NEW YORK CITY TEACHERS' RETIREMENT SYSTEM
INVESTMENT MEETING

Held on Thursday, September 6, 2018, at 55 Water Street, New York, New York

ATTENDEES:
JOHN ADLER, Chairman, Trustee
THOMAS BROWN, Trustee
DEBRA PENNY, Trustee
ANTONIO RODRIGUEZ, BERS
SUSANNAH VICKERS, Trustee, Comptroller's Office
DAVID KAZANSKY, Trustee
PATRICIA REILLY, Teachers' Retirement System
MELVYN AARONSON, Teachers' Retirement System
JOHN DORSA, Comptroller's Office
MICHAEL HADDAD, Comptroller's Office

REPORTED BY:
YAFFA KAPLAN
JOB NO. 2466888

ATTENDEES (Continued):
SUSAN STANG, Teachers' Retirement System
RON SWINGLE, Teachers' Retirement System
MICHAEL FULVIO, Rocaton
JOE NANKOF, Rocaton
THAD McTIGUE, Teachers' Retirement System
VALERIE BUDZIK, Teachers' Retirement System
LIZ SANCHEZ, Teachers' Retirement System
SHERRY CHAN, Office of the Actuary
DAVID LEVINE, Groom Law Group
KOMIL ATAED, Teachers' Retirement System
NIKOLAI RADEV, Comptroller's Office
MILES DRAYCOTT, Comptroller's Office
ALEX DONE, Comptroller's Office
CYNTHIA COLLINS, Mayor's Office

0003

Proceedings

MR. ADLER: All right, good morning everyone.

Welcome back. This is the Teachers' Retirement System of the City of New York Investment Meeting for September 6, 2018.

Patricia, will you please call the roll.

MS. REILLY: John Adler?

MR. ADLER: I am here.

MS. REILLY: Thomas Brown?

MR. BROWN: Here.

MS. REILLY: David Kazansky?

MR. KAZANSKY: Present.

MS. REILLY: Lindsey Oates?

Debra Penny?

MS. PENNY: Here.

MS. REILLY: Susannah Vickers?

MS. VICKERS: Here.

MS. REILLY: We have a quorum.

MR. ADLER: Good. Thank you very much.

So let's start in our public agenda and I will turn it over to Michael Fulvio to do our performance report.

MR. FULVIO: Maybe we will start off with the ancient history of the fiscal year

0004

Proceedings

ending June 30, 2018. So if everyone wouldn't mind the larger book that was handed out, turn ahead to Tab 5. Behind there, it's page 21. Go through the high-level fiscal year results for the Passport Funds.

So at the end of the fiscal year ending June 30, 2018, you could see at the top of the page the Diversified Equity Fund had assets of about $15.6 billion. The fiscal year-to-date return under the one-year column there for the fund was about 12.1 percent compared to the hybrid benchmark about 12.8 percent and 14.8 percent. So I think the biggest takeaway here when we look at these results for the fiscal year was the best place to be last year was in U.S. equities. And that plays out not only in terms of the performance of the underlying pieces of Variable A, the Diversified Equity Fund, but also when you look at some of the returns for the other options. There was also some relative performance detraction from active management within the U.S. portion of the Diversified Equity Fund as well as the defensive portion, but what really drove the

0005

Proceedings

absolute returns of the fund here you can see was the large allocation to U.S. equities, U.S. equities being up about 15 percent last year.

Non-U.S. equities returned about half that last year with about 7.4 percent return for the International Composite of Variable A. The defensive composite could not keep pace with the broad equity markets, as we couldn't expect it to. That returned about 6.7 percent. That lagged its respective benchmark by a few percentage points. That benchmark was up by about 11 percent last year. And then I mentioned the relative performance of the active U.S. equity strategies. That composite was up about 12.9 percent and that lagged the Russell 3000 by about 1.9 percent. So the active management within the International Composite did contribute to positive relative results there.

For The Balanced Fund you will recall that that fund was incepted on January 1, 2018, so we have a six- month return for the fiscal year there. That fund was down about

40 basis points and lagged its benchmark slightly by about 20 basis points. Assets there have been somewhat static and continue to be around $380 million. For the International Equity Fund, you could see about $155 million in assets as of fiscal year end. That fund last year was up about 7.1 percent ahead of its benchmark, which you recall is comprised of both developed and emerging markets. I will make a quick comment there. For the fiscal year last year, developed markets were up about 6.8 percent and emerging markets were up about 2.7 percent. So emerging lagged not only for the fiscal year as a whole, but also quite a bit so far year to date which we will talk a bit more about later.

As far as the Inflation Protection Fund, assets there of about $65 million. The fund last year returned about 5.1 percent. That was enough to exceed its custom benchmark by about 1 percent, as well CPI which is about 2.9 percent for that twelve-month time period. The Socially Responsible Equity Fund with

assets of about $205 million, last year you will recall the strategy is focused primarily on the large cap U.S. equity space. That fund returned about 13 percent last year and that lagged the S&P 500, which was up about 14.4 percent.

So we are going to talk a little bit more about the more recent results with the July reports, but I will pause there and see if there are any questions on fiscal.

MR. ADLER: Any questions?

I have a couple of questions. So first question is: Did I hear you right to say that on international, developed markets were up about 6.8 and emerging markets were about 2.7 or something like that?

MR. FULVIO: That's right, and this 2.7 refers to the custom Emerging Market Index.

MR. ADLER: So how is it that the composite is up, the benchmark is up 7.04? That's higher than either of those. Isn't it made up of those two?

MR. FULVIO: It's actually a mix of the underlying components passive benchmark, so

it's -- if you look at the International Composite which there is more detail on on page 24, on the second half of the page the composite there is actually made up of the individual strategy benchmark components.

MR. ADLER: Growth value and so on.

MR. FULVIO: That's a great point, John. So growth, this is an overarching theme we have seen not only in the U.S. for the last twelve months, but also in non-U.S. markets growth has significantly outperformed value. So the high level of the U.S., the growth index last year was up about 22-1/2 percent and the value index was up about 7-1/2 percent. And then in non-U.S. markets you can see the EAFE growths was up about 9.8 percent versus a value of about 4.9 percent. What also helped contribute to the relative returns there, John, was the inclusion of international small cap which you can see was up over 10 percent.

MR. ADLER: Okay. And one other question, and you may be going into this more: So typically the lag between the defensive

strategies composite and its benchmark has not been as great as it was this past year where it's over a 400 basis point lag. And I recall that we actually switched up the defensive strategy this year to try -- because it had been lagging in these kind of, you know, bull markets. And so we changed it to try to capture more of the upside and yet in an up-year, substantially up-year, it apparently underperformed more. Could you briefly explain that?

MR. FULVIO: Sure, absolutely. So there were a few things going on there:

The first being poor relative results for the active managers within the composite. So there is more detail for that on the top half of the Slide 24. And you can see that on a relative basis, the managers there generally lag across the board or, I should say, lagged across the board relative to their respective benchmarks. What we have seen from these managers is that they have actually been a bit more defensively positioned relative to their -- especially for the TAA-type strategies

relative to their stock/bond mix. They have been underweight U.S. equity which has not helped them.

As far as the other thing that we did change last year, which you might have noted, was increasing to a certain degree the allocation to convertibles within this composite and the convertible strategy itself. So when you look at the track record for one of the convertible managers there, you will note they have a long track record that links both the conservative strategy that you were transitioning from as well as the strategy with a little bit of a higher-equity sensitivity. So if you look at that particular manager, you will see the last six months was really more representative of the new strategy that they have moved to there. And in that case, convertibles has actually lagged to a considerable degree the equity market returns over the last six to twelve months, so that's something else that caused a lot of the overall -- I will call it the general tracking between the defensive

composite and the overall U.S. equity market as well.

So not only are we concerned and always looking at the relative returns for each of the managers, but also how is the overall composite tracking to the Russell 3 because we do want a good amount of market participation. In a 15 percent up-market, it's been really hard to keep pace. So that's a very good point.

MR. NANKOF: It's a function of the "nature of the market" we have been living in for the last six to twelve months which is probably a used and overused term, but it comes over and over maybe once every ten years at least. It's a very narrow market; meaning that not only did U.S. equity outperform every other market on the planet, but even within the U.S. market, as Mike noted, growth stocks massively outperformed value stocks. Even those that owned disproportionate share of large cap growth stocks, which none of these strategies owned, none of the defensive strategies owned, you were destined for

single-digit performance. The at-best, what you see is like a 6 percent number for your defensive strategy.

So given the nature of the market, there really was nothing that you could do. Buy other than large cap growth stocks in the U.S., that would give you double-digit returns. So there was no way these strategies could have kept pace in the market we have been living in for the last six to twelve months. I think there is no other strategy other than large cap growth. Even with the QPP, half of its growth, half of its value, so you did get double-digit returns.

I hope that makes sense. That's what we have been living through over the last half a year or so, if that helps.

MR. ADLER: Yes.

Any other question for Rocaton on the fiscal year report?

MR. FULVIO: So on the July performance report, that is the separate handout. You will note the Diversified Equity Fund assets exceeds $16 billion. The first month of the

fiscal year, particularly again for U.S. equity, was a strong month. The U.S. market was up about 3.3 percent. The Diversified Equity Fund as a whole was up about 3 percent. Non-U.S. markets during July were able to do a better job keeping pace with the U.S. developed markets. Actually, year to date through July have been down by about 36 basis points in U.S. dollar terms and emerging markets are down about 4.7 percent in U.S. dollars terms. I make that comment because we are going to be talking more about foreign currency later today. If you look at those numbers in local dollar terms, the EAFE's negative .36 return in U.S. dollar terms is actually a positive 1.65 percent in local currency and EM, which I mentioned down about 4.7 in the U.S. was down about 1.2 percent in local currency. So dollar strengthening has certainly been something that has had an impact on absolute numbers here. As far as the relative results, year to date the Diversified Equity Fund has lagged the hybrid benchmark by about 20 basis points. And I

commented earlier on some of the relative performance of the underlying composites there; modest positive contribution from the international portion and lagging on the U.S. side and defensive strategy composite. The Balanced Fund for the first month of fiscal year '19, that fund was about up about 80 basis points roughly in line with its benchmark. Year to date that fund is up about half a percent. The International Equity Fund, 160 million in assets. I mentioned the stronger month for non-U.S. equities, that fund was up about 2.7 percent in July. Inflation Protection Fund, that fund had a negative return. For July calendar year to date, that fund is up about just shy of 1 percent. And the Socially Responsible Equity Fund, that fund is up about 2.6 percent lagging the S&P which up about 3.7 percent. So year to date that fund is up about 7 percent, which is about 15 basis points ahead of its benchmark.

MR. ADLER: Any questions on July?

MR. FULVIO: More ancient history.

There is the August report. Very quickly there, the U.S. just continued to do well. August the Russell 3 was up about 3-1/2 percent, bringing the calendar year-to-date return for the U.S. to about 10.4 percent. So the rally continues to be strong. On the international side, the composite benchmark there was down about 1.9 percent. Through -- for the month of August developed and emerging markets were roughly in line, both down about

1.9 percent. The defensive strategies composite benchmark up about 2.6 percent and the hybrid benchmark, benchmark up about 2.3 percent during August. The Balanced Fund benchmark was up about 60 basis points in August; both positive contributions from the equity component and the fixed income component there. I commented earlier on international. And as far as the underlying strategies for the Inflation Protection Fund and the Socially Responsive Fund, both were positive returns for August and positive returns year to date.

I will pause there.

MR. ADLER: Any questions on August?

So next item is the foreign exchange hedging discussion.

MS. VICKERS: We have Mike Haddad and Miles Draycott from BAM here to present information that was presented at a summer seminar to certain trustees, and we just wanted everyone to hear. And if you don't mind taking one and passing it down.

Sherry, do you mind moving down one so they can sit there and everyone can hear them.

MR. HADDAD: So we are going to try -- and this is an educational seminar on FX hedging without a recommendation. And we are going to try to accomplish three things this morning: Show that there is no excess return from being -- having assets denominated in foreign currencies; that there is increased volatility in your portfolio to do so; and that FX hedging strategy is relatively simple to do, though there are several key considerations if you make the decision to go forward with that.

Miles and Nick have done a fantastic job

with it. I am going to allow them to handle the quantitative and technical part of it and I am going to do the simpler part of it.

MR. ADLER: Nick, do you want to come sit here because I actually heard this before.

MS. VICKERS: Does everybody know Nick?

MR. RADEV: I work with Miles.

MR. HADDAD: So why don't we flip on background. And, just as a reminder, your portfolio is currently invested in foreign currencies in your equity portfolio and also in a few different investments in your private markets portfolio. And the policy that to date you have and all other four systems is to not hedge foreign currencies. As a reminder, that was a decision you made as part of your strategic asset allocation. So when you approve an international equity portfolio, both EAFE and EM equities, it was an unhedged portfolio. So the policy of not hedging is consistent with your strategic asset allocation decision that you guys made in the fall of '16. And the question we have posed to ourselves that we are drawing you into the

debate is, is it appropriate to not hedge foreign currencies given what we are going to try and show you. You get no excess returns for doing it and it adds volatility to your portfolio. And lastly, as a reminder, all your liabilities are denominated in dollars. So that's the backdrop of the question we are challenging ourselves with and we're trying to come up with an answer to that.

So if we flip to the next page, this next page, this is a snapshot I guess as of the end of July of all five systems combined. That being said, your portfolio is very similar to this. And across the vertical axis is the different currencies in your portfolio and across the horizontal axis is the different asset classes. And I would draw your attention to the first column, which shows that roughly 19 percent of your portfolios is invested in non-dollars and that the great bulk of that is in the international equity portfolio where 18.43 percent of that 19 is invested in foreign currency. So what we are really talking about here that's

important is the developed market international portfolio and emerging market equity portfolio. Those are the two things that count. You can see some of the tag ends in the different private markets where you have exposure to non-dollars. And while they exist, they are extraordinarily small relative to the other ones so what we are really going to focus on is public markets.

So with that, I am going to turn it over to Miles and Nick to walk through, you know, the three objectives that we laid out and what we are going to try to talk to you about. And the other thing I will just say is please interrupt with questions along the way so we don't get too far along.

MR. DRAYCOTT: I can't emphasize that enough, to the extent that this devolves into a discussion that's positive.

So on the next slide, I basically iterate what Mike is saying. We have looked at some of the literature and done our own analysis, investigating what the expected return and what I am going to term "passively

accepting FX risk" is. What I mean by that is investing in the global stock markets without making a conscious decision as to which currencies in which to take exposure. If you just take that -- we have looked at the consequence of just passively taking that FX risk and concluded that the likely return of the FX component of the return is very close to zero. That being said, exposing the system to that FX exposure does increase volatility. So you are not being compensated for taking risk is kind of the punch line of this analysis and we will go into more -- some more detail on that. So the consequence of that observation is that we think by hedging, it would be possible to constructing more efficient portfolio. What I mean by "more efficient" is same level of risk, higher return. That's the sort of punch line, if you will, that we hope to get to.

So the next slide. The first graph, so that's 5. We look at the EAFE hedged returns. So this is not your portfolio; this is the EAFE Index. Just looking at the EAFE Index,

we compared the cumulative unhedged return with the cumulative hedged return. So 100 percent of every currency exposure is hedged is what we mean by "hedged return." It's totally passive. 100 percent of the exposure is hedged and on the bottom you see the difference between those two lines. So that line on the bottom is essentially the currency return. And you can see actually looking backwards over this interval -- and anything to do with FX, it's important to stipulate it's over a particular interval. This choice of interval can change the conclusion, but over this interval you can actually see the contribution to returns from currency is actually negative. So that's the first observation. Over this period comparing hedged to unhedged returns, the difference is the currency contribution and over this period was negative.

Then we try to do the same analysis on the following page. But here rather than looking at cumulative returns, we are just looking at annual returns. We are just saying

comparing the hedged versus unhedged returns, same index, MSCI EAFE hedged and unhedged. And again the difference is the value added which is on the bottom panel, the value added of hedged. So we see, on average, it increased the return to hedged. And the average difference between this one-year return over this period, the average difference between hedged and unhedged return is about 49 basis points. So that's kind of the return argument.

Here, next page, we do the same thing. But now again by "same thing," I mean look at the same two indexes over the same interval. Rather than looking at returns, we are looking at one-year volatility and here we observe -- we look at the hedged versus unhedged volatility and again on the bottom panel we look at the difference. So that's -- that is the -- that shows the reduction in volatility as a result of hedging. And on average, we note that there is a line through -- again, the bottom panel is the difference and the line across the graph is the average value.

So on average over this period, one-year volatility was reduced by about 225 basis points. So fairly significant reduction in volatility of this segment of your portfolio. You invest in something very similar to this. This is the index, not your actual holdings.

MR. HADDAD: And reduction is on the EAFE portfolio itself.

MR. DRAYCOTT: Yes, just what the reduction of EAFE Index would be if you hedged the currency exposure. We are going to get to looking at your specific portfolio shortly.

MR. KAZANSKY: So on the previous page on 6, when you say that the annual returns have a 49 basis point improvement on the unhedged portfolio --

MR. DRAYCOTT: Versus the unhedged.

MR. KAZANSKY: Right -- then that would

really only reflect the 19 or so percent of our total portfolio. Right, so we are not seeing a 49 basis point improvement in the entire portfolio, just in the 19 percent?

MR. DRAYCOTT: Absolutely. And what we are going to get to on the next few slides is

basically increasing the denominator. So, first of all, we are going to shift to looking at your portfolio, not an index. And then we are going to look at the impact on just that section of your portfolio, then all public equities, all public markets, and then total plan.

MR. KAZANSKY: Great.

MR. HADDAD: So just to answer your question: It's not even 19 percent. It's only the EAFE; it's not even EM. So it's only 12.

MR. DRAYCOTT: Absolutely, right. Yes. And we will get into why we think it probably only makes sense to hedge the exposure in EAFE versus your EM exposure in just a minute.

MR. KAZANSKY: Okay, great.

MR. DRAYCOTT: So the last slide in this series of slides comparing the EAFE Index with the hedged versus unhedged EAFE Index, this is page 8. So here we look at what the change in the Sharpe ratio is as a result of 3x ante is. So looking back what the change in the Sharpe ratio was as a result of hedging and we note

that the impact of hedging, the FX exposure fairly materially increases the Sharpe ratio. So it's an improvement in the Sharpe ratio is saying we are improving the risk-adjusted return. That's what the Sharpe ratio is indicative of or, you know, more positive is better. And this increases the Sharpe ratio on average by 16 basis points. It's a one-year Sharpe. We are just comparing, you know, excess return between the index and the risk.

So on the next slide, just an observation, we have used the MSCI risk system to do much of this analysis and we have been discussing with Rocaton, far from coming to conclusions, how it can be used to produce a set of exposures or risks that should be hedged and they are sort of -- objective of the analysis to identify exposures that makes sense to hedge without too negatively impacting return. So basically set up an optimization problem in the platform.

So I want to step back on the next page just a little bit. This is page 10 now. And

please interrupt if I am going too fast. I want to mention in any consideration of hedging currency exposure, you really need to think about two very important considerations. And one of them is well, what's the correlation between the FX rate that you might hedge and the portfolio returns. So how does -- is the correlation between that FX rate positive or negative. If it's negative, it's actually desirable. What that's saying, it helps to diversify the portfolio. And this is actually the original assumption; maybe wasn't articulated perhaps at the time. The assumption of negative correlation was it assumed, it was previously assumed until like ten years ago, that the foreign exchanges would help to -- all foreign exchanges would help diversify the portfolio and the changes that thinking has moved along and say, wait a second, some of these exposures are not helpful. And that's really what we are here to talk about today. So the two considerations are positively and negatively and obviously you can't know the perfect --

with the ability to foresee the future, you wouldn't hedge negatively-correlated currencies. So if you believe it's possible to develop an expectation as to the correlation between the FX rate and the returns of the portfolio, then you wouldn't hedge negatively correlated currencies. The other very important consideration is well, okay, hedging reducing vol, but the cost of hedging reduces return. So in the case of EM currencies, we think that the bid offer -- and we modelled the bid offer in the analysis that we implemented in the risk system. We looked at the bid offer in FX forwards and concluded in the less liquid FX markets, namely most of the emerging market currencies, probably the cost of hedging is too high. The benefit and the reduction in volatility is outweighed by the drag on returns that you would incur as a result of the transaction cost of hedging.

And the next slide is somewhat repetitive. The objective of the exercise is to identify the currencies that are expected to be negatively correlated and to identify

0028

the currencies where the cost of hedging would outweigh the benefit. So finally we turn to basically David's question from earlier which is okay, what's the impact on this section of our portfolio, what's the impact on the public equity portfolio, what's the impact on the entire public markets portfolio, what's the impact on the entire portfolio. So we go from kind of the most granular and we basically increase the denominator over the next couple of slides.

So the first one, we just look at the impact of hedging the FX exposure of the EAFE, your EAFE equity portfolio. We are no longer looking at the index, the impact of hedging your EAFE portfolio on that portfolio. So just the reduction in risk and, you know, cost of hedging, the currency exposures in that portfolio. And we notice that it reduces risk by about 98 basis points and would increase return by about 80 basis points. We do exactly the same analysis, except now we do employ the MSCI risk system and say wait a second, which currencies do we expect to be

0029

negatively correlated. And it turns out the only one of EAFE currency that it expects to be negatively correlated is the yen. So if we decide not to hedge the yen, this is looking backwards with perfect knowledge what the negative correlation of the yen was to the portfolio, we see we would have reduced risk by 165 basis points and increased the return of the EAFE, your EAFE portfolio, about 137 basis points.

MR. HADDAD: Could you walk through the methodology that you used to show the potential increase in return?

MR. DRAYCOTT: Yes, that's a good point. I did want to get to that.

So the whole thesis here is that by hedging, you could create a more efficient portfolio. Again, by "more efficient" we are saying same level of risk, can you generate more return by hedging FX? So that's the question we are posing. And so the theory here is well, okay, if we reduce risk by hedging, we should redeploy that risk appetite into an asset class that is expected to

generate a positive return rather than just, you know, having exposure to FX which is expected to generate zero return.
So in order to do the analysis, we didn't want to choose the risky asset class that would be expected to generate the positive return. You know, we could come up with any result we wanted if we guessed at what the return was going to be. So what we said was we said rather than do that, what's the most sort of objective way of dialing risk back up. So if we are reducing volatility, we want to look at this portfolio but increase the risk back up to where it was before we hedged. So the simplest mechanism for doing that is -- I am not suggesting we use leverage. This is just a way to perform the analysis. We just looked at leveraging the portfolio so that given the same asset allocation, we increase the risk back up to the level of risk that was in place before hedging.
MR. ADLER: Just to be clear: I don't even think we are permitted to do that, just

to be clear.
MR. DRAYCOTT: Well, we could get in an argument about that, what's sec lending?
MR. HADDAD: Don't go there.
MR. DRAYCOTT: Never mind. So -- but we are not suggesting using leverage. This is just a mechanism so that it relieves us in saying to you if you invest in this asset class --
MR. ADLER: Let me ask you a question: To get to the same goal, couldn't you simply increase your exposure to the equities that you are hedging the currency risk in order to get that same result?
MR. DRAYCOTT: Absolutely. The only reason we chose to use this mechanism dialing up the risk is we didn't want to make the subjective argument that all of the new risk appetite would be used to invest in EAFE equity. We just want to say suppose you just dial up the whole thing.
MR. ADLER: Across the whole portfolio.
MR. DRAYCOTT: We just thought that was the most objective way to do it.

MR. HADDAD: And very simply stated: If you reduce risk, that's a good thing in and of itself. But if you redeploy it into something else in your portfolio, then you get extra return. And that's the benefit to your portfolio of hedging foreign currency exposure.

MR. KAZANSKY: You just have to redeploy it in the right place and not deploy it in the wrong place.

MR. DRAYCOTT: That's exactly the point. We didn't want to say we know how you should reploy it.

MR. ADLER: You didn't want to say it. You know it?

MR. DRAYCOTT: Oh, yes, it's all piled in. I didn't want to make any pronouncements where the risk is going to go.

Going back to basically answering Dave's initial question: Okay, this is positive for the TRS EAFE portfolio, but what about the whole ball of wax? So we are going to dial up in terms of granularity here. So on the next page again this is just hedging the same

exposure, that the TRS FX exposure embedded in TRS EAFE equity portfolio, but now we look at the reduction of risk on the entire public equity portfolio. And here we see 26 basis point reduction in risk corresponds 20 percent increase in return; that's if you hedge everything. If you exclude the yen, again look backwards the reduction in risk is 38 basis points and the increase in return is 29 basis points. So hedging the same thing, but looking at the impact on a larger, bigger denominator.

MR. HADDAD: If you think why that intuitively makes sense, your EAFE portfolio is 12 percent of portfolio, then add in U.S. and add in EM, and now it's 50 percent in total. So now we are measuring the reduction in vol over 50 percent of your portfolio.

MR. ADLER: The potential return increase, that is across the equity portfolio the 50 percent or across the whole 100 percent of the portfolio?

MR. DRAYCOTT: This slide, it's now just the equity portfolio. But what we are doing,

John, is going from increase in return just TRS EAFE, TRS public equity, TRS all public markets, TRS total plan. That would be the last of these four slides. We will pick up the pace now.

MR. ADLER: I did hear it once before but guess what, I don't remember it all.

MR. DRAYCOTT: So with that the next slide, we are up to 14. The next slide is looking at the impact of hedging just the EAFE portfolio on the entire public market portfolio. And here you could see the reduction in risk of hedging everything is 18 basis points, increase in return of about 19 basis point. And again if you exclude yen, look backwards it improves the whole dynamic fairly significantly. The risk reduction is 23 basis point and the return is 24 basis points.

And finally we look -- oh, so the news here is this is kind of interesting. We have now actually modelled in the BarraOne risk system quite a few of your alternative assets. So using Burgiss data now using the private

equity portion of the portfolio and the private real estate portion of the portfolio, it's not 100 percent coverage yet so we have kind of grossed up what we have. The information we have on say 60 percent of the private equity portfolio and assumed the bit we don't have coverage of is equivalent, if that makes sense. So this is an attempt to say including analysis of private equity and private real estate, what would be the impact of hedging the TRS EAFE equity portfolio? So looking at the total plan, including a pretty educated guess on the risk of private equity and private real estate, what's the impact?

This is -- I just want to make one important point. This is not looking at hedging the FX exposure of your private asset classes; it's just still looking at hedging the TRS EAFE FX exposure. And whether or not it makes sense to hedge any portion of the private assets is kind of a separate discussion. As Mike pointed out earlier, it's such a small portion of your portfolio. I mean, it matters because the portfolio is so

huge, but the lion's share of it is in the public equity portfolio.

So with that, just to finish it, risk reduction of the total plan, about 16 basis points, increase in return coincidentally also about 16 basis points. Looking backwards not hedging yen, risk reduction would be 20 basis points and the increase in return would be about 21 basis points.

MR. ADLER: Can I just ask a math question here?

MR. DRAYCOTT: Yes, please.

MR. ADLER: So when you just start with the X -- the EAFE, you start with -- if you take the EAFE equities hedge except for Japan, the risk reduction is 1.65 and the potential return is 1.37?

MS. VICKERS: Slide 12, John.

MR. ADLER: Slide 12, thank you.

And then if you go on and you add, the risk reduction numbers get smaller because the denominators get bigger. But why does the potential return get -- a higher and higher portion of the risk reduction becomes

potential return until it, in fact the potential return, exceeds the risk reduction when we look at the total plan? I don't understand the math.

MR. RADEV: So that comes to -- comes to the calculation of the potential return increase from dialing back the risk. What it essentially assumes is that you are really blowing your risk appetite in the entire portfolio that you are considering. So in the developed markets case, in the EAFE case, when you dial it up you invest just in developed market equities. In the public markets case you invest just all the public markets. In the total plan you have the entire corpus to invest. So essentially all those additional asset classes have a better Sharpe ratio, according to Rocaton's return assumptions and the BarraOne risk assumptions. So, well, you do the better Sharpe ratio, you have a wider range.

MR. ADLER: The unit return per risk is going to be better. Thanks for the explanation.

MR. DRAYCOTT: Good idea to put him next to me.

So on the last couple of pages, we want to talk a little bit about the mechanics of hedging and some of the considerations that need to be taken into account in kind of constructing or implementing a hedging program. So on I am on 16 and in this slide I want to get one really important thing across. Some of the arguments over hedging we have gone over may seem relatively complex. The mechanics of implementing a program are relatively straightforward. It just consists of -- technique was just rolling FX forward. So if you invest in a foreign currency, you just sell that currency forward. One or three months very liquid FX and the currencies are considered very liquid excess forwards and there too before the contract expires, you settle it. So you either made money or you lost money. Your portfolio has changed in value, so that's kind of where the value is going. And once you unwind that forward, i.e. you settle it, you simultaneously replace it.

So you just always have a one or three-month FX forward in place equal to some fraction of the NAV in that currency that you are attempting to hedge, so that's a very kind of mechanical process. It's something any big bank or broker/dealer does if they have exposures to things other than their own currency.

So and we can -- okay, so assuming that we have the right oversight of the whole program, we shift to an agent NAV of each currency we want to have hedged and the hedge ratio. And by that I mean both where do we want to end up in terms of how much of that currency exposure do we hedge and we probably also think we want to implement it over time. So kind of two aspects of what we are going to call the target hedge ratio. Where ultimately do we want to be and given we don't want to hedge 100 percent tomorrow because it could move, we haven't hedged in forever, so deciding to do it, you know, I think it's like public equity. You want to kind of average in, so you want to kind of move into it over

an extended period of time.

So it's fairly a mechanical process to hedge let's say passively and we will spend a little more time talking about what "passively" means. And we think we could use, you know, the current infrastructure to come up with what the desirable hedge ratios are. Obviously there is discussion, which would absolutely welcoming, Rocaton is going to be involved and we imagine they would have to be. We welcome them. So we need to shift to an agent the amount of the exposure NAVs, so obviously needs to be adjusted based on any time additional monies is invested in a currency or is removed. So we need to put in place a program where we shift the NAV. We ought to make shifting NAVs to an agent every night.

Once the NAVs change by some threshold, you know, the amount of forwards in place will either increase or decrease in line with the exposure. Exposure could change based on, again, us increasing the exposure in that currency or decreasing it or just the market

value of the investment change.

MR. KAZANSKY: In the potential return numbers that you have put throughout this dec, have you factored in the cost already so this is the expectation after we have paid whatever fees we are going to pay to whatever agent is going to do the hedging for us?

MR. DRAYCOTT: Yes.

In the optimization that we set up in the BarraOne platform we factored in, Nick and I got on Bloomberg and looked at what the bid offer was on the FX forwards in each currency. And it's essentially a component of the analysis, but it also included -- let me step back and say one more thing. You already have an agent that executes spot FX transactions on your behalf. So Russell, every time an additional investment is made in Europe, money comes, you know, in dollars. It's exchanged for the euro, the currency in which the investment is being made by Russell. So there is already is an agent. We could look at the contract and decide to use that agent to do the forwards. Sorry, so to answer your

question, yes, we got an estimate from Russell as to what their cost acting on our behalf in this capacity would be and that is also factored in.

That being said, we need to spend more time with Rocaton looking at the bid offers we have assumed. We got on Bloomberg and looked at a couple of different times. We actually now started asking Russell their view as to what the expected bid offers are. This is a side note. Interestingly, like they thought the cost -- big forward in Korean 1 for instance was much, much lower. We never assumed you would hedge Korean 1. Russell actually suggested the bid offer was so low, given the volatility you might want to. So that's another issue we need to discuss. Not ready to make any recommendation on that.

Okay, so fairly mechanical to implement. Important decisions prior to implementation once there is an agreement, if there is, as to what to hedge. Actually hedging is I don't feel that complicated. So, again, the final page is just what are the issues that there

needs to be more consideration given to to come up with a recommendation which of the currencies should be hedged, what's the timing of putting a hedge in place, what is the implication in terms of liquidity. I mentioned if a contract moves against you, you have to find cash to settle it. What's the impact of that liquidity on the fund? I think it's less of a concern if we are talking about public markets. If we want to raise money, just sell some of the things that's being hedged. In the alternative, obviously there is less liquidity in the thing we are hedging, so there is probably very strong argument that there should be different analysis as to whether or not there should be any hedging of private market exposures.

The other thing that would be part of a recommendation we come to you with is the rebalancing range. If we establish some target where do we want to be and at what point in time, how long do we want to take to get there? We probably don't want to change the hedges for small movement in the NAV we

are hedging, so like all the other aspects of rebalancing we probably have to specify the rebalancing range and get your reapproval.

The remaining issues I left in there are should we look at hedging privates, the second-to-last thing, consideration, basket clause utilization. We have talked to OGC. Thankfully come back with the hoped-for conclusion which is that the only utilization of the basket clause that would be consequence, it's just the market value at any point in time of the forward; not the motion,

just the market value. So the bottom line is that a hedging would not use up much of your basket clause capacity.
And then finally the thing I mentioned before, you know, rather than involving BAM in any execution of the hedging, you know, preliminary discussions, two entities that could perform the function that would be pretty straightforward.
And with that, if there are any questions --
MR. ADLER: Any questions? Sorry, I got
0045

a couple.
I just want to be clear to follow up on the point Dave made: When you say executions with an outside manager, you say we currently utilize an outside manager to do not the hedging but the exchange, would the hedging require a different outside manager than the exchange manager and, if so, is that cost built in?
MR. DRAYCOTT: So we don't make a category statement that we should use Russell at this point, but we actually think they are -- our initial conversations, you know, suggest they are absolutely capable of doing this. And we did get an estimate of what they would charge for doing it and that estimate, as I mentioned to Dave, is built in.
MR. ADLER: So we might actually end up doing an RFP or a search and then it could end up being Russell could be a separate manager, and is it potential that you have one manager that does the foreign exchange and a different manager that does the hedging or that wouldn't make sense?
0046

MR. DRAYCOTT: We just think it's an execution of a foreign exchange contract. We -- I am not trying to opine on what the ACCO is going to say, but our -- my personal perspective would be it would make sense to use the same entity. They are widely thought to be very competent. They are one people who do implement passive hedging programs who often use Russell, so we thought they would be a perfectly acceptable choice. We have not had conversations with ACCO. We have with OGC. It turns out the initial review of the contract suggests we could actually just ask them to do this without going through a lengthy procurement process.

MR. ADLER: Second question is regarding private asset classes. So we have a fund coming in front of the board at the next CIM that is a foreign, a private equity fund investing in private markets that gives you an option of dollar denominated or euro denominated and the system's recommendation is to do the dollar denominated. My question is: If we were doing hedging, would it make more

sense to invest in a fund like that in a local-denominated fund rather than the dollar-denominated fund? Because I don't understand -- actually if we do the dollar denominated, then presumably the capital calls come in dollars?

MR. DONE: Yes, they do and the return in dollars.

MR. ADLER: But does the exchanging itself and may the fund itself, I don't know, do hedging? So I am just wondering whether in that sense it makes more sense to let them do it or for us to do it.

MR. DRAYCOTT: So you definitely touched on one of the complexities of hedging private. Some managers have a sleeve, some don't. We haven't done -- again it's a small fraction of the exposure, so this is just my intuition or preliminary thoughts and my colleagues can absolutely chime in: Probably just let the manager do it would be my knee-jerk reaction.

MR. HADDAD: I would concur. And it gets down to the liquidity management so when we settle a hedge, you know, some months we

are going to make money, some months we are going to lose money. On the months we lose money, we have to give them capital. So if BAM, Russell, whatever that entity is doing it, we got to come up with money and that money should be funded in a best practices out of that asset class. And, you know, just to sell private equity, there is a big massive big offer spread and that's something we don't want to be in the business of doing.

MR. ADLER: And the thing with cash flows in private equity, they are lumpy. You are both giving it up and getting it back in big lumps and they are not predictable.

MR. DRAYCOTT: And it changes quarterly.

MR. HADDAD: So we would rather leave

that to the managers if they offer.

MR. DRAYCOTT: The caveat there, though, I think this is relatively important: So private real estate is becoming increasingly defensive, right, in terms of the new investments that they are recommending and they are starting to -- they are increasing -- their suggestion is to increase the investment

in private real estate funds that invest in debt secured by real estate. I think when we get to analyzing whether it makes sense to hedge privates, I would think that the one thing -- backing way, way up, John, where there is an absolute consensus among -- I believe the consensus among foreign investors is one should hedge foreign currency fixed income.

MR. ADLER: Right. Why take currency risk on that foreign investment?

MR. DRAYCOTT: If you remember, one of the reasons that got us looking at this was Joe Alejandro raising his hand at a CIM and saying what about a sterling. He was specifically referring to a sterling-denominated private real estate investment that we were asking the trustees to consider and said what about hedging the FX risk. And to some extent, that's one of the things that got us started on this whole exercise and we agree with him, actually. That is something we probably should -- well, we haven't privatized hedging privates because

it's such a small percentage of the portfolio. But if we -- when we get to looking at it, that will be top of the list of things that I think would make sense. If the manager isn't doing it, we should.

MR. ADLER: But it's interesting because you talk about EAFE equities, do you guys off the top of your head, you may not, know how much foreign denominated -- and it's all developed, we don't have emerging market debt, but how much foreign-denominated public fixed income do we have?

MR. DRAYCOTT: Zero. Sorry, your question was public markets?

MR. ADLER: Public fixed income foreign non-dollar denominated.

MR. DRAYCOTT: Very close to zero.

MR. ADLER: That's not true.

MR. HADDAD: There is a tiny bit in the TIPS.
MR. ADLER: You are saying we don't have any what we used to call core plus 5?
MR. FULVIO: There might be some modest non-U.S. exposure in the OFI program, but it's

small.
MR. NANKOF: There is what I think might be I think very, very -- in fact, in U.S. fixed income index there is a lot of non-U.S. issuers that issue in dollars though, so you might see issuers.
MR. ADLER: But we are not buying any sovereign debts?
MR. HADDAD: We are not buying any of that stuff.
MR. NANKOF: But there might be non-U.S. issuers.
MR. DRAYCOTT: John, on page 3 it's actually 3 basis points.
MR. ADLER: 3 basis points, wow.
MR. HADDAD: And that's UK TIPS.
MR. ADLER: Oh, I see. It's all in dollars, I got it. All right.
MR. HADDAD: So I thought it was UK TIPS.
MR. DRAYCOTT: We actually used to have some more.
MR. RADEV: I believe a reference was made to there are a lot of non-U.S. issuers

issuing in U.S. dollars, but I think these assets are considered basket assets.
MR. DRAYCOTT: So we sold them.
MR. ADLER: The global fixed income.
MR. RADEV: Well, they are.
MR. ADLER: Oh, it's part of the 10 percent international.
MR. DRAYCOTT: They are counted against the basket.
MR. RADEV: If they are not U.S. equity if -- no matter. If they are issued in dollars, they are non-U.S.
MR. ADLER: I got it.
MR. DRAYCOTT: When we were looking at the basket clause and assumption of it and doing the net calculation more carefully, you suggest the managers sell the dollar denominated.
MR. ADLER: I am surprised private real estate does not, but okay.

MR. DRAYCOTT: It's going to ramp up. Their target is 15 percent.
MR. HADDAD: In debt, but not necessarily nontarget.

0053

MR. DONE: They are 15 percent target so I don't think the recommendation is a meaningful ramp-up, but they will be looking at a private debt opportunity foreign denominated.
MR. DRAYCOTT: Again, I wasn't suggesting we do something about that right away. But if we are going to look at privates, that's where we would look first.
MR. DONE: Agreed.
MR. ADLER: Okay. Other questions or comments for Miles or BAM on the currency?
MR. DRAYCOTT: So I think what's next is we come back to you in conjunction with Rocaton, continue looking at this with Rocaton and come back with more fulsome and specific recommendation. That's the plan.
MS. VICKERS: So do we have consensus that BAM should take a deeper dive into this topic with Rocaton?
MR. KAZANSKY: Absolutely.
MR. ADLER: Sure.
And do you have a sense of time, I know I asked this in the summer, ever like when you

0054

think you might come back with such a fulsome recommendation? That's one of Miles' favorite words.
MS. VICKERS: Not at the September CIM, but perhaps the October/November.
MR. HADDAD: We have to coordinate with each consultant and get to the same place, but I think you could tell from this that we have an opinion.
MR. NANKOF: And coordinating with multiple consultants.
MR. ADLER: That's BAM's whole job.
MR. DRAYCOTT: I have monopolized the conversation, if you guys --
MR. NANKOF: No, I think you did a fine job. If we had any thoughts, certainly we could jump in and discuss with you. It's thoughtful, we have some clients we are doing some hedging so it's certainly more popular if you go back ten-plus years ago to do hedging, but it's not -- it's not without merit to consider it. So -- and you have looked at it

comprehensively in the right way, the way we want to which is -- and you have not --

importantly even though historically there is a return benefit to hedging, that's not part of the justification for hedging. As we understand the arguments have been made, the position you are taking which is it's risk reduction and redeploying risk, which we would support as well as the approach. So we are happy to work with you to bring this forward in the next couple of months.

MR. DRAYCOTT: You are looking quizzical.

MR. BROWN: Let me bring it down a notch to my level. I mean, you sound like -- I mean, at the beginning I thought you weren't trying to sell anything. But I realize that hey -- and you are doing this across all five systems, I imagine?

MR. DRAYCOTT: The five systems, yes.

MR. BROWN: So let's bring it down a notch and say I have been travelling to Europe for the last ten years, to England where they have the pound sterling, Europe. And every year sometimes the euro is high, sometimes the dollar is low, sometimes the other way around.

And what happens if I plan to continue going to Europe for the next ten year, twenty-year period, so some summers are great for me, some summers are not so great for me and they kind of equal out. But there is this travel company that says hey, you can pay a fee upfront to protect the value of your dollar when the time -- you have to pay more in pound sterling.

So convince me, Miles, that I should pay this travel company a fee to just protect my dollar value when over the last ten years it's been up and down and up and down and up and down and just seems to equal out with value to dollar and value of the fund in simple terms.

MR. DRAYCOTT: But that's interesting. There is a couple of different things I think are embedded in your question or could be thought about in answering your question.

And one of them is I am moving slightly away from your analogy to pay essentially an option fee to some travel agent, but should a long-term investor like you, like this system, consider hedging. So -- well, do we believe

the currency is mean inverting or not? I personally don't think every currency should be mean inverted. That's an argument for hedging.
But the other thing is, are we really a long-term investor? And what I mean by that, obviously we have money which is going to be invested for a long period of time before we need to sell assets in order to pay beneficiaries, but -- we often term ourselves as being a long-term investor, but we definitely care about short-term investment returns. So we are kind of like a deer. We kind of have two obsessions; we care about long-term return, but we also care about short-term returns. We talk about if we -- if we don't do well, it receives press. If we don't do well, it's seen as negative even if there is a twenty-year horizon.
MR. BROWN: You are saying it would be bad press?
MR. DRAYCOTT: Well, I am not just saying it's press. You are making an assumption about the volatility of the asset.

I mean, there is short-term volatility that we do seem to care about. I'm sorry, saying it gets into the press makes that seem like a pejorative. It's not just optics. We do care about.
MR. BROWN: Why now? Because of the Brexit vote or why now?
MR. DRAYCOTT: Sorry?
MR. BROWN: Why at this time are we considering?
MR. DRAYCOTT: So there -- I think there are a lot of academic arguments that we reviewed that suggest broadly hedging makes sense. The another thing I would offer is a number of systems have hedged, have started to implement a hedging program, and regretted it and pulled a plug at exactly the worst time. And CalPERS is an example.
MR. BROWN: CalSTRS?
MR. DRAYCOTT: CalPERS.
MR. BROWN: What about CalSTRS?
MR. DRAYCOTT: I am not aware where they stand on this. CalPERS put something in place, it went against them, they had losses

and had to settle the hedges. The size of the payment they had to make to settle was large enough that they looked at the whole thing again and pulled the plug at exactly the wrong time. And now they are looking at putting an FX hedging program in placing again.

So the thing that I would suggest is if you should decide to do this, implement it over a fairly extended period of time. I personally would be -- because you are right, I am kind of selling something. I would be horrified if BAM in conjunction with the consultants convinced you to do something and then we piled into it next week and the FX rate moved against us dramatically and we had huge, you know, costs to settle the hedges. So I think it should be -- in answer to your why now question, I don't think it should be now. I think it should be over the next three to five years.

MR. BROWN: But ultimately your goal is to have 100 percent of the 19?

MR. DRAYCOTT: Even that is an assumption that we want to make sure we are on

the same page as Rocaton.

MR. BROWN: You said the term several times "FX forward" and I didn't understand that.

MR. DRAYCOTT: But, sorry, let me go back to an important thing you raised in your last remark "100 percent." A very interesting thing about the analysis -- I'm sorry, I am not going at the highest level.

MR. BROWN: That's good.

MR. DRAYCOTT: An interesting observation is that you get more than half of the benefit from hedging only half of the exposure. It's not a linear relationship so if the determination was to do 50 percent to get started, you know, I personally think that would be fine and particularly enamored if that was the conclusion because you are getting more than 50 percent of the benefit by hedging 50 percent of the exposure.

MR. BROWN: Did I hear you say you would have to sell assets in order to hedge?

MR. DRAYCOTT: No. What the remark I was making going back, so let's start with FX

forward. If we buy a hundred euro of some -- of Daimler say, what would the hedge be? We would sell a hundred euro forward for dollars. So your system makes the investment, buys a Mercedes stock and pays, so now it has an asset which is denominated in euro. So --

MR. BROWN: As opposed to what we have now which is in dollars?

MR. DRAYCOTT: Let's say this is the first nondollar investment you made and in Daimler and was a hundred dollars or a hundred euro, so you would now have an asset that's worth a hundred euro. How would we hedge that? We would sell a hundred euro forward. And then that's a good hedge until the contract matures and the instant that we settle the contract.

So let's say it's a three-month forward and three months' time that forward -- sorry, when you sell a currency forward, you sell it at the forward, it has on day 1 no value. You agree with the bank what the forward FX rate is and you sell the currency forward at that rate. And so tomorrow assuming the FX rate

doesn't change, that contract has no value. But over three months it's either going to have a value, negative value, or positive value and the bank that you transact with is going to ask you to settle up, give us the money, or they are going to give you the money whichever way it goes.

MR. HADDAD: FX forward is just the vocabulary in the FX market for doing a trade of a particular hedge. I hate to say it, it's a dirty word. It's a derivative.

MR. NANKOF: Maybe better more it's a contract. It's a -- and the contract just says if the euro depreciates in value versus the dollar, you get paid that difference in value for owning that contract because the stock you own is less valuable in dollars. You get made whole by the bank.

MR. BROWN: Because we have it in euros?

MR. NANKOF: Because you have the forward contract which trades dollars in euros.

I was going to come back to your construct earlier, Tom, which I am not sure we

completely got to which is: If you were travelling in Europe every year and the risk of the euro/dollar exchange rate is significant enough for you as a consumer where it's a concern where you have to budget more dollars to go travel and that is onerous, you know, it's a burden on you, if the cost of the insurance that this travel insurance company is offering is cheap enough -- you know, that's the nature of insurance. That's all this is if it's cheap enough, if it's pennies on the dollar or less than pennies on the dollar, you might say sure I am willing to do it because this burden of the exchange rate is something that really bothers me. So as you lower the price -- and in the case of BAM actually already evaluated it and we completely agree with. The cost of insurance, the cost of these contracts we are talking about is very, very low, very, very, very low relative to the dollars we are talking about that you are investing in non-U.S. markets. It's sufficiently low where the risk reduction you get is potentially more beneficial than

the cost you are paying. We are talking about less than pennies on the dollar.

MR. BROWN: Where did I hear that you lower the risk, it's spread out to some other place?

MR. NANKOF: So if again come back to your example of your travel, you might say what I have to budget in my travel budget because I don't know whether the euro is going to be a $1.60 or a $1.20, I have to put more money aside. So if I buy the insurance, I could go buy more coffee or I could buy a bottle of wine or whatever it is you want to buy --

MR. ADLER: -- to maximize your reward for the risk you are taking. That's a really good analogy.

MR. NANKOF: Or you could buy clothes. So in this case we are talking about as an investor, we are not spending money on clothes, wine, coffee. We are spending money on extra risk to try to get better returns. It's actually exactly the same equation, so it's a wonderful example you brought up. And

it's a question of whether insurance buys you enough risk reduction. If you are a homeowner, you insure yourself against going to the hospital or medical bills, all these insurance examples are just -- it's a risk/reward equation that we are all playing out in our heads every day; do we want to buy the insurance. And this is now for an constitutional investor the same kind of analysis that we are doing. And the cost of insurance in this case is very, very cheap so it might be worthwhile buying. Is that helpful?

MR. BROWN: Yes, really helpful.

MR. DRAYCOTT: Much better response than mine.

MR. ADLER: Let me just raise one more point, which I think you guys have raised with me privately, which is that: If we do move forward with the FX currency hedging program it will likely change the capital markets expectations and the correlations between our international portfolio and the rest of our portfolio, which may lead to a need to revisit

our asset allocation because the expectations and assumption that we used to do our asset allocation two years ago may now not be -- may not -- may not be reflected in the new strategy. In other words, we may actually want to do that in conjunction as we are examining whether to do the currency hedging and how to do it that that might lead to a desire to revisit the asset allocation.

MR. NANKOF: In fact, we have discussed with BAM this exact idea and it's a terrific point. We in those discussions where we came to was if we could make -- get to a place where we agree on what the hedging strategy is with non-U.S. equity or non-U.S. investments in the portfolio, then that is what gets fed into an updated asset allocation strategy and that feeds into the overall strategy of the fund. So it's a -- it does go hand in hand with those assumptions and those decisions, so it's something -- what we are less excited about would be to let the model just drive the decision, you know, put into the model non-U.S hedge, non-U.S. unhedged and let it -- we

would rather just prefer to just make a decision on the hedging strategy and then have that be the input into the asset allocation update that we do, whether it's 2019 or sometime around that.

MR. BROWN: So going forward, Miles, you are going to get in touch with Rocaton and you will come up with a recommendation to us?

MR. DRAYCOTT: Oh, absolutely. We already started discussing with them.

MR. BROWN: What time frame, in a month or two?

MS. VICKERS: This fall. And I think the idea that we have been talking about is once that recommendation is sort of digested and acted upon by the various systems, then sort of that decision might flow into -- naturally flow into doing an updated asset allocation. And the timing of that in early '19 would probably make sense from a BAM perspective. Assuming that a new CIO might start around then, that person would want to be part of this process.

MR. BROWN: This is all or none;

individual systems choose this or it has to be across the board?

MR. DRAYCOTT: Each system has to.

MR. NANKOF: I think any -- you know your system, of course, but we would think given -- any one of the systems individually is large enough to do this on their own. That's our sense, but --

MR. DRAYCOTT: We would hope that all --

MR. BROWN: I guess the fees would be that much less.

MR. NANKOF: They are so low to begin with.

MR. BROWN: Okay, get back to us.

MS. VICKERS: This conversation is obviously for the QPP, but I am sure that -- I don't know if the TDA portion would have a similar process.

MR. FULVIO: Yes. There is certainly other considerations there, the assets being participant assets and talk about that.

MR. DRAYCOTT: Just as Rocaton mentioned: The upshot of this if we are going to do another asset allocation, their

projections as to volatility and return are going to be part of it and we are going to really understand what they think of the whole strategy when we ask them for, you know, different vol assumptions for EAFE equity.

MR. BROWN: Go for it.

MR. NANKOF: We have assumptions already for U.S. non-hedged as well as U.S. hedged, which means the beautiful thing about that you could come up with any percentage hedge you want because you just mention the two and any proportions you like. So we stand ready to jump in on the asset allocation and also work our way through it.

MR. HADDAD: The elegance of combining it with strategic allocation is to redeploy the risk, go through all those different analyses, and redeploy the risk where the best risk/reward is according to the capital market assumptions.

MR. BROWN: Good.

MR. ADLER: Everybody good?

Great, thanks very much for the very thoughtful and thought provoking.

Okay, are we ready to continue? So the next item on the agenda is emerging markets country screens and guideline update. So, Mike, if you want to take us.

MR. FULVIO: As a reminder, this is a project we have been working with the staff on for about eight or nine months. This impacts both the Pension and the Passport Funds. So think of it more holistically and what we have talked about is developing a review not only of the current process, but developing a process of how the board approaches investing in emerging markets looking forward.

So in all these conversations you might recall, particularly at the last meeting in June, the board asked Rocaton and staff to go back and develop an implementation plan; what would be necessary to move forward with changing the process so that TRS no longer excludes Russia, China, and Pakistan but rather allows managers to make the investment decisions there, but in doing so takes into consideration the beliefs of the board and the priorities of the board for making those

decisions so as to avoid any conflicts on those points. And those points are all something that we will talk a little bit about when we review the draft statement of investment beliefs as the next agenda item, but I will start by noting that was -- in our minds, the number one step in moving forward here was creating such a statement where the board outlines those views, those priorities, discusses not only the board's investment approach but also looking at various risks, some that may go beyond investment risks but certainly could impact investment risks. And so that's a very nebulous way of saying you need -- that the board, you need to come up with a concise statement that in some way guides managers to making investment decisions that, as a board, you are comfortable with.

MS. VICKERS: Can I interrupt for a second? Because I want to put it sort of where we are. We are talking just about public market equities and the prohibition right now is Russia, China, Pakistan. I don't recall how we decided just to sort of look at

that side of things and not also the private side, which has a different set of rules which I believe still is governed by the World Bank list of investable countries.

MR. ADLER: World Bank or OCD?

MS. BUDZIK: It's the World Bank.

MS. VICKERS: So just before we move on, could, you know, this discussion be taken too as a consideration perhaps for private markets as well or is there some reason that this would just work in the public markets?

MR. FULVIO: So I think it could. Particularly to the extent which we look at the statement of investment beliefs, so that was developed while taking into account how the board's priorities would get communicated across both public and private. To the extent there are changes to how you implement the process on the private side, we would look to BAM to help guide that and potentially the other consultants.

MS. VICKERS: So this is designed for public, but it may be workable after some further consultation with private?

MR. FULVIO: Yes.

MR. KAZANSKY: If my memory is working today I believe we had that conversation earlier, but we would basically build it out for the public markets first and then see how we could adapt it for private.

MS. VICKERS: Right, I just want to kind of re --

MR. FULVIO: So today the discussion is around this implementation plan that we have outlined. And this on the slide does not include every detail, but we think these are the high-level objectives that we feel are important to implement the process we have been talking about over the last several months. I mentioned the development of the statement of investment beliefs. The second point on this page states "Communicate with all Passport and Pension Fund managers the statement of beliefs and revising guidelines where appropriate or where necessary." And I think what's here on the page doesn't do justice to particularly how much work that maybe has embedded within it, so I wanted to

speak to that.

And it says to communicate with managers. I view that more of a collaborative process that probably needs to be addressed and so there is different ways I think we will go about that. But in doing so with the public market managers, it's not just sending them a statement of investment beliefs in the e-mail and say hey, we want you to think about this when you are picking stocks. Because we are coming from a place where there are countries excluded in the current portfolio and there were reasons for that in the onset of this back in 2010, we want to make sure that it's very clear what the board's beliefs are to the managers and how the manager would consider incorporating those beliefs into the process, how they are constructing the portfolio for Teachers.

So when I talk about or note on this page "revising guidelines," it's not just removing the prohibition to Russia, China, and Pakistan; it's making reference to the statement and I think having a conversation

with the managers. The managers manage broader portfolios for their other clients so they know what stocks they are looking at for their portfolios. We want to have a conversation with them about where the pinpoints might be, what about these beliefs may -- in some way might conflict with the names they might consider adding or consider adding to their portfolio. I think that's a consideration.

So that's a process that will take some time. And I think the reason why we want to be thoughtful about how quickly we do that and when we do that is because, as you are aware, there is an outstanding search for equity, non-U.S. equity market managers with emerging markets today in the pension. We are going to talk more broadly about other considerations for the Passport Funds there. And so we think that the rollout of this and the guide changes should perhaps be in coordination with BAM for searches that are going on. We wouldn't today suggest that you remove the restrictions, for example, and then make changes to the

portfolio. In fact, you know, there is recommendations to change the managers in a few months. So that's something we want to be coordinated on and we want too as part of the search process in thinking about what the portfolios might look like, again as I said before talking to the managers about what the portfolios would look like, and understand how this belief statement is going to be reflected in their process.

So I will pause there and see if there is any questions.

MR. ADLER: Questions for Mike?

Let me just say yes, I am comfortable with what you just said. I was uncomfortable with this notion of sort of doing all this stuff at once in an -- you know, adopting investment beliefs, revising guidelines, hiring new managers, changing the composition of the international portfolio in terms of, you know, index versus active, and division between emerging and developed markets. And all this, it just seemed like what we are moving at break-neck speed here and I was not

ready to do that. So I think taking a more measured deliberative approach makes a lot of sense.

MR. FULVIO: I think if we look at this, the next part of the process talks about how we create an evaluation, periodic evaluation process of the holdings. I think if we implemented this and in twelve months went through a process to review the portfolio and found there were a lot of red flags and things that the board wanted to engage and talk with the managers of the portfolio companies on, I don't think that would necessarily be productive. We want to make sure there is no surprises twelve months from now when we do a review. We want the managers to understand where the board is coming from and make sure that they are managing the portfolios in that manner from day 1.

MS. VICKERS: And the one thing that -- I don't know if this is going to make things easier or more difficult -- I just thought of is the BAM compliance monitoring system, you know, has certain tags. We currently have

Russia, China, Pakistan tagged and at the next CIM for the first time, the clients unit as promised is coming back with examples of any breaches that occurred in the preceding period. So I don't know how our compliance unit is going to be able to monitor compliance with a statement of beliefs.

MR. FULVIO: It becomes a more subjective process and I think that's the important component of, I will call it, the annual review. We haven't found out specifically if it's an annual review or biannual review or more frequently, but there is -- not only is it hard to monitor in terms of what I specifically have here, but I think what you would find as well is that the scoring you get for these companies on different call it ESG-related factors, even that itself could be somewhat subjective. So this does create the need for more conversations with managers, help us understand, you know, why these companies are showing up as having additional risk from a governance standpoint, help us understand if

you are cognizant of those risks, why you feel still feel there is an investment case, and that you are comfortable taking that additional risk. So I think there is a lot that goes on there. It's not just a review, but it's a review of figuring out how to prioritize those conversations with managers and then, if necessary, even portfolio companies.

MS. VICKERS: I wonder if there are any objective criteria that could be baked into this subjective process at all. Just note or if we say, -- you know, we have a different conversation with the role of the monitoring that BAM does, because there could be instances where there is a significant breach or a misunderstanding of the subjective ideas that sits around for a year. Until we do an annual review, if we don't have -- I don't know how the system totally is designed, but I know there are tags that are put in.

MR. FULVIO: I think it's something we need to look a little bit more closely at and figure out in some ongoing way how much of the

onus is put on the process where there is an active review and how much of the onus is put on a manager to say hey, I am considering investing with this company. If it might flag, we should have a conversation about it and figure out what's the process for sort of elevating those conversations.

MS. VICKERS: I wonder if, and I don't know if -- this just popped into my head: If instead of a periodic review, if there are vendors out there and we have spoken to some of them that already have a process for scoring and reviewing let's say companies, whether that would be an extra layer of monitoring that we want to employ on a regular basis and they would be flagged. I don't know if that could work. They could be flagging companies that don't reach a certain score, for example.

MR. KAZANSKY: So if I understand what you are trying to say is that part of the responsibility would be on the managers to have their own internal processes to know ahead of time this might be a problem, that

might be a problem for Teachers or are you talking about --

MS. VICKERS: No, I think I am talking about something else.

What I was trying to say is that BAM has spent a lot of time designing systems to monitor compliance with the current restrictions and the current guidelines that are in place, especially for public markets. And that system I believe, and I don't know if Miles knows more, sort of has certain tags. Russia may be one of them. If a manager by mistake or just unwittingly bought assets or bought a company or made an investment in Russia, a few weeks later some kind of lag we would know about it, it would raise a red flag such that you would report it to Miles or Alex or whoever and we would deal with it. In this scenario we are not giving managers specific objective points that they can or cannot invest in. We are giving -- we are having more of a subjective general conversation.

And I would think that compliance at BAM would ask how can we monitor compliance with that,

0082

Proceedings

what's the data point? And I remember some of the vendors that we have spoken about or spoken to score individual companies. And that's a proprietary kind of database or function that they have. It's not something that BAM does currently, or maybe we do.

MR. DRAYCOTT: We do.

MR. KAZANSKY: Does NYCERS do this already to some degree?

MR. ADLER: That's vendor, not the companies. They do the countries, but you got the EG ratings from MSCI.

MR. DRAYCOTT: When we got approval from the trustees to acquire MSCI analytics system we actually came back and said a module you want to buy, is all this ESG rating data? And so to your point, there are certain practices like child labor where they do give the scores and they do come up with a total score. And we would absolutely share that with Rocaton to see if any of this is a value.

MS. VICKERS: So could that perhaps be something that we bake into this, say you have to have MSCI ESG score of 10 or above to the

0083

Proceedings

managers and that then we could monitor if somebody buys or an 8 or 9?

MR. ADLER: So we actually had a whole discussion about this last time. I actually know this because I asked for the minutes for the meeting coming into this meeting, and we had a whole discussion about this very topic.

MS. VICKERS: I raised the exact same point.

MR. KAZANSKY: You haven't wavered.

MR. ADLER: I mean, what's tricky about it, I think, is to say to a manager okay, we don't have this -- like right now it's very simple. We say to the manager don't buy companies that are in Russia, China, or Pakistan. If you say to a manager don't buy a company that MSCI or Sustainalytics rates below X, first of all, the company ratings change. Not even just annually, sometimes more than annually.

Secondly, okay, so they take a big position in Company Z that has a rating above X and then six months later their rating changes to below X and then, oops, you guys

0084

are now out of compliance, but you were in compliance when you bought it and we have to sell it. It's tricky.

MR. FULVIO: I don't think we want to go down that path because I think the intent is to let managers make the decision. Let managers make the decision as to what the risks are, what the return potential might be for a specific investment opportunity. Let them make decisions based on that and let's go through a process to monitor what the exposures are, what those scores might be. Whether or not that happens in an active way where we are filtering in realtime MSCI scores, for example, or Sustainalytics scores, if we are doing a periodic review to see where the hot buttons are and then engaging with the managers to understand what their mindset is, why are they doing this, making them aware what we are seeing rather than try to dictate the portfolio characteristics and the scores as part of this. We are not go -- the intent is not to say you need to have ESG score of X or Y.

0085

MR. KAZANSKY: But wouldn't -- I mean, in my mind in the scenario that John just brought up where we have a company that's at one level and then drops to another, it wouldn't be that we necessarily are out of compliance. But it certainly warrants why did this happen, is this something that we need to be concerned about and have the discussion about whether or not we believe that this particular company can repair that situation and return to our good graces or whether this is something that is so detrimental to how the company is going to move forward that we do need to take some sort of action.

MR. FULVIO: I think that's the right approach based on how we think about it, based on how we outlined the process.

MS. VICKERS: But there has to be a trigger. My only concern is if we didn't have an MSCI score or something to trigger our investigation as to why that company's status changed and all of a sudden they are employing child labor as part of a business plan, whatever it is, if we don't have that

0086

objective red flag so do we even know these are going to be seen and discussed and brought to our attention? So that's the purpose of our monitoring program is when things change, we want to know about it.

MR. ADLER: But it sounds like what you are describing -- again, we had this discussion last month about the challenges of BAM or an internal monitoring program as opposed to hiring a third-party to do the monitoring. And then, in other words, that might be the role that Sustainalytics or MSCI could play. And then also what steps does it take and I think what we had talked about is starting with the engagement process, but then who does that engagement; does our Office of Responsible Investment, Corporate Governance do it?

MS. VICKERS: Engagement with the company?

MR. ADLER: Yes.

In other words, let's just say in the scenario we have talked about the Company X goes above and then goes below because they

are using child labor or slave labor or something like that. And so we say to them hey, you are using child labor, what's the deal here; that's actually shorthand we sic Mike Garland on them. And they say oh, our mistake, we are getting rid of that contract because they are using child labor, blah, blah, blah, it won't happen wherever, I don't know. But I think that the execution of this is tricky and, again, it's like we are really I think moving from a fairly -- or we are proposing to move from a fairly simple on/off switch by country to a much more nuanced approach that may not lend itself to the same compliance on/off. You are either in compliance or you are out that we currently utilize. And I think that part of what we need to do here is figure out what would that monitoring system be, who would be responsible for it, how would they engage with the board and so on.

And, you know, like just for example on proxy voting, we don't -- at BAM we don't delegate proxy voting to the managers; we do

it ourselves. And so do we then -- I think we have to make a decision, do we delegate monitoring over this, particularly in emerging markets countries, over the company behavior on issues that are important to us? Do we delegate that to the managers or do we undertake it ourselves and then inform the managers oh, we noticed that in your portfolio you have Company X and Company X comes up as below our threshold on our scoring system whatever, MSCI, whatever we use, can you talk to us about that? And, you know, so I -- again, and I think we have to map it all out so that we are not springing this on managers. I think we have to map it out and document the mapping out, not just call the managers in for a chat or just have a talk with them when we are doing the manager selection process.

MS. VICKERS: We have to map out how trustees can be comfortable with that the investment beliefs are really being followed.

MR. ADLER: Right. But I also believe this goes beyond investment beliefs, at least beyond the beliefs as drafted that we are

going to look at in a little while because those are very, very high level. They don't talk about slave labor, they don't talk about child labor, they don't talk about, you know, emissions or whatever other issues that we think are really like unacceptable. You know, they don't talk about governance control which is a big issue in Russia and China that we have seen a bunch of companies that make up a very large portion of the indexes in those companies, so that how do we feel about investing in a -- I already said this last time in e-mails, in a Gazprom that is the largest company in the Russia index that is controlled by the Russian government? That's explicit, it's only about I think less than 50 percent of the shares are publicly traded. So do we want our managers investing in a company that is controlled by the Russian government or by the Chinese government or what have you? Now I somewhere got multiple folks looking at my e-mail.

MS. VICKERS: Or the American government.

MR. ADLER: Well, if there is a U.S. government company that controlled, we probably don't invest in it anyway. AIG we will talk about AIG, GM in the past. Fannie and Freddie, there we go. I think there is some complexity here by moving away from the country screening that we really have to examine. And maybe that's what I mean on the slide, "revising guidelines" for emerging market managers because those guidelines -- in absence having country screens, I think those guidelines are a much more important document. And I think this statement, which is high level, gets us to the place where we need to be.

MR. NANKOF: The guidelines -- because the guidelines do talk about monitoring and what you do monitor, it could speak to the aggregate characteristic of the portfolio. So if we wanted an average score across your companies that you own, that is better than the index, John.

MR. ADLER: I don't know that that does it because the index has no value attached to

it at all. It has no investment beliefs attached to it at all.

MR. NANKOF: There could be aggregate. Maybe the average scoring being higher than the index alone, maybe it needs to be higher than some measure. But it might be a move away from the individual screening and towards just generally speaking if you read the beliefs here we favor, so "We Favor" says "We generally want companies that are better on the scoring than the scoring on the overall market."

MR. ADLER: It does say "we favor" and what we might want to include, but I am not sure if it goes into the beliefs or guidelines we will not invest in companies that employ child labor or slave labor.

MS. VICKERS: So maybe we should look at the guidelines. I think some of these questions can't be answered until we know what the investment beliefs say.

MR. ADLER: Yes, I think we should just finish this item and then get to the investment beliefs, because I don't think the

investment beliefs is only about the emerging markets.

MS. VICKERS: No, it's not, but I don't know -- whatever.

MR. FULVIO: What I am hearing though is that we need to -- the board is comfortable with the process as it's outlined, but we need to further develop the portion of the process that looks at how we monitor, specifically how these managers are acting within the priorities of the board is that -- we need to focus on number 4.

MR. ADLER: I feel the guideline revision is also very important. I am not familiar -- I assume it's in our IPS -- what our guidelines for emerging markets managers are today. Like are there guidelines? There must be something.

MS. VICKERS: I would sort of say that "to be" should just become a "to." I would be more comfortable if we are working on developing beliefs and the revision of the guidelines before we communicate with managers.

MR. FULVIO: We can't communicate with managers until the beliefs statement is finalized.

MS. VICKERS: And the guideline.

MR. FULVIO: Yes.

MS. VICKERS: So I think the sort of next steps is just guidelines and the investment beliefs.

MR. ADLER: I think that Mike is also saying that the notion of how we do the monitoring is something that also comes as part of that. This is a whole package; beliefs, guidelines, monitoring, communication. It's all one holistic process that we are all comfortable with as if we are going to move away from the screening, right; does that accurately capture?

MR. KAZANSKY: Absolutely. Yes, sir.

MR. ADLER: Okay. And I would say that just on number 5 it's not just opportunities for engagement, but the engagement process as well, how we think that would work because I don't think -- I don't believe and I don't know if anybody here knows that we have done a

whole lot of engagement of our corporate governance office with emerging markets companies.

MS. VICKERS: And, you know, there is a lot of capacity issues and planning issues that would have to go into that.

MR. ADLER: But conceivably some of the active managers in emerging managers might have that capacity pull.

MR. FULVIO: And we also talked about working with third-parties to assist with that, actually such as those you met with in the first part of this year.

MR. ADLER: You mean before the summer? Do they do engagement too or --

MR. FULVIO: No. Their biggest focus is actually working directly with companies to examine supply chains, to work on human trafficking, and other issues.

MR. ADLER: Yes, there is another one. A lot of bad stuff in the world, seriously. Okay. All right, so does that clarify where we are moving on emerging markets?

MR. KAZANSKY: Yes.

MR. FULVIO: So the belief statement which we have already spoken about, this was circulated earlier this summer. And the version that you have in front of you -- I apologize the formatting is making it difficult to read, but includes feedback you received over the last couple of weeks which has been incorporated to this. Is there any further feedback that any of the board members would like to deliberate? Maybe what I should say too is: Since this was last circulated, the things that are highlighted in blue and yellow is what was added. So there was an electronic copy that did not have what's shown in the blue and yellow.

MR. ADLER: So let me just say that, you know, when I saw this in the context of the emerging markets implementation plan, it concerned me because I did not think that there was enough meat on these bones to say to give to managers in emerging markets.

MR. FULVIO: I would say too -- I know the last conversation was more specific to emerging markets, but this is something that,

you know, we want to be cognizant that all managers are abiding by.

MR. ADLER: Understood, but abiding by -- what I believe this will be is a statement of what the board believes. It's not -- I don't think there is enough there to communicate to managers this is what you should be doing and this is what you should not be doing.

MR. DONE: Objective metrics.

MR. ADLER: Yes. In other words, they are going to get this and understand which companies to buy or not buy. Like that didn't cut it for me now. Now that we are adding in the thing about guidelines with more specificity and a monitoring program of all that, that makes me more comfortable.

MR. FULVIO: This is not meant to accomplish the specificity you described.

MR. ADLER: So let me just say it's a process. The funds that I am familiar with that have developed investment beliefs have carried out a much more extensive process than, you know, a draft being circulated and

then remarked upon. So CalSTRS, for example, went through a very, very long facilitative process, CALpers did that. At NYCERS where we developed adopted beliefs in June, we started the process I think last fall with a subcommittee that examined investment belief statements of about, I don't know, fifteen or twenty pension funds around the country and in fact around the world. So, I mean, I think this is a good statement. I am not sure it captures everything that should be in it and I am also -- I also think there are some things in it that aren't necessarily investment beliefs.

So, for example, just as an example the second bullet under -- so under the third "We believe" which is about expenses and fees it says -- the second bullet, it's the one without any highlights says "Active management fees will be structured to take advantage of the system's scale and to align interests between the system and the manager." That's a practice; that's not a belief. That's not like "We believe." It's like okay, this is

the way we are going to operate.

I think the investment beliefs should be things that we believe and not constitute either an investment policy statement or investment guidelines or anything like that. It should be a restatement of beliefs, in my opinion. So I think there are some things in here that I don't think necessarily belong in beliefs and that there is some things that may not be in here that probably do. That's my belief. So I would like to see us engage in a little bit more iterative process before we get to a final product.

MR. FULVIO: I should just add too, I think the intent of circulating this early this summer was to start that process. So that's good feedback and I want to remind the board that we hope that that transpires.

MR. ADLER: So in terms of moving forward, I think what we might want to do but we don't have to is have a little committee, subcommittee work with Rocaton to, you know, further it and maybe it ends up right where it is now or maybe we suggest some changes. Does

0099

Proceedings

that make sense?

MR. KAZANSKY: So I don't necessarily have a problem with that, but I want to make sure that we don't get sucked down a rabbit hole where ten months from now we are fighting over a word "the" or "a" in the belief statement. I want it to be something that we are proud to put out there and that we are comfortable with, but we are all very thorough folks and sometimes that works to our advantage and sometimes, you know, many years later we are still looking over the same document trying to figure out where stuff should go.

So if we are going to do something where we kind of poke at this and prod at this I would rather it be something that we put together quickly, that we have to abide by such and such a date where we are at least going to have -- we are going to have a version that we are comfortable putting out now that -- and we can refer and revise later on if we need to. Because just as we talked about with the emerging markets screens that

0100

Proceedings

we are looking to put into place, those kind of hinge on this document being done. So every delay with this is going to delay movement with that. And, if anything, we have communicated to everybody here that, you know, we want to start putting those screens into effect as soon as possible because our current Russia, China, Pakistan isn't cutting it and is leaving us out of a lot of opportunities for investment where we can bring returns in for the fund.

MS. PENNY: I think to Mike's point, he did put this out, we had some input so we were fine with it and you had some input as well.

Is there anyone else who just wants to put it out for a certain amount of time longer, a little bit longer?

MR. ADLER: So my feeling, Debbie, is that I haven't had really enough time to really focus in on it.

MS. PENNY: So we will just extend.

MR. ADLER: I am fine setting a deadline so it doesn't go on forever, and we could do it for next month or the month after.

MR. KAZANSKY: Why don't we shoot for next month.

MS. VICKERS: And then maybe Rocaton, if I can ask you to be in charge of any edits that people submit, put it in the document and then recirculate that one document with everyone's suggestions.

MR. FULVIO: We will take this as a starting point and anything we receive feedback on, we will incorporate it to the changes.

MR. BROWN: John, even if you take that second bullet and say we believe that active management fees will be structured, so that there is a fine line between a belief and practice. I agree asset management fees should be structured to take advantage of the system's scale. To me, that's a belief.

MR. NANKOF: Seems fair. Some of the others are worded in exactly that way. And if you took out "We believe," should be turn it into a practice. Beliefs can actually just translate into practice.

MR. ADLER: To me, that's not the point.

The point is actually to have a statement of belief that's a higher-level document, because we also have investment policy statement. That's the nuts and bolts; that's a great way of putting it. So this ought to be sort of what our philosophy is, what we stand for, and then in the IPS I think you have stuff that's more nuts and bolts. That's my belief.

MR. BROWN: That's the practice?

MR. ADLER: Yes, that's the practice.

MS. REILLY: A facilitated workshop to help to get all the ideas and thoughts out on the table to finalize it.

MR. BROWN: This was never intended to replace the IPS.

MR. ADLER: No, it's the introduction to

the IPS.
MR. BROWN: If you want to work with us, then you have --
MR. ADLER: I would agree with that if the trustees think it's necessary. Did you hear what Patricia said?
MS. PENNY: To have a workshop.
MS. REILLY: Or just one day where you

have a discussion on the beliefs, finalize it.
MS. VICKERS: Even half a day.
MR. KAZANSKY: Or twenty minutes.
MS. PENNY: Why don't we start, send it out, extend it for a little bit, see if that's necessary. Maybe it's not more than it has to be. I think the second highlighted, "We favor strategies," that's everything we are looking for right there; good conduct, fair labor practices. That's such an important part, so that's a good, you said, jumping off that point. And if we need to, there are so many people that have comments and maybe we could have a small --
MR. FULVIO: Maybe what we will do is I will send this out to solicit feedback and in the same e-mail request availability for follow-up discussion and then we will talk about it on that discussion.
MR. ADLER: Great.
MR. KAZANSKY: That works.
MR. BROWN: Maybe we could have a time frame, but by next investment meeting we will have this done.

MR. ADLER: If we could swing it. Keep in mind some of us go to a lot of meetings and there is also two Jewish holidays this month, so it's a tough month.
MR. KAZANSKY: While you are fasting on Yom Kippur.
MR. HADDAD: I can just add: On the emerging market screen and timing with BAM you referenced on the portfolio for the systems, we are in the middle of an emerging market search. Our anticipation is to come to the CIM in the spring of '19 with recommendations, so just to give you a sense of what we are working on. If we could tie the two together, it would be --
MR. ADLER: So ideally if we have our revised guidelines in place before we do the search, then that --

MR. HADDAD: The search is starting.
MR. ADLER: Not before we make our decision.
MR. HADDAD: Yes, that would be helpful.
MR. ADLER: Great.
Okay, so I think that concludes the

public agenda. Anybody disagree with that statement? Okay, so I do think a motion to enter into executive session would be in order.
MS. PENNY: I move pursuant to Public Officers Law Section 105 to go into executive session for discussion on specific investment matters.
MR. ADLER: Thank you, Debbie.
Is there a second?
MS. VICKERS: Second.
MR. ADLER: Thank you, Susannah. Any objection? All in favor of the motion to enter executive session, please say aye.
Aye.
MS. VICKERS: Aye.
MS. PENNY: Aye.
MR. KAZANSKY: Aye.
MR. BROWN: Aye.
MR. ADLER: All opposed, please say nay. Any abstentions? Motion carries.
All right, we are in executive session.
(Recess taken.)

MR. ADLER: There is a motion to exit executive session and go back into public session. Is there a second?
MS. VICKERS: Second.
MR. ADLER: Thank you, Susannah. Motion made and seconded. Any discussion? All in favor of the motion to exit executive session and enter public session, please say aye.
Aye.
MS. VICKERS: Aye.
MS. PENNY: Aye.
MR. KAZANSKY: Aye.
MR. BROWN: Aye.
MR. ADLER: All opposed, please say nay. Any abstentions? Thanks.
We are back in public session. Susan, would you report out of executive session.
MS. STANG: I would, but first I would like to acknowledge that Komil Ataed part of our group here at TRS passed his level 3 of

CFA.

(Applause.)

MS. STANG: And in executive session, one manager update was presented. Consensus

0107

was confirmed on a specific private investment. We received a presentation from a service provider. There was a presentation and discussion of the international composite within Variable A and the International Fund and there was a presentation and discussion about the commission recapture program and trading costs.

MR. ADLER: Thank you so much.

I believe that concludes our business for today. A motion to adjourn would be in order.

MS. PENNY: So moved.

MR. ADLER: Is there a second?

MS. VICKERS: Second.

MR. ADLER: Any discussion? All in favor of the motion to adjourn, please say aye.

Aye.

MS. VICKERS: Aye.

MS. PENNY: Aye.

MR. KAZANSKY: Aye.

MR. BROWN: Aye.

MR. ADLER: All opposed please say nay.

0108

Any abstentions?

Meeting is adjourned. Thank you very much.

(Time noted: 1:47 p.m.)

C E R T I F I C A T E

STATE OF NEW YORK)
: ss.
COUNTY OF QUEENS)

I, YAFFA KAPLAN, a Notary Public within and for the State of New York, do hereby certify that the foregoing record of proceedings is a full and correct transcript of the stenographic notes taken by me therein.

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of September, 2018.

____

YAFFA KAPLAN