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# **Proposed Newfoundland and Labrador Private Passenger and Commercial Automobile Insurance**

Benchmark Ranges for 2005

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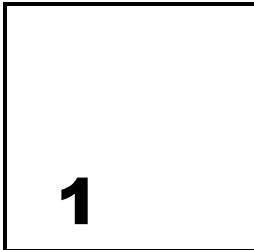
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## **Introduction**

This report was prepared by Mercer Oliver Wyman Actuarial Consulting Limited (Mercer), actuarial consultants to the Newfoundland and Labrador Board of Commissioners of Public Utilities (Board). The report presents the proposed Newfoundland and Labrador Automobile Insurance benchmark rate ranges for rate filings taking effect during the period between January 1, 2005 and December 31, 2005.

The Board utilizes a system of benchmark rates in its review of automobile insurance rate filings for Private Passenger Automobile and Commercial Automobile. The Board annually reviews the benchmark rates. Under this system, any Private Passenger Automobile rate filing, with the exception of those submitted by the Facility Association (FA), with proposed rates that fall within an established range around the benchmark rates is, generally, approved by the Board. While all rate applications are reviewed and analyzed by the Board, those filings that propose rates that fall outside the minimum and maximum range are subject to a more in-depth analysis by the Board.

## **Data and Reliances**

The data utilized in this study and report is based on data prepared by the Insurance Bureau of Canada (IBC). We also relied upon data contained in prior benchmark reports prepared by Milliman & Robertson Inc. (M&R), and data compiled by the Insurers

Advisory Organization (IAO) in its prior surveys and rate filings. We have not audited, verified or reviewed this data for reasonableness, accuracy or consistency, as it is outside the scope of our study. If this data or information is found to be inaccurate or incomplete, the results of our analysis may need to be revised.

## Limitations

### **Limitations of Results**

The projections presented in this report represent our best estimates based on the data and information made available to us at the time of this analysis. As with any projection, there is a significant degree of uncertainty due to differences in the actual loss experience that emerges versus the loss experience projected, unanticipated changes in the legal system, changes in the economy, and changes to company philosophies and/or procedures which affect loss development patterns and loss trend rates.

Our analysis and findings are intended to provide the Board with benchmark base rates and rate factors that reflect the anticipated experience of the insurance industry as a whole (excluding the Facility Association) and reports the percentage change from the current benchmark rates in effect. Our estimates of rate level need may not be appropriate for an individual insurance company whose portfolio of risks, expenses, and operating characteristics may differ from the insurance industry averages that underlie our findings.

### **Limitations on Distribution of Report**

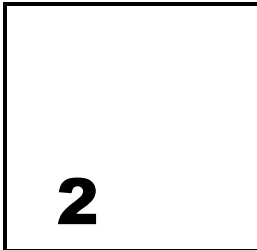
This analysis was performed for the Board. Our report may be distributed to other parties on the condition that it is distributed in its entirety. Excerpts of this report may not be distributed to any party.

## Significant Event

### **Legislative Reforms**

On August 1, 2004 the Province of Newfoundland and Labrador proclaimed Bill 30, introducing automobile reforms. Various measures were included to reduce loss costs, and insurers were required to reduced premiums.

On September 9<sup>th</sup>, the Board approved the Private Passenger Automobile benchmark rates reflecting Mercer's 2004 benchmark report findings as it relates to all coverages except third party liability (TPL), and in the case of TPL established rates to reflect anticipated savings to be achieved for the reform measures applicable to this coverage. These approved Private Passenger Automobile benchmark rates are referred to as the "current" Private Passenger Automobile benchmark rates throughout this report. The previous Private Passenger Automobile benchmark rates had been in effect since January 1, 2001. The current benchmark rates for Commercial Automobile remain unchanged since January 1, 2001.



## **Definitions of Key Terms**

To assist the reader in his or her understanding of our report, in this section we define and explain several of the technical terms that we use throughout our report.

### **Insurance Coverages**

We begin with a general description of the insurance coverages. We note that throughout this discussion of the insurance coverages, the term “insured” is generally used to mean the family of the owner of the policy, as well as any passengers or other drivers using the car with the owner’s permission.

#### Third Party Liability (TPL)

There are two parts to this mandatory coverage:

Bodily Injury (BI) coverage protects the insured against liability arising from an accident that causes bodily injury to another person. Coverage amounts available in Newfoundland and Labrador range from the legal minimum of \$200,000 per claim to well over \$2,000,000 per claim.

Property Damage (PD) coverage protects the insured against liability arising from an accident that causes damage to the property of another person.

All drivers must purchase at least the legally required minimum amount of TPL coverage available in Newfoundland and Labrador.

#### Accident Benefits (AB)

This optional coverage provides for reimbursement of lost income, medical care costs, and funeral costs; it also provides benefits to the dependants of a deceased insured.

#### Uninsured Motorist (UM)

This mandatory coverage protects the insured if bodily injury or property damage is caused by an at-fault driver who is unidentified or does not have insurance; in this case, the insured collects, from his or her own insurer, the amount that theoretically would have been paid by the at-fault driver's own insurer had that at-fault driver been identified and insured, but only up to the required minimum \$200,000 limits of liability.

#### Underinsured Motorist (UIM)

This optional coverage protects the insured if he or she is caused bodily injury by an at-fault driver who is insured, but who does not have sufficient insurance to cover the liability; in this case the insured collects, from his or her own insurer, the amount of the damage that is in excess of the at-fault driver's liability coverage and up to the limit of UIM coverage purchased.

#### Collision

This optional coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a collision.

#### Comprehensive

This optional coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a peril other than collision (e.g., theft, vandalism, flood, hail, fire, etc.).

#### All Perils

This optional coverage combines the coverages for both collision and comprehensive into one coverage, subject to a common deductible level.



### Specified Perils

This optional coverage, like collision and comprehensive, provides coverage (subject to a deductible) for specific perils to the insured's vehicle.

## Other Terms

### Accident Year

The year in which an incident that gives rise to a claim occurred, regardless of when the claim is actually reported to an insurance company. For example, a claim reported on January 15, 2003 for injuries suffered in an automobile accident that occurred on December 15, 2002, is considered to be an accident year 2002 claim.

### Allocated Loss Adjustment Expense (ALAE)

ALAE is the claim and settlement expense that can be associated directly with individual claims (e.g., legal expenses). (See ULAE)

### Base Rate and Rate Differentials

Insurers generally determine the premium for a particular insured by multiplying a base rate by a series of rate differentials (or rate factors, or rate relativities) that reflect the particular characteristics of the insured. The terms rate differentials, rate factors and rate relativities are used interchangeably throughout this report. Typically, there is one base rate for each combination of coverage and rating territory. For example, assume a base rate for the TPL coverage of \$200 in Territory #1 and a base rate for the TPL coverage of \$300 in Territory #2. Also assume the rate differential for a married male driver, age 40, is 1.25. The TPL premium for this driver would be \$250 in Territory #1 (\$200 times 1.25) and \$375 in Territory #2 (\$300 times 1.25).

### Case Reserve

The case reserve is the provision established by insurance companies for the payment of future losses and claim related expenses associated with a particular claim.

### Claim Frequency

Claim Frequency is the average number of claims that occur in a year, per insured vehicle. Claim frequency is a measure of the incidence of automobile claims. For example, if an insurance company provided insurance on 100 vehicles in year 2002 and 5 TPL claims occurred during 2002, the company's TPL claim frequency for 2002 would be 5 percent.

#### Claim Severity

Claim Severity is the average reported incurred loss and ALAE per claim. Claim severity is a measure of the average cost of automobile claims. For example, if the 5 claims in the previous example resulted in a total incurred loss and ALAE of \$100,000, the claim severity would be \$20,000.

#### Claim Count Development

Claim Count Development refers to the change in the number of reported claims for a particular accident year over time. (See Loss Development)

#### CLEAR

CLEAR refers to Canadian Loss Experience Automobile Rating, a system of categorizing Private Passenger vehicles, by make and model-year, for physical damage coverage rating purposes. CLEAR was developed by the Vehicle Information Centre of Canada (VICC), a part of the Insurance Bureau of Canada. CLEAR considers such elements as the reparability and damageability of the make and model-year. (See MSRP)

#### Combined Ratio

Combined Ratio is another common measure of premium adequacy. This is the sum of the loss ratio plus the expense ratio (operating expenses divided by written premium). A combined ratio in excess of 100 percent is an indication of premium inadequacy, before consideration of profit and investment income.

#### Earned Premium

Earned premium is the amount of written premium that is associated with the portion of the policy term that has expired. For example, assume an automobile policy with a 12-month term is sold on January 1 for \$1,000. The amount of earned premium would be \$500 on June 30.

### Exposure Unit

A measure of loss potential. In private passenger automobile insurance, the exposure unit that is commonly used is the number of insured vehicles. For example, all else being equal, it would be expected that the cost to an insurance company to insure 50 cars would be twice the cost to insure 25 cars.

### Health Services Levy

As per Provincial legislation, a levy is paid by each insurer for each vehicle that it insures, to cover certain hospital costs to the Department of Health and Community Services. Under the legislation, the Department has no subrogation rights against the at-fault parties who are insured by policies of TPL insurance; but instead, collects the levy.

### Loss Cost

Loss Cost is the average incurred loss and ALAE in a year per insured vehicle. The loss cost is the product of claim frequency and claim severity. Using the above example, a claim frequency of 5 percent, multiplied by a claim severity of \$20,000, produces a TPL loss cost of \$1,000.

### Loss Development

Loss Development is the amount by which reported incurred losses and ALAE for a particular accident year change over time. The two main reasons why reported incurred losses and ALAE amounts change (or develop) over time are:

- (a) Reported incurred losses and ALAE only include case reserve estimates on claims for which the claim adjuster has knowledge, i.e., case reserves are only established on the claims that have been reported to the insurance company. Since typically some period of time elapses between the time of the incident and when it is reported as a claim, the number of reported claims for an accident year would be expected to increase over time. Claims that are reported after the close of an accident year are referred to as “late-reported” claims; and

(b) Reported incurred losses and ALAE also develop because, for a number of reasons, the initial case reserves established by claims adjusters, can not fully and accurately reflect the amount the claim will ultimately settle at. This pattern of under-reserving and over-reserving is common within the insurance industry (although the degree to which reported incurred losses and ALAE are under-reserved or over-reserved varies by company, jurisdiction, line of business, etc.). We further note that, over time, the percentage by which reported incurred losses and ALAE develop for a given accident year should decline. This is because as accident years become more mature (become older), fewer and fewer reserve estimates are adjusted to reflect newly reported late claims, actual payments, and additional information that becomes available to the claims adjuster.

#### Loss Ratio

Loss Ratio is defined as reported incurred losses and ALAE divided by earned premium. This is the common measure of premium adequacy. A loss ratio that exceeds a company's break-even loss ratio (100 percent less budgeted expenses) would suggest premium inadequacy.

#### Loss Reserving Methods: Incurred Loss Method and Paid Loss Method

Loss reserving methods are often based on historical data grouped into a triangle format. A common approach is to have the rows represent the accident years, and the columns representing the value of the loss at specific dates, such as 12 months, 24 months, 36 months etc., from the beginning of the accident year. The historical changes in the loss data from period to period is reviewed to estimate a pattern to predict how current accident years losses will change over time as claims are settled and closed. The Incurred Loss Method refers to the triangle method of analysis, based on reported incurred losses. The Paid Loss Method refers to the triangle method of analysis, based on paid losses.

#### MSRP

MSRP refers to the Manufacturer's Suggested Retail Price, and is a system of categorizing Private Passenger vehicles, by make and model-year, for rating purposes for physical damage coverages, according to the original price of the vehicle. (See CLEAR)

#### Operating Expenses

Insurance company expenses, other than ALAE and ULAE, are typically categorized as Commissions, Other Acquisition, General, and Taxes, Licenses, and Fees.

#### Paid Losses

The total aggregate dollar amount of losses paid on all reported claims as of a certain date.

#### Premium Drift

Premium drift is a more general term, and refers to the changes in the amount of premium collected by insurance companies that is attributed to the purchase of newer and more expensive cars (i.e., rate group drift) as well as to changes in the amount of insurance coverage that is purchased (e.g., the purchase of higher limits of liability coverage would increase the amount of premium collected by insurance companies, while the purchase of higher physical damage deductibles would reduce the amount of premium collected by insurance companies). (See Rate Group Drift)

#### Rate Group Drift

Rate Group drift refers to the amount of additional premium collected by insurance companies that is attributed to the purchase of newer and more expensive cars by insureds. The premiums charged by insurance companies are higher for newer and more expensive cars. Therefore, as insureds purchase newer and more expensive cars, the amount of premium collected by insurance companies increases. (See Premium Drift)

#### Ratemaking Methods: Pure Premium Method and Loss Ratio Method

The Pure Premium Method of ratemaking develops indicated rates that are expected to provide for the expected losses and expenses, and provide for the expected profit.

The Loss Ratio Method of ratemaking develops indicated rate changes rather than indicated rates.

#### Rating Territory

Automobile premiums vary by the principal garaging location of the vehicle.

Newfoundland and Labrador is divided into three areas, or rating territories, of principal garaging location; and, therefore, has three separate sets of rates depending upon which of the three territories the vehicle is principally garaged. (see Statistical Territory)

### Reported Incurred Loss

The sum of:

- (a) the total aggregate dollar amount of losses paid on all reported claims as of a certain date (referred to as the valuation date), and
- (b) the total aggregate dollar amount of losses set in reserve by the claim adjusters on each open claim (referred to as “case reserves”) as of a certain date (the same evaluation date as for the paid loss amounts).

For example, if two claims were filed against an insurance company, one that settled for \$50,000 and the other that was open with a paid amount of \$25,000 and a “case reserve” (i.e., the claim adjuster’s estimate of the dollars still to be paid on the claim) of \$30,000, then the total reported incurred loss on the two claims would be \$105,000 (the sum of \$50,000, plus \$25,000, plus \$30,000).

### Reserve

A reserve is the aggregate provision identified by an insurance company for the payment of future losses and claim related expenses associated with claims that have been incurred.

### Surplus

The excess of the assets of an insurance company over its liabilities.

### Statistical Territory

Automobile premiums vary by the principal garaging location of the vehicle.

Newfoundland and Labrador is divided into four statistical territories, of principal garaging location. Specific statistically territories are grouped together to represent a specific rating territory. In some cases there is one statistical territory in a rating territory, in other cases the rating territory is comprised of two or more statistical territories. (see Rating Territory)

### Total Return on Equity

Total Return on Equity (ROE) refers to an insurer's profit as a percentage of its surplus, where profit is the sum of (a) underwriting profit, and (b) investment income earned on both the underwriting operations of the company and on the surplus carried by the company. The assumed target return on equity is based on the Board's selected methodology.

### Underwriting Profit

Underwriting Profit is defined as earned premium, less reported incurred losses and ALAE, less ULAE, less operational expenses.

### Underwriting Profit Margin

Underwriting Profit Margin is the provision that is included in the insurance premium for underwriting profit to be earned by the company.

For example, assume that an insurance company has a pre-tax target total return on equity of 15 percent and that its surplus is \$500,000. This means that its target total profit is \$75,000 before taxes. Assume that the company expects to write \$1,000,000 of premium during the year, and that it expects to earn \$50,000 in investment income on its surplus and on the premium it collects. This means that it would need to make an underwriting profit of \$25,000 to reach its target. This, in turn, means that the insurance company would have to include in the premium it charges an underwriting profit margin of 2.5 percent (2.5 percent of \$1,000,000 is \$25,000).

### Ultimate Incurred Loss

An estimate of the total amount of loss dollars that will ultimately be paid to settle all claims that occur during a particular accident year.

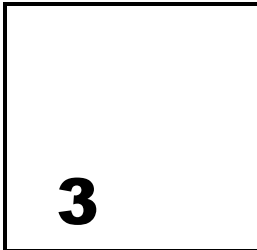
### Written Premium

Written premium represents the total amount of premium charged by an insurance company for the insurance policies it has sold. It is generally measured over a one-year period.

Unallocated Loss Adjustment Expense (ULAE)

ULAE is the claim and settlement related expense that cannot be associated directly with individual claims (e.g., claim adjuster salaries). (See ALAE)





## Summary

The following table presents our recommended average percentage changes to the current benchmark rates implemented by the Board in September 2004, by coverage and territory, for Private Passenger Automobile for both CLEAR and MSRP.

**Recommended Average Change in 2005 Benchmark Rates**  
**Private Passenger Automobile – Table 1**

<b>Coverage</b>	<b>Territory 1</b>	<b>Territory 2</b>	<b>Territory 3</b>	<b>Private Passenger</b>
Third Party Liability	-0.8%	-9.5%	-11.8%	-4.0%
Accident Benefits	-8.3%	-12.7%	-12.7%	-10.2%
Collision (CLEAR)	-11.5%	-15.3%	-12.3%	-13.1%
Collision (MSRP)	-10.6%	-18.4%	-11.4%	-13.9%
Comprehensive (CLEAR)	-20.7%	-20.7%	-20.7%	-20.7%
Comprehensive (MSRP)	-22.0%	-22.0%	-22.0%	-22.0%
Specified Perils (CLEAR)	-18.9%	-18.9%	-11.4%	-18.7%
Specified Perils (MSRP)	-19.9%	-19.9%	-19.9%	-19.9%
Uninsured Automobile	-15.0%	-15.0%	-15.0%	-15.0%
<b>Total (CLEAR)</b>	<b>-4.4%</b>	<b>-11.7%</b>	<b>-13.0%</b>	<b>-7.3%</b>
<b>Total (MSRP)</b>	<b>-4.4%</b>	<b>-12.4%</b>	<b>-12.9%</b>	<b>-7.5%</b>

As can be seen from Table 1, we are recommending an average percentage decrease in the benchmark rates for third party liability (TPL) of 4.0% and accident benefits of 10.2%. For all other coverages, we are also recommending a reduction in the benchmark rates. A more detailed comparison between our recommended Private Passenger Automobile benchmark base rates and the current benchmark base rates, and the effect of the change in differentials that we are recommending is presented in Appendix A, Exhibit 1, page 2.

Based on available data, the following table presents our recommended average percentage changes to the current benchmark rates, by coverage, for Commercial Automobile.

**Recommended Average Change in 2005 Benchmark Rates**  
**Commercial Automobile – Table 2**

<b>Coverage</b>	<b>Commercial Automobile</b>
Third Party Liability	23.5%
Accident Benefits	32.3%
Collision	-13.9%
Comprehensive	-14.4%
Specified Perils	-18.8%
Uninsured Automobile	-4.5%
<b>Total</b>	<b>19.0%</b>

As can be seen from Table 2, the changes we are recommending to the current benchmark rates vary considerably by coverage. A more detailed comparison between our recommended Commercial Automobile benchmark base rates and the current benchmark base rates, and the effect of the change in our recommended differentials is presented in Appendix B, Exhibit 1, page 2.

## Data Reliability

The development of the benchmark base rates and rating factors relies upon the IBC industry data exhibits, commonly referred to as AIX exhibits. The most current exhibits include data valued as of December 31, 2003.

Before IBC includes the data reported by the insurers in the industry exhibits, we understand the underlying data is subject to checks and edits, along with a reconciliation process. As an example, in this year's Newfoundland and Labrador (NL) exhibits, data with coding errors related to the statistical territory were identified by IBC, and as a result, were excluded from affected exhibits.

While most insurers have their own unique statistical exhibits of their own data for ratemaking purposes, IBC's exhibits are the only source of the total industry statistical data (i.e., all companies combined) suitable for ratemaking purposes. While financial annual statements, commonly referred to as the "P&C-1," contain automobile premium and claim experience, this data is aggregated for all types of automobiles (e.g., trucks, taxis, cars, snowmobiles) for the province and not designed for ratemaking purposes. The IBC AIX exhibits are the sole source of industry automobile (detailed) statistical experience in the Atlantic Provinces, Ontario and Alberta that are relied upon.

It is IBC's role to verify and review the data for reasonableness, accuracy, and consistency. A full understanding and explanation of how this data is edited can be obtained from the IBC.

## Benchmark Ranges and Regulation

In this study, we follow the same ranges used in the prior benchmark studies. These ranges reflect some of the variance in claims experience, profit provisions and expense ratios among companies, compared to the assumptions used in this study. They also reflect some of the possible parameter variance in components such as premium drift, territory relativity, loss development, loss trend, and claim payment patterns.

If the Board was to change the ranges, it could consider several options. Increasing the upper and/or lower bound of these ranges would allow more insurers to use the benchmark rates and factors without providing an independent filing to support rate levels outside of the current ranges. This would lead to faster implementation of rate level changes by insurers and possibly a wider range of rates for consumers to choose from at any one time. A wider range may lead to higher overall rate changes from year to year for an individual insurer. Conversely, decreasing the upper and/or lower bound of these ranges would most likely lead to more insurers preparing independent rate filings, and possibly less choice for consumers at any one time.

If the range was changed to eliminate the lower bound, this introduces more flexibility than the current system with both upper and lower bounds. It could lead to faster implementation of rate level changes for some insurers and possibly a wider range of rates for consumers to choose from at any one time in contrast to the current system with a lower bound. However, a range without a lower bound could lead to predatory pricing and/or higher overall rate changes from year to year for an individual insurer.

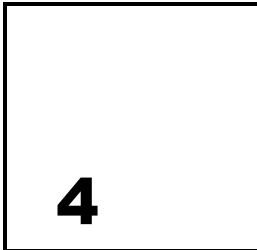
If the bounds are increased and/or dropped, the Board could consider introducing caps. These caps could be on the overall rate level change for an insurer to limit the percentage change imposed upon consumers on average, and/or a cap of the rate level change by individual vehicle within a specified time period.

NL is currently the only province in Canada that operates on a benchmark system with upper and lower bounds. In Ontario, Nova Scotia, and New Brunswick each insurer is required to prepare a rate filing to support its requested rate level changes; and these are subject to review and approval by the regulators before they can be implemented. Ontario also has an expedited filing approach for Private Passenger Automobile which offers more immediate approval, if, amongst other conditions, the cumulative rate level change falls within a narrow range. In Alberta, private passenger automobile insurance has recently undergone legislative and regulatory reforms. In October 2004, Alberta introduced a system of Grid rates for TPL and accident benefits that, among other things, does not consider age, gender, or marital status. Individual insurers can use whatever rates and risk classification factors they deem appropriate, but the premiums they charge

are subject to certain restrictions, and cannot exceed the Grid premiums for any risk. Insurers that wish to change their rates by more than what is allowed in annual updates to the Grid premiums, must file their proposed rates, along with full actuarial support, for approval.

## Capping of Recommended Benchmark Base Rates

As in prior years, the recommended benchmark rates prepared in this study, are limited to a +/-15% change relative to the expected amount of annual change due to loss cost trends and premium drifts. For example, the current territory 1 benchmark base rate for accident benefits at \$86, with the annual loss trend rate of 2.7%, is \$87.77. In this case, the change for accident benefits is limited to +/-15% of \$87.77 or \$13.17. The percentage changes provided in Tables 1 and 2 reflect the 15% cap.



## **Current Industry Published Results**

### **Private Passenger Automobile**

Each year the Insurance Bureau of Canada (IBC) publishes its automobile insurance results for the insurance industry in a series of reports known as AIX Industry exhibits. The provincial summary exhibit is commonly known as the Actual Loss Ratio Exhibit. The Actual Loss Ratio (ALR) is a ratio of the estimated losses to the premiums earned, for each of the last five accident years by coverage. The loss results include the reported incurred losses and allocated loss adjustment expenses, the Health Levy, along with IBC's estimate of the unallocated loss adjustment expense loading, and IBC's estimate of the loss development.

As evidenced by the ALR results for the province of NL (as published by the IBC in the 2003 AIX Industry Exhibits), the loss ratio for the Province has improved since 2000. On an all coverages combined basis, IBC's estimate of the ALR has dropped from 96% for accident year 2000 to 67% for accident year 2003, its lowest level in the last five years. This is as a result of increased premiums and a decrease in claim costs. This improvement in ALR results is seen for virtually all coverages - third party liability, accident benefits, collision, comprehensive, all perils and specified perils.

In addition to the improvement in the results for the 2003 accident year, we also observe an improvement in the ALR for older accident years in comparison to estimates provided

by IBC in its prior publications of AIX Exhibits. For example, the NL 2000 accident year ALR improved from 106% (in the 2000 AIX Exhibits) to 103% (in the 2001 AIX Exhibits) to 98% (in the 2002 AIX Exhibits) to 96% in this year's 2003 AIX Exhibit, on an all coverages combined basis. The following charts compare the actual loss ratios published by IBC in the 2000, 2001 2002 and 2003 AIX Exhibits for third party liability, accident benefits and all coverages combined:

**Newfoundland and Labrador's  
Private Passenger IBC's Actual Loss Ratios:**

**IBC's ALR Third Party Liability-Table 3**

<b>Accident Year</b>	<b>2000- AIX</b>	<b>2001- AIX</b>	<b>2002- AIX</b>	<b>2003- AIX</b>
<b>1996</b>	75	NA	NA	NA
<b>1997</b>	75	75	NA	NA
<b>1998</b>	82	81	79	NA
<b>1999</b>	100	99	96	96
<b>2000</b>	115	113	105	102
<b>2001</b>	NA	117	106	100
<b>2002</b>	NA	NA	84	77
<b>2003</b>	NA	NA	NA	74

**IBC's ALR Accident Benefits-Table 4**

<b>Accident Year</b>	<b>2000- AIX</b>	<b>2001- AIX</b>	<b>2002- AIX</b>	<b>2003- AIX</b>
<b>1996</b>	67	NA	NA	NA
<b>1997</b>	53	52	NA	NA
<b>1998</b>	69	62	63	NA
<b>1999</b>	89	69	73	71
<b>2000</b>	107	69	80	73
<b>2001</b>	NA	65	75	75
<b>2002</b>	NA	NA	76	64
<b>2003</b>	NA	NA	NA	62

**IBC's ALR All Coverages-Table 5**

<b>Accident Year</b>	<b>2000-AIX</b>	<b>2001-AIX</b>	<b>2002-AIX</b>	<b>2003-AIX</b>
<b>1996</b>	70	NA	NA	NA
<b>1997</b>	70	71	NA	NA
<b>1998</b>	80	78	77	NA
<b>1999</b>	95	92	91	90
<b>2000</b>	106	103	98	96
<b>2001</b>	NA	101	95	91
<b>2002</b>	NA	NA	77	71
<b>2003</b>	NA	NA	NA	67

## Commercial Automobile

The following charts compare the Commercial Automobile actual loss ratios published by IBC in the 2000, 2001 2002 and 2003 AIX Exhibits for third party liability, accident benefits and all coverages combined:

As evidenced by the ALR results for the province of NL (as published by the IBC in the 2003 AIX Industry Exhibits), the loss ratio for the province has improved since 2001. On an all coverages combined basis, IBC's estimate of the ALR has dropped from 115% for accident year 2001 to 85% for accident year 2003, its lowest level in the last four years. This improvement in ALR results is seen mainly for - third party liability, collision, and comprehensive.

In addition to the improvement in the results for the 2003 accident year, we also observe some improvement in the ALR for the 1999-2001 accident years in comparison to estimates provided by IBC in its prior publications last year; whereas the ALR for the 2002 accident year shows a small deterioration. We observe the NL 2001 accident year ALR improved from 125% in the 2002 AIX Exhibits to 115% in this year's 2003 AIX Exhibit, on an all coverages combined basis.



**Newfoundland and Labrador's Commercial Automobile  
 IBC's Actual Loss Ratios:**

**IBC's ALR Third Party Liability-Table 6**

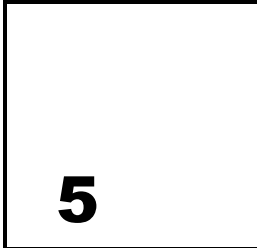
<b>Accident Year</b>	<b>2000- AIX</b>	<b>2001- AIX</b>	<b>2002- AIX</b>	<b>2003- AIX</b>
<b>1996</b>	86	NA	NA	NA
<b>1997</b>	77	78	NA	NA
<b>1998</b>	70	73	71	NA
<b>1999</b>	82	91	86	83
<b>2000</b>	114	132	111	104
<b>2001</b>	NA	121	147	134
<b>2002</b>	NA	NA	112	124
<b>2003</b>	NA	NA	NA	95

**IBC's ALR Accident Benefits-Table 7**

<b>Accident Year</b>	<b>2000- AIX</b>	<b>2001- AIX</b>	<b>2002- AIX</b>	<b>2003- AIX</b>
<b>1996</b>	63	NA	NA	NA
<b>1997</b>	40	39	NA	NA
<b>1998</b>	47	44	42	NA
<b>1999</b>	52	49	51	49
<b>2000</b>	94	103	97	92
<b>2001</b>	NA	74	75	69
<b>2002</b>	NA	NA	77	62
<b>2003</b>	NA	NA	NA	71

**IBC's ALR All Coverages-Table 8**

<b>Accident Year</b>	<b>2000- AIX</b>	<b>2001- AIX</b>	<b>2002- AIX</b>	<b>2003- AIX</b>
<b>1996</b>	75	NA	NA	NA
<b>1997</b>	69	69	NA	NA
<b>1998</b>	68	69	68	NA
<b>1999</b>	80	87	84	81
<b>2000</b>	105	118	102	97
<b>2001</b>	NA	107	125	115
<b>2002</b>	NA	NA	99	106
<b>2003</b>	NA	NA	NA	85



## **Current Issues Affecting Private Passenger Automobile Insurance Results**

### TPL Experience:

There have been upward and downward swings in the industry results during the last five years for TPL. As shown in Table 3 above, the ALR for accident years 1999-2003 was 96%-102%-100%-77%-74% respectively, as of December 31, 2003.

We present in the following table, the average written premium, average earned premiums and average claim cost per vehicle over the 1998-2003 period for TPL, along with the year over year percentage changes. Looking closely at the changes in the premium over the last six years, we see the average written premium increases were highest in 2002-2003, and the loss ratios were lowest in those two accident years. The average claim costs were highest during 1999-2001 and loss ratios were highest during 1999-2001.

**Third Party Liability Average Premium and Average Claim Cost per Vehicle-  
Private Passenger Automobile – Table 9**

<b>Third Party Liability</b>						
<b>Accident Year</b>	<b>Average Written Premium</b>	<b>% Change</b>	<b>Average Earned Premium</b>	<b>% Change</b>	<b>Claim Cost per Vehicle</b>	<b>% Change</b>
1998	508.07		509.54		406.72	
1999	497.43	-2.1%	505.42	-0.8%	484.28	19.1%
2000	485.30	-2.4%	487.37	-3.6%	498.98	3.0%
2001	513.47	5.8%	495.93	1.8%	496.95	-0.4%
2002	603.12	17.5%	559.74	12.9%	433.29	-12.8%
2003	673.44	11.7%	641.95	14.7%	477.01	10.1%

Data Source:  
AIX 2003-IBC

## Industry Changes to CLEAR and MSRP Rating Methodology

### **Background on CLEAR vs MSRP:**

One of the rating variables used to determine the premium for physical damage coverages, (e.g. collision, comprehensive, specified perils) is the “rate-group” assigned to the vehicle. The IBC, through its division, the Vehicle Information Centre of Canada (VICC), prepares tables listing the rate group for each vehicle - by make and model year. The higher the rate group assigned to a vehicle, the higher the premium. This rate group is determined under one of two systems. The original approach, MSRP, is based solely on the new price of the vehicle, and the more recent approach is known as CLEAR, whereby repairability and damageability, along with other information, are considered in assigning a rate group to a particular vehicle model year.

In general, if an insurer uses the CLEAR system, the base rate will be lower, but the average vehicle rate group factor will be higher, than in comparison to the MSRP system. Hypothetically, regardless of which system, CLEAR or MSRP, that an insurer uses to determine its rates, given a set portfolio of cars, the estimated total premium for all cars combined is the same under both systems. However, the CLEAR methodology is a more

in-depth approach, and it is generally accepted that the premium for a specific vehicle based on the CLEAR system more accurately reflects the future claims experience than the premium based on the MSRP system.

When insurers change their vehicle rate group system from MSRP to CLEAR, there is often a large change in the premium (higher or lower) for some specific vehicles. Insurers often limit (i.e., cap) these changes for their renewal policyholders as a way of phasing in the introduction of CLEAR.

### **Changed Methodology:**

In NL, as well as other provinces in Canada, VICC introduced a change to its MSRP and CLEAR methodology. This modification affected the premium for the physical damage coverages.

Up until 2001, if physical damage base rates and differentials were left unchanged, the physical damage average rate level would decline as the population of vehicles aged because the VICC would drop the average rate group assigned to vehicles to reflect depreciation. This historical depreciation was based on VICC's regression models that measured the effect of vehicle aging.

The changed methodology occurred in 2001, when VICC introduced a revision to its CLEAR and MSRP based rate group assignment system in most provinces in Canada. This change essentially brought an end to the automatic decline in rate group assigned to a vehicle as it ages. Instead, in general, most vehicles will now maintain their current rate group as they age. Under the new system, as new vehicles enter the marketplace, most are assigned a rate group higher than the previous corresponding model year's rate group, and, generally, that rate group will not be changed throughout the life of the vehicle. Since older vehicles will, in general, maintain their originally assigned rate group, and new cars will generally be assigned to progressively higher rate groups, this new system generates increased physical damage coverage premiums. This increased premium revenue, referred to as premium drift, is considered in deriving the benchmark base rates, and is discussed more fully later in this report.

The following table shows the percentage change in average written premium for collision and comprehensive coverages, during the period 1998-2003. These changes in average written premium reflect the combined effect of rate level changes and vehicle rate group drift. As can be seen from the table, the increases in premium prior to 2001 are less than those for 2001 and subsequent years.

**Collision and Comprehensive Average Premiums and Percentage Changes**  
**Private Passenger Automobile – Table 10**

Accident Year	Collision			Comprehensive		
	Average Written Premium	% Change	Cumulative % Change	Average Written Premium	% Change	Cumulative % Change
1998	189.51			85.21		
1999	187.37	-1.1%	-1.1%	85.02	-0.2%	-0.2%
2000	191.82	2.4%	1.2%	87.99	3.5%	3.3%
2001	216.27	12.7%	14.1%	98.52	12.0%	15.6%
2002	258.13	19.4%	36.2%	113.01	14.7%	32.6%
2003	287.94	11.5%	51.9%	122.24	8.2%	43.4%

Data Source: AIX 2003-IBC

In contrast to the increases in average premiums for physical damage coverages in the last three years, the average claim cost for collision and comprehensive is lower during the last three years (2001-2003), than in the prior three years (1998-2000). The following table displays the change in average claim cost per earned vehicle during 1998-2003.

**Collision and Comprehensive Average Claim Cost per Vehicle**  
**Private Passenger Automobile – Table 11**

Accident Year	Collision			Comprehensive		
	Average Cost per Vehicle	% Change	Cumulative % Change	Average Cost per Vehicle	% Change	Cumulative % Change
1998	150.09			59.17		
1999	150.36	0.2%	0.2%	68.39	15.6%	15.6%
2000	165.71	10.2%	10.4%	69.64	1.8%	17.7%
2001	153.41	-7.4%	2.2%	66.12	-5.1%	11.7%
2002	141.32	-7.9%	-5.8%	64.88	-1.9%	9.6%
2003	146.17	3.4%	-2.6%	57.89	-10.8%	-2.2%

Data Source: AIX 2003-IBC

The collision average written premiums have increased by 52% during the accident year period 1998 to 2003 (\$190 to \$288), whereas the average cost per vehicle is approximately 3% less in 2003 than in 1998 (\$146 vs. \$150). Similarly for comprehensive, average written premiums have increased by 43% from 1998 to 2003, (\$85 to \$122) while the average cost per vehicle is 2% less in 2003 than in 1998 (\$58 vs. \$59). As a result, the ALR for 2003 is 55% for collision and 49% for comprehensive.

## Expense Ratio Fluctuations

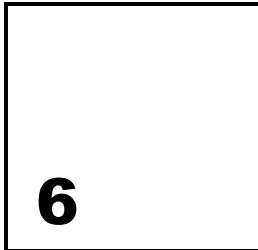
Industry automobile coverage expense data, which includes such items as acquisition costs, premium taxes and general operating and overhead expenses, are submitted by insurers on a voluntary basis to IBC. IBC compiles this individual insurer data by province and provides it to the participating insurers and regulators for purposes such as ratemaking and general comparisons. The expense data is based on all types of vehicles, not just private passenger vehicles. IBC advises that, based on premiums, 63% of the companies participated on a countrywide basis, and 52% for NL. Our findings could be different, either higher or lower, if all insurers participated in IBC's collection of expense information.

The expense ratios are presented as a percentage of written premiums. The countrywide expense ratio has been on a modest decline, with 1997 at 25.5% and 2003 at 22.3%. NL's expense ratio has also been on a modest decline, with 1997 at 29.5%, while 2001-2003 has been approximately 25%. On average, NL's expense ratio over the 1997 to 2003 period has been roughly 2.3 points higher than the countrywide average. This decline, for both NL, and countrywide, may be related to the relatively large increases in premiums in 2001-2003, while insurers managed to limit increases in their fixed expenses.

**Industry Expense Ratios- Table 12**

<b>Automobile Expense Ratios</b>			
<b>Year</b>	<b>Newfoundland</b>	<b>Countrywide</b>	<b>Difference</b>
1997	29.5%	25.5%	4.0%
1998	28.1%	26.1%	2.0%
1999	28.9%	26.5%	2.4%
2000	28.0%	25.4%	2.6%
2001	24.8%	24.4%	0.4%
2002	25.1%	23.4%	1.7%
2003	25.1%	22.3%	2.8%
<b>Average</b>			<b>2.3%</b>





## **Benchmark Base Rates**

### General

These proposed benchmark base rates are estimated based on a pure premium approach using Industry AIX 2003 Automobile Exhibits (as of December 31, 2003) provided by the IBC.

The first step in our analysis is to remove the Facility Association unadjusted reported incurred loss and allocated loss adjustment expense data and earned vehicle count data from the Industry Actual Loss Ratio experience. The higher loss experience of the Facility Association is excluded from the analysis, since the benchmark rates are intended for the regular market (i.e., not for those risk written in the Facility Association). We provide a sensitivity test on the overall rate level change indications, of excluding the Facility Association experience versus including the experience, later in this report. The Facility Association data is provided to us by the Facility Association in electronic format prepared by the IBC. While we reviewed both the Industry and Facility Association data for general reasonableness, we did not audit the data nor perform any validity checks.

The Industry reported incurred loss experience (excluding the Facility Association experience), for accident years 1999 to 2003 is developed to an ultimate incurred loss level and projected forward to the average accident date under the proposed benchmark

program on a per earned vehicle basis. Allocated and unallocated loss expenses are included in the estimated ultimate loss cost per earned vehicle, along with a Health Services Levy per vehicle estimate.

The estimated ultimate loss costs per earned vehicle for accident years 1999 to 2003 (adjusted for premium and loss trends) are weighted using weights that increase by accident year. The weights used are 5%, 10%, 15%, 30% and 40% to accident years 1999, 2000, 2001, 2002 and 2003 respectively. These weights, assigned to the latest five years, remain unchanged from our prior studies. We suggest using five years with increasing weights to the more recent years provides both stability in rate levels and reflects recent trends in experience. The resulting weighted average loss cost per earned vehicle is compared to an estimated permissible loss ratio to derive the average premium per vehicle required for the benchmark program effective January 1, 2005. The average premium per vehicle is then adjusted to the base level using an estimate of the average rating factors included in the benchmarks.

While the approach used to prepare the recommended benchmark rates remains essentially unchanged from the analysis prepared last year, we have made a few minor changes to our methodology in preparing the recommended benchmark rates to be effective January 1, 2005. These changes, as suggested, we believe will improve the methodology of our study; however, there is little impact on the overall rate level change that we derive. The following are the changes to our methodology:

- In this study, the distribution used to estimate the average class and driving record differential is based on the latest accident year, rather than the last three years.
- In this study, the drift in the average class and driving record differential is considered.
- In this study, the uninsured motorists annual loss trend rate and claim payment pattern are based on third party liability experience.

The following describes the various components and assumptions underlying the estimation of the range of base premiums proposed for the January 1, 2005 benchmark program.

## Claim Reserves

The base rates and rating factors determined in the benchmark study rely upon the individual claims experience reported by the insurers to IBC for every individual claim. The reported claim amounts for each claim comprise an amount paid as of December 31, 2003, and if the claim is not yet settled, a case reserve estimate as of December 31, 2003 for amounts still to be paid on that claim. The combination of the paid amount and case reserve amount is known as the reported incurred loss amount, and adjusting expenses are included. The case reserve estimate is prepared by the claims adjuster handling the claim.

As part of the benchmark study, Mercer reviews the historical reported incurred loss amounts by accident year (i.e., the year in which the accident occurred), to forecast the total claims amount that will ultimately be paid, by accident year, after all claims are reported, settled, and closed. Our assumptions are discussed more fully in the next section, titled, Loss Development. The difference between Mercer's estimate of the ultimate losses and the reported incurred losses is referred to as incurred but not reported (IBNR) reserve. The IBNR reserve is intended to provide for: (a) any deficiencies or redundancies that may exist in the case reserves, in the aggregate; (b) claims that have been closed but will re-open, and (c) claims that have occurred but have not yet been reported.

Hence, the following three elements added together represent the ultimate losses, used to calculate the benchmark base rates:

- Paid losses
- Case reserves- determined by the insurance company claims adjuster
- IBNR reserves-determined by Mercer

Over time, the claims that had been unreported are reported, and claims settle. As a result, the case reserve and IBNR reserve components become smaller and the paid loss component increases. Hence, the reserve component for older accident years is, generally, much smaller than for the more recent accident years. And the reserves for physical damage claims tend to be smaller than for more difficult bodily injury type claims that take longer to settle.

As an example, for bodily injury, we estimate after the first twelve months from the beginning of the accident year (i.e., as at December 31, 2003 for accident year 2003) the reserves are approximately 94% of the total ultimate claims costs, while the amount paid is only 6% ( $94\%+6\%=100\%$ ). However, after the first 60 months from the beginning of the accident year (i.e., as at December 31, 2003 for accident year 1999) we estimate the reserves are approximately 30% of the total ultimate claims costs, while the amount paid is now significantly higher at approximately 70% ( $30\%+70\%=100\%$ ). Clearly, for the first 12 months of an accident year, the estimated ultimate losses is primarily reserve estimates - by both the claims adjusters and the actuaries - and is subject to significant change - either higher or lower.

If the initial case reserve amounts estimated by the claims adjusters and/or the IBNR reserves estimated by Mercer are too high, then the initial estimate of the ultimate losses for the more recent accident years may be overstated. Conversely, if the initial case reserve amounts estimated by the claims adjusters and/or the IBNR reserves estimated by Mercer are too low, then the initial estimate of the ultimate losses for the more recent accident years may be understated. Eventually, as claims settle and close, the final cost will be known.

## Loss Development

### **Private Passenger Automobile**

The 2003 AIX Industry NL accident half-year reported incurred loss and allocated loss adjustment expense (ALAE) data is used to estimate loss development factors. The results of both the traditional Incurred Method and Paid Method are reviewed. In general, a

weighted average of the last six development factors based on the Incurred Loss Method is selected. In addition, our loss development factors are adjusted to reflect any seasonality evident in the 6 to 12 month development period.

Similarly, the 2003 AIX Industry NL accident half-year claim count data is used to estimate the ultimate number of claims for each accident half-year. In general, a weighted average of the last six development factors based on the Incurred Method is selected. In addition, the selected loss development factors are adjusted to reflect any seasonality evident in the 6 to 12 month development period.

In the case of Private Passenger Automobile uninsured motorist coverage, as the data is very sparse, IBC's published loss development factors are used.

Mercer's selected loss development factors for TPL have decreased from the factors selected last year. For example the factor to project loss after 12 months to their ultimate level for TPL was 1.47 last year, and this year is 1.37. Mercer's factors decreased due to a change in the claims emergence patterns, and not as a result of any change to the manner in which the factors are selected. That is, both last year's and this year's factors are based on a weighted average of the last 6 loss development factors from the historical data as at December 31, 2002 and December 31, 2003 respectively.

In general, our selected Private Passenger Automobile loss development factors are similar to those selected by IBC and published in the IBC AIX 2003 Exhibits. A comparison of the Mercer selected loss development factors to those of IBC is provided in the appendices.

### **Commercial Automobile**

For Commercial Automobile, the 2003 AIX Industry NL accident half-year reported incurred loss and allocated loss adjustment expense (ALAE) data is used to derive historical loss development factors. However, unlike Private Passenger Automobile data, the Commercial Automobile data exhibits more volatility from year to year. Based on our review of the historical loss development factors, we find those factors selected by IBC to be reasonable in the circumstance, and have adopted those factors in our analysis.

## Loss Trend

The incurred loss and allocated loss adjustment expense, developed to ultimate based on our selected loss development factors, as described above, is used in the loss trend regression analysis. The ultimate losses are adjusted to include the unallocated loss adjustment expense. We also include the claim counts developed to ultimate and the earned vehicles to prepare the regression using loss cost per vehicle, severity per claim, and frequency per vehicle data. The data is compiled by accident half-year from 1989-1 to 2003-2.

We use the NL experience, as we find it sufficiently stable to estimate the loss trends for Private Passenger Automobile. We use a loss trend regression model to estimate the annual frequency, severity and loss cost trends by coverage, based on several parameters that include time, seasonality and the NL unemployment rate as estimated and forecasted by the Conference Board of Canada. In the selection of the loss trend rates, several considerations are made, as listed below:

- statistical significance of the parameter,
- variance in results based on different historical time periods selected,
- impact of severity and frequency trending in opposing directions and
- fit of the regression model based on various tests.

We test the unemployment variable's statistical significance (i.e., improvement or appropriateness) to the regression model in the analysis and we do not find it appropriate to include this variable in any of our selected regressions. In the regression models we use in this study, the statistical significance of the variables based on t-tests is considered before inclusion in the final selection of the regression model we use to estimate the loss trend.

Due to the limited and volatile data, we select the same annual loss trend rate for specified perils, as comprehensive; and similarly, the same annual loss trend rate for uninsured motorists as TPL-severity.

### **Private Passenger Automobile**

For Private Passenger Automobile we generally consider the latest 10 years of data in selecting trend rates; however, we compare the fit of our regression models based on different time periods and data exclusions before making a final selection. For example, consistent with our prior study, the physical damage coverages frequency trend rate is based on the latest 5 years of data. With only a few exceptions, essentially the same basis for trend selection as was prepared last year by Mercer is used again this year. For example, in the case of property damage coverage, we find the regression model to have a better fit for the severity data based on the latest 5 years rather than the 10-year basis used last year.

The following table summarizes the selected loss trend rates by coverage for Private Passenger Automobile in this year’s study and the two prior studies.

**Recommended Annual Loss Trend Rates**  
**Private Passenger Automobile – Table 13**

<b>Coverage</b>	<b>Private Passenger Automobile</b>		
	<b>2003</b>	<b>2004</b>	<b>2005</b>
Third Party Liability	6.3%	5.2%	4.1%
Collision	5.2%	3.2%	0.5%
Comprehensive	1.8%	3.3%	-1.0%
Specified Perils	1.8%	3.3%	-1.0%
Accident Benefits	4.7%	5.0%	2.7%
Uninsured Automobile	4.7%	5.0%	0.0%

As a measure of the sensitivity of our loss trend assumptions, we tested the effect of alternative trend rates on our proposed benchmark rates. For illustrative purposes only, if the annual loss trend rate was 2 percentage points higher for every coverage than our estimates, then the overall rate level change proposed for the benchmark rates (including capping considerations), would increase by approximately 6 percentage points (i.e., from -7.3 % to -1.3%) for Private Passenger Automobile.

## Commercial Automobile

For Commercial Automobile we generally consider the latest 5 years of Atlantic data in selecting trend rates for the physical damage coverages; however, a longer time horizon is selected for TPL-bodily injury and accident benefits which are based on NL's data only. The following table summarizes the selected loss trend rates by coverage in this year's study compared to the last two years.

**Recommended Annual Loss Trend Rates**  
**Commercial Automobile – Table 14**

Coverage	Commercial Automobile		
	2003	2004	2005
Third Party Liability	7.3%	7.5%	8.0%
Collision	2.9%	1.7%	-3.3%
Comprehensive	6.4%	2.9%	-4.6%
Specified Perils	6.4%	2.9%	-4.6%
Accident Benefits	15.0%	15.0%	15.0%
Uninsured Automobile	15.0%	15.0%	5.5%

As a measure of the sensitivity of our loss trend assumptions, we tested the effect of alternative trend rates on our proposed benchmark rates. For illustrative purposes only, if the annual loss trend rate was 2 percentage points higher for every coverage than our estimates, then the overall rate level change proposed for the benchmark rates (including capping considerations), would increase by approximately 2.8<sup>1</sup> percentage points (i.e., from 19.0% to 21.8%).

## Loss Adjustment Expenses

The allocated loss adjustment expenses are included with the reported industry data, and no further adjustment was required in our analysis. The unallocated loss adjustment expenses (ULAE) are not included with the industry reported loss data; however, IBC publishes its estimated loading factor for ULAE with the AIX Exhibits. The ULAE factors have been declining in NL:

<sup>1</sup> Overall rate level change is capped; +/-15%.



**IBC's ULAE Factors**  
**Province of Newfoundland and Labrador**  
**Table 15**

<b>Year</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>ULAE Percentage</b>	14.5%	10.6%	9.3%	8.2%	6.8%

IBC provided to us the recent summary expense exhibit for NL based on 2003 expense information submitted voluntarily by insurers to IBC. We use this information to derive the ULAE factor for 2003, 7.6%, an increase over 2002, and apply this factor in our analysis for both Private Passenger Automobile and Commercial Automobile.

### Health Services Levy

The most recent Health Services Levy for accident year 2003, as published in the IBC 2003 AIX Exhibits is \$19.59. We project the Health Levy for the 2005 benchmarks based on the changes in the Health Services Levy in the five-year period, 1999 to 2003. We forecast the Health Levy for 2005 as \$19.98. This estimate is included for each earned vehicle in the estimated ultimate incurred losses for third party liability coverage for each accident year.

### Expenses

Industry expense information for Automobile for the years 1998 to 2003 for both NL and countrywide, is provided by IBC (reference Appendix B, Exhibit 3, Page 1.) Based on this data, an expense ratio of 25.5% for the proposed benchmark program is selected.

### Underwriting Profit Margin

Mercer's approach is to use a cash flow model based on current estimates of claim payment patterns in NL, which we find to be relevant to determine the underwriting margin for each coverage. Our model reflects differences in payment patterns by coverage and assumes the same surplus to premium ratio for all coverages. Recognizing

the difference in payment patterns among the coverages has the effect of increasing the estimated permissible loss ratio for third party liability, while decreasing the permissible loss ratio for physical damage coverages. The following assumptions are used in the model:

- The payment pattern assumed in the model is based on the NL's Industry paid loss data published in the 2003 accident half-year loss development AIX Exhibits, and our estimate of the underlying payment pattern for each coverage. In general, the weighted average of the latest 6 data points is selected for each incremental period.
- We assume the net premium (after commission, premium taxes and licenses and fees) is received after 90 days.
- The income tax rate reflects the proposed changes in the federal tax rates to be effective in 2005 and 2006, the period of time during which the policies written in 2004 will be earned. An average income tax rate of 36.1% is assumed.
- The assumed premium-to-surplus ratio is 2.25 and is used for all coverages uniformly. This is an estimate of the mid-point of the range of premium-to-surplus ratios typically used by insurers (1.5 to 3.0).
- The assumed target return on equity (ROE) is based on the Board's selected methodology. The Board's methodology is to set the after-tax ROE to be equal to the return on investment (ROI) (before tax) plus 2.5%. The return on investment (ROI) is based on a (monthly) five-year average of the before-tax yields of ten-year Government of Canada Bonds. The ROI used in the proposed benchmark report is 5.4%. The after-tax ROE used in this proposed benchmark report is 7.9%.

These assumptions are the same as those made in the Mercer report on NL benchmarks provided to the Board in our prior benchmark reports, updated for the interest rate, income tax rate, and payment patterns based on the most recently available data. The

following table compares the underwriting margins used to prepare these recommended 2005 benchmarks with those estimated in our study prepared last year:

**Private Passenger Automobile Underwriting Profit Margins –Table 16**

<b>Coverage</b>	<b>2005 Benchmark Study</b>	<b>2004 Benchmark Study</b>
Third Party Liability	-9.6%	-10.0%
Accident Benefits	-3.2%	-3.3%
Collision	1.6%	1.6%
Comprehensive	1.4%	1.4%
Specified Perils	1.4%	1.4%

We tested the sensitivity of these underwriting margin assumptions on our proposed benchmark rates with alternative assumptions:

For every 0.25 percentage point increase in the target return on equity (with no other changes in assumptions), our proposed benchmark rates would increase by approximately 0.2<sup>2</sup> percentage points. For example, if the 7.9% return on equity target assumed in these recommended benchmark rates was increased to 8.15%, our recommended change in the Private Passenger benchmark rates would increase from -7.3% to -7.1%.

As another alternative, for a 0.25 decrease in the premium to surplus ratio (with no other changes in assumptions), our proposed benchmark rates would increase by approximately 0.4<sup>3</sup> percentage points. For example, if the 2.25:1 premium to surplus ratio assumed in these recommended benchmark rates was decreased to 2.00:1, our recommended change in the Private Passenger benchmark rates would increase from -7.3% to -6.9%.

As another alternative, for every 0.25 percentage point decrease in the investment income rate, earned on surplus *and* used to estimate the discounted value of claim payments over time (with no other changes in assumptions), our proposed benchmark rates would increase by approximately 0.6<sup>4</sup> percentage points. For example, if the investment rate

<sup>2</sup> No consideration for the impact of the +/- 15% cap is included in these tests

<sup>3</sup> No consideration for the impact of the +/- 15% cap is included in these tests

<sup>4</sup> No consideration for the impact of the +/- 15% cap is included in these tests

decreased from 5.4% to 5.15%, our recommended change in the Private Passenger benchmark rates would increase from -7.3% to -6.7%.

As another alternative for every 0.25 percentage point decrease in the investment income rate used to estimate the discounted value of claim payments over time (with no other changes in assumptions), our proposed benchmark rates would increase by approximately 0.5<sup>5</sup> percentage points. For example, if the investment rate decreased from 5.4% to 5.15%, our recommended change in the Private Passenger benchmark rates would increase from -7.3% to -6.8%.

And finally, to illustrate the interaction among these variables only, we test a combination of each of the above assumptions on the impact on the overall rate level. As an example only, if the return on equity target was 10%, the premium to surplus ratio was 2.0 to 1, and the investment income rate used to estimate the discounted value of claim payments was 2.00 percentage points lower (i.e., 3.4%), and no other changes in assumptions, our recommended change in the Private Passenger benchmark rates would increase from -7.3% to +0.5%.

## Premium Trend

In 2001, VICC/IBC introduced changes to its rate group assignment approach in NL for both the CLEAR and MSRP systems. This change, as described earlier in this report, brings increased revenue for the physical damage coverages. IBC estimates the average rate group differential will increase by 9.9% for collision and 6.1% for comprehensive in the CLEAR system from 2003 to 2004 in NL. We have accepted the annual premium trends rates estimated by IBC in this benchmark analysis. Similar to the CLEAR system, the MSRP based rate groups were not depreciated by IBC/VICC in 2001, and a higher premium trend estimated by VICC at approximately 7.4% and 6.9% applies for collision and comprehensive respectively from 2003 to 2004.

As IBC does not provide specified perils data by vehicle rate group, and it is generally considered that the average vehicle rate group is lower for specified perils, we have

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<sup>5</sup> No consideration for the impact of the +/- 15% cap is included in these tests

assumed the specified perils vehicle rate group drift is two-thirds of the comprehensive coverage rate group drift. However, we accept IBC's premise that the average vehicle rate group differential for specified perils is the same as comprehensive. Given the small volume of specified perils premiums relative to the other coverages, these specified perils assumptions have a very small impact on the overall rate level indications.

As IBC does not provide data by vehicle rate group for commercial vehicles, it is difficult to accurately estimate the premium trend due to vehicle rate group drift for Commercial Automobile. Using our judgment, we have selected the same annual rate group drift factor as we have selected in our prior analysis of the Commercial Automobile benchmark rates, 2.0%.

Premium drift is also evident in the TPL coverage as insureds increase the limit of coverage purchased. We estimate an increased liability limit differential drift of 0.3% per annum for Private Passenger and 0.6% for Commercial, which is used in this benchmark analysis.

A downward drift in physical damage premium is also noted as insureds increase the amount of their deductibles. We estimate a declining deductible differential drift of 0.1% to 0.4% per annum for Private Passenger, which varies by coverage and is used in this benchmark analysis. Similarly, for Commercial Automobile, we estimate a deductible differential drift of 0.6% to 2.0%, which varies by coverage, and is used in this benchmark analysis.

New this year, we reviewed the change in the average class and driving record differential to determine if there is any evidence (or pattern) indicating a premium drift for shifts in the distribution of business by class and driving record. We did not observe any clear pattern of change in the last three years.

## Average Differentials

The average differential of the data used in the analysis is based on the latest year's distributions of the data and the current benchmark differentials applicable by coverage.

These average differentials are used to convert the projected ultimate average loss cost per vehicle to a base level.

For Private Passenger Automobile, the method used to determine the average class differential properly reflects class 05 and class 06. Specifically, the distribution of vehicles by class that we use to estimate the average class differential excludes the class 05 and class 06 risks, since the reported exposures for classes 05 and 06 do not represent additional vehicles, only drivers. However, in estimating the average class differential we reflect the class differentials for classes 05 and 06. This calculation, including the adjustment for classes 05 and 06, is based on the combined (i.e., matrix) class and driving record exposure distribution, excluding the Facility Association data.

The average differential for class and driving record for commercial automobile is determined based on the combined (i.e., matrix) exposure distribution for the most recent year, excluding the Facility Association data.

## Territory Base Rates

The proposed Private Passenger Automobile territory base premiums are based on the relative loss cost per vehicle of each territory compared to the provincial loss cost per vehicle. The selected territory relativities were balanced back to the provincial average. To the extent that specified perils and underinsured motorist coverages have very limited and volatile data on a territory basis, the capping of changes from the current benchmarks (adjusted for trends) to +/- 15%, provides stability in the year-to-year changes.

Up until the current benchmark rates, the accident benefits rate was uniform for all territories. Large decreases were indicated for territories 2 and 3. However, these large decreases are subject to the 15% cap and could not be fully implemented all at one time. As such, the decreases are phasing in, limited by the annual 15% cap.

The IBC statistical territory codes were revised in 1997, and as a result the statistical territory codes were re-mapped to the rating territories, and statistical code 002 was dropped. The table below outlines these changes:

**Newfoundland and Labrador Territory Configuration- Table 17**

Rating Territory	Statistical Territory		New Rating Territory Description
	Old Configuration	New Configuration	
1	002+004+005	002+004	Avalon District, including City of St. John's
2	007	005+007	Remainder of the Province, including Bonavista and Burin District
3	006	006	Labrador District

In Appendix A, Exhibit 6 the claims experience by statistical territory and rating territory, by coverage, are provided. In particular, the higher claims experience for statistical territory 005, now grouped with statistical code 007 to form rating territory 2, can be observed.

## Credibility

The credibility standard we use in our analysis is based on 1,082 claims for physical damage coverages and 3,246 claims for all other coverages. The 1,082 claim count assumes the frequency follows a Poisson<sup>6</sup> distribution and will be within +/-5% of our estimate 90% of the time. The higher standard for other coverages reflects the variability in the claim cost.

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<sup>6</sup> A common application of the Poisson distribution is predicting the number of events over a specified period of time

## Legislative Reforms

In this study, we have reflected the legislation in our estimated projected loss cost per vehicle for Private Passenger Automobile introduced on August 1, 2004, Bill 30, that will reduce bodily injury claim amounts. Briefly, the legislation introduced three changes: (1) a \$2,500 deductible on pain and suffering for minor injuries, (2) payments based on net wages, rather than gross wages, and (3) consideration of certain collateral sources. To reflect the legislation in our estimated projected loss cost per vehicle, we considered the following:

- We expect the savings under the \$2,500 deductible to erode over time, as all deductibles do. Based on our judgment, we expect this erosion to be at a rate of 10% per year. Hence, we anticipate a smaller savings for the 2005 policy year, than for the 2004 accident year.
- The possibility of offsets (i.e., gross-ups) by the courts for the settlement of claims on the net wages versus gross wages, which would eliminate the intended savings, has been suggested. However, at this time we have not been made aware of any case tested in the courts that would affect the policy year 2005, so we continue to anticipate savings on the 2005 policy year.
- The right of subrogation clause included in Bill 30.

We estimate these legislative reforms will introduce a TPL loss cost savings per car of 7.4 percentage points for Private Passenger Automobile. Without these legislative reforms we estimate our overall rate level indication of -7.3% for all coverages combined would increase to -2.3% (i.e., 5 percentage point difference).

As a sensitivity test, we estimated the savings of the legislative reforms, if, there were no savings on the 2005 policy year for the change from gross wages to net wages (item # 2 above). [No change to our assumptions on items # 1 and 3 described above.] On this basis, we estimate the legislative reforms will result in an increase in our *overall rate change per car* (on an all coverages combined basis) of approximately 3.2 percentage



points on Private Passenger Automobile. That is, our overall rate level indication of -2.3% for all coverages combined without any reforms, changes to approximately -5.5%.

As a sensitivity test, we estimated the savings of the legislative reforms, if, full savings on the reforms for the consideration of collateral sources (item # 3 above) were available. [No change to our assumptions on items # 1 and 2 described above.] On this basis, we estimate the legislative reforms will result in an increase in our *overall rate change per car* (on an all coverages combined basis) of approximately 7.6 percentage points on Private Passenger Automobile. That is, our overall rate level indication of -2.3% for all coverages combined without any reforms, would change to approximately -9.9%.

While vehicle types other than Private Passenger Automobile types are affected by Bill 30, only data for private passenger vehicles was available to estimate the potential savings for these legislative reforms. As such, no estimate of the savings on loss costs for Commercial Automobile is included in this benchmark study.

## Recommended Benchmark Base Rates

As in prior benchmark analysis, the recommended benchmark base rates in this report are based on the indications prepared in the analysis, subject to a capped change of +/-15%.

## Benchmark Differentials

We analyze the Atlantic Classification 2003 AIX Exhibits, which includes data for accident years 2001-2003, to derive indicated class and driving record differentials. Using the loss cost per vehicle experience, a minimum bias study is prepared for TPL and collision coverages. The analysis is performed separately for urban and rural territories. As provided in Exhibit 5, the class and driving record differentials derived from the minimum bias study are credibility weighted with the current differentials to produce the indicated differentials. These indicated differentials are capped at a +/-5% change from the current differentials, and modified by judgment for any reversals (e.g., driving record 2 relativity lower than the driving record 1 relativity).

As was done in the past, we recommend continuing the vehicle rate group differentials published by VICC for CLEAR. These remain unchanged from the original introduction. No changes are recommended to any other differentials.

## Facility Association

Under the Board's system of benchmark rates, any Private Passenger Automobile or Commercial Automobile rate filing, with the exception of those submitted by the Facility Association (FA), that proposes rates that fall within an established range around the benchmark rates is, generally, approved by the Board. As such, we exclude the Facility Association loss experience from the data used in this analysis to prepare these recommended benchmark rates.

As provided in Exhibit 2, the average loss cost per vehicle is substantially higher for the Facility Association than the regular market (i.e., industry data excluding FA). Part of this difference is due to differences in the rating profile of drivers in the FA than the regular market. That is, on average, the average class and driving record differential for FA risks is higher than the regular market.

We have considered both the higher average loss cost and the higher average class and driving record differential in this analysis. As a result, our Private Passenger Automobile and Commercial Automobile overall rate level changes that we recommend are 1.0 percentage point and 1.0<sup>7</sup> percentage point lower respectively, than if the Facility Association experience was not excluded from our analysis.

## Overall Rate Level Change-Private Passenger Automobile

We propose an overall rate level change for the Private Passenger Automobile benchmark program of -7.3% from the current benchmark rate level. Our proposed change varies by

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<sup>7</sup> Without consideration for +/-15% capping

coverage, as shown in Table 1, but for each of the coverages we are recommending a decrease.

There are several factors that contribute to the overall 7.3% reduction in rate level that we are recommending:

- The insurance Industry results have improved in NL in 2002 and 2003. (See Table 5)
- Since 2001 the physical damage premium increases has been larger than it has been prior to 2001. These additional premium amounts, combined with favorable loss experience, are the main drivers of the recommended decreases for the physical damage coverages. (See Tables 10 and 11)
- The accident benefits benchmark base rate, a single rate for all territories, had been in effect throughout the 2001-2003 policy period; however, rate level decreases were indicated but were subject to the 15% cap. The current base rates implemented during 2004, varying by territory for accident benefits, had been subject to the 15% cap. The base rates proposed in this study for accident benefits for territory 2 and 3 continue to be subject to the 15% cap.
- The estimated annual loss trend factors have decreased this year over last year's selections, mainly due to the improvement in loss experience for the last two years.
- The estimated loss development factors for TPL have decreased over last year's assumptions. These selections are in response to the emerging experience, and not as a result of changes in the basis for selecting the loss development factors.
- The ULAE factor has been on a general decline over the 1998 to 2003 period.
- The return on investment income rate (ROI) assumption (i.e., 5-year average of Government of Canada 10 year Bonds) has continued to decline, and this

combined with the Board's ROE target formula, (i.e., 2.5 points plus the ROI) has led to a decline in the profit provision included in the base rates.

## Overall Rate Level Change-Commercial Automobile

Based on available data, we propose an overall rate level change for the Commercial Automobile benchmark program of 19% from the current benchmark rate level. Our rate changes that we propose vary by coverage, as shown in Table 2, but the overall rate level change is mainly affected by the TPL rate level change indication, since it is the largest coverage by premium volume.

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