NEW YORK CITY TEACHERS' RETIREMENT SYSTEM
INVESTMENT MEETING
held on Thursday, January 9, 2014
at
55 Water Street
New York, New York

ATTENDEES:

MELVYN AARONSON, Chairperson, Trustee
SANDRA MARCH, Trustee
MONA ROMAIN, Trustee
SCOTT STRINGER, Comptroller, Trustee
THADDEUS McTIGUE, Trustee, Comptroller's Office
SUSANNAH VICKERS, Trustee, Comptroller's Office
CHARLOTTE BEYER, Trustee, Finance
JUSTIN HOLT, Trustee, Finance
JANICE EMERY, Trustee, Finance
PATRICIA REILLY, Executive Director, TRS
SUSAN STANG, TRS
MARTIN GANTZ, Comptroller's Office
JOEL GILLER, TRS
PAUL RAUCCI, TRS
SEEMA HINGORANI, Comptroller's Office
DAVID JETER, Comptroller's Office
TATYANA POHOTSKY, Comptroller's Office
MARC KATZ, TRS
ROBERT C. NORTH, JR., Actuary
CHRIS LYON, Rocaton
ROBIN PELLISH, Rocaton
MICHAEL FULVIO, Rocaton
ROBERTA UFFORD, Broome Law Group
RENEE PEARCE

P R O C E E D I N G S

(Time noted: 10:00 a.m.)

CHAIRPERSON AARONSON: Ms. Reilly?

MS. REILLY: Good morning. Welcome to the January 9, 2014, investment meeting of the Teachers' Retirement Board of the City of New York.

I will start by calling the roll.

Melvin Aaronson?

CHAIRPERSON AARONSON: Here.

MS. REILLY: Justin Holt?

MR. HOLT: Here.

MS. REILLY: Charlotte Beyer?

MS. BEYER: Here.

MS. REILLY: Sandra March?

MS. MARCH: Present.

MS. REILLY: Mona Romain?

MS. ROMAIN: Present.

MS. REILLY: Joseph Lewis?

(No response.)

MS. REILLY: Scott Stringer?

MR. STRINGER: Here.

MS. REILLY: I'll turn it over to the Chair.

CHAIRPERSON AARONSON: Thank you very much and welcome to 2014. Happy New Year to everybody that is here.

We have the Comptroller of the City of New York here today, and I just want to remind him that as the rookie member of the board you have to go through the hazing process, and I will let you know about what that process is after.

(Laughter.)

MR. STRINGER: Fair enough.

CHAIRPERSON AARONSON: Thank you for being here and attending this meeting. Would you like to introduce yourself and your ideas about --

MR. STRINGER: Sure. I just wanted to come by today to introduce myself directly to you, to just say how excited I am to work with all of you. Some of you I have known for quite some time and I appreciate your advice and your view of how to protect the retirement security for the people that you represent, and to grow this fund in the most responsible way.

What I am trying to do, as a new Comptroller, is to build capacity in our office so that we can meet these economic challenges both as fiduciary of the pension fund, and also as the chief fiscal officer of the City. It's a responsibility that I take enormous pride in, but I understand that the stakes are very high.

I just wanted to let you know that I'm here to talk to people directly. In terms of some issues in our office, I just want to announce to you that Seema is going to stay on for at least six more months so that we have a smooth transition. I must tell you that we have transitioned and have worked very closely together with our new staff and Seema, and I want to say thank you to you. You really care about this work and you care about the role we play in the Comptroller's Office as fiduciary. I said to her: Just grow this fund as best you can with all of you.

I also went to announce that Thad, who I know has played an important role on this board as well as other boards, is going to be leaving. He is taking a pay cut --

(Laughter.)

No. He is going to be leaving the Comptroller's Office to do even greater things; and while I think that's a loss for the Comptroller's Office, I do want to thank him for his guidance and his passion for making sure that we have a seamless transition. I want to thank you very much.

The person who will be replacing Thad in our office is Susannah Vickers, who is here. Susannah has been with me as long as I have been in government, both my days in the State Assembly as our Director of Capital

Funding in the Borough President's office, and now in the Comptroller's Office.

I want you to know that she is smart, she is tough, she is open to listen, and she is the best person I can think of to give to this board somebody who knows me, knows my thinking, and someone I trust completely. So you are really getting somebody in the Thad tradition that you are really going to enjoy working with, and I am very proud to say that she has decided to come here and do this work.

That's really what I wanted to come by and say to all of you. Again, my door is open. I really want to work collaboratively. This is a collective, that's what a board is all about.

I do want to thank the reps, Mel, Sandra and Mona; they care so much about this work and they have been great to our office in terms of helping us understand the nuances of investing and the strategy around expanding the pension fund. So I just want to say to the three of you that I am looking forward to working with you in the years ahead.

That being said, I recommend getting on with the agenda, and I'm going to go back to the office and continue with our transition. So thank you all very much, it's great to see all of you.

CHAIRPERSON AARONSON: Thank you.
MS. MARCH: Thank you very much.
(Whereupon, Comptroller Stringer left the room.)
MS. MARCH: Mr. Chairman, I would like to ask a question: This is a new year. We have a new administration, and we have new designated trustees and of course everybody is aware of the fact that the three employee trustees are here as a result of an election, so we are here until we are unelected.
My question is really very simple: Since we are in a new administration and a new time, I would just like to know if all of the designated trustees who are representing people on this board, if you have your letters of designation, if we have received the letters of designation at the Teachers' Retirement System?
CHAIRPERSON AARONSON: Patricia, have you?
MS. REILLY: I have received Thad's and the Comptroller's Office designations, at this point.
CHAIRPERSON AARONSON: Okay.
MS. BEYER: My designation should be forthcoming sometime this morning.
MR. HOLT: I believe the same with mine.
MS. EMERY: It should have been sent over. I have a copy of it if anybody needs it.

MS. MARCH: Could you please give the copy to Mr. Giller, it would be appreciated.

MS. EMERY: I apologize for that, but I have it right here and I can pass it around.

MS. MARCH: No, we don't have to see it. You don't have to pass it around. Could you please just give it to Mr. Giller, who will make a copy of it, and you can have your original back.

CHAIRPERSON AARONSON: So we will gather those as we go along.

MS. MARCH: I assume, Justin, that you are on the designation that Janice is presently giving?

MR. HOLT: That's correct.

MS. MARCH: Okay, good. We have resolved all of the questions that I have, then.

Sorry, Mr. Chair, we can proceed.

CHAIRPERSON AARONSON: Okay. What we will do is, we will start this meeting with the public session on the QPP plan, and Seema, would you do that, please?

MS. HINGORANI: Sure, absolutely. Thanks, Mel.

Everyone should have the color monthly performance review book. Just before we start, I want to say that most of the pages are here. We are still transitioning from Bank of New York to State Street. We're getting all the numbers in order; we are getting all the pages in order. We will have a full set of slides for you shortly after this meeting, but what we have today will get us through the key points, in any case, that we want to cover.

With that, I figure we will skip over the economic slides, given that we have BlackRock out in the meeting area. They will come in and talk to us about their outlook for 2014 and what happened in 2013 and then beyond.

If you would then turn to page 27 in this booklet, these are the November numbers. We are going back a ways here, we are in January. We will quickly go through November; it was a good month. I will highlight some of the numbers for you.

So the Russell 3000 was up 2.9 percent; the EAFE markets were up about 80 basis points; emerging markets were down about 1-and-a-half percent; the Core+5 was down about 60 basis points; high yield was up about 30 basis points; and TIPS were down about 1.2 percent.

The next page, 28, is December, and again, another good month, even with all the rockiness and the ups and downs, given what the Fed may or may not have done. So the Russell 3000 is up 2.6 percent; EAFE, up

1-and-a-half percent; emerging markets, down about 1.4 percent; Core+5, down about 60 basis points; high yield, up about 46 basis points; and TIPS, down 1-and-a-half percent.

So, if you then turn to page 29, let's talk about a couple of numbers here. I know there are a lot of numbers on the page, but basically for November, the Teachers' Pension Fund was up nearly 80 basis points. The fiscal year-to-date number through November is up about 9 percent, a very strong number; if you add in what we just went through with December, which is again about another percent or so, the Teachers' Pension Fund is up over 10 percent for the fiscal year-to-date, which is, again, very strong.

I can tell you that as of 12/31/13, the assets under management for Teachers is 54.3 billion dollars, so a very, very good number.

If you then turn to page 30, which is the next page, again, going back to November, this is a contribution to return and, again, like we just talked about, the one month being up about 80 basis points, the fiscal year to date return about 9 percent, and that gets you, if you add in December, up to over 10 percent.

And then, on page 32, basically how we're set up, our asset allocation at the end of November, you might remember that through November and then into a little bit in December, but mostly through November, we were taking advantage of the strong equity markets in that we were above the range that you can see in the green bar to the left, and we were a little bit below the range in the blue, which is Core+5. So, we sold down some U.S. Equities and we reallocated that money into Core+5, but within the investment-grade credit area.

So now we are within balance, and we think that worked out well for us, doing that rebalance at the time that we did.

So, the next few pages are just some details around the asset allocation and cash flows and private equity and real estate. If there aren't any questions, that's it for us.

MR. McTIGUE: The speaker from BlackRock will be next?

(Discussion off the record.)

MS. HINGORANI: Martin, can you get the BlackRock books?

So here from BlackRock we have Obie, who you know well, and James Keenan and Kristen Dickey. James Keenan is a managing director on the credit side, and Kristen is a managing director on the equity side.

(Discussion off the record.)

(The BlackRock people entered the room.)

MR. McKENZIE: Good morning. Thank you for having us here to give you BlackRock's economic overview for 2014.

The burning question on all of our clients' minds is: What do we do with our money? We are here to talk to you about some of the issues and, hopefully, leave you with some information to help the process in deciding what to do with your money.

With me, to my right, is Jim Keenan who is a managing director at BlackRock and runs a 300 billion dollar business for us across high-yield investment grade credit, et cetera, but he is responsible for a lot of our assets.

To my left is Kristen Dickey, who is also a managing director of the firm, who has run our fig group. She has also been a spokesman at the right hand of Larry Fink in the investor relation's business and does a lot of interface with some of our large clients about what is going on in BlackRock.

Jimmy is going to handle the macroeconomic overview, the fixed-income side of our discussion. Kristen is probably going to spend more time with equities and how we see things. So we're going to touch on a lot of things: How the politics of Washington impact what we ought to do with our money, and are we looking at a growth market in 2014? Is it earnings or momentum driven? What is going to happen in China? What is going to happen in Japan?

So please feel free to interrupt us at any point in our presentation. We would like to engage you in conversation around these issues. Twice a year we get a hundred of our best investment minds together from around the world to discuss these issues and have a very healthy debate. There's some agreement and some disagreement in the room, as you would expect from very bright, intelligent, aggressive professionals. This document that you have is an outgrowth of our most recent investment -- BlackRock Investment Institute Outing, where there were 100 investment professionals.

We have 11,000 employees at BlackRock. A little less than a thousand are managing directors, and the best of those minds come together to debate and discuss the issues of the day.

So with that, Jimmy just got off Bloomberg this morning, so he has been peppered already, so he is primed to be peppered with your questions.

CHAIRPERSON AARONSON: Obie, there's no other brand that you can use for getting your --

(Laughter.)

Before you start, tell me, I know you guys have a trillion dollars under management?

MR. McKENZIE: We have 4 trillion dollars under management.

CHAIRPERSON AARONSON: 4 trillion.

MR. McKENZIE: We are the largest in the world.

CHAIRPERSON AARONSON: And most of that is DC money?

MR. McKENZIE: Oh, no, no.

CHAIRPERSON AARONSON: Or most of that is DB or most of that is unrelated --

MR. McKENZIE: There is really no sector of the market that we don't touch. We have two businesses: One is the asset management business, where we have 4 trillion dollars. A trillion over -- of that is beta business, then -- business; then, the rest of it is alpha business and either multi-strat or long strategies of various and sundry types to include every bucket in fixed income, equity, multi-strat alternatives, et cetera. There is no financial bucket that we don't touch on that side of the business.

On the other side of the business, which is our risk-management business, we manage over -- there's

14 trillion dollars on that particular platform, so we risk manage for our clients, as well as for our competitors, and we are proud to say that we have probably one of the finest and best-respected risk platforms in the world.

CHAIRPERSON AARONSON: My concern is the amount of money you manage for DC clients, and the amount of money you manage for --

MR. McKENZIE: -- DB clients.

MS. DICKEY: If you take the 4 trillion dollars -- 66 percent of our assets are what we call institutional money, so the balance of that is for individuals and retail, mutual funds, closed-end funds and things like that. So if you take the 4 trillion dollars, two-thirds, they call it, is institutional. Then, within the institutional space there's a handful of buckets, one of them is defined benefit and that's defined benefit globally. Remember, this is money throughout the world, so it's pension plans globally.

Another bucket is defined-contribution plants, which also fall within the pension bucket. Then, there is a smattering, and that smattering includes things like managing money for large insurance companies and banks who have captive assets or managing money outside of the United States for large central banks or official institutions; managing money for people, you know, big government agencies that don't fall necessarily into a defined benefit or a defined contribution type of framework.

So our institutional money has definitely got a very large focus on managing retirement, whether it's in a defined benefit or a savings-type vehicle for defined contributions, but we also clearly have a lot of presence in other types of institutional money.

CHAIRPERSON AARONSON: I'll try to get the answer. How much money do you have --

MS. DICKEY: -- in defined benefits?

Why don't we get back to the actual dollars.

MS. MARCH: That would be great.

CHAIRPERSON AARONSON: Take out all your other -- out of the 4 trillion dollars, take out everything else and compare that to how much you have in defined contributions.

MR. McKENZIE: That's DC business; we will come back to you on that.

MS. DICKEY: Not a problem.

CHAIRPERSON AARONSON: I have one other question. I don't know if I saw it in passing, reading it in the newspaper or hearing it on the radio, but just recently, maybe within the last day or so, you guys have come out with some change in policy of some kind?

MR. McKENZIE: Yes.

CHAIRPERSON AARONSON: Could you go into that?

MR. McKENZIE: Do you want to talk about that?

MS. DICKEY: Sure.

MR. McKENZIE: Over the years, Wall Street seeks to get information because the velocity of information impacts the investment decisions that are made in various portfolios. Most of you have heard of First Call for the last 30 years, where essentially analysts are digging around and talking to portfolio managers as early as possible about earnings expectations for various companies. Well, needless to say, Wall Street has been under fire with inside-information issues and how fast that information gets to financial institutions that control a lot of money.

You will see on the front page of the business section today that we decided to -- we had our own version of First Call because we are always talking to analysts. We decided not to do that anymore because of the challenges, regulatory challenges around who gets information first and whether or not that is fair to the overall public. Should we have the information before an individual has the information to make a decision about a stock or another investment or not? We decided to level the playing field. We are not asking anymore for early information.

So it is all about the velocity of investment information to people making decisions about moving money. When do you get it? Should a large institution be advantaged because they have a lot of money and have a large infrastructure over and above an individual? The answer is no, and for that reason we have come out on the side of not asking for the information at all.

CHAIRPERSON AARONSON: If all of your competition is using that and they are getting information faster than you are, is that going to affect their clients?

MR. McKENZIE: We will see what the end will be, but it is a question -- regulation on Wall Street is a question that's being asked of all large financial institutions, and when you are as big and as visible as BlackRock, we are always under the microscope for how we operate. So, with us taking the lead on not using early information to manage our portfolios because the timing of information affects investment returns, I'm sure others will likely follow or they are certainly going to be challenged by the issue.

MS. MARCH: Could I just do a follow-up to Mel's question?

When you let him know the amount of assets, could you please let him know what the percentage of your total assets are, in terms of how much is actually being managed in the defined benefit plan as a percentage of your --

MS. DICKEY: We will give you dollars as well as percent, so you guys can have both numerators and denominators.

MS. MARCH: Good.

MS. DICKEY: And we will also split it out so you know what is domestic versus what is not U.S.

MS. MARCH: Very good.

MS. DICKEY: Because defined benefit in the U.S. means a very specific thing, but it is not exactly the same in the U.K. or in Hong Kong or things like that.

MS. MARCH: Yes.

MS. DICKEY: So we will make sure that you have a real sense of what is U.S.-defined money and how that is all done. No problem.

MR. McKENZIE: I will say to you that strategically the defined-contribution business is a strategic business for BlackRock. Everybody is asking: How am I going to retire? What happens to me when my life exceeds my money? And so we have a major strategic focus at BlackRock on helping people to answer the questions. So it is expected to be a growth business.

CHAIRPERSON AARONSON: Does that mean that BlackRock is going to put out a paper saying defined benefit plans are superior to --

MS. MARCH: I knew that was coming.

MR. McKENZIE: I knew that was coming.

(Laughter.)

MR. McKENZIE: I knew that was coming. I was trying to dance around the bullet.

No, we are not going to do that and as a large institution, the largest in the world, you can readily appreciate that we can't say that one is better than the other because we serve both masters. That is just the truth. You can never expect BlackRock to say one is better than the other.

We will give you the advantages and disadvantages of both and it depends on who you are talking to.

MS. MARCH: Well, neutrality is all right. It assumes that we don't have partiality. I personally do not have a problem with neutrality. I do have a problem with partiality.

MR. McKENZIE: Right. We're neutral. Our partiality is to our clients' needs, so we are partial to what you want. We handle your assets. We operate under an investment management agreement with you, with philosophies that drive how we do things. So we are partial -- neutral as to the political issue, partial as to your needs and your requirements for what we do.

MS. MARCH: Now that you mentioned the word "political," I will say to you that if everyone were neutral, there's no doubt in my mind that there would be a greater towards a DV than a DC. It is the lack of neutrality.

CHAIRPERSON AARONSON: Anybody else have anything before we start?

(No response.)

Where do we start?

(Laughter.)

MR. KEENAN: I appreciate the opportunity to speak with you all and also thank you for everything you do. My sisters are teachers in Brooklyn and Queens, so I am biased.

(Laughter.)

As Obie mentioned, the questions that we get every year as managers is working with our clients who say: What do we do with our money? How do we invest? I think I will try to highlight some differences between what the economic picture is and what the policy picture is, and then how you want to think about it that way, and what does that mean for actual asset prices, and you have to think about your own asset-allocation scheme .

We sat down a couple of months ago with this BlackRock Institute, which brings together investors from around the world, all different asset classes. We spent a couple of days debating the world, trying to come up with outcomes for 2014 and beyond projections. I tell you, our big base case scenarios that we call "lower for longer," and I will come back to that, but you are in an environment with a low but stable growth profile.

We do think that there are relative in 2014, more than the last couple of years, there's more potential for the growth upside, where you are actually going to see an upside increase and expectations for growth. I will come back to that.

There is still a case, you know, the world still deals with this debt burden from the last 30 years and the central bank response to the financial crisis of a policy mistake, in which case you start to see imbalances over and more of a buyer's scenario, but we still think that is a smaller mitigant, probably about a 20 percent scenario.

So, within that, you know, why do we think that is our base-case scenario? We talked about the last 30 years and how we got to this problem. There was an enormous amount of debt put on the global economy. It varied on the types of debt, just depending on the region you were in. In Japan, it was largely on the government side. In the European system, it was in the banking system. In the United States it was largely on the household side.

The last five years have been a transfer of where that debt has really moved to, and as you went through financial crisis and that deleveraging, there was a real risk of deflation. In that scenario, you can really deleverage quickly through defaults. The problem is when you have so much leverage in the system, one man's debt is another man's assets, and when you wipe out debt, you wipe out -- in the system and that presents a real risk.

The response to that has been this significant policy response, all through central banking systems. Now, fiscal, as you increase your government balance sheets, have now started to have to pull back on that. You are left with an environment where the monetary policy is still very accommodating, right? Therein lies what do you do with your fixed income. When you have zero-interest-rate policy and you still have a lot of labor slack, you have visibility into zero interest rates for still another several years.

What does that mean for asset pricing? When I look at today's world, I think 2014 is different than what we have seen in the last five years. There's still a lot of debt. There's still a lot of debt on government balance sheets and that's the headwinds of growth. The central banks are starting to remove some of its extraordinary measures, what I call emergency measures of central bank response. So the United States Fed is going through this taper, and so it reduces quantitative easing policy. The People's Bank of China is starting to tighten up to prevent a real credit risk in the future. The ECB is still pretty accommodating but the Bank of England is starting to reduce some of its policy. So the world is starting to move away from the emergency measures associated with that and that's fine, but why that is happening is because the tail risk has been reduced.

Everything that we have been worried about over the last five years, because of what I will call the mismatched liquidity, there's been these bouts of inflation/deflation, growth/recession, and that has led us investors to think about how do you price assets? Do you want to own equities in 2010 when you're worried about the European banking system collapsing and you might lose 50 percent in six month?

Therefore, how that really translated into how do you buy that deflation premium, on one hand you might have just owned cash. Even though you are getting zero or negative real return, you might have owned cash. You might have bought ten-year Treasuries at 1.6 percent because you were still fearful of that deflation scenario, or you were only willing to pay 13 to 14 times for equity multiples, right?

What we have seen over the last 18 month is, the realization is that this central bank policy, that it has moved a lot of the liquidity fears and risk out of the banking system in Europe -- or out of the banking system in Europe, out of the households in the United States and into something that is much more stable, still leveraged but has long-term meaning. The United States Government has the ability to stand up, even though it's at a very high debt burden right now, to say, "I have a 15-year plan." Lehman Brothers did not have that option, right?

So the liquidity paradigm and the risk for a consumer or how an investor thinks about the world has changed. All right? So these are things that you start to reduce that downside risk and you think about investing. You think about asset price and things. So if you thought about 2013, what has happened was the U.S. ten year has gone from 1.6 percent up to 3 percent. Now, the equity market, you saw some marginal increase in cash-flow growth in EDS, but you really saw three terms of multiple expansion, and I look at that and really say: That was a repricing of that deflationary premium. As you start to reduce that risk, the willingness to bet on next year's growth is back in the market, so the multiple expansion is because of that.

The beta cheapness, it's not really cheap anymore, but it is not rich. We have moved to levels where you have to see the economy start to improve, but the deflation risk is gone. The yield curve has steepened, the equity markets have risen and the multiples are fair value.

Now you are in an environment where I do think you will see marginal growth in the U.S., 2-and-a-half to 3 percent. You see the European zone, where they start to see break-even become positive growth associated with that. Japan is going through a central-bank policy to really stimulate inflation and growth and a change in psychology.

These are things that I think now, I'm going to give you a scenario that I still think equities are the most attractive place on a total return perspective to be, because the dispersion of returns that you saw in 2013 are going to be tighter, right?

There's still potential, why we think there's a potential upside in equity, you can still see more margin for multiple expansion as we have seen through these cycles in the past, that people get very optimistic and they get bullish and multiples can really grow.

So we still like the equity market; as a whole, it's a total return, and I think the U.S. market, 10 to 15 percent, and I think Europe and Japan, because of kind of being a lag behind what the U.S. has done, has potential to make more upside because there is a bigger multiple difference between U.S. equities and what you see globally.

In the fixed-income space, I do think that you are going to continue to see the yield curve steepen, and that is based off of the same reason that you'll see multiple expansion. It is not only that you are seeing growth, but it is the optimism on future growth. All right? The yield curve is still based on what is your real-growth expectations and your inflation expectations and return premiums associated with that. So I think you will see the yield curve continue to steepen, and then I think, as you start to think about over the next 12 months, how you think about your asset allocations, is some of the things that we have been fearful of, because really, the yield curve steepening may grow long duration in investment-grade credit, long duration in government bonds, municipality debt; these things will start to add a more attractive, relative value, risk-return profile as you go towards 2015, and as people shied away from duration, duration will then be an attractive way to add income, diversification, and also a hedging on your portfolio, because at that level, if you do start to see price volatility or economic risk, duration risk and high-quality fixed income will add a buffer to your portfolio.

So, to step into the United States economy for a second: Some of the central bank's policy that has gone on, we talked about the U.S. households, when you went back to the 1980's, that had a 15 percent savings rate, and we went into 2007 and we had 300 million people with a negative savings rate and we were spending more money than we earned. The leverage was in the system, right, and as that started to collapse, there was a very big burden and the uncertainty started to essentially really grow, with consumption really slow and savings rates start to explode.

Today, when you look at this policy and where we've gotten, incomes haven't really come back; jobs haven't really come back in any significant way when people are used to the kind of a "V-fight exit," so you have to look at the longevity of what was created, and that means the debt burdens from 1980 up to 2005 and 2006. What has gone on is this policy has really pushed stability from the downside, but now you are starting to see the potentials for upside and there are still headwinds, but this is about long-term growth.

So the household level, if you looked at the interest burden on the household level, right, it's at a 30-year low. Because of what has happened with mortgage rates as credit cards have come down, as asset prices go down, people have been able to take down that interest burden. Their overall debt is just starting to come down, but that interest burden allows for more disposable income, even though you're not seeing your wage income increasing at the same pace.

What that allows for in this economy is stability consumption. It doesn't mean that you are going to see this 4, 4-and-a-half percent high economic growth, but it means the U.S. economy, which has 70 percent consumption, has a more stable growth profile. There are differences in regions and areas, in -- buckets, but that environment is allowing for that.

That comes back to this point of we're more convinced about the stability of that 2 percent growth and what asset prices should be doing based on that. When you actually come down to corporate profit, and what the equity markets are still pricing off of is not necessarily a robust economy, but it's how that current economy translates into profit growth at the company level.

And what you saw during the downturn, and the corporations have a very flexible market in the United States, different in other countries but in the United States, when they saw the demand falling and the uncertainty in the visibility in their future demand, they cut costs, and they cut costs dramatically.

As we went through 2009, 2010, 2011, and the uncertainty about the core economy as we have had major policy decisions globally, many of these companies have led themselves with very high productivity, higher margins and have seen cash-flow growth.

Today, I think as we go into 2014, the thing that we need to see out of this economy, one, from the

Fed perspective and also from a fiscal perspective, is corporations starting to spend. All right? Are corporations starting to believe in the stability of their growth profile and starting to spend in order to do that.

There are a couple of things that I think that this is a positive outlook: One, there are many of these companies, that as they run themselves for profitability over the last five to six years, there is a depreciation aspect. All right?

There is a simplistic nature of: We need to start doing this. Autos are a prime example of this because we have actually seen this. The average life of a car in the United States is about 10.8 years. So when we were running SARS or a selling rate in 2009 to 2010 of 8 or 9 million, the reality is, different than houses when everyone views that they go up every year, a car, when you pull it out of the lot, it's going down about a year.

So a ten-year old car has a high maintenance cost for people and so -- you don't necessarily need a $50,000 Escalade, but owning a car of $2,000 or $3,000, a used car. So even in December of 2009, the Manheim index, which translated into the used-car market, started to spike.

So, what we see that as, I believe that when you see that though a lot of systems, when you think about hotels, right, that haven't spent money or the typical wear and tear that you see run through the system, industrial companies, things that old technology needs to change, I think that's where you start to see some options.

Right now you are seeing more in the M&A activity and you are starting to see more growth with regards to CEO's and CFO's trying to reinvest in their business. A lot of it has been through buying back their own shares or increasing dividends, but now, when you start to see multiple expansion, they have to defend their multiples. And as they get more optimistic -- and I run a 300 billion dollar credit business -- when I talk to CEO's or CFO's of companies who, in general, like us, they're investors, they invest in their own business, they get paid in their own business, and they are becoming more optimistic, still hesitant but more optimistic on trying to invest and grow.

In some businesses it might be a restaurant company that wants to open and do other things. It might be a drug company that wants to increase its R and D spending. I think that is where you will see it. I think it will be slow, and I think that is going to be coupled with the fact that the fiscal drag is starting to be reduced, so the pull on the economy is starting to slow down.

So, I'm pretty optimistic, and I'm not painting a rosy picture where I'm saying the United States show grow at 4 or 4-and-a-half percent. I think that this is a longer term play, but I'm saying the stability of that modest slow growth is there. How you think about how that translates for pricing of risk assets or fixed-income assets is important.

So, I believe that the equity market is going to be the out performer this year. I think the fixed-income market, you want to change your allocation over the course of the year. I still like bank loans at a short duration-type credit, but municipality debt, investment-grade credit, long duration government bonds, these things have started to become more attractive as yield curves steepen and the risk-reward dynamic changes.

MS. ROMAIN: You made some comments about the automobile industry. Now, I think the automobile industry is becoming more of a core-type industry. I mean, I think they took such a beating that the ten-year average age of a car is more in terms of the improvement and the quality of the car, in terms of that; because I remember when three years and you'd better get a new car. So it's similar to what is going on with the smart phones. You could have a smart phone, it's a year and you're ready for the next one, because they are just putting incremental amounts into the value of that phone. So is there a response in the economy to the experience of the automobile industry?

MR. KEENAN: If you look at autos over the last 30 years, we have actually only had two years that auto sales were below 10 million. Even if you went back to the 1980's, auto sales were anywhere between 13 and 17 million in sales. The economy's population has grown; to get away from the top 40 MSA's, the infrastructure of the United States is not one where it has all the public transportation to get there.

So if you look at many regions where we joke saying: You can sleep in your car but you can't drive your house to work. Many people need an automobile to get to the hospital, to get to school or to get to work. So the reality is, the way we look at it, the scrappage rate, and autos are something like there are about 14 million cars that come off the road every year because there are accidents associated with them, because there might be a 13-to-15-year life, because Hurricane Sandy comes in and wipes out a bunch of cars.

I mean, that is a general attrition that just to maintain the amount of cars that are out there on the road is about 14 million. So that is the steady pace.

Then you look at -- I think your question is relating to other industries -- when you have the capital and if your business, you're looking at it and saying: What is my efficiency about buying something, whether it's the new smart phone, new technology or a new car, and does that make sense for me as a business or as a consumer? In some businesses it does not. Right?

If you look at, I mentioned the hotel industry. If you look at a hotel, maybe they are making the decision that I have rooms that haven't been updated in the last 30 years, but I am in a district where I have no competition, in which case I don't need to upgrade because I get no return on my capital for doing that. Well, you might be a hotel that's in Times Square and if you haven't updated in the last 10 years, then the ability for you to charge a premium on your room rate, relative to the other seven people who are coming in and competing against you, right, is now -- so might charge 500 a room where your neighbor is charging a thousand dollars a room. Right?

So every business is going to look at technology; they are going to look at the maintenance, they are going to look at their R&D and start to do that work. You see today, and what you see at this part of any life cycle, is people being more competitive to try to produce.

I'll give you a different example, Soft Bank. The United States' wireless industry is a pretty mature business. I mean, you have over a hundred percent of penetration with regards to phones out there. Smart phones are growing. You have a very small group of four real wireless service providers. Then you get a company like Soft Bank that comes in to buy Sprint. You ask Soft Bank what they are trying to do? Well, they're going to spend an incredible amount over the next three years, trying to build an infrastructure to compete against Verizon.

Verizon has a premium product online; that all of a sudden creates a competition, it creates growth, and then it probably creates a response from Verizon. One may be Verizon trying to spend to compete in some product or it might be Verizon reducing its costs, right, and offering its product as productive.

Those are all things that I agree with you. You have to look at each industry. Totally separate, if you take something like Yellow Pages or newsprint, how that industry is going to deal is totally different. Right? So every different industry, when you have a 2-and-a-half percent, 3 percent growth environment, there are winners and losers. There are industries that you see that over the next 30 years are going to be big growth and there's old world industries that -- I believe if you see growth, the beta's return that you guys represent, is incredibly important. The jobs of 2020 are going to be very different from the jobs of 1970. So the reforms and the education, what we need to do for our country and other countries is going to be very different jobs to match those jobs.

CHAIRPERSON AARONSON: Sandra, you had a question?

MS. MARCH: I don't know if you saw the article that was in the Wall Street Journal talking about income over the course of 2002 to 2012, where 90 percent of individuals have lost over 10 percent of their income. If you go to the 1 percent, and you break out .01 percent, the 1 percent has gained over 35 percent. The .01 percent is 76 percent.

So my question is, when you are talking to those CEO's, maybe Henry Ford could come back and talk to them and say: Our economic growth rate would be larger if the people who are really spending the money to buy your product, to help your stock increase, it would be that they should have more income to do it.

And that's really -- I think that that is probably 85 to 90 percent of the reason why you listen to the holiday season, everybody is concerned about how much all of the companies that we own stocks in earned during the holiday season -- which is a large percent of their income for the year -- why they are not meeting their growth rate; they are not meeting their growth rate because the people who spend everything that they earn are just not earning the money that they need to spend more.

That really, when it gets down to it, that is really the major problem that is existing in this country. It's that the average person doesn't have the money to buy the new Ford in nine years instead of ten years. So maybe we could make that part of your next meeting or seminar or summit or whatever it is that you have, and you have all the CIO's there, and maybe Henry Ford can come back and talk to all of them, because he did know that people have to have the money to buy his car.

MR. McKENZIE: I think that we're seeing a shift in the populist view. Our new Mayor, I think all of us are beginning to talk about income inequality. I think we all, as responsible citizens, have to throw our two cents in. I hear you loudly and clearly. I think as a corporation, and the largest in the world, we have a responsibility to the citizenry that we serve, particularly in the DC business that you asked about, to encourage us to understand that 70 percent of GDP is consumption and that's a lot of the people that you are talking about. So we are all talking about that.

MS. MARCH: I'm a fiduciary. I want everything that I own, especially the equity that I own, to be able to increase in value.

MR. McKENZIE: Yes.

MS. MARCH: They can't increase in value if the products that are being sold are not purchased. So that's really -- you know, income, that's really what the problem is right now. It is that simple.

CHAIRPERSON AARONSON: I think, related to this, I'm sure you know better than I that large corporations are holding trillions of dollars in cash. They would rather lose money, because holding that money in cash, means they are losing money, than to pay taxes on the money and then reinvest it. Has that discussion come up?

MR. KEENAN: Yes. We talk to these

companies as well. I agree with you. I think that these are long stages and a couple of things: If you look at the companies that are holding a lot of cash, they are under pressure as well. Right? So you have activist shareholders that have grown dramatically. As we talked about, cash is not a zero return, cash is a negative return.

So, if you are talking about all the money that is sitting on a balance sheet of cash, then those CEO's and CFO's are telling their shareholders that if they deploy a dollar, they cannot be a zero percent return. Right?

So the pressures on this are from shareholder pushing down and saying: Either return that money back to us that we can go do something, whether that's even buying 2 percent debt, or we can do something, we're not investing in your equity for you to sit on that cash.

So they are feeling a lot of that pressure. In '09, 2010 and 2011, they got away with it because of all the uncertainty on it. Today they get a lot of pressure from their shareholders and that is part of the reason why you start to see the growth.

With regards to the income inequality, I a hundred percent agree. I think there are multiple stages to this that start to put pressures on that. One, it is hard to push in when you have such a high level of unemployment, all right, and there is that unemployment, but there's so much slack and the labor is so available that they don't have the pressures on them to try to push that up.

As you look at what the Fed policy has really done, as we talked about the corporations holding cash, those who own cash -- and whether you're 1 percent or whether you're a corporation that is sitting on cash, if you sat on cash, you have lost money. You have essentially transferred value.

So what the Fed has done has pressed asset prices. So even though the 1 percent owns the most assets, but they also own the most savings and cash, many of the country, when you go back five years ago, had a negative equity value in their home, right? For much of the country their house was the largest personal wealth that they had. So much of that has decreased.

If you have seen asset prices and many of these jurisdictions were housing prices that sky rocketed up about 30 to 50 percent, their risk of defaulting has decreased dramatically. As unemployment starts to come down, and we see this in some areas, in areas where there is a mismatch and a tight labor market, either because of the skill set or because of the location, they are forced to pay out that income. On a national level, you don't see it, but in some areas you are seeing pressures on that. An engineer in Silicon Valley, right? An engineer in technology in New York or Boston, there is a premium that is put on that. So there are some areas.

As we start to go through this and, again, this is long life thing, and the unemployment rate starts to get tighter, I do think you will see some pressures to see wage inflation up. We need that. As a country, we need that for a longer term sustainable growth.

MR. McKENZIE: Do you want to swing to equities --

MS. BEYER: Could a just ask a question, Mr. Chairman, on the macro?

CHAIRPERSON AARONSON: Please.

MS. BEYER: I heard you just talk about wage inflation, but I think what I heard my fellow trustee ask about was wage deflation and how it's gone down. My question is more about the consumer and the retail market, because I heard you say that you see some consumer stability, but what about disruption of the Internet? I live here in Manhattan. This huge Barnes and Noble on Union Square is shutting down and I am thinking, who is going to go in there and rent it?

MD. DICKEY: A bank.

MS. BEYER: Well, There's too many banks already.

MS. MARCH: Cosco.

MS. BEYER: I think what I am seeing just in my neighborhood is lots of storefronts are for rent, lots of storefronts are closed; the Internet online buying has gone skyrocketing. So what is that disruption as a possible surprise on the macro level, is really my question.

MR. KEENAN: I don't necessarily view it as a negative surprise, right? Some of the things, if you have seen -- what I said was jobs in 2020 will be jobs, different jobs than 1970. In last 34 years we've seen an enormous amount of construction on retail square footage, right? Much more so than the actually consumer has built.

And when you look at technology, you know, the technology shifts are just creating different jobs, right, and technology, in and itself, is somewhat deflationary with regards to jobs because, you know, you look at an Amazon warehouse and it is completely done by robots as opposed to people. Even E-ZPass, right, you don't have the same labor needs for that. I think it doesn't necessarily means a downtrend, it means the economy is shifting; natural gas versus oil. These are things that have shifted.

I look at that and how you say that and more capacity opens up. So maybe it is Cosco or maybe it is a restaurant and maybe it is a hardware store that could not afford that square footage because selling hammers would not allow them to be profitable if that's what they had to pay per square foot in a lease rate. So, there is, in areas, you will see a real-estate deflation on some of that pricing, right?

So that opens the opportunity for other businesses, in order to have a profit margin and able to grow, as you mentioned. Somebody will take it because either they won't rent it and the person who owns that real estate will suffer or they are going to drop that level in pricing to a point where somebody will own that square footage.

MR. McKENZIE: That being said, and I hear you, there are two economies out there: There are the haves and there are the have nots. When you talk about 7 and 8 percent unemployment, you have to look very hard at a lot of people who are dropping out of the job search market. So you really have to take a very careful look at those numbers.

There are headwinds in our macro system. There are lots of reasons for there being an upside, but there are also some headwinds and some of these places are closing because the buyers are not there because they don't have the money to buy. Others are not going because the way people read, they are changing because of the Internet.

We have to look very carefully when we are analyzing macro-economic issues as to what sector of the market are we talking about back, which gets back to your point. Income inequality is real. 70 percent of GDP is consumption and a lot of that consumption are real people that have to go to work every day for a salary. And, so, we have to be very careful about what our assumptions are as to what those headwinds are and how serious that could be in a possible disruption of the 2-and-a-half to 3 percent growth that we're expecting in domestic.

MR. KEENAN: I will make one more point just to draw a comparison on the two. The United States has had the advantage over the last several years because it is, on a national level, it is a very broad, diverse economy. Right? When you have had issues with regard to the real estate and really hurt areas like Nevada and

Florida or you have had downturns with regards to the auto market, which really impacted Michigan as a whole other, you have had other areas in the country that have done really well, like northern California.

So, as a whole, on a national level, as everybody pays federal taxes, we have been able, not that we haven't avoided a recession, but it's different from Europe. If you look at Europe as a whole, it's a very diverse market. In Germany there's an output driven market with high technology; Spain is a very real-estate driven market, right? So the issues they dealt with in 2010 is, you had a very localized real recession and unemployment in Germany is very different than unemployment in Spain or Portugal.

The United States, one of the benefits from the one culture, similar languages, has been the mobility of labor and people; if they couldn't find a job in northern Florida where construction was, they can then move to somewhere else? You don't necessarily see the same for somebody moving from Barcelona to Frankfort. So those are the things that -- I think you will see more now, especially as some of the negative interest or negative equity in people's homes, some of that prevented them from being able to move because they couldn't sell their house because they had to show it to a bank, you know, money to pay, they were short. I think you will see some of that start to come back. It is slow.

MS. ROMAIN: I can use myself as an example, I didn't go into one store this holiday -- not one. I didn't get caught up in the delivery problems either, so that whole business is probably going to be much more expanded in the future, but people, you know there are behavior changes.

MR. KEENAN: So if you think about that, so maybe the store clerk lost a job, but FedEx or UPS had to build out infrastructure, railroad infrastructure in order to be able deliver that within 48 hours.

MS. MARCH: But it is also, for those people who are working, what kind of an economy are we developing when all of the job growth has been in part-time, low-paid employment that has to buy the milk and the bread and can't go in and buy the Apple products that we own the shares in.

MR. KEENAN: This is the downside risk. Central bank policy has done a very good job about reducing that downside risk. Now, it moves the fiscal side; important for long-term growth, you need reforms to come into place. Right? You need education to teach these jobs for this economy.

CHAIRPERSON AARONSON: Speaking of education, there is a great mismatch because of the education system. Here we have a Mayor who is talking about improving education and to improve it you have to take the small number of wealthy people in New York and charge them a little extra in taxes. These people, I think for the most part, are the smartest people; they are the corporate leaders and so forth and so on. They know that they have a lack of employees.

Why is all this resistance to paying a few more pennies in tax, if they know, as I believe they do, I believe that by getting better educated employees, it is going to help their business, and yet there's all this resistance.

MR. McKENZIE: I don't think that has computed yet. I think we all know the greed factor, and that greed and self-interest drives a lot of our economy. So, until we really change the behavior of behavioral finance, until we change the attitude of people in business as it relates to self-interest versus self-less, then we are going to continue to have that problem. That's not a new problem, as we all know. It continues to be pervasive. I think the Pope is obviously on our side.

(Laughter.)

He has shocked a lot of people with his views, his populous views, et cetera, and a lot of the wealthy are not really happy with his position. I think these are behavioral, almost spiritual issues that have to be addressed. If they don't change, the money will continue to follow the attitude that says: Me, mine, and no more.

CHAIRPERSON AARONSON: What is the chance of a fellow like -- what's the name of your CEO, Fink?

MR. McKENZIE: Larry Fink, yes.

CHAIRPERSON AARONSON: Larry Fink; him coming out and making a statement that he knows that educated people working in the companies and so forth is great for the economy. Why can't, perhaps, somebody whisper in his ear to make such a statement.

MR. McKENZIE: Kristen, you ran investor relations and you worked with Larry Fink every day.

MS. DICKEY: So it's my job now?

(Laughter.)

MS. DICKEY: I was yelled at every day by Larry.

MS. MARCH: Before you answer, the hero of every person who is a high-school graduate who pays attention to what is going on in the news is Warren Buffet. And, therefore, we need more Warrens, because there is no doubt, Obie, what you have said is absolutely true, the message that is being given is very different than the message that should be given, because if I share just a little, I will make a lot. It translates into the value of the assets that we own here at the retirement system.

Mel is absolutely correct. We just need more Warren Buffets to do that, because they are the pacesetters in this country, and they can get the media to pay more attention to them than any of us sitting here at this table.

MS. DICKEY: Before I do what I do now, I helped start our investor relations effort at BlackRock, which as a publicly traded company, for a very long time we had several large partners. We didn't work with shareholders to a great extent, we had three large partners despite being public. Well, now we have a lot of shareholders and we needed an effort in place to communicate with them appropriately about how the company was doing, be able to work with the Wall Street analysts, and so I did that and I had the pleasure and privilege of working with Mr. Fink pretty much every day, which sometimes meant he yelled at me.

(Laughter.)

Actually, for sure, he yelled at me.

MS. MARCH: I hope you responded correctly?

(Laughter.)

MS. DICKEY: I'm still here and I had the benefit of learning a tremendous amount, too. That was fantastic.

So a couple of things on the equity markets. You know, coming off of a year where you have earned 25 percent in the U.S. and north of 20 percent in most developed countries, to Jimmy's point, the question is always on everybody's mind: Now what? How do I invest my money? What do I think about?

The performance of equity markets, while everybody wants to look at the S&P and feel very pleased with the results was also a tale of two stories. As you know well, owning a large emerging-equities portfolio, emerging markets did not have similar results and they actually underperformed pretty terrifically. I want to spend a couple of minutes talking about what went on in 2013 and around the world which sets the table a little bit for the outlook for 2014.

I will do the U.S. last because Jim has done a nice job. Clearly, the situation in Europe, while in 2010 the word that comes to mind is somewhat dire in the banking system. Part of that is because while we do have a centralized monetary authority in Europe, the actual activity of changing the banking system was one of trying to get ten countries together to think about doing things in each of their own countries, with a very dramatically different situation.

As a result, they were not as quick to the draw as we were here in the U.S. and the ramifications of that existed for quite a while. So you have not seen the recovery in Europe to the extent that you have in the U.S.

Clearly, as Jim mentioned, there are pockets. In the U.K. things are moving quite on the upward stream; Germany is an export, but southern Europe still remains under great pressure with Spain, Italy, Greece really, frankly, being buoyed by their northern colleagues in Europe.

So, European, while we think that there is still a lot of work to be done, they are, I would say, less stable from a growth perspective than we are seeing here in the U.S., but there are still some real risks out there and they still have a lot of wood to chop.

Moving further east, we can look a little bit about what is going on in Asia. There was a lot of press in 2013 about China. Was China going to have a hard landing? Where were we going to find China? China has proven to continue to be resilient. One would hope so with a population of their size.

While we saw a slowdown in growth, they seem to have manufactured one where it wasn't quite an explosion, going from 11- percent growth rate, which everybody knew to be highly unsustainable, to moving into the high single digits and ones we consider to be at a place where, as they take steps to really help monetary reform and deal with their consumers, as well as the huge growth that they have seen in terms of urbanization, we expect China to continue to be able to make pace at this level.

Our friends in Japan, frankly, you know, the natural disasters in Japan had two effects on it: It not only had a massive blow to the economy several years ago, but it also was a massive blow to the psychology in Japan and really was the catalyst in many ways for what you are seeing with Abe. You are seeing Japan, for the first time, really start to identify issues that it had frankly not managed well for over 20 years.

You have them taking very, very aggressive policy to manage their currency. You see them having a very, very hard look into wanting to get and draw capital into their equity market, and we are beginning to see the real senses of structural reform. We're in the early days, we don't know how it's going to go, but we're starting to see. As a result, you had Japanese equity markets up 40 percent last year; pretty amazing.

So the impact of China, the impact of growth in the U.S., those two things are big reasons for why the emerging markets underperformed. China were huge buyers of commodities. The emerging markets, the largest things they have to export are commodities and they're big drivers of those economies.

We don't expect to see an uptick again in growth in China or, frankly, in buyers of huge commodity-oriented products. We expect the emerging markets to sort of continue to be under pressure and underperform, while longer term we are very, very bullish on our outlook for where they could go.

Turning to, then going full loop around the east to the U.S., as Jimmy set the table for how we see things in the U.S., you know, what drove U.S. markets last year were several things: We definitely had a people feeling of greater confidence in what was going on in the system; people feeling like they were not in a doomsday scenario anymore and there was a place to invest their money, but they also found themselves in the zero interest rate policy, people wanting predictable income and stock dividends became the answer for that again.

We saw more money in income and dividend-oriented equity funds than anything else last year, and those are the stocks that were high payers, returning that capital, as Obie and Jamie have talked about, to the consumers so they can do what they want with it, with the companies that really continue to do well.

Corporate CEO's, as Jim discussed, do still have a little reticence. They haven't been really poised for growth. It's starting, but they didn't do a lot of that in 2013 and, as a result, they bought their own stock back. The supply-and-demand effect of the fact that there were more people buying their stock back than IPO's also led to having a terrific stock market in the U.S. in 2013.

So, can we repeat all of these things in 2014? My colleague over here says no. He says we can still do double-digit returns of 10 to 15 percent, but 25 is a lofty goal. I don't disagree with him. I think that is an anomaly and Obie will never bring me back if I promise 25 percent, but I will say that there are some things out there that may make the continuation of 2013 go on into 2014 a little bit longer than my colleague two seats down thinks.

We may be in a position where the outlook for things in the U.S. are terrific. Right? We are developing an energy policy of independence that will help us be net exporters as opposed to importers. We are seeing a surge in companies wanting to build and grow and manufacture in the U.S. again. I mean, BMW is building a plant to build cars in the U.S., in South Carolina. So you are seeing pockets of that happening, but the pressures that exist in the economy that we spent some time on this morning are very real.

There's still a situation in Washington at the federal level where it is very, very difficult to have there be actionable outcomes. I'm trying to be as neutral in my tone as I can about Washington, but the fact is that if we have another year where you have such huge, I would say polarization of thought, that it becomes very, very difficult how to see that things can get done, frankly.

MS. MARCH: It's not Washington, it's the people who happen to be there now.

MS. DICKEY: I don't disagree. The city itself is lovely.

(Laughter.)

I was there in December, it's lovely. Nonetheless, it's hard to still get things done. So that will mean that corporate CEO's, while there is an impetus to take on the new project, to rethink things;

until they have a better sense of what the tax policy is going to be, how they are going to handle various types of new insurance requirements, what things are going to be looking like with respect to larger questions of policy, you still might see them continuing to buy back their stock and that would mean things more positively.

So let me try to bring this together a little bit and talk about what this means from an asset allocation point of view. I think that one of the things we have talked about in this "lower-for-longer" scenario is that while we have a lot more to look forward to than we had in many past years, there are sill a lot of risks out there. There are still a lot of questions that are unanswered.

Therefore, you know, we continue to be huge advocates of being as diversified as possible; that we are not in a position where we think you should be taking risk off the table, but we are in the position of maybe you being a little bit more forensic about how you think about your risk; be a little bit more creative about how you think about your risk. In many respects that means, are you thinking about fixed income in the traditional ways? Maybe it makes sense to be thinking out of the box a little bit and doing things in a more opportunistic-run constrained manner.

Within equities we encourage you to continue to hold force with your emerging markets, because despite them being a little unfavorable today, longer term we think they will be the growth engine for equities. We continue to suggest that you should stay hold in the U.S., the outcome, and where you think of things in the U.S. will be good, your value portfolio will continue to shine, particularly in this demand for income environment, but we also would encourage you to continue to also think about the world globally. There is opportunity to take advantage of some of the things that are going on outside the world, like Japan, but we encourage you to do it in thinking about it from a global perspective.

So I know we had an hour and I've taken two minutes extra, but thank you for your business and most important for inviting me, I have never been here before.

MR. McKENZIE: I will bring her back.

CHAIRPERSON AARONSON: Not to rush you.

MS. DICKEY: We're not going anywhere. We're being sensitive to you.

MS. ROMAIN: Can you talk a little bit about infrastructure and how you see us moving forward?

MS. DICKEY: Infrastructure?

MS. ROMAIN: Yes.

MS. DICKEY: Well, there's a couple of ways to do it, there's debt and equity. Right? I think we are fanciful and we do both quite well. I think that one of the ways that we like to express infrastructure is, because organizations like yourself are long-term investors, you are folks that have cash-flow needs way out into the future and that makes you the perfect buyers of infrastructure-type products.

One of the ways that we have thought about infrastructure is to take advantage of where it's doing things that are new and different; so whether that is renewable energy or doing it in investment in different kinds of smaller start-up-y kind of things through private equity. So, we think that it certainly makes sense from an asset allocation point of view. Jim's got a whole host, he's got, you know, a product here in the infrastructure belt, so I will let him take over.

MR. McKENZIE: At the expense of selling, which we're not here to do, our view is clear. Obviously the country is falling apart, bridges, roads all need repair, and so there are opportunities for investor capital here. Some of that is tied to contracts which makes some of this stuff a bond on steroids, so we're talking 12 percent, 10 or 12 percent return.

We have funds like everybody else has funds. Our view is that obviously there is a need, there is a demand, and we have approached that. It's not one of our biggest businesses but we certainly think that, needless to say, there is demand.

MR. KEENAN: I'd like to make a high-level comment. Infrastructure is different in different countries. All right? Everybody has different needs. I mean, each country is a different region. Much of the world is always borrowing through the banking system and they finance that as a way. So into China or WMP or wealth management products, still have a role or a need. They are still borrowing, whether it's airports roads and tunnels and things.

But as your regulation and balance sheets from banks are getting pushed down, much of this is now going out to the private market, and I think for investors, and certainly investors like yourself who are longer term, it does provide a new opportunity to be in diversification associated with it, whether you are talking about equity or debt.

In the investable side of what you see today, infrastructure in the United States comes to the market in a couple of different ways: Some go through the municipality desk, where you can actually see a hospital or an airport or a hangar, something getting financed in that way. Those tend to be smaller, less restrictive. Then there's now debt that's now coming to the market.

What we see in the United States, away from some of those other deals, you have some of your tunnels and your roads, but obviously, because of the economy we're in and the fiscal balance sheets we're in, there is not a huge amount that's getting spent. I think that is important for the United States longer term, to spend on infrastructure.

What we see investable in the United States to a larger degree is an infrastructure that is getting spent around utilities, around the natural gas pipelines, new infrastructure around building out from that. Sometimes it comes through the corporate market and sometimes these companies access a different bank where it is secured in an infrastructure loan. That's usually an investment-grade type of structure that's paying probably 150 to 200 basis points more than what we are getting in investment-grade corporate debt.

When it comes to the equity market, Obie mentioned this, it's usually a partner that comes in and owns part of that equity cash-flow stream from that specific project. You see a lot of that getting done in natural gas. So my team in infrastructure in the U.S., that's a lot of the focus on the renewable side as well.

In Europe, it's a bit different. In Europe it is still a lot of the bridges, tunnels and roads. We have a development team there and they can access with some of the local governments around that. But all of our conversations globally is that every government official is looking out over the next 10 to 15 years and saying, "How are we going to do this? Where is the capital going to come in?" Because the traditional ways that they have done that have changed.

So I think it's an evolving asset class that is going to continue to grow, as well as most things that had been traditionally done by the banking system, they can no longer balloon their balance sheets.

MS. DICKEY: This is also part of the huge growth that you saw in China. You talk about infrastructure in the U.S. as being a repair of something or refurbishment. When I was in San Francisco in September, everybody was all excited because they had, for the first time in I don't know how many years, built a new Bay Bridge. China built like 30 of them. Right?

So you are seeing the growth in the

commodity demand and everything that you saw going on in China is building, you know, tens of the times of things that we are doing. We are trying to figure out how to fix the Midtown Tunnel; they are building a new one.

MR. KEENAN: A funny anecdote: I'm at a dinner with the UTS CEO about two months ago and he gave me what the outlook for UTS -- they make elevators.

MS. DICKEY: United Technologies. They own Otis.

MR. KEENAN: So he said in Europe, all of Europe, they plan to build around 10,000 new elevators. This luxury has to do with the new buildings that are being put into place. In the United States I think it was 25,000. In China, it was 550,000.

MS. ROMAIN: But that's all government?

MS. DICKEY: Not all government. We joke about it. I was at the same dinner with him, and jokingly, you know, in China, effectively, a building to have an elevator, had to have more than six stories. So now they are finally putting in elevators. We would have been shlepping up seven flights of stairs, but in China that's sort of what happened. So the demand for elevators is now everything from residential to commercial there.

MR. McKENZIE: But a lot of it is debt

driven, and for those people who look at China and see some headwinds, there are headwinds in China. There's a lot of debt underneath a lot of that building and debt, as we all know, has been the very cancer that's eating the equity out of the world financial markets. So there are other views.

CHAIRPERSON AARONSON: In yesterday's speech by Governor Cuomo, he talked about infrastructure in New York State. Did he talk about any ways that he might raise the funds for it?

MR. DICKEY: I didn't think he got into the specifics of it.

MR. KEENAN: I mean, they have to look at each one of these projects and look at, you know, what the cash flow is going to draw, how it will be supplied. Some it might be financed by a budget that exists or a tax policy. Some of it is going to be borrowed by a local bank. Some of it is just the municipality market. Some of it might hit an infrastructure loan or an infrastructure equity-type plan. I think they're all going to be different and it's very specific.

MS. HINGORANI: You'd think the right to airports would be terrible.

CHAIRPERSON AARONSON: The road structure here in New York, for instance, you can't drive 50 feet without damaging your tire. We haven't done anything here about it. The Mayor, the ex-Mayor brags about how he left the city with a balanced budget and so forth, but he left the city with billions and billions of dollars worth of infrastructure.

MS. MARCH: Right. I know that you speak to people who are coming up and looking for new products. Maybe they could talk to people in Australia or Canada and find out how they could put products together, investment-grade products that we could -- because we have an asset allocation for infrastructure. There are not products out there that can be presented to us that are reasonable for us to invest our money in because 2 and 20 is a bit much.

MS. DICKEY: They also have a 9 percent consumer savings rate in Australia, so their superfunds can do quite a lot.

CHAIRPERSON AARONSON: We have plenty of money, too.

MS. MARCH: We have money, yes.

CHAIRPERSON AARONSON: Can I ask something about Japan? It seemed that Japan had the highest stock market in the world a few years ago and then completely collapsed and stayed collapsed for many years. What happened in 2013? How did they get smart and do so well?

MR. KEENAN: China is -- this is a global debt problem. All right? So people compare emerging markets in the developed world and the developed world is largely the ones with the debt. Emerging markets don't have debt but they sell a lot of products to the developed world who has bought it through a lot of debt.

You know, Japan has gone through a 20-year period, as Obie talked about, of inflation. Right? So there's a big psychology shift that occurs there in that environment, and you have a very aging population in Japan. A dollar or a single yen is the best investment that you have because a year from now that yen is going to be worth more than anything else you can buy.

So the psychology there is one where you want to save and you don't want to invest in anything. You don't want to buy anything because the way to make money is actually holding on to the yen. And what Abe and that policy is embarking on trying to do, and it involves the three arrows, is really trying to enforce a change.

So one of the things beyond the U.S. paper language, the bank of Japan policy was another reason why you saw a huge vol spike in interest rates, including the United States Treasuries, in June of last year, because the reason is that everybody had thought that this market was a deflation market, right, and that ten-year JGD's traded at 30 basis points, and that was the best asset to own because it was, in real terms, a very good return on your capital.

Then, all of a sudden, you had this shock in awe, where the Central Bank of Japan came out and said: In two years, we are going to do everything possible to get our inflation rate at 2 percent. So that had to change investment schemes everywhere.

What you immediately saw was the massive volatility in currency, which is the most liquid part of the world, because the yen and a lot of the dollar/yen trades had to get unwound because now you are increasing vol**. That's starts a roll and the rate starts to roll into corporate and then you started to see the policy shift around that.

So when go into Japan you have to look at as you have seen that market and deflation, it has really worn down their economy. So they are embarking on a longer-term thing. The first immediate thing was a reaction. That had a massive impact on its local stock price, as well as its currency. Right?

But there's a longer-term theme in this. Japan is still the third largest economy in the world.

It's partners to the north, and it doesn't necessarily have the best relationship, is becoming a global economic powerhouse. So Japan has to start to change and has to start to do things because it does run a risk that in ten years from now of economic insignificant.

So there are a lot of things. The first reaction is the stock market. You now need, like everywhere, to see these reforms. I'm not certain if it's going to work because this is a massive shifting change and this is going to be a ten-year thing, but the immediate reaction is just the market shifting, whether it's currencies or whether its stock market and now actually you need to see inflation to change the consumption trends and the psychologies of people to go out and invest, to go out and consume, because for the last 20 years the psychology prevented them from doing that.

MR. McKENZIE: There's some monetary policy in Japan that has shifted and you're seeing QE, more QE aggression balance sheet management on the part of the Bank of Japan than you have seen historically, and that has some major implications. So growth may be coming -- where growth is coming from is very, very significant.

MR. KEENAN: One last comment in thinking about the United States on that. The policy that the

Bank of Japan is doing, when you think about the percentage of QE record doing relative to the percentage that the United States already did versus their own economy, it's massive. All right? So the impact of that is that these institutions in Japan are big buyers of government debt elsewhere. You go out and you buy United States Treasuries. You go buy United States corporate debt. You go buy European debt.

So we see big flows from Japanese buyers of a lot of this product. To some degree that reduces as the fiscal deficit starts to shrink and the U.S. Fed starts reducing -- some of that pressure is reduced because you have other buyers coming in, in global stimulus.

MS. DICKEY: Ms. Beyer, did you have a question?

MS. BEYER: I actually have two: One is around the index ETF versus the active, and how various institutional clients that you work with view that, and with the enormous growth in the passive ETF that you actually have, a trillion, of your board, do you have a view on that? Is the world moving towards that? Could you see yourselves giving advice to your institutional clients about what to do about that? Specifically global equities, not just U.S.

MS. DICKEY: Yes. We've certainly seen a growth over the last few years in more -- of the given parts. I'll start with the active versus passive discussion: We've certainly seen more and more clients moving their assets, particularly in equities, I think in fixed income it's a different story but largely in equities, we've seen more and more clients taking components or all of their equities and moving it passive. There's a whole host of reasons that go on with that, but that has certainly been the trend.

Within the passive, we have seen more and more clients up for more global-oriented mandates. One of the biggest trends that we have seen over the last five years is no longer having purely domestic-oriented portfolios, but moving towards large global mandates, whether it's doing things in the All Country World Index or combinations like you folks have done where you have a U.S. component in emerging markets, things like that. So we are certainly seeing that.

Within passive, you bring up an interesting question of whether or not to do it in a pure traditional index manner or versus an ETF. I think that when it comes down to it, particularly in equities -- and then I'll talk a moment about bonds -- you know, it really comes down to the objective and what you are trying to do. We have seen more and more clients using ETF's and institutional clients using ETF's, but not in lieu of an index mandate but more as a complement. We're seeing that because they are trying to achieve a very specific exposure for a finite period of time.

If they are going to want to seek that exposure as a more buying, hold, longer-term strategy, we continue to suggest that doing things in the way that you folks have, in a more traditional index manner, makes more sense for a whole host of reasons, largely because of cost. ETF's are more expensive than the traditional index funds. So, we see them being used for transition; we see them being used if a client wants to make a more tactical type trade. We're seeing that more and more.

But I would say that they live in a world -- we have clients that have both and use them for different purposes and both can be very effective, depending upon those objectives.

In fixed income, it's an entirely different ball game. In fixed income, there are many clients who cannot be active in their fixed income. The fixed-income markets, being over-the-counter, don't have quite the levels of transparency, of pricing and things like that that some clients require and, therefore, go into a pure, passive index bond.

MS. BEYER: I'm just asking about equities, unless somebody else wants to know.

MS. DICKEY: Then I'll be quiet, but I will tell you that one of the things that we have seen over the last years is a huge growth in fixed-income ETF's, largely by individuals in the retail world, because it's a very easy way for them to get access to the bond markets in a way that you haven't.

So we definitely see growth and I would say innovation in that space, but it's very, very different.

MS. BEYER: My second question was about bonds. There was a big story on social-impact bonds recently, where if you could avoid people going into prisons going right back in within a year, you save a huge amount of money and it was in the paper about how these bonds were gaining the interest of investors. Do you see that at BlackRock? And are you involved with any of these social-impact bonds? What is your view on them?

MR. KEENAN: I specifically am not. I would have to talk to some of my counterparts on that.

I will tell you that in the corporate credit space, which I mostly focus on, those bonds don't really exist. There's some corporations that are involved in social welfare, but those are about businesses. I have not really seen that as even within BlackRock and all of my colleagues who I talk to, when we meet up for a day -- for business or something that people are focused on right now -- I would say we are, obviously throughout our investing, and most of the corporates that we deal with, we're all socially aware of what companies are doing through due diligence.

MS. MARCH: If we fund pre-K we won't have to worry about social-impact bonds.

MR. KEENAN: My sister will keep her job.

CHAIRPERSON AARONSON: With regard to the question about assets being passive or alpha related, John Vogel was just asked this question: Do you invest in any kind of active management? He said two things: When he started out in his career he worked at Wellington, so he invested in the Wellington Fund. And, two, the second investment, his son has a fund that invests in small-cap funds, "and being a good father, I will invest in my son's fund." That's passive and --

(Laughter.)

He didn't say he did well with his son's fund. He did not say that, he said he was a good father.

(Laughter.)

MR. McKENZIE: Mr. Chairman, we don't want to leave one stone unturned. You asked how much of our 4 trillion dollars is invested in DB versus DC. Of the 4 trillion, 1.9 trillion is in DB, and 500 billion is in DC. The rest of the assets -- 500 billion DC, 1.9 trillion DB -- the rest of the 4 trillion is in high shares, retail family offices, high net worth endowments, et cetera.

CHAIRPERSON AARONSON: So just talking about basic DB and DC, four times as much money in DB --

MR. McKENZIE: In DB's than in DC, and thus DC, with all the problems you all know about, is a growth business.

CHAIRPERSON AARONSON: Thank you very much.

MR. McKENZIE: You are very welcome.

CHAIRPERSON AARONSON: Anybody else with a question?

(No response.)

Thank you guys.

Let's take a 10-minute break.

(The guests from BlackRock left the room.)

(Recess taken.)

CHAIRPERSON AARONSON: Thank you for coming back promptly from break.

I believe that that finishes the QPP portion of the public meeting.

MS. HINGORANI: That's correct.

CHAIRPERSON AARONSON: So we are now ready for the QPQ** portion of the variable funds, the public funds.

MR. FULVIO: Happy new year, everyone.

CHAIRPERSON AARONSON: Happy New Year, Michael.

MR. FULVIO: We'll start with the diversified equity performance report for November. You will see it on top there. You can see on the bottom of this first page that the diversified equity fund at the end of November was 11.3 billion dollars, up from around 11.1 billion at the end of October.

Seema has already commented about the positive U.S. Equity markets during the month of November, so that's a good part of that increase there.

You can see, if you flip ahead to the middle of page 3, the total fund, monthly return for the total fund was 2.4 percent. That's slightly behind the Russell 3000, that's the broad U.S. Equity market there. However, the total fund returns were in line with the hybrid benchmark, which also returned about 2.4 percent. So just in terms of the performance for the month, the total fund led the U.S. equity market, due in part --

you can see above there -- to the international equity exposure, which for the month was about a positive by 70 basis points. So some of that lagging there, relative to the U.S. market, is in part for the relative under performance to the U.S. equity market.

You can flip back again, on page 2, you will see towards the top of the page, the defensive strategy composite was up about 1.6 percent again. That also lagged the broad U.S. equity market. So those two sort of played into the track relative to the broad U.S., but what you could see further down on the page, the active domestic manager composite was up about 3.2 percent, so active management helping a little bit for the month.

For the year-to-date, that active manager composite was up 31.3 percent relative to the Russell 3000's return for the year-to-date of about 30 percent. So active management doing well for you for the first 11 months of 2013.

For the total fund, back on page 3, the total fund was up about 27 percent for the year-to-date, and that's more in line with the hybrid benchmark but slightly behind the Russell 3000.

Are there any questions on Variable A?

(No response.)

The next report, Variable B, total fund

assets were about 360 million dollars at the end of November. For the month returns were positive for about 15 basis points; that's a few basis points behind the benchmark. Year-to-date through November, the fund was up about 43 basis points; again, that lagged the benchmark by about 20 basis points. So that's Variable B. Any questions there?

(No response.)

Flip ahead to CD&E. Variable C, the international equity fund on the top left, you see the assets there were about 97 million dollars. For the month the fund returned positive 63 basis points behind the CP**; it returned about 80 basis points. Year-to-date that fund is up about 18.9 percent, because you might remember the non-U.S. markets still lagging the U.S. markets but still a strong return there. That 18.9 percent was trailing the CP for the year-to-date period.

The inflation protection fund, Variable D, assets at the end of November were about 36.7 million dollars. The fund for the month was down about 90 basis points. This trails the TIPS benchmark, you can see on the page, by about 40 basis points. And also trails the CPI return. Year-to-date, the inflation protection fund was up about 60 basis points. That also trails the TIPS benchmark which, over a shorter time period, you would expect to see some volatility relative to how those two performed next to each other; however, there is some deviation here as well from CPI, plus 5 percent as well.

One thing that we should point out is that these benchmarks, you know, we would expect over a longer term time period to do a better job of benchmarking this particular strategy.

If you could look at the five-year number, for instance, that fund is up about 11 percent over the last five years, and that compares quite favorably. You can see the TIPS benchmark was up about 6 percent over that time period and the CPI plus 5 percent benchmark, up about 7 percent. So still pretty strong relative returns when you compare it to a longer-term time period.

The socially responsive equity fund, Variable E, about 60 million dollars in assets at the end of November. For the month, the fund was up over 2 percent, but lagged the S&P 500 return, which was about 3 percent. That said, year-to-date has been very strong for this fund. This fund has returned 34 percent relative to the broad U.S. equity market which returned about 29 percent. So the fund's returns are strong.

Are there any questions?

MS. BEYER: Yes, I have one: On the inflation protection fund, Variable D, do you have any concerns about outflows from the PIMCO having any impact here for the participants?

MR. FULVIO: Outflows from PIMCO?

MS. BEYER: Yes, for all assets.

MR. FULVIO: No.

MS. BEYER: There were some stories in the news about how people were bailing because Bill Gross had said something that turned out not to be true or something like that.

MR. KATZ: It wasn't in that fund.

CHAIRPERSON AARONSON: It was a different fund.

MR. KATZMAN: It was Stocks Plus.

MS. BEYER: Thank you.

MR. FULVIO: We could flip ahead to the preliminary benchmark report for December. Seema already touched upon a lot of these numbers.

I want to point out one particular line item. A few lines down, the diversified equity fund's hybrid benchmark for the month of December was up about 2.3 percent, and I think we would expect, based on the construction of this benchmark, a return of the diversified equity fund which is pretty close to that, so another positive month. That would bring the calendar year-to-date return to around 30 percent for the diversified equity fund. So, a strong year there.

The bond fund we expected to have been down about 40 basis points in December. The international equity fund, the BP market has been up about 1-and-a-half percent, which would bring the one-year return to about 23.3 percent.

The PIMCO all asset fund, the month is about flat. See how that compares to TIPS benchmark as well, they're outperforming, so there's deviation on a month-to-month basis. And the single mutual fund that makes up the socially responsive equity fund there, is up about 2.7 percent, so again, outperforming the market in December.

CHAIRPERSON AARONSON: Any questions?

(No response.)

Any other items?

MR. FULVIO: No.

CHAIRPERSON AARONSON: Then, are we ready to move into executive session.

MS. MARCH: I move, pursuant to Public Officer Law 105, we go into executive session to discuss a proposed acquisition sale or changes in securities held by the Teachers' Retirement System and to discuss proposed pending or current litigation.

CHAIRPERSON AARONSON: Do I hear a second?

MR. HOLT: Second.

CHAIRPERSON AARONSON: Is there any discussion?

(No response.)

All in favor?

(A chorus of "Ayes.")

Any opposed?

(No response.

The Ayes carry.

(Whereupon, the meeting continued in executive session.)

CHAIRPERSON AARONSON: We are now in executive session.

CHAIRPERSON AARONSON: We are now out of executive session. We would like a report on what we did in executive session.

MS. STANG: Great. In the executive session there was a variable fund and a manager update was presented.

And in executive section of the pension fund an asset class/contract update was presented.

CHAIRPERSON AARONSON: Does anybody have any comments about that?

That concludes all of our business.

Can I have a motion to adjourn?

MS. MARCH: So moved.

MS. BEYER: Second.

CHAIRPERSON AARONSON: Any discussion?

All in favor say "Aye."

(A chorus of "Ayes.")

Any opposed?

(No response.)

We are adjourned.

(Time noted: 12:00 p.m.)

C E R T I F I C A T I O N

I, Jeffrey Shapiro, a Shorthand Reporter and Notary Public, within and for the State of New York, do hereby certify that I reported the proceedings in the within-entitled matter, on January 9, 2014, at 55 Water Street, New York, New York, and that this is an accurate transcription of what transpired at that time and place.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of January, 2014.

Jeffrey Shapiro, Reporter