COMMONWEALTH OF MASSACHUSETTS

PENSION RESERVES INVESTMENT MANAGEMENT BOARD

Minutes of the February 15, 2018, Board Meeting

Commencing at 9:32 a.m.

in the

PRIM Board Offices

at 84 State Street

Boston, Massachusetts

I N D E X

D O C U M E N T S*

A Minutes of the PRIM Board Meeting on November 14, 2017

B PRIT Fund Performance Report (December 31, 2017)

C BNY Mellon Gross of Fees Performance Report (December 31, 2017)

D 2018 Annual Plans of PRIM Staff

E NEPC Asset Allocation Presentation - Factors and Asset Class Assumptions

F NEPC Asset Allocation Presentation - Global Market Outlook

G 2018 Asset Allocation Presentation by PRIM Staff

H Emerging Markets Equity Recommendation Presentation

I Callan's Emerging Markets Equity Recommendation Memo

J U.S. Micro-Cap Equity RFP Recommendation Presentation

K Callan's U.S. Micro-Cap Equity RFP Recommendation Memo

L Emerging Manager Direct Hedge Fund Advisory and Managed Account Platform Provider RFP Recommendation Report

M Private Equity Co-investment Guidelines Recommendation Presentation

*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, Esquire
Theresa McGoldrick (present via teleconference)

Other Attendees:
Sarah Kim, Esquire
Michael Trotsky
Erika Glaster
Nick Favorito
Patrick Brock
Kevin Blanchette
Mike DeVito
Maria Garrahan
Ed Caron
Alyssa Fiore
Andrew Gromer
Christina Marcarelli
Eric Nierenberg
Mike Manning
Phil Nelson
David Gurtz
Dr. Andre Clapp
Andre Abouhala
Chuck Laposta
Matt Liposky
Mike Bailey
Michael McGirr
Anthony Falzone
Chris Supple
Paul Todisco

P R O C E E D I N G S

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A meeting of the Pension Reserves Investment Management Board (PRIM Board) was held on February 15, 2018, at the PRIM Board offices, located at 84 State Street, Boston, Massachusetts.

Call to Order:

The meeting was called to order and convened at 9:32 a.m. by Sarah Kim, Esquire. Treasurer and Receiver-General Deborah Goldberg
chaired the meeting. 09:30:01

MS. KIM: Good morning, everybody. If 09:30:01
you could take all your seats. It is that time. 09:32:02
For those of you who are wondering, no, I 09:32:08
am not Treasurer Goldberg. My name is Sarah Kim. 09:32:10
I am general counsel to the state treasurer. She 09:32:12
is running a little late, so she has asked me, in 09:32:15
the interest of the time, to begin the meeting. 09:32:17
So to start, the Massachusetts open 09:32:19
meeting laws permit the meetings to be recorded 09:32:23
and states that the chair or her designee shall 09:32:26
inform attendees at the beginning of the meeting 09:32:29
of any such recording. So accordingly, I am 09:32:31

informing you that Megan Castro here, sitting to my left, is transcribing and also recording this meeting.

And if anyone else in attendance today is recording the meeting, I would ask that you please identify yourself?

(No voice heard.)

MS. KIM: It does not appear that anyone else is recording the meeting.

So also, finally, I want to state, for the benefit of the stenographer and to all of those who are listening on the phone, please identify yourselves by name before you speak and please speak clearly and audibly.

So my second public service announcement is that the PRIM Board has adopted the provisions of the Massachusetts open meeting law that promotes remote participation by a member when physical attendance would be unreasonably difficult, as is the case today with Theresa McGoldrick, who, accordingly, will be participating in today's meeting by telephone.

Theresa, are you on the phone?

MS. McGOLDRICK: Yes, I am. Hello.

MS. KIM: Great.

So all votes need to be done by roll call.

And then, Theresa, to the extent that you can't hear any of us, please feel free to pipe up and let us know that you can't hear the folks in the room.

MS. McGOLDRICK: Thank you.

MS. KIM: So I guess the first order of business is the approval of the minutes from the meeting of November 14, 2017. So I would seek a motion to approve the minutes of the meeting.

MR. BROUSSEAU: So moved.

MR. NAUGHTON: Second.

MS. KIM: So the motion was Bob Brousseau and the second was Dennis Naughton.

So no comments or questions on the minutes? Okay. So hearing none, all those in favor of -- I guess a roll call vote. Bob?

MR. BROUSSEAU: Yes.

MS. KIM: Paul?

MR. SHANLEY: Yes.

MS. KIM: Dennis?

MR. NAUGHTON: Yes.

MS. KIM: Jim? 09:35:14
MR. HEARTY: Yes. 09:35:16
MS. KIM: Theresa? 09:35:16
MS. McGOLDRICK: Yes. 09:35:19
MS. KIM: And myself, for the treasurer, 09:35:19
yes. 09:35:22
(VOTED: To approve the minutes of the 09:35:22
November 14, 2017 meeting.) 09:35:22
MS. KIM: So with that over, the next 09:35:24
item on the agenda is the Michael's Executive 09:35:25
Director report. 09:35:29
MR. TROTSKY: Thank you, Sarah. 09:35:30
First, I want to welcome you all back. 09:35:31
Happy new year, everyone. 09:35:33
We have others attending today. First 09:35:35
Erika Glaster, from the teachers is here. 09:35:39
Next to her is Nick Favorito from the 09:35:46
state retirement board. 09:35:48
Patrick Brock is in the audience from the 09:35:49
Hampshire county retirement system, plus Admin 09:35:52
and Audit Committee and Compensation Committee. 09:35:58
Next to him is Kevin Blanchette, from 09:36:00
Worcester Regional, a proud founding member of 09:36:04
the PRIM investor advisory council, which will 09:36:05

meet later in the quarter.

Mike DeVito, I think you are here. Did I see you? Behind Patrick. From PERAC.

Did I miss any other clients? I thought Chuck Costra was maybe on his way from Essex.

So welcome everybody. I am excited about today, to report some very good news on performance. We have a busy agenda. I will talk about current markets and economic conditions. Again, I will review PRIT's very strong calendar year 2017 performance numbers; a summary of 2018 annual plans; recommended asset allocation changes, which are really quite minor changes, more of the stay-the-course recommendation which was approved unanimously at the Investment Committee; and then we have to go through 10 additional voting items, which I guess we will do by roll call.

First, an organizational update. I am pleased this morning to announce one promotion and two new hires.

First, Bill Li. Bill, where are you? Bill, on the portfolio completion strategies team, has been promoted to senior investment officer. Bill was hired in May of 2016 as an investment officer and has been an extremely hardworking and valuable member of the investment team, a really hard working member. Just about everything you see on asset allocation and portfolio completion strategy, Bill has worked very hard on, among other things. 09:37:19 09:37:23 09:37:26 09:37:29 09:37:33 09:37:36 09:37:40

He works with Eric and has developed initiatives, in addition to those things, on hedge fund replication, alternative risk premia, harvesting strategies, the hedge equity program that we will be talking about today, and other things. He is also responsible for due diligence in manager sourcing in our direct hedge fund portfolio. 09:37:42 09:37:48 09:37:49 09:37:52 09:37:55 09:37:57 09:38:01 09:38:05

He has a Master's degree in economics and finance, from Brandeis, where he was one of Eric's prize students, and a Bachelor's degree from Dongbei University in China. Please join me in congratulating Bill. 09:38:05 09:38:07 09:38:10 09:38:16 09:38:16

(Applause.) 09:38:16

MR. TROTSKY: Next to Bill, our latest new employee, Maria Garrahan just joined Eric and Bill on the portfolio completion strategies team 09:38:24 09:38:26 09:38:30

as an investment officer. She comes to us from Columbia Thread Needle Investments, here in Boston, where she spent two-and-a-half years as a research analyst focusing on global asset allocation.

Her experience, before that, included working as a research assistant for Professor Ken Froot, of the Harvard Business School, where she focused on factor-based investment techniques. And that is an element of investing that is becoming increasingly important to us here at PRIM. Maria holds a Master's degree in applied economics, from Northeastern University, and a Bachelor of Arts degree in economics, magna cum laude, from Eastern Connecticut State University.

Welcome to the team, Maria. We are excited to have you.

(Applause.)

MR. TROTSKY: A couple of seats down, Ed Caron joined PRIM as an investment operations analyst. He will work on accounting and reporting on PRIM's private investments. Ed comes to us from BNY Mellon, where he serviced two large public plans. And before that, he

worked at State Street Bank. Ed is a graduate of 09:39:38
UMass Amherst, where he majored in finance. 09:39:41
Please welcome Ed to the team. 09:39:44
(Applause.) 09:39:44
MR. TROTSKY: A couple of other 09:39:50
announcements. Alyssa Fiore, a member of PRIM's 09:39:51
private equity team, and Andrea Gromer, behind 09:39:54
Jim Hearty, a member of the public markets team, 09:39:59
both received their CFA charters in November. 09:40:02
You know, that is a hard, three-part, three-year 09:40:05
exam, which also requires four years of work 09:40:09
experience. Congratulations on your 09:40:11
accomplishment. 09:40:15
(Applause.) 09:40:15
MR. TROTSKY: This brings the number of 09:40:17
PRIM investment staff who have earned their CFA 09:40:18
charters to nine. Nine members. And that is 09:40:21
about two/thirds of the entire investment staff. 09:40:23
We are proud of that. 09:40:26
I am also pleased that 09:40:27
Christina Marcarelli, on the real estate 09:40:29
team -- Christina, hiding over there -- has 09:40:33
volunteered to lead PRIM's diversity initiative. 09:40:35
As you know, all of us at PRIM recognize the 09:40:39

value of diversity of thought in our decision making and of having a diverse staff. We are getting together shortly after this meeting to plan for the upcoming intern season, where we will be taking at least two interns from the treasurers program, plus a few other interns, and I have no doubt that Christina will excel in this important new role and thank you for taking that on.

(Treasurer Goldberg entering meeting room.)

MR. TROTSKY: Welcome, Treasurer.

TREASURER GOLDBERG: How are you?

MR. TROTSKY: Good.

Moving onto markets and performance. As you know, the final quarter of 2017 was very strong and it capped an outstanding year in the financial markets, an outstanding year and one that we don't often see.

In 2017, domestic stocks are up 21.8 percent. Developed international stocks were up 25 percent. And emerging market stocks were up over 37 percent.

Even better, in an environment where

bonds are normally expected to lag -- we have 09:41:42
talked about a headwind for bonds for several 09:41:46
quarters now -- even they had strong positive 09:41:48
performance in 2017. Diversified bonds are up 09:41:51
3.5 percent and long duration bonds were up 09:41:55
almost 14 for the year, for 2017. So everything 09:41:58
was working very well. 09:42:02

It is important to put the recent market 09:42:03
volatility of the last few weeks into some 09:42:07
context. The current bull market, I will remind 09:42:10
you, began in March of 2009 and has been one of 09:42:13
the longest and steadiest on record, with stocks 09:42:17
gaining more than 300 percent -- more than 09:42:21
300 percent -- and volatility, as you know, 09:42:23
falling to record lows. 09:42:26

Since the November 2016 election, U.S. 09:42:27
stocks are up more than 26 percent. Developed 09:42:31
international stocks up more than 25 percent. 09:42:35
And emerging market stocks up more than 09:42:37
30 percent, while diversified bonds are 09:42:42
essentially flat and bond yields still remain at 09:42:46
historic low yields. 09:42:49

We have enjoyed unusually consistent 09:42:51
market gains over the past several months. In 09:42:53

fact, through January of this year, the SMP 500 rose for 15 consecutive months. 15 consecutive months of rises in the S&P 500. That tied a record set in the 1950s and is the highest recorded string of consecutive gains in at least 90 years. So really impressive last 15 months.

So we believe, really, that the recent February volatility should really come as no great surprise. Markets, as you know, do not go up in a straight line forever. And as you know, we have been preparing for some turbulence in the market.

Through yesterday, you know, we have had a rebound. And for the first calendar quarter, including yesterday, the S&P is still up 1.2 percent for the year. Developing international markets are up about a percent for the year. Emerging markets up over 2 percent. And bonds down about 2 percent. So this should be no great surprise to anybody here, that the markets are becoming more volatile. And, as I said, we have been preparing for some turbulence.

In fact, our risk mitigation strategies have worked very well recently. Eric will speak

about that later, in terms of portfolio 09:44:13
completion strategies. But we are also very 09:44:16
pleased that we sold over a billion dollars, 09:44:18
$1.1 billion, of global equity prior to the 09:44:21
recent market selloff, prior to the selloff. And 09:44:25
this was really a part of our normal monthly 09:44:28
rebalancing. So we stick to our guns. We 09:44:32
rebalance when things go up, and we are proud of 09:44:35
the timely sale of $1.1 billion in global 09:44:39
equities before the selloff. 09:44:43

Today, we will be discussing some minor 09:44:45
adjustment to the strategic asset allocation, but 09:44:47
we continue to believe that our balanced, 09:44:50
diversified portfolio is appropriate for this 09:44:52
environment. 09:44:56

And in fact, today, we are delighted with 09:44:57
our the performance. And today, I am able to 09:44:59
announce that PRIT Fund performance of last year, 09:45:02
up 17.7 percent, was in the very top decile -- 09:45:05
top decile -- of all of our peer group, 09:45:11
countrywide. In fact, we know of no other plan 09:45:14
of our size or larger that outperformed us last 09:45:16
year. We are proud of this . 09:45:19

As I said before, we have accomplished 09:45:21

this with a lot lower risk than our peers. Remember that our global equity allocation, target allocation of 40 percent, is a full 10 percent below the average of our peers. Most of our peers have 50 percent in global equities. We are at 40, and we are still able to report these very strong numbers. 09:45:25 09:45:29 09:45:33 09:45:35 09:45:37 09:45:41 09:45:43

Also, endowments and foundations, on average, returned between 12 and 14 percent for the calendar year. Again, we were up 17.7 percent. And last, while obviously we are delighted about our strong performance in a strong market like 2017, I also need to remind you that in a weak market like we experienced in fiscal 2016, we were, similarly, a top performer. In fact, we know of no funds our size that outperformed our 2.3 percent increase in fiscal year 2016, which was a difficult one-year period, in which global equities were down about 5 percent. 09:45:46 09:45:50 09:45:53 09:45:57 09:46:01 09:46:03 09:46:07 09:46:10 09:46:14 09:46:18 09:46:21 09:46:26 09:46:29

And as you know, many endowments, foundations, and some pension plans actually lost money in that time period. We were up. 09:46:29 09:46:32 09:46:35

So strong performance in both up markets 09:46:37

and down markets is really a great indication that our strategies and our risk control is working very well. And again, we should all be very proud of that.

Turning to the economy. The overall global economy continues to improve and, while interest rates and inflation remain subdued, there is a concern that inflation pressures are mounting. You have read about that recently. The unemployment rate, as reported last week, remained at 4.1 percent for the fourth consecutive month. And the participation rate held steady at 62.7 percent. Average hourly earnings rose more rapidly than expected with a year-over-year gain of 2.9 percent, representing the highest rate of wage growth since 2009. This figure, more than any other, I believe, spooked investors last week and many concluded that inflation is finally rearing its head.

Yesterday, January inflation was released. And even though headline inflation was unchanged at 2.1 percent in January, core prices increased by 0.3 percent month-over-month, and that was above forecast and, actually, the strongest one-month increase since 2005. In January, core inflation reached its highest level since 2011.

In terms of normally sparse, more aggressive Fed policy -- that is what spooked the market -- more aggressive Fed policy often turns to dampen growth and is typically bad for markets when that happens. "Don't fight the Fed" is something that investors often talk about.

And while consensus is still for three Fed rate hikes in 2018, we are beginning to hear of the possibility of four Fed rate hikes.

Now, we monitor several positive economic indicators in addition to that positive employment news. Fourth quarter corporate earnings have been very strong, with 80 percent of the companies in the S&P 500 reporting fourth quarter revenue above expectations, and that compares to a long-term average rate of 60 percent reporting above expectations.

Manufacturing and industrial production were strong, while retail sales yesterday came in weaker, though some think that the flu and auto sales played a big part of that weakness. And conditions, really, for retail sales growth, namely that rise in wage growth that I talked about, still remain encouraging for retail sales going forward.

In Europe, the Eurozone unemployment fell to 8.7 percent for November. That is the lowest jobless rate since 2009, a nine-year low. And the ECB left policy unchanged, at its most recent meeting.

China, as you know, completed its 19th communist party congress in October, with no major changes in that government. The Chinese economy grew 6.9 percent in 2017. That is faster than the 6.7 percent growth in 2016 and is actually the first annual acceleration since 2010.

In Japan, growth remains consistent. Exports hit a record high in 2017, rising to 15.7 percent. And the Japanese economy has grown, now, for seven consecutive quarters. That is the longest streak is nearly two decades.

On December 22nd, we all know, President Trump signed the tax cuts and job act into law. That is the new tax plan. The law will lower individual and corporate tax rates, eliminate many deductions, and is expected to raise the federal deficit by billions of dollars. It is also widely expected to boost near-term GDP by as much as a half a percent, while the longer-term effect of this tax plan is really the subject of a lot of ongoing debate.

This week also, the Trump administration released its infrastructure proposal and also a $4.4 trillion budget. The infrastructure plan includes $200 billion in federal founds that are intended to stimulate more than $1.5 trillion in spending, mostly from local and state governments and private entities over the next decade. The impact of this plan is also the subject of ongoing debate.

The Trump budget proposal that I mentioned, $4.4 trillion, increases military and border security spending, while cutting many domestic programs. Importantly, it projects sustained deficits through at least the next decade. And for next year, it now projects two times the budget deficit projected at this time last year. So twice the budget deficit is projected.

The Trump budget forecasts 3 percent GDP growth over the next decade -- that is up from 2.5 percent in 2017 -- and 3.2 percent growth for next year. By contrast, the Federal Reserve is forecasting 2.5 percent growth for 2018, 2.1 percent growth for 2019, and 1.8 percent growth longer term.

Clearly, this budget will prompt continued and prolonged difficult negotiations going forward, and that is never a great thing for the markets.

And with that, I want to remind the board that the longer-term risks that we outlined last year at this time, still remain. The economic cycle is more than nine years old and there are many uncertainties ahead. Still, this year, like we did last year, we worry about the impact of federal budget negotiations, federal budget appropriations, tax reform, debt ceiling, North Korea, immigration reform, currency manipulation, tariffs, and trade agreements. And I am sure a few of you could mention other things to worry about.

Again, we continue to believe that our portfolio is balanced and diversified and is appropriate for this environment and its performance in both up markets and down markets, as I have described to you, is very encouraging.

Moreover, the adjustments that we will recommend today, on asset allocation, which the Investment Committee again unanimously approved, I believe are well very timed and modest, they are thoughtful, and essentially, we are staying on course.

Any questions on any of that?

MR. NAUGHTON: I have a comment and a question.

I find that whole thing that is going on with the projection of 3 percent growth as the backdrop to the administration's business to really fit the bill of what George H.W. Bush called in the 1980 election period, "voodoo economics." That is my observation.

My question is, on the statistics on wage growth, do those statistics include the one-time bonuses that were given out left and right, or just actual wage increases?

MR. TROTSKY: I don't actually know the answer, but I can get back to you. Does anyone know the answer?

DR. CLAPP: They include the one-time bonuses.

MR. TROTSKY: They do include. Thank you, Andrew.

MR. NAUGHTON: So in a sense, to me, that is kind of a false base, because a one-time bonus is gone. It is not part of an ongoing pay.

MR. TROTSKY: Right.

MR. BROUSSEAU: It is a million dollars.

MR. TROTSKY: Right. Point well taken.

TREASURER GOLDBERG: I just will comment that I am on both the Taxation Committee and also on an emergency working group with the other treasurers, and we were in DC when the infrastructure plan was released. Universally, in a nonpartisan/bipartisan way, the treasurers in general felt that this was not a plan that we could support.

It is going to shift things to municipalities and states, while taking away the ability to do advanced refunding, which impacts the long side of bonds. It also looks like, in order to have money, there will be raiding other things that come into communities, like the highway fund, which the Virginia treasurer was pretty well -- she was pretty wild, also, about selling off her airports. So there were a lot of things that were concerning.

We did try to take a positive stance and compliment both the private activity bonds and then there was a bipartisan bill filed on Tuesday, to restore advanced refundings from the committee. But the staff from Congressman Shuster, who is the republican congressman in charge of that committee, said that they had major concerns about this proposed plan actually being workable.

So hopefully, what comes out of all of this is giving a lot more flexibility back to the states and understanding their role in infrastructure and infrastructure development.

There is the sense that there isn't enough private capacity to actually do what is anticipated by the plan and that it won't fill that gap.

MR. TROTSKY: Right.

TREASURER GOLDBERG: And then also, where will the income streams come from, that will encourage the private activity investments? So we are right on it and trying to protect the taxpayers of this state from any kind of negative impact.

MR. TROTSKY: Right. Thank you for that.

MR. NAUGHTON: May I ask a question of the Treasurer?

MR. TROTSKY: Sure.

MR. NAUGHTON: So was the general sense among the treasurers, when they met, that this was primarily an economic plan as opposed to a political plan?

TREASURER GOLDBERG: Can you restate that a little bit?

MR. NAUGHTON: Yes. So when you look at any plan that is released and you look at the degree to which it has some grounding in reality, economically, did the treasurers feel that this was -- I am hearing you say that they had misgivings. So what did they think prompted it?

TREASURER GOLDBERG: Oh, what prompted it was that the president ran on that he was going to invest over a trillion dollars in infrastructure. That is what prompted it.

In order to fund the tax bill, certain things occurred such as taking away advanced refunding. We have already seen the effects of it, in Massachusetts, on the long end of bonds. So there were a lot of things that affected local states universally.

And I want to remind people they there are only 12 democratic treasurers. All the rest are republicans. So when I say this is nonpartisan and bipartisan, it really is.

MR. NAUGHTON: That is what was fascinating me and that is why I asked the question, whether they saw it as primally economic or political.

TREASURER GOLDBERG: This plan is seen as troublesome and not necessarily doable in the way it is.

MR. NAUGHTON: So if Adam Smith was right, there are certain things that you can't get the private sector to invest in significantly, so government has to step in?

TREASURER GOLDBERG: Government play -- I have to say that one of the things that is very nonpartisan is the way in which government issues bonds, both at the municipal level, the state level, and other funding sources that do go towards infrastructure. We have a really old infrastructure up here in the Northeast. There are parts of the county that aren't quite as bad, but there are aging infrastructures all over the country.

And unless private activity can make a lot of money on these things, the risks are not -- it is the risk/reward. It is capitalism. And so when they can't do it, then we have to use all of the tools we have in the toolbox to get it done.

That is not to say that private activity doesn't have its place on certain investments. It is just that you need to have the whole toolbox, because the job is big.

MR. NAUGHTON: I guess what disturbs me is that fact that this plan was released and didn't seem to take account of the fact that there might not be capital out there in the

09:58:46 09:58:47 09:58:49 09:58:53 09:58:56 09:59:00 09:59:03 09:59:05 09:59:08 09:59:10 09:59:11 09:59:15 09:59:19 09:59:23 09:59:26 09:59:28 09:59:28 09:59:31 09:59:35 09:59:36 09:59:39 09:59:42 09:59:44 09:59:47

private sector to invest as the plan anticipates. 09:59:49
TREASURER GOLDBERG: The good news is 09:59:53
that it has to go to Congress. And it seems that 09:59:54
there is a bipartisan approach in Congress to fix 09:59:56
some of these things. 10:00:00
MR. NAUGHTON: I look forward to seeing 10:00:01
that. 10:00:03
TREASURER GOLDBERG: I hope. 10:00:03
And that is where the treasurers are 10:00:05
trying to come into play. The good news is that 10:00:05
we were all in Washington on Monday. We had two 10:00:09
emergency meetings. There is a working group. 10:00:10
We are going to be nimble. We have lobbyists who 10:00:12
are working on the Hill on this. And we have 10:00:16
come out with public statements, press releases 10:00:20
and working directly with the lobbyists. 10:00:23
So it didn't get by us. We were 10:00:26
literally waiting for press conference on Monday. 10:00:28
We had conversations before and we had an 10:00:32
emergency meeting right after. 10:00:33
MR. NAUGHTON: So maybe there still are 10:00:36
some investment opportunities buried in there 10:00:37
that PRIM can capitalize on. 10:00:40
TREASURER GOLDBERG: Bringing it back to 10:00:43

PRIM, yes, maybe.

MR. TROTSKY: Maybe.

Okay. Thank you.

Turning to PRIT Fund performance, this is in your Appendix. I will begin on page 2. I will go through this quickly, because we did review it -- 10:00:44 10:00:45 10:00:47 10:00:49 10:00:52 10:00:56 10:00:57

TREASURER GOLDBERG: Multiple times. 10:00:59

MR. TROTSKY: -- multiple times. 10:01:00

TREASURER GOLDBERG: We have seen it before. I think Jim and I have seen it what, three times? 10:01:04 10:01:06 10:01:08

MR. TROTSKY: I will begin on page 3. I will skip page 2. 10:01:08 10:01:10

TREASURER GOLDBERG: Jim is going to give this. You know what, I think the three of us could do it together; right? 10:01:13 10:01:14 10:01:18

(Laughter.) 10:01:20

MR. TROTSKY: So page 3, net assets at December were $72 billion. For the one-year period, the PRIT one was up 17.7 percent gross. That is 17.2 percent net, 232 basis points above benchmark, net of fees. And that equates to an investment gain of $10.8 billion, $10.8 billion 10:01:20 10:01:24 10:01:28 10:01:31 10:01:37 10:01:39

net, over the last 12 months ending December.

The new part of this presentation is that, versus peers, that is top decile performance, 9th percentile compared to all plans over $25 billion. And again, we know of no other fund of our size or bigger, that out performed us in 2017. All of the data is not in. But it is a pretty impressive gain. And again, foundations and endowments were up far less, only up 12 to 14 percent. So we are quite proud of that.

The three-year performance ranking is also 13th percentile, very close to the 10th percentile. Five-year in the top quartile. And we are also very proud of that.

Net outflows to pay benefits last year were $1.4 billion. You can see the three- and five-year numbers are very strong, absolute. And relative performance is an indication that our managers are doing a very good job and, again, well above the 7.5 percent actuarial rate of return.

The 10-year number includes the world financial crisis, and that should improve steadily through the rest of this year, as we drop a very bad year from that number.

Page 4, you can see what did well. On the left, it was a market led by global equities. And, of course, our private equity team continues to deliver really strong performance. That will continue into Q1 and possibly Q2. Mike will be updating you on that in a minute. That is a positive effect of the tax plan that I hope Mike gets to tell you about.

But all asset classes were either at or above their benchmarks. Each asset class head will have a few minutes to discuss performance. So we can take questions then.

And then I will just end performance, on page 5, with our quilt chart, which shows a long-term picture of what really drives the bus here at PRIM. You can see global equity and private equity are driving the bus for five years. And global equity is kind of all over the map for 10 years. It is a reminder to us that global equities are the most volatile asset class in our portfolio.

And, again, we produced a strong performance with 10 percent less in global equity

than most other peers around the country. So we 10:04:16
are very proud of that. 10:04:20
I will stop and take any quick questions 10:04:21
on performance. But again, you will have the 10:04:23
opportunity to discuss performance with each 10:04:27
asset class in a few minutes. 10:04:29
MR. BROUSSEAU: Just to reiterate what 10:04:34
you said, Mike, we will have, of course, 10:04:36
representatives from teachers and state 10:04:38
employees. 10:04:40
But $1.4 billion went to pay benefits and 10:04:40
that is only increasing, of course. I don't know 10:04:45
if the hole in your bucket, Madam Treasurer, got 10:04:48
smaller or larger, but $1.4 billion was used, of 10:04:52
course, to pay benefits and we will continue at 10:04:56
that level, I think, for the foreseeable future. 10:04:58
TREASURER GOLDBERG: Our bucket got 10:05:00
filled a little bit more. 10:05:02
MR. BROUSSEAU: Yes. 10:05:03
MR. TROTSKY: We put $10.8 billion in and 10:05:04
$1.4 came out. 10:05:07
TREASURER GOLDBERG: I like that version. 10:05:09
MR. TROTSKY: I do think that payments 10:05:10
are expected to go up in the next few years. I 10:05:12

can't remember, exactly, the numbers, but we have 10:05:14
that. 10:05:18

MR. BROUSSEAU: I know I had asked Paul 10:05:18
the percentages a while back, Paul, a couple of 10:05:20
years ago. What percentage does PRIT pay of 10:05:23
pensions and what percentage comes out of the 10:05:28
state. 10:05:31

MR. TODISCO: When we looked at it last 10:05:31
time, Bob, I don't have updated numbers, but it 10:05:33
was about 50 percent. Now, the state is starting 10:05:35
to appropriate more money based on the most 10:05:41
recent funding schedule. I don't have any 10:05:43
updated information on that right now. 10:05:44

MR. TROTSKY: So I can move on to annual 10:05:47
plans now, just very briefly, and again, most of 10:05:49
you have already had a chance to review and ask 10:05:52
questions on our annual plan, so I will be brief. 10:05:55

Each year, I ask senior staff members and 10:05:57
each asset class head to prepare an annual plan. 10:06:00
Together, we review and revise these plans as 10:06:04
necessary and we all agree on goals and 10:06:06
objectives for the coming year. The annual plans 10:06:09
are presented in summary form in your expanded 10:06:12
agenda and in more detail in the appendices. 10:06:15

Please feel free to look at them and I 10:06:18
hope you have had an opportunity to review them. 10:06:20
We present these plans to the appropriate 10:06:23
committees for feedback and comment, so that 10:06:26
today, the plans can likewise be presented to you 10:06:29
for any additional feedback. You can either do 10:06:32
that today or anytime you want. Just call us and 10:06:35
give us some feedback. 10:06:39
We will revise the plans, as appropriate, 10:06:40
to incorporate any feedback received, and then I 10:06:43
will approve the plans in accordance with the 10:06:46
directives of our charter. So it is something we 10:06:49
do every year. 10:06:52
Importantly, the plans really don't 10:06:52
depart significantly from those presented last 10:06:55
year. There are essentially a continuation of 10:06:58
the innovative path we are currently on. As 10:07:01
such, I was planning only to highlight a few 10:07:05
important new initiatives today. 10:07:08
Again, we invite you to comment, either 10:07:09
today or later, when each asset class head is 10:07:12
before you. 10:07:16
So please, briefly, turn to page 6 in 10:07:17
your expanded agenda. 6 through 10 is where the 10:07:22

narrative starts in the expanded agenda. 10:07:27

And I will begin by just pointing out a 10:07:30
few things on page 7, in public markets. You 10:07:33
will hear today about a change in the 10:07:36
active/passive split in emerging markets 10:07:39
equities. You will also hear a new search of 10:07:42
U.S. microcap equities. 10:07:45

Project SAVE continues with phase 2, and 10:07:49
Michael Even, on the Investment Committee, is 10:07:52
helping us spearhead that. It is to research and 10:07:53
potentially implement internal investment 10:07:56
management strategies here at PRIM. 10:08:00

And then last, in public markets, we are 10:08:03
scheduled to review and update the investment 10:08:07
policy statement. That is something we do 10:08:10
periodically, and we are up for that now. 10:08:13

In the PCS group in strategy, we are 10:08:16
going to continue to refine and implement the 10:08:19
asset allocation framework that we spoke really a 10:08:22
lot about at the Investment Committee meeting. 10:08:26
You will have a very short glimpse of that today. 10:08:28
But we are doing a lot of work on our asset 10:08:33
allocation framework. 10:08:34

Eric Nierenberg, our in-house professor, 10:08:35

if you will, is going to increase the scope and frequency of the PRIM university seminars, which are educational opportunities for all of our employees here, really touching on really important major topics in finance. And we do that every couple of months. We have a couple-hour session that Eric runs, and it is really quite interesting and very enjoyable and I think very additive to not only the culture, but our knowledge base here.

We are going to be talking today about an emerging managers direct hedge found program that is new this year. And private equity, with your approval today, we will be increasing our private equity allocation from 11 to 12 percent. And that means upping the commitment rate to almost $2 billion. It is a lot of work for Mike and his team, but I know it they are up for it and excited to do it.

And as part of that, they will be continuing to increase the portfolio rates tilted to small and midcap buyouts, rather than large buyouts. And also, growth equity managers will receive a larger proportion of our asset,

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something that Mike McGirr and the whole team really has worked to identify as a really great new opportunity for PRIM private equities.

And you will be hearing today, an expansion of our co-investment program.

In risk management, we are going to complete the new PRIT Fund risk summary reports. And the risk team will collaborate with strategy and asset class heads to research and implement new approaches for asset allocation, manager selection, and portfolio construction. We are excited about that.

Real estate, Tim and his team are about to launch an RFP to hire new private real estate investment managers. I believe that goes out in the next few weeks, the RFP. We are excited about that.

Also in the real estate and timberland team, we are going to continue to develop PRIM's direct investing infrastructure, and we hope to identify two to three investment opportunities similar to that land deal we did on a direct basis in Silicon Valley last year.

I think Tim and his team have done a

really fantastic job in creating a business plan for direct investment in real estate and I think it is a great opportunity.

In finance and administration, just a few highlights. We have a lot of key vacancies to fill, including human recourses and an IT head. We are going to complete the required board governance manual and charter review, as well as the employee handbook.

And I think I will end there and take any questions. Hopefully, you have had a chance to look through these annual plans. These annual plans essentially become my personal goals that you will evaluate me on next year.

So any questions there?

MR. BROUSSEAU: Just a question, Mike. I think, if I look at this, we are adding, is it two or three more staff people in these plans for this year? Is it two or three?

MR. TROTSKY: Each asset class currently has one vacancy on their team. With your approval, we have decided to deepen the bench, here at PRIM. We are very lean, with $72 billion and a very small staff. We feel it is really a strategic necessity to build our bench.

So each asset class head has one vacancy, that will take us a while, frankly, to hire. We are in no real rush to do it. We do want to build the bench, but we want to make sure our hires are the best hires we can possibly make.

And then we have two higher level hires, director of HR and director of IT, which are a little bit more urgent in nature and quite far along, too, I believe.

MR. BROUSSEAU: You made my second comment. With the $72 billion, I don't know how -- I know we are able to get the work done, but I think it is stretching things a great deal, especially with the staff.

MR. TROTSKY: That's right. We all work hard here.

TREASURER GOLDBERG: In particular, if one of your goals is to do more of the investment management internally, we are going to need more people.

MR. TROTSKY: Yes.

TREASURER GOLDBERG: Okay.

MR. TROTSKY: I think we can move into

asset allocation. I invite Eric to come up. 10:13:32

And before he starts on our asset allocation discussion, I do want to introduce the topic. The current market environment highlights something that we have been communicating with you on regularly. We have said consistently that we do not believe that this is a good time to be taking on more risk, in light of all of the risks in the marketplace that we have outlined. The asset allocation recommendations today, are really an evolution of the path that we have been on for the past several years. 10:13:39 10:13:41 10:13:45 10:13:52 10:13:54 10:13:58 10:14:01 10:14:05 10:14:07 10:14:10 10:14:13

And again, I really want to take the time to highlight our top core beliefs, as we entered this asset allocation process. 10:14:16 10:14:18 10:14:21

Number 1, we are guided by our mandated rate of return. The actuarial rate of return, which is currently 7.5 percent -- and I am not sure whether there is discussion of bringing that down or not. We will have to catch up on that. 10:14:24 10:14:27 10:14:32 10:14:34 10:14:36

But 7.5 percent. It still makes it necessary to have a relatively aggressive portfolio in this environment, with lots of equity risk. 10:14:39 10:14:42 10:14:44 10:14:47

Number 2, we make sure that every active manager we hire -- active managers earn the fees. We make sure that every active manager we hire has skill, and we have developed in-house tools to identify managers with skill. Eric and his team have done a very good job at that.

We only pay active management fees for managers with skill. And an attractive manager to us, will produce strong returns that cannot be explained by persistent biases, by persistent factor tilts. So we are looking for something different from our managers.

Number 3, we believe that any investment must be evaluated on three equally important parameters. And I know, Patrick, you like this one. The three parameters are return, risk, and cost.

Too often, in a year like we have just had in 2017, investors are way too focused on return and less focused on risk and cost. We don't fall into that trap. We evaluate every investment on return, risk, and cost. And we believe it is incomplete to evaluate a manager on any one of those.

Number 4, and closely related, we value a basis point of cost reduction more than a basis point of return. Why, you might ask? It is simple. We can count on cost savings every year. But nobody ever really knows what the markets will deliver. And as you see, the markets are becoming a little bit more turbulent lately.

Number 5, nobody can predict the future, so we don't even try here at PRIM. We don't try to predict the future.

Number 6, nobody can predict the stock market, on a near term basis, so we don't try to do that, either.

Remember, Brexit was supposed to cause a permanent downturn in the market? I have talked to you about how the markets have soared. The outcome of the U.S. presidential election was also supposed to have caused a permanent downturn in the markets; it hasn't.

And last, every strategic decision we make on asset allocation really complies with our "do no harm" rule. We try to find assets or strategies that improve the overall risk/return profile of the entire fund.

That is a good segue into what Eric will talk to you about and he will be introducing the recommendations on asset allocation. 10:17:11 10:17:14 10:17:18

MR. NAUGHTON: Can I just ask a quick question? 10:17:21 10:17:24

MR. TROTSKY: Sure. 10:17:24

MR. NAUGHTON: So getting back to the anticipated rate of return, to what extent, if at all, would this plan we are going to hear about this morning have to be revisited if that expectation went forward? 10:17:25 10:17:28 10:17:30 10:17:33 10:17:38

MR. TROTSKY: Our current asset allocation projects that over the next five to seven years, the expected return on our portfolio is 6.8 percent. So we are already communicating that it is going to be difficult to earn the 7.5 percent. We have been communicating now. 10:17:40 10:17:42 10:17:46 10:17:49 10:17:53 10:17:57

Now, the 6.8 percent is really a passive return on our portfolio. So it is possible, with good manager selection, that we earn the 7.5 percent, but I think, Dennis, we have been consistent in saying that, for the next little while, it is going to be difficult to reach that, especially with periods like we have just had. 10:18:00 10:18:03 10:18:06 10:18:11 10:18:13 10:18:16 10:18:18

17.7 percent return. One could argue that that kind of borrows from future returns. It is a really strong year. And you can't have too many of those in a row. 10:18:21 10:18:25 10:18:28 10:18:31

TREASURER GOLDBERG: Yes. The last one that was that return was 2014 or '15, '14. 10:18:33 10:18:34

MR. TROTSKY: Right. 10:18:40

TREASURER GOLDBERG: Right. 10:18:41

MR. NAUGHTON: But if we are targeting 7.5 now, if it were reduced, we would be in a good place. 10:18:44 10:18:46 10:18:50

MR. TROTSKY: We would be in a good place. I don't think it would change things. 10:18:50 10:18:51

TREASURER GOLDBERG: It will increase the unfunded liability. 10:18:53 10:18:54

MR. BROUSSEAU: Is there any knowledge back, that you are aware of, that PERAC is thinking of dropping this rate? 10:18:56 10:18:57 10:19:01

TREASURER GOLDBERG: Well, if you look at what is going on across the country, all funds are reducing the rate of return. Proper judgment would suggest that that is something we need to do. The long term goal should be at 7 or below. The timing of when you do it is the question. 10:19:02 10:19:11 10:19:14 10:19:19 10:19:21 10:19:32

In the three-and-a-half years that I have been having these conversations, we went from 8.25 down to 7.5. So we are reducing it a quarter at a time. We took a pause, because also, the actuarial saw enormous growth in longevity. So consequently, the two of them together, were a large increase in the unfunded liability. 10:19:38 10:19:41 10:19:43 10:19:48 10:19:51 10:19:56 10:20:00 10:20:06

On the other hand -- well, not large. But a larger than anticipated increase. 10:20:06 10:20:08

But I do anticipate that you will see a recommendation, at some point in the near term future, of 7.25. We wouldn't jump from 7.5 to 6.8. 10:20:13 10:20:16 10:20:20 10:20:25

Different pension funds across the country are taking multiple different approaches. In California, they were only going to drop the rate of return if they reached certain benchmarks, but now they changed that; now they are going to be dropping the rate of return regardless of the benchmarks. 10:20:25 10:20:30 10:20:34 10:20:37 10:20:39 10:20:41 10:20:43

So it is debatable, but I think you could anticipate seeing that happening not too far in the future. 10:20:45 10:20:48 10:20:52

And by the way, it is the right thing to do.

MR. SHANLEY: Yes, it is.

TREASURER GOLDBERG: I mean, I just think reality is a better thing to deal with than being -- the other thing is, you have to understand, the rating agencies actually care that we are realistic, and they have been focusing a lot on that lately.

Right, Sue? She is the one that talks to them all the time, right there, if you want to ask her.

MR. NAUGHTON: Oh, those same people who did so well on predicting the housing bubble.

(Laughter.)

TREASURER GOLDBERG: Yes. The rating agencies have gotten -- that is the other thing that we treasurers were talking about, is they have been getting very cranky lately and, in some ways, looking at some things that we don't quite understand what their rationale for them are.

The Governor and I were talking about that recently. He was very concerned about some of the things that they were suggesting.

MR. NAUGHTON: It is no secret, I don't think, that if the so-called unfunded liability dropped below 50 percent, that that is going to be a significant political problem, particularly for people who collect pensions and who have a defined benefit program. Because it will, again, obviously, open the door to general attacks by people who love to do it, using us as their example. 10:21:59 10:22:01 10:22:05 10:22:08 10:22:14 10:22:18 10:22:22 10:22:24 10:22:28

MR. BROUSSEAU: Some states are already talking about cutting benefits if they fall below a certain amount. 10:22:29 10:22:31 10:22:35

MR. NAUGHTON: So there is a range of considerations, to me, about cutting the anticipated rate of return, other than the rating agencies. Not that I don't understand it is important economically, but. 10:22:37 10:22:38 10:22:40 10:22:44 10:22:51

MS. PEREZ: Just to comment on that, the rating agencies do their own calculations as well. So they are going to use any rate that they think is reasonable, and they run their own collection. So they look at what we put in our disclosure document, but each one has their own sort of model that they are using and ranking 10:22:55 10:22:56 10:22:58 10:23:00 10:23:03 10:23:06 10:23:10

consistently, across the country, all of the states.

So Dennis, I hear your point. But if they think the right rate is 7 or less than 7, then they are doing some sort of calculations themselves.

MR. NAUGHTON: We have no control over them. So I am talking about things that we do have control over.

MS. PEREZ: Correct.

MR. BROUSSEAU: We don't know what process they are using or what information they bring into their calculation judgments.

MS. PEREZ: They try to make it so it is a consistent comparison across the states. So to factor in the fact that some may still be at 8, some may be at 6.5. So they try to come up with a model that would make it comparable across all the states.

MR. BROUSSEAU: I think for at least the last ten years we have been saying the five- to seven-year outlook is single-digit returns. So if we go by us the last three years, the last two years and since the great recession, we have done better than that. We have all not only have beat everything, we are over 9 percent annualized, since the inception of the fund in 1984. So probably the reality for PRIM, at least, argues against what they are doing.

TREASURER GOLDBERG: Well, the problem is, also, over that time, though, the state very often did not put into the amount that they were supposed to. So that is part of the dynamic. The Governor and A&F and I have worked together on insuring that there are moneys that are going into the pension fund, since I have arrived, at least. And the continuation of them, because it was supposed to end this year, actually -- last year, 2017. But we came up with a plan last year to continue funding that.

And also, I have been hugely aggressive on the rainy day fund, because that, believe it or not, the rating agencies are more focused on the fact that there was a spend down in the rainy day and that it has not been replenished. Having those discussions with others are not always easy, because they don't understand how that immediately costs the state more and impacts the

state more on other issues. 10:25:24
Yes? 10:25:26
MR. SHANLEY: To add to what you said 10:25:31
earlier, the other thing that was a contributing 10:25:34
factor is they waited a long time to adjust the 10:25:35
mortality tables. It has been there, it has been 10:25:38
sitting there. And they knew, once they did it, 10:25:42
it would take a hit. But it is a realistic hit. 10:25:45
Everyone is living longer. 10:25:48
MR. BROUSSEAU: There are people like me; 10:25:51
right? 10:25:52
MR. SHANLEY: Yes, like you. 10:25:54
MR. TROTSKY: Not only that, but they 10:25:54
aren't finished making those adjustments. 10:25:56
TREASURER GOLDBERG: But I feel that this 10:25:59
state is all going in the correct direction of 10:26:00
being fiscally responsible in looking at the 10:26:03
various things that one should be doing in terms 10:26:07
of their general financials. 10:26:11
And so with that, I think we should turn 10:26:13
back to the agenda, because Eric has very 10:26:16
patiently been sitting there, in order to share 10:26:20
with us his recommendations. 10:26:22
MR. NIERENBERG: Thank you, Treasurer. 10:26:24

Good morning everybody.

I will be very brief. And after my comments, as is usual practice, we will invite Mike Manning and Phil Nelson, from NEPC, to come up and share their insight and comments on our proposed plan and also their assumptions and outlook as well.

So I am glad to have the privilege to talk to you about asset calculation. It is part of my role as chief strategy officer. It is one of my highest priorities for both this year and for many years to come.

I started out by saying that it is a great way to work with my colleagues, I think, in a very thoughtful approach, where we are trying to marry both the granular insights from on-the-ground investing with some other interesting analytical tools, which are enhancements, which I think we have brought to the process this year and, as Michael mentioned, we want to continue building upon it in the future as well.

I guess the most important takeaway from the plan today is that our overall asset allocation plan is relatively unchanged. So I will talk about the specific recommendations in a moment. But as I referenced before, what I think is interesting, in particular, is talking about some of the enhancements we have made to the process. And I give my colleague, Bill Li, tremendous credit for helping formulate some of these ideas. They give us an additional lens to look at our asset allocation plan and give us a higher degree of confidence that the proposed allocation among different assets will meet our primary objectives that we have here at PRIM, in both terms of return and risk. 10:27:28 10:27:33 10:27:35 10:27:38 10:27:40 10:27:43 10:27:46 10:27:50 10:27:53 10:27:56 10:28:00 10:28:03 10:28:07

And so with that, I am not going to spend a lot of time on the presentation, but Appendix G is the set of slides that I am speaking to. If you turn to page 5, I think starting with those objectives is important, because we are focused here on strategic asset allocation, not tactical asset allocation. 10:28:09 10:28:13 10:28:16 10:28:20 10:28:23 10:28:26 10:28:30

Most of the investment industry, if you talk to people about asset allocation, they are usually focused on tactics; where should we be in the next three months or six months? Should we 10:28:32 10:28:33 10:28:36 10:28:40

be in stocks? Should we be in bonds?

Given the very long-term focus of PRIM, given the low withdrawal rate, we need to have a long-term focus and that means a strategic asset allocation, as opposed to a tactical one.

But first, you have to define your objectives. So I think we have talked extensively already about the primary objective, which is meeting that legislatively mandated 7.5 percent return target over the long term.

In tandem with that, whether it is explicit or implicit within that, is a desire to keep that drawdown risk in check. If we could obtain a 7.5 percent return without ever losing money, that would be an ideal circumstance. It is also not possible, given that, to some degree, we have to take what the markets give us. But that being said, it doesn't mean that you can't do a good job trying to keep the amount of drawdown risk as low as possible, while still having a credible plan to get your return.

So the framework that is on page 6 is an interactive process that tries to merge both the qualitative inputs, how we feel about asset classes, using their experts, such as NEPC and our own insights, and marrying that with our quantitative modelling that helps give us, I think, a -- triangulate better in whether we have the right kind of plan.

Before I even start on page 6, I just also want to mention that this approach is very gradual in nature and, similar to past years, this is the culmination of a set of meetings that we started back in the fall, both internally and in conjunction with NEPC, where we would discuss our different views on things, go back and forth, and then ultimately resulting in this plan.

So as Michael mentioned, you start with this idea of doing no harm. You don't want to be making any sort of rash judgements or knee-jerk reactions to market movements. Then we incorporate the qualitative assessments from our team and outside advisors and then, importantly, Michael mentioned the frameworks that we have developed that will help us source managers better, that we have used in PCS and all some of the other areas. And that also -- a way that ties into asset allocation is that new exposures and strategies can be sourced globally, using some of these techniques to help augment the plan at the margin.

Again, this is all kind of marginal changes, enhancements, rather than kind of making a wholesale overhaul.

In the second step, any proposed portfolio can then be modelled to assess the likelihood of meeting these two objectives. It gives a consistent methodology into which to compare and contrast what would otherwise be very disparate asset allocation proposals.

So that is how we did things this cycle, similar to past years, but, again, with a refined process.

We won't be covering this today, but in this presentation, Appendix 1 has the so-called elevator pitches for outlet summaries from each of the different asset class heads. And Appendix 2, for those interested, is a more granular presentation of the factor methodology we utilized, that Bill Li put together.

So with that, why don't I turn to page 11, which has the specific proposals for this year? And this new target allocation is not significantly different from the current target. We have always had asset class allocation bands within our investment policy statement, to allow flexibility and find opportunities, but we are just making their presence more explicit, here in the table.

We are not making any changes to those bands. Just for reference, that is plus or minus 5 percent for global equities and plus or minus 3 percent for the others.

So the primary changes, the first one is a 1 percent move from public equities to private equities. This comes on the heels of an impressive run for publics; although, of course, for privates as well. But that is not really the genesis of the decision. It is really because of the growing opportunity in growth equity within the private markets, that we can talk more about later, if interested.

The second main change is raising the target for the put spread collar, which we also call the equity hedge portion of portfolio completion strategies. So our actual calculation to public equities is actually at the high end of the band. Michael mentioned we already did some rebalancing, which is just during our normal course of affairs.

But we would like to continue re-allocating some of our equity exposure to a lower volatility, less risk, but still equity investing. We call that the reshaped distribution of the put spread collar. We do think the put spread collar has a compelling value proposition, which is capturing this difference between implied and realized volatility.

Obviously, in the events of the last couple weeks, volatility is front and center in terms of the market movement and gyrations. And I think there is nothing better than a real-life stress test to see how something will react. And Bill will talk more about it later, but I think we are definitely satisfied with the way that put spread collar performed in what would be, based on history, one of the three or four most stressful periods that you could possibly devise for strategies such as this.

So it did what we were expecting it to do and we are pleased with that. And that gives us, I think, even more conviction that our recommending that the range for the put spread collar for 2018 be somewhere in the 1 to 5 percent range, focusing on a midpoint of 3 percent -- we are currently at about 1.3, so we have about a billion dollars in total notional amount in the put spread collar, and we would be looking to bring that up to about $3 billion, depending on market conditions.

The market conditions, actually, for the put spread collar are quite favorable right now, because volatility is elevated. And so constructing the options overlay is actually quite attractive at the moment.

So then, just to summarize, which is on page 14, we are trying to put together the portfolio that can reap this mandated return with the minimized drawdown risk. Asset allocation should be this kind of constant iterative interactive process where you are marrying both the qualitative the quantitative inputs. And we think that a factor-based framework, which I

didn't have much time to talk about today -- but 10:35:54
we think we can extract that orthogonal 10:35:57
information -- I know you like that word, Bob -- 10:36:01
using principal component analysis, and that can 10:36:04
help quantify the likelihood of obtaining these 10:36:09
two objectives. 10:36:12
So with that, I am going to invite Phil 10:36:13
and Mike up here and they can comment as well, 10:36:17
and then, of course, we can take any questions. 10:36:19
MR. MANNING: We are happy to be here. 10:36:33
We are going to echo a lot of the things that 10:36:51
Michael and Eric already said. At a very high 10:36:51
level, we think the portfolio, from an asset 10:36:55
allocation perspective, continues to be 10:36:58
appropriate, very well diversified, and the 10:36:59
changes we are talking about are really at the 10:37:02
margins. 10:37:02
Phil, who heads up our asset allocation 10:37:08
team, will give some thoughts about the key 10:37:08
market themes that we are seeing for the market 10:37:11
this year and the investment outlook. Again, 10:37:13
most of those are already imbedded in the 10:37:15
portfolio. And then we will talk a little bit 10:37:18
about factor investing, which is a different lens 10:37:21

in which to look at the portfolio.

So at the investment community meeting, Phil joked that we were giving the summary of the summary. So we are going to work from the handout pages, which is the summary, and we will go quickly, but answer your questions.

MR. NELSON: Why don't we start on page 2, real quick, and just kind of give a quick sense of what our broad economic macroeconomic views are? We went through this in a little bit more detail a couple weeks ago. But from kind of the top-down view, this is the handout, 15-page handout.

So page 2 has our macroeconomic outlook and a lot of the opportunities we are seeing in the market today. Touching, real quick, on the macro themes that we have, we think it is helpful to explain kind of what happened last year, which we won't spend a lot of time on, but also as a prism to look into future years.

And at its core, a lot of the things from last year, we think, are continuing, where, despite some of the market hiccups over the last couple of weeks, we still see positive signals coming out of the U.S. economy, and that can continue and extend for a bit longer, even though we are nine years into a recovery.

Thinking about the Fed, the worries about inflation or the slight uptick in inflation has hit the market over the last month. For example, yesterday, the CPI print came in at, I think it was, 0.3 as opposed to 0.2, which is a modest difference. And if inflation stays relatively low and especially low relative to history, you are going to likely have a slow response from the Federal Reserve. And Michael talked about this earlier, as well, that, if you have kind of a gradual approach from the Fed, that is generally good for financial conditions, both in the U.S. and abroad.

One of the newer things that we are focused on this year is what is going on outside the U.S. and some of the synchronization of growth conditions in Europe, Japan, and emerging markets, that is creating a really nice growth profile that can last for maybe a couple of years out, which is something we haven't seen post financial crisis, where you have sustained real economic recovery.

MR. MANNING: And all of the largest 45 countries, I think, in 2017, had positive growth.

MR. NELSON: Yes, which is an unusual state. The last time we saw that was '07-'06-'05 period.

That is not to say that we have a perfectly rosy view of the world. There are clearly risks out there, in a lot of different areas. And so we view, in some ways, the kind of positive environment for risk assets as being kind of a delicate one. That is why the emphasis on diversification, some of the subtle asset allocation changes that were mentioned today, and just the emphasis on rebalancing, to bring the equity down.

This market can change rapidly. And some of things we are thinking about are ongoing changes in China. China is clearly important to the global economy. Any slight hiccup in China likely means fairly large dislocation in markets everywhere.

And second is a theme that we call globalization backlash, which really is the catch-all for populism, trade policy concerns, ongoing political risk that you see both in the U.S. and in Europe and, frankly, other parts of the developed world, where we are seeing the 20, 30 years of low wage gains flowing through into manufacturing sectors, others areas of the economy start to trickle into political risk. And that flows into how people view trade polices and other types. So it has an impact on global markets.

So things that we think about are, what is the outlook for NAFTA? It is a very binary outcome. There is a most negative case, which would probably be bad for emerging market assets and non-U.S. assets. Those are some of the things that we think about on the horizon, for risk out there.

Some of the opportunities that we are seeing out there, maybe just turning, quick, to page 6, notwithstanding the gains in U.S. equities, we have been encouraging, for the last couple of years, clients to just consistently trim back U.S. equity exposure, factor targets, rebalance, just maintain that discipline.

Something, again, that Michael talked about 10:42:53
earlier. 10:42:53
And thinking about outside of the U.S. 10:42:55
and looking at non-U.S. equities and specifically 10:42:57
focused on, more, Europe and Japan. So one of 10:43:01
the things that we see as potential for a fairly 10:43:04
decent earnings recovery in this market. So just 10:43:09
a real simple example, the top-right chart on 10:43:12
page 6 looks at the earnings profile of U.S. 10:43:14
equities, emerging markets, and EAFE over the 10:43:18
last 10 years. And you can see, within the U.S., 10:43:22
fairly sizable earnings growth over the last 10 10:43:26
years. Emerging markets, a much more volatile 10:43:31
path, that red line, but still positive. EAFE 10:43:32
markets still below the 2007 levels. The 10:43:36
opportunity for earnings to -- maybe not 10:43:39
necessarily get back to their peak that we have 10:43:43
seen over the last 15 years, but move closer to 10:43:45
that -- is fairly sizable benefit and earnings 10:43:47
and revenue flowing into the corporate sector 10:43:51
outside the United States, which would be a big 10:43:54
benefit to equity in those areas. 10:43:57
So that is fundamentally the backdrop of 10:43:59
our views. And you see it expressed in the 10:44:02

portfolio today, with, still, a tilt to a bit more global orientation. 10:44:05 10:44:08

MR. MANNING: Maybe we will just spend a bit of time talking about the asset allocation assumptions. Very briefly, I want to talk about the PRIM portfolio. On page 8, this goes to the process of how we build up our asset allocation assumptions for 40-plus different asset classes. It is really a fundamental basis. We can talk more about that. 10:44:15 10:44:16 10:44:17 10:44:17 10:44:21 10:44:24 10:44:27 10:44:31

The underlying assumption or the ultimate assumptions that Phil and his team came up with are on page 9. I want to highlight a few things here, because I think they are important, that they tie in to what Phil just said, in particular. And that is, in the equity section, so the four numbers at the top, it is not a surprise when you see the equities markets run as much as they did last year, that we are lowering the assumptions. We had such a great year last year, in the 20s and 30s. You would expect the forward-looking outlook to be a bit down. 10:44:32 10:44:34 10:44:37 10:44:39 10:44:42 10:44:44 10:44:47 10:44:49 10:44:53 10:44:55 10:44:56 10:44:59

What is the anomaly for us, here, is that the international equities actually went up. So 10:45:02 10:45:04

despite having a year that was as good as the U.S. markets, U.S. went down and the international went up. And that is because of that economic story, we think, and the opportunity for earnings to run more when profit margins aren't quite as high overseas as they are in the United States.

So that is a difference and something you wouldn't normally see, given the really strong returns in all of those markets last year. So I just wanted to highlight that as one of the assumptions that is really built up from a bottom-up basis. It is really grounded in the work that Phil just talked about.

You want to touch, maybe, on the portfolio a little bit, Phil?

MR. NELSON: Yes. So why don't we jump to page 12, just for time's sake?

I am just going to mention two quick things on the assumptions. Mike briefly walked through our five- to seven-year assumptions. This informs kind of our near-term investment outlook. We think it reconciles with the upcoming investment cycle in saying, what is risk/return outcomes that one could see over the next six years?

We also publish a second set of assumptions that we call our 30-year return assumptions. And is that what flows into your actuarial calculations and long-term rate of return expectations. And that reflects a more normalized investment environment, still taking into account certain conditions that exist today, such as below average cash levels, inflation is lower, which is a drag on long-term historical returns.

But suffice to say, as the portfolio is constructed today and based on some of the changes that are being proposed, the portfolio would still exceed, on the long-term basis, its actuarial return target.

So page 12 just looks at, real quick, some of the brief changes here, that Eric mentioned. Global equities come down a point. Private equity moved up a point, to 12 percent. Something new that we will we be doing, and Eric talked about a couple of weeks ago, is thinking more in the concept of ranges, as opposed to

10:46:11 10:46:15 10:46:16 10:46:21 10:46:22 10:46:26 10:46:30 10:46:33 10:46:37 10:46:39 10:46:43 10:46:46 10:46:47 10:46:50 10:46:53 10:46:58 10:47:02 10:47:06 10:47:08 10:47:10 10:47:14 10:47:18 10:47:21 10:47:24

targets, just thinking the portfolio is not an 10:47:29
exact midpoint that operates consistently, but is 10:47:31
a range of outcomes that one cannot break down. 10:47:37

MR. MANNING: I know we were talking 10:47:44
earlier about the return assumptions. You can 10:47:45
see, just looking at the bottom section of the 10:47:47
page, that top line where it says, the five- to 10:47:48
7-year return, under the 2017 assumptions, we 10:47:51
have assumed the 6.8 percent five- to seven-year 10:47:55
return. Today, that has dropped down to 6.6. I 10:47:58
mean, you earned 17 percent last year. In that 10:48:00
five- to seven-year cycle, the other asset class 10:48:03
expectations would come down. That has dropped 10:48:07
it a little bit. 10:48:09

The 30-year return hasn't really changed 10:48:10
materially. It is more the near-term outlook 10:48:12
that has dropped. 10:48:15

Maybe, Phil, if you want to talk about 10:48:17
the upper-right with that lens of the portfolio. 10:48:17

MR. NELSON: Something you will see more 10:48:21
consistently from us in a go-forward basis is 10:48:23
these factor allocations on the top-right of page 10:48:26
12. This is something that we have kind of 10:48:29
always done in the background, but I think being 10:48:32

a little bit explicit with some of the work that Eric and Bill are doing, also, in factors to highlight kind of a different way to view the portfolios exposures. And what these factor allocations represent are the macroeconomic factors that the portfolio is exposed to. 10:48:33 10:48:36 10:48:38 10:48:41 10:48:44 10:48:48

So we have five distinct, kind of, major factors that we highlight: Growth, which you can think of the kind of economic growth, whether it is the U.S., non-U.S., emerging markets. But you are kind of geared to positive growth conditions. 10:48:51 10:48:55 10:48:58 10:49:01 10:49:05

Real rates, which are generally -- which we consider kind of more pure interest rate exposure, we have more of a kind of defensive allocation to the portfolio. 10:49:10 10:49:12 10:49:15 10:49:17

Then on the inflation side, we think of inflation both as inflation moving up and inflation moving down. So there is -- the probability of either of those can change over time, but there is both inflationary and deflationary risk that exists within the portfolio. We try to highlight these factors here. And currency and liquidity, I think is really straightforward in terms of what those 10:49:22 10:49:24 10:49:27 10:49:31 10:49:33 10:49:35 10:49:38 10:49:40 10:49:43

risk factors are.

The following page has a more detailed view of that. You don't have to go through that line item by line item. But this is something that I would expect, over the course of the next year or two, in each of the meetings, that we will spend more time discussing.

MR. MANNING: Maybe we will stop there and see if you have questions.

MR. TROTSKY: Thank you.

TREASURER GOLDBERG: All right, then. So first up, I am going to seek a motion that we approve the asset allocation recommendation and a second. And then if there are any questions, we can ask them.

So I would seek a motion that the PRIM Board approve the Investment Committee's recommendation to adopt the 2018 asset allocation recommendations as described in appendixes E, F, and G of the 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.

MR. SHANLEY: Second. 10:50:51

TREASURER GOLDBERG: We have to do roll call. But before we do, are there questions? 10:50:53 10:50:55

(No voices heard.) 10:50:59

TREASURER GOLDBERG: Okay. 10:50:59

MR. BROUSSEAU: I had one. The large pension funds that we like to compare ourselves with, that have been very successful over the last 20 years, would their asset allocations look very similar to ours today? 10:51:01 10:51:04 10:51:06 10:51:09 10:51:13

I am thinking of a few in my mind that have been very, very successful. I don't want to mention them here, but. 10:51:18 10:51:19 10:51:22

MR. MANNING: I think you are in line with other large, sophisticated plans. Yours, I would say, is a combination of large public pension plans, but also some of the more sophisticated endowments, in terms of the use of the illiquidity. 10:51:23 10:51:24 10:51:29 10:51:33 10:51:35 10:51:35

But generally, yes. That is one of the things that we look at, is making sure you are in line with the other funds. 10:51:40 10:51:41 10:51:44

MR. BROUSSEAU: Do you consider this a conservative plan or moderately aggressive? 10:51:46 10:51:48

TREASURER GOLDBERG: Well, is there something in between? 10:51:53 10:51:54

MR. TROTSKY: Smart. 10:51:56

TREASURER GOLDBERG: Smart plan? 10:51:57

MR. MANNING: Yes. 10:51:58

MR. TROTSKY: Thoughtful? 10:52:00

MR. MANNING: There are so many different ways to answer that. But I think if you look at the overall equity exposure, that is lower than a lot of other plans might be. So you can say, yes, it is more conservative. It is very diversified; that is conservative. 10:52:00 10:52:02 10:52:04 10:52:08 10:52:10 10:52:13

You do have a decent bit in alternatives, and some people look at that as aggressive. So in terms of return outcome and the volatility exposure, I think it is really appropriate. And just in terms of the equity exposure, which is the driving force, I would say that is probably pretty conservative. 10:52:17 10:52:17 10:52:20 10:52:22 10:52:23 10:52:26 10:52:28

MR. NELSON: And the investment objectives, when you have a return target of 7.5, that dictates a certain risk profile onto itself. So that flows into meeting liabilities on a long term basis. So if that came down significantly, 10:52:30 10:52:31 10:52:33 10:52:37 10:52:43

then thinking about different adjustments could be something. 10:52:46 10:52:48

MR. TROTSKY: Eric, do you remember what the realized volatility was for last year, on 17.7? 10:52:49 10:52:50 10:52:53

MR. NIERENBERG: I think it was 1.7 percent. 10:52:55 10:52:56

MR. TROTSKY: Yes. So that is like a 13 Sharpe ratio. Admittedly, it is a low volatility market, but this is what we pay a lot of attention to. So on a risk-adjusted return basis, I would be surprised if there is any plan anywhere, that comes close to that. 10:52:57 10:52:59 10:53:03 10:53:05 10:53:09 10:53:11

MR. NIERENBERG: Right. 10:53:16

MR. TROTSKY: That is realized performance and realized volatility. 10:53:17 10:53:18

MR. BROUSSEAU: Good job. 10:53:21

TREASURER GOLDBERG: I like that. 10:53:22

Okay. Any other questions? 10:53:27

(No voices heard.) 10:53:30

TREASURER GOLDBERG: So we have to do a roll call. And so Theresa? 10:53:31 10:53:33

MS. McGOLDRICK: I vote in favor. 10:53:40

MR. BROUSSEAU: Yes. 10:53:41

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim?

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes.

Is that everybody? Yes. Thank you very much.

(VOTED: To approve the asset allocation recommendation.)

MR. TROTSKY: Dave is next. And thank you for coming in, Dave.

MR. GURTZ: I am going to be extremely brief, talking about the public markets. I am going to refer to Appendix B, which we spoke about earlier.

Specifically, I am going to start on page 6, which is affectionally Sarah Samuel's perennial garden chart. And the idea behind this chart is really that something is always in bloom, or shaded green.

And while I am happy to show you that everything bloomed in 2017 and, frankly, I can't think of another year in which all of these asset classes were positive in the same year. So again, it is page 6, Appendix B.

TREASURER GOLDBERG: This one, guys. It is before the quilt. The flower chart in bloom is before the quilt chart.

MR. GURTZ: So turning to page 7, very briefly. The global equity portfolio was the best performing asset class in 2017. It is the Olympics, so we earn the gold medal. For the first time in a couple years, we took it away from the private equity team or the first time in a while.

We returned 26 percent, outperforming our benchmark by 71 basis points. That is net of fees. That is a strong outperformance, when you consider that 58 percent of global equities is passively managed.

Emerging markets was the best performing asset class in 2017, returning over 40 percent. Emerging markets was supported by a weak dollar, strong earnings off a low base, rising commodity prices and continued global growth. China, in particular, was up over 50 percent for the year.

It was also a very good year for our

active managers. They added nearly 300 basis points in outperformance. That is gross of fees. About 231 basis points net of fees. 10:56:09 10:56:12 10:56:14

And PRIM is currently 25 percent active, 25 percent passive. And we will, obviously, discuss that change in a few minutes. 10:56:17 10:56:20 10:56:22

I am going to speak to international equities and move on to U.S. equities. Again, large cap outperform the small cap, but both perform strongly. We will be talking about, later today, where we think we can add more alpha to the U.S. equities market for microcap, our recommendation. 10:56:24 10:56:27 10:56:31 10:56:34 10:56:38 10:56:41 10:56:41

Flipping to page 8, PRIT's fixed income portfolio performance for the year. Just like EM equities, the emerging markets debt, in both local currency and hard currency, posted a strong performance in 2017. Long duration strips returned nearly 14 percent, as the yield on strips fell 38 basis points in '17, even though the Fed raised rates three times last year. 10:56:46 10:56:52 10:56:54 10:56:57 10:57:00 10:57:03 10:57:05 10:57:08

High yields credit. The spread also narrowed by 30 basis points in '17. So high yield returned approximately 7.5 percent last 10:57:11 10:57:15 10:57:17

year. And the lower risk/lower returning asset class all posted positive, but relatively low returns, last year.

And Chuck Laposta is going to be describing other credit opportunities and investment opportunity momentarily.

So, very brief. And I am happy to answer any questions. Otherwise, I will just roll right into the emerging market and microcap recommendations.

So if you will turn to presentation Appendix H. That is our presentation on our emerging markets equity recommendation.

Exhibit I includes Callan, our consultant's, memo on the recommendation as well.

And I will turn it over to Dr. Andre Clapp for him to present the emerging markets recommendation.

DR. CLAPP: Thank you, Dave. Good morning, everyone. I will be speaking to the presentation. Please turn to page 2.

We are recommending going from 75 percent active in emerging markets to 100 percent active. This is a continuation of the path we set out on

two years ago, in 2015, when we went from 50 10:58:35
percent active in emerging the markets to 75 10:58:37
percent active. 10:58:40

PRIM staff believes that active 10:58:40
management ECM will add value over the long term. 10:58:43
This shift would entail moving approximately 10:58:49
$1.1 billion in assets from the SSGA EM IMI index 10:58:51
fund to active managers. 10:58:58

T. Rowe Price will be brought off the 10:58:59
manager bench and funded with up to $600 million. 10:59:02
The other half of the SSGA EM IMI account will go 10:59:04
to AQR and Pzena, and SSGA EM IMI will be put on 10:59:04
the manager bench. 10:59:04

Now, if you would please turn to page 3. 10:59:18
This is 18 years of data going back to the year 10:59:20
2000. The light blue line is the excess return 10:59:22
of the medium EM active manager. And the dark 10:59:27
blue line is our five core EM active managers. 10:59:30

What I would like you to take away from 10:59:34
this graph is that both of these excess returns 10:59:36
are well and consistently above zero. That is, 10:59:39
active management consistently beats the 10:59:43
benchmark in emerging markets. 10:59:45

Now, on page 4, as you know, the excess 10:59:49

return for our EM active managers, as a group, has been quite strong since inception in 2015. It has been a strong period for the markets. The gray bars on this chart are the excess returns.

What I would like you to take away from this chart is outperformance has been broadly distributed among our active managers. All five active managers have contributed to the excess return of the group.

Now, on page 6, we address down markets. This chart shows the upside and downside capture for our active managers. The dark blue bars are the downside capture. All of our EM active managers have downsize capture that is well below 1. PRIM's EM managers did well in the strong up market of 2017, so we would expect our EM active managers to outperform in a down market as well. In a down market, PRIM staff believes that our active EM managers will outperform an index fund.

On page 6, as parts of this shift, T. Rowe Price would be taken off the manager bench and funded with up to $600 million. T. Rowe as had stable leadership under a sole portfolio manager since 2015, when Mark Edwards retired and Gonzolo Pangaro became the sole analyst. PRIM staff has conducted quarterly calls with T. Rowe since 2015 and found their process and investment approach to be consistent.

On page 7, it is the simulated new portfolio which is 100 percent active with six active managers, compared to the current portfolio with five active managers and a 25 percent index exposure.

And basically, the news is good here. The information ratio and the Sharpe ratio are better. The beta and down market capture both go down, which is good. And even the standard deviation is lower. So we think that this new portfolio looks pretty good.

On page 8, in conclusion, we are recommending going to 100 percent active management in emerging markets equity, approximately $1.1 billion will be shifted. T. Rowe Price will be taken off the manager bench and our index manager, SSGA, would be placed on the manager bench.

As you can see from the pie chart at the bottom of the page, the new portfolio would be fairly evenly distributed and balanced between our six active EM managers.

With that, I would be happy to take any questions.

TREASURER GOLDBERG: Well, we will do the motion first. I would seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve the change to the active/passive split in emerging market equities from 75 percent active/25 percent passive to 100 percent active, as described in appendices H and I of the 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. NAUGHTON: Second.

TREASURER GOLDBERG: Question or comments?

MR. BROUSSEAU: Very thorough presentation. Thank you.

TREASURER GOLDBERG: Yes. Thank you.

Okay then. We have a motion; we have second.

Theresa?

MS. McGOLDRICK: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim?

MR. HEARTY: Yes.

TREASURER GOLDBERG: Yes, me.

Done. Thank you.

(VOTED: To approve the emerging markets equity recommendation.)

MR. GURTZ: I will have Andre Abouhala to my left here. He will be describing the microcap RFP allocation.

MR. ABOUHALA: Good morning, everyone. I am the other Andre.

TREASURER GOLDBERG: I have a question. How many pension funds in the country have two Andres doing this?

DR. CLAPP: We are top decile.

(Laughter.)

MR. BROUSSEAU: That is why you call them Dr. Andre and Mr. Andre.

TREASURER GOLDBERG: U.S. microcap?

MR. ABOUHALA: Yes, thank you.

So today I will be providing an overview of the recommendation. Or if anyone has any questions specific to the presentation, I would be happy to respond. But with that said, the presentation can be found in Appendix J and Callan's memo can be found in Appendix K.

We are recommending issuing an RFP for active U.S. microcap equity management. If the RFP is successful, we are targeting an allocation of up to $17 million, or 1 percent of the PRIM fund, to five managers with the potential for a deep manager bench.

Funding will be primarily sourced from existing U.S. equity portfolios. In turn, we have very minimal exposure. Again, we are not adding to our equity exposure here. The Russell microcap index is highly correlated to the Russell 2000 and the S&P 500, with a similar long-term rich return profile.

However, we feel the real opportunity in this asset class lies in enhanced potential for active stock collection. Over the last ten years, a large percentage of active managers have consistently delivered significant excess return. The median manager outperforms the benchmark by roughly 170 base points, net of fees. And the dispersion between the best and worst managers wide at 7.7 percent, and that is among the highest in the global equity asset bucket.

The U.S. microcap equity is an inefficient asset class characterized by little analyst coverage. The average number of analysts covering a stock in S&P 500 is 18 in the Russell 2006, while the average number of analysts covering the company in the Russell microcap is only three.

With few or no analysts covering a stock, there is a greater chance that a stock's price will not always accurately reflect its true value. We believe this drives inefficiency in this space and breeds opportunity for active managers to create alpha for the portfolio.

Looking at our peers, there is some precedent here, with other large U.S. pensions investing in the space; for example, Oregon, Florida, and Alaska's pension system. As part of this RFP, we are looking for the managers that deliver downside protection, they take high conviction positions relative to the index or have a high level of activeness and, of course, have a strong meaningful track record of risk-adjusted outperformance. 11:06:53 11:06:55 11:06:57 11:07:00 11:07:04 11:07:07 11:07:13 11:07:14 11:07:17 11:07:20

And with that, I will take any questions you may have. 11:07:22 11:07:24

TREASURER GOLDBERG: So this is also a voting item. So I will seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve the issuance of a request for proposal for active U.S. microcap equity investment management services as described in appendices J and K, and further to authorize the Executive Director to take all actions necessary to effectuate this vote. 11:07:26 11:07:28 11:07:31 11:07:33 11:07:34 11:07:37 11:07:40 11:07:40 11:07:40

Is there a motion? 11:07:48

MR. BROUSSEAU: So moved. 11:07:49

TREASURER GOLDBERG: Second? 11:07:50

MR. SHANLEY: Second. 11:07:52
TREASURER GOLDBERG: Questions for 11:07:54
Mr. Andre? 11:07:54
Hearing none, roll call vote. 11:07:59
Theresa? 11:08:01
MR. TROTSKY: Yes. 11:08:03
TREASURER GOLDBERG: Bob? 11:08:05
MR. BROUSSEAU: Yes. 11:08:05
TREASURER GOLDBERG: Paul? 11:08:05
MR. SHANLEY: Yes. 11:08:05
TREASURER GOLDBERG: Dennis? 11:08:06
MR. NAUGHTON: Yes. 11:08:06
TREASURER GOLDBERG: Jim? 11:08:07
MR. HEARTY: Yes. 11:08:07
TREASURER GOLDBERG: Myself, yes. 11:08:07
Motion carries. Thank you. 11:08:08
(VOTED: To approve the request for a 11:08:08
U.S. micro-cap equity RFP.) 11:08:15
MR. GURTZ: We would like Chuck and 11:08:15
Christina Marcarelli to talk about a new credit 11:08:16
opportunity recommendation. 11:08:21
TREASURER GOLDBERG: Okay. 11:08:21
MR. LAPOSTA: Good morning, everybody. 11:08:32
We will be speaking to page 10 of the expanded 11:08:33

agenda and discussing an opportunity for other credit opportunities allocation.

As a reminder, this allocation was formed last year, as part of our asset allocation decision, the 2 percent allocation within our value-added fixed income portfolio. The goals of the allocation are to provide similar-risk adjusted returns with sensitivities to growth and inflation, as we had in the remainder of our value-added fixed incomes.

We also seek to gain unique exposure to differentiated approaches to investing within the credit opportunity and to provide investments across multiple asset classes. This investment is a key example of all of those, hits all the boxes, and certainly crosses over both our real estate team and our fixed income team. And that is why the two of us are here today presenting this.

And with that, I would like to turn it over to my colleague, Christina Marcarelli, from the real estate team, to talk about the specific debt investments that we found and the opportunities it presents.

MS. MARCARELLI: Thank you. Good morning, everyone. Again, page 10 of the agenda. 11:09:35 11:09:35

We are recommending an investment of up to $50 million in Berkshire Multifamily Debt Fund II. This would be PRIM's first investment with the Berkshire Group. They are a Boston-based firm with extensive experience owning and operating multi-family properties at the national level, on behalf of institutional clients. 11:09:42 11:09:44 11:09:47 11:09:49 11:09:51 11:09:54 11:09:57

The fund will target investment of subordinate bonds of Freddie Mac loan securitizations. And these bonds are commonly referred to as B-piece bonds, and they represent the junior-most tranche of the loan securitizations. 11:09:59 11:10:04 11:10:07 11:10:08

Just to briefly touch on the securitization process. Essentially, a group of loans are pooled together to create a security, and that security is then sliced or tranched into numerous securities, which are then sold to third-party investors at pricing that is commensurate with the repayment priority of each of those bonds. 11:10:22 11:10:22 11:10:26 11:10:29 11:10:29

So in this particular strategy, all of 11:10:29

the loans are underwritten by Freddie Mac, and they are all multi-family loans. And that is important, because Freddie Mac has a very low historic default rate, which I will get into a minute. There is typically anywhere from 40 to 100 loans in each of these pools, so there is some natural diversification there. And they are collateralized by commercial, multi-family properties, that are all stabilized. So there is no development exposure here. And they are diversified across both markets and borrower responses.

To clarify what we mean by multi-family properties, so these are your typical apartment buildings or apartment complexes, usually over 50 or 100 units, all rental units. So there is no exposure here to for-sale condos or single-family residential units.

We like this strategy for several key reasons. First of all, they are risk-adjusted returns. They are targeting a gross IRR of 13 to 14 percent. Despite being in the first loss position of the debt stack, the underlying loans have, on average, a 70 percent loan-to-value, so there is a 30 percent equity cushion ahead of the debt, which adds protection to the position.

And also, as I alluded to, the low Freddie Mac historic default rates. Freddie Mac began underwriting multi-family loans in the mid-'90s. And since that time, the lifetime loss rate has been only 6 basis points. And even in the worst vintage year, which was 2006, of course, ahead of the GFC, the loss rate for that vintage was only 44 basis points, which is still considerably low, especially compared to other commercial loans.

We also like multi-family as a property type. It is necessity real estate. It is more defensive. It tends to have the lower volatility with respect to vacancy and rental rates, relative to other commercial property types, like office or industrial or retail. And lastly and probably most important, is the value that Berkshire brings to this strategy. They have access to the BP bonds, which Freddie Mac will only sell the bonds to a select group of investors that meet a similar profile as Berkshire, that has a national platform, extensive history owning and operating these types of properties. And they have been the most active buyer of the BP fonds since Freddie Mac began securitizing this type of loans, in 2009. So they have a firm place in that rotation.

So with that, we will open it up to any question that you might have.

MR. TROTSKY: Thank you, Christina. This is an example of not only cross collaboration, but a really unique and great opportunity that we are really excited that you both uncovered. So thank you for that.

And you might notice that the total allocation is somewhat small, at $60 million. We would take all we could get in this, we like it so much. But this is a case where we have to sell ourselves to these managers, in a way, and get into the --

TREASURER GOLDBERG: Into their favored nation status?

MR. TROTSKY: Yes. And I know that that took some work and I think it goes a long way to perhaps letting us increase, in scale, this investment. I know you are speaking to other similar managers that pursue this space, but it is a great way to get started.

TREASURER GOLDBERG: This is a voting item. So I would seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve a commitment of up to $60 million to the Berkshire Multifamily Debt Fund II in the other credit opportunities allocation, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. SHANLEY: So moved.

MR. BROUSSEAU: Second.

TREASURER GOLDBERG: This is a roll call. Oh, question?

MR. NAUGHTON: I just have a question of this, this multi-families dwellings. What sort of rent spectrum are we talking about here?

MS. MARCARELLI: It runs the gamut, really. It really depends on the market. Again, these are national, so it represents all major --

MR. NAUGHTON: So it would include low cost?

MS. MARCARELLI: It could. It is all workforce housing, so it all more affordable in nature. So it is not the super luxury class A, where we have seen a little bit of softness because of increased supply. This is not that. This is more defensive, sort of your traditional suburban, multi-family properties.

MR. NAUGHTON: That is what I wanted to know. Thank you.

TREASURER GOLDBERG: Any other questions? Theresa?

MS. McGOLDRICK: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim.

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes. Thank you.

(VOTED: To approve a commitment of up to $60 million to the Berkshire Multifamily Debt

Fund II.)

MR. TROTSKY: Good job.

MR. NIERENBERG: I am joined here by my colleagues, Bill Li and Matt Liposky. So starting off with just an update on portfolio completion strategies. I am happy to report that the PCS allocation performed well both for the calendar year 2017 and also for the half-year fiscal year beginning July 1st.

I just want to remind you that the PCS monetizes four separate categories within the performance report: hedge funds, which continues to be the largest piece of the sleeve; risk premia; real assets, which includes the recently approved insurance allocation; and then the equity hedge piece, which is the put spread collar.

Bill is going to take you through the performance in a little more detail. But in addition to the strong relative performance to their relevant indices, I just want to stress, again, that it is really the risk-adjusted performance that continues to be outstanding, and that is what we are particularly proud about.

As of December 31st, PCS was 10.6 percent of the PRIT Fund, with a target band of 10 to 16 percent. And as we look to expand the size of each of those four PCS subcategories during this calendar year, we do expect to finish the year at or even above that mid-point target.

So with that, let me turn it over to Bill, to give the quick highlights of the performance.

MR. LI: Maybe before I get into the hedge fund performance, please allow me to briefly update you on the hedge fund industry for 2017.

As measured by HFRI, the fund-of-fund index, the overall hedge fund industry returned 7.5 percent for 2017 and capital has been actually flowing into the industry. Versus, in 2016, there had been $100 billion net outflows from hedge funds.

That said, equity-related hedge funds were still challenged with a net outflows, even though this specific category contributed the most to the industry performance. In the meanwhile, capital had been flowing into global macro and even driven types of hedge funds. This is the evidence that an increasing number of allocators have been stepping into PRIM's camp, where, firstly, we are mindful to not pay hedge fund managers expensive fees for simply high market betas. And two, we continue to argue that hedge fund investing is more about searching for strategies that are true diversifiers. 11:17:53 11:17:57 11:18:00 11:18:05 11:18:09 11:18:13 11:18:18 11:18:21

With that backdrop, I am happy to update you that the PRIM hedge fund portfolio had a very solid and steady year. The total hedge fund portfolio was up 8.3 percent for the full year. The direct portfolio was up 8.6 percent, exceeding the benchmark by 140 basis points. The portfolio realized a volatility of 1.6 percent, and that is equivalent to that of the bonds. 11:18:24 11:18:27 11:18:32 11:18:36 11:18:41 11:18:45 11:18:51 11:18:56

From a risk-adjusted return perspective, our Sharpe ratio was 4.5, and we are pretty happy with the very solid performance. 11:18:59 11:19:04 11:19:09

Since we are really focused on the bottom-up manager sourcing and selection, we would also like to update you on the manager level performance. Two-thirds of the hired managers outperformed their peers for the 11:19:12 11:19:16 11:19:19 11:19:21 11:19:25

respective categories. And there had been a reasonable performance dispersion among the managers in our portfolio. So we think this is really a healthy portfolio, as of 2017.

Hedge funds aside, I would also like to update you on the put spread collar equity hedge strategy. As you remember, we designed a program that dynamically manipulates our options to reshape the return of the public equities. And for the period until December 2017, since July 2017, the program has returned roughly 7 percent, net of fees, and that represented 45 basis points outperformance over the benchmark.

The recent market turbulence since January 29th really put the strategy to the test of our initial thesis. And actually, the program has met our expectation, regardless of the really high volatility spike and the quick drawndown of the market. And that returned way better than public equities, as well as long duration treasuries.

With that, if you have any question regarding the hedge fund portfolio, strategic portfolio, feel free.

MR. TROTSKY: That was just a performance update. Very well done. 11:21:14 11:21:16

TREASURER GOLDBERG: What really fascinates me about this is I can't understand why anyone wouldn't be doing what we are doing. I mean, sometimes when I go to these bigger meetings and I hear all of these pitches from fund-to-fund and different hedge funds people, I am like, I don't get it. 11:21:18 11:21:19 11:21:22 11:21:24 11:21:26 11:21:30 11:21:33

MR. TROTSKY: Right. 11:21:36

MR. NIERENBERG: I think it speaks, first of all, to the commitment that you, as a board, have given. As we have talked about, numerous times, certainly, the news flow for certain assets, like hedge funds or strategies like hedge funds, can certainly be pretty negative, but I think misses -- some of the criticisms are certainly valid, but I think that the way we have utilized hedge funds is very different. The approach we have taken is different. 11:21:40 11:21:41 11:21:44 11:21:46 11:21:50 11:21:53 11:21:56 11:22:00 11:22:05 11:22:06

And to your point, Treasurer, the amount of inquiries we are getting from our peers about what we have done has really accelerated pretty dramatically. So I think that is a great thing, 11:22:07 11:22:09 11:22:12 11:22:16

not just for us, but for hedge funds in general. 11:22:20
The more investors that are pursuing that 11:22:23
approach, the more the industry, just in general, 11:22:26
moves in that direction where it needs to be. 11:22:29
TREASURER GOLDBERG: I think it is also 11:22:31
you and your team are very creative. I mean, a 11:22:33
lot of the congratulations go to all of you, too. 11:22:37
MR. BROUSSEAU: We would not be 11:22:41
comfortable with this, as a board, if it was not 11:22:43
for the quality of the staff that we have doing 11:22:45
this work and presenting these novel ideas to us 11:22:47
and, I guess, understand them, to make these 11:22:53
decisions, because these are difficult decisions. 11:22:55
And probably -- I can say, probably other pension 11:22:57
funds do not have the same depth of staff, I 11:23:00
think, doing this, that we have. 11:23:03
MR. TROTSKY: Or the same quality, 11:23:08
either, for sure. 11:23:10
MR. NIERENBERG: Great. 11:23:12
Let me just turn to the next item, which 11:23:14
is our proposal for the emerging manager direct 11:23:16
hedge fund advisory managed account RFP. So back 11:23:22
in 2016, you authorized the issuance of an RFP 11:23:27
for us to identify advisors who could help 11:23:31

develop an emerging hedge fund managed account program with the specific focus on global macroeconomic and fund following managers. 11:23:34 11:23:38 11:23:39

The rationale for this was really twofold. One is, as we have talked about repeatedly, emerging managers do tend to outperform their larger peers. It does mean that you have to be very careful about the sourcing, because the dispersion is higher, but the opportunity set does exist. 11:23:42 11:23:43 11:23:45 11:23:48 11:23:51 11:23:53 11:23:56

And second, the inherent defensive nature of these strategies are thought that they could improve the overall portfolio risk return profile. This is a really specialized search. This is a real niche that very few others have really looked at. There are literally thousands of emerging hedge fund managers. And so careful and thoughtful manager selection is really what is going to be needed to identify those outperformers. 11:23:58 11:24:03 11:24:04 11:24:07 11:24:09 11:24:12 11:24:15 11:24:18 11:24:21 11:24:23

So in the RFP search, we looked for advisors capable of sourcing and selecting talented investment managers; establishing the infrastructure for our managed accounts, because, 11:24:26 11:24:27 11:24:30 11:24:32

as we have discussed in the past, it is really crucial to how we invest in hedge funds; and then managing and monitoring the program on an ongoing basis.

This was very much a collaborative approach among many different participants here at PRIM and I am going to let Bill and Matt, in turn, talk about different sleeves of that program and the recommendations that we are making to you today.

MR. LI: For the full evaluation and report, you can find that in Appendix L of the package. I will walk you through the RFP process and the Evaluation Committee's advisory services provider recommendation. Then Matt Liposky will present the platform part.

Before getting to that, we would like to clarify that there will be no investment managers funded by virtue of this recommendation and vote. Once the recommended advisors are hired, they will commence a search for emerging managers, globally, in the macro hedge fund space. And once the initial search is concluded, a platform of selected managers will be presented to the

Investment Committee and board. We also target to work with both the recommended advisors, to design a process that would enable continued sourcing and additional funding in the program.

We are hoping to bring back to you, in maybe August of this year, more details regarding the program funding, size, process, and such.

On June 26th last year, we issued an RFP for emerging manager direct hedge fund advisory and a managed account platform services. The response deadline was July 28th. The evaluation meeting included board and Investment Committee member Paul Shanley. It also included a staff members Eric Nierenberg, Matt Liposky, David Gurtz, Deb Coulter and Louis Roman. We would like to thank everyone of the Evaluation Committee for their participation. And the time they had to dedicate to this marathon process was really much appreciated.

We received 23 responses in total. Firms were allowed to partner with each other to submit a joint bid for both services. We invited 10 firms to PRIM's office for interviews, towards the end of August. The 10 candidates were

selected based on criteria including fees, 11:27:22
relevant experience, stability, and depth of the 11:27:26
proposed team, and the suitability of the 11:27:30
infrastructure. During the interview, we further 11:27:32
evaluated the firms against those mentioned 11:27:36
criteria. Subsequent to the interviews, two 11:27:41
firms were identified as finalists for advisory 11:27:44
services and two others for platform services. 11:27:49

After thoroughly reviewing all proposals, 11:27:52
on-site interviews at the finalists' offices, and 11:27:57
making reference calls, the Evaluation Committee 11:28:01
unanimously recommended that NewAlpha Asset 11:28:03
Management be selected to provide emerging 11:28:08
manager direct hedge fund advisory services. 11:28:11

Although some of may have heard minimally 11:28:13
about NewAlpha Asset Management, it is actually 11:28:17
Europe's most well known and most active 11:28:21
specialist in this emerging manager hedge fund 11:28:26
space. Based in Paris, NewAlpha is primarily 11:28:29
owned by La Francaise Asset Management, a leading 11:28:33
French institutional asset management group with 11:28:37
$75 billion U.S. dollar AUM. 11:28:41

NewAlpha has been providing direct hedge 11:28:44
fund advisory services since 2009 for 11:28:47

institutional clients only and currently has $700 million assets under management. As a true pioneer in the emerging manager investment, NewAlpha has invested over $1.6 billion in early stage international investment firms.

Their CEO, Antoine Rolland, leads a stable investment team of 11, that come from a diverse experience and the cultural background of both hedge fund managements and manager selection. Throughout the process, NewAlpha demonstrated a tremendous expertise. The hedge fund strategy types that PRIM's emerging manager hedge fund program targets, those strategies specifically include discretionally micro, systematic micro, CTA, and a relative value.

As Eric explained, the target strategies are evidently most uncorrelated to equity betas. And, thus, the defensive nature could help improve the overall return/risk profile of the PRIM funds. And those strategies are particularly popular in Europe, where NewAlpha has an excellent reputation.

With that, I am going to turn to Matt for the platform description.

MR. LIPOSKY: We are recommending to the Board the selection of Innocap to provide platform services for this mandate. 11:30:12 11:30:18 11:30:19

Innocap has been offering managed account solutions since 1996. Based in Montreal, the company has over 50 employees, who solely focus on structuring and operating customized investment vehicles. In general, this includes structuring investment vehicles, oversight and control of the operations of the fund on a daily basis, compliance and risk monitoring of the funds on a daily basis, cash management, operational due diligence on prospective and existing investment managers, as well as legal expertise. One way to look at this is enhanced middle office, with a specific focus on hedge fund trading operations. 11:30:22 11:30:25 11:30:28 11:30:31 11:30:33 11:30:36 11:30:39 11:30:41 11:30:44 11:30:45 11:30:48 11:30:51 11:30:53 11:30:57

With just under $6 billion in assets, Innocap is one of the larger providers of platform services in the industry. Two of their largest clients are Caisse de Depot and Ontario Teachers, both of whom are premiere players in the managed account industry. 11:30:59 11:31:04 11:31:07 11:31:10 11:31:12 11:31:18

And I will highlight two main points or a 11:31:19

few main points as to why the Evaluation Committee felt that Innocap was a preferred choice for this mandate. First of all, they are truly a full-service platform provider. A good platform provider should truly act as the plumbing between the client, the investment manager, and the trading counterparties, to really be an extension of our staff. And we believe Innocap is structured to do this and has done this in the past.

Innocap is a world leader in structuring and operating managed account platforms and have been doing so for over 20 years. They offer a full suite of services, when it comes to managed accounts platforms and has a deep, experienced team to oversee and monitor our program. Again, this is all they do. This is their sole focus.

The experience with emerging manager programs, which we are looking to do, this is really a majority of their assets. They have done these strategies before, they have done these programs before. And they really act as the point person between the client and the investment advisor, to really structure and establish the program which we are looking to provide or put together.

The additional operational due diligence support that Innocap offers is a true differentiator from other respondents. If NewAlpha or PRIM were to determine a certain investment strategy to be attractive, yet the strategy of the investment manager has some holes within its operations, Innocap will work closely in conjunction with NewAlpha, to properly address the operational due diligence issues and groom the manager to be institutional quality.

This is, again, a true differentiator. And operational due diligence is important when you are looking at investment managers, but even more so when you are considering emerging managers. So we felt this is be one of the core initiatives, the core principles that Innocap offers.

And lastly, the consolidate fee. As Bill mentioned, this is a joint fee proposal between Innocap and NewAlpha. And on a consolidated basis, this fee proposal was attractive with Innocap offering a few of 22.5 basis points and

NewAlpha offering $250,000 a year.

MR. TROTSKY: So I just have to make sure the Board is aware that -- I have said this in the past -- that as far as our investment team innovates and as fast as they run, it requires our finance and operation team to also run just as quickly, in lock step. And there is no better example, really, in the finance staff than Matt Liposky and the way he has worked with Eric and Bill and soon, Maria, on this platform and others.

I mean, you have become a world-wide expert in managed account operational due diligence of these type of managers, which makes it difficult for other pension funds to keep up, frankly. And hats off to you. And this is another great example of a differentiated team we have here at PRIM, working together both on the investment side and on the operation and planning side. So hats off to you all.

MR. LIPOSKY: Thank you.

So with that, we will take any questions.

TREASURER GOLDBERG: This is a voting item, so I am going to move the item and then follow it with questions.

I would seek approval that the PRIM Board approve the Investment Committee's recommendation to approve the selection of NewAlpha Asset Management to provide advisory services and Innocap to provide managed account platform services for the emerging manager direct hedge fund program, as described in Appendix L of the agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

Is there a vote?

MR. SHANLEY: So moved.

MR. BROUSSEAU: Second.

TREASURER GOLDBERG: Questions?

MR. BROUSSEAU: Matt or Bill, it seems unusual to me for two firms to do a joint return and recommendation on fees and all of that. Is that unusual?

MR. NIERENBERG: No, it is not that unusual, and we actually got a number of joint bids. And we encouraged it, in the sense that this is a very different kind of search and a different kind of program than even what we have, already, with our direct hedge fund program. And what we were really looking for, that was a really high priority for us through this process, was making sure that the advisor and the managed account provider could really interact well together.

One of the -- to the extent that there would be concerns that -- this is something we thought about for years, about doing. But the concern, such as it is, that I think was always a legitimate concern and was very much on our minds throughout this process, was how much of our internal time would this take up. We didn't want to be having an emerging manager program which is still designed to be a relatively small fraction of our total hedge fund assets, but have it take up a disproportion amount of our staff time.

So having that close interaction between the two, to kind of create a more seamless process, that we are still kind of in charge of -- this is not a fund-to-fund. This is us making -- the Board making discretionary investment decisions, ultimately. But making sure that there is nothing that would fall through the gaps, so to speak.

So the fact that they even submitted a joint bid -- they submitted the fee portion separately, but everything else was joint -- to us, was actually a very good sign, because it indicated that they were having some degree of collaboration and discussion, already, about this, about how this mandate would work.

So I don't know if that completely answers your question, but that was our feeling.

MR. TROTSKY: And they speak the same language, Paris and Montreal. They speak English and French.

MR. NAUGHTON: I just want to make a quick comment. I find this very exciting. I look forward to watching this develop.

MR. LIPOSKY: Thank you.

MR. NIERENBERG: Thank you.

TREASURER GOLDBERG: Any other questions or comments?

We have a motion. We have a second.

Theresa?

MR. TROTSKY: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim?

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes.

Thank you.

(VOTED: To approve the emerging manager direct hedge fund advisory and managed account platform services RFP recommendations.)

MR. TROTSKY: Good job, guys.

TREASURER GOLDBERG: Next, Mr. Bailey.

MR. BAILEY: Good morning, everyone. I am Mike Bailey. I am joined by Michael McGirr and Alyssa Fiore from our private equity team.

We are going to spend a couple minutes on performance and then we have got three voting items. I will just be really brief.

A lot of great news from the private equity portfolio. We have advanced to a 22 percent one-year number, which brings it up about 13 points from its number one year ago, so a very

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large move up, from about 11 to 24. And this is the best performance we have had since the fall of 2014.

And, I think, remarkably, it is a portfolio that outperformed the U.S. equity market, which advanced about 21 percent. As you recall, we have about a 3 percent return premium we expect from the portfolio. So it did perform in line with its goal, even though the public equity market, as Dave outlined, had a fantastic year.

So really proud of the performance of the portfolio. Haven't heard of any other large pension portfolio that has out performed this private equity portfolio. So a lot of great news.

On the market side, the private equity business continued to rock and roll last year. The volume of transactions advanced about 24 percent, off of 2016. So a lot of volume. As we have talked about before, pricing also went up. So high volume and 24 high prices. We think that pricing is being driven, in part, by large corporations, larger companies acquiring smaller businesses, to continue to drive their growth, as they see sources of organic growth sort of peter out in the U.S., but they are leaning into smaller companies and getting involved in buying these businesses. That is a competitive force in our market and drives prices up.

And secondly, as you all know -- we talked about the yields earlier -- on the credit side of the high yield market, it is very wide open and accommodating to buyers of businesses. So our private equity firms that often use financial leverage to acquire businesses, were able to access that at a cheap cost. So even though they could pay higher prices, they could justify those with lower cost borrowing.

And what all of this means for us is, it was a busy year. As you know, you approved over $1.4 billion of commitments to new funds and 13 buyouts. The team saw about 90 buyout funds last year, in the pipeline, nine-zero. So we felt that we had to be really selective and choosy. And we are seeing a lot of activity, but we have to be really careful, because these are high-priced markets and we have to be cautious about committing new capital and only lean into firms who we really have conviction that they are being careful and justifying our capital commitment.

So thanks for your commitment and thanks for your vote of confidence in advancing the portfolio goal to 12 percent from 11 percent.

MR. BROUSSEAU: You think we are ready for another one this year?

MR. BAILEY: I think so. We haven't seen that data yet, but we should be seeing it in the next couple of months, Bob. So I hope so. I hope so. It looks very good.

And as Michael mentioned, just a word on what we will be looking forward to in the next couple of quarters and then we will talk about the voting items. We had a large jump in distribution, so the cash coming back. You will see that in your materials. Almost a 60 percent jump in that fourth quarter period, over $600 million in cash. That is usually a really strong leading indicator for the next quarter's performance. Because oftentimes, those companies are being sold at prices that are higher than the last valuation, the appraised value. 11:41:46

So those are real dollars, real performance. We put it in the books. It is not a paper gain; it is a real gain. And we expect that to come through the next quarter. 11:41:50 11:41:50 11:41:53 11:41:56

The early reports from managers we have spoken to are that the appraised values are going to advance in the fourth quarter. No surprise. We are seeing 3 to 4 percent, early signs in terms of quarterly performance. So we should have a very strong quarter. 11:41:58 11:42:00 11:42:00 11:42:07 11:42:08 11:42:10

And as Michael mentioned, the federal government passed, as we all know, tax legislation at the end of the year. And with a drop in the corporate tax rate from 35 to 21 percent, we should see that flow through the equity valuations of these small businesses that do pay taxes. Some of them do. So that should increase the valuation. We don't know yet. 11:42:12 11:42:15 11:42:18 11:42:39 11:42:39 11:42:39 11:42:39 11:42:39

Our consultant, Hamilton Lane, published a report a few weeks ago that indicated you could see valuation rises anywhere from the single digits to the mid-teens. We have heard from a couple managers, you could see as much as a 11:42:39 11:42:39 11:42:40 11:42:42 11:42:45

10 percent rise in valuation.

So what the government gives, they also take away. We see this as a sign that other companies, big companies that are also taxpayers, may be even more aggressive in bidding for small companies, continuing to drive up prices. Because suddenly, their cost of capital fell, if you think about them as taxpayers.

Generally, PE firms aren't as much -- don't benefit as much from that. They even use leverage and shield their taxes using interest deductions, and the government sort of took away some of that interest deductibility, at the same time. They sort of gave to the big companies and took away from private equity.

So we will see what that all flows through to, but we expect the large companies to continue to be competitive in these situations, and that could continue to generate more liquidity for our portfolio as we go forward, but it also makes it harder for our private equity firms to bid against them, without that advantage.

And then finally, we are starting to see some green shoots from what I could call an underwhelming performance in our venture capital portfolio for the last several years. We are starting to see some green shoots there, with some --

TREASURER GOLDBERG: Aren't those legacy investments?

MR. BAILEY: A lot of them are, Treasurer Goldberg, yes.

So we are starting to see some green shoots both on the biotech side, where we some nice write-ups in the fourth quarter, and some IPO activity and some sales to larger pharma companies that are looking, again, to sort of drive their stable of drugs by acquiring our small companies that have been successful in drug discovery.

And I think those are my comments on performance. So unless there are questions about the performance, I will turn to the voting items.

MR. TROTSKY: Just on the tax platform, with regard to the interest rate deductibility. It is true that that is a negative. But for our portfolio, in general, relative to our peers, wouldn't you say that we -- our general partners have less leverage and then should be less impacted versus maybe the markets in general? 11:44:45 11:44:50 11:44:53

MR. BAILEY: That is a good point. Firms that didn't use as much leverage, that is a good point. And we also have some firms that -- the government also provided some new deductibility for capital expenditures. And so some of our businesses do have cap X budgets, and that will advance -- that will help their tax. 11:44:57 11:44:59 11:45:01 11:45:06 11:45:09 11:45:11 11:45:11

I think it is a net positive. So I didn't mean to sort of misstate that. I think it is a net positive, when the government reduces your taxes from 35 to 20, but they also took some of that away through the deductibility. I think it is a bigger problem with the bigger taxpaying corporations; that is what we are hearing. 11:45:17 11:45:20 11:45:22 11:45:24 11:45:28 11:45:31 11:45:34

MR. TROTSKY: Right. Thank you. 11:45:36

And those write-ups should begin to accrue? 11:45:40 11:45:42

MR. BAILEY: We will get those in the March results, yes. 11:45:43 11:45:45

MR. TROTSKY: Great. 11:45:45

MR. BAILEY: And probably, that will be 11:45:47

kind of a one-time -- I am guessing that will probably flow through one time. 11:45:49 11:45:52

MR. TROTSKY: Just one quarter. 11:45:53

MR. BAILEY: I would think so. I don't think they will spread those out, but we will see. 11:45:54 11:45:56 11:45:59

On the public side, I think some of that was anticipated, by the way. Public municipalities sort of build in some of that. The privates didn't really have that opportunity, so you will just sort of see that now. Whereas, I think, in Dave and Dr. Andre's world, that was probably starting to get priced into the stocks at the end of the year, as that legislation started to get talked about. 11:45:59 11:46:01 11:46:03 11:46:05 11:46:06 11:46:09 11:46:13 11:46:15 11:46:17

MR. TROTSKY: Yes, good point. 11:46:19

MR. BAILEY: Questions? 11:46:20

So I think we have three voting items. We are going to start with couple of recommendations for our new first investments for 2018. 11:46:27 11:46:30 11:46:32 11:46:39

TREASURER GOLDBERG: Okay. So Thoma Bravo? 11:46:39 11:46:42

MR. BAILEY: Thoma Bravo. Do you want us 11:46:43

to start or would you prefer -- 11:46:50
TREASURER GOLDBERG: Do you want me to do 11:46:52
the motion? 11:46:53
MR. BAILEY: It is up to you. 11:46:54
TREASURER GOLDBERG: You were kind of 11:46:55
gazing at me. 11:46:58
MR. BAILEY: I am following your lead. 11:46:59
(Laughter.) 11:47:01
TREASURER GOLDBERG: Sometimes I mess you 11:47:01
up on that. 11:47:03
MR. BAILEY: I am aware of that. I don't 11:47:04
want to be in that position again. 11:47:05
TREASURER GOLDBERG: I have done that 11:47:05
before. That is typically because you are 11:47:08
towards the end of the day and we are beginning 11:47:10
to lose -- anybody need coffee, fruit, bagels, 11:47:12
jumping up and down? 11:47:17
MR. BAILEY: A little stretch. 11:47:19
TREASURER GOLDBERG: Seventh inning 11:47:20
stretch. 11:47:22
I would seek a motion that the PRIM Board 11:47:23
approve the Investment Committee's recommendation 11:47:26
to approve a commitment of up to $100 million to 11:47:31
Thoma Bravo Discover Fund II, LP, and further to 11:47:31

authorize the Executive Director to take all actions necessary to effectuate this vote.

Therefore, is there a motion?

MR. BROUSSEAU: So moved.

TREASURER GOLDBERG: Second?

MR. SHANLEY: Second.

TREASURER GOLDBERG: Would you like to present this?

MR. BAILEY: Alyssa Fiore would like to.

TREASURER GOLDBERG: Alyssa?

MR. FIORE: Thank you, Treasurer.

Thoma Bravo is an existing manager for PRIM. We have invested in 10 investments since 1998. So they have come to the table quite frequently. The Discover Fund is Thoma Bravo's small cap strategy that was launched in 2015, and they are differentiated from the flagship fund by targeting lower, middle market companies.

Thoma Bravo is a sector-focused fund, out in San Francisco, and they are investing exclusively in software businesses. The firm has a long history investing in this space. It has a strong reputation in the software industry. Thoma Bravo has a very large and experienced team, and their sector focus provides them a sourcing advantage.

The firm also has an internal operations team that helps their investment professional execute on the value creation strategies.

In the interest of time, I will open the floor to any question or comments.

TREASURER GOLDBERG: Any questions, Dennis?

MR. NAUGHTON: No. I find it a very good investment. I can't wait to vote on it.

(Laughter.)

TREASURER GOLDBERG: I couldn't hear your question.

MR. SHANLEY: I asked if we were going to get the $100 million. A lot of times, we would like to, but sometimes it is capacity.

TREASURER GOLDBERG: Right.

MR. SHANLEY: And we are.

TREASURER GOLDBERG: Any other questions?

MR. BROUSSEAU: This fund has been one of our most successful, I think, private equity investments over the years. It has done very well.

MS. FIORE: Yes.

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

Theresa?

MS. McGOLDRICK: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim.

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes.

(VOTED: To approve a commitment of up to $100 million to Thoma Bravo Discover Fund II, LP.)

TREASURER GOLDBERG: Okay. Now, I need two more votes, do we not? So I will seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve a commitment of up to $150 million to American Securities Parties VIII, LP, and further to authorize the Executive Director to take all

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action necessary to effectuate this vote.

Who is up? Again?

MS. FIORE: Again.

So American Securities is another re-up for PRIM. We have invested in three funds since 2008. American Securities is a New York firm and they invest in middle market companies in North America. They traditionally pursue investments in the industrial industry, but they will also look at healthcare, business services, and the consumer sector. And they are really looking for companies with strong market shares and stable cash flows. The firm has had strong performance and has a senior investment team that has been working together for over 15 years.

American Securities has an in-house operations team that will work with the investment team during diligence and post investment, to help drive some of these portfolio company improvements and accelerate earnings and revenue growth.

We think they have a highly talented organization with proven investment skills, and we are excited to continue, hopefully, with your

vote, to invest with American Securities. 11:50:53
TREASURER GOLDBERG: And on Paul's behalf, I will ask, do you think we will get the $150 million? 11:50:55 11:50:57 11:50:59
MR. FIORE: Yes. 11:51:01
TREASURER GOLDBERG: Okay. Any other questions on this. 11:51:01 11:51:03
MR. NAUGHTON: I just have one. 11:51:06
TREASURER GOLDBERG: Yes. 11:51:06
MR. NAUGHTON: I notice it says, "business services, healthcare, energy and consumer." What is the nature of the energy investments? 11:51:06 11:51:06 11:51:11 11:51:13
MR. FIORE: So this isn't an area where they have spent too much of their time investing, but they have made some investments. Some of them have been pieces of the energy end markets. 11:51:13 11:51:13 11:51:16 11:51:17
MR. BAILEY: Yes. I would say, because they have this strong industrial arm, they see businesses that are providing services to the oil and gas industry. So you can think of drilling equipment companies, that make highly engineered components of a drill, to operation. And that is a good example, I think. 11:51:26 11:51:27 11:51:30 11:51:35 11:51:38 11:51:42 11:51:46

MR. NAUGHTON: Thanks. 11:51:48
MR. BAILEY: No actual natural resource 11:51:50
investing. 11:51:51
MR. NAUGHTON: Fracking equipment. 11:51:56
MR. BAILEY: Sometimes. 11:51:58
TREASURER GOLDBERG: Okay. Any other 11:52:02
questions? Seeing none, we have a motion, we 11:52:03
have a second. 11:52:03
Theresa? 11:52:03
MS. McGOLDRICK: Yes. 11:15:05
TREASURER GOLDBERG: Bob? 11:15:07
MR. BROUSSEAU: Yes. 11:15:07
TREASURER GOLDBERG: Paul? 11:15:07
MR. SHANLEY: Yes. 11:15:08
TREASURER GOLDBERG: Dennis? 11:15:08
MR. NAUGHTON: Yes. 11:15:09
TREASURER GOLDBERG: Jim? 11:15:09
MR. HEARTY: Yes. 11:15:10
TREASURER GOLDBERG: Myself, yes. 11:15:10
(VOTED: To approve a commitment of up to 11:15:10
$150 million to American Securities Partners 11:15:10
VIII, L.P.) 11:15:10
MR. BAILEY: The last one is not an 11:52:21
investment. It is a change to some of the 11:52:23

co-investment guidelines that you all approved a few years ago. And Michal McGirr --

TREASURER GOLDBERG: Except I haven't sought a motion.

MR. BAILEY: Sorry.

TREASURER GOLDBERG: We are going to do it this way, which was different than every other way we did it today. We are going to stay consistent.

I would seek a motion that the PRIM Board approve the Investment Committee's recommendation to approve the changes to PRIM's co-investment guidelines, allowing growth equity investments and adding TCV, KPS, and Kainos to the co-investment manager bench, as described in Appendix M of the agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

Is there a motion?

MR. SHANLEY: I move.

MR. BROUSSEAU: Second.

TREASURER GOLDBERG: Now, Michael.

MR. BAILEY: So we are on Appendix M, as the Treasurer mentioned. Really what we are

talking about is expanding our current 11:53:16
co-investment program, so to include growth 11:53:19
equity, and then adding three managers, as the 11:53:21
Treasurer mentioned. 11:53:25
So on page 1 of Appendix M is just a 11:53:27
definition of what growth equity is. We are 11:53:29
talking about a small portion of our portfolio. 11:53:31
It is about 10 percent of our NAB, as we see 11:53:34
today. Really, growth equity, as we define it, 11:53:38
we are talking about companies that are on a 11:53:41
spectrum of the stage of development. So we are 11:53:45
not talking about venture companies. We are not 11:53:47
talking about venture capital. And also we are 11:53:50
not talking about companies that can go through a 11:53:53
buyout transaction. We are talking about young, 11:53:56
growthy companies that need additional capital in 11:53:58
order to grow. Oftentimes, these companies are 11:54:00
not profitable and typically in these 11:54:04
transactions, there is no leverage. So just to 11:54:06
orient the discussion, that is what we mean by 11:54:10
growth equity. 11:54:12
In terms of the current program, on page 11:54:16
2, our current program is dedicated just to 11:54:17
buyout investing. So what we are asking is to 11:54:21

expand that to include growth equity and co-investing for this definition.

And page 2 is just a reminder that all of our co-investments are sourced from our approved bench of co-investment managers. And the private equity team presents, for approval, each manager to be added to the co-investment bench. So that is what we are doing today, with three additional managers.

We then recommend to the CIO, approval for each individual co-investment and notification is given to the Investment Committee members. And this is a portion of the overall annual budget or commitment amount that we just approved earlier today. So co-investments will be less than 10 percent of our annual activities, and that has been the same for every year.

Page 3 is both a review of the investing buyout co-investment policy and guidelines, on the left-hand side, and the new proposed growth equity guidelines. You can see, they are very similar in certain respects. But per the definition that we just talked about on the first page, there are some nuances.

So for growth equity co-investments, we are going to look in the same geographies. We are going to pursue the same approach, in terms of only investing with managers that we have existing fund relationships with. We are only going to invest on the same terms and conditions and at no fees and no carry.

But growth equity is different in the sense that there tends not to be leverage. So we are not going to look at opportunities that include financial leverage. And control is not a requirement here. So there are some nuances on this page.

And then lastly, on page 4, the recommendation, the voting items, include both the expansion that we talked about and then the three firms, TCV, KPS, and Kainos.

Happy to take any questions on this.

TREASURER GOLDBERG: Any questions at all? Seeing none, we have a motion, we have a second.

Theresa?

MS. McGOLDRICK: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim?

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes. Thank you.

(VOTED: To approve changes to PRIM co-investment guidelines and bench.)

MR. TROTSKY: Thank you.

TREASURER GOLDBERG: Thank you, all.

Mr. Nuts Timberland Grapes, go for it.

MR. SCHLITZER: Real estate.

TREASURER GOLDBERG: Oh, yes.

MR. SCHLITZER: Good morning.

TREASURER GOLDBERG: Performance summary, please.

MR. SCHLITZER: Yes, performance summary. So page 19 of the package, is where information can be found. Also, appendices N through P, performances, and N, which I can go through a few comments here.

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Starting with real estate, on the performance side, total real estate returned 9 percent for the year. That is outperformance of the blended benchmark of 119 basis points. Private real estate returned 8.1 percent, outperformance of 121 basis points. Our overweights for the warehouse sector greatly benefitted in 2016-2017. And as we discussed, this is really just kind of due to trends in overall growth in the U.S. and, in particular, eCommerce trends.

I will note that portfolio debt added 119 basis points to core real estate performance. So we continue to benefit from our capital structure and use of portfolio level debt.

The global listed real estate stock portfolio returned 11.8 percent for the year. That is 60 basis points over the benchmark. U.S. rates were actually kind of the laggard this year, which were the European and Asian stocks that drove the portfolios. So I think, an example of our diversification in that global portfolio benefitting real estate.

In terms of private real estate

transactions for the year, we completed five acquisitions in 2017. Three of those were in the warehouse development program that we have. And they were done -- those deals were done in Chicago and LA. So these are major population and logistical epicenters of the U.S.

There were 12 dispositions completed, for $518 million. I would really characterize most of these as PRIM and its managers taking advantage of a strong capital market environment, to sell assets that were probably marginal performers, that we might not to want to hold through another cycle.

Going forward, no major changes to our plan. I know there were a number of things listed. We will certainly be busy. But in terms of the way we allocate capital, we are going to continue to be cautious. I think that there is a strong case to be made that real estate is fairly valued versus equities and fixed income. That being said, as I have pointed out, yields, cap rates on real estate continue to be at all-time lows. The premium to risk-free rate, which is what we consider to be the 10-year treasury, are fairly tight. Margins are decreasing as taxes and utilities catch up with the property level. So we will continue to be careful and not stretch, certainly, at this point. 12:00:31 12:00:35 12:00:38 12:00:42

Moving on to timber. 12:00:43

I am happy to answer any questions on real estate, of course. 12:00:47 12:00:49

Timber returned 8.3 percent for the year. That is 504 basis points above the NAPRI benchmark, which is lagged, but that did not change meaningfully when we unlagged that benchmark. And that included Q4. 12:00:51 12:00:53 12:00:58 12:01:00 12:01:03

Both of PRIM's managers did outperform for the year. Much of the outperformance was due to Campbell Global. And I will remind you that Campbell's portfolio is concentrated in Oregon and Washington primarily, where we have seen significant year-over-year timber increases, much of that driven by Asian demand. 12:01:07 12:01:09 12:01:11 12:01:15 12:01:18 12:01:20 12:01:24

Campbell also oversees PRIM's investment in the 141 plantations, which is our Australian investment, which continues to be very successful and is in the process of expanding its footprint in Australia and Asia, and I might touch on that 12:01:27 12:01:30 12:01:34 12:01:36 12:01:40

again, in a second.

So that is a brief performance overview. Again, happy to answer any questions.

TREASURER GOLDBERG: Any questions on performance?

(No voices heard.)

TREASURER GOLDBERG: Okay. With that, we will turn to the timberland investment policy recommendation, which is a voting item. In keeping with private equity, I will seek a motion that the PRIM Board approve the Real Estate and Timberland Committee's recommendation to approve the changes to PRIM's timberland investment policy as described in appendices O and P of the 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. NAUGHTON: Second.

TREASURER GOLDBERG: Please, share with us.

MR. SCHLITZER: So again, these are

timberland investment policy changes that we are talking about here. There are policy changes in appendices O and P. One of them is a red line; one of them is a what I will call a clean version.

As always with these things, there is a lot of red ink when you look at the changes. I would say that the changes are not that material, but there are a couple of things that I want to point out.

Number 1 -- and I will preface this in saying that it is very hard, as you would imagine, in timberland, which is highly illiquid, to keep up with policy and to create, I guess, guardrails that are too tight. So we try to be flexible. But obviously, it is important that everybody have good policy.

So first off, we are expanding the international range for timberland from zero to 10 percent to zero to 30 percent. I would say that, in many ways, this is to capture the activity that we already have in the portfolio, the Australian investment, which is adding some New Zealand assets this year, to its platform.

And there is a chart in the committee package that also indicates that, as a percentage of the global timberland investment universe, the U.S. is only about 48 percent. So when you think about the market opportunity, zero to 30 makes a lot more sense. So that is the rationale. 12:03:43 12:03:47 12:03:50 12:03:55 12:03:58 12:04:01

And then secondly, we have added a couple of new monitoring categories, which are end use and end market. And really the theme there is that we just want to be better at capturing the demand side of the equation, from a diversification perspective. And we hired a new timberland consultant recently, who has some tools that will allow us to do that through capturing, effectively, appraisal data on properties that we already own. 12:04:03 12:04:06 12:04:11 12:04:13 12:04:15 12:04:17 12:04:22 12:04:25 12:04:27 12:04:31

So I will stop there, but that is our recommendation. 12:04:32 12:04:36

TREASURER GOLDBERG: I don't know if you heard what I said at this end of the table. 12:04:39 12:04:40

MR. SCHLITZER: Sorry, I didn't. 12:04:42

TREASURER GOLDBERG: With New Zealand, because I know that the hobbits build a lot of houses with timber . 12:04:43 12:04:44 12:04:46

MR. BROUSSEAU: What kind of wood do they 12:04:49
use? 12:04:51
MR. SCHLITZER: Radiata pine, Bob. 12:04:53
TREASURER GOLDBERG: Anyway, are there 12:04:56
any questions on this? 12:04:58
(No voices heard.) 12:04:58
TREASURER GOLDBERG: Seeing none, we have 12:05:00
a motion. We have a second. 12:05:00
Theresa? 12:05:00
MS. McGOLDRICK: Yes. 11:56:40
TREASURER GOLDBERG: Bob? 11:15:07
MR. BROUSSEAU: Yes. 11:15:07
TREASURER GOLDBERG: Paul? 11:15:07
MR. SHANLEY: Yes. 11:15:08
TREASURER GOLDBERG: Dennis? 11:15:08
MR. NAUGHTON: Yes. 11:15:09
TREASURER GOLDBERG: Jim? 11:15:09
MR. HEARTY: Yes. 11:15:10
TREASURER GOLDBERG: Myself, yes. Thank 11:15:10
you. 11:15:10
(VOTED: To approve the timberland 11:15:10
investment policy recommendation.) 12:05:04
TREASURER GOLDBERG: Okay. Great. Now, 12:05:04
this is a voting item. And I would seek a motion 12:05:26

that the PRIM Board approve the Real Estate and Timberland Committee's recommendation to extend the qualification period of PRIM's existing timberland appraisers through December 31, 2018 and to approve the issuance of an RFQ for timberland appraisers in 2018, and further to authorize the Executive Director to take all actions necessary to effectuate this vote. 12:05:29 12:05:29 12:05:32 12:05:35 12:05:38 12:05:42 12:05:44 12:05:47

Is there a motion? 12:05:50

MR. BROUSSEAU: So moved. 12:05:51

TREASURER GOLDBERG: Second? 12:05:52

MR. SHANLEY: Second. 12:05:54

TREASURER GOLDBERG: Okay. 12:05:55

MR. SCHLITZER: So this is somewhat administrative, but I don't want to minimize it, certainly. 12:05:57 12:05:59 12:06:01

TREASURER GOLDBERG: Right. 12:06:02

MR. SCHLITZER: We build a timberland appraiser list every three years, through our request for qualifications process. The status of that list technically ended on December 31st of 2017, so that we were three years in. We have three properties that need to be appraised as of June 30th this year. So the list again would 12:06:02 12:06:04 12:06:08 12:06:12 12:06:16 12:06:20 12:06:24

technically be out of date to do that. So we would like to extend the status of these approved appraisers for 12 more months. During 2018, we will run our RFQ, but this will give us the flexibility to appraise these three properties by June 30th.

So that is the ask. I am happy to answer any questions.

TREASURER GOLDBERG: Any questions on that? We have motion. We have a second.

Theresa?

MS. McGOLDRICK: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim?

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes.

(VOTED: To approve the timberland appraiser engagements and issuance of request for qualifications.)

MR. SCHLITZER: Thank you.

MR. BROUSSEAU: Tim, what was the status on Chile?

MR. SCHLITZER: I should have mentioned that. I wanted to be clear. As we develop our timberland portfolio globally, I would say that South America, generally, is still outside of the box. But iteratively speaking, we want to continue to research these countries, at least. Chile is a logical starting point in South America, very deep timber markets, good growing region, lots of mill capacity, strong property rights, institutional ownership. So we are going to do more research there.

MR. BROUSSEAU: Hardwood?

MR. SCHLITZER: It is a combination of.

MR. SHANLEY: Thank you, Tim.

TREASURER GOLDBERG: Thank you very much. Save the best for last.

MR. TROTSKY: Anthony Falzone.

TREASURER GOLDBERG: So ready. Seeking a motion that the PRIM Board approve the Administration and Audit Committee's recommendation to adopt the enhancements to

PRIM's Custom Proxy Voting Guidelines, as 12:08:28
described in Appendices Q and R of the agenda, 12:08:32
and further to authorize the Executive Director 12:08:35
to take all actions necessary to effectuate this 12:08:37
vote. 12:08:40

Is there a motion? 12:08:41

MR. BROUSSEAU: So moved. 12:08:42

TREASURER GOLDBERG: Second? 12:08:43

MR. NAUGHTON: Second. 12:08:45

TREASURER GOLDBERG: Okay. 12:08:45

MR. FALZONE: Thank you, Treasurer. 12:08:49
Hello, everyone. I will be quick. I know it is 12:08:50
late. 12:08:52

There are two proxy voting-related 12:08:52
appendices in your packet. They are Appendix Q 12:08:52
and Appendix R. I plan on speaking to 12:08:57
Appendix R, which is PRIM's custom proxy voting 12:09:02
policy matrix, which includes a recommended 12:09:04
enhancement to PRIM's custom proxy voting 12:09:06
guidelines. 12:09:09

At the Administration and Audit 12:09:10
Committee, representatives from ISS highlighted 12:09:13
each of the proposed changes. The first five 12:09:15
updates impact ISS's benchmark proxy voting 12:09:18

policy and the sixth and final update requires an enhancement be made to PRIM's custom policy.

In the interest of time, I think it makes sense to review the one key update that the committee discussed and unanimously recommended that the Board adopt today, if that is all right with everyone.

TREASURER GOLDBERG: Go ahead.

MR. FALZONE: I am on page 10 of Appendix R. The topic is: Prohibit discrimination on the basis of sexual orientation or gender identity.

So PRIM's current custom policy states that we would vote against shareholder proposals that seek the eliminate protection already afforded to gay and lesbian employees.

Our enhancement policy will now state: Vote against shareholder proposals that seek to eliminate protection already afforded to lesbian, gay, bisexual, transgender, and queer/questioning employees, or LGBTQ employees.

And I am happy to try to answer any questions, but that is the one change that impacts PRIM's custom proxy voting guidelines.

TREASURER GOLDBERG: I think we had a full discussion of that at the administration and audit.

So any other questions for Tony on this?

(No voices heard.)

TREASURER GOLDBERG: So we have a motion. We have a second.

All of those in favor? Theresa?

MS. McGOLDRICK: Yes.

TREASURER GOLDBERG: Bob?

MR. BROUSSEAU: Yes.

TREASURER GOLDBERG: Paul?

MR. SHANLEY: Yes.

TREASURER GOLDBERG: Dennis?

MR. NAUGHTON: Yes.

TREASURER GOLDBERG: Jim?

MR. HEARTY: Yes.

TREASURER GOLDBERG: Myself, yes.

(VOTED: To approve the adoption of 2018 proxy voting guidelines.)

MR. FALZONE: The next two items are process updates. I will try to run through them fairly quickly.

The first is the board self evaluation

process update. Per the PRIM Board Governance Manual, the Administration and Audit Committee is responsible for implementing the Board's self-evaluation process. The Administration and Audit Committee asked Cortex Applied Research to assist, as they have in the past, and ask each board member to review their 2017 self-evaluation questionnaire and update, as appropriate, for 2018. Cortex emailed each board member last week and asked that it be completed by March 2nd.

So if you did not receive an email from Cortex regarding your board self-evaluation, please let us know, and we will make sure that they reach back out to you.

Cortex will also invite each board member to expand on their survey response during one-on-one telephone discussion with a Cortex representative. Cortex will tabulate the responses and present an anonymous summary of the Board's self-evaluation results to the Administration and Audit Committee chair, who will then present the self-evaluation results at the April 30th Administration and Audit Committee meeting. The Administration and Audit Committee chair will then present the results to the Board at its May 15th meeting.

And that takes care of the Board self-evaluation item on the agenda. If there are any questions? Pretty straightforward.

TREASURER GOLDBERG: I do have one comment to make. We only have -- we don't have everyone here at the table. So I will be happy to reach out to those who may not have incorporated this thinking into their immediate future plans, to make sure that they give this their full attention.

MR. BROUSSEAU: March 2nd is the deadline, so they have a couple of weeks.

MR. SHANLEY: I have done mine.

TREASURER GOLDBERG: You get the blue ribbon today.

MR. SHANLEY: Yes.

MR. BROUSSEAU: Paul is always first.

TREASURER GOLDBERG: Would someone remind me if I need to reach out to everyone who is not here?

MR. BROUSSEAU: I think, possibly, that, I think that Tom, from Cortex, will also --

TREASURER GOLDBERG: I believe that that outreach has already taken place.

MR. FALZONE: Last week.

MR. TROTSKY: We can send reminders. Why don't we do that? Why don't we send a reminder next week?

TREASURER GOLDBERG: You can put that it is from me, also, if you would like. There will be visits to the guillotine.

Okay. Tony?

MR. FALZONE: Thank you. Next up is the Board Governance Manual (Charters and Policies) Review Update. So this is just a process update that at the February 1, 2018 meeting of the administration and audit committee, Cortex presented an update on the status of the Board Governance Manual review process.

Based on feedback received from that committee, it was decided that Cortex would first complete the 2018 board self-evaluation process that we just introduced and then invite board members to provide comment on the PRIM Board Governance Manual, both in writing and in a telephone interview.

Cortex will then present this same opportunity to PRIM committee members, to comment on the Board Governance Manual and then ultimately present its findings and recommendations at a subsequent meeting of the Administration and Audit Committee. 12:13:50 12:13:53 12:13:54 12:13:57 12:13:58 12:14:02

TREASURER GOLDBERG: Okay. Thank you. 12:14:04

MR. BROUSSEAU: This will take place, Tony, after the self evaluation? 12:14:05 12:14:07

TREASURER GOLDBERG: Correct, and we will make that very clear to people, so that they understand that these are separate tasks. 12:14:09 12:14:11 12:14:14

MR. BROUSSEAU: Two series of calls with Cortex to give your input. 12:14:18 12:14:20

TREASURER GOLDBERG: Yes. We will make it really clear, so that there is no question moving forward. 12:14:24 12:14:24 12:14:27

MR. BROUSSEAU: And committee members, Tony, will be notified by email from Tom? 12:14:30 12:14:31

MR. FALZONE: Yes. We will have Cortex give them an opportunity to provide input. 12:14:35 12:14:36

MR. BROUSSEAU: Is he going to survey the Board members first, and then committee members? 12:14:39 12:14:41

MR. FALZONE: Yes, my understanding, yes. 12:14:43

MR. BROUSSEAU: And that will probably take place after -- probably beginning in April? 12:14:46

MR. FALZONE: I think it might be March, because March 2nd, being the deadline for the Board self evaluation. So I am not sure what admin and audit meeting will be bringing its findings to, but I know that it will take place after.

MR. BROUSSEAU: From my perspective, it is to get your self evaluation done, but the phone calls dealing with that would be after that, after March 2nd, in March.

MR. FALZONE: So we will see where we are in the process, but my hope is to speed it up a little bit.

MR. BROUSSEAU: We have to update the charters, which we haven't done since 2004, and this is about every three to four years.

TREASURER GOLDBERG: It's been five.

MR. BROUSSEAU: It has been five, yes.

TREASURER GOLDBERG: So we need get it right.

MR. FALZONE: We have been talking about it, I think, for the last 18 months. I think it

is about 18 months, and I think we are going to 12:15:33
start moving it along. 12:15:36
TREASURER GOLDBERG: Okay. Anything 12:15:40
else? 12:15:41
(No voices heard.) 12:15:41
MR. FALZONE: No, not there. I don't 12:15:41
know if we have a legislative update. 12:15:45
MR. SUPPLE: Just one item. Good 12:15:50
afternoon, Madam Chairwoman, members of the 12:15:50
Board. 12:15:50
On Monday, there was a legislative 12:15:53
proposal released by the Senate committee on 12:15:55
global warming and climate change. 12:15:57
TREASURER GOLDBERG: I actually let 12:16:00
everybody know about it at our last meeting. 12:16:00
MR. SUPPLE: At the Admin and Audit 12:16:04
Committee? 12:16:03
MR. BROUSSEAU: At the Admin and Audit 12:16:03
Committee. 12:16:03
TREASURER GOLDBERG: Yes. 12:16:03
MR. SUPPLE: It was discussed at the 12:16:07
Admin and Audit Committee meeting that that was 12:16:07
expected to happen and it did happen this past 12:16:10
Monday. It is a very large piece of legislation. 12:16:12

It is called the Clean Energy Omnibus Bill. But its sections 118 through 123 are provisions that we are familiar with here at PRIM and this Board and admin and audit committee has looked at in the past several years, related to U.S. fossil fuel divestment.

These provisions are similar to a piece of legislation that was originally filed by Senator Downing some years ago, and we have followed it as it has gone through the legislative process in past years.

So the substance of it is not terribly new to this Board, but it is now an additional legislative vehicle that contains these provisions.

MR. BROUSSEAU: I have a copy of it. It was emailed to me. I don't know if the other board members got the email. But it is a really large bill, and you have got to go down to page 163, if I am not mistaken. I was going to read all of the findings. And I think, Tony, you told us it was page 163, those provisions in there.

TREASURER GOLDBERG: And they are very

prescriptive, by the way.

MR. FALZONE: It was discussed at the Administration and Audit Committee extensively that we would send out information as soon as we received it. So I did send it to the Administration and Audit Committee, with the information that Chris is discussing now. 12:17:18 12:17:20 12:17:22 12:17:25 12:17:26 12:17:27 12:17:28

MR. SUPPLE: That is all I have. 12:17:38

TREASURER GOLDBERG: I would seek a motion to adjourn. 12:17:39 12:17:42

MR. SHANLEY: So moved. 12:17:45

MR. BROUSSEAU: Second. 12:17:47

TREASURER GOLDBERG: Theresa? 12:17:49

MS. McGOLDRICK: Yes. 11:56:40

TREASURER GOLDBERG: Bob? 11:15:07

MR. BROUSSEAU: Yes. 11:15:07

TREASURER GOLDBERG: Paul? 11:15:07

MR. SHANLEY: Yes. 11:15:08

TREASURER GOLDBERG: Dennis? 11:15:08

MR. NAUGHTON: Yes. 11:15:09

TREASURER GOLDBERG: Jim? 11:15:09

MR. HEARTY: Yes. 11:15:10

TREASURER GOLDBERG: Myself, yes. 11:15:10

Good job, everybody. Thank you. 12:17:58

(VOTED: To approve the adjournment of the February 15, 2018 board meeting at 12:17 p.m.) 12:17:58