New Brunswick Insurance Board

DECISION

IN THE MATTER:
Of a rate revision application for the FACILITY ASSOCIATION
With respect to automobile insurance rates for
PRIVATE PASSENGER VEHICLES

Hearing Date: October 16 to 18, 2018
Heard at Saint John, New Brunswick

PANEL:	Ms. Marie-Claude Doucet	Chair
	Ms. Francine Kanhai	Member
	Mr. Bernard Gautreau	Member
APPEARANCES:		
Applicant:	**Facility Association**	
	Mr. Matt Hayes	Solicitor
	Mr. David J. Simpson	President and CEO
	Mr. Colin George	Vice President, Underwriting and Claims
	Mr. Shawn Doherty	Senior Vice President Actuarial and Chief Financial Officer
Intervenors:	**Office of the Attorney General**	
	Mr. Michael Hynes	Solicitor
	Mr. Denis G. Thériault	Solicitor
	Mr. Rajesh Sahasrabuddhe	Consulting Actuary
	Ms. Paula Elliott	Consulting Actuary
	Consumer Advocate for Insurance	
	Ms. Michèle Pelletier	Consumer Advocate
Date of Hearing:	October 16 to 18, 2018	
Decision Rendered:	November 15, 2018	

Summary

[1] Pursuant to subsection 267.5(1) of the *Insurance Act,* R.S.N.B., 1973 c. I-12 (the “Act”), the New Brunswick Insurance Board (the “Board”) convened a Panel of the Board to conduct an oral hearing (the “Hearing”) from October 16 to 18, 2018 at the Trade and Convention Center, in Saint John. The purpose of the Hearing was to consider the rate revision application (the “Filing”) submitted by the Facility Association (the "Applicant" or "FA") with respect to automobile insurance rates for private passenger vehicles (PPV) in New Brunswick. The FA is an unincorporated non-profit association to which every automobile insurer licensed in New Brunswick under the *Act* is a member. Under the *Act*, the FA is required to provide automobile insurance to owners and licensed operators of automobiles who, but for it, would be unable to obtain such insurance and the FA shall carry out this obligation in the Province of New Brunswick.

[2] In compliance with subsection 19.71(3) of the *Act,* the Board provided to the Office of the Attorney General (“OAG”), all documents relevant to the Hearing. Pursuant to subsection 19.71(4) of the *Act*, the OAG intervened, called their own expert witness, presented written and oral submissions, questioned the Applicant by way of written interrogatories and cross-examined the Applicant’s witness during the Hearing. The Consumer Advocate for Insurance (“CAI”) intervened as well, adopting the position of the OAG, presented an oral submission and cross-examined the Applicant’s witness during the Hearing.

[3] During the hearing process the Panel accepted the following exhibits from the Applicant and the OAG as part of the record as shown below:

EXHIBIT	DESCRIPTION	DATE
1	Facility Association PPV Rate Filing	March 29, 2018
2	Questions from NBIB	April 23, 2018
3	FA Response to NBIB	April 25, 2018

4	Questions from KPMG Round 1	April 27, 2018
5	FA Response to KPMG Round 1	May 3, 2018
6	Questions from KPMG Round 2	May 7, 2018
7	FA Response to KPMG Round 2	May 11, 2018
8	KPMG Actuarial Summary Review	May 18, 2018
9	OAG Questions to FA Round 1	July 27, 2018
10	FA Response to OAG Round 1	August 3, 2018
11	FA Alternative Indications Based on Round 1 Questions	August 7, 2018
12	OAG Questions to FA Round 2	August 13, 2018
13	FA Response to OAG Round 2	August 20, 2018
14	OAG Submission	August 27, 2018
15	FA Questions to OAG	Sept. 4, 2018
16	OAG Response to FA Questions	Sept. 14, 2018
17	FA Final Written Submission	Sept. 28, 2018
18	*Curriculum Vitae* of Rajesh Sahasrabuddhe	*Undated*
19	*New Brunswick PPV BI Severity - Graph*	*Undated*

[4] On October 23, 2018, following the Hearing, the Panel ordered the Applicant to provide revised overall indications for the impact of the following combination of changes:

1) For Third Party Liability (TPL)-Bodily Injury (BI):

   a. Modify its past frequency trends to -7.1% per annum to align the time segmentation (Scalar 2) with the adoption of the MIR reform;

   b. Modify future frequency trends to -3.5% per annum; and

   c. Maintain the past and future severity trends to +4.7% per annum.

2) Modify the proportion of BI claims subject to Harmonized Sales Tax (HST) to 25% as opposed to the 67% originally filed.

3) While maintaining the premium-to-surplus ratio of 2:1, modify the return on investment (ROI) such that it relies on:

   a. The proportion of government bonds versus corporate bonds as reported in MSA Researcher, B04 – Total Canadian Property Casualty Industry (Ex ICBC-SAF, Ex Lloyd's), page 40.22 as at 2017.4 (YTD);

   b. Bank of Canada selected marketable bonds average yields for 1-3 year, 3-5 year, 5-10 year and over 10 year as at December 30, 2017;

   c. Bank of Canada selected treasury bill yields for 3 months as at December 30, 2017;

   d. Corporate bonds nominal yield to maturity compounded semi-annually as at December 31, 2017 (as available in the CIA Report on Canadian Economic Statistics 1924-2017: Final Release – Tables or equivalent sources); and

   e. Investment expenses at 0.15%.

[5] The required changes as per above result in an overall indication of 6.2%, a decrease of 12.0% from FA's indication of 18.20%.

[6] The Panel, after examining the evidence and submissions made by the parties, and after consideration of the testimony provided by witnesses during the interrogatory process and cross-examinations, determines that the rates proposed by the Applicant must be modified.

[7] The Applicant is ordered to incorporate changes to the rate application as noted in paragraph [4] above and is **approved to adopt the average rate change of + 6.2%.**

[8] The approved rates will be effective on April 1, 2019 for new and renewal business.

1. Introduction

[9] The Board is mandated by the Legislature with the general supervision of automobile insurance rates in the Province of New Brunswick. In order to fulfill that mandate, the Board exercises the

powers prescribed by the *Act*. One key responsibility for the Board is to ensure that rates charged or proposed to be charged are just and reasonable. Under the *Act* each insurer carrying on the business of automobile insurance in the province must file with the Board the rates it proposes to charge at least once every 12 months from the date of its last filing. An insurer must appear before the Board when :

a. The Insurer files for a rate change more than twice in a 12 month period, or

b. The Insurer files rates where the average rate increase is more than 3% greater than the rates charged by it within the 12 months prior to the date on which it proposes to begin to charge the rates, or

c. When the Board requires it to do so.

Procedural History

[10] The Applicant filed a rate revision application for the PPV category on March 29, 2018, seeking an average rate increase of 18.2%.

[11] The Board issued a Notice of Hearing on June 19, 2018 and convened a Panel of the Board to conduct an oral hearing on the matter. The OAG and the CAI both provided notice of their respective intention to intervene in the rate hearing.

[12] Prior to the Hearing, the OAG submitted two sets of interrogatories to the Applicant, to which answers were provided. The Applicant also was granted the opportunity to submit a set of questions to the OAG. Furthermore, pre-hearing written submissions were provided by the Applicant and the OAG to the Board.

[13] The Panel allowed the examination and cross-examination of actuarial witnesses by the parties during an oral hearing held from October 16 to 18, 2018. Mr. Shawn Doherty testified as the expert witness for the FA and he is Fellow of the Casualty Actuarial Society and Fellow of the

Canadian Institute of Actuaries. Mr. Rajesh Sahasrabuddhe and Ms. Paula Elliott appeared as expert witnesses for the OAG. Mr. Sahasrabuddhe is a Fellow of the Casualty Actuarial Society and a member of the American Academy of Actuaries. Ms. Elliott is a Fellow of the Casualty Actuarial Society and Fellow of the Canadian Institute of Actuaries.

[14] No other witnesses were questioned for the purpose of this rate Application.

[15] The matters of FA's Rate Applications for private passenger vehicles (PPV), Commercial Vehicles (CV) and Taxi and Limousines Vehicles were held consecutively. Given the commonality of many issues and evidence in these three rate applications, with the consent of the Parties involved in these matters, the Panel accepted to apply the evidence presented by the witnesses at the hearing in the other matters with respect to the common issues.

[16] Finally, the Panel heard brief closing submissions from the Applicant, the OAG and the CAI following the cross-examinations.

2. Evidence and Positions of the Parties

Facility Association

[17] The Applicant's Filing forms the main portion of its submission and the evidence before the Panel.

[18] The FA presented a Filing to the Board with an overall indication of +18.20% and proposed to select an average rate change of 18.20% based on its indication. Following are the changes proposed to the existing rates by coverage:

Bodily Injury (BI)	+ 24.20%
Property Damage (PD)	+ 24.20%
Property Damage – Direct Compensation (DCPD)	+ 2.30%

Accident Benefits (AB)	+ 17.40%
Collision	+ 9.90%
Comprehensive	+ 12.70%
Specified Perils	- 14.70%
Uninsured Auto (UA)	+ 6.50%
Underinsured Motorist (UM) – SEF44	- 4.80%
Total	***+18.20%***

[19] The rates contained in the Filing are produced assuming a target return on equity of 12%, a pre-tax return on investment of 1.49% and a 2:1 premium to surplus ratio. Proposed average rates would increase from the current average of approximately $2,180 to approximately $2,577.

[20] The Applicant submits that the Filing was prepared utilizing sound actuarial methods and practices and that the assumptions contained therein are reasonable and that the Filing has been prepared in accordance with the filing guidelines issued by the Board.

Office of the Attorney General

[21] The OAG was provided with the Filing and all related documents. The OAG was also given the opportunity to further query the Applicant through a written interrogatory process which provided for two rounds of interrogatory questions and answers. At the conclusion of the interrogatory process, and prior to the Hearing, the OAG made a final written submission to the Board summarizing its position. Finally, the OAG was provided an opportunity to present its evidence through questioning of its witness, actuary Mr. Rajesh Sahasrabuddhe, and to cross-examine Mr. Shawn Doherty, the witness for the FA, at the Hearing.

[22] The OAG's final written submission, through a report by consulting actuary Oliver Wyman (OW), the OAG challenged the Applicant's position on the following issues in its Final Submission (Exhibit 14, pp. 956 and 957 of the Record):

> It is our opinion that in determining whether the PPV rates proposed by FA are just and reasonable, the Board should give consideration to the reasonableness of alternative assumptions and adjustments to FA's rate level indication calculations that we discuss in this report. We ask that the Board consider the following combination of alternative assumptions:
>
> 1) Bodily injury frequency and severity trend models recommended by Oliver Wyman.
>
> 2) Disability Income frequency trend rate of -2.6%.
>
> 3) Medical frequency trend rate of -2.0%.
>
> 4) HST adjustment factor for Bodily Injury of 1.0044.
>
> 5) Recognition of Finance Fee revenues.
>
> 6) A target pre-tax ROI of 2.55%.

[23] Finally, the OAG submits to the Panel that should it find the alternative assumptions presented by its expert actuary more reasonable than those presented by the Applicant, the Applicant should be directed to re-state the above noted rate level change indications and consider those re-stated indications in reaching its decision on the present application.

Consumer Advocate for Insurance

[24] The CAI challenged the evidence related to the target return on equity provided by the Applicant and presented the Panel with an oral submission at the Hearing.

[25] The CAI also supports and adopts the position of the OAG in relation to the Filing.

3. Analysis and Reasons

[26] The Panel has reviewed all of the written evidence before it, the *viva voce* evidence provided at Hearing, and the oral submissions of the parties.

[27] In giving their evidence, the witnesses for both parties testified to the validity of their assumptions and actuarial methodologies and under cross-examination answered questions challenging their positions, notably on the appropriateness of the actuarial approaches and methodology used in light of the limited data available.

[28] At the hearing, the Panel recognized the actuarial expertise of the witnesses of the Applicant and the OAG for the purpose of the present Rate Application. The Panel considered the Applicant's challenges to the persuasiveness of Mr. Sahasrabuddhe's evidence and concluded that the concerns raised might affect the weight to be placed on the evidence, rather than admissibility. Where the experts disagree, the Panel has weighted the conflicted opinions in conjunction with the other evidence in the Record and the full matrix of considerations in arriving at a "just and reasonable" rate. The Panel's decision reflects that neither expert opinion was accepted in *toto*, and that each assumption and methodology decision is laced with layers of data, assumptions and judgement. As set out below with more particularity, on some issues the Panel accepted the Applicant's evidence as satisfying its evidentiary burden of just and reasonable, while in other respects the Panel recognized the position of the Intervenors as persuasive and the Applicant failed to meet its burden.

[29] In the present matter, the Panel of the Board determines that the Facility Association must amend some of the initial assumptions, calculations and methodology used in its Filing. The Applicant was therefore ordered to provide the Board with the calculation resulting from those amendments on October 23, 2018.

[30] The Panel addresses each issues individually below:

1) Selected Loss Trend Rates

[31] The selection of loss trend rates requires the analysis of past data and the application of professional judgement in order to select trend rates for each coverage by separately selecting

and then combining frequency and severity trend rates, representing past experience and future expected results.

[32] In its loss trend analysis, the Applicant used a regression model applied to industry PPV experience over the past 20 years. The Applicant proceeded to make its trend selection by selecting the same past and future trends for most coverages. However, the Applicant opted to apply different segmentations to the 20-year period with respect to the Frequency and Severity of some coverages, notably for BI.

- ***Bodily Injury - Frequency***

[33] The Applicant and the OAG used different models to support their respective positions in terms of frequency trend rates for BI. In the regression analysis of its estimate of Industry PPV ultimate claim counts over a 20-year period ending December 31, 2016, the Applicant's selected model segments this period in three time periods: (1) 1997-H1[1] to 2003-H1; (2) 2003-H2[2] to 2011-H2; and (3) 2012-H1 to 2016-H2. The OAG agreed with the frequency rate selected for the period of 1997-H1 to 2003-H1. They however disputed the segmentation of periods used by the Applicant for periods following the July 1, 2003 Minor Injury Regulation (MIR) Reform, as well as the past trend rates applied to period 2012-H1 to 2016-H2 and the selected future trend rate. Below are the frequency trend rates by period selected by the Applicant for its selected segments:

Experience Period	Trend Rate Selected
2003-H2 to 2011-H2	-7.10%
2012-H1 to 2016-H2	0.00%
Future	0.00%

[34] Based on its model, the FA selected a cut-off at 2011-H2 resulting in a BI frequency past trend rate of 0.00% for the periods subsequent to 2011-H2. FA provided the regression results such as an adjusted R-squared of 0.9679, p-values less than 5%, and residuals within +/- 1 standard

[1] H1 refers to first half year.
[2] H2 refers to second half year.

deviation for the period of 2005-H2 and onward to evidence the statistical validity of its selected BI frequency model (Exhibit 1, pp. 295-296 of the Record). The FA's selected BI frequency model cannot reject the 0.00% trend hypothesis. Taking into consideration the coherence within the assumption set, the Applicant maintained the selected 0.00% BI frequency past trend level is appropriate.

[35] The OAG evidence countered the BI frequency past trend rate selected by FA for the 2012-H1 to 2016-H1 period. The OAG suggested segmenting the post reform periods as follows to: (1) 2003-H2 to 2013-H1; and (2) 2013-H2 to 2016-H2. The OAG provided the regression results to evidence the statistical validity of its frequency model, such as a high adjusted R-squared of 0.97, p-values that support the significance of the explanatory variables, and residuals that are random (Exhibit 14, pp. 936-937 of the Record). While the OAG does not recommend to project snowfall, the OAG submitted that merit should be given to the consideration of the statistics from regression models with and without data point 2015-H1. The OAG proposed BI frequency model indicates -7.1% past trend rate.

[36] The OAG argued in its final submission (Exhibit 14, pp. 935-936 of the Record), that the Applicant's model exhibits a poor fit for the time period subsequent to 2013-H1 and fails to consider underlying factors such as weather and the MIR cap change that occurred on July 1, 2013.

[37] The OAG argued that based on the model they proposed, the past frequency trend for BI shows that the pattern of decline persisted after 2011-H2, with the exception of the 2015-H1 data point, which the OAG attributes to the frequent snow storms and abnormally high snow fall in New Brunswick over this period.

[38] The Panel determines that both the FA's and the OAG's models are statistically sound and that both approaches are valid. The selection therefore depends on the application of professional actuarial judgment and practice. It is the Panel's view, based on the evidence presented, that the OAG's segmentation date of 2013-H1, which coincides with the MIR Reform, is a more rational approach than the segmentation date of 2011-H2, supported by statistics, selected by

FA. Therefore, the Panel accepts the past BI frequency past trend of -7.1% suggested by the OAG.

[39] With respect to the BI frequency future trend, the OAG argued that the past trend of -7.1% will continue into the future, whereas the FA argued the trend of 0.00% they selected will also continue into the future. At the hearing, Mr. Doherty testified to the following

> So level of claims frequency can change over time due to a variety of factors that directly affect the rates at which vehicles tend to be involved in collisions, are exposed to theft, et cetera. And these include economic conditions, weather conditions, road conditions, demographics, traffic density, driving behaviors and attitudes, vehicular safety, et cetera. For example, during recessions there may be fewer vehicles on the road as fewer people are driving to work. And as people tighten their belts they may just choose to drive less.
>
> Another example would be driving behavior changes related to drinking and driving which may become less sociably acceptable over time. And the sudden increase in distracted driving due to mobile phone use, texting and generally more bells and whistles within vehicles. Today's legalization of cannabis may also have an impact to the extent that incidents of driving high increases either suddenly or over time.
>
> Driving behaviors can also change as vehicles become safer. Drivers may engage in more risky driving behaviors on the belief that their vehicles are safer.
>
> [October 16, 2018 Transcript, pp. 26-27]

[40] Mrs. Elliott testified to the following:

> […] to try to explain why that experience happened the way it did, it is new to us that it needs to be backed up by science, as the Facility Association is submitting. I think we have heard multiple times actuaries come before the Board and say I consider these things. Sometimes they are talking about frequency, they say, well I wonder why frequency is going down. Well we do know that there is improved safety features on cars, lane assist and backup cameras and that sort of thing. No one ever comes in here and has been required by the Board to establish scientifically which cars - how many cars have them, what the effect of those safety features have. Sometimes we hear about severity being affected by things like airbags and the requirement to wear seatbelts and other safety features like that. In other words, sometimes actuaries just -- they know stuff and just like any other expert in any field, they just -- especially when they are experienced, they just know what kinds of things to think about. They don't have to come here and

> scientifically prove every consideration they make. Sometimes in the course of an actuary's work, they just know what kind of things to think about and it is certainly relevant to their analysis.
>
> [October 18, 2018 Transcript, pp. 429-430]

[41] The Panel finds that the application of judgement by both the Applicant and the OAG are reasonable. However, in considering both sets and the competing pressures, the Panel concludes the future trend is reasonably at a level between the 0.0% selected by the FA and the -7.1% selected by the OAG. The Panel therefore orders the Applicant to modify the future BI frequency trends to -3.5% per annum.

- ***Bodily Injury – Severity***

[42] For the BI severity trend rate, the Applicant selected a past and future trend rate of +4.7% based on its regression analysis of its estimate of Industry PPV ultimate claim counts over the 20-year period ending December 31, 2016. FA's selected model reflects the use of four experience periods: (1) 1997-H1 to 2003-H1; (2) 2003-H2 to 2013-H1; (3) 2013-H2 to 2016-H1; and 2016-H2. FA provided the regression results such as adjusted R-squared of 0.8136, p-values less than 5% with the exception of Scalar 3, and residuals within +/- 2 standard deviations to evidence the statistical validity of its selected BI severity model (Exhibit 1, pp. 297-298 of the Record). The Applicant maintained that their selected trend model reflects the underlying forces influencing the BI severity.

[43] While the OAG agreed with FA's segmentations between 2003-H1 and 2003-H2 and 2013-H1 and 2013-H2, it suggested that two additional segmentations should be added to the model, notably between 2008-H2 and 2009-H1 and between 2015-H1 and 2015-H2. According to the OAG, the additional segmentations reflected material shifts in cost levels in 2009-H1 and 2015-H2, which are supported from a visual standpoint. The OAG provided the regression results to evidence the statistical validity of its frequency model, such as a high adjusted R-squared of 0.90, p-values that support the significance of the explanatory variables, and residuals that are random (Exhibit 14, pp. 940-941 of the Record). The OAG proposed BI severity model indicates annual 0.0% trend rate.

[44] The OAG argued that the Applicant's selected time segments resulted in runs (or sequences) of residuals that signaled a less desirable BI severity trend model. The Applicant countered that the OAGs' proposed time segments exhibited shorter and shorter periods, which is a less desirable feature in trend modeling.

[45] The Panel finds both the FA's and the OAG's severity models to have statistical merits. However, from a judgement standpoint the Panel finds the FA's model to be more appropriate based on the fact that 1) its selected time segments coincide with both MIR Reforms, and 2) its future trend selection is supported by more data (2013-H2 to 2016-H2) as opposed to the OAG's (2015-H2 to 2016-H2). The Panel is unable to accept the OAG's selection of a flat future BI severity trend based on such a limited amount of data. The Panel accepts the Applicant's selected BI severity past and future trend of +4.7%. Considering the coherence within an assumption set, the resulting loss cost trend would be deemed appropriate.

- ***Accident Benefits-Medical Frequency***

[46] As for the frequency trend rates for BI, the Applicant based its regression analysis for the AB-Medical coverage over a 20-year period, and did a three time period segmentation: (1) 1997-H1 to 2003-H1; (3) 2003-H2 to 2007-H2; and (4) 2008-H1 to 2016-H2. Below are the frequency trend rates by period selected by the Applicant for the 20 year period:

Experience Period	Trend Rate Selected
1997-H1 to 2003-H1	-4.20%
2003-H2 to 2007-H2	-4.20%
2008-H1 to 2016-H2	0.00%

[47] For the period of 2008-H1 to 2016-H2, the Applicant judgmentally selected a frequency trend of 0.0%, arguing the correlation of AB-Medical coverage with the BI and Collision coverages. The expert witness for the Applicant presented solid evidence in support of the strong correlation between the AB-Medical coverage and other coverages' (i.e. BI, Collision) frequency. The correlation matrix presented by the Applicant shows a correlation of above 95.7% between the AB-Medical and Collision (Exhibit 10, p. 713 of the Record). FA provided the regression results

such as adjusted R-squared of 0.9680, p-values less than 5%, and residuals within +/- 1 standard deviation for the period of 2000H2 and onward to evidence the statistical validity of its selected AB_ME frequency model (Exhibit 1, pp. 318-319 of the Record).

[48] The OAG disagreed with the Applicant's frequency trend selection for the experience period of 2003-H2 to 2016-H2. The OAG suggests a frequency trend rate for AB-Medical of -2.0%. Considering that their alternative TPL-BI frequency trend model indicates a negative trend and that the correlation between BI and AB-Medical is 97.6% (Exhibit 10, p. 713 of the Record), the OAG argues that AB-Medical frequency trend could be negative. Additionally, the OAG proposed model displays a strong fit with an Adjusted R-squared of 96% (Exhibit 14, p. 949 of the Record).

[49] The Panel considered the strength of the correlation between AB-Medical and Collision, and the coherence through the assumption set. The Panel finds that FA reasonably applied judgement in the selection of the AB-Medical frequency trend rate of 0% for the time period of 2008-H1 to 2016-H2 and 0% as the future trend.

- ***Accident Benefits-Disability Income Frequency***

[50] Similarly to the BI and AB-Medical frequency trend analysis, the Applicant based its regression analysis for AB - Disability Income ("DI") over a 20-year period, but did a four-period segmentation: (1) 1997-H1 to 1999-H2; (2) 2000-H1 to 2003-H1; (3) 2003-H2 to 2008-H2; and (4) 2009-H1 to 2016-H2. Below are the frequency trend rates by period selected by the Applicant for the 20 year time period:

Experience Period	Trend Rate Selected
1997-H1 to 1999-H2	0.00%
2000-H1 to 2003-H1	-8.40%
2003-H2 to 2008-H2	-8.40%
2009-H1 to 2016-H2	0.00%

[51] Based on its modelled statistical results, for the last time segment (2009-H1 to 2016-H2), the Applicant selects a past and future trend rate of 0.00% extending to March 2020. Similarly to the

AB-Medical, FA argues it judgmentally selected a past and future trend of 0.00% for the AB-Disability Income coverage due to the high correction to the frequencies of other coverages such as BI, Collision and AB-Medical. The correlation matrix presented by the Applicant shows a correlation of above 93.1% between the AB-DI and Collision (Exhibit 10, p. 713 of the Record). FA provided the regression results such as adjusted R-squared of 0.9642, p-values less than 5%, and residuals within +/- 0.4 standard deviation for the historical period to evidence the statistical validity of its selected AB-DI frequency model (Exhibit 1, pp. 326-327 of the Record).

[52] The OAG disagrees with the Applicant's frequency trend selection of 0.00% for the experience period of 2009-H1 to 2016-H2, and as the future trend. The OAG proposes a frequency trend rate of -2.6%. Considering that the alternative TPL-BI frequency trend model indicates a negative trend and that the correlation between BI and AB-DI is 98.9% (Exhibit 10, p. 713 of the Record), the OAG argues that AB-Medical frequency trend could be negative. Additionally, the OAG proposed model displays a very strong statistical fit, with an Adjusted R-squared of 97% (Exhibit 14, pp. 950-951 of the Record).

[53] The Panel considered the strength of the correlation between AB-DI and Collision, and the coherence through the assumption set. The Panel finds that FA reasonably applied its judgement in the selection of the AB-DI past frequency trend rate of 0% for the time period of 2009-H1 to 2016-H2, as well as for its future frequency trend rate.

2) Harmonized Sales Tax

[54] As the Harmonized Sales Tax (HST) increased from 13% to 15% on July 1, 2016, resulting in an increase of +1.77%, the Applicant applied an adjustment of +1.77% to all coverages, with the exception of AB and BI for which it applied an adjustment of +1.20%. The rationale of the Applicant is that HST applies to approximately 67% of the total AB costs due to the AB-DI sub-coverage not being subject to HST; the same assumption is selected to be applicable for BI. The Applicant recognizes that some heads of damages in BI claims are not subject to HST, thus they are not explicitly affected by the change in HST. However FA argues that "there will be indirect

impacts as the HST increase manifests itself in one-time increase in inflation that can influence the BI settlement amounts" (Exhibit 17, p. 1005 of the Record).

[55] The OAG disagrees with the Applicant on the application of an adjustment of +1.20% for the BI coverage. Particularly, the OAG refers to the *New Brunswick Closed Claim Study* based on data collected and validated by the General Insurance Statistical Agency (GISA), according to which 75% of the BI costs were attributed to heads of damages not subject to HST. Hence, as only 25% of BI costs are subject to HST, the OAG suggests that the adequate adjustment for HST for BI would rather be of +0.44%.

[56] On this issue, the Panel rejects the argument of the FA on the application of an adjustment of +1.20% on the BI coverage. The Panel agrees with the position of the OAG, that only 25% of BI costs are subject to HST, as it is better supported. The Panel therefore orders FA to modify the proportion of BI claims subject to HST to 25% and apply an adjustment of +0.44% for HST for BI.

3) Finance Fee Revenues

[57] Premium financing fees constitute a fee charged by servicing carriers allowing FA's policyholders to choose to pay their premium on a monthly basis, as opposed to paying the full premium on an annual basis. The fees generally charged by FA's servicing carriers vary between 0% and 6%. The evidence shows that Co-operators, its smaller service carrier, does not charge a premium finance fee to FA policyholders. Two of its largest service carriers, RSA and Intact, charge a servicing carrier fee of 6%. FA estimates that this 6%, as a percentage of premiums, is equivalent to an effective interest charge of 16.8% for new business.

[58] In this Application, FA did not include any consideration in its rate indication with regard to expenses or revenues related to financing fees. The rational for this approach is that the financing activities do not form part of the Applicant's operations. FA affirmed that while a policyholder may have opted for a monthly premium plan, transaction records show that the full annual premium is recognized at inception of the insurance contract, indicating that the service carriers

retain the administration responsibilities and the credit risk. Thus the expenses and the revenues associated with the financing fees are not subject to sharing with the member-insurers.

[59] As this cost to policyholders and the revenue stream associated with it to the servicing carriers is not subject to sharing and does not form part of the Applicant's operations, the Applicant did not factor this revenue into the indication for the purpose of this rate application.

[60] In its Rate Application, FA argued:

> If premium financing fee revenue were considered to be included as part of the determination of the overall indications for a particular insurer, the following would need to be addressed to ensure consistency in the revenue, return, and capital related to premium financing:
>
> > i. supporting capital and the return on that capital needs to be included;
> >
> > ii. premium cash flow assumptions need to be altered to reflect "later" collection of cash (cash flows impact investment income – as later collection of premium reduces investment income, all else equal);
> >
> > iii. administrative costs associated with managing the premium financing function need to be included;
> >
> > iv. an estimate of the "bad debt" (i.e. credit loss) cost needs to be included (that is, an estimate of the long-term average credit loss – i.e. premium related to a policy period exposure that is ultimately not collected – so that coverage is provided during that period but no premium was paid).
>
> [Exhibit 1, p. 103 of the Record]

[61] The issue raised by the OAG on this issue is that FA does not reduce its expense ratio in order to reflect the finance fees revenue.

[62] The OAG additionally submits that FA's largest servicing carriers (Intact and RSA) also offers the monthly payment plan option to their non-FA policyholders, to whom they only charge a rate of 3%. The OAG suggests that the discrepancy in fees between the FA and non-FA policyholders constitutes an inconsistent treatment of FA's policyholders in comparison to policyholders of other insurers that take into consideration the finance fee revenues in calculating their rate level needs.

[63] Extensive testimony and argument were provided to the Panel at the Hearing on the issue of premium financing fees and the Applicant has satisfied the Panel that it did not infringe the current filing guidelines and that its approach was reasonable. That said, the Panel is of the view that further investigation from the Board may be required on the treatment of premium financing fees in Rate Applications. Though not applicable to the current Application, further to the Decision on FA's Rate Application for PPV dated December 15, 2017, the Panel notes that the Board has already initiated a process to investigate and consider this particular on a go forward basis.

4) Profit Provision

[64] For the calculation of its overall rate level change need, FA includes a profit provision targeting a return on equity (ROE) of 12%, a premium to surplus ("P/S") ratio of 2 to 1, as well as a pre-tax return on investment (ROI) of 1.49% for surplus.

- ***Selection of pre-tax Return on Investment***

[65] The process of developing rates that are just and reasonable requires rate applications to account for the revenue received from sources other than directly from policyholders. One source of these funds is investment income that is received on surplus funds held by insurers. Generally, these surplus funds stem from two sources: short-term cash flow and accumulated equity (surplus) and are invested using different approaches, i.e. short-term and long-term respectively. Generally, the higher the overall investment return, the lower the overall rate indications.

[66] The Applicant prepared its Filing by selecting a pre-tax return on investments (ROI) of 1.49% for cash flow and surplus. This ROI is assumed by the Applicant on the basis of an estimated return on a risk-free portfolio of investments. FA argues that this rate matches the projected yield curve of the Government of Canada. In its submission, the Applicant agued:

> To the extent that members hold riskier investments and are able to generate higher return, those members would be required to hold more capital to reflect the risk embedded in the value of the asset. Our capital level is assumed to be consistent with a risk free portfolio of assets. […] Any alternative assumption in relation to investment returns should be considered in conjunction with appropriate change in supporting capital requirements.
>
> [Exhibit 5, p. 647 of the Record]

[67] The OAG submits that the 1.49% ROI selection is very low in comparison to the assumed ROI of other insurers within their rate filing and what was approved by the Board in the FA filing for PPV in December 2017. The OAG suggests the Board should direct the Applicant to take into account the more current investment rates that are available as of July 2018, as it is argued that these more closely reflect the rates that will be realized by the Applicant.

[68] The Panel agrees with the OAG's argument that FA's assumed ROI is low and that the Applicant should assume a return on investment rate higher than the estimated return of a risk-free portfolio and use a 2:1 premium to surplus ratio.

[69] On the issue of the assumed ROI, as per our Request made to FA on October 23, 2018, the Panel directs the Applicant to modify its ROI, maintaining a 2:1 premium to surplus ratio, such that its relies on :

a. The proportion of government bonds versus corporate bonds as reported in MSA Researcher, B04 – Total Canadian Property Casualty Industry (Ex ICBC-SAF, Ex Lloyd's), page 40.22 as at 2017.4 (YTD);

b. Bank of Canada selected marketable bonds average yields for 1-3 year, 3-5 year, 5-10 year and over 10 year as at December 30, 2017;

c. Bank of Canada selected treasury bill yields for 3 months as at December 30, 2017;

d. Corporate bonds nominal yield to maturity compounded semi-annually as at December 31, 2017 (as available in the CIA Report on Canadian Economic Statistics 1924-2017: Final Release – Tables or equivalent sources); and

e. Investment expenses at 0.15%.

[70] Based on the above, the Panel orders the Applicant to use an assumed ROI of 2.33%.

4. Decision

[71] For the reasons set out above, the Panel finds the Applicant's Filing not to be just and reasonable in its entirety and therefore orders the following changes to be made:

1) For TPL-BI:

    a. Modify its past frequency trends to -7.1% per annum to align the time segmentation (Scalar 2) with the adoption of the MIR reform;

    b. Modify future frequency trends to -3.5% per annum; and

    c. Maintain the past and future severity trends to +4.7% per annum.

2) Modify the proportion of BI claims subject to HST to 25% instead of the originally filed 67%.

3) Modify the pre-tax return on investment ("ROI") from 1.49% to 2.31%, the ROI yielded using a mix of Government Bonds and Corporate Bonds supported by the investment portfolio distributions reported in MSA Researcher.

[72] The impact of these changes will be to decrease the overall rate indications from an average increase of +18.2% to an average increase of +6.2%.

[73] The Applicant is ordered to incorporate changes to the rate application as set out in paragraph 71 above and is **approved to adopt the average rate change of +6.2%.**

[74] The approved rates will be effective on April 1, 2019 for new business and renewal business.

Dated at Saint John, New Brunswick, on November 15, 2018.

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Marie-Claude Doucet, Panel Chair
Chair, New Brunswick Insurance Board

WE CONCUR:

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Francine Kanhai, Board Member

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Bernard Gautreau, Board Member