

PROFIT AND RATE ADEQUACY REVIEW NEWFOUNDLAND AND LABRADOR INSURANCE INDUSTRY

Based on Insurance Industry Data
Through December 31, 2022

December 12, 2023

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1. Executive Summary

1.1. Purpose and Scope

The Newfoundland and Labrador Board of Commissioners of Public Utilities (Board) retained Oliver, Wyman Limited (Oliver Wyman) to review the Newfoundland and Labrador insurance industry private passenger automobile experience. The specific objectives of our review include:

1. Review of the historic profit levels earned by the insurance industry for private passenger automobile business written in Newfoundland and Labrador. We present our review in Section 2 through Section 7.
2. Determination of the required average premium per private passenger vehicle and compare this premium to the actual average premium charged for each of the last five complete accident years, 2018 to 2022. We present our analysis in Section 8.
3. Assessment of the current level of private passenger automobile rate adequacy in the province for the 2023 accident year with consideration of the future impact of the COVID-19 pandemic and potential hybrid work conditions on rate adequacy. We present our assessment in Section 9.

1.2. Data

We developed the estimates presented in this report using:

- Insurance industry Newfoundland and Labrador private passenger vehicle loss and expense experience reported as of December 31, 2022 to the General Insurance Statistical Agency (GISA).
- The ultimate loss and expense estimates and additional assumptions presented in our September 5, 2023 loss trend report for the Board – “Newfoundland and Labrador Private Passenger Vehicles – Oliver Wyman Selected Loss Trend Rates.”

* * * * *

We developed the estimates in this report in accordance with the applicable Actuarial Standards of Practice issued by the Canadian Institute of Actuaries.

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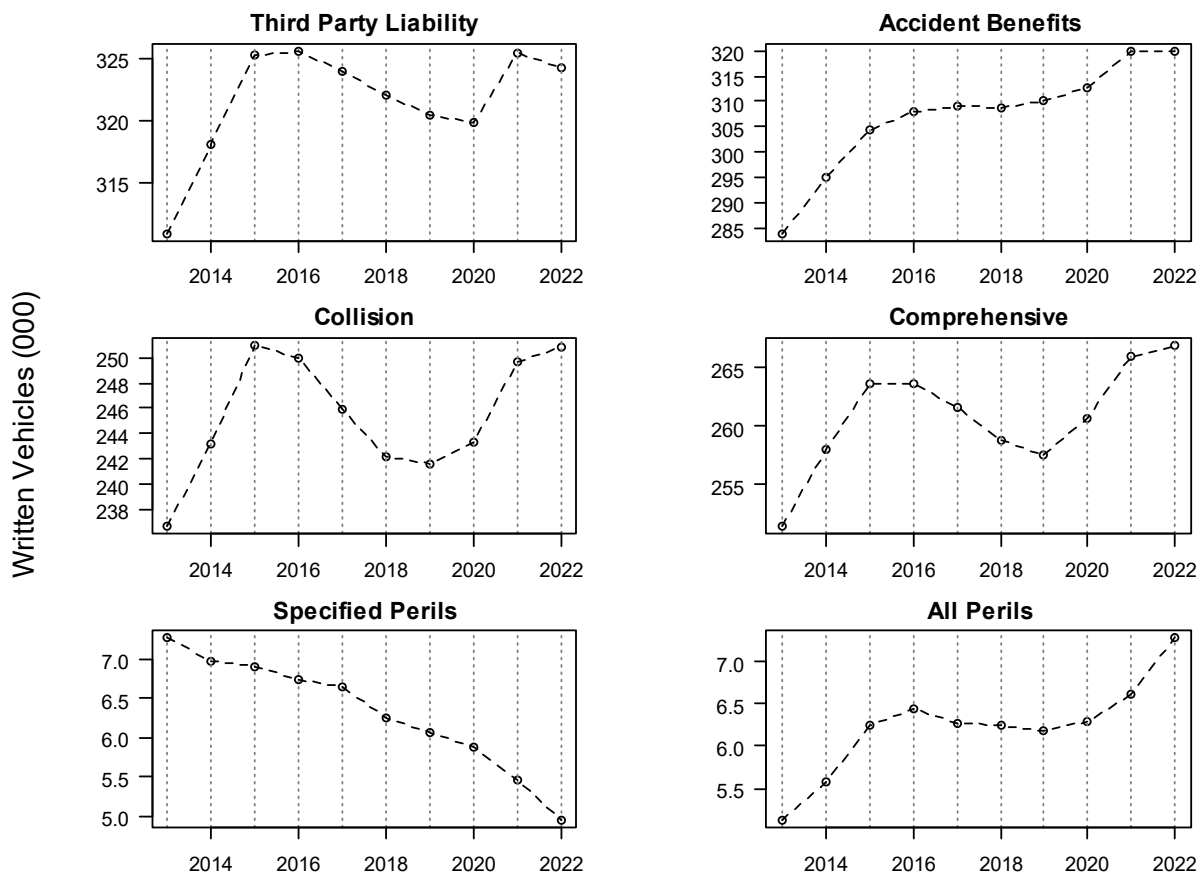
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2. Historical Newfoundland and Labrador Private Passenger Vehicle Experience

2.1. Growth of Insured Vehicles

Figure 1 presents the number of written vehicles, in thousands, insured over each of the last ten years for third party liability (TPL), accident benefits, collision, comprehensive, specified perils, and all perils coverages. Over 2013 to 2015, the number of private passenger vehicles with TPL coverage in Newfoundland and Labrador increased annually, followed by a flat or slightly declining pattern until 2021, where we observe an increase. With the exception of accident benefits and specified perils, the optional coverages show a similar pattern, but with a more pronounced decrease over 2016 -2019 and in some cases, a slight rise in 2020. The number of vehicles with (optional) accident benefits coverage displays increasing trend since 2013, subject to a flatter period between 2015 and 2019. The number of vehicles with specified perils coverage has been declining since 2014.

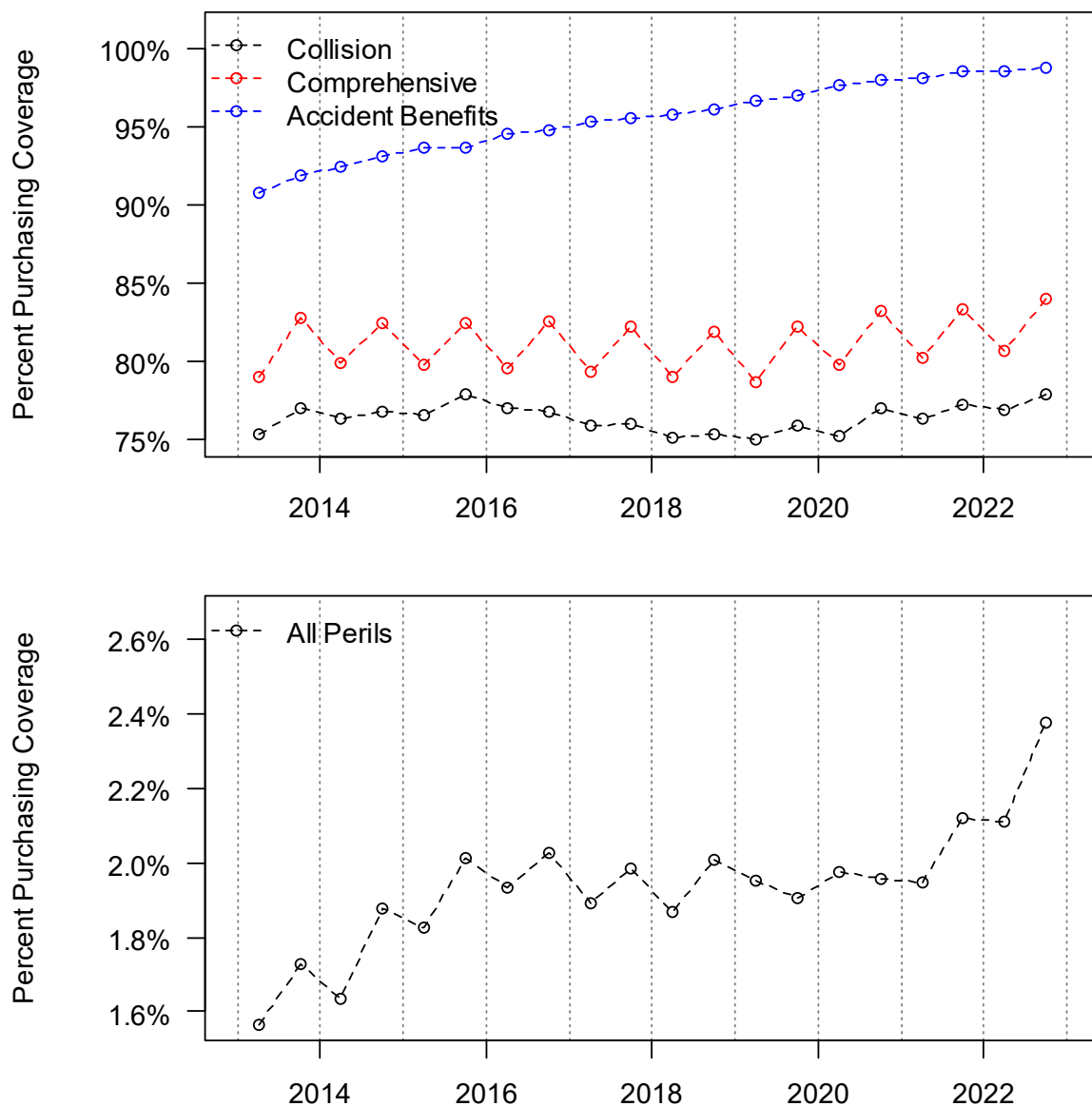
Figure 1: Written Vehicles



Despite the flatter pattern between 2015 and 2019 in the **number** of vehicles insured each year, there has been a steady increase in the **percentage** of vehicles with (optional) accident benefits coverage. In

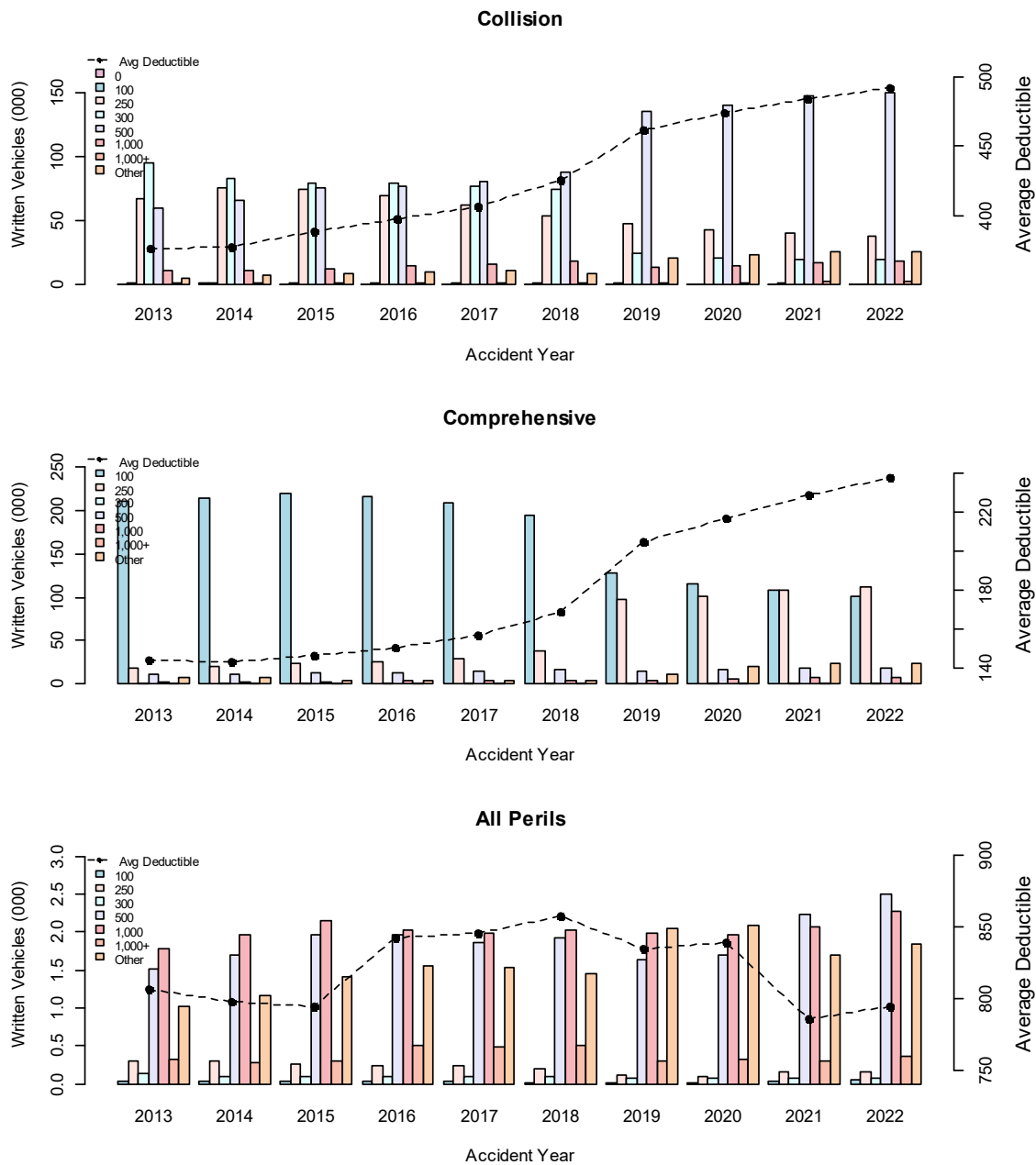
the case of collision, comprehensive and all perils coverages, as presented in Figure 2, the percentage purchasing these coverages has been relatively stable since 2014 (2015 for all perils). The number of vehicles is on a semi-annual basis to highlight the seasonal pattern for comprehensive coverage due to the temporary removal of coverage during the first half of the year. Any growth in the percentage of risks with optional coverages would add to the total average premiums paid by consumers over time. However, other than for accident benefits, there has been limited growth in the percentage of insureds that purchase additional coverages.

Figure 2: Percent Purchasing Optional Coverages



In Figure 3 we present the number of written vehicles at various deductible levels against time and include a line plot representing the average deductible for each accident year. We observe a consistent shift toward higher deductibles for collision and comprehensive over the most recent ten years. We note this upward shift to higher deductibles is most pronounced in 2019 through 2022 for collision and comprehensive. Higher deductibles typically result in lower average premiums. Hence, all else being equal, the recent shift to higher deductibles in 2019 through 2022 would contribute to lower overall average premiums.

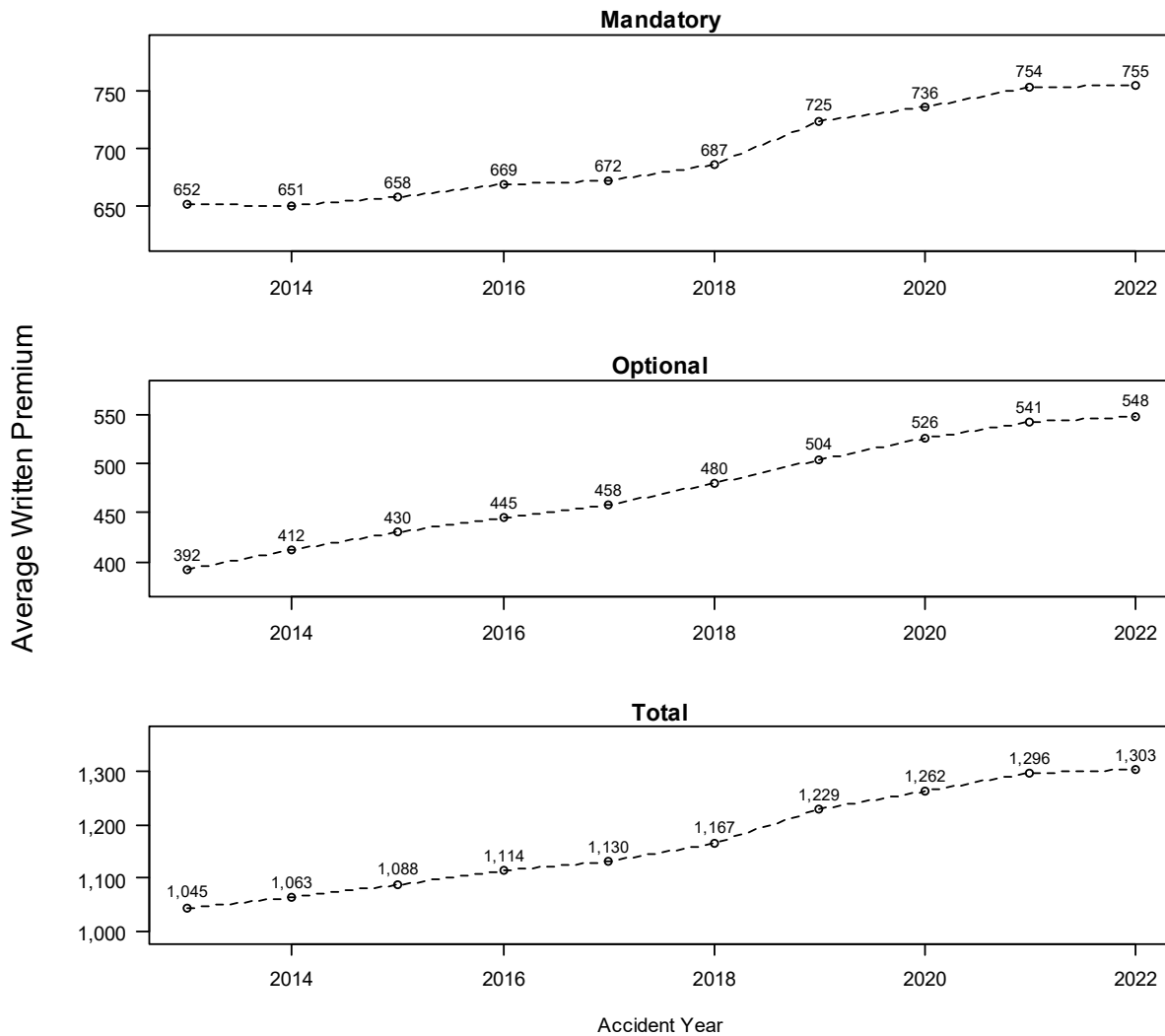
Figure 3: Average Deductible Summary



2.2. Change in Average Written Premiums

In Newfoundland and Labrador, the mandatory coverages include bodily injury, property damage, direct compensation property damage (DCPD),¹ and uninsured auto, while the remaining coverages are optional. In Figure 4, we present the average written premiums for the mandatory, optional, and total coverages, respectively, over the ten-year period, 2013 to 2022.

Figure 4: Average Written Premium – Summary



2.3. Change in Average Claims Costs

Claims costs comprise the largest component of premiums. On the same basis as we present the change in average premiums over time above, in Figure 5 we present the estimated average claims cost per

¹ DCPD was introduced with the January 1, 2020 changes to the Insurance Act and Associated Regulations (NLR 56/19). In this review we analyze DCPD and property damage-tort on a combined basis as sufficient post-reform data is not available to separately analyze these coverages.

vehicle for the Newfoundland and Labrador mandatory, optional, and total categories. In the average claim cost estimate we include:

- indemnity amounts (i.e., cost to fully settle and close the claim)², and
- all internal and external claims settlement costs³ (e.g., legal fees and claims adjuster costs).⁴

The decline in the average claims costs in 2020, 2021, and 2022 is attributed to the impact of the COVID-19 pandemic on driving behavior (i.e., reduction in vehicle usage). Claim costs for mandatory coverages remain below pre-pandemic levels through 2022. Optional claim costs rose more steeply in 2022 resulting from higher inflation, which had a disproportionate impact on physical damage coverages.

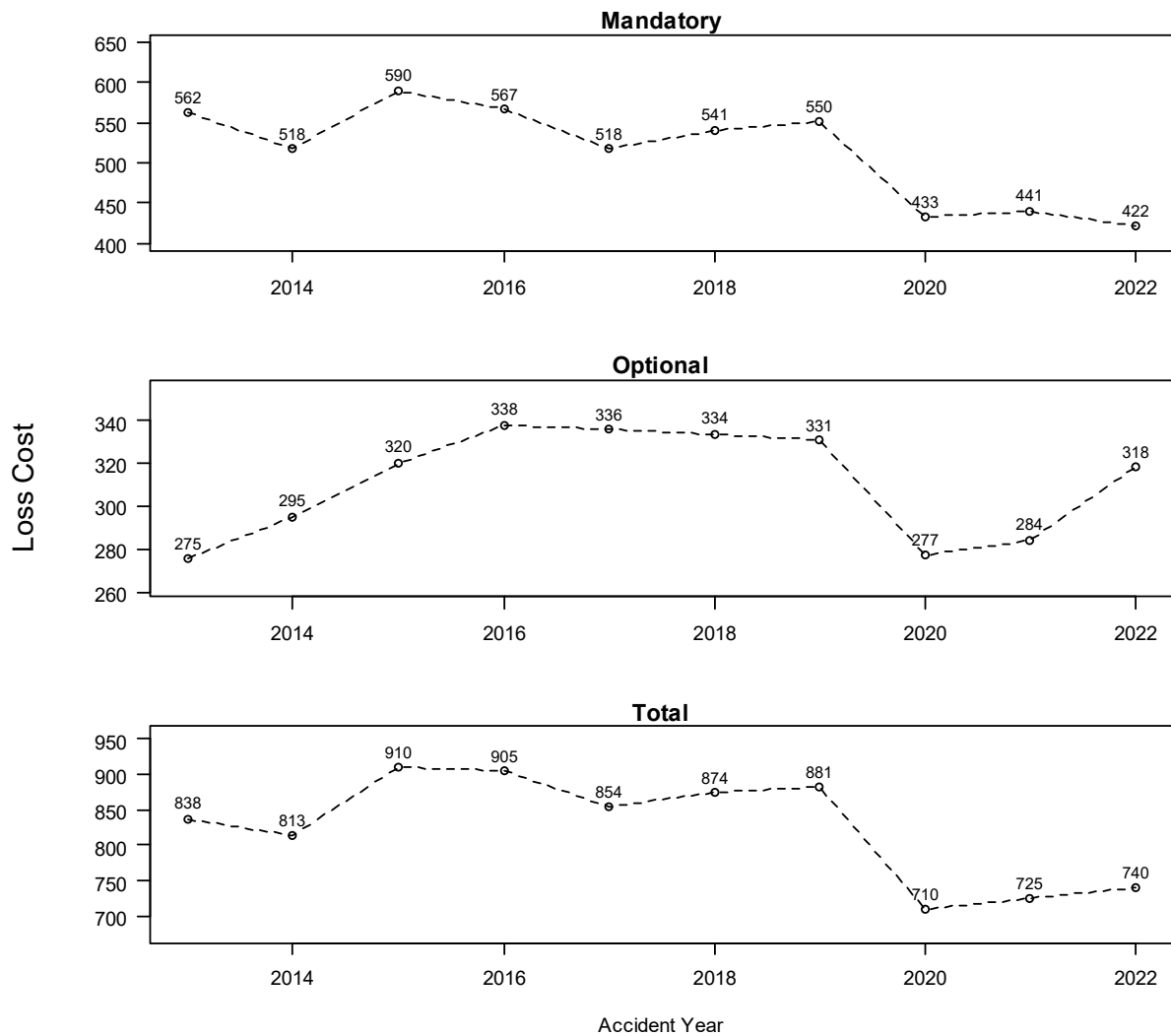
Claims costs are a combination of the claims frequency rate (i.e., the average number of claims per 100 insured vehicles) and the average cost of each claim (referred to as the claim severity, measured as the total claims cost as a ratio to the total number of claims). We discuss the historical claims frequency and severity for each coverage more fully in our Newfoundland and Labrador PPV Loss Trend Report, dated September 5, 2023.

² The claims costs presented are on an ultimate basis. See Section 4.2 for more details.

³ External claim settlement costs are reported by insurers for each individual claim to GISA, referred to as allocated loss adjustment expenses. Internal claim expense factors are based on aggregated costs reported to GISA.

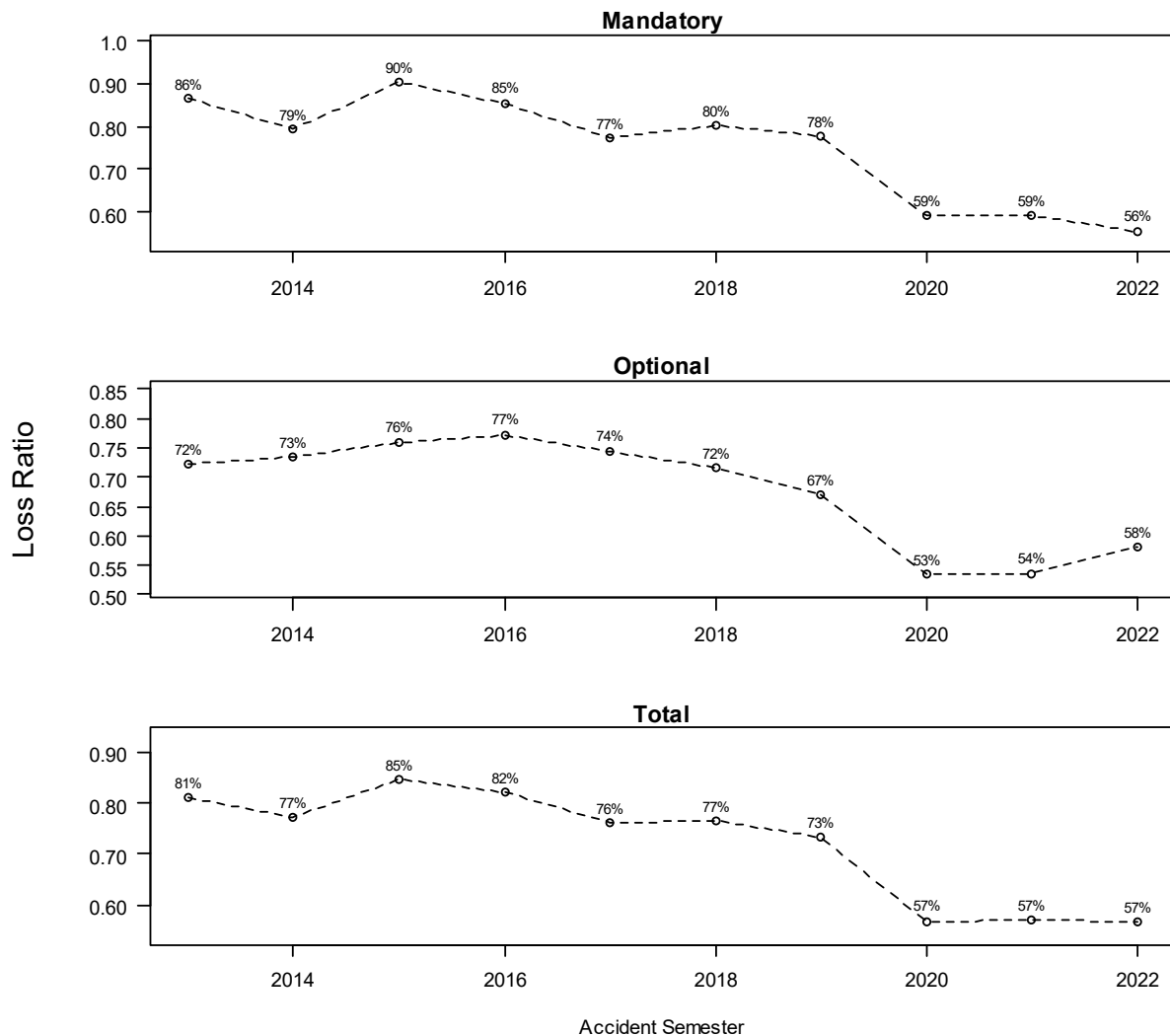
⁴ The loss and loss adjustment expense ratios include a provision for the Health Levy.

Figure 5: Average Claim Costs



In Figure 6 we present the ratios of loss and loss adjustment expense amount to the average earned premiums over time.

Figure 6: Loss Ratio - Summary



2.4. Impact on Insurance Profitability

As described more fully in Section 3, the industry’s realized profit has been positive over the most recent five years, 2018-2022; but profit levels were lower in the previous five-year period. The higher profit levels for the more recent accident years 2018 – 2022 than in the prior five-year period is due to the comparatively lower loss ratios, with a peak loss ratio in 2015 and reduced loss ratios during the pandemic.

The rise in the 2019 profit level compared to 2018 is attributed to a large premium increase⁵ relative to the change in claims costs.⁶ These changes resulted in a decrease in the 2019 loss ratio of approximately 4 percentage points from 2018.

⁵ Average written premium increased from \$1,167 to \$1,229 (5.3%) between 2018 and 2019

⁶ Loss cost increased from \$874 to \$881 (0.8%) between 2018 and 2019

The significant profit observed in 2020 and 2021 coincides with the COVID-19 pandemic and is primarily the result of a dramatic decline in traffic in response to the various “stay-at-home” orders and other directives that were put into place. The 2020 and 2021 accident year loss ratio experience is significantly lower than had been forecast by the rate indication models used to derive premium level needs resulting in significant unexpected profits. In the case of 2022, the combination of (i) a rise in the average premium, (ii) frequency levels lower than pre-pandemic levels, and (iii) inflationary pressures on (optional) physical damage coverages results in loss ratio levels for 2022 similar to that of 2020 and 2021.

3. Review of Profit Levels: Summary

3.1. Introduction

The premium that insurers charge, coupled with the investment income that they earn, should provide for (a) the payment of claims and associated expenses, (b) operating expenses, and (c) a reasonable profit. To the extent that the premium charged plus investment income earned exceeds claim costs, claim related expense costs, and operating expenses by more than what would be considered a reasonable amount of profit, the premium charged would be considered excessive. Conversely, to the extent that the premium charged plus investment income earned does not result (that is, after paying for claim costs, claim related expense costs, and operating expenses) in what would be considered a reasonable amount of profit, the premium charged would be considered inadequate.

Insurance industry profit levels can be estimated and measured in several ways. In this report, we estimate and measure the industry profit levels for private passenger automobile insurance in Newfoundland and Labrador by accident year on two bases:

- Percent of Premium (POP) - profits realized as a percent of premium on a pre-tax basis.
- Return on Equity (ROE) - profits realized as a percent of supporting capital⁷ on an after-tax basis.

The advantage of the percent of premium approach is its simplicity and similarity to the familiar concept of markup. That is, the consumer, for example, can readily understand that for every \$100 of premium paid, \$6⁸ was retained by insurers as profit.

However, the standard approach used by insurance companies (and the investment community, in general) is to measure and report profits on an after-tax basis expressed as a percentage of equity.

3.2. Estimated Profit Levels

In Table 1, we summarize our estimates of profit levels realized by insurers in Newfoundland and Labrador, in aggregate. We calculate our estimates as:

- the premium charged by insurers in Newfoundland and Labrador for private passenger automobile insurance in each of the years⁹ 2013 to 2022,
- less the amount estimated for claims and all expenses in each of those years based on industry data as of December 31, 2022,
- plus estimated investment income from both associated cash flows and notionally attributed capital.

⁷ In this report we use the terms “capital,” “equity,” and “surplus” interchangeably.

⁸ Assuming a 6% POP profit provision. The “profit provision” used in rate applications does not include the investment income on capital which insurers earn in addition.

⁹ These results are for accident years 2013 to 2022. “Accident year” refers to the 12-month period in which insured events occurred and premiums were earned. As an example, the premium from a 12-month policy effective on July 1, 2015 would be 50% earned in 2015 and 50% earned in 2016.

Table 1: Estimated Total Profit Levels by Accident Year

Accident Year	POP Pre-Tax	ROE After-Tax
2013	0%	0%
2014	5%	7%
2015	-4%	-5%
2016	-3%	-4%
2017	7%	10%
2018	3%	4%
2019	9%	12%
2020	23%	33%
2021	21%	29%
2022	18%	25%

On both bases, the industry had zero or negative profit in 2013, 2015, and 2016 with positive profit levels in all other years, including windfall profits in 2020, 2021, and 2022.

In Table 2 we present our estimates of the profit as a percent of premium by accident year from our prior review as of December 2021 and our current review as of December 2022. Our estimates for each accident year change (modestly) over time as new information emerges on the actual loss experience and additional information is provided by GISA. Our profit estimate for 2022 remains the most uncertain at this time.

Table 2: Pre-Tax Total Profit as a Percentage of Premium

Accident Year	December 2021	December 2022
2013	0%	0%
2014	5%	5%
2015	-3%	-4%
2016	-3%	-3%
2017	7%	7%
2018	4%	3%
2019	11%	9%
2020	24%	23%
2021	21%	21%
2022	N/A	18%

The pre-tax *total profit levels* as a percentage of premium presented in Table 1 and Table 2 are not directly comparable to the Board's current *profit provision* of 5% - 6% of premium (as described in Section 3.1). The Board's profit provision does not include the separate investment income on surplus; hence insurers can target to achieve 5% to 6% on premium *plus* the investment income on the surplus.

In contrast, the stated profit levels as a percentage of premium in Table 1 and Table 2 include the investment income on surplus.

It is important to note that in deriving our estimates of industry profit levels for Newfoundland and Labrador private passenger automobile insurance, we have made a number of assumptions. We discuss these assumptions in Section 4.

These findings are based on the aggregated experience of all insurance companies and are not applicable to any single insurance company or group of companies.

Under most regulatory standards, the profit levels during 2017, 2019, 2020, 2021, and 2022 would be considered more than adequate, but profits realized in 2013, 2015, and 2016 would be considered inadequate.

The windfall profits observed in 2020, 2021, and 2022 is primarily the result of a dramatic decline in traffic in response to the various “stay-at home” orders and other directives that were put into place during the COVID-19 pandemic. The 2020, 2021, and 2022 accident year loss experience is significantly less than had been forecast by the rate indication models used to derive premium level needs resulting in significant unexpected profits. The increases in average written premium of 2.7% from 2019 to 2020 and 2.7% from 2020 to 2021 also contribute to the increased profits levels during this period.

3.3. Results as Presented in the FIIP&L Report

Annually, insurers report their financial data to GISA, and GISA aggregates the reported data into an industry “Financial Information Industry Profit and Loss Report for Private Passenger Automobiles” report, which we refer to as the FIIP&L¹⁰ Report. The FIIP&L Report presents ROE results by province and **by calendar year** for private passenger automobile, as well as other information from which POP results can be calculated. The FIIP&L Report reflects the private passenger automobile premiums, losses, expenses, and investment income reported by insurers in their financial statements. The FIIP&L Report presents the amount of equity insurers allocated to private passenger automobile in each province. This allocated equity is used to calculate the ROE profit levels that are presented in the FIIP&L Report.

Table 3: Calendar Year Total Profit Levels Reported in the FIIP&L Report

Calendar Year	POP: Pre-Tax	ROE: After-Tax
2013	-1%	+1%
2014	-11%	-13%
2015	-14%	-28%
2016	+3%	+3%
2017	-4%	-3%
2018	+6%	+8%
2019	+15%	+17%

¹⁰ GISA references this report as Exhibit #AUTO 9501.

Calendar Year	POP: Pre-Tax	ROE: After-Tax
2020	+13%	+18%
2021	+26%	+27%
2022	+19%	+23%

The FIIP&L Report profit levels differ from those that we present in Table 1, and we discuss these differences¹¹ in Section 5. Although the FIIP&L profit levels are different than our accident year estimates, they exhibit similar inadequate profits in 2013 and 2015 with more than adequate profits between 2019 and 2022.

¹¹ One of the differences is the FIIP&L Report is based on *net* earned premiums, whereas our profit level estimates presented in Table 1 are based on *direct* earned premiums, without any consideration for reinsurance.

4. Methodology and Discussion

4.1. Profit Levels - Basis for POP and ROE Findings

We arrive at our total profit findings by comparing the total premium charged by insurers in Newfoundland and Labrador for private passenger automobile insurance in each of the years 2013 to 2022, to the total of:

- claim and claim-related expense costs we estimate insurance companies will pay on insured events that occurred in each of these years,
- the operating expense costs reported by GISA that were incurred by insurers in each of these years, and
- an estimated provision for investment income attributed as being earned on the notional provision for capital and cash flow of the insurance operation.

We assume there is an average delay in the receipt of premium of three months; but include no allowance for finance fee revenues collected by insurers.¹²

We arrive at our after-tax ROE findings by converting our total profit as percentage of premium to a ROE basis by subtracting income taxes from the profit, then calculating this net after tax profit as a percentage of the supporting capital.

4.2. Claim and Claim Related Expense Costs

Methodology

Our loss ratio estimates by accident year are consistent with our estimates of the ultimate loss amounts we present in the Newfoundland and Labrador Loss Trend Report as of December 31, 2022 that we prepared for the Board.

We apply our selected loss development factors to the industry reported incurred loss and allocated loss adjustment expenses, add the appropriate provision for the Health Levy, and add a provision for unallocated claims handling expenses based on factors published by GISA.

Table 4 presents our estimate of the industry loss ratios for Newfoundland and Labrador private passenger automobile, by accident year, as of December 31, 2022.¹³

¹² Some insurers treat finance fees as revenues, others as a negative expense. If we were able to consider finance fees collected by insurers and treated separately as revenues, this would likely increase the estimated profit level. This issue is not material to our findings.

¹³ The claim costs reflected in the loss ratios are not discounted to reflect investment income earned on cash flow.

Table 4: Oliver Wyman’s Loss Ratio Estimates as of December 31, 2022

Accident Year	Ultimate Loss Ratio	Accident Year	Ultimate Loss Ratio
2013	81.1%	2018	76.6%
2014	77.2%	2019	73.2%
2015	84.7%	2020	56.8%
2016	82.2%	2021	56.9%
2017	76.1%	2022	56.7%

Discussion

Table 4¹⁴ shows that the loss ratios present a pattern of decline following a peak in 2015, excluding a small increase between 2017 and 2018. The sharp decline in 2020, 2021, and 2022 loss ratios is attributed mainly to the COVID-19 pandemic.

The decline in the loss ratios since peaking in 2015 is primarily attributed to the rise in average premiums outpacing the smaller rise in the average loss cost. The unevenness of the decline in the loss ratios is partly attributed to the volatility of the Newfoundland and Labrador weather.

4.3. Operating Expense Costs

Methodology

We use the weighted average industry operating expense costs as reported by GISA. The most recent expense information presented in GISA’s AUTO 9502 Exhibit is through 2022. We present these operating expense ratios in Table 5.

Table 5: Operating Expense Ratios

Year	Expense Ratio	Year	Expense Ratio
2013	23.9%	2018	24.5%
2014	25.0%	2019	24.4%
2015	23.9%	2020	24.9%
2016	25.7%	2021	25.8%
2017	22.6%	2022	26.1%

Discussion

GISA expense reports present a “weighted average” industry expense ratio. The “weighted average” refers to the average based on weighting the expense ratio of each insurer with its premium volume; using net earned premium for weights.

We summarize the GISA private passenger auto expense ratios for 2018 to 2022, by province, in Table 6.

¹⁴ The loss ratios presented in this table are also included in Figure 6 of Section 2.3.

Table 6: GISA Expense Ratios (Direct Written Premium Basis)

GISA Weighted Average Expense Ratios	2018	2019	2020	2021	2022
Alberta	26.2%	25.7%	25.6%	27.8%	27.7%
New Brunswick	27.1%	25.6%	27.0%	27.3%	27.5%
Newfoundland and Labrador	24.5%	24.4%	24.9%	25.8%	26.1%
Nova Scotia	27.4%	25.9%	26.5%	27.3%	26.3%
Ontario	25.9%	25.0%	26.0%	27.4%	26.4%
Prince Edward Island	28.5%	26.2%	26.2%	28.1%	27.6%

Part of the variance among the provinces is explained by the different premium tax rates: the tax rate in Newfoundland and Labrador is 5%; tax rates in Alberta¹⁵ and Nova Scotia are 4%; tax rates in Ontario and New Brunswick are 3%.

With the exception of Newfoundland and Labrador, across all other provinces,¹⁶ the reported expense ratios in 2019 declined from 2018. Despite the higher premium tax rate of 5% in Newfoundland and Labrador, the total average expense ratio is modestly lower than the other provinces.

The increase in the total expense provision in Newfoundland and Labrador from 2019 to 2020 and 2020 to 2021 is primarily attributed to an increase in contingent commissions of 0.9 and 0.7 percentage points, respectively. This increase in contingent commissions may be of some concern if used by insurers as a basis to support future expense levels, as it was likely due to the unusually low loss ratios in response to the COVID-19 pandemic. The increase between 2022 and 2021 is driven by larger standard commissions and general expenses.

4.4. Provision for Investment Income

We use a weighted average (based on Newfoundland and Labrador automobile premium) of the pre-tax investment returns¹⁷ that are reported by each insurer in its P&C-1 financial statement to estimate the investment income earned on cash flows and supporting capital.

¹⁵ The premium tax rate for Alberta increased to 4% April 1, 2016.

¹⁶ Only those provinces reporting data to GISA are considered.

¹⁷ For all lines of business and all provinces.

The investment rates that we use are as follows:

Table 7: Investment Income Rates

Year	Pre-Tax Investment Income Rate	Year	Pre-Tax Investment Income Rate
2013	2.5%	2018	2.0%
2014	3.9%	2019	3.6%
2015	2.3%	2020	3.5%
2016	2.4%	2021	2.2%
2017	3.0%	2022	0.4%

The average investment rate over the last ten years is 2.6%. Excluding 2022, all years are approximately within approximately one percentage point of this ten-year average. The latest five-year average is 2.4%. The stock market declines late in 2018 and 2022 contributed to the lower investment rate for those periods.

We consider the average investment income earned between the time a claim occurs and the time the claim is finally settled and paid. We use the industry Newfoundland and Labrador claim payment data, by coverage, as compiled by GISA, through December 31, 2022, to estimate the average time between claim occurrence and claim settlement to be approximately 2.0 years. As a simplifying assumption, we use this 2.0 year average lag for all accident years and all coverages.

For the purpose of determining rate level indications, Ontario, Alberta and Newfoundland and Labrador have transitioned to the expected pre-tax return on investment rate instead of a prescriptive guideline for the pre-tax investment income rate. In general, the guidance directs insurers to support their individually selected investment income rate which reflects the level expected to be reported in their future P&C-1. We recognize the use of reported calendar year investment returns is a simplifying assumption. We find this simplifying assumption to be reasonable in the context of this report (i.e., a hindsight review of historical profitability, rather than prospective ratemaking).

4.5. Allocation of Capital

Our discussion to this point has focused on the pre-tax profit level expressed as a percentage of premiums. The benefit of this approach is simplicity. However, the standard approach for financial reporting purposes is for insurance companies to measure and report profits on an after-tax basis expressed as a percentage (return) of equity (capital) (ROE). In order to determine ROE, the amount of capital must be considered.

Insurance companies do not segregate their capital by province, line of business, or coverage in their financial statements; that is, a singular company-wide surplus amount is presented. Therefore, to determine the amount of investment income earned on the capital that supports private passenger automobile business (and to measure private passenger automobile profit levels on a ROE basis), insurers notionally allocate their firm-wide capital to province, line of business, and coverage.

We, therefore, must also notionally allocate capital to Newfoundland and Labrador private passenger automobile. We do so by assuming there is \$1 of supporting surplus for every \$2 of written premium.

This is referred to as a premium to surplus ratio of 2 to 1. This assumption is considered the “traditional” ratio for private passenger automobile and is a ratio that has been accepted by the Board in its review of prior rate applications.¹⁸

We note that both the POP and ROE profit level estimates that we present are sensitive to this assumption. To demonstrate this sensitivity, in Table 8, we present profit measures under premium to surplus assumptions of 2.0 and 1.5.

Table 8: Historical Profit – Premium to Surplus Ratio Sensitivity

Year	Premium/ Surplus Ratio	Pre-Tax		After -Tax	
		Profit % of Premium	Profit % of Equity	Profit % of Premium	Profit % of Equity
2013	2.00	0%	0%	0%	0%
2014	2.00	5%	10%	4%	7%
2015	2.00	-4%	-8%	-3%	-5%
2016	2.00	-3%	-6%	-2%	-4%
2017	2.00	7%	14%	5%	10%
2018	2.00	3%	5%	2%	4%
2019	2.00	9%	18%	6%	12%
2020	2.00	23%	47%	16%	33%
2021	2.00	21%	41%	14%	29%
2022	2.00	18%	36%	12%	25%
2013	1.50	0%	1%	0%	0%
2014	1.50	6%	9%	4%	6%
2015	1.50	-3%	-5%	-2%	-4%
2016	1.50	-3%	-4%	-2%	-3%
2017	1.50	7%	11%	5%	8%
2018	1.50	3%	5%	2%	3%
2019	1.50	9%	14%	7%	10%
2020	1.50	24%	36%	17%	25%
2021	1.50	21%	31%	15%	22%
2022	1.50	18%	27%	12%	19%

As noted in the table above, the profit level expressed as a percentage of equity is lower at the 1.5 to 1 premium to surplus ratio assumption than the 2 to 1 assumption, when the profit is positive. This is because, all else being equal, the amount of notionally-allocated equity increases as the premium to

¹⁸ Some insurers use complex models to determine the amount of capital required to support premiums levels by line of business.

surplus ratio declines. This dampening effect caused by the increase in the measurement base more than offsets the increase in investment income attributed to the higher amount of equity. Hence profit as a percentage of equity declines. This same dampening effect causes years with negative profit levels to be less negative at the 1.5 to 1 premium to surplus ratio assumption than the 2 to 1 assumption.

To the extent that insurance companies have a relatively higher or lower amount of equity supporting their private passenger automobile insurance business in Newfoundland and Labrador, the actual profit as percentage of equity will be lower or higher, respectively.

4.6. Income Taxes

To present our findings on an after-tax ROE basis, we must estimate the amount of income tax that would have been paid on the profits. We apply the actual Newfoundland and Labrador income tax rates. The income tax rate in Newfoundland and Labrador (federal and provincial) in 2012 to 2015 was 29.0%, which increased to 30% in 2016. (Note, all else being equal, a higher income tax rate will lead to a lower realized after-tax ROE.)

5. Comparison to the FIIP&L Report

5.1. GISA's Profit and Loss Exhibit- AUTO 9501

When reporting property and casualty (P&C-1) financial data to the Office of the Superintendent of Insurance (OSFI), the losses (including claims handling expenses) are presented on a calendar year basis, which represents the amount paid during the year plus the change in the held loss reserve amounts between the end and beginning of the year. Loss reserves are estimates of future payments required to settle and close all claims, including all claims handling expenses. Based on the submission by each insurer of their financial data, GISA compiles the reported financial data into the industry AUTO 9501 Exhibit. No adjustments are made by GISA to the reported financial data of each insurer.

5.2. Differences between Statistical Plan Data and AUTO 9501

In Section 4 we presented a hindsight review of the profit the industry realized since 2013. These findings are based on the claim events that occurred during each year of loss, referred to as an accident year, based on incurred loss amounts reported by insurers through the automobile statistical plan (ASP) to GISA and a provision for loss development.¹⁹ GISA reports the ASP data in the AUTO 1005 Exhibits.

The premium, loss amount, and expense data presented in the AUTO 9501 Exhibit (financial data) is different than the automobile statistical plan data used by insurers in their rate applications for several reasons and is, therefore, not directly comparable.

Loss Data

In the case of losses, these differences are:

- Financial Loss Data - AUTO 9501: Calendar year ultimate loss amount estimated by the appointed actuary of *each* insurer, net of reinsurance, discounted, and includes a provision for adverse deviation (PFAD)
- ASP Loss Data - AUTO 1005: Accident year ultimate loss amount estimated on an aggregated basis for the industry by GISA, direct (i.e., before reinsurance), not discounted, and without PFAD

Loss Adjustment Expenses

Both the AUTO 9501 and AUTO 1005 Exhibit loss amounts include provisions for loss adjustment expenses.

- In the AUTO 9501 Exhibit, allocated and unallocated loss adjustment expenses are included with the loss amounts submitted by each insurer, and not separately stated.
- In the AUTO 1005 Exhibit, the provision for unallocated claims handling costs is included by a factor determined by GISA based on aggregated submissions by insurers.

¹⁹ The Board has engaged Oliver Wyman to estimate the ultimate loss amounts for the purpose of determining loss trend rates. These ultimate loss amounts include allocated loss adjustment expenses.

Consistent with the presentation of claim amounts, the premiums and expenses are net of reinsurance in the financial data presented in the AUTO 9501, and on a direct basis for ASP data presented in AUTO1005.

Operating Expenses and Investment Income

The expense data used for our hindsight review in Section 4 is summarized and presented in the AUTO 9502 Exhibit prepared by GISA. This data does not include investment income.

The AUTO 9501 Exhibit includes “net general and acquisition expenses,” “net investment income,” and “other revenues and expenses” as reported by insurers. The allocation of these expenses to private passenger automobile business in Newfoundland and Labrador can vary by insurer. For example, the amount of investment income is dependent upon the amount of supporting capital an insurer allocates to private passenger automobile in Newfoundland and Labrador.

Summary

Due to these significant differences, the loss ratios and expense ratios in the AUTO 9501 and AUTO 1005 are not directly comparable.

The AUTO 9501 ratio of the net profit before income taxes to the net earned premium is not comparable to the target 5% to 6% of premium profit provision insurers may include in their rate setting models. Key characteristics of the AUTO 9501 data which are different from the AUTO 1005 Exhibit include the following:

Component	AUTO 9501	AUTO 1005 (Loss and LAE)
Basis	Calendar Year Basis	Accident Year Basis
Reinsurance	Net of Reinsurance	Gross of Reinsurance
Discount	Discounted	Not Discounted
PFAD	Includes PFAD	Excludes PFAD
Investment Income	Includes all investment income including from supporting capital and cash flow	Not stated or included
Loss Estimates	Estimates of loss prepared by <i>each</i> insurer’s appointed actuary	Estimates of loss based on industry data

5.3. GISA’s AUTO 9501 Reported Financial Results

While the GISA AUTO 9501 Exhibit financial data calendar year loss ratio is not directly comparable to accident year loss ratio results that are discussed in this report and presented by GISA in the AUTO 1005 Exhibit, the GISA AUTO 9501 Exhibit does present a full picture of the total profits for private passenger automobile *as estimated by each insurer* and reported to GISA for each calendar year. This is an additional and more complete basis to consider the amount of profit achieved by insurers for private passenger vehicle insurance.

In Table 9 below, we present the history of the reported financial data in AUTO 9501 between 2012 and 2021. The net profit before income taxes in the AUTO 9501 Exhibit includes all expenses and revenues including investment income.

The AUTO 9501 history of the net profit before income taxes over the 2012 to 2021 period does provide an additional (and different) perspective on profit, and how this has changed over time.

Table 9: Reported Financial Profit Before Income Taxes in AUTO 9501

Calendar Year	Net Earned Premium (NEP)	Net Discounted Losses with PFAD	Net General and Acquisition Expenses	Net Investment Income	Other Revenue and Expenses	Net Profit before Income Taxes	Net Profit before Income Taxes as a % of NEP
2013	272,132	218,786	72,078	12,987	(688)	(1,433)	-1%
2014	277,549	261,505	74,122	22,001	4,189	(31,888)	-11%
2015	289,561	266,823	77,296	14,445	678	(39,434)	-14%
2016	316,589	235,600	84,767	13,217	112	9,551	+3%
2017	249,383	206,612	67,419	13,897	1,759	(8,992)	-4%
2018	309,235	226,442	75,728	9,253	2,507	18,824	+6%
2019	273,251	173,634	76,754	12,864	4,638	40,365	+15%
2020	313,062	225,101	81,290	12,114	22,661	41,446	+13%
2021	296,678	151,657	84,965	5,114	11,166	76,336	+26%
2022	268,590	152,518	79,517	3,362	11,934	52,121	+19%

6. Sensitivity of Findings

Earlier in this report we discussed the sensitivity of our profit level estimates to the assumed premium to surplus ratio.

Our profit findings are also sensitive to the assumed investment income rates. For example, for accident year 2022, if the average pre-tax return on investment income rate were one percentage point higher (1.4% instead of 0.4%), the after-tax profit as a percentage of equity would increase by approximately 0.7 percentage points (assuming a 2 to 1 premium to surplus ratio). And if the average return were one percentage point lower (-0.6% instead of 0.4%), the after-tax profit as a percentage of equity would decrease by approximately 0.7 percentage points.

Our profit findings are less sensitive to the assumed income tax rate. For example, for accident year 2022, if the average income tax rate were one percentage point higher (31% instead of 30%), the estimated ROE profit level would reduce by approximately 0.4 percentage points (assuming a 2 to 1 premium to surplus ratio). If the average income tax rate were one percentage point lower (29% instead of 30%) the estimated ROE profit level would increase by approximately 0.4 percentage points.

We find our profit findings are sensitive to the assumed expense ratio for this time period. For example, a one percentage point decrease in the 2022 expense ratio increases the estimated after-tax ROE by 1.4 percentage points (assuming a 2 to 1 premium to surplus ratio).

7. Reasonableness of Profit Levels

There are varying views on reasonable profit levels for insurers, and how to compute that profit measure for a specific province, line of business, and insurance coverage. For perspective on the private passenger automobile line of business profit levels that we present in this report, we offer the following considerations:

- The Board previously found that a reasonable target after-tax ROE for insurers was 10.0%, computed based on a premium to surplus ratio of 2 to 1. However, in 2020 the Board changed to a target profit provision approach with a range between 5% and 6%.²⁰
- As stated in the Nova Scotia Utility and Review Board rate filing guidelines, the Nova Scotia Board views a profit level for private passenger automobile insurance written in range of 10% to 12% as an acceptable after-tax return on equity range based on a 2 to 1 premium to surplus ratio.²¹ (Based on the current income tax rate of 29%, an assumed ROI of 3%, and an assumed premium to surplus ratio of 2 to 1, a 10% target after-tax ROE is equivalent to a profit provision of 5.5%.) In addition, the Nova Scotia Board allows for the use of a profit provision based on a percentage of premium; and views the range of 5.5% to 7.0% as a reasonable level.
- The New Brunswick Board rate filing guidelines *previously* directed insurers to provide rate indications based on after-tax ROEs of 10%, 12%, and 14%, computed based on a premium to surplus ratio of 2 to 1. However, the current New Brunswick guidelines do not provide any specific target profit levels. In general, the New Brunswick Board approves rate applications based on a target after-tax ROE of 12%.
- The Ontario Financial Services Regulatory Authority (FSRA) automobile rate filing guidelines were updated in 2014 which included a change from a target ROE to a target POP. FSRA has established a guideline of 5% of premium to be reasonable.
- The Alberta Automobile Insurance Rate Board has a benchmark profit provision. The Alberta benchmark is 7% of premiums for rate filings.
- Insurers generally posit that a target after-tax ROE of 10% is too low and that a target of at least 15% is more appropriate.
- Insurance companies also generally suggest that a 2 to 1 premium to surplus ratio is too high; citing OSFI minimum capital requirements, they find lower premium to surplus ratio to be more appropriate.

²⁰ We distinguish between profit level and profit provision. Profit level represents the total profit (return) either targeted or realized by insurance companies and includes *all sources* of profit: underwriting profit, investment income earned on premium that is collected (cash flow), and earned investment income attributed to the supporting equity (capital). Profit provision represents the provision that is either included in computing the rate level indication or is implied by the proposed or approved rate level, and reflects underwriting profit and investment income earned on premium that is collected (cash flow) only.

²¹ The Nova Scotia Board's more recent Decisions have generally been at the lower end of this range, i.e., 10%.

8. Required Average Premium versus Actual Average Premium

In this section we present a hindsight review of the *required* average premium versus the *actual* average premium for each of the last five accident years, 2018 to 2022, for private passenger vehicles in Newfoundland and Labrador. Our required average premium estimates²² are based on:

- our estimate of the ultimate claim costs and claim related expenses based on the industry aggregated experience as of December 31, 2022
- the industry average expense ratio as provided by GISA for each year
- a 6% of premium provision for profit, the upper end of the Board’s range²³
- investment income from associated cash flows realized by insurers, in aggregate, based on the industry average by return year.²⁴

The results are as follows:

Table 10: Adequacy of Premiums

	Accident Year				
	2018	2019	2020	2021	2022
Hindsight Required Average Premium	1,207	1,188	996	1,051	1,106
Actual Average Premium	1,142	1,203	1,249	1,273	1,305
Premium (inadequacy) / redundancy	(65)	15	253	222	199
Percentage premium (inadequacy) / redundancy	(5.7%)	1.3%	20.3%	17.4%	15.2%

It should be noted that these findings are based on aggregated data of all insurance companies and may not be applicable to any single insurance company as results vary from insurer to insurer.

Our findings are based on a hindsight review of the experience that has emerged and are not to suggest that insurance companies intended to achieve these results.

²² Our calculations are performed on a per coverage basis.

²³ Most insurers submit filings using the upper end of the 5%-6% range.

²⁴ The investment rates are those presented in Table 7.

8.1. Required Average Premium Estimate

To determine the required average premium for each accident year by individual coverage, we perform the following calculations:

- We estimate the average ultimate claim and allocated claim handling expense per earned vehicle using our estimates as presented in our Private Passenger Loss Trend Report as of December 31, 2022. We include with this provision an allowance for unallocated loss adjustment expenses (ULAE) using the factors provided by GISA. We include the Health Levy provision using the amount per car reported by GISA for each of the years 2018 to 2022.
- We use industry experience to determine the claim payment pattern for each coverage, assuming loss amounts are paid, on average, in the middle of the year. As a simplifying assumption, we assume this same claim payment pattern for 2018 to 2022. Using this claim payment pattern and the industry pre-tax return on investment rate for each year, we calculate a discount factor for each coverage that we multiply by the average loss and adjustment expense cost per vehicle described in the step above.
- We include a provision for variable expenses, commission, and premium taxes, based on the provisions reported in GISA’s expense exhibits.²⁵ These variable expenses (commissions and taxes), as well as the remainder of the other expenses, are presented below in Table 11.

Table 11: General Expense Costs

Expense Item	Accident Year				
	2018	2019	2020	2021	2022
Commissions	13.1%	13.1%	13.4%	13.7%	13.4%
Premium Taxes	4.3%	4.4%	4.1%	4.1%	4.6%
Other Acquisition + General Expenses	7.1%	6.9%	7.4%	8.0%	8.1%
Total Expense Ratio	24.5%	24.4%	24.9%	25.8%	26.1%

Although the prescribed premium tax rate is 5%, the reported premium taxes in the GISA exhibit vary from the prescribed 5% rate due, in part, to timing. We use the reported GISA premium tax rates (as presented in Table 11) on the premise that the reported total GISA expense ratio is accurate.

- We include a provision for all general expenses (everything except commissions and premium taxes; labelled as “other acquisition and general expenses” in Table 11) based on the costs reported by insurers to GISA. Our calculation assumes the average expense cost per vehicle is distributed proportionately across all coverages based on the premium volume by coverage.
- We assume there is, on average, a three-month delay in receiving premiums. This assumes that roughly 1/3 of vehicles pay premiums monthly; and the remainder within 2 months. However, we are unable to confirm the degree to which finance fees have been considered in the expense data

²⁵ The GISA expense ratios are presented in Table 5.

reported to GISA - as some insurers reduce their general expense ratios by the net finance fees collected and others do not.²⁶

- We include a provision for profit based on a 6% of premium provision, the upper-end of the Board's range.

Based on these assumptions, we calculate the (hindsight) required average premium for each coverage, for each of the five accident years, 2018 to 2022. We calculate the required average premium across all coverages combined for each of the five accident years by considering the number of vehicles insured for each of the coverages.

8.2. Actual Average Premium Estimate

We use the total of all premiums charged by insurers in Newfoundland and Labrador for private passenger automobile insurance in each of the years 2018 to 2022 as reported by GISA, to calculate the actual average earned premium for each coverage.

8.3. The Difference Between the Actual and Required Average Premium

The difference we present (in Table 10) between the actual average premium and the required average premium, by accident year, represents an average across all coverages. This difference, on average, is the hindsight redundancy or shortfall in the actual premium needed to achieve an assumed target of 6% of premiums.

Our findings are sensitive to the profit assumptions. If a target provision higher than 6% is instead assumed, the gap between the actual and required premiums would be greater; and if a target provision lower than 6% is instead assumed, the gap between the actual and required premium would be less.

We present our summary worksheets for each accident year, detailing our assumptions and calculations by individual coverage in the attached Appendix A.

²⁶ Our general findings are not affected by this issue.

9. Current Rate Level Adequacy: 2023

In this section of our report, we estimate the current rate level adequacy for the 2023 accident year based on industry data through to December 31, 2022.

As detailed in our PPV Loss Trend Report, the COVID-19 pandemic resulted in a significant reduction in traffic volume and vehicular accidents relative to pre-COVID levels. While we continue to observe a decline in 2022-2 claims frequency compared to the pre-pandemic period, the degree of the decline has moderated compared to the early pandemic period. Vehicle mobility has stabilized near pre-pandemic levels and the World Health Organization determined that COVID-19 no longer constitutes a public health emergency. Although it is difficult to identify an exact point in time when the “new normal” post pandemic began, at this time, it appears that some form of a hybrid work environment and reduced commuting traffic is likely to continue. We caution that there continues to be uncertainty²⁷ how the new normal will unfold.

2023 Earned Premium

Based on the approved rate changes effective in 2023 for all insurers in Newfoundland and Labrador, we estimate the market-weighted change in average written premium between 2023 and 2022 is approximately +0.9%.

Using the 2022 average written premium of \$1,303 as the starting point, we estimate that the average written premium for 2023 is \$1,314 ($= \$1,303 * 1.009$).

Assuming equal writings over the year, we estimate the average earned premium to be \$1,309 for 2023 (the average of 2022 and 2023 written premium).

2023 Loss Cost

Due to the increased uncertainty of how a general shift toward some form of a hybrid work environment will unfold, we consider three alternative “scenarios” for 2023 ultimate loss cost:

- Scenario 1 Assumption - 2023 loss cost has returned to pre-pandemic levels.

Our scenario 1 estimate is based on the trended and adjusted claim cost estimates for the most recent 5 accident years 2018-2020. For each coverage, we trend historical claim costs to a 2023 cost level and unwind the impact of COVID-19²⁸. We use the trend rates and adjustment factors presented in our trend report as of December 31, 2022. We include a provision for unallocated loss adjustment expenses (ULAE) using the factors provided by GISA.

- Scenario 2 Assumption – 2023 loss cost are approximately 5% less than pre-pandemic levels.

Under this scenario, we apply a 5% reduction to the scenario 1 loss cost estimates for all coverages except comprehensive.

²⁷ Further adding to the uncertainty of 2023: our estimates for accident year 2023 are dependent upon the accuracy of our estimated factors used to unwind the impact of the COVID-19 pandemic from 2020, 2021, and 2022.

²⁸ This estimate is subject to increased uncertainty as it is dependent upon the accuracy of our estimated factors used to unwind the impact of the COVID-19 pandemic.

- Scenario 3 Assumption – 2023 loss cost are approximately 10% less than pre-pandemic levels.

Under this scenario, we apply a 10% reduction to the scenario 1 loss cost estimates for all coverages except comprehensive.

2022 Expense and Profit Assumptions

We make the following additional assumptions in estimating the 2022 industry expenses and profitability:

- Health Levy per vehicle cost of \$26.24.
- GISA 2022 variable expense ratio for commission will apply in 2023.
- Premium tax rate 5.0%.
- We assume that the general expense costs of \$105 for 2022 (based on the GISA expense exhibit) will increase at an annual inflation rate of 4.0%.
- Investment return of 2.3%, based on the average return over the last five years (2018 to 2022) for insurers in Newfoundland and Labrador.
- An Income tax rate of 30.0%.
- A premium to surplus ratio of 2 to 1.

Summary

Below we present our estimated 2023 accident year loss ratios, and total profitability²⁹ estimates based on the assumptions and the three scenarios, as described above.

Table 12: Estimated Accident Year 2023 Loss Ratios and Profitability

Scenario	Estimated Loss Ratio	Pre-Tax PoP	Post-Tax ROE
1: Return to Pre-Pandemic Frequency Level	61.3%	16.2%	22.7%
2: 5% Reduction in Frequency Level (x CM)	58.7%	18.7%	26.2%
3: 10% Reduction in Frequency Level (x CM)	56.1%	21.2%	29.7%

²⁹ These total profit estimates include an estimate for the investment income on capital.

10. Final Comments

Readers of this report should consider the following prior to reaching any conclusions:

- Due to the nature of insurance, the profits earned by insurance companies on policies issued during a particular year cannot be known with certainty for several years (until all claims are settled).
- Our findings are based on averages and aggregated data, and do not apply to any individual insurer.
- For reasons stated in this report, our findings for accident years 2013 to 2022 will differ from the profit levels reported by the insurance industry in the FIIP&L Reports.
- Our findings for the years 2013 to 2022 are based on a hindsight review of the experience that has emerged and are not to suggest that insurance companies intended to achieve the resulting profit levels.
- Our findings are not intended to suggest that insurance companies have realized similar profit levels in years prior to 2013.
- The actual claims experience that will emerge during 2023 will likely be materially different than we estimate due to the uncertainty of the post COVID-19 environment on claims frequency. But if the post- COVID-19 transition is to a new “normal” environment with reduced claims costs, 2023 profit levels are likely to be above traditional targets.

11. Distribution and Use

- **Usage and Responsibility of Client** – Oliver Wyman prepared this report for the sole use of the Board for the stated purpose. This report includes important considerations, assumptions, and limitations and, as a result, is intended to be read and used only as a whole. This report may not be separated into, or distributed, in parts other than by the Board, as needed, in the case of distribution to its directors, officers, or employees. All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the Board.
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12. Considerations and Limitations

- **Data Verification** – For our analysis, we relied on data and information provided by the Board and GISA without independent audit. Though we have reviewed the data for reasonableness and consistency, we have not audited or otherwise verified this data. Our review of data may not always reveal imperfections. We have assumed that the data provided is both accurate and complete. The results of our analysis are dependent on this assumption. If this data or information is inaccurate or incomplete, our findings and conclusions might therefore be unreliable.
- **Rounding and Accuracy** – Our models may retain more digits than those displayed. Also, the results of certain calculations may be presented in the exhibits with more or fewer digits than would be considered significant. As a result, there may be rounding differences between the results of calculations presented in the exhibits and replications of those calculations based on displayed underlying amounts. Also, calculation results may not have been adjusted to reflect the precision of the calculation.
- **Unanticipated Changes** – We developed our conclusions based on an analysis of the data and on the estimation of the outcome of many contingent events. We developed our estimates from the historical claim experience and covered exposure, with adjustments for anticipated changes. Our estimates make no provision for extraordinary future emergence of new types of losses not sufficiently represented in historical databases or which are not yet quantifiable.
- **Internal / External Changes** – The sources of uncertainty affecting our estimates are numerous and include factors internal and external to the private passenger automobile insurers in Newfoundland and Labrador. Internal factors include items such as changes in claim reserving or settlement practices. The most significant external influences include, but are not limited to, changes in the legal, social, or regulatory environment surrounding the claims process. Uncontrollable factors such as general economic conditions also contribute to the variability.
- **Uncertainty Inherent in Projections** – While this analysis complies with applicable Actuarial Standards of Practice and Statements of Principles, users of this analysis should recognize that our projections involve estimates of future events and are subject to economic and statistical variations from expected values. We have not anticipated any extraordinary changes to the legal, social, or economic environment that might affect the frequency or severity of claims. For these reasons, we do not guarantee that the emergence of actual losses will correspond to the projections in this analysis.

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Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit & Rate Adequacy

Estimated Loss Ratio
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. Ultimate Loss and LAE														
	Third Party Liability - Bodily Injury	Third Party Liability - Property Damage (Including DCPD)	Health Levy	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Total Earned Vehicles	Average Earned Premium	Average Written Premium
2013	125,076,817	35,341,481	8,283,294	168,701,591	15,417,128	45,122,752	21,939,432	1,379,489	113,794	4,232,628	696,687	307,586	1,032	1,045
2014	113,955,438	35,164,581	8,187,808	157,307,828	16,145,541	49,207,006	25,073,671	1,696,244	180,362	5,240,683	309,420	313,709	1,054	1,063
2015	136,805,138	38,245,631	8,718,749	183,769,519	19,472,777	54,045,142	26,135,619	1,993,997	107,396	5,153,255	824,740	320,307	1,075	1,088
2016	132,559,940	38,276,452	8,927,219	179,763,611	18,437,433	57,537,200	29,280,704	2,225,033	108,236	4,995,588	2,487,774	325,811	1,101	1,114
2017	117,996,833	37,631,376	8,581,466	164,209,674	17,352,415	52,585,344	36,200,179	2,140,984	191,314	3,631,351	400,757	324,196	1,122	1,130
2018	121,697,538	39,807,957	8,720,835	170,226,330	18,354,812	54,766,224	31,360,678	2,331,055	165,014	4,327,928	750,335	322,874	1,142	1,167
2019	123,385,151	39,113,513	8,988,751	171,487,416	20,330,679	55,309,520	27,712,817	2,051,106	93,719	4,922,815	669,516	320,569	1,203	1,229
2020	89,965,027	35,632,640	7,475,460	133,073,128	14,073,909	42,544,015	28,511,775	1,808,597	81,511	3,986,005	805,120	316,891	1,249	1,262
2021	93,105,142	36,738,595	9,403,962	139,247,700	15,572,913	44,528,039	29,658,430	1,923,235	107,249	3,893,603	529,876	324,835	1,273	1,296
2022	84,890,613	40,913,142	7,777,434	133,581,188	16,029,196	51,700,340	33,127,228	1,869,696	216,728	3,238,519	166,619	324,195	1,305	1,303

(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
B. Earned Premium							
	Third Party Liability Total	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Underinsured Motorist
2013	194,131,961	20,529,730	57,781,756	31,704,268	1,783,171	312,204	5,367,409
2014	198,633,562	21,051,917	61,280,952	35,679,799	1,974,613	327,971	5,697,475
2015	203,037,387	21,267,426	67,543,592	37,421,899	2,300,262	322,071	6,081,521
2016	210,136,169	22,024,670	73,635,091	37,418,892	2,630,913	316,411	6,527,377
2017	211,738,214	21,927,594	76,086,668	38,445,574	2,817,475	316,137	6,644,172
2018	212,236,745	21,897,792	78,369,875	40,451,215	2,814,560	314,352	6,783,599
2019	221,208,297	23,758,881	81,292,012	43,041,043	2,949,440	316,331	7,037,618
2020	225,164,108	25,598,712	83,665,746	44,288,001	3,084,224	303,683	7,278,532
2021	234,850,789	27,708,074	87,122,739	46,175,478	3,435,738	279,531	7,457,145
2022	238,928,558	29,145,076	88,690,870	47,975,349	3,794,166	283,899	7,517,796

(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	Weighted			
C. Loss Ratio														
	Third Party Liability - Bodily Injury	Third Party Liability - Property Damage (Including DCPD)	Health Levy	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Mandatory	Optional	Total
2013	64%	18%	4%	87%	75%	78%	69%	77%	36%	72%	13%	86%	72%	81%
2014	57%	18%	4%	79%	77%	80%	70%	86%	55%	88%	5%	79%	73%	77%
2015	67%	19%	4%	91%	92%	80%	70%	87%	33%	83%	14%	90%	76%	85%
2016	63%	18%	4%	86%	84%	78%	78%	85%	34%	81%	38%	85%	77%	82%
2017	56%	18%	4%	78%	79%	69%	94%	76%	61%	62%	6%	77%	74%	76%
2018	57%	19%	4%	80%	84%	70%	78%	83%	52%	74%	11%	80%	72%	77%
2019	56%	18%	4%	78%	85%	68%	64%	70%	30%	80%	10%	78%	67%	73%
2020	40%	16%	3%	59%	55%	51%	64%	59%	27%	62%	11%	59%	53%	57%
2021	40%	16%	4%	59%	56%	51%	64%	56%	38%	59%	7%	59%	54%	57%
2022	36%	17%	3%	56%	55%	58%	69%	49%	76%	48%	2%	56%	58%	57%

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit & Rate Adequacy

Estimated Loss Cost
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)				
A. Ultimate Loss and LAE															
	Third Party Liability - Bodily Injury	Third Party Liability - Property Damage (including DCPD)	Health Levy	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist				
2013	125,076,817	35,341,481	8,283,294	168,701,591	15,417,128	45,122,752	21,939,432	1,379,489	113,794	4,232,628	696,687				
2014	113,955,438	35,164,581	8,187,808	157,307,828	16,145,541	49,207,006	25,073,671	1,696,244	180,362	5,240,683	309,420				
2015	136,805,138	38,245,631	8,718,749	183,769,519	19,472,777	54,045,142	26,135,619	1,993,997	107,396	5,153,255	824,740				
2016	132,559,940	38,276,452	8,927,219	179,763,611	18,437,433	57,537,200	29,280,704	2,225,033	108,236	4,995,588	2,487,774				
2017	117,996,833	37,631,376	8,581,466	164,209,674	17,352,415	52,585,344	36,200,179	2,140,984	191,314	3,631,351	400,757				
2018	121,697,538	39,807,957	8,720,835	170,226,330	18,354,812	54,766,224	31,360,678	2,331,055	165,014	4,327,928	750,335				
2019	123,385,151	39,113,513	8,988,751	171,487,416	20,230,679	55,309,520	27,712,817	2,051,106	93,719	4,922,815	669,516				
2020	89,965,027	35,632,640	7,475,460	133,073,128	14,073,909	42,544,015	28,511,775	1,808,597	81,511	3,986,005	805,120				
2021	93,105,142	36,738,595	9,403,962	139,247,700	15,572,913	44,528,039	29,658,430	1,923,235	107,249	3,893,603	529,876				
2022	84,890,613	40,913,142	7,777,434	133,581,188	16,029,196	51,700,340	33,127,228	1,869,696	216,728	3,238,519	166,619				
(13)		(14)			(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)			
B. Earned Vehicles															
		Third Party Liability Total			Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Total Earned Vehicles			
2013		307,586			277,490	231,394	245,438	4,885	7,233	308,808	245,479	307,586			
2014		313,709			288,989	239,678	254,415	5,318	7,143	315,957	258,672	313,709			
2015		320,307			298,686	245,874	259,652	5,915	6,850	321,257	272,703	320,307			
2016		325,811			306,487	251,538	263,839	6,400	6,789	326,279	299,205	325,811			
2017		324,196			307,971	247,294	262,342	6,356	6,672	325,122	309,115	324,196			
2018		322,874			308,691	243,801	260,154	6,235	6,439	323,210	310,292	322,874			
2019		320,569			308,964	241,194	257,490	6,307	6,137	321,010	311,171	320,569			
2020		316,891			308,481	239,968	256,913	6,164	6,038	321,421	313,707	316,891			
2021		324,835			318,420	248,470	265,145	6,414	5,632	326,823	319,204	324,835			
2022		324,195			319,384	249,678	266,033	6,912	5,222	328,264	321,397	324,195			
(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	
C. Loss Cost															
	Third Party Liability - Bodily Injury	Third Party Liability - Property Damage (including DCPD)	Health Levy	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Mandatory	Optional	Total	
2013	407	115	27	548	56	195	89	282	16	14	3	562	275	838	
2014	363	112	26	501	56	205	99	319	25	17	1	518	295	813	
2015	427	119	27	574	65	220	101	337	16	16	3	590	320	910	
2016	407	117	27	552	60	229	111	348	16	15	8	567	338	905	
2017	364	116	26	507	56	213	138	337	29	11	1	518	336	854	
2018	377	123	27	527	59	225	121	374	26	13	2	541	334	874	
2019	385	122	28	535	65	229	108	325	15	15	2	550	331	881	
2020	284	112	24	420	46	177	111	293	14	12	3	433	277	710	
2021	287	113	29	429	49	179	112	300	19	12	2	441	284	725	
2022	262	126	24	412	50	207	125	271	42	10	1	422	318	740	

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit & Rate Adequacy

Estimated Average Earned Premium
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
A. Loss Cost											
	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Mandatory	Optional	Total
2013	548	56	195	89	282	16	14	3	562	275	838
2014	501	56	205	99	319	25	17	1	518	295	813
2015	574	65	220	101	337	16	16	3	590	320	910
2016	552	60	229	111	348	16	15	8	567	338	905
2017	507	56	213	138	337	29	11	1	518	336	854
2018	527	59	225	121	374	26	13	2	541	334	874
2019	535	65	229	108	325	15	15	2	550	331	881
2020	420	46	177	111	293	14	12	3	433	277	710
2021	429	49	179	112	300	19	12	2	441	284	725
2022	412	50	207	125	271	42	10	1	422	318	740
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
B. Loss Ratio											
	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Mandatory	Optional	Total
2013	87%	75%	78%	69%	77%	36%	72%	13%	86%	72%	81%
2014	79%	77%	80%	70%	86%	55%	88%	5%	79%	73%	77%
2015	91%	92%	80%	70%	87%	33%	83%	14%	90%	76%	85%
2016	86%	84%	78%	78%	85%	34%	81%	38%	85%	77%	82%
2017	78%	79%	69%	94%	76%	61%	62%	6%	77%	74%	76%
2018	80%	84%	70%	78%	83%	52%	74%	11%	80%	72%	77%
2019	78%	85%	68%	64%	70%	30%	80%	10%	78%	67%	73%
2020	59%	55%	51%	64%	59%	27%	62%	11%	59%	53%	57%
2021	59%	56%	51%	64%	56%	38%	59%	7%	59%	54%	57%
2022	56%	55%	58%	69%	49%	76%	48%	2%	56%	58%	57%
(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
C. Average Earned Premium											
	Third Party Liability Total Including HL	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist	Mandatory	Optional	Total
2013	631	74	250	129	365	43	19	22	650	382	1,032
2014	633	73	256	140	371	46	19	22	652	402	1,054
2015	634	71	275	144	389	47	19	22	653	421	1,075
2016	645	72	293	142	411	47	19	22	664	438	1,101
2017	653	71	308	147	443	47	18	21	671	451	1,122
2018	657	71	321	155	451	49	18	22	676	467	1,142
2019	690	77	337	167	468	52	19	23	709	494	1,203
2020	711	83	349	172	500	50	20	23	731	518	1,249
2021	723	87	351	174	536	50	20	23	743	530	1,273
2022	737	91	355	180	549	54	21	23	758	547	1,305

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2022
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		per GISA	per GISA	per OW Trend Report	per GISA	$1 / (1 + ROI) ^ \wedge$ Duration	$(1 + ROI) ^ \wedge$ 3/12	per GISA	per GISA	per GISA		$((5) * (6) * (7)) + (9) / ((1 / (8)) - ((10) + (11) + (12)))$	(4) / (3)	(14) - (13)
Coverage	Sub-Coverage	Cars Earned	Premiums Earned	Ultimate Loss & ALAE / Car	ULAE Factor	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium	Actual Average Earned Premium	Excess or Deficiency / Car
Third Party Liability	Bodily Injury	324,195		234.2	1.118	0.984	1.001	38.3	4.6%	13.4%	6.0%	389.94		
Third Party Liability	PD-Tort	324,195		112.9	1.118	0.997	1.001	18.7	4.6%	13.4%	6.0%	190.40		
Third Party Liability	Health Levy	324,195		24.0	1.000	0.998	1.001	0.0	4.6%	13.4%	6.0%	31.54		
Third Party Liability	Total	324,195	238,928,558									611.89	736.99	125.1
Accident Benefits	Total	319,384	29,145,076	44.9	1.118	0.991	1.001	7.4	4.6%	13.4%	6.0%	75.23	91.25	16.0
Uninsured Auto	Total	328,264	6,742,005	8.8	1.118	0.984	1.001	1.4	4.6%	13.4%	6.0%	14.70	20.54	5.8
Collision	Total	249,678	88,690,870	185.2	1.118	0.997	1.001	30.7	4.6%	13.4%	6.0%	312.55	355.22	42.7
Comprehensive	Total	266,033	47,975,349	111.4	1.118	0.997	1.001	18.5	4.6%	13.4%	6.0%	187.96	180.34	(7.6)
All Perils	Total	6,912	3,794,166	241.9	1.118	0.998	1.001	40.1	4.6%	13.4%	6.0%	408.40	548.93	140.5
Specified Perils	Total	5,222	283,899	37.1	1.118	0.996	1.001	6.1	4.6%	13.4%	6.0%	62.58	54.37	(8.2)
Underinsured Motorists	Total	321,397	7,517,796	0.5	1.118	0.973	1.001	0.1	4.6%	13.4%	6.0%	0.76	23.39	22.6
Package	Weighted		423,077,719					105.6				1,106	1,305	198.7
												Excess or Deficiency as % of Actual Premium		15.2%

Assumptions
 ROI pre Tax 0.4% Weighted average rate for auto insurance writers in Newfoundland
 Delay in premiums 3 mths Assumed
 Expenses- as per GISA; assume General Expenses are the reported flat cost per vehicle
 Premium and exposure data- as per GISA Reported data as of YE 2022
 Health Levy and ULAE- as per GISA published factors as of YE 2022
 Note- no explicit recognition of finance fees if treated as additional revenues
 Weighted Duration 2.020

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2021
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		per GISA	per GISA	per OW Trend Report	per GISA	$1 / (1 + ROI) ^ \wedge$ Duration	$(1 + ROI) ^ \wedge 3/12$	per GISA	per GISA	per GISA		$((15) * (6) * (7)) + (9) / ((1 / (8)) - ((10) + (11) + (12)))$	(4) / (3)	(14) - (13)
Coverage	Sub-Coverage	Cars Earned	Premiums Earned	Ultimate Loss & ALAE / Car	ULAE Factor	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium	Actual Average Earned Premium	Excess or Deficiency / Car
Third Party Liability	Bodily Injury	324,835		248.1	1.155	0.916	1.006	41.0	4.1%	13.7%	6.0%	401.15		
Third Party Liability	PD-Tort	324,835		97.9	1.155	0.983	1.006	17.4	4.1%	13.7%	6.0%	170.01		
Third Party Liability	Health Levy	324,835		29.0	1.000	0.989	1.006	0.0	4.1%	13.7%	6.0%	37.85		
Third Party Liability	Total	324,835	234,850,789									609.01	722.99	114.0
Accident Benefits	Total	318,420	27,708,074	42.3	1.155	0.950	1.006	7.3	4.1%	13.7%	6.0%	70.98	87.02	16.0
Uninsured Auto	Total	326,823	6,559,944	10.3	1.155	0.918	1.006	1.7	4.1%	13.7%	6.0%	16.72	20.07	3.3
Collision	Total	248,470	87,122,739	155.1	1.155	0.986	1.006	27.6	4.1%	13.7%	6.0%	270.01	350.64	80.6
Comprehensive	Total	265,145	46,175,478	96.8	1.155	0.986	1.006	17.2	4.1%	13.7%	6.0%	168.58	174.15	5.6
All Perils	Total	6,414	3,435,738	259.5	1.155	0.987	1.006	46.3	4.1%	13.7%	6.0%	452.44	535.65	83.2
Specified Perils	Total	5,632	279,531	16.5	1.155	0.980	1.006	2.9	4.1%	13.7%	6.0%	28.52	49.64	21.1
Underinsured Motorists	Total	319,204	7,457,145	1.4	1.155	0.864	1.006	0.2	4.1%	13.7%	6.0%	2.19	23.36	21.2
Package	Weighted		413,589,437					103.7				1,051	1,273	222.1
												Excess or Deficiency as % of Actual Premium		17.4%

Assumptions
 ROI pre Tax 2.2% Weighted average rate for auto insurance writers in Newfoundland
 Delay in premiums 3 mths Assumed
 Expenses- as per GISA; assume General Expenses are the reported flat cost per vehicle
 Premium and exposure data- as per GISA Reported data as of YE 2022
 Health Levy and ULAE- as per GISA published factors as of YE 2022
 Note- no explicit recognition of finance fees if treated as additional revenues
 Weighted Duration 2.127

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2020
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		per GISA	per GISA	per OW Trend Report	per GISA	1 / (1 + ROI) ^ Duration	(1 + ROI) ^ 3/12	per GISA	per GISA	per GISA		$\frac{((5) * (6) * (7)) + (9)}{((1 / (8)) - ((10) + (11) + (12)))}$	(4) / (3)	(14) - (13)
Coverage	Sub-Coverage	Cars Earned	Premiums Earned	Ultimate Loss & ALAE / Car	ULAE Factor	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium	Actual Average Earned Premium	Excess or Deficiency / Car
Third Party Liability	Bodily Injury	316,891		255.0	1.113	0.873	1.009	36.4	4.1%	13.4%	6.0%	375.66		
Third Party Liability	PD-Tort	316,891		101.0	1.113	0.974	1.009	16.1	4.1%	13.4%	6.0%	166.08		
Third Party Liability	Health Levy	316,891		23.6	1.000	0.983	1.009	0.0	4.1%	13.4%	6.0%	30.65		
Third Party Liability	Total	316,891	225,164,108									572.39	710.54	138.1
Accident Benefits	Total	308,481	25,598,712	41.0	1.113	0.923	1.009	6.2	4.1%	13.4%	6.0%	63.86	82.98	19.1
Uninsured Auto	Total	321,421	6,384,482	11.1	1.113	0.878	1.009	1.6	4.1%	13.4%	6.0%	16.50	19.86	3.4
Collision	Total	239,968	83,665,746	159.3	1.113	0.978	1.009	25.4	4.1%	13.4%	6.0%	262.79	348.65	85.9
Comprehensive	Total	256,913	44,288,001	99.7	1.113	0.978	1.009	15.9	4.1%	13.4%	6.0%	164.58	172.39	7.8
All Perils	Total	6,164	3,084,224	263.6	1.113	0.980	1.009	42.2	4.1%	13.4%	6.0%	435.97	500.39	64.4
Specified Perils	Total	6,038	303,683	12.1	1.113	0.969	1.009	1.9	4.1%	13.4%	6.0%	19.83	50.30	30.5
Underinsured Motorists	Total	313,707	7,278,532	2.3	1.113	0.798	1.009	0.3	4.1%	13.4%	6.0%	3.11	23.20	20.1
Package	Weighted		395,767,488					93.4				996	1,249	253.3
												Excess or Deficiency as % of Actual Premium		20.3%

Assumptions

ROI pre Tax 3.5% Weighted average rate for auto insurance writers in Newfoundland
 Delay in premiums 3 mths Assumed
 Expenses- as per GISA; assume General Expenses are the reported flat cost per vehicle
 Premium and exposure data- as per GISA Reported data as of YE 2022
 Health Levy and ULAE- as per GISA published factors as of YE 2022
 Note- no explicit recognition of finance fees if treated as additional revenues
 Weighted Duration 2.123

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2019
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		per GISA	per GISA	per OW Trend Report	per GISA	1 / (1 + ROI) ^ Duration	(1 + ROI) ^ 3/12	per GISA	per GISA	per GISA		$\frac{((5) * (6) * (7)) + (9)}{((1 / (8)) - ((10) + (11) + (12)))}$	(4) / (3)	(14) - (13)
Coverage	Sub-Coverage	Cars Earned	Premiums Earned	Ultimate Loss & ALAE / Car	ULAE Factor	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium	Actual Average Earned Premium	Excess or Deficiency / Car
Third Party Liability	Bodily Injury	320,569		351.2	1.096	0.869	1.009	36.1	4.4%	13.1%	6.00%	489.86		
Third Party Liability	PD-Tort	320,569		111.3	1.096	0.973	1.009	12.8	4.4%	13.1%	6.0%	174.02		
Third Party Liability	Health Levy	320,569		28.0	1.000	0.982	1.009	0.0	4.4%	13.1%	6.0%	36.43		
Third Party Liability	Total	320,569	221,208,297									700.31	690.05	(10.3)
Accident Benefits	Total	308,964	23,758,881	59.7	1.096	0.921	1.009	6.5	4.4%	13.1%	6.0%	88.33	76.90	(11.4)
Uninsured Auto	Total	321,010	6,136,227	14.0	1.096	0.874	1.009	1.4	4.4%	13.1%	6.0%	19.63	19.12	(0.5)
Collision	Total	241,194	81,292,012	209.2	1.096	0.977	1.009	24.2	4.4%	13.1%	6.0%	328.27	337.04	8.8
Comprehensive	Total	257,490	43,041,043	98.2	1.096	0.978	1.009	11.4	4.4%	13.1%	6.0%	154.15	167.16	13.0
All Perils	Total	6,307	2,949,440	296.7	1.096	0.979	1.009	34.4	4.4%	13.1%	6.0%	466.66	467.62	1.0
Specified Perils	Total	6,137	316,331	13.9	1.096	0.968	1.009	1.6	4.4%	13.1%	6.0%	21.66	51.54	29.9
Underinsured Motorists	Total	311,171	7,037,618	2.0	1.096	0.792	1.009	0.2	4.4%	13.1%	6.0%	2.50	22.62	20.1
Package	Weighted		385,739,849					84.8				1,188	1,203	15.4
												Excess or Deficiency as % of Actual Premium		1.3%

Assumptions

ROI pre Tax 3.6% Weighted average rate for auto insurance writers in Newfoundland
 Delay in premiums 3 mths Assumed
 Expenses- as per GISA; assume General Expenses are the reported flat cost per vehicle
 Premium and exposure data- as per GISA Reported data as of YE 2022
 Health Levy and ULAE- as per GISA published factors as of YE 2022
 Note- no explicit recognition of finance fees if treated as additional revenues
 Weighted Duration 2.249

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2018
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		per GISA	per GISA	per OW Trend Report	per GISA	$1 / (1 + ROI) ^ \wedge$ Duration	$(1 + ROI) ^ \wedge 3/12$	per GISA	per GISA	per GISA		$((5) * (6) * (7) + (9)) / ((1 / (8)) - ((10) + (11) + (12)))$	(4) / (3)	(14) - (13)
Coverage	Sub-Coverage	Cars Earned	Premiums Earned	Ultimate Loss & ALAE / Car	ULAE Factor	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium	Actual Average Earned Premium	Excess or Deficiency / Car
Third Party Liability	Bodily Injury	322,874		340.4	1.107	0.924	1.005	35.6	4.3%	13.1%	6.0%	504.29		
Third Party Liability	PD-Tort	322,874		111.3	1.107	0.985	1.005	12.4	4.3%	13.1%	6.0%	175.92		
Third Party Liability	Health Levy	322,874		27.0	1.000	0.990	1.005	0.0	4.3%	13.1%	6.0%	35.14		
Third Party Liability	Total	322,874	212,236,745									715.35	657.34	(58.0)
Accident Benefits	Total	308,691	21,897,792	53.7	1.107	0.954	1.005	5.8	4.3%	13.1%	6.0%	82.20	70.94	(11.3)
Uninsured Auto	Total	323,210	5,868,874	12.1	1.107	0.926	1.005	1.3	4.3%	13.1%	6.0%	17.96	18.16	0.2
Collision	Total	243,801	78,369,875	202.8	1.107	0.987	1.005	22.7	4.3%	13.1%	6.0%	321.18	321.45	0.3
Comprehensive	Total	260,154	40,451,215	108.9	1.107	0.987	1.005	12.2	4.3%	13.1%	6.0%	172.40	155.49	(16.9)
All Perils	Total	6,235	2,814,560	337.6	1.107	0.988	1.005	37.8	4.3%	13.1%	6.0%	535.30	451.44	(83.9)
Specified Perils	Total	6,439	314,352	23.1	1.107	0.982	1.005	2.6	4.3%	13.1%	6.0%	36.45	48.82	12.4
Underinsured Motorists	Total	310,292	6,783,599	2.2	1.107	0.876	1.005	0.2	4.3%	13.1%	6.0%	3.07	21.86	18.8
Package	Weighted		368,737,011					82.8				1,207	1,142	(65.3)

Excess or Deficiency as % of Actual Premium

Excess or Deficiency as % of Actual Premium

Assumptions

ROI pre Tax	2.0%	Weighted average rate for auto insurance writers in Newfoundland
Delay in premiums	3 mths	Assumed
Expenses- as per GISA; assume General Expenses are the reported flat cost per vehicle		
Premium and exposure data- as per GISA Reported data as of YE 2022		
Health Levy and ULAE- as per GISA published factors as of YE 2022		
Note- no explicit recognition of finance fees if treated as additional revenues		
Weighted Duration	2.253	

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit & Rate Adequacy

Accident Year 2023 Forecasted Loss Cost

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Scenario 1: Full Return to Pre-Pandemic Frequency Levels										
			Third Party Liability - Property Damage (Including DCPD)	Accident Benefits - Total	Collision	Comprehensive - Total	All Perils	Specified Perils	Uninsured Auto	Underinsured Motorist
A.1	Ultimate Loss & LAE / Car									
	2017	364.0	116.1	53.5	162.2	111.7	6.6	0.6	11.2	1.2 per Loss Trend Report
	2018	376.9	123.3	56.8	169.6	97.1	7.2	0.5	13.4	2.3
	2019	384.9	122.0	63.1	172.5	86.4	6.4	0.3	15.4	2.1
	2020	283.9	112.4	44.4	134.3	90.0	5.7	0.3	12.6	2.5
	2021	286.6	113.1	47.9	137.1	91.3	5.9	0.3	12.0	1.6
	2022	261.9	126.2	49.4	159.5	102.2	5.8	0.7	10.0	0.5
A.2	COVID-19 (Unwidening) Factors									
	2017	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000 per Loss Trend Report
	2018	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	2019	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	2020	1.228	1.089	1.269	1.252	1.122	1.120	1.000	1.139	1.000
	2021	1.198	1.067	1.181	1.301	1.184	1.034	1.000	1.261	1.000
	2022	1.133	0.992	1.064	1.171	1.106	1.119	1.000	1.690	1.000
A.3	Loss Trend Factors									
	2017	0.886	1.062	1.000	1.160	1.229	1.194	1.229	1.000	1.194 per Loss Trend Report
	2018	0.904	1.051	1.000	1.131	1.188	1.159	1.188	1.000	1.159
	2019	0.922	1.041	1.000	1.104	1.148	1.126	1.148	1.000	1.126
	2020	0.941	1.030	1.000	1.077	1.109	1.093	1.093	1.000	1.093
	2021	0.960	1.020	1.000	1.051	1.071	1.061	1.071	1.000	1.061
	2022	0.980	1.010	1.000	1.025	1.035	1.030	1.035	1.000	1.030
	Factors per GISA Reported data as of YE 2021: or GISA Scalar Impact (Inflation)									
	2017	1.000	1.000	1.000	1.100	1.000	1.000	1.000	1.000	1.000 per Loss Trend Report
	2018	1.000	1.000	1.000	1.100	1.000	1.000	1.000	1.000	1.000
	2019	1.000	1.000	1.000	1.100	1.000	1.000	1.000	1.000	1.000
	2020	1.000	1.000	1.000	1.100	1.000	1.000	1.000	1.000	1.000
	2021	1.000	1.000	1.000	1.050	1.000	1.000	1.000	1.000	1.000
	2022	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
A.5	Trended Ultimate Loss and LAE / Car									
	2017	322.42	123.22	53.52	206.92	137.26	7.89	0.73	11.20	1.48 A.1 * A.2 * A.3 * A.4
	2018	340.71	129.58	56.85	211.10	115.36	8.37	0.61	13.40	2.69
	2019	355.01	126.97	63.11	209.49	99.20	7.20	0.34	15.36	2.35
	2020	328.17	126.19	56.34	199.12	111.89	6.99	0.29	14.33	2.78
	2021	329.87	123.12	56.63	196.70	115.79	6.49	0.35	15.11	1.73
	2022	290.65	126.41	52.63	191.47	116.96	6.64	0.69	16.88	0.53
A.6	Weights									
	2017	0%	0%	0%	0%	0%	0%	0%	0%	0% Selected
	2018	20%	20%	20%	20%	20%	20%	20%	20%	20%
	2019	20%	20%	20%	20%	20%	20%	20%	20%	20%
	2020	20%	20%	20%	20%	20%	20%	20%	20%	20%
	2021	20%	20%	20%	20%	20%	20%	20%	20%	20%
	2022	20%	20%	20%	20%	20%	20%	20%	20%	20%
A.7	2023 Loss Cost	328.88	126.45	57.11	201.58	111.84	7.14	0.45	15.02	2.02 A.5 x A.6
B. Scenario 2: 5% Reduction Relative to Pre-Pandemic Levels										
B	2023 Loss Cost	312.44	120.13	54.26	191.50	111.84	6.78	0.43	14.27	1.92 A.7 * .95 (ex CM) A.7 (CM)
C. Scenario 3: 10% Reduction Relative to Pre-Pandemic Levels										
C	2023 Loss Cost	295.99	113.81	51.40	181.42	111.84	6.42	0.41	13.51	1.81 A.7 * .9 (ex CM) A.7 (CM)

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2023 Forecasted Loss Cost
Scenario 1: Full Return to Pre-Pandemic Frequency Levels

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
									$\frac{((3) * (4)) + (6)}{((1 / (5)) - ((7) + (8) + (9)))}$
		RA Exhibit 3.1							
Coverage	Sub-Coverage	Trended Ultimate Loss & LAE / Car	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium
Third Party Liability	Bodily Injury	328.88	0.912	1.006	48.21	5.0%	13.4%	6.0%	463.85
Third Party Liability	PD-Tort	126.45	0.983	1.006	18.54	5.0%	13.4%	6.0%	190.32
Third Party Liability	Health Levy	26.24	0.988	1.006	3.85	5.0%	13.4%	6.0%	39.70
Third Party Liability	Total								693.88
Accident Benefits	Total	57.11	0.947	1.006	8.25	5.0%	13.4%	6.0%	83.09
Uninsured Auto	Total	15.02	0.914	1.006	2.20	5.0%	13.4%	6.0%	21.24
Collision	Total	201.58	0.985	1.006	22.76	5.0%	13.4%	6.0%	294.97
Comprehensive	Total	111.84	0.985	1.006	13.45	5.0%	13.4%	6.0%	164.81
All Perils	Total	7.14	0.987	1.006	0.02	5.0%	13.4%	6.0%	9.42
Specified Perils	Total	0.45	0.979	1.006	0.00	5.0%	13.4%	6.0%	0.59
Underinsured Motorists	Total	2.02	0.857	1.006	0.29	5.0%	13.4%	6.0%	2.69
Package	Weighted				109.8				1,162.26

Assumptions

ROI pre Tax 2.3% Five Year Average (2017 - 2021)
Delay in premiums 3 mths Assumed

Expenses- assume most recent expense ratios per GISA 9502 exhibit applies to prospective year; assume General Expenses trend at 2.5%.
Note- no explicit recognition of finance fees if treated as additional revenues
ire data- as per GISA Reported data as of YE 2022
Health Levy and ULAE- as per GISA published factors at YE 2022

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2023 Forecasted Loss Cost
Scenario 2: 5% Reduction Relative to Pe-Pandemic Levels

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
									$\frac{((3) * (4)) + (6)}{((1 / (5)) - ((7) + (8) + (9)))}$
		RA Exhibit 3.1							
Coverage	Sub-Coverage	Trended Ultimate Loss & LAE / Car	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium
Third Party Liability	Bodily Injury	312.44	0.912	1.006	47.87	5.0%	13.4%	6.0%	443.42
Third Party Liability	PD-Tort	120.13	0.983	1.006	18.40	5.0%	13.4%	6.0%	181.87
Third Party Liability	Health Levy	26.24	0.988	1.006	4.02	5.0%	13.4%	6.0%	39.93
Third Party Liability	Total								665.22
Accident Benefits	Total	54.26	0.947	1.006	8.19	5.0%	13.4%	6.0%	79.41
Uninsured Auto	Total	14.27	0.914	1.006	2.19	5.0%	13.4%	6.0%	20.30
Collision	Total	191.50	0.985	1.006	22.59	5.0%	13.4%	6.0%	281.53
Comprehensive	Total	111.84	0.985	1.006	14.06	5.0%	13.4%	6.0%	165.62
All Perils	Total	6.78	0.987	1.006	0.02	5.0%	13.4%	6.0%	8.95
Specified Perils	Total	0.43	0.979	1.006	0.00	5.0%	13.4%	6.0%	0.56
Underinsured Motorists	Total	1.92	0.857	1.006	0.29	5.0%	13.4%	6.0%	2.58
Package	Weighted				109.8				1,119.22

Assumptions

ROI pre Tax

2.3%

Five Year Average (2017 - 2021)

Delay in premiums

3 mths

Assumed

Expenses- assume most recent expense ratios per GISA 9502 exhibit applies to prospective year; assume General Expenses trend at 2.5%.

Note- no explicit recognition of finance fees if treated as additional revenues

ire data- as per GISA Reported data as of YE 2022

Health Levy and ULAE- as per GISA published factors at YE 2022

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Retrospective Review - Industry-Wide Average

Accident Year 2023 Forecasted Loss Cost
Scenario 3: 10% Reduction Relative to Pe-Pandemic Levels

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
									$\frac{((3) * (4)) + (6)}{((1 / (5)) - ((7) + (8) + (9)))}$
		RA Exhibit 3.1							
Coverage	Sub-Coverage	Trended Ultimate Loss & LAE / Car	Claim Payment Pattern Factor	Delay in Receiving Premiums	General Expense	Premium Tax	Commission Expense	Profit Provision	Estimated Average Required Premium
Third Party Liability	Bodily Injury	295.99	0.912	1.006	47.49	5.0%	13.4%	6.0%	422.94
Third Party Liability	PD-Tort	113.81	0.983	1.006	18.26	5.0%	13.4%	6.0%	173.40
Third Party Liability	Health Levy	26.24	0.988	1.006	4.21	5.0%	13.4%	6.0%	40.19
Third Party Liability	Total								636.52
Accident Benefits	Total	51.40	0.947	1.006	8.13	5.0%	13.4%	6.0%	75.72
Uninsured Auto	Total	13.51	0.914	1.006	2.17	5.0%	13.4%	6.0%	19.36
Collision	Total	181.42	0.985	1.006	22.42	5.0%	13.4%	6.0%	268.06
Comprehensive	Total	111.84	0.985	1.006	14.73	5.0%	13.4%	6.0%	166.50
All Perils	Total	6.42	0.987	1.006	0.02	5.0%	13.4%	6.0%	8.48
Specified Perils	Total	0.41	0.979	1.006	0.00	5.0%	13.4%	6.0%	0.54
Underinsured Motorists	Total	1.81	0.857	1.006	0.29	5.0%	13.4%	6.0%	2.46
Package	Weighted				109.8				1,076.18

Assumptions

ROI pre Tax 2.3% Five Year Average (2017 - 2021)
Delay in premiums 3 mths Assumed

Expenses- assume most recent expense ratios per GISA 9502 exhibit applies to prospective year; assume General Expenses trend at 2.5%.
Note- no explicit recognition of finance fees if treated as additional revenues
ire data- as per GISA Reported data as of YE 2022
Health Levy and ULAE- as per GISA published factors at YE 2022

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit

Estimated Pre-Tax Profit - Percent of Premium
Data as of 12/31/22

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			(2) / (3)		(1 - (7))^(5)		
Accident Year	Ultimate Loss and LAE (incl HL) / Earned Vehicles	Average Earned Premium	Loss Ratio	Duration	Discount	ROI	Expense Ratio
2013	838	1,032	81.1%	2.150	0.946	2.5%	23.9%
2014	813	1,054	77.2%	2.150	0.917	3.9%	25.0%
2015	910	1,075	84.7%	2.150	0.951	2.3%	23.9%
2016	905	1,101	82.2%	2.150	0.950	2.4%	25.7%
2017	854	1,122	76.1%	2.150	0.937	3.0%	22.6%
2018	874	1,142	76.6%	2.150	0.957	2.0%	24.5%
2019	881	1,203	73.2%	2.150	0.924	3.6%	24.4%
2020	710	1,249	56.8%	2.150	0.927	3.5%	24.9%
2021	725	1,273	56.9%	2.150	0.953	2.2%	25.8%
2022	740	1,305	56.7%	2.150	0.991	0.4%	26.1%
<u>2023</u>							
Scenario 1			61.3%		0.950	2.3%	26.1%

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit & Rate Adequacy

2.0 Premium to Surplus Ratio
Data as of 12/31/22

(1)	(7) RA Exhibit 4.1	(3) Selected	(4) (7) / (3)	(5) RA Exhibit 4.1	(6) (5) + (4)	(7)	(8) (1 - (7)) * (6)	(9) (6) * (3)	(10) (1 - (7)) * (9)
Accident Year	ROI	Premium to Surplus Ratio	Investment Income on Capital	Estimated Pre-Tax Profit - Percent of Premium	Total Profit Pre Tax as a Percentage of Premium	Tax Rate	Post-Tax Profit as a Percentage of Premium	Pre-Tax Profit as a Percentage of Equity	Post-Tax Profit as a Percentage of Equity
2013	2.5%	2.0	1.3%	-1.3%	-0.1%	29%	0.0%	-0.1%	-0.1%
2014	3.9%	2.0	2.0%	3.3%	5.2%	29%	3.7%	10.4%	7.4%
2015	2.3%	2.0	1.2%	-5.0%	-3.8%	29%	-2.7%	-7.6%	-5.4%
2016	2.4%	2.0	1.2%	-4.3%	-3.1%	29%	-2.2%	-6.2%	-4.4%
2017	3.0%	2.0	1.5%	5.4%	6.9%	29%	4.9%	13.8%	9.8%
2018	2.0%	2.0	1.0%	1.7%	2.7%	30%	1.9%	5.4%	3.8%
2019	3.6%	2.0	1.8%	7.0%	8.9%	30%	6.2%	17.7%	12.4%
2020	3.5%	2.0	1.7%	21.6%	23.3%	30%	16.3%	46.7%	32.7%
2021	2.2%	2.0	1.1%	19.4%	20.5%	30%	14.4%	41.0%	28.7%
2022	0.4%	2.0	0.2%	17.6%	17.8%	30%	12.4%	35.5%	24.9%
2023									
Scenario 1	2.3%	2.0	1.2%	15.1%	16.2%	30%	11.4%	32.5%	22.7%
Scenario 2	2.3%	2.0	1.2%	17.6%	18.7%	30%	13.1%	37.4%	26.2%
Scenario 3	2.3%	2.0	1.2%	20.0%	21.2%	30%	14.8%	42.4%	29.7%

Province of Newfoundland and Labrador
Private Passengers Vehicles (Excluding Farmers)
Profit

1.5 Premium to Surplus Ratio
Data as of 12/31/22

(1)	(7) RA Exhibit 4.1	(3) Selected	(4) (7) / (3)	(5) RA Exhibit 4.1	(6) (5) + (4)	(7)	(8) (1 - (7)) * (6)	(9) (6) * (3)
Accident Year	ROI	Premium to Surplus Ratio	Investment Income on Capital	Estimated Pre-Tax Profit - Percent of Premium	Total Profit Pre Tax as a Percentage of Premium	Tax Rate	Post-Tax Profit as a Percentage of Premium	Pre-Tax Profit as a Percentage of Equity
2013	2.5%	1.5	1.7%	-1.3%	0%	29%	0.3%	0.5%
2014	3.9%	1.5	2.6%	3.3%	6%	29%	4.2%	8.8%
2015	2.3%	1.5	1.6%	-5.0%	-3%	29%	-2.4%	-5.1%
2016	2.4%	1.5	1.6%	-4.3%	-3%	29%	-1.9%	-4.1%
2017	3.0%	1.5	2.0%	5.4%	7%	29%	5.3%	11.1%
2018	2.0%	1.5	1.3%	1.7%	3%	30%	2.1%	4.6%
2019	3.6%	1.5	2.4%	7.0%	9%	30%	6.6%	14.2%
2020	3.5%	1.5	2.3%	21.6%	24%	30%	16.7%	35.9%
2021	2.2%	1.5	1.5%	19.4%	21%	30%	14.6%	31.3%
2022	0.4%	1.5	0.3%	17.6%	18%	30%	12.5%	26.8%
2023								
Scenario 1	2.3%	1.5	1.6%	15.1%	17%	30%	11.6%	24.9%
Scenario 2	2.3%	1.5	1.6%	17.6%	19%	30%	13.4%	28.7%
Scenario 3	2.3%	1.5	1.6%	20.0%	22%	30%	15.1%	32.4%



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