

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

CITY OF PHILADELPHIA  
SINKING FUND COMMISSION

In Re: Quarterly Meeting

- - - - -

Wednesday, January 20, 2016

- - - - -

This Meeting of the Sinking Fund Commission,  
held pursuant to notice in the above mentioned  
cause, before Angela M. King, RPR, Court Reporter  
- Notary Public there being present, held at Two  
Penn Center, 16th Floor Conference Room on the  
above date, commencing at approximately 11:00  
a.m., pursuant to the State of Pennsylvania  
General Court Rules

- - -

STREHLOW & ASSOCIATES  
FULL SERVICE COURT REPORTING AGENCY  
54 FRIENDS LANE, SUITE 116  
NEWTOWN, PENNSYLVANIA 18940

(215) 504-4622

SERVING NJ, PA, NY & DE

STREHLOW & ASSOCIATES, INC.  
(215) 504-4622

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 2

1           A   P   P   E   A   R   A   N   C   E   S

2

3   COMMISSION MEMBERS:

4       Benjamin Gilbert, Chairman

5       Alan Butkovitz, Controller

6       Rasheia Johnson, Treasurer

7

8   ALSO PRESENT:

9       Matthew Mazza, Executive Director

10      Christopher R. DiFusco, CIO, PGW

11      Bill Rubin

12      Ellen Berkowitz

13      Brad Woolworth

14      Adam Coleman

15      Frank Domeisen, Gallagher Advisor

16      Christiaan Brokaw, Gallagher Advisor

17      Marvin Devers, Gallagher Advisor

18

19

20

21

22

23

24

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 3

1 - - -

2

3 MR. GILBERT: Good morning. The Minutes  
4 of the transcript of the previous meeting  
5 has been circulated by way of email. Are  
6 there any questions or corrections or  
7 additions to the Minutes?

8 (No response.)

9 MR. GILBERT: Hearing none, can I have a  
10 motion to accept the Quarterly Meeting  
11 Minutes from November 18?

12 MR. BUTKOVITZ: I move to accept the  
13 Minutes.

14 MR. GILBERT: Is there a second?

15 MS. JOHNSON: Second.

16 MR. GILBERT: Any questions on the  
17 motion?

18 (No response.)

19 MR. GILBERT: All those in favor?

20 (Ayes.)

21 MR. GILBERT: Motion carries.

22 The Quarterly Sinking Fund Statements  
23 for December 31 were also circulated by way  
24 of email. Are there any questions on those

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 4

1 statements?

2 (No response.)

3 MR. GILBERT: Hearing none, may I have a  
4 motion to accept the Sinking Fund  
5 Statements?

6 MR. BUTKOVITZ: I'll move to accept  
7 them.

8 MR. GILBERT: Second?

9 MS. JOHNSON: Second.

10 MR. GILBERT: Been properly moved and  
11 seconded. Any questions on the motion?

12 (No response.)

13 MR. GILBERT: All those in favor?

14 (Ayes.)

15 MR. GILBERT: Motion carries.

16 The PGW Pension Plan Statements for  
17 December 31 were also circulated by way of  
18 email. Any question on those statements?

19 (No response.)

20 MR. GILBERT: Hearing none, may I have a  
21 motion to accept those statements?

22 MR. BUTKOVITZ: So moved.

23 MS. JOHNSON: Second.

24 MR. GILBERT: Properly moved and

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 5

1 seconded.

2 All those in favor?

3 (Ayes.)

4 MR. GILBERT: Motion carries.

5 Now hear from Frank Domeisen, Pension  
6 Plan Investment Consultant on the  
7 performance of the plan as of December 31.

8 MR. DOMEISEN: Thank you.

9 Again, Frank Domeisen, Gallagher  
10 Fiduciary Advisors. Again, today with me is  
11 Marvin Devers to my right. And also to my  
12 left is Chris Brokaw who are also two  
13 members of the team working on this plan.

14 So, we have a report that I've passed  
15 out that we actually sent last week on the  
16 13th last week. And at that point in time,  
17 we had some important numbers to share with  
18 you and some of the market background is on  
19 the first. Page numbers are on the lower  
20 left on the first eight pages. This is now  
21 history it feels like with respect to the  
22 fourth quarter. But just very, very quickly  
23 and then we'll move on beyond the fourth  
24 quarter market background. I will ask

1 Marvin to talk about year to date, as well.

2 So just very quickly, I'm looking at  
3 page 1. I think one thing that was the  
4 trigger finally that happened was the Fed  
5 raising rates in the fourth quarter. Lot of  
6 our fixed -- lot of the fixed income  
7 managers had been anticipating that and had  
8 been having maturity profiles that were  
9 shorter than the index in anticipation of  
10 rising interest rates. Rising interest  
11 rates falling on prices. We think that is a  
12 short term issue. And looking forward, that  
13 had been built into the marketplace already.

14 On the second page we talk a little bit  
15 about the high yield. There's been a lot of  
16 high yield information in the press, high  
17 profile bond fund. High yield bond fund  
18 that closed. That was Third Avenue. We are  
19 also looking at -- if you look at the  
20 bottom, there is potential opportunities,  
21 and we will address that later as potential  
22 opportunities within the high yield segment.  
23 Obviously, looking at the higher quality end  
24 within and -- within the high yield and also

1 shorter maturities.

2 You don't have any direct high yield  
3 exposure. You do have two of your four bond  
4 managers that do have the opportunity set to  
5 move into some portion of high yield.

6 On the third page we talk about oil  
7 prices. I don't think that's any surprise.  
8 Has a positive and negative. Moderate  
9 concern on the negative being job losses  
10 and -- for one, potential opportunity  
11 consumer spending hasn't translated into the  
12 marketplace, but we do believe that there is  
13 some upside potential there.

14 On page 4, just mixed bag of terms that  
15 the U.S. economy during the fourth quarter.  
16 GDP in the third quarter grew at a 2 percent  
17 annual pace. However, you know, when we  
18 look on the weakness side, see weakness in  
19 capital goods and industrial production.  
20 Consumer -- or, I'm sorry, healthcare was  
21 off for the quarter, which is typically a  
22 strong defensive segment. And weakness in  
23 the commodity-oriented segments of the  
24 market was slowing global growth.

1           MR. RUBIN: Frank, can you go back to  
2           page 3? When you say potential  
3           opportunities, where do you see the  
4           potential opportunities?

5           MR. DEVERS: The potential  
6           opportunities, that really stem from the  
7           ability for consumers to save at the gas  
8           pump. What economists have really expected  
9           is that savings to translate into stronger  
10          retail sales, but it didn't materialize  
11          until 2015 which was really a disappointment  
12          to many economists and expectations for the  
13          consumer discretionary sector in the market.

14          So moving forward, the opportunity set  
15          is that that could actually materialize but  
16          also as Frank had mentioned in the high  
17          yield market, some of that disturbance from  
18          the oil prices is causing spreads to widen  
19          out. So, there is going to be potential  
20          opportunities on the credit side as well as  
21          portfolio as investors are throwing the baby  
22          out with the bath water. You are going to  
23          be able to find opportunities there to pick  
24          up additional yield.



1 MR. RUBIN: Are the economists saying  
2 that the higher than expected Christmas  
3 season/Holiday season could be translated  
4 back to the lower oil prices or that no  
5 correlation?

6 MR. DEVERS: That was their expected,  
7 but the actual retail sales in the fourth  
8 quarter in the Christmas season came in  
9 below original expectations. So, that's  
10 that idea that individuals are saving 800 to  
11 \$1,000 at the pump over a year. Let's go  
12 out and spend at the retail sales, but it  
13 hasn't materialized in the effect that  
14 retail sales are going to be higher than  
15 people originally projected. But they came  
16 in lower.

17 MR. BUTKOVITZ: But what is consumer  
18 debt? I mean, do they really have that  
19 available for spending or are they digging  
20 themselves out of debt?

21 MR. DIFUSCO: That was going to be  
22 mine -- we have been -- and Matt can state  
23 to this, too, as CIOs for the big fund, he  
24 and I have been looking at this for a while.

1 We have been hearing from managers. Look, I  
2 know gas has recently gone under, too. It  
3 wasn't all that long ago it was three or  
4 four gas prices have been going down  
5 steadily. All the white papers or stuff  
6 that I've read indicates that in past times  
7 where we have seen gas prices fall, that's  
8 translated much more quickly. There's a  
9 lag, but it's been much quickly.

10 Is there a point where you guys or  
11 others or economists conclude, hey, look, we  
12 are kind of in a new paradigm where people  
13 aren't going to spend this money? They are  
14 going to take the \$40 or whatever they save  
15 a week, kind of what Alan is saying,  
16 continue to pay down their house that's  
17 under water, you know, pay off their student  
18 loans, pay off their credit cards, save in  
19 emergency fund. You know, are we counting  
20 too much on that gas savings definitely  
21 translating into a consumer spend?

22 MR. DEVERS: Oh, yes. I mean, certainly  
23 there is that accounting. Certainly in  
24 2015, what consumers have been doing is

1 de-leveraging their mindset. But I think  
2 also what is going on is they have this --  
3 2008/2009 is readily stuck in individual's  
4 heads. And so, they have this fear of going  
5 through that again. And despite consumer  
6 confidence being near highs, they are just  
7 not going out and spending because they are  
8 de-leveraging and kind of securing their  
9 home, so to speak.

10 So why we do it, say, it's a potential  
11 opportunity and that still could occur. It  
12 just hasn't. And part of that is the  
13 de-leveraging effect. And it might not  
14 occur, but there is that potential for it to  
15 occur. And specifically, it wasn't just gas  
16 prices. It's also the -- as we go through  
17 the winter, the savings on heating your  
18 home. Because it's not just oil, it's  
19 natural gas prices have come down. Coal  
20 prices have come down. Energy price as a  
21 whole have collapsed which is saving you at  
22 the pump and in heating your home. But up  
23 until now, it's been a more mild winter  
24 which is also one of the things that drove

1 oil prices down.

2 MR. WOOLWORTH: Can you guys just  
3 comment real quickly -- obviously, oil has  
4 an input to overall production. It's pretty  
5 significant. Gas prices although have come  
6 down quite a bit, it's really been, I guess,  
7 within a year. Seems to be a little bit  
8 more lag time for people to really kind of  
9 internalize and say, hey, you know, maybe  
10 this isn't continuing in the future.

11 Can we talk about those effects to  
12 certain segments of the economy  
13 transportation, consume discretionary, et  
14 cetera.

15 MR. DEVERS: So, the energy prices  
16 coming down -- and there is a lag effect to  
17 it certainly. But what we have also seen is  
18 industrial weakness throughout 2015,  
19 especially in the back half. So that  
20 industrial production is really where  
21 that -- the lower oil prices is going to be  
22 at input. But industrial production is  
23 driven by end user demand, consumer  
24 durables, cars, refrigerators, all the big

1 inputs, chemicals, et cetera.

2 The weakness from the demand side in  
3 industrial production is causing less  
4 capacity utilization which therefore the  
5 input of the oil costs is not driving any  
6 excess gain in that segment of the economy.

7 I mean, it's certainly saving on  
8 shipping your goods from overseas back into  
9 the U.S. And so, there is certainly areas  
10 of savings in the profit cycle or the chain.  
11 But it's not -- that's going to be at the  
12 corporate level. It's not going to  
13 translate really down into the consumer. So  
14 you know, Macy's being able to ship big  
15 container of clothes over a few dollars  
16 cheaper isn't going to translate into a  
17 lower sales price at the end result.

18 MR. BROKAW: And I would only add one  
19 specific comment. Is that automobiles have  
20 really made a come back now in 17 million  
21 plus annual rate. There is some, let's say,  
22 it's anecdotal that the savings on gasoline,  
23 people are using that to fund new car  
24 purchases. As long as interest rates

1 continue where they are today, that  
2 that's -- that's the other side of the  
3 equation. Interest rates stay low,  
4 financing, consumers can get access to  
5 credit and buy those automobiles.

6 MR. DOMEISEN: I will keep moving here.  
7 Talk about -- let's move to page 5, the  
8 shares with you, the equities. And again,  
9 this is for the fourth quarter. We ended up  
10 with the S&P up 7 percent. Again, if we  
11 fast forward through Friday, given the S&P  
12 was down 7.9 percent for large cap. And  
13 the -- that's reflecting kind of through  
14 last Friday's close.

15 And moving forward to page 6, the  
16 segment to the market. Again, if you look  
17 at the lower right, what we saw here was the  
18 energy prices. The green bars are the one  
19 year number. The blue are the quarter. And  
20 so, we can see the energy price selling off  
21 materials, as well, and industrials as we  
22 talked about before.

23 In terms of during the quarter, in terms  
24 of style, what we're seeing is that growth

1 outperformed value the same as last quarter,  
2 is what we have seen over the past year. We  
3 have seen that growth outperforming  
4 value-oriented stock. For the quarter,  
5 definitely a rebound again. But giving that  
6 up and more so in the month of January to  
7 date.

8 International on page 7. The  
9 international markets, looking at the lower  
10 right, there is a rebound here. Also for  
11 the quarter up 4.7 percent. Fast forwarding  
12 through January 15, the developed markets  
13 index was off about 9 percent. Emerging  
14 markets was the segment of the market that  
15 really was down for the -- for the trailing  
16 one-year period in terms of just an update  
17 quarter to date. That's off about  
18 11 percent.

19 Moving forward, we still see -- I'm on  
20 page 8. We see some opportunities in terms  
21 of valuations. When we're looking at  
22 develop -- on the lower left, developed  
23 markets versus U.S, the valuations would  
24 favor developed international markets over

1 U.S. Within the international segment on  
2 the right, given the valuations, favoring  
3 emerging markets over developed.

4 I will move over to page 9, which is the  
5 Fixed Income. During the fourth quarter, we  
6 ended up -- the yield went up actually for  
7 the 10-year Treasury 2 percent to about  
8 2.3 percent. Rising interest rates during  
9 that quarter. But however, year-to-date I  
10 think at this point, we're at about  
11 2 percent for the 10-year Treasury. So,  
12 it's come back down again. Rates increased  
13 across all maturities during the yield  
14 curve, across the yield curve in the fourth  
15 quarter.

16 And with that, let's move to the -- any  
17 other comments on fixed income for  
18 the quarter to date? We talked about  
19 economy and --

20 MR. DEVERS: No. Overall, I just  
21 comment that credit suffered not only during  
22 the quarter, but also during the year.  
23 Specifically, within the high yield market.  
24 High yield about 16-plus percent of that



1 market is tied to energy. That grows  
2 greater than 20-plus percent when you add in  
3 materials, as well. And those two sectors  
4 really sold off, obviously, given what  
5 happened with commodity prices. Currently,  
6 they trade at over 1,000 BPS or 10-plus  
7 percent of Treasury. That's kind of leaning  
8 towards distressed in those segments. As a  
9 result of the distress in those two sectors  
10 on the high yield markets, it's pulling  
11 spreads up as a whole which is actually --  
12 there's pockets of attractive value to be  
13 had in high yield.

14 MR. WOOLWORTH: Can you comment just  
15 really quickly on the flattening of the  
16 spread between the 10-year and 30-year bond  
17 been taking place recently?

18 MR. DEVERS: Yes. That's actually is  
19 probably going to continue most likely. The  
20 Fed is raising the front of the curve, but  
21 demand from overseas investors, limited  
22 supply of the 30-year Treasury out in the  
23 market and the demand that you're seeing  
24 from underlying investors, they are -- it's

1 going to come in and continue to push down  
2 on the back end of the curve 10-year,  
3 30-year while the Fed is raising the front.

4 We are expecting to see flattening of  
5 the overall curve as we move forward, you  
6 know. If the Fed -- and I put "if" in big  
7 quotations given what's happening. If they  
8 continue to raise rates this year, certainly  
9 the back end is going to hold steady just  
10 given the amended demand out there. We are  
11 certainly still trading at a significant  
12 premium to European rates. Then when you  
13 factor in the stronger dollar, as well, the  
14 U.S. fixed income markets attractive to  
15 foreign investors, and so that's going to  
16 dampen down the longer end of the curve.

17 MR. MAZZA: Are we still seeing chances  
18 for two more rate hikes this year?

19 MR. DEVERS: Well, I certainly --

20 MR. DIFUSCO: How about four?

21 MR. MAZZA: We have never seen the Fed  
22 raise interest rates in the commodity  
23 inflationary environment. So really, you  
24 can argue that we have no idea what the Fed

1 is going to do. People are saying four rate  
2 hikes. People are saying two. It's never  
3 happened in an election year either. This  
4 could be a time where --

5 MR. DEVERS: There is certainly a lot of  
6 indecisiveness in the Fed. And we talk  
7 about this a lot in our research committee.  
8 There is a lot of different views amongst  
9 the members of our research committee. I  
10 come out of the prospect of two. I know  
11 different people are calling for four.  
12 Ultimately, when I look at what the Fed is  
13 calling for, I think they are going to be a  
14 little off. They are going to come in  
15 under.

16 They should hold steady at the meeting  
17 this month. If this turbulence continues,  
18 there is very little likelihood they are  
19 going to raise at the March. Now you are  
20 into the summer. Liquidity ultimately comes  
21 down in the summer as investors take a  
22 little holiday. Are they going to make a  
23 move during that period? If markets are  
24 staying like they are, then probably not.

1 Then you get into election.

2 So two is possible. Do I see more than  
3 two? Not very likely. Do I even see less  
4 than two? Could be a bigger possibility. A  
5 lot of indecision in the interest rate, how  
6 many times the Fed is going to go.  
7 Ultimately, I don't think they hit their  
8 target of being at 1-plus percent at the end  
9 of the year. I think given what we have  
10 seen, given how certain segments of the  
11 economy are playing out not only locally but  
12 internationally, it's going to be a  
13 challenging market for them to raise four  
14 times.

15 MR. WOOLWORTH: Any thoughts that they  
16 may actually cut it?

17 MR. DEVERS: There is some talk amongst  
18 not only market participants, but inside our  
19 research committee, I know one of the  
20 members actually sees them cutting by this  
21 summer. So, reversing course.

22 MR. WOOLWORTH: Well, the dollar is too  
23 strong.

24 MR. DEVERS: Dollar is strong. And as a

1 result, the industrial production. What you  
2 are seeing is a bifurcation in the U.S.  
3 economy where the industrial side of this,  
4 so the manufacturing side is actually  
5 weakening. It is below 50, but the service  
6 side is holding up well.

7 So if that service side continues to  
8 hold up well, we are going to be able to  
9 avoid a recession in the U.S. But if that  
10 service side begins to weaken and you have  
11 manufacturing, obviously, the contraction,  
12 the probability of recession in the U.S.  
13 increases greatly.

14 MR. BUTKOVITZ: How does services hold  
15 up if manufacturing contracts?

16 MR. DEVERS: The idea is that the  
17 service industry or the U.S. has shifted  
18 predominantly the bulk of their economy away  
19 from the services. It's still IT services,  
20 healthcare services, those segments are not  
21 driven by the manufacturing side. I mean,  
22 we are certainly all going to continue to  
23 need --

24 MR. BUTKOVITZ: I mean, there is still

1 going to be a cut in overall demand, right?

2 MR. DEVERS: There is going to be a cut  
3 on the durable good side.

4 MR. BUTKOVITZ: But the total demand in  
5 the economy is going to be down.

6 MR. DEVERS: But the bulk of the demand  
7 in economy is on the service side.

8 MR. BROKAW: I think the point is the  
9 equation is 80 percent positive, 20 percent  
10 with weakness. So that the 80 percent --

11 MR. BUTKOVITZ: So it's a net drag,  
12 right? I mean, I don't understand.

13 So 20 percent of the economy is in  
14 contraction. Is there something that is  
15 stimulating growth on the service side  
16 that's unusual that's going to compensate  
17 for that?

18 MR. DEVERS: If it holds steady -- I  
19 mean, GDP growth is going to be lower, but  
20 it's still going to be positive. It's going  
21 to be in the 1 to 1 and a half percent,  
22 maybe a little lower than 1 now to 2, 2 and  
23 a half.

24 MR. BUTKOVITZ: It's a slow down at the

1 time of panic on Wall Street. So, won't  
2 that be read as a negative?

3 MR. DEVERS: Negative in --

4 MR. BUTKOVITZ: In terms of its  
5 momentum. It will be negative momentum.

6 MR. DEVERS: I'm sorry. I'm not  
7 following.

8 MR. BUTKOVITZ: China is still  
9 absolutely in the positive side, but they  
10 are below expectations.

11 MR. DEVERS: Correct.

12 MR. BUTKOVITZ: Everybody is going  
13 crazy. Everybody is panicking. People are  
14 worried about whether there are symptoms of  
15 a worldwide slow down and a domestic slow  
16 down. So you're saying 1 or 1 and a half  
17 percent of GDP growth is not going to  
18 reassure people or allay those concerns --

19 MR. DEVERS: Certainly.

20 MR. BUTKOVITZ: -- and get panic selling  
21 on the stock market. So, how are you going  
22 to reverse that -- how is that negative  
23 momentum going to be reversed?

24 Or more to what you've said, that's not

1 stability. That's a downward push overall.

2 MR. DEVERS: I mean, it's a downward  
3 effect on the U.S. economic growth, but it's  
4 still positive. Now does that necessarily  
5 translate into positive growth in your  
6 equity market? No, not necessarily. But  
7 the idea is you still see several central  
8 banks stimulating. While China, yes, is  
9 slower; it still has a lot of leverage it  
10 can pull to drive growth higher if they  
11 choose to pull those levers.

12 Right now the biggest thing -- and we  
13 talked about it at the last meeting. The  
14 biggest impact going on in China is the  
15 currency issue. And their idea that do they  
16 need to support the yuan and hold the peg to  
17 the dollar or lessen that. What we have  
18 seen and what we talked about in November is  
19 that ultimately they're most likely going to  
20 break the peg. We've already seen the yuan  
21 depreciate 10 percent this year alone. So,  
22 there is elements that are taking place that  
23 can't continue to support equity prices by  
24 driving stimulus in other markets while the



1 U.S. tightens a little bit.

2 MR. BUTKOVITZ: A moment ago you said  
3 that the junk bond sector is going to offer  
4 opportunities for us?

5 MR. DEVERS: Correct.

6 MR. BUTKOVITZ: I've been reading about  
7 the panic about the potential for defaults  
8 in the oil sector --

9 MR. DEVERS: Yes.

10 MR. BUTKOVITZ: -- because of that. Why  
11 won't that spread?

12 MR. DEVERS: Defaults in the oil sector  
13 are -- so, oil and materials make up about  
14 20 percent of the high yield market. There  
15 is 80 percent of the high yield market that  
16 is still attractive. There is company with  
17 strong balance sheets that have higher  
18 interest coverage ratios that are in strong  
19 shape to pay off their debts.

20 The idea of buying a active management  
21 high yield manager to manage that portfolio  
22 and to position the portfolio in those  
23 companies that have the ability and will pay  
24 off credit through conversations with

1 management, understanding the business  
2 model, is going to prevent -- present  
3 opportunities as those sectors of the high  
4 yield market are trading at 600 basis points  
5 above Treasury. Those yields are right now  
6 trading at around 8 percent.

7 MR. BUTKOVITZ: But there won't be  
8 contamination by the oil defaults?

9 MR. DEVERS: No. Not to several sectors  
10 of the economy.

11 MR. BUTKOVITZ: Well, how come there was  
12 when we had the Lehman Brothers and the big  
13 bank problems?

14 MR. DEVERS: That was a global recession  
15 where you saw -- that wasn't triggered by  
16 oil or energy. That was triggered by the  
17 lack of liquidity and the ability to get  
18 loans for these companies to refinance. And  
19 then on top of that, excessive demand drying  
20 up.

21 MR. BUTKOVITZ: And by panic about the  
22 nontransparency of the balance sheets in the  
23 banks, right? There is a concern about the  
24 interrelatedness.

1           MR. DEVERS: I mean, there is certainly  
2           the banks pulling out because of  
3           Volker.Frank has limited liquidity which is  
4           also creating the opportunity set within the  
5           high yield. But the financial system from a  
6           banking standpoint is in fine shape, very  
7           healthy at the bank side. That's not going  
8           to translate into the stress of the high  
9           yield market outside of the liquidity issue.  
10          The biggest stress is really tied to a few  
11          sectors, the industrial production, oil and  
12          energy and then materials.

13          MR. BUTKOVITZ: Why in the world is the  
14          United States stock market tanking when  
15          we're told that there is so little direct  
16          connection to China? A large part of it is  
17          emotional and psychological, right? It's  
18          irrational.

19          MR. DEVERS: Correct.

20          MR. BUTKOVITZ: Why aren't we concerned  
21          about the same kind of irrational  
22          contamination in the bond market just  
23          because people are primed, are tense, are on  
24          the edge of their seats and they're looking

1       for some evidence that books have been  
2       cooked or that there's something wrong? Why  
3       does that psychology -- I see they are down  
4       400 points today. They are doing well  
5       yesterday. People tell me China is only  
6       half percent of our GDP. There is no reason  
7       for it, right?

8           MR. DEVERS: No. Investors are trying  
9       to adjust to information. They come out and  
10      they often trade -- they overtrade. They'll  
11      oversell and they will overbuy. I mean, the  
12      idea was that where we saw valuations in  
13      U.S. markets, they were above one standard  
14      deviation of long term averages. And so,  
15      it's going to adjust at a higher volatility,  
16      a higher sensitivity to new information  
17      especially when that information comes in  
18      below expectations.

19           But that's not to say as specific to  
20      your question in the credit markets, that's  
21      not to say credit markets can't go further  
22      down and that spreads can't widen further.  
23      But what we're saying is there is  
24      opportunity in the current spreads. And

1       that if you're not in a position to have to  
2       trade in and out of your high yield market  
3       or your portfolio, if you are able to  
4       establish a position and hold to maturity,  
5       you are going to continue to benefit from  
6       the opportunity set.

7           MR. BUTKOVITZ: I mean, Royal Bank of  
8       Scotland says sell everything. Don't be in  
9       anything in 2016. There have been a few  
10      other stock analysts who have said the same  
11      thing. Essentially, you are using  
12      conventional metrics and saying, well, there  
13      is really no reason to panic. But what good  
14      is it when everybody is running for the life  
15      boats saying, you know, that you are really  
16      overreacting?

17          MR. DEVERS: So, what is Royal Bank of  
18      Scotland saying to do? Just hold cash?

19          MR. BUTKOVITZ: Yes.

20          MR. DEVERS: Well, certainly, we will  
21      see when they also decide to get back in the  
22      markets and if they give up on volatility.  
23      I mean, we saw this in the third quarter,  
24      right? The markets were down almost 10

1 percent, 10 plus if you look at  
2 international markets. Then we rallied back  
3 8-plus percent in October.

4 I mean, who is to say that we don't  
5 rally back 8-plus percent in February?

6 MR. BUTKOVITZ: I don't know. This is  
7 the worst January in the history of the  
8 stock market. The -- we were in  
9 unprecedented territory. How do we say it  
10 will bounce back as it normally does when  
11 all of the indicators are that we are not in  
12 normal territory and we can't afford to be  
13 wrong?

14 MR. DEVERS: I mean, I don't suggest  
15 that the worst one month specific to January  
16 is unprecedented territory. I mean, we have  
17 seen worse months in October. We have seen  
18 worse months in September, August. The idea  
19 that we are down where we are in January, I  
20 don't look at the month as an indication of  
21 unprecedented territory.

22 The idea is that the markets are  
23 readjusting the information out of China.  
24 And specifically what's going on with the

1 U.S. and while the U.S. is selling off is  
2 we're adjusting to lower oil prices. And  
3 oil/energy segment has been a really strong  
4 segment up to the last 18, 24 months in the  
5 overall market.

6 As we were talking with Chris this  
7 morning, what's going with the market is we  
8 come in every day and it's trading almost  
9 one-to-one or very close to it with what the  
10 oil price is doing. But that oil price  
11 doesn't materially impact several of the  
12 sectors of the economy. It's irrational  
13 behavior by investors. And that creates  
14 opportunity.

15 MR. MAZZA: Guys, we got a lot to cover.

16 MR. DEVERS: Yeah, I know.

17 MR. MAZZA: Continue, Frank.

18 MR. DOMEISEN: Let's cover the  
19 performance. And I'm on page 11. And this  
20 will first address the equity side of the  
21 investments.

22 Within the large cap, you have Rhumblin  
23 and Northern Trust that are indexed to the  
24 Russell 1000, so they come in line with the

1 index. Large cap growth, you have Fred  
2 Alger. They've outperformed for the  
3 quarter. I would also say since inception,  
4 they have outperformed, as well.

5 During the month of October, late  
6 October, the portfolio on the value side was  
7 transitioned from Cooke & Bieler to  
8 O'Shaughnessy. And so, we show a footnote.  
9 We don't have a full quarter of performance.  
10 One of the larger components of the drag and  
11 overall combined large cap was from the  
12 combination of Cooke & Bieler and then  
13 transitioning to O'Shaughnessy. We have the  
14 footnote there since inception, which was  
15 October 26, the end of October. And down  
16 5.6 percent versus the benchmark of down  
17 2 percent. So, a lot of the  
18 underperformance in the combined large cap  
19 equity came from that underperformance of  
20 O'Shaughnessy.

21 Some notes that we have from working and  
22 talking to O'Shaughnessy, what happened in  
23 the fourth quarter with respect to their  
24 holdings, they had holdings in media stocks,



1 specifically Viacom that hurt by concerns  
2 over declining viewership. With respect to  
3 retailers, Bed Bath and Beyond and Macy's  
4 hurt return. In the technology sector, they  
5 did not own any semiconductors which were  
6 positive almost 15 percent on merger  
7 acquisition activity. So, they had specific  
8 holdings that hurt them.

9 Also with respect to financials, the  
10 underperformance was what they did not owe.  
11 A segment of the market that they did not  
12 own in the financial segment also led to  
13 underperformance.

14 We've talked to them. Part of their  
15 reflection to us was that they do believe  
16 they have holdings that are consistent with  
17 their mandate that they looked at when they  
18 presented and quality earnings growth, high  
19 quality and earnings growth. So, it's off  
20 to a slow start which is impacting that  
21 combined large cap.

22 MR. DIFUSCO: The only thing I'd add  
23 quickly, as Frank said, Dan Falkowski is a  
24 member of the investment staff for the muni

1 fund. We also have an account with  
2 O'Shaughnessy there. He and I both were  
3 originally supposed to do an onsite. I  
4 wasn't able to go at the last minute. He  
5 recently did an onsite with O'Shaughnessy.  
6 I think he would reiterate a lot of what  
7 Frank has said as far as what they did hold  
8 and didn't hold.

9 I would also add that the big fund had a  
10 similar experience in terms of timing. We  
11 came in on the big fund when we opened our  
12 account in what I would describe as an  
13 inopportune time when we first opened the  
14 account a few years ago. Their  
15 lifetime-to-date numbers came back, you  
16 know, relatively quickly. Their factors and  
17 their process has generally worked over  
18 time. So while we are actively monitoring  
19 them, obviously concern with the slow start.  
20 We have some related precedent with them  
21 which would suggest that over the long term  
22 they should -- they should turn around.

23 MR. WOOLWORTH: Yeah. Took them seven  
24 months before all the sudden they switched

1 and they were significantly above the trend  
2 for a very long time.

3 MR. DOMEISEN: I will move into the  
4 small cap segment.

5 Eagle, which is the small cap growth  
6 mandate, we can see here the numbers on the  
7 year-to-date basis are quite strong versus  
8 the benchmark. Higher quality helped them  
9 in a down market draft. And actually since  
10 inception, their performance is positive  
11 versus their benchmark.

12 And Vaughan Nelson that we have in the  
13 small cap value, their bias is a little bit  
14 larger cap exposure. Larger cap  
15 underperformed smaller cap. And we didn't  
16 see the same return for the quarter. But  
17 when you look back over the one-year and  
18 even the three-year period, it would seem  
19 quite strong out-performance. Since  
20 inception, they have outperformed. So when  
21 you look at the combined small cap, we are  
22 in line with the benchmark for the quarter;  
23 and ahead over the longer time period.

24 Flipping the page to talk about the

1 international. This would be page 12. On  
2 the equity side, the value mandate Mondrian,  
3 positive quarter for equities in the  
4 international value space, but we did see  
5 some lag. However when you look, they are a  
6 defensive manager. We have seen that  
7 translate favorably over the year-to-date in  
8 one-year period. Longer term numbers since  
9 inception, three and five years. You know,  
10 since inception providing value versus their  
11 benchmark.

12 Harding Loevner, we have talked to them.  
13 Several times for the quarter they were  
14 consistent with the benchmark, which is the  
15 developed international growth index. That  
16 has been outperforming 95 percent of the  
17 peer group in that growth mandate. Here the  
18 same issues we have talked about in the  
19 fourth quarter. Part of that have been some  
20 exposure to emerging markets. About 14  
21 percent emerging market exposure. That's  
22 provided the lag over time to them, the  
23 one-year numbers. We have looked at whether  
24 it makes sense to, you know, look at

1 different options in this segment of the  
2 market, the international developed and  
3 continuing to do so.

4 MR. MAZZA: Staff will be floating in  
5 RFP for international index manager by the  
6 end of the month, so.

7 MR. DOMEISEN: We have some information  
8 in the back of the book. You don't have to  
9 flip there, but it does talk about the  
10 active versus passive mandates specifically  
11 for the developed markets, non U.S.

12 developed markets versus the benchmark.

13 What we have seen is over the last several  
14 years that performance has been choppy  
15 relative to the benchmark, but all in all  
16 behind the benchmark. So it kind of makes  
17 sense for indexing for developed portion.

18 On the DFA which is the emerging market  
19 manager, and this is for the quarter for the  
20 longer time periods in line with the  
21 benchmark slightly ahead on the three years.  
22 Since inception, they had provided value  
23 added, and they are dedicated to emerging  
24 market manager.

1           On fixed income, the four managers that  
2       you have are broken up. The first two are  
3       the gains, the core benchmark, the Barclays  
4       Aggregate. The Barksdale is the core  
5       manager and Logan Circle is a core plus.  
6       Over time, the one-year number which we have  
7       here you see lagging a little bit on --  
8       lagging versus the benchmark, credit  
9       exposure and duration. So, credit exposure  
10      was hurting. And the duration, which is a  
11      measure of the maturity profile versus the  
12      benchmark, they have been a little bit  
13      shorter than the benchmark anticipates in  
14      rising rates. That didn't happen over the  
15      last year. And for the current quarter was  
16      really in line with the benchmark for Logan  
17      Circle and slightly behind for Barksdale,  
18      which was a credit exposure.

19           On the intermediate term horizon, which  
20      is one to ten years, you have Garcia  
21      Hamilton, the core intermediate manager and  
22      Lazard. Lazard takes on a little bit more.  
23      It's a core-plus mandate, if you will,  
24      versus Garcia which is just pure guff[ph]

1 credit.

2 You can see over the longer run, you can  
3 see out-performance. Again, it's struggled  
4 again both of these managers over the last  
5 year exposure to credit duration being  
6 shorter than the benchmark.

7 MR. MAZZA: Just to comment, Staff did  
8 have a meeting with Logan Circle partners  
9 last month. You know, the conversation went  
10 very well. But to the Controller's point, a  
11 large amount of the total return at Logan  
12 Circle was due to high yield there. They  
13 were down about 639 basis points. They did  
14 say that ultimately there is an opportunity  
15 there, though, due to the retail bid for  
16 high yield bonds at this point.

17 So while it has been a bad time for high  
18 yield market, there is some significant  
19 opportunity there.

20 MR. RUBIN: Matt, that RFP, was that  
21 decided in the November meeting?

22 MR. MAZZA: That was.

23 MR. RUBIN: Okay.

24 MR. DOMEISEN: So bottom line, the total

1 quarter was up 3 percent, and the benchmark  
2 was up 3.3 percent. A lag benchmark point  
3 out on that total plan, the O'Shaughnessy  
4 and Cooke & Bieler's underperformance had an  
5 impact of about 30 basis points overall. If  
6 you look back over the three-year period  
7 where we're trying to look over three-year  
8 cycle of measuring, we're up 7.9 percent  
9 which is in line with the target index of  
10 7.9 percent.

11 In the peer group, we did not have --  
12 there was not enough robust participants in  
13 the peer group as of when we -- there is  
14 this report. However, it -- the three-year  
15 number, the last three-year numbers through  
16 the end of December kept the total fund in  
17 the top half of the all public plan peer  
18 group below a billion dollars. So on a peer  
19 group basis, it's holding its own.

20 Go quickly now since we are short of  
21 time. But page 13 is the valuation of the  
22 portfolio in the upper right panel. Which  
23 you can see here is that the total fund  
24 valuation is 483,457,000 quarter end. And



1       you can see in the left panel slight  
2       overweight and equities, 3 percent;  
3       underweight in international by 1 and a half  
4       percent. So, the net equity exposure was  
5       plus or about 2 percent. And fixed income  
6       was underweighted about 2 percent versus the  
7       benchmarks.

8               So, that translates onto the next page  
9       which is 14. When we look at the --  
10      breaking it out by dollars and the various  
11      categories, the overall equity allocation  
12      and fixed income was 67 percent, 33 percent  
13      respectively. And the target is 65/35.

14             And finally on the page 15, the  
15      valuation of the various managers we were --  
16      you were at 483,457,000 on the right. There  
17      were earnings that represented the 3 percent  
18      plus for the quarter of approximately  
19      14.4 million. There were withdrawals during  
20      the quarter of about 9 million that went  
21      into -- some of it went into custody cash  
22      and also payment of benefits. So, we showed  
23      that line down below the custody cash which  
24      is being held.

1 MR. BUTKOVITZ: Do we know what's  
2 happened since January 1?

3 MR. DIFUSCO: Yes. We, Staff, roughly  
4 calculated through yesterday that the S&P is  
5 down about 8 percent and the portfolio is  
6 down a little bit over 6 percent through so  
7 far this year.

8 MR. BUTKOVITZ: So, about \$30 million?

9 MR. DIFUSCO: Correct. This morning the  
10 custody account or the total assets would be  
11 just a hair under 158 million. And we,  
12 obviously, took the cash flows out of that  
13 such to calculate the -- it's about a 6, 6  
14 and a quarter percent decline.

15 MR. BUTKOVITZ: Where does that put us  
16 on track for June 30 in terms of our return  
17 this year so far?

18 MR. DIFUSCO: Well, it's mid month. I  
19 mean, I haven't calculated.

20 MR. DEVERS: July 1 to June 30 or to  
21 now?

22 MR. DIFUSCO: I mean, to go to mid  
23 month --

24 MR. DEVERS: You are most likely flat to

1 a little negative. So, I would put it 0 to  
2 minus 1 and a half, best guess.

3 MR. DIFUSCO: It would be a guess. I  
4 would rather run the calculation and be  
5 certain, which we are happy to do. But I  
6 don't want to guess and be off.

7 MR. DEVERS: Fair enough.

8 MR. DIFUSCO: Significantly.

9 MR. RUBIN: Chris, does that then put us  
10 in a situation where we are considering  
11 alternatives and this is the indicator as to  
12 why alternatives are important? Since the  
13 difference between our -- the main fund what  
14 the market's down, what we're down is really  
15 the drivers of those other vehicles that we  
16 use.

17 MR. DIFUSCO: Yes, depending on the type  
18 of alternatives. I mean, I think as the  
19 consultant and Matt alluded to and the  
20 Controller's questions, obviously if we were  
21 in the alternative such as high yield, we  
22 would have -- during this time period, our  
23 returns would have been worse. If we were  
24 in alternatives that perhaps were more

1 stable, real estate --

2 MR. RUBIN: Private equity, real estate.

3 MR. DIFUSCO: Something with more  
4 stability, then yes, you are correct, Bill.  
5 The returns would have matched up a little  
6 bit better.

7 MR. RUBIN: Okay.

8 MR. DIFUSCO: This stuff does fluctuate.  
9 It wasn't all that long ago, I think it was  
10 in November, if you compared our returns to  
11 the muni fund, we were up, I think, 5 basis  
12 points for the month of November; and the  
13 municipal fund was down that month closer to  
14 a percent.

15 So I mean, depending on the type of  
16 alternative you are in and the timing, it  
17 can cut both ways. You have to be pretty  
18 selective and you have to know -- you have  
19 to really understand kind of what you are  
20 getting into and what your objectives are  
21 and the type of alternatives you are  
22 choosing. Because you are going to see  
23 these moments in time where it can be huge  
24 plus and it can be a real drag.

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 45

1 MR. GILBERT: Any other questions?

2 (No response.)

3 May I have a motion to accept the report  
4 for the quarter end?

5 MR. BUTKOVITZ: So moved.

6 MS. JOHNSON: Second.

7 MR. GILBERT: It's been properly moved  
8 and seconded. Questions on the motion?

9 (No response.)

10 MR. GILBERT: All those in favor?

11 (Ayes.)

12 MR. GILBERT: Motion carries.

13 MR. MAZZA: If we could ask the  
14 Gallagher folks to step out while Staff have  
15 a conversation with the Board just to give  
16 you guys a summary on our travels for the  
17 investment consultant search.

18 - - -

19 (Gallagher & Co. step outside)

20 - - -

21 MR. MAZZA: As part of our due  
22 diligence, Staff, we visited five investment  
23 consultants during this due diligence  
24 period.

1 MR. DIFUSCO: Six.

2 MR. MAZZA: We visited the incumbent  
3 Gallagher, which has been on the account for  
4 over a decade. We visited the three other  
5 folks who will be in here today. We also  
6 visited the R.V. Kuhns, which is based in  
7 New York. And we visited another firm based  
8 in Allentown, Pennsylvania.

9 What was their name again, Chris?  
10 Cornerstone.

11 After, you know, meeting with a number  
12 of these candidates, Staff came to the  
13 conclusion that besides Gallagher getting  
14 the opportunity to come back in and present  
15 their services, Clearbrook, PFM and NEPC  
16 were the top candidates. We felt that all  
17 three of these candidates had the requisite  
18 staff and operations to handle our plan.

19 All three of these candidates as well  
20 have determined with us that our certain  
21 asset allocation, based on everyone's  
22 capital market assumptions, that we will not  
23 hit the discount rate of 765. But once  
24 again, everyone's capital market assumptions

1 now are in the bag due to what January has  
2 occurred.

3 In terms of fees, Gallagher charges the  
4 plan \$135,000 to provide investment  
5 consulting services. You will see  
6 Clearbrook Global Advisors, they are based  
7 in New York, they have charged a flat rate  
8 of \$100,000 to provide investment consultant  
9 services. PFM, the local candidate down the  
10 street, is the highest. They are looking to  
11 charge us \$175,000. So Staff would ask the  
12 Board to definitely inquire about that fee  
13 due to it being so much higher than the  
14 other candidates.

15 MR. DIFUSCO: Just to add, we did  
16 give -- sorry to interrupt. We did ask all  
17 the candidate from PFM, Clearbrook,  
18 everyone, for kind of a best, last and final  
19 offer. So the fee you see here --

20 MR. MAZZA: Are their finals.

21 MR. DIFUSCO: According to them are  
22 their final. NEPC came down slightly. I  
23 think R.V. Kuhns, even though they were  
24 eliminated, came down slightly. Clearbrook,

1 perhaps not surprisingly, didn't come down.  
2 They are obviously the low cost. But PFM  
3 did not.

4 MR. MAZZA: PFM refused. That was  
5 surprising to us.

6 MR. DIFUSCO: That was a little  
7 surprising.

8 MR. MAZZA: And NEPC, who is up in  
9 Boston, who we met with, it's about \$145,000  
10 they are going to charge us. As you can  
11 see, everyone is in that ballpark of 135.  
12 The average would be about 135 if you  
13 include Clearbrook in the high of PFM.

14 We just ask the Board to be very tough  
15 in questioning in terms of price. Because  
16 as Chris and I have stated, you know, our  
17 goal with this plan is try to lower the  
18 amount of fees that we're paying to  
19 investment managers, to the consultant to  
20 make sure that we are getting the best for  
21 the pension plan for the pensioners.

22 Do you have anything else to add?

23 MR. DIFUSCO: No.

24 MR. MAZZA: With that, let me go grab



Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 49

1 the folks from Gallagher.

2 - - -

3 (Arthur Gallagher & Co. reenter the room.)

4 - - -

5 MR. MAZZA: You'll have 25 minutes.

6 As the Board knows, Frank Domeisen,  
7 Chris Brokaw and Marvin Devers. The  
8 incumbent Arthur Gallagher.

9 MR. DOMEISEN: I do have presentations  
10 for you. Thank you.

11 MR. MAZZA: Ready when you are, Frank.

12 MR. DOMEISEN: Okay. Frank Domeisen  
13 again. And thank you for the opportunity to  
14 address the opportunity to continue as the  
15 consultant with the Sinking Fund Commission,  
16 and specifically on the Gas Works Pension  
17 Plan. So I will walk through this book, but  
18 I will touch on some of the highlight pages  
19 that are -- to try to differentiate what you  
20 already know about us, but will give you a  
21 little bit background of Gallagher, Arthur  
22 J. Gallagher and our Investment --  
23 Institutional Investment and Fiduciary  
24 Services practice.

1           As part of that, I am going to look on  
2           the page 2 which is -- the page numbers are  
3           in the center, lower center of the page. If  
4           we continue forward, I would continue to  
5           lead as the -- would be the lead consultant  
6           on the relationship. I would bring in and  
7           I'd work with Chris Brokaw to my left and  
8           also Marvin Devers who you have known and  
9           you met, as well.

10          These two gentleman and myself would  
11          combine into the team that would be  
12          reviewing not just performance but also  
13          looking at strategies in terms of going  
14          forward in terms of best solutions given  
15          market environments as well as manager  
16          search work that we are currently doing on a  
17          large cap growth and have done in the past  
18          on both fixed income and small cap segments  
19          of the market.

20          The other folks on this team in the  
21          right lower right is Craig Morton. He  
22          continues on the reporting oversight. And  
23          we show the bottom tier here in terms of  
24          additional folks that are involved with

1       this. Particular in the lower right Linda  
2       Tressler has worked on this relationship in  
3       terms of performance measurement analyst,  
4       working with the bank, the custodian  
5       bringing performance in and reconciling that  
6       performance.

7             In terms of the firm overview, just to  
8       step to a higher level for a moment. As I  
9       mentioned, we are the -- we represent the  
10      institutional investment fiduciary services  
11      practice, Arthur J. Gallagher. We are known  
12      as Gallagher Fiduciary Advisors. The firm  
13      and GFA and our predecessors started in  
14      1976. Really was from the formation of  
15      ERISA. And that goes back over time during  
16      that time period that we were formed.

17            We have 50 employees in five locations,  
18      primarily in Pittsburgh, Pennsylvania and  
19      also Washington, DC. And those are the two  
20      main offices. And work that we do for you  
21      is all done out of Pittsburgh. But again,  
22      we have resources that represent the 50  
23      employees across the two main offices. We  
24      will talk a little bit how we leverage that

1 later on.

2 We are an independent investment  
3 consultant registered with the SEC. While  
4 it's not specific for public accounts, but  
5 we do serve contractually under ERISA 321 as  
6 a fiduciary investment advisor or 338 as an  
7 investment advisor itself where one would  
8 take discretion.

9 All we do is investment consulting. We  
10 don't have any other lines or practices or  
11 business lines. Everything is fee based or  
12 incentive based, but it's not -- there is no  
13 hidden fee. We don't recapture any manager  
14 commissions or revenue sharing whatsoever.  
15 So totally, it represents about 44 billion  
16 in client assets and broken up to 200-plus  
17 clients.

18 On page 4 we show some representative  
19 clients and -- from this list. And we've  
20 included in bold those that are  
21 Pennsylvania-based clients across the state  
22 for your review.

23 MR. DIFUSCO: How does our plan size --  
24 maybe just remind the Commissioners, what is

1 your median or average client size? And  
2 we're about now 450 about 500 million-dollar  
3 plan roughly.

4 What's your median client size?

5 MR. DOMEISEN: The average is about 350.  
6 But we do have plans, we have the range  
7 going over a billion dropping down to about  
8 50 million. But the sweet spot is about  
9 300 million average.

10 MR. DIFUSCO: Thank you.

11 MR. DOMEISEN: Page 5 -- moving forward,  
12 page 5 is a little bit about our credentials  
13 and our backgrounds. All three of us --  
14 Chris, myself and Marvin -- are charter  
15 financial analyst, CFA designations. We  
16 have about 18 -- we have 18 members of that  
17 category. That's a rigor that goes through  
18 looking at various aspects of investment  
19 management, investment accounting. And we  
20 all three of us have that designation. See  
21 some of the additional credentials here  
22 listed as well for your review.

23 Moving to page 6, the institutional  
24 investment fiduciary services team. On the

1 leadership team that is really providing  
2 oversight on all the work we do is -- there  
3 is eight folks, gentlemen, on this list  
4 including myself and Chris Brokaw.

5 One thing I would like to point out is  
6 that Mick Davies who is listed on here is  
7 the area president overseeing the full  
8 collective enterprise of the GFA and  
9 institutional investment services team.

10 He's been involved with -- prior to coming  
11 to Gallagher, he's been involved with  
12 working on Montgomery County Public Plan as  
13 senior investment officer, and also had  
14 worked in defined benefit plans for  
15 multinational consulting firm Mercer prior  
16 to him joining us.

17 This is the team that represents all of  
18 us of the 50. And if you look onto the left  
19 the consultants, that's where myself, Chris  
20 Brokaw and Marvin Devers are shown.

21 Moving to page 7, I will ask Marvin to  
22 talk a little bit about the research  
23 committee and how that works and how we  
24 leverage off of the pull.

1 MR. RUBIN: Frank, can you go back to  
2 page 6? Do you have a diversity program in  
3 place? How do you look for people to bring  
4 into the firm?

5 MR. DOMEISEN: We do look for that. We  
6 don't have a specific program in place, but  
7 we try to take that into account across the  
8 different offices.

9 MR. RUBIN: What's the breakdown of  
10 male/female in managerial positions?

11 MR. DOMEISEN: Male/female, I don't know  
12 that off the top of my head. I have to go  
13 by first names here. It's guesstimate.

14 MR. DEVERS: Certainly, follow up with  
15 that information.

16 MR. RUBIN: Okay. Thanks.

17 MR. DEVERS: As Frank mentioned, one of  
18 the things that we think is unique and  
19 separates us from other candidates is our  
20 research committee, our research process as  
21 a whole and how we structure our team. We  
22 really drive everything from a top down  
23 research committee.

24 It's made up of six members. This is

1       where our client initiatives, client  
2       directions, our tactical asset allocation,  
3       our review of alternative investments all  
4       take place at the research committee. Not  
5       only that, it's charts as reviewing and  
6       vetting our focus list or highest conviction  
7       managers that we then take the clients in  
8       the various asset classes.

9       The additional element, though, is we  
10      divide up the research analysts and the rest  
11      of the team into asset classes such as U.S.  
12      equity, international equity, fixed income,  
13      et cetera. We feel this division, this  
14      focus of team members on that asset class  
15      allows them to identify the best in breed  
16      manager specific to that by only reviewing  
17      those asset -- those managers in that class.  
18      So really comparing them relative to the  
19      other members that come in and doing a full  
20      vet of their team and their process and  
21      their ability to achieve long term results  
22      down the road. So, it's really a  
23      combination of top-down bottom-up that  
24      drives Gallagher and our research



1 initiatives for the clients as a whole.

2 MR. DOMEISEN: I should point out that  
3 we also include when we're doing searches on  
4 this plan we had input from your website  
5 that you provide us with names. And if they  
6 haven't been reviewed by us, we put it  
7 through the same rigor that you see on this  
8 page by the same team doing qualitative  
9 reviews.

10 MR. DEVERS: One of the elements of our  
11 research committee is our experience with  
12 alternative investments. I know we just  
13 talked about that recently or the idea of  
14 looking to bring them in. Gallagher has  
15 over 25 years as a discretionary overseeing  
16 alternative investment programs. Every  
17 alternative manager, so those managers that,  
18 A, exhibit a style that is more complicated  
19 and long only; or B, have any type of  
20 liquidity go through a full vet process by  
21 our research committee that requires onsite  
22 visits, due diligence memos and a full  
23 review.

24 Looking at page 9, this just highlights

1 at the top level some of the outside  
2 third-party service providers we look to  
3 gather information from our databases where  
4 we are able to generate information, return  
5 stream, manager profiles, product profiles  
6 to help us in our due diligence effort with  
7 managers.

8 MR. BROKAW: If you look at page 10,  
9 what I would like to highlight regarding the  
10 process is that fact that you see it's  
11 circular with the client at the center. And  
12 what that means is we start with an  
13 investment policy statement, of course, the  
14 roadmap for your investments. We look at  
15 the asset allocation. We're monitoring the  
16 managers, helping with manager selection and  
17 also looking at the tactical positioning.

18 As we go through this process, it's not  
19 a one-time process. We want to look back at  
20 the policy, look at the goals within your  
21 plan especially if they're changing goals,  
22 look at the market environment, see what the  
23 opportunities are and go through the -- go  
24 through the process again.

1           That could mean changing the policy.  
2           That could mean changing the manager or a  
3           tactical positioning recommendation. Those  
4           processes are driven by the two committees  
5           you see at the bottom, research committee  
6           and investment committee which Marvin spoke  
7           to already.

8           And so, if you turn the page, I think  
9           maybe the best page would be on 13, to skip  
10          ahead to 13, and just focus on a couple of  
11          talking points, a couple of ideas.

12          Given the current market environment and  
13          given the goals of your plan, we looked at  
14          some alternative asset allocations that  
15          could potentially get you closer to those  
16          long term -- your long term return  
17          assumption. And a couple of the ideas  
18          within page 13 current portfolio is your  
19          current target asset allocation. And then  
20          Mix One and Mix Two show various -- various  
21          alternative portfolios that move some of the  
22          assets out of one class and into another.  
23          Mix One and Two, moving some of the funds  
24          out of bonds in Mix One into U.S. equities;

1 but in Mix Two, we introduce some other  
2 asset classes to the portfolio. And it's  
3 really the addition of these other asset  
4 classes that we're going to speak to in the  
5 next section of the portfolio.

6 So on an overall basis, we see adding  
7 these diversifying asset classes increasing  
8 the long term expected return as something  
9 that could get you down the road towards  
10 your return -- investment return goals.

11 MR. DOMEISEN: I should point out that  
12 there is no free lunch here. What you do  
13 see is on the second line at the bottom,  
14 bold risk, which is a measure of standard  
15 deviation from the current portfolio which  
16 is 65/35; 65 equities, 35 bonds. You can  
17 see the risk level. But trying to -- this  
18 was really showing what it would need to get  
19 closer to the interest rate assumption from  
20 going from left to right.

21 MR. DIFUSCO: For purposes of clarity,  
22 how are you defining a Mix to global  
23 equities -- excuse me, private markets and  
24 marketable alternatives? How are you

1 defining those? They can mean different  
2 things depending on who you are talking to.

3 So for the Commission, how are you  
4 defining those two allocations?

5 MR. DEVERS: Private markets is private  
6 equity. And then marketable alternatives is  
7 a proxy for fund-to-funds composites. So, a  
8 diversified basket of hedge fund investments  
9 that are investing in a publicly traded  
10 security at the underlying level.

11 MR. DIFUSCO: I know one of the things  
12 maybe not so much with you, Marvin, but  
13 Staff I guess talked to Frank about perhaps  
14 a little bit is opposed to a fund-to-funds  
15 idea, leveraging -- if we really are going  
16 to go down this hedge fund road, and I don't  
17 know that there's necessarily going to be --  
18 I won't speak for the people in charge. But  
19 there may not be the appetite for that.

20 Why is a fund to funds -- I get that we  
21 are a smaller plan. Why is that a better  
22 idea than trying to leverage an appropriate  
23 existing relationship that perhaps the main  
24 fund has in a hedge fund structure where we

1 get the benefit of two sets of eyes, two  
2 staffs, lower fees? Why is that not a  
3 better idea?

4 I'm just asking. I'm playing devil's  
5 advocate.

6 Why is that not a better idea of going  
7 into a fund to funds where we are going to  
8 have two layers of fees, and with a minimal  
9 allocation may not get the kind of attention  
10 that we would want?

11 MR. DEVERS: Yeah. The idea behind fund  
12 to funds is your ability similar to what we  
13 do with the overall portfolio is to build a  
14 diversified basket of hedge funds which  
15 provide a much smoother, more consistent  
16 return profile which we have used the model.

17 I think one of the examples, not to say  
18 that not leveraging off the current  
19 relationship is an idea. But the dispersion  
20 that can occur in any given year from  
21 underlying hedge funds is quite large. You  
22 know, looking at last year where you saw  
23 just some big names in the space. Can't  
24 think of his name off the top of -- Bill

1 Ackman, for instance, his fund was done  
2 20 percent over last year. You can look at  
3 some other long/short equity funds.  
4 Activist funds that were down 15, 20, plus  
5 percent as a result of some of their  
6 positions.

7 So, the idea is that if we build a  
8 portfolio of this, you can certainly do it  
9 on your own. That's not to say that we  
10 can't build -- can't add, you know, 10 to 15  
11 long/short equity or credit managers to a  
12 portfolio and construct it as a whole. But  
13 we have a team -- we are hiring a team that  
14 does that same efforts. Not only that, they  
15 are able to get potential capacity with  
16 managers that might not otherwise be open to  
17 new investments. They are able to better  
18 monitor or manage your cash flow.

19 With the -- for instance, I am just  
20 going to speak about long/short because it's  
21 one of the strategies we are going to talk  
22 about. These are funds that provide  
23 quarterly liquidity to investors. So going  
24 into a single hedge fund, they might only

1 have annual liquidity for a given size. But  
2 the long/short fund of funds has negotiated  
3 that capacity. They structured it in a way  
4 you have additional liquidity from that  
5 structure that you might not get from an  
6 individual manager position. They are  
7 monitoring it constantly and looking to  
8 identify all those new maybe smaller  
9 managers, less known hedge fund managers  
10 that could be a successful addition to the  
11 overall portfolio structure.

12 Really, it's a way to smooth the returns  
13 that you are getting. De-risk the portfolio  
14 to media risk or blow ups, for that  
15 instance, because you are adding an  
16 additional layer of due diligence on a  
17 portfolio construction.

18 MR. DIFUSCO: How do you fees look? I  
19 know a couple of the funds we had met with  
20 maybe before that were on Gallagher's, for  
21 lack of a better term, approved list are  
22 folks that you are familiar with.

23 How are the fees, you know, in your  
24 opinion? Some of them seemed a little bit



1 high to me. But again, that was on the  
2 first pass and pre-negotiation admittedly.  
3 How did they look to you just generalize.

4 MR. DEVERS: They looked in  
5 comparison -- our focus looks in line with  
6 the industry. They range from about 75 to  
7 100 basis points, so 1 percent on a  
8 management fee and 0 to 5 percent on a  
9 performance fee for the fund.

10 What -- just to give an example. What  
11 we saw last year is all three candidates on  
12 our focus list had a positive return. They  
13 ranged from half a percent for the year up  
14 to 6 percent for the year. When the S&P was  
15 up 1.4 percent. We saw volatility control.  
16 And this is including that additional layer  
17 of fees.

18 MR. RUBIN: Got you.

19 MR. DEVERS: So we have seen that  
20 stability, we have seen the net result be  
21 what we expect from that asset class  
22 especially given the volatility that we saw  
23 last year played out as we like to see with  
24 our management.

1 MR. DIFUSCO: Okay.

2 MR. RUBIN: You think there's still an  
3 appetite across the board for fund of funds  
4 in this hedge fund area?

5 MR. DEVERS: Yes. I think that will  
6 continue. What you are seeing, though, is  
7 consolidation. Certainly, those smaller  
8 fund of funds, the sub-billion,  
9 sub-500 million, they have a difficult time.  
10 And they are not gaining assets. And  
11 eventually, that's not an area we look to  
12 allocate to.

13 But those larger fund of funds  
14 structures are just getting larger. They  
15 are gaining assets. They are continued  
16 appetite from investors, especially smaller  
17 investors that don't have the ability, don't  
18 have the expertise to build out a portfolio  
19 of single hedge fund managers because of the  
20 risk that you can take with those  
21 allocations.

22 MR. DIFUSCO: Is it a 1 in 15 all in, or  
23 is it a 1 in 15 and then the Staff and the  
24 Commission get kind of the actual fees we

1 do -- and we do a study every year, and we  
2 see in addition to the 1 in 15, there is  
3 actually another 40 basis point in operation  
4 and travel expenses and all this sort of  
5 stuff that a lot of investors, institutional  
6 investors, you know, elected folks and stuff  
7 don't really have the appetite for.

8 MR. DEVERS: The ones we look at are the  
9 straights.

10 MR. DIFUSCO: It's all in?

11 MR. DEVERS: Yeah. There's no  
12 additional added expenses included. Just in  
13 the risk of time --

14 MR. RUBIN: Have you ever presented any  
15 of this to the Board prior to today?

16 MR. DEVERS: I believe we have had  
17 conversations.

18 MR. DOMEISEN: I don't think we have.  
19 This was generated in terms of looking more  
20 recently at just how would you get -- one of  
21 the requests from Staff to look at -- how  
22 would we get closer to the interest rate  
23 assumption. This was just shown as a  
24 sampling here right now that could be

1 effective in getting a higher return. But  
2 again, we need to manage the risk profile,  
3 as well.

4 MR. RUBIN: When we were in the 2008/9  
5 period, that was an idea that was floated at  
6 that point to go into any of that.

7 MR. DOMEISEN: We did do this -- we  
8 looked at alternatives during that time  
9 period, as well. Off the top of my head, I  
10 don't remember specifically what we  
11 presented at that time.

12 MR. DEVERS: Jumping ahead just to page  
13 21. One of the strategies that we think  
14 would be an added value to the portfolio, as  
15 I just spoke to, is equity long/short. The  
16 idea here is that over the long term, an  
17 equity long/short portfolio is going to  
18 achieve the same return as marketable  
19 equity. So, publicly traded equities just  
20 with less volatility.

21 And they achieve that same return by  
22 cutting off the tail. This is just a simple  
23 graph of the drawdowns that we have seen  
24 going back to 1990. And the dark line is

1       how far the HFRI, the index is drawn down  
2       relative to the S&P 500. There has been  
3       considerable protection on the tails in this  
4       scenario.

5             The other strategy that we talked about  
6       during the meeting as well, Matt alluded to  
7       in conversations with the fixed income  
8       manager is moved into high yield, taking a  
9       tactical position given where spreads are to  
10      achieve that higher return.

11            Just looking at page 24 real quick, the  
12      idea is adding a short duration, high  
13      quality, high yield manager, that not only  
14      can achieve the higher yields in the high  
15      yield market but can protect in rising  
16      rates. This is just looking at five periods  
17      of rising rate where the 20-year the 10-year  
18      Treasury has risen over 100 basis points.  
19      And how short duration high yield performed  
20      in that period relative to a core ag fixed  
21      income. And across every period, the short  
22      duration high yield has added value through  
23      the less duration exposure and the through  
24      the additional yield at the high yield

1 portfolio.

2 I think just, Frank, if you want to  
3 finish us off jumping ahead given the time  
4 constraints. Maybe to 31.

5 MR. DOMEISEN: We want to tell you that  
6 we believe that we feel confident that we  
7 understand the relationship. We understand  
8 the sensitivity to the MacBride principles  
9 and working with those as well as Sandy Hook  
10 principles. We've been proud to be working  
11 with you through all these years.

12 One thing that we show you here is a  
13 graph. And this is through September 30.  
14 If I updated it through December, it would  
15 show the same results. But what we show  
16 here is that in a peer group of public funds  
17 under a billion dollars, the median  
18 portfolio -- we beat the median portfolio on  
19 a three-year rolling basis 80 percent of the  
20 time. And we looked at the last five-year  
21 period. It's represented by the blue square  
22 versus the median which is the 50th  
23 percentile, the line through the middle.

24 So we're continue -- we would hope to

1 continue to work you and be proud to work  
2 with you to keep that performance in the top  
3 half of the peer group as well as meeting  
4 the actuarial assumption and providing those  
5 additional ideas in terms of equity  
6 long/short specifically as one idea and also  
7 investing that through fund -- hedge funds,  
8 as well.

9 So with that, we want to thank you for  
10 the opportunity.

11 MR. RUBIN: Frank, when you show that  
12 graph, are they plans that are the same mix  
13 as what we are?

14 MR. DEVERS: No.

15 MR. DOMEISEN: Not necessarily. It's  
16 the peer group of public.

17 MR. RUBIN: How do we know where we are  
18 compared to groups that are investing  
19 similar to where we are? Is there a chart  
20 that --

21 MR. DEVERS: We can provide one. We had  
22 a breakdown of asset allocation for all the  
23 plans that are involved in this. We can  
24 show where you are in relation to that. I

1 am happy to do a follow up, as well.

2 MR. DOMEISEN: I don't know if you can  
3 dissect the universe to be just those that  
4 are in the same --

5 MR. RUBIN: Similar. Ones that don't  
6 have alternatives, ones that have other. We  
7 are basically 55/35.

8 MR. DOMEISEN: One thing we do is  
9 certainly on each manager we look at peer  
10 group rankings on the same chart basis as  
11 well for each individual manager to make  
12 sure. We have included in the back just a  
13 lose leaflet which is actually one of our  
14 more recent research position papers about  
15 the high yield bond market that is available  
16 to all of our clients. And also, that is  
17 just an example of the high yield bond  
18 market commentary that we have a white paper  
19 that is available.

20 There are opportunities that we have on  
21 webinars that are online to talk about the  
22 market conditions. That should go out. I  
23 don't know if it goes out to the -- it's  
24 available to talk about the marketplace on a



Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 73

1       quarterly basis that we had one last week  
2       from January 13 to make sure you are a part  
3       of that if you like.

4             Thank you for the opportunity.

5       MR. MAZZA:   Thank you.

6       MR. BUTKOVITZ:  I'm going to need 5  
7       minutes.

8                     (Brief break taken.)

9                     -   -   -

10            (Clearbrook Global enters the room.)

11       MR. MAZZA:  These are the gentlemen from  
12       Clearbrook.  Jon Chesshire, Tim and Eric  
13       Blasberg.  If you guys want to start, let me  
14       know when you're ready.  It's 20 minutes,  
15       5-minute warning.  That's 25 minutes total.

16       MR. CHESSHIRE:  We'll just -- I'll be  
17       brief on the firm outline.  Page 2 is the  
18       agenda.  To my left is Tim Ng, our Chief  
19       Investment Officer; Eric Blasberg.  The  
20       three of us along with two other members of  
21       the Clearbrook team sit on the investment  
22       committee.  Tom Deegan, who some of you met  
23       last go around is traveling today.  Couldn't  
24       be here today.

1           We will also talk about our investment  
2     philosophy and process, what we are doing in  
3     terms of allocation. We have a few ideas  
4     for the existing portfolio, and then we will  
5     talk about alternative and reporting to sum  
6     it up.

7           For those of you that don't know us, we  
8     serve about 55 institutional clients,  
9     corporate foundations, governmental agencies  
10    and entities, anywhere from 25 million to  
11    10 billion in terms of account size. We do  
12    outsource CIO as well as traditional  
13    consulting. That is what we will talk about  
14    here in a few minutes.

15          I think -- you know, I mentioned the  
16    investment committee. I think one of the  
17    things interesting about our firm is that  
18    everybody, consultants to people in the  
19    research area, have all been involved with  
20    start ups. We sit on the other side. We  
21    sit on committees like this. We have  
22    started businesses. We have run money. And  
23    I think that helps in terms of how we add  
24    value to client portfolios.

1 Client services is certainly an emphasis  
2 with us. I know we've talked about four  
3 meetings a year. But typically it ends  
4 on -- we are on page 4 now. We interact  
5 with our clients a lot more than four times  
6 a year. We are just counting up some of the  
7 meetings that we have had with clients last  
8 year. They run anywhere from eight to  
9 twelve, and then phone calls, et cetera, et  
10 cetera. I'm in Malvern. Eric has clients  
11 in York, so he's down here quite a bit.

12 But bottom line is, we are very focused  
13 on the client, forming a partnership with  
14 them and helping them, you know, meet their  
15 needs as best as we can.

16 MR. DIFUSCO: I think we confirmed this  
17 with you folks when we were up there. Just  
18 to confirm, since it mentions four, we  
19 confirm that there will now be six meetings  
20 a year, not four. I know that changed since  
21 the RFP?

22 MR. CHESSHIRE: Yes. Also, the  
23 investment people, it's not just Tim is CIO.  
24 You will see him a few times a year. He is

1 certainly more interact with clients, more  
2 than any other firm I've been, frankly.  
3 Eric and I, we're technically consultants.  
4 We also perform investment manager due  
5 diligence as I mentioned. Eric is on the  
6 Investment Committee. I think that helps in  
7 terms of how we communicate to clients.

8 Page 5 is our just sort of our bios.  
9 Mentioned Tom is not here today, but we've  
10 all been involved in the investment  
11 community for 20-plus years most of us and  
12 in all aspects of the business.

13 Page 6 is just our representative client  
14 list. I can certainly take any questions  
15 about that, but sort of reiterates what I  
16 mentioned earlier.

17 MR. NG: One of the important points in  
18 regards to the client list as you see, what  
19 we're doing is we gained a good deal of  
20 traction recently with public plans and  
21 public plans like yourselves and other  
22 related plans. We gained a lot of traction  
23 on it. We are brought into a number of  
24 public plans to help with a number of the

1 issues that they had with existing  
2 consultant. We were brought in as like  
3 troubleshooting team. And now we've  
4 recently been hired by lot of public  
5 entities because of the work we have been  
6 doing for them over the years, as well.

7 MR. CHESSHIRE: I think, you know, I  
8 rushed through the first few pages. I think  
9 we want to focus on the meat of the  
10 presentation, so I am going to hand it over  
11 to Tim to talk about our investment process.

12 MR. NG: Thank you very much.  
13 Appreciate you inviting us. We would be  
14 honored to take over this assignment if we  
15 so could have that.

16 The really important point in terms of  
17 our philosophy is, as John mentioned, we are  
18 involved all of us in portfolio management.  
19 We grew up in this business. We didn't grow  
20 up -- it's not a bad term, as consultants.  
21 We were portfolio managers, risk managers.  
22 We were traders. We are individually  
23 involved in actually the essence of putting  
24 together portfolios, running portfolios,

1 rebalancing portfolios, hiring investment  
2 managers. And since we traded these type of  
3 securities, we are on the other side. When  
4 you are interviewing the investment manager,  
5 we did their job. So we know and have a  
6 great deal of knowledge in terms of what  
7 they are doing.

8 What's very important in our philosophy  
9 is, everyone is always saying, oh, my gosh,  
10 the markets are down 10 percent as they are  
11 this year. What we try to do from a  
12 philosophy perspective, anticipate what's  
13 going to happen. You can't chase returns  
14 after the fact. You can't mitigate losses  
15 after the fact. What we always do is look  
16 at values around the world. Where are  
17 stocks cheap? Where are bonds cheap around  
18 the world? Where are investment managers  
19 that we can find who are the best that can  
20 give you the best returns for the least  
21 amount of risk? That is really our job.

22 For example, real quickly, a year ago we  
23 felt that there are certain firms that were  
24 at risk that were very high profile names

1       such as Pimco, a large investment firm when  
2       Bill Gross left. We've been dis-allocating  
3       out of Pimco for a year and a half. Okay.  
4       So anticipating those types of situations  
5       just a few months ago, we lowered our  
6       overall stock allocations because there was  
7       a lot of risk. And against the grain, we  
8       went back and put more money back into bonds  
9       because we thought there was a little bit  
10      more risk in fraud than the markets. Always  
11      trying to anticipate philosophically what we  
12      are trying to do and not chase returns,  
13      which is the key.

14           MR. BUTKOVITZ: What do you think is  
15      going to happen in the next six months?

16           MR. NG: Short term, always emotions  
17      drives markets. If you look at the three  
18      points: China, oil, interest rates in the  
19      U.S., and also is important, politics. No  
20      one knows what's going on here in the United  
21      States in regards to politics. No one  
22      knows. Once you get through those issues,  
23      and there are price points that we can  
24      discuss long term, as to why this is going

1 to work itself out over the next six months,  
2 there are a number of things that are going  
3 to happen particularly with oil and OPEC in  
4 June. They have an OPEC meeting that is  
5 very important that they will reset prices.  
6 You have the elections in terms of all of  
7 the primaries, we'll get better clarity by  
8 June. And china is going to figure this  
9 out.

10 MR. BUTKOVITZ: What would you do if you  
11 were managing this portfolio right now?

12 MR. NG: What we would do today is you  
13 don't make changes in light of a situation  
14 where there is a lot of craziness or emotion  
15 driving the markets. If you believe that  
16 the valuations and equities today and you  
17 look at the price earning ratio, for  
18 example, of the S&P 500 trading at 14 times,  
19 it's a lot better than 20 times when it was  
20 over the summer, right.

21 Same thing in Europe and same on other  
22 overall opportunities across the board.  
23 What has changed on a global basis in terms  
24 of growth around the world, has it gone now



1 to recession? We don't think so. So if you  
2 believe that that's going to hold where you  
3 get slow downs and still 2 percent growth  
4 rates around the world, nothing has changed  
5 from what it was really six months ago. So  
6 valuations are even better today than they  
7 were before.

8 So, stay the course. But if we see  
9 continued opportunities to move from -- we  
10 know fixed income is overvalued. To move  
11 from fixed income to cheaper, better stock  
12 selection and better stock I believe is here  
13 in the U.S. and also in Europe. That's what  
14 we would be doing.

15 MR. CHESSIRE: But not significant. We  
16 are never making significant changes so we  
17 end up going from 80/20 to 20/80  
18 stocks/bonds. We have our allocation based  
19 on your needs and your IPS, but then we will  
20 work around the fringes to take advantage of  
21 the opportunity. We don't want to suggest  
22 that we are making significant moves.

23 MR. NG: No. And it could be anywhere  
24 from 1 percent to 5 percent, but that's a

1 big move, okay, for us. That's to page 9  
2 effectively where we're talking about the  
3 asset allocation process.

4 What we are trying to do is always make  
5 the fact that you are buying things that are  
6 cheap. I always want to buy a cheap car or  
7 cheap TV when I can buy it at a discount.  
8 That is what people are trying to buy  
9 because it has the best probability of  
10 having appreciation in the future. But  
11 also, what we call -- everyone tries to find  
12 the best manager that's available, right?  
13 Whether Bill Gross or all these big names.  
14 But if you buy them in the wrong part of  
15 what we call the cycle, meaning that every  
16 strategy, every manager is going to have a  
17 time period in which you will not do well.

18 So what you have to be able to do is  
19 understand what cycle you're in, what  
20 stocks, what strategies have failed within  
21 that cycle and then find the best manager  
22 who is there. But conversely, more  
23 important than ever before, and this time  
24 period has showed us, it 2000 it showed us

1 the same thing. When it's a bad cycle, you  
2 have to get out and de-risk your portfolio.  
3 We are never ashamed of pulling --

4 MR. BUTKOVITZ: How do you do that  
5 consistent with what you just said?

6 MR. NG: What you do is because when you  
7 see valuations are far overvalued, we have  
8 no issues in calling up managers and saying  
9 we are dis-allocating from you one hundred  
10 percent. We just did that recently.

11 MR. BUTKOVITZ: How long does that take?

12 MR. NG: It could take as much as --  
13 depending upon if it's a situation where we  
14 have complete discretion, we can do it  
15 within a day. If it's a situation whereby  
16 it's more of a committee where we meet on a  
17 quarterly basis, we have a prep call with  
18 you before committee meeting. We set up and  
19 tell you what our thought process is and  
20 what we're going to do. At the committee  
21 meeting, we will make that decision if  
22 that's what the committee members would  
23 like.

24 MR. BUTKOVITZ: Given what you see in

1 the environment, what would be the warning  
2 sign to take that kind of action?

3 MR. NG: The warning sign is always  
4 froth in the overall market. Meaning, if a  
5 bond in the U.S. government at the 10-year  
6 is yielding 1.6 percent, and that's an  
7 historical low. That's telling you, you  
8 know what, it's time to get out. You know  
9 it's time to get out. The market is  
10 artificially keeping it there. You should  
11 go into other assets.

12 It's those signs that we look at  
13 historical data. Where should it be? Where  
14 is it now? And where has it been? That's  
15 what we try to do. We are not geniuses at  
16 it. No one is ever perfect. All you are  
17 ever saying is if you buy cheap assets, you  
18 have a better probability of making money on  
19 the upside. But more importantly, you have  
20 less probability of having downside risk.  
21 That's risk. You never buy the S&P 500 when  
22 it's trading 30 times earnings, right? You  
23 try to buy it when it's 12 times earnings.

24 That's basically how I was trained

1 essentially as a portfolio manager, and  
2 that's what we try to do. Don't outthink  
3 the market. You can't time the market. All  
4 you can ever do is give yourself the best  
5 probability of making money or prevent  
6 yourself from losing money. That's what we  
7 do from an asset allocation perspective.

8 MR. DIFUSCO: How do you deal with --  
9 just to piggyback on the Controller's  
10 question. It's obviously a little bit more  
11 difficult. You're talking about, you know,  
12 when public pension fund clients, we have  
13 RFP processes. We have contracting  
14 processes. The getting out part is easy.  
15 Even, you know, Staff has a certain amount  
16 of autonomy. We have a meeting where we  
17 say, here is our thinking, Commissioners  
18 agree. But then if we don't have the spot  
19 where you want to move the money readily  
20 available, it could be six months, nine  
21 months, a year.

22 What kind of creative solutions or  
23 things do you folks think about in terms of  
24 in a public pension fund with, you know,

1 bidding requirements and contractual -- you  
2 know, like I said, getting out is easy. How  
3 do you make the getting into where you want  
4 to move the money, you know, smooth, as  
5 well?

6 MR. NG: Sure. The only good part,  
7 Chris, in terms of the markets over the  
8 years is that it goes down a lot faster than  
9 it goes up. So as assets become more and  
10 more pricy, we anticipate 14 times or 15,  
11 16. Gives us a little lead time. We would  
12 work with the committee say, listen, you  
13 know what, small cap, it's getting a little  
14 pricy here. Let's think about taking money  
15 out of this manager. But in preparation, we  
16 have these five managers that we can suggest  
17 and we would work with the committee and  
18 say, let's point -- pinpoint these managers  
19 who we would want and go through the process  
20 beforehand.

21 MR. BLASBERG: Simply rebalancing with  
22 the manager in the portfolios.

23 MR. DIFUSCO: Right. But you are  
24 talking about almost having like a bench or

1 maybe people with 0-dollar contracts that  
2 you can see, if I heard you correctly, where  
3 you would have maybe folks you didn't fund  
4 right away but you would have kind of in  
5 reserve for a situation like you're  
6 describing.

7 MR. NG: Yes. We always have an initial  
8 number of managers that we prefer, but we  
9 will always have a bench between five and  
10 ten managers underneath, yes, to have a  
11 replacement available. Absolutely.

12 MR. DIFUSCO: Okay.

13 MR. RUBIN: Have you gone through our  
14 portfolio?

15 MR. NG: Yes.

16 MR. RUBIN: And sort of looking at what  
17 we have now, do you see that as strong?  
18 Okay? Weak? Where would you make changes  
19 to what we have going forward?

20 MR. NG: Since that's the meat of the --  
21 that's on page 14. And you're right, that's  
22 the most important part of really now. I  
23 will turn this over to Eric. And we can --

24 MR. BLASBERG: Overall, I think it's a

1 very good lineup. We are quite familiar  
2 with most of these managers. And I think  
3 quite highly of them. The asset allocation  
4 is, you know, quite similar to a lot of your  
5 peers out there.

6 So, what we did just as kind of a  
7 discussion point is kind of reviewed the  
8 existing allocations and kind of put it  
9 against our asset allocation modeling  
10 system. Which I will admit this point is a  
11 little dated as when we originally focused  
12 out with. You know, what we strive to do  
13 here is really focus on coming up with our  
14 forward looking capital market assumptions  
15 for a wide variety of asset classes.

16 And we're really talking asset classes  
17 here, not specific managers kind of bigger  
18 picture. And update them at least  
19 semiannually. Lately, we have been having  
20 to do that a little more frequently. Really  
21 the value that we provide is private  
22 forecast for that for various asset classes  
23 going forward. A lot of it is based on  
24 relative valuations. You know, we are more



1 concerned not with the absolute numbers but  
2 kind of the relationships between asset  
3 classes.

4 MR. NG: And the actual observations are  
5 on page 13 if you like to go through them  
6 very quickly.

7 MR. BLASBERG: Yeah. I know the  
8 portfolio's probably changed a little bit  
9 since we were last here and given some data  
10 here. But you know, kind of some  
11 considerations we were throwing out there is  
12 potentially looking into some alternative  
13 asset classes.

14 MR. RUBIN: Can you drill down on that,  
15 what that means?

16 MR. BLASBERG: So, non-traditional. So  
17 not long holding long, fixed income and  
18 equities but in, you know, areas like hedge  
19 funds, private equity, real estate. There  
20 is a whole wide variety that --

21 MR. RUBIN: Where would you suggest we  
22 go? Private equity? Real estate? Which  
23 areas?

24 MR. BLASBERG: A lot of it has to do

1 with your own beliefs in liquidity  
2 constraints and things like that. We can  
3 run the gamut between what's starting to  
4 appear in the marketplace, liquid  
5 alternatives. Essentially, 40 Act mutual  
6 fund vehicles that, you know, effectively  
7 replicate some of the hedge fund and fund of  
8 funds strategies out there as well as going  
9 into direct.

10 MR. RUBIN: What's your feeling?

11 MR. NG: The two areas specifically. In  
12 today, real estate is still getting a very  
13 nice bid by investors around the globe both  
14 for core real estate, core plus, even  
15 developmental real estate and others. We  
16 know a lot of institutions are still going  
17 into real estate on a global basis. They  
18 are looking for yield and some capital  
19 appreciation, vis-a-vis, particularly the  
20 public markets.

21 They say the market is going down 10,  
22 20 percent. Wait a minute, real estate is a  
23 much better value today. And yields around  
24 the world are about 4, 4 and a half. Some

1 other countries 6 or 7. That's not bad in  
2 comparison.

3 The other area is what folks have been  
4 somewhat afraid of from number perspective.  
5 I've been involved in investing for now  
6 30-plus years. I've been involved in hedge  
7 fund industry since 1985. It's one of the  
8 crazies who started this whole situation.  
9 We know it very, very well.

10 Hedge funds, if properly reviewed,  
11 properly due diligenced serve a purpose in  
12 the portfolio. Meaning, they will hedge  
13 your downside risk. I will tell you that  
14 the number of the largest hedge fund  
15 allocations that we have today, the majority  
16 to this point as of yesterday are either  
17 plus 65 basis points or down about 50 basis  
18 points.

19 In light of all of this crazy volatility  
20 in the market, it has served the purpose of  
21 doing two things. It gives you a stable  
22 return, 7, 8, 9 percent per year. But more  
23 importantly, they are protecting downside  
24 for our portfolios as we speak today.

1           And those are the two areas we think  
2           have the best ability to hedge the downside  
3           risk of stocks is what we're seeing today in  
4           the long term.

5           MR. BUTKOVITZ: If your assessment is  
6           that basically we have a good line up, why  
7           would we jettison the incumbent?

8           MR. NG: We will tell you the reason  
9           why. Lineup accounts for probably  
10          30 percent of one's overall performance  
11          versus your underlying benchmark. The other  
12          key 70 percent is asset allocation. The  
13          change we would make, the lineup is good.  
14          We think you maybe a little bit  
15          overconcentrated in terms of U.S. equities  
16          versus international equities at this point  
17          in time.

18          One singular reason why. S&P 500  
19          probably will have a growth of about  
20          2.2 percent in terms of earnings, okay?  
21          Because of what's happened in terms of  
22          Europe with the dollar rising dramatically  
23          against the euro and others, we are  
24          projecting that euro stock index or European

1 stocks would grow a 9 percent rate this  
2 year. U.S. stocks today trading about 14  
3 and a half times earnings. European stocks  
4 are trading at 13 times earnings.

5 For valuation perspective alone and  
6 because of higher growth rate, we would  
7 suggest taking some of your large cap U.S.  
8 equities and moving it more towards European  
9 markets.

10 MR. BUTKOVITZ: How much of a change in  
11 the percentages?

12 MR. CHESSHIRE: We're talking page 15  
13 has our portfolios.

14 MR. BUTKOVITZ: Is that compared to our  
15 existing portfolio?

16 MS. JOHNSON: Yeah.

17 MR. MAZZA: Five-minute warning, guys.

18 MR. NG: Yes.

19 MR. CHESSHIRE: The biggest difference  
20 is the use of hedge funds in the lower  
21 table, roughly 20 percent. That changes a  
22 sharp ratio of the portfolio. Reduces the  
23 risk.

24 I want to point that out. When we talk

1 about hedge funds, Tim made an important  
2 point. It's a risk reducer. We're not  
3 looking at hedge funds that are -- that are  
4 strictly return only. We are using them as  
5 a diversifier in portfolios to minimize the  
6 risk. I think that's an important point.

7 MR. RUBIN: As direct or as fund of  
8 funds?

9 MR. NG: No, directs.

10 MR. RUBIN: What's your feeling on fund  
11 of funds?

12 MR. NG: I have seen the creation, the  
13 tremendous growth and now the demise of fund  
14 of funds. They no longer serve a purpose  
15 because they are charging you double fees.  
16 You can do far better and it's a cheaper  
17 solution to go direct. There's no question.

18 MR. RUBIN: If somebody suggested to go  
19 into fund to funds, you would think that was  
20 not the correct way to go?

21 MR. NG: Absolutely.

22 MR. CHESSHIRE: Not for this size of  
23 portfolios.

24 MR. BLASBERG: For smaller account

1 sizes, sometimes you really don't have a  
2 choice to build an adequate --

3 MR. RUBIN: How about if we were able to  
4 piggyback on a larger fund?

5 MR. NG: We can do that for you because  
6 we have quite a good amount of money with  
7 fund of funds. Even --

8 MR. RUBIN: If we took our directs that  
9 we already have in the large municipal fund,  
10 would you think that that was a good idea to  
11 piggyback off of those with the existing  
12 relationships or would we create new ones?

13 MR. NG: We would rather customize and  
14 see how it fits in your portfolio.

15 MR. CHESSHIRE: Depends on what the  
16 funds are.

17 MR. NG: Right. Not all hedge funds  
18 will work perfectly with you portfolio  
19 versus the larger fund.

20 MR. CHESSHIRE: And that goes to the  
21 point I just mentioned. We are looking at  
22 funds that are going to reduce the risk of  
23 the overall portfolio versus --

24 MR. NG: The portfolio allocation, what

1 are we doing? We have 7.65 percent  
2 benchmark or hurdle that you are trying to  
3 achieve. Based on asset allocation manager  
4 selection, we are trying to give the highest  
5 return for least amount of risk. That is  
6 effectively what we're doing vis-a-vis your  
7 portfolio today.

8 MR. DIFUSCO: What's kind of the average  
9 fee of the hedge funds that you are  
10 recommending?

11 MR. NG: The majority is still 2  
12 percent, properly 20 percent. What we've  
13 been able to do, Chris, even within that,  
14 what we are trying to do is overall cost to  
15 your fund. We are trying to minimize it and  
16 have it below 1 percent cost. On average,  
17 our cost is about 85 basis points per year  
18 0.85 of 1 percent including the hedge funds.

19 We absolutely will match index funds  
20 where we buy at \$0.05 on the dollar, very,  
21 very cheap where we don't think the manager  
22 can add value. Don't pay for essentially  
23 the market return. What we're paying for is  
24 over-performance from the hedge fund side or



1 some of those on the active side, which is  
2 the most important point.

3 I think since we have a time frame in  
4 terms of overall constraints.

5 MR. BLASBERG: We went through a few  
6 slides with some of the scenario analysis we  
7 do. There is quite a bit more we can do.

8 MR. RUBIN: On the firm side, do you  
9 have a diversity policy for trying to bring  
10 in new associates?

11 MR. NG: Oh, sure. I mean, it's kind of  
12 funny. If you look at the overall firm, you  
13 know we have tremendous emphasis in regards  
14 to -- well, we have quite a number of  
15 individual women, minorities, et cetera, et  
16 cetera. Actually, they are even saying to  
17 us now that a good number of people on the  
18 research staff effectually meet that  
19 qualification. Absolutely.

20 I think in just overall closing with the  
21 agenda, what's very important is we're  
22 trying to customize portfolio really that  
23 meets your needs as you mention. Are they  
24 proper hedge funds? It's for your needs.

1 Not necessarily meets the agenda of everyone  
2 else.

3 It's customization, one. Two is, you  
4 know, we are here locally. So, we are your  
5 partner. We're an extension of you.  
6 Anything you need, and we do this quite  
7 often. Outside of the four meetings, and  
8 Chris mentioned we will probably have six  
9 meetings, we are able to get this  
10 assignment. We have prep meetings. We have  
11 prep calls. If you have a call that at any  
12 point in time during a market cycle in  
13 between meetings, we welcome those calls.  
14 We happen to have that.

15 We also have a lot of educational  
16 sessions. We hold one educational session  
17 per month in regards to having a manager in.  
18 Or I come in and actually with other members  
19 of the team have an educational for the  
20 members of the staff. Do you have questions  
21 about the stock market? Do you have  
22 questions about asset allocation? We will  
23 help you with that all along the way.

24 It's not just the six meetings. We have

1 more than that in terms of overall service.

2 MR. RUBIN: Can I get one more at the  
3 bell? What's your feeling on peer group  
4 analysis?

5 MR. NG: Peer group analysis is  
6 important as long as you have the right peer  
7 group. It's very, very important.

8 MR. RUBIN: Got it.

9 MR. BLASBERG: There is always drawbacks  
10 with peer group analysis. It's good to look  
11 at. It's a useful tool.

12 MR. CHESSHIRE: It's a tool.

13 MR. BLASBERG: You never really know  
14 exactly the universe you're being compared  
15 to because it's not all available  
16 information, but it is useful.

17 MR. NG: I think --

18 MR. BLASBERG: We do look at it. It's  
19 included in all our reports at the manager  
20 level.

21 MR. NG: And under total planning. The  
22 last point is on our fees it's \$100,000. It  
23 may seem low versus other bidders. One is,  
24 it's a business we want. We would be

1 honored to have your assignment. It's  
2 something that we really would like. It is  
3 guaranteed for four years at this point in  
4 time. That's maybe the next time the Jets  
5 win the Superbowl.

6 MR. MAZZA: Gentleman, thank you.

7 - - -

8 (At this time, a break was taken.)

9 - - -

10 (PFM Group enters the room.)

11 MR. MAZZA: When you guys are ready,  
12 you'll have 25 minutes. I'll give you a  
13 5-minute warning.

14 MR. AMMATURO: Okay. Jumping right in.  
15 Everyone has a copy?

16 Well, first I want to say, thank you for  
17 this opportunity. John, Biagio and myself  
18 are very excited to be here. John and I  
19 were actually here at this decision point  
20 five years ago. Unfortunately, it didn't  
21 work in our favor. We were very  
22 disappointed with the decision five years  
23 ago. You know, we took the feedback to  
24 heart. We made some changes inhouse.

1           Sitting to my far right is Biagio, one  
2           of our additions who is now our investment  
3           committee chairman, our director of  
4           research. He's been with us for four years  
5           now. That's one of the -- some of the  
6           feedback we got when this opportunity didn't  
7           work out five years ago.

8           When we see your portfolio five years  
9           ago, we thought we could improve it. As we  
10          sit here today, again, we think we can  
11          improve it. We are going to go through how  
12          in the next 20 minutes or so.

13          If you just flip over the page, on page  
14          3 just real quick intro, my name is Marc  
15          Ammaturo. I'm the Managing Director at PFM.  
16          Been at PFM for over 10 years now. Came  
17          right out of business school. I co-manage  
18          the business along with John Spagnola. I  
19          spent a lot of time in client service. One  
20          of my local clients here as comparable to  
21          PGW is SEPTA.

22          MR. SPAGNOLA: I'm John Spagnola,  
23          Managing Director, as well. I've been at  
24          PFM now, it's my 14th year. Prior to that,

1 I had my own investment consulting company  
2 called Spagnola Cosack. I've been in the  
3 consulting business now for 23, 24 years  
4 overall working with a lot of public sector  
5 funds over the course of that time.  
6 Appreciate the opportunity to be here.  
7 Margaret Belmondo would be part of the  
8 client service team. She couldn't join us  
9 here today. If we're fortunate enough to  
10 work with you, she would be working with you  
11 on the client-basing relationship.

12 MR. MANIERI: Biagio Manieri. I've been  
13 with PFM for four years. I'm Director of  
14 Research. I oversee a team of analysts  
15 that's dedicated to macroeconomics, asset  
16 class and management research. Prior to  
17 PFM, I was at the Fed overseeing the pension  
18 plan. Prior to that, I was in the buy side  
19 managing equity portfolios.

20 MR. AMMATURO: What we're going to  
21 accomplish in the next 20 minutes or so is  
22 laid out on page 2. John is going to start  
23 off by going over the background on PFM,  
24 then we are going to segue and we're going

1 to get very specific. What's PFM value  
2 proposition? We learned a lot when Chris  
3 and Matt visited PFM. And we have some  
4 three specific elements that we want to dive  
5 into how we are different based upon what we  
6 heard at that onsite meeting.

7 John is then going to go into  
8 observations on your plans, consideration.  
9 Then I will close with why we think you  
10 should hire PFM. So with that, I'll hand it  
11 to John.

12 MR. SPAGNOLA: Thanks, Marc. So, an  
13 overview of PFM Group, many of you are  
14 probably familiar with us, is on page 6 we  
15 are broken into two sections, asset  
16 management. We are broken into financial  
17 advisory side of our business.

18 On the asset management side in the  
19 orange is what we're talking about here  
20 today. Our business consult funds  
21 \$16 billion or manages on the discretionary  
22 basis \$6 dollars of assets. Our  
23 discretionary business has grown over the  
24 years. We find we add a lot of value over

1       our consulting model.

2           We also managed fixed income assets  
3       under the asset management division. On the  
4       other side of our business is management,  
5       budget consulting and financial advisory.

6           We work with the City. Our 127  
7       employees here based on Two Logan Square in  
8       Philadelphia. We've been with the City in a  
9       number of different levels, both on the  
10      asset management side. We manage short term  
11      fixed income assets and cash for PGW, the  
12      Water Department, the Department of  
13      Behavioral Health. Our multi-asset class,  
14      our group here also works with Philadelphia  
15      College of Osteopathic Medicine, Community  
16      College of Philadelphia and SEPTA.

17          And same is also true in the are  
18      financial advisory side of our business. We  
19      have clients that we work with in  
20      Philadelphia. We have been in Philadelphia  
21      for a long time and have a good track  
22      record.

23          To dive down more into our multi-asset  
24      class team, as I said, about 10 billion



1       consult; 6 billion where we are  
2       discretionary. We have 200 people that are  
3       dedicated to this line of business overall.  
4       And we have grown our discretionary  
5       business. It's an area where we have been  
6       able to add value because we can make more  
7       timely decisions, implement them and not  
8       have to go through an onerous and time  
9       consuming RFP process.

10       We have a strong client list both in the  
11       utility and authority area. SEPTA would  
12       probably stand out as one of our clients in  
13       that area. Massachusetts Port Authority is  
14       another one. And Port Authority in New York  
15       and New Jersey. And on the pension side we  
16       work with Independence Blue Cross here in  
17       Philadelphia. A number of Taft-Hartley  
18       funds, union funds. And another highlight  
19       is the NFL hired us a little bit over a year  
20       ago to manage their annuity assets. That's  
21       about a billion dollars, billion three all  
22       told three.

23       We have satisfied clients, high client  
24       retention rate and a good mix of clients

1       that allows us to bring our best ideas  
2       really to all of our clients.

3           MR. AMMATURO: On page 10 we get into  
4       the resources at PFM. On the top row you  
5       see myself and John listed. That's our  
6       client service team. A majority of those  
7       people in that top row handle clients just  
8       like PGW. Majority of them are based in our  
9       Philadelphia office. Beneath that you see  
10      the support structure. I'm not going to go  
11      through every vertical right now, just  
12      highlight a couple of things.

13           One, if you look at portfolio  
14      management, you see a research team, ten  
15      staff. As I mentioned when we started off,  
16      we made some additional investments in  
17      research. Four of those ten are new hires  
18      within the past several years. So, we have  
19      added to our research depth without a doubt.  
20      I will highlight a couple people on the next  
21      slide.

22           The last thing I will mention up top  
23      again. I mention we have five client  
24      service people. Two of those are new. So

1       again, we continue to invest in the  
2       business. PFM recognizes our practice as  
3       being a growth engine for the firm. Our  
4       clients are very satisfied with our service.  
5       We are gaining traction nationwide, and they  
6       want to support our efforts by adding to our  
7       resources. And we've been doing that mostly  
8       on the research side.

9       You see that on page 11. Let's start on  
10      the bottom. In terms of economic capital  
11      market research, I know Biagio to my far  
12      right now has been with us now for four  
13      years, a recent investment in our firm.  
14      Ryan O'Connell, Tara O'Malley just getting  
15      started with PFM. Two additional new hires.  
16      On the manager research side, Jared Leonard  
17      and Ron Chea, also new hires. That's four  
18      new hires in addition to Biagio who's now  
19      been on board for four years. It shows we  
20      are dedicated to this business. We are  
21      dedicated to building out research at PFM.

22      Up top before I transition is our  
23      investment committee. Our investment  
24      committee's sole focus is to identify how to

1 invest clients' portfolios. For our  
2 discretionary clients, we do it realtime.  
3 For our consulting clients, we voice those  
4 opinions next time we're at your quarterly  
5 meeting. So, that's the body of people.  
6 And it's very distinguished in their  
7 experience. If you look at Biagio, 28 years  
8 you heard he was second in charge of Federal  
9 Reserve. You see Marty Mongalis, he's our  
10 CIO. Been in the business for 35 years. He  
11 started his time at PFM on the short term  
12 fixed income side, so we leveraged his  
13 expertise there in the short term fixed  
14 income side of our business.

15 So again, this group of people gets  
16 together monthly on a formal basis and sole  
17 task is how do we best invest client assets  
18 where we take minutes. And again, we have  
19 very robust conversations around certain  
20 items which Biagio will get into.

21 MR. SPAGNOLA: I would also add it's 27  
22 years average experience in the industry.  
23 We've been through six Bear markets. So, we  
24 are not new to investing and that means a

1 lot, I think, to our clients and the kind of  
2 advise we bring and the kind of  
3 opportunities we are able to unearth.

4 Bill, did you have a question?

5 MR. RUBIN: I do. Do you have a  
6 diversity program for bringing in new  
7 associates?

8 MR. SPAGNOLA: We do through our hiring  
9 practices, yeah. We work through our  
10 recruiting officer. Diversity is at the  
11 very top of the list in terms of how we go  
12 about looking at new candidates. Yes.

13 MR. AMMATURO: We had a formal  
14 presentation just about a month ago. We are  
15 going to have one again, I think, this  
16 weekend at our retreat all about diversity  
17 inclusion and how we keep on moving the  
18 needle in terms of diversity personnel at  
19 PFM.

20 MR. SPAGNOLA: Very proud of our track  
21 record there actually as a firm.

22 MR. AMMATURO: The next section gets  
23 into the kind of the meat of the  
24 presentation, in my opinion. Again, when

1 Chris visited us, when Matt visited us, we  
2 learned a couple things. And that's what we  
3 spell out on page 14. What did we learn  
4 from the onsite due diligence visit when  
5 Matt and Chris were at our offices?

6 First, we learned that your fund is,  
7 roughly speaking, about 70 percent funded.  
8 What's our investment approach? What we are  
9 going to drive through in this next section  
10 is what does that mean? How does that  
11 impact how you construct portfolios?

12 We are going to dive into that  
13 specifically on the following slides.  
14 Biagio is going to lead that conversation.  
15 We also learned in terms of reviewing  
16 portfolio and conversations, it doesn't seem  
17 like you are getting a lot of proactive  
18 investment ideas. We have some investment  
19 ideas within here in terms of what we want  
20 to voice today based in terms of  
21 conversations we had with Matt and Chris.

22 The last thing we noticed is client  
23 service could be improved was our takeaway  
24 from the meeting. We are going to get very

1 specific in terms of how does PFM handle  
2 client service in our world. With that, I  
3 will hand over to Biagio to talk about our  
4 diligent investment process.

5 MR. MANIERI: Sure. On slide 16, it  
6 presents a picture of how we think about is  
7 the best way to manage institution  
8 portfolios. We start with the idea that  
9 asset allocation is the most important  
10 driver of returns. We have done some  
11 analysis where we have looked at pension  
12 plan returns, endowment funds, et cetera.  
13 The asset allocation explained more than a  
14 hundred percent return of those portfolios.  
15 We brought a white paper recently where we  
16 reviewed the literature. Every study that's  
17 been done that looked at the importance of  
18 the asset allocation versus manager  
19 selection, security selection, we reviewed  
20 those studies. And all of them come to the  
21 same conclusions. Asset allocation is by  
22 far the most important driver of return.

23 Once we set the overall asset  
24 allocation, we then break down the asset

1 class to finer refinement. Within U.S.  
2 equity, we break it between large cap and  
3 small cap. There are times you want to be  
4 in small caps. There are times you don't  
5 want to be. We were overweight small caps.  
6 So the beginning of 2014 when they got to be  
7 expensive, they were outperforming. We got  
8 out of them. Emerging markets, we got out  
9 of them in early 2013. There are times you  
10 want to be in emerging markets and times you  
11 don't want to be in emerging markets.

12 Unlike some others that say, well, I  
13 always want small cap. I always want  
14 emerging markets because they are growing  
15 faster. That's not the way we approach it.  
16 There are times you want to be in it, there  
17 are times you don't want to be in it. As  
18 fundamental investor, our job is to figure  
19 out what's going on with those assets, are  
20 the fundamentals getting better? Getting  
21 worse? Are they getting more expensive or  
22 are they cheap? And then add or subtract  
23 accordingly.

24 We believe that your default option



1       should be passive. Indexing. Doesn't mean  
2       that you don't use active managers. We do  
3       use active managers. The default should be  
4       passive. That means the manager has to  
5       convince me to move away from that. Most  
6       investors use active funds. And what they  
7       end up with is expensive funds that are  
8       underperforming.

9           If you look at U.S. equities, most  
10       underperformed. Then you hear the argument,  
11       well, U.S. market is efficient. Emerging  
12       market is not. That's a hypothesis that we  
13       can test. Let's see how EM managers are  
14       doing. 75 to 80 percent of them  
15       underperforming. Emerging market equities,  
16       emerging market debt, three quarters to 85.  
17       90 percent in some periods underperformed  
18       the index. High yield, over 90 percent  
19       underperformed the index. So we start off  
20       with the idea that you want to be passive.  
21       And a manager has to convince us to use  
22       active management.

23           We tactically allocate  
24       overweights/underweights, add/subtract based

1 on what the fundamentals are. We believe in  
2 strategic long term asset allocation. We  
3 also believe in tactical asset allocation.  
4 For us, tactical is not market timing. We  
5 don't look at charts. The market is over  
6 bought, over sold. That doesn't work. We  
7 did some analysis. That does not work. But  
8 if you look at fundamentals, if you look at  
9 valuation, you can say this asset is cheap,  
10 I want to buy it; this asset is expensive, I  
11 want to sell it.

12 The next slide looks at your 2016  
13 capital market assumptions. At the  
14 beginning of every year we update our  
15 assumption about what different asset  
16 classes will return. We do it over the next  
17 five years and we do it over the very long  
18 term. The methodologies for intermediate  
19 versus long term are different.

20 For intermediate, we start off with  
21 current economic conditions, current  
22 valuation, current interest rates, current  
23 inflation and then project what all of those  
24 variables are going to do over the next five

1 years. Then we derive assumptions for  
2 different asset classes.

3 The long term assumption, we use a  
4 building block approach. We start off with  
5 the basic labor force, productivity,  
6 inflation expectation. And from there a  
7 real return for cash. And from there we  
8 build up what we think equities and fixed  
9 income assets are going to return.

10 If you look at equities, for example,  
11 over the next five years, we think they will  
12 return about 7 percent. Total return on  
13 equity including dividends, that's less than  
14 over the past few years because valuations  
15 are higher. Fixed income, you have to deal  
16 with low interest rates that are likely to  
17 trend a little bit higher. High yield, we  
18 think will return a little less than  
19 6 percent. High yield market is sold off  
20 aggressively. The yield is about 9 percent  
21 on the index. Price have been rising. And  
22 so, we think about 5.7 is reasonable. Takes  
23 into consideration rise in default levels.

24 Commodities. We get out of commodities

1 in 2013. We don't think you are going to  
2 see another commodities supercycle in our  
3 lifetime. Commodity prices we think are  
4 going to stabilize around current low level.  
5 We are not going to see oil at a hundred  
6 dollars or more in my lifetime.

7 Long term --

8 MR. SPAGNOLA: How long are you planning  
9 to live?

10 MR. MANIERI: As long as possible.

11 MR. DIFUSCO: John is making light of  
12 it. I see intermediate you are defining as  
13 5 years. What are you defining as long  
14 term?

15 MR. MANIERI: Over 30 years. When we  
16 set up these capital market assumptions, we  
17 asked the clients what's important to you.  
18 And they said the long term is important  
19 because I'm a pension plan and college  
20 endowment, but I also care over the next 5  
21 years. We said over the next five years and  
22 then 30-years plus. We do link the 5 years  
23 and 15 years because some clients will say,  
24 well, I need to know like a 10-year

1 estimate. So for them, we will work out  
2 10-year estimates.

3 MR. SPAGNOLA: But it's disingenuous to  
4 make a fixed income assumption in 5 and a  
5 half percent in this environment, that's why  
6 we're at 1 and a half percent. We want to  
7 manage our clients' expectations. We know,  
8 you know, what you're trying to achieve in  
9 terms of an investment return. And frankly,  
10 it's challenging in this environment.

11 MR. BUTKOVITZ: You think oil is going  
12 to be at less than \$30 for the next 30  
13 years?

14 MR. MANIERI: I didn't say less than  
15 \$30. I think it will stabilize around these  
16 levels. Could be 40, could be 45 dollars.  
17 But I don't think we're going back to \$100  
18 any time soon.

19 MR. BUTKOVITZ: But the expectation of  
20 this set of facts has only existed for about  
21 a year, right? You're telling us that we  
22 were going to run out of oil.

23 MR. MANIERI: I didn't believe it then.

24 MR. SPAGNOLA: I remember that.

1           MR. MANIERI: I did not believe it when  
2           they were saying it then. Like I said, we  
3           get out of it in 2013. I did not believe it  
4           then and I do not believe it now we are  
5           running out of oil.

6           MR. SPAGNOLA: One thing that has  
7           changed, the assumptions on supply are much  
8           greater than they ever were and they're  
9           valid.

10          MR. BUTKOVITZ: Because of current  
11          experience. But we always project from the  
12          current --

13          MR. MANIERI: No. If you had invested a  
14          dollar in commodities, not just oil, but  
15          commodities in general, over a hundred years  
16          ago you would have less inflation adjusted  
17          today. Your return would have been less  
18          than inflation over the past hundred years.  
19          I don't think our views of commodities is  
20          been what's been happening over the past one  
21          or two years. It's what's been happening  
22          over the past hundred years plus, which is  
23          commodities over a long period of time will  
24          not keep up with inflation.

1           Why would I believe that commodities are  
2           going to give me a great return when  
3           historically, that has not been the case?

4           MR. SPAGNOLA: I think the one point  
5           that you are making, though, is true is that  
6           demand is going to continue to rise if  
7           supply is so cheap. The whole notion of  
8           switching to alternatives and everything  
9           else, the incentive isn't there right now  
10          economically the way it was before when you  
11          had gasoline at \$4 a gallon. Now that's cut  
12          in half. Who knows?

13          MR. BUTKOVITZ: The outlook has changed  
14          so quickly as a result of fad and erred  
15          thinking, so.

16          MR. SPAGNOLA: Yeah.

17          MR. BUTKOVITZ: What happens when China  
18          decides that they're just going to start  
19          building over and over again to keep  
20          everybody working? It looks like that's why  
21          we have the glut in the first place. People  
22          thought that was going to happen, they are  
23          disappointed. Now they are running for the  
24          exits. Now they are going for the

1 opposite -- hard for me to believe that we  
2 are living -- that this world on oil is the  
3 permanent future of oil.

4 I like to know why you think that?

5 MR. MANIERI: Because I think we have  
6 enough oil, we have enough natural gas where  
7 the price of oil being \$100 is not  
8 sustainable based on the fundamentals. I  
9 would say the herd mentality is not what  
10 took the price of oil down. The herd  
11 mentality is what took the price of oil up.

12 You had institutional investors flood  
13 into commodities. You look at it as a real  
14 asset class. And it's going to give me, you  
15 know, a high return that's uncorrelated with  
16 the equity market. You had more and more  
17 institutional investors pumping money in. I  
18 think that's what took the price of oil up  
19 rather than the fundamentals taking the  
20 price of oil to \$150 a barrel.

21 So whether it's \$30 or \$40, we can  
22 debate that. But I don't think oil being  
23 \$100 is realistic based on fundamentals.

24 MR. BUTKOVITZ: How much was the global



1 warming motionless and the opposition to  
2 fossil fuels, how much did that affect  
3 what's happened to the price of oil?

4 MR. MANIERI: I think the price of oil  
5 came down based on the fundamentals. It's  
6 not based on I'm worried about the  
7 environment. There is more supply than  
8 demand. We are driving more. We are using  
9 more gasoline, but yet the price of gasoline  
10 has come down. We are driving more, not  
11 less because I am worried about global  
12 warming. We are driving more. We are using  
13 more gasoline, but the price has come down  
14 because there is ample supply. And that's  
15 what's bringing the price of oil down.

16 So over long periods of time,  
17 commodities do not outperform inflation as I  
18 said. You can look at the data, verify that  
19 yourself. Now why is that?

20 One, is the substitution affect is going  
21 on over long periods of time. Price of  
22 copper goes up. What do builders do? They  
23 use other materials other than copper. The  
24 price of a commodity goes up. What happens?

1 The commodity producers go out and look for  
2 supply, which is happened with oil.

3 The price of oil get down to about \$10  
4 in the late 1990s. Is Exxon going out to  
5 look for more oil when the price of oil is  
6 at \$10? No. What happens. China goes on  
7 this building boom. You mentioned China  
8 built. China went through that phase. They  
9 built lots of building infrastructure and so  
10 on. They went through that phase. So China  
11 was using up lots of commodities at a time  
12 when the commodity producers were not  
13 looking for more because commodity prices  
14 were cheap. So commodities prices went up.

15 What did the commodities producers do?  
16 They went out and looked for more oil. They  
17 went out and dug up more copper mines. The  
18 supply goes up at a time when China decides,  
19 well, we build enough buildings, enough  
20 highways.

21 MR. MAZZA: Five-minute warning.

22 MR. MANIERI: I'm sorry?

23 MR. MAZZA: Five-minute warning.

24 MR. MANIERI: Okay. And so, that's why

1 the price came down. I don't think we're  
2 going back to \$100.

3 MR. RUBIN: When you say hedge funds, is  
4 that direct or fund of funds?

5 MR. MANIERI: Direct hedge funds. Fund  
6 of funds just invest directly and invest in  
7 the underlying hedge funds. Now that you  
8 mention hedge funds, we think as a group,  
9 not every single one. Some of them are well  
10 outperformed. But as a group, we don't  
11 think they will outperform publicly traded  
12 markets.

13 MR. DIFUSCO: What purpose are you using  
14 them for?

15 MR. MANIERI: That's a very good  
16 question. That's the way to think about how  
17 to use hedge funds. It's not, I want to use  
18 5 percent in hedge funds and let me allocate  
19 to them. The right way to do it is to say  
20 what hedge fund strategies is going to  
21 complement my portfolio given the current  
22 market environment.

23 We actually have an example of an idea  
24 the Board may want to consider. Given where

1 capital markets are, so equities are a  
2 little on the expensive side. Interest  
3 rates are low. How about if you wed a  
4 multi-strategy hedge fund that's run by  
5 talented managers that have long/short  
6 positions in different markets. Long/short  
7 equity, long/short credit, et cetera. They  
8 are hedged. The long and the short hedge  
9 each other. That type of strategy in the  
10 hands of a talented manager can deliver 4,  
11 5, 6 percent return with volatility at 4 to  
12 5 percent. That's something that's worth  
13 thinking seriously about as opposed to I  
14 want 10 percent in hedge funds.

15 MR. DIFUSCO: And as a general matter,  
16 what do you -- again, I'm asking you to  
17 generalize I realize.

18 MR. MANIERI: Yeah.

19 MR. DIFUSCO: What do you consider in  
20 the current market environment to be a  
21 reasonable or acceptable hedge fund fee?  
22 What -- again, I get it's a generalization.

23 MR. MANIERI: Okay. So as you know, the  
24 2 and 20 has been coming down because their

1 under pressure. What do I think is fair?  
2 What I think is fair and what's going to  
3 happen are two different things. Fair I  
4 would say 50 basis points and management fee  
5 and then maybe 10 percent of the carry.  
6 They are coming down, but we're not going to  
7 those levels. Then the question is, do I  
8 think this particular manager is talented  
9 enough where, you know, I hold my nose and I  
10 pay him these high fees because net-of-fee,  
11 which is what's important, net-of-fees, they  
12 are going to add to my portfolio.

13 I think there are funds out there where  
14 you can say the answer is yes.

15 MR. DIFUSCO: Okay.

16 MR. AMMATURO: I think it's a good segue  
17 and time to flip to page 20 real briefly.  
18 What we did here is we got this data from  
19 Chris and Matt and PGW column is your  
20 current allocation mix. So you have 65  
21 equity, 35 fixed income. As you glance down  
22 that row, you see fixed income is not  
23 diversified. It's all core. If you look at  
24 alternatives, it's 0.

1           Your expected return over the next 5  
2       years is 5.4 percent. That's using our  
3       capital market assumptions, 5.4 percent.  
4       Your standard deviation or volatility in  
5       that return set is 11.3 percent. You know,  
6       your actual assumption of 7.65. There's  
7       only a 33 percent of chance of meeting that  
8       over the next 5 years. That's in line with  
9       kind of what John was saying earlier. We  
10      need to manage our clients' expectations.  
11      It's going to be a challenging time to get  
12      to that number.

13           I want to kind of look at one  
14      alternative portfolio. Two columns over to  
15      that kind of segues the conversation we were  
16      just having. It's very similar in the  
17      layout. The only two differentiators are we  
18      diversified fixed income a little bit more.  
19      You see 2 and a half percent to investment  
20      grade corporate, 2 and a half EM debt, 2 and  
21      a half high yield. If you glance down to  
22      alternatives, we layered in 5 percent hedge  
23      funds, 5 percent real estate.

24           And look what happened to the expected

1 return. Expected return went up to 5.7  
2 percent. And the standard deviation went  
3 down to 10.8 percent. That's what we're  
4 trying to do with alternatives. We are  
5 trying to manage that risk-reward  
6 relationship. It's kind of a perfect segue  
7 from the conversation we just had.

8 The point here is we are not going to  
9 come here and educate you on these asset  
10 classes. We are not going to demand that  
11 you have these assets. We are going to have  
12 a conversation, a good dialogue and see if  
13 it's a good fit for PGW to morph in this  
14 direction. Again, these are just examples.

15 We think there is opportunity to  
16 diversify the portfolio. That's exhibited  
17 on page 20.

18 MR. SPAGNOLA: Let me just jump in. I  
19 think I need to call an audible here. I am  
20 going to just ask you to turn to page 29 in  
21 the interest of time. Here are some ideas we  
22 think should be brought to the table, and  
23 this is in the order in which we think they  
24 should be brought.

1           First is private real estate.  
2           Uncorrelated asset class. All you have to  
3           look at 2015 return. This is through  
4           September of last year. You can get a  
5           10 percent return again from private real  
6           estate. The equity markets of that time are  
7           minus 5.3 percent. That's an area where you  
8           can do it in your core, value added area  
9           where the leverage maybe goes from 25  
10          percent to 50 percent or so. In that  
11          scenario, we can capture a nice return.  
12          It's not correlated. You lease a building,  
13          rent it out, people pay their rent, it's all  
14          you need.

15          International small cap is another one.  
16          It's non-correlated. We think that makes a  
17          lot of sense. We think that dedicated high  
18          yield makes a lot of sense. We have  
19          managers right now that can go up to a  
20          certain percentage in high yield. We look  
21          at fixed income managers, core plus  
22          managers. They always seem to have the same  
23          allocation. They let the market come to  
24          them or not. We think that we should tee up



1 and get a high yield manager through an RFP  
2 process, have that manager all ready to go.  
3 And he or she can run the money when we see  
4 the go signal for high yield.

5 These are the kind of things that we  
6 would like to do in order. Tips is another  
7 area where we added value and hedge funds  
8 beyond that. Those are sort of our five  
9 ideas that we would bring to the table.

10 Because as we look at the portfolio, we  
11 think it's a portfolio that, you know, can  
12 use some help in terms of new ideas,  
13 non-correlated risk reduction ideas and  
14 alpha generating ideas.

15 That's what we would do.

16 MR. DIFUSCO: You would recommend  
17 building almost a bench -- I don't want to  
18 put words in your mouth, but you would  
19 recommend floating RFPs?

20 MR. SPAGNOLA: Yes.

21 MR. DIFUSCO: Essentially having  
22 0-dollar contracts and then being able to  
23 allocate to them.

24 MR. SPAGNOLA: Absent any material

1 change. I think the RFP process is onerous.  
2 It doesn't lend itself to being more  
3 managing. We made seven tactical decisions  
4 in our discussions.

5 MR. MANIERI: We got out of high yield  
6 last year. That's why we're saying not  
7 today, but --

8 MR. DIFUSCO: I get it.

9 MR. SPAGNOLA: Line it all up. Let's  
10 get these managers in place. And then let's  
11 look for the go signals. We made 35 percent  
12 in 2009 in high yield not because we call a  
13 falling knife, but we saw the knife hit the  
14 ground and high yields start to rebound.

15 So those are the kinds of things I think  
16 we can do. There are opportunities. It's a  
17 lot of work, but we're up to the task  
18 because we've already rolled up our sleeves.  
19 And frankly, we've been looking at this  
20 account for over a decade, you know, in  
21 terms of the kinds of things we think we can  
22 do. I just want to make that comment.

23 Marc, I will leave it to you to close.

24 MR. RUBIN: John, what's your feel on

1 timber?

2 MR. SPAGNOLA: I am going to defer to  
3 you. A lot of it is based -- timber is  
4 based on construction. Construction is down  
5 right now globally. The housing market has  
6 not come back. You know, David -- I'm a  
7 Yale alumnus. David Swensen owns timber.  
8 His view on timber is if you don't use it,  
9 the trees grow and next year you have more  
10 timber.

11 So, that's a really non-correlated asset  
12 class. It's a liquid investment. There are  
13 different ways of getting into it. I don't  
14 think a \$500 million portfolios, that's not  
15 the first place I would look or I think we  
16 would like to diversify. I think there is  
17 other areas, public markets more liquid of  
18 doing it. I wouldn't dismiss it necessarily  
19 out of hand. That's my kind of just quick  
20 knee-jerk reaction.

21 MR. MANIERI: What I would add to that  
22 is I think as an investment, probably gets  
23 to be expensive. An investment, everything  
24 is what are you paying for that asset. And

1       because money has flowed into timber because  
2       of the herd mentality they were talking  
3       about with commodities, you know. Because  
4       Yale attract a lot of attention. Everybody  
5       wants to be like Yale. A lot of money  
6       flowed into timber. The asset got to be  
7       expensive. Now if prices come down, it  
8       would be a better investment in my opinion.

9       MR. SPAGNOLA: That's typical with our  
10      fundamental. We track all the asset classes  
11      when we see cheap. We don't want to buy it  
12      again to try to pick a bottom. We are  
13      always looking for a rebound in the class  
14      versus other asset class. We think that's  
15      where we can add value.

16      MR. RUBIN: With your expertise, how did  
17      the Doug Pederson pick?

18      MR. SPAGNOLA: (Laughs) I don't really  
19      want to use up our time on that answer. But  
20      if you hire us, we can have that  
21      conversation.

22      MR. DIFUSCO: Can work with Jaws as a  
23      consultant.

24                               (Laughter)

1 MR. DIFUSCO: Maybe this is for Marc to  
2 answer. I know there's been a little bit --  
3 Marc can talk about this in closing.

4 Can you talk about the fee proposal. I  
5 think maybe Matt may have had the  
6 conversation kind of where it is vis-a-vis  
7 some other proposals we have gotten and why  
8 you think it's appropriate or if there is  
9 flexibility there. Just spend 30 seconds or  
10 a minute talking about that.

11 MR. AMMATURO: Yeah, when we looked at  
12 the initial fee, Chris, it is very  
13 comparable. It's very reasonable compared  
14 to our current client base. When you look  
15 at comparable consulting clients we have,  
16 that is more than reasonable relative to  
17 PFM's client base. When you look at it in  
18 terms of basis points to 175,000 and  
19 500 million, you're talking about a couple  
20 basis points.

21 We think we can move the needle. We  
22 just walked through some proactive  
23 investment ideas that we think we can move  
24 the needle let's say, roughly speaking, a

1       percent on analyzed basis going forward.  
2       And 1 percent, that's a hundred basis  
3       points. You know, we are of the mindset  
4       that 175,000 is more than reasonable to a  
5       service a \$500 million plan that's going to  
6       require obviously meeting every other month  
7       or RFP volume. We took that all into  
8       consideration. And that's how we wind up  
9       175,000 figure.

10       If that's a deal breaker, obviously, we  
11       want to have conversations. We don't want  
12       that to be the be all, end all and that's  
13       going to keep us out of the box.

14       MR. SPAGNOLA: I think you load  
15       commodities, service fees lead to inertia  
16       which lead to not a lot of activities. So 3  
17       and a half basis points, everybody else is  
18       maybe 2 and a half because. We think that 1  
19       basis point difference, we are going to  
20       handle more than 1 basis points, a hundred  
21       basis points or more of value.

22       MR. RUBIN: Just said that is  
23       negotiable?

24       MR. SPAGNOLA: It is negotiable. We

1 want to work with you. We just think that's  
2 sort of -- we have to hit the ground running  
3 with this. I don't think this fund has been  
4 well served under the arrangement based on  
5 what we see in the portfolio.

6 MR. MAZZA: Thank you, gentlemen.

7 (Brief break as PFM Group ends presentation.)

8 - - -

9 (NEPC enters room for presentation.)

10 MR. MAZZA: Just to let you know, you  
11 have 25 minutes. I will give you guys a  
12 5-minute warning. Let me know when you're  
13 ready.

14 MR. LEONARD: We're ready. My name is  
15 Kevin Leonard. I'm a partner with NEPC. I  
16 head up our public fund practice group at  
17 NEPC. As we go through our presentation, I  
18 will let you know where that fits. If we  
19 are fortunate enough to gain your confidence  
20 today, this is the team. So, I will let  
21 these two gentleman introduce themselves.

22 The way we work with all of our clients  
23 is we have two consultants that work on  
24 every relationship. We have what we call

1 CSA, Consultant Support Analyst. That will  
2 be Will's role. Then we also have a PA, a  
3 Portfolio Analyst, supporting your account.  
4 Obviously, behind that we have a big  
5 research team that would also work on your  
6 relationship directly and indirectly. We  
7 will get into that in a minute.

8 Before I get into who is NEPC, I will  
9 let these two gentlemen introduce  
10 themselves.

11 MR. DRISCOLL: I am Scott Driscoll. I'm  
12 the consultant here at NEPC. Primarily  
13 working with plans like yourself. Been  
14 working at NEPC for over 12 years now. You  
15 know as I said, predominantly working with  
16 public funds. Also, with part of our  
17 research advisory group as the global asset  
18 allocation managers. We do appreciate you  
19 inviting us in. Have Will go over his.

20 MR. FORDE: William Forde. I'm senior  
21 Analyst of our public fund team as we work  
22 with Scott and Kevin on a number of our  
23 public fund clients. Been at the firm for 5  
24 years. Actually, started out in our



1 research department. We will get into that  
2 a little bit. Kind of moved over to the  
3 consulting side about three years ago.

4 MR. LEONARD: Great. I apologize.  
5 Obviously, I introduced myself as a partner.  
6 I have 24 years of investment experience, 23  
7 of those in the investing consultant working  
8 primarily. Today I work with all public  
9 funds. Historically, primarily, I've always  
10 worked with public fund, defined benefit.

11 If I can ask you to turn to page 3, who  
12 is NEPC? Some of you may know us. We used  
13 to at one point be called New England  
14 Pension Consultants. As our firm grew and  
15 we expanded beyond New England, we thought  
16 it smart to maybe not kind of tag ourselves  
17 as New England Pension Consultants. So  
18 after much thought, we just shortened it to  
19 NEPC. Today we are NEPC headquartered in  
20 Boston, Massachusetts. We were founded in  
21 1986. We are now celebrating our 30th year  
22 in business.

23 Today we have over 250 employees with  
24 seven regional offices. Those are listed at

1 the bottom. I will let you read that at  
2 your leisure. I think the one important  
3 thing to get across to you today is we are  
4 privately owned, employee owned firm. We  
5 have 34 partners. I think that's extremely  
6 important in today's environment in the  
7 consulting industry. We have seen a lot of  
8 consolidation in the consulting industry as  
9 the original founders of many consulting  
10 firms are looking to transition out of their  
11 businesses.

12 Our founder Dick Charlton who is now  
13 officially retired from the organization  
14 effective January 1 after 30 years about  
15 seven, eight years ago he really started  
16 selling back his ownership into the firm.  
17 Why is that important? It's extremely  
18 important for us to be able to attract  
19 outside talent. I'll use myself as an  
20 example.

21 I came to NEPC from Senior Advisors.  
22 The ability to go to an independently owned  
23 firm where I can make a difference and be an  
24 owner of the organization was extremely

1 attractive to me. For these two gentlemen,  
2 they are on the track to be partners some  
3 day as well. When we all come into the  
4 office, we know that it's our firm that we  
5 work for. At the end of the day, this is  
6 all we do. All NEPC does is investment  
7 consulting services. We don't do any  
8 financing. We don't do investment  
9 management. We don't do brokerage services.  
10 One hundred percent of our revenue is from  
11 investment consulting services.

12 We have 347 institutional clients. You  
13 can see on the right side of page 3, our  
14 total clients are listed. You can see where  
15 the public fund slice of the pie is we have  
16 65 public funds. I will define that a  
17 little bit more in the future here in the  
18 next couple of pages. As far as assets  
19 under management, we have 927 billion under  
20 advisement. You can see in that bottom  
21 right pie chart, public funds is over half  
22 of our business.

23 You may ask, well, if you're a smaller  
24 slice from total clients, why do you

1       dominate so much on the assets under  
2       management? We have a number of state  
3       pension funds that obviously have billions  
4       of dollars.

5             For example, Ohio Public Employee, we  
6       have seven state public funds which have  
7       large assets, so that skews it somewhat.

8             We don't want to be known as just a  
9       one-trick kind of pony, if you will. We  
10      don't want to be known as just a public fund  
11      consultant or corporate consultant. By  
12      design, you will see that that diversity, if  
13      you will, in client type is again by design.  
14      We are able to kind of cross-pollinate ideas  
15      that we learn from each other across all of  
16      our client types. We will get into that in  
17      a little bit when Scott talks about our  
18      philosophy.

19            Hallmarks of NEPC. One thing also that  
20      we like to say is we like to be your trusted  
21      advisor. We want to partner with you. We  
22      are not firms that come in and say it's our  
23      way or the highway. We really want to  
24      partner with you, partner with your staff to

1       come up with the best ideas for your plan.

2           Experienced professionals. We like to  
3       home grown our talent, right? As Scott  
4       said, he came in as a portfolio analyst.  
5       Has worked his way up to a consultant. Will  
6       came in on the research side of the  
7       organization. He's now on the consulting  
8       side of the equation and on a fast track to  
9       being a consultant. We think that's the  
10      best way to really grow our talent. Can't  
11      go to a university and learn how to be an  
12      investment consultant. You can learn about  
13      investments, but how you work with clients  
14      and implement that, we think coming in from  
15      the ground up is a great way to grow our  
16      talent.

17           Because of the growth of NEPC, we have  
18      gone outside the firm. Again, using me as  
19      an example where I did start out in the  
20      consulting business. Obviously, bringing  
21      experienced people from the outside whether  
22      it be from other consulting firms or whether  
23      it come from the trustee side of the table  
24      like yourselves. That's our commitment to

1 you to bringing those experienced  
2 professionals.

3 You will see in that third bullet point  
4 on page 4, proactive asset allocation  
5 advice. Going to get into some of the tools  
6 we use. We are not afraid to make  
7 recommendations and not afraid to look into  
8 the future and see what's coming around the  
9 corner, if you will, to implement to your  
10 portfolio. We think that's what we're  
11 getting paid to do, right? We are getting  
12 paid to provide you and your staff the  
13 advice you need to make good important  
14 investment decisions.

15 Page 5 is just our public funds from our  
16 public fund clients. I will skip that.  
17 Pages 6 and 7 kind of show us from a client  
18 satisfaction standpoint. Lot of numbers on  
19 here. If I can just maybe ask you to look  
20 at page 6 at the bottom right. Greenwich  
21 Associates, you may be familiar with them.  
22 They are an organization which does polling  
23 of the investment business world, whether it  
24 be on the investment advisor side,

1 investment consulting side. They poll  
2 investment managers. They poll clients. I  
3 am sure you two maybe have been asked in the  
4 past to fill out these surveys.

5 You can see here in the bottom right,  
6 it's where NEPC has ranked among the ten  
7 largest consulting firms. You can see from  
8 2004 to 2014 we've been ranked in the top  
9 three. There is one year in 2010 where you  
10 can see we dropped to number four. If you  
11 look at the detail behind why we dropped to  
12 number four in 2010, some of our clients  
13 were giving us lower rankings for our  
14 performance measurement services. We  
15 listened to our clients. We implemented a  
16 whole new performance system. We obviously  
17 increased our rankings, if you will.

18 In 2014, we were the number one ranked  
19 Greenwich consulting in the survey. Page 7  
20 gives you the detail of where those rankings  
21 are. Page 9 is our organization, a flat  
22 organization. Where do we fit? We are on  
23 the left side. We have our consulting  
24 practice group organized into kind of three

1 categories. The Taft-Hartley public arena,  
2 corporate clients, and then you can kind of  
3 see endowment and foundation and private  
4 wealth. We obviously fall under that  
5 Taft-Hartley public. I'm the leader of the  
6 public fund team. We have a dedicated  
7 research team. We are going to spend a few  
8 minutes on that. Then you can see  
9 consulting services, finance and then,  
10 obviously, the back office.

11 We are led by Mike Manning. He is the  
12 managing partner of NEPC. His day job is to  
13 work with clients and run the organization.  
14 He is obviously the leader of NEPC. I think  
15 I will skip through pages 10 and 11 and get  
16 into page 12, our dedicated consultant team  
17 and research team.

18 As a consulting team, we work with our  
19 clients on a day-to-day basis. Behind us is  
20 the research group. That's really the  
21 engine that drives NEPC. We are showing you  
22 in the top right is today we have 49  
23 dedicated research professionals. What I  
24 like to define myself, Scott and Will, we



1 are frontline working with our clients. We  
2 go to client meetings. Client relations.  
3 The research folks are the folks that work  
4 back in the offices. Their job is if you  
5 are in the manager research, to find good  
6 managers. If you are in the asset  
7 allocation team, to come up with the best  
8 idea. They're not being pulled in different  
9 directions. They're not traveling to client  
10 meetings. Do we bring them to client  
11 meetings when needed? Absolutely. Do they  
12 talk to the staff over the phone?  
13 Absolutely. Their job is to really stay  
14 back there and be that engine that drives  
15 NEPC.

16 Our commitment to that research growth,  
17 as you can see in 1995, I think the numbers  
18 were two or three people were dedicated  
19 research. Today, 49. You can see that a  
20 percentage of our overall workforce is just  
21 over 40 percent of NEPC is research people.  
22 That's our commitment to you. That's how we  
23 grow our business, and that's how we grow,  
24 obviously, our reputation within the

1 industry.

2 As you see as the firm grows, there's  
3 always a concern as so what does that mean  
4 for the client? As we continue to grow,  
5 does that mean Kevin is working on 15  
6 accounts and Scott is on 12? Today, we are  
7 going to tell you we will return every phone  
8 call. Once we sign the contract, we're  
9 never going to hear from you. That's not  
10 the case. That is at the forefront of what  
11 we are as an organization and as a leader of  
12 the public fund practice, I would argue that  
13 the public fund practice is probably the  
14 most demanding that we have within our  
15 client basis. Returning client's phone  
16 calls, being there for them is paramount to  
17 a successful relationship.

18 How are we going to do that? We can't  
19 do that if we're flying around to 15, 20  
20 clients. If you look here at our clients  
21 per consultant, as the firm has grown, that  
22 has actually gone down. You can see in 1997  
23 when all you invested in was stocks and  
24 bonds it was a little easier. You can see

1       that the average consultant was working with  
2       16 relationships. Today depending on kind  
3       of sophistication of the client load, it's  
4       anywhere from, call it, six to nine. On  
5       average, I think we say we have about seven  
6       clients per consultant. Again, that is our  
7       commitment to you.

8           It is extremely hard to win business.  
9       It's very easy to lose it. And so once we  
10      win a piece of business, we are going to do  
11      everything in our power to maintain that  
12      relationship. Existing clients always come  
13      first. Our commitment to you is that those  
14      ratios won't increase. Actually, as the  
15      industry continues to get more and more  
16      difficult and particularly in the public  
17      fund space as the demands go beyond  
18      obviously just the investments, per se,  
19      that's our commitment to you as a public  
20      fund is that you will always have the  
21      resources you need from the client services.

22           MR. RUBIN: Kevin, do you have a  
23      diversity program for bringing in new  
24      associates?

1           MR. LEONARD: We do. We have some  
2 slides in the back or I can just speak to it  
3 now. Absolutely, yes. I can get you the  
4 statistics behind it. However, you'd like  
5 me to --

6           MR. RUBIN: We can get them.

7           MR. LEONARD: Great. I am going to skip  
8 some of the overall performance you can see  
9 on pages 13. We like to kind of brag about  
10 our overall client results. For time sake,  
11 I think I am going to pause there and answer  
12 any questions you might have about the  
13 organization. Again, privately held  
14 organizations. And I will kind of end my  
15 comments to say, again, with some of the  
16 consolidation you have seen in the industry,  
17 we are well past that.

18           Our original founder is retired. 34  
19 owners in the firm and that continues to  
20 grow. I am going to pass it off to Scott.  
21 Scott will go through our high level  
22 consulting though process.

23           MR. DRISCOLL: If you can please turn to  
24 page 15. We can talk about our investment

1 philosophy, how we help you as clients.

2 One of our primary goals is to work with  
3 you as trustees as well as the staff to  
4 implement an investment program that is  
5 designed to meet your goals and objectives.  
6 The way we do that is we build diversified  
7 portfolios looking at what your goals and  
8 objectives are. We understand. Kevin  
9 talked about how we have different types of  
10 clients, whether or not it's public funds,  
11 unions, private wealth and whatnot. You all  
12 have different goals and objective.

13 Some of the top goals and objectives,  
14 whether or not you can meet your cash needs.  
15 We understand that's very important.  
16 Getting your expected return, that's one of  
17 the biggest things facing public funds right  
18 now. Can you actually meet your actual rate  
19 of return. We work with our clients, the  
20 staff. One of the real resources we pull  
21 upon is our actual asset allocation team who  
22 works very closely with clients and staff  
23 trying to develop what we feel can be the  
24 best possible asset allocation to meet your

1 goals and objectives.

2 We look at it twofold. We look at long  
3 term strategic asset allocation. So whether  
4 or not it's a 30-year return, but we also  
5 look at tactical asset allocation. We use  
6 the 30 years as a building block. And then  
7 we look into tactical opportunities which  
8 the market is constantly changing. As  
9 market changes, we need to make sure that  
10 our clients can take advantage of the  
11 different investment opportunities. That's  
12 one of the fluid approaches that we built  
13 into this.

14 One of the things I can talk about --

15 MR. LEONARD: As Scott is flipping that  
16 as well as important as any, we don't just  
17 have one solution. We are not an  
18 off-the-shelf consultant. We don't come in  
19 and say if your risk is this level, here is  
20 our high risk portfolio. Every program we  
21 have is customized. I don't want to sound  
22 like a used car salesman, but it's a  
23 customized solution to meet your  
24 liabilities. And again, as Scott pointed

1 out, to meet your overall objectives.

2 MR. RUBIN: If you take our portfolio  
3 the way it is already?

4 MR. DRISCOLL: Yeah.

5 MR. RUBIN: Have you looked at it and  
6 though where we are okay or not okay, what  
7 you would do differently.

8 MR. DRISCOLL: Yeah. We have that  
9 further on in the presentation. It's a good  
10 segue actually. If you go to page 16 to  
11 talk about the tools that we use when we  
12 look at your portfolio to try to achieve  
13 your goals.

14 On page 16, you can see we have our risk  
15 management risk budget. Really it's a  
16 four-step process. We have investment  
17 policy statement development which I am sure  
18 you are well aware of working with our  
19 clients to develop your guidelines. But  
20 then there is the asset liability study.  
21 Any time we start with a client, we run a  
22 formal asset liability study. That's  
23 looking at what you need to achieve based on  
24 your goals and objective. And we take that

1 information, and that's how we start to  
2 build the asset allocation on that. We want  
3 to be able to understand the risk that you  
4 can take in your investment program. We  
5 want to understand where you can't take  
6 risks. And, you know, looking at those  
7 things is a way that we can build a target  
8 asset allocation to help people achieve that  
9 goal. Really these days, help you achieve  
10 that expected rate of return which, you  
11 know, is at the forefront of the public fund  
12 industry right now.

13 One way we look at that is through risk  
14 budgeting. Risk budgeting is the way you  
15 look at the plan and how is that risk  
16 balanced across the plan. We will go into  
17 that a little deeper, but we look at it,  
18 let's say, for example portfolio that is  
19 60 percent in equities and 40 percent in  
20 bonds, you are actually deriving 90 percent  
21 of the risk in your portfolio from that  
22 60 percent equity position. So that is  
23 really -- you know, that shows you one of  
24 the risk metrics. We can go into that in a



1 little more detail.

2 MR. LEONARD: Flip right into page 33 to  
3 kind of go over -- maybe answer your  
4 question a little bit more directly. What  
5 we did here on page 33 is on an annual basis  
6 we publish what we call are actuary  
7 assumptions. Five to seven-year forecast on  
8 the underlying asset classes. We have that  
9 detailed in here. And we can answer what  
10 you might have on that. We also look at a  
11 30-year projection. We use that as a time  
12 to say to our clients, where do we think the  
13 markets are? Where do we think the markets  
14 are going and kind of come up with some of  
15 general actions for what we call.

16 What we did here on page 13 is we took  
17 your investment policy, we applied it to our  
18 2016 market forecast. The way you want to  
19 read this is you would see what that policy  
20 is by applying it to our underlying forecast  
21 over the next 5 to civic years, you would  
22 expect a rate of return. Again, if your  
23 were perfectly invested in those  
24 percentages, you would expect a rate of

1 return about 5.69 percent. Over the next 30  
2 years, that same portfolio, again perfectly  
3 invested, a hundred percent indexed if you  
4 will. Our assumptions are beta only. You  
5 would expect a rate of return of 7 percent.  
6 So, when you look at your --

7 MR. RUBIN: 7 percent?

8 MR. LEONARD: Yes. 30 years at  
9 7 percent. The expected 5 to 7 is 5.69.

10 MR. DIFUSCO: What assumption down -- i  
11 know you excluded for this page. But what  
12 assumption in general do you make in terms  
13 of value you add on the --

14 MR. LEONARD: So --

15 MR. DIFUSCO: What do you use for that?  
16 50 basis points? 40? 60?

17 MR. LEONARD: Depends on the level of  
18 active management. I would say the range is  
19 25 to 50 basis points is what we say. Our  
20 lawyers always hate when we say that. You  
21 say, how do you prove that? I could say if  
22 look at the universe is, what the median  
23 active manager historically has been able to  
24 do relative to the benchmark, on average you

1 would say you hope after fees a portfolio  
2 like this given your kind of traditional  
3 portfolio, it's probably more in the 50  
4 basis points, but anywhere from 20 to 50  
5 basis points.

6 Over the next 5 to 7 years our outlook  
7 on the market, right, you can obviously do  
8 the math. Over the next 5 to 7 years we  
9 don't think that you will have the ability  
10 even with strong active management. That  
11 gets into kind of what are the  
12 recommendations that we would have for the  
13 overall portfolio?

14 Again, as Scott was talking about, we  
15 clearly would want to use some of the risk  
16 tools that we have. We have a tool called  
17 liquidity analysis which takes a look at the  
18 overall liquidity of the portfolio. But  
19 some of the things we've really been working  
20 with our clients on we'd want to speak to  
21 you about is the potential of alternative  
22 investments something you would want to use.

23 MR. DIFUSCO: Can you define that?

24 Everybody obviously uses it -- everybody

1 hear, meaning we talk. Alternative means  
2 different things to different people. What  
3 does it mean to NEPC in this portfolio?

4 MR. LEONARD: We would define  
5 alternative investments as private equity,  
6 private debt. Some firms kind of  
7 consolidate that. What do we mean by  
8 private debt. We are big proponents today  
9 of direct lending strategies. These are  
10 private strategies where you are, in  
11 essence, loaning money. So private equity,  
12 private debt, real estate, hedge fund. And  
13 then a final category is something that  
14 we've been working very much with our  
15 clients on post 2008 is what we're calling  
16 opportunistic credit.

17 Post 2008, as we have seen is a market  
18 obviously had its issues, we were working  
19 with our clients. First started on the  
20 liquid side. What opportunities existed  
21 coming out of 2008 in the credit markets.  
22 And that's morphed into some of the  
23 alternative space even into quasi-hedge fund  
24 space. Those are the thing that we would

1 really define as alternative investments.  
2 Really defining on the profile of the fund  
3 structure itself, the liquidity profile of  
4 the fund structures versus just a blanket  
5 private equity is an alternative.

6 An example might be long/short hedge  
7 funds. We actually would argue that that is  
8 actually more like a traditional investment,  
9 right versus just a blank hedge fund. Some  
10 of our clients view that differently. We  
11 wrote a white paper about three years ago  
12 talking about how a simple long/short  
13 strategy can fit into a traditional equity  
14 bucket.

15 MR. DIFUSCO: Where do you think you  
16 would start? If you were hired and made a  
17 recommendation --

18 MR. MAZZA: Five-minute warning.

19 MR. DIFUSCO: -- and staff, which one of  
20 those alternatives you think? Asking you to  
21 generalize. I get it.

22 MR. LEONARD: Real estate.

23 MR. DIFUSCO: But if you were here today  
24 you would start with real estate?

1           MR. LEONARD: Real estate, private debt.  
2       We think given our outlook over the next 5  
3       years, I don't mean to say -- I think that  
4       depending on how quickly the trustees and  
5       staff could work, we think we can do that in  
6       tandem. We do what we call pacing plans.  
7       How much money -- we have a target of  
8       5 percent to private equity and private  
9       debt. We would have to come to you and say  
10      we want you to spend X amount of money over  
11      the next three years. Let's set the budget  
12      on how much money you can put into those  
13      assets class and then work with you on  
14      implementing that. We are not going to put  
15      5 percent private equity to work in one  
16      year. We want to diversify that.

17           As far as we're concerned, obviously  
18      given the governance that you need to live  
19      under, we can handle working on all three of  
20      those at the same time. We understand  
21      that's a lot of work. But we don't just say  
22      start with just this and wait till next year  
23      to do this. It's really at the speed you  
24      can work.

1 MR. RUBIN: Hedge funds direct or fund  
2 of funds?

3 MR. LEONARD: So both. I think that  
4 would be a discussion we would want to have  
5 with you given the size of your assets. And  
6 the definition of hedge fund is in our  
7 opinion has kind of blurred the line.  
8 Because some credit opportunities that exist  
9 today, we would argue are kind of  
10 quasi-hedge traditional strategies. I think  
11 it's going to really depend on how you want  
12 to define what an alternative is.

13 As I said earlier, you know, is it the  
14 liquidity. Is it the fund structure itself?

15 Again, we work with our clients. We  
16 have a massive program with direct private  
17 equity, direct real estate, direct hedge  
18 funds, direct private debt. We have fund of  
19 funds as well. If you look at the size of  
20 the firm and the size of the clients we work  
21 with, we go in many, many different  
22 directions. There is positives.

23 Fund of funds, obviously there's many  
24 reasons why you may not want to do fund of

1 funds. Given your fund size, we think there  
2 could be opportunities to utilize some fund  
3 of funds exposure and complement that with  
4 some of the direct alternative space.

5 Some of the other things that we would  
6 want to talk about to you about is on the  
7 fixed income side. You're covering  
8 5 percent exposure, right? We are kind of  
9 in a rising rate environment. Although,  
10 given where the market is and the market  
11 which is literally falling off a cliff  
12 today. Maybe further interest rate  
13 increases is not going to happen as  
14 originally expected. We are working with  
15 our clients on the fixed income side.  
16 Really talking about is core intermediate  
17 bar at type fixed income the real exposure  
18 you want to have.

19 Our outlook on core bonds is right  
20 around 2 percent. It went up a little bit  
21 this year. It's 2-3, 2-4. Is that the type  
22 of fixed income you want to have? Is that  
23 type of fixed income giving you the  
24 protection in your portfolio that you think



1       it has? So in tandem with some maybe  
2       alternatives, looking at your overall fixed  
3       income portfolio is something we would want  
4       to kind of come out of the gate with, as  
5       well.

6           I think we might have less than a minute  
7       left. I will --

8           MR. MAZZA: You have some time.

9           MR. LEONARD: Okay. I'm nervous. I  
10      don't know what happens.

11       (Laughter)

12       Again, in any relationship when we  
13      start, again, it's really talking about  
14      coming out of the gate, doing an asset  
15      liability study. As Scott was mentioning,  
16      using some of these tools, you know. Scott  
17      talked about on page 34, really helping you  
18      identify where the risks are in the  
19      portfolio, doing risk budgeting tool. As we  
20      kind of show you these mixes that we would  
21      want you to consider, what is the overlying  
22      impact.

23       Our overall culture of the firm is  
24      taking a look at kind of overall kind of

1        what is risk in a portfolio, helping you  
2        understand what those risks are.

3            Maybe page 37. You know, Will was going  
4        to just quickly talk about -- maybe just  
5        talk about our research team here on page  
6        37. Will, talk about how that is  
7        structured.

8            MR. FORDE: Yeah. Absolutely. So, we  
9        have a traditional research teams that  
10       focuses solely on long-only equities,  
11       long-only fixed income and an alternative  
12       research group that focuses on that asset  
13       classes that Kevin mentioned: Private  
14       equities, private debts, hedge funds, real  
15       estate. You can see the structure here.

16            Given the time, I'm not going to dig  
17        deep into each of the individuals on the  
18        respective teams. But I will --

19            MR. DIFUSCO: One quick question. How  
20        much interaction is there between the folks  
21        on different research teams? Obviously,  
22        there's some overlap between long-only  
23        equity and somebody maybe looking at hedge  
24        fund or different.

1           How much interaction is there between  
2           the different research teams?

3           MR. FORDE: The answer is a lot. Moving  
4           into actually our new office a couple years  
5           ago, our research team all sits on one floor  
6           now. We have the traditional research  
7           groups, alternative guys sitting in one  
8           floor really sharing ideas, sharing themes.  
9           A lot of times they will sit in on meetings  
10          on long-only equity meeting, will be  
11          attended by our short equity specialists,  
12          for example. It's kind of  
13          cross-pollination.

14          (Final alarm rings.)

15          MR. LEONARD: Can I finish?

16          MR. MAZZA: Continue your point.

17          MR. LEONARD: Felt like I was on a game  
18          show.

19          On the credit opportunities team, right,  
20          and even now today we have what we call an  
21          energy team, like, how do we -- although I  
22          think energy is down to like 26 bucks a  
23          barrel. We put together what was called an  
24          energy team and credit opportunities team.

1 It is comprised of folks on the traditional  
2 side, on the private market side, on the  
3 hedge fund. You can -- you come at these  
4 strategies from many different ways. So  
5 what we want to do at NEPC is identify  
6 opportunities first, right? Determine how  
7 we want our clients to implement those, and  
8 then find the managers to do that on your  
9 behalf. We don't go into it and say, let's  
10 find a really good manager and hope that he  
11 or she can manage something, right?

12 Find the opportunity, figure out a way  
13 to implement it. We have done a tremendous  
14 job of working with the investment  
15 management community of coming up with kind  
16 of vehicles for our clients. If a client  
17 like yourselves more on the smaller side  
18 relative to a plan that's \$50 billion, we  
19 have been able to put fund structures  
20 together with these managers that allows all  
21 of our clients to take advantage of this.  
22 That is something that we think is highly  
23 important for NEPC.

24 We are not just coming up with ideas for

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 165

1       our big clients. We want to come up with an  
2       idea that all our clients can implement.  
3       Out of respect for the clock.

4           MR. MAZZA: The fee, just to confirm  
5       155,000, that would include everything?

6           MR. LEONARD: Correct.

7           MR. MAZZA: Thank you, gentlemen.

8           MR. LEONARD: Thank you so much.

9                       - - -

10       (Brief pause as NEPC ends the presentation.)

11                      - - -

12           MR. GILBERT: Okay. Are there any clear  
13       losers in this one that we do not want to  
14       talk about?

15           MR. BUTKOVITZ: I want to move on PFM.  
16       That's my suggestion as a starting point on  
17       the discussion.

18           MR. GILBERT: PFM. Okay. Move that  
19       they be eliminated? You want to eliminate  
20       PFM?

21           MR. BUTKOVITZ: No. I think PFM should  
22       get the contract.

23           MR. GILBERT: Okay. That's number one  
24       in your book?

1 MR. BUTKOVITZ: Yeah.

2 MR. GILBERT: Your vote?

3 MS. JOHNSON: I like PFM, but they need  
4 to work on that fee.

5 MR. MAZZA: The fee is high. NEPC who I  
6 thought gave the second most impressive  
7 presentation is 155,000 bucks. So it's  
8 like -- and NEPC is based in Boston. The  
9 ability to have our investment consultant  
10 down the street, I think, is something you  
11 can't underestimate. Also, you know, they  
12 do cover SEPTA and they have a presence here  
13 in town.

14 MR. RUBIN: He said he didn't want the  
15 fee to be the difference, right?

16 MR. MAZZA: My worst fear is we select  
17 PFM and then they're firm on that fee.

18 MR. RUBIN: Well, you tell them it's got  
19 to come down 20 grand. You want them to do  
20 155.

21 MS. JOHNSON: I mean, I like PFM. But  
22 the fee, I think they should -- they need to  
23 work on the fee. And \$20,000 is not going  
24 to make or break the work that they do, in

1 my opinion.

2 MR. BUTKOVITZ: I would be willing to  
3 amend the motion that we select PFM  
4 contingent on a reduction in their fees to,  
5 what, 155?

6 MR. MAZZA: I think that if they can  
7 match 155, I think we go with PFM.

8 MR. DIFUSCO: And just on the off  
9 chance, because I know having done Sunshine  
10 Act stuff for ten years in the Law  
11 Department, if they don't come down on the  
12 fee or say only 170 or 165, are we going to  
13 get back together and have a meeting? Or do  
14 we have a second choice in place?

15 MR. RUBIN: Can you do it by --

16 MR. BUTKOVITZ: My second choice, if  
17 they don't come down to our number, we do  
18 whatever they say. That's our fallback  
19 position.

20 ATTENDEE: I thin they had the most  
21 important things to say.

22 MR. DIFUSCO: That's fine. But I just  
23 want to understand what the will of the  
24 Commission is before we --

1           MR. RUBIN: You can do that by email,  
2           right, Chris? Send out an email that says  
3           they have come back to us with these prices.

4           MR. DIFUSCO: That's fine. If they come  
5           back down to the 155 or whatever, then your  
6           vote is fine. What I'm saying is, let's go  
7           with Matt's scenarios. They only 170 or  
8           175. We get back together.

9           MR. BUTKOVITZ: Are we able to inform  
10          them that we award the contract to them  
11          provided they come down to 155? Wouldn't  
12          they have to be crazy to say 160?

13          MR. DIFUSCO: I don't disagree with you.  
14          But we all know having worked --

15          MR. MAZZA: From the Controller's point,  
16          our leveraging standpoint, we say fill or  
17          kill it at 155 or we go to the second  
18          choice.

19          MR. DIFUSCO: Or we have to get everyone  
20          together again.

21          MR. MAZZA: Fill it or kill it.

22          MS. JOHNSON: I like that.

23          MR. BUTKOVITZ: Is that an industry  
24          term?



1           MR. MAZZA: If someone tells you to fill  
2 or kill it, you got to take the offer that  
3 is on the table.

4           MR. RUBIN: I think Matt and I were very  
5 impressed when we were there. When we were  
6 there, I think, Matt said having the  
7 consultant right down the street especially  
8 times of market turmoil like this you  
9 can't --

10          MR. MAZZA: I mean, look. I think that  
11 NEPC was very good, but we already have had  
12 the problems of having investment consultant  
13 in Pittsburgh and there has been stuff  
14 falling through the cracks. Someone in  
15 Boston, and you notice how NEPC did not tell  
16 us where our portfolio falls in with their  
17 clients which is probably in the bottom 1  
18 percent.

19          MR. RUBIN: The driving point to me is  
20 when you say if you looked at our portfolio  
21 what would you do, PFM said I would do this,  
22 that. I'm looking at it for ten years.

23          MR. MAZZA: They are hungry for  
24 business. They want it.

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 170

1 MR. RUBIN: When you say it to NEPC they  
2 went back to, well, our process is and then  
3 we do. And so, I have --

4 MR. MAZZA: Right.

5 MR. RUBIN: One of the first things John  
6 said to us when we met him, he's like, I  
7 have told people who work in the City it's  
8 one of my missions before I die is to work  
9 for the Gas Works. He's wanted the  
10 business.

11 MR. MAZZA: Yeah. I think we make a  
12 motion contingent on they accept an offer of  
13 \$155,000 all in for services.

14 MR. GILBERT: Motion is the PFM at  
15 155,000.

16 MR. BUTKOVITZ: That they accept the  
17 \$155,000 fee.

18 MR. GILBERT: Second?

19 MS. JOHNSON: Second.

20 MR. GILBERT: Been properly moved and  
21 seconded. Any questions on the motion?

22 (No response.)

23 MR. GILBERT: All in favor?

24 (Ayes.)

1 MR. GILBERT: Motion carries.

2 We are -- any other business?

3 MR. BUTKOVITZ: Yes. I wanted to raise  
4 a point that was raised to me with regard to  
5 the Sandy Hook principles in that we have  
6 not customized the portfolio. We went  
7 through this on the Sudan [phonetic]  
8 investment in the Philadelphia Pension Fund.  
9 We actually -- we developed a template for  
10 doing this.

11 But the problem now is that our indexers  
12 are disqualified from making tactical moves  
13 because of the fact that we don't have a  
14 customized non-Sandy Hook portfolio.  
15 Anybody -- any index fund that we are going  
16 to go into that's got investments there is  
17 off the table for us. So, I think we ought  
18 to consider how to continue with the intent  
19 with the goal of the Sandy Hook principles  
20 but perhaps devise a tactical product as we  
21 did in the Sudan investment situation. It  
22 gets us to the goal without depriving our  
23 managers of the flexibility they need in  
24 this market turmoil.

1           MR. MAZZA: I think with the Sandy Hook  
2 principles as well as you know,  
3 Mr. Controller, the way to make change is  
4 not invest in certain shares but to make  
5 changes become -- make a proxy fight. I  
6 think we can relay to our active managers  
7 and we do have customization for active  
8 managers to adhering to Sandy Hook  
9 principles. In terms of index managers,  
10 that's where a grey area will be created.

11           MR. BUTKOVITZ: I don't want to take  
12 action to repeal the Sandy Hook principles.  
13 But I think we can find a space where we can  
14 design a procedure that will give the  
15 indexers some greater tactical --

16           MR. MAZZA: I mean, the indexers are  
17 aware of our Sandy Hook principle.

18           MR. RUBIN: Chris, when we did with the  
19 Sudan and other areas, didn't we exclude  
20 certain investments from having to fall into  
21 those criteria because of that kind of  
22 situation?

23           MR. DIFUSCO: Yes. I mean, the Sandy  
24 Hook principles already do have certain

1 exceptions for, you know, I think it's over  
2 50 percent, I think of your ammunition or  
3 firearms are for military or for police. We  
4 have exceptions. And I want to understand  
5 exactly what you're asking, Alan.

6 Do you want to get the appropriate folks  
7 or have almost like a working group to talk  
8 about things that you think can potentially  
9 be modified or to make it -- I don't want to  
10 use the wrong -- I don't know if relaxed is  
11 the right word, but to tweak the criteria?

12 MR. BUTKOVITZ: If you remember, in the  
13 Sudan case, we had a one size fits all kind  
14 of prohibition that would have prohibited  
15 investments in Coca-Cola. What we  
16 determined to do was that the companies that  
17 were, in fact, the bad actors were the  
18 infrastructure and oil companies.

19 So I would -- yes. I would request a  
20 working group to determine if there's a way  
21 to tie the culpability.

22 MR. DIFUSCO: Okay.

23 MR. BUTKOVITZ: Focus in on more on the  
24 culpable behavior without disqualifying

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 174

1 large areas of investment that are, in fact,  
2 not bad actors.

3 MR. DIFUSCO: Okay. We'll be happy to  
4 do that. We will keep everyone in the loop.  
5 And I think that's fair.

6 MR. MAZZA: Just in case to hedge  
7 ourselves, let's say PFM comes back and says  
8 no, 175, take it or leave it. We come back  
9 for another vote?

10 MR. DIFUSCO: Yeah. We will let the  
11 Commission know in accordance with the  
12 Sunshine Act. Even if we do it by  
13 telephone, as long as we advertize to  
14 people, we can do that. I don't want to  
15 step on your toes, but you agree with that,  
16 correct?

17 MS. BERKOWTIZ: Yes.

18 MR. BUTKOVITZ: Also, I would like to  
19 clarify our rate of return. I've heard  
20 rumors that there's a Law Department opinion  
21 out there overriding the vote of the Board  
22 at the last meeting. I think we have just  
23 been reaffirmed in the idea that over 30  
24 years under this asset allocation we are

1 going to make 7 percent.

2 I hope -- we keep getting that testimony  
3 from our managers, so how can we  
4 fictitiously reverse a vote of the Board to  
5 an untrue number when there are no  
6 components that add up?

7 At least in the Pension Board they  
8 actuary told us we were going to make  
9 7.85 percent. These people keep telling us  
10 we're going to make 7 percent. It just  
11 makes it difficult for the administration to  
12 meet budgetary targets. That's not a  
13 legitimate consideration on which to select  
14 reate of return.

15 MR. MAZZA: I think we should bring it  
16 up with the Director of Finance Rob Dubow.  
17 And based on the opinion of the legal  
18 opinion, Director of Finance sets the  
19 investment rate by the Board.

20 MR. RUBIN: We didn't get --

21 MS. BERKOWTIZ: You should have gotten  
22 it.

23 MR. MAZZA: I think that the conclusion  
24 of that --

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 176

1 MS. BERKOWTIZ: I have one here.

2 MR. MAZZA: Bring it up with Rob, see  
3 what his thoughts are since he is the one  
4 that sets the discount rate.

5 MR. BUTKOVITZ: Then we may need to go  
6 to the next step with the Solicitor and get  
7 counsel and a declaratory judgment on this.  
8 As I brought up at the last meeting, I have  
9 a fiduciary responsibility here to do the  
10 right thing here on the rate of return.  
11 Administratively, it's been decided even  
12 though we have two-to-one vote here to  
13 disregard that. That ought to be tested in  
14 court.

15 MR. MAZZA: I don't think we were  
16 disregarding it. I think it just was based  
17 on the bylaws in the charter that the  
18 Director of Finance sets discount rate; is  
19 that correct?

20 MS. BERKOWTIZ: So, the agreement  
21 between the City and PFMC and the ordinance  
22 setting out the PGW Pension Plan vests the  
23 authority to set the rate in the Director of  
24 Finance. And it's limited. He has to rely



1 on an actuary. It has to be a responsible  
2 calculation.

3 MR. BUTKOVITZ: You are going to force  
4 me to one of two positions, and I don't want  
5 to do. Either there is going to be  
6 litigation on this point where there should  
7 be an amendment of that ordinance, or we're  
8 going to have to take that fight to the full  
9 Pension Board where the impact of a rate  
10 change would be much more catastrophic.

11 And the reason that we are more  
12 accepting of a higher rate of return than  
13 the Pension Board is that we have all sorts  
14 of investment types and options that give us  
15 the legitimate right to argue that we can  
16 achieve a 7.85 percent return here. But I  
17 know the real number is 7 percent. I make  
18 the motion, we won the vote. It's being  
19 turned into a joke.

20 Why -- if we have to have a  
21 confrontation over it, I want it litigated  
22 in court.

23 MR. GILBERT: Have we had a conversation  
24 with the Finance Director?

1 MS. JOHNSON: Outside of -- again,  
2 coming on hindsight, can we get an analysis?

3 MR. BUTKOVITZ: We get an analysis at  
4 every meeting. Every person that sits over  
5 there tells us that we're going to get  
6 7 percent. If I got sued today, the  
7 cross-examine and Ben and you, the  
8 cross-examination would be on what basis did  
9 you choose 7.65 percent? You know what it  
10 would do to my budget next year? We would  
11 be personally liable for that.

12 You're saying because of the way the  
13 City Charter is written, we nevertheless  
14 possess personal fiduciary liability and  
15 that's just not right. We should not be  
16 responsible for not implementing the correct  
17 rate of return because there's a reading of  
18 the City Charter that says that we don't  
19 have the power to do that which has not been  
20 tested in court.

21 MS. BERKOWTIZ: It's not only the  
22 charter, it's a number of different --

23 MR. BUTKOVITZ: How do we get relieved  
24 of our fiduciary responsibility? To tell

1       you the truth, if I could resign from this  
2       board, I would. But I can't. Charter says  
3       as Controller, I'm on this Board. The  
4       law -- the state law says that I'm liable  
5       for not exercising the correct judgment as a  
6       fiduciary. And I have done everything that  
7       I can. And now you're giving me an opinion  
8       saying, well, that has no impact.

9       Okay. Let's get a court to say that.  
10      Because that will be much greater protection  
11      to us than a court that we tried and a court  
12      told us we couldn't do it.

13      I'm really not trying to obstreperous.  
14      I'm trying to be logical here. I know under  
15      the last administration I had a problem  
16      because if we said it was day, it was night.  
17      I really like this administration. I like  
18      this Mayor. I like the way things are  
19      going. I do not want to be squeezed played  
20      into a situation where I have  
21      responsibility, but I don't have power.  
22      It's just not right.

23      MR. DIFUSCO: I don't want to step on  
24      Ellen's toes. But my understanding is that

1 your fiduciary duty or everyone's fiduciary  
2 duty here is controlled by kind of, for lack  
3 of a better term, the box that you're put in  
4 to begin with. You are given a set of laws  
5 or rules or regulations and they -- then  
6 it's said to you as a member of the Board  
7 and to Ben and to Rob and Rasheia, here is  
8 the rules. You have to do the best you can  
9 to be fiduciarily sound and make good  
10 judgments within these -- within this box.

11 And so, if you are not able to make the  
12 rate lower as you've asked, you have not  
13 violated your -- by all means jump in if I'm  
14 incorrect.

15 MS. BERKOWTIZ: I think that's  
16 absolutely correct.

17 MR. DIFUSCO: You are not violating your  
18 fiduciary duty because the rules and  
19 regulations under which you are charged are  
20 saying manage the money the best you can.

21 MR. BUTKOVITZ: Why don't I have the  
22 responsibility to rigorously pursue my point  
23 of view through litigation?

24 MR. DIFUSCO: I'm not saying that.

1           MR. BUTKOVITZ: Who is to say that the  
2 fact that I don't do that will not be held  
3 against me as a failure to exercise -- we  
4 have for years avoided the idea of getting  
5 Officers and Directors Liability Insurance.  
6 I mean, I guess that could be an  
7 alternative. If somebody wants to insure us  
8 for \$500 million worth of liability on that  
9 decision, that's a reasonable alternative.

10          MR. DIFUSCO: I'm thinking the next  
11 steps would be as Matt suggested --

12          MR. MAZZA: A meeting with the Director  
13 of Finance.

14          MR. DIFUSCO: A conversation as a small  
15 group with Rob and --

16          MR. MAZZA: Meeting with the Board, Rob,  
17 Law Department, the folks from PGW to  
18 actually discuss this further. Rob is the  
19 ultimate decision maker. I think if we  
20 presented this idea to Rob and had him in  
21 the room --

22          MR. DIFUSCO: Able to get his feedback.

23          MR. MAZZA: -- he would be able to tell  
24 you what the exact.

1 MR. DIFUSCO: Is that reasonable?

2 MS. JOHNSON: Yes.

3 MS. BERKOWTIZ: I do think that Chris'  
4 description of sort of the boundaries of  
5 your obligation is accurate. I understand  
6 your frustration.

7 MR. BUTKOVITZ: Do you want to guarantee  
8 your personal assets on a guarantee to me  
9 that if I'm sued, you will pay the  
10 litigation cost and the judgment? Are you  
11 that confident in that?

12 MS. BERKOWTIZ: My personal assets?

13 MR. BUTKOVITZ: Yes. It's my personal  
14 assets that are on the line, right? This is  
15 not theoretical to me. It's not a game.  
16 It's a crazy legal situation that we are in  
17 because of the state of investment manager  
18 law. So, I mean, if you want to take that  
19 on, I make consider -- I will be happy to  
20 assign my liability to you.

21 MR. MAZZA: I think -- listen, we  
22 understand your frustrations. Let's just  
23 bring it up with the Director of Finance in  
24 a meeting to peacefully resolve this matter.

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 183

1 MR. GILBERT: That's what we should do.

2 MS. JOHNSON: Yes.

3 MR. GILBERT: You okay with that?

4 MR. BUTKOVITZ: Yes.

5 MS. JOHNSON: Yes.

6 MR. GILBERT: Is there any other  
7 business?

8 MR. RUBIN: We can do that in the March  
9 meeting?

10 MR. MAZZA: We can do that -- behind  
11 closed doors.

12 MS. JOHNSON: I was going to say, before  
13 March meeting.

14 MR. BUTKOVITZ: We can bring the results  
15 to the March meeting.

16 MR. RUBIN: You both can't appear  
17 before --

18 MR. DIFUSCO: It's a fair point. We can  
19 have the overlay of getting legal advice and  
20 other things.

21 MR. MAZZA: We would need Tom.

22 MR. RUBIN: We would be mindful of that.  
23 We can do it in executive session.

24 MS. BERKOWTIZ: Yes.

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 184

1           MR. DIFUSCO: If we are unable to do it  
2 before March because of the concerns you  
3 bring up, then we will have an executive  
4 session in March.

5           MR. GILBERT: Any other business?

6           MR. BUTKOVITZ: That's it.

7           MR. GILBERT: We're done.

8           (Sinking Funds Commission meeting  
9 adjourned at 2:31 p.m.)



Sinking Fund Commission Quarterly Meeting  
January 20, 2016

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

I, hereby certify that the proceedings and evidence noted are contained fully and accurately in the stenographic notes taken by me in the foregoing matter, and that this is a correct transcript of the same.

-----  
ANGELA M. KING, RPR  
Court Reporter - Notary Public

(The foregoing certification of this transcript does not apply to any reproduction of the same by any means, unless under the direct control and/or supervision of the certifying reporter.)

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 1

<b>A</b>	<b>accounting</b>	74:23 96:22	<b>admittedly</b>	157:11	57:16,17	136:3,21	<b>approach</b>
<b>a.m</b> 1:17	10:23 53:19	103:24	65:2	163:5	59:14,21	141:4	110:8
<b>ability</b> 8:7	<b>accounts</b> 52:4	105:6	<b>advantage</b>	<b>agree</b> 85:18	74:5 89:12	<b>analysts</b>	112:15
25:23 26:17	92:9 146:6	108:21	81:20	174:15	126:14	29:10 56:10	115:4
56:21 62:12	<b>accurate</b>	112:22	150:10	<b>agreement</b>	155:21	102:14	<b>approaches</b>
66:17 92:2	182:5	125:12	164:21	176:20	156:1,5,23	<b>analyzed</b>	150:12
138:22	<b>accurately</b>	131:21	<b>advertize</b>	<b>ahead</b> 35:23	157:1,5	134:1	<b>appropriate</b>
155:9 166:9	185:5	132:15	174:13	37:21 59:10	159:12	<b>and/or</b>	61:22 133:8
<b>able</b> 8:23	<b>achieve</b> 56:21	154:13	<b>advice</b> 142:5	68:12 70:3	160:4	185:18	173:6
13:14 21:8	68:18,21	175:6	142:13	<b>Alan</b> 2:5	162:11	<b>anecdotal</b>	<b>approved</b>
29:3 34:4	69:10,14	<b>add/subtract</b>	183:19	10:15 173:5	163:7 181:7	13:22	64:21
58:4 63:15	96:3 117:8	113:24	<b>advise</b> 109:2	<b>alarm</b> 163:14	181:9	<b>Angela</b> 1:13	<b>approximat...</b>
63:17 82:18	151:12,23	<b>added</b> 37:23	<b>advisement</b>	<b>Alger</b> 32:2	<b>alternatives</b>	185:11	1:16 41:18
95:3 96:13	152:8,9	67:12 68:14	139:20	<b>allay</b> 23:18	43:11,12,18	<b>annual</b> 7:17	<b>area</b> 54:7
98:9 105:6	177:16	69:22	<b>advisor</b> 2:15	<b>Allentown</b>	43:24 44:21	13:21 64:1	66:4,11
109:3	<b>Ackman</b> 63:1	106:19	2:16,17	46:8	60:24 61:6	153:5	74:19 91:3
129:22	<b>acquisition</b>	128:8 129:7	52:6,7	<b>allocate</b> 66:12	68:8 72:6	<b>annuity</b>	105:5,11,13
138:18	33:7	<b>adding</b> 60:6	140:21	113:23	90:5 119:8	105:20	128:7,8
140:14	<b>Act</b> 90:5	64:15 69:12	142:24	123:18	125:24	<b>answer</b>	129:7
152:3	167:10	107:6	<b>Advisors</b> 5:10	129:23	126:22	125:14	172:10
154:23	174:12	<b>addition</b> 60:3	47:6 51:12	<b>allocation</b>	127:4	132:19	<b>areas</b> 13:9
164:19	<b>action</b> 84:2	64:10 67:2	138:21	41:11 46:21	157:20	133:2	89:18,23
168:9	172:12	107:18	<b>advisory</b>	56:2 58:15	161:2	148:11	90:11 92:1
180:11	<b>actions</b>	<b>additional</b>	103:17	59:19 62:9	<b>alumnus</b>	153:3,9	131:17
181:22,23	153:15	8:24 50:24	104:5,18	71:22 74:3	131:7	163:3	172:19
<b>Absent</b>	<b>active</b> 25:20	53:21 56:9	136:17	81:18 82:3	<b>amend</b> 167:3	<b>anticipate</b>	174:1
129:24	37:10 97:1	64:4,16	<b>advocate</b> 62:5	85:7 88:3,9	<b>amended</b>	78:12 79:11	<b>arena</b> 144:1
<b>absolute</b> 89:1	113:2,3,6	65:16 67:12	<b>affect</b> 121:2	92:12 95:24	18:10	86:10	<b>argue</b> 18:24
<b>absolutely</b>	113:22	69:24 71:5	121:20	96:3 98:22	<b>amendment</b>	<b>anticipates</b>	146:12
23:9 87:11	154:18,23	106:16	<b>afford</b> 30:12	111:9,13,18	177:7	38:13	157:7 159:9
94:21 96:19	155:10	107:15	<b>afraid</b> 91:4	111:21,24	<b>Ammaturo</b>	<b>anticipating</b>	177:15
97:19	172:6,7	<b>additions</b> 3:7	142:6,7	114:2,3	100:14	6:7 79:4	<b>argument</b>
145:11,13	<b>actively</b> 34:18	101:2	<b>ag</b> 69:20	125:20	101:15	<b>anticipation</b>	113:10
148:3 162:8	<b>Activist</b> 63:4	<b>address</b> 6:21	<b>agencies</b> 74:9	128:23	102:20	6:9	<b>arrangement</b>
180:16	<b>activities</b>	31:20 49:14	<b>AGENCY</b>	136:18	106:3	<b>Anybody</b>	135:4
<b>accept</b> 3:10	134:16	<b>adequate</b>	1:21	142:4 145:7	109:13,22	171:15	<b>Arthur</b> 49:3
3:12 4:4,6	<b>activity</b> 33:7	95:2	<b>agenda</b> 73:18	149:21,24	125:16	<b>apologize</b>	49:8,21
4:21 45:3	<b>actors</b> 173:17	<b>adhering</b>	97:21 98:1	150:3,5	133:11	137:4	51:11
170:12,16	174:2	172:8	<b>Aggregate</b>	152:2,8	<b>ammunition</b>	<b>appear</b> 90:4	<b>artificially</b>
<b>acceptable</b>	<b>actual</b> 9:7	<b>adjourned</b>	38:4	174:24	173:2	183:16	84:10
124:21	66:24 89:4	184:9	<b>aggressively</b>	<b>allocations</b>	<b>amount</b> 39:11	<b>appetite</b>	<b>ashamed</b> 83:3
<b>accepting</b>	126:6	<b>adjust</b> 28:9	115:20	59:14 61:4	48:18 78:21	61:19 66:3	<b>asked</b> 116:17
177:12	149:18,21	28:15	<b>ago</b> 10:3 25:2	66:21 79:6	85:15 95:6	66:16 67:7	143:3
<b>access</b> 14:4	<b>actuarial</b>	<b>adjusted</b>	34:14 44:9	88:8 91:15	96:5 158:10	<b>applied</b>	180:12
<b>accomplish</b>	71:4	118:16	78:22 79:5	<b>allows</b> 56:15	<b>ample</b> 121:14	153:17	<b>asking</b> 62:4
102:21	<b>actuary</b>	<b>adjusting</b>	81:5 100:20	106:1	<b>analysis</b> 97:6	<b>apply</b> 185:16	124:16
<b>account</b> 34:1	153:6 175:8	31:2	100:23	164:20	99:4,5,10	<b>applying</b>	157:20
34:12,14	177:1	<b>administrat...</b>	101:7,9	<b>alluded</b> 43:19	111:11	153:20	173:5
42:10 46:3	<b>Adam</b> 2:14	175:11	105:20	69:6	114:7	<b>appreciate</b>	<b>aspects</b> 53:18
55:7 74:11	<b>add</b> 13:18	179:15,17	109:14	<b>alpha</b> 129:14	155:17	77:13 102:6	76:12
94:24	17:2 33:22	<b>Administra...</b>	118:16	<b>alternative</b>	178:2,3	136:18	<b>assessment</b>
130:20	34:9 47:15	176:11	137:3	43:21 44:16	<b>analyst</b> 51:3	<b>appreciation</b>	92:5
136:3	48:22 63:10	<b>admit</b> 88:10	138:15	56:3 57:12	53:15 136:1	82:10 90:19	<b>asset</b> 46:21

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 2

56:2,8,11	77:14 98:10	96:16	26:22	134:1,2,17	154:24	107:11,18	133:2 137:2
56:14,17	100:1	108:22	<b>balanced</b>	134:19,20	<b>benchmarks</b>	108:7,20	139:17
58:15 59:14	<b>associates</b>	147:1,5	152:16	134:21	41:7	110:14	140:17
59:19 60:2	1:20 97:10	154:24	<b>ballpark</b>	144:19	<b>Beneath</b>	111:3	153:4
60:3,7	109:7	<b>averages</b>	48:11	146:15	106:9	<b>bias</b> 35:13	160:20
65:21 71:22	142:21	28:14	<b>bank</b> 26:13	153:5	<b>benefit</b> 29:5	<b>bid</b> 39:15	<b>blank</b> 157:9
82:3 85:7	147:24	<b>avoid</b> 21:9	27:7 29:7	154:16,19	54:14 62:1	90:13	<b>blanket</b> 157:4
88:3,9,15	<b>assumption</b>	<b>avoided</b>	29:17 51:4	155:4,5	137:10	<b>bidders</b> 99:23	<b>Blasberg</b>
88:16,22	59:17 60:19	181:4	<b>banking</b> 27:6	178:8	<b>benefits</b>	<b>bidding</b> 86:1	73:13,19
89:2,13	67:23 71:4	<b>award</b> 168:10	<b>banks</b> 24:8	<b>basket</b> 61:8	41:22	<b>Bieler</b> 32:7,12	86:21 87:24
92:12 96:3	114:15	<b>aware</b> 151:18	26:23 27:2	62:14	<b>Benjamin</b> 2:4	<b>Bieler</b> 40:4	89:7,16,24
98:22	115:3 117:4	172:17	<b>bar</b> 160:17	<b>bath</b> 8:22	<b>Berkowitz</b>	<b>bifurcation</b>	94:24 97:5
102:15	126:6	<b>Ayes</b> 3:20	<b>Barclays</b> 38:3	33:3	2:12	21:2	99:9,13,18
103:15,18	154:10,12	4:14 5:3	<b>Barksdale</b>	<b>Bear</b> 108:23	<b>BERKOW...</b>	<b>big</b> 9:23	<b>block</b> 115:4
104:3,10	<b>assumptions</b>	45:11	38:4,17	<b>beat</b> 70:18	174:17	12:24 13:14	150:6
111:9,13,18	46:22,24	170:24	<b>barrel</b> 120:20	<b>Bed</b> 33:3	175:21	18:6 26:12	<b>blow</b> 64:14
111:21,23	88:14		163:23	<b>beginning</b>	176:1,20	34:9,11	<b>blue</b> 14:19
111:24	114:13	<b>B</b>	<b>bars</b> 14:18	112:6	178:21	62:23 82:1	70:21
114:2,3,9	115:1	<b>B</b> 57:19	<b>base</b> 133:14	114:14	180:15	82:13 136:4	105:16
114:10,15	116:16	<b>baby</b> 8:21	133:17	<b>begins</b> 21:10	182:3,12	156:8 165:1	<b>blurred</b> 159:7
115:2	118:7 126:3	<b>back</b> 8:1 9:4	<b>based</b> 46:6,7	<b>behalf</b> 164:9	183:24	<b>bigger</b> 20:4	<b>board</b> 45:15
120:14	153:7 154:4	12:19 13:8	46:21 47:6	<b>behavior</b>	<b>best</b> 43:2	88:17	47:12 48:14
127:9 128:2	<b>attended</b>	13:20 16:12	52:11,12	31:13	47:18 48:20	<b>biggest</b> 24:12	49:6 66:3
131:11,24	163:11	18:2,9	81:18 88:23	173:24	50:14 56:15	24:14 27:10	67:15 80:22
132:6,10,14	<b>ATTENDEE</b>	29:21 30:2	96:3 103:5	<b>Behavioral</b>	59:9 75:15	93:19	107:19
136:17	167:20	30:5,10	104:7 106:8	104:13	78:19,20	149:17	123:24
142:4 145:6	<b>attention</b>	34:15 35:17	110:20	<b>beliefs</b> 90:1	82:9,12,21	<b>Bill</b> 2:11 44:4	174:21
149:21,24	62:9 132:4	37:8 40:6	113:24	<b>believe</b> 7:12	85:4 92:2	62:24 79:2	175:4,7,19
150:3,5	<b>attract</b> 132:4	46:14 51:15	120:8,23	33:15 67:16	106:1	82:13 109:4	177:9,13
151:20,22	138:18	55:1 58:19	121:5,6	70:6 80:15	108:17	<b>billion</b> 40:18	179:2,3
152:2,8	<b>attractive</b>	68:24 72:12	131:3,4	81:2,12	111:7 141:1	52:15 53:7	180:6
153:8	17:12 18:14	79:8,8	135:4	112:24	141:10	70:17 74:11	181:16
161:14	25:16 139:1	117:17	151:23	114:1,3	145:7	103:21	<b>boats</b> 29:15
162:12	<b>audible</b>	123:2 131:6	166:8	117:23	149:24	104:24	<b>body</b> 108:5
174:24	127:19	138:16	175:17	118:1,3,4	180:8,20	105:1,21,21	<b>bold</b> 52:20
<b>assets</b> 42:10	<b>August</b> 30:18	144:10	176:16	119:1 120:1	<b>beta</b> 154:4	139:19	60:14
52:16 59:22	<b>authority</b>	145:4,14	<b>basic</b> 115:5	<b>bell</b> 99:3	<b>better</b> 44:6	164:18	<b>bond</b> 6:17,17
66:10,15	105:11,13	148:2	<b>basically</b> 72:7	<b>Belmondo</b>	61:21 62:3	<b>billions</b> 140:3	7:3 17:16
84:11,17	105:14	167:13	84:24 92:6	102:7	62:6 63:17	<b>bios</b> 76:8	25:3 27:22
86:9 103:22	176:23	168:3,5,8	<b>basis</b> 26:4	<b>Ben</b> 178:7	64:21 80:7	<b>bit</b> 6:14 12:6	72:15,17
104:2,11	<b>automobiles</b>	170:2 174:7	35:7 39:13	180:7	80:19 81:6	12:7 25:1	84:5
105:20	13:19 14:5	174:8	40:5,19	<b>bench</b> 86:24	81:11,12	35:13 38:7	<b>bonds</b> 39:16
108:17	<b>autonomy</b>	<b>background</b>	44:11 60:6	87:9 129:17	84:18 90:23	38:12,22	59:24 60:16
112:19	85:16	5:18,24	65:7 67:3	<b>benchmark</b>	94:16	42:6 44:6	78:17 79:8
115:9	<b>available</b>	49:21	69:18 70:19	32:16 35:8	112:20	49:21 51:24	146:24
127:11	9:19 72:15	102:23	72:10 73:1	35:11,22	132:8 180:3	53:12 54:22	152:20
139:18	72:19,24	<b>backgrounds</b>	80:23 83:17	36:11,14	<b>beyond</b> 5:23	61:14 64:24	160:19
140:1,7	82:12 85:20	53:13	90:17 91:17	37:12,15,16	33:3 129:8	75:11 79:9	<b>book</b> 37:8
158:13	87:11 99:15	<b>bad</b> 39:17	91:17 96:17	37:21 38:3	137:15	85:10 89:8	49:17
159:5 182:8	<b>Avenue</b> 6:18	77:20 83:1	103:22	38:8,12,13	147:17	92:14 97:7	165:24
182:12,14	<b>average</b>	91:1 173:17	108:16	38:16 39:6	<b>Biagio</b> 100:17	105:19	<b>books</b> 28:1
<b>assign</b> 182:20	48:12 53:1	174:2	125:4	40:1,2	101:1	115:17	<b>boom</b> 122:7
<b>assignment</b>	53:5,9 96:8	<b>bag</b> 7:14 47:1	133:18,20	92:11 96:2	102:12	126:18	<b>Boston</b> 48:9
		<b>balance</b> 25:17					

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 3

137:20	109:6	122:19	165:15,21	146:16	53:17	93:10 130:1	73:12,16
166:8	121:15	<b>built</b> 6:13	166:1 167:2	<b>candidate</b>	156:13	172:3	75:22 77:7
169:15	141:20	122:8,9	167:16	47:9,17	<b>cause</b> 1:13	177:10	93:12,19
<b>bottom</b> 6:20	142:1	150:12	168:9,23	<b>candidates</b>	<b>causing</b> 8:18	<b>changed</b>	94:22 95:15
39:24 50:23	147:23	<b>bulk</b> 21:18	170:16	46:12,16,17	13:3	75:20 80:23	95:20 99:12
59:5 60:13	<b>Brokaw</b> 2:16	22:6	171:3	46:19 47:14	<b>celebrating</b>	81:4 89:8	<b>CHESSIRE</b>
75:12	5:12 13:18	<b>bullet</b> 142:3	172:11	55:19 65:11	137:21	118:7	81:15
107:10	22:8 49:7	<b>business</b> 26:1	173:12,23	109:12	<b>center</b> 1:15	119:13	<b>Chief</b> 73:18
132:12	50:7 54:4	52:11 76:12	174:18	<b>cap</b> 31:22	50:3,3	<b>changes</b>	<b>china</b> 23:8
138:1	54:20 58:8	77:19 99:24	176:5 177:3	32:1,11,18	58:11	80:13 81:16	24:8,14
139:20	<b>broken</b> 38:2	101:17,18	178:3,23	33:21 35:4	<b>central</b> 24:7	87:18 93:21	27:16 28:5
142:20	52:16	102:3	180:21	35:5,13,14	<b>certain</b> 12:12	100:24	30:23 79:18
143:5	103:15,16	103:17,20	181:1 182:7	35:14,15,21	20:10 43:5	150:9 172:5	80:8 119:17
169:17	<b>brokerage</b>	103:23	182:13	50:17,18	46:20 78:23	<b>changing</b>	122:6,7,8
<b>bottom-up</b>	139:9	104:4,18	183:4,14	86:13 93:7	85:15	58:21 59:1	122:10,18
56:23	<b>Brothers</b>	105:3,5	184:6	112:2,3,13	108:19	59:2 150:8	<b>choice</b> 95:2
<b>bought</b> 114:6	26:12	107:2,20	<b>buy</b> 14:5 82:6	128:15	128:20	<b>charge</b> 47:11	167:14,16
<b>bounce</b> 30:10	<b>brought</b>	108:10,14	82:7,8,14	<b>capacity</b> 13:4	172:4,20,24	48:10 61:18	168:18
<b>boundaries</b>	76:23 77:2	137:22	84:17,21,23	63:15 64:3	<b>certainly</b>	108:8	<b>choose</b> 24:11
182:4	111:15	139:22	96:20	<b>capital</b> 7:19	10:22,23	<b>charged</b> 47:7	178:9
<b>box</b> 134:13	127:22,24	141:20	102:18	46:22,24	12:17 13:7	180:19	<b>choosing</b>
180:3,10	176:8	142:23	114:10	88:14 90:18	13:9 18:8	<b>charges</b> 47:3	44:22
<b>BPS</b> 17:6	<b>bucket</b>	145:23	132:11	107:10	18:11,19	<b>charging</b>	<b>choppy</b> 37:14
<b>Brad</b> 2:13	157:14	147:8,10	<b>buying</b> 25:20	114:13	19:5 21:22	94:15	<b>Chris</b> 5:12
<b>brag</b> 148:9	<b>bucks</b> 163:22	169:24	82:5	116:16	23:19 27:1	<b>Charlton</b>	31:6 43:9
<b>break</b> 24:20	166:7	170:10	<b>bylaws</b>	124:1 126:3	29:20 55:14	138:12	46:9 48:16
73:8 100:8	<b>budget</b> 104:5	171:2 183:7	176:17	<b>caps</b> 112:4,5	63:8 66:7	<b>chart</b> 71:19	49:7 50:7
111:24	151:15	184:5		<b>capture</b>	72:9 75:1	72:10	53:14 54:4
112:2 135:7	158:11	<b>businesses</b>	<b>C</b>	128:11	76:1,14	139:21	54:19 86:7
166:24	178:10	74:22	<b>C</b> 2:1 185:1,1	<b>car</b> 13:23	<b>certification</b>	<b>charter</b> 53:14	96:13 98:8
<b>breakdown</b>	<b>budgetary</b>	138:11	<b>calculate</b>	82:6 150:22	185:15	176:17	103:2 110:1
55:9 71:22	175:12	<b>Butkovitz</b> 2:5	42:13	<b>cards</b> 10:18	<b>certify</b> 185:3	178:13,18	110:5,21
<b>breaker</b>	<b>budgeting</b>	3:12 4:6,22	<b>calculated</b>	<b>care</b> 116:20	<b>certifying</b>	178:22	125:19
134:10	152:14,14	9:17 21:14	42:4,19	<b>carries</b> 3:21	185:19	179:2	133:12
<b>breaking</b>	161:19	21:24 22:4	<b>calculation</b>	4:15 5:4	<b>cetera</b> 12:14	<b>charts</b> 56:5	168:2
41:10	<b>build</b> 62:13	22:11,24	43:4 177:2	45:12 171:1	13:1 56:13	114:5	172:18
<b>breed</b> 56:15	63:7,10	23:4,8,12	<b>call</b> 82:11,15	<b>carry</b> 125:5	75:9,10	<b>chase</b> 78:13	<b>Chris'</b> 182:3
<b>brief</b> 73:8,17	66:18 95:2	23:20 25:2	83:17 98:11	<b>cars</b> 12:24	97:15,16	79:12	<b>Christiaan</b>
135:7	115:8	25:6,10	127:19	<b>case</b> 119:3	111:12	<b>Chea</b> 107:17	2:16
165:10	122:19	26:7,11,21	130:12	146:10	124:7	<b>cheap</b> 78:17	<b>Christmas</b>
<b>briefly</b>	149:6 152:2	27:13,20	135:24	173:13	<b>CFA</b> 53:15	78:17 82:6	9:2,8
125:17	152:7	29:7,19	146:8 147:4	174:6	<b>chain</b> 13:10	82:6,7	<b>Christopher</b>
<b>bring</b> 50:6	<b>builders</b>	30:6 42:1,8	153:6,15	<b>cash</b> 29:18	<b>chairman</b> 2:4	84:17 96:21	2:10
55:3 57:14	121:22	42:15 45:5	158:6	41:21,23	101:3	112:22	<b>CIO</b> 2:10
97:9 106:1	<b>building</b>	73:6 79:14	163:20	42:12 63:18	<b>challenging</b>	114:9 119:7	74:12 75:23
109:2 129:9	107:21	80:10 83:4	<b>called</b> 102:2	104:11	20:13	122:14	108:10
145:10	115:4	83:11,24	137:13	115:7	117:10	132:11	<b>CIOs</b> 9:23
175:15	119:19	92:5 93:10	155:16	149:14	126:11	<b>cheaper</b>	<b>Circle</b> 38:5
176:2	122:7,9	93:14	163:23	<b>catastrophic</b>	<b>chance</b> 126:7	13:16 81:11	38:17 39:8
182:23	128:12	117:11,19	<b>calling</b> 19:11	177:10	167:9	94:16	39:12
183:14	129:17	118:10	19:13 83:8	<b>categories</b>	<b>chances</b>	<b>chemicals</b>	<b>circular</b>
184:3	150:6	119:13,17	156:15	41:11 144:1	18:17	13:1	58:11
<b>bringing</b> 51:5	<b>buildings</b>	120:24	<b>calls</b> 75:9	<b>category</b>	<b>change</b> 92:13	<b>Cheshire</b>	<b>circulated</b> 3:5
			98:11,13				

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 4

3:23 4:17	140:13,16	<b>clients'</b> 108:1	121:10,13	145:16,22	93:14 99:14	<b>connection</b>	147:1,6
<b>City</b> 1:1	142:17	117:7	127:9	147:7,13,19	133:13	27:16	150:18
104:6,8	145:2,2,9	126:10	128:23	<b>committee</b>	<b>comparing</b>	<b>consider</b>	166:9 169:7
170:7	145:10	<b>cliff</b> 160:11	131:6 132:7	19:7,9	56:18	123:24	169:12
176:21	146:4,15	<b>clock</b> 165:3	139:3	20:19 54:23	<b>comparison</b>	124:19	<b>consultants</b>
178:13,18	147:3,21	<b>close</b> 14:14	140:22	55:20,23	65:5 91:2	161:21	45:23 54:19
<b>civic</b> 153:21	148:10	31:9 103:9	141:1,23	56:4 57:11	<b>compensate</b>	171:18	74:18 76:3
<b>clarify</b> 174:19	151:21	130:23	145:7	57:21 59:5	22:16	182:19	77:20
<b>clarity</b> 60:21	164:16	<b>closed</b> 6:18	147:12	59:6 73:22	<b>complement</b>	<b>considerable</b>	135:23
80:7	<b>client's</b>	183:11	150:18	74:16 76:6	123:21	69:3	137:14,17
<b>class</b> 56:14,17	146:15	<b>closely</b>	153:14	83:16,18,20	160:3	<b>consideration</b>	<b>consulting</b>
59:22 65:21	<b>client-basing</b>	149:22	158:9 161:4	83:22 86:12	<b>complete</b>	103:8	47:5 52:9
102:16	102:11	<b>closer</b> 44:13	164:3 165:1	86:17 101:3	83:14	115:23	54:15 74:13
104:13,24	<b>clients</b> 52:17	59:15 60:19	166:19	107:23	<b>complicated</b>	134:8	102:1,3
112:1	52:19,21	67:22	167:11,17	<b>committee's</b>	57:18	175:13	104:1,5
120:14	56:7 57:1	<b>closing</b> 97:20	168:3,4,11	107:24	<b>components</b>	<b>considerati...</b>	108:3
128:2	72:16 74:8	133:3	174:8	<b>committees</b>	32:10 175:6	89:11	133:15
131:12	75:5,7,10	<b>clothes</b> 13:15	<b>comes</b> 19:20	59:4 74:21	<b>composites</b>	<b>considering</b>	137:3 138:7
132:13,14	76:1,7	<b>co-manage</b>	28:17 174:7	<b>commodities</b>	61:7	43:10	138:8,9
158:13	85:12	101:17	<b>coming</b> 12:16	115:24,24	<b>comprised</b>	<b>consistent</b>	139:7,11
<b>classes</b> 56:8	101:20	<b>Coal</b> 11:19	54:10 88:13	116:2	164:1	33:16 36:14	141:7,20,22
56:11 60:2	104:19	<b>Coca-Cola</b>	124:24	118:14,15	<b>concern</b> 7:9	62:15 83:5	143:1,7,19
60:4,7	105:12,23	173:15	125:6	118:19,23	26:23 34:19	<b>consolidate</b>	143:23
88:15,16,22	105:24	<b>Coleman</b>	141:14	119:1	146:3	156:7	144:9,18
89:3,13	106:2,7	2:14	142:8	120:13	<b>concerned</b>	<b>consolidation</b>	148:22
114:16	107:4 108:2	<b>collapsed</b>	156:21	121:17	27:20 89:1	66:7 138:8	<b>consume</b>
115:2	108:3 109:1	11:21	161:14	122:11,14	158:17	148:16	12:13
127:10	116:17,23	<b>collective</b>	164:15,24	122:15	<b>concerns</b>	<b>constantly</b>	<b>consumer</b>
132:10	133:15	54:8	178:2	132:3	23:18 33:1	64:7 150:8	7:11,20
153:8	135:22	<b>college</b>	<b>commencing</b>	134:15	184:2	<b>constraints</b>	8:13 9:17
162:13	136:23	104:15,16	1:16	<b>commodity</b>	<b>conclude</b>	70:4 90:2	10:21 11:5
<b>clear</b> 165:12	139:12,14	116:19	<b>comment</b>	17:5 18:22	10:11	97:4	12:23 13:13
<b>Clearbrook</b>	139:24	<b>column</b>	12:3 13:19	116:3	<b>conclusion</b>	<b>construct</b>	<b>consumers</b>
46:15 47:6	141:13	125:19	16:21 17:14	121:24	46:13	63:12	8:7 10:24
47:17,24	142:16	<b>columns</b>	39:7 130:22	122:1,12,13	175:23	110:11	14:4
48:13 73:10	143:2,12,15	126:14	<b>commentary</b>	<b>commodity-...</b>	<b>conclusions</b>	<b>construction</b>	<b>consuming</b>
73:12,21	144:2,13,19	<b>combination</b>	72:18	7:23	111:21	64:17 131:4	105:9
<b>clearly</b>	145:1	32:12 56:23	<b>comments</b>	<b>communicate</b>	<b>conditions</b>	131:4	<b>contained</b>
155:15	146:20,20	<b>combine</b>	16:17	76:7	72:22	<b>consult</b>	185:5
<b>client</b> 52:16	147:6,12	50:11	148:15	<b>community</b>	114:21	103:20	<b>container</b>
53:1,4 56:1	149:1,10,19	<b>combined</b>	<b>Commission</b>	76:11	<b>Conference</b>	105:1	13:15
56:1 58:11	149:22	32:11,18	1:2,11 2:3	104:15	1:15	<b>consultant</b>	<b>contaminat...</b>
74:24 75:1	150:10	33:21 35:21	49:15 61:3	164:15	<b>confidence</b>	5:6 43:19	26:8 27:22
75:13 76:13	151:19	<b>come</b> 11:19	66:24	<b>companies</b>	11:6 135:19	45:17 47:8	<b>contingent</b>
76:18	153:12	11:20 12:5	167:24	25:23 26:18	<b>confident</b>	48:19 49:15	167:4
101:19	155:20	13:20 16:12	174:11	173:16,18	70:6 182:11	50:5 52:3	170:12
102:8	156:15,19	18:1 19:10	184:8	<b>company</b>	<b>confirm</b>	77:2 132:23	<b>continue</b>
105:10,23	157:10	19:14 26:11	<b>Commissio...</b>	25:16 102:1	75:18,19	136:1,12	10:16 14:1
106:6,23	159:15,20	28:9 31:8	52:24 85:17	<b>comparable</b>	165:4	137:7	17:19 18:1
108:17	160:15	31:24 46:14	<b>commissions</b>	101:20	<b>confirmed</b>	140:11,11	18:8 21:22
110:22	164:7,16,21	48:1 56:19	52:14	133:13,15	75:16	141:5,9,12	24:23 29:5
111:2	165:1,2	98:18	<b>commitment</b>	<b>compared</b>	<b>confrontation</b>	144:16	31:17 49:14
133:14,17	169:17	111:20	141:24	44:10 71:18	177:21	146:21	50:4,4 66:6

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 5

70:24 71:1	110:16,21	<b>counsel</b> 176:7	28:20,21	<b>customized</b>	156:6,8,12	156:4 157:1	34:12
107:1 119:6	134:11	<b>counting</b>	38:8,9,18	150:21,23	158:1,9	159:12	<b>describing</b>
146:4	<b>conversely</b>	10:19 75:6	39:1,5	171:6,14	159:18	<b>defined</b> 54:14	87:6
163:16	82:22	<b>countries</b>	63:11 124:7	<b>cut</b> 20:16	<b>debts</b> 25:19	137:10	<b>description</b>
171:18	<b>conviction</b>	91:1	156:16,21	22:1,2	162:14	<b>defining</b>	182:4
<b>continued</b>	56:6	<b>County</b> 54:12	159:8	44:17	<b>decade</b> 46:4	60:22 61:1	<b>design</b> 140:12
66:15 81:9	<b>convince</b>	<b>couple</b> 59:10	163:19,24	119:11	130:20	61:4 116:12	140:13
<b>continues</b>	113:5,21	59:11,17	<b>criteria</b>	<b>cutting</b> 20:20	<b>December</b>	116:13	172:14
19:17 21:7	<b>Cooke</b> 32:7	64:19	172:21	68:22	3:23 4:17	157:2	<b>designation</b>
50:22	32:12 40:4	106:12,20	173:11	<b>cycle</b> 13:10	5:7 40:16	<b>definitely</b>	53:20
147:15	<b>cooked</b> 28:2	110:2	<b>Cross</b> 105:16	40:8 82:15	70:14	10:20 15:5	<b>designations</b>
148:19	<b>copper</b>	133:19	<b>cross-exami...</b>	82:19,21	<b>decide</b> 29:21	47:12	53:15
<b>continuing</b>	121:22,23	139:18	178:8	83:1 98:12	<b>decided</b> 39:21	<b>definition</b>	<b>designed</b>
12:10 37:3	122:17	163:4	<b>cross-exami...</b>		176:11	159:6	149:5
<b>contract</b>	<b>copy</b> 100:15	<b>course</b> 20:21	178:7	<b>D</b>	<b>decides</b>	<b>deliver</b>	<b>despite</b> 11:5
146:8	<b>core</b> 38:3,4,5	58:13 81:8	<b>cross-pollin...</b>	<b>dampen</b>	119:18	124:10	<b>detail</b> 143:11
165:22	38:21 69:20	102:5	140:14	18:16	122:18	<b>demand</b>	143:20
168:10	90:14,14	<b>court</b> 1:13,18	<b>cross-pollin...</b>	<b>Dan</b> 33:23	<b>decision</b>	12:23 13:2	153:1
<b>contracting</b>	125:23	1:21 176:14	163:13	<b>dark</b> 68:24	83:21	17:21,23	<b>detailed</b>
85:13	128:8,21	177:22	<b>CSA</b> 136:1	<b>data</b> 84:13	100:19,22	18:10 22:1	153:9
<b>contraction</b>	160:16,19	178:20	<b>culpability</b>	89:9 121:18	181:9,19	22:4,6	<b>determine</b>
21:11 22:14	<b>core-plus</b>	179:9,11,11	173:21	125:18	<b>decisions</b>	26:19 119:6	164:6
<b>contracts</b>	38:23	185:12	<b>culpable</b>	<b>databases</b>	105:7 130:3	121:8	173:20
21:15 87:1	<b>corner</b> 142:9	<b>cover</b> 31:15	173:24	58:3	142:14	127:10	<b>determined</b>
129:22	<b>Cornerstone</b>	31:18	<b>culture</b>	<b>date</b> 1:16 6:1	<b>declaratory</b>	<b>demanding</b>	46:20
<b>contractual</b>	46:10	166:12	161:23	15:7,17	176:7	146:14	173:16
86:1	<b>corporate</b>	<b>coverage</b>	<b>currency</b>	16:18	<b>decline</b> 42:14	<b>demands</b>	<b>develop</b> 15:22
<b>contractually</b>	13:12 74:9	25:18	24:15	<b>dated</b> 88:11	<b>declining</b>	147:17	149:23
52:5	126:20	<b>covering</b>	<b>current</b> 28:24	<b>David</b> 131:6	33:2	<b>demise</b> 94:13	151:19
<b>control</b> 65:15	140:11	160:7	38:15 59:12	131:7	<b>dedicated</b>	<b>department</b>	<b>developed</b>
185:18	144:2	<b>cracks</b> 169:14	59:18,19	<b>Davies</b> 54:6	37:23	104:12,12	15:12,22,24
<b>controlled</b>	<b>correct</b> 23:11	<b>Craig</b> 50:21	60:15 62:18	<b>day</b> 31:8	102:15	137:1	16:3 36:15
180:2	25:5 27:19	<b>crazies</b> 91:8	114:21,21	83:15 139:3	105:3	167:11	37:2,11,12
<b>Controller</b>	42:9 44:4	<b>craziness</b>	114:22,22	139:5	107:20,21	174:20	37:17 171:9
2:5 172:3	94:20 165:6	80:14	116:4	144:12	128:17	181:17	<b>development</b>
179:3	174:16	<b>crazy</b> 23:13	118:10,12	179:16	144:6,16,23	<b>depend</b>	151:17
<b>Controller's</b>	176:19	91:19	123:21	<b>day-to-day</b>	145:18	159:11	<b>developmen...</b>
39:10 43:20	178:16	168:12	124:20	144:19	<b>Deegan</b> 73:22	<b>depending</b>	90:15
85:9 168:15	179:5	182:16	125:20	<b>days</b> 152:9	<b>deep</b> 162:17	43:17 44:15	<b>Devers</b> 2:17
<b>conventional</b>	180:16	<b>create</b> 95:12	133:14	<b>DC</b> 51:19	<b>deeper</b>	61:2 83:13	5:11 8:5 9:6
29:12	185:8	<b>created</b>	<b>currently</b>	<b>DE</b> 1:24	152:17	147:2 158:4	10:22 12:15
<b>conversation</b>	<b>corrections</b>	172:10	17:5 50:16	<b>de-leveraging</b>	<b>default</b>	<b>Depends</b>	16:20 17:18
39:9 45:15	3:6	<b>creates</b> 31:13	<b>curve</b> 16:14	11:1,8,13	112:24	95:15	18:19 19:5
110:14	<b>correctly</b> 87:2	<b>creating</b> 27:4	16:14 17:20	<b>de-risk</b> 64:13	113:3	154:17	20:17,24
126:15	<b>correlated</b>	<b>creation</b>	18:2,5,16	83:2	115:23	<b>depreciate</b>	21:16 22:2
127:7,12	128:12	94:12	<b>custodian</b>	<b>deal</b> 76:19	<b>defaults</b> 25:7	24:21	22:6,18
132:21	<b>correlation</b>	<b>creative</b>	51:4	78:6 85:8	25:12 26:8	<b>depriving</b>	23:3,6,11
133:6	9:5	85:22	<b>custody</b> 41:21	115:15	<b>defensive</b>	171:22	23:19 24:2
177:23	<b>Cosack</b> 102:2	<b>credentials</b>	41:23 42:10	134:10	7:22 36:6	<b>depth</b> 106:19	25:5,9,12
181:14	<b>cost</b> 48:2	53:12,21	<b>customizati...</b>	<b>debate</b>	<b>defer</b> 131:2	<b>derive</b> 115:1	26:9,14
<b>conversations</b>	96:14,16,17	<b>credit</b> 8:20	98:3 172:7	120:22	<b>define</b> 139:16	<b>deriving</b>	27:1,19
25:24 67:17	182:10	10:18 14:5	<b>customize</b>	<b>debt</b> 9:18,20	144:24	152:20	28:8 29:17
69:7 108:19	<b>costs</b> 13:5	16:21 25:24	95:13 97:22	113:16	155:23	<b>describe</b>	29:20 30:14
				126:20			

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 6

31:16 42:20	<b>DiFusco</b> 2:10	156:9 159:1	<b>dismiss</b>	91:21 96:1	68:23	<b>earning</b> 80:17	<b>elements</b>
42:24 43:7	9:21 18:20	159:16,17	131:18	96:6 107:7	<b>drawn</b> 69:1	<b>earnings</b>	24:22 57:10
49:7 50:8	33:22 42:3	159:17,18	<b>dispersion</b>	113:14	<b>drill</b> 89:14	33:18,19	103:4
54:20 55:14	42:9,18,22	160:4	62:19	131:18	<b>Driscoll</b>	41:17 84:22	<b>eliminate</b>
55:17 57:10	43:3,8,17	185:18	<b>disqualified</b>	161:14,19	136:11,11	84:23 92:20	165:19
61:5 62:11	44:3,8 46:1	<b>direction</b>	171:12	171:10	148:23	93:3,4	<b>eliminated</b>
65:4,19	47:15,21	127:14	<b>disqualifying</b>	<b>dollar</b> 18:13	151:4,8	<b>easier</b> 146:24	47:24
66:5 67:8	48:6,23	<b>directions</b>	173:24	20:22,24	<b>drive</b> 24:10	<b>easy</b> 85:14	165:19
67:11,16	52:23 53:10	56:2 145:9	<b>disregard</b>	24:17 92:22	55:22 110:9	86:2 147:9	<b>Ellen</b> 2:12
68:12 71:14	60:21 61:11	159:22	176:13	96:20	<b>driven</b> 12:23	<b>economic</b>	<b>Ellen's</b>
71:21	64:18 66:1	<b>directly</b> 123:6	<b>disregarding</b>	118:14	21:21 59:4	24:3 107:10	179:24
<b>deviation</b>	66:22 67:10	136:6 153:4	176:16	<b>dollars</b> 13:15	<b>driver</b> 111:10	114:21	<b>EM</b> 113:13
28:14 60:15	75:16 85:8	<b>director</b> 2:9	<b>dissect</b> 72:3	40:18 41:10	111:22	<b>economically</b>	126:20
126:4 127:2	86:23 87:12	101:3,15,23	<b>distinguished</b>	70:17	<b>drivers</b> 43:15	119:10	<b>email</b> 3:5,24
<b>devil's</b> 62:4	96:8 116:11	102:13	108:6	103:22	<b>drives</b> 56:24	<b>economists</b>	4:18 168:1
<b>devise</b> 171:20	123:13	175:16,18	<b>distress</b> 17:9	105:21	79:17	8:8,12 9:1	168:2
<b>DFA</b> 37:18	124:15,19	176:18,23	<b>distressed</b>	116:6	144:21	10:11	<b>emergency</b>
<b>dialogue</b>	125:15	177:24	17:8	117:16	145:14	<b>economy</b> 7:15	10:19
127:12	129:16,21	181:12	<b>disturbance</b>	140:4	<b>driving</b> 13:5	12:12 13:6	<b>emerging</b>
<b>Dick</b> 138:12	130:8	182:23	8:17	<b>Domeisen</b>	24:24 80:15	16:19 20:11	15:13 16:3
<b>die</b> 170:8	132:22	<b>Directors</b>	<b>dive</b> 103:4	2:15 5:5,8,9	121:8,10,12	21:3,18	36:20,21
<b>difference</b>	133:1	181:5	104:23	14:6 31:18	169:19	22:5,7,13	37:18,23
43:13 93:19	154:10,15	<b>directs</b> 94:9	110:12	35:3 37:7	<b>dropped</b>	26:10 31:12	112:8,10,11
134:19	155:23	95:8	<b>diversified</b>	39:24 49:6	143:10,11	<b>edge</b> 27:24	112:14
138:23	157:15,19	<b>dis-allocating</b>	61:8 62:14	49:9,12,12	<b>dropping</b>	<b>educate</b> 127:9	113:11,15
166:15	157:23	79:2 83:9	125:23	53:5,11	53:7	<b>educational</b>	113:16
<b>different</b> 19:8	162:19	<b>disagree</b>	126:18	55:5,11	<b>drove</b> 11:24	98:15,16,19	<b>emotion</b>
19:11 37:1	167:8,22	168:13	149:6	57:2 60:11	<b>drying</b> 26:19	<b>effect</b> 9:13	80:14
55:8 61:1	168:4,13,19	<b>disappointed</b>	<b>diversifier</b>	67:18 68:7	<b>Dubow</b>	11:13 12:16	<b>emotional</b>
103:5 104:9	172:23	100:22	94:5	70:5 71:15	175:16	24:3	27:17
114:15,19	173:22	119:23	<b>diversify</b>	72:2,8	<b>due</b> 39:12,15	<b>effective</b> 68:1	<b>emotions</b>
115:2 124:6	174:3,10	<b>disappoint...</b>	127:16	<b>domestic</b>	45:21,23	138:14	79:16
125:3	179:23	8:11	131:16	23:15	47:1,13	<b>effectively</b>	<b>emphasis</b>
131:13	180:17,24	<b>discount</b>	158:16	<b>dominate</b>	57:22 58:6	82:2 90:6	75:1 97:13
145:8 149:9	181:10,14	46:23 82:7	<b>diversifying</b>	140:1	64:16 76:4	96:6	<b>employee</b>
149:12	181:22	176:4,18	60:7	<b>doors</b> 183:11	91:11 110:4	<b>effects</b> 12:11	138:4 140:5
150:11	182:1	<b>discretion</b>	<b>diversity</b> 55:2	<b>double</b> 94:15	<b>dug</b> 122:17	<b>effectually</b>	<b>employees</b>
156:2,2	183:18	52:8 83:14	97:9 109:6	<b>doubt</b> 106:19	<b>durable</b> 22:3	97:18	51:17,23
159:21	184:1	<b>discretionary</b>	109:10,16	<b>Doug</b> 132:17	<b>durables</b>	<b>efficient</b>	104:7
162:21,24	<b>dig</b> 162:16	8:13 12:13	109:18	<b>downs</b> 81:3	12:24	113:11	137:23
163:2 164:4	<b>digging</b> 9:19	57:15	140:12	<b>downside</b>	<b>duration</b> 38:9	<b>effort</b> 58:6	<b>ended</b> 14:9
178:22	<b>diligence</b>	103:21,23	147:23	84:20 91:13	38:10 39:5	<b>efforts</b> 63:14	16:6
<b>differentiate</b>	45:22,23	105:2,4	<b>divide</b> 56:10	91:23 92:2	69:12,19,22	107:6	<b>endowment</b>
49:19	57:22 58:6	108:2	<b>dividends</b>	<b>downward</b>	69:23	<b>eight</b> 5:20	111:12
<b>differentiat...</b>	64:16 76:5	<b>discuss</b> 79:24	115:13	24:1,2	<b>duty</b> 180:1,2	54:3 75:8	116:20
126:17	110:4	181:18	<b>division</b>	<b>draft</b> 35:9	180:18	138:15	144:3
<b>differently</b>	<b>diligenced</b>	<b>discussion</b>	56:13 104:3	<b>drag</b> 22:11		<b>either</b> 19:3	<b>ends</b> 75:3
151:7	91:11	88:7 159:4	<b>doing</b> 10:24	32:10 44:24	<b>E</b>	91:16 177:5	135:7
157:10	<b>diligent</b> 111:4	165:17	28:4 31:10	<b>dramatically</b>	<b>E</b> 2:1,1 185:1	<b>elected</b> 67:6	165:10
<b>difficult</b> 66:9	<b>direct</b> 7:2	<b>discussions</b>	50:16 56:19	92:22	<b>Eagle</b> 35:5	<b>election</b> 19:3	<b>energy</b> 11:20
85:11	27:15 90:9	130:4	57:3,8 74:2	<b>drawbacks</b>	<b>earlier</b> 76:16	20:1	12:15 14:18
147:16	94:7,17	<b>disingenuous</b>	76:19 77:6	99:9	126:9	<b>elections</b> 80:6	14:20 17:1
175:11	123:4,5	117:3	78:7 81:14	<b>drawdowns</b>	159:13	<b>element</b> 56:9	26:16 27:12
					<b>early</b> 112:9		

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 7

163:21,22	124:7	93:3,8	127:16	108:13	42:17 69:1	64:23 65:17	103:24
163:24	125:21	<b>eventually</b>	<b>exist</b> 159:8	132:16	83:7 94:16	66:24 94:15	145:5 164:8
<b>engine</b> 107:3	128:6	66:11	<b>existed</b>	<b>explained</b>	101:1	99:22	164:10,12
144:21	152:22	<b>everybody</b>	117:20	111:13	107:11	125:10	172:13
145:14	156:5,11	23:12,13	156:20	<b>exposure</b> 7:3	111:22	134:15	<b>fine</b> 27:6
<b>England</b>	157:5,13	29:14 74:18	<b>existing</b> 61:23	35:14 36:20	139:18	155:1 167:4	167:22
137:13,15	158:8,15	119:20	74:4 77:1	36:21 38:9	158:17	<b>felt</b> 46:16	168:4,6
137:17	159:17	132:4	88:8 93:15	38:9,18	<b>fast</b> 14:11	78:23	<b>finer</b> 112:1
<b>enterprise</b>	162:23	134:17	95:11	39:5 41:4	15:11 141:8	163:17	<b>finish</b> 70:3
54:8	163:10,11	155:24,24	147:12	69:23 160:3	<b>faster</b> 86:8	<b>fictitiously</b>	163:15
<b>enters</b> 73:10	<b>Eric</b> 73:12,19	<b>everyone's</b>	<b>exits</b> 119:24	160:8,17	112:15	175:4	<b>firearms</b>
100:10	75:10 76:3	46:21,24	<b>expanded</b>	<b>extension</b>	<b>favor</b> 3:19	<b>fiduciarly</b>	173:3
135:9	76:5 87:23	180:1	137:15	98:5	4:13 5:2	180:9	<b>firm</b> 46:7
<b>entities</b> 74:10	<b>ERISA</b> 51:15	<b>evidence</b> 28:1	<b>expect</b> 65:21	<b>extremely</b>	15:24 45:10	<b>fiduciary</b>	51:7,12
77:5	52:5	185:4	153:22,24	138:5,17,24	100:21	5:10 49:23	54:15 55:4
<b>environment</b>	<b>erred</b> 119:14	<b>exact</b> 181:24	154:5	147:8	170:23	51:10,12	73:17 74:17
18:23 58:22	<b>especially</b>	<b>exactly</b> 99:14	<b>expectation</b>	<b>Exxon</b> 122:4	<b>favorably</b>	52:6 53:24	76:2 79:1
59:12 84:1	12:19 28:17	173:5	115:6	<b>eyes</b> 62:1	36:7	176:9	97:8,12
117:5,10	58:21 65:22	<b>example</b>	117:19		<b>favoring</b> 16:2	178:14,24	107:3,13
121:7	66:16 169:7	65:10 72:17	<b>expectations</b>	<b>F</b>	<b>fear</b> 11:4	179:6 180:1	109:21
123:22	<b>essence</b> 77:23	78:22 80:18	8:12 9:9	<b>F</b> 185:1	166:16	180:1,18	136:23
124:20	156:11	115:10	23:10 28:18	<b>facing</b> 149:17	<b>February</b>	<b>fight</b> 172:5	137:14
138:6 160:9	<b>essentially</b>	123:23	117:7	<b>fact</b> 58:10	30:5	177:8	138:4,16,23
<b>environments</b>	29:11 85:1	138:20	126:10	78:14,15	<b>Fed</b> 6:4 17:20	<b>figure</b> 80:8	139:4
50:15	90:5 96:22	140:5	<b>expected</b> 8:8	82:5 171:13	18:3,6,21	112:18	141:18
<b>equation</b> 14:3	129:21	141:19	9:2,6 60:8	173:17	18:24 19:6	134:9	146:2,21
22:9 141:8	<b>establish</b> 29:4	152:18	126:1,24	174:1 181:2	19:12 20:6	164:12	148:19
<b>equities</b> 14:8	<b>estate</b> 44:1,2	157:6	127:1	<b>factor</b> 18:13	102:17	<b>fill</b> 143:4	159:20
36:3 41:2	89:19,22	163:12	149:16	<b>factors</b> 34:16	<b>Federal</b> 108:8	168:16,21	161:23
59:24 60:16	90:12,14,15	<b>examples</b>	152:10	<b>facts</b> 117:20	<b>fee</b> 47:12,19	169:1	166:17
60:23 68:19	90:17,22	62:17	154:9	<b>fad</b> 119:14	52:11,13	<b>final</b> 47:18,22	<b>firms</b> 78:23
80:16 89:18	126:23	127:14	160:14	<b>failed</b> 82:20	65:8,9 96:9	156:13	138:10
92:15,16	128:1,6	<b>exceptions</b>	<b>expecting</b>	<b>failure</b> 181:3	124:21	163:14	140:22
93:8 113:9	156:12	173:1,4	18:4	<b>fair</b> 43:7	125:4 133:4	<b>finally</b> 6:4	141:22
113:15	157:22,24	<b>excess</b> 13:6	<b>expenses</b> 67:4	125:1,2,3	133:12	41:14	143:7 156:6
115:8,10	158:1	<b>excessive</b>	67:12	174:5	165:4 166:4	<b>finals</b> 47:20	<b>first</b> 5:19,20
124:1	159:17	26:19	<b>expensive</b>	183:18	166:5,15,17	<b>finance</b> 144:9	31:20 34:13
152:19	162:15	<b>excited</b>	112:7,21	<b>Falkowski</b>	166:22,23	175:16,18	38:2 55:13
162:10,14	<b>estimate</b>	100:18	113:7	33:23	167:12	176:18,24	65:2 77:8
<b>equity</b> 24:6	117:1	<b>exclude</b>	114:10	<b>fall</b> 10:7	170:17	177:24	100:16
24:23 31:20	<b>estimates</b>	172:19	124:2	144:4	<b>feedback</b>	181:13	110:6
32:19 36:2	117:2	<b>excluded</b>	131:23	172:20	100:23	182:23	119:21
41:4,11	<b>et</b> 12:13 13:1	154:11	132:7	<b>fallback</b>	101:6	<b>financial</b> 27:5	128:1
44:2 56:12	56:13 75:9	<b>excuse</b> 60:23	<b>experience</b>	167:18	181:22	33:12 53:15	131:15
56:12 61:6	75:9 97:15	<b>executive</b> 2:9	34:10 57:11	<b>falling</b> 6:11	<b>feel</b> 56:13	103:16	147:13
63:3,11	97:15	183:23	108:7,22	130:13	70:6 130:24	104:5,18	156:19
68:15,17,19	111:12	184:3	118:11	160:11	149:23	<b>financials</b>	164:6 170:5
71:5 89:19	124:7	<b>exercise</b>	137:6	169:14	<b>feeling</b> 90:10	33:9	<b>fit</b> 127:13
89:22	<b>euro</b> 92:23,24	181:3	<b>experienced</b>	<b>falls</b> 169:16	94:10 99:3	<b>financing</b>	143:22
102:19	<b>Europe</b> 80:21	<b>exercising</b>	141:2,21	<b>familiar</b>	<b>feels</b> 5:21	14:4 139:8	157:13
112:2	81:13 92:22	179:5	142:1	64:22 88:1	<b>fees</b> 47:3	<b>find</b> 8:23	<b>fits</b> 95:14
115:13	<b>European</b>	<b>exhibit</b> 57:18	<b>expertise</b>	103:14	48:18 62:2	78:19 82:11	135:18
120:16	18:12 92:24	<b>exhibited</b>	66:18	142:21	62:8 64:18	82:21	173:13
				<b>far</b> 34:7 42:7			



Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 8

<b>five</b> 36:9	<b>flood</b> 120:12	109:13	5:5,9 8:1,16	87:3 90:6,7	97:24 102:5	<b>game</b> 163:17	110:17
45:22 51:17	<b>floor</b> 1:15	151:22	31:17 33:23	90:7 91:7	103:20	182:15	112:20,20
69:16 86:16	163:5,8	<b>formation</b>	34:7 49:6	91:14 94:7	105:18,18	<b>gamut</b> 90:3	112:21
87:9 100:20	<b>flow</b> 63:18	51:14	49:11,12	94:10,13,19	111:12	<b>gap</b> 14:12	131:13
100:22	<b>flowed</b> 132:1	<b>formed</b> 51:16	55:1,17	95:4,7,9,19	113:6,7	<b>Garcia</b> 38:20	142:11,11
101:7,8	132:6	<b>forming</b>	61:13 70:2	96:15,24	123:3,4,5,6	38:24	149:16
106:23	<b>flows</b> 42:12	75:13	71:11	110:6 123:4	123:7,8,17	<b>gas</b> 8:7 10:2,4	175:2 181:4
114:17,24	<b>fluctuate</b> 44:8	<b>fortunate</b>	<b>frankly</b> 76:2	123:5,20	123:18	10:7,20	183:19
115:11	<b>fluid</b> 150:12	102:9	117:9	124:4,21	124:14	11:15,19	<b>GFA</b> 51:13
116:21	<b>flying</b> 146:19	135:19	130:19	135:3,16	125:13	12:5 49:16	54:8
129:8 153:7	<b>focus</b> 56:6,14	<b>forward</b> 6:12	<b>fraud</b> 79:10	136:21,23	126:23	120:6 170:9	<b>Gilbert</b> 2:4
<b>Five-minute</b>	59:10 65:5	8:14 14:11	<b>Fred</b> 32:1	137:10	129:7	<b>gasoline</b>	3:3,9,14,16
93:17	65:12 77:9	14:15 15:19	<b>free</b> 60:12	139:15	136:16	13:22	3:19,21 4:3
122:21,23	88:13	18:5 50:4	<b>frequently</b>	140:10	137:9	119:11	4:8,10,13
157:18	107:24	50:14 53:11	88:20	142:16	139:16,21	121:9,9,13	4:15,20,24
<b>five-year</b>	<b>focused</b> 75:12	87:19 88:14	<b>Friday</b> 14:11	144:6	140:3,6	<b>gate</b> 161:4,14	5:4 45:1,7
70:20	88:11	88:23 134:1	<b>Friday's</b>	146:12,13	142:15	<b>gather</b> 58:3	45:10,12
<b>fixed</b> 6:6,6	162:10,12	<b>forwarding</b>	14:14	147:17,20	149:10,17	<b>GDP</b> 7:16	165:12,18
16:5,17	<b>focuses</b>	15:11	<b>FRIENDS</b>	152:11	157:7 159:1	22:19 23:17	165:23
18:14 38:1	<b>folks</b> 45:14	<b>fossil</b> 121:2	1:21	156:12,23	159:2,18,19	28:6	166:2
41:5,12	46:5 49:1	<b>foundation</b>	<b>fringes</b> 81:20	157:2,4,9	159:23	<b>general</b> 1:18	170:14,18
50:18 56:12	50:20,24	144:3	<b>front</b> 17:20	159:1,6,14	160:1,3	118:15	170:20,23
69:7,20	54:3 64:22	<b>foundations</b>	18:3	159:18,23	162:14	124:15	171:1
81:10,11	67:6 75:17	74:9	<b>frontline</b>	159:24	184:8	153:15	177:23
89:17 104:2	85:23 87:3	<b>founded</b>	145:1	160:1,2	<b>funny</b> 97:12	154:12	183:1,3,6
104:11	91:3 145:3	137:20	<b>froth</b> 84:4	162:24	<b>further</b> 28:21	<b>generalizati...</b>	184:5,7
108:12,13	145:3	<b>founder</b>	<b>frustration</b>	164:3,19	28:22 151:9	124:22	<b>give</b> 29:22
115:8,15	162:20	138:12	182:6	171:8,15	160:12	<b>generalize</b>	45:15 47:16
117:4	164:1 173:6	148:18	<b>frustrations</b>	<b>fund-to-fun...</b>	181:18	65:3 124:17	49:20 65:10
125:21,22	181:17	<b>founders</b>	182:22	61:7,14	<b>future</b> 12:10	157:21	78:20 85:4
126:18	<b>follow</b> 55:14	<b>four</b> 7:3 10:4	<b>fuels</b> 121:2	<b>fundamental</b>	82:10 120:3	<b>generally</b>	96:4 100:12
128:21	72:1	18:20 19:1	<b>full</b> 1:21 32:9	112:18	139:17	34:17	119:2
160:7,15,17	<b>following</b>	19:11 20:13	54:7 56:19	132:10	142:8	<b>generate</b> 58:4	120:14
160:22,23	23:7 110:13	38:1 75:2,5	57:20,22	<b>fundament...</b>	<b>G</b>	<b>generated</b>	135:11
161:2	<b>footnote</b> 32:8	75:18,20	177:8	112:20	<b>gain</b> 13:6	67:19	172:14
162:11	32:14	98:7 100:3	<b>fully</b> 185:5	114:1,8	135:19	<b>generating</b>	177:14
<b>flat</b> 42:24	<b>force</b> 115:5	101:4	<b>fund</b> 1:2,11	120:8,19,23	<b>gained</b> 76:19	129:14	<b>given</b> 14:11
47:7 143:21	177:3	102:13	3:22 4:4	121:5	76:22	<b>geniuses</b>	16:2 17:4
<b>flattening</b>	<b>Forde</b> 136:20	106:17	6:17,17	<b>funded</b> 110:7	<b>gaining</b> 66:10	84:15	18:7,10
17:15 18:4	136:20	107:12,17	9:23 10:19	<b>funds</b> 59:23	66:15 107:5	<b>gentleman</b>	20:9,10
<b>flexibility</b>	162:8 163:3	107:19	13:23 34:1	61:20 62:7	<b>gains</b> 38:3	50:10 100:6	50:14 59:12
133:9	<b>forecast</b>	143:10,12	34:9,11	62:12,14,21	<b>Gallagher</b>	135:21	59:13 62:20
171:23	88:22 153:7	<b>four-step</b>	40:16,23	63:3,4,22	2:15,16,17	<b>gentlemen</b>	64:1 65:22
<b>flip</b> 37:9	153:18,20	151:16	43:13 44:11	64:2,19	5:9 45:14	54:3 73:11	69:9 70:3
101:13	<b>forefront</b>	<b>fourth</b> 5:22	44:13 49:15	66:3,8,13	45:19 46:3	135:6 136:9	83:24 89:9
125:17	146:10	5:23 6:5	61:8,16,20	70:16 71:7	46:13 47:3	139:1 165:7	123:21,24
153:2	152:11	7:15 9:7	61:24,24	89:19 90:8	49:1,3,8,21	<b>getting</b> 44:20	155:2 158:2
<b>flipping</b>	<b>foregoing</b>	14:9 16:5	62:7,11	91:10 93:20	49:22 51:11	46:13 48:20	158:18
35:24	185:7,15	16:14 32:23	63:1,24	94:1,3,8,11	51:12 54:11	64:13 66:14	159:5 160:1
150:15	<b>foreign</b> 18:15	36:19	64:2,9 65:9	94:14,19	56:24 57:14	68:1 85:14	160:10
<b>floated</b> 68:5	<b>formal</b>	<b>frame</b> 97:3	66:3,4,8,13	95:7,16,17	<b>Gallagher's</b>	86:2,3,13	162:16
<b>floating</b> 37:4	108:16	<b>Frank</b> 2:15	66:19 71:7	95:22 96:9	64:20	90:12	180:4
129:19			85:12,24	96:18,19	<b>gallon</b> 119:11	107:14	<b>gives</b> 86:11

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 9

91:21	176:5	90:16,21	105:24	72:10 99:3	<b>guidelines</b>	119:17	157:6,9
143:20	<b>goal</b> 48:17	95:22	123:15	99:5,7,10	151:19	121:24	159:1,6,17
<b>giving</b> 15:5	152:9	101:11	125:16	100:10	<b>guys</b> 10:10	122:6	162:14,23
143:13	171:19,22	102:20,22	127:12,13	103:13	12:2 31:15	161:10	164:3 174:6
160:23	<b>goals</b> 58:20	102:23,24	142:13	104:14	45:16 73:13	<b>happy</b> 43:5	<b>hedged</b> 124:8
179:7	58:21 59:13	102:24	145:5 151:9	108:15	93:17	72:1 174:3	<b>held</b> 1:12,14
<b>glance</b> 125:21	60:10 149:2	103:7	164:10	123:8,10	100:11	182:19	41:24
126:21	149:5,7,12	106:10	169:11	135:7,16	135:11	<b>hard</b> 120:1	148:13
<b>global</b> 7:24	149:13	109:15	180:9	136:17	163:7	147:8	181:2
26:14 47:6	150:1	110:9,12,14	<b>goods</b> 7:19	143:24		<b>Harding</b>	<b>help</b> 58:6
60:22 73:10	151:13,24	110:24	13:8	144:20	<b>H</b>	36:12	76:24 98:23
80:23 90:17	<b>goes</b> 51:15	112:19	<b>gosh</b> 78:9	162:12	<b>hair</b> 42:11	<b>hate</b> 154:20	129:12
120:24	53:17 72:23	114:24	<b>gotten</b> 133:7	173:7,20	<b>half</b> 12:19	<b>head</b> 55:12	149:1 152:8
121:11	86:8,9	115:9 116:1	175:21	181:15	22:21,23	68:9 135:16	152:9
136:17	95:20	116:4,5	<b>governance</b>	<b>groups</b> 71:18	23:16 28:6	<b>headquarte...</b>	<b>helped</b> 35:8
<b>globally</b>	121:22,24	117:11,17	158:18	163:7	40:17 41:3	137:19	<b>helping</b> 58:16
131:5	122:6,18	117:22	<b>government</b>	<b>grow</b> 77:19	43:2 65:13	<b>heads</b> 11:4	75:14
<b>globe</b> 90:13	128:9	119:2,6,18	84:5	93:1 131:9	71:3 79:3	<b>Health</b>	161:17
<b>glut</b> 119:21	<b>going</b> 8:19,22	119:22,24	<b>governmen...</b>	141:10,15	90:24 93:3	104:13	162:1
<b>go</b> 8:1 9:11	9:14,21	120:14	74:9	145:23,23	117:5,6	<b>healthcare</b>	<b>helps</b> 74:23
11:16 20:6	10:4,13,14	121:20	<b>grab</b> 48:24	146:4	119:12	7:20 21:20	76:6
28:21 34:4	11:2,4,7	122:4 123:2	<b>grade</b> 126:20	148:20	126:19,20	<b>healthy</b> 27:7	<b>herd</b> 120:9,10
40:20 42:22	12:21 13:11	123:20	<b>grain</b> 79:7	<b>growing</b>	126:21	<b>hear</b> 5:5	132:2
48:24 55:1	13:12,16	125:2,6,12	<b>grand</b> 166:19	112:14	134:17,18	113:10	<b>hey</b> 10:11
55:12 57:20	17:19 18:1	126:11	<b>graph</b> 68:23	<b>grown</b> 103:23	139:21	146:9 156:1	12:9
58:18,23,23	18:9,15	127:8,10,11	70:13 71:12	105:4 141:3	<b>Hallmarks</b>	<b>heard</b> 87:2	<b>HFRI</b> 69:1
61:16 68:6	19:1,13,14	127:20	<b>great</b> 78:6	146:21	140:19	103:6 108:8	<b>hidden</b> 52:13
72:22 73:23	19:19,22	131:2 134:1	119:2 137:4	<b>grows</b> 17:1	<b>Hamilton</b>	174:19	<b>high</b> 6:15,16
84:11 86:19	20:6,12	134:5,13,19	141:15	146:2	38:21	<b>hearing</b> 3:9	6:16,17,22
89:5,22	21:8,22	142:5 144:7	148:7	<b>growth</b> 7:24	<b>hand</b> 77:10	4:3,20 10:1	6:24 7:2,5
94:17,18,20	22:1,2,5,16	146:7,9,18	<b>greater</b> 17:2	14:24 15:3	103:10	<b>heart</b> 100:24	8:16 16:23
101:11	22:19,20,20	147:10	118:8	22:15,19	111:3	<b>heating</b> 11:17	16:24 17:10
103:7 105:8	23:12,17,21	148:7,11,20	172:15	23:17 24:3	131:19	11:22	17:13 25:14
106:10	23:23 24:14	153:14	179:10	24:5,10	<b>handle</b> 46:18	<b>hedge</b> 61:8,16	25:15,21
109:11	24:19 25:3	158:14	<b>greatly</b> 21:13	32:1 33:18	106:7 111:1	61:24 62:14	26:3 27:5,8
122:1	26:2 27:7	159:11	<b>green</b> 14:18	33:19 35:5	134:20	62:21 63:24	29:2 33:18
128:19	28:15 29:5	160:13	<b>Greenwich</b>	36:15,17	158:19	64:9 66:4	39:12,16,17
129:2,4	30:24 31:7	162:3,16	142:20	50:17 80:24	<b>hands</b> 124:10	66:19 71:7	43:21 48:13
130:11	44:22 48:10	166:23	143:19	81:3 92:19	<b>happen</b> 38:14	89:18 90:7	65:1 69:8
135:17	50:1,13	167:12	<b>grew</b> 7:16	93:6 94:13	78:13 79:15	91:6,10,12	69:12,13,14
136:19	53:7 60:4	171:15	77:19	107:3	80:3 98:14	91:14 92:2	69:19,22,24
138:22	60:20 61:15	175:1,8,10	137:14	141:17	119:22	93:20 94:1	72:15,17
141:11	61:17 62:6	177:3,5,8	<b>grey</b> 172:10	145:16	125:3	94:3 95:17	78:24
145:2	62:7 63:20	178:5	<b>Gross</b> 79:2	<b>guarantee</b>	160:13	96:9,18,24	105:23
147:17	63:21,23	179:19	82:13	182:7,8	<b>happened</b> 6:4	97:24 123:3	113:18
148:21	68:17,24	183:12	<b>ground</b>	<b>guaranteed</b>	17:5 19:3	123:5,7,8	115:17,19
151:10	73:6 77:10	<b>good</b> 3:3 22:3	130:14	100:3	32:22 42:2	123:17,18	120:15
152:16,24	78:13 79:15	29:13 76:19	135:2	<b>guess</b> 12:6	92:21 121:3	123:20	125:10
153:3	79:20,24	86:6 88:1	141:15	43:2,3,6	122:2	124:4,8,14	126:21
159:21	80:2,8 81:2	92:6,13	<b>group</b> 36:17	61:13 181:6	126:24	124:21	128:17,20
164:9 167:7	81:17 82:16	95:6,10	40:11,13,18	<b>guesstimate</b>	<b>happening</b>	126:22	129:1,4
168:6,17	83:20 87:19	97:17 99:10	40:19 70:16	55:13	18:7 118:20	129:7	130:5,12,14
171:16	88:23 90:8	104:21	71:3,16	<b>guff[ph</b> 38:24	118:21	156:12	148:21
					<b>happens</b>		

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 10

150:20	21:14 24:16	68:16 69:12	116:17,18	160:22,23	<b>individual</b>	34:13	128:15
166:5	29:4,18	71:6 95:10	125:11	161:3	64:6 72:11	<b>input</b> 12:4,22	<b>international...</b>
<b>higher</b> 6:23	34:7,8 81:2	111:8	138:2,6,17	162:11	97:15	13:5 57:4	20:12
9:2,14	98:16 125:9	113:20	138:18	<b>incorrect</b>	<b>individual's</b>	<b>inputs</b> 13:1	<b>interrelated...</b>
24:10 25:17	<b>holding</b> 21:6	123:23	142:13	180:14	11:3	<b>inquire</b> 47:12	26:24
28:15,16	40:19 89:17	145:8 165:2	149:15	<b>increase</b>	<b>individually</b>	<b>inside</b> 20:18	<b>interrupt</b>
35:8 47:13	<b>holdings</b>	174:23	150:16	147:14	77:22	<b>instance</b> 63:1	47:16
51:8 68:1	32:24,24	181:4,20	164:23	<b>increased</b>	<b>individuals</b>	63:19 64:15	<b>interviewing</b>
69:10,14	33:8,16	<b>ideas</b> 59:11	167:21	16:12	9:10 162:17	<b>institution</b>	78:4
93:6 115:15	<b>holds</b> 22:18	59:17 71:5	<b>importantly</b>	143:17	<b>industrial</b>	111:7	<b>intro</b> 101:14
115:17	<b>holiday</b> 19:22	74:3 106:1	84:19 91:23	<b>increases</b>	7:19 12:18	<b>institutional</b>	<b>introduce</b>
177:12	<b>home</b> 11:9,18	110:18,19	<b>impressed</b>	21:13	12:20,22	49:23 51:10	60:1 135:21
<b>highest</b> 47:10	11:22 141:3	127:21	169:5	160:13	13:3 21:1,3	53:23 54:9	136:9
56:6 96:4	<b>honored</b>	129:9,12,13	<b>impressive</b>	<b>increasing</b>	27:11	67:5 74:8	<b>introduced</b>
<b>highlight</b>	77:14 100:1	129:14	166:6	60:7	<b>industrials</b>	120:12,17	137:5
49:18 58:9	<b>Hook</b> 70:9	133:23	<b>improve</b>	<b>incumbent</b>	14:21	139:12	<b>invest</b> 107:1
105:18	171:5,14,19	140:14	101:9,11	46:2 49:8	<b>industry</b>	<b>institutions</b>	108:1,17
106:12,20	172:1,8,12	141:1 163:8	<b>improved</b>	92:7	21:17 65:6	90:16	123:6,6
<b>highlights</b>	172:17,24	164:24	110:23	<b>indecision</b>	91:7 108:22	<b>Insurance</b>	172:4
57:24	<b>hope</b> 70:24	<b>identify</b> 56:15	<b>incentive</b>	20:5	138:7,8	181:5	<b>invested</b>
<b>highly</b> 88:3	155:1	64:8 107:24	52:12 119:9	<b>indecisiven...</b>	146:1	<b>insure</b> 181:7	118:13
164:22	164:10	161:18	<b>inception</b>	19:6	147:15	<b>intent</b> 171:18	146:23
<b>highs</b> 11:6	175:2	164:5	32:3,14	<b>Independen...</b>	148:16	<b>interact</b> 75:4	153:23
<b>highway</b>	<b>horizon</b> 38:19	<b>impact</b> 24:14	35:10,20	105:16	152:12	76:1	154:3
140:23	<b>house</b> 10:16	31:11 40:5	36:9,10	<b>independent</b>	168:23	<b>interaction</b>	<b>investing</b>
<b>highways</b>	<b>housing</b>	110:11	37:22	52:2	<b>inertia</b>	162:20	61:9 71:7
122:20	131:5	161:22	<b>include</b> 48:13	<b>independen...</b>	134:15	163:1	71:18 91:5
<b>hikes</b> 18:18	<b>huge</b> 44:23	177:9 179:8	57:3 165:5	138:22	<b>inflation</b>	<b>interest</b> 6:10	108:24
19:2	<b>hundred</b> 83:9	<b>impacting</b>	<b>included</b>	<b>index</b> 6:9	114:23	6:10 13:24	137:7
<b>hindsight</b>	111:14	33:20	52:20 67:12	15:13 32:1	115:6	14:3 16:8	<b>investment</b>
178:2	116:5	<b>implement</b>	72:12 99:19	36:15 37:5	118:16,18	18:22 20:5	5:6 33:24
<b>hire</b> 103:10	118:15,18	105:7	<b>including</b>	40:9 69:1	118:24	25:18 60:19	45:17,22
132:20	118:22	141:14	54:4 65:16	92:24 96:19	121:17	67:22 79:18	47:4,8
<b>hired</b> 77:4	134:2,20	142:9 149:4	96:18	113:18,19	<b>inflationary</b>	114:22	48:19 49:22
105:19	139:10	164:7,13	115:13	115:21	18:23	115:16	49:23 51:10
157:16	154:3	165:2	<b>inclusion</b>	171:15	<b>inform</b> 168:9	124:2	52:2,6,7,9
<b>hires</b> 106:17	<b>hungry</b>	<b>implemented</b>	109:17	172:9	<b>information</b>	127:21	53:18,19,24
107:15,17	169:23	143:15	<b>income</b> 6:6	<b>indexed</b>	6:16 28:9	160:12	54:9,13
107:18	<b>hurdle</b> 96:2	<b>implementi...</b>	16:5,17	31:23 154:3	28:16,17	<b>interesting</b>	57:16 58:13
<b>hiring</b> 63:13	<b>hurt</b> 33:1,4,8	158:14	18:14 38:1	<b>indexers</b>	30:23 37:7	74:17	59:6 60:10
78:1 109:8	<b>hurting</b> 38:10	178:16	41:5,12	171:11	55:15 58:3	<b>intermediate</b>	73:19,21
<b>historical</b>	<b>hypothesis</b>	<b>importance</b>	50:18 56:12	172:15,16	58:4 99:16	38:19,21	74:1,16
84:7,13	113:12	111:17	69:7,21	<b>indexing</b>	152:1	114:18,20	75:23 76:4
<b>historically</b>	<b>I</b>	<b>important</b>	81:10,11	37:17 113:1	<b>infrastruct...</b>	116:12	76:6,10
119:3 137:9	<b>idea</b> 9:10	5:17 43:12	89:17 104:2	<b>indicates</b> 10:6	122:9	160:16	77:11 78:1
154:23	18:24 21:16	76:17 77:16	104:11	<b>indication</b>	173:18	<b>internalize</b>	78:4,18
<b>history</b> 5:21	24:7,15	78:8 79:19	108:12,14	30:20	<b>inhouse</b>	12:9	79:1 101:2
30:7	25:20 28:12	80:5 82:23	115:9,15	<b>indicator</b>	100:24	<b>international</b>	102:1
<b>hit</b> 20:7 46:23	30:18,22	87:22 94:1	117:4	43:11	<b>initial</b> 87:7	15:8,9,24	107:13,23
130:13	57:13 61:15	94:6 97:2	125:21,22	<b>indicators</b>	133:12	16:1 30:2	107:23
135:2	61:22 62:3	97:21 99:6	126:18	30:11	<b>initiatives</b>	36:1,4,15	110:8,18,18
<b>hold</b> 18:9	62:6,11,19	99:7 111:9	128:21	<b>indirectly</b>	56:1 57:1	37:2,5 41:3	111:4 117:9
19:16 21:8	63:7 68:5	111:22	160:7,15,17	136:6	<b>inopportune</b>	56:12 92:16	126:19

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 11

131:12,22	74:19 76:10	<b>judgment</b>	140:9,14	100:23	32:1,11,18	<b>leave</b> 130:23	148:21
131:23	77:18,23	176:7 179:5	142:17	107:11	33:21 39:11	174:8	150:19
132:8	91:5,6	182:10	143:24	116:24	50:17 62:21	<b>led</b> 33:12	154:17
133:23	<b>IPS</b> 81:19	<b>judgments</b>	144:2 147:2	117:7,8	79:1 93:7	144:11	<b>levels</b> 104:9
137:6 139:6	<b>irrational</b>	180:10	148:9,14	120:4,15	95:9 112:2	<b>left</b> 5:12,20	115:23
139:8,11	27:18,21	<b>July</b> 42:20	153:3,14	124:23	140:7 174:1	15:22 41:1	117:16
141:12	31:12	<b>jump</b> 127:18	155:2,11	125:9 126:5	<b>larger</b> 32:10	50:7 54:18	125:7
142:14,23	<b>issue</b> 6:12	180:13	156:6 159:7	129:11	35:14,14	60:20 73:18	<b>leverage</b> 24:9
142:24	24:15 27:9	<b>jumping</b>	159:9 160:8	130:20	66:13,14	79:2 143:23	51:24 54:24
143:1,2	<b>issues</b> 36:18	68:12 70:3	161:4,20,24	131:6 132:3	95:4,19	161:7	61:22 128:9
148:24	77:1 79:22	100:14	161:24	133:2 134:3	<b>largest</b> 91:14	<b>legal</b> 175:17	<b>leveraged</b>
149:4	83:8 156:18	<b>June</b> 42:16	163:12	135:10,12	143:7	182:16	108:12
150:11	<b>items</b> 108:20	42:20 80:4	164:15	135:18	<b>late</b> 32:5	183:19	<b>leveraging</b>
151:16		80:8	172:21	136:15	122:4	<b>legitimate</b>	61:15 62:18
152:4	<b>J</b>	<b>junk</b> 25:3	173:13	137:12	<b>Latently</b> 88:19	175:13	168:16
153:17	<b>J</b> 49:22 51:11		180:2	139:4 152:6	<b>Laughs)</b> I	177:15	<b>levers</b> 24:11
157:8	<b>January</b> 1:8	<b>K</b>	<b>kinds</b> 130:15	152:11,23	132:18	<b>Lehman</b>	<b>liabilities</b>
164:14	15:6,12	<b>keep</b> 14:6	130:21	154:11	<b>Laughter</b>	26:12	150:24
166:9	30:7,15,19	71:2 109:17	<b>King</b> 1:13	159:13	132:24	<b>leisure</b> 138:2	<b>liability</b>
169:12	42:2 47:1	118:24	185:11	161:10,16	161:11	<b>lend</b> 130:2	151:20,22
171:8,21	73:2 138:14	119:19	<b>knee-jerk</b>	162:3	<b>law</b> 167:10	<b>lending</b> 156:9	161:15
174:1	<b>Jared</b> 107:16	134:13	131:20	166:11	174:20	<b>Leonard</b>	178:14
175:19	<b>Jaws</b> 132:22	174:4 175:2	<b>knife</b> 130:13	167:9	179:4,4	107:16	181:5,8
177:14	<b>Jersey</b> 105:15	175:9	130:13	168:14	181:17	135:14,15	182:20
182:17	<b>Jets</b> 100:4	<b>keeping</b>	<b>know</b> 7:17	172:2 173:1	182:18	137:4 148:1	<b>liable</b> 178:11
<b>investments</b>	<b>jettison</b> 92:7	84:10	10:2,17,19	173:10	<b>laws</b> 180:4	148:7	179:4
31:21 56:3	<b>job</b> 7:9 78:5	<b>kept</b> 40:16	12:9 13:14	174:11	<b>lawyers</b>	150:15	<b>life</b> 29:14
57:12 58:14	78:21	<b>Kevin</b> 135:15	18:6 19:10	177:17	154:20	153:2 154:8	<b>lifetime</b> 116:3
61:8 63:17	112:18	136:22	20:19 29:15	178:9	<b>layer</b> 64:16	154:14,17	116:6
106:16	144:12	146:5	30:6 31:16	179:14	65:16	156:4	<b>lifetime-to-...</b>
141:13	145:4,13	147:22	34:16 36:9	<b>knowledge</b>	<b>layered</b>	157:22	34:15
147:18	164:14	149:8	36:24 39:9	78:6	126:22	158:1 159:3	<b>light</b> 80:13
155:22	<b>John</b> 77:17	162:13	42:1 44:18	<b>known</b> 50:8	<b>layers</b> 62:8	161:9	91:19
156:5 157:1	100:17,18	<b>key</b> 79:13	46:11 48:16	51:11 64:9	<b>layout</b> 126:17	163:15,17	116:11
171:16	101:18,22	92:12	49:20 55:11	140:8,10	<b>Lazard</b> 38:22	165:6,8	<b>likelihood</b>
172:20	102:22	<b>kill</b> 168:17,21	57:12 61:11	<b>knows</b> 49:6	38:22	<b>lessen</b> 24:17	19:18
173:15	103:7,11	169:2	61:17 62:22	79:20,22	<b>lead</b> 50:5,5	<b>let's</b> 9:11	<b>limited</b> 17:21
<b>investor</b>	106:5	<b>kind</b> 10:12,15	63:10 64:19	119:12	86:11	13:21 14:7	27:3 176:24
112:18	116:11	11:8 12:8	64:23 67:6	<b>Kuhns</b> 46:6	110:14	16:16 31:18	<b>Linda</b> 51:1
<b>investors</b>	126:9	14:13 17:7	71:17 72:2	47:23	134:15,16	86:14,18	<b>line</b> 31:24
8:21 17:21	130:24	27:21 37:16	72:23 73:14		<b>leader</b> 144:5	107:9	35:22 37:20
17:24 18:15	170:5	44:19 47:18	74:7,15	<b>L</b>	144:14	113:13	38:16 39:24
19:21 28:8	<b>Johnson</b> 2:6	62:9 66:24	75:2,14,20	<b>labor</b> 115:5	146:11	130:9,10	40:9 41:23
31:13 63:23	3:15 4:9,23	84:2 85:22	77:7 78:5	<b>lack</b> 26:17	<b>leadership</b>	133:24	60:13 65:5
66:16,17	45:6 93:16	87:4 88:6,7	81:10 84:8	64:21 180:2	54:1	152:18	68:24 70:23
67:5,6	166:3,21	88:8,17	84:8 85:11	<b>lag</b> 10:9 12:8	<b>leaflet</b> 72:13	158:11	75:12 92:6
90:13 113:6	168:22	89:2,10	85:15,24	12:16 36:5	<b>leaning</b> 17:7	164:9 168:6	105:3 126:8
120:12,17	170:19	96:8 97:11	86:2,4,13	36:22 40:2	<b>learn</b> 110:3	174:7 179:9	130:9 159:7
<b>inviting</b> 77:13	178:1 182:2	109:1,2,23	88:4,12,24	<b>lagging</b> 38:7	140:15	182:22	182:14
136:19	183:2,5,12	126:9,13,15	89:7,10,18	38:8	141:11,12	<b>level</b> 13:12	<b>lines</b> 52:10,11
<b>involved</b>	<b>join</b> 102:8	127:6 129:5	90:6,16	<b>laid</b> 102:22	<b>learned</b> 103:2	51:8 58:1	<b>lineup</b> 88:1
50:24 54:10	<b>joining</b> 54:16	131:19	91:9 97:13	<b>LANE</b> 1:21	110:2,6,15	60:17 61:10	92:9,13
54:11 71:23	<b>joke</b> 177:19	133:6 137:2	98:4 99:13	<b>large</b> 14:12	<b>lease</b> 128:12	99:20 116:4	<b>link</b> 116:22
	<b>Jon</b> 73:12	137:16		27:16 31:22			

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 12

<b>liquid</b> 90:4 131:12,17 156:20 <b>liquidity</b> 19:20 26:17 27:3,9 57:20 63:23 64:1,4 90:1 155:17,18 157:3 159:14 <b>list</b> 52:19 54:3 56:6 64:21 65:12 76:14,18 105:10 109:11 <b>listed</b> 53:22 54:6 106:5 137:24 139:14 <b>listen</b> 86:12 182:21 <b>listened</b> 143:15 <b>literally</b> 160:11 <b>literature</b> 111:16 <b>litigated</b> 177:21 <b>litigation</b> 177:6 180:23 182:10 <b>little</b> 6:14 12:7 19:14 19:18,22 22:22 25:1 27:15 35:13 38:7,12,22 42:6 43:1 44:5 48:6 49:21 51:24 53:12 54:22 61:14 64:24 79:9 85:10 86:11,13 88:11,20 89:8 92:14 105:19 115:17,18 124:2	126:18 133:2 137:2 139:17 140:17 146:24 152:17 153:1,4 160:20 <b>live</b> 116:9 158:18 <b>living</b> 120:2 <b>load</b> 134:14 147:3 <b>loaning</b> 156:11 <b>loans</b> 10:18 26:18 <b>local</b> 47:9 101:20 <b>locally</b> 20:11 98:4 <b>locations</b> 51:17 <b>Loevner</b> 36:12 <b>Logan</b> 38:5 38:16 39:8 39:11 104:7 <b>logical</b> 179:14 <b>long</b> 10:3 13:24 28:14 34:21 35:2 44:9 56:21 57:19 59:16 59:16 60:8 68:16 79:24 83:11 89:17 89:17 92:4 99:6 104:21 114:2,17,19 115:3 116:7 116:8,10,13 116:18 118:23 121:16,21 124:8 150:2 174:13 <b>long-only</b> 162:10,11 162:22 163:10 <b>long/short</b> 63:3,11,20	64:2 68:15 68:17 71:6 124:5,6,7 157:6,12 <b>longer</b> 18:16 35:23 36:8 37:20 39:2 94:14 <b>look</b> 6:19 7:18 10:1 10:11 14:16 19:12 30:1 30:20 35:17 35:21 36:5 36:24 40:6 40:7 41:9 50:1 54:18 55:3,5 58:2 58:8,14,19 58:20,22 63:2 64:18 65:3 66:11 67:8,21 72:9 78:15 79:17 80:17 84:12 97:12 99:10,18 106:13 108:7 113:9 114:5,8,8 115:10 120:13 121:18 122:1,5 125:23 126:13,24 128:3,20 129:10 130:11 131:15 133:14,17 142:7,19 143:11 146:20 150:2,2,5,7 151:12 152:13,15 152:17 153:10 154:6,22 155:17 159:19 161:24	169:10 <b>looked</b> 33:17 36:23 59:13 65:4 68:8 70:20 111:11,17 122:16 133:11 151:5 169:20 <b>looking</b> 6:2 6:12,19,23 9:24 15:9 15:21 27:24 47:10 50:13 53:18 57:14 57:24 58:17 62:22 64:7 67:19 69:11 69:16 87:16 88:14 89:12 90:18 94:3 95:21 109:12 122:13 130:19 132:13 138:10 149:7 151:23 152:6 161:2 162:23 169:22 <b>looks</b> 65:5 114:12 119:20 <b>loop</b> 174:4 <b>lose</b> 72:13 147:9 <b>losers</b> 165:13 <b>losing</b> 85:6 <b>losses</b> 7:9 78:14 <b>lot</b> 6:5,6,15 19:5,7,8 20:5 24:9 31:15 32:17 34:6 67:5 75:5 76:22 77:4 79:7 80:14,19 86:8 88:4 88:23 89:24	90:16 98:15 101:19 102:4 103:2 103:24 109:1 110:17 128:17,18 130:17 131:3 132:4 132:5 134:16 138:7 142:18 158:21 163:3,9 <b>lots</b> 122:9,11 <b>low</b> 14:3 48:2 84:7 99:23 115:16 116:4 124:3 <b>lower</b> 5:19 9:4,16 12:21 13:17 14:17 15:9 15:22 22:19 22:22 31:2 48:17 50:3 50:21 51:1 62:2 93:20 143:13 180:12 <b>lowered</b> 79:5 <b>lunch</b> 60:12  <b>M</b> <b>M</b> 1:13 185:11 <b>MacBride</b> 70:8 <b>macroecon...</b> 102:15 <b>Macy's</b> 13:14 33:3 <b>main</b> 43:13 51:20,23 61:23 <b>maintain</b> 147:11 <b>majority</b> 91:15 96:11 106:6,8 <b>maker</b> 181:19 <b>making</b> 81:16 81:22 84:18	85:5 116:11 119:5 171:12 <b>male/female</b> 55:10,11 <b>Malvern</b> 75:10 <b>manage</b> 25:21 63:18 68:2 104:10 105:20 111:7 117:7 126:10 127:5 164:11 180:20 <b>managed</b> 104:2 <b>management</b> 25:20 26:1 53:19 65:8 65:24 77:18 102:16 103:16,18 104:3,4,10 106:14 113:22 125:4 139:9 139:19 140:2 151:15 154:18 155:10 164:15 <b>manager</b> 25:21 36:6 37:5,19,24 38:5,21 50:15 52:13 56:16 57:17 58:5,16 59:2 64:6 69:8,13 72:9,11 76:4 78:4 82:12,16,21 85:1 86:15 86:22 96:3 96:21 98:17 99:19 107:16 111:18 113:4,21	124:10 125:8 129:1 129:2 145:5 154:23 164:10 182:17 <b>managerial</b> 55:10 <b>managers</b> 6:7 7:4 10:1 38:1 39:4 41:15 48:19 56:7,17 57:17 58:7 58:16 63:11 63:16 64:9 64:9 66:19 77:21,21 78:2,18 83:8 86:16 86:18 87:8 87:10 88:2 113:3,13 124:5 128:19,21 128:22 130:10 136:18 143:2 145:6 164:8,20 171:23 172:6,8,9 175:3 <b>manages</b> 103:21 <b>managing</b> 80:11 101:15,23 102:19 130:3 144:12 <b>mandate</b> 33:17 35:6 36:2,17 38:23 <b>mandates</b> 37:10 <b>Manieri</b> 102:12,12 111:5 116:10,15 117:14,23	118:1,13 120:5 121:4 122:22,24 123:5,15 124:18,23 130:5 131:21 <b>Manning</b> 144:11 <b>manufactur...</b> 21:4,11,15 21:21 <b>Marc</b> 101:14 103:12 130:23 133:1,3 <b>March</b> 19:19 183:8,13,15 184:2,4 <b>Margaret</b> 102:7 <b>market</b> 5:18 5:24 7:24 8:13,17 14:16 15:14 16:23 17:1 17:23 20:13 20:18 23:21 24:6 25:14 25:15 26:4 27:9,14,22 29:2 30:8 31:5,7 33:11 35:9 36:21 37:2 37:18,24 39:18 46:22 46:24 50:15 50:19 58:22 59:12 69:15 72:15,18,22 84:4,9 85:3 85:3 88:14 90:21 91:20 96:23 98:12 98:21 107:11 113:11,12 113:15,16 114:4,5,13 115:19 116:16 120:16
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 13

123:22	<b>massive</b>	161:8	87:20	<b>memos</b> 57:22	<b>minimal</b> 62:8	86:4,14	5:23 7:5
124:20	159:16	163:16	109:23	<b>mentality</b>	<b>minimize</b>	95:6 120:17	14:7 16:4
126:3	<b>match</b> 96:19	165:4,7	<b>media</b> 32:24	120:9,11	94:5 96:15	129:3 132:1	16:16 18:5
128:23	167:7	166:5,16	64:14	132:2	<b>minorities</b>	132:5	19:23 35:3
131:5 150:8	<b>matched</b> 44:5	167:6	<b>median</b> 53:1	<b>mention</b>	97:15	156:11	59:21 81:9
150:9	<b>material</b>	168:15,21	53:4 70:17	97:23	<b>minus</b> 43:2	158:7,10,12	81:10 82:1
153:18	129:24	169:1,10,23	70:18,22	106:22,23	128:7	180:20	85:19 86:4
155:7	<b>materialize</b>	170:4,11	154:22	123:8	<b>minute</b> 34:4	<b>Mongalis</b>	113:5
156:17	8:10,15	172:1,16	<b>Medicine</b>	<b>mentioned</b>	90:22	108:9	133:21,23
160:10,10	<b>materialized</b>	174:6	104:15	1:12 8:16	133:10	<b>monitor</b>	165:15,18
164:2 169:8	9:13	175:15,23	<b>meet</b> 75:14	51:9 55:17	136:7 161:6	63:18	<b>moved</b> 4:10
171:24	<b>materially</b>	176:2,15	83:16 97:18	74:15 76:5	<b>minutes</b> 3:3,7	<b>monitoring</b>	4:22,24
<b>market's</b>	31:11	181:12,16	149:5,14,18	76:9,16	3:11,13	34:18 58:15	45:5,7 69:8
43:14	<b>materials</b>	181:23	149:24	77:17 95:21	49:5 73:7	64:7	137:2
<b>marketable</b>	14:21 17:3	182:21	150:23	98:8 106:15	73:14,15	<b>Montgomery</b>	170:20
60:24 61:6	25:13 27:12	183:10,21	151:1	122:7	74:14	54:12	<b>moves</b> 81:22
68:18	121:23	<b>mean</b> 9:18	175:12	162:13	100:12	<b>month</b> 15:6	171:12
<b>marketplace</b>	<b>math</b> 155:8	10:22 13:7	<b>meeting</b> 1:4	<b>mentioning</b>	101:12	19:17 30:15	<b>moving</b> 8:14
6:13 7:12	<b>Matt</b> 9:22	21:21,24	1:11 3:4,10	161:15	102:21	30:20 32:5	14:6,15
72:24 90:4	39:20 43:19	22:12,19	19:16 24:13	<b>mentions</b>	108:18	37:6 39:9	15:19 53:11
<b>markets</b> 15:9	69:6 103:3	24:2 27:1	39:8,21	75:18	135:11	42:18,23	53:23 54:21
15:12,14,23	110:1,5,21	28:11 29:7	46:11 69:6	<b>Mercer</b> 54:15	144:8	44:12,13	59:23 93:8
15:24 16:3	125:19	29:23 30:4	71:3 80:4	<b>merger</b> 33:6	<b>missions</b>	98:17	109:17
17:10 18:14	133:5 169:4	30:14,16	83:18,21	<b>met</b> 48:9 50:9	170:8	109:14	163:3
19:23 24:24	169:6	42:19,22	85:16 103:6	64:19 73:22	<b>mitigate</b>	134:6	<b>multi-asset</b>
28:13,20,21	181:11	43:18 44:15	108:5	170:6	78:14	<b>monthly</b>	104:13,23
29:22,24	<b>Matt's</b> 168:7	59:1,2 61:1	110:24	<b>methodolog...</b>	<b>mix</b> 59:20,20	108:16	<b>multi-strate...</b>
30:2,22	<b>matter</b>	97:11	126:7 134:6	114:18	59:23,24	<b>months</b> 30:17	124:4
36:20 37:11	124:15	110:10	163:10	<b>metrics</b> 29:12	60:1,22	30:18 31:4	<b>multinational</b>
37:12 60:23	182:24	113:1 146:3	167:13	152:24	71:12	34:24 79:5	54:15
61:5 78:10	185:7	146:5 156:3	174:22	<b>Mick</b> 54:6	105:24	79:15 80:1	<b>muni</b> 33:24
79:10,17	<b>Matthew</b> 2:9	156:7 158:3	176:8 178:4	<b>mid</b> 42:18,22	125:20	81:5 85:20	44:11
80:15 86:7	<b>maturities</b>	166:21	181:12,16	<b>middle</b> 70:23	<b>mixed</b> 7:14	85:21	<b>municipal</b>
90:20 93:9	7:1 16:13	169:10	182:24	<b>Mike</b> 144:11	<b>mixes</b> 161:20	<b>morning</b> 3:3	44:13 95:9
108:23	<b>maturity</b> 6:8	172:16,23	183:9,13,15	<b>mild</b> 11:23	<b>model</b> 26:2	31:7 42:9	<b>mutual</b> 90:5
112:8,10,11	29:4 38:11	181:6	184:8	<b>military</b>	62:16 104:1	<b>morph</b>	N
112:14	<b>Mayor</b>	182:18	<b>meetings</b> 75:3	173:3	<b>modeling</b>	127:13	N 2:1 185:1
123:12	179:18	<b>meaning</b>	75:7,19	<b>million</b> 13:20	88:9	<b>morphed</b>	<b>name</b> 46:9
124:1,6	<b>Mazza</b> 2:9	82:15 84:4	98:7,9,10	41:19,20	<b>Moderate</b> 7:8	156:22	62:24
128:6	18:17,21	91:12 156:1	98:13,24	42:8,11	<b>modified</b>	<b>Morton</b> 50:21	101:14
131:17	31:15,17	<b>means</b> 58:12	145:2,10,11	53:8,9 66:9	173:9	<b>motion</b> 3:10	135:14
153:13,13	37:4 39:7	89:15	163:9	74:10	<b>moment</b> 25:2	3:17,21 4:4	<b>names</b> 55:13
156:21	39:22 45:13	108:24	<b>meets</b> 97:23	131:14	51:8	4:11,15,21	57:5 62:23
<b>Marty</b> 108:9	45:21 46:2	113:4 156:1	98:1	133:19	<b>moments</b>	5:4 45:3,8	78:24 82:13
<b>Marvin</b> 2:17	47:20 48:4	180:13	<b>member</b>	134:5 181:8	44:23	45:12 167:3	<b>nationwide</b>
5:11 6:1	48:8,24	185:17	33:24 180:6	<b>million-dollar</b>	<b>momentum</b>	170:12,14	107:5
49:7 50:8	49:5,11	<b>measure</b>	<b>members</b> 2:3	53:2	23:5,5,23	170:21	<b>natural</b> 11:19
53:14 54:20	73:5,11	38:11 60:14	5:13 19:9	<b>mindful</b>	<b>Mondrian</b>	171:1	120:6
54:21 59:6	93:17 100:6	<b>measurement</b>	20:20 53:16	183:22	36:2	177:18	<b>near</b> 11:6
61:12	100:11	51:3 143:14	55:24 56:14	<b>mindset</b> 11:1	<b>money</b> 10:13	<b>motionless</b>	<b>necessarily</b>
<b>Massachus...</b>	122:21,23	<b>measuring</b>	56:19 73:20	134:3	74:22 79:8	121:1	24:4,6
105:13	135:6,10	40:8	83:22 98:18	<b>mine</b> 9:22	84:18 85:5	<b>mouth</b> 129:18	61:17 71:15
137:20	157:18	<b>meat</b> 77:9	98:20	<b>mines</b> 122:17	85:6,19	<b>move</b> 3:12 4:6	98:1 131:18

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 14

<b>need</b> 21:23 24:16 60:18 68:2 73:6 98:6 116:24 126:10 127:19 128:14 142:13 147:21 150:9 151:23 158:18 166:3,22 171:23 176:5 183:21	161:9 <b>net</b> 22:11 41:4 65:20 <b>net-of-fee</b> 125:10 <b>net-of-fees</b> 125:11 <b>never</b> 18:21 19:2 81:16 83:3 84:21 99:13 146:9 <b>nevertheless</b> 178:13 <b>new</b> 10:12 13:23 28:16 46:7 47:7 63:17 64:8 95:12 97:10 105:14,15 106:17,24 107:15,17 107:18 108:24 109:6,12 129:12 137:13,15 137:17 143:16 147:23 163:4 <b>NEWTOWN</b> 1:22 <b>NFL</b> 105:19 <b>Ng</b> 73:18 76:17 77:12 79:16 80:12 81:23 83:6 83:12 84:3 86:6 87:7 87:15,20 89:4 90:11 92:8 93:18 94:9,12,21 95:5,13,17 95:24 96:11 97:11 99:5 99:17,21 <b>nice</b> 90:13 128:11 <b>night</b> 179:16 <b>nine</b> 85:20 147:4 <b>NJ</b> 1:24	<b>non</b> 37:11 <b>non-correla...</b> 128:16 129:13 131:11 <b>non-Sandy</b> 171:14 <b>non-traditi...</b> 89:16 <b>nontranspa...</b> 26:22 <b>normal</b> 30:12 <b>normally</b> 30:10 <b>Northern</b> 31:23 <b>nose</b> 125:9 <b>Notary</b> 1:14 185:12 <b>noted</b> 185:4 <b>notes</b> 32:21 185:6 <b>notice</b> 1:12 169:15 <b>noticed</b> 110:22 <b>notion</b> 119:7 <b>November</b> 3:11 24:18 39:21 44:10 44:12 <b>number</b> 14:19 38:6 40:15 46:11 76:23,24 80:2 87:8 91:4,14 97:14,17 104:9 105:17 126:12 136:22 140:2 143:10,12 143:18 165:23 167:17 175:5 177:17 178:22 <b>numbers</b> 5:17 5:19 34:15 35:6 36:8	36:23 40:15 50:2 89:1 142:18 145:17 NY 1:24 <hr/> <b>O</b> 185:1 <b>O'Connell</b> 107:14 <b>O'Malley</b> 107:14 <b>O'Shaughn...</b> 32:8,13,20 32:22 34:2 34:5 40:3 <b>objective</b> 149:12 151:24 <b>objectives</b> 44:20 149:5 149:8,13 150:1 151:1 <b>obligation</b> 182:5 <b>observations</b> 89:4 103:8 <b>obstreperous</b> 179:13 <b>obviously</b> 6:23 12:3 17:4 21:11 34:19 42:12 43:20 48:2 85:10 134:6 134:10 136:4 137:5 140:3 141:20 143:16 144:4,10,14 145:24 147:18 155:7,24 156:18 158:17 159:23 162:21 <b>occur</b> 11:11 11:14,15 62:20 <b>occurred</b> 47:2 <b>October</b> 30:3 30:17 32:5	32:6,15,15 <b>off-the-shelf</b> 150:18 <b>offer</b> 25:3 47:19 169:2 170:12 <b>office</b> 106:9 139:4 144:10 163:4 <b>officer</b> 54:13 73:19 109:10 <b>Officers</b> 181:5 <b>offices</b> 51:20 51:23 55:8 110:5 137:24 145:4 <b>officially</b> 138:13 <b>oh</b> 10:22 78:9 97:11 <b>Ohio</b> 140:5 <b>oil</b> 7:6 8:18 9:4 11:18 12:1,3,21 13:5 25:8 25:12,13 26:8,16 27:11 31:2 31:10,10 79:18 80:3 116:5 117:11,22 118:5,14 120:2,3,6,7 120:10,11 120:18,20 120:22 121:3,4,15 122:2,3,5,5 122:16 173:18 <b>oil/energy</b> 31:3 <b>okay</b> 39:23 44:7 49:12 55:16 66:1 79:3 82:1 87:12,18 92:20	100:14 122:24 124:23 125:15 151:6,6 161:9 165:12,18 165:23 173:22 174:3 179:9 183:3 <b>once</b> 46:23 79:22 111:23 146:8 147:9 <b>one's</b> 92:10 <b>one-time</b> 58:19 <b>one-to-one</b> 31:9 <b>one-trick</b> 140:9 <b>one-year</b> 15:16 35:17 36:8,23 38:6 <b>onerous</b> 105:8 130:1 <b>ones</b> 67:8 72:5,6 95:12 <b>online</b> 72:21 <b>onsite</b> 34:3,5 57:21 103:6 110:4 <b>OPEC</b> 80:3,4 <b>open</b> 63:16 <b>opened</b> 34:11 34:13 <b>operation</b> 67:3 <b>operations</b> 46:18 <b>opinion</b> 64:24 109:24 132:8 159:7 167:1 174:20 175:17,18 179:7 <b>opinions</b> 108:4 <b>opportunistic</b>	156:16 <b>opportunities</b> 6:20,22 8:3 8:4,6,20,23 15:20 25:4 26:3 58:23 72:20 80:22 81:9 109:3 130:16 150:7,11 156:20 159:8 160:2 163:19,24 164:6 <b>opportunity</b> 7:4,10 8:14 11:11 27:4 28:24 29:6 31:14 39:14 39:19 46:14 49:13,14 71:10 73:4 81:21 100:17 101:6 102:6 127:15 164:12 <b>opposed</b> 61:14 124:13 <b>opposite</b> 120:1 <b>opposition</b> 121:1 <b>option</b> 112:24 <b>options</b> 37:1 177:14 <b>orange</b> 103:19 <b>order</b> 127:23 129:6 <b>ordinance</b> 176:21 177:7 <b>organization</b> 138:13,24 141:7 142:22 143:21,22 144:13 146:11 148:13 <b>organizations</b>	148:14 <b>organized</b> 143:24 <b>original</b> 9:9 138:9 148:18 <b>originally</b> 9:15 34:3 88:11 160:14 <b>Osteopathic</b> 104:15 <b>ot</b> 81:24 <b>ought</b> 171:17 176:13 <b>out-perfor...</b> 35:19 39:3 <b>outline</b> 73:17 <b>outlook</b> 119:13 155:6 158:2 160:19 <b>outperform</b> 121:17 123:11 <b>outperform...</b> 15:1 32:2,4 35:20 123:10 <b>outperform...</b> 15:3 36:16 112:7 <b>outside</b> 27:9 45:19 58:1 98:7 138:19 141:18,21 178:1 <b>outsource</b> 74:12 <b>outthink</b> 85:2 <b>over-perfor...</b> 96:24 <b>overall</b> 12:4 16:20 18:5 22:1 24:1 31:5 32:11 40:5 41:11 60:6 62:13 64:11 79:6 80:22 84:4 87:24 92:10 95:23 96:14 97:4,12,20
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 15

99:1 102:4	<b>p.m</b> 184:9	<b>panic</b> 23:1,20	96:23	152:8 156:2	139:10	<b>permanent</b>	105:17
105:3	<b>PA</b> 1:24	25:7 26:21	131:24	170:7	145:21	120:3	106:9 171:8
111:23	136:2	29:13	<b>payment</b>	174:14	152:19,19	<b>person</b> 178:4	<b>philosophic...</b>
145:20	<b>pace</b> 7:17	<b>panicking</b>	41:22	175:9	152:20,22	<b>personal</b>	79:11
148:8,10	<b>pacing</b> 158:6	23:13	<b>peacefully</b>	<b>percent</b> 7:16	154:1,3,5,7	178:14	<b>philosophy</b>
151:1	<b>page</b> 5:19 6:3	<b>paper</b> 72:18	182:24	14:10,12	154:9 158:8	182:8,12,13	74:2 77:17
155:13,18	6:14 7:6,14	111:15	<b>Pederson</b>	15:11,13,18	158:15	<b>personally</b>	78:8,12
161:2,23,24	8:2 14:7,15	157:11	132:17	16:7,8,11	160:8,20	178:11	140:18
<b>overbuy</b>	15:8,20	<b>papers</b> 10:5	<b>peer</b> 36:17	16:24 17:2	169:18	<b>personnel</b>	149:1
28:11	16:4 31:19	72:14	40:11,13,17	17:7 20:8	173:2 175:1	109:18	<b>phone</b> 75:9
<b>overconcen...</b>	35:24 36:1	<b>paradigm</b>	40:18 70:16	22:9,9,10	175:9,10	<b>perspective</b>	145:12
92:15	40:21 41:8	10:12	71:3,16	22:13,21	177:16,17	78:12 85:7	146:7,15
<b>overlap</b>	41:14 50:2	<b>paramount</b>	72:9 99:3,5	23:17 24:21	178:6,9	91:4 93:5	<b>phonetic</b>
162:22	50:2,3	146:16	99:6,10	25:14,15	<b>percentage</b>	<b>PFM</b> 46:15	171:7
<b>overlay</b>	52:18 53:11	<b>part</b> 11:12	<b>peers</b> 88:5	26:6 28:6	128:20	47:9,17	<b>pick</b> 8:23
183:19	53:12,23	27:16 33:14	<b>peg</b> 24:16,20	30:1,3,5	145:20	48:2,4,13	132:12,17
<b>overlying</b>	54:21 55:2	36:19 45:21	<b>Penn</b> 1:15	32:16,17	<b>percentages</b>	100:10	<b>picture</b> 88:18
161:21	57:8,24	50:1 73:2	<b>Pennsylvania</b>	33:6 36:16	93:11	101:15,16	111:6
<b>overreacting</b>	58:8 59:8,9	82:14 85:14	1:17,22	36:21 40:1	153:24	101:24	<b>pie</b> 139:15,21
29:16	59:18 68:12	86:6 87:22	46:8 51:18	40:2,8,10	<b>percentile</b>	102:13,17	<b>piece</b> 147:10
<b>overriding</b>	69:11 73:17	102:7	<b>Pennsylvan...</b>	41:2,4,5,6	70:23	102:23	<b>piggyback</b>
174:21	75:4 76:8	136:16	52:21	41:12,12,17	<b>perfect</b> 84:16	103:1,3,10	85:9 95:4
<b>overseas</b> 13:8	76:13 82:1	<b>participants</b>	<b>pension</b> 4:16	42:5,6,14	127:6	103:13	95:11
17:21	87:21 89:5	20:18 40:12	5:5 48:21	44:14 63:2	<b>perfectly</b>	106:4 107:2	<b>Pimco</b> 79:1,3
<b>oversee</b>	93:12	<b>particular</b>	49:16 85:12	63:5 65:7,8	95:18	107:15,21	<b>pinpoint</b>
102:14	101:13,13	51:1 125:8	85:24	65:13,14,15	153:23	108:11	86:18
<b>overseeing</b>	102:22	<b>particularly</b>	102:17	70:19 78:10	154:2	109:19	<b>Pittsburgh</b>
54:7 57:15	103:14	80:3 90:19	105:15	81:3,24,24	<b>perform</b> 76:4	111:1 135:7	51:18,21
102:17	106:3 107:9	147:16	111:11	83:10 84:6	<b>performance</b>	165:15,18	169:13
<b>oversell</b> 28:11	110:3	<b>partner</b> 98:5	116:19	90:22 91:22	5:7 31:19	165:20,21	<b>place</b> 17:17
<b>oversight</b>	125:17	135:15	137:14,17	92:10,12,20	32:9 35:10	166:3,17,21	24:22 55:3
50:22 54:2	127:17,20	137:5	140:3 171:8	93:1,21	37:14 50:12	167:3,7	55:6 56:4
<b>overtrade</b>	137:11	140:21,24	175:7	96:1,12,12	51:3,5,6	169:21	119:21
28:10	139:13	140:24	176:22	96:16,18	65:9 71:2	170:14	130:10
<b>overvalued</b>	142:4,15,20	144:12	177:9,13	110:7	92:10	174:7	131:15
81:10 83:7	143:19,21	<b>partners</b> 39:8	<b>pensioners</b>	111:14	143:14,16	<b>PFM's</b>	167:14
<b>overview</b> 51:7	144:16	138:5 139:2	48:21	113:14,17	148:8	133:17	<b>plan</b> 4:16 5:6
103:13	148:24	<b>partnership</b>	<b>people</b> 9:15	113:18	<b>performed</b>	<b>PFMC</b>	5:7,13 40:3
<b>overweight</b>	151:10,14	75:13	10:12 12:8	115:12,19	69:19	176:21	40:17 46:18
41:2 112:5	153:2,5,16	<b>pass</b> 65:2	13:23 19:1	115:20	<b>period</b> 15:16	<b>PGW</b> 2:10	47:4 48:17
<b>overweights...</b>	154:11	148:20	19:2,11	117:5,6	19:23 35:18	4:16 101:21	48:21 49:17
113:24	161:17	<b>passed</b> 5:14	23:13,18	123:18	35:23 36:8	104:11	52:23 53:3
<b>owe</b> 33:10	162:3,5	<b>passive</b> 37:10	27:23 28:5	124:11,12	40:6 43:22	106:8	54:12 57:4
<b>owned</b> 138:4	<b>pages</b> 5:20	113:1,4,20	55:3 61:18	124:14	45:24 51:16	125:19	58:21 59:13
138:4,22	49:18 77:8	<b>pause</b> 148:11	74:18 75:23	125:5 126:2	68:5,9	127:13	61:21
<b>owner</b> 138:24	139:18	165:10	82:8 87:1	126:3,5,7	69:20,21	176:22	102:18
<b>owners</b>	142:17	<b>pay</b> 10:16,17	97:17 105:2	126:19,22	70:21 82:17	181:17	111:12
148:19	144:15	10:18 25:19	106:7,20,24	126:23	82:24	<b>phase</b> 122:8	116:19
<b>ownership</b>	148:9	25:23 96:22	108:5,15	127:2,3	118:23	122:10	134:5 141:1
138:16	<b>paid</b> 142:11	125:10	119:21	128:5,7,10	<b>periods</b> 37:20	<b>Philadelphia</b>	152:15,16
<b>owns</b> 131:7	142:12	128:13	128:13	128:10	69:16	1:1 104:8	164:18
<b>P</b>	<b>panel</b> 40:22	182:9	141:21	130:11	113:17	104:14,16	176:22
<b>P</b> 2:1,1	41:1	<b>paying</b> 48:18	145:18,21	134:1,2	121:16,21	104:20,20	<b>planning</b>



Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 16

99:21 116:8 <b>plans</b> 53:6 54:14 71:12 71:23 76:20 76:21,22,24 103:8 136:13 158:6 <b>played</b> 65:23 179:19 <b>playing</b> 20:11 62:4 <b>please</b> 148:23 <b>plus</b> 13:21 30:1 38:5 41:5,18 44:24 63:4 90:14 91:17 116:22 118:22 128:21 <b>pockets</b> 17:12 <b>point</b> 5:16 10:10 16:10 22:8 39:10 39:16 40:2 54:5 57:2 60:11 67:3 68:6 77:16 86:18 88:7 88:10 91:16 92:16 93:24 94:2,6 95:21 97:2 98:12 99:22 100:3,19 119:4 127:8 134:19 137:13 142:3 163:16 165:16 168:15 169:19 171:4 177:6 180:22 183:18 <b>pointed</b> 150:24 <b>points</b> 26:4 28:4 39:13 40:5 44:12 59:11 65:7	69:18 76:17 79:18,23 91:17,18 96:17 125:4 133:18,20 134:3,17,20 134:21 154:16,19 155:4,5 <b>police</b> 173:3 <b>policy</b> 58:13 58:20 59:1 97:9 151:17 153:17,19 <b>politics</b> 79:19 79:21 <b>poll</b> 143:1,2 <b>polling</b> 142:22 <b>pony</b> 140:9 <b>Port</b> 105:13 105:14 <b>portfolio</b> 8:21 25:21,22 29:3 32:6 40:22 42:5 59:18 60:2 60:5,15 62:13 63:8 63:12 64:11 64:13,17 66:18 68:14 68:17 70:1 70:18,18 74:4 77:18 77:21 80:11 83:2 85:1 87:14 91:12 93:15,22 95:14,18,23 95:24 96:7 97:22 101:8 106:13 110:16 123:21 125:12 126:14 127:16 129:10,11 135:5 136:3 141:4 142:10 150:20	151:2,12 152:18,21 154:2 155:1 155:3,13,18 156:3 160:24 161:3,19 162:1 169:16,20 171:6,14 <b>portfolio's</b> 89:8 <b>portfolios</b> 59:21 74:24 77:24,24 78:1 86:22 91:24 93:13 94:5,23 102:19 108:1 110:11 111:8,14 131:14 149:7 <b>portion</b> 7:5 37:17 <b>position</b> 25:22 29:1 29:4 64:6 69:9 72:14 152:22 167:19 <b>positioning</b> 58:17 59:3 <b>positions</b> 55:10 63:6 124:6 177:4 <b>positive</b> 7:8 22:9,20 23:9 24:4,5 33:6 35:10 36:3 65:12 <b>positives</b> 159:22 <b>possess</b> 178:14 <b>possibility</b> 20:4 <b>possible</b> 20:2 116:10 149:24 <b>post</b> 156:15 156:17	<b>potential</b> 6:20 6:21 7:10 7:13 8:2,4,5 8:19 11:10 11:14 25:7 63:15 155:21 <b>potentially</b> 59:15 89:12 173:8 <b>power</b> 147:11 178:19 179:21 <b>practice</b> 49:24 51:11 107:2 135:16 143:24 146:12,13 <b>practices</b> 52:10 109:9 <b>pre-negotia...</b> 65:2 <b>precedent</b> 34:20 <b>predecessors</b> 51:13 <b>predomina...</b> 21:18 136:15 <b>prefer</b> 87:8 <b>premium</b> 18:12 <b>prep</b> 83:17 98:10,11 <b>preparation</b> 86:15 <b>presence</b> 166:12 <b>present</b> 1:14 2:8 26:2 46:14 <b>presentation</b> 77:10 109:14,24 135:7,9,17 151:9 165:10 166:7 <b>presentations</b> 49:9 <b>presented</b> 33:18 67:14	68:11 181:20 <b>presents</b> 111:6 <b>president</b> 54:7 <b>press</b> 6:16 <b>pressure</b> 125:1 <b>pretty</b> 12:4 44:17 <b>prevent</b> 26:2 85:5 <b>previous</b> 3:4 <b>price</b> 11:20 13:17 14:20 31:10,10 48:15 79:23 80:17 115:21 120:7,10,11 120:18,20 121:3,4,9 121:13,15 121:21,24 122:3,5 123:1 <b>prices</b> 6:11 7:7 8:18 9:4 10:4,7 11:16,19,20 12:1,5,15 12:21 14:18 17:5 24:23 31:2 80:5 116:3 122:13,14 132:7 168:3 <b>pricy</b> 86:10 86:14 <b>primaries</b> 80:7 <b>primarily</b> 51:18 136:12 137:8,9 <b>primary</b> 149:2 <b>primed</b> 27:23 <b>principle</b> 172:17 <b>principles</b> 70:8,10	171:5,19 172:2,9,12 172:24 <b>prior</b> 54:10 54:15 67:15 101:24 102:16,18 <b>private</b> 44:2 60:23 61:5 61:5 88:21 89:19,22 128:1,5 144:3 149:11 156:5,6,8 156:10,11 156:12 157:5 158:1 158:8,8,15 159:16,18 162:13,14 164:2 <b>privately</b> 138:4 148:13 <b>proactive</b> 110:17 133:22 142:4 <b>probability</b> 82:9 84:18 84:20 85:5 <b>probably</b> 17:19 19:24 21:12 89:8 92:9,19 98:8 103:14 105:12 131:22 146:13 155:3 169:17 <b>problem</b> 171:11 179:15 <b>problems</b> 26:13 169:12 <b>procedure</b> 172:14 <b>proceedings</b> 185:4 <b>process</b> 34:17	55:20 56:20 57:20 58:10 58:18,19,24 74:2 77:11 82:3 83:19 86:19 105:9 111:4 129:2 130:1 148:22 151:16 170:2 <b>processes</b> 59:4 85:13 85:14 <b>producers</b> 122:1,12,15 <b>product</b> 58:5 171:20 <b>production</b> 7:19 12:4 12:20,22 13:3 21:1 27:11 <b>productivity</b> 115:5 <b>professionals</b> 141:2 142:2 144:23 <b>profile</b> 6:17 38:11 62:16 68:2 78:24 157:2,3 <b>profiles</b> 6:8 58:5,5 <b>profit</b> 13:10 <b>program</b> 55:2 55:6 109:6 147:23 149:4 150:20 152:4 159:16 <b>programs</b> 57:16 <b>prohibited</b> 173:14 <b>prohibition</b> 173:14 <b>project</b> 114:23 118:11 <b>projected</b> 9:15	<b>projecting</b> 92:24 <b>projection</b> 153:11 <b>proper</b> 97:24 <b>properly</b> 4:10 4:24 45:7 91:10,11 96:12 170:20 <b>proponents</b> 156:8 <b>proposal</b> 133:4 <b>proposals</b> 133:7 <b>proposition</b> 103:2 <b>prospect</b> 19:10 <b>protect</b> 69:15 <b>protecting</b> 91:23 <b>protection</b> 69:3 160:24 179:10 <b>proud</b> 70:10 71:1 109:20 <b>prove</b> 154:21 <b>provide</b> 47:4 47:8 57:5 62:15 63:22 71:21 88:21 142:12 <b>provided</b> 36:22 37:22 168:11 <b>providers</b> 58:2 <b>providing</b> 36:10 54:1 71:4 <b>proxy</b> 61:7 172:5 <b>psychological</b> 27:17 <b>psychology</b> 28:3 <b>public</b> 1:14 40:17 52:4 54:12 70:16 71:16 76:20 76:21,24
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 17

85:24 90:20	164:19	101:14	160:12	156:12	29:13 92:8	<b>refinement</b>	<b>relay</b> 172:6
102:4	180:3	131:19	174:19	157:22,24	92:18	112:1	<b>relieved</b>
131:17	<b>putting</b> 77:23	162:19	175:19	158:1	177:11	<b>reflecting</b>	178:23
135:16		<b>quickly</b> 5:22	176:4,10,18	159:17	<b>reasonable</b>	14:13	<b>rely</b> 176:24
136:16,21	<b>Q</b>	6:2 10:8,9	176:23	160:17	115:22	<b>reflection</b>	<b>remember</b>
136:23	<b>qualification</b>	12:3 17:15	177:9,12	162:14	124:21	33:15	68:10
137:8,10	97:19	33:23 34:16	178:17	177:17	133:13,16	<b>refrigerators</b>	117:24
139:15,16	<b>qualitative</b>	40:20 78:22	180:12	<b>realistic</b>	134:4 181:9	12:24	173:12
139:21	57:8	89:6 119:14	<b>rates</b> 6:5,10	120:23	182:1	<b>refused</b> 48:4	<b>remind</b> 52:24
140:5,6,10	<b>quality</b> 6:23	158:4 162:4	6:11 13:24	<b>realize</b>	<b>reasons</b>	<b>regard</b> 171:4	<b>rent</b> 128:13
142:15,16	33:18,19	<b>quite</b> 12:6	14:3 16:8	124:17	159:24	<b>regarding</b>	128:13
144:1,5,6	35:8 69:13	35:7,19	16:12 18:8	<b>really</b> 8:6,8	<b>reassure</b>	58:9	<b>repeal</b> 172:12
146:12,13	<b>quarter</b> 5:22	62:21 75:11	18:12,22	8:11 9:18	23:18	<b>regards</b> 76:18	<b>replacement</b>
147:16,19	5:24 6:5	88:1,3,4	38:14 69:16	12:6,8,20	<b>reate</b> 175:14	79:21 97:13	87:11
149:10,17	7:15,16,21	95:6 97:7	79:18 81:4	13:13,20	<b>rebalancing</b>	98:17	<b>replicate</b> 90:7
152:11	9:8 14:9,19	97:14 98:6	114:22	15:15 17:4	78:1 86:21	<b>regional</b>	<b>report</b> 5:14
185:12	14:23 15:1	<b>quotations</b>	115:16	17:15 18:23	<b>rebound</b> 15:5	137:24	40:14 45:3
<b>publicly</b> 61:9	15:4,11,17	18:7	124:3	27:10 29:13	15:10	<b>registered</b>	<b>reporter</b> 1:13
68:19	16:5,9,15		<b>ratio</b> 80:17	29:15 31:3	130:14	52:3	185:12,19
123:11	16:18,22	<b>R</b>	93:22	38:16 43:14	132:13	<b>regulations</b>	<b>reporting</b>
<b>publish</b> 153:6	29:23 32:3	<b>R</b> 2:1,10	<b>ratios</b> 25:18	44:19 51:14	<b>recapture</b>	180:5,19	1:21 50:22
<b>pull</b> 24:10,11	32:9,23	185:1	147:14	54:1 55:22	52:13	<b>reiterate</b> 34:6	74:5
54:24	35:16,22	<b>R.V</b> 46:6	<b>reaction</b>	56:18,22	<b>recession</b>	<b>reiterates</b>	<b>reports</b> 99:19
149:20	36:3,13,19	47:23	131:20	60:3,18	21:9,12	76:15	<b>represent</b>
<b>pulled</b> 145:8	37:19 38:15	<b>raise</b> 18:8,22	<b>read</b> 10:6	61:15 64:12	26:14 81:1	<b>related</b> 34:20	51:9,22
<b>pulling</b> 17:10	40:1,24	19:19 20:13	23:2 138:1	67:7 77:16	<b>recognizes</b>	76:22	<b>representat...</b>
27:2 83:3	41:18,20	171:3	153:19	78:21 81:5	107:2	<b>relation</b>	52:18 76:13
<b>pump</b> 8:8	42:14 45:4	<b>raised</b> 171:4	<b>readily</b> 11:3	87:22 88:13	<b>recommend</b>	71:24	<b>represented</b>
9:11 11:22	<b>quarterly</b> 1:4	<b>raising</b> 6:5	85:19	88:16,20	129:16,19	<b>relations</b>	41:17 70:21
<b>pumping</b>	3:10,22	17:20 18:3	<b>reading</b> 25:6	95:1 97:22	<b>recommend...</b>	145:2	<b>represents</b>
120:17	63:23 73:1	<b>rallied</b> 30:2	178:17	99:13 100:2	59:3 157:17	<b>relationship</b>	52:15 54:17
<b>purchases</b>	83:17 108:4	<b>rally</b> 30:5	<b>readjusting</b>	106:2	<b>recommend...</b>	50:6 51:2	<b>reproduction</b>
13:24	<b>quarters</b>	<b>range</b> 53:6	30:23	131:11	142:7	61:23 62:19	185:17
<b>pure</b> 38:24	113:16	65:6 154:18	<b>ready</b> 49:11	132:18	155:12	70:7 102:11	<b>reputation</b>
<b>purpose</b>	<b>quasi-hedge</b>	<b>ranged</b> 65:13	73:14	138:15	<b>recommend...</b>	127:6	145:24
91:11,20	156:23	<b>ranked</b> 143:6	100:11	140:23	96:10	135:24	<b>request</b>
94:14	159:10	143:8,18	129:2	141:10	<b>reconciling</b>	136:6	173:19
123:13	<b>question</b> 4:18	<b>rankings</b>	135:13,14	144:20	51:5	146:17	<b>requests</b>
<b>purposes</b>	28:20 85:10	72:10	<b>reaffirmed</b>	145:13	<b>record</b>	147:12	67:21
60:21	94:17 109:4	143:13,17	174:23	151:15	104:22	161:12	<b>require</b> 134:6
<b>pursuant</b>	123:16	143:20	<b>real</b> 12:3 44:1	152:9,23	109:21	<b>relationships</b>	<b>requirements</b>
1:12,17	125:7 153:4	<b>Rasheia</b> 2:6	44:2,24	155:19	<b>recruiting</b>	89:2 95:12	86:1
<b>pursue</b>	162:19	180:7	69:11 78:22	157:1,2	109:10	147:2	<b>requires</b>
180:22	<b>questioning</b>	<b>rate</b> 13:21	89:19,22	158:23	<b>reduce</b> 95:22	<b>relative</b> 37:15	57:21
<b>push</b> 18:1	48:15	18:18 19:1	90:12,14,15	159:11	<b>reducer</b> 94:2	56:18 69:2	<b>requisite</b>
24:1	<b>questions</b> 3:6	20:5 46:23	90:17,22	160:16	<b>Reduces</b>	69:20 88:24	46:17
<b>put</b> 18:6	3:16,24	47:7 60:19	101:14	161:13,17	93:22	133:16	<b>research</b> 19:7
42:15 43:1	4:11 43:20	67:22 69:17	115:7	163:8	<b>reduction</b>	154:24	19:9 20:19
43:9 57:6	45:1,8	93:1,6	120:13	164:10	129:13	164:18	54:22 55:20
79:8 88:8	76:14 98:20	105:24	125:17	179:13,17	167:4	<b>relatively</b>	55:20,23
129:18	98:22	149:18	126:23	<b>realtime</b>	<b>reenter</b> 49:3	34:16	56:4,10,24
158:12,14	148:12	152:10	128:1,5	108:2	<b>refinance</b>	<b>relaxed</b>	57:11,21
163:23	170:21	153:22,24	149:20	<b>reason</b> 28:6	26:18	173:10	59:5 72:14
	<b>quick</b> 69:11	154:5 160:9					

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 18

74:19 97:18	148:10	<b>revenue</b>	142:11,20	127:5	159:1	11:21 13:7	4:23 6:14
101:4	183:14	52:14	143:5	<b>risks</b> 152:6	166:14,18	<b>savings</b> 8:9	45:6 60:13
102:14,16	<b>retail</b> 8:10 9:7	139:10	144:22	161:18	167:15	10:20 11:17	108:8 166:6
106:14,17	9:12,14	<b>reverse</b> 23:22	149:17	162:2	168:1 169:4	13:10,22	167:14,16
106:19	39:15	175:4	152:12	<b>road</b> 56:22	169:19	<b>saw</b> 14:17	168:17
107:8,11,16	<b>retailers</b> 33:3	<b>reversed</b>	153:2 155:7	60:9 61:16	170:1,5	26:15 28:12	170:18,19
107:21	<b>retention</b>	23:23	157:9 160:8	<b>roadmap</b>	172:18	29:23 62:22	<b>seconded</b>
136:5,17	105:24	<b>reversing</b>	160:19	58:14	175:20	65:11,15,22	4:11 5:1
137:1 141:6	<b>retired</b>	20:21	163:19	<b>Rob</b> 175:16	183:8,16,22	130:13	45:8 170:21
144:7,17,20	138:13	<b>review</b> 52:22	164:6,11	176:2 180:7	<b>rules</b> 1:18	<b>saying</b> 9:1	<b>seconds</b> 133:9
144:23	148:18	53:22 56:3	166:15	181:15,16	180:5,8,18	10:15 19:1	<b>section</b> 60:5
145:3,5,16	<b>retreat</b>	57:23	168:2 169:7	181:18,20	<b>rumors</b>	19:2 23:16	109:22
145:19,21	109:16	<b>reviewed</b> 57:6	170:4	<b>robust</b> 40:12	174:20	28:23 29:12	110:9
162:5,9,12	<b>return</b> 33:4	88:7 91:10	173:11	108:19	<b>run</b> 39:2 43:4	29:15,18	<b>sections</b>
162:21	35:16 39:11	111:16,19	176:10	<b>role</b> 136:2	74:22 75:8	78:9 83:8	103:15
163:2,5,6	42:16 58:4	<b>reviewing</b>	177:15	<b>rolled</b> 130:18	90:3 117:22	84:17 97:16	<b>sector</b> 8:13
<b>reserve</b> 87:5	59:16 60:8	50:12 56:5	178:15	<b>rolling</b> 70:19	124:4 129:3	118:2 126:9	25:3,8,12
108:9	60:10,10	56:16	179:22	<b>Ron</b> 107:17	144:13	130:6 168:6	33:4 102:4
<b>reset</b> 80:5	62:16 65:12	110:15	182:14	<b>room</b> 1:15	151:21	178:12	<b>sectors</b> 17:3,9
<b>resign</b> 179:1	68:1,18,21	<b>reviews</b> 57:9	<b>rigor</b> 53:17	49:3 73:10	<b>running</b>	179:8	26:3,9
<b>resolve</b>	69:10 91:22	<b>RFP</b> 37:5	57:7	100:10	29:14 77:24	180:20,24	27:11 31:12
182:24	94:4 96:5	39:20 75:21	<b>rigorously</b>	135:9	118:5	<b>says</b> 29:8	<b>securing</b> 11:8
<b>resources</b>	96:23	85:13 105:9	180:22	181:21	119:23	168:2 174:7	<b>securities</b>
51:22 106:4	111:14,22	129:1 130:1	<b>rings</b> 163:14	<b>roughly</b> 42:3	135:2	178:18	78:3
107:7	114:16	134:7	<b>rise</b> 115:23	53:3 93:21	<b>rushed</b> 77:8	179:2,4	<b>security</b>
147:21	115:7,9,12	<b>RFPs</b> 129:19	119:6	110:7	<b>Russell</b> 31:24	<b>scenario</b> 69:4	61:10
149:20	115:12,18	<b>Rhumblin</b>	<b>risen</b> 69:18	133:24	<b>Ryan</b> 107:14	97:6 128:11	111:19
<b>respect</b> 5:21	117:9	31:22	<b>rising</b> 6:10,10	<b>row</b> 106:4,7		<b>scenarios</b>	<b>see</b> 7:18 8:3
32:23 33:2	118:17	<b>right</b> 5:11	16:8 38:14	125:22	<b>S</b>	168:7	14:20 15:19
33:9 165:3	119:2	14:17 15:10	69:15,17	<b>Royal</b> 29:7,17	<b>S 2:1</b>	<b>school</b> 101:17	15:20 18:4
<b>respective</b>	120:15	16:2 22:1	92:22	<b>RPR</b> 1:13	<b>S&amp;P</b> 14:10,11	<b>Scotland</b> 29:8	20:2,3 24:7
162:18	124:11	22:12 24:12	115:21	185:11	42:4 65:14	29:18	28:3 29:21
<b>respectively</b>	126:1,5	26:5,23	160:9	<b>Rubin</b> 2:11	69:2 80:18	<b>Scott</b> 136:11	35:6,16
41:13	127:1,1	27:17 28:7	<b>risk</b> 60:14,17	8:1 9:1	84:21 92:18	136:22	36:4 38:7
<b>response</b> 3:8	128:3,5,11	29:24 40:22	64:14 66:20	39:20,23	<b>sake</b> 148:10	140:17	39:2,3
3:18 4:2,12	146:7	41:16 50:21	67:13 68:2	43:9 44:2,7	<b>sales</b> 8:10 9:7	141:3	40:23 41:1
4:19 45:2,9	149:16,19	50:21 51:1	77:21 78:21	55:1,9,16	9:12,14	144:24	44:22 47:5
170:22	150:4	60:20 67:24	78:24 79:7	65:18 66:2	13:17	146:6	47:19 48:11
<b>responsibility</b>	152:10	80:11,20	79:10 84:20	67:14 68:4	<b>salesman</b>	148:20,21	53:20 57:7
176:9	153:22	82:12 84:22	84:21 91:13	71:11,17	150:22	150:15,24	58:10,22
178:24	154:1,5	86:23 87:4	92:3 93:23	72:5 87:13	<b>sampling</b>	155:14	59:5 60:6
179:21	174:19	87:21 95:17	94:2,6	87:16 89:14	67:24	161:15,16	60:13,17
180:22	175:14	99:6 100:14	95:22 96:5	89:21 90:10	<b>Sandy</b> 70:9	<b>se</b> 147:18	65:23 67:2
<b>responsible</b>	176:10	101:1,17	129:13	94:7,10,18	171:5,19	<b>search</b> 45:17	75:24 76:18
177:1	177:12,16	106:11	150:19,20	95:3,8 97:8	172:1,8,12	50:16	81:8 83:7
178:16	178:17	107:12	151:14,15	99:2,8	172:17,23	<b>searches</b> 57:3	83:24 87:2
<b>rest</b> 56:10	<b>Returning</b>	117:21	152:3,13,14	109:5 123:3	<b>satisfaction</b>	<b>season</b> 9:3,8	87:17 95:14
<b>result</b> 13:17	146:15	119:9	152:15,21	130:24	142:18	<b>season/Holi...</b>	101:8 106:5
17:9 21:1	<b>returns</b> 43:23	123:19	152:24	132:16	<b>satisfied</b>	9:3	106:9,14
63:5 65:20	44:5,10	128:19	155:15	134:22	105:23	<b>seats</b> 27:24	107:9 108:9
119:14	64:12 78:13	131:5	161:19	147:22	107:4	<b>SEC</b> 52:3	113:13
<b>results</b> 56:21	78:20 79:12	139:13,21	162:1	148:6 151:2	<b>save</b> 8:7	<b>second</b> 3:14	116:2,5,12
70:15	111:10,12	141:3	<b>risk-reward</b>	151:5 154:7	10:14,18	3:15 4:8,9	125:22
					<b>saving</b> 9:10		

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 19

126:19	58:16 81:12	21:14,19,19	<b>short</b> 6:12	164:2,2,17	<b>size</b> 52:23	<b>sole</b> 107:24	63:20 91:24
127:12	96:4 111:19	21:20 46:15	40:20 69:12	<b>sign</b> 84:2,3	53:1,4 64:1	108:16	148:2
129:3	111:19	47:5,9	69:19,21	146:8	74:11 94:22	<b>solely</b> 162:10	155:20
132:11	<b>selective</b>	49:24 51:10	79:16	<b>signal</b> 129:4	159:5,19,20	<b>Solicitor</b>	<b>speaking</b>
135:5	44:18	53:24 54:9	104:10	<b>signals</b>	160:1	176:6	110:7
139:13,14	<b>sell</b> 29:8	75:1 139:7	108:11,13	130:11	173:13	<b>solution</b>	133:24
139:20	114:11	139:9,11	124:8	<b>significant</b>	<b>sizes</b> 95:1	94:17	<b>specialists</b>
140:12	<b>selling</b> 14:20	143:14	163:11	12:5 18:11	<b>skews</b> 140:7	150:17,23	163:11
142:3,8	23:20 31:1	144:9	<b>shortened</b>	39:18 81:15	<b>skip</b> 59:9	<b>solutions</b>	<b>specific</b> 13:19
143:5,7,10	138:16	147:21	137:18	81:16,22	142:16	50:14 85:22	28:19 30:15
144:3,8	<b>semiannually</b>	170:13	<b>shorter</b> 6:9	<b>significantly</b>	144:15	<b>somebody</b>	33:7 52:4
145:17,19	88:19	<b>SERVING</b>	7:1 38:13	35:1 43:8	148:7	94:18	55:6 56:16
146:2,22,24	<b>semiconduc...</b>	1:24	39:6	<b>signs</b> 84:12	<b>sleeves</b>	162:23	88:17 103:1
148:8	33:5	<b>session</b> 98:16	<b>show</b> 32:8	<b>similar</b> 34:10	130:18	181:7	103:4 111:1
151:14	<b>Send</b> 168:2	183:23	50:23 52:18	62:12 71:19	<b>slice</b> 139:15	<b>somewhat</b>	<b>specifically</b>
153:19	<b>senior</b> 54:13	184:4	59:20 70:12	72:5 88:4	139:24	91:4 140:7	11:15 16:23
162:15	136:20	<b>sessions</b>	70:15,15	126:16	<b>slide</b> 106:21	<b>soon</b> 117:18	30:24 33:1
176:2	138:21	98:16	71:11,24	<b>simple</b> 68:22	111:5	<b>sophisticati...</b>	37:10 49:16
<b>seeing</b> 14:24	<b>sense</b> 36:24	<b>set</b> 7:4 8:14	142:17	157:12	114:12	147:3	68:10 71:6
17:23 18:17	37:17	27:4 29:6	161:20	<b>Simply</b> 86:21	<b>slides</b> 97:6	<b>sorry</b> 7:20	90:11
21:2 66:6	128:17,18	83:18	163:18	<b>single</b> 63:24	110:13	23:6 47:16	110:13
92:3	<b>sensitivity</b>	111:23	<b>showed</b> 41:22	66:19 123:9	148:2	122:22	<b>speed</b> 158:23
<b>seen</b> 10:7	28:16 70:8	116:16	82:24,24	<b>singular</b>	<b>slight</b> 41:1	<b>sort</b> 67:4 76:8	<b>spell</b> 110:3
12:17 15:2	<b>sent</b> 5:15	117:20	<b>showing</b>	92:18	<b>slightly</b> 37:21	76:15 87:16	<b>spend</b> 9:12
15:3 18:21	<b>separates</b>	126:5	60:18	<b>Sinking</b> 1:2	38:17 47:22	129:8 135:2	10:13,21
20:10 24:18	55:19	158:11	144:21	1:11 3:22	47:24	182:4	133:9 144:7
24:20 30:17	<b>SEPTA</b>	176:23	<b>shown</b> 54:20	4:4 49:15	<b>slow</b> 22:24	<b>sorts</b> 177:13	158:10
30:17 36:6	101:21	180:4	67:23	184:8	23:15,15	<b>sound</b> 150:21	<b>spending</b>
37:13 65:19	104:16	<b>sets</b> 62:1	<b>shows</b> 107:19	<b>sit</b> 73:21	33:20 34:19	180:9	7:11 9:19
65:20 68:23	105:11	175:18	152:23	74:20,21	81:3	<b>space</b> 36:4	11:7
94:12 138:7	166:12	176:4,18	<b>side</b> 7:18 8:20	101:10	<b>slower</b> 24:9	62:23	<b>spent</b> 101:19
148:16	<b>September</b>	<b>setting</b>	13:2 14:2	163:9	<b>slowing</b> 7:24	147:17	<b>spoke</b> 59:6
156:17	30:18 70:13	176:22	21:3,4,6,7	<b>sits</b> 163:5	<b>small</b> 35:4,5	156:23,24	68:15
<b>sees</b> 20:20	128:4	<b>seven</b> 34:23	21:10,21	178:4	35:13,21	160:4	<b>spot</b> 53:8
<b>segment</b> 6:22	<b>seriously</b>	130:3	22:3,7,15	<b>sitting</b> 101:1	50:18 86:13	172:13	85:18
7:22 13:6	124:13	137:24	23:9 27:7	163:7	112:3,4,5	<b>Spagnola</b>	<b>spread</b> 17:16
14:16 15:14	<b>serve</b> 52:5	138:15	31:20 32:6	<b>situation</b>	112:13	101:18,22	25:11
16:1 31:3,4	74:8 91:11	140:6 147:5	36:2 74:20	43:10 80:13	128:15	101:22	<b>spreads</b> 8:18
33:11,12	94:14	<b>seven-year</b>	78:3 96:24	83:13,15	181:14	102:2	17:11 28:22
35:4 37:1	<b>served</b> 91:20	153:7	97:1,8	87:5 91:8	<b>smaller</b> 35:15	103:12	28:24 69:9
<b>segments</b>	135:4	<b>shape</b> 25:19	102:18	171:21	61:21 64:8	108:21	<b>square</b> 70:21
7:23 12:12	<b>service</b> 1:21	27:6	103:17,18	172:22	66:7,16	109:8,20	104:7
17:8 20:10	21:5,7,10	<b>share</b> 5:17	104:4,10,18	179:20	94:24	116:8 117:3	<b>squeezed</b>
21:20 50:18	21:17 22:7	<b>shares</b> 14:8	105:15	182:16	139:23	117:24	179:19
<b>segue</b> 102:24	22:15 58:2	172:4	107:8,16	<b>situations</b>	164:17	118:6 119:4	<b>stability</b> 24:1
125:16	99:1 101:19	<b>sharing</b> 52:14	108:12,14	79:4	<b>smart</b> 137:16	119:16	44:4 65:20
151:10	102:8 106:6	163:8,8	124:2 137:3	<b>six</b> 46:1 55:24	<b>smooth</b> 64:12	127:18	<b>stabilize</b>
<b>segues</b> 126:15	106:24	<b>sharp</b> 93:22	139:13	75:19 79:15	86:4	129:20,24	116:4
127:6	107:4	<b>sheets</b> 25:17	141:6,8,23	80:1 81:5	<b>smoother</b>	130:9 131:2	117:15
<b>select</b> 166:16	110:23	26:22	142:24	85:20 98:8	62:15	132:9,18	<b>stable</b> 44:1
167:3	111:2 134:5	<b>shifted</b> 21:17	143:1,23	98:24	<b>sold</b> 17:4	134:14,24	91:21
175:13	134:15	<b>ship</b> 13:14	156:20	108:23	114:6	<b>speak</b> 11:9	<b>staff</b> 33:24
<b>selection</b>	<b>services</b>	<b>shipping</b> 13:8	160:7,15	147:4	115:19	60:4 61:18	37:4 39:7

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 20

42:3 45:14	<b>statement</b>	<b>stream</b> 58:5	112:22	111:5 143:3	83:11,12	88:16 93:12	<b>tell</b> 28:5 70:5
45:22 46:12	58:13	<b>street</b> 23:1	<b>successful</b>	150:9	84:2 108:18	103:19	83:19 91:13
46:18 47:11	151:17	47:10	64:10	151:17	150:10	132:2	92:8 146:7
61:13 66:23	<b>statements</b>	166:10	146:17	<b>surprise</b> 7:7	151:2,24	133:10,19	166:18
67:21 85:15	3:22 4:1,5	169:7	<b>Sudan</b> 171:7	<b>surprising</b>	152:4,5	155:14	169:15
97:18 98:20	4:16,18,21	<b>STREHLOW</b>	171:21	48:5,7	164:21	157:12	178:24
106:15	<b>States</b> 27:14	1:20	172:19	<b>surprisingly</b>	169:2	160:16	181:23
140:24	79:21	<b>stress</b> 27:8,10	173:13	48:1	172:11	161:13	<b>telling</b> 84:7
142:12	<b>statistics</b>	<b>strictly</b> 94:4	<b>sudden</b> 34:24	<b>survey</b>	174:8 177:8	<b>talks</b> 140:17	117:21
145:12	148:4	<b>strive</b> 88:12	<b>sued</b> 178:6	143:19	182:18	<b>tandem</b> 158:6	175:9
149:3,20,22	<b>stay</b> 14:3 81:8	<b>strong</b> 7:22	182:9	<b>surveys</b> 143:4	<b>takeaway</b>	161:1	<b>tells</b> 169:1
157:19	145:13	20:23,24	<b>suffered</b>	<b>sustainable</b>	110:23	<b>tanking</b>	178:5
158:5	<b>staying</b> 19:24	25:17,18	16:21	120:8	<b>taken</b> 73:8	27:14	<b>template</b>
<b>staffs</b> 62:2	<b>steadily</b> 10:5	31:3 35:7	<b>suggest</b> 30:14	<b>sweet</b> 53:8	100:8 185:6	<b>Tara</b> 107:14	171:9
<b>stand</b> 105:12	<b>steady</b> 18:9	35:19 87:17	34:21 81:21	<b>Swensen</b>	<b>takes</b> 38:22	<b>target</b> 20:8	<b>ten</b> 38:20
<b>standard</b>	19:16 22:18	105:10	86:16 89:21	131:7	115:22	40:9 41:13	87:10
28:13 60:14	<b>stem</b> 8:6	155:10	93:7	<b>switched</b>	155:17	59:19 152:7	106:14,17
126:4 127:2	<b>stenographic</b>	<b>stronger</b> 8:9	<b>suggested</b>	34:24	<b>talent</b> 138:19	158:7	143:6
<b>standpoint</b>	185:6	18:13	94:18	<b>switching</b>	141:3,10,16	<b>targets</b>	167:10
27:6 142:18	<b>step</b> 45:14,19	<b>structure</b>	181:11	119:8	<b>talented</b>	175:12	169:22
168:16	51:8 174:15	55:21 61:24	<b>suggestion</b>	<b>symptoms</b>	124:5,10	<b>task</b> 108:17	<b>tense</b> 27:23
<b>start</b> 33:20	176:6	64:5,11	165:16	23:14	125:8	130:17	<b>term</b> 6:12
34:19 58:12	179:23	106:10	<b>SUITE</b> 1:21	<b>system</b> 27:5	<b>talk</b> 6:1,14	<b>team</b> 5:13	28:14 34:21
73:13 74:20	<b>steps</b> 181:11	157:3	<b>sum</b> 74:5	88:10	7:6 12:11	50:11,20	36:8 38:19
102:22	<b>stimulating</b>	159:14	<b>summary</b>	143:16	14:7 19:6	53:24 54:1	56:21 59:16
107:9 111:8	22:15 24:8	162:15	45:16		20:17 35:24	54:9,17	59:16 60:8
113:19	<b>stimulus</b>	<b>structured</b>	<b>summer</b>	<b>T</b>	37:9 51:24	55:21 56:11	64:21 68:16
114:20	24:24	64:3 162:7	19:20,21	<b>T</b> 185:1,1	54:22 63:21	56:14,20	77:20 79:16
115:4	<b>stock</b> 15:4	<b>structures</b>	20:21 80:20	<b>table</b> 93:21	72:21,24	57:8 63:13	79:24 92:4
119:18	23:21 27:14	66:14 157:4	<b>Sunshine</b>	127:22	74:1,5,13	63:13 73:21	104:10
130:14	29:10 30:8	164:19	167:9	129:9	77:11 93:24	77:3 98:19	108:11,13
141:19	79:6 81:11	<b>struggled</b>	174:12	141:23	111:3 133:3	102:8,14	114:2,18,19
151:21	81:12 92:24	39:3	<b>Superbowl</b>	169:3	133:4	104:24	115:3 116:7
152:1	98:21	<b>stuck</b> 11:3	100:5	171:17	145:12	106:6,14	116:14,18
157:16,24	<b>stocks</b> 32:24	<b>student</b> 10:17	<b>supercycle</b>	<b>tactical</b> 56:2	148:24	135:20	150:3
158:22	78:17 82:20	<b>studies</b>	116:2	58:17 59:3	150:14	136:5,21	168:24
161:13	92:3 93:1,2	111:20	<b>supervision</b>	69:9 114:3	151:11	144:6,7,16	180:3
<b>started</b> 51:13	93:3 146:23	<b>study</b> 67:1	185:19	114:4 130:3	156:1 160:6	144:17,18	<b>terms</b> 7:14
74:22 91:8	<b>stocks/bonds</b>	111:16	<b>supply</b> 17:22	150:5,7	162:4,5,6	145:7	14:23,23
106:15	81:18	151:20,22	118:7 119:7	171:12,20	165:14	149:21	15:16,20
107:15	<b>straights</b> 67:9	161:15	121:7,14	172:15	173:7	162:5 163:5	23:4 34:10
108:11	<b>strategic</b>	<b>stuff</b> 10:5	122:2,18	<b>tactically</b>	<b>talked</b> 14:22	163:19,21	42:16 47:3
136:24	114:2 150:3	44:8 67:5,6	<b>support</b>	113:23	16:18 24:13	163:24,24	48:15 50:13
138:15	<b>strategies</b>	167:10	24:16,23	<b>Taft-Hartley</b>	24:18 33:14	<b>teams</b> 162:9	50:14,23
156:19	50:13 63:21	169:13	106:10	105:17	36:12,18	162:18,21	51:3,7
<b>starting</b> 90:3	68:13 82:20	<b>style</b> 14:24	107:6 136:1	144:1,5	57:13 61:13	163:2	67:19 71:5
165:16	90:8 123:20	57:18	<b>supporting</b>	<b>tag</b> 137:16	69:5 75:2	<b>technically</b>	74:3,11,23
<b>state</b> 1:17	156:9,10	<b>sub-500</b> 66:9	136:3	<b>tail</b> 68:22	149:9	76:3	76:7 77:16
9:22 52:21	159:10	<b>sub-billion</b>	<b>supposed</b>	<b>tails</b> 69:3	161:17	<b>technology</b>	78:6 80:6
140:2,6	164:4	66:8	34:3	<b>take</b> 10:14	<b>talking</b> 31:6	33:4	80:23 85:23
179:4	<b>strategy</b> 69:5	<b>substitution</b>	<b>sure</b> 48:20	19:21 52:8	32:22 59:11	<b>tee</b> 128:24	86:7 92:15
182:17	82:16 124:9	121:20	72:12 73:2	55:7 56:4,7	61:2 82:2	<b>telephone</b>	92:20,21
<b>stated</b> 48:16	157:13	<b>subtract</b>	86:6 97:11	66:20 76:14	85:11 86:24	174:13	97:4 99:1
				77:14 81:20			

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 21

107:10	150:14	131:16,22	<b>three</b> 10:3	108:11	157:23	<b>trade</b> 17:6	<b>trend</b> 35:1
109:11,18	152:7	132:14	36:9 37:21	117:18	159:9	28:10 29:2	115:17
110:15,19	155:19	133:5,8,21	46:4,17,19	118:23	160:12	<b>traded</b> 61:9	<b>Tressler</b> 51:2
110:20	156:2 160:5	133:23	53:13,20	121:16,21	163:20	68:19 78:2	<b>tried</b> 179:11
111:1 117:9	167:21	134:14,18	65:11 73:20	122:11,18	178:6	123:11	<b>tries</b> 82:11
129:12	170:5 173:8	135:1,3	79:17 103:4	125:17	<b>today's</b> 138:6	<b>traders</b> 77:22	<b>trigger</b> 6:4
130:21	179:18	138:2,5	105:21,22	126:11	<b>toes</b> 174:15	<b>trading</b> 18:11	<b>triggered</b>
133:18	183:20	141:9,14	113:16	127:21	179:24	26:4,6 31:8	26:15,16
154:12	<b>think</b> 6:3,11	142:10	137:3 143:9	128:6	<b>told</b> 27:15	80:18 84:22	<b>troublesho...</b>
172:9	7:7 11:1	144:14	143:24	132:19	105:22	93:2,4	77:3
<b>territory</b> 30:9	16:10 19:13	145:17	145:18	148:10	170:7 175:8	<b>traditional</b>	<b>true</b> 104:17
30:12,16,21	20:7,9 22:8	147:5	157:11	151:21	179:12	74:12 155:2	119:5
<b>test</b> 113:13	34:6 43:18	148:11	158:11,19	153:11	<b>Tom</b> 73:22	157:8,13	<b>Trust</b> 31:23
<b>tested</b> 176:13	44:9,11	153:12,13	<b>three-year</b>	158:20	76:9 183:21	159:10	<b>trusted</b>
178:20	47:23 55:18	155:9	35:18 40:6	161:8	<b>tool</b> 99:11,12	162:9 163:6	140:20
<b>testimony</b>	59:8 62:17	157:15,20	40:7,14,15	162:16	155:16	164:1	<b>trustee</b>
175:2	62:24 66:2	158:2,3,5	70:19	<b>timely</b> 105:7	161:19	<b>trailing</b> 15:15	141:23
<b>thank</b> 5:8	66:5 67:18	159:3,10	<b>throwing</b>	<b>times</b> 10:6	<b>tools</b> 142:5	<b>trained</b> 84:24	<b>trustees</b>
49:10,13	68:13 70:2	160:1,24	8:21 89:11	20:6,14	151:11	<b>transcript</b> 3:4	149:3 158:4
53:10 71:9	74:15,16,23	161:6	<b>tie</b> 173:21	36:13 75:5	155:16	185:8,16	<b>truth</b> 179:1
73:4,5	75:16 76:6	163:22	<b>tied</b> 17:1	75:24 80:18	161:16	<b>transition</b>	<b>try</b> 48:17
77:12 100:6	77:7,8	164:22	27:10	80:19 84:22	<b>top</b> 26:19	107:22	49:19 55:7
100:16	79:14 81:1	165:21	<b>tier</b> 50:23	84:23 86:10	40:17 46:16	138:10	78:11 84:15
135:6 165:7	85:23 86:14	166:10,22	<b>tightens</b> 25:1	93:3,4	55:12,22	<b>transitioned</b>	84:23 85:2
165:8	87:24 88:2	167:6,7	<b>till</b> 158:22	112:3,4,9	58:1 62:24	32:7	132:12
<b>Thanks</b> 55:16	92:1,14	169:4,6,10	<b>Tim</b> 73:12,18	112:10,16	68:9 71:2	<b>transitioning</b>	151:12
103:12	94:6,19	170:11	75:23 77:11	112:17	106:4,7,22	32:13	<b>trying</b> 28:8
<b>themes</b> 163:8	95:10 96:21	171:17	94:1	163:9 169:8	107:22	<b>translate</b> 8:9	40:7 60:17
<b>theoretical</b>	97:3,20	172:1,6,13	<b>timber</b> 131:1	<b>timing</b> 34:10	109:11	13:13,16	61:22 79:11
182:15	99:17	173:1,2,8	131:3,7,8	44:16 114:4	143:8	24:5 27:8	79:12 82:4
<b>thin</b> 167:20	101:10	174:5,22	131:10	<b>Tips</b> 129:6	144:22	36:7	82:8 96:2,4
<b>thing</b> 6:3	103:9 109:1	175:15,23	132:1,6	<b>today</b> 5:10	149:13	<b>translated</b>	96:14,15
24:12 29:11	109:15	176:15,16	<b>time</b> 5:16	14:1 28:4	<b>top-down</b>	7:11 9:3	97:9,22
33:22 54:5	111:6 115:8	180:15	12:8 19:4	46:5 67:15	56:23	10:8	117:8 127:4
70:12 72:8	115:11,18	181:19	23:1 34:13	73:23,24	<b>total</b> 22:4	<b>translates</b>	127:5
80:21 83:1	115:22	182:3,21	34:18 35:2	76:9 80:12	39:11,24	41:8	149:23
106:22	116:1,3	<b>thinking</b>	35:23 36:22	80:16 81:6	40:3,16,23	<b>translating</b>	179:13,14
110:22	117:11,15	85:17	37:20 38:6	90:12,23	42:10 73:15	10:21	<b>turbulence</b>
118:6 138:3	117:17	119:15	39:17 40:21	91:15,24	99:21	<b>transportat...</b>	19:17
140:19	118:19	124:13	43:22 44:23	92:3 93:2	115:12	12:13	<b>turmoil</b> 169:8
156:24	119:4 120:4	181:10	51:15,16	96:7 101:10	139:14,24	<b>travel</b> 67:4	171:24
176:10	120:5,18,22	<b>third</b> 6:18 7:6	66:9 67:13	102:9	<b>totally</b> 52:15	<b>traveling</b>	<b>turn</b> 34:22
<b>things</b> 11:24	121:4 123:1	7:16 29:23	68:8,11	103:20	<b>touch</b> 49:18	73:23 145:9	59:8 87:23
55:18 61:2	123:8,11,16	142:3	70:3,20	110:20	<b>tough</b> 48:14	<b>travels</b> 45:16	127:20
61:11 74:17	125:1,2,8	<b>third-party</b>	82:17,23	118:17	<b>town</b> 166:13	<b>Treasurer</b> 2:6	137:11
80:2 82:5	125:13,16	58:2	84:8,9 85:3	130:7	<b>track</b> 42:16	<b>Treasury</b>	148:23
85:23 90:2	127:15,19	<b>thought</b> 79:9	86:11 92:17	135:20	104:21	16:7,11	<b>turned</b>
91:21	127:22,23	83:19 101:9	97:3 98:12	137:8,19,23	109:20	17:7,22	177:19
106:12	128:16,17	119:22	100:4,4,8	138:3	132:10	26:5 69:18	<b>TV</b> 82:7
110:2 125:3	128:24	137:15,18	101:19	144:22	139:2 141:8	<b>trees</b> 131:9	<b>tweak</b> 173:11
129:5	129:11	166:6	102:5	145:19	<b>traction</b>	<b>tremendous</b>	<b>twelve</b> 75:9
130:15,21	130:1,15,21	<b>thoughts</b>	104:21	146:6 147:2	76:20,22	94:13 97:13	<b>two</b> 1:14 5:12
149:17	131:14,15	20:15 176:3	105:8 108:4	156:8	107:5	164:13	7:3 17:3,9

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 22

18:18 19:2	<b>ultimate</b>	<b>unique</b> 55:18	<b>valuations</b>	<b>vet</b> 56:20	85:19 86:3	100:13	117:17
19:10 20:2	181:19	<b>United</b> 27:14	15:21,23	57:20	86:19 93:24	122:21,23	123:1 125:6
20:3,4 38:2	<b>ultimately</b>	79:20	16:2 28:12	<b>vetting</b> 56:6	99:24	135:12	127:3 130:6
50:10 51:19	19:12,20	<b>universe</b> 72:3	80:16 81:6	<b>Viacom</b> 33:1	100:16	157:18	130:17
51:23 59:4	20:7 24:19	99:14	83:7 88:24	<b>view</b> 131:8	103:4 107:6	<b>Washington</b>	135:14
59:20,23	39:14	154:22	115:14	157:10	110:19	51:19	142:10
60:1 61:4	<b>unable</b> 184:1	<b>university</b>	<b>value</b> 15:1	180:23	112:3,5,10	<b>wasn't</b> 10:3	146:8,19
62:1,1,8	<b>uncorrelated</b>	141:11	17:12 32:6	<b>viewership</b>	112:11,13	11:15 26:15	156:15
73:20 90:11	120:15	<b>unpreceden...</b>	35:13 36:2	33:2	112:13,16	34:4 44:9	158:17
91:21 92:1	128:2	30:9,16,21	36:4,10	<b>views</b> 19:8	112:17	<b>water</b> 8:22	175:10
98:3 103:15	<b>underestim...</b>	<b>untrue</b> 175:5	37:22 68:14	118:19	113:20	10:17	177:7 178:5
104:7	166:11	<b>unusual</b>	69:22 74:24	<b>violated</b>	114:10,11	104:12	184:7
106:24	<b>underlying</b>	22:16	88:21 90:23	180:13	117:6	<b>way</b> 3:5,23	<b>we've</b> 24:20
107:15	17:24 61:10	<b>update</b> 15:16	96:22 103:1	<b>violating</b>	123:17,24	4:17 64:3	33:14 52:19
118:21	62:21 92:11	88:18	103:24	180:17	124:14	64:12 94:20	70:10 75:2
125:3	123:7 153:8	114:14	105:6 128:8	<b>vis-a-vis</b>	126:13	98:23 111:7	76:9 77:3
126:14,17	153:20	<b>updated</b>	129:7	90:19 96:6	129:17	112:15	79:2 96:12
135:21,23	<b>underneath</b>	70:14	132:15	133:6	130:22	119:10	104:8 107:7
136:9 139:1	87:10	<b>upper</b> 40:22	134:21	<b>visit</b> 110:4	132:11,19	123:16,19	108:23
143:3	<b>underperfo...</b>	<b>ups</b> 64:14	154:13	<b>visited</b> 45:22	134:11,11	135:22	130:18,19
145:18	32:18,19	74:20	<b>value-orien...</b>	46:2,4,6,7	135:1 140:8	140:23	143:8
177:4	33:10,13	<b>upside</b> 7:13	15:4	103:3 110:1	140:10,21	141:5,10,15	155:19
<b>two-to-one</b>	40:4	84:19	<b>values</b> 78:16	110:1	140:23	149:6 151:3	156:14
176:12	<b>underperfo...</b>	<b>use</b> 43:16	<b>variables</b>	<b>visits</b> 57:22	150:21	152:7,13,14	<b>Weak</b> 87:18
<b>twofold</b> 150:2	35:15	93:20 113:2	114:24	<b>voice</b> 108:3	152:2,5	153:18	<b>weaken</b> 21:10
<b>type</b> 43:17	113:10,17	113:3,6,21	<b>variety</b> 88:15	110:20	153:18	164:12	<b>weakening</b>
44:15,21	113:19	115:3	89:20	<b>volatility</b>	155:15,20	172:3	21:5
57:19 78:2	<b>underperfo...</b>	121:23	<b>various</b> 41:10	28:15 29:22	155:22	173:20	<b>weakness</b>
124:9	113:8,15	123:17,17	41:15 53:18	65:15,22	158:10,16	178:12	7:18,18,22
140:13	<b>understand</b>	129:12	56:8 59:20	68:20 91:19	159:4,11,24	179:18	12:18 13:2
160:17,21	22:12 44:19	131:8	59:20 88:22	124:11	160:6,18,22	<b>ways</b> 44:17	22:10
160:23	70:7,7	132:19	<b>Vaughan</b>	126:4	161:3,21	131:13	<b>wealth</b> 144:4
<b>types</b> 79:4	82:19 149:8	138:19	35:12	<b>Volker.Fra...</b>	164:5,7	164:4	149:11
140:16	149:15	142:6 150:5	<b>vehicles</b>	27:3	165:1,13,15	<b>we'll</b> 5:23	<b>webinars</b>
149:9	152:3,5	151:11	43:15 90:6	<b>volume</b> 134:7	165:19	73:16 80:7	72:21
177:14	158:20	153:11	164:16	<b>vote</b> 166:2	166:14,19	174:3	<b>website</b> 57:4
<b>typical</b> 132:9	162:2	154:15	<b>verify</b> 121:18	168:6 174:9	167:23	<b>we're</b> 14:24	<b>wed</b> 124:3
<b>typically</b> 7:21	167:23	155:15,22	<b>versus</b> 15:23	174:21	169:24	15:21 16:10	<b>Wednesday</b>
75:3	173:4 182:5	173:10	32:16 35:7	175:4	172:11	27:15 28:23	1:8
	182:22	<b>useful</b> 99:11	35:11 36:10	176:12	173:4,6,9	31:2 40:7,8	<b>week</b> 5:15,16
<b>U</b>	<b>understand...</b>	99:16	37:10,12	177:18	174:14	43:14 48:18	10:15 73:1
<b>U.S</b> 7:15 13:9	26:1 179:24	<b>user</b> 12:23	38:8,11,24	<b>W</b>	177:4,21	53:2 57:3	<b>weekend</b>
15:23 16:1	<b>underweight</b>	<b>uses</b> 155:24	41:6 70:22	<b>wait</b> 90:22	179:19,23	58:15 60:4	109:16
18:14 21:2	41:3	<b>utility</b> 105:11	92:11,16	158:22	182:7,18	70:24 76:3	<b>welcome</b>
21:9,12,17	<b>underweigh...</b>	<b>utilization</b>	95:19,23	<b>walk</b> 49:17	<b>wanted</b> 170:9	76:19 82:2	98:13
24:3 25:1	41:6	13:4	99:23	<b>walked</b>	171:3	83:20 88:16	<b>went</b> 16:6
28:13 31:1	<b>unearth</b>	<b>utilize</b> 160:2	111:18	133:22	<b>wants</b> 132:5	92:3 93:12	39:9 41:20
31:1 37:11	109:3	<b>V</b>	114:19	<b>Wall</b> 23:1	181:7	94:2 96:6	41:21 79:8
56:11 59:24	<b>Unfortunat...</b>	<b>valid</b> 118:9	132:14	<b>want</b> 43:6	<b>warming</b>	96:23 97:21	97:5 122:8
79:19 81:13	100:20	<b>valuation</b>	157:4,9	58:19 62:10	121:1,12	98:5 102:9	122:10,14
84:5 92:15	<b>union</b> 105:18	40:21,24	<b>vertical</b>	70:2,5 71:9	<b>warning</b>	102:20,24	122:16,17
93:2,7	<b>unions</b>	41:15 93:5	106:11	73:13 77:9	73:15 84:1	103:19	127:1,2
112:1 113:9	149:11	114:9,22	<b>vests</b> 176:22	81:21 82:6	84:3 93:17	108:4 117:6	160:20
113:11							

Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 23

170:2 171:6	149:19	wouldn't	year-to-date	39:16,18	74:11 78:10	66:23 67:2	160:20
<b>whatnot</b>	158:5,13,15	131:18	16:9 35:7	43:21 69:8	90:21	86:10 93:12	<b>2-3</b> 160:21
149:11	158:21,24	168:11	36:7	69:13,15,19	101:16	116:23	<b>2-4</b> 160:21
<b>whatsoever</b>	159:15,20	<b>written</b>	<b>years</b> 34:14	69:22,24,24	104:24	146:5,19	<b>2.2</b> 92:20
52:14	166:4,23,24	178:13	36:9 37:14	72:15,17	106:3 122:3	148:24	<b>2.3</b> 16:8
<b>white</b> 10:5	170:7,8	<b>wrong</b> 28:2	37:21 38:20	90:18	122:6	<b>150</b> 120:20	<b>2:31</b> 184:9
72:18	<b>worked</b> 34:17	30:13 82:14	57:15 70:11	113:18	124:14	<b>155</b> 166:20	<b>20</b> 1:8 22:9
111:15	51:2 54:14	173:10	76:11 77:6	115:17,19	125:5 128:5	167:5,7	22:13 25:14
157:11	137:10	<b>wrote</b> 157:11	86:8 91:6	115:20	144:15	168:5,11,17	63:2,4
<b>wide</b> 88:15	141:5		100:3,20,22	126:21	<b>10-plus</b> 17:6	<b>155,000</b>	73:14 80:19
89:20	168:14	<b>X</b>	101:4,7,8	128:18,20	<b>10-year</b> 16:7	165:5 166:7	90:22 93:21
<b>widen</b> 8:18	<b>workforce</b>	<b>X</b> 158:10	101:16	129:1,4	16:11 17:16	170:13,15	96:12
28:22	145:20		102:3,13	130:5,12	18:2 69:17	170:17	101:12
<b>Will's</b> 136:2	<b>working</b> 5:13	<b>Y</b>	103:24	<b>yielding</b> 84:6	84:5 116:24	<b>158</b> 42:11	102:21
<b>William</b>	32:21 51:4	<b>Yale</b> 131:7	106:18	<b>yields</b> 26:5	117:2	<b>16</b> 86:11	124:24
136:20	54:12 70:9	132:4,5	107:13,19	69:14 90:23	<b>10.8</b> 127:3	103:21	125:17
<b>willing</b> 167:2	70:10 102:4	<b>yeah</b> 31:16	108:7,10,22	130:14	<b>100</b> 65:7	111:5 147:2	127:17
<b>win</b> 100:5	102:10	34:23 62:11	114:17	<b>York</b> 46:7	69:18	151:10,14	146:19
147:8,10	119:20	67:11 89:7	115:1,11,14	47:7 75:11	117:17	<b>16-plus</b> 16:24	155:4
<b>wind</b> 134:8	136:13,14	93:16 109:9	116:13,15	105:14	120:7,23	<b>160</b> 168:12	166:19
<b>winter</b> 11:17	136:15	119:16	116:21,21	<b>yuan</b> 24:16	123:2	<b>165</b> 167:12	<b>20-plus</b> 17:2
11:23	137:7 145:1	124:18	116:22,23	24:20	<b>100,000</b> 47:8	<b>16th</b> 1:15	76:11
<b>withdrawals</b>	146:5 147:1	133:11	117:13		99:22	<b>17</b> 13:20	<b>20-year</b> 69:17
41:19	151:18	151:4,8	118:15,18	<b>Z</b>	<b>1000</b> 31:24	<b>170</b> 167:12	<b>20,000</b>
<b>women</b> 97:15	155:19	162:8 166:1	118:21,22	<b>0</b>	<b>11</b> 15:18	168:7	166:23
<b>won</b> 177:18	156:14,18	170:11	126:2,8	<b>0</b> 43:1 65:8	31:19 107:9	<b>175</b> 168:8	<b>20/80</b> 81:17
<b>Woolworth</b>	158:19	174:10	136:14,24	125:24	144:15	174:8	<b>200</b> 105:2
2:13 12:2	160:14	<b>year</b> 6:1 9:11	137:3,6	<b>0-dollar</b> 87:1	<b>11.3</b> 126:5	<b>175,000</b>	<b>200-plus</b>
17:14 20:15	164:14	12:7 14:19	138:14,15	129:22	<b>11:00</b> 1:16	47:11	52:16
20:22 34:23	173:7,20	15:2 16:22	150:6	<b>0.05</b> 96:20	<b>116</b> 1:21	133:18	<b>2000</b> 82:24
<b>word</b> 173:11	<b>works</b> 49:16	18:8,18	153:21	<b>0.85</b> 96:18	<b>12</b> 36:1 84:23	134:4,9	<b>2004</b> 143:8
<b>words</b> 129:18	54:23	19:3 20:9	154:2,8		136:14	<b>18</b> 3:11 31:4	<b>2008</b> 156:15
<b>work</b> 50:7,16	104:14	24:21 38:15	155:6,8	<b>1</b>	144:16	53:16,16	156:17,21
51:20 54:2	149:22	39:5 42:7	157:11	<b>1</b> 6:3 22:21	146:6	<b>18940</b> 1:22	<b>2008/2009</b>
71:1,1 77:5	170:9	42:17 62:20	158:3,11	22:21,22	<b>127</b> 104:6	<b>1976</b> 51:14	11:3
80:1 81:20	<b>world</b> 27:13	62:22 63:2	163:4	23:16,16	<b>13</b> 40:21 59:9	<b>1985</b> 91:7	<b>2008/9</b> 68:4
86:12,17	78:16,18	65:11,13,14	167:10	41:3 42:2	59:10,18	<b>1986</b> 137:21	<b>2009</b> 130:12
95:18	80:24 81:4	65:23 67:1	169:22	42:20 43:2	73:2 89:5	<b>1990</b> 68:24	<b>2010</b> 143:9
100:21	90:24 111:2	75:3,6,8,20	174:24	65:7 66:22	93:4 148:9	<b>1990s</b> 122:4	143:12
101:7	120:2	75:24 78:11	181:4	66:23 67:2	153:16	<b>1995</b> 145:17	<b>2013</b> 112:9
102:10	142:23	78:22 79:3	<b>yesterday</b>	81:24 96:16	<b>135</b> 48:11,12	<b>1997</b> 146:22	116:1 118:3
104:6,19	<b>worldwide</b>	85:21 91:22	28:5 42:4	96:18 117:6	<b>135,000</b> 47:4		<b>2014</b> 112:6
105:16	23:15	93:2 96:17	91:16	134:2,18,20	<b>13th</b> 5:16	<b>2</b>	143:8,18
109:9 114:6	<b>worried</b>	101:24	<b>yield</b> 6:15,16	138:14	<b>14</b> 36:20 41:9	<b>2</b> 7:16 16:7	<b>2015</b> 8:11
114:7 117:1	23:14 121:6	105:19	6:17,22,24	169:17	80:18 86:10	16:11 22:22	10:24 12:18
130:17	121:11	114:14	7:2,5 8:17	<b>1-plus</b> 20:8	87:21 93:2	22:22 32:17	128:3
132:22	<b>worse</b> 30:17	117:21	8:24 16:6	<b>1,000</b> 9:11	110:3	41:5,6 50:2	<b>2016</b> 1:8 29:9
135:1,22,23	30:18 43:23	128:4 130:6	16:13,14,23	17:6	<b>14.4</b> 41:19	73:17 81:3	114:12
136:5,21	112:21	131:9	16:24 17:10	<b>1.4</b> 65:15	<b>145,000</b> 48:9	96:11	153:18
137:8 139:5	<b>worst</b> 30:7,15	137:21	17:13 25:14	<b>1.6</b> 84:6	<b>14th</b> 101:24	102:22	<b>21</b> 68:13
141:13	166:16	143:9	25:15,21	<b>10</b> 24:21	<b>15</b> 15:12 33:6	124:24	<b>215</b> 1:23
144:13,18	<b>worth</b> 124:12	158:16,22	26:4 27:5,9	29:24 30:1	41:14 63:4	126:19,20	<b>23</b> 102:3
145:3 149:2	181:8	160:21	29:2 39:12	58:8 63:10	63:10 66:22	126:20	137:6
		178:10				134:18	



Sinking Fund Commission Quarterly Meeting  
January 20, 2016

Page 24

<b>24</b> 31:4 69:11 102:3 137:6 <b>25</b> 49:5 57:15 73:15 74:10 100:12 128:9 135:11 154:19 <b>250</b> 137:23 <b>26</b> 32:15 163:22 <b>27</b> 108:21 <b>28</b> 108:7 <b>29</b> 127:20 <hr/> <b>3</b> <b>3</b> 8:2 40:1 41:2,17 101:14 134:16 137:11 139:13 <b>3.3</b> 40:2 <b>30</b> 40:5 42:8 42:16,20 70:13 84:22 92:10 116:15 117:12,12 117:15 120:21 133:9 138:14 150:6 154:1 154:8 174:23 <b>30-plus</b> 91:6 <b>30-year</b> 17:16 17:22 18:3 150:4 153:11 <b>30-years</b> 116:22 <b>300</b> 53:9 <b>30th</b> 137:21 <b>31</b> 3:23 4:17 5:7 70:4 <b>321</b> 52:5 <b>33</b> 41:12 126:7 153:2 153:5 <b>338</b> 52:6 <b>34</b> 138:5 148:18	161:17 <b>347</b> 139:12 <b>35</b> 60:16 108:10 125:21 130:11 <b>350</b> 53:5 <b>37</b> 162:3,6 <hr/> <b>4</b> <b>4</b> 7:14 52:18 75:4 90:24 90:24 119:11 124:10,11 142:4 <b>4.7</b> 15:11 <b>40</b> 10:14 67:3 90:5 117:16 120:21 145:21 152:19 154:16 <b>400</b> 28:4 <b>44</b> 52:15 <b>45</b> 117:16 <b>450</b> 53:2 <b>483,457,000</b> 40:24 41:16 <b>49</b> 144:22 145:19 <hr/> <b>5</b> <b>5</b> 14:7 44:11 53:11,12 65:8 73:6 76:8 81:24 116:13,20 116:22 117:4 123:18 124:11,12 126:1,8,22 126:23 136:23 142:15 153:21 154:9 155:6 155:8 158:2 158:8,15 160:8 <b>5-minute</b> 73:15 100:13	135:12 <b>5.3</b> 128:7 <b>5.4</b> 126:2,3 <b>5.6</b> 32:16 <b>5.69</b> 154:1,9 <b>5.7</b> 115:22 127:1 <b>50</b> 21:5 51:17 51:22 53:8 54:18 91:17 125:4 128:10 154:16,19 155:3,4 164:18 173:2 <b>500</b> 53:2 69:2 80:18 84:21 92:18 131:14 133:19 134:5 181:8 <b>504-4622</b> 1:23 <b>50th</b> 70:22 <b>54</b> 1:21 <b>55</b> 74:8 <b>55/35</b> 72:7 <hr/> <b>6</b> <b>6</b> 14:15 42:6 42:13,13 53:23 55:2 65:14 76:13 91:1 103:14 103:22 105:1 115:19 124:11 142:17,20 <b>60</b> 152:19,22 154:16 <b>600</b> 26:4 <b>639</b> 39:13 <b>65</b> 60:16 91:17 125:20 139:16 <b>65/35</b> 41:13 60:16 <b>67</b> 41:12 <hr/> <b>7</b> <b>7</b> 14:10 15:8	54:21 91:1 91:22 115:12 142:17 143:19 154:5,7,9,9 155:6,8 175:1,10 177:17 178:6 <b>7.65</b> 96:1 126:6 178:9 <b>7.85</b> 175:9 177:16 <b>7.9</b> 14:12 40:8,10 <b>70</b> 92:12 110:7 <b>75</b> 65:6 113:14 <b>765</b> 46:23 <hr/> <b>8</b> <b>8</b> 15:20 26:6 42:5 91:22 <b>8-plus</b> 30:3,5 <b>80</b> 22:9,10 25:15 70:19 113:14 <b>80/20</b> 81:17 <b>800</b> 9:10 <b>85</b> 96:17 113:16 <hr/> <b>9</b> <b>9</b> 15:13 16:4 41:20 57:24 82:1 91:22 93:1 115:20 143:21 <b>90</b> 113:17,18 152:20 <b>927</b> 139:19 <b>95</b> 36:16				
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--	--