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1 (10:55 A.M.)
2 CHAIRMAN:
3 Q. Well, good morning everybody. I think have we
4 agreed on the schedule? They all know what
5 the line up is?
6 MS. GLYNN:
7 Q. 12:45.
8 CHAIRMAN:
9 Q. 11 to 12:45 and then we're going to break for
10 a half an hour? Is that right? And then
11 we'll go from 1:15 to 2:45. Is that
12 acceptable?
13 JOHNSON, Q.C.:
14 Q. Yes, Mr. Chair.
15 STAMP, Q.C.:
16 Q. A 15-minute break there.
17 CHAIRMAN:
18 Q. Okay, 15 minutes. I mean, it's up to you
19 crowd. Don't bother me. So, okay.
20 MS. GLYNN:
21 Q. Our 15 minutes usually turn into a bit longer,
22 so we'll strive for the 15.
23 CHAIRMAN:
24 Q. Yes, okay. So at the very latest then, 1:15.
25 MS. GLYNN:

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1 Q. Absolutely, yes.
2 CHAIRMAN:
3 Q. If everybody is ready, sooner. And I believe,
4 Mr. Stamp, we are continuing with you, sir.
5 So, you're on.
6 MR. SHAWN DOHERTY, RESUMES STAND, EXAMINATION-IN-CHIEF BY
7 KEVIN STAMP, Q.C. (CONT'D)
8 STAMP, Q.C.:
9 Q. Thank you, Mr. Chairman. Yes, Mr. Chairman,
10 Commissioners, if I can have Mr. Doherty go
11 back to where we left off yesterday, which was
12 CAOW-1 and the response to it, which is the
13 Oliver Wyman report, I guess, associated with
14 benchmark and what we were looking at at that
15 time was the top of page six in that document.
16 WILLIAMS, Q.C.:
17 Q. I think it's page seven.
18 STAMP, Q.C.:
19 Q. In the printed volume, it's six. Sorry. Mr.
20 Doherty, just want to come back to this now.
21 So what's your understanding of these four top
22 lines here? What is going on here when they
23 outline what their doing here from certain
24 periods and certain exclusions and giving the
25 percentages? What is that?

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1 MR. DOHERTY:
2 A. As I understand it, we're doing a regression
3 over different measurement periods, the first
4 being a ten-year period ending December 2012
5 and then a five-year, then a ten-year ending
6 June 30th, 2012, then a five-year ending that
7 same period. In each of those cases, certain
8 values have been excluded within the
9 measurement period.
10 STAMP, Q.C.:
11 Q. And so this is describing a regression
12 exercise of some sort, these four lines?
13 MR. DOHERTY:
14 A. That's right.
15 STAMP, Q.C.:
16 Q. And it's only four regressions? Is that what
17 we're seeing?
18 MR. DOHERTY:
19 A. Yes, this is four regressions and the four
20 regressions have then resulted with an
21 estimate of trend.
22 STAMP, Q.C.:
23 Q. Okay. So, why would the exercise limit itself
24 to four regressions?
25 MR. DOHERTY:

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1 A. I don't know.
2 STAMP, Q.C.:
3 Q. When FA does regressions, when and how do you
4 determine that a data point is an outlier?
5 MR. DOHERTY:
6 A. We would do a regression, analyze the
7 residuals and then determine whether or not we
8 felt any of the data points could potentially
9 be an outlier. We would test to see the
10 results then without that data point in. If
11 the exclusion of that data point significantly
12 or materially changed the regression answer,
13 in this case looking for a trend, then we
14 would deem that outlier to be influential and
15 we would include it as an additional model
16 under consideration.
17 STAMP, Q.C.:
18 Q. And so how does that approach that you just
19 described for facility compare with the
20 approach we're seeing here in the four lines
21 that are on top of this page?
22 MR. DOHERTY:
23 A. Based on this, it appears that the exclusion
24 or the determination of what constitutes an
25 outlier occurs before the data is actually

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1 reviewed, before a fit is determined,
2 including the values, and as I look through
3 the complete report, because this same
4 approach seems to be replicated, my assumption
5 going in is that in each case there are four
6 regressions completed and the time period is
7 predetermined, either being ten years or five
8 years, although it shifts in the two sets, and
9 that the outliers or the data points that are
10 going to be excluded within the data you have
11 available in that ten or five-year period is
12 predetermined and excluded before the analysis
13 is completed.
14 STAMP, Q.C.:
15 Q. So does -- how do we know they're outliers if
16 you exclude them before you do the analysis?
17 MR. DOHERTY:
18 A. I don't. I'd be interested to understand how
19 that works.
20 STAMP, Q.C.:
21 Q. Well, doesn't -- I mean, if you exclude two on
22 the upper side and two on the lower side, I
23 mean, in every period won't there be two like
24 that?
25 MR. DOHERTY:

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1 A. Yes, in any data set, unless all the values
2 are equal, there will be a high and there will
3 be a low. That's the nature of numbers.
4 STAMP, Q.C.:
5 Q. Does having a high or having a low or having a
6 number of highs, a number of lows, make those
7 outliers in your opinion?
8 MR. DOHERTY:
9 A. No. Any data set, again, if the numbers are
10 not all the same, then every data set has a
11 high and has a low. That doesn't mean it's a
12 statistical outlier.
13 STAMP, Q.C.:
14 Q. Okay.
15 MR. DOHERTY:
16 A. As far as I'm concerned.
17 STAMP, Q.C.:
18 Q. But that's what's being done here? They're
19 being treated as statistical outliers?
20 MR. DOHERTY:
21 A. Not the data point itself being a high or a
22 low, but the change -- the exclusion is
23 dependent on the change and again, I don't
24 know how you would determine that before but
25 this is an approach that appears to be

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1 undertaken. We can certainly -- you can
2 certainly test the result of that in simple
3 regression.
4 STAMP, Q.C.:
5 Q. How would you describe the approach?
6 MR. DOHERTY:
7 A. I would describe it as I see it, as very
8 mechanical. As I mentioned yesterday, it's
9 very efficient because it is mechanical. You
10 have the data. You decide before you do
11 anything with it what the highs and lows
12 you're removing. So you've identified the
13 data points you're including. To do the
14 regression, it's a calculation. Like I said
15 yesterday, you can do it in Excel. There's
16 regression functions in Excel. You can do it
17 directly by just doing it from the data
18 itself. It's available in any statistical
19 textbook on how to do that.
20 STAMP, Q.C.:
21 Q. What risk might you see be evident in that
22 approach, that mechanical approach?
23 MR. DOHERTY:
24 A. Well, you're excluding data points. So, I
25 think any time you start off taking out data

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1 points -- again as I mentioned yesterday with
2 sample sizes, if you reduce your sample size,
3 it makes it more difficult to get comfort that
4 your estimate is as good as it could be if you
5 included all the data. There are tests that
6 you can do to determine whether or not it
7 might be better if you excluded some data. I
8 don't think you need to do that before you
9 start the analysis.
10 STAMP, Q.C.:
11 Q. But if you have four formulas or four
12 methodologies that you adopt to do this, the
13 ten and ten and five and a five, how do you
14 recognize whether there's other data that
15 might be influential?
16 MR. DOHERTY:
17 A. You don't. Again, the periods seem to be
18 predetermined, so, a ten-year period and a
19 five-year period. That may overlap. Again, if
20 you look at the data, you're analysing the
21 data and data says during that period there
22 may be two different trends, one that happens
23 here and then another one that happens in a
24 different spot, doing this approach doesn't
25 get you to be able to see if they've changed.

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1 I'm not sure -- for me, trying to determine if
2 there has been a change over a period of time
3 or if there's been multiple changes in trends
4 over a period of time, I don't see this as
5 identifying those changes.
6 STAMP, Q.C.:
7 Q. Okay. Now did you a few days ago prepare a
8 series of, I guess, analysis of the Oliver
9 Wyman approach in this area?
10 MR. DOHERTY:
11 A. I would describe it more as I replicated this.
12 STAMP, Q.C.:
13 Q. Okay.
14 MR. DOHERTY:
15 A. Again, regression is calculating values. If I
16 have the data and I know which ones were
17 excluded, I know the data that was put into
18 the calculation, so I can replicate it. I can
19 determine the R squared because it's a
20 formula. I can determine the adjusted R
21 squared because it's a formula. I can
22 determine the P values and the T statistics
23 because they're all formulas. So given the
24 data at the back of the report and assuming
25 that I typed in the values correctly, I can

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1 replicate what they have. The results that I
2 got out when I took the ten-year period and I
3 excluded the two highs and lows based on
4 change, I got the minus 1.7 trend.
5 STAMP, Q.C.:
6 Q. Okay. So can I just ask you to turn then -- I
7 think, Mr. Chairman, Commissioners, we have
8 provided four documents. I think they've been
9 identified as SD-1, SD-2, SD-3 and SD-4. So
10 they're -- I think everybody has those.
11 MS. GLYNN:
12 Q. They're officially on the record.
13 STAMP, Q.C.:
14 Q. And have you got those available to you?
15 MR. DOHERTY:
16 A. I do, yes.
17 STAMP, Q.C.:
18 Q. And did you prepare those documents?
19 MR. DOHERTY:
20 A. I did, yes.
21 STAMP, Q.C.:
22 Q. Okay. And these are your -- how do you
23 describe those again? These four documents,
24 are you replicating?
25 MR. DOHERTY:

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1 A. I am replicating the regression that was
2 completed.
3 STAMP, Q.C.:
4 Q. All right. So, I don't know if we need to
5 enter those specifically, but I'd ask that
6 they be entered.
7 MS. GLYNN:
8 Q. They've been distributed and they are now
9 officially on record.
10 STAMP, Q.C.:
11 Q. Okay. So they're treated as exhibits, as I
12 understand it. All right. If you could turn
13 then, Mr. Doherty, to SD No. 1, the first of
14 those group of four and tell us what you've
15 done here?
16 (11:15 A.M.)
17 MR. DOHERTY:
18 A. Yes. So we went through the general model
19 yesterday, so I'm not going to describe all
20 the stuff that's embedded in our approach to
21 this. I just want to highlight a couple of
22 things. So on the right, there's a series of
23 columns. The heading is loss cost values.
24 The first one says from valuation. That's a
25 standard title that we have in our model, but

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1 this is actually, you know, me typing in the
2 values that I found in the back of the Oliver
3 Wyman report that are the loss cost as per the
4 Oliver Wyman report. The second column is the
5 fitted model. So in this particular case,
6 I've used the latest ten years only. I've
7 excluded where the change, the two highest
8 changes and the two lowest changes, as I
9 understand the description in the report.
10 STAMP, Q.C.:
11 Q. Is that the first page with the Ys below, at
12 or below H or '03 H1?
13 MR. DOHERTY:
14 A. Yeah. So the first -- yeah, that first column
15 excludes -- exclude data point, yes or no.
16 The first five years of data -- like ours is a
17 20-year model. The first five years are not
18 provided in the report, so they're
19 automatically excluded and that's why there's
20 zeros in there from -- it's from valuation but
21 it's really from the Oliver Wyman report. The
22 next several are excluded because they aren't
23 in the most recent ten years and then beyond
24 that, we identify whether they're excluded or
25 not based on the change, and if you just slide

1 over a little bit to the right, you can see
2 I've calculated the percentage change. So,
3 for the one period, it's not the change from
4 the value immediately before it, but one
5 before that. So it's the change from H1 to H1
6 or H2 to H2. And I've highlighted in that
7 column where within the ten-year period the
8 highest two changes and the lowest two
9 changes. So maybe if you scroll up a little
10 bit, you'll see minus 40 is highlighted.
11 Minus 46 is highlighted. Plus 65 is
12 highlighted and plus 57 is highlighted. So
13 based on those calculations, that's what I
14 determine, as I understand the methodology
15 employed, would be the data points that would
16 be excluded in that data set.
17 STAMP, Q.C.:
18 Q. And did you run a regression then on this?
19 MR. DOHERTY:
20 A. Yes, I did.
21 STAMP, Q.C.:
22 Q. Is that the way to describe it?
23 MR. DOHERTY:
24 A. Yes.
25 STAMP, Q.C.:

1 Q. Okay. And what did you do?
2 MR. DOHERTY:
3 A. So if we move to the page two in this exhibit.
4 So the first thing off to the right, it's
5 highlighted in yellow. It's called fitted
6 value annual pass and future. You'll see that
7 that's the minus 1.7. I believe that's the
8 same trend that Oliver Wyman determined. In
9 that same block, you'll see previous selected
10 is minus two and a half. That was Oliver
11 Wyman's previous selection. The selected
12 annual I put in at minus one and a half
13 because that's the end result. They've
14 determined that the trend is minus one and a
15 half, so I've included that, and I did want to
16 include that just so you could see that with
17 this methodology, you can in fact select
18 coefficients that are different than the
19 fitted coefficients, which is what I've done
20 here, and I will describe how I fit that minus
21 one and a half over top of the data because as
22 you'll -- if we scroll down a little bit,
23 you'll see the two charts. One has the actual
24 data and the fitted model data and the other
25 one has the actual data and the selected model

1 loss cost. Now the selected model loss cost,
2 the trend is minus one and a half. You only -
3 - in this instance, we're only looking at a
4 relationship between loss cost and time and so
5 I only need to parameters to describe a line.
6 One describes the slope of the line. The
7 other one describes where it hits the axis
8 when X is zero. And so, under the
9 coefficient, you'll see one thing, it's
10 intercept is 40.869 and then all years is the
11 only other thing you've got. Those are the --
12 those two numbers describe the red line that
13 you see under fitted. Under the column that
14 says selected coefficient, the two values that
15 you see there describe the red line that's in
16 the other graph where the slope of the line is
17 minus 1.5 and I had to calculate the intercept
18 because I got the slope, but I don't know
19 where it's going to meet up with the line, so
20 I had to figure out some way to sit it over
21 top of the data, I guess, for lack of a better
22 word. I guess there's a few different ways
23 you could do that. We look at -- when we're
24 trying to set data on top of other data, we
25 look at two different approaches. Generally

1 option one -- you'll see it here. We have it
2 highlighted in that red box. Option one is
3 that over the period that you're reviewing,
4 you set the loss cost averages the same. So
5 we would use a goal seek to have the selected
6 model come up with -- in this case, the
7 overall average over that period is 318.92 and
8 so we would do a goal seek to make the
9 selected model have that same average loss
10 cost, 318.92, and so that's the result of the
11 exercise. You can see the difference is zero.
12 And I did that by adjusting the intercept
13 coefficient and it ended up being 36.105. And
14 you'll see that each time I changed the
15 period, I have to change how that sits on. So
16 while the slope is always going to be minus
17 one and a half percent, the value is going to
18 change because I have to -- I'm trying to fit
19 it over top of the same period, so I'm doing a
20 like to like. But in this case, so I've got
21 results. I've got two charts, two fitted
22 value sets, one that's fitted through the
23 regression; one that's fitted through the
24 final selection of a trend of minus one and a
25 half percent.

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1 STAMP, Q.C.:
2 Q. And what did you -- what does this regression
3 analysis then -- or what does the data show in
4 terms of these conventional, I guess, numbers
5 that you look at, the R squared, the adjusted
6 R squared, P values and so on that you've
7 spent time talking about already?
8 MR. DOHERTY:
9 A. Yeah, so from this, again the coefficient
10 determination of the fit, the intercept and
11 that all years' coefficient, that's a
12 mechanical exercise. That just gets spat out.
13 So, we want to look at whether or not we would
14 accept this as a model. That is that minus
15 1.7 percent trend seems to describe the
16 relationship between loss cost and trend or
17 loss cost and time. And so if we just slide
18 up a little bit, there we go, we've got a
19 number of the regression statistics and so,
20 under the block that's called fitted trend
21 structure regression statistics, the R squared
22 is, in this case, 11.75 percent. So what it's
23 saying is that the regression that I've
24 determined describes about 12 percent of the
25 variance in the loss cost over the period of

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1 the data that I chose. Not the period that I
2 chose, but the data I chose, because I didn't
3 include all the data in that period. When I
4 adjust for the number of parameters, and
5 there's only one parameter, when I adjust for
6 the parameter in here, the adjusted R squared
7 is five percent. Right below that, you'll see
8 runs test results. The runs test on the
9 residuals here indicates that the residuals
10 are not random. So we would look at that and
11 say, okay, I've got a poor original measure of
12 fit. The R squared tells us how much is being
13 described. It's not telling us whether or not
14 the coefficients are unbiased. It's not
15 telling us whether or not the predictions or
16 the projected values are unbiased. We have to
17 look at the residuals for that. So our first
18 residual tests: are the residual runs random?
19 No, they're not. Then we would look at the P
20 value and again, in this case, for all years
21 of that trend, it's saying that the P value is
22 16 and a half percent, so that's effectively
23 saying if the trend really is zero, then
24 there's a 16 and a half percent change you'd
25 get a trend estimate of the magnitude of minus

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1 1.7 percent just due to the randomness of the
2 data and based on our criteria, we would then
3 say there's not enough information here for us
4 to reject the hypothesis that the rend is in
5 fact zero, not minus 1.8 percent. We would
6 also not stop there. We would also go down
7 and look at the additional charts down below
8 and maybe if you can just scroll down, there's
9 other residual tests. There's a residual plot
10 there. It's going to be a challenge to look
11 at this one because we've excluded the earlier
12 data. They're all showing as significant
13 variances from the red line. All those dots
14 describe the distance of the individual actual
15 point from the red line and you know, we
16 didn't try -- in this case, because we're only
17 focused on the ten-year period, we weren't
18 trying to fit all of the data. So, the
19 earlier part we were seeing two data points
20 that are significantly higher than the line,
21 we weren't even trying to fit it. So I would
22 ignore those. Now this is after we've already
23 excluded data, so it's kind of tough to
24 determine whether or not there would have been
25 outliers had you not removed the outliers to

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1 begin with. In this particular case, two of
2 the outliers, the two high outliers, as you
3 might imagine, because we're dealing with data
4 that's after 2003-1, are those two points, you
5 know, right above 2007 -- I forget if it's
6 2007, H1 or H2, and then 2011, 2011 H2. It's
7 those two peaks that you see out there. And
8 if we didn't have the exclusion already, the
9 analysis might indicate that those are
10 candidates for outliers. The one low is --
11 one of the two lows is the 2005 and it's that
12 one that kind of drops down, and so, you know,
13 when you're looking at it, you might think
14 yeah, that seems to be a low. The other low
15 is 2003 H1 and it's above the line and the
16 reason it's excluded is because if you see
17 that really high peak, that's a 2002 H1, it's
18 the loss cost is 700, and the next data point
19 for H1 is 2002 H1. It's a significant drop
20 from that very high level. I don't think it
21 necessarily is an outlier in the onset. It
22 certainly is significantly below that high
23 point of 700, but I'm not sure I would
24 identify it as an outlier and I do find it,
25 you know, a bit peculiar that you drop a

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1 number because it's a low and yet it's sitting
2 above your fitted line. But again, I mean, I
3 would certainly have started without any
4 outliers and then done my outlier analysis at
5 that point in time. The other part is down
6 below, you can see at the very bottom there's
7 a loss cost QQ plot. Ideally, your residuals
8 when you standardize them like this would all
9 be on the line. There's a little bit of curvy
10 thing there. That's reflective of the
11 residual runs not really being random and the
12 problem with the randomness in the residuals
13 themselves. So, probably at this point we
14 would reject this as a model.
15 STAMP, Q.C.:
16 Q. Mr. Doherty, in the two graphs, the actual and
17 fitted model loss cost graphs and the actual
18 and selected model loss cost graphs, it's
19 showing blue, the blue irregular line and a
20 red, I guess, straight line and it's going --
21 I mean, that blue goes back and the red goes
22 back to like 1993, so in this regression
23 approach that you replicated from Oliver
24 Wyman's report, is that blue data behind
25 whatever it was, is it 2003-02 that you're

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1 starting from here?
2 MR. DOHERTY:
3 A. Yeah, I'm starting from 2003 H1.
4 STAMP, Q.C.:
5 Q. 2003 H1, okay.
6 MR. DOHERTY:
7 A. Yeah.
8 STAMP, Q.C.:
9 Q. So when I look at that graph, I see loads of
10 data I guess represented by the blue line, the
11 blue lines as they move up and down in this
12 graph.
13 MR. DOHERTY:
14 A. Yeah.
15 STAMP, Q.C.:
16 Q. So why is that there?
17 MR. DOHERTY:
18 A. Well, the data is available, so we are
19 provided, in this case in the Oliver Wyman
20 report, there's 15 years of data. So you can
21 go back to I guess 1998-1. I think that's
22 where it goes back to.
23 STAMP, Q.C.:
24 Q. But did this data that's behind 2003 H1,
25 earlier than that, have any influence on the

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1 location or the slope of the line?
2 MR. DOHERTY:
3 A. No, because we only used ten -- the most
4 recent ten-year data points.
5 STAMP, Q.C.:
6 Q. So you can actually hold your hand over part
7 of that graph and ignore it because it's not
8 part of the analysis or the regression that
9 Oliver Wyman did?
10 MR. DOHERTY:
11 A. Correct.
12 STAMP, Q.C.:
13 Q. Same with the right-hand graph?
14 MR. DOHERTY:
15 A. Yeah, the right-hand graph, I mean, the right-
16 hand one is just a result. It's just applying
17 minus one and a half. So ignore it or not
18 ignore it. I don't -- I wouldn't say that the
19 minus one and a half came from the ten-year
20 period, I mean it came from a bunch of
21 different ones. So I would -- I'm not sure if
22 I could make the same statement, I know with
23 the fitted one, the data that was used. With
24 the minus one and a half, I'm not sure you can
25 say what data was used to come up with that.

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1 STAMP, Q.C.:
2 Q. Okay. But in the first graph, if I cover over
3 all of the lines earlier than 2003 H1 -
4 MR. DOHERTY:
5 A. Um-hm.
6 STAMP, Q.C.:
7 Q. - then I'm looking at really what is the
8 location and slope of a red line intended to
9 fit that blue data?
10 MR. DOHERTY:
11 A. Yes, excluding certain data points.
12 STAMP, Q.C.:
13 Q. Excluding certain data points.
14 MR. DOHERTY:
15 A. Three of which are above the line.
16 STAMP, Q.C.:
17 Q. Now I'm going to ask Ms. Glynn if -- we had a
18 sheet come from your office, summary
19 statistics comparison from Oliver Wyman. Is
20 that entered as well?
21 MS. GLYNN:
22 Q. That hasn't been entered yet.
23 STAMP, Q.C.:
24 Q. Okay. Did you see any statistical sort of
25 observations from Oliver Wyman after you did

1 S1, SD1, SD2, SD3, SD4?
2 MR. DOHERTY:
3 A. Yes.
4 STAMP, Q.C.:
5 Q. And did they -- did that analysis or whatever
6 it was show some of the R2, adjusted R2 and so
7 on values?
8 MR. DOHERTY:
9 A. Yes.
10 STAMP, Q.C.:
11 Q. And did those values that were produced by
12 them match the ones that you replicated?
13 MR. DOHERTY:
14 A. Yeah, we might be off on the fourth decimal
15 place, but yeah, they matched.
16 STAMP, Q.C.:
17 Q. So come back to I guess the essential
18 question. In your opinion, how do you
19 appropriately select or determine that period
20 for regression? Because we have four periods
21 selected here in that -- at the top of the
22 page and the report we were looking at a
23 moment ago, have those four periods selected,
24 but for you, I'm asking how do you
25 appropriately select a period?

1 (11:30 A.M.)
2 MR. DOHERTY:
3 A. Well, if I'm given 15 data points, the first
4 thing I do is I do a regression of all 15.
5 I'm not going to predetermine what the data is
6 going to tell me. I will start with -- use
7 everything. Let me take a look at it and then
8 I will start trying different periods to see
9 because I'm looking for: one, is there an
10 overall trend or have trends changed over time
11 or is there no relationship between loss cost
12 and time. There is no trend, you're better
13 off using an average. There's no relationship
14 between the two of them and I can't -- I don't
15 think I can do that unless I start with all of
16 the data and then start letting the data
17 direct me into where a best fit model might
18 be.
19 STAMP, Q.C.:
20 Q. So in your opinion, Mr. Doherty, is the period
21 selected which is replicated in SD No. 1, the
22 period selected by Oliver Wyman, is that an
23 appropriate period for regression to drive the
24 trend that you're going to rely upon?
25 MR. DOHERTY:

1 A. It may be. I would want to see a number of
2 different trends. If I'm only going to look
3 at 15 years, the first thing I want to do is
4 look at all 15 years and have a look at it
5 without any outliers and then I will start
6 doing different periods. I may end up with
7 two periods. The first five years has one
8 trend and then the next ten years has a trend,
9 which presumably the implication here is that
10 there are two different trends. The first
11 five years which we didn't bother to model is
12 different from the second ten which we did try
13 to model but in this case, it's saying the
14 second period, while it does say minus 1.8
15 when I do these data exclusions, but you would
16 get that result 16 and a half percent of the
17 time, just based on the randomness of the data
18 itself. So at that point, the model, to me
19 the regression is saying you can't comfortably
20 say that the coefficient is not zero. That
21 is, there is no relationship between loss cost
22 and time in that latter ten-year period after
23 you've done this exclusion. I don't know what
24 the result would be if you didn't do those
25 exclusions because I didn't do that. I was

1 trying to replicate what they did. But on my
2 assessment, based on what is here, this
3 particular model, at this point I would be
4 putting the outliers back in, but if I leave
5 this in the way it is, I would reject the
6 model. I'd say this is not telling me that
7 there is a relationship between loss cost and
8 time.
9 STAMP, Q.C.:
10 Q. But how does it compare? You did do
11 regression and you did use periods.
12 MR. DOHERTY:
13 A. Yes.
14 STAMP, Q.C.:
15 Q. Did they match these periods?
16 MR. DOHERTY:
17 A. No.
18 STAMP, Q.C.:
19 Q. And so why didn't you adopt a period like this
20 or find this period acceptable?
21 MR. DOHERTY:
22 A. When we did our analysis, we determined that
23 there was a change in the trend starting at
24 2004 H2 and so we split a 20-year period into
25 two different periods. We had a 12-year

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1 period to start with and then an 8-year period
2 as a second one and as I mentioned yesterday,
3 if we were really interested in really
4 understanding the first 12 years, we might
5 have done some more analysis on that to see if
6 there were in fact two trend periods because
7 when I look at it, I think there might be two
8 trend periods in that first 12-year period,
9 but because we knew it wasn't going to
10 influence our indication focused on the most
11 recent five years, it wasn't a good efficient
12 use of our time.
13 STAMP, Q.C.:
14 Q. So when you did your regression, did you
15 decide what the periods would be before you
16 did it or did you do the regression and then
17 begin to try and figure out what the
18 regression revealed for you?
19 MR. DOHERTY:
20 A. No, we certainly did that. We started with
21 the five or six standard ones that I mentioned
22 yesterday and the key one is we start with all
23 the data. We had all data with seasonality
24 and then we did the most recent ten-year
25 period. Then we had the reform, which again

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1 is a standard one for us. We did the
2 regulatory one and then the analysts would
3 have tried a number of different ones and I
4 can't recall off the top of my head because it
5 varies by coverage. It may be that, you know,
6 you get one that really looks good and you
7 kind of stop because you got a great fit. All
8 of your statistics are solid, your regression
9 analysis looks really good. At that point,
10 you kind of say, "I think I'm done with this
11 analysis. I'm not going to go any further."
12 But I can guarantee you that for both
13 frequency and severity, we didn't just rely on
14 the standard ones that we did, although where
15 we ended up in ours was the auto reform piece,
16 you know, the split between pre and post 2004.
17 And again, as I mentioned yesterday, I don't
18 know if it's because of the reform. All I
19 know is that the data is telling us it changed
20 at that point in time. We had a trend that
21 was going up for frequency and then it was
22 going down. For severity, we had a trend that
23 was going up and then it was going up steeper
24 after that period and the statistics support
25 that there were two different periods, two

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1 different trends under both of those, both
2 frequency and severity.
3 STAMP, Q.C.:
4 Q. Now did you do the similar analysis then in SD
5 No. 2, 3 and 4 for the other three periods
6 that Oliver Wyman had indicated?
7 MR. DOHERTY:
8 A. Absolutely.
9 STAMP, Q.C.:
10 Q. And can you just walk us through that fairly
11 quickly I guess?
12 MR. DOHERTY:
13 A. I think those ones will be quickly.
14 STAMP, Q.C.:
15 Q. Yeah.
16 MR. DOHERTY:
17 A. The second one will be much quicker. Now you
18 look at the same period but it's only the most
19 recent five years.
20 STAMP, Q.C.:
21 Q. This is SD No. 2?
22 MR. DOHERTY:
23 A. This is SD No. 2. And we slide down, so
24 you'll see at the very bottom -- just slide
25 down a little bit more here. We're only

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1 including eight data points. We draw a line
2 where the actuals end and the projection
3 period starts. So 2013 H1, kind of beyond
4 that, it's all projection period. So you can
5 see we've only got eight data points because
6 we had to exclude -- we took -- we started off
7 with ten, but we excluded two, so we're down
8 to eight data points. So if we can scroll
9 down to the next page? So in this particular
10 case, go through the statistics again. So the
11 R squared is, I guess, .002. That's some very
12 low number. Adjusted R squared is negative.
13 Adjusted R squared being negative is a
14 challenging thing. It just means that you got
15 a really, really, really bad model. In this
16 particular case, the all years P value is 100
17 percent and that's telling us that if in fact
18 the underlying trend really is zero percent,
19 there's a hundred percent chance that you
20 would get a trend like this, and it's not too
21 far from zero to begin with, but you get a
22 trend of this size a hundred percent of the
23 time just based on the randomness of the data.
24 So here, you're just -- you're coming up with
25 a coefficient that's strictly based on

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1 randomness.
2 STAMP, Q.C.:
3 Q. And so if I look at the first graph on the
4 second page, the actual fitted model loss
5 cost, again we have the blue lines that go
6 back to at least '97, I guess. I don't know
7 if it's a bit before that. But the red line
8 goes back all the way to -- there's blue and
9 red lines back in '93. But are we looking
10 here in reality at 2008 H1, so you could put
11 your hand on the graph and cover up the space
12 and lines and information behind -- that's the
13 only place that you see is that small bit of
14 graph work, the blue and the red from 2008 on?
15 MR. DOHERTY:
16 A. That's correct. And, you know, if you did
17 that, you covered it all up and you were
18 looking at it, the one high that was excluded
19 is that high point. The low is very difficult
20 to pick up. I believe it's 2008 H2. In fact,
21 it's sitting right on the red line. So again,
22 maybe that's because if you included that one,
23 it would be far away from the red line. I'd
24 have trouble believing that, I guess, at the
25 onset, but we've removed as an outlier a data

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1 point that after you remove it is sitting
2 right on the fitted line. And you will see on
3 the selected side, the loss cost, I had to
4 adjust it again because now I'm trying to
5 match an average over that shorter period.
6 The average loss cost over that shorter period
7 is $311.69, so the intercept is a little bit
8 different than my original one, but I'm just
9 moving that slope line up and down to fit it
10 over top of the data that I'm using in my fit.
11 Now in this case, the residual runs aren't
12 random. I got a very, very, very low R
13 squared. It's basically saying -- the model
14 that I've selected is telling me nothing about
15 the data. The P value is telling me there's
16 no relationship between loss cost and trend
17 over that period. I would reject this model.
18 STAMP, Q.C.:
19 Q. And SD No. 3?
20 MR. DOHERTY:
21 A. SD No. 3 is interesting, absolutely.
22 STAMP, Q.C.:
23 Q. All right.
24 MR. DOHERTY:
25 A. So here we've moved back -- it's still a ten-

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1 year period, but we've moved back kind of six
2 months, so we are excluding 2012 H2, but we're
3 including as a potential period 2007 -- make
4 sure I pull -- yeah, sorry, 2002 H2. But 2002
5 H2 gets excluded as being an outlier because
6 it's a significant drop from -- you know, if
7 you look at the loss cost chart, there is --
8 in that older period, there are two very high
9 values, 2001 H2 and 2002 H2. 2001 H2 is over
10 600 and the 2002 H1 was over 700, and so when
11 you look at 2002 H2, it's coming down from
12 that high level 2009, so it's dropping by 50
13 percent. In fact, 2003 H1 is dropping by 40
14 percent, but because -- and we excluded the
15 2003 H1 last time because it was a high value,
16 but this time it gets trumped by that latter
17 one. So, again we're dropping those ones out.
18 We're dropping those data points out, as I
19 understand it, before we actually do the
20 analysis.
21 STAMP, Q.C.:
22 Q. And the periods that is selected here in this
23 ten-year period here, this is almost a perfect
24 match for the ten-year period in SD No. 1, is
25 it not, except that you have, in the case of

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1 the top data point, included '02 H2, which
2 wasn't included in SD-1 and you've excluded
3 2012 H2 which was included in the first one?
4 MR. DOHERTY:
5 A. Yeah, and it's interesting because in fact
6 when you deal with the exclusions, 2003 H1,
7 while it was in the period, it was excluded in
8 the first one. Now it's included because 2002
9 H2 is actually a deeper drop off, so now that
10 one is excluded. So you bring in a different
11 data point than you might think at the onset.
12 STAMP, Q.C.:
13 Q. So the outlier that was excluded in the first
14 instance is now included?
15 MR. DOHERTY:
16 A. It's now included. So we do the fits on this
17 and the R squared is 36 percent, so we're
18 describing, in this particular case, over that
19 period with those data exclusions, we're able
20 to explain 36 percent of the change in loss
21 cost over that period. The adjusted R squared
22 is 32 percent. Both, you know, those are not
23 bad values. Residual runs aren't random.
24 STAMP, Q.C.:
25 Q. How important is that?

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1 MR. DOHERTY:
2 A. You know, it's one of the considerations. I
3 prefer to see residual runs random, but I'm
4 not going to reject them all if that's the
5 only problem that I have with it. The P value
6 here is strong. It's saying that if in fact
7 the trend is really zero, there's a 0.2
8 percent change that you get a trend estimate
9 like this, the minus 3.6 percent or minus --
10 yeah, minus 3.6 percent trend. So, from that
11 view, we certainly wouldn't reject on this.
12 And you know, looking at the QQ plot, I'm not
13 too -- I guess you have to go down for that
14 one. Sorry, I'm talking -- I'm looking at
15 stuff on my screen. Yeah, so the bottom QQ
16 plot, that one looks a little bit wonky to me,
17 but I probably would overlook that one as
18 well. Like if out of the first three,
19 certainly I don't like the first two. This
20 one I'm interested in. Again, you know, I've
21 got outliers that I rejected before I actually
22 did the data. At least this time the two lows
23 are actually below the fitted line. The two
24 highs are above the fitted line. I'm not sure
25 I would have eliminated those data points.

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1 I'd want to do that before, but given the data
2 that I have and given that somebody told me to
3 remove these data points, I wouldn't outright
4 -- I would not reject this model. I would be
5 looking hard at it. Certainly out of the
6 first three, this is the best one so far.
7 STAMP, Q.C.:
8 Q. Okay. And so why would you not adopt this as
9 your trend?
10 MR. DOHERTY:
11 A. Well, it's only looking at a ten-year period.
12 Again, we've got these data exclusions. I
13 want to look at -- if I've got the 15 years,
14 going to look at the whole 15 years and I'm
15 going to test whether or not a ten-year period
16 is actually the ten-year period that I want
17 and I struggle to understand why I'm not going
18 to include 2012 H2.
19 STAMP, Q.C.:
20 Q. And when you look at this ten-year period
21 because it's a mechanical thing you just said,
22 the decision is made on a mechanical basis,
23 can you find the change in the slope the same
24 way you did when you look at it the way you
25 did it?

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1 MR. DOHERTY:
2 A. No, because you're not looking for two
3 different periods. You're assuming presumably
4 there's only one trend. I'm just trying to
5 determine what that trend is. Again, if you
6 think there's only one trend, then why not
7 look at all 30 data points you have available
8 to you instead of limiting yourself to 20, of
9 which you eliminate another four, so now
10 you're down to 16. I'm basing my estimate on
11 16 data points when I have 30. I don't
12 understand the rationale for that unless I
13 think that there's a change in which case
14 determine what the change is and test whether
15 or not there has been a change.
16 STAMP, Q.C.:
17 Q. Okay. SD No. 4?
18 MR. DOHERTY:
19 A. So this is another five-year period. I think
20 I mentioned yesterday, conceptually when I
21 first heard that or you know, it dawned on me
22 that the initial outlier is determined based
23 on percentage change, the first thing I
24 thought of was the one I talked about
25 yesterday, you think about a line and all your

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1 data points are pretty close to it, but you
2 got one that shoots way up. Well, maybe that
3 is an outlier, but by this percentage change
4 methodology, you would exclude it because it's
5 far away. It's a big change up. But then you
6 would also exclude the next one because it's a
7 big change back down to the line. And I'm not
8 sure I understand the rationale for that
9 second one. So you have one data point being
10 the high one knocking out itself and the next
11 one through this process. And I thought it
12 would be wonderful if I could show you an
13 example of that and luckily in this data set,
14 you have it here. If we slide over to the
15 left a little bit, the 2007 H2 which is
16 included in the data set now, the actual value
17 is 448.75 and that's up 65 percent from the
18 272.56 from 2006 H2. So that shot way up.
19 That's a big up. Now 2008 H2 is 302.26, so
20 it's down 33 percent from that high, but when
21 I'm looking at those values, 302.26 doesn't
22 leap out at me as a potential outlier and I
23 don't understand necessarily why you would do
24 that. Now before we leave this, I do -- and I
25 know it's hard, but you almost have to scroll

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1 across and maybe if you could move your little
2 thing at the 302.26. There you are. Yeah,
3 your hand is right on it. So the 302.26, now
4 if you slide to the next column, 293.31,
5 that's the fitted value. The difference
6 between the fitted value and your outlier is
7 only 8.95. It's your fitted value. Now
8 again, the fit is after you've removed this
9 outlier, but if your fit can fit that outlier
10 so well, why is it an outlier? I don't -- I
11 fundamentally just don't understand that. But
12 then again, I don't understand the process of
13 removing data points before you do your
14 analysis.
15 STAMP, Q.C.:
16 Q. Mr. Doherty, can we come back to -
17 MR. DOHERTY:
18 A. Sorry, do you want to do the -
19 STAMP, Q.C.:
20 Q. Yes, of course.
21 MR. DOHERTY:
22 A. Just finish this one off. We'll just do the
23 stats on this one. It doesn't look any
24 different than the previous five one, but if
25 you just slide down. The challenge is you're

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1 only looking at eight data points and when you
2 have volatility like this, any regression is
3 going to struggle with it. And if you could -
4 - maybe skip the charts and we'll just look at
5 the -- there we go. So, the R squared, you're
6 explaining 1.4 -- you're not explaining
7 anything in the data. There's no relationship
8 that's being determined. Your fit's horrible.
9 Your residual runs are random. Your P value
10 is 100 percent meaning that you would get a
11 1.9 just through the randomness or noise in
12 the data. There's no signal there. We would
13 reject this outright.
14 STAMP, Q.C.:
15 Q. Okay. Can I come back to the page in the
16 Oliver Wyman report that had the four
17 regression periods on top? Now that they have
18 done these you say four mechanical exercises
19 with respect to four regressions, what happens
20 then?
21 MR. DOHERTY:
22 A. Well, you know, again, so presumably these are
23 your best -- you've looked at a whole bunch of
24 stuff and you did a whole bunch of regressions
25 and these are your best four. Now for us,

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1 then we would pick one. You have to -- for
2 us, you pick a model and that's the one you're
3 going to go with, and so of these four, three
4 of them I would outright reject because they
5 don't show a relationship and if I were to
6 pick any one of them, ignoring the one that
7 has -- the one I wouldn't be rejected, to me
8 it says there's no relationship between loss
9 cost and time. The trend is zero except for
10 the third one that they did at the minus 3.6.
11 So if those are the four that you've
12 determined are the best, I would be taking the
13 minus 3.6 through this mechanical process.
14 The other ones don't describe a relationship.
15 Now as I understand it, because the last part
16 says "we select a loss cost trend rate of
17 minus one and a half percent which is the
18 approximate average of A, the average of the
19 four above trends." So you've done four
20 regressions and presumably these are your best
21 models. I can't -- I struggle with that, but
22 presumably these are your four best models,
23 three of which I think I've shown should be
24 rejected outright and one of them has some
25 value, but rather than taking the one that has

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1 value then average four of them, three of
2 which should have been rejected. So I
3 struggle with that conceptually. At this
4 point in time though, you've taken a
5 regression which is based on these squares and
6 we've got lots of fun measures and stuff like
7 that to go off of, but as soon -- now you're
8 averaging some estimates. It stops being
9 least squares. We're done with least squares.
10 Maybe least squares isn't the best way of
11 coming up with it. I think there's a lot of
12 literature on least squares, that it's a
13 strong way of determining relationships like
14 this but as soon as then you take a bunch of
15 output from least squares and then you average
16 them together, it's no longer least squares.
17 It's some other estimation process. I don't
18 know how to describe it. Maybe there's some
19 literature somewhere that I'm not aware of,
20 but we're no longer least squares estimating
21 our trend. So we take that and then we
22 average that average and I apologize, I don't
23 have the average of those four there.
24 Presumably it's close to zero, maybe a little
25 bit negative. And then we average it against

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1 the prior selection of minus two and a half
2 percent. The prior selection I'm assuming
3 went through the same process where you did
4 four regressions doing the same stuff, doing
5 ten-year periods and stuff like that and
6 rather than choosing one that actually fit,
7 you come up with an average and then you took
8 that average and averaged it with your
9 previous one. I guess, you know, as I think
10 about it, if the same approach was taken in
11 the prior analysis, then you started off with
12 a ten-year period ending June 2012 and a five-
13 year period ending June 2012. Those two
14 periods are the exact two same periods that we
15 have here. The only difference, I guess, is
16 that I've updated my estimates of ultimate and
17 if I'm updated my estimates of ultimate, then
18 presumably I would get different regression
19 estimates. If my estimates of ultimate are
20 exactly the same, I'm going to get the exact
21 same numbers, but if there has been a change,
22 then presumably the new values are your best
23 estimate, in which case I don't know why then
24 I would give weight to regression trend
25 estimates that I got the last time when I'm

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1 doing the exact same periods now with
2 presumably better data. So that part just
3 confuses me. But then I get more confused
4 when I think about, okay, so the last time you
5 started off with a ten-year and a five-year
6 period ending June 30th, but then you would
7 have moved it back so you're using ten-year,
8 five-year period ending December 2011 and
9 you've giving that 50 percent weight and
10 you're weighting in against your prior
11 selection from the previous one which used
12 data periods before that and before that and
13 before that and I'm assuming that, you know,
14 if you follow that same thing, you're probably
15 giving something like, I don't know, five or
16 six percent weight to regressions done on
17 periods that don't even include half of the
18 period that you're supposed to be applying my
19 trend to. So I struggle with that whole piece
20 as well. I'm not really sure what the purpose
21 of that is. Certainly I struggle when at the
22 beginning we're saying the goal of the process
23 is to determine a trend that applies to at
24 least the experience period that we're
25 including in my indication, which is the five-

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1 year period when I'm including trends that
2 came from an analysis that was done three
3 years ago on periods that at best only include
4 half the data from the experience period that
5 I want to use. I don't know.
6 STAMP, Q.C.:
7 Q. So in your opinion, is this process that has
8 been adopted here either statistically sound
9 or actuarially sound?
10 MR. DOHERTY:
11 A. It doesn't meet my requirement where I'm
12 trying to come up with a way to determine how
13 I can take 2003, events that happened in 2003
14 giving rise to claims and how I can adjust
15 those to make it look like they happened in
16 2015 and generated claims coming out of that.
17 There's nothing in here that helps me to
18 believe I can do any of my first five years
19 certainly although I'm not sure exactly how I
20 would apply the minus one and a half percent
21 trend over the data anyway. Can I use it to
22 take 2003 forward to 2015 or am I only
23 supposed to use it to take 2008, '09, '10, '11
24 and '12 forward to 2015? And again, I'm not
25 sure this really describes that relationship.

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1 Even if I'm looking at the most five -- can I
2 feel comfortable that this selected thing
3 really represents how events that arose in
4 2008 that gave rise to claims can really be
5 reflective of what I can expect to pay if
6 those same events arose in 2015 and had claims
7 come out of that? I think there's a huge
8 disconnect between the value that -- in the
9 way that the value is determined here and how
10 I can apply it to what I want to apply it to,
11 which is why I don't think that this does what
12 I want it to do. Ours does what I want it to
13 do, in my opinion.
14 STAMP, Q.C.:
15 Q. So you make a mechanical decision, as you've
16 described this, to pick four periods, the 10
17 year, and then a five year period being a
18 subset of that 10 year, and a slightly
19 different 10 year, and a five year period that
20 is a subset of that slightly different 10 year
21 period. You decide to do that, and then you
22 use that each time as your formula, so to
23 speak, and, so, therefore, you're always
24 relying to some extent on the prior selection.
25 What does that to do - if you intended to

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1 confine yourself to the 10 year period, and,
2 say, the five year period, what does that do
3 when you go back in your formula this way,
4 always picking up 50 percent for the previous?
5 MR. DOHERTY:
6 A. Ignoring the impact of, I guess, the highs and
7 lows, the best I can imagine is that, you
8 know, eventually the data is going to catch
9 up. Eventually, you know, through this
10 process, you're probably at some point
11 understating, like, you're showing a trend
12 that now it should be positive, you're showing
13 it as negative, but later on it comes to zero,
14 and then it starts going up. So your process
15 is going to create trends, but the data is
16 going to pull it up and down and pull it up
17 and down. I think the problem I would have is
18 that when you get pulled down because of this
19 process, but I'm showing something that's up
20 here, through the process this is capping you,
21 you have to have minus 1 and a half, and I
22 think it's 4.4. In two years, three years
23 from now, there's a catch up, and now, you
24 know, this process has 4.4, but by then I've
25 already changed because the trend has changed

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1 and now I'm at 1 or 0, or minus 1.5. Now we
2 take mine because mine is lower than that one.
3 It seems to me that the process of allowing
4 for me to use a trend is capped. As long as
5 mine is below this one, then I have to use
6 mine, and if mine is above that, I have to use
7 this one. So it's a biased approach to the
8 application of the trend, I guess, as I see
9 it. I'm assuming that, you know, you're going
10 to get these potentially wild swings. If I
11 don't think that the period has changed or the
12 trend has changed since 2004, I may get
13 updated data. My estimate of that trend
14 parameter may change. I'm always testing to
15 see if the trend has changed, but if it
16 hasn't, then next year it's still going to
17 start at 2004-H2. I've just got more data
18 points on this end. It may move my fitted
19 line a little bit, but it's going to stick
20 around there unless as I test it, if something
21 comes up and the data says, listen, it
22 changed, it changed at this point, and I can
23 give you a statistically valid support for
24 that change, I'm not going to change that
25 period. I'm going to keep going from 2004.

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1 I'll keep going until 2004 drops off my 20
2 year dataset.
3 STAMP, Q.C.:
4 Q. Mr. Doherty, I'm going to ask you to turn to
5 the CA-FA-06, in particular the response, and
6 on the package I'm looking at, I'm turning to
7 page 25 to 28 of the material that was filed
8 by Facility in response to those series of
9 questions, CA-FA-06.
10 MR. DOHERTY:
11 A. Yes, we have it up.
12 STAMP, Q.C.:
13 Q. Okay, so what is being asked of Facility in
14 this question?
15 MR. DOHERTY:
16 A. Yes, here the consumer advocate asked what
17 happens to your indicator rate if you use the
18 PUB approved loss cost trend rates instead of
19 the ones that you selected. So we provided
20 the estimates. We did it off of the
21 correction that they identified for us, we
22 corrected for it. If you slide down, I just
23 want to show the chart here.
24 STAMP, Q.C.:
25 Q. Just before you do that, is this effectively

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1 joining the frequency and the severity in
2 doing it in a combined way?
3 MR. DOHERTY:
4 A. Yes, so this is then - my BI is -1.5. I can't
5 remember exactly what the trend is on the PD.
6 This is the blended rate of the PUB trends
7 TPL, but it is downward sloping, as you can
8 see. So what we've done here in those charts
9 below, we're showing - the blue bars are the
10 actual loss cost over that 10 year period that
11 we have available to us of the taxi rates.
12 The purple dotted line at the top would be the
13 loss cost that you would fit based on using
14 Oliver Wyman's trends and taking an average of
15 the most recent five. So you can see that
16 it's downward sloping, and certainly, you
17 know, it does go through the 2010, 2011, and
18 2012 periods, but it's well above 2008 and
19 2009, and that's because we had to use all
20 five of those periods to set it, and then it's
21 dropping down from there. So on this view, by
22 2015, 2016, the loss cost rate drops down to
23 somewhere in the neighbourhood of $3,200.00 or
24 something like that, but if you look back
25 beyond the most recent three periods, it's

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1 sitting well above 2007, 2008, and 2009. In
2 fact, it's sitting well above 2006, 2005,
3 2004, 2003. When I'm looking at that, for me,
4 personally, it doesn't look like that trend
5 line, that downward slope, really describes
6 the data. Even if - there's a number of lines
7 on here because we're looking at different
8 things. The top line is based only on the
9 taxi experience. The green dotted line is
10 using our estimate of the loss cost underlying
11 the current rate, and then the red line is a
12 credibility weighted of those two. So they're
13 all parallel because we're using the same
14 slope, but even if you use the dotted green
15 line, it doesn't really look like a good fit
16 if you think about residuals should be random
17 because the first four are all below and the
18 last six are all above it. To me, visually it
19 doesn't, to me, look like that downward slope
20 actually fits the taxi data.
21 STAMP, Q.C.:
22 Q. So these lines, the purple line, the red line,
23 and the green line, are intended to somehow
24 capture the direct that the blue bars are
25 indicating, is that what's going on?

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1 MR. DOHERTY:
2 A. That's right. If the loss cost experience
3 that we have is following the trends that are
4 proposed by the Oliver Wyman Report, this is
5 how they would have to look.
6 STAMP, Q.C.:
7 Q. If you swing across the page where they have
8 the bar with the different colours in it, what
9 does the red line - let's, for example, say
10 the red line. What does it tell you that the
11 blue bars to the left from 2012 and before,
12 what do those blue bars tell us about where
13 the blue bar for 2013 would be?
14 (12:00 P.M.)
15 MR. DOHERTY:
16 A. So it's the same information as in the first
17 one, but we just changed it so instead of
18 lines and to try and make it clearer what the
19 implication is, the first one for 2013, the
20 red part of it says, well, if the underlying
21 loss - the underlying assumption that the
22 rates are currently adequate, then under that
23 assumption and using Oliver Wyman's trends,
24 then accident year 2013 loss cost should come
25 in around $2,500.00.

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1 STAMP, Q.C.:
2 Q. And what colour is that going to be here?
3 MR. DOHERTY:
4 A. It's the red one, the first red part.
5 STAMP, Q.C.:
6 Q. Okay.
7 MR. DOHERTY:
8 A. If instead you believe the credibility
9 weighted view, but still using their trends,
10 then 2013 would come in just shy of $3,000.00,
11 and if you believe the experience is really
12 what's going to be the main factor of this,
13 then you would look at the addition of the
14 purple bars. So there you're up above
15 $3,000.00.
16 STAMP, Q.C.:
17 Q. So these blue bars to the left of those newly
18 added colour bars are intending to show where
19 Oliver Wyman sees the result in 2013?
20 MR. DOHERTY:
21 A. Yes, so the blue bars are actuals, and then
22 again using the trend assumptions, we can
23 project forward based on that what is the
24 implied loss cost using those trends, and then
25 under these three different scenarios; one

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1 being if the rates are currently adequate,
2 then the loss cost must look like this; if
3 instead the loss costs are going to look like
4 the experience, then it's going to look like
5 the bigger one or the credibility weight, a
6 piece in between, so -
7 STAMP, Q.C.:
8 Q. If you start with rates being adequate, if
9 that theory is applied, which of the coloured
10 bars would you be seeing?
11 MR. DOHERTY:
12 A. It would be the red, going up to $2,500.00.
13 STAMP, Q.C.:
14 Q. All right. So if the theory is that we
15 started this process with adequate rates, then
16 Oliver Wyman would be -
17 MR. DOHERTY:
18 A. Not adequate rates. This is the underlying
19 based on our view.
20 STAMP, Q.C.:
21 Q. Okay.
22 MR. DOHERTY:
23 A. So under our view, the rates are currently not
24 adequate, but this underlying comes from the
25 rate indication that we had from our previous

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1 filing, adjusted for the rate that we did get,
2 but recognizing that we didn't ask for, nor
3 did we get all the rate that we needed from
4 that indication.
5 STAMP, Q.C.:
6 Q. But all these newly added four coloured bars
7 on the right of the right hand graph are
8 intended to show where the result will be for
9 2013, 2014, 2015, and 2016, as is driven by or
10 is indicated from the blue bars to the left?
11 MR. DOHERTY:
12 A. Yeah, based on those assumptions that loss
13 costs are dropping.
14 STAMP, Q.C.:
15 Q. And did you make a comparison with that
16 information, did you show anything - I look at
17 the next page. There are some additional -
18 MR. DOHERTY:
19 A. I think you have to bring up FA-07. Oh, no,
20 sorry, on here, yeah. In this case, all we
21 did was said, okay, well, just look at the
22 experience and this is just a very, very rough
23 - but this is regression as well. All we've
24 done is we've done an exponential trend. It's
25 calculated the exact same way as we did the

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1 other stuff, and all we're showing here is an
2 R squared fit, but we've got loss cost for the
3 taxi, third party liability. The little one
4 that says Y, the first number is effectively
5 the cost or the intercept, E is a log-normal
6 base. The .067, the 67 is the trend, so it's
7 saying that given the data that you've given
8 me, the regression tells me you've got a 6.7
9 percent trend, and by the way, your R squared
10 is 80 percent, meaning that over that period
11 the regression you've asked me to do explains
12 80 percent, and I don't have the rest of the
13 stats, this is just - you can - if you've got
14 a chart in Excel, you can click on your data
15 and say give me an exponential trend, and you
16 can tell it, put up the stats for me. So I
17 haven't done anything else other than that.
18 All we really want to show here is that if you
19 look at that four year period, loss cost for
20 the taxis have been going up at 6.7 percent
21 per year. If you look at the most recent five
22 years, the trend there is 4.8 percent. Both of
23 those are estimates of the underlying trend.
24 To me, neither of those suggest that loss cost
25 for the industry over the most recent five

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1 year periods or any longer period have been
2 declining. They have been going up.
3 STAMP, Q.C.:
4 Q. And now the conclusion is they're going to
5 decline, Oliver Wyman's conclusion?
6 MR. DOHERTY:
7 A. I believe the conclusion is that they were
8 declining before, and they're going to
9 continue to decline, because as I understand
10 the analysis, I should be using a -1.5 at
11 least over the experience period between 2008
12 and 2012. So while, to me, it looks like, and
13 the confirmation is on just doing a simple
14 trend analysis that the loss cost for taxis
15 are going up. The view taken from Oliver
16 Wyman's analysis of Newfoundland industry
17 commercial data is that loss cost are actually
18 going down.
19 STAMP, Q.C.:
20 Q. So you see the blue bars as taking us up; they
21 see the blue bars as taking us down?
22 MR. DOHERTY:
23 A. Yes, I see it - in my view, I just put on a
24 regression and the regression also says that.
25 Again I didn't do all the other tests that we

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1 would normally do. This is just to show you
2 that you just do simple regression on it, it's
3 going up, it's not just my eyeballs telling
4 me, it is going up, apparently. Certainly
5 neither of those two are suggesting it's going
6 down. Can we look at F7, I think -
7 STAMP, Q.C.:
8 Q. Yes, well, I'll come back to that in just a
9 moment, I think - you can go there. You want
10 to look at FA-07?
11 MR. DOHERTY:
12 A. I believe so. That's the one we show our
13 trends on it.
14 STAMP, Q.C.:
15 Q. Yes, yeah, maybe you can just move to the next
16 question and response, please.
17 MR. DOHERTY:
18 A. Here we've done the same thing as we did, you
19 know, using Oliver Wyman's trends, except we
20 used ours, and this is the 4.4 post-2004, but
21 as you can see, before 2004, our trends were
22 showing downward on a loss cost, and then they
23 started to go up after 2004. It's like a
24 little hockey stick, I guess, I would describe
25 it, but that even looks like the results from

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1 the taxi industry. So our assessment of the
2 Newfoundland industry commercial, using our
3 bifurcation of periods and coming up with our
4 estimates of what was happening with loss cost
5 over that period, it seemed to look something
6 like what we were seeing happen with the
7 taxis, and I'm looking at that and it seems -
8 to me, it seems to fit better. There's still
9 bias in each of the estimates. The underlying
10 one is always below the actual loss cost. The
11 weighted one is always below except for when
12 you get back pre-2007. The experience one
13 does look like the actual experience piece.
14 So when I'm looking at this, that seems to
15 make more sense to me on how things are going.
16 If you look over on the other one where we put
17 them into bars, the experience projections are
18 the red, green, and purple all together. You
19 can see that that's showing it's continuing
20 on. That's not what we used in our
21 indication, but nonetheless, that's if you
22 believe that the experience is your best bet
23 for determining what it is, and then you go
24 forward from there going up 4.4 percent.
25 Certainly, you know, the red plus the green is

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1 the credibility weighted one, so it would
2 imply that from 2012 down to 2013, you drop a
3 little bit, you drop down to $3,000.00, but
4 then it starts marching back up again, and if
5 you believe the underlying, then you go from
6 2012 being about $3,500.00, you drop down to
7 just over $2,000.00, which, I guess, would be,
8 you know, a level you haven't seen since 2006,
9 but then you start going up from there. For
10 me, at least the shape which is reflected in
11 the trend, the slope of that line, even the
12 hockey stick aspect of it that's incorporated
13 in our trend analysis using that bifurcation,
14 to me looks a lot more like the results of the
15 taxi business per FA. Certainly, for me, it
16 looks a heck of a lot more like the commercial
17 experience for the industry, which is why we
18 picked it, and doing the same thing for each
19 of the other coverages, you get the same
20 result. I believe our trend better reflects
21 the experience for the taxis, I think it
22 better reflects the experience of the
23 commercial vehicles in Newfoundland.
24 STAMP, Q.C.:
25 Q. Can I turn to the Oliver Wyman's questions,

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1 which are March 21, 2014, and in particular, I
2 guess, the response to those, which is in
3 Facility's response on 31 March, and in
4 particular, I'm looking at question number 11,
5 OW 11?
6 MR. DOHERTY:
7 A. Yes, so maybe if we go up to the bottom of the
8 next page to get the actual question - sorry,
9 the previous page. There you go, there's the
10 question.
11 STAMP, Q.C.:
12 Q. The previous page, yeah. So what's being asked
13 here?
14 MR. DOHERTY:
15 A. So the question was, "The graphs in the loss
16 trend section show", and this is in reference
17 to our filing, "for bodily injury, evidence of
18 an upward frequency trend pattern prior to
19 2004 and then a decline in the frequency trend
20 after 2004". The question then was, "Explain
21 why the period after the change in direction
22 was not chosen as the regression period". So
23 when we read that, we interpreted it as, we
24 look at the period and we see a change in 2004
25 in frequency that you haven't included in your

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1 regression, and so our response was we didn't
2 understand the question because we did have
3 two different periods. We agree with the
4 assessment that they had made that there are
5 two periods; one going to 2004-H1 where
6 frequency is increasing, and then one after
7 2004 where frequency is decreasing. So we
8 fully agree with the assessment that was made
9 in the statement in that question, and we used
10 those regression periods in our analysis.
11 STAMP, Q.C.:
12 Q. And what was the period then that you finally
13 adopted for your regression?
14 MR. DOHERTY:
15 A. It was that period, that 2004-H2, and the
16 split between the two periods, the first
17 period ended 2004-H1, the second period starts
18 2004-H2.
19 STAMP, Q.C.:
20 Q. But throughout the Oliver Wyman Report - I'm
21 talking about the actual report of 16 May.
22 Oliver Wyman seems to say that they are
23 concerned with the repeated choice by Facility
24 to use 20 year regression periods?
25 MR. DOHERTY:

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1 A. Yeah, we - if the data told me that there's
2 one trend over the whole period, I would have,
3 but for this particular instance for our
4 analysis of the Newfoundland industry
5 commercial vehicles, I'm not aware of any time
6 where we picked one trend over the full 20
7 year period. There was always bifurcation,
8 there was always at least two periods as far
9 as I'm aware in all of our trend analysis, and
10 most of them were around that 2004. I don't
11 know what happened in 2004, I don't know why
12 necessarily things are changing post-2004, but
13 it seems to be a bifurcation of periods in the
14 experience itself. So, yes, I reviewed 20
15 years worth of data. Did I use a single trend
16 period; no, I did not, and, in fact, the
17 period that we used for most, if not all the
18 coverages, as reflects the indication that
19 we've used is an eight year period post-2004.
20 (12:15 P.M.)
21 STAMP, Q.C.:
22 Q. So if I can just bring up the Oliver Wyman 16
23 May 2014 Report, and the heading, bodily
24 injury. It's page 11, the typed copy that I
25 have. Just go down to the first bullet under

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1 bodily injury. They say that in their opinion
2 the 20 year period is too long to serve as a
3 basis for selecting trend rates, but did you
4 use a 20 year period for the trend rate?
5 MR. DOHERTY:
6 A. Not a single period of 20 years, no. I did
7 look at a 20 year period. I have 20 years
8 worth of - I got 40 data points that I can
9 look at and I looked at all of them, and then
10 through an interrogation of the data, I
11 determined what periods I felt best reflected
12 trends or changes in trends, and I do not
13 believe that in any case I picked one that
14 encompassed one trend over the full 20 year
15 period. So I don't believe that's really an
16 accurate representation. I did review 20
17 years. Did I do a 20 year regression;
18 absolutely, that was the first one that I did.
19 Did I do a 20 year regression including
20 seasonality; absolutely, for every single
21 coverage I did that. Did I do a 10 year split
22 into two five year periods; yes. Did I do for
23 every single coverage two split between - at
24 2004 when that reform; yes. Did I do a whole
25 bunch of other ones; yes. Did you pick a

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1 final model that you thought best reflected
2 each individual coverage, the best one that
3 reflected frequency and severity; yes. Did
4 that include 20 years as one long period; not
5 to my knowledge.
6 STAMP, Q.C.:
7 Q. Okay. They make the same observation - if you
8 flip over, you don't need to go there, but the
9 property damage commentary, the accident
10 benefits commentary, the first bullet, the
11 same phraseology is used. Is your response
12 the same in respect of that observation?
13 MR. DOHERTY:
14 A. Absolutely, I mean, we take the same approach
15 to every single coverage.
16 STAMP, Q.C.:
17 Q. Okay. Yesterday, Mr. Doherty, you mentioned -
18 you brought up about an Oliver Wyman
19 conclusion that while FA - I think you said,
20 while FA did not find - there was a discussion
21 about seasonality.
22 MR. DOHERTY:
23 A. Yes.
24 STAMP, Q.C.:
25 Q. And that you mentioned, I think, Oliver Wyman

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1 noted that you did not find seasonality and
2 that they did find seasonality. Am I correct
3 about what you said yesterday?
4 MR. DOHERTY:
5 A. Yes.
6 STAMP, Q.C.:
7 Q. If I can just get you to turn to the second
8 bullet under bodily injury, is that the
9 discussion that you were talking about?
10 MR. DOHERTY:
11 A. Yes.
12 STAMP, Q.C.:
13 Q. And again what was the period of your
14 regression where you determined - revealed the
15 trend and determined that no seasonality was
16 evident?
17 MR. DOHERTY:
18 A. The regression model that we used covers the
19 full 20 periods, but we bifurcated into two
20 periods; the first period ending 2004-H1, the
21 second period ending - sorry, starting 2004-
22 H2. So the second period does not -
23 STAMP, Q.C.:
24 Q. I'm sorry, I didn't catch what you said.
25 MR. DOHERTY:

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1 A. Sorry, the second period, we did use full 20
2 years, but we split it into two different
3 periods.
4 STAMP, Q.C.:
5 Q. And what was the second period?
6 MR. DOHERTY:
7 A. 2004-H2 to 2012.
8 STAMP, Q.C.:
9 Q. 2004?
10 MR. DOHERTY:
11 A. Yes.
12 STAMP, Q.C.:
13 Q. And what was the period you understand that
14 Oliver Wyman's suggested to use based on that
15 report we went back through a little while
16 ago?
17 MR. DOHERTY:
18 A. Well, based on the final sentence in that
19 paragraph - sorry, in that bullet point, they
20 say, "The parameter test we applied indicates
21 that a seasonality parameter should be applied
22 in the regression model over the 2005 to 2012
23 period".
24 STAMP, Q.C.:
25 Q. But what period is that?

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1 MR. DOHERTY:
2 A. That's not the period that I used.
3 STAMP, Q.C.:
4 Q. Is it the period that they used?
5 MR. DOHERTY:
6 A. I think that's a seven year period, might be
7 an eight year period, I'm not very good at
8 arithmetic. I don't believe it's one of the
9 10 or 5 year periods that they actually used.
10 STAMP, Q.C.:
11 Q. When we started off the discussion this
12 morning, we had this mechanical choice of four
13 periods?
14 MR. DOHERTY:
15 A. Yes.
16 STAMP, Q.C.:
17 Q. Did the 2005/2012 period that they mentioned
18 in seasonality here match any of those four
19 periods?
20 MR. DOHERTY:
21 A. No.
22 STAMP, Q.C.:
23 Q. So where does that period come from?
24 MR. DOHERTY:
25 A. I don't know.

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1 STAMP, Q.C.:
2 Q. In the third bullet here, Mr. Doherty, under -
3 these discussions have been on the bodily
4 injury, of course, but in the third bullet it
5 seems that Oliver Wyman questions this, I
6 guess, recognition that you've made. Your
7 view seems to be that legislation in 2004
8 which introduced a $2,500.00 deductible that
9 applied across the board, you saw it as having
10 influence, did you?
11 MR. DOHERTY:
12 A. We assume it's related to the 2004 reforms.
13 STAMP, Q.C.:
14 Q. You said before you don't know what the cause
15 of the change is, but there's a change?
16 MR. DOHERTY:
17 A. Yes.
18 STAMP, Q.C.:
19 Q. And coincidental with the change that you
20 observe, these changes in the legislation
21 occurred?
22 MR. DOHERTY:
23 A. That's correct.
24 STAMP, Q.C.:
25 Q. The introduction of the deductible occurred?

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1 MR. DOHERTY:
2 A. Yes.
3 STAMP, Q.C.:
4 Q. And so what do you say to Oliver Wyman when
5 they say we don't see any - I mean, you're
6 seeing something. They don't see anything.
7 MR. DOHERTY:
8 A. I'm just looking at the data, and so I see a
9 bifurcation occurring at that point in time.
10 It may be because of the 2004 reforms, maybe
11 not. Oliver Wyman may have done a study that
12 focused - like, maybe a closed claims study or
13 something like that that says we actually
14 looked at the claim settlements related to
15 non-pecuniary losses and the application of
16 deductible pre and post the 2004 reform, and
17 we've determined based on a separate study
18 that there is, in fact, no change in the
19 outcomes. I don't know, they may have done
20 something like that. Maybe that's how they
21 determined that for their view the 2004
22 reforms had no impact on loss cost, and that's
23 fine, I don't know, I'm not aware of any study
24 like that. We certainly did not do a study.
25 All we did was said, look, we're looking at

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1 the data, and it appears that they agree at
2 least in terms of frequency, there was a
3 change in frequency. So we're attributing
4 that change in frequency as initial estimate
5 due to the reforms, so it was going up. If
6 frequency continued to go up, you would have
7 been up here, but it started to go down, so we
8 measured the gap between those two and that
9 gap, as they point out here, was 27.2 percent
10 drop, and then it continues to go from there.
11 On the severity, we saw the same thing.
12 Severity was going up and it went up more, and
13 so again we looked at where it was going to
14 go, and then compared along one trend line and
15 then the other trend line, and just compared
16 the values to come up with that. Is it
17 because of the change in the deductible; I
18 don't know. Does it have anything at all to
19 do with the reforms or was it just
20 coincidental; maybe, I don't know. All I know
21 is the data is telling me something happened,
22 there's a change, you should reflect the
23 change, it's valid, so I did.
24 STAMP, Q.C.:
25 Q. All right, Mr. Doherty, do you have anything

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1 further to add on the issue of trend that we
2 haven't covered?
3 MR. DOHERTY:
4 A. No, I don't believe so.
5 STAMP, Q.C.:
6 Q. All right. Can we go to again the Oliver
7 Wyman Report, 16 May. I think I would like to
8 go to - they mention in this report, and I
9 think it's at - they mention the five topics
10 that they want to deal with. It shows up at
11 page eight toward the bottom of the page, the
12 paragraph beginning, "Based on our review".
13 This is the five topics, do you understand,
14 that Oliver Wyman has identified that they
15 want to discuss and, I guess, deal with in
16 their report?
17 MR. DOHERTY:
18 A. Yes.
19 STAMP, Q.C.:
20 Q. And we've dealt with loss trend rates, have we
21 not?
22 MR. DOHERTY:
23 A. Yes, I believe so.
24 STAMP, Q.C.:
25 Q. What's this issue, the health levy?

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1 MR. DOHERTY:
2 A. As I understand it, prior to the
3 implementation of a health levy, the
4 provincial health body would subrogate against
5 insurers individually on individual claims to
6 recover the cost associated with automobile
7 claims through the medical system. It was
8 deemed to be an administrative burden and it
9 happened across many jurisdictions where they
10 changed the approach then to have an annual
11 levy applied to the industry as a mechanism
12 for capturing the cost across all insurers.
13 Different jurisdictions have different ways of
14 determining the allocation of the amount, but
15 as I understand it, the Ministry of Health in
16 Newfoundland determines the amount of money
17 they need to recover, and then they have a
18 methodology of determining which of the
19 insurers pay what amount to them to recover
20 those costs. In the case of Newfoundland,
21 they're working with - as I understand it,
22 they work with IBC to determine a levy that's
23 applied on a per vehicle basis, but it doesn't
24 apply to all vehicle classes. In particular,
25 the number that IBC takes to them to say,

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1 okay, you've decided on how much money you
2 want to collect; well, here's the number that
3 you're going to use to collect, and here's how
4 each individual insurer in the province sums
5 up to that number, and there are certain types
6 of classes of business that are included in
7 that number and there are certain glasses of
8 business that are not. Taxis are not included
9 in that number, and because of that, we do not
10 include in our indication a levy for health
11 costs that we would have to garner from the
12 taxi industry. If we included that cost, and
13 so we were effectively getting the taxi
14 drivers to pay that expense on our behalf and
15 we share that with our members, the Ministry
16 of Health would not be asking for that money
17 from our members, so it would just effectively
18 go into the pockets of our members, and that's
19 not how we do business. We capture cost in
20 the premium that they are responsible for.
21 The premium tax is a perfect example.
22 Facility Association does not pay the premium
23 tax. The premiums are allocated to our
24 members and when it lands on their books, then
25 they're responsible for paying the premium

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1 tax. We do, in determining our rates, include
2 a provision for the premium tax, so when that
3 premium lands at the individual member
4 company, they have the money to then pay the
5 premium tax from that premium level. In this
6 case with taxis, because they're not included
7 - whether or not they should or should not be,
8 they are not included in that base count, and,
9 therefore, there's no reason for us to include
10 that as cost.
11 STAMP, Q.C.:
12 Q. All right. Mr. Doherty, the third and fourth
13 items, the credibility standard, and the basis
14 for the complement credibility, did you
15 propose to deal with that when you'd come back
16 to Exhibit C-1?
17 MR. DOHERTY:
18 A. Yes, please.
19 STAMP, Q.C.:
20 Q. So maybe we can go to - before you go to C-1,
21 I just to come back to D-1 for a moment if we
22 can.
23 MR. DOHERTY:
24 A. Sorry, I don't have a page number for you. I
25 think it maybe page 55 or something. There you

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1 go, perfect, page 40.
2 STAMP, Q.C.:
3 Q. All right, and what I'm looking at, I guess,
4 is toward the right hand side of the D- 1
5 Exhibit. I think that's where we'd be
6 looking. What I want to ask is what is the
7 implication of Facility not getting the 50
8 percent rate that its proposed?
9 MR. DOHERTY:
10 A. So in this particular case - now this is just
11 based on the taxi experience and this is not
12 the end result that we're proposing, as we'll
13 see when we get to C-1, but the trended
14 ultimate loss ratio that you see in Column 17,
15 the weighted average of the most recent five
16 years, just taking a straight average of the
17 most recent five years, that loss ratio, which
18 includes the rates that we got and the rate
19 increase we got last year, if there's no rate
20 increase right now, then we would project as a
21 first estimate for 2015, you would get about
22 153.8 percent loss ratio. At that rate, even
23 with the rate level that we're proposing, that
24 loss ratio doesn't come down to 100 percent.
25 If the experience is reflective of how things

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1 are going to continue going forward, even with
2 the rates that we're proposing, we're not
3 going to get enough premium to pay for the
4 indemnity claims, not to mention any of our
5 other expenses.
6 STAMP, Q.C.:
7 Q. All right. Can we turn to C-1, please,
8 Exhibit C-1.
9 MR. DOHERTY:
10 A. Maybe before I leave that -
11 STAMP, Q.C.:
12 Q. Oh, yes.
13 MR. DOHERTY:
14 A. I don't want to shock people, but if the
15 experience is really reflective of the
16 underling cost and it continues at that level,
17 and eventually we will get there if it
18 continues like that, the actual indication
19 would be about 126 percent increase. The
20 average rate -
21 STAMP, Q.C.:
22 Q. As compared to the 50 that you proposed?
23 MR. DOHERTY:
24 A. That's right. Again that's just based only on
25 the taxi experience, and we have a credibility

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1 weighting methodology that takes you down from
2 there, but I just want everyone to understand
3 that if the experience continues along the
4 path that it has been apparently on at least
5 the last five years, if not the last ten, then
6 our rates are grossly inadequate and they need
7 to more than double, and the 2012 on-level
8 premium after you take into account the close
9 to 50 percent increase overall that we got
10 last year, the average premium is just over
11 $3,000.00. At 126 percent increase, you're
12 looking at almost $6,900.00 as average
13 premium. There's a significant difference
14 between what the experience alone is saying
15 and what is being paid. I just want to make
16 it clear that - we're going to talk about
17 credibility and we're going to talk about how
18 we do the credibility weighting and stuff like
19 that, but if the experience continues along
20 that path that we've seen for the last ten
21 years, eventually that credibility weighting
22 process is going to lead you to the
23 experience, and you're going eventually to get
24 to rates that are commensurate with this. So
25 does it happen next year, the year after, the

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1 year after, but some time in the next period
2 you're going to get there unless something
3 dramatically changes in the underlying trends
4 that we're seeing in the taxi loss cost piece.
5 (12:30 P.M.)
6 STAMP, Q.C.:
7 Q. All right. Perhaps we can turn, Mr. Doherty,
8 to C-1 then, Exhibit C-1.
9 MR. DOHERTY:
10 A. Yes. We can make it bigger because I'm only
11 going to really focus, I guess, on the third
12 party liability column still. I'm going to
13 try and go through this quickly because
14 although I could talk for days, I'm sure
15 people are getting tired of listening to me,
16 so I'll go through this - D-1 is really the
17 one that drives - this is what the experience
18 looks like. Now this process, let's marry
19 that information with some other information
20 that we have, let's load things up for
21 expenses, let's take into account investment
22 income, to come up with what kind of rate do
23 we need to change. So the first six rows
24 there are really around what are our current
25 exposures, what's our current written premium,

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1 put the stuff on-level, and most of that is to
2 put things into perspective, and just for a
3 second, I do want to maybe focus a little bit
4 on some average premiums, particularly row 5,
5 these are at current rates. So the average
6 premium that we charge right now on average,
7 as estimated for third party liability is just
8 over $2,800.00. If we could just slide over a
9 bit to another column because I want to make
10 sure that things are in perspective. For
11 accident benefits, we charge $80.00, and for
12 uninsured automobile it's $14.00. So as we
13 talk about some of - you know, your accident
14 benefits and uninsured automobile, the rate
15 indications are very large, but when you're, I
16 guess, quadrupling a $14.00 level, you're
17 getting up to something short of $60.00. Just
18 keep that in mind, percentages, when you're
19 talking about small bases, doesn't necessary
20 translate into large dollars, but we will
21 focus on the third party liability because
22 that's where 92 percent of the premium is and
23 that's where the focus of our activity is.
24 Although there are large percentage changes
25 being talked about for accident benefits and

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1 uninsured motorists, and percentage-wise
2 absolutely correct that those are levels that
3 we are proposing. So if we can go back. I'll
4 just run through the rows kind of quickly.
5 You can see that 93 percent premium
6 distribution and third party liability in Row
7 6. Row 7 is what we propose as the complement
8 of credibility. We start off with the
9 assumption that - and this is what we do
10 across the board in all of our jurisdictions.
11 Our approach is - and, you know, when I joined
12 in 2010, through 2011, I was focused more on
13 valuation. In 2012, I started focusing our
14 attention on the pricing aspect of it and how
15 we were going to do things and what our
16 approach was, and there are a number of
17 changes that we implemented. One of the
18 changes was that we had two providers of
19 services; one that dealt with the Atlantic
20 provinces, and one that dealt with Ontario,
21 Alberta, and Territories. They had two
22 slightly different approaches, so we
23 consolidated, we believe we took best
24 practices from the two of them. They were
25 very similar, but there was also a difference

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1 between how the private passenger, commercial,
2 inter-urban, there was a template, if you
3 want, for that process and it was a process
4 very similar to what you're seeing here, and
5 then there was another process that was a
6 simplified indication worksheet that worked
7 through for public classes and the
8 miscellaneous, and taxis fall into public
9 class. When we adopted our approach, we
10 adopted a single approach across all
11 jurisdictions, all classes of business. So
12 while we tweak and try and improve the trend
13 model that we have, this trend model is
14 applied across all jurisdictions and it's
15 applied across all classes of business. One
16 of the things that we had to look at was that
17 there were different approaches on what the
18 full credibility standard should be, and what
19 we've adopted again across the board is that
20 if we haven't done a rate filing for that
21 particular class in the last two or three
22 calendar years, then we start with the
23 assumption that the rates are adequate, the
24 expiring rates are adequate for that period
25 and we start from that position. If we have

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1 had a rate filing within the last two to three
2 calendar years, then we start from the
3 position that our best estimate of the project
4 loss ratio can be pulled from that previous
5 filing. That's a good solid estimate based on
6 what that review suggested for the average
7 period, and we're just going to take that as
8 our initial estimate and project it forward
9 based on claims trends and premium trends, and
10 we do that through Exhibit C-2. So if we
11 could, I'll just take us quickly to C-2.
12 There's a couple of rows here I kind of want
13 to highlight. I think the main one I want to
14 start with is actually Row 8. Row 8 is
15 projected ultimate loss ratio nominal prior to
16 rate change. In our ideal world, that just
17 comes directly from the result we had before.
18 The previous analysis, though, was completed
19 by our partner, Eckler, and they were using a
20 different approach, and so going forward it's
21 very easy for us to drop this in because it
22 comes right out of our C-1 Exhibit, but we had
23 to determine what that was through this
24 process because this is our starting point,
25 what is the projected ultimate loss ratio from

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1 a prior analysis prior to the rate change that
2 we got from that filing process. So the first
3 part going from Rows 2 through to 7 is an
4 attempt to convert the previous one to this
5 idealized state, Row 8, and as the Consumer
6 Advocate when they did their review they
7 identified in Column 2 that we had actually
8 started from the wrong spot, we had picked up
9 from the previous analysis a loss ratio that
10 we thought was discounted in that one, it was
11 not discounted - sorry, we thought it was
12 discounted, it was not discounted, and as they
13 pointed out, we agree with them, and so there
14 is additional set of indications based on a
15 correction to that. I apologize for that
16 error. Nonetheless, the process is still the
17 same. What we're trying to get to is to Row
18 8, and we get to a different Row 8 when we do
19 that correction. So we start with the
20 ultimate loss ratio that was determined
21 through the credibility weighting process from
22 the previous one, and then we're going to do
23 two things. One, we want to reflect the rate
24 changes that we got after that rate review,
25 and then we want to apply a claims trend and

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1 apply a premium trend to get to a new loss
2 ratio that we believe is at current rates.
3 Those are the steps that are reflected in 9,
4 10, 11, 12, and 13, to get you to - sorry,
5 this is before we do the trending. So this is
6 just getting you to the on-level premium, Row
7 14, so this shows you the nominal loss ratios
8 at the current rates reflecting rate changes
9 that we actually got. Then 15 to 21 is taking
10 - 21 is our ultimate goal in this process, but
11 15 to 20 adjusts for loss cost trend and for
12 premium trends. So loss cost trends, if
13 they're positive, they drive up the loss
14 ratio. Premium trends, if they're positive,
15 drive down the loss ratio, and we're doing the
16 trend period between the average dates between
17 the periods - it's not exactly one year, it's
18 actually 396 days, and we take that into
19 account. So we end up with a projected loss
20 ratio at current rates that's consistent with
21 the previous filing, our previous indication,
22 coming from our previous indication as we
23 previously filed. So that's how we arrived at
24 that 97.8, and that shows up in Exhibit C-1 as
25 our complement of credibility. Now one of the

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1 points Oliver Wyman suggests is that we should
2 not be using the loss ratio that's coming from
3 the previous analysis, we should be using a
4 loss ratio that's consistent with the
5 assumption that our rates are currently
6 adequate. I think as we looked at some of
7 those loss charts, loss cost charts, we're
8 looking at what are the implications of if our
9 rates are currently adequate, what does that
10 imply of loss cost. I think it's very hard to
11 make an assumption that our rates are
12 currently adequate. There's two things -
13 there's six things that you really want
14 credibility of complement to have, but two I'm
15 going to focus on is it's not biased, that is
16 that if you look at the results after you've
17 done your predictions with your full
18 credibility - your complement of credibility,
19 and you look at the results, half the time
20 it's better and half the time it's worse than
21 your prediction based on those, but it's
22 unbiased. You know, sometimes it's better,
23 sometimes worse, but overall it's unbiased.
24 The second piece is that it's accurate, that
25 it gives you a good reflection of what those

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1 levels are. So the difference between
2 unbiased and accurate, unbiased just tells you
3 the variance around what the level is. So you
4 can have two estimates that are unbiased; one
5 that swings quite far from it, and you have
6 one that's narrow. The narrow one is more
7 accurate. They're both unbiased, they both go
8 up and down the line, but the narrow one is
9 more accurate and we want one that is both
10 unbiased and accurate. I don't believe, based
11 on the review of the experience, that either
12 of the proposed - either of the complements of
13 credibility that are proposed are unbiased,
14 and I don't believe they're accurate with
15 respect to - in relation to the experience
16 that the taxis have had for us over the last
17 ten years. Both of them suggest the loss cost
18 should be much lower than they have been.
19 That is, either we've had 10 or 12 years of
20 bad luck, or the current rates really aren't
21 adequate, and that's not a good assumption to
22 have. Both of them are showing levels that
23 are significant below. It's just that this
24 one, in particular, for loss ratios in Row 14
25 for third party liability, we start off at

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1 93.8, and we would be in the 68 or 70, or
2 something like that if the rates were
3 adequate. So, obviously, if the higher one is
4 biased - or not accurate because it's always
5 below, and biased because it's always below, a
6 lower one is even going to be worse. So
7 that's our position on the two complements of
8 credibility that are being proposed. We
9 believe both are not great, but ours, we
10 think, is more supported if you look for the
11 goal of being accurate and unbiased. So I
12 want to go back to C-1 then. So under Row 7,
13 we have that loss ratio that we think is the
14 underlying one. Then what we're going to use
15 as our experience is the loss ratio we got
16 from D-1. In this case for third party
17 liability, we're bringing forward the
18 projected loss ratio of 143.8. Now the one we
19 were looking at and we focused most of our
20 attention on for in D-1 was the total, all
21 coverages. This one is just focused on the
22 third party liability, and, in fact, if you
23 get over to the total, we see a total loss
24 ratio of experience at 152.3. That's
25 different than D-1 because you're using a

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1 different weight. We just use that total
2 column, the weights we're using are the
3 premiums distributed at the top there. I just
4 want to highlight in case somebody was
5 wondering there was some sort of mistake
6 because it's 153 in one place and it's 1525
7 in another, but it's just a weighting issue.
8 Okay, so under Row 9 then is the credibility
9 that we've assigned to the results, and you
10 would go to Exhibit E-1 for that. I'm not
11 going to ask us to go to E-1, but the other
12 issue that was raised in the Oliver Wyman
13 Report was that for third party liability, we
14 moved from a credibility standard of 54.10, I
15 believe, down to 32.46, I think that's the
16 right number. Both of them are based on a
17 standard that's used in Canada of 1.082 claims
18 gives you a certain probability of being
19 within a certain level of comfort, that your
20 claims count is going to be close to what
21 you're hoping it would be. The multiplier
22 that you use in relation to that 10. 82
23 standard, I believe, is based on actual
24 judgment. There are ways of determining a
25 multiplier. That's what was used historically

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1 that our previous partner, Eckler, had done a
2 study and they determined an estimated
3 multiplier for, I believe, bodily injury to
4 come up with the full credibility standard
5 that was previously used. When I took over
6 the process of the pricing, I made an actual
7 judgment of application across all
8 jurisdictions for setting the full credibility
9 standards that I feel comfortable with for
10 each individual coverage, and generally, I've
11 split the coverages into what I call "long
12 tail" and "short tail", and the long tail
13 coverages I have at 2 times the 10.82, and for
14 the short tail, I have at 1 times the 10.82,
15 and it's based on my judgment and my
16 assessment of my comfort level with the amount
17 of credibility that we can apply for short
18 tail and long tail.
19 (12:45 P.M.)
20 So Row 10 is just a credibility weighting then
21 based on the credibility that I've assigned
22 for each of those based on claim counts. The
23 determination of the amount of credibility is
24 shown in E-1. I'm not going to go through
25 that exercise. That's just a straight

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1 calculation once you've determined your full
2 credibility and what you've determined your
3 claim counts are. Under Rows 11, 12, 13, and
4 14, our first two in this one here now we're
5 projecting our loss ratios for indemnity. I
6 also want to include legal expenses here, and
7 I want a discount. The discount rate you'll
8 see here is at 1.14, and I'll talk about that
9 in a little bit. So the first thing that we
10 do as discount factor - in fact, I'll go there
11 now. Let's go to F-1. It's on page 67 of the
12 report. This is another issue that was raised
13 that -
14 CHAIRMAN:
15 Q. We're at quarter to 1, Mr. Stamp.
16 STAMP, Q.C.:
17 Q. We can break right now or in a moment, it
18 doesn't matter. It's just as convenient to do
19 that right now if you prefer.
20 CHAIRMAN:
21 Q. We can break now?
22 STAMP, Q.C.:
23 Q. Yes.
24 CHAIRMAN:
25 Q. Okay.

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1 STAMP, Q.C.:
2 Q. And we are getting closer, Mr. Chairman,
3 Commissioners, to finishing on the Direct.
4 CHAIRMAN:
5 Q. We're getting closer.
6 STAMP, Q.C.:
7 Q. Yes. Very close, I should say.
8 CHAIRMAN:
9 Q. Yes, let us hope so.
10 (12:47 P.M.)
11 (RECESS)
12 (1:15 P.M.) (RESUMED)
13 CHAIRMAN:
14 Q. Okay, Mr. Stamp, I think we're back with you.
15 STAMP, Q.C.:
16 Q. Yes, and we were going to exhibit F, Mr.
17 Chairman. Mr. Doherty, you wanted to tie
18 exhibit F in, it refers back from exhibit C,
19 is it not?
20 MR. DOHERTY:
21 A. Yes, so this is the derivation of our return
22 assumption. Our return assumption is 1.14
23 percent, it's derived through a weighting of
24 yields of various durations of the risk free
25 Government of Canada bonds available as at

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1 October 31st, 2013 and the weights are driven
2 by the estimated durations required for the
3 cash flows associated with the claims
4 payments. As you can see in this chart and
5 I'll focus on column 3, the average maturity,
6 duration to maturity for our cash flows is
7 around three years, so on average you're
8 between column 2 and column 3 when you're
9 looking at yields and we use the risk free
10 determination because under current capital
11 requirements, if you move off of risk free in
12 your asset portfolio, then you have to put up
13 capital to support the riskiness of your asset
14 choices, and we don't have a determination for
15 that, so we start off with risk free and
16 assuming that there's no additional capital
17 required to support the business, to support
18 your selections of assets to support the cash
19 flows. And we're assuming that in this case,
20 the actual process is we gather up the premium
21 from, in this case the taxi drivers, we pay
22 immediate expenses as we need them and then
23 the cash is handed to our membership, who then
24 can invest it any way they feel, but they are
25 obliged to give back the money as we need it

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1 back to settle, ultimately settle the claims.
2 And through the process because we do no
3 include a cost of capital in our rates for
4 taxies in Newfoundland, it basically means
5 that there's no additional return in the
6 process for profit that would be handed to the
7 membership, that is the premium that we gather
8 and the investment income that is, rises on
9 the premium is assumed to be sufficient to pay
10 for all the claims and pay for the expenses,
11 but leave nothing left over to hand to the
12 membership for their provision of capital to
13 support the business. And so when we're
14 setting the rates, we--it's a perspective
15 exercise and we need to look at what we think
16 are rates that you can get on new money going
17 forward. I just wanted to highlight in
18 columns 2 and column 3, there's a dramatic
19 change in the yields that you could get at
20 around the time of the financial crisis, 2007,
21 2008. So in column 3 you'll see the three to
22 five year, up to 2007 they were generally
23 increasing up to 4.21 percent. These
24 statistics are taken from the Canadian of
25 Actuaries Annual Report on Statistics and then

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1 they start to decline pretty rapidly down to
2 2012 where they're down to 1.3. A little bit
3 further down on the page we show the current
4 yields that we used as the basis for our
5 determination, the five year at that time was
6 1.52, the three year was 1.09 and so based on
7 again, our payment patterns, we assumed a
8 weighted average return of 1.29, there are
9 investment expenses associated with it when
10 you are using an intermediary to purchase the
11 bonds on your behalf and manage the portfolio,
12 we have that as 15 basis points, so it returns
13 a net yield of 1.14. We do understand that
14 through the Board's filing requirements there
15 is a range that they find reasonable on the
16 yield, I believe it's 2.8 to 4 percent. That
17 would be another assumption that I would have
18 to put into my process and then not take
19 responsibility for it, but as I'm providing
20 guidance to management, I will come up with
21 indications based on the new money yield that
22 I think would be appropriate that you could
23 get in the time that we're projecting forward
24 to and that's how we derived it, although
25 management did recognize the filing

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1 requirements and the ranges associated with
2 that. So we also provided for management an
3 alternate indication using a 2.8 percent net
4 yield and the management's recommendations of
5 proposed rate changes were based on that
6 alternate indication that we provided to them.
7 I would just emphasize that I don't believe in
8 the current environment, you can get a risk
9 free portfolio put together that would
10 generate a 2.8 percent return and I don't
11 anticipate that that's going to change between
12 now and when the new rates would be effective.
13 So if we could go back to C-1 then. So all of
14 our work to date or all the discussion so far
15 has really been on just indemnity. We do have
16 what's referred to as excess legal. This is
17 claims adjudication costs that the servicing
18 carriers are allowed to get compensated for
19 outside of the fee structure that we have in
20 place for them. We have an estimate for that.
21 That estimate of 3.7 is in relation to the
22 indemnity, it's not in relation to premiums,
23 so if you're looking at that and trying to
24 determine what the ratio is to premium, you
25 have to make an adjustment to reflect that.

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1 And the reason we show it as indemnity is
2 because when we put it together, we're just
3 multiplying it in there, so we end up with, in
4 the case of BI, the credibility weighted loss
5 ratio with indemnity when we discount it is
6 114 percent. When you put in this 3.7 percent
7 additional costs associated with excess legal,
8 it gets up to 118.5 percent. We are going to
9 compare then that loss ratio, projected loss
10 ratio to the amounts that we believe we need
11 to cover off our costs, so the first thing we
12 would take into account is that we're not
13 going to collect all the premium upfront.
14 There's going to be a delay in collecting the
15 premium and so we discount based on the cash
16 flows associated with the collection of
17 premium.
18 STAMP, Q.C.:
19 Q. Is that Row 15.
20 MR. DOHERTY:
21 A. That is Row 15, correct. Fixed expenses are
22 reflected in Row 16. The expense structures
23 and all the expenses are in exhibit G-1. I'm
24 not going to take us there. I think they are
25 pretty straightforward and as I understand it,

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1 there was no concern necessarily about any of
2 our fixed expenses, other than the health care
3 levy which we talked about earlier where we
4 did not include and we feel it's appropriate
5 not to include it because it's not an expense
6 that is due based on the--for the taxies. Row
7 17 is commissions and the commission rate is
8 established in the Plan of Operation which is
9 approved by the superintendent. The
10 discounted variable expenses includes premium
11 tax that a servicing carrier non claims fees,
12 we separate out the claims fees from the non-
13 claims fees. The premium tax is as per the
14 government requirement. Servicing carrier
15 fees are established in the plan of operation.
16 Again as approved by the superintendent and
17 have the weight of law, I suppose, in behind
18 it. Row 19 is the, what we refer to as the
19 initial claims expense fee. Claims expense
20 fee that we pay to the servicing carrier is
21 based on a sliding scale, so it depends on
22 what the loss ratio turns out to be and
23 there's a range that we pay them on. So we
24 start off with a certain level, but then we
25 will adjust it based on what the loss ratio

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1 is. If the loss ratio is lower than a certain
2 level, we will claw back some of the fees we
3 pay them. If it's above a certain level, we
4 will pay them more and the idea is to in some
5 way, I guess, try and keep the level of
6 compensation somehow consistent with the work
7 effort associated with adjudicating the
8 claims. And then finally in Row 21, here we
9 would have, really it's the return from
10 underwriting that would be required on the
11 basis consistent with our return assumptions.
12 So the rate indication then is a straight
13 calculation, that's done in, shown in Row 22
14 and it showed in Row 22 we're focused on the
15 Board's original target, which is a 12 percent
16 after tax return on equity, assuming a capital
17 level that's consistent with a two to one
18 premium to capital ratio, so if we were to
19 include a profit provision that is the target
20 for the Board of Directors Facility
21 Association for a third party liability, the
22 rates would need to go up by 95.6 percent.
23 However we recognize that a cost of capital is
24 not allowed for Facility Association rates and
25 so we have an alternate set of assumptions

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1 where we reflect that alternate rate change
2 basis.
3 STAMP, Q.C.:
4 Q. To 29?
5 MR. DOHERTY:
6 A. That's Row 29. And so for third party
7 liability then under that basis where you do
8 not have a return being generated for the
9 capital provider, all of the cash flows then
10 are really, including the investment income is
11 used to pay for expenses and pay for claims,
12 that's reflected in the indication shown in
13 Row 29 and for third party liability, that's
14 75.4 percent.
15 STAMP, Q.C.:
16 Q. That's the indicated rate.
17 MR. DOHERTY:
18 A. That's the indicated rate change to get a zero
19 cost of capital return, so zero return on
20 premium, that's just to pay for all the
21 expenses, assuming that you're going to get a
22 1.14 percent return on investment income.
23 STAMP, Q.C.:
24 Q. And did you also do an indicator rate with
25 2.8?

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1 MR. DOHERTY:
2 A. I did, so that's shown in alternate C-1, it's
3 on page 73.
4 STAMP, Q.C.:
5 Q. IC1.
6 MR. DOHERTY:
7 A. IC1, so in this case if we go to Row 29, all
8 of the work here that is on a 2.8 percent
9 return and the indication in Row 29 for third
10 party liability is 67.3. And in the case of--
11 this also shows what management has proposed
12 and that's in Row 34. They had proposed to
13 cap the rate change for third party liability
14 at 50 percent, so instead of taking the 67. 3
15 that would be indicated if you had a 2. 8
16 percent return, they proposed a 50 percent
17 rate increase.
18 STAMP, Q.C.:
19 Q. Is there anything further, Mr. Doherty, that
20 we need to add from exhibit C?
21 MR. DOHERTY:
22 A. No, I don't believe so. I have just focused
23 on the third party liability, it's obviously a
24 total overall rate level change that's
25 determined based on the weights by coverage.

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1 STAMP, Q.C.:
2 Q. Is there anything else you need to add then,
3 Mr. Doherty?
4 MR. DOHERTY:
5 A. No, I'm finished, thank you.
6 STAMP, Q.C.:
7 Q. We're done, Mr. Chairman.
8 CHAIRMAN:
9 Q. Thank you, sir. I guess, Mr. Johnson, it's
10 now your turn.
11 JOHNSON, Q.C.:
12 Q. Yes, Mr. Chair.
13 MR. SHAWN DOHERTY, CROSS-EXAMINATION BY TOM JOHNSON, Q.C.
14 JOHNSON, Q.C.:
15 Q. Mr. Doherty, just to start off talking about
16 the trending model that you've developed at
17 the Facility Association. Your actuarial
18 report indicates that you've developed a new
19 trending model internally at the FA with the
20 help from an external actuarial service
21 provider, and how new a trending model is
22 that, Mr. Doherty?
23 MR. DOHERTY:
24 A. We first built the initial, I guess, version
25 of it in 2011 and then we worked on it

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1 throughout 2011, 2012, implemented the use
2 really in 2013.
3 JOHNSON, Q.C.:
4 Q. So in terms of when it was put into use, in
5 terms of regulatory filings, it would have
6 been 2013?
7 MR. DOHERTY:
8 A. I think there was some regulatory filings that
9 we used it in in support of for 2012, but I
10 can't recall exactly.
11 JOHNSON, Q.C.:
12 Q. Okay, and this involved a new software
13 package?
14 MR. DOHERTY:
15 A. No, it's based on Excel.
16 JOHNSON, Q.C.:
17 Q. Based on Excel.
18 MR. DOHERTY:
19 A. Yes.
20 JOHNSON, Q.C.:
21 Q. Okay, and was the new trending model, was it
22 used last year in your Facility Association's
23 taxi filing?
24 MR. DOHERTY:
25 A. No, the one prepared by Eckler, no, they had

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1 their own internal model.
2 JOHNSON, Q.C.:
3 Q. Okay. And you're aware that there's been a
4 couple of decisions from the Nova Scotia Board
5 that have been identified, you've seen those
6 two decisions. There was an October 23rd
7 decision having to do with miscellaneous
8 vehicles in Nova Scotia.
9 MR. DOHERTY:
10 A. Yes.
11 JOHNSON, Q.C.:
12 Q. And for facility and I think a September 22nd
13 decision from the Nova Scotia Board, you've
14 seen that one in relation to private
15 passenger.
16 MR. DOHERTY:
17 A. Yes.
18 JOHNSON, Q.C.:
19 Q. For those filings was the new model used?
20 MR. DOHERTY:
21 A. Yes.
22 JOHNSON, Q.C.:
23 Q. Okay, and what were the departures, and I take
24 it this model was about trending primarily?
25 MR. DOHERTY:

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1 A. Yes.
2 JOHNSON, Q.C.:
3 Q. Okay, and so what were the departures from the
4 previous approach that were ushered in with
5 this new model?
6 MR. DOHERTY:
7 A. Regression is regression, so I mean, those are
8 just calculations. I think where I would
9 suggest I find this model a bit superior is
10 it's easier to create different periods and
11 treat it as one complete model. I believe,
12 and I'm not absolutely certain on this, but I
13 believe Eckler's previous model if you wanted
14 to deal with a product reform, for instance,
15 you would have to adjust the data, as opposed
16 to our model where you don't have to adjust
17 the data, you can use the scale to move the
18 stuff around. But they did use multiple
19 periods, they did have the ability to use
20 multiple periods and I think they also used
21 unemployment as a potential variable as well.
22 (1:30 P.M.)
23 JOHNSON, Q.C.:
24 Q. The external actuarial service provider that
25 was, helped you develop, was this Eckler?

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1 MR. DOHERTY:
2 A. No, it was Ernst & Young.
3 JOHNSON, Q.C.:
4 Q. It was Ernst & Young, okay.
5 MR. DOHERTY:
6 A. The initial one was based on a model that KPMG
7 used in Ontario, Alberta and the Territories.
8 We modified it and then continued to modify it
9 to make it easier to pull data in from the
10 valuation processes and then help the analyst
11 to work through the analysis piece.
12 JOHNSON, Q.C.:
13 Q. I understand that there is a fairly
14 significant difference in this application to
15 the Board, facility application to the Board
16 and last year's taxi filing having to do with
17 the use of the underlying severity data.
18 MR. DOHERTY:
19 A. Yes.
20 JOHNSON, Q.C.:
21 Q. And could you outline to us what the
22 difference is between the two applications?
23 MR. DOHERTY:
24 A. As I understand it with respect to Eckler's
25 when they did their modelling for

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1 Newfoundland, they did private passenger first
2 and they did frequency and severity. They
3 determined models that they thought were
4 appropriate for both of those two metrics.
5 When they went to do commercial, they felt
6 comfortable with the model they were able to
7 generate based on frequency, but for severity,
8 because of the level of volatility, they
9 didn't feel comfortable with the parameter
10 that was being produced in their modelling.
11 So instead, they used the severity trend that
12 came out of the private passenger.
13 JOHNSON, Q.C.:
14 Q. So would you confirm that in last year's
15 Facility's Application that Facility was of
16 the view that the bodily injury severity--for
17 the bodily injury severity trend, there was no
18 satisfactory statistically significant model
19 which could be found based on the commercial
20 vehicles' data and so therefore, the private
21 passenger was used. Could you confirm that?
22 MR. DOHERTY:
23 A. I can't confirm the exact thought processes
24 behind the actuarial determination of that,
25 but their end result was they used the private

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1 passenger trend.
2 JOHNSON, Q.C.:
3 Q. Just to get clarification on the point, Mr.
4 Doherty, if I could address your or ask you to
5 direct your attention, rather, to, it's a list
6 of information, No. 9.
7 MS. GLYNN:
8 Q. Just one second, that one hasn't been entered
9 yet.
10 JOHNSON, Q.C.:
11 Q. Oh, I'm sorry, okay.
12 MS. GLYNN:
13 Q. So that would be the responses to OW 1,
14 Information Request dated February 6th.
15 JOHNSON, Q.C.:
16 Q. Yes, that's correct, Ms. Glynn.
17 MS. GLYNN:
18 Q. We'll enter that on the record.
19 JOHNSON, Q.C.:
20 Q. Okay, thank you. If you could bring up page
21 3.
22 MS. GLYNN:
23 Q. PUB document, No. 9.
24 JOHNSON, Q.C.:
25 Q. If you could go to question No. 4, the

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1 question asked in 4(a) is explain why FA
2 considers the private passenger severity
3 trends relevant to the taxi experience, but
4 commercial experience relevant to the
5 frequency trend? And if you could just go
6 over to Facility's answer last year for (a),
7 it states, "As mentioned in the filing
8 document, trend assumptions for taxies are
9 based on an analysis of Newfoundland and
10 Labrador commercial vehicles' experience. In
11 the case of the bodily injury severity trend,
12 no satisfactory statistically significant
13 model could be found based on commercial
14 vehicles' data, so the private passenger
15 selected bodily injury severity trend model
16 was adopted." And can you recall now that
17 being the case for last year?
18 MR. DOHERTY:
19 A. I take the answer as accurate, yes.
20 JOHNSON, Q.C.:
21 Q. Okay, and so this application that was filed
22 by Facility is not that long ago and what has
23 happened over that period of time to go from a
24 situation where Facility didn't find the
25 commercial experience statistically

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1 significant or reliable enough to use but you
2 can use it now?
3 MR. DOHERTY:
4 A. I believe, and I could be wrong in this, but I
5 think if you look at the private passenger,
6 they actually selected the severity trend over
7 a long period, I think it was, I think it was
8 quite a period. When we did our analysis, we
9 split into two different periods, so pre and
10 post 2004 and through our testing, we did find
11 that there was a difference in the trend and
12 that it was statistically significant and we
13 could use it.
14 JOHNSON, Q.C.:
15 Q. So in the previous filing, there was no such
16 split at 2004, I take it?
17 MR. DOHERTY:
18 A. Not to my knowledge, no, and I'm not sure
19 their model facilitated the ability to do
20 that, I'm not sure.
21 JOHNSON, Q.C.:
22 Q. And how long--and that was Eckler Partners,
23 was that Mr. Perry?
24 MR. DOHERTY:
25 A. That's correct, it was Eckler Partners, yes.

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1 JOHNSON, Q.C.:
2 Q. Yes, okay. And how long have they been your
3 external actuaries, Facility's?
4 MR. DOHERTY:
5 A. I'm not exactly sure exactly how long they
6 were.
7 JOHNSON, Q.C.:
8 Q. More than ten years?
9 MR. DOHERTY:
10 A. I believe it's more than ten years, but I'm
11 not certain on that.
12 JOHNSON, Q.C.:
13 Q. Mr. Doherty, you testified yesterday that
14 there were a number of people in your
15 organization and outside the Facility
16 organization who have input on the trend
17 analysis and you indicate that there was work
18 done and input by an internal analyst and then
19 it came to you and then Ernst & Young would
20 also come back with views on the selections
21 and as you put it, they may throw in some
22 options of their own and then you come up with
23 management's recommended trend, and then it
24 goes to your members' actuary, I take it those
25 would be your service provider's actuaries?

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1 MR. DOHERTY:
2 A. No, it's an actuarial committee that's made up
3 of senior actuaries of the membership itself
4 that act as an advisory committee to
5 management.
6 JOHNSON, Q.C.:
7 Q. Okay, and so there would be a number of those
8 actuaries?
9 MR. DOHERTY:
10 A. Yes, I believe at the time--I believe there
11 was ten, but there may have been twelve
12 actuaries on the committee at that time.
13 JOHNSON, Q.C.:
14 Q. Okay, and so that's the process that the
15 application that the Board has in front of it,
16 in this filing, that's the process that was
17 followed here in this case?
18 MR. DOHERTY:
19 A. Yes, but the ultimate selection is my work.
20 JOHNSON, Q.C.:
21 Q. But the ultimate selection -
22 MR. DOHERTY:
23 A. I take responsibility for the work, yes.
24 JOHNSON, Q.C.:
25 Q. That's right and so you sign off on it. So

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1 there was a number of different views and
2 interpretations put forward that ultimately
3 you have to choose what you're comfortable
4 with?
5 MR. DOHERTY:
6 A. Yes.
7 JOHNSON, Q.C.:
8 Q. Okay. And are actuaries something akin to
9 economists that you ask, you know, three or
10 four economists, you'd get three or four
11 different view points, interpretations of
12 data?
13 MR. DOHERTY:
14 A. Yes.
15 JOHNSON, Q.C.:
16 Q. Do you find the same in the actuarial world?
17 MR. DOHERTY:
18 A. Yes.
19 JOHNSON, Q.C.:
20 Q. This application, as I understand it, was
21 authorized to be filed by your Board of
22 Director on the 6th of March of 2014.
23 MR. DOHERTY:
24 A. Yes.
25 JOHNSON, Q.C.:

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1 Q. And so when would the actual preparation of
2 the filing had gotten underway to meet that
3 March 6th filing?
4 MR. DOHERTY:
5 A. I believe we started in September, I'm not
6 absolutely--our general process is the data
7 becomes available some time in June, during
8 the summer we do the trend analysis piece.
9 Typically in either July or August we start
10 with Ontario and then we go through all the
11 jurisdictions. We do all classes of business
12 for a jurisdiction. Generally one per month,
13 so rate level indications, we do something in
14 the neighbourhood of 20 or 25 per month over a
15 six-month period.
16 JOHNSON, Q.C.:
17 Q. And at any point in that process, did you
18 give--did Facility give consideration to using
19 the Board's approved trend rates as supported
20 by their consulting actuaries, Oliver Wyman
21 and published to the insurers in the Province?
22 MR. DOHERTY:
23 A. As part of the trending process, we do try,
24 like I did here, not so much to replicate the
25 analysis, but just look at, say the minus 1.5

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1 and fit it on the data to see what it looks
2 like, but there is no model that I believe was
3 consistent with that as far as I recall, but
4 I'm not sure.
5 JOHNSON, Q.C.:
6 Q. So did you go through an analysis of the
7 Board's -
8 MR. DOHERTY:
9 A. Trying to replicate that approach? No.
10 JOHNSON, Q.C.:
11 Q. You didn't?
12 MR. DOHERTY:
13 A. No.
14 JOHNSON, Q.C.:
15 Q. You've only done that here during this
16 hearing, I take it?
17 MR. DOHERTY:
18 A. Correct.
19 JOHNSON, Q.C.:
20 Q. Yesterday you indicated that you couldn't take
21 responsibility for or ownership of actuarial
22 work that's underlying the Board's directives,
23 do you recall that statement?
24 MR. DOHERTY:
25 A. Yes.

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1 JOHNSON, Q.C.:
2 Q. And you indicated that there was not enough
3 information provided for you to rely on the
4 trends.
5 MR. DOHERTY:
6 A. Correct.
7 JOHNSON, Q.C.:
8 Q. But I take it now, for the sake of clarity,
9 that you are not saying that Oliver Wyman's
10 work is unreasonable, but rather a fair
11 interpretation is that you're saying that you
12 would do it differently, would that be
13 correct?
14 MR. DOHERTY:
15 A. I certainly do it differently, yes.
16 JOHNSON, Q.C.:
17 Q. Okay. And is there anything in the Oliver
18 Wyman analysis of trend rates that would be
19 contrary to actuarial standards of practice?
20 MR. DOHERTY:
21 A. Not to my knowledge.
22 JOHNSON, Q.C.:
23 Q. Is here anything in FA's analysis that would
24 be contrary to actuarial standards of
25 practice?

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1 MR. DOHERTY:
2 A. No.
3 JOHNSON, Q.C.:
4 Q. How many member insurers would Facility have,
5 Mr. Doherty?
6 MR. DOHERTY:
7 A. Actual number of members?
8 JOHNSON, Q.C.:
9 Q. Like insurer members, insurance companies that
10 participate through Facility?
11 MR. DOHERTY:
12 A. I don't know that number off the top of my
13 head, I apologize.
14 JOHNSON, Q.C.:
15 Q. Okay. Have you made any inquiries from the
16 insurers who are members, who are affiliates
17 of Facility, as to which of these companies
18 utilize the Board's guidelines in their
19 filings to the Board for their automobile
20 insurance rates?
21 MR. DOHERTY:
22 A. No.
23 JOHNSON, Q.C.:
24 Q. Have you made any inquiries from any other
25 insurers, besides your members, as to the

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1 usage or utilization of the Board's approved
2 trend rates?
3 MR. DOHERTY:
4 A. No.
5 (1:15 P.M.)
6 JOHNSON, Q.C.:
7 Q. Mr. Doherty, you spoke a bit colourfully
8 yesterday of what I took to be a
9 characterization of how you saw Oliver Wyman's
10 work and you indicated that you were speaking,
11 as you put it, as somebody who built actuarial
12 practices and you said, "I could have my guys
13 build this process, it would take a couple of
14 days, I'm sure our analysis would take 15 or
15 20 minutes to do because it's very mechanical.
16 You identify the outliers upfront, you do
17 forward regressions, you get the results out
18 and average it against the one you had
19 before." Do you recall making that statement?
20 MR. DOHERTY:
21 A. Absolutely, yes.
22 JOHNSON, Q.C.:
23 Q. Do you know, Mr. Doherty, whether this
24 mechanical description applies to what Oliver
25 Wyman actually did in coming up with their

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1 recommendations?
2 MR. DOHERTY:
3 A. No, based on the report that's my
4 understanding of the process.
5 JOHNSON, Q.C.:
6 Q. Okay, all right. And I take it that you did
7 not, throughout this process, ask Oliver Wyman
8 for any of its background data or work
9 processes or thought processes as to how they
10 arrived at their report?
11 MR. DOHERTY:
12 A. No.
13 JOHNSON, Q.C.:
14 Q. But at the end of the day, yourself, Ms.
15 Elliott, Oliver Wyman, her firm, you're both
16 trained actuaries and I take it you're both
17 applying actuarial judgment, correct?
18 MR. DOHERTY:
19 A. Correct.
20 JOHNSON, Q.C.:
21 Q. And at the end of the day, you are using
22 trending models that you each deem to be
23 appropriate on practically the same data, with
24 the exception of whether it includes
25 adjustment expenses over indemnity.

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1 MR. DOHERTY:
2 A. I can't speak for Ms. Elliott, but that's
3 certainly the case for me.
4 JOHNSON, Q.C.:
5 Q. Okay, and Mr. Doherty, yesterday you were I
6 think somewhat critical of Oliver Wyman's
7 report for considering both a five and ten-
8 year trend on the basis that on averaging
9 those, on the basis that you considered to be,
10 as you termed it, resampling. And you recall
11 that?
12 MR. DOHERTY:
13 A. Yes.
14 JOHNSON, Q.C.:
15 Q. And, Mr. Doherty, while you refer to it as
16 resampling, in essence isn't it merely a means
17 of giving more weight to the more recent data?
18 MR. DOHERTY:
19 A. I'm sure I would characterize it that way.
20 JOHNSON, Q.C.:
21 Q. No, but would you agree with me that the
22 result of using the five year and taking an
23 average of that subset of five year data
24 within the ten years, it has the effect of
25 giving more weight to the recent data?

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1 MR. DOHERTY:
2 A. Yeah, I can see that argument, yes.
3 JOHNSON, Q.C.:
4 Q. And is there anything wrong with giving more
5 weight to more recent data as an exercise of
6 actuarial judgment?
7 MR. DOHERTY:
8 A. It depends on the application.
9 JOHNSON, Q.C.:
10 Q. Don't your trend selections rely more on the
11 latest eight years, for instance, as opposed
12 to the earlier 12 years of the 20 year
13 regression period?
14 MR. DOHERTY:
15 A. Only to the extent that we focused our
16 attention on that because our indication was
17 based--the weight we were giving it, our
18 indication was focused on the most recent five
19 years. If we were going to use more years, we
20 would spend more time making sure that our
21 trend analysis reflected the period we
22 intended to use in the experience for our
23 indication.
24 JOHNSON, Q.C.:
25 Q. But at the end of the day, you do end up

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1 giving more weight to the more recent
2 experience.
3 MR. DOHERTY:
4 A. I wouldn't characterize it that way, no.
5 JOHNSON, Q.C.:
6 Q. Well you're not giving any weight, I take it,
7 or are you, to the first 12 years of the 20
8 year analysis period?
9 MR. DOHERTY:
10 A. With the trend analysis?
11 JOHNSON, Q.C.:
12 Q. Yes.
13 MR. DOHERTY:
14 A. I'm not giving any particular weight to any
15 particular period. I'm doing a regression on
16 all of it. I did spend more time on making
17 sure I understood what was happening in the
18 more recent eight years than I did, as I
19 mentioned earlier, on the first 12 years. I
20 could have done or had my analysts do more
21 analysis on that to get a better fit for that
22 earlier 12-year period. We did not do that.
23 So I guess in terms of weight, in terms of our
24 analytical focus, it was on the more recent
25 years because that's what was going to be used

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1 to take our ten years of accident data to a
2 projected level, but I wouldn't say I gave
3 more weight to that than I gave to the earlier
4 years. We did have more analytical focus on
5 those periods though.
6 JOHNSON, Q.C.:
7 Q. And in terms of your the more analytical focus
8 being given to the '04 period, I mean, you're
9 essentially looking at the eight years and in
10 one of Ms. Elliott's models, she's looking at
11 a ten-year period. I mean, is that what we're
12 really down to? Like you know, it must be --
13 it can't be ten. It's got to be eight. I
14 mean, can reasonable people disagree as to
15 whether it's eight or ten?
16 MR. DOHERTY:
17 A. Absolutely. I think that it's absolutely fine
18 to look at the data. You all can look at
19 different -- the same data and then identify
20 different periods where you think trends have
21 changed. I'm not certain as I understand the
22 analysis done by Oliver Wyman that that was
23 the approach that they've taken because
24 they've done overlapping periods whereas we've
25 -- when we do the analysis, we don't overlap

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1 periods. We put them all together that puts
2 the pieces together but not in a way that
3 overlaps. If we want to look at different
4 periods, we would do a different model and
5 once we have a different model, then we
6 compare the two models to see which one we
7 thought best described the data.
8 JOHNSON, Q.C.:
9 Q. Is it important at all -- you know, you put a
10 fair bit of significance on something
11 happening in '04. Is it -- but you haven't
12 really investigated what is causing it. You
13 just observed something -
14 MR. DOHERTY:
15 A. Correct.
16 JOHNSON, Q.C.:
17 Q. But from an actuarial standpoint and an
18 analytical standpoint, is it important to get
19 to the bottom of what brought about what
20 you're perceiving to be a change in '04?
21 MR. DOHERTY:
22 A. It would be to the extent that we thought
23 something had happened there that could be
24 replicated some time in the future. So, for
25 instance, if we thought that there was a

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1 particular event or series of events that
2 generated this change and we thought that that
3 situation while it still existed over this
4 eight-year period has now changed into
5 something else and therefore we would revert
6 back to a trend like we had before, it would
7 be important. We don't see that as something.
8 We're not aware of anything that would cause
9 any seismic change in our view from our
10 current eight-year period going forward, which
11 is why we used that same trend from the eight-
12 year period to continue on. If we felt that
13 something was going to change, then we would
14 reflect that in the future period.
15 JOHNSON, Q.C.:
16 Q. Did you have input in Facility's last filing,
17 last year's Taxis filing? I presume you would
18 have.
19 MR. DOHERTY:
20 A. No, I -- well, only to the extent that
21 management looks at the results, discusses it
22 with the actuary and then management makes a
23 determination on what proposal they want.
24 JOHNSON, Q.C.:
25 Q. But what role were you playing last year then

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1 when that -- when Facility's application got
2 filed for the Taxi filing?
3 MR. DOHERTY:
4 A. I was in the role of discussing with Eckler
5 the results of their trend analysis for
6 discussion on what we take forward to the
7 actuarial committee. I was in the discussion
8 with the actuarial committee with respect to
9 their final selections of trends. I discussed
10 with Eckler the results of their indication
11 process with respect to Taxis. I discussed
12 with management the options that were
13 available to them on how they could apply for
14 rate changes, if they should apply for rate
15 changes, and a determination was made in the
16 application, but I did not strike any of the
17 assumptions. I do not take ownership of that.
18 That was Mr. Pelley's work.
19 JOHNSON, Q.C.:
20 Q. Okay. What title did you hold when that
21 application was filed with the Board last
22 year?
23 MR. DOHERTY:
24 A. The same position I have now, Senior Vice-
25 President of Actuarial and CFO.

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1 JOHNSON, Q.C.:
2 Q. There's been discussion regarding the
3 identification and then removal of outliers
4 from data and is it your suggestion, Mr.
5 Doherty, that an actuary is never able to
6 reasonably identify and remove outliers
7 without a great deal of statistical analysis?
8 Is that what you're suggesting?
9 MR. DOHERTY:
10 A. I would be challenged to understand how you
11 can make a determination that I believe in the
12 words of Oliver Wyman's report exclude a data
13 point because it's a statistical outlier if
14 you haven't done some sort of statistical
15 analysis to determine that it is an outlier.
16 JOHNSON, Q.C.:
17 Q. So for you, I guess the answer is that an
18 actuary would never be able to identify and
19 remove an outlier without going through the
20 examination you discussed yesterday?
21 MR. DOHERTY:
22 A. I would find it challenging to understand
23 that, but it doesn't mean that they couldn't
24 do it. I would just be challenged. I would
25 just be challenged to understand how they came

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1 to the determination that it was an outlier
2 particularly if you're saying it's a
3 statistical outlier as I believe it is
4 described in Oliver Wyman's report.
5 JOHNSON, Q.C.:
6 Q. But then you don't have an insight as to what
7 reasons they chose for excluding data points?
8 MR. DOHERTY:
9 A. Other than how they describe them. They
10 described highs and lows based on percentages.
11 I do not determine that to be a statistical
12 outlier, but maybe they have other statistical
13 tests. I struggle with, if it's a statistical
14 test, how can you apply it before you apply
15 your analysis.
16 JOHNSON, Q.C.:
17 Q. And there's obviously a major difference
18 between the trends rates that Oliver Wyman
19 finds reasonable and the Board has approved
20 and what Facility has put forward and just to
21 be clear, there's no question that we're not -
22 - we are all looking at the same data?
23 MR. DOHERTY:
24 A. No, we are not looking at the same data.
25 JOHNSON, Q.C.:

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1 Q. Well, I mean, we are indeed looking at
2 commercial vehicle experience.
3 MR. DOHERTY:
4 A. We are.
5 JOHNSON, Q.C.:
6 Q. In Newfoundland. So, we're looking at the
7 same experience?
8 MR. DOHERTY:
9 A. Yes.
10 JOHNSON, Q.C.:
11 Q. Okay. As of December 31st, 2012?
12 MR. DOHERTY:
13 A. Yes.
14 JOHNSON, Q.C.:
15 Q. So, you would confirm with me or confirm to us
16 that the differences in the trend selections
17 are due to actuarial judgment rather than to
18 differences in the historical experience?
19 MR. DOHERTY:
20 A. There may be some differences in the
21 historical experience. The claim counts are
22 based on our assessment of the claim counts.
23 They are slightly different than the Oliver
24 Wyman ones. We use indemnity only. They're
25 using indemnity and expense. So I don't know

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1 to what degree those two things would drive
2 any change. I believe that if I did my
3 analysis using the exact same data as Ms.
4 Elliott there would still be differences. I
5 don't -- I can't tell you the degree of
6 difference, if it would be larger or smaller
7 than what they are now.
8 JOHNSON, Q.C.:
9 Q. But there's no -- I think in your report, the
10 way you put it in terms of your non-inclusion
11 of adjustment expense and just using indemnity
12 and Oliver Wyman's inclusion of those expenses
13 is that you put it such that you have a
14 suspicion that there may be an impact arising
15 from the inclusion or exclusion.
16 MR. DOHERTY:
17 A. I believe there may be, yes.
18 JOHNSON, Q.C.:
19 Q. But there's no evidence in your report that
20 provides guidance one way or the other on
21 that?
22 MR. DOHERTY:
23 A. No.
24 JOHNSON, Q.C.:
25 Q. Just a suspicion?

1 MR. DOHERTY:
2 A. It's just a suspicion.
3 JOHNSON, Q.C.:
4 Q. And it's not something that you have
5 investigated?
6 MR. DOHERTY:
7 A. No.
8 JOHNSON, Q.C.:
9 Q. So in terms of this overarching concept of
10 actuarial judgment in the trendsetting
11 business, first of all, selecting loss trend
12 rates, that's clearly a matter of actuarial
13 judgment?
14 MR. DOHERTY:
15 A. Yes.
16 JOHNSON, Q.C.:
17 Q. And I take it whether to reflect seasonality
18 would be an exercise of actuarial judgment?
19 MR. DOHERTY:
20 A. Yeah.
21 JOHNSON, Q.C.:
22 Q. And whether to exclude certain historical data
23 points would be an exercise of actuarial
24 judgment?
25 MR. DOHERTY:

1 A. Yes.
2 (2:00 P.M.)
3 JOHNSON, Q.C.:
4 Q. And whether to give less weight to certain
5 data points than others, that would be an
6 exercise of actuarial judgment?
7 MR. DOHERTY:
8 A. Yes.
9 JOHNSON, Q.C.:
10 Q. And how many years of history you analyze,
11 that similarly would be an exercise of
12 actuarial judgment?
13 MR. DOHERTY:
14 A. Yes.
15 JOHNSON, Q.C.:
16 Q. I note that you've indicated that you use a
17 regression analysis of industry commercial
18 vehicle expense over a 20-year period, from
19 1993 to 2012. Is that use of the 20-year
20 period, is that a new addition to the way that
21 the FA goes about its trend analysis?
22 MR. DOHERTY:
23 A. I honestly can't recall if Eckler or KPMG -- I
24 can't recall what periods, how far back they
25 went. I'm sorry, I don't recall.

1 JOHNSON, Q.C.:
2 Q. And Oliver Wyman has indicated in their
3 report, as you're aware and you've alluded to,
4 that in their opinion using a 20-year period
5 is too long to serve as a basis for selecting
6 trend rates that apply to the '08 to 2012
7 experience period. You saw what they said in
8 their report in that regard?
9 MR. DOHERTY:
10 A. Yes, I did see that, yes.
11 JOHNSON, Q.C.:
12 Q. And what's your comment about the observation
13 that, you know, that's a bit of a long period
14 to be looking over in order to provide useful
15 guidance on selecting trend rates?
16 MR. DOHERTY:
17 A. This came up in several of the questions, both
18 Oliver Wyman. I believe your group also had
19 that sort of question. My comment is that I
20 can exclude all those earlier periods. I will
21 get the same trend rate on that eight-year
22 period if I exclude the earlier 12 years. I'm
23 not changing the slope of the line that I
24 picked after that. The reason that we use a
25 20-year period is because if there is one

1 trend over that 20-year period, you're going
2 to get a better estimate of that trend if you
3 use all 40 data points as opposed to using
4 only the most recent 16 or 20 or 10 data
5 points. That's the nature of the statistical
6 process that we go through. Using a 20-year
7 period allows us not only to identify through
8 statistical analysis areas where or periods
9 where potential trend rates have changed over
10 that period, it also at times gives us insight
11 into our ability to identify where things are
12 changing and test for those. If you have a
13 narrow view that you're only going to look at
14 -- in my opinion, look at ten-year periods,
15 the next time your last period drops off and
16 you got a new data period, if that earlier
17 period now -- if there was a change in period
18 that was five years and five years, as you
19 move through it, your initial five-year period
20 gets smaller and smaller and you're going to
21 lose your ability to actually identify that as
22 a separate period and it's going to become now
23 part of your current period where it may not
24 necessarily be appropriate to have that. So
25 we prefer to have a longer period to avoid

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1 that kind of bias that may work its way in if
2 you're looking at shorter periods.
3 JOHNSON, Q.C.:
4 Q. The Nova Scotia Board, as we discussed briefly
5 earlier, has issued a couple of decisions and
6 if we could bring up the first of these.
7 MS. GLYNN:
8 Q. They need to be entered as well.
9 JOHNSON, Q.C.:
10 Q. Okay.
11 MS. GLYNN:
12 Q. The September one first?
13 JOHNSON, Q.C.:
14 Q. Or the October one, if you would.
15 MS. GLYNN:
16 Q. October, okay. So the October decision will
17 now be Information Item No. 2 and the
18 September decision will now be Information No.
19 3. We'll circulate an updated list after,
20 later this evening.
21 JOHNSON, Q.C.:
22 Q. Thank you. I'm referring to the recent
23 decision of the Nova Scotia Board of October
24 23rd in the matter of a Facility application,
25 and as I understand it, this is for

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1 miscellaneous vehicles.
2 MR. DOHERTY:
3 A. I believe the first one was a private
4 passenger, but I might be on the wrong one.
5 JOHNSON, Q.C.:
6 Q. I'm on the October one.
7 MR. DOHERTY:
8 A. Okay, sorry.
9 JOHNSON, Q.C.:
10 Q. Okay. Do you have that one?
11 MR. DOHERTY:
12 A. Yes.
13 JOHNSON, Q.C.:
14 Q. Okay. And I note at paragraph 20 -
15 MR. DOHERTY:
16 A. Yeah.
17 JOHNSON, Q.C.:
18 Q. - the Board remarks that "the Oliver Wyman
19 selections produced much lower indicated
20 changes. It's difficult to determine if the
21 lower indicated changes are caused by the OW
22 use of 'indemnity plus ALAE' as opposed to
23 Facility's use of indemnity only data or by
24 the longer time frame used by Facility. Board
25 staff believe that the major reason for the

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1 difference between the loss trends is the
2 experience period over which the trends are
3 selected. Oliver Wyman uses three to five
4 years of experience while Facility goes back
5 to 1990, 20 years. Facility argues that the
6 longer term is inherently more stable. That
7 may be true, but the Board staff state it is
8 also less responsive to changes." And they go
9 on to say at paragraph 22 that "in the past,
10 the Board has selected the shorter time
11 horizon as opposed to that used in
12 applications made by Facility. Despite the
13 potential future instability, Board staff
14 recommends the use of the Oliver Wyman
15 selected trends for the purpose of developing
16 indications against which to judge the
17 appropriateness of Facility's approval." So
18 the Board accepted the OW trends. And I take
19 it then from that, I understand that Oliver or
20 Facility has a track record of using longer
21 periods than at least the Nova Scotia
22 regulator feels comfortable with.
23 MR. DOHERTY:
24 A. And I would characterize it the same way. The
25 viewpoint seems to be that by using the 20

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1 years we're using a trend that spans 20 years,
2 which is not the case. And again, we could
3 lop off -- we could exclude all the earlier
4 data. We're not going to do that just to
5 satisfy somebody's view that, you know,
6 including it is somehow biasing our decision.
7 In this case, if I use eight years, I get the
8 exact same trend rate and the same thing
9 occurred in Nova Scotia, so you know, I can
10 put my blinders on and pretend that that
11 initial ten-year period didn't happen, but it
12 did and why would I throw away good data?
13 JOHNSON, Q.C.:
14 Q. And I guess you'll confirm that they similarly
15 viewed a concern about the 20-year analysis
16 period in the private passenger decision in
17 September?
18 MR. DOHERTY:
19 A. Correct, yes.
20 JOHNSON, Q.C.:
21 Q. Which is at -- and I won't bring you to it,
22 but it's, I think, Information No. 3.
23 MS. GLYNN:
24 Q. 3.
25 JOHNSON, Q.C.:

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1 Q. Yeah, okay. I'll probably revisit trend with
2 you tomorrow but for the remaining time, I
3 just wanted to talk about a couple of items
4 that I think could comfortably be dealt with
5 in the time remaining. The Facility standard
6 of full credibility which affects third party
7 liability only, I think as you've explained,
8 in 2013 you used 5410 claims. I'm sorry if
9 I'm not using the right terminology. In 2013,
10 you used a larger figure for the standard of
11 credibility for third party liability?
12 MR. DOHERTY:
13 A. Yes. Mr. Pelley used a larger -- 5410 I
14 believe was the number.
15 JOHNSON, Q.C.:
16 Q. And so that - it wasn't a mistake last time,
17 it was a conscious choice of Mr. Pelley to use
18 a larger number?
19 MR. DOHERTY:
20 A. Yes, it was.
21 JOHNSON, Q.C.:
22 Q. Okay, and, I guess, it does have a bearing on
23 the indicated rate for third party liability,
24 I take it?
25 MR. DOHERTY:

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1 A. Yes, it does.
2 JOHNSON, Q.C.:
3 Q. Yeah, and if you had used - I'll get you to
4 confirm that Oliver Wyman indicates in their
5 report that if you were to have used the same
6 standard as Mr. Pelley used in the last
7 application, and no other changes and
8 assumptions, that the rate indication for
9 third party liability would decrease by
10 something like 7 percent?
11 MR. DOHERTY:
12 A. That's correct.
13 JOHNSON, Q.C.:
14 Q. You can confirm that, okay, and so would the
15 use of the same standard as last year, would
16 that be acceptable actuarial judgment this
17 time around?
18 MR. DOHERTY:
19 A. Yes.
20 JOHNSON, Q.C.:
21 Q. As regards the complement of credibility, my
22 understanding of the January 2013 application
23 is that Facility estimated that its rate level
24 change needed to be 70.7 percent, but proposed
25 a rate change overall of 51.1 percent. Is

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1 that -
2 MR. DOHERTY:
3 A. That sounds about right. I don't have the
4 figures in front of me.
5 JOHNSON, Q.C.:
6 Q. Subject to change.
7 MR. DOHERTY:
8 A. Yeah.
9 (2:15 P.M.)
10 JOHNSON, Q.C.:
11 Q. Okay, and I take it, you are familiar with the
12 fact that the Board in its order arising out
13 of that proceeding which was Order Number AI-
14 9, 2013, indicated that it was not in
15 agreement with the Facility's selected loss
16 trend rates or its return on investment income
17 assumptions, right?
18 MR. DOHERTY:
19 A. Correct.
20 JOHNSON, Q.C.:
21 Q. Now Oliver Wyman tells us in their report that
22 in this application Facility is adjusting its
23 target loss ratio for rate inadequacy, that
24 Facility believes exists due to the difference
25 between its prior application's rate

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1 indication compared to the rate change
2 approved by the Board, and that's correct?
3 MR. DOHERTY:
4 A. Is that a quote? I just want to make sure I
5 understand the idea of the target - because
6 we're not changing our target.
7 JOHNSON, Q.C.:
8 Q. You're adjusting your target loss ratio for
9 rate inadequacy?
10 MR. DOHERTY:
11 A. No, we haven't -
12 JOHNSON, Q.C.:
13 Q. No?
14 MR. DOHERTY:
15 A. We haven't adjusted our target - I'm a bit
16 confused by the language. Maybe I could -
17 JOHNSON, Q.C.:
18 Q. Go ahead, that's fine.
19 MR. DOHERTY:
20 A. The way I understand it, we have really two
21 choices, as I understand it. It's the same
22 two choices we would have, as I talked about
23 earlier. If we had a rate filing within the
24 most recent - if we haven't had a rate filing
25 in two to three years, we start with the

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1 assumption that our expiring rates are
2 adequate, and I believe that's the position as
3 one full credibility complement. The other
4 one is - the other position we take is that if
5 we have a recent filing and there was a
6 difference between what was approved and what
7 the indicated was, we would recognize the
8 difference between those two. I think that's
9 what they're getting at.
10 JOHNSON, Q.C.:
11 Q. Okay, and, I guess, you'd agree with me that
12 in order to accept your adjustment, or call it
13 what you will for rate inadequacy, that we
14 would also have to necessarily accept that FA
15 2013 Application rate indication was also
16 appropriate?
17 MR. DOHERTY:
18 A. Yeah, I think even when we did adjustments, I
19 think there was a little bit of not - if you
20 think about the third party liability - I'm
21 going off memory here and I could be wrong,
22 but we proposed a 50 percent. Our indication
23 was higher than that. We did a number of
24 changes to assumptions as per request, and it
25 came in a little bit higher than the 50

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1 percent.
2 JOHNSON, Q.C.:
3 Q. Yes.
4 MR. DOHERTY:
5 A. And so the 50 percent was fine. So there
6 might have been a little bit, but I - let's
7 assume that the other one that we would be
8 starting with is assuming rates that are
9 expiring are adequate.
10 JOHNSON, Q.C.:
11 Q. But, I guess, what I was getting at is that as
12 I understood the concept of rate inadequacy,
13 you're saying that something should be done
14 about the difference between your prior
15 application's rate indication compared to the
16 rate change approved by the Board, and it just
17 seemed to me that in order for us to accept
18 the concept of rate inadequacy, which has a
19 bearing on the rate request in this case, that
20 we would have to also accept that FA's 2013
21 Application's rate indication was appropriate,
22 and I'm wondering how we square that with the
23 Board's Order in 2013 saying that, look, we do
24 not accept your trend selection, and we have
25 difficulty with and do not accept, for

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1 instance, your return on investment parameter,
2 and I'm trying to square that?
3 MR. DOHERTY:
4 A. Yeah, and so I would characterize it as -
5 there's two areas of consistency. Our view of
6 consistency is our position is that it's
7 consistent with your prior one, and the PUB's
8 position - again there's - I believe there's a
9 little bit of deficiency even when they did
10 their adjustments, but let's assume that the
11 Order was that you do this, and your rates are
12 adequate. So there are those two different
13 positions. The latter one would be consistent
14 with the PUB's decision and their rationale
15 for their decision, absolutely.
16 JOHNSON, Q.C.:
17 Q. But if we were - I take it, the premise is
18 that you're here to say that your last rate
19 indication was appropriate?
20 MR. DOHERTY:
21 A. Based on more current data, I'd say it wasn't
22 appropriate, it wasn't high enough, but at the
23 time - and our approach is the indication we
24 had last time was higher than we got,
25 therefore, there is some deficiency still in

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1 our rates that we need to start reflecting
2 with, and then use that as the basis going
3 forward.
4 JOHNSON, Q.C.:
5 Q. Okay, so, like - and I'm trying to understand
6 what we then end up doing with the Board's
7 Order from just last year. I mean, are we
8 basically saying do we ignore the Board Order
9 and say, look, notwithstanding that, and
10 notwithstanding the Board having reviewed the
11 matter and stated that it disagreed with
12 Facility on trend and disagreed with Facility
13 on return on income, that we are now going to
14 assume that the 2013 FA rate indication was
15 correct? Is that what we must do?
16 MR. DOHERTY:
17 A. My understanding is that's the Board's
18 decision. I determine the rate level based on
19 my assessment of the process that we have,
20 including what I believe is rate deficiency
21 coming forward. If the Board chooses a set of
22 assumptions that they think is applicable, I
23 will certainly tell them what the indication
24 based on that is, and they can make themselves
25 consistent with their view of whether or not

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1 the rate level change that we got last time
2 brought our rates to adequacy. The indication
3 that we have is my work product based on my
4 assumptions. You know, if I'm ordered to show
5 an indication based on alternate set of
6 assumptions, I do that, just as if you asked
7 for different sets, I'll show you what those
8 results are, but my own personal view is
9 supported by the indication bringing forward a
10 rate inadequacy into our current review.
11 JOHNSON, Q.C.:
12 Q. So just - if the Board, having heard and
13 determined this application in November, 2014,
14 were to determine that FA's trend selection,
15 for example, was inappropriate, or some other
16 element of your application was inappropriate,
17 and thereby take issue with FA's rate
18 indication, in next year's Facility
19 Application, if there were to be one, would FA
20 again then make an adjustment for what it
21 deemed to be rate inadequacy? Is that how it
22 would continue to go?
23 MR. DOHERTY:
24 A. Yes.
25 JOHNSON, Q.C.:

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1 Q. Okay, all right, and I understand that FA has
2 a policy, if it has not recently filed for a
3 rate change, you would assume that the current
4 rates are adequate?
5 MR. DOHERTY:
6 A. It's not - I wouldn't characterize it as a
7 policy. It's a guide to our process when
8 we're looking at how we start, yes.
9 JOHNSON, Q.C.:
10 Q. Okay, and -
11 MR. DOHERTY:
12 A. And the rationale for that is we recognize
13 that when we submit an application, if it's
14 been a long time and we say we didn't share it
15 with you last year, but we did one and it
16 showed some rate inadequacy or deficiency and
17 we're bringing that forward, it's not really
18 fair to the regulator because we didn't share
19 with them that analysis.
20 JOHNSON, Q.C.:
21 Q. Okay.
22 MR. DOHERTY:
23 A. So at some point we just say, you know, we're
24 starting fresh, we assume the rates were
25 adequate.

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1 JOHNSON, Q.C.:
2 Q. So, like, is there a number, like, would you
3 have to stay out two years before you would
4 assume rate adequacy? Is it three years, you
5 know -
6 MR. DOHERTY:
7 A. It does vary, but it's generally in that ball
8 park.
9 JOHNSON, Q.C.:
10 Q. So two years, three years?
11 MR. DOHERTY:
12 A. Two to three years, yeah.
13 JOHNSON, Q.C.:
14 Q. So four years, and you'd assume that they're
15 adequate?
16 MR. DOHERTY:
17 A. Yeah, I would assume that after four years,
18 because we do annual reviews, that if the
19 Facility Association has decided not to file
20 rates, they did it for certain reasons, and
21 after four years we don't think it would be
22 appropriate to go in to a regulatory
23 application saying, by the way, we think our
24 rates - we're starting off assuming our rates
25 are deficient, and we have some more

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1 experience telling us they're even more
2 deficient or not, we don't think that that's a
3 fair position to take because we haven't
4 shared the analysis in that interim period.
5 If we just sent information in every year
6 saying we not going to change our rates, we
7 just want you to see that we think our rates
8 are deficient, they're getting more deficient,
9 and now we've decided to do something about
10 it, I think that's an awkward position to put
11 the position in.
12 JOHNSON, Q.C.:
13 Q. So annually, you review Facility's rates,
14 including the taxi rates in Newfoundland and
15 Labrador?
16 MR. DOHERTY:
17 A. That has not been the historical process.
18 Generally, the historical process has been
19 that private passenger, commercial, and inter-
20 urban rates were reviewed annually for each
21 jurisdiction. In recent times, they also
22 added a second review for Ontario and Alberta
23 private passenger. Miscellaneous vehicles and
24 recreational vehicles historically were only
25 reviewed every two years, alternating between

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1 public and recreational. When we took over
2 internally the review process, effectively the
3 whole process in 2013 with a jurisdiction, we
4 annual review all classes of business. So
5 going forward, we review all classes for every
6 jurisdiction annually, but that has not been
7 the historical practice.
8 JOHNSON, Q.C.:
9 Q. I take it that there was a rate review that
10 led to the application of last year for new
11 taxi rates?
12 MR. DOHERTY:
13 A. Yes.
14 JOHNSON, Q.C.:
15 Q. And to your knowledge, when was the previous
16 time that the taxi rates had been reviewed?
17 MR. DOHERTY:
18 A. I don't know if it was the year before or two
19 years before. I kind of think it was two
20 years before, but I can't be certain on that.
21 I believe Newfoundland taxi rates were
22 reviewed more often because they were
23 significantly deemed as being inadequate, but
24 management did not - the Board of Directors
25 did not approve a rate filing based on those

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1 analyses, which is why - well, the 2013 filing
2 was based on a previous methodology where they
3 always assume that regardless of what
4 happened, they would revert back for public
5 and miscellaneous, and again we've changed the
6 process so it's the same across all classes of
7 business for all jurisdictions. I can
8 certainly do an undertaking to determine
9 exactly what rate reviews were completed over
10 the last ten years and what the results of
11 those rate reviews were, and whether or not
12 they were taken to the Board of Directors and
13 what the Board of Directors decisions were
14 with respect to an application based on those
15 indications.
16 JOHNSON, Q.C.:
17 Q. That would be fine, yeah.
18 MR. DOHERTY:
19 A. How far back do you want me to -
20 JOHNSON, Q.C.:
21 Q. Well, you said ten years. I think you said
22 ten years.
23 MR. DOHERTY:
24 A. I can try ten years, but I'm sure I can do at
25 least eight, but I'll try for ten.

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1 JOHNSON, Q.C.:
2 Q. And I take it that there's no debate, that
3 certainly there is a significant rate impact
4 or a rate - yeah, rate impact is the right way
5 to put it, from FA's request to have rate
6 inadequacy reflected?
7 MR. DOHERTY:
8 A. Correct.
9 JOHNSON, Q.C.:
10 Q. And I take it, would you be prepared to
11 confirm, subject to check, that your indicated
12 rate level change, if you just removed the
13 rate inadequacy piece, but kept everything
14 else there, would decline about 24 percent on
15 an overall basis?
16 MR. DOHERTY:
17 A. Yeah, that's about right, yeah.
18 JOHNSON, Q.C.:
19 Q. Okay, and the Nova Scotia Board, I understand,
20 and perhaps we could take that decision up,
21 the September 22nd decision. That would be -
22 it's listed at Item 1 on that.
23 MS. GLYNN:
24 Q. Yeah, but because they weren't entered at the
25 beginning, we're now entering them as we go.

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1 It's number 3 now.
2 JOHNSON, Q.C.:
3 Q. Okay. If I could - I think there was a
4 discussion in that decision, Mr. Doherty, of
5 the Nova Scotia Board's views on rate
6 inadequacy.
7 MR. DOHERTY:
8 A. Yes.
9 JOHNSON, Q.C.:
10 Q. And I take it that similarly -
11 MR. DOHERTY:
12 A. I believe it's starting at number 32. I think
13 it's on page 10 of the document.
14 JOHNSON, Q.C.:
15 Q. Paragraph 32?
16 MR. DOHERTY:
17 A. Yes, I believe so.
18 JOHNSON, Q.C.:
19 Q. They indicate that FA took the position that
20 there was rate inadequacy resulting from the
21 time of its last application before the Board.
22 At the time, the Board did not accept the
23 indicated rate level change, instead accepting
24 a greater decrease as more reasonable and
25 ordering it be used, etc. So similarly, the

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1 Board was asked in Nova Scotia to entertain a
2 rate inadequacy argument from Facility?
3 MR. DOHERTY:
4 A. That's correct.
5 JOHNSON, Q.C.:
6 Q. But it declined it. This application in that
7 matter, it was in respect of private passenger
8 vehicles in Nova Scotia, and that application
9 was filed, I understand it, on or about March
10 5th, 2014.
11 MR. DOHERTY:
12 A. That sounds about right, yeah.
13 JOHNSON, Q.C.:
14 Q. So close to when this application was being
15 filed?
16 MR. DOHERTY:
17 A. That's correct, yes.
18 JOHNSON, Q.C.:
19 Q. And prior to that, when had been the last
20 application to the Nova Scotia Board for
21 private passenger?
22 MR. DOHERTY:
23 A. I can't say off the top of my head.
24 JOHNSON, Q.C.:
25 Q. Could you check that as well and undertake to

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1 let us know when the prior application was
2 filed with the Board?
3 MR. DOHERTY:
4 A. Nova Scotia PUB?
5 JOHNSON, Q.C.:
6 Q. Yes.
7 MR. DOHERTY:
8 A. Certainly, yes.
9 JOHNSON, Q.C.:
10 Q. Mr. Chairman, Commissioners, I don't think
11 that within the fifteen minutes remaining it
12 makes much sense for me to get into another
13 topic, so if it pleases the Board, we could
14 convene tomorrow and I could continue on.
15 CHAIRMAN:
16 Q. I don't think there's a problem with that.
17 JOHNSON, Q.C.:
18 Q. Okay, thank you.
19 CHAIRMAN:
20 Q. We are adjourned until tomorrow at - what
21 time, 9:30?
22 MS. GLYNN:
23 Q. We had discussed 9, but I wonder with the
24 delay in the transcript, if maybe we could
25 start at 9:30. I hadn't discussed that with

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1 counsel, but I think an extra half an hour in
2 the morning would be -
3 CHAIRMAN:
4 Q. 9:30.
5 STAMP, Q.C.:
6 Q. My preference, Mr. Chairman, for what it's
7 worth, is to start at 9 o'clock. We have
8 tomorrow set aside for this. I'd like to do
9 as much as we possibly can, and I'd like to
10 see whether we can finish with Mr. Doherty and
11 start and move some distance into Ms. Elliott.
12 MS. GLYNN:
13 Q. We have no intention of putting Ms. Elliott on
14 the stand tomorrow unless we have a very large
15 chunk of time left, and the way this has been
16 going, I don't think that's going to happen.
17 A half hour in the morning, I don't think is
18 going to be a detriment to anybody. I'll
19 leave that to the Board.
20 CHAIRMAN:
21 Q. You lose. I think we'll start at 9:30.
22 (UPON CONCLUDING AT 2:30 P.M.)

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1 CERTIFICATE
2 I, Judy Moss, hereby certify that the foregoing is a true
3 and correct transcript in the matter of a Facility
4 Association Application re: Taxi and Limousine Automobile
5 Insurance Rates heard on the 6th day of November, 2014
6 before the Board of Commissioners of Public Utilities,
7 120 Torbay Road, St. John's, Newfoundland and Labrador
8 and was transcribed by me to the best of my ability by
9 means of a sound apparatus.
10 Dated at St. John's, Newfoundland and Labrador
11 this 6th day of November, A.D., 2014
12 Judy Moss

-$-

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$2,000.00 [1] 62:7
$2,500.00 [3] 54:25 56:12 71:8
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$3,200.00 [1] 52:23
$3,500.00 [1] 62:6
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$6,900.00 [1] 80:12
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