COMMONWEALTH OF MASSACHUSETTS
PENSION RESERVES INVESTMENT MANAGEMENT BOARD

Minutes of the August 15, 2017 Board Meeting commencing at 9:33 a.m.

in the
PRIM Board Offices
at 84 State Street
Boston, Massachusetts

I N D E X

I N D E X

D O C U M E N T S*

A. Minutes of the PRIM Board Meeting of May 16, 2017
B. PRIT Fund Performance Report
C. BNY Mellon Gross of Fees Performance Report
D. Executive Director and Chief Investment Officer's Fiscal Year 2018 Proposed Goals & Objectives
E. Executive Director and Chief Investment Officer's Fiscal Year 2017 Board-Approved Goals & Objectives
F. Real Estate and Timberland Performance Charts
G. Proposed 2018 PRIM Board and Committee Meeting Schedule
H. Recommendations from 2016 PRIM Board Self-Evaluation
I. June 2017 PRIM Operating Budget
J. Travel

*Referred to and/or used at the meeting and retained at the PRIM Board offices

A T T E N D E E S

Board Members

· Treasurer Deborah B. Goldberg, Chair
· Robert L. Brousseau
· James B.G. Hearty
· Dennis J. Naughton
· Paul E. Shanley, Esq.

Other Attendees:

· Chandra Allard, Treasury
· Patrick Brock, Admin & Audit Committee Member
· Michael DeVito, PERAC
· Hugh Drummond, O'Neill and Associates
· Corina English, Hamilton Lane
· Constance Everson, Investment Committee
· Nick Favorito, MSRB
· Richard Lourenco, WCVB-Channel 5
· Rico Oyola, SEIU
· James Quirk, Barnstable Retirement
· Millie Viquera, Callan
· Darren Wolf, Aberdeen

P R O C E E D I N G S

A meeting of the Pension Reserves Investment Management Board (PRIM Board) was held on August 15, 2017, at the PRIM Board offices located at 84 State Street, Boston, Massachusetts.

Call to Order:

The meeting was called to order and convened at 9:33 a.m. Treasurer and Receiver-General Deborah Goldberg chaired the meeting.

TREASURER GOLDBERG: I'm going to call the meeting to order.

And so before we begin, the Massachusetts Open Meeting Law permits meetings to be recorded and states that the chair shall inform attendees at the beginning of the meeting of any such recordings. So accordingly, I am informing you all that Virginia Dodge, seated here to my left, is transcribing and also recording this meeting.

If anyone else in attendance today is recording the meeting, I would ask that you identify yourself.

MR. LOURENCO: Richard Lourenco, WCVB Channel 5.

TREASURER GOLDBERG: Thank you.

Also for the benefit of our stenographer and all those who are listening, please identify yourself by name and speak clearly and audibly.

Did you get that name?

THE COURT REPORTER: Yes. Thank you.

TREASURER GOLDBERG: Okay. Thank you. All right then.

MR. TROTSKY: We have a consent agenda.

TREASURER GOLDBERG: Yes. We have a consent agenda here. And it will begin with the approval of the PRIM Board minutes of its May 16, 2017 meeting.

MR. TROTSKY: We take them all at once.

TREASURER GOLDBERG: And the approval of the issuance for request for proposals for risk measurement systems and advisory services, and approval of the issuance of a request for proposals for private real estate investment management services, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. BROUSSEAU: So moved.

TREASURER GOLDBERG: Is there a second?

MR. SHANLEY: Second.

TREASURER GOLDBERG: Dave, would you like to explain this?

MR. GURTZ: Sure. Consent agenda items so we can talk about more important things later on. These three topics are relatively routine items, so to speak. So we've got the minutes obviously. We've got two requests to issue to RFPs, one being a risk measurement system and another one being for the core real estate services.

So again, routine nature. And if there's any questions, I'm happy to answer them.

TREASURER GOLDBERG: Any questions on behalf of the members of the board?

Seeing none, we have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Seeing none, it passes unanimously.

(VOTED: To approve the Consent Agenda.)

MR. GURTZ: Thanks.

TREASURER GOLDBERG: Thank you, Dave.

Everyone should have received and reviewed the executive director's fiscal year 2018 goals and objectives.

MR. TROTSKY: No. We've gone to my report.

TREASURER GOLDBERG: Then why do I have --

MR. TROTSKY: Here's your agenda.

TREASURER GOLDBERG: Okay. Sorry about that. Cancel that thought.

We will go to Roman numeral II, Executive Director/Chief Investment Officer Report.

MR. TROTSKY: Thank you. And we'll get to item 3 soon enough.

TREASURER GOLDBERG: We want to discuss it.

MR. TROTSKY: Thank you all for coming in August. I know it's not easy for everybody, but I appreciate you making the effort, especially those not on the board who are on our committees.

Connie is here, Connie Everson on the Investment Committee. Glenn Strehle on the Investment Committee.

We have Patrick Brock, who's not only a client, but also on the Admin and Audit Committee and Comp Committee. Thank you for coming all the way from Hampshire County.

Retirement systems, also James Quirk represents -- what is it? 11 different retirement systems.

MR. QUIRK: Ten.

MR. TROTSKY: Ten. I'm sorry. Ten.

And then Nick Favorito. I think I saw Nick from the Mass. Retirement System. And Mike DeVito from PERAC.

So thank you all for coming and welcome.

I'll repeat most of my remarks from the committee meetings. Some of you have already heard it. And those around the table have already heard my remarks at either one or two committee meetings.

TREASURER GOLDBERG: Or three.

MR. TROTSKY: So I will deliver these remarks in summary fashion today. A more detailed version of these remarks can be found at your expanded agenda. Please take the time to read it. It does recap what I think was a great year. And if you have any questions, please be in touch with me.

But first, I want to congratulate my administrative assistant, Amaran Soja. She was married on July 29, and we wish her and her new husband --

Have you gotten used to saying "husband James"? It takes a while to remember.

We wish you well in your future

together.

Unfortunately, as I already announced, Amaran is leaving PRIM to take a position with a new law firm that several friends of hers are forming, and they're forming it right here in this building.

So you're not going far. And you've been very gracious with your time in transition.

Today is actually Amaran's last day. She was very kind enough to extend her time with us through today to make sure the transition to Grace, who you've all met, goes smoothly.

So we thank you for that transition, also for your two and a half years here, dedicated service to me and to PRIM. We'll miss you a lot and wish you luck. So you're not going far.

And of course we're pleased to announce that Grace Mamo -- Grace is in the corner -- will replace Amaran as my executive assistant.

As you know, Grace earned her bachelor's degree from the University of Rhode Island, worked at a Boston law firm as a paralegal, at the New England Baptist Hospital helping run a nursing unit, and at the Mass. Eye and Ear Infirmary as a practice coordinator and research assistant.

You've all helped me welcome Grace. She's off to a great start, and you'll see more of her at these meetings.

Next, this is new news since the last time we met. I'm pleased to announce that Alyssa Fiore on the private equity team, we learned last week passed level 3, the last section of the CFA exam.

And now that she has four years of experience in the investment management industry and having passed level 3, she's a new chartered CFA holder. So congratulations.

And I know that's a lot of hard work. It always came at a bad time. You take those tests right after Memorial Day weekend, if I remember, and I always resented that.

So thank you for that effort, and you're off to a great start here at PRIM. How long has it been?

MS. FIORE: Almost a year in October.

MR. TROTSKY: It seems like longer. So you're off to a great start, doing great work on the private equity team.

MS. FIORE: Thank you.

MR. TROTSKY: I also introduced at the

committee meetings our five new summer interns. They're an exceptional cohort this year. They're also doing a great deal of work. I'm going to share something in an email, a piece of research they did, later this week. They're doing great work, and we're delighted to have them as well.

We've already reviewed that fiscal 2017 was an exceptionally strong year for PRIM. The PRIT Fund returned 13.2 percent gross for the year, 12.8 percent net. On a net basis, that's 80 basis points above benchmark. And six of the seven major asset classes outperformed their benchmarks.

I've mentioned for the first time in several years, international equities outperformed domestic equities, though all equities are up strongly. And because of our high exposure to international equities, emerging markets and developed markets, that served us well in the fiscal year.

Elsewhere, private equity returned 21.3 percent for the year. That's a fantastic result, Mike, and a tribute to you -- both Mikes, Mike McGirr, Mike Bailey, and Alyssa -- for your great work there. That's a great performance.

Not far behind, global equities returned 20.9 percent. Sarah, great job, you and your team as well. Particularly in some of the new areas of emerging markets that did really well on the equity side. So great job.

Value-added fixed income returned 10.3 percent. Hedge funds, which I'll talk about a little bit more, up 9.4 percent, net of fees. Real estate and timberland performed well, returning 6.8 percent and 8.3 percent, respectively, for the fiscal year.

And as is our custom, each asset class head will review a little bit more about their asset class during their remarks.

Quickly, we completed our first-ever direct real estate acquisition, acquiring 21 acres of prime office space land in Santa Clara, California. So Project SAVE is alive and well. That acquisition will save over $11 million in fees over its lifetime.

We have also launched Project SAVE Phase II, which is a careful deployment of direct investing, like the real estate deal in California. Phase II is under Mike Even's insightful supervision. And we're likely to come back to you with some incremental ideas on that.

So again, the PRIT Fund returned 13.2 percent gross, 12.8 net, and it's extremely strong competitively. This is also some new news since the last time we met. We received the peer group rankings, and we're very pleased with our performance, particularly because we have been systematically derisking our portfolio over the last few years, but still, even with a portfolio that's only 40 percent global equities, for the one-year period, we're firmly in the top third of all funds. In fact, we were in the 31st percentile. We're pleased with that.

More importantly, for the three-year period, we're in the top 16 percent of all funds. So that's very good. Remember, we were I think around the number 1 performing fund last year in a tough environment.

And for the five-year period, we're in the top 22 percent of all funds. So really good competitively. I feel very proud of that fact. The 10-year number is still quite low as we work off the hangover from the global financial crisis.

Over the past few years, as I've reviewed, we have reengineered our hedge fund portfolio, reengineered the fixed income portfolio and added significant risk-reducing strategies such as agriculture, blueberry fields in Michigan, if you remember.

The put spread collar option strategy and alternative risk premia harvesting strategy, all designed to reduce the risk profile of our portfolio.

I want to particularly highlight that we have reached an important milestone in the hedge fund portfolio under Eric Nierenberg's supervision. Now more than 50 percent of our direct hedge fund portfolio is invested in separately managed accounts. That provides improved transparency, more control and lower fees, often half the rack rate than commingled fund format that had been the norm in the past.

Many in the nation are now following our lead. We should all be proud of Eric and the hedge fund group here at PRIM because we are a recognized leader. When several are giving up on hedge funds, I think our hedge fund program is quite successful.

And as a great example of our attention to risk, the hedge fund portfolio returned

9.4 percent, net of fees. That's over 3 percent above benchmark.

But more importantly, we had a realized volatility of approximately 1.5 percent. 1.5 percent realized volatility combined with a return of 9.4 percent made hedge funds the number 1 performing asset class on a risk-adjusted basis, so the highest risk-adjusted return in the entire PRIM portfolio. 1.5 percent volatility of any asset class. 1.5 percent volatility is less than even bonds.

So not too many people appreciate that about hedge funds. We're using hedge funds in the true sense of the word "hedge," to hedge our equity risk exposure. And it's working.

In February, the board approved a new asset allocation based on the triennial comprehensive liabilities research conducted by PRIM staff and our consultant. We maintained the equity allocation at 40 percent, while implementing a put collar spread strategy, which essentially increases equity exposure with lower volatility.

We increased private equity from 10 percent to 11 percent, as you know. We repositioned core fixed income to mitigate potential inflation and interest rate risk. We redeployed the value-added fixed income investments to introduce other credit opportunities.

And the team is working very hard on those opportunities. Just had a preview late last week. They're doing great work. I'm excited at what they're doing.

We combined hedge funds and portfolio completion strategies into a single allocation to focus on diversifying strategies. And we believe all of these changes will enable our portfolio to perform well in all market environments.

And as Connie and I discussed earlier in the week, we're seeing some changes this month in the volatility of the markets, for example. The VIX really spiked this month as we had a bit of a selloff and now a rebound. So volatility is increasing.

Those are a few important highlights of our investment program, really characterized by solid results, a careful focus on returns, risk and costs. I always talk about how it's important to focus on three when evaluating any investment opportunities.

You have to look at returns. You have to look at cost. And you have to look at risk. Too many people in this industry, especially in years like we just had, are tempted to solely focus on return without much regard to cost and risk. So we are focused on all three.

Once again, I'm pleased to report that organizationally fiscal 2017 was another outstanding year. No senior-level employees departed.

And consistent with board-approved hiring plans, we filled seven key staff vacancies with top talent. We're now fully staffed with exceptional investment and finance professionals.

And the greatest compliment of all is that all our job postings attract literally hundreds of applications. We had seven job postings last year, and it attracted nearly 1500 applicants. So like I have said before, there's no greater compliment that we can all receive, when the best and brightest from around this area and outside of this area are applying to work here at PRIM.

We also announced a multi-year staff

hiring plan in each functional area to ensure that we are appropriately resourced going forward. As I've mentioned to a few of you around the table, we're very lean. Most other plans of our size have many more employees and a large staff to carry out what we do. We have never been stronger, but retention of key employees remains my primary concern.

As you know, the employment environment in the nation and in the region is very strong. There are opportunities for our employees outside of PRIM, and we work on that. We're aware of it. We see it. I spend more and more of my time on retention issues.

And all of us around the table have to ensure that we provide a challenging and rewarding opportunity for all of our employees and that we provide a culture and a work environment that's of value to employees. And I think we do a good job of that right now.

To that end, in May, we announced a series of personnel moves on the investment team. And I want to be sure to say that this year, we'll look for similar opportunities for other deserving members on the investment staff and on the finance staff. This room is full of people who deserve opportunity, promotion and challenges, and I can't get to everyone every year, but I intend to get to everyone who deserves it over time.

To recap the moves, Eric Nierenberg was named PRIM's chief strategy officer. Sarah Samuels will add responsibility for hedge funds to her current responsibilities overseeing public markets and investment research and as our deputy chief investment officer.

And Michael Bailey will be the second person -- Sarah was the first -- the second person to take part in PRIM's Professional Development Program, the rotation program, which will rotate Michael through different asset classes.

So the organization has really never been stronger or more innovative in the investment area, but also in the finance and legal and operations area. Again, we were awarded the GFOA Certificate of Excellence for our CAFR, our Comprehensive Annual Financial Report. That's for the completeness and transparency of our financial reporting.

As a result of our outstanding legal successes, our general counsel, Chris Supple, has been reappointed to a second term as cochair of the Securities Litigation Committee of NAPPA, the National Association of Public Pension Attorneys.

This time, correct me if I'm wrong, but you're the sole chair. So no longer a cochair. Is that correct?

MR. SUPPLE: That's what they tell me.

MR. TROTSKY: So congratulations on that.

And those two honors just really scratch the surface. Usually at these meetings, I'm able to recap a few things our staff has won or the plan has won. So I'm very, very proud of that.

Our investment program, as you know, is trend-setting, but without -- and I've said this before and I can't say it frequently enough, but without the finance staff and legal staff running in lockstep with our investment program, none of this success would be possible.

They're a group of consistent enablers. They never say no. They say yes. They say, "Yes, we can do that investment. Yes, we'll figure it out." It's really quite a luxury to have that.

That is no easy task, especially considering the fact that with over a hundred clients, we're unique. Over a hundred clients expertly supported by Paul Todisco in the corner, our senior client services officer, and his staff.

We already have one of the most complex accounting and reporting structures in the country. We're like a gigantic complex mutual fund in terms of accounting and reporting.

We have the great luxury of this group's professionalism and expertise. And I think we all want them to know that we don't take them for granted. And sometimes we do take them for granted. The reports are always on time. They're complete. Since I've been there, there's never been a material error in the reporting.

So thank you to Dave Gurtz. You do a fantastic job, our COO/CFO.

And thank you to Chris Supple also on the legal team.

And also the managers. Matt Liposky. Dan Eckman, Deb Coulter, Tony Falzone in IT. You always have us up and running smoothly. And of course Paul Todisco and the entire PRIM operations legal and finance staff. Too many to name here, but you all do a really magnificent job, and we don't take you for granted, so round of applause.

Now, on another more personal update --

and this is new since the committee meetings. As I've told many of you already, my three-year term as a volunteer governor of the CFA Institute ends this month. It ends at the end of August. I've had a three-year term. And I have decided not to renew for a second term. It's been a lot of work, but I believe the work that I helped complete over the past three years has been useful to PRIM and to the entire investment management industry.

And I thank you all, board members, Madam Chair, for allowing me to participate in that.

The main project, as you know, that I helped lead was the establishment of the CFA Institute Asset Manager Code of Professional Conduct. And it's been a success.

At the CFA, we believe that the asset manager code of conduct has been instrumental in improving ethical conduct in the investment management industry by developing and promoting the code, which is really a guideline of best practices to the investment industry.

Quickly, accomplishments include now over 1500 signatories to the code from over 50 countries. We've strengthened the code.

And I've personally spoken on behalf of the code at numerous conferences, on Webcasts, at society events, CFA society events, including in Boston, and other industry events.

And as you know at PRIM, we ask about the asset manager code compliance on all of our RFPs. So I think it helps us to determine how important ethical behavior is within our managers.

The code is gaining momentum. You may have seen numerous outreach campaigns, including one at South Station and in very large one-page ads in the *Wall Street Journal*, *Pensions and Investments*, including two open letter campaigns. I don't know if any of you saw that, but PRIM was the lead signatory on those, beckoning the industry to adopt the code, to encourage ethical behavior.

And while we are the lead signatory and the first adopter of the asset manager code of conduct, other large asset owners have quickly followed suit.

So overall, a huge success and a useful and fulfilling experience for me, and I thank you again.

I hope in some small way, PRIM, by

allowing me to participate on the CFA board, has done its part to improve ethical behavior in the industry. I believe that's the case.

Another bit of new news is that my work as a governor on the CFA is nearly complete, but I don't intend to end my relationship with the CFA Institute. And I wanted to announce that the CFA is now developing a best practices guide in much the same vein as the AMC on how to attract, retain and engage diverse workforce and create an inclusive culture for the investment management industry in those organizations participating in the industry.

A steering committee is being formed to provide input and guidance to the CFA Institute from practitioners in the field, and I have been invited to join the group. The steering committee is comprised of six or seven individuals from leading asset owners. It's just being formed now. Other confirmed members include CalPERS and CalSTRS, Girls Who Invest, Harvard University and the National Association of Securities Professionals.

The CFA Institute aims to create a guide that would be used by investment firms and their executives as a source of clear and actionable guidance on how to deepen diversity within an organization. And as we all know, the investment management industry has its challenges in that regard.

The guide will be developed through first a careful examination of existing content on the subject from leading organizations. And then secondly, structured convocations with executives of 30 to 40 companies across four to five cities in North America.

It's an exciting new project for the CFA. And they asked me to join because it's really a direct parallel to the work under way with the asset manager code of conduct. Just as the AMC provides useful tools and best practices on promoting ethical behavior within organizations, this guide will provide useful tools and best practices on promoting diversity within organizations in the investment management industry. So I'm happy to be a part of that.

And last, I was reelected to a second term on the CFA Society of Boston as a governor there. So I'll continue to work in that regard with both organizations.

So thank you again for your allowing me to participate in those outside volunteer activities. I appreciate it.

Any questions on that?

TREASURER GOLDBERG: Well, the only comment I would want to make is that I would assume that the roundtables that we did, the diversity roundtable could be a helpful starting point on outreaching to businesses in the New England area.

I don't know if you have a copy of that report yet, but --

MR. TROTSKY: I do have a copy. I know Sarah and others -- Connie, I think you went. A few other people went.

And I'll be sure to offer that up.

TREASURER GOLDBERG: It will shortcut some of the work.

MR. TROTSKY: That would be terrific.

TREASURER GOLDBERG: Exactly.

MR. TROTSKY: So that's all in terms of organization I have. I was going to run quickly through performance and in an abbreviated fashion what we did at the Investment Committee, so please indulge me.

Turning now to markets and PRIT Fund

performance, as you know, economic news is encouraging, and the global economy seems to be improving. We've talked about that in a lot of depth. Inflation remains subdued, even as GDP growth in the U.S. rebounded to 2.6 percent in Q2 from 1.2 percent revised in Q1. And the labor markets continue to improve.

So things clearly have improved. Markets have been reflecting that, and our returns have been strong. Returns in the S&P 500 for Q2, the S&P in the June quarter was up 3.1 percent. Developed international markets were up double that, 6.1 percent. Emerging markets very strong, up 6.3 percent. Diversified bonds for the second quarter ending June, up 1.4 percent. And long bonds are up 6 percent.

The calendar year to date also very strong. The S&P up 9.3 percent. Developed international equities up 13.8 percent. As I mentioned, this is the first time in a long time international markets have outperformed domestic.

Emerging markets up for the calendar year through June, 18.4 percent. Diversified bonds up 2.3 percent. Long bonds up 8 percent. Everything's working. And that's not always the case when bonds and stocks are both up.

July, as you know, was also a strong month. August is flattish across the board, even with the recent selloff.

I mentioned at the Investment Committee and we talked about that the S&P 500 trades at 18 times its projected earnings over the next 12 months. That's around the highest level in 13 years, but it's been a lot higher, and some believe it could go higher still.

We've talked about how these regimes of higher valuations can last, and you can actually make a lot of money in these periods, but you have to be careful. We've all talked about how periods like this can really last, but they can also end abruptly, and they can turn ugly.

And in this kind of environment, we believe that the best way forward is through a diversified portfolio, like the one we've been building here, and I think it will perform well for us in the future.

So I'll turn quickly to the performance slides in your deck at Appendix B. Give you a minute to turn to that.

Page 1, you can see what performed well

and what didn't perform so well for the quarter. Basically everything is positive. The PRIT Fund was up 3.8 percent in the quarter. International equities led the way on the left. You can see long-duration Treasuries also rebounded as yields fell. The 3.8 percent return for the PRIT Fund compares to a 60/40 mix, which was up 3.1 percent.

Turning to the next page, page 2, asset class performance summary for the one year. As I mentioned, the PRIT Fund was up 13.2 percent gross, 12.8 percent net. That's versus a 60/40 mix, up 11.1 percent.

People always forget they can't manage money for free, so the index funds don't have any costs associated with them, and people always forget that. So a 60/40 ACWI mix is a gross number basically. You can't even buy that index or any index like it for free.

You can see what did well on the left, emerging markets, private equity, U.S. SMID. Developed international very strong on the right. Duration really sold off.

Next page is PRIT Fund performance through June. And you can see again PRIT Fund up 13.2 percent, 12.8 percent net. That's an investment gain of 7.7 billion on a net basis and $480 million of value above benchmark for the one-year period. That's a large amount of money on a net basis, nearly $8 billion in return for the fund and $480 million of value above benchmark. Six of the seven major asset classes outperformed.

And we do pay benefits to Nick Favorito at the back of the room. And we pay --

TREASURER GOLDBERG: He gets all of them.

MR. TROTSKY: -- the net outflows -- and the teachers; that's right.

And the net outflows to pay benefits for the year was $1.5 billion.

You can see the three-year performance, five-year performance are quite strong, and the 10-year performance still reflects the effects of the world financial crisis.

Page 4, private equity and global equities led the way, as I've mentioned. And together with hedge funds, those three comprise the largest contributors to PRIM's total outperformance. So private equity, global equity and hedge funds led to the outperformance primarily.

Value-added fixed income up 10.3 percent was still quite strong for a fixed income portfolio. You'll see that it's the only major asset class that's lagged for the year. And there's a good reason that we understand.

In value-added fixed income, we have our private debt/distressed debt private portfolio, which is quite illiquid. We benchmark that distressed debt, for lack of a better benchmark, to a public markets index, the Altman index.

Distressed debt for the year, we're very proud of it actually, up 17.8 percent. Very, very strong. But the Altman index was up 28.6 percent. We've talked in the past, and we've actually made adjustments to the portfolio benchmarking going forward which will smooth this.

We've talked about the mismatch in benchmarks in this regard where we're benchmarking our private portfolio which isn't very volatile to a very volatile public markets benchmark. In fact, the Altman index is three to four times more volatile in all regimes than our underlying distressed debt portfolio.

So we understand that, and that's the primary reason why value-added fixed income underperformed, even though we're very happy with the 10.3 percent return, absolute return.

And the last page I'll talk about is page 5, which is our quilt chart. You can see that private equity returned to the top over all time periods. Global equity is very strong for the past five years, as you know, since we've benefited from a sharp snapback since the world financial crisis.

But what you can also notice is that for a longer period of time, 10 years, global equity is near the bottom. This reminds us that global equities in general are a very volatile asset class. In good times, they help us a lot. In bad times, not so much. And that is exactly why we spent the last few years derisking the portfolio, mindful that most of our risk comes from equity risk.

Timber, I like this. You can see timber is a very steady performer, even the 10-year number, which includes the world financial crisis, which was really led by a housing crisis. Timber, a very, very strong performer and consistent performer.

And hedge funds, I think you'll agree that they are improving dramatically.

So that's the quilt chart, an easy way to look at not only what works, but also the relative volatility over long periods of time of the different asset classes. It might help inform you a little bit about why we're doing the things we're doing.

So a great year. I thank you all for your support. I'll take any questions, but each asset class head will be reviewing their portfolio in a little more detail as they come up before you.

So thank you.

TREASURER GOLDBERG: Any questions for Michael?

I think all of us who are sitting here were in all the meetings, basically most of the meetings last week. So I think that this sort of solidifies it.

Thank you, Michael.

MR. TROTSKY: You're welcome.

TREASURER GOLDBERG: And on your other news, it was very interesting.

So we're done with the executive director/CIO report, if there are no other questions. And we'll move on to the executive director's fiscal year 2017 performance evaluation and fiscal year 2018 goals and objectives, which is a voting item.

MR. BROUSSEAU: The first item we have are the goals and objectives, at least on the agenda, III.A is goals and objectives. And you'll find that in Appendix D.

I do know that everybody has seen the goals and objectives for this next year, and probably Michael would like to make a few comments because they are his goals and objectives, but --

TREASURER GOLDBERG: Also just to mention, Bob, the past year's are Appendix E, if anyone wants to look at them for contrast.

MR. BROUSSEAU: For reference, looking at E would have past year's. These are for fiscal year 2018.

MR. TROTSKY: The goals and objectives for fiscal year 2018 are largely consistent with last year's goals. And we added a few new things that I would draw your attention to.

First, we've decided to have the first board educational retreat this fall, so that's new, and that appears on my goals and objectives.

Project SAVE II, which I've talked

about, Project SAVE Phase II is a new goal on this list, and I've talked about that in the past.

The liquidity study is new and was completed in July, so it is in this fiscal year. We completed a very interesting liquidity study that Sarah will recap during her remarks today.

And every three years, we are required to review the PRIM Board charters. I think that process is well under way. I hope many of you have been contacted. If not, you will be. So that's on the agenda.

Other than that, everything is pretty consistent with last year.

MR. BROUSSEAU: Questions?

TREASURER GOLDBERG: No. I was just going to mention I haven't been contacted about the charter. Have other people at the table been contacted?

MR. BROUSSEAU: No.

Dave, is Tom Ianucci going to --

MR. GURTZ: I'll have Tom Ianucci recontact all of you and schedule a call.

MR. BROUSSEAU: I'll make a motion that the board adopt the executive director's goals for fiscal year 2018.

MR. NAUGHTON: Second.

TREASURER GOLDBERG: All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Seeing none, it passes unanimously. Thank you.

(VOTED: To approve the Administration and Audit Committee's recommendations to approve the executive director's fiscal year 2018 goals and objectives, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

TREASURER GOLDBERG: All right. Okay. Investment report. Public markets.

MR. BROUSSEAU: No. We've got to go over the evaluation. III.B.

TREASURER GOLDBERG: Gotcha. That's not a voting item.

Okay. Maybe I need more coffee.

MR. BROUSSEAU: Okay. Thank you, Madam Chair.

I was thinking how I was going to start this this year, and some people said, "Oh, we don't have to come back and listen to you again, Bob, do we?"

But I think you all have to know that this is Michael's worst day. He says it every --

MR. TROTSKY: Well, I hope it's a good --

TREASURER GOLDBERG: No. There's a --

MR. BROUSSEAU: Good day.

This is his worst day when someone does an evaluation. He'd just as soon leave the room or crawl under the table.

In retrospect, I'd like to start by saying seven years ago this month, I sat as chair of the committee, the search committee. We sat at this table. And I think there were about three of us on the committee. We interviewed several people. And we finally decided to make a recommendation to the board to hire Michael Trotsky as our executive director.

I did not know Michael. I only met him for the first time when he did his presentation to us. I only knew what was in the résumé. And so naturally, as far as I was concerned, we were recommending an unknown entity to the board.

I can say that after seven years -- and your anniversary is coming up very soon, Michael -- I would say that possibly this is the very best decision that this board has made. Some may disagree with me, but you could not say that -- we've seen a transformation of this organization in the last seven years would be probably something that you could not dispute.

The first couple of years were very tough because Michael arrived upon a scene when we were losing staff. We were not in the top third of pension funds. We were getting up close to 75 to 90 lowest in terms of total performance.

And I didn't know how he was going to handle this. And to tell the truth, I had some doubts as to whether or not he would be up to the task that was before him.

But he did say one of the first things he needed, he needed to work with a new committee that just was established, a Compensation Committee, "because this board has got to give me the tools that I need to put together a staff that is going to do the job that I think has to be done here."

After over a year, and I served on the Compensation Committee, we came forward with a compensation plan that was adopted by the board, and I guess the rest is history. It was adopted in December of 2012, and we gave Michael tools that he needed.

Well, you can see the results of the

tools that we gave him over what has happened the last five years in this organization, something that we can all be very, very proud of.

The evaluation this year, first I would like to thank all of the members of the board and committee members who participated in this evaluation. I received I believe 15 replies, emails or phone messages. Eight of them were from committee members; seven were from board members.

As you know -- and I'm not going to say board members who did not participate or committee members. You didn't have to because this day is the day that we set aside for Michael's evaluation. So after I make my remarks, if anybody is interested in adding to them or make their own comments, they can.

Also you were given a discussion guide, as you know, with the goals and objectives. And you had his self-evaluation. So you could go through the discussion guide.

And we strongly urge, if you haven't done it already and you would rather talk to Michael privately, you can do both. Please come in and see him. He will be very grateful and will love sitting down and meeting with you to hear your thoughts and your concerns.

So that is the process we've used. I believe this is the third year, I think it is, David, of the new process, if I'm correct.

As I think about it, I thought it was going to make things easier, and it really, in some regards, have made things a little more difficult as far as I was concerned in getting all of these evaluations and just taking comments.

Prior to this, we had an objective form. It was very easy for me to compute the above average, average or outstanding, whatever you want. Here are the totals, and make a few general comments.

This makes it a lot more subjective in terms of what you tell me about what you like about Michael and what he has done in this organization.

So again, I thank all the people who participated.

I'd like to start by saying a few comments here. I will start generally. Michael's evaluation, if the last two years were way up there, this year is even more so. I did not receive one negative comment from anybody who participated in the process.

The biggest thing that people mentioned was the results of the organization. 13.2 percent for the fiscal year ended June 30 is phenomenal.

People mentioned Michael is an innovator. He's talented, intelligent, hardworking, prudent, thoughtful, confident and bold. These are direct comments from people who wrote them.

He's a believer in innovation, and we have seen this in this organization. The fact that our peers emulate us is the greatest form of flattery, when they are doing what you're doing, and you are a leader in this area.

Accolades given by everybody over our staff and what they've accomplished is unbelievable. They talk about Michael being accessible and open to new ideas. What he has created here is a tremendous working environment. He has worked with all of the staff. You heard today how the finance staff, how they all work together. One of the key things people mention, the rotation of our key people into various areas so they can all become experts in what PRIM does here.

People said Michael was a mentor and a teacher. And of course leading an organization like this, you need a mentor, and you do need a teacher to help.

He was outstanding in every category that people discussed with me. He exceeds expectations on all of the 19 criteria that he's set out in his goals and objectives. And people mentioned the goals and objectives as the criteria and how they were, they were outstanding, and what he performed this past year.

Michael displays a deep commitment to sharing portfolio-wide information, strategy and insights, which are valuable to PRIM's overall strategy. He's interested to hear new and different ideas. His leadership provokes visibility to the fund and attracts quality investment firms, and he is open to all points of view. He enjoys sitting down with you at the office and hearing what you have to say and to give him new ideas.

A few other quotes here that I'd just like to use. "Michael has a responsibility" -- and this is one I pondered about using. I said, "This is true."

"Michael has a responsibility for the fiscal strength of the Commonwealth that equals that of the governor and just a few others at top levels of our government."

When you consider the pension issues around the country, in effect, this is a $67 billion fund, which is quite larger than the state budget actually. So he does have tremendous responsibility as far as the Commonwealth is concerned.

One person said, "Michael has fulfilled the standards in his self-evaluation. I grade him excellent."

Says, "I am confident Michael can attain even higher standards."

"As a board member, it is exciting to see such a great professionalism and productive work and atmosphere in action." And this was talking of course about the staff here.

I guess I could go on and go on, but these comments, I think, tells a great deal about Michael. The fact that he inspires confidence. He has a great finance team.

One said, "Mike is doing a very solid job. We are lucky to have him, and I am pleased with him."

Now, not to mention there were a few comments in terms of what Michael probably is going to have to do, and I know in talking with him, he has mentioned this. And in talking to us, he has.

But a couple of these said that -- suggestions that should command more of his time. I don't know where he's going to find the time with all he has done here and what he does.

But one said, "He should work on creating a deeper investment staff." We know Michael has said that. We have to strengthen the investment staff. All they do, we're asking a small group of people to do a lot. This investment staff has got to be made deeper.

"More time has to be devoted to asset allocation," as we look as a board.

"More education for board members in investment areas," because not all of the board people are experts or this is not our field of expertise. And we need education also.

And also more time has to be spent on long-term strategy. How do we sustain our performance over the long term? These are probably challenges that Michael will have to follow.

So I guess in summarizing this, I could say that this evaluation this year was very easy to do. I could have gone back to last year and probably used some of the same comments.

I think, Michael, we have a keeper here, and I hope that --

TREASURER GOLDBERG: The question is how long is he keeping us?

MR. BROUSSEAU: I don't know. Probably his wife might have something to say about that. I don't know.

But I can only say and thank all of you for participating in this evaluation. It was a pleasure.

And that, I guess, concludes my remarks. I think now if anybody from the board would like to add to it --

MR. NAUGHTON: I would, Bob.

MR. BROUSSEAU: Or if they would like to make their own comments because mine was just for purposes of getting this discussion started, if people have more to say.

MR. NAUGHTON: Yes. So I never understand, other than the fact that I know Michael, as well as being a brilliant and talented guy, he's also a highly modest man. That's why he, I think, dreads this day of evaluation. Certainly he has nothing to fear in the substance of the eval.

I was thinking that I came on board with this PRIM Board back around the time that the consideration was being given to the package of compensation and those issues of compensation. I got to participate in that as a board member.

And I remember thinking at the time, "This is really going to be critical to attract and retain people."

But the most critical thing in attracting and retaining people, I think is the person who's using the tools. It's not the tools themselves.

What I see in Michael is somebody who combines a lot of insight in investment with a lot of insight about people. And that's where he is brilliant. He combines those two factors. He has attracted topnotch staff to PRIM. And we have seen the results time after time after time. And we will continue to see that.

So I would agree with those who would

not want to ever wake up in the morning and find that Michael had decided that, as the Treasurer mentioned, that he may not need us anymore. I hope he always needs us.

Thank you, Michael.

MR. BROUSSEAU: I think probably I feel also there were several comments on how the community outreach that Michael has done, again, with Paul and his staff, with our clients -- several comments were how pleased the clients were to have Michael and Paul and the client services that we are providing, especially mentioned the new advisory council --

TREASURER GOLDBERG: Right.

MR. BROUSSEAU: -- that is now in place.

From a personal sense, I could listen to everybody and say I'm not going to be repetitious because these are the exact comments that I would have written if I was sending this to another chair of this committee who had to do this.

But personally, I'd just like to say that in this past year, I've experienced that Michael is a very caring person. He goes out of his way to assist people, to be kind to people and to help them when they're in need.

And I know he does that with his staff, and I have seen him do it on several occasions as far as I was concerned. And I certainly thank him for that.

TREASURER GOLDBERG: So I would like to add a couple things. But I don't want to speak ahead of others, if they would like to add anything.

For me, there are several items that I think are critical and I have observed over the time frames that I've been here. And I think that Michael's embracing innovation includes a breadth of issues. It's not just in the investment space, but it is in the organizational space.

And I think the fact that you were asked along with CalPERS and CalSTRS to lead on good governance strategies shows that although we're a much smaller fund than they are, that they respect the work that's being done.

As an old-time HR-focused person, the fact that we see the kind of talent applying for jobs here and the lack of turnover is one of the critical pieces that you really need to look at in the executive director side of Michael's job. Let's not forget he's the CIO and executive director.

And I'm sure Jim would agree with knowing how challenging that is because he sat in that chair and knows what it's like to compete with the endowment funds and the big people in the Boston area for talent.

MR. HEARTY: It's a significant challenge.

TREASURER GOLDBERG: Exactly. So I know you probably have the exclamation marks next to that, as I do.

And so I think those are things that really need to be focused on. And to be able to do both of them well is not typical. Most funds would have two people in those roles.

And yet look at our returns this year and look at our staff stability. And with that for me as a manager, as a person who looks at what the fund has to accomplish -- and that's why Nick Favorito, who is here, has no hair, when he had a full head several years ago -- is meeting the needs of the retirees.

Nick, smiling back there? I can't see you.

MR. FAVORITO: Yes, Treasurer.

MR. BROUSSEAU: Nick, are you going to let that go?

TREASURER GOLDBERG: Because Michael, in deference to Nick, has made sure that we fill the bucket faster than the water is coming out of the bottom.

And we need you to keep that up, by the way.

So I may be repetitive from last year focusing on those issues, but I think those are the primary ones to focus on.

Additionally, Michael and I have a very collaborative relationship. We meet constantly. We talk constantly. We share emails constantly. Text messages. There is a constant back-and-forth.

And I can't speak for your history. I'm sure that you probably had very good relationships with prior treasurers, but I know it's not always the case.

MR. HEARTY: I wouldn't go that far.

TREASURER GOLDBERG: Then I'm going to highlight this with a bright yellow highlighter.

MR. HEARTY: I have excellent relationship with the board, I think.

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: What I'm trying to say is I think that makes for a very good working relationship also.

And so overall, I looked at last year's accomplishments. We succeeded on significant parts of them, including ones that I thought I highlighted last year that I wanted to see get done.

I think the board retreat this year is going to be really exciting and interesting. And the look at the charter may be unique to the last couple looks at the charter with hopes to actually not just check off that box and keep on going.

So I'm very pleased with where we're at. Obviously the person who also looks at the market, one of the things that Michael and I talk about a lot is why is everyone so optimistic because -- and that's why the derisking of our portfolio is a critical piece of what we're focused on because at some point, that's going to be our net. I'm looking right at Connie, and she's nodding.

So that's all I really have to add. I don't know if anyone else wants to say anything.

MR. SHANLEY: Said it all.

MR. HEARTY: I'll just add something. I am the only person here I think who has done Mike's job in the past. It's a very challenging job.

It's very important for the relationship between the Treasurer and the executive director to be a beneficial one to each side. It is apparent that that is so here. It's a compliment to both of you.

I did not have a great relationship with the second Treasurer I worked for, and that affected the entire organization. Paul has seen both these relationships matter significantly. So I just want to stress that it's great to see the working relationship as complimentary, and compliments to both of you.

TREASURER GOLDBERG: Thank you. Appreciate that, Jim.

MR. TROTSKY: Thank you.

TREASURER GOLDBERG: So this is not a voting item.

MR. BROUSSEAU: No, it's not a voting item.

TREASURER GOLDBERG: We get to vote on his compensation.

MR. BROUSSEAU: At the December meeting.

The Compensation Committee will meet in November. And looking at the goals and objectives and the evaluation and what was said here today, I will --

The chair of the committee is not here today.

TREASURER GOLDBERG: Right.

MR. BROUSSEAU: And she will probably ask me to give a review of --

TREASURER GOLDBERG: Yes.

MR. BROUSSEAU: -- his annual evaluation. And then the committee will decide on the factors of Michael's --

TREASURER GOLDBERG: And there's a formula.

MR. BROUSSEAU: And that will be done in open session, as the law requires, here at the November meeting. So mark your calendars.

TREASURER GOLDBERG: Thank you for your work, Bob.

MR. BROUSSEAU: Thank you.

MR. TROTSKY: Thank you, Bob.

MR. SHANLEY: Nice job, Bob.

TREASURER GOLDBERG: Now you can breathe.

MR. HEARTY: It's a long time to hold your breath.

One question, Madam Chair. Given your comments around Nick, should we expect him to start losing his hair?

TREASURER GOLDBERG: No, not at all. No.

It's got grayer since I've known him because trying to have this kind of performance in this kind of world is difficult.

I actually want to comment on that. What's interesting is, given our strategies, we actually would have been -- some of our peer groups perform well in a way by accident, not with a strategy.

I think Connecticut is a perfect example. They were just completely -- because they literally had two employees in their entire fund. It's very chaotic in Connecticut, but they happen to have gone into these equity funds. And so they were carried along, but there also could very quickly go in the opposite direction.

So I think you have to really look at a period of time over time because there were those who just are heavily in equities, happened to do well, but it wasn't a strategy for them.

Wouldn't you agree with that, Michael?

MR. TROTSKY: Yes. I think Connecticut had 56 or 57 percent in equities.

TREASURER GOLDBERG: Yes, which is scary.

MR. TROTSKY: But thank you very much for your vote of support.

And more importantly, thank you to the staff of PRIM who allows you to have confidence in me. They do all the work, and I couldn't do it without them. I love coming to work here every day with this staff. It's a great place to be. And we're innovative, smart, fun. And I hope it continues.

Thank you, everybody.

TREASURER GOLDBERG: Now, with that, we have a lot to squeeze into the remaining part of the meeting. So we're going to start to -- the good news is that we've reviewed a significant amount of that before, but we will start with public markets performance, investment research.

Thank you, Sarah.

MS. SAMUELS: Good morning, everyone.

So I'm going to be talking about that same performance handout that Michael was at. I'm going to turn your attention to page 6, please.

But before I go into performance, I'd just like to recap briefly our year, our fiscal year, and what we have accomplished in public markets and investment research. We had a successful and productive year on the public markets team. I'd like to thank Chuck, Andre, Andre and Andrew for all their great work.

So the public markets portfolio has contributed meaningfully to the PRIT Fund's total return. I'll talk about that a little later. We invested over $5 billion of capital in the last year, including our international small cap allocation, which is new.

And we conducted some research projects that I think the findings were quite interesting such as rebalancing and restructuring our value and fixed income allocation as Michael mentioned.

And just two weeks ago on the investment research front, Chuck LaPosta and I presented some work that we did conducting a liquidity study, an in-depth liquidity study, really seeking to answer the question do we have sufficient liquidity to pay our benefits, our obligations that we need to pay in a given year, both in normal environments and in stressed environments.

And we did this really using a rigorous set of factors and stresses on the portfolio to confirm that we are comfortable with our liquidity. We considered the fact that liquidity is reduced in stressed environments, that we may not be able to sell from many asset classes that we can in normal environments. We shocked the portfolio using returns from 2008, for example, global equities down almost 40 percent.

We made some conservative assumptions about our cash needs, so we made stresses assuming that we had greater capital calls for our private markets portfolios, that we had higher benefit payments.

And we demonstrated the importance of not selling low. We showed that you can actually destroy a great deal of value by being a forced seller when markets are down.

So the punchline is that even with these conservative assumptions, we found that we do have sufficient liquidity to pay our benefits and meet our obligations in both normal and stressed environments. We're going to conduct and update this liquidity study on an annual basis as part of our asset allocation work. And we also have a plan for sourcing our liquidity needs in the next stressed environment.

MR. TROTSKY: It is an excellent report.

MS. SAMUELS: Thank you.

TREASURER GOLDBERG: Great.

MS. SAMUELS: So turning to performance on page 6, this is our garden chart. And as Michael mentioned earlier, there's an awful lot of positive returns in the last year, awful lot of green on this chart, and a lot of double-digit returns.

Assets in the top left quadrant, which is where the majority of our investments lie, both in terms of market value and risk, did quite well. So this was a great year for us and our asset allocation and our managers.

I'll highlight a couple of themes that play out in this chart that also tie into our active management returns in the public markets.

So three themes. One is that low quality stocks and low quality bonds outperformed their higher quality counterparts.

Second theme is it was quite a friendly environment for risky assets across the board. So the cost of credit fell dramatically as seen in both high yield and investment grade credit. And as Michael mentioned, equity valuations continue to rise.

And then the third theme is that non-U.S. assets outperformed their U.S. counterparts.

So if we turn to performance on page 7, the public markets portfolios, all of our public equities and bonds total about 43 billion. So that's about two thirds of the fund in public markets.

Our public equity portfolios total about $30 billion. And our global equity composite, as Michael mentioned, rose 21 percent in the trailing year. So at almost half of the fund, about 45 percent, up 21 percent, this was a major contributor to the total return for the year.

In absolute terms, just drilling into a couple of asset classes on this page, emerging markets on the left side here rose the most in the last year, up 23 percent for the index. Our managers outperformed. They're really knocking the cover off the ball in emerging market equity. Outperformed by almost 5 percent.

Small caps were also up over 20 percent for a few reasons, but a big one was optimism around tax reform. So tax cuts are a bigger deal and disproportionately benefit smaller companies versus their larger cap counterparts.

International equities rose 20 percent, and U.S. large caps were up 18 percent. So strong returns across the board in our global equity portfolio.

Happy to take any questions. I am sort of condensing my comments in the interest of time.

TREASURER GOLDBERG: Are there any questions on this? I think everyone here has heard this last week.

MS. SAMUELS: Sure. I can speed it up.

TREASURER GOLDBERG: Just a quick review.

MS. SAMUELS: I'll skip through fixed income. The punchline is that the one asset class that declined in absolute terms really was core fixed income, where we had rates rising with growth, and inflationary expectations rising with Trump's election.

TREASURER GOLDBERG: And STRIPS.

MS. SAMUELS: Yes.

TREASURER GOLDBERG: Which is the correlation to equities.

MS. SAMUELS: Yes. That's right.

And then pages 9 and 10, I'd like to take a deeper dive into the drivers of risk and return a couple times a year, and fiscal year makes good sense.

Page 9 really shows what Michael was

talking about where we've got about 64 percent of the fund in growthy assets. So things like public equity, private equity, and value and fixed income. But that contracts the majority of the fund's risk. So our equity-like risk is really something to be aware of. And as Michael said, we haven't taken steps to diversify our risk sources.

Page 10 takes a look at the contributors to return. And the reason I like this page is it takes into account the weights that are -- the dollars invested in each asset class.

And so on the left side here, we've got contribution to total return, so how did we get to that 13.2 percent return? And on the right side, we've got contribution to excess return.

And as Michael mentioned, global equities and private equity really were the story for total return on a weighted basis. And global equities, private equity and portfolio completion strategies for a contribution to excess return.

So happy to take any questions. If not --

Yes.

MR. BROUSSEAU: I was not at the Investment Committee meeting. I think I had a doctor's appointment when the meeting was held.

But probably you wouldn't know the answer to this. Every time PERAC decides to lower the actuarial rate, it really raises havoc with our bottom line. It shows the unfunded liability just escalating out of control.

TREASURER GOLDBERG: That's not entirely true. It's not havoc. And there really are strong arguments for lowering the rate.

MR. BROUSSEAU: I know for lowering the rate, but every time we lower the rate --

TREASURER GOLDBERG: It does increase the liability, but it's considered a more realistic --

MR. BROUSSEAU: It also gives the impression that we do not have the liquid resources to pay benefits down the way.

One of the biggest things that we're seeing people who are attacking defined benefit pensions is that these pension plans are not sustainable.

And I say yes, they're not sustainable because over the years, the government has not contributed. So we look at liquidity problems as we go along and having to pay benefits. Certainly nobody wants to be in a state like Illinois is where they're in deep crisis with their pension fund.

This has to interact with what you do, Sarah.

MS. SAMUELS: Right. In terms of the liquidity study or just more generally with asset allocation --

MR. BROUSSEAU: Yes. Just --

MS. SAMUELS: Yes. It's certainly something to keep in mind.

You know, Michael has mentioned this before. There are a lot of moving pieces and moving parts and different implications to the expected rate of return and what that means, when that changes.

And what we can do here is really determine how to invest our assets to reach that return to the best of our ability.

MR. TROTSKY: Last time I looked at it, every quarter percent, every 25 basis points, that the actuarial rate of return is lowered increases the unfunded liability by something around $1.8 billion.

And over the past -- correct me if I'm wrong, Mike. It's in this order of magnitude.

And also over the past few years, they've done a new mortality study which says that people are living longer. So that also increases the liability.

There are a lot of moving pieces, but what I always say with anyone who asks me is there are really three levers.

One, the state could find more money to fund the unfunded liability. That's difficult in this environment obviously.

Two, benefits could be cut. No one wants to do that. No one in this room wants to do that.

Or three, we can try to earn good returns here at PRIM. And really what we are a hundred percent focused on at PRIM is the last lever. That's all we really do is try to get good returns. And it's important that we're set up to at least have one strong lever.

TREASURER GOLDBERG: So I'm going to readily admit that I've been a chief proponent of lowering the rate. It was 8.25 when I was running for office. I was recommending going down to 8. I recommended going down to 7.75 and then 7.5.

I did hold this year because -- but we

do have others that are dropping down to 7. The community I come from may even be below 7 now and will be fully funded. But we, when I was there, began putting money to one side.

I've worked with the A&F people on trying -- because the formula that was committed to for five years is expiring, and encourage them to continue to adjust that.

I have to tell you, this is something that the rating agencies look at. But candidly, they're more focused on the rainy day fund and the lack of having replenished the rainy day fund.

They are supportive of our strategies around the pension fund as long as the legislature really addresses the rainy day fund issue. But if it becomes cumulative, that is a bigger issue for them, and it did result with Standard & Poor's in a downgrade this year.

The good news is that our issuances are way oversubscribed, so I think people still feel that we have our hands around our fiscal controls. But it is a delicate balance.

And I totally understand where you're coming from. Pension reform of 2010 helped a great deal. The mortality charts are showing people are living longer, but at the same time, and particularly with your cohort of teachers, women are starting to catch up with mortality in dropping down, that you're beginning to see increased heart disease, stress and the like. So those will vary also.

I get how you're feeling. I think that we're doing a good job here at PRIM to try to stay ahead of that. But I have to say that I'm planning on being here a long time, and unless the world changes dramatically, I have to admit to you you are going to see me recommend a readjustment downward as we move forward. And it's just the reality.

The rating agencies in the world think that we're more realistic. They actually value this enormously. And we are being more realistic.

MR. BROUSSEAU: But then on the other hand, they take that lowering the rate as a reason, and we see it in the national press and in even the local press, to attack public pensions as being the reasons why we have these large unfunded liability that are not sustainable.

TREASURER GOLDBERG: You can't compare us to Illinois --

MR. BROUSSEAU: I'm not trying to.

TREASURER GOLDBERG: -- or New Jersey.

You will hear me publicly speak, and people who really get it will understand. I understand your anxiety around it, but from a fiscal point of view, it's the right thing to do.

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: It also forces the hand of the legislature. You're sending a message. You're saying, "Guys, hello."

MR. NAUGHTON: I'd like to just weigh in with a couple of thoughts on this since I represent the teachers and that's the largest slice of this fund.

TREASURER GOLDBERG: Right.

MR. NAUGHTON: As does Bob.

When it comes to looking at -- what I look at is another three-legged stool. One of the legs is what teachers and other employees of the state pay in out of their paychecks.

TREASURER GOLDBERG: Right.

MR. NAUGHTON: Nobody ever gave them a holiday on their payments. That comes out every check forever while they're working.

MR. BROUSSEAU: 11 percent.

MR. NAUGHTON: The same is not true of the legislature. The legislature can make up its own rules as it goes along.

So one can understand the frustration that Bob is expressing because while certainly we have to consider fiscal responsibility and the rating agencies, we also have to consider what gets done with that data that's naughty and unfair. And that's what Bob is talking about.

TREASURER GOLDBERG: You've heard me speak to that.

MR. NAUGHTON: I have done, yes. But I think I just want to reinforce --

And I left out the third leg. I think this organization has done its job in fine style under Michael's -- and previous groups.

We all bear the frustration of not being able to actually control that third leg. And yes, we do have to talk about that. And we do have to step up and defend and remind people that no teacher ever got a holiday on the deduction from his or her paycheck. In fact, at 11 percent, they're all but financing their own pensions over the course of their careers.

TREASURER GOLDBERG: I also want to mention they don't get Social Security.

MR. NAUGHTON: They don't get Social Security.

TREASURER GOLDBERG: A lot of people don't know that.

MR. NAUGHTON: And those who do get Social Security from another source --

TREASURER GOLDBERG: Get a reduction.

MR. NAUGHTON: -- get a reduction because that's the way the --

MR. BROUSSEAU: Windfall elimination.

TREASURER GOLDBERG: So it's complicated and it's technical. And so that's why I take it upon myself to articulate both sides of the message.

And I want you to know I have pushed very hard on A&F to -- you know, they were going to do 10 percent over three years, drop down to 7. I pushed very hard to stay at 10 because it was expiring in 2017.

They are compromising somewhere in the middle, but I do have them pushing. And in these reduced revenue times, any amount that I get above what was the plan is a success.

MR. NAUGHTON: Well, I think for my part, for my constituents, I'm glad we have a Treasurer who has the proper sensitivities in these matters.

TREASURER GOLDBERG: But it's a really tough balance.

MR. NAUGHTON: It is. I understand.

TREASURER GOLDBERG: It's a balancing act.

Believe me, nobody wants to hear when I talk about the rainy day fund. But I warn them -- I went back and I looked. In my inaugural speech, I talked about the rainy day fund. So that warning was out there from day one of my administration.

And lo and behold. So --

MR. BROUSSEAU: I apologize for getting us off track.

TREASURER GOLDBERG: No, no. It's a worthwhile conversation.

MR. BROUSSEAU: We talk about liquidity and --

TREASURER GOLDBERG: The good news is we have the money to pour in the bucket. And we're staying ahead of the bottom right now.

So okay. Thank you, Sarah.

Private equity.

Eric, by the way, Mike Bailey and I met with an interesting group yesterday which requires your deep dive on it so we'll both speak to you about it. It was very interesting strategy. The question is if it's real. If it's real, then it may be worth looking at in a small way.

MR. NIERENBERG: Okay. Great.

TREASURER GOLDBERG: I think I surprised Mr. Bailey on how much I knew. It's pharmaceuticals.

MR. NIERENBERG: Okay. Interesting.

TREASURER GOLDBERG: I was surprised at how much I knew.

MR. NIERENBERG: All right. Michael already covered a lot on performance and risk-adjusted returns and also some of the changes that we've made with managed accounts and transparency, so I'll skip over that piece, and provide some detailed comments on performance and talk about a couple of initiatives. I'll keep the comments brief, but as always, if you have any comments, please interject.

One thing that I mentioned at the Investment Committee meeting that is really important is that as we've been trying to integrate the credit and equity hedge funds into our broader public markets portfolio, our PCS group has been working very closely with the Public Markets group. We're using this common evaluation framework that we've developed for hedge funds to evaluate funds across the spectrum, in different types of strategies in the credit and equity markets.

We're very excited about this, and I think it's gone extremely well.

We have gone down to New York a couple of times to visit managers togetherly. And we are working on some very interesting new credit opportunities, and we've been able to help, where appropriate, to give our insights.

From a strategic standpoint, it's a great thing for PRIM and something that I personally am very excited about.

Just two sentences on hedge fund performance. As Michael mentioned, the portfolio returned 9.4 percent for the year, which is quite good, but the performance strength was broad-based. Some of the standouts included structured credit, distressed and long/short equity. Our replication effort also performed very well, which we're happy to report.

Even in a difficult year for systematic

macro strategies, our systematic macro portfolio did outperform the industry benchmark. It was positive for the year, which is more than you can say for what the industry returned. And much of that is due to a high level of diversification that we built into our macro portfolio.

The agriculture and land banking strategies have done well, and the blueberries are very much on track. I was in Michigan last week --

TREASURER GOLDBERG: I don't see any in this fruit bowl.

MR. NIERENBERG: They are available at Shaw's. You can check. And I have word --

MR. NAUGHTON: BJ's too. I bought some yesterday, just for the cause.

MR. BROUSSEAU: Two for $4.

TREASURER GOLDBERG: You're trying to support the investment, Dennis?

MR. NAUGHTON: Yes.

MR. NIERENBERG: And I have word that later this year, it looks like Stop & Shop might get them as well.

TREASURER GOLDBERG: Not my Stop & Shop unfortunately.

MR. NIERENBERG: On a couple of the other initiatives that we've undertaken over the last couple fiscal years, first is the replication strategy. We've continued to broaden that in terms of the scope, and we're very pleased with that performance.

We also have enhanced the robustness of the proprietary alternative beta evaluation framework we use to apply across different asset classes. Chuck LaPosta was very helpful in pulling a whole new set of factors that we can use for evaluating credit strategies. Already we're seeing some very visible and noteworthy enhancements within the model results.

Again, I couldn't do this without my hedge fund team. Bill Li is really the master of everything in a lot of ways. He's actually at a weeklong quantitative seminar with Luis Ramon, our director of risk, learning about topics like mathematical copulas, and it is great to have that kind of intellectual firepower in-house.

Our interns, Liu Liu and Andres Uribe, in the back, who in just a couple months have made very significant achievements and contributions to our team.

That's what I have on an update for PCS. If you have any questions on that, happy to take them.

TREASURER GOLDBERG: Anyone who missed, of course missed the history lesson and socioeconomic environment of Brazil. Missed something great.

MR. BROUSSEAU: I missed it.

TREASURER GOLDBERG: We'll give you a private showing.

MR. NIERENBERG: We do have one voting item for your consideration.

TREASURER GOLDBERG: So I will seek a motion in a second, and then have you go into the full description of it.

I would seek a motion of an initial allocation of up to 150 million to the Canvas Capital Distressed Credit Strategy, that the PRIM Board approve the Investment Committee's recommendation to approve an initial allocation of up to 150 million to the Canvas Capital Distressed Credit Strategy as described in Appendices G and H of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. HEARTY: So moved.
TREASURER GOLDBERG: Second?
MR. BROUSSEAU: Second.
TREASURER GOLDBERG: Okay. Go ahead.
MR. NIERENBERG: I'll keep the comments brief. Bob, happy to fill you in on the details on the Brazilian constitution and economy, if you have interest.
TREASURER GOLDBERG: And also the different areas of the country.
MR. BROUSSEAU: No more presidents are impeached.
TREASURER GOLDBERG: We're okay with that. We just have to pick the right judges.
Am I wrong?
MR. NIERENBERG: No. You're right.
As a brief reminder of what this is, Canvas is a multi-strategy alternatives manager based in Brazil, with offices in both São Paulo and Rio de Janeiro. They have AUM of approximately one and a half billion. It is an employee-owned firm. Credit Suisse owns a passive 20 percent stake.
The distressed credit strategy that's before you has a track record of over five years.

It has a very strong history of producing good risk-adjusted returns. Rafael Fritsch, the lead portfolio manager on this strategy, has built an outstanding team that spans both credit analysis and legal analysis.

I was in Brazil two weeks ago. I spent a lot of time with every member of that team, and came away with a high level of conviction that they can execute on this strategy in a way that others really cannot.

Rafael also has a very strong pedigree, spending time at some of the other prominent firms in Brazil such as JGP, but also at some of the major hedge funds and investment banks like Arrowgrass, Deutsche Bank and Bank of America.

There are really two main investment themes, which are described in greater length in the memorandum. One is focused on corporate distress and turnaround situations. The other involves Brazilian federal claims, known as precatorios, which, without going into a lot of the details, have the same legal standing as Brazilian sovereign debt. They also have short duration, which we think is important as well.

Consistent with what we've done on the

hedge fund program, we will have a managed account setup for this investment. Matt Liposky has spent a large amount of time making sure that we understand the structure very well, and Aberdeen has also been a lot of help in this area. We feel confident that we have good protections. In fact, some of the Brazilian regulations actually are stronger than what we have in the U.S. in terms of investor protection.

I think we've negotiated a very favorable fee arrangement as well, consistent with past investments.

I'll leave it there. Happy to take any questions, if you have any.

TREASURER GOLDBERG: Any questions for Eric?

So we have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Seeing none, the motion carries.

(VOTED: To approve the Investment Committee's recommendation to approve an initial allocation of up to $150 million to the Canvas Capital Distressed Credit Strategy as described in Appendices G and H of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

MR. NIERENBERG: Thank you very much.

I forgot to mention one thing in the update, and Darren can speak to it if you have any questions. Yesterday, the merger of Aberdeen Asset Management with Standard Life of Britain closed. The renamed firm is now Aberdeen Standard.

From our perspective, there's no change in the relationship except now Aberdeen has an even stronger group behind it. And the hedge fund area in particular is one that Aberdeen Standard has identified as being an area of focus for them.

So we don't anticipate any changes in either the team or the level of resources that Aberdeen Standard would devote to our account. But as I said, if you have any questions either now or after the meeting, please ask me or Darren. Happy to fill you in.

Thanks very much.

TREASURER GOLDBERG: Thank you.

MR. TROTSKY: Thank you, Eric.

TREASURER GOLDBERG: Michael.

MR. BAILEY: Good morning, Treasurer Goldberg and members of the board.

I'm going to make a few remarks on

performance, but be very brief. I'll just mention on accomplishments, picking up on what Sarah and Eric talked about, for our fiscal year, we had a very productive year. We made four fund investments in that smaller end of the buyout market that we've been talking about with you as a strategic goal for a number of years.

We made four additional co-investments which is one of our major initiatives under Project SAVE. Those are those no-fee and no-carried-interest co-investments that we think will drive performance going forward without much additional risk.

And I'm proud to say, picking up on some of the Michael's comments, I'm really working with the strongest team I've ever worked with at PRIM. I'm very, very proud of the team's performance in the last year.

Michael Trotsky mentioned some work that you'll hear about later that Michael McGirr led with one of our interns this summer. Michael continues to be just an extraordinarily strong performer. He has unusual talent, combining a deep intellect with extraordinary project management skills, which you often don't find in investment professionals at his level.

And as Michael mentioned, we're very proud of Alyssa. She's been here about a year, but it seems like a lot longer, given the footprint she's left on the portfolio already and some of the leading efforts she's made in improving our research, which already we're really proud of, but it's always great to get a third person in to expand that.

So I'm just really, really happy with the team and how it's working well together.

And then on performance, I want to be brief because the performance has been really good, so if I say anything, it's just going to take away from the very strong one-year number at 21 percent. I would say contextually, that's the strongest number we've had in three fiscal years.

I think also we've talked with you all about how we really don't expect private equity to keep up with public equity markets when they race forward like this in short periods of time. We just don't expect it for a number of reasons. But this year, it did. It beat the public equity market.

We used that broad benchmark, the

Russell 3000, and it exceeded the performance of the Russell 3000. I wouldn't count on that when the Russell 3000 or the S&P 500 races ahead, but this year, it did.

And then secondly, and it relates to some of the comments on liquidity, we don't often talk about it, but the portfolio sent back about a third of its value or almost $2 billion in cash to the pension plan.

We don't think of this as an asset that generates cash for the leaky bucket, but it really does over long periods of time, and that's similar to its long-term performance. So really proud of the performance of the portfolio.

The last thing I'll just say about performance is nothing comes without a cost. I think some of our asset classes are in a very kind of late part of the cycle here where private equity has become very expensive like other asset classes. Sarah mentioned credit markets being really frothy, and we think that's impacting pricing, driving up pricing in our market.

And so I would be cautious about where we are here in this part of the cycle where it's very hard to buy any companies at any kind of, sort of reasonable pricing. Pricing is high.

So those are my comments on performance.

You'll see on page 16 of your expanded agendas that with the approvals we'll discuss later today, we'll have said yes to over a billion dollars of new capital to eight buyout funds and one growth equity fund against that $1.4 billion target for the calendar year, so we're very close to that target.

But we see good visibility on a pipeline of great investments for the fourth quarter. We're going to have to make some tough decisions, as we always do, on which ones of those are going to pass our high hurdle to go into the portfolio, but I could see comfortably getting close to that $1.4 billion of targeted assets.

And the asset allocation that Michael mentioned earlier, we approved up to 11 percent. We've drifted down a bit to 10.6 percent in the last reporting period. That's mostly because the good news, that the equity markets rallied and the 67 billion grew much faster than the 7 billion.

So we're a little below the target, but with good visibility on continuing to make commitments that will ultimately drive us towards that 11 percent goal.

So those are my prepared remarks. I wanted to be brief, Treasurer Goldberg, and I'm happy to take questions on any part of the performance before we turn to the voting items.

TREASURER GOLDBERG: Questions for Michael?

We have a lot of things to vote on, so I think we should turn to the voting items. And the first one would be an investment recommendation of GTCR Fund XII. I'm going to seek a motion and a second, and then we'll go into your recommendation.

I would seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve a commitment of up to 200 million to GTCR Fund XII as described in Appendix B of the expanded agenda and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. NAUGHTON: So moved.

TREASURER GOLDBERG: Second?

MR. SHANLEY: Second.

TREASURER GOLDBERG: Okay. Take it away.

MR. BAILEY: Thank you, Madam Treasurer.

Michael McGirr is going to lead the discussion on GTCR.

MR. McGIRR: GTCR has been one of the stronger performing groups for our portfolio. We've been investing with them for 30 years across nine prior funds. When you're talking about the numbers that Mike Bailey has just mentioned, GTCR is a strong contributor to those.

The firm is led by their 11 MDs, who have been at the firm for on average 15 years, all working together as partners.

They're one of the leading private equity firms in the middle market segment, and they're really focused on growthy opportunities in the U.S., primarily in tech, media, telecommunications companies, financial services and technology, healthcare and growth business services. We're excited about the investment because of the strong top line and earnings growth that their companies generate.

They really pioneered the platform and bolt-on acquisition strategy and have refined it almost to perfection, and we believe that creates a lot of value. We also think there's a embedded risk reduction in their strategy that allows them to phase their capital deployment.

Happy to take any questions or comments.

TREASURER GOLDBERG: Are there questions for Michael? That's three Michaels at a table.

MR. SHANLEY: I always ask this. Do you think we'll get the 200 million?

MR. McGIRR: I do. We're on the advisory committee here, and we've been very vocal and ahead of this fundraise, which popped up in terms of timing.

MR. SHANLEY: Good. Thank you.

MR. McGIRR: But we've been able to dedicate the research so --

MR. BROUSSEAU: The fact that we're a 30-year customer.

MR. McGIRR: That helps.

MR. BROUSSEAU: I would hope.

TREASURER GOLDBERG: Okay. Then we have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Seeing none, passes unanimously.

(VOTED: To approve the Investment Committee's recommendation to approve a commitment of up to $200 million to GTCR Fund XII as described in Appendix B of

the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

TREASURER GOLDBERG: Next. So I would seek a motion for an approval of a commitment up to 150 million to Charlesbank Equity Fund IX, LP and Charlesbank Equity Fund IX Overage Allocation Program; that the PRIM Board approve the Investment Committee's recommendation to approve a commitment up to 150 million to Charlesbank Equity Fund IX, LP and Charlesbank Equity Fund IX Overage Allocation Program as described in Appendix C of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. BROUSSEAU: So moved.

TREASURER GOLDBERG: Second?

MR. HEARTY: Second.

MR. BAILEY: Alyssa is going to walk through Charlesbank.

MS. FIORE: Sure. So Charlesbank is another existing manager for PRIM. We've been investing with them since 2000 so not 30 years, but a longstanding relationship for PRIM, and we've been invested in four funds.

So Charlesbank is located here in Boston, and they also have an office in New York. And they're primarily investing in middle market companies in the U.S. across their core sectors of business services, education, consumer, and they also do some work with industrials as well as telecom and media.

So Charlesbank has also had strong performance in the middle market, which is, we've talked about at this table, where we're trying to position our portfolio. And their funds have had strong performance against industry benchmarks.

Charlesbank also has a really disciplined investment approach, and they're really focused on reducing the downside of risk with their investments, which reduces risk across the fund.

And lastly, Charlesbank has a highly talented organization. The senior partners have been working together for over 18 years, and they have deep investment skill across a broad variety of industries.

I'm happy to take any questions or comments.

TREASURER GOLDBERG: Any questions on Charlesbank?

Seeing none, we have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Passes unanimously.

(VOTED: To approve the Investment Committee's recommendation to approve a commitment up to $150 million to Charlesbank Equity Fund IX, LP and Charlesbank Equity Fund IX Overage Allocation Program as described in Appendix C of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

MR. BROUSSEAU: Just a fast comment. Looking on page 14 of Charlesbank, the appendix, we have invested almost $300 million with them, and the highest amount we've ever been given is 110 million. Do you think that 100 million will fly this year?

MS. FIORE: So they're raising the main fund, Fund IX, and they have an overage allocation fund that will invest alongside the Fund IX. So we're expecting between those two funds being able to get about 150 million allocation.

MR. BROUSSEAU: Yeah, but the largest fund we got was the 2014.

MS. FIORE: So this overage allocation fund is new for Fund IX so we're hoping to get some more capital to work with that program.

TREASURER GOLDBERG: Great. Okay.

I would seek a motion for approval of a commitment of up to 80 million to Insight Venture Partners X, that the PRIM Board approve the Investment Committee's recommendation to approve a commitment of up to 80 million to Insight Venture Partners X as described in Appendix D of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. BROUSSEAU: So moved.

TREASURER GOLDBERG: Second?

MR. SHANLEY: Second.

MR. BAILEY: Michael McGirr.

MR. McGIRR: We're on page 19. Another existing investment manager for PRIM, another re-up candidate. PRIM has invested in nine prior Insight funds going back to 2005.

This is a growth equity investment, and

we believe that Insight has one of the strongest teams in this area, 54 investment professionals and a captive internal consulting team, all dedicated to growth equity investments in software, software-enabled services and Internet companies with established momentum and a potential for growth and revenue and/or operating profits.

What we like about Insight is with all the growth equity firms that we're looking for really strong growth capabilities. The top line earnings growth rates are very, very strong in these software companies.

We think they've got a highly talented and focused organization, 54 investment professionals all dedicated to this area of software. And this firm has been investing together in software for the past 20 years together, across multiple market cycles.

Happy to take any questions or comments.

TREASURER GOLDBERG: Questions for Michael?

Seeing none, we have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Hearing none, it passes unanimously.

(VOTED: To approve the Investment Committee's recommendation to approve a commitment of up to $80 million to Insight Venture Partners X as described in Appendix D of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

TREASURER GOLDBERG: Okay. Next. I would seek approval of a commitment of up to 50 million euros to Waterland Private Equity Fund VII. Motion that the PRIM Board approve the Investment Committee's recommendation to approve the commitment of up to 50 million euros to Waterland Private Equity Fund VII as described in Appendix E of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. BROUSSEAU: So moved.

TREASURER GOLDBERG: Second?

MR. HEARTY: Second.

TREASURER GOLDBERG: Who's doing this one?

MR. BAILEY: I'm doing this one. Thank you.

This is a new firm for us, but a firm that began investing in 1999 and has managed six successful prior funds. And we reached out and found this firm. This is part of our initiative to identify firms that invest in smaller buyouts. So we're proud of the sourcing story here.

It's a leader in an attractive region for private equity, based on our research. They began investing in the Netherlands years ago and slowly expanded into Belgium and Germany. And those regions have been attractive, and we're a bit underrepresented there, frankly.

And we've seen them as having a real persistent skill at managing a portfolio with additional upsides compared to some of their peers. And also a very highly resourced firm for the size of capital they're managing with 46 investment professionals who focus on a repeatable strategy that I mentioned has been successful and our research shows is tough for others to replicate.

So based on those strengths, we're recommending a commitment of up to 50 million euros to Waterland VII.

I'm happy to take any questions or comments.

TREASURER GOLDBERG: Any questions for

Michael?

Seeing none, we have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed? Passes unanimously.

(VOTED: To approve the Investment Committee's recommendation to approve the commitment of up to 50 million euros to Waterland Private Equity Fund VII as described in Appendix E of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

MR. BAILEY: Did we vote on the co-investment voting item?

TREASURER GOLDBERG: No. It's actually a voting item so we have it.

Okay. I would seek approval of an addition of Waterland Private Equity Investment to the co-investment bench. I would seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve the addition of Waterland Private Equity Investments to the board-approved bench of co-investment managers pursuant to the co-investment program approved by the board in February of 2014, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. NAUGHTON: So moved.

TREASURER GOLDBERG: Second?

MR. BROUSSEAU: Second.

TREASURER GOLDBERG: All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Seeing none, I don't think we need a discussion on that.

(VOTED: To approve the Investment Committee's recommendation to approve the addition of Waterland Private Equity Investments to the board-approved bench of co-investment managers pursuant to the co-investment program approved by the board in February of 2014, and further to authorize the executive director to take all actions necessary to effectuate this vote.)

MR. BAILEY: Thanks.

TREASURER GOLDBERG: Certainly any questions, but I doubt there are.

Okay. Thank you.

Okay. So CVI. I am seeking approval of a commitment of up to 200 million to CVI Credit Value Fund IV, LP.

Motion. I seek a motion that the PRIM

Board approve the Investment Committee's recommendation to approve a commitment of up to 200 million to CVI Credit Value Fund IV as described in Appendix F of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. BROUSSEAU: So moved.

TREASURER GOLDBERG: Is there a second?

MR. HEARTY: Second.

MR. BAILEY: And Michael McGirr is going to review this.

TREASURER GOLDBERG: Trying to mix it up.

MR. BAILEY: Exactly.

MR. McGIRR: Credit Value Fund IV will be the second investment that we have considered with CarVal. We first invested with CarVal in 2015 in their Credit Value Fund III.

The senior investment professionals of this firm are very well-tenured and have a lot of experience working together. The investment that we made with them in Fund III is meeting our expectations, and we think Fund IV is a good opportunity for the distressed debt portfolio.

CarVal's team focuses on a very broad set of distressed and credit-intensive assets globally, including corporate securities, loan portfolios and special opportunities. They have very strong capabilities in each area, and they have the ability to rotate capital to the best risk-adjusted returns as they see.

They also have the ability to source and identify undervalued or mispriced investments. And that's what's generating, combined with their capital allocation, generating their very strong returns.

Happy to take any questions or comments.

TREASURER GOLDBERG: Are there any questions? Comments?

We have a motion. We have a second.

All those in favor?

BOARD MEMBERS: Aye.

TREASURER GOLDBERG: Any opposed?

Seeing none, the motion carries.

(VOTED: To approve the Investment Committee's recommendation to approve a commitment of up to $200 million to CVI Credit Value Fund IV as described in Appendix F of the expanded agenda, and further to authorize the executive director to take all actions necessary to effectuate this vote is there a motion.)

TREASURER GOLDBERG: Now, that is it.

Tim. How's my timberland?

MR. SCHLITZER: Pretty good, actually.

TREASURER GOLDBERG: Is it growing?

MALE SPEAKER: It's always growing.

MR. SCHLITZER: That's the beauty.

TREASURER GOLDBERG: Is anybody buying cherry furniture?

MR. SCHLITZER: You know, cherry prices are up finally. So it's been, knock on wood -- no pun intended.

I didn't mean to do that. I'll hear about that from my colleagues later.

TREASURER GOLDBERG: Yes, you will. And I probably won't forget that line.

MR. SCHLITZER: So I'll be efficient here. Thank you for the support on the consent agenda item. Appreciate that very much.

So I'm going to start briefly with a couple of accomplishments from the prior year, a couple points on performance, and we'll move on.

So I think good year overall. Michael mentioned our first direct real estate acquisition. So off and running there, and we're working through Project SAVE to build a little bit more of a business around that. So look forward to that.

Lots of activity on the real estate financing side. $500 million refinanced in a bank term loan facility. We added $250 million in new debt financing through an internal facility. Notable that we added a hundred million in project level financing on one of our development projects and saved $500,000 by doing that on more of a direct basis.

And then one other item of note, more at the investment level. We had our first co-investment in many years and certainly during the Project SAVE era, realized that investment, which was One Kendall Square in Cambridge, at a multiple of three times equity during this past year, and fee savings to PRIM of $5.5 million. So that was great.

I also want to thank my team. We have a great team on the real estate and timberland side. And there's a lot of blocking and tackling that goes on in these separate accounts day to day, a lot of work there. And they are always up for stepping up and working on other projects and ideas and all that. So things are working, and it's great to see.

Getting into the portfolio, on the allocation side in real estate, we're at $6 billion. We are underallocated. We're at 9.1 percent of the PRIT Fund.

As mentioned in the 2017 investment plan, we were planning to sell this year. So there's denominator effect, but there's also disposition there leading to that gap.

And I think that the RFP that we're about to do will be a big help because that's going to be a significant allocation of capital in finding ways to redeploy that capital as it's coming in.

On the performance side, a good year at 6.8 percent, although certainly compared to other asset classes, we are seeing that real estate is moderating, and this was also expected. It's late cycle, and we are not seeing a lot of appreciation in these properties right now, but we continue to have a great portfolio and good cash flow.

Non-core private was very strong at 17.5 percent. That's what drove our private return, which was 8.6 percent so mostly core, but a lot of the outperformance coming from the non-core space, consistency and contribution across our fund business and a lot of the direct development projects as well, many of which are now delivering, and that value has been created. So happy to see that.

On the REIT side, definitely lower returns there over the fiscal year, up 1.3 percent. That's 34 basis points above benchmark.

I will note that a lot of that was driven by a bad or a poor fourth quarter last year. Year to date, the global REIT index is up about 8 percent so some recovery there.

And then just to give you a quarterly data point, real estate's up 2.4 percent in the second quarter. That's 54 basis points above benchmark.

A few points on timber. The portfolio returned 8.3 percent for the year. That's 470 basis points above benchmark. That's increasing to 5 percent when we unlag the benchmark. So we always see a lot of noise on the relative comparison. We see it on the downside, and we see it on upside. We happen to be seeing it on the upside right now.

I will tell you, though, that we have seen some pretty consistent outperformance, not just in Campbell's U.S. portfolio, but also in Australia. We wrote up the Australian investment 26 percent year-over-year on June 30, and I think all for good reasons.

We saw discount rate compression, but I think that was due to improvement in the quality of the business, and also export assumptions. And then just the amounts that they're harvesting, which I also think is a result of good management of that business.

So good results there, and I'm going to leave it at that. I'm happy to answer any questions.

TREASURER GOLDBERG: Any questions for Tim?

Thank you for the update.

Finance and admin report. David.

MR. GURTZ: Just a couple of housekeeping items, more or less. This should be pretty short.

Appendix G is the 2018 proposed board and committee meeting schedule calendar for next year. Please take a look at that. Let myself know or Grace know or Steffanny know if you have any conflicts. If we have any conflicts, we'll reach out to individual committee members or board members that are impacted and try to rearrange a calendar that meets everybody's calendar.

We'll be bringing back a sort of finalized version of this calendar at the next round of meetings to vote on, but this is to just let you know and let us know if there are any conflicts that you can think of.

So that's it for that one.

MR. BROUSSEAU: David, can you give the board the update on the board education retreat because we won't be meeting. The next board meeting is in November, the 25th, in terms of --

MR. GURTZ: So that's next year's date.

But this year's date is the 26th of September. We've got a place identified. It's right down the street from here.

And we're going to be sending out an agenda. It's really only designed for board members at this point in time.

Actually, good segue into the next topic, if you don't mind, Bob, is closing the loop on the recommendations from last year's board self-evaluation.

So at Appendix H is the recommendations

from the board self-evaluation or in a sense PRIM staff's action items based upon the board's self-evaluation.

As a reminder, Cortex administered the board self-evaluation earlier this year, and then Cortex presented its summary of findings at the Admin and Audit Committee meeting back in May. And then the board meeting also back in May discussed the results of the Cortex findings.

And so based on those discussions and Cortex results at Appendix H are four essentially PRIM staff action items that we are taking away from the board self-evaluation process.

Number 1 is to review the board governance manual. Obviously we were going to do that anyway, but in particular, we're asking Cortex to provide best practice recommendations regarding committee composition, including the number of committee members, term lengths and appointment process.

We're also going to ask Cortex to provide best practice recommendations on ways to encourage the board to focus on longer term issues and less time on quite honestly manager and vendor selections.

MR. BROUSSEAU: A couple of those were mentioned in Michael's evaluation to zero in on.

MR. GURTZ: Absolutely right.

Regarding the Open Meeting Law, PRIM staff is encouraging any board or committee member that has questions to have a discussion with our general counsel, Chris Supple. So feel free to give him a call, and he can walk you through the law.

Number 3, the board and committee packages. As always, we try to make sure that we have the right amount of information to you, not too little, not too much, but there were comments that try to incorporate more of the committee discussion into our board packages, so we're going to work to do that. Whether we can do it, whether in written form or at least verbally, we're going to shoot to do that.

And then as always, at least it's been this way the last couple years, we're looking at paperless information to the committee members and board members.

And then last but not least, this is, Bob, what you were just talking about, the board education retreat. So there's a couple of topics that we're noodling on. None of this is by any means definitive at this point, but we've identified a few topics that we think are most relevant and interesting to the board from an educational perspective, one being factor-based investing. The second one is board's role as fiduciaries when it comes to ESG goals and objectives. And then the last one might be the private equity investment process, sort of a deeper dive on Mike Bailey's team and how they select managers.

So we're probably not going to highlight all three of those. I think we're shooting for an agenda that starts around 9:30 and goes through lunch. And we don't want to overload it with too many agenda items to allow enough discussion of these topics. And we're looking for outside speakers to come in and discuss these and educate the board members on these particular topics.

So that's the agenda that we have. Again, we're not finalizing it yet, but certainly in the next week or two, probably by around Labor Day, we're going to finalize the agenda and shoot it out to you guys.

MR. BROUSSEAU: Where are we having it at?

MR. GURTZ: NEPC's office, which is literally down the street here.

MR. TROTSKY: 200 State.

MR. GURTZ: I think that's the address. Where the Legal Sea Foods restaurant is, that's their building.

MR. TROTSKY: No. Didn't they move?

MR. HEARTY: No. They're in there. Where the ferries run.

TREASURER GOLDBERG: All the way down there, across the way.

MR. HEARTY: Eaton Vance building.

MR. TROTSKY: It was their space.

MR. BROUSSEAU: That's almost down where our first office was.

MR. HEARTY: A little further down.

MR. BROUSSEAU: A little further down. I remember going way up there.

MR. SHANLEY: Across the street.

MR. BROUSSEAU: When Paul Quirk was in your position, in Mike's position.

The fiduciaries, are you going to have anybody there? I think there are a lot of issues that have been raised about the board's roles as fiduciaries, especially in bringing issues up at board meetings that seems protective. We have more and more of that in the last couple of years, and I think we need some guidance of people who are so-called experts in the field. The legal --

MR. SUPPLE: You're spot on. That's exactly what we're doing. I'm talking with some folks, and we're going to select somebody to come and present on the topic.

TREASURER GOLDBERG: There are a couple of things, different things. I don't know if we have enough time to go into all of them.

The presentation that I had at the National Institute and the new 2017 decisions are changing the standard for what will be your fiduciary duty with respect to plaintiffs' actions. And so many of the funds are moving very rapidly into taking additional actions against bad governance, that the standard is changing. And some of the treasurers highly recommended that we become more aggressive in terms of plaintiffs' actions.

The other fiduciary issues are around other good governance. So if we could get any one of the people who presented at the National Institute -- and I think they're in New York. So maybe they'd be willing to come up. It was a terrifically well-done --

What is the date of our retreat?

MR. BROUSSEAU: 26th.

TREASURER GOLDBERG: That's too bad because the treasurer of Tennessee will be here the week before, and he was superb. I don't know if we can use remote, whether we could do any kind of audio and visual, video thing, where it was interactive.

And then the other thing is on all the good governance issues with respect to filing shareholder actions, I think is another fiduciary duty that people are looking at big time.

MR. SUPPLE: Maybe what I might suggest is if people want to communicate to me topics like that that you'd like to have that we make sure we address --

TREASURER GOLDBERG: I think that Sarah, myself and Sean can powwow on all the stuff that I picked up two weeks ago at the institute, and then maybe recommend some folks that maybe we can appeal to to come and present to us.

MR. SUPPLE: And we know the Tennessee folks pretty well because they represented a preferred class in the Fannie Mae case where we represented the common share class, so we spent a lot of time with them.

TREASURER GOLDBERG: Dave Lillard is becoming -- but you see, it's the 2017 -- I was texting Sarah from the event saying wow. There's a change in case law now about this, what is the standard.

And we're a little behind on that. So I think we've got to become more aggressive on terms of what is perceived as the standard.

MR. BROUSSEAU: A lot of issues, Madam Chair, that I know Dennis and I have faced have been on the issue of investing with managers who actually take positions on issues that are can I say injurious to the interests of beneficiaries.

They do not support defined benefit pension plans. They may invest in energies -- charter schools. I have a question out on that that has been raised to me. And our money is going there.

And people say, "Why are you investing with these people who are doing things" --

TREASURER GOLDBERG: I think there was one isolated case. It was one isolated case. I don't think that's an issue now.

MR. NAUGHTON: Oh, it is.

MR. BROUSSEAU: Dennis and I have heard a lot of --

MR. NAUGHTON: It is an issue.

TREASURER GOLDBERG: Was it --

MR. NAUGHTON: There are major hedge fund investors behind charter school movement. Just take Newark as an example.

I mean I think the issue for Bob and for me is --

TREASURER GOLDBERG: But that was their personal. It wasn't the hedge fund itself that invested. Right?

MR. NAUGHTON: No. That's right. As far as I know, what you're saying is correct.

But nonetheless, what they were investing had to come from somewhere, didn't it?

TREASURER GOLDBERG: Well, it's interesting, though, that we're -- Eric will support this. We are moving away from traditional hedgies.

MR. NAUGHTON: But I'm just taking that as an example. It is not a *de minimis* kind of thing. It's a rampant kind of thing within the investment community. And some of the biggest names in technology have been involved in doing this sort of thing.

And it matters to our constituents. Whether or not it matters to everyone around this table, it matters to the people who possess the largest nut in the fund.

TREASURER GOLDBERG: Gotcha.

Okay. Let's see. We stopped you in the middle. You went Open Meeting Law, but we never got to the board and committee packages.

And just around this table -- I mean we are missing three people. I think the issue is if we're going to move to a paperless process. I think that's the basic issue. Are we going to go to iPads?

Now, I mentioned before we did it at the retirement board when Ralph White was still on there. We supplied him paper because he wasn't comfortable with that.

Now, I know this is good for the timberland business, but --

MR. BROUSSEAU: Don't bite the hand that's feeding you.

TREASURER GOLDBERG: But it's heavy. I have to get someone to meet me to help me carry it in.

MR. GURTZ: So let us know.

TREASURER GOLDBERG: It's costly to do this. I'm not saying it's perfect. Sometimes these iPads screw me up.

And the issue with the retirement board ones is they only work on wifi. So if you're somewhere where you don't have wifi and you want to download them, you can't. So they don't come through on Verizon or -- so I think that's something to consider.

MR. NAUGHTON: Also there's a security aspect to that.

TREASURER GOLDBERG: No. These are secured. It is so hard -- trust me. I've gotten kicked out a bazillion times. BoardEffect is one of the companies. What are the other ones?

MR. TROTSKY: BoardVantage.

TREASURER GOLDBERG: BoardVantage, I hear is outnuzzling BoardEffect.

MR. TROTSKY: It's outstanding. The CFA Institute uses it, and it's great.

TREASURER GOLDBERG: I'm a director at Affiliated Physicians Group. Medical is very, very protected. And they use BoardEffect, and I have a hell of a time getting into my documents.

MR. GURTZ: So we'll bring some solutions, and whether you guys are interested or not, we'll discuss it then.

TREASURER GOLDBERG: And we can transition.

MR. GURTZ: Yes. It doesn't have to be everybody.

TREASURER GOLDBERG: You always can have some paper around.

MR. GURTZ: So these are nonvoting items, but we appreciate the feedback, and we'll go from there.

TREASURER GOLDBERG: I think that's the meeting.

MR. TROTSKY: Do you have an update, Chris?

MR. SUPPLE: Yes. I just have one lightning quick update on legislative matters, but before I do that, I was really hoping we could return to item III.B so I could offer some comments on --

MR. BROUSSEAU: I'll give you --

TREASURER GOLDBERG: Such a nice guy.

MR. SUPPLE: But seriously, one thing I think that was implicit in a lot of those comments that I just want to make sure we put on the record, Madam Treasurer, is that you also have a great staff, and we enjoy working with your staff.

When the phone rings and it's coming

from the Treasury, we are happy to pick it up. And we don't take that for granted, and we have a great working relationship.

MR. TROTSKY: We don't flinch anymore.

MR. BROUSSEAU: You used to flinch, Jim.

MR. HEARTY: I wouldn't answer the phone.

TREASURER GOLDBERG: Excuse me. He flinched before I got here.

MR. BROUSSEAU: He didn't answer the phone.

TREASURER GOLDBERG: He said, "We must have a bad connection. I can't hear you."

MR. SUPPLE: So I think everyone knows, it was reported in the news, but just to make sure, the budget that went to the governor's desk, I guess this past July, had a provision in it that would permit but not require the MBTA Retirement Fund to invest its assets in the PRIT Fund.

So that's something that if they decide they want to do it, the law has changed to permit it. We're kind of on the sidelines, kind of, when and if they're ready, let us know, but --

TREASURER GOLDBERG: I repeated that they are welcome to, but we are not --

MR. HEARTY: Not soliciting.

MR. TROTSKY: Don't really want a client that doesn't want to be with us.

MR. SUPPLE: And that's all I have. Thank you.

TREASURER GOLDBERG: Okay. Meeting's adjourned.

(VOTED: To approve the adjournment of the August 15, 2017 board meeting at 11:41 a.m.)