

Eddie Baza Calvo Governor

Ray Tenorio Lieutenant Governor Paula M. Blas

Quarter Ended March 31, 2014 Performance Meetings & Annual Investment Manager Reviews

May 29, 2014
Retirement Fund Conference Room

Board of Trustees Present:

Joe T. San Agustin, Chairman, Board of Trustees Wilfred P. Leon Guerrero, Ed.D, Chairman, Investment Committee Gerard A. Cruz, Trustee Antolina S. Leon Guerrero, Trustee David O'Brien, Trustee James Diaz, Trustee

Staff Present:

Paula M. Blas, Director Diana T. Bernardo, Controller Rosalia L. Bordallo, General Accounting Supervisor

Other Present:

Maggie Ralbovsky, Wilshire Associates Michael Materasso, Franklin Templeton

Franklin Templeton
Asset Allocation Education

Pages 2-13 Pages 13-25 Trustees:

Joe T. San Agustin Chairman

Wilfred P. Leon Guerrero, Ed.D. Vice-Chairman Investment Committee, Chairman

Antolina S. Leon Guerrero Secretary

Gerard A. Cruz Treasurer Audit & Operations Committee, Chairman

Katherine T.E. Taitano

Anthony C. Blaz

David M. O'Brien

Franklin Templeton

Wilfred Leon Guerrero: Okay Mike, you've got the floor and same thing, we like to know about first of all changes in organization? Mike Materasso: Yes, no changes in the organization. Wilfred Leon Guerrero: Any of the regulatory agencies have issues with you? Mike Materasso: No we're in the good graces of the regulatory agencies. Alright well good morning everyone thanks for having me in. Sitting in the waiting room and the person that's there says is this your first time to Guam? I said actually no, this is probably my 16th time or 17th time to Guam. My first one was in 1997, and so you fill out the form they ask you how many times you've been here 6 or more and it's been that way for quite some time. So what I'd like to do is basically stick to the script that you provided and turn to talking about the portfolio over various periods of time. I guess it's the fiscal year from September of '93 year to date basis first quarter year to date basis and inception. So into that end if we could just turn to page 8, it's the page that has the yield curve chart on it. So just so that as a backdrop to performance, how did the markets do during this period of time. So if you start off on the upper left hand side of the page, the chart that says term structure of U.S. interest rates, it shows you sort of the 3 points in time that we're looking at. This one year period from September 30, 2012 that's the red line, September 30, 2013 that's the sort of mustard color gold line and then the April 30, 2014 is the blue line. So you'll see for that 1 year period from September '92, '93 we had a rise in rates and a lot of it occurred in May of 2013 when then Chairman Bernanke talked about tapering purchases and the market really reacted pretty strongly to that. So you had the rising rates, we had been trading between 1½ and 2% on the 10 year treasury and then we moved up to a range 2½ to 3%, right now we're at the lower end of that range. So what its saying is that the Fed feels that the economy is in better shape. It needs less help yet there's still are some fragile course in the economy so the feeling was let's do it very slowly and there's very gradual tapering that's going on.

Ironically one thought that because the Fed had been buying a trend amount of treasury securities has put downward pressure on the rates. But since the Feds started the tapering program in the fall of last year, the 30 year treasury which is part of the curve that the Fed has been purchasing has performed the best since terms in decline in yields so it's kind of ironic but there are other reasons for that. When you look at how the benchmark did, the Barclay's aggregated index if you now look on to the right hand side of the page the first block the first table and the first line there for Barclays Capital Aggregate index you'll see because of that rise in rates from 1½ to 2½% during that time frame of 2012, 2013 the index itself had a negative return of 1.68% which continued in the 4th quarter as well with another negative 14 basis points however since the beginning of the year the bond market has been on the tear. We've seen a pretty significance decline in rates and it has resulted in very positive returns in the benchmark, 1.84% for the first quarter of this year. Another 84 basis points for April and the way it's looking for May another positive return as well as interest rates are probably down and around 15 to 20 basis points for a good portion of the yield curve.

When you look at how other sectors of the market have done away from treasuries also it continues to be a good period of time for investors to take risk within the fixed income markets. So in other words owning less treasuries and agencies and agency mortgage backed securities and owning corporate credit, municipal credit, emerging market debt,

high yield, sectors like that and all of those have done well during this whole period. So if you look at corporate bonds which is probably about 1/3 down the way, you'll see that for this one year period ending September 30, '13 corporates out perform treasuries by 1.79% so basically had a flat return if simpliciticly if you add that to a negative 168 you'll see it's slightly in positive territory. So the extra income as well as the spreads heightening that occurred during that one year period offset the rise in interest rates on the treasuries that these corporate bonds are priced off of. And that good performance continued in the 4th quarter as well as in the first 4 months of this year. Same thing applies to commercial mortgage backed securities have done very well and sector we can invest in this portfolio high yield has done extremely well for the one that one year period as well as the 4th quarter and on a year to date basis as well.

Reasons for why these sectors have done well, there's couple of reasons. Number 1, the economy continues to improve and as a result of that these sectors of the market, if the underlined fundamentals improve the credit fundamentals improve and as a result of that investors are willing to buy these bonds for less a day extra yield as they were willing year. 2 years, 3 years earlier. Another reason why we're seeing very good performance from the fixed income market in general including riskier segments of the fixed income market is because of central bank liquidity. So the Fed has been purchasing treasuries and agency mortgage backed securities, the Bank of Japan is purchasing a lot of Japanese government bonds to some extent through repurchase agreements, the ECB is doing the same. So you have this tremendous amount of liquidity that is being provided by these central banks and as they buy this sovereign debt, investors that own the sovereign debt that debt reinvested into riskier segments of the market as they look for incremental yield. And instead of very positive effect on the market even though within the United States that most would say that the balance of this year, so the 2nd, 3rd and 4th quarters of this year. we should see some pretty strong economic growth coming out of the U.S. 3% plus. Even though probably sometime mid next year, the Fed is going to at least begin raising short term interest rates and yet we've seen this rally in the market rather than a back up in vields.

So let's turn over to performance and that's on the following page, page 9. We have a lot of numbers on this page so I'll try to make it as painless as possible. So we're showing you performance starting from the left hand side for April where you outperformed the benchmark by 2 basis points basically flat. For the 1st quarter of 2014 we outperformed the benchmark by 18 basis points, this is gross of fees. For that 1 year period the portfolio had a negative return of minus 138 versus the index of minus 168 so plus 30 and then 1, 3, 5 and 10 years all of these in positive territory. Below there you'll see tables for these same periods of time that you've asked me to report on in terms of what were the drivers of performance both on in the positive way as well as in a negative way. In terms of a positive attribution the investment decisions that we made in the portfolio that worked for this portfolio versus the benchmark overweight investment grade corporate bonds as well as security selection within the investment grade corporate bonds sector was a major drive for a positive performance. Also, within the mortgage backed security sector while we've been underweight for several quarters now and mortgages have basically been flat to treasuries our issue selection within mortgage backed securities has also been very positive, owning the right coupons overweighting those and underweighting others and that's helped the portfolio. Also, we own municipal bonds in this portfolio and they've

done extremely well towards this taxable bonds treasuries and corporates and that's been a positive performer. One issue that hurt performance back in 2008, Lehman Brothers which we own, we continue to own it and when we reported to you back in 2008, 2009 in terms of what we expected from these bonds, we felt that the recovery value of the Lehman bonds would be about 40 cents on the dollar. In December of 2008 they were trading at 10 cents on the dollar. With distributions as well as the current price they are currently trading equivalent of 48 cents on the dollar so it exceeded our recovery expectations and because of the assets that they own, a lot of them are in the commercial real estate market as well as certain claims that are being legated, we expect to continue to see upward surprises. Now once again we bought these bonds at par. Joe San Agustin: Back then when it was 10 cents on the dollar, we agreed to get rid of it, what prompts you guys to hang on to it?

Mike Materasso: Because looking at the underlying assets when they went down to 10 cents on the dollar there was no liquidity in the market, this was at the worst point in the market and so as a result of that we felt that the price was ridiculously low versus the recovery value we saw at the time which was about 40 cents. So that type of return we felt was the risk return there given we were out to 10 cents so down side was zero, we felt there was no way we would end up with zero yet we saw a significant amount of upside. Joe San Agustin: If you had gotten rid of it we would have had a significant capital loss. Mike Materasso: That's right. David O'Brien: So when it went down 10 you marked it down at that point, you've been marking it up in our portfolio. Mike Materasso: That's So all of the securities are marked to market on a monthly basis, that's how performance is done. So that attribution is in the figures as it continues to rise. Joe San Agustin: Did you recover beyond the loss? Mike Materasso: Yes we are now above that but one of the reasons is because there are 2 factors. Number 1, a lot of the claims that were against Lehman were sort of duplicate claims that have been legated by the courts, in addition to that the recovery within the real estate market has been much faster and much stronger that was anticipated and as a result of that this the underlying assets for the Lehman Brothers bankruptcy have increased in price beyond the expectations. Joe San Agustin: When you achieved your recovery what prompted you to still hang on and not get rid of it?

Mike Materasso: Because of our outlook for the economy, our outlook for commercial real estate which is highly tied to employment, so as this greater employment. Joe San Agustin: So you still see growth. Mike Materasso: We still see positive excess returns. David O'Brien: Excess returns, that's my question. My question is you're evaluating like every other asset in the portfolio at this point. Mike Materasso: That's correct. That's correct, yes. So the fact of the matter is we bought the bond, let's remember though we bought the bonds at par it went down to 10 and now back to the equivalent of 48. But, I want to lay it out in terms of the full investment but we did not run scared when it was 10 cents on the dollar. One of the things that we haven't done right though we've been surprised by especially in this first 4 months of the year now almost 5 months in the year is a recall on interest rates. We expected interest rates to move higher as we come closer to when the Fed is about to raise rates and especially higher in the intermediate part of the curve, the 3 to 7 year part of the curve. So when you look at the treasury yield curve, it's very steep it's historically steep. So you have 2 year rates at about 35-40 basis points, the 5 year at about 1½%, the 10 year at about 2½% and the 30 year at about 3.3. As we

see more of the normalization of interest rates as the Fed gets closer to raising rates and as they start to raise rates, you're going to see more of a flattening of the yield curve. In other words, 2's and 5's will go up more in yield than 10's and 30's and that started to happen however interest rates have come down rather than a bear flat which would be that relationship with interest rates rising. So we have been on the short side of the duration relative to the benchmark anywhere from a quarter to a half a year and during this period of time it's basically hurt us. So that's attracted from performance for most of this period. So that sort of a lot. David O'Brien: So, on the long end of the curve what's your view there? Mike Materasso: Our view is that well couple of views and if you don't mind can we just move it and talk about the outlook because I think that's important as well. We do see especially now with this rally we think that returns on U.S. fixed income are not going to look all that attractive because we think that with all that significant increase in growth above trend for the balance of this here that we will see higher interest rates that the Fed will start to talk a bit more hawkish as compared to what they'd be doing of late and with that we think there's going to be a rise in rates. Wilfred Leon Guerrero: When do you think that's going to happen? Mike Materasso: Our expectation is probably sometime in the late 3rd quarter or early 4th quarter. Not the Fed raising rates but interest rates rising. Wilfred Leon Guerrero: Yeah, when? Mike Materasso: This year. Fed raising rates though sometime mid next year. Okay. Inflation though we don't see as a problem. There was a significant amount of slack in the U.S. economy. The output gap for the U.S. economy doesn't close until 2017, so there isn't any bottle neck there are or in areas such as energy where they're doing those industries are doing extremely well. So they can handle price increases, labor cost increases and things of that nature to the extent that it's an overall increase in inflation that is food and energy. We've seen that repeatedly in the past and we expect in the future its attacks on consumers and businesses when food and energy prices go up. It's a hit to disposable income, they spend more on those two things and less on discretionary items so as a result that the economy slows. So we don't see inflation as being a problem for quite some time and we think that the Fed will hold on to their balance sheet for an extended period.

So let me talk about how the portfolio is constructed and then I'll talk to you why? Okay. So if you don't mind, page 14, that's the page that's a table on it. So this here shows you the risk that's in the portfolio. The risk is measured in terms of how different is this portfolio as compared to the benchmark, the Barclays aggregate index. How is it mismatched and that mismatch is considered to be risk or tacking error. So you'll see that going back to 2010 and 2011 that risk was increasing. We were taking more risk as there was more opportunity in the markets. Corporate spreads were significantly wider than they are today and we felt it was opportunity to take risk in the portfolio when we did. More recently over the last year, year and a quarter, we had been reducing risk. So you'll see that currently this portfolio's tracking error is only 61 basis points that's pretty low and the reason why we're taking less risk is because there's less opportunity in the market. This is more of a how should I put it, if I was an equity manager called more of a stock pickers market. In other words within the corporate sector what's specific bonds do you like rather than the overall overweight of the corporate sector. So as a result of that we're taking less risk, because of that reason in terms of just the expected returns are lower than that.

When we look at the market, we think that there continues to be opportunity within credit, investment grade credit including corporate bonds to a lesser extent, investment grade emerging market debt and municipal bonds. Municipal bonds still look attractive versus the corporate sector we do a little overweight in that area. We think that one of the most missed value parts of the fixed income market in the United States would be the treasury yield curve. In other words we think that we're going see higher rates instead we're going to see a flatter curve so as a result of that we're underweight duration and we're favoring the longer portion of the yield curve and under weighting the shorter portion of the yield curve. So those are the types of investment decisions that are in the portfolio present, short duration, overweight investment grade corporate bonds, overweight to a lesser extent commercial mortgage backed securities, once again there because they continue the recovery in the real estate market and overweighting municipal bonds. Wilfred Leon Guerrero: Mike, tell us what this thing means. Mike Materasso: So where is this risk coming from? About a third of the risk is coming from underweight duration and that's the yield curve. 40 basis points of it is coming from our overweight and underweighting sectors, overweighting corporates, overweighting municipals, underweighting treasuries, underweighting agencies and agency mortgage backed securities. Then specific issues that we own in the portfolio so that would include specific corporate bonds that we own, specific agency mortgage back securities that's securities specific risk and then finally credit to fault. The Lehman bond is in there so that's sort of shows up there as well as partially in the idiosyncratic securities specific risk. So this portfolio has less risk but we also look at that less risk as dry powder, in other words should we see some set back in the market that causes corporate spreads to widen some valuations to become more attractive it gives us the opportunity to add risk to the portfolio with various areas even though we already or areas that we're not in at present. So we'll look at it from that perspective as well.

On page 15, this just gives you in a bar chart form what I've been talking about in terms of how the portfolio is put together and once again when you look at the yield curve you'll see the slight overweight in the 5 to 10 year part of the curve and the 10 year plus part of the curve. When you look at the sector weightings you'll see the underweight in treasuries agencies and agency mortgage backed securities and the overweight in commercial mortgage backed securities, investment grade corporates and municipal bonds. So why are we positioned that way? I provided you a handout that's in the book and this handout covers basically two parts. Number 1, our near term outlook and then our longer term outlook. So talking about 2014, if you just turn to page 2, we'll just flip a couple of pages. The U.S. economy is in the best shape it's been since this recovery began in the middle of 2009. The consumer is in much better shape in terms of unemployment, the unemployment rate has come down from 10% to about 6½% still very high historically but still it's come down a significant amount.

If you turn to the next page on page 3, total unemployed. There are about 1.6 million less unemployed people today as compared to 12 months ago. So that's a pretty significant decline in terms of the unemployed. One of the fact is it's really held back the U.S economy on the consumer side which represents about 70% of GDP is the fact that consumers were too leveraged. So there were leverage in terms of their homes, credit card debt and you couple that with a high unemployment rate so a lot of these people also unemployed and people were not able to spend. So what this shows is the deleveraging of

the consumer and you can see that over the last 4 years that consumer leverage has come down and now it's at a level that is more than the long term trends for the consumer. So the consumer now probably will not be looking to pay down debt consumers as a whole and therefore can use leverage to a moderate degree which helps the economy. Helps the economy in terms of pushing purchases forward but also leverage helps the economy in that when there's a soft patch when prices rise on food and energy that rather pulling back they feel a little bit more comfortable in using credit card debt to hold them over for a few months.

And then another factor though is just the wealth effect of the U.S. economy. So if you turn to page 5 this shows you household wealth and over the last 12 months it's increased by 11 trillion dollars. Now, one can make the case that increase was probably concentrated to a large extent to the very wealthy but the fact remains though that's wealth that has been accumulated and some of that wealth goes back into the economy, it helps the economy in terms of growth, in terms of purchases as well as further investment. One of the factors that's been disappointing about the U.S. economy since it's recovery began in 2009 is that the recovery is only produced growth of about 2.2% which is definitely so far compared to other recoveries but the reason for the disappointment has been on the fiscal side, initially state and local governments which have to balance their budgets every year, they cut back significantly on spending to do so and they were dragged on the economy. At the same time though fiscal policy at the federal level was very easy running very large deficits and that was positive to the economy. Now we have the opposite. State and local governments are starting to add to the economy but the Federal government has been subtracting from the economy. Last year because of the sequester, the Federal government took away almost 2% of GDP growth from the United States. This year we expect that number still to be negative but only about a half of 1%. So that net change of 1½% means that's a positive for the economy this year, that's a tail wind for the economy. So that's one of the reason we expect growth for the balance of this year to be So the economy has much better under paintings this at present as compared to any period of time since the recovery began in 2009. And we think that the economy is on a path for continued breath of strength as well as monetary policy which will follow suit. That is continued gradual normalization of the treasury yield curve meaning that interest rate should rise, but rise moderately we don't expect to see 4% 10 year treasuries, we expect 10 year treasury probably to be about 31/2% sometime over the next I'd say 9 to 18 months and with more of the rise in rates coming from the 2 year or 5 year part of the curve.

David O'Brien: What is it now 3-3? Mike Materasso: The 10 year is at $2\frac{1}{2}$, a little bit less than $2\frac{1}{2}$ so we could see 100 basis point rise by year end into the middle of next year. Right now some of these technical factors in terms of Central bank liquidity going into market seems to be a bit overdone and we think that with stronger growth we could see a rise in interest rates but probably not in the very short term at least over the next probably month to 6 weeks. More of a second half of the year type situation. So that's one of the reasons why we continue to be over weight in credit and underweight in duration, for these positive fundamentals of the U.S. economy. However, what's equally important though is how long is this economic cycle going to last because especially for the Retirement plan where you have multiple sectors including equities, when the economic cycle ends that is we go into recession, that's when the risk starts and that's

when we end up losing money typically when you see negative returns from the equity market you see unattractive returns from corporate credit and other credit segments of the market.

So if you flip a couple of pages to page 8, starts off with an equity chart, S&P 500 going back to 1979 and you'll see without exception that when we go into recession the equity market goes down so the shaded areas are periods of time when U.S. economy was in a recession and you'll see decline in the equity markets. In some instances not a very large applied, more so on a percentage basis rather than absolute returns and then most recently with the great recession in 2008. A significant recession also a significant decline in the equity markets. For fixed income investors the difference there was that while interest rates declined on treasuries, corporate spreads on other segments of the market winding down significantly ending up with negative returns even in the fixed income markets during this recession. So it's important to sort of have a view in terms of how long is this economy going to last as fixed income investor it means that if I think that this cycle only has 2 more years to go, I'm going to start cutting back on credit because typically credit quality deteriorates, bankruptcies default increase and corporate bonds perform poorly versus treasuries. However, we don't see that as our outlook.

So page 9, basically tells you what are the factors that typically cause a business cycle to end and usually it's inflation and financial leverage that are two primary factors that lead the economy into recession and inflation is caused by tight capacity in the labor markets so you have wages going up and at the same time you have demand that's there and manufacturers are able to pass low prices and you start seeing that the union labor cost level and you see it in terms of prices on goods. Wilfred Leon Guerrero: Mike, this cycle that you're talking about, how long is the cycle? Mike Materasso: Well typically if you look back on the previous cycle well I would say they were probably around 2003, so the recovery began in 2001, 2003 I think this is where we are now in terms of equivalent our view is that this cycle could last as much as 4 to 5 more years. Wilfred Leon Guerrero: Yeah I'm trying to get a feel of it. You're talking about a cycle that's starting in 2003. Mike Materasso: No, cycle started on 2009 and this cycle has the capability of lasting for as much as 10 years. Wilfred Leon Guerrero: Okay, so 2019. Mike Materasso: Now we had a similar situation in 1990's the recession ended in 1991, 1992 and the next recession didn't occur until 2001, 2002 so it was a 10 year period. Wilfred Leon Guerrero: So the cycle you're talking about between the recession? Mike Materasso: Yes so the recovery and the expansion period. So our view is that because this recovery was very different than past recoveries it began with basically a cleansing of credit quality. Banks either wrote down or wrote off bad debt, consumers deleveraged and this process took a long period of time that's the reason why we're seeing disappointing growth as well as disappointing employment but it will also take a decent amount of time for credit quality to get into trouble again. It doesn't just happen in the course of a couple of quarters, it takes several years. We think also it will take a longer period of time because of regulation and that there are more checks and balances on the banking system to prevent them from getting into the mistakes that they did in the past cycle. So as a result of that even though we're already 5 years into this recovery we could see definitely another 3 years to as much as 5 years more to go in this recovery.

Wilfred Leon Guerrero: Just so that I understand. Okay, the first cycle ended on page 8. Mike Materasso: Yes, so if you go back to page 8, cycles have various slacks, well at the last cycle we had started in 2001 and ended in 2007, 2008, so that was only a 6 year period of time. The previous one was for about 10 years and the one before that was about 8 years. Wilfred Leon Guerrero: Okay and your prediction for this one is. Mike Materasso: This one potentially 8 to 10 years so as a result of that we feel that even though corporate spreads have come in significantly there's still above long term averages and we feel that in terms of the extra income that they provide as well as doing your credit work and picking specific credits we think that you could continue to get increment returns from the corporate sector the same thing applies to municipal bond sector and high yield as well. There's a couple of ways of looking at high yield. You could look at high yield in terms of spreads to treasuries, right now in the low 400's. Probably long term averages are close to 550 to 650 back in 2007 high yield spreads were down to about 21/2%. However treasury rates in 2007 were much higher so the actual yield on high yield right now is at the store close. So those that look at it from a yield perspective would say high yield is very rich. Those that look at it from a spread perspective say that it's not cheap but you can continue to see spreads wide tighter in relation to treasuries.

Wilfred Leon Guerrero: How long have you been underperforming? Mike Materasso: Sorry. Wilfred Leon Guerrero: Trying to look at your prediction, because you've been underperforming, right? Mike Materasso: No we haven't, we've been slightly out performed. Very slightly. Wilfred Leon Guerrero: Okay, I'm just testing your theory on this cycle because I think that right now you're on watch, right? Mike Materasso: You tell me. Wilfred Leon Guerrero: Maggie, help me on this one because I'm trying to... David Their performance is shown on page 9. O'Brien: Maggie Ralbovsky: Their underperformance if you look at our book was since inception. So if you look at page 64, Mr. Chair for the past periods you see the value added has been positive. The since inception was the negative number. David O'Brien: He's got a different number since inception. So his number for inception is here. Mike Materasso: I think you would say there were different, do you have different benchmarks. Benchmark changed a few times. Wilfred Leon Guerrero: Okay, on page 59 on this Maggie, this thing. Maggie Ralbovsky: Yes, page 64 has numbers. Wilfred Leon Guerrero: Well on page 59 the strategy is turning loss due to low term underperformance. Maggie Ralbovsky: Page what? Wilfred Leon Guerrero: 59. Maggie Ralbovsky: Right the underperformance was since inception right, so if you look at page 64 was since inception. Wilfred Leon Guerrero: He's been with us for a long time. Maggie Ralbovsky: Right, inception was 1992. Mike Materasso: No, we show inception as '86, that could be part of the difference in numbers. Maggie Ralbovsky: Okay so this was from Mercer when we had the data. Yeah so before that there was no number. Mine is 1992. Mike Materasso: And over the last 10 years we have been outperforming the benchmark.

Maggie Ralbovsky: What is the question? Wilfred Leon Guerrero: I'm puzzled with your comment that we put Mike on a watch list due to long term underperformance. Maggie Ralbovsky: Right since inception was under performing, therefore that was the comment. Wilfred Leon Guerrero: But for the last 10 years he has been. Maggie Ralbovsky: Okay, yeah so we said since inception, didn't we say that? Wilfred Leon Guerrero: No you didn't say that. Maggie Ralbovsky: Okay, so I said it last quarter this has been carried forward from last quarter. Since inception it has been underperforming, what is the? Wilfred Leon

Guerrero: Well I'm trying to reconcile, he's going by a cycle, okay and you're saying that this guy has been underperforming and we're talking about him looking at 10 years period, you know 8-10 years period but for the last 10 years he's been performing. Maggie Ralbovsky: Okay. So, yeah what I'm saying is since inception they've been under the benchmark that's all what I'm saying. Antolina Leon Guerrero: But you also have them on watch. Maggie Ralbovsky: Yes I had them on watch because since inception number was underperforming, if you look at the previous notes we're saying put on watch until the since inception number is not underperforming. Rosalia Bordallo: I guess what Dr. LG is saying is if for 10 years they over performed but you're saying since inception which is a period of over 22 years, when do you say it becomes relevant or irrelevant? Duenas: When they get above the benchmark. Rosalia Bordallo: Right, but you're looking at 10 years now versus 20 years. You see what I'm saying? So, are you saying because they're underperformed over 20 year period, if you knock out 12 years they will be over performing and not under? Maggie Ralbovsky: I'm not saying any of that, I'm just saying... Rosalia Bordallo: But you are saying when you put them on watch because of it and that's what he's getting at. Is that your recommendation is to put them on watch. Wilfred Leon Guerrero: Continue on the watch. Maggie Ralbovsky: understand where the confusion is. Wilfred Leon Guerrero: Because I'm relying on you to tell us on how to deal with this kind of situation but it just seems like 10 years surely the manager has made some progress and then you want to continue putting them on watch list for how many more years?

Maggie Ralbovsky: Well all I'm saying is that since inception it has been under the benchmark. Antolina Leon Guerrero: So do you put everybody on watch? Do you recommend that every manager whose performance is underperforming since inception, that's really the question? Maggie Ralbovsky: Okay, if you go back a few quarters, a 10 year mark it was underperforming. Yeah it was underperforming if you go back that's when we put this on watch and when we put on watch we said that for long term performance to be above benchmark would take them off watch list, that's all what I'm saying. If you look at this particular point in time for 10 years they're over performing but if you go backwards a few quarters it was underperforming for 10 years. Some quarters fell off right, when we move forward every quarter some bad quarters make them fall off. Wilfred Leon Guerrero: Yeah but you said a long term underperformance. Ralbovsky: That's right. Since inception is a long term underperformance. That's all I'm saying. Wilfred Leon Guerrero: Okay. I still don't understand it but... Maggie Ralbovsky: Okay, I guess we can talk about it later. Mike Materasso: So, our point is that with an extended business cycle that there's still will be opportunities within the fixed income market that while there will be a headwind for performances in terms of moderately rising interest rates, we feel that investing in sectors away from the treasuries will offer you from a good portion that rise in interest rates and still see relatively good returns. Also, can make the case that we are in a different environment, we don't put a high probability of this but where U.S. economy grows at a slow pace, inflation being stubbornly low for an extended period time and surprising the Fed as well as investors that interest rates rise only very moderately from current levels even when the Fed is raising rates. That's a possibility we don't give it a high probability but it's a possibility. So, what I'm trying to say is that for those that are making asset allocations decisions among various asset classes we feel that wow we do like the equity market but there really is a place for fixed income in the core or core plus satellite sectors such as high yield, global bonds things of that nature as well. So we have a constructive view on fixed income despite the fact that interest rates oppose to rise from here.

David O'Brien: So your favorite sectors again just to make sure I got it. Mike Materasso: Sure, favorite sectors in terms of looking at sectors are favorite sectors for this portfolio would be specifically investment grade corporates and municipals. David O'Brien: And municipals, taxable and tax free. Mike Materasso: Taxable and tax free. If you extend it to a core plus type of mandate then we would include high yield in that smaller extent emerging market debt and non-dollar bonds on taking currency exposure. David O'Brien: So, you're taking currency exposure and you're looking at weakening dollar? Materasso: We're looking at a weakening dollar versus certain currencies, so it's not necessarily a call on the dollar, it's a call on the euro and call on the yen. So we're underweight in core plus portfolios, we're underweight in Euros and yen, we're overweight in Yuan same dollar over slotting Mexican peso. So, it's more of a weakening of those currencies rather than a weakening of the dollar. So are there any other questions or comments. David O'Brien: Sorry one moment. Commercial Back Mortgage Securities. Where are you on that? Mike Materasso: The opportunities are much less but we continue to see improvements within the sector including and especially as it pertains as the unemployment rate goes down, occupancy rates rise and it's good for the sector so we continue to have no weight position only in triple A rate in securities which they were time tested with the recession, they dropped in price but they over collateralization more than that. David O'Brien: So my understanding is that your take is about 3 to 5 years left in the bull market not in the raging bull kind of a similar bull than where we're at that will give a flat amount yield curve that's hence your duration position and on the long term position. Mike Materasso: It's a 30 year at 330 it stays at these levels. It's for highly technical reasons and one possibility we're seeing this but it's not something new it's just as the equity market continues to advance, pension funds will be risky so they're selling equities and they're buying long dated bonds with treasuries and corporates so that's a factor that didn't start this year it's been going on for several years but it is gaining momentum as the equity market rises and funding status improves.

David O'Brien: And there's some confidence in there because of the inflation. Mike Materasso: Yeah the inflation, we see inflation not being a problem. One of the reasons why we've had inflation in the past is because China has been a large consumer, has consumed a lot of raw materials. China is moving away from investment economy towards a consumer economy and as they do so their demand for metals in various things will lessen so we don't see that being a problem in terms of inflation and once again while the U.S. is in positive territory the rest of the world is either in negative territory or slowing and that's important because there is not a secretization of the global economy you have U.S. deposit, territory of the UK and everybody else sort of vanishing or slowing. Thank you very much. Rosalia Bordallo: Can I just ask for clarification. Okay, when you started you said there were no regulatory issues and there's been no organizational changes okay and is there any pending litigation against your firm or anything? Mike Materasso: Not that I'm aware of. Rosalia Bordallo: Not that you're aware of, okay. Those are the 3 items just wanted to make sure. Mike Materasso: Well thank you very much everyone. Great to see you again. Thank you. Antolina Leon Guerrero: Bye have a safe trip.

Maggie Ralbovsky: So, Dr. LG I want to show you this detailed performance so when we put them on watch it was probably in 4 quarters ago, probably 3 quarters ago. So let's say sometime in the middle of 2013, so 10 years from that point would have included these bad numbers which when we moved forward they all got dropped. You see for this year they underperformed 1.6% for this year was 4 basis points. This year 1.5%, 39 basis points, 15 basis points. They've been underperforming for many, many years until the most recent years. Every one of these big numbers are for the whole year and when we move forward some of these bad numbers get dropped and it did do better in the past couple of years which these numbers took over therefore as we stand now the 10 year number looks good but long term underperformance since inception included all these bad years which 10 year number has been dropping that's what I'm saying and also if you look at the universe comparison, they ranked 75th percentile pretty much for the entire period is all 3 year rolling numbers. They had a couple good quarters here but still below the median. They have been ranked 75th percentile for the past, more than 10 years. Wilfred Leon Guerrero: If that's the case then maybe we should just go ahead and terminate this Maggie Ralbovsky: They're already stretching the fixed income portion eventually we have to do something to the manager anyway so that's why they are on watch pending the change of the allocation so if we have a... Wilfred Leon Guerrero: So you anticipate. Maggie Ralbovsky: We're anticipating I'm going to have to fire a manager but not right now because we're hiring a high yield manager, right? Guerrero: Your comment really you don't have too much confidence on this manager. Maggie Ralbovsky: I do not. I think this manager... Wilfred Leon Guerrero: And see that was my... Maggie Ralbovsky: What do you want me to tell the manager when the manager is in front of me? Wilfred Leon Guerrero: I'm reading your comment and I'm saying there's no confidence in these guys and I'm wondering why are we keeping them on? Maggie Ralbovsky: Okay, so should I tell him in his face I have no confidence in you? Wilfred Leon Guerrero: No, no. Maggie Ralbovsky: Okay, then you put me in a position that's very awkward. Wilfred Leon Guerrero: I'm sorry but I'm sitting here and I'm looking at your comment and it's telling me one thing and... Maggie Ralbovsky: He's telling you something that's not contradictory to what I'm telling you. Wilfred Leon Guerrero: Yes it is. Maggie Ralbovsky: It is not. He said in his view the market cycle is 10 years. Okay, that's in his view and you see 10 years is okay whatever is the average. Wilfred Leon Guerrero: Okay, if your plan is to advise us to go ahead and when you do this asset allocation and this is one of the managers that we should take out then I don't have any problem with that it's just that why are we keeping somebody on board if we don't have confidence in them? Maggie Ralbovsky: Because there's so many other things that's going on, right.

David O'Brien: Look at 59 turn to 59 in Maggie's book. Yeah 59, 64 sorry my fault. Look at their relative performance see even this guy said remember when you first asked him he said we've been marginally over performing. That's the truth he has been marginally over performing but look at our other managers. Maggie Ralbovsky: That's right. All the managers above the median, he's below the median. Wilfred Leon Guerrero: My point is that we don't have confidence in the guy, why are we keeping him around? Maggie Ralbovsky: No, I think all your comments should be kept among ourselves instead of having him in front of me, what do I say, do is say to him hey by the way you are the bottom core manager in the past 10 years? Wilfred Leon Guerrero: I'm sorry but when he was telling me one thing and I'm asking him and it's different from what you are telling

me... Maggie Ralbovsky: I said in the past 10 years he outperformed but since inception he was underperforming but we put him on watch, his 10 year numbers were underperforming because all these bad numbers have dropped. Wilfred Leon Guerrero: I don't read minds but if that was your plan when we do the asset allocation this manager. Maggie Ralbovsky: This manager will be gone. Wilfred Leon Guerrero: That makes sense, I don't read minds. Maggie Ralbovsky: Okay, good.

Asset Allocation Education

Wilfred Leon Guerrero: Maggie's got the floor, gentlemen. Maggie Ralbovsky: Okay, I'd like to move on. Wilfred Leon Guerrero: Maggie's got the floor Chairman, Director. Maggie's got the floor. Pay close attention there will be a quiz afterwards. Gerard Cruz: When did she get this floor Mr. Chair? Maggie Ralbovsky: Can somebody explain to me what risk parity is? Yeah. Please. David O'Brien: It has to do with that... Gerard Cruz: It's the buckets. David O'Brien: It's movements that normalize the risk, right? So they take into account the risk and where your risk tolerance is so they kind of keep you on an even kill with the risk, is that it? Maggie Ralbovsky: Okay, that shows the necessity for this discussion. Gerard Cruz: No, I know you're right. Just because we can't explain it doesn't mean we don't know. David O'Brien: That's what it is allocating risk budget in a balance fashion. Gerard Cruz: That's right. David O'Brien: Allocated sharp ratio portfolio. Paula Blas: You forgot to say her bucket. Maggie Ralbovsky: Okay, so let's... Gerard Cruz: There is no right answer Dave that was just a trick question. Maggie Ralbovsky: Let's take a step back to see what we have already decided, so far we have decided to implement step number 1 which is on page 2 and then step number 1 includes RFP for high yield fixed income, for global REITS, and the transition manager and I put the step number 1 portfolio on page 2. Okay, so that has been done.

Maggie Ralbovsky: Now I would like to also take small steps so we can get educated on the next few steps. Let's start with step number 2, and I'd like to make sure everybody understands what we are going to do before we do it because you know last time I think there was a discussion about we don't know where these things are maybe I agree we should all understand exactly what we are going to do before we do it. So, step number 2, on page 3, will need to initiate two different asset classes that we do not currently use. The first asset class I highlighted you can see in orange there's a 10% allocation to two asset classes 5% each, I'm on page 3. The first one is called risk parity. The second one is called credit opportunities. Let's start with risk parity because that is actually a harder concept to understand. David O'Brien: Maggie, before we leave step 1, are we getting a high yield bond manager or are we just extend the portfolio of when we existed? Maggie Ralbovsky: We're going to have a high yield bond manager. Gerard Cruz: RFP, yes. David O'Brien: We have an RFP? Gerard Cruz: No. James Duenas: In the process. Paula Blas: We're doing transition first. Gerard Cruz: Oh transition first? Maggie Ralbovsky: That's what... Paula Blas: No, we were going to put the transition managers in place first. Gerard Cruz: But we can send them out at the same time, right? Paula Blas: Yeah that's not what you guys wanted the last time. Gerard Cruz: Yeah but you know we're skitzofrenzec. Paula Blas: Okay, I understand that so is that what you want today? In the past board meeting we wanted to make sure that's in place. Antolina Leon Guerrero: I don't think M&B should go to these investment committee meetings. Gerard

Cruz: We have a 5 year plan. David O'Brien: Do you know how fast and efficient our meetings are they are like clockwork. Gerard Cruz: It's easy when all you say is no. though. Well how long does it take to say no Lina? Antolina Leon Guerrero: Apparently it takes a while. We have to have a whole period of discussion about it and then get educated. David O'Brien: Well if you listen to Fred, it takes 10 years for Maggie to say no. Maggie Ralbovsky: Okay, let's first talk about a concept of Sharpe ratio. Sharpe ratio it's on page 5. This is really a very good topic in cocktail parties. You can tell people the Sharpe ratio. William Sharpe started this ratio and he actually won noble prize. Okay, so Sharpe come from a guy whose name is William Sharpe. So, Sharpe ratio basically says what is the prize for risk, basically. So it is a ratio of return divided by risk. For every unit of risk you are taking, what are you getting paid for? That is what Sharpe is trying to capture. So we know we have to take risk for investing but it's almost like you go to the market to buy different things, for every dollar what can you buy? So in the financial market for every unit of risk what kind of return you can get? That is the Sharpe ratio. Now the interesting thing about Sharpe ratio is that over the very, very long time period if you observe the Sharpe ratio of different asset classes, they come out to be almost the same. Since 1936 here's the data that shows us Sharpe ratio for stocks for large cap stocks, small... Wilfred Leon Guerrero: What page are you on? Maggie Ralbovsky: I'm still on page 5. Page 5 is showing the Sharpe ratio for stocks, large cap, small cap, long term corporate bonds, long term government bonds and you can see the Sharpe ratio comes out to be very, very similar. And in a similar fashion if you put commodities here, if you put currency here, pretty much almost every asset class give it long enough time Sharpe ratio are very, very similar. So the reason we overweight stocks because we need that return, we are getting that return because stock is more risky than bonds. So if we can, the whole concept somebody could theorize to say if we make the bonds as risky as stocks you should get paid the same because Sharpe ratio is the same. Does that make sense? So same thing for other asset classes. There is no systematic reason for an investor to rely on stocks to generate return if you do not have a constraint on no leverage. Gerard Cruz: Yeah but see, okay. We can do it now because we're able to lever, right? Maggie Ralbovsky: Yeah, we could use Commingle funds. Gerard Cruz: But we couldn't do it before, we couldn't. Antolina Leon Guerrero: It was in the law.

Maggie Ralbovsky: So risk parity is basically saying okay because Sharpe ratio is the same for all these asset classes, why do we concentrate our risk taking in only one asset class which is stocks. Antolina Leon Guerrero: Why is that? Maggie Ralbovsky: Why is that? That's because if you do not use leverage stocks intrinsically levered. Stocks have leverage built in so you don't know you're using leverage to buy stocks because you don't use explicit leverage to buy that stock, it is levered internally. But if you buy a government bond to have the same risk as stocks you have to lever it 4 times because bonds are only one quarter the risk as the stock but if you can lever a bond 4 times, it will actually deliver the same Sharpe ratio as stocks will deliver the same return to you as the stocks will do. But you have to take the step to do this leverage and you didn't think you're doing it in stocks because it's already there. Gerard Cruz: No I think we understand the risk of taking it to stocks but I think we've always looked at fixed income and bonds as a protection from a bad economy. So if stocks don't do well then bonds are there to protect our downside. So if you lever... Antolina Leon Guerrero: To buffer against... David O'Brien: A buffer against the portfolio falling apart. Gerard Cruz: So if that's the case and stocks do really well and you're levered on your fixed income portfolio, would that offset any gains on that?

Maggie Ralbovsky: Okay, so here's historical data I can show you. Let's take a look at the current GGRF portfolio let's look at page 7 then we can go back to page 6. Page 6 is a very theoretical graph. What did I say? Okay. So page 7, page 7 says that our current asset allocation with government of Guam's current asset allocation, if you translate that into how much risk you are taking by asset class, the majority is actually stocks. So even though you only have a stock allocation of about 55, 60% the risk allocation is actually 94%.

David O'Brien: 94% of our risk is stocks. Maggie Ralbovsky: Now let's compare that portfolio with a balance portfolio, risk parity portfolio on the right hand side which equally allocates the risk to stocks, bonds and real assets. Let's compare these two portfolios, and the graph is on the bottom left hand side. The simple risk parity strategy is the green line and you can see whether that's more stable than the simple 60-40 portfolio. It is actually more stable by actually taking less risk in one category. Less risk in one concentrated category the portfolio becomes much more stable. Antolina Leon Guerrero: Is that the green line versus the gray line? Maggie Ralbovsky: Yeah the green line versus the gray line. Antolina Leon Guerrero: Why do you think that's more stable? Maggie Ralbovsky: The green line actually has less risk in the long run, the graph of risk is on page 8. What is real assets? Wilfred Leon Guerrero: Maggie Ralbovsky: Real assets are commodities. Wilfred Leon Guerrero: Okay. Maggie Ralbovsky: So you see the risk, this risk parity and the GGRF portfolio. The risk parity manager's risk is more or less very, very stable, more stable about 10% year in year out and our portfolio runs the risk of being the different, it's a residual. It's not a risk that we target, it's a residual risk because of the fallout of what asset class had done. Yeah so... David O'Brien: No, I'm just trying to figure out what I said wrong. Maggie Ralbovsky: So the risk parity portfolio has a more stable risk level that's been taken and takes the risk in more diversified manner, it's balanced into the major asset classes.

Wilfred Leon Guerrero: Maggie, can I ask you, I think it's Fisher who believes or his theory is that stocks is less risky than bonds. Maggie Ralbovsky: Stocks is less risky than bonds if you have a very long time horizon. So for 100 years you know stocks are going to outperform bonds, right. You know stocks are going to outperform. Wilfred Leon Guerrero: But that's Fisher's theory, right? Maggie Ralbovsky: That is not Fisher's theory. That is the generally accepted. Wilfred Leon Guerrero: Well somebody wrote a book. Maggie Ralbovsky: The stocks for the long run. The guy who wrote the book is called Jeremy Seagull, he's a professor in Yuban. He orders...Wilfred Leon Guerrero: I just want to bring this out because that's another view point on this, right. Maggie Ralbovsky: No that has nothing to do with this. Wilfred Leon Guerrero: No it's the opposite as a different. Maggie Ralbovsky: No it is not. That observation is only relevant to your goal. Stocks are less risky than bonds if your goal is for the long term beating inflation. But if your goal is to have a stable ride then that is obviously not true. So you can take that statement out of context. So, I think I still failed to express what is the difference between...

James Duenas: So if you do have a stable ride does that affect the amount of earning potential? Maggie Ralbovsky: Yes if you do not drop as much when market goes through a

huge draw down you do not have to recover as much to get back to the same level. So that's what this chart is trying to say so the draw down is actually calculated on the bottom of this chart, so you see there's a green line and a gray line and there's some area at the bottom right. The gray area is the drawdown of the traditional strategy. The green line at the bottom is a draw down which means the lowest point it hit with that particular market stress time. And you can see there's much less draw down for the risk parity strategy and in the long run that translates to a bigger better return so the return is the graph on the top. So these two strategies actually take same amount of risk. The only difference is that the 60/40 strategy risk is concentrated in stocks and the risk parity risk is divided up into these 3 asset classes equally and they take the same amount of risk in the long run. In the long run risk is about 10% on standard deviation level. So the observation has been that if you take the risk budget in a more equal fashion, it's going to protect you when the market has a huge draw down in stocks or in bonds or in commodities because these 3 asset classes is not supposed to work in the same direction. Well not always, sometimes they work in the same direction like in 2008. Even in 2008 you see the draw down is not as severe as the traditional asset class draw down. So if Gerry is here, this is answering his question because he's saying bonds are more stable why would this strategy protect on the down side? Well this strategy protects on the down side is because you only allocate a third of the risks into stocks and in the traditional strategy you actually allocated 94% of your risk in stocks. So even though you think you're protecting your down side but because your risk...

Antolina Leon Guerrero: But then the protection is not really from investing more into bonds, it's really in reducing the risk associated with investing in stocks. Ralbovsky: Stocks, that's right exactly. That is correct. David O'Brien: Keep going so I like that, what does that mean again? How does that play out? Antolina Leon Guerrero: Because it's reducing our risk, right. David O'Brien: But risk is staying the same. Antolina Leon Guerrero: I'm sorry but not all the risk is in stock. Maggie Ralbovsky: It's in concentrated. So risk more separated out, so now you can ask the same question what if interest rate goes up? The bonds actually drop what happens there? So the perfect storm for risk parity strategy is when interest rate goes up and the stocks sell off but historically usually if interest rate goes up gradually stocks should not suffer because that means economy is actually good, stocks should actually generate good return and also there is a allocation in real assets which should move up together with inflation and so you're actually protected in that kind of frame work. David O'Brien: So if you go back to page 7, it looks like in the big stock run up in 13, risk parity underperformed the traditional strategy. Maggie Ralbovsky: Risk parity underperformed during last June the 2nd quarter of May and June when interest rate sold off tremendously and stocks dropped as well at the same time and commodities drop even more so if all these 3 asset classes drop at the same time, this strategy may underperform the traditional strategy because it's levered. David O'Brien: It levers the bonds. Maggie Ralbovsky: It levers the bond. So that's why historically usually when that happens they don't all go in the same direction but last May and June was the time where risk parity underperformed traditional strategy.

James Duenas: So it actually went down more then. Maggie Ralbovsky: Yes it did. So in that kind of scenario it will go down more than the traditional strategy. James Duenas: Okay, so if we experience that again then... Maggie Ralbovsky: We are not allocating. The allocation suggestion is only 5% so it modifies the risk taking for our total portfolio but

we're not translating the whole portfolio in that way so it's a good diversifier. Antolina Leon Guerrero: I see. David O'Brien: So it's a diversifier because... Maggie Ralbovsky: Because it doesn't move in the same direction as your traditional portfolio. David O'Brien: Low correlation. Maggie Ralbovsky: Yeah very low correlation. Wilfred Leon Guerrero: Maggie, on this pie chart that you got on page 7, on this upper left hand side... Maggie Ralbovsky: Yes. Wilfred Leon Guerrero: Current portfolio, I'm looking at 94% stocks but I guess this pie chart is different from the one I'm used to because this pie chart is for risk. Maggie Ralbovsky: Risk exactly. This is not for asset allocation but risk allocation. Wilfred Leon Guerrero: Okay. Maggie Ralbovsky: So we need also to understand to reach this parity allocation you have to use leverage to bonds because to take the same amount of risk in bonds as in stocks you have to lever bond up. David O'Brien: So you lever bonds by doing marginal... Maggie Ralbovsky: No just doing repo. Repo is repurchase, you basically just doing repo so you already hold treasuries, you lend out the treasuries and you get money as collateral then buy more treasuries.

David O'Brien: Is this the old banks issue that banks have to reach their target over night kind of a thing and therefore they borrow overnight until they can get their... Maggie Ralbovsky: That's right. So repo market is very liquid and they only use leverage it will hurt you if you use very illiquid instrument because if you use illiquid instrument leverage it always hurt you when the liquidity dries up. You cannot get out of it, you cannot rebalance. David O'Brien: The day Lehman fails. Maggie Ralbovsky: That's right. But these strategy when they lever it's entirely liquid treasury securities they lever so there's always a market for that. David O'Brien: Does your counter party risk go up in this strategy? Maggie Ralbovsky: Yes, so you will have to have a counter party so there are risks but it can be managed. So you could make sure the counter party always has a double A credit rating, you could control the management risk but you need to understand... David O'Brien: But we're not the manager, right? Maggie Ralbovsky: No, you're not the manager. David O'Brien: That's the manager's part. Maggie Ralbovsky: That's right the manager does that and the important thing to select a manager, there are managers out there who actually use less liquid portion then we always favor managers that use entirely liquid instruments. Nothing in the credit sector or distress sector don't do those sectors because when you use leverage it helps you when you do it right. But if you levered into a category that is illiquid, you always get hurt when the time was wrong and it's always the time, it always will happen. Some day it will happen.

James Duenas: So when we're going to select those managers we should put that in writing. Maggie Ralbovsky: That's right we should select managers to make sure we understand their underlined instruments and their liquidity of the underlined instrument. James Duenas: But they have to do the levering only on... Rosalia Bordallo: I think on the RFP that's where you want to state it, that you know this is the kind of manager we want that will only be able to utilize these kind of assets. Maggie Ralbovsky: Only liquid assets. James Duenas: Well this kind of manager you want and they have to allocate it this way using the leveraging would have to be done using only certain assets if they are going to be leveraging. Maggie Ralbovsky: Only the most liquid segments of the markets. We don't want credit in this pie. David O'Brien: So, just trying to understand the levering part. So we have bonds that we own and they have a certain risk and a certain return, so that doesn't change basically that's our investments. Maggie Ralbovsky: Yes. David O'Brien: What we're allowing is a manager to come in and take those bonds... Maggie

Ralbovsky: No, we're giving a manager a pot of money, let's say this is 10 million dollars and this manager takes the 10 million dollars... Antolina Leon Guerrero: And invests. Maggie Ralbovsky: That's right and we're going to participate in the fund and this fund manager will go ahead and deploy the money in this manner... Antolina Leon Guerrero: And that allocation doesn't get added to our bonds or stocks. Maggie Ralbovsky: It does not it's just by itself like a product. Yeah like a product. James Duenas: In the real world is there data already for that model? Maggie Ralbovsky: Yes it's been around for more than 10 years. James Duenas: So can we get a comparison? Maggie Ralbovsky: Page 9. Antolina Leon Guerrero: So that answer is yes? Maggie Ralbovsky: Yes. So I did not update this because this actually was given to the Board before so I just pulled it up but these numbers I can tell you risk parity on average year to date is already up 13% for this year because this year has a very good environment for risk parity.

James Duenas: Well what I was asking for is more of a graph comparison of risk parity compared to GGRF. Maggie Ralbovsky: Risk parity compared to what? James Duenas: To our current asset allocation because I want to see where it gains more. Ralbovsky: I see. So I was hoping this chart is more or less a proxy. Yeah this chart is more a less a proxy the green one versus the 60/40. Even though the 60/40 is very close to what you have not exactly but... Rosalia Bordallo: Can I ask how prevalent is this strategy currently within the market? I mean is it 10% of the pension funds using it. Is it a really well known strategy that is being utilized and can we see some kind of back up study that says that? Maggie Ralbovsky: There are actually pension funds that translate entirely. Rosalia Bordallo: Yeah but I would like to see... Maggie Ralbovsky: Public Funds. Rosalia Bordallo: What's the percentage I mean you can say there are public funds but if there's 1000 and only 2 are using it well then you can make the statement that there are public pension funds that are using it. Maggie Ralbovsky: It is not. I don't know if I can get you exactly because this kind of allocation is long term alternatives, people don't really segregate risk parity as itself, so the data is probably very murky. But this is definitely not a nitch strategy that's you know...

Rosalia Bordallo: But the question I think I'm asking is how prevalent is the usage of this strategy among pension plans. Maggie Ralbovsky: Yeah public pension plans is very popular. James Duenas: No but is it 15%, is it 30%? Rosalia Bordallo: Popular doesn't you know it's like... Maggie Ralbovsky: The allocation I think on average is somewhere between 10-15% and there are pension funds that went all the way. There are... Rosalia Bordallo: No, that's not what I'm asking, I'm asking how many pension funds are using this strategy? David O'Brien: What percentage of pension funds in the pension fund universe? Maggie Ralbovsky: I can only give you guess I do not have that data and I don't think I can find that data because it's long term alternatives. Antolina Leon Guerrero: So pension funds aren't moving to risk parity as a whole but you're doing what you're suggesting we do which is carve out a portion of our portfolio. Maggie Ralbovsky: Most people are carving out a small portion that's somewhere around 10% kind of portion. There are some people who believe it the most actually move the entire plan into this. San Diego County is an example. So there's a couple public pension funds actually went all the way and Bridgewater is the manager that created this as a pioneer and Bridgewater is Alpha fund started this strategy more than 10 years ago and they take the whole plan. You cannot hire Bridgewater give them a small piece they have to take the whole plan and that strategy has closed down. Closed meaning they don't take any more money.

Rosalia Bordallo: Any more clients. Maggie Ralbovsky: That's right. Because they want to preserve the capacity. Antolina Leon Guerrero: Well I hear what Rosie is saying it's just that because we're making a shift it would be good for us to see data to see... Maggie Ralbovsky: Let me think about how to get it. Antolina Leon Guerrero: Bridgewater might have because they were the pioneers, maybe they have some data on the prevalence of their strategy. Maggie Ralbovsky: Yes. James Duenas: What I wanted to see because this graph represents if assets were allocated equally and then this graph down here on the bottom left, correlates the assets being allocated evenly. So, what I wanted to see was more of our past 10 years of how our allocation was compared to if we would allocate it the way you wanted it to be. That's what I wanted to see. Maggie Ralbovsky: Oh I see add a portion of that. Okay, I can get that next time. James Duenas: So that way we can see how well... Maggie Ralbovsky: Did we do that? James Duenas: We haven't done that yet. Maggie Ralbovsky: I thought we did that for high yield. Paula Blas: Yeah. Maggie Ralbovsky: Yeah we did that for high yield. David O'Brien: So you want to run an optimizer in reverse. James Duenas: Yeah. Maggie Ralbovsky: Okay, performer I will run that next time and I will also try to find out if we can find the pension fund data.

Rosalia Bordallo: I just want to know what's the prevalence of this you used to check this strategy among the pension plan role. Wilfred Leon Guerrero: From the sound of it, it looks like people are getting into it. Rosalia Bordallo: It's been around for 10 years. Wilfred Leon Guerrero: I'm sorry. Rosalia Bordallo: It's been around for 10 years. Wilfred Leon Guerrero: Right, but from the sound of it, it looks like maybe Trustees are not that comfortable with it and so they're gradually going into it as opposed to jumping into it completely. Antolina Leon Guerrero: So unusual. David O'Brien: It's a good question, so what are the downsides to this Maggie? What are the downsides? Why aren't people... Antolina Leon Guerrero: Just throwing it all in. Maggie Ralbovsky: Oh. Why didn't people throw it all in, it's scary if you think about it... David O'Brien: No, not just throwing it all in, that's one question, second question is why aren't all people in it that's Fred's question I think. Wilfred Leon Guerrero: Well, Rosie is the one that's bringing up this issue and I think that... David O'Brien: Good question, what are the downsides? Maggie Ralbovsky: It's getting a lot of traction. That's why now there's more than 25-30 managers who offer this strategy starting with just Bridgewater and it was successful especially for the first time for the 1999 market crash, 2003 market crash, this strategy survived so well that in 2005 there were like probably the first generation like mass generation came along to try to design their own strategy using similar fashion. In 2008 they did so well, so after 2008 everybody now has a risk parity strategy. So I think the adoption rate has been increasing because more and more people are understanding it. And why didn't everybody adopt it? Well this strategy if you want to try to explain this to a Board it's much more complicated. You have to understand there's leveraging in this.

Antolina Leon Guerrero: Well especially after we've been taught the whole 60/40 asset allocation as opposed to risk allocation. Maggie Ralbovsky: That's right. So it requires you to understand there is leverage in this strategy and also a lot of the leverage are especially in the stock side is using features contract to be achieved. So you have to understand how they do leverage. This is not the straight forward borrowing kind of leverage. Those are actually more risky than using features because features very liquid. So when you do leverage you really want the most liquid instrument, most easy to trade

instrument and cheap to trading instrument and the managers are in that kind of format are surviving and doing very well. Managers who actually tried other routes were not doing very well so they were using not very liquid strategies and don't use the right way to lever and not doing very well. So I think in the past 10 years, the industry has been trying to learn what's the best way to do risk parity and not everybody is in it because it's kind of hard to understand. David O'Brien: So then you talked about how you lever the bonds. Maggie Ralbovsky: Yes. David O'Brien: How do you lever stocks? Maggie Ralbovsky: The stocks are entirely futures. David O'Brien: Entirely futures. Maggie Ralbovsky: Yes, well the leverage is entirely futures. So, let's say you wanted U.S. Stocks you buy S&P500 futures, if you want international stocks you buy these different futures contract to get the exposure to stocks. That's very fast because this strategy needs rebalancing on daily basis. You have to rebalance to this risk because risk change every day you have to rebalance that so you need to be able to trade very quickly. If you go out to buy stocks, sales stocks will be too expensive to trade. So using futures is a way to rebalance your risk exposure and for bonds you're using repos. David O'Brien: So these guys are basically using a lot of modeling to... Maggie Ralbovsky: Yes, so the modeling process. David O'Brien: They're not stock pickers? Maggie Ralbovsky: No they're not. This is asset allocation strategy this is not stock picking strategy. So you don't do fundamental research to pick stock or bond, you basically try to maintain a risk profile and using the most liquid instruments to maintain that risk profile and rebalance every day. David O'Brien: And how do you leverage? That's my question, how do you leverage real assets? Maggie Ralbovsky: Real assets its commodity features. David O'Brien: Commodity features. Maggie Ralbovsky: That's right it's features and repos. David O'Brien: But the fund itself, we actually have a share in the fund, right? Maggie Ralbovsky: Yes so you would... David O'Brien: It's not a derivative fund. Maggie Ralbovsky: It is not. Well the fund itself has derivative inside but we will be going into a Comingle fund. So under our statute it fits in the Comingle fund statute.

Diana Bernardo: Maggie, you know based on previous discussions, risk parity was supposed to occur at step 3. Maggie Ralbovsky: That's right I made an adjustment to the steps and I have a summary on page 26, because last time I know we said that ongoing basis review this so it's on the last page, I want to talk to the Board. The reason I did that is because I think the 2nd step was illiquid strategy. Diana Bernardo: Private Partnership. Maggie Ralbovsky: That's right private partnership I didn't think window was passed. The reason in the previous version I put on the 2nd step is because there was the window to do private lending and I think that window had passed and when we... Diana Bernardo: Okay, I understand and maybe you should discuss it and kind of get there... Maggie Ralbovsky: Before we do this education. Rosalia Bordallo: Before you start jumping to the next step, stick with the game plan, first. Maggie Ralbovsky: Yes, so its page 26 is the modified steps. I moved the private partnerships, I made into later steps because you see I moved the private partnerships to later steps and I moved the more public steps to more front end. The first draft I put private partnerships in the front was because there was a window for private lending, the investment in certain intellectual property that window has already passed so this could be a longer term discussion.

James Duenas: Can you go more in to that? Maggie Ralbovsky: To go more into what? James Duenas: In to that to explain why it has passed and... Maggie Ralbovsky: Yeah, so when after the first recovery phase where lot of the larger companies were able to

refinance to borrow money from banks, smaller companies were not able to borrow so there were mid market lending funds. Those are private lending funds set up for institutions to provide lending to smaller companies so they can buy inventory and finance their accounts receivables so those are shorter term it's not a lock up kind of funds but shorter term private lending funds and that window has pretty much closed because all these liquidity in the market place has made it much easier for these people to borrow. So those lending funds are no longer raising money. James Duenas: So if that's true then shouldn't we look at the whole picture. Maggie Ralbovsky: So that's why I put that into later steps because then we can always review whether there's any other opportunities we can take advantage of. James Duenas: Do you also have the original picture that we agreed upon? Maggie Ralbovsky: Yeah the original picture is over there. Diana Bernardo: It's in the binder. James Duenas: This is the one that we originally agreed upon, right? Maggie Ralbovsky: There's intellectual property, European opportunities, private lending...

Maggie Ralbovsky: So it's this one, it's not this one it's the other one. James Duenas: In the front cover, you have to pull it out. It's on page 2. This is Gerry's. Rosalia Bordallo: Just take it out. Paula Blas: Here this will be his, right. Then just put this because he might come back. Diana Bernardo: So, Maggie it looks like you also made changes in some of the allocations. Maggie Ralbovsky: Was that step 2? Diana Bernardo: No in alternatives you're decreasing it by 5% or.... James Duenas: No, she just shifted it over. She moved 3 to 2 and 4 to 3. Antolina Leon Guerrero: 15 as opposed to 20, is that what you're saying Diane? Diana Bernardo: Yes. Maggie Ralbovsky: Oh eventually, let me see. The alternatives were initially 20 but you changed it... Maggie Diana Bernardo: Ralbovsky: Oh the hedge, let me see did I put the hedge somewhere else? Did I not add up to 100? Diana Bernardo: It adds to 100 but it's like you add 5 under step 3 on hedge there's 5 in step 3, 5 in step 1, 0 in step 5. Maggie Ralbovsky: Oh okay I didn't mean to do that. So it must have been somehow messed up. I was focusing on step 2, yeah I see what you are saying. I did not mean to do that. Step 2 so this should be 15. James Duenas: She just moved it over. Maggie Ralbovsky: No, I actually missed that one. David O'Brien: Now she's got it... Maggie Ralbovsky: No, I missed that one. James Duenas: Oh so she forgot to put the... Maggie Ralbovsky: I forgot that one. Diana Bernardo: Yeah that should say 20. James Duenas: Yeah. That's the one I was looking Antolina Leon Guerrero: You know in step 3, this... David O'Brien: partnerships moved. James Duenas: Okay, so with the private partnership allocations that you moved on to step 5 to look at later on. Maggie Ralbovsky: So we will have to reevaluate whether any opportunities is worth volatility. James Duenas: No but because we missed the opportunity window for that, doesn't that affect the whole strategy? Maggie Ralbovsky: Well remember when we approved the strategy we said the ongoing basis step by step we review this strategy because the Board basically was only comfortable with step number 1. So the later strategies I thought was just a guideline that we're going to review as we go along. So the 2nd step originally was for the private lending opportunities and when I took a look at these strategy and no longer prevalent the European opportunities is already passed, private lending is mainly passed, intellectual property there's couple of firms raised too much money, they're trying to deploy that. So it just seems to me we should push this back when opportunities arise again we can always review the private opportunities. We should focus on the public market opportunities for step number 2. So

that's why I made these modifications so the Board can discuss whether we could as we go along modify these different steps.

David O'Brien: So, let's go over the different opportunities just for a second. Hedge fund we already heard from the Franklin Templeton guy what he thinks about hedge funds, so we know about hedge funds. Maggie Ralbovsky: Wait, wait. David O'Brien: The risk parity, he said the risk parity the down side of risk parity which is the picture there on page 7, when risk parity under performs, you say that's passed. Maggie Ralbovsky: No I said this kind of scenario may happen again so we just have to understand that's the only scenario risk parity will underperform the traditional asset class. But we're only allocating 5% of our assets in that. David O'Brien: I'm just trying to figure out why all these 3 getting better opportunities than the private partnerships. That's the basis of what you're saying. Maggie Ralbovsky: I'm saying for private partnerships I don't see any of these strategies still around, they raise the money they close these opportunities. So maybe in the future that these may come back or may not. Ralbovsky: Well something may come back, may not be these particular ones. Let's say we have a market crash we might have distressed lending opportunities so those are opportunistic kind of scenario. So whether this will change the private partnership is always been an opportunistic kind of category so you can't really re-balance that in and out. It really has to wait until market is there so you know being away there is a very, very opportunistic kind of allocation.

James Duenas: That private partnership sounds like a short term... Maggie Ralbovsky: It's actually long term commitment but the windows tend to be... Paula Blas: Buy-in. Maggie Ralbovsky: Yeah, we're not talking about allocation to bench your capital. But these are more private partnerships as opportunities arise then these opportunities will come along. James Duenas: I just want to understand. Maggie Ralbovsky: I know these are different from the previous version because when we talk about the previous version the Board mainly basically approved step number 1. It left the door open for the future discussions so that's why I'm starting to move on to talk about what's the logical step number 2. And I think the more logical thing to do is to focus on public markets right now because it takes time for us to approve and implement these steps we can't be talking about private partnerships right now because we don't know what kind of opportunities will be there when we are ready. Joe San Agustin: How soon do you want to get this implemented? Maggie Ralbovsky: Well I think. Joe San Agustin: Or you just want to go into it. Rosalia Bordallo: After we finish step 1. Maggie Ralbovsky: I do not want to rush it. Paula Blas: We're going to grow into it. Maggie Ralbovsky: That's right. So I'm starting to have discussions of these different asset classes because I don't want us to take a step if we are not comfortable with that. I want us to be happy with taking a step not to be you know...

David O'Brien: It's a good question because just listening to Paula earlier so if we've already decided we want to do the transition manager first that's going to be X number of months. Then you have to issue the next RFP's which add another 2-3 months. Maggie Ralbovsky: That's right. Paula Blas: Timing for that would probably be this month also for the core, for the high yield bonds and Global REITs. Maggie Ralbovsky: Also in June? Paula Blas: Probably because the transition... Wilfred Leon Guerrero: I think all of the RFP's has been issued, right? Antolina Leon Guerrero: It's going out next week, right?

Rosalia Bordallo: Only the transition is going to be issued. Paula Blas: No it won't post on the P & I, the ad went out already. James Duenas: No they want to do the transition first and then issue out the RFP. Wilfred Leon Guerrero: No, I think I knew fixed income... James Duenas: You're going to do all steps? Wilfred Leon Guerrero: We issued 3 RFP's right? Paula Blas: We issued for the transition managers. Wilfred Leon Guerrero: Just that first one? Paula Blas: Yeah. Wilfred Leon Guerrero: I thought it was approved that we issue all three. Paula Blas: We were going to do that and then the concern at the last Board meeting was that the transition manager be in place first. That was the instruction. So now that I'm hearing it there's no problem with getting it out.

Wilfred Leon Guerrero: No I don't see any conflict on that thing and you issued the RFP but you know you hired that transition managers first. Antolina Leon Guerrero: Right, so I guess the question is do we go ahead and proceed with an RFP for... Paula Blas: The Global REITs and the high yield bonds. Joe San Agustin: You could always have a RFP you don't have to select it until the time is right. Paula Blas: Yes. Wilfred Leon Guerrero: Yeah so I think this should be issued. Antolina Leon Guerrero: So you have to make that recommendation from your committee right. I can do that at M&B but Kathy might turn me down. Wilfred Leon Guerrero: I thought it was already recommended. Antolina Leon Guerrero: No it's because we always change our mind. David O'Brien: You know we should go back to the verbatim minutes, because before you say anything review the verbatim minutes to see what you said. Joe San Agustin: Playback the tape. Playback the tape. Wilfred Leon Guerrero: I thought it was approved for all three. Paula Blas: It was approved for that strategy. Wilfred Leon Guerrero: What you need to do Maggie is you need to light candles so that you get the same Board both elected and the appointed. Rosalia Bordallo: Are you aware that next month. Maggie Ralbovsky: You're going to have an election. Rosalia Bordallo: Right, so the composition of the Board can shift and what that might do to this might be we don't know either. Maggie Ralbovsky: I totally understand. I totally understand. So I'm thinking that good thing right now, let's just start focus on understanding that new asset classes. Then we can decide on when to do what, what step is what.

Wilfred Leon Guerrero: But you need to light candles... Maggie Ralbovsky: Light candles for? Rosalia Bordallo: And you need to do some chanting. Wilfred Leon Guerrero: So that you get the same Board otherwise you start all over again. Rosalia Bordallo: Because we don't know what depending on the composition, we don't know what direction they might go, we don't know that they might say you don't have a job anymore. You know. Maggie Ralbovsky: I guess I have confidence that... Rosalia Bordallo: So the only way that confidence can go into place is to start campaigning. Maggie Ralbovsky: campaigning to whom? Rosalia Bordallo: I don't know. David O'Brien: Stand up in front with the painters. Wilfred Leon Guerrero: Not only the elected ones but I think the appointed ones also need support otherwise. James Duenas: You need to come and barbecue on June 14. Maggie Ralbovsky: That's the day before Father's day, right? I think father's day is on June 15. Rosalia Bordallo: It's on a Sunday. Maggie Ralbovsky: Okay, so baby steps is what I'm after and my goal for today is to introduce risk parity. Antolina Leon Guerrero: So ask Dave again, what is risk parity? Maggie Ralbovsky: Everybody write on a piece of paper what risk parity is. James Duenas: Okay definition time. David O'Brien: I don't want to be the laughing stock again. Maggie Ralbovsky: Write it down. Okay, risk parity is the asset allocation philosophy that allocates an investors risk budget equally across. David O'Brien: The different classes. Antolina Leon Guerrero: A different asset classes? Maggie Ralbovsky: Major asset classes. David O'Brien: That's what I wrote. Maggie Ralbovsky: You did not say that you said something about. Antolina Leon Guerrero: He gut flustered, he got caught under pressure, he got excited and... David O'Brien: It may have been a word here or there I didn't get right.

James Duenas: So asset allocation that distributes equally among the major classes. Maggie Ralbovsky: It's the asset allocation strategy that allocates risk budget. Wilfred Leon Guerrero: James you first of all got to memorize that and then secondly you have to understand what it means. Maggie Ralbovsky: Risk budget. Rosalia Bordallo: Key term. Maggie Ralbovsky: That's right. James Duenas: Asset allocation strategy that... Maggie Ralbovsky: That allocates an investors risk budget equally across major asset classes. Rosalia Bordallo: In their portfolio. Wilfred Leon Guerrero: The thing that's going to be confusing when you're looking at it and you see percentages you don't know whether we're talking about like the asset allocation... Maggie Ralbovsky: Mr. Chair let me clarify that because we opted asset allocation the expectation once a year. So we have to update those numbers anyway, so my goal today is to introduce risk parity. I always took the Board's previous decision as a guidance to say hey we approved step number 1 all the future steps are pending. David O'Brien: He agrees with you on that. Wilfred Leon Guerrero: I'm just pointing out that we got to get used to when we are looking at stuff and we see percentage you need to know what it is whether this is a risk parity or this is asset allocation that percentage. Maggie Ralbovsky: Wait this is... David O'Brien: allocation is the whole thing. Risk parity is one of the alternatives. Wilfred Leon Guerrero: I'll give an example, when you have this one third, one third, one third. Maggie Ralbovsky: Oh the risk allocation. Wilfred Leon Guerrero: Yeah. David O'Brien: On page 7, is that what you're talking about? Wilfred Leon Guerrero: You see I'm used to, for example page 7, I look at that thing and... Maggie Ralbovsky: You think of asset allocation. Wilfred Leon Guerrero: One third stock, one third bond, one third... Maggie Ralbovsky: I see, so this is risk allocation. Yeah. Wilfred Leon Guerrero: So you just need to keep that in mind when you look at a chart like that, that's not the asset allocation. Maggie Ralbovsky: Yes. So since my goal is to introduce us risk parity I'd like to try to explain page 6. David O'Brien: Really? Maggie Ralbovsky: Yes. James Duenas: So while you are trying to explain page 6, can we eat and explain? Wilfred Leon Guerrero: Okay, we'll continue the discussion over... Maggie Ralbovsky: After this is done we're done, how's that? Yeah, I'm not going through the rest... David O'Brien: We're not going to go through credit? Maggie Ralbovsky: No I'm not. Not today, I'm going to do baby steps. I'm going to save for next time. James Duenas: She's going to save the credit when she brings the graphs. Maggie Ralbovsky: That's right. Wilfred Leon Guerrero: Rosie has to go at 1 so she needs to eat so let's eat. Rosalia Bordallo: I have to go at quarter to one because I have to be someplace at one. I have another meeting. Maggie Ralbovsky: So I'm not going to talk about it. Go ahead and eat. James Duenas: We're going to talk about it over lunch. Maggie Ralbovsky: Oh yeah, sure please go get your food. David O'Brien: I'm with you, I don't know why we didn't do this page. Maggie Ralbovsky: What do you mean only 2 pages, all these others are just different categories. David O'Brien: Yeah the credit thing... Maggie Ralbovsky: No, no there's more. David O'Brien: I know there's more.

David O'Brien: I was just thinking sitting here how more complex our investment review is going to be because each one of these alternatives it's new to us A and B we're going to

get new managers so we won't have much experience with them. Joe San Agustin: And that's why we need to make sure we know because otherwise they can outsmart you. David O'Brien: And C you know we'll be very sensitive to make the movements in the new step. So I just think it's, I can't hardly wait for the new Board. Joe San Agustin: I just hope that sensitivity doesn't preclude you from making decisions. David O'Brien: No, it's not. Maggie Ralbovsky: Yeah well this is a 1.6 billion dollar fund things will get more complicated where your mark is a 2 billion dollar mark. I should right? That's right. Major heavy weight. David O'Brien: Things take a long enough time now.

Respectfully submitted,

Angelina Castro/Marilyn Aguon Recording Secretary Affirmed:

WILFRED P. LEON GUERRERO, Ed.D. Investment Committee Chairman