MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA PUBLIC INSURANCE COMPANY
GENERAL RATE APPLICATION
FOR 2009/10 INSURANCE YEAR

Before Board Panel:

Graham Lane - Board Chairman
Eric Jorgensen - Board Member
Alain Molgat - Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
September 30th, 2008

Pages 887 to 1105

APPEARANCES

Walter Saranchuk		)Board Counsel
Candace Everard		)
Kevin McCulloch		)Manitoba Public Insurance
Raymond Oakes		)CMMG
Byron Williams		)CAC/MSOS
Nick Roberts	(np)	)Manitoba Used Car Dealers
		)Association
Donna Wankling	(np)	)CAA Manitoba
Jerry Kruk		)
Robert Dawson		)CBA/MBA
Claudio Sousa	(np)	)Scootering Manitoba

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UNDERTAKINGS

--- Upon commencing at 9:07 a.m.

THE CHAIRPERSON: Okay. Good morning again, everyone. We are interrupting the cross-examination of the panel by Mr. Oakes by a witness from Aon.

Mr. Saranchuk, did you just want to introduce the concept.

MR. WALTER SARANCHUK: Yes, well, Mr. Bell is being produced at the request of the Board for cross-examination purposes, and essentially he will be asked some questions in direct examination by counsel for MPI, Mr. McCulloch, and be introduced to review his qualifications as an expert in his field.

And then, as I say, we'll have some questions in cross-examination on behalf of the Board, followed by cross-examination by the other participants and Intervenors, in accordance with the list that we have and the procedural outline.

THE CHAIRPERSON: Thank you, Mr. Saranchuk. Mr. McCulloch, do you want to introduce Mr. Bell and begin the process?

MR. KEVIN MCCULLOCH: Yes, Mr. Chairman, perhaps we should have him sworn as a witness first.

THE CHAIRPERSON: Mr. Gaudreau...?

JEREMY BELL, Sworn

THE CHAIRPERSON: Welcome, Mr. Bell.

MR. KEVIN MCCULLOCH: Mr. -- Mr. Chairman, the first step would be to file, as MPI Exhibit Number 14, Mr. Bell's curriculum vitae.

--- EXHIBIT NO. MPI-14: Jeremy Bell's curriculum vitae

THE CHAIRPERSON: Mr. Bell, you come before us at a time of considerable interest in the stock market and security matters.

(BRIEF PAUSE)

THE CHAIRPERSON: Thank you, Mr. McCulloch.

(VOIR DIRE COMMENCES)

EXAMINATION-IN-CHIEF BY MR. KEVIN MCCULLOCH:

MR. KEVIN MCCULLOCH: Thank you, Mr. Chairman. Now, Mr. Bell, I understand that you are a senior consultant with Aon Consulting in Vancouver?

MR. JEREMY BELL: Yes.

MR. KEVIN MCCULLOCH: How long have you held that position?

MR. JEREMY BELL: Three (3) years.

MR. KEVIN MCCULLOCH: And I understand that from an educational background point of view you have a Bachelor of Science in Honours Mathematics from the University of Victoria?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: I also understand that you are a Chartered Financial Analyst Charter Holder, is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: And when did you attain that designation?

MR. JEREMY BELL: 2004 or '05.

MR. KEVIN MCCULLOCH: You are also a Fellow of the Society of Actuaries and the Canadian Institute of Actuaries?

MR. JEREMY BELL: Correct.

MR. KEVIN MCCULLOCH: And when did you attain that designation?

MR. JEREMY BELL: 2005.

MR. KEVIN MCCULLOCH: Now in your capacity as a senior consultant for Aon Consulting, I understand that you have participated in a number of asset liability allocation studies.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: Your resume indicates approximately twenty (20) such studies.

MR. JEREMY BELL: That -- that's about right, yeah.

MR. KEVIN MCCULLOCH: And over what period of time would you have been involved in those studies?

MR. JEREMY BELL: Since joining Aon, so three (3) years.

MR. KEVIN MCCULLOCH: And can you give us a -- a brief explanation as to what the purpose is and -- and how a asset liability modelling study works?

MR. JEREMY BELL: Sure. The purpose varies by a client so it's not as easy as a single purpose. But largely most studies are the same as MPI's, which is establishing a strategic asset mix that's appropriate for the company's or the entity's objectives. So setting a mix that maximizes reward and risk relative to what each organization considers to be reward and risk.

MR. KEVIN MCCULLOCH: Mr. Chairman,

based on Mr. Bell's academic standing and his experience in the field, I would ask that the Board certify him as an expert in the topic to which he'll be giving evidence, the asset liability study.

THE CHAIRPERSON: Do any of the other parties have a view?

MR. BYRON WILLIAMS: We take no issue with his qualifications.

THE CHAIRPERSON: We accept Mr. Bell. Thank you.

MR. KEVIN MCCULLOCH: Thank you, Mr. Chair.

(VOIR DIRE CONCLUDES)

EXAMINATION-IN-CHIEF BY MR. KEVIN MCCULLOCH:

MR. KEVIN MCCULLOCH: Now, Mr. Bell, you were involved in the asset liability modelling study that has been produced in these proceedings as part of Exhibit AI-11.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: Can you tell me first of all, Aon Consulting responded to an RFP with respect to this study, did they?

MR. JEREMY BELL: Yes.

MR. KEVIN MCCULLOCH: Were you involved in the preparation of the response to the RFP?

MR. JEREMY BELL: I was.

MR. KEVIN MCCULLOCH: And when the job was awarded to Aon, you and others from your firm were involved in this study I presume?

MR. JEREMY BELL: Correct. There were maybe five (5) people in a total that were involved in the study.

MR. KEVIN MCCULLOCH: And can you tell the Board what your role was in connection with this study?

MR. JEREMY BELL: I was the main consultant on actually doing it, so authoring the study itself, liaising with our modellers and liaising with MPI to make sure that everyone was doing the right thing.

MR. KEVIN MCCULLOCH: And at the conclusion of the study when the report was issued, was it your role to review and approve that report?

MR. JEREMY BELL: Well I authored the report. It was reviewed and approved by another colleague.

MR. KEVIN MCCULLOCH: Now you've mentioned that studies of this nature involve modelling.

Can you give us an explanation as to what you mean by that.

MR. JEREMY BELL: Yeah. Modelling in that context -- it kind of varies by study, but -- but in -- in this study, modelling is going to be projection -- projecting out the liabilities into the future, relying rel -- relatively heavily on MPI's internal actuary for liability figures, and projecting out assets that match up with the liabilities and linking them together. It's going to be setting asset mix assumptions and -- and determining certain variables that are of interest into the future. And those are the variables that are projected in the report.

So that's largely what we mean by modelling and then using that information to make decisions.

MR. KEVIN MCCULLOCH: Now you mentioned that there are a number of assumptions that come into play when you're doing a study such as this.

What sort of assumptions are you talking about?

MR. JEREMY BELL: The main assumptions would be asset class returns, asset class standard deviations in the future, correlations of asset classes -- class returns with each other. There would be some assumptions on liabilities and how they're going to be growing, but that's kind of -- was relatively highly linked-up with what the internal MPI actuary was doing. That would be the main set of assumptions. There's other inputs, which would be the objectives of the study, which are set by MPI, but not -- not really assumptions.

MR. KEVIN MCCULLOCH: All right, then maybe you can, first of all, explain the role that any client in a study such as this would play in setting objectives for the study.

MR. JEREMY BELL: Objectives, the client would typically have 100 percent ability to set them themselves. We tend to, in the initial meetings, feed possibilities of different objectives that the client might have that are reasonable that other clients do, because most clients don't go through asset liability studies all that frequently. But then it's ultimately the client's responsibility to say what really matters to our organization.

So MPI would have had 100 percent responsibility for the objectives of the study.

MR. KEVIN MCCULLOCH: So is it fair to say that the role that MPI played in setting the objectives for this study is typical to other studies that you've performed?

MR. JEREMY BELL: Yes.

MR. KEVIN MCCULLOCH: What about assumptions? Was there any role that MPI played in setting, or giving direction, with respect to assumptions that were to be applied?

MR. JEREMY BELL: Limited role, and there was some back and forth on some small assumptions. Our normal protocol is we typically develop a recommended list of assumptions on asset classes, which is the large driver of what the -- the results are going to be, and give it to the client.

MPI would then have the ability to comment on it and provide some guidance to the extent that we thought that guidance was reasonable. My recollection, it was -- the guidance was fairly limited and fairly typical of any other kind of client.

MR. KEVIN MCCULLOCH: As an example, I understand that you may have been given some direction on assumptions from MPI, with respect to emerging markets.

Is that correct?

MR. JEREMY BELL: Yeah, I -- well I -- I'd say -- I would typically call that maybe a little bit of a different thing than assumptions. I would call the emerging market direction -- the -- the model is just not possible if you're going to be modelling every single asset class in the world, so you need to sort of frame it in which -- which asset classes you want to even start with.

So it wasn't an assumption that we got from MPI; it was, Don't include this asset class because it's not a realistic thing that we're going to implement.

MR. KEVIN MCCULLOCH: And in -- in round terms, approximately how long did it take you to complete this report?

MR. JEREMY BELL: From beginning the whole process, like setting the assumptions, that would be five (5) months -- four (4) to six (6) months, I'd say.

MR. KEVIN MCCULLOCH: And at the end of this study, you came forward with two (2) recommended portfolios.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: And those were Portfolios Number 5 and Number 10.

MR. JEREMY BELL: They are but -- I guess they're from Portfolio 5 and 10 from different graphs, so it's a little confusing to say that but they're in the executive summary of the report.

MR. KEVIN MCCULLOCH: And in these record

-- or in these recommended portfolios, something called the efficient frontier played a role in these recommendations.

Is that correct?

MR. JEREMY BELL: That's correct. So each one of those portfolios on its respective graph would have been on the efficient frontier.

MR. KEVIN MCCULLOCH: And, again, can you give us a -- a high level description of what the efficient frontier means?

MR. JEREMY BELL: The efficient frontier is simply a graph of the optimal portfolios; optimal being that they provide the highest level of reward for a given level of risk, whatever the reward and risk are that are defined in the studies, so the objectives of the study. That means that there's no free lunch. There's no -- there's no portfolio that you could choose that's gonna give you more reward without taking on more risk.

So that's why we call it optimal.

MR. KEVIN MCCULLOCH: Now I understand and there's been evidence before these proceedings, or in these proceedings, that MPI, at the conclusion of the study, selected a modified Portfolio Number 11 as the portfolio that they wish to proceed with.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: And at page 70, there's a graph -- this is page 70 of -- of your report -- a graph showing modified Portfolio Number 11, sort of in the -- in the middle of the graph there, just slightly below the efficient frontier.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: Can you provide the Board with your opinion as to the appropriateness of MPI's choice of modified Portfolio Number 11.

MR. JEREMY BELL: Sure. I'd say first, it's relatively typical that clients don't choose an exact portfolio that is on the efficient frontier, so that it's not on the efficient frontier isn't particularly troublesome to me. That it's relatively close to the efficient frontier tells me that MPI accepted the spirit of the modelling and moved towards the efficient frontier.

But there were some questions, which all clients have when you're ultimately implementing a portfolio. There's practical considerations of what you want to do. They're -- you're starting from a position then going to a position; whether you want to go that entire way is an open question. As far as the frontier goes, choosing something that's relatively close is fairly typical.

I don't know if you want me to get into all of the asset class decisions.

MR. KEVIN MCCULLOCH: Again, without getting into too much detail because it -- the report, I think, contains that detail, but if you want to make some of -- or some observations on the asset classes that MPI included in its modified Portfolio Number 11, that would be fine.

MR. JEREMY BELL: I'd say the only thing that would stick out to me is -- somewhat questionable would be --not -- not questionable, but I would have preferred to have seen is -- is not leaving 30 percent of the assets in Universe Bonds, moving towards longer-term bonds. That decision to me is -- mitigates risk; it makes your portfolio move closer to what your liabilities are going to move like.

So it's not a tactical decision to add value; it's a decision to take some risk off the table if you move more of your -- your assets towards longer-term bonds. But other than that, I don't think there's anything that was particularly noteworthy, from my perspective.

MR. KEVIN MCCULLOCH: Well, then perhaps

I can direct you to some asset classes that aren't included in modified Portfolio Number 11.

The first one being real return bonds. Can you provide some observations on the fact that this portfolio does not include Real Return Bonds?

MR. JEREMY BELL: Yeah. Real Return Bonds are sensitive to a couple of things: changes in inflation and changes in interest rates. They're also priced at a level so the yield that's offered in Real Return Bonds is at a level where inflation needs to be relatively high.

It needed to be fairly high before it's even priced a bit more expensive -- now inflation has to be rather high today if you're investing in Real Return Bonds to make them pay off relative to nominal bonds which would be Universe Bonds or Long-Term Bonds.

As well I -- I guess I'd note, real estate has a fairly good link to inflation so you're getting some inflation protection. Infrastructure is similar to real estate in inflation protection. And equities to some extent have inflation protection built into them. So I wouldn't say that there's an abandonment of protection for inflation.

The other thing that's a bit imperfect about Real Return Bonds is you can't -- you don't really have the ability to get any return beyond what the Government of Canada will give you. Where nominal bonds if you invest in them you can get a return based on investing in corporate, so are Provincial bonds. I -- both of those give you a premium over the Government of Canada bonds.

So if you compare the like Government of Canada's to the like Real Return Bonds, perhaps Real Return may be slightly more attractive.

I'm not saying it would show up here, but if you compare like -- or if you compare the Real Return Bond option which is just Government of Canada versus the ability to invest in provincial bonds, which will give you a yield pickup, and corporate bonds, which will give you a yield pickup, it makes them further -- a little bit less attractive.

MR. KEVIN MCCULLOCH: So am I correct in saying that as a result of this study, you support the position not to become involved in Real Return Bonds?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: There's also been an observation that the portfolio, modified Portfolio Number 11 doesn't include any investment in BRIC which I understand stands for Brazil, Russia, India and China, is that correct?

MR. JEREMY BELL: That's correct.

MR. KEVIN MCCULLOCH: And what sort of investments are we talking about in the BRIC market?

MR. JEREMY BELL: Well, your only BRIC investment you end up doing would be a -- or generally be an equity investment. My -- my comments on that would be I've never seen an institution portfolio that has a specific allocation to BRIC; You'd more often see an allocation to international equities or to emerging market equities, not to BRIC as its own sub area. And the thought at the beginning was there wasn't much of an appetite for -- for emerging market equities.

You'd start to get -- if you -- if you started to add all these different equity classes then you start to get relatively small allocations. It's already -- foreign equities are fairly small, so to fragment it one (1) step further might not really change the results of MPI that much and may just be more of a hassle than -- than what you get out of it.

MR. KEVIN MCCULLOCH: I'd also like to direct your attention, Mr. Bell, to page 12 of your report, and in specifics I'm referring to the second bullet on that page where there's a discussion about the role of the RSR.

And could you provide some comment first of all as -- as to where this observation comes from and -- and what it means.

MR. JEREMY BELL: Sure. I -- well the observation comes from a chart in the -- in the appendix. I -- I don't know if I need to take everyone through it.

But one (1) of the charts in the appendix led us to the conclusion that there was going to be a -- an adjustment to the premiums, either a refund or an increase in premiums, in about 60 or 70 percent of the years applying the RSR band. So the comment came directly from that, which is the RSR band, although it -- it keeps retained earnings in a certain tight band, doesn't necessarily stabilize the rates.

And so it was just an observation from that graph.

MR. KEVIN MCCULLOCH: Thank you, Mr. Bell, those are all the questions that -- that I have.

THE CHAIRPERSON: Thank you, Mr. McCulloch. We'll move now to Mr. Saranchuk.

CROSS-EXAMINATION BY MR. WALTER SARANCHUK:

MR. WALTER SARANCHUK: Thank you, sir. Now, Mr. Bell, just generally, when was Aon engaged to undertake this study, approximately?

MR. JEREMY BELL: Let's call it mid-

September. About mid-September. The initial meeting was, I think, the last couple of days of September, so about a year ago today.

MR. WALTER SARANCHUK: September, 2007, then?

MR. JEREMY BELL: Yes.

MR. WALTER SARANCHUK: All right. And it was completed, I see -- that it's dated, in any event, on March 16th, 2008.

MR. JEREMY BELL: Correct.

MR. WALTER SARANCHUK: Now, when it was submitted for approval by your colleague after you authored it?

MR. JEREMY BELL: Various times. There was about five (5) iterations of the -- of the report. I'd say the last version of the report had very limited changes. The main -- the main reviews came in January when the meat of the report was given and there was a presentation to the Board at the end of January of the final draft report. That --

MR. WALTER SARANCHUK: Sorry, did you say, "when the meat of the report was given"? Or what did you say there? I'm sorry, I didn't catch that.

MR. JEREMY BELL: Well --

MR. WALTER SARANCHUK: In January, when--

MR. JEREMY BELL: In January -- almost the entire report was written effectively in January, So that's when almost all of the reviews went from -- from our colleagues.

MR. WALTER SARANCHUK: All right. And so we're talking approximately a six (6) month period of time over which the report was being prepared.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. WALTER SARANCHUK: And you indicated you were the main consultant, in respect of this particular engagement?

MR. JEREMY BELL: I was the main doer. I authored and -- and dealt with MPI directly. So, I mean, we don't really have a term for main consultant but I would have been, more than the majority of the time, the person to talk to the different parties and write the report.

MR. WALTER SARANCHUK: And you had -- did you say four (4) or five (5) others within your company that were also working on this with you?

MR. JEREMY BELL: Yes.

MR. WALTER SARANCHUK: And I think you indicated in your evidence on direct examination that you were liaising with MPI and these other individuals.

MR. JEREMY BELL: Correct.
MR. WALTER SARANCHUK: And you say, however, at the end of the day, you personally were responsible as the author of the report.
Is that correct?
MR. JEREMY BELL: Yeah. I -- I'm -- I'm responsible but with peer view standards, the person that reviews it accepts some responsibility and provides some guidance. So it's not 100 percent responsibility but, you know, I take responsibility for the report.
MR. WALTER SARANCHUK: Who is this other individual? Is he within Aon?
MR. JEREMY BELL: He is. Brendan George will be the main reviewer of the report.
MR. WALTER SARANCHUK: And what are his qualifications compared to yours, generally? Why would he have the input that he did?
MR. JEREMY BELL: He is senior to me. He's in charge of our retirement practice area in Aon -- in our central west area, which is the consulting on liabilities, largely to pension plans. He used to be the head of our investment consulting practice up in -- nationally, up until late last year. And he consults on investment issues and has been doing it for fifteen (15) years.

MR. WALTER SARANCHUK: So is it correct to say that the views expressed in the report essentially are yours though?

MR. JEREMY BELL: I'm going to say I agree with them, but they are Aon's views. They've all been peer reviewed by my colleagues -- or my colleague peer reviewed directly and my colleagues, over time, as we've developed intellectual capital in the area.

MR. WALTER SARANCHUK: Did MPI or its internal investment committee working group have any input into the drafting of the final report?

MR. JEREMY BELL: Yes, we sent them reports and they provided us with comments but I'd say limited.

MR. WALTER SARANCHUK: So can we say that the final product was still and nonetheless your document or was it a -- a consensus, so to speak, with MPI?

MR. JEREMY BELL: Absolutely my document and I'm comfortable with it.

MR. WALTER SARANCHUK: My Learned Friend, Mr. McCulloch, reviewed with you some of the -- the information contained on page 12 of the report. You just might want to take a look at that. And, in particular, I'm looking at the second bullet that he drew your attention to, where it states, quote:

"It is worth noting that the RSR rules as currently drafted serve largely to stabilize the retained earnings rather than stabilizing the rates paid by the policyholders [bracket] (where rates are considered to be Basic rates, surplus distributions, and additional premiums) [end of bracket, period]."

Then it says:

"Annual application of the [then it's again a quote]. Annual application of the RSR rules [bracket] (rather than a longer period such as three (3) years) [end of bracket], and a very tight RSR band relative to the size of the portfolio, will result in rather unstable rates paid by [bracket] (or refunded to) [end of bracket] policyholders [period]." End of quote.

What is actually meant by that particular paragraph, sir?

MR. JEREMY BELL: Well, one (1) of -- one of the original objectives of the study, which wasn't now part of the report, was to stabilize the premiums paid. And so in looking at what the premiums paid were and considering the premiums paid being Basic premiums plus adjusting it for surplus distributions and adjusting it for increase in premiums, it was -- it's simply a comment that there's something like that that's going to be happening in two-thirds (2/3s) of the years, so the observation is simply that the rate stabilization reserve from the modelling perspective doesn't necessarily serve us to stabilize those rates, as well as I might consider with some other different types of margins I've seen with different institutional clients.

MR. WALTER SARANCHUK: Were you aware, sir, that the rebates that had been issued in the past two (2) years had been done separate of rates and that rates -- that the rates have not been adjusted?

MR. JEREMY BELL: No, I was considering when I was writing that rebates -- I mean sort of ignoring the larger context of them that money paid to and from -- or money paid from policyholders to the company were -- the net money that the company got from them was rates, whether -- I mean whether they were called rates or not, when they're paid rebates or -- I wasn't considering.

MR. WALTER SARANCHUK: Are you aware that the rate levels had not changed?

MR. JEREMY BELL: Not explicitly, no.

MR. WALTER SARANCHUK: Can you indicate why you did define rates to include rebates; that is the surplus distributions and your discussion on rate volatility?

MR. JEREMY BELL: If I were an individual, that's how I'd consider rates to be. It's my observation based on the net amount of money that I would pay to the company, that that net amount of money that -- paid to the company, so what I paid out versus what I got back, so the net amount would be a fairly volatile number -- or not -- not volatile, but would change fairly frequently.

MR. WALTER SARANCHUK: You say you would take that position as an individual, but in your position as an expert do you take that position?

MR. JEREMY BELL: Well, I think I'm using rates in a different way than you're using rates. The way I've written rates in the report it's obviously not the way you're using -- using rates. So I mean I think we're talking about two (2) different things.

MR. WALTER SARANCHUK: Did MPI bring to your attention that there had been no change in rate levels?

MR. JEREMY BELL: We would have had the right rate levels in -- in the report and in the modelling. They didn't, on seeing that comment, say there was no change in rate levels and I think that the qualifications where I'm stating what I consider -- would consider rates to be wouldn't have made them take immediate offence to it.

MR. WALTER SARANCHUK: In the agreement that you'd entered into with the Corporation to provide services that you did, sir, at page 3 -- I don't know if you have to refer to this -- but in Section 2.05 called "Report Review," I can quote to you for the record what it says. Quote:

> "Prior to submitting the written report to Manitoba Public Insurance's investment committee, key members of the vendor's staff shall be required to review the proposed asset liability study with personnel from Manitoba Public Insurance. Subsequent to this review, the vendor shall make such changes as are directed by Manitoba Public Insurance. The final version of the report shall be delivered to Manitoba Public Insurance no later than December 31st, 2007." End of quote.

And of course the vendor is Aon Consulting

Inc., isn't it?

MR. JEREMY BELL: That's right.

MR. WALTER SARANCHUK: And just in terms of that understanding that the vendor shall make such changes as are directed by MPI, is that common in -- the request for these kind of reports and studies? At least in the ones that you've undertaken.

MR. JEREMY BELL: I'd say no, but -- yeah, I'd say no.

MR. WALTER SARANCHUK: But you of course were prepared to live with it.

MR. JEREMY BELL: We would have put qualifications in if there was something that we weren't prepared -- prepared to live with but -- in the reports -- but we would have accepted feedback from MPI.

MR. WALTER SARANCHUK: So you weren't concerned about perception, that perhaps someone might say, Well wait a second, this isn't Aon's study, this is Aon's study to accommodate MPI?

MR. JEREMY BELL: I would say I wasn't concerned with that particular part of the contract. The way that the discussion goes with any client is that it's always collaborative, but the -- the report is ultimately ours and we're not going to sign or submit anything we're not comfortable with.

So I wasn't particularly concerned that this mandate would turn out with us being asked to do something that we wouldn't have done, because it -- had it reached that point, there would be some other resolution to the problem because it -- we're not going to sign it -- MPI's report.

MR. WALTER SARANCHUK: And at the end of the day of course, MPI adopted something other than what you had recommended.

MR. JEREMY BELL: Correct.

MR. WALTER SARANCHUK: And you're prepared to sign-off on that as being something that's acceptable, according to your study.

MR. JEREMY BELL: Yeah, I'd say it's reasonable. I'd prepare long bonds obviously like I've stated, but otherwise modelling is fairly sensitive to inputs and I don't think relying on modelling as the gospel makes sense. MPI, like all clients, I recommend that they use the modelling as directional and make decisions in that way. And most directions that they went were fairly consistent with what we'd said so, I'm comfortable with the direction they're going.

MR. WALTER SARANCHUK: Of course, what they did accept was Portfolio Number 11, is that correct?

MR. JEREMY BELL: They accepted a

modified version of Portfolio 11.

MR. WALTER SARANCHUK: All right. And in retrospect, do you think that perhaps Aon should have had some qualifications included in the study, by reason of that fact?

MR. JEREMY BELL: Well our study is -- it almost has nothing to do with what they ultimately decide to choose. Our study is -- tried to set what a strategic asset mix would be relative to the modelling. Whether clients use it or to the extent that they use -- accept the modelling is sort of next step. In fact it's a little bit special to have even that -- that last appendix which was put in there at MPI's request to see whether or not that ultimate portfolio made sense.

But, I mean, we can't sort of predict what they're going to ultimately choose with -- when they get to their investment working group months later and they're trying to implement the report. So it's advice on what direction to go from us; where they go, I mean, I wouldn't qualify it because it wasn't even confirmed exactly where they were going to ultimately go. This was just a portfolio -- they wanted models they could see whether it was appropriate.

MR. WALTER SARANCHUK: Yes. And in your evidence on direct examination, you indicated that you would personally as the consultant have preferred a movement to Long Term Bonds.

Is that anywhere in your report?

MR. JEREMY BELL: Our recommended portfolio has Long Term Bonds. I didn't comment specifically on my likes or dislikes on the modified Portfolio 11 in the report. That wasn't part of the mandate.

MR. WALTER SARANCHUK: I'm having difficulty understanding that. You, in your engagement as the individual who was to provide the ultimate or optimum -- optimal, I guess it is, asset class, didn't feel duty bound as part of your engagement to make some comment in respect of the last choice made by MPI?

MR. JEREMY BELL: Well, it wasn't actually technically last choice. They asked me to model that particular portfolio as -- and to see whether -- where it showed up relative to the efficient frontier. That I would feel duty bounds to follow everything through to the completion and see exactly where they implemented things? No, that's not typical practice.

MR. WALTER SARANCHUK: Okay, sir. On December 14th of last year, as I understand it, Aon provided its first report by way of a PowerPoint presentation where you outlined your suggested portfolio

mix as follows:
Namely, that the primary goals of the study as set out on the presentation were:
1. To maintain retained earnings within the RSR band established by the Public Utilities Board. That was the primary objective.
And secondly, to maximize return. In particular, maximized likelihood of attaining a 5 percent return which was the secondary objection.
You recall that in your PowerPoint presentation in December?
MR. JEREMY BELL: Okay.
MR. WALTER SARANCHUK: In the final report, I'm advised and it appears, in any event, on page 3 of the executive summary, that there was a change in the goals and -- and I'm just paraphrasing what appears in the second paragraph on page 3 of your report, and that is to (a), minimize the tracking error of the assets relative to the liabilities and (b), maximize returns subject to the reasonable levels of risk.
And do you see that, sir?
MR. JEREMY BELL: I do.
MR. WALTER SARANCHUK: And what was behind those changes?
MR. JEREMY BELL: Those were from MPI,

based on receiving the initial results. There was a discussion at MPI and it was decided that the assumptions weren't -- or the objectives, sorry, weren't exactly what they had wanted. The ultimate objectives, I think were more catered to -- to prudently managing the company, where the original objectives were -- were within the construct of the PUB order, which is ultimately something that they have to comply with. But they wanted a -- sort of a more broad -- let's make sure that the assets and liabilities are moving together, as opposed to a more specific objective on the -- relative to the RSR band.

MR. WALTER SARANCHUK: And in your decision or in your instruction to make those changes, were you dealing with anybody in particular from MPI?

MR. JEREMY BELL: Well, I was dealing with Glenn Bunston at MPI, the Director of Investments. Yeah, he can tell you internally exactly how the -- or if they can...

MR. WALTER SARANCHUK: And what was your reaction to the instruction to change the goals?

MR. JEREMY BELL: I'd say entirely reasonable. It may have been a bit -- it's not necessarily common to change the objectives halfway through a study but I think that there was a recognition that the objectives weren't exactly what MPI wanted, so they decided to change the objectives.

Those objectives to me -- either set of objectives -- objectives to me appear reasonable as an outsider. So it really is what -- what does MPI value as far as objectives go? And so they made a different judgment when they had some results and had some objectives in front of them.

MR. WALTER SARANCHUK: Who set the initial objectives?

MR. JEREMY BELL: MPI, originally.

MR. WALTER SARANCHUK: And so there was no discussion in respect of the validity, if you will, or acceptability, vis-a-vis MPI, in the stating of those initial objectives, at least not until there was some results of your study known.

Is that correct?

MR. JEREMY BELL: Hm --

MR. WALTER SARANCHUK: What I'm getting at is -- can you explain a little bit more in terms of how it came about that initially you were working with two (2) objections. There was no question about them. You addressed those and then suddenly after there was this information provided on a preliminary basis, you found yourself working with a couple of other objectives.

First of all, did that surprise you?

MR. JEREMY BELL: Did it surprise me? Asset liabilities today are reasonable dynamic. It didn't surprise me. It's not -- I mean, it would be not all that common to do something and -- and -- and switch it.

But -- I mean, the switch of objectives was fairly minor in terms of what the results were going to be. I feel like I'd be guessing a little bit if I got to -- if I got any deeper into why I think MPI changed the objectives, because it happened with limited consultation from us.

I mean we -- we agree that these objectives are modellable and reasonable for someone to have in a study, but ultimately those objectives came from MPI.

MR. WALTER SARANCHUK: So there was no rationale that you discussed with MPI, relative to the change?

MR. JEREMY BELL: Well, the rationale at the very high level would be that they wanted to run -- or make their decisions based on what's best for the company, as opposed to based on a specific order; so long term health of company having the assets and liabilities moved closer together. Both -- the objectives that they had originally served to do that but was a little less direct than the objectives that they ultimately got.

So that was the high, high level discussion, but if you need more detail I'd think MPI would be the people to talk to because I cert -- got more second hand information then.

MR. WALTER SARANCHUK: Can you give us an idea of how the results of the modelling changed when the objectives changed?

MR. JEREMY BELL: The changes were fairly limited. I don't have it broken out exactly what -- what they were, but ultimately if you're trying to manage your retained earnings within the band, versus you're trying to have assets close to liabilities, those are fundamentally and fairly similar things. So you're not going to have fundamentally different portfolios at the end of the day, assets and liabilities moving closer together should make retained earnings more stable.

MR. WALTER SARANCHUK: And I'm looking at the table in the executive summary on page 1, sir, if you wouldn't mind referring to that.

And for the benefit of all of us, would you just give us an indication of what each of those columns represent.

MR. JEREMY BELL: Each column represents a different portfolio. Going through it, the current mix is what their -- MPI's policy portfolio was at the outset of the study. And then the other portfolios are recommended portfolios that we provided to MPI, based on the results of the study, one (1) of which is based on some sen -- one (1) sensitivity testing on changing the assumptions. So we used some assumptions from MPI, which were very similar to ours but had a slightly different inflation rate and slightly different long bond assumption but very similar.

And then the other one is based on our own assumptions, the ones that we would typically use on a -- unchanged by MPI.

MR. WALTER SARANCHUK: And as I understand it, although Aon noted that the current portfolio is reasonable it nonetheless recommended two (2) other portfolios.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. WALTER SARANCHUK: And one was Portfolio Number 5 based on MPI's assumptions, shown at page 27, that is Section 6, which reflected the 75 percent fixed income and included -- and included 20 percent mortgages with 5 percent equities and 20 percent other. And in alternative Portfolio Number 10, based on Aon's assumptions, Section 6 at page 31, which included

70 percent fixed income with no mortgages and 10 percent public equities and 20 percent other.

And -- is that correct, sir?

MR. JEREMY BELL: Yes.

MR. WALTER SARANCHUK: And can you confirm that relative to the current portfolio, these portfolios are expected to provide higher returns with lower levels of asset liability mismatch risk?

MR. JEREMY BELL: I confirm that for the first one, Portfolio 5 on page 27, and -- and for Portfolio 10 on page 31. Yeah.

MR. WALTER SARANCHUK: Thank you, sir. Now, I note that the chart on page 27 refers to after the heading, quote, "Asset Allocation of Optimal Portfolios," end of quote, it says in brackets, quote, "(new economic scenarios)," end of quote.

What -- can you explain that please?

MR. JEREMY BELL: I can. That -- that shouldn't have been left in the report. The way we modelled it originally was we used Aon's assumptions and then the sensitivity was based on MPI's assumptions. How we ultimately wrote it in the report is we used MPI's assumptions as the base and Aon's assumptions as the sensitivity. So that reflects our modelling spreadsheet, where we had still called MPI's assumptions new economic scenarios, but really it's just MPI's assumptions.

MR. WALTER SARANCHUK: It doesn't reflect your categorization of MPI's assumptions as reflecting new economic scenarios? Or does it?

MR. JEREMY BELL: It doesn't -- well, I say it should be deleted so I'm not trying to qualify anything about MPI's assumptions. But I mean MPI's assumptions are different from ours, which means that they have different economic scenarios from ours. So...

MR. WALTER SARANCHUK: And you considered theirs to be reasonable nonetheless?

MR. JEREMY BELL: Theirs are reasonable, yeah.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: Could you please explain, sir, the characteristics of your recommended portfolio and what that led you to believe it was the optimal portfolio for MPI. So for example, if you wouldn't mind just reviewing the portfolio statistics from the report and have -- and if you wouldn't mind demonstrating and explain why each of the particular statistics made it to the superior portfolio?

(BRIEF PAUSE)

MR. WALTER SARANCHUK: And just while you're looking through your notes, just can you confirm that number 5 on page 27 is MPI's base as submitted, and number 10 is yours, or Aon's? It's on page 31.

MR. JEREMY BELL: Yes, I confirm, though, just to add some more precision to that statement, number 5 on page 27 isn't MPI's recommended portfolio; number 5 is using MPI's assumptions. It's our recommended portfolio based on MPI's assumptions.

And similarly, on 31: our assumptions, our portfolio -- or our recommended portfolio.

MR. WALTER SARANCHUK: So in terms of comparing the two (2)? Reviewing the salient distinctions.

MR. JEREMY BELL: Are you interested more in the asset class differences or how they're going to perform?

MR. WALTER SARANCHUK: Well, actually both, but basically how you came to the conclusion of recommending what you did.

MR. JEREMY BELL: Okay. Well, the last -- the last step in the process is largely MPI's step. Ultimately, we come with a recommended portfolio, which is based on our understanding of what the trade-off is between MPI's primary and secondary objectives. So their primary objective being -- where am I looking here:

"To minimize the tracking year of assets relative to liabilities, and maximize returns subject to reasonable level of risks."

Based on our understanding of that and our review of the report, we make a recommendation. Ultimately, all clients choose a place in the curve to be rather than what we recommend, often where we -- where we don't recommend. The curve really tells you what' s optimal, so anywhere on the curve mathematically is just as good as anywhere else on the curve, basically.

Portfolio 5 reflected our trade-off. Our assumption would be -- would have been that the primary objective would have been more important than the secondary objective which is why Portfolio 5 would have been what we recommended. So Portfolio 5 has relatively low risk and Portfolio 10 on -- on Chart 31 has relative low risk. So that would be us making the primary objective of paramount importance when we decide which -- where to recommend the MPI go.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: So if you ever to -- if you did emphasize the first objective or primary one, namely minimizing the tracking error, as opposed to the secondary object of -- of maximizing returns, then had you endorsed, or at least given as much priority to the secondary objective, then there would have been maximization, if you will, of the returns?

MR. JEREMY BELL: Yeah, if -- based on -- based on the way that it's written, if I put the primary objective of paramount importance, then I'm going to end up further left on the curve, which means the Portfolio 5 on -- on page 27 and Portfolio 10 on page 31. Ultimately, MPI placed them towards more of equal importance and they chose something to the right of what we chose, which it provided a little bit more return and a little less risk. But that's ultimately their judgment to trade those -- those things off generally.

MR. WALTER SARANCHUK: Now both of the portfolios -- both of your portfolios, suggest the much lower percentage allocation to equities than the current portfolio mix.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. WALTER SARANCHUK: And what would a higher level of equities provide for the risk and return?

MR. JEREMY BELL: Well, a higher level would provide more mismatch to your liabilities. So higher level of risk and the -- and a higher level of return, because it should provide higher returns than the other alternatives.

MR. WALTER SARANCHUK: And is it a fact that MPI added the -- I've got the acronym here -- EAFE, E-A-F-E? And is that Europe, Asia, Far East emerging markets?

MR. JEREMY BELL: Emerging market -- markets is optional but, yes, it's Europe, Asia, Far East.

MR. WALTER SARANCHUK: And was that to further diversify the portfolio and gain exposure to the equity markets outside North America?

MR. JEREMY BELL: I -- that's -- that's how I'd interpret it.

MR. WALTER SARANCHUK: And what is your comment on the inclusion of EAFE?

MR. JEREMY BELL: Reasonable to the extent that there's capacity to manage EAFE. I think models can sometimes be a little bit brittle, so to the extent you can diversity a little bit beyond what the model tells you, I would say that's a positive step, generally. I wouldn't have put a large allocation into

EAFE, but a 3 percent allocation is something that I'd be comfortable with.

MR. WALTER SARANCHUK: Why didn't your optimal portfolios include this sector?

MR. JEREMY BELL: It's a little bit difficult to say on -- for an individual asset class why it didn't get put in there. But, I mean, it all boils down to had it replaced anything else, it wouldn't have provided you with the same level of reward for that level of risk. So whether or not it was a correlation relative to other asset classes, so it's -- this doesn't provide much diversification benefits, or whether or not it was -- didn't have the same expected return or has had a higher standard deviation assumption, it -- it's kind of -- it -- it's difficult to isolate a single reason why an individual asset class doesn't show up.

But -- but ultimately, it was the model; there was no judgment.

MR. WALTER SARANCHUK: Did you model EAFE?

MR. JEREMY BELL: We modelled EAFE.

MR. WALTER SARANCHUK: Was it reviewed with MPI?

MR. JEREMY BELL: Define reviewed.

MR. WALTER SARANCHUK: Well, what -- to

what extent did you discuss your modelling of EAFE with MPI?

MR. JEREMY BELL: Well, we -- EAFE approve -- or EAFE -- MPI approved out use of EAFE as a -- as a modelling asset class. And like all other asset classes, we provided them with an expected return, standard deviation correlation assumption. So -- but that's as deep as the -- as it went.

And -- well, I guess one other thing, we defined constraints, so we set a maximum level where EAFE can go to and a minimum level where EAFE can go to in the study. And that -- those are the only sort of discussions we'd had with MPI on EAFE.

MR. WALTER SARANCHUK: I draw your attention, sir, to the economic assumptions and I want to review the difference between them.

In Appendix A with -- this is pages 36 to 38 of your report -- there is the set of assumptions entitled, "Base Nominal Return". And as I understand it, that is to be compared with the assumptions on pages 39 to 41, which is entitled the "Alternative Nominal Return".

Do you see those, sir?

MR. JEREMY BELL: I do. And you can call base MPI assumptions, just to -- for consistency in our discussion, and you can call alternative Aon's assumptions.

MR. WALTER SARANCHUK: Thank you, sir. Now, in terms of the differences -- and you'll just have to bear with me, sir, in terms of turning these pages back and forth. But at -- looking at page 36, for example, just reviewing some of the asset classes, I'm looking at the very bottom of page 36, and the Canadian Equity Large Cap as being shown as the asset class that is the index, and that's the S&P TSX capped composite.

Do you see that at 8.4 percent, sir?

MR. JEREMY BELL: I do.

MR. WALTER SARANCHUK: Can you advise as to what that 8.4 rep -- percent represents?

MR. JEREMY BELL: That represents the expected return in the model for what Canadian Equities will give an investor over the next fifteen (15) years.

MR. WALTER SARANCHUK: Yes. And now turning to page 39 at the very bottom in the asset class -- the same asset class of Canadian Equity Large Cap is indicated there at 8.0 percent.

Can you explain the difference there, sir?

MR. JEREMY BELL: Sure. The Canadian Equity asset class is set as an equity risk premium overtop of cash, and the cash return changed from one (1) to the other. The cash return changed because of the inflation assumption and -- well, there are two (2) assumptions that changed.

One (1) is we had to change the -- in order to get to MPI's assumptions, we had to change the way that our yield curve actually moved, because they wanted a different return -- or different long bond assumption. And so because the yield curve changed a bit, that will affect what we ultimately do for Canadian Equities, because Canadian Equities is based on a premium over the short-term yields.

MR. WALTER SARANCHUK: And I note that the column entitled, "Expected Returns," relative to the Canadian Equity Large Cap asset class, basically contains the same narrative, that there's no change in the two (2).

Is that correct, sir?

MR. JEREMY BELL: Correct.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: So in looking at the differences between the base, or MPI's assumption, and Aon's at the alternative, what inflation factors are built in?

MR. JEREMY BELL: Aon is assuming 2 percent inflation with a standard deviation. So there's different scenarios where inflation can be large and different scenarios where inflation can be small.

MPI is assuming 2 1/4 percent inflation with a standard deviation, so a range of values, but the expected value is 2 1/4 percent for MPI's assumptions. So the assumption on the bottom of page 38 would be MPI's inflation assumption: 2 1/4 percent with a standard deviation of one point one (1.1).

MR. WALTER SARANCHUK: So would that account for the difference between the 8.4 percent and the 8.0 percent?

MR. JEREMY BELL: No, not exactly. There was a change in -- in the yield curve. We had a -- a yield curve that was mean reverting, so we had -- our bond rates -- or all of the yields on bonds were increasing over the time to go back to what their historical average had been.

MPI didn't want that for Long Term Bonds, so we had to hold that steady of -- just let me reference what my notes...

(BRIEF PAUSE)

MR. JEREMY BELL: Yeah, MPI want -- MPI assumed that the yield curve would maintain its current shape where we normally have a mean reverting yield curve. So that's going to make a slightly different return on fixed income over the fifteen (15) year period, which is going to effect what we're going to -- ultimately going to have for our equity returns, because those derived from fixed income returns.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: So is it correct to state that MPI was essentially looking to the yields to remain static while you were looking more to a forty (40) year low, so that the yields would then refer back to the long term averages?

MR. JEREMY BELL: Sorry, could you repeat that?

(BRIEF PAUSE)

MR. WALTER SARANCHUK: My understanding is that Aon wanted to model on the basis of Long Term Bonds, which were at a forty (40) year low, as opposed to MPI looking at a yield that would be static.

Is that correct?

MR. JEREMY BELL: No. Aon didn't -- well we didn't -- we didn't want to model on the forty (40) lows. We -- we assume that the yield curve could have -- would revert back to what the long term average had been. So we're not actually saying it's going to stay at forty (40) year lows.

MPI, and this doesn't reflect anything to do with them as a company as their expectation -- it was more of a -- we don't think that Long Term Bonds are going to provide higher yields in the future; can be modelled what the impact would be if we didn't get those higher yields. Because it was making the -- the thought was, within the investment working group, that it was making the returns on Long Term Bonds look a little bit too good and -- and thus they were showing up perhaps artificially.

So it was -- it was more of a sensitivity testing and ultimately what we -- we thought was a reasonable basis.

Whether yields mean revert or stay the same, either one of those is a reasonable assumption. The market has a pretty guess for what yields will be in the future as of today, and mean reversion is a somewhat standard guess for where yields could be in the future possibly too. So either one of them's reasonable.

MR. WALTER SARANCHUK: So does this lend some credence and support to MPI's decision not to go with Long Term Bonds?

MR. JEREMY BELL: Well, Long Term Bonds showed up in either scenario so, no.

MR. WALTER SARANCHUK: Now looking at the other -- another category, namely Canadian Equity Small Cap where under the base it's implicated at 8.9 percent, and under the alternative, at page 40, it's indicated at 8.4 percent.

Can you comment on that difference, sir?

MR. JEREMY BELL: Exact same reason. So yield curve change and change in inflation rate. It -- it's necessary that -- I mean all these models, all the assumptions are moving parts, and to change the yield on long term bonds that rate requires you to change the -- the return on the entire yield curve which will require you to change returns across the board on -- on a whole bunch of other asset classes.

So it's -- it's a function of keeping the model internally consistent and not making it contradict itself.

MR. WALTER SARANCHUK: So in broad terms how comfortable are you with MPI based assumptions, as compared to your own?

MR. JEREMY BELL: In broad terms, reasonably -- reasonably comfortable.

MR. WALTER SARANCHUK: Do you equally recommend findings based on MPI's assumptions, as those based on your own?

MR. JEREMY BELL: I would say I endorse them as reasonable but I -- if asked to recommend something I'd use my own.

MR. WALTER SARANCHUK: Now referring to page 69 of the report, which compares the returns selected by MPI with Aon's optimal portfolios, again can you confirm in that table of three (3) columns there, going horizontally, that the recommended portfolio, Portfolio 5, Chart 3, is MPI's, and the alternative recommended portfolio, Portfolio 10, Chart 5 is Aon's?

MR. JEREMY BELL: I'll just clarify that again though. Neither one of those is MPI's recommended portfolio.

So Portfolio 5, Chart 3, is the recommended portfolio that we developed, based on our understanding of the primary versus secondary objective importance. So it's Aon's recommended portfolio using MPI's assumptions. Similarly, Portfolio 10 of Chart 5 is our recommended assumptions, based on our understanding of the objective, which was ultimately -- the relative importance was ultimately revisited by MPI, but our recommended assump -- portfolio based on our assumptions.

MR. WALTER SARANCHUK: Is it correct that this information here looks at the historical returns based on the optimal, versus the current portfolio?

MR. JEREMY BELL: Yeah, it compares the two (2) recommended portfolios, which are both optimal on the curve, relative to the current asset mix.

MR. WALTER SARANCHUK: What level of comparison was done by Aon on its optimal portfolios with what was selected ultimately by MPI?

MR. JEREMY BELL: You mean how do we compare these portfolios to modified Portfolio 11?

MR. WALTER SARANCHUK: Yes.

MR. JEREMY BELL: Well, typically we don't even do what's in Appendix G. This was requested by MPI as a -- as an add-in to help them decide what would have been the impact had they been in those portfolios.

So Appendix G is something that we would normally not do. We don't compare what past returns had been. We set assumptions based on our understanding of past returns, standard deviations, correlations, expected returns, so we don't do any back-testing of what would have happened had they had been in X, Y, Z. We would have ended up with -- I don't think that's all that useful for making decisions, but some investment committees like to know some of those sorts of things before they make a decision: What would this impact have been?

MR. WALTER SARANCHUK: Now, of course these are the two (2) portfolios that you recommended but were not selected.

Is that correct?

MR. JEREMY BELL: That's correct.

MR. WALTER SARANCHUK: And we are advised by MPI that Aon was supportive of the ultimate selected portfolio. This is at page 382 of the transcript, for the record. However, I'm also advised that this was not indicated in the actual report.

Is that correct?

MR. JEREMY BELL: Is it correct that we didn't indicate that we were...

MR. WALTER SARANCHUK: Supportive of the ultimate selected portfolio?

MR. JEREMY BELL: That's correct, that's not in the report.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: You referred to the term "back-testing" as being sought on occasion. Does this information on page 69 reflect back-testing?

MR. JEREMY BELL: Yeah, I'd call that back- testing. They weren't actually invested in either of those recommended portfolios, and they were interested in what the returns would have been had they been in -- in that. It's just another piece of information that a committee might be interested in to make a prospective decision.

MR. WALTER SARANCHUK: And did MPI want this back-testing, to your infor -- to your knowledge, to support their decision for number 11, ultimately?

MR. JEREMY BELL: No.

MR. WALTER SARANCHUK: Can you elaborate on how Aon is generally supportive of -- supportive of MPI's selected portfolio, just in terms of reviewing any differences in probabilities and risk and expansion into EAFE.

MR. JEREMY BELL: Well, as far as the modelling goes, the reason why we'd be generally supportive is because it's effectively an optimal portfolio; it's -- it's touching the ultimate portfolio. Although there can be a free lunch by being had -- it's a very small free lunch possible, and it does put a fair bit of weight into the model if you decide to take one (1) of the model portfolios as being perfect.

I mean, I -- I can say that it's -- without looking at the numbers -- you can look at where it is on the graph on page 70, and -- and it's -- I -- I wouldn't call that a suboptimal portfolio. It's effectively an optimal portfolio, being that close to the curve.

MR. WALTER SARANCHUK: I'm intrigued by your use of the vernacular, quote, "free lunch," end of quote.

What do you mean?

MR. JEREMY BELL: Well the definition of the efficient frontier is that you -- you can get a free lunch if you're not on the efficient frontier by moving up and to the left. Generally the top left is where you want to be. If I'm below the curve and to the right then there is a free lunch involved in moving to the curve. By moving up and to the left you decrease your risk and increase your -- your expected return.

But the difference between where MPI chose and -- and the -- a free lunch available and moving to let's say Portfolio 11, because Portfolio 11 is slightly optimal in both ways, slightly less risk and slightly higher expected returns, is I'd say fairly small.

MR. WALTER SARANCHUK: So a free lunch is an actuarial term?

MR. JEREMY BELL: Perhaps.

MR. WALTER SARANCHUK: And I don't know whether I asked you this specifically before, sir, if I did, I apologize, but again, just to make sure that I cover this off, can you explain why there is no commentary in your actual report, related to MPI's selected portfolio?

MR. JEREMY BELL: Yeah. Implementation for all clients -- or almost all clients, is done as a second step. Ultimately we make a report, make a recommendation, and then the investment committees and boards and all the rest have to approve implementation.

So there wasn't a specific question of, can you provide some commentary on this, it was -- they were considering implementing that considering talking about that with the investment committee, wanted to have some statistics for the discussion but it wasn't a specific question that we were asked to deal with in the report.

MR. WALTER SARANCHUK: Thank you, sir. Did Aon prepare a similar analysis as that on page 69, comparing the returns of MPI's selected portfolio against historical returns?

MR. JEREMY BELL: No.

MR. WALTER SARANCHUK: And is there a reason for that?

MR. JEREMY BELL: We weren't asked to.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: Can you give us an idea of what measure of effort it would take to prepare that?

MR. JEREMY BELL: Limited. Half an hour to an hour. Not from right at this moment, but -- of actual work.

MR. WALTER SARANCHUK: Mr. Chairman, I'm going to be proceeding with another area in the cross-examination of this witness and I'm just wondering whether this is an opportune time to have the morning break.

THE CHAIRPERSON: It sounds fine.

--- Upon recessing at 10:22 a.m.
--- Upon resuming at 10:45 a.m.

THE CHAIRPERSON: Anytime you are ready to begin again, Mr. Saranchuk.

CONTINUED BY MR. WALTER SARANCHUK:

MR. WALTER SARANCHUK: Thank you, sir. I'd ask you to turn, sir, to the chart on page 70 of your report.

And I think that in earlier testimony you referred to the efficient frontier as being represented -- is it, by the yellow squares in that chart?

MR. JEREMY BELL: That's correct.

MR. WALTER SARANCHUK: And I think you defined the efficient frontier as the optimal portfolio for the highest reward for the level of risk?

MR. JEREMY BELL: Yeah, it consists of the optimal portfolios, so all those are individual portfolios. Portfolios 1 through 21, each one of those would provide the optimal level of reward for a given level of risk.

MR. WALTER SARANCHUK: And so in respect of this chart, does it trade off the risks and rewards of various different portfolios as per MPI's assumptions? It's on page 70.

MR. JEREMY BELL: Yeah.

(BRIEF PAUSE)

MR. JEREMY BELL: Yes.

MR. WALTER SARANCHUK: And in your confirmation of that, are you referring to the infor -- the chart on page 26?

MR. JEREMY BELL: Correct.

MR. WALTER SARANCHUK: Now, with reference to the chart on page 70, could you please describe what the chart represents, and where your two (2) recommended portfolios fall within this chart?

MR. JEREMY BELL: Okay. Portfolio 10, from Chart 31, isn't on this report, so that's not optimal of -- relative to the MPI assumptions. So only MPI -- only the recommended portfolio we had on page 26 is actually going to show up on this report, and that will be Portfolio 5.

If you look at the red square -- or the yellow square that is numbered five (5), that is the initial recommended portfolio that we had.

MR. WALTER SARANCHUK: So you're talking about the yellow square?

MR. JEREMY BELL: Yellow square, number 5.

MR. WALTER SARANCHUK: Okay. Can you talk about the differences then, please.

MR. JEREMY BELL: Between yellow square number 5 and modified mix 11, or between...?

MR. WALTER SARANCHUK: Your two (2) recommended portfolios?

MR. JEREMY BELL: My -- my other recommended portfolio isn't on there, because it's not optimal using those assumptions.

MR. WALTER SARANCHUK: All right. Then could you please interpret the chart then?

MR. JEREMY BELL: Sure. Well, Portfolios 1 to 21 have -- provide the optimal level of return, where return is defined as the average annual excess return, so the return of the assets in excess of the increase in the value of the liabilities -- obviously you want that to be higher than lower -- versus the average annual standard deviation of the excess return. So you don't want your -- which is what we call tracking error of the assets relative to the liabilities.

You want your tracking error to be low; you want to be as left most as you can on that graft -- graph. And you want your excess return to be high; you want to be as -- as high as you can on that graph.

Portfolios 1 to 21 represent the best twenty-one (21) portfolios, or the -- or the free lunch portfolios, as we were talking about before, where you get the highest level of return for a given level of risk.

Portfolio 5 was our initial portfolio which -- our initial recommended portfolio, which provided paramount importance to limiting risks. You can see it's fairly far to the left of that portfolio, has relatively the -- low level of risk, and a relatively low level of return, relative to a place on the portfolio where MPI ultimately ended up, which is between eleven (11) and -- modified mix number 11. So the light blue triangle and the yellow square.

The current mix, you can see is suboptimal, bu it's beneath the curve. Though, as we talked about before, it wasn't -- it wasn't entirely unreasonable; it's just there was a fair bit of reward you could gain without taking on more risk.

MR. WALTER SARANCHUK: And, of course, it appears that the current portfolio was below the efficient frontier.

Is that correct?

MR. JEREMY BELL: The current portfolio is, yeah.

MR. WALTER SARANCHUK: And on this chart on page 70, there's reference to the portfolio universe. Can you explain that, please.

MR. JEREMY BELL: Those are all the tested portfolios at that stage of the study. So the study goes in a few different steps where we can -- we refine down what asset classes are interesting for future steps. So we'll talk about what kind of bond terms we want to look at. We'll talk about what -- what type of equities we want to invest in, those sorts of things.

So this is the last step where decided equities -- what -- like how to structure our equities, relative to each other. We decided how to do -- do bond terms. And then all of the different testings of weights between alternatives and -- and equities versus fixed income. This is what we're testing and this is going to be just a whole bunch of different portfolios, so different asset mixes all adding up to 100 percent, and what kind of reward they give you for their level of risk.

MR. WALTER SARANCHUK: Now, you also plotted modified Portfolio Number 11, which is MPI's selected portfolio. Can you comment on its relative position, versus the efficient frontier.

MR. JEREMY BELL: Yeah, it's beneath an efficient frontier or to the right, or however you want to call it. It's not on the efficient frontier, which mathematically would tell you it's not optimal. However, I'd say it's relatively close, and as much as I enjoy mathematics, it's -- it -- there is a real world too, so it provides some deference to the fact that models aren't perfect, but it's -- it's reasonably close to the curve.

MR. WALTER SARANCHUK: And on page 26, as I understand it, is the plotting of a similar chart, based on MPI's assumptions. And on page 30 by way of comparison there's a similar chart with alternative assumptions based on Aon's assumptions.

Is that correct?

MR. JEREMY BELL: That's correct. In fact, page 26 is the exact same as page 70, except for -- the modified mix 11 has been added. So it's -- it was just an add-on to try and see where modified mix 11 was.

MR. WALTER SARANCHUK: And the difference between the two (2) charts on page 26 and 30 of course is due to the differing economic assumptions?

MR. JEREMY BELL: That's correct. But it's also important to note that each one of those charts followed its own process, so there was a -- before getting to each chart, there was a talk -- or there was an optimization of what term to go to in bonds -- how to structure the equity portfolio, because each one of those depends on the previous -- on -- on the -- on the assumptions.

So this represents the final step. Chart 3 represents the final step of an optimization using --

and this is the chart on page 26 -- represents the final step of the optimization using MPI's assumptions and Chart 70 represents the final step using Aon's assumptions. And now the universe, or the portfolio universe, isn't going to be the same on both, because in Aon's assumptions we may not be testing the exact same portfolios because they may have been -- or some asset classes may have been eliminated before getting to the very final steps.

So they're largely the same types of graph, but -- and largely the same results, but not exactly the same things have been tested.

MR. WALTER SARANCHUK: So which chart should be viewed in comparison to Appendix H?

MR. JEREMY BELL: Chart 3 is the exact same as Appendix H. I mean, I guess you could probably get information from comparing anything to -- to Appendix H, but chart 3 is the same with -- with modified mix 11 added on. Chart 5, I guess it's hard to compare lines to different lines, so perhaps you wouldn't compare that to Appendix H but...

MR. WALTER SARANCHUK: Now, MPI has indicated that the relative position of their chart is suboptimal from what Aon proposes. This at the transcript, for the record, page 349.

Would you agree?

MR. JEREMY BELL: Sorry, one (1) more time on that?

MR. WALTER SARANCHUK: MPI has indicated that the relative position of their chart is suboptimal from what you proposed?

MR. JEREMY BELL: I don't know what that means, a chart being suboptimal.

MR. WALTER SARANCHUK: In terms of the term "suboptimal," what is your understanding of it?

MR. JEREMY BELL: It doesn't actually have any meaning to me, that statement, because charts aren't optimal or suboptimal.

MR. WALTER SARANCHUK: So in terms of the actual portfolio selected, can the term "suboptimal" apply?

MR. JEREMY BELL: Yes, portfolios can be suboptimal. The portfolio that they ultimately chose, modified mix 11, would be -- and mathematically all you'd say that it is a suboptimal portfolio; not with the sort of loaded connotations of the word suboptimal, but mathematically it's -- there -- there -- it's not on the efficient frontier, which means it's suboptimal.

MR. WALTER SARANCHUK: But it's close?

MR. JEREMY BELL: Yeah, but it's close.

MR. WALTER SARANCHUK: And of course I think you did mention earlier that you would have -- relative to MPI's approach, if you will, you would have preferred some movement to Long Term Bonds?

MR. JEREMY BELL: Yeah. I'll just correct that. There was some movement; I'd prefer more movement. They put -- they are putting 10 percent of their assets into Long Term Bonds that we recommended -- I'd say forty (40) would be better, but -- but there is some.

MR. WALTER SARANCHUK: Thank you, sir. MPI in this process did provide some reasons why it did not ultimately select the portfolio recommended by MPI -- by Aon. And this is addressed at Interrogatory -- or Information Response Number 10, served by the Public Utilities Board on MPI in the First Round.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: I don't know if you have a copy of this. Have you, sir?

MR. JEREMY BELL: I do, yeah.

MR. WALTER SARANCHUK: Looking at the bottom of page 1 of the response to that interrogatory, the first reason given is, quote:

"The ICWG, [that's the Investment Committee Working Group] was uncomfortable with the wholesale switch from Universe Bonds to Long Term Bonds, given the fact Long Term Bond rates are currently at forty (40) year lows."
End of quote.

Oh, sorry I should also read in, quote:

"In addition, due to the relatively low spread between the yield on Long Term Bonds and the yield on Universe bonds, there was little advantage to such a switch. Aon recognized the risk of such a switch on page 34 of their report." End of quote.

Aren't the returns on Long Term Bonds usually higher than Universe Bonds?

MR. JEREMY BELL: Yeah. Normally -- normally the yield curve is steep, or steeper than it currently is, which means that you get a slightly lower yield on -- on shorter term bonds than you might get on longer term bonds.

So the longer term you go you get a slightly higher yield.

MR. WALTER SARANCHUK: And MPI cites that the Long Term Bonds are currently at forty (40) year lows. What are the implications of gradually switching over to Long Term Bonds?

MR. JEREMY BELL: Well, it obviously depends where interest rates go. From our perspective, the reason that Long Term Bonds are showing up in the portfolio has nothing to do with the expected return on Long Term Bonds; it has to do with risk mitigation.

Basically if interest rates go from where they are now in the fours down to 3 percent as it can happen in some scenarios, and down to 2 percent in the extreme scenarios, MPI's liabilities are going to -- going to go up fairly dramatically.

So for -- the reason Long Term Bonds show up is because then if interest rates decline that way, the assets will go up similarly.

As far as returns go which is largely the reason why the Investment Committee Working Group made the decision, there's a -- there's a concern that if the interest rates, which are at forty (40) year lows go up, which I don't think is an automatic assumption, but if they do go up then it's worst to be in longer term bonds than it is to be in shorter term bonds, because longer term bonds are more sensitive to changes in interest rates.

MR. WALTER SARANCHUK: Now on to page 34 of your report there's the explanation as to why you believed that Long Term Bonds were more appropriate. And I'm not sure whether this is exactly what you were alluding to just now, this last bit of evidence, sir, but just for the record, it says that, quote:

> "We believe that Long Term Bonds are the more appropriate option for the Company's policy asset mix than the Universe Bonds.
>
> However, we understand why clients are often reticent with making a dramatic switch in the policy asset mix at what appears to be an inopportune time.
>
> We recommend that MPI either [and I'll use (a)] change the fixed income asset allocation from Universe Bonds to Long Term Bonds immediately or (b) change the fixed income assets using a defined transition schedule based on the yield spread between long term and short term bonds.
>
> The long term -- or the following table -- there's a table provided there that summarizes a possible schedule for

moving to Long Term Bonds." End of quote.

Can you elaborate on that statement of yours in the -- the report, sir?

MR. JEREMY BELL: Yes. Long Term Bonds are a better place to be, as far as risk mitigation goes. We think you should go there immediately.

The reason why we have these sorts of discussion on perhaps implementing it a little bit differently, is because clients like MPI, often are loath to do it, because it feels like the wrong time to do it, for exactly the same reason that they put inside their description, forty (40) year low interest rates.

From our perspective it's like buying an insurance policy. There's not reason that you would -- once you realized I needed a million dollars of life insurance, there's no reason you would buy at two hundred and fifty thousand dollars ($250,000) worth at a time, you'd buy it all now. That's how we think about Long Term Bonds and that's why you should do it immediately.

But clients often won't do that immediately, and so some sort of a schedule to switch over from one to the other, we found actually helps lubricate the move.

MR. WALTER SARANCHUK: Thank you, sir.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: Over what timeframe would that move usually occur?

MR. JEREMY BELL: Well, we'd recommend immediately, but clients can do it over -- and what we've recommended here isn't a timeframe. What we're recommending here is when yields pick up to a point where clients feel like they're getting paid for it.

It's more of a behavioural recommendation as opposed to a mathematical recommendation. If someone asked me what I'd prefer, as I've told you, Long Term Bonds now and Long Term Bonds immediately make more sense to me. But it may take five (5) years for yield spreads to get to a point where they would move according to this schedule.

MR. WALTER SARANCHUK: Yes. Now MPI's indicated that there's a relatively low spread between the yield on Long Term Bonds and the yield on Universe Bonds.

Do you anticipate that that's to continue?

MR. JEREMY BELL: I don't really have a specific anticipation of -- of what spreads will do. Well, I mean, in -- in the modelling there's expected returns and -- and there is some mean reversions, so I guess the spread's going up a little bit. But it's not showing up for anything to do with the return.

It's only showing up for risk mitigation and the fact that in the 25 percent or close to 50 percent of scenarios where interest rates decline, Long Term Bonds are a better place to be, and the risk -- the interest rate risk that the company bears is dealt with better by being in Long Term Bonds.

So I don't have any tactical decision making, and that's why I'd say you'd do it right now, because it's the right correct -- strategic place to be.

MR. WALTER SARANCHUK: Now can you give an indication as to what would be a normal spread?

MR. JEREMY BELL: I can't. Maybe -- well, I'd be guessing, but fifty (50) to one hundred and fifty (150) basis points, somewhere in that range. So .5 percent to 1.5 percent.

I mean that's not -- I'm not looking at numbers, so I wouldn't put that in the transcript.

MR. WALTER SARANCHUK: Well, it's there.

(BRIEF PAUSE)

MR. JEREMY BELL: I meant zero to five hundred (500) basis points.

MR. WALTER SARANCHUK: Now when you're providing an option for transitioning to Long Term Bonds, can you explain how this transitioning may work?

MR. JEREMY BELL: MPI, or Department of Finance, or whoever is actually implementing the bond move, I -- whether or not MPI can tell Department of Finance to do this, or whether MPI has to look at it themselves and then request it, or -- or -- through their boards and governance structure -- I'm -- I'm not anticipating anything there, but whatever it takes -- someone looks at where the yield spreads are between Short and Long Term Bonds and then they decide when the yield spread reaches the level that it's pre-determined in the table that they do, it makes a mechanical motion, which actually gives you a better chance of getting there than some clients who don't want to get there at all, or -- or don't -- don't feel the need because they're very afraid of interest rates rising.

MR. WALTER SARANCHUK: Were you given any information as to the working relationship between the Department of Finance and MPI, in respect of the investment portfolio?

MR. JEREMY BELL: On -- on an ad hoc basis, not -- not explicitly. I -- I don't -- I mean, yeah -- bare -- a little, noth -- nothing really.

MR. WALTER SARANCHUK: What conclusion did you draw regarding that?

MR. JEREMY BELL: None whatsoever.

MR. WALTER SARANCHUK: So you don't know how they interrelate or anything or anything like that?

MR. JEREMY BELL: Well I know, just in passing, how things work. But our mandate, we consult with the working group then we met with the board, but -- and I, you know, I know that they had responsibility, but the exact relationship with the Department of Finance I -- I know a little bit through discussions but very, very little.

MR. WALTER SARANCHUK: Does the fact that the portfolio is actively traded have any bearing on your suggested transition strategy and how it would work?

MR. JEREMY BELL: No.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: Are you familiar with the report from Professors Hum and Simpson, sir?

MR. JEREMY BELL: Yes.

MR. WALTER SARANCHUK: Now, my understanding is that they recommended that MPI implement a laddering technique in reinvesting it -- its bond portfolio into longer term bonds. This is referred to at page 7 of the Hum and Simpson report.

What is your view on this strategy?

(BRIEF PAUSE)

MR. JEREMY BELL: I find the description a bit confusing, the idea a bit unnecessary, those sorts of things. I -- I mean laddering is -- it -- from the way they're describing it, it's just investing in bonds. I'm not sure whether or not they're matching cash flows or what they're trying to do, so I'd say I'm confused.

MR. WALTER SARANCHUK: MPI thought it was naive, that this approach was naive. What do you say to that?

MR. JEREMY BELL: Yeah, I'd -- I'd -- well, I don't understand fully what they're trying to get at in that one (1) paragraph.

Laddering bonds is a catch phrase. If someone described exactly what that meant and what they were going to ladder it and how they were going to match liabilities, or what their -- what the point of their laddering was, then perhaps we could comment on it, but the way it's written it doesn't really mean much to me.

MR. WALTER SARANCHUK: And what is your

overall view on MPI's decision to limit its portfolio exposure to Long Term Bonds, in terms of the risk in return?

MR. JEREMY BELL: To limit? So the fact they're not going all the way to Long Term Bonds?

MR. WALTER SARANCHUK: Yes.

MR. JEREMY BELL: Not positive, but I mean it's not -- it's not a deal breaker where I'd get -- say that this isn't reasonable, but it's somewhat expected. A lot of clients have a difficulty -- have difficulty moving to Long Bonds, but we think about bonds as risk mitigators and if you think about it that way, it's hard not to move to Long Bonds.

MR. WALTER SARANCHUK: And returning to the Corporation's response to Public Utilities Board Information Request 1 -- or, sorry, Number 10 on the First Round, it indicated, the Corporation did on page 10, that its investment committee working group disagreed with the recommendation to allocate significantly more to US equities than Canadian equities. And it goes on to state --

MR. JEREMY BELL: Page 10, sorry?

MR. WALTER SARANCHUK: Page 2, sorry, of the response.

And it says in it that particularly

that's -- their basis for their disagreement is particularly in light of the superior performance of the Canadian equity market over the last nine (9) years, and indicate that in addition, Portfolio 5 had an allocation to equities of only 5 percent, which was deemed to be too low, particularly given the Corporation's recent efforts to increase the equity allocation to 20 percent.

What is your view of that rationale of continuing with the level of Canadian equity weighting?

MR. JEREMY BELL: I'm not overly supportive. I don't think that looking at the past nine (9) years' performance of Canadian equities means much. It doesn't mean much to me and -- as far as prospective performance goes. Nor do I put much weight in the -- in the Corporation's recent efforts to increase their equities. That they've tried hard to increase their equities, if it's not strategically the right place to be right now, it doesn't mean much to me either.

Though I'm not opposed to the idea of having more money in Canadian equities than US equities than what we had in our report, I don't necessarily agree with the rationale in that paragraph.

MR. WALTER SARANCHUK: Wouldn't investing in the US market, which is broader than the Canadian market, provide an opportunity for greater returns, as well as diversification?

MR. JEREMY BELL: Most people would say not greater returns. I think the old traditional thought on foreign equities was perhaps that you get higher returns. But most people would say it's about the same type of return to expect and you -- your main benefit will be diversification benefits versus Canadian equities. And you'd get perhaps more diversification, the fact that it's a bit broader than Canadian -- or a fair bit broader than the Canadian equities.

MR. WALTER SARANCHUK: At the bottom of page 19 of your report, sir, it states as follows, quote:

> "Based on these projections and given that the foreign currency exposure is relatively low [bracket] (3.5 percent for foreign equities) [end of bracket] we recommend that the plan not hedge its US currency exposure associated with equity investments." End of quote.

And of course MPI did indicate, for your information, that it currently hedges this. Why did you make the recommendation that you did there?

MR. JEREMY BELL: Well, it's part of a study. We modelled whether or not hedging currencies made any kind of a difference in terms of what the returns would be prospectively that the Corporation would enjoy. And it didn't really make any difference; it was a mild negative.

So that was our recommendation mathematically, whether or not this other rationale for it, the model said don't hedge your currency.

MR. WALTER SARANCHUK: And at page 9 of its -- of their report, Professors Hum and Simpson, and this is the first full paragraph on page 9 indicate as follows, quote:

> "MPI's refusal to countenance a stronger position in US equities because of the superior performance recently of Canadian equities, revealed some flaws in their thinking.
> The very fact that US and Canadian equity performances can diverge is usually [or sorry] is actually prima facie evidence of the raison d'etre to diversify in a portfolio. The issue then is a matter of timing and it's probably wise to take a position in US equities, precisely when US equities are inferior to the Canadian equity

performance. In the long run
regression to mean suggests that this
will yield superior return." End of
quote.

What is your view on that position?

MR. JEREMY BELL: It's hard to understand it that -- I would say it's similar to my view on MPI's position. I don't think that there is a phenomenal rationale to be in US equities because of mean reverting. I -- either one, MPI's position or Hum and Simpson's position don't seem to trust the markets. They seem to say -- one says good performance begets good performance; the other one says bad performance begets good performance.

I think either one of those are not necessarily true and so I wouldn't -- I wouldn't put much stock in it. I'd say the benefit would be still largely diversification benefits which is, I guess, the first half of their paragraph, which I'll agree with.

MR. WALTER SARANCHUK: And Hum and Simpson also indicated that the timing might be right to take a greater position in US equities, appropriately hedged against currency risk, due to the recent inferior returns as citing a return to long term averages will result in superior returns.

What is Aon's view on this position, relative to the -- its investment portfolio strategy?

MR. JEREMY BELL: Well, first off, Aon -- Aon advises boards and committees on a strategic mix. We don't really provide much tactical decision making advice.

So timing decisions aren't really in our area of expertise. I -- I would hazard a guess it's probably not within the area of expertise of -- of the report, the Hum and Simpson report. If anyone has a chance which -- it's difficult to make timing decisions even for professionals that are trading all the time, I would say it would be an active manager who's in the market. We -- we make decisions on strategic asset mix.

So timing to me doesn't mean much. And then the -- the discussion on it being a bad time, I would say like I said before, bad returns don't mean good returns, good returns don't mean good returns. The market is probably smarter than the aggregate of the people that I know.

MR. WALTER SARANCHUK: And you say that notwithstanding the current situation?

MR. JEREMY BELL: The situation, as in the people in this room or...?

Notwithstanding the current situation.

The mar -- the market knows more than -- more than individual humans know. I mean, it's got more in it.

MR. WALTER SARANCHUK: Now, also stated by Professors Hum and Simpson, and this is at page 9, the second full paragraph. They indicate that, quote:

"The refusal by Aon to countenance international equity, in our judgment, is inexcusable. The fastest growing economies in the world include Brazil, Russia, India, and China [bracket] (BRIC), [B-R-I-C, end of bracket] and parts of Asia. The weighting for Canadian equities, 12 percent, relative to US, 5 percent, and the international, 3 percent, appears imbalanced for an investment portfolio of MPI's size, currently at $2 billion." End of quote.

Why did you not -- well, first of all, let me ask you two (2) questions and you can answer them together I guess.

What is your comment relative to that statement by Hum and Simpson and why did you not model international returns?

MR. JEREMY BELL: We did model

international returns so they were countenanced fully. They didn't show up on the model as being optimal, so that's -- that one's that easy.

The comments on the rest of it, if I were to compare them to other institutional investors, perhaps our Canadian equity allocation at twelve (12) versus five (5) and three (3) for international could be a bit high. It would -- you'd often see fifty fifty (50/50) splits, maybe 10 percent in each -- 10 percent Canadian, 10 percent non-Canadian -- but it's within the magnitude -- or within the order of reasonable but not -- a slight tilt to Canadian equity, they call it.

MR. WALTER SARANCHUK: A further reason given by MPI for not adopting the recommendations of Aon, the -- is -- it's indicated at page 2.

The third reason given was that the adoption of Aon-recommended portfolio, Portfolio 5, would have required the sale of approximately $1 billion of securities and the purchase of a similar amount. They go on to say that such a significant volume of transactions would have been very costly. And finally, the Portfolio 5 provided only marginal return benefits over the current portfolio, compared to other portfolios on the efficient frontier.

Did Aon recommend a wholesale switch, or would this be a transition over a period of time?

MR. JEREMY BELL: Yeah, that would be an implementation issue. So, I mean, whether they are or -- or not someone's comfortable making the sale of everything now and the purchase of everything now, to me wouldn't affect where they put their strategic asset mix. They would end up putting their strategic asset mix where they wanted it to be and then they'd find a way to get there, either using cash flows or monies flowing in and out of the fund and gradually getting there, if they think the transactional costs are too high or some other method.

But I wouldn't use that as a strategic mix -- a policy mix decision.

MR. WALTER SARANCHUK: So the evolution to the new portfolio could be done over a period of time?

MR. JEREMY BELL: Yeah, absolutely.

MR. WALTER SARANCHUK: What is your view of MPI's decision to weight their portfolio more heavily towards Canadian and EAFE versus US equities?

MR. JEREMY BELL: I don't know if they are weighted all that heavily towards EAFE.

MR. WALTER SARANCHUK: And what about the Canadian versus US equity?

MR. JEREMY BELL: Like I said, it's a

slight tilt towards Canadian equities, relative to what the average investor would do. It -- perhaps the average investor might take a couple percent out of Canadian equities. Probably if -- if -- the average investor would have 50 percent normally -- I mean, as a rule of thumb, would have 50 percent of their money in Canadian equities, 50 percent in foreign equities, and that 50 percent in foreign would be split 50 percent US, 50 percent EAFE. So if there was any money taken out of Canadian, it wouldn't be going to US; it would probably be going to EAFE to make 5 percent, as a general rule of thumb for how people invest.

But it's a pretty slight tilt being 2 percent overweight in Canadian equities, relative to what the average investor would do and 2 percent underweight in EAFE.

MR. WALTER SARANCHUK: Thank you, sir.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: Now, on the proposition of segregating pension assets, the report, your report, addresses this at page 3, at Section 1 of the introduction, the second full paragraph, where you give reasons for your view that it's reasonable to determine only one (1) asset mix for the entire company.

So with reference to that, can you please elaborate on the rational for not modelling the investment portfolio for the pension obligation separately?

MR. JEREMY BELL: We weren't asked to model it separately.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: And also there is a footnote at the bottom of page 3 that states as follows, quote:

> "We recognize that there may be non-investment factors that could make separate asset mixes for separate liabilities attractive. However, any analysis of these non-investment factors are beyond the scope of this report." End of quote.

Could you please elaborate on what would be considered non-investment factors that would call for a separate asset mix; that is the ones that you did not study?

MR. JEREMY BELL: Yeah. There could be a

bunch and I don't think I'm capable to go through it all, because I -- you would need someone who was more specialized in perhaps governance issues, and talk about the full implemt -- implementation -- or implication to MPI. But governance issues, autonomy over the pension plan, wanting to perhaps have some better accounting results, not having the liabilities show up right on their balance sheets, because of how it looks.

But as far as investments go, we'd say there isn't really an investment reason to do it, because ultimately, investment wise, everything is rolled up. If I go -- if they invest more aggressively in the pension plan, and we roll everything up, the exact same modelling would have them invest slightly less aggressively in the -- the rest of their assets, because everything rolls up to the exact same place from investments.

But non-investments, I mean I -- I'd just be guessing, but there could be accounting, governance, other types of reasons why they might want to do it, or even employee relations, or whatever.

MR. WALTER SARANCHUK: At the bottom of page 12 of your report, the second bullet from the bottom, under the subtitle of Projection of Retirement Liabilities, pension liabilities are indicated as totalling, currently, $137 million dollars, or at least in 2007 they were $137 million dollars, but would grow steadily with expected increase volatility.

What do you mean by increased volatility there?

MR. JEREMY BELL: Sorry, I think that the quote may have been off there. The retirement liability is expected to grow steadily over the projection period -- period. The volatility of the retirement liability is fairly low, so it's got low volatility.

MR. WALTER SARANCHUK: But increases over the projection period?

MR. JEREMY BELL: Well, the volatility of the return on -- on your -- or the volatility of your liability is going to be related to Long Term Bonds. Long-term bonds are going to -- as you project further out, going to move further and further apart.

Some scenarios will have Long Term Bonds in fifteen (15) years with yields of 6 percent. Some will have Long Term Bonds with a yield of 2 percent in fifteen (15) years. And that's kind of a -- a fan that fans out towards the end of the projection period, which will make the volatility a little bit higher as you go further out.

In any -- in any projection it gets furth -- bigger as you go further out.

As well, the dollar amount becomes a bigger dollar amount too.

(BRIEF PAUSE)

MR. WALTER SARANCHUK: So it has to do with the modelling assumptions more so than the characteristics of the pension liability itself?

MR. JEREMY BELL: I'm not willing to say more so, but I'd say -- I mean, if I were to hazard a guess, they'd be about equal. So you have got a bigger amount of money, but the volatility and -- and results at the end of the period is going to be due to the fact that you're going to have different bond yields, thus discount rates for your liabilities.

MR. WALTER SARANCHUK: And would the growth in the size of the pension obligation over time ultimately make it more appropriate to segregate the investment portfolio?

MR. JEREMY BELL: It wouldn't change a thing from an investment perspective; it might change something from a -- another perspective.

MR. WALTER SARANCHUK: What do you mean by another perspective?

MR. JEREMY BELL: The same on the -- the

same amount of investment perspectives I talked about before. So governance, employee relations, or whatever; there could be a -- different reasons.

MR. WALTER SARANCHUK: Thank you, sir. Returning to the Hum and Simpson report, and this is at page 9, there is reference there to the topic of the Absence of Real Return Bonds in the MPI Portfolio.

Do you see that, sir? Page 9.

MR. JEREMY BELL: It's page 10 on my copy but perhaps there's different copies floating about. But I see that on page 10 of mine.

MR. WALTER SARANCHUK: Others have shared that problem.

Now Aon has recommended the elimination of investments in Real Return Bonds, and I think you addressed this earlier, but can you confirm what the Real Return Bonds feature, in terms of inflation adjusted return?

MR. JEREMY BELL: You mean what is the expected return we have for bonds going forward or -- or what is...?

MR. WALTER SARANCHUK: Well, what are the characteristics essentially?

MR. JEREMY BELL: Real Return Bonds are going to provide you with a coupon that increases with

Canadian price inflation. So whatever price you buy it at it's going to be yielding something and then it'll be growing -- that amount will be growing and the ultimate amount you get paid back will be growing at Canadian price inflation.

So it'll be perfectly correlated to changes in Canadian price inflation.

MR. WALTER SARANCHUK: And you recommended the substitution of real estate and infrastructure for inflation protection, is that correct?

MR. JEREMY BELL: No. Not -- we -- we made no explicit recommendation of one (1) asset class versus another -- it's kind of like making a soup; there's a lot of ingredients -- and real estate and infrastructure came out.

Real estate and infrastructure, qualitatively, when you discuss these, have inflation protection but it wasn't like we said we need to have some inflation protection, let's throw in this.

MR. WALTER SARANCHUK: Can you explain how the characteristics of real estate and infrastructure compare with Real Return Bonds as an inflation hedge?

MR. JEREMY BELL: Yeah. Less so and maybe a little bit more -- or less -- less correlated with the inflation and perhaps a little bit more specific.

And -- real estate, the prices of real estate generally change with the price of concrete, steel and labour, building -- real estate buildings, which generally should grow over inflation over time, and -- and depends to some extent or to a fair extent on the rents that you get which are going to be paid out based on how the economy's doing.

So it's going to be a combination of those. But largely the price of building is going to be a big driver of what the price of real estate is, and the price of building is going to be driven by the cost of -- of -- or CPI or some sort of inflation measure.

Infrastructure would be a similar type of project. You're building roads there. The price of rebuilding roads and some of the infrastructure projects actually have explicit inflation built into them, so you'll get a concession from the Government. And the Government who is on -- the counterparty to the infrastructure and that will give you increases to the amount of money you're getting over time at an inflation. Perhaps, not CPI in Canada but -- but some sort of inflation wherever the jurisdiction is of the actual product.

So I'd say they're fairly strong matches to inflation but obviously not as direct as -- as a Real Return Bond.

MR. WALTER SARANCHUK: Could inflation protection be selected as an objective for an ALM or an asset liability model study?

MR. JEREMY BELL: No. I've never seen it. It would be a fairly distinct issue. It -- it's kind of cooked into what companies actually care about. And what companies actually care about isn't inflation protection; they care about, well how much do my ratepayers have to pay, how much do my other people have to pay?

So it's -- it's -- I'd say looking at just that would be too small from what any one of our clients would ever be interested in.

MR. WALTER SARANCHUK: And in the evidence, sir, this is for the record at page 409 of the transcript, one (1) of the MPI witnesses indicated, and I'm quoting here:

"And included in the modified are real estate as an asset class and infrastructure as an asset class, which are also inflation sensitive. So you get the protection of that inflation protection plus increased diversification, which you would not get with the Real Return Bonds." End of quote.

Do you agree with that?

MR. JEREMY BELL: That sounds fair.

MR. WALTER SARANCHUK: Is there any change in risk levels or reward levels between the Real Return Bonds and the two (2) alternatives?

MR. JEREMY BELL: Yeah, if you're directly comparing them, your Real Return Bonds will generally, perhaps except for an extreme economic distress, provide less returns than infrastructure or real estate. So your returns will almost always be higher from real estate and infrastructure.

As far as risk level goes, to the extent that you have liabilities that are exactly matched to CPI, Real Return Bonds will be better, but it's -- it's an extreme price to be paying for that level of insurance.

MR. WALTER SARANCHUK: Can you give us an idea of -- in your view, what MPI should consider to, as acting inflation hedge; that is, what types of real estate or infrastructure?

MR. JEREMY BELL: Id' say any of them. Not REITs, which would be Real Estate Investment Trust, but direct ownership of real estate. Not MPI actually buying buildings, but investing in a pooled-fund where the pooled-fund holds geographically diversified -- diversified by property type: retail, industrial, multi-unit, residential, commercial.

Over time, all real estate should be pushed by the same factors, which is how much does it cost to build and replace this product with some land-specific prices. All that would be domestic, here in Canada, so you would get a fairly direct CPI or -- or inflation protection in Canada.

Infrastructure, you're going to get more global inflation protection. There aren't really that many infrastructure funds where you can get much Canadian exposure. There'd be the odd North American fund and it would have a minimal amount of Canadian exposure, more in -- in the US. And this would be like a -- a pooled-fund where you'd put in -- you'd make a commitment and you'd buy fifteen (15) different projects. And the projects, we wouldn't specify, but it would be generally accepted by the larger pooled-funds of -- of infrastructure products or -- or limited partnerships of infrastructure products.

MR. WALTER SARANCHUK: And now, sir, turning to the Hum and Simpson report, which, in my copy, is at the -- the quote that I'm going to give you is at the top of page 10 and it starts with the words:

"MPI appears to have followed Aon's advice."

And then it says, quote:

"Aon has essentially calculated their optimal investment frontier without regard to possible future inflation risk. [bracket] (Aon assumes that future inflation will be within the Bank of Canada's current target range for the duration of the horizon of the portfolio and implicitly that MPI is willing to accept this inflation range [bracket] (MPI's forecast is based on 2 percent for the next five (5) years) [end of bracket]."

And in dealing with -- or after making that comment there is reference to the -- what I can term the inflation footnote, in your report at page 17 at the bottom.

And can you comment on Hum and Simpson's observation?

MR. JEREMY BELL: Generally true. MPI did appear to follow our advice. We didn't calculate our optimal investment frontier without regard to possible future inflation risk. So we assumed 2 percent inflation and with the MPI assumptions, 2 1/4 percent inflation, with a 1 percent standard deviation, which means that it's generally going to be between, in most scenarios, 1 and 3 percent, though it can get to the extreme levels of maybe 4 or 5.

But we're not getting -- we're not modelling scenarios where future inflation's sitting in the -- much of a higher range than that, although perhaps it could get to an extreme level. It would be pretty remote with that type of assumption.

So I agree that we didn't -- we're not modelling 6, 7, 8, 9, 10 percent inflation, which would have made Real Return Bonds become more attractive. It would have made -- it would make real estate generally become more attractive, too, and infrastructure more attractive too. So I'm not -- it's not necessarily true that Real Return Bonds would even still be the thing then, but they would obviously be more attractive in -- if inflation isn't in that 1 to 3 percent band.

MR. WALTER SARANCHUK: What is your current view of the inflation environment?

MR. JEREMY BELL: We're still using -- we're still using the same assumption. Core inflation is above two (2) now, but ultimately our assumption is that the Bank of Canada, since setting all of its new rate regime in the early '90s, targeting between 1 and 3 percent with a target -- or allowable range of one (1) to three (3) with a target of two (2), they've shown reasonable ability at doing it. They don't have any other, like, economic goals. Their only goal is to keep their inflation target there. And they have complete supply of the money.

So to the extent that the political will still is there, keeping it within that one (1) to three (3) range should be possible.

The problem -- I mean, the problem -- only problem that's possible could be the economy is doing very poorly and they have to further choke-off the money supply to keep inflation down. And that's the times where inflation might get outside that one (1) to three (3) range.

But without having to worry about the economic -- economic stability of -- of the country, that would be a fairly extreme scenario.

MR. WALTER SARANCHUK: So how does your view impact your optimal portfolio?

MR. JEREMY BELL: Well, it doesn't. Ultimately, I -- I'd still say 2 percent with a standard deviation of 1.1 percent is a reasonable portfolio. And even if I thought inflation was a fairly extreme problem, I -- I still think there's enough inflation protection in the portfolio -- as a qualitative thing -- this is going away from the modelling, because ultimately you have to decide whether or not you can implement this, I still think that the inflation protection in real estate and infrastructure is fairly strong and the inflation protection in equities is actually fairly reasonable.

If you're a company and you've built up this company and inflation skyrockets while competitors have to pay a lot more money to try and compete with you now -- the competitors that didn't exist before, so it increases your pricing power, not perfectly with inflation, but generally it should be with inflation, unless economic times are terrible.

So there's a bias with MPI's portfolio that it's going to do well to the extent the economy doesn't do very, very poorly over the next fifteen (15) years.

MR. WALTER SARANCHUK: Thank you, sir. Those are all my questions of this witness, Mr. Chairman.

THE CHAIRPERSON: Thank you, Mr. Saranchuk. We're going on to Mr. Williams, but before we do, I've got a couple of questions here.

QUESTIONS BY THE BOARD:

THE CHAIRPERSON: When you get into your base assumptions, do you assume that a loss that was due to investment volatility would drive a premium increase?

MR. JEREMY BELL: I will need to check. What we actually set it based on exactly what -- well, let me just look in our assumptions.

(BRIEF PAUSE)

MR. JEREMY BELL: So -- well no, but only to the extent -- well, not a loss from investments but to the extent that they're outside the rate stabilization reserve number there's going to be a premium increase, that's what we've assumed.

THE CHAIRPERSON: So it's the same thing. In other words if -- if a loss developed, your assumption would be there would be a premium change?

MR. JEREMY BELL: Yeah. But perhaps it's parsing language, but it's only if the loss is outside the rate stabilization reserve. Like, if they're at the top-end of the range and there's a loss of not quite the same amount as the range, that's not a premium increase, so.

THE CHAIRPERSON: But if it did take it

outside the range, your assumption is there would be a rate -- rate change?

MR. JEREMY BELL: Yes.

THE CHAIRPERSON: Just to confirm, from your perspective volatility is a risk, correct?

MR. JEREMY BELL: No. Well, I mean volatility is what some people may call risk. We're not calling volatility risk here; we're saying asset liability mismatch is the risk. And -- and that can be driven by volatility, but it's sort of a -- let's call it a sub-risk and not something we're actually dealing with directly.

THE CHAIRPERSON: Okay. Then is a mismatch in a competitive and private market different than one that's a Crown corporation monopoly?

MR. JEREMY BELL: Is the mismatch different? Or do they take different positions? Are they closer matched in other companies or does it affect a public company differently?

THE CHAIRPERSON: Does it affect the types of recommendations that you might put forward? The environment that you're dealing with. Like, a comparison to say, for example, a private competitive business, as opposed to a public monopoly?

MR. JEREMY BELL: No, that's driven large

-- well, the objectives are largely driven by what MPI tells us the objectives are, so obviously that's going to be flavoured -- obviously that's going to be flavoured by whether they're a public monopoly or whether they're a private company. So they've set those objectives.

And where we ultimately choose affects where we think the tradeoff is, but where they ultimately go affects their understanding of where they are. So perhaps they may choose something different than a private company may ultimately choose, and they're not subject to the exact same regulatory regimes -- regimes for insurance investment. But there isn't really any kind of modelling difference or recommendation difference once we get given some direction from MPI.

THE CHAIRPERSON: If you were giving the recommendations to a client, along this line of work, where the client didn't provide the objectives, would you look to the difference of the client as opposed to the type of other structure it may have?

MR. JEREMY BELL: I don't -- I don't think it's possible that we would do this without given an objective from the client. I mean, we -- we are -- we need direction to know what's important to them. We'd just be guessing otherwise and it -- and it wouldn't be a -- a useful exercise. And I can't imagine being hired without that -- that situation.

I mean, if we had to fully understand MPI, where it sat inside of Manitoba, and -- and what its -- what its sensitivities were, this project couldn't happen, and we couldn't make those assumptions, and we wouldn't do the project.

THE CHAIRPERSON: Just to confirm, the Portfolio Number 21, on page 70, the asset mix is considerable different than the recommendations you gave where the selection that was finally made.

Is Portfolio Number 21 within the efficient frontier?

MR. JEREMY BELL: It's -- yes, it's optimal within efficient frontier.

THE CHAIRPERSON: And it would be predicted to have a higher excess return?

MR. JEREMY BELL: Than every other portfolio, but included what they -- what MPI ultimately chose, yeah.

THE CHAIRPERSON: And a higher probability of having an excess return?

(BRIEF PAUSE)

MR. JEREMY BELL: The probability of a

positive excess return would be fairly similar. Portfolios 14 to Portfolio 21 all have a 61 percent chance of a -- of a positive excess return.

So that it provides a higher excess return doesn't necessarily mean it's going to have -- it's just going to have more extremes, so it's going to have --

THE CHAIRPERSON: It is in the group that has a higher probability --

MR. JEREMY BELL: It's in the group with the -- with the highest probability, yeah.

THE CHAIRPERSON: Mr. Saranchuck touched on this -- this is a different question -- but MPI has selected a different portfolio than the one that they have right now.

The evidence that we had before you arrived did not give us any sense of how long it would take them to move towards the portfolio that they have selected.

What would be a reasonable period of time, in your mind, to move from where they are to transition to the asset mix that they have picked?

MR. JEREMY BELL: To fully get there, four/five (4/5) years. A lot of it's fairly easy, but private equity and infrastructure take a lot of time to actually build up to what your commitment level is. Real estate may take a fair bit of time too. And I think starting all those searches at the exact same moment to get those managers in place, to do three (3) at once is, you know, a bit much. So let's call it four (4) years.

THE CHAIRPERSON: The current portfolio you measured is -- based on your calculations, provides an expected excess return of zero, correct?

MR. JEREMY BELL: 0.22 percent based on MPI's expected return -- MPI's assumptions. And based on our assumptions -- so I'm looking at page 27 of the report has that 0.22 percent number.

THE CHAIRPERSON: I'm looking at page...

MR. JEREMY BELL: Page 32 is zero. So using -- using Aon's assumptions, yes, it's zero percent.

THE CHAIRPERSON: Is there any -- given the time that it takes to do these investments that you are talking about, is there any transitional steps that provide a higher excess return as one moves towards that, given that it takes longer to do it? It's equally safe from MPI's perspective?

MR. JEREMY BELL: Yeah. I -- I would need to think about that, but largely no. But they could...

(BRIEF PAUSE)

MR. JEREMY BELL: Yeah, I'd say not really. Most of the change is in the alternatives -- and that's going to take a while to get into -- I -- if -- if -- they could put a bit more money into equities currently as a parking spot for it, but the difference would be relatively marginal as a transition to get it from where it is into alternatives. As well, it's not necessarily a natural thing to have more money in equities to replace your real estate or your infrastructure.

Perhaps your private equity 5 percent allocation, you might say put that into EAFE equities right now and maybe a little bit of your real estate and -- and infrastructure allocation, but not the full amount, because those are kind of, I would say, as a rule of thumb half bonds, half equity.

So maybe you could put a little bit more into equities right now as a parking spot, but ultimately, you're going to be held up by just the time it's going to take you to get into those. And there aren't really many way to get to dab your toe into either -- any of those all that nicely.

You can buy REITs, Real Estate Investment Trusts, for real estate. Not ultimately recommended. It's got fairly high volatility. It's very much like equities anyways so...

THE CHAIRPERSON: Thank you, Mr. Bell. Okay. We'll move now to Mr. Williams for CAC/MSOS.

CROSS-EXAMINATION MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Thank you. Thank you, Mr. Chairman and Members of the Board.

Mr. Bell, welcome. I guess welcome to Manitoba. You're from BC, is that right?

MR. JEREMY BELL: I am, yeah.

MR. BYRON WILLIAMS: Okay, welcome. Perhaps just in terms of your report and I -- I don't think I'll be too long. Mr. Saranchuk has plowed fertile ground.

But perhaps if you could turn to page 21 for just one (1) second, please?

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And -- and you did have a bit of a discussion with Mr. Saranchuk, both about the base assumptions -- what I'm going to call them -- and the -- the sensitivity assumptions.

You recall that earlier today, sir?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And just in the third full paragraph on this page, and again you discussed this with Mr. Saranchuk but I have a few questions I want to follow up on, the first sentence states:

> "In the alternative assumptions used for the sensitivity optimization, the return and standard deviation assumptions were derived by assuming that the yield curve would tend to revert towards its mean shape and height over time."

Do you see that, sir, that statement?

MR. JEREMY BELL: Yes. Yeah.

MR. BYRON WILLIAMS: And just if you could -- again recognizing that you've had some discussion on this -- elaborate for me, just somewhat, what you mean by that statement, sir.

MR. JEREMY BELL: Sure. The -- the yield curve, which is a -- a curve telling you how much money you'd get if you were investing in and more -- more often than not people use the Government of Canada yield curve so more -- if you're investing in a Government of Canada payment that was paid at a certain time, the yield curve tells you what that is. So you go across the yield curve and say if I had bought a two (2) year piece of paper, nothing being paid beforehand, I'm getting 3 percent. If I go across there, I look at a ten (10) year piece of paper, without the coupons on it, and say oaky, I'm getting four (4) and then what's a twenty (20) year piece of paper worth? Well, it's worth 5 percent.

The yield curve has a certain shape right now, which is relatively flat, so the -- the difference between the yields on Universe Bonds and Long Term Bonds isn't that much, relative to what it has been in the past. And the level of short-term interest rates, that varies based on what the Government of Canada does, and how they set their -- their policy interest rates.

So -- and I -- I don't know exactly where that is right now, but it looks -- I think it's in the 3-ish percent range or -- and back here it was higher.

Ultimately, what we're expecting is that the yield curve from what it was at the time that we started, is going to go towards what the yield curve generally looks like. So as a -- as an expectation what the yield curves look like over some period of time is going to happen again.

It's not -- there's plenty of -- of shaking going on here. We're not saying it's going to do that. It's more of a -- that's our standard assumption and then let's make the volatility happen around there. So we're -- we're having plenty of scenarios where the yield curve is doing radically different things, but overall as a trend that, in our thousand scenarios that we do, the median scenario is going towards a mean reverting yield curve going towards what the yield curve generally looks like.

MR. BYRON WILLIAMS: Thank you very much for that. And just -- the assumption -- just in -- in terms of it reverting towards its mean shape and height over time, in a poor humble lawyer's lay words, it will be less flat.

Is that what you're telling me, sir?

MR. JEREMY BELL: That's basically it. And perhaps a little higher at the back-end, but let's call it curvier.

MR. BYRON WILLIAMS: Just working through the sent -- this paragraph just a little bit more, if I might, aiming towards a taller and curvier curve.

The next sentence is:

> "These changes in the yield curve would drive returns on fixed income assets directly."

And affecting others as well. But just in terms of what you mean by driving returns on fixed income assets directly a little more explicitly more, sir.

MR. JEREMY BELL: Sure. Fixed income, the return you get on fixed income, I'll -- I'll use two (2) examples: Short Term Bonds and Long Term Bonds. In fact cash and Long Term Bonds.

For cash you get whatever the current yield is on cash. The changes in the yield curve don't really mean much but when you projecting over fifteen (15) years, the changes in where the cash rate is from today to five (5) years from now, that's how you're reinvesting your cash at. So where that's ultimately going to go is if I started at a yield curve where the cash was, the cash rate was 2 percent and ultimately it got to 4 percent and it moved there gradually, then over time, over the next fifteen (15) years you're going to be assuming about a 3 percent return on cash, because you're going to be getting a low rate for the first ten (10) years and a slightly higher rate for the last -- for the last ten (10) years.

For long -- for longer term rates there's -- the effect of reinvestment is a little bit less because you're buying a Long Term Bond that has a term to maturity of beyond ten (10) years, so you tend to hold those for most of the time.

The main -- the main effect on the returns on Long Term Bonds is going to be, if interest rates decline the value of Long Term Bonds increase, and if interest rates increase the value of Long Term Bonds go down. So it's going to be some invest -- some factor of reinvestment but some factor of -- of most of the factor of how it changes the interest rates.

MR. BYRON WILLIAMS: Thank you -- thank you for that. I believe when you were discussing the -- this topic with Mr. Saranchuk earlier today, I think you indicated that the assumptions found in this paragraph, kind of the third paragraph, are the assumptions that Aon would -- would typically use.

Is that fair, sir?

MR. JEREMY BELL: That's correct, yeah.

MR. BYRON WILLIAMS: And if -- if I were -- and if I were to compare those to the base case assumption, focussing specifically on the -- the yield curve, in the base case the assumption is that the yield curve is effectively fixed at its current level for the duration of the projection period.

Is that right?

MR. JEREMY BELL: That's right.

MR. BYRON WILLIAMS: Just in getting down to brass tacks, recognizing that the -- the sensitivity optimization or the -- the assumption that -- that the yield curve will -- will tend to revert towards its mean shape and height over time is your typical assumption, if I were to ask you in your professional opinion which of these two (2) assumptions is more -- more reasonable, which -- which would you choose, sir?

MR. JEREMY BELL: More reasonable, I'd choose mine, but -- or mine, the mean reverting yield curve. Though reasonable I'd say both so.

MR. BYRON WILLIAMS: It's the one you prefer?

MR. JEREMY BELL: Yes. I mean for any -- for any client, normally we would just use mine, or Aon's.

MR. BYRON WILLIAMS: For a couple minutes then I -- I want to just focus on your Aon assumptions and if I -- if I wanted to look at how those are portrayed graphically, I think I'd ask you to turn to page 30.

Would that be right, sir?

MR. JEREMY BELL: That would be -- well, that wouldn't display what the assumptions look like graphically; that would display what optimal portfolios, using my assumptions, would look like, yeah.

MR. BYRON WILLIAMS: And thank you for your precision. You've -- that asks this question better than -- or you've answered it better than it was asked and I appreciate that.

And just again, if I look at Chart 5, based on your preferred assumptions, just so I'm understand this correctly, in the -- towards the bottom right-hand corner is the dot -- and realize, I don't have colours, sir. That's --

MR. JEREMY BELL: Me neither. Me neither, so --

MR. BYRON WILLIAMS: Okay. That's the current portfolio in the bottom right?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: Is that right, sir?

MR. JEREMY BELL: Yeah.

MR. BYRON WILLIAMS: And so on -- on these assumptions, its excess return is in the range of zero. Am I reading this correctly?

MR. JEREMY BELL: You are. I think it's minus zero point zero two (-0.02) --

MR. BYRON WILLIAMS: Okay.

MR. JEREMY BELL: Zero, let's call it.

MR. BYRON WILLIAMS: And in terms of its fifteen (15) year annual average -- average annual standard deviation of the excess return, it's a bit above 4 percent.

Would that be right?

MR. JEREMY BELL: That's correct.

MR. BYRON WILLIAMS: And just at a very simplistic level, if I'm looking on the lefthand side, excess return gives me an idea of the -- the improved opportunities for return, whereas the -- the bottom line, the standard deviation, gives me some sense of increased risk.

Is that fair, sir?

MR. JEREMY BELL: Yeah, exactly. I'll even go one (1) step further. I look at that and say it's got a standard deviation of the excess return of 4 percent. It's got no -- no average annual excess return. In poor scenarios, you're going to be losing about 4 percent in a year, and very bad scenarios, 8ish, 10ish percent.

So that gives you a magnitude of what that actually means in real life for a company.

MR. BYRON WILLIAMS: I appreciate that. And I don't always invite witnesses to go further but, you know, that -- that was fine. And just to use what I'm assuming is not an actual actuarial term of art, but the free lunch situation arises from the current portfolio definitely up and to the left.

Is that -- is that what you're suggesting, sir?

MR. JEREMY BELL: Yeah, everything that's up in to the left is free lunch, though everything on the optimal curve is -- is equivalent to the free lunch or so. I call the curve, kind of -- they're all the same sort of thing but -- but the obvious free lunch ones, relative to the current portfolios, would be Portfolios 3 to 11.

MR. BYRON WILLIAMS: And -- and so just hypothetically, if you were looking at a corporation that did not want to assume additional risk beyond its current portfolio -- just -- you'll assume that with me, sir?

MR. JEREMY BELL: Yeah.

MR. BYRON WILLIAMS: Then if I went up -- up -- straight up or slightly to the left, the -- the two (2) ones that look that most promising in that regard would be Portfolios 10 and 11.

Would that be -- that be fair?

MR. JEREMY BELL: Well, you're saying that -- don't want to assume more risk. I'd say Portfolios 1 to 11 would be fine but, I mean, 10 or 11 if you want to assume the same level of risk effectively.

MR. BYRON WILLIAMS: Okay. And let me rephrase that. Let's say if the question was: I want the highest possible return but no risk more than the current portfolio, 10 and 11 would be the --

MR. JEREMY BELL: That's correct.

MR. BYRON WILLIAMS: -- the hot ones, is that right?

MR. JEREMY BELL: That's correct, yeah.

MR. BYRON WILLIAMS: And, Mr. Chairman, I'm -- I'm going to be about probably 45 minutes or so, maybe a bit more. I can break now or I can keep going. What -- I'm at the pleasure of the Board.

THE CHAIRPERSON: I think we will break now. We will try to come back by 1:15. We have got something to prepare for this hearing, so we will give it a shot for 1:15. Thank you.

--- Upon recessing at 12:00 p.m.

--- Upon resuming at 1:19 p.m.

THE CHAIRPERSON: Okay. Welcome back, Mr. Bell, in particular. Mr. Williams...?

MR. BYRON WILLIAMS: I was wishing I would have got as warm a welcome back as Mr. Bell, Mr. Chairman, but I'll -- I guess that will suffice.

I should welcome on my -- on behalf of my clients, a Ms. Lori Baldwin from CAC, is somewhere hiding back by the water cooler. So she'll be observing. Ms.

Desorcy is unable to make it today.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Bell, I -- when -- when we broke for lunch we were talking about page 30 of your report, looking at some of the assumptions based upon your preferred scenarios. And -- and I think we had agreed, with an answer that was better than the question, that if I was looking for -- along the efficiency frontier, for the -- the points where the -- the highest return, whilst -- whilst still within the risk, as measured by average annual standard deviation of the current portfolio, I might be looking to Portfolio's Number 10 and Number 11.

Is that right, sir?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And if I was just -- and if you could just turn to page 31, if you would, sir.

If I look at page 31, in the middle of the page, I'll actually see the proposed asset allocations for these portfolio's we were just speaking of, Number 10 and Number 11.

Is that correct, sir?

MR. JEREMY BELL: Yes, Number 10 is highlit, because that's recommended, but we see both.

MR. BYRON WILLIAMS: And just in terms of -- I want to just, you know, take a few moments to walk through the characteristics of both these two (2) portfolios. And again, I will step a little bit on what Mr. Saranchuk has talked about before but I'll -- I'll try not to tread too heavily.

I'll see the first thing, in both Portfolios 10 and 11, is that there are no recommend -- no recommended Universe Bonds but there is 50 percent allocation to Long Term Bonds.

Is that right, sir?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And you'll correct me if I'm wrong, but as I understand your evidence to Mr. Saranchuk this morning, and your preference for Long Term Bonds, as opposed to Universe Bonds, relates to a fair degree to the reduction -- or the benefits of diversification, the reduction and the relative risk.

Am I right, sir?

MR. JEREMY BELL: No, not diversification but the match to your liabilities. so your liabilities move more like Long Term Bonds than like Universe Bonds.

MR. BYRON WILLIAMS: So it's to match the liabilities. Now in terms of return itself between those two (2) categories, what -- what, if any, differences do you see?

MR. JEREMY BELL: I'll turn to -- consistent with the same chart we were looking at, we'll turn to page 39. We have the return on Long Term Bonds as 5.4 percent expected over the next fifteen (15) years, that's an annualized return, versus Universe Bonds at 5.0 percent. So you're looking for a .4 percent return difference.

MR. BYRON WILLIAMS: So from your perspective, there's benefits in terms of matching and some modest benefits in terms of return as well.

Is that fair?

MR. JEREMY BELL: That's how I'd characterize it, yeah.

MR. BYRON WILLIAMS: And just -- just so I have your point clearly, in your discussion at page 22 of the -- the sensitivity analysis which is what we're -- we're talking about now, page 22, the second bullet, you'll see the statement:

> "Universe Bonds were less attractive to Long Term Bonds and that -- and thus were not considered in the final step of the optimization."

That's your position?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And presumably, it's because of the two (2) reasons we just annunciated. Universe Bonds have a -- the return is slightly lower as well as the -- the matching issue.

Is that right?

MR. JEREMY BELL: Yeah. I mean, I'd say it's -- even if the returns were the same, we'd probably come up with Long Term Bonds. So I'd say it's almost entirely the matching issue but there are some other modest -- modest benefits.

MR. BYRON WILLIAMS: Now, when I -- I realize we're bouncing back and forth a little bit but going back to page 31 again, which is your Asset Allocation of Optimum Portfolios, and again looking at Portfolios 10 and 11, we see Manitoba Bonds at 20 percent, and that's an allocation across the line.

Is that right, sir?

MR. JEREMY BELL: That is. That -- that was a constraint of the study.

MR. BYRON WILLIAMS: And that was a constraint directed by Manitoba Public Insurance presumably, sir?

MR. JEREMY BELL: Yeah. I mean, I won't parse out exactly who it was because it was a -- I presume the investment consult -- or investment committee working group but it was from the client.

MR. BYRON WILLIAMS: Fair enough. Going down to equities just for a second, without going to the numbers per se, whether I'm looking at Portfolio 10 or Portfolio 11, would I be correct in suggesting to you that your recommended portfolios or the -- these portfolios, excuse me, are more heavily weighted to US equities than to Canadian equities, sir?

MR. JEREMY BELL: Yeah.

MR. BYRON WILLIAMS: And, again, is that primarily for -- well, let's start, is that primarily for the reason of diversification, sir?

MR. JEREMY BELL: That would be primarily for the reason of the diversification. So it would have a similar standard deviation assumption. There's -- there's three (3) drivers: returns, standard deviations, correlations. Correlation being where the diversification comes from, standard deviation being how much an asset class shakes around, and returns being how much you're supposed to get out of it.

US equities, I think get a slightly higher return than the others so that's going to be a plus for it, relative to some of the other equity asset classes. Correlations, I don't -- I mean I -- I can't recall them off the top of my head but I think they are pretty similar. But a standard deviation, pretty similar.

So -- but it would -- but it wouldn't be diversification; it would be a main reason and a slight return difference between them.

MR. BYRON WILLIAMS: Excuse me. And in terms of the diversification, if you could just elaborate on that point a bit more for me, sir.

(BRIEF PAUSE)

MR. JEREMY BELL: Turn to page 42 in the report.

MR. BYRON WILLIAMS: I have it.

MR. JEREMY BELL: Okay. Diversification shows up by the fact that US equities will be -- will move a little less like other asset classes that you'll invest in. So if you look at the US Equities Large Cap -- sorry, I'll slow down -- US Equities Large Cap column, and you compare to what Canadian equities have, the lower the better. So the lower, the more diversification benefits that you get and if it's negative the more diversification benefits you get in investing with it.

So if I compare the US Equities Large Cap column to the Canadian Equities Large Cap column as an example, you can see where the diversification benefits come from a portfolio level. I'm not looking at individual stocks because each one of one will be higher -- or each mandate you get into is going to be diversified by stock, so we'll kind of ignore that as a diversification issue.

If you look at the column on Canadian Equities Large Cap, almost all those numbers are a little bit higher than the US Equities Large Cap. Us Equities moving a little less similarly to the other asset classes than Canadian Equities Large Cap. So there's some correlation diversification benefits, however exactly you want to say it; a little bit more being with US equities than being with Canadian equities.

It's not a major difference. It's not like one is fundamentally different from the other, but the models going to pick up minor differences and have preferences towards things that -- that mathematically are -- are better.

MR. BYRON WILLIAMS: Thank you for that. And -- and you also -- you also mentioned some differences in return and my -- my assumption is that those assumptions show up on pages 39 and 40.

Is that right, sir?

MR. JEREMY BELL: That's correct.

MR. BYRON WILLIAMS: And if you could

just run me through those --

MR. JEREMY BELL: Sure.

MR. BYRON WILLIAMS: -- those differences as well, please.

MR. JEREMY BELL: So the expected return on Canadian equities we have at 8 percent. That's the bottom of page 39. So that's going to be the return over time. And I'll even just add, the standard deviation is 14.5 percent so that's a guide of how much the -- the returns are going to be shaking around over time.

Page 40 has the returns on US equities. We'll look at Large Cap at 8.5 percent versus 14.4 percent for standard deviation. So it's slightly less -- standard deviation, higher expected return.

Now the expected return there is -- is being driven by interest rates in different countries. So there's a little bit of a difference in -- if interest rates in different countries tell you something about what the exchange rate is now and what -- what the exchange rate might be in fifteen (15) years, there's a slight adjustment for it. So there's a slight higher return in US equities expected prospectively than Canadian equities because of the interest rate difference.

We have the exact same assumption for the equity risk premium and it's applied to the same Canadian cash; it's just adjusted a little bit for interest rate differences.

International equity which would be the EAFE equity is two (2) rows below and that's got a 7.8 percent expected return. So it does have a -- a return difference for US equity that's making it show up in -- in slight better correlations.

MR. BYRON WILLIAMS: Okay, thank you -- thank you very much for that. And just going back again to page 31 for a moment.

Again, looking at those two (2) columns, can -- sorry, I'll wait -- are you there?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: Look at those two (2) columns, 10 and 11 and I'm going to give the heading of Alternative Investments. I don't know if you'll accept that or not, but whether it's Canadian real estate, private equity or infrastructure, I guess there's a small difference between the two (2) portfolios, with Portfolio Number 10 having about 20 percent versus Portfolio 11 having 15 percent.

Is that -- that right, sir?

MR. JEREMY BELL: Yeah. To me the difference is, you have Portfolio 10, the 5 percent in infrastructure moves into equities; when it moves over to Portfolio 11 becomes a slightly more risky and slightly better return.

MR. BYRON WILLIAMS: And thank you for that. And -- and I just want to -- just so my client can understand it -- understand some of the tradeoffs that you're -- you're working through on your model, going back to page 30 for just a second, if you would, sir, that's Chart 5.

I'll just pick one not quite out of the air but I'll -- I'll pick one.

Let's look at Portfolio Number 17 on the efficient frontier. If I could -- first of all, if I compare that to the current portfolio, it's got a much higher excess return antici -- anticipated.

Is that right, sir?

MR. JEREMY BELL: Correct.

MR. BYRON WILLIAMS: But as compared to the current portfolio, there's also a higher assumed average annual standard deviation.

Would that be right?

MR. JEREMY BELL: That's correct, yeah.

MR. BYRON WILLIAMS: And just flipping over to page 30 -- 31, if we might, for a second. Once again, you're assuming still a high percentage of Long

Term Bonds at 40 percent, but a bit less than for the Portfolio's 10 and 11.

Is that right, sir?

MR. JEREMY BELL: Yeah.

MR. BYRON WILLIAMS: And again, no universal bonds for the reasons we've enunciated earlier.

Is that fair?

MR. JEREMY BELL: That's right, yeah.

MR. BYRON WILLIAMS: We've got the same percentage of Manitoba Bonds, because that's one of the constraints compo -- imposed upon your work.

Is that right?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And if we go to equities as a whole, this -- this proportion -- proportion is compared to -- if you totalled the equities as a whole, both Canadian and US, as compared to options 10 and 11, you've got a higher proportionate investment in equities.

Am I right, sir?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And again, you still have that same relationship with -- the relative weight given to American equities is higher than the relative weight given to Canadian equities?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And the -- to -- to fund the increased investment in equities, you've taken a bit out of Long Term Bonds and a bit out of Alternative Investments.

Is that right?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: And so the trade-off, just so my clients can understand, is increased return through a greater investment in equities, but also some more risk.

Is that fair? As measured by annual deviation -- standard deviation?

MR. JEREMY BELL: Yes, that's true. Yeah.

MR. BYRON WILLIAMS: Mr. Bell, I could probably go back to the MPI kind of assumptions, but I just -- I have some general observations that -- that I would -- I'm proposing to make on behalf of my clients, and I just wonder if you'll agree with them.

Generally, whether one looks at the -- your alternative -- or excuse me, the -- the Aon preferred assumptions, or the MPI assumptions, generally your advice would be a preference for Long Term over Universal.

Would that be fair?

MR. JEREMY BELL: That would be fair, yeah.

MR. BYRON WILLIAMS: And generally, again, a preference -- not a preference, but a greater weight proportionally to US equities versus Canadian.

Would that be fair?

MR. JEREMY BELL: I'd qualify that a little bit. Equity assumptions are harder to get and they don't link up to liabilities. Bonds it's fairly easy to say who -- which one -- you know, when bond deals move around, what's going to be happening here.

So they're pretty hypersensitive to the assumptions -- the way that the assumptions are set up, that's more attractive, but when -- when implementing, it's good to have a healthy skepticism of -- of how good modelling can be.

So I'd say yes, but qualified.

MR. BYRON WILLIAMS: So if I was putting it to you you'd say yes, but you'd -- you'd have a little stronger qualifications than on the Long Term Bonds versus the Universal.

Would that be fair?

MR. JEREMY BELL: If you're pushing me I'd still qualify it, but...

MR. BYRON WILLIAMS: And again, in terms of trade-offs, if -- if one is looking for the -- the higher returns, but -- and prepared to accept higher risks, one is -- one may move the portfolio a little more heavily towards equities and a little bit out of bonds and alternatives.

Is that fair?

MR. JEREMY BELL: That's fair, yeah.

MR. BYRON WILLIAMS: In your discussion with Mr. Saranchuk this morning you -- he asked you a question and I -- I wrote down your response. You said you'd like to put a little more precision to that statement.

Do you recall saying that, or something to that effect, sir?

MR. JEREMY BELL: I don't.

MR. BYRON WILLIAMS: Okay. Well, that's okay. I -- I've noted in your -- I'm going to suggest to you in your written language -- in your written report that you are quite precise in the language that you -- that you choose.

Would you accept that, sir?

MR. JEREMY BELL: Yeah, I try to be. Yeah, I mean, it's -- as well as possible, but without making it a 200 page report, yeah.

MR. BYRON WILLIAMS: Well -- and, for example -- and I can put you to references if you wish, but at times in your evidence I see a -- the language "extremely likely" versus "likely".

It is that a conscious choice, sir, or is that -- generally, is -- is that kind of your actuarial precision coming -- coming out?

MR. JEREMY BELL: It's not a conscious choice, but if you reference me to where I said it, I could tell you whether or not I meant something much stronger than -- than "likely". But I -- but I -- I can't recall where I said it so I don't know but I -- I try to be as precise as possible.

MR. BYRON WILLIAMS: And I'll actually come to that reference in a minute, but just so I understand, because I know when I talk with mathematicians, the word "significance" has a meaning that -- that -- that poor, old lawyers don't always grasp, but in your world does the -- do the words "extremely likely" have -- have a meaning?

MR. JEREMY BELL: The -- not officially. I mean, it would mean -- it would kind of depend on context, yeah.

MR. BYRON WILLIAMS: And we'll go through the context in a little -- in a little bit then.

At page 8 of your report -- do you have page 8, sir?
MR. JEREMY BELL: I do.
MR. BYRON WILLIAMS: You, on the third line of the first bullet, you make reference to MPI's objectives, and just so I -- I'm sure -- and just so that I'm sure of what you mean by that, how would you describe MPI's objectives?
MR. JEREMY BELL: I'd describe them literally using -- using the primary and secondary objective. Though my understanding now is a little bit different on how they implemented it, but I put a heavier weight in writing the report on the primary objective than the secondary objective and my understanding is MPI puts a close to equal weight on them.
So if you're reading the report, you might sense a primary weight being a bit heavier.
MR. BYRON WILLIAMS: Okay. And just so I understand that, the primary objective, as I understand, relates to the matching and the -- as you originally understood, and the secondary objective related to maximum return -- maximizing returns, given acceptable levels of risk.
Is that fair?
MR. JEREMY BELL: That's right.

MR. BYRON WILLIAMS: And -- you know the inference you've drawn, presumably from the -- from their preferred portfolio, number 11 is that they're prepared to -- to go -- to move a little more highly -- or heavily to the -- to the return side.

Is that fair?

MR. JEREMY BELL: That -- that's fair and we had discussions afterwards about why we used the words "primary" and "secondary," which is actually -- we just use "primary" and "secondary" normally in asset liability studies, and it -- it probably put words into MPI's mouth when we use "primary" and "secondary," when I think that, had they been asked at the outset of the study, they probably would have said "equal," but we didn't really give them that option of something to go through.

So at the discussion at the end, in discussion, why we use "primary" and "secondary," it was more of a conversation than...

MR. BYRON WILLIAMS: Fair enough. Just in the second bullet there, instead of using the words "MPI's objectives," line 2, you used "MPI's needs".

Is there any conscious choice in the -- is there any distinction you'd draw between "objectives" and "needs," sir?

MR. JEREMY BELL: No conscious difference between them. No.

MR. BYRON WILLIAMS: Just a -- just a replacement word, is that fair?

MR. JEREMY BELL: Yes.

MR. BYRON WILLIAMS: Just turning to page 16 of your report for a second. And I think you've answered this but I want to make sure I have it answered.

The second bullet at the top -- from the top, you've got the statement:

"In the efficient frontier, the Canadian equity weight is minimized with an allocation of 30 percent of equities to Large Cap Canadian equities."

And just if you can explain what this -- what that statement means, sir.

MR. JEREMY BELL: Yes. At the outset of the study one of the major inputs is what asset classes to model also constraints upon the asset class. You don't want to accept what numbers tell you without a little bit of logic, because MPI was not going to implement a portfolio that didn't have Canadian equities in it ,nor necessarily what I say should if -- if the math tells them to.

So when running the model it -- it reached the bottom end of the constraint. And the bottom end of the constraint was you have to have at least 30 percent of your equities in Canadian equities.

So that's -- that's what I'm trying to say there, is that when optimized most of the money is -- as much of the money as is allowed, according to what you guys said is your assumptions or constraints, is outside of Canadian -- Canada.

MR. BYRON WILLIAMS: So just so I understand, through the model as much as they'll allow is optimized outside of Canada.

Is that right?

MR. JEREMY BELL: Yes, that's right.

MR. BYRON WILLIAMS: Just staying on page 16 for a second, in terms of bond structure, and again, I -- I think we've -- we've answered this, but if we look at your description of Chart 2 at the bottom of the page, you have a bit of a discussion, I'm not going to read it to you, but it appears to me that you're suggesting that if you're making lower allocations to fixed income, then a -- the efficient frontier is optimized by allocating towards Long Term Bonds. If there are higher proportionate allocations to fixed income, that's when Universe Bonds become more attractive.

Have I paraphrased that correctly, sir,

first of all?

MR. JEREMY BELL: Yes, you have. Though, I'll note that this is as opposed to what we were talking about before, this is the MPI assumptions, yeah. But yes, you paraphrased that paragraph.

MR. BYRON WILLIAMS: Going back to just the -- the Universe Bonds, if -- if -- my sense of this first of all is that you're -- when they become more attractive is when you're looking at allocations of equal to or greater than 80 percent of fixed income.

Is that right, sir?

MR. JEREMY BELL: Yes. And I can give you the reason if you want.

MR. BYRON WILLIAMS: I was going to ask for it.

MR. JEREMY BELL: Okay. Largely the reason has to do with the fact that the duration of your assets, so the sensitivity of your assets to changes in interest rates, is largely captured in your bonds. If I had 50 percent of my assets invested in bonds and it's got a duration of ten (10) years let's say, whereas your liabilities have a duration of assets of ten (10) years themselves, well your assets all together are only going to have half of them moving the same amount as your -- your liabilities.

So to the extent you have less money invested in bonds, if you want to get rid of your interest rate risk, you have to be longer term. You have to have more sensitivity to interest rates in -- in the assets that remain in bonds.

So it's -- it's expected generally, if you have less in there.

MR. BYRON WILLIAMS: Thanks. Thank you very much for that. Just -- and we are jumping around a lot, the solace I can offer you is that we won't -- we won't be that much longer.

You can turn here if you like, I don't know if you need to, but at page 7 of your evidence -- maybe we'll -- we'll flip over to there if you will.

And I don't know whether to call it the 3rd last bullet or the 4th last. There's a little indented one.

> "Assets will be valued consistent with current financial statement methodology. Market value for all assets except for non-marketable Manitoba bonds at -- at book value."

Do you see that statement, sir?

MR. JEREMY BELL: I do.

MR. BYRON WILLIAMS: Just to start with,

what was your understanding of current financial statement methodology? Just so I understand what you -- what you mean by that.

Is this the mark-to-market business, sir?

MR. JEREMY BELL: This is -- we don't have a deep knowledge of what their financial statement methodology is; this is just direction on exactly what to do with the assets and my understanding is that the direction that I've said there was their current financial statement methodology.

So I -- I didn't mean anything beyond the -- the rest of that sentence basically, but...

MR. BYRON WILLIAMS: Well -- well, I want to get into just a -- a bit of a discussion about constraints; not much because I think you're much more capable in this area than I am.

But as I understand current financial accounting rules, certain of the -- the assets of Manitoba Public Insurance can be designated as held for trading, and those show up on the -- right into the -- the net income statement. Certain of those assets may be designated or have been designated as available for sale, and they -- they show up on a different line called, "Other Comprehensive Income;" the -- the market value of both those do. And then the -- the -- a third category shows up just at -- at the book value.

And again, we'll -- let's assume I'm right on that and that may be a leap of faith. Mr. McCulloch can drop -- jump in if -- if he's -- if he's not -- not agreeing with me.

As I look at that, it -- it looks to me that the treatment of these assets, I'm going to suggest to you, may have a -- a different impact on the -- on the financial statements in the bottom line of the Corporation, as reported in net income or other comprehensive income.

Does that sound reasonable to you, sir?

MR. JEREMY BELL: That does, though -- though I -- I will say we're -- we're exploring an area beyond where I would normally feel comfortable and qualified to -- to talk as an expert so, you know, I'm --

MR. BYRON WILLIAMS: I'm going to --

MR. JEREMY BELL: -- It doesn't sound unreasonable, but I'm...

MR. BYRON WILLIAMS: Let's just say -- say I'm right on that and -- and as I said, that may be a leap, but assuming I'm right, are there any implications of these accounting rules to the application of portfolio theory?

MR. JEREMY BELL: There -- there could

be. I mean, to the extent that bonds are held at book value versus market value, if you -- if you care about year-to-year volatility of your financial position, then it might make a difference on -- on exactly what you do. I'd be guessing a little bit to say what the impact could be, but there could be different investment decisions that you'd make, depending on accounting.

MR. BYRON WILLIAMS: And again, and not -- I -- I don't want to push you farther into the accounting issue, but staying on portfolio theory, there might be different constraints you might build into your optimization if you were considering that an issue.

Is that possible, sir?

MR. JEREMY BELL: Yeah, it would -- it would be modelled. So yeah, it -- it could have not constraints on asset mix, not constraints on asset class, perhaps not even constraints on, like, objectives; it just could be something that is a part of the modelling and shows up as part of the financial position or excess return, or whatever the excess return that you care about is.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: If you want to just

turn to page 71 for a -- a couple of minutes, sir. Excuse me, I misspoke, page 70?

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Now, based upon Mr. Saranchuk's discussion with you this morning, I understand that this is basically a replication of a Chart 3 from page, I think, 26 of your -- your report, with the exception that we've put in a modified mix number 11.

Is that right, sir?

MR. JEREMY BELL: That's right.

MR. BYRON WILLIAMS: And it's designed upon the MPI-based optimization rather than the Aon optimization?

MR. JEREMY BELL: That's right.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Just a couple moments on this again and I -- I may have asked this before. If so, I apologize.

If I was looking at -- at this chart and trying to determine -- saying my objective is a higher return as measured in annual excess return, the average, and about the same level of risk as the current portfolio, would I be focussing on options 4 through 8, sir?

MR. JEREMY BELL: I'm sorry. Could you repeat that?

MR. BYRON WILLIAMS: Yeah. Let -- let's just say that I'm still caught in my kind of mind set from the current portfolio. I want about the same level of risk but a higher return. The options I'd be focussing on are Option 4 through 8.

Is that right?

MR. JEREMY BELL: That -- that's correct, yeah.

MR. BYRON WILLIAMS: Okay. I apologize for the imprecision.

And then let's move up to number 11 and modified number 11. If I look at the two (2) -- there is -- eleven (11) versus the MPI preference, does have a somewhat higher return.

Is that fair?

MR. JEREMY BELL: So eleven (11) versus modified mix number 11 --

MR. BYRON WILLIAMS: Yeah.

MR. JEREMY BELL: -- the ultimate one MPI is going for? Yeah, that's fair. Has a slightly higher return --

MR. BYRON WILLIAMS: Okay.

MR. JEREMY BELL: A somewhat lower risk but looks --

MR. BYRON WILLIAMS: And --

MR. JEREMY BELL: -- negligible.

MR. BYRON WILLIAMS: Okay. Sorry, is the return negligible?

MR. JEREMY BELL: Well, it depends what -- what people may call -- I mean, I guess any percentage of $2 billion isn't negligible to people, but .1 percent when you -- when you trust math to that level, that's probably too precise to trust it, so I'd say negligible in that sense.

MR. BYRON WILLIAMS: Fair enough. And -- and just going to the left a little bit, option number 10 has a -- a slightly higher return and also a lower risk.

Is that fair? As compared to the modified mix number 11.

MR. JEREMY BELL: That's right.

MR. BYRON WILLIAMS: And are those negligible as well, sir?

MR. JEREMY BELL: That judgment would have to be MPI's, but to me they look close, and -- and trusting models to -- with infinite precision would be silly, I'd say, so...

MR. BYRON WILLIAMS: Fair enough. Just a couple more questions. Page 14, if you would.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Actually, I misspoke. Page 11.

You'll see a heading, "Retained Earnings from Total Operations," and in the second bullet under that heading, the second sentence, there's a statement:

> "It appears extremely likely that the retained earnings from total operations will be positive throughout the projection period."

Do you see that statement, sir?

MR. JEREMY BELL: I do.

MR. BYRON WILLIAMS: The -- going back to my question, just in terms of your choice of language there, what did you mean by "extremely likely"?

(BRIEF PAUSE)

MR. JEREMY BELL: If you turn to page

50...

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Please proceed.

MR. JEREMY BELL: The probability of total retained earnings in 2023, being less than zero, is zero percent, so I'd call that extremely likely. Even -- even though I don't have the decimal places, I'd still call it extremely likely.

MR. BYRON WILLIAMS: So that's a conscious choice of -- of use of the word "extremely," is that right?

MR. JEREMY BELL: It is. I mean I wouldn't -- I don't if I'd use it at 2 percent or 1 percent or zero percent but to me that sounds extremely likely. But it wasn't a mathematical or a numerical choice of -- it was 'X' value so I said "extremely" versus "not extremely".

MR. BYRON WILLIAMS: Okay. Just on that point so I -- I understand it more carefully, in -- in what context are you making this observation? And I'll inarticulately explain and then you can help me with it.

Is it based on MPI's current investment portfolio, their future one, or does it -- does it matter?

MR. JEREMY BELL: This is current, otherwise I would say it wouldn't matter. This -- this is current, that I made the observation.

MR. BYRON WILLIAMS: And just to follow that through then, you were -- your view -- I'm -- I'm going to suggest to you that even if we're looking at their preferred portfolio or one (1) of the options you've recommended, you would still be of the view that it would be -- appear extremely likely that the retained earnings from total operations will be positive?

MR. JEREMY BELL: Absolutely, yeah.

MR. BYRON WILLIAMS: Okay. I want to go to the issue of hedging for just a second, pages 19 and 20 of your evidence.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: If I was trying to a ten (10) second clip your -- your advice to MPI on hedging, would it be: Make sure that you hedge any foreign currency exposure with regard to real estate and infrastructure, but that you not hedge currency exposure associated with equity investments.

Would that be fair?

MR. JEREMY BELL: That would be fair.

MR. BYRON WILLIAMS: And I think you explain it pretty well in footnote number 6 but if -- if you can elaborate on -- on why that's your advice on both those categories, sir.

(BRIEF PAUSE)

MR. JEREMY BELL: If you look at page 29, and unfortunately if you've got everything bound which I guess you don't, we have to look at one (1) other at the same time.

MR. BYRON WILLIAMS: I feel competent to handle that task, sir.

(BRIEF PAUSE)

MR. JEREMY BELL: Page 60.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Please proceed.

MR. JEREMY BELL: So page 29 we hedged the currenc -- or we modelled the excess return over liabilities projected into the future in various years. You can see 2007 to 2022. And this assumes that the foreign exchange -- or foreign currency risk is hedged for the Large Cap equity exposures.

And you can look at the return -- or you can look at what the excess return over liabilities is all the way across the board, and it is -- it has very little difference between the two (2) of them.

And I think...

(BRIEF PAUSE)

MR. JEREMY BELL: We would say that the effect is negligible effectively, because you have 3 1/2 percent in there. But if we had a larger amount, we would be seeing something similar but a little bit lower returns on the -- on the hedged portfolio.

I mean hedging's paid off handsomely over the last, well, however long it's been done, at least the last six/seven (6/7) years, but prospectively, hedging is assumed to be pretty close to a zero sum game with some costs in doing it.

As well, it's not going to be -- there's not enough money inside of it, such that -- or inside of foreign currency, such that MPI's results are going to be materially affected by having a small amount of unhedged exposures in US equities or EAFE equities.

It's not an extremely strong recommendation, because it's not something that shows up as being obviously poor or obviously good. It's one of those things that shows up as being marginally poor because there's a little bit of a cost associated with it. And that's for the Large Cap equity exposures.

MR. BYRON WILLIAMS: If the -- if -- if there was a more significant investment, would -- would that conclusion change?

MR. JEREMY BELL: It would, yeah. Typically when it gets above 30 percent let's say, somewhere in that order of magnitude, the conclusion would change, yeah. Mostly because the liabilities are 100 percent Canadian dollars.

MR. BYRON WILLIAMS: And I may have missed it, but in terms of the real estate -- maybe you can elaborate on it --

MR. JEREMY BELL: Real -- real estate -- real estate, which we didn't actually -- I mean we put it inside the report as if you had global real estate you'd hedge it, but we're also saying -- we're not saying global real estate. But absolute return asset classes. The way we model it, we model them assuming that there's no currency exposure.

And if there were currency exposure, they may not show up as being attractive in the model, so we recommend for the absolute return asset classes that the -- the currency not be hedged, just as a -- a matter of course. As well, it's what people expect from them.

It's a little bit more of a qualitative argument on -- on hedging for them.

MR. BYRON WILLIAMS: Fair -- fair enough. Just a couple of concluding questions.

I believe you told Mr. Saranchuk that real estate was fairly correlated with inflation. Do you recall a statement to that effect?

MR. JEREMY BELL: I can imagine using that, yeah.

MR. BYRON WILLIAMS: You didn't use "extremely," for example?

MR. JEREMY BELL: No.

MR. BYRON WILLIAMS: In terms of the -- that conclusion, first of all, what do mean by "fairly"?

(BRIEF PAUSE)

MR. JEREMY BELL: I mean that over long periods of time the price of real estate is generally associated with the cost of building buildings. Land is a bit of residual; it doesn't, over large periods of time, hold much of the value. Much of the value for a diversified portfolio of real estate is in the building and the replacement costs of the buildings.

The replacement costs of buildings are going to be related to steel, concrete, labour, and all three (3) of those are going to be reasonably related to CPI. It's not going to be the same basket of goods as -- as a CPI measure, so it's not going to be perfect.

As well, there's a bit of an economic impact. If -- if the economy's doing poorly and there's an over supply of buildings, how much it costs to build a building doesn't mean anything. What makes more sense then is how much rent you can get out of them or how much -- what your vacancy is. And -- and that could hurt for a little period of time.

But over long periods of time, buildings need to be priced such that replacing a building is economic, otherwise there can't be economic growth in the country.

MR. BYRON WILLIAMS: And by "over a long period of time," what -- what period are you referring to, in your choice of that language?

MR. JEREMY BELL: I'd just be picking a

number right now but I'd say ten/twenty (10/20) years are eve -- what I'd be thinking about.

MR. BYRON WILLIAMS: And in terms of that observation, is there a specific data source or report you're -- you're referring to in terms of that correlation over time? Or is it -- what -- what empirical support, just -- is there a reference you can provide me with?

MR. JEREMY BELL: Various. I can -- I can think of one (1), the book "Irrational Exuberance" talks about it, but -- and other sort of documents on long-term prices of real estate over -- it's actually I think Version 2 of that book I'm talking about. But there's others that are like that which relate -- the price of -- price of real estate long term to the cost of replacing buildings.

MR. BYRON WILLIAMS: And -- and you're aware of the work of authors like Schiller (phonetic) for example in this Hearing.

MR. JEREMY BELL: He wrote that, so yes.

MR. BYRON WILLIAMS: And he looked at, if memory serves me right, real estate over what -- American data over a hundred and five (105) year period or something like that.

MR. JEREMY BELL: Yeah. I want to say

it's a hundredish, as a round number.

MR. BYRON WILLIAMS: And they looked at Amsterdam as well, am I right?

MR. JEREMY BELL: In the 1600's or somewhere like that. Yes, I think he concentrated on almost all on residential real estate, so there's a little bit of a -- of a change that needs to be made. And I think commercial tends to have a little bit more -- a little less emotion and there's a little bit more put on what the rents are that are coming out of it.

So the decisions are a bit more economic in the commercial world, but I think that similar types of information stands.

MR. BYRON WILLIAMS: So you would see -- well, in terms of commercial and residential real estate, some correlation in terms of the patterns?

MR. JEREMY BELL: I would say that's fair, to the extent that they're built with similar things. Though residential real estate is built with lumber and has different types of building that goes into it, so the price of building these types of buildings that we're in today made of steel and concrete can go up while the price of building residential real estate can go down.

So they can move apart, but over time

labour should -- should move in similar directions and commodities shouldn't get too far apart from each other. But I think right now we're going through a time where lumber is doing the exact opposite thing as what steel and concrete are doing.

MR. BYRON WILLIAMS: Do you have any -- staying on this theme -- do you have any observations -- well, let me back up.

Are there rent controls in the Province of British Columbia?

MR. JEREMY BELL: I don't know. Probably not, but...

MR. BYRON WILLIAMS: Do you any observations in terms of the impact of rent control legislation on the relationship between real estate and inflation?

MR. JEREMY BELL: I don't have any. I would say almost all of what any investor would buy is going to be very -- very little of it is going to be multi-unit residential, so it's almost all going to be commercial, retail, industrial. It'll be a portion multi-unit residential, but it's not going to make up a major portion. And I'm under the impression there isn't too much rent control in that area.

MR. BYRON WILLIAMS: Mr. Chairman, if I

could have two (2) minutes.

(BRIEF PAUSE)

THE CHAIRPERSON: Are you ready, Mr. Williams?

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Yeah, I just have a couple more questions. And, Mr. Bell, thank you for your patience.

I'll ask you a hypothetical first of all. If a client came to you, you know, a client with similar objectives as MPI, as you currently understand them, but said that over the next ten (10) to fifteen (15) years I can construct a plausible inflation scenario, by which inflation would rise 10 percent in kind of year 1, 11 percent in year 2, 12 percent in year 3, 9 percent in year 4, and 5 percent in year 5, if -- if they said that's something that we consider plausible, would that change any of your advice in this report at all?

MR. JEREMY BELL: If someone came to me and said this is plausible I'd say, well, perhaps, plausible depends on exactly how you're using the word "plausible." I guess it is a scenario. But that could happen once in a while, but if they wanted me to use that as the assumption, which they could provide that direction me, I -- I suppose, and we -- we wouldn't mind modelling their portfolio for them, then, yeah, Real Return Bonds would end up being more attractive, some of the other asset classes would get more attractive.

So it would -- it would effect things. I'm not saying that we'd change -- them telling me that it's plausible doesn't mean we're changing the assumption, unless they think that the assumption isn't plausible.

MR. BYRON WILLIAMS: Fair enough. And I thank you for your candour.

Are you familiar -- and I hesitate to come back to any accounting terms -- but are you familiar with the acronym IFRS at all?

MR. JEREMY BELL: I Yeah. Well, yes, but that's about as deep as my knowledge goes is that -- all four (4) of those letters.

MR. BYRON WILLIAMS: Well, we're -- we're probably speaking on a level playing field, but this relate to your work. I just want to understand.

And you understand that whatever these -- this IFRS, this international financial accounting rules, that -- that there's a possibility -- or that we're looking at implementation in the Canadian context early in the next decade.

And is that your understanding?

MR. JEREMY BELL: That's my understanding. I don't know how it would apply to these companies. I know a bit more about pension plans to do with different accounting standards but I don't really have a clue how it applies to MPI.

MR. BYRON WILLIAMS: And -- and that's fair enough. And just in terms of your analysis in this report, would it be fair to say that the possible implications of those rules ha -- have not been taken into account?

Would that be fair?

MR. JEREMY BELL: That would be fair.

MR. BYRON WILLIAMS: Mr. Chairman, thank you for that.

THE CHAIRPERSON: Thank you, Mr. Williams.

MR. BYRON WILLIAMS: And thank you, Mr. Bell.

THE CHAIRPERSON: We will just do a fast survey here to see how we fit everyone in.

Mr. Oakes, do you have questions for Mr. Bell?

MR. RAYMOND OAKES: I do not, Mr. Chairman.

THE CHAIRPERSON: Mr. Dawson...?

MR. ROBERT DAWSON: I have about five (5) minutes literally, Mr. Chairman.

THE CHAIRPERSON: Mr. Kruk, do you have any?

MR. JERRY KRUK: I have none.

THE CHAIRPERSON: Let's go with Mr. Dawson then.

(BRIEF PAUSE)

THE CHAIRPERSON: Mr. Dawson represents the Manitoba Bar Association.

CROSS-EXAMINATION BY MR. ROBERT DAWSON:

MR. ROBERT DAWSON: Good afternoon, Mr. Bell. When I read through your report, I noticed that you didn't particularly mention the fact that MPI is a Crown corporation. Can you tell me if the fact that MPI is a Crown corporation is chiefly relevant to the issues that you wrote about in your report?

MR. JEREMY BELL: Only insofar as the objectives set by MPI reflect their current understanding of how they need to manage themselves. So as far as I'm concerned, no, but it could have been indirectly, based on what they told me for objectives.

MR. ROBERT DAWSON: So when you wrote your Ion or Aon report, you were treating MPI like you would, shall we say, any other insurance company that had come to you to reconsider its approach to investment; is that right?

MR. JEREMY BELL: That's correct. In fact, any pool of money that has liabilities that are reasonably well defined, that's how I would think of them in a -- not in a pejorative sense, but a pool of money.

THE CHAIRPERSON: Mr. Bell, not to interfere, but you'd have to take into account no taxation presumably?

MR. JEREMY BELL: Well, yeah. No, I mean, but any pool -- yeah, any pool of money, though, that tells me what the liabilities are and where you understand what the comings and goings are, but it's just money that has obligations coming out at the end that is nontaxable.

CONTINUED BY MR. ROBERT DAWSON:

MR. ROBERT DAWSON: I don't say this by way to be critical but I want to know if there are any other qualifications that you want to offer because the question that the Chair asked is indeed, I'll suggest, one (1) difference that a Crown corporation introduces. Are there any other qualifications that you think are relevant?

MR. JEREMY BELL: Well, I -- I typically wouldn't offer that qualification because almost all of our investors or most institutional investors are -- don't have tax, so I wouldn't typically say it. So it wasn't necessarily an oversight because of a lack of understanding of MPI; it's because if -- if they were taxable, I would mention it more so because that would be unique for institutional investors.

No, I -- I mean, I need to know what the objectives are. I need to know how much money is there. I need to know what the obligations are that need to be paid with the money, and then from that we can do all the modelling. There -- I suppose you could say the constraints on what asset classes they would be allowed to put into the study, but those are all kind of either client -- either from the client -- whether or not they're driven from the fact that it's a Crown corporation and they can't buy commodities for that reason or whether or not my client tells me they don't want me to model commodities, it's not really me doing anything relative to the fact they're a Crown corporation.

MR. ROBERT DAWSON: So -- and I'm not trying to belabour this, but you would accept that the Corporation in this particular case is owned by the Crown; that's what a Crown corporation is, right?

MR. JEREMY BELL: I'll accept that.

MR. ROBERT DAWSON: And it's your view either that it's -- well, not so much it's not chiefly relevant to what you were writing about, but rather it was just something that was not within the scope of what you were expected to consider; is that right?

MR. JEREMY BELL: No, I'd say that it's stuff that the investment committee working group and MPI management brings to the table and they combine that with our investment expertise. So it's not something I would consider or not consider and -- and it's not that they didn't ask me to consider it. I don't know how you can consider it, to be honest, beyond treating it like a pool of money that has obligations coming out of it at the end of the day.

MR. ROBERT DAWSON: And the same thing would apply in your view to, for example, the way in which government might pursue public policy objectives through a Crown corporation; same thing?

MR. JEREMY BELL: Yeah, we made no -- no special recognition from that beyond things like not investing in commodities because that was a constraint of the study. So beyond some of the initial things that were brought into it by MPI management or investment committee working group, we didn't -- we didn't have any special invest in Manitoba initiatives or -- or things to that extent.

MR. ROBERT DAWSON: I don't want to -- you to have to stick out your neck, I'm just asking you as an expert. If any of those factors that you have explained why you did not consider were shown to be relevant, would you want to revisit the conclusions that your report comes to?

MR. JEREMY BELL: Now, you're thinking about me saying -- talking about commodities or talking about investing in Manitoba or was there anything else that I talked about that -- 'cause that's a pretty broad thing about things that I didn't include.

MR. ROBERT DAWSON: I paint with a broad brush.

MR. JEREMY BELL: I answer precisely so we're going to -- we're going to have a problem.

MR. ROBERT DAWSON: It's going to take longer than five (5) minutes, Mr. Bell. We'll go through them one (1) by one (1). We talked about Crown ownership of the Corporation. If that factor were shown to be relevant to the way in which the Corporation, the applicant in this instant proceedings, ought to consider, or reconsider in this case, its approach to investment, would you want to come back and re-write parts of your report?

MR. JEREMY BELL: It depends how I -- I mean, still, that's too broad to say. I mean, if it came -- if they came back and said, you know, the Crown won't let them invest in international equities, then sure, because that's obviously part of the recommendation. But I don't quite know -- I mean, it's such a -- such a big question. I mean, it --

MR. ROBERT DAWSON: I'm a big guy.

MR. JEREMY BELL: Yeah? I wasn't -- I wasn't agreeing with that.

Yeah, I -- with more direction, I could answer the question but -- but not knowing what the question is trying to get at or -- or is even really asking, sure there could be some Crown reasons and public policy reasons that may influence things. I'd expect that the management of MPI would understand those and would have brought those to the table. So I don't think I'm going to be surprised by something that MPI can't implement now.

But if there were something major that -- that wasn't brought to the table that could affect what they're allowed to invest in or what their constraints could be or something to that extent, then sure, yeah, you'd want to revisit what you did to make sure it's still valid. Whether it means write another report or whether it means just confirm that that was a good thing to leave out, who knows.

MR. ROBERT DAWSON: All right. I think that's helpful actually and -- and I'm certainly not trying to undermine your report. I'm just trying to explore the parameters of its usefulness in this context.

I just want to pick up on something else that you had mentioned in the course of cross-examination and, indeed, in direct examination today. You've made frequent reference to your work in the area of pension plans. And let me make sure I've got this right.

You told me that the person at Aon who was overseeing your work is primarily the person in charge of the retirement practice for the central north area. Is that right?

MR. JEREMY BELL: Central west.

MR. ROBERT DAWSON: And am I right that it's primarily a question of retirement practice that this man works in?

MR. JEREMY BELL: Well, actually, he doesn't work there he -- he oversees them. He -- he works in the investment consulting practice, which we consult to foundations, insurance companies, other types of institutional assets, pretty much any pool of assets that has obligations attached to it, so...

MR. ROBERT DAWSON: Would I be wrong to say that when it comes to investment approaches, it is not the same approach that should be used when dealing on the one hand with pension plan funds as opposed to surpluses or reserve funds as in the instant case?

MR. JEREMY BELL: I'd say that's a fair statement though it -- it doesn't affect me because we're modelling mathematically and that's really the job of the people that are sitting on the plans. Ultimately, most reserve funds, insurance companies are going to end up choosing something that's more prudent, generally, than what pension plans might be doing, prudent being a fancy way of saying less equities in most of -- most insurance companies than you'd find in pension plans.

But ultimately, the math is the same. It's the constraints that they're bringing to the table. So a pension plan may have different constraints that they bring versus an insurance company. A pension plan may be more open to different types of investments than an insurance company.

But ultimately, the modelling that goes into it and the report writing and -- and what comes out of it is going to be fairly like.

MR. ROBERT DAWSON: Would I be wrong then to say that, as you're saying, the report writing, the modelling, the writing is, in your words, fairly like, would I be wrong then to say that it doesn't matter whether the person who's doing the work has a primary expertise in the area of pension plans as opposed to investment counselling or consulting?

MR. JEREMY BELL: Sorry, one (1) more time on that.

MR. ROBERT DAWSON: I can reword it, that might help.

If the person who's doing the report is an expert or more experienced in the area of pension plans, is this person likely going to do a better or worse job than someone who focusses on providing investment advice to companies like MPI on Surplus Bonds as opposed to pension funds?

MR. JEREMY BELL: I'd say that's wrong but I'm not quite sure if there was a negative in there so I might be agreeing with it by accident, but --

MR. ROBERT DAWSON: Let's make it simple. Does it matter if you -- if --

MR. JEREMY BELL: No.

MR. ROBERT DAWSON: -- if you spent your entire career doing pension plans are you basically doing the same work?

MR. JEREMY BELL: You're effectively doing the same work. I mean, the liabilities that we get, we're not good at modelling those liabilities ourselves or determining them because a lot of them have to do with setting up experienced claims and stuff.

But so we rely on the actuaries but, ultimately, when the actuaries give us the models for exactly how the liabilities work, we understand how liabilities function and move and then we can link them up to the same way that assets function and move.

And it's the same -- it's the same sort of thing. As well, I guess I would correct -- I don't think there are many investment consultants that haven't cut their teeth in the pension world.

So I'm not sure that it's -- it might be a null set to the group of people that are investment consultants that specialize in insurance companies in Canada. But that's a guess. I -- I haven't seen any.

MR. ROBERT DAWSON: Thank you, Mr.

Chairman. That concludes my questions.

QUESTIONS BY THE BOARD:

THE CHAIRPERSON: Thank you, Mr. Dawson. Actually you've raised a question in my mind while we have Mr. Bell here.

On that note that you're -- if year-to-year volatility of investment results had no necessary impact on rate setting, subject only to sufficient cash availability to meet claims, would a different asset mix when focussed on long-term yield be worthy of consideration?

MR. JEREMY BELL: Do you mind saying the first half of that again, and then the second half too, sorry.

THE CHAIRPERSON: If one wasn't worried about the volatility between accounting periods, okay?

MR. JEREMY BELL: Okay.

THE CHAIRPERSON: As long as you had enough cash to pay the claims coming up but you weren't about the volatility whether you lost money one (1) year and made it up the next, would the rate -- would the asset mix look different, or could it look different?

MR. JEREMY BELL: Yeah, though I would say the hypothetical question doesn't sound like an insurance company to me because insurance companies have to care periodically about what their liabilities look like. It's a Ponsi scheme if you don't care about what your financial position is.

So, I mean, if you didn't care about your financial position and you care whether or not you had the cash around, then sure, you could invest fairly aggressively but it doesn't -- it doesn't fully make sense to ignore the financial position and in -- in yearly or triennially.

THE CHAIRPERSON: I follow you. In my simplification of it I made it too simple.

MR. JEREMY BELL: Okay.

THE CHAIRPERSON: I wasn't suggesting you weren't worried about the financial position. I was suggesting that the year-to-year variability in the net income wasn't a concern. It was the long-term financial solvency and -- and position of the company. But you weren't worried about year-to-year normal fluctuations within standard deviations.

MR. JEREMY BELL: Yeah, to the extent you focus less on individual years, you can typically invest a little bit more aggressively.

So the focus at MPI is largely based on year-to-year. So if it was -- if it was triennial or --

or every five (5) years, more detail or -- or longer smoothing or something like that, you can typically be a little bit more aggressive but...

THE CHAIRPERSON: The other question I had was something that you mentioned before and it just stuck in the back of my head because we've dealt with this subject before.

In your experience because you used the specific word, what is a standard equity risk premium that one might expect?

MR. JEREMY BELL: Let's call it 3 to 5 percent somewhere in that range. Maybe 3 to 4 more likely or...

THE CHAIRPERSON: Thank you. Mr. McCulloch, do you have anything more for your witness?

RE-DIRECT EXAMINATION BY MR. KEVIN MCCULLOCH:

MR. KEVIN MCCULLOCH: Only a clarification on the answer that he just gave to you. He said 3 to 5 percent for an equity risk premium, over what measure?

MR. JEREMY BELL: That's -- we would typically measure it over cash as opposed to a over longer term bonds and there's been various research articles saying one versus the other. But ultimately, equities in the research articles that we ascribe to do it over cash return, so T-Bill returns or whatever you want to call it.

THE CHAIRPERSON: It's a very good question, Mr. McCulloch.

MR. KEVIN MCCULLOCH: Oh, very good.

THE CHAIRPERSON: Actually, it is quite a good supplement to that. I can't remember, as I am aging I am losing control here, Mr. Kruk, did I ask you whether you had any questions?

MR. JERRY KRUK: You did, sir, and I don't.

THE CHAIRPERSON: Very good. Then I think we are done with you, Mr. Bell. Thank you very much for coming and attending. I greatly appreciate your testimony, you have been a good help.

MR. JEREMY BELL: Thank you.

(WITNESS STANDS DOWN)

THE CHAIRPERSON: We will take a short break and we will come back with Mr. Oakes and he can carry on with his cross-examination of the panel.

--- Upon recessing at 2:32 p.m.

--- Upon resuming at 2:49 p.m.

THE CHAIRPERSON: Mr. McCulloch, you look like you have something to say.

MR. KEVIN MCCULLOCH: I do, Mr. Chairman. We have some responses to undertakings. The first will be the response to Undertaking Number 6, dealing with any risk that when the cost allocation review is completed the result will be a material increase in Basic's annual costs and a corresponding deterioration in the Basic net income forecasts. That should be marked, please, as MPI Exhibit number 15.

--- EXHIBIT NO. MPI-15: Response to Undertaking 6

MR. KEVIN MCCULLOCH: The next undertaking is Undertaking Number 18, and in this one (1) the Corporation was asked to provide the number of extension policyholders, including the number of Basic policyholders who have also had extension coverage, and the response from the Corporation provides the number of Basic only policies and the number of policies with Basic and Extension. And that would be Exhibit Number 16.

--- EXHIBIT NO. MPI-16: Response to Undertaking 18

MR. KEVIN MCCULLOCH: Exhibit number 17 is the second quarter financial report along with a copy of the news release, the press release that was issued with the report. That table -- or sorry, that report was tabled in the Legislature this afternoon at 1:30, so we're now in a position to treat it as a public document and provide copies to the Board.

--- EXHIBIT NO. MPI-17: The second quarter financial report with a copy of the news release

THE CHAIRPERSON: Thank you. That is very helpful coming in the hearing, thank you.

MR. KEVIN MCCULLOCH: In addition, Mr. Palmer has a verbal response to one (1) of the undertakings that he'd like to put on the record.

MR. DON PALMER: This was in response to Mr. Oakes' question yesterday on whether we code motorcycle accidents with pedestrians as single vehicle. First of all, as with any coding, some of the examples I was talking to, the coding that we have is consistent across all vehicles, not motorcycles and pedestrians, but this would be all vehicles in collision with a pedestrian.

And the answer is, yes, it is coded as a single vehicle accident but with a qualification and that we don't use for rate setting purposes the single vehicle indicator, per se.

What we do in this case is there is the special loss allocation rules that came in Board Order 9705, I think was the number, and I'll just read from that order:

> "In any accident involving one (1) or more MPI insured vehicles and another injured party, including cyclist, pedestrian, occupant of out-of-province vehicle, 50 percent of PIPP costs are to be allocated equally across the rating category to which MPI insured vehicles belong, and the remaining 50 percent of total PIPP costs are to be effectively allocated across all vehicle rating categories."

So in the example that Mr. Oakes cited, 50 percent of the costs would go to the motorcycle and 50 percent would go to the pool.

THE CHAIRPERSON: Thank you, Mr. Palmer.

Mr. Oakes, you have an exhibit too?

MR. RAYMOND OAKES: Yes, Mr. Chairman,

thank you. I've distributed an email exchange between a Mr. Greg Franks of SGI and Dr. Alister Hickson, and so I have some questions, if that could be marked as, I believe it's CMMG Exhibit 4?

THE CHAIRPERSON: 4.

--- EXHIBIT NO. CMMG-4: Email exchange between a Greg Franks of SGI and Alister Hickson

MPI PANEL RECALLED:

WARD KEITH, Resumed

MARILYN MCLAREN, Resumed

DON PALMER, Resumed

OTTMAR KRAMER, Resumed

CONTINUED CROSS-EXAMINATION BY MR. RAYMOND OAKES:

MR. RAYMOND OAKES: And I'd like to follow-up with some questions to Mr. Palmer based on his answer to that undertaking.

Mr. Palmer, would I be correct then given your testimony yesterday, that the Corporation would not use those special allocation rules with respect to wildlife claims?

MR. DON PALMER: That's correct and in

the PUB order cited there was no reference to wildlife claims.

MR. RAYMOND OAKES: And, sir, Exhibit Number 4 that we've just introduced, that being an email exchange between Mr. Greg Franks at SGI, I understand that he's a senior rating analyst at SGI and has been for about three (3) decades.

Are you or members of your back panel familiar with Mr. Franks?

MR. DON PALMER: I know Mr. Franks, yes.

MR. RAYMOND OAKES: And when we read the last question, which is at the top of the email exchange, it says:

> "So it would be coded as at-fault under the Basic program [question mark]?"

The answer is:

> "No, the claim would be coded not at fault, but because there's no third-party policy to cover off the deductible, the insured must pay it."

That suggests to me, Mr. Palmer, and perhaps you can confirm if that would be your understanding that SGI is not allocating the claims expense arising from a wildlife claim to the motorist involved because of that coding not-at-fault.

Would you agree with that characterization?

MR. DON PALMER: No, I would not. There is no reference to allocation of claims costs in this whatsoever.

MR. RAYMOND OAKES: I agree that there isn't, but given that Saskatchewan's a no-fault insurance system just like Manitoba's, surely that's the only use that could be made of a coding of not-at-fault would be for the actual claims expense allocation?

MR. DON PALMER: That's speculation and the not-at-fault for -- could also be used for deductible purposes and he says very specifically that the deductible is the responsibility of the insured. So I can't read anything into this.

There could also be -- not-at-fault could also relate to surcharges, to discounts. The SGI does have a rating scale that is based on at-fault accidents, so in that case, again this would not count against a -- somebody's discount or surcharge level. But again, there is nothing in there that would indicate anything as to the allocation of costs for rating purposes.

MR. RAYMOND OAKES: In Manitoba, MPI would code that same wildlife claim as at-fault for claims expense.

Is that correct?

MR. DON PALMER: No, we would rate it exactly the same as Saskatchewan does. For rating pur -- for rating purposes, if you're talking for pooling in order to allocate classification rates, then we would assign all those costs to the motorcycle, but for surcharge purposes, which is also rating, we would not have it at-fault.

MR. RAYMOND OAKES: I was setting for -- I was asking in the context of setting the actual insurance rates based on the claim expense for that category of vehicle. And when I asked you yesterday about SGI, you weren't aware whether they would code it not-at-fault or at-fault, with respect to again insurance rating purposes for calculating the rate.

MR. DON PALMER: And again, there's many uses of not-at-fault or at-fault as I indicated, and this does not indicate anything with regard to allocation for rate setting purposes at a classification level.

MR. RAYMOND OAKES: So -- so --

MR. DON PALMER: So in answer to your question, I'm still unaware of what they're practices are and certainly this exhibit that I've been given doesn't give me any further clue.

MR. RAYMOND OAKES: Well, perhaps since

you know Mr. Franks, probably -- perhaps you could take the undertaking to familiarize yourself with what SGI does.

Would you provide that undertaking?

MR. DON PALMER: No, I will not do that.

MR. RAYMOND OAKES: And is that on the basis is not germane to this application?

MR. DON PALMER: That's correct.

MR. RAYMOND OAKES: Thank you for that.

Moving, Mr. Chairman, as I eluded, at the end of the day yesterday before we adjourned, to the topic of rate-line adjustment -- and that would be contained in Tab number 9 of the CMMG book of materials.

The question I have for you, Mr. Palmer, once you have that handy, the question is as follows: As shown in CMMG 1-26 when you look at the bottom of the left hand of that table, in 2009, due to the rate-line relativity adjustment, some six thousand three hundred and ten (6,310) motorcycles will receive lower rates. Comparatively, when we look to the right of that table, and for the previous years, in most previous years motorcyclists received rate increases due to the relativity adjustment.

Why has there been such a significant change?

MR. DON PALMER: This year for the first time we have applied rate-line offsets.

MR. RAYMOND OAKES: I accept that, sir. Does that mean that the treatment of motorcycles in this issue is now consistent with other vehicle types?

MR. DON PALMER: For presentation purposes, yes.

MR. RAYMOND OAKES: Can you explain that?

MR. DON PALMER: In previous applications and -- and I remember quite vividly, explaining the -- the rate-line as having to be pivoted from the top upwards. And that was because, relatively speaking, the -- the lower rate-group vehicles needed increases, and relative to -- to the top one which had about adequate rates. So that pivoting was to -- more to demonstrate the rate remedies that we were seeking because of the -- the rate requirement that we were -- we were seeking.

Now it's more pivoting from the middle and then doing a -- an offset after the fact. So the rate result is mathematically the same; it's just, for purposes of -- of transparency for the Board to see the purpose of what we were trying to accomplish here, it was easier to -- to use the pivot from the top.

MR. RAYMOND OAKES: I see. And it leads me to my next question. In terms of the rate group relativity lines how much judgment is involved in selecting the relativities?

(BRIEF PAUSE)

MR. DON PALMER: Within the rate-line itself, not much judgment. There is a line that's fit, but that's only for the collision costs.

About 90 percent of the costs are injury costs, which we really haven't tried to fit to -- because it's -- seems to -- there really isn't a relationship between rate group and injury costs. So to make that -- to look at that, that's a judgment rather than trying to fit some kind of a curve to -- to that.

So it's a judgment to -- to add them in across the board, across all rate groups. So that's judgment. They align itself to fit to the collision cost there's not much you -- judgement.

MR. RAYMOND OAKES: How about the use of credibility in developing the rate group relativities; judgment involved in that?

(BRIEF PAUSE)

MR. DON PALMER: I'd like to refer you to

CMMG-1-28 Attachment 3.

(BRIEF PAUSE)

MR. RAYMOND OAKES: It looks like it's going to take a second to boot that up. But if you want to proceed, I'll catch up with you.

MR. DON PALMER: We have the line-fitting diagnostics for motorcycle collision. We have assigned motorcycle collision 100 percent credibility for these purposes. And we did that because the lease squares to me fit to the rate group line is almost perfect. We've got an R-square of 99 percent which means the -- the fit, and I'll use Mr. Bell's words, is extremely good.

So whether there -- you just can't get any better than this from -- so there's no -- nothing in here that would say they're not 100 percent credible because it's a complete fit.

If we go to the diagnostics in Attachment 5 for the TPO, BI, and PD relativities you'll see that the R-squared is 4 percent which is extremely poor. There's no fit there. There's no indication that there's any credibility and that's why we have added them in on a flat base across -- all all rate groups.

MR. RAYMOND OAKES: So the identical

formula would not be used if you include the credibility constant for the calculation of rate group relativities for motorcycles, vis-a-vis passenger vehicles and light trucks.

Is that correct?

(BRIEF PAUSE)

MR. DON PALMER: The procedures are different, yes. And that's partially because of the -- the low total number of motorcycles. If we used credibility weighting the lines would never move. And the judgment is made because of the lease squares fit being so accurate that this provides adequate rating.

I will also say that remember rate lines are relative measurements, not absolute measurements of rates. So from an overall rate level perspective whether you use the same relativity procedure or not, is irrelevant, regarding the total rate level.

MR. RAYMOND OAKES: And that's because they add to the whole, is that basically it?

MR. DON PALMER: That's because it -- it's a relativity ranking, yes.

MR. RAYMOND OAKES: Are there other cases though where the formula inclusive of the credibility constant is different for motorcyclists than other classes?

MR. DON PALMER: For major class purposes and for use-territory (phonetic) purposes they're the same.

MR. RAYMOND OAKES: Has the Corporation considered applying credibility in this case and in any other cases, based on claim numbers?

MR. DON PALMER: That has been discussed at previous hearings and rejected.

MR. RAYMOND OAKES: Is the claim based approach to credibility an acceptable actuarial practice?

(BRIEF PAUSE)

MR. DON PALMER: It is acceptable, especially when you have claims cost largely driven by frequencies. In the case of injury claims, especially for motorcycles, it's not frequency driven as so much as severity driven, so the claims count credibility approach, in -- in my estimation, wouldn't be warranted.

MR. RAYMOND OAKES: It's not terribly responsive to the question, but I'd ask you to move over to the next tab, which is Tab 10, and we'll take a look at sport bikes.

And at Exhibit 18-5 -- I'm looking right in the middle of the page of the current units count.

Would you agree with me, sir, that it's extremely small, nine hundred and ninety-two (992) units, as reflected in that table?

MR. DON PALMER: And applied a small credibility measure of 8.29 percent; yes, those are in concert with each other.

MR. RAYMOND OAKES: And what would be the compliment then that is applied?

MR. DON PALMER: That would be the current relativity. I think I'm suffering death by peanut butter cookie here, just a sec.

(BRIEF PAUSE)

MR. DON PALMER: I'm back. And what was the question?

MR. RAYMOND OAKES: Well, we're pleased about the fact you've evaded that horrible death.

The question was: What is the compliment that is applied?

MR. DON PALMER: The compliment is the current relativity.

MR. RAYMOND OAKES: That would be the

current sport bike rate differential, I guess?

MR. DON PALMER: The current relativity of sport bikes of one point five nine (1.59).

MR. RAYMOND OAKES: And are there other options for the compliment, for example, the average rate for all motorcycles?

(BRIEF PAUSE)

MR. DON PALMER: You could use the current average rate. You could also use national data, if -- if you had it; relativities from -- we could combine Quebec and Saskatchewan has no-fault jurisdictions. I think I recall that Quebec has a relativity of three and a half (3 1/2) to four (4), so that -- that's a possibility that we could use as well.

There -- there's a few different possibilities.

MR. RAYMOND OAKES: And depending on the compliment you use, possibly the rates could go up or down.

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: I'm going to go back in the binder to the second tab, and that's the issue -- or the topic of PFADs.

Mr. Chairman, because this is a somewhat torturous and certainly technical area I provided a list of my questions to Mr. Palmer this morning, with the hope that the loss of the element of surprise would be more than made up for by the saving in time.

So I propose to ask Mr. Palmer questions concerning that. And, Mr. Palmer, the first question would be with reference to CMMG-1-45, that is your first question -- IR that's in the CMMG materials.

I understand that there's a new category of PFAD that the Corporation has introduced and that's reinsurance PFAD which was added for 2007/2008. Is that correct, sir?

MR. DON PALMER: Not quite. The reinsurance PFAD category was always in there. It's just that a margin of zero (0) was chosen for that. And the reason was because we have -- or had a reinsurance allowance for doubtful accounts elsewhere on the books. We -- this year, have may have been more consistent with the standard of practice. We have eliminated the allowance for doubtful accounts for uncollectible reinsurance and added to the -- to the PFAD.

And Mr. Saranchuk or Ms. Everard was asking me about that last weekend. We did give an exhibit showing the difference in the PFAD and the amount for uncollectible reinsurance and, in fact, the entire provision went down.

So in fact, we did add this to the PFAD but in terms of the reserves for the Corporation as a whole, they went down.

MR. RAYMOND OAKES: So your evidence would be, there'd be no double counting because you got rid of what was the former credit risk margin for reinsurance?

MR. DON PALMER: The uncollectible reinsurance, yes.

MR. RAYMOND OAKES: In determining the PFAD margins, is that work totally undertaken by Mr. Christie?

MR. DON PALMER: We have discussions about it; the final selections are his.

MR. RAYMOND OAKES: And in determining those PFAD margins, would Mr. Christie or any actuary for that matter, rely on judgment?

MR. DON PALMER: There are some guidelines within the standard of practice but, certainly, judgment comes to bear.

MR. RAYMOND OAKES: Thank you, sir.

Mr. Chairman, we're going to look at two (2) CMMG IRs that aren't in my book of materials. For the Board's benefits, I've photocopied both of them. I propose to give them to the Board. And I had alerted Mr. Palmer to that as well earlier today if they're interested parties, they'll have to dig them out of their own hard drive or off the disk but...

(BRIEF PAUSE)

MR. KEVIN MCCULLOCH: Mr. Oakes, can you provide me with those two (2) references for your Information Requests, please?

MR. RAYMOND OAKES: Yes, certainly, Mr. McCulloch. It's -- the next one we're going to look at is CMMG-1-46 and then I'll have several questions concerning that IR and also some questions relating to CMMG-2-27.

(BRIEF PAUSE)

CONTINUED BY MR. RAYMOND OAKES:

MR. RAYMOND OAKES: And, Mr. Palmer, I'd provided these questions to you because the CMMG resource person has looked at the total development claims PFAD and, essentially, what that involves, of course, is going across and adding the columns for the PFAD.

And I understand that as a result of that aggregate in 2001 the total development claims PFAD was in the order of fifty-seven million, one hundred and forty-six thousand dollars ($57,146,000).

Can you confirm that, sir?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And I understand that by the year 2008 that had grown to one hundred and thirty-five million, nine hundred and twenty-seven thousand dollars ($135,927,000); is that correct, sir?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And when we look at the interest rate PFAD, in 2001 the value would be thirty-two million, six hundred and fifty-two thousand dollars ($32,652,000) million.

Is that your calculation as well, sir?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And by 2008 that had grown to one hundred and one million, three hundred thousand dollars ($101,300,000); is that similarly accurate, sir?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: For 2008 their reinsurance PFAD in total was one million, five hundred and ten thousand dollars ($1,510,000), sir?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And 2001 the total PFAD was eighty-nine thousand -- or I'm sorry, eighty-nine million, seven hundred and ninety-eight thousand dollars ($89,798,000).

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And by 2008 that had grown to two hundred and thirty-eight million, seven hundred and thirty-seven thousand (238,737,000)?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: So the PFAD had grown roughly by about three and half (3 1/2) times?

MR. DON PALMER: No.

MR. RAYMOND OAKES: And could you explain that, sir?

MR. DON PALMER: Two hundred and thirty-eight thousand, seven hundred and thirty-seven (238,717) divided by eighty-nine seven ninety-eight (89,798) is two point six five nine) 2.659.

So it's two point six (2.6) times, not three point five (3.5).

MR. RAYMOND OAKES: With reference to CMMG-1-46, does the basic IBNR exclude the PFAD?

MR. DON PALMER: No.

MR. RAYMOND OAKES: And when we look at

CMMG-IR-2-27, did the PFAD increase for every PIPP coverage?

MR. DON PALMER: Sorry, that reference again was 1-45?

MR. RAYMOND OAKES: This is in 2-27.

MR. DON PALMER: Yes, it -- they did increase. The margins were the same as had previously been used with the exception that the reinsurance margin was added as we have -- have discussed.

But -- so, yes, the -- a month percent increased but the margins stayed the same. The reinsurance was added so the rest is, essentially, mathematical that would be related to the margin on interest rate.

MR. RAYMOND OAKES: My understanding is that the -- the increase for PIPP IRE was in the order of about one point two seven (1.27) percent.

Would you confirm that, sir?

(BRIEF PAUSE)

MR. DON PALMER: The way these numbers are -- are portrayed, it's not really a one point two seven (1.27) percent increase. It's in -- one point two seven (1.27) percent absolute increase between those two

(2) percentages.

MR. RAYMOND OAKES: And for the PIPP accident benefits, on that same type of calculation, the increase could be computed at one point eight (1.8) percent, sir.

Do you agree with that?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And if that didn't occur, how much lower would the PFAD be for that coverage?

MR. DON PALMER: This is one of those questions that has a flawed premise, that we have set -- the margins are exactly the same. So, as long as you have set the margins the same that are part of the required standards of practice for IBNR, and PFAD is part of the IBNR not in addition to the IBNR, that you can't really say take out that increase because that's just what happens with this application of identical margins. So it -- it's not a question that really makes any sense.

MR. RAYMOND OAKES: Okay, let me try this one (1) then. If -- if you had the lower PFAD, would they -- with all other things being equal, would the, and this case the '07/'08, net income be higher?

MR. DON PALMER: The PFAD margins are the same.

MR. RAYMOND OAKES: And just following from the information on that table, in 2001 I understand the total Basic IBNR was one hundred and thirty-three million forty seven thousand dollars ($133,047,000)?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And in 2008 the total Basic IBNR was four hundred and sixty-four million two hundred and seventy four thousand dollars ($464,274,000)?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: Comparing the information we have in CMMG-IR-1-46 and that that we've seen in 2-25 for PIPP IR-I is the main component of the total IBNR for this coverage PFAD?

(BRIEF PAUSE)

MR. DON PALMER: About 47 percent, yes.

MR. RAYMOND OAKES: Yeah, I made it that it's -- the PFAD was about 107 million of the 154 million for the total IBNR.

(BRIEF PAUSE)

MR. DON PALMER: Yes, sorry, it's about 70 percent.

MR. RAYMOND OAKES: And as far as the lost of fel -- lost development factors used in the ratemaking methodology, how do they enter into the calculation rates?

Can you confirm that they are being used for the estimation of claims costs?

MR. DON PALMER: The lost development factors are used within the actuarial review to come up with the ultimate claims levels. The ultimate claims for each year are then forecasted into the future into the '09/'10 accident year and the '10/'11 accident year and rates are -- are set on those basis. So, there is an indirect link between the lost development factors and the rates.

MR. RAYMOND OAKES: Okay, and let's explore that a little bit. All other things being equal, if lost development factors change, do the rates change?

MR. DON PALMER: Not necessarily.

MR. RAYMOND OAKES: If these factors changed in a manner that increased IBNR, with all other things being equal, would the required rates be higher?

MR. DON PALMER: No, and -- and I'll -- and I'll explain that.

IBNR is just the component of your unpaid claims reserves. So, if you change something with regard to your reser -- your case reserving methodology, as we had a major change in 2005/'06, you certainly cannot look at the IBNR in isolation, you would have to look at the entire unpaid claims or, more specifically, the ultimate claims that are used underlying the forecasts for the rates for '09/'10 and '10/'11.

So, to only look at the IBNRs and say that that may or may not drive rates, that would be inaccurate.

MR. RAYMOND OAKES: Perhaps if we look at an example and going back to CMMG-1-46, in the answer halfway in the middle of the table, it indicates that the IBNR for PIPP IR-I has shifted from a low of negative thirty-seven million two hundred and nine thousand (-37,209,000) in 2004 to a hundred and fifty-four million six hundred and eighteen thousand (154,618,000) in 2008.

All other things being equal, if the IBNR had remained in the negative range, would rates be lower?

MR. DON PALMER: And again, I would say that that's a flawed premise because all things were not equal. We had a major change in case reserving methodologies and I think if you would take a look at the proper exhibit, Mr. Oakes, that the ultimate claims didn't change by that much.

MR. RAYMOND OAKES: Are you able to

answer that in the manner that I asked it, all other things if they were equal? If the IBNR had remained in the negative range, would rates be lower?

MR. DON PALMER: Again, I'm not going to answer that because it's a ridiculous premise.

MR. RAYMOND OAKES: In terms of the selection of loss development factors and ultimately the level of IBNR, is the work done entirely by Mr. Christie?

MR. DON PALMER: No. There is work that's done in-house by our actuarial services department.

MR. RAYMOND OAKES: And in developing loss development factors, would Mr. Christie, or any actuary for that matter, rely on judgment?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: Would there be management input from MPI into the calculation of IBNR?

MR. DON PALMER: Could you define "management input," please? The head of our actuarial services department is a manager.

MR. RAYMOND OAKES: Okay. How -- are draft analysis prepared and discussed with anyone in MPI management or executive prior to the reports being finalized?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And from those -- from those discussions changes would be made sometimes?

MR. DON PALMER: From time to time, as within any analysis, there may be underlying business factors that weren't taken into consideration, but, the final selection of the unpaid claims reserves would be that of the appointed actuary.

MR. RAYMOND OAKES: I'm going to move to another topic at this juncture, if I could just have a second, please.

(BRIEF PAUSE)

MR. RAYMOND OAKES: The next topic I'd like to ask the MPI panel about would be referenced in CMMG book of materials at Tab 12 and this is the details of the components of the classification plan that allows customers to substitute a pleasure-use vehicle for an all-purpose vehicle.

And in referring to CMMG Interrogatory 1-29, can you tell me, are light trucks that are considered private passenger vehicles eligible for this program?

MR. DON PALMER: No.

MR. RAYMOND OAKES: And how many private passenger cars are involved in this program?

(BRIEF PAUSE)

MR. DON PALMER: I don't have that offhand, sir.

MR. RAYMOND OAKES: Could you provide that by way of undertaking?

MR. DON PALMER: It's not a program that people sign up for, so, I would have no way of -- of knowing that. It's not a specific policy provision.

MR. RAYMOND OAKES: Okay. All of the private passenger cars are -- are eligible for it, I guess?

MR. DON PALMER: Only if you own two (2) or more.

MR. RAYMOND OAKES: And since the private passenger cars involved are likely to be in different rate groups, how does the allowance of that provision not undermine the classification system?

MR. DON PALMER: There's -- they're both given CLEAR rate groups. They're both given or one (1) would be given an all-purpose and one (1) would be pleasure; there's no undermining of the classification system. They're very similar.

MR. RAYMOND OAKES: And the CMMG asked the question in IR-2-23. And I would ask you to assume, sir, that there are two (2) households in Manitoba. In one (1) household they own a Nissan Versa and a Toyota Corolla, both being passenger cars. The second household they own a Nissan Versa and a Toyota Tundra truck.

If both households have two (2) people go to work at different times, is it correct that the first household can insure one (1) of the vehicles as all purpose as the other is pleasure and the other cannot?

MR. DON PALMER: No, that would be incorrect. If they're both used for going to work on a regular basis, they would both have to be insured as all purpose.

(BRIEF PAUSE)

MR. RAYMOND OAKES: And if a household had two (2) motorcycles, could they insure one (1) as all purpose and the other one as pleasure and substitute those?

MR. DON PALMER: No.

MR. RAYMOND OAKES: Would you agree with me that's not equitable treatment between the passenger car-owning households and the motorcycle-owning households?

(BRIEF PAUSE)

MR. DON PALMER: The substitute vehicle provision is longstanding in legislation and there have not been significant challenges to that as it stands.

MR. RAYMOND OAKES: I don't think that is what I asked you in the question. I asked, in the Corporation's view, that was equitable treatment between the passenger car-owning household and the motorcycle-owning household.

MR. DON PALMER: It's equitable in terms that they both are in accordance with legislation.

MR. RAYMOND OAKES: So what you're saying is, it's legal but not necessarily equitable?

MR. DON PALMER: It's longstanding within the -- within legislation.

MR. RAYMOND OAKES: And by "legislation" you mean the regulations to the MPI Act?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: If I can refer you to that IR-2-23, the last paragraph on that first page of the response.

What evidence does the Corporation have that the problem that you allude to would be a problem or may become a problem?

MR. DON PALMER: That's the last paragraph on the first page or the last paragraph in the response?

MR. RAYMOND OAKES: On the first page. I'll read it or perhaps I could ask you to read it starting with, "If changes..."?

MR. DON PALMER: "If changes were made to the two (2) car family provision to allow for the substitution of vehicles between varying vehicle types, the integrity of the risk classification plan would be undermined. This would result in instances where, for example, the rate for an all-purpose truck in a higher rate group would be less when compared to the same or lower rate group for a passenger car with pleasure use."

MR. RAYMOND OAKES: And the question then, Mr. Palmer, is: What evidence does the Corporation that this is a problem or may become a problem?

MR. DON PALMER: Because the rating between pleasure -- or between trucks and cars is so different.

MR. RAYMOND OAKES: And certainly the

rating could be similarly different whether someone owns a Toyota Corolla or a Mustang 5 litre.

(BRIEF PAUSE)

MR. DON PALMER: But -- but those cars have the same rate line and the same base rate, so, they're certainly more similar than -- than that of the car and the truck that you had talked about.

(BRIEF PAUSE)

MR. RAYMOND OAKES: If I could refer you, Mr. Palmer, to Tab 14, and this concerns CMMG's interrogatories concerning trailers and relates to the same issue that we've been talking about as motorcyclists as owners of other vehicles.

And referring to the information in that table in answer to CMMG-1-31, do most of the lost costs for trailers relate to comprehensive coverage?

(BRIEF PAUSE)

MR. DON PALMER: Yes, I would agree with that, it's about 15 million out of 18 million over this five (5) year period.

MR. RAYMOND OAKES: So about 90 percent probably.

(BRIEF PAUSE)

MR. DON PALMER: It's closer to 80, but it's certainly a majority.

MR. RAYMOND OAKES: And there's more than a hundred thousand (100,000) trailers in the province?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And would about a third (1/3) of those have a declared value greater than twenty-five hundred dollars ($2,500)?

MR. DON PALMER: Subject to check, yes.

(BRIEF PAUSE)

MR. RAYMOND OAKES: Mr. Palmer, I just have some odds and ends at this point, and if I could refer you, page 46, it's the -- almost the last page, the second last page in the materials, CMMG IR, it shows the differential between pleasure and all purpose for 2008 is 70.4 percent for private passenger vehicles, 56.7 for light trucks, and 50.2 for motorhomes.

What would the differential be for motorcycles?

(BRIEF PAUSE)

MR. DON PALMER: This specifically wouldn't be the differential, this would be the average difference between pleasure and all purpose rates. I don't have handy the difference between pleasure and all purpose rates for motorcycles, that would be different than the differential.

MR. RAYMOND OAKES: Is that something that you could provide by way undertaking?

MR. DON PALMER: Yes, we can do that.

MR. RAYMOND OAKES: I thank you for that.

MR. DON PALMER: The -- the differential or the difference between rates to be comparable with this chart?

MR. RAYMOND OAKES: I think it would be most helpful to be on the same calculation as shown in this question.

MR. DON PALMER: We can do that.

MR. RAYMOND OAKES: And if you could also indicate how it's been determined for 2009 rates as well?

MR. DON PALMER: So you want this for

both 2004 through '08 and for '09 rates as well?

MR. RAYMOND OAKES: Even just 2008 and 2009 would be good.

MR. DON PALMER: We'll do that.

--- UNDERTAKING NO. 31: MPI to provide the differential for motorcycles for 2008 and how these numbers have been determined for 2009

CONTINUED BY MR. RAYMOND OAKES:

MR. RAYMOND OAKES: The last reference, and then I will have some short snappers so don't start eating any peanut butter cookies at this juncture, is CMMG-1-22 and the question would be, Mr. Palmer:

Are there plans in the new Bonus/Malus system to deal with that problem?

MR. DON PALMER: To deal with what problem?

MR. RAYMOND OAKES: The problem of persons jointly owning vehicles to avoid the loss of discount on a vehicle by switching the rating to the other person?

MR. DON PALMER: In the current proposal

that is certainly in -- in the public consultation phase, there is not that provision, no.

MR. RAYMOND OAKES: And when would be the last time the Corporation increased maximum insured and maximum declared values?

MR. DON PALMER: Would you accept a long time, as an answer?

MR. RAYMOND OAKES: Well, we are getting towards the end of the day and I can understand the exhaustion with some of the questions over the last two (2) weeks.

Given that very precise answer, can you tell me whether vehicle prices, on average, would have risen since that very long time ago?

MR. DON PALMER: Vehicle prices have -- have risen since a long time.

MR. RAYMOND OAKES: Okay. And if a customer has a vehicle that's worth more than the fifty thousand dollar ($50,000) maximum, can they buy additional coverage through the Autopac extension program?

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: And given that the level of those vehicles, the values, haven't changed over that very long time, and -- and the phenomenon of higher vehicle prices, does this, in fact, shift revenue toward the non-regulated monopoly -- or towards the non-regulated Autopac extension program?

MR. DON PALMER: Slightly. There is still a very small percentage of our fleet that would be worth in excess of fifty thousand dollars ($50,000).

MR. RAYMOND OAKES: And are you aware of other insurers that offer that coverage in Manitoba?

MR. DON PALMER: I'm not aware if there are or there aren't?

MR. RAYMOND OAKES: The questions that I wish to close with relate to the information contained at Tab 11 of the CMMG book and deal with motorcycle rates, specifically the increases, and the first production in that book is CMMG-IR-2-16.

As shown in that interrogatory, has the average rate for motorcyclists risen about six hundred and five dollars ($605) since 2000/'01, presuming that next year's rates are approved?

MR. DON PALMER: On average, yes.

MR. RAYMOND OAKES: And would you agree with me that's approximately a doubling of the rates?

MR. DON PALMER: About two and a half (2 1/2) times.

MR. RAYMOND OAKES: And has any other

major use class experienced such an increase?

(BRIEF PAUSE)

MR. DON PALMER: I don't know the exact percentage of other major classes but it's probably less than this.

MR. RAYMOND OAKES: And the next page in -- in that -- in that unit there, referring to TI.3 Part 2, I understand that approximately only fourteen (14) private passenger vehicles are being asked to have a rate increase of more than a hundred dollars ($100)?

(BRIEF PAUSE)

MR. DON PALMER: That's correct.

MR. RAYMOND OAKES: And based on the number of private passenger vehicles, if we look at what the percentage for fourteen (14) of them getting that rate increase, that would be almost a 0 percent of the total private passenger population.

MR. DON PALMER: It's a tiny percentage, yes.

MR. RAYMOND OAKES: And how many motorcycles would receive a rate increase of more than a hundred dollars ($100)? And I'd suggest to you some five thousand, seven hundred and eighty-five (5,785) of them do.

(BRIEF PAUSE)

MR. DON PALMER: Could you give me that number again, Mr. Oakes?

MR. RAYMOND OAKES: Certainly. I'm suggesting to you that some five thousand, seven hundred and eighty-five (5,785) motorcycles receive a rate increase of more than a hundred dollars ($100).

MR. DON PALMER: That's correct.

MR. RAYMOND OAKES: And I understand that represents 52 percent of the motorcyclists.

MR. DON PALMER: Fifty-one and a half (51 1/2), close enough.

MR. RAYMOND OAKES: And I'd suggest to you that some four thousand, seven (4,007) motorcyclists receive a rate increase of more that 15 percent.

(BRIEF PAUSE)

MR. DON PALMER: Yes, that's correct. And -- and I would -- just the clarification that these are motorcycle major class, so, that would include mopeds and mopeds being increased by 25 percent would all be in there.

MR. RAYMOND OAKES: The information I have is that only five (5) private passenger vehicles would suffer that same increase of more than 15 percent.

(BRIEF PAUSE)

MR. DON PALMER: Yes.

MR. RAYMOND OAKES: Mr. Chairman, that was the last of those questions. I thank you for your indulgence.

THE CHAIRPERSON: Thank you, Mr. Oakes. Mr. Saranchuk?

RE-CROSS-EXAMINATION BY MR. WALTER SARANCHUK:

MR. WALTER SARANCHUK: Yes, I just have a couple of questions before we adjourn. This arises out of the filing of the 2nd quarter report, Exhibit 17 as I understand it, MPI Exhibit 17.

And I just draw your attention, Mr. Palmer, to page 4 and the paragraph on the right-hand side of the page, first paragraph at the top about half way through, there's an indication there that on March

1st, 2007, $39 million and on July 1st, 2008, $31.7 million was transferred from competitive lines retained earnings to fund the EDF.

Is that correct?

MR. DON PALMER: That's correct.

MR. WALTER SARANCHUK: And the activity as indicated in the last line of that -- or the last sentence of that paragraph, that is the activity to August 31st, 2008 has reduced the -- the EDF to -- oh, I'm sorry, by $6.9 million to $63.8 million?

MR. DON PALMER: That's correct.

MR. WALTER SARANCHUK: And just moving on to the next page, this is page 5 of the last paragraph on that page.

Compared to a net loss of some $7.5 million which was projected for the outlook period in the 1st quarter where at the end of the 1st quarter it appears that the Corporation is now projecting that net income from operations will be in the order of $26.6 million during the current fiscal year?

MR. DON PALMER: On a corporate basis, yes.

MR. WALTER SARANCHUK: And how much for Basic, sir, in round figures?

Can you give that to us by way of an

undertaking, or have you got some round figure you can give us now?

MR. DON PALMER: We'll take that as an undertaking.

--- UNDERTAKING NO. 32: MPI to indicate what the net income for Basic will be in the 1st quarter

CONTINUED BY MR. RAYMOND OAKES:

MR. RAYMOND OAKES: And does the forecast for 2008/'09 have to be updated in the circumstances? That -- that is the one filed with the Board in this General Rate Application.

MR. DON PALMER: As -- the past months the forecast is replaced with actuals, that would be true. We don't see any reason to -- to change the forecast of the remaining six (6) months.

MR. RAYMOND OAKES: Thank you, sir. Those are all my questions, Mr. Chairman.

(PANEL RETIRES)

THE CHAIRPERSON: Okay. Thank you and thank you, panel, again and we'll see you all next week on Monday at nine o'clock.

--- Upon adjourning at 3:55 p.m.

Certified correct,

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Cheryl Lavigne, Ms.