

Eddie Baza Calvo

Ray Tenorio Lieutenant Governor Paula M. Blas Director

Quarter Ended 6/30/11 Performance Meetings & Annual Manager Reviews

August 25, 2011 Retirement Fund Conference Room

Board of Trustees Present:

Joe T. San Agustin, Chairman, Board of Trustees Wilfred P. Leon Guerrero, Ed.D, Chairman, Investment Committee Gerard A. Cruz, Member Antolina S. Leon Guerrero, Member George A. Santos, Member

Staff Present:

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

Other Present:

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Terry Dennison, Mercer Investment Consulting Inc. Maggie Ralbovsky, Wilshire Howard Yata, Wilshire Doris Flores-Brooks, Office of the Public Auditor

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Active Risk Budgeting pages 15-26 Trustees:

Joe T. San Agustin Chairman

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

Antolina S. Leon Guerrero

Gerard A. Cruz Audit & Operations Committee,

George A. Santos Members' & Benefits Committee, Chairman

Katherine T.E. Taitano

Wilfred G. Aflague Trustee

10:00am-10:45am Numeric

Ed Goldfarb: Stock measures you asked about, if the stock is down 20% we won't sell it, but Fundamentals deteriorate we will sell the stock. It's fundamental based not price based. Gerard Cruz: So what did you learn in 2008? Ed Goldfarb: In 2008 we beefed up our value models and I'll show you how it has helped us and we also added additional risk --- which helped us, so I'll touch on both.

Page 15, if you look at page 15 this is the VIX Index for the past 20 years. The key point I'll make here is the height, it reached about 46 a couple of weeks back, that was the highest point of any other than in 2008. So going back 20 years the VIX had not reached 46 except during the global financial crisis of 2008, but it has come in nicely, right now it's around 36. To me today if you look at the market and VIX they're in opposite directions, when the market goes down the VIX goes up, why people are scared, then the VIX goes down the market goes up, it's sort of moving in opposite direction and as the market has gone up in the last couple of days the VIX has come in. To me this just shows you there's a lot of angst in the market, not as much as here, but still a lot of angst, that's why I said maybe half as bad as things were in 2008.

What is interesting to me is on the next page, which I don't know whether you have seen before, as you know there are credit default swaps that is people can protect themselves against credit of various countries. This is for the G-10 countries, the 10 most largest economies in the world. I was surprised when I saw this that is the CDS right now is at levels of 2008. Gerard Cruz: You're surprised? Ed Goldfarb: I'm surprised because in my view leverage is less of an issue sovereign wise except for Europe. Gerard Cruz: But Europe has dominos though. Ed Goldfarb: Here all the 10 countries contributed including the U.S., this number here, this is the average of 10 countries, right now it's been driven by Italy, Belgium and France so even though the numbers are the same it's Europe dominated now whereas in 2008, every country had higher CDS numbers. Right now 3 countries are leading the charge not surprisingly, so I would agree the numbers what it is, numbers don't lie, but this to me if you dig deeper the crisis is much more Europe centric. I'm not saying they won't have other effects but so far it's been more Europe centric the way I look at the crisis and I'm not saying I'm happy about it but so far it does not seem to be more --- but the --- from what I can see.

Gerard Cruz: China has a pretty good amount of European debt so don't you think there will be some overflow if the Euro does in fact go away. Ed Goldfarb: China has a lot of U.S. debt. Gerard Cruz: But because this is European centric and that's where the risk is, you're right, the U.S. has a lot of issues but it's not as immediate as Europe. Ed Goldfarb: The U.S. can print money to pay back debt, despite double A rating, whatever rating the U.S. so far as the country and the size can pay back. Joe T. San Agustin: But China can just weather the storm. Ed Goldfarb: China has a lot of cash and the key question is, what debt China owns, I don't know the exact details, if they own names like Germany and France which is all UK, they should be fine. I'm more optimistic, but the time will say this, but I will say, yes there is angst out there but so far it's Europe centric and I hope it remains that way it does not extend to the U.S. and it does not affect as you said, the huge China's reserves and so on, China, Brazil, I hope it doesn't affect it too much.

Let's just skip for the interest of time to page 19 and 20 and I'll end with these 2 pages. Page 19 is, I'm a big student of the markets, what we did is for the last quarter, this quarter, from

July 1st through August, this was done through August 15, about a week back, how did various models fair for us. Let me just focus on the blue bar which is small cap, this is what you care about, your investment is in small caps. The blue bar up means we added some value, the models were positive, this is the final alpha, it comprises everything from earnings based value to gross profits based value, there are 7 value components. The only point I'd like to make here is there are 2 new ideas we added to valuation which are gross profits and EBITDA based valuation and these we added between when we last met and now and those held up the best in this period, we did not have those models in 2008. The models we deemphasize some where earnings based and comprehensive value. In terms of turmoil forecast based models struggled because people say, how good are the forecasts. We knew that and for that we built a better mouse trap and therefore you can see the forecast based models, those blue bars are still down but since we have less weight there now than in 2008 that helped us weather the storm and valuation land much better. Gerard Cruz: These 2? Ed Goldfarb: Those are what I call margin based valuation ---. Gerard Cruz: And you look in the past or look current year. Ed Goldfarb: The last one or 2 year, in the past, it's backward looking because you don't have gross profit forecast.

So that's value and within value the models we added, added value more than others. The right hand side is what we call catalyst, anything from --- to style momentum all of those blue bars were positive. So in a time of panic, valuation models usually struggled, some of ours did too but the new ones did better, at the same time we have information --- our catalyst model, they usually do well and all of them did well for us. So this combination helped us navigate the stock much better than we did in 2008, these models held up better. We added the last one, style momentum, that held up well and some of the ones where we had more emphasis in 2008, they didn't do as well but we had less emphasis there. So that is one that helped us this time around.

On page 20 I'll start with the second bullet. The additional risk module, I don't want to go into too much detail, it's a statistical risk model a statistical factor risk module, it looks at the market and says based on price movements in the markets is there any new risk out there that the portfolio is exposed to. As this says, it was a short 6 week period, this extra risk saved us 1.2% in alpha space. We did not have this in place in 2007 and 2008. Gerard Cruz: So when it tells you that there is some additional market risk... Ed Goldfarb: The risk factors which we need to worry about and so when we build the portfolio we focus in on those. Gerard Cruz: But when it does tell you, you trim your positions? Ed Goldfarb: Or we spread it out and buy some other names which have off-setting risk factors. So it's not market timing, it's more, how do you position the portfolio.

So these 2 things helped us and I'd like to end here unless you have questions and again I'm open to questions, by saying, we have delivered strong alpha in small caps since 1991, we have had 3 years of difficulties, 1991, 2007 and 2008, whenever we had that we rebounded strongly and where we are right now I'm very comfortable with the alpha forecast that we should be hopefully be able to achieve them.

The third bullet is my own forecast, I myself discount the possibility of a double dip recession, but time will tell whether I'm right or not.

Wilfred Leon Guerrero: What can we expect from you next year? Ed Goldfarb: I would hope for a 4% alpha target. Arup Datta: Our target is 4% over a full market cycle 3-5 years, we've done a little above average this year, we're going to have down years, we're going to under

perform, but that's what we're in the business to do, our founder always said, no alpha, no business, that's our mantra, that's what we think about so we do expect to make money on a relative basis each year. These presentations tend to get boring over time because we're very consistent, what looks like it's not a lot of extraneous risk in the portfolio, but believe me there is stock specific risk and that's why we out perform in some of these sectors by as much as 1% over periods of time.

We appreciate your business, we appreciate your attention. (End of presentation by Numeric)

11:00am-11:45am Securities Lending

Wilfred Leon Guerrero: The next item is the securities lending. First of all you're suppose to propose a policy right? Maggie Ralbovsky: Okay, first of all let me clear some of my own confusion from last time. I know last time Rosie (Bordallo) pointed out that your program for collateral management is different which turned out to be true and at the time I was explaining how securities lending programs can add value which is for the collateral program to take investment risk, that is the usual set up. Usually in the U.S. there is not a set up like the set up you have that's why your program is actually managed out of London, so let me explain what your set up is. In your agreement with Northern Trust any borrower of your securities posts U.S. Treasury as collateral and that collateral is not re-invested so the collateral is put into the collateral pool and when people return your securities you give back their collateral which is the same security they posted. So how does the program make money? The program doesn't make money, the program only charges fees for these people to borrow your securities. Remember when I made the presentation I said usually rebate is negative, so usually the rebate is broker actually gives the people who borrow your security the interest based on the collateral they post and the agent is trying to make more money than the rebate they give back to the borrower. In this case actually the people who borrow your security post a fee, give the fee to the agent for the right to borrow your security. So if you think about this, these have to be very popular securities that they can't borrow anywhere else because if the security can be borrowed through the other means as I described as the usual set up they wouldn't want to borrow securities in this way which is to say that only certain international small cap securities, international securities that are hard to borrow elsewhere have this kind of market. This program is administered in London and most borrowers are European borrowers and they are very interested in the international securities you hold especially the smaller cap international securities. The program has been lending out on a very limited basis, I think right now Northern Trust was telling me there's \$16 million dollars on loan, I think the fees they earned total was \$230,000 and you get 70% which is decent but compared to the potential it is very much below potential.

What I explained last time about securities lending program's risk is still correct, you actually do not have that set up, your set up is a different set up which does not require any reinvestment of the collateral. I know Northern Trust is not satisfied with the set up because when they quoted the custody fees they were imagining you would do the other set up which will probably triple the revenue. Joe T. San Agustin: They can't do it because we have our restrictions. Maggie Ralbovsky: That's right. So they took a compromise given the environment in 2008, they offered you this sort of a compromise solution. Wilfred Leon Guerrero: What kind of risk are we taking? Maggie Ralbovsky: For this program the only risk you're taking is the sale fail risk, so your manager which holds an international security and wants to sell the security but the security is on loan so the manager can't sell it and the

agent will recall the security so the agent will say, give it back to me and the person who borrowed it says, I can't give it back to you right now, then the agent will try to shift that to somebody else who is also in the same program and they will say, instead of borrowing from your account let's shift it to this other account and let's say they couldn't find another account to shift it to... Joe T. San Agustin: But it's still collateralized, the treasury is still holding it. Gerard Cruz: But they can't sell it. Maggie Ralbovsky: It's the opportunity cost. Let's say they want to sell it today which has a better rate and tomorrow they got the security back, has a lower cost. Wilfred Leon Guerrero: But we're risking \$16 million and we've earned 70% of \$200,000? Maggie Ralbovsky: The \$200,000 was the accumulative for the last 10 months I think, you get allocated 70% on that \$200,000 and the other 30% goes to Northern Trust. Wilfred Leon Guerrero: That's what I want to get at and what's at risk here is the \$16 million that's borrowed. Joe T. San Agustin: You're not going to lose it because it's collateral, you have treasury collateral. Maggie Ralbovsky: Treasury is collateral and the collateral is netted every day so on a daily basis they have to post additional collateral if their collateral can't cover that, can't cover the value, so if securities went up they have to post additional collateral on a daily basis. The only risk you're running is if there is a sale fail risk. Wilfred Leon Guerrero: You're saying there's no risk because we're taking back U.S. Treasury as collateral? Maggie Ralbovsky: There's no risk because whatever they posted will be given back to them when they return the security.

So if you think about this, it's theoretically possible during this one day period before the next collateral netting is posted, so let's say they posted yesterday IBM \$100 dollars and at the end of today IBM went to \$102 dollars, at the end of today they have to give you \$2 dollars more worth of treasuries because they have to net the differential and during this one day period they went bankrupt, let's say this person whoever borrowed from you went bankrupt, let's just say the very impossible scenario, but let's say they went bankrupt during this one day period and IBM went to \$102 dollars and your manager wants to sell it today and you couldn't get IBM back, therefore you have a sale fail risk and because your collateral is \$100 and IBM is \$102, you lost \$2 dollars. That is an out of there possibility you might lose money, it's really out of there.

Wilfred Leon Guerrero: Are all the fees waived with Northern Trust? We saw Bank of Guam and all the fees are waived, is it the same thing with Northern Trust. Paula Blas: No, it's not the same thing. Wilfred Leon Guerrero: I want to know what those things are. If we don't participate in the securities lending program, what is the fee? Maggie Ralbovsky: Let me address that. You currently pay a very low custody fee, you have a fixed custody fee. Paula Blas: \$50,000 is the fixed custodian fee. Maggie Ralbovsky: Which is unheard of for a plan your size. If you find a similar plan that does not participate in securities lending program with your kind of activity because you have all separate accounts and the custody cost, the settlement cost per transaction usually the fees will probably in the range of \$300,000 a year for custody fees. The reason Northern Trust offered you the \$50,000 as the custody fee was because they did a forecast to say if you are in their securities lending program, the usual program, not the program you are in, the usual program they would have been able to make up the differential, the \$50,000 versus the \$350,000, maybe that was their target, they would have been able to make that differential by the securities lending revenue with their 30% of it but because you didn't go there, you went to this other program it was a compromise because we knew the turmoil at the time in securities lending programs, so they offered you this program and right now the revenue is really falling short. I believe this afternoon they're going to come in and tell you, we propose you move to this other program and you will say, we'll consider it but not right away.

Wilfred Leon Guerrero: So right away when we opted to participate in this securities lending we saved \$150,000 because... Paula Blas: \$300,000. Gerard Cruz: Actually we were paying almost \$800,000 to our former custodian. Rosalie Bordallo: It was \$300,000. Gerard Cruz: Including the revenue they took from the securities lending? Rosalie Bordallo: Okay, if you're looking at it that way. Maggie Ralbovsky: That however is 2 sided, you did give up all the securities lending revenue that's possible to go into your column. Let's assume you are in the other Northern Trust program and Northern Trust collected another \$300,000 which means you have collected another \$700,000. So you did give up that, however, it is a worthwhile because everybody has been talking about Europe and I think Europe is an unsustainable situation because the European Union set up is fundamentally flawed, somehow they have to figure out something otherwise there might be a disorderly problem there and that risk is not the core risk, but it is out there.

Wilfred Leon Guerrero: Help me understand this. If we don't participate, the fee will be \$800,000? Rosalie Bordallo: No. Wilfred Leon Guerrero: What is it? Joe T. San Agustin: Unfortunately you weren't here when Northern Trust came in. When we first negotiated we were going to participate in securities lending and they quoted a fee, a low custodian fee because they anticipated a revenue in securities lending that would compensate it but since we stopped securities lending because of that fiasco, they came back to us and said, look, we cannot maintain business with you if you continue to take us out of securities lending. We gave them a threat basically that we were going to seek another custodian bank, so they wanted to keep the business so they offered us a compromise and there's actually no risk because it's treasury now being collateralized. Wilfred Leon Guerrero: We came out with a good deal and I want to know how good it is. Gerard Cruz: We would have otherwise paid \$300,000 with no securities lending. Wilfred Leon Guerrero: With no securities lending program, \$300,000 that's straight relationship? Gerard Cruz: That's correct. Paula Blas: It would be about \$350,000. Right now we're saving \$300,000 plus making 70% off what the revenue is on securities lending. Maggie Ralbovsky: From their point of view they got 30% so they actually got paid maybe \$150,000 because they probably got \$100,000 from securities lending, so it's still falling short of their target but it's better than you just paying them \$50,000 that's why they're still sort of dragging their feet, they can still offer the service but they're going to come in and tell you, we have this great idea, you move to this other lending pool, it's going to increase your revenue which is true if nothing happens. Paula Blas: We'll listen to Bob when he comes in to do his presentation. Gerard Cruz: And we'll just take it under advisement. Maggie Ralbovsky: We don't say no, we just drag our feet, it's probably the best solution.

With regard to the policy, I do think the policy should make it into the investment policy statement. I reviewed this IPS and in the IPS there's not a securities lending policy, there's every other policy there so I will add a section for securities lending but I will want to review this whole thing because there are things in this IPS that need to be revised. So I want to make that into a comprehensive review. Gerard Cruz: When was the last revision? Maggie Ralbovsky: 2008. Paula Blas: Actually we changed it to the statute in the last couple of years and we wanted Maggie (Ralbovsky) to just go through the whole thing and get it all updated. (end of tape 1)

(End of discussion on securities lending)

1:00pm-1:45pm Northern Trust

(start of tape 2)

Wilfred Leon Guerrero: Thank you for being with us today. We're looking forward to you giving us a picture of what is going on with the securities lending program. Bob: I'd be happy to. Thank you all for having me, it's a pleasure being here again, I think the last time I was here was last October and met many of you then.

What I'd first like to do is give you an overall overview of the Northern Trust, just refresh everyone's memory, go through our financials, talk a little bit about the custody services that we currently are providing to the Fund, but then I think probably the bulk of the discussion probably should be centering around securities lending, that seems to be the topic that most people are interested in I imagine so we can spend some time refreshing everyone in terms of the securities lending services that we're currently providing and making sure that everyone is comfortable with the program that we're managing on your behalf.

If you turn to page 2 just the agenda as I mentioned, remind everyone who Northern Trust is, review our financials, talk a little bit about our global presence, our clients, industry recognition and the global custody services and how we interact with your current investment managers and from there we can talk more specifically about our securities lending program.

So who is Northern Trust and what do we do, if you turn to page 4, essentially we are a financial services organization headquartered in Chicago, but we provide business solutions, custody services to clients on a worldwide basis and I'll get into that in a little greater detail. Essentially we have 2 lines of business, we only do 2 things. First we provide custody asset servicing and other products to large institutional investors like yourselves and in the U.S. we provide personal financial services to high net worth individuals. So those are essentially the only 2 lines of business that Northern Trust is in, we're not side-tracked with things like credit card and other financial services that many of the larger U.S. financial institutions are involved with, so a very focused business plan servicing 2 very distinct client bases.

We think that a unique part of the Northern Trust is our ownership structure and as you can see there just over 4% of the Northern Trust stock is owned by the executive officers and our directors and another 9% is held by employees, directors and retirees. Now we feel this is very important because all employees at the bank have a vested interest in our success and a vested interest in insuring our client's success, so we feel that certainly drives our culture which is to be a very high service, high touch organization to our clients and organizations that we work with.

Moving on, again the services that we provide to institutional investors like yourselves, if you start at the bottom of the pyramid (page 6), asset processing so essentially the safe keeping, the settlement of your investment managers trades, the collection of income, corporate events, all of the basic activities that a custodian does is certainly a core part of what we do each and every day. If you then move up the chain a little bit you then get into asset administration services, most of this is related to investment managers that we work with on a global basis. Asset reporting which is what we're doing for you in terms of providing you investment accounting, your performance and evaluation reporting, other performance analytics and then all the way up to asset enhancement which are things like securities lending, transition management and cash management, ways in which our clients have a way of getting a little bit of extra revenue generated by their pool of assets. At the top of the chain we do provide asset management services mostly in the terms of index management, quantitative management to clients on a worldwide basis.

We also, a unique part of Northern Trust on page 7 is we are exactly who we were when we started, when we were founded in 1889. We have not been diluted by mergers and acquisitions and we have not been side-tracked with mergers and acquisitions. When the Northern Trust makes an acquisition it's typically to enhance our capabilities to our existing client base, so we're not one to go and buy other banks that do similar services to what we do. Our acquisition strategy is very targeted over the years to enhance our product capability more than anything else.

So if we move on to talk a little bit about our financial strength, obviously the last few years have been difficult for all financial organizations but the Northern Trust I think has faired fairly well through the last several years. We continue to have record earnings, if you look on page 10 you can see our revenues in 2010, total revenues \$3.6 trillion dollars, net income of \$670 million. Obviously the low interest rate environment has not helped the Northern Trust but we continue to manage through the economic environment that we're operating in.

If you look at our assets under custody and assets under management (page 11) those numbers continue to grow on a year end and quarterly basis so we continue to attract new business for all products that we're providing to our clients and that again is on a worldwide basis.

Page 12, obviously the capital strength of the Northern Trust should be important to you and I think that our capital strength is quite significant, it allows to re-invest in the business which we recognize is driven heavily by technology so we have to ensure the we're constantly re-investing in our technology in the ways in which our clients are able to access information but our superior capital strength allows us to do that.

On page 13 you can see that we have a very, very long history of outstanding credit rating from the credit rating agencies, so something again that we're quite proud of.

Lastly as I mentioned, the last several years have not been good for financial organizations but you can see there that in terms of our stock price performance (page 14) while it's something that we're not happy about, nonetheless we have beat the averages for our peers and we believe that we have performed better than many.

Moving on to page 16 we talked about a global business that we operate and you can see where we are actually operating from, so if you think of the world in the 3 regions in North America we're primarily operating out of Chicago but we also have offices in Toronto and New York, offices then scattered through Europe and the Middle East and then last but not least, offices throughout the Asia Pacific region. We continue to grow quite strongly particularly in the Asia Pacific region, notably in Australia and Singapore where we continue to be quite successful with our new business efforts.

If you look on page 17 you can get a sense for some of the names of other clients that we work with. If you think about the U.S. public fund market which obviously we consider you a part of you can see that the likes of the State of Hawaii Retirement System as well as the El Paso Fire and Police, just to name a couple.

If you flip over to page 19 you can see that the U.S. public fund market is quite significant to the Northern Trust, we have 30% of the top 100 U.S. public funds so it's a very, very

important segment of the business that we offer out of Chicago. Interestingly we also have 36% of the U.K. Local Authority Market and in the U.K. the Local Authority is a similar organization as U.S. public funds. Again a market place that we're quite accustomed to working with and one that we feel that we do quite well.

As we move on, just a few of the industry recognitions that we have received over the years on page 21 and then on page 22 some of the recognitions that we received as a corporate citizen as you will in terms of the quality of the organization in the ways in which we have been recognized throughout the industry.

Moving on to the custody service that we provide to you, I think page 24 is a good place to talk a little bit about in greater detail exactly what we have been providing to you as your custodian for the last 3 years. Certainly working with your appointed investment managers is a very, very important aspect of what we do and I'd say that we have a very solid relationship with all of the investment managers that you have selected. You can see there that on a global basis last year the Northern Trust has 18.6 million trades on behalf of our clients on a worldwide basis. We're constantly striving to improve our straight through processing rate so essentially to bring as much automation as possible to ensure that all of your trades settle on time and that your managers are not having to chase down failed trades and deal with operational issues. We have currently \$4.4 trillion dollars in assets under custody of which just shy of \$2 trillion of that is cross-border assets, so almost half of our assets are assets that are custody outside of the U.S. which is a significantly higher percentage than any of our major competitors amongst the U.S. custodian banks. So again it points very much to the global nature of the Northern Trust custody business.

From a custody standpoint just what do we do for you, we obviously settle your trades, we collect any income that those assets are entitled to, we process corporate actions based on the elections that your investment managers have made, we work with your agent for proxy voting to make sure that they have the information they need in order to vote proxies according to the directions that you have given them and then on the top of that, obviously we provide you all of the accounting and the reporting that you may need on a daily and monthly basis. All of that accounting and reporting for the most part is delivered to you online through our passport system which of course the staff here has access to and is hopefully using on a regular basis and hopefully that's working well for everyone.

Lastly before we move in to talk more specifically about securities lending, I think it's important, I mentioned earlier that client servicing is what we believe to be a hallmark of the Northern Trust and I believe that's born out in surveys that have been done over the last several years. We do periodically commission a client survey where you would receive a survey that we would ask for direct feedback on how well we're doing and you can see there on page 27 that 95% of our clients in North America have said that we exceed or certainly meet their expectations and 92% would continue to work with us on an ongoing basis. We also subscribe to other industry surveys, the R&M Surveys has been one of those and you can see there again historically we have typically scored very well against the peer group, so again just a gage I think in terms of how well we're doing as a global custodian on a worldwide basis.

We talked a little bit about technology, the Northern Trust we believe is unique in we do offer a single global operating model so it's one system that is used on a worldwide basis for all of our clients on a worldwide basis and essentially what it allows us to do is to pass the work around the globe. We have major processing centers in Chicago, in London and in Bangalore so again we're able to take advantage of the clock and essentially work a 24 hour clock to ensure that activity that should be happening on a global basis is happening quickly and efficiently as it can and that just helps ensure that our clients and yourselves have the most up to date and most current information. Also because a single operating platform we're able to focus our investment on that platform very specifically into our capabilities and on page 30 you can get a sense there for how we have reinvested in the business and how we plan to reinvest in our technology going forward.

So with that, a very quick overview of the Northern Trust and what we're doing for you as a custodian, perhaps it might make sense to pause before we get into securities lending and to see if there might be any questions specifically related to the custody services. Joe T. San Agustin: What I had in mind with the custody is the cash management, how you handle the cash management within the various investment managers? Bob: Currently what is occurring is your cash on a daily basis for each investment manager, for all the investment manager accounts that you have in our custody, your cash in reinvested in a Northern institutional fund, a mutual fund so the cash is held there and is swept there every night to the penny. I didn't bring specifics on the mutual fund that you're currently utilizing but we can certainly very easily get you the specifics on that fund. Joe T. San Agustin: These mutual funds are not individually managed by --- manager, only those that ---? Bob: That's right. Joe T. San Agustin: So you just put that there for, what's the duration? Bob: I don't know the duration off the top of my head, it's a very liquid money market fund that allows obviously daily sweeps in and out, it needs to be liquid because it's used by many clients, it's primarily the particular fund that you're using is used by our institutional clients and there's a diversified asset portfolio which I believe is the portfolio that you're using, but we also have U.S. Treasury funds as well if you wanted to... Joe T. San Agustin: And those are dictated by the investment managers themselves? Bob: It's dictated by yourself, you made the election back when you first joined us as to the exact fund that you wanted to participate in. Joe T. San Agustin: These are cash by investment managers and are swept through idle funds awaiting trades? Bob: Exactly, so whatever excess cash may be sitting in a portfolio's account, in an investment manager's account automatically is reinvested. Agustin: Is there an accounting report to reflect all those transactions, I know you have to take it out, is there a separate to show how these cash managements are being generated throughout the system? Bob: Absolutely and I can work with the staff when I'm back tomorrow. Joe T. San Agustin: We've been asking for it for the longest time quite frankly. We average how many millions a month overall? Gerard Cruz: In cash on any one given month... Joe T. San Agustin: \$15-16 million? Gerard Cruz: That's a bit high, but definitely 9 figures. Bob: We can easily get you the information.

Maggie Ralbovsky: Do you happen to know the expense ratio? Bob: The expense ratio actually this is a unique situation, the Fund itself has an expense ratio of 35 basis points, however as part of our custody arrangement we promised or we committed to giving you a fund with an expense ratio of 12 basis points, so essentially we are rebating back to you every month about 20 basis points. Joe T. San Agustin: There has to be some accountability on that, some transaction that shows how much is rebated, is that netted to the custodial fees? Bob: No, it is rebated back to the individual portfolio. Joe T. San Agustin: It's not used against your fees? Bob: No. Joe T. San Agustin: So that's real income? Bob: Yes it is. We send you a report each month of how much has been rebated so you have a sense for that and we can summarize that for you and get that to you. Paula Blas: It's rebated back to the manager? Rosalie Bordallo: No, it's rebated back to the admin account, it's consolidated

back into the admin account. Joe T. San Agustin: You don't have a breakdown that shows how much? Rosalie Bordallo: Yes, there is a report that does it by manager, how much is rebated back, but all the cash that's rebated goes into our admin account. Joe T. San Agustin: You just commingle it right into the overall cash account which you don't have a separate item of reporting to the Board that's' what I'm getting at. Rosalie Bordallo: We can do that if you want, we can print a report for you and provide it to you. Joe T. San Agustin: I've been asking for that because that's a separate item over and above and it could have been netted to the custodian fees if you wanted to do that, but you're not. Rosalie Bordallo: Well in a sense it is because the custodial fee comes out of the admin account so the revenue is going into the admin account and it pays for it. Joe T. San Agustin: Alright, but where is that figure that shows exactly how much we're paying for custodial fees? Rosalie Bordallo: Okay we can give you that, we can show you that. Joe T. San Agustin: It's an item of expenditures really. Rosalie Bordallo: So you want the custodial fee and then we offset it by the rebated amount. Bob: I can help you if you need. Rosalie Bordallo: No, that's easy.

Wilfred Leon Guerrero: How big is this? Rosalie Bordallo: Depending on the cash, in any given amount, it's \$12-14,000 a month. Joe T. San Agustin: On \$16 million cash account each month? Paula Blas: It's not \$16 million. Bob: I think it's generally around \$12-14,000 a month, the rebate. Paula Blas: Because there is maybe about \$1 or 2 million in a manager. Bob: It's based on the daily averages so there is great precision to this calculation. Over and above that is Northern Trust and then you have the Joe T. San Agustin: investment managers fees, do you net out their fees? Rosalie Bordallo: No, that comes from their individual portfolio account. Joe T. San Agustin: Is that reported by Northern Trust showing an independent report? Bob: Those we post to our records because we pay those for you. Rosalie Bordallo: Each manager fee is approved by us before it's pulled by Northern Trust, before Northern Trust pays it out. Joe T. San Agustin: So you know exactly each month how much each one gets so you can basically have a trend analysis of how is the fee structure by each individual manager? Rosalie Bordallo: Yes. Joe T. San Agustin: I'd just hope now to see the information if that's the case, if it's available. Bob: Sure, it is absolutely available and we can make sure that the staff here can get that to you. Joe T. San Agustin: What kind of measurement do you have that shows your performance, is there a measurement in the industry that shows how well you guys are as a custodian? Bob: Well there's certainly reports and information that we can provide that show you how well we're doing in terms of settling trades, how well we're doing in terms of collecting income, now for the most part all of your income is paid on a contractual income date, so that would be almost at a 100% level and then in terms of trade settlement rates we can give you that information but you have to bear in mind that we're not always in control of the settlement rates, we can show you what has settled from a buy and a sell perspective but often times we can't control the delivery on a purchase. Joe T. San Agustin: But it's also for us to evaluate how effective that is and we want to base it on the information you provide us. Bob: Sure and I don't know if I've spent enough time with the staff and showing those reports but that information is readily available online and we can certainly provide it to you.

Maggie Ralbovsky: How about foreign exchange, do you know if the managers use you? Bob: I did take a look because obviously foreign exchange has been a bit of a hot topic on the mainland. There are 3 managers that have done foreign exchange over the last year, Fisher, Eaton Vance and Earnest Partners. Fisher tends to trade mostly with Northern Trust, Eaton Vance they did a number of USD Canadian deals earlier in the year and Eaton Vance typically trades with HSBC and State Street and Earnest Partners typically trades with Brown Brothers Harriman Gerard Cruz: They're small cap foreign? Paula Blas: No, I think

Eaton Vance just came on board so this could be already in their performance. Maggie Ralbovsky: I think they may have some Canadian securities in their portfolio already. Bob: It was only when I looked at the information it was only USD Canadian dollar deals that they were doing. Maggie Ralbovsky: So none of those use you? Bob: Fisher is the only one and they typically will negotiate their trades directly with our dealers. We haven't been encouraging our clients who are concerned about foreign exchange execution to talk to their investment managers to understand how the investment managers are ensuring that they are getting best execution because we really believe it's upon the investment manager to ensure best execution and to use the counterparties that they feel that they can do that with. So that's really where we believe the conversation should have. We have been very fortunate over the last year unlike some of our competitors we have not had any law suits brought against us for our foreign exchange trading practices.

Maggie Ralbovsky: Bank of New York and State Street both were sued. Bob: Yes, by multiple state funds on the mainland, but fortunately Northern Trust has not been involved in any of those situations. Maggie Ralbovsky: If we have to see the data for foreign exchange, do you have that data? Bob: The data is available, yes we can very easily show you the deals that are being done, the rates that the manager has executed at. Typically we would suggest that depending on how the manager is trading with us, we may be able to get time stamp information, but frequently it's sometimes better to get the time stamp information directly from the brokers themselves. We're also working on some enhanced reports that we will be rolling out at the end of this year that will essentially allow you to see your foreign exchange trades within the days trading range just to make sure that the managers and the counterparties are trading those deals within that days trading range. 30.16

If I can direct you to page 33, I'll do a quick overview of our securities lending program. First just some general stats that you'll find here, we currently are operating our lending program in 50 markets worldwide, we have a lendable base of \$702 billion dollars and that means at any one time we have on average out on loan for all of our clients just over \$100 billion dollars. We offer 24 hour trading through London, Toronto, Hong Kong and Chicago and we are currently working with 43 approved counterparties and with most all of those we are interacting with them electronically it's efficient for the trading and allows us to increase our volume of securities that we're able to get out on loan on behalf of our clients. So of our 43 approved counterparties you can see that 35% AA- or better, 98% have an A long term rating from S&P and all of the top 10 have an A rating or better. Then you can see the top 10 borrowers in our program that represent 70% of the total loans that we're doing. A little further on I'll give you details in terms of the borrowers that have been taking your securities.

So just as a refresher, in November of last year you joined our securities lending program. You joined in the most conservative way possible by taking only non-cash collateral so essentially all of your loans are secured against U.S. Treasury obligation, as a result there is currently no cash reinvestment risk that you are exposed to. From January the total revenue that has been generated for the Fund was just over \$185,000. We are operating under a fee split of 70/30 which is means you take 70% of the gross revenue and we take 30% as a cost of managing the program on your behalf. If you look on page 35 you can see a little bit about the performance by security type and you can see the vast majority of your revenue is being generated by your global equity portfolio, so \$160,000 of the \$185,000 that has been generated. You can see that the percent on loan is 1.3% which is quite low but it's not that low given your restrictions around collateral. I think as we talked a year ago, by taking only

non-cash collateral you are making your securities a little less attractive to the borrower or community because most borrowers would prefer to give cash collateral but there are situations where they will agree to not give cash collateral loans and those are the situations that you currently benefit from.

You can then see on page 36 the top 10 securities that have generated the most amount of revenue for your portfolio and you can see there it's mostly French, German and Norwegian assets that have been generating the lion's share of your earnings and then we've given you some specific security names and the amount of earnings have been generated during that time period.

On page 37 you see who has been borrowing your securities and you can see that the top 3 borrowers are Barclays, Credit Suisse and J.P. Morgan. So 3 very high quality names have been borrowing the bulk of your securities over this time period.

On page 38 we're just giving you something to think about, we had talked again last year that a way to get you into the program in a very conservative manner was to operate in a non-cash collateral arrangement and you can see that the revenue that has generated over the course of the last year or so. If we were to expand that, currently your non-cash is only U.S. treasuries, if you had an appetite for a little bit more risk, if we expanded that by taking U.S. treasuries and then OECD AAA rated sovereign debt you can see that you would get a little bump in your earnings, but you would get a significant bump in earnings if you were to at some point elect to move into a more traditional cash collateral arrangement. So you can see your net earnings we're estimating would go up to just below \$600,000 dollars on an annual basis. If you did ever elect to move into a cash collateral arrangement, we would be suggesting to you our basic collateral pool which is the very, very conservative reinvestment pool that operates investment guidelines that are actually more strict than a typical 2A7 fund in the U.S. So they would be very conservative guidelines and we would be happy to provide those details to you if you were ever interested in taking a closer look at that.

Joe T. San Agustin: Your coupon for non-cash value, you're recommending that we expand what we have now, in what way? Gerard Cruz: So the second option would be OECD AAA rated debt. Joe T. San Agustin: What is OECD? Bob: It's the G-20 countries, for the most part European sovereign debt, it's still very conservative (Organization for Economic Corporation and Development). The first column (page 38) would be the first option, the second column, the second and the third column, third option. I would say that the majority of our U.S. public fund clients, the vast majority of them do participate in our lending program and of those they're all participating in a more traditional cash collateral arrangement. As you can see by going to a cash arrangement there is quite a significant increase in the amount of revenue that we would estimate that your assets would generate.

Maggie Ralbovsky: On page 35 the monthly revenue seems to be very lumpy, it looks like May 2011 was the month that contributed to the majority or half. Bob: Typically you do see a spike of lending European equities in the second quarter and it's mostly around the dividend season when those stocks are paying dividends because there are typically some dividend arbitrage opportunities that the borrowers can take advantage of and that typically leads to a spike in earnings in those months. Maggie Ralbovsky: So in other words the program has generated a revenue level that we can expect to be similar going forward, it's not anything unusual that these 2 months generated one time... Bob: No, if 3 years from now we were to look at this historically, it would be the same pattern.

Wilfred Leon Guerrero: How long are your loans usually? Bob: It varies, it can be anywhere from overnight loans which would be typically made to a borrower to facilitate trade settlements, so if they don't have something in their inventory that they need to deliver on for another client then they borrow the security just on an overnight basis until they can get it into their inventory or there are other much longer term loans of a week, 2 weeks, a month. I don't have the percentages at the top of my head so I can't really tell you generally what the average length of the loan is, but that's certainly information that I could get for you. So are there other questions anyone might have on the lending program? (No).

As it is again a very conservative program that we're running for you and has generated some additional revenue to the Fund in a relatively low risk situation. Wilfred Leon Guerrero: We loaned out \$14 million and we've gotten back \$185,000. Bob: Yes, so your average on loan at any point in time is \$14 million, that's not the total loans that we've made for you that's just an average over the period.

So the other thing I would point out is you can see on page 35, your average amount out on loan was \$14 million in a percentage on loan figure of 1.3%, if you move over to the revenue analysis on page 38, you can see that if you went to a cash arrangement the utilization rate jumps all the way up to about 20%, so in that arrangement you would have a much higher amount on loan at any one point in time. Gerard Cruz: And the additional amount if because companies would rather post cash? Bob: Cash is the more traditional way in which other borrowers prefer to post the collateral. Joe T. San Agustin: What is the risk in that? Bob: The risk involved in taking cash collateral versus is what is essentially referred to as reinvestment risk, so if you have an investment in the collateral pool that does not pay a par or you have to sell at a loss, that could potentially generate some losses. That's typically with all of what you would have read about securities lending back in 2008 was around cash reinvestment risk and losses that the various lenders had incurred in their reinvestment pools. Just because of the illiquid short term markets and the crisis that was going on in the mortgage industry there were some investments that were being held in various cash collateral pools with Northern Trust as well as our competitors then we either had to sell it at a loss or didn't pay out or went bankrupt, so there were situations where clients were potentially exposed to losses from that perspective. Obviously since that time we have made our investment guidelines even stricter and they are all now following or at least as conservative if not more conservative than 2A7 rules for U.S. money market mutual funds.

Wilfred Leon Guerrero: All of your losses have been settled? Bob: I'm not able to comment on any law suits, they may still be pending, but I can tell you that all of our clients who participated in our standard cash collateral pools were made whole for any losses that were incurred as a result of losses that were incurred in the collateral pool. So we essentially made a cash contribution to our clients to satisfy the losses that essentially they were exposed to within the collateral pool. Wilfred Leon Guerrero: But you still have a law suit? Bob: I believe there are still some law suits that are pending, yes.

Joe T. San Agustin: What are our total fees? Gerard Cruz: It's \$50,000 plus what they made on securities lending, 30%. Paula Blas: \$130,000 so far (through July 2011). Gerard Cruz: So the \$50,000 is the annual custody fee and the \$80,000 is the year to date 30% for the securities lending.

So the risk on the cash collateral, that still does exist to us, the risk to us as a lender. Bob: Yes, if you did decide to go down that path, yes you will have some reinvestment risk for the cash collateral.

One of the other things I forgot to mention earlier, you may recall last year during our presentation I had a colleague from our London office, Justin Miller who works within our securities lending participate in the call, Justin (Miller) is planning a trip out to Asia sometime probably within the next 6-8 months and so it's likely that I'm going to see if he might be able to stop in and meet with any of you that might be available. I'm not so sure, it may not necessarily coincide with one of your Board meetings, but if the group would be interested in meeting with him and having a more detailed conversation about securities lending. We tried to get him for this trip, but unfortunately he was unavailable but he does travel to Asia at least once a year or so and has a tripped planned sometime within the next 6-8 months we think. (end of tape 2) (End of presentation by Northern Trust)

2:00pm- Other: Asset Allocation by Risk Factors Active Risk Budgeting

(start of tape 3)

Maggie Ralbovsky: I have 2 agenda items, one is a more practical discussion, the other is a philosophical discussion. Let's talk about the active risk budgeting first because that one is a more practical, closer to a decision kind of discussion, plus it is a continuation of the discussion last time.

If you recall during the July meeting we talked about the active risk budgeting, the concept of active risk budgeting and the whole theory is that when you put together a portfolio consider using a portion of index funds for more efficient asset categories and use the active risk budget in the less efficient categories. The Committee had asked Wilshire to do some what if analysis to analyze even the managers this Fund, GGRF has if we used index funds up to 5 percentage points of these different asset categories whether historically there has been any benefit. So that's what we have done here to present the different results.

On page 3 this is the theory, so theoretically speaking people believe that U.S. large cap is highly efficient. Remember I said earlier that the utilization of index funds is usually used in efficient asset categories, the more efficient the asset class is, the more benefit there is historically speaking observed based on a huge population of managers. So it is widely believed that U.S. large cap is highly efficient, small cap is inefficient, non-U.S. developed markets is moderately efficient, non-U.S. emerging markets are inefficient, private markets are inefficient and in the fixed income category core oriented which are the managers you currently utilize are core oriented managers, they're moderately efficient, high yield managers are inefficient and you do not currently have high yield, it is not allowed by the law. In the alternative space public real estate, REITs are moderately efficient, private real estate and all the others are inefficient. So this is the generally observed market efficiency theory and what we wanted to do is given the context of the managers chosen by GGRF if there is any benefit by swapping a portion in index funds. So that's the summary on this page and I'm going to show you the details in later pages, so let's just go through the summary first.

What we did is we swapped 5 percentage points from your U.S. large cap, U.S. small cap, international, emerging markets and REITs was 5 percentage points of index funds, the real

index fund offered by BlackRock. We actually asked BlackRock for a fee quote if we are going to move ahead what is the fee, so we used the real fee and real performance and your portfolio managers and your portfolio and real fee and everything. Our conclusion is that there are 3 categories that were beneficial, the other categories were not beneficial in your portfolio. The 3 categories that are beneficial are, number one, if you take 5 percentage points out of U.S. large cap core, if you recall yesterday we talked about your core manager Atalanta Sosnoff is a relatively growthy manager, it actually has a consistent growth bias so this manager has historically been tracking the growth index better than the core index but in the function we use them as a core manager in terms of putting together the portfolio. If we swap 5 percentage points of this manager's allocation into Russell 1000 Index Fund which is a core index fund offered by BlackRock, the cost saving for the U.S. large cap portion would be 3 basis points because index funds are cheap, actually I will show you the fees being quoted for you, but just bear with me right now, the total cost saving for the U.S. large cap portion will be 3 basis points and the return improvement will be 27 basis points. This return improvement does not include that 3 basis points so if you add that 3 basis points it's 30 basis points. The reason it has a return improvement is 2 folds, number one remember I said Atalanta Sosnoff doesn't track very well, in the past 3 years it has under performed and because somebody doesn't track very well the lack of consistency sometimes depends on time period can really hurt you because if they lost a lot of money and then it So the inconsistency actually caused more than what's takes more to come back up. showing up on the performance because of the timing difference.

Another reason was because Russell 1000 Index Fund offered by BlackRock actually out performed the index by 15 basis points annualized and that out performance was actually because of the securities lending program, they have been managing the securities lending program very efficiently and never had any losses in history including 2008, no losses. So that was one of the reasons the Fund actually out performed and that is also the reason why IShares compared to the index fund offered by BlackRock is less good because not only with IShares you pay more in fees, it's 30 basis points in fees imbedded in IShares, but also they do not have a very efficient securities lending program because people trade all the time and there's less of a base, they assumed to be stable lent out as securities lending, so that's why index funds tend to be more efficient than the IShares. So that's why U.S. large cap seems to be beneficial if Atalanta Sosnoff a portion is swapped out. Gerard Cruz: But that's just U.S. large cap core. Maggie Ralbovsky: No, this is U.S. large cap as a total. Gerard Cruz: What about our large cap value, our large cap growth managers? Maggie Ralbovsky: Those are considered in the composite. The reason I didn't swap the growth and value is because if you use an index fund you should use a core index fund because every year there is a rebalancing in between the large cap value and large cap growth, there is this artificial turnover that you should avoid, so if you buy a large cap value index fund, I know right now you have that as a placeholder, but let's just say you constantly put a large cap value index fund in place as part of the allocation, then you have a large cap growth index fund as the allocation, every June they're going to swap securities and that's going to cost you because there's transactions just because somebody's definition of growth and value changed and if you have a core index fund you're holding the same securities still and you avoid that. Gerard Cruz: But you keep it as a core index fund. Antolina Leon Guerrero: It's not going to turnover. Maggie Ralbovsky: It's not going to turn over, yes, so the artificial turnover is avoided. When we put an index fund in place, we usually have a core index fund, I do recognize the fact currently you have a value index fund and you have a core index fund, you have a little mismatch issue there, but I want to just present this as a portfolio design option. From time to time you may have to use an index fund in a growth and value portion as a placeholder before you change the manager. So that's in the large cap portion, the collective result of the 5 managers of yours. If you add an index fund, take a portion out of Atalanta Sosnoff in the past 3 years you would have added 30 basis points.

Now let's look at the core bond portion, we did this core bond analysis. First what we did was to take 5 percentage points from your 3 managers and our conclusion is that it is not beneficial because one of your managers added a lot of value and is charged very low fees and that is Garcia Hamilton for the past last 3 years. So if we just take 5 percentage points out from each one it did not add value, but if we had taken 5 percentage points out of Franklin Templeton which is your most core like manager it holds a lot of securities, it doesn't take a lot of differential in terms of their characteristic versus the benchmark, it's your least active manager I should say. If we have done that, I know the numbers here are wrong because we used the wrong fee schedule, so I had my office recalculate that, so the return improvement is still the same because that's not counting the fees it's still 12 basis points, the cost savings becomes 1.5 basis points so it's not 6 basis points. Gerard Cruz: So the cost savings is... Maggie Ralbovsky: 1.5 basis points. Gerard Cruz: Okay, not 6. Maggie Ralbovsky: The return improvement is still 12 basis points so if you add this together it's about 13.5 basis points for the past 3 years.

The Aggregate Index Fund out performed by 13 basis points. Gerard Cruz: This is over 3 years? Maggie Ralbovsky: 3 years annualized. For the EAFE portion we just assumed switching your current IShares allocation into the index fund not allocating more from your active managers because your active managers are good managers and this is a less efficient category. So what we just assumed was to take the EAFE index fund IShares, \$20 million dollars I think you have, that will save you about 20 basis points and the EAFE index fund has 15 basis points out performance in the past 3 years. Antolina Leon Guerrero: You said \$20 million is what's in there now? Diane Bernardo: It's about \$17 million. Gerard Cruz: What is the point of that, it wasn't going to be in there forever right? Diane Bernardo: That's like a remaining balance of what's been distributed. Gerard Cruz: Who have we shorted? Rosalie Bordallo: Didn't you say last time that we were going to be using this to fund for cash, for the drawdown. Gerard Cruz: So it was never meant to be applied to managers. Diane Bernardo: It was originally intended to be allocated. Antolina Leon Guerrero: But now that the contributions are less because of the bail out...

Maggie Ralbovsky: I just want to present this and then we can talk about the practical issue. Now if you move on I did have some graphic information to show the performance in the next page. I circled in yellow and in pink for your large cap composite, so this is your U.S. large cap composite, your 5 managers combined is in the yellow circle, within the yellow circle that's your actual composite has done in the past 3 years, risk and return, the return is on the Y axis, risk is on X, so the more towards the right hand side the higher the risk, the more towards upper side of the chart the higher the return so you really want to be on the north west quadrant so to speak on the upper left hand side quadrant the more you're towards there the better you have done in terms of risk return and you can see the index fund versus the benchmark is on the right hand side of the corner and the index fund did do better than the benchmark as I explained, that was because of the securities lending program. Then you can see your current benchmark has done well compared to the benchmark itself and it could be improved to move to that pink circle which was to swap 5 percentage points into the index fund with Atalanta Sosnoff and you can see your other managers up there. Joe T. San Agustin: Robeco is pretty high. Antolina Leon Guerrero: That's a good thing right? Maggie Ralbovsky: Yes, that's a good thing.

Gerard Cruz: So the index fund is a composite of all 3... Maggie Ralbovsky: All 5. Antolina Leon Guerrero: And the pink is what it would have been had we done the swapping? Maggie Ralbovsky: Yes. Gerard Cruz: So the pink circle is the theoretical where we would have been had we moved 5%? Maggie Ralbovsky: 5 percentage points. Gerard Cruz: Just from Atalanta Sosnoff's allocation to an index fund? Maggie Ralbovsky: That's right. Joe T. San Agustin: Assuming you will get the same return if you had done that. Maggie Ralbovsky: That's right. This is using past data obviously. Rosalie Bordallo: Okay, on this one we're taking more risk? Maggie Ralbovsky: The risk becomes a little bit higher because you can see Atalanta Sosnoff is right here at the bottom here.

So that's for the large cap and I have a cumulative performance chart, this is just for your leisure, you can take a look to see historically the changing relationship if it's consistent, so if that 5% swap, which is the darker blue has been good consistently or if there's a changing relationship and you can see there is a changing relationship somewhere in that. Gerard Cruz: So the out performance of the index fund versus the actual index, you're saying is the result of the securities lending program? Maggie Ralbovsky: That's right. It's mostly like 95% because of that and there's a 5% because of sometimes when they do the rebalancing, they do not rebalance on the dot. The rebalancing always happens on June 30th at 4pm so the index theoretically just rebalances it, but if you manage real money, you don't really trade at 4pm, think about all the index funds tracking that. Gerard Cruz: How much of an additional return is attributable to the securities lending? Maggie Ralbovsky: I have it on the previous page, 15 basis points, so there was a 27 basis points improvement not counting the fees so 15 of that 27 is securities lending. Antolina Leon Guerrero: So 15 of the 27 is attributed to the securities lending. Gerard Cruz: More than half.

Maggie Ralbovsky: On the next page you can see the fixed income portion, the risk return chart, same thing. The yellow circle is your current and the pink circle is the 5% swap out of Franklin Templeton and you can see Franklin Templeton is really the under performer here. Gerard Cruz: In all respects, they come across as risky. Maggie Ralbovsky: Right and Garcia Hamilton is actually in the north west quadrant on this chart and the improvement you can see is there.

I have the index fund quotes on the next page, these are actual quotes from BlackRock, 3 basis points for BlackRock Russell 1000 Index Fund, that includes the Russell 1000 Value or growth so it works like this, you can set up a relationship with BlackRock and fund certain index funds and ongoing basis if you need to change a manager and have to add a Russell 1000 Value Fund, you can just easily do that because it's a master umbrella... Gerard Cruz: So we pay 3 basis points of the whole relationship? Maggie Ralbovsky: No, for the large cap. So you see for the fixed income it's 6 basis points and for international it's 6 basis points and these are the most beneficial categories because if you want to index REITs or say emerging markets, those will be more than 10 basis points, those are less easy to index. So these are usually where people use index funds, very, very cheap, but there is a minimum fee of \$25,000 which works out to be about \$50 million, so collectively in these categories you have to have \$50 million otherwise you're going to be below the 25,000. Gerard Cruz: What does that work out to be, what is \$50 million of \$1.2 billion, it's 5% or less than 5%. Maggie Ralbovsky: So if you have less than \$50 million, they're just going to charge you \$25,000 and that's just what it works out to be so it will be still cheap it's just not as cheap as these. Gerard Cruz: So \$50 million is still less than 5% of our portfolio right? Joe T. San Agustin: But what is the investment trade off? Gerard Cruz: Put this all together and what does that do to the expected return? Based on individual, the expected rate of our return will go up, based on this? Maggie Ralbovsky: Okay, expected return will not change because expected return does not include... I'm sorry... So when we do asset allocation we assume an asset class return that does not include alpha so I think you're asking, are we expecting alpha to go down or go up. Gerard Cruz: No, just what is the impact of moving 5% of our portfolio to index funds in terms of expected returns, not alpha, but expected returns because we have an 8% expected return on our existing asset allocation. Maggie Ralbovsky: There should be no change because expected return is derived with asset allocation into the different asset classes. What we can generate in alpha is addition to that expected return. Gerard Cruz: But alpha does then get affected... Maggie Ralbovsky: Into the return right... Gerard Cruz: Because you're taking it off the active management. Maggie Ralbovsky: I was hoping to answer that question with the "what if" in the past but I hope the conclusion you draw is the same as mine which is it does not impact expected return because historically it would have been better in these 3 categories and we did say that in other categories it actually wouldn't be beneficial because index funds are more expensive.

Joe T. San Agustin: That benefit is a savings in cost. Gerard Cruz: It's a savings in cost... Maggie Ralbovsky: It's a savings in cost and it does not impact return, it actually has been better in the past but I wouldn't... Antolina Leon Guerrero: You wouldn't count on it. Maggie Ralbovsky: That's right, I wouldn't say there's no change in expected return and it will help you in the interim rebalancing, when you have to rebalance between U.S. equity and non-U.S. equity and fixed income, you can just rebalance the index funds which saves on the drawdown cost as well because if you have to take money out on the interim basis, you take it from index funds, there's no transaction cost, no custody cost, no settlement cost, then on an annual basis you just rebalance, replenish the index fund. Antolina Leon Guerrero: Because currently we use like ETFs for... is that the difference? Gerard Cruz: No, ETFs were just a parking lot, short term parking. Antolina Leon Guerrero: And is this index fund an alternative to that? Gerard Cruz: No, what we're contemplating is a change in our allocation to include passive management which is different, it would be long term parking. Maggie Ralbovsky: Then it could be used as interim parking spot as well.

Rosalie Bordallo: Can I ask a question, in your presentations a lot of it what you're saying if we use the passive management of these funds, but you're saying at the same time that a lot of the return is derived from securities lending, so why would I want to go into a passive index fund who really is using securities lending to boost their return, why don't I just go into securities lending myself and hire these guys because they do securities lending. Maggie Ralbovsky: Well, securities lending program is more profitable if you're big right and these are really big index funds, trillions of dollars in those so it makes the economy of scale and really also you don't have any... Rosalie Bordallo: But my concern here is if the Board feels very uncomfortable with securities lending to begin with now you're going to offer a product that imbedded within it is securities lending, how do you really get around that, I mean securities lending is securities lending whether you hide it within the product or you're actually doing it yourself, that's my problem. Gerard Cruz: That's a good point and 50% of the out performance against the benchmark is from securities lending, but I think the reason if we're going to get into passive management isn't because we're going to make more than the benchmark, it has to be because we think the markets are so efficient that hiring an active manager, the cost to do so out weighs the benefit of the additional amount that they will bring in, the alpha that they will bring in and what I think Maggie (Ralbovsky) is trying to argue is that with one manager on the equity side, Atalanta Sosnoff is representing themselves as a core manager but their actual executions make them look more like a growth

manager and so we may be over weight just based on how they're positioning their portfolio towards growth. Growth is suppose to be in favor now I understand? Maggie Ralbovsky: Not this past quarter but you're right, you have this unintended bet in growth which we discussed yesterday. Gerard Cruz: The reason to do it isn't because we're going to make more money, it's because it's cheaper. Maggie Ralbovsky: So you don't lose money. Gerard Cruz: And you make money by not losing money. Wilfred Leon Guerrero: I thought the whole idea of buying this index fund was to lower the risk. Maggie Ralbovsky: Lower the active risk. Wilfred Leon Guerrero: So what you're presenting is if we do it this way the cost will go down and that's fine with me but going back to your analysis of our portfolio and what the risk factor was, what was it? Gerard Cruz: I heard 90. Wilfred Leon Guerrero: Yes, 90 and we'd like to see it go down to 70. Maggie Ralbovsky: That is for this other discussion. Rosalie Bordallo: When you take it as an individual part the risk might go up but when you take it as a whole the risk will go down.

Maggie Ralbovsky: I can defer this discussion for later, it looks like we still have some hesitation on any decisions so we could talk about this later, maybe we should switch to this discussion. I think it will be beneficial to have 5 percentage points in these 3 categories. Gerard Cruz: But 5% from each, from inside the mandate. Paula Blas: From active Gerard Cruz: But what I'm saying is you want to take 5% from Atalanta Sosnoff, 5% from Fiduciary Trust... Maggie Ralbovsky: 5 percentage points. Gerard Cruz: And 5% from Franklin Templeton... Antolina Leon Guerrero: And the IShares. Gerard Cruz: The IShares is a no-brainer right because we already have passive management, moving to passive management at a lower cost. Rosalie Bordallo: Can I ask another question and this goes back to what Joanne (Grimes) eluded to at the last meeting and I think they asked that you look at it... Paula Blas: To see whether or not we could get into... Rosalie Bordallo: Right, she believed that we were basically walking a very fine line here as far as the percentage allowed by law in that category of assets because imbedded with some of these managers are already things that fall in that category. Maggie Ralbovsky: I did check with her and she is okay, she says she was thinking of something else, right now you have 2 managers that is commingled fund. Gerard Cruz: Who is the other manager, I know Capital Guardian? Maggie Ralbovsky: Capital Guardian and Dimensional, DFA. Rosalie Bordallo: I know imbedded with Eaton Vance, Eaton Vance has the Merrill Lynch shares in there. Maggie Ralbovsky: But those are ETFs right? Rosalie Bordallo: I'm not sure if they're ETFs. Maggie Ralbovsky: I did check with her, I did talk to her, she said it's okay, she said we're like 5% right now using up the 15%. Gerard Cruz: We're not going to see a significant change in the expected return because the allocation is the same, but would we see a change in our risk profile? Maggie Ralbovsky: From active risk point of view you would be reducing active risk because these index funds have no tracking error. Gerard Cruz: So right now our measure of risk, what's our accepted measure of risk? Maggie Ralbovsky: 15%. No more than 15% down with a 5% chance. Gerard Cruz: Over a market cycle. So we should see a reduction there? Maggie Ralbovsky: Well yes, because your active risk is being reigned in but marginally 5% is very small among all the things so it's marginal. Gerard Cruz: So a marginal reduction in risk and very marginal reduction in expected return. Ralbovsky: I don't think there's a reduction. Gerard Cruz: So why are we doing it? Maggie Ralbovsky: We save cost going forward. Gerard Cruz: If there's a marginal reduction in risk and a marginal reduction in our expected return, where do we see the benefit? Paula Blas: You're going to still get your return but at a lesser cost. Antolina Leon Guerrero: And rebalancing you said is free. Maggie Ralbovsky: Yes, rebalancing is free. Paula Blas: She said pretty much the expected rate of return isn't going to change, we would get the same expected rate of return but at a lesser cost to you. Gerard Cruz: You have to ask these

questions because we are making a shift so we want to know, if we're going through the exercise, how much are we going to save and how much is it going to reduce our risk and how much is it going to improve our return or at least or risk profile, will we appear less risky?

Maggie Ralbovsky: I have all your fees collected here. Gerard Cruz: I like that blue one and you're right, we need to address that. Maggie Ralbovsky: Oh but I was wrong, because it's 16 basis points because I was given one page of the 2 pages and one page says it's 42, the next page was actually revised to 16. So that reduces the 25 of your domestic fixed to 16 and that reduces your 46 to 43 and by switching to these index funds you're going to move that 43 to 40 and 43 is a very good fee and 40 is a really very good fee. Joe T. San Agustin: And still the same return? Maggie Ralbovsky: Same expected return. Gerard Cruz: But we do cap the alpha because now we're past it. Maggie Ralbovsky: You see I can't think that way. Gerard Cruz: We're giving up active possibility, we're giving up active potential. Maggie Ralbovsky: Yes, but you're controlling your active risk and active risk can cost you because of the tracking error effect as I said, you have a structural risk that's not compensated, that's not being compensated, so you take a structural growth risk or value risk for that matter, that structural risk at some point you're going to pay for it, so structural risk is not a compensated risk that you want to avoid and by having an index fund as the anchor of the portfolio help you control that structural risk. Gerard Cruz: I understand that but my concern is that we're in a funding position where we're still trying to dig ourselves out of the hole and so the way we are able to manage or create a risk profile that's acceptable is through the asset allocation and how we have actually performed through several market cycles is proof to the way we constructed our portfolio because it's performed exactly how we wanted it to. Maggie Ralbovsky: That's why I was trying to do a "what if" analysis.

Gerard Cruz: I understand that but the way I'm interpreting what you're saying and maybe I'm wrong, but the way I see where we're going is that we're removing the active risk which we pay a little more for but expect a lot more for in terms of alpha, but we're capping our alpha and in exchange for that we're not moving our risk profile much further down the risk line or the risk chart so that's why I was asking, are we less risky and when you said marginally no... Maggie Ralbovsky: You're switching back and forth from total risk to structural risk that's why I can't answer that question. From a total risk point of view there's no change because total risk is determined by asset allocation and there's no change of asset allocation, therefore there's no change of total risk and no change of total expected return. Now switching to the structural side, which is the active risk, you're going to reduce active risk and you're basically saying, I'm taking a little active risk. Gerard Cruz: But we're also reducing active return. Maggie Ralbovsky: That's right, that's why I want to separate these 2 issues.

From the total point of view there's no change, from the structural point of view I was trying to say, right now U.S. equity has a structural bias towards growth and that's the structural risk that's not being compensated, it will not be compensated in the long run that's the accepted conclusion that structural risk is not being compensated. By controlling that structural risk you're in essence adding to a structural return meaning active return, so you're improving your active return risk profile. Same thing for fixed income, because fixed income structural risk is the credit risk Franklin Templeton is taking, Franklin Templeton is way out there taking structural risk. By reigning in that structural risk you're also controlling the unintended structural return erosion. So, in theory you actually should improve your return in the alpha space, no change in the total risk space, total return space.

Now you can say, we're expecting more from this kind of an active management which obviously is true right, so that's why I was trying to do a "what if" analysis to say, okay what if this has been done 3 years ago, has it helped. So theoretically speaking it should help and in reality if it had helped... Antolina Leon Guerrero: In these 3 cases, but in some cases you said it didn't. Maggie Ralbovsky: That's right. In the other cases it wouldn't help, like REITs manager, you wouldn't want to do REITs, you wouldn't want to do emerging markets. Gerard Cruz: Emerging markets is not really efficient. Maggie Ralbovsky: That's right and index funds are expensive there too. We can talk about this again, I want everybody to be comfortable, so we can talk about this again and we don't have to make any decisions.

I'm going to move to these buckets. I have 4 buckets for you, the first bucket is the growth bucket which you have currently and stability bucket which you also have currently and there's 2 buckets right now you do not have participation in which includes inflation hedge and credit. If you recall the reason we are having this discussion was because your current portfolio has more than 90% participation in growth, that's not actually a-typical. Gerard Cruz: We have always been told that our portfolio looked valuey. Rosalie Bordallo: Yes and I agree with what he's saying. Because of the law, the structure of the law, it always favored value stocks because they had to all pay dividends, it had to meet the earnings test, so you can never really classify them as growth.

When you talk your valuey, your valuey is in the context of your total holdings which is not true, your actual current portfolio is growth, but this growth is not that growth, this growth is economic factor growth. Gerard Cruz: Meaning we expect growth to drive the value of our portfolio. Maggie Ralbovsky: That's right, so different risks in the market place, so risks are driven by different economic conditions and economic conditions are in the next page you can see there are 4 different kinds of economic conditions. One kind is a rising inflation, rising economic growth scenario which we don't' have and there's falling inflation, rising economic growth scenario which we also do not have. Rising inflation, falling economic growth scenario which you can see certain countries are like that and there's also falling inflation, falling growth environment which is in the U.S., that's the scenario. Right now your portfolio is benefiting from rising growth environment, it does not benefit from falling growth environment because 95% of the risk factor experienced exposure in your portfolio is in the rising growth area. I want to show you what asset classes are categorized in these 4 buckets because these 4 buckets performed differently during growth and de-growth, inflation and deflation scenarios. These are the asset categories and certain ones of these you currently hold and others you do not and I want to examine for the ones you do not hold whether they're allowed by the current law which was the mandate from last time and I did look into that. Currently the floating rate loans, commodities... Gerard Cruz: No floating rate loans, we can't do it? Maggie Ralbovsky: No, because most floating rate loans are mostly unrated or below investment grade rated. Commodities and high yield bonds, these are not allowed by the law, however if they are in a commingled fund they are allowed, that's my interpretation. So you cannot directly allocate to these categories but if they are in a commingled fund it is allowed, so that's my premise.

The next category, the emerging market debt actually is allowed because the majority of emerging market debt are investment grade rated, there is a very small portion maybe 5% that are not investment grade. You can easily constrain a manager to say, I only want investment grade rated emerging market debt.

This is the premise, I'm setting the stage and then I'm going to show you... We talked about Guam's portfolio relies on growth and this is so typical. Here's a 60/40 allocation which most pension funds, this is the most possible allocation for a pension fund in the U.S. is 60/40 and for 60/40 straight to asset class allocation it's 91% growth and 9% stability. So why do we do this, the question is why do institutions design portfolios like this and the reason is on the next page. Everybody has a hurdle rate and look at where the hurdle rate is, the hurdle rate is 7% for this fund and on average I think 7% is the average, 7.25% is the U.S. public fund average. To satisfy that hurdle rate there's only 2 classes that can satisfy that and that is equity, therefore by definition in the past the only way you can do this is to over weight growth because that's the only way you can satisfy your hurdle rate.

So now the next question to ask is, we have this hurdle rate, should we reduce it, well that's probably not a good idea. Should we design a better mouse trap, satisfy this rate and be balanced on economic factor analysis, theoretically you can and here's what you do. Finance 101, if anyone goes to finance 101 there going to tell you there's something called a tengion line investing. What is a tengion line investing? If you look at the efficient frontier on this page, the blue efficient frontier, this is your standard efficient frontier, higher risk, lower return, lower risk, lower return. So for 7% return you need to go to policy B, portfolio B. For portfolio B I want to show you the middle table on the right hand side, you can see portfolio B satisfies 7% return that has 54% global equity, 32% high yield and 14% real assets, no allocation to core fixed income, that's the most efficient allocation and this allocation has over 90% allocation to growth, if you count 75% risk allocation from U.S. equity and 20% from high yield. So that is your best bet if you want to meet the 7% return on the traditional frontier, however if you move to that tengion line which is the orange line and that tengion line starts with portfolio A which is what we call a risk parody portfolio, what is a risk parody portfolio? This portfolio A has risk participation equally from more or less equally from growth, stability and inflation hedge, so that's your risk parody portfolio. The problem with the risk parody portfolio is it doesn't give you the hurdle rate return, however if you draw this tengion line investing which supposedly exists you go to portfolio C, portfolio C has a equal weight more or less parody risk and a 7% return, but what does it take you to get to the tengion line? Leverage. So what you do is you borrow cash, you lever up on the asset classes that give you more stability and in theory that's basically what the tengion line investing is and when you use that technology or methodology, you come up with a risk parody portfolio that meets your return target, that portfolio itself is called a risk parody portfolio.

Page 10 shows you the contribution of risk. Portfolio C looks just like portfolio A, but has the same return as portfolio B. So from risk contribution-wise, portfolio C is the same as A, very, very balanced contribution from risk factors, but return is much higher. If we want to convert the Guam's portfolio into a risk parody portfolio, what does it look like?

I'm going to move now on to this page that says "the risk parody portfolio." You skip a few pages, I'm going to go back to those other pages. So let's just say we want to go to a risk parody portfolio, the risk parody factors are presented at the bottom, the contribution to risk. You see I have 4 buckets here, growth, stability, inflation hedge and credit and the contribution is all more or less 25% by these 4 portfolios. So these 4 portfolios are risk parody portfolios which is to say when growth goes up, inflation goes up, risk goes down, you're equally benefited so you're not betting on any of the economic factors, you're more, Bridgewater called it "all weather," your all weather portfolio. So there's 4 risk parody portfolios here I want to show you. The first one gives you a 4.5% return and 4.45% risk and

that is a risk parody portfolio with no leverage and this portfolio will have only 12% in growth allocation in terms of asset allocation, but the risk allocation is 25%. So it will have 5% in equity, 7% in REITs, 35% in fixed income, 9% commodities, TIPs of 27%, 7% emerging markets debt and 8% high yield. So this is the parody portfolio with no leverage. Then you will say, this is a terrible return, I can't take it, I need more return, then what do you do, you lever it up. When you lever it up you basically borrow on cash, you lever up to 50%, then that will give you 5.4% return and all the way you can see that to the right hand side if you want a 7% return in risk parody you need to lever up to 150%. So the portfolio will have 31% allocation to growth in terms of assets, 88% to fixed income, 91% to commodities and TIPs and 38% to credit, that's how you get to 7% with parody. To get there and to insulate you from any of the shocks of any risk factor you need to lever up 150%. You say we cannot get there, what's the solution? Joe T. San Agustin: What do you mean we can't get there? Maggie Ralbovsky: You cannot borrow 150% against your portfolio, so nobody can get there unless you're Bridgewater, a hedge fund gets there. That is a theoretical discussion on total plan parody which I can tell you some people have done that, some endowments have given...

So for public funds, the most people have done is to add a portion of their portfolio to be risk So you carve out 8%, here I did an analysis with 8%, you carve out 8% of your portfolio and give to a risk parody manager that manages the portfolio in the risk parody way as a portion of your allocation and that portfolio itself is risk parody and it's a commingled fund that can actually satisfy in your law because in the commingled fund you just get one, it's not a hedge fund, it's a risk parody. If we add 8% into your current portfolio what can we get, that's what I'm trying to present on this page. You can see your current portfolio is 40% U.S. equities, 14% non-U.S. equities, 6% emerging markets, so 60% equity and 30% fixed income and 10% REITs and that has a 95% allocation to growth, you have a 6.44% return expectation and 10.58% risk. You move to the right hand side the match actuarial return portfolio which is a 7% portfolio which increases your risk from the current level to 12% and that portfolio has an 8% risk parody and switches U.S. REITs to global REITs, has a fixed income allocation of 12% and a 69% allocation to equity. You say, that's too much, you can't take that much equity, so you move to the match current risk portfolio, this portfolio matches your current risk and adds 10 basis points expected return. differential between your current portfolio and this portfolio is to move 5% out of equity, 5% out of fixed income and give to risk parody. So that is the portfolio that can improve your current portfolio's return by 10 basis points and lower the growth factor by 10 percentage points to 85.

So what is my conclusion? My conclusion is that number one, without adding any asset class your current portfolio is very efficient, you cannot do any better without adding risk, you cannot do any better adding return, it's very efficient. Joe T. San Agustin: As it is now. Maggie Ralbovsky: As it is now. You did not hear my other thing, if you do not add any asset class. If no additional asset class is considered, you're asset allocation right now is very efficient, but that's a big if. Joe T. San Agustin: But we're not satisfied with just being efficient, status quo, we need growth in a sense because we have obligations. Maggie Ralbovsky: If we want to reduce the growth factor because we expect growth is going to be ---in the future which is very much consistent with our outlook, growth is going to be very difficult. Joe T. San Agustin: Our need for the result is getting bigger and bigger, so we need to have that expectation. What percent are we willing to put on the list, on a calculated risk. Maggie Ralbovsky: So you need to add asset classes. To make it more efficient, less reliant on growth because growth may not happen, you expect to participate in growth, if it doesn't happen your portfolio is not going to return as much as you expected because your expected

return is dependant on how much growth is realized, so if it doesn't realize inflation hits or deflation hits or any of those scenarios without growth being strong, your portfolio is going to suffer, it's not going to get your expected return. So how can you not sacrifice expected return in any scenario, you have to add asset classes, without adding asset classes you cannot get there and what's the best way to add asset classes and our view is that you add a packaged risk parody portfolio because you cannot risk parody your entire portfolio. Gerard Cruz: 8% is the number that you think is efficient? Maggie Ralbovsky: 8% is the number that can be tolerated by your 30% commingled fund with the other things and leave a little... Paula Blas: The limit on commingled funds... Maggie Ralbovsky: That's right, you have all these limits. 8% is something that can be tolerated within the policy. Joe T. San Agustin: How much are we willing to sacrifice to get on a calculated risk category to get a better return? Maggie Ralbovsky: You're not adding any risk. Joe T. San Agustin: You're putting a risk factor, parody, you're putting 8% allocation which is not there. Maggie Ralbovsky: You see, okay, what's the definition of risk, right it comes down to that and you're saying adding 8% to risk parody is more risky. Joe T. San Agustin: Not necessarily because my return may be worth the risk. Maggie Ralbovsky: No, it's less risky by making it more diversified. Joe T. San Agustin: Would my return be worth it? Maggie Ralbovsky: You're return would be better by our estimate. Paula Blas: She said you would go down by 10 basis points.

Maggie Ralbovsky: I did not expect any decision coming out of this, but I thought it's time we start this discussion. Wilfred Leon Guerrero: And in your view we don't have to change the law? Maggie Ralbovsky: You do not have to change the law, but I do think this is a very new concept and I'm willing to talk about it again and again. I really had no expectations for any of these to be decided on. I do think it is my duty to bring to the table the new thinking and I do want to make sure we continue this kind of a process, just discussion, brain storming, trying to see other ways.

Wilfred Leon Guerrero: Before we leave, is there any recommendation for action? Maggie Ralbovsky: Not right now. I was going to make a recommendation on index funds but now I see there are no votes. Wilfred Leon Guerrero: I don't have any problem with the use of index funds if it saves cost. Maggie Ralbovsky: It does. Wilfred Leon Guerrero: So I don't have any problem with that. I was just expecting this last issue... Maggie Ralbovsky: The growth issue... The easiest thing to do is to allocate a portion into the risk parody and given the constraints, you can only allocate maybe 8%, so you make a difference but not a huge difference, that's the conclusion I have, you make a little difference and it reduces the bet on growth by 10 percentage points. I will be happy to revisit, it's a complicated issue, I don't know what's the next step, maybe I can bring some strategies to show you to see how people do it, I'd be happy to continue, but we can take a breather.

I did consider asking the Committee to consider examining global REITs. You have 2 managers right now, both are U.S. REITs and there's only 100 securities total in U.S. REITs, it's a pretty small sector and your small cap managers buy some of those already because it's in the small cap index, so you're basically having a lot of duplication in that area with 100 securities to pick from, you have 4 managers in that fishing pond, fishing in that pond and U.S. REITs is 42% of the global REIT market and Global REITs gives you more diversification and a more bigger fishing pond for you to fish from. Joe T. San Agustin: Maybe that's what we need to consider now is global REITs. Maggie Ralbovsky: To change one of your managers, actually Cornerstone global REITs strategy is on our focus list, so you could theoretically convert Cornerstone investment to global which is half of their portfolio. Wilfred

Leon Guerrero: We just hired that manager. Paula Blas: You don't have to fire them. Maggie Ralbovsky: You don't have to fire them, just change the mandate. Rosalie Bordallo: If it's allowable in the contract, it's just basically saying to them, okay I want to expand this. Paula Blas: Can you just expand it into global. Maggie Ralbovsky: Just change the guidelines to give them a different benchmark. Rosalie Bordallo: Because all they're going to do is basically take their original portfolio and now you're allowing them to buy outside, they're still going to keep items mainly in that portfolio, they're just going to start buying other stuff and putting it in that portfolio. Maggie Ralbovsky: That's right. Joe T. San Augustin: What do you think will you entertain restriction as to how much is in global and U.S. within Cornerstone? Maggie Ralbovsky: Within Cornerstone usually it's half/half, then you still have Securities Capital which is 100% U.S., you still have 75% U.S. and 25% non-U.S. Joe T. San Agustin: You have to specify to Cornerstone... Rosalie Bordallo: I don't know if it's allowable by the contract is what is my concern. Joe T. San Agustin: You don't want to dictate these people. Rosalie Bordallo: I don't know how your RFP was written, if it was specific. Paula Blas: Let me just check, because you're right, it could just be U.S. Rosalie Bordallo: If it's in the RFP then you need to do a new one. Maggie Ralbovsky: I see, it's considered a different mandate. Rosalie Bordallo: Right.

Maggie Ralbovsky: So why don't we check and maybe next time I will bring some comparison of risk return and different sector allocations, differential between global and U.S., because REIT law was instituted in the U.S. in 1997 after that the global property companies now see it was very successful for the U.S. and they all adopted similar laws like in Europe, in Hong Kong, these different places they have these property companies that use to be private they owned all went public to become REIT companies so the REIT sector was expanding globally which gives you greater diversification. Asian REITs is actually like 22-25% of the index. Joe T. San Agustin: In Hong Kong and in mainland China. Maggie Ralbovsky: They can capture the growth there too. I do think there's lots of benefit going to global REIT, but it's a good point we should probably check the mandate.

So next time we can talk about the REITs and do some global comparison to U.S. and I will also do a draft for you for the IPS to include securities lending and review the other portion and bring some discussion points to the table. If you want to continue the risk parody we can talk about that but if you're tired of it right now we can take a breather and revisit later. Wilfred Leon Guerrero: What I would like to see is how much better the results would be, you're giving a lot of technicalities and I guess you need to do that, but I want to know the bottom line. Maggie Ralbovsky: Okay if my bottom line here is not good enough, I'll take some real portfolio returns, I'll take Bridgewater and IQR's portfolios and show you what they have done especially during the crisis Bridgewater's portfolio has done very well during the crisis because they were not betting on one factor. I'll do that. (end of tape 3) (End of discussion)

Respectfully submitted,

Stephanie A. Herrera Recording Secretary

8AN evac

Affirmed:

Wilfred P. Leon Guerrero

Chairman