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3	AUTOMOBILE INSURANCE RATE BOARD
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6	PROFIT REVIEW SESSIONS
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9	
10	Before Board Panel:
11	Alfred H. Savage – Board Chairman
12	Harry Gough - Vice-Chair
13	Ted Zubulake - Board Member
14	William Moore - Board Member
15	Harry Gough, QC - Board Member
16	Lewis Klar, QC - Board Member
17	Merle Taylor, CMA - Board Member
18	David White - Board Member
19	Susan Steeves - Board Member
20	
21	HELD AT:
22	McDOUGALL CENTRE
23	Calgary, Alberta
24	November 8th, 2006
25	DAY 1 OF 3

1		APPEARANCES	
2	Jack Donahue		)Board Counsel
3	David Simpson		)Facility Association
4			
5	Norma Nielson		) self
6	David Chan		)
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8	Diane Brickner		)Peace Hills Insurance
9	Jamie Hotte		)
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1 --- Upon commencing at 9:16 a.m.

2 3 THE CHAIRPERSON: All right. Good 4 morning all. It's the first morning of the Alberta 5 Automotive Insurance Rates Board review of profit levels 6 for the automotive industry in Alberta. We have some 7 changes in the schedule this morning. I understand that 8 Aviva is still on the deck in Edmonton trying to get off. 9 What, is it foggy up there or something this morning? 10 Out of the generosity of their heart, the 11 Facilities Association has agreed to go first. And I am going to ask Bill to introduce the board. 12 13 But before that, this is a meeting held in 14 public, it is not a public meeting, so all questions will 15 be addressed through the chair. And we'll not really 16 cross-examination but we'll ask the Board if there is any 17 questions to clarify your presentation. 18 Bill, would you introduce the Board. 19 MR. BILL MOORE: I'm sure you all know 20 our Chair, Alf Savage. And on my left Harry Gough, who 21 is the Vice Chair; Lewis Klar on my far left; David White 22 to Alf's right. Merle Taylor is our consumer 23 representative. Susan Steeves is -- she's a manager in 24 the -- and part of the Board staff, the one who really 25 knows what's going on. And Ted Zubulake on the right

1 from Mercer Barro -- Mercer Oliver Wyman. 2 THE CHAIRPERSON: And Jack. Don't forget 3 Jack. 4 MR. BILL MOORE: Sorry, Jack. Jack 5 Donahue, of course, yes, our legal counsel. 6 THE CHAIRPERSON: And Bill is a member of 7 the Board but he's on a bit of a leave of absence to 8 become our acting director at the moment. So he's 9 filling, officially, as acting director and on the other 10 hand he's still a member of the Board, so, he's very 11 active both ways. So, gentlemen, I'll ask you to go ahead. 12 13 I think you're on page 3 of our book with the modern 14 mathematical formula at the top, which I have never got 15 modern math down yet. 16 17 (BRIEF PAUSE) 18 19 THE CHAIRPERSON: So, go ahead. 20 21 PRESENTATION BY FACILITY ASSOCIATION: 22 MR. DAVID SIMPSON: Thank you very much, 23 Mr. Chairman. We've tried to keep the mathematics in our 24 presentation to a minimum knowing that you'll have a

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25 whole amount of it throughout the day.

1 Good morning, my name is David Simpson. 2 I'm President of the Facility Association and with me 3 today is Norm Seeney, Vice President of Finance and CFO. 4 Forgive me, I'm just struggling through my 5 first cold of the season. It's a little bit ... 6 7 (BRIEF PAUSE) 8 9 MR. DAVID SIMPSON: We appreciate -- we 10 do appreciate the opportunity to be here this morning and discuss residual market issues that the Board may wish to 11 consider as you reflect on appropriate automobile 12 13 insurance profit levels. We will speak only from the 14 perspective of residual markets as obviously there's sort 15 of an impressive roster of people here today to talk to 16 you from other perspectives. 17 I'll try and keep up with the slides as I Our written submission deals much more 18 qo. 19 comprehensively with how the residual markets work and 20 their authorization. We went into that in some detail at 21 the hearing in June and we will not cover that ground 22 again today. 23 In our presentation today we will focus on 24 how the risk sharing pools can impact profit levels, how 25 the traditional residual market can impact profit levels,

and provide a brief snapshot of where we are now with respect to the risk sharing pool volumes and financial results; essentially an update on information we shared with the Board in June.

5 So just by way of reminder though, we 6 administer two (2) types of residual markets on behalf of 7 the automobile insurance industry in Alberta, two (2) 8 risk sharing pools for private passenger vehicles and a 9 residual market segment for non private passenger 10 vehicles, and a tightly defined high risk segment of 11 private passenger vehicles.

12 Risk sharing pools are typically an 13 industry response to an industry-wide requirement that 14 individual companies must accept business that they 15 believe to be inadequately priced. They act as an 16 industry-wide reinsurance mechanism that allow companies 17 to mitigate the risk of having to accept business they 18 believe to be inadequately priced.

In Alberta we have, of course, two (2) risk sharing pools: one (1) to accommodate the policies subject to the maximum allowable premium under the grid, known colloquially as a grid risk pool or the grid pool, and another to accommodate business that companies must accept under the take-all-comers provision of the law. All business ceded to both pools is

written at company rates as mandated by the grid or as 1 2 approved by this Board. However, while the risk sharing 3 pools exist to mitigate the risk of the grid premium with 4 the take-all-comers rule at the company level, they do 5 result in companies having a generally higher risk 6 profile than they would if they had discretion and 7 control over their underwriting and pricing practices. 8 As we highlighted in June, the financial 9 results of the risk sharing pools can be volatile and 10 very difficult to predict in advance. And, particularly 11 because of the size of the risk sharing pools in Alberta, that volatility is, of course, of material importance and 12 13 concern to insurance companies conducting business in the 14 province. 15 And that volatility arises from a number 16 of factors. We're still, from an insurance entity perspective, just about two (2) years old, so that's 17 still a very immature, if you will, mechanism. 18 We're 19 still basing our -- our actuaries are basing our numbers 20 on industry derived estimates. 21 It will be some time before they're able 22 to use pool experience predominantly to drive the 23 financial results. They do use the pool experience as a 24 reasonability check on the financial results but it's 25 still very much on the basis of industry estimates and

1 that's simply an actuarial necessity in the absence of 2 real experience.

3 There's still some general uncertainty of 4 the impact of product reform, although our actuaries 5 continue to reflect the emerging experience of the 6 product reform in the marketplace, and, of course, 7 company decision on pool use. And this is something that 8 is simply in the nature of the pools. Companies can take 9 a different view of how they will use the pools at the 10 individual company level and those company decisions can 11 change all the time. So there's an inconsistency, if you 12 will, in terms of what's coming in -- into the pool and 13 coming out of the pool through time that you wouldn't 14 see, for example, at an insurance company.

15 So numbers, I hope everybody can see them 16 fairly clearly. As we highlighted for the Board in June, at that time, for 2006, we were starting to see a shift 17 18 in how companies were using the pools in the sense that 19 we were seeing less of a volume coming into the grid risk 20 pool and more of a volume coming into the non-grid pools. 21 So, in terms of private passenger written 22 exposures, year to date as at the end of September, we 23 were at a hundred and fifty-eight thousand (158,000) plus

25 thousand (122,000) this year; a fairly considerable drop.

in '05 and a grid pool of a hundred and twenty-two

24

1 It's almost been -- been balanced off, if 2 you will, by a rise in the use of the non-grid pool, from 3 twenty-three thousand, nine hundred (23,900) exposures to 4 fifty-three thousand, five hundred (53,500) in 2006, year 5 to date as at September. 6 The total though still leaves us with, as 7 of nine (9) months, a hundred and seventy-six thousand 8 (176,000) exposures written through the risk sharing pool 9 in a private passenger market that is, and we still have, 10 of course, three (3) months to go in the year, private 11 passenger market that is on the order of 1.8 and 1.9 12 million, as we discussed in June. 13 It's a -- it's a large residual market 14 mechanism by virtually any standards, certainly by 15 Canadian and North American standards, generally. 16 In terms of where are we now, the most 17 recent analysis done by our actuaries reflects, by and 18 large, an improving picture. And, just to reiterate, 19 their methodology is based largely on -- is based 20 entirely on industry estimates with pool experienced used 21 a reasonability check. 22 But for accident year 2004 where the 23 volume is really quite small, because we started the 24 business in October of '04, we're seeing an improvement in the loss ratio of fifteen (15) points, twelve point 25

six (12.6) for accident year 2005, seven (7) for accident 1 2 year 2006 for the -- that's all for the grid pool. 3 For the non-grid pool, a jump of twentyfive (25) points. Just to point out, that's a very small 4 5 volume of business in the non-grid pool, in the latter 6 part of '04, just in the startup phase, relatively; six 7 hundred thousand dollars (\$600,000). So you're going to 8 see a lot of volatility on a base that -- that that is 9 that small. 10 One ten (110) for '05, an improvement of 11 twenty (20) points, about a five point five (5.5) in the non-grid pool for '06, an improvement of fifteen (15) 12 13 points. So, still on the wrong side of a hundred (100), certainly in the non-grid pool, and -- but an improving

Page 13

14 15 picture there and that is reflective, of course, of an 16 improving industry picture overall for private passenger auto in Alberta. 17

In terms of the risks that the risk 18 19 sharing pools pose to the member companies in the 20 marketplace, and that's all the -- all the automobile 21 insurance companies, we would suggest that the -- the 22 difficulty of determining the overall financial 23 performance of the pools in advance increases the risk of 24 companies participating in the marketplace, and it 25 increases the risk associated with doing business in the

province. And we think that is of note or worth 1 2 consideration as you look at the overall profit level on 3 an industry-wide level. 4 As well, there is an additional level of 5 difficulty at the company level in determining how a 6 company's business that it cedes to the pool will perform 7 vis-a-vis the pool itself. 8 It's tough to predict how the pool's going 9 to perform. A company that chooses to use the pool has 10 to make some judgments about how their business will -that they're ceding to the pool, will perform vis-a-vis 11 12 the overall pool. 13 So there's -- there's risks that are on an 14 industry-wide level and at a company level that are there 15 had we not -- did we not have risk sharing pools. 16 And so we've not tried to quantify that; 17 there's lots of mathematical people that can assist the 18 Board with that. What we're just trying to say, from a 19 subjective standpoint, there is an additional element of 20 risk in the marketplace caused by the existence of the 21 risk sharing pools, and to the extent that a return 22 should be commensurate with level of risk; now that's 23 something worth the Board's consideration. 24 Moving over to the residual market and as 25 I talked about, this is the -- what some people think of

as the farm or the traditional facility association that we administer for non-private passenger vehicles that are very tightly defined in regulation segment of private passenger vehicles.

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5 It exists, a guarantee that anybody 6 authorised to drive can buy insurance; that's our 7 statutory mandate. Insurance is provided at -- at rates 8 either approved by this Board or its predecessor and the 9 results are shared amongst all -- all companies based on 10 their market share in the province.

11 Not only are the -- the results of the 12 residual market activity, the bottom line results shared 13 by the member companies, but they must share other 14 amounts as well. We're simply an administrative office 15 that says, here's the residual market volume and company; 16 here's the amount of premium you have to book, here's the 17 losses you have to book, here's the expenses; Company B, 18 here's your share.

And when they get that information, because we are not an insurer, they take that and they book that into their own books as if it's their own business acquired through their own efforts, and that impacts them financially in the same way. They have to pay the premium taxes, they have to pay the health levies.

1	They also have to and because they have
2	to book that top line number, they have to book the
3	premiums on their own books. The solvency regulators
4	view that as their own premium and they have to maintain
5	capital to support those premiums. And that capital,
6	like all capital, of course, no one gives away money for
7	free, any you know, that I've ever heard about, that
8	has a cost.
9	And the cost of the capital that's
10	required to support residual market rates, and it is a
11	requirement of the solvency regulator, can be covered off
12	in two (2) ways.
13	1. It can be put in the residual market
14	rates or companies can include a loading in their own
15	rates through in their voluntary market rates to make
16	sure that they maintain enough capital to to cover off
17	the cost of the capital that they need to have to to
18	support those rates.
19	It's our belief that a cost of capital
20	provision should be included in the residual market for
21	two (2) main reasons.
22	1. The people that purchase insurance
23	through the residual market, a large number of them
24	commercial enterprises, should face the same cost
25	elements as somebody buying insurance in the voluntary

1 market. If they don't there is an implicit subsidy 2 there.

3 And from a marketplace standpoint, we all 4 want the residual market, I think, to be as small as 5 possible. My standing line that I inherited from my 6 predecessor is that I'm the only CO in Canada that wants 7 to shrink his marketshare and is doing a good job when 8 that happens. So we want to keep the marketplace small. 9 If our rates don't include a cost of 10 capital provision and our member companies' rates do on 11 their voluntary business, there is the very real risk that the residual market rate is in competition with the 12 13 voluntary market rate and that's inappropriate. In

14 effect, our members are competing against themselves in 15 the marketplace. It's simply inconsistent with our roles 16 in marketplace of -- of -- of last resort.

17 And that's really what we had to say this morning. Our written submission has a lot more detail 18 19 and it's -- we just would ask that the Board, and I know 20 you're going to hear it some companies, you may want to 21 ask them their views on these matters, but we just wanted 22 to come in and highlight the additional risk posed to 23 companies by their participation -- compulsory 24 participation in the residual markets. 25 And, to the extent that that generates a

higher level of risk for business activity in the 1 2 province, presumably to the extent the risk is 3 commensurate with return, that might drive the allowable 4 return -- or would likely drive the allowable return 5 higher than would otherwise be the case. 6 And that concludes our presentation. 7 Thank you, Mr. Chairman. 8 THE CHAIRPERSON: Thank you. Quite a 9 brief presentation in relation to the amount of paper you 10 gave us. 11 MR. DAVID SIMPSON: Well, we had some 12 informal dialogue with Board staff prior and I think 13 where we arrived at was that the written submission, of 14 course, should stand on its own in the context of this 15 Hearing. 16 THE CHAIRPERSON: Yeah, we appreciate 17 that. I was being facetious. But I appreciate that 18 because we have a lot of paper and we're going to take 19 some time to get through it all, in fact. 20 MR. DAVID SIMPSON: You didn't -- Mr. 21 Chairman --22 THE CHAIRPERSON: Are there any questions for clarification on this end? On this end? 23 24 Ted...? 25

1 OUESTIONS BY BOARD: 2 MR. TED ZUBULAKE: Just one (1) question. 3 Are you suggesting that the -- there is no profit provision in the rates for the risk sharing pool or --4 5 MR. DAVID SIMPSON: No, we're not. 6 MR. TED ZUBULAKE: -- or are you just 7 referring to the --8 MR. DAVID SIMPSON: No, those --9 MR. TED ZUBULAKE: -- the farm. 10 MR. DAVID SIMPSON: Just referring to the 11 farm, the traditional residual market. 12 MR. TED ZUBULAKE: Okay. And that's 13 relatively small in Alberta? 14 MR. DAVID SIMPSON: On the private 15 passenger side, certainly. Yeah, it is very small. 16 THE CHAIRPERSON: Anything further? 17 MS. MERLE TAYLOR: I know you haven't given estimates, but for a company what percentage of 18 19 their business would be Facility Association? Like, is there a range like --20 21 MR. DAVID SIMPSON: In terms of --22 MS. MERLE TAYLOR: Like ballpark --23 MR. DAVID SIMPSON: -- this --24 MS. MERLE TAYLOR: -- what -- what -- you 25 know, what, when you say that this market has an impact

1 on their profitability, I'm just trying to get a sense, 2 like, is this, like, 1 percent, 10 percent? 3 You know, what's -- what slice of their 4 whole business is ceded to the pool? 5 MR. DAVID SIMPSON: In terms of 6 individual companies, in terms of premium volume, last 7 year we were at 22 percent ceded to the risk sharing 8 pool. So it's -- it's a fairly big -- big amount and in 9 terms of the -- how that impacts our profitability 10 levels, the real answer is, I don't know. 11 MS. MERLE TAYLOR: Yeah --12 MR. DAVID SIMPSON: But I would encourage 13 you to ask the companies as they're here over the next 14 day or two (2) to respond to that. The residual market 15 segment, because of its size, somewhat less of an impact 16 relative to their overall business. 17 MS. MERLE TAYLOR: Okay. Thank you. 18 THE CHAIRPERSON: Yes, Ted? 19 Just a little follow-MR. TED ZUBULAKE: 20 up question. You're stating that -- that the risk 21 sharing pools are losing money, the amount to be 22 determined -- the latest figures show some improvement, 23 still losing money though. 24 But would you not agree that, at least in 25 theory, the way the process works in Alberta through the

industry-wide adjustment that there should be enough 1 2 money in the entire system, if you will, to provide for 3 any losses suffered by the risk sharing pools? 4 MR. DAVID SIMPSON: To the -- I'm sorry 5 to say I'm not familiar with the detail in terms of the 6 overall rate adjustment process, but to the extent that business that's ceded into the pool is -- is based on 7 8 premiums approved by the Board and -- you know, it's 9 priced on a direct basis --10 MR. TED ZUBULAKE: Right. But --11 MR. DAVID SIMPSON: -- then it has the 12 potential to be rated adequate. Whether it is or not, I 13 don't know. 14 MR. TED ZUBULAKE: Right. I mean, maybe 15 this -- the projections may be off this -- that -- but in 16 theory, if you will, the industry-wide adjustment includes all business written in the province, including 17 the residual market business, both the losses incurred 18 19 and the premiums that are paid into the pools. 20 So, I would think, in theory, that 21 overall, while the pools may be losing money to be 22 determined, the system as a whole has enough money to 23 provide for any losses suffered by the pool? 24 MR. DAVID SIMPSON: Potentially that's 25 true.

1 MR. TED ZUBULAKE: Yeah. Okay. 2 MR. DAVID SIMPSON: And certainly at a 3 company level though it's a different game. 4 MR. TED ZUBULAKE: Right. 5 THE CHAIRPERSON: All right. If there is 6 no further questions then we'll thank you very much for 7 your presentation and look forward to hearing from you, I 8 guess, the next time in the next year when we do the 9 rates. 10 MR. DAVID SIMPSON: We'll be here. Thank 11 you, Mr. Chairman. I appreciate the --12 THE CHAIRPERSON: We may hear from you in 13 the meantime and if we need further information I'm sure 14 we can contact you. 15 MR. DAVID SIMPSON: It would be our 16 pleasure. 17 Thank you very much. THE CHAIRPERSON: 18 MR. DAVID SIMPSON: Thank you. 19 THE CHAIRPERSON: Okay. We will take 20 five (5) minutes while we set up. Who is next? 21 22 (BRIEF PAUSE) 23 24 THE CHAIRPERSON: All right. So we're 25 all set.

1 THE CHAIRPERSON: Good morning, Dr. 2 Nielson. 3 DR. NORMA NIELSON: Good morning. 4 THE CHAIRPERSON: We're looking forward 5 to your presentation. 6 DR. NORMA NIELSON: Oh, I --7 THE CHAIRPERSON: It was yours that had 8 all the formulae here that I accused them of having this 9 modern mathematics. It was yours. 10 DR. NORMA NIELSON: Tongue in cheek. 11 Tongue in cheek, I'm sure. 12 Yes, I think you saw THE CHAIRPERSON: 13 all the introductions, so I think we can just go ahead 14 with your presentation. We've been looking forward to 15 it. 16 17 PRESENTATION BY DR. NORMA NIELSON: 18 DR. NORMA NIELSON: That would be fine. 19 I am Dr. Norma Nielson. I'm a full professor in the 20 Haskayne School of Business, the University of Calgary, 21 and hold the chair in insurance and risk management, 22 coming up on -- jeez, this is my tenth year, folks, if 23 you can believe that. 24 The -- the work that -- that you're going 25 to see this morning was developed with -- with a lot of

help. My colleague at -- from Willford Laurier, Dr. Mary 1 2 Kelly, has certainly been instrumental in the 3 intellectual part of the -- of the process. 4 And David Chan, who is joining me here 5 this morning, is integral in making -- getting all the 6 numbers into the computer and getting some of the numbers 7 back out of the computer. So he and his computer are 8 both here as -- as backup and as a resource to answer any 9 questions you might have. 10 I was reflecting this morning on the fact 11 that I think this is literally the second anniversary, 12 like to the day, of some similar hearings in 13 Newfoundland, where it was the first time I was pulling 14 some of these concepts and -- and research approaches 15 together. And things have made some progress in that two 16 (2) year period but we don't have all the answers yet. 17 So that is a -- as a preface to the rest of my -- of my18 proposal here. 19 As the previous presenters did, I'm going 20 to just, sort of, hit the highlights and make myself

21 available to answer any questions you might have, but I'm 22 not going to suffer you through the minutia of some of 23 the -- some of the methodology.

24 We -- Mary and I started out with an 25 overview of the Alberta market, because she's in Ontario, 1 for one thing, although she's pretty familiar with most 2 of Canada's auto insurance markets. We do use data 3 that's filed with OSFI and then purchased and resold and 4 reformatted through MSA Research.

5 So we had a total of sixty-six (66) firms 6 that we have in that MSA data that sell auto insurance in 7 Alberta, at least that had a positive premium. There's a 8 couple of anomalous numbers in that data set; companies 9 that are going out of business or transferring a block of 10 business to another firm and they really, I don't think, 11 contribute much to the analysis except confusion, so they are -- they're not included in most of our stuff. 12

We started with looking at the top ten (10) and, again, that was a way for us to prioritize if we're going to be able to add a company and who would be the most important ones to add in. And that's one of the reasons you'll see, as we got further down, we added the UK companies first because they were in the top ten (10) and the Netherlands or Spain or Finland were not.

20 So, as we -- we went through that list of 21 top ten (10) which collective sell about two (2) out of 22 every three dollars (\$3) worth of insurance in Alberta; 23 the other one-third of the market being taken up by the 24 other fifty-six (56) companies.

25 The Alberta market, forty-nine (49) of the

1 companies selling here are publicly traded; they're stock 2 companies in one (1) -- one (1) exchange or another 3 around the globe. We -- the work that we are able to do 4 and the methodology that we're using only works for those 5 forty-nine (49) companies. The other seventeen (17); the 6 ten (10) that are mutuals like Economical and State Farm, and the seven (7) that are something else, Alberta Motor 7 8 Association and Lloyds is -- we can't include those in 9 some of our analysis.

10 To be honest, mutual companies, 11 historically probably don't have as good a handle on 12 their own cost of capital as the stock companies do. So 13 I don't think we're -- we're not doing something that they are leaps and bounds ahead of the world on by 14 15 leaving them out, but it's just a matter of that -- not 16 being able to gather any data on what the market thinks 17 their firm would demand as cost of capital.

We looked at -- we found a great deal of 18 19 diversity in the Alberta market which I would think the 20 Board or the political entities charged with making sure 21 there's coverage available would be very pleased to see. 22 We saw companies from the very large to the very small; 23 companies very specialized in auto to very much 24 specialized in something else and doing a little bit of 25 auto, almost as a sideline.

1 We looked across Canada at the companies 2 and saw some geographically concentrated ones, some 3 geographically diverse ones. We get into fun things like 4 Herfindal Indexes which -- the numbers are in the -- in 5 the written testimony but, essentially, there's a -- what 6 you'll see across many of these dimensions that we examined is that there is a great deal of diversity. 7 8 Different kinds of companies are here. People who want 9 to buy from a small company can do that. People who want 10 to buy from a specialty company can do that. 11 That, I think, is a signal -- we took that 12 as a signal of a healthy market, the fact that there was 13 this much diversity here. We looked at diversity, again, 14 the Herfindal Index, across lines of business, across 15 geographic spreads, those kinds of things. 16 We looked at loss ratios and, again, you'll see the distribution. We even have a couple of 17 bell curves in here for you to show where the -- where 18 19 the companies fall in -- in a couple of those dimensions. 20 There's a -- we put in, for your 21 information, some data on customer satisfaction that the 22 Financial Services Commission of Ontario has developed. Many of the companies writing in Alberta are also writing 23 24 in Ontario. They're the two (2) largest private markets 25 in the country so it makes perfect sense.

1	The companies tend to have the same
2	management and the same operational structures in place.
3	There's no glaring reason to believe that if a company's
4	customers are happy in Ontario they'll be grumpy in
5	Alberta or vice versa. So I think that should transfer
6	across provincial lines reasonably well.
7	Claims satisfaction ranged from 70 to 95
8	percent, an average of 86. Those it's a it's a
9	balance in terms of both designing a product and in your
10	in the charge that this Board has, helping design a
11	marketplace for insurance to keep all of those things
12	working. You don't want low prices and terrible claims
13	service, so you have to I don't I think I said
14	last year, I don't envy you that job.
15	But the the focus of most of the work
16	that's been done at the Risk Study Centre of the
17	University of Calgary has been in the last two (2)
18	years has been to develop the funding for and then the
19	data and the analysis to go along with understanding
20	better the role of capital and the cost of capital in an
21	insurance market.
22	As you know, most of the companies selling
23	in Alberta are Federally regulated companies that receive
24	their solvency oversight from the Office of the
25	Superintendent of Financial Institutions, a Federal

1 entity.

2 Most -- some of them, the minimum capital 3 test, the MCT, is the benchmark that the regulator looks 4 at for them. Others are set up as branch offices in 5 Canada and they have a separate but comparable type of 6 ratio that's -- that's examined for those. 7 The minimum acceptable ratio -- so 8 there's, again, the mathematics have become more 9 sophisticated. I believe the MCT came in in 2002 or 10 2003; in just the last few years. 11 The regulator gives you a number that's 12 minimum. You have to have 150 percent of that minimum, 13 which, kind of, sounds like a minimum. But the 14 terminology can be a little confusing. But most 15 companies wouldn't dream of running at the hundred and 16 fifty (150). They tend to run between a hundred and seventy (170) and two ten (210), is the target they've 17 told OSFI they're -- they're aiming to maintain. 18 19 So the capital is not only desirable in 20 this industry, it's mandated by, not always a provincial 21 body of government, but in many cases the Federal 22 Government. Again, some companies are provincially 23 regulated, some are Federally regulated. 24 The markets say risk require -- greater 25 risk requires greater return and that's, again, the focus of what we're talking about here today. The market moves up, the market moves down. The standard analysis that's done in financial markets is a beta. It's -- comes straight out of regression formulas a long, long, long time ago when these things were new.

But a beta of one (1) means that's what the whole market does. If you have -- if a company has a beta of one (1) it moves up when the market up and it moves down when the market moves down, and it moves in exactly the right -- the same speed in exactly the same amount.

So we -- one of the things you do to examine the riskiness of an industry or of a company is to look at the beta and see how it moves with the market or not. And there's a few -- there are a few examples here on page 9 of the written filings.

The Bank of Nova Scotia is a point two eight (.28), it's much less. It moves with -- up when the market moves up and down when the market moves down but not nearly as much; only about a quarter as much of the move.

22 Maple Leaf Foods was similarly low. 23 Rogers Communication has a beta of just 24 over one (1). So it tends to move up with the market but 25 a little more, and move down with the market but a little

1 more. 2 Nortel is a three point six (3.6). It 3 moves a lot more than the market. 4 So those -- that's just a measure that has 5 been developed and is used in the financial and economics 6 academic communities for twenty (20) or thirty (30) years 7 now, pretty regularly. 8 As we look at the beta of the insurance 9 companies, we generally find they're in the point 10 eight/point nine (.8/.9) range; a little below the 11 market, but well above that big bank I cited a moment ago. So that's consistent with the literature that comes 12 13 at us from out of the US, from around the world; that's 14 generally the market we're in. Not nearly as risky as 15 Nortel but it's riskier than being a bank in Canada. 16 So that, again, the beta statistics and a 17 bit of the distribution where the Company -- I think 18 that's what the bell curve is. Figure 2, which is on 19 page 14 shows, a frequency distribution for the beta of 20 insurance companies writing auto. They're at the back. 21 And you'll see them clustered right around 22 the point eight/point nine (.8/.9) range. But some are 23 very low, likely the big Canadian banks that also sell 24 insurance, if I might speculate, and one (1) or two (2) of them are considerably higher. 25

So this is just a -- a distribution of the risk that the companies writing insurance in Canada face when they face the investors in the capital market. I like that chart. Okay.

5 So when I was here last year, in a classy 6 northeast hotel room, as I recall, the -- we were 7 presenting primarily research coming out of the US. I've 8 summarized that for you on page 10.

9 The Cummins & Phillips work that I was 10 citing was based in the US. It's based on data up to the year 2000. I -- we've come a long way in one (1) year 11 12 because, not only are we talking about that work, you 13 have one of the authors of that work meeting -- is coming to speak with you later this afternoon. I believe 14 15 Richard Phillips is in -- is among the people who will be 16 seeing you later this afternoon.

17 So I would encourage you, if you have any 18 questions -- nagging questions that have been bothering 19 you since this time last year that take the opportunity 20 to ask Dr. Phillips those questions this afternoon.

The -- the bottom line of those results, the equally weighted CAPM cost of capital in that study, again US based, the year 2000, was about twelve point six (12.6). The value weighted -- so the equal weighted is counting a little company the same as a big company. The

value weighted is counting the big companies more. It's
 more market share weighted than number weighted. It goes
 down a little bit because size matters.

4 The bigger companies sometimes can -- can 5 get their capital a little cheaper than -- so we came up 6 with a CAPM estimate of ten (10). But the work coming 7 out of the US showed that two (2) other factors were --8 were very, very important and employed a relatively new 9 methodology, the Fama/French three (3) factor method, to 10 estimate what the size factor was in the market and as 11 well as what some of the author's was calling financial 12 distress model, which I think is -- sometimes adds more -- that naming sometimes, I think, adds more confusion to 13 14 the discussion than it adds clarification.

But at any rate, we came up with costs of capital during that timeframe in the US that were, again, between 17 1/2 and about 20 1/2 percent based on those additional factors being included.

I remember vividly one of the commissions, two (2) years ago in Newfoundland, saying, Well, that's all very well and good but we really need it for Canada. And I -- I said to her, Well, that will take two (2) years and fifty thousand dollars (\$50,000), and we'd love to do that for you. Well, as it turns out we -- we've had our two (2) years, but we haven't had the fifty

thousand dollars (\$50,000) for two (2) years. 1 But we 2 have gotten a grant to do that kind of work. It helps --3 helps David make his computer run. 4 And that's what we're here to tell you a 5 little bit about this morning. We did get the 2005 data, 6 so we have Canadian data up through the year 2005. The 7 2005 data was released in late May --8 MR. DAVID CHAN: Yes. 9 DR. NORMA NIELSON: -- early June. So 10 we've had June, July, August, September -- yeah, four (4) 11 months, maybe, to try and pull some of these things 12 together. 13 We are -- we were, by October 20th, in the 14 written submission, able to pull together data on fifty-15 three (53) publicly traded companies that operate in 16 Canada and are in the MSA data set -- excuse me, fifty-17 three (53) groups. That includes a hundred and fourteen 18 (114) insurance companies because some companies they 19 bought -- bought another firm and not changed its name or 20 they have a different incorporated entity operating in a 21 different province for -- for other reasons. 22 So a hundred and fourteen (114) insurance 23 companies, fifty-three (53) groups. What we've been able to include so far are 24

25 the ones traded on the Toronto Stock Exchange, the New

York Stock Exchange, the NASDAQ and the London Stock 1 2 Exchange. Again, we really -- the big crunch we made for 3 October 20th was to get London in so we could have AVIVA, 4 the last of the top ten (10) companies in our group. 5 So about forty (40) of the insurance 6 companies in this sample sell insurance in Alberta to the 7 tune of about \$1.3 billion in 2005. We didn't give you 8 ten (10) years worth of history there. We figured just 9 so -- you're in the market today, that the data from 10 today would be good enough. 11 But we have gathered data from 1991 12 through 2005, so two (2) to three (3) times the length of 13 the period in the Cummins & Phillips study. At this 14 point we were analysing a hundred and five thousand 15 (105,000) data points; daily stock price changes, that 16 sort of thing. 17 We did compute a traditional CAPM to make sure the model wasn't giving us wonky results and we came 18 up with a beta of point eight two (.82) and that lovely 19 20 chart in Figure 2. 21 So, this is not the end of our work, but I 22 want to thank the Board for letting -- letting us, at 23 least, have a little more time to be able to present some 24 of the work to you this morning. We have, on page 12, the P&C insurance 25

groups; there are fifty-three (53) of them. And if we do 1 2 the same type of analysis for those companies that are 3 doing business in Canada that cover the period through 4 2005, a CAPM type of cost of capital historical is about 5 ten point six (10.6). If you look at the thirty-seven 6 (37) companies, and I'm sorry I've got a little bit of a 7 typo there, it's not thirty-eight (38) but I'm sure it would have -- it makes it much harder to read, about ten 8 9 point four five (10.45). 10 So only about fifteen (15) basis points in 11 the Canadian sample when you take out companies that don't write auto insurance at all. And it does take out 12 13 quite a few companies but it doesn't change the cost of 14 capital. 15 In part that's because auto's a big --16 such a big chunk of the Canadian market. It's going to -17 - it's going to weigh heavily on the industry average, so -- so you can't -- as long as you're keeping a big chunk 18 19 of it it's not going to move very much. 20 We were able, this week, to do a value 21 weighted -- like, is about 1 percentage point higher than 22 that, eleven point five, two (11.52). The Fama/French 3-23 Factor, what we were able to add in at this point we 24 haven't -- we haven't got the data sufficiently cleaned 25 and -- and working to add the Canadian factors.

1 But if we -- so if we take -- of the three 2 (3) factors, we Canadianize the first one and keep the 3 other two (2) the way they showed up in the US study. 4 There -- my instinct tells me that one of those will be a 5 little higher and one will be a little lower so that the 6 net won't be too far off in the end in Canada. We end up 7 with a sixteen point five (16.5), sixteen point six 8 (16.6) value weighted of seventeen point seven (17.7). 9 In the 16/17 percent range is what the companies have 10 been paying investors in the market historically. 11 Now, that said, that's not your job, is to look backwards. Your job is to try and look forward. 12 13 One size does not fit all. The big company and the 14 little company, the company that specializes and the one 15 that doesn't, those diversity measures that are good from 16 the consumers' availability point of view often have 17 different costs. They're different elements of risk in 18 running those companies. Even a company that's in all the same 19 20 markets is going to make different decisions about how it 21 finances its operations, about how much capital it 22 carries, about how it invests its assets in the time it 23 holds them between when premiums come in and claims go 24 out. All of those things affect the company's overall

25 risk. We don't have a monopoly situation here and I

1 think in Alberta we probably don't want one.

2 So what we did -- what I did to recognize 3 that what we're doing may be useful to you but is not the 4 same thing as you may need, I took that distribution of 5 the cost of capital that we've seen historically, I 6 chopped off both 5 percent tails, and the 90 percent 7 range was from fourteen point three (14.3) to eighteen 8 point two, six (18.26) using the Canadian cost of capital 9 with the two (2) adjustments from the US, chopping off 10 the tails.

11 So that's, again, how far we've been able 12 to get with only a hundred thousand (100,000) data 13 points. We probably need to get up to about five hundred 14 thousand (500,000) data points before we're done here 15 with this whole project and get the other twenty (20) 16 some companies included -- from eight (8) countries? 17 MR. DAVID CHAN: Ten (10). 18 DR. NORMA NIELSON: Ten (10) other 19 countries and stock exchanges and interest rate markets 20 and things like that. 21 So it's a big project. The -- the two (2) 22 years and fifty thousand dollars (\$50,000) that I pulled 23 off the top of my head was extremely close; that's about 24 how much and what it's going to take in terms of time and

25 money.

1 And we hope to have that completed -- more 2 complete by next year, but we are able to give you data 3 that includes only Canadian companies and data that 4 includes up to the year 2005. So that's what we're able 5 to contribute, I think, this morning to help you with 6 your difficult task. 7 I'm delighted to answer any questions you 8 might have. 9 THE CHAIRPERSON: Thank you, Dr. Nielson. 10 The only thing that I noted that I dispute with you is 11 the people in -- in Ontario aren't as happy as people in 12 Alberta or vice versa, and I think Alberta's happier. 13 DR. NORMA NIELSON: Oh, okay. They're --14 they're happier with their claims handling. 15 I think they're happier THE CHAIRPERSON: 16 just living here. 17 DR. NORMA NIELSON: Yeah, okay. I -- I 18 have no -- no indications that there's a statistically 19 significant difference. 20 THE CHAIRPERSON: Questions on this end 21 of the table? Yes, Bill? 22 23 OUESTIONS BY BOARD: 24 MR. BILL MOORE: Dr. Nielson, the -- I 25 think Figure 2 deals with the -- the frequency

1 distribution of the risk measure, the beta, and I presume 2 those are -- those are the averages over fifteen (15) 3 years or --4 DR. NORMA NIELSON: Yes. 5 MR. BILL MOORE: -- each of the 6 companies? 7 How stable are those beta measures within 8 any one (1) company? 9 Is there -- is a company consistently 10 higher risk or lower risk or is it pretty much a -- of a 11 random variable over the fifteen (15) years? I quess 12 the --13 That is a fabulous DR. NORMA NIELSON: 14 question. 15 Okay. All right. MR. BILL MOORE: Ι 16 think probably the graph answers the question. But -but I think from the point of view of what the Board 17 18 does, the question really is: Does a -- does a 19 particular company consistently need a higher cost of 20 capital or must it reflect that higher cost? 21 DR. NORMA NIELSEN: Well, the -- the 22 actual cost of capital in the market are everywhere from 23 -- over the fifteen (15) year period, not the betas but 24 the cost of capital; that happens to be a listing I 25 looked at yesterday --

1 MR. BILL MOORE: Hmm hmm. 2 DR. NORMA NEILSON: -- across the years 3 go from negative something to plus thirty (30), the --4 the cost of capital, the return in the market, anybody 5 who has investments knows -- knows that there are good 6 years and bad years, the -- they are all over the map and 7 this is an average of those across years. 8 I would estimate that the big company 9 that's fairly well diversified is -- is going to be 10 pretty stable. 11 The small company that was heavily exposed to last year's floods in Calgary may have had a really 12 13 bad year. 14 So they're going -- the smaller companies 15 are going to be less stable than the big companies. The 16 more diversified companies are going to be more stable than the less diversified companies. 17 18 But the -- the literature over the years, 19 the point eight (.8), point nine (.9), is what always 20 shows up. So I would say for the industry, it's 21 reasonably stable. For an individual company -- you 22 know, Nortel was stable at one point. 23 So, it's a -- that's a -- that's a guru 24 question. 25 MR. BILL MOORE: I think the last couple

1 of days and --

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2 DR. NORMA NIELSON: Income trusts, yes. 3 MR. BILL MOORE: -- exactly. So as -- as 4 -- as the Board looks forward and -- and we -- we have 5 legislation that currently, I believe, where we have put 6 a cost of capital in that's the same for every company, 7 the range that you have suggested in the last page of 8 your paper, is that really telling us that as we look 9 forward, some companies need a higher cost of capital 10 provision than others? 11 DR. NORMA NIELSON: Certainly some do. 12 And -- and I think the Facility Association, the ones 13 that need to make more allowance for losing money to the 14 Facility Association would be one (1) example. 15 The -- the difference between the -- the 16 historical cost of capital that we've come up with, looking back, and the target cost of capital that this 17 Board has to come up with, looking forward, they're 18 different animals. 19 20 The -- the year that the companies may --21 that a company made 16 percent, the target might have 22 been 18. People, companies, don't hit targets exactly. 23 You tend to come in a little under your target more often

25 floods happen, you know, because of the nature of the

than you come in a little over your target. So, because

1 business.

25

2 So, the cost of capital in my mind, it's a 3 conservative thing to estimate a little high on the 4 target, knowing that it's human nature and sort of Mother 5 Nature to fall short of that target, and -- and then 6 you're probably going to be close enough that the market 7 will understand why you missed your target. 8 The companies are free to set lower 9 targets than the ones put in the -- the grid or the 10 maximum rates. If they have access to cheaper capital, 11 that will make them more competitive in the market place. 12 That's -- that's some -- that's a dynamic that I would 13 expect the Board would want to function. 14 So, to the extent that you've set a higher 15 target, you're saying competition will sort out some of 16 these things more; to the extent you set a lower target, you're just sort of keeping competition from working at 17 18 the mar -- at a bigger margin. That it's -- they're --19 everybody's rates are not going to go up if this target 20 rate goes up. The markets are competitive. 21 80-something percent of the people are not 22 on the grid and their rates are not set based on what the 23 Board decides. 24 So, a higher target cost of capital is a

way of sort of moving toward competition and encouraging

competition; a lower cost of cap -- a lower target cost, 1 2 looking forward, is a way of sort of impeding 3 competition, if you want to look at it that way. 4 But it's the diff -- it's an important 5 difference between the historical cost of capital and the 6 target cost. 7 THE CHAIRPERSON: Thank you. Ted -- or, 8 sorry, you have a question? 9 MS. MERLE TAYLOR: Yeah, I had a 10 question. 11 MR. TED ZUBULAKE: I'm last, so go ahead. 12 MS. MERLE TAYLOR: Okay. 13 THE CHAIRPERSON: That's not, Ted. 14 MS. MERLE TAYLOR: Okay. Dr. Nielson, as 15 I'm sure you're aware, Dr. Calliman presented to the New 16 Brunswick Board last year and his recommended --17 DR. NORMA NIELSON: Yes, we had the pleasure of being in the same room in Newfoundland, so. 18 19 MS. MERLE TAYLOR: Newfoundland, too, 20 okay. Out there, out east somewhere. 21 DR. NORMA NIELSON: Yeah. 22 MS. MERLE TAYLOR: Can you kind of 23 describe -- like, his methodology came up with a -- a 24 much lower target return on equity than -- than your 25 analysis.

1 Can you critique his approach or give us 2 some kind of insight as to what different assumptions you 3 used. 4 DR. NORMA NIELSON: I don't remember his 5 approach so well as I remember his criticisms of my 6 approach. 7 MS. MERLE TAYLOR: So it --8 DR. NORMA NIELSON: He was coaching 9 counsel from the sidelines. The -- he -- I -- he was 10 saying things, I must confess, I never thought I would 11 hear a finance professor say. He was commenting that regression was 12 13 really an untried and untested technology. And, I mean, 14 everybody taking a medication in the room is basing that 15 on regression analysis and statistical significance and 16 things like that, because that's how the drug got 17 approved in the first place. 18 The -- he was criticising the authors of 19 the Cummins & Phillips paper which has now been 20 published. It was -- it was a forthcoming article. It. 21 was just accepted for publication when I was doing this 22 first event two (2) years ago. 23 It was published in 2005 in the Journal of 24 Risk in Insurance, which is a peer-reviewed, highly 25 respected academic journal. It was -- received an award

in the August 2006 meeting of the association that 1 2 publishes that journal, presented by the Casualty 3 Actuarial Society as the single most important 4 contribution of the year in insurance research to the --5 the field of casualty actuarial science. 6 So, I -- I found almost all of his 7 critiques and criticisms to be red herrings, frankly. 8 MS. MERLE TAYLOR: Okay. But at the same 9 time, he did come up with different numbers. 10 DR. NORMA NIELSON: I don't recall his 11 methodology --12 MS. MERLE TAYLOR: Okay. 13 DR. NORMA NIELSON: -- quite as well. 14 MS. MERLE TAYLOR: Okay, thanks. 15 DR. NORMA NIELSON: I remember vividly 16 the conversation we had on cross-examination. T don't 17 remember exact -- how he came up with those numbers. 18 MS. MERLE TAYLOR: Fair enough. 19 DR. NORMA NIELSON: They were, I guess, one kind of thing you could say was, old school. 20 21 THE CHAIRPERSON: Thank you. Ted...? 22 Yes. I just have a MR. TED ZUBULAKE: 23 few questions. Dr. Nielson, first just to clarify, the 24 range of 14.31 percent to 18.26 percent, as a going forth 25 target plus the capital, that would be an after -- after

1 tax or...? 2 3 (BRIEF PAUSE) 4 5 DR. NORMA NIELSON: I don't think so. 6 MR. TED ZUBULAKE: Maybe you could check 7 that out. DR. NORMA NIELSON: Yeah. I --8 9 MR. TED ZUBULAKE: I would think it is. 10 I think that --11 DR. NORMA NIELSON: Okay. 12 MR. TED ZUBULAKE: I'm a little bit 13 confused. Your table on page 12 which shows the -- the 14 results of your analysis using the Canadian data, fort 15 the -- at least one (1) of the three (3) factors. 16 I believe you describe this as the historical cost of capital over that period, 1991 to 17 18 2005. 19 DR. NORMA NIELSON: That's correct. 20 MR. TED ZUBULAKE: A couple of questions. 21 Then these are not -- you're not saying that this is -- I 22 guess -- let me ask this: What is the difference between 23 a cost of capital and a --24 DR. NORMA NIELSON: Cost of --25 MR. TED ZUBULAKE: -- return on equity?

1 DR. NORMA NIELSON: This is a cost of 2 equity capital. 3 MR. TED ZUBULAKE: Cost of equity capital 4 versus -- how is that different from any return on 5 equity? Historically, they're 6 DR. NORMA NIELSON: 7 the same. I mean, a historical cost of capital and 8 return on equity --9 MR. TED ZUBULAKE: Okay, so --10 DR. NORMA NIELSON: -- historical -return on equity and a cost of equity would be the same. 11 MR. TED ZUBULAKE: Okay, so this is where 12 13 I get a little confused. 14 Are you saying that these numbers on page 15 12 are the return on equity achieved by these P&C 16 Insurance groups over that 1991 to 2005 period? 17 And, if so, why are they -- why would --18 to me, return equity, there's only one (1) number, how 19 could we have your range of return on equities --20 DR. NORMA NIELSON: Well, if you're --21 well, no, there are -- certainly is more than one (1) 22 number, because if you -- if you had the number -- you 23 have one (1) number for each company, but how you combine 24 fifty-three (53) or thirty-seven (37) --25 I'm sorry, I meant why MR. TED ZUBULAKE:

1 there's a different number under the cap-end versus the -2 - the FF-3F method? 3 DR. NORMA NIELSON: No, we're --4 MR. TED ZUBULAKE: I guess I --5 DR. NORMA NIELSON: -- trying to -- we're 6 trying -- what we're trying to do is model the cost of 7 equity that the markets required, and you try to 8 calibrate it to the market but it's not exactly the 9 market. 10 MR. TED ZUBULAKE: I could understand you 11 saying that based on the -- this period of time, looking 12 back, this is what the cost of capital needs of the 13 company -- of the P&C companies should have been or 14 were. But I don't think these are --15 DR. NORMA NIELSON: Ten (10 --16 MR. TED ZUBULAKE: -- the returns of 17 equities that the companies dispute --DR. NORMA NIELSON: Ten (10) -- ten (10) 18 19 -- ten point six (10.6), ten point four five (10.45), 20 those are the returns that the market would have given 21 them based on the risk of the companies involved. 22 MR. TED ZUBULAKE: Okay. So -- but it's not their actual --23 24 DR. NORMA NIELSON: We're calibrating the 25 model as opposed to --

1 MR. TED ZUBULAKE: Okay. 2 DR. NORMA NIELSON: -- providing you with 3 actual. The companies in the IBC themselves are better able to tell you actual. 4 5 MR. TED ZUBULAKE: Okay, that I 6 understand. And --7 DR. NORMA NIELSON: So we're trying to --8 we're trying to tease out what the market's rewarding 9 them for and what the market is penalizing them for. 10 MR. TED ZUBULAKE: Right. 11 DR. NORMA NIELSON: And the ten point five (10.5), plus or minus, is what the market's 12 rewarding them for taking the risk of being in the auto -13 14 - or in the insurance business. 15 MR. TED ZUBULAKE: Okay. So this -- this 16 performance over this period of time, this is what the 17 market would have asked --18 DR. NORMA NIELSON: Would have said they deserved. 19 20 MR. TED ZUBULAKE: Said they deserved, 21 okay. 22 DR. NORMA NIELSON: Okay. Is that 23 better? 24 MR. TED ZUBULAKE: That's better. 25 DR. NORMA NIELSON: Yeah, okay.

1 MR. TED ZUBULAKE: Now --2 DR. NORMA NIELSON: Simplifying sometimes 3 has its --4 MR. TED ZUBULAKE: Okay. 5 DR. NORMA NIELSON: -- has its risks, 6 too. 7 That -- given that, MR. TED ZUBULAKE: 8 and I know you went back to 1991, but I think if you go 9 back even further in time, the insurance industry, the 10 P&C insurance industry, does not -- has not achieved 11 anything close to an average of 14 to 18 percent return 12 on equity; closer to 8, 9, 10 percent, I believe. I'm 13 sure the IBC will have the actual numbers. 14 But why would it be that the markets are 15 not achieving the targets that you say can go to --16 markets, okay they should be --17 DR. NORMA NIELSON: Again, it's the difference between make -- setting target and hitting a 18 19 target are two (2) different things. 20 MR. TED ZUBULAKE: But they're so far off 21 the target. They're -- they have eight (8) points off 22 the target; eight nine (8/9) points off the target. 23 DR. NORMA NIELSON: Well, I must confess that a number of people sometimes have scratched their 24 25 head about that; why companies even stay in this business

1 if they can't --2 MR. TED ZUBULAKE: But they are staying 3 in this business. 4 DR. NORMA NIELSON: -- make a better 5 return. 6 MR. TED ZUBULAKE: So if they stay in the 7 business and returns are much less than the targets 8 you're recommending here, doesn't that say something 9 that, maybe they don't need 14 to 18 percent, or has 10 something changed that caused them now to need 14 to 18 11 percent whereas before ten (10) was fine. 12 Well, one of the DR. NORMA NIELSON: 13 things that definitely has changed is the international 14 nature of Canadian's insurance -- Canada's insurance 15 markets. 16 So, this is the two-thirds (2/3's) of the companies that are operating in Canada --17 18 MR. TED ZUBULAKE: Right. 19 DR. NORMA NIELSON: -- that are traded in 20 Canada, US, and UK. 21 The -- there's another one-third (1/3) of 22 the market that has parent companies in France and Spain 23 and Switzerland and Italy and Germany and Japan, and on 24 ad infinitum. 25 One of the things that has changed over

2 movement of those multi-national companies into Canada, 3 and until we get the other twenty (20) some companies 4 into our sample, we won't know if that moves this up or 5 down. 6 My guess is it will move it. The fact 7 that one of the things that has changed in the real world 8 is the internationalization, the globalization of 9 Canada's insurance market, and so that one of the reasons 10 this number may be off is that it does not yet include 11 those global companies. And those are big players --12 MR. TED ZUBULAKE: So you say that they--13 DR. NORMA NIELSON: -- that make come --14 it may push it back down some more. 15 So, it may be the case MR. TED ZUBULAKE: 16 that we have a ten (10) percent made, then -- fine and 17 sufficient return for companies over the last ten (10) 18 years, but going forward, because of the changes you've 19 just discussed, that just isn't good enough. 20 DR. NORMA NIELSON: Well, it may be that 21 the 10 percent is sufficient for companies that are 22 traded on the TSX. But it may not be sufficient to get 23 companies from other countries to come and to stay in the 24 market. 25 MR. TED ZUBULAKE: Now -- yes --

the time that we're talking about here is the increasing

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1 DR. NORMA NIELSON: I -- I -- so again, 2 the -- we're looking at partial results here and --3 MR. TED ZUBULAKE: Yes. 4 DR. NORMA NIELSON: -- and part -- and so 5 I can't tell you how this is going to change. 6 I can tell you that the market has changed 7 in the last fifteen (15) years, we have far more multi-8 national companies in it, and that could move this number 9 up or -- it will move it up or down. It could move it 10 down to the -- to the range that you're suggesting is --11 is closer to what's being observed in the market. 12 MR. TED ZUBULAKE: The betas that you've 13 discussed that are the, kind of the -- both the CAP "M" 14 and the FF-3F methods --15 The CAP "M" is one 1) DR. NORMA NIELSON: 16 of the three (3) factors --17 MR. TED ZUBULAKE: Oh, one (1) of the --18 okay. 19 DR. NORMA NIELSON: -- in the three (3) 20 facts, so they're not --21 MR. TED ZUBULAKE: All right. 22 DR. NORMA NIELSON: -- it's one (1) step 23 along the way, and there's two (2) more after that. It's not that they're completely separate --24 25 MR. TED ZUBULAKE: And --

1 DR. NORMA NIELSON: -- approaches, that -2 - I'm not saying this for you, I'm saying it for the non-3 actuaries on that --4 MR. TED ZUBULAKE: No you're --5 DR. NORMA NIELSON: -- side of the table. 6 MR. TED ZUBULAKE: -- saying it for me, 7 too, I believe. 8 But the -- but the beta, you found, was 9 about point eight (.8) for the insurance --10 DR. NORMA NIELSON: That's an unweighted 11 average, yes. 12 MR. TED ZUBULAKE: Unweighted average, 13 right. 14 Now what -- first of all, how is that --15 that's a measure of the volatility of the stock prices of 16 these P&C, or these insurance groups, versus the -- the market stock prices? 17 18 DR. NORMA NIELSON: Yes. 19 MR. TED ZUBULAKE: Okay. And the point 20 eight (.8) means what; that it's better than average, 21 less risky than average or --22 MR. DAVID CHAN: Less risky than the 23 market. The market is always one (1). 24 DR. NORMA NIELSON: So it -- it moves up 25 with the market -- it's a positive number so it means

when the market goes up the insurance stocks go up. 1 When 2 the market goes down insurance stocks go down. But they 3 tend to only go up 80 percent as much. 4 MR. TED ZUBULAKE: Right. 5 DR. NORMA NIELSON: If -- if the market 6 goes up ten (10) points -- 10 percent the insurance stock 7 will probably only go up eight (8). But it doesn't go up 8 quite as fast, it doesn't go down quite as fast, but it 9 generally goes up and down with the market. 10 MR. TED ZUBULAKE: But -- but we're using that -- that measurement as a -- as a measure of risk, I 11 12 guess, and so are we saying -- are we saying that --13 DR. NORMA NIELSON: One (1) -- one (1) 14 dimension of risk; the -- the riskiness of investing in 15 this -- this particular venture versus an oil sands 16 versus a healthcare company. So -- but does the 17 MR. TED ZUBULAKE: 18 point eight (.8) mean -- call it point eight (.8), that 19 overall the -- the insurance industry, the companies in 20 this study, are less risky than the market -- than the --21 DR. NORMA NIELSON: They're a little less volatile than the market. 22 23 MR. TED ZUBULAKE: And how do cycles come 24 into play because I've got to believe that insurance 25 stock prices vary widely with -- with the cycles --

1 insurance cycles.

2 DR. NORMA NIELSON: The underwriting 3 cycles. 4 MR. TED ZUBULAKE: Underwriting cycles. 5 How -- how is that considered in this analysis? DR. NORMA NIELSON: 6 To the extent there 7 have been cycles since 1991 they're in the data. 8 MR. TED ZUBULAKE: Well, have you looked 9 at your -- that -- that data -- the range that you looked 10 at to see what's -- how many cycles were included in that 11 period, if any at all? 12 DR. NORMA NIELSON: There was a small 13 down-cycle in the '90s and there was a big whopping one 14 in 2001 after 9/11. So there should be some pretty good 15 representation of up and down cycles in the market in 16 that -- in that data period. 17 All right. So that's MR. TED ZUBULAKE: why you -- why you hadn't picked that particular period, 18 '91 to 2005. But did you consider --19 20 DR. NORMA NIELSON: We would -- we would 21 take more if it were available; that's as much data as we 22 can buy. 23 MR. TED ZUBULAKE: All right. I was just 24 wondering if --25 DR. NORMA NIELSON: I mean that -- I

mean, is very pragmatic that -- who -- who was saying we 1 2 go the pragmatic approach. It's a very pragmatic reason; 3 we can't buy any more than that. We'd have to go look up two thousand (2,000) stats to add --4 5 MR. TED ZUBULAKE: No, I understood. But 6 my question is to the extent there were partial cycles, 7 big cycles in that period, the analysis may be biassed, 8 distorted somewhat because of this --9 DR. NORMA NIELSON: Well, one of the --10 one of the reasons I thought it was important to do this, 11 the Cummins & Phillips study ended at the year 2000 and 12 2001 was a very important year for the insurance 13 business. So having -- having that extra five (5) years 14 of data that included the World Trade Centre, the 9/11, 15 the reinsurance crunch, the terrorism exclusions and, 16 sort of, bouncing back from that I thought was very 17 important. I was reassured, frankly, to find that our 18 19 numbers -- their numbers from the US, ending in 2000, 20 were twelve point six (12.6) and about ten point five 21 (10.5), they're in the same ballpark; they're not very

22 far -- they didn't move a lot.

It was -- and to the extent they did move they -- it was very logical to me. They moved down a little bit because we've added years when interest rates

2 free interest rates are down, those rates should go down 3 and they did. So I'm very comfortable with those kinds 4 of results. 5 MR. TED ZUBULAKE: Now, your 6 recommendation of the range of 14 to 18 percent, you just 7 touched on this now, would that be your recommendation 8 for the next year, or are these numbers that have to 9 change each and every year as the -- as interest rates 10 change and how do these relate to the risk change --11 DR. NORMA NIELSON: They would move up and down with interest rates. As interest rates are 12 13 moving up that would push these numbers up. 14 MR. TED ZUBULAKE: So what kind of -- is 15 there a formula that you could recommend to the Board to 16 -- to work with going forward, as opposed to having to re -- re-analyse profit -- you know, appropriate returns 17 18 each and every year? 19 Is there a way the Board can --20 DR. NORMA NIELSON: Of . . ? 21 MR. TED ZUBULAKE: Is there relationship 22 between the risk free rate and what you're recommending? 23 The risk free --DR. NORMA NIELSON: there is and there isn't, okay? It's the risk free rate 24 25 plus the beta times the market's equity premium.

were lower. They should move down with the -- as risk

1

1 MR. TED ZUBULAKE: Right. 2 DR. NORMA NIELSON: As -- as investors 3 love and hate the market, that equity premium -- how much you have to pay me to get a -- take a bigger risk changes 4 5 with, sort of, the psychology of the market. So, yes and 6 no. 7 I would say in terms of if you wanted to 8 look forward one (1) to two (2) years, I know you have a 9 gentleman from TD Waterhouse scheduled sometime over the 10 next couple of days, they should have a very good handle 11 on the yield curve and whether -- what it indicates rates 12 are -- interest rates might be a year or two from now, so 13 there probably is a way to adapt. 14 I don't know what some of the other 15 analysts are doing but we have a spent -- essentially a 16 spot price for you --17 MR. TED ZUBULAKE: Yes. 18 DR. NORMA NIELSON: -- and how to turn 19 that spot price into a -- a price that'll make sense one 20 (1) year from now which, on average, is the middle of 21 your two (2) year timeframe or something like that. 22 I would ask the gentleman from TD 23 Waterhouse what the yield curve looks like a year out 24 from now because I've --25 MR. TED ZUBULAKE: But what --

1 DR. NORMA NIELSON: -- been busy with 2 other stuff. 3 MR. TED ZUBULAKE: And one (1) final 4 question. In the front of our binder there is an 5 Appendix A which -- which deals with, sort of, the pros 6 and cons of the CAPM pricing model; is this part of your 7 presentation? 8 DR. NORMA NIELSON: No, it's not. 9 MR. TED ZUBULAKE: Oh, it's not. 10 DR. NORMA NIELSON: That's probably one of the academics that'll be here this afternoon. 11 12 MR. TED ZUBULAKE: Okay. But you're 13 obviously familiar with the weaknesses of the CAP "M" --14 DR. NORMA NIELSON: Well, that's why the 15 three (3) -- why it's going from a one (1) factor model 16 to a three (3) factor model is people trying to measure and address the -- the weakness. 17 And we'll -- of 18 MR. TED ZUBULAKE: 19 course, we'll ask this of Dr. Phillips later, but -- but 20 in your opinion does the -- the additional of -- the 21 addition of the two (2) factors completely overcome the 22 disadvantages or the deficiencies in the CAP "M" model or is it just kind of getting us closer to a better model 23 24 but we're not quite there yet?

DR. NORMA NIELSON:

It's closer.

There's

25

1 -- there's another -- another paper I was reading last 2 week that was looking at the Canadian stock market 3 generally and coming up with a four (4) factor model. So 4 vou --5 MR. TED ZUBULAKE: Four (4) factors --6 DR. NORMA NIELSON: -- you can look 7 forward to the -- the momentum factor being added in --8 in. You know, five (5) years from now there will be a 9 four (4) factor model. 10 The -- the bottom line of what we look at 11 when we build these models there's -- there's one (1) of the -- one (1) or two (2) statistics you can look at that 12 13 tell you the percentage of the movement around the data point that's being explained by the model; an R-squared 14 15 for the -- or an adjusted R-squared for the 16 mathematically inclined in the room. 17 So if the model -- you can -- and there 18 are other tests to make sure it's statistically 19 significant, that the odds are under -- under 2 percent 20 or 1 percent, that it's not -- that this is -- that 21 there's something else going on that's not being pict --22 drawn in this picture. 23 So if the R-squared is point six (.6) that 24 means that 60 percent of the movements are being 25 explained by that one (1) factor. And if you can add two

1 (2) more factors and move it up to point eight (.8) then 2 you've improved the model. 3 You'll always have a lower explanatory 4 power with one (1) model that -- or with one (1) factor 5 than you get by adding more relevant factors. 6 You're never going to get to 100 percent 7 because weird stuff happened in some of these stocks that 8 has nothing to do with the market. It has to do with, 9 you know, the President and CEO of the company being 10 arrested on the front page or something. It's never 11 going to be 100 percent. It's the market driving things. 12 MR. TED ZUBULAKE: Thank you very much, 13 Doctor. Jack, I think you had a 14 THE CHAIRPERSON: 15 question. 16 MR. JACK DONAHUE: Dr. Nielson, just a 17 clarification, the figures that you use in the table, you talk about them -- the distribution of beta and risk 18 19 management for companies writing insurance -- auto 20 insurance. 21 Does that chart dealing just with their 22 auto insurance book or is that the entire book, property 23 and casualty --24 DR. NORMA NIELSON: That's the entire 25 book. We -- we're trying --

1 MR. JACK DONAHUE: So you use property 2 and casualty --3 DR. NORMA NIELSON: Property, casualty, yes. And this -- and this includes TD --4 5 MR. JACK DONAHUE: Right. So --6 DR. NORMA NIELSON: -- as TD Meloche 7 Monnex. As I say, RBC is down probably at the lower end 8 of that. 9 MR. JACK DONAHUE: Not being an actuary, 10 but I would think that if you were to isolate just the 11 auto insurance --DR. NORMA NIELSON: That's what we were 12 13 trying to get to work this weekend and it didn't. 14 MR. JACK DONAHUE: If you isolate just 15 that portion -- well, the frequence of the variation of 16 beta would be much narrower than the casualty. The auto 17 insurance industry doesn't have floods, fires and 9/11's. 18 DR. NORMA NIELSON: Actually they do have floods. But --19 20 MR. JACK DONAHUE: Well -- but I mean, 21 maybe I'm --22 DR. NORMA NIELSON: Cars washing down the 23 river are covered by the auto insurance, so. 24 MR. JACK DONAHUE: But would it narrow 25 the beta?

1	DR. NORMA NIELSON: It should. We are
2	the next step, and we we worked David worked very
3	hard over the weekend to try and have it for today and it
4	just didn't happen. It's something called the full
5	information beta that tries to break out the type of
6	business the company is in and look at if the beta is
7	point five (.5) how much of that is contributed by
8	what what would be the beta just for different types
9	of business it's in so that when you weigh it and you
10	come up with a point eight (.8). That's
11	MR. JACK DONAHUE: And
12	DR. NORMA NIELSON: the next step and
13	we just we got a we got a model that told us ipods
14	are two thousand dollars ( $\$2,000$ ) and plasma TV's are two
15	hundred (200) so we know it's not working yet.
16	MR. JACK DONAHUE: So if you were to
17	narrow that down to just the auto insurance
18	DR. NORMA NIELSON: We're we're
19	working in that direction, we're not there yet.
20	MR. JACK DONAHUE: you would get a
21	different beta number and you would you would likely
22	then get a different equity target too?
23	DR. NORMA NIELSON: Yes. I would say
24	auto again but again, in Canada auto insurance is a
25	big chunk of the total, so it's not going to move as far

1 from the mean as you might think; plus or minus 1 2 percentage point. 3 THE CHAIRPERSON: Thank you. Any further 4 questions? 5 MR. BILL MOORE: Dr. Nielson, did not the 6 Cummins & Phillips work illustrate that when you did 7 isolate using the full information and beta approach the 8 -- the automobile business was, in fact, riskier than the 9 -- than the company as a whole or the --10 DR. NORMA NIELSON: In general I think 11 they did. Yeah, they were slightly above. But then 12 they're suing each other in the US too, so. 13 MR. BILL MOORE: Fair enough. Yeah. 14 DR. NORMA NIELSON: So I -- I -- I can't 15 -- I would say it would be plus or minus one (1) percent. 16 Probably the one (1) -- probably plus one (1) but that's 17 just an instinct at this point not a -- not a research 18 result. 19 MR. BILL MOORE: Thank you. THE CHAIRPERSON: Hearing no more 20 21 questions, I want to thank you and ask you if you do hone 22 that out we certainly would enjoy receiving it. 23 DR. NORMA NIELSON: All right. 24 THE CHAIRPERSON: It would be beneficial 25 to us. But we will --

1 DR. NORMA NIELSON: Well, we're working 2 on spending that grant money. 3 THE CHAIRPERSON: We will -- you can 4 appreciate the amount of material we have so we aren't 5 going to reach our conclusions tomorrow. 6 DR. NORMA NIELSON: Right. 7 THE CHAIRPERSON: So it would certainly 8 be helpful to us. So thank you very much 9 DR. NORMA NIELSON: Very well. 10 THE CHAIRPERSON: -- for your 11 presentation and we look forward to hearing from you 12 again. 13 DR. NORMA NIELSON: Full information 14 beta, yeah, got it. 15 16 --- UNDERTAKING NO 1: Dr. Norma Nielson to clarify 17 to Board when isolating, 18 using the full information 19 and beta approach, the 20 automobile business was 21 riskier than the company as a 22 whole. 23 24 THE CHAIRPERSON: All right. That will 25 give us a few minutes here to get sorted out. Aviva has

1 arrived. 2 3 --- Upon recessing at 10:20 a.m. 4 --- Upon resuming at 10:32 a.m. 5 6 THE CHAIRPERSON: Everybody here now? 7 Good morning. 8 MR. GRANT MINER: Good morning. 9 THE CHAIRPERSON: You finally made it, 10 did you? 11 MR. GRANT MINER: Yes. I certainly 12 apologize. 13 THE CHAIRPERSON: We've all flown back 14 and forth. We know what it's like. 15 MR. GRANT MINER: They pulled away from 16 the gate at the right time and then we sat on the --17 Peace Hills and I sat on the airplane for close to two (2) hours while we waited to be de-iced. And we joked --18 19 Jamie and I were joking they turned the heat up so much 20 on the plane I thought they were trying to de-ice it from 21 the inside. 22 However, we made it. 23 THE CHAIRPERSON: Well, thank you very 24 much. Go ahead with your introduction and start. 25

1 PRESENTATION BY AVIVA CANADA: 2 MR. GRANT MINER: Okay. Yes, first of 3 all, I'd like to -- I'd like to thank the Board for the 4 opportunity for Aviva Insurance Company, Aviva Canada to 5 be presenting. 6 My name is Grant Miner, Senior Vice 7 President for Western Canada for Aviva and based out of 8 Edmonton. Also, we have Chris Townsend and Chris, if 9 you'd just like to introduce yourself? 10 MR. CHRIS TOWNSEND: Sure. I'm a Fellow 11 of the Canadian Institute of Actuaries and my current 12 role is as corporate actuary so in that role I'm 13 responsible for, sort of, managing the adequacy of Aviva 14 Canada's capital which hence my interest in the return on 15 equity on that capital. 16 MR. GRANT MINER: Okay. We're going to start off with -- with just some introduction. You have 17 our presentation but I'll walk through quickly some --18 19 some slides. 20 My part of the presentation is to give 21 you a -- a more robust and rounded understanding of what 22 Aviva Canada is and how the companies are set up. I will 23 not dwell on this because I'm sure you want to move into 24 the financial component of our presentation fairly 25 quickly.

1 So, also, we'll be walking through our 2 presentation which will address the questions that the 3 Board asked us to address as well. I -- one (1) of the -4 - the key messages that we will have is very simplistic 5 which is that we need a target ROE, return on equity, 6 that is going to attract capital in this competitive 7 marketplace and that is one (1) of the fundamental 8 messages that we will be putting in front of the Board 9 this morning. 10 So, by -- by way of -- of introduction on 11 the agenda I'll walk through a description of Aviva Canada, overview of the ROE and also address the impact 12 13 for fair value accounting practices. 14 The -- the relevance for this slide, we 15 don't want to get too -- too pictorial here but our core 16 purpose as an organization is peace of mind and that is peace of mind for both the consumers as well as for our -17 - our shareholders. 18 Our -- our vision is to be the most 19 20 trusted and valued home, automobile and business insurer 21 in Canada and to be an outright winner in delivering 22 sustainable profit and growth. So it's a growth 23 orientation strategy. But clearly there's a link to our 24 shareholders and we're -- we're driven by achieving 25 sustainable profit and that is based on a track record as

1 well as future expectation.

2 This image just gives you a quick look at 3 Aviva's position across -- across the country but of more 4 relevance is, what does it mean to Alberta? Well, we're 5 a major employer in Alberta with branches in Edmonton and 6 Calgary. 7 We -- we try to contribute to the -- the 8 community through involvement with Grant McEwan and 9 provide some leadership and also maintain a pretty strong 10 -- a commitment to corporate social responsibility, a 11 high level of voluntarism and promote -- and we sponsor 12 SADD, for example. 13 So just trying to give you a quick feel 14 for -- for our presence. We have two hundred and twenty-15 five (225) staff in these two (2) locations. 16 In Alberta itself there are four (4) companies, of the five (5) that are illustrated in the --17 18 in the PowerPoint, that actually trade. One (1) is --19 the first one (1) is Aviva, which is Aviva Insurance 20 Company, Traders, which is our group, Elite, which is 21 more of a specialty product line for personal lines and 22 Scottish & York which I'll talk about and then, of 23 course, Pilot which is a personal lines company in 24 Ontario.

25

So just spend a few moments just talking a

1	little bit about each of the business entities because it
2	is important to set the stage for the discussion on the
3	financial piece that Chris will move into in a moment.
4	I'm not going to walk through all the
5	details on this but but basically, from Aviva
6	Insurance itself, in Alberta, we have introduced
7	innovations. They tend to be more property orientated.
8	But and we remain we remain optimistic and we're
9	committed to Alberta for for growing the business here
10	largely because the current state is is fairly solid
11	and we are, at this point, remaining optimistic that it
12	will continue to improve as far as trading and business
13	opportunities.
14	Traders is our group division and when you
15	look at the graph we did have a drop in volume from 2003,
16	2004. Basically that was a reflection of pricing action
17	that we had to take to improve results.
18	Elite, which we can call our our toys
19	division, focusses on on certain niches and I think
20	the I just the reason I wanted to put this one (1)
21	up is it addresses some needs that the marketplace has in
22	Alberta which is availability and affordability of
23	certain products. And this is this is one (1) of our
24	divisions that actually steps up to the plate over and
25	above just standard automobile insurance.

1	The fourth division is Scottish & York and
2	this is this is not that well known but we there
3	are two (2) parts to it. There's a specialty commercial
4	lines which, once again, is niche focussed to meet needs
5	of Albertans and the other one (1) is a corporate
6	partnership alignment for certain just we have one (1)
7	right now that we're just moving into into Alberta
8	which the Board would be familiar with.
9	So, Aviva Canada we're our parent is in
10	the UK which is Aviva PLC. And I'll just touch on a
11	couple of the high points here just so you can get a feel
12	for what Aviva Can Aviva globally looks like, once
13	again, because it is relevant to set that stage for the
14	financial view on the return on equity.
15	This slide all this slide is telling us
16	is one (1) thing, is Aviva globally is about 70 percent
17	life. And in in the UK it's largely a life company
18	whereas in Canada it is a general property casualty
19	company and we don't have any life presence in Canada.
20	This is this is, once again, a global
21	view on the strategy. I bring your attention to the
22	right-hand side of the slide which is which is
23	relevant to Canada, being the general insurance side.
24	And all we're seeing from the strategic perspective is
25	peace of mind for consumers. That's how I've summarized

1 that and it's also consistent with the vision that I put 2 up earlier.

The -- the focus within our strategy is competition. And we have a desire to compete in a free market and we also -- we know we have to compete for customers and we have to compete for capital.

So that -- that basically gives you a Reader's Digest version of Aviva globally and Aviva Canada and the companies that we -- that are actually trading in Alberta, Aviva Insurance company by far is the largest company that does business in Alberta.

12 So what I'd like to do is pass it over to 13 Chris and he'll walk you through the components and the 14 questions that the Board are most interested in.

15 MR. CHRIS TOWNSEND: So, again, just to 16 relate to context that Grant did back to the next part of the presentation, as Norma said, to do the theoretical 17 18 stuff you need to have histories and quoted stock prices. 19 So that takes us back to our parent 20 company. So, what I'm going to is take you through a 21 little bit of the information in terms of our parent 22 company and the historical cost of capital, future 23 looking, and sort of the pragmatic way that we end up 24 putting those together in terms of setting targets. 25 And just in terms of reminding you and

that -- that is all in the context of a company that is
percent life insurance internationally diversified and
so to get back to the question in terms of Alberta auto
insurance, doesn't directly answer the question but in
terms of how we deal things, we have to start from what
our parent company needs.

So, again, just in the historical process here, we're talking for -- we, you know, not a lot -don't need to know a lot of detail in the CAPM's is standard method, you've got lots of other information here.

From the point of view, again, as -- as of something working from this sort of practical point of view, we can look up, if you will, we don't have to do -save a lot of time and effort, we don't want to spend two (2) years and fifty thousand dollars (\$50,000) to come up with an answer.

18 We can go and look up some of these 19 numbers which makes it practical for us to use. So, you 20 know, a recent and obviously probably not today's, but a 21 recent Canadian long-bond rate in terms of a risk free 22 component of the return you're looking for, say four 23 point three (4.3) the beta for Aviva from the value line 24 source is a little bit on the higher line -- the higher 25 side of the range that Norma was giving you.

1	It's about one point-o-nine (1.09) and a
2	one (1) source in terms of the the market return for
3	Canada from from Ibbotson is five point three (5.3).
4	You put those together and you get a
5	number of around ten point one (10.1).
6	You can do the same thing for our
7	competitors and, again, we want to do that for our
8	competitors because we need to understand what their
9	costs of capital are as well, because, again, we're
10	competing for that same capital and what we find when we
11	do that is we're somewhere in the middle of the pack.
12	And just, you know, to clarify, when I
13	we're talking of target there, that's what the formula
14	would come up with the target, that not is not yet
15	what we're stating to be our target.
16	The other point is, any time you're
17	applying these methods, there is a range of results that
18	come out. So it's hard to focus down right down into one
19	(1) number.
20	You know, again, in terms of trying to
21	understand these, we're not trying to write academic
22	papers but we do have to say have some idea of what
23	the pros and the cons are of the different approaches.
24	And so the pro is clearly, it's it's a
25	basic theory, it's been around for quite a number of

1 years. It's easy to get the numbers.

2 Some of the cons and, Ted, Appendix A, was 3 submitted as part of our filing, some of the cons are 4 that the -- there are some risks even in the sort of 5 risk-free rate, there's an interest rate risk, there's a 6 measurement risk.

7 The TSX itself may not be a good proxy for 8 total market risk in Canada. There's a lot of sectors 9 such as pharmaceuticals which aren't represented well in 10 the TSX, for instance, so it doesn't necessarily 11 represent the entire Canadian economy that well.

Historical betas may be biassed. Now, in Aviva's case would be beta close to one (1), that's not a material issue and when you're then taking a look going from Aviva PLC down to Aviva Canada, Aviva Canada's a much smaller company than our parent company.

We're about 4 percent of the total premium and, you know, there is, historically when, again, Norma was talking about different ways of coming up with an average, historically smaller firms have had a higher risk component to them.

And again, I'm just putting in an example where you make some adjustments for, in particular, the small size and possibly from the market risk premium, taking those numbers from Ibbotson or Appendix A and you

1 come up with a number of about thirteen point three 2 (13.3).3 So, I think I would -- a key point I would 4 take from that as a Board is that there is some 5 discussion about the pieces in here and the actual 6 choices that are made, in terms of your viewpoints on 7 that discussion, can have a material impact on the return 8 on capital. 9 MR. GRANT MINER: Chris, am I -- I 10 believe I'm correct when I say this, in these two (2) 11 examples that you've covered it also -- the backdrop is 12 the global --13 MR. CHRIS TOWNSEND: Hmm hmm 14 MR. GRANT MINER: -- which has the 70 15 percent life component into it --16 MR. CHRIS TOWNSEND: That's correct. 17 MR. GRANT MINER: -- which is a very 18 material point as we work towards a Canadian perspective. 19 MR. CHRIS TOWNSEND: Yeah, all the 20 numbers in these -- these, sort of, six (6) slides are 21 all talking about the betas and the risk is measured on a 22 global company that's 70 percent life insurance. 23 The other -- or one (1) other, sort of, 24 easily available method of estimating the return on 25 capital, the -- the -- the beta is looking at historical

variability and saying, based on the model, what, you 1 2 know, return you should have been getting. 3 The -- the discounted cash flow model is -4 - is a forward-looking one (1) and it's saying, if I look 5 at the current stock price and I look at forecasts of two 6 (2) key components, i.e. the dividend and the growth rate 7 in that dividend, what factor do I need to discount that 8 future cash flow is to come up to my current stock price. 9 So it's assuming that the markets are 10 efficient and stock price is properly reflecting that 11 future cash flow. 12 So, again, just in terms of the numbers 13 here, from a Citigroup Investment Research Report the 14 growth was estimated at about 9 percent for Aviva. A 15 dividend of twenty-eight pence (0.28), again we're 16 talking Aviva globally here, and a price at that time, 17 early 2006, of 723 pence. You divide the dividends by 18 the price you get the yield added on and you get about 19 thirteen point three (13.3) for a implied, sort of, cost 20 of capital. 21 All right. And, again, you can do that 22 for your competitors and we would want to. We want to compare our cost of capital to our competitors. Again, 23 24 we're somewhere in the middle and, again, there is a

25 fairly significant range.

1	Now, again, again, there's no one (1)
2	answer. You know, the pros of this is, again, it's a
3	fairly simple calculation. You know, it's well grounded
4	in, sort of, options consideration in terms of how should
5	I make my investment in the future and, if we're a
6	publicly quoted company, the information is readily
7	available. As a bonus you're using just the cash in
8	terms of the dividends and the price which is, sort of,
9	something that doesn't change depending on what
10	accounting conventions you use.
11	You know, the cons, certainly from the
12	Board's point of view and Aviva Canada's point of view,
13	you know, you don't get that information available for a
14	a private company and, you know, in some cases having
15	that good consensus forecast of future growth can have
16	significant variation.
17	So, again, the message that, sort of, we
18	take is it's important to look at this in looking at what
19	our targets are but we're not going to go out and find
20	one (1) academic with one (1) number that's going to give
21	us the answer we want as businessmen.
22	So, a key point of that is we are
23	competing for capital so it's important to, you know,
24	take a look at what we consider our peer group of
25	competitors because those are the ones we want to beat,

1 if I can put it that bluntly. 2 So, I've listed, you know, seven (7) 3 examples again, their targets listed here are from 4 publicly, you know, stated information, whether it's in 5 their -- in a -- in a report of theirs or from a 6 stockbroker's report. Aviva's target as quoted, I don't 7 have it down there, but to complete the slide is for a 10 8 percent net real return on equity. 9 And we further say that we want a general 10 insurance core or combined operating ratio of 98 percent 11 or below. 12 Now, just to put that back, a 10 percent 13 net real return on equity means you're going to take your 14 10 percent and you're going to add your current estimate 15 of future inflation. So, if, say, the UK inflation is --16 because again we're talking about our parent company, as 17 I say, about 2 and a half percent, they'd be coming up 18 with a target that they want to get of about 12 and a 19 half percent. And this is post-tax; that's what the net 20 means. 21 Okay, and, again, that's in the order of 22 somewhere near the average of our competitors. 23 So moving to a Canadian context then, 24 Canadian context is clearly that in Canada we are not a 25 quoted company and we are also property and casualty

1 only, okay? So -- but it's a component of what our 2 worldwide group chief executive has to deliver in terms 3 of the overall return he's got to make in terms of the 4 stock market.

5 So, in terms of that, again, from a 6 practical point of view, we're not updating these 7 targets, sort of, every six (6) months. There's, you 8 know, work done to review them but you're not going to 9 move them up or down point three (.3) points just because 10 something changed and it's easier from an internal 11 measurement point to keep a fixed target.

12 So this target we're working towards in 13 terms of 15.6 percent was set back in 2003. It was based 14 on a discussion that we needed a number to get that 15 sustainable ongoing growth because we need the profits to 16 reinvest to get the growth. Obviously, we want to meet our shareholder expectations and our chief executive's 17 18 expectations. And it's in the context that looking at 19 Canada from the global perspective we are only in the P&C 20 insurance business in Canada.

And P&C is perceived as more risky than life. It's harder to estimate our liabilities. It's harder from an investment point of view to immunize yourself against movements in future inflation rates because you typically can't buy enough, sort of, real 1 return bonds in Canada.

2 And the history, certainly in 2003 when 3 this was set, of Canadian regulatory changes in the 4 Canadian market up to that point was of a concern to our 5 parent company. So we ended up with a number that was 6 mutually agreed at something higher than the return that 7 the parent company was promising itself. 8 The next, sort of, sections are 9 specifically to try and translate that return on equity 10 into components of the pricing formula which is 11 ultimately what the Board has to do in terms of setting a rate for private passenger automobile or a ceiling for 12 13 that rate. 14 So, the -- there's basically three (3) 15 sources of return that we get to come up with that 15.6 16 percent which is shown in terms of the R(E) number at the 17 top of the slides there. 18 So the first one (1) is -- is an 19 underwriting profit and if I can just draw your attention 20 to the one point nine eight (1.98) in terms of all 21 comers for automobile, that's saying a 2 percent 22 underwriting profit. That's actually very close to the 23 same thing as we're talking about the 98 percent combined 24 operating ratio that our parent has set as a target. So 25 we're comfortable in terms of how the formula and the

return on equity is connecting back to our parent's
 publicly stated target.

3 The -- the next source is the investment 4 income on policyholder funds between the time we get the 5 premiums and the time we pay out the claims and, again, 6 you know, roughly speaking here those numbers are, you 7 know, assuming we're investing policyholder funds 8 conservatively in, sort of matched risk-free Government 9 of Canada and holding them for about two (2) years; a 10 little over two (2), two and a half  $(2 \ 1/2)$  years before 11 we make the payouts on average. Obviously some of them 12 we pay very quickly.

13 And then the final component, of course, 14 is that for insurance companies you have to keep your 15 capital liquid. You're not actually building a 16 manufacturing plant and that capital, in terms of how we keep it -- like, we tend to invest a significant portion 17 of that into the stock market in Canada and these returns 18 19 here are maybe a little lower than -- these are returns 20 we use for internal planning purposes. We hope our 21 investment people will achieve higher if they haven't 22 achieved higher this year. And we use that.

And -- and then, of course, you have to allow for tax on all those returns to get your net after tax yield.

1	And just as a as a point of
2	reference, the first calculation I did was before Alberta
3	reduced its tax on April 1st from 11 1/2 percent to 10
4	percent. And that benefits policyholders by about
5	between a quarter and a half point in terms of the
6	overall premium levels that we can provide them.
7	And then the final piece is that we do
8	have to measure how much capital we have to keep and
9	those numbers down here at the bottom are are
10	different depending on whether we're looking at all
11	covers or just, sort of, the basic covers.
12	Looking at our risks and measuring our
13	risks internally a large part of the risk we have to deal
14	with in terms of why we're holding that capital is risks
15	in terms of the bodily injury and accident benefit
16	coverages. They are harder to estimate and more variable
17	in terms of the outcome and that's what we hold capital
18	for so that even if our, sort of, financial statement
19	estimates are turn out to be too low we have enough
20	money to be able to pay policyholders.
21	So going on to another question that the
22	Board asked was to talk about, you know, going forward
23	when you're trying to look at things what is going to be
24	the impact of fair value accounting in terms of coming
25	into effect January 1st, 2007.

1	It's perhaps worth noting that we're still
2	in the process of making decisions on exactly how we're
3	going to implement that. But in terms of the internal
4	measures that we use to measure our management team on
5	return on on capital, we're using measures on a UK
6	accounting basis and UK accounting basis is not changing,
7	so that we don't see a change from that point of view.
8	And, again, hopefully we see through the economic reality
9	of of the change in terms of the measurement.
10	I did include a spot, I think the Board
11	members have this as a separate attachment, though just
12	to take you through some of the impact.
13	So the first two (2) columns just show an
14	example company on, if you will, current accounting
15	basis. And really the actual numbers in that are
16	irrelevant but it's just as a point of comparison. Does
17	everybody have that handout?
18	Yeah, okay. So in terms of the second two
19	(2) columns in terms of fair value accounting, I just
20	want to draw your attention to really one (1) thing. I
21	mean the there will be a, sort of, a restatement on
22	January 1st, if you will, of what your position is. And
23	for many companies the key change there will be that any
24	excess that you have in terms of the market value of your
25	equity holdings over the book value will now go directly

onto the balance sheet and, therefore, will both increase the amount of assets you're holding and sort of -- and by implication would reduce -- increase your shareholders' equity.

All right. So if we then are going from, sort of, the second group of columns to the third group this is -- in the second group of columns interest rates were stable and did not change over the year. In the third group of columns the interest rate at the end of the year is 5.2 percent instead of 4.2 percent so interest rates went up a point.

The implication of that, if you move, sort of, down to the next highlighted yellow box in terms of the bond values, when interest rates go up bond values go down because it's the present value of the future payments that hasn't changed.

17 Also, because in Canada we take --18 discount our claims -- unpaid claims liabilities, so 19 again, that's a future payment stream, interest rates go 20 up, the value of unpaid claims liabilities goes down. 21 And when the value of the unpaid claims 22 liabilities go down that savings, in this case of about 23 \$7 million on this -- this sample company, that results 24 in a lower claims incurred on the operating statement. 25 It goes from one, ten (110) down to one-o-three point

nine (103.9). So that number looks lower and you're looking at a better underwriting result and a better core.

Now, where the offset will come is the investment income is also lower because under the new accounting the change in the value of the bonds will go through the net investment income and so the investment income has also gone down.

9 So the -- the -- you know, the long and 10 the short of it, interest rates going down, in this case 11 are -- are bad for the company. But the key point here 12 is you're going to get more volatility and that 13 volatility will be coming through in both the reported 14 underwriting result and the reported net income.

And then, of course, if interest rates go up basically exactly the opposite situation occurs. Interest rates go up -- sorry, interest rates go down, in the last column, then the value of the bonds goes up. The value of the claims liabilities goes up and you will see a worse core but offset by better investment income. Okay?

And in terms of measured accounting return on equity, all those three (3) scenarios are actually showing a lowered measured accounting return on equity because the -- the value of the equities is now reflected

on the balance sheet. So your income hasn't changed 1 2 substantially but your starting equity as measured by 3 accounting has changed. 4 And that's our -- I'll hand it over to 5 Grant to just summarize. 6 MR. GRANT MINER: Okay. So we've --7 we've given you an overview of Aviva as a company, both 8 worldwide, Canada and some greater insight hopefully into 9 what our presence is in the Alberta marketplace. Covered 10 off the -- the -- the ROE models that -- that are -- that 11 we've put on the table for -- for review. 12 I -- I guess I just would like to 13 reemphasize is that we do need a competitive ROE and 14 whereas it's -- it's fairly fixed for planning purposes 15 we know that -- that we have to constantly compete for 16 capital within our parent company and our parent company 17 competes on the marketplace. 18 Perhaps the other comment I'll make is 19 we've reviewed the IBC presentation as well, and not to 20 bring in another entity's presentation in any great 21 depth, but we see a lot of similarities in -- in thinking 22 and consistency as opposed to it being, you know, 23 incongruent between what Aviva as a company is putting 24 forward for your consideration versus IBC and I think 25 that their presentation, our opinion is that it properly

1 reflects the industry as a whole. 2 So that concludes our -- the formal part 3 of our presentation and I'd like to thank the Board for 4 the opportunity for Chris and I to present and we can 5 certainly entertain some questions at this point. 6 THE CHAIRPERSON: Thank you. Questions 7 on this end of the table. Go ahead, Merle's up. 8 9 OUESTIONS BY BOARD: 10 MS. MERLE TAYLOR: Sorry, you may have 11 explained this but I just needed a little help with it. Your table about the three (3) sources of return to the 12 13 insurance company, you've got a break down by all the 14 different factors --15 MR. GRANT MINER: Sure. 16 MS. MERLE TAYLOR: -- so do I understand 17 your basic only, that's TPL and accident benefits, right? 18 MR. GRANT MINER: Right. Right. 19 MS. MERLE TAYLOR: And so your difference 20 in your UU which is your underwriting profit, is -- does 21 that reflect that Aviva views that slice as being greater 22 risk and requiring a greater return or have I 23 misunderstood that? 24 No, the -- the --MR. CHRIS TOWNSEND: 25 the return that we're looking at there is the same, 15.6

1 percent on the top line there, okay.

2 MS. MERLE TAYLOR: Yeah. 3 MR. CHRIS TOWNSEND: The key number that 4 changes the underwriting result -- the underwriting 5 profit, if you will, is what falls out of the rest of the 6 equation because you pretty well know how long you're 7 going to be, on average, investing your money. 8 You've made an estimate of the interest 9 you're going to earn on that and the interest you're 10 going to earn on your -- invest in your capital and so 11 the -- the key thing that is -- is how much capital then 12 do you need to support that, okay? 13 And the -- the basic lines are more risky. 14 There is a much longer -- much more uncertainty in terms 15 of outcomes of court cases. You know, in the reforms 16 that have happened countrywide there's the potential for 17 constitutional challenges. The longer payment period 18 gives you more risk that inflation will increase awards 19 in an unanticipated manner. 20 So you need to have more capital set 21 aside. Again, because you want to be able to pay 22 policyholders even if things go badly. 23 MS. MERLE TAYLOR: Okay. Thank you. 24 MR. CHRIS TOWNSEND: And that would be 25 consistent with also the -- the viewpoint of the

1 regulator. They would be looking for more capital on 2 these lines of business supporting this. 3 MS. MERLE TAYLOR: Okay. And so the all 4 covers would include collision but also property? 5 MR .CHRIS TOWNSEND: This is just for 6 automobile. So it's -- it's --7 MS. MERLE TAYLOR: Just automobile. 8 MR. CHRIS TOWNSEND: -- it's the 9 collision, the comprehensive, first party physical 10 damage. 11 MS. MERLE TAYLOR: Right. Okay. Thank 12 you. That answers the question. 13 THE CHAIRPERSON: Ted...? 14 Just to begin, just to MR. TED ZUBULAKE: 15 pick up on this, so on that same exhibit, the basic only 16 column just -- maybe I missed it but what are these 17 numbers translate into in terms of a underwriting profit 18 margin? MR. CHRIS TOWNSEND: So that's the UU 19 20 numbers so. 21 MR. TED ZUBULAKE: That's the five (5), 22 I'm sorry. 23 MR. CHRIS TOWNSEND: So once -- so on all 24 covers is about 1.98 percent and for -- for the basic 25 coverage only a little bit over 5 percent.

1 MR. TED ZUBULAKE: Okay. Just help us 2 understand here, is that 5.34 percent a apples and apples 3 comparison to the 5 percent that the Board is using now, 4 the industry-wide adjustment? 5 MR. CHRIS TOWNSEND: It is. Yes. 6 MR. TED ZUBULAKE: So, essentially the 7 numbers are very close so are you suggesting then based 8 on the assumptions you have here the Board -- the Board's 9 current 5 percent converts to a 15.6 percent return on 10 equity for Aviva? 11 MR. CHRIS TOWNSEND: With the other assumptions we've -- we've -- we've built in 12 13 I mean, one (1) key difference in terms of here, yes. 14 looking at the rest of the industry would be perhaps how 15 you invest your capital. 16 MR. TED ZUBULAKE: Okay. 17 MR. CHRIS TOWNSEND: If you were to 18 invest that capital more conservatively than Aviva does, 19 and that may be one (1) of the reasons why Aviva has a 20 higher beta. You know, question mark --21 MR. TED ZUBULAKE: Right. 22 MR. CHRIS TOWNSEND: -- I don't know, but 23 if you were to invest it more conservatively then it 24 would translate into a different return on capital. If you had different, sort of, risk 25

profile in terms of the amount of capital you were 1 2 required by the regulator to hold and could use a 3 different premium surp. equity ratio than 1.3, again, it would come up with a different number. 4 5 MR. TED ZUBULAKE: Okay. So this is important so forgive me if I'm --6 7 MR. CHRIS TOWNSEND: Yeah. I've got to ask these 8 MR. TED ZUBULAKE: 9 questions because this is key. 10 I'm sure you're aware that others -- I 11 mean, Mercer, my firm, when asked the question a year or so ago with the first industry-wide adjustment, what is 12 13 the 5 percent underwriting profit margin that the Board 14 is using convert into in terms of return on equity? 15 And based on assumptions that we made, 16 including a two (2) to one (1) premium surplus ratio assumptions and more leverage than what you have here, I 17 think we came out with a number somewhere around 10 18 19 percent. 20 MR. CHRIS TOWNSEND: The -- the leverage 21 number is a -- is a -- is a key difference. 22 But -- but -- had we MR. TED ZUBULAKE: 23 used a one point three (1.3) leverage we would have 24 gotten a much lower number not -- not a higher number. 25 So, my question is, we were -- other -- yes.

1 MR. CHRIS TOWNSEND: Okay. 2 MR. TED ZUBULAKE: Others, I will be 3 speaking on this afternoon and I'll ask them the same 4 question, but the challenge -- our -- our -- our 5 conclusion that the 5 percent converts into some --6 something in the order of 10 percent they were saying was 7 closer to 7 or 8 percent. 8 So I'm trying to understand -- and you're 9 coming at me with 15.6 percent on a number that's very 10 close to the 5 percent, what is driving -- what -- what are we missing here? It can't all be -- the -- the --11 12 the returns you're assuming? 13 MR. CHRIS TOWNSEND: Yeah, I -- I'm not 14 familiar with the -- the specific calculations used --15 submitted last year. 16 MR. TED ZUBULAKE: Right. 17 I believe it was --MR. CHRIS TOWNSEND: I'm just -- I'm just 18 MR. TED ZUBULAKE: 19 very surprised that the 5 percent equates to a 15.6 20 percent when you're using it -- a return on -- I mean, a 21 premium surp. ratio of only one point three (1.3). 22 I -- is that something you could -- rather 23 than take time now, could you just look at that again 24 and --25 Well, I -- we can --MR. CHRIS TOWNSEND:

1 we can verify --2 MR. TED ZUBULAKE: Just --3 MR. CHRIS TOWNSEND: -- the mathematics--4 MR. TED ZUBULAKE: Well, maybe you could 5 help -- maybe offline we can figure why we're so 6 different in kind of the basic calculation? 7 MR. CHRIS TOWNSEND: Okav. 8 MR. TED ZUBULAKE: Now, the 15.6 percent 9 that Aviva set, is that -- does that vary by company 10 within your group? 11 MR. CHRIS TOWNSEND: That -- that's a 12 number that's set for Aviva Canada as a whole. 13 MR. TED ZUBULAKE: Okay. And do you 14 imagine the -- the capital of the company -- companies 15 vary that target? 16 MR. CHRIS TOWNSEND: Not yet. 17 MR. TED ZUBULAKE: Okay. 18 MR. CHRIS TOWNSEND: It's something we 19 may consider going forward but not yet. 20 MR. TED ZUBULAKE: And you showed us 21 earlier how the -- the basic cap -- the application, I'll 22 quote, "a basic CAPM" arrive -- you arrive at a -- a 23 target, cost of capital of about 10.1 percent and then --24 but then after making some adjustments, you arrive at a 25 13.3 percent number.

1 Can you explain a little bit more? What 2 adjustments, 'cause again, this is important, what 3 adjustments did you make that recognize -- in addressing 4 some of the shortcomings you find in the CAPM? 5 How did you get it from ten (10) to 6 thirteen (13) --7 MR. CHRIS TOWNSEND: So -- so the two (2) 8 key adjustments we made --9 MR. TED ZUBULAKE: Yes --10 MR. CHRIS TOWNSEND: -- is this number 11 right here in terms of recognizing that Aviva Canada, you know, in terms of a scale type of thing, is a smaller 12 13 company. 14 MR. TED ZUBULAKE: Okay. 15 MR. CHRIS TOWNSEND: You know, again, 16 from an economist's point of view, certainly our parent 17 company is raising the capital. 18 MR. TED ZUBULAKE: Yes. 19 MR. CHRIS TOWNSEND: But, you know, 20 there's a -- there's a question, I guess, that's sort of 21 from a businessman's point of view, is if they're 22 actually going to put it in Canada, should they actually 23 expect a lower return than on a, say a Canadian company 24 that goes and raises the company itself? 25 I think certainly the view of our

shareholders is they would expect to get the same return 1 2 that a stand alone Canadian entity would get, okay? 3 So, that represents an increase in the 4 cost of capital for a smaller company with more risk, 5 more variability. And how did you get 6 MR. TED ZUBULAKE: 7 one point two two (1.22)? Is there some --8 MR. CHRIS TOWNSEND: I -- I looked the 9 number up in Ibbotson. There's Appendix Chapter 7 into 10 their -- their annual reports that goes through an 11 analysis of a number of issues in CAPM including things like the January effect and things like that. 12 13 And it comes up with numbers that 14 historically have been appropriate. They're actually US 15 numbers, but I don't believe they'd be that significantly 16 different from Canada. 17 MR. TED ZUBULAKE: So we can -- the Board can find that number in the -- in Ibbotson --18 19 MR. CHRIS TOWNSEND: Yeah --20 MR. TED ZUBULAKE: -- Ibbotson report? 21 MR. CHRIS TOWNSEND: Yeah. I have a copy 22 of the Appendix that I'm --23 MR. TED ZUBULAKE: Oh --24 MR. CHRIS TOWNSEND: That I can provide 25 to you.

1 MR. TED ZUBULAKE: Okay. Okay, we'll 2 look at that, thank you. And then, okay... 3 MR. CHRIS TOWNSEND: And then the --4 sorry. 5 MR. TED ZUBULAKE: Yes. Oh, sorry, I 6 interrupted you. 7 I'm just -- just --MR. CHRIS TOWNSEND: 8 just writing that down. And the other -- the other point 9 there then is -- is here we've used six point seven five 10 (6.75)11 MR. TED ZUBULAKE: Right. 12 MR. CHRIS TOWNSEND: In terms of an 13 estimate of -- of really the -- the Canadian market risk 14 premium, if you will. The return the Canadian market 15 would be expecting to get over and above the risk free 16 rate of return, okay? 17 And -- and that is an argument that is, 18 you know, fairly protracted from an academic point of 19 view in Kathleen McShane's Appendix but she is looking at 20 historic returns in the Canadian market and trying to 21 adjust for concerns about, say, mixes, different changes 22 in mix of the -- the index itself, adjusting for betas 23 that, when you do the analysis may not come up with an 24 answer that is actually consistent with the CAPM theory 25 in the first place.

1 And so that's all built in to coming up 2 with that six point seven five (6.75). 3 I believe the range she actually has in 4 the paper, six point two five (6.25) to seven point two 5 five (7.25), so I picked the mid point here. MR. TED ZUBULAKE: 6 Okay. 7 Ted, I'd just like --MR. GRANT MINER: 8 MR. TED ZUBULAKE: Yes. 9 MR. GRANT MINER: -- to come back to you. 10 First question, and this may -- I'm not an economist or financial expert, but -- but I believe our fifteen point 11 six (15.6) is actual ROCE --12 13 Sorry, is what? MR. TED ZUBULAKE: 14 MR. GRANT MINER: ROCE, Return on Capital 15 Employed as opposed to ROE, is that not the case? 16 MR. CHRIS TOWNSEND: Yes, again, for --17 for internal measurement you've got to take these theoretical numbers from the market and -- and come up 18 19 with a formula that actually -- you're going to measure 20 management against, 'cause if you don't set the formula 21 beforehand, management has this tendency to come up with 22 the exposante (phonetic) answer that's most beneficial to 23 them. So --24 So, you know --MR. GRANT MINER:

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MR. GRANT MINER: So it's a bit -- a bit

25

of a moot point but it may be -- we'll include it back in 1 2 the answer to your -- to the question that you asked, is 3 it take away. I just thought I'd point it out as -because it is a slight difference. 4 5 MR. TED ZUBULAKE: Before I get to the --6 I'll come back to that in a moment. 7 Chris, do you -- you select under the 8 basic the same exhibit, a one point three (1.3), I guess 9 premium sir -- leverage ratio for the basic coverage --10 MR. CHRIS TOWNSEND: Yeah. 11 MR. TED ZUBULAKE: That is based on what 12 -- how do you arrive at that factor? 13 MR. CHRIS TOWNSEND: That -- that is --14 basically at this stage it is based on a judgment, okay? 15 One (1) of my objectives over the next year is to take 16 our risk base capital work and push it farther down into 17 our actual pricing. 18 MR. TED ZUBULAKE: Yes. 19 MR. CHRIS TOWNSEND: But it's absolutely clear that, as I say, most of the risk that we have in 20 21 terms of variability in the results from automobile 22 insurance come from the basic coverage --23 MR. TED ZUBULAKE: So --24 MR. CHRIS TOWNSEND: -- so we should put 25 most of the capital there.

1 MR. TED ZUBULAKE: So for all coverages 2 you selected two (2) which is a bit of a traditional rule 3 of thumb, I don't know if that's why you picked it, but 4 this -- and then you say, well, for the basic coverages 5 should be a little less than that, because it's more 6 risky, maybe --7 MR. CHRIS TOWNSEND: Yeah. 8 MR. TED ZUBULAKE: -- because the 9 physical damage coverage is higher. 10 MR. CHRIS TOWNSEND: Yeah. 11 MR. TED ZUBULAKE: How does the two (2) 12 of this -- your starting point, then, relate to, we heard 13 earlier about the minimum asset test. 14 How does that relate to the OSFI 15 requirements of Aviva --16 MR. CHRIS TOWNSEND: Yeah --17 Do they --MR. TED ZUBULAKE: 18 MR. CHRIS TOWNSEND: Again, the initial 19 work that I've done in pushing through that, I believe 20 OSFI requirements are -- the actual capital we seem to 21 have ended up holding is, certainly in our opinion, 22 higher than we need from a risk point of view. 23 And probably comes out to be slighter 24 higher than this, so we probably are, you know, towards 25 the one point nine (1.9) as opposed to two (2) as a

1 company as a whole. 2 MR. TED ZUBULAKE: Okay. 3 MR. CHRIS TOWNSEND: The numbers we had 4 as a group at the end of last year were in the order of 5 1.7 billion of capital compared to about 3 billion of 6 premium. 7 MR. TED ZUBULAKE: Okay. Now, thank you, 8 now you certainly understand the Alberta rate situation, 9 the mechanism, the system that's in place here with the 10 industry-wide adjustment? 11 MR. CHRIS TOWNSEND: Right. 12 MR. TED ZUBULAKE: Do you have any 13 suggestions or recommendations, anything to offer to the 14 Board on how -- I mean, what you presented was a Aviva 15 specific target return on equity that your company tries 16 to achieve --17 MR. CHRIS TOWNSEND: Right. 18 MR. TED ZUBULAKE: Any suggestions to the 19 Board on how to select a proper provision or a target 20 return for purposes of the industry-wide adjustment, one 21 (1) single number that's -- that can be applied to 22 basically all companies in the province? 23 MR. CHRIS TOWNSEND: Well, again I think 24 I come back to Grant's point and I think we -- we support 25 the industry position is that the -- the Board has within

its authority, it should be setting a ceiling to protect 1 2 the consumers and we should be allowing competition to 3 work under that as much as possible. 4 If the in -- if the Board -- and, you 5 know, it's -- sorry, it's consideration of, you know, not 6 just that number but, you know, that sort of number and 7 the investment thing altogether that go into coming up 8 with that underwriting margin. 9 MR. TED ZUBULAKE: Right. 10 MR. CHRIS TOWNSEND: And depending on 11 where you go in terms of return on equity and -- and setting some of the other parameters, you know, if the 12 13 Board was just say, for instance, to agree that 17 14 percent was an adequate and appropriate ceiling on return 15 on equity, we would not be coming in on our next filing 16 and saying, we're changing that number from fifteen point 17 six (15.6) to seventeen (17). 18 We would still be making our rates based 19 on 15.6 percent. 20 So, okay, by ceiling -MR. TED ZUBULAKE: 21 - so we're clear, you're suggest -- your suggestion is the Board to pick a high, a maximum or relatively high 22 23 profit margin or target return so that competition can

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24 work beneath that --

25 MR. CHRIS TOWNSEND: Right.

1 MR. TED ZUBULAKE: Norma Nielson's point. 2 I guess I can see his point. 3 And, okay, in terms of the issue of --4 does the Board need to set a, or even deal with, target 5 returns? 6 Right now, the Board, as you know, selects a profit model, the 5 percent. 7 8 Do you see any problems with the Board 9 continuing down that path, just -- not dealing with 10 return on equities but instead just dealing -- just 11 selecting a -- a -- a profit margin of 5 percent or whatever that number is and -- and not dealing with 12 13 return on capital or how much capital companies keep in 14 relation to the premium? 15 The only concern we MR. CHRIS TOWNSEND: 16 would -- we would have on that is and we just, as a for instance, that number there is fairly close to the 17 18 current 5 percent as you pointed out, okay? 19 So, you know, would -- would we be too 20 upset right now in the current economic environment, 21 current risk environment with a 5 percent? Not 22 necessarily, okay. 23 But if some of the economic variables 24 change, you know, if we're end up with a lower interest 25 rate environment which is forecast by some in terms of,

1 you know, slow down in the economy coming from the US and 2 coming over into Canada would result in lower interest 3 rates then, you know, to get that same 15.6 percent, 4 we're not going to get as much from investing either of 5 those two (2) things; we need to get it back from a 6 higher underwriting margin. 7 MR. TED ZUBULAKE: Well --MR. CHRIS TOWNSEND: So, so I think 8 9 that's the danger --10 MR. TED ZUBULAKE: Right. MR. CHRIS TOWNSEND: -- of setting it 11 that way is -- is that may be a practical solution but 12 13 you can't sort of ignore it in your sort of annual review 14 what --15 MR. TED ZUBULAKE: Okay. 16 MR. CHRIS TOWNSEND: -- the current economic environment is. 17 18 MR. TED ZUBULAKE: Now, you seem to be 19 suggesting though then at least in Aviva's case that 20 fifteen point six (15.6) is a kind of a fixed target 21 regardless of the economic conditions or -- or does that 22 number itself vary as interest rates rise and fall? 23 The only -- the only MR. CHRIS TOWNSEND: 24 thing that that varies for in terms of the -- our

25 publicly set targets is the anticipated inflation rate,

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1
    because we've set our number as a -- certainly globally
 2
    as --
 3
                    MR. TED ZUBULAKE:
                                        Yeah.
 4
                    MR. CHRIS TOWNSEND: -- a -- as 10
 5
    percent net real.
 6
                    MR. TED ZUBULAKE:
                                        Okay.
 7
                    MR. CHRIS TOWNSEND:
                                          So that now --
 8
     inflation forecasts have been relatively stable over the
 9
     last few years, so we haven't seen any substantial
10
     changes in that.
11
                    MR. GRANT MINER: If I could add one (1)
12
    more comment --
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                    MR. TED ZUBULAKE:
                                       Yes.
14
                    MR. GRANT MINER: -- 'cause you had
15
    mentioned it earlier and that -- you were talking about
16
    the insurance cycles?
                    MR. TED ZUBULAKE:
17
                                       Yes.
18
                    MR. GRANT MINER:
                                       The challenge that we
19
    have is to perform at this level, in theory, no matter
20
    what the cycle is and so that's -- that's a very
21
     significant challenge for us as an organization and that
22
     is to provide, where possible, some levelling in
23
     shareholder expectation on a go-forward basis.
                    So that -- that's another -- another
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25
     factor when you talk about the insurance cycles.
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MR. TED ZUBULAKE: Last question. Again, 1 2 everything else being equal, were the Board to increase 3 its profit -- the profit provision in the industry-wide 4 rate adjustment that was just announced, the adjustment 5 would be higher, be it a less negative or a positive --6 MR. CHRIS TOWNSEND: Yeah. 7 How did -- how do you MR. TED ZUBULAKE: 8 reconcile that with the -- the fact that rates would be 9 going up when the industry is reporting such huge profits 10 over the last year to -- I mean, how does --11 MR. CHRIS TOWNSEND: Well, I quess 12 there's two (2) points in that. If it is a ceiling, just 13 because the Board has allowed rates to raise -- to rise, 14 it doesn't mean the rates will actually rise. 15 So that would be --16 MR. TED ZUBULAKE: Well --17 MR. CHRIS TOWNSEND: -- from a competitive point of view --18 19 The evidence to date MR. TED ZUBULAKE: 20 suggests that that -- that would be the case. We haven't 21 seen many rate reductions, but anyway. 22 MR. CHRIS TOWNSEND: Well, yeah, I mean, 23 the question is how much. 24 MR. TED ZUBULAKE: Right. 25 MR. CHRIS TOWNSEND: And that becomes

1 into the complicated assessment of what our actual loss 2 costs are. 3 MR. TED ZUBULAKE: Yeah. 4 MR. CHRIS TOWNSEND: And the -- the 5 movement in those loss costs is --6 MR. TED ZUBULAKE: But --7 MR. CHRIS TOWNSEND: -- was -- is going 8 to be a bigger factor --9 MR. TED ZUBULAKE: But the effect is 10 right now -- the industry, at least, at the industry-wide hearings basically we're saying either leave the rates 11 alone or even increase the rates. 12 13 Yet the industry is reporting huge 14 profits. How does -- how do the -- how do you reconcile 15 that to the public? I mean, the fact that on the one (1) 16 hand the industry is saying or is reporting big profits, 17 yet they on the other hand they're saying the rates are 18 inadequate. 19 MR. GRANT MINER: When -- when you are 20 talking about industry reported profits, are you talking 21 Canada-wide or --22 MR. TED ZUBULAKE: Canada --23 -- lines of business MR. GRANT MINER: 24 combined --

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MR. TED ZUBULAKE: Canada-wide, Alberta--

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1 MR. GRANT MINER: -- and yet on the 2 pricing side you're just talking about private passenger 3 auto Alberta? 4 MR. TED ZUBULAKE: I'm just talking about 5 what's in the papers, the --6 MR. GRANT MINER: Well, I think in all 7 fairness you should --8 MR. TED ZUBULAKE: I mean I don't --9 MR. GRANT MINER: -- make sure the 10 relationship is --11 MR. TED ZUBULAKE: Yeah. 12 MR. GRANT MINER: -- there between the 13 two (2) comments. 14 MR. CHRIS TOWNSEND: And the other point 15 is timing, because you're reporting profits on past rates and --16 17 MR. GRANT MINER: Right. MR. CHRIS TOWNSEND: -- if rates had been 18 19 red -- reducing, it takes sort of twelve (12) months for 20 those reduced rates to earn through in the income in 21 reported profits. 22 Yeah. MR. TED ZUBULAKE: So to some 23 extent at least, the big profits that are being reported 24 today and last year are due to favourable over-estimating 25 the reserve -- the claimed costs from prior years, is

1 that --2 MR. GRANT MINER: It's earned premium 3 based on prior rates. We also have -- for example, if we look at current year, we've had favourable weather --4 5 MR. CHRIS TOWNSEND: Absolutely. 6 MR. GRANT MINER: -- compared to, you 7 know, our historic. We haven't -- didn't get zinged with 8 hail. 9 MR. CHRIS TOWNSEND: No floods out here--10 MR. GRANT MINER: Which clearly does 11 affect automobile as well. 12 THE CHAIRPERSON: Ted, I have to move 13 them along here now. 14 MR. GRANT MINER: Yeah. And --15 THE CHAIRPERSON: Another hearing. Are 16 there any -- yes, go ahead. 17 MR. LEWIS KLAR: Yeah, thank you. 18 MR. GRANT MINER: Oh, okay. 19 MR. LEWIS KLAR: I'd like to, kind of, just briefly, because we're in a time crunch, look at 25, 20 21 your slide 25. 22 MR. GRANT MINER: Okay. 23 MR. LEWIS KLAR: Now, that's the ROE --24 MR. GRANT MINER: Yeah. 25 MR. LEWIS KLAR: -- target fifteen point

six (15.6) on the ROE. Now, I just want to see if I 1 2 understand this correctly. So this -- this box here 3 indicates your actual ROE from the years 2001 to 2005? 4 MR. GRANT MINER: Yeah. 5 MR. LEWIS KLAR: And now I have a few questions about you -- so you went down to a low of two 6 7 (2) point something percent, 2000 -- in 2002 and then 8 jumped up in a period of one (1) year to over -- about 15 9 percent. 10 So I have a few quest -- let me just give 11 you the three (3) questions. So -- the first -- the 12 first question being: What would explain -- how do you 13 explain that, the enormous increase in that one (1) year 14 period? 15 Secondly, since it's continued to go up, 16 not at that rate, but it's continued to go up since 2003 17 and you're now over your target ROE according -according to the mid-2005's, so my second question would 18 19 Is -- is it your -- your -- a feeling or knowledge be: 20 that it's actually continued to go up since mid-2005, so 21 that it's even higher now and that it's a trend that you 22 think will continue? 23 And the third question is: How do you react, is this something that really, Ted touched on it -24 25 - how do you react when you're over your 15.6 percent?

You said -- you stated that 15.6 percent no matter talk. what. So, have you lowered premiums since you've hit and exceeded your target or have your premiums basically stayed the same? Have you reacted to that -- to that over the target ROE? MR. GRANT MINER: Okay. I don't remember all the questions you asked, but I'll start with the last one. MR. LEWIS KLAR: Okay, yeah. MR. GRANT MINER: Have we lowered rates--MR. LEWIS KLAR: Well --MR. GRANT MINER: -- is the question. MR. LEWIS KLAR: -- have you lowered your premiums because you're now over and above your target of 15.6 percent which you said is basically want that to be the sam, come hell or high water. MR. GRANT MINER: Okay, Mr. Chair, I'll keep comments very brief. Have we lowered rates?

You suggest that you did in your talk --

Do you lower premiums?

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25 MR. GRANT MINER: Yes, we have. Some of

Yes.

MR. LEWIS KLAR:

that is through regulatory. And we're talking Canada-1 2 wide here so there is regulatory changes as well as 3 competitive conditions. And on the other lines of 4 business which include commercial, clearly there has been 5 a softening in the marketplace so that those rates have 6 been coming down. The impact, as it works its way to the 7 8 financials will be felt in future years as opposed to --9 as opposed to current year. 10 MR. LEWIS KLAR: So -- so you do keep 11 them -- so you just -- your rates are -- your premiums are sensitive to this 15.6 percent. 12 13 If the -- is higher than 15.6 percent, you 14 therefore adjust your premiums accordingly? 15 MR. GRANT MINER: We know that the 16 marketplace, because we're talking about the competition, 17 say in this case, below a premium cap, that the 18 marketplace will require us to -- to be competitive and 19 to give some of that rate back to the consumer. 20 MR. LEWIS KLAR: Well -- and following 21 from Ted that hasn't happened. Can you also explain this 22 -- and the second question is: Is this -- is this 23 increasing? Is this trend line increasing upwards from 24 mid-2005 to, I guess we're now almost near the end of 25 2006?

1 Okay. Right now our MR. GRANT MINER: 2 profitability is in '05 -- sorry, in '06. Canada-wide 3 is similar to what it is in '05. 4 MR. LEWIS KLAR: So it's about -- you 5 would be about 17 percent ROE there? 6 MR. GRANT MINER: Depends on business 7 unit and -- and also which part of the country you're in. 8 MR. LEWIS KLAR: Okay. My third 9 question. 10 And How do you -- what is the reason for 11 that huge drop in that one (1) year period? 12 MR. GRANT MINER: That's actually before 13 I started with the Company. I'm not quite sure. 14 Is it Pilot? 15 MR. TED ZUBULAKE: You're going to take 16 credit for that --17 MR. GRANT MINER: Yeah, I wish I could. 18 Yeah, certainly -- certainly, the numbers in 2001 and 2002 do reflect the sort of realization of 19 20 some of those risks I was talking about in terms of 21 adverse loss reserve development. And that was 22 definitely in the 2001 numbers and it would be in the 23 2002 numbers in respect of Pilot insurance as well. 24 And, in addition, rates were rising at the 25 time but, most notably I think in the -- sort of the

1 commercial unregulated market, there was some significant 2 price increases that were going through at that time. 3 MR. LEWIS KLAR: Okay. Thank you. 4 THE CHAIRPERSON: Gentlemen -- okay. 5 MR. LEWIS KLAR: I know you're late, Mr. Chair. Maybe we'll have a shorter lunch. 6 7 THE CHAIRPERSON: Thank you. 8 MR. DENNIS GARTNER: Is the Alberta auto 9 insurance market as competitive as other jurisdictions in 10 this country? 11 MR. GRANT MINER: You may be more 12 familiar with -- before I jump in. 13 MR. CHRIS TOWNSEND: I think it's 14 competitive. Is it as competitive? I would suggest that 15 probably Quebec is the most competitive because companies 16 can change their rates very quickly for very small segments of their book of business there. It's probably 17 18 the most competitive. 19 And there's probably a few additional 20 companies in Ontario that are not in Alberta so it's 21 probably slightly more competitive, but probably not 22 substantially. 23 MR. DENNIS GARTNER: Okav. The --24 there's been a lot of consolidation in the general 25 insurance industry in -- in this country and I believe

1 about four (4) -- four (4) or five (5) of the largest 2 writers in this province now write approximately 50 3 percent of the business. 4 Is that a concern? 5 MR. GRANT MINER: I think it's -- I think 6 there's in the top ten (10) write about 60 percent. I 7 think the top few write about probably in the 30 to 35 8 percent range. We're you talking private passenger auto 9 Alberta? 10 MR. DENNIS GARTNER: Do we have those 11 figures? 12 MR. BILL MOORE: Yeah. Based on the CI 13 data of the top four (4) companies, based on written 14 premiums in Alberta, do write 49 percent of the market. 15 MR. GRANT MINER: For which lines of 16 business? 17 MR. BILL MOORE: If you throw you guys in, it's fifty-five (55). 18 19 MR. GRANT MINER: For which lines of 20 business, though? 21 MR. BILL MOORE: Everything. 22 MR. GRANT MINER: Everything? 23 MR. BILL MOORE: All of the auto. Just -- but just auto. 24 25 MR. GRANT MINER: Just auto? Okay.

1	MR. BILL MOORE: Yeah.
2	MR. GRANT MINER: So, Dennis, your
3	question is, is that a concern?
4	MR. DENNIS GARTNER: Yes, is well, is
5	that concentration in consolidation going to affect the
6	competitive competitiveness of the market in a
7	negative way and consumers in a negative way?
8	MR. GRANT MINER: I still think we have
9	over sixty (60) sixty (60) markets that are writing
10	business in Alberta, and even though there may be a
11	greater market share in those top companies, it just
12	means I think we're going to compete that much harder for
13	the consumers' dollar, as opposed to less.
14	It is if you're thinking we're edging
15	towards a oligopoly, absolutely not. I don't see that
16	that's that's the future for Albertans. It's going to
17	be very competitive market place as long as we're allowed
18	to compete.
19	MR. DENNIS GARTNER: How would you define
20	a oligopoly
21	MR. GRANT MINER: Well, instead of sixty
22	(60) you have two (2) for example, which that is not
23	that is not where we're that is not our current state
24	and I don't envision that that's where we're at.
25	MR. LEWIS KLAR: Okay, thank you.

1	MR. GRANT MINER: Okay.
2	THE CHAIRPERSON: Thank you, gentlemen.
3	We appreciate your presentation. And, as you know, we're
4	be down the road and I'm not trying to rush you off,
5	but I got one (1) more hearing this morning to get in
6	here.
7	MR. GRANT MINER: Thank you very much.
8	THE CHAIRPERSON: So, Peace Hills, you're
9	up.
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11	(BRIEF PAUSE)
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13	THE CHAIRPERSON: All right. Diane,
14	would you begin.
15	
16	PRESENTATION BY PEACE HILLS INSURANCE:
17	MS. DIANE BRICKNER: Good, thank you very
18	much. I'd just like to introduce myself. I think I've
19	met most everyone. I'm Diane Brickner, President and CEO
20	of Peace Hills Insurance.
21	On my right, we have Marvin Yellowbird.
22	Marvin is the Chairman of the Board of Directors of Peace
23	Hills Insurance and he's also on the Board of Peace Hills
24	Trust and he's on council for the Sampson Cree Nation.
25	THE CHAIRPERSON: He's your boss, is he?

1 MS. DIANE BRICKNER: He's my boss. 2 THE CHAIRPERSON: He's got a lot of 3 problems. 4 MS. DIANE BRICKNER: That's right. Ι 5 think it just emphasises the seriousness of this 6 presentation to our company and -- and so, and the 7 commitment also that our shareholders have to Peace Hills 8 Insurance. 9 On my left, you've all met Jamie Hotte. 10 Jamie's our vice-president of marketing and underwriting 11 for Peace Hills Insurance. Peace Hills Insurance will be celebrating 12 13 our 25th anniversary in 2007 and so we're in our 24th 14 year of business; started in 1982. 15 We're committed to the -- serving the 16 community and we feel that that's best met by cons -- or 17 providing our product through the independent insurance brokers. So a 100 percent of our business is distributed 18 19 through the independent insurance broker. 20 And -- and a lot of our product over the 21 last number of years has been sold through the rural 22 parts of -- we -- we -- a number of years ago we 23 increased our emphasis on rural Alberta. 24 So, our brokers are spread throughout the 25 small communities as well as Edmonton and Calgary.

1 Peace Hills is located -- we have our head 2 office located in Edmonton and we have a branch office 3 here in Calgary. And in 2000 we opened an office in 4 Vancouver. 5 We have just over a hundred and fifty 6 (150) employees that serve about three hundred (300), 7 just over three hundred (300) independent insurance 8 brokers in British Columbia, Alberta, Saskatchewan, 9 Manitoba, the Northwest Territories, Nunavut and the 10 Yukon. 11 We've built our company on the philosophy 12 of flexibility and approachability and -- and we've 13 really focussed on that. 14 We've dedicated -- we're dedicated to 15 providing our customers with the best possible service 16 that we can. And -- and that doesn't just go towards our broker and our product and our price, it goes right 17 18 through the organization into our claims. 19 Our corporate philosophy is to treat 20 everyone fairly in everything that we do. 21 The company, as I said, started in 1981 22 when the Sampson Cree Nation purchased a dormant charter 23 from the Edmonton Canadian Insurance Company and we set 24 up a new operation and renamed it Peace Hills Insurance. 25 We -- we started writing personal lines

1 business here in Alberta. And since that time the 2 company has expanded to commercial lines and to farm 3 business and we write, as I mentioned, in all jurisdictions west of Ontario. 4 5 We have our head office, as I mentioned, in Edmonton. And -- and our head office also 6 7 accommodates our Northern Alberta branch as well as the 8 underwriting for the rest of Canada which we refer to 9 often as the rock (phonetic). 10 The Alberta auto insurance market 11 generates as we talked just a few minutes ago, pardon me, 12 \$2.5 billon in premium with sixty-nine (69) active 13 writers in the auto market. 14 And the top five (5) companies, and this 15 is what we just were mentioning a minute ago, Dennis was 16 talking about, we believe write approximately 35 percent of the premium. The top ten (10) companies, as you 17 mentioned, write about 48 percent of the premium. 18 19 This makes Alberta one of the least 20 concentrated and the most competitive auto markets in 21 Canada. Peace Hills is the eleventh largest auto writer 22 in the province of Alberta and one of only three (3) auto 23 insurance companies that have their head office here in 24 the province.

Alberta accounts for 99 percent of our

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automobile premiums and it represents 54 percent of our company's total writings. So you can see that the Alberta auto insurance market is a much more significant market to Peace Hills than to any other insurance company.

6 Clearly, any changes that we're -- are 7 made to the auto insurance product or to the pricing has 8 a much greater bottom line impact to Peace Hills than 9 most other insurance companies. We have no other 10 province to take our automobile product to.

Jamie's going to address the review of the profit level, but I just wanted to comment on the Sampson Cree Nation and the fact that they're put their investment into Peace Hills Insurance.

15 They have huge investments in real estate. 16 They have -- own Peace Hills Trust a 100 percent. They 17 also own oil and gas companies and Peace Hills Insurance. So they've deployed their capital and --18 19 and -- and they have investment expectations of between 20 12 1/2 to 14 percent of -- from Peace Hills Insurance. 21 So, it's important for us that we can 22 achieve that. Of course, it's important for management 23 that we can -- that we can report back to our 24 shareholders that our auto product, which is a 25 significant portion of our business, can achieve the --

the return on equity that they're looking for. So with that, I'm going to pass it over to Jamie and he can -- I know you have this package in front of you, so we didn't bring a our slide presentation. MR. JAMIE HOTTE: Thank you. In the package, there's two (2) exhibits and we came today with the idea that you're going to be pummelled with all sorts of data and analysis over the next few days going through this process.

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10 Based on what -- what -- we have seen 11 IBC's proposal and I believe they'll presenting to you this afternoon and -- and in a general sense we're very 12 13 much in concurrence with the general theme of their 14 report. So we very much decided to keep our -- our 15 position certainly specific to Peace Hills and what our 16 needs are in terms of meeting our shareholders' 17 objectives.

So, in your packages there's two (2) exhibits. Exhibit 1 is basically an analysis we've done based on our 2005 data with -- with an outcome of what -what the minimum ROE that our-- our shareholder would expect, which is 12 1/2 percent.

These -- both these exhibits and the process that we went through, we used an expense ratio of 30.3 percent, which is our -- our Peace Hills historical

experience for our company. It is above industry average 1 2 but -- but because we're a smaller company and -- and 3 eluding back to some of Diane's comments, that we are 4 flexible to take more time to underwrite the risks, there 5 is a -- there is a cost attached to that. So -- so that 30.3 percent that we used in 6 7 our analysis is our actual expense ratio as an average, 8 looking historically. 9 We've used the payment patterns as per the 10 historical experience of Peace Hills as well. And that 11 would be out of our 2005 appointed actuary report; a corporate tax rate of 32.1 percent; a risk-free rate of 12 13 return of 3.9 percent for our investment income on the 14 insurance operations, based on an average duration of 15 just less than three (3) years and an average of the 16 current Government of Canada one (1) to three (3) and three (3) year bond rates; and a return on surplus of 5.9 17 18 percent as per Peace Hills investment performance in 19 2005. 20 We've also used a premium to surplus ratio

of one point seven five (1.75), which is in line with the expert testimony presented in similar hearings that were held in New Brunswick, and a loss ratio of 66 percent, which is based on the 2003 to 2005 on level trend and loss ratio for Peace Hills.

1 So with that set of assumptions, Exhibit 2 1, when you run those numbers through, the premium margin 3 comes out at 7.4 percent. 4 So -- so I guess the message we need to 5 send today is we're not adverse to the -- the concept of 6 using a premium margin concept. It's the amount of -- of 7 the actual margin that we're being allowed in order to 8 meet the objectives that we need to meet. 9 Now, certainly the -- the -- the 10 approached used today is simple to use, it's simple to 11 explain, it's simple to understand, and it certainly allows for easy comparison amongst companies regardless 12 13 of how their capital is structured. So, you know, all the presentations you 14 15 will hear over the next number of days certainly will be 16 all over the place because we did weigh our capital in 17 very many different ways. So -- so certainly we do agree with 18 19 conceptually that is probably not a bad approach to take. 20 And -- and our biggest point here is just that we don't 21 feel it's perhaps enough in terms of the outcome of -- of 22 the ROE that -- minimum ROE there are -- there are 23 several we would expect. 24 So on Exhibit 1, with a premium margin of 25 7.4 percent based on the assumptions that -- that we've

2 percent. So just slightly above the minimum that our 3 shareholder expects. 4 Exhibit 2 is the exact same exhibit. And 5 the only difference we do is we -- we replace the 7.4 6 with the 5 percent and that drops the return on equity 7 down to 9.9 percent. So, as you can see, that -- that's 8 falling short of -- of the minimum expectation that our 9 owners put on us. 10 And that's the really the basis of our --11 our presentation. The difficulty is it is a moving 12 target. I think, you know, there was some discussion in 13 the earlier presentation of -- of interest rates 14 changing. There's many things that happen. 15 So, certainly we would support sort of a 16 ceiling or a cap so there's enough room in that margin 17 that -- that, you know, we would do the same thing that 18 Aviva's plans would be, is we want to be competitive, we 19 want to write business. 20 And so we would support, as opposed to a 21 provision but sort of a cap and -- and so our 22 recommendation would be if you allowed us between 7 1/223 and 8 percent on that premium margin calculation, that 24 would give us a lot more room to remain competitive and 25 more than likely we wouldn't need to take it all, but it

made would provide us with a return on equity of 12.8

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does leave room for any of those things that move in the 1 2 market. 3 And that's our presentation. 4 THE CHAIRPERSON: Thank you. 5 MR. JAMIE HOTTE: Unless --6 THE CHAIRPERSON: Questions. Yes...? 7 8 QUESTIONS BY BOARD: 9 MR. LEWIS KLAR: I appreciate the -- the 10 -- the unique nature of the Company and -- and I think 11 it's a viable company for Alberta because of it. I'd like you to comment on -- on this, 12 13 though. Under the present system we set a -- a rate and 14 then companies can come and seek, you know, exemptions 15 from the reductions. I think Peace Hills has just -- has 16 taken advantage of that. 17 That's correct. MR. JAMIE HOTTE: 18 MR. LEWIS KLAR: And what is wrong with 19 that system, sort of set -- setting up profit or ROE 20 which -- which generally works, but allowing individual 21 companies in unique circumstances such as your own to 22 come and seek an exemption? 23 For example, we heard from Aviva that 24 their target is 15.6 percent, significantly higher than

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25 yours.

1 MR. JAMIE HOTTE: Right. 2 MR. LEWIS KLAR: And as I understood it, 3 although Ted was questioning that it -- at 5.3 percent 4 they were hitting about 15.6 percent -- 15.6 percent. 5 And 7 percent profit margin, they were -- who knows where 6 they'd be. You know, you'd be significantly higher than 7 that. 8 So, that of course will be, you know, I 9 think unreasonable for the consumer if -- if companies 10 were coming -- were taking advantage of that and coming 11 in with these huge ROE's. So what is -- what is wrong with the 12 13 existing system that sets an -- that sets a profit which 14 may not be satisfactory for companies such as yours but 15 is more than satisfactory for other companies, that 16 allowing those companies who have unique circumstances from coming to the Board and seeking exemptions? 17 18 MR. JAMIE HOTTE: You know, probably 19 nothing other than the fact that it is an expensive admin 20 -- administratively and from a time wise. So it's --21 MS. DIANE BRICKNER: We were declined. 22 MR. JAMIE HOTTE: And we were declined --23 MS. DIANE BRICKNER: You turned us down. 24 MR. JAMIE HOTTE: You turned us down, so 25 we didn't take advantage of the process.

1	(BRIEF PAUSE)
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3	MR. LEWIS KLAR: We weren't in this
4	place, but nevertheless, you know the
5	MR. JAMIE HOTTE: But barring that,
6	again, you know, we firmly believe within a ceiling, at
7	least we have to remain competitive and even more so than
8	the large national companies.
9	We are a small regional player. It's
10	critical that we have to stay in the marketplace. And
11	and we just think it's awkward and it's probably costly
12	and less effective every time they to have to go and put
13	forth that argument to to the Board.
14	And so again, our recommendation would be
15	if you give us a little bit of latitude and to more of
16	a ceiling with that margin built in. It still it
17	still allows us to do what we need to do. But there's
18	two (2) things we need to we need to earn that minimum
19	equity, our return on equity, but we also have to remain
20	competitive and grow the company.
21	So we're always on top of of remaining
22	competitive. And, in fact, with the new system, there's
23	a lot of business we use to write on our books now is
24	sitting in the in the pool, and we'd love to have it
25	back if we had a little bit more room to price onto that

1 business. 2 So, if you like -- it's interesting. We -3 - we just talk about it, we just put our budget together 4 and our share -- what we actually process for the risk 5 sharing pool is -- is exceeding \$10 billion. And a lot 6 of that came off our book of business and we used to 7 write that on our own competitively. 8 So -- so we are very unique. And -- and 9 certainly that is an option, you know, to come to the 10 Board and -- and appeal -- appeal it. The difficultly 11 administratively is -- and using even our last appeal as the example, we had to make -- do a makeshift discount so 12 13 we could go through the appeal process. And so by the 14 time we actually we were turned down, many months have 15 passed by 16 So, administratively, it is -- it's a 17 nightmare because of the time, I think, so. 18 THE CHAIRPERSON: Further questions...? 19 20 (BRIEF PAUSE) 21 22 THE CHAIRPERSON: Oh, I'm sorry, Dennis, 23 I didn't see you. 24 MR. DENNIS GARTNER: The same question as 25 I asked -- that I asked to Aviva about the business plan

1 because you're an Alberta company. 2 Since the reforms in your view do you see 3 a difference in the competitiveness of the Alberta 4 market? 5 MS. DIANE BRICKNER: Yeah. We -- we do. 6 MR. JAMIE HOTTE: 7 MS. DIANE BRICKNER: Yeah, that's --8 MR. JAMIE HOTTE: In fact, you know, as I 9 said we just in the last few weeks have been working on 10 our budget and -- and projections and we are expecting --11 we're -- we're seeing all the signs of a very competitive 12 market and we are trying to hold our premiums. We're 13 trying to hold our premiums aside from the mandatory reduction but we're -- we're seeing some pressures. So 14 15 definitely there is competition out there. 16 MR. DENNIS GARTNER: Do you have any view 17 as to why that market is becoming more competitive or --18 or is it just the same as it always was? 19 MS. DIANE BRICKNER: It's profitable. 20 MR. JAMIE HOTTE: It's -- certainly it's 21 profitable. I -- I think if you think back to -- to pre-22 reform and -- and what led up to that and then 2004 23 October and it came and you know there was so much 24 uncertainty I think companies weren't sure what to do and 25 they were just trying to implement the new system and --

1 and we were sidetracked --2 MS. DIANE BRICKNER: Hmm hmm. 3 MR. JAMIE HOTTE: -- with just putting in a new auto system. 4 5 You know, really this system itself, we're 6 okay with the system. It appears to be working. Most of 7 the dust is settling. We're not getting complaints. Our 8 retention has improved and there's lots of many, many 9 positive things we see with the core system. 10 And I think that comfort is, we talked 11 about competitiveness now, to an extent, in our areas. 12 In fact we -- we did apply to the Board and we did 13 actually take some reductions in some certain classes of 14 business and that was effective June. And the Board did 15 approve that. 16 So -- so we do see that competitive cycle 17 starting up again. 18 So would -- does MR. DENNIS GARTNER: that mean we'll -- we'll see reductions in -- in your 19 20 view we'll see reductions in the next year in -- in 21 pricing? MR. DIANE BRICKNER: 22 I think so. 23 MR. JAMIE HOTTE: I --24 MS. DIANE BRICKNER: I think what we are 25 seeing -- sorry, Jamie -- is we're -- we're feeling

pressure from our brokers and from our branch managers and our underwriters to either add more to our -- make -make our product more valuable, add more frills to the product and in some cases to reduce prices in certain areas.

6 And as Jamie mentioned we have reduced 7 prices in some of the, you know, eight (8) star rating, 8 seven (7) star rating business, but definitely the 9 market's softening and that's because as Jamie mentioned 10 there's more certainty and I think we talked about it. 11 Grant and I and Jamie on our way up here as saying we remember sitting in this room a number of 12 13 years ago right in this very spot and -- and you had the 14 flip chart out and we said you know what? When you asked 15 me what I thought of it I said we can -- we can provide 16 anything you give us as long as it's fair. 17 And so, you know, that -- that's all we're

18 asking is because Peace Hills' costs for reinsurance are 19 higher than our competitors, most of our competitors, the 20 larger ones. The cost of us doing business is -- is more 21 expensive for a lot of reasons because we're a small 22 company.

23 You need to make sure that whatever you 24 set is fair for the big ones as well as the small ones 25 because we want to continue to be here for another

1 twenty-five (25) years; not me personally, but... 2 THE CHAIRPERSON: Further questions at 3 this end of the table? 4 MR. DENNIS GARTNER: So just to -- to 5 summarize then we should be expecting if the market is in 6 fact competitive then RWE's are -- if they stay where 7 they are and indications at least what I'm reading is is 8 that they will stay where they are for a little while 9 yet. 10 We should see some -- some price 11 decreases? 12 MS. DIANE BRICKNER: You will see 13 competitiveness in the market, certainly not general. Ι 14 don't think everybody's going to reduce their prices 15 overall but they're going to pick and choose spots where 16 they believe they can be more competitive and as Jamie said, we have a lot of business that we're giving to the 17 risk sharing pool that we -- we did well on and we would 18 like to have that business back but... 19 20 MR. JAMIE HOTTE: And -- and that's 21 probably one (1) of the key things. We don't see the 22 cycle happening as quickly as we might have seen it pre-23 reform and there's a huge concern on the size of the risk

24 sharing pool and -- and that creates a huge uncertainty-25 MS. DIANE BRICKNER: Yes.

1	MR. JAMIE HOTTE: as to, you know,
2	what what's going to happen with that. Now they have
3	made some adjustments downward but it's only a few years
4	old. So that's probably what, you know, normally if
5	if we think historically a competitive cycle, you sort of
6	see it coming and and it happens a lot quicker.
7	Certainly there's that looming, to see
8	what is really the end result, when it's so large? You
9	<pre>know, if if it wasn't that large it wouldn't be such a</pre>
10	big factor but, you know, when you when you look at
11	how big that is, it's well in excess of \$400 million.
12	MR. DENNIS GARTNER: Yes, and and I'm
13	not in a position don't get me wrong, I'm not
14	criticizing the market for not being competitive yes.
15	MR. JAMIE HOTTE: Right. Right.
16	MR. DENNIS GARTNER: In fact if if
17	those ups and downs aren't as quick or aren't as as
18	large, that may be of benefit to consumers.
19	MS. DIANE BRICKNER: To the consumers,
20	yes.
21	MR. DENNIS GARTNER: It's too early to
22	judge. But I quite frankly thought we would be seeing
23	some seeing more price price reductions than
24	than we already than than we've seen so far in
25	Alberta and if they're not there yet but they're coming I

1 think we could live with that. 2 MR. JAMIE HOTTE: And you know we can 3 probably only speak the best for ourselves --4 MR. DENNIS GARTNER: Of course. 5 MR. JAMIE HOTTE: -- and -- and, you 6 know, not only did we -- we look at some of our, you 7 know, sort of typical standard preferred classes or what 8 we used to call our, " paying business" we -- we took 9 some substantial reductions on younger drivers, so not 10 the sixteen (16) year olds but the twenty-one (21), 11 twenty-two (22), twenty-three (23) year olds. 12 You know, we -- we cut our rates by 25 or 13 So we did that and that was effective June 30 percent. 14 so we were very much looking in the market, where can we 15 be competitive and, you know, would certainly be 16 strategies behind -- behind that. 17 So -- so we -- we plan to move. I mean, 18 you know, it is profitable for us. You know, we are --19 we are moving. We're starting to see competition not so 20 much in rates yet but we're seeing added value things 21 that are adding in free coverages. There's one (1) 22 giving Aeroplan points. I mean you're just starting to 23 see --24 MS. DIANE BRICKNER: Exactly. 25 MR. JAMIE HOTTE: -- it pick up. The

1 momentum is picking up.

MS. DIANE BRICKNER: And I think that from a shareholder's standpoint and Marvin can certainly address that if he wants but we have a lot of pressure from our shareholder to grow. I mean the company's done well for a number of years and so they put a lot of pressure on to see significant growth.

8 So to do that, you know, you all -- you 9 all have to know that, like, to -- to grow significantly 10 you have to reduce your price. So we don't have the 11 capital to buy Aviva so we have to do it -- we have to do 12 it.

13THE CHAIRPERSON:Thank you.Ted or14anybody?

15 MR. TED ZUBULAKE: Just quickly. But you 16 would be reducing prices even though the industry-wide adjustment only has a 5 percent revision as opposed to 17 the 7.4 percent that you would like to have? 18 19 MR. JAMIE HOTTE: We would but that's 20 right across the board so fundamentally that does not 21 allow us to be strategically competitive. 22 MR. TED ZUBULAKE: Okay. Thank you. 23 THE CHAIRPERSON: Thank you. Any other 24 questions? Thank you very much for your presentation. 25 MS. DIANE BRICKNER: Thank you.

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1
                    THE CHAIRPERSON: We'll recess now until
 2
    after lunch.
 3
 4
    --- Upon recessing at 11:58 a.m.
 5
     --- Upon resuming at 1:01 p.m.
 6
 7
                    THE CHAIRPERSON: Good afternoon. We've
8
    had a busy morning.
9
                    We're looking forward to your presentation
10
    this afternoon and, Jim, I'm going to call on you to
11
    introduce people.
12
                    I introduced the Board this morning and I
13
    think you know them all --
14
                    MR. JIM RIVAIT: Sure.
15
                    THE CHAIRPERSON: -- so I won't go
16
                    through it
    again and we'll hear your presentation and then the Board
17
    will ask questions for the purpose of clarification if
18
    they so desire and you have our attention for the whole
19
20
    afternoon so --
21
                    MR. JIM RIVAIT: Okay.
22
                    THE CHAIRPERSON: -- you're on.
23
24
    PRESENTATION BY IBC:
25
                    MR. JIM RIVAIT: Well, Thank you very
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much, Mr. Chair, and I'm going to ask that some of the 1 2 people that we brought with us to help me out in their 3 introduction just so I don't foul anything up. 4 I think you know folks from IBC; there's 5 Jane Voll, she's our vice-president of policy and chief 6 economist. Also from IBC is Grant Kelly beside her. 7 He's a director in our Policy Group and we have I think 8 quite an all-star team with us today from various 9 universities and -- and areas of the country with a wide 10 range of experience. 11 So I -- I'm going to ask -- first I'll 12 have Rich Phillips; he's a professor at Georgia State 13 University, then Sharon Tennyson; she's Associate 14 Professor at Cornell, Richard Derrig, he's with Opal 15 Consulting and visiting professor with the Wharton 16 School, University of Pennsylvania, and Richard Gauthier with Price Waterhouse Cooper. 17 So -- so maybe, Richard -- Rich, we can 18 19 start with you just to give the group a little bit of 20 background. 21 DR. RICHARD PHILLIPS: Sure. Good 22 afternoon everyone. My name is Richard Phillips, and as

Jim said I'm from Georgia State University in Atlanta,
Georgia. I'm the Bruce A. Palmer Professor of Risk
Management Insurance and I'm also the chairman of the

1 department at Georgia State.

2 I don't know how familiar you are with our 3 department but we are twenty-seven (27) full-time faculty 4 focussed on risk management and insurance. It makes us 5 the largest risk management insurance academic group I 6 believe in North America and I'm -- I can't vouch for the 7 world but I think it's pretty darn close. We're a very 8 large and dedicated institution. 9 I've been there for thirteen (13) years. 10 I graduated, my PhD from the University of Pennsylvania 11 in 1994 and prior to my Graduate School I'm originally from the State of Minnesota which is also another great 12 13 hockey capital of the world. 14 We enjoyed the Calgary Flames last night 15 so it was fun to come back north and see snow in 16 November. We don't see that very often in Atlanta. And I did my Undergraduate in Mathematics at the University 17 of Minnesota. 18 19 MR. JIM RIVAIT: Sharon. ? 20 DR. SHARON TENNYSON: Hi. I'm Sharon 21 I'm an economist and I'm on the faculty in Tennyson. 22 Public Policy Group at Cornell University. I have a PhD 23 in economics from Northwestern University with a 24 specialization in Industrial organization regulation. So 25 my area of expertise is government regulation of markets.

1 And I have a particular interest in 2 government regulation of insurance markets and I've done 3 a great deal of work on regulation of automobile 4 insurance markets. 5 DR. RICHARD DERRIG: Oh, that's me. My 6 name is Richard Derrig. I'm a mathematician. I trained 7 at Brown University. I'm not an actuary, I always say 8 that, but I lost my way about thirty (30) years ago and studied -- stumbled into insurance. 9 10 I was twenty-seven (27) years at the 11 Automobile Insurers' Bureau of Massachusetts, Workers' Compensation of Massachusetts, and for fifteen (15) years 12 13 at the Insurance Fraud Bureau as the Vice President of 14 Research. 15 Over that time period we've done a lot of 16 research on -- with academics and the industry people on research of financial matters related to pricing and 17 we've collaborated over the years with Wharton 18 culminating with my teaching of the risk management 19 20 course last semester. 21 And then finally I want to tell you that 22 Massachusetts contributed -- Tony Amonte who scored the 23 two (2) goals that won for the Calgary Flames last night. 24 MR. RICHARD GAUTHIER: My turn? Richard 25 Gauthier, a partner at Price Waterhouse Coopers. I am an

actuary. This is positive or negative; I'm not sure yet.
 I'm a Fellow of the Canadian Institute of Actuaries, a
 Fellow of the Casualty Actuarial Society, American
 Academy of Actuaries.

5 I consult to a variety of entities from 6 government entities, regulatory boards, insurance 7 companies. I head a group of fifteen (15) professionals 8 that consult to the actuarial requirement, actuarial 9 field of consulting to basically Vancouver to St. John --10 St. John. I can never figure out which one (1) is in 11 Newfoundland and the -- and in that capacity I've been 12 asked by IBC here to present some views as -- as we move 13 along through this hearing and assist in that.

14 MR. JIM RIVAIT: So as you've seen we have 15 quite a lineup of -- of folks and I hope you can take 16 full advantage and -- and while I'm going to be mindful 17 of the time and as you've seen we've got about ninety 18 (90) slides so we're going to have to move through them. 19 Mr. Chair, if you feel it's appropriate 20 for people to take or for us to take questions as -- as 21 we go along since it is such a long time, I'd be happy to 22 do that. 23 That would be fine, THE CHAIRPERSON:

24 Jim, we direct them through the Chair.

25 MR. RICHARD GAUTHIER: And as -- just for

housekeeping is there a point that you want to take a 1 2 break this afternoon at a particular time or are we going 3 straight through or what would you like? 4 THE CHAIRPERSON: I'm surprised you got 5 all these Yankees across the border the way it's been 6 lately. 7 DR. SHARON TENNYSON: It was difficult. DR. RICHARD DERRIG: 8 They prefer the Red 9 Soxs down there. 10 MR. JIM RIVAIT: Okay. We'll go to the 11 next one. Your -- your request was very specific and 12 13 -- and, you know, you -- you asked some questions and 14 hopefully we can get to all of these questions today. 15 Firstly, an appropriate target ROE level 16 for basic automobile insurance written in Alberta, the appropriate level components of the reconciliation 17 between profits revision, percent of premium in ROE, 18 19 calculation techniques or models to convert target ROE to 20 an appropriate profit provision and the impact of pending 21 changes to financial accounting. 22 So we'll -- we will get to all of those 23 and, you know, we have to talk about these four (4) 24 questions in the context of your mandate so I've taken it 25 directly from the regs. I don't really have to recite it

1	to you, but I'll I'm going to read it in nevertheless:
2	"The mandate of the Board is to set
3	premiums for Basic coverage, monitor
4	premiums for optional coverage and
5	review and approve appropriate rating
6	programs for new insurers entering the
7	Alberta Market. The new Board will
8	annually set the maximum premiums for
9	Basic coverage that all insurers can
10	charge."
11	So I think that's laid out fairly clearly
12	and I'll I'll talk a bit about the P&C industry in
13	Alberta; you've heard a lot of it before.
14	We know in our economy today and how busy
15	things are that insurance sort of underlies all the risk
16	taking that's occurring when when you see the kind of
17	development and building and so on that's occurring in
18	this province. I mean we may be talking about automobile
19	insurance as it relates to this Board but insurance
20	covers all aspects of society.
21	Invested assets in Alberta exceed 5.4
22	billion. Thirteen-thousand (13,000) people work in the
23	Alberta property and casualty insurance industry.
24	Alberta insurers wrote over 4.9 billion in insurance
25	premiums in 2005. Industry paid over 3.15 billion to

1 Albertans in claims and 326 million in taxes and levies 2 was paid to the government. 3 And I mean these are all significant 4 contributions to the Alberta economy but we know a 5 healthy insurance industry is vital to any economy and we 6 want to see a healthy insurance industry in Alberta. 7 So you'll see a couple of themes here that 8 will -- or a few things that we'll be pursuing throughout 9 the afternoon -- competition -- one (1) competition is 10 the best regulator for price and profit. Two (2) -- and 11 we'll have some experience from other jurisdictions that we hope you find applicable and we'll have some specific 12 13 recommendations for you. 14 So what I will do is I'm going to be 15 turning it over to Jane and Sharon Tennyson to talk about 16 the first theme and that's competition. 17 MS. JANE VOLL: Thank you, Jim. Actually 18 Sharon's going to do the heavy lifting on this one and I'm just here for Canadian content and with -- with 19 20 Grant's assistance. 21 What we -- we talk a lot about 22 competition; I'm sure every submission you receive from 23 us since you formed yourselves as a Board has included 24 references to competitive industry and competitive 25 markets and so on.

1 And we thought we should take a few 2 minutes to explore what -- what does that mean for us 3 because when we took some time to think about that 4 ourselves, people have different things in mind when they 5 think about a competitive market and think about what that entails. 6 7 And we thought we would try to establish 8 some common ground in terms of an understanding of what -9 - what it means to have a competitive market to oversee 10 as you do because the -- the recommendations that we 11 would make and -- and the decisions that you are -- are challenged with coming up with rely to a great extent on 12 13 your conception of the market and how it works, so we 14 will take a few minutes. 15 In our view it is very competitive out 16 there in the Alberta auto insurance marketplace right now 17 and competitive markets work for consumers. And now 18 we'll turn it over to Sharon to explore this a little 19 more fully. 20 DR. SHARON TENNYSON: Thank you. So 21 I'm -- I'm going to talk a little bit about what we mean 22 in practice by a competitive marketplace and we will have 23 two (2) main points to emphasize here, the first being 24 that automobile insurance markets generally and Alberta's 25 auto -- auto insurance markets specifically are

1 competitive.

2 And the second point that I want to make 3 is -- is that that is -- that is good news. It's good 4 news for society because competitive markets give 5 producers the incentives to use resources efficiently. 6 It's good news for consumers because 7 competitive markets are the most responsive to consumer 8 needs, desires, demands if you will, and it's good news 9 for regulators because competitive markets can help you 10 achieve the objectives that you would like to achieve in 11 your regulation. But let's -- let's turn a little bit to 12 13 talk about models of competition. So we have here 14 economists' traditional model of a perfectly competitive 15 market, right? 16 So we've got two (2) curves here, the supply curve. The upward-sloping curve there represents 17 the number of units of the good that producers are 18 19 willing to provide in the market at any price and the 20 demand curve, the downward-sloping curve there is 21 representative of the number of units of the good that 22 consumers want to purchase at any price, right? 23 So not surprisingly producers want to sell 24 more when the price is higher and consumers want to 25 purchase less when the price is higher so the curves go

1 the opposite direction. 2 Now, one (1) of the great features of a 3 competitive marketplace, and we see that depicted in the 4 diagram here, is that the market is going to come to a 5 resting point where the quantity that's demanded by 6 consumers is exactly met by the quantity that's supplied 7 by consumers, right? 8 That's the -- represented by the 9 intersection of those two (2) curves here and just for 10 concreteness we're saying that's the quantity of three 11 (3) and a price of three (3); that that's just a - a12 general representation. 13 What happens in these -- in this perfectly 14 competitive marketplace is that all consumers will pay 15 the same price for the product and the price that 16 consumers pay is just equal to the cost of bringing the last unit of that product to the marketplace. 17 Another feature of competitive markets is 18 19 that if consumer demand for the product changes, supply 20 will respond to those changes in consumer demands. 21 So why am -- why am I showing you this 22 diagram? There's not going to be a test later. Why --23 why I'm showing this diagram is I think this is whether 24 explicitly or not the model that most of us have in mind 25 when we hear the word, "competition". This is a

1 traditional model of perfect competition that's put out 2 there by economic theory. 3 What I want to emphasize is that this is a 4 model. It's a construct. It's a simplification. This 5 doesn't represent any actual market anywhere in the world 6 and certainly when I say to you that automobile insurance 7 markets are competitive, this -- this is not the 8 representation that I have in mind. I have a much more 9 complex view that takes into account the realities of a 10 marketplace. 11 So for a long time since at least the 1930's or 1940s economists have recognized that this 12 13 model rests on a number of critical assumptions that make 14 its applicability in real world contexts a little bit 15 unrealistic. 16 So the model that we put up there rests on assumptions that everyone has perfect information so 17 consumers and suppliers know all prices and all the 18 19 locations of goods and services without even having to 20 make any effort to know those things. 21 A second assumption is that there's one 22 (1) identical cost of goods sold for all suppliers; all 23 suppliers have the same cost curve. 24 And a third assumption is that the market 25 is filled with just a single product, that all products

put out by all producers are exactly identical. 1 2 And these are clearly a little unrealistic 3 when you look at markets. And what's come under criticism over the years of this model of perfect 4 5 competition from economists is primarily this third 6 assumption that there's one (1) uniform product. 7 At least since the 1930's, and in fact 8 Edward Chamberlain received the Nobel Prize for 9 developing this more realistic view of what we mean by 10 competition markets, at least since that time it's been 11 recognized first of all that it's impossible as a -- as a 12 matter of fact for all products to be identical. Even if 13 they appear on their face to be identical they probably 14 differ in some degree of quality, or if not quality, 15 location or time or some services attached with them. 16 So to sort of think of all products in a 17 marketplace being identical is unrealistic but 18 Chamberlain's main point and where we go from there is 19 that this is -- this is not even a desirable thing, 20 right? 21 What this assumption of uniform products 22 does is it ignores the fact that consumers have different 23 tastes and in fact consumers may have a preference for 24 variety of products in markets. It's beneficial to

25 consumers to have some choice in -- at least in a small

1 way of what they're consuming.

So I don't want to buy the same suit as you necessarily or I don't want -- Richard doesn't want to buy exactly the same necktie as someone else, right? So there's some benefit to consumers of having product variety in the marketplace.

7 And what Chamberlain developed into --8 into this theory of competition with differentiated 9 products is the idea that this product differentiation 10 is good for consumers, that's a benefit for consumers. 11 And secondly that this model of perfect competition that we think of with this supply curve and 12 13 demand curve intersecting it at a single price is -- is 14 not even representative of the ideal form of a market for 15 consumers if consumers have different tastes or some 16 preference for variety in markets, okay? 17 And so we'll keep in mind that that's how we think of perfectly competitive markets but when we 18 start to think about whether an actual market is 19 20 competitive, when we look at competition policy or 21 regulatory policy we want to embellish our model a little

22 bit and think about the realities of competitive 23 marketplaces.

And so when we think about regulatory policy or competition policy most economists think about

1 competition in terms of a notion of workable competition, 2 not this perfect competition with homogeneous products 3 but a more nuanced idea of competition which takes into 4 account the realities of the marketplace. 5 Michael Porter of Harvard Business School 6 has developed probably the -- the best way of describing 7 this idea and his model is what's presented in our slide 8 here. 9 Porter argues that there are five (5) 10 important characteristics of a market that determine how 11 competitive it is. So we're thinking now in terms of degrees of competitiveness once we -- once we start 12 13 moving into real markets. 14 So these include first how strong is the 15 threat of new entrants, how strong is the thread of 16 substitute products, the competitive rivalry across firms in the industry, the bargaining power of suppliers, and 17 18 the bargaining power of customers. 19 Now, Jane and Grant are going to --20 because I am coming from south of the border -- help us 21 think through to what extent we can apply these 22 characteristics of -- of Porter's model of workable 23 competition to the Alberta auto insurance market. 24 MS. JANE VOLL: Thank you, Sharon. We 25 could spend a long time discussing this and it's -- I

would have a great time but I know that we've got other 1 2 business to get to this afternoon that's in keeping with 3 your real question so I propose we go through this rather 4 quickly, but if anyone wants to elaborate on any of this 5 any further we would certainly welcome that opportunity. 6 As Sharon said, auto insurance 7 marketplaces and -- and -- including the Alberta auto 8 insurance marketplace is competitive by the model of 9 workable competition and we know that because we look at 10 each of those factors outlined by Michael Porter and look 11 at some of the signs as to whether it's true or not. 12 So, for example, what is the threat of new 13 If new entrants can come into an industry entrants? 14 relatively easily, it is more competitive. Our -- our 15 understanding is that new entrants can enter the P&C 16 insurance industry very easily compared to many other industries so this -- this is one (1) of the factors what 17 18 -- that make this industry competitive. 19 The Federal Superintendent has a \$5 20 million minimum capital that you need to get into the 21 business. Alberta has three (3). There are also a 22 number of ways to reach consumers. You can -- you don't 23 have to build your own sales force. You can get in and 24 use the broker's sales force for example. 25 So there are a number of -- of aspects of

1 the way the industry's set up. There's -- there is very 2 low or no economies of scale for example. You don't have 3 to be huge in order to compete effectively. 4 So there's a number of reasons why it's 5 easy for new entrants to get in and that's one (1) of the 6 factors that makes the auto industry in Alberta -- auto 7 insurance industry in Alberta more competitive. 8 Suppliers, did you want to say anything or 9 shall I just carry on? 10 DR. SHARON TENNYSON: Hmm hmm. 11 MS. JANE VOLL: You've got a couple of 12 points --13 DR. SHARON TENNYSON: Okay. Well, the 14 -- the industry insurance industry -- when we talk about power of suppliers we're talking about firms that supply 15 input to the industry. So the insurance industry and --16 and the greater the bargaining power of suppliers to 17 determine the price of transactions for those inputs the 18 19 more competition there is in the industry receiving those 20 supplies. 21 So the insurance industry has to deal with 22 many suppliers of inputs including lawyers, health 23 providers, auto repair shops for example but we want to 24 keep in mind the -- the primary -- the most important 25 suppliers to the insurance industry are those on the

1 financial end.

2 So we can think of reinsurers as being 3 suppliers to the insurance industry and we can also think 4 of global capital markets being suppliers to the 5 insurance industry. 6 And these suppliers of the financial -- on 7 the financial end of the insurance industry have 8 significant bargaining power in dealing with the 9 insurance industry. 10 MS. JANE VOLL: To build on that with 11 respect to Alberta, you know to -- to get a barrel of oil out of the ground you need capital in the form of hard 12 13 capital. You need machines and equipment and all of that 14 kind of thing. 15 In order to sell an insurance policy you 16 need capital but you need financial capital. Where does 17 that 5 million bucks come in order to pass the OSFI hurdle or the 3 million to get past the Alberta entry 18 19 fee? 20 You have to convince someone to put their 21 money at risk and -- and that capital comes from an 22 extremely competitive capital market where the P&C 23 insurance industry anyone wanting to go into business is 24 a price taker. 25 They go there and -- and -- and do their

best to convince capital to come and -- and take a chance 1 2 in the Alberta auto marketplace. Definitely not a price 3 take -- a price setter in that global setting. 4 DR. SHARON TENNYSON: In terms of the 5 threat of substitute products what we mean by that is if 6 there are many different product varieties and if it's 7 easy for consumers to substitute one (1) of those product 8 varieties for another, the industry is going to be more 9 competitive. 10 The reason being obviously that actions 11 taken by a producer to raise prices or do not meet the --12 the varietal demands of consumers are going to lead 13 consumers to make a switch. 14 MS. JANE VOLL: So on this one (1) 15 there's a lot of substitute ability for an auto insurance 16 policy in Alberta. Maybe Jim decides every year, do I want a policy from ING or Allstate or Peace Hills and --17 and one (1) isn't necessarily the same as -- as the 18 19 other. 20 Consumers are buying a risk transfer, 21 transferring the uncertainty of those losses but they're 22 also buying the reputation of that company. What we know 23 about the pace and manner in which they handle claims, 24 you're buying the way that they sell the product to you,

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25 what they

-- how they interact with you as a consumer. 1 2 You're buying the whole collection of 3 attributes when you decide or I decide whether to, you 4 know, insure my car with -- with Co-Op this year or -- or 5 State Farm or -- or whatever. 6 So there's a lot of substitute ability and 7 -- and I guess the next slide goes into that a little is 8 his -- any of us can move every year. We can choose a 9 relatively low cost to stick to another insurer and -and insurers are always trying to make themselves attractive to -- and have retentions and so forth. And the different mixes and blends they 12 13 have lead to price differences. But this -- this I all 14 leads to the fact there is -- there's quite a bit of 15 substitute ability in the product and -- and that leads 16 to consumers having a lot of power in the market vis-avis an insurer because they could be with you for a year 17 18 and then they're gone. Do you want to do this illustration? DR. SHARON TENNYSON: I can do the -- the Coca-Cola illustration. This is just a general illustration of how a product that on its face appears to be a homogenous product can in fact have attributes that make it differ in time and place and accompanying

10 11

19 20 21 22 23 24 25 services, right?

1	So Coca-Cola is a Coca-Cola, right? We
2	know that, you know, this this bottle looks the same
3	pretty much wherever we buy it. But there there are
4	differences in time and place and associated services and
5	amenities with consuming a coke.
6	And those are going to lead to
7	consumers have different preferences over which of these
8	cokes they consumer at a particular point in time. It's
9	going to lead to different prices for the coke. In in
10	different sort of, you know, bundles of attributes that
11	go with the coke, okay?
12	And so even though a coke is a coke is a
13	coke, it isn't really, right? It depends on where you're
14	buying it, when you're buying it, the services that go
15	with it, the convenience that might go with it at a
16	particular point in time.
17	So even though the the product appears
18	to be one (1) one (1) product, a homogenous product
19	actually in the context of consuming it, it can have some
20	some variety depending on time and place accompanying
21	the services.
22	MS. JANE VOLL: So again on on
23	substitute ability, we we just want to take a moment
24	and say back to Alberta insurance marketplace, what does
25	that mean?

1	You know, if I were living in Calgary and
2	was 40 years old and married maybe not to the minivan but
3	I had a Windstar minivan in 2003, I I could go out and
4	the average of all of the quotes in the marketplace would
5	have offered me a premium of seven hundred and thirty-
6	eight (738).
7	The median if you start at each end and
8	count your way in, would have been a company offering a
9	policy at six hundred and thirty-six (636) and the lowest
10	price might have been a four twenty-seven (427) and
11	and there's all kinds of choices in between there.
12	I might choose I might look at the four
13	twenty-seven (427) and I might say, you know what, I I
14	think I want the six thirty-six (636) because that
15	company is they have an office in my building so
16	they're convenient for me to reach and you know what,
17	they give me a really good deal on my home insurance.
18	And they have a payment plan that I really like.
19	So maybe that's the company I'm going to
20	go with or that there might be another collection of
21	of attributes that work for me and that's what is part of
22	me choosing from from one (1) company to the next.
23	MR. JIM RIVAIT: Jane, I think it's
24	important to make that point if you go to the SGI or MPI
25	websites, you'll find out that this same risk at Manitoba

1 Public Insurance costs one thousand and eighty dollars 2 (\$1,080) and at Saskatchewan Government Insurance eight 3 hundred and fifty-six dollars (\$856). 4 So it can give you a sense that, you know, 5 we hear about comparability and when we live in the sea 6 of public insurance, the competitive system here sees a 7 lower price for that risk. 8 MS. JANE VOLL: And -- and an array of 9 choice. 10 DR. SHARON TENNYSON: The bargaining power 11 of consumers is important for determining competition in a marketplace. Now in -- in automobile insurance, 12 13 consumers don't have direct bargaining power in terms of 14 being able to negotiate with an individual insurer the 15 price and coverage that they're receiving. 16 But they do have indirect bargaining power due to their ability to choose across -- to choose their 17 18 insurance provider. And the ease they have in switching 19 between providers during -- across different years. 20 As long as there are a large number of 21 insurers in the marketplace, consumers have considerable 22 bargaining power in this implicit or indirect way. 23 MS. JANE VOLL: So it's a one (1) year 24 contract. You presently have sixty-five (65) insurers 25 giving the consumer lots of -- lots of choice to shop

1 around and any insurer that -- that's not meeting their 2 preferences, they're out of the picture and that consumer 3 can move on.

I think the next picture just illustrates that graphically -- this is just a sub set of them. There's a whole lot more, it gives the consumer a lot of -- a lot of choice and a lot of ability to get the terms and conditions and package of -- of services that they're looking for.

10 DR. SHARON TENNYSON: You also want to 11 look at the degree of competitive rivalry across firms in the industry. One (1) of the most important features 12 13 that's going to determine competitive rivalry across 14 firms is having a large number firms in the industry. 15 A large number of firms that offer 16 different, slightly differentiated products will lead to 17 rivalry to gain market share in the industry. Firms will 18 have not only an incentive to compete over price but to 19 try new marketing and service strategies to introduce 20 different product varieties if those meet consumer needs. 21 And so we -- we want to look at -- to the extent that an industry has a large number of firms 22 23 offering a -- a diverse array of products, this is how we 24 can evaluate competitive rivalry in an industry.

25 MS. JANE VOLL: Just maybe you want to

1 take a minute on this one (1) objective measure of --2 DR. SHARON TENNYSON: There -- there are 3 some objective or statistical measures that national 4 agencies who -- who oversee competition policy tend to 5 use the compare industries, a summary sophisticate if you 6 will of -- of trying to indicate the degree of concentration of an industry. 7 8 So the Herfindahl -- the Herfindahl index 9 or the Herfindahl-Hirschman score is one (1) of those 10 summaries sophistic which takes into account not just the 11 number of firms in an industry but the relative market shares across all the firms in the industry. 12 13 And aggregates that up into a score and in 14 the US the Department of Justice oversees competition 15 policy and in Canada the OSFI -- I'm sorry, who --16 MS. JANE VOLL: Europe Competition 17 Policy. 18 DR. SHARON TENNYSON: There you go. The 19 overseer of competition policy in Canada have similar 20 objective measures for comparing across industries this 21 Herfindahl index or score in both cases they use as an 22 indicator of a very competitive market a Herfindahl index 23 or score of one thousand (1000) or less. 24 And we have a rate here in this graph, 25 Alberta's auto insurance market in comparison to some --

1 some others and we see that Alberta's auto insurance 2 market in terms of combining this number of competitors 3 and the relative market share across competitors, 4 definitely comes in below a thousand (1,000) unlike some 5 of the others. 6 And so by this objective measure we wanted 7 to create a summary statistic. We -- we would say that 8 Alberta is definitely a competitive market. 9 THE CHAIRPERSON: Merle, would like to 10 jump in with a question. 11 12 OUESTIONS BY BOARD: 13 MS. MERLE TAYLOR: Would you just explain this to me because this is automobile insurance, BC and 14 15 Saskatchewan have government insurance, so I would have 16 thought that there's only one (1) supplier of the product. So why would they score --17 18 MR. GRANT KELLY: If they're not below 19 it. 20 MS. MERLE TAYLOR: I beg your pardon? 21 MR. GRANT KELLY: Yeah. It also includes 22 optional coverage so it's total. So the -- the market 23 shares of the optional coverage, there's relatively few 24 insurers picking that. That means that's why they have 25 such a high score.

1 MR. DAVID WHITE: Lower is better, right? 2 MR. GRANT KELLY: Lower is better -- the 3 lower the number the -- the more competitive the market--4 MR. DAVID WHITE: When you say Alberta is 5 significantly below a thousand (1,000), it's not that 6 significantly below a thousand (1,000). Is a thousand 7 (1,000) the benchmark? How does a thousand (1,000) play 8 into this? 9 DR. SHARON TENNYSON: The -- a monopoly 10 market -- and this -- this is your point, why -- why don't those markets have government insurance come out 11 12 with a really big score. Right? 13 A monopoly market would come in an index 14 of ten thousand (10,000). 15 MR. DAVID WHITE: Okay. 16 DR. SHARON TENNYSON: So one thousand (1,000) is -- is not a benchmark that say, If you're 17 above a thousand (1,000) it's not competitive and if 18 19 you're below a thousand (1,000) you are. 20 A thousand (1,000) is a -- an obvious 21 benchmark that says, We're very convinced that there's 22 not a problem with too few farms or too much 23 concentration in the market if we have something that's a 24 thousand (1,000) or less. Okay? But markets may be 25 quite competitive if they have a Herfindahl index well

1 above a thousand (1,000). 2 MS. JANE VOLL: And to Merle's point, we 3 can come back and clarify it because the -- the monopoly 4 markets you're familiar with in BC, Saskatchewan and 5 Manitoba would be -- I think we would want to make sure 6 and make sure that we're giving you a clear picture of 7 what's in here. 8 THE CHAIRPERSON: I think we understand. 9 MS. JANE VOLL: Yeah. 10 MR. TED ZUBULAKE: Just one (1) question. 11 This morning we've heard various sets of numbers in terms of the concentration of business in Alberta. The numbers 12 13 didn't match. MS. JANE VOLL: 14 Okay. 15 MR. TED ZUBULAKE: What is the source of 16 your numbers here in -- for the Alberta bar graph in 17 terms of number of companies and concentration, size of 18 market? 19 MR. GRANT KELLY: We take the MSA data 20 and that's the -- the usual benchmark. Any company 21 that's not in MSA that reports their numbers to the 22 Federal regulator, OSFI, are added. So we think that 23 this is the most comprehensive list of insurers operating 24 in Canada, so that's the source of --25 MS. JANE VOLL: What time period because

1 there's no year or anything? 2 MR. GRANT KELLY: That's for 2005. 3 MR. TED ZUBULAKE: And would that be the same source as --4 5 MR. BILL MOORE: Well, but this is 6 national all lines data too. 7 MR. GRANT KELLY: Yeah. 8 MR. BILL MOORE: When you -- when you 9 look just -- just at Alberta in 2005 and you look at the 10 direct written premiums all of these -- all private auto, 11 the top four (4) firms own about 49 percent of the market 12 here. 13 MR. GRANT KELLY: Actually, this is auto 14 markets --15 MR. BILL MOORE: Yeah. 16 MR. GRANT KELLY: -- by province. So 17 it's total auto. It's not basic auto, it's the total 18 auto --19 MR. BILL MOORE: Okay. Fair enough. But 20 the numbers that -- the 49 percent that I quote, Joel 21 Baker will give us the same number on Friday morning. So 22 given that concentration, and I think the economist would 23 raise an eyebrow when the concentration gets above 40 24 percent, is --25 MS. JANE VOLL: It's the sum of the

squares of the market shares. It's not total market 1 2 The formula itself is the sum of the squares of shares. 3 the market shares that produced the thousand (1000). 4 MR. BILL MOORE: I understand, yes. 5 MS. JANE VOLL: So you can have the 40 6 percent or 30 percent concentration among the top number 7 of players as you do in Alberta and still be a very 8 competitive marketplace. 9 MR. BILL MOORE: Yeah. My apologies. 10 I'm jumping ahead to your next slide, where you I think 11 you're going to talk about the concentration by premium 12 volume, or at least you did in your paper. But to Ted's point, this morning we heard 13 14 numbers as low as the top five (5) firms owing 35 percent 15 of the market here. I think unambiguously, based on auto 16 premiums, the top four (4) firms actually own 49 percent of the market. 17 18 Does that change your view as to how 19 competitive the Alberta market is? 20 DR. SHARON TENNYSON: No, not -- not at 21 all. 22 MR. GRANT KELLY: Not at all. 23 DR. SHARON TENNYSON: I -- I think a four 24 (4) firm concentration ratio, which is the jargon for what you're talking about, of -- of 49 percent, even 25

ignoring how many other firms are in the market, it would 1 2 be a reasonably competitive statistic if you -- if you 3 lay that out across other industries or looked at the competitive dynamics of an industry. 4 5 MS. JANE VOLL: One (1) of the other 6 measurement issues here is the difference between groups 7 and individual company. And you may be seeing a market 8 share for the top four (4), if it's top four (4) groups, 9 being a number and the market share of the top four (4) 10 companies being a different number. 11 So just something to --12 MR. BILL MOORE: My numbers would be the 13 group's , yes. 14 MS. JANE VOLL: -- to be mindful of, 15 yeah. 16 So again, with -- to Sharon's point, 17 within the competitive rivalry what you're trying to 18 measure is how many different business models are going 19 head to head in the marketplace. And the more of them 20 that are, the -- the more intense the -- the competition 21 and the -- the better for the consumer. 22 So there's companies with origins all over 23 the place that are here competing in the -- some of them 24 -- some companies are owned by shareholders, some are 25 private investors, some are mutual, some are owned by

non-profit institutions, the Government of Saskatchewan

2 owns one (1). 3 Obviously, capital with different 4 motivations is coming here and trying to develop a 5 formula for success and do better than the next guy at 6 getting the product to the market. So there are many 7 indicators of -- of aggressive rivalry. 8 Another way that we illustrate this is 9 that each business model goes and tries its best in the 10 marketplace that year to sell its prices and meets its 11 costs, and it will end up with a return to shareholders, and -- and they -- they differ. Okay? 12 13 So each business model is going to be 14 more or less successful in any given year. And the more 15 successful models would try to be copied by their peers, 16 you know. 17 Yesterday, I was with a guy from one (1) insurance company and said, you know, Half my job is 18 19 that, finding out what other companies have tried, what 20 worked, what didn't work, and how I can get that, you 21 know, steal the best ideas of it and get into my company. 22 So they're very intensely competing to 23 try to extrap the most successful aspect of any one (1) 24 given model and migrate them into their own and develop their own formula. 25

1

1	Richard?
2	DR. RICHARD PHILLIPS: I'd like to make a
3	a point here. It's kind of a philosophical point of
4	how economic theories changed over the last twenty (20)
5	years. And the anecdote I'd like to use to to make
6	the point is to think about the telecommunications
7	industry in the United States.
8	If you think back to the 1970's or 1980's
9	you'll remember that AT&T or MA Bell was a was the
10	monopolist telephone company in the United States that
11	was broken up by the Department of Justice into baby
12	Bells, which were regional Bells across all the different
13	part of the of the United States.
14	So, for example, in the Midwest part of
15	the United States, when I was growing up as a kid, the
16	baby Bell that was created was US West
17	Telecommunications. And in the southeast, where I live
18	now, it was Bell South. In the northeast, I can't
19	remember, Bell Atlantic I think was the what was
20	created.
21	And what's happened over time is that
22	economists have found out that this model that you're
23	saying here of workable competition, historically we
24	thought of that you had to have twenty (20), thirty (30),
25	forty (40), fifty (50) companies in an industry that

to really allow it to have workable competition. You had to have concentration ratios below 40 percent, below 30 percent in order to have workable competition.

And what -- what a lot of mainstream economists discovered through empirical research over time is that we can actually con -- we can tolerate a lot higher degrees of concentration and fewer companies than we did before because this competitive rivalry really works, that these guys will still go after each other in competitive ways in these marketplaces.

11 And so if you take the telecommunications 12 industry as just the example here, in the 1980's we start 13 with a monopolist that gets broken up into all these baby 14 Bells and since that time period we've been putting them 15 all back together again. And so in my own home town of 16 Atlanta AT&T has just repurchased Bell South and that was approved by the Department of Justice just last year and 17 18 that merger is happening as we speak today.

And -- and that's -- that's after Bell South had already bought one (1) or two (2) other regional Bells around the United States.

So I think -- I think part of what -- the point we're trying to make here is that you have sixtyfive (65) companies with fairly low concentration ratios by almost any measure and economics has -- the theory has gotten more developed over time to say that we can even tolerate a lot higher concentration than even you're seeing here and that's still going to be workably competitive in the marketplace.

5 DR. SHARON TENNYSON: I -- I agree. Part 6 -- part of the expansion of the model away from the --7 the model of perfect competition which assumes that you 8 need to have atomistic firms relative to the marketplace, 9 right, is -- is to develop this more nuance understanding 10 of -- of the marketplace dynamics.

11 All of these features play into whether or 12 not a marketplace is going to be competitive, not just 13 numbers of firms or concentration ratios. Right? This 14 is -- the theory has moved beyond this idea that what we 15 need to do is count the number of firms and look at the 16 concentration. We need to look at all of these features 17 as -- as disciplining the market to be competitive, even if there aren't -- one of these is the threat of new 18 19 insurance even if there aren't many firms in the 20 industry.

There are well-developed theories validated by empirical research now that say that if there's a strong enough threat of new entry, even if it doesn't actually occur, this can drive the market down into a competitive outcome, even if you have two (2) or

1 three (3) firms in the industry and no more, okay? 2 So the theory has developed beyond the 3 simple model of atomistic competition as what determines 4 whether the market is competitive, to recognize that all 5 of these -- these features that we've talked about in -in Porter's model of workable competition are really what 6 7 determine the competitiveness of a marketplace. 8 And if we look at the Alberta auto 9 insurance market we see that -- that these five (5) 10 features of workable competition apply fairly readily to 11 the marketplace. 12 And -- and this is the basis of my argument to you that the Alberta auto insurance market is 13 14 competitive; not -- not the old, you know, supply -- you 15 know, the simple supply/demand model, but this model which takes into account the realities of the marketplace 16 and our -- our growing understanding of what determines 17 18 competition in markets. 19 MR. JIM RIVAIT: Thanks, Sharon. What 20 we're going to do to spur -- the next theme is look at 21 some of the -- what's occurring in other jurisdictions 22 and we'll have most of our panel join in for this. 23 Sharon is going to talk about Illinois, 24 Rich Phillips will talk about South Carolina, and Richard 25 Derrig will talk about both New Jersey and Massachusetts.

1 So there's three (3) --2 THE CHAIRPERSON: Do you want to --3 MR. JIM RIVAIT: -- those three (3) 4 points. 5 THE CHAIRPERSON: Do you want to see if 6 we have any questions at this point? I have one (1) questions, if I may. 7 In 8 your model there, to make it relevant to what we're 9 talking about, shouldn't there be another box, something 10 identified as regulatory authority? 11 Doesn't that influence the competitive 12 factor? 13 MS. JANE VOLL: I -- I think we get to 14 that a little later in our presentation: 15 THE CHAIRPERSON: All right. 16 MR. JIM RIVAIT: I think that's why we're 17 here. 18 THE CHAIRPERSON: Well, I'm looking at model. I mean, your model leaves me fine but -- okay. 19 20 Well, we'll --21 DR. SHARON TENNYSON: The -- the model is 22 -- the model is assuming the sort of pre-regulatory or 23 competition policy perspective. It's saying, Let's 24 suppose we're going to evaluate a market for its 25 potential competitiveness to decide to what extent we

need to intervene with government policy, right? 1 So 2 certainly government policy interventions are going to 3 overlay all of -- all of this. 4 THE CHAIRPERSON: Just, what I was 5 interpreting was competitive rivalry within the industry 6 as a center core and that is certainly influenced by the 7 factor of government regulation. 8 DR. RICHARD PHILLIPS: And I would add to 9 that by just saying that I think the -- the model you 10 have here allows you to start thinking about if you do 11 want to intervene into this marketplace, how do you want to do it. So if you're trying to increase competition, 12 13 here are five (5) boxes on which you can focus your 14 attention on. 15 And what is -- if you don't -- if you 16 conclude that you don't have competition, which I think we would argue that you -- you do, but if you conclude 17 18 there's not enough competition, it now helps to guide the 19 discussion of, well, are you trying to increase the 20 threat of new entrance, are you trying to increase the 21 bargaining power of consumers? 22 So it gives you -- it gives you a way to 23 think about how can we increase competition rather than 24 just saying, well, let's just cap prices and we'll it a 25 day.

1	MS. MERLE TAYLOR: On that point, when I
2	think when I think of substitute products, then you've
3	got a choice as to whether you buy it or not, you know.
4	And with certainly with like property insurance, it's
5	a choice, you decide to not insure your home, that's a
6	choice.
7	Whereas I mean, the government has
8	dictated that you must buy auto insurance if you want to
9	drive a vehicle. That means your only other choice is to
10	not buy a vehicle or to go against the law and drive
11	without insurance and run the risk that you might be
12	heavily fined or whatever, take the consequences. So,
13	you know, I just
14	DR. SHARON TENNYSON: They are none the
15	less different firms offering substitute products in the
16	marketplace. So you don't have a government monopoly
17	offering a single bundle of insurance coverages for auto
18	insurance in this province as as yo might in some
19	others, right?
20	You have sixty-five (65) companies all
21	offering their own nuanced take on what does this product
22	look like, including who am I, the seller, right? Do you
23	enjoy my brand's image? Do you enjoy my claim service?
24	All all of these all of these play
25	into what does it mean to to have this bundle of auto

1 insurance services. And so it's not a question of do I 2 buy or do I not buy. That would be the case if you had a 3 monopoly insurer that offered a plain vanilla policy that included both mandatory and optional coverages. I -- I 4 5 don't know that anywhere has that. But in -- in this situation you have many 6 7 different choices and that's the choice that the consumer 8 has, in addition to the choice to buy or not to buy. 9 DR. RICHARD PHILLIPS: Let give me 10 another example that you're -- you're probably familiar 11 with and that I talk about with my students, and it's the 12 example of Microsoft Windows. 13 I assume everybody in here either has -uses a computer or has someone that uses it for them, and 14 15 I would bet that, just like the rest of the world, 16 Microsoft is the dominant operating system on computers in Canada. And it's a little bit like the driving 17 18 example, it's hard to do business if you don't have a 19 computer in the twenty-first century. 20 And you'll recall that Microsoft was sued 21 by the Department of Justice -- how many years ago now; 22 ten (10) years ago, five (5) years ago now -- and 23 essentially made this comment here that, yes, we're a 24 monopolist -- we're almost a monopolist providing an 25 operating system for personal computers. Really, their

only rival at the time was Apple and the McIntosh but, nevertheless, Microsoft still had 95 percent of the marketplace.

But they -- they went in and argued this point that it's the threat that if we do raise our prices too much, if we don't continue to innovate, if we don't continue to give consumers what they're looking for, somebody will come in and take this marketplace from us. And I think in operating systems they've been pretty successful in keeping those threats out.

But in lots of other areas where you would think that they would also have a comparative advantage, like internet browsers for example, they have not been successful at keeping them out. And in search engines on the Internet, for example, the dominant search engine is for free by Google.

So I think there's -- the notion -- and that -- this comes back to my point of what do we need for a concentration ratio -- ratio to be low enough. What -- what defines low enough in order to have workable competition in the marketplace. And there's an extreme case where you have

23 what appears to be a monopolist who was successful at 24 arguing that -- that they -- this is really a competitive 25 market and you should -- you should not take Microsoft and break it up into separate companies and force them to
 operate different from each other.

3 THE CHAIRPERSON: Thank you. 4 MS. JANE VOLL: Merle, one of the points 5 that comes to mind for me is that -- that I -- I don't 6 think we're done yet in terms of consumers exercising 7 their power in the marketplace. We've got lots of 8 evidence and worked with the superintendents in lots of 9 jurisdictions showing us the consumers level of education 10 about what their options are and where to go may not be 11 as -- you know, they may not be as aware of all the choice available to them, of all the product options 12 13 available to them.

You know, we -- we surveyed companies in Ontario on behalf of the Government not that long ago and found there were, you know, fifty (50) different claims forgiveness policies out there, but the -- how would the consumer know, you know? Each company had their own little way of offering or offering breaks for young drivers, or whatever.

So I think part of the -- one (1) of the issues in -- in here for me is that consumers certainly have power, they can take their business anywhere else, but -- and they certainly have preferences, but they may not have found the -- the most transparent way, those

consumers, to find the companies that are serving their
 preferences the best.

3 MR. JIM RIVAIT: And part of the -- part 4 of the issue relates to that is that the -- if focus is 5 always on price and -- and not on these other things, 6 that's what people are going to look -- look to. They're 7 not going to think about how is this company going to 8 treat me when I have a claim, or what other kinds of 9 options are there. They're just going to think about, 10 The Government's telling me that I -- I should get the 11 product at this price and I should applying to this.

12 So I think the pursuit that we have to 13 focus on that takes away from the other competitive 14 elements of the business that are important to consumers. 15 And over time, if they -- those things get pushed out of 16 the market, consumers will lose.

17 THE CHAIRPERSON: Dennis has a question.18 Dennis...?

MR. DENNIS GARTNER: Yes, a few points. I'm the superintendent of insurance and so I have a lot of contact with insurers as well as industry and the brokers of industry. So I just thought I should give you that background.

First of all, thank you very much for your comments on the concentration of industry and the fact

1 that the views of economists have changed over the years 2 and what this concentration actually does for consumers 3 or doesn't. I found that to be very, very helpful. Leading -- leading from the comments of 4 5 both Jim and -- and Jane my perception, I don't have any 6 data, but it seems to -- to me through contact with 7 consumers and -- and the contact that my office has with 8 consumers that price is what consumers shop at -- shop 9 for. 10 Is there any data to refute that, that 11 consumers actually understand that an insurance product is differentiated and that that differentiation is 12 13 meaningful to them and that they'll actually pay for it? 14 THE CHAIRPERSON: Want to give it a 15 shot, Richard? 16 DR. RICHARD DERRIG: I can certainly 17 give you an example. I live in Providence, Rhode Island, which 18 19 is the historic home of a company called Amica Insurance. 20 Amica traditionally has made profits that exceed most of 21 the insurance industry in the United States. 22 Amica sells a quality product. Amica is 23 always the number 1 service property and casualty insurer 24 in the United States and has been for at least five (5)25 years if not ten (10). And Amica Insurance is the only

property and casualty insurance company that appears on 1 2 the top twenty-five (25) best service companies in the 3 United States, across all industries. 4 So I can tell you that my colleague --5 consumers because I've been with Amica for a long time, 6 very well know what they're paying for; they're paying 7 for service and they're paying for high quality service. 8 And I can tell you that when I call Amica, I don't get, 9 "Press 1 for bodily injury", Press 2 for a physical 10 damage claim", I get service and I'm willing to pay for 11 it, and they are national. They're all over the place and they're 12 13 very successful because people, a certain group of people

14 out there in the United States, and I believe they're in 15 the top fifty (50) companies, maybe even higher, they're 16 willing to pay for that.

But I -- I 17 MR. DENNIS GARTNER: appreciate that and I -- I don't have any difficulty 18 19 accepting that but that doesn't answer the question. 20 Indeed, the question --21 DR. RICHARD DERRIG: Is there --22 DR. SHARON TENNYSON: When there are 23 empirical studies that --24 MR. RICHARD DERRIG: -- is there any --25 yeah.

1 MR. DENNIS GARTNER: There may not be. 2 I'm -- I'm not trying to challenge you. I'm trying to 3 obtain knowledge and information. 4 DR. SHARON TENNYSON: We --5 MR. RICHARD DERRIG: I know it's not --6 DR. SHARON TENNYSON: -- we were trying 7 to think of whether we can think of references to 8 academic literature and that specifically relate the two 9 (2). 10 DR. RICHARD PHILLIPS: There's one (1) 11 that I can think of --12 MR. DENNIS GARTNER: There's -- well 13 there's a couple --14 DR. RICHARD PHILLIPS: -- that relate to 15 financial quality of the firm to prices. Now, the 16 problem there is that's a little difficult to piece that out because partly if you have a -- if you have a -- an 17 18 insurance company that's lower financial quality, it's 19 kind of like borrowing. It's like buying bad debt, 20 right? You're always going to discount it a little bit 21 just because you're not sure if you're going to get paid 22 back or not. 23 So there is a -- there is a linkage between financial quality and prices which may be a 24 25 mixture of both -- I'm buying a lower financial quality

1 product, therefore I'm going to discount it just because 2 I face a credit risk a little bit. 3 What the literature does show there is 4 that the discount that's applied to lower financial 5 quality companies drops faster than the actual insolvency 6 cost that's being imposed on that consumer. 7 So in other -- you could say it that --8 another way to say that consumers are willing to pay a 9 premium above the -- above what the -- the discounted 10 rate is for a high financial quality company beyond just 11 what the promise is. It's the -- from pure financial economics evaluation point of view. 12 13 DR. SHARON TENNYSON: And -- and I can --14 DR. RICHARD PHILLIPS: That's one (1) 15 example. 16 DR. SHARON TENNYSON: -- I can think of a 17 -- a similarly indirect relationship which is there are some studies that look at complaint data for insurance 18 19 companies, okay? 20 So again it's not directly related to a 21 preference for service quality and so forth. But there 22 are studies that -- that relate complaint data to 23 outcomes for insurance companies and there is a 24 relationship between the price and demand and complaints

25 in -- in the sense of companies that have higher

1 complaints do worse than companies that have lower 2 complaints. 3 MR. DENNIS GARTNER: So if we could those 4 that --5 MS. JANE VOLL: Building on that ---- that would be --6 MR. DENNIS GARTNER: 7 be useful. 8 DR. RICHARD PHILLIPS: Yeah. I'll talk 9 about it. 10 MS. JANE VOLL: Yeah. There was just 11 another standard research that we've recently been 12 looking at that has to do with companies that are 13 effective at in -- in -- customer satisfaction generates 14 a higher return on equity for them. And so the --15 presumably the customers who are enjoying those extra 16 service features are willing to pay a higher price for 17 them. 18 And the evidence that comes to mind for me 19 of why are -- is everyone just motivated by price, would 20 suggest to me that you -- we wouldn't see ranges in 21 Compuquote then. Everybody would run to the bottom 22 feeder and -- and that would be the way it would go but

24 sustains all of these diversities is -- is somehow

why -- why -- you know, I -- I think the fact the market

25 telling us -- telling us something.

23

1	MR. DENNIS GARTNER: Well, Ms I want
2	to put it in perspective though. I'm taking about
3	experience in my office. We're not talking about any
4	random sample, we're talking about people who are
5	motivated to pick up the phone and call the
6	superintendent of insurance, so.
7	And I don't I have no idea whether
8	we're getting a representative sample. Probably we're
9	not and I was interested having you folks, the the
10	eminent scholars in North America, if there was anything
11	that you could help us with.
12	DR. RICHARD PHILLIPS: Dennis, there's a
13	new study by two (2) colleagues of mine at Georgia State,
14	Marty Grace (phonetic) who's a professor there and a guy
15	named Bob Kline (phonetic).
16	Bob was, prior to coming to Georgia State,
17	he was the Director of Research for the National
18	Association of Insurance Commissioners in the US. And
19	they they just brought a study that was published this
20	summer looking at life insurance companies that are
21	members of a a group called IMSA; it's the Insurance
22	Market Standards Association or Authority. I can't
23	remember what the "A" stands for.
24	But essentially IMSA was formed following
25	the market conduct problems that several life insurers in

1 the early to mid-1990's where some of the agents for 2 Prudential and Met Life and some of the other large 3 companies were accused of turning life insurance 4 policies, where the agent benefited by the cancelling of 5 an old policy for a policyholder and then selling a new 6 policy to get a first year premium again. 7 And these companies formed a trade 8 association which said that there would have to be a set 9 of standards that companies would have to agree to 10 voluntarily follow in order to become members of IMSA. 11 And what -- what Bob and Marty looked at was to figure out if consumers were willing to pay a 12 13 premium for their membership in IMSA, whether or not that 14 higher degree of professionalism was rewarded in the 15 marketplace or not. And interestingly, they also showed 16 that these companies from a cost point of view are more 17 efficient and from a profit point of view they're also more efficient. 18 19 So not only do the consumers -- it's kind 20 of a win-win for everyone, that when people are 21 transparent and when voluntarily adopted to join this and 22 become let's say above the board, that everybody won. 23 The consumers appreciated that and the -- the companies 24 themselves performed better afterwards as well. 25 I'd be happy to share that with you.

1 MR. DENNIS GARTNER: Okay. If you can 2 that would be quite useful. 3 4 --- UNDERTAKING NO. 2: To provide study produced by 5 Marty Grace (phonetic) and 6 Bob Kline (phonetic). 7 8 MR. DENNIS GARTNER: Two (2) other quick 9 points. The -- the insurance industry in Canada is just 10 coming -- coming into a third good year. ROE's have been 11 -- been good. We don't have direct information on 12 Alberta auto but we know the loss ratios are -- are 13 fairly good. And our conversations with companies and 14 the -- the data we get respecting provincial companies 15 also is an indication that they're making a fairly 16 healthy return on the automobile product. 17 The prices haven't come down very much 18 except through the regulated process that the Alberta 19 Government established. Companies can bring down their -20 - their prices more if they wish and -- and they may have 21 room to do so. Is -- when -- when will we expect that to 22 happen? 23 We've had three (3) years of good returns 24 now and prices have been fairly constant. Does that -is that -- is that normal? Is that a --25

1 MS. JANE VOLL: Can I suggest that the 2 Act of the Constitutional challenge is clear? 3 THE CHAIRPERSON: Do you want to take this question, Richard? 4 5 MS. JANE VOLL: It's having to do with 6 price stickiness. DR. RICHARD DERRIG: Oh, sticky prices, 7 8 yes. One (1) of the -- one (1) of the points that I 9 thought is a very important point for -- for EPOS is the notion of what's called "sticky prices". 10 11 Sticky prices mean that once you have a price in the marketplace, if it should move in one (1) 12 13 direction or the other and it doesn't, but it tends to 14 stay where it is, there's a reason for that and it's on 15 the -- on the low side and the high side, both -- both 16 ways. 17 I think the question you're asking is on the low side. If you've -- if you've got a price and you 18 19 think that the competitive price should be lower there 20 needs to be more than just those five (5) boxes. What there needs to be is some notion that a -- a window of 21 22 opportunity that's fairly long has to be in place in 23 order for companies to lower prices as low as they can 24 make them without the fear of having rate suppression in 25 the future or owner's regulation in the future.

1 Once insurers in the insurance context --2 once insurers get the idea that they're going to be free 3 to compete now and into the future, then they will 4 compete and lower the prices as low as they can get them 5 for the market share. And I have a couple of examples 6 for you but that's -- that's the idea. It's the same as 7 on the up-side. 8 On the up-side the prices can get sticky 9 because of, for example regulation, and I can certainly 10 tell you the Massachusetts story. But it can get sticky 11 on the up-side, that is the regulators don't allow it to rise with cost and once that happens those are sticky 12 13 prices on the up- side and there -- there are then dire 14 consequences for that; mostly companies just don't bother 15 writing anymore, it's not profitable. 16 So you -- you have to have an overall 17 framework where the companies can move and understand 18 that the rules of the game are going to continue, they're 19 going to be able to compete, and they're going to be able 20 to interact with the other companies and have what they 21 termed the rivalry that comes from competition. 22 Otherwise they'll play it safe. And the examples that 23 I'll talk about a little bit are certainly Massachusetts 24 at the moment and California. 25

MR. JIM RIVAIT: Some -- some of that

1 stuff will be well illustrated through the stories that 2 are told by --3 DR. RICHARD DERRIG: Okay. Thank you, 4 Mr. Chairman. 5 THE CHAIRPERSON: Carry on. 6 MR. JIM RIVAIT: Okay. So, Sharon, 7 you're going to start with Illinois and be the first up 8 on that? 9 10 CONTINUED BY IBC: 11 DR. SHARON TENNYSON: I -- I am the first 12 up. So what -- what we're doing here is we're bringing 13 to you some case studies or experiences from individual states in the US. So we assume you're much more familiar 14 15 than we are with how the experience of auto insurance 16 regulation in Canada, since we have a larger number of 17 states than you have provinces and this is something 18 which you can regulate at the state level. We have lots 19 of different models of regulation of auto insurance 20 markets in the United States and we're going to relate to 21 you some experiences from selected individual states. 22 I'm going to talk just a few minutes about 23 the state of Illinois. Illinois is the only state in the 24 US that has no rating law and never has. So imagine 25 that; insurance prices are determined by the market,

1 okay?

2 There's nothing in the books or the 3 legislation that says someone is -- has the opportunity to have an oversight, or this is -- the Government has 4 5 the oversight but we're not going to exercise it; that 6 just isn't the rating law in Illinois. So it's -- it's 7 like most other markets that are competitive at which 8 prices truly are determined in the marketplace. 9 So there's no regulatory review of rates 10 for excessiveness or inadequacy. They do regulate 11 insurance markets, right? There is solvency oversight, 12 there is market conduct oversight, right? So all the 13 other pieces of regulation are in place in Illinois, they 14 just don't have a rating block. 15 And the outcome of -- for auto insurance 16 markets in Illinois has been exemplary, has been great. There hasn't been a history of government intervention in 17 the market and yet there aren't problems in the Illinois 18 19 auto insurance market. 20 Availability is good as measured by the 21 number of insurers operating in the marketplace and as 22 measured by levels of concentration. So the -- the 23 Herfindahl Index in Illinois which takes into account 24 both the number of producers and concentration of market 25 shares simultaneously is low in the range of a thousand

1 (1,000) or a little above a thousand (1,000), despite the 2 fact that the bulk of the population in Illinois resides 3 in the Chicago and surrounding metropolitan areas. 4 So this is not just, you know, -- I mean 5 it's a mix of urban and rural but a large population 6 centre. 7 Auto insurance prices are not high 8 relative to the nation. Insurance rates are consistently 9 at or lower than the national average and residual 10 markets are small despite again the fact we have a large concentration of drivers in urban markets. 11 So the experience of Illinois which is 12 13 taking a dramatically, you know, a brave regulatory 14 approach if you will, which says completely hands-off and 15 we're going to leave this to the marketplace, shows that 16 in -- in this instance competition works in insurance 17 markets just as you would expect it to work in markets

18 for other products.

DR. RICHARD PHILLIPS: My job is to talk about South Carolina. And the reason that I'm here to talk about South Carolina is that I, together with the two (2) authors I mentioned before, Bob Kline and Marty Grace, we wrote a paper looking at the experience of South Carolina, which for your purpose is actually quite interesting because beginning in the mid 1970's South

1	Carolina begin to regulate rates and became more
2	aggressive at regulating rates through the '70s and
3	through the '80s and through the early 1990's until they
4	had almost a market collapse in the late 1990's. And then
5	they made fairly radical change and said, No, this isn't
6	working, we'd like to get back to something that looks
7	more like the marketplace determining rates rather than
8	the regulator determining rates.
9	And I have this quote here which I'll read
10	to you. It's a little small. This was testimony.
11	Remember the time period here is about twenty (20) years
12	of a regulated marketplace from the mid '70's to the end
13	of the 1990's.
14	In 1999 South Carolina was the magic year.
15	They blew up the regulatory system that they had in place
16	and adopted a much more competitive notion for the
17	overview of rates in South Carolina.
18	And so this is about four (4) years after
19	that. This is the Insurance Commissioner of South
20	Carolina who was testifying before Congress on April 10th
21	in Washington, DC, on April 10th, 2003. And the quote
22	is:
23	"For years neither actuarial
24	methodology nor supply and demand had
25	much to do with auto insurance

1	ratemaking in South Carolina. Politics
2	drove that ratemaking process within
3	our state."
4	And this gets to the point of sticky
5	prices that Richard mentioned a minute ago.
6	"Politically there was never an
7	opportune time to raise insurance
8	prices. This resulted in significant
9	rate suppression. In the short term,
10	rate suppression kept the cost of
11	insurance down. However, in the longer
12	term insurers were leaving the market
13	because they were unable to secure an
14	adequate rate for their product."
15	Hence the global capital markets which
16	Sharon mentioned earlier.
17	"As a level of hence the level of
18	competition within the market
19	decreased. Rate suppression as well as
20	frequent legislative changes designed
21	to address short-term ills of one (1)
22	form or another also sent the wrong
23	signals to the marketplace.
24	These provided incentives for to
25	consumers [I don't like the way he

1 worded this] to consumers to continue 2 to engage in risky behaviour, e.g. 3 speeding, because the insurance 4 premiums they paid were artificially 5 low for some and did not accurately 6 reflect their insurance rates. 7 Consequently in the system good drivers 8 were subsidizing the insurance of bad risk drivers." 9 10 This provides kind of a nice abstract of -11 - from an insider's point of view I guess, your counterpart in the state of South Carolina. And what I 12 13 thought I would do is present to you some statistics that 14 we had developed as part of our research to try to add 15 some flavour to Commissioner Csiszar's comments. 16 So what was the regulatory regime in South Carolina during this twenty (20) year time period? 17 18 The system was one of prior approval rate 19 regulation, which meant that insurers were required to 20 submit rates to the Insurance Commissioner so that they 21 could be approved by the Commissioner before they could 22 be used in the marketplace. 23 The risk classification, and then two (2) 24 lines down, the limits on underwriting were restricted so 25 that insurance companies were not allowed to engage in --

in the ways they would like to classify different risks in the marketplace for underwriting purposes which made the categories broader that they were putting risks into and then charging a common price to.

5 The rate hearings that were held were 6 public. There were residual market subsidies so when 7 insurers -- insureds were not able to find insurance in 8 the private marketplace they could go to a residual 9 market mechanism.

10 That residual market mechanism was not 11 designed to run at an operating loss every year. But by 12 the time 20 years went by they were running at an 13 operating loss of 40 percent relative to the premiums 14 that they were collecting.

15 So they were highly inadequate. In order 16 to make up for those -- the question is: Where does the 17 40 percent come from that they're not collecting from 18 these policyholders? The answer was that it was paid by 19 the policyholders in the private marketplace through what 20 was known as a recoupment fee.

That recoupment fee was a tax that was placed on the drivers in the private marketplace and those fees went directly to drivers that were in this residual market mechanism.

25

And there was a take-all-comers rule. And

1 it did not really affect -- the insurance companies 2 frankly didn't care very much about the take-all-comers 3 rule because if they didn't like the insured, the 4 mechanism that was set up in the State of South Carolina 5 was one where they were passed to this residual market 6 mechanism, and the insurance company only collected a fee 7 for doing the underwriting and the claim servicing but 8 they had no financial risk themselves. 9 Consequently, not only did the 10 policyholders in the residual market mechanism not have 11 incentives to drive carefully or try to reduce losses, 12 but the insurance company claims adjusters had no 13 incentive to try to keep claim costs down for drivers in 14 this residual market mechanism, because they were just --15 all of those claim costs were just passed on along 16 directly to this residual market mechanism. 17 And the losses from that mechanism came 18 from policyholders in the -- in the private system. 19 Let me show you some statistics of what 20 This is showing you the profitability of auto happened. 21 insurance in South Carolina for this -- this -- and then 22 I'm comparing that to the states in the southeast region 23 of the United States and then I'm also comparing that 24 profitability to the US as a whole. And you can see that the regulatory system 25

1 in South Carolina did what it said it wanted to do. It 2 was successful at suppressing rates. This data comes 3 from the National Association of Insurance Commissioners, 4 so it's a consistent methodology to measure profitability 5 across all of these different jurisdictions.

6 And you can see that insurers in South 7 Carolina for long periods of time were unprofitable. You 8 can see that the market in the early 1980's had fairly 9 small or modest residual markets, drivers in the residual 10 But after years and years of rate depression market. 11 their residual market mechanism had grown to be about 42 percent in the early part of the 1990's. And -- then 12 13 that was kind of the experience there.

14 Now a reasonable question is: Is this 15 unique to South Carolina or not? And that's on the next 16 line. And what I'm showing you there is the size of the 17 residual market. So the percentage of drivers who are 18 unable to find insurance in the private market in South 19 Carolina versus the States of Alabama, Florida, Georgia 20 and Virginia which are the neighbouring states for South 21 Carolina, obviously.

And you can see that, you know, South Carolina's just kind of off the charts relative to these other states that have more competitive market systems; that drivers in the other states in the southeast for the most part, 90 to 95 percent of the time are easily able

2 to find insurance in the competitive market and that's 3 not the case in South Carolina at this time.

1

4 The next slide shows you the impact that 5 this had on a number of insurers that were competing for 6 business in the State of South Carolina. Over this time 7 period of the 1990's it -- about 1994 to 1995, the number 8 of insurance companies had dropped to around fifty (50) 9 insurers operating in the State of South Carolina. And 10 the average number of insurance companies competing for 11 business in the other southeast states that I've mentioned before is approximately two hundred (200) 12 13 insurance companies competing for business.

14 So you can see that in the other states in 15 the southeast, it's approximately four (4) times the 16 number of insurers that are competing for business in 17 these more competitively rated environments.

You can see there's an uptake in the 18 19 number of companies between 1998 and 1999; that was 20 because the reform debate was taking place during late 21 1998 and was enacted in early 1999. And once that 22 performs were put into place, the number of insurance 23 companies went from about sixty (60) to over a hundred 24 (100) just in that year. You had about thirty (30) to 25 forty (40) companies that came in, in 1999, once they

1 knew those reforms were in place and they were going --2 and they were actually going to stick. 3 In 2003, just for comparison sake, there 4 are a hundred and sixty-five (165) insurance companies 5 competing for business in the State of South Carolina and 6 moving it much closer to the average of the other 7 southeast states. 8 The next line is designed to show you how 9 the subsidies that were paid through the residual market 10 mechanism, where they were directed to. What this chart 11 shows you are two (2) -- two (2) series here along the X-12 axis you have the individual counties in the State of 13 South Carolina. 14 On the left-hand side of the axis is the 15 loss ratio, so it's the profitability of the business in 16 that county. And then on the right hand axis is the average cost for bodily injury accidents for claims that 17 are filed in those counties. 18 19 And what you'll see is a direct 20 correlation -- negative correlation between the profit --21 well I guess it depends how you define it. There's a 22 direct correlation between the profitability and the 23 costs for the assoc -- for the -- that the claims that 24 are being provided by the -- by policyholders in those 25 counties.

1 So all the way up to your right, to the 2 extreme right, the loss costs are the lowest in these 3 counties all the way to the right. There about a hundred 4 and twenty dollars (\$120) over this -- late 1990's, per 5 driver in those counties. And on the extreme end of the other side, those loss costs average about two hundred 6 7 and sixty (260) or two hundred and seventy dollars (\$270) 8 per driver in those counties. 9 And so what you'll see is that these low 10 cost counties have very low loss ratios; that these drivers are paying a lot of money in premiums relative to 11 the loss payments they're getting back from their 12 13 insurance companies, and they're having a direct transfer 14 to these high cost counties on the lefthand side, where 15 these are drivers who impose a lot of costs on the 16 insurance system and their loss ratios are well above 100 17 percent. So if you have a loss ratio of 120 percent 18 for example, for every dollar of premium that you're 19 20 paying, those drivers are receiving back a hundred -- a 21 dollar twenty (\$1.20) in loss payments for their 22 insurance -- from their insurance carriers. And that's 23 before including any underwriting expenses to sell this

24 business.

25

So what's happening in South Carolina over

this time is a very systematic approach by the insurance commissioner in the State to subsidize high cost drivers by these -- through these recruitment fees that were paid by the drivers that remained in the -- in the competitive market system.

6 And the next slide shows that -- the point 7 we're trying to make here is that these drivers who are 8 receiving all of these subsidies have very bad incentives 9 for trying to control their -- their risky behaviour. 10 They have bad incentives for maybe avoiding filing of a 11 very small claim that they might not otherwise. They have every incentive to try to build up their claims 12 13 because they get more out of the insurance system than 14 they pay into the insurance system.

And overall, what you see is that the inflation rates in South Carolina in insurance premiums is exactly almost twice or -- it's actually a little bit more than double what it was nationwide even though rates are being suppressed in this environment.

So the insurance companies are leaving -they're not profitable enough and so they're leaving this marketplace. And so even though prices are being suppressed, the inflation or the growth rates in the average premium that a South Carolina policyholder is paying is twice as much as it was in the nation at the

1 exact same time.

2 And so all of these things, slowly over 3 time, over 15 or 20 years, they just continue to build up 4 and they build up and they build up and they create this 5 pressure that the market's really kind of collapsing; 6 there's no insurers competing for business; risky drivers 7 have no incentive to try to change their behaviour 8 whatsoever; it doesn't control loss cost inflation over 9 time, that this actually gets passed back. So it's just 10 -- the whole market's just kind of a mess. 11 What did South Carolina do? They dropped 12 their prior approval rate mechanism and they adopted 13 something known as flex-rating. 14 Flex-rating requires an insurance company 15 to file a rate filing with the insurance commissioner. 16 They're allowed to use those rates as long as the rates aren't -- the rate increase is not above a particular 17 level. And I can't remember what the threshold is. I 18 think it's --19 20 DR. RICHARD DERRIG: Mostly plus or minus 21 seven (7). 22 DR. RICHARD PHILLIPS: Yeah, plus or 23 minus. So as long as, from year to year, you don't 24 request increase in premium outside of this band the insurance company's allowed to operate outside that --25

1 within -- within that -- within that range. 2 If you request a 10 percent increase in 3 premiums which is outside the range, then the insurance 4 commissioner can ask for you not to use those or come in 5 and try to justify that somehow in some sort of a rate 6 hearing. But those rate hearings were private, 7 8 there were no longer public rate hearings after the 9 reforms were announced. So you're giving essentially 10 insurance companies as long as nothing strange is 11 happening and they're not asking for anything outrageous, 12 they're allowed to be competitive within those -- within 13 that environment. 14 And if you get something extreme, then an 15 insurance commissioner gets to ask and say, hey, let's 16 hold on here, let me -- can you try to tell me what's 17 going on in this system. 18 They reduced the restrictions on the 19 limits on underwriting and on risk classification so 20 that insurance companies could target and risk price 21 better individual drivers to try to avoid the subsidy 22 effects that were happening before. 23 There was a residual -- the residual 24 market subsidies that were allowed before to grow to be 25 40 percent were eliminated. And there was no all-comer

1 rule anymore. So it didn't require that an insurance 2 company take every policyholder -- every potential driver 3 -- or every driver in the system can still find insurance 4 through the residual market mechanism, it's just that it 5 doesn't require the insurance company to provide that. 6 What's happened in South Carolina, just 7 some statistics here to give you an idea. In 1998 8 immediately before the reform there were seventy-eight 9 (78) companies. In 2003 there were a hundred and sixty-10 five (165). 11 In 1998 there six hundred thousand 12 (600,000) policies in the residual market mechanism. In 13 2003 that had dropped to three hundred and forty (340) 14 policies. As I said earlier it eliminated the subsidies 15 for risky drivers and then according to the National 16 Association Insurance Commissioner some data I was able 17 to find there. 18 In 1998 immediately before these reforms, 19 South Carolina ranked 24th in the average insurance 20 premiums paid by drivers in that State. So if you rate -21 - a high cost State like Washington, DC or New York or 22 New Jersey would be number 1 and a very low cost state 23 like South Dakota for example, would be state number 50. 24 So South Carolina in 1998 was 24th and 25 over the next couple of years by the end of 2001, their

rank had dropped down to 34 in the nation. 1 2 So I think South Carolina is a nice 3 example of a state that in the early -- in the mid 1970's 4 is a little bit what we -- the three (3) of us here, 5 Alberta is right now, that we've decided maybe we'd like 6 to go down this road of intervening a little bit into the 7 insurance markets. 8 South Carolina gives you twenty (20) 9 years worth of experience to see the types of decisions 10 they made and the consequences of those. And then kind 11 of going back to something that looked more like the 12 Illinois model that allows more competition to determine 13 the outcomes of marketplaces and some of the positive 14 effects on how we think about the functioning of this 15 marketplace for the citizens in that state. 16 So I would encourage you -- I have a copy 17 of the Commissioner's complete testimony that he gave before Congress and there's a -- there's a chapter in 18 this book that Sharon has in front of her that --19 20 MR. TED ZUBULAKE: Mr. Chair, a couple of 21 questions. Just a minute. We have 22 THE CHAIRPERSON: 23 -- we have a number of questions. I think it's 2:30, do 24 you want to take 15 minutes and come back with questions? Have coffee? 25

1 Okay, let's break for 10 minutes and than 2 we'll come back. 3 4 --- Upon recessing at 2:26 p.m. 5 --- Upon resuming at 2:37 p.m. 6 7 THE CHAIRPERSON: All right, are we all 8 ready? I have, where is he? We had a -- I was just 9 going to mention that we have David Marshall with us but 10 I can't --11 MR. TED ZUBULAKE: He'll be right back. 12 He just --13 THE CHAIRPERSON: He's right back, is he? 14 David has just been appointed today to the Board. 15 David's a new member of the Board and he was here 16 observing but now as officially as I say he's now a 17 member of the Board so he's no longer observing. We lost him somewhere. Short term Board member and I had Chris 18 19 Townsend wanted just a few seconds at the end. 20 So I'll catch you at the end, Chris, just 21 for a second. Chris had some corrections for something 22 he said this morning that he wants to get in. So we'll 23 just do that at the end and we're aiming for about what? 24 3:30, four o'clock? 25 MR. JIM RIVAIT: It's going to be tight

1 but we can move it along and I want to make sure, Mr. 2 Chairman, that we take full advantage --3 THE CHAIRPERSON: I couldn't agree more. 4 MR. JIM RIVAIT: -- of -- I spoke to 5 Brian here and I think they've got a lot to add. 6 THE CHAIRPERSON: Okay. 7 MR. JIM RIVAIT: And we'll try and move 8 it along. We've got Richard Derrig. He's going to talk 9 about New Jersey --10 THE CHAIRPERSON: No, I'm not trying to 11 move you too fast. I know you've got a lot of high priced help here. 12 MR. JIM RIVAIT: Yeah. 13 14 THE CHAIRPERSON: Board Members. 15 MR. JIM RIVAIT: Oh, you're going to go 16 to questions? 17 THE CHAIRPERSON: Questions, yes. Go 18 ahead. 19 20 CONTINUED QUESTIONS BY BOARD: 21 MR. LEWIS KLAR: It sounds -- it sounds 22 like the South Carolina model's a bad model. But I'm 23 really not sure what relevance that has for this rate-24 making process in Alberta. 25 Firstly, the quote that you extracted said

1 that neither actuarial methodology nor supply and demand 2 had much to do with rate setting there. Well of course 3 that's not the case here. 4 DR. RICHARD PHILLIPS: Hmm hmm. In fact this whole --5 MR. LEWIS KLAR: 6 whole purpose of this today -- two (2) to three (3) 7 days, is to determine how best to work out our actuarial 8 model, how best to determine profit in -- as a factor of 9 that actuarial model. 10 DR. RICHARD PHILLIPS: Hmm hmm. 11 MR. LEWIS KLAR: So I -- appreciate your 12 presentation. If they didn't use actuarial methodology 13 nor supply and demand, I don't know how they set rates. 14 Perhaps they just -- just denied all increases based on 15 politics. Is that what they did? 16 How -- how did they go about this ratemaking in South Carolina? 17 DR. RICHARD PHILLIPS: I think -- I think 18 of what you saw in Commissioner Csiszar's commentary 19 20 there, is the benefit of hindsight in 2003. 21 MR. LEWIS KLAR: Hmm hmm. 22 DR. RICHARD PHILLIPS: That in probably 23 in 1975 when they started to intervene, they were trying 24 to keep some semblance of actuary methodology and supply 25 and demand.

And I think if you read a little bit between the lines of what he's saying in his congressional testimony there is that over time as they get further and further away, they keep on making small little changes here and there and it drives them further and further away.

7 And so I think he's really talking about 8 kind of what was happening late of the 1990's. One (1) 9 of the ironies about insurance regulation in the United 10 States and Richard Derrig know this perhaps better than I 11 do, is that even though Massachusetts has probably 12 regulated its suppressed rates more than just about any 13 other state in the US, they have also had some of the most sophisticated thinking about actuarial models in 14 15 Massachusetts than they had anywhere in the country. 16 And the Massachusetts model is actually the news in a variety of other states within the US. 17 Wouldn't that be fair to say, Richard? 18 19 DR. RICHARD DERRIG: Yeah. Yeah. 20 DR. RICHARD PHILLIPS: So I mean it's --21 it's not so much that you have a technology, it's -- or 22 if you have a model or if you don't have a model. Ι 23 think the question is how far away from the competitive 24 market outcome are you kind of willing to tolerate and 25 when you get far away from the competitive market

outcome, does it have a -- a set of unintended 1 2 consequences that lead to the types of problems that 3 we're talking about here. 4 And I think that's -- that's probably the 5 -- the important point. 6 THE CHAIRPERSON: Thank you. Ted..? 7 MR. TED ZUBULAKE: Well I had questions 8 along the same lines. Let me ask them anyway. 9 I gather you attribute the rate 10 suppression to the -- the prior approval system that 11 South Carolina had in the way they implemented it or --12 DR. RICHARD PHILLIPS: Hmm hmm. 13 MR. TED ZUBULAKE: -- worked it. So was 14 it in your view, was it the -- was it more of the case 15 of the -- the South Carolina department actuaries having 16 different views on projected loss costs and trends that 17 the various components of the -- of the rate setting 18 process or was it directly -- more directly attributed to 19 the profit margin that South Carolina Insurance 20 Department would allow companies to include in their 21 rates? 22 And -- and what was the profit margin in South Carolina allowed? 23 24 DR. RICHARD PHILLIPS: I don't know what 25 the profit margin was they allowed. I'm not sure if

that's how they were regulating it at the time. What they -- what they were regulating were -- insurers were required to file increases in premiums and what they called indicated loss cost increases that they were using to base their assumptions on.

And those increases would be reviewed by 6 7 the commissioner within the state and then they request 8 a, you know, our indicated loss inflation says that 9 premiums should go up by 15 percent and the insurance 10 commissioner would say, no, you get a 4 percent increase. 11 And in other years the, you know, the --12 the increase from the companies might be 5 percent and 13 they might actually allow that to go through. So I -- I 14 think it just -- the way that it was done was -- is a 15 compounding of decisions over time on a year by year 16 basis that drive you further and further away over time from -- from whatever that competitive market outcome is. 17 You also in South Carolina have a very 18 19 strong dynamic where the rural population in South 20 Carolina outside of the major cities of Columbia and 21 Myrtle Beach had a lot of political power in the State 22 Legislature then. 23 And frankly the majority, unlike in

24 Massachusetts where the majority of the subsidies flow to 25 the urban drivers in Boston, the majority of the

1 subsidies in South Carolina flowed to the rural drivers 2 in -- in South Carolina. 3 And that was largely driven by the -- the political process through the State Legislature imposing 4 5 kind of political will on the process itself. So I think 6 you have a, you know, variety of things are -- are 7 happening there. 8 MR. TED ZUBULAKE: I quess I don't 9 understand your comment about the compounding because you 10 know, rates are set every year and regardless of what 11 rates are charged in the past, it's all looked at in a, you know, kind of a fresh -- a fresh look. 12 13 DR. RICHARD PHILLIPS: Now, because what 14 happened is there'll be a request for -- we'd like a 15 15 percent increase. 16 MR. TED ZUBULAKE: Right. 17 DR. RICHARD PHILLIPS: And then they'll 18 say, no, you get a 10 percent increase. So the next 19 year, the insurance industry will come back and say well 20 last year we asked for fifteen (15), you gave us ten (10) 21 so -- and this year we need another fifteen (15) more 22 plus we need the five (5) we didn't get the year before. 23 So now we're requesting twenty (20). Well you're still 24 only going to get ten (10). 25 So what happens is that over time, you get

further and further away from where they want to be. 1 2 MR. TED ZUBULAKE: Yeah. I guess I don't 3 understand the catch-up. But let me ask you this. 4 Then so you're not aware of any -- what 5 profit margin South Carolina would allow each year? 6 DR. RICHARD PHILLIPS: No, I don't know 7 if there was a policy regarding profit. Like in January 8 1st this is the estimate -- this is the profit margin 9 we're allowing for companies to come in. I don't know 10 that. 11 MR. TED ZUBULAKE: Right. DR. RICHARD PHILLIPS: I do have 12 13 statistics on what the actual --14 MR. TED ZUBULAKE: The actual --15 DR. RICHARD PHILLIPS: --profit margin 16 turned out to be. And it's negative for a decade. 17 MR. TED ZUBULAKE: You also said -- I'm sorry for rushing but we're pressed for time. 18 19 DR. RICHARD PHILLIPS: No, no, no. 20 MR. TED ZUBULAKE: But you said that the 21 residual market was designed not to lose money. I think 22 that's what you said. So -- so how are the rates set for 23 the residual market -- or for the pool of --24 DR. RICHARD PHILLIPS: You're talking 25 pre-reform or post reform?

1 MR. TED ZUBULAKE: Pre-reform. 2 DR. RICHARD PHILLIPS: Pre-reform, they 3 were set such that if an insurance company if a -- if a 4 policyholder could not obtain insurance in the private 5 market --6 MR. TED ZUBULAKE: Right. DR. RICHARD PHILLIPS: -- they could go 7 8 to an insurance company and say you must write me --9 MR. TED ZUBULAKE: Right. 10 DR. RICHARD PHILLIPS: -- the insurance company will say, I know, but I'm going to put you into 11 12 this residual market mechanism. 13 MR. TED ZUBULAKE: Right. 14 DR. RICHARD PHILLIPS: That mechanism 15 would then charge a premium that was set by the insurance 16 commissioner in the state and at the end of the year if 17 there was a loss in that mechanism, then there was what 18 was known as a recoupment fee --19 MR. TED ZUBULAKE: Right. 20 DR. RICHARD PHILLIPS: -- that was 21 essentially a tax on private consumers in the private 22 market and it flowed directly to that residual market 23 mechanism. 24 MR. TED ZUBULAKE: But in setting the 25 rate for the residual market, did the commission

1 knowingly --

2 DR. RICHARD PHILLIPS: Oh yeah. 3 MR. TED ZUBULAKE: -- suppress the rate? 4 DR. RICHARD PHILLIPS: Oh, sure. 5 MR. TED ZUBULAKE: So then you -- I 6 thought you said earlier that it was designed not to lose 7 money. Again that's not -- that wasn't --8 DR. RICHARD PHILLIPS: After the reform 9 it's designed not to lose any --10 MR. TED ZUBULAKE: Maybe I just misheard. 11 DR. RICHARD PHILLIPS: -- but just to 12 give you an example. In -- this is the most extreme so 13 kind of the bottom out. In 1996 the earned premium in 14 the residual market facility was \$490 million of which 15 the net underwriting loss was \$200 million. 16 So the -- the kind of a ratio of the loss 17 relative to the premiums that were earned was a negative 18 41 percent --19 MR. TED ZUBULAKE: Right. 20 DR. RICHARD PHILLIPS: -- loss. There's 21 no -- that does include the underwriting expenses but it 22 doesn't include if you were actually running this as an 23 insurance company, there's no capital backing that, 24 there's no tax associated with that capital, there's no -25 - there's no promised return to the capital provider.

1	MR. TED ZUBULAKE: Right.
2	DR. RICHARD PHILLIPS: So, you know, a
3	negative 40 percent return should really be a negative
4	fifty-five (55), you know, something like that.
5	MR. TED ZUBULAKE: But in this province
6	things are a little different. In theory you might
7	disagree with the number, but in theory there should
8	be enough money in the system to provide for any losses
9	incurred by the pools that we have, that exist in
10	Alberta.
11	DR. RICHARD PHILLIPS: And that was the
12	theory in the in the late 1970's in South Carolina as
13	well. It was very small
14	MR. TED ZUBULAKE: Right.
15	DR. RICHARD PHILLIPS: and when it's
16	very small you can collect a very small subsidy from the
17	ninety (90) or 95 percent of people that are in the
18	private market and that mass of people may be paying a
19	little bit to just a few when the when the losses are
20	relatively small
21	MR. TED ZUBULAKE: Right.
22	DR. RICHARD PHILLIPS: doesn't really
23	affect very much.
24	MR. TED ZUBULAKE: Right.
25	DR. RICHARD PHILLIPS: But then over time

1 you allow this to just grow and grow and grow. 2 MR. TED ZUBULAKE: Right. 3 DR. RICHARD PHILLIPS: And so what 4 happens is now you have 50 percent of the market paying a 5 tax --6 MR. TED ZUBULAKE: Right. 7 DR. RICHARD PHILLIPS: -- and 50 percent 8 of the market receiving a subsidy. And so every time you 9 transfer another person over there the losses get bigger 10 over here and the fees that these guys have to pay get 11 larger on a per-person basis and there's less of them. 12 MR. TED ZUBULAKE: Right. 13 DR. RICHARD PHILLIPS: And so what 14 happens is that you just -- you drive this wedge further 15 and further into the system. 16 MR. TED ZUBULAKE: Yes. And one (1) last point. You mentioned that under the new reform that 17 18 South Carolina went to flex rating. 19 DR. RICHARD PHILLIPS: Hmm hmm. 20 MR. TED ZUBULAKE: Two (2) questions. A 21 question and a comment. What about the filings that are 22 not within the threshold, are they still subject to prior 23 approval? 24 DR. RICHARD PHILLIPS: The filings that 25 are inside the bound?

1 No. Outside the MR. TED ZUBULAKE: 2 bounds. 3 DR. RICHARD PHILLIPS: Outside the bound, 4 they -- the insurance commissioner has the right to 5 review those before they can be put into place --6 MR. TED ZUBULAKE: Okay. -- or used in the 7 DR. RICHARD PHILLIPS: 8 marketplace. 9 MR. TED ZUBULAKE: They will be subject, 10 I guess, you're saying prior approval. 11 DR. RICHARD PHILLIPS: Right. 12 MR. TED ZUBULAKE: Just to let you know. 13 I also provide actuarial consulting services to the 14 State of Rhode Island. 15 DR. RICHARD PHILLIPS: Okay. 16 MR. TED ZUBULAKE: Rhode Island is technically a file-and-use state but for years it's been 17 a more rigorous file-and-use state because filings were 18 19 subject to prior review by outside actuaries like me. 20 DR. RICHARD PHILLIPS: Okay. 21 MR. TED ZUBULAKE: And companies would 22 generally not implement the rates until they got that 23 stamp back from the Department, even though it was a 24 file-and-use state. 25 DR. RICHARD PHILLIPS: Right.

went to a flex-rating system about a year ago. In Rhode Island the band is plus or minus 5 percent. What we're seeing now, the company is still required to make filings that they have to provide DR. RICHARD PHILLIPS: Hmm hmm. MR. TED ZUBULAKE: full actuarial indications even though they can get the 5 percent increase automatically. What we're seeing, a number of companies are submitting filings with rate indications of large negative indications, yet they're asking for a plus 5 percent increase. Js Is that the way flex-rating in competition is supposed to work? DR. RICHARD PHILLIPS: Are you saying MR. TED ZUBULAKE: Even though the companies say, Our actuary has calculated an indication of minus ten (10), if we should reduce our rates by 10 percent, we're asking for a 5 percent increase. And since it's within the flex-rating bounds, you know, we're implementing it and, Department, you can't stop us, that kind of thing. Kind of thing. South Carolina happening?	1	MR. TED ZUBULAKE: Anyway, Rhode Island
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<pre>22 kind of thing. 23 DR. RICHARD PHILLIPS: I 24 MR. TED ZUBULAKE: Did you see that in</pre>	20	since it's within the flex-rating bounds, you know, we're
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24 MR. TED ZUBULAKE: Did you see that in	22	kind of thing.
	23	DR. RICHARD PHILLIPS: I
25 South Carolina happening?	24	MR. TED ZUBULAKE: Did you see that in
	25	South Carolina happening?

1 DR. RICHARD PHILLIPS: I'd be real 2 hesitant -- I don't know the Rhode Island --3 MR. TED ZUBULAKE: Yes. 4 DR. RICHARD PHILLIPS: -- marketplace --5 MR. TED ZUBULAKE: Right. -- at all. So I'm 6 DR. RICHARD PHILLIPS: 7 a little bit nervous to comment on it --8 MR. TED ZUBULAKE: But in South Carolina 9 are companies required to file, since they implemented 10 flex-rating, are a lot of companies just simply taking plus five (5), plus five (5), plus five (5) and --11 DR. RICHARD PHILLIPS: I just haven't 12 13 been involved with the -- in the post-reform --14 MR. TED ZUBULAKE: Okay. 15 DR. RICHARD PHILLIPS: -- to actually, 16 you know, set in the working elements there. So I -- I guess I'm must a little reluctant to --17 18 MS. JANE VOLL: Richard --DR. RICHARD PHILLIPS: -- comment on 19 20 that. 21 MS. JANE VOLL: -- Richard Gauthier and 22 Derrig and -- and Sharon may have a point on flex-rating 23 systems with -- given their experience with those types 24 of systems. 25 MR. TED ZUBULAKE: But I don't want to

take away from the order of presentation. 1 2 MS. JANE VOLL: No. It --3 MR. TED ZUBULAKE: Okay. 4 MR. RICHARD GAUTHIER: If I may for a 5 moment. In my experience companies have -- have their 6 indication and then they have their selection. And what 7 I've seen is indications of X -- of minus X and then they 8 decide to reduce their rates by a little amount smaller 9 than X, so call it 9 percent of non-indicative 10 indication. But conversely too, if the indication is 11 plus ten (10), they may decide to go plus seven (7). 12 Like, in my experience, companies are -in the Canadian environment companies are much more 13 14 concerned about price stability than it first appears, 15 okay? In the sense that they are -- they have their 16 indication and they are not creature of extreme, they're creature of -- of caution. 17 18 So my experience whether -- has been that 19 indications are -- are in fact indications, selections 20 are made and for the most part the selections are 21 tempered values of the plus and minuses with a view --22 with a view -- that tempering is done with a view of --23 towards price stability. 24 But you say that but MR. TED ZUBULAKE: 25 yet it was for that reason, price instability, that was

one (1) of the reasons why I think Alberta went for this 1 system , like, there's a price instability that -- more 2 3 in the late 90' and early 2000. 4 THE CHAIRPERSON: Jack, do you have a 5 question? 6 MR. JACK DONAHUE: Actually, yes, 7 probably more of a comment than a question, but maybe 8 following up on that. The statement that South 9 Carolina's reforms were prevalent twenty (20) years ago, 10 where at Cal -- Alberta is today I think is sort of not 11 fully there. Alberta didn't look at only one (1) side 12 13 of the equation. South Carolina looked at one (1) side 14 of the equation, the income side, regulated premiums. 15 Alberta not only regulates premiums only 16 for mandatory coverage but they address the cost side, 17 the claim side. And what they did was they put in major 18 tort reforms in this province as part of these reforms, 19 major tort reforms that limited to four thousand dollars 20 (\$4,000) for non-exemplary minor damages. They're about 21 8 percent of all claims cost in this province. 22 And we brought in diagnostic treatment 23 protocols designed by the medical profession here to get 24 victims back out on the street quicker and produce costs. So that had the effect of taking out a quarter of a 25

billion dollars out of the system on the claim side. 1 2 So when you start to look at apples to 3 apples, these aren't apples to us anymore. On one (1) side only you can talk about -- you have to understand--4 5 DR. RICHARD PHILLIPS: Yes. 6 MR. JACK DONAHUE: -- there was another 7 side in Alberta, none of this was ever addressed in 8 South Carolina. Yeah. And my 9 DR. RICHARD PHILLIPS: 10 understanding in conversations is that those -- those 11 reforms have been pretty successful here. And that --12 that clearly is something that South Carolina did not do, 13 which allowed for kind of the rampant cost inflation that 14 -- that you saw and led to -- led to some of this. 15 But I don't -- that being said, I don't 16 think you can ignore the outcome that you had in South 17 Carolina. I think, you know, the question is whether 18 you, to me, whether you want to trust the political 19 process to set these rates or you want to allow workable 20 competition to set these rates. 21 MR. JACK DONAHUE: I think that's what we 22 tried to do in Alberta, is to have a balance. 23 MR. JIM RIVAIT: No and we -- we 24 presented it and Rich heard some of our discussion 25 yesterday, we present it as -- as quite balanced and the

1 importance of the government seeing that balance. But I 2 mean --3 MR. DENNIS GARTNER: It's not a political 4 process that sets the rates in Alberta, it's a regulatory 5 process. A regulatory process based primarily on data 6 that the insurance companies supply through a statistical 7 agent. That's going to make the biggest difference at 8 the end of the day. 9 This Board sets rates independently. Ιt 10 doesn't go ask the Government or the Minister if it 11 should set rates. In fact, I think the Government or the 12 Minister -- if the Board thought it was acting 13 politically rather than in a regulatory fashion, would 14 instruct the Board to do its job. 15 So I take exception to the word political. 16 That's not where we're at. 17 MR. JIM RIVAIT: What I was saying that 18 while, yes, it was a balance and we got the two hundred 19 and fifty (250) to \$300 million, but we're not going to 20 get that again next year. So now when we go forward, if 21 you add that --22 MR. JACK DONAHUE: That's not a one (1) 23 year --24 MR. JIM RIVAIT: -- going to be a 25 reduction --

1 MR. JACK DONAHUE: -- one (1) year 2 arrangement. 3 MR. JIM RIVAIT: -- and that's the better 4 --better system. What's that, sorry? 5 MR. JACK DONAHUE: But that wasn't a one 6 (1) year one (1) time, that was put in place in the tort 7 reform --8 MR. JIM RIVAIT: No, we've saved it and 9 there's been premium reduction to reflect it. Now we're 10 going forward, setting premium reductions with this 11 system. 12 THE CHAIRPERSON: I think that exhausts 13 our questions. David just came in. And I announce, 14 David, that you've been appointed today. You don't know 15 it yet but you're on the Board. You were out of the 16 room, so --17 MR. DAVID MARSHALL: Thank you, Mr. 18 Savage. 19 THE CHAIRPERSON: So you can, if you take 20 a chance, you can ask questions but I'm not sure that 21 we'll accept them yet. You got to get --22 All right. Jim, go ahead. 23 MR. JIM RIVAIT: We'll go on with the New 24 Jersey and Massachusetts examples and then we'll get at 25 some of the -- the questions in -- in a bit more detail.

1	DR. SHARON TENNYSON: May
2	MR. JIM RIVAIT: Sorry.
3	DR. SHARON TENNYSON: may I just
4	interject here that we're we're looking at these four
5	(4) examples and I I don't think anybody means to
6	suggest that any one of these examples is a replica of
7	what's going on in Alberta.
8	We're we're presenting some experiences
9	from different states in the United States as these case
10	studies of of what has happened in particular states
11	in the United States and we'll try to this is from an
12	academic perspective. Well, I sort of joked about
13	selling the book.
14	This you've all been provided with
15	copies of these academic papers I think
16	THE CHAIRPERSON: Yes, we have.
17	DR. SHARON TENNYSON: as part of our
18	reply. This this is not a book that we publish; it's
19	a book that came out of a a conference sponsored by
20	AEI-Brookings Institute which was the the forum for
21	starting these case studies of the different ways of
22	regulating automobile insurance rates in the US states.
23	So we're presenting these case studies to
24	you as part of the academic literature on models of
25	regulation, what works, what doesn't and I I don't

think anybody means to suggest that one (1) particular 1 2 case is representative of what's going on in Alberta. 3 So you'll -- you'll hear some other things 4 as well so don't -- don't think we're also saying that, 5 you know, every other model is exactly what's going on. 6 THE CHAIRPERSON: Go ahead, proceed. 7 MS. JANE VOLL: Of course if Alberta 8 looked like Illinois that would be fine. 9 10 CONTINUED BY IBC: 11 DR. RICHARD DERRIG: All right. In 12 Jersey and Massachusetts, interesting states. I grew up in New Jersey so I know an awful lot about New Jersey and 13 14 I worked for most of my career in Massachusetts. 15 I was chosen by this group, the Brookings 16 folks, to review the analysis that's in there on New 17 Jersey and Massachusetts. 18 And so these are slides you'll see up here 19 taken from my commentary in the book. And you just heard 20 about South Carolina and Illinois and their average 21 premiums being ranked twenty (20), thirty (30) out of 22 fifty (50) in the -- in the country. 23 Let's start with the old days. In 1989 24 Massachusetts was fifth highest in average expenditure 25 and New Jersey was first. 1998, Massachusetts had a

1 reform law which I'll get to in a moment that moved us at 2 least down to ten (10). New Jersey as you might notice 3 there is still number 1.

The problem is illustrated by the next slide which is if you look at the '90s, Massachusetts had an overall underwriting profit of minus -- about minus 3. New Jersey was ten (10) points lower based on much higher premiums.

9 So companies were losing quite a bit of 10 money in New Jersey. The crisis about prices was 11 building and among the analysts that were independent and 12 outside of the insurance industry of which Dowling 13 Company in Connecticut is one (1), they tagged 14 Massachusetts and New Jersey as the only two (2) states 15 that had these two (2) qualities. They were high 16 regulatory environments, they had high risks, and they 17 had low profitability prospects.

So when you have people out there talking to the marketplace about companies, whether or not they would like to do business in either of these two (2) states and their advice is, these two (2), it's not a good -- it's not a good situation.

23 So why was New Jersey so negative and why 24 did they have the highest possible premiums in the -- in 25 the United States? Well, on the company's side they --

1 first of all they had an excess profit blowout which was 2 ludicrous given the big losses they were having. 3 Secondly, next to Massachusetts they had 4 theft and fraud rings that were out of control. As a 5 matter of fact most of the -- there -- there actually was 6 an economic paper written about why rates were so high in 7 Philadelphia and it was because they were New Jersey 8 drivers coming over and registering in -- in Philadelphia 9 believe it or not. 10 Along the way they invented different 11 kinds of residual markets and the way that it actually worked was you'd start with one (1) until it had a huge 12 13 deficit and then there would be a reform and somebody 14 would be charged a deficit and they'd move on to another 15 one. 16 So I'm only talking about one (1) round, which is a -- a joint underwriting association where the 17 deficit reached about 3 billion that were then tacked 18 19 onto all the rest of the companies which then was passed 20 on to consumers. And I believe near the end there was a 21 sixty dollar (\$60) charge added to everybody's bill. 22 And then finally there was, in terms of 23 regulatory control, the Commissioner of New Jersey had a 24 unique way of looking at rates, especially profitability. 25 And they invented a term called surplus-

1 surplus which meant that they could decide that there was 2 a part of the capital behind a company that just sort of 3 wasn't worth considering because, well, maybe it had too 4 much.

5 Well, what's too much? Too much is in 6 the eyes of the beholder. And they had from 1970 through 7 at least the beginning of 2000, the Commissioner had the 8 ability to deny the use of part of the capital and then 9 use that.

10 So what did the big reform do at the end 11 of the last millennium? The new legislation that turned 12 New Jersey around had first of all given New -- New 13 Jersey insurance companies the ability to set individual 14 claim risk rates.

15 That is they -- they threw out, like 16 California -- I'm sorry, like South Carolina, they threw out the restrictions, the excess profit law was repealed, 17 18 the required refunds, in case of high profits, that never 19 were there, they invested in both statutory changes and 20 in a better fraud bureau activities along with the 21 Attorney General, to in fact provide governmental resources to reduce fraud. 22

And the residual market deficit is now pretty low. It's nowhere near the billions that were in the -- in the past.

1	So New Jersey is another turnaround. It's
2	a little later occurring so that we don't have the great
3	hindsight that South Carolina has for New Jersey, but
4	there are plenty of indications so far that these reforms
5	at the end of the 90's and the reforms only a year or two
6	(2) ago are both working and the companies are coming in
7	and they're they're actively competing for for
8	business.
9	As a matter of fact, someone told me, from
10	people I know because I live there, that you can almost
11	go nowhere now in New Jersey without seeing
12	advertisements for auto insurance, and this is completely
13	new in the last two (2) or three (3) years; that was the
14	turnaround.
15	Now, in Massachusetts, where I have the
16	most experience, the current regulatory regime began in
17	1978. You might ask, Why 1978? Well, because 1977 was
18	the year of competitive rates. Competitive rates lasted
19	three (3) months.
20	As soon as the Boston legislators were
21	charged what they actually incurred, they repealed it.
22	They actually didn't repeal it because that wasn't a good
23	idea, but they gave the Commissioner the ability to
24	suspend the competitive rating law and set premiums.
25	And this year, for 2007, for the thirtieth

1	consecutive year the Commissioner is suspending
2	competitive rates and in setting premiums.
3	The premiums are estimated by one (1)
4	industry-wide average value model. That is, We're going
5	to set rates and we're going to try to make it average
6	rates and then that's what everybody will pay. No
7	innovations. No differentiation. If you can get below
8	those rates, feel free to do it but generally we're
9	we're going to set the rate for what everybody pays.
10	And you were talking about models and so
11	on, what's the profit model. Well, it's not so much the
12	model that matters but it's the selection of the
13	parameters. So you could select minus five (5), you
14	could select plus five (5), you could select plus ten
15	(10), but if the estimation of the claims and the
16	expenses are too low that's not what's really in the
17	rates.
18	What's really in the rates might be much
19	less. So that it's the parameters that really matter.
20	And in Massachusetts over those years we
21	have, since competitive rating was suspended, we have
22	really two (2) distinct eras which I think provide you
23	with some experience as to what might happen given the
24	way that the regulation was was actually done.
25	First of all, the two (2) eras are 1978 to

1 1996 and then 1998 to about 2006. At the end, where we 2 are right now, there's a slowly eliminating competition 3 by lowering the ceilings, that is the average rates. 4 1997 to 1998, ceiling-like rates that increased 5 competition. And, you know, let me show you the numbers. 6 In era number one, that was the era of 7 rate -- rate suppression. And the -- the graphic that's 8 up there is how the actuaries -- this goes back to the 9 South Carolina -- how the actuaries who were listened to 10 by the rate -- State regulator underestimated the claims 11 and expenses and maybe even had, you know, reasonable 12 profits provisions. 13 At the end, looking back from 1978 to 14 1989, until the Government reformed the whole system, you 15 can see that virtually every year the actual cost of the 16 policies were underestimated to as much as minus 19 17 percent of an underestimation. 18 And then you see over in 1987/1988 there's 19 -- they only estimated -- underestimated it by 3.6 and 20 minus 2 percent. That's because the Supreme Court 21 intervened and forced the -- the Insurance Commissioner 22 to raise rates by an average of 8 to 10 percent each of 23 those years. 24 So this is what happens when you really 25 want to suppress rates and you dictate average rates that

are ceilings that are inadequate. Now, again, there's no 1 2 -- there's no indication that this is what's going to happen or is -- is about to happen in -- in Alberta. 3 4 The second era I think is a little more 5 instructive. The era comes from a massive reform law 6 that was passed in 1989 that changed the way bodily 7 injury liability was distributed, the claims were paid 8 and so on, changed lots of pieces of how the market 9 operated. 10 It didn't change the way the Commissioner 11 was still allowed to suspend competition but what it did was it -- the -- and I think this goes back to your point 12 13 -- what it did was it lowered the cost. 14 And so with the cost being lowered, that 15 meant that the rates could go down. And what happened 16 was in fact the rates did not go down as set by the 17 Commissioner. 18 And so what I show here in this graphic is 19 that beginning in 1995, when companies virtually did not 20 deviate from the Commissioner's rates and essentially the 21 -- the rates were very redundant, companies made a lot of 22 money. 23 Once they knew that that's the way it was going to work, in 1996 there was an average discount 24 25 deviations across all companies of minus seven -- minus 7 1/2 percent. So here's the ceiling. The average company
 rate was 7 1/2 percent below that. The next year it was
 9 percent below that.

And one (1) thing that I'm not even showing in the graphic is that companies also competed on the finance charge plans. Many of them eliminated the interest rate on finance charges, which is worth about between one (1) and 2 percent, even more.

9 And then as we went on toward, you know, 10 today, what happened was the -- the Commissioner -- the 11 State kind of reversed that policy, very slowly, but as 12 they reversed the ceiling rates the discounts and 13 deviations went down.

And so we are now in the 2005, which is the latest data, there's only about 1.8 percent across the whole industry of the discount from the Commissioner's rates and yet the -- the actual claim costs are going down and down and down.

19

20 Mostly as a result of fraud elimination 21 across the State of Massachusetts on the order of 250 22 maybe even up to as high as \$400 million. So that's my 23 illustration of competition on their ceiling if the 24 companies want to do it, they can do it and they will do 25 it as long as they have some confidence and as soon as

the suppression or the -- the aura of setting rates 1 2 perhaps too low they'll go back the other way. 3 You -- you don't do it. So that's the 4 sticky price story and the rates and in the last two (2) 5 years by the way have gone down 5 percent. I think last 6 year was 8 percent. So, you know, the ceiling's coming 7 down but it's not coming down as fast as the same as 8 we're making by taking fraud out of the system; mostly on 9 bodily injury. 10 So the lessons from Massachusetts from my 11 perspective is that you should seriously consider setting 12 maximum rates that are maximums imitating Massachusetts 13 in 1997 would be really nice which means that given your 14 questions for this Hearing, that would mean to talk about 15 the Return on Equity as perhaps either a -- a range where 16 the maximum rates are using the higher end of the rate 17 estimate for equity, lowest and estimates for expected 18 asset returns and fair estimates for losses expenses from 19 taxes. 20 One (1) thing that's not on here which I 21 should also -- I'd like to mention is that California is 22 joining Massachusetts in the sticky prices these days. 23 The costs in California are going down. They went down 24 in the -- after the -- in the 90's rather. That's 25 documented in this book.

1	The costs went down and the rates did not
2	go down. Not as fast. And the reason was because the
3	insurers had no faith that the the Proposition 103
4	Restrictions would be would not be reimposed.
5	That was 1988 and we are now in 2006 and
6	the Commissioner is considering re-imposing Proposition
7	103 Restrictions on profit and on subsidies and so forth.
8	And there prices again like in the '90's
9	are sticking too high given the costs. And the reason is
10	because the regulator is sending the wrong signal about
11	don't bother competing because worse days are coming,
12	we're going to be passing they've already passed one
13	(1) of the sets of regulations on subsidies and they're
14	about to pass the other the other half. The other
15	shoe is about to drop.
16	So my final point is only true competitive
17	efficient markets can produce prices that cover all costs
18	and induce innovation to the benefit of policyholders. I
19	tried to rack my brain for the innovations since 1978 in
20	Massachusetts and as far as I can tell there aren't any.
21	I mean, all of these things that are now
22	popping up in New Jersey about accident forgiveness from
23	Allstate, all the other range of things that have changed
24	the marketplace out of product offering.
25	I believe we have exactly the same product

1	that we had in 1978 and there won't be any because the
2	companies are not free to to act.
3	And as I was telling someone at the break,
4	Progressive which is the most active competitor in the
5	United States is now the third largest company for auto
6	insurance, visits the Commissioner of Insurance in
7	Massachusetts annually where she asks them, you know, is
8	it about time that you enter Massachusetts?
9	And they keep telling her, no. But this
10	year they are in Massachusetts for the first time they're
11	writing and they're writing only competitive commercial
12	auto which has been competitive since 1981. So it's only
13	private passenger that's really been restricted with the
14	sticky prices.
15	The commercial market has been humming
16	along with rates going up and down over that time and has
17	the attractiveness even given the situation of
18	Massachusetts of attracting Progressive to come and to
19	start to capture the market from the domestic companies.
20	So that's sort of my my take on it.
21	The regulatory alternatives which is the the last
22	slide I'll talk about that that lie before all of
23	these regulators are first of all, relying on competitive
24	markets.
25	Illinois is the big example. Secondly, a

low price ceiling, price cost uniformity is 1 2 Massachusetts, monitoring the market average and allowing 3 for a range of competition. That's the flex-rating view 4 and fourth is promoting competition through an effective 5 price ceiling which is what I understand a -- the 6 proposal here is today. 7 So we're proof that it can work, we're 8 proof that it can -- it's also possible not to work 9 depending on the attitudes of the signal sent to the 10 marketplace. And the final answer by the way is these 11 folks talked about, you know, Rich talked about only a hundred (100) companies in South Carolina and now there's 12 13 almost two hundred (200) companies. 14 And that's the norm in the southeast in 15 Massachusetts. Would you like to guess how many 16 companies write private passenger auto in Massachusetts? Hearing none, the answer is 17 and most of them you 17 18 probably have never heard of. 19 THE CHAIRPERSON: Thank you. Are you 20 going to stop for questions now? Questions from this 21 end? No questions? Questions...? 22 23 CONTINUED OUESTIONS BY BOARD: 24 First as to your point MR. TED ZUBULAKE: 25 about New Jersey having the highest rates in the US, I --

I live in New Jersey. I just want to say that we New 1 2 Jerseyians are darn proud of that we're number 1 in 3 something. 4 MR. JIM RIVAIT: There's lots of jokes 5 about New Jersey being number 1 in a bunch of stuff. 6 THE CHAIRPERSON: Thank you. 7 MR. TED ZUBULAKE: But more seriously. 8 Again, this is a hearing, a meeting, a session about 9 profit margin. 10 Can you tell us what profit margin is 11 used in Massachusetts in the annual rate setting process? 12 DR. RICHARD DERRIG: Well what I'm 13 telling you with those two graphics is that the formal 14 number that's used is less important than what than what 15 the final one is. 16 MR. TED ZUBULAKE: No, but what I'd would like to know what the formal number is with all respect. 17 DR. RICHARD DERRIG: Well the formal 18 19 number comes out of the -- this modelling, whole 20 modelling techniques and selection of parameters. And 21 the selection of parameters determines what the final 22 answer is. 23 MR. TED ZUBULAKE: Okay then what is the 24 target, the Return on Equity that is an input to that 25 model?

1 DR. RICHARD DERRIG: The -- the equity 2 cost to capital has been around -- indicated by -- by a 3 value line and the discounted cash flow model has been around eleven (11). 4 5 The Commissioner currently is choosing the 6 lower numbers which is why the signal is we're not really interested in allowing you to compete under this number. 7 8 MR. TED ZUBULAKE: But just so I 9 understand, you -- you called it a return -- a, what was 10 it, capital -- cost of equity capital of 11 percent. Is 11 that what you..? DR. RICHARD DERRIG: The -- the value 12 line numbers are around eleven (11). 13 MR. TED ZUBULAKE: But you called that a 14 15 cost of equity capital. 16 DR. RICHARD DERRIG: Right. 17 MR. TED ZUBULAKE: Now is that the -- is that the same as a target return on equity. I -- I don't 18 know a lot about this but --19 20 DR. RICHARD DERRIG: That's the same as 21 the target return on equity. But what about the 22 MR. TED ZUBULAKE: cost of debt? Isn't that in fact the --23 24 DR. RICHARD DERRIG: The cost of debt is 25 in there and for --

1 MR. TED ZUBULAKE: Is that embedded in 2 the --3 DR. RICHARD DERRIG: -- for Massachusetts 4 insurers we don't use that. We use the national and the 5 national is roughly 20 percent. 6 MR. TED ZUBULAKE: Cost of debt is 20 7 percent? DR. RICHARD DERRIG: 8 No, no, no, no, no. 9 Twenty percent debt which is --10 MR. TED ZUBULAKE: Right. 11 DR. RICHARD DERRIG: -- I think believe a 12 far cry from Canada. 13 MR. TED ZUBULAKE: Right, right. 14 DR. RICHARD DERRIG: Which is more like 15 two (2). MR. TED ZUBULAKE: 16 So -- so we understand, we were trying to relate Massachusetts' 17 profit numbers with what we're trying to --18 19 DR. RICHARD DERRIG: Well the current --20 the current numbers finally come out to be about zero. 21 MR. TED ZUBULAKE: No, that's a profit 22 model. But I'm saying you start with a -- a --23 apparently input it to this -- internal rate of return model --24 25 DR. RICHARD DERRIG: Yeah.

1 MR. TED ZUBULAKE: -- is a 11 percent 2 cost of equity capital. Some number -- some -- some cost 3 of debt capital I gather which gets 20 percent weight 4 which must be lower than the 11 percent --5 DR. RICHARD DERRIG: Right. 6 MR. TED ZUBULAKE: -- so what is the 7 weighted average cost of capital I guess is the way to 8 put it that enters into that IRR model? 9 DR. RICHARD DERRIG: Well if you -- if 10 you take the estimate based on the public data correctly interpreted which is our view, you'd end up with 11 something between ten (10) and twelve (12). 12 13 If you -- the Commissioner chooses to go 14 lower they can because something you'll --15 MR. TED ZUBULAKE: Can I ask --16 DR. RICHARD DERRIG -- excuse me. 17 MR. TED ZUBULAKE: Sorry. 18 DR. RICHARD DERRIG: But something you'll 19 hear about how you can underestimate betas when -- so you 20 can choose low -- low returns if you'd like to. And 21 currently Commissioner's choosing lower returns --22 MR. TED ZUBULAKE: Right. 23 DR. RICHARD DERRIG: -- and that's 24 pressing the -- the rates and you see the results that 25 companies are not competing.

1 MR. TED ZUBULAKE: I understand that but 2 the industry whoever test -- presents at that public 3 hearing on behalf of the companies --4 DR. RICHARD DERRIG: That's me. 5 MR. TED ZUBULAKE: That's you. You're 6 using -- I'm confused now. Before you said 11 percent 7 cost of equity capital --8 DR. RICHARD DERRIG: Right. Plus -- plus 9 -- excuse me, plus the size effect of about 2 percent 10 now. So we're talking about eleven (11) to almost --MR. TED ZUBULAKE: 11 But -- but where is 12 the cost of debt capital factored in? Is it -- is it --13 DR. RICHARD DERRIG: It gets -- that 14 gets factored in as 20 percent rate -- weight on actual--15 MR. TED ZUBULAKE: Okay. 16 DR. RICHARD DERRIG: -- debt that's owed 17 by the companies --18 MR. TED ZUBULAKE: Okay. I'm asking but 19 what is the weighted average then, please? What -- what 20 is the final target return -- target cost of capital that 21 reflects the weighting of the cost of debt and cost of 22 equity that goes into that IRR model? 23 DR. RICHARD DERRIG: You have it here. I -- I forget the number but it's probably around ten (10), 24 25 between ten (10) and eleven (11).

1 MR. TED ZUBULAKE: But aren't you the one 2 that -- you -- you -- you run the model, right? 3 DR. RICHARD DERRIG: You know, we're 8 --800 pages of numbers and I can't remember them all. 4 5 MR. TED ZUBULAKE: There's -- there's 6 no --7 DR. RICHARD DERRIG: This time I know the 8 cost of equity is roughly eleven (11) and --9 MR. TED ZUBULAKE: Okay. 10 DR. RICHARD DERRIG: -- and the small 11 size effect is one point nine (1.9) --12 MR. TED ZUBULAKE: Okay. 13 DR. RICHARD DERRIG: -- I remember that 14 so we're now around thirteen (13) --15 MR. TED ZUBULAKE: Okay. DR. RICHARD DERRIG: -- and then weighted 16 with debt. Debt is about 5 to 6 percent and it's after 17 18 tax. You know, you can do the arithmetic. 19 MR. TED ZUBULAKE: Right. 20 DR. RICHARD DERRIG: The Commissioner 21 chooses to go much lower than that --22 MR. TED ZUBULAKE: Okay. 23 DR. RICHARD DERRIG: -- because they use the underestimate of -- of betas which --24 25 MR. TED ZUBULAKE: Right.

1 DR. RICHARD DERRIG: -- Richard just 2 talked about and so they end up with, you know, a total--3 MR. TED ZUBULAKE: Right. 4 DR. RICHARD DERRIG: -- return on capital 5 of about nine/nine and a half  $(9/9 \ 1/2)$ . 6 MR. TED ZUBULAKE: But -- but in your 7 opinion it should be closer to the ten/eleven(10/11) 8 range, is that what you're saying? 9 DR. RICHARD DERRIG: No. My opinion is 10 that it should be near thirteen (13) because it's eleven 11 (11) plus --12 MR. TED ZUBULAKE: Sorry. I -- I with --13 I'll stop. We're not -- obviously we're not 14 understanding each other. 15 THE CHAIRPERSON: All right. Jim, carry 16 on. 17 CONTINUED BY IBC: 18 19 MR. JIM RIVAIT: Okay. I'll pass it onto 20 Sharon. 21 DR. SHARON TENNYSON: May I just try to 22 draw this together, the -- the discussion of these cases 23 of different regulatory approaches in US jurisdictions. 24 Why -- why we brought these particular 25 case studies forward to you is that we see some

1 similarities between the regulatory systems in some of 2 these states and what happens in Alberta. 3 The states that we've looked at except for 4 Illinois have direct intervention in rate setting and in 5 some cases like Massachusetts in price setting. 6 They also tend to have social pricing 7 objectives so a concern with promoting universal coverage 8 which means that some groups of drivers receive rates 9 that promote that objective. 10 And the cautionary tale that -- that we're 11 bringing to you as you consider the appropriate rate of return or profit setting of objectives in your regulatory 12 13 deliberations is that in these jurisdictions in which 14 we've seen these big problems, regulators have taken a 15 very conservative approach that have led to low rates of 16 return for insurers and -- and we think in many of these cases rates of return that are below the competitive 17 level. 18 So this is how it relates to 19 20 considerations of how did the return -- how to determine 21 appropriate profit rates, how to determine return --22 appropriate rates of return on equity, not in terms of 23 determining specific numbers but rather to point out that 24 taking overly conservative approaches can pass some 25 significant negative effects in a long term.

1 So the -- the lessons from these 2 jurisdictions that are brought out in these -- these 3 academic studies of these regulative markets are first of all, that regulatory attempts to hold down prices by 4 5 holding down insurer profits adversely affect insurance 6 supply. 7 We see that in these markets in 8 Massachusetts. In the 1970's there were over a hundred 9 (100) insurers operating in the marketplace as Richard 10 tells you, by 2006 we have seventeen (17) insurers 11 willing to operate in that marketplace. We see similar effects in New Jersey and 12 13 South Carolina although less dramatic in those cases. 14 The -- the point is is that capital demands are 15 competitive rate of return and if capital doesn't get a 16 competitive rate of return it seeks other markets. 17 And this is not something that is -- is in 18 a sense in the control of an insurance company, right? 19 An insurance company needs access to capital to operate 20 and it's the capital markets that are going to demand 21 that -- that competitive rate of return. 22 The second lesson that -- that I think 23 these case studies bring out is that regulatory pricing 24 that -- that leads to cross -- substantially cross 25 subsidized rates for some drivers leads the higher

1 insurance prices for all drivers. 2 Now this is a new recognition and it's 3 just coming out in the academic literature in the last 4 five (5) or six (6) years. We've known for a long time 5 that large residual markets are a marker of problems in 6 the market, right? 7 And -- and the, you know, competition is 8 somehow not working and until recently that's been the 9 extent of understanding. 10 There are a number of studies including a 11 case study of Massachusetts which I have -- which I think 12 you have a copy of which I did the case study of South 13 Carolina. 14 The New Jersey experience, studies in the 15 Workers Compensation Insurance markets in the United 16 States by Scott Harrington and Patricia Danzon and a study that I'd done with co-authors comparing cross-17 18 sectionally across US states auto insurance markets. 19 All are starting to -- to emerge with the 20 same results which is not just that large residual 21 markets are an indicator of some problem in the market 22 but in fact that large residual markets in turn cause 23 problems in the market. 24 So that -- that these types of attempts to 25 -- to hold down prices for some drivers that create large

1 residual markets ultimately backfire in the sense that 2 incentives are distorted, insurers' incentives are 3 distorted and drivers' incentives are distorted in ways that lead to higher loss costs in the market as a whole. 4 5 And it becomes this vicious cycle, prices 6 are rising because losses are rising and there's this pressure on prices, something has to be done from the 7 8 regulators' perspective but this -- this actually 9 promotes adverse results by -- by populating the residual 10 market. 11 So this is -- this is what we see in recent studies of the impact of residual markets. 12 13 There's a causal affect, not just an indicator of 14 problems but that in and out themselves large residual 15 markets seem to cause additional problems in the 16 insurance market. 17 A third lesson that comes out from our examination of -- of these case studies of US states, is 18 19 that the state that has significantly reformed their 20 regulations to ease the reins away from holding down 21 profits and extreme forms of social pricing have indeed 22 seen increased competition and lower prices. 23 We see this in South Carolina, we see this 24 emerging in New Jersey, we see it in the Massachusetts 25 experience although they didn't change the regulatory

system endures and which effectively the Commissioner set 1 2 a price ceiling even with nineteen/twenty (19/20) 3 insurance companies in the market. 4 Do you see companies filing rates below 5 that rate? If it's not their competitive rate, 6 competitive pressures will lead insurance companies to --7 to price lower than -- than the regulated premium. 8 It's -- it's a difficult step, it's --9 it's a risky step I think for regulators to do but the 10 experience of these states shows that loosening the reins 11 on regulation actually has beneficial effects in the long 12 run. 13 Now, this is also consistent with what's 14 going on in regulation in other markets and consistent 15 with economic theory of regulation. In other industries 16 even monopoly markets that are regulated. 17 Over the past twenty (20) or twenty-five 18 (25) years theory has demonstrated and experience has 19 demonstrated and empirical evidence has demonstrated a 20 benefit to trying to use the regulatory mechanism to 21 harness competition where that's available and where 22 that's possible rather than squashing it. 23 Even -- even amongst monopolies they have 24 some incentives to innovate if they have a short-term 25 opportunity to earn profits and that has been the move in

1 modern regulatory thinking to allow those forces of 2 competition and the -- the drive to earn some profits to 3 operate in the market and that that is ultimately 4 beneficial and healthy for the marketplace. 5 The -- the last point that I will make 6 here is that this final point, prolonged attempts to 7 unlink prices from the total cost of providing insurance 8 has significant negative impacts on consumers, insurers, 9 and government. 10 I want to focus on the consumer part of 11 this because this is what's especially worrying to me from a public policy perspective. 12 13 Consumers in these markets that we --14 we've discussed when the market unravels in a sense are 15 the ones that are most harmed. The industry is harmed, 16 sure, because they lose some opportunity to -- for a profitable business but industry can seek out other 17 markets, right? 18 19 Companies that withdraw from Massachusetts 20 or South Carolina or New Jersey, they're not going out of 21 business, they're writing insurance somewhere else. 22 So companies can seek other provinces, 23 other states, other countries, other ventures to get 24 involved in if the market is regulated in such a way that 25 it's not profitable for companies to operate here.

1	Consumers don't have that option. If
2	regulation operates in a market in such a way as to
3	stifle competition and if that produces high prices, lack
4	of availability, little choice for consumers, poor
5	service for consumers, consumers are stuck with that
6	because they don't have that mobility. They're stuck
7	with the auto insurance market that they have in the
8	place that they live.
9	And so the real public policy concern here
10	over over the long haul from my perspective is is
11	what does this mean for consumers? So I think that's
12	
13	CONTINUED QUESTIONS BY BOARD:
14	MR. DAVID WHITE: And I have one (1)
15	THE CHAIRPERSON: Sure.
16	MR. DAVID WHITE: one (1) comment,
17	sir, one (1) question.
18	We just did a review of optional coverage.
19	We don't regulate optional coverage and hopefully we
20	won't end up regulating optional coverage but we see a
21	lot of surplus premium in there.
22	That's, you know, there's a competitive
23	market there supposedly but it doesn't seem to be
24	functioning very well.
25	It's the optional side of the coverage,

why --1 2 DR. SHARON TENNYSON: I'm going to leave 3 it to people --4 MR. DAVID WHITE: You can't --5 DR. SHARON TENNYSON: -- who focus on 6 numbers that -- I mean I don't know what you mean by you see a lot of surplus premium there, right? I'm -- as --7 8 as a matter of faith I'm going to tell you I don't 9 believe there's surplus premium there, right? 10 MR. DAVID WHITE: Well,... 11 DR. SHARON TENNYSON: That's my faith, but I don't know how you want to measure that. 12 13 MR. JIM RIVAIT: Let Richard Gauthier 14 take a crack at it. 15 MR. RICHARD GAUTHIER: For a -- a second 16 and I'll -- I'll tell you what my interpretation on that 17 is and I don't think an insurance company looks at 18 optional coverages as a -- as a competitive subset; 19 that's not what -- they -- they look at a policy and what 20 they charge the policy which is the combination of all 21 coverages combined, okay? So I think you -- you've got to be careful 22 23 to say, Well, I have a -- you know, the back wheel of my 24 car a competitive market because I can pick the tire, 25 whichever tire ---

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1 MR. DAVID WHITE: I can appreciate --2 MR. RICHARD GAUTHIER: -- I've got to get 3 the front tires too, you know. 4 MR. DAVID WHITE: I can appreciate that 5 but Ted did a study for the Board and presented a report 6 that showed there was a lot of --7 MR. TED ZUBULAKE: Redundancy. 8 MR. DAVID WHITE: They're charging a lot 9 more -- high profits and optionals are the coverage. 10 MR. RICHARD GAUTHIER: The optionals --MR. DAVID WHITE: 11 And we have a concern that -- is there a bit of gamesmanship here where you're 12 13 -- there's more premium to be taken on the optional side 14 to make up for what they think they should be making on 15 the mandatory side? 16 And we -- we have some concerns in this 17 area and, you know, this -- it's not a regulated part of 18 the market so why isn't there more competitive pricing? 19 It's a mystery to me. 20 MR. RICHARD GAUTHIER: The issue there is 21 a -- I don't think it's appropriate to look at the subset 22 of coverage. I think you have to look at the entire policy and the fact that they're making more money on one 23 24 (1) cover versus another. 25 MR. DAVID WHITE: But it's fairly

1 consistent is what we're saying. Fair enough. 2 MR. RICHARD GAUTHIER: Ι 3 think you -- still -- I still make my point. You have to 4 look at it on the entire policy and, yes, I mean does 5 that mean that, you know, in -- in any process you would 6 look at if someone has only mandatory coverages versus 7 having full coverages what does that mean because nobody 8 buys optional coverages only. 9 MR. DAVID WHITE: No. 10 MR. RICHARD GAUTHIER: Right. 11 MR. DAVID WHITE: You buy mandatory and 12 optionals, almost a misnomer, unless you're driving an 13 old wreck or you're going to buy a car or lease a car you 14 have to have optional coverage anyway so I mean we say 15 it's optional but really in the real world it's pretty 16 mandatory for most people. 17 MR. RICHARD GAUTHIER: But you have 18 options in regards to the deductibles. 19 MR. GRANT KELLY: It's kind of hard to 20 answer the question being that we haven't seen the study 21 but one (1) of the -- if -- Mr. Zubulake's now -- one (1) 22 of the core things that comes from the other 23 jurisdictions is that the assumptions that go into the 24 model and I'm sure in the analysis there's an assumption 25 about how much capital is needed underwriting profit

provisions over investment allocation, all those things, 1 2 and those individual assumptions can be aggressive, 3 average, conservative and that matters. 4 I'm sure if we took a look at this study 5 we'd come out with different assumptions. 6 MR. DAVID WHITE: I would imagine the 7 methodology is fairly consistent to what we use for 8 mandatory so, Ted -- Ted would have to speak to that. 9 MS. JANE VOLL: That's exactly the point, 10 Mr. White, is that every company and there's a company 11 actuaries coming in might be in a better position to 12 elaborate more but every company has its own modelling 13 process on which it puts its premiums, its surplus ratio, 14 its return on investment, its required cost of capital, 15 and the prices that it wants to do to -- to compete in 16 the market. 17 MR. DAVID WHITE: No, and -- and we hear 18 that during the annual review process every year so... 19 MS. JANE VOLL: Okay. And -- and all of 20 those -- there's a range of -- of reasonable assumptions 21 that an actuary can pick in there and -- and what we're 22 trying to bring into this discussion is that -- and I

25 their own accord -- accord to have price equal marginal

think Richard Derrig had a good example -- is that in

competitive markets companies have incentives all on

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1 costs and to do better than the next guy. 2 And if they're pricing their product in a 3 way that it's -- it's -- they're going to lose customers, you know, it's not going to meet their costs -- it 4 5 doesn't last. In the long run price equals marginal costs and it will get there. 6 7 And I think one (1) of the issues we're 8 hoping to expose here is that when any government body 9 and we deal with a number of them has one (1) formula and 10 it includes one (1) actuary's assumptions, it looks like 11 that is the read of the market, but you know, another 12 actuary could put in a different set of assumptions and 13 say, oh, no, that is the read of the market and another 14 actuary the same. 15 So while one (1) analysis and -- and again 16 having not seen it but my experience dealing in other 17 provinces in these types of matters is that one (1) -even the same model but with a certain set of assumptions 18 19 and it can lead one to conclude prices are too high and 20 then the exact same model, different set of assumptions, 21 can lead one to understand that prices are -- are not too 22 high.

And -- and the experience in Massachusetts was in that duelling actuary business where you say the -- the rates should be high, this variable should be low,

it -- it can lead to a consistent picking up the lower 2 range of those values and a consistent over time long run 3 under estimation of the price. So there's... 4 5 CONTINUED BY IBC: 6 MR. JIM RIVAIT: We've got to -- got to 7 finish up some other parts but I hope the -- the examples 8 certainly not Alberta, none of them Alberta, they all 9 have characteristics that I -- I think are important for 10 us to learn from in various places. 11 So I guess the question is how -- how does this relate to the mandate of -- of the Board? I mean 12 your mandate is to set maximum premiums. You know, how 13 14 can you do that in a way to support a competitive market? 15 That's the only question that we're 16 trying to get at and I'm going to pass it on to Richard 17 Gauthier to talk a bit about how we can get at some of 18 that. 19 So -- oh, sorry, are you on, Richard, 20 there? Did you want to say something, Jane? Sorry. I'm 21 sorry. 22 MS. JANE VOLL: No, I think just the --23 the Richard Derrig outlined four (4) different options 24 for you there, you know, a competitive market, low -- a 25 model where you pick the low end of all the parameters

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and decide that that's the rate which would be like
 Massachusetts.

You can do an average type of approach or the recommendation from these experts based on their academic work and our recommendation is to use your model and pick the parameter for each of those variables at the range that it's going to lead to an effective market ceiling.

9 And what that will do is -- is allow for 10 the competition below that ceiling and -- and foster all 11 of the innovation and all those competitive forces which 12 we spent the first half of the afternoon talking about 13 working in your favour to bring choice and lower prices 14 and -- and product variety for the consumers.

So, over to Richard to talk about the specific recommendations then towards creating an effective market price ceiling or maximum price...

18 MR. RICHARD GAUTHIER: My turn? I'll 19 start, I do shop for insurance and I do make a difference 20 between this insurer -- this insurer as to which one I 21 want to pick and I do not pick the lowest price; I can 22 tell you that.

That being said, I think you asked four (4) questions. What is the appropriate ROE? How do we reconcile this into a level of premium and calculation

techniques, et cetera? 1 2 I think you -- it's been alluded all the 3 way through this -- this presentation that you -- at the 4 core of all these discussions are actuary -- are 5 actuaries. You've got actuarial models. You've got 6 actuarial assumptions. You've got actuarial judgment. 7 And what is an actuary? An actuary is a 8 professional is bound by -- that's bound by a series of 9 professional rules, of standards of practice, et cetera. 10 So you have a discipline. Some call it a science; others 11 call it voodoo science or whatever you want to call it. 12 It's a decision of looking in the future. 13 It's -- it's certainly well-structured, 14 well-looked at in terms of standards of practice and it's 15 -- it's a difficult field to get into because in the 16 setting of insurance premiums is a very complex process 17 that englobes a significant number of parameters. 18 This being said I think on pages sixty-one 19 (61), slide sixty-one (61), what you have there is a 20 formula for required underwriting margins and -- and 21 there are as many formulas as there are actuaries. Now, 22 some people will expect size -- five (5) and six (6) 23 minus one (1), other expresses at two (2) plus three (3), 24 et cetera. 25 So -- so therefore, here's one (1) and the

1 reason why we put it there is because we want to dispel a 2 certain amount of -- a certain misconception that props 3 up from time to time.

4 The first one (1) is when we're going to 5 talk about underwriting profit we're going to make sure 6 that we all talk about the same thing, the definition of 7 terms. Okay? It's an extremely important item to 8 consider and you have an actuary on your Board that can 9 make sure that when submissions are provided to you, that 10 the definition of the terms are consistent across the 11 entire...

I understand that it was maybe some of that this morning. So let's make sure we have the correct definition of terms and -- and the -- the -- so so that's my first point.

My second point is there are -- an insurance contract is simply a series of cash flow premium up front, losses at the back end being paid. In order to (sic) this enterprise to work insurer has to put capital in it and -- and we can get to what level of capital they're going to need and that capital required needs to be rewarded.

And -- and in -- in the concept of -- of a competitive marketplace some insurer may require a higher return on equity than others. Some insurer may say I

have a -- a -- there is a consumer out there that's 1 2 willing to pay for added services or claim services of a 3 certain kind and if I charge that price which would imply 4 a higher return on equity, this customer will be happy 5 and I will be happy. 6 There is a lot of comfort to be taken in 7 saying a target ROE is "X" and we all agree on that but 8 there is no target ROE per se; it's -- it's always a -- a 9 trade-up between what the consumer wants to buy and 10 services they want to buy and what the company cost of 11 capital is. And -- and therefore, you know, I think 12 13 we've got to be -- we've got to be careful that even in a 14 universe where you have perfect information, you will 15 have different potential return on equity because 16 different insurers will require different things and will address different markets. 17 18 The -- the second thing that I wanted to 19 show -- to show that exemplify here is that the -- the 20 policyholder pays its premium up front obviously and the 21 claims are coming later. 22 So therefore, significant amounts of cash -- cash or investment are accumulated and investment on 23 24 that cash which I would call policyholder funds are credited in this formula or in any formula that your 25

actuary should review. There is the -- the building of 1 2 the cash or the investment from the pol -- from the fact 3 that the premium is paid upfront and the claims are paid 4 later, that building up of cash generates investment 5 income, and that investment income is credited to the 6 policyholder, okay? 7 So that's -- that's important to say. 8 Some people believe that the entire 9 investment income goes to -- to the company. And -- but, 10 on the other hand, in order to support that enterprise 11 there is equity that the -- the capital market are put in 12 this insurance business, and that equity needs to be 13 rewarded. Okay? 14 And that reward comes from the 15 underwriting profit and the return investment on the 16 invested equity while it's supporting the business. And that's what we have in this formula here. 17 18 And I think the -- the thing that I want 19 to -- that we have identified earlier is that in -- in 20 the premium we have kind of four (4) big components. 21 You've got the claim cost, you've got the operating 22 expense, you've the return on equity and -- I missed one 23 (1), sorry, I said four (4) -- and the effect of changes 24 in legislation when they occur. 25 And the reason we -- and each time you

1 throw fifty (50) actuaries -- you've got sixty-five (65) 2 companies here competing in this province, so you 3 probably have effectively forty-five (45) actuaries doing 4 rates because not all companies have actuaries and --5 like you have, so you probably have forty-five (45) 6 answers. 7 So there is -- there is in the ratemaking exercise an enormous number of assumptions that 8 9 need to be made. And each actuary will have its own view 10 as to which assumption is a reasonable one. 11 And it's very difficult -- there is no -there is -- how can I say -- there is only a range of 12 13 reasonable answers for any one of those assumptions. You 14 can decide -- you can weave through each range of those 15 You can weave a series of selections that assumptions. 16 will lowball the result and you can weave a series of 17 reasonable assumptions that are going to highball, if you 18 want, the results. Okay? 19 So -- and this is according to what 20 everybody in this range of assumptions is acting in good 21 faith. So, therefore, my point here is in doing your 22 actuarial -- in selecting values, is that you need to 23 have the -- the opinions or the views of a number of 24 actuaries, of all the actuaries. In fact, every time you 25 did all your filings coming into the firm you had the

views of all the actuaries out there. And that -- those
 views have value.

3 And I know that it's very comforting to take those views and compare it to a single value and 4 5 say, What's the distance, and -- and, you know, but there 6 -- it's not -- first, it's dangerous because to a certain 7 extent it's the value to which you're comparing it to or 8 you're trying to review the people to is wrong, you've 9 created a fair amount of havoc in the market. Okay? 10 So you've got to be careful that when 11 you put -- pick your -- your assumptions, for example for 12 claim, that when you pick those assumptions you pick them 13 in the range of values that is congruent with the goals 14 you have. And if you have a goal that the -- I'm 15 basically suggesting here, of setting a ceiling, a

16 maximum ceiling, make sure that it's an effective -- an 17 effective ceiling.

So this is what, you know, in the ratemaking process you have here a slide on claim cost and the claim cost is the most significant factor and -- and I've said my piece about the assumption that -- that needs to be put into the assessment of that claim cost next year. There is no second chance.

24 When an actuary sets its claim cost for 25 next year, it's set. We're not going back next year and

say, Hey I missed, okay, I need to make up. 1 Okay. 2 It's always forward-looking, and your 3 actuary stated it's always a forward-looking process, you 4 know. And, you know, it's like a dice. The average is 5 three and a half (3 1/2). Well, throw your dice, you're 6 never going to get three and half (3 1/2), you'll get 7 three (3) or you'll get four (4). Okay? 8 The -- so there is no second chance 9 here. So, therefore, you need to, because there's no 10 second chance, because the insurance companies are 11 introducing certainty in the cost in how they hand of the 12 consumer, they need to get their return on equity on that 13 cost as well. 14 Operating expense, which is the second 15 thing, which is any operating expense in its entirety. 16 I'm very broad when I say expenses. We've got -- we've 17 got commissions, loss adjustment expense, internal loss, et cetera, is there. Well, each insurer has a unique 18 19 cost structure. That cost structure is optimized for the 20 way they do work. 21 So if I had, for example, the one that I 22 brought in, I have an insurer who differentiates itself 23 by the claim services they provide. And by that 24 differentiation I have therefore a cost structure that is 25 unique to them, because they need the personnel to get

1 the -- to get the caseload that permits a fast claim 2 service. 3 I am willing as a consumer to pay more for 4 that. And I'm probably paying more than what it's 5 costing the company because they're probably making a 6 higher return equity by that, and I'm happy with this a 7 consumer, okay? 8 So there is no unique cost structure. So 9 when you -- if you decide that you want to create rates 10 for the average insurer, there is no average insurer, 11 okay? They all have their particularities, either in distribution, or whether in their operating or -- or 12 13 their operating management and the goals they want to 14 achieve with the consumer. 15 Again, this unique cost structure to each 16 insurer, it would be nice to have a single number but 17 there is no single number. 18 Profit provision, cost of capital and 19 gearing ratio. As I said, in the formula -- in the set, 20 we have claim costs that are subject to -- to a lot of 21 assumptions, we have operating costs that are pertinent 22 to -- that are specific to each insurer. The third one 23 is profit provision. 24 I mentioned already that the cost of 25 capital demanded by shareholder of a policyholder is in

1 fact -- it's not in the control of the actuary, it's an 2 input into the actuary process. 3 The cost of capital is not in the Board's 4 control. What's in the Board control is the allowed cost 5 of capital. But the cost of capital is established 6 overall by capital markets. And, therefore, the allowed 7 cost of capital that will be made into a ratemaking 8 process will dictate the availability of insurance or the 9 availability of capital to this business. 10 And in the example I gave the cost of 11 capital for an insurer that decides to innovate and give good claim service could be -- it could be rewarded more 12 13 than the average. 14 The second one is the ratio; how much 15 capital does it require to support the premium. Again 16 here that would be nice to have a single number but there is no single number. I have -- if you have an insurer 17 18 who, for example, insures a group of insured that is very stable, year in, year out, they renew 90 percent of their 19 20 book of business. 21 So I'm the actuary for this insurer here 22 and I'm saying, I know which book of business I have to 23 price next year because 90 percent of my -- my insured 24 are renewing, and that have five (5) years history that's -- it's always the same people. For that insurer I have 25

1 a much better view of what the price is going to be for 2 that -- that portfolio.

If I'm another insurer and I specialize in risks that are less -- that are less predictable -- I'll use the term residual market for a moment if you don't mind, but -- risks that are, what I would call, riskier than others, either because of their claim history, their driving history et cetera, rate history, some of those insurers -- the renewal ratio, you know, is twenty (20).

I can do a rate for next year but the rate II Im doing for next year are for, you know, 80 percent of what I insure next year I don't have them in my book, I don't have the information, I'm betting. I'm making a much more serious bet here than the guy, the other company that has a 90 percent renewal ratio.

16 So I have a much -- much more difficult 17 bet to make. And they -- and these people are offering a 18 service that is necessary for -- necessary for the 19 society. And because they're taking a bigger risk they 20 either should be more rewarded for taking a bigger risk -21 - we all -- we are all familiar with more risk, more 22 reward -- or because it's more up and down they will require more capital to support that business because the 23 24 uncertainty around the result is much bigger than it is 25 on the company that has a 90 percent renewal ratio.

1 So, therefore, again, it would be very 2 comfortable to say, you know, I have one cost of capital 3 and I have one gearing ratio. But it's -- in fact, it's 4 not the case. It's not -- there are very solid reasons 5 why it shouldn't be. 6 Here, in the gearing ratio, which is the 7 premium to surplus/premium to equity ratio, again, in --8 in the framework that they're proposing of -- of setting 9 a maximum rate, okay, they're proposing a gearing ratio 10 of one point three (1.3). Again, this is in the context of setting a maximum rate, okay? That's what they're 11 12 proposing. 13 The next thing that I want to point out is 14 why, you know, I think it's important to have the -- the 15 relationship of what that means in that gearing ratio, is 16 there's, on page 66 or on -- on the slide called "Impact of Gearing Ratio", you have a table there that shows 17 18 underwriting profit provision as a percent of premium 19 depending on -- on various gearing ratio. 20 The thing that you should be aware of and 21 the thing that's important to -- to understand too, is 22 the lower the gearing ratio, the closer to one (1), the 23 more secure is the promise to the policyholder. And 24 there are some insured out there, and I'm one of them, 25 because maybe I have more knowledge, but, you know, I

1 want my claim paid, so I'm going to go for it and insure 2 highly leveraged. There is absolute value in this, value 3 that should be compensated.

4 So here you have a table that shows some 5 underwriting profit depending on various gearing ratios. 6 The -- I mean, there are some 7 recommendations by IBC here that state that their analysis of industry practices suggest that one point 8 9 three (1.3) to one (1) or lower would be appropriate for 10 a competitive ceiling. And again this is a -- a number 11 and it's a number that is set relatively low because it's 12 set in the -- in the context of a maximum price. 13 And the reason why we -- the reason why it 14 becomes difficult to -- to regulate price, because as 15 soon as you want to regulate the price there is a 16 tendency to say there's only one (1) good answer. There 17 isn't only one (1) good answer; there is a variety of

18 answers, there is a range of reasonableness. And the 19 market as a whole should fall within a certain range of 20 reasonableness of -- of a certain price.

But that doesn't mean that if I cut that market into different segments that the parameter that goes into the pricing of each of the segments should be the same, because the risk of certain segments is different. Because what each insurer -- insured asks

1 from its insurer is also different. So that's -- that's 2 my -- so, therefore, although there's comfort, it's not 3 necessarily appropriate, okay? 4 So I -- I suggest here that in looking at 5 those -- at those items and within the framework of 6 establishing a maximum rate, that the Board looks at what's being proposed here in the -- by all the 7 8 submissions by insurance companies in their rate filing, 9 decide what's an appropriate range, and be setting a 10 maximum rate to make sure that we're not looking at the 11 average but we're looking at the top end of the range, so that we establish a maximum rate that is an effective 12 13 maximum that will permit most of the market to play under 14 and have the competitive market play its role. 15 And I think at this point we're going to 16 go further into the cost of capital. So that's back to DR. RICHARD PHILLIPS: 17 I was asked to talk a little bit about some research 18 me. 19 that I had done looking at investigating the cost of 20 capital for property casualty insurers based on US data. 21 Just to make sure that we're clear on the 22 definitions here, the -- the numbers I'm going to show 23 you are based on market data, so this is publicly traded 24 data. This is not book value data looking at GAP accounting statements for example, or statutory insurance 25

1 accounting statements. These are actual return data from 2 the stock market. So we're trying to inter what the 3 global competitive markets are saying is the cost of 4 capital for this industry.

5 This is an expectation, I think as you 6 heard a minute ago. This is a target, this is not the 7 actual cost of capital that we're looking for all 8 insurers to hit every single year on the dime. This is a 9 risky business and sometimes you're going to make more 10 money than the cost of capital, sometimes you're going to 11 make less money than the cost of capital.

So let me just -- again, the two (2) points are that this is a target and that these are market value numbers and -- which are a little bit different than a lot of the book value numbers which you may have seen before.

17 The dominant asset pricing model that gives us the cost of equity capital for -- for a stock of 18 19 a company has been the capital asset pricing model. This 20 model was developed in the late 1960's and in the early 21 1970's. And it -- it actually says two (2) things; that 22 if I'm going to make an investment in a stock which is an 23 investment in a company, then the return that I'm looking 24 for on that investment has two (2) components.

The first component is just a component

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1 for the time value of money. It's the risk free rate of 2 interest. It's -- if I could invest in Government Bonds 3 that have no default risk and that have cash flows that 4 are known with certain over the next period of time, then 5 that would be the amount of return that I would expect to 6 make in that risk free investment. 7 Stocks are not risk free investments, 8 however, so we need to compensate for the risk associated 9 with a stock that's beyond just the risk that's 10 associated with just the time value of money. 11 That comes from the second component in this equation here. There's two (2) pieces of it. 12 13 There's the -- what's known as the CAPM data. This is a 14 firm, specific number. It -- the beta measures the 15 riskiness of this company relative to the other 16 investment opportunities for stockholders. 17 So if you have a beta of one (1) for your 18 firm, it means that you are of average risk, measured 19 relative to the overall marketplace. If you have a beta 20 greater than one (1), it means that you're considered to 21 be a higher risk investment than the overall marketplace 22 and therefore you should have a higher expected return on 23 your investment. A beta less than one (1) would be a 24 lower risk investment. 25 So, it's a firm, specific number that we -

- various methodologies have been developed to try to
estimate what that number is for a specific company or
for a specific industry, and I'll talk a little bit about
that in a minute.

5 The second piece that's multiplied times 6 the beta is a market-wide number; that the number that's 7 there is the amount of return you would expect if you 8 invested in the marketplace about the risk free rate of 9 interest.

10 So, if -- again, so if you have a beta of 11 one (1) and you have an expected market return net of the risk free rate, then the overall return then for the 12 13 market is just going to be the expected market return on 14 average. And so we're going to raise and lower the 15 expected return on individual investments relative to how 16 risky they are, compared to the other investment 17 opportunities.

A reasonable question you might ask is: 18 19 Does the theory work? Is this a good thing to base our 20 recommendations to you and for you to accept? 21 And, what I', m showing you here is a chart 22 that comes out of a paper by a Professor at the 23 University of Chicago named John Cochrane. 24 And what he's showing you here is about 25 fifty (50) years' worth of data where, on an individual

1 basis, he has calculated the beta for every stock that's 2 ever traded in the United States and then he has also 3 looked at the returns on those stocks and done that over 4 this fifty (50) year time period.

5 So it's just a -- I mean, there's five (5) 6 or six (6) or seven thousand (7,000) publicly traded 7 companies at any one time in the United States and he's 8 looked at this over fifty (50) years. But this is an 9 absolutely immense data set. And he's done this on a 10 monthly basis, so you can imagine how many observations 11 are in here.

12 The bottom line of what you would like to 13 see if the capital asset pricing model works is that the 14 higher the estimated beta for these companies, therefore 15 the riskier they are relative to the overall marketplace, 16 the higher the expected returns. And that's what he's 17 showing here in this chart, is just these -- along the X-18 axis he is plotting the average beta for these firms after they've been split up into ten (10) categories, 19 20 based on how big they were.

21 So, he'd looked at the market 22 capitalization of small companies and he takes the 23 average beta for those small companies and he looks at 24 that along the Y-axis of the average return that those 25 small companies earned, okay?

1 So we basically got ten (10) scatter plots 2 up here. You're looking at the average beta across 3 different size categories and what you'd like to see is that, as you get to higher average betas, you get to 4 5 higher average returns. And that's exactly what you see 6 in this chart. And so you could look at this chart and 7 say, Wow, the theory works really well. It plots 8 9 extremely well. The problem is the black line there is 10 the theoretically correct -- if the capital asset pricing 11 model worked perfectly, all those scatter plots would lie along that black line or they would just be randomly up 12 13 and down along the black line there. 14 And what you'll actually see is that the scatter plots, as you go further out along the X-axis 16 there, the scatter plots tend to get above the black line 17 until you get to the furthest one, and, in fact, it's quite a bit above the black line. 19 And so kind of in the early -- or in the 20 1970's and early into the 1980's, financial economists 21 frankly had a lot of arrogance. They said, Wow, we 22 really created a theory that's beautiful and we've got a 23 lot of empirical data that says, you know, and it worked 24 pretty darn well. 25 And a lot of what happened in the 1980's

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1 and into the early 1990's was that people started to 2 recognize that, well, these anomalies kind of popped up 3 that these scatter plots or various other more 4 sophisticated tests don't quite tell the full story. 5 There's something else going on here. 6 And the something else that's going on, 7 there are two (2) anomalies, there's a whole host of 8 anomalies and I could talk to you until about eight 9 o'clock this evening about all of the anomalies, and I 10 don't think you want to do that. 11 But there's a -- there's two (2) anomalies 12 that have dominated this literature that people just 13 can't make go away. No matter what they do to develop a 14 more sophisticated estimation methodology or a different 15 data set or looking at it internationally versus just the 16 US or whatever they try to do, they can't make two (2) 17 special anomalies go away. And those two (2) anomalies are related to 18 19 firm size, that the capital -- the beta from the capital 20 asset pricing model doesn't seem to capture all of the 21 return that you would expect for small companies versus 22 large companies. And what the capital asset pricing 23 model seems to do is under-estimate the market beta for a 24 small company. 25 In other words, small companies tend to

earn returns higher than you would predict if you just 1 2 were to measure their capital asset market beta. And, in 3 fact, the small company portfolio is actually that last 4 blue dot that's kind of out there by itself. It's 5 earning a monthly return that's about 1 1/2 percentage 6 points higher than it should be based on what the theory 7 is. 8 The other anomaly that people can't get to 9 go away is what's known as the financial distress or the 10 value effect, which is that value companies tend to earn 11 higher average returns than what we call growth 12 companies. 13 And I'll give you an example of a growth 14 company. A growth company would be Google, for example, 15 It has tremendous growth opportunity. It has price 16 earnings ratios that are very, very high. It has what the -- these, you know, financial analysts call a book to 17 market ratio which is very, very low because the book 18 19 value of the assets of Google are fairly small and the 20 market capitalization of Google is gigantic. 21 So, growth companies tend to earn a little 22 bit less than you would expect, just based on the capital 23 asset pricing model, and value companies which have book 24 to market ratios fairly close to one (1), tend to earn 25 higher returns than you would expect based on the capital

1 asset pricing model.

2 You can see that graphically in the next 3 scatter plot. What I've shown here -- there are -- there 4 are two (2) economists that have kind of written an 5 entire series of papers that have documented these 6 effects and are really considered the worldwide experts 7 on -- on this model. It's a gentleman named Eugene Fama 8 who's at the University of Chicago and another gentleman 9 named Kenneth French who's at Dartmouth University. 10 And this scatter plot that I'm showing you 11 here comes from their paper from 1996 which was published in the Journal of Finance, which is the premiere journal 12 -- academic journal for asset pricing -- empirical asset 13 14 pricing for the financial markets. 15 And what you'll see on the scatter plot is 16 that I've just lined up the betas along the two (2) 17 dimensions; growth versus value companies, and then small 18 companies versus large companies. And on the -- the 19 vertical axis I've just plotted what the market beta is 20 for these companies, just based on the capital asset 21 pricing model. 22 And what you can very plainly see in the 23 growth dimension, for example, is that growth stocks have 24 a beta that's too high and they're not actually earning 25 those returns that are associated with it, and the value

1 stocks are in the other dimension.

And what you can't see and I -- we should have re-oriented this a little bit, is that the small -there's another dimension in the small to large, which is also going in that same direction where the premiums were not being picked up by just estimating the capital asset pricing model.

8 And so what Fama and French have done in a 9 whole series of models is that they've proposed a three 10 (3) factor model which supplements the capital asset 11 pricing model for two (2) additional factors; one (1) 12 which is associated with size and one (1) which is 13 associated for this financial distress or value factor. 14 And they suggest estimating the following 15 model as a -- that it corrects a lot of the anomalies 16 that are left over from the capital asset pricing model. 17 And when you do this and you look at that 18 same scatter plot which I just showed you a minute ago, 19 you can see that the market data essentially becomes kind 20 of random across this growth and size dimension, that 21 it's actually a fairly flat -- we don't see this pattern 22 anymore in the -- in the adjusted market data once you 23 control for the size and the growth factors. 24 And then the whole -- in this whole series 25 of research these -- these two (2) economists have shown

1 that this explains the majority of anomalies that have 2 been discussed in the literature over the past fifteen 3 (15) years.

4 What a professor colleague of mine, David 5 Cummins, and I did was we wanted to think about the 6 Fama/French model and to kind of zoom in on the property casualty industry, and to think about does the size 7 8 factor and does the value or the financial distress 9 factor play an important role in the cost of capital for 10 property casualty companies specifically, because that's 11 our primary research interest, but in general for financial services companies, do these two (2) factors 12 13 play an important role in determining the cost of capital 14 for these types of companies.

We wrote that paper and it was published last year. And I think you heard this morning that we were very pleased to find out that we were earlier this summer given an award for the -- one of the best paper awards for the journal that it was published in last year; in the Journal of Risk in Insurance.

21 And so I'd like -- what I'd like to do 22 today is to show you a little bit of how the results that 23 come out of the Fama/French model for property casualty 24 companies in the insurance industry, based on US data. 25 The other innovation that we have in the

paper that we've published in -- in 2005, was innovation 1 2 that we call full information beta. And the reasonable 3 question for you to ask is: What is the cost of capital 4 for the property casualty insurance industry? 5 And of the ways to go to do that would be 6 to say, Well let's just go find a whole bunch of 7 companies that only write property casualty insurance, 8 they don't do anything else, just property casualty 9 insurance, and we'll just estimate what the cost of 10 equity capital is for those firms. 11 Well, the problem is the firms that write 12 property casualty company for insurance are often engaged 13 in lots of other businesses. For example, many of them 14 are engaged in life insurance. Many of them in the US 15 and Canada and in Europe are also now engaged in banking 16 or they're engaged in health insurance. 17 And the question is: If you want to 18 estimate just the cost of capital for property casualty 19 insurance, because that's your mandate, to oversee 20 property casualty insurance, do you want to focus on just 21 those companies that do property casualty insurance and 22 throw away all the information that's available from 23 firms that are writing both property casualty as well as 24 engaging in other lines of business, or do you want to 25 somehow try to incorporate that information in.

1 And what research has shown is that if you 2 adopt the first strategy, which is you just throw away 3 all the multi-line insurers, the problem is those guys 4 tend to be the larger insurers, the more efficient 5 insurers, and what you're left with lots of times are the 6 more inefficient or the smaller companies. And we've 7 already shown you there's a small size effect here and if 8 you only look at the small companies you're going to 9 overestimate the cost of capital because they tend to be 10 smaller firms. 11 And so the problem is that you're throwing away a lot of information and you're actually getting a 12 13 biassed view of the information that's left over for you 14 to look at. And so the full-information beta methodology 15 allows you to incorporate the entire data set, all firms 16 that are publically traded, and then allows you, from that information, to basically extract the information 17 18 for a particular industry. 19 The underlying idea is very simple. The 20 beta for an individual company, Beta I, is just a 21 weighted average of all the betas from the industries 22 that that firm participates in mult -- weighted by how 23 much it participates in those different industries. Let 24 me give you an example. 25 If you had a -- in a multi-line insurance

1 company that was half life insurance and half property 2 casualty insurance, then it's individual beta would be 3 one half of the weight times a property casualty industry 4 beta, and one half of the weight times a life insurance 5 industry beta, okay?

An so the methodology that Professor Cummings and I developed, allows you to decompose all of the individual company betas into weighted average of the industry betas and then you can extract all of those industry betas without throwing away information.

This is a tremendous advantage. I'll give you an example. Just in the property casualty business, if you only wanted to look at US companies that solely focus on automobile insurance and property casualty, you would probably have maybe ten (10) to fifteen (15) companies, depending upon the year.

In the United States there are, for this sample, if I include just property casualty companies that have a significant percentage in automobile insurance writings, which is at -- I define is at least 40 percent premium volume in auto insurance, that fifteen (15) number becomes ninety-eight (98) companies over the time period of my sample.

And if you're willing to expand that to include all publicly trade companies, that number, just

1 for insurance, expands out to a hundred and fifty (150) 2 companies. But by the time we fully implement the full 3 information beta technology we are incorporating over 4 five thousand (5,000) companies in any given year into 5 this analysis, and then extracting those industry betas. 6 So, for example, we don't have to throw 7 away an IAG which has both a large life insurance 8 operation, a large property casualty insurance operation, 9 a large capital markets operation, and oh by the way 10 they're also one of the largest aircraft leasing companies in the world as well. So we don't have to 11 12 throw away that observation in order to be able to 13 implement our methodology. 14 We also don't have to throw away General 15 Electric, which at this time period was a large financial 16 services company, insurance company, as well as a turbine 17 manufacturing company. So -- so what we're doing here is we are 18 19 trying to capture the idea that capital markets are 20 allowing you to allocate capital across all of these 21 companies without just subsetting it to just the smallest 22 and most specialized of those firms in any one industry. 23 The report that I've prepared for you 24 looked at the years 1997 though 2006. So I looked at ten 25 (10) years of data. I implement the methodology in two

(2) different ways. I implement the Fama/French model
 just on a sample of property casualty insurance companies
 that have significant automobile insurance business.
 There are ninety-eight (98) companies that I've included
 in that sample and they are listed in the report, in one
 of the appendices.

7 And then the other methodology that I 8 employed as a check and to try to bring in all these 9 other observations without having to throw away a lot of 10 information, is the full information beta sample. This 11 is all companies with equity traded on the US exchanges, 12 whether that be the NASDAQ, the American Stock Exchange 13 or the New York Stock Exchange.

14 And with the methodology we're able to 15 extract -- basically I can extract any industry beta 16 you're looking for. The one that you're -- the one that you're particularly interested in here is for the 17 18 property casualty insurance industry beta, and that's the 19 one I'm extracting and showing you here, in the report. 20 I need to -- in order to be able to 21 implement this methodology once I've estimated all of the 22 different -- the market -- the individual market beta,

23 the size factor for these companies and the value factor 24 for these companies, I also need to know, well, what's 25 the risk-free rate of interest that I'm going to use, and

what are the expected market premiums for market, for 1 2 size and for the value? 3 And Richard Derrig has a very nice paper 4 which I think also won an aware somewhere recently, where 5 he talks I think about thirty (30) different ways -- is 6 that right? 7 DR. RICHARD DERRIG: There's -- if you do 8 all of them there's more than that, many more. 9 DR. RICHARD PHILLIPS: Okay. There's 10 lots of ways to estimate these market size and value 11 expected risk premiums. I have picked what I think is 12 the easiest to explain, I think what's used most common 13 in corporate finance applications both within academics 14 as well as within companies, and I've just said, Let's 15 take the longest time series of data that I can find and 16 I'm just going to take the simple average. 17 The time series that I've taken here are 18 monthly data from July of 1926 through June of 2006. So 19 that's a -- eighty-one (81) years worth of data on a 20 monthly basis. To get -- to get an annual number out of 21 that we just multiplied the monthly number by twelve 22 (12). And these are the risk premiums for market size 23 and value that we get from that calculus. 24 Over this ten (1) year time period I 25 calculate the cost of capital given the two (2) beta

samples that I talked about earlier, on an annual basis 1 2 from 1997 through 2006, so I get ten (10) -- ten (10) 3 observations. And then the advice that I give to 4 companies is that there is going to be random variation 5 from year to year. 6 And so I always suggest that you take the 7 most recent five (5) years and just average that number 8 until you get some sort of -- we're not just picking a 9 high number this year and a low number next year but 10 we're trying to smooth out this process a little bit over 11 time. 12 Based on that analysis the five (5) year 13 average numbers ending in 2002 through to 2006 for the 14 two (2) different methodologies based on US data are

15 shown here in the -- in the table. They range from about 16 19 percent to about 15 percent. The average of the -- of 17 -- over the entire ten (10) year cycle is around 17 18 percent.

19 The -- I would tell you that this is an 20 average for an average company operating a property 21 casualty insurance in the United States with an average 22 asset mix of a property casualty company operating in the 23 United States with an average book of business with --24 for a property casualty company in the United States for 25 the full information beta methodology because it includes 1 all firms.

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2 For the Fama/French model where I've just 3 narrowed it down to companies that have automobile 4 insurance as their primary business, it would be the 5 average book of business for that type of a company. 6 But again, there's a lot of heterogeneity 7 in the business models of companies that have at least 40 8 percent of their premium ridings in automobile insurance. 9 Some of them are special -- non standard auto riders for 10 example which would be very different than an Amica 11 insurance company for example. No, Amica's not publicly 12 traded but a different model. 13 Some of them would be both like health and 14 multi-line insurance companies so again we tried to 15 narrow it down a little bit but again this is -- this is 16 for an average risk company operating in the United 17 States. In Canada, I think -- I don't know a lot 18 19 of the business models of the sixty-five (65) firms that 20 are operating here. I would suspect that most of those 21 companies are smaller just given the population of the 22 country of Canada versus the population of the United

And so at a -- at a minimum they would be a little bit smaller and so a size premium would probably

States which is approaching 300 million people today.

1 kick in here a little bit. But I also understand the 2 asset mix is not very heavily weighted towards equities 3 and property casualty insurance in the United States. Very little equity -- is this right? 4 5 Very little equity investment by property 6 casualty companies here in Canada. In the United States that number is probably on average 20 percent -- 25 7 8 percent something like that. 9 So I think you have -- I think this is a 10 very rough ballpark and you would want to try to move it 11 in directions based on how you think the industry here is a little bit different than the industry in the United 12 13 States. 14 MS. JANE VOLL: If I may for a moment. 15 We're almost finished, there's just after this, the --16 the investment variable that you wanted some input on and Richard will take you there. 17 18 The upshot of this is -- you've heard our 19 -- our theme that in setting maximum prices you will have 20 an actuarial formula and you will have the opportunity to 21 choose where in the range is right for you to be in 22 setting the maximum. 23 And there will be a different cost of 24 capital for every firm in -- in the market right now. In 25 our view based on and as you know, the research is still

1 in the works but based on -- in the US research our 2 understanding of a size adjustment the fact that what 3 Richard Phillips gave you were averages and we are 4 recommending a ceiling that you would want to find 5 yourselves in the range of a 17 percent ROE at least to 6 be capturing the ceiling type of cost of capital and then allowing for the full competition below that. 7 8 As -- as you saw even average cost of 9 capitals were -- were higher than that for US insurers 10 and -- and the seventeen (17) may be on the low side. 11 But that's our recommendation for a first shot at trying 12 to establish an effective ceiling rate, effective maximum 13 price, that's what we would recommend. 14 And our view validated by academic 15 research in the field and capital market practice. 16 Richard explains a little more fully how this converts 17 into your percent of premium formula and that was one (1) of your questions, so if you don't mind in the interest 18 19 of time if we went straight on from that. 20 21 CONTINUED QUESTIONS BY BOARD: 22 Just for clarification MR. TED ZUBULAKE: 23 on the recommended 17 percent, going back to the question 24 I asked earlier. Is that a cost of equity capital, is 25 that -- is that an average cost of capital, does that

1 reflect the average --2 DR. RICHARD PHILLIPS: Hmm hmm. 3 MR. TED ZUBULAKE: -- debt cost -- the 4 cost of debt --5 DR. RICHARD PHILLIPS: Well --6 MR. TED ZUBULAKE: There's no compass 7 there. 8 DR. RICHARD PHILLIPS: Let me answer that 9 question. It -- that is an industry average equity cost 10 of capital number. 11 MR. TED ZUBULAKE: Okay. 12 DR. RICHARD PHILLIPS: For individual 13 companies it will vary depending upon lots of factors. 14 And it does not include -- so it's not a weighted average 15 cost of capital. There is no attempt in that --16 MR. TED ZUBULAKE: Right. 17 DR. RICHARD PHILLIPS: -- to determine how much debt any of those companies have, nor have I 18 19 even attempted to try to figure out what the cost of debt 20 would be for those companies. 21 MR. TED ZUBULAKE: But -- but --22 DR. RICHARD PHILLIPS: An internal rate 23 of return model for those companies would take this 24 number as an input but its capital structure and its cost 25 of debt and its marginal tax rates would all have to be

1 inputted into that in order to determine an underwriting 2 profit margin from that. 3 MR. GRANT KELLY: Just to make sure that 4 -- under the Federal Insurance Act, there are limitations 5 on the amount of debt equity that P&C insurers are 6 allowed to have. 7 We're the only nation in the G-7 that has 8 those particular restrictions. It's 2 percent or less, 9 so the difference between the equity cost of capital and 10 a weighted average cost of capital is a bit of a red 11 herring in --12 MR. TED ZUBULAKE: Yeah. MR. GRANT KELLY: 13 -- this particular 14 case. 15 MR. TED ZUBULAKE: So it's -- so for your 16 17 percent or so recommendation is -- is a recommended 17 cost of equity capital or recommended weighted average cost of capital? 18 19 MS. JANE VOLL: It's a recommended target 20 ROE for you to work with and that includes the entire 21 cost of capital. 22 And given that insurers here really only 23 have one (1) source of capital, equity capital, it --24 MR. TED ZUBULAKE: It makes no 25 difference.

MR. GRANT KELLY: It makes no difference. MS. JANE VOLL: Not really. MR. TED ZUBULAKE: Okay. Thank you. Ι just wanted to clear that up. MS. JANE VOLL: Okay. DR. RICHARD PHILLIPS: I should make one (1) more point. We've done some work with some companies I know of filings that have been made in regulatory settings within the United States where this methodology has been adopted and to date it hasn't been challenged and I think that's very different than saying that it's been approved. I don't think -- I think the -- the companies that have used this or that I'm aware of using the methodology that Professor Cummins and I wrote up, have -- have applied for this and successfully used it in a variety of -- of rate hearings and in different regulatory regimes.

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I don't want to say that any state has gone so far as to approve it but -- but they have allowed the overall rate filings to go forward in these numbers and numbers like these to be used based on the individual companies own recommendations.

24 MR. TED ZUBULAKE: And it's IBC's 25 recommendation of -- for the next industry-wide

1 adjustment or is that for -- forever? I mean, that is a --2 3 MS. JANE VOLL: We get to this a little 4 later --5 MR. TED ZUBULAKE: Okay. MS. JANE VOLL: Our market conditions 6 7 change and it -- it does -- as Richard showed his up cost 8 of equity capital has changed from 2002 to 2006. 9 So if you were to try to set an effective 10 ceiling and one (1) of the variables you put in that was a target cost of capital, you might want to come back and 11 12 check to see if it's still the right value for that 13 variable to still produce an effective ceiling in light 14 of current market conditions. 15 So you'd probably want to come back and --16 and -- and look at whether the value that you're choosing for that field is right. 17 18 MR. TED ZUBULAKE: So is IBC recommending 19 a methodology for choosing a target return, or is it 20 recommending a specific target return? 21 MS. JANE VOLL: We recommend that you use 22 seventeen (17) -- consider using seventeen (17). We 23 think it will help you choose an effective ceiling rate 24 and then we -- and we also advise you that the rate can 25 change over time.

Page 301 1 MR. TED ZUBULAKE: How would the Board 2 know if rates have changed? 3 MR. GRANT KELLY: There's a couple --4 MS. JANE VOLL: It -- I think the 5 discussion of what the Board would be doing going forward 6 is subject to the premium regulation review next Fall and 7 there might -- that might be a better opportunity for a 8 more fulsome --9 MR. TED ZUBULAKE: I'm just trying to 10 understand what the 17 percent means. 11 What is your -- IBC's recommendation? 12 MS. JANE VOLL: That is our 13 recommendation. Put seventeen (17) --14 MR. TED ZUBULAKE: For the next 15 industry --16 MS. JANE VOLL: -- cost of capital --17 MR. TED ZUBULAKE: The next industrywide --18 19 MS. JANE VOLL: -- in your formula. 20 MR. TED ZUBULAKE: -- adjustment. 21 MS. JANE VOLL: For the next industry-22 wide adjustment. 23 MR. TED ZUBULAKE: Thank you. 24 MR. LEWIS KLAR: Can I ask you a question 25 about that box? This is from a complete non-economist so

the question may be stupid, but that seventeen point six 1 2 seven (17.67) is an average of those five (5) previous 3 years? 4 DR. RICHARD PHILLIPS: Yes. 5 MR. LEWIS KLAR: And I notice each year 6 it's -- it's -- has it been decreasing each year or --7 DR. RICHARD PHILLIPS: Yes. 8 MR. LEWIS KLAR: Is there any explanation 9 for that? 10 DR. RICHARD PHILLIPS: There are lots of 11 theories in the literature about why -- what's happening. I'll give you the dominant one (1). 12 13 It's well --it's becoming fairly well 14 documented that what an economist calls the idiosyncratic 15 risk of stocks in increasing over time. Idiosyncratic 16 risk is the risk that can be diversified by shareholders 17 across -- across capital markets. 18 And that's a trend that's been continuing 19 for about ten (10) to fifteen (15) years now. 20 So, part of what you're saying here is 21 just that -- what the capital asset pricing model 22 predicts is that idiosyncratic risk is not compensated in 23 the marketplace; it's only what they call market 24 systematic risk that's compensated. But I think part of what you're saying 25

here may be that effect. It's a very slow trend that's
 taking place.

I think the other thing that's taking place here a little bit is an internet bubble effect where you had kind of a large run up in prices very, very quickly in the late 1990's that which kind of over half of -- the first half of 2000 and into 2001 and 2002 and 2003.

9 Kind of -- there was a -- a -- I guess you 10 could call it a regime shift in the capital markets and 11 investment opportunity sets for investors and I think 12 part of what you're saying here is that as well. 13 MR. LEWIS KLAR: Is it your -- would you 14 make an educated guess as -- if you had a guess between 15 2007 and 2012 that it would become random again and that 16 trend would continue? 17 DR. RICHARD PHILLIPS: You're asking me 18 to predict if there's going to be an asset bubble again in the future. 19 20 I'd love to know the answer. Because I 21 would have changed my stock portfolio allocations in 2001 22 if I knew that. 23 MR. LEWIS KLAR: Because there is a huge 24 difference between the 2002 one and the 2006 one. 25 DR. RICHARD PHILLIPS: Oh, yeah. No,

1 there certainly is.

2 MR. LEWIS KLAR: And if it continued or 3 stayed down that seventeen point six seven (17.67) would 4 be high.

5 DR. RICHARD PHILLIPS: Hmm hmm. Yeah, oh 6 definitely. And I think -- but the recommendation here 7 is that if you're trying to set a ceiling, which is what 8 the IBC is trying to recommend, then I think what they're 9 trying to say is well, we definitely, you know, do we 10 really want to hang out at the low number or do we want 11 to pick something that's a little bit, you know, more on 12 the -- more on the range or maybe at the higher end of 13 that.

DR. RICHARD DERRIG: Can I add a little bit to that? Because we've been looking at these numbers for a long, long time and one (1) thing that happened at the beginning of the 2000's is, (a) 9/11 and,(b) the bubble.

And what happened is that when you started just looking at the market beta which is the first of his three (3) terms but it's the only term we have, it went way down and this was noted by researchers in the UK that that calculation which is a fixed calculation, sixty (60) months we do our progression, we look the number. You can see in Richie's table and his

2 that's not the right estimate unless you end the other 3 two (2) terms. 4 So, in Massachusetts and, in reply to your 5 question, we try to say, sure that's coming down. That's 6 not what people who look at the industry believe, because 7 it's biassed low, because of the change in the market 8 that you're looking and what you'd see in his numbers is 9 that's gone down, but the other factors are now more 10 important and it actually makes a lot of sense. 11 Think of the bubble going down; companies 12 have much less assets. They have more possibility of 13 financial distress, therefore that third factor goes up. 14 The size -- the size was always there. 15 It's never been given to us in Massachusetts, so we get 16 the low end of the beta and we get no zero on size and we get zero on -- on financial distress. 17 18 But, if you go to professional stock 19 analyst like Value Line, that only provide data to the 20 public about investments and historical information, as I 21 said in my report, their latest estimate for the property 22 casualty insurance industry in the United States is 23 somewhere between 12 and 16 percent rate of return, and 24 the sixteen (16) is on the five (5) year going forward. 25 So, the whole overall estimate is

report they're coming down and the problem is, that

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1 increasing but, unfortunately, this restricted one (1) 2 dimensional view of the beta is going the opposite way 3 and unless you do the corrections which the theory tells 4 you and his numbers show you, you don't get the right 5 answer. 6 And so that's why it looks like it's a 7 different number, it's because it really is, as because 8 there's three (3) factors that determine what capital 9 providers will look at for the property casualty 10 industry. 11 Not only relationships to the market as a 12 whole, which is the original CAPM for which Richard 13 forgot to tell you there are several Nobel prizes given 14 for that, but also the size. 15 Smaller companies are riskier and 16 therefore the market demands more in turn from them and then finally financial distress is endemic to the 17 18 property casualty industry. And so it makes a lot of sense that the 19 20 capital providers would want a return for the fact that 21 they are going to go out there and they're going to put 22 their capital at risk and it's a measurement of how much 23 risk is really out there that's not connected to the 24 market. 25 You know, for example, the hurricanes, the

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     two (2) consecutive years of hurricanes in Florida, that
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     had nothing to do with the stock market, nothing.
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                    But where are we? We're somewhere over
     $100 billion that went out the door.
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                    So, it's that kind of thing that's
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     measured by these -- the distress factor that doesn't
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     show up in the single CAPM beta which then, if you ignore
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     them, you get a much lower estimate which is where we are
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     in Massachusetts.
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                    MR. TED ZUBULAKE:
                                        A clarification.
                                                           Т
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     thought the chart that was up there was -- included all
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     three (3) factors?
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                    DR. RICHARD DERRIG: His does, ours
14
     doesn't.
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                    MR. TED ZUBULAKE:
                                       But his is the one we
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     were looking at, the one that's the decline -- the
17
     Fama/French, going from nineteen (19) down to fifteen
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     (15).
19
                    DR. RICHARD DERRIG:
                                          Right --
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                    MR. TED ZUBULAKE: It includes all three
21
     (3) factors --
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                    DR. RICHARD PHILLIPS:
                                            Yeah, it does.
23
     Richard's talking about what they allowed in
24
     Massachusetts --
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                    MR. TED ZUBULAKE:
                                        Massachusetts, I
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1 understand.

2 MS. JANE VOLL: And also the value line 3 estimate which was the go forward, someone asked what would be your prediction for '07 and '08 and Richard 4 5 Derrig was saying the -- the -- the stock analysts are 6 saying twelve (12) to sixteen (16) and that --7 DR. RICHARD DERRIG: That twelve (12) is 8 -- is 2006, fourteen (14) is 2007 and sixteen (16) is 9 five (5) years. 10 MS. JANE VOLL: Okay, so there is --11 there's a go forward trend up that I think was -- he was 12 trying to make that point and answer back in earlier 13 question on Massachusetts --14 MR. TED ZUBULAKE: Yeah --15 THE CHAIRPERSON: Okay, we're going to 16 have to carry on; we; 're running out of time here. 17 MR. TED ZUBULAKE: Just quickly, but what 18 beta are you using in those -- in your calculations to 19 get the seventeen (17) -- get those --20 DR. RICHARD PHILLIPS: These are all 21 three (3) the market size and financial distress. 22 MR. TED ZUBULAKE: Oh, they vary? 23 DR. RICHARD PHILLIPS: Yeah. 24 MR. TED ZUBULAKE: Okay. 25 DR. RICHARD PHILLIPS: They vary by

company, so -- so you can estimate them individually for 1 2 each company. 3 MR. TED ZUBULAKE: But the -- the cap in 4 the market beta, is that about point eight (.8) overall 5 average? we heard earlier --6 DR. RICHARD PHILLIPS: It depend -- it 7 varies from company --8 MR. TED ZUBULAKE: Okay, just --9 DR. RICHARD PHILLIPS: I can tell you 10 what the average was for the companies in my sample. 11 MR. TED ZUBULAKE: Yes. 12 DR. RICHARD PHILLIPS: Hmm. 13 MR. TED ZUBULAKE: Is that -- is this in 14 your paper? You don't need to --15 DR. RICHARD PHILLIPS: Yeah, it's in 16 table 2 of my paper. 17 MR. TED ZUBULAKE: Okay, thank you. 18 Go ahead, Ted. We're THE CHAIRPERSON: going to have to move along a little bit because we only 19 20 have so much time in this room. 21 MS. JANE VOLL: Okay, so just to make one 22 (1) point of distinction, insurers in Canada get their 23 money from capital markets equity so equity is the 24 important market. 25 When you flip over to looking at how they

invest their money, how they invest premiums, now we're talking about bonds, because they don't really invest in equities.

They get their monies from equity markets, but when it comes time to investing premiums between the time you get them and pay out claims, now we're talking about bond markets.

8 So just to make a point of distinction 9 there and Richard is going to talk a little bit about 10 that, 'cause you wanted input on ROI.

MR. RICHARD GAUTHIER: Thank you. We -just talking about ROI, as I mentioned earlier, there is a cash flow process to an insurance transaction, premium up front, claim paid later and as a result of that, there is significant funds that are being accumulated by the insurance company in the form of investment.

17 Those funds I will call, due to the 18 delayed independent payment of premiums collected and 19 payment of claims, I call that policyholder funds. 20 Those policyholder funds are going to 21 collect interest. The question is, what is the interest 22 rate that I should -- that I should impute to this for 23 the benefit of the policyholder. In other words, what is 24 the credit for that investment income that I should give

25 to the policyholder?

1 Given that the policyholder enters through 2 the transaction for the purpose of minimizing risk, it 3 would be -- it would be counterproductive to be -- for 4 the policyholder -- its investment and its premium while 5 it's sitting there waiting to pay a claim. 6 So, we suggest that the -- and that the 7 value of the investment yield to be addressed on the 8 policyholder funds would be a risk free yield. 9 MR. TED ZUBULAKE: What about the 10 capital? 11 MR. RICHARD GAUTHIER: On the investment 12 of the capital of the company which is a different issue 13 here --14 MR. TED ZUBULAKE: But it's part of --15 you got to factor that in, right? 16 MR. RICHARD GAUTHIER: You have to factor the fact that the -- the equity -- the equity of the 17 company also is going to be invested and those aren't our 18 policyholder funds --19 MR. TED ZUBULAKE: 20 Right --21 MR. RICHARD GAUTHIER: They are 22 shareholder funds. 23 MR. TED ZUBULAKE: But -- but --24 MR. RICHARD GAUTHIER: Which could be 25 invested in riskier investment which may therefore

receive higher yield but then there's also -- they have 1 2 to accept bigger risk. But on policyholder fund we're 3 saying risk free 4 MR. TED ZUBULAKE: But --5 MR. GRANT KELLY: But the -- though, if 6 your Board is going to do a ceiling, investors --7 investors in the insurance field -- sorry -- there's 8 asset risk which is what happened in investment markets 9 and then there's insurance risk. So there are companies 10 in the market place that are not willing to accept any 11 asset risk on these investments. So they're wanting -- they just don't want 12 13 to. Their shareholders are saying, insurance is risky 14 enough. I don't want to go there. 15 So as you're going to the ceiling, it's 16 not appropriate for the Board in setting that ceiling to force investors to get risk that they are not willing to 17 18 accept. 19 So our ceiling recommendation is that the 20 assumption is you have to take the conservative 21 investment portfolio and assume that the marketplace 22 ceiling is based on not accepting extra investment asset. 23 So that's the --24 MR. TED ZUBULAKE: It seems to me that in

25 arriving at that 17 percent, Professor Phillips took into

2 companies. Companies do invest in more than risk free 3 securities. 4 And based on that 17 percent was -- fell 5 out of the model. Now you're saying take that 17 percent 6 but --but only -- only assume a risk free -- risk free 7 securities in -- in converting that to a profit margin. 8 That doesn't seem to make sense. 9 MS. JANE VOLL: I think the -- one (1) of 10 the -- one (1) of the questions here to consider is 11 whether your formula is representing a -- a typical 12 company or a model company in which you need all of those 13 variables to hold together in some -- in -- in a 14 consistent manner or whether your selection of those 15 variables at the top end to set a maximum is to establish 16 a ceiling; not that you're trying to replicate the 17 activities of any individual insurer but you're trying to 18 say, well, for some insurers, they chose the -- they 19 follow this conservative approach. 20 We don't want to shut them out of the 21 market, so we take the conservative value of that 22 variable here. 23 Next variable, and look at them in 24 isolation. 25 It is -- we've put it on the table. There

consideration the -- I mean the investments earnings of

1

are other ways to look at this, Ted, and make an offer to 1 2 put that together and you can choose a different 3 assumption for risk free or a different gearing ratio and 4 -- and all of that -- all of that is up to the Board to 5 decide. 6 We are just trying to illustrate that for this variable, if you want to pick a value that's 7 8 consistent with ceiling, we would recommend this risk 9 free orientation. 10 But there's a lot of other --It's --11 MR. TED ZUBULAKE: MS. JANE VOLL: A lot of other 12 13 considerations that you can make. We just are trying to 14 be consistent with the ceiling message. 15 MR. TED ZUBULAKE: And we just -- we 16 touched on but we kind of skipped over it, but how -- how is the recommending gearing ratio arrived at, the one 17 18 point three (1.3)? 19 Where does that come from? 20 MR. GRANT KELLY: We did a survey of IBC 21 member companies and then there was a range of gearing 22 ratios. 23 I also made -- OSFI capital levels are synonymous with solvency regulations. So, we -- the 24 25 second part of our comment was that you should consult

with OSFI before you determine the appropriate gearing 1 2 ratio --3 MR. TED ZUBULAKE: And is this --4 MR. GRANT KELLY: -- regulated in the 5 Province that has the solvency. When the solvency 6 MS. JANE VOLL: 7 regulator looks at a company writing auto insurance, they 8 have in mind how much capital they think is required to 9 underwrite that line of business, given the amount of 10 regulatory risk in each province et cetera, et cetera. 11 So, there is at least one (1) other 12 regulator looking at how much capital should be in -- in 13 that area and it would be something to look at. 14 But we -- we look at the OSFI value and we 15 also looked at a survey of companies, we said, you know, 16 you need to be in the -- in the one (1), one point three (1.3) one point five (1.5) range if you want an effective 17 18 ceiling. 19 Can you find an actuary who'll justify two 20 (2)? Absolutely. But we're talking about a value that's 21 consistent with being a --22 Just for MR. TED ZUBULAKE: 23 clarification. Is that one point three (1.3) intended to 24 be for private passenger automobile based on the 25 mandatory coverages in Alberta, or is that a -- a --

1 MS. JANE VOLL: This one --2 MR. TED ZUBULAKE: -- P&C company that --3 that's what the survey question asked. 4 MR. GRANT KELLY: Yes. 5 MR. TED ZUBULAKE: So is this --6 MR. GRANT KELLY: The mandatory coverages 7 in Alberta. 8 MR. TED ZUBULAKE: Okay. 9 MS. JANE VOLL: Okay. So our 10 recommendation is a conservative approach to the 11 investment variable because then you won't be shutting out companies who do take that conservative approach to 12 13 investments. 14 Riskier ones will be allowed to have a 15 rate and compete below that and -- and it's consistent 16 with the ceiling approach. 17 I -- I'd like to suggest that we go 18 quickly over the fair value accounting point and 19 entertain questions later. It's discussed in our paper. 20 THE CHAIRPERSON: I agree. We have to shut down --21 22 MS. JANE VOLL: Yeah. 23 THE CHAIRPERSON: The building shuts down 24 at 5:00. We can stay, but it's --MS. JANE VOLL: Yeah. 25

1 THE CHAIRPERSON: Other rooms are locking 2 up and so on at five o'clock. 3 MS. JANE VOLL: So the -- our line --4 MR. LEWIS KLAR: We're locked in until 5 6:00 the next morning. It opens again at 6:00 tomorrow 6 morning, so we can leave then. 7 MS. JANE VOLL: Okay, so this is -- we're 8 two (2) slides away from completion. 9 The bottom line is if you put in a 10 ceiling, as we said, each there's a number of variables 11 in that pricing equation, there's a range of reasonable 12 assumptions that you can make. 13 If you put in something that's consistent 14 with a maximum price, consistent with an effective 15 ceiling that leaves lots of room for competition below, 16 you're looking at assumptions like cost of capital, target ROE, if you will, of 17 percent and as an ROI of 17 18 four point two five (4.25); a premium equity ratio of one 19 point three (1.3) to one (1) -- one point five (1.5) if 20 you like. 21 For illustrative purposes we took the loss 22 ratio from last -- recent hearings just to fill that 23 value in and a claim duration, a tax rate, that gives you 24 an underwriting profit margin, you know, of nine (9). 25 Now, you can tweak each of these

1	assumptions and you'll get eight (8) or seven (7) or ten
2	(10) or or whatever but what we are wanting to
3	illustrate is that if you choose values consistent with a
4	ceiling you're looking at something in this order of
5	magnitude.
6	And that answers your final question on
7	how does the target ROE convert into a percent of premium
8	profit margin.
9	And so there you are in the eight (8)
10	eight (8) to ten (10) range and Jim?
11	MR. JIM RIVAIT: Well, I mean obviously
12	the themes that we tried to cover off, competition is the
13	best regulator of price and profit and people accept
14	that.
15	It's I think it's been proven to be
16	but and through the literature and through our experts
17	that it's a reasonable assumption. Experience in other
18	jurisdictions, I think, and I do apologise if anyone
19	takes any any one of those as Alberta.
20	They're characteristics of all those
21	systems that I think we can all learn from.
22	And I know we've had some specific
23	recommendations that you have heard and I want to thank
24	you for your indulgence and I I want to thank our
25	folks that came a long way to speak to try to contribute

1 to this process, and if there's any other questions...? 2 THE CHAIRPERSON: I want to thank you, 3 It's been a very full afternoon. I'll tell you, we Jim. 4 heard a lot of information. 5 When we looked at your list, of course, 6 you know that Canada was built on great waves of 7 immigrants from the United States and thought maybe the 8 republic -- we thought maybe the Republicans were coming. 9 10 (BRIEF PAUSE) 11 THE CHAIRPERSON: Now we have --12 13 MR. LEWIS KLAR: It's snowing like crazy 14 out there. 15 THE CHAIRPERSON: Thank you very much. I 16 have one (1) second here for -- two (2) minutes, he tells 17 me. 18 19 (BRIEF PAUSE) 20 21 MR. CHRIS TOWNSEND: Thank you very much, 22 Mr. Chair. I just promised this morning in response to 23 one (1) of Ted's questions to reconcile between the 24 profit margins as they were stating and the profit margin 25 as I was -- the underwriting profit margin as I was

1 stating it.

2 And I think the simple answer is that, as 3 I said in my testimony, we compose our profit margin of 4 three (3) our return on equity of three (3) components; 5 one (1) a return on the capital itself, one (1) 6 underwriting margin and one (1) the present value of 7 money. And, in essence, the formula used in the 8 9 rate-making approach you're using has only one (1) -- has 10 only two (2) sources, the return on the equity itself and an overall combined return on all the other factors. 11 12 So, our two (2) factors, an underwriting 13 profit and the time value of money really need to be 14 combined to be comparable to the number you have and as a 15 close approximation, simply add the two (2) together. 16 It's not exactly correct, but it's 17 probably close enough. 18 Adding the two (2) together in the example 19 I gave you, we get the 12 percent number required to get 20 our 15.6 percent on equity. 21 THE CHAIRPERSON: Thank you. 22 MR. CHRIS TOWNSEND: Thank you, Mr. 23 Chair. 24 THE CHAIRPERSON: Thank you, all. Board 25 members you can leave your books in here. This will be

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locked at five o'clock.
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     --- Upon adjourning at 4:55 p.m.
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