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March 16, 2016

Cheryl Blundon  
Board Secretary  
Board of Commissioners of Public Utilities  
120 Torbay Road, P.O. Box 21040  
St. John's, NL A1A 5B2

Dear Ms. Blundon:

### **Facility Association Rate Revision Application – Taxis and Limousines**

On behalf of Facility Association, and as authorized by its Board of Directors, I am pleased to submit for approval a Facility Association rate revision application for Taxis and Limousines in the Province of Newfoundland and Labrador. This revision is proposed to become effective 100 days after approval for New Business and Renewals, rounded to the 1<sup>st</sup> of the following month or October 1, 2016, whichever is later.

This application proposes changes for all applicable coverages for Taxis and Limousines, with **an overall 27.7% increase proposed**. Included are territorial base rate changes.

The Facility Association Board of Directors wishes to convey their continued belief that a cost of capital provision is appropriate and essential in Facility Association rates (and as is allowed in five of the six provinces and all three northern territories Facility Association serves). Given the position of the Board of Commissioners of Public Utilities (“PUB”) on the matter, however, we have developed the proposed rate changes without a cost of capital provision.

In addition, the proposed rate change is not based on all assumptions recommended by FA actuarial staff, but instead are based on alternate assumptions that aligned with PUB Benchmarks and positions the PUB has indicated in our previous recent filings, specifically:

- i. return on investment (net return of 2.8% vs. FA actuarial assumption of 0.39%)
- ii. loss trend rates (PUB Benchmark commercial vehicle trend rates based on industry data as at Dec. 31, 2014 vs. FA actuarial selected trend models based on industry commercial vehicle indemnity only data as at Dec. 31, 2014)
- iii. full credibility standards (PUB Benchmark full credibility standards vs. FA actuarial selected full credibility standards)

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- iv. complement of credibility (PUB consistent assumption that expiring rates are adequate vs. FA actuarial assumption of expiring rate inadequacy consistent with previous filing indications based on FA actuarial assumptions)

The chart below includes the indications with and without a cost of capital provision, and as based on FA’s assumptions and using PUB alternate assumptions.

Taxi	Liab	AB	UA	CL	CM	SP	All coverages
Indications 12% ROE; FA assumptions	79.4%	92.0%	115.4%	(3.9%)	10.6%	16.7%	79.7%
Indications without CoC; FA assumptions	60.0%	71.2%	92.0%	(14.3%)	(1.4%)	4.0%	60.3%
Indications without CoC; PUB Assumptions	26.9%	42.2%	42.7%	(9.4%)	(2.0%)	(1.3%)	27.7%
Proposed % change	26.9%	42.2%	42.7%	(9.4%)	(2.0%)	(1.3%)	27.7%
Proposed Avg \$ change	\$1,479	\$221	\$80	(\$77)	(\$5)	(\$1)	\$1,703

In an effort to expedite the rate approval process, management’s proposal is based on assumptions believed to be consistent with an anticipated stance the PUB will take with respect to assumptions used by FA actuarial as per our most recent 2 rate filings. The impacts of these alternate assumptions are presented on a cumulative basis in the table below:

**NL TX Project 2016 Q1 Indications (basis for March 2016 filing)**

Profit Provision	FA Actuarial	PUB RoI	+ PUB trends	+ PUB cred cnts	+ PUB initial LR
12% ROE	<b>79.7%</b>	64.2%	65.8%	64.1%	<b>40.6%</b>
0% CoC	<b>60.3%</b>	49.1%	50.6%	49.0%	<b>27.7%</b>
change:		-11.2%	+1.5%	-1.6%	<b>-21.3%</b>

\*change is with respect to 0% CoC indication; PUB net RoI 2.8%

FA maintains its belief that the FA actuarial assumptions provide the best forecasts of future costs and risks associated with the FA taxi experience for NL, but also believes that the proposal will reduce the amount of time between the filing submission and final decision by the PUB, as well as reduce the cost to the FA of the PUB’s actuary and the PUB’s deliberations.

Based on the FA Actuarial assumptions in our May 2015 rate filing, the 0% Cost of Capital (CoC) indication was +86.7%, assuming that the rates would take effect Feb. 1, 2016 (as opposed to the final effective date of June 1, 2016). All else equal, the 28.9% increase that was allowed by the PUB would reduce this to 44.4% - this can be thought of as the FA view of the “residual” indication. By contrast, the PUB’s position would be that there was no residual indication assuming that the PUB’s assumptions were the more appropriate assumptions to support rates.

If the indication models used for the final indications in our May 2015 filing were updated to assume an effective date of Oct. 1, 2016 (the effective date assumed under this filing), the

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residual 0.0% CoC indication for FA increases from 44.4% to 48.1%, while the PUB assumptions residual indication increases from 0.0% to 0.9%.

However, the updated indications are not 48.1% and 0.9% respectively, but rather 60.3% and 27.7% - i.e. they have increased by factors of 1.082 and 1.266 respectively. Clearly, the FA assumptions indications has moved much less than the PUB assumptions indications from where they would have expected to be, all else equal. For the May 2015 filing, the complement of credibility loss ratio as per FA actuarial assumptions was 105.1%, well below the weighted average experience projected loss ratio of 157.1%, but it was at least within the range of the on-level loss ratios of the experience period (although was lower than 8 of 10 loss ratios). In contrast, the PUB assumption of 71.7% was lower than all of the associated on-level experience loss ratios (on-level using PUB assumptions) – the lowest of the 10 years was 75.1%.

A similar phenomenon exists for the current filing. The FA assumptions include a complement of credibility projected loss ratio of 100.5% which is lower than 6 of the 10 on-level loss ratios of the experience period, whereas the PUB assumptions use a complement of 73.8% which is lower than 9 of the 10 experience on-level loss ratios. We contend that this continues to support our view that the FA assumptions have been, and continue to be, a better representation of projected costs.

The loss experience continues to be poor in relation to rates charged. For example, for the 10 year period ending in 2014, the taxi claims frequency for at-fault losses was almost six times as high as that of private passenger vehicles in the province and more than seven times as high as the claims frequency for commercial vehicles, whereas average earned premium for taxis was only three times higher than private passenger vehicles and less than three times higher than commercial. Even with the 50% rate increase effective August 1, 2013, the 19.3% rate increase granted effective September 1, 2015, and the recent 28.9% rate increase granted effective June 1, 2016, our projection of the indemnity loss ratio that will be generated for policies effective October 1, 2016 for a 12-month term is 109% (based on the most recent 5 years of experience, prior to our proposed rate increase), well above our 61% target. Specifically, without further rate change, our projection indicates that premium collected will not be sufficient to cover the indemnity portion of claims, let alone cover expenses incurred throughout the policy period.

Put in this context, it would seem clear that taxi rates, rather than being in any way “excessive”, are clearly still deficient in comparison with rates for private passenger vehicles and commercial vehicles, even with the recent rate changes. We are not aware of any social policy rationale to support a view that taxis should get much preferred rates, particularly when they are the cause of a much higher frequency of at-fault claims.

This brings us to a discussion that was briefly brought up during the 2014 year and which we raised in our previous submission, that being fiscal responsibility and incentives for changes in driving behaviours for owners and operators of taxis in the province. Specifically, keeping insurance rates artificially low reduces the fiscal responsibility of the taxi industry in relation to the accidents and the associated harm their accidents generate. What’s more, this blunts any incentive for the taxi industry or individual taxi owners to change their own or their drivers’ behaviours, which might actually either reduce the number of accidents they are causing, or reduce the severity of harm those accidents cause, or both. We firmly believe that having the

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taxi industry be fiscally responsible for the societal costs of their driving is the only way to provide incentive for change.

Keeping insurance rates artificially low also results in a direct subsidy to the taxi industry. In particular, since the results of Facility Association are shared by jurisdiction and line of business, any shortfall in Newfoundland & Labrador taxi rates must be made up by all insurers providing non-private passenger automobile insurance in the province. Over the 10 accident year period 2005-2014 inclusive, we **estimate the 10-year subsidy to have been \$30.3 million<sup>1</sup>**, or \$3.0 million per year (compared with average annual earned premium of \$1.6 million), **or approximately \$4,087 per taxi (compared with per taxi average earned premium of \$2,143 over that 10-year period)**. While we can understand why any industry would want its input costs subsidized, we would hope that most would understand that our industry has no appetite to provide that subsidy.

In 2013, Facility Association adopted the following mission statement:

“Facility Association’s mission is to administer automobile insurance residual market mechanisms, enhance market stability, and guarantee the availability of automobile insurance to those eligible to obtain it. We strive to keep the market share of the residual markets as small as possible, so consumers may benefit from the competitive marketplace to the greatest extent possible.”

Currently, almost all of the taxis in Newfoundland & Labrador are insured through Facility Association, contrary to our mission. However, this is not surprising given that taxis are receiving the coverage at premiums that do not cover costs. If we can get our pricing to an adequate level, it could help to create “room” in the market for more companies to enter, thereby creating more choice for taxi owners.

If anything further is required with respect to this application, please contact me at (416) 644-4912 or email [jhepburn@facilityassociation.com](mailto:jhepburn@facilityassociation.com).

Yours truly,



Jill Hepburn, FCIP, CRM  
Vice President, Underwriting and Claims

cc. David J. Simpson, President & CEO, Facility Association

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<sup>1</sup> Based on \$30.0 million in ultimate indemnity losses over the 10-year period, the associated earned premium would have needed to be \$46.2 million to generate a “target” indemnity loss ratio of 65% (our current target ratio is 60.8% - we are using a higher ratio here to recognize that risk-free interest rates were higher over the 10-year period than they are right now). The subsidy of \$30.3 million is the difference between the \$46.2 million target premium level and the actual earned premium of \$15.9 million over the 10-year period.

**Updated Indication**

With respect to the FA May 2015 rate filing, the PUB took exception to certain assumptions and the final decision and ultimate rate approval (dated February 10, 2016) was based on indications using alternate assumptions. The approved rate change was 28.9%. At this level, we would estimate the “residual” indication, relative to the FA actuarial assumptions, would be as presented in the table below.

**NL TX Project 2015 Q2 Indications (basis for May 2015 filing)**

<b>Profit Provision</b>	FA Actuarial	FA proposed	PUB assumps	residual indication
12% ROE	108.7%			61.9%
0% CoC	86.2%	74.1%	28.9%	44.4%
change:		-12.1%	-45.2%	

*\*change is with respect to 0% CoC indication; 2.8% net Rol*

The residual indications from the table above can be compared with the updated indication as per the current filing, as summarized below. The indication has deteriorated by a factor of 1.110 due in part to the change in assumed effective dates between indications (i.e. to account for net trend) – adjusting for this leaves the indication with a deterioration factor of 1.082. This deterioration is driven by the experience and the continuation of the annual process that gives weight to the experience that is worse than the complement of credibility.

**NL TX Project 2016 Q1 Indications (basis for March 2016 filing)**

<b>Profit Provision</b>	FA Actuarial
12% ROE	79.7%
0% CoC	60.3%
change:	

*\*change is with respect to 0% CoC indication; PUB net Rol 2.8%*

Recognizing that the May 2015 rate filing was approved at a lower-than-requested rate change in February 2016, FA is submitting a new application immediately for the following reasons:

- where our rates have not kept up with experience, our preference is to file for rate changes at least annually until the rates are back in line with the experience
  - FA filed a rate submission in January 2013, receiving approval to increase rates effective August 1, 2013
  - FA filed a rate submission in March 2014, receiving approval in May 2015 (i.e. in excess of 1 year) to increase rates effective September 1, 2015 (resulting in a delayed effective date more than 1 year beyond the anticipated effective date of August 1, 2014 anticipated in our filing)
  - FA filed a rate submission in May 2015, receiving approval in February 2016 to increase rates effective June 1, 2016 (compared with the February 1, 2016 effective date anticipated in our filing)

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- due to the continued delays between rate submission and rate approval, we continue to see a lag in rate effective dates (ideally, we'd have already filed for a rate change effective August 1, 2016)
- our updated indication takes advantage of updated data and information, including:
  - 2014 AIX FA Residual Market (“FARM”) taxi data
  - 2015 Q3 FARM Newfoundland & Labrador (“NL”) non-private passenger vehicle valuation;
  - 2014-H2 (i.e. Dec. 31) Industry NL commercial vehicle (“CV”) trends as selected by FA (although FA’s proposal is based on indications using the PUB benchmark trends)
  - 2016 February Government of Canada bond yields (generating the 0.39% net return on investment or “RoI”, although FA’s proposal is based on indications using the PUB minimum 2.8% RoI benchmark)
- the experience continues to be poor:
  - the latest 10 accident years having generated an indemnity loss ratio (ultimate) of 189%
  - the May 2015 rate filing was based on the experience of accident years 2009 to 2013 inclusive, which at the time had an estimated ultimate indemnity level of \$17.9 million – with more up-to-date data and information, this total ultimate level has deteriorated by \$0.2 million (1.3%), with this deterioration being equivalent to 3% of the premium earned over that five-year period
    - of this \$0.2 million deterioration, \$0.5 million is related to accident years 2010-2013 inclusive (accident year 2009 improved) – this translates into a 3.1% deterioration in the associated average loss costs for those accident years
  - the current filing uses the most recent 5 accident years – this means that accident year 2009 is being replaced with accident year 2014 (on-level loss costs for 2014 are 39.6% higher than 2009)
- we believe it was made clear during the hearing process on November 6, 2014 in Mr. Doherty’s testimony that it should be expected that continued rate increases beyond what was asked for were likely to emerge:

*“I don’t want to shock people, but if the experience is really reflective of the underlying costs and it continues at that level, and we will eventually get there if it continues like that, the actual indication would be about 126 percent increase.”*

It was confirmed that the 126% rate increase based strictly on the 10 years of experience (i.e. giving full weight to the FA taxi experience) should be compared with the 50% increase that was sought by FA and can be compared with the 19.3% increase eventually granted. Mr. Doherty went on to explain:

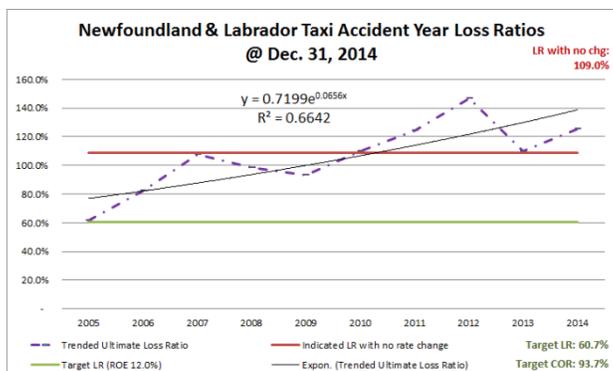
*“... but if the experience continues along that path we’ve seen for the last ten years, eventually that credibility weighting process is going to lead you to the experience,*

*and you're going eventually to get to rates that are commensurate with this. So does it happen next year, the year after, the year after, but some time in the next period you're going to get there unless something dramatically changes in the underlying trends that we're seeing in the taxi loss cost piece."*

We refer to this as the “credibility LR to experience LR gap” and this can be measured, for indication purposes, as the ratio of the experience LR to the credibility LR less unity.

- for the March 2014 filing, the gap was 152.5% / 116.8% -1 or 30.6%
- for the May 2015 filing, the gap was 164.9% / 127.3% or 29.5%
- for this filing, the gap is 127.1% / 109.0% or 16.6%

Based on the updated experience, 10-year FA taxi experience being given full credibility indicates a rate increase of **63.1%** (consistent with a 0% Cost of Capital provision), but this increases to **86.0%** using 5-year FA taxi experience being given full credibility. The difference in these two “views” is important, as it does suggest a change in loss cost in the experience that has not been reflected in the on-leveling process. That is, if one were



to fit an exponential trend line to the on-level loss ratios (as done in the chart to the left), the expectation is that no trend would be present that is statistically significant. That is not the case with the 10-year on-level loss ratios – the statistically significant fitted trend is 6.6% (+/-1.6%) and the regression has adjusted R<sup>2</sup> value of 62% (we show the R<sup>2</sup> value at 66% in the chart to the left). This suggests that

there is an underlying “trend” in the FA taxi experience that is not being accounted for through the on-leveling process.

If the 86.0% experience indication does continue as being the go-forward best estimate (i.e. based on the latest 5 years only and assuming that the potentially “additional” trend of 6.6% does not continue) we anticipate that rate adequacy will not be reached for 10 years based on the current approval process.

## Experience

The FA’s NL taxi experience continues to be poor, with the latest 10 accident years having generated an indemnity loss ratio (ultimate) of 189% (the associated ratio for the most recent 5 accident years is 219%). Even with the recent rate increases<sup>2</sup>, our projection is that policies

<sup>2</sup> Recent rate increases include +50.0% effective Aug. 1, 2013, +19.3% effective Sep. 1, 2015, and +28.9% effective Jun. 1, 2016.

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effective February 1, 2016 for a 12-month term would generate an indemnity loss ratio of 123%<sup>3</sup> if we use the most recent 5 years of experience only (see below):

as at: 31-Dec-2014		FA Experience				
Coverage	AY	Earned Tax Count	Earned Premium	Ultimate Loss Ratio	Trended Ultimate Loss Ratio	Accident Year Weight
		(1s)	(\$1s)			
		[1]	[2]	[7]	[17]	[18]
<b>TOTAL</b>						
	2005	628	1,316,494	89.9%	61.7%	
	2006	573	1,272,025	120.3%	82.2%	
	2007	663	1,290,663	185.9%	107.4%	
	2008	725	1,412,456	176.3%	98.6%	
	2009	764	1,516,679	165.0%	93.0%	
	2010	780	1,565,401	206.1%	110.1%	20.0%
	2011	793	1,587,985	232.8%	124.2%	20.0%
	2012	816	1,676,159	287.2%	146.7%	20.0%
	2013	852	1,857,181	210.1%	109.9%	20.0%
	2014	819	2,393,221	178.8%	125.2%	20.0%
	Total/Wtd Avg.	7,413	15,888,264	188.9%	123.2%	100.0%

The table below presents the change in ultimate levels between the current filing and previous filing:

**FA NL Tax Experience Summary: Experience per May 2015 filing vs March 2016 filing**

All Coverages Basis	Change in Recorded Indemnity				Change in Estimated Ultimate Indemnity				Emergence Metric	
	as at Dec 2013	as at Dec 2014	Change	% Change	as at Dec 2013	as at Dec 2014	Change	% Change	2013 IBNR	Rec'd as % 2013 IBNR
	(1s)	(\$1s)	(\$1s)	[12]	(1s)	(\$1s)	(\$1s)	[16]	[17]	[18]
AY	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
	2013 FA AIX	= [6]	= [10] - [9]	= [11] / [9]	2013 FA AIX	= [7]	= [14] - [13]	= [15] / [13]	= [13] - [9]	= [11] / [17]
2005	1,179,262	1,179,262	-	-	1,179,262	1,183,203	3,941	0.3%	-	-
2006	1,529,738	1,529,738	-	-	1,529,738	1,529,738	-	-	-	-
2007	2,065,989	2,220,901	154,912	7.5%	2,099,934	2,399,237	299,303	14.3%	33,945	456.4%
2008	2,388,313	2,388,733	420	-	2,418,512	2,490,435	71,923	3.0%	30,199	1.4%
2009	2,690,297	2,520,358	(169,939)	(6.3%)	2,744,519	2,502,322	(242,197)	(8.8%)	54,222	(313.4%)
2010	3,178,057	3,218,663	40,606	1.3%	3,281,671	3,225,580	(56,091)	(1.7%)	103,614	39.2%
2011	3,263,259	3,491,417	228,158	7.0%	3,414,465	3,696,509	282,044	8.3%	151,206	150.9%
2012	4,052,691	4,277,629	224,938	5.6%	4,256,375	4,813,721	557,346	13.1%	203,684	110.4%
2013	2,488,764	3,342,471	853,707	34.3%	4,213,185	3,901,689	(311,496)	(7.4%)	1,724,421	49.5%
2014										
Total	22,836,370	24,169,172	1,332,802	5.8%	25,137,661	25,742,434	604,773	2.4%	2,301,291	57.9%
2009 to 2013	15,673,068	16,850,538	1,177,470	7.5%	17,910,215	18,139,821	229,606	1.3%	2,237,147	52.6%

In total, recorded activity on the 2009 to 2013 accident years (these being years given weight in the May 2015 filing) increased by \$1.2 million, against 2013 IBNR of \$2.2 million for those accident years (i.e. 53% of beginning IBNR was consumed). Our updated estimates of ultimate

<sup>3</sup> The 123% loss ratio is based on a weighted average of the experience by coverage over the most recent five accident years. In our indication exhibit, we use projection loss ratios that are consistent with the above at a coverage level, but due to weighting based on the latest year only, the comparable weighted average loss ratio is 127%.

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(up by \$0.2 million or 2.8% of the earned premium for the 2009-2013 period) reflects this updated activity.

The table below summarizes claims data for the current filing.

**FA NL Taxi Experience Summary: March 2016 filing**

All Coverages Basis				Indemnity @ Dec 2014				
	Earned Exposure (excl trailers)	Earned Premium	Avg Earned Premium	Paid	Case	Recorded	Ultimate	IBNR
	(1s)	(\$1s)	(\$1s)	(1s)	(\$1s)	(\$1s)	(\$1s)	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
AY	2014 FA AIX	2014 FA AIX	= [2]/[1]	2014 FA AIX	2014 FA AIX	= [5]+[4]	= [6]+[5]	= [7]-[6]
2005	628	1,316,494	2,096	1,107,007	72,255	1,179,262	1,183,203	3,941
2006	573	1,272,025	2,220	1,529,738	-	1,529,738	1,529,738	-
2007	663	1,290,663	1,947	2,104,761	116,140	2,220,901	2,399,237	178,336
2008	725	1,412,456	1,948	2,388,733	-	2,388,733	2,490,435	101,702
2009	764	1,516,679	1,985	2,520,358	-	2,520,358	2,502,322	(18,036)
2010	780	1,565,401	2,007	3,134,924	83,739	3,218,663	3,225,580	6,917
2011	793	1,587,985	2,003	2,679,126	812,291	3,491,417	3,696,509	205,092
2012	816	1,676,159	2,054	1,808,899	2,468,730	4,277,629	4,813,721	536,092
2013	852	1,857,181	2,180	1,266,570	2,075,901	3,342,471	3,901,689	559,218
2014	819	2,393,221	2,922	428,755	2,145,967	2,574,722	4,277,883	1,703,161
Total	7,413	15,888,264	2,143	18,968,871	7,775,023	26,743,894	30,020,317	3,276,423
2009 to 2013	4,005	8,203,405	2,048	11,409,877	5,440,661	16,850,538	18,139,821	1,289,283

As per above, over the 10 accident years shown, FA has already paid out \$19.0 million in indemnity payments, while having earned only \$15.9 million in premium. In addition, there is an estimated \$11.1 million that will be paid out in the future on those same accident years.

It may be helpful to consider this poor experience in relation to other automobile insurance experience in the province, to put these results into context. Below, we focus on third party liability (TPL) only, as this reflects the experience resulting from damages arising where the driver is at fault.

The table below is the FA NL Taxi TPL experience over the latest 10 accident years, as at December 31, 2014, indemnity only, and “unfactored” (i.e. as recorded only – NOT at ultimate, and NO trends applied).



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ultimate ratios, but rather recorded indemnity only. However, they are directly comparable assuming that relative growth in earned exposures has been consistent among them, and trends and reporting patterns are largely the same.

Sum of Amount		FA	TPL	Source: FA AIX AU11 (10yr)					average
FA Minor Rating Class Code	Accident Year	recorded LR	claim count per 1,000 earned exposures	paid & closed indemnity severity	case & open indemnity severity	recorded indemnity severity	recorded indemnity loss cost	earned premium	
TX	2005	69.0%	133.7	9,966	-	9,966	1,332.50	1,932.00	
	2006	109.2%	179.7	12,436	-	12,436	2,234.92	2,046.67	
	2007	177.5%	197.6	15,281	107,500	16,102	3,181.02	1,791.75	
	2008	171.4%	162.7	18,901	-	18,901	3,075.54	1,794.59	
	2009	164.1%	174.0	17,165	-	17,165	2,987.04	1,820.02	
	2010	214.9%	164.1	23,376	82,257	24,018	3,940.48	1,833.39	
	2011	205.3%	208.0	14,668	97,784	18,194	3,785.21	1,843.85	
	2012	256.7%	188.8	11,383	126,259	25,556	4,824.01	1,879.03	
	2013	175.8%	158.4	9,042	133,710	21,970	3,480.69	1,979.75	
2014	92.9%	202.6	3,356	26,008	12,226	2,476.64	2,665.76		
<b>TX Total</b>		<b>163.1%</b>	<b>177.6</b>	<b>13,954</b>	<b>65,101</b>	<b>18,032</b>	<b>3,202.87</b>	<b>1,964.28</b>	

INDUSTRY		TPL ONLY	INDUSTRY	TPL ONLY	Source: Industry AIX LDF Triangle Data, 2014-H2					average
FA Minor Rating Class Code	Accident Year	recorded LR	claim count per 1,000 earned exposures	paid & closed indemnity severity	case & open indemnity severity	recorded indemnity severity	recorded indemnity loss cost	earned premium		
PPVxFrmr	2005	54.6%	31.5	10,637	378,328	10,790	339.56	622.01		
	2006	55.7%	30.9	9,681	410,289	10,274	317.63	570.12		
	2007	63.5%	31.1	10,773	590,015	11,835	368.17	580.07		
	2008	57.7%	28.9	10,914	241,512	11,688	337.99	585.61		
	2009	58.0%	31.1	9,773	349,852	11,391	354.72	611.95		
	2010	65.9%	31.5	9,814	315,962	13,141	413.91	628.43		
	2011	64.5%	32.9	8,605	213,125	12,434	409.14	634.16		
	2012	65.3%	32.2	7,144	182,266	12,781	411.17	629.28		
	2013	67.0%	33.1	5,172	112,499	12,766	422.92	631.15		
2014	48.8%	29.6	3,549	25,553	10,432	308.55	632.63			
<b>PPVxFrmr Total</b>		<b>60.3%</b>	<b>31.3</b>	<b>8,588</b>	<b>73,248</b>	<b>11,822</b>	<b>370.25</b>	<b>614.23</b>		
CV	2005	36.5%	24.4	11,298	-	12,229	298.85	818.69		
	2006	39.0%	25.1	11,241	277,918	12,310	308.36	790.28		
	2007	49.1%	26.2	12,599	483,559	14,370	376.84	768.12		
	2008	48.2%	23.8	13,405	179,837	15,150	360.55	748.63		
	2009	44.4%	24.4	12,196	168,113	13,730	335.43	754.68		
	2010	45.2%	23.2	12,273	249,694	15,099	350.65	774.98		
	2011	49.0%	26.3	10,126	147,786	14,471	381.08	777.11		
	2012	41.2%	23.5	8,324	111,335	13,204	310.28	752.55		
	2013	56.9%	26.0	5,859	112,496	15,610	405.80	713.28		
2014	43.7%	22.8	5,249	30,910	12,936	294.64	674.49			
<b>CV Total</b>		<b>45.4%</b>	<b>24.5</b>	<b>10,175</b>	<b>74,378</b>	<b>13,945</b>	<b>342.21</b>	<b>753.11</b>		

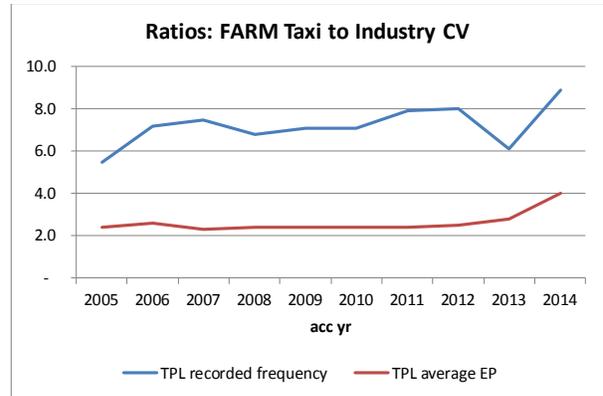
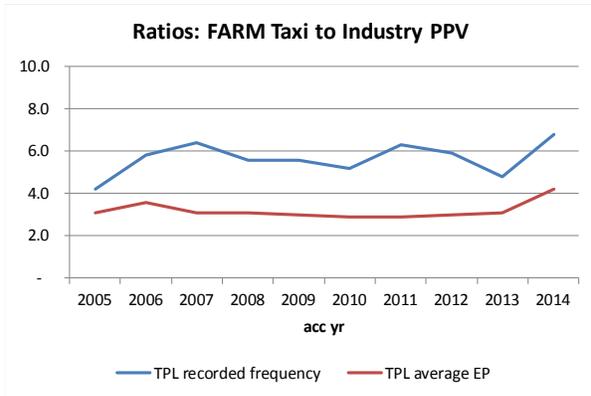
Based on these loss ratios, taxi TPL rates would have had to be 170% higher to have generated the same loss ratio as seen for PPV, and 259% higher to generate the same loss ratio as seen for commercial. Clearly, a 50% increase effective August 2013 (which would be already reflected to some extent in the 2013 and 2014 experience above), an additional 19% increase effective September 2015, and the 29% increase effective June 1, 2016 combined (approximately 130%) would not generate a 170% increase nor a 259% increase.

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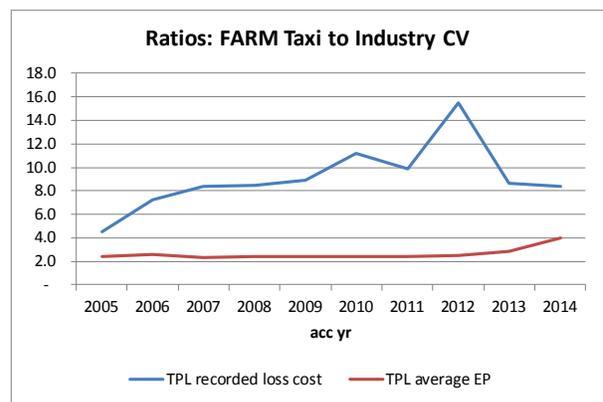
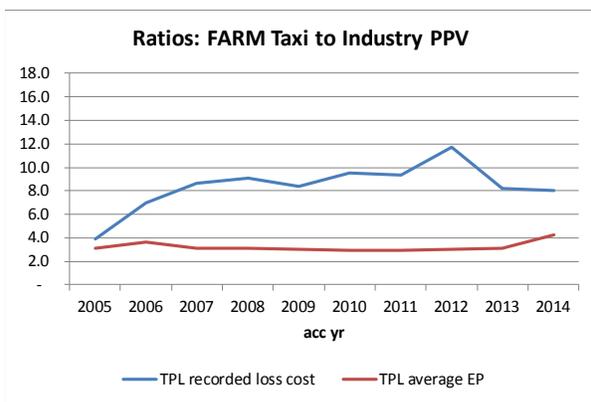
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Claims frequency in the statistics table measures the number of claims per 1,000 vehicles exposed over a 12-month period. Again, this is TPL, so this represents the frequency of claims where the driver was at fault. The TPL frequency for taxi over the 10 year period is shown at 178<sup>4</sup> per thousand, compared with 31 for PPV and 25 for CV. This indicates that taxi drivers generate 5¾ times as many TPL claims as PPV, and 7 times as many claims as CV. This is shown in the charts below, along with the ratio of taxi average earned premium to PPV (left chart) and CV (right chart).



In addition to having a higher level of TPL claims frequency, the TPL claims severity (i.e. the average size of the claim, once a claim occurs) is also higher for taxi than PPV or CV over the period shown.

As a result of the higher TPL frequency and severity of claims, the combination of these two (being loss cost), is 8¾ times as large for taxi than PPV, and 9½ times as large for CV (see table below). And yet, as shown in the table below, the average taxi premium over this period was only ¾ times that of PPV and 2½ times that of CV. This, of course, is captured in the loss ratio gap that we started the discussion with.



<sup>4</sup> Note: this is a claim count frequency measure, not an accident count measure. A single accident may cause several individual claims within TPL, as there are 2 sub-coverages included (bodily injury and property damage) and there may be more than one claimant per accident.

Furthermore, it is not one or two individual “bad” years that are causing these differences. The “best” loss cost year for taxi (2005) was 4¼ times worse than the best PPV year (2004) and 4½ times worse than the best CV year (2014).

**Alternate Assumption 1: Return on Investment**

The FA actuarial assumption is based on a risk-free yield curve to determine the RoI for use in the rate indication (RoI of 0.39% net of investment expenses).

**Management has based its proposal on a 2.8% net RoI which is within the published PUB Benchmark range.**

**NL TX Project 2016 Q1 Indications (basis for March 2016 filing)**

Profit Provision	FA Actuarial	PUB RoI
12% ROE	79.7%	64.2%
0% CoC	60.3%	49.1%
change:		-11.2%

*\*change is with respect to 0% CoC indication; PUB net RoI 2.8%*

Management’s proposal is based on the benchmark minimum in an effort to expedite the PUB decision process – it is not recognition of alignment with PUB’s position. Management supports the FA actuarial assumption as being the appropriate assumption for ratemaking. The Appendix at the end of this document discusses why the current Benchmark range is not appropriate as currently published, as it does not reflect current risk-free yields.

**Alternate Assumption 2: Loss Cost Trends**

The FA actuarial assumption is based on FA’s selected trend models of industry commercial vehicle indemnity experience as at December. 31, 2014.

**Management has based its proposal on the published PUB Benchmark commercial vehicle trend rates as at December 31, 2014.**

**NL TX Project 2016 Q1 Indications (basis for March 2016 filing)**

Profit Provision	FA Actuarial	PUB RoI	+ PUB trends
12% ROE	79.7%	64.2%	65.8%
0% CoC	60.3%	49.1%	50.6%
change:		-11.2%	+1.5%

*\*change is with respect to 0% CoC indication; PUB net RoI 2.8%*

Management’s proposal is based on the benchmark trends in an effort to expedite the PUB decision process – it is not recognition of alignment with PUB’s position. Management supports the FA actuarial assumption as being the appropriate assumption the FA taxi experience.

The published PUB Benchmark trend rates differ from FA’s, mainly due to differences in the trend analysis processes. However, the differences have narrowed over the last two cycles. These differences were discussed at length during the 2014 rate hearing and provided in our

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submissions to the PUB as draft analyses have been released. We will not repeat those discussions, but do note that the PUB benchmark trends have generally moved higher than FA's.

### **Alternate Assumption 3: Full Credibility Standard Count**

The FA actuarial assumption is based on FA's selected claim count for full credibility at the coverage level.

***Management has based its proposal on full credibility counts as per the published PUB Benchmarks.***

#### ***NL TX Project 2016 Q1 Indications (basis for March 2016 filing)***

<b>Profit Provision</b>	<b>FA Actuarial</b>	<b>PUB RoI</b>	<b>+ PUB trends</b>	<b>+ PUB cred cnts</b>
12% ROE	79.7%	64.2%	65.8%	64.1%
0% CoC	60.3%	49.1%	50.6%	49.0%
change:		-11.2%	+1.5%	-1.6%

*\*change is with respect to 0% CoC indication; PUB net RoI 2.8%*

Management's proposal is based on the benchmark credibility counts in an effort to expedite the PUB decision process – it is not recognition of alignment with PUB's position. Management supports the FA actuarial assumption as being the appropriate assumption for FA experience.

FA implemented changes to the "full credibility" standard counts across all jurisdictions in 2013 to make all consistent (basically differentiating between "long tailed" and "short tailed" coverages). The impact of the change gives more weight to FA experience, all else being equal. This change was based on actuarial judgement, with the explicit goal of giving more weight to the FA's experience (whether good or bad). The PUB's filing guidelines state that when such a change is implemented, it is to be discussed and supported. While the rationale for the change was discussed during the hearing and was also provided in our last filing, the NL PUB rejected the change with respect to both filings.

We have filed 50 rate changes requiring actuarial support for various rating classes and jurisdictions since the change was implemented, and there have been no issues related to this change in other jurisdictions<sup>5</sup>, other than a 2015 taxi filing in Nova Scotia where we presented

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<sup>5</sup> Based on the 2013 rate review cycle, FA submitted 10 rate filings requiring full actuarial support in 6 of the 9 jurisdictions we operate, all of which have now been decided upon by the applicable regulatory body (1 in ON, 2 in AB, 2 in NL, 1 in NB, 3 in NS, 1 in PE). The change in full credibility levels has been accepted in all of these submissions, bar the two submissions in Newfoundland.

Based on the 2014 rate review cycle, FA submitted 24 rate filings requiring full actuarial support in 6 of the 9 jurisdictions we operate in, all of which have been decided upon by the applicable regulatory body (5 in ON, 3 in AB, 2 in NL, 1 in NB, 1 in NS, and 2 in PE). The change in full credibility levels has been accepted in all of these submissions, bar the two submissions in Newfoundland.

Based on the 2015 rate review cycle, to-date FA submitted 16 rate filings requiring full actuarial support in 6 of the 9 jurisdictions we operate in, 6 of which have been decided upon by the applicable regulatory body (3 in AB, 1 in each of YT, NT, and NU). The change in full credibility levels has been accepted in all of the approved

sufficient evidence to the staff to support the position that this change was not “biased” to generate higher rate indications (and were subsequently accepted by the regulator). The support entailed summarizing the impact of the change in relation to bodily injury indications for the 166 rate level indications completed by FA during the 2014 rating cycle. As per the table below, 25% of the rate indications were not impacted, 55% resulted in lower indications, and only 20% resulted in higher indications. We showed that the results specific to Nova Scotia were similarly distributed.

*Estimated Impact of reducing the full credibility claim count for BI, in relation to the 2014 rating cycle indications – all jurisdictions*

summary of impacts:	zero	41	24.7%
	lower ind	92	55.4%
	higher ind	33	19.9%
total # of reviews:		166	

The table below provides the same information, but related only to the rate indications performed for NL. Here, because the experience has been generally worse than what would be expected if rates were adequate, the change did result in a higher percentage (39%) requiring a higher indication than was the case across all jurisdictions in total. However, 39% is still well below 50% and clearly shows that the overall change was not biased to be “unfavourable” in relation to rate increases to consumers.

*Estimated Impact of reducing the full credibility claim count for BI, in relation to the 2014 rating cycle indications – Newfoundland & Labrador*

summary of impacts:	zero	4	22.2%
	lower ind	7	38.9%
	higher ind	7	38.9%
total # of reviews:		18	

Further to this, the actuarial section of our May 2015 filing as well as this filing presents additional detail on the full credibility standard impact, showing better “fit” in the relationship between a measure of loss cost volatility (being the ratio of standard deviation to average loss costs over accident years) and assigned credibility. This section also highlights that the pre-2013 rate review cycle full credibility standard of 5 times 1,082 for third party liability was made up of a standard of 2 times 1,082 for bodily injury and 3 times 1,082 for property damage, which, in our actuary’s view, is somewhat counterintuitive (one would expect short-tailed property damage experience to have less volatility with the same level of claim activity compared with a long-tailed bodily injury cover).

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submissions. Of the remaining 10 yet-to-be approved filings (5 in ON, 2 in AB, and 3 in NS), we are not aware of the full credibility standard being an issue.

We believe that the facts above (that other jurisdictions have accepted the change, that the change is not biased, and that the change provides a better “fit” relationship between standard deviation / mean ratio and credibility) should be sufficient to satisfy the PUB’s requirement with this filing. However, given the tepid response with relation to our previous filing support, management has instead opted to base the proposed rate level change on an indication that uses the published PUB benchmark full credibility standards.

**Alternate Assumption 4: Credibility Complement**

The FA actuarial assumption is based on FA’s credibility-weighted projected loss ratio from the May 2015 filing (based on FA actuarial assumptions), adjusted for net trend and changes in effective dates of the two indications.

*Management has based its proposal on the assumption management believes the PUB will require – being an initial projected loss ratio consistent with the PUB’s prior decision view.*

**NL TX Project 2016 Q1 Indications (basis for March 2016 filing)**

<b>Profit Provision</b>	<b>FA Actuarial</b>	<b>PUB RoI</b>	<b>+ PUB trends</b>	<b>+ PUB cred cnts</b>	<b>+ PUB initial LR</b>
12% ROE	79.7%	64.2%	65.8%	64.1%	40.6%
0% CoC	60.3%	49.1%	50.6%	49.0%	27.7%
change:		-11.2%	+1.5%	-1.6%	-21.3%

*\*change is with respect to 0% CoC indication; PUB net RoI 2.8%*

Management’s proposal is based on PUB assumptions’ credibility-weighted projected loss ratio associated with the May 2015 filing, adjusted for net trend and changes in effective dates of the two indications in an effort to expedite the PUB decision process – it is not recognition of alignment with PUB’s position. Management supports the FA actuarial assumption as being the appropriate assumption for FA experience.

The FA actuarial indication (again) starts with the position that there is residual rate deficiency brought forward. We firmly believe this to be not only reasonable, but supported by the subsequent experience:

- our “implied loss costs” based on the credibility-weighting continue to be more aligned with the actual experience as it unfolds
- our “credibility / experience LR” gap continues to be much smaller than the PUB level

Again, we emphasize that the experience will ultimately dictate the rates. Ignoring that our historical views have proven to be “closer to the experience” than the PUB’s position only prolongs the process, perpetuating the insurance industry to taxi industry subsidy, and blunting incentives for the taxi industry to proactively reduce their claims frequency and/or severity.

However, given the PUB position was maintained with the May 2015 filing, management has instead opted to base the proposed rate level change on an indication that uses the PUB assumption of expiring rate adequacy.

### **Appendix – RoI Discussion**

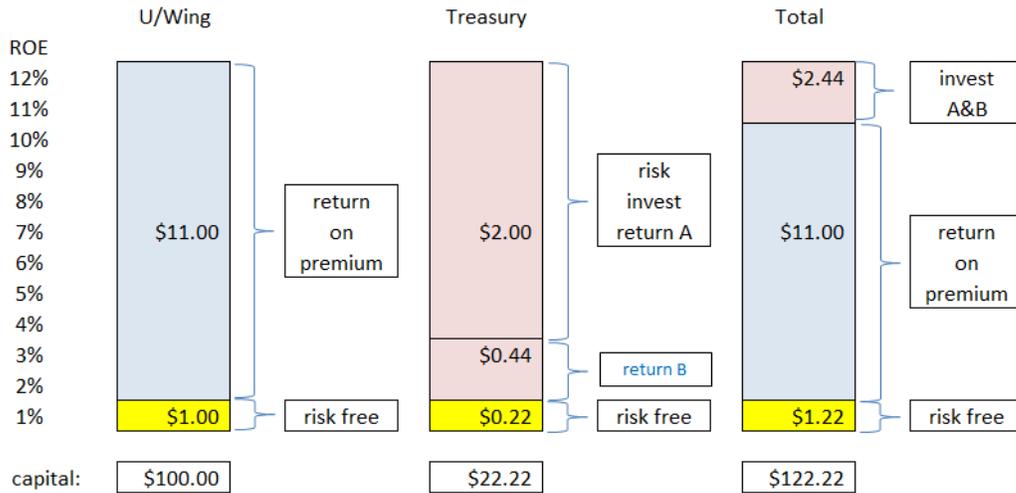
We believe the proper approach to the RoI assumption setting in ratemaking is based on:

- RoI should be forward-looking– i.e. reflect current yields versus historical returns;
- risk-free rates

On this first issue, historical returns, however measured, are no guarantee of future returns. Further, historical returns are dependent upon how those returns are measured (i.e. both the “return” itself is subject to interpretation and accounting rules etc., and the “base” against which the return is measured is subject to accounting rules etc.) These “measure” differences do not change the economics of any cash flows of invested assets and it is the “economic reality” of the cash flows that is important in the context of the rate making process.

On the second issue, it is FA’s view that any investment return in excess of a risk-free return generated on capital supporting the insurance operations should ipso facto be to the benefit of the capital provider and not to insurance policyholder. The capital provided is a buffer to ensure that policyholders are more likely to be provided the protection (i.e. paid indemnification for insured events) where it turns out that the premium collected (and the investment returns on the associated cash flows) are insufficient to meet the full cash flow requirements. We call this the “performance obligation guarantee”.

The policyholder does not provide the capital, nor is the policyholder exposed to the downside risk of investment returns in securities other than risk-free. As such, it is FA’s position that the policyholder should not benefit from returns on policyholder provided funds and/or capital in excess of risk-free. We display this in the diagram below:



$$\$22.22 = \$2 / (12\% - 3\%)$$

risk investment return A is the additional 2% risk return on \$100 initial capital via over risk free (1%)

risk investment return B is the additional 2% risk return on \$22.22 "additional" capital via over risk free (1%)

\$22.22 "additional" capital set so that \$2 of additional risk return on \$100 initial capital generates a 9% return (9% being difference between target ROE of 12% and total investment return of 3% when risk return included)

In the diagram, capital is provided to underwriting to support issuance of policies, with the capital investment return provided to underwriting at the risk-free rate (and it is assumed that policyholder provided funds will likewise be invested at risk-free returns). We have assumed a target ROE (where “equity” is synonymous with “capital” here) of 12%, and a risk-free investment return of 1%. In order to get the 12% ROE, the total return on policyholder provided funds (from both underwriting and investment – represented as “return on premium” above) would need to be 11% of capital (for ease, we’ve also included the associated dollar amounts, assuming \$100 of capital required to support the underwriting operations).

As a separate function, “treasury” (or “investment”)<sup>6</sup>, is responsible for actual investment activity on all invested funds and would be likewise charged with a target return of 12% ROE, where the “capital” is required to support any investment in other than “risk-free” securities.

Treasury could choose a higher level of return to target – for example, available policyholder provided funds and capital supporting the underwriting operation could be invested at 3%<sup>7</sup> instead of 1%, but risking:

<sup>6</sup> In the specific case of FA, “Underwriting” is at FA, while “treasury” or “investment” is at the member company level where the capital is actually maintained and invested.

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- liquidity (i.e. having to liquidate investments at a loss to meet cash obligations)
- reinvestment (i.e. as securities mature and need to be reinvested, they are reinvested at lower yields)
- credit (i.e. security issuers default in whole or in part on coupons and/or principal when they come due)
- combinations of above and other market/credit risks.

Assuming policyholder funds are invested risk free<sup>8</sup>, but capital is invested in risk-assets that generate a 3% total return, the 3% return on the initial \$100 of capital would generate an additional \$2 of return over the \$1 return generated at risk-free. Treasury would consider then the amount of “additional” capital that would be required to support this additional return. Assuming the additional capital would also be invested at 3%, then so long as the additional capital required is no more than  $\$2 / (12\% - 3\%)$  or \$22.22, it would make sense for treasury to make the investment (they would get \$2 of additional return on the initial \$100, plus  $3\% \times \$22.22$  or \$0.66 for a total return of \$2.66 on \$22.22 of capital, for a return of 12%).

On the other hand, if the capital required to support the capital invested at 3% is more than \$22.22, the company would be better off giving access to that \$22.22 of capital to underwriting to write more insurance (generating at 12% ROE).

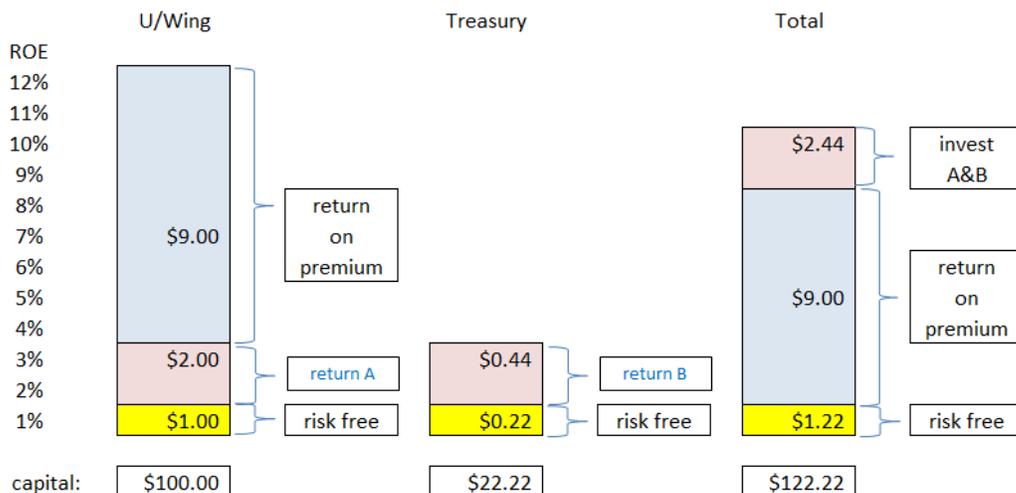
Note that under this scenario, underwriting has no vested interest in the investment activities and whether or not investment risk activities are taken (so long as it is properly capitalized to reflect the inherent riskiness of the activity relative to the firms overall risk appetite, tolerance, and limits).

If, instead, the \$2 of additional risk-return on invested capital were to accrue to the benefit of the policyholder (in the form of lower premium), the diagram above would instead look like the one shown below:

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<sup>7</sup> For simplicity, we’ve used 3.0% instead of the 2.8% management used as being the low end of the NL PUB Benchmark range.

<sup>8</sup> We make this assumption to simplify the discussion – otherwise, we have to introduce how much of the original return on premium is generated from underwriting profit and how much from investment income on policyholder funds, and for the latter, we need to make an assumption regarding the average duration of the policyholder funds. This is all doable, but risks losing the message in the detail.



Under this scenario, treasury is unable to capture the investment risk return on the initial capital of \$100 (while it is captured as part of underwriting’s return, it is in fact given to the policyholder in the form of lower premium<sup>9</sup>). Note that here, the underwriters would have a vested interest in treasury’s investment activity, as more “risky” activity will allow underwriting to reduce premium’s charged – but all of the additional risk is borne by treasury (here, it would be underwriting putting pressure on treasury to increase yield that would potentially be problematic for an insurer – note that this is not an issue for FA as FA’s mission is to be as small as possible).

Also note, importantly, that under this scenario, the company in total does not meet its 12% ROE target (it gets to 10%). Again, this is because part of its overall return was “given” to the policyholder.

Under this scenario (and assuming management can keep underwriting from pressuring treasury), the optimum strategy is NOT to invest the capital supporting underwriting at 3%, but instead give the additional \$22.22 of capital to underwriting to write more business at the 12% ROE, ensuring that the total \$122.22 would generate the target 12% ROE (again, this doesn’t directly apply to FA as FA’s mission is to be as small as possible).

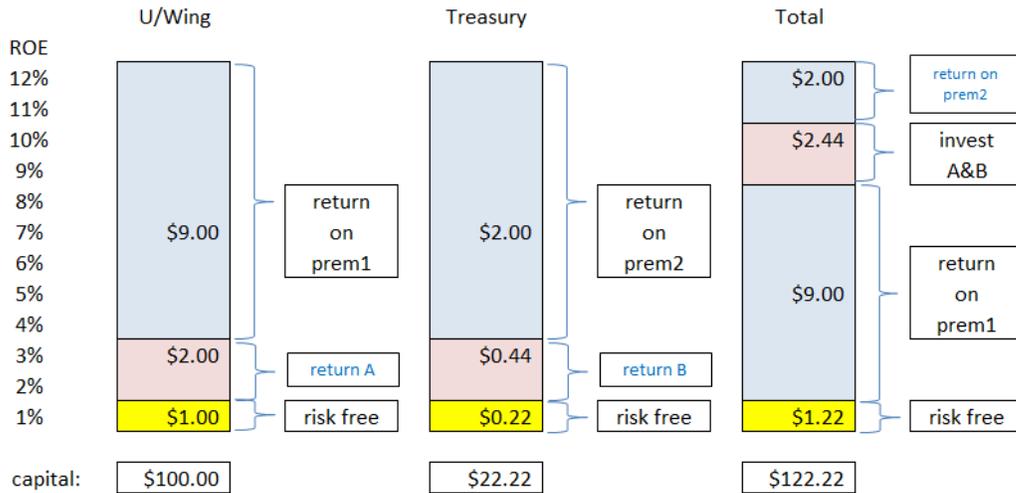
Alternatively (and again, this wouldn’t apply to FA), management could have treasury seek the additional “rent” from the policyholder as indicated below:

<sup>9</sup> For ease of discussion, we ignore here that all else equal, offering lower premium to the policyholder for the same underwriting risk would require more capital to be provided to support underwriting. Capital to support underwriting is the amount required to guarantee performance of the insurance obligation to a set level of probability. In our initial case, the funding available to support the guarantee consisted of the initial \$100 of capital plus the \$12 expected return on that capital (i.e. \$112 in total). These funds would be associated with a specific probability of fulfilling the performance guarantee. If less premium is charged, the “return” will be less than \$12 so that the total funding available would be less than \$112. To maintain the performance guarantee probability, additional capital would be required to make up the funding shortfall to get it back to the \$112 target level.

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The above is a simple “re-package” of the original scenario, although it is, in our view, more convoluted and makes it more difficult to see clearly “who owns what”. In addition, this approach could not apply to FA, as treasury (i.e. members) would not be able to extract the “rent” from the FA policyholders.

Again, for FA’s tax indication, while the FA actuarial group selected a net return on investment / discount rate of 0.39% based on current risk-free yields as discussed above, management has based the proposed rate change on an indication based on an assumption of a 2.8% net return on investment, being the lowest level within the PUB published Benchmark range.