

ONTARIO RISK SHARING POOL

OCTOBER 2022 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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ACTUARIAL HIGHLIGHTS

RSP ONTARIO

OPERATIONAL REPORT

OCTOBER 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 March 2023 in April 2023, 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 October 2022 Operational Report incorporates the results of an updated valuation (as at September 30, 2022) – 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.

ONTARIO RISK SHARING POOL FISCAL YEAR 2022 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2021 (completed)	0.88% mfad ¹ 25 bp	Oct. 2021	update valuation (roll-forward): accident year 2021 loss ratio <u>decreased</u> 2.5 points to 90.6%; discount rate <u>increased</u> 9 basis points; no change to selected margins for adverse deviations
Dec. 31, 2021 (completed)	1.11% mfad 25 bp	Mar. 2022	update valuation: accident year 2021 loss ratio <u>decreased</u> 4.0 points to 86.6 % and accident year 2022 loss ratio <u>increased</u> 9.3 points to 122.0 %; discount rate <u>increased</u> 23 basis points; no change to selected margins for adverse deviations
Mar. 31, 2022 (completed)	2.25% mfad 25 bp	May. 2022	update valuation (roll-forward): accident year 2022 loss ratio remained unchanged at 122.0%; discount rate <u>increased</u> 114 basis points; no change to selected margins for adverse deviations
Jun. 30, 2022 (completed)	3.17% mfad 25 bp	Aug. 2022	update valuation: accident year 2022 loss ratio <u>decreased</u> 6.6 points to 115.4%; discount rate <u>increased</u> 92 basis points; no change to selected margins for adverse deviations
Sep. 30, 2022 (completed)	3.49% mfad 25 bp	Oct. 2022	update valuation (roll-forward): accident year 2022 loss ratio increased 2.3 points to 117.7%; discount rate increased 32 basis points; no change to selected margins for adverse deviations

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%.

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.

1.2 New Valuation

A valuation of the Ontario Risk Sharing Pool (“RSP”) as at September 30, 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 Sep. 30, 2022²

Ontario	unfav / (fav) for the month and ytd					
	IMPACT in \$000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
[1]	[2]	[3]	[4]	[5]	[6]	
PAYs	(6,189)	(798)	(6,987)	(5,848)	-	(12,835)
CAY	9,207	406	9,613	(2,614)	-	6,999
Prem Def	1,809	(447)	1,362	(2,024)	-	(662)
TOTAL	4,827	(839)	3,988	(10,486)	-	(6,498)

As indicated in the preceding table, the incorporation of the new valuation had an estimated **\$6.5 million favourable impact** on the month’s net result from operations, subtracting an estimated 1.6 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **122.2%**. Due to the September valuation being a roll-forward, the favourable valuation impact is mainly driven by the increase in discounting.

²In 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.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Sep. 30, 2022

Ontario	ytd EP 404,867 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
[1]	[2]	[3]	[4]	[5]	[6]	
PAYs	(1.5%)	(0.2%)	(1.7%)	(1.4%)	-	(3.2%)
CAY	2.3%	0.1%	2.4%	(0.6%)	-	1.7%
Prem Def	0.4%	(0.1%)	0.3%	(0.5%)	-	(0.2%)
TOTAL	1.2%	(0.2%)	1.0%	(2.6%)	-	(1.6%)

The impact of the **nominal changes** is shown in column [1] of the two preceding summary tables. The change in the selected nominal ultimates was **unfavourable by \$4.8 million**. 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. In the September valuation, the unfavourable impact from higher than expected physical damage claims development on CAY was partially offset by case reserve takedowns on PAYs.

The **PAYs** overall showed a **\$6.2 million favourable** nominal variance or 0.9% of the PAYs nominal unpaid balance of \$670.9 million determined at the end of last month (September 2022), due to lower than expected levels of claim development, including \$5.7 million in case reserve takedowns.

The **CAY** and premium deficiency impacts are a result of the change in the selected loss for accident year **2022 (increased 2.3 points to 117.7%)**. This change is a result of higher than expected levels of physical damage claims development. In addition to observed development on these claims, the appointed actuary has selected a more conservative “expected loss ratio method” ultimate loss estimate for 2022 in response to observed unfavourable development on physical damage claims throughout the year.

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 coverage, which had 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 a favourable change of \$0.8 million 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 risk-free curve calculated monthly by the

Fiera Capital Corporation³ as at Sep. 30, 2022, which replaced the previously selected risk-free yield curve, derived from Government of Canada benchmark bond yields. Column [4] accounts for the change in the **discount rate** selected (average discount rate increased 32 basis points to **3.49%**), indicating a favourable impact of \$10.5 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$8.5 million at October 2022 – this compares to the \$8.4 million change one would estimate as the impact by interpolation using the interest rate sensitivity table provided in last quarter’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 noted above and 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 3, 2022.

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 / Regulation⁴

Consideration and assessment of potential impacts of legal decisions and changes in legislation / regulation constitutes a regular part of the valuation process. Descriptions of some of the more recent changes (i.e. within the last five years) are provided below.

There have been no significant legal decisions, changes in legislation or regulation recently. When significant items emerge, they will be added to this section.

1.5 Current Provision Summary

The following charts show the current levels of claim liabilities⁵ booked by accident year⁶. The left

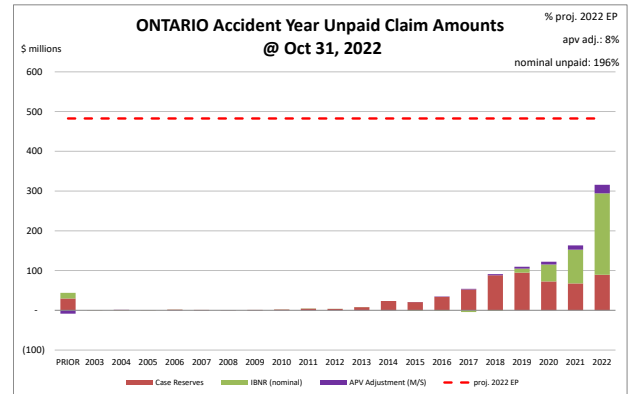
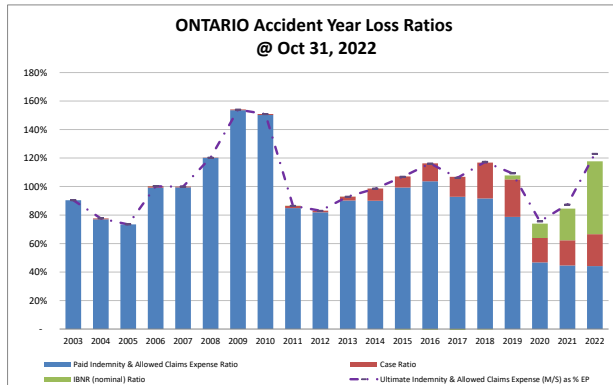
³ <https://www.fieracapital.com/en/institutional-markets/cia-ifrs-17-curves>

⁴This url to a pdf is to a helpful guide on how bills become laws: <https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf>.

⁵Claim 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.

⁶The loss ratio chart has been limited to show the most recent 20 accident years; the unpaid provision chart has been limited to show the most recent 20 accident years, and show all accident years older than 20 years collectively as “PRIOR”.

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 2022 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.

claim liabilities (\$000s)

	amt	%
case	595,538	60.5%
ibnr	349,843	35.5%
M/S apv adjust.	39,586	4.0%
M/S total	984,967	100.0%

The current actuarial present value adjustments provision for claims liabilities (\$39.6 million – see the following table) represents 8% of the earned premium projected for the full year 2022 (see the upper right corner of the preceding chart on the right). 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.

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 83% of the IBNR balance relates to accident years 2021 and 2022 (see Exhibit B). Approximately 81% 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 5% 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	264,813	78.6%
prem def/(dpac)	55,478	16.5%
M/S apv adjust.	16,619	4.9%
M/S total	336,910	100.0%

policy liabilities (\$000s)

	amt	%
claim	945,381	71.5%
premium	320,291	24.2%
M/S apv adjust.	56,205	4.3%
M/S total	1,321,877	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.

Ontario 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	September	(270)	(270)	19,691	4,029	8,560	3,162
		October	(23)	(23)	13,572	(3,085)	8,215	2,444
PAY Total			(293)	(293)	33,263	944	16,775	5,606
CAY	2022	September	42,742	540	22,562	4,796	31,384	5,941
		October	43,960	(243)	25,883	5,364	35,469	7,106
CAY Total			86,702	297	48,445	10,160	66,853	13,047
Grand Total			86,409	4	81,708	11,104	83,628	18,653

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Note that 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). 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.

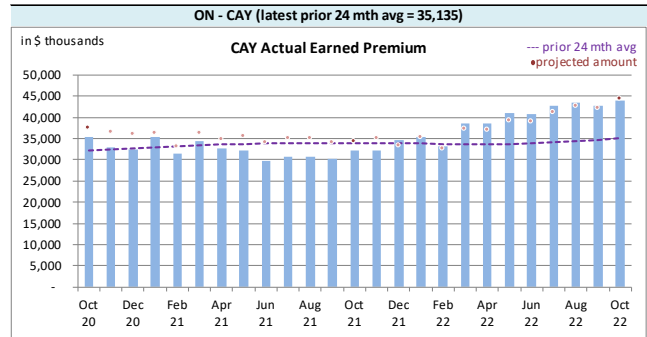
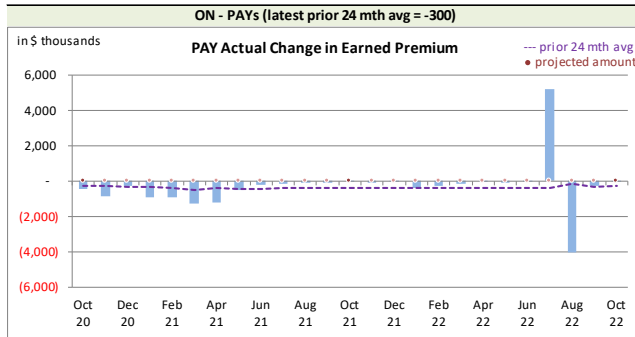
More detailed analysis and commentary on actual vs. projected for the most recent reporting months is provided below.

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

The following charts show actual **earned premium**⁷ 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.

⁷Premium 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.

Ontario RSP Actual **Earned Premium** by Calendar Month



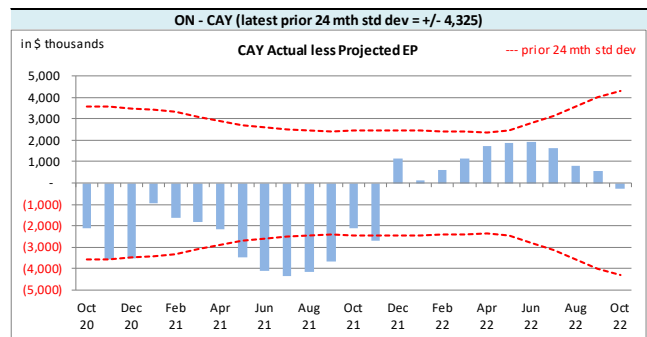
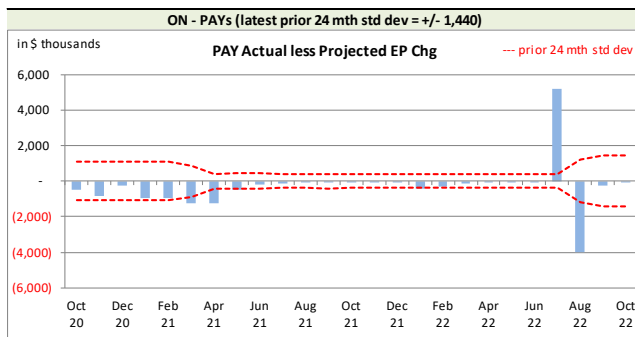
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the preceding charts), although relatively high levels generally occur at the beginning of each year.

On Latest \$ thousands			
Earned Premium	PAYs	CAY	
Mthly Avg EP Chg (prior 24 mths)	(300)	35,135	
std dev	1,440	4,325	
A-P <> std dev	6	7	
% <> std dev	24.0%	28.0%	
norm <> std dev	31.7%	31.7%	
performance vs 24-mth avg:	better	no better	

The associated variance between the actual changes and the projections from the previous month are shown in the charts below. **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.

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



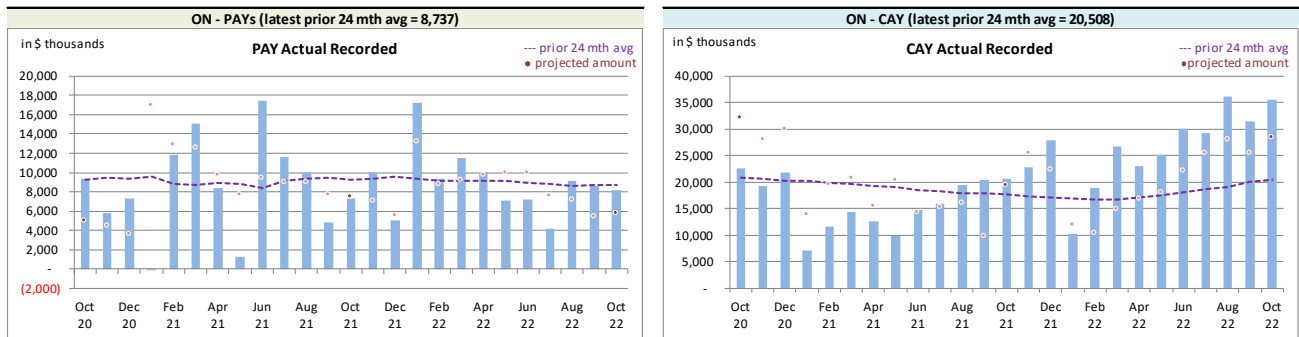
We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYS) bias⁸, with actuals generally lower than projected, although the magnitude is not high relative to monthly premium. Readers will also note the significant fluctuations in the CAY standard deviation band, reflecting significant volume changes and the impact as those changes were earned.

⁸The PAYS' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

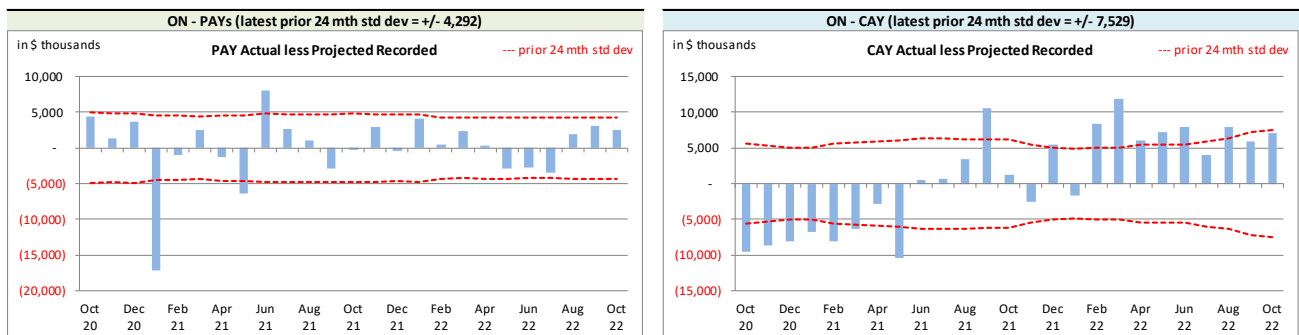
The following charts show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

Ontario 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.

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



On Latest \$ thousands		
Recorded	PAYS	CAY
Mthly Avg Recorded (prior 24 mths)	8,737	20,508
std dev	4,292	7,529
A-P <> std dev	3	15
% <> std dev	12.0%	60.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	worse

With respect to **recorded** indemnity & allowed claims expense, 12% of the prior accident years’ (PAYS) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **recorded** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution). Bias⁹ has not been indicated at a 95% confidence level on a rolling 25-month basis (15 of 25 variances were positive).

The current accident year (CAY) **recorded** variances (preceding table on the left) fell outside of one

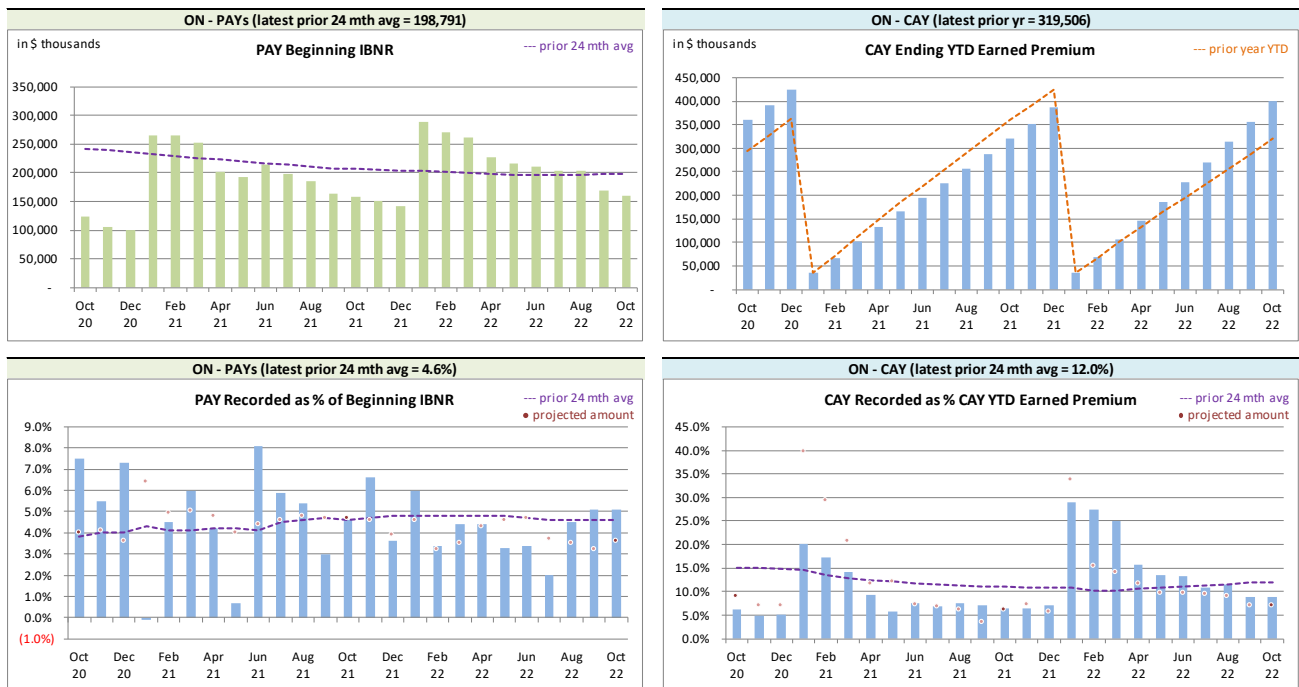
⁹ For the binomial distribution with 25 trials and an assumed 50% success probability, the 95% confidence range is 8 to 17 successes. That is, favourable or unfavourable counts of 0 to 7 or 18 to 25 out of 25 outcomes would suggest bias.

standard deviation 60% of the time over the last 25 calendar months suggesting that the projection process has performed worse than simply projecting the prior 24-month average amount. Bias has been indicated at a 95% confidence level on a rolling 25-month basis (15 of 25 variances were 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 additional charts related to levels influencing **recorded** activity. Note in particular the reduction in the level of PAY beginning IBNR over the months, as a response to valuations and showing up as a beginning IBNR change one month after a valuation is implemented (i.e. April, June, September, and November).

Ontario RSP Levels that influence¹⁰ 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

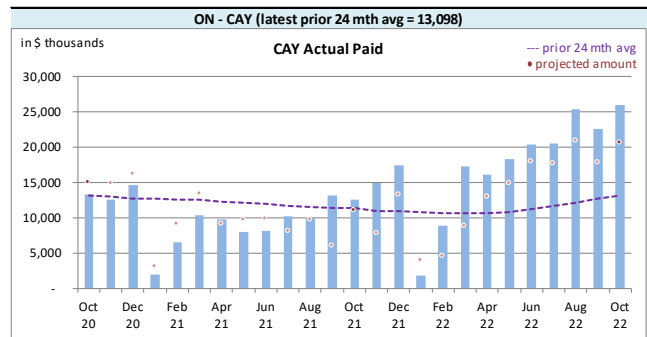
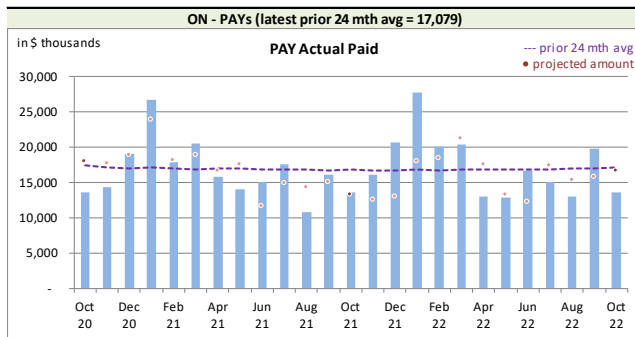
¹⁰Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned 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.

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

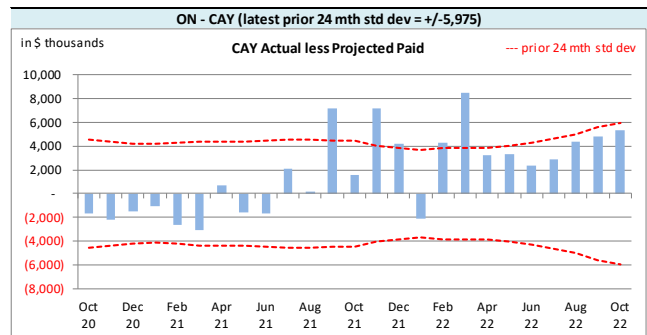
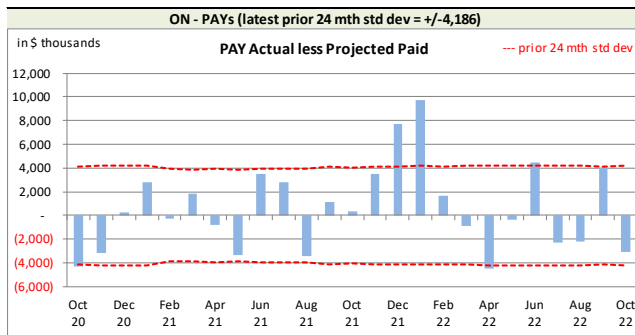
The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

Ontario 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.

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



On Latest \$ thousands			
	Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)		17,079	13,098
std dev		4,186	5,975
A-P <> std dev		5	5
% <> std dev		20.0%	20.0%
norm <> std dev		31.7%	31.7%
performance vs 24-mth avg:		better	better

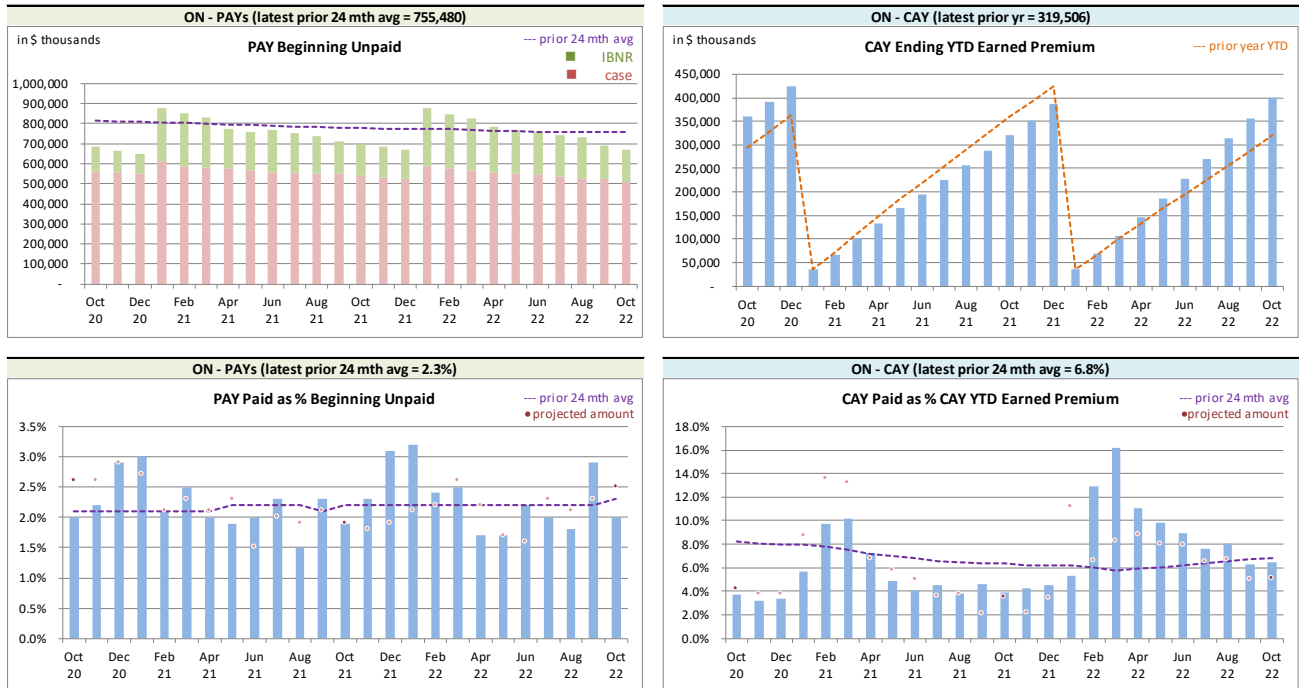
With respect to **paid** indemnity & allowed claims expense, 20% of the prior accident years’ (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see table on left), suggesting the projection process has performed better than 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 (13 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 20% of the time

over the last 25 calendar months (preceding table on the left), suggesting 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 (16 of 25 variances are positive).

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

Ontario RSP Levels that influence¹¹ 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) is used to determine each month’s

¹¹Our 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.

IBNR¹², and factors are 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 projections and actuals were based on the applicable valuation.

Exhibit G shows the accident year IBNR amount change from the prior valuation implementation month broken down into:

- (i) the change in projections;
- (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 loss¹³ 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 expenses¹⁴, including IBNR.

In calculating the amounts as percentages of earned premium, the calendar year-to-date earned premium has been used, which includes 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 117.7% rather than 117.7% (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 Ontario RSP Summary of Operations due to rounding.)

¹²For ease of discussion, “IBNR” is used in place of “provisions for incurred but not recorded (IBNR) and development”.

¹³“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).

¹⁴Allowed 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.

Ontario 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	(51,447)	(12.9%)	(88,956)	(22.2%)	(140,403)	(35.1%)	(13,510)	0.5%
CAY	471,149	117.7%	21,336	5.3%	492,485	123.1%	59,780	1.6%
TOTAL	419,702	104.9%	(67,620)	(16.9%)	352,082	88.0%	46,270	2.2%

(" % EP " based on 2022 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 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 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 presented in section 6, Exhibit B, refer to the estimates derived on the basis of various actuarial methodologies applied to the experience of the Ontario Risk Sharing Pool for the purposes of the most recent quarterly valuation. As discussed in section 3, IBNR 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

		Amounts in \$000s							
		Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected
		Sep. 2022	Oct. 2022	Nov. 2022	Dec. 2022	Jan. 2023	Feb. 2023	Mar. 2023	Dec. 2023
IBNR + M/S actuarial present value adjustments	Accident Year								
	prior	5,323	5,760	5,808	5,904	10,144	9,924	9,893	8,209
	2003	23	23	23	23	24	23	23	21
	2004	9	(1)	(1)	(2)	10	10	9	7
	2005	(43)	(43)	(43)	(43)	(43)	(42)	(42)	(36)
	2006	46	22	22	24	58	56	55	45
	2007	(79)	(92)	(91)	(91)	(76)	(76)	(75)	(62)
	2008	(188)	11	12	12	15	15	17	14
	2009	33	(167)	(164)	(162)	(139)	(135)	(133)	(107)
	2010	(48)	(149)	(146)	(141)	(114)	(111)	(107)	(85)
	2011	(460)	330	329	329	148	145	151	131
	2012	20	(312)	(303)	(294)	(140)	(138)	(133)	(105)
	2013	313	(174)	(167)	(158)	(546)	(533)	(515)	(411)
	2014	(395)	(51)	(52)	(49)	(963)	(941)	(913)	(737)
	2015	(509)	(563)	(565)	(569)	(1,046)	(1,024)	(1,013)	(834)
	2016	4,300	(304)	(313)	(327)	(495)	(486)	(495)	(421)
	discount rate 3.49%	2017	(3,454)	(2,715)	(2,709)	(2,710)	(2,870)	(2,807)	(2,804)
	2018	2,370	1,604	1,579	1,526	1,656	1,617	1,552	1,232
	2019	18,085	14,955	14,189	13,461	13,660	13,091	12,273	8,250
interest rate margin 25 basis pts	2020	58,911	49,762	47,041	44,436	43,430	42,218	40,988	28,812
	2021	100,825	95,461	92,363	88,639	87,240	84,147	80,097	55,131
	2022	201,761	226,072	239,954	252,033	238,542	231,432	224,708	158,788
	TOTAL	386,843	389,429	396,766	401,841	437,625	467,242	498,160	682,137
	Change		2,586	7,337	5,075	35,784	29,617	30,918	

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 Sep. 2022	Actual Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Feb. 2023	Projected Mar. 2023	Projected Dec. 2023
	-	prior	12,491	14,281	14,138	13,996	13,855	13,550	13,413	11,043
	90.4%	2003	23	23	23	23	23	22	22	20
	77.6%	2004	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
	73.4%	2005	(43)	(43)	(43)	(43)	(43)	(42)	(42)	(36)
	100.2%	2006	88	84	83	82	81	79	78	63
	99.9%	2007	(47)	(49)	(49)	(49)	(49)	(48)	(48)	(41)
	120.3%	2008	(175)	40	40	40	40	39	39	33
	154.0%	2009	99	(88)	(87)	(86)	(85)	(83)	(82)	(66)
	150.9%	2010	103	33	33	33	33	32	32	27
	86.6%	2011	(271)	575	569	563	557	545	540	443
	83.1%	2012	305	33	33	33	33	32	32	27
	93.0%	2013	501	191	189	187	185	181	179	147
	98.6%	2014	(575)	(12)	(12)	(12)	(12)	(12)	(12)	(11)
	106.7%	2015	(1,096)	(1,046)	(1,036)	(1,026)	(1,016)	(994)	(984)	(811)
	115.8%	2016	2,912	(1,281)	(1,268)	(1,255)	(1,242)	(1,215)	(1,203)	(991)
	105.7%	2017	(5,324)	(4,336)	(4,293)	(4,250)	(4,207)	(4,114)	(4,073)	(3,353)
	116.5%	2018	(967)	(1,134)	(1,066)	(1,002)	(992)	(970)	(960)	(790)
	107.8%	2019	12,318	10,084	9,479	8,910	8,456	8,008	7,311	4,437
	73.9%	2020	50,584	42,820	40,251	37,836	35,944	34,866	33,820	23,042
	84.6%	2021	88,603	84,934	82,046	78,518	75,377	72,437	68,598	45,486
	117.7%	2022	180,269	204,736	216,844	227,312	215,946	209,468	203,184	140,528
		TOTAL	339,797	349,843	355,872	359,808	388,437	416,245	445,355	612,549
		Change		10,046	6,029	3,936	28,629	27,808	29,110	

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 Sep. 2022	Actual Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Feb. 2023	Projected Mar. 2023	Projected Dec. 2023
(1) unearned premium (UP)	264,553	264,813	265,849	261,765	259,104	258,227	262,133	297,903
FOR MEMBER SHARING								
(2) expected future costs ratio {% of (1)}	126.6%	127.2%	127.9%	128.6%	128.6%	128.7%	128.8%	132.8%
(3) expected future costs {(1) x (2)}	334,808	336,910	339,938	336,530	333,198	332,253	337,683	395,555
(4) premium deficiency / (deferred policy acquisition cost)	70,255	72,097	74,089	74,765	74,094	74,026	75,550	97,652
Excluding Actuarial Present Value Adjustments								
(5) expected future costs ratio {% of (1)}	119.4%	120.9%	121.6%	122.2%	122.3%	122.3%	122.5%	126.2%
(6) expected future costs {(1) x (5)}	315,873	320,291	323,169	319,929	316,763	315,863	321,026	376,043
(7) premium deficiency / (deferred policy acquisition cost)	51,320	55,478	57,320	58,164	57,659	57,636	58,893	78,140

EXHIBIT D

Projected Year-end Policy Liabilities

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

Ontario		Projected Balances as at Dec. 31, 2022 (\$000s)									
ending 2022		nominal values			actuarial present value adjustments (apvs)						TOTAL
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL	
prior	27,844	13,996	41,840	(11,804)	699	4,192	(1,179)	3,013	(8,092)	33,748	
2003	(3)	23	20	(2)	-	2	-	2	-	20	
2004	998	(2)	996	(96)	6	100	(10)	90	-	996	
2005	41	(43)	(2)	-	-	-	-	-	-	(2)	
2006	1,541	82	1,623	(213)	14	162	(21)	141	(58)	1,565	
2007	837	(49)	788	(116)	7	79	(12)	67	(42)	746	
2008	434	40	474	(73)	5	47	(7)	40	(28)	446	
2009	1,028	(86)	942	(164)	10	94	(16)	78	(76)	866	
2010	1,837	33	1,870	(347)	21	187	(35)	152	(174)	1,696	
2011	3,961	563	4,524	(660)	40	452	(66)	386	(234)	4,290	
2012	3,404	33	3,437	(645)	39	344	(65)	279	(327)	3,110	
2013	7,679	187	7,866	(1,090)	67	787	(109)	678	(345)	7,521	
2014	22,128	(12)	22,116	(2,165)	133	2,212	(217)	1,995	(37)	22,079	
2015	19,559	(1,026)	18,533	(1,346)	85	1,853	(135)	1,718	457	18,990	
2016	32,166	(1,255)	30,911	(2,088)	134	3,091	(209)	2,882	928	31,839	
2017	49,828	(4,250)	45,578	(2,917)	191	4,558	(292)	4,266	1,540	47,118	
2018	81,335	(1,002)	80,333	(5,320)	350	8,030	(532)	7,498	2,528	82,861	
2019	89,076	8,910	97,986	(7,247)	476	12,226	(904)	11,322	4,551	102,537	
2020	71,829	37,836	109,665	(9,061)	593	16,425	(1,357)	15,068	6,600	116,265	
2021	68,276	78,518	146,794	(13,841)	903	25,459	(2,400)	23,059	10,121	156,915	
PAYs (sub-total):	483,798	132,496	616,294	(59,195)	3,773	80,300	(7,566)	72,734	17,312	633,606	
CAY (2022)	113,655	227,312	340,967	(30,637)	1,990	58,637	(5,269)	53,368	24,721	365,688	
claims liabilities:	597,453	359,808	957,261	(89,832)	5,763	138,937	(12,835)	126,102	42,033	999,294	
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*	
premium liabilities:	261,765	58,164	319,929	(21,333)	1,387	39,163	(2,616)	36,547	16,601	336,530	
*Total may not be sum of parts, as apvs apply to future costs within UPR											
policy liabilities:			1,277,190	(111,165)	7,150	178,100	(15,451)	162,649	58,634	1,335,824	

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%	9.9%	10.0%
2019	12.5%	12.5%	11.0%	12.5%
2020	15.0%	15.0%	14.3%	15.0%
2021	17.4%	17.5%	12.2%	17.3%
2022	16.9%	20.0%	5.6%	17.2%
2023	12.9%	20.0%	5.1%	12.3%
prem liab	12.9%	20.0%	5.1%	12.3%

discount rate: 3.49%
margin (basis points): 25

*prem liabilities as at 2022m09

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 (3.49%), the prior valuation assumption (3.17%) and the prior fiscal year end valuation assumption (0.26%) 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	2.49%	2.99%	3.49%	3.99%	4.49%	4.99%	3.17%	0.88%
2005 & prior	39,529	37,733	36,035	34,430	32,910	31,472	37,111	46,054
2005	40	39	39	38	37	37	39	42
2006	1,623	1,591	1,560	1,530	1,501	1,473	1,580	1,733
2007	881	861	843	825	807	790	855	948
2008	360	352	344	336	329	322	349	389
2009	912	888	865	843	822	801	880	997
2010	1,922	1,868	1,816	1,766	1,718	1,672	1,849	2,115
2011	4,405	4,310	4,220	4,134	4,051	3,972	4,277	4,742
2012	3,459	3,361	3,267	3,178	3,093	3,012	3,327	3,811
2013	7,211	7,065	6,925	6,792	6,665	6,543	7,014	7,732
2014	20,310	20,027	19,758	19,500	19,253	19,017	19,929	21,315
2015	17,515	17,335	17,161	16,993	16,830	16,674	17,271	18,143
2016	31,193	30,894	30,604	30,322	30,050	29,785	30,788	32,228
2017	45,784	45,366	44,958	44,561	44,174	43,798	45,218	47,217
2018	85,139	84,329	83,539	82,769	82,018	81,284	84,043	87,898
2019	106,344	105,209	104,103	103,025	101,974	100,948	104,808	110,214
2020	119,886	118,450	117,052	115,690	114,364	113,070	117,942	124,792
2021	160,601	158,389	156,237	154,144	152,106	150,122	157,607	168,170
2022	352,792	348,089	343,521	339,083	334,770	330,577	346,429	368,935
Total	999,868	986,117	972,808	959,921	947,436	935,333	981,276	1,047,433
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	2.49%	2.99%	3.49%	3.99%	4.49%	4.99%	3.17%	0.88%
Total	27,060	13,308	-	(12,887)	(25,373)	(37,475)	8,468	74,625
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	2.56%	3.06%	3.56%	4.06%	4.56%	5.06%	3.17%	0.81%
2005 & prior	9.7%	4.7%	0.0%	-4.5%	-8.7%	-12.7%	3.0%	27.8%
2005	3.4%	1.7%	0.0%	-1.6%	-3.2%	-4.7%	1.1%	9.2%
2006	4.0%	2.0%	0.0%	-1.9%	-3.8%	-5.6%	1.3%	11.1%
2007	4.5%	2.2%	0.0%	-2.1%	-4.2%	-6.2%	1.4%	12.5%
2008	4.7%	2.3%	0.0%	-2.2%	-4.4%	-6.5%	1.5%	13.1%
2009	5.5%	2.7%	0.0%	-2.6%	-5.0%	-7.4%	1.7%	15.2%
2010	5.9%	2.9%	0.0%	-2.7%	-5.4%	-7.9%	1.8%	16.5%
2011	4.4%	2.1%	0.0%	-2.0%	-4.0%	-5.9%	1.4%	12.4%
2012	5.9%	2.9%	0.0%	-2.7%	-5.3%	-7.8%	1.8%	16.6%
2013	4.1%	2.0%	0.0%	-1.9%	-3.8%	-5.5%	1.3%	11.7%
2014	2.8%	1.4%	0.0%	-1.3%	-2.6%	-3.7%	0.9%	7.9%
2015	2.1%	1.0%	0.0%	-1.0%	-1.9%	-2.8%	0.6%	5.7%
2016	1.9%	0.9%	0.0%	-0.9%	-1.8%	-2.7%	0.6%	5.3%
2017	1.8%	0.9%	0.0%	-0.9%	-1.7%	-2.6%	0.6%	5.0%
2018	1.9%	0.9%	0.0%	-0.9%	-1.8%	-2.7%	0.6%	5.2%
2019	2.2%	1.1%	0.0%	-1.0%	-2.0%	-3.0%	0.7%	5.9%
2020	2.4%	1.2%	0.0%	-1.2%	-2.3%	-3.4%	0.8%	6.6%
2021	2.8%	1.4%	0.0%	-1.3%	-2.6%	-3.9%	0.9%	7.6%
2022	2.7%	1.3%	0.0%	-1.3%	-2.5%	-3.8%	0.8%	7.4%
2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.8%	1.4%	0.0%	-1.3%	-2.6%	-3.9%	0.9%	7.7%
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
(September 2022 to October 2022)

RSP Ontario

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	5,333	(37)	23	441	427	8.0%	5,760
2003	23	-	-	-	-	-	23
2004	12	1	(4)	(10)	(13)	(108.3%)	(1)
2005	(43)	1	(1)	-	-	-	(43)
2006	46	1	(4)	(21)	(24)	(52.2%)	22
2007	(79)	3	(5)	(11)	(13)	16.5%	(92)
2008	(185)	6	(7)	197	196	(105.9%)	11
2009	27	-	(179)	(15)	(194)	(718.5%)	(167)
2010	137	4	(259)	(31)	(286)	(208.8%)	(149)
2011	(280)	18	368	224	610	(217.9%)	330
2012	(160)	7	204	(363)	(152)	95.0%	(312)
2013	11	(4)	301	(482)	(185)	(1,681.8%)	(174)
2014	(986)	15	596	324	935	(94.8%)	(51)
2015	(128)	(1)	(864)	430	(435)	339.8%	(563)
2016	2,767	(146)	1,471	(4,396)	(3,071)	(111.0%)	(304)
2017	(3,353)	70	(1,489)	2,057	638	(19.0%)	(2,715)
2018	4,263	(186)	(2,318)	(155)	(2,659)	(62.4%)	1,604
2019	21,534	(1,461)	(4,794)	(324)	(6,579)	(30.6%)	14,955
2020	61,849	(4,459)	(394)	(7,234)	(12,087)	(19.5%)	49,762
2021	103,884	(6,119)	1,162	(3,466)	(8,423)	(8.1%)	95,461
2022	181,611	50,978	(13,516)	6,999	44,461	24.5%	226,072
Grand Total	376,283	38,691	(19,709)	(5,836)	13,146	3.5%	389,429

EXHIBIT G

Components of IBNR (i.e. “Undiscounted”) Change
(September 2022 to October 2022)

RSP Ontario
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	12,512	(387)	358	1,798	1,769	14.1%	14,281
2003	23	-	-	-	-	-	23
2004	2	-	(4)	-	(4)	(200.0%)	(2)
2005	(43)	1	(1)	-	-	-	(43)
2006	88	(3)	(1)	-	(4)	(4.5%)	84
2007	(46)	1	(4)	-	(3)	6.5%	(49)
2008	(172)	6	(8)	214	212	(123.3%)	40
2009	93	(3)	(178)	-	(181)	(194.6%)	(88)
2010	308	(5)	(270)	-	(275)	(89.3%)	33
2011	(90)	7	378	280	665	(738.9%)	575
2012	138	(7)	204	(302)	(105)	(76.1%)	33
2013	216	(13)	287	(299)	(25)	(11.6%)	191
2014	(1,177)	24	599	542	1,165	(99.0%)	(12)
2015	(750)	31	(852)	525	(296)	39.5%	(1,046)
2016	1,351	(75)	1,477	(4,034)	(2,632)	(194.8%)	(1,281)
2017	(5,349)	165	(1,392)	2,240	1,013	(18.9%)	(4,336)
2018	771	25	(2,280)	350	(1,905)	(247.1%)	(1,134)
2019	15,634	(1,118)	(4,793)	361	(5,550)	(35.5%)	10,084
2020	53,311	(4,155)	(380)	(5,956)	(10,491)	(19.7%)	42,820
2021	91,496	(5,663)	1,009	(1,908)	(6,562)	(7.2%)	84,934
2022	162,329	45,905	(12,705)	9,207	42,407	26.1%	204,736
Grand Total	330,645	34,736	(18,556)	3,018	19,198	5.8%	349,843