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Quarter Ended December 31, 2012 Performance Meetings & Annual Investment Manager Reviews

February 21, 2013
Retirement Fund Conference Room

Board of Trustees Present:
Wilfred P. Leon Guerrero, Ed.D, Chairman, Investment Committee
Gerard A. Cruz, Trustee
Antolina L. Leon Guerrero, Trustee
James Duenas, Trustee

Staff Present:
Paula M. Blas, Director
Diana T. Bernardo, Controller
Rosalia T. Bordallo, General Accounting Supervisor

Other Present:
Maggie Ralbovsky, Wilshire
Read Williamson, Fisher Investments
Alysia Wurst, Earnest Partners

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Fisher Investments

Read Williamson: I'm going to be the service rep as my understanding at least it hasn't been assigned to me yet but we're expanding our client service roles and just due to a lot of business. That's one reason Chris Davis wasn't able to make it he does send along his greetings, he's still very much involved with your account but I believe he's tied up in a finals or something of that nature at this point. Gerard Cruz: Okay. But he's still our primary contact? Read Williamson: I'll be your primary contact just for anything day to day but certainly you can always reach out to Chris just as you would. Gerard Cruz: Okay. Good good. Wilfred Leon Guerrero: Okay. I guess this is the first time for you and us getting together. Read Williamson: Yes sir it is. Wilfred Leon Guerrero: We expect you to lead the discussion about the portfolio. We reserve the right to interrupt you at anytime. Read Williamson: And please do. That's what I'm here for realistically. I want to just bring up the I apologize for getting these hard copies to you late, I had some logistical issues and I understand you prefer them to be mailed in advance but I did send these books along and just to give you a quick idea of what these books are.

This little book of market myths is the very latest from Ken Fisher, it's actually out, I haven't even read it myself I think it was just out the beginning of the month. And the only 3 questions that still count is basically his new version of the book he wrote in I think '04, which is pretty much the philosophy of the firm how our investment process works. It's very key to understanding Fisher investments overall. Wilfred Leon Guerrero: So this is our reading assignment? Read Williamson: Not an assignment but you may enjoy it. Then again it's pretty nice weather so it's not exactly a beach book in my opinion. Gerard Cruz: If you brought the audio version we could knock it. We'd do it. No, I'm just joking. Rosalia Bordallo: Do you have it downloaded? Read Williamson: Pardon Me? I haven't, I have not, I read the original so I'm not going to go back and necessarily read it page to page. I thought I would start by just giving you a quick firm update, as I said you know the institutional group in particular has had a very good year for expansion. Our biggest searches and mandates received this year, emerging markets was the one that we saw the most of we added $1.8 billion under management with 9 clients. Behind that was United States total return with about $520 million with 3 new clients and then our Small and Mid-Cap Value, I want to say 6 clients at about $320 million. That being said there haven't been any significant changes to the firm we added 5 analysts in 2012, research analyst and 1 trader as well. The firm still has about $43 almost $44 billion under management if you include our private client group. The one change that's going to take effect, it hasn't yet, its effective as of the 3rd quarter of this year beginning of the 3rd quarter, Andrew Teufel a member of our investment policy committee as you can see in this picture on the 1st page here, he is on the top right next to Ken Fisher and he announced his retirement, again it's not effective until. Gerard Cruz: Top right? Read Williamson: Top right. Gerard Cruz: He's retiring? What is he 43? Read Williamson: He's my age. He's going to pursue some personal interest. Gerard Cruz: Good for him. Read Williamson: Yeah. Good for him is right. You know he's a super nice guy but again if you think about it, when you guys hired us there were 3 members of our investment policy committee and there will still be 4 even at the end of this year after he retires, there are no immediate plans for replacement at this point. That's really it as far as the firm update, you know we haven't had any kind of a legal actions or anything to speak of of that nature other than adding clients and growing very significantly this last year. There wasn't many you know wasn't a lot of changes that actually took place.

So I could move on into performance and talk about your portfolio and specifically it's on page 5. And you requested January returns as well so we added those we are in line for January basically pretty solid month 5.4%. And for the 4th quarter of last year we outperformed as well. We're up 7.4% versus 6.6% on the benchmark. Out performance for the year as well, 17.9 versus 17.3. This was actually a question I had, I know you had someone requested that we include the end of 3rd quarter '11 through the end of 3rd quarter 2012, I was wondering if that's a fiscal year or is that what that is? Okay. Yeah it makes sense. I guess that's what it was probably but over that time period you can see we out performed about 18.1 to 13.8. And then of course since inception you hired us in January beginning of January '06, from a annualized basis that's 3.3 versus a 2.2 on the EAFE or cumulative return 26% versus 16.6.
The next page, that's just a composite return and actually when it comes to performance attribution I included the 4th quarter here, it started to get a little bit sloppy if we looked at trying to look at attribution for the entire 4 quarters. I thought I would instead I would just kind talk you through what happens specifically for the year some of the highlights that is.

Beginning with our forecast for 2012, we expected an up a lot year when Fisher defines that as a 20% or better at 20% or better Gerard Cruz: Yeah that's the number we were looking for. Yeah. You said you came in and you said 20%. Read Williamson: 20% well we were close 19, 17.9. But then again you know a lot of our forecast we thought we'd see a significant increase in optimism you know beginning of the year you would see a quite a bit of skepticism there were fears about not only the US markets and politics but also you had a hard landing in China. Fears in Europe persisted for a little longer than we expected. We finally kind of saw that die down in mid summer and that was fairly a turning point during the year. Just from a country standpoint Japan, our under weight to Japan was one of the contributors that was consistent throughout the year. They saw the beginning of the 5th recession in 15 years.

They implemented a consumption tax that hurt decently. They also had the little dispute with the islands with China that hurt them as well as Europe, both combined for detracting from their exports. So all of this hurt Japan we were underweight the entire time and that actually helped out the portfolio. Another area China we were very optimistic on China and remain so with perhaps a little early there as well. The early stimulus we saw began in the beginning of last year and it lasted consistently they continued to perform different types of stimulus throughout the year but it didn't necessarily have the immediate effect or the significant effect that we might have expected it to. That being said, they had their leadership transition as we expected in November. What they traditionally done is slow the economy going into a leadership transition, and then this stimulus provides kind of a boost to the economy kind of a stimulus to the economy. Following that keeps everyone happy and you started to see that finally take hold little bit at the very tail end of last year in the 4th quarter, China started to shed some improvements from their economic data. Brazil was another area that we were overweight the detracted. Gerard Cruz: So you're still you're bullish on China going into this? Read Williamson: We still are. We still are. We are probably earlier than we thought but we're still convinced that their economy is going to continue to gain some steam. Gerard Cruz: Okay. And Brazil now too? Read Williamson: Brazil is actually an area that was a little bit disappointing. They detracted for that's again that's 4th quarter only so. Brazil was an area that saw significant weakness between the March to May time period if you think back on the year that's when you saw something of a smaller correction take place.

It was on those hard landing fears in China. It was on a continuation of the fears surrounding the European monetary union. That happened pretty much in the 2nd quarter of last year. That of course hurt the global economy. Brazil had a number of things working against them, that was one because they are primary commodities driven and very cyclical in nature so economical slow down globally hurt them from that stand point. They also passed a foreign investment tax or added a foreign investment tax I should say under Ruceffs administration that was designed to keep their currency from continuing to rise that was a deterrence as well for Brazil. Those are really your 3 highlights for consistency for the year. Europe of course saw Germany in particular as one of our overweights that started to take off significantly. Europe finally started to outperform. Foreign markets outperformed the U.S. in the back half the year following Draghi comments midyear that they were going to stand behind the euro no matter what basically. That being said from a sector standpoint. We had technology.

Gerard Cruz: I'm sorry do you still see that same sentiment going into this year in Europe? Read Williamson: We still believe that the sentiment is going to wane. In fact I want to say about a week and a half ago when I was on the road, you saw the GDP numbers coming out across the board in Europe they are all pretty much in the red. You're seeing recession in Europe. We would say it's much like the recession that took place very shallow recession that took place since I believe in '93 where the global economy continues to grow even in spite of what's happening in Europe. It's a smaller and smaller portion of U.S. export of emerging market export for instance. Gerard Cruz: But you guys are still over weight Germany? Read Williamson: We are in currently, I'm not sure you know of course I don't know in advance whether we are going to make shifts, but we are at this point but we're underweight for the majority of continental Europe. Gerard Cruz: Okay. Read Williamson: We're over weight particular the northern areas, the southern areas we're shy. There's actually here's the current allocation right here on page 13. Gerard Cruz: This is the most recent. This is January.

Read Williamson: Right. Actually this is as of November 13th. We did quite a bit of repositioning last year. We moved from the very beginning of the year we were seeing a lot of skepticism, we were little bit more toward a more cyclical area more value orientation. And we believe that we were in the back half of the bull market that's saying somewhere between half way and three quarters of the way through the bull market. We are very optimistic on this year but we certainly don't' believe that you know we're at the beginning of a bull market by any stretch. What we also have positioned the portfolio is due to our thought of where we might be in this you know in this time frame, is that toward the back half and the longer you go in the bull market the closer you get to the end, the more you see quality blue chip like companies growth type companies start to outperform. And one reason of that is you know strictly from a retail investment standpoint as so many individual investors out there who have absolutely avoided the stock market at all cost, are finally getting a picture that we're up to record levels for instance the S&P and the Dow or near at least and then they are realizing that they are missing the boat. Suddenly the political fears, the fear about Europe, the hard landing in China all start to wane, they start to move their money back into the market. They don't go for Biotech, they don't go for emerging markets, they go for brands they recognize, strong balance sheets. Gerard Cruz: And that's when you know we're at the end? Read Williamson: Well we, that and sentiment becomes you know you move from skepticism to optimism and then the bull market usually dies in euphoric. We're not euphoric yet. But you're certainly seeing a lot of optimism. January alone. Gerard Cruz: Is the taxi driver giving you investment advice? Read Williamson: The taxi driver? Gerard Cruz: That's when you know you are at the end. Read Williamson: that's when you know you're at the end. Is that the Rockefeller shoeshine guy in grand central station yeah. Well we joked about it that you know not the investment policy committee, but we joked about the fact that you saw $77 billion dollars move from the sidelines somewhere to equity mutual funds in January alone. That's the biggest number you've seen since December of 2000. So.

Wilfred Leon Guerrero: How much more is out there? Read Williamson: Quite a bit. That's actually a drop in the bucket. You look at it corporations alone still have close to what I want to say a couple trillion dollars on their balance sheets right now. A lot of that is just their tied up in tax policies and everything else and worried about the global economy that keeps them from investing that money within a way to plan for it. So once you see corporations start investing that money into projects, that should be a big boom as well, but feel like there's quite a long way. I mean we're seeing optimism, beginnings of optimism we're certainly not seeing euphoria at this point. You know people are not mortgaging their house to go out and buy stocks. Gerard Cruz: They should. Read Williamson: Which is right. They probably should at least consider. But so that being said, we're in the back half of bull market so the way we position the portfolio is to have these largest, strongest companies, the ones with a lot of cash, the ones that can grow organically. Another thing that you'll probably hear in the financial media, is that while you are seeing earnings slow on a year over year basis, so that's you know obviously slow in growth there's some illustrations in the back, but what their failing to take accounted or what they are at least acknowledging is that you already have retail spending at record high. You have record GDP you know all time high globally. You have all of these things that are fundamentally very positive.
Wilfred Leon Guerrero: I thought that retail sales is up last year. Read Williamson: Actually you saw I want to say over the summer you saw a much better than expected retail sales year after year back to school sales. Wilfred Leon Guerrero: Was it just the Christmas season that was? Gerard Cruz: Discretionary. Read Williamson: Discretionary now it's actually being spurred on by the housing market as well. You saw a bottom or at least more than a bottom but more likely improvement in the housing market. So durables for instance started to improve significantly in anticipation. So there's been retail sales, there's been strong auto sales, there's been improvement in housing, all of these things. Wilfred Leon Guerrero: I was hearing the Christmas sales was a disappointment last year. Read Williamson: 2012? Wilfred Leon Guerrero: Yeah. Read Williamson: They may not have met the expectations, but expectations were likely inflated a little bit after you know but they are still at record high. Let me direct you see if I can find the slot for you real quickly. Wilfred Leon Guerrero: I'm not disputing it. It's just that. Read Williamson: No, no I understand,

I was just going to say I think I have the illustration. Gerard Cruz: I know it's different. Different tone from what we've been hearing.

Read Williamson: Well, and that's part of it because a lot of folks remain very skeptical out there and that's one reason that we're not necessarily, we don't feel like there's an exuberance or there's any kind of you know extreme optimism at this point so the longer it takes folks to start realizing the fundamentals are going to play a more important role than what's going on in Europe and that Europe is not you know its got structural issues but their much longer term in nature and you're not going to see a immediate disorderly breakup. That can has been kicked long enough where folks have priced it in they started to think about it there's been plans put in place, there at least talking about options. Initially when the problems of Europe were exposed, you were worried about something like the financial system where you know there was a domino effect and no one knew what was going to happen next, and it was heading toward a panic driven. Now you are aware and everyone was aware of what the problems are in Europe. And that basically has been priced in the market at this point. So most likely the surprise comes from improvement and what happens. What I was mentioning about the news on the recession last week this is anecdotal but you saw numbers come out that were across the board. Europe was in the red including Germany and France we're seeing contraction. The U.S. markets were flat that day. That is not the same reaction you would have had 2 years ago. You know it could have driven investors off a cliff at that point just fear alone. So one of the corporative America is page 17.

And so you have investment and capital equipment is at a near high. You have share buy backs which are 2007 was an all time high but we're at very high levels. Cash on corporate balance sheets nearing 2 trillion and corporate profits doesn't have retail sales but corporate profits also at a record high. Retail sales are actually doing quite well, though a lot better than what the media would acknowledge. They prefer to drag this out as long as possible to keep people dialed in but we're certainly not in the camp that we're going to see another shoe drop that's already been widely discussed you know something that we already mentioned, you know something else could happen now there's Ken Fisher himself has talked about the middle east as being you know a perpetual threat. Not the noise that we get on a regular basis but if something real were to happen there we can't the U.S. at least can't fight a war on three fronts and that could be something that cause significant endurance to the market even worse. What's always possible is you saw tick for tack kind of trade dispute with China for instance, if that were to erupt to a full blown trade war, that could be detrimental overall but for most part we believe that fundamentals, the strong fundamentals are pretty much unrecognized at this point and that as sentiment improves there will be more focused on the fundamentals and that's when you can see the multiple expansion. Cause currently you are talking about a forward looking PE of about 13 or 14 and that's still below average on the S&P I'm talking about not on the EAFE.

Read Williamson: Have any questions? Gerard Cruz: No, no, no. Wilfred Leon Guerrero: Ken Fisher passion seems to be in the publishing stuff. Read Williamson: I'll say it's more like a doctor playing golf, it's more of a hobby than anything else. Certainly his pride and joys is our firm. Wilfred Leon Guerrero: How long has he been doing this? Read Williamson: Well let's see he's the 2nd or 3rd longest columnist running in Forbes. I don't know how long he's been publishing the books. The books Fisher financial press some of those things you know probably earlier this decade I'm not sure when his first book was. Was probably in the late 90's but he's been writing the Forbes column, the strategy column there I want to say for about 25 years. So. Wilfred Leon Guerrero: His passion is in publication rather than. Read Williamson: His passion is in the firm, his hobby is writing, certainly. Point well taken. Wilfred Leon Guerrero: I'm not arguing. The results are good, it's just you worry about the guy. Read Williamson: Remember he's not sitting at home with a typewriter like Steven King doing this number anymore either. There are other people involved in the processes and a lot of the Fisher investment were actually written by our analyst with the investment policy committees direction and approval things of that nature so he's not actually personally writing he's more of a blue printer in a lot of cases.

Maggie Ralbovsky: Now the observation of the bull market ends with narrow large cap outperformance is that applicable across the different countries or just in the U.S. that's observed? Read Williamson: I believe that we are using the MSCI world. That's Russell 3000 so that's just the U.S. We believe that actually it's becoming more of a global economy but we feel like this is basically going to happen globally it's not just a U.S. phenomenon. If you look at you know first of all a lot of the major foreign companies that we're talking about. Let's flip to portfolio characteristics on page 11, this will get to what you were saying and I can carry on that. You can look at overall the number of holdings versus the EAFE is 60 versus 909. Our market cap is significantly larger. This is what we did during the course of the year. When we moved toward a more growthy area. Gerard Cruz: 12. Read Williamson: Oh did I say. Sorry about that. We're a little bit more growthy than the benchmark and we're significantly larger than the benchmark. These companies that we are talking about are doing business on a global basis. And when we talk about why big cap outperforms your mega cap even outperforms it has to do not only with the strength of the balance sheet but when investors start moving back into the markets they are looking at brand names they recognize, they are looking at solid investments, blue chip type investments but these companies also have quality earnings and by that they also have diversified earnings streams. If it's not going so well in Europe they can still do well in China or in the United States. If things are slowing from a growth perspective and I'm talking about relative growth perspective, we're looking for companies that can grow organically, and not just rely on the bounce of the market to improve their earnings like you would with say a materials company for instance. So we believe it is global in nature and we believe that it'll actually persist through the remainder of the bull market and the farther we get into the bull market when you start to see that euphoria it actually in a fact becomes more of a defensive play a little bit and when you start to see the top of the market roll over, we don't believe we are there in 2013 but even then you're going to see the margin of out performance and our opinion is going to increase as the bull market continues.

Maggie Ralbovsky: You know in the correlation across the different countries historically had been you know changing long time ago it was pretty low and becomes really, really high becomes one seems to be diverge a little bit in the past cycle but it seems to be coming back so. Read Williamson: The correlation? Maggie Ralbovsky: Yeah the correlation across. So are we thinking its going to go back to pretty high correlation? Read Williamson: Probably. Maggie Ralbovsky: Across the country? Read Williamson: Yeah I don't have the specific answer for that but I would say that we probably think you going to see higher and higher correlation globalization. Even an emerging market if you look at the biggest ones right now, I mean they're going to be impacted by one of the major developed market countries in the world. And if you look at the last bull market, bare market certainly there was high correlation. Europe and U.S. have been in lock step for some time now, don't see any reason that would change.

Wilfred Leon Guerrero: So you going to do it again this year? Read Williamson: Well actually I would say that this year was a little bit disappointing to us. Well I say that. Gerard Cruz: That means that he's doing better. Read Williamson: Well it's a little bit disappointing because some of the things we had conviction on you know that we'd see an improvement in China sooner rather than later. It took till mid summer before you really started to see the challenges in Europe start to wane you know and it's as late as April, it was the 3rd year that you people have been talking about Europe and yet it came back one more time. Gerard Cruz: You think Japan comes around now with new government? Read Williamson: There you saw very tail end of the year the prime minister there's some expectations that he's going to do the right thing. So you did see Japan actually start to do fairly well toward the very tail end of the year. Gerard Cruz: Do you think he'll start to change your relative waiting on them? Read Williamson: That's a great question. I don't have an answer for that. You know again I would know immediately but I wouldn't know the day before. Rosalia Bordallo: What's your expectations for the yen, I mean you know it is weakening against the dollar and it has significantly in the last month. Read Williamson: But its strengthening the most of last year and that was one of their heavier. Rosalia Bordallo: Well it's gone from 87 to 93. Read Williamson: I saw the dollar appreciate the dollar appreciated against the basket today and it primarily had to do with they got the fedments out at 2:00 eastern and they said well we may have to take away the punchbowl you know before we see full employment or whatever might be. Rosalia Bordallo: Well you see my concern is the yen because the yen that has major impact on our island. Read Williamson: That makes sense.

Read Williamson: I'm sorry. Rosalia Bordallo: I heard going 100 to 120 within the next 6 months. Read Williamson: In the next 6 months? Rosalia Bordallo: Yeah. It went from 87 to 94 in a matter of 2 months. So, I mean that's significant. Read Williamson: We wouldn't expect to see it that fast. Rosalia Bordallo: I didn't expect to see from 87 to 93. Oh yeah 78 to 94 okay. That was 2 years running already. You know, I've gone to Japan 2 years already and that's why. Read Williamson: I know why you're concern, I did spend the night at the Hilton last night and there were a lot of Japanese folks in the hotel. Wilfred Leon Guerrero: Did you hear any English? Read Williamson: No I did not. Except the folks who were helping me because I certainly don't speak Japanese. No I wouldn't that's a big prediction. I'm not sure. Rosalia Bordallo: Well that's what's out there. Paula Blas: 120 Read Williamson: By the end of the 2nd quarter. Gerard Cruz: That'll be good. Rosalia Bordallo: Well that's what I'm trying to find out when they are just saying it's going to go how it's going up to 100 or could go up to 100. Read Williamson: Why don't I get back to you on that. I'm not sure. Currency is not necessarily our primary forte but I'll see if I can get any thoughts on that. Wilfred Leon Guerrero: You know Guam is unique because it's an American island but our economy is tied up with the Japanese. Read Williamson: I'm sure. So 120 versus the dollar? Rosalia Bordallo: It could go as high as 120 but their looking more at about a hundred. Gerard Cruz: It's already close to a hundred, right? Read Williamson: Well that wouldn't be as far a stretch but 120 is a big stretch. I will respond and if we have any thought on it I'll let you know but certainly I haven't heard anything. I've never heard 120 either, but I'm sure you have. Yeah I understand. You've been hearing that Mr. Chair? Rosalia Bordallo: I have been watching this yen historically. Wilfred Leon Guerrero: Not that high. Gerard Cruz: Just go skiing, there's a big snow festival now right? Its over. Rosalia Bordallo: It's over. Read Williamson: It could be and that's where you saw some you know some improvement in Japanese sentiment and other investment Japanese at the end of last year, it's mainly because of him. Gerard Cruz: They are pretty bullish even now.

Read Williamson: Well that to get that could change. Now overall if you look at our global portfolios we're over weight the U.S. and emerging markets we're under weight Europe and Japan. I don't see us going over weight Europe any time soon, but you know what do I know? It could happen. Take that with a grain I'm saying. Please. Gerard Cruz: Thank You. Yeah okay. Wilfred Leon Guerrero: Any other questions? Gerard Cruz: No sir. Thank you for the books. I do appreciate I do read them by the way. Wilfred Leon Guerrero: Do it again. Read Williamson: Well you know again, we are forecast for last year we thought we would see more of an improvement in sentiment but instead we got this risk on risk off back and forth all year long. And that persisted probably little bit longer than we expected and this year we expect some of that to diminish and for a more optimistic look at things, the economies, global economies as well as the markets and it should go very well for the year. Gerard Cruz: So 20%. Read Williamson: 20% or better. I'm not going to say. It was some of our beliefs were a little late. Maggie Ralbovsky: Do you have a card? Read Williamson: I do. I'm sorry. I should give all of you one.

Earnest Partners

Wilfred Leon Guerrero: We're not being rude but we like to interrupt, we all like the presentation. Alysia Wurst: Good, keeps it more interesting. Wilfred Leon Guerrero: And I think Diane sent you an email about information that we need to go on record and asking you about it. It's got something to do with the organizational changes, regulatory issues. Alysia Wurst: Yup, we have the outlook and the performance over the specified time periods. Wilfred Leon Guerrero: We purposely like to focus in on the portfolio rather than the other stuff. Alysia Wurst: Sure okay. So the books made it ahead of time, if anybody doesn't have them I have a couple of extras but looks like everybody's got them. Before we get started are there any changes to how you're thinking about investments or a plan that we should be aware of, that it's good to understand about how you're thinking about investing or your allocations or any issues that are affecting. Wilfred Leon Guerrero: It's up to, you know that woman sitting next to you, she tells us what to do, when to do it and how to do it. So it's up to her. Maggie Ralbovsky: It's baby steps. So. Alysia Wurst: So there are some changes. Gerard Cruz: Contemplated. There are some changes that are being contemplated. Maggie Ralbovsky: It's almost like an embryo has been. Gerard Cruz: Has it gotten that far yet? I thought we're still we're still courting, not in an embryo. We're still on the first date section. Wilfred Leon Guerrero: Gerry here has been giving Maggie a lot of hard time. Gerard Cruz: Just testing. Just testing the metal. Alysia Wurst: What does the current debate or they? Gerard Cruz: Whether we put it all on CD or. Alysia Wurst: I don't know if that's such a good idea. Gerard Cruz:

She says it is. Now you know what we're dealing with. No its not. Maggie Ralbovsky: There's some legislative. They have some statute updating issues so there's modernization of some old statute issues. Gerard Cruz: Very, yeah. That's true, that's true.

Alysia Wurst: But no changes anticipated? Gerard Cruz: Maybe. You never know, right. There are some changes contemplated but just more a more liberalization rather than constraints so it goes to well from where you sit I think. Hopefully right? Wilfred Leon Guerrero: Really all depends on Maggie. Gerard Cruz: It's how well Maggie is able to. Come on Maggie we're all rooting for you. We are. The biggest opponent is not here that's why we are able to say. He usually sits on. Paula: Talking freely. Gerard Cruz: That side of the table. Otherwise we all band behind Maggie and like fight our heavy weights. It's okay. Alright, sorry. Alysia Wurst: Okay, so not so many changes from your side but maybe a little bit of liberalization. I'll cover the firm questions up front as a background to the portfolio update and then we can get right into the portfolio. From our side everything's been very stable. So the our firm is very much the same as it was last year when Paul visited for the annual meeting. No major changes to the firm. What that means is that we continue to have the same ownership structure. We believe that being independently owned is the best way to manage money on behalf of our clients because that means that our interests are directly aligned. And it also gives us the freedom to invest as we see fit rather than reporting to a larger insurance company or a bank or some external authority. So we're able on a consistent and discipline basis to invest in the resources that we believe are the right ones to generate the kind of returns that our clients want and to manage those in accordance with the portfolios. Because of the ownership structure that's independent we also believe that any of this to attract talent on an ongoing basis that has an ownership mind set and that cares a little bit more about you know what we're doing for clients works a little harder and that we believe and also a key differentiator the team that we attract. There are no changes to the team in the past year, but we continually do scan the horizon for talents.

I am very involved in the serious strategic human capital on hiring for the firms, so if you have any questions about how we think about that or what we're how that affects how we grow on, I'll be happy to answer any questions. But no changes, we continue to hire or attract people or seek people for the investment team that have industry experience because we believe that's people who have really done the work in the industries that they are covering we believe that gives them a differentiated sort of just set of judgments that kind of come out when you least expect it. But during the research during the management team meetings, it just gives a different level to the conversations around the profit and loss around the capital allocation and balance sheet issues. But all of that is very stable. The firm continues to grow in a very sort of stable steady fashion. We have seen additional clients select the international portfolio within the past year but it's you know very incremental in nature and just steady and positive. So that's basically the firm update. No changes and with that we can turn to the portfolio.

If we can turn to page 1, which is right underneath the guidelines tab, I'll just start there first. So we invest a substantial amount of our resources in thoroughly monitoring our guidelines and insuring that we are in compliance with all of them. You'll notice that we haven't checked the first box, which is to exceed the EAFE over a full market cycle. And that's simply because we haven't been together yet for a full market cycle but we are exceeding the benchmark over 100 basis points on an annualized basis thus far. And everything that doesn't require a full market cycle to check, we've checked because we are in compliance with all of those. But if there are any changes to the guidelines, just let me know I can you know make a note now or we can reach out at anytime in the future and we can implement that in our system. It's very easy for us to continue to evolve any changes to the plan and the management staff.

So, if you next turn under the market review tab. I can give you a brief overview of what happened in 2012 in the markets from our perspective. You probably hearing this from a number of people so keep it a bit tight, but the market saw strong absolute returns in the year 16, 18% across multiple indices so the returns were very good across the board. In the markets for 2012, digging just one layer deeper in the year we really saw the year marked it by 2 halves. The first half of the year we saw macro drivers really influence market fortunes. The fear around you know there was sort of a spike in commodity prices, there was a question of what that did, there was a slow down in emerging market growth, and a question about the sustainability how far that would slow, how sustainable you know mid high single digit levels of growth would be? And then of course Europe was in the headlines, debt crisis you had investors across the board basically reacting to fear and going to investments that were perceived to be safer. So on a sector basis we saw a lot of demand, free utilities, these are staples or some of these recurring revenue type businesses and many of those companies started trading out premiums to the market average despite having in general lower growth profile relative to you know consumer discretion, technology are some of the other sectors that have the potential to grow much faster for longer periods of time but in periods of fear which we do see from time to time and can drive investment decisions on a temporary basis. That's what we saw in the first half. Then we saw some you know China's fundamentals pick up a bit. We saw the ECB step in very strongly and reassure the markets that they would keep the euro together as a currency for the foreseeable future for the near term. That laid many of the fears and you saw the market sort of calm down and you saw the instead of just the focus on no risk versus risk, there's a little bit you know some of the fears were seated and focus on some of the company fundamental started to emerge again. And that's when people really starting to refocus on okay what exactly does this company do, and are they doing it in such a way that they have pricing power, is there demand for that now is there demand for that in the future, what does that mean for the real earnings generation? And so that in the second half of the year we saw a return of focus more to the company fundamentals.

From our perspective, our investment style is consistent regardless of those market environments. We focus on company fundamentals and bottom up security selection across you know the different sort of periods of favor in the market or fear and we just recognize what that means in terms of a back truck and occasionally the volatility, which was one of the questions is how does that impact your investing, to even during periods of volatility our approach remains constant, we remain focused on the fundamentals and we believe that those times of over reaction can actually present some evaluation based opportunities for us, they are not always in favor but we believe that that's where we can find opportunities for the long term. So lets just the market back track and if you turn with me to the portfolio review tab, this is your portfolio. And this is where the fun stuff starts right?

So at the end of the year the portfolio value is just over $60 million dollars. And if I update that through mid February it's now standing at $63 million dollars. So we had some positive performance in the first couple of months of this year. The estimated annual income was just over a million dollars and that's driven by the 2% sort of yield on the equities that are in the portfolio. That's just the dividend income generated by the portfolio holdings. And then if you look on the bottom right hand of the page, you can see the equity is at the end of the year we're 97% short term and cash were just 3%. So the portfolio remains fully invested. That's actually come down since the end of the year as we have invested in another additional security for the portfolio.

And then on page 6, are the performance figures for all the periods requested. So if you go to the one two third line down, that's the reporting period figure and you can see we had return for total portfolio just shy of about 15% which was 44 basis points in excess of the benchmark. Since then you know after that reporting period closed, the 4th quarter was actually even stronger and we saw you know 8% returns over the EAFE was just 6½% so excess returns of 165 basis points in the 4th quarter. January was flat to the benchmark but if I just update you with figures that go through February 15th year to date the portfolio is up 4.7% versus the benchmark of 3.9% an additional 80 basis points in excess of the benchmark. Those are remarkably consistent it's not always going to be so consistent, cause there will be periods but at least for now it's doing what we expect it to do but be prepared and you know there will be some volatility it won't always be as so consistent as that. But that's really the quirks of all the performance figures. And then if you turn to page 8. Really as I mentioned, just in the beginning, security selection is the driver of our investment decisions, it's the driver of our performance. And on page 8, you can read through these some other time when you're interested, but these are just a few companies across sectors, across geographies that represent the investment thinking or the types of investments that are held in your portfolio on your behalf. I can speak to one of them and then share it with you how the portfolio's positioned but as an example ARM Holdings, I'm not sure if you're familiar with it, it's not a household name. Gerard Cruz: ARM holdings? Alysia Wurst: ARM holdings. Yeah it's not a brand that people think about but if you sort of rewind your brains to like 1990 and you remember like Intel wasn't the household name until they put the sticker on the PC and said Intel inside, so ARM holdings is basically the Intel for mobile phones. So you could put a sticker on every mobile phone and 95% of smart phones, ARM is the micro processor that's driving that. So there are very well positioned for the growth and mobile phones in particularly the growth in smart phones because as the phones get smarter and faster there's actually greater demand for ARMs content which is intellectual property licensing company but they hold the licenses to the core micro processor technology that drives the brains of the mobile phone and as there's increasing content in each phone that's shift they benefit on a sort of an exponential basis rather than just a linear basis. And that back drop of actual just volume growth is just great. So when you get 2x, 3x the content on each of those growing phones the returns and the growth profile is actually very attractive for ARM.

One of the reasons that they are able to hold such a position is that one of their strengths is in the power management and no other competitor has been able to generate the speeds and the processing speeds at the types of sort of power efficiency that enables you to keep a phone charge for a day and most of us want our phones to stay charged for even longer so they keep innovating and trying to reduce you know sort of the power consumption but that's where they're positioned in and that's what we're looking for maybe a hidden gem of a company with great technology that is levered to growing opportunities.

And then on page 9, and this will be my second to last slide so if this is just showing you where the portfolio is positioned today on a sector basis. What you'll notice probably is that sort of if you look to the information technology this is reflecting that with ARM as an example we're finding relatively more opportunities and technology than in the benchmark. So these sector ratings are not a top down allocation but it's a reflection of where we're finding companies specific opportunities so ARM is in there the new security that we purchased, Amadeus IT holdings is also a technology company that we just purchased for the portfolio and I can share more details on the new purchases if you like. We are also overweight energy, slightly overweight health care and we're underweight utilities, underweight telecom. And perhaps surprisingly we're underweight in the consumer categories it's not and I'll just a couple comments on that. So consumer opportunities are phenomenal. There are many great companies that are competing in this based that are investible that have attractive characteristics however when we separate out the company opportunity then the company performance from the valuation of the company performance we find that particularly in consumer staples and discretionary often it's more appreciated. It's harder to find a hidden gem like ARM than you know in the consumer space because it's more natural for people to recognize the companies to think of them and to invest in them. So you see the multiples often bid out relative to other opportunities on our evaluation of pricing basis. Sad that we haven't invested in them, we have several in the portfolio.

An example is Lexotica which is based in Europe, it's based in Italy and they basically if you know Maui Jim sunglasses or Oakley sunglasses their the largest designer manufacturer and distributor of sunglasses worldwide, we have the number of businesses. So there are companies that have the characteristics where their earnings generation and opportunities are not fully priced in from our perspective but we are very valuation focused and so that drives the securities. Wilfred Leon Guerrero: Is there a chart I'm looking for how your returns been doing since whenever? Alysia Wurst: Since inception or? Wilfred Leon Guerrero: No, the companies return history do you have that? Alysia Wurst: Well since the inception of your portfolio? Wilfred Leon Guerrero: No. Your portfolio. Alysia Wurst: Ours. Let's see if that's in here. It's actually It's been very good over the long period of time. Wilfred Leon Guerrero: Well that's what I want to know is you've been doing real good and. Alysia Wurst: Yeah, I don't know if we put the picture in there. Wilfred Leon Guerrero: You worry because sooner or later somebody's going to fall. Alysia Wurst: You know I don't think we have that picture but I can send that to you if you like. We have a graph of it that shows like the return of one dollar since the beginning of the fund. Yeah I'm happy to share that. Wilfred Leon Guerrero: Like I said you've been doing real real good. Alysia Wurst: So you know I would say that I think the firm is in well position to continue providing those returns. The reason that I will say that the firm has in my opinion at least, the reason that the firm has done well so far and is positioned to continue to generate good returns for plans is the consistency and the approach.

We have a very consistent approach where we have an internal screen which we called return pattern recognition it helps narrow our focus because we believe it's really important for investors to do three things. Focus your attention on opportunities that matter. Manage the risk that is relevant to clients and then do great fundamental research and that approach has been consistent over time. So when we focus our attention we rely on our return pattern recognition screen. Wilfred Leon Guerrero: You do well on good times and you do well on bad times.

Alysia Wurst: We do, we do, we do. But I can send you some of the charts that show that if that's something that you want. Wilfred Leon Guerrero: Yeah. Alysia Wurst: Okay. Sure. Wilfred Leon Guerrero: The other thing and I'm probably jumping here. What have we decided about proxy voting? Because they are taking the position for silent they're going to go ahead and take the proxy voting. Gerard Cruz: We have an agent. Do we have an agent? Paula Blas: Yes, we have Glass Lewis. Alysia Wurst: Okay. We're familiar with them. Paula: Right and I think there is a stipulation in the agreement that the proxy voting is done through a 3rd party if we're in agreement. Wilfred Leon Guerrero: Otherwise Alysia is going to vote the way she wants to vote. Alysia Wurst: Yeah we worked with multiple we've worked with both ISS, Glass Lewis and some of the smaller shops that have policies that reflect a certain decision making set of priorities and we're very comfortable voting the proxies of your shares in accordance with whatever is assigned. Wilfred Leon Guerrero: You're going to do it again next year?

Alysia Wurst: No promises. Hope so. You know there will be volatility. Seen volatility in the market, we're well aware that the measured volatility as well. Wilfred Leon Guerrero: The reason I ask about the history is because Maggie here is telling us this strategy continues to be you know they focus on this but we also she said something about there being certain periods of underperformance. What is that word Maggie on page 47 in your report QUANT, what's a QUANT model? Maggie Ralbovsky: I'm sorry what are you talking about? Wilfred Leon Guerrero: Okay your comments about what is QUANT, I don't know. Gerard Cruz: Let me see the comment and then I can translate the question. Page 47. Maggie Ralbovsky: Didn't I say this company is on focus list? Alysia Wurst: Do you mind if I take a look cause I can help explain like how the company performs in different environments. Maggie Ralbovsky: What are you talking about? Gerard Cruz: Oh, so the first paragraph first sentence second paragraph, so it's just an explanation of this type of. Alysia Wurst: He's concern about this last line there the reliance on a screening model may meet certain periods of underperformance when the quantum model... I would actually disagree with that. Maybe this will give you some comfort.

Alysia Wurst: So I'll make couple of comments. So if you think about what happened in 2008, 2009, many managers who ran what they call a Quant model quantitative investment style or relied on models for their investment decisions. Wilfred Leon Guerrero: Oh, so quant is short for quantitative. Alysia Wurst: Quantitative, so it's a different category of firms that rely on quantitative output for their investment decisions. And in periods where you see massive shocks to the market the model obviously haven't seen that in the history so the decisions that the models are making are not incorporating reality and so you saw in the late part of 2008, the quant models broke down and the risk management, the investment decisions they didn't have sufficient history to make adequate decisions from just a model basis. I would separate that from what our firm does and how our firm makes decisions and maybe give you some comfort at the same time. Maggie Ralbovsky: You need to talk to our analyst. Our analyst wrote this note. You use the Quant model to screen to narrow down your universe right? So I think that's what they are referring to, to narrow down their universe.

Alysia Wurst: But we'll just clarify. So there are a couple of things. One, our decisions are all made by people. We never give a machine or a model the ability to make any decisions, we simply use that for information and for input but the decisions are driven by a very stable investment team hired from industry looking at all factors of the company fundamentals as well as what is calculated to be portfolio level risk or I'll show the 2 ways that we use models. One is in the return pattern recognition screen, which simply narrows the investable universe from like a 2500 index down to a roughly 150. That doesn't dictate any purchases it simply takes fundamental characteristics such as this company is currently seeing operating margins expand relative to its history and it's priced in you know lower than peers. That would be a type of company that would screen for us for example. So it simply narrows the universe, doesn't make a decision and that becomes our starting point for the research.

The second way that we use and their mentioning the risk model, the second way that we use quantitative measures is in monitoring our portfolio level risk. So many managers use standard deviation from a benchmark as their measurement of risk. We use a different measurement of risk which is called downsize deviation. So, instead of looking at the difference you know so if you think about, and this might be more than you're interested in, but stop me if you're bored. So you think about a benchmark and this is maybe your EAFE benchmark and here your stock returns, and standard deviation will measure your very ability around that benchmark and what we say is that well actually returns above the benchmark are good. Returns below the benchmark are bad, particularly ones that are way below on the tail risk are the ones that really matter to clients. So what we do is we draw a minimal acceptable return at minus 4% to the benchmark and we say okay we'll consider all of this to be acceptable and or good. So we don't want to penalize for performance above the benchmark and we'll accept a little bit of risk below the benchmark and consider that our minimal acceptable return. And then what we want to do is minimize anything to build left of that.

So substantial underperformance relative to the benchmark. What that does is once we determined what this level is with our downside deviation risk model, then we insure that the portfolio construction the combination of stocks that we have on your behalf in 80% of cases will at least fall in this acceptable range. But it's not making decisions, it's simply a check for us to make sure that portfolio construction is within tolerance of a downsize deviation risk model and we've tested over 30 years, more than 30 years and made sure that it works on rolling periods that include shocks like 2001, 2008 and the risk model has continued to work through these periods of shocks.

Maggie Ralbovsky: Under worse scenario do you think you may under perform? Alysia Wurst: That's a good question I think that its more likely that we would under perform and a period when returns are concentrated in one sector because we have a well diversified portfolio and we tend to find we tend to hold a well diversified portfolio cross sectors. So if you know if energy stocks shot through the moon and everything else underperformed during that period, it would be likely for us to trail because we'll be having a diversified portfolio. We expect that to normalize over some period of time and not to persist over a full market cycle for example. But that's an example of a case when we would expect to under perform concentrated returns. Another period in which we would expect to under perform is if there's like a junk rally and is just risk on and it's not market that's focused on the fundamentals, because we are focused on the fundamental, the time, the valuation of the stocks so the fundamental earning generation of the company over time. So those are.

Wilfred Leon Guerrero: Your 55, that's the number that you. Alysia Wurst: It's roughly 55, you know give or take a couple depending on you know. Wilfred Leon Guerrero: That's the number that you guys are comfortable with. Alysia Wurst: Yup. So basically that means that you know we're not too concentrated in any security. We won't hold any security more than 5% and so actually in like the case of ARM, we actually had to keep trimming that regularly because it's performed well and it kind of runs up to that 5%, it's a good problem to have but in order to keep the diversification we don't want it to be such a large contributor to the portfolio. Rosalia Bordallo: We keep on selling the stock when it's making a profit. Alysia Wurst: Yeah, so if we bought at say a 2% weight and it tripled you know we wouldn't let it sit at a 6% weight, we'd trim it back to 5% or less weight. So it's been sitting at that 4½, 5% weight so it's a substantial contributor, but we just don't want it to be out sized position relative to the portfolio because we view that to be a source of risk that we want to.

Wilfred Leon Guerrero: What is the turn over rate? Alysia Wurst: Turn over is quite moderate, I would say to answer your question, the short answer is that turn over is kind of like 25% year, so our average holding period is probably 4 years, 4 to 5 years. However, when we initiate a position our investment horizon is only 18 to 24 months, you really can't look out a lot more than 18 to 24 months but in that period of time we can have an expectation of fundamental changes within the company. You know maybe shutting down certain manufacturing facilities and seeing substantially higher utilization rates that contribute to outside offering earnings. That kind of thing, we want to give the companies enough time to make real changes that we see possible and for the stock market to reflect those changes which are often slow to do if the short term investors are looking at timing of quarter or not. So we're looking at that sort of year and a half to 2 year horizon, but if the company continues to perform as we expect, it's actually a rule in horizon and it ends up being that 4, 5 years by the end of our investment on average.

Wilfred Leon Guerrero: And you're going to do it again next year? Gerard Cruz: That's the second time. Paula Blas: He's only asking you to look 1 year. Alysia Wurst: Yeah right. I hope so. It would be great. Gerard Cruz: You've been with us since 2011? Alysia Wurst: Yes. I think we met in 2010 and when it all sorted out funded and. Antolina Leon Guerrero: So what's the fair market cycle? Alysia Wurst: It's a fuzzy ideal but typically we think of it as kind of 3 to 5 years, so often we look at kind of a 5 year cycle. You could argue that we've been through a few market cycles. Maggie Ralbovsky: It's fuzzy and but if you observe the history, average is out to be like 7 years. Like large cap, small cap, out performance, growth and value, you know those. Antolina Leon Guerreo: I was just wondering what this check mark was. Up to 7 years, okay. Alysia Wurst: Maybe 7 years maybe, but definitely not 2 years. 2 years it's a period and it's. Gerard Cruz: Short. It's very short. Alysia Wurst: Yeah. Wilfred Leon Guerrero: Any other comments/questions Gerry? Gerard Cruz: No, I'm fine thanks Mr. Chairman. Paula Blas: I don't know did she answer the SEC? Alysia Wurst: No changes, no litigation. Anything else? Gerard Cruz: No, thank you very much, enjoy.

Rosalia Bordallo: Can she address the yen? Gerard Cruz: What's your forecast on the yen? Alysia Wurst: You know I asked that I met with 13 companies in Japan in the last 3 days and I asked each one of them that question to understand how they are planning their. Oh you know we didn't do that last page, I don't know if you still care, but it was just also how your portfolio is positioned on a geographic basis. It's not top down allocation, just to understand where it is. Gerard Cruz: And so what was the answer? Alysia Wurst: It varies in terms of what they're using for their internal planning. Some of them are using 78, some of them are using 88, some of them are using 90, some of them are using 100. Rosalia Bordallo: What's the highest though you've heard? Alysia Wurst: I think a hundred was the highest. Gerard Cruz: 78 I don't think so. 78 was last year. Rosalia Bordallo: It was 78 in 93. Gerard Cruz: 93, 94. Alysia Wurst: So what we're seeing is that the companies have their based case on one of these numbers and then they do a full business planning scenario analysis based on our range that's kind of plus 10 or minus 10 from that number so we're seeing kind of I think if I were to just sort of share what they were looking at I think they were planning on 88 plus or minus 10. Paula Blas: It's closer to 100 it as the high. Gerard Cruz: That makes sense. Rosalia Bordallo: I know Sony's really raked it in because of the yen fluctuation. It brought in 700 million because of that.

Wilfred Leon Guerrero: Rosie, buy it. Gerard Cruz: Go already. Rosalia Bordallo: It's already too late now. Wilfred Leon Guerrero: Too late? Rosalia Bordallo: Oh no I haven't bought yet. I have to go look at the. Gerard Cruz: You know where to go though right? Down in Tumon. Rosalia Bordallo: First Hawaiian sells. Gerard Cruz: No. Go to Tumon, that one lady in Tumon sells real she's, I always get it there. Paula Blas: He's not going to say where yet. Wilfred Leon Guerrero: Which alley is this? Gerard Cruz: It is in an alley. Rosalia Bordallo: Does she charge you a commission? Gerard Cruz: No. It's better than anywhere else. Rosalia Bordallo: I know FHB doesn't charge for customers so that's one thing. Gerard Cruz: Go ahead and go there. More for me. Rosalia Bordallo: Well at least I save on gas.

Building a Risk Diversified Portfolio – Risk Parity

Maggie Ralbovsky: So the bucket list. We have talked about. Wilfred Leon Guerrero: Maggie, before you start that, remind us again why we want to consider this. Maggie Ralbovsky: I think it becomes self clear after we finish this discussion, so let's save the answer to your question until later. If I have not answered your question when we finish we can come back to your question, is that okay? So we know there's different definitions of risk okay. The traditional asset allocation work defines risk as volatility of return and we know that is one definition and that definition at times can actually trip us because when you define an asset class risk as volatility of return you're assuming the risk diversification wouldn't be beneficial when the volatility happens at different times.

But we know that's not the case, for example in 2008, you may be diversifying many, many different asset classes by name, they all move in the same direction they correlate very strongly. So during different market scenarios, a single definition of risk as the volatility return may really not capture the true spirit to give you a diversified portfolio. So an alternative way of defining risk is to observe the behavior of an asset class under different economic scenarios. For example, during a very strong growth scenario the GDP growth around the world at lets say very strong one of the asset classes that do well, and if that asset class does do well, then we could define that asset class to be in a bucket called the growth bucket because the reaction of the asset class appreciation strongly correlates with growth. Similarly we could also observe certain asset classes actually do well when things actually are quite gloomy. So for example fixed income does well when things are uncertain so we call that the stability bucket provides stability and does well when things are unstable.

Now also there are certain asset classes that does very well when inflation turns out to be higher than expected. We know that every asset class has an implied pricing of that has something to do with the expected inflation because intrinsically, investors will be requiring being compensated for future inflations so every asset class has in the pricing there's an implied future expected inflation. If it turns out to be higher then what has been priced into the asset class, most asset classes will drop in pricing because you have to compensate the investor more for that change expectation. But certain other asset classes actually capture that in an upside so we call that group of asset classes as inflation hedging asset class. Okay. Now there's another asset group we call a credit because this particular bucket actually is a hybrid between growth and stability. It doesn't really do very well when growth is very strong, it does well but doesn't do as well as growth. And when growth is weak, it doesn't do as badly. But it does probably in under certain scenarios it can actually do the best, which is a scenario of slow growth but no crisis. Those are the scenarios where credit bucket actually does well. So when we observe the behavior of the different asset classes under different economic pyridine we could group them into these buckets.

Okay I just want to introduce this concept again so then later on it will make more sense when we go through this okay. Now why do we want to go this route? What's wrong with the traditional asset allocation approach? Okay, here's what is what may be wrong with the traditional asset allocation approach. Okay here on this page 3, I graphed the returns of GGRF current policy versus Wilshire 5000. Wilshire 5000 is a 100% stocks okay. So this is the line chart on the upper right hand corner and you can see for the past 10 years you can go as long as you want in the history. But I just picked the past 10 years to show you the fact that it has a very strong correlation with Wilshire 5000. It might as well have you know close 90 I can be 90% certain, I can tell you what your portfolio has done as long as I know what Wilshire 5000 has done. So that's the issue with the traditional asset allocation approach because it really does not differentiate the different kind of investment pyridine only has a single definition risk.

So the asset allocation currently, you can see in the left hand pie chart it looks quite diversified in terms of different colors, however if you decompose the risk contribution into the bucket as we just discussed, it actually is very concentrated into the growth bucket. It has 95% of the contribution comes from the growth bucket, that's why if return you can see for the past 10 years is strongly influenced by the stock market. Now. Gerard Cruz: How would given 30% fixed income allocation in the U.S. REITS allocation how would that. Maggie Ralbovsky: Why is that only 4%? Gerard Cruz: Right. Maggie Ralbovsky: Because it is the fixed income asset class is much less volatile than the stock asset class. So its contribution to the total volatility becomes just over shadowed by the volatility of the stocks. Gerard Cruz: If we were to implement well first if you implement risk parity do we need to implement it. Maggie Ralbovsky: No, not the whole portfolio, you don't have to. You could just allocate 10% for example as a substitute for equity. Gerard Cruz: As a substitute for equity? Maggie Ralbovsky: Yes. James Duenas: Also reduce the allocation that stocks and.

Maggie Ralbovsky: Yeah, you could reduce your equity by 10%. U.S. stocks right now is probably over allocated based on the opportunities set in the world. So you could implement a 10% allocation to risk parity. There are funds that have moved the entire portfolio into risk parity although that really takes a lot of conviction there's a few of them have done that. Gerard Cruz: You don't subscribe to that? Maggie Ralbovsky: I do not recommend that. I do think risk parity is not a panacea. It is one way of diversification but it is not the only way. Gerard Cruz: The primary components you use to well on our case, because we're equity heavy writers what you're saying, so the primary components that we would use in order to create the parity would be more fixed income? Maggie Ralbovsky: I will show you how we do it okay. So now let's further discuss why we want it, what's wrong with having all these correlation with equity. I do want to show you this chart, Gerry. Come back to this chart. Okay this is why. Gerard Cruz: We've seen this before that's why. Maggie Ralbovsky: No you have not seen this one before, this is the new chart I just made. Gerard Cruz: No but I read it because you sent it early. Maggie Ralbovsky: Okay. So for the past 40 years if we divide them up into 4 different decades. 2 out of the 4 decades, the GGRF policy underperformed the cash. So I use the cash as the inflation. I used the cash for the 1970's because there was not a CPI published during then. I used the cash t-bills return. So the red line is t-bills return. Gerard Cruz: For the past 20 I'm sorry, say that. Maggie Ralbovsky: For the past 4 decades. Gerard Cruz: For the past 4 decades if you break it up into 10 year. Maggie Ralbovsky: 2 yeah, so 2 of the 4 decades. The first one was. Gerard Cruz: Would be last decade right this one. Maggie Ralbovsky: The first one is 1971 to 1981 you see the top chart. Gerard Cruz: 71 to 81 which is stagflation?

Maggie Ralbovsky: Yes stagflation and you see that the blue line actually underperformed cash. Gerard Cruz: Of course. Maggie Ralbovsky: Okay. From the past from 1999 to 2009 that is the financial crisis right. So 2 decades out of the 4 decades we underperformed inflation or cash, which shows us that even though for the entire 40 year period the returns have been generated, it was not generated in a consistent manner. It is really a hit and miss you sort of. Gerard Cruz: But over the 40 years did we outperformed cash? Maggie Ralbovsky: We did, we did, we did. Gerard Cruz: So over the 40 years we outperformed but the snapshots of each 10 year period there's 2 of them. Maggie Ralbovsky: That's right 2 of the 4. Gerard Cruz: So would risk parity have created drag during those years where we outperformed? In other words, those other 2 quarters where we significantly surpassed cash right?

Would having a. Maggie Ralbovsky: Risk parity would have done a lot better, yes. Gerard Cruz: Would have done better if primarily we would have been in.

Maggie Ralbovsky: Let me explain how risk parity works okay. Because it's not just an asset class, it is a risk allocation concept we have to switch our mind out of asset allocation into risk allocation. Okay? So here's how you switch. Let me give you the entire concept of risk parity on page 5. So the goal of risk parity is to make every asset class count. But not of that account will come too much. What does that mean? Well we know that right now we have a lot of asset classes, but not every asset class really count as much as stocks. Stocks count the most. You know we have different things allocated but really the thing that counts is stocks. Now how do we make every asset class count? Well, you have to allocate risk rather than asset. Here's what I mean okay. Here's an example. If I have a total risk target of 10%, this is actually like a 60-40 portfolio. If you have a 60% stock 40% bonds, in the long run your total portfolio risk is 10% but it does not stay at 10% we know that it goes all the way to 40%, all the way down to maybe 5%. Really, really very, very volatile. But let say my long term target is 10%. And I want to equally allocate this risk budget to stocks, bonds and inflation hedge. Let's say I want to allocate 5% of my risk budget to stocks, 5% to bonds and 5% to inflation hedge. However I know that stocks is actually much more than 5% in terms of risk. It has a forecasted risk of 15% and bonds has a forecast risk of 5% and inflation has a 8% broadcasted risk. Now if I wanted to just allocate 5% of my total risk budget to stocks, I will end up with a 30% allocation to stocks but I will end up with 100% allocation to bonds and 63% allocation to inflation hedge. Now why will I do better than stocks if stocks outperformed bonds? Because I use leverage. You see that even the one I have 100% in, I have a total of 193% in assets, so if you think of bonds.

Gerard Cruz: What you're levering. Maggie Ralbovsky: I am levering bonds for this scenario. So if the interest rate goes up what happens? Is that what you're question? No? Gerard Cruz: No but if you're levering bonds, okay maybe that is my question. Because if the economy does better and stocks outperforms bonds, and so implicitly fixed income won't do well because interest rate. Maggie Ralbovsky: That's right. That's a great question. Although that is actually based on a static view of this portfolio, this is an example of the portfolio that right now holds 100% in bonds, because your risk forecast with bonds is only 5%, and when interest rates goes up this risk level will go up, right? Which will make this number go down. Gerard Cruz: Yeah but does it go up in time for it to adjust to beat the downside risk. What I mean, does it go up after we have taken the loss or before? Maggie Ralbovsky: So there's different ways to forecast this risk factor, and there's many models we can forecast that very, very much ahead of time. Yeah, so like. Gerard Cruz: How do you forecast, how do you know where rates? Maggie Ralbovsky: You review the implied volatility for the futures and options market they tend to lead the actual volatility. So when people started buy options to.

Gerard Cruz: So you're saying that people know when interest rates are going to be six or ten months from now? Maggie Ralbovsky: People start to hedge. No not 6 months usually when people buy forward contracts to hedge their. Gerard Cruz: Right 90 days Maggie Ralbovsky: Yeah so the volatility starts to pick up and their models that can observe that, not to a total precision but has a pretty good predictive power. I can show you the XNT forecast for certain managers is very close to 10% so if they hold the portfolio target risk at 10% they realize risk is very tight to 10% which means that they could forecast very close to the target. Gerard Cruz: So this only goes out in terms of buying forwards, their only go out 90 days? Maggie Ralbovsky: No, that's one factor for you to forecast the risk. Gerard Cruz: But this one's what's concerning to me is because the bonds of fixed income side is what's concerning to me because of. Maggie Ralbovsky: Interest rates may go up. Gerard Cruz: Well the interest rates certainly are going to go up from where they are and so there's only down side risk that I see in the fixed income market. Maggie Ralbovsky: Right. It doesn't mean you have to hold 100% right? Gerard Cruz: I know but if we to lever given the fact that we're overweight in equities, where else you going to go? Maggie Ralbovsky: You could lever equity. So if equity risk becomes smaller than this, then this number will go up right? That's not to say it's forever we're going to.

Gerard Cruz: No, I understand that but I guess where we are right now is that equity risk currently in our existing portfolio is higher, it's considered high. We are growth tilted what you are saying is that our growth market is overweight compared to the other bucket. So given our current scenario our options then to create the parity is going to be in either fixed income or in other forms of, well fixed income because right now we can't really do commodities or the other components. So in order to bring down our growth risk we're going to have to grow where else would we go? Maggie Ralbovsky: Well when we do the risk parity approach, we already have set a risk target which is 10% and we equally allocate that already into the different buckets, so we already remove to that growth bias because we already equally weight in these different buckets. Gerard Cruz: But logistically how do you remove that bias? I mean I guess what I'm saying is okay. How then do we, what are the mechanics to remove the bias? Where do we go? Where do we I mean what will the complexion of our portfolio look like if that were the case? Maggie Ralbovsky: This will just become risk parity bucket, risk parity allocation then this allocation does not have a growth bias anymore because it is equally weighting the different factors. Gerard Cruz: I know. What you're saying is that 10% of our portfolio will be in a fund so to speak, managed by AQR or the other group Bridgewater? whatever. And they will be managing that portfolio that has that is considered a risk parity portfolio. But the overall objective though is to reduce our tilt in our total portfolio from having a growth bias right? And so I guess my question is, that portfolio doesn't operate in a vacuum it's related to our existing portfolio so my question is then looking at the whole portfolio, how would the complexion of this risk parity mandate look in relation to our total portfolio? Cause we're going to still have bond managers and we're going to still have equity managers we're not taking we're taking some away from the equity managers, but we're still having bond managers and if the method is in order to create the parity, even if at the only 10% if the method is to create the parity by reducing the concentration for our growth tilt, the only other security or the only other place you mandate that you can do that is going to be fixed income. Maggie Ralbovsky: No that is where you slipped to the old way of thinking, you have been right all the way along okay. Gerard Cruz: So then correct me cause how else what other security or what other asset class? Maggie Ralbovsky: So it doesn't do asset class anymore, it allocates risk. It rebalances, it rebalances portfolio on a daily basis. Gerard Cruz: But, we don't invest in risk is what I'm saying. We invest in. Maggie Ralbovsky: You do, you do invest in risk. Gerard Cruz: Theoretically and from an educational perspective, yes, but I don't go out to Wall Street and say can I buy 5 shares of risk. Maggie Ralbovsky: Yeah you buy 10% this is what you bought. Gerard Cruz: No we bought securities. What is the ticker symbol for risk?

Maggie Ralbovsky: Let me go to page 15, maybe that'll help us think about it. Page 15. Gerard Cruz: And maybe it's because you're speaking with somebody like me, who understands the use of leverage. And leverage if something is good leverage makes it better and if something is bad leverage makes it worse. Maggie Ralbovsky: That's right. This portfolio can be below 100% levered historically in 2008, below 100% so it all depends on what's forecasted. Gerard Cruz: I understand that but my question is though, do we go from 110% lever to 90% lever in time to miss the impact of being at 100% or 110%? Maggie Ralbovsky: Yes. Well that's why I want to show you the track record of AQR. This risk example manager this is AQR. The red line is the GGRF policy, so this is the real life this is not the return, this chart is not about return, this is about risk. So this is the roller coaster of the red line is the actual risk that this portfolio has experienced in the past since 2005. The reason I started in 2005 is because AQR's live record started in 2005. We do have some back tested record and I didn't want to use the back testing. So you can see the GGRF portfolio for this ride have an average risk of 11.5% which is to say sometimes it's actually has risk much lower than 10% sometimes much higher than 10%. Every job could be 11%. Now this AQR portfolio has a target portfolio risk of 10% though they do have different targets. You actually go buy the risk, you say I want to buy a 10% risk portfolio or a 12% risk portfolio. They also have 14% risk portfolio. You go there to buy the risk. You do not go there to buy the asset class. And the way they achieve the risk target is by. Gerard Cruz: Okay, that's where I'm at, that's what I'm asking.

Maggie Ralbovsky: Yes, so the way they achieve the risk target is to remove themselves from the growth all the different kinds of bias they just stably try to keep this portfolio to be 10% risk. Gerard Cruz: Okay. Maggie Ralbovsky: Okay. So when market risk is low, they levered up. When market risk is high, they levered down. During 2008 they went to 60% of the, so they basically are only invested 60% so they were not even at 100%. They were below 1 in terms of leverage. Below they were not even levered. Stay in cash. Gerard Cruz: So then maybe I'm understanding incorrectly. So then maybe I understand this, let me see if I understand it any differently. So under your scenario where we would be buying 10% of our portfolio, and we would then be also buying we would agree to 10% we will be buying 10% risk? 10% volatility, okay. Under our existing portfolio, and so what you're saying is that at any 1 point in time our risk or growth tilt could go up or down? Or does that stay static?

Maggie Ralbovsky: Our growth tilt would have been reduced from the total portfolio because when you remove the portfolio from the growth bucket to the risk parity bucket you remove that growth tilt because this bucket is equally weighting the risk, it does not have a growth tilt anymore. This portfolio has the equal weighting into growth stability and inflation hedge. So, this portfolio is not tilting any way it becomes a neutral portfolio. So if you look at the total portfolio, you removed 10% out of growth into something that's neutral. So that's how you remove the growth bias. Not remove but reduce. Yeah you cannot forever remove it, unless you go entirely parity and I do not think that's the way we should go. So we are taking the first step to remove that and of course they. Gerard Cruz: Then I do understand you correctly and so I'm back to my point though during I just and maybe I need to see numbers I don't know but just intuitively for me, by doing that by removing that growth bias with the portfolio that was designed to under perform during up markets but out perform during down markets, I just can't see how we would how that that's really what this seems to me to be, the way I'm looking at it or the way I'm interpreting it and maybe you need to explain it more then, is almost like an insurance policy. Maggie Ralbovsky: It does not necessarily under perform in up market. Because. Gerard Cruz: No what I'm saying is that our strategy. Maggie Ralbovsky: It does not, why would it say it has to underperforming up market? Gerard Cruz: Because we have a large concentration in domestic large cap because we have a pretty substantial allocation in. Maggie Ralbovsky: And I can tell you AQR's strategy did not underperform GGRF's policy in up market in its history. Gerard Cruz: Did not underperform? Maggie Ralbovsky: Did not, did not. Gerard Cruz: Okay.

Maggie Ralbovsky: I can't understand why I don't have a chart here but the. Gerard Cruz: But it just seems to me that this strategy worked well during times of severe market volatility in the last 10 years. Maggie Ralbovsky: It works in up and down. Gerard Cruz: Or even in severe economic I guess maybe not, like in the 70's because you picked out over 40 year period 2 decades where there was severe economic activity happening right, I mean during take the period of 70's where we had stagflation you picked the period of the last decade where we had the economic crisis and this thing paid off absolutely, but during normal business cycles it seems to have it seems that this would not have been the way. And I understand that I mean there's a lot of new studies. Maggie Ralbovsky: It outperformed the GGRF policy in out market in 2009, 2010, 2011, 2012 these are all up markets. Gerard Cruz: Right, no I don't dispute that. I don't dispute that. Maggie Ralbovsky: So then what is your basis of saying it's going to underperforming up market? Gerard Cruz: No what I'm saying is that our portfolio, the GGRF portfolio, is a conservative portfolio that had an expected return that. Maggie Ralbovsky: It is not a conservative portfolio, it had a 70% equity. Gerard Cruz: Okay. Wilfred Leon Guerrero: Maggie. Antolina Leon Guerrero: We have a conservative board. Gerard Cruz: Yeah but it was just designed to sustain a loss if I can remember the verbiage, one or no more than 20% for every market cycle. I don't know, I'm sorry I can't remember the exact verbiage.

Wilfred Leon Guerrero: What we would like to see in terms of the average risk for this portfolio. Maggie Ralbovsky: Okay. So I think the target for our total portfolio should have a 10% volatility and right now. Wilfred Leon Guerrero: I'm looking at page 15. Maggie Ralbovsky: Let's not look at page 15 first. Wilfred Leon Guerrero: No lets, every time I ask a question. Maggie Ralbovsky: Okay, please ok page 15. Wilfred Leon Guerrero: Alright because I'm an educator and I'm just going to tell you something there's such thing as an educated moment and when that happens you listen to whoever you're teaching ok. Now what you're saying on page 15 is that our average risk has been 11.5 and it was just not by design it just. Maggie Ralbovsky: That's right. Exactly. Just happening, yes. Wilfred Leon Guerrero: And what you want to do is you want to set up the portfolio in such a way that it's a planned thing. Maggie Ralbovsky: It controls the risk at that point at that level. We have to take risk or we need to take that risk in a consistent manner not just like that. Wilfred Leon Guerrero: See I'm trying to expedite this learning process because I think this is the kind of stuff that I think you're missing in terms of your presentation to us. Okay and you're telling us that in order to drop it from 11.5 to 10% you're saying? Antolina Leon Guerrero: What are you hoping to achieve in terms of risk? If our average risk has been 11.5. Maggie Ralbovsky: I'm hoping to target 11.5 or you know 10% it doesn't have to be 10% it could be 12%. Let's say we target 12% risk but we manage that risk budget instead of just having run with the market ended up to be 12%. We want to be targeting 12% because if the market is very, very low in terms of risk, we want to actually lever up the risk, so for example, Wilfred Leon Guerrero: You're losing me again.

Maggie Ralbovsky: Okay, let me show you this chart. Look in the 2005, 2006, 2007 right before the Lehman event the risk level in the market place has been very, very low, you see that? It's below 10%. The total portfolio GGRF portfolio at one point was taking only 5% risk okay. And those are the times you want lever up, take more risk because that means market return is cheap. You can get more return by taking more risk. This is the time you lever up. So this formula here, if you have less risk, you hold more assets. And during those times you actually lever up, you get those cheap return into your portfolio, you actually return very, very well. These are your running growth market years and the risk parity portfolio did a lot better actually in these up years because it uses a lot of leverage. Now all of sudden in 2008, where risk shot up like this, all you want to do is de-risk, you want to hold as little risk as necessary to target the 10% total portfolio risk, okay. So during those years, these managers actually went down below 100% went to 50% cash, for example, another 50% so they can target 10% risk. So you basically avoid the market turmoil when risk is expensive to take, you have to pay heftily in terms of losses to be in the market. During those times you want low risk. And then when the market risk starts to go down again below 10% you want to lever up you want to take more risk. So this strategy is basically targeting a constant risk level and get the risk when risk is cheap. Gerard Cruz: Would that be. Maggie Ralbovsky: Avoid risk when risk is expensive.

Gerard Cruz: But this is a total you are saying you want to target a total portfolio risk of 10%? Or just you want to manage. Antolina Leon Guerrero: Whatever you said is our target, you want to manage it as. Maggie Ralbovsky: Yeah, I'm just saying that risk parity is such a portfolio. To manage the whole portfolio to 10% we have to convert the whole portfolio into risk parity. Gerard Cruz: So you want to just peel away 10% and manage that 10% of our portfolio so $130 million dollars, you want to manage that 10% risk? Maggie Ralbovsky: Yes. So then for that portion of the portfolio, you actually will do well in different kinds of pyridine because it allocates risk to these different factors equally. So that's why there's portfolio name for virtual its call the all weather portfolio, because it's you know targeting performance for all scenarios, all weather because it allocates risk equally into different pyridine. Did that make it clear?

Gerard Cruz: So what we're talking about is only a 10% allocation? Maggie Ralbovsky: That's right. Gerard Cruz: Presumably? Maggie Ralbovsky: Presumably. Gerard Cruz: That would be this. But then what does that do to the total portfolio? How would that affect the total portfolio? Maggie Ralbovsky: So it'll basically remove 10% out of the equity, pure equity into this equity substitute. Gerard Cruz: I guess a 50-50-10 or no 50-40-10 cause 40% now is fixed income right? 30%? Maggie Ralbovsky: REITs is equity. Antolina Leon Guerrero: REITs is equity. Gerard Cruz: So we go 60-40-10 or 60-30-10. Paula Blas: We have 70 in equity. Wilfred Leon Guerrero: So you take that 10%, where do you put that 10%? Maggie Ralbovsky: A risk parity. Into a risk parity portfolio. Paula Blas: You will hire a manager that will give you a risk parity fund. Maggie Ralbovsky: That's right. Gerard Cruz: Think of it as a mutual fund, the manager manages. Maggie Ralbovsky: So there are people who call this diversified long bias portfolio and then we just call this risk parity portfolio. Basically it is viewed as an equity substitute but it doesn't. Wilfred Leon Guerrero: Okay, the day we were talking about this permanent fund is that the kind of stuff we. Maggie Ralbovsky: No the permanent fund has 50% stocks, 50% precious metal, no this is not that. James Duenas: Is the risk parity is basically taking that 10% and then based on the market you're investing on different aspects of the market and then you change up as market changes? Maggie Ralbovsky: We do not, we hire managers that does it for you. The way the manager does it, maybe I can. Okay let me clear this little part and then I'll move on to explain how the manager does it okay, how the manager does this risk parity, is that okay?

Maggie Ralbovsky: Okay. So if we target a 10% expected risk on page 5, this portfolio has a 8.44% expected return and the current policy has a 11% expected risk and 6.6% expected return so by moving to this portfolio we do have a higher expectation for return targets with similar levels. Antolina Leon Guerrero: For that 10%? Maggie Ralbovsky: For the 10%. Gerard Cruz: For the 10%? Maggie Ralbovsky: For the 10%. So it is viewed as an equity substitute it is not viewed as a bond substitute, so the level risk is taking is. Gerard Cruz: But I don't know how you say that when they're using bond. Maggie Ralbovsky: That's why I'm trying to switch, it doesn't matter what they use, what matters is how they allocate the risk because intrinsically in the market place, if you lever up the bond to the level of risk of a stock, a bond pays similarly to a stock okay. So if you take that, it's the same thing for all asset classes. There's something called black lettermen motto which is to say that every unit of risk is being prized by the market in equilibrium fashion to return the same thing, it is just certain asset classes have lower level of return. For example bonds have 5% risk and 5% return I used the wrong number. Stocks have 15% risk and maybe 10% return and if you lever up the bonds to 15% risk, bonds will have similar return as stocks. Same thing for commodities same thing for different.

Gerard Cruz: But under different scenarios though. Maggie Ralbovsky: Under different scenarios that's the key point therefore you want to forecast the risk in a very forward looking manner and therefore you can tweak your portfolios leverage ratio to target a constant risk, but you allocate the risk budget in equal manner into these different buckets. James Duenas: So that manager's pretty much shifting the investment. Maggie Ralbovsky: On a daily basis, so the way to do it you have to use very liquid instruments. So leverage can be, very liquid. Paula Blas: Commodities, bonds everything he has all those. Maggie Ralbovsky: He uses futures for everything. So let me explain to everyone. Gerard Cruz: He uses futures for everything? Maggie Ralbovsky: Futures for everything. Has to be futures because otherwise you cannot rebalance you know. Leverage is very dangerous if you are not liquid. Gerard Cruz: Or if you are not right. It's true you're not right.

Maggie Ralbovsky: If you're not right and your liquid it kills you. That's what happened to long term capital. They were right, long term capital model was perfect but it was not liquid. You get squeezed when the arbricharge goes the wrong way. Eventually the people who bought long term capital, long term capital in 1998 there was these Nobel prize loriage, they set up this hedge fund they were arbricharging the debt of equity of Russia. So the model was set up perfectly, all the math worked out.

Had they had the chance to wait for this arbicharge to close they would have made a lot of money, however before this arbicharge closed the gap it went wider, and because the market is so illiquid they can not meet the margin call, they'll get killed and the people then Goldmen Sax and a bunch of investors, bought them out and held these positions eventually made a lot of money. So what lessons has shown us is you actually being right is one thing, being liquid is more important than being right to use leverage. So the most important thing for this kind of strategy to be effective is you have to be very, very liquid. And the most liquid instrument in the market is futures. That's the most liquid things in the market. Stock futures, bond futures, commodity futures, these are the 3 most liquid things. Treats like water there's exchange in the middle, never failed there's no counter party risk you just trade with exchange everyday you settle.

Maggie Ralbovsky: So I thought it might be necessary to explain how futures work. So I have a chart hopefully can explain on page 10. Now, our futures contract is a contrast standardized contract you buy from Chicago board of exchange. So you go there you say you know what I want to buy 100 dollars of S&P 500 futures that is going to mature 90 days from today. That's a standard contract they have different maturity time periods. Now what that contract does to you is that if you held the contract to maturity in 90 days, they're going to give you the 500 stocks of S&P. And in the interim what happens is that every day because S&P market value moves, you have to settle with the exchange of the differential, so they want to buy $100 worth of S&P 500 you only have to give them $5, you do not have to give them $100 and you have to give them a collateral account of $20 as their variation margin okay. So you give them $5 that's their money they hold and you have to earmark somewhere in your custodian account $20 as the margin the collateral margin. Now on day 1 let's say S&P went up $2, the exchange will give you $2 back into your variation margin account. If it goes down $2, you will put 2 more dollars to the exchange account to make up the differential. So everyday you settle with the differential of the movement so you are being compensated entirely of the gains and losses of the movement of S&P before it matures before that futures contract matures.

You're essentially getting the economics of S&P 500 future, S&P 500 index without putting up $100 okay. Which is to say you can buy multiples of S&P 500 because it only takes $5 as the collateral and $20 of margin so $25 do day 1 you can buy $400 with your $100 right? So that's a very easy way for leverage and it is also very easy way to rebalance when the leverage goes the wrong way. So if you lose you have to put more margin you just sell some of that. You actually levered down. If it goes up you can lever up, very easily to do. And this is just a theoretical example. Usually managers leave a lot more margin. So if you look at the risk parity manager account its holding 80% cash basically. Just basically on the margin the just these different kinds of futures to gain exposure to the different kind of asset classes. So that's how futures work.

Now theoretically speaking, if you hold the futures to maturity you getting you have to put up the $100 to buy the S&P. So these managers do not do that, they basically roll it forward, they settle it then they sell it, they cancel out the contract so they do not have to put up the money to buy it. Wilfred Leon Guerrero: Maggie, the futures is that like buying U.S. savings bonds, is that how that thing works? Maggie Ralbovsky: No, futures. Gerard Cruz: The concept is similar no no because the bond you actually own the security you actually own the bond you just buy at the lower rate and then the maturity you get the full face value. No futures is like it's a contract and she's talking in the sense of using it for leverage but she's using financial instruments as the instrument as the basis but you can use it for commodities too. Maggie Ralbovsky: Yeah commodities interest rate futures commodities than stock futures. Rosalia Bordallo: It's a contract to buy something at a set price. Wilfred Leon Guerrero: At some future date. Rosalia Bordallo: At some future date. Maggie Ralbovsky: They have futures too. Wilfred Leon Guerrero: Who do you have the contract with? Maggie Ralbovsky: What did you say?

Wilfred Leon Guerrero: Who do you have the contract with? Gerard Cruz: Blue market. Maggie Ralbovsky: Chicago board of exchange. It's an options exchange it's like New York stocks exchanges it's a market maker for that. So they have both sides of this and there's only one side it will actually be the market maker they actually take the other side. Wilfred Leon Guerrero: So you take the money and go to this stock exchange and say here's my $20 and I want to buy that futures so that is there a time limit that you set how? Maggie Ralbovsky: So the futures contracts are all standard contract, there's 30 day contract, there's 90 day contract. Wilfred Leon Guerrero: So you say okay here's the $20. Maggie Ralbovsky: I want to buy a 90 day contract. Wilfred Leon Guerrero: You want to buy. Maggie Ralbovsky: A 90 day contract of S&P. So which means you own the S&P 500 economics of that for the next 90 days without giving them the $100. James Duenas: So you are kind of like gambling. If that stock goes up then. Maggie Ralbovsky: It's not gambling. No it is not gambling. Antolina Leon Guerrero: Well you're putting a down payment on a contract that you are going to get in 90 days.

Maggie Ralbovsky: That's right. So what you do is you don't wait the 90 days. You roll it forward. It is not gamble. It is not gamble because gambling you have such uncertain results, this you have total certainty of results. Everyday you net the difference. It's not gamble at all. Antolina Leon Guerrero: What you're doing is you're gaining and losing during that 90 day period. Rosalia Bordallo: That's the gamble. Antolina Leon Guerrero: No. That's not a gamble. Rosalia Bordallo: If you wanted something you just buy now, and you don't gamble that the price is going to go up. Antolina Leon Guerrero: But it's not. Rosalia Bordallo: Price does go up and down and that's why you're putting in on a daily basis settling. Antolina Leon Guerrero: The 90 day contract says for $100 you get this $500 security in between you may earn more money. Rosalia Bordallo: Everyday you have to settle if the price goes up or down. Maggie Ralbovsky: What's the difference Rose what's the difference between this and buying S&P 500 index? It's exactly the same economics. Exactly the same economics. Rosalia Bordallo: Because you know I don't have to put out every single day in a 90 day period if I'm going to wait the 90 day, or I could just yes I could just turn around and sell that contract to somebody else right? Maggie Ralbovsky: Same thing. It's exactly the same thing. The economics is exactly the same thing.

Rosalia Bordallo: Okay, this is something else that Paula just made obvious. What I'm saying here is okay we never know right what the futures going to hold right, so now I'm obligating myself to buy something at a price because what? Antolina Leon Guerrero: You signed up for it. Maggie Ralbovsky: So you buy $100 of S&P 500 futures, it's exactly the same thing as buying $100 of S&P index, is that true? Is that true? Rosalia Bordallo: Well that's what you're saying, is that true? Maggie

Ralbovsky: Yeah is that true? Rosalia Bordallo: So you're saying that you're buying something Maggie Ralbovsky: I'm asking you is that true? Rosalia Bordallo: Well that's what I'm asking that's what I'm saying here. Maggie Ralbovsky: It is exactly the same thing. Rosalia Bordallo: But what I'm saying here is you're obligating yourself to buy something right. You're saying that you're obligating yourself. Maggie Ralbovsky: No you already bought it, you just didn't put out $100 yet. You already own it, you own exactly the same economics as you buy those on day 1. Antolina Leon Guerrero: But you only had to pay five. Maggie Ralbovsky: That's right.

Rosalia Bordallo: But you might have to pay, but you will have to pay down the road. Maggie Ralbovsky: What's the difference between that and the future then. Rosalia Bordallo: It's the settlement of the trade is basically you know. Yes. Paula: So at the end of the 90 day contract Wilfred Leon Guerrero: I'm having trouble with that because there's no such thing as a free lunch. Maggie Ralbovsky: It's not a free lunch. I did not say it's a free lunch I'm saying this exactly the same economics. Wilfred Leon Guerrero: You put down $10 and you expect to get the $100 in 90 days. Maggie Ralbovsky: No that's not what I said at all. Rosalia Bordallo: You could pay $100 in 90 days. Maggie Ralbovsky: No. Ok today if I want to own S&P 500 stocks, there's 500 of them. Lets say just $100 ok it's actually not, it's 17 something. Lets say $100, one thing I could do is to put up $100 today and I buy those 500 stocks that's stuck in my account, my account value marked a market everyday is the same value as the S&P 500 index, correct? I may lose a dollar tomorrow, I may gain a dollar tomorrow, okay? That's one scenario.

The 2nd scenario is today I am going to go to the exchange and buy this contract that gives me S&P 500 exposure for the next 90 days. My account value is exactly the same as if I bought the 500 stocks because every day my total value my total worth is whatever my account has in cash versus the value of the S&P 500 futures. It's exactly the same. So these 2 scenarios are identical the only difference is in scenario 1, I put up $100 today, in scenario B, I give them only $25, I keep the other 75. Wilfred Leon Guerrero: Alright. Maggie Ralbovsky: Now with that 75, I could decide to buy another contract which gives me another exposure. Okay? That's the leverage part. James Duenas: So at the end of the 90 days what happens to that? You have. Maggie Ralbovsky: At the end of 90 days if I did not sell my contract, settle it or buy another one to extend it, I'm obligated to give them $200 that's if market didn't change, give them $200 to buy 2 of these S&P 500 index, but that's not what I'm doing because I am just going to roll it forward. I can forever roll it.

Wilfred Leon Guerrero: How is that $200 you just put that out there? Gerard Cruz: So 90 days from now, the S&P cash is less than or if it's equal then you pay $200, right? If the S&P is worth more than your contract price. Maggie Ralbovsky: You pay that price if you want to settle. But nobody buys futures to settle. Gerard Cruz: No I understand but just so that he understands it I mean just so you take it full circle so you can understand the concept because I thing that's where he's getting lost. If the contract is worth less than the S&P then you pay. Maggie Ralbovsky: Less. Gerard Cruz: Right. So you own it for less than what you pay. Actually. Maggie Ralbovsky: No. You own exactly the same thing. It's exactly the same thing, there's no difference. Gerard Cruz: If you take it to contract, what you do is when you buy futures contract is you're buying a contract to buy some you're buying a contract now for something that will be delivered 90 days from now. So if you agree to buy $100 for $100 the S&P

90 days from now, 100 days from now it's going to cost you $100. What she's talking about is between the 90 days the volatility so if you decide to settle at any time between the 90 days, where the market is on that day versus where your contract price is, that would be either your gain or sell.

Antolina Leon Guerrero: But the other thing she's talking about to is that you're only paying a fraction of it so you are only paying a fraction of the cost 500 S&P, so you can use right initially so you can use to buy more. Maggie Ralbovsky: To do leverage. So lets first agree that if I do not lever, my position is exactly the same, holding futures or cash because if I hold the cash bonds I don't have to hold for 90 days, I could sell tomorrow and I get the difference and if I hold the futures exactly the same thing, I settle with the exchange every single day. My position is exactly the same, the only difference is that I do not have to put up all my cash on day 1, therefore I could use that to lever. Gerard Cruz: You don't have to settle if you don't. Maggie Ralbovsky: You never settle. Futures never settle. Gerard Cruz: Right. But what I'm saying is that you don't have to sell that contract, I'm sorry, you don't have to put up money if your leveraged you do yes you do. Maggie Ralbovsky: If you put up a margin, you basically put up the margin.

Gerard Cruz: If you bond the margin, but if you're just using cash for cash, you're just using dollars to buy contracts you don't. The market just moves. If you just bought a catch and you didn't buy on the margin, then you don't have to you only have to make good if you buy on margin right? Maggie Ralbovsky: If you buy a futures contract you settle every day because futures can only be bought on margin. Wilfred Leon Guerrero: Okay. How do you lose? Maggie Ralbovsky: What do you mean how do you lose? It's exactly the same thing as how you lose by the stock, if stock market goes down you lose. It's exactly the same futures your own futures versus your cash bonds are exactly the same economics. Now the risk parity managers use futures as efficient way to do leverage so they can adjust every day at leverage ratio. Wilfred Leon Guerrero: I want to know how you, look you put down $25 and in 90 days you're expected to what? Maggie Ralbovsky: You gain the exposure of S&P 500 whatever 90 days has done. Antolina Leon Guerrero: For $25. Maggie Ralbovsky: Let's not get hang up on 90 days because the manager has already changed his position along the way. Wilfred Leon Guerrero: I'm trying to understand the concept on this thing because what I'm hearing you say is that there's no way I'm going to lose on this thing and I can't believe that.

Maggie Ralbovsky: No, I did not say that I said you lose when stock goes. Wilfred Leon Guerrero: What I'm hearing you say. Maggie Ralbovsky: I did not say that. Did I say that? I said when stock market goes down. Antolina Leon Guerrero: What it sounds like is there's no way to lose on this and that. Wilfred Leon Guerrero: That's right, that's what I'm hearing. Maggie Ralbovsky: Okay, I did not say that. That's not my word. You lose when stock market goes down. Rosalia Bordallo: Maggie, what he's saying to you is it's coming out to him it's not what you are saying it's what he's interpreting you're saying, okay so you need to. Maggie Ralbovsky: Okay. Let me explain it. I did not say there's no. Wilfred Leon Guerrero: You're supposed to explain it. Maggie Ralbovsky: Dr. LG what I'm trying to say is that when you hold a futures contract of something you own exactly the same economics as if you're holding underlying securities in cash, there's no difference. So the way you lose is exactly the same way to lose when you holding cash, cash bond, cash stocks. You buy out 1 share in Apple, Apple goes down tomorrow you lose. If you buy 1 contract of Apple futures, stock has futures too, you lose when stock goes down. Exactly the same, there's no difference. Between holding the cash security versus holding this contract. But. Wilfred Leon Guerrero: So at the end of the 90 days, if the value of that whatever the security that we are looking at in 90 days is not in the example that we've been using is $100, and the value of it is $90 I got to make up the difference? Maggie Ralbovsky: No, you just lost $10, what do you mean you have to make up the difference? Every day you are already settled until that day. Antolina Leon Guerrero: So you are just saying at the end of the 90 days, if the value of what we purchased dropped then. Gerard Cruz: You get $100 for $90 stock. Maggie Ralbovsky: Isn't that the same as. Wilfred Leon Guerrero: I'm just trying to understand how this thing works. Maggie Ralbovsky: But it doesn't wait until, what I'm trying to say is that you do not wait until 90 days later to find out that you lost $10. Every day you settle. Every single day you settle. Rosalia Bordallo: Every day you are losing money yes. Maggie Ralbovsky: That's right. In 90 days, you settle every single day. Wilfred Leon Guerrero: Alright now we are getting someplace. Somebody's. Antolina Leon Guerrero: Our manager. Wilfred Leon Guerrero: The manager the one that's you give the money to the manager and the manager makes up this thing. Maggie Ralbovsky: The manager will have to have a contract with this ISTA. Wilfred Leon Guerrero: Maggie don't look at that thing because I think we're getting somewhere already, I think we're making progress.

Maggie Ralbovsky: No, I am trying to explain to you how that works because it's not the manager. It's not the manager so there's different players in the futures market. Okay. So there's the exchange, okay then there's going to be have a futures broker it's an ISTA member. Wilfred Leon Guerrero: Ok the broker, you give the money to the broker. Maggie Ralbovsky: You give money to the money manager, and you set up an ISTA account which is an agent on your behalf to trade on the exchange, the money manager directs the broker to trade. And the money is held in your custodian account. So the person who trades not different from trading stocks you have the money manger to hire broker exactly the same thing but in the futures concept the broker is a ISTA member which is an International Standard to settle the futures. So, that's how it's been traded in the exchange from what we have to understand is that if I do not use leverage, futures is exactly the same way as cash holding. Now, however because I do not have to put up the whole thing, I have an efficient way to use leverage. Now leverage is dangerous in the sense that because I have put up more I own more than.

Wilfred Leon Guerrero: Maggie let's take it one step at a time. Okay. I think I'm beginning to see what I'm missing on this, let's go back to that $100. Maggie Ralbovsky: Yes. Wilfred Leon Guerrero: I put up $100 and it's to whoever the broker is or I don't know what you call it, but initially you only use $25 to buy a particular security the $75 is sitting with this person that's. Maggie Ralbovsky: No, no, no it's your custodian, in your custodian account. Wilfred Leon Guerrero: I'm sorry. Maggie Ralbovsky: In your custodian account. Wilfred Leon Guerrero: Okay. Maggie Ralbovsky: That's cash, you hold cash in your custodian account. Wilfred Leon Guerrero: Right but that's the one that is making up the difference if there is a loss or. Maggie Ralbovsky: Actually, so $5 is the collateral you have to give to the broker okay, it's been held in the brokers account in the exchange. Then you have $20 as the variation margin which is held in the margin account in your custodian but it is collateralized so you can not move that money you cannot freely, yeah it's been held as a collateral. The other $75 is in your cash account. It's your money, nothing happens to that. So everyday.

Wilfred Leon Guerrero; You've been talking about this daily activity. Maggie Ralbovsky: Daily activity is not is $20. Wilfred Leon Guerrero: There's need to be money to be made out. Maggie Ralbovsky: Made in the $20. Wilfred Leon Guerrero: It's going to come from that whatever the account. Maggie Ralbovsky: The $20 you have to keep a 20% margin so lets say the stock goes to $104. Wilfred Leon Guerrero: Okay. So Maggie Ralbovsky: They gave you $4 back into that margin account. They went $98, you put up $2 back into that margin account. Wilfred Leon Guerrero: You lost me again could you use another. Maggie Ralbovsky: So if the stock went okay so you put $5 with the broker, you put $20 as a margin account, okay, forget about the other $75, has nothing to do with the other $75, okay. You may have to take from the $75 to replenish the $20 if stock goes down. Wilfred Leon Guerrero: That's an important thing that I just learned. Okay. Go ahead. Maggie Ralbovsky: That's right. But if stock goes up we are going to put more money into that account. You can actually take it out from that manager's margin account. So everyday you settle that just like you hold that stock you have that same economics. So futures settle every single day. You do not wait until the last day. However if you hold it until the last day, you have to put up the entire value to buy those stocks. And futures almost never settles. People basically will roll the futures forward or trade it already long before that happens. Makes sense? This is very difficult concept so I do want us to cross that bridge.

Diana Bernardo: Can you give us a better example. What if we give the manager $10 tomorrow how will that? Maggie Ralbovsky: 5% they put 5% into the. So it's 5% and 20% as a manager's margin. Gerard Cruz: So 5% and 20 so 25% is not investible. Maggie Ralbovsky: Is yes is not. Gerard Cruz: Working. Maggie Ralbovsky: It's the collateral. It's collateral yeah. Gerard Cruz: So a hundred million 25 is sitting as collateral. Maggie Ralbovsky: In cash yes and if you lever it up you put another 25 in cash. So mainly when you look at the portfolio, it's mostly in cash. James Duenas: So let's say it just stays the same all the way through right, so that at the end of 90 days, if you decide to settle at the end of the 90 days, that 5% stays with the fund? Maggie Ralbovsky: No, no, no that 5% is your money, that's just the margin. Let's say 90 days over its still $100 and you have to give them the other $95 so they give you all the securities. You already have the $5 there. James Duenas: 5 and then the 20 in the. Maggie Ralbovsky: In your collateral account. You have to give them $100 total, the $5 is just a margin you don't pay that. These don't make money from that $5. That $5 is a margin collateral. James Duenas: So on top of that what do we have to pay on top of that? Maggie Ralbovsky: Brokers basically charge you commission on the trade. It's priced in the spread so you don't pay them specifically it's the spread. Not different as trading stock.

James Duenas: So basically if I have $100, I take my $100 and I put it into the bank, the manager will go to the bank withdraw $25. Maggie Ralbovsky: No. Antolina Leon Guerrero: The custodial bank will issue $25 to the broker. Maggie Ralbovsky: No, they just earmark that. James Duenas: They'll change the $20 to the margin account let's put it that way. Maggie Ralbovsky: Yeah, that's right held in your account. James Duenas: And then the $5 will go to the broker, okay. So he takes that $5 and buys $100 worth of stock pretty much for the future okay and then the $20 is sitting here, if tomorrow it goes down $5, they'll take $5 out of the margin account. Maggie Ralbovsky: That's right. James Duenas: If the next day it goes up $5 they'll put $5 back in. Maggie Ralbovsky: Exactly. Exactly. Gerard Cruz: But then you'll have to make good you'll have to replenish that though right? Maggie Ralbovsky: If it goes down certain so if. Yeah you'll have to put more in that. James Duenas: So, basically you're buying that and then you have the. Maggie Ralbovsky: But it doesn't have to be always 20%. So it goes down to a certain threshold they ask you to replenish that. That's the margin call. That's the margin call that could kill you if you do not have liquidity. Yeah. James Duenas: So then you have the other $75 you could invest it in other stocks. Antolina Leon Guerrero: Other futures? Maggie Ralbovsky: You could invest in other futures yeah. James Duenas: So if you do good you do really good, if you do bad you do really bad. Maggie Ralbovsky: You could do really bad yeah that's right. Margin calls is what kills you if you don't have liquidity. But if you have liquidity you could just sell it. Let out your thing or you're going to lose money if stock goes down or market goes down but it's no different from holding cash.

Gerard Cruz: But you're levered so you lose more. Maggie Ralbovsky: That's right. That's why its important to be able to forecast that risk. Wilfred Leon Guerrero: And marking this 10% that we're talking about of I guess the term that we are using what did you say? Maggie Ralbovsky: Risk parity. Wilfred Leon Guerrero: Risk parity. What do you want us to do then buy into commodities, buy into what? Maggie Ralbovsky: I want you to hire a manager that does risk parity. Gerard Cruz: There's a manager that does specifically risk parity strategies, so that manager. Maggie Ralbovsky: There's a lot. There's a handful that started from 2005, then there's a lot that started after 2008. There's like you know, I do want to use this first generation and there's only a couple that's still open, they just closed down so I really think it is. Antolina Leon Guerrero: Why are they closing down? Maggie Ralbovsky: Because there's so many, so much money, chasing. Too successful. Antolina Leon Guerrero: Okay so let me ask you this question. What will the 10% allocated to risk parity do to our total portfolio? What are you hoping to see?

Maggie Ralbovsky: I'm hoping to add half to 1% return. Antolina Leon Guerrero: So my question was so we allocate 10% of our portfolio to risk parity, what do we hope to gain? Maggie Ralbovsky: I was hoping to add, well combine with the other changes I'm hoping to make like moving something out of the core bond and maybe going to credit. I'm hoping to add somewhere between 50 and 100 basis points to the expected return of the bond. Right now the expected return is below the 7% actuarial return and I'm hoping to move to 7.25% that's what I'm thinking can be achieved. Gerard Cruz: At what risk level existing or lower? Maggie Ralbovsky: Yes, I want to keep the existing level but or more consistent level but move it up by 50-75 basis points. Wilfred Leon Guerrero: I misunderstood this, I thought you. You saying that you want to do this so they can increase the return. Maggie Ralbovsky: Yes. Wilfred Leon Guerrero: My understanding was that you wanted us to do this because they. Gerard Cruz: They reduce our risk. Maggie Ralbovsky: Not necessarily reduce the risk but reduce the reliance of risk on one single factor. Rosalia Bordallo: Yeah, because you know I recall in prior meetings when Gerry asked you this similar question, you said that the returns would drop slightly that you would be losing return, and I think that's why Gerry was kind of why do we want to do this if we're going to, yes we're going to be a safer portfolio okay it's going to control the volatility but you're going to give up gain or returns basically. And that's what I do recall. Maggie Ralbovsky: If I said that then I was misinformed. Gerard Cruz: Yeah that's why I was always we need the tail wind. Paula Blas: I understood it to adding to the return because of the fact that she was predicting.

Maggie Ralbovsky: Okay. My goal is not to lower return expectation, it is to use the same risk budget in a more efficient manner, right now it is not efficient because we are singularity relying on one risk factor, there's other ways we can allocate that risk budget. So that's the whole purpose but the current law is so constraint that we have no way of allocating the risk budget elsewhere so there are two things that I really want to do. One thing is to initiate a 10% allocation risk budget another thing is to reduce the core bond allocation and go to global bonds and credit. Gerard Cruz: If we're able to do one but not the other, because this is, I'm sorry but maybe this is my confusion because I always thought this was discussion on risk. Nowhere in this discussion was return or the increase in return, and my ears ever approached. Wilfred Leon Guerrero: I was the same way. Gerard Cruz: I mean I didn't hear it. Maggie Ralbovsky: Well it is about risk. We cannot control return we can control risk. Gerard Cruz: I know I understand that. Antolina Leon Guerrero: We didn't hear that. Gerard Cruz: But my, what I was hearing was that this is a means by which to control risk at the same level of return or lower because the risk our risk budget was going to shift. In other words the portfolio was going to become less volatile and so therefore your return would be at or below what we expect the return to be going forward. Now, that's my understanding, if you are saying its different then I'll accept that. But my question then is. Wilfred Leon Guerrero: No, I feel the same way. We were doing this.

Maggie Ralbovsky: Okay, so maybe I was trying to say if you keep your return expectation constant you could lower your risk or you could keep your risk expectation constant and improve the return basically it's making it more efficient. Either way I guess it's possible if you think of the efficient frontier. You move to the efficient frontier this way or this way, you can keep the return constant and lower the risk. Or you can also keep the risk constant and improve the return. Gerard Cruz: Yeah but see for me, if our risk is controlled at 11% or if our risk is uncontrolled but historically it's been at 11% but we've had the volatility, if we move to risk parity and we're not benefiting from an increase in return, then I'm saying over the long haul the risk is the same but under risk parity we created a drag on returns. Maggie Ralbovsky: Okay. If that if is true then you are correct, but that if is not true. Gerard Cruz: I know but that's what I've been hearing. Maggie Ralbovsky: I see. Gerard Cruz: But okay so then. Maggie Ralbovsky: I guess we crossed somewhere and my whole goal is to make this portfolio's risk taking more efficient, which means if you want to keep the same risk level you get better return. Gerard Cruz: Will that statement still hold true if we're able to implement a risk parity option within our portfolio but not move into high yield debt? Or is do both need to happen in order to be able to move return up because see you know our funding situation.

Maggie Ralbovsky: I know your funding situation. Gerard Cruz: And you know the push back we're getting from trying to move the contribution rate as well. So we rely on returns as and I don't need to explain that to you so, do you need both of these to happen to move the risk or keep the risk level as it is and still move the expected return up? Maggie Ralbovsky: I would want both of these if you are on the 10% Gerard Cruz: Sure, we would too. Maggie Ralbovsky: So if you want to only get one, then for risk parity you need to move to higher risk level, you need to move to 12% or 14% risk target not 10%. Gerard Cruz: So we're moving our risk level up? Maggie Ralbovsky: For the risk parity allocation because I want that to be equity. Antolina Leon Guerrero: If we don't get the other part, then instead of 10% risk parity then we'll need to have 12, 14%. Maggie Ralbovsky: 12% risk parity. Gerard Cruz: But then what does do to the overall? How does that compare to the overall risk of our portfolio then? In other words, we're currently sitting at 11% and I understand wanting to be able to control the risk but if controlling the risk and letting risk do what it does at the end of the day is the same because we didn't control risk for historically and we're at 11%, we're going to control risk but we're still going to be at 11% then "if" there isn't going to be a material impact on returns, then.

Maggie Ralbovsky: There is, there is because the risk parity because as I mentioned earlier, when risk level is low you lever it up you make more return right, when risk level is high you lever it down, so you'll avoid the drop and in the long run you add 2% return. Gerard Cruz: So what you're saying is that we're still going to add return, without having to implement a high yield bond option and still. Maggie Ralbovsky: Okay, I understand what you're saying now. So the reason I said that if we do not have high yield allocation then only increment risk parity, we need to move 12% target not 10% because the 11% is on total portfolio level. Gerard Cruz: Correct, but that's what we're looking at because. Maggie Ralbovsky: Right but we're allocating out of equity so if we allocate out of equity and move to 10% you're going to lower your total risk level, it's not going to be at 11%. To keep 11% risk parity has to be like a 12 or 14% wall. But if we can do this wholesome change we do not have to take such excess risk in risk parity we can do 10% risk parity and reduce our allocation to core bonds and make that portion more efficient. Gerard Cruz: But if that's not if we're not able to get that to happen because I don't know if that's going to happen. Maggie Ralbovsky: Why not? Gerard Cruz: Because I'm not a wizard, I don't know what the future holds. Paula: No it's not. I can't control people. Gerard Cruz: I just don't know what's going to happen, it may it may not, I don't' know, I mean there are 15 people down there plus somebody at the administration who has a hand in this decision that is beyond me. So I don't know if that's going to happen, if it does that's great, but what I'm saying is that if it doesn't what we can control is moving to a risk parity allocation. So what then is.

Maggie Ralbovsky: Then let's do 20%. Gerard Cruz: Well then what's the impact on the total portfolio? I mean are we doing anything, I mean I just don't want to do risk parity because we're going to do risk parity. It needs to be a material impact on the risk level and then there needs to be a material of some impact on the return level for it to be able to make sense otherwise it's just theory. Maggie Ralbovsky: I agree, I totally agree. So I think 10% is the minimum that you need to do and I think it will be good first step is to implement 10% and so risk parity will add 2% to the expected return, right. Gerard Cruz: So at risk parity will add 2% to the expected. Maggie Ralbovsky: To the portion, to the portion so you counted like 20 basis points. Gerard Cruz: To the 10% that we're going to allocate right? Maggie Ralbovsky: 2% of the 10% is 20 basis points total. Gerard Cruz: Right so we're going to add 2% but what does that do to the total portfolio? Maggie Ralbovsky: 20 basis points. Gerard Cruz: To the total portfolio. So 20 basis. So we're going to go through the exercise for 20 which is fine, I just want to know that number. So 20% we can expect an increase in our total expected return on the portfolio of 20 basis points. Maggie Ralbovsky: For 10% allocation. Gerard Cruz: For 10% allocation. Antolina Leon Guerrero: And that will get us to our 7% goal. Gerard Cruz: And that in terms of our risk. Maggie Ralbovsky: And then I want to move down the core bond and allocate to global bond and high yield and hopefully add another 25 basis points. Gerard Cruz: So the question is doing this work the 20 basis point move right? Maggie Ralbovsky: 20 basis points is huge on total fund level. Gerard Cruz: I'm not asking for an answer I'm saying that's the question in front of us right. That' the question we need to answer. I don't disagree that's a big number. 20 basis points on a billion is $200 million, $2 million, $20 million. Antolina Leon Guerrero: You know on page 5, you talked about an expected return of 8.4% was that anticipating the high yield the change in the legislature? Maggie Ralbovsky: I'm sorry? Antolina Leon Guerrero: On page 5. Maggie Ralbovsky: No. That's just purely comparing if you convert entire portfolio into risk parity. Antolina Leon Guerero: Oh that's the entire. Maggie Ralbovsky: That's right. James Duenas: If it's 20 basis points how do you get 10% of it?

Gerard Cruz: No, 20 basis points on the total portfolio. 20 basis points. Paula Blas: She is saying it's 2% just for parity portion but that's only going to add 20 basis points so. Maggie Ralbovsky: So if we can get anything from reducing the core bonds because I think that's going to be a drag core bonds allocation but I also, there's totally different sectors in fixed income we totally have missed we need to capture that. Gerard Cruz: Absolutely we missed. Paula Blas: But isn't this risk parity section also isn't it going to require legislative changes also? Maggie Ralbovsky: It's the comingle fund change, we need more comingle fund, so. Paula Blas: See because right now we're capped. Gerard Cruz: I know. No I agree but those are the constraints we've been living within right? So. Maggie Ralbovsky: I understand so I really hope we can you sooner or later in this year, because I really don't want to see all the risk parity managers close down. We have to go to the second tier. Gerard Cruz: But the magic pen isn't at this table. Antolina Leon Guerrero: But if we sign up with one of them and they close down then what? Paula Blas: No, what she means by close down. Maggie Ralbovsky: Close the new investment. The good ones are closing, actually Bridgewater unless you have to be more than 100 million to access Bridgewater these days. For AQR they closed one strategy they are starting a different one which is a toned down version. Because they're just certain they're too successful you know, they have a lot of money with them and now you have a lot of risk parity managers starting. I guess Blackrock is the next one that I would consider but there's so many new ones that just doesn't have a track record. I want someone with track record and really there's, I really hope we can get this pushed through and we don't miss some of these good ones, you know.

Gerard Cruz: Yes, I know. Wilfred Leon Guerrero: Maggie, we're with you we just trying to understand. Maggie Ralbovsky: Yeah, so I hope I explained how futures work. Gerard Cruz: Now it's no I understand how futures work, I just was hearing this is a different for me, this is a different understanding. Antolina Leon Guerrero: So control the risk and increase the return. Gerard Cruz: That's why I kept saying it's a drag, it's just an insurance policy, because I didn't see any up side potential I just saw protection on the down side. Maggie Ralbovsky: Okay. Next time I'm going to show you the returns so you see it's not a drag on the up side. Gerard Cruz: Okay, I'll take your word for it but that would be good if you could. That's been my understanding. Rosalia Bordallo: I would like to see that net because if there fees it's going to be 1%. Maggie Ralbovsky: No, no, no, there's charges 38 basis points is AQR charges, these are very easy to implement strategies.

Rosalia Bordallo: But I thought you said yesterday it might be 70, isn't that what you were saying yesterday? Paula Blas: For the brokers? Gerard Cruz: 70 basis points? Rosalia Bordallo: No, for the manager. Paula Blas: Oh for the manager? Maggie Ralbovsky: I did not say that. Gerard Cruz: That was no, no, no that was that other passive portfolio PP. Maggie Ralbovsky: Oh you're talking about the permanent fund, that was 70 basis. No AQR is a 38 basis point strategy, I think Bridgewater is a 35, somewhere with 30 some basis points. Rosalia Bordallo: So we're looking around thirties.
Maggie Ralbovsky: Yeah if you give them 100 million definitely. Gerard Cruz: That's about 10%. 1.3 so yeah about $130 million. Okay, thank you Maggie, got it how's your blood pressure?

Respectfully submitted,

Angelina Castro/Marilyn Aguon
Recording Secretary

Affirmed:

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