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Defined Benefit Plan
Quarter Ended March 31, 2013 Performance Meetings
& Annual Investment Manager Reviews
May 30, 2013
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
James R.F. Duenas, Trustee
Antolina S. Leon Guerrero, Trustee

Staff Present:

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

Other Present:

Doris Flores-Brooks, Public Auditor
Maggie Ralbovsky, Wilshire
Michael Materasso, Franklin Templeton

Franklin Templeton
Risk Parity

Pages 2-13
Pages 13-27

10:00a.m. – 10:45a.m. Franklin Templeton

Wilfred Leon Guerrero: Same rules, 45 minutes, tell us how much money you made, if there are any of the regulatory agencies have issues with you and changes in personnel and then you'll tell us that next year you're going to make more money. And then we'll be out of here in 5 minutes.

Michael Materasso: I was going to say that it's getting tougher and tougher to make more money for you. Well, thank you very much for having me in, it's very good to see all of you. Just to answer the initial question, there are no regulatory issues, nothing of that nature and just the on the personnel front, I know some of you have been involved, we've had a change on the client service area, Brian Kelly who is the client service rep who is on the Guam account, he's been given different responsibilities. My thought initially was if I like somebody to be active with you so initially I said, if we don't have somebody that can to come to the area I'd rather just take on the additional responsibility myself. Having said that, it was yesterday, Tuesday I've been traveling I'm off with the days and everything, but in any case a new person will be coming on to the account, his name is Bill Deakyne and he will be getting in touch with you.

Bill has been with the organization for 21 years, he's located on the west coast in the San Francisco area. In fact he comes to Japan a couple times a year because his wife is from Japan and would be able to visit the island as well. So, I just wanted to give you that update. Joe T. San Agustin: There's a new man. Gerard Cruz: What's his last name? Michael Materasso: Deakyne. Joe T. San Agustin: He's from San Francisco? Michael Materasso: He's in the San Francisco area, he works out of our headquarters in San Mateo, California. Okay. Alrighty just very briefly in terms of the organization in terms of personnel changes other than that none other than the fact we gradually continue to add investment professionals to the organization. Currently now about 150 people represented. If you take a look at page 3 you'll see a map of the globe and across the globe you'll see where our fixed income investment professionals are located their numbers either being part of the direct investment team or being part of our global asset management team. Our local asset management team those are individuals that work within countries that are managing money specifically for individuals and institutions within that region but also provide a smaller ground research.

If you look just on page 4, just flipping the page just to very quickly just give you more of a background, this is the fixed income team you'll see that we have a team that's divided up among sector silos, across you'll see the various segments of the fixed income market that we follow and follow very closely and leaders of those groups as well as the number of investment professionals across there. So you could see in terms of corporate credit we have 33 investment professionals investing in both investment grade high yield as well as in the United States as well as globally so we have global presence in terms of credit. When it comes to sovereign debt we really do cover from the large economies of the world, the G7 countries as well as we follow our countries in Africa that are just developing bond markets. So it's a very wide and broad reach.

You can see at the top of the page our chief investment officer Chris Molumphy, both he and I co-chair our fixed income policy committee. And let's get into the review. Turn now to page. Joe T. San Agustin: Any of these people are where changes at? Michael Materasso: No, no changes as I said if anything we've had a couple of additions with

the credit area quantitative area in terms of additional research people. Joe T. San Agustin: Means to re-organize. Michael Materasso: Excuse me? Joe T. San Agustin: Reorganize. Michael Materasso: Not reorganize just adding individuals. So adding people within credit, adding people within quantitative research. Joe T. San Agustin: Business must be good.

Michael Materasso: Alrighty, just in terms of reviewing these time periods which will be the fiscal year ending September 30, the 4th quarter of 2012, the 1st quarter of 2013, and then most recently April of 2013. And all things considered, when you consider when we were here a year ago doing the review that the fixed income markets continue to perform well, interest rates have remained low and the more riskier segments of the fixed income market be it in credit, corporate credit, sovereign credit, municipal credit, the risk premium of those securities have shrunk a bit so as a result of that the returns all things considered and especially in the low inflationary environment that we're in, look good.

So if you look on this page, on page 8, and look at the box on the upper right hand side of the page, you'll see from the benchmark itself on page 8, upper right hand side box, for this fiscal year period ending September 2012 the benchmark for this portfolio which is the Barclays Capital U.S. Aggregate index had a return of a little bit over 5% strip away all the other segments and just look at treasury alone. That's 4 lines, 3 lines down. The treasury component of that had a return of 3%, so despite the fact that we've been in a low interest rate environment, the U.S. fixed income market continues to perform relatively well.

Below you'll see the various sectors of the fixed income market and how they performed versus treasuries of similar maturities. So you'll see as well for that fiscal year period that all the way right down the page, every sector of fixed income market performed better than treasuries. And some cases significantly better such as commercial mortgage back securities, CNBS had an extra return of almost 10%. Even investment grade corporates which have done well over the last few years, outperformed treasuries by about 7% and then when you get into the riskier segments of the market such as high yield and emerging market debt, high yield outperformed treasuries by almost 17% in emerging market by almost 15%.

Joe T. San Agustin: Those high yield of 16.71, what is the jump from the 1st quarter, 4th quarter look at the figure. Michael Materasso: Sure. So the 4th so what this is showing you is for the fiscal year ending September 2012 and then going forward just for the 4th quarter of 2012, the 1st quarter of 2013 and April of 2013. So even as we move forward beyond the fiscal year for the most part, sectors of fixed income market continue to outperform treasuries.

Joe T. San Agustin: You wouldn't reach if you're projecting an extra quarter, you wouldn't reach the 16 by next year. Michael Materasso: No, these are actual numbers and so 9/30/2011 to 9/30/2012 the first column, that was for your last fiscal year, and now in the current fiscal year are the next 3 columns. Joe T. San Agustin: I am projecting myself what would be your reach by the end of next year. Michael Materasso: Okay, that's an easy one, I highly doubt it that we would end up with a return in high yield. Which so far. Joe T. San Agustin: How do you maintain that 16? Michael Materasso: You don't, I would say the answer to that pretty simply would be

that its highly unlikely, so far doing the math very quickly, 5, 7, 8% so far high yield has outperformed treasuries by 8%.

Joe T. San Agustin: Trying to reach it, let's say establishes a quota of 16. We expect to be the same next year. Michael Materasso: For the balance of this year, so 5 more months would need another 8%, I would say that's not going to happen, it's highly unlikely that something like that would happen. But having said that we think that high yield is still an area that one should invest in even though the returns are. Joe T. San Agustin: You don't anticipate doubling up or even reaching half of what you have now. Michael Materasso: Well we have already that's the point, so for this fiscal year it's 8% as compared to almost 17%. So, so far almost 50% of last year. Joe T. San Agustin: But you have no hope of reaching 16? Michael Materasso: Highly unlikely would be my answer. Highly unlikely, impossible no, but highly unlikely.

Michael Materasso: So the one sector of the market that has not done all that well this year and not poorly but just not as well has been the agency mortgage past through portion. And its sort of ironic because that's an area that the Fed is really focused on in terms of their purchase program of securities they've been buying a lot of mortgage securities during this period of time. One of the reasons for that though is that the housing market is improving. And as the housing market improves couple things go on. The prices of homes go up and as the unemployment rate comes down, credit scores of individuals have improved. So what does that mean in terms of the agency past through market? It means that people that own mortgages that had a high interest rate, but because they had negative equity in their homes or because they had a low credit score, they were not able to refinance their mortgages, they were stuck with a 6.5, 7% mortgage even though mortgage rates have come down to say as low as 3 and a quarter percent, as prices have gone up, as people have come back into the workforce, as credit scores have improved, these holders of these mortgages have been able to refinance. That's had a negative impact on part of the mortgage market and resulted in these underperforming treasuries by a small amount but none the less underperformed in treasuries.

So basically when you look at this page, you'll see that despite the fact that over the last since September of 2011 that we've been in a low interest rate environment that corporate bonds, commercial mortgage back securities from 2011 and previous two years have done well, we continue to see good performance from the fixed income sectors of the market. So that's sort of the message from this page. Wilfred Leon Guerrero: Before you turn that over, what's Crossover? Michael Materasso: Crossover. So they are credits that have an investment grade rating by one of the agencies and high yield rating by the other. So in other words Moody's rates them a little over 3 which is the lowest of investment grade Standard & Poors rates them double B+. That's a crossover, where one of them is below investment grade and in this type of market in an economic recovery, crossovers typically are going this way. They are crossing over into investment grade in an economy that's declining crossovers typically go the other way. They are investment grade by one high yield by the other with more likelihood they are going to high yield. So in this cycle crossovers typically do well because of that upward credit momentum that exists in improving the economy. Joe T. San Agustin: What would be the strategy to diversify these things? Michael Materasso: Could I talk about that in terms of our outlook and portfolio construction. Joe T. San Agustin: I'm sorry, I'm ahead. Michael Materasso: Okay. So let's talk about performance. So I've mentioned for this fiscal year the aggregate index had a return of 5.16% and if you look

on page 9, and look at top chart or top table and you'll see towards the middle of that table that fiscal year October 1, 2011 to September 30, 2012. Before fees the Retirement Fund had a return of 6.01% after fees 584, so outperformed the benchmark before fees by about 85 basis points.

For the 4th quarter, positive returns 26 basis points versus 21 for the index. 1st quarter plus 10 versus minus 12 so outperformed by 22 and then the most recent month it outperformed by 9 basis points. So we've been in relative positive territory for this entire period and adding all of those together in this whole time frame we've outperformed the benchmark by about 140 basis points for this 1 year and 5 month period. In terms of the drivers of performance, we're showing you this for each of the time segments so if you start out at the right hand side of the page, that 1 year period for the 85 basis points, a large portion of it came from investment grade credit so being overweight corporate bonds investment grade corporate bonds gave us that extra 30 basis points of performance.

The corporate bonds within that sector did better than the index. And that contributed another 39 basis points. Within the mortgage back sector we were very good at picking the right mortgage securities within that sector and that produced about 39 basis points of performance. You'll see high yield there, the guidelines don't allow us to own high yield but we do own that Lehman brothers bond which has done very well. When I was talking to you a year ago, the bonds were trading in the mid 20's, since then there has been a recovery of almost 16 points and the bonds are trading close to 26. So basically if you put the recovery back in they've gone from 25 to 40 so a very good return. Having said that we bought the bonds at par, but the fact is that we felt that the recovery would be very good, we're back to 40 cents on the dollar which was our initial estimate when we spoke to you a couple of years ago in terms of recovery.

We felt the recovery would be about 40, our view is that we think we'll be higher than that and the reason being is that so much of this estate owns commercial and residential mortgages which in this recovery are doing well and better than expectations. So as a result of that the asset values continue to be written up and we feel that there is more performance to come from these bonds. For the rest of the period, it's pretty much been more of the same in terms of the Lehman Bonds continue to do well. The financial corporate bonds that we own in the portfolio continue tighten versus treasuries and that's been a major driver of out performance for this entire time frame.

So we would consider this portfolio to be a low risk type of portfolio especially considering your guidelines or basically just investment grade credit and within those parameters we feel that these types of performance is relatively good given the low risk aspects of it. Any questions on performance?

Okay. Alrighty, let's talk about outlook and then how the portfolio is currently positioned as well as going back to your question a couple of minutes ago are there any other areas. So in terms of our outlook, we sit here today as compared to a year ago, U.S. economy is in better shape than it was a year ago. Is it in great shape? No it's not. I think that's indicated by the growth of the economy which has been at or below trend on average and especially for an economic recovery this far into recovery it's definitely a sub recovery.

The unemployment rate has come down it's right now it's about 7½% but it's still very high. Jobless claims have come down fairly nicely but it's still relatively high but the good news is that the trends are positive in terms of employment growth as well as people being laid off. So we're seeing better employment growth and less people who are being laid off. Another positive would be that we are in a low inflationary environment so despite the fact the Fed is pumping so much money into the system, by expanding its balance sheet, it's not showing up as inflation. And this is not only in the United States, but globally because in Europe they are in recession, China has down shifted in growth, now it's probably 7 to 8% rather than 8 to 10%. So when you see inflation it's not coming from demand that there's a demand for materials that's pushing the prices up on materials. Inflation is coming more from supply or from financial asset allocation. So when the price of grains go up because there is a drought or this heavy flooding or the price of metals go up because investors think that because central banks are adding money to the system that's going to cause inflation.

What that does to the economy it does cause inflation headline level but what it does is it ends up slowing economies down and the reason for that is that in a credit constrain economy when inflation goes up say in our case in case of gasoline prices go up, it's a hit to disposable income so it means that because that's gone up I'm either unable to or not willing to borrow against my credit card, you spend less money on other things and it slows the economy down. Inversely when inflation comes down it's like a tax cut and it ends up increasing disposable income and the economy does better.

So ironically, inflation if any thing is more of a controlling mechanism of the economy in this current environment when its caused not by demand and its not being caused by demand here in the United States or global and that's a very important factor given all of this central bank liquidities that's going on as they buy securities they give banks money to invest, they are not making loans they are just putting it back in securities as well. So those have been positives for the economy. Areas of the economy that have done well, housing and auto has definitely done well and because of this increase in asset prices, pretty decent bond returns but over the last year especially very good stock market returns.

The wealth effect for individuals in the United States has increased. Higher home prices as well as better employment prospects, better deleveraging so the consumers in better shape and these are all positives. The negative side is that we had tax increases for the wealthy as well as payroll tax hike at the beginning of this year. And surprisingly they really haven't hurt the economy all that much. We were expecting especially the payroll tax hike to hurt the economy because it impacts everybody and especially for those that are in lower income. And despite that it hasn't noticeably hurt the economy. Another aspect that hurts the economy is all this uncertainty with regards to regulations in regards to how healthcare program be implemented the cost to businesses. And things like that put a drag on physical growth.

So there's sort of these positives that then negatives that are going on. But on the whole it seems as though the positives have the upper hand and are allowing the economy to grow not terrifically so but to grow but growing especially better than the rest of the developed world. So it seems as though we are on the right track. So having said that you have a situation where the Fed have been buying securities on about \$85 billion dollars a month, and there's a lot of concerns in terms of when will they either stop buying or when will they begin to buy less on a monthly basis. And the market is

very, very much focused in almost obsessed with this idea of will they go from \$85 billion a month to \$75, and when will they do that and how long will that take?

In fact this week we've seen interest rates rise pretty significantly, 10 year treasury which at the end of April I think was at 167, hit 223 couple of days ago and right now is about 211, so we've seen a significant rise in rates. Stock market has been doing very well but yesterday sold off about 100 points because of this rising interest rates. Well if you sort of step back a bit and think about how is the economy doing, where would interest rates, where was the stock market before the Feds started to buy earlier this year when interest rates were low and the stock market already was doing well, so why are we so concern that the Fed reduces its purchases because the economy continues to do better that its going to be a negative. It begs the question of is that the reason why the stock market is doing well? Is it just because of this central bank liquidity that's going into riskier assets including the equity markets? And we think that's not maybe the case at the margin rather than the central tenant. Central tenant is that economy is gradually doing better. There aren't inflationary pressures, it's quite possible because there were very little if any excesses in the system that this business cycle come last very long barring any type of global shock to the system. And as a result of that there's you can see multiples expand on equities even if earnings aren't growing all that great.

So were in a basically constructive on the capital markets equities as well as fixed income. Having said that we think that the trend of treasury rates is higher but the question is what is not if as an example, we were at 167, we currently at about 210, I would make the case that we could be 10 year treasury could be at 2½ to 3% by the end of the year and we're still in a low interest rate environment. Not just not as low as we were at the beginning of the year. Probably a 2½ to 3% tenure especially if the economy is doing better, is not going to slow the economy down but yet it's a low interest rate environment.

But our view is that it will be in a low interest rate environment for a much longer period of time than most have expected, we think that the Fed will start to taper its purchases probably beginning in the 4th quarter of this year but we'll continue it through a good portion of 2014 and the Fed won't be raising rates probably until sometime in 2015 and it's not out of the question and its not until 2016. So that we can be on a low interest rate environment for an extended period of time. In that type of environment where there aren't inflationary pressures where the economy is growing not at a great pace but at a decent pace, you continue to see more of the same with regards to sectors of the market away from treasuries.

So in other words, even though the spreads on investment grade corporate bonds have come in significantly from their wides in 2009, currently they're about 125 basis points over treasuries. We can go back to where they were in 2007 which is 75 basis points over treasuries. In this type of environment where investors continue to reach for yield and at the same time the underlined asset is stable. The problem is this when they reach for yield and the underlined asset is deteriorating that's when you have a problem, and that's really what we're looking for. We're looking for because of the money going into the fixed income markets that companies and countries have access to capital and if they are paying too low a rate for their credit risk, to us that's a warning sign.

It doesn't mean that you're going to see it grow immediately but it tells you that credit standards or access to credit is too easy and as a result of that we have to start getting cautious. We don't think that's the case yet but that's one of the things that we are looking at. Everybody is concerned about a bubble. All of this liquidity is going into financial assets because there isn't demand for capital to go into projects globally there's a lot of excess capacity so it's going into financial assets and typically when that happens you end up with bubbles. Well it takes a while for bubbles to occur and we don't think that the bubble problem is something that we are going to deal with in the short intermediate term but its one of those things that's on a radar list in terms of concerns of what could go wrong.

Another aspect of what could go wrong is something that could go right, in other words we talked about this sluggish U.S. economy. What happens if it takes off? What happens if for some reason companies are hiring they're putting money into capital equipment and as a result of that U.S. economy starts growing at 3½ to 4% for several quarters? Well in that type of environment the Fed has to change its policy and probably fairly quickly and that could result in a significant rise in interest rates. We don't think that's the case as well. So we think that the case is one of more of the same probably slightly less returns that we've been seeing most recently but still seeing decent returns for fixed income. And we feel that it does pay to diversify away from treasuries into other sectors in the market many of which we're invested in already but for clients over the last several quarters in my quarterly letter to you I've included some commentary on segments of the market that we can invest in just to let you know what our thinking is.

So in other words, our thinking on high yield and emerging market debt, our thinking on investing outside the U.S. and taking currency risk. So going into foreign bond markets and taking currency risk which we're doing in our portfolios that allows us to do that, something on the tune of 8%. So those are things we're doing in portfolios and we think it makes sense. What's important in terms when you look at fixed income global is that because central banks and various countries and regions are in very different shapes and very different cycles, that's a positive means that you're not typically won't see interest rates across the globe rise together because monetary policy will be different in Europe as compared to the U.S.

Growth would be different, inflationary expectations will be different so as a result of that you could have rising interest rates in the U.S. but stable interest rates are declining interest rates in lets say in Australia. So right now in our portfolios we own some Australian government bonds that have a yield of 3½% as compared to yield on 10 year treasuries of 2.1% feeling that that yield will continue to decline as U.S. interest rates rise. So that type of diversification we think makes sense because the fact that we're in a very low interest rate environment, but having said that the interest rates are not going to be rising uniformly across the globe as interest rates rise. And we think that that type of diversification makes sense.

Wilfred Leon Guerrero: What's the percentage of your clients that get into this high yield? Michael Materasso: I would say percentage wise it's probably 75%. Wilfred Leon Guerrero: And these are all, are they public? Michael Materasso: Some public as well as corporate and for quite some time. There's definitely more volatility because sometimes everything does go up and down together as we saw in 2008. But our view is that that type of diversification not only for a diversification aspect in terms of

diversifying risk but also in terms of expected returns I think that the expected returns are higher in some of these segments of the market. And there's some of our investments that are very much strategic that we expect to see them in the portfolio for that sector of the market in the portfolio for several quarters or a couple of years.

There are others that are more tactical that we think that there is a dislocation and we'll go into that sector of the market for a couple of months or a couple of quarters and then come back to the core sectors and that's more what we refer to a core plus strategy. When you look at our assets under management within fixed income, which I think are about \$380 billion dollars across Franklin Templeton, a lot of it is in global assets. Some of them of more sort of safe investment grade government bonds and corporate bonds but a couple more strategies its more of a looking at go anywhere within the global fixed income markets taking more credit risk in the process. Not worried about benchmarks more in terms of just positive returns so it's a higher risk type of strategy but it's done very well.

We manage almost \$10 billion dollars in emerging market debt so it's a very significant portion of our business. So in these segments that I am talking about and as I refer to on that organizational chart we have seasoned investment professionals, we have significant assets under management, we have strategies that are unconstrained as well as strategies where clients say just do this and not that. So it really runs the gamine in terms from even within that segments, the risk tolerance is that clients have given us. So, I know that you're thinking about possibly expanding your guidelines for the Retirement Plan and I just mentioned that we think it's a good idea but also that we do have the expertise, the experience and the individuals and a process that's worked very well to be able to go there forth.

So how we invested from this portfolio now. As I mentioned we think interest rates are going to be rising with it. With it starts so underweight duration by about a third every year. That hasn't helped us so in the last year and a half as interest rates have remained basically in a range. But we do feel that treasury rates treasuries are unattractive, underweight and also underweight duration. We're overweight in investment grade credit it's mostly corporate bonds and within corporate bonds the focus is on financials be it insurance companies and banks. But also we have exposure in energy as well within the investment grade corporate sector.

Mortgage back securities was slightly underweight, it represents about 30% of the index we're about 27% and just feeling that with the improvement of the housing market these portions of the mortgage market are going to continue to underperform as prepayments speeds rise. We're overweighting commercial mortgage back securities focused on the highest quality CNBS this triple A rated with credits quarter about 30% and a lot of that component of overweight has maturities or average lives about 3 or 4 years and those are the areas that we are focused on.

For clients in the core plus strategy, right now we have about 8% in high yield and we have about 8% in non dollar bonds. Rather than taking currency risk versus the dollar, the only currency risk that we're taking versus the dollar would be the Mexican peso but our currency risk is versus the Euro so in other words we're long polish government bonds and we're hedging this lotty back to the Euro because we think the Euro is going to weaken. And in Asia we have exposure in Korea and Malaysia but once again rather than hedging them versus the dollar we've hedged them versus the yen. And as you

know the yen has gone from 76 to currently 101, 102 so that has helped as well in terms of this weakening of the yen which we have been anticipated for quite some time and we think it will continue to do so.

So that's basically how the portfolio is structured, largely why we are there and some of the areas that we would be in if you allowed us to do so. Wilfred Leon Guerrero: How long do you usually go on your security? Michael Materasso: I'm sorry. Wilfred Leon Guerrero: How long when you buy security you go all the way until it matures? Michael Materasso: I would say it's highly unlikely unless it's a shorter term maturity. It's highly unlikely that we're going to hold it to maturity. I'm smiling because it's not in this portfolio because we can't buy a preferred stock but we bought a preferred stock issue back in December of 1998. It was an issue within the telecom industry and we felt that it was a tremendous pickup in yield versus buying its corporate bond equivalent. And unlike many preferred stocks that have a call date but then have no maturity date. This had a maturity date of 2020. Well it's 2013 and we still own dealership but that's more of an exception I would say holding periods can be anywhere from 3 months to a couple of years but possibly to maturity with some issues.

Joe T. San Agustin: So the duration of what 15 months? Michael Materasso: Right now the duration of the portfolio right now is a little bit around 5 years versus about 5.4 years for the index. Joe T. San Agustin: And you shift on that duration on what high yield or more of the high yield or government securities? Michael Materasso: I would say the ideal would be in an environment where spreads have come in so typically high yield has less of a correlation to the direction of interest treasury rates than investment rate credit however when high yield is now yielding 5½% it's coming in, it has more of a relationship with treasuries. So the idea of entirely diversifying away from treasury interest rate risk within U.S. the U.S. bond market right now is fairly difficult, you would have to go into it's other bond markets with as little or no correlation. But the idea we would stay short duration but the idea would be probably sell some treasuries, sell some mortgage back securities and go into some of the other segments that I mentioned a little bit of high yield and we would do so probably slowly if we did it just because spreads have come in and we look for opportunities some temporary setbacks to add exposure. And we also would invest outside the U.S. and the countries that I mentioned. Joe T. San Agustin: What would you say your spread in the high yield and the treasuries? Michael Materasso: Sure, the spread overall for high yield right now versus treasuries is about 5% however that includes Triple B, Triple C securities and the ones that we are looking at they are typically about 2½ to 3½%.

Joe T. San Agustin: That's why the benefit there's not much competition. Michael Materasso: When you consider, in I think it was March of '09, the spread of high yield versus treasuries was 20%. So yes they've commit and the spread of investment rate corporate bonds to treasuries was about 6%, 600 basis points so everything has come in but the question is what causes it to go out? Credit quality risk could cause it to go out, a massive allocation out of fixed income into equities in other asset classes could have an impact on it. But our view is that if the fundamentals or at least stable to improving we feel we're buying on fundamentals and some of the other asset some of the volatility would be more temporary rather than.

Joe T. San Agustin: How do you explain that closeness you have seen the gaps. The high yields versus the treasuries. Michael Materasso: Well the reasons, there's a lot of

reasons for it. Number 1, it's been a very good credit environment, many high yield companies have either refunded or prefunded their outstanding debt at lower interest rates and have cash on the books. There's definitely a larger investor base that's looking to invest in this sector of the market. We have a positive economic environment in the United States, you know there's a lot of reasons, its credit quality, its asset allocation and it's also the prospects with the U.S. economy and that is not great but it's hard to see a reason why the U.S. economy goes into recession over the next couple of years.

Joe T. San Agustin: So you think the same. Michael Materasso: See the difficulty you have today in terms of relative valuations is that there's two ways to look at a relative valuation. One would be the spread to treasuries and you prepare historically and if you do that, when you look at high yield spreads today as compared to where there were in the 1st quarter of 2007, back then they only had a spread of 275 basis points however, the 5 year treasury wasn't yield in 1% the 5 year treasury was probably 3½ to 4% so you had a much higher yield. Right now the yield on high yield is at historic low. So you're not getting in terms of real yield no they actual yield not the relative yield is at a historic low, it's very low. It's definitely very low.

Maggie Ralbovsky: But the opportunity is at the investment grade is lower. Michael Materasso: Yeah the opportunity in the investment grade is definitely lower, so in a market like this you're always looking at securities selections to generate wealth for portfolio. Like investment grade corporate bonds but what if specifically what investment grade corporate bonds do you want to invest in, what are going to do better than the average corporate bond and we look at both. So we made a sector allocation decision overweight corporates and then within that allocation so where do you want to be so we want to be largely in financials that I want to improve in trend.

In this type of environment where overall spreads has come in securities selection is even that much more important in terms of picking the right bonds that are going to do better than the average. And you want to do that in the diversified way, you don't want to have a lot of credit stories in your portfolio, you can but not consumed the portfolio with credit turn around stories and things like that cause in shocks that you do kind of poorly but we think the opportunities in both segments but its just harder to find clear homeruns today, I guess is the best way to put it.

Joe T. San Agustin: Most of these high yields are more in the C category? Michael Materasso: No, there are good returns in single B's and double B's where you are seeing yields of 6½ to 7%. Joe T. San Agustin: But C should be. Michael Materasso: C is higher but then you are really taking a heck of a lot more risk and not to say that we don't buy C rated high yield, but it's going to be where we have very strong conviction and it's going to be in a very, very small portion of the portfolio. Joe T. San Agustin: And you don't want to raise that? Michael Materasso: Not within the C category no we don't. Joe T. San Agustin: How would you allocate that? Michael Materasso: Sure I would say you probably would see within high yield you probably would see double B's and single B's maybe 60/40 in favor of double B's. Joe T. San Agustin: And then that those double B's may be comparable to the treasuries? Michael Materasso: And were they comparable to treasuries probably about 3% over treasuries.

Wilfred Leon Guerrero: When you say some of these companies are using high yield prefunded, is there a way if you can find out if they're prefunded. Michael Materasso:

Well, many of the rates so to give a specific example, a high yield company can have some debt maturing let's say the first quarter of 2014 or it's coddled 2014 so in the case of being coddled it's already trading to the called date. So, basically the company issues the debt today has a maturity of say 7 or 10 years and then just invests that money in a short term to refund to pay off the debt of the first quarter. In some instances when the maturity date or the call date is a little further out, they'll tend to be modest.

Wilfred Leon Guerrero: As an investor would you be able to figure that one out as a company? Michael Materasso: I don't think there's much to be made because the tender price is probably its going to be largely better than where its trading so you're not as though you're picking up you're going to get 2 or 3 points after the tender you're probably going to get a half a point invest so it's our view is rather than trying to pick up that half a point in that type of process to look to invest in bonds with some longer maturity lets say 5 years or 7 years that have wider spreads that have not only give you the higher yield but also the prospect with spreads heighten as well.

Wilfred Leon Guerrero: Okay, any questions? Michael Materasso: Any other questions? Joe T. San Agustin: You don't want to go down to congregate in C's. Michael Materasso: Excuse me? Joe T. San Agustin: You don't want to congregate your own C's. We hired you. Michael Materasso: Yeah, take a look at where you are currently think about where you were 2 years ago. Joe T. San Agustin: But, these are higher liquid though. Michael Materasso: They are not higher. Triple C's, C rated securities there are some that are highly liquid because they are large and they're sort of a proxy for the Triple C segment of high yield. But by large Triple C's are not that liquid and they are definitely not that liquid when things are going wrong so you're not going to change my mind and I've been working with you for a long period of time in terms of you know, you've made some great strides in terms of getting legislation passed, that's an expanded guidelines but I don't think that means that you sort of run a market not go to the risk. Risk is part of the market especially given.

Joe T. San Agustin: They say greed becomes a makeshift you get yield by greed I mean that's what you're going to expect on a day like that. We could get more by Triple C, but temporarily or long term? That's why I'm asking about the duration what's the turnover for the C's? Michael Materasso: Terms of how long you own the C. So you are asking more specifically about the C's. It's very situational it depends upon the specific credit. Joe T. San Agustin: That will be the judge on your part. Michael Materasso: Credit judgment yes, definitely. Joe T. San Agustin: Can't control that. Paula Blas: We'll test it with B and double B. Joe T. San Agustin: I'm just anticipating question that come from people that will ask which one would make more money. Michael Materasso: But see your point, if we're right about the fact that we have a long business cycle, that the Fed doesn't raise rates for another couple of years, that rates remain relatively low on treasuries. The greed factor or the risk factor will prevail and will find they will be reaching going out longer maturities that they feel comfortable with, lower credit quality and putting fundamentals aside that most likely will happen and will resolve as well in terms of deteriorating credit fundamentals but that's what makes a cycle is it's sort of almost a normal process in terms of what goes on and greed is definitely one of the factors that turns into a down turn.

It's not a sole factor, it doesn't always have to be there but definitely you'll find that comes along with it in terms of extent stretch valuations rather than say greed. Stretch valuations, valuations that don't support the fundamentals. Joe T. San Agustin: I just

call it the way it is. Wilfred Leon Guerrero: Okay. Michael Materasso: Thank you very much. Joe T. San Agustin: You're still using treasuries as the benchmark on this case. Michael Materasso: In this conversation terms of specific securities, yes. It's not the benchmark of the Fund. Yes. Joe T. San Agustin: So I will look upon that. Spread is what I more concerned. Michael Materasso: Spread to treasuries. Thank you very much. One other thing we sent along with the book in this sleeve, you'll see a piece by Michael Hasenstab he's one of our global fixed income managers and he manages one of these unconstrained types of mandates. And then just an outlook for various regions of the world especially Europe and China and he has been much more right than wrong in terms of his outlook and portfolio position. With that, I would say thank you very much as usual nice to see you, always an interesting meeting. Believe me questions and comments are terrific. When you go to a client meeting and the trustees just sit there and they just nod and maybe one question it's typically the consultant that asks the questions because no one else is asking questions and you get up and you leave, Oh god did I really have to come here? So this is where I really enjoyed the interaction.

Joe T. San Agustin: Well you're out here in the tropical area. Paula Blas: None of the managers question that. Wilfred Leon Guerrero: I try to tell the managers that are least prepared academically, professionally so I ask stupid questions. Michael Materasso: Okay. Thank you.

11:00a.m. – 11:45a.m. Risk Parity

Maggie Ralbovsky: Are we ready? Joe T. San Agustin: I guess so. Maggie Ralbovsky: Okay, let's start get our brain conditioned for our discussion today. Okay. So I want to start showing you this chart, which this is probably the fifth time you've seen it. So this is the chart that highlights the two main forces of beneath every investment categories return which are economic growth and inflation. If you think about every asset classes growth, every asset classes return historically you can dissect that return into these two parts. Some part of the return was because of economic growth and some part of return was because of inflation because when you invest in something you wanted your money eventually to cover at least the cost of living differences.

So underneath the pricing for every asset class there is inflation assumption and underneath every asset classes eventual for every asset classes eventual return there is a driver that is connected to economic growth. So if you think these are basically the 2 things that influence asset returns in the long run. And depends on how things turn out there's 4 different kinds of paradigm and these are long term paradigm. Okay, so you could have a very high rising inflation area time period or rising growth time period or vice versa so you end up with these 4 different quadrant. So we know how to read these quadrant right?

Okay, so different asset classes will perform differently under the different quadrants. The reason many investors do not actually have this perspective is because these kind of cycle goes very long term and most peoples investment life is not that long so we usually just living maybe 2 of these quadrants. Rarely somebody will experience all 4 quadrants because it may take 100 years for the 4 quadrant to really play out so what that means is that we may be constrained with our own experience especially for this generation of money managers because if your career started in 1982 you know stocks is for the long term because you know stock always outperform. That's the case since

1982 although if your life was longer than started 1982 you may have a totally different perspective and I want to show you some of that.

So this is to say that okay when we think about diversification we really need to consider whether our views are being colored by our personal experience by this particular time period we have experienced and if it turned out otherwise, what are we missing? So I think that when we are sitting together, the goal is to diversify right, nobody is coming here to say here our goal is to concentrate on particular risk but how to diversify they're very, very many different ways to diversify. So I want to set a stage to say that diversification is not just about putting asset dollars into the different asset categories but also consider what is the driving force beneath the return of those asset classes and what is the risk of those dollar amount carry because different asset classes have different risk associated with it. Just because you put a dollar in stocks and a dollar in bonds doesn't mean you're balanced right, we all know that because a dollar in stocks can drop 40% in a year, a dollar in bonds will not, right. So a dollar in stocks and a dollar in bonds even though looks like you're equally allocated only in dollar terms not in risk terms. Your risk is predominantly driven by the stocks.

So then what if all these different forces turn out differently and what if you only allocated in one quadrant and the future may turn out to tell you, you know you're missing a lot. So that's I'm trying to set a stage when we come back to this. Let me show you what we know about stock market. Page 3. There are 3 things we know about stock market. Number 1 thing is that large draw down has happened. Large draw down is defined as 40 to 50% and draw down is a jargon term that means from the peak to the trough. So if stock market reached all time high then the next all time low, what is the drop? That's called draw down.

So large draw downs of 40 to 50% has happened many times you've seen in history here. We graphed all the different periods. So this spans all the way back to 1929. So this is longer than our professional life and you can see that it happens pretty often actually more frequently than investors expect, so that's 1 thing we know. Number 2 thing we know is that it can take many, many years to recover from the decline. And number 3 thing we know is that large draw down will happen again.

Doris Flores-Brooks: What do you mean by large draw down is that just the decline or is that also people taking money out? Maggie Ralbovsky: Draw down is the simple measure of the peak level to the bottom level in stock index and then you do bring up a very important point and that is if you have to take money out during the draw down, during much worse shape because we know that market will recover, it will it just will otherwise the capital of the society will collapse if investors are not being paid in the long run. So we know stock market if one day it has a crash, it will eventually recover. The question is can you live long enough to see the recovery?

And there's some actually some simulations later I will show you there's a critical withdrawal level of 7½% and that is why we fought very hard to say do not reamortize this liability because if you pay out exceeds 7½% of your total assets you will never recover in a draw down like this because you take. Doris Flores-Brooks: Say that again. Maggie Ralbovsky: If you are cash out flow is about 7½% of the assets and if we experience one of these draw down events, you will never recover because you have to take the money out when the asset level are low and then you will not have enough of

the drive yet to catch back up. So it is very important to think about that as well when we consider asset allocations.

Doris Flores-Brooks: Can we look at this number 2007 to '09 they were known as the great recession but when you look at this graph '73 and '74 was almost as bad, right? Am I looking at that correct? 1973 to '74 right above. Maggie Ralbovsky: Yes. Doris Flores-Brooks: I guess our memory is cloud, I don't remember '73 or '74 being. Gerard Cruz: That bad of a year? Doris Flores-Brooks: Yeah. Paula Blas: That was the oil crisis. Doris Flores-Brooks: Yeah. Okay, you have a better memory. Gerard Cruz: And the market was lower too right so relative terms. Antolina Leon Guerrero: What were you doing in the 70's Doris? Doris Flores-Brooks: I wasn't paying attention to the stock market that's for sure. So from a severity point of view, if we look at '73 and '74 was longer right because that was 100 weeks compared to less 78 weeks or 75 weeks for 2007 to '09, am I reading this correctly?

Maggie Ralbovsky: Yes you are reading it correctly. Doris Flores-Brooks: So the '73, '74 although it's almost as bad not maybe that's 45 and this is what I mean maybe only a few points different, but '73 took considerably longer. Maggie Ralbovsky: Yeah it took longer to reach the bottom than 2007, 2009 took less time to reach the bottom. Doris Flores-Brooks: Okay, alright. And of course the great depression is still the great depression. Maggie Ralbovsky: That's right. 90%. Doris Flores-Brooks: So, '73, '74 was the oil crisis. Gerard Cruz: Stagflation, oil crisis. Doris Flores-Brooks: I don't remember what happened in those periods.

Doris Flores-Brooks: But 2000 and 2002, what happened there? Gerard Cruz: That's the tech bubble. Doris Flores-Brooks: Oh the tech bubble, thank you. Alright the tech bubble. Okay. It was that and that lasted longer, right? That lasted is that before from the. Antolina Leon Guerrero: It's I think not in terms of lasting longer it's how long it took to get to the top to the bottom. Doris Flores-Brooks: The decline. Before things turned around right? Maggie Ralbovsky: That's right. Antolina Leon Guerrero: No, from top to bottom. In terms of the drop so like what she was saying was in 2007, 2009 the crash was quick. It took you know less than. Maggie Ralbovsky: 10 minutes. Antolina Leon Guerrero: Right. As opposed to the depression at the decline was longer to get to the bottom.

Doris Flores-Brooks: What we're saying here though is that we were still in this recession for at least 70 weeks correct before things started to turn around, is that how you read this? That things after. Antolina Leon Guerrero: It's not talking about the turn around its just talking about the time it took from the top of the market to the bottom. Rosalia Bordallo: It doesn't say how long it took to go back up. It could have stayed here for 2 years before it goes back up. Doris Flores-Brooks: Okay I see, alright thank you. You said you've seen this 5 times, this is my first time. Maggie Ralbovsky: Oh no, not this chart, the other chart.

Doris Flores-Brooks: Okay. So, going back to your statement about draw downs. What was. Maggie Ralbovsky: Draw downs. Antolina Leon Guerrero: It's from the peak of the market to the trough. Rosalia Bordallo: She's just saying that you never want to sell at a low point. Doris Flores-Brooks: Right, but which people traditionally do they panic. Maggie Ralbovsky: If you're forced to do it. Gerard Cruz: If your contribution rate is lower. Doris Flores-Brooks: And you were at some point, right. Gerard Cruz: We're still drawing down to pay the benefits but if we extend the amortization period

then that draw down becomes greater. Maggie Ralbovsky: Right now 7½%. Right now is that limit in my view. Gerard Cruz: We're at 7½% so if we extend the amortization period then our draw downs become greater and any one of these phenomenas is going to put us is in the position where there's no way we can invest ourselves out.

Maggie Ralbovsky: You can never recover. Like with Saipan. That's exactly what Saipan did. Gerard Cruz: So even at 50% return you are on a downward spiral and unable to get interest back. Doris Flores-Brooks: Okay. Maggie Ralbovsky: Okay. So the next observation is that this is the market risk when people say what is the risk they basically means volatility like how sure you are with your return or how unsure you are. And the higher this standard deviation number is the higher the risk. And you can see stock market historically had a 16.3% average annual volatility but their peaks that are really, really peak. Sometimes it's really high like the most recent high we experienced that was in 2008. The risk for that year reached over 30% it was like 35% or 33% for that year. And that usually coincides with low return period which is to say that when market drops risk are to go higher. The market actually is very calm, you actually tend to have better return. So the question is that can you actually manage that? Can you actually put more money in the market when risk is low and put less money in the market when risk is high?

Maggie Ralbovsky: So, I want to let you know risk parity is one of the things you can use to deal with this kind of phenomenon, you actually try to put more money in the market when risk level is low, you want to withhold money from the market when risk is high. Doris Flores Brooks: Don't invest when minimal invest when risk is high. More invest when the risk is low. Maggie Ralbovsky: That's right, it targets risk it does not target return because return happens from the market. Okay, I'm actually going to introduce another topic first. It's a concept, the reason I want to do this is because I actually run a simulation later which includes this kind of strategies called tail risk hedging strategy. With tail risk hedging I do want to introduce it even though we may not ever go there. Gerard Cruz: Okay. No good, no not good that we are not going there but. Maggie Ralbovsky: We're probably not going to go there. Doris Flores-Brooks: When we tail hedging involves I glaze over. Maggie Ralbovsky: You can glaze over you just have to listen to the concept. So when you go I want the Board also needs to be familiar with the terms we are using, what is a tail risk hedging, what is a tail? Okay if you look at the lime green distribution. This is called a distribution right distribution is the collection of all the different outcomes and this is the distribution returns. So if you collectively put all the annual returns together it will look like something like that, the lime green one which is the actual return stock market achieved and then you can see there's on the left hand side a really fat tail, that's what they mean by tail, tail means really large possibility of a very large loss. The reason the tail is considered flat is because in every model out there when people are doing simulations, when people are doing projections they tend to use normal distribution.

And normal distribution is that yellow line which is to assume there's a possibility you can lose 30% but the possibility is very, very low if you look at the yellow line when it reaches negative 30%, the possibility is very, very low it's like minimal but the actual realized chances is higher than that. Which is to say most models out there underestimates the chance you going to have a fat tail event. Underestimate the possibility you may lose money. Most asset allocations are vulnerable to tail events because you do not consider that as a large. Gerard Cruz: This is not just losing money this is losing 30%. Maggie Ralbovsky: Yeah lose a lot of money.

Doris Flores-Brooks: They underestimate. Maggie Ralbovsky: They underestimate the chance. Doris Flores-Brooks: So you're saying it's a higher risk. Maggie Ralbovsky: There's a higher risk than what's considered. So, to deal with that people have decided maybe I can hedge out the tail risk, and that what tail risk hedging strategies are. So those strategies you have to pay money to somebody who takes that outcome away from you. So basically you pay them like insurance premium and if that happens they pay you back. Like the health insurance right. Gerard Cruz: But if it doesn't happen it's a drag. Maggie Ralbovsky: That's right and if you did buy one of those tail risk hedging portfolios you can see your outcome becomes the blue thing the blue distribution that removes the tail risk. However on the upside you can see the blue thing is also less profitable than the green thing and that is the cost of the hedging. So that's why the chart looks like this.

Maggie Ralbovsky: There are 3 things 2 things that's said in this chart, 3 things. Number 1 thing is that normal distribution underestimates the chance of a fat tail. Number 2 thing is that there is a way to hedge out that fat tail. Number 3 thing is it may not be profitable in the long run because you actually remove portion of that. Gerard Cruz: Any outside potential. Maggie Ralbovsky: That's right and why is that? Gerard Cruz: Because it's insurance. Maggie Ralbovsky: That's right. Gerard Cruz: We're done. Next? Maggie Ralbovsky: You want to move on? Gerard Cruz: Yes. Maggie Ralbovsky: Okay let's move on. Doris Flores-Brooks: So, the question is do you want to buy insurance? Maggie Ralbovsky: Let's move on to risk parity. Page 10. Let's go to page 10. Doris Flores-Brooks: Oh we're not going to talk about puts and call. Maggie Ralbovsky: No we're not. Doris Flores-Brooks: Okay.

Maggie Ralbovsky: The bottom line is that the market only rewards people who take risk. So in the long run if you perpetually want to hedge, you actually losing the proposition I actually did this analysis myself, your drag is actually 3.5% annually. Gerard Cruz: If we adopted that strategy? Maggie Ralbovsky: If you perpetually adopted a tail risk hedging strategy, in the long run you going to lose 3½% a year but in an event of 2008 you're going to gain you're going to gain tremendously. So, however if you're not in a position the reason some people need tail risk hedging is because if you draw down, if your withdrawal is over 7½% as I said earlier you can never recover from a tail risk event. In that kind of scenario you need a tail risk hedging strategy because that removes the possibility of you never, you're going to die never going to live to see the brighter days.

So I do want to have that thought in our mind because we may get into that situation I don't know I hope not. Okay, page 10 risk parity. What if those people pass the law you know then that. Gerard Cruz: That's why we're paying you Maggie keep us from getting into that situation. Maggie Ralbovsky: That's right. We definitely have to fight that. Ok so risk parity. Now this is another thing I've seen many times. So this is highlight the point that dollar allocation does not equal risk allocation. So the left hand side graph looks very colorful, very diversified and this is GGRF current policy current allocation right so we have. Doris Flores-Brooks: As of what time? Maggie Ralbovsky: As of now. Doris Flores-Brooks: Okay. Maggie Ralbovsky: This is our current asset allocation and you can see that we are trying to diversify dollar terms however as we said earlier because different asset classes have different risk. If you look at the contribution to the total plan risk, the majority of the risk in our portfolio comes from risk from growth factor from stock market.

So if our goal is to build a balance portfolio we really haven't achieved that. We're basically putting all our bets in one risk factor not the rest. And this is not unusual this is actually historically has been the case for most people. Antolina Leon Guerrero: Is risk parity a new concept? Maggie Ralbovsky: Risk parity started from 2005, it is fairly new. So what's the problem with unbalance portfolio in terms of risk? Well this is the actual result, the next page Mr. Chair, page 11. Oh yeah sorry because mine was produced the wrong way, so if I look at it this way it's upside down, yours is actually correct.

Maggie Ralbovsky: So this is the actual result for two of the past four decade this current policy did not beat inflation. That's a very high probability we underperformed inflation we underperformed cash basically. For two out of the four decades. So you can see that the first decade that didn't bid cash was in the 1970's stagflation. That's the scenario we actually do not have any hedges for because our portfolio's positioned for growth not for inflation at all, we don't have pretty much we don't have much of any inflation hedge property in our portfolio. So in trying inflation scenarios we're going to underperformed cash, we underperformed cash.

Now the second of these two decades that we underperformed was in the most recent deleveraging bubble bursting period which lasted for 10 years from 1999 to 2009 we underperformed cash. That's a very high probability for us in for 10 years annualized return we underperformed cash by taking. Doris Flores-Brooks: When did that happen? I'm not sure I quite follow this graph. Maggie Ralbovsky: Okay, in the top graph 1971 to 1981, 10 years. The bottom graph is 1999 to 2009, okay so in the past 40 years there was two distinct 10 year period. Doris Flores-Brooks: Oh, okay. Joe T. San Agustin: I don't follow you what do you mean by the cash.

Maggie Ralbovsky: The inflation because cash pays you about inflation hopefully a cash probably didn't even catch up. Gerard Cruz: So, okay so let's break. So your first comment between '71 and '81, '71 to '81 our return was what? Our return was, what is this? Maggie Ralbovsky: You see you went from \$1 to every \$1 you went to a \$1.80. Doris Flores-Brooks: Almost \$1.90. Maggie Ralbovsky: But inflation went from a dollar, over two dollars. Doris Flores-Brooks: So in that 10 year period that thing grew, it took 10 years to almost double, correct? Maggie Ralbovsky: Took 10 years that's in absolute terms but your purchasing power, you have lost purchasing power and this has not count the withdrawal. Okay we did not count you have to withdraw 7½% a year from this.

Gerard Cruz: I don't know if we had to do that back then. Maggie Ralbovsky: Yeah, so this is obviously the simulation of what if whatever back then but. Gerard Cruz: '99. Maggie Ralbovsky: And you also didn't have the current policy. So you can see that for this first 10 years, the reason we didn't so if you go back to that four quadrant the first 10 years is in the top is in the bottom right hand quadrant. Okay, this is the high inflation low growth period, so that's called stagflation. You can see for that period the good asset classes are inflation in bonds and commodities or precious metals. Gerard Cruz: Inflation is high right? Maggie Ralbovsky: Because inflation's high. Gerard Cruz: Was high. Maggie Ralbovsky: Was high very high. Gerard Cruz: Interest rates, I remember Florida at 12%.

Doris Flores-Brooks: I remember TCD's were paying like 10 or 12. Maggie Ralbovsky: So which is to say if that environment repeats we don't have any hedge to that because we don't have any of those investments right. So the second period that represented here was 1999 to 2009, this is the period.

Gerard Cruz: What about immediate following that? In 81 to 91? Doris Flores-Brooks: That was okay. Maggie Ralbovsky: That was okay, that was okay we recovered 2 out of the 4. Gerard Cruz; Okay. Maggie Ralbovsky: That's right. And then. Antolina Leon Guerrero: So half the time we beat inflation and half the time we didn't. Maggie Ralbovsky: That's right. So the second part. Antolina Leon Guerrero: I'm not alarmed yet that's why I asked that question. Rosalia Bordallo: Wait can I ask on this graph, the red line is inflation, right? And so the blue line has to cross the bar on the top so and the second period is a very short period because it's only 2000. Gerard Cruz: 8, we lost it on the last part. Rosalia Bordallo: 2004? Maggie Ralbovsky: From the beginning to the end we are at the red line. Antolina Leon Guerrero: The whole period. Rosalia Bordallo: Yeah that's why I'm asking if the green if the blue line is above the red bar. Maggie Ralbovsky: Yes you have beat.

Rosalia Bordallo: You have beaten. So what I'm saying it's only this portion of this graph and the last one but that's only a small. Maggie Ralbovsky: But this is a cumulative so this is not rolling returns so this is cumulative so you hold \$1 from the beginning to the end. Doris Flores-Brooks: So at the end I barely made my dollar, I barely held on to my dollar. Maggie Ralbovsky: Yeah, you barely had \$1. Doris Flores-Brooks: I started off a dollar in 2000 and March 2000 I still have only a dollar. James Duenas: So what is it now?

Maggie Ralbovsky: Now we went back, we went back up because of the last 3 years. So. Doris Flores-Brooks: But don't forget this is a dip. Maggie Ralbovsky: So this is the deleveraging and in this period of time it was the government bonds that did well, and we do have government bond allocation however it is not enough because our risk terms it's only 4% they only counted 4% of our total risk allocation. It's simply not. Gerard Cruz: On the risk allocation. Maggie Ralbovsky: That's right. So how do we try to make every asset class matter and nothing too much and nothing too little. Right now we really try to make every asset class matter but one asset class really matters, the others sort of matter a little but not really.

Doris Flores-Brooks: Which asset class really equities. Maggie Ralbovsky: Really matters is equity. So here's a concept lets try to follow this table. This is the table that is the key table. So risk parity in a nutshell is a risk allocation scheme that try to allocate risk equally to the major factors and the 3 major factors we have identified here are stocks, bonds and inflation hedge. And inflation hedge is a combination of tips and commodities. These are simple asset classes and stocks are representing the growth factor. Bonds are representing the stability factor. So bonds did well if you think back in this second period we didn't do well and inflation hedge did well in this first period we didn't do well right. And stocks did well for the other 2 periods and this concept is to say that okay we want to do well under every scenario therefore we want to allocate our risk equally not a dollar equally. So if I want to allocate a risk equally how much dollar I need to allocate into each of the asset classes? This is a formula that I'm trying to figure this out okay?

Antolina Leon Guerrero: What is the return on an equally balanced risk? Maggie Ralbovsky: I'm going to address that. Antolina Leon Guerrero: You should have sent me to school. Maggie Ralbovsky: That is a great question but first and foremost risk parity does not target return it does not know what return is going to deliver. However, it has a theoretical basis, oh gosh I didn't include that chart. Antolina Leon Guerrero: You didn't answer my question? Maggie Ralbovsky: I have a chart I want to show you. That's the important chart I don't know why I didn't. So if you look at stocks and bonds and inflation hedge. You look at these 3 asset classes in the long run there's something called sharp ratio. Gerard Cruz: We learned that on Thursday, right?

Maggie Ralbovsky: Sharp ratio equals the asset class return minus risk free rate because if you just buy TBills, you get return right, so when you take risk you should demand return above TBills. And this is what this says okay this is the asset class return minus the Tbill. This is what an asset class has generated okay above Tbill and then you have to take risk for that right. So stigma is risk okay, this is risk. This is stigma of risk free rate. So you take more risk than Tbill and you generate more return than Tbill. And this ratio is called sharp ratio. Sharp ratio basically measures how much it can contain for that risk you're taking. Follow me? Yeah? Okay, so if you look at the stocks, bonds and inflation hedge for the past 100 years, the sharp ratio equals but more or less equal more this is a very important concept. They all equal so market is actually efficient you take more risk you get more return. However the reason we all take stocks give us more returns because it has more risk. What if I can take as much risk as the stock market in bonds actually get paid the same way. Historical evidence has showed me the ratio is the same. Yes. So I am mad at myself because I didn't include the chart.

Antolina Leon Guerrero: I'm mad at you too. Maggie Ralbovsky: They basically are the same. The sharp ratios are the same. Joe T. San Agustin: What do you mean invest in stocks and bonds? Maggie Ralbovsky: Risk is not the same. The ratio is the same. Gerard Cruz: But in order to get the same amount of return in bonds you have to lever up. Maggie Ralbovsky: Exactly, you have to buy 4 times the stocks. So if you think about it, if intrinsically the sharp ratio the same we buy more stocks and bonds and that is intrinsically levered even though I didn't explicitly lever intrinsically I am levered. Right? Levered in this sense okay, that's good. So now let's get to how we get there.

Antolina Leon Guerrero: She might have to go back to the board. Maggie Ralbovsky: Did I lose you? Wilfred Leon Guerrero: No, I just like you're dancing there. Maggie Ralbovsky: Did I dance? Okay. Paula Blas: You were modeling. Maggie Ralbovsky: I was modeling? Okay. So here's the formula as to how we go from risk waiting equally to achieve how we find out how much we actually allocate dollars into different asset class. So we start with a target of 10% risk. Why 10%? Because on average investors have a 60-40 allocation. 60% stocks 40% bonds and that allocation averaged in the past 100 years have 10% risk. So 10% risk was the traditional response to control our risk. We diversify to have 10% risk target.

Maggie Ralbovsky: Now if I want to allocate this 10% risk budget equally into stocks and bonds and inflation hedge I come up with actually 5%, 5%, 5% because there's a negative correlation between them, it's not the simple math of addition. So the 5 you cannot do 5 plus 5 plus 5, its sum you have to take into consideration of the covariance matrix eventually 5, 5, 5 into these 3 categories turn out to be 10% allocation of the

total risk. Now every asset class also has a different risk by itself right, so for stocks average is 15% okay 15% risk on average. Lets say our current forecast is 15%, 5 divided by 15 equals 33% which is to say for 5% risk I can only allocate 33% of my assets into it. Gerard Cruz: Into stocks.

Maggie Ralbovsky: Into stocks and for bonds if I want to allocate in my total of same amount of risk as I allocated to stocks, I would hold 100%. Gerard Cruz: 100% of bonds? Maggie Ralbovsky: 100% of the total allocation. Gerard Cruz: Total dollar allocation. Maggie Ralbovsky: Dollar allocation to bonds. Joe T. San Agustin: You're equating, you're equating this? Maggie Ralbovsky: Hold on just wait I know you say how did you add up, you don't add up.

Maggie Ralbovsky: We're not allocating dollars. We are allocating risk, okay. So similarly if you have 5% allocation in inflation hedge it comes up to be 63% so my total on the top you can see is 196% which is to say for 100 dollars I buy 196% of stock, 196 dollars of stock. Then that obviously that's leverage, leverage is a 4 lettered word even though it's a 5 letters. It's considered a 4 letter word in finance because. Gerard Cruz: Actually it's 8. Paula Blas: What did you say? Gerard Cruz: It's 8 letters. Doris Flores-Brooks: Debt is a 4 letter word.

Maggie Ralbovsky: Okay this is not debt. Its not explicit debt, no its leverage you're right it's 8 letters. Antolina Leon Guerrero: I'm sorry, So \$100 what? Maggie Ralbovsky: So \$100 in this scenario, now hear me out, this is not a perpetual allocation okay this is the allocation, today if I had 15% forecast for risk for stocks and 5% forecast for bonds and inflation hedge becomes 8% and in the year 2008 stock market went to 40% in risk, so the model picks up 40% and guess what, the allocation becomes 5%.

Gerard Cruz: So if we allocated for example a portion of our existing portfolio, let's say 10% of our portfolio to risk parity they would look at our current active our current make up and determine. Maggie Ralbovsky: No, they do not. But these forecast. Gerard Cruz: So that becomes. Maggie Ralbovsky: Risk. Gerard Cruz: Okay, so if we allocated 10% of our current portfolio to our risk parity manager they would just manage that portfolio separately? Maggie Ralbovsky: That's right. Gerard Cruz: So any benefit would only be limited to the 10%. Maggie Ralbovsky: That's correct. Gerard Cruz: So we still have 90% of our portfolio doing what's its currently doing.

Maggie Ralbovsky: That's correct. Although we can address that later, can we just focus on this now. So, here's an another important point, here's another remember we talked earlier that when risk is high return is low, we want to have lower allocation and this model does it by itself because if you're thinking 2008, this 15% becomes 40% you naturally will only hold 5% of stocks and that's when stocks hurt you, but in those times you still only have the same equal allocation to stocks in terms of risk but risk went higher you naturally hold less of that. And in the case of 2007 and before when stock market was only 7% risk and think about how much stocks you're holding so you're naturally holding more of a asset class that gives you more return and take it back when the asset class start to hurt you.

Same thing will be true for bonds, if you think the interest rate goes up the bond volatility will go up and you're actually not going to lever up bonds probably lever up a lot less of bonds. So this whole allocation scheme has the natural protection against

risks, against high risk scenarios because you're going to lever down. In 2008, most of these strategies hold less than 80%, for every \$100 they held less than \$80 of stock, \$20 was in cash because of this scheme because risk went up. Gerard Cruz: That \$20 in cash? Maggie: In cash. So naturally because of this kind of allocation scheme they protected on the down side and AQR strategy for example was only down 8% for the year when stock market was down 49%.

Gerard Cruz: We were down 15. Maggie Ralbovsky: No, 15 was the calendar year, not the calendar year. Gerard Cruz: Fiscal. Maggie Ralbovsky: Yeah the calendar year you were down 24, down 24% that year but. So. Gerard Cruz: And the market was down? Maggie Ralbovsky: 49%. Gerard Cruz: By half. Maggie Ralbovsky: That's right. So now it brings up the next question, the next question is, how can you quickly delever? Okay if you have 196% of assets how do you all the way go down to 80%? You have to have something very liquid that treats very fast and very cheaply and that thing is called features. Okay, I actually introduce that last time but I know last time, let me just go to the board again because I didn't include last time slide or maybe you can find last.

Maggie Ralbovsky: Last time I introduced the mechanism of features. So in risk parity the leverage is not achieved by borrowing, you do not borrow money, you do not owe somebody money. Leverage is achieved using features and features is treated on exchanges. Chicago Mercantile Exchange, CME and they works like this. Day 1 ok if I want to buy S&P 500 I want that because I have allocations of stocks, there's two things I could do. One thing is number 1 I can do is something called cash. Cash transaction meaning I go out and buy 500 stocks, right. So let's say I have a million, I have a \$100 I could buy let's say I could buy 500 stocks, all the 500 stocks based on the definition of S&P 500 index in proportion, that's one way of getting that. By doing that everyday, everyday my economics is that if S&P went to \$105 I made \$5, if S&P went \$95 I lost \$5, everyday that's my economics, right.

Okay, the second thing I could do is I could buy in features. S&P 500 features and to do that I open account with CME, okay I give CME \$5, I give them \$5 as a initial margin, I only need to give them \$5 to get \$100 of S&P 500 features. And I have \$95 left, usually I actually will open another account called the maintenance margin another margin account. It's called maintenance margin. I opened this up in Northern Trust, so this is my custodian. I open up another one, I give this account \$20, so what this account does this margin account is to maintain this thing which is to say that features mark to market in my example earlier the second day S&P went to \$105, CME is going to give me \$5 more on that day. We're going to give you \$5. So the \$5 we will give you put into this account, I want to link these two. So this is what the maintenance margin account does is when you earn money CME gives you money to put back here. And the next day went to \$95, the CME will take from the NT account and put it here. So that's how features work. Mark to market everyday, your economics is exactly the same in these two scenarios.

Maggie Ralbovsky: Because in this one you suffer \$5 or you gain \$5 and this one same thing it's just using different ways to gain that exposure but the difference is this. In this scenario I only need \$25 actually to get that. So I could use another \$20 to do the same thing for my bond exposure for my Lehman ad for my Barclays ad. Gerard Cruz: Not really though right because if that keeps going down you're going to have to keep covering your margin. The feature contract goes down. Maggie Ralbovsky: It's the

same thing goes down you keep losing money. Gerard Cruz: You lose money but you lose actual dollars from and not in this case where you're levering and your buying features but you're buying Lehman.

Maggie Ralbovsky: Let's not go there yet. Gerard Cruz: You went there, I'm just clarifying your example. Maggie Ralbovsky: I'm going to address that but one thing at a time. But do we agree and don't confuse us. Gerard Cruz: Don't use too much detail. Maggie Ralbovsky: Do not confuse me. Antolina Leon Guerrero: So, \$25 you're able to buy \$100 in features and. Maggie Ralbovsky: And your economics is exactly the same as use \$100 in cash. Now you do the same thing for bonds okay, you use another \$25 to get bond exposure. Antolina Leon Guerrero: \$5 for the feature, \$20 for maintenance. Maggie Ralbovsky: That's right and then you do this again for your inflation. Antolina Leon Guerrero: Four times right? Maggie Ralbovsky: You should do it three times because I only have 3 buckets. You put the rest in cash. The next one actually this is not exactly correct, it's yes so anyway, so lets say you do another thing for the inflation hedge.

Maggie Ralbovsky: So right now you're levered, to Gerry's point if all these things go down you have another 25 more you saved aside, and so all these things all went down at the same time, instantly you didn't have time to deliver yourself, you have to come up with money to maintain these margin accounts right, that will be the ultimate risk right eventually you have to liquidate them because you don't have any money to put in the margin cap. But risk parity strategy however these things don't correlate they don't move in the same way this loss physical gain. Naturally they are not correlating exactly number 1.

Number 2, you rebalanced every single day, actually people rebalance every single hour by looking at volatility remember my formula there, if the risk goes higher I sell it, I sell that asset. I can sell instantly, these things treat like water. Even these features I only focus on the most liquid features market I don't go to currency or credit or CBS I don't go to those in liquid places. They are the most liquid places in the world. So you can instantly trade them with very little money, you don't have to really pay transaction cost is very, very low. So this is basically how they can try to rebalance all the time. Very quickly and how they try to manage the risk of leverage because leverage kills you if you can not rebalance. You have to fire ourselves. And that's what killed long term capital. Long term capital had they had the liquidity to hold on to their positions they all made like 10 times money but they couldn't because they couldn't have the liquidity to meet the margin call to hold on when everything started to converge. So in this kind of set up you don't have that scenario because you always trade with CME and CME does not have a counter party risk does not have a credit risk, never had default. So this is why leverage by itself not necessarily mean in some remarkable risk. Okay.

Wilfred Leon Guerrero: What percentage of the portfolio are we talking about putting in? Paula Blas: 10. Maggie Ralbovsky: So, let's talk about that, we did explain that last time so this is the review. Now then I was asked a question, what if we had done that right? Antolina Leon Guerrero: Return have been better right? Maggie Ralbovsky: That's right. I want to show you that. I know I complicated things one more time, I added another tactical allocation but just bear with me. This is another category that people use trying to deal with the down side risk. Basically it is a market timing kind of strategy basic so maybe I can try to time the market so just bear with me this is just one thing throwing to the pot, you don't have to look at it.

Maggie Ralbovsky: Okay, page 14, here's the portfolio's I designed for this to answer the question, what if? So I start with our current portfolio which is the GGRF Policy. And then I took 15%, I took 10% out of U.S. equity and 5% out of International equity I put into risk parity. Now in the real scenario if we do decide to do 10% I will probably take 5% out of equity 5% out of bonds, unless we can also do high yield then we can think of another scenario but.

Maggie Ralbovsky: Okay, so the 2nd portfolio, instead of putting that 15% all in risk parity I put 10% in risk parity and 5% into tactical asset allocation and the 3rd one is I put in 5, 5, 5 into the tail risk hedging as well. Now the next page shows us the actual return since 2005 and I used the AQR's strategy as the proxy, I actually used a worse performing AQR's strategy. They actually have had a strategy that was more liquid which had done better but I used the worst one because the worst one has a longer track record. So you can see that since 2005 that included the crash of 2008, therefore the tail risk hedging strategy did the best because as we talked about tail risk hedging usually will be a drag on return and you can see that very clearly in the 1 year period. So in the 1 year period tail risk hedging, the green one had the huge drag for 3 years as well and for 5 years to some extent because 5 years captured the portion of the financial crisis.

Maggie Ralbovsky: But if you look at full blown crisis, full blown crisis that's the time you get paid off with tail risk hedging. So. Doris Flores-Brooks: We're barely talking .3% Gerard Cruz: 60 basis on a 3 year right? Maggie Ralbovsky: Well at that time it's 1.5 billion dollars. Gerard Cruz: 1.2 at the time, 1.5 now. Maggie Ralbovsky: 1.5 billion dollars. It does not increase your risk, it actually reduce your risk if you look at the next page, that says that. It reduces your risk. Mr. Chairman this is the chart that says that. It reduces your risk and increases your return. If you look at the red football compare with the blue square. The blue square is your current portfolio and the red football is the risk parity, we moved some equity into risk parity and you can see for this period it did better with lower risk.

Actually, I tried every period in history improve the return and lower risk, doesn't matter money goes down, goes up, it does better. Gerard Cruz: It does better. Maggie Ralbovsky: Well that's because we only have 15% allocation, right? Going back to your point, there are people who are doing entire portfolio risk parity. Gerard Cruz: How many? Maggie Ralbovsky: San Diego county is one. Gerard Cruz: Just one. Maggie Ralbovsky: Yeah, not a lot but there are some, I didn't say a lot right I said some. Antolina Leon Guerrero: There are one. Gerard Cruz: Okay. Antolina Leon Guerrero: The last conference we went to they suggested selling California. Doris Flores-Brooks: California's pension overall is one of the worst followed by Illinois. Maggie Ralbovsky: Illinois is the worst. Actually NMI is the worst. Doris Flores-Brooks: Well that's true NMI, Illinois and then California. Maggie Ralbovsky: New Jersey is worse than us and South Carolina or North Carolina one of those. Doris Flores-Brooks: Illinois is one of the worst.

Maggie Ralbovsky: Okay. I want to move to page 19, in the interest of time because they are the ones that just sort of highlighting the same point, but on page 19 here is the scenario I put in which is 2 scenarios which is the current portfolio's payout is 7½%. So I did a comparison, so if we have a billion dollars to start in December 2005 and we take out 7½% every year which is the current withdrawal, you can see even

though our portfolio has done well with regard to annual return right starting from 2005, because we are drawing down in terms of payment, we actually never recovered so far. We ended up with \$977 million started from a billion. Antolina Leon Guerrero: More or less. Maggie Ralbovsky: Less. You use 10% risk parity. Antolina Leon Guerrero: This is hypothetical? Maggie Ralbovsky: Well this is the true. Doris Flores-Brooks: The payout has actually grown a lot more in that period too. Maggie Ralbovsky: 1 billion in 2005. If we started with 1 billion in 2005, we withdraw 7½% a year, in the current portfolio we ended up with \$977 million, okay.

James Duenas: That's without putting anything back in? Maggie Ralbovsky: No, this is actual. Doris Flores-Brooks: This actual including contributions less payouts, adding contributions. Maggie Ralbovsky: Our current payout is 7½% after contributions. Doris Flores-Brooks: Yes because contributions are not enough. Maggie Ralbovsky: That's right. So this is the actual we don't have anything net that goes into it, so you can see that with risk parity was 10% risk parity and 5%. Doris Flores-Brooks: But you are saying that we are at a billion but we're really at \$1.5 billion, how is that? Wilfred Leon Guerrero: Yeah, can you explain that? Maggie Ralbovsky: I'm just using a billion to start, if you want 1.5 billion you just add to it, right. Gerard Cruz: She's just using the rounded number. Maggie Ralbovsky: I'm just rounding up the number. Doris Flores-Brooks: Oh, I see. Wilfred Leon Guerrero: I thought this was the actual chart? Maggie Ralbovsky: This is the actual chart. We are paying out 7½%. I'm just using \$1 billion. Doris Flores-Brooks: This is a hypothetical scenario. Wilfred Leon Guerrero: Okay in December 2005. Doris Flores-Brooks: This is a hypothetical right? Using our actual return, though.

Maggie Ralbovsky: This is not hypothetical this is just \$1 billion dollar growth of \$1 billion dollar actually turned out to be 1.5. Wilfred Leon Guerrero: In December 2005, what is the size of the portfolio? Maggie Ralbovsky: In that kind of framework it is hypothetical, I just started with a billion, I didn't really look for in 2005. Wilfred Leon Guerrero: Why didn't you just do it? Maggie Ralbovsky: I could have done that, that right that's another thing I could kick myself I could have done that. Doris Flores-Brooks: Using the actual, but she just did a hypothetical one. Paula Blas: This is just a hypothetical number she was using. Maggie Ralbovsky: You know this is a hypothetical number it wasn't meant to be the same. Joe T. San Agustin: This is the actual growth now. Maggie Ralbovsky: Right actually so if we had some risk parity it would have protected more.

Antolina Leon Guerrero: But am I correct in saying that in 2007, our current portfolio would have beaten risk parity? Maggie Ralbovsky: That's right. 2007 you have done that. Antolina Leon Guerrero: But it's when it dropped then risk parity. Maggie Ralbovsky: It is the risk management but it does catch up nicely as well in the recovery period. Wilfred Leon Guerrero: Maggie this would have been the most powerful chart. Maggie Ralbovsky: If I used the real number yes I take that criticism. Wilfred Leon Guerrero: This is the kind of stuff you go down to the legislature and they will understand. Maggie Ralbovsky: I will do that it's very easy to do I already programmed in my software I just need to change the number. Joe T. San Agustin: This is the number that we are going to go by. Paula Blas: Yeah, but she's going to revise the entire thing with actual. Joe T. San Agustin: This is the actual. She just gave me that.

Maggie Ralbovsky: Because we had the bond insurance. You have some hideous synchrony so you have the bond insurance of the contribution. So this is the

hypothetical just to say you draw down 7½%. To highlight the point beyond which. Rosalia Bordallo: Okay, wait Maggie you're confusing see that your diagram is very confusing in the sense that we know what are numbers are, we know that if we start at \$1.1 billion we're over \$1 billion at this point in time. Maggie Ralbovsky: Rosie I will do that. I will go correct it and I'll make it a real scenario. I have the numbers in our book I just didn't do it. I will do that, I will revise this chart. I will revise this chart with the real number. So you're right so this will be a good chart if I used the real numbers to take to the Legislature, this is the strategy I want to do and I can not do it because my hands are tied.

Joe T. San Agustin: Who's tied? Maggie Ralbovsky: My hands are tied. Antolina Leon Guerrero: What she's saying that's the argument to make at the legislature, if we could do better. Joe T. San Agustin: Yeah but in order to show that you have to show the actual. Maggie Ralbovsky: I know I will, I have all the numbers I just didn't do it, I should have done that. Joe T. San Agustin: Right now we are all theoretical, right now we are all theoretical, okay. Maggie Ralbovsky: Okay, so that is one thing I can not do Mr. Chairman right now. Another thing I cannot do is double B, single B because they are not triple B and you have to constrain the portfolio to triple B therefore that's another thing that could have added a lot of value.

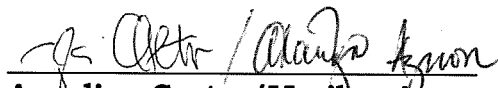
Joe T. San Agustin: What do you mean you can not do, you can do any kind of scenario just because you didn't have the authority to do so. Maggie Ralbovsky: No, no, no the law says you can not do that. Joe T. San Agustin: But let's say you do, what would happen? Maggie Ralbovsky: You would have done better. Rosalia Bordallo: You're doing hypothetical not actual. Maggie Ralbovsky: Okay, so I run the high yield asset class. Joe T. San Agustin: This is where we should move. Maggie Ralbovsky: Okay that's definitely that scenario will be created. Let's go to show them that if you get a date on the calendar. Joe T. San Agustin: You have to convince us first. Antolina Leon Guerrero: You got to show him first. Joe T. San Agustin: I haven't seen the overlay. Wilfred Leon Guerrero: Explain this to the Legislature. We have to have a good chart. Maggie Ralbovsky: So did everybody understand how risk parity works, what risk parity is? Good. Antolina Leon Guerrero: I think what's good about this is that it shows us that given our starting point had we introduce this and you're just going to be able to do that same scenario with the actual number. Maggie Ralbovsky: With the actual number. Wilfred Leon Guerrero: People don't even need to understand the sharp ratio or whatever. Maggie Ralbovsky: Sure absolutely. For the Legislature I'm not going to go there but I think the committee or the board needs to understand that, it's not that scary because otherwise it's pretty scary thought. Joe T. San Agustin: It is an economic theory. Maggie Ralbovsky: It is in practice has been around since 2005.

Doris Flores-Brooks: That's where you are going to get push back because has there been enough people doing it and if it's only a handful, do you want to be the pioneer, the front leader or do you want to be the middle of the pack or do we want the. Maggie Ralbovsky: There were four products starting 2005, two of them are already closed because they. Paula Blas: Yeah it's just full. They won't accept anyone new. Doris Flores-Brooks: But again it's going to be hard convincing because people tend to be risk first. Antolina Leon Guerrero: But I think the good point is that it's less risk. I mean rarely what she's showing is that the higher return with lower risk and the suggestion isn't the whole portfolio. Maggie Ralbovsky: No it is not.

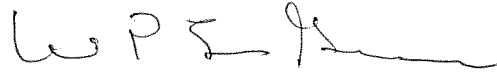
Doris Flores-Brooks: If you use it from a diversification strategy then as another that means. Antolina Leon Guerrero: To reduce risk and increase return then that's a much better way to explain. Joe T. San Agustin: You're not putting the whole portfolio. Maggie Ralbovsky: I'm just saying 10% into that. I do want another 5% into high yield. Doris Flores-Brooks: You have to come out and recommend who the manager would be for that, right? Maggie Ralbovsky: We'll have to send out RFP's but if the law doesn't say you can do it we can not even do RFP. Doris Flores-Brooks: But then you have that other one the high yield right that's another. Maggie Ralbovsky: That's right that's another category. So, I do think combine those 2 categories it's going to improve our expect return by at least 50 basis points which is .5% without increasing risk probably reduce risk. Wilfred Leon Guerrero: Okay, let's take lunch.

Respectfully submitted,

Affirmed:



**Angelina Castro/Marilyn Aguon
Recording Secretary**



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