0001 1 Proceedings 2 3 4 NEW YORK CITY TEACHERS' RETIREMENT SYSTEM 5 INVESTMENT MEETING б 7 Held on Thursday, May 3, 2018, at 55 Water Street, 8 9 New York, New York 10 11 ATTENDEES: 12 JOHN ADLER, Chairman, Trustee 13 THOMAS BROWN, Trustee 14 DEBRA PENNY, Trustee 15 ANTONIO RODRIGUEZ, Mayor's Office SUSANNAH VICKERS, Trustee, Comptroller's Office 16 17 DAVID KAZANSKY, Trustee 18 RAYMOND ORLANDO, Trustee 19 PATRICIA REILLY, Teachers' Retirement System MELVYN AARONSON, Teachers' Retirement System JOHN DORSA, Comptroller's Office 20 21 22 MICHAEL HADDAD, Comptroller's Office 23 REPORTED BY: 24 YAFFA KAPLAN JOB NO. 0611106 25 0002 1 Proceedings 2 ATTENDEES (Continued): 3 SUSAN STANG, Teachers' Retirement System RON SWINGLE, Teachers' Retirement System 4 5 MICHAEL FULVIO, Rocaton MATT MALERI, Rocaton б 7 ROBIN PELLISH, Rocaton 8 THAD McTIGUE, Teachers' Retirement System 9 VALERIE BUDZIK, Teachers' Retirement System LIZ SANCHEZ, Teachers' Retirement System 10 SHERRY CHAN, Office of the Actuary 11 DAVID LEVINE, Groom Law Group 12 13 SANFORD RICH 14 15 16 17 18 19 20 21 22 23 24 25

0003 1 Proceedings 2 MR. ADLER: Good morning. Welcome to 3 the Teachers' Retirement System of the City of 4 New York Investment Meeting for May 3, 2018. 5 Thad, will you place call the roll? б MR. McTIGUE: Thank you, Mr. Adler. 7 John Adler? 8 MR. ADLER: I am here. 9 MR. McTIGUE: Pleasure to see you. 10 MR. ADLER: Thank you. The pleasure is 11 mine. 12 MR. McTIGUE: Thomas Brown? 13 MR. BROWN: I am here as well. 14 MR. McTIGUE: David Kazansky? 15 MR. KAZANSKY: Present. 16 MR. McTIGUE: Debra Penny? 17 MS. PENNY: Here. 18 MR. McTIGUE: Raymond Orlando? 19 MR. ORLANDO: Here in my new seat. 20 MR. McTIGUE: We hope you are 21 comfortable. 22 MR. ORLANDO: I truly am. Love it. 23 Never leave it. 24 MR. McTIGUE: And Ms. Susannah Vickers? 25 MS. VICKERS: Here. 0004 Proceedings 1 2 MR. McTIGUE: We have a quorum, sir. 3 MR. ADLER: Thank you so much. 4 And with that, I will turn it over to 5 our friends at Rocaton to take us through the б public agenda. 7 MR. FULVIO: Good morning, everyone. I 8 would just like to start by quickly apologizing for the delay in getting out some 9 handouts in advance and we will strive to do 10 11 that more quickly and more well in advance 12 than yesterday, but some of the materials were 13 delayed for a variety of reasons. But, in any event, let me know if there is anything that 14 15 could be helpful on that. 16 We will start off with the performance 17 for the Passport Funds through the month of 18 March. The Diversified Equity Fund with about \$15.3 billion at the end of March was down 19 20 about 1.8 percent and really what drove 21 performance for that month was negative return 22 by about 2 percent for U.S. equity markets. 23 Abroad there was also some weakness in equity 24 markets with developed non-U.S. markets down 25 about 1.8 percent during the month and the 0005 1 Proceedings

2 custom proxy for emerging markets that we use 3 here was down about 1.1 percent. So you can 4 see that really drove the negative absolute 5 returns on. On the bright side, the defensive б composite did protect somewhat by posting a 7 less negative return to the tune of about 8 negative 60 basis points. So, you know, not 9 capturing all that downside. Year to date, 10 the Diversified Equity Fund has a return of 11 about negative 75 basis points, roughly in 12 line with both benchmarks that we use for 13 that. And the other composites are all 14 roughly in line with their respective proxies 15 as well. 16 The Balanced Fund at the end of March 17 was about \$380 million. That fund had a 18 modest negative return of about 30 basis 19 points during the month that brought the 20 calendar year-to-date return to negative 60 21 basis points, not far from the Diversified 22 Equity Fund. 23 The International Equity Fund assets 24 were about \$150 million at the end of the 25 month. That fund was down about 1.7 percent, 0006 1

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2 roughly in line with its benchmark, and year 3 to date that fund is down about 1-1/4 percent. 4 The Inflation Protection Fund with 5 assets of about \$60 million, that added about б 80 basis points return in during the month. 7 That brought the year-to-date return negative 73 basis points. And so far year to date, 8 what's been a little bit of a drag on the 9 10 performance there has been performance of 11 REITS and TIPS. And a lot of that has been 12 offset by the stronger performance we have 13 seen in commodities year to date. 14 On the Socially Responsible Equity Fund, 15 that fund had about \$190 million in assets. 16 At the end of the quarter, return there was 17 negative 1.7 percent for the month as well 18 ahead of the S&P 500 Index which was the 19 benchmark for that strategy. 20 Year to date overall fund option is up 21 about 60 basis points, which is about 140 22 basis points ahead of the S&P. 23 So I will pause there and see if there 24 are any questions. 25 MR. ORLANDO: I have a question. 0007 1 Proceedings MR. ADLER: Mr. Orlando. 2 3 MR. ORLANDO: So I am looking at the

4 Diversified Equity Fund returns and they just 5 appear to be lagging by 80 to 100 basis points over all periods. And that sort of -- this is 6 7 the first time I noticed that. I guess maybe 8 it's my new prescription on my eyeglasses, but 9 I am just wondering if there is any light you 10 can shed on that, because that seems not 11 significant but also not insignificant to me. 12 MS. PELLISH: Yes. So there are a 13 couple of sources. The primary source for 14 that is really the actively-managed U.S. 15 equity composite. And, if you recall, we 16 recalibrated our approach to that composite. 17 We reduced it in the recent past and we also 18 developed a perspective that we don't 19 necessarily have to fully implement that 20 target and that we will do so where we find 21 particularly compelling ideas. So that is 22 something that we have observed for quite some 23 time now, and particularly in the U.S. equity 24 markets it's been a very difficult market for 25 active managers to add value. 0008 1 Proceedings 2 MR. ORLANDO: Not to ask you to take out 3 your crystal ball, but do you think over the 4 next year or three years the decision to not 5 maximize active management in the U.S. is б going to result in seeing -- is the ship going 7 to turn? 8 MS. PELLISH: Well, we have been waiting 9 for it to turn for a long time, so potentially and actually if you look -- if you look at 10 11 very recent -- well, I can't say that. There 12 has been a gradual improvement in terms of 13 many -- if you look at just peer groups, the 14 median active U.S. equity manager relative to 15 benchmarks has been an improvement in relative 16 return. And what has been difficult for --17 active managers really only can add value if 18 there is disparities in, you know, what they 19 call cross-sectional volatility. So stocks 20 behave very differently within the universe. 21 When you have a market where everything is 22 going up, it's difficult to add value by doing 23 research and distinguishing among securities. 24 So to the extent that volatility stays 25 at close to historical levels and there is 0009 1 Proceedings 2 greater disparity among performance with 3 recognition of different stock valuations, 4 that's where active equity managers should add

5 value. So I do think there is potential for

б active U.S. equity managers to add value going 7 forward and I think they should start doing 8 that very soon. 9 MR. ORLANDO: Given how long the current 10 growth period is and the forecast of rising 11 rates, can you opine on the likelihood that 12 there will be more volatility and therefore 13 some hope in this sort of ship turning? 14 MS. PELLISH: Yes, I think you have seen 15 an increase in volatility and we have long 16 thought that particularly once -- and Mike 17 will talk about this in his part of the agenda 18 -- with QE abating and what some terms of 19 artificial support for risk assets abating 20 that volatility should continue at closer than 21 historical levels. 22 So I do think there are reasons to think 23 that there will opportunities for managers to 24 add value by distinguishing among securities 25 within the U.S. equity market. I do think 0010 1 Proceedings 2 that is possible and that's largely the reason why we have retained any active U.S. equity 3 4 management within this portfolio. 5 MR. ORLANDO: Thanks. б MR. ADLER: Other questions for Mike on the -- are you done with your presentation? 7 8 MR. FULVIO: I was going to comment 9 briefly on April. 10 MR. ADLER: Oh, April. I meant on the March. Any other questions on March for the 11 12 quarter? 13 Okay. Go for April, please. 14 MR. FULVIO: Great. 15 Well, U.S. equity markets in April were 16 modestly positive, just shy of about half of a 17 percent. The broad international composite 18 benchmark that we use for Variable C and 19 within the Diversified Equity Fund, that was 20 up about 2 percent with particular strength 21 from developed markets and developed small 22 cap, excluding U.S. emerging market had a 23 modest positive return to the tune of about a 24 quarter percent. The defensive was roughly 25 flat and all told we expected the Diversified 0011 1 Proceedings 2 Equity Fund, given its benchmark performance, 3 was up about 70 basis points during the month. 4 So calendar year to date, the fund should be 5 roughly flat in terms of absolute return. б The Balanced Fund during the month would 7 have been down about 30 basis points -- I'm

8 sorry, would have been flat also during the 9 month. There was obviously pullback within 10 short-duration fixed income markets given the 11 rising yields, but also the incremental performance from global equity markets would 12 13 have served that fund well. Year to date that 14 fund was down by about half a percent. 15 I commented on international equity 16 markets during the month. The underlying 17 strategy for the Inflation Protection Fund 18 should have been about 80 basis points during 19 the month, bringing the year-to-date return 20 there to also about zero flat for the calendar 21 year-to-date period. 22 And the underlying strategy for the Socially Responsive Equity Fund added about a 23 24 quarter of a percent, bringing the year to 25 date positive to the tune of roughly 70 basis 0012 1 Proceedings 2 points. 3 MR. ADLER: Questions for Mike on April? 4 Okay. We will go on. 5 MS. PELLISH: You want to go on to the б next agenda item? 7 MR. ADLER: I think so, yes. 8 MS. PELLISH: Mike Haddad is here to 9 provide a further insight into some of the 10 topics that were addressed at the most recent 11 CIM. And he is really going to talk in detail 12 about the most significant aspects of the 13 asset allocation strategy within the Teachers' 14 Pension Fund going forward. 15 So Mike. MR. HADDAD: So there are two handouts 16 coming your way, one titled "Asset Allocation 17 18 Review" and other entitled "Asset Allocation Review Global Macro Update." The asset 19 20 allocation review are the slides you saw from 21 Scott on your portfolio as of 3/31. Same 22 slides we took off the other four systems and 23 it's just your system on there. So let's set 24 that aside to start. We will refer to that 25 later and dig into the global macro update 0013 1 Proceedings 2 because that is, you know, what you heard me 3 rant about for a year now. MR. ADLER: We don't have it down here 4 5 yet. б MR. HADDAD: The one thing I would say, 7 as you know, I have too many slides. I just 8 couldn't cut them out, so please stop me along 9 the way. Let's make this a dialogue rather

10 than a presentation. I think that would 11 better serve the purpose of what we are trying 12 to get to. 13 So on the first page, on page 2, on the 14 global macro review I tried to highlight how 15 unique the environment is that we are in right 16 now. I think interest rates are historically 17 Equity markets are historically rich. low. 18 And credit markets, which if we get to, I am 19 going to try to scare you at the end about 20 potential implications there. 21 And then within the rising rate 22 environment, the real funds rate is still 23 negative. And the real funds rate, reminder, 24 is the funds rate minus inflation. It's very 25 unusual to have a negative funds rate. It 0014 1 Proceedings 2 usually has to get to plus 2 or something in a 3 normal state and then even higher to slow down 4 the economy. And despite 150 basis points of 5 rate, it's still negative. That shows you how б low we started with. Long-duration term 7 premium which is a geeky bond thing, I have got a chart on that, that's negative. 8 9 Large fiscal stimulus that we talked 10 about a little bit at the last CIM, it's 11 coming and it's coming at a point in the cycle 12 when the economy is running hot and the Fed is 13 engaged in I am now calling it quantitative 14 tightening. They are actually going from 15 easing to tightening and then -- this is all 16 theoretical and opinion, blah, blah, blah. 17 Let's get down to the concerns about 18 your portfolio and that is the impact of the 19 rising interest rates on the fixed income 20 portfolio. Could that impact of rising rates 21 be on the equity portfolio while it's 22 historically rich, and then let's talk about 23 the duration extension program that's in 24 place, and then again my scare thing at the 25 end about the credit markets if we get to 0015 1 Proceedings 2 that. 3 So I want to go back over page 3, this 4 equity market slide, because this one to me 5 highlights the richness of the equity market. And this is independent of what we think about б 7 the bond market. We went through this before, 8 but again this is a valuation that was put 9 together by Goldman Sachs Asset Management. 10 This isn't our genius thing. Five different 11 inputs into the model. The model goes back

12 over 70 years and the inputs are pretty 13 classical different types of valuation 14 techniques. One uses on the broad equity 15 market. I don't know how they are weighted, 16 but that's what the model spits out. 17 The graph shows you ten different 18 deciles, divides the time period -- the 19 valuations into ten different deciles with the 20 right side being the most expensive and the 21 left side being the least expensive. And then 22 what the blue bar shows is what the return has 23 been over a five-year horizon post each of 24 these decile valuation periods. And we are in 25 the tenth decile on valuations and 0016 1 Proceedings 2 historically -- history is only history, it 3 doesn't necessarily predict forward -- returns 4 have been terrible, .3 percent on average 5 annualized. And the red dots shows you the б number of observations within a given year 7 when the equity market has been positive and 8 you can see that red dot is somewhere around 9 35 percent when we are in this valuation 10 period. 11 And the other takeaway from this is 12 outside of the far left or the far right, 13 returns are within norms, within expectations, 14 and not really something I think that would 15 consider us to rethink about the equity 16 portfolio. But we are on that right decile 17 and that's a big source of concern. 18 So let me pause there because this one 19 is a key part of the view. 20 MR. KAZANSKY: So where were we two 21 years ago if we were to look at this right? 22 Because two years ago when we did our assets 23 allocation study and we thought the bottom was 24 going to drop out of the market any day and it 25 didn't, where would we be on this chart? 0017 1 Proceedings 2 MR. HADDAD: I don't know the exact 3 answer. I am going to guess 8 or 9. MS. PELLISH: So I don't know the exact 4 5 answer either, but I think what you are б pointing out is that this is not a new 7 concern; this is not a new risk. 8 MR. KAZANSKY: Yes. 9 MS. PELLISH: And just as rising rates 10 aren't a new risk, right, we have been talking 11 about both of these things for a couple of years now. At some point, we will be right. 12 13 I don't say that flippantly. I say that no

14 one who talks about these risks pretends they 15 can be precise as to timing. 16 MR. KAZANSKY: Right. 17 MR. HADDAD: And that gets into the 18 unprecedented. We never had quantitative ease 19 before, thus we never had quantitative 20 tightening before. Never seen it, so this 21 history has none of that. It has the easing 22 in it; it doesn't have the quantitative 23 tightening. We have had many Fed tightening 24 cycles, so that's incorporated in that. We 25 never had the removal of the quantitative 0018 1 Proceedings 2 easement before. 3 Any other questions before I try and get 4 through this? 5 Page 4, same chart. This speaks to б valuations between the three main sleeves we 7 have in your equity portfolio; U.S., EAFE and And the takeaway is U.S. is well above 8 EM. 9 its three-year average, EAFE is right on it, 10 and EM is below. So if we just allocate on valuations alone and ignored the antiquated 11 12 basket clause, we want to shift into the other 13 markets but we are constrained because of the 14 basket clause. 15 So this slide I haven't shown you before 16 on 5 and this gets to my point that I am going 17 to try to get to here is how long rates are 18 historically low. So the white line is 19 nominal GDP. Nominal GDP, as a reminder, is 20 real GDP plus inflation. And the red line is the ten-year yield. And one of these old 21 22 rules of thumbs is that ten-year yields should 23 approximately equal the nominal GDP. If you 24 look at this chart going back in time, it's 25 been above it and it's been below it, but it's 0019 1 Proceedings 2 kind of in that neighborhood. I encourage you 3 to ignore the downwards factor of the global 4 financial crisis. You know, it was a collapse 5 in GDP that came back. So if you smooth that out, you will see that the lines are somewhat б 7 similar. And post the financial crisis when 8 QE started, we had the ten-year note 9 significantly below nominal GDP and 10 quantitative easement stopped. It's being 11 reversed. It's being reversed at an 12 accelerated pace and you can see the gap 13 between the year and the ten-year note and where the nominal GDP is. So that speaks to a 14 15 historical basis that the ten-year note is

16 very low in yield compared to where it has 17 been in the past. 18 The next slide on 6, this is one of the 19 geeky bond things. This is called U.S. 20 treasury term premium. And what term premium means is the additional yield you get for 21 22 buying long-duration fixed income securities 23 as compared to buying a short-term duration 24 security and rolling that over for the same 25 period of time. So more specifically, this is 0020 1 Proceedings 2 the yield on the ten-year note as compared to 3 the yield on the three-month bill and rolling 4 that three-month bill 40 different times. So 5 said differently it's how much compensation б you are getting for the longer duration of 7 holding securities. And the takeaway, you can 8 see it's historically extraordinarily low. 9 There is also arguments as to why it should be 10 low and why it's not going to back to where it is, but even if it goes to something like plus 11 12 1 percent it's going to be very different. 13 And then the orange line is the S&P. So one 14 of the takeaways from this is you can see in 15 the period in the early 2000s when you get 16 rising term premium, that's usually rising 17 rates and what happens to the equity market 18 during that time. And the other takeaway is 19 when we have collapsing term premium, you can 20 see the ramp-up in the equity market. 21 MR. ADLER: So this is like -- I mean, I 22 don't know what, you know, the metric, but 23 this is like crazy. I mean, you look at this, 24 talking unprecedented. 25 MR. HADDAD: I wasn't going to show the 0021 1 Proceedings 2 S&P because of that gap now and I wouldn't 3 focus on that. What I really want is the 4 takeaway on the term premium and how you are 5 not -б MR. ADLER: That's unprecedented. 7 MR. HADDAD: We are not getting 8 compensated, yes. 9 MR. ADLER: Except for like 1960. 10 MR. ORLANDO: But that's a flat yield 11 curve, right? I mean --12 MR. HADDAD: Yes, it is partially flat 13 yield curve. It's also the total, the 14 absolute level as well. It's both of those 15 things. 16 MS. VICKERS: Okay. So the fact that 17 it's so low and we are not getting

18 compensated, we are taking a lot of money out 19 for a long period of time, what's the next 20 after that? Okay, so --21 MR. HADDAD: This is going to be an 22 argument that yields are very low and unlikely 23 to go lower, probably higher. And it's also 24 going to tie into -- one of the questions 25 about TRS portfolio is what to do with the 0022 1 Proceedings 2 duration extension plan during this period 3 where we are concerned about rising rates. 4 And then I will tie that into correlations 5 between the equity market and the bond market б in a second. 7 And then Slide 7, this is a shorter-term 8 slide. This only goes from I guess May of 9 last year to yesterday. And what I want to 10 highlight is what happened on February 2nd. 11 MR. ADLER: What happened on February --12 MR. HADDAD: February 2nd. 13 MR. ORLANDO: The groundhog saw its 14 shadow. 15 MR. HADDAD: So as a reminder, we got 16 the tax plan in December. We had all sorts of 17 noise about it, so we had a period of time 18 leading up to February where the equity market 19 had an unprecedented January, rising yields 20 both going the same direction and the rising 21 yields were not bothering the equity market. 22 On February 2nd, in addition to the 23 Groundhog Day, we had the employment number. 24 And what was rattling to the markets about the 25 employment number were upward revisions to 0023 1 Proceedings 2 average hourly earnings as well as a very high 3 average hourly earnings for that particular 4 month. So the year-over-year number went from 5 something, if memory serves, 23 to 29. And that did two things: It caused inflationary б 7 concerns that were beginning of the bond 8 market to translate to the equity market and 9 that's negative for equities, so that means 10 it's got to raise rates more than we otherwise 11 thought. And the second concern is if there 12 is rising wage inflation, that's going to eat 13 into profit margins. So it's a combination of 14 the two things. 15 And you can just see from the visual 16 here the break-in correlations. So we have 17 had yields going up, equities going up, and on 18 February 2nd yields continued higher at slower 19 pace and the equity market that began its 10

20 percent correction. And then -- oh, I'm 21 sorry. The blue line is the S&P and the white 22 line is the ten-year, the yield on the 23 ten-year and then just in terms of measurement 24 things. So if you measure from Q4 to 25 yesterday, the ten-year was up 62 basis points 0024 1 Proceedings 2 and equities were up 4.2. So positive 3 correlation both moving the right way. If you 4 measure from February 1st, do a three-month 5 measurement, ten-year is up 18 basis points 6 and the equity market minus 6.6 percent. So 7 it kinds of depends where you measure these 8 things on what the correlation looks like and, 9 you know, which market moves in front of the 10 other, you know, because the equity and the 11 bond market are not always focused on the same 12 thing. 13 MS. VICKERS: Ouestion. And I think 14 this shows you and I had conversations that 15 illuminates my misunderstanding of basic bond 16 math. 17 MR. HADDAD: Price and yield are 18 inversely related. 19 MS. VICKERS: That might be the answer, 20 but on page 6 the S&P which is orange and 21 which is going in one direction and the 22 treasury premium which I assume is similar to 23 the white line on 7, they are going on 24 opposite directions but on 7 they are going 25 the same. 0025 1 Proceedings 2 MR. HADDAD: This is a sixty-year chart 3 and the other one is the seven-month chart, so 4 it's a span. That will wiggle up; that's that 5 wiggle. б MR. ADLER: And you see the wiggle down. 7 MS. PELLISH: So can I interject one thing. I just want to highlight the point 8 9 Mike made because that is central to the 10 thesis about taking sort of a -- pausing the 11 long-duration investment plan. 12 If you believe that U.S. equities have a 13 risk of declining, if you believe that U.S. 14 interest rates are poised to rise, then what 15 you are really concerned about is the 16 correlation between those two phenomena. And 17 the arguments underlying, the primary 18 arguments underlying, the allocation to 19 long-duration bonds in your long-term asset 20 allocation strategy was that in periods of 21 equity market crisis, long bonds often act as

22 a very effective hedge against U.S. --23 against equity market declines. And because 24 they -- and you can get protection against --25 you can buy hedges in other formats, but the 0026 1 Proceedings 2 benefit of long Treasuries is that they 3 actually pay you while you are holding them. And so the point that Mike just made 4 5 about correlations trending positive between б long bonds and equity markets mean that in a 7 scenario in going forward, there is a risk 8 that long bonds won't be an effective hedge 9 and, in fact, may -- may exacerbate the losses 10 that you realize in the U.S. equity market. 11 That is a really important point. 12 MR. HADDAD: Just to add on to what Robin said, and in periods of equity stress we 13 have to decompose what's causing the equity 14 stress. If it's, you know, a global financial 15 crisis like what we experienced, and the 16 17 negative correlations existed was a fabulous 18 piece of protection. If it's a period of 19 rising inflation, then it kind of depends 20 where we are in the cycle. And I will show 21 you a graph on that. 22 If it's -- let's do some hypotheticals going forward. You know, if war breaks out in 23 24 the Koreas, I am going to guess that the long 25 end is going to go down in yield. The 0027 1 Proceedings 2 negative correlation is going to come back. 3 MR. PELLISH: So long bonds will, in 4 that case, be a good hedge. 5 MR. HADDAD: Yes. But where it's not a б good hedge is in periods where the economy is 7 running at full steam and the Fed is raising 8 rates to slow down the economy, but they both 9 qo down. 10 So that gets to page 8. This is --11 MR. ORLANDO: I have a question. 12 MR. HADDAD: Yes. 13 MR. ORLANDO: My question is about wage 14 growth, which you noted was part of the 15 Groundhog Day incident. Is there some 16 expectation that wage growths will continue or 17 was it a one-off surprise I suppose, while I 18 keep asking crystal ball questions? 19 MR. HADDAD: The expectation. 20 MR. ORLANDO: I quess I am more likely 21 to believe wage growth in a different 22 political environment than the current one as 23 a long-term story even in an inflation

24 environment. 25 MR. HADDAD: You get to go back to geeky 0028 1 Proceedings 2 economics, the slopes of the Phillips curve. 3 As a reminder from your economic textbooks, 4 the Phillips curve is the relationship between 5 the unemployment rates and the wage growth. б What we experienced up to now is a very flat 7 slope of that line. So we have falling 8 unemployment and relatively stable wage 9 growth. It's up a little bit, but a little 10 bit. And it's -- the debate raging within the 11 Fed and the market participants is what is the 12 slope of the wage curve. And the economist 13 Fed staff would solidly argue it's an upwards 14 sloping relationship and it will exert itself. 15 The unemployment rate is 4.1, it's as 16 low as it's ever been just about. It's 17 projected to go lower. There is also different unemployment rates. U3 is the most 18 19 commonly used. U6 is a broader one, which 20 incorporates people working part time for 21 economic reasons. People who are -- I forget the different categories, but one that's not 22 23 in there is people not seeking work. That 24 rate, if memory serves, is mid 8s. But that's 25 back below pre-crisis levels so it's higher 0029 1 Proceedings 2 than U3, but still indicates a labor force 3 being tight. 4 MR. ORLANDO: Aren't there fewer people 5 in the labor force? Isn't one of the defining situations today is that the unemployment rate б 7 is not reflective of the fact that no one is 8 actually working anymore? 9 MR. ADLER: That was the point he made 10 about people not seeking work. 11 MR. HADDAD: The employment 12 participation rate is down. MR. ORLANDO: There is the seeking and 13 14 also not seeking. 15 MR. HADDAD: The labor participation rate is very low, so that's the number of 16 17 working adults in that. And that's fallen 18 from mid-60s to around 60. And a big cohort 19 of that is men like 40 to 60 or something and 20 it speaks to the opioid crisis. 21 MR. ORLANDO: I might suggest it speaks 22 to the Julius Wilson idea that when work 23 disappears, dysfunction shows up in 24 populations of any sort of comprehensive 25 nature.

0030 1 Proceedings 2 MR. HADDAD: But you see that big 3 up-trend and if you decompose the labor 4 participation rate, the place that looks 5 really out of whack is that age component. б But back to your question: I think the 7 expectation is wages will rise with the 8 unemployments rate this low and the economy 9 still running reasonably strong and the 10 unprecedented fiscal stimulus that they get 11 with the economy running above trend. 12 MR. ORLANDO: Thank you. I now see the 13 argument a little clearer. Not sure I buy the 14 argument, but I see it a little clearer. 15 MR. HADDAD: So page 8 ties into what Robin laid out. So I am going to do my best 16 17 to explain this one so, please, I know I am 18 not going to get it right. 19 The red line is the 40-week rolling 20 correlation between returns on the equity 21 market and the returns on the ten-year. The 22 scale on the right is the scale for the --23 that rolling correlation and you can see zero 24 is about midway through. So when the number 25 is above that, the red line, it's a positive 0031 1 Proceedings 2 correlation. When it's below, that negative 3 The blue line is the correlation. 4 unemployment rate and this is an attempt to 5 signal, you know, where the economy is; are we б late cycle, are we early cycle, are we at full 7 employment. 8 And what this chart suggests in the two 9 areas where the circles are is when the 10 unemployment rates is somewhere, you know, in a declining trend and near below 5 approaching 11 12 4, we get shifts in correlations between the 13 returns from the two major asset classes from 14 negative correlation back to positive 15 correlation. And that happened, you know, 16 around the 2000s and that was with the labor 17 market very hot. The Fed had paused in 18 raising rates because of Y2K concerns and the 19 economy overheated and they had to raise 20 rates. At the same time we had the equity 21 market, the NASDAQ crash, all those other kind 22 of stuff. And the other time was in the '04 23 rate cycle and again you can see the 24 correlation shifted positive. 25 So brings us today where we are at the 0032 1 Proceedings

2 far right-hand side of this chart and you can 3 see we know the decline in unemployment rate 4 has gone from 10 to 4 and correlations are 5 still running negative on a 40-week rolling б basis. And what I showed you from February 7 2nd has been a shift in correlations. Now, that's three months. It's not -- you know, 8 9 it's not robust data; it's very small amount of data. But if you follow my line of 10 11 argument that interest rates have to go 12 higher, that long rates are historically low, 13 and that the unemployment rate is very low and 14 that we are going to get a shift in 15 correlation, this would speak to those markets moving together going forward. So that's my 16 17 source of concern on where we are in the cycle 18 and what's likely to happen to the rates and 19 the impact on the equity market. 20 MS. VICKERS: So you are saying the red 21 line is going to go up and be positive going 22 forward? 23 MR. HADDAD: Yes. 24 MS. VICKERS: And the blue line will 25 keep going down? 0033 1 Proceedings 2 MR. HADDAD: Yes. And that the returns 3 in bond market are negative and if the 4 correlation shifts, the returns in the equity 5 market are going to go negative too. Then 6 layer that on top of the valuations where we 7 are in the equity market now and you can kind 8 of see what keeps us up at night is that that 9 probability -- that potential of rising 10 ratings and decline in the equity market. 11 MR. ORLANDO: I'm sorry, did you just 12 say you expect the blue line to go down --13 MR. HADDAD: Yes, I do. You know --14 MR. ORLANDO: -- below 4? 15 MR. HADDAD: Yes. Okay. 16 MR. ORLANDO: 17 MR. HADDAD: I do. What would change 18 that is if labor participation force goes up, 19 supply of labor goes up. You know, 20 immigration is restricting labor supply, the 21 change in immigration laws, so that's a 22 negative on supply of labor. Unless we shift 23 somehow to supplied labor, I expect that to go 24 down until the economy slows. 25 MR. ORLANDO: The great new world of new 0034 1 Proceedings 2 natural unemployment rate. 3 MS. PELLISH: So one question that you

4 may not be able to or willing to answer is how 5 -- this is your point of view today, what do 6 you think is the investment horizon of this 7 perspective? Because if you look at the 8 historical data, most of the time the 9 correlation is negative and where there are 10 periods of positive correlation between the 11 ten-year and the equity market seem to be 12 pretty brief. So is this something you would 13 expect to revisit in a year? 14 MR. HADDAD: I don't know. Markets 15 move, you know, they move quickly. So I don't know what the catalyst will be. I don't know 16 17 when it will happen, but I do -- I think it's a short-term thing, not long-term thing. 18 And 19 I think your point about these are short-term 20 movements in long-term periods, I agree with. 21 And this would tie into part of our 22 conversation is it time for a new strategic 23 asset allocation or is it time to put some 24 shorter-term tilts, whatever you want to call 25 them, on the portfolio in anticipation of a 0035 1 Proceedings 2 drop in equity prices in which we can take 3 advantage of, avoid some of the loss, and then 4 reposition the portfolio back to the long-term 5 I think that kind of brings together targets. б what the -- what we are talking about today. 7 MS. PELLISH: So just to make sure what 8 you said is clear, in terms of moving within 9 the rebalancing rate which is what was 10 outlined --11 MR. HADDAD: Yes. 12 MS. PELLISH: -- you see this as likely 13 to be a short-term phenomenon or who knows? Т 14 am not being flippant, but really who knows. 15 The equity MR. HADDAD: Yes, who knows. 16 fell 10 percent in how quickly, in two weeks 17 February. It's a big correction. And then we 18 recovered about half of it, so I don't know. 19 And what would change all of that is a 20 reasonable correction in the equity market and 21 then those valuation metrics shift. So you 22 are not so concerned, so -- but it's the 23 combination of the two that has the concerns. 24 So let me kind of pause there because I 25 threw a lot at you. And, you know, any 0036 1 Proceedings 2 questions on any slides, you know, thoughts on 3 what we should do, could do, strategic versus 4 tilts, let's just kind of turn it over to you 5 all.

б MR. ADLER: So here is my question for 7 both you guys, which is that: Two years ago, so that would have been, you know, 2016 when 8 9 we -- I think when we adopted the strategic 10 asset allocation we, you know, went in for the long treasury, the extension duration on the 11 treasuries as a hedge, right, insurance. And 12 13 we had not fully implemented it because -- as 14 I understand because of the cost, the cost of 15 implementing it had gone up. And also what I 16 just heard you say, Mike, was that that hedge 17 worked in 2008 because the cause of the stock 18 market decline, the equity decline was global 19 financial crisis. It's not -- it's not -- it 20 doesn't appear right now that if there is a 21 further correction that it would be as a 22 result of a financial crisis.

23 So what I am really sort of asking for 24 is, you know, it seems to me that what's 25 incumbent upon us is to try to hedge the 0037

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2 portfolio as much as we can against these 3 conditions that you just described, right, and 4 what is -- it sounds like, you know, again the 5 likelihood of a correction of some sort, you б know, based on the key charts that you showed 7 But if it's not caused by -- what I hear us. 8 you saying is that if it's not caused by 9 financial crisis, the long-duration treasuries 10 may not actually have the intended impact 11 because at least right now correlation, they 12 kind of more correlate with each other than 13 don't correlate.

14 So you had mentioned in passing earlier, 15 Mike, there are other ways to hedge against 16 What are those other ways and should we that. 17 consider them, implementing them as opposed to 18 either not -- I mean, so right now basically I 19 feel like we are sort of, you know, we are 20 like, you know, what you guys -- as I recall 21 at the meeting in April you talked about 22 essentially rather than going to a target of 23 eighteen years on the duration, sticking to 24 about thirteen years which sort of sounds to 25 me truthfully as betwixt, and between and not 0038

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2 necessarily providing a hedge that we were 3 told two years ago that we would be doing when 4 we adopted the strategic asset allocation. 5 And sort of what I am saying is it 6 sounds to me like we need a hedge. So what 7 should that hedge be and what would be the

8 cost or what are the different options and 9 what are the costs of the different options? 10 MS. PELLISH: Go ahead. 11 MR. ORLANDO: And if I could just add to 12 John's point, it sounds like we need a 13 different hedge. 14 MR. ADLER: Well, do we need a different 15 hedge? 16 MR. HADDAD: If we buy the arguments. 17 MR. ORLANDO: There is the decision on 18 the treasury was designed two years ago, was 19 it not, to be partly a hedge and I think the 20 question that's being called is sort of do we 21 need a different hedge. 22 MS. VICKERS: Can I just bring back on 23 that also. 24 MR. ORLANDO: I could be wrong, but 25 that's what it sounds like to me. 0039 1 Proceedings 2 MS. VICKERS: Because we are long-term 3 investors and not supposed to be market-timers 4 and react to the market as soon as things 5 happen, can you also when you answer those б questions speak to why we are designing the 7 portfolio to hedge at all and is that 8 something that we should decide, whether we 9 just want to ride it out or hedge? MR. HADDAD: Half-hour is up. 10 Next 11 agenda item. 12 So on the plan, we executed half of it 13 according to the schedule that we laid out 14 with the help of Rocaton. We wanted to get 15 half of it done quickly because we all bought 16 into the thesis of the plan and we all wanted 17 the protection in place. Even though we 18 recognized yields were very low and we are 19 likely to lose money, but that's okay. It's a 20 hedge and the other part of the stuff rocked, 21 so it worked. 22 Now what we are arguing, suggesting is 23 we are in an unprecedented time with risks to 24 both of the long -- long bond portfolio as well as the equity portfolio. 25 We still 0040 1 Proceedings 2 believe in the long-term correlation being 3 negative and particularly on what's called 4 left tail events or really exogenous 5 unexpected things we can't predict. Those б things usually cause the bond market to move 7 differently than the equity market. And by 8 definition, we don't know what they are going 9 to be. We hypothesize about Korea, Middle

East impeachments, all sorts of different 10 11 things, but it's going to be something we 12 don't expect so we have half of it in place. 13 We have a chunk of the protection and 14 then with that anticipated shift in 15 correlations which started on February 1st --16 which I want to argue and continue during the 17 Fed heightened cycle we don't want all that 18 protection -- so how do we protect ourselves 19 I would argue we reduce our equity now. 20 holdings. 21 And then the question is --22 MS. PELLISH: U.S. equity. 23 MR. HADDAD: U.S. equity, yes, because 24 of the valuations. And where do you put that 25 money, because basically I am telling you 0041 1 Proceedings everything is kind of rich I would argue in 2 the front of the bond market. So the 3 riskiness of the front of the bond market is 4 5 1/16 on the long of the bond market, just bond math. So we hide in one to two years б 7 treasury, you can call it cash. 8 MR. ADLER: Let me ask you a simple 9 question about that. That makes some sense to 10 me that, you know, flight to quality, right, 11 go to cash. However, you are also talking 12 about inflation increasing, right? So if 13 inflation is increasing, if you are going to 14 into one to two-year treasuries, does that 15 actually provide you with the protection? I 16 am asking. I am not asserting; I am asking. 17 MR. HADDAD: Yes, because those 18 treasuries are going to go down in price, but 19 you are also earning 2-1/2 percent yield 20 because of where they are valued now and what 21 the Fed has done and they mature in a very 22 short period of time. 23 MR. ADLER: And when they expire? 24 That's not the right word. 25 MR. HADDAD: Mature, when they roll down 0042 1 Proceedings the curve a year from today, they are going to 2 3 be around the same price and you will earn the 4 vield. 5 MR. ADLER: And you earn the yield and б when you put the money back in you get a 7 higher rate? 8 MR. HADDAD: Yes. You reallocate that 9 money back into long duration or back into the 10 equity market, yes, so that's the kind of 11 protection.

12 MR. ADLER: Is that the idea? I think 13 what you said in April was that the idea there 14 is that whatever we have in long now we keep, 15 but the overall portfolio we are shortening 16 the duration by going into the shorter-term 17 treasuries. 18 MR. HADDAD: Yes, so I am not advocating 19 selling anything in the long end. We are 20 advocating holding, but we are going to add 21 that in the short end. 22 MR. ADLER: Robin, if you don't mind, 23 can you weigh in on what I said? I don't want 24 to put you on the spot. 25 MS. PELLISH: Yes, put me on the spot. 0043 1 Proceedings 2 MR. ADLER: As I recall when we did the 3 strategic asset allocation two years ago, you 4 were a strong advocate for going the long-duration treasuries in order to hedge 5 б against the foreseen drop in the equity 7 So what do you think about what Mike markets. 8 said or what would you advocate as far as the 9 best hedge at this point in time? 10 MS. PENNY: Before you explain it, I had 11 come onboard just when they were doing this 12 reallocation. I remember it was a big debate, 5 percent, 10 percent, whatever. So when you 13 14 explained that originally we were supposed to 15 have 10 percent and you said you wanted to 16 stop at 5 percent, so when you explain that 17 why would you have an allocation set and stop in the middle of it? That's what I don't 18 19 understand. 2.0 MS. PELLISH: Sure. 21 So to clarify one point you made, we --22 and my partner Matt Maleri is here and he 23 knows infinitely more about this topic than I 24 do, so I am just going to make a few comments 25 and then have him weigh in because he is part 0044 1 Proceedings 2 of the asset allocation and actually is the architect for a lot of the work we have for 3 4 the asset allocation. 5 But the long bond allocation was a б recommendation by us not only because of where 7 the equity market valuation is, but we see it 8 as a long-term strategy target. And no matter 9 where the equity market is at any point in 10 time, we think it makes sense because -- and 11 this is a slight digression, but I think it's relevant. In any portfolio -- you have -- the 12 13 best hedge against equity market risk is

14 diversification and you have a very 15 diversified portfolio. You are allocated 16 among the global capital markets, private and 17 public. But the fact is when you look at the 18 risk of your portfolio and any diversified 19 portfolio -- I don't know what the number is, 20 maybe 85 percent. 21 MR. FULVIO: 92 we just --2.2 MS. PELLISH: You looked at it, so I 23 stand corrected -- 92 percent of the risk or 24 volatility of your portfolio is contributed by 25 the equity allocation, because equities are so 0045 1 Proceedings 2 much riskier than fixed income. And. therefore, the long bond allocation is 3 4 intended to balance those risks out. And 5 historically, typically long bonds have been a б very powerful friend when equity markets have 7 suffered significant market downturns. What Mike is asserting, and has provided 8 9 a lot of data in support of, is that this time it's different for very real reasons because 10 of where we are in the market cycle, because 11 12 how long the equity market has generated very 13 significant positive returns, because we are 14 in unknown territory. We are going into this what he called quantitative tightening and 15 16 because we passed this big tax bill, tax 17 reduction so -- you know, you could see in the 18 paper today we are issuing more and more debt. 19 So there is fiscal stimulus, there is Fed 20 tightening, and so we are in a little bit of 21 somewhat uncharted territory. And in that 22 territory -- I don't want to speak for Mike, the arguments that Mike and others, he is 23 24 certainly not alone -- is that long bonds 25 actually may be a very expensive hedge that on 0046 1 Proceedings 2 average long term everybody still thinks they 3 are an effective tool, but in the near term 4 they may be a very expensive insurance policy. 5 So I can't -- and I don't think Matt б would contradict any of the facts laid out and I think the logic underlying this point of 7 8 view is sound. This is -- it comes to a 9 judgment call about whether we want -- to go 10 back to the point that Susannah raised, 11 whether we want to ride this out, whether we 12 want to say over the long term we think these 13 allocations having long bonds as a hedge makes 14 sense. And we understand that there are sound 15 reasons to believe that over the next three,

16 maybe even five years might not work as we 17 expect, but we think over the next twenty 18 years it will work. 19 And we are a little -- this has been --20 this has been the policy to date or I think the perspective of the board to date; we think 21 22 it's too hard to forecast three to five-year 23 results and so, therefore, we are going to ride it out. That would be the basis for I 24 25 guess rejecting this argument. That's really 0047 1 Proceedings 2 the basis. It's too hard to predict three to 3 five-year results and I think the opposite --I hate to say on one hand and the other hand, 4 5 but the counter to that is these are pretty б extreme market situations. And if we can --7 if we believe that these are very extreme, 8 then it is prudent to step out of the way for 9 a little while. 10 MR. MALERI: I don't know if I would be 11 the arbiter here, but there may actually be a 12 compromise in some regards in the sense that, 13 Mike, you talked about actually lowering the 14 U.S. equity allocations given where valuations 15 are and maybe in my mind means maybe I don't 16 need as much protection. I am actually 17 lowering the U.S. equity allocation so you may 18 be able to accomplish both, which says I am 19 lowering my U.S. equity allocations therefore 20 I don't need as much protection from the long 21 bond which we are proponents of. 22 So that may actually be the compromise 23 in that scenario in that you can actually both 24 be right where you still own long bonds, they 25 still act as a hedge to the U.S. equities you 0048 1 Proceedings 2 own, but at the same time you are recognizing 3 that valuations are expensive therefore I 4 should reduce some of that. And maybe the 5 placeholder is, you know, short-duration fixed б income to the extent that's allowable, but 7 that again sort of may marry the best of both 8 worlds here. 9 MR. HADDAD: I want to respond to your 10 question, Susannah, and speak to what Robin 11 said. 12 We have laid out a lot of rationale. We 13 have no idea what's going to happen. You 14 know, we are basing it on some historicals, 15 some market observations, you know, our 16 combined many years in the markets as 17 participants and the risks. And are we

18 getting compensated for the risks and I would 19 argue we are not in either U.S. equities or 20 long-duration fixed income and so that ties 21 into do we ride it out because we are 22 long-term investors. This pool of capital 23 exists for a hundred years serves your 24 beneficiaries. That would argue for not, but 25 again to argue for how unprecedented we are, 0049 1 Proceedings 2 that would argue for some tweaks against the 3 margin and that begs the question when you are 4 doing that, when you are taking it off, and 5 when do you say you are wrong. So if we are б going to get onboard for this, you should hold us accountable for answering those questions 7 8 for you. 9 Is it time to do a new MR. BROWN: 10 allocation study? Well, that's what -- in a 11 MR. ADLER: 12 way what we are discussing. We said we are 13 going to review it after 18 to 24 months, 14 which is right now. 15 MS. VICKERS: And, for the record, I was 16 asking a question and bringing up a discussion 17 point, not advocating for any position. 18 MR. ADLER: I heard you advocating, let the record reflect. I just want to ask a 19 followup to Matt, if you don't mind. 20 21 What you said makes sense to me, Matt, 22 that by reducing the equity exposure you 23 reduce the need for the hedge, right? But I 24 think the question I have is: Are you talking 25 about reducing strategic equity exposure or 0050 1 Proceedings 2 what Scott had told us in the meeting in April was that -- and I am looking at the other --3 4 the other deck, the thin deck, thank you, 5 where on page 2 on the growth, you know, the б target is 30.9 percent I guess and the range goes down 5 percent from that, so Scott talked 7 8 about lowering the allocation within the 9 range. And then if you turn to page 4 he 10 talked about increasing the treasury 11 allocation within that range, which also has a 12 5 percent range. 13 So, I mean, in theory I guess you could 14 do dollar for dollar, but the other question about that, I don't think that we have -- I 15 16 don't know, refresh my memory. It's not on 17 here. Do we have a duration range? In other 18 words, we had set a target duration point of 19 17.4. I remember it being 18 percent. I

20 guess it is 18 percent and the current 21 duration is 12.6; am I reading that right? 22 MR. HADDAD: Yes. 23 MR. ADLER: Is there a range on duration 24 around the target? 25 MS. PELLISH: No, I don't think that was 0051 1 Proceedings 2 defined. But I do want to make a point that I 3 should have made clear. Everything we are 4 talking about today is talking about operating within the current IPS targets. There is no 5 б change to the strategic allocation. This is 7 simply the BAM saying we want to move to the 8 edges of the rebalancing ranges. 9 MR. HADDAD: Or in that direction; maybe 10 to the edge, maybe to somewhere between 11 neutral and the edge. 12 MR. KAZANSKY: So when we did the asset 13 allocation work there were like Monte Carlo 14 scenarios, right, to see all the different 15 kinds of possible outcomes going forward. Is 16 there or was there any ever that stuff done 17 with this so that we could get a sense of is 18 it even -- I mean, you may be right, you may 19 be right, somebody else may be right and 20 ultimately it's a dollar difference here or 21 there and we are just expecting all this air for not much of real difference down the road 22 23 in ten or twelve or twenty years as far as 24 where we are going to be. 25 So my concern is that I understand we 0052 1 Proceedings 2 are in uncharted territory, but tomorrow could be completely different uncharted territory. 3 4 If we are not looking at all the different 5 scenarios, right, is this exercise even -б does it -- I know it has value. I am not 7 saying it doesn't have value. But is it -- is there a point to it if down the road we are 8 9 really just going to be where we are, there is 10 really not going to be a monumental change in 11 the returns that we are looking for over the long term? Maybe I am looking at it too 12 13 simplistically. 14 MR. HADDAD: I would argue there is a 15 big difference. So let's call the value of the portfolio say a hundred dollars and that 16 17 some of the concerns that we have actualized 18 and we don't change anything. Let's say the 19 value of the portfolio falls to 92 over the 20 next two years and then it compounds at 7 21 percent for the next twenty years, so that's

22 example one. Example 2, you do a couple of 23 tactical shifts and the value of the portfolio 24 falls from 100 to let's call it 96 instead of 25 92. We are compounding at 96 now for the next 0053 1 Proceedings 2 twenty years versus compounding at 92. It's a 3 big difference. 4 MS. PELLISH: Mike, to get to that point 5 because that's an important question, this is б a battleship. Making this change doesn't 7 really turn the battleship. 8 So Mike just pointed out how the 9 compounding effect over time is really 10 important and any losses you avoid at this 11 point compound out over, you know, this 12 hundred-year horizon, which is really 13 important. We look -- we -- there is another 14 very simplistic way to look at this, just to get a sense of the orders of magnitude, and 15 16 that's what Mike is passing out because this 17 is a question we asked ourselves and we shared 18 this with Mike. So if you go to page 4, I am 19 going to let Matt talk to what we have done 20 here. 21 MR. MALERI: Essentially what we have 22 done here is taken the two different 23 portfolios that are in those two different 24 scenarios that we are debating, do we hold 25 long duration or do we not, and try to frame 0054 1 Proceedings 2 out what the different outcomes might be for 3 those two portfolios. 4 So the current target which we labelled 5 there on the left side of the page is assuming б you were at your full long-duration portfolio 7 and then what we are calling the modified 8 target on the right-hand side of the page is a 9 portfolio that owns some long duration, but 10 also owns short-duration fixed income so much 11 more similar to what Mike had suggested. So 12 both these charts assume the same starting 13 portfolio market value. 14 MS. PELLISH: About 72 billion. 15 MR. MALERI: 72 billion. And on the Y 16 axis we plotted changes in the equity market, 17 which we are using as a broad proxy for all 18 the risk assets in the portfolio. And then 19 across the X axis we are showing changes in 20 interest rates, so changes in treasury yields 21 and essentially you can pick which scenarios 22 you think are most likely. 23 So the far upper left box, just to put

24 some numbers to it, has a 10 percent gain in 25 the equity market along with a hundred basis 0055 1 Proceedings 2 point decline in treasury yields, so that 3 seems unlikely. 4 MS. PELLISH: So that box says that in 5 that environment with only long -- owning б target allocations to long bonds and the 7 target allocations for equities, if equity 8 markets rose instantaneously 10 percent and interest rates fell a hundred basis points you 9 10 would make \$6.6 billion. Okay, so that's a 11 great outcome and very unlikely. If -- so 12 keep going. 13 MR. MALERI: And, again, you can follow 14 through the rest of the scenario. We tried to 15 highlight a few here which really are at the 16 heart of this discussion and which we think 17 are much more likely. 18 So the first one that I would call your 19 attention which we have circled in the middle 20 of the page for both the boxes there is simply looking at what happens if equity markets 21 22 don't change at all, but we get a large 23 increase in interest rates. And the outcome 24 should be apparent that owning a shorter 25 duration portfolio would be more beneficial. 0056 1 Proceedings 2 MS. PELLISH: By the tune of over a 3 billion dollars, so it's real money. 4 MR. ADLER: This is over what period of 5 time? б MS. PELLISH: This is, just to be 7 simplistic, instantaneous just to give you a 8 sense of orders of magnitude. 9 MS. VICKERS: Did you say owning a 10 shorter duration? 11 MS. PELLISH: That's the modified 12 target. The modified target is owning half 13 long, half shorts because --14 MS. VICKERS: Because you are losing 15 less. 16 MR. MALERI: So we could have circled 17 one more here. Which is really at the heart 18 of this debate are those bottom left chart, 19 bottom left corner, which is a significant 20 decline in the equity market along with the 21 significant fall in interest rates. And then 22 again the other one which we could have 23 circled would be the bottom far right, so a 24 significant decline in equity markets along 25 with a significant rise in interest rates. In

1 Proceedings this scenario where rates fall and equity 2 3 markets fall we are looking at a savings if, 4 you want to call it that, of somewhere on the 5 order of 400 million. б MS. PELLISH: So I want to emphasize 7 that the reason it matters much less is 8 because the equity market risk really just 9 swamps, so we are talking about rates rising. 10 What you really care about is equity markets falling and if you have a high conviction that 11 12 rates at the long end are going to rise 13 significantly, you want to get out of the way 14 of that, but what you are really worried about 15 is equity markets falling. And I think by 16 orders of magnitude the most important thing 17 that Mike has described here is reducing the 18 U.S. equity allocation. That's much more 19 important than in terms of a risk mitigator 20 than reducing duration. 21 I'm sorry, go ahead. MR. MALERI: You know, just about at the 22 end of my formal comments which is: If you 23 24 look at the bottom far right column, again a 25 significant rise in interest rates and 0058 1 Proceedings significant fall in equity markets. You can 2 3 see if it's much more beneficial on the order 4 of about 1.3 billion or so to own that shorter 5 duration portfolio. So again you can -- the reason we have laid it out this way is such б 7 that you can decide or try to think about 8 which scenarios are more likely or less likely 9 and start to weigh the cost of that insurance, 10 if you will. Certainly it's natural that in a falling equity market and falling rate 11 12 environment, you are going to want to own long 13 bonds. In the opposite scenario where equity 14 markets fall and rates rise again, naturally 15 you will want to own short duration. This 16 simply helps you think about what is the cost 17 impact and again which scenarios do I think 18 are more likely. 19 MS. VICKERS: Can I ask a question about 20 the chart, because I don't think I am reading 21 it correct or I am missing something. So if 22 the right-hand boxes are the modified target 23 with less equity, I would expect that you 24 would do better. 25 MR. MALERI: Same equity, the only thing 0059 1 Proceedings

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2 we are toggling is the duration. 3 MS. VICKERS: Okay, that's what I 4 missed. Okay, but the modified -- oh, so it's 5 just the target of the yield? б MR. MALERI: Should have paused on page 7 3 which actually shows the differences. 8 MR. ADLER: What does page 3 show? 9 MR. MALERI: It shows the actual allocation. You could see the middle of the 10 11 page there we are showing the current target 12 as well as the modified target and the 13 differences. 14 MS. VICKERS: Because I think the two 15 options we have been talking about, the 16 modified option with different duration would 17 also have significantly different amount of 18 equities. 19 MS. PELLISH: Well, they would have a 20 lower allocation to equities. Just to be clear, the total allocation to equities I 21 22 think declines by 1 percent maybe because we 23 are increasing the non-U.S. 24 MS. VICKERS: So would this scenario 25 still hold for what we were discussing? 0060 Proceedings 1 2 MS. PELLISH: Largely. What we are 3 really trying to isolate is what happens with 4 shortening duration and what scenarios do you 5 really care about shortening duration. б MS. VICKERS: But then if that's true, 7 how come with the modified scenario when the 8 equity markets go down you are losing more, 9 15,486 versus 15,107? 10 MR. MALERI: That's -- again, the 11 duration difference plays in there as well so 12 that scenario has a hundred basis point fall in rates. The one if you are just trying to 13 14 isolate the equity difference, it's looking at 15 that column which is zero for changes in rates 16 and following it all the way down to the bond 17 market they are almost the same. Again a 18 slight difference in the composition of the 19 portfolios, but you can see about \$16.3 20 billion for the current target and 16.1 for 21 the modified. MR. ADLER: What you guys did for the 22 23 modified, what I heard Mike saying, is the 24 idea of taking U.S. equities and not 25 redistribute it to international, but 0061 1 Proceedings 2 redistribute is it to short duration, right? 3 MR. HADDAD: So let's go back to growth

4 on page 2 on the portfolio. 5 MS. VICKERS: The skinny one? 6 MR. HADDAD: The skinny one. So this is 7 a snapshot as of year-end and the first three bars are your equity exposure U.S., EAFE, and 8 9 If you total those three, it's roughly 53 EM. 10 percent. So as of these three and your 11 strategic allocation is 50, so what did we do 12 throughout '17? We let your EAFE run, we let 13 the gains accumulate, we let the gains in EM 14 accumulate and the rebalanced to U.S. to keep 15 it at target. So we rebalanced U.S. to fund 16 the long duration, we rebalanced the U.S. to 17 fund the private market allocations, and we 18 kept the U.S. right around on target but let 19 the other two run. So as of year-end, you were overweight equities. 20 21 And what these arrows suggest is, the 22 inclination based on our analysis is, the direction we want to tilt the portfolio is to 23 leave those overweights and foreign equities 24 25 there and take the U.S. component down. And 0062 1 Proceedings 2 that really speaks to the different valuations 3 in those two different markets. And then, you 4 know, with that, with what we will do with 5 those proceeds, we target the front of the б bond market as a place of safety. So that's 7 kind of the way we are. 8 MR. ADLER: And also you talked about 9 putting some in bank loans? 10 MR. HADDAD: Right. 11 MR. ADLER: What is that little green on 12 bank loans on page 3? Not just green arrow, 13 it's green shade box. 14 MR. HADDAD: That was just our APM 15 attempt to put this together and figure out 16 how to fix that. 17 MR. ADLER: I can totally identify with that. Okay, so basically you are not talking 18 19 about adding new money to the non-U.S; you are 20 talking about just keeping it -- letting it 21 run but you are talking about taking -- taking 22 money out of the U.S. equity as well as high 23 yield it looks like and putting it into the 24 short end of the treasuries as well as some of 25 the bank loans? 0063 1 Proceedings 2 MR. HADDAD: Yes. The arrows are 3 strongly-held views on the direction of those 4 asset classes. And the treasury, we have an 5 up green arrow on that. But again for

everything we talked about, that's the front б 7 of the bond market, not the long end of the 8 bond market. 9 MR. ADLER: So is there a target? I 10 think that might be -- so as of 12/31, the 11 duration on the treasuries is 12.6 years? 12 MR. HADDAD: Yes. 13 MR. ADLER: And so you don't have an overall on your chart, Matt, so what would be 14 15 the target duration for the treasury 16 portfolio? MR. HADDAD: So this is at the April CIM 17 18 we introduced another metric for you in fixed 19 income dollar value of a basis point and 20 that's on page 6. So there is a couple of 21 different ways to look at your treasury 22 portfolio. Duration is the one I think we are 23 all comfortable with. But in the environment 24 where we sell U.S. equities and buy short-end 25 treasuries, the duration of your portfolio is 0064 1 Proceedings 2 going to shrink. Just because we are adding assets which are shorter duration, the target 3 4 comes back down. But what's going to happen 5 is the dollar value of the basis point of your б portfolio, it's going to increase. 7 So this speaks to the difference between 8 the two year and third year. The dollar value 9 of a basis point is what helps you understand 10 the relative riskiness, so the longer maturities are more risky. How do you measure 11 12 that? You measure it in duration or you measure it in -- again the geeky bond math is 13 14 DV01, so the dollar value of a basis point for 15 the two note is -- if you guys can help me. 16 MR. MALERI: It's very small. 17 MR. HADDAD: Like \$4 for basis, basis 18 point, and the bond is 16X that, so it's like 19 40-something. But when you are adding to your 20 notes, you are adding DV01 to your portfolio. 21 It's just not as powerful as 1. So looks like 22 that we shrinking duration, it looks like we 23 are going back on our plan, but we are not 24 going back on our plan. We are increasing our 25 exposure to the bond market. We just have to 0065 1 Proceedings 2 measure it in a different way. 3 MR. ADLER: I'm sorry, can you explain? 4 MS. PELLISH: I can't believe you are 5 going into DV01. MR. ADLER: б I am professing my ignorance 7 as usual. I don't really understand this

measure because at the CIM it was variable for 8 9 Passport Funds and I was told that has to do 10 with the amount of assets, so can you explain? 11 MR. HADDAD: What I am trying to tie 12 together, that we want do increase our 13 exposure to treasuries but in the front end. 14 And when we do that the duration of your 15 portfolio is going to shrink, but your 16 exposure to the bond market goes up and how do 17 we capture that. And if you have a better way 18 of capturing, I am open to suggestions. But I 19 thought dollar value to basis point was a good 20 way to try. 21 MR. MALERI: We typically think about 22 it, and I think this is almost the literal 23 definition, is for every basis point. So for 24 ten-year it goes from 2.99 to 3, so 1 basis 25 point move you would lose 8.7 million in your 0066 1 Proceedings 2 bond portfolio. And it works the other way as 3 well. As well so ten-year goes from 3 to 2.99 4 that's a 1 basis point drop, you would gain 5 8.7 million. б MR. ADLER: So given we expect interest 7 rates to rise, we have this rising environment 8 and the Fed is signaling -- well, anyway given 9 that, why would we be wanting to increase the 10 amount that we lose per basis point increase 11 if that's a measure of how we are hedging, how 12 we are increasing our hedge? 13 MR. HADDAD: By increasing the 2s, we 14 are adding minimally to the dollar value of 15 the basis point. If we increase the 30s, we 16 would be adding significantly higher dollar 17 value of the basis point. And what this 18 captures is your whole portfolio across all maturities and we are doing it on a small 19 20 basis. And I am not -- I think it's our 21 choice of asset classes that's going to get 22 hurt the worst in this scenario that we are 23 concerned about. 24 MR. ADLER: The choice of asset classes? 25 MR. FULVIO: Equities versus bonds. 0067 1 Proceedings 2 MS. PELLISH: So this is the target in 3 terms of percentage allocation? 4 MR. HADDAD: With a 10 percent 5 allocation, yes. б MS. PELLISH: With a 10 percent long? 7 MR. HADDAD: Yes. And this is where we sit today. And, again, we are about 50 8 9 percent from where we started when we made the

10 strategic asset allocation. You all approved 11 that. 12 MR. ADLER: So what was the number when 13 we started the dollar value for basis points? 14 MR. HADDAD: It should be on the chart. 15 I am going to guess just ratchet it down, the 16 same difference between these two is 50 17 percent. 18 MR. ADLER: Difference percentage-wise 19 or dollar-wise? So, in other words, dollar 20 wise-would be about 3.4, so it would have been 21 8.7 minus 3.4? 22 MR. HADDAD: No, 12.1 minus 8.7 is 3.4, 23 so subtract 3.4 minus 8.7. MR. ADLER: That's what I just did. 24 25 MR. HADDAD: I thought you meant AUM. 0068 1 Proceedings 2 MR. ORLANDO: Carry the 1. MR. HADDAD: DV01. Come on, John, get 3 4 it right. 5 MR. ADLER: You guys are way beyond my level here. I shouldn't be announcing that in б 7 public, but I am being honest. 8 MR. LEVINE: You are a fiduciary with 9 good outside experts. 10 MR. ADLER: So says one of our outside 11 experts. 12 MS. PELLISH: I think all Mike is trying 13 to point out is that we have talked about in 14 general the fixed income as a generic 15 homogenous and having a hundred dollars in 16 thirty-year bonds is very different in terms of risks if rates rise then if you have a 17 hundred dollars in a two-year. And that's the 18 19 only point of this and it can make a real 20 difference in terms of dollars. 21 MR. ADLER: Okay. So in other words, 22 you are saying that by raising the dollar 23 value per basis point we are lowering the 24 risk; is that an accurate statement? 25 MS. PELLISH: No, you are not going to 0069 1 Proceedings 2 move -- so you are not moving, right? MR. ADLER: I thought he said --3 4 MR. HADDAD: 5 is duration and 6 is 5 DV01. б MR. ADLER: I am on page 6. 7 MS. PELLISH: You told us to go to 6 so 8 we are on 6. So this is where you are 9 proposing to be with the two years? 10 MR. HADDAD: No, this is a snapshot. 11 MS. PELLISH: And then the 12.1 --

12 MR. HADDAD: -- is the target. 13 MR. ADLER: So your DV01 will move down? 14 MR. HADDAD: No. DV01 is going to go 15 up. When you buy two-year notes it's going to 16 go up small, but duration is going to go down 17 biq. 18 MS. PELLISH: So what's missing here is 19 what happens when you reallocate to more than 20 two years, so this is where you were at 21 year-end. We are going to be in between 8.7 22 and 12.1 because he is suggesting putting more 23 dollars into the two-year, but this plan we 24 are not going to go all the way up to the 25 12.1. 0070 1 Proceedings 2 MR. HADDAD: So at the June CIM when we 3 look at the Q1 portfolio and we have done the 4 things that we have talked about, if we do 5 them you are going to see the duration. And what we will do is we will do this, we will do б D31 view and March 31st view. You will see 7 8 the duration will go down and you will see the 9 dollar value of the basis point will have gone 10 up. 11 MR. ADLER: But not all the way? 12 MR. HADDAD: Not all the way; barely. 13 MR. ADLER: I am going to call on 14 Antonio. 15 MR. RODRIGUEZ: Two questions with 16 regard to timeline and attribution. I will 17 start with the attribution question. 18 Given we have had scenarios before in 19 the past before you got here, Mike, where we 20 did have tilted a different direction in this case -- well, I won't describe the title and 21 22 at the time, at least, our attribution 23 analysis wasn't robust enough to kind of 24 capture the effects of this change versus the 25 strategic portfolio. Do you believe that our 0071 1 Proceedings 2 current risk system will be able to capture 3 that? Is there a way we could capture the attribution for this decision? 4 5 And also given added onto that the б timeline, like how long or when do you think 7 this will be in effect and will we start 8 getting attribution on this fairly shortly. 9 MR. HADDAD: Yes. So we give you 10 attribution now on excess returns. We break 11 it into asset allocation on manager effect. Yes, we will be able to -- if we implement 12 13 these tilts, we will be able to give you P&L

14 on those specific ones and we can break that 15 out for you. 16 When? I am trying to think whether it's 17 two months or six months, but it's in that 18 range. We are moving quickly with MSCI and 19 one of the work streams that we have in place 20 is how to capture this P&L, because we need to 21 have P&L on this which speaks to having an 22 objective on it and where we are wrong. 23 Because if we are wrong, we don't want to just 24 sit on it; we want to reverse it. So, yes, we 25 need those tools to be able to monitor that. 0072 1 Proceedings 2 MS. VICKERS: I don't know if people are 3 done discussing. 4 MR. ORLANDO: Is it time for my question 5 yet? б MS. VICKERS: Oh, sorry. 7 MR. ADLER: Yes, go ahead. 8 MR. ORLANDO: Are you sure? 9 MR. ADLER: I apologize, I skipped you 10 One of my many -over. 11 MR. ORLANDO: New seat, same treatment. 12 So I am in the Rocaton deck, that looks 13 like this for those of you playing along at 14 home. So I would like to ask the panel of 15 experts and you can self-define that, so which 16 is the most likely scenario at the end of the 17 day? Thanks for circling those four boxes, 18 but it doesn't feel like those four boxes are 19 the most likely scenarios. So can you draw my 20 attention to what anyone considers the likely 21 scenario? Thanks. Don't all go at once. 22 MS. PELLISH: Well, so I think what we 23 are -- the temporary fall to the long bond 24 implementation is based on the belief that we 25 are going to realize some sort of decline in 0073 1 Proceedings 2 equity markets accompanied by some sort of 3 rise in interest rates. And so I don't think 4 anyone on the panel of experts is going to 5 specify what level, but it would be, you know, б just to call your attention to something that 7 is let's say a hundred basis points rise in 8 rates and a 10 percent decline in equity 9 markets. 10 MR. ORLANDO: So in the southeast 11 quadrant of the boxes? 12 MS. PELLISH: Yes. And in that 13 particular box on the current target, that 14 would be a loss of 6.7 billion and in the 15 modified target in the same box you would save

16 about \$600 million. 17 MR. ORLANDO: Okay. Anyone else want to 18 play bingo with me? 19 MR. ADLER: So in the southeast quadrant 20 which I was also thinking, then under any of 21 the scenarios we do better with a modified 22 than we do with the current, right? 23 MS. PELLISH: Right. 2.4 MR. ADLER: Whereas if we were in the 25 northwest, which I think none of us think is 0074 1 Proceedings where we are heading, we would do better with 2 3 the current than with the modified, right? 4 MS. PELLISH: Right. And in the, you 5 know, southwest you would be worse off with б the modified. Any environment in which rates 7 fall further, you will want the full long bond implementation. And this is -- and that's an 8 9 obvious statement, but this gives you some 10 orders of magnitude. It's hundreds of 11 millions of dollars under any likely scenario. MR. ADLER: You know, I don't know if 12 13 this is possible but, you know, I always feel 14 like we sit here and make these decisions 15 about asset allocation and it's like okay and 16 you actually never go back and look at oh, 17 what would we -- suppose we had made a 18 different decision, how would we have done it. 19 And, you know, obviously 20/20 hindsight and 20 all that jazz. However, I think it is -- you 21 know, for example, capital markets 22 expectations never play out according to 23 expectations. They might be directionally correct, but sometimes they are not. 24 25 MS. PELLISH: At best. At best. 0075 1 Proceedings 2 MR. ADLER: For example, nobody expected 3 two years ago that the equity markets would 4 have performed the way they did. The way they 5 have, right. And, you know, so we all expect б equity markets to decline as per the southeast 7 quadrant at this point and who knows, they 8 could -- they could, you know, not perform to 9 expectations again over the next two years, 10 four years, whatever. 11 MS. PELLISH: This is all probabilities. 12 MR. ADLER: It's probabilities. Anyway 13 in some ways, especially given that we are 14 doing this tactical reallocation, that's what 15 you are recommending. I think it would be 16 very interesting to sort of go back and review 17 how the bet has played out since we -- since.
18 You know, in other words, we are making 19 this -- assuming we are going forward here, we 20 are in the second quarter beginning to make 21 this play and then, you know, you have these 22 two likelihoods there. How did it actually 23 work, you know, looking at it in six months, 24 in a year, in two years, something like that. 25 I quess what I would do is ask BAM, if you 0076 1 Proceedings 2 could figure that out for us. 3 MR. HADDAD: Same thing Antonio asked or 4 5 MS. PELLISH: I think it's attribution, б that's what you are asking for. 7 MS. VICKERS: Can I make a suggestion. 8 MR. ORLANDO: Great minds think alike. 9 MR. ADLER: We spend too much time 10 together. MS. VICKERS: Just in terms of concrete 11 12 next steps, I think the board has two 13 decisions to make. First to kind of --14 whether we are comfortable with BAM 15 directionally tilting the portfolio to the 16 edges of some asset classes because of, you 17 know, everything that we have discussed today, 18 not changing anything that's -- you know, 19 targets that are in the IPS, just 20 understanding that we might go up to the limit in certain asset classes and that is something 21 22 that's very short term and something that I 23 think, you know, we are kind of directionally 24 doing and my personal opinion is that we 25 should continue to do and that's something 0077 1 Proceedings 2 that I think they need our feedback on sooner 3 rather than later. You know, some of the 4 attribution and the further study might be a 5 decision that would play into an overall б decision and discussion about whether we want 7 to do another strategic asset allocation at 8 this point. 9 So I think that there is kind of a 10 shorts-term thing that we could do that I am comfortable with sort of making the decision 11 12 without further study and then there is 13 further study that might play into whether we 14 want to do a strategic revisit of the 15 portfolio. 16 MR. ADLER: I just have a question. Did 17 we get your Rocaton's current capital markets 18 expectations, have you distributed that? 19 MS. PELLISH: We --

20 MR. FULVIO: Should have been 21 distributed last week. I think we sent that 22 to our clients last week, so you should have 23 received that. We can recirculate that on the 24 board mailing, if that's helpful. 25 MR. HADDAD: John, what we have asked 0078 1 Proceedings 2 Rocaton to do and they've done is to update 3 the asset allocation that their revised 4 capital market assumption and I think you did 5 that for D/31, I don't think March 31st. б MS. PELLISH: Probably not. MR. HADDAD: It's a mini-version of the 7 8 strategic asset allocation. And I don't 9 remember, I can't remember exactly where it 10 came out, but I think you might be 100 percent 11 in agreement with our directional arrows. 12 MS. PELLISH: Yes. So quarter to 13 quarter the numbers don't change very much, 14 but I think there is value going back and 15 looking at the assumptions that were built in for the study several years ago saying what 16 17 has changed in those assumptions, what has 18 changed in the environment, is there anything, 19 or what has changed in our risk posture and 20 perspective. So I think there is value in 21 doing that, even though our capital market 22 assumptions don't change much over 90 days. 23 MR. HADDAD: I would ask you to share 24 your three to five-year capital market 25 assumption on the U.S. equities. 0079 1 Proceedings 2 MS. PELLISH: I think it's something 3 less than 4 percent on average. 4 MR. ADLER: For U.S. equities? 5 MR. MALERI: It's actually zero for the б next three years. 7 MR. ADLER: Capital market expectation 8 is zero for the next three years? MR. FULVIO: 2.8 percent for ten years. 9 10 MR. HADDAD: That speaks to the valuation situation and what drives their 11 12 returns expectation valuation is a big part of 13 it. 14 MS. PELLISH: It dominates, yes. 15 MR. ADLER: What was it two years ago? 16 MR. MALERI: It was higher. Probably 17 closer to 4, 4-1/2 I would guess. 18 MS. PELLISH: So we did not see -- to be 19 very clear, we did not see what happened in 20 2017 and --21 MR. MALERI: Only to defend myself:

22 When we do this work while we show you kind of 23 the expected case, we do build in a very wide 24 range of outcomes. So it was in there; it was 25 certainly at the upper end of those 0080 1 Proceedings 2 expectations. 3 MS. PELLISH: We were much more 4 optimistic about non-U.S. equities and 5 emerging market equities, which actually did б play out. 7 MR. HADDAD: Well, in excess. 8 MR. ADLER: In response to your 9 question, Susannah, what I would suggest, what 10 I would ask, I don't think we should answer 11 the question about strategic asset allocation today because I think we want to get 12 13 additional information and analyze it and so 14 on. But I think the first question you asked is are we comfortable with this tactical 15 16 direction that BAM is proposing. You know, I 17 would ask the board is there comfort with that 18 as an immediate -- because actually we really 19 want to put this in effect, so I would ask if 20 there is --21 MS. VICKERS: I think it is happening. 22 MR. ADLER: It is happening. So I guess let me put it on the reverse. Is anybody 23 24 uncomfortable with saying to BAM, yes, that's 25 the right direction to go right now? 0081 1 Proceedings 2 MR. KAZANSKY: Well, I guess my question is is that -- when we voted on the asset 3 allocation and we voted on the rebalancing 4 5 ranges, the understanding was that it wouldn't б necessarily be needed for us to interject as 7 long as they were moving within those 8 rebalancing ranges. Were there any caveats to 9 that as far as a time period or rationale 10 behind it? 11 MS. VICKERS: No. And I just want to 12 jump in. I think the reason we are even 13 discussing it today is because we are at this 14 extraordinary point. And the mayor's office 15 had asked for a review of the strategic 16 allocation and so BAM's response to that was, 17 we are already kind of doing this strategic 18 tilt. 19 MR. ADLER: Tactical tilt. 20 MS. VICKERS: Strategic, sorry. It's 21 not strategic at all. 22 MR. ORLANDO: It's within the strategy. 23 MS. VICKERS: So we want to make sure

24 everybody is on the same page. What BAM is 25 doing is completely within the rebalancing 0082 1 Proceedings 2 ranges that BAM has discretion, but we want to 3 make sure everybody is comfortable and 4 everybody is on the same page. So it's not an 5 action item we have to vote on; it's just is б everybody cool of it kind of. 7 MR. ADLER: That's exactly what I was 8 going to ask. 9 MR. HADDAD: I think if I could channel 10 my inner Scott Evans, I think what he said I 11 am not going to tilt the portfolio, we are not 12 good at it, I don't believe in it, it's hard 13 to do, blah, blah. When I got him over the 14 hurdle, it is -- the high hurdle is we are at 15 extraordinary time periods, a point in time 16 and that argues for doing some within the 17 existing ranges, some of that. And as either 18 Susannah or John pointed out, these are 19 three-month snapshots. I am not going to 20 comment on what May 3rd snapshots look like. 21 I want to say they are different. 22 We want to be transparent, we want to be 23 informed, and we want to get your temperature 24 on whether this is okay or not. And if it's 25 not, then we will take appropriate action. 0083 1 Proceedings 2 And if it is, we might do different 3 appropriate actions. It's public session. I 4 don't want to comment on what we are going to 5 do, but -- you know. б MR. ADLER: I just want to make one 7 comment on this too, which is that in 2008 8 virtually every pension fund got slammed. 9 And, you know, that's a technical term but 10 the, you know, correlations went, you know, 11 everybody was correlated and so on. The one 12 exception that I am aware of, and Robin might 13 remember others, was the GM Pension Fund. And 14 they went -- they went to cash big time and so 15 they survived. I mean, when I say "they 16 survived," they didn't have the double-digit 17 drops that virtually every other pension fund 18 had. You can look at that and I was very 19 impressed they did that. 20 MS. PELLISH: Did they reinvest back 21 into the market? 22 MR. ADLER: Yes, after the crash. 23 That's my understanding. 24 MR. AARONSON: After the crash or after 25 the market was up?

0084 1 Proceedings 2 MR. ADLER: They went to cash when the 3 market was inflated and then the market 4 crashed. Then I believe -- I don't know if 5 they timed it perfectly, you know, because you б don't know when the bottom is. So they may 7 have done it on the way up, I am not sure. 8 But my understanding, they went to cash so 9 they survived much more so than every other 10 pension fund that I am aware of the drop. 11 Now, we are not obviously -- A, we can't 12 time it and, B, we are not going to take on 13 that kind of thing. But the fact is I 14 honestly found it very reassuring that what 15 you are basically telling us what we are going 16 to do is rebalancing into a greater cash 17 position, because I think that given this 18 description of the market conditions that we 19 are in that that is probably the safest place 20 to be in terms of trying to minimize the drop 21 that we anticipate through the equity decline 22 and interest rates rise. But I agree we don't have to make any decision today. But I really 23 24 just wanted to see if as of today folks, 25 trustees are comfortable with the direction 0085 1 Proceedings 2 that BAM has laid out for us. Does anybody 3 like feel like no, we got to put the kibosh on 4 this? Okay. 5 MR. ORLANDO: I guess I feel like when б we made the decision two years ago to go into 7 the long duration, we made it at a point in 8 time. And we should recognize that as time 9 goes by, more data points appear, right, 10 things either go the way you expect them to 11 which never happens or, you know, other things 12 happen. And this action is us recognizing 13 that the world has changed a little bit. We 14 have got more information to make better 15 decisions with and so I am comfortable within 16 the strategic allocation that we already 17 decided on not to exceed with this decision to 18 move a little closer towards the high end of 19 the range, personally. 20 MR. ADLER: Great. 21 Okay. Let me just say thank you to Mike 22 and to the whole Rocaton team. I thought this 23 was a really good discussion and you are 24 illuminating things that, speaking for myself, 25 about which I need to be illuminated so I 0086 1 Proceedings

2 appreciate it. 3 Okay, so I think our next agenda item. 4 We are running very late, but so we have the 5 Verite presentation. б MS. PELLISH: So they are waiting 7 outside; we have their presentation. Just one 8 person. 9 MR. ADLER: Welcome. If you would, please introduce yourself for the record and 10 11 then the floor is yours. And we really want 12 to try to keep this to thirty minutes total. 13 MR. FULVIO: Maybe I will just make a 14 quick introductory comment. So we would like 15 to welcome Shawn MacDonald from Verite. 16 You might recall at the last meeting we 17 discussed a broad review of the emerging 18 market equity country screens. As part of 19 that review, we are considering an alternative 20 approach to thinking about how we look at 21 different factors we previously have been 22 screening on and how under a new approach we 23 might think about that a little bit more 24 differently by expanding the opportunity set 25 from where we are today. And rather than 0087 Proceedings 1 wholesale exclusions, thinking more about how 2 3 we engage based on the holdings and focusing 4 on the similar factors, but more a way of 5 using that information to engage with б companies in emerging markets. 7 So today we have invited one of the 8 experts we referred to at the last meeting who is involved in the process that NYCERS 9 10 undergoes today, but that's only a very small 11 portion of what they do and the type of work 12 they work with clients. We will let Shawn 13 introduce Verite and speak more broadly about 14 how they work with other clients of theirs and 15 the work that they do which is very 16 interesting, but also talk a little bit about 17 some of the ideas they have based on the 18 broader view we shared with them about the 19 direction of the futures board. 20 So with that, I will turn it over to 21 Shawn. 22 MR. MacDONALD: Thank you, Mike and 23 Robin, for inviting me. It's a pleasure to 24 see you all. I know you have a short amount 25 of time, so I will try to be quick. 0088 1 Proceedings 2 I am Shawn MacDonald. I am the CEO of 3 Verite. Verite is a nonprofit organization

4 that was founded more than twenty years ago to 5 promote fair safe legal work globally. We 6 work concretely on supply chain practices and 7 policies. Verite is quite unique in that we 8 work with all stakeholders in the labor space, 9 meaning we work directly with workers 10 themselves, with suppliers on factories and 11 farms, multinational corporations, investors, unions, governments, the whole range which is 12 13 actually quite unusual in the labor space. 14 We were founded in 1995. We have a 15 footprint of about 100 people globally, 16 offices in places where you would expect there 17 is a lot of our kind of work; China, Southeast 18 Asia, South Asia, Latin America, with 19 headquarters of about 35 people in 20 Massachusetts. We do things ranging from 21 assessments and audits in supply chains to 22 policy advocacy work around supply chain practices and policies as well as a lot of 23 24 training and consultations for businesses. 25 What I would like to do is really emphasis the 0089 1 Proceedings 2 fact that much of our work focuses on risk 3 assessment. 4 If you take a look at page 4, I will try 5 to go through these quickly and I will let you б know once in a while when you should flip 7 pages, since it's not on the screen. A lot of 8 our work focuses on risk assessment because, frankly, where a lot of investors and 9 10 companies are at the moment is still coming to grips with their risks around the world. 11 That 12 could be risks related to human trafficking to 13 unsafe workplaces to gender discrimination. 14 And so for many of our clients, we really help 15 them figure out what is their risk profile and 16 that can come in four major ways. Looking at 17 evaluating the country, commodity, or sector 18 risk, we do also a lot of work in combining 19 risk profiles where you are looking at how a 20 particular sector is actually operating in a 21 company, because obviously conditions can vary 22 a good deal between countries in the same sector. We also do a lot of individual 23 24 company benchmarking. And the reason that's 25 important is because as more multinationals 0090 1 Proceedings 2 are trying to understand what risks they face 3 in the suppliers they are choosing, they want 4 to be able to know how they could 5 differentiate between which supplier may be

б presenting more risk to them than others. And 7 in our work with investors they want to have a 8 handle on how well the holdings they have, 9 those companies, are understanding the risks 10 and practically what are they doing to deal 11 with them. And then we do a great deal of our 12 work, more than half of our officer work, 13 within company engagement where the level of 14 risk analysis is much more practical and in 15 depth where we do audits and assessments, 16 self-assessments questionnaires, working with 17 grievance mechanisms to hear directly from 18 workers about what the status of the situation 19 is and then tailoring our trainings and toolkits and consultation capacity building to 20 21 work to help that company deal with this risk 22 more appropriately.

23 On page 5, I wanted to give you now a 24 couple of examples of the kind of risk 25 assessment work we have done over time and be 0091

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2 able to give you some sense of how we may be 3 able to help you transition. Since 2000, we 4 have worked with retirement systems to 5 understand country level risk. So back in б 2000, we worked with CalPERS and more than 25 7 countries. We provided an analysis of what 8 risks existed on labor matters, that was mixed 9 with other information about countries' 10 investment openness and transparency and things like for CalPERS to decide whether they 11 12 would invest in a particular country. When 13 they moved away from that methodology, that's 14 why we no longer work with them. But since 15 2000, we have worked with NYCERS. And I think 16 the important thing to note, some of you are 17 familiar with the work we have done for 18 NYCERS, is that we have a really comprehensive 19 approach to how we do the analysis. And 20 what's really important is we don't just have 21 some kind of algorithm that says throw in some 22 information based on publicly available 23 sources, but every year have in-country 24 researchers update the situation across all 25 the national labor organizational corp labor 0092 1

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2 criteria as well as a lot of other 3 quantitative and qualitative factors. And 4 then that's all analyzed by experts in-country 5 as well as our headquarters so that we are б able to provide really valuable up-to-date 7 information. So that's what we provide for an 8 organization like NYCERS.

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9 On the next page is another really 10 interesting example, particularly for those of 11 who you may still be in the classroom for your 12 teaching colleagues, where we created for the 13 U.S. government a website called the 14 Responsible Sourcing Tool where we were 15 helping the world's largest supply chain, 16 which is really the federal government, come 17 to grips with how to implement President 18 Obama's executive order that would require 19 federal contractors of a certain size to have an antihuman trafficking plan in place. Our 20 21 policy team was actually very active with the 22 White House in crafting that executive order. 23 And then they asked us to do a full analysis 24 of 15 major sectors globally for which sectors 25 were most at risk for human trafficking as 0093

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2 well as analyzed more than 44 commodities and 3 then present sociopolitical and economic risk 4 information for more than 100 countries, 5 wrapped that altogether into that website б Responsible Sourcing Tool that other companies 7 can access to better understand where risks 8 may be and then create open source-compliance 9 tools to help those companies figure out how 10 to deal with this. So this was an example 11 where our policy company engagement as well as 12 research work all come together around a 13 particular type of risk, that is human 14 trafficking, for a wide variety of companies.

15 And then the next page you will see how 16 we took that concept and dug a little deeper 17 into Africa where we had a client. In this 18 case, it was the state department asked us to 19 go really deep onto trafficking risk in Africa 20 with particular criteria where they wanted us 21 to provide more in-depth information. I think 22 this is really important because all of our 23 efforts end up being tailored to the needs of 24 a particular client. They wanted us to really 25 focus not just on the typical indicators of 0094

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trafficking, but also what was the links to 2 3 environmental crises, political crises, that 4 sort of thing. And also there we worked very 5 closely with union affiliates in many of the б countries there to get really in-depth 7 information about things from a worker's 8 perspective. 9 On the next page you will see some

10 examples of how with individual's 11 socially-responsive investment firms or their 12 advisors or companies themselves were able to 13 do risk profile information. And this is 14 really based on -- it always ends up being 15 based on their willingness to share a certain 16 amount of data or their comfort with digging 17 in or getting information for companies. So, 18 for example, one client asked us to look at 19 whether -- the risks in the electronic sector 20 not just generally, but specifically focused 21 on foreign contract workers for example, or 22 how we could benchmark their holdings against 23 peer companies. Because, as you know, many 24 companies will try to tell you all the 25 wonderful things they are doing and a lot of 0095 1 Proceedings our investor clients really want to know how 2 can we really evaluate and judge the 3 4 information that they are giving us; are they 5 basically, you know, telling us a lovely б story, but how do they really compare against 7 their colleagues. So we also very often will do risk assessment based on the spend and the 8 9 leverage of the company; where are they 10 putting most their money, where do they have 11 most leverage in terms of the size and 12 durability of the contracts they have. 13 On page 9, so just another quick example 14 focussed particularly on work we do when it's 15 just based for various reasons on public 16 sources of information. So along with 17 Sustainalytics and Business & Human Rights 18 Resource Center, we created this Know the 19 Chain that evaluates companies on their human 20 trafficking and forced-labor transparency 21 statements and efforts based on publicly 22 available information. And then I think it's 23 really particularly important to note that 24 when we focus specifically on SRI firms and 25 the information that they need, that we spend 0096 1 Proceedings 2 a lot of time helping them weight how they 3 want us to evaluate the companies, so what 4 kind of scoring methodology is created. 5 On the next page, 10, this just gives б you a really brief overview when we work 7 directly with companies and that can be 8 companies at the headquarters level, 9 multinational headquarters level, or at the 10

major supplier level where we help them start 11 off essentially with mapping their exposure,

12 evaluating the levels of risk, figure out how 13 to build capacity, or provide the tools they 14 need to deal with these and really focus on 15 the root cause analysis and improving their 16 systems and processes. 17 On the next page -- I won't get into all 18 this, but you can see a lot of the larger 19 in-depth practical types of engagements that 20 we have with companies where we really help 21 them figure out how to improve their due 22 diligence systems, create management systems 23 approach. Because frankly no company deals 24 really well with labor issues, so it's a 25 journey for all of them. So really helping a 0097 1 Proceedings 2 company figure out in which particular supply 3 chains and which countries they should do 4 which steps at what robust pace is really the 5 kind of work that we are able to do based on б the experience we have working for more than 7 twenty years across different countries and 8 sectors. So that's a really brief overview of 9 the type of work that Verite does. 10 On page 12, I laid out just -- and 13 --11 some basic options for the kind of engagement 12 that we had been brainstorming. Obviously 13 we're very eager to hear your questions and 14 comments, but we really thought if and when 15 you decide to transition away from a 16 country-level screening approach, that we 17 could advise based on our previous experience 18 how to facilitate that transition to looking 19 at a sector based or a commodity-based or 20 actually evaluating individual companies or 21 groups of companies. Obviously we would be 22 able to give a lot of in-depth analysis based 23 on particular sectors or commodities or 24 countries with that expectation that it would 25 be based not just on desk research or publicly

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2 available information, but in-depth expertise 3 on the ground in these countries. And also 4 potentially if you are trying to figure out 5 what is the right sort of methodology for how б you evaluate companies, what are the kind of 7 things like self-assessment questionnaires, 8 other forms of data-gathering, types of 9 engagement, types of questions to be asked, 10 processes, even building the capacity of your 11 team or your advisors team to interact with 12 companies to really better understand how to 13 benchmark them against their peers or, more

14 importantly, how to benchmark them against 15 what your expectations and goals are for them. 16 And I know that can be a difficult process, 17 but we really work with clients to say what is 18 your short and long-term goals for the 19 companies that you are invested in, are you 20 expecting them to be above average, how 21 important is it to you that you work with them 22 over many years and that you see continual 23 progress, how can you evaluate that progress, 24 that sort of thing, or are you going to take a 25 more indirect approach and just try to avoid 0099 1 Proceedings

2 particular sectors or try to benchmark your 3 holdings against a certain level of 4 performance for companies in a particular 5 industry. So those are the kinds of things. б On page 13, if and when you are 7 interested in more direct company engagement 8 obviously this is work, our bread and butter, that we have done for many years and that way 9 10 we can help you benchmark, help you rank, figure out the criteria, actually engage with 11 12 individual companies as appropriate or perhaps 13 build the capacity of you all to figure out 14 what kind of questions you want to ask, what 15 level of information you want to get from 16 them, what is the nature of the back and forth 17 of engagement that you want to have with them 18 and if necessary, possible, and desirable from 19 your perspective actually provide some 20 capacity-building or advice for the companies that you invest in to actually improve their 21 22 performance. So that's actually a spectrum in 23 terms of how deeply involved you want to get 24 or if you want to help in developing the 25 journey, so to speak, for how you might pilot 0100 1

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2 particular approaches for different sectors or 3 companies rather than necessarily jumping 4 right off a cliff into direct engagement with 5 individual companies on improving their б performance.

7 So there you have it, a couple of ideas 8 for how you may transition based on a lot of 9 experience that we have had doing this type of 10 thing. And I will hear whatever questions or 11 discussion you would like to have at the time, 12 I am available.

13 MR. ADLER: Questions for Shawn? 14 MS. PENNY: This sounds great. We 15 started this work because we had a list of

16 excluded countries and we were not really sure 17 should they still remain on the list and, you 18 know, what has changed. But this also gives 19 us the ability to make changes for some of the 20 countries that we feel -- so this sounds 21 wonderful. Thank you, very interesting. 22 MS. VICKERS: I will just say, I also 23 sit on the NYCERS board along with the mayor's 24 office. So we are very familiar with this and 25 had a great experience at NYCERS, but one 0101 1 Proceedings 2 question that we have been batting around a 3 little bit is: How fresh is the data? You 4 know, sort of we have a particular way of 5 doing things at NYCERS. With Callan's involvement it sometimes seems like we might б 7 be looking at research or information that 8 Verite did maybe not particularly in the most recent past. So can you talk about timing a 9 10 little bit, how it works maybe, how it could 11 work or how it should work? 12 MR. MacDONALD: Yes. So our -- I can't speak for Callan, although my sense is some of 13 the other types of information and analysis 14 15 they provide you is based on older information. Our information is updated every 16 year and so it includes not just the freshest desk research available, but in-country 19 experts who go out and do interviews with 20 relevant stakeholders. That would include 21 government people, union officials, civil 22 society activists, and so on as well as a 23 legal analysis of how laws have changed. So 24 our information is fresh every year. Of 25 course certain reports or information, legal 0102 1 Proceedings 2 analyses and things don't refresh every year. 3 Because of many things around legal statutes 4 and so on, changes don't happen every year. 5 But we provide an annual refresh of how б stakeholders in these countries are 7 understanding and forecasting what may happen. 8 So, for example, Freedom of Association 9 Laws rarely change so we would note there 10 hasn't been a change, but we would also note 11 that maybe the recent spate of strikes in that 12 country should be viewed in this way or in a 13 particular way. It can be seen as a positive 14 sign of more strength and growths of the union 15 sector or it can be seen, you know, usually in 16 a mixed way of course, but the bottom line is

that it's refreshed every year. I think some

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of the other information about market 18 19 transparency and things that we don't do, 20 because we are only a small part of what 21 Callan provides, may be based on older 22 information. 23 MS. VICKERS: Thank you. 24 MR. ADLER: So I have a question. So 25 the way our emerging markets policy works is 0103 1 Proceedings 2 it's based on the country, where a company is 3 traded; have I got that right? 4 MS. VICKERS: Listed, yes. 5 MR. ADLER: So what you are talking б about here I think is more about, you know, 7 operations, particular supply chains. For 8 example, there is lots of companies that are 9 U.S.-traded companies, you know, Nike and 10 Apple and on and on, but where their supply chain operations are in some of the countries 11 12 that are considered emerging markets. So 13 those are not considered emerging market 14 countries because they trade in the U.S., but 15 supply chain issues, you know, are all over 16 the world. 17 MR. MacDONALD: Of course, yes. 18 MR. ADLER: So part of my question is: 19 You know, if we are talking about moving from 20 a country screen to a company screen, are we limiting that to companies that are actually 21 22 traded in these emerging markets and -- you 23 know what I mean? 24 MR. MacDONALD: Yes. I mean, obviously 25 I can't make that decision for you. 0104 1 Proceedings 2 MR. ADLER: But I would like your 3 reflection on that. 4 MR. MacDONALD: It seems quite 5 arbitrary. If you tend to lead with your values and look at labor risks in particular б and other kind of social risks, then the 7 8 relatively arbitrary notion of where they are 9 traded or where their headquarters is is 10 really sending you off in the wrong direction. 11 Because that's where if you are saying, okay, 12 based on our holdings and the products supply 13 chains associated with, that's where you can 14 say, okay, we are really heavily invested in 15 electronics and then you say, okay, what are 16 the several countries where electronics are 17 mostly produced that would have a risk for us; 18 say Malaysia or Taiwan or China and go from 19 there. So it takes a little bit of data, but

it's not that difficult, you know, to leapfrog 20 21 to where your problem is. 22 MR. ADLER: I think that's a challenge 23 for us, because I don't disagree with you 24 that's sort of an arbitrary distinction. So 25 really I think are we limiting ourselves to 0105 1 Proceedings 2 examining, in your case, the labor practices 3 of companies that are traded in emerging 4 markets, on emerging market stock exchanges as 5 opposed to the country where operations or supply chain, what have you, take place. I б 7 mean, I think that's really a question for the 8 board as opposed to Verite because I 9 understand you could actually provide these 10 services for any country that's traded 11 anywhere, including much of the S&P 500. 12 MR. MacDONALD: Sure, or finding a way 13 to slice and dice the holdings and say we see 14 these top fifty companies, they are breaking 15 down in electronics, food and beverage, 16 apparel, construction, something like that. 17 And say of those, unless you have additional 18 information that would say otherwise, we would 19 be able to say the likely countries where 20 those things are being sourced would be these 21 ten. And then you can do an overlay to say 22 are you particularly interested in the country 23 risk, are you particularly interested in what 24 the sector is like in that country and how do 25 the risks stack up there. Because even 0106 1 Proceedings 2 countries right next door to each other can present a quite different labor profile on 3 4 whether they are a sending or receiving 5 country for migrant workers or the situation б in China is quite different than the situation 7 in Taiwan, even though you are dealing in the 8 same Taiwanese-owned electronic companies. So that's where with a little bit of 9 10 data based on the company, what they are 11 selling, what the shape of their supply chain 12 is or, as I said, other kind of ways of 13 cutting it where you say of a huge 14 multinational company like a Unilever or 15 something, you know, what are you spending 16 most on, or we can look at the top say twenty 17 commodities that they are associated with and 18 say, okay, here are the top five to be 19 concerned with. And then, importantly, that 20 can give you a sense of, depending on the 21 nature of the engagement, where do they rank

23 in terms of the existence or the effectiveness 24 of their compliance system. That's probably a 25 little bit further down the road in terms of 0107 1 Proceedings 2 really understanding when they say they have 3 compliance in place, how do you judge that. 4 But I think country-level sectorial 5 information and commodity-level information, б there is a lot there that can be easily worked 7 with that can give you a much more nuanced 8 picture without too much difficulty and 9 actually without too much sharing of really in-depth proprietary information, because a 10 11 lot of these companies have that information 12 anyway. 13 So it's really about what level of 14 comfort and leverage you have in gaining that kind of information from them. And that's 15 16 where I talk about being able to advise you 17 this is the information you have, these are 18 the sources of information you think you can 19 likely get from them based on the nature of 20 your relationship, based on your capacity of your team to get that information, how much of 21 22 a hassle are they willing to go to mag the 23 companies, speaking frankly, to give you that 24 information and then say, okay, with that we 25 would be able to provide these kind of risk 0108 1 Proceedings 2 profiles for you and once you have those risk 3 profiles say, okay, what might you do with 4 those because, this is the information we face 5 with all sorts of people. You know, you can б give more and more information, that doesn't 7 mean it's easy for companies to then turn on a 8 dime and begin to do things differently or an 9 investor to say all right, wow, I didn't 10 realize things were that bad. Doesn't mean you are going to sell off or should sell off 11 12 right away and it doesn't mean you have 13 terrific alternatives to buy into either, so 14 -- but it gives you kind of a picture of which 15 -- a better picture of what you are faced with 16 with these companies and then perhaps work 17 through and say, okay, what do you want to do 18 with this information, what do you want to try 19 out in the next year or two. 20 MS. PENNY: So how does this work? You 21 would give us a list of countries or you give 22 us reports on some of these or we would 23 contact you when there is an investment coming

compared to their peers, how are they ranked

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24 up in a country that we didn't normally invest 25 in? Like how does that work or how does it 0109 1 Proceedings 2 work with NYCERS? 3 MR. MacDONALD: With NYCERS, for 4 example, we have a set of countries. They 5 changed a little bit over the years, but it's б 25, sometimes 23 countries. So it's the 7 routine set. I think it really depends on, 8 you know, first determining what your goals 9 are, but certainly we are able to provide 10 country and levels, sectorial level, commodity 11 level. But it's based on the type of company and the kind of information based on their 12 13 compliance profile. What I mean by that, what 14 are they doing or not doing to deal with these 15 company problems, what kind of confidence can 16 you have in the fact that they are moving in a 17 positive direction or not. 18 MS. PENNY: So it would be -- so if we 19 wanted to invest in one of those countries we 20 would say, okay, we are looking at this 21 country, has there been any change or --22 MS. VICKERS: I don't think it's sort of 23 that one-off like we would have Verite consult 24 every time we are looking at a country. Ιt 25 would be if we decide to kind of go, it seems 0110 1 Proceedings 2 like on page 12 there could be a discussion about what kinds of things we want to look at 3 whether it's the sector level, the commodity 4 level. And once we get past that discussion, 5 б then they would do like an annual report for 7 us that would help inform our guidelines. So 8 it's not on a case-by-case basis. 9 MS. PENNY: It would be there forever? 10 MS. VICKERS: It would probably be a regular review. 11 12 MR. BROWN: I am impressed with your 13 presentation and with you. I have a question. 14 Thank you for coming, by the way. 15 You talked about foods and commodity, 16 food and beverage. Let's say we invest in a 17 company that transports food and beverage from 18 the U.S. into Mexico let's say through that 19 corridor between Ciudad Juarez and Mexico City 20 up to Yucatan and Acapulco. There are 21 criminals and there are bandits and there are 22 people in kidnapping truck drivers. You did 23 mention that you have in-depth expertise on 24 the ground, so other than the published 25 reports and a lot of crime -- what's happening

1 Proceedings in Cancun now, a lot of the crime is just not 2 3 reported. In Cancun terrible crime situation 4 there, bombings, the ferries going in between 5 Isla Mujeres and Cancun, and just we are just б not hearing any of this. So when you mention 7 you have in-depth expertise on the ground, 8 what does that mean; how would you know about 9 things that are happening locally? 10 MR. MacDONALD: Right. That is ironic 11 you mentioned that because that's a situation 12 we are facing right now with some of our 13 colleagues in Latin America, that we have to 14 change our protocols and people's public 15 profiles sometimes so that they don't get into 16 trouble as they are poking around on some of 17 these issues. So specifically we have people 18 from those countries who work with us as 19 consultants usually or as staff who have their 20 finger on what's happening there. 21 And so as an example, in a place like 22 Mexico we were hired by a company to do an 23 assessment of migrant workers from the 24 Northern Triangle countries, Guatemala, El 25 Salvador and Honduras, going into the coffee 0112 1 Proceedings 2 sector in Mexico. So there we would have 3 people, who spoke the indigenous language of 4 Guatemala in particular, go into Mexico with 5 people from Mexico who do work for us. They would go and assess this information and they б 7 would get information both at the community 8 level by talking to church people and local 9 nonprofits as well as the companies. So these 10 are people who are really in-depth experts on 11 labor issues. Now, some of those same people 12 may then spend the month of September and 13 October doing these interviews that then go 14 into our NYCERS report. So because of the 15 diversity of the engagements we have, our 16 people are exposed to conditions from a lot of 17 different sectors. And then, as I mentioned 18 before, they are interacting with workers one 19 day, with CEOs the next, or with government 20 people. Not all of them, some specialize, but 21 those are the type of people we have. 22 And in terms of the really specific 23 criminal gangs and so on, we had mentioned 24 that we tailor our work so that our people 25 aren't put into too much danger, but we 0113 1 Proceedings

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2 certainly analyze the nature of those 3 situations and then highlight the risk 4 information to the company. But then also try 5 to figure out what's an appropriate thing that б can be done under those circumstances based on 7 those -- based on those challenges, but also 8 particularly from the angle of workers. We 9 are not there to say ten-point plan on how you deal with criminal gangs, but rather looking 10 11 at what does this mean for the workers, what 12 additional risks are they facing, what does this mean for what usually-expecting company 13 14 should have to be dealing with there. Because 15 many companies throw up their hands and say 16 it's really bad, we don't know what to do. 17 And that would be a problem because it doesn't 18 mean they should have a solution necessarily, 19 but they should be trying things and having a 20 continuous improvement process.

21 MR. BROWN: You couldn't have answered 22 it better just knowing that in Southern 23 Mexico, a lot of counties in Mexico, so many 24 people are not Spanish. There are so many 25 indigenous languages and cultures, so your 0114

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answer --

3 MR. MacDONALD: Right. It's a really 4 challenging situation because -- yes, because 5 there is a lot of violence against people б dealing with these kind of issues around the 7 world, so you have to be really very careful. MR. BROWN: The fact that you said they 8 9 to go in and get to know the local people 10 before making decisions, that's fine. 11 MR. KAZANSKY: So we also have a country 12 screen in our private market investments as 13 well. How would you be able or would you be 14 able to help us with that? For example, if 15 you were going to do some infrastructure 16 investment, you know, in Honduras or something 17 like that, currently we have one kind of setup 18 and we are interested in reevaluating that, 19 how or would you be able to help us?

20 MR. MacDONALD: Yes, definitely. The 21 issue of construction is one that's getting a 22 lot more attention in recent years because of 23 the dirty, dangerous, and difficult nature of 24 the work, and because very often there is a 25 link to trafficking because so many foreign 0115

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2 contract workers are involved, whether it's 3 construction here or in the Middle East or

elsewhere. And so without a doubt, we would 4 5 be able to mix that information about what we know about the country with the particular, 6 7 you know, construction scenario in that 8 country and then also again, you know, look to 9 see what due diligence is in place, if 10 anything, for that. Some cases around 11 construction we even played an onsite role as grievance advisors for really large 12 13 construction projects because of the nature of 14 the difficult situations. 15 MR. ADLER: Other questions for Shawn? Okay, thank you so much for coming in 16 17 and you will be hearing from us probably at 18 some point in time. Thank you for your 19 patience this morning. 20 Okay, if I am not mistaken, that concludes our public agenda. We do have a 21 couple of items for executive session, so a 22 23 motion would be in order to enter executive 24 session. 25 MR. BROWN: So moved. 0116 1 Proceedings 2 MR. ADLER: I am not going to recognize 3 the motion. 4 MS. PENNY: I move pursuant to Public 5 Officers Law Section 105 to go into executive session for discussion on particular б 7 investment matters. 8 MR. ADLER: Thank you, Ms. Penny. Is 9 there a second? MR. BROWN: 10 Second. 11 MR. ADLER: Any discussion? All in 12 favor of the motion to enter executive 13 session, please say aye. 14 Aye. 15 MS. VICKERS: Aye. 16 MS. PENNY: Aye. 17 MR. ORLANDO: Aye. 18 MR. KAZANSKY: Aye. 19 MR. BROWN: Aye. 20 MR. ADLER: All opposed, please say nay. 21 Any abstentions? Motion carries. Okay, I 22 believe we are in executive session. 23 (Whereupon, the meeting went into executive session.) 24 MR. ADLER: Okay, we are back in public session. 25 Susan, would you please report out of executive session? 0117 1 Proceedings 2 MS. STANG: Certainly. In executive 3 session there was a discussion on regulatory 4 matters. Consensus was reached which will be 5 announced at the appropriate time.

б MR. ADLER: Thank you so much. With that, I think we conclude our agenda for today. Is there a motion to adjourn? MS. VICKERS: So moved. MR. ADLER: Thank you. Is there a second? MS. PENNY: Second. MR. ADLER: Thank you. Any discussion? All in favor of the motion to adjourn, please say aye. Aye. MS. VICKERS: Aye. MS. PENNY: Aye. MR. ORLANDO: Aye. MR. KAZANSKY: Aye. MR. BROWN: Aye. MR. ADLER: All opposed, please say nay. Any abstentions? The motion carries, the meeting is 25 adjourned. Thank you very much. Proceedings [Time noted: 12:45 p.m.] б Proceedings CERTIFICATE STATE OF NEW YORK ) : ss. COUNTY OF QUEENS ) б I, YAFFA KAPLAN, a Notary Public

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14	set my hand this 14th day of May, 2018.
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