NEW BRUNSWICK RISK SHARING POOL

MAY 2022 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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FACILITY ASSOCIATION

ACTUARIAL HIGHLIGHTS

RSP NEW BRUNSWICK

OPERATIONAL REPORT

MAY 2022

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1 Summary

Note to members: this is the quarterly Actuarial Highlights we will release going forward to replace the monthly Actuarial Highlights. The next report will be available for reporting month May 2022 in July 2022, in line with the valuation implementation schedule. Please contact us with any questions or concerns in regards to this matter.

1.1 Valuation Schedule (Fiscal Year 2022)

The May 2022 Operational Report incorporates the results of an updated valuation (as at December 31, 2021) – the impact of the implementation of the valuation is discussed in section 1.2. The following table summarizes the valuation implementations scheduled for fiscal year 2022.

NEW BRUNSWICK RISK SHARING POOL
FISCAL YEAR 2021 – SCHEDULE OF VALUATIONS

Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep 30, 2021 (completed)	0.86% mfad[1] 25 bp	Oct. 2021	update valuation (roll-forward):): accident year 2021 loss ratio decreased 1.2 points to 66.3%; discount rate increased by 10 basis points; no change to selected margins for adverse deviations
Dec. 31, 2021 (completed)	1.07% mfad 25 bp	Mar. 2022	update valuation: accident year 2021 loss ratio decreased 2.0 points to 64.3% and accident year 2021 loss ratio increased 0.1 points to 84.2%; discount rate increased 21 basis points; no change to selected margins for adverse deviations
Mar. 31, 2022 (completed)	2.26% mfad 25 bp	May. 2022	update valuation (roll-forward): accident year 2021 loss ratio decreased 1 points to 84.2%; discount rate increased by 119 basis points; no change to selected margins for adverse deviations
Jun. 30, 2022	% mfad -- bp	Aug. 2022	update valuation:
Sep. 30, 2022	% mfad -- bp	Oct. 2022	update valuation (roll-forward):

Under the proposed schedule for fiscal year 2022, the off-half valuation quarters ending March 31, 2022 and September 30, 2022 would not reflect a full valuation update of assumptions, but would rather roll-forward key assumptions from the previous valuation.

[1] The selected interest rate margin is limited to reducing the selected discount rate to 0%; the approach is that if the net impact is negative, the discount rate will be capped at 0%.

1.2 New Valuation

A valuation of the New Brunswick Risk Sharing Pool ("RSP") as at March 31, 2022 has been completed since last month's Operational Report and the results of that valuation have been incorporated into this month's Report. The valuation was completed by the Facility Association's internal actuarial group in conjunction with, and approved by, the Appointed Actuary, under the hybrid model for actuarial services.

The valuation implementation impact is summarized in the following two tables, where the abbreviations PAYs refers to prior accident years, CAY refers to the current accident year (2022), and "Prem Def" refers to premium deficiency / deferred acquisition costs impacts.

Summary of Impact ($000s) of Implementing Result of Valuation as at Mar. 31, 2022[2]

NB	unfav / (fav) for the month and ytd					
	IMPACT in $000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal [1]	apv adj. [2]	sub-tot [3]	apv adj. [4]	apv adj. [5]	TOTAL [6]
PAYs	288	30	318	(849)	-	(531)
CAY	(9)	(2)	(11)	(229)	-	(240)
Prem Def	(7)	(10)	(17)	(198)	-	(215)
TOTAL	272	18	290	(1,276)	-	(986)

As indicated in the preceding table, the incorporation of the new valuation had an estimated ***$1.0 million favourable impact*** on the month's net result from operations, subtracting an estimated 5.1 points (see following table) from the **year-to-date Combined Operating Ratio** to end at **111.6%**. The impact is mainly due to the increase in discounting.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Mar. 31, 2022

NB	ytd EP 19,191 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal [1]	apv adj. [2]	sub-tot [3]	apv adj. [4]	apv adj. [5]	TOTAL [6]
PAYs	1.5%	0.2%	1.7%	(4.4%)	-	(2.8%)
CAY	-	-	(0.1%)	(1.2%)	-	(1.3%)
Prem Def	-	(0.1%)	(0.1%)	(1.0%)	-	(1.1%)
TOTAL	1.4%	0.1%	1.5%	(6.6%)	-	(5.1%)

The impact of the **nominal changes** is shown in column [1] of the two preceding summary tables.

[2]In these tables, "PAYs" refers to prior accident years, "CAY" refers to the current accident year, and "Prem Def" refers to the provision for premium deficiency or the deferred policy acquisition asset (as applicable). "Nominal" refers to changes excluding any actuarial present value adjustments, whereas "apv adj." refers to actuarial present value adjustments.

The columns under the heading "ults & payout patterns" reflect the impact of changes in the valuation selected ultimates and claims payment patterns (i.e. based on unchanged selection of discount rates and margins for adverse deviation). The column "dsct rate" reflects the impact of the change in the selected discount rate and the column "margins" reflects the impact of any changes in selected margins for adverse deviations.

The change in the selected nominal ultimates was **unfavourable by $0.3 million** overall. This reflects the impact attributable to the changes in the selected ultimate loss ratios (i.e. for each accident year, it is the product of life-to-date earned premium for the accident year and the change in the selected ultimate loss ratio). As this quarter is a roll-forward valuation, the impacts are mainly driven by claims development on short-tailed lines of business and on older accident years. Since the impact is relatively small, this indicates that claims are developing more or less as expected.

The **PAYs** overall showed a **$0.3 million unfavourable** nominal variance or less than 1.1 % of the PAYs nominal unpaid balance of $26.1 million determined at the end of last month (April 2022), relatively unchanged since the prior valuation.

The CAY and premium deficiency impacts were negligible as the nominal ultimate loss ratio for 2022 changed by just 0.1% in the latest valuation. This is a minimal change from the prior valuation. Please note that the 2022 accident year loss ratio is expected to increase in 2022 compared to 2021 as the new RSP harmonization rules come into effect, allowing companies to select up to 5% of their personal passenger automobile to cede to the pool at their discretion.

The impacts related to actuarial present value ("apv") adjustments are split into the impact prior to any change in the selected discount rate and selected margins for adverse deviations or "MfADs" (at the level they were selected i.e. coverage and accident half-year), the impact of then updating the discount rate, and finally the impact of any changes to the MfADs (at the level they were selected). The changes in actuarial present value adjustments are shown in the preceding summary tables in columns [2], [4], and [5].

Column [2] recognizes that changing the nominal selections also changed the unpaid estimates (including changes to the relative mix by government line, which has an impact on the weighted-average MfADs). It also reflects the fact that we updated the projected emergence of claims payments, resulting in a change in the projected cash flows. These changes generated an unfavourable change of $18 thousand in the actuarial present value adjustments, prior to any changes in the selected discount rate and/or MfADs.

Updated projected cash flows were reviewed against the selected risk-free yield curve, derived from Government of Canada benchmark bond yields monthly series using values for March 2022. Column [4] accounts for the change in the **discount rate** selected (increased 119 basis points to **2.26%**), indicating a favourable impact of $1.1 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was $1.3 million at May 2022 – this compares to the $1.2 million change one would estimate as the impact by interpolation using the interest rate sensitivity table provided in last month's Actuarial Highlights.

Column [5] accounts for any changes to selected MfADs. The selected **investment rate MfAD** was **left unchanged at 25 basis points** and the selected **claims development MfADs** at the coverage and accident year level were also left unchanged (as per our usual practice, development margins are reviewed with the June 30 valuation).

Consideration was given to recent legal decisions and changes in legislation / regulation as outlined in section 1.4.

1.3 Appointed Actuary and Hybrid Actuarial Services Model

The Annual General Meeting of the members of Facility Association ("FA") appointed Mr. Cosimo Pantaleo as the Appointed Actuary at its meeting on March 4, 2021.

Facility Association operates under a hybrid model in relation to the management and provision of actuarial services. Under this model, actuarial services are performed by both Facility Association's internal staff and its external actuarial consulting firm. The hybrid model approach maximizes the efficiency of resource allocation while providing access to additional expertise and capacity as needed.

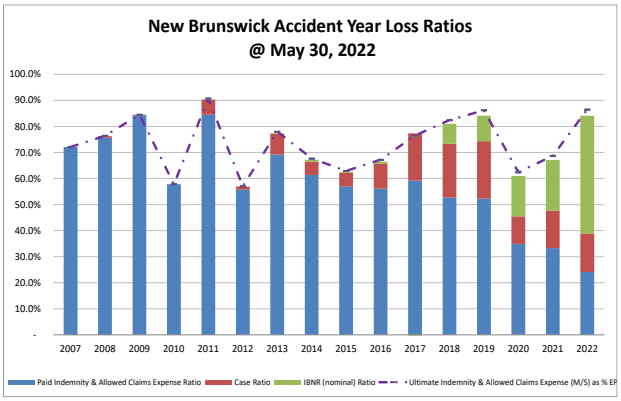
1.4 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation

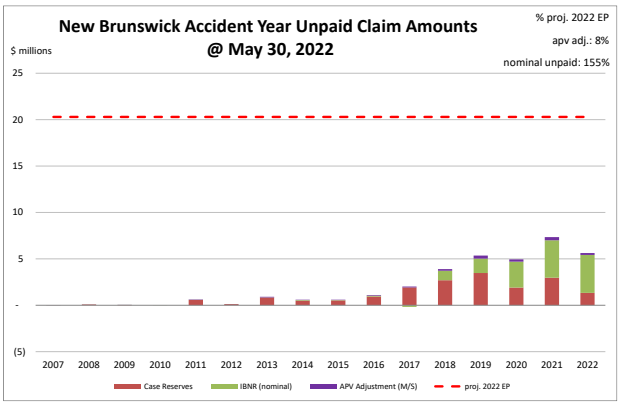
There have been no changes in these descriptions since last Highlights.

Consideration and assessment of potential impacts of legal decisions and changes in legislation / regulation constitutes a regular part of the valuation process. At the current time, there are no specific recent (i.e. within the last five years) decisions or changes for inclusion here.

1.5 Current Provision Summary

The following charts show the current levels of claim liabilities[3] booked by accident year. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2021 full year earned premium (the red hash-mark line) to provide some perspective.





"M/S" refers to "Member Statement" values – that is, actuarial present value adjustments at the selected discount rate.

[3]Claim liabilities refer to provision for unpaid indemnity and allowed claims expenses. Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this discussion.

The current actuarial present value adjustments balance ($1.7 million – see the following table) represents 8% of the earned premium projected for the full year 2022 (see the upper right corner of the right chart above). If our current estimates of the nominal unpaid amounts prove to match actual claims payments, the actuarial present value adjustments will be released into the net operating result over future periods.

claim liabilities ($000s)

	amt	%
case	17,912	54.1%
ibnr	13,504	40.8%
M/S apv adjust.	1,707	5.2%
M/S total	33,123	100.0%

The table to the left breaks down the Member Statement (M/S) claim liabilities total into component parts, showing that the majority of the claim liabilities for this RSP is in case reserves. Approximately 60% of the IBNR balance relates to accident years 2021 and 2022 (see Exhibit B). Approximately 82% of the M/S total claim liabilities are related to accident years 2018-2022 inclusive (i.e. the most recent 5 accident years), and approximately 3% is related to accident years 2012 and prior (i.e. prior to the most recent 10 accident years).

The following tables summarize the premium liabilities and the total policy liabilities.

premium liabilities ($000s)

	amt	%
unearned prem	7,966	109.2%
prem def/(dpac)	(955)	(13.1%)
M/S apv adjust.	286	3.9%
M/S total	7,297	100.0%

policy liabilities ($000s)

	amt	%
claim	31,416	77.7%
premium	7,011	17.3%
M/S apv adjust.	1,993	4.9%
M/S total	40,420	100.0%

2 Activity since previous valuation implementation

2.1 Recorded Premium and Claims Activity

The following table summarizes the extent to which premiums and claims amounts recorded since the prior implementation differ from the prior projection.

New Brunswick RSP Actual vs Projected Summary: Recorded Transaction Amounts ($ thousands)

AY Group	Share Year	Share Month	Actual Earned Premium (000s)	Actual minus Projected Earned Premium (000s)	Actual Paid Claims (000s)	Actual minus Projected Paid Claims (000s)	Actual Recorded Claims (000s)	Actual minus Projected Recorded Claims (000s)
PAY	**2022**	April	(12)	(12)	197	(196)	666	460
		May	(7)	(7)	358	27	1,106	740
PAY Total			**(19)**	**(19)**	**555**	**(169)**	**1,772**	**1,200**
CAY	**2022**	April	1,844	149	533	112	589	(134)
		May	1,817	293	340	(51)	396	(52)
CAY Total			**3,661**	**442**	**873**	**61**	**985**	**(186)**
Grand Total			**3,642**	**423**	**1,428**	**(108)**	**2,757**	**1,014**

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation), and this is particularly true

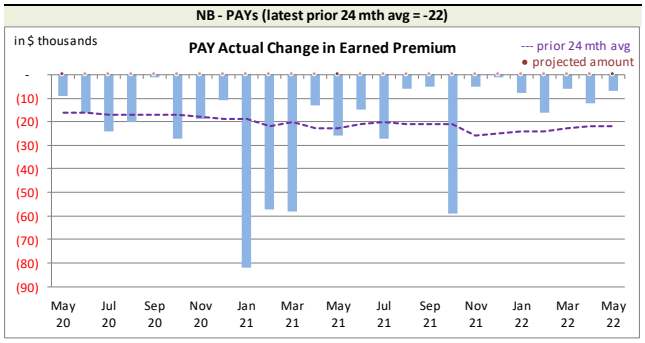
where volumes are low as found in this RSP. Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of the variance. The variances are also reviewed as part of the quarterly valuation process, as an indicator of changes in the claims development process or potential bias in ultimate claims estimates.

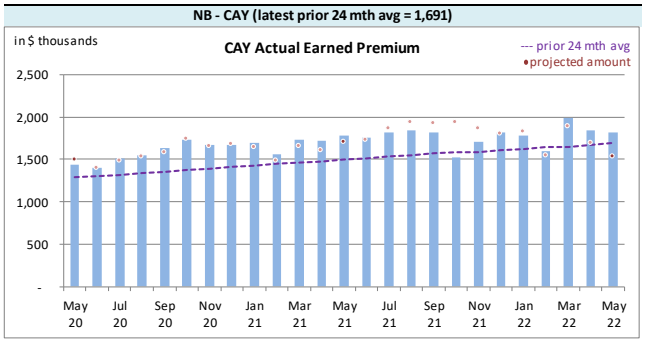
More detailed analysis and commentary on actual vs. projected for the most recent reporting months is provided below.

2.1.a Actual vs. Projected (AvsP): Earned Premium

The following charts show actual **earned premium**[4] activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

New Brunswick *RSP Actual **Earned Premium** by Calendar Month*





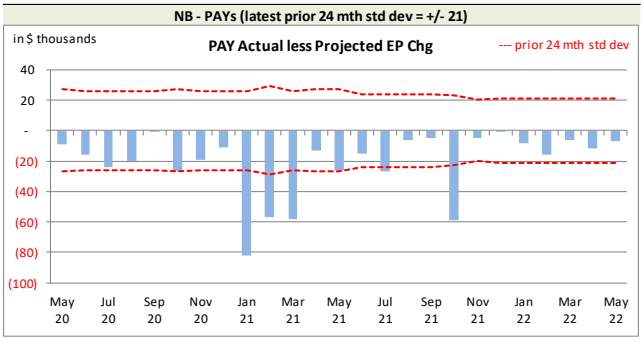
On Latest $ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(22)	1,691
std dev	21	142
A-P <> std dev	5	2
% <> std dev	20.0%	8.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

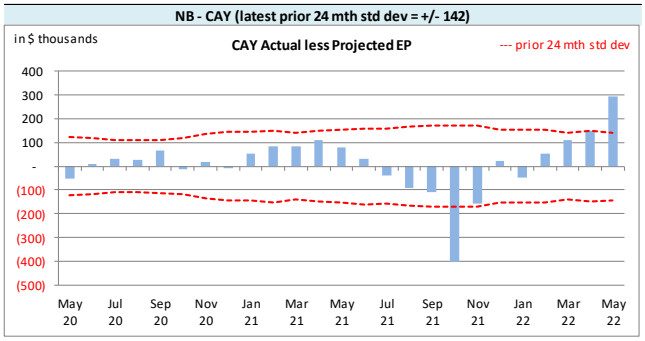
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels, although relatively high levels generally occur at the beginning of each year.

The associated variance between the actual changes and the projections from the previous month are shown in following charts. **Earned premium** change projections are all attributed to the current accident year as the projection upload does not accept **earned premium** changes for other accident years. We do not see this limitation as being significant for our purposes, but it does mean that the actual less projection variance will equal the actual **earned premium** change in relation to prior accident years.

[4]Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

*New Brunswick RSP Actual vs. Projected Summary: **Earned Premium** Variances by Calendar Month*





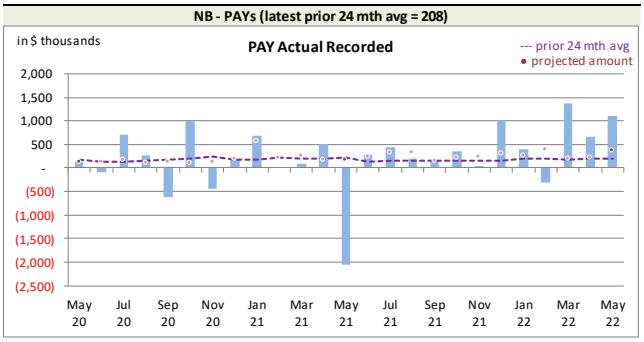
We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias[5], with actuals generally lower than our projections, although the magnitude is not high relative to monthly premium. However, for the CAY, bias[6] has not been indicated. Over time, we may consider other projection approaches to address the bias issue, but it is not currently deemed as priority.

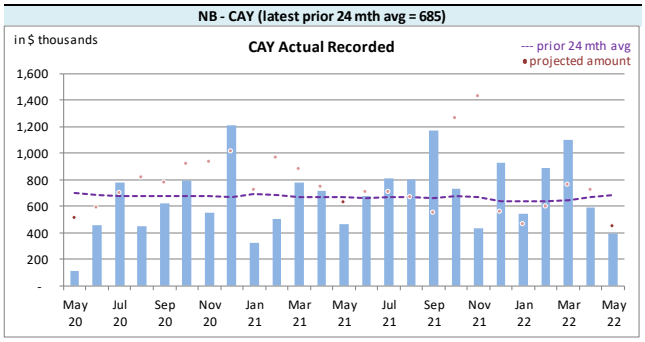
Readers will note the widening of the CAY standard deviation band, reflecting the recent and sustained volume increases and the impact as those increases are earned.

2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

The following charts show actual **recorded** activity (**paid** and case reserve changes), in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

*New Brunswick RSP Actual **Recorded** by Calendar Month*



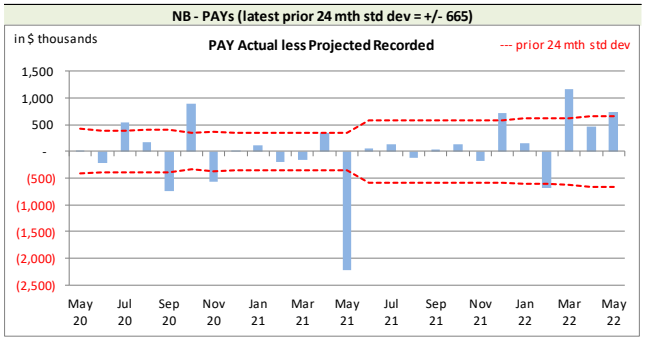


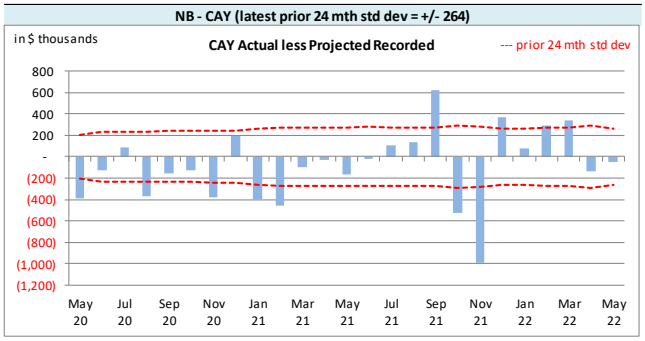
Recorded activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

[5]The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

[6]For the binomial distribution with 25 trials and an assumed 50% success probability, the 95% confidence range is 8 to 17 successes. That is, favourable or unfavourable counts of 0 to 7 or 18 to 25 out of 25 outcomes would suggest bias.

*New Brunswick RSP Actual vs Projected Summary: **Recorded** Variances by Calendar Month*





On Latest $ thousands		
Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	208	685
std dev	665	264
A-P <> std dev	9	11
% <> std dev	36.0%	44.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	no better	worse

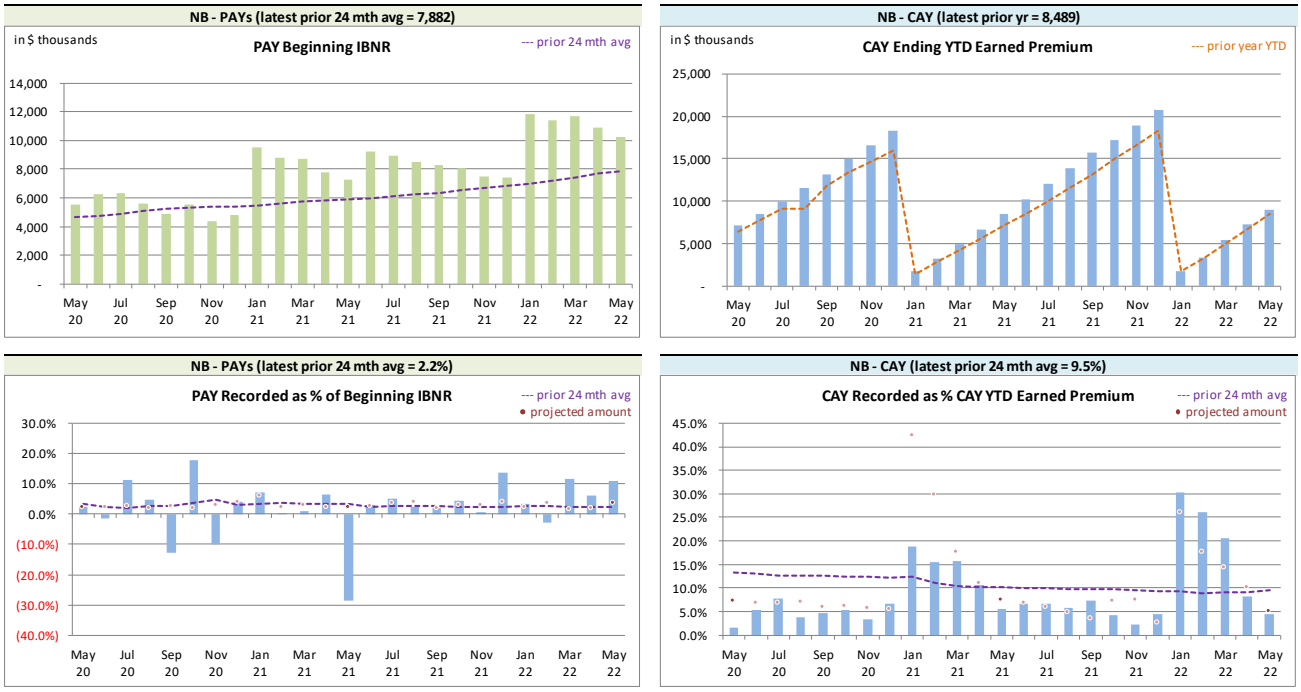
With respect to **recorded** indemnity & allowed claims expense activity, caution must be exercised in reviewing the variances as this is a small pool and single claim transactions that are normal course for the business may look unusual and generate relatively significant variances that in nominal value terms are not that significant in relative or overall terms. That said, 36% of the prior accident years' (PAYs) **recorded** variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **recorded** amounts (see preceding table to the left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution). Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (16 of 25 variances are positive).

The current accident year (CAY) **recorded** variances fell outside of one standard deviation 44% of the time over the last 25 calendar months (see preceding table on the left), suggesting the projection process has performed no better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (9 of 25 variances are positive).

The method for establishing IBNR adjusts automatically for changes in **earned premium** and **recorded** claims activity level (see sections 2.2 and 3).

We have included, for reference, the following charts related to levels influencing **recorded** activity. Note in particular the increase in the level of PAY beginning IBNR over the months. Part of this will be as a response to valuations and showing up as a beginning IBNR change one month after the valuation is implemented (i.e. April, June, September, and November).

New Brunswick RSP Levels that influence[7] ***Recorded*** *activity by Calendar Month*



We track PAY beginning IBNR as **recorded** activity comes out of IBNR. Changes in the PAY beginning IBNR (see upper left of the preceding group of charts) occur for several possible reasons:

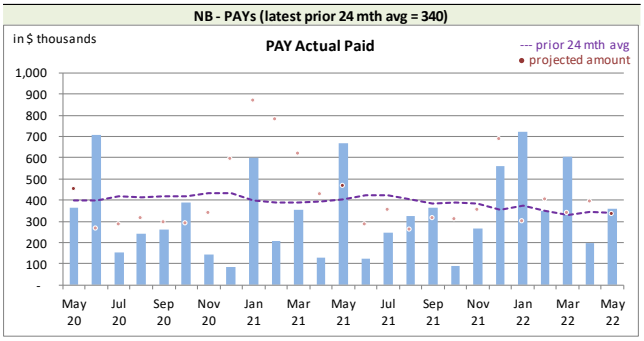
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning IBNR change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

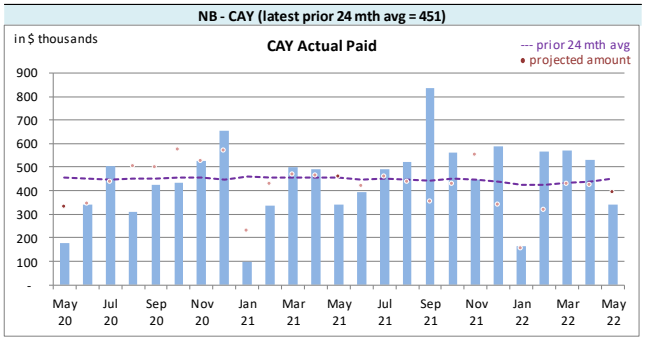
2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

[7]Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned premium), deriving year-to-date recorded as selected ultimate less IBNR. In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

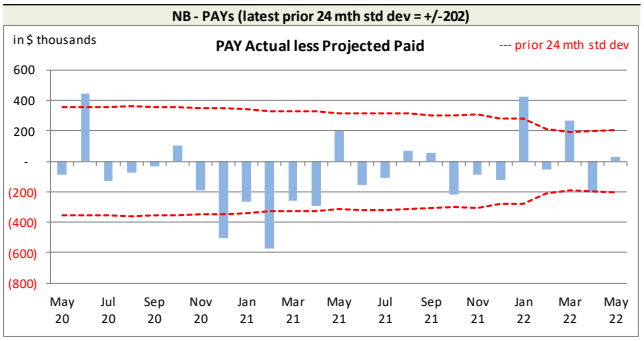
*New Brunswick RSP Actual **Paid** activity by Calendar Month*

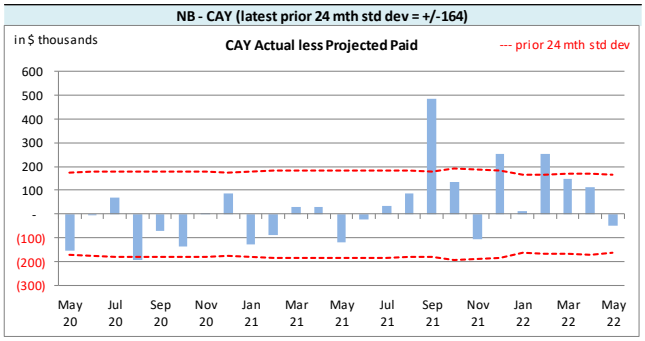




Paid activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*New Brunswick RSP Actual vs Projected Summary: **Paid** Variances by Calendar Month*





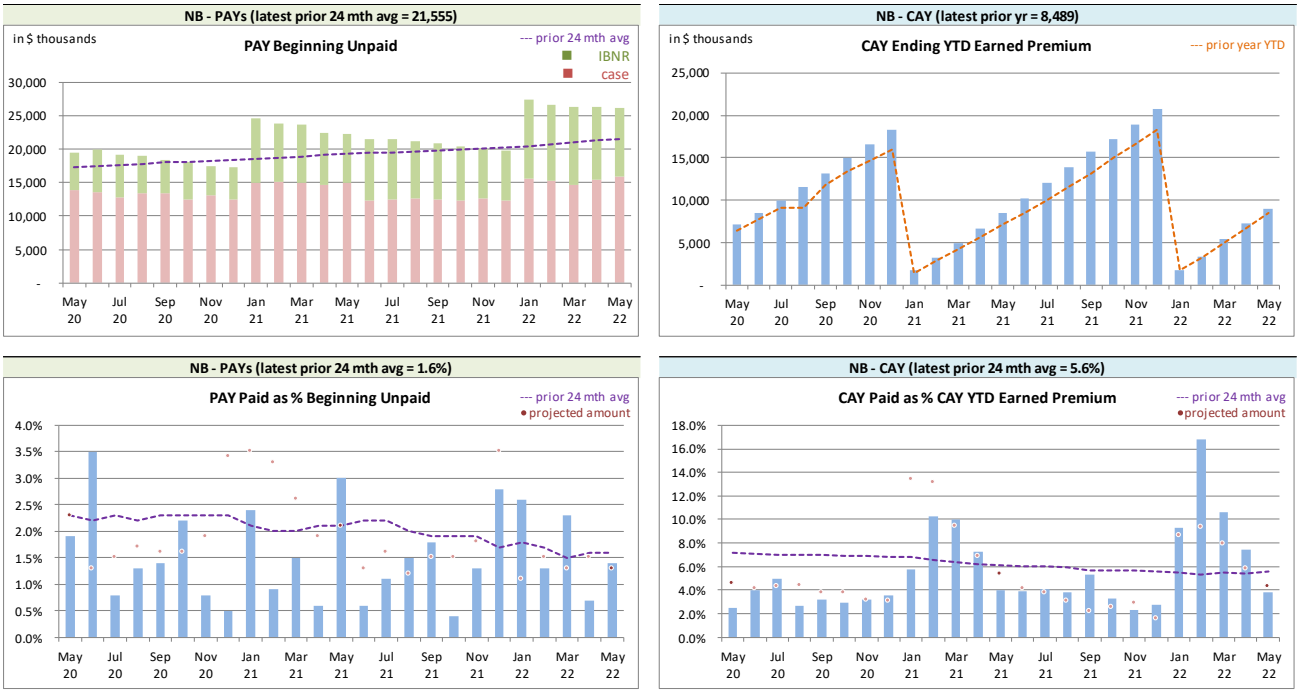
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	340	451
std dev	202	164
A-P <> std dev	5	4
% <> std dev	20.0%	16.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, caution must be exercised in reviewing the variances as this is a small pool, and single claim transactions that are normal course for the business may look unusual and generate relatively significant variances that in nominal value terms are not that significant in relative or overall terms. That said, 20% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see preceding table on the left), suggesting the projection process has performed no better than simply projecting the prior 24-month average amount (assuming a normal distribution). Bias has been indicated at a 95% confidence level on a rolling 25-month basis (8 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 16% of the time over the last 25 calendar months (see preceding table on the left), suggesting that the projection process has performed better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (14 of 25 variances are positive).

We have included, for reference, the following charts related to levels influencing **paid** activity.

*New Brunswick RSP Levels that influence[8] **Paid** activity by Calendar Month*



We track the PAY beginning unpaid balance (case and IBNR) as **paid** activity comes out of the unpaid balance. Changes in the PAY beginning unpaid balance (see upper left of the preceding group of charts) occur for several possible reasons:

- to offset actual **paid** activity (may reduce case or IBNR or both);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning unpaid balance change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

2.2 Actuarial Provisions

An ultimate loss ratio matching method (described in section 3) was used to determine the month's IBNR[9], and factors were applied to the nominal unpaid claims liability (case plus IBNR) to determine the discount amount (shown as a negative value to indicate its impact of reducing the liability) and the Provisions for Adverse Deviations. The loss ratios and the factors used to determine the current

[8]Our paid projections for the prior accident years are based on selected ratios of paid to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date paid to year-to-date selected ultimate indemnity (i.e. selected LR x earned premium). In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

[9]For ease of discussion, "IBNR" is used in place of "provisions for incurred but not recorded (IBNR) and development".

month's provisions and projections were based on the applicable valuation.

Exhibit G shows the accident year IBNR amount change from last month to this month broken down into:

(i) the change projected last month;

(ii) the additional change due to variances in earned premium (because we apply a loss ratio to earned premium in determining ultimate level) and/or recorded claims (as IBNR is calculated as ultimate less recorded) differences; and

(iii) the additional change due to valuation implementation impacts (as applicable)

3 Ultimate Loss Ratio Matching Method

An "ultimate loss ratio matching method" continues to be applied to the current month and two projected months shown in the Operational Reports, with IBNR determined by accident year as follows:

(a) Earned premium to-date
(b) Ultimate loss[10] ratio per latest valuation
(c) Estimated ultimate incurred = (a) x (b)
(d) Recorded indemnity & allowed claims expense to-date
(e) IBNR = (c) – (d)

4 Calendar Year-to-Date Results

The following table summarizes the calendar year-to-date results for indemnity & allowed claims expenses[11], including IBNR.

In calculating the amounts as percentages of earned premium, the calendar year-to-date earned premium has been used, which includes not only the earned premium associated with the current accident year, but also earned premium adjustments related to prior accident years. Specifically, the current accident year (CAY) ratio in the table is 84.6% rather than 84.1% (the valuation ultimate ratio for accident year 2022), as the calendar year-to-date earned premium includes prior accident year earned premium adjustments. (Note that the ratios in this table may differ slightly from those shown in the New Brunswick RSP Summary of Operations due to rounding.)

[10]"Loss" here refers to indemnity and allowed claims expenses, but does not include the claims expense allowance included in member company overall expense allowances ("Expense Allowance" in the Operational Report).

[11]Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this analysis.

New Brunswick RSP Calendar Year-to-Date Indemnity & Allowed Claims Expense Summary ($ thousands)

Table 04	YTD Nominal Values		YTD actuarial present value adjustment		YTD Total		Change from Prior Month YTD	
	Amount	% EP	Amount	% EP	Amount	% EP	Amount	LR pts
PAYs	833	9.3%	(1,058)	(11.8%)	(225)	(2.5%)	(568)	(7.3%)
CAY	7,596	84.6%	215	2.4%	7,811	86.9%	1,388	(2.6%)
TOTAL	8,429	93.8%	(843)	(9.4%)	7,586	84.4%	820	(9.9%)

("% EP" based on 2021 calendar year-to-date earned premium; ratios may not total due to rounding)

In general, prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments, except when valuations are implemented. The loss ratio change year-to-date in Table 04 reflects not only changes in the prior accident year levels, but also the increase in the calendar year-to-date earned premium with an additional month's earned premium, and due to the impact of valuation implementation.

For the current accident year (CAY), changes in the year-to-date total reflects the additional month's exposure and regular changes to actuarial present value adjustments as the year ages, and due to the impact of valuation implementation.

5 Current Operational Report – Additional Exhibits

Section 6 provides exhibits pertaining to the actuarial provisions reflected in the current month's Operational Report.

IBNR (including actuarial present value adjustments) presented in section 6, Exhibit A, were derived on a discounted basis, and therefore reflect the time value of money and include an explicit provision for adverse deviations in accordance with accepted actuarial practice in Canada.

IBNR presented in section 6, Exhibit B, does NOT include any actuarial present value adjustments. The "Total IBNR" from this exhibit is shown in the Operational Report as "Undiscounted IBNR".

The ultimate loss ratios detailed in section 6, Exhibit B, refer to the estimates derived on the basis of various actuarial methodologies applied to the experience of the New Brunswick Risk Sharing Pool for the purposes of the most recent quarterly valuation. As discussed in section 3, IBNR reflected in the current month's Operational Report was derived as the difference between the estimated ultimate for the claims amount (i.e. earned premium x ultimate loss ratio) and the associated current recorded amounts (life-to-date payments plus current case reserves).

6 EXHIBITS

The exhibits listed below are provided on the pages that follow:

EXHIBIT A	IBNR for Member Sharing – includes Actuarial Present Value Adjustments
EXHIBIT B	IBNR
EXHIBIT C	Premium Liabilities
EXHIBIT D	Projected Year-end Policy Liabilities
EXHIBIT E	Discount Rate & Margins for Adverse Deviations
EXHIBIT F	Interest Rate Sensitivity
EXHIBIT G	Components of IBNR Change During Month

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

IBNR + M/S actuarial present value adjustments

discount rate 2.26%

interest rate margin 25 basis pts

Accident Year	Actual Apr. 2022	Actual May. 2022	Projected Jun. 2022	Projected Jul. 2022	Projected Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Dec. 2022
	Amounts in $000s							
2007	6	6	6	6	6	6	6	6
2008	12	12	12	12	12	12	12	11
2009	6	6	6	6	6	6	6	6
2010	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
2011	57	48	47	47	46	46	46	46
2012	12	11	11	11	11	11	11	11
2013	104	86	85	84	82	81	81	79
2014	212	113	111	109	106	105	104	99
2015	94	74	73	72	69	68	68	67
2016	35	159	157	155	151	150	148	142
2017	1,006	(75)	(75)	(72)	(70)	(69)	(68)	(63)
2018	1,508	1,198	1,186	1,111	1,101	1,089	1,066	1,042
2019	2,176	1,878	1,859	1,839	1,815	1,798	1,779	1,740
2020	3,301	3,036	2,867	2,708	2,662	2,561	2,485	2,436
2021	4,066	4,369	4,120	3,882	3,793	3,740	3,703	3,539
2022	3,302	4,294	4,998	5,785	5,450	5,050	4,658	3,898
TOTAL	15,893	15,211	15,459	15,751	15,236	14,650	14,101	13,055
Change		(682)	248	292	(515)	(586)	(549)	

Please see Exhibit G, page 1 for Components of Change during Current Month

EXHIBIT B

IBNR

TABLE EXHIBIT B — Amounts in $000s

IBNR

Ultimate Loss Ratio	Accident Year	Actual Apr. 2022	Actual May. 2022	Projected Jun. 2022	Projected Jul. 2022	Projected Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Dec. 2022
72.1%	2007	5	5	5	5	5	5	5	5
76.3%	2008	4	4	4	4	4	4	4	4
84.5%	2009	3	3	3	3	3	3	3	3
57.8%	2010	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
90.3%	2011	6	6	6	6	6	6	6	6
56.9%	2012	1	1	1	1	1	1	1	1
77.3%	2013	23	12	12	12	12	12	12	12
67.2%	2014	134	69	68	67	65	64	63	59
62.5%	2015	43	31	31	31	30	30	30	29
66.5%	2016	(42)	90	89	88	86	85	84	80
75.6%	2017	857	(174)	(172)	(169)	(164)	(162)	(160)	(152)
81.0%	2018	1,198	1,014	1,004	931	922	913	892	871
84.1%	2019	1,674	1,549	1,534	1,519	1,499	1,484	1,469	1,436
61.0%	2020	2,867	2,785	2,618	2,461	2,419	2,320	2,246	2,202
67.1%	2021	3,479	4,034	3,792	3,564	3,478	3,429	3,395	3,237
84.1%	2022	2,954	4,079	4,753	5,499	5,126	4,690	4,259	3,422
	TOTAL	13,202	13,504	13,744	14,018	13,488	12,880	12,305	11,211
	Change		302	240	274	(530)	(608)	(575)	

Please see Exhibit G, page 2 for Components of Change during Current Month

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C — Amounts in $000s

Premium Liabilities	Actual Apr. 2022	Actual May. 2022	Projected Jun. 2022	Projected Jul. 2022	Projected Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Dec. 2022
(1) unearned premium (UP)	8,247	7,966	9,440	9,858	10,219	10,902	11,452	12,178
FOR MEMBER SHARING								
(2) expected future costs ratio {% of (1)}	93.6%	91.6%	92.9%	94.0%	95.2%	96.5%	98.1%	101.0%
(3) expected future costs {(1) x (2)}	7,721	7,297	8,766	9,271	9,734	10,525	11,230	12,302
(4) premium deficiency / (deferred policy acquisition cost)	(526)	(669)	(674)	(587)	(485)	(377)	(222)	124
Excluding Actuarial Present Value Adjustments								
(5) expected future costs ratio {% of (1)}	87.5%	88.0%	89.2%	90.3%	91.5%	92.7%	94.2%	97.0%
(6) expected future costs {(1) x (5)}	7,214	7,011	8,421	8,905	9,351	10,111	10,788	11,817
(7) premium deficiency / (deferred policy acquisition cost)	(1,033)	(955)	(1,019)	(953)	(868)	(791)	(664)	(361)

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2022, broken down by component.

New Brunswick	Projected Balances as at Dec. 31, 2022 ($000s)									
ending 2022	nominal values			actuarial present value adjustments (apvs)						
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL
2007	-	5	5	-	-	1	-	1	1	6
2008	70	4	74	-	-	7	-	7	7	81
2009	27	3	30	-	-	3	-	3	3	33
2010	-	(2)	(2)	-	-	-	-	-	-	(2)
2011	520	6	526	(14)	2	53	(1)	52	40	566
2012	109	1	110	(1)	-	11	-	11	10	120
2013	759	12	771	(10)	1	77	(1)	76	67	838
2014	450	59	509	(11)	1	51	(1)	50	40	549
2015	479	29	508	(13)	1	51	(1)	50	38	546
2016	862	80	942	(32)	3	94	(3)	91	62	1,004
2017	1,742	(152)	1,590	(70)	7	159	(7)	152	89	1,679
2018	2,594	871	3,465	(176)	19	346	(18)	328	171	3,636
2019	3,213	1,436	4,649	(268)	28	577	(33)	544	304	4,953
2020	2,174	2,202	4,376	(296)	31	535	(36)	499	234	4,610
2021	3,078	3,237	6,315	(459)	48	769	(56)	713	302	6,617
PAYs (sub-total):	16,077	7,789	23,866	(1,350)	141	2,734	(157)	2,577	1,368	25,234
CAY (2022)	8,554	3,422	11,976	(880)	91	1,365	(100)	1,265	476	12,452
claims liabilities:	24,631	11,211	35,842	(2,230)	232	4,099	(257)	3,842	1,844	37,686
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	12,178	(361)	11,817	(591)	61	1,070	(55)	1,015	485	12,302
										*Total may not be sum of parts, as apvs apply to future costs within UPR
policy liabilities:			**47,659**	**(2,821)**	**293**	**5,169**	**(312)**	**4,857**	**2,329**	**49,988**

EXHIBIT E

Discount Rate & Margins for Adverse Deviations

The tables below present selected margins for adverse development by coverage (the total is a weighted average, based on the unpaid claims projection for December 31, 2022 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Accident Year	Selected Claims Development MfADs			
	Third Party Liability	Accident Benefits	Other Coverages	Total
	Margins	Margins	Margins	Margins
2005	10.0%	10.0%	10.0%	10.0%
2006	10.0%	10.0%	10.0%	10.0%
2007	10.0%	10.0%	10.0%	10.0%
2008	10.0%	10.0%	10.0%	10.0%
2009	10.0%	10.0%	10.0%	10.0%
2010	10.0%	10.0%	10.0%	10.0%
2011	10.0%	10.0%	10.0%	10.0%
2012	10.0%	10.0%	10.0%	10.0%
2013	10.0%	10.0%	10.0%	10.0%
2014	10.0%	10.0%	10.0%	10.0%
2015	10.0%	10.0%	10.0%	10.0%
2016	10.0%	10.0%	10.0%	10.0%
2017	10.0%	10.0%	10.0%	10.0%
2018	10.0%	10.0%	10.0%	10.0%
2019	12.5%	10.0%	6.9%	12.4%
2020	12.5%	10.0%	6.8%	12.2%
2021	12.5%	10.0%	9.4%	12.2%
2022	12.3%	10.0%	5.5%	11.4%
2023	11.8%	10.0%	5.0%	9.3%
prem liab	11.8%	10.0%	5.0%	9.3%

discount rate:	2.26%
margin (basis points):	25

*prem liabilities as at 2022m03

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2022 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2022, and are based on more up-to-date information). We have included the most recent valuation selection (0.86%), the prior valuation assumption (1.07%) and the prior fiscal year end valuation assumption (0.22%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2022 projected Unpaid							
AY	1.26%	1.76%	2.26%	2.76%	3.26%	3.76%	1.07%	0.22%
2005 & prior	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-
2009	12	12	12	12	12	12	12	12
2010	-	-	-	-	-	-	-	-
2011	477	474	472	469	466	463	478	483
2012	62	62	62	62	62	61	62	63
2013	595	593	592	590	588	587	596	599
2014	387	385	384	382	380	378	388	391
2015	445	443	440	438	435	433	446	451
2016	854	848	841	835	829	823	857	868
2017	1,533	1,518	1,503	1,489	1,475	1,461	1,539	1,565
2018	3,239	3,202	3,165	3,130	3,095	3,061	3,253	3,316
2019	4,886	4,823	4,761	4,700	4,641	4,583	4,911	5,020
2020	4,312	4,246	4,182	4,119	4,059	3,999	4,338	4,452
2021	6,667	6,557	6,450	6,346	6,246	6,148	6,709	6,900
2022	11,177	10,989	10,807	10,631	10,461	10,295	11,250	11,576
Total	34,648	34,153	33,671	33,203	32,748	32,304	34,840	35,696
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

	Dollar Impact Relative to Valuation Assumption							
AY	1.26%	1.76%	2.26%	2.76%	3.26%	3.76%	1.07%	0.22%
Total	977	481	-	(468)	(924)	(1,367)	1,169	2,024
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

	Percentage Impact Relative to Valuation Assumption							
AY	1.26%	1.76%	2.26%	2.76%	3.26%	3.76%	1.07%	0.22%
2005 & prior	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2005	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2006	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2008	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2009	0.2%	0.1%	0.0%	-0.1%	-0.2%	-0.4%	0.3%	0.5%
2010	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2011	1.2%	0.6%	0.0%	-0.6%	-1.2%	-1.8%	1.5%	2.5%
2012	0.6%	0.3%	0.0%	-0.3%	-0.6%	-0.9%	0.7%	1.2%
2013	0.6%	0.3%	0.0%	-0.3%	-0.6%	-0.8%	0.7%	1.2%
2014	1.0%	0.5%	0.0%	-0.5%	-0.9%	-1.4%	1.2%	2.0%
2015	1.2%	0.6%	0.0%	-0.6%	-1.1%	-1.7%	1.4%	2.4%
2016	1.5%	0.8%	0.0%	-0.7%	-1.5%	-2.2%	1.8%	3.1%
2017	2.0%	1.0%	0.0%	-1.0%	-1.9%	-2.8%	2.4%	4.1%
2018	2.3%	1.1%	0.0%	-1.1%	-2.2%	-3.3%	2.8%	4.8%
2019	2.6%	1.3%	0.0%	-1.3%	-2.5%	-3.7%	3.2%	5.4%
2020	3.1%	1.5%	0.0%	-1.5%	-3.0%	-4.4%	3.7%	6.5%
2021	3.4%	1.7%	0.0%	-1.6%	-3.2%	-4.7%	4.0%	7.0%
2022	3.4%	1.7%	0.0%	-1.6%	-3.2%	-4.7%	4.1%	7.1%
Total	2.9%	1.4%	0.0%	-1.4%	-2.7%	-4.1%	3.5%	6.0%
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

EXHIBIT G

Components of Member Statement IBNR (i.e. "Discounted") Change

(April 2022 to May 2022)

RSP **New Brunswick**
AccountCode Desc **IBNR - Discounted**

M/S IBNR - in $000s

AccYear	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
prior	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-
2005	(2)	-	-	-	-	-	(2)
2006	-	-	-	-	-	-	-
2007	6	-	-	-	-	-	6
2008	12	-	-	-	-	-	12
2009	6	-	-	-	-	-	6
2010	(2)	-	-	-	-	-	(2)
2011	57	(2)	2	(9)	(9)	(15.8%)	48
2012	12	-	-	(1)	(1)	(8.3%)	11
2013	104	(5)	5	(18)	(18)	(17.3%)	86
2014	214	(9)	39	(131)	(101)	(47.2%)	113
2015	96	(6)	2	(18)	(22)	(22.9%)	74
2016	40	(1)	(11)	131	119	297.5%	159
2017	1,046	(42)	(955)	(124)	(1,121)	(107.2%)	(75)
2018	1,532	(31)	44	(347)	(334)	(21.8%)	1,198
2019	2,515	(69)	(384)	(184)	(637)	(25.3%)	1,878
2020	3,271	(210)	139	(164)	(235)	(7.2%)	3,036
2021	4,377	(263)	(79)	334	(8)	(0.2%)	4,369
2022	2,255	1,696	583	(240)	2,039	90.4%	4,294
Grand Total	**15,539**	**1,058**	**(615)**	**(771)**	**(328)**	**(2.1%)**	**15,211**

EXHIBIT G

Components of IBNR (i.e. "Undiscounted") Change

(April 2022 to May 2022)

RSP **New Brunswick**
AccountCode Desc **IBNR - Undiscounted**

IBNR - in $000s

AccYear	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
prior	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-
2005	(2)	-	-	-	-	-	(2)
2006	-	-	-	-	-	-	-
2007	5	-	-	-	-	-	5
2008	4	-	-	-	-	-	4
2009	3	-	-	-	-	-	3
2010	(2)	-	-	-	-	-	(2)
2011	6	-	-	-	-	-	6
2012	1	-	-	-	-	-	1
2013	23	-	-	(11)	(11)	(47.8%)	12
2014	134	(6)	55	(114)	(65)	(48.5%)	69
2015	45	(2)	(2)	(10)	(14)	(31.1%)	31
2016	(37)	2	(14)	139	127	(343.2%)	90
2017	895	(35)	(959)	(75)	(1,069)	(119.4%)	(174)
2018	1,222	(24)	39	(223)	(208)	(17.0%)	1,014
2019	2,012	(57)	(390)	(16)	(463)	(23.0%)	1,549
2020	2,833	(200)	134	18	(48)	(1.7%)	2,785
2021	3,780	(250)	(76)	580	254	6.7%	4,034
2022	1,991	1,539	558	(9)	2,088	104.9%	4,079
Grand Total	**12,913**	**967**	**(655)**	**279**	**591**	**4.6%**	**13,504**