performance from the quarterly update on performance and risk from the end of June 2021. And in looking at the one-year number, all the way to the right, at the end of June, you can see that private equity underperformed the benchmark by over 17 percent. And if you'll recall from my comments in September when we reviewed the performance to the end of June, this was more than the entirety of the PERF's underperformance of 42 basis points that you see there at the bottom right-hand side of the page.

Can we get the next slide, please?

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INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Now, here we have the exact same report, but this one is to the end of September 2021. And this report is in today's materials, Item 6C, the quarterly update on performance and risk. And what you can see here is that by fast forwarding just three months, and again using the one-year number, private equity now outperformed the benchmark by 144 basis points, contributing to the PERF outperforming its benchmark by 79 basis points.

So for private equity in just three months, that represents a swing of nearly 20 percent in the one year relative return number. And for the PERF, again in just three months, it translates to a swing of 120 basis points in the one year relative return number.

Now note that very little change in either the Private Equity Program or the PERF portfolios, and the

Investment Strategy was intact throughout. It was just market dynamics that drove the benchmark, and therefore the relative performance figures.

And this speaks clearly to our need to take a long horizon when assessing portfolio performance, especially for private asset portfolios or for portfolios that contain private assets the way the PERF does.

Now, if we go out to five and 10 years, the changes are much more muted. At five years, the impact to the PERF is just 11 basis points relative to the 120 basis point swing we saw in the one-year number. Note the negative two basis points there at the five-year number right in the middle of the slide for September.

And, Caitlin, if we go back to the previous slide, you can see it was negative 13 at the five-year number, so again just 11 basis points. And if you go out to 10 years, it's even more muted, being just five basis points. So being flat here at the end of June in the all the way left column at zero to -- next slide, please.

--o0o--

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- to that five basis point number at the end of September. So the main point is really just that measurement must fit the purpose. Short-term results are worth looking at. They can represent a canary in a coal mine for market changes or for changes in the portfolio, but they really do reflect short-term market dynamics that may be here today and gone tomorrow, and therefore they must be considered in context.

So we clearly look at all periods, but the five- and 10-year numbers is where it starts to make sense to look at the outcomes of the strategic asset allocation. And, of course, we know the strategic asset allocation is the dominant driver of the PERF's total return.

And that brings me to today's agenda, because we have several items before the Committee today, including strategic asset allocation. We lead off with the consent items, which includes the usual items, but also included, since it's November, are a couple of annual legislative reports and importantly our annual CalPERS for California Report.

Then we'll move on to two action items for the Committee's consideration. The first is a continuation of our asset liability management work, now pivoting to the affiliate funds and specifically presenting capital market assumptions for adoption by the Board, following the same methodology as that of the PERF. And these assumptions, of course, are critical building blocks in the development of candidate portfolios for the Committee's consideration in March. And the second action item represents a further step in the ALM process for the Public Employees' retirement Fund, or PERF, looking to adopt both the discount rate and a strategic asset allocation to support that discount rate.

And then the final item for today will be an information item, the annual review of the Board's survey results regarding your investment consultants. And that's what we have before us today. And with that, Madam Chair, I'll turn it back to you to take any questions or to take us through the agenda.

CHAIRPERSON TAYLOR: Certainly. Thank you, Dan.

So we do have some questions. Ms. Brown.

COMMITTEE MEMBER BROWN: Thank you. I noticed the agenda is very full, but we are missing information regarding my questions in September about our China investments, in terms of Evergrande and real estate holdings, as well as any losses that we may have incurred as a result of changes by the government over there. So we're you unable to get it on this agenda? I might be able to understand that, but just wondering when we're going to get that update.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah. So from September, I believe we were directed to send a report to the Board, which was done is my understanding is that it got to all Board members, but not to agendize.

COMMITTEE MEMBER BROWN: Oh, so I did receive the report, but the problem is it's just one data point. It just tells us what our holdings are. It didn't -- doesn't actually answer the question which I asked, which was how much money have we lost? I was concerned. You know, like MSCI had to -- went down like eight percent, and there was a lot of losses as a result of I think Evergrande and then the changes to -- for technology and what the government is, you know, happening over there. And so you gave us one data point, but that doesn't tell us anything. It doesn't -- it just says what our current holdings are. So again, if that information could be a little more robust and talk about the changes or any, you know, gains or losses, it would helpful to know.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: So pursuant to my -- what I was just saying about short-term performance, one of the challenges of looking at performance is what time period you use. So over the last maybe year, I would say China has underperformed the global equity exposure in the equity space. I would say over the longer term, China has at least held its own, if not slightly outperformed. And it's a diversifier, but it really depends on what time period you use to talk about how the -- how the performance has been. And that was one of the --

COMMITTEE MEMBER BROWN: I'll take a -- I'll take a three-year peek, you know, going fiscal year, if that's possible.

CHAIRPERSON TAYLOR: So I don't remember that being the question.

COMMITTEE MEMBER BROWN: Oh.

CHAIRPERSON TAYLOR: I do remember her wanting to know what the holdings were. So, I mean, if you want to put that out on email, if you can do a three-year look, that would be great.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: We can certainly do a -- do a three-year performance for our Chinese equity investments --

CHAIRPERSON TAYLOR: Yeah.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- versus the rest of the portfolio.

COMMITTEE MEMBER BROWN: Thank you.

CHAIRPERSON TAYLOR: And we'll -- we can take that as Chair direction.

CHAIRPERSON TAYLOR: Sure. Thank you.

Mr. Jones.

COMMITTEE MEMBER JONES: Yeah. Thank you, Madam Chair. I don't want to have it pulled for a full discussion, but I would ask if they could highlight the

CalPERS for California Report, 6i, to talk about our investments in California, how it's adding to our California economy and creating jobs. Just a brief high-level few comments, Madam Chair, from staff.

CHAIRPERSON TAYLOR: Do you want to do that, Dan?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Happy to. So we actually have the consultant that prepared that report joining us today and so maybe I'll ask Pacific Community Ventures to see if they can come up and quickly just give us a couple of highlights from the report, if that helps, Mr. Jones.

COMMITTEE MEMBER JONES: Thank you.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Thank you.

CHAIRPERSON TAYLOR: Thank you.

COMMITTEE SECRETARY HOPPER: Madam, are you going right to the information consent, then go back to 5a action consent items.

CHAIRPERSON TAYLOR: No, we have not. So why don't we wait until we get there. We're almost there.

So I need 5a, action consent items, approval of the September 13th, Investment Committee meetings minutes.

VICE CHAIRPERSON MILLER: Move approval.

CHAIRPERSON TAYLOR: Moved approval by Mr. Miller.

COMMITTEE MEMBER JONES: Second.

CHAIRPERSON TAYLOR: Seconded by Mr. Jones.

Pam, this one is required to be electronic?

COMMITTEE SECRETARY HOPPER: (Shakes head.)

CHAIRPERSON TAYLOR: Nope. All right.

All those in favor say aye?

(Ayes.)

CHAIRPERSON TAYLOR: All those opposed?

Seeing none. Motion passes.

On to agenda Item 6, and that's the information consent items. And the only thing that I got asked to pull was CalPERS for California Report, and if you would give us a few highlights on that.

Right to your left, I believe.

MS. GUPTA: Is this on now?

CHAIRPERSON TAYLOR: Yes, you are.

MS. GUPTA: Thank you. Hi. My name is Bulbul Gupta. I'm the CEO for Pacific Community Ventures. We helped prepare that report. I think just in terms of a few highlights. Obviously, this is the nation's largest pension fund representing over two million employees. As an institutional investor, CalPERS is pretty diversified across different asset classes. And really we see the jobs across the different zip codes in California very much driven by the dynamism of the diverse economy in

California. I think we see an overall benefit of about 168,000 jobs that have benefited through the CalPERS investments within the state.

What else can I share?

I think we're really looking at sort of the economic analysis across different zip codes in California, based on the different types of investments, so across private equity, real estate, and infrastructure. Is there anything specific I can help answer?

COMMITTEE MEMBER JONES: What is the economic --

CHAIRPERSON TAYLOR: Hold on, Henry. There you go.

COMMITTEE MEMBER JONES: What is the economic benefit to the state of California as a result of this -- these allocations?

MS. GUPTA: So I think we see an overall investment of about $22 billion in the state of California through CalPERS across the different asset classes.

COMMITTEE MEMBER JONES: Okay. Thank you. Thank you. Good information. Good impact on California.

CHAIRPERSON TAYLOR: Yes. Thank you.

Is this -- this used to be biannually. Is it annually now this report?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: You know, I don't recall it being biannual. I think it's -- I think it's been annual for a while now.

CHAIRPERSON TAYLOR: Maybe when I first started then it was --

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Maybe. Yeah, I could be mistaken.

CHAIRPERSON TAYLOR: Because I remember it was like every other year.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: I know the last few years it's just been annual, but it could have been before that, Madam Chair.

CHAIRPERSON TAYLOR: Yeah. All right. Thank you very much.

Moving on to agenda item 7a, Asset Liability Management, Adoption of Affiliate Funds' Capital Market Assumptions.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yes. Thank you, Madam Chair, And I think we're got Christine Reese and Sterling Gunn joining us here. This, as you say, moves us to our first action item of the day, which is the adoption of the capital market assumptions for the affiliate trusts. And I'll just mention, the capital market assumption methodology follows directly with that of the PERF. So I'll turn it over to Christine Reese to take us through the item.

(Thereupon a slide presentation.)

INVESTMENT DIRECTOR REESE: Great. Thank you. Thank you.

All right. Good afternoon, Madam Chair and members of the Committee. Christine Reese, CalPERS team member. I'm here to present for adoption the capital market assumptions for the affiliate funds. The affiliate fund CMAs have been developed using the same method as was used for the Public Employees' Retirement Fund CMAs, which were adopted at the September Investment Committee meeting.

The CMAs include -- let's see, if we go to page three, the projected returns for five years, 20 years, and projected volatility for 20 years.

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INVESTMENT DIRECTOR REESE: And on page four --

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INVESTMENT DIRECTOR REESE: -- is that asset class correlations for 20 years. Similar to the presentation at the September meeting, there is information about economic scenarios in the appendix. The CMAs we're asking for approval for are based on a baseline economic scenario. There's also information in the appendix about the upside, the downside, and the related CMAs, although we are not asking for approval of those -- the information in the appendix.

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INVESTMENT DIRECTOR REESE: So in conclusion, we are recommending adoption of the affiliate fund CMAs shown on pages three and four, which will then be used to develop the candidate portfolios to be brought back to the Committee for adoption in March of 2022.

And that concludes my presentation. Happy to take any questions.

CHAIRPERSON TAYLOR: Thank you. And I do have some questions. Ms. Yee.

COMMITTEE MEMBER YEE: Thank you, Madam Chair. Thank you for the presentation. Just a couple of questions for clarification. So in the affiliate funds capital market assumptions, they include the global public equity and the U.S. public equity. And I was wondering why those are included there while -- when the PERF global equity capital market assumption is broke down cap-weighted and noncap-weighted.

INVESTMENT DIRECTOR REESE: Yeah. That's a great question. The reason that the U.S. public equity is represented is in our defined contribution program with the target date funds, we do have a U.S. equity sleeve and a international ex-U.S. sleeve, so it's constructed a bit differently than it is for the PERF. And so we need both of those -- both the global and U.S. represented in the

CMAs.

COMMITTEE MEMBER YEE: I see. Okay. Okay. Got it. And then the rationale for including private equity in the affiliate funds' capital market assumptions. Just curious about that given that the discount rate is generally lower than the PERF, so...

INVESTMENT DIRECTOR REESE: Yeah. Private equity is something that, you know, the affiliate funds, you know, have grown over time. It is an asset class that deserves to be evaluated to determine if it is appropriate for any of the trusts. We're not saying it is and we're not saying it isn't. We're just wanting to include the CMAs, so that we can then do the evaluation. And we would bring that information back to the Committee in March.

COMMITTEE MEMBER YEE: Okay. That makes sense. Great. Thank you.

INVESTMENT DIRECTOR REESE: You're welcome.

COMMITTEE MEMBER YEE: Thank you, Madam Chair.

CHAIRPERSON TAYLOR: Thank you, Betty.

Mr. Jones.

COMMITTEE MEMBER JONES: Yeah. Thank you, Madam Chair. The question I have is about the -- on these slides about economic scenarios. And I'm going to ask the question now. I notice the same chart is in our next present, but I'll ask it here and I won't repeat it when we get to the next item.

And it's regarding -- number one, it's regarding the inflation -- baseline inflation, upside and downside. And I'm just wondering with all of the new current discussions on inflation rising at a very rapid rate, does that inform your decision of any changes on these inflationary rates?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: You know, Mr. Jones, we were expecting that question. So the short answer is no. It does seem that inflation has been a little less transitory than we would have expected, but certainly ours are 20-year type assumptions. And like the Fed, we would keep our assumption. However, we're happy to dig further, and both Scott and Sterling are here to dig into that question, if helpful.

COMMITTEE MEMBER JONES: Okay. It doesn't need to be here. I just want to get a feel for it. I may bring it again. I just wanted to hit it, since this came up first. Okay.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Right. Okay.

CHAIRPERSON TAYLOR: We can bring it up at the next --

COMMITTEE MEMBER JONES: Okay. Okay.

CHAIRPERSON TAYLOR: -- because they have discussion of inflation in the next section.

COMMITTEE MEMBER JONES: The next session. Okay.

And the second question on this page is the no assumptions made on U.S. fiscal infrastructure bill. And I assume this was developed before the signing of the infrastructure bill. Do you have any different viewpoints on the implications of infrastructure bill at this time? I know it was -- this was prepared before that signing, but now it has been signed.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Again, a very similar answer. So, yes, these slides were prepared before the bill was signed, so it -- that's the reason that it's reflected in the slides the way that it is. But again, no specific impact from that bill.

COMMITTEE MEMBER JONES: Okay. Thank you.

CHAIRPERSON TAYLOR: Great. Thank you.

All right. So this is an action item.

COMMITTEE MEMBER FECKNER: Move approval.

CHAIRPERSON TAYLOR: Mr. Feckner has moved approval.

I need a second.

COMMITTEE MEMBER JONES: Second.

CHAIRPERSON TAYLOR: Second by Mr. Jones.

Pam -- all those in favor? I can do it that way or do I need to do it electronically?

COMMITTEE SECRETARY HOPPER: No, I don't believe you need to take an electronic vote on this.

CHAIRPERSON TAYLOR: Okay. All those in favor say --

(Ayes.)

CHAIRPERSON TAYLOR: All those opposed?

All right, 7a passes.

We're moving on to 7b and that is the trust level asset liability management for the PERF and the discount rate selection. So we're looking at that right now. Thank you.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah. So moving on to 7b, we have -- in our second action item of the day, namely adoption of a discount rate for the PERF and then the strategic asset allocation that supports that discount rate. And it looks like we have Sterling and Scott joining us.

Recall that in September, we discussed three possible methodology changes, namely optimizing on drawdown, rather than optimizing on volatility; secondly, the strategic use of leverage; and then third, exploring multi-period optimization. And after September's suggestion, we're here with candidate portfolios that are optimized on drawdown. They do have strategic leverage as an option for the Board to adopt. And then there are portfolios with single period optimizations. And given the added complexity that comes with multi-period, coupled with the discussion in September, Investment staff believes that single period is a better approach at this point. So the candidate portfolios that you'll see in the body of this item reflect single period optimization.

So I'll turn it over to Sterling and Scott to take us through this one. So Sterling, over to you.

(Thereupon a slide presentation.)

MANAGING INVESTMENT DIRECTOR GUNN: Thank you, Dan. Good afternoon, everyone. I'm here with Scott to present the five candidate portfolios that we've developed with the methodologies that Dan has just described.

I believe that the five candidate portfolios you see actually do spend a reasonable range of choices with different balances between contribution rates, between funding ratio, between portfolio risk, and expected returns. So I think it's a pretty good suite of representative -- of a reasonable choice.

The way the materials are structured, the first few pages here are a bit of a review, but we want to be able to go over that material again, in case there were any questions around some of the innovations that Dan has mentioned, so the leverage, for example, and the drawdown, or the multi-period.

The novel aspect of the presentation today is a combination of the five candidate portfolios followed by the very detailed actuarial analysis that Scott and his team have done to better understand the risks associated with the contribution rates and with funding ratios.

Now, with your permission, the first few slides we provided as reference material. So there's a glossary and the pros and cons. There are very similar to what was presented in September. Going by memory, the only exception to that is that the pros and cons for the multi-period optimization now mentions that it is more complex, and that's a con. Other than that, those two pages are the same. So with your permission, I will skip them.

See if I can find the right arrow here. There we go. So with that then, I'd like to move to the slide on leverage.

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MANAGING INVESTMENT DIRECTOR GUNN: And again, we've included leverage as a strategic allocation in order to improve the diversification in the portfolio and to help reduce risk. So we think that's an attractive feature and that feature is apparent when you compare the asset class mix in the two bar columns to the right. So if you look at those columns, the left-hand column where there's no leverage, you do see a slightly higher equity exposure represented by the blue asset classes there and a little less of the fixed Income.

So by and large with the use of leverage, we can reduce the equity exposure just a smidge and increase the fixed income exposure. And the overall effect is with a modest level of leverage, we have a modest decrease in the drawdown risk of the portfolios. So that really is the key takeaway message for the strategic allocation of the leverage.

In terms of a five percent, the intent here, we feel quite comfortable doing this. We have a dashboard for liquidity and for leverage that we monitor regularly and we think we're quite capable of managing through the five percent leverage at this time.

If we go to the next slide.

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MANAGING INVESTMENT DIRECTOR GUNN: This is the comparison of the single period versus multi-period. And as Dan mentioned, we're not recommending this, but I just wanted to highlight it after quite a bit of discussion in September. It is something that in the future I think has a role to play here, but probably better to understand the complexities and the uncertainties that come with it first, before we go down that path.

What we have here though is just a quick comparison of two portfolios, one designed single period, one designed multi-period to get some sense of the benefits, as well as the differences. So if we look at Portfolio B2, this happens to be a portfolio that has a projected return of 6.8, and over 20 years has drawdown risk of 23 percent and a volatility of 12 percent.

And if we compare that over the 20 years with the multi-period, you do see a slight reduction in risk from 23 to 22.1. You do see a slight reduction in volatility, but you do see the same projected return. So the differences do lie in the middle -- or sort of the near term and the long term, where you do see significant differences in the level of risk between the single period and multi-period, and some differences in the returns.

But all in all, we thought it would be best at this point to not recommend the multi-period and perhaps come back at a later time to discuss it further in more detail.

CHAIRPERSON TAYLOR: Thank you.

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MANAGING INVESTMENT DIRECTOR GUNN: The last innovation at least in terms of the CalPERS ALM introduced was the drawdown risk measure. And really what this slide does illustrate is that drawdowns are just a feature of being an investor. So here we have a history starting with about 20 years ago and you do see some significant drawdowns, first of all. Measuring drawdowns, of course, is well aligned with our objective of minimizing losses.

The other thing we illustrate here, of course, is the benefit of diversification. Even a well diversified portfolio will experience losses. And depending on the level of risk and returns that we are seeking determines just how much we will participate in those drawdowns.

What's important here is the blue line, the diversified portfolio lower losses, trading off against less in terms of opportunity. That's always the trade-off, so lower returns in return for lower risks, lower drawdowns. So that's the primary illustration takeaway from that slide.

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MANAGING INVESTMENT DIRECTOR GUNN: If we move to the next slide. This was the materials we're just trying to illustrate exactly what drawdown is. And maybe I'll spend a few minutes on this slide, if that's all right with everyone.

CHAIRPERSON TAYLOR: Please.

MANAGING INVESTMENT DIRECTOR GUNN: I wanted to point out, first of all, it is well aligned with our constitutional objective of minimizing losses. That's a little bit different than volatility. So to see the difference, if we look to the diagram on the right-hand side, we have a bell curve that represents the distribution of possible returns. The volatility measures the variability around the mean. The mean is that vertical blue line. So the greater the volatility, the wider our bell curve. That's an important feature.

But volatility involves both gains and losses, so we've moved to a feature, a measure for drawdown. So what do we have here? If you look at the side labeled "Losses", there is the potential there. And the way we measure is we look at the three-year distribution. That's our starting point, look at what happened over three years. And we simulate. We understand the nature of all the possible drawdowns in terms of the modeling there and then we pick what we think is sort of an extreme drawdown.

In this particular case, we take the worst 10 percent of all the drawdowns - that's the little red area that we've highlighted - out of all the possible drawdowns, and we take the average value from the red. So it's basically sort of an average extreme loss, as best as we can model it. And the objective when we construct the portfolio then is for a given target of returns to try to minimize that potential loss.

I'll stop there just for a second. There's quite a bit there to unpack perhaps. If there are any questions, I'd be happy to answer them.

CHAIRPERSON TAYLOR: Not yet.

MANAGING INVESTMENT DIRECTOR GUNN: Not yet. That bodes well.

All right. We also mentioned here, of course, just on the left there, there are some decisions we've made as an organization to try to mitigate drawdowns as well. So that's another reason why we believe this measure is aligned with both our constitutional objectives, but also our strategic objectives of trying to minimize drawdown.

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MANAGING INVESTMENT DIRECTOR GUNN: So with that, we get to the really -- the novel part of the presentation today, at least the first part of the novelties, which is the actual five candidate portfolios. And again, they are a reasonable sampling of both levels of risk and projected return. Let me start from the left-hand side, where have the asset allocation for the current portfolio. That's just to give us a sense of where we are today. You'll notice it has a fair amount of public equity and a modest amount of fixed income. And it has one percent allocated to liquidity.

So basically, we were allocating one percent to effectively cash willing to incur the cash drag. You'll notice there is no liquidity allocation in any of the candidate portfolios. And the reason for that is our level of confidence in our ability to now manage liquidity. We've mentioned, you know, we have dashboard. We monitor this regularly. We do stress tests. We look at liquidity over three days -- seven days, 30 days, and 90 days. And we're always asking ourselves do we have sufficient liquidity?

And the answer is, yes, we have lots. We have treasuries. We have agency mortgaged-backed securities, and we have lots of public equities, so we have lots of liquidity today. And even when we venture into these new portfolios, we believe we will have lots of liquidity at that time as well. So we're fairly confident we don't need to explicitly allocate to cash and incur that drag.

Now, if we look to the candidate portfolios themselves, two sets come in pairs and then one doesn't, so I'll just walk through them. We have two portfolios that have a projected return of 6.5 percent. We'll have the statistics on the next page in terms of the actual amounts of risks and so on for each of these portfolios.

But the overall pattern here is about 50 percent -- and again my eyesight is a little bit tough from here -- but public equities. And we have a sliver of leverage, three percent leverage. It just so happens that this is a -- getting this level of return does not demand a lot of leverage, in terms of diversification benefits, because there was already a fair amount fixed income in the portfolios. If we go to 6.8 projected return, there we do see now again public equities, but the leverage does reduce the public equities, and we do see an increase in the allocation to the fixed income.

The last portfolio C1, it's actually not possible to get to the 7.0 percent portfolio, in part that's because of constraints, that the asset classes that do provide those high returns we simply cannot get enough of them. So the private equity, for example, is one of the promising asset classes there. So as a result, the leverage here does offer the best possible diversified portfolio, but with that -- you still can't get there without leverage, so it's a bit of a tradeoff there.

So those are the five candidate portfolios offering again a range of risks, in terms of portfolio drawdown, and as well as the projected returns.

The next slide --

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MANAGING INVESTMENT DIRECTOR GUNN: -- quantifies these things. And again, you know, these are numbers and they are certainly indicative, but -- they're -- they come from models, but they do give us some insight and some idea of the directionality of these things.

So again, we can compare. And I think what stands out actually is that the current portfolio has a projected return of 6.2 percent, but a risk -- drawdown risk of 22.6 percent. It's simply not designed for the times. The times have changed since this portfolio was put together. So if we look at the other portfolios, if we look at 6.5 -- well portfolios A1 and A2, we have projected returns of 6.5 for both of them. The first is not levered, so you see it has a drawdown risk of 20.4 percent, whereas the levered version, which is at three percent leverage, has drawdown of 20.1 percent, so a modest decrease in drawdown risk.

If we go to portfolios B1 and B2, here now again we have a levered and unlevered portfolio. Unlevered portfolio, 6.8 percent projected return with a drawdown of 23.6 percent. We can compare that with a drawdown for the levered portfolio, which is 23 percent. Again, a modest reduction in that -- in that level of risk in return for a modest level of leverage.

The last portfolio, C1 is levered, and it has a projected return of 7.0. And you can see a significantly higher drawdown than the others at 25.5 percent. So the pattern you do see, not surprisingly, is increasing levels of drawdown risk as we increase the projected returns. You can also see that compared to the current portfolio, they're all quite good choices in terms of the risk-return tradeoff.

So if there are no questions of me at this point, I will hand it over to Scott.

CHAIRPERSON TAYLOR: I do have some question.

So Ms. Brown. Hold on.

COMMITTEE MEMBER BROWN: Thank you. Can you -- can you tell me why we don't have -- when we look at A1 and A2, you used -- or A2 you used three percent leverage and you don't have a model that shows five percent leverage? And then again for B1 and B2 why you don't have a model that shows projected return at 6.8 percent with a three percent leverage? Because I'd like to see those comparables.

MANAGING INVESTMENT DIRECTOR GUNN: Okay. So what we actually did was put a maximum limit that we would allow the leverage to be. And we said five percent. We've looked at 10 and we looked at 20 and thought well, you know, if we're easing into this and we -- you know, I don't want to get into implementation details. That's something we can work through over the next little while, that this would be a good starting point. So the three percent meant that that particular portfolio didn't use -- need to use the maximum amount of leverage that was available to accomplish the 6.5 percent.

I mean, we can -- I can -- we can go back to do it.

COMMITTEE MEMBER BROWN: No, no, because I understand that. So let me ask you another question. You said we're easing into this. Are you saying that you're going to be -- right now, you're asking us for five percent leverage. Are you saying that you want to look at more leverage as you go forward?

MANAGING INVESTMENT DIRECTOR GUNN: I think as a -- as an organization, we should be looking at these things and asking ourselves that question, yes.

CHAIRPERSON TAYLOR: Dan.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Yeah. We think leverage is a good tool in the toolkit for the Board to try to maintain the returns -- the desired returns while keeping the portfolio diversified. Right now though, we do think that asset prices are expensive, given Fed intervention and other global central bank intervention. So as a result, we think the right answer is to go in slowly with just a five percent allocation.

Now, as Sterling said, in the case of the six and a half percent portfolio, the optimization was done the same way only going at 6.5 versus 6.8. But because it was only going at 6.5, the optimizer only needed to use three percent of the leverage, as opposed to the full five when you go at 6.8.

COMMITTEE MEMBER BROWN: Thank you.

CHAIRPERSON TAYLOR: Thank you.

MANAGING INVESTMENT DIRECTOR GUNN: Thank you for your question.

CHAIRPERSON TAYLOR: So I think our appetite for this leverage is -- right at the moment, I think five percent sounds good, but -- so let me move on to Ms. Middleton.

I'm going to turn you on. Let me know if you need me to turn you off. Okay.

COMMITTEE MEMBER MIDDLETON: There you go. All right. Thank you.

All right. Dan, thank you, and Sterling, everyone. You indicated that the current portfolio is just simply not up to what the demands are of the current. How long has that been the case?

MANAGING INVESTMENT DIRECTOR GUNN: That's hard to say frankly. There was a review two years ago, so I'm thinking this happens over time. We've had a lot of events just in the last year with COVID, for example. So it's hard to give you an exact answer, but...

COMMITTEE MEMBER MIDDLETON: So we've had a lot of conversation around the question of leverage. As I understand it, that's not new to our portfolio that we currently have leverage. How much leverage is currently in the portfolio?

MANAGING INVESTMENT DIRECTOR GUNN: So we have, at the moment, I think around seven percent, including the leverage in the real estate book over and above the benchmark amount of leverage in real estate plus the CLOs. There's one other source as well. I forget what it was.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Yeah. So right now the active leverage relative to the benchmark. And there -- in some parts of the portfolio, there is leverage in the benchmark and depending on how you measure it. But right now the active leverage in the portfolio is about four percent, so benchmark relative leverage is about four percent.

COMMITTEE MEMBER MIDDLETON: So if we move to a five percent, we are not making a dramatic change in terms of what we are doing when it comes to leverage, is that correct.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Correct, I think that's a fair characterization.

COMMITTEE MEMBER MIDDLETON: All right. And there was a question regarding the C1 that would get to seven. And your answer was that that's not achievable because there just simply are not enough assets in private equity that would get us to that. Is that something that's clear over time -- a long period of time or is that just what it would -- what it would take to be able to get to the numbers you need in a short period of time.

MANAGING INVESTMENT DIRECTOR GUNN: Well, I think it's the -- right for the short period of time, I think this is actually the case here, that there are constraints on how much of these asset classes -- over the long time, you know, we can try to work on relaxing these constraints. And there's the potential then to do more, but that's a long period of time.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And, Ms. Middleton, let me just clarify quickly. Getting to seven is something that we can do with leverage. What Sterling said was that you can't get there without leverage, given the constraints on the asset classes. However, we do -- we are working on ways to deploy more capital in all of the private assets, private equity, private debt, real assets to try to raise those constraints, because we do think that, you know, you have to balance not going too fast, but really trying to figure out a way to deploy asset at scale, while keeping our underwriting standards high and maintaining the, you know, focus on co-investment and the cost advantages. That's really the focus is to try to bring those constraints up for consideration by this Board, because we know we have less of those assets than many of ours peers and even some of similar size.

COMMITTEE MEMBER MIDDLETON: If we were to be making a comparison to some of the best performing pension funds would their asset allocations come closer to the 6.8 and 7.0 allocations that you're recommending or what we currently have?

MANAGING INVESTMENT DIRECTOR GUNN: There's a mixed bag there. I'd say a number of those funds will have significantly larger, but still a lower discount rate, so the reason I was sort of struggling there for a second is -- but the allocations themselves would be larger.

COMMITTEE MEMBER MIDDLETON: Thank you. And would there be a change in the amount of fixed income investments, if we were to get closer to what best practices are?

MANAGING INVESTMENT DIRECTOR GUNN: Again, it varies, but those institutions use leverage in order to maintain a well-diversified portfolio. So again, they tend to have lower risk. They do have more private assets and they tend to have a slightly lower return expectation.

COMMITTEE MEMBER MIDDLETON: Thank you.

CHAIRPERSON TAYLOR: Is that it?

COMMITTEE MEMBER MIDDLETON: Yes.

CHAIRPERSON TAYLOR: Mr. Jones.

COMMITTEE MEMBER JONES: Yeah. Thank you, Madam Chair.

Yeah. Just a clarification. Ms. Middleton asked what was the current leverage and I think you said four percent. And then she said, well, we go from four increase by one percent to get to five. But is my understanding correct that the four percent is part of the 20 percent and five is in addition, so it goes to nine instead of five, correct?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Correct. And if I gave the characterization that it was --

COMMITTEE MEMBER JONES: Yeah. Okay.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- four to five, then that was not correct. It's definitely four to nine. Now, I don't -- I don't view that as a --

COMMITTEE MEMBER JONES: Yeah, I know.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- significant difference.

COMMITTEE MEMBER JONES: Yeah, I just wanted to clarify.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: But, yes --

COMMITTEE MEMBER JONES: Okay.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- you math is correct, Mr. Jones.

COMMITTEE MEMBER JONES: Okay.

CHAIRPERSON TAYLOR: Is that it, Henry?

COMMITTEE MEMBER JONES: Yes.

CHAIRPERSON TAYLOR: All right. Ms. Yee.

COMMITTEE MEMBER YEE: Thank you, Madam Chair.

And I know we're going to go into the risk and the employer contribution discussion shortly, but I wanted to just understand the candidate portfolios a little bit more. And thank you to Ms. Middleton for the clarification on C1 and the challenges that particular portfolio would present.

And I guess if you were to look at just kind of the uncertain markets, you can make a case for portfolio A1, but we know that this is the one option that would increase employer contribution rates more than the others, and so that's a significant challenge.

And I think what I'm really focused on is kind of these -- the two options B1 and B2, and I'm looking at them and they don't seem all that far apart. I guess if we weren't going to make any change in leverage from what is currently in place, I guess just help me kind of think through -- and maybe this is going to come up when we talk about risks, but particularly since the 6.8 percent discount rate is already known. It's been reset as a result of that RMS policy, and -- but I guess like what's the convincing aspect about including leverage, because it just seemed very, very closely aligned, both B1 and B2.

MANAGING INVESTMENT DIRECTOR GUNN: So again, it's a strategic allocation, so this is a starting point, something that will help the organization become familiar with having -- sorry -- with being familiar with having a fixed allocation, and that over time we could have further conversations and ask ourselves if we are comfortable with this and if we think we are getting the benefits around diversification that we believe we will. And if, so then over time, and future ALMs and so on, we could ask ourselves if perhaps we would like to do more. But without starting, it would be hard for us ever to have that conversation.

COMMITTEE MEMBER YEE: Okay. Yeah, I mean, I just -- I was really trying to kind of see what the distinction was at this point, since they both really look very similar in terms of diversification and drawdown risk and volatility. And so if we were not to entertain any change of leverage at this point in time, I guess what's the argument to refute that -- a decision to not make any change in leverage at this time.

MANAGING INVESTMENT DIRECTOR GUNN: I'm sorry. I couldn't hear very well.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Why don't I take a -- take a stab at it. It's a great question, Ms. Yee. And it is the case that what we're starting with is a modest amount of leverage, right? And I would say the big -- the big argument for there, is as Sterling said, is to get started, just to start seeing if we're comfortable adding leverage to the strategic asset allocation. And we could always come back from that, but we -- I do think, we do think it is a -- it is a good tool to have in the toolkit.

COMMITTEE MEMBER YEE: Um-hmm.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And we do know that some of our sort of, you know, Ms. Middleton talked about some of our, you know, best performing and best practiced plans. Most of our counterparts to the north, State of Wisconsin and some of the best performing U.S. plans, they do have leverage in their strategic asset allocation, so we do think that it's a best practice to add.

The biggest differences, while your point is accurate, they're not -- they're not huge, but you can see that Portfolio B2 goes, relative to Portfolio B1, goes from 34 percent cap-weighted equity to 30 percent cap-weight equity, goes from four percent investment grade corporates to 10 percent. So again, more of the fixed income assets and a little less of the --

COMMITTEE MEMBER YEE: Right.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

-- of the equity assets. And then if we do move on to the next slide --

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INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

-- you can just see that again B1 versus B2, 23.6 percent drawdown risk for B1 with no leverage and then 23 percent drawdown risk for B2 with five percent leverage.

COMMITTEE MEMBER YEE: Yeah.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: So again not -- you know, not striking differences, but all directionally accurate differences that we think reflects a slightly better portfolio.

COMMITTEE MEMBER YEE: Uh-huh. Okay. And I guess I'm still -- you know, sometimes you read something that's just on paper and it just sticks with you. But the question I asked earlier about, you know, the resulting higher losses with certain market conditions in place. And so I guess ultimately, if a question is, you know, does the risk outweigh the benefit? And we won't necessarily know that at the outset, but it is something that I think about when we embark more down the road of is this increasing our leverage capability.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And I would say the main environment where that gets us, and Arnie and I were talking about this a little bit earlier, and it goes back to Mr. Jones' question.

COMMITTEE MEMBER YEE: Yeah.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: In a hyperinflationary environment, you would probably see both equities and bonds sell off at the same time --

COMMITTEE MEMBER YEE: Yeah.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

-- and by the same magnitude and that's an environment now. Again, if we go back to that slide on drawdown, I think it's slide eight, please. So when we model the drawdown and that - Sterling talked about it - that 10 percent worst periods where you have a three-year period where the market comes down, the way that this -- these curves were generated was by basically running 5,000 simulations. So when you run those 5,000 simulations, they are a few of them where with leverage, you get a --

you get a worse drawdown.

COMMITTEE MEMBER YEE: Um-hmm.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: But of the 5,000, it's s very -- it's a very modest few relative to much more where you have a -- have a, you know, a better outcome from having leverage.

COMMITTEE MEMBER YEE: Yeah. Okay. All right. Thank you for the explanation. Thank you, Madam Chair.

CHAIRPERSON TAYLOR: Thank you.

All right. I think that's all the questions for right now, if we want to move on.

MANAGING INVESTMENT DIRECTOR GUNN: Thank you.

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CHIEF ACTUARY TERANDO: All right. Good afternoon, Committee members. Scott Terando with the Actuarial Office.

Part of a key consideration when we look at and evaluate these portfolios is to look at the impact of these portfolios both on the contributions, as well as the funded status and the risk associated with the various portfolios. So what we have here is we're going to step through the impacts, you know, on the State miscellaneous plan and the schools plans. Two State plans, we're going to go through contributions and risk and then we'll move over to the impact on the public agencies. So kind of covering State plans first and then moving on to public agencies.

So starting off with the State's miscellaneous and schools plans, what we have here is we have projected contributions under the -- on what we call the baseline contribution and the three different discount rates that we're looking at. The baseline is what we call is basically taking from the June 30, 2020 valuation results. And it's reflected by the dashed black line. And then we have a colored line for the three various discount rates displayed here.

I would -- some things to note is that the rates all trend down over the next five years, regardless of which discount rate is chosen. And we also should note that the rates on -- under all the discount rates are lower than the projected rate under the 2020 valuation. The reason those rates are all lower is the 21 percent return -- investment return that was obtained last year.

So you can see, it's a very similar pattern between the State miscellaneous and the schools pool. Rates go up and then tend to come down. You see more of a spike with the 6.5 discount rate compared to the other two plans or discount rates. That's due to -- part of that is due to the Risk Mitigation Policy.

The Risk Mitigation Policy makes sure there's not an increase in contributions on the unfunded side for the 6.8. And that's why you see the rate staying fairly level and then dropping after that, but you do see that spike with the 6.5 percent discount rate.

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CHIEF ACTUARY TERANDO: Going on to this chart here, what we do is we have all five portfolios displayed here and we're -- what we have is we have expected employer contributions over the next 30 years. We have a distribution of those contributions for each of the five portfolios. And we also have the probability of falling below 50 percent under each of the portfolios.

Now, if -- let' start with the, you know, first column A1, and we just look at the top section. You see the median contribution rate at 19.3 percent. We have the kind of a higher 25th percentile and the 75th percentile to kind of give a range of where those contributions of 9.6 and the higher end of 35.5. And below that we have the probability of falling below 50 percent, and that comes out as 12.8 percent. Going across, we have that same information for all five portfolios, for the State plan, and then underneath it, the same information for the schools.

Some things to note on this chart, as the discount rate increases, the probability of falling below

50 percent increases as well. So as the discount rate increases, the problem -- the risk associated with falling below 50 percent increases. Kind of offsetting that would be the decrease in contributions. You can see the contributions decrease as they -- as we increase in contr -- discount rate. I think you're all very familiar with that, as a higher discount rate relates to lower contributions.

Now if -- comparing just two portfolios, one with leverage and one without leverage, say, for example, we're looking at B1 and B2, the range of contributions stays relatively the same. The median drops somewhat when you add leverage, I think what seems evident is that the probability of falling below 50 percent drops when you add leverage. You know, for Portfolio B1 versus B2, that probability for the State plan dropped from 19.4 percent to 17.7 percent, and it was similar for the schools as well.

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CHIEF ACTUARY TERANDO: Moving on to the public agencies. What we have here is we have a discount rate impact on the first-year employer contributions for the non-pooled public agency plans. We have the three discount rates for consideration. And we have it broken down into what we call lower funded, medium funded, and higher funded plans.

As you can see, the expected contribution is higher as -- for each of the lower discount rates, but you can see a more, I think, substantial impact is being generated by the funned status. As you can see, the difference between medium funded versus lower funded, the contribution rates differ by roughly 20 percent. And that still holds even between the higher and the -- funded and the lower -- and the medium funded plans.

You know, the takeaway from this would be that the funded status is a key factor in the current contribution rates, and it's something to just keep in mind as we discuss risk and where the plans are in terms of contribution levels.

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CHIEF ACTUARY TERANDO: For public agencies, we've kind of taken the same information that was in the chart and we put it in graph information and we split it out. For here, we look at the average employer contribution rate for public agencies for the five portfolios. We've kind of graphed out the distribution of those average rates over the next 30 years and we have the median rate on the far right to kind of give you some perspective of where those rates fall. The distributions that you would -- looking at them are very similar.

It's slightly different between the discount rates. Obviously, between A1 and A2, they're fairly identical, as well as B1 and B2. And as the discount rate increases, there's obviously a shift towards lower contributions. The median rate you can see on the far right obviously decreases as they increase in discount rate.

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CHIEF ACTUARY TERANDO: Moving on to what we call the risk, the probability of a funded ratio dropping below 50 percent. We see more disparity between these, especially between, you know, the A portfolios and the B portfolios, and the C portfolios. If you look at the median values on the far right, you can see that going from a discount rate of 6.5 to 6.8 results in an increase of, you know, five percent in terms of the probability dropping below 50 percent. So, you know, you're going from say around 15 percent up to 20 percent.

Likewise, when you go to the six -- the seven percent, you're looking around still another five percent increase in risk for plans dropping below 50 percent.

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CHIEF ACTUARY TERANDO: And here's where we discuss the impacts on PEPRA member employee contributions. I think you -- everyone is well aware that when PEPRA was implemented, part of the law states that employers and employees are required to share the normal cost. As we drop down the discount rate and include the new assumptions that were being proposed tomorrow, there are -- there is impacts on employee contribution rates.

If you look at the first group of charts here, we have the average rate increase expected for the PEPRA employees at 6.5, 6.8 and 7 percent discount rate. And looking at the 6.8 discount rate, you can see that we expect the average rate increase to be 0.8 percent. So that's almost one percent increase in employee contributions. On the right-hand side, we have the percent of non-pooled public agency plans that we anticipate being affected by these changes.

At the 6.5 percent, we expect a hundred percent of the plans to be impacted. And that for -- you know, a 6.75 for example, a hundred percent of the plans would be impacted and we see the median rate being 1.4 percent. Moving down to the 6.8 Percent discount rate, we're still seeing -- anticipating over 90 percent of the plans having an impact on the employee contribution rates.

And then finally on the far right, with the seven percent discount rate, you can see there are still plans having an impact. The number of plans have dropped down to around 30 percent, but you can see the average increase is still over half a percent on the employees.

And I will pause here for questions.

CHAIRPERSON TAYLOR: Yes, we do have questions.

Mr. Jones.

COMMITTEE MEMBER JONES: Yes. Thank you, Madam Chair. Yeah, what these charts demonstrate that there's a fixed universe. You got three sources of revenue, you got the investment returns, you've got the employee contributions, and the employer contributions. So you can go out and take risks on seven percent. If you don't get it, it's going to come right back to affect the employer and the employee, in some cases. So I think we need to be mindful of that bigger seven percent risk, because if we don't achieve it, we're going to come back and hit the employer.

CHIEF ACTUARY TERANDO: That's true. And that risk translates directly to the employer's side. So as you mentioned, you know -- you know, we make adjustments on the contributions every year based on, you know, the experience of each of the plans, and -- as well as the investment returns. And, you know, we make slight adjustments up and down to try and keep the funding, you know, as stable, but on a projected basis. And, you know, when returns are high and the experience is good, you know, the rates will come down. But vice versa, when the returns are low, there will be an increase in rates.

COMMITTEE MEMBER JONES: Okay.

CHIEF ACTUARY TERANDO: And that tends -- that tends to go to the employers, because the employers tend to pay the majority, if not all, of the unfunded.

COMMITTEE MEMBER JONES: So we just need to be mindful of adopting that discount rate, the plus and minus of low versus high or average, trying to minimize the impact on our employers and employees going forward.

On page 14, what is the hash mark?

CHIEF ACTUARY TERANDO: Fourteen. Okay. The hash mark is a baseline.

COMMITTEE MEMBER JONES: The hash mark is above.

CHIEF ACTUARY TERANDO: So what we did here is we took the 2020 valuations and we took the current contribution rates, the average for these and put it there, so you can see the comparison. So when you -- for example, let's look at the -- you can see for the medium funded plans, there will be a slight decrease, if we -- a seven percent was adopted. The 6.8 contributions are still, you know, on average comparable to where they were at our current -- when we did the valuations at seven percent on the 2020 valuations. And obviously, they see -- you see the jump at the 6.5 percent.

You know, what's keeping those rates at the 6.8

lower than the current baseline is that 20 percent plus return that we got last year. That's what's bringing those rates down compared to where they were last year.

COMMITTEE MEMBER JONES: So the hash mark again is?

CHIEF ACTUARY TERANDO: It's just -- it's kind of -- it's the average of where things were in 2020 before a reflection of any change in discount rate, ors, assumptions or that 20 percent -- 21 percent return that we got lost year.

COMMITTEE MEMBER JONES: Okay. Before that.

CHIEF ACTUARY TERANDO: Yeah, so it's just to give you a feel for where things are, because sometimes we get questions of I see these numbers, but where are we now in relation --

COMMITTEE MEMBER JONES: Compared.

CHIEF ACTUARY TERANDO: -- to where these --

COMMITTEE MEMBER JONES: Okay. Thank you.

CHIEF ACTUARY TERANDO: -- graphs are.

CHAIRPERSON TAYLOR: Thank you.

Mr. Rubalcava.

COMMITTEE MEMBER RUBALCAVA: Thank you, Ms. Chair. Scott, you mentioned that on -- staying on number 14, that one of the key determinants of the impact on the employer will be the funded ratio -- funded status.

CHIEF ACTUARY TERANDO: Yes.

COMMITTEE MEMBER RUBALCAVA: And one can also say that -- and then we see on Item 17, the impact on employer contributions. So I'm just trying to understand the relationship. So as funded ratio increases, there's less unfunded liability. And so what's more determined is the normal costs. So the employer may actually have an actuarial gain, but some -- because of PEPRA now becoming more and more prevalent, that actuarial gain may not translate to the employee, is that correct, how I read it?

CHIEF ACTUARY TERANDO: Yes, that's correct. The investment gain will reduce the unfunded liability and that will reduce the employer cost, but it doesn't affect the normal cost.

COMMITTEE MEMBER RUBALCAVA: So under -- thank you for clarifying that. So then my question is under these -- this candidate portfolios allocations, in all of them, I'm assuming normal cost increases anyway, right? And it's offset, depending on the employer's funded status.

CHIEF ACTUARY TERANDO: Yeah. There are some --

COMMITTEE MEMBER RUBALCAVA: Or offset, I guess.

CHIEF ACTUARY TERANDO: -- pages in the appendix where we actually broke it down by normal cost, unfunded, and total for public agencies. And you'll see the normal cost is going up always.

Well, for the majority of the benefit formulas, normal cost goes up, there's a large decrease on the unfunded, and then the total contributions, you know, there's a range. Some plans are going up, some plans are going down, and you get that distribution. But you'll see increases more substantially on the normal cost. And the unfunded you'll see decreases pretty consistently.

COMMITTEE MEMBER RUBALCAVA: Thank you for that clarification. Thank you.

CHAIRPERSON TAYLOR: Thank you.

Okay. Ms. Middleton. Hold on. Working on it.

COMMITTEE MEMBER MIDDLETON: There we are.

CHAIRPERSON TAYLOR: There you go.

COMMITTEE MEMBER MIDDLETON: Thank you. So President Jones raised a really good question that if we set a goal and we don't achieve it, then we're still going to end up having costs go up for the employer and for employees. But on the other hand, if we set a goal and we exceed it, under what circumstances do the costs then go down for the employer and the employees?

CHIEF ACTUARY TERANDO: When there's gains in the system. Obviously, we would -- it would -- we would reflect that in the contri -- in the overall contribution rate, and the unfunded contribution rate would be lower compared to what it was previously. For most of the plans within PERS, the employer pays a hundred percent of the unfunded liability. So they would -- they would see those gains as a reduction for the employer side.

For the employees, it's -- the employees -- for the PEPRA employees, they're based on half the normal cost. The normal cost is not affected by gains and losses on the investment side. You know, whether a plan, you know, for example, whether a plan is a hundred percent funded, or 80 percent funned, or 60 percent funded, the normal cost is the same. And if you're splitting that 50/50 between employers and employees, it's not going to change regardless of the funded status.

COMMITTEE MEMBER MIDDLETON: All right. Next question. Could you go back to page 12 of the projected employee contributions. In both of these, you're showing a initial spike in costs and then it -- the amount of employer contributions is diminishing over time. Could you talk about -- a little more about why that will be happening in that fashion and what tools might we have to even out those costs for employers over time?

CHIEF ACTUARY TERANDO: All right. So the reason -- and I think we'll look at 6.5, because that's the most prominent one in this example. That re -- that's reflecting the change in liabilities as we drop -- if we dropped the discount rate to 6.5. And our amor -- our current amortization policy amortizes all demographic changes and all gains and -- demographic gains and losses, assumption changes, method changes over a 20-year amortization period.

For the investment side, investment gains and losses, we still -- everything is amortized over 20 years, but there's a five-year ramp-up on the investment side. The investments are a lot more volatile and they have a lot more impact on the contributions. And so we have a five-year ramp-up to kind of smooth those out.

So since we had such a large gain last year, you can think that, you know, we started out with say a smaller credit and that credit increases over the next five years. And that's why you can see those rates trending down in all the cases, is that it's that ramp-up of the investment gain/loss from last year. That's what happens -- you know, we smooth in that credit on the gain from last year. The exact opposite happens when you have a loss. Instead of jumping up immediately on -- when you have a loss, we transition up. This helps to counteract if, you know, you have a large gain one year followed by a loss -- a large loss the following year, instead of having your rates kind of go back and forth. This kind of smooths the rates out on the investment side.

So, you know, it's set up to kind of smooth the numbers out as it is. It -- and that's why you're seeing it trending down. There's -- you know, you could look at that five-year smoothing shortening it. If you shorten it, it's going to add more volatility. I mean, it would add more volatility, because you would get your -- if you had a gain, you would get your -- you'd see decreases sooner. The flip side is on losses, you would see increases much more quicker.

COMMITTEE MEMBER MIDDLETON: Scott, I think I got what the point you're making. We're still looking at some real issues impacting employers in terms of costs. And every tool that we can use that minimizes the volatility, the rate that the employer is paying is something that we need to be examining.

CHIEF ACTUARY TERANDO: Right. Well, that's kind of -- kind of like -- when you think about it, that's what the funding risk mitigation policy did. You know, when the discount rate went from 7 to 6.8, that increase in liability was offset by the gain on the investment side. And you can see that's why that curve didn't go up. It went up in the -- you know, it stayed below where it was before.

COMMITTEE MEMBER MIDDLETON: All right. Thank you for now.

CHIEF ACTUARY TERANDO: Sure.

CHAIRPERSON TAYLOR: All right. Mr. Feckner.

COMMITTEE MEMBER FECKNER: I'm on page 18, if we're ready to change to the next page.

CHIEF ACTUARY TERANDO: You're on page 18.

COMMITTEE MEMBER FECKNER: The next page.

CHAIRPERSON TAYLOR: The last page before the appendix.

CHIEF ACTUARY TERANDO: Oh, okay.

COMMITTEE MEMBER FECKNER: Back one, back two.

(Laughter.)

CHAIRPERSON TAYLOR: Keep going. There you go.

COMMITTEE MEMBER FECKNER: That's the page.

CHIEF ACTUARY SCOTT TERANDO: Okay.

COMMITTEE MEMBER FECKNER: From my perspective, after having studied this for months, having staff preparing us for months on this, and actually doing a lot of research, and listening, and educating ourselves, hearing from the stakeholders this morning, I'm prepared to move option B2, including the five percent leverage.

CHAIRPERSON TAYLOR: Thank you.

I have a motion on the floor for option B2. Do I have a second?

COMMITTEE MEMBER JONES: Second.

CHAIRPERSON TAYLOR: Seconded by Mr. Jones.

COMMITTEE MEMBER JONES: That is the 6.8, right?
CHAIRPERSON TAYLOR: 6.8 with leverage, yes.
(Laughter.)
CHAIRPERSON TAYLOR: No, it's the 7.5.
(Laughter.)
CHAIRPERSON TAYLOR: No, I'm just kidding.
Okay. I want to make sure everybody's questions were answered before we take a vote, so Ms. Brown.
COMMITTEE MEMBER BROWN: Thank you, Madam Chair. I have some sort of general questions. What percentage of our employees are currently PEPRA -- of actively employees are currently PEPRA and how is that trend line moving, one percent a year, two percent a years?
CHIEF ACTUARY TERANDO: I'm going to --
COMMITTEE MEMBER BROWN: I'm going to hold you to this number, Scott
(Laughter.)
COMMITTEE MEMBER BROWN: Generally. Generally.
CHIEF ACTUARY TERANDO: Generally, I think we're approaching around 50 percent.
COMMITTEE MEMBER BROWN: What?
CHIEF ACTUARY TERANDO: Fifty.
COMMITTEE MEMBER BROWN: Fifty? 5-0?
CHIEF ACTUARY TERANDO: 5-0.
CHAIRPERSON TAYLOR: Yeah.

COMMITTEE MEMBER BROWN: Okay.

CHIEF ACTUARY TERANDO: It might be a little bit less.

CHAIRPERSON TAYLOR: Those old folks are retiring.

CHIEF ACTUARY TERANDO: Depending on some of the safety plans, but somewhere around 5-0, 50 percent. And I think that changes anywhere from around three to four percent a year in terms --

COMMITTEE MEMBER BROWN: And then I assume that would slow down a little bit as we get more PEPRA, right, that you could pay?

CHIEF ACTUARY TERANDO: Correct.

COMMITTEE MEMBER BROWN: Did we see a big jump in retire -- I think we saw a big jump in retirements, right? So we're probably going to see a big -- another big jump, because of COVID? I think we heard that from --

CHIEF ACTUARY TERANDO: I'd say Anthony would have that information.

COMMITTEE MEMBER BROWN: Yeah.

CHIEF ACTUARY TERANDO: And we could -- we could always get you the numbers on that.

COMMITTEE MEMBER BROWN: Okay. So any decision we make in terms of changing the discount rate would also not only impact employers, but the PEPRA employees would also have to pay more, okay.

And then my -- I have another general question about leverage, Mr. Bienvenue. You know, the models here talk about three percent, or five percent, or no leverage at all. But then I heard for the first time here in open session that -- that this five percent is just a first step or a baby step. We might be looking at even more leverage. And so my question is doesn't the staff have the ability to use leverage now up to 20 percent?

CHAIRPERSON TAYLOR: Not there.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: So we currently have the ability to take active, so that that's benchmark relative leverage, of up to 20 percent. What this would do would be to add leverage into the strategic asset allocation as a diversifier. So where Arnie mentioned -- well, we use -- we can use the active leverage to add active risk, and therefore active return, but it's not intended to sort of diversify risk. Whereas adding leverage to the strategic Asset allocation would act as a diversifier and a return -- and a risk reducer.

COMMITTEE MEMBER BROWN: Thank you. Thank you.

CHAIRPERSON TAYLOR: Ms. Ortega.

COMMITTEE MEMBER ORTEGA: Yes, Madam Chair. Scott, my question kind of -- kind of passed, but I'm going to ask anyway. Back on slide 12 can you just clarify. When you were explaining the spike, I think you were using the green line as an example. But the dotted line is described as the base, but it was still going up a bit too, right? And is that from prior funded status or just what's -- why is the dotted line going up anyway?

CHIEF ACTUARY TERANDO: Why are all the other lines.

CHIEF EXECUTIVE OFFICER FROST: The dotted line.

CHIEF ACTUARY TERANDO: The dotted line is going up I think just expected -- you know, those -- if you think about it, we had losses in terms of investment gains a couple years ago. Those are -- those are, you know, working their way into the contribution rates.

COMMITTEE MEMBER ORTEGA: Okay.

CHIEF ACTUARY TERANDO: You can see rates go up just slightly. They kind of start to level out and that's what's kind of happening. With -- so if you look at the -- you know, the State projections and the schools projections, they went up for about a year or two and then they kind of leveled out. We're seeing that across a lot of the plans, where rates were going up, you know, substantially over the last five years. They're starting to level out now. And with the gains that we've had recently, they're starting to trend back down.

COMMITTEE MEMBER ORTEGA: Okay. That's what I thought. I just wanted to make sure, because of the contrast to the point about the spike in the -- because of the discount rate.

CHIEF ACTUARY TERANDO: Yeah, the spike. There's a couple of things going on. You know, we had the change of assumptions, change of discount rate. There's a number of factors going into that. It's just more pronounced then the orange line, because the orange line is -- the policy on risk mitigation flattens that out.

COMMITTEE MEMBER ORTEGA: Right.

CHIEF ACTUARY TERANDO: And that's not happened with the six and a half percent discount rate.

COMMITTEE MEMBER ORTEGA: Thank you.

CHAIRPERSON TAYLOR: Does that answer it?

COMMITTEE MEMBER ORTEGA: Um-hmm

CHAIRPERSON TAYLOR: All right.

Mr. Rubalcava.

COMMITTEE MEMBER RUBALCAVA: Thank you.

Yeah. My question was about the -- well, I think chart number 12 and the previous question, Ms. Margaret, sort of, you know, seeking clarification here. So I see one of our rows on the Board is to sort of -- is to seek to stabilize the employer contribution rate. And so that means reduced volatility, which is a lot in the equity side. And I noticed that, in support of the motion on the floor, 6. -- B2, 6.8 discount and five percent leverage. And my question is about the leverage. It does -- compared to B1, it does reduce the global equity and increases the investment grade corporates. But my question is, so this five percent leverage that's what makes that possible, right? It takes -- it's a term I used -- picked up some place. I'm not sure here or for some other meeting, but it takes risk off the table, is that correct, as opposed to -- because we're talking about differential between the other kind of risk, which is more to try to seek more -- other kind of leverage, but to seek more returns. This is more to -- a new tool that we're introducing to try to use the -- the language, to diversify, but also it's less risky, isn't it -- is it not?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Correct. It lands you at a portfolio that's more diversified -- by using leverage, it lands you at a portfolio that's more diversified, that reduces the drawdown risk slightly, and that -- I hadn't spoken to this, because of the fact that Scott is the actuarial expert. But if you go to slide 13, you can see that in the actuarial space, it does reduce the probability of the funded ratio falling below 50 percent for both State miscellaneous and schools.

So if you look at B1 and B2, they go from 19.4 to 17.7 for the State miscellaneous, and from 20.2 to 18.6.

COMMITTEE MEMBER RUBALCAVA: Yeah. And is that volatile -- the market fluctuation that actually impacts the employer contribution the most, correct? So the -- and that's what we're trying to address right now.

CHIEF ACTUARY TERANDO: Yes, that's correct.

COMMITTEE MEMBER RUBALCAVA: Thank you, Scott.

Thank you for the clarification and thank you.

CHAIRPERSON TAYLOR: Okay. Great.

Henry.

COMMITTEE MEMBER JONES: Thank you, Madam Chair.

CHAIRPERSON TAYLOR: It just wasn't -- there we go.

COMMITTEE MEMBER JONES: Okay. Madam Chair, I would like to -- on the issue of leverage, the leverage for the portfolio diversification of five percent, when staff returns with the -- whatever execution strategy they bring back, I would like to request that they also bring back an option for the Board to consider reducing the 20 to 15 when they add the five percent leverage portfolio strategy.

CHAIRPERSON TAYLOR: Yes. So Dan.

COMMITTEE MEMBER JONES: And I understand that while we have a motion on the floor, but we want to hear from public -- if there are any public comments before we vote.

CHAIRPERSON TAYLOR: Right, we still have a couple of comments and then public comment, so, yes.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: But, yes, Mr. Jones, those will be parallel paths, right? One path will be an implementation plan in terms of like trading and how we get there, but the other path will be policy language. And in that policy language, we will make sure that we bring you the option of moving the 20 down to 15. And we'll take that as direction.

CHAIRPERSON TAYLOR: Great. Thank you for remembering that, Henry.

Ms. Middleton.

COMMITTEE MEMBER MIDDLETON: I want to -- I want to thank President Jones for inserting the change in leverage to 15 to -- as we add five, which I think keeps us at a very consistent place. And I very much want to thank staff for all the work that has gone into this and all of my colleagues on the Board for the work that you have given on this.

We have an extremely difficult decision in front of us. And as I have read the literature and looked at it, our portfolio has been one that does not meet current times and one in which greater risk can be prudently taken on. And I think we need to explore all of those opportunities before -- with great reluctance before I can vote to approve a change that would take us from a seven percent target to a 6.8 percent target. I think we need to exhaust every opportunity, including consultation with the new Chief Investment Officer. So I think this vote is going to go forward and with great reluctance, I will have to vote no.

CHAIRPERSON TAYLOR: Thank you, Ms. Middleton.

So I, too, want to thank the staff for all their hard work and the Board for all of our questions and making sure that we are on the same page.

I have one public comment to go forward and then we will vote.

Mr. Jelincic.

I'm sorry, two public comments. One on the phone.

I'll do Mr. Jelincic and then the phone. Go ahead, J.J.

MR. JELINCIC: Yeah. I'm J.J. Jelincic. And I know that some of you will ignore me. However, I want to take away your defense that I didn't even think about that. You are fiduciaries and therefore held to the highest legal and ethical standards. You owe a fiduciary obligation to the beneficiaries. While the staff would like you to think you have a fiduciary obligation to the system, you don't. Some of you claim to have a fiduciary obligation to the employer. You do not.

As fiduciaries, you have a legal obligation to invest as prudent experts. As experts, you must decide if increasing risk when assets are already fully valued is prudent. I remind you of a couple of your public Investment Beliefs, which may or may not be the same as your private beliefs. CalPERS will only take risk, where we have a strong belief we will be rewarded for it. Costs matter and need to be effectively managed. Even so, everyone of the suggested portfolios increased the allocation to private equity, even though your own capital market assumptions show that you will not be paid for the additional risk.

You are taking on risk to benefit the employers. You want a higher discount rate to hold down employer contributions and reported liabilities. The employers are not the group to whom you are fiduciaries.

According to the transcript of the August 7th, 2020 illegal closed Board of Administration meeting, most of you were great admirers of Ben Meng, even as you were told of his illegal actions. You regretted the loss of his extraordinary leadership. In your paranoia, you saw leaks. The truth is there were no leaks. People looked at the public record and saw the contradictions you refused to see. It's yet another example of the importance of the Bagley-Keene Open Meeting Act and the California Public Records Act. Laws that make public corruption more difficult. Laws that you make great efforts to avoid.

Let me remind you that the much admired Ben Meng told you on numerous occasions that the market would not give you seven percent just because you wanted it or needed it, and it won't give you 6.8.

As prudent investors and fiduciaries of other people's money, the focus should be on what level of risks are acceptable? The focus and emphasis on the discount rate is misplaced.

Thank you.

CHAIRPERSON TAYLOR: Okay. Mr. Fox, go ahead.

STAKEHOLDER RELATIONS CHIEF FOX: Yes, Madam Chair. We have one caller from the City of Hayward. Sara Lamnin.

MS. LAMNIN: Good afternoon, everybody. Thanks, everybody, for your work on this item. I wanted to share my concerns, as President Jones articulated well, about leverage. Spending money that wasn't already in the bank is part of how we got to the challenges that we face today. And I'm not pointing fingers about how we got here. It's -- we're way past that. What we do have to do is, as stewards of public money, as you the esteemed Board all are, and as we are as employers including the City of Hayward, we really -- the idea of borrowing more money to pay a debt, which was built on money we didn't have in the first place, feels contradictory to me.

At the same time, I absolutely see that the -- that seven percent is unrealistic. We knew that when I was before you a few years ago on the last ALM cycle. But what is also unrealistic is the ability of PEPRA employees and cities to pay these bills. We've got to focus on the expense side of the equation. That's not today's conversation, but I would love to hear commitment to actually working on that.

A couple things I want you to keep in mind, please, that not all property tax bases are equal. And in our quest to have housing affordability, that means that property tax values are also lower. Therefore, our abilities to pay higher prices -- and for the city, we're talking about with a 6.8 probably doubling our annual increase in PERS costs and OPEB costs. So, you know, the property taxes, the money isn't necessarily there and we're trying to keep the property taxes low, so that people can afford to live in our communities.

Similarly, we've worked really hard to make sure that our employee base is as diverse as our communities, which means that a lot of our PEPRA employees are not only, of course, our lower paid employees, because they're newer, but they're also our most diverse employees.

And so I ask you to think really carefully and perhaps amend your motion to just be 6.8, and make a commitment to really working on the expense side of the equation.

Thank you.

CHAIRPERSON TAYLOR: All right. Thank you. I have one more comment. Mr. Jones.

COMMITTEE MEMBER JONES: Yeah. Thank you, Madam Chair. I know we're getting ready to vote, but I thought I would ask if our consultants, Wilshire, would come forward and express a view on these options.

MR. TOTH: Thank you, Mr. Jones. Good afternoon. Tom Toth with Wilshire Advisors.

Our opinion letter is included in your materials and so there's more detail there. So I just thought I'd maybe focus my comments on the process as well as risk management. We've talked a lot about leverage and liquidity and I'm happy to answer any additional questions. So we're comfortable that the process that the Investment Committee went through was comprehensive and took into consideration all appropriate factors for making an informed decision. And that includes both expectations around capital markets performance, but also the impact that they have on other liability measures, whether that's contribution rates or the funded ratio.

And this process resulted in these alternative candidate portfolios that do have a superior expected return to drawdown ratio relative to the current portfolio and aligns with portfolio priority to protect the funded ratio.

The difference in the risk across the portfolios is primarily driven by the total allocation and the makeup of the equity portion of the portfolio, whether that's public or private equity. And while these equity assets are expected to have hire returns over time, they also come with downside volatility. And so risk management is really important and that needs to be managed by incorporating diversifying assets into the total portfolio. And in Wilshire's view, each of the candidate portfolios does appropriately diversify and -- to mitigate that drawdown risk to the extent possible, given your return objectives.

And so just in conclusion to reiterate, by stepping through the asset liability management process in a disciplined way, incorporating feedback from a variety of stakeholders, I think the Investment Committee can be comfortable that these final candidate portfolios are consistent with your portfolio preferences and your return objectives. And we'd be happy to answer any questions.

COMMITTEE MEMBER JONES: Yes.

CHAIRPERSON TAYLOR: Hold on.

There you go.

COMMITTEE MEMBER JONES: Yeah. My final question is the -- we have a motion on the floor, 6.8, what is your view on adopting that 6.8?

CHAIRPERSON TAYLOR: With leverage.

MR. TOTH: I'm sorry, Mr. Jones. Can you repeat that one more time.

COMMITTEE MEMBER JONES: I said that we have a motion on the floor of 6.8 with leverage. And I'm asking what's your viewpoint on that recommendation?

MR. TOTH: Mr. Jones, we are comfortable with that portfolio and are very supportive in particular of utilizing leverage as a portfolio construction tool. That is consistent with discussions that we've had with the Investment Committee for some time, including coming out of 2017 ALM process. So we are -- we are very comfortable with that portfolio.

CHAIRPERSON TAYLOR: Okay. Seeing no other questions, I'm going to go ahead. We've got a motion on the floor by Mr. Feckner, I believe, and seconded by Mr.

Jones, correct?

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And Madam Chair, can -- I'm sorry. Can I just confirm. The motion on the floor is both to adopt a discount rate of 6.8 and to adopt that portfolio of B2 --

CHAIRPERSON TAYLOR: B2.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- to support that discount rate.

CHAIRPERSON TAYLOR: Right. Correct.

So we're going to take a vote. Pam, do I need to -- I do not. So let's do a voice vote. All --

COMMITTEE MEMBER BROWN: Can I have a roll call vote, please?

CHAIRPERSON TAYLOR: Do we need a roll --

COMMITTEE MEMBER BROWN: Or an electronic.

CHAIRPERSON TAYLOR: An electronic vote.

COMMITTEE MEMBER BROWN: Thank you.

CHAIRPERSON TAYLOR: Okay. So an electronic vote. All those in favor. We'll go ahead you guys. Electronic vote.

(Thereupon an electronic vote was taken.)

CHAIRPERSON TAYLOR: All right. So it passes. So thank you, everybody.

We are moving on. So it was -- oh, I'm sorry, I was going to 7 -- Agenda item 8, independent oversight review of survey results. Yes, I don't see you. Hold on. Everything moved. This new program. Sorry.

COMMITTEE MEMBER RUBALCAVA: Under the -- under the recommendation for the last item, there was some next steps. And the second bullet was about communicating with the stakeholders. I want to make sure that we keep in mind the members who pay their contribution, because they don't have the -- the -- depending on the funded status, they don't -- either way, it -- they don't have the same mitigation, like the employers may have, depending on their funded status or long-term the curve -- you know, the -- we're bending the curve down for the employer contribution, for the employer, I think. But the employee, especially the PEPRA members, will see an increase in their contribution rate.

CHAIRPERSON TAYLOR: I think initially. You want to go into that Dan. Isn't it the same as --

COMMITTEE MEMBER RUBALCAVA: No.

CHAIRPERSON TAYLOR: -- the employer?

COMMITTEE MEMBER RUBALCAVA: No. And so I just want to make sure that that's communicated, that this is basically to -- I'm not sure what the language would be, but basically we want a healthy, fiscally secure benefit for them and this is the way to make sure, because when I voted yes, I knew there was also potential impact. There was a potential -- there is an impact -- adverse impact on the contribution -- employee contribution rate.

CHAIRPERSON TAYLOR: Right.

COMMITTEE MEMBER RUBALCAVA: So if that could somehow be considered in the member -- in the communication to the stakeholders.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: So, yes, Mr. Rubalcava, that will definitely be part, speaking to both employers and our labor partners on the impact of this, as we -- when we talk about our stakeholders, it includes both.

COMMITTEE MEMBER RUBALCAVA: Thank you.

Thank you, Ms. Chair.

CHAIRPERSON TAYLOR: All right.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Okay. And now we're moving on to 8 --

CHAIRPERSON TAYLOR: 8a

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Before we do, I just really want to just thank you to Michael Cohen and our Finance department for all the partnership and teamwork, certainly Scott Terando and the actuaries, Brad Pacheco and his team for all of the work with our stakeholders, because there's been a lot work there, finally Marcie's leadership. This has been a lot of -- a lot of work and landed us at a -- at a -- you know, what I believe is a good place and just don't -- and thank you to you, the Board, for the support and the process also.

So with that, we will move on to the survey of the Board members regarding investment consultants. And we have Kristin LaMantia here joining us. So Kristin, over tro you.

ENTERPRISE STRATEGY & PERFORMANCE ASSISTANT DIVISION CHIEF LaMANTIA: Thanks, Dan.

Good afternoon, Madam Chair and Committee members. Kristin LaMantia, CalPERS team member.

I'm here today to go over the annual evaluation survey results of your Board investment consultants. As shown in the agenda item, the Enterprise Strategy and Performance Division, or ESPD, acts as a neutral third-party administrator of the Board investment consultant surveys. The questions asked this year are the same as in previous years. Eight Committee members responded to the three surveys, Wilshire Associates General Pension Investment and Meketa Investment Group for both private equity and real estate.

The comprehensive results for all of the consultant group surveys are included in your materials in the form of charts representing the various answers selected by the participating Committee members. And for comparison, we have displayed the results for both 2020 and 2021.

With that, in the interest of time, I will stop here and ask if there are any questions.

CHAIRPERSON TAYLOR: Yes. Hold on a second.

Mr. Jones.

COMMITTEE MEMBER JONES: Yeah. Thank you, Madam Chair. It's not a question. It's just a comment. I think you indicated only eight Board members responded to the survey.

ENTERPRISE STRATEGY & PERFORMANCE ASSISTANT DIVISION CHIEF LaMANTIA: Yes.

COMMITTEE MEMBER JONES: I would just call on my colleagues to please participate in this, because it is a holistic process that we all are affected by what our consultants advise us on, so that's just a comment.

CHAIRPERSON TAYLOR: Yes. But I did send out the notice quite a bit.

All right. There are no more questions.

ENTERPRISE STRATEGY & PERFORMANCE ASSISTANT DIVISION CHIEF LaMANTIA: Thank you.

CHAIRPERSON TAYLOR: Thank you.

So we are on -- excuse me, summary of Committee direction

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE:

Thank you, Madam Chair. And Arnie I believe captured Committee direction for us today, so I'll ask Arnie to cover that.

INTERIM DEPUTY CHIEF INVESTMENT OFFICER PHILLIPS: Yes. I have two items today. The first one, we'll be sending an email to the Board showing China equity performance versus the overall global equity performance for the last three years.

And then the second item during the implementation discussions of ALM, we will bring back the option of lowering the active leverage limit from 20 percent to 15 percent for your decisions.

CHAIRPERSON TAYLOR: Active. Okay.

I don't remember anything else. So that sounds like it is it. So that means it bring us to the end --

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: I'm sorry, Madam Chair. We also have the direction to come back on Apollo that came from the public comment.

CHAIRPERSON TAYLOR: That's right.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: And then finally, your request on potential for stranded assets in a report, Ms. Middleton's request for renewables and exposure and the like, and then subject to Madam Controller's --

CHAIRPERSON TAYLOR: The TCFDs.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: -- framework around how to bring that. And Anne and I have already talked about how we bring that back.

CHAIRPERSON TAYLOR: Good. Great. Thank you. Thank you for remembering, because I totally forget.

All right. With that, the open session of Investment Committee is adjourned and I guess tomorrow we are 9 a.m. Finance Administration.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Sorry. Do you want to adjourn or should -- because remember that we're Finance and Admin and then continuing in Investment Committee. Do we want to not adjourn and then continue --

CHAIRPERSON TAYLOR: I'm sorry. Yeah, so we will -- I didn't know if we should adjourn or not.

INTERIM CHIEF INVESTMENT OFFICER BIENVENUE: Not adjourn and continue with the last two items.

CHAIRPERSON TAYLOR: We'll continue on Monday after Finance and Administration. Thank you. 4:39 p.m.

(Thereupon, the California Public Employees' Retirement System, Investment Committee meeting open session recessed at 4:39 p.m. until Tuesday, November 16, 2021.)

CERTIFICATE OF REPORTER

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of November, 2021.

JAMES F. PETERS, CSR
Certified Shorthand Reporter
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