2017 Automobile Insurance Review
Exhibit - #5
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NOVA SCOTIA AUTOMOBILE INSURANCE
DISCUSSION DOCUMENT
THE PROVINCE OF NOVA SCOTIA
DEPARTMENT OF ENVIRONMENT AND LABOUR

ADDENDUM

EXECUTIVE SUMMARY

Oliver, Wyman Consulting Limited has prepared this addendum to the discussion document on the Industry financial results and market conditions as respects private passenger automobile insurance in Nova Scotia over the period 1997 – 2002 that we prepared for the Attorney General's Office on behalf of the Province of Nova Scotia. In this addendum we comment on the Insurance Industry's financial results and market conditions as respects private passenger automobile insurance in Nova Scotia over the period 2003 through 2007. The following is a summary of our findings.

1. The result of the Government actions and improving claim experience is that average private passenger automobile insurance written premiums declined by approximately 3% in 2004, 6% in 2005, 2% in 2006, and 1% in 2007.

2. Due to the premium increases that had been taken by insurance companies in 2000-2003, the reform measures enacted by the Government (primarily the $2,500 cap on pain and suffering arising from minor injuries), and an unexpected improvement in automobile claim frequency beginning in 2002, private passenger

3. automobile insurance was profitable for insurance companies in 2003-2007[1]. The average after-tax ROE realized by insurance companies on private passenger automobile insurance in Nova Scotia during this period is estimated to be approximately 27%.

4. The average after-tax ROE realized by insurance companies on private passenger automobile insurance in Nova Scotia over the 11-year period spanning 1997-2007 is estimated to be approximately 12% - just above the target after-tax 10% benchmark.

5. Perhaps due to the uncertainty surrounding the reform measures or an expectation that results will deteriorate, insurance companies, in general, have not actively reduced automobile insurance premiums over the last several years as would be expected in a soft market environment. The Government is considering making it mandatory for insurance companies to submit rate applications for the Nova Scotia Insurance Review Board's (Board) review on a regular basis.

6. Although the Facility Association market share declined in 2007 and continues to decline in 2008, it remains relatively high. The Facility Association is addressing this matter.

7. The financial results experienced in Nova Scotia are not unlike the financial results experienced in other Atlantic provinces.

[1] In this addendum, financial results are presented on an accident year basis. Please refer to the main report for an explanation of accident year financial results.

INTRODUCTION

Oliver, Wyman Consulting Limited has prepared this addendum to the discussion document on the Industry financial results and market conditions as respects private passenger automobile insurance in Nova Scotia over the period 1997 – 2002 that we prepared for the Attorney General's Office on behalf of the Province of Nova Scotia. In this addendum we comment on the Insurance Industry's financial results and market conditions as respects private passenger automobile insurance in Nova Scotia over the period 2003 through 2007.

Study Limitations

The data utilized in this study and presented in this report is based on information published by the General Insurance Statistical Agency (GISA) that has been compiled by the Insurance Bureau of Canada (IBC). We have not audited, verified, or reviewed this data for reasonableness, accuracy, or consistency, as it is outside the scope of our study. In the event material errors are found in this data, our findings may need to be revised.

Our analysis and findings are for the Insurance Industry as a whole, including the Facility Association, and may not be appropriate for an individual insurance company whose portfolio of risks, rates, expenses, and operating characteristics may differ from the insurance industry averages that underlie our findings.

Key Assumptions Underlying the Return on Equity Estimates

The ROE figures presented in this document are estimates that are based on five key assumptions:

- Loss Ratio – The loss ratio is the ratio of claim costs to premium charged.
- Premium-to-Equity Ratio – The relationship between premium to equity. We use this ratio as the basis for notionally allocating insurance company equity to Nova Scotia automobile insurance.
- Pre-tax Return on Investment – The investment rate earned on invested funds.
- Tax Rate – The income tax rate applicable to income earned.
- Operating Expense Ratio – The relationship between insurance company operating expense costs to premium charged.

The specific assumptions that we make vary by year and are as follows.

Table A -1

ROE Assumptions by Year

Accident Year	Loss Ratio	Premium to Equity Ratio	Pre-tax Return on Investments	Tax Rates on Underwriting and Investment Income	Operating Expense Ratio
1997	89%	1.33	8.6%	45.1%-39.0%	27.3%
1998	93%	1.33	8.6%	45.1%-39.0%	27.3%
1999	105%	1.25	7.3%	45.1%-39.0%	28.7%
2000	110%	1.32	10.2%	45.1%-36.0%	26.9%
2001	95%	1.38	7.3%	44.1%-37.0%	25.3%
2002	76%	1.59	4.6%	42.1%-36.0%	24.2%
2003	55%	1.73	6.2%	40.1%-30.0%	25.7%
2004	54%	1.62	5.8%	38.1%-28.0%	26.4%
2005	53%	1.43	6.3%	38.1%-25.0%	29.4%
2006	56%	1.36	6.6%	38.1%-26.0%	27.9%
2007	60%	1.24	6.8%	38.1%-27.0%	28.6%

The loss ratios are from the latest available GISA Loss Ratio Exhibits. The premium-to-equity ratios (net earned premium to equity) and investment returns (investment income as a percentage of invested assets) represent the approximate averages reported by the top twenty automobile insurers in Nova Scotia in their P&C-1 statements (1998 figures were used for 1997). The tax rates are based on our understanding of the methodology used by Mr. Joe S. Cheng, F.C.I.A., in his March 27, 2007 report titled, "Report on the Review of Insurance Reform - Premium and Claim Analysis by Gordon G. Smith and Theresa K.

Reichert of Deloitte & Touche LLP,"[2] except that the calculations are performed based on the top twenty automobile insurers in Nova Scotia and were extended through 2007. The operating expense ratios are the approximate average operating expense ratio for Nova Scotia as reported in the IBC expense survey over the years 1998-2007 (1998 figures were used for 1997).[3]

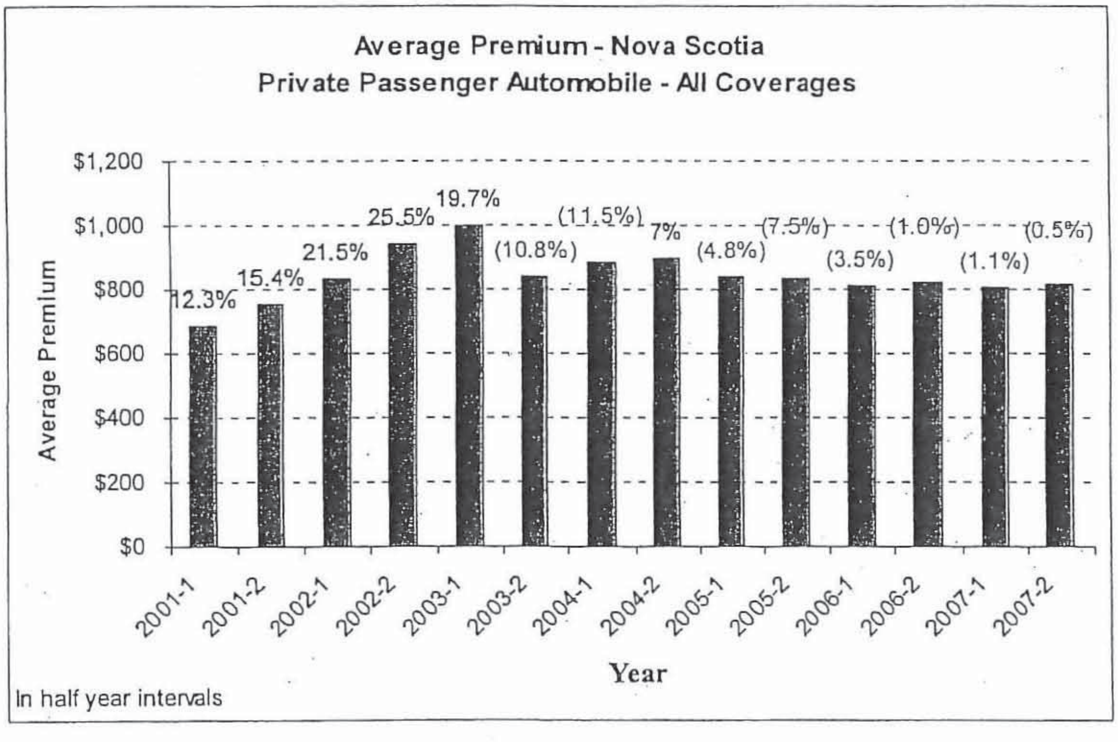
The benchmark, or target, after-tax ROE that Oliver Wyman has been requested to use in this document as a measure of profitability is 10%.[4]

[2] Mr. Cheng prepared this report for the Insurance Bureau of Canada in the Morrow v. Zhang (2008) case which challenged the constitutionality of the Alberta Minor Injury Regulation.
[3] Our use of these assumptions should not be taken as an expression of the position of Oliver Wyman. While the use of other, reasonable, premium-to-equity ratios, investment returns, tax rates, and operating expense ratios could lead to different after-tax ROE's, the broad general conclusions presented in this document would not change.
[4] The use of a benchmark after-tax ROE of 10% is not an expression of the position of Oliver Wyman.

IMPACT OF GOVERNMENT ACTIONS ON AUTOMOBILE INSURANCE PREMIUMS

As a result of the rate freeze, the mandated 20% rate level reduction, and the Board's review and approval of all automobile insurance rates charged in the province at the end of 2004, following an average premium increase of 23.5% in 2002, premiums rose on average by 4.1% in 2003, declined by 3.4% in 2004, declined again by 6.2% in 2005, declined by 2.3% in 2006, and declined by 0.7% in 2007. These average premium changes are depicted in the following table in half-year intervals.

Table A -2



The percentage changes shown in Table A-2 represent the change in the average premium for all coverages for each accident half year compared to same half year period a year prior. For example, the 21.5% increase shown above the 2002-1 bar is the increase in the average premium of the 2002-1 period ($835) compared to the 2001-1 period ($687).

We note that the table does not reveal a 20% reduction in average premium as would be expected to result from the mandated 20% rate reduction (from the rates in effect on May 1, 2003) that was ordered by the Government in November 2003. In part this is because displaying average premium changes in six-month intervals masks the effects of the rate reduction. That is, the average premium for the first half of 2003 (2003-1) includes four months of premiums that were written at increasing rates before the May rate freeze. Similarly, the average premium for the second half of 2003 (2003-1) includes four months of premiums that were written at May 2003 rate levels and only two months of premium at the reduced rate levels. Other factors, such as the movement of insureds into the Facility Association also impact the average premium.

DISCUSSION OF INSURANCE INDUSTRY FINANCIAL RESULTS AND THE CAP ON MINOR INJURIES

Financial Results

The published financial results for Nova Scotia private passenger automobile insurance clearly show that the insurance companies were not enjoying financial health leading up to the reforms. But two points need to be considered.

1. To some extent, the cyclical nature of the Industry contributed to these financial results. And as the Insurance Industry had experienced in the past it is likely that the private passenger insurance would have become profitable for insurance companies. However, this return to profitability would have come about by insurance companies continuing to sharply increase premiums (which they had already begun to do in 2001 and 2002 as discussed earlier) and by greatly restricting their acceptance of business (as they had begun to do in 2001 and 2002 as discussed earlier).

2. In hindsight, the loss ratios published in the 2001 Loss Ratio Exhibit (which as discussed earlier are based on actuarial unpaid claim cost estimates as of December 31, 2001) have (to–date) proven to be too high. The tables that follow show that the estimates of the Industry's loss ratios were revised in subsequent releases of the Loss Ratio Exhibit as the actuarial unpaid claim cost estimates were refined. We note that the latest available report is the 2007 Loss Ratio Exhibit.

Table A-3

All Coverages Combined Loss Ratios - Nova Scotia							
Accident Year	2001 Loss Ratio Exhibit	2002 Loss Ratio Exhibit	2003 Loss Ratio Exhibit	2004 Loss Ratio Exhibit	2005 Loss Ratio Exhibit	2006 Loss Ratio Exhibit	2007 Loss Ratio Exhibit
1997	89%						
1998	95	93%					
1999	110	108	105%				
2000	120	116	112	110%			
2001	109	107	98	96	95%		
2002		86	80	75	75	76%	
2003			63	54	54	56	55%
2004				53	53	56	54
2005					55	55	53
2006						61	56
2007							60

Table A-4

Third Party Liability Loss Ratios - Nova Scotia							
Accident Year	2001 Loss Ratio Exhibit	2002 Loss Ratio Exhibit	2003 Loss Ratio Exhibit	2004 Loss Ratio Exhibit	2005 Loss Ratio Exhibit	2006 Loss Ratio Exhibit	2007 Loss Ratio Exhibit
1997	119%						
1998	133	128%					
1999	156	151	145%				
2000	170	163	155	151%			
2001	158	150	134	129	127%		
2002		117	105	95	95	96%	
2003			77	62	62	64	62%
2004				54	52	56	54
2005					57	58	54
2006						64	55
2007							58

These tables show that the accident year loss ratios generally improved (declined) over time.[5] For example, the most recent estimates of the 2001 (127%) and 2002 (96%) loss ratios (as presented in the 2005 and 2006 Loss Ratio Exhibits, respectively) are lower than the estimates presented in the 2001 (158%) and 2002 (117%) Loss Ratio Exhibits.

However, based on the most recent loss ratio estimates (and the other key assumptions noted earlier), insurance companies did not achieve the target after-tax 10% ROE over the period 1997 – 2002 for private passenger automobile insurance in Nova Scotia, and for 1999, 2000, and 2001 the after-tax ROE's are estimated to have been negative.

[5] As explained earlier, loss ratios change with each release of the Loss Ratio Exhibit because of refinements in the underlying actuarial unpaid claim cost estimates as more and more claim information emerges. Although the recent Loss Ratio Exhibits reveal a pattern of declining loss ratios as the actuarial unpaid claim cost estimates are refined, this is not typical. It is more typical to see both upward and downward movement in the loss ratios as the actuarial unpaid claim cost estimates are refined. While it is expected that the loss ratios in the 2007 Loss Ratio Exhibit will change in future releases of the Loss Ratio Exhibit, we believe that it is equally likely that the loss ratios will increase or decrease.

Table A-5

Accident Year	Estimated All Coverages Combined After-tax ROE
1997	5.6%
1998	3.7%
1999	-6.2%
2000	-1.3%
2001	1.7%
2002	10.8%
2003	32.9%
2004	31.4%
2005	27.5%
2006	25.3%
2007	20.3%

Table A-5 shows that the estimates of the after-tax ROE's earned by the Industry are below the 10% target in each of the years 1997-2001, just above the target in 2002 at 10.8%, and significantly above the target in each of the years 2003-2007.

This improvement in profitability in 2003-2007 was brought on by the increases in premium taken by companies prior to the reforms, the unexpected improvement in claim frequency that began in 2002 and which has continued through 2007 for the personal injury coverages - Bodily Injury and Accidents Benefits - but which began to rise in 2004 for the vehicle damage coverages - Property Damage, Collision, and Comprehensive - and the reforms enacted by the Government.

For the entire period spanning 1997 through 2007, the after-tax ROE realized by insurance companies on Nova Scotia private passenger automobile business (All Coverages Combined) is estimated to be approximately 12%, which is above the 10% ROE target.

Also of note is that based on our estimates, the Insurance Industry's after-tax ROE for private passenger automobile insurance business in Nova Scotia has declined each year since 2003; for 2007 the average after-tax ROE is estimated to have been approximately 20% - which is twice the target of 10%.

History suggests that as the Industry progresses further into the soft market part of the cycle, insurance companies will reduce premiums and claim experience will worsen, and this will cause profitability to significantly diminish. However, through 2007 there has been little in the way of premium reductions and there is no indication of a sharp deterioration in claim experience.

One possible reason for insurance companies not reducing premiums despite the relatively high ROE's is the uncertainty that surrounds the cap on minor injuries. The cap has been challenged in Nova Scotia; given the recent court decision in Alberta (which is under appeal) insurance companies may be reluctant to give up premium that they may very well need should the challenge be successful.

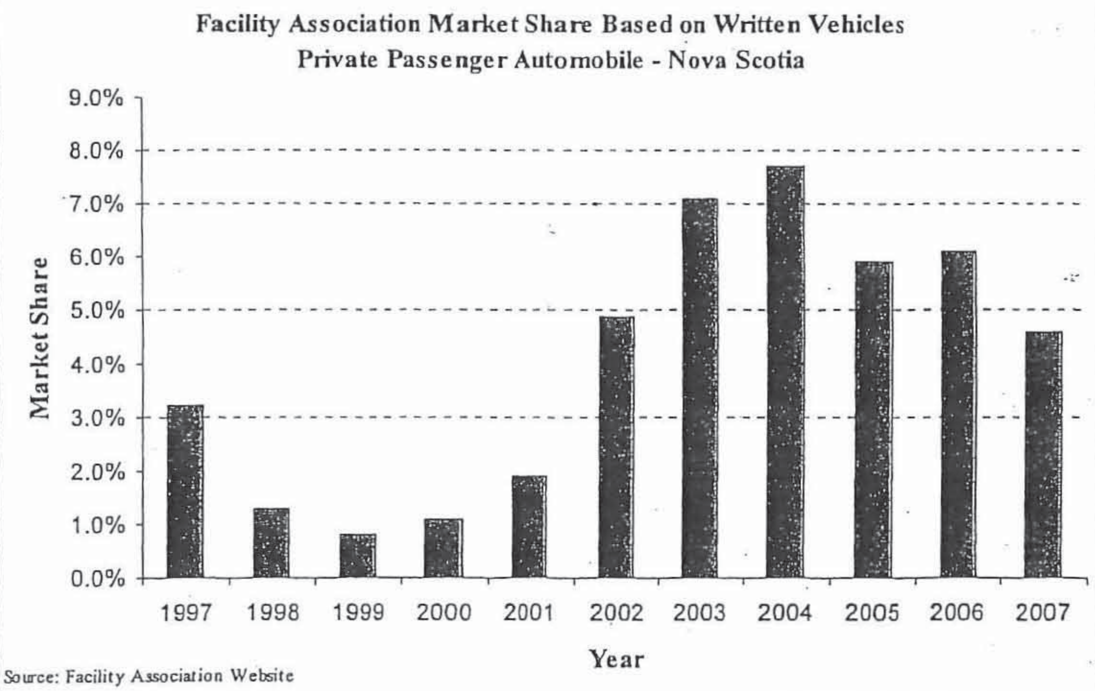
Another possible reason is the unexpected decline in claim frequency that has been occurring. Companies may feel that the decline will end and that the claim frequency rate (and hence claim costs) will begin to sharply rise.

We note that while the Board has the authority to review and approve rate applications, it can do so only if rate applications are made. As a comparison, in New Brunswick all insurance companies must submit a rate application for Board approval at least once each year. The Government has recently announced that it is considering making it mandatory for insurance companies to submit rate applications on a regular basis.

Facility Association

As respects the Facility Association, after sharply increasing in 2002-2004, the Facility Association market share declined in 2005, remained level in 2006, and further declined in 2007 to just below the 2002 level. This is depicted in the following Table A-6. We note that figures in Table A-6 exclude the Inexperienced Driver Risk Sharing Pool that was established in 2007.

Table A-6



Source: Facility Association Website

However, at 4.6%, the Facility Association market share in Nova Scotia is high relative to that of other provinces, and remains high compared to the levels it was at over the period 1997-2001. We understand that a major reason for this is that the Facility

Association rates are competitive with voluntary market rates for certain classes of drivers. This situation is being addressed by the Facility Association. The first step was the creation of the Inexperienced Driver Risk Sharing Pool. This led to the reduction in the Facility Association market share that occurred in 2007 and which continues into 2008. The second step is a re-design of the Facility Association rating plan that is planned for 2008 and which is intended to address the competitiveness of the Facility Association's premiums. We also note that if the regular market rates were reduced, the Facility Association premiums would not be (appropriately) as competitive as they appear to now be, and risks would not be as inclined to remain in the Facility Association.

LOSS RATIOS AND AVERAGE PREMIUMS IN OTHER ATLANTIC PROVINCES

The following table presents the All Coverages Combined 2003 to 2007 loss ratios reported in the 2007 Loss Ratio exhibit for each of the Atlantic provinces; and the 2002 loss ratio reported in the 2006 Loss Ratio exhibit.

Table A-7

Loss Ratios

Accident Year	Nova Scotia	Newfoundland & Labrador	New Brunswick	PEI
2002	76%	72%	78%	65%
2003	55%	63%	55%	62%
2004	54%	58%	42%	47%
2005	53%	66%	51%	47%
2006	56%	67%	55%	51%
2007	60%	70%	61%	60%

As the table shows, while the loss ratios vary somewhat from province to province, the patterns are similar. The loss ratios in 2002 were generally the highest during this six-year period. This was followed by generally improving loss ratios in 2003 and 2004, and then generally rising loss ratios in 2005, 2006, and 2007. The reduction in the loss ratios in Newfoundland & Labrador, New Brunswick and Prince Edward Island were, in part, due to the reform measures enacted in those provinces:

- In Newfoundland & Labrador, private passenger automobile premiums were frozen on March 17, 2003. In 2004, Newfoundland & Labrador introduced reforms which included a deductible of $2,500 on all pain & suffering damages for Bodily Injury liability claims, with the expectation that the $2,500 deductible would result in a cost savings of 5% on the TPL coverage, or approximately 6% on the Bodily Injury liability coverage[6]. Effective August 1, 2004, premiums for all coverages were reduced by varying percentages from the March 17, 2003 frozen rate level and rebates were provided to policyholders with unexpired policy terms.

- In 2003, New Brunswick introduced reforms which included a cap of $2,500 on pain & suffering damages for minor injuries (as defined) for Bodily Injury liability claims. Effective July 1, 2003, premiums for all coverages were uniformly reduced by 20% or insurers had to file new rates with the Board by August 15, 2003 for the Board's approval.

- In 2003, Prince Edward Island introduced reforms which included a cap of $2,500 on pain & suffering damages for minor injuries (as defined) for Bodily Injury liability claims. Effective April 1, 2004, premiums for all coverages were reduced and rebates were provided to policyholders with unexpired policy terms.

The following table presents the All Coverages Combined average private passenger automobile written premium reported in the 2007 Loss Ratio Exhibit for each of the Atlantic provinces.

[6] Oliver Wyman report, "Estimates of the Impact on Private Passenger Insurance Premium Resulting from the Implementation of a Deductible or Cap," January 2005, prepared for the Newfoundland and Labrador Board of Commissioners of Public Utilities

Table A-8

Average Written Premium				
Accident Year	Nova Scotia	Newfoundland & Labrador	New Brunswick	PEI
2002*	$887	$926	$1,038	$777
2003	$923	$1,037	$1,117	$867
2004	$892	$967	$1,100	$830
2005	$837	$912	$998	$812
2006	$818	$866	$909	$771
2007	$812	$903	$802	$753

* from 2006 Actual Loss Ratio Exhibit

As can be seen from the above table the average premium is lowest in PEI, followed by New Brunswick, Nova Scotia, and Newfoundland & Labrador (highest). However, it is important to note that absolute average premiums are not necessarily a meaningful measure of the relative cost of insurance among provinces. This is because demographics, road conditions, traffic congestion, weather patterns, and other factors that affect the cost of automobile insurance vary from province to province. In addition, the coverage that is provided also varies from province to province to some extent.

Another comparative measure of automobile insurance costs is the percent change in average premium. The following table displays the year-to-year percent change in average premium for each of the Atlantic provinces over the period 2003 to 2007.

Table A-9

Change in Average Written Premium				
Accident Year	Nova Scotia	Newfoundland & Labrador	New Brunswick	PEI
2003	4.1%	12.0%	7.6%	11.6%
2004	-3.4%	-6.8%	-1.5%	-4.3%
2005	-6.2%	-5.7%	-9.3%	-2.2%
2006	-2.3%	-5.0%	-8.9%	-5.0%
2007	-0.7%	4.3%	-11.8%	-2.3%

As can be seen from the table, the average premium increased in each of the provinces in 2003 and declined in years 2004, 2005, 2006, and 2007 (except for Newfoundland & Labrador). Over the period of generally declining average premium (2004-2007), the overall four-year changes in average written premium were: Nova Scotia (-12.0%), Newfoundland & Labrador (-12.9%), New Brunswick (-28.2%), and PEI (-13.1%). As noted earlier, each of these provinces has implemented reforms, and the differences in the reform measures affect the change in average premium.

SUMMARY

1. The result of the Government actions and improving claim experience is that average private passenger automobile insurance written premiums declined by approximately 3% in 2004, 6% in 2005, 2% in 2006, and 1% in 2007.

2. Due to the premium increases that had been taken by insurance companies in 2000-2003, the reform measures enacted by the Government (primarily the $2,500 cap on pain and suffering arising from minor injuries), and an unexpected improvement in automobile claim frequency beginning in 2002, private passenger automobile insurance was profitable for insurance companies in 2003-2007. The average after-tax ROE realized by insurance companies on private passenger automobile insurance in Nova Scotia during this period is estimated to be approximately 27%.

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4. Perhaps due to the uncertainty surrounding the reform measures or an expectation that results will deteriorate, insurance companies, in general, have not actively reduced automobile insurance premiums over the last several years as would be expected in a soft market environment. The Government is considering making it mandatory for insurance companies to submit rate applications for the Board's review on a regular basis.

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