MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA PUBLIC INSURANCE CORPORATION (MPI)

2020/2021 GENERAL RATE APPLICATION

HEARING

Before Board Panel:

Irene Hamilton, QC - Board Chairperson

Robert Gabor, QC - Board Chair

Carol Hainsworth - Board Member

HELD AT:

Public Utilities Board

400, 330 Portage Avenue

Winnipeg, Manitoba

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--- Upon commencing at 9:05 a.m.

THE CHAIRPERSON: Good morning, everyone. Thank you for the information that was provided last night. Ms. McCandless has some questions.

MR. STEVEN SCARFONE: Just before we begin, I -- I see that Mr. Guerra has a number of exhibits that he'd like to mark, and then we can begin with the questions of Mr. Johnston.

THE CHAIRPERSON: Yes. Please proceed.

MR. ANTHONY GUERRA: Yes. Thank you. Good morning. We do have a number of exhibits.

Exhibit number 58 for MPI is the -- excuse me -- the updated rate -- interest rate scenarios -- proposed interest rate scenarios for the provisional rate indication.

--- EXHIBIT NO. MPI-58: Updated proposed interest rate scenarios for the provisional rate indication

MR. ANTHONY GUERRA: MPI Exhibit

number 59 is the update to MPI's response to PUB-MPI Information Request 1-35, Appendix number 1, which is -- just to confirm, which is just the update to the shadow portfolio returns versus actual portfolio returns for the period March to August 2019.

--- EXHIBIT NO. MPI-59: Update to MPI's response to PUB-MPI Information Request 1-35, Appendix 1

MR. ANTHONY GUERRA: MPI Exhibit number 60, which is the information technology presentation for that panel, which we'll hear later today.

--- EXHIBIT NO. MPI-60: Information technology presentation

MR. ANTHONY GUERRA: MPI Exhibit number 61, which is MPI's response to Undertaking number 2.

--- EXHIBIT NO. MPI-61: Response to Undertaking 2

MR. ANTHONY GUERRA: Exhibit number 62

-- MPI Exhibit number 62, which is the service delivery model presentation which we'll hear later this week.

--- EXHIBIT NO. MPI-62: The service delivery model presentation

MR. ANTHONY GUERRA: And then finally, MPI Exhibit number 63, which is Appendix number 1 to the service delivery model presentation, which is specifically dealing with the issue of insurance broker commissions. Thank you.

--- EXHIBIT NO. MPI-63: Appendix number 1 to the service delivery model presentation, which is specifically dealing with the issue of insurance broker commissions

THE CHAIRPERSON: Thank you. Ms. McCandless...?

CONTINUED MPI PANEL NO.5:

LUKE JOHNSTON, PREVIOUSLY AFFIRMED

TAI PHOA, PREVIOUSLY SWORN

RE-CROSS-EXAMINATION BY MS. KATHLEEN MCCANDLESS:

MS. KATHLEEN MCCANDLESS: Thank you. And Mr. Johnston, Mr. Phoa, I'm going to have some questions about MPI Exhibit number 58, which was filed at the end of the day yesterday.

First, Kristen, could we please collect Exhibit PUB-19.

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: Thank you. And so just to confirm for the record, this is what the Board directed MPI to file in respect of the process for the provisional rate indication this year.

Are you familiar with this, Mr. Johnston?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: And so looking at the screen before us, we note that the Board directed that MPI file within four (4) business days of September 30, 2019, the following schedules as exhibits to the application. So 1), a major cost summary report; 2), Pro Forma financial statements 1 to 3; and 3), overall in major class required rate changes with and without any capital related provisions with supporting schedules.

And then below those, the Board directed that MPI -- that the exhibits include updates based on the Naive Standard Interest Rate, or SIRF, and the 50/50 forecasts, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: And the Board also directed at -- that MPI file along with the Exhibits Items 1 to 3, a summary of the changes to the various interest rate forecasts with accompanying narrative resulting from the interest rate update and to the financial results reflected in the updated pro forma financial statements, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: And the narrative should also provide information as to any resulting material changes to Information Request responses based on the original provisional interest rate forecast, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: Thank you. And so if we could turn to MPI Exhibit number 58, and there should be a covering letter accompanying that, Kristen. So if you have that, we could just put that up on the screen.

The Board did receive some information in response to PUB-19 on October 4th, and the remainder of the information was filed yesterday, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: And so what was filed yesterday or put on the record this morning was we see before us at Items 1 to 6. So for each of the following scenarios, MPI provided figures RM-12, and a set of pro formas and Extension pro formas. So with a number of different Government of Canada ten (10) year bond rates, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: The standard interest rate forecast current to September 30, 2019?

MR. LUKE JOHNSTON: Correct.

MS. KATHLEEN MCCANDLESS: And the 50/50 interest rate forecast current to September 30, 2019, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: Thank you. Now Kristen, I'm sorry to make you jump around, but if we could please go to MPI Exhibit 44, Appendix 1.

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: That's right. Thank you. So these are interest rate forecasts for SIRF, Naive, and 50/50 on the Government -- Government of Canada ten (10) year bond forecast, yes?

MR. LUKE JOHNSTON: That's right.

MS. KATHLEEN MCCANDLESS: And if we jump to Appendix 1, Figure INV-13 of MPI number 58, so it should just be the first page after the covering letter.

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: We see on the left-hand side of the screen here, starting at line 1, the new money yield, yes?

MR. LUKE JOHNSTON: Yes.

MS. KATHLEEN MCCANDLESS: And then jumping back to MPI Exhibit number 44, on the right-hand side of the screen, we see reference to interest rates. We have SIRF, Naive, and 50/50, yes?

MR. LUKE JOHNSTON: That's -- that's right.

MS. KATHLEEN MCCANDLESS: Can you confirm that the interest rates used for the SIRF and 50/50 scenarios in MPI-58 are equal to those provided in the screen before you?

I appreciate the numbers are different, but perhaps you could explain what that difference is.

(BRIEF PAUSE)

MR. LUKE JOHNSTON: Yes. So the -- our actual fixed income portfolio isn't only Government of Canada ten (10) year bonds. We select our -- our discount rate for rate-setting purposes based on our -- using our Basic claims fixed income portfolio, which -- which has provincial and corporate bonds in -- in that portfolio, and others generally spread above the -- the Government of Canada ten (10) year bond for other types of bonds.

So the -- the spread -- when we select a spread -- so, for example, corporate bonds, we'll have a higher yield than the government bond. There's a spread assumption in -- in our model. And that applies to the -- on top of the Government of Canada ten (10) year bond focus.

MS. KATHLEEN MCCANDLESS: And so for

which period was the interest rate used? Was it 2020 Q2 it was incorporated into the interest rates that we find at MPI-58?

(BRIEF PAUSE)

MR. LUKE JOHNSTON: Sorry. Can you repeat that question?

MS. KATHLEEN MCCANDLESS: Which interest rate period did the Corporation use for its modeling purposes? So at MPI-44, we have -- it starts at Q3 of 2019, goes through to 2023 Q4, yes?

(BRIEF PAUSE)

MR. LUKE JOHNSTON: So is the -- sorry, is the question for rate-making purposes, what point in time we used for this chart?

MS. KATHLEEN MCCANDLESS: Yes.

MR. LUKE JOHNSTON: Yeah. So Q2 2020. Sorry, I was confused on the question. I was like, I -- we use the interest rates as of now, but I -- sorry, it was for rate-making purposes. Yeah.

MS. KATHLEEN MCCANDLESS: Yes. Thank you. So if we could go to MPI Exhibit 58, and page 1.

Thank you.

So could you please confirm that for all the scenarios listed, that the capital build provision and all MCT values do not reflect the current year update, which was provided in MPI Exhibit number 42?

MR. LUKE JOHNSTON: Yes, we've -- what you have here is the original GRA as filed in June, updated for the latest interest rates, and then modified for the requested scenarios.

We are looking at to how to update the model for the -- the '19/'20 forecast update that we did. There's some complexity to that, because we obviously have a -- a midyear adjusted model. So we are looking at that.

I guess -- yeah, this -- this output will give you a sense of the sensitivity to the requested results, but the -- the capital build and release provisions will be based on the -- on the previous GRA forecast.

MS. KATHLEEN MCCANDLESS: So to confirm, then, they're based on 2020-FB and not the 2020-P that we've been looking at?

MR. LUKE JOHNSTON: Correct.

(BRIEF PAUSE)

MR. LUKE JOHNSTON: We are working on that version. And I'm hearing from the back row that a little more work than this one, but -- but we can do it within a reasonable amount of time.

And I -- I don't really like taking more undertakings, but this is obviously our -- the case we're asking for, so I would like to have that on the record. So we -- we're going to continue working on that.

MS. KATHLEEN MCCANDLESS: Thank you. Then I think to put it on the record, we should confirm that MPI's undertaking to provide an update to MPI number 58, based on the current year update as shown in Exhibit -- MPI Exhibit number 42?

MR. ANTHONY GUERRA: Yes. Just to confirm, it's MPI Exhibit number 58. Yes.

MS. KATHLEEN MCCANDLESS: Thank you.

--- UNDERTAKING NO. 22: MPI to provide an update to MPI number 58, based on the current year update as shown in MPI Exhibit 42

CONTINUED BY MS. KATHLEEN MCCANDLESS:

MS. KATHLEEN MCCANDLESS: So could you confirm then the naive forecast is the indicated rate of a rate reduction of point six (0.6) but with one (1) more decimal place shown here at line 1?

MR. LUKE JOHNSTON: That's right.

MS. KATHLEEN MCCANDLESS: Why are the scenarios provided with capital bill provisions given the Corporation's indication that no capital bill provision was needed in the October 4th update?

MR. LUKE JOHNSTON: So the model -- we built the capital management plan into our modeling. And prior to the update -- the October 4th update where our -- our financial position had improved, this is the -- what the model output would have looked like had we not changed our forecast for that updated information.

MS. KATHLEEN MCCANDLESS: So what information has been updated in the MCT values shown?

MR. LUKE JOHNSTON: The -- the MCT values reflect -- really reflect everything from the original filing and -- and then the interest rate update and -- and along with -- well, any other rate change or capital build that's shown in the -- in the tables.

And then as you -- as you move along you can see the -- there's the break-even indication on its own, then we show the impact of Extension transfers, and then the -- the assumed build for lease provision.

So when we update the -- the model for the -- the '19/'20 forecast update, all these MCT ratios will slide up a notch, and of course, there'll be different capital build release indications at -- at that stage. Yeah.

MS. KATHLEEN MCCANDLESS: Can you please confirm that the impact on the current indication of a rate reduction of 5.6 percent of moving from the naive interest rate forecast to 50/50 forecast would be to decrease the rate indication by thirty-five (35) basis points to a 0.91 percent rate reduction?

MR. LUKE JOHNSTON: That's right.

MS. KATHLEEN MCCANDLESS: And the corresponding impact to move to the standard interest rate forecast would be to decrease the rate indication by sixty-eight (68) basis points to a 1.24 percent rate reduction?

MR. LUKE JOHNSTON: That's correct.

MS. KATHLEEN MCCANDLESS: And could

you also confirm that the impact on the current indication of 0.56 percent rate reduction of moving the interest rate forecast down by twenty-five (25) basis points would be to increase the rate indication by sixty-two (62) basis points to a rate increase of 0.06 percent at line 7?

MR. LUKE JOHNSTON: Correct.

MS. KATHLEEN MCCANDLESS: And the corresponding impact to move the interest rate forecast down fifty (50) basis points would be to increase the indication by one hundred and twenty-two (122) basis points to a rate increase of 0.66 percent?

MR. LUKE JOHNSTON: Correct.

MS. KATHLEEN MCCANDLESS: And similarly, the impact on the current indication of a rate reduction of 0.56 percent of moving the interest rate forecast up twenty-five (25) basis points would be to decrease the indication by fifty-eight (58) basis points to a rate decrease of 1.14 percent at line 8?

MR. LUKE JOHNSTON: That's right.

MS. KATHLEEN MCCANDLESS: And to move it up fifty (50) basis points at line 6 would be to decrease the rate indication by one hundred and sixteen (116) basis points to a rate reduction of

1.72 percent?

MR. LUKE JOHNSTON: That's right.

MS. KATHLEEN MCCANDLESS: So what we've then just discussed now is an illustration of the sensitivity of the rate indication to changes in interest rates, yes?

MR. LUKE JOHNSTON: That's -- that's right. And I guess what I'd -- what I'd add to this charge which is probably helpful for everyone to understand is the first line -- line 1 naive forecast.

If the maintenance provision was not in the original application and we updated only for interest rates, the indication and -- sorry -- and we didn't have a forecast revision update, we'd have the negative zero point five six (0.56) rate change, and the capital management plan would trigger about a 1.19 percent build provision. So the -- which is obviously less than the capital maintenance provision that was in -- in the original ask.

Our forecast update is -- is basically saying we think we're close enough to a hundred percent MCT that we don't need to ask for this build provision or the original maintenance provision, but we'll file updated information to show -- to show that.

MS. KATHLEEN MCCANDLESS: Okay.

(BRIEF PAUSE)

MR. LUKE JOHNSTON: I'm told I might have misspoke. The capital maintenance provision -- I should have said 2.06 percent. I -- I don't know what I said, but yeah.

MS. KATHLEEN MCCANDLESS: So are you able to express the sensitivity of the rate indication to interest rates in terms of a rule of thumb? I think you may have expressed that in past GRAs. I just wanted to confirm.

(BRIEF PAUSE)

MR. LUKE JOHNSTON: Yeah, so right now, it looks like about every ten (10) basis points, and the new money yield is about twenty (20) basis point change on the -- the rate indication. I'm told that as we start approaching these ultra-low interest rates, that there's some kind of -- it's not as one (1) to one (1) as it used to be. Like, this -- this -- there's convexity without having to explain that. But in general, that's a -- yeah.

MS. KATHLEEN MCCANDLESS: Thank you. Last year, this Board approved the rate indication based on a naive interest rate forecast?

MR. LUKE JOHNSTON: That's correct.

MS. KATHLEEN MCCANDLESS: And this year, the Corporation's proposing that a naive interest rate forecast be used again?

MR. LUKE JOHNSTON: Yes. We continue to support that approach. Yes.

MS. KATHLEEN MCCANDLESS: Now, are you able to give a sense directionally that if the Board had approved a rate based on, say, a 50/50 or a SIRF interest rate forecast, how that might have affected MPI's financial position?

MR. LUKE JOHNSTON: If -- if you can just give me a moment, just if I get -- if we have the -- what that would have been last year compared to what the -- the Board actually approved and then what actually happened, we can -- we can quite easily summarize that. I'm guessing I'm not going to be able to do that in my head right -- right now.

MS. KATHLEEN MCCANDLESS: I -- I do recall the reference, which was MPI Exhibit number 26 from the 2019 GRA -- was the -- was essentially what's been filed as -- pursuant to the provisional rate indication. I don't know if that provides you with any assistance.

MR. LUKE JOHNSTON: There -- yeah, there's no question at all that the -- the use of a 50/50 or a SIRF last year would have resulted in premiums -- based on what we know today, that weren't -- weren't high enough. It would have put us in a worse financial position than the -- than the approved naive. The actual dollar impact -- that I can't calculate right now, but we can definitely do that if that's of interest.

MS. KATHLEEN MCCANDLESS: If you're able to do that, then if that could be done by way of undertaking, that would be appreciated.

MR. STEVEN SCARFONE: Yeah, we can undertake to do that, Ms. McCandless.

So can you -- can you read --

MS. KATHLEEN MCCANDLESS: Restate it?

MR. STEVEN SCARFONE: -- the undertaking into --

MS. KATHLEEN MCCANDLESS: Yes.

MR. STEVEN SCARFONE: -- the record?

MS. KATHLEEN MCCANDLESS: So the undertaking would be to provide information as to the financial impact to the Corporation of a rate indication in the 2019 GRA based on a standard interest rate forecast or a 50/50 forecast.

MR. LUKE JOHNSTON: Yes, we can do that.

MS. KATHLEEN MCCANDLESS: Thank you.

--- UNDERTAKING NO. 23: MPI to provide information as to the financial impact to the Corporation of a rate indication in the 2019 GRA based on a standard interest rate forecast or a 50/50 forecast

MS. KATHLEEN MCCANDLESS: Thank you. Those are all our questions.

MR. LUKE JOHNSTON: Thank you.

BOARD MEMBER GABOR: I've just got one (1) question, Mr. Johnston. Following up on what Ms. -- Ms. McCandless asked, if we wanted to find out the impact on the current year, what time next year, in 2020, would you have the available financial information?

(BRIEF PAUSE)

MR. LUKE JOHNSTON: So really, once we know the Board's order and how rates have been set, we can really update what we think the impact will be at any time based on the prevailing interest rates. So -- so if -- if an order's made on SIRF and we -- we were to use 2.50 percent as a new money rate, and then three (3) months from now, that's risen to 3.00 percent, we could estimate in the mo -- in our model the impact that that would -- would have if we had set rates at three (3). Yeah.

BOARD MEMBER GABOR: Okay, thank you.

THE CHAIRPERSON: Mr. Scarfone, do you have any questions?

MR. STEVEN SCARFONE: I have no questions, Madam Chair.

THE CHAIRPERSON: Thank you. I think that completes this panel. Thank you very much for your participation.

And we are now waiting the arrival of Mr. Makarchuk.

MR. STEVEN SCARFONE: I'm told his -- his plane has touched down, so he's probably in his taxicab as we speak.

THE CHAIRPERSON: Okay. We'll adjourn, and if you could let us know when he arrives, we'll carry on with him.

MR. STEVEN SCARFONE: Very good. Thank you.

THE CHAIRPERSON: Thank you.

(PANEL STANDS DOWN)

--- Upon recessing at 9:26 a.m.
--- Upon resuming at 9:52 a.m.

THE CHAIRPERSON: Mr. Scarfone...?

MR. STEVEN SCARFONE: Thank you, Madam Chair. Just before we begin with our next witness, we had forgotten until we were reminded that we had missed filing four (4) exhibits. So Mr. Guerra's going to mark those, they'll be out of sequence, and then we'll carry on.

MR. ANTHONY GUERRA: I send my apologies that these will be out of sequence. So to begin, we're -- we are now addressing MPI Exhibit number 54, which is MPI's response to Undertaking number 1.

--- EXHIBIT NO. MPI-54: Response to Undertaking 1

MR. ANTHONY GUERRA: MPI Exhibit number 55, which is MPI's response to Undertaking number 3.

--- EXHIBIT NO. MPI-55: Response to Undertaking 3

MR. ANTHONY GUERRA: MPI Exhibit number 56, which is MPI's response to Undertaking number 6.

--- EXHIBIT NO. MPI-56: Response to Undertaking 6

MR. ANTHONY GUERRA: And finally, MPI Exhibit number 57, which is Part 8 of the Appendix number 4, which is MPI's Annual Business Plan for '19/2020.

--- EXHIBIT NO. MPI-57: Part 8 of Appendix 4, MPI's Annual Business Plan for '19/2020

THE CHAIRPERSON: Thank you.

MR. STEVEN SCARFONE: Thanks, Anthony.

So we have here this morning, as the panel is aware, Mr. Makarchuk from the Mercer firm. We'll have him sworn in, or affirmed. And beside him is MPI's manager for investments, previously sworn, and, Mr. Bunston will be here to assist the panel with any questions people may have concerning investments in the shadow portfolios.

MPI PANEL NO. 6:

DAVID MAKARCHUK, SWORN

GLENN BUNSTON, PREVIOUSLY AFFIRMED

EXAMINATION-IN-CHIEF BY MR. STEVEN SCARFONE:

MR. STEVEN SCARFONE: Good morning, Mr. Makarchuk.

MR. DAVID MAKARCHUK: Good morning.

MR. STEVEN SCARFONE: Welcome back, sir. Of course, you were here last year to give evidence concerning MPI's implementation of its asset liability management study, correct?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: And sir, you're back this year in connection with some shadow portfolios that your firm was engaged to create at the request of the Public Utilities Board, correct?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: And Mr. Makarchuk, can you just provide some background information, if you can, sir, on the development of the shadow portfolios and who it was that you consulted with in designing those portfolios?

MR. DAVID MAKARCHUK: Sure. So through the asset mix review, the Corporation chose certain portfolios throughout the Basic portfolio, as well as the FB portfolio. Through the process of the discussion, there was two (2) different -- several different asset mixes that were contemplated.

We've identified two (2) different shadow portfolios for each of the portfolios that plausibly would have been landing points, had the Corporation either chosen to hedge real as opposed to nominal interest rate risk -- that's essentially portfolios 1 and 3 -- or had the portfolio not had any constraints on growth assets and implementation methods. And that's practically portfolios 2 and 4.

So they are both theoretical portfolios that might have been where the Corporation had landed, had they had a different set of investment beliefs or objectives.

MR. STEVEN SCARFONE: Okay. So thank

you for that. So let me just back you up. And just to for historical -- or some background information, under the asset liability management study that Mercer recommended for MPIC, the Corporation moved from a co-mingled investment portfolio into segregated portfolios, correct?

MR. DAVID MAKARCHUK: Correct. Different portfolios for different pieces of the Corporation.

MR. STEVEN SCARFONE: Yes. And my recollection from the application is that there were five (5) such portfolios.

Is that right?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: But the shadow portfolios that Mercer designed were just for the -- to compare two (2) of those portfolios?

MR. DAVID MAKARCHUK: Yeah. I believe the PUB Order was just for two (2).

MR. STEVEN SCARFONE: Yes, one (1) of which was the Basic claims portfolio --

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: -- and one (1) of which was the employee future benefits portfolio, or the -- the pension portfolio, correct?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: And for each of those two (2) portfolios, there was a shadow portfolio constrained and unconstrained.

Is that correct?

MR. DAVID MAKARCHUK: Correct. That's the terminology we --

MR. STEVEN SCARFONE: Yes. And so before we get into the -- the portfolios themselves, sir, can you say if the -- if Mercer has been engaged or you've been engaged to create these kind of shadow portfolios for other clients?

MR. DAVID MAKARCHUK: In some respects, this is a bit of a unique situation, but often times, you might have a oversight group, whether it's pensions, or insurance, or other assets that may have different ideas. And so this is methodology we would otherwise use in other situations like that.

MR. STEVEN SCARFONE: And -- and in those other situations, is it used to compare the performance against an actual portfolio, like -- like we're doing here?

MR. STEVEN SCARFONE: To draw reasonable inferences from it, we often times want to segregate -- or separate those different pieces. So we see the difference in the policy decisions versus the difference in actual performance.

MR. STEVEN SCARFONE: Okay. And so following up on those comments, then, sir, what is the utility of -- of these shadow portfolios as it concerns the order that was made by the Public Utilities Board after your engagement?

MR. DAVID MAKARCHUK: The -- the shadow portfolios will help illustrate the performance of different strategy decisions over periods of time. As to what their utility, is there's different perspectives one might have on that. It's one of those situations where, from our perspective, because of the different perspectives on risk, especially in the unconstrained pieces, one really needs to look to a full-market cycle, which is generally five (5) years or more, before you can start to draw reasonable conclusions as to the relative benefits of one versus the other.

In the very short term, while there will be differences, it's extremely difficult to draw any strong conclusions in that regard.

MR. STEVEN SCARFONE: Okay. And so you mentioned five (5) years. Is there a particular reason why you picked that timeline to make a fair comparison against the shadow portfolios?

MR. DAVID MAKARCHUK: So I think I said generally five (5) years. We generally like to say a full market cycle. This last market cycle, one can argue, we're on year 10, year 9 or 10. We in -- you know, been -- been a bull market for the long period of time.

So five (5) years generally, on average, is kind of the cycle between a boom -- or between a top and a bottom of the cycle. Sometimes it's shorter. Sometimes it's longer.

The point I'm trying to make is that in a situation where the markets either -- are either in a short situation, or a situation where markets have just been rising, or markets have just been following, it would be extremely premature to draw any conclusions as to the relative benefits of one portfolio versus another.

MR. STEVEN SCARFONE: Okay. So we're going to go through each of the shadow portfolios.

Kristen, could you please pull up MPI Exhibit number 59, please.

And this, Madam Chair, is an update to PUB under Information Request 1-35 Appendix number 1, which had provided the performance of the shadow portfolios for just two (2) months, March and April. We've now updated the performance of the shadow portfolios until the end of August. So we now have six (6) months for the -- for the Board to -- to look at and have Mr. Makarchuk explain how these portfolios performed as against MPI's actual portfolio.

So just to be clear, sir, this six (6) months that we're going to review here shortly, in your view, is too short a time frame to make a fair comparison against MPI's actual portfolios?

MR. DAVID MAKARCHUK: To draw conclusions about -- it's too short a timeline to draw any conclusions about what one should do going forward.

Even if we went for a full market cycle, say, five (5) years or so, just because one (1) portfolio outperformed the other does not necessarily suggest that that lead portfolio -- that -- whichever portfolio was -- was higher -- is the best portfolio for the next five (5) years, for example.

All this demonstrates is that certain portfolios so far have performed higher given the market cycle that we've seen the last six (6) months, or the six (6) months illustrated here, have been extremely unique in some regards. These are really high returns for a six month profile, the special and the fixed income.

I will almost guarantee you that the next six (6) months will not be nearly this high, regardless of which idea it is.

MR. STEVEN SCARFONE: I thought investment people weren't supposed to make guarantees?

MR. DAVID MAKARCHUK: I almost guarantee, okay?

MR. STEVEN SCARFONE: So I'll bring you to line 4. That the Basic portfolio that MPIC currently has in place, correct?

MR. DAVID MAKARCHUK: That's my understanding.

MR. STEVEN SCARFONE: And it's comprised of 100 percent fixed income assets?

MR. DAVID MAKARCHUK: I believe that we've taken all the -- I'll ask Glenn to confirm, but I believe there's no fixed income in as of March.

MR. GLENN BUNSTON: No, the Basic portfolio is comprised of 100 percent fixed income.

MR. DAVID MAKARCHUK: It is?

MR. GLENN BUNSTON: Yes.

MR. STEVEN SCARFONE: And so the return on that, we see from March to August 2019 is 7 percent. Is that --

MR. DAVID MAKARCHUK: That's what it says, yeah.

MR. STEVEN SCARFONE: Okay. So can you explain, then, sir, the other three (3) lines, which I understand -- or at least the first two (2) are the Basic shadow portfolios that the Mercer firm designed under the PUB Order?

MR. DAVID MAKARCHUK: Sure, that's right. So lines 1 and 2 are the shadow portfolios. It's actually instructive to start with line 3.

Line 3 is the passive return on the Basic portfolio. It's our understanding that there's been some imple -- implementation delays in getting to the actual desired Basic portfolio over this time period.

But for fair comparison of the Basic portfolio, its our recommendation that we simply look at the passive indices both for the Basic port -- for the shadow portfolios, as well as for what we're calling the Basic portfolio, or the actual Basic portfolio.

MR. STEVEN SCARFONE: So just to interrupt, what do you mean by passive?

MR. DAVID MAKARCHUK: Right. So the -

- that is the -- the underlying index returns. The Basic portfolio consists of some provincial bonds, some corporate bonds, some MUSH bonds. It's the -- it's the index that is otherwise possible for investors to invest in on a passive basis that best represents that portfolio. Does that help?

MR. STEVEN SCARFONE: It doesn't help me, but it may help people in the room. So passive versus active.

Is that fair? So active management of the portfolio?

MR. DAVID MAKARCHUK: Active management with the portfolio is certainly one (1) of the differences between line 3 and 4. It's also taken some time, my understanding, for -- for the Corporation to phase to the exact asset mix.

So the exact asset mix of the -- of line 3 is the asset mix that the Corporation approved as part of the asset mix study. Line 1 is the asset mix that we illustrated as part of the unidentified and Shadow Portfolio 1.

So we'll -- all of lines 1, 2, and 3 are on a apples to apples basis. They're all the underlying indices in the portfolio ideas. Line 4 is the actual investments of MPI. And as you'll see, the difference between lines 3 and 4, there was a difference in the returns.

MR. STEVEN SCARFONE: Right. I've got you. And -- and we say that over on the far right side, the negative 3.17 percent?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: Okay. So for the -- for these purposes, the best line for comparison against the two (2) shadow portfolios is line 3, is -- if I'm understanding you correctly.

MR. DAVID MAKARCHUK: Correct. And so it's column -- the second column of numbers, which, if I may, the -- the title should be passive return minus shadow portfolio rather than actual, just for clarity.

To the extent that one wants to compare the relative performance of the shadow portfolios to the policy decisions of what was actually chosen, it's that middle column that one should draw conclusions from.

MR. STEVEN SCARFONE: Okay. Very good. So let's begin with line 1, shadow portfolio P1 Basic.

Just generally, sir, what investment classes or securities were contained in that shadow portfolio?

MR. DAVID MAKARCHUK: So the specifics are laid out on page 2. If we go down one (1) page in this piece, here. So we see that the asset allocation weights, the first numeric column there, these are the weights of the shadow portfolio and Basic. It is theoretically -- or plausibly the portfolio that MPI would have chosen, had they chosen to hedge real interest rate risk as supposed to nominal interest rate risk, and chosen to not have any growth assets or leverage in the portfolio.

MR. STEVEN SCARFONE: And when you say "hedging against real interest rate risk," that means, if I understood the evidence from last year, a -- a better protection against rising inflation, the possibility of inflation going above a certain percentage.

Is that fair?

MR. DAVID MAKARCHUK: It's a portfolio that will move more so with anticipated changes in inflation, and over the very long term, actual rates of inflation. And so that's where line 1 in this piece, the Real Return Bonds, they provide some of that hedge. That's the substantive difference between the shadow portfolio and the actual Basic portfolio.

The 24 percent, which we see on line 1,

essentially just moves to the long-term provincials line, which is line 3.

MR. STEVEN SCARFONE: Yes. So as we've just heard, the Basic claims portfolio has 100 percent fixed income, comprised entirely of bonds, MUSH, provincial, and corporate, correct?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: Okay. And so in your view, is there much difference then between Shadow Portfolio 1 and MPI's actual Basic claims portfolio without the inclusion of Real Return Bonds?

MR. DAVID MAKARCHUK: So they're very similar. Seventy-six percent of the portfolios are exactly the same. The only difference really is the 24 percent moves down to line 3.

There's a 1 percent difference. Twenty-seven (27), I think, turns into twenty-six (26) or twenty-eight (28). But three-quarters (3/4) of this shadow portfolio are exactly the same as the actual Basic portfolio.

MR. STEVEN SCARFONE: Okay. And if -- Kristen, go back up and look at the performance of the two (2). So how did they compare, sir?

MR. DAVID MAKARCHUK: Sure. So over the period March to August, we see the -- the passive portfolio return was ten point one seven (10.17). The Basic portfolio was nine point three four (9.34). Both very good. The actual Basic portfolio outperforming slightly.

If -- Kristen, if you don't mind going back to the Slide 2, you can see, you know, where the source of return is. It's really just the difference between lines 1 and 3 as we scroll over to the second to the right column which is March to August. Long-term provincials for this period performed 14.15 percent. We -- overturned bonds performed 10.3 percent. Everything else is in both portfolios.

So over this period, provincials have -- long provincials have outperformed Real Return Bonds.

MR. STEVEN SCARFONE: And going back again to 1, so that is Shadow Portfolio 1 for Basic. Shadow portfolio 2 or P-2 is what you've described as "unconstrained." Before we get into the performance of that portfolio, can you explain what "unconstrained" means?

MR. DAVID MAKARCHUK: Sure. So there are a number of different other asset classes that were explored as part of the asset liability study. We provided education; we provided discussion with --

with MPI just in terms of the risk associated with the asset classes, the implementation costs of different asset classes, the return profiles of different asset classes.

Had MPI embraced all of the ideas that we had otherwise explored -- and if you don't mind going to Slide 3, I believe, in this set, it's going to have the pieces I need here. Yeah. Thank you.

The asset classes listed here are the compilation of those ideas. There's a number of ideas that were explored but not chosen for Basic, including private debt. I think there's a 15 percent allocation.

3X Real Return Bonds essentially is using leverage essentially to borrow short term to receive a greater amount of Real Return Bond return, to include Canadian equities, to include private equities, to include real estate, and include infrastructure.

So these were all ideas that were explored and the PUB and -- or the other Intervenors, you know, indicated a number of good arguments as to why on their own they're all good investments.

Had MPI embraced a portfolio decision for Basic that had more aggressive growth objectives that looked to hedge real interest rate risk that were okay using leverage, this is plausibly where MPI would have landed, such we've called it an unconstrained portfolio.

MR. STEVEN SCARFONE: So a couple of questions on this portfolio. One: Just to be clear, the growth asset classes, the equity, and the real estate -- the infrastructure were not contained or are not contained in MPIC's actual Basic claims portfolio.

MR. DAVID MAKARCHUK: Correct. It chose not to include those.

MR. STEVEN SCARFONE: And secondly -- so having those investment classes in the Basic claims portfolio would be contrary to the Corporation's investment objectives for that portfolio?

MR. DAVID MAKARCHUK: Correct. We explored with them their investment objectives, what they wanted to achieve for Basic. The risks associated with these other asset classes were not risks that they identified as ones they wanted to take.

MR. STEVEN SCARFONE: Okay. And secondly: How does this portfolio protect against the -- or hedge against real interest rate risk without containing Real Return Bonds?

MR. DAVID MAKARCHUK: Right. So this one hedges that risk in a slightly different way. So line 5 is called 3X Real Return Bonds. That essentially is a levered Real Return Bond portfolio.

In simple terms, an investor borrows or pays a short-term rate and receives a Real Return Bond rate in return. It's called 3X because there's leverage so that one gets for every dollar that you commit in capital, you borrow two (2) more dollars, and you receive $3 of Real Return Bond return.

MR. STEVEN SCARFONE: Right. Okay.

MR. DAVID MAKARCHUK: That's about as simple as I can explain it.

MR. STEVEN SCARFONE: And -- no, I understand the concept of leveraging because you can borrow money to purchase securities. But as I understand it, the risks associated with leveraging are greater than the losses that you might incur otherwise. Is that fair if the market is to turn unfavourably?

MR. DAVID MAKARCHUK: Yes. The -- there's definitely risk associated with leverage if the market was to go unfavourably. One can still suffer losses without leverage as well. If one uses leverage, the returns will -- may well be higher. The losses may well be higher as well.

MR. STEVEN SCARFONE: Yeah. So I guess my question to you is the risk with leveraging. More risk than there is without borrowing money to invest.

MR. DAVID MAKARCHUK: Yes. As an isolated asset class, your choice -- your choices are direct investment in an asset class versus leverage within the asset class.

The dispersion of returns in the leverage solution is almost certainly going to be greater than the dispersion of the returns in the non-leverage situation.

MR. STEVEN SCARFONE: And are you able to recall -- and if you're not, perhaps Mr. Bunston can -- if leveraging was a concept that was consistent with the investment objectives of MPIC as it concerned the Basic claims portfolio?

MR. DAVID MAKARCHUK: The discussion was relatively brief. I think we illustrated how it worked. There was not a lot of appetite to continue with the leverage discussion.

MR. STEVEN SCARFONE: Okay. So with those comments, if we go back to Slide 1, please, and look to the performance of shadow portfolio P-2, the

Basic unconstrained. And, again, we see there that the passive return at line 3 has it slightly outperforming the shadow portfolio over the first six (6) months. Is that fair?

MR. DAVID MAKARCHUK: Right. It's somewhat of a unique period. There's a modest amount of leverage in the Basic portfolio. The asset classes that are illustrated -- if you don't mind going back to slide 3 in this one -- the additional asset classes that otherwise are added in, the public agrees in the alternatives.

It's somewhat rare that they underperform fixed income, but this has been a very unique six (6) month period. The leverage -- the growth assets that are otherwise included in the leverage portfolios had only modest illustrated returns. Thus, the performance isn't really any better than the constrained shadow portfolio.

MR. STEVEN SCARFONE: But again -- and regardless of which of the portfolios perform better, it's still too early or premature to make a fair assessment.

MR. DAVID MAKARCHUK: Very much so. That's our -- that's our perspective. This will illustrate some historical observations, but one should not draw any conclusions from any of these at this point.

MR. STEVEN SCARFONE: Okay. And if we can go back again to one (1), please. Just before we move on to the employee future benefits shadow portfolios, Mr. Makarchuk, in the unconstrained shadow portfolio at line 2, I understand there were some growth assets in there that your firm thought might be better removed to make an even better comparison for what reason?

MR. DAVID MAKARCHUK: If you don't mind going back to Slide 3, it's a good question. So there were some simplified assumptions made to illustrate line 4 private debt, line 7 private equity, lines 8 and 9 real estate infrastructure.

To the extent that the different parties find this illustration useful going forward, we would otherwise encourage a set of underlying assumptions that is more aligned with the practical realities that implementation might have included.

In other words, there was a simplifying assumption -- I'm just going to use private equity in this example -- to model private equity. As you'll see on line 14, it was assumed that the S&P TSX total return index would assumed -- that's essentially

Canadian equities.

While over the long term, that might be indicative of equity performance. To the extent that we're trying to illustrate, well, what if MPI had chosen this portfolio, practically speaking had private equity been chosen and implemented March 1st, 2019, it would have taken several quarters, if not several years, to put that money to work.

And when one invests in private equity, there's a expectation -- we call it the "J-curve effect" -- where when you put money into private equity, oftentimes you need to be very patient until the returns come. And it's called a J curve because sometimes you get some losses before you get gains several years down the road.

So especially in this very short term, we're probably overstating the returns for private equity, especially for private debt, to some extent real estate and infrastructure. But there were the assumptions that were chosen for the illustration, again, because I'm trying to caution all parties not to draw conclusions here.

I don't think it -- it changes the -- the story very much, but had -- if we want to be more fair in terms of what might the unconstrained return have been had they implemented this for March 1st, the Shadow Portfolio 2 Basic -- this 9.14 percent return -- that's probably overstated.

MR. STEVEN SCARFONE: And so is it overstated by the amount in the far right column where -- that you receive for private equity? Would you remove that entire growth of 4 percent?

MR. DAVID MAKARCHUK: Yeah. Realistically had you committed to private equity March or April 1st, you probably have, at best, a net zero return to the extent you've got any money at work.

Private debt -- you very much doubt you have 7 percent to this point. You probably are flat. Your money's still probably hanging around in other portfolios. There's -- this is a difficult portfolio to have a short-term comparison on.

MR. STEVEN SCARFONE: Okay. So going back to one (1) -- sorry to have you keep flipping back and forth, Kristen -- but -- so with those comments about some of the -- or what I'll call the lag effect of some of the investment classes, particularly the private equity, what is, in your view, a more accurate or fair return on shadow portfolio P-2 Basic unconstrained?

MR. DAVID MAKARCHUK: It'd be a little bit less than -- than nine point one (9.1). It's also -- well, it's all theoretical.

And if you go back to Slide 3 again, Kristen -- sorry to make you work today -- as I said, getting the money to work immediately, it would have taken some time. So the money probably still would have been sitting in something else, potentially still in long bonds, for example.

So unless one was motivated to take the time to actually stage what a theoretical limitation might have looked like, that's possible. It just hasn't been -- it's not what's been done for this particular exhibit.

MR. STEVEN SCARFONE: Okay.

MR. DAVID MAKARCHUK: But it's hard to see that the return would be any larger than nine point one (9.1). It almost certainly would be lower.

MR. STEVEN SCARFONE: Okay. Fair enough. All right. And going back to 1, so the other two (2) portfolios that the Mercer firm designed or -- concerning the employee future benefits, the segregated portfolio under the asset liability management study for the pension and shadow portfolio -- P-3 EFB on line 5 -- can you describe what's contained in that portfolio, sir?

MR. DAVID MAKARCHUK: Sure. So, Kristen, if we can go to Slide 4, please? So this is essentially that portfolio. Again, the left-hand column -- oh, maybe not. Which one is this one? Oh, slide 4 is the benchmark portfolio for -- that we've just been talking about for Basic. So it's actually slide 5 that I'm looking for. Thank you.

So this is the constrained EFB portfolio, if I may. So these are the asset classes that are otherwise included in the EFB portfolio plus an allocation of 10 percent to Real Return Bonds.

So the only difference between this portfolio and the actual EFB portfolio, I believe we'll see -- so line 1 in this page has a 10 percent allocation to Real Return Bonds.

Kristen, if we can go to slide 7. I think we'll see that that allocation is zero. Yeah.

So there's an allocation of zero in Real Return Bonds, and that 10 percent has moved to line 2, which is long-term corporates. So there's really -- so 90 percent of the actual EFB portfolio is exactly the same as the constrained EFB portfolio, the only difference being is that 10 percent comes out of the corporates and 10 percent goes into the Real

Return Bonds.

MR. STEVEN SCARFONE: So this portfolio is even more closely aligned to the -- to MPIC's actual employee future benefits portfolio than the -- the Basic.

MR. DAVID MAKARCHUK: Correct. It's even tighter.

MR. STEVEN SCARFONE: Even tighter. So the Real Return Bonds that are included in the shadow portfolio are the investment class, if I recall correctly, that Mr. Viola was recommending be purchased for this portfolio, correct?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: And going back to one (1), how did this shadow portfolio perform against MPI's passive?

MR. DAVID MAKARCHUK: The performance is relatively close, as one might expect given that 90 percent of the assets are the same. Line 7 to this period, seven point seven seven (7.77) is the return. Line 5 is the constrained EFB portfolio, seven point five four (7.54).

So there's a difference of twenty-three (23) basis points. You'll see in the middle of -- and on line 5. Again, that's because the long provincials have performed slightly better than Real Return Bonds for this period.

MR. STEVEN SCARFONE: Okay, and then lastly, at line number 6, the shadow portfolio PF-4, employee future benefits unconstrained. We see there the kind of returns that my guy never gets me, 15 percent. Can you explain what's in that portfolio?

MR. DAVID MAKARCHUK: Sure. So if we can go to line -- or, slide 6, please. So this is the -- had the Corporation had an unconstrained perspective on the EFB portfolio and fully embraced leverage to fully hedge interest rate risk within this portfolio.

So we see here allocations to -- ignore the bold public equities on line 4. That should actually shift down to line 6. But line 4 is 3X Real Return Bonds. Line 5 is 3X long-term provincials.

So we see rather healthy allocations -- eight (8) plus eighteen (18), 27 percent -- to lever pieces. You see in the second-to-right column that the returns on these levered products were very, very good for this period, 31 percent and 44 percent. The weighted average of all these allocations works out to 15 percent, fifteen point one five (15.15), for this period.

MR. STEVEN SCARFONE: And -- and the investment objectives for the employee future benefits portfolio under Mercer's ALM study and its implementation -- do you recall, sir, if that was different than the investment objectives for the Basic claims portfolio?

MR. DAVID MAKARCHUK: Yes, they were.

MR. STEVEN SCARFONE: And how were they different?

MR. DAVID MAKARCHUK: So the objectives for the Basic portfolio, first and foremost, were miti -- to mitigate nominal interest rate risk and was limited desire for credit risk and no desire for equity risk.

For EFB, the investment objectives were for more of a longer-term return; diversify to include growth assets, including equities and alternatives; a much smaller allocation of fixed income. Given that their yields were relatively low, this was more of a -- very much more a return-seeking portfolio. Basic portfolio was very much more a risk-mitigating portfolio.

MR. STEVEN SCARFONE: And what about the concept of leveraging for the employee future benefits portfolio?

MR. DAVID MAKARCHUK: So the -- the slide we're looking at right now at six (6) includes leverage.

MR. STEVEN SCARFONE: No, I meant as it concerns MPIC's investment objectives for the employee future benefits portfolio.

MR. DAVID MAKARCHUK: Sure. So the chosen portfolio, slide 7, does not include leverage. There was a similar discussion on leverage. It's probably the same discussion. There was limited if not no appetite for leverage in this portfolio as well.

MR. STEVEN SCARFONE: And does the return on the shadow portfolio, the one that we saw was unconstrained -- did the returns on that portfolio -- are they accounted for largely as a result of the leveraging?

MR. DAVID MAKARCHUK: Absolutely. So again, if we go back, if you don't mind, Kristen, to slide 6. The substantive difference is the inclusion of the leverage here. Had we not had the leverage there and we reallocated the -- the amounts to the other asset classes, we would have come in closer to the 9 or the 7 or 8 percent that this portfolio otherwise had.

It's -- the difference very much is the leverage, the plus thirty-one (31) and the plus forty-four (44).

MR. STEVEN SCARFONE: Okay.

MR. DAVID MAKARCHUK: Over this time period.

MR. STEVEN SCARFONE: And -- and so back to one (1) on the performances slide. So in fact, we see there that the performance of the shadow portfolio, the unconstrained one that's leveraged, basically doubled the performance of MPI's actual passive portfolio, correct?

MR. DAVID MAKARCHUK: Yeah.

MR. STEVEN SCARFONE: Then just a couple further questions. I don't know if you can comment on this, but firstly, on the inve -- the investment objectives of MPIC for its Basic claims portfolio, and that was primarily we've heard to reduce losses as a result of interest rate risk. Do either of the shadow portfolios provide that same protection to MPIC?

MR. DAVID MAKARCHUK: So the chosen portfolios that MPI -- the portfolios that MPI chose hedged against nominal interest rate risk. The shadow portfolios hedge against real or inflation-driven risk. Portfolios 2 and 6 fully hedge inflation risk. Portfolios 1 and 5 modestly hedge against inflation risk. There are some implementation constraints placed on both of those.

MR. STEVEN SCARFONE: Okay, so let me put it to you another way. If the Corporation had either of those shadow portfolios, are they more or less at risk for interest rate risk forecasting?

MR. DAVID MAKARCHUK: It depends how one defines interest rate risk forecasting. The shadow portfolios would have been more likely to have deviations in returns because nominal interest rates have changed. The shadow portfolios would have been tighter in terms of performance had real interest rates changed.

They're both very similar, though. The correlation takes into -- you know, there's two (2) different asset classes here. There's long bonds -- provincial long bonds and Real Return Bonds. Our assumed correlation for those two (2) asset classes is relatively high, at 0.7 percent. That's high from a mathematical and investment perspective.

It's not like they're fundamentally different. They're going to be similar, as we've seen in this six (6) month period where both long bonds and

Real Return Bonds have done relatively well. They're just not going to be the same.

MR. STEVEN SCARFONE: Okay. Then I'll -- I'll ask you this question, and it's a question, really, that concerns capital. Yesterday, we heard as a result of Mercer's ALM study and its implementation, the Corporation found that its requirement for capital was reduced, I think Mr. Johnston said to the extend of almost a hundred million dollars.

Would that same benefit arise if the Corporation had adopted one of the shadow portfolios for either Basic, employee future benefits, or both?

MR. DAVID MAKARCHUK: I'm not an expert on MCT requirements. My understanding is that had the Corporation chosen Portfolios P-1 or P-3 -- they're just variations of fixed income -- I would assume the MCT requirement would be the same. Had it chosen P-2 or P-4, I'm almost certain the MCT requirement would be higher. Not my area of expertise, though.

MR. STEVEN SCARFONE: Very good. And so just to summarize, then, sir, are you -- I don't know if happy's the right word. Are you satisfied with the returns that the -- the actual portfolios are providing for MPIC to date?

MR. DAVID MAKARCHUK: Am I happy?

MR. STEVEN SCARFONE: Well, I -- I changed that to satisfied.

MR. DAVID MAKARCHUK: I don't know how to answer that question. Ask it again, please.

MR. STEVEN SCARFONE: I've just -- so you've designed -- or, not designed -- you had a hand in the implementation of the new investment strategy under Mercer's asset liability management study --

MR. DAVID MAKARCHUK: Yeah.

MR. STEVEN SCARFONE: -- and I'm just -- to date, we see some of the returns that have come back on at least two (2) of those portfolios. Are those in line with your expectations?

MR. DAVID MAKARCHUK: Sure. So we facilitated discussion with MPI management. The committee agreed on some investment objectives and things like that. They articulated and stated a strategy portfolio that's aligned with lines 3 and line 7 of this illustration.

I would have been most satisfied if that was the actual return, lines 4 and lines 8. It has taken some time for implementation. It's been a phased implementation. Hindsight is always 20/20, and in this case, the hindsight is indicating that that phased implementation has resulted in a redur -- a reduction in the return.

Had MPI been able to wave a magic wand on March 1st and magically transitioned the portfolio to exactly what they wanted, we otherwise would have expected a return of ten point one seven (10.17) for the -- the top line, plus or minus active management. Similar phenomenon for line 7 and 8.

So it's somewhat disappointing that the actual returns are less than the passive returns. So to answer your question, am I satisfied? The 3 percent gaps are somewhat significant and unfortunate.

MR. STEVEN SCARFONE: Okay. So I -- you would have preferred to see the implementation of the new strategy done with greater dispatch so that it was -- if it had been done earlier, the Corporation would have realized greater returns.

MR. DAVID MAKARCHUK: Given that -- yeah, given the interest rate, the market progression of these last six (6) months, hindsight says that it certainly would have been better to implement quickly. This was a very unique six (6) month period. We've never seen bond markets move to the space they went to in August of 2019. Never in our lifetimes.

And it's equally plausible that interest rates could have risen in this six (6) months period, in which case a phased or a slow implementation would have been great news for the Corporation. It's unfortunate in this period that the delayed phasing-in has resulted in, you know, relatively large negative numbers in the fourth column.

MR. STEVEN SCARFONE: And that's because the delay occurred during the fall of interest rates.

MR. DAVID MAKARCHUK: During a falling interest rate environment, right.

MR. STEVEN SCARFONE: Well, you'd be happy to know Mr. Bunston said that the -- the strategy now is -- is fully implemented. And so those are all my questions for Mr. Makarchuk.

THE CHAIRPERSON: Thank you, Mr. Scarfone.

Ms. McCandless...?

MS. KATHLEEN MCCANDLESS: Mr. Watchman's going to be proceeding with the cross-examination. If we could have the panel's in -- indulgence and just break for two (2) minutes.

THE CHAIRPERSON: Certainly.

MS. KATHLEEN MCCANDLESS: Thank you.

--- Upon recessing at 10:39 a.m.
--- Upon resuming at 10:41 a.m.

THE CHAIRPERSON: Thank you. Please proceed.

MR. STEVEN SCARFONE: Madam Chair, just before cross-examination begins, My Learned Friend reminded me that Mr. Makarchuk should probably have been qualified, because he did give some opinion evidence. And that's my oversight, having not pre-qualified him following the pre-hearing conference. We weren't expecting to have Mr. Makarchuk attend here this year.

So my -- my recommendation is that I can put some questions to him now on his qualifications. I don't know if there's any real objection to his qualifications from either Mr. Williams or Board counsel, but we're certainly prepared to -- to do that here right now.

DR. BYRON WILLIAMS: Just on behalf of -- thank you, and sorry for jumping the gun. On behalf of our client, we consented to his qualifications last year. We see no reason to revoke that consent. We believe the witness is qualified to offer the opinions he has tendered.

THE CHAIRPERSON: Thank you, Mr. Williams. I think we will proceed then. Thank you.

CROSS-EXAMINATION BY MR. ROBERT WATCHMAN:

MR. ROBERT WATCHMAN: Thank you, Madam Chair. Good morning, Mr. Makarchuk.

MR. DAVID MAKARCHUK: Good morning.

MR. ROBERT WATCHMAN: My questions are going to be directed primarily to the design of the portfolios as opposed to the performance, if that's okay.

MR. DAVID MAKARCHUK: Sure.

MR. ROBERT WATCHMAN: And before I -- I begin, I just wanted to ask some general questions about the portfolios.

I think it's clear from the evidence that one (1) of the primary object -- objectives of the asset liability management study was to de-risk, in particular, the Basic portfolio.

Is that correct?

MR. DAVID MAKARCHUK: That was one (1) of the articulated objectives, yeah.

MR. ROBERT WATCHMAN: And in that

regard, you -- you specifically referred a couple of times to interest rate risk, correct?

MR. DAVID MAKARCHUK: Yes.

MR. ROBERT WATCHMAN: And does the risk on the investment assets that they're exposed to includes also inflationary risk?

MR. DAVID MAKARCHUK: Yes, there's -- they're intertwined.

MR. ROBERT WATCHMAN: And so you used the -- the terms 'real liability benchmark' and 'nominal liability benchmark'. And for the purposes of the report that was prepared, is -- is there some brief explanation as to the distinction between the two (2)?

MR. DAVID MAKARCHUK: Sure. So a liability benchmark is a proxy that we use -- and is often used by institutional investors to represent the obligations of an entity in relation to published bond market indexes.

The reason we use liability benchmarks is to make modeling more efficient, and then also to illustrate the variation in the amount of an obligation because of shifts in the yield curve, or the value of that underlying benchmark.

The Corporation has obligations that

essentially are long-term in nature. So specifically, the ones used -- I'll focus on Basic for now -- are long-term in nature and tied to the rate of increase and Manitoba annual inflation.

We discussed that with the Corporation. They indicated that their long-term assumption for annual inflation is 2 percent. And so one (1) modeling option was to say, I'll try and use a single obligation, say a single obligations is a thousand dollars a year.

Well, you can assume that that obligation is a thousand dollars a year for whatever the -- the expected period of payment is, and it was inflated at 2 percent per year in terms of the obligations that were there.

You aggregate all the portfolios together. You have -- or all the obligations together. That gives you a set of obligations.

If one assumes that those -- all of the obligations increase at 2 percent per year, then the value of those future obligations will otherwise change on a present value basis as what we call nominal interest rates change. Again, those are just the -- the basic interest rates that otherwise are included in provincial bonds, and corporate bonds, the

MUSH bonds.

That's the chosen methodology that MPI adopted for the study, because as we discussed variations in inflation, the risks associated with inflation being higher or lower than 2 percent, they were more -- they were concerned or motivated to hedge the risk that interest rates move as opposed to whether the inflation rate is different than 2 percent. Thus, a nominal liability benchmark was chosen.

The alternative would have been to come back to our single policy illustration, to say that the Corporation has an obligation of a thousand dollars per year, and that it will vary depending on what future inflation will be, sometimes higher than two (2), sometimes lower than two (2).

The financial instruments that have real return exposure -- Real Return Bonds, primarily -- are assets that move as inflation moves. They move for a few other reasons as well. But a real liability benchmark is one that consists of Real Return Bonds, and generally, which show the variations in the present value of the obligation as the price of Real Return Bonds change, as opposed to the nominal liability benchmark, where the amount of the

obligation -- the present value and obligation changes as nominal interest rate change.
Does that answer your question?
MR. ROBERT WATCHMAN: Somewhat.
MR. DAVID MAKARCHUK: Okay.
MR. ROBERT WATCHMAN: Would it be overly simplistic of me to suggest that the nominal liability benchmark is not taking into account inflation volatility?
MR. DAVID MAKARCHUK: That would not be overly simplistic. That would be fair.
MR. ROBERT WATCHMAN: And whereas the real liability benchmark does take into consideration inflationary -- or the volatility of inflation?
MR. DAVID MAKARCHUK: Correct.
MR. ROBERT WATCHMAN: Kristen, if we could turn to INV, Appendix A. Or sorry -- I'm sorry, Attachment A.
This is -- now Mr. Makarchuk. This is from the General Rate Application. And it's -- if I can refer to it as the Mercer report?
MR. DAVID MAKARCHUK: Sure.
MR. ROBERT WATCHMAN: And you were one (1) of the authors of this report?
MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: If we could turn to page 3. Now, you've already explained to us that as I understand it, Mercer's understanding of MPI's appetite for risk is based upon discussions with MPI.

Is that correct?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: So Mercer's didn't conduct some independent study to say what a public automobile insurer ought to accept as investment risk?

MR. DAVID MAKARCHUK: No.

MR. ROBERT WATCHMAN: And just looking down toward the bottom of that page, it refers to mini -- minimally constrained approach to allocations. And there is the -- you've mentioned unconstrained investment, and here we have minimally constrained.

Could you explain to us the difference?

MR. DAVID MAKARCHUK: I believe, Kristen, it might be the next slide. Can we just test? It's either one (1) forward or one (1) back. Maybe one (1) more? Yeah.

So this is the discussion on the constraints that we otherwise looked at. There might be one (1) more slide. But we -- we want to avoid really small allocations to a particular asset class.

So that's part of what minimally constrained talks about.

There was also constraint in terms of what we otherwise perceived to be a practical amount of Real Return Bond exposure that an investor the size of MPI could move into in a reasonable timeline. And we talk about that a little bit I think in the appendix. But because the Real Return Bond market is relatively illiquid.

I think from memory, this would be at least a half a million dollar allocation, if one wanted to fully hedge that point of view. Daily market volume on Real Return Bonds is closer to $20 million a day. It would take quite some time to efficiently move into a large position on Real Return Bonds without moving market pricing significantly and overpaying for that coverage or exposure.

I think that's broadly what minimally constrained meant.

MR. ROBERT WATCHMAN: Kristen, if we could go back to page 3.

Again, so that -- at the bottom line there:

"Minimally constrained approach allocations satisfiers -- satisfies required level of liquidity."

And is -- is that what you were explaining, that there was -- there was constraint?

MR. DAVID MAKARCHUK: I think that was related to the ability to phase into the RRB exposure. In hindsight, I'm not sure that's the exact right choice of word in terms of what we're trying to get to, but that's what it says.

MR. ROBERT WATCHMAN: So can you tell us, were certain types of investments excluded as a result of concerns for liquidity?

(BRIEF PAUSE)

MR. DAVID MAKARCHUK: Liqu -- if we go to the full set of investments, Kristen, the next slide.

This was the full set of investments that were discussed during the asset liability study. It's a reasonably fulsome piece that an -- an insurance investor this size could choose.

We didn't spend a lot of time on liquidity, to be honest. I don't think there was a lot of restrictions because of liquidity.

MR. ROBERT WATCHMAN: And I know at

the bottom of that slide, it indicates which assets were already included in the target asset mix, and which were added. And I take it they were added at the suggestion of Mercer's.

Is that correct?

MR. DAVID MAKARCHUK: Right. At the very beginning of our engagement, not knowing what MPI's risk tolerance return objectives are, but knowing we were nearly talking about three-ish billion dollars of assets, and our knowledge of what other institutional insurance investors of this size generally invest in, we brought a list of general asset classes to the attention of MPI, and said, Okay, let's define the scope of what we're going to include.

We said, Here are some asset classes, or is this part of our conversation or not?

So these are the ones that were included. I don't think we have a list of ones that were excluded. But as a simple example, investments in Timberland, for example, is a plausible investment that an institutional investor could make.

It was not included in the study in some respects because the size is too small, the implementation costs are high. We can't explore everything. These are the ones that were included.

MR. ROBERT WATCHMAN: So -- but there were asset classes that were brought to the Corporation's attention by Mercers (sic) but were excluded. Is that correct?

MR. DAVID MAKARCHUK: Yes.

MR. ROBERT WATCHMAN: So, again, at the bottom there again, it says "approved by MPI investment committee." So some of these asset -- some asset classes that could have been included were excluded because of -- they weren't approved by MPI investment committee. Is that correct?

MR. DAVID MAKARCHUK: Right. There would have been a phase where we say, well, here's all the different asset classes. You know, another attractive for some investor asset classes is hedge funds or -- or of that regard.

And we have said, here are the relative pros and cons of diversified hedge funds. Would you like to include it in the study? And there was a yes or no before we moved on to modeling, and that's essentially the slide that illustrates the asset classes that were included in the illustrations.

MR. ROBERT WATCHMAN: So when we talk about unconstrained, really we're speaking about unconstrained within what the MPI investment committee proved.

MR. DAVID MAKARCHUK: Unconstrained within this set. Correct.

MR. ROBERT WATCHMAN: And just under the middle column there where you have "inflation sensitive" -- and, of course, this was all about the Real Return Bonds, and we'll get to it -- the leverage Real Return Bonds. But you also indicate that infrastructure and real estate are inflation sensitive. So they act as a protection against inflation volatility? Is that correct?

MR. DAVID MAKARCHUK: Some are more inflation sensitive than others. Some are more sensitive to Canadian inflation than others. Some have very limited linkage to Canadian inflation.

But as asset classes go, infrastructure in real estate generally has a higher correlation with inflation sensitivity Real Return Bonds than the asset classes on the outside of this page.

MR. ROBERT WATCHMAN: Thank you. And we'll come to it next, but ultimately, the portfolio that was selected by the Corporation for Basic claims did not include any inflation sensitive assets. Is that correct?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: Kristen, if we could turn to Slide 8. And so this table represents various portfolios that were looked at? Is that correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And this is based upon real liability benchmark?

MR. DAVID MAKARCHUK: The metrics at the bottom are correct. Yeah.

MR. ROBERT WATCHMAN: And so the first column of numbers there -- the 2017 current -- that would have been the asset mix prior to implementation of the ALM study. Is that correct?

MR. DAVID MAKARCHUK: Yes. The pro rata share of the non-segregated asset allocation of the Corporation we had at that time.

MR. ROBERT WATCHMAN: And the third column labeled "B: Basic 3," that is the asset allocation that was ultimately selected by MPI? Is that correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: So now we'll look at the -- the other two (2). Before I get there, the bottom box in that table referring to "Risk-Return Metrics," I'm wondering if we could just go through those very quickly and if you could explain what each of those metrics represents?

MR. DAVID MAKARCHUK: Sure. So the first line, as implied by its title, is our expectations of the ten (10) year return of the asset mixes that are above the line.

We have a core set of assumptions -- I believe they're in the appendix of this document -- that were in place. These assumptions in this document, I believe, are still from 2017 just for continuity.

And to not result in any confusion, we have asset class assumptions for each different line. We have a volatile assumptions for each different line. We have correlation assumptions for each different asset class.

We put those through our modeling tool, and we have different assumptions over different periods. But this is the weighted average median expectation that would otherwise be associated with portfolio -- each of the -- each of the portfolio columns.

So we would otherwise expect there's a 50 percent chance that the return will be higher than that line, and there's a 50 percent chance that the number would be lower than that line. That's our median expectation.

The -- the surplus volatility -- is that sufficient on that line?

MR. ROBERT WATCHMAN: Yeah. Yes.

MR. DAVID MAKARCHUK: Okay. The surplus volatility line is our expectation of the variation and the returns of the portfolio relative to the chosen liability benchmark. On this page, it's the real liability benchmark.

So it's essentially a portfolio of Real Return Bonds -- not hundred percent Real Return Bonds but a lot of Real Return Bonds that looks very similar to Column A.

We see the surplus volatility line -- it is substantively zero -- indicating that had the Corporation chose Portfolio A, we would think that the variation in the performance of portfolio A versus the liability benchmark would be negligible -- the zero point three (0.3).

In the current, it was three point eight (3.8); Basic 3B is four point five (4.5); 'C' would have been lower -- it would have been three point two (3.2) -- primarily because Portfolio C includes an allocation to Real Return Bonds which have a higher correlation to the real liability benchmark. Portfolio B, Basic 3 does not have Real Return Bonds, thus the volatility would be higher.

MR. ROBERT WATCHMAN: Sorry. If I can just interrupt you then, the surplus volatility represent investment risk? Is that correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: Okay. Thank you.

MR. DAVID MAKARCHUK: Variation from -- it's the investment risk of the portfolio moving in -- having a return that is different from the underlying obligation.

MR. ROBERT WATCHMAN: Okay. And then the information ratio, if you could explain that?

MR. DAVID MAKARCHUK: Yes. So it's -- essentially is -- as -- as indicated in the parenthesis, it is the expected excess return. We to - the excess return is the return of the portfolio less the liability benchmark divided by the surplus volatility.

So you see that the performance there -- the higher return to risk is highest for the current portfolio; lowest for, in this case, Basic 3; a little higher for Basic 5.

MR. ROBERT WATCHMAN: So, again at the risk of being overly simplistic, the expected return we want to see as high as possible. The surplus volatility, we want to see as low as possible. And the information ratio, we would like to see as high as possible. Is that fair to say?

MR. DAVID MAKARCHUK: Yes. So there -- to the extent each of those metrics, those are the directions that an investor would aspire to be.

MR. ROBERT WATCHMAN: All right. Thank you. And just before we leave it there that -- at the bottom, it indicates that the expected ten (10) year return based on the real liability benchmark was 2.4 percent. Is that right?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: Now -- so looking at Column A "lowest risk" -- and you indicated there that the lowest risk was represented by a large investment in Real Return Bonds: 64 percent.

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: But the shortcoming of that is at the end where you have expected return being barely above the liability benchmark expected return, correct?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: So low risk but low return. Is that fair to say?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And Column B, as we discussed, is the Basic portfolio that was selected by the Corporation. Column C represents the inclusion now of Real Return Bonds at 24 percent.

And first of all, I take it then that those bonds came from mid and long-term provincial bonds. Is that correct?

MR. DAVID MAKARCHUK: So the standard of a long-term bonds -- the mid-term bond just went from twenty-eight (28) to twenty-seven (27).

MR. ROBERT WATCHMAN: Right.

MR. DAVID MAKARCHUK: It's substantively mid term -- or sorry -- it's substantively long term.

MR. ROBERT WATCHMAN: Okay. And as you indicated, that inclusion of 24 percent Real Return Bonds resulted in a lowering of the surplus volatility -- correct -- down to 3.2 percent?

MR. DAVID MAKARCHUK: Yes. Measured against the real liability benchmark --

MR. ROBERT WATCHMAN: Right.

MR. DAVID MAKARCHUK: -- it reduced the surface volatility. Measured against the nominal liability benchmark, it increased the surface volatility.

MR. ROBERT WATCHMAN: Okay. And we'll come to that in a minute.

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: But the expected return was the same as between the portfolio selected and the inclusion of 24 percent Real Return Bonds?

MR. DAVID MAKARCHUK: Yeah. It certainly rounded to the nearest ten (10) basis points. Yeah.

MR. ROBERT WATCHMAN: Now, Kristen, if we could turn to Information Request PUB-MPI-1-36; one (1) dash thirty-six (36) rather. And you'll see there, Mr. Makarchuk, that in Information Request Part A, we asked how Mercer determined that the 24 percent component of real return bon -- bonds as part of the optima -- optimal portfolio mix for shadow Portfolio 1. And we also asked for constraints that existed on the allocation.

And if we could just scroll down to the response, the indi -- the response was that, first, MPI's desire to have a 100 percent allocation to fix the income assets within Basic portfolio.

So the allocation to Real Return Bonds would be consistent with that desire, correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: It goes -- Point number 2:

The fact that RBRs (sic) are the best standalone asset class for an inflation hedge.

So you're saying that's why RBRs (sic) were selected but the Corporation wasn't looking to protect -- or looking for an inflation hedge? Is that correct?

MR. DAVID MAKARCHUK: Yeah. The Corporation assumed a 2 percent inflation static.

MR. ROBERT WATCHMAN: Number 3 -- item number 3: 24 percent RBRs (sic) was consistent with credit risk level. Can you just explain that?

(BRIEF PAUSE)

MR. DAVID MAKARCHUK: Using a nominal liability benchmark. So the nominal liability benchmark has provincial bonds in it that has a little bit of credit risk; the RRB allocation does not.

I'd say that's a fairly -- it's been a

while since I read this, but that's a fairly minor point. The credit risks are about the same, but that really doesn't drive the choice of liability benchmark.

MR. ROBERT WATCHMAN: Okay. So I'm taking a -- it's item number 4 that sort of drove the determination of 24 percent?

MR. DAVID MAKARCHUK: Yeah. It really wasn't three (3).

MR. ROBERT WATCHMAN: Okay. And so Point number 4 refers to a couple of items, one (1) being liquidity? Is that correct?

MR. DAVID MAKARCHUK: Yeah. Yeah. So I guess in this context, it's the liquidity of the asset class, not so much the liquidity of the MPI portfolio. But if we agreed that's what liquidity means in this context, then yes.

MR. ROBERT WATCHMAN: Okay. And as I think you explained earlier, there was constraint based upon the size of the bond market?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: So -- so the feeling was that it would take just too long to try to convert to Real Return Bonds?

MR. DAVID MAKARCHUK: Efficiently.

Our fixed income expert had a number of different conversations with fixed income investment managers just in terms of how would an implementation of roughly half a billion dollars of RRBs look? What would it take?

And his recommendation was to include 24 percent as a reasonable balance between hedging the Real Return Bond exposure in this illustration, as well as what you could prudently phase toward over a reasonable period of time.

MR. ROBERT WATCHMAN: And in terms of concerns about liquidity, Government of Canada Real Return Bonds could have been used to address that issue.

MR. DAVID MAKARCHUK: Oh, this is a discussion of the liquidity of Government of Canada Real Return Bonds, and the point that we're trying to make here is that for an investor the size of MPI, if it was motivated to place, say, half a billion dollars of Real Return Bonds, Real Return Bonds are not a very liquid asset class.

And therefore, there would either be a lot of price disruption if one (1) was motivated to buy that really quickly, or one (1) would have to be very patient to buy up that entire half a billion dollar allocation. That's what we mean by that, if that helps. It's a little complicated.

MR. ROBERT WATCHMAN: Kristen, if we could turn back to the Mercer report, slide 9, and if we could just scroll down a bit so we can get the bottom axis. Okay.

And so this is a graphic representation of the table we saw in the previous slide. Is that correct?

MR. DAVID MAKARCHUK: Yeah. I don't think we've changed what we're doing here. No.

MR. ROBERT WATCHMAN: Okay. And so again, where we want to be on this is as high on the vertical scale and as far left on the horizontal scale is optimal. Is that fair to say?

MR. DAVID MAKARCHUK: Yeah. In risk return charts, northwest is the place to be.

MR. ROBERT WATCHMAN: And so if we look at Basic 5, the blue dot there. So that's the Basic portfolio with the 24 percent Real Return Bonds, correct?

MR. DAVID MAKARCHUK: M-hm. Yeah.

MR. ROBERT WATCHMAN: And as compared to the Basic 3, which was the -- which is the orange-coloured dot, which was the portfolio selected by the

Corporation -- so this tells us in terms of the real liability benchmark that adding Real Return Bonds would give you close to the same return but with less risk. Is that a fair way of describing that?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And now, in last year's general rate application, there was a fair bit of talk about efficient frontiers?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: And we don't see any efficient frontiers illustrated on this graph, correct?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: Okay, but in termining -- in determining an optimal allocation to Real Return Bonds, did Mercers (sic) conduct an efficient frontier analysis?

MR. DAVID MAKARCHUK: Yes.

MR. ROBERT WATCHMAN: And do you recall how closely that correlates to the 24 percent?

MR. DAVID MAKARCHUK: Yes. The liability benchmark was agreed to be a real liability benchmark. The efficient frontier here would have plotted always to the northwest of all points because you can't have a point on the other side of the line.

It would have kind of gone over -- started near lower risk, kind of interpolated about over the points that were here.

So it would have been further north and further west to all these points, including Basic 5.

MR. ROBERT WATCHMAN: So does that tell us, then, that some other -- a frontier -- an efficient frontier analysis would have indicated that some other allocation to Real Return Bonds would have been more optimal?

MR. DAVID MAKARCHUK: With -- yes, this -- yes. Yeah, there was constraints in this one. The current -- yeah, there's constraints in this one --

MR. ROBERT WATCHMAN: So --

MR. DAVID MAKARCHUK: -- ones that had more Real Return Bonds, theoretically.

MR. ROBERT WATCHMAN: So was the -- was the primary constraint was just the avail -- the size of the bond market?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And if I could just ask -- if we could just compare the -- the current dot, which is the asset allocation prior to implementation of the ALM study, correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: As compared to the Basic 3, which is the post-ALM study -- post-implementation of the ALM study?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And if I'm reading this correctly, on a real liability benchmark basis, it tells us that the pre-implementation carried a greater expectation of return with less risk. Is that correct?

MR. DAVID MAKARCHUK: Relative to a real liability benchmark? Pre-li -- pre-implementation had a higher expected return with less volatility relative to a real liability benchmark. Correct.

MR. ROBERT WATCHMAN: Kristen, if we could turn to slide 10.

And now this is the same analysis carried out, though, with the nominal liability benchmark. Is that correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And so we have the same level of investment in Real Return Bonds in the shadow portfolio, 24 percent?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And so if we look at that bottom box, and now, I just -- I should note that at the very bottom of the slide, it indicates that the return -- the expected ten (10) year return on real liability benchmark is now 2.8 percent.

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And if we look at the bottom box there, the risk and return matrix, we see now that, as you indicated, the surplus volatility under the Column B, the Basic 3, the chosen portfolio, is now 1.3 percent, whereas the shadow portfolio is at 2.2 percent.

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: And if we turn to the next slide, and so there it's -- so there it's represented graphically, where we see now that Basic 3 is to the left along the horizontal scale relative to the Basic 5, which was selected.

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: Now, if we could just go back up to the -- the previous slide in the numbers, noting that on a nominal liability basis, the surplus volatility for the chosen Basic 3 portfolio was 1.3 percent.

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And if we go back two (2) slides, on a real liability basis, it was 4.5 percent. So the risk has reduced dramatically between those benchmarks, and is that attributable to just taking out inflation volatility risk?

MR. DAVID MAKARCHUK: Yeah. The portfolios are the same. The only difference is the liability benchmark. The -- this slide here is the real liability benchmark; the other slide is the nominal liability benchmark.

MR. ROBERT WATCHMAN: So --

MR. DAVID MAKARCHUK: So one assumes vo -- the inflation will be different than two (2); the other assumes that inflation will be 2 percent. And nominal was the one that was chosen.

MR. ROBERT WATCHMAN: Yes. And so I take it that the -- so the portfolio design was based upon the nominal liability benchmark. Is that correct?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: And do you have any sense as to what inflation was as of March 1st, 2019?

MR. DAVID MAKARCHUK: March 1st of

2019?

MR. ROBERT WATCHMAN: Yes.

MR. DAVID MAKARCHUK: It's been two-ish most of the year. It was announced this morning for Canada -- I don't know what Manitoba was -- Canada's one point nine (1.9). It's -- it's been really close to two (2) all year, materially. Maybe up to two point three (2.3), four (4), maybe. Maybe it's been lower.

MR. ROBERT WATCHMAN: And it's been below two (2) as well.

MR. DAVID MAKARCHUK: Yeah, it's kind of hovered. It's been close to two (2).

MR. ROBERT WATCHMAN: And is my -- my understanding is the concern, though, is about the volatility in the -- in the inflation rate. Does that not create investment risk?

MR. DAVID MAKARCHUK: Yeah, there's the -- there's the long-term ap -- ap -- you know, part of the inflation piece, which we try to deal with in terms of an asset liability study. There's also the practical nature of how MPI actually credits inflation to its policyholders.

I -- I believe -- it's not my part of advice, but my understanding is that it's -- it's really only one (1) MP -- one (1) CPI measure per annum that matters. It's not like every month's is considered. MPI can correct me if that's not right.

We get updates from the press and measures from Stats Canada every -- every month, but it's really only one (1) point in time that that calculation's updated per year.

MR. ROBERT WATCHMAN: Thank you. Kristen, if we could turn to slide 12.

And now, this is the unconstrained portfolio?

MR. DAVID MAKARCHUK: Right, with Basic. Yeah.

MR. ROBERT WATCHMAN: Okay. And what we're -- we're -- what we're going to focus on here are Columns B, C, and D. And so these were various asset mixes that Mercer considered and ultimately decided upon the middle, or C, Portfolio. Is that correct?

MR. DAVID MAKARCHUK: When we say that Mercer decided, Mercer decided for the shadow portfolio?

MR. ROBERT WATCHMAN: Yes.

MR. DAVID MAKARCHUK: Yes. The -- the compilation of 'A', 'B', 'C', 'D', and 'E' are probably from 2017, as we were doing the asset mix review. We've already talked about Asset Mix A. It was an illustration of -- well, if you just want to mitigate real interest rate risk, you choose 'A'.

'B' was chosen to say, well, if you want to achieve the same return, four point two (4.2) -- keep the four point two (4.2) but reduce risk as much as you could, you might choose Portfolio B.

Portfolio D said, well, if you were comfortable with the risk level of the three point eight (3.8) but you wanted to enhance returns with the chosen asset classes, you might choose Portfolio D.

Portfolio C was perhaps less scientific, more artistic, but also looking at the efficient frontier that you would drive -- draw between these points and say, what would be a middle ground or a balance of return enhancement versus current? It was four point two (4.2). Move it to four point five (4.5), and risk mitigation, surplus volatility going from three point eight (3.8) to three point one (3.1).

So we chose the shadow portfolio here to say, essentially, that had the portfolio -- sorry, had the Corporation chosen to mitigate real interest rate risk, and had the port -- the Corporation been comfortable with each of the asset classes that were explored, it plausibly would have chosen the middle portfolio, Column -- Column C. And that was used as an illustration of the sado -- shadow portfolio for the purposes of the discussion.

MR. ROBERT WATCHMAN: Okay. And in that regard, looking at 'C', the middle, two (2) things that are interesting is -- my understanding is that real estate and infrastructure are considered to be hedges against inflation. Is that correct?

MR. DAVID MAKARCHUK: There are elements of real estate and infrastructure that are more interest rate -- or inflation sensitive than some of these asset classes. Neither should be considered as good a hedge for inflation, especially Manitoba CPI, as Real Return Bonds. Given the infrastructure portfolio that MPI has right now, very few of the assets, I assume, are specifically tied to Manitoba CPI.

MR. ROBERT WATCHMAN: Okay. But -- but --

MR. DAVID MAKARCHUK: But you -- but you're right. They're better than some of the others for that purpose.

MR. ROBERT WATCHMAN: So do you recall

if that was part of the decision process in terms of looking at the allocation to real es -- Real Return Bonds but also adding some inflation hedge by including investment in real estate and infrastructure?

MR. DAVID MAKARCHUK: Our return assumptions for real estate and infrastructure, relative to some of these other asset classes, was not as attractive in terms of pushing out the efficient frontier -- or, getting closer to the efficient frontier. Therefore, you see that -- or the current has an allocation of ten (10) and five (5) to real estate and infrastructure.

And so even though we have, in this analysis, a real liability benchmark in this case, when we were looking for optimal points with either same return or same risk, both of those allocations actually came down rather than came up.

So from a modelling perspective, there was other compilations that were more attractive on a return-to-risk basis, probably primarily because the 3X Real Return Bonds were so efficient in that regard. They are the best bet.

MR. ROBERT WATCHMAN: And just -- and just so I understand the 3X Real Return Bonds, now

you've indicated an allocation of 16 percent?
MR. DAVID MAKARCHUK: In the middle. Yeah.
MR. ROBERT WATCHMAN: And so when you talked about, well, there's, you know, one third (1/3) that the purchaser would pay for, and then two thirds (2/3) that the purchaser would leverage by borrowing --
MR. DAVID MAKARCHUK: Yeah.
MR. ROBERT WATCHMAN: -- I take it the 16 percent is the -- is the one third (1/3) that is owned?
MR. DAVID MAKARCHUK: Correct.
MR. ROBERT WATCHMAN: So that would be --
MR. DAVID MAKARCHUK: Really, forty-eight (48).
MR. ROBERT WATCHMAN: So you're not recording the leveraged bonds as being owned in this allocation.
Is that correct?
MR. DAVID MAKARCHUK: Yeah. This is to ensure that the sum totals to 100 percent, which many people expect. This is the allocation of -- let's say there was a hundred dollars for the

portfolio, sixteen dollars ($16) would go to 3X Real Return Bonds.

Practically speaking, you've got more than a hundred dollars of actual exposure. There's gives and takes as to what the better illustration may be.

MR. ROBERT WATCHMAN: All right.

MR. DAVID MAKARCHUK: But for this case, for this purpose, this is how we did it.

MR. ROBERT WATCHMAN: Okay. And so if we could relate that to the 24 percent, sixteen (16) 3X Real Return Bonds represents more than 24 percent of the total assets?

MR. DAVID MAKARCHUK: It does.

MR. ROBERT WATCHMAN: Is that correct? It doesn't represent 48 percent, but it -- there's some --

MR. DAVID MAKARCHUK: Materially, it is. It's 3X -- is -- is my math bad?

MR. ROBERT WATCHMAN: Well, it would -- then your number would be out of 132 percent, right --

MR. DAVID MAKARCHUK: But -- but practically speaking, had you chosen middle, or had inve -- middle been invested in, the portfolio would have a hundred and thirty-two dollars ($132) of investment exposure. That's what the leverage essentially is. So I'd actually say that, yes, it is 132 percent. Correct.

MR. ROBERT WATCHMAN: So -- and -- and I -- just the -- the point I wanted to make is that this actually represents a greater investment in Real Return Bonds than the 24 percent in the constrained shadow portfolio?

MR. DAVID MAKARCHUK: Yes. The constrained had a few constraints, one (1) of which was the amount of Real Return Bonds included in it.

This -- this piece would more fully hedge the real liability risk.

MR. ROBERT WATCHMAN: Thank you. Kristen, if we could just turn to Information Request PUB-MPI-1-36. Again, and we looked at Part A. If we just look at Part B, which was an explanation with respect to the leverage bond.

And could you just indicate so the cost related to the yield for investing in this type of, you know, a leveraged Real Return Bond?

MR. DAVID MAKARCHUK: A cost incor -- ask your question again, if you don't mind, please.

MR. ROBERT WATCHMAN: So the question

is -- is if you could just explain for us the cost implement -- implication when leveraging these types of bonds. Because if we're -- if we're leveraging, we're borrowing, we're paying interest.

How does that relate to the return we would expect?

MR. DAVID MAKARCHUK: Right. So when one talks about costs, sometimes we're referring to the operating costs of the investment management phase. Sometimes they're talking about the borrowing costs, or the invitation fees. Which one are you referring to?

MR. ROBERT WATCHMAN: I'm referring to I'm referring to the leverage costs as indicated, which I think is the borrowing --

MR. DAVID MAKARCHUK: Are --

MR. ROBERT WATCHMAN: -- cost.

MR. DAVID MAKARCHUK: -- a return. Okay. So -- and thank you.

So in terms of what I've written here, or we've written here, these are the borrowing costs included in the expected return. And so had the Corporation -- or if the Corporation could choose to do an investment like this, they would put in their dollar. They would borrow two (2) more dollars, and receive three dollars ($3) of Real Return Bond return.

The borrowing cost is the cost of borrowing those two dollars ($2). That is generally at a rate that we call the CDOR, or the Canadian Depository Overnight Rate, I think is the acronym. It is generally ninety-one (91) day T-bills, plus a spread. It's today around 2 percent per annum.

MR. ROBERT WATCHMAN: Thank you. Kristen, if we could go back, then, to slide 13 of the Mercer report.

I think this might help us, because we have it graphically. And we're looking now at efficient frontier analysis.

Is that correct?

MR. DAVID MAKARCHUK: Yes.

MR. ROBERT WATCHMAN: And so just to relate this to the table, as indicated, you looked -- you did a same risk analysis. So in other words, you went straight vertical from the current allocation mix?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And then you compared that to a same return analysis, which was moving across to the -- I was going to say northwest, but not quite -- moving straight across, left on the horizontal axis?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And that would give you -- and then what you -- you'd -- basically, you chose the point along the efficient frontier that was halfway between the same return analysis and a same risk analysis.

Is that correct?

MR. DAVID MAKARCHUK: Right. So these are the points that were on a prior table. Again, I've mentioned there's a bit of art, a bit of science. This is what we otherwise have suggested as what a reasonable shadow portfolio might have been, given we didn't really have an investor to talk to who might have said, All right, if this is my group of asset classes I could choose from, and I wanted to balance return enhancements and risk mitigation, and my liability benchmark is a real one, middle C is a good illustration of what that portfolio might have looked like.

MR. ROBERT WATCHMAN: And so when -- on this graph, we see that as compared to Basic 3, which was the portfolio selected, effectively, you would expect greater return at less risk --

MR. DAVID MAKARCHUK: Relative to the

real liability benchmark.

MR. ROBERT WATCHMAN: -- relative. Right.

(BRIEF PAUSE)

MR. ROBERT WATCHMAN: If we could turn, then, to the pension portfolios on slide 15, Kristen.

(BRIEF PAUSE)

MR. ROBERT WATCHMAN: So again, we have a similar -- in terms of the constrained portfolio, we have a similar table. And we'll go through those points in a minute.

I just noticed in -- in the box at the bottom, the risk return metrics, we now -- now have a new term, return volatility.

Could you explain what that is?

MR. DAVID MAKARCHUK: Surplus volatility was the variation per year in terms of the actual return relative to the obligation. Return volatility is just the annual standard deviation of the asset return.

It certainly could have been on the prior tables. It's shown here for illustration. I don't know if we added the yellow or you did, but it's -- it's just another statistic.

MR. ROBERT WATCHMAN: Now if we look at -- okay, so the -- the 2017 current, we know that's the pre-implementation asset mix, correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And then the -- Column A, the lowest risk, that invested 71 percent of the assets into Real Return Bonds?

MR. DAVID MAKARCHUK: Correct.

MR. ROBERT WATCHMAN: And -- and again, we have that issue where low risk but low return. Is that --

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: -- fair to say? So then we have the Column B, Pension 1. That is the pension portfolio selected by the Corporation?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: And then C is the pension portfolio allocation, including Real Return Bonds. And this time, the allocation was selected to be 10 percent Real Return Bonds.

Can you explain how you came up with 10

percent?

MR. DAVID MAKARCHUK: From memory, I think it was a discussion of we have 40 percent fixed income to play with. Our duration is otherwise relatively long. Everything was either in long corporates or long private debt. So the duration was otherwise sufficient.

Portfolios C was -- well, here's an illustration with some Real Return Bond exposure as well. Both long-term corporates and private debt long would have had a higher expected return. So -- so as not to compromise the expected return too much, a 10 percent amount was illustrated.

I can't from memory tell you that our analysis is much more robust than that.

MR. ROBERT WATCHMAN: Well, it -- it -- did it include a -- an efficient frontier analysis? Do you recall?

MR. DAVID MAKARCHUK: Probably. Sometimes the efficient frontier is just a -- like, these are the chosen asset classes. The only thing we were doing was taking something out of the fixed income portfolio, moving it into Real Return Bonds. We would have looked at the risk metrics, maybe looked at what fifteen (15) or twenty (20) would have been.

We've illustrated ten (10).

MR. ROBERT WATCHMAN: Now it -- it -- and I don't know if this is coincidence, but the allocation appears to be 50 percent of the corporate bonds?

MR. DAVID MAKARCHUK: We kept the math simple, yes. We might have just split it in half from -- I don't recall exactly what we did to come up with ten (10).

MR. ROBERT WATCHMAN: All right. Okay. Thank you.

MR. DAVID MAKARCHUK: Given it was an illustration.

MR. ROBERT WATCHMAN: Now for the pension portfolio, it -- it -- again, it does include real estate and infrastructure, so it already has some inflation voluntary -- volatility protection built into it, correct?

MR. DAVID MAKARCHUK: The real estate infrastructure would have cor -- higher correlation to RRBs than the Canadian equities and the global equities, yeah.

MR. ROBERT WATCHMAN: So -- but, I mean, just so relative to Real Return Bonds, you might expect less rea -- Real Return Bonds in the pension portfolio if you're going to maintain real estate and infrastructure inve -- investments?

MR. DAVID MAKARCHUK: That's fair. The -- to the extent that we're trying to mitigate inflation risk, and we have some growth assets that are correlated with inflation, you probably don't need as much.

MR. ROBERT WATCHMAN: And again, I should just note at the very bottom there, the expected ten (10) year return is 3 percent. And I take it that would be expected, given that you would want some growth in this portfolio?

MR. DAVID MAKARCHUK: The -- the line in the note?

MR. ROBERT WATCHMAN: No, yeah, the -- no, the very -- at the very bottom, yeah, the note expected --

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: -- expected ten (10) year --

MR. DAVID MAKARCHUK: So this is the -- so again, so the pension portfolio had a slightly -- has a different duration, has a different makeup than the Basic portfolio. This is a longer duration portfolio, and so the liability benchmark growth is slightly different. It's just a function of the obligation. It's not a function of the investments.

MR. ROBERT WATCHMAN: Kristen, if we could turn to the next slide, please.

And so again, here we have it graphically. And I just want to make sure I don't confuse the -- the two (2) key points, there, being that the Pension 1 is the orange dot, and the Pension 4 is the blue dot?

MR. DAVID MAKARCHUK: I acknowledge that the labeling is a little confusing, but I believe that's correct. We can go -- to be 100 percent sure. So the standard deviation of the -- what I believe is Pension 4 is exactly eight (8), or very close. I can't remember if the table's ahead or behind --

MR. ROBERT WATCHMAN: Back -- back one (1), please, Kristen.

(BRIEF PAUSE)

MR. DAVID MAKARCHUK: So we should see a number of --

MR. ROBERT WATCHMAN: Eight point zero (8.0) for Pension 4.

MR. DAVID MAKARCHUK: -- eight point

zero (8.0), so I see -- let's go back, please.
Is -- yeah, so it's the -- the notations are to the side, not above or below the dots.
MR. ROBERT WATCHMAN: Right. And so here, we don't -- now, there's only a 10 percent investment in Real Return Bonds, so we don't really receive much difference between risk and return between the selected portfolio and the shadow portfolio?
MR. DAVID MAKARCHUK: Right. Had we done ten (10) more percent, it probably would have moved that much further. Yeah. It doesn't move much, because we're not changing much of the portfolio.
MR. ROBERT WATCHMAN: So that much for the northwest, or --
MR. DAVID MAKARCHUK: You probably -- a somewhat straight, but a little bit of a curved line. I'm not sure how want to note that in the record, but.
MR. ROBERT WATCHMAN: And -- and again, if we just look at the current, that represents the pre-implementation of the ALM study?
MR. DAVID MAKARCHUK: That's right.
MR. ROBERT WATCHMAN: And again, we

see that while there's less return, there is less risk in the asset mix prior to implementation?

MR. DAVID MAKARCHUK: Yes, relative to the righ -- real liability benchmark.

MR. ROBERT WATCHMAN: Now if we could turn to Slide 17, please. And this is where we come to the unconstrained portfolio.

And so if we can compare then Column C with Column E, one of the first thing that sort of leaps out is that there was a constraint in the pension portfolio selected E of 40 percent fixed income but Mercers (sic) unconstrained increased that to 72 percent.

Could you explain why that's -- why the fixed income asset mix was increased so much?

MR. DAVID MAKARCHUK: So this is a situation where if surplus volatility was a primary metric and we wanted to enhance our information ratio as best we could, we do that by fully hedging the real interest rate risk as best we can, and therefore, we have a significant amount of fixed income, including some that's levered, so that we fully hedge the interest rate volatility.

We still have some assets leftover for equities and alternatives. It's a point where if this is your opportunity set, you bring down the surplus volatility significantly and still maintain a reasonably good return.

MR. ROBERT WATCHMAN: And, again, just the 3X Real Return Bonds at 8.5 percent -- and this time, you looked at -- if we look at Column D, you looked at 15 percent in 3X Real Return Bonds. Do you -- do you recall again whether you can -- you did an efficient frontier analysis to look at the different allocations to Real Return Bonds?

MR. DAVID MAKARCHUK: Yes, we would have. So we went through -- it's the same exercise as -- as Basic.

We would have said, had you wanted to maintain a similar return level, that would be Column B; had you wanted to maintain a similar risk level, that would be Column D; Column C was, what if you wanted to balance both return enhancement and risk mitigation.

This just shows how you do it in a tabular format. It also would have been shown in a graphical or efficient frontier format, but it's mostly at midpoint, I suspect.

MR. ROBERT WATCHMAN: And, again, that 8.5 percent three times is -- would be relatively more than the 10 percent that we looked at in the constrained portfolio, correct?

MR. DAVID MAKARCHUK: Yeah. There was none in the constrained portfolio.

MR. ROBERT WATCHMAN: Oh, I'm sorry. In the shadow portfolio number 1. The pension shadow portfolio number 1 -- I think you referred to it as portfolio 3.

MR. DAVID MAKARCHUK: Yes. Sorry. Yeah. There's --

MR. ROBERT WATCHMAN: It was 10 percent Real Return Bonds, if memory serves --

MR. DAVID MAKARCHUK: Yeah. I don't think there was any leverage -- there was no 3X in Shadow Portfolio 1 pension.

MR. ROBERT WATCHMAN: And so the 3X Real Return Bonds at 8.5 percent would represent, relatively speaking, more than 10 percent of the entire portfolio.

MR. DAVID MAKARCHUK: Yeah. It'd be three (3) times eight point five (8.5).

MR. ROBERT WATCHMAN: Well, then we'd go over a hundred percent. But --

MR. DAVID MAKARCHUK: But -- so I'm not sure --

MR. ROBERT WATCHMAN: So I'm saying, like, the relative allocation within the portfolios. So when you compared Shadow Portfolio 1 pension, it's 10 percent, correct?

MR. DAVID MAKARCHUK: Right. There's much more Real Return Bond exposure in Shadow Portfolio 2 pension than in Shadow Portfolio 1 pension.

MR. ROBERT WATCHMAN: Right.

MR. DAVID MAKARCHUK: And similar to in Basic where there was a constrained amount of hedging on the real liability benchmark, and then there was an unconstrained amount which fully hedged it. This is in -- a portfolio that fully hedged the real interest rate risk.

MR. ROBERT WATCHMAN: If we could just look at that bottom box there in that highlighted return volatility -- 'cause you spoke about surplus volatility.

And if we look at -- compare Column C to Column E, surplus volatility, as you said, was a concern as it was 8.4 percent under the pension that was selected -- pension portfolio selected, and by an unconstrained portfolio, it was reduced to 3.2 percent, correct?

MR. DAVID MAKARCHUK: Yeah.

MR. ROBERT WATCHMAN: Okay. But then -- now we see at the same time, we see return volatility going from 7.7 percent to 9.3 percent. Is that a good thing or a bad thing?

MR. DAVID MAKARCHUK: Half of volatility is good, and half of volatility is bad. So it depends on your point of view.

We expected the performance of C on an absolute return basis to be more volatile than E. Relative to a real liability benchmark, we expect C to be less volatile than E.

MR. ROBERT WATCHMAN: If we could turn to the next slide then, and here we have it graphically again.

Now, what seems to leap out in this illustration is that the Pension 1 that was selected by the Corporations seems to be much farther to the right along the horizontal axis which we don't want to see than either the current or the shadow portfolio analysis that Mercers (sic) conducted.

MR. DAVID MAKARCHUK: Relative to a real liability benchmark, that's correct.

MR. ROBERT WATCHMAN: Kristen, if we could turn to Information Request PUB-MPI-1-35.

And you'll see here, Mr. Makarchuk, that the Board advisors requested some forecasting as between the Basic and pension shadow portfolios and the actual investment portfolios.

And the indication in the response was that:

"There are several asset classes that are not included in MPI's actual portfolios. Therefore, we have not developed the forecasting methodology for these asset classes."

Are you aware of any practical limitation in calculating estimated yields on the shadow portfolios such that they could be compared to forecasts for the actual portfolios?

MR. DAVID MAKARCHUK: Especially over the short term and especially for the alternatives, it's really challenging to find a robust short-term forecast that, I think, would be credible for -- to satisfy all the parties, private equity in particular.

I had spoke about this briefly earlier this morning. Especially if you're doing a one-year forecast, there's so many different variables in terms of when you're going to get the money in place, the depth of the J-curve, the diversification of the portfolio, and what the actual returns would be. And that's difficult, extremely difficult.

For the fixed income pieces, while it's possible to come up with an expected return, assuming that the yield curve doesn't move and perhaps a return based on forward rates, the last six (6) months has very much reminded us that short-term forecasting is extremely difficult. And had MPI or any other entity on April 1st -- or March 1st forecasted a six (6) month return for, frankly, any of the asset classes, no one would have hypothesized a six (6) month return on some of these asset classes that actually happened.

So especially in the short term, this is really hard. We share our return assumptions. Typically over a ten (10) to twenty (20) year period, we're willing to say five (5) but with some caveats. It's really difficult to forecast returns in the short term, especially when you nee -- you consider the practical implementation considerations.

MR. ROBERT WATCHMAN: Okay. And -- and as -- you just touched upon it that the -- it's fair to say, as far as you're aware, that the performance in the first six (6) months of MPI's current fiscal year have been unprecedented?

MR. DAVID MAKARCHUK: I'm not sure if I'd use the word 'unprecedented' or not --

MR. ROBERT WATCHMAN: Well, that might be my word, but --

MR. DAVID MAKARCHUK: Okay. They have been well beyond what reasonable expectations might have been, not just in Canada but globally. The middle part of our yield curve went to a all-time low, certainly in terms of people in this room, the first week of July, and then managed to plunge another thirty-ish basis points through -- August 15th was the bottom.

That's resulted in really strong fixed income performance across all different asset classes. A challenge going forward is it's really hard to see strong performance from fixed income into the future, given how low yields are as a result of what we see.

MR. ROBERT WATCHMAN: Thank you. Just one (1) -- one (1) moment, please.

(BRIEF PAUSE)

MR. ROBERT WATCHMAN: Okay. Thank you. And then this question might be more directed to the Corporation. But can the Corporation indicate the direction and, if possible, the order of magnitude of the impact of the shadow portfolios on Basic MCT ratio, all others -- all other things being equal?

MR. STEVEN SCARFONE: So Mr. Watchman, I think you'll appreciate that that -- that question is probably best put to Mr. Johnston, so I don't know that we can answer it here. We can probably take that away as an undertaking, unless Mr. Bunston says that he's prepared to take a stab at it. He wants to defer to our chief actuary.

MR. ROBERT WATCHMAN: Okay. Thank you. Then if we could have that as a -- as an undertaking then, that the Corporation will undertake to indicate the direction and, if possible, the order of magnitude of the impact of the shadow portfolio on Basic MCT ratio, all other things being equal.

MR. STEVEN SCARFONE: Right. So just touching upon some of the evidence that Mr. Makarchuk gave in his examination in-chief then?

MR. ROBERT WATCHMAN: Yes.

MR. STEVEN SCARFONE: Yes. Okay. Very good. We'll give that undertaking.

--- UNDERTAKING NO. 24: MPI undertake to indicate the direction and, if

possible, the order of
magnitude of the impact of
the shadow portfolio on
Basic MCT ratio

MR. ROBERT WATCHMAN: And -- and perhaps supplementary to that, can the Corporation confirm that any investment portfolio change that impacts Basic MCT ratio will consequently have a potential impact on any capital build release provision that arises from the capital management plan?

MR. STEVEN SCARFONE: Yes. So that definitely sounds like a Luke Johnston question, and we'll put that to him. So is that a second undertaking, or is all one (1)...?

MR. ROBERT WATCHMAN: Well, we will take it as two (2) undertakings then, separate undertakings.

MR. STEVEN SCARFONE: Very good.

MR. ROBERT WATCHMAN: And just for the record again, the second undertaking is to confirm that any investment portfolio change that impacts the Basic MCT ratio will consequently have a potential impact on any capital build or release provision that arises from the capital management plan.

MR. STEVEN SCARFONE: Yes.

--- UNDERTAKING NO. 25: MPI to confirm that any investment portfolio change that impacts the Basic MCT ratio will consequently have a potential impact on any capital build or release provision that arises from the capital management plan

DR. BYRON WILLIAMS: Madam Chair, might I ask a question of clarification just for the un -- undertaking. Is it for Shadow Portfolio 1 and Shadow Portfolio 2?

MR. ROBERT WATCHMAN: It -- it's for each of the shadow -- oh, sorry, each of the Basic shadow portfolios.

DR. BYRON WILLIAMS: Okay.

MR. STEVEN SCARFONE: Thank you, Mr. Williams.

MR. ROBERT WATCHMAN: Thank you, Mr.

Makarchuk. Madam Chair, those are all my questions.

THE CHAIRPERSON: Thank you. It's 11:53, so we'll break for lunch now. Mr. Makarchuk, what time's your flight?

MR. DAVID MAKARCHUK: 6:00.

THE CHAIRPERSON: 6:00.

MR. DAVID MAKARCHUK: I got time.

THE CHAIRPERSON: Excellent. Okay, we'll break until one o'lo -- one o'clock, then. Thank you.

--- Upon recessing at 11:54 a.m.

--- Upon resuming at 12:58 p.m.

THE CHAIRPERSON: Good afternoon. I think that we are at a stage where Mr. Williams for cross-examination.

MR. STEVEN SCARFONE: Just before Mr. Williams begins, Madam Chair -- sorry, Mr. Williams -- the undertakings are slowly trickling in, and we have another exhibit to mark, this one being MPI Exhibit number 64 which is a response to Undertaking number 5.

THE CHAIRPERSON: Thank you.

--- EXHIBIT NO. MPI-64: Response to Undertaking 5

CROSS-EXAMINATION BY DR. BYRON WILLIAMS:

DR. BYRON WILLIAMS: Good afternoon, members of the panel. Just for your information, there will be a bit of trespassing upon the same area as My Learned Friend for the PUB crossed hopefully to a different point.

I'll ask Kristen to pull up the shadow portfolios, so the Application Part 6, Investment Attachment A, and go to page 9, please.

And, sir, I sometimes struggle over the -- over last names. So should I say Makarchuk? How is my waspish tongue -- how do I perform? How should I say your name, sir?

MR. DAVID MAKARCHUK: Depending on how Ukranian you'd like to be, Makarchuk or Makarchuk are -- are both fine.

DR. BYRON WILLIAMS: So Makarchuk would be satisfactory.

MR. DAVID MAKARCHUK: In Manitoba, that would be more than acceptable.

DR. BYRON WILLIAMS: You recall some discussion with My Learned Friend, counsel for the Public Utilities Board, about the term "surplus volatility" earlier today, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And just for the purpose of defining that term when we speak of surplus, the surplus at risk is the risk that assets will grow slower than liabilities. Would that be fair, sir?

MR. DAVID MAKARCHUK: The term surplus -- I just want to repeat it -- the term "surplus at risk" --

DR. BYRON WILLIAMS: Is the risk that assets will grow slower than liabilities.

MR. DAVID MAKARCHUK: Most specifically, it's the risk that they grow differently --

DR. BYRON WILLIAMS: Okay.

MR. DAVID MAKARCHUK: -- than the liabilities. The volatility --

DR. BYRON WILLIAMS: And volatility is the --

MR. DAVID MAKARCHUK: -- the volatility can be good, and volatility can be bad.

DR. BYRON WILLIAMS: Right. And volatility is the statistical measure of the dispersion of the surplus. Agreed?

MR. DAVID MAKARCHUK: Correct. Technically when we talk about volatility, as illustrated on this page, we actually mean standard deviation for those who want to recall in their statistics from -- from junior high or whenever you learned it. But it's practically the one (1) year standard deviations that we've been talking about through the day.

DR. BYRON WILLIAMS: And, sir, in terms of the bad standard deviation or dispersion of which you were speaking, that would be theoretically the risks that a fully funded plan would move to negative surplus, meaning that the liabilities would be greater than the assets, correct?

MR. DAVID MAKARCHUK: It's the risk that in a time horizon, the return on the assets would be different than the return on the obligation as a liability. And if you starting -- your starting point was a fully funded plan and you had a negative event, it would become less than fully funded.

DR. BYRON WILLIAMS: Thank you. And, sir, when we see the -- on the horizontal axis the term "excess return volatility," we can take that as representing surplus volatility, sir?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And again, the higher the volatility, the riskier the portfolio in a surplus context, sir?

MR. DAVID MAKARCHUK: Right. The more variation in results you would expect.

DR. BYRON WILLIAMS: And, sir, if in the course of our conversation you hear me refer to "risk or "volatility," you understand that I am referring to surplus risk?

MR. DAVID MAKARCHUK: Right. And that's almost always what we refer to. I think as we pointed out this morning, occasionally we talk about just return volatility, but almost always in this project, we talk about the same thing.

DR. BYRON WILLIAMS: And whether we look at Shadow Portfolios 1, 2, 3, or 4, the horizontal axis will always be focused upon surplus volatility, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And that indeed is the primary metric of risk in your analysis, sir.

MR. DAVID MAKARCHUK: Right. There's times we would report the return volatility 'cause it shouldn't be completely ignored, but it was clear early on in the project that surplus volatility was what was important to MPI.

DR. BYRON WILLIAMS: And turning to the vertical axis on the left of slide 9, we see that it is measured as the expected excess return above the liability benchmark, sir?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And assuming full funding, that would be a growth in surplus?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And on the vertical axis, all other things being equal, we want to go up.

MR. DAVID MAKARCHUK: Absolutely.

DR. BYRON WILLIAMS: Going to slide 8, please, of this same document.

And, sir, again, this is within the context of a real liability benchmark? Agreed?

MR. DAVID MAKARCHUK: Agreed.

DR. BYRON WILLIAMS: And underneath the table, sir, again you'll see the expected ten (10) year return of the liability benchmark as 2.4 percent, correct?

MR. DAVID MAKARCHUK: Yes. Down there, yeah.

DR. BYRON WILLIAMS: So I want to

direct your attention three (3) rows up from the bottom of the table to expected ten (10) year return, and you see the first entry under "current 2017" is 4.2 percent, sir? Do you see that?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: If the expected ten (10) year return is 4.2 percent and the expected return of the liability benchmark is 2.4 percent, the excess return is plotted on the 'Y' axis of slide 9 would be the difference, I'll suggest to you, sir, being 1.8 percent?

MR. DAVID MAKARCHUK: And hopefully that's what it was.

DR. BYRON WILLIAMS: And if we want to just go back there.

MR. DAVID MAKARCHUK: Okay. Look at that.

DR. BYRON WILLIAMS: Yeah.

MR. DAVID MAKARCHUK: So...

DR. BYRON WILLIAMS: Okay. So that's how it works, sir. Okay. Back to Slide 8.

And again, you've had a bit of this conversation with My Learned Friend from MPI, but when -- under the nomenclature at the top "2017 current," that's the old MPI portfolio as it stood in 2017 before MPI adopted its current asset liability matching strategy? Agreed?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: So we should not be mislead by the term "current" because current represents an approach that MPI has rejected. Agreed, sir?

MR. DAVID MAKARCHUK: Yeah. I read that to say "2017 current."

DR. BYRON WILLIAMS: And it -- that's the approach that MPI no longer employs, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And in terms of Basic 3, this was what was selected by Manitoba Public Insurance coming out of the Mercer's asset liability study, sir?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: So if I use the terms "Basic 3" and "MPI selected" interchangeably, you'll understand what I'm saying?

MR. DAVID MAKARCHUK: Yes.

DR. BYRON WILLIAMS: And Basic 5 to the right is the portfolio with 24 percent Real Return Bonds, sir?

MR. DAVID MAKARCHUK: Yes.

DR. BYRON WILLIAMS: In essence, it is the shadow portfolio that is represented in your calculations on the comparison between the MPI portfolios and the shadow portfolio?

MR. DAVID MAKARCHUK: It's the first shadow portfolio or the constrained Basic shadow portfolio. Those are the various terms we've been using. Yeah.

DR. BYRON WILLIAMS: And, sir, the only difference between it and the MPI selected portfolio is a shift from one type of bonds without inflation protection to another set of bonds with inflation protection. Would that be fair?

MR. DAVID MAKARCHUK: Right. It's less provincials, 24 percent reals.

DR. BYRON WILLIAMS: And, sir, this is not an optimized portfolio?

MR. DAVID MAKARCHUK: No. No.

DR. BYRON WILLIAMS: No. It's just --

MR. DAVID MAKARCHUK: It wasn't -- it wasn't on an efficient frontier.

DR. BYRON WILLIAMS: Yeah. It's just another asset mixed constrained to move money frm one bucket to another with no other buckets in play. Would that be fair?

MR. DAVID MAKARCHUK: Right. It's an illustration of -- had the Corporation preferred a real benchmark rather than a nominal benchmark and had this been the asset classes they would have been comfortable with, it's a good illustration of where they might have lended (sic).

DR. BYRON WILLIAMS: So it's illustrative but not optimized. Agreed?

MR. DAVID MAKARCHUK: Agreed.

DR. BYRON WILLIAMS: And, sir, going down towards to the bottle of this -- bottom, not bottle, of this table on page 8 under Basic 3 in terms of surplus volatility, you'll see that the MPI selection has a surplus volatility in real terms of 4.5 percent, sir?

MR. DAVID MAKARCHUK: Yeah. Four point five (4.5) is the surplus volatility.

DR. BYRON WILLIAMS: And its expected ten (10) year return moving up a line is 3.1 percent, correct?

MR. DAVID MAKARCHUK: That's right.

DR. BYRON WILLIAMS: Going over to the right in terms of the shadow portfolio -- illustrative shadow portfolio, its expected ten (10) year return is 3.1 percent? Correct?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And its surplus volatility is 3.2 percent, sir?

MR. DAVID MAKARCHUK: M-hm.

DR. BYRON WILLIAMS: So in terms of the shadow portfolio, you actually selected a portfolio for comparison purposes that has less risk as measured in surplus volatility than the MPI preference. Agreed?

MR. DAVID MAKARCHUK: Yes. If they're -- if the viability benchmark is a real one shifting to one with more Real Return Bonds, it will reduce the surplus volatility.

DR. BYRON WILLIAMS: And it's a significant reduction in surplus volatility as compared to the MPI selection as measured in real terms, sir?

MR. DAVID MAKARCHUK: Yeah. I'd say a move from four point five (4.5) to three point two (3.2) is significant.

DR. BYRON WILLIAMS: So just analytically, sir, when you're doing the comparison between the MPI selected and the shadow portfolio, you're not starting with risk as measured in surplus volatility as a constant in comparing returns.

MR. DAVID MAKARCHUK: Certainly not for Shadow Portfolio 1. Certainly not for Shadow Portfolio 1.

DR. BYRON WILLIAMS: So in essence you'll be comparing the returns of portfolios with different risk profiles.

MR. DAVID MAKARCHUK: The return expectations you'll see was the same. Again, the -- the goal or the perceived goal of the ask for Shadow Portfolio 1 was in a constrained world where these were acceptable asset classes, and RRBs Real Return Bonds were included. What is a good illustration of what it might end up being? And we landed on 24 percent RRB allocation for the reasons we've discussed earlier. That's what this piece illustrates.

DR. BYRON WILLIAMS: And we'll come back to those, sir. I wonder if we can go to Slide 9 for a moment.

MR. DAVID MAKARCHUK: Sure.

DR. BYRON WILLIAMS: And, sir, when I use the term "the efficient frontier," I'm referring to a set of optimal portfolios that offer the highest expected return for a defined level of risk or the lowest risk for a given level of expected return. Is that a terminology that you're comfortable with, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And again, portfolios that lie below the efficient frontier are sub-optimal because they do not provide enough return for the level of risk, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And of course as you discussed with My Learned Friend from the PUB -- you did not chart out the efficient frontier of the MPI selected 3 or its shadow portfolio 5 on slide 9, correct?

MR. DAVID MAKARCHUK: No. We -- we don't have a line on this one. It would have --

DR. BYRON WILLIAMS: You did it another -- in other charts later on though. Agreed?

MR. DAVID MAKARCHUK: Right.

DR. BYRON WILLIAMS: You did undertake -- you did do that analysis though, did you, sir?

MR. DAVID MAKARCHUK: Yeah. It's not illustrated here just -- 'cause we got lots of boxes going on. The efficient frontier with the asset classes that are in scope would have run in between -- started at the lowest risk point and then run somewhere in between the two (2) basic points and the current. The current includes a mass of classes that aren't included in this piece.

DR. BYRON WILLIAMS: And, sir, we'll come back to -- just in terms of what I've heard you just say, I believe I heard you say that the MPI selected in terms of the real liability benchmark would be below the efficient frontier and the Basic 5 -- the shadow portfolio -- in terms of the real liability benchmark would be to the left and above the efficient frontier? Is that what you said, sir?

MR. DAVID MAKARCHUK: No. Sorry if --

DR. BYRON WILLIAMS: That's -- maybe I misheard you, sir.

MR. DAVID MAKARCHUK: Yeah. So if -- if we accepted the -- if we wanted to draw an efficient frontier on this page with the asset classes that are in the scope -- essentially the fixed income asset classes -- you would start at the lowest risk point and then kind of draw out and go above Basic 5, below current, and above Basic 3.

DR. BYRON WILLIAMS: Sir, I wonder if you would undertake to chart out the efficient frontier for Basic 3 and Basic 5 for slide 9, recognizing that you've already done the analysis, sir.

MR. DAVID MAKARCHUK: I'm sure we can add that as an undertaking. That's -- I don't know. It's not for me to say.

(BRIEF PAUSE)

MR. STEVEN SCARFONE: Just before we provide that undertaking, Mr. Williams, for -- for what purpose is the frontier needed? Because I ask -- perhaps you could ask Mr. Makarchuk if it would provide any benefit --

DR. BYRON WILLIAMS: I have my own conclusions on that.

Madam Chair, the question is what is presumably the relevance of this document. As this panel is well aware, in terms of optimization, that's a standard tool in terms of assessing portfolios. It was done for two (2) of the -- of the -- the four (4) shadow portfolios here.

Our client wishes to understand to what degree Shadow Portfolio 1 differs from an optimized portfolio. And you heard questions from the Public Utilities Board legal counsel earlier today trying to get at that same issue in terms of was it optimized or not and what is the gap in terms of optimization. And an efficient frontier, which has already been done, would give insight into that.

THE CHAIRPERSON: Thank you. One (1) moment, please.

(BRIEF PAUSE)

THE CHAIRPERSON: Thank you. Yes, we would -- okay -- like MPI to proceed with that undertaking to provide the efficient frontier for page number 9 of this presentation.

MR. STEVEN SCARFONE: Okay. So -- just so we're clear, Madam Chairperson, is it just the one (1) frontier, or is it both that Mr. Williams is looking for?

DR. BYRON WILLIAMS: They've done the calculation for the eff -- the efficient frontier. We would like it portrayed on -- with regard to Shadow Portfolio 1. I'm not asking in terms of Shadow Portfolio 3.

MR. STEVEN SCARFONE: Okay.

DR. BYRON WILLIAMS: Does that help, Mr. Sc...?

MR. STEVEN SCARFONE: Yes. Thank you.

THE CHAIRPERSON: Thank you.

--- UNDERTAKING NO. 26: MPI to chart out the efficient frontier for Basic 3 and Basic 5 for slide 9

CONTINUED BY DR. BYRON WILLIAMS:

DR. BYRON WILLIAMS: Mr. Ma -- Makarchuk, as we look at slide 9, again, if we are comparing the MPI selected portfolio, we see in terms of the real liability benchmark, its standard deviation or surplus volatility is at around four point five (4.5). Is that correct, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And to the left of it is the shadow portfolio at -- at -- in the range of three point one (3.1), correct?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: Again, the analysis of these two (2) portfolios should understand that they're not starting from the same level of risk, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And sir, if you wanted to look at the shadow portfolio for Basic 5 at the same level of risk as Basic 3, one (1) option would be to move to the right in terms of surplus volatility to four point five (4.5). Would that be fair?

MR. DAVID MAKARCHUK: Yes. I'm not sure where you're going with it, because it's hard to move Basic 5 over there with RRBs.

DR. BYRON WILLIAMS: You -- you would have to change the --

MR. DAVID MAKARCHUK: You would have to shorten your provincials or something weird.

DR. BYRON WILLIAMS: So sir, if you were trying to compare apples to apples in terms of risk, you would have to have a different composition for Basic 5?

MR. DAVID MAKARCHUK: Like, if you wanted some RRBs in Basic 5 and you wanted volatility of four and a half (4 1/2), we'd have to shorten the duration of the provincials by some other sub-optimal assets.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: I wonder if -- Kristen, if you can turn up CAC-MPI-1-23F(4), the question.

And Mr. Makar -- Makarchuk, while she's doing that, as part of your duties, you follow the bond markets closely, including issues by the Government of Canada. Would that be fair, sir?

MR. DAVID MAKARCHUK: I'm not a fixed-income trader, so there's probably others who follow it more closely, but I'm somewhat aware.

DR. BYRON WILLIAMS: And sir, you -- you see in this question the asse -- the assertion that there have been two (2) periodic Real Return Bond auctions so far in 2019 totalling $1.1 billion, with the source being suggested as a government securities auctions. You see that reference, sir?

MR. DAVID MAKARCHUK: Yeah, I see that.

DR. BYRON WILLIAMS: Do you have any reason to dispute that assertion, sir?

MR. DAVID MAKARCHUK: I have no reason to dispute it. Sounds plausible.

DR. BYRON WILLIAMS: And sir, last year -- and Kristen, if you can bring up from last year's GRA 2019 -- oh, sorry, CAC-28, page 21.

Mr. Makarchuk, last year, you participated in the hearing relating to the asset liability strategy of Manitoba Public Insurance, agreed?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And in the course of that participation, you would have reviewed the evidence of -- of Mr. Valter Viola.

MR. DAVID MAKARCHUK: Correct. Yeah.

DR. BYRON WILLIAMS: And sir, certainly, you are aware of the Ontario Teachers' Pension Plan?

MR. DAVID MAKARCHUK: Yes.

DR. BYRON WILLIAMS: It's a large and highly regarded pension plan, sir?

MR. DAVID MAKARCHUK: It is large, yes.

DR. BYRON WILLIAMS: And highly regarded?

MR. DAVID MAKARCHUK: And highly regarded.

DR. BYRON WILLIAMS: And it dwarfs Manitoba Public Insurance in size, sir?

MR. DAVID MAKARCHUK: It does.

DR. BYRON WILLIAMS: And sir, as you

look at this slide 21 from Mr. Viola's Exhibit 28 from last year, you'll see the real rate product or real return bo -- real rate product in the year 2015 was at 19 percent real. Do you see that, sir?

MR. DAVID MAKARCHUK: I see the chart in the middle that says 90 percent real rate products. I see a Teachers' RRB equalled 19 percent as well in the top left. I have a much harder time believing that than the real rate product 19 percent.

DR. BYRON WILLIAMS: Okay. So -- and sir, you also see on the left, it started out in two-o-five at -- at 11 percent.

MR. DAVID MAKARCHUK: Yeah, it would be nice to know exactly what they defined real rate products as. I suspect it's infrastructure and real rate -- real es -- well, I guess it's not real estate. I doubt it's Real Return Bonds.

DR. BYRON WILLIAMS: So sir --

MR. DAVID MAKARCHUK: What's implied by the top left. RRBs is the acronym we've been using today.

DR. BYRON WILLIAMS: Thank you for that.

MR. DAVID MAKARCHUK: It might be right, but I'd be -- I guess there's two (2) kinds of green here. No, I don't think it's 19 percent Real Return Bonds.

DR. BYRON WILLIAMS: You're not disputing that it's real rate products? You're not confident it's Real Return Bonds?

MR. DAVID MAKARCHUK: And I can understand real rate products is very possible.

DR. BYRON WILLIAMS: Okay. Thank you for that. Now, Mr. Makarchuk, if we can go to the table on slide 12. Again, this is analysis based upon a real liability benchmark, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And sir, on the extreme right under 'E', we see Basic 3 again. You see that, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And it is intended to be the same Basic 3 as on slide 8, sir?

MR. DAVID MAKARCHUK: Correct. Yeah.

DR. BYRON WILLIAMS: And just drawing your attention -- nothing turns on this -- to a potential typog -- typographical. With regard to long-term bonds being provincial, should that read 32 percent, sir, rather than 9 percent?

MR. DAVID MAKARCHUK: To knot it up.

Twenty (20) -- twenty-eight (28) -- you're quite likely right. Yeah, I think you're right. That --

DR. BYRON WILLIAMS: Again, sir, nothing turned on that.

MR. DAVID MAKARCHUK: Okay.

DR. BYRON WILLIAMS: And sir, as you confirm with PUB counsel, this shadow portfolio you presented is labelled 'C', middle, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And this Shadow Portfolio 2 Basic is labelled unconstrained, correct?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And sir, does that suggest that there were no constraints in terms of asset class that -- classes that were permitted to shift?

MR. DAVID MAKARCHUK: So as we discussed this morning, within the set of asset classes that the Corporation chose to include in the asset liability study, these are the asset classes that generally were attractive from an efficient frontier perspective. Portfolio B was a mix with the same return. 'D' was one with the same risk. 'C' balanced both of those priorities.

DR. BYRON WILLIAMS: So let's just be

clear, though. In terms of -- leaving aside those that might have been rejected by the MPI inves -- investment committee, in terms of the movement between asset classes, is it your evidence that there were no -- no constraints?

MR. DAVID MAKARCHUK: There was no -- yes. There was no measurable restraints. There was probably some constraints that certain asset classes couldn't be more than a certain amount; for example, private equity couldn't have been more than, like, 10 percent for liquidity. But I don't think we bumped into any of those, so -- so substantively, there was no constraints.

DR. BYRON WILLIAMS: Okay. And just to make sure I have your point, sir, so there were no minimum or maximum allocations to these asset classes that were constrained?

MR. DAVID MAKARCHUK: Definitely no minimums. There was some minimums on MUSH. There was some maximums on MUSH. There was some maximums on the alternatives. The alternatives couldn't be more than the equities. Eleven (11) -- So you'll see that the equities were thirteen (13). The alternatives were materially the same. There was no substantive constraints.

DR. BYRON WILLIAMS: So just so I understand, sir, there was both a minimum and a maximum constraint in terms of MUSH, M-U-S-H, bonds, correct?

MR. DAVID MAKARCHUK: There was a minimum on MUSH; and MUSH and private debt, there was a maximum on.

DR. BYRON WILLIAMS: Okay.

MR. DAVID MAKARCHUK: Of twenty-five (25).

DR. BYRON WILLIAMS: And sir --

MR. DAVID MAKARCHUK: It's probably liquidity maximum.

DR. BYRON WILLIAMS: And sir -- sir, in terms of the alternatives, was it your evidence that they were capped at no more than public equities? Is that...?

MR. DAVID MAKARCHUK: That appears to be -- you know, just looking at my notes here. Yes, although the diversified growth must have been in the fixed income bucket, because it otherwise adds up to one more, but...

DR. BYRON WILLIAMS: Okay.

MR. DAVID MAKARCHUK: But materially, they're similar.

DR. BYRON WILLIAMS: Sir, focussing still on slide 12 representing Shadow Portfolio -- or, portraying Shadow Portfolio 2, I want to direct your attention on the left under 2017 current. And sir, that's the rejected MPI portfolio, sir? You're nodding your head?

MR. DAVID MAKARCHUK: Agreed. Yeah.

DR. BYRON WILLIAMS: And its expected ten (10) year return is 4.2 percent, sir?

MR. DAVID MAKARCHUK: Yeah, I see that.

DR. BYRON WILLIAMS: And its surplus volatility is 3.8 percent, sir?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And so going over to Column D, same risk, and if we follow that same risk down to surplus volatility, the same risk -- it has a surplus volatility of 3.8 percent as measured against the real liability benchmark, sir?

MR. DAVID MAKARCHUK: That's right.

DR. BYRON WILLIAMS: So when you use the term 'same risk' on this slide, you're comparing it to the rejected 2017 portfolio?

MR. DAVID MAKARCHUK: Right. These were working papers from the work we did in 2017, when "same" meant same as 2017.

DR. BYRON WILLIAMS: Just going to the right, you're not comparing it to the same risk as the selected MPI portfolio?

MR. DAVID MAKARCHUK: Right. At the time, it was -- to 2017 was what "same" meant.

DR. BYRON WILLIAMS: And sir, if we go to Column B, being same return, and follow that down to the expected ten (10) year -- ten (10) year return, you'll see it's 4.2 percent?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And the term "same return" means that you are comparing it to the rejected 2017 portfolio, with an expected ten (10) year return at 4.2 percent?

MR. DAVID MAKARCHUK: That's right.

DR. BYRON WILLIAMS: So again, you're not comparing it to the selected MPI portfolio, sir, in terms of return?

MR. DAVID MAKARCHUK: That's right.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: And sir, just if we -- if we think back to Shadow Portfolio 1, you were starting with the same return as the Basic selected 3, but a different risk, agreed?

MR. DAVID MAKARCHUK: Say that one (1) more time, please?

DR. BYRON WILLIAMS: If we went back to shad -- to portfolio 1 --

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: -- Shadow Portfolio 1, its basis of comparison, sir, it had the same expected return as the MPI selected portfolio, agreed?

MR. DAVID MAKARCHUK: Yes.

DR. BYRON WILLIAMS: But a significantly different expected return, correct?

MR. DAVID MAKARCHUK: Yes.

DR. BYRON WILLIAMS: Here on this slide, slide 12, you're comparing the shadow portfolios to the rejected 2017 in terms of your starting point of analysis? Same risk, same return, agreed?

MR. DAVID MAKARCHUK: Yes.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: Turning to the

graph on page 13.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: Again, sir, just to -- to go up -- just in -- in terms of the horizontal axis, just before the -- in terms of surplus volatility, we see the current portfolio at somewhere around 3.8 percent in terms of the rate -- compared to the real liability benchmarks, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And again, in terms of the shadow portfolio analysis, same risk IS same risk in regard to the current portfolio, agreed, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And in terms of the shadow market analysis, same return is same return as compared to the rejected 2017 portfolio?

MR. DAVID MAKARCHUK: That's right.

DR. BYRON WILLIAMS: So sir, going back to that lonely Basic 3, the MPI selected, down at surplus volatility of 4.5 percent, if we wanted to compare on an efficient frontier portfolio that had the same surplus volatility, we would go across to four point five (4.5), sir, agreed?

MR. DAVID MAKARCHUK: M-hm.

DR. BYRON WILLIAMS: And was "m-hm" a yes, sir?

MR. DAVID MAKARCHUK: Yes, sorry. Yeah.

DR. BYRON WILLIAMS: And then we would go up, sir, until we hit the -- the efficient frontier somewhere at about two point nine (2.9) excess return above the liability benchmark.

Would that be fair, sir?

MR. DAVID MAKARCHUK: Yes, if you included all of the contemplated asset classes here, including leverage in the growth portfolio, you could get to the dark blue -- purple line -- darkish line.

DR. BYRON WILLIAMS: And of course, sir, we're -- we're eyeballing this, but if we were comparing the Basic 3 at the same level of surplus volatility, being four point five (4.5), to the efficient frontier, we'd have a -- a gap of -- in the range of 2.2 percent return?

MR. DAVID MAKARCHUK: Three (3) -- yeah.

DR. BYRON WILLIAMS: But sir, that's not the portfolio that you compared to the MPI selected?

MR. DAVID MAKARCHUK: Correct. We chose this -- the suggested shadow portfolios based off of the analytics that were done in 2017. It's an extension from current. It potentially could have been an extension from Basic 3, where we just otherwise might have gone to the north and to the west, plausibly end up in about the same place.

There's lots of places the shadow portfolio could have landed. There is some flexibility in that regard.

DR. BYRON WILLIAMS: But in neither Shadow Portfolio 1 or Shadow Portfolio 2, sir, did you start from the same level of risk as measured in surplus volatility as the MPI selected portfolio?

MR. DAVID MAKARCHUK: Correct. We --

DR. BYRON WILLIAMS: You started with more -- sorry, go ahead.

MR. DAVID MAKARCHUK: The -- we chose the shadow portfolios from the starting point of 2017.

DR. BYRON WILLIAMS: And you chose, sir, more conservative risk volatility, meaning that they are -- they move to the left?

MR. DAVID MAKARCHUK: And the north, and the west, the left -- the -- upward, yes.

DR. BYRON WILLIAMS: So if one were wanting to conduct an apples to apples comparison, sir, on this slide, the same risk as the MPI selected volatility, that is not done by any of the shadow portfolios you selected?

MR. DAVID MAKARCHUK: That's right. If -- if one wanted -- if the objective was to say if the real -- if the liability benchmark was real, and the investment set was unconstrained as we've defined it, as you've said, it would be straight to the north of Basic 3.

If it was without leverage, it would be the magenta, or light purple line. The current asset class, the light blue line, was the current as defined in 2017. The asset classes that MPI chose with Real Return Bonds would be a line further south.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: I wonder if we can turn to slide 5 of this same document, investment attachment A.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: And sir, in terms of constraints here, under the second checkmark, you make reference to a diversified package of liquid bonds, which diversifies return and risk sources.

You see that, sir?

MR. DAVID MAKARCHUK: Yeah.

DR. BYRON WILLIAMS: And here, you're talking about assets, sir, not speaking of liabilities?

MR. DAVID MAKARCHUK: Correct.

DR. BYRON WILLIAMS: And you would agree, sir, that the degree of correlation between assets contributes to the magnitude of the benefits of diver -- diversification?

I could ask that a better way, if you'd like me to, sir.

MR. DAVID MAKARCHUK: I think I'll still give it a yes.

DR. BYRON WILLIAMS: Thank you. It's fair to say that the benefits of diversification are bigger in terms of assets when the correlations are lower among assets? They're in an in -- inverse relationship?

Would that be fair?

MR. DAVID MAKARCHUK: That would be

fair.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: Mr. Makarchuk, PUB Exhibit 59 was discussed earlier this morning. Do you recall that conversation, sir?

MR. DAVID MAKARCHUK: I do.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: And sir, our client has all your well-made points about the early nature, and the uniq -- unique circumstances of the last few months. You don't need to repeat those.

But sir, if I looked at shadow portfolio P-1 Basic, would I be correct in suggesting to you, based upon slide 8 of the Attachment A, its expected surplus volatility was 3.2 percent, sir?

MR. DAVID MAKARCHUK: Basic three point two (3.2) Shadow Portfolio 1. Correct.

DR. BYRON WILLIAMS: And, sir, if I looked, going back to Exhibit 59 to passive return on the Basic portfolio, would I be correct in suggesting to you that based upon the real liability benchmark, its expected surplus volatility from Slide 8 was 4.5 percent?

MR. DAVID MAKARCHUK: Relative to a real liability benchmark, yeah.

DR. BYRON WILLIAMS: Okay.

MR. DAVID MAKARCHUK: That was -- yeah. It's Basic 3. It's that portfolio --

DR. BYRON WILLIAMS: Okay.

MR. DAVID MAKARCHUK: -- in that exhibit.

DR. BYRON WILLIAMS: And, sir, going back to MPI Exhibit 59 and line number 2, if we were looking at the shadow portfolio PT, Basic Unconstrained, assuming a real liability benchmark, the expected surplus volatility for that portfolio, sir, would be 3.1 percent?

MR. DAVID MAKARCHUK: I believe so, yeah.

DR. BYRON WILLIAMS: And so when we're comparing lines 1, 2, and 3, we should recall that lines 1 and 2 have significantly lower surplus volatility as measured by the real liability benchmark as compared to the selected MPI portfolio, sir? Agreed?

MR. DAVID MAKARCHUK: Yes. And an

inverse relationship if it was a nominal liability benchmark.

DR. BYRON WILLIAMS: Mr. Makarchuk, I hope I didn't do too much injustice to your name.

MR. DAVID MAKARCHUK: No, you did not. Thank you.

DR. BYRON WILLIAMS: And I appreciate your assistance in this discussion. Thank you, sir.

MR. DAVID MAKARCHUK: Thank you.

THE CHAIRPERSON: Mr. Scarfone...?

MR. STEVEN SCARFONE: Thank you, Madam Chair.

RE-DIRECT-EXAMINATION BY MR. STEVEN SCARFONE:

MR. STEVEN SCARFONE: So just a couple questions, Mr. Makarchuk. I just want to maybe pull you out of the abyss somewhat and ask you some basic questions on the advice that your firm provided to MPIC.

Following up on My Learned Friend's questions, we'll start, I guess, right here since it's on the screen before us. Mr. Williams just asked you to look at this particular screen and assume that it was a real liability benchmark. Do you recall that? Correct?

MR. DAVID MAKARCHUK: Yeah.

MR. STEVEN SCARFONE: But, of course, it's not. It's a nominal liability benchmark, correct? And that's the benchmark that the Corporation selected?

MR. DAVID MAKARCHUK: MPI selected a nominal viability benchmark.

MR. STEVEN SCARFONE: And that we heard last year, sir, was an investment decision that the Corporation was entitled to make. Do you agree with that?

MR. DAVID MAKARCHUK: It was a decision made for the purpose of the asset liability study.

MR. STEVEN SCARFONE: Yes. And they could have gone one (1) of two (2) ways. We heard they could have gone with a nominal liability benchmark, or they could have gone with a real liability benchmark.

MR. DAVID MAKARCHUK: Right. To the extent that it was agreed to model using a liability benchmarks which is not the only way to do an asset liability study. But if one was going to use a liability benchmark, those were the choices.

MR. STEVEN SCARFONE: And then if we

go to the Mercer presentation, please, Kristen, on Slide 8, please. Oh, we are on Slide 8. Thank you.

And so we see that particular slide, Mr. Makarchuk, and I would say that the one thing that stands out, someone took the time to highlight it in yellow is the analysis was based on a real liability benchmark. Do you see that?

MR. DAVID MAKARCHUK: Yes.

MR. STEVEN SCARFONE: Slide 9, please.

And again, we see someone took the time to highlight the same thing in yellow on this slide.

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: Slide 12, please.

And there again, someone took the time, not to highlight it in blue or grey but yellow. Correct, sir?

MR. DAVID MAKARCHUK: Yes.

MR. STEVEN SCARFONE: And on Slide 13, we're --

MR. DAVID MAKARCHUK: The same. Yeah.

MR. STEVEN SCARFONE: The same thing there. Someone took the time to highlight it in yellow. And Mr. Williams asked you about the Basic 3. Do you see it there at the bottom?

MR. DAVID MAKARCHUK: Yeah.

MR. STEVEN SCARFONE: Its lonely existence, as he said.

MR. DAVID MAKARCHUK: I see it.

MR. STEVEN SCARFONE: That, sir, is a Basic 3 based on a nominal liability benchmark. Right?

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: Inserted into an analysis performed on a real liability benchmark.

MR. DAVID MAKARCHUK: Correct.

MR. STEVEN SCARFONE: Those are all my questions on redirect.

THE CHAIRPERSON: Thank you. Thank you very much, Mr. Makarchuk.

MR. DAVID MAKARCHUK: Thank you.

(PANEL STANDS DOWN)

THE CHAIRPERSON: We'll now proceed with the IT panel for MPI.

MR. STEVEN SCARFONE: Madam Chair, can we have five (5) minutes just to rearrange the witnesses and get the panel members from downstairs up to floor 4?

THE CHAIRPERSON: Definitely. Back at ten (10) to 2:00, please.

MR. STEVEN SCARFONE: Thank you.

--- Upon recessing at 1:46 p.m.

--- Upon resuming at 1:52 p.m.

THE CHAIRPERSON: Good afternoon. Mr. Guerra...?

MR. ANTHONY GUERRA: Thank you. We have the members of the information technology panel, and there's quite a number of people, as you can see, who are both present in the front row and back rows.

So perhaps what we'll do to start is I'll introduce the front row. We can have the witnesses sworn and affirmed, and then I will briefly describe the members of the back row, and then we can get into the presentation.

THE CHAIRPERSON: Thank you.

MR. ANTHONY GUERRA: So to confirm, the front row's comprised of four (4) individuals, first being Mr. Brad Bunko, who is the vice president of information and technology, business transformation, and the chief information officer.

Is that correct, Mr. Bunko?

MR. BRAD BUNKO: Correct.

MR. ANTHONY GUERRA: I also have Mr. John Remillard who is the program director of program NOVA transformation office. Is that correct?

MR. JOHN REMILLARD: Correct.

MR. ANTHONY GUERRA: I also have Mr. Lawrence Lazarko who is the director of information technology, correct?

MR. LAWRENCE LAZARKO: Correct.

MR. ANTHONY GUERRA: And Mr. Gary Dessler who is the corporate systems architect technical architecture, correct?

MR. GARY DESSLER: Yes, that's correct.

MR. ANTHONY GUERRA: May I ask that the witnesses be sworn or affirmed.

MPI PANEL NO. 7:

JOHN REMILLARD, SWORN

GARY DESSLER, AFFIRMED

BRAD BUNKO, SWORN

LAWRENCE LAZARKO, SWORN

EXAMINATION-IN-CHIEF BY MR. ANTHONY GUERRA:

MR. ANTHONY GUERRA: Thank you. And

just to confirm, in the back row, we have Mr. Joe Riel, who is the senior value management specialist; Ken Harkness, who is the director of organizational change management; Cynthia Campbell, who is our corporate controller, as you know; Colin McDonald, who is the corporate information security officer; Rafiq Valliani, who is our information security officer; Julious Nelson, who is our business architect of program NOVA transformation office; and Jonathan Yakel, who is the director of enterprise system support.

Did I miss anybody? Okay, with that, what I'd like to do is get into the presentation itself. Now, I understand that the members of the front row, along with support from members of the back row, were the ones who prepared the presentation that is about to be given today. Is that correct?

MR. BRAD BUNKO: Yes.

MR. ANTHONY GUERRA: Okay. And to confirm, each of you will be adopting the evidence presented in this presentation as your evidence before the panel today, correct?

MR. BRAD BUNKO: Yes.

MR. ANTHONY GUERRA: Okay. With that, perhaps what I'd like to do is if you can just introduce yourselves. Give -- give a little bit of background as well as your experience with -- with MPI and information technology in particular, please. We can start with Mr. Bunko, please.

MR. BRAD BUNKO: Yes. I've been with MPI for a little over ten (10) years. I've been in the role of VP of information technology and business transformation for just over five (5) years. In -- as the title reads, I oversee all things technology through information technology and initiatives that are incorporated or implemented into the Corporation.

MR. GARY DESSLER: Hi, I'm Gary Dessler. I'm a corporate systems architect here for MPI. I've been an employee with MPI since February 2016. Prior to that, I was a consultant with MPI, and -- and -- since 2010.

My role is looking after the application architecture, the data architecture for the Corporation. I'm here today to answer any questions about the legacy modernization assessment that ran for last year and any resulting questions on the NOVA business case.

MR. JOHN REMILLARD: John Remillard, the program director for Project NOVA. I've been with Manitoba Public Insurance now for about twenty (20) years, and primarily in IT and business-lead capacity, leading either our strate -- strategic initiatives from a business perspective or from a project leadership perspective over the course of the years, and as of early September, was appointed the program director for Project NOVA.

As far as the application, I assisted on the IT strategy as well as the value management chapter. So I'll be participating in those elements and then any questions regarding Project NOVA going forward beyond the assessment. Thank you.

MR. LAWRENCE LAZARKO: Good afternoon. Good afternoon. My name is Lawrence Lazarko. I'm the director of IT at Manitoba Public Insurance. I've been with the Corporation for nine (9) years, in this role for five (5) years.

My areas of expertise include IT infrastructure, so this is personal computing; enterprise computing; IT service management, which is really the delivery of IT services; IT vendor management; data and analytics; and delivery of projects such as the technology risk management program.

My evidence today will be discussing IT benchmarking, specifically Gardturn (phonetic) scorecards; IT operational expenses, including external labour; and technology risk management program. Thank you.

MR. ANTHONY GUERRA: Just before we begin, I just want to make sure everyone is aware and is cautious of the use of acronyms throughout the -- the presentation. So if you are using an acronym -- if you catch yourself using an acronym, make sure you just explain what it is for the benefit of the panel members and the Interveners and PUB counsel as well. Thank you.

MR. BRAD BUNKO: Once again, good afternoon, Madam Chair and members of the Board. The three (3) areas that I will be covering in my presentation today are information technology, including the IT strategies, staffing, scorecard, and agile delivery; value management, which will include the phases of alu -- of value management, maturity, and capital initiatives; and finally, Project NOVA, Why do we need a Project NOVA; scope of the program, how we will govern the program; and a delivery update.

This marks the second year that we have submitted a formal IT strategy as part of the general rate app. Our IT strategy focusses on the current fiscal year, but where possible, we'll define technical direction for several years into the future.

But it's not just about technology. The fundamental reason to have an IT strategy is to show the link between the corporate business plan, business capabilities required to meet that business plan, and IT capabilities required to enable business capabilities.

In addition to MPI's corporate objectives, the IT strategy identifies several major influencers that have a significant impact on many business and IT capabilities proposed in the IT strategy. They include information security, data and analytics, enterprise architecture, agile delivery, and Project NOVA, formerly referred to as legacy system modernization.

Over the past couple years, we have made a fundamental shift in how technology is implemented at MPI. Many of these changes were implemented as a result of lessons leaned from the physical damage re-engineering project.

We are now adopting proven mainstream technologies and not creating new and unproven technologies. We identify risk prior to project initiation and incorporate them into the project decisions. This critical review is a part of our business case process.

Our project sponsor is the operational business champion, who has shared project accountability. Business sponsor ownership improves decisions and outcomes and has a long-term accountability for value realization.

Next, we align MPI's process to industry best practices, which means making software customization an exception, not the norm. We've adopted the value management discipline -- which documents business justification, risks, benefits, and ongoing costs -- and tracks value real -- realization well beyond the completion of the project.

And finally, we ensure IT capabilities are created to support business capabilities in pursuit of meeting business objectives.

IT Staffing. In 2016, we looked closely at our external labour pool to identify what role consultants were filling that are needed for at least the next five (5) years. Roles that met that criteria were converted into employees. This gave us reduced costs and better in-house intellectual capital.

The conversion strategy has been effective, and we will exceed the original savings forecasted. With twenty-seven (27) roles identified and converted at the time of our filing, we will save between 3 and 3 and a half million dollars annually.

We al -- will also improve our access to external consultants by moving away from a two (2) vendor source and entering into agreements with over thirty (30) consultant providers. This will again reduce our costs and improve our access to the talent that we need.

The mid- and long-term resource plan will be greatly influenced by Project NOVA. This need will become clearer over the next year.

IT Scorecard. The results of our IT benchmarking have once again be -- been provided as part of the 2020 general rate app. MPI uses the scorecard recommendations to improve existing capabilities and investigate new capabilities

This year's results are as follows. MPI's IT spend, as a percentage of operating expenses, came in at 5.37 percent, which is slightly better than the peer average of 5.42 percent.

The second major measurement within that benchmark is process maturity. MPI's IT process maturity is three point one (3.1), again, better than the peer average of two point nine (2.9). Now, it's good to have good -- to have costs that align with your peers, and it's even better to have a higher maturity at a lower cost than your peers.

We are currently in the process of tendering for our benchmarking services to ensure this service is cost competitive.

Agile Delivery. How capabilities are delivered can have a significant impact on the quality of those capabilities. To improve our delivery, we are adopting an agile methodology.

There are many reasons why we are pursuing this delivery method. Agile is more inclusive with business stakeholders. Business value is realized sooner through ongoing prioritization and short delivery cycles. Since requirements evolve through the life of the prod -- product, there is less chanc -- change and rework. Agile is an industry best practice and is required to work effectively with software vendors and system integrators on Project NOVA.

Our progress to date has been through agile pilots. We are now expanding into our core operational support teams. Our plan is to now define an agile fu -- future state, which includes the needs for Project NOVA and to then create a roadmap to get there.

This slide provides a clear picture of the process that value management -- that the value management department oversees. It begins with a formal cost/benefit analysis, detailed assumptions, and measurable objectives and benefits. The objective of the business case development is to provide relevant information to assist in decision making.

Once the initial business case is approved, any changes to scope, cost, or benefits are reassessed against the original business case. Cost-benefit evaluation validation is performed at the completion of the project and at points after implementation to track against expectations.

Our value mana -- management maturity has -- has gone up significantly over the last few years. This slide just indicates some activities that we've had over the last twelve (12) months. For example, we've had a workshop at our last corporate managers meeting so that all managers understand business case requirements. Last year, we went through a vetting of newly submitted business cases for candidate initiatives. We will do this again this year.

Value management has played an integral

role in the Project NOVA business case and financial model and will continue to do so for several years to come. The value management department has also been busily tracking costs and benefits of in-flight and post-implementation projects.

This is a listing of our capital initiatives. Business cases have been created for all, and the value management department has played an active role. Several of these initiatives are scheduled to complete this year. They include high school driver ed, customer self-service, and credit card strategy.

Our objective over the next three (3) to four (4) years is to reduce the number of non-NOVA initiatives. We only have so much capacity, and we want to ensure that NOVA is getting the attention and resources that it needs.

Two (2) projects that have started this year are information security, which is a three (3) year program to increase our security maturity; and the total loss strategy, which is a software service that gives us a more accurate vehicle valuation when dealing with total loss customers.

(BRIEF PAUSE)

MR. BRAD BUNKO: Project NOVA. As Ben mentioned in his opening presentation, our digital optimization is about more than upgrading technologies. It will impact our customers and many processes across the Organization. Hence, the re-branding to Project NOVA.

There are many reasons for MPI to embark upon Project NOVA, and here are the top five (1).

First, we have technology risk. Our legacy systems are between twenty (20) and forty (40) years old, and were developed in-house on what is now very old technology. It is becoming increasingly difficult to find vendors who support this technology, and difficult to find resources that are trained on this technology. They are not teaching it in schools anymore.

Next, we have information security. While we have managed sensitive personal information for a long time, the risk to security breaches continues to rise, and cyber-criminals become more sophisticated. New modern systems have security controls architected into their design.

Customer cel -- self-service. Our legacy systems were not designed for online capabilities. We tried to modernize our systems. We need to modernize our systems to meet the expectations of our customers. Our one (1) attempt to do so with our existing systems was very expensive, and very timely. We certainly came to the realization that we needed the new systems in order to be able to do this.

Another main reason for Project NOVA is future business agility, which is about being able to make product changes in a timely manner. Today, some of our legislative and regulatory changes take far too long, and cost far too much because of the inflexibility of our current systems.

And finally, we have cost savings and efficiencies. It is expensive to support aging technology. New processes provide the opportunity for efficiencies, and modern technologies require less technical support.

(BRIEF PAUSE)

MR. BRAD BUNKO: On the screen, you can see the scope of systems being replaced by Project NOVA. It may include personal and commercial insurance, driver and vehicle administration, and finally, physical damage claims administration. These are the majority of our core business systems.

(BRIEF PAUSE)

MR. BRAD BUNKO: I'd like to talk a little bit about the governance structure that we have for Project NOVA. The board of directors has overall accountability, but it is the technology committee of the board that will have more frequent oversight of the Program.

Reporting to the technology is -- committee is the CEO, and reporting to the CEO is a new role created for Project NOVA. It's called the chief transformation officer.

The chief transformation officer is a full-time, dedicated, executive-level sponsor responsible for -- to represent the business vision of this Program and to streamline decision making. The role also has a dotted line, as you can see, to the technology committee of the board.

The chief transformation officer is the face and champion of this Program, both internally and externally. They have overall accountability for Program delivery and budget, and consults with the Executive Steering Committee, of which all other executives are a member of.

The Program director reports to the chief transformation officer, and is enabled to focus entirely on Program delivery. This individual is the day-to-day leader of Program execution. They manage key Program resources, work closely with the Program advisor to support the chief transformation officer, and they chair the Program Steering Committee.

The Program Steering Committee is comprised of a Program advisor, the operational business champions, organizational change management, and the Program manager.

On the Working Group, we have representation from finance -- and here's where some acr -- acronyms that will -- I'll spell them out for you. Finance, enterprise risk management, vendor management, information technology, enterprise system support, communications, talent and organizational development, and finally, the information security office.

Not shown on this org. chart is the governance vendor. Now, this is an external third party that will report to the technology committee on a regular basis, and they will have oversight into the various workings that go on within the program.

(BRIEF PAUSE)

MR. BRAD BUNKO: We are currently nine (9) months into a four (4) year journey. The majority of the work has been in the selection of software vendors. This will continue for the next several months.

The most significant software selections will be for:

First, a property and casualty insurance suite.

Second, driver and vehicle licensing and administration software.

And third, a high productivity platform.

Also required our vendors to provide system integration services.

And finally, I would like to talk about a component of the NOVA resourcing strategy. So as to not increase our dependency on external consultants, which he -- we have been in the past, we have incorporated an internal first approach to staffing Project NOVA. This will ensure the appropriate knowledge will be transferred to staff, with a long-term goal of self-sufficiency.

(BRIEF PAUSE)

MR. BRAD BUNKO: So in summary, we have provided an updated IT strategy that is aligned with our corporate mission, vision, and business plan. Our IT scorecard shows the performance on IT is comparable to our peers. Our external labour strategy continues to find savings and efficiencies.

The IT strategy identifies how we now implement technology changes, and our lessons learned from past mistakes. Our value management process is operational, and continues to provide an industry standard approach and results.

And finally, the NOVA Program is underway. We have begun our journey to digital optimization. Thank you.

MR. ANTHONY GUERRA: Thank you, Mr. Bunko. A few -- few further questions to elaborate on some of the evidence you've already given today.

Mr. Schubert, if we can pull up slide number 8 from the presentation.

(BRIEF PAUSE)

MR. ANTHONY GUERRA: My apologies.

(BRIEF PAUSE)

MR. ANTHONY GUERRA: So slide 8 is about the agile delivery. And -- and perhaps members of the -- the panel can elaborate on what agile means from a practical perspective, maybe walk through how it's already been implemented to date using an example, so that the Board and Interveners get a better example or better understanding of what agile actually means for MPI, please.

MR. BRAD BUNKO: Sure. I can do that. So what we're very used to in our Organization is something that's called waterfall delivery. And in waterfall delivery, it is extremely important that you build all of your requirements up front. You have a requirements phase, and all of those requirements are built before any development happens. Essentially, you're trying to solve every potential aspect of what you want for that project at the very beginning.

You then go into development for it, and you're very constrained with making changes at that point, even if you realize that maybe something needs an improvement. It's typically frowned upon to -- to expand the scope or make changes at that point, although you can with the right justification.

Then you go on to the testing phase, and then you will go on to an implementation phase. It is only at that implementation phase that the user -- the person who knows the most about what they're looking for in the way of software -- gets to look at the software and see what its capabilities are like. That's waterfall.

Agile is about breaking that down -- that objective of what you're trying to achieve from a feature set -- into smaller components -- much smaller components so that you can embark upon a project knowing only the high-level requirements. From the highest level, I know I wanted to do this.

So what you do in agile is you go through that cycle of creating the functionality in those initial requirements, and you learn from what you've created. You get to see the -- the software that's being developed.

Is it meeting your needs? Is it addressing your concerns? Are the requirements that you had thought that you would need actually the ones that you want now going forward, based upon the information that you've seen from this small subset of the large feature set?

Based upon that information, you now go

into the next cycle, and do the same thing over again. So instead of trying to create everything -- every piece of knowledge at the very beginning, it is a much more iterative process. They call it "agile" because you are moving constantly. There's flexibility in it.

At the end of the day if a customer -- say the person that runs the software -- gets to look at that software six (6) times during the development cycle, will that product be any better than the one that had to anticipate it all in their head at the very beginning and then only see it once at the very end? I don't think so.

So that's the benefit to agile delivery. It's the ongoing iterative process. It's the constant business interaction that makes it strong and becoming an industry standard.

MR. ANTHONY GUERRA: And is there an example that we can point to where agile has been implemented or used by MPI and what the results were for MPI?

MR. BRAD BUNKO: Sure. There is a couple of our pilot projects. We've used agile methodology to remove some of the customization from our bodily injury software system. Another one is -- our online website was created in an agile methodology.

MR. ANTHONY GUERRA: And to confirm, is it MPI's position that agile should and would be used in implementing Project NOVA?

MR. BRAD BUNKO: The interactions that we've had with software vendors and various system integrators have certainly given us the indication that almost all of them work in an agile methodology.

Now when -- when you talk about agile, it means a lot of things to a lot of different people. But the underlying fundamental agile where there's fixed periods of time where you're accomplishing so many features in that -- in each cycle, the interactions with customers, that is a common underlying theme with the system integrators and the software vendors that we have been dealing with.

MR. ANTHONY GUERRA: Thank you. On the issue of the IT scorecard, I understand that this year again, MPI has presented an IT scorecard presented by Gartner. Is it MPI's intention to continue to present IT scorecards to the PUB each year?

MR. BRAD BUNKO: Yes, it is.

MR. ANTHONY GUERRA: And is it MPI's intention that those scorecards will be -- will continue to be provided by Gartner?

MR. BRAD BUNKO: We are tendering for the service, and if -- potentially if Gartner wins that service again, then it would be Gartner. But there are other people in the market, and we feel that it is our responsibility to ensure we are getting a cost-effective service.

MR. ANTHONY GUERRA: So in other words if I may paraphrase, this is MPI's attempt to ensure that it continues to receive value for the services it requests when preparing an IT scorecard.

MR. BRAD BUNKO: We've -- yes. We've always seen value, and our expectations is the -- the value would remain in -- in future scorecards. It's just a question of how much we have to pay to receive that value.

MR. ANTHONY GUERRA: Thank you. With respect to governance on Project NOVA, Ms. Schubert, could you pull up slide number 16, please.

Now, my understanding is that this slide outlines the project governance structure for Project NOVA. There was mention of a independent entity. Am I fair to say that that person is -- or persons is not reflected on this -- on this slide?

MR. JOHN REMILLARD: That is correct.

It wasn't an intentional omission. I think the -- the rationale was that this is the day-to-day direct executional format for the -- for the project, meaning how the project is going to execute day to day from a governance perspective.

With respect to the governance vendor that has been retained, we're just in the final negotiations with that vendor and that they are looking to come onboard at the end of this month.

Their role is going to be, in essence, assessing our project readiness, how we're approaching the project overall from a project management office, managing risk, assessment of risk, and the associated controls.

And what it is, is in essence a lens directly into the project for our technology committee to ensure that, in essence, a different view of what's actually happening on the -- on the project from the day-to-day view.

MR. ANTHONY GUERRA: What is the specific title of this independent advisor?

MR. JOHN REMILLARD: Program governance vendor.

MR. ANTHONY GUERRA: Okay. And so you said that the -- that entity has been retained as of this month?

MR. JOHN REMILLARD: That is correct. Just -- we've been allowed to finalize contract negotiations. I -- I just don't want to announce who it is until that has been completed.

MR. ANTHONY GUERRA: Fair enough. And when do we expect that that person will take over the role?

MR. JOHN REMILLARD: It's actually a group of five (5) consultants from this firm, and they will be onsite as early as October 28th. And so we are actually looking to finalize the contract and sign it as of this week.

MR. ANTHONY GUERRA: And do we expect that in the next application year that there will be information provided by the independent reviewer for the benefit of the PUB and the members of the Intervenors?

MR. JOHN REMILLARD: Sure. On that note, the governance vendor's going to come in. Their initial assignment is to complete what's referred to as an eight (8) week deep dive assessment of the project.

With that, they will provide an initial report to -- to our executive as well as the chief transformation officer but an unfiltered lens to that report to the technology committee.

Thereafter, it'll be a monthly assessment. So they'll come in for a week per month for -- for basically a three (3) year period during the course of the Project NOVA execution, again assessing the project as to how it's doing from a health risk management perspective, and again providing that report to our technology committee so that they can ensure that they're making informed decisions regarding the program going forward.

MR. ANTHONY GUERRA: Thank you. I have no further questions.

THE CHAIRPERSON: Thank you, Mr. Guerra.

Ms. McCandless...?

CROSS-EXAMINATION BY MS. KATHLEEN MCCANDLESS:

MS. KATHLEEN MCCANDLESS: Thank you, Madam Chair. And for members of the panel, I am counsel to the Board. I do have some questions for you this afternoon.

Just a few matters of housekeeping before we begin. So I will not necessarily be directing my questions to a particular member of the panel. Whomever is best suited to answer the question may feel free to do so.

The other issue is that in the area of IT, we do have a significant amount of commercially sensitive information, and I'm quite mindful of that in asking my questions. So with respect to the questioning this afternoon, my questions will be with respect to information or documents that's been provided on the public record.

If in the course of providing an answer you're required to provide commercially sensitive information, I would just ask that you just not provide that information at this time and indicate that it would be commercially sensitive. Tomorrow morning, we will be going in-camera to deal with CSI, and so we'll be splitting it that way. Okay. Thank you.

So first, I'm going to ask some questions about the Project NOVA budget. And when I refer to Project NOVA, I think it's all understood that that's the former Legacy Systems Modernization project, and to the extent that we have information on the record that's referred that way or LSM, we're now referring to it as Project NOVA, yes?

MR. GARY DESSLER: Yes, that's

correct.

MS. KATHLEEN MCCANDLESS: And so if we could go to PUB-MPI-1-88.

And at question B here, the Corporation was asked to provide a rationale and supporting documentation used to generate the projected budget for Project NOVA of $106.8 million? Yes?

MR. GARY DESSLER: Yes, that's correct.

MS. KATHLEEN MCCANDLESS: And if we go to Figure 1 on the next page, we have here the Project NOVA one (1) time capital costs? Yes?

MR. GARY DESSLER: Yes, that's correct.

MS. KATHLEEN MCCANDLESS: And does this figure contain all aspects of Project NOVA?

MR. GARY DESSLER: For one (1) time costs? Correct.

MS. KATHLEEN MCCANDLESS: Yes. And there's a 25 percent contingency that's been applied to the overall budget, and we see that at line 25?

MR. GARY DESSLER: Yes. Yes. $21 million.

MS. KATHLEEN MCCANDLESS: At line 7, we see that $36.3 million relates to insurance operations, and that would include both Basic and Extension operations?

MR. GARY DESSLER: Yes. And it also include the SRE insurance as well.

MS. KATHLEEN MCCANDLESS: At line 13, we see 27 -- or $24.7 million relates to driver vehicle administration?

MR. GARY DESSLER: Correct.

MS. KATHLEEN MCCANDLESS: Could you please explain what the major components of the DVA or driver vehicle administration portion of the project relate to?

MR. GARY DESSLER: Sure. That portion of our technology is all around our driver licence management. So the many management solutions that we have, the driver improvement and control, driver fitness. It would also include the components that law enforcement would use in order to look up records. It's truly about administrating the -- the driver licence and also the vehicle information.

So in other jurisdictions, there's really a separation for -- and we've kind of bundled that under this driver and vehicle administration piece. So it includes vehicle registrations for light vehicles and the driver licence.

MS. KATHLEEN MCCANDLESS: And if we add the 25 percent contingency, according to my math the portion of this project -- so the DVA portion -- would be $30.9 million of the $106.8 million of the cost of the project, subject to check?

MR. GARY DESSLER: Yes. Subject to check. We didn't split it out that way but...

MS. KATHLEEN MCCANDLESS: We see at line 26 of the total program budget including contingency is the 106.8 million, yes?

MR. GARY DESSLER: That's correct.

MS. KATHLEEN MCCANDLESS: And so with respect to the driver vehicle administration portion then including contingency, that would be -- again according to my math -- about 29 percent of the total project costs?

MR. GARY DESSLER: Subject to check, yes.

MS. KATHLEEN MCCANDLESS: Then could we please go to CAC-MPI-1-55.

And in the preamble here, there's a reference again to the Drivers and Vehicles Act capital expenditures being estimated at $36.6 million, yes?

MR. GARY DESSLER: Yes.

MS. KATHLEEN MCCANDLESS: What components of that amount are included in the detail provided in the figure that we just looked at?

(BRIEF PAUSE)

MR. GARY DESSLER: Sorry. I just -- can you go back and rephrase that question?

MS. KATHLEEN MCCANDLESS: Sure. So we saw in the preamble that I just showed you in that Information Request $36.6 million. So the question is: What components of that $36.6 million is included in the detail that's been provided at Figure 1?

(BRIEF PAUSE)

MR. GARY DESSLER: Yes. If you go back to the -- the table in one eighty-eight (188), there's a -- a section called "common services." The total for thirty-six (36) includes a portion of that that's been allocated to the DVA.

So that's where the difference is where you see the difference between your twenty-four (24) plus the 25 percent contingency plus what we had documented as the 36 million.

Really what we've tried to do is, you know, divide our one hundred and six point eight (106.8) into the -- the two (2) categories: the DVA portion -- the driver and vehicle administration portion -- and our insurance portion.

So the common services are really there to support both of those -- that part of the business capability model.

MS. KATHLEEN MCCANDLESS: And so then on to that $36.6 million that there would be the 25 percent contingency added to that?

MR. GARY DESSLER: Yes.

MS. KATHLEEN MCCANDLESS: Okay.

MR. GARY DESSLER: Yes.

MS. KATHLEEN MCCANDLESS: And if we jump back to the response to CAC-MPI-1-55 at page 2 -- the response at C with respect to the costs for the driver vehicle administration aspect of the project -- we see that MPI is currently in discussions with the province on how to fund this portion of the project?

MR. GARY DESSLER: That's correct.

MS. KATHLEEN MCCANDLESS: And currently, the Corporation notes here that these are not Basic costs and do not form part of the rate application, correct?

MR. GARY DESSLER: Correct.

MS. KATHLEEN MCCANDLESS: What assumptions, if any, has the Corporation made around the funding of this aspect of the project?

(BRIEF PAUSE)

MR. GARY DESSLER: So we're continuing to discuss the funding with the government, but we haven't made any assumptions to date that we will receive the funding for this business case.

MS. KATHLEEN MCCANDLESS: So are you able to say today whether it has any impact on the forecast for Extension?

MR. GARY DESSLER: We expect the same technology is used for Commercial, Extension, and Basic, and we haven't really divvied up the costs according to each of those because it's the same -- it's the same software. Right? We're not bringing in different technology to support Extension or a different technology to support Commercial. We have one (1) insurance package that will be used for all the different lines of business that we have.

And so it -- it's very, very difficult to separate it by a specific usage. So it's kind of all -- it's bundled together right now.

MS. KATHLEEN MCCANDLESS: And the budget that we reviewed at MPI-1-88, that's preliminary the -- and the capital budget for Project NOVA has not yet been finalized? Is that accurate?

MR. GARY DESSLER: This is the -- what we've put into our rate application, and this is the budget that we've used for Board approval.

We have not yet received final costing form the different product vendors. So there could be a variation. And if that happens, we'll re-evaluate with value management as to any impacts to our budget.

MS. KATHLEEN MCCANDLESS: Thank you. And now in Mr. Bunko's presentation, he touched on the -- bringing in-house consultants on the IT side?

MR. GARY DESSLER: Yes. Correct.

MS. KATHLEEN MCCANDLESS: And so there's a -- there was a target to bring twenty-seven (27) in house by '19/'20. Right?

MR. GARY DESSLER: Yes, that's correct. That was the consultant conversions.

MS. KATHLEEN MCCANDLESS: Right. And if we could go to PUB-MPI-1-72.

And at this Information Request, the

Corporation was asked about its opportunities to convert external consultants to employees, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And we see the response at A that since the Corporation filed its 2020 rate application, it had converted two (2) consultants to employees, and it's evaluating additional conversion opportunities beyond the external original labour strategy, yes?

MR. LAWRENCE LAZARKO: There's an error in this.

MS. KATHLEEN MCCANDLESS: Okay.

MR. LAWRENCE LAZARKO: So we've converted twenty-seven (27) as Mr. Bunko identified in his earlier testimony. At the time of filing, we believed that we had two (2) additional conversions completed. We had offers made. We had one (1) accept.

Upon further evaluation, one (1) of the two (2) was brought on to MPI, but it did not fit the criteria for a consultant conversion. Another employee had left. They filled an existing vacancy, so they didn't qualify.

There on, we issued an offer that we were fully expecting to be accepted. The individual subsequently declined. So we are at twenty-seven (27) as Mr. Bunko shared. However, we are working on two (2) additional opportunities within budget to get to the twenty-nine (29).

MS. KATHLEEN MCCANDLESS: Okay. Thank you. If we got to page 3 Figure 1, now I understand that this figure summarizes the full-time equivalent adjustments and consultant conversions that have occurred in the IT and business transformation divisions for the period from 2013/'14 to 2021/'22?

MR. LAWRENCE LAZARKO: Correct.

MS. KATHLEEN MCCANDLESS: And that's updated to reflect all identified conversion opportunities as at August 8, 2019?

MR. LAWRENCE LAZARKO: For the IT BT division. There is one (1) outside the division that isn't reflected here, so that's how that would add up to twenty-nine (29).

MS. KATHLEEN MCCANDLESS: So if we look to line 7 on Figure 1, we see that the number of consultants drops from 2013/14 actual from one hundred and twenty (120) through to 2019/20 budget at -- to sixty-nine (69), yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: Can you

elaborate on the sixty-nine (69) consistent consultant levels after 2019/20, given the past consistent decline in the level of consultants and the commitments that MPI has made to continue to reduce consultant levels?

MR. LAWRENCE LAZARKO: Yes. One moment.

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: As we assured in the IT chapter and some of the IRs, the estimates we provided are our best estimates at the time. We've indicated that external labour may rise or fall depending on the needs of the projects. We haven't fully defined exactly what those project needs are for the future years, so we thought best to be consistent with the numbers shared April 2019.

MS. KATHLEEN MCCANDLESS: So are you able to say directionally today what the Corporation intends to do in terms of management of consultants either upwards or downwards?

MR. BRAD BUNKO: We may find a combination of both more consultant conversions and a need for more external consultants that may be -- that may have specific talents required for Project NOVA, so netting at sixty-nine (69) may be -- may be an optimistic way a look -- of looking at it. Given the size of Project NOVA, I would anticipate that our external consultant number would -- would increase for a period of time.

MS. KATHLEEN MCCANDLESS: Thank you. Kristen, could we please go to PUB-MPI-1-79, and if we scroll to page 2.

Here the Corporation explains its implementation of knowledge transfer approaches over the last four (4) years in order to allow project teams to disband at closure of a project and ultimately transfer that knowledge from contractors into in-house employees, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And so we see there are four (4) headings here in this response. So one (1) is operational resources work directly on the project; two (2), operational resources participate in the project; three (3), formal knowledge transfer; and four (4), operational consultants embedded in teams, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: Does the

Corporation intend to continue to use this knowledge transfer approach to assist in a possible decrease of reliance on consultants?

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: Yes, we're continuing to use these approaches. As Brad mentioned, we are using an internal-first approach on NOVA. We're also using some of these other techniques on NOVA as well.

MS. KATHLEEN MCCANDLESS: Thank you. Kristen, could we -- could we please go to IT Appendix 3 from Part 4 of the application, and page 2.

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: So if we go up to line 4 of this section of the application, here the Corporation describes what is on the page below at Figure 1. We don't need to go to that quite yet, but it's figure -- pardon me, APP-3-1. So consultant numbers are based on actuals as at April 2019, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And the

comment is that the numbers will increase once external resource requirements associated with Project NOVA have been determined?

MR. LAWRENCE LAZARKO: Correct.

MS. KATHLEEN MCCANDLESS: And that additional clarity is required to forecast the number of consultants required, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: Does MPI have a sense as to when it will be in a position to increase its cost certainty for internal and external staffing to support Project NOVA?

(BRIEF PAUSE)

MR. JOHN REMILLARD: With respect to a -- a more firm updated, as Mr. Bunko stated in his earlier presentation, we are continuing at this point to assess some of the RFPs. I would expect that from a negotiation perspective, that we will be in a good position by about April of next year to understand what all of the software vendors will be providing as far as services, and what they're going to expect of MPI going forward, what sort of complement they will expect their team to have to support the implementation of that project, particularly the driving vehicle administration.

However, at this point, and -- sorry, I'll circle back. So most definitely we'll be able to provide a better update in the 2021 -- or, sorry, '21 GRA application. There will be one piece missing at that point to firm up that number, and that is the system integration partner for the property and casualty insurance platform.

At this point, we're entering into negotiations with the software vendor; however, the RFP won't be issued probably until the late November time frame, and we don't expect to have those bids back until spring of next year. So depending on the timing, it -- it may work out for the application to be able to have firmer numbers. We will certainly provide, Ms. McCandless, as to what we -- what we have at that -- at that time, yes.

MS. KATHLEEN MCCANDLESS: Thank you. Kristen, could you please go to Appendix 5 of this section of the filing, Figure APP-5-1. Thank you.

So this figure shows the Project NOVA yearly one (1) time costs, yes?

MR. GARY DESSLER: That's correct.

MS. KATHLEEN MCCANDLESS: And we know

there's a 25 percent contingency --

MR. GARY DESSLER: Yes, it is.

MS. KATHLEEN MCCANDLESS: -- included therein. So given the anticipated budget of $106.8 million, inclusive of -- of contingency, does MPI foresee any risks with the budget, given the significant effort for resource planning is not yet complete?

(BRIEF PAUSE)

MR. GARY DESSLER: So, yes. So there -- there definitely is risk to that number, you know, because we have not selected specific products. And as John mentioned, we still have to pick an integrator. We have, you know, some idea of cost, but we have to wait until we get the con -- you know, the contracts with those vendors in order to lock down the costs. So yes, until that time, there is definitely a risk to that $106.8 million.

MS. KATHLEEN MCCANDLESS: Thank you. If we could go to Figure IT-APP-3-6, which is in Appendix 3, page 6. Thank you.

Now, this -- just following on the same

area, this table shows IT personnel consultants on a full-time equivalent basis forecast in the 2019 general rate application as compared to the forecast in this general rate application?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And if we look to the commentary under the table, we see that the numbers from 2019/20 onward are based on actuals as at April 2019, but are expected to increase, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And so it would be fair to say that the numbers are preliminary and they may change substantially as the project advances.

MR. LAWRENCE LAZARKO: Just to provide additional clarification on this one, as we mentioned, the proj -- this number adjusts based on the volume of projects, so currently the number is below sixty-nine (69). As legacy progresses, it will add additional resources. We're expecting a net increase.

MS. KATHLEEN MCCANDLESS: And the number at this time is below sixty-nine (69). It's...

MR. LAWRENCE LAZARKO: As of this morning, it's fifty-three (53).

MS. KATHLEEN MCCANDLESS: Thank you.

Now, if we could go to Appendix 2 of this section of the filing, page 1. Here the Corporation has provided an update on its external labour strategy, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And if we move to section 3 at page 3, the Corporation provided information about its contingent workforce strategy, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And so perhaps at a high level, you could just explain what the strategy involves, and for your reference, you may want to start with reference to line 13 on the page.

MR. LAWRENCE LAZARKO: Certainly. So as Mr. Bunko shared, we've moved away from two (2) strategic partners as the sole provider of external resources for MPI, and through the RFP -- sorry, through an RFSO, we -- sorry -- request for service offering issued earlier this year, we reached out to thirty-one (31) different entities for proposals to provide us with external resources.

These resource came in sixty-six (66) variations, everything from a project manager to a business analyst to a technical writer, and we asked them to give us the top quote and to confirm they agree to work with us within our terms and conditions to provide us these type of resources going forward.

So if you take a look at line 13, this really talks about how we executed. MPI currently provides this service, so when we have a request for a new resource, we have our team issue a request to our network, to the ten (10) -- in this example, ten (10) providers for project manager. They provide us with five (5) resumes and rates, and we take a look at those, and we determine what the best combination of experience and capability is for MPI. We make a selection. We bring them on board.

RFP2915 is going to move this to a third party. We're expecting to turn that on later in December. This third party will manage the process for us, so using self-service portal, we will put in the request, and they will take care of the rest in terms of surveying our network of agents -- or, sorry, our network of providers, collecting resumes, reviewing them for us, presenting us with different candidate and rate combinations, and we still make the ultimate selection.

So that is the process as we have it right now and as we expect to have it in December.

MS. KATHLEEN MCCANDLESS: And for

how long does the Corporation anticipate having that process in place, initially?

MR. LAWRENCE LAZARKO: We expect this to be our new model going forward.

MS. KATHLEEN MCCANDLESS: Thank you, and if we scroll to the bottom of the page, we see that MPI expects to save between 1.5 million and $2.5 million annually based on this process?

MR. LAWRENCE LAZARKO: That's correct.

MS. KATHLEEN MCCANDLESS: And in fiscal 2019/20 -- just moving on to the next page -- expects to save approximately five hundred thousand dollars ($500,000), yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: Does the new contingent workforce strategy take into consideration competitive Winnipeg, Manitoba, skilled IT job -- the -- the market -- the skilled IT job market in Winnipeg and the costs that are required to acquire and retain skilled employees?

MR. LAWRENCE LAZARKO: Can you rephrase the question?

MS. KATHLEEN MCCANDLESS: Sure. The strategy --

MR. LAWRENCE LAZARKO: Yeah.

MS. KATHLEEN MCCANDLESS: -- that MPI's employing here, ha -- has it taken into account, essentially, the labour market for IT, so the costs that would be involved in acquiring and retaining skilled IT employees?

MR. LAWRENCE LAZARKO: I believe so, yes.

MS. KATHLEEN MCCANDLESS: Mr. Bunko, you spoke this morning -- or, pardon me, this afternoon; it's been a long day, I supposed -- on agile, and in your response to some of Mr. Guerra's questions, you explained what agile is. Just to rephrase or to confirm, so MPI currently uses a waterfall approach in its projects.

MR. BRAD BUNKO: Correct.

MS. KATHLEEN MCCANDLESS: And that involves building all the requirements up front before entering into the development phase?

MR. BRAD BUNKO: Correct.

MS. KATHLEEN MCCANDLESS: And so by contrast, agile means breaking the project down into smaller components, knowing only the high-level requirements at that time, initially?

MR. BRAD BUNKO: Initially, yes.

MS. KATHLEEN MCCANDLESS: And so the

potential benefits of agile as compared to waterfall, then, agile being an iterative process. There's -- there's more business interaction, so it's essentially more agile, correct? That -- that's why it's called agile?

MR. BRAD BUNKO: Change on -- change on the go, yes.

MS. KATHLEEN MCCANDLESS: Okay. Now, those would be the benefits, but can agile be considered risky in terms of delivering on IT initiatives?

MR. BRAD BUNKO: Well, I think anything, any delivery, can be risky. I see much less risk in agile, comparing it to waterfall, because you are breaking it into smaller chunks.

The risk with a waterfall delivery is that often, you don't know the outcome until very late in the project, so you may have spent months and months developing something, only to find out at the end that it's not going to work as planned. So frankly, agile greatly reduces the risk of delivery over waterfall.

MS. KATHLEEN MCCANDLESS: Are costs -- so both financial and opportunity costs -- related to the continual integration of business owners throughout the agile initiatives considered in preparing the business cases?

(BRIEF PAUSE)

MR. BRAD BUNKO: It's an interesting question because we haven't built a lot of business cases around the agile methodology. We have taken business cases that were originally anticipated to be delivered with waterfall and ha -- and have then very successfully delivered them with agile. So as far as from a gis -- a business case perspective, resource requirements, the overall cost of -- of delivering via agile versus waterfall can be very similar, but with -- with less risk.

MS. KATHLEEN MCCANDLESS: Thank you. Will MPI continue to use waterfall software delivery methods?

MR. BRAD BUNKO: I think, like, full-on waterfall, we'll -- we'll see less and less of that, but for the right size projet, for a smaller project, waterfall is fine. No sense breaking down a small project into ten (10) chunks when it can easily be managed as one (1) whole chunk.

MS. KATHLEEN MCCANDLESS: So the

Corporation, then, is intending to employ a hybrid approach, where some initiatives will be delivered traditionally or in the waterfall method, and other via agile, yes?

MR. BRAD BUNKO: Correct.

MS. KATHLEEN MCCANDLESS: And how does the Corporation intend to manage that type of an approach, so using two (2) methods within its IT service?

MR. BRAD BUNKO: It's not too difficult. I think a -- a lot of the delivery that we'll be doing through agile methodologies will through -- be through product teams, which is what we are essentially evolving, as opposed to -- to a project team delivering something.

So organizations that I've talked to, they -- they work very well hand in hand. They learn each other's methodologies, and sometimes, they do a little bit of customization to whatever was a hard-core waterfall, they've converted and softened around the edges to -- to get some of the benefits that agile is seeing.

So I don't think there's going to be any issue about having multiple types of delivery methodologies in an organization. In fact, we have that right now, and we're not finding anything. It just seems to be heavier on the side of waterfall than on the agile side.

MS. KATHLEEN MCCANDLESS: Does the Corporation ever intend to be fully agile throughout the organization?

MR. BRAD BUNKO: Yeah, so agile -- we talked a lot about agile delivery, but you can -- I mean, if you go to the methodology and you really get deep into it, agile can go all the way up to how the board makes their decisions. Like, it can be -- it can go through and through the organization.

We are certainly focussing on agile for delivery of software, implementations of software, and for decisions of prioritization as to what software should be delivered when. That is currently the general scope of where we want to apply agile methodologies.

MR. GARY DESSLER: If I could just jump in. I think in -- in certain projects, maybe more around infrastructure -- so if we're doing, like, a network upgrade or replacing hardware, right, those kinds of projects are, you know, more aligned to a waterfall approach, right? There's not nearly as much business involvement because it's pure infrastructure, so those are going to be more waterfall, essentially, in -- in nature.

MS. KATHLEEN MCCANDLESS: Thank you. External expertise is required or -- or considered for agile roles within the Organization, yes?

MR. BRAD BUNKO: Yes.

MS. KATHLEEN MCCANDLESS: So how will the existing stakeholders or contributors be trained on the agile methodology?

MR. BRAD BUNKO: So we have gone through a few different phases of agile training within the Corporation, scrum masters, for example, are somebody who's really hands-on, and there has been specific courses for several of our scrum masters.

Product owners is a very hands-on role as well. And we have provided training to several individuals within the Organization for those roles.

We have also then given some more broad-based training on just agile and how it works, and user stories, which is a component of -- a way to describe a feature inside of agile.

So we're doing it through training right now. We -- we know we are almost getting to a point where we need to get to that next level, and in order to do that, we are bringing on an agile coach, which will be able to increase our ability to see things that we don't know what to look for.

So in doing so, as I -- as I mentioned, we -- we as an Organization have to understand how far we want to take agile. I describe, you know, in loose terms, where I think it needs to go, but it's really an Organizational dec -- decision. It's not a technology decision.

And then we need to be able to define the gaps to be able to get there. So a roadmap will need to be created so that we can fully utilize the vision of agile within MPI.

MS. KATHLEEN MCCANDLESS: And are there additional costs to the Organization for this type of training, or is that cost already baked into the budget?

MR. BRAD BUNKO: There are -- there are -- are additional costs, and yes, to date, we've included them in our existing training budgets, to date.

MS. KATHLEEN MCCANDLESS: How many facilitators of agile is the Corporation using?

(BRIEF PAUSE)

MR. BRAD BUNKO: We have eight (8) -- eight (8) scrum masters and approximately five (5) product owners.

MS. KATHLEEN MCCANDLESS: And are those all external to the Corporation?

MR. BRAD BUNKO: They are all internal to the Corporation.

MS. KATHLEEN MCCANDLESS: And you spoke of the training on agile. So what proportion of the existing staff complement is now fully trained on agile techniques?

MR. BRAD BUNKO: I can say that the teams that are delivering through agile are trained on agile. As far as what percentage of the teams are utilizing agile, that I will have to see if I can get an average.

(BRIEF PAUSE)

MR. BRAD BUNKO: So of our application support teams, it's approximately 50 percent that have been trained on agile methodologies.

MS. KATHLEEN MCCANDLESS: Thank you. If we could go to PUB-MPI-1-80.

And at this Information Request, the

Corporation was asked at 'A' to provide a list description of metrics and measures in development for agile design and delivery, and at 'B' to provide target baseline values associated to each metric and measure provided in 'A', yes?

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: I'm just asking you to confirm the questions that were asked at 'A' and 'B'.

MR. BRAD BUNKO: Yes.

MS. KATHLEEN MCCANDLESS: Yes. And then if we move to the next -- to the response, we have at 'A', in the agile pilots, the teams are consistently planning, monitoring progress to those plans, and re-planning as more information becomes available.

And the key performance indicators that the teams monitor are business value delivered versus planned, difficulty delivered versus planned, user stories delivered versus planned. And onto the next page, cost per sprint, yes?

MR. BRAD BUNKO: Yes.

MS. KATHLEEN MCCANDLESS: And then at

'B', the Corporation advised that there are currently no baselines established for these metrics for several reasons, and goes on to provide those reasons.

What -- and just to follow on -- on this, what are the expected monitoring metrics to ensure that the Project NOVA budget is accounted for and -- and budget appropriations are accurate?

(BRIEF PAUSE)

MR. BRAD BUNKO: I can do this one. I think it's -- well, you know, within any project, whether it's been delivered through waterfall or agile, there's certain value that needs to be delivered throughout the -- throughout the project.

So in measuring that value through the project is imp -- important. It's called earned value, and it means that we've actually accomplished that level of value.

So whether you're delivering something through an agile methodology or a waterfall methodology, you can continually monitor how much value you've actually created within the project.

That's a high level perspective of doing it, but it is good -- it's a good indicator as, you know, if you're talking about development, what percentage of your development is done? In a waterfall, that -- that is less meaningful, because it's just code, but you haven't translated that code into a functioning piece of software. But in an agile, where you're actually going from sprint to sprint, so developing code, having people look at it, you're actually being able to validate that value that's created after each sprint.

MS. KATHLEEN MCCANDLESS: So given the uncertainty related to cot -- delivery and controls, can MPI be confident that the Project NOVA the budget is reasonable?

MR. BRAD BUNKO: I think there is a lot left, certainly, from the software that we need to buy, the interactions of system integrators as to their expectations versus ours.

I would still be cautious in that there is a fair bit of information that we need to know yet before I could pass judgement in -- onto the validity of that current budget.

MS. KATHLEEN MCCANDLESS: Thank you. Now onto the issue of benchmarking.

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: And if we could go to CAC-MPI-1-47, and the first page of this -- or pardon me, page 3.

(BRIEF PAUSE)

MS. KATHLEEN MCCANDLESS: CAC-MPI-1-47, yeah, page 3. Thank you, Kristen.

If we can scroll down, at 'B', here, this relates to benchmarking services provided by Ward Group and Gartner. And here, this is from the benchmarking section of the filing. It states:

"MPI has discontinued the services provided by Ward Group and Gartner. As a result, the benchmarking results presented below will be the final iteration of operational efficiency and IT service delivery areas. MPI is currently exploring alternative benchmarking approaches, which may include collaborating with other Crown insurance providers."

And we heard a little bit about that during your presentation, Mr. Bunko, yes?

MR. BRAD BUNKO: (NO AUDIBLE

RESPONSE).

MS. KATHLEEN MCCANDLESS: So at this time, then, third parties are not reviewing MP oper -- MPI operations for benchmarking purposes, as of right now, correct?

MR. BRAD BUNKO: Correct.

MS. KATHLEEN MCCANDLESS: And the Corporation does intend to issue a request for proposal for benchmarking purposes?

MR. BRAD BUNKO: Correct.

MS. KATHLEEN MCCANDLESS: When will the RFP for benchmarking services be issued?

MR. BRAD BUNKO: Friday.

MS. KATHLEEN MCCANDLESS: Friday? Okay. And would it possible to provide a copy of that RFP to the Board?

MR. BRAD BUNKO: Sure.

MS. KATHLEEN MCCANDLESS: So if we could have that by way of undertaking to file with the Board a copy of the request for proposals for benchmarking services issued by the Corporation?

MR. ANTHONY GUERRA: Sorry. Can you just restate what the undertaking is?

MS. KATHLEEN MCCANDLESS: That would be to file with the Board a copy of the request for proposals for benchmarking services issued by the Corporation?

(BRIEF PAUSE)

MR. ANTHONY GUERRA: Yes. We'll provide the undertaking with the caveat that we won't be able to provide it until Monday, I believe.

MS. KATHLEEN MCCANDLESS: Thank you.

--- UNDERTAKING NO. 27: MPI to provide a copy of the request for proposals for benchmarking services issued by the Corporation

CONTINUED BY MS. KATHLEEN MCCANDLESS:

MS. KATHLEEN MCCANDLESS: So at this time, are you able to speak to the qualifications that are required of the agencies from whom the Corporation is seeking proposals?

MR. LAWRENCE LAZARKO: Yes, we are, or yes, we can.

MS. KATHLEEN MCCANDLESS: And what would those qualifications be?

MR. LAWRENCE LAZARKO: Through the

RFP, we've indicated we are looking for a benchmarking service that measures, in essence two (2) things: that it will provide a report that we can use internally and also share with this Board on an annual basis.

We are looking for details. We are looking for -- sorry. The services that we're looking for them to provide will be related to our process maturity, similar to what you've seen with Gartner in the past, and also benchmarking of our financials.

Both of those, we aim to be benchmarked into the peer group. Peer group is a very, very important concept to us. It shows the relevance of those measures, not just MPI's progress but MPI's progress against a group you would expect MPI to be a peer to.

So that is going to be a main qualification in the RFP process. We also have a percentage allocated to references and to actually providing us sample documents or previous client documents we can review and ascertain the quality.

We want to make sure that we comprehensively cover both the process maturity and the IT costing, and we can do it in a way that's easy to reference and meaningful to use.

MS. KATHLEEN MCCANDLESS: Thank you. And what criteria is the Corporation employing to evaluate the responses to the request for proposals?

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: Cost, of course. Then we're looking for relevant experience, ability to meet our functional requirements -- so specifically, can they meet our needs? -- samples of different materials. Those would be the key things we're looking for.

MS. KATHLEEN MCCANDLESS: Thank you. And does the Corporation know when it has scheduled the decision to be made with respect to which company to contract with?

MR. LAWRENCE LAZARKO: Based on the RFP timeline, it'll be early December with work commencing in January. We anticipate that's sufficient time to get a report available for the GRA.

MS. KATHLEEN MCCANDLESS: So that would be for the '20/'21 GRA, yes?

MR. LAWRENCE LAZARKO: Correct.

MS. KATHLEEN MCCANDLESS: Thank you. Now in previous general rate applications, we have reviewed a number of the recommendations that Gartner has made to the Corporation on its IT maturity, and that update has been filed again this year.

That's part of an annual review that Gartner has provided in the past for MPI, yes?

MR. LAWRENCE LAZARKO: Correct.

MS. KATHLEEN MCCANDLESS: And a number of those recommendations would be ongoing with updates provided to the Board in each GRA?

MR. LAWRENCE LAZARKO: Correct.

MS. KATHLEEN MCCANDLESS: Now if we turn to PUB-MPI-1-63, this Information Request asked for a list of the recommendations rejected withdrawn by Gartner included in other recommendations complete or operational in 2019, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And the following pages include some of -- all of those recommendations, whether it was withdrawn or incorporated in another recommendation.

My question that was -- is general. So will the Corporation expect that the new third-party benchmarking provider deal with some of the recommendations or any of the recommendations that have been, say, withdrawn by Gartner?

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: Two (2) parts to this. The new provider will have full latitude to speak to any content that they see and make any recommendation based upon their experience, their expertise, the benchmarking. There is no restriction based on anything previously withdrawn by Gartner.

MPI will continue to follow up and report on the Gartner-specific items until they've been resolved, either completed in operational or rejected with reasons, and we'll provide that on an annual basis.

MS. KATHLEEN MCCANDLESS: Thank you. So I take it then -- and I -- that the new third-party benchmarking provider will be expected to essentially provide the same advice that Gartner had been providing with respect to IT maturity, yes?

MR. LAWRENCE LAZARKO: Yes.

MS. KATHLEEN MCCANDLESS: And with respect to the transition of open or in-progress or deferred items from Gartner, I understand then your testimony that those will be dealt with in conjunction with a new third-party provider?

MR. LAWRENCE LAZARKO: We want to be

careful in that we don't ask the third-party provider to opine on items previously raised by Gartner. We want to give them that full latitude so they can speak to things that they see and they support and they recommend.

And then we'll -- MPI will manage the two (2) different lists separately and reconcile those and bring those updates here.

MS. KATHLEEN MCCANDLESS: Thank you. Now just briefly on the physical damage re-engineering project. And the panel will be familiar that in previous general rate applications, the PDR project or physical damage re-engineering project has been reviewed in detail, yes?

MR. JOHN REMILLARD: Yes.

MS. KATHLEEN MCCANDLESS: And that included reports prepared by Gartner on the -- I'm going to call it PDR project. I hope that's okay.

MR. JOHN REMILLARD: Physical damage re-engineering.

MS. KATHLEEN MCCANDLESS: Yes.

MR. JOHN REMILLARD: Correct.

MS. KATHLEEN MCCANDLESS: Okay. And in Order 159/18 after the 2019 GRA, the Board directed the Corporation to file a further update by Gartner on the PDR project?

MR. JOHN REMILLARD: Correct. Correct.

MS. KATHLEEN MCCANDLESS: And that's found at MPI Exhibit number 22. Mr. Remillard, you're familiar with the report in front of you?

MR. JOHN REMILLARD: I am.

MS. KATHLEEN MCCANDLESS: And if we jump to page 4 of the report at the bottom of the page. Perfect. Thank you.

So we see that in 2019, MPI completed the two (2) remaining PDR projects for $351,721 less than the forecast budget, yes?

MR. JOHN REMILLARD: That is correct.

MS. KATHLEEN MCCANDLESS: And that was the customer claims reporting service cancellation?

MR. JOHN REMILLARD: Correct.

MS. KATHLEEN MCCANDLESS: And the physical damage re-engineering completion?

MR. JOHN REMILLARD: Yes.

MS. KATHLEEN MCCANDLESS: And at table 3 on the next page, we see the net present value analysis. So on the left-hand side of the page, we see the net present value analysis from the 2019 GRA? Yes?

MR. JOHN REMILLARD: That is correct.

MS. KATHLEEN MCCANDLESS: And that was a negative net present value of $49.72 million?

MR. JOHN REMILLARD: Correct.

MS. KATHLEEN MCCANDLESS: And the update is now negative $49.96 million, yes?

MR. JOHN REMILLARD: Correct.

MS. KATHLEEN MCCANDLESS: And so if we then proceed to page 13 of the PDF with respect to the conclusions, we note that the PDR program has now transitioned to operations, yes?

MR. JOHN REMILLARD: I'm sorry, Ms. McCandless.

MS. KATHLEEN MCCANDLESS: Top of the page under "conclusions."

MR. JOHN REMILLARD: Could -- could you go back to your last question, please? I may have made an error --

MS. KATHLEEN MCCANDLESS: Oh, sure.

MR. JOHN REMILLARD: -- on the NPV analysis. My apology.

MS. KATHLEEN MCCANDLESS: So page 5.

MR. JOHN REMILLARD: Sorry. Could you repeat the question then?

MS. KATHLEEN MCCANDLESS: Just --

MR. JOHN REMILLARD: I just want to make sure I'm correct on the record.

MS. KATHLEEN MCCANDLESS: So we have a 2018 versus a 2019 net present value analysis, yes?

MR. JOHN REMILLARD: That's what their table stated. It -- you know what? You may have caught an error. Can I just check for one sec?

(BRIEF PAUSE)

MR. JOHN REMILLARD: Both of these numbers are the 2019 analysis.

MS. KATHLEEN MCCANDLESS: That was my error, not yours. Yes. Okay. And so this is the current analysis then. One is MPI's analysis, and one's Gartner's analysis.

MR. JOHN REMILLARD: That is correct. Sorry for the confusion.

MS. KATHLEEN MCCANDLESS: So if we then proceed to the conclusions, the PDR program has now transitioned to operations, yes?

MR. JOHN REMILLARD: That is correct.

MS. KATHLEEN MCCANDLESS: And then just below that lead paragraph, the Project NOVA will take five (5) years or more, and Gartner notes that:

"During that time, there will be little funding or IT resources to enhance current systems. As such, it is important that the PDR-provided capabilities and processes are sufficiently flexible and scalable to meet the business needs over this period."

Yes?

MR. JOHN REMILLARD: Agreed.

MS. KATHLEEN MCCANDLESS: So how is MPI going to ensure that these PDR-provided capabilities and processes are flexible during -- over the next five (5) years?

MR. JOHN REMILLARD: Ultimately with the transition to operations, in essence what that mean -- what that means is that that has now been built into our go-forward IT operational budgets.

And so the Mitchell platform is -- is primarily the -- the software that we're relying on here now due to the other impairments. And we are continuing to work with Mitchell and adopting their new capabilities through that -- through that process going forward.

MS. KATHLEEN MCCANDLESS: If we go to

the last paragraph on page 13 under "conclusions," Gartner notes that, as stated in its 2018 report, it's these technology advancing in mobility and customer support, and MPI's customers are no longer tethered to nor expect service primarily from a computer. Instead, they're tied to mobile devices, text messaging, and social media, yes?

MR. JOHN REMILLARD: Yes.

MS. KATHLEEN MCCANDLESS: And then continuing on, Gartner believes that as mobile -- and if we scroll down -- other customer support capabilities emerge in other jurisdictions, MPI may need to make an investment above that planned in the Project NOVA to deliver capabilities equivalent to those available elsewhere, yes?

MR. JOHN REMILLARD: That is correct.

MS. KATHLEEN MCCANDLESS: So perhaps you could just provide some comment on what Gartner's --

MR. JOHN REMILLARD: Stating?

MS. KATHLEEN MCCANDLESS: -- yes -- stating here.

MR. JOHN REMILLARD: Okay. When we look at -- looking backwards in -- into the histories of -- of the physical damage re-engineering program, as -- as we've shared in the past and probably echoed in this year, the customer claims reporting system -- CCRS as noted here -- was a -- a major impairment, and that was primarily due to a custom development approach.

And so with that and part of the lessons learned that Mr. Bunko shared in his opening testimony, as we've gone to market for our property and casualty insurance platform, the physical damage claims aspect is -- is part of that -- that platform.

What we've also looked for in choosing that product is that product's capability to provide online supported services to our customers going forward, be it for insurance sales, modification of their insurance products, and, of course, being able to provide a first notice of loss on their claims.

So those are, in essence, business capabilities that we were looking forward to implementing with that new platform in a more cost-effective means than our original CCRS vision.

MS. KATHLEEN MCCANDLESS: Thank you. Now if we could -- I just have a few questions on the program governance vendor that was discussed --

MR. JOHN REMILLARD: Yeah.

MS. KATHLEEN MCCANDLESS: -- earlier.

So that's with reference to MPI Slide 16 and MPI Exhibit 60.

MR. JOHN REMILLARD: Okay.

MS. KATHLEEN MCCANDLESS: And just a few questions for clarification.

MR. JOHN REMILLARD: Sure.

MS. KATHLEEN MCCANDLESS: So Mr. Guerra had some questions about the type of reporting --

MR. JOHN REMILLARD: M-hm.

MS. KATHLEEN MCCANDLESS: -- that the program governance vendor will be doing. And I understand the first is going to be an eight (8) week deep dive report, yes?

MR. JOHN REMILLARD: That is correct. It will due to -- go to our technology committee in early December of this year.

MS. KATHLEEN MCCANDLESS: And is that something that the Corporation intends to provide to the Board?

MR. JOHN REMILLARD: Yes. We intend on filing the original assessment as well as all the monthly assessments that will be performed by the governance vendor going forward as part of the next year's application -- yes -- and subsequent applications.

MS. KATHLEEN MCCANDLESS: Okay. So you answered all of my questions with your response. So it's monthly reporting, and all of those monthly reports will be provided to the Board.

MR. JOHN REMILLARD: That is correct.

MS. KATHLEEN MCCANDLESS: Thank you. Those are my questions.

THE CHAIRPERSON: It's 3:24. Mr. Williams, do you want to commence your cross-examination?

DR. BYRON WILLIAMS: I'm happy to. I am just mindful that we've been going for a fair bit. I wouldn't mind if -- offering folks a three (3) minute refreshment break.

THE CHAIRPERSON: A three (3) minute refreshment break is an excellent idea. Thank you. We'll see everybody at 3:28.

--- Upon recessing at 3:25 p.m.
--- Upon resuming at 3:29 p.m.

THE CHAIRPERSON: Thank you. Mr. Williams...?

CROSS-EXAMINATION BY DR. BYRON WILLIAMS:

DR. BYRON WILLIAMS: Yes. Hello again, panel. I will reiterate the comments of My Learned Friend, counsel to the Public Utilities Board in two (2) ways. Some of my questions will just be proposed generically to the panel, so you pick them, and secondly, though, my examination this afternoon will be short. It's been prepared with material on the public record.

Again, if I inadvertently seek an answer that is com -- commercially sensitive, you'll let me know, and we'll defer it to tomorrow.

Mr. Lazarko, in -- in your discussion with PUB counsel earlier this morning -- this afternoon, with regard to the information technology benchmarking, you made a statement, something to the effect that the peer group was very important.

Do you recall making a statement to that effect, sir?

MR. LAWRENCE LAZARKO: I do.

DR. BYRON WILLIAMS: And you'll correct me if I'm wrong, but would it be fair to -- to suggest that in the most -- fairly recently, the ICBC and SGI withdrew from the Gartner benchmarking process?

MR. LAWRENCE LAZARKO: That's not something I'm aware of or -- or could speak to.

DR. BYRON WILLIAMS: That's fair. So let me try this a -- a different way, sir. In terms of the peer group that MPI considers important to be compared to, presumably it will include the other Provincial Crown insurers?

(BRIEF PAUSE)

MR. BRAD BUNKO: The other insurers would need to agree to participate. And I do know that SGI, on occasion, has participated, but it -- on a very irregular basis.

DR. BYRON WILLIAMS: So in terms of having the peer group important -- important, perhaps MPI could give us some insight into some of the comparators it is looking for -- for in terms of the IT benchmaking -- benchmarking process?

(BRIEF PAUSE)

MR. BRAD BUNKO: It's important to have a good peer group. Even within Gartner's peer group, it fluctuates on an annual basis. I know the numbers are inside of this year's report. I'm just looking for them, but I believe at least three (3) of the eleven (11) were new people to the peer group for this year. So it does change on a very regular basis.

DR. BYRON WILLIAMS: So -- but in terms of the criteria in assessing the quality of the peer group that's being proposed, is Manitoba Public Insurance looking at analogous size of property and casualty insurers, size of the Corporation, Provincial Crown status? What are some of the indicia that it's looking for?

MR. BRAD BUNKO: All of those things. It obviously has a limited pool for people that are very similar to us, but it does look for organizations our size, in our vertical, private and public. And I think for some of the broader categories, like maybe just infrastructure and operations, it could be even a -- a different peer group or a peer group that is -- that is less like us.

DR. BYRON WILLIAMS: And do you want to elaborate on that "less like us" in that specific context, sir?

MR. BRAD BUNKO: Public insurer.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: We are going to have, as I -- and as I did yesterday, a few short snappers to us start out.

I wonder if we can go to Appendix 14, MPI's determination of cost of capital for value management business cases. And we can go to page 3 of -- of 9 at the top.

Generally speaking, Manitoba Public Insurance has employed a standard corporate cost of capital for the financial analysis of business cases for the last couple of years.

Would that be fair?

MR. JOHN REMILLARD: That's fair.

DR. BYRON WILLIAMS: And Mr. Remillard, you can check if you need, but I'll -- I'll suggest to you that it -- it started doing so in 2017?

MR. JOHN REMILLARD: Agreed.

DR. BYRON WILLIAMS: And it did another review of the cost of capital in 2018, agreed?

MR. JOHN REMILLARD: Agreed.

DR. BYRON WILLIAMS: And so this is the third in three (3) years, sir?

MR. JOHN REMILLARD: Yes.

DR. BYRON WILLIAMS: And -- and if you can speak to this, is it -- is it the intent that the cost of capital would be reviewed on an annual basis, sir?

MR. JOHN REMILLARD: Yes, it is, so that we remain current.

DR. BYRON WILLIAMS: And the purpose of hurdle rates, or the analysis, is to identify the appropriate discount rate to be applied to cost/benefit analysis of projects and other initiatives, sir?

MR. JOHN REMILLARD: Agreed.

DR. BYRON WILLIAMS: And for the purposes since January of 2019, MPI has adopted a hurdle rate of 4 percent for low risk projects, 6 percent for medium risk projects, and 9 percent for high risk projects, agreed?

MR. JOHN REMILLARD: That is correct.

DR. BYRON WILLIAMS: And so I just want to direct your attention to the discussion at the top of page 3 of this section. And -- and you'll see here a discussion of the pros and cons of using a low risk average investment return of 4 percent.

Do you see that in front of you, sir?

MR. JOHN REMILLARD: I do.

DR. BYRON WILLIAMS: And specifically, want to identify -- or direct your attention to lines

6 to 10. And you see a reference there to the conservative portfolio of MPI, and a comment that the hurdle rate based on this rate may be too low to reflect -- reflect the true risk of corporate projects that are being considered.

Do you see that reference, sir?

MR. JOHN REMILLARD: I do.

DR. BYRON WILLIAMS: And could -- could you elaborate on this comment, sir?

MR. JOHN REMILLARD: Just one moment, please.

(BRIEF PAUSE)

MR. JOHN REMILLARD: On a standard proj -- on a standard project, that would be true. As with any project, we -- we need to assess the overall risks, and the inherent risk associated with that project would result in the application of the appropriate discount rate, yes.

Did that answer question, sir?

(BRIEF PAUSE)

DR. BYRON WILLIAMS: I think what I'm

hearing -- hearing you say, sir, is that this might be too low for a standard project, but for a low risk project, it might be appropriate?

MR. JOHN REMILLARD: That is fair.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: I wonder if we can go to the Gartner report, the annual IT benchmeant -- mark, executive summary part. And so that's the benchmark Attachment A, Gartner, page 13.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: And so some of this conversation was started with the expenditure panel last weekend. It was deferred to this panel. But generally, I want to direct the attention of MPI to the -- to the right side of the slide, being page 13, and the observations.

And there's a suggestion that outsourced spending is 94 percent higher than the peer group average, reflecting MPI's operating model.

Do you see that reference?

MR. LAWRENCE LAZARKO: Yes, I do.

DR. BYRON WILLIAMS: And for the 2017/'18 year, that would be in the range of $10.2 million?

MR. LAWRENCE LAZARKO: Yes.

DR. BYRON WILLIAMS: And you'll see as well on the third bullet that maintenance costs are 421 percent higher than the peer group, and suggesting that a lot of those mainten -- maintenance costs are for software maintenance, agreed?

MR. LAWRENCE LAZARKO: Yes.

DR. BYRON WILLIAMS: And in '17/'18, maintenance costs were in the range of 5.8 million, sir?

MR. LAWRENCE LAZARKO: That's correct.

DR. BYRON WILLIAMS: So I want to draw your attention down to the -- the notes. And you'll see a suggestion that the outsourcing costs include a prepayment for future upgrades in the IBM contract, which avoids large single year increases, but presents a higher yearly cost that might be expected.

MR. LAWRENCE LAZARKO: I see that statement.

DR. BYRON WILLIAMS: And is that consistent with your understanding of the pre -- prepayment arrangement, sir?

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: Just to give this a little bit of additional context, so what's referenced there is what's called a vitality clause. We've spoken about it previous years.

This is a -- a charge that is charged to expenses that allows MPI to secure upgrades and updates to its major infrastructure at regular intervals. This addresses volatility. It avoids situations where MPI's going to make significant capital outlays in the future.

So this is -- is included, and it is higher than peer. It is something that we have a been in discussions with Gartner on how to effectively measure it, because while it's treated as an expense, it actually offsets a capital item.

We see the same issue on the next statement on the maintenance costs.

DR. BYRON WILLIAMS: And we'll work our way through this, and thank you.

So the suggestion in this next statement is that lower maintenance costs are due in part to the practice of maint -- maintenance bundling for software enterprise license agreements.

Do you see that reference?

MR. LAWRENCE LAZARKO: I do.

DR. BYRON WILLIAMS: And is this an opportunity that MPI currently takes advantage of, this -- this bundling?

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: MPI purchases its key software within infrastructure and operations through a major agreement with the Government of Manitoba, which gives us significant synergy and savings.

We don't purchase the software through our hardware purchases. We don't purchase those at the same time. Those are done separately.

DR. BYRON WILLIAMS: I wonder if we can turn to the part 4, benchmarking, page 37.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: So you'll see a reference here, sir, line 5 and 6, from MPI again to both outsourced and maintenance expenses are significant -- significantly higher than the peer group average.

Do you see that reference, sir?

MR. LAWRENCE LAZARKO: I do.

DR. BYRON WILLIAMS: And lines 10 to 11, you'll see a suggestion that MPI is continually to -- continue to actively manage vendors and spending to maximize value, correct?

MR. LAWRENCE LAZARKO: Correct.

DR. BYRON WILLIAMS: What does that mean?

MR. LAWRENCE LAZARKO: As part of our major agreements, we have a vendor management team that manages the IT major agreements. They conduct a regular process to review spend with our vendors. As part of contract renewal, we work with the vendors to ensure we are including only the things we require going forward, to negotiate discounts, price breaks, et cetera.

We also act to leverage the procurement processes, the request for -- proposal request for a standing offer to ensure we get the best value from a variety of different providers, including our existing providers.

So those would be several techniques we use. I think I mentioned it earlier, but I just want to reiterate, monitoring and reviewing spend. So we receive an invoice for five (5) widgets of work, confirming that five (5) widgets was conducted, and to our satisfaction, and to an agreed-to price.

DR. BYRON WILLIAMS: Turning to page 36 of 50, and lines 2 through 6 specifically, you'll see again, sir, a -- a reference to infrastructure and operation spending being higher than the peer group average, sir?

MR. LAWRENCE LAZARKO: I do.

DR. BYRON WILLIAMS: And that the component is comprised of labour and additional third-party services, namely, IBM, who is a top-tier provider of expertise and facilities, agreed?

MR. LAWRENCE LAZARKO: Agreed.

DR. BYRON WILLIAMS: And there's a suggestion that MPI will continue to partner with IBM to optimize costs within this area?

MR. LAWRENCE LAZARKO: Yes.

DR. BYRON WILLIAMS: And what does that mean, sir?

MR. LAWRENCE LAZARKO: As part of our ongoing agreement with IBM, we work with them on a regular basis to ensure that the services we are receiving are what we need, and that we are not consuming extra resources in terms of number of servers, number -- amount of storage, any kind of additional resources or third-party services that we don't need, don't actively get value from, so again working with them on a regular basis, monthly, to make sure that our spend is providing the optimal value.

DR. BYRON WILLIAMS: Reading between the lines of the Gartner commentary, sir, and the MPI commentary at page 36 and 37, is there any suggestion that the arrangement with IBAM is improvident?

MR. LAWRENCE LAZARKO: Can you restate the question, or define "improvident"?

DR. BYRON WILLIAMS: Well, let me try it a different way.

Does MPI have concerns that it is not optimizing the value for services it's getting in their infrastructure and operations by virtue of its arrangement with IBAM?

(BRIEF PAUSE)

MR. LAWRENCE LAZARKO: One of the activities that we are working on this year is a -- a benchmark for the IBAM agreement.

We have an independent third party that

we've engaged to review their contracting and compare it to peers, specifically IBM, (sic) and this is something that's still in progress right now. The initial review is favourable, and we would be open to file that as part of our evidence in GRA 2021.

DR. BYRON WILLIAMS: And one of the -- and thank you for that, sir. And one (1) of the issues of course is whether the -- the trade-off to reduce volatility is in the long run costing MPI too much; that's the potential concern that Gartner is raising.

MR. LAWRENCE LAZARKO: I just want to clarify one (1) earlier section on the scorecard, page 13.

DR. BYRON WILLIAMS: Go ahead.

MR. LAWRENCE LAZARKO: One of the cha -- sorry. One (1) of the challenges we have for the scorecard as defined by Gartner is how it manages capital within a specific infa -- infrastructure and op -- sorry, infrastructure and operation scorecard.

What occurs is the MPI model, we purchase the software as an expense or the service as an expense, and then we have ongoing costs per year. What Gartner is talking about in their note about lower maintenance costs from bundling is the opportunity for an individual or company to purchase that service up-front, so you buy the software and you buy five (5) years of maintenance.

The challenge we run into is, if you do that and you do it on a capital model, then you will see no recurring expense. So a vendor could purchase its new servers and the appropriate software that runs on those servers and have a significant one-time charge but no ongoing recurring charge.

So if you take a look at the numbers on page -- sorry --

DR. BYRON WILLIAMS: 13?

MR. LAWRENCE LAZARKO: Page 13, thank you. Locate the peer average, they have a cost of 1.14 million. There is -- again, we have one (1) package in infrastructure and operations to support your legacy systems that in this financial year is worth one -- more than 1 million.

So it's a combination of two (2) things. It's a combination of a legacy systems and including some things that others may not include. We're fixing that with NOVA.

And the second thing is including expenses, and the way we're recoding expenses, which is different from the model some of our peers follow, which is a capital model with a one-time up-front purchase.

Those are -- those are key reasons that separate us from the peer group I just wanted to clarify.

DR. BYRON WILLIAMS: Okay. And your suggestion is they don't depreciate those capital costs over time?

MR. LAWRENCE LAZARKO: I'm suggesting they do that, but the way the Gartner model is constructed is they don't record and report on the specific information here. They do in the overall IT score, but not in the IT operations. It's an area we've been in discussions with Gartner on for years.

DR. BYRON WILLIAMS: Thank you for that.

Mr. Bunko, earlier this afternoon you stated something to the effect that we tried to modernize our systems; it was very expensive.

Do you recall making a statement to -- to that affect, sir?

MR. BRAD BUNKO: I recall a comment about trying to create online capabilities on our existing systems, and that that was very expensive.

DR. BYRON WILLIAMS: Yes, thank you.

And I was just going off my notes.

So I wonder if we can -- and, sir, were you referring specifically to the -- the costs associated associate -- associated with the Customer Claims Reporting System?

MR. BRAD BUNKO: No, I was not.

DR. BYRON WILLIAMS: Well, let me go there. Just in -- for a historical reminder, sir, I wonder if we can pull up CAC-MPI 1-54 from last year's General Rate Application, and specifically the table at Figure 1.

(BRIEF PAUSE)

DR. BYRON WILLIAMS: And so this -- this figure, sir, would represent the deferred development cost write-offs in the '17-18 year, being in the range of $20.2 million. Agreed?

MR. BRAD BUNKO: Agreed.

DR. BYRON WILLIAMS: And of that, about 15.6 would be related to customer claims reporting. Agreed?

MR. BRAD BUNKO: Agreed.

DR. BYRON WILLIAMS: And just quickly if we can go to PUB-MPI 1-74, and that page 2 of 2.

Thank you.

The impairment in 2018-2019, I'll suggest to you, is in the range of 2.6 to $2.7 million, sir?

MR. BRAD BUNKO: Correct.

DR. BYRON WILLIAMS: With about 2.6 of that -- 2.6 million of that again related to the Customer Claims Reporting System, or Customer Self-Serve Release 3?

MR. BRAD BUNKO: Two (2) different things. So Customer Claims Reporting System is very different than Customer Self-Service.

DR. BYRON WILLIAMS: Thank you for that clarification.

MR. BRAD BUNKO: My comment earlier as to where we've tried to create online services was the customer self-service initiative.

DR. BYRON WILLIAMS: Okay. Thank you. That helps to clarify it.

And Mr. Remillard, I will not go back to the Gart -- Gartner review of -- of -- of physical damage re-engineering, if that's what it -- it was called. I can't remember anymore.

MR. JOHN REMILLARD: Physical damage re-engineering, correct.

DR. BYRON WILLIAMS: But in fairness to the Corporation, included in the negative net present value of $49.x.7 million, there -- part of that was a significant write-off related to the Customer Claims Reporting System. Agreed?

MR. JOHN REMILLARD: Yes, it was.

DR. BYRON WILLIAMS: At Value Management .1.6, there is a reference, page 35 and 36 -- there's a reference to the credit card strategy.

MR. JOHN REMILLARD: Yes, there is.

DR. BYRON WILLIAMS: And, Mr. Remillard, I'm not going to get into the -- the cost benefit --

MR. JOHN REMILLARD: M-hm.

DR. BYRON WILLIAMS: -- in terms of the credit card strategy, but the offshoot of what was concluded is that the -- the monthly credit card preauthorization payment option was eliminated. Would that be fair?

MR. JOHN REMILLARD: That is correct. It's being eliminated over the course of the year as customers that renew their Autopac between now -- sorry, between June of 2019 and June of 2020.

DR. BYRON WILLIAMS: And that elimination of that monthly option affected about 10 percent of the customers of Manitoba Public Insurance?

MR. JOHN REMILLARD: That is correct.

DR. BYRON WILLIAMS: And you'll see on lines 13 to 14, that Manitoba Public Insurance engaged in a discussion with IBAM, being the Insurance Brokers Association of Manitoba, and the Government of Manitoba in terms of the business direction to be taken, sir?

MR. JOHN REMILLARD: That is correct.

DR. BYRON WILLIAMS: And after that engagement, that's when the decision to eliminate that option for -- for consumers was -- was made?

MR. JOHN REMILLARD: Yes. It was made -- made on the basis from a value management perspective. If you look above regarding the options that were pursued, we did evaluate the Moneris Tokenization solution.

What that means is that we would have been able to retain that service versus the -- eliminating that service, which was a lower value proposition to implement with a higher return.

It was a difficult decision to make from a customer service perspective, but in -- in putting the value of Manitobans and security of their credit card information at -- at the forefront, we believe it is the right solution and decision going forward.

DR. BYRON WILLIAMS: So there's a reference to engagement with the brokers and to the province. Can you outline the type of engagement that was undertaken with consumers directly, if at all?

MR. JOHN REMILLARD: With consumers?

DR. BYRON WILLIAMS: Yes.

MR. JOHN REMILLARD: So meaning Manitobans? Good question. To that -- to that effect, we'll acknowledge that we did not directly go to customers to seek their input as to how they would feel about eliminating this option.

DR. BYRON WILLIAMS: And can you share with us how Manitoba Public Insurance is actually communicating the fact to these affected consumers that their -- the option that they've chosen is being eliminated?

MR. JOHN REMILLARD: Certainly. As part of their annual reassessment or renewal letter that they receive with their Autopac insurance statement, we've included a -- a brochure which basically states that this service has been eliminated and that they do need to take action, meaning a visit to their Autopac agent or their nearest service centre to transition their existing financing agreement from a credit card service to bank account, and -- and, in essence, insisting that they do so before their renewal date.

DR. BYRON WILLIAMS: So Manitoba Public Insurance insists this will no doubt come as a shock to you, but it is conceivable, I'll suggest to you, that not all consumers read their notices from Manitoba Public Insurance.

MR. JOHN REMILLARD: That is a fair statement, and that is something that we've been monitoring since June when we implemented this, sir. And we anticipated that ten (10) percent of Manitobans would, in essence, not pay -- not pay attention to -- to the leaflet.

What is happening there is that the -- our Autopac agents or the customers respective Autopac agent does receive a notification, meaning a request for service to reach out for their -- to reach out to their customer and basically request that they come in prior to their reassessment.

So that is the secondary line of defence from a customer communication perspective which is, in essence, a phone call to -- to a given customer.

DR. BYRON WILLIAMS: And if the customer renews directly with Manitoba Public Insurance rather than a broker, presumably Manitoba Public Insurance will reach out to those customers?

MR. JOHN REMILLARD: That is correct. Our -- we have a -- a service centre, I'll say it, within our operations that deals with customers as well. Yes.

DR. BYRON WILLIAMS: Madam Chair, I'm not sure what time we're supposed to finish today, whether it's 4:00 or 4:30. I've got a bit to go. I'm at the discretion of the Board.

THE CHAIRPERSON: Can you tell me how much time "a bit" is going to take?

DR. BYRON WILLIAMS: Given the experience of Ms. -- PUB counsel and my colleague, I'm reluctant to, but I'm going to guess twenty (20) minutes?

(BRIEF PAUSE)

THE CHAIRPERSON: Mr. Williams, why don't you carry on and complete your public cross-examination, and then we'll start in the morning with the CSI.

CONTINUED BY DR. BYRON WILLIAMS:

DR. BYRON WILLIAMS: And I'm going to be talking about Legacy System Modernization or NOVA, as it's now branded. And again, I'm just going to reiterate to MPI that here -- if I am trenching upon confidential information will defer the conversation to tomorrow.

But Manitoba Public Insurance has made the decision to approach Legacy System Modernization in delivering in the same project property and casualty system changes as well as driver and vehicle licencing system changes. Agreed?

MR. GARY DESSLER: Yes, that's correct.

DR. BYRON WILLIAMS: And perhaps this is a truism, sir, but would it be fair to suggest that there may be more complexity in delivering the two (2) -- the two (2) projects than the one (1)?

MR. GARY DESSLER: Throughout the year when we did the legacy modernization assessment, you know, that was a topic that we talked about often.

And maybe I'll just kind of point out that, I mean, we're looking at replacing our AOL insurance package. But it also includes the driver and vehicle administration component as well.

So if we're going to be turning off AOL, we need a place to put the driver and -- and licencing components. Right? And that kind of drove us to installing and looking at an insurance package in parallel with a driver and vehicle system.

We felt it was riskier than going inside of AOL and disabling half of AOL and the complexities around the batch. Our AOL environment is, you know -- you know, very old. The batch component is very complex. And we felt that it was riskier to handle that in -- in separate components which is why we felt that we could combine it together and end up with one (1) solution.

DR. BYRON WILLIAMS: Okay. And we'll canvass some of this tomorrow as well, sir. Going as PUB counsel did to CAC-MPI-1-55(c) and the question at the bottom of page 2 -- or the answer at the bottom of page 2 of 2, it is fair to suggest that it is not clear at this point in time whether MPI or the province will be paying for the DVA improvements in the range of $36.6 million? Is that fair?

MR. GARY DESSLER: Yes. We have not -- I mean we're still in discussions with the government about that.

DR. BYRON WILLIAMS: Recognizing that

the proposed capital management plan proposes transfers from Extension to Basic, is Manitoba Public Insurance in the position as of right now to offer the assurance that there will be no money flowing from Extension towards -- the Extension line of business to the DVA project?

(BRIEF PAUSE)

MR. GARY DESSLER: Yes. I would say funding is undecided at this time.

DR. BYRON WILLIAMS: Recognizing that funding is undecided, MPI is not in the position to confirm that there'll be no money flowing from Extension?

MR. GARY DESSLER: Sorry. Can you -- just -- I'm having a problem just understanding kind of the --

DR. BYRON WILLIAMS: Can Manitoba Public Insurance indicate at this point in time whether there is the possibility of money flowing from Extension to the 36.6 million in DVA?

(BRIEF PAUSE)

MR. GARY DESSLER: Yeah. Sorry. Just -- what we're trying to say is we haven't decided how -- if the funding's going to come from Extension or not. That's still undetermined at this point.

DR. BYRON WILLIAMS: Thank you. I'm not sure if I gave you advance notice of this, Kristen, or not, and for that, I apologize. But I'm referring the panel to part 4 IT Appendix 5 Legacy System Modernization, page 4 of 5 -- 4 and 5.

And, sir, you probably know this off by heart. I don't want to -- maybe perhaps we can go up to the top of the page. Sorry.

What I'm trying to get at, sir, is not the one (1) time costs. And so perhaps, Kristen, go on to the next page. My apologies.

I'm trying to get not at the one (1) time cost --

MR. GARY DESSLER: Okay.

DR. BYRON WILLIAMS: -- but at the recurring costs.

MR. GARY DESSLER: Sure. Recurring costs. Okay.

DR. BYRON WILLIAMS: And the current estimate, sir, I'll suggest to you subject to check, is 21.3 million annually?

MR. GARY DESSLER: That's correct.

DR. BYRON WILLIAMS: And of that 7.4 million will be associated -- its estimate with the driver and vehicle administration side of the equation?

MR. GARY DESSLER: Yes.

DR. BYRON WILLIAMS: And in terms of the benefits of -- and if we can just scroll down the page, and thank you for your assistance, Kristen.

Directing your attention to line 13, the total financial benefits reach an annual average of 41.7 million after the program starts -- seven (7) years after the program starts, sir? Is that correct?

MR. GARY DESSLER: That's correct.

DR. BYRON WILLIAMS: Of that, the total benefits for the DVA solution are estimated at 8.5 million?

MR. GARY DESSLER: Correct.

DR. BYRON WILLIAMS: When the business case for the legacy -- and again, if I'm getting into something that's confidential --

MR. GARY DESSLER: Sure.

DR. BYRON WILLIAMS: -- you'll defer me to tomorrow -- when one looks at the business case for the Legacy System Modernization project, there's no disaggregation of -- between the insurance side and the driver and vehicle administration side. It's taken as a package, sir.

MR. GARY DESSLER: Yes, that's correct. Since there's so many dependencies between both sides of the business, we -- we can't -- we don't have a -- well, if we just do insurance, or if we just do DVA. Right. It's all -- it's in an entirety.

So if you look at AOL, AOL itself services both of the driver and vehicle component and the insurance piece. That's the technology that we're looking at replacing. So we need two (2) different packages to support those different lines of business.

DR. BYRON WILLIAMS: Okay. And I'll come to a bit more of this tomorrow. If we can go to CAC-2-24 page 3 of 3.

And, Mr. Dessler, ICBC has conducted a project that is somewhat analogous to that of Manitoba Public Insurance in terms of Legacy System Modernization? Agreed?

MR. GARY DESSLER: Yes, that's correct.

DR. BYRON WILLIAMS: And they hosted a one (1) day workshop with certain Manitoba Public Insurance officials to examine the lessons learned.

Is that correct, sir?

MR. GARY DESSLER: Yes, that's correct.

DR. BYRON WILLIAMS: And among the attendees were Mr. Graham, yourself, and Mr. Bunko? Agreed?

MR. GARY DESSLER: That's correct.

DR. BYRON WILLIAMS: And in terms of the other business stakeholders within Manitoba Public Insurance who might be involved with this, whether within MPI or otherwise, did anyone else attend, or was it more at the executive level, sir?

MR. GARY DESSLER: It was just the three (3) of us from MPI for this session with ICBC.

DR. BYRON WILLIAMS: Okay. And if we go to the third bullet on page 2 of 24 -- oh, it's right there. That's -- sorry, Kristen. Expect chaos when going live.

MR. GARY DESSLER: Yes.

DR. BYRON WILLIAMS: You can understand why that might make my clients feel a little uncomfortable --

MR. GARY DESSLER: Sure.

DR. BYRON WILLIAMS: -- as I'm sure MPI.

MR. GARY DESSLER: Yeah.

DR. BYRON WILLIAMS: I wonder if you can expand on that --

MR. GARY DESSLER: Sure.

DR. BYRON WILLIAMS: -- to the extent that it's not confidential for ICBC.

MR. GARY DESSLER: That's correct. So what ICBC was saying is, you know, when they implemented their systems and rolled it out into the field, you know, things got a little bumpy. Right? They needed to have proper support. Right?

So what they -- what they're kind of warning us is don't expect everything to kind of run through, you know, very smooth. Make sure you got proper controls; you've got people from the projects out in the field helping, you know, the -- the front staff. Expect that, you know, you're rolling a brand new process and so on, and -- and there's going to be some challenges in doing that. So it -- you know, that's what -- what they were warning us about.

DR. BYRON WILLIAMS: And sir, there's a reference to increasing staffing levels where possible.

MR. GARY DESSLER: Sure.

DR. BYRON WILLIAMS: I wonder if you

can expand upon what that cryptic note means.

MR. GARY DESSLER: Sure. What they were saying is, you know, first time you're putting new systems in, people haven't learned it yet. They're still learning how to use the new systems, so don't be looking at, you know, cutting staff immediately, making sure that while you're supporting the old technology, you're also bringing in people to support the new technology. So make sure that you have the right mou -- amount of people to support the new systems as they go live.

DR. BYRON WILLIAMS: And just so I understand, when you're talking about staff, are you referring to IT staff or operational staff or -- or both, sir --

MR. GARY DESSLER: It could --

DR. BYRON WILLIAMS: -- or were they --

MR. GARY DESSLER: Sorry. It -- it -- it could be both.

DR. BYRON WILLIAMS: Just -- and I will meet my time commitment with time to spare. Just directing your attention to CAC-MPI-2-12 and to the actual question on page 1 of 2. Legacy system modernization or NOVA is going to be, I'll suggest to you, a transformative experience for Manitoba Public Insurance, agreed?

MR. GARY DESSLER: Yes, it's going to have a significant impact on us.

DR. BYRON WILLIAMS: And at times of acute transformation, frontline staff often experience stresses in terms of that transition. Would that be fair, sir?

MR. GARY DESSLER: Yes. I mean, I'm not an expert in organizational change, but we do expect that, you know, staff in the front lines are going to feel some stress, and they're going to be learning new technology.

DR. BYRON WILLIAMS: And you'll see the -- our clients asked whether MPI had recently conducted an employee opinion survey to assess the readiness and receptibil -- bil -- receptivity of MPI employees to embark on another major IT project. You see that, sir?

MR. GARY DESSLER: Yes.

DR. BYRON WILLIAMS: And then the question goes on. On the response on page 2 of 2 -- I'll let you take a quick look at it. But what I -- what I don't see there, sir, and you'll correct me if I'm wrong, is an answer to whether or not there was an employee survey undertaken in -- in preparation for this transformative event. And can you respond to that question, sir?

MR. GARY DESSLER: Let me check.

(BRIEF PAUSE)

MR. GARY DESSLER: At this point, we haven't -- we have not performed an employee survey, but we do plan on doing it as we move forward and engaging other stakeholders as well.

DR. BYRON WILLIAMS: And what would be the purpose of that survey, sir?

MR. JOHN REMILLARD: I can respond to that, as it's with respect to NOVA moving forward. As Mr. Dessler indicated, we're just starting to ap -- apply organizational change management practices or the discipline to -- to the program. As -- as recent as last week, we have started our stakeholder analysis. What I mean by that is preparing for how ready are we from a leadership perspective, meaning how is everybody feeling from -- in a leadership capacity.

How are our -- and then we're going to be engaging our stakeholders, so it would be exte --

external stakeholders that are key to the -- to the program. So on that note, we did a stakeholder analysis to -- to assess where on a continuum all of our existing stakeholders rel -- would apply or how would they be impacted by -- by NOVA.

And more importantly, and I -- and I 4:14:16 want to say lastly, more importantly, or -- from an employee perspective, there's going to be an extensive readiness program applied, and this will be gauged all along the program going forward.

How will that occur? By, as Mr. Dessler briefly indicated, in essence, feeling the pulse of -- of an MPI employee and -- and our stakeholders as we -- as we go forward. How are they feeling? And are they feeling prepared?

Operational readiness, as far as our implementations going forward, will be a critical piece from a risk mitigation perspective. And ultimately, when we look at the governance that -- that's been established for Project NOVA, I myself or no business leader can actually put that stake in the sand that we're -- that we're ready to go. It'll be through data of the feedback of our stakeholders, and ultimately, our board of directors has reserved that right to, in essence, prove our go-lives going forward.

So to maybe close it out, Mr. Williams, is that yes, employees will be engaged, though it'll be through questionnaires and -- and through a organized change management approach and involving them in the process. And what I mean by that is employees will be involved in establishing our -- our go-forward processes.

And more importantly, as we build out the -- the software, be it in the agile method that Mr. Bunko's been referring to in his testimony today, we will have a model office. That model office -- employees will be able to drop in. What I mean by that is they'll be able to, in essence, try out the software before we're live.

All of these things, we believe, will put us in a better position to be ready, but as even Mr. Graham stated in his op -- opening testimony, this is one of the largest things that we will be undertaking. It is once in a career, once in a lifetime type of transformation, and yes, there will be some pain points, but we are doing our best to -- to manage those going forward. Hopefully, that answered your question.

DR. BYRON WILLIAMS: Thank you for

that answer, and Madam Chair, four (4) minutes under schedule. I don't promise to -- to do that. I do thank the MPI panel for its time and the Board for giving me a bit of extra time just to finish off. Thank you.

THE CHAIRPERSON: Thank you very much, Mr. Williams.

Do you have a question?

BOARD MEMBER GABOR: I think I'll direct this to Mr. Bunko. Mr. Bunko -- Kristen, if you could pull up the presentation exhibit -- sorry, Exhibit 60, page 16.

The governance model with the creation of the technology committee and this chees -- chief transformation officer and the -- the linkages there, I assume this is coming as a result of the agile model.

MR. BRAD BUNKO: I believe that it has existed in waterfall type projects as well, when it becomes this scale of an initiative, that the board would want to have oversight more than a normal initiative.

BOARD MEMBER GABOR: But you haven't had -- MPI hasn't had this model before.

MR. BRAD BUNKO: No, but I would

suggest that it is more because of the -- the scale --

BOARD MEMBER GABOR: Scale, okay.

MR. BRAD BUNKO: -- as opposed to the agile.

BOARD MEMBER GABOR: And -- and in this chart or diagram, where does the external program governance vendor fit in?

MR. BRAD BUNKO: They will interact 4:17:53 or will certainly provide reports to the technology committee. They will interact with the CEO, the chief transformation officer, the program director. They will be interviewing people at the steering committee levels to ensure that that committee is functional. They will also be getting artifacts out of the project to ensure that things are being well documented and everything is making sense.

They will interact as well with value management, for an example. Any of the key areas where they believe that governance is an important aspect of their oversight, they have free reins to reach out and to get information from those groups.

BOARD MEMBER GABOR: And have you spoken -- sorry, did you have something, Mr. 4:18:45 --

MR. JOHN REMILLARD: I'm not sure if

it's going -- would help, Mr. Gabor, but Kristen, would you be able to pull up Part 4, the IT strategy, Appendix 5, page 9, and it may help. Five dash five (5-5).

Sorry, Mr. 4:19:03 Gabor, if you had another question on that matter, but --

BOARD MEMBER GABOR: Just go ahead, Mr. Remillard.

MR. JOHN REMILLARD: Well, I just wanted to -- to maybe add to -- to Mr. Bunko's testimony this 4:19:14 afternoon, and maybe this picture does present a better model in that, ultimately, you can see the direct line, meaning it's a solid line. It's directly to the board and technology committee.

The dotted line means that there's a relationship. They're working with our executive steering committee, which are our five (5) senior business leaders that are part of the program, as well as myself and all of our executive team, through the inherent governance there. But the direct line is -- is -- what's important here is that it's their direct relationship to the board, sir.

BOARD MEMBER GABOR: Okay, Mr. Remillard. Have you talked to other corporations that have followed this -- this structure where you have an independent governance advisor of external people?

MR. JOHN REMILLARD: There were reference checks performed as part of this procurement to assess both the model and, as well, the capabilities of the -- the vendors that bid, sir.

BOARD MEMBER GABOR: Okay. And do you see any downside to this?

MR. JOHN REMILLARD: Downside? No. Personally, in -- in my role going forward, I see it as a -- an independent lens of assurances that we are on the right track. And nobody's perfect, and what I mean by that is that we've got an outside lens that has both insurance industry experience as well as vast project management experience and risk management experience, and that's the type of individuals that -- that we're dealing with here in this group of five (5).

They will be coming in, reviewing -- I'll -- I'll call it what we deem -- deem to be our current state, what we're focussed on, and what we deem to be, more importantly, the project risks that we're trying to mitigate and what is our mitigation approach. And they'll be providing advice to -- to the board, whether or not, 4:21:11 'A', we're on top of our game regarding those risks, whether they see inherent risks that we're not aware of.

And that feedback loop will give us information to take management actions going forward, and I do believe it'll make us more successful with Project NOVA, therefore.

BOARD MEMBER GABOR: Okay.

MR. GARY DESSLER: I'd like to -- if I could just jump in, I'd also like to add that our -- one (1) of the assessment vendors, Avasant, had recommended that we adopt an independent program advisor as well, and it was something similar that ICBC had during their transformation.

BOARD MEMBER GABOR: Thank you.

MR. BRAD BUNKO: Potential downside is the amount of time that they are drawing from the resources that are trying to do the work. We've recognized that as a potential risk, and we believe we worked out the right kind of level of interaction between those groups so they are not onerous on the project.

BOARD MEMBER GABOR: Okay. I've got a question about the budget. Is -- Mr. Bunko, is it you --

MR. BRAD BUNKO: I'll give it to Gary.

BOARD MEMBER GABOR: -- on NOVA? A hundred and six million dollar budget, 25 percent contingency.

MR. GARY DESSLER: Yes.

BOARD MEMBER GABOR: That's a really high contingency.

MR. GARY DESSLER: It is, yes.

BOARD MEMBER GABOR: Now, I would -- I would propose that there are two (2) reasons to have this high a contingency: number one (1) is the risk of the project, or number two (2), that you're actually at a stage where you're just giving your best guess because you don't have number -- you don't have numbers -- your final numbers coming in. Now, is it either of those or both of those or -- I mean, I've worked on a lot of technology projects, and if we went back with 25 percent, I know where I -- you know, where I would have been.

MR. GARY DESSLER: Right. So yes, and I think the 25 percent contingency is really a function of where we at -- of where we are at in the -- in the process, so we have yet to select specific pieces of technology. So, you know, we -- we have input from two (2) assessment vendors that helped us define that budget, but we have to go to the market and, you know, secure specific contracts before we can finalize that number --

BOARD MEMBER GABOR: So your -- your final number may be part of that 25 percent, the -- I'll just use a round number, twenty-five thou -- $25 million, or it could be higher. Your final number could be higher depending on what the vendors --

MR. GARY DESSLER: There -

BOARD MEMBER GABOR: -- come in with as prices.

MR. GARY DESSLER: I mean, there is risk to that hundred and six point eight (106.8). You know, we -- we'll have to see what the vendors propose both from a software and a professional services.

We've tried to, you know, factor in expertise from externals. We had, you know, services from two (2) assessment vendors throughout the legacy modernization assessment to help us finalize the numbers. We also had a request for information, where we invited vendors in this marketplace in 2018 to come, and we've looked at some indicative pricing that they provided there. We used that to shape our ultimate budget of a hundred and six point eight (106.8). If --

MR. JOHN REMILLARD: Sorry --

4:24:10 BOARD MEMBER GABOR: Mr. Remillard --

MR. JOHN REMILLARD: -- were you done, Gary?

MR. GARY DESSLER: Yeah.

MR. JOHN REMILLARD: I just want to add one (1) important thing from a -- a governance perspective regarding the cont -- 21.4 contingency. I understand your concern and your point. One (1) of the things that our technology committee has put in place regarding our governance is that we don't have the authority to -- to spend that, sir. And so ultimately, what's been put in place is that the CEO, Mr. Graham, has a 5 percent leeway utilization through the -- the course of the program in its entirety to use contingency. Everything else must be approved by the board of directors directly --

BOARD MEMBER GABOR: But I assume --

MR. JOHN REMILLARD: -- if we did draw on that.

BOARD MEMBER GABOR: But I assume at some point you will have a firmer number with a much smaller contingency?

MR. JOHN REMILLARD: That would be the goal, yes. But I just wanted to add the --

BOARD MEMBER GABOR: Sure.

MR. JOHN REMILLARD: -- governance point, yeah.

BOARD MEMBER GABOR: When do you think you will have that number with the smaller contingency?

MR. JOHN REMILLARD: As I stated earlier, based on where we -- we're at with the procurement processes, I would believe that, just thinking in my head for -- September of next year, so going into the -- the Hearings next year we should have a very good idea.

And the reason I say that is our -- our last re -- request for proposal for the property and casualty system integrator will be due and we'll be starting to enter -- just enter into negotiations with that vendor at that time.

So, we should have decent, indicative pricing. It may not be a final number, but I -- I do believe that the -- the project budget going forward should be firmer at that time, sir.

BOARD MEMBER GABOR: Okay. Thank you. Finally, Mr. Bunko, you -- you mentioned that you've had two (2) agile pilot projects. And I got one (1) of them being an online website. I missed the other one (1).

MR. BRAD BUNKO: Is our FINEOS upgrade, BI3s --

BOARD MEMBER GABOR: Yeah.

MR. BRAD BUNKO: -- for bodily injury.

BOARD MEMBER GABOR: Can you tell me what the budget was for the online website and for the FINEOS upgrade?

MR. BRAD BUNKO: I know the budget for the FINEOS upgrade was in the neighbourhood of $2 million.

BOARD MEMBER GABOR: Okay.

MR. BRAD BUNKO: Now, I must add that that was our budget when we originally anticipated doing it waterfall as a special initiative.

We have since changed that budget amount, the expected budget amount, because we essentially operationalized it. It is the product team that works on that application day in and day out fixing defects that is going to be doing the upgrade.

Services that are still needed as part of this upgrade will be from the vendor, FINEOS themselves. And I believe -- let me just get that number confirmed.

(BRIEF PAUSE)

MR. BRAD BUNKO: The revised budget will be between five hundred (500) and six hundred thousand dollars ($600,000).

BOARD MEMBER GABOR: And the online website?

(BRIEF PAUSE)

MR. BRAD BUNKO: I would say that that's a small initiative. And the budget for that would be between one (1) and two hundred thousand dollars ($200,000).

BOARD MEMBER GABOR: And those are the only agile projects that the Company's done to date?

MR. BRAD BUNKO: Correct. We are in the midst of building our AOL agile team, which is -- which -- where a lot more changes happen. And we have on the slate some -- much more expensive changes happening, government regulation changes that we need to make and, yes.

BOARD MEMBER GABOR: Is there any thought of going to a larger project? I -- I mean, what we have are two (2) projects that are quite small. And you're --

MR. BRAD BUNKO: Yes.

BOARD MEMBER GABOR: And you're making a big leap of faith to a hundred million dollars, having had experience with two hundred thousand (200,000) and six hundred thousand (600,000).

That -- you know, you're putting -- you're putting a lot of eggs into the one (1) basket. And I'm just wondering if it's worth mo -- having a pilot project of 5 million or $10 million and seeing how that works before you -- before you move completely into -- into no agile for NOVA?

MR. JOHN REMILLARD: There are a couple components. I hear you loud and clear.

BOARD MEMBER GABOR: Yeah.

(BRIEF PAUSE)

MR. JOHN REMILLARD: And so, maybe I'll try and address it this way. Agreed, our -- our experience to date is on a smaller scale, acknowledged.

However, one (1) thing that we haven't talked about so far in the -- in this process on -- on this panel regarding agile is that we aren't embarking on this journey ourselves, and so -- so that is a big difference.

Yes, we are seeking some help via an agile coach. That will be one (1) of the risk mitigation measures that we're taking. On the procurement process for both the driver and vehicle administration and the property and casualty system integrators.

We're looking to those vendors to bring -- I'll -- I'll call it the best of breed processes that they have for implementing their technology.

In the beginning, we envision that these integrators will be dri -- I'll -- I don't want to say driving the process. Their resources will be a larger portion of the overall team.

Yes, there will be some MPI work that will be happening in parallel; it will be on a smaller scale. So, I -- I respect the fact that you're -- you're trying to contrast the -- very small projects to the hundred million dollar scale.

However, when you look at it from an overall spend perspective, and we are dissecting that currently as to what the true MPI spend is, the system integrators will be providing the bulk of that expertise, sir, in the beginning and we'll be complementing that team versus driving that team in the beginning.

So, I'm not sure if that alleviates some of your concerns or your point, but it is a little different than maybe how it's been expressed so far this afternoon.

BOARD MEMBER GABOR: I appreciate that, Mr. Remillard. I -- I guess the question I have for you is do you remember TQM --

MR. JOHN REMILLARD: Yes.

BOARD MEMBER GABOR: -- total quality management?

MR. JOHN REMILLARD: Yes.

BOARD MEMBER GABOR: And it was -- it was the phase that people in business process followed and there was an entire industry built around it and for years, everybody followed it. And then -- and the service providers were -- there was a big industry of service providers doing it.

And then aft -- I see some nodding in the back row. But after about, I don't know, eight (8) to ten (10) years, people realized that it didn't fit all the models and we don't hear much about it now.

MR. JOHN REMILLARD: No, I hear you.

BOARD MEMBER GABOR: I'm -- that's the --

MR. JOHN REMILLARD: Yes. And --

BOARD MEMBER GABOR: You know, I -- I -- it's important to move in this direction. I understand it but I'm just, you know, it's -- it's just a word of caution so.

MR. BRAD BUNKO: I just want to add that for Agile it's been in -- kind of in the industry for twenty (20) years, so, it's -- it's pretty main stream. You know, MPI is -- this is an area that MPI is playing catch-up a bit.

All of the integrators and all of the product vendors that we've been talking about work in Agile. So what we're trying to do is, you know, increase our knowledge to get in -- you know, to catch up with what the rest of the industry is doing.

BOARD MEMBER GABOR: Except there are people who do Agile or a combination of Agile and Waterfall or a hybrid or -- depending on what the project is.

MR. BRAD BUNKO: Yes, I -- I agree.

BOARD MEMBER GABOR: Thank you, those are my questions. I apologize for being two (2) minutes over.

THE CHAIRPERSON: Do you have any questions? Thank you very much. We'll reconvene tomorrow at nine o'clock and start the portion of the cross-examination of the panel on CSI. Thank you.

(PANEL RETIRES)

--- Upon adjourning at 4:32 p.m.

Certified Correct,

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Donna Whitehouse, Ms.