ONTARIO RISK SHARING POOL

MARCH 2023 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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ACTUARIAL HIGHLIGHTS

RSP ONTARIO

OPERATIONAL REPORT

MARCH 2023

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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 2023 in June 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 2023)

The March 2023 Operational Report incorporates the results of an updated valuation (as at December 31, 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, 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
Dec. 31, 2022 (completed)	5.46% (IFRS 17 does not have explicit interest rate margin)	Mar. 2023	update valuation: accident year 2023 loss ratio increased 7.7 points to 129.7%; discount rate increased 9 basis points based on the risk free rate plus illiquidity premium from FIERA Capital;
Mar. 31, 2023	%	May. 2023	
Jun. 30, 2023	%	Aug. 2023	
Sep. 30, 2023	%	Oct. 2023	

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 December 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. In general, this valuation was **unfavourable** to the RSP results due to:

- Higher than expected emergence of bodily injury claims from prior accident years

- Higher projected losses for 2023 and 2024 due to increases to the physical damage loss trends (especially Comprehensive trends), which unfavourably impacts the loss component of the liability for remaining coverage as well as the current year to date losses.

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 (2023) and FtAY refers to future accident year (2024).

Summary of Impact ($000s) of Implementing Result of Valuation as at Dec. 31, 2022[1]

RSP: Ontario

Summary of Impact	Total $ Impact	YTD COR Impact
LIC for Unpaid Claims	14,167	16.3%
Loss Component	51,045	58.6%
TOTAL	65,213	74.9%

Change in LIC for unpaid claims

	nominal [1]	apv adj. [2]	sub-total [3]	disc rate [4]	margins [5]	TOTAL [6]
PAYs	5,261	10	5,271	(3)	-	5,268
CAY	9,598	(709)	8,888	11	-	8,899
TOTAL	14,859	(699)	14,159	8	-	14,167

Change in Loss Component

	2023 (CAY)	2024 (FtAY)	TOTAL
Opening Loss Component	187,337	253,452	440,789
[1] Losses on onerous contracts	25,496	29,543	55,039
[2] Discount rate	(1,544)	(2,449)	(3,993)
[3] Reversal of losses on onerous contracts	(15,513)	843	(14,671)
TOTAL [1]+[2]+[3]	8,438	27,937	36,375
Ending Loss Component	195,775	281,388	477,163

unfav/ (fav) for the month and ytd

As indicated in the preceding table, the incorporation of the new valuation had an estimated ***$65.2 million unfavourable impact*** on the month's net result from operations, adding an estimated 74.9 points to the **year-to-date Combined Operating Ratio**. The unfavourable LIC impact is primarily driven by unfavourable development in bodily injury and unfavourable impact due to an annual update of the claim payment patterns, partially offset by small favourable discount rate impact (claim payment pattern and discount rate impacts are both combined in column [4]). The unfavourable loss component impact in Ontario is driven by increase to accident year 2023 and 2024 expected loss ratios.

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[1]In these tables, "PAYs" refers to prior accident years, "CAY" refers to the current accident year, "FtAY" refers to future accident year, and "LIC" refers to liability for incurred claims. "Nominal" refers to changes excluding impact to discounting and risk adjustment, whereas "apv adj." refers to the impact on discounting and risk adjustment caused by change in the amount and timing of undiscounted liabilities. The columns labeled [1] and [2] reflect the impact of changes in the valuation selected ultimates (i.e. based on unchanged selection of discount rates and risk adjustment). The column "dsct rate" reflects the impact of the change in the selected discount rate and claims payment patterns, and the column "margins" reflects the impact of any changes in the selected risk adjustment.

The impact of the **nominal changes** on the LIC is shown in column [1] in the above table. The change in the selected nominal ultimates was **unfavourable by $14.9 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).

The **PAYs** overall showed a **$5.3 million unfavourable** nominal variance or 0.6% of the PAYs nominal unpaid balance of $856.4 million determined at the end of last month (February 2023) due to higher than expected levels of claim development, particularly in bodily injury.

The **CAY** LIC impact is a result of the change in the selected loss for accident year **2023 (increased 7.7 points to 129.7%)**. This change is a result of increased projected loss ratios in 2023 due to higher loss trends, particular for Comprehensive coverage which has been experiencing a significant degree of claims inflation in recent years due in large part to growing auto theft losses.

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 risk adjustment factors (at the level they were selected i.e. jurisdiction and coverage), the impact of then updating the discount rate, and finally the impact of any changes to the risk adjustment factors (at the level they were selected). The changes in actuarial present value adjustments are shown in the preceding summary table 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). This generated a favourable change of $0.7 million in the actuarial present value adjustments, prior to any changes in the selected discount rate and/or risk adjustment.

Updated projected cash flows were reviewed against the risk-free curve plus illiquidity premium calculated monthly by the Fiera Capital Corporation[2] as at Dec. 31, 2022. It is assumed that the risk sharing pool cash flows are relatively illiquid. This means a yield curve with a higher illiquidity premium is used for the discounting calculations. Column [4] accounts for the change in the **discount rate** selected (average discount rate increased 9 basis points to **5.46%**), indicating a slight favourable impact, although this is slightly offset by an update to paid emergence selection completed annually in Q4.

Column [5] accounts for any changes to selected risk adjustment factors. The risk adjustment is based on a discounted cost of capital methodology. Capital factors are derived from MCT risk factors. Cost of Capital is determined from target return on equity and P/S ratio assumptions from pricing. Capital requirement is determined from a target MCT ratio based on industry data. Risk adjustment is calibrated annually and there is no change to the selection this quarter.

Risk Sharing Pools are onerous by design, as RSPs are designed for systematic under-pricing, which is expected to be unprofitable. We are assuming all RSPs are groups of onerous contracts. This means that the losses on these onerous contracts are recognized through a loss component upon initial

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[2] https://www.fieracapital.com/en/institutional-markets/cia-ifrs-17-curves

recognition of the business. The change in the loss component is the sum of:

- [1] Losses on onerous contracts: This is the change in the loss component during the reporting period arising from Initial recognition and subsequent re-estimation of the loss component (due to changes in premium or loss ratio projections, for example). The table shown above splits out the impact of this item for the CAY and FtAY. The expected loss ratio increased by 7.7% and 6.9% respectively which corresponds to a combined total of <u>un</u>**favourable $55.0 million.**

- [2] Discount rate: This is the change in the loss component due to updating the yield curve. The impact of change in yield curve is **favourable $3.9 million** driven by increased yields between the current and prior valuation.

- [3]: Reversal of losses on onerous contracts: This is the change in the loss component during the reporting period arising from the portion of the opening LRC earned during the period. This item has been presented in the table above to demonstrate the gradual decline of the loss component expected every month as the losses move from the LRC into the LIC.

Consideration was given to recent legal decisions and changes in legislation / regulation as noted above and outlined in section **Error! Reference source not found.**.

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 1st, 2023.

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[3]

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.

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[3]This 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.

1.5 Current Provision Summary

The following charts show the current levels of claim liabilities[4] booked by accident year[5]. 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 2023 full year earned premium (the red hash-mark line) to provide some perspective.
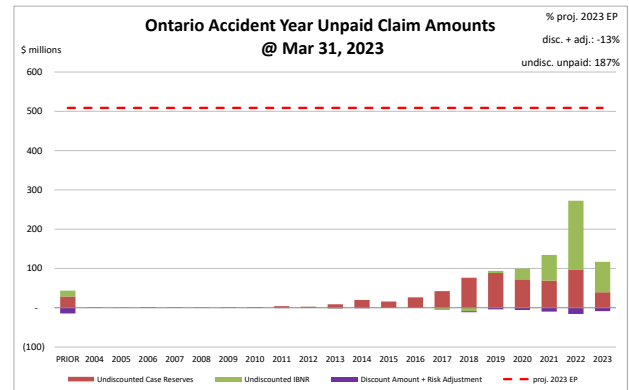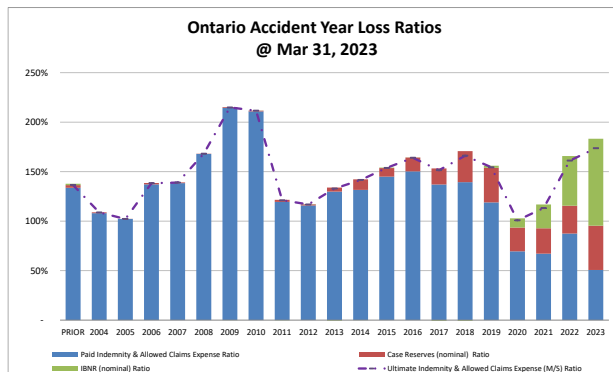
"M/S" refers to "Member Statement" values – that is, actuarial present value adjustments at the selected discount rate.

liability for incurred claims ($000s)

	amt	%
undisc. case	598,498	67.7%
undisc. ibnr	351,905	39.8%
disc. + risk adj.	(66,714)	(7.5%)
LIC	883,690	100.0%

The current discount and risk adjustments (-$66.7 million – see the following table) represents -13% of the earned premium projected for the full year 2023 (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 Liability for Incurred Claims total into component parts, showing that the majority of the claim liabilities for this RSP is in case reserves. Approximately 72% of the IBNR balance relates to accident years 2022 and 2023 (see Exhibit B). Approximately 76% of the liabilities for incurred claims are related to accident years 2019-2023 inclusive (i.e. the most recent 5 accident years), and approximately 5% is related to accident years 2013 and prior (i.e. prior to the most recent 10 accident years).

The following tables summarize the liability for remaining coverages and insurance contract liabilities.

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[4]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.

[5]The 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".

liability for remaining coverage ($000s)	amt	%		insurance contract liabilities ($000s)	amt	%
LRC excl. disc. LC	140,538	22.8%		claim	950,404	63.3%
undisc. LC	660,701	107.0%		premium	801,239	53.4%
disc. amt	(183,537)	(29.7%)		disc. + risk adj.	(250,251)	(16.7%)
LRC	617,701	100.0%		LIC + LRC	1,501,391	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	November	(22)	(22)	21,617	5,208	7,170	1,091
		December	(1,455)	(1,455)	16,904	87	13,696	6,741
	2023	January	(683)	(683)	49,929	22,457	32,898	9,249
		February	(1,076)	(1,076)	33,935	7,204	17,935	(5,951)
		March	194	194	28,366	1,782	18,716	(2,223)
PAY Total			**(3,042)**	**(3,042)**	**150,751**	**36,738**	**90,415**	**8,907**
CAY	2022	November	41,927	414	30,063	5,668	43,990	7,237
		December	42,876	1,511	33,154	1,009	43,130	12,023
	2023	January	42,658	(146)	2,524	(16,962)	14,146	(17,846)
		February	38,388	407	14,357	(4,567)	28,580	(2,516)
		March	43,599	848	27,873	8,555	41,423	9,766
CAY Total			**209,448**	**3,034**	**107,971**	**(6,297)**	**171,269**	**8,664**
Grand Total			**206,406**	**(8)**	**258,722**	**30,441**	**261,684**	**17,571**

(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**[6] 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

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[6]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.

average amount of the preceding 24 calendar months.

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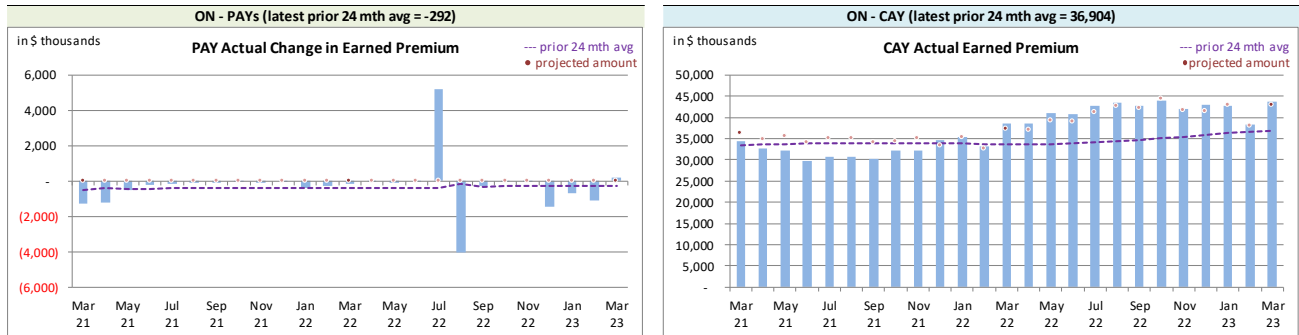
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the preceding charts), although relatively high levels generally occur at the beginning of each year.

On Latest $ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(292)	36,904
std dev	1,456	5,023
A-P <> std dev	7	6
% <> std dev	28.0%	24.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	no better	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*
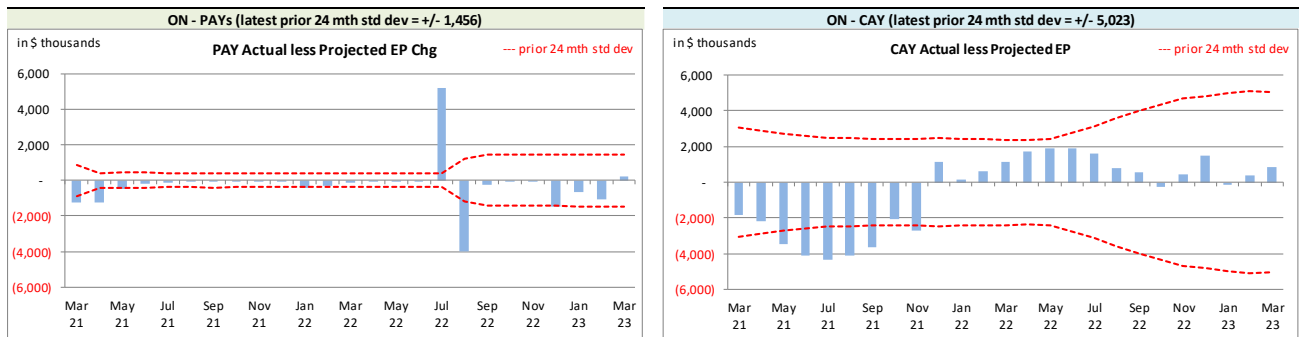
We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias[7], with actuals generally lower than projected, although the 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

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

as those changes were 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.

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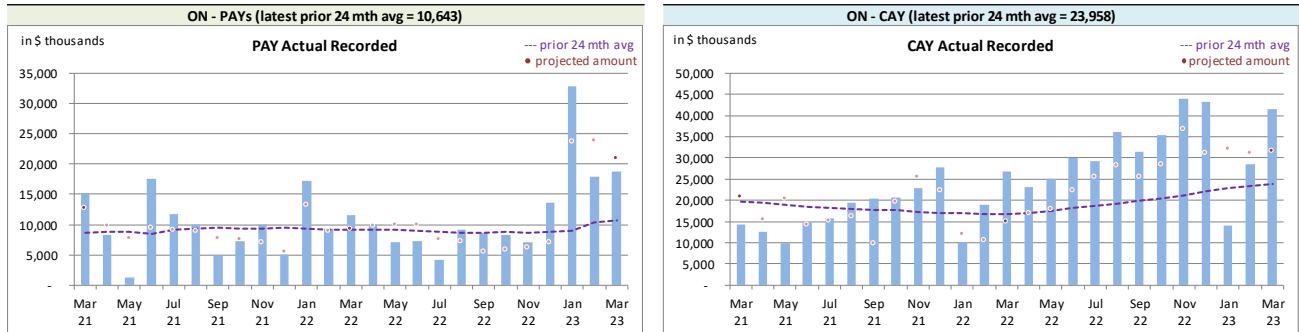
Recorded activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*Ontario RSP Actual vs Projected Summary: **Recorded** Variances by Calendar Month*
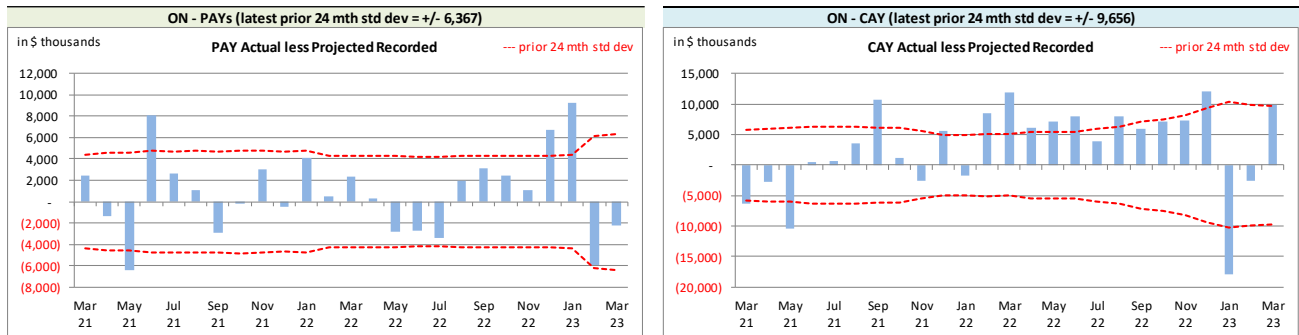
On Latest $ thousands		
Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	10,643	23,958
std dev	6,367	9,656
A-P <> std dev	4	13
% <> std dev	16.0%	52.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	worse

With respect to **recorded** indemnity & allowed claims expense, 16% 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). Bias[8] has not been indicated at a 95% confidence level on a rolling 25-month basis (15 of 25 variances were positive).

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[8] 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.

The current accident year (CAY) **recorded** variances (preceding table on the left) fell outside of one standard deviation 52% 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 (18 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 influence[9] **Recorded** activity by Calendar Month*
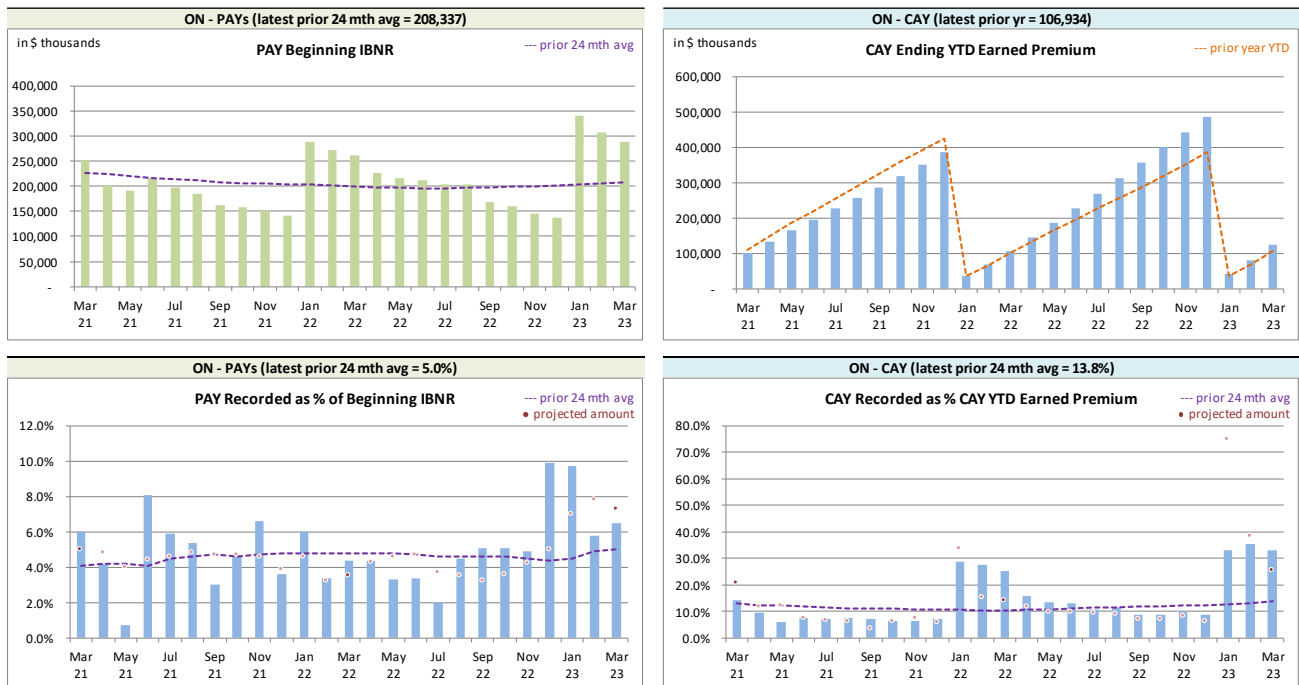
We track PAY beginning IBNR as **recorded** activity comes out of IBNR. Changes in the PAY beginning IBNR (see upper left of the preceding group of charts) occur for several possible reasons:

- to offset actual **recorded** activity (through loss ratio matching);

- the annual switchover as a CAY becomes a PAY (occurs in January); and

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[9]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.

- 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.

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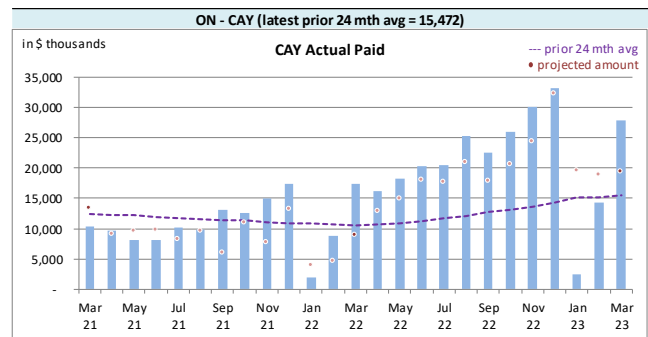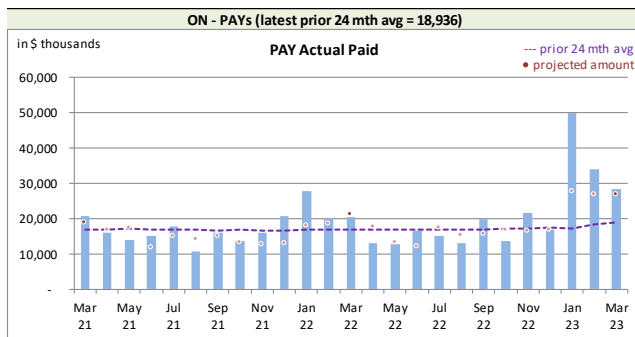
Paid activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*Ontario RSP Actual vs Projected Summary: **Paid** Variances by Calendar Month*
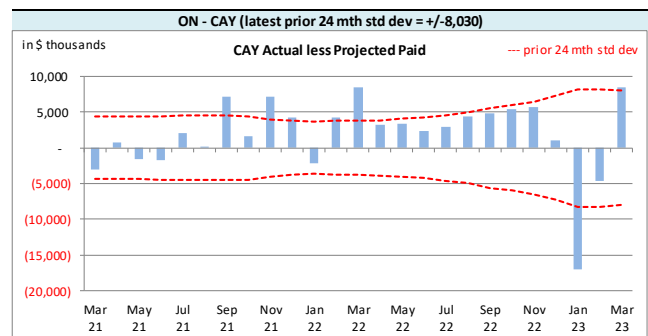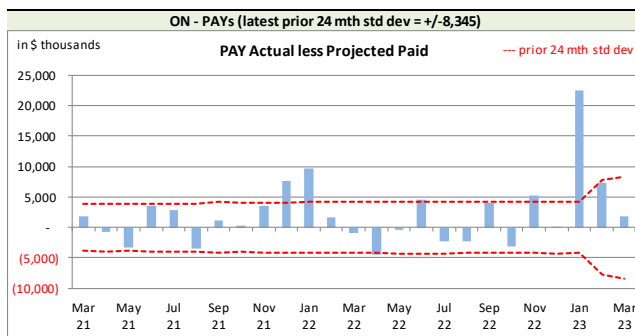
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	18,936	15,472
std dev	8,345	8,030
A-P <> std dev	6	7
% <> std dev	24.0%	28.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	no better

With respect to **paid** indemnity & allowed claims expense, 24% 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 (16 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 28% 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 been indicated at a 95% confidence level on a rolling 25-month basis (19 of 25 variances are positive).

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

Ontario RSP Levels that influence[10] Paid activity by Calendar Month
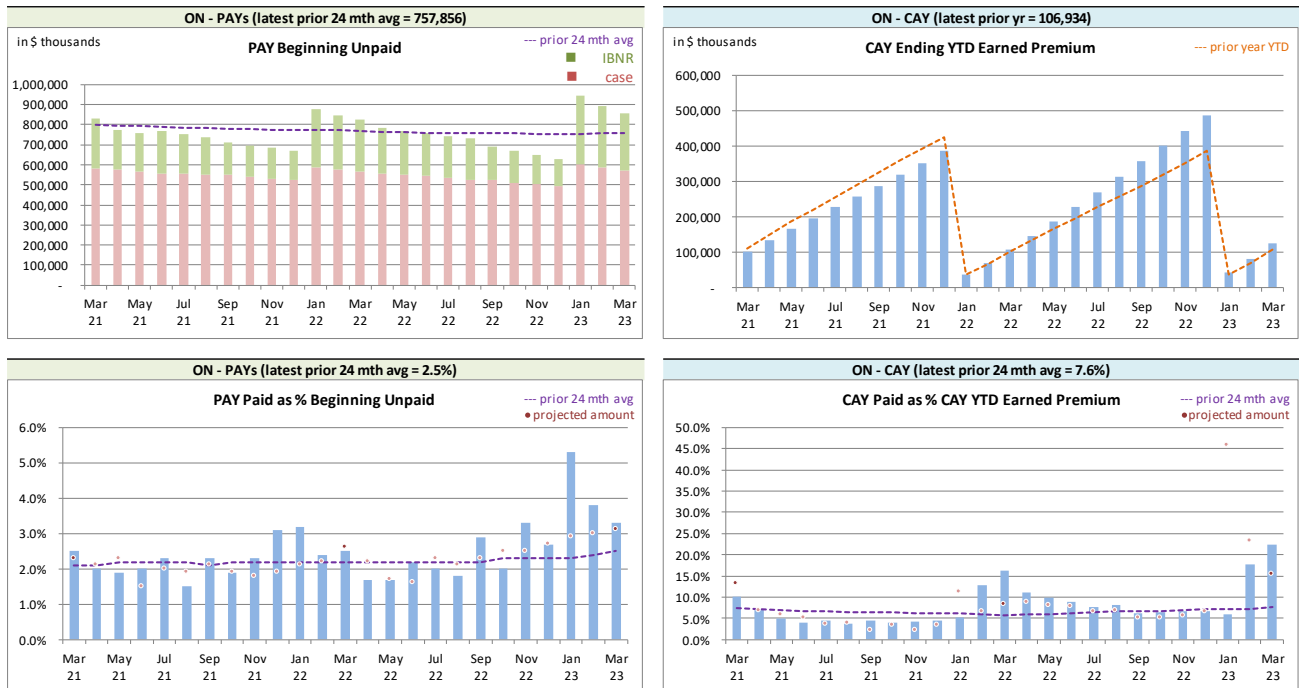
We track the PAY beginning unpaid balance (case and IBNR) as **paid** activity comes out of the unpaid balance. Changes in the PAY beginning unpaid balance (see upper left of the preceding group of charts) occur for several possible reasons:

- 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).

[10]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.

2.2   Actuarial Provisions

An ultimate loss ratio matching method (described in section 3) is used to determine each month's IBNR[11], 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 loss[12] 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[13], 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 129.7% matching the 129.7% from the valuation ultimate ratio for accident year 2023, 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

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

[12]"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).

[13]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.

in the Ontario RSP Summary of Operations due to rounding.)

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

	YTD Nominal Values		YTD actuarial present value adjustment		YTD Total	
	Amount	%EP	Amount	%EP	Amount	%EP
PAYs	3,737	3.0%	11,436	9.2%	15,173	12.2%
CAY	161,664	129.7%	(8,474)	(6.8%)	153,190	122.9%
TOTAL	165,402	132.7%	2,962	2.4%	168,364	135.1%

("% EP" based on 2023 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).

In addition to the exhibits printed below, we are making supplementary data files available for download from our website for members who require additional detailed data on the LRC calculation as well as the payment patterns and actual and projected premiums, risk adjustment, interest rate, loss ratios and expenses of the pools.

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   Liability for Remaining Coverage

EXHIBIT D   Projected Year-end Policy Liabilities

EXHIBIT E   Risk Adjustment & Discount Rate

EXHIBIT F   Interest Rate Sensitivity

EXHIBIT G   Components of IBNR Change During Month

Additional exhibits available online:

LRC Calculation file

Detailed valuation results

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

	EXHIBIT A - IBNR + M/S Actuarial Present Value Adjustments: RSP Ontario								
amounts in $000s									
Accident Year	Actual Feb 2023	Actual Mar 2023	Projected Apr 2023	Projected May 2023	Projected Jun 2023	Projected Jul 2023	Projected Aug 2023		Projected Dec 2023
prior	117	396	528	660	793	928	1,062		1,598
2004	(88)	(95)	(91)	(86)	(82)	(78)	(73)		(47)
2005	(24)	(7)	(6)	(6)	(6)	(6)	(5)		(4)
2006	(184)	(204)	(197)	(191)	(184)	(178)	(172)		(138)
2007	(223)	(168)	(165)	(163)	(161)	(156)	(152)		(116)
2008	(79)	(58)	(51)	(45)	(39)	(38)	(36)		(29)
2009	(299)	(276)	(281)	(286)	(291)	(292)	(293)		(213)
2010	(177)	(20)	42	104	166	174	182		888
2011	(344)	(912)	(889)	(867)	(845)	(826)	(807)		(700)
2012	(146)	(194)	(622)	(1,050)	(1,478)	(3,838)	(6,199)		(6,982)
2013	(2,672)	(2,183)	(2,262)	(2,344)	(2,429)	(2,183)	(1,939)		(1,159)
2014	(663)	(1,108)	(929)	(759)	(598)	(473)	(357)		(19)
2015	(1,275)	273	311	344	370	422	469		457
2016	(864)	(600)	(468)	(344)	(226)	(111)	(5)		323
discount rate:	2017	(6,997)	(4,790)	(4,249)	(3,721)	(3,203)	(2,761)	(2,330)	(1,315)
5.46%	2018	(9,171)	(11,208)	(11,521)	(11,850)	(12,197)	(11,354)	(10,528)	(7,396)
	2019	(3,256)	1,134	264	(629)	(1,545)	(1,990)	(2,458)	(3,658)
weighted average	2020	27,761	21,787	20,052	18,299	16,528	14,926	13,305	7,059
risk adjustment factor:	2021	63,560	55,421	52,927	50,414	47,883	45,331	42,761	32,978
7.21%	2022	163,046	158,960	150,811	142,662	134,513	128,560	122,608	102,437
	2023	50,090	69,042	87,582	108,171	126,774	139,391	151,826	170,758
	TOTAL	278,114	285,192	290,783	298,312	303,742	305,447	306,860	294,723
	Change		7,078	5,592	7,529	5,430	1,705	1,412	

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

EXHIBIT B

IBNR

					EXHIBIT B - Undiscounted IBNR: RSP Ontario				
	amounts in $000s								
Ultimate Loss Ratio	Accident Year	Actual Feb 2023	Actual Mar 2023	Projected Apr 2023	Projected May 2023	Projected Jun 2023	Projected Jul 2023	Projected Aug 2023	Projected Dec 2023
	prior	14,856	14,855	14,849	14,843	14,837	14,831	14,825	14,765
77.6%	2004	(5)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
73.4%	2005	(20)	0	0	0	0	0	0	0
100.2%	2006	25	5	3	2	-	-	-	-
100.0%	2007	(91)	(18)	(19)	(21)	(22)	(21)	(20)	(12)
120.3%	2008	(31)	(11)	(7)	(2)	2	3	3	4
154.0%	2009	(127)	(83)	(94)	(105)	(116)	(122)	(129)	(65)
150.8%	2010	227	306	362	417	473	469	466	1,141
86.4%	2011	231	(407)	(404)	(401)	(399)	(405)	(410)	(434)
83.1%	2012	590	411	(30)	(471)	(912)	(3,284)	(5,657)	(6,513)
93.3%	2013	(1,960)	(1,621)	(1,756)	(1,890)	(2,025)	(1,822)	(1,620)	(963)
98.4%	2014	563	(256)	(201)	(147)	(93)	(65)	(36)	24
107.0%	2015	(789)	675	626	576	527	511	495	285
115.7%	2016	(87)	153	146	139	132	129	126	97
106.3%	2017	(6,127)	(3,511)	(3,180)	(2,849)	(2,518)	(2,250)	(1,982)	(1,522)
116.4%	2018	(7,051)	(8,780)	(9,456)	(10,131)	(10,806)	(10,274)	(9,742)	(7,611)
109.6%	2019	457	5,225	3,834	2,443	1,053	162	(729)	(3,399)
72.6%	2020	33,801	27,523	25,239	22,956	20,672	18,574	16,475	8,499
83.2%	2021	74,071	65,161	61,927	58,692	55,458	52,226	48,994	36,760
119.1%	2022	179,119	174,764	166,303	157,841	149,379	143,177	136,975	115,831
129.7%	2023	56,150	77,516	98,353	121,400	142,305	156,975	171,449	196,704
	TOTAL	343,801	351,905	356,492	363,289	367,944	368,809	369,478	353,588
	Change		8,105	4,587	6,797	4,655	865	669	

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

EXHIBIT C

Liability for Remaining Coverage

EXHIBIT C - Liability for Remaining Coverage: RSP Ontario								
amounts in $000s								
Accident Year	Actual Feb 2023	Actual Mar 2023	Projected Apr 2023	Projected May 2023	Projected Jun 2023	Projected Jul 2023	Projected Aug 2023	Projected Dec 2023
LRC excl. Loss Component								
2023	144,156	137,102	135,722	127,025	117,132	103,422	87,356	(182)
2024	719	3,437	9,472	18,994	31,771	47,530	65,850	163,058
2025	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-
Total	**144,875**	**140,538**	**145,194**	**146,019**	**148,903**	**150,952**	**153,206**	**162,876**
Undiscounted Loss Component								
2023	258,300	267,975	238,796	208,373	179,051	148,698	118,428	-
2024	353,560	392,725	392,725	392,725	392,725	392,725	392,725	392,725
2025	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-
Total	**611,860**	**660,701**	**631,521**	**601,098**	**571,776**	**541,423**	**511,153**	**392,725**
Discounted Loss Component								
2023	187,337	195,775	174,906	153,109	131,998	110,014	87,944	-
2024	253,452	281,388	282,298	283,068	283,461	284,129	284,826	288,648
2025	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-
Total	**440,789**	**477,163**	**457,204**	**436,178**	**415,459**	**394,143**	**372,770**	**288,648**
LRC incl. Loss Component								
2023	331,493	332,876	310,627	280,134	249,130	213,436	175,300	(182)
2024	254,170	284,825	291,771	302,062	315,232	331,659	350,676	451,706
2025	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-
Total	**585,663**	**617,701**	**602,398**	**582,197**	**564,362**	**545,095**	**525,976**	**451,524**

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2023, broken down by component.

Ontario			Projected Balances as at Dec. 31, 2023 ($000s)									

Ending 2023		nominal values					actuarial present value adjustments (apvs)					
Accident Year	Case	IBNR	Total Unpaid	Discount Amount	Risk Adjustment	Liability for Incurred Claims (LIC)	Discounted Loss Component	Undiscounted Loss Component	Discount Amount	Liability for Remaining Coverage (LRC)	LRC excl. Loss Component	Total Insurance Contract Liabilities
prior	28,383	14,765	43,148	(15,099)	1,932	29,981	-	-	-	-	-	29,981
2004	895	(3)	892	(103)	59	847	-	-	-	-	-	847
2005	51	0	51	(7)	3	47	-	-	-	-	-	47
2006	1,450	-	1,450	(229)	91	1,312	-	-	-	-	-	1,312
2007	862	(12)	850	(156)	52	746	-	-	-	-	-	746
2008	389	4	393	(63)	30	360	-	-	-	-	-	360
2009	953	(65)	888	(204)	56	740	-	-	-	-	-	740
2010	505	1,141	1,646	(354)	101	1,393	-	-	-	-	-	1,393
2011	2,991	(434)	2,558	(427)	161	2,292	-	-	-	-	-	2,292
2012	9,282	(6,513)	2,769	(632)	162	2,299	-	-	-	-	-	2,299
2013	5,856	(963)	4,893	(525)	330	4,697	-	-	-	-	-	4,697
2014	12,071	24	12,095	(883)	840	12,053	-	-	-	-	-	12,053
2015	10,211	285	10,496	(576)	748	10,668	-	-	-	-	-	10,668
2016	18,352	97	18,449	(1,075)	1,301	18,675	-	-	-	-	-	18,675
2017	29,601	(1,522)	28,079	(1,756)	1,963	28,286	-	-	-	-	-	28,286
2018	56,989	(7,611)	49,378	(3,233)	3,447	49,593	-	-	-	-	-	49,593
2019	73,417	(3,399)	70,018	(5,109)	4,849	69,758	-	-	-	-	-	69,758
2020	71,285	8,499	79,784	(6,876)	5,436	78,345	-	-	-	-	-	78,345
2021	75,399	36,760	112,159	(11,240)	7,458	108,376	-	-	-	-	-	108,376
2022	115,077	115,831	230,908	(28,363)	14,969	217,514	-	-	-	-	-	217,514
PAYs subtotal	**514,018**	**156,884**	**670,902**	**(76,908)**	**43,988**	**637,982**	**-**	**-**	**-**	**-**	**-**	**637,982**
CAY (2023)	161,262	196,704	357,966	(48,795)	22,849	332,020	-	-	-	(182)	(182)	331,838
FtAY (2024)	-	-	-	-	-	-	288,648	392,725	(104,077)	451,706	163,058	451,706
Total	**675,280**	**353,588**	**1,028,868**	**(125,703)**	**66,837**	**970,002**	**288,648**	**392,725**	**(104,077)**	**451,524**	**162,876**	**1,421,526**

EXHIBIT E

Risk Adjustment & Discount Rate

The tables below present selected risk adjustment factor by coverage (the total is a weighted average, based on the unpaid claims projection for December 31, 2023 from the valuation), followed by the selected discount rate.

Risk Adjustment Factors: RSP Ontario

Coverage	Government Line	Ontario
Bodily Injury	Third Party Liability	7.57%
Property Damage	Third Party Liability	2.87%
Direct Comp Property Damage	Third Party Liability	1.64%
AccBen (indivis)	Accident Benefits	7.44%
Uninsured Automobile	Accident Benefits	6.62%
Underinsured Motorist	Other Coverages	7.83%
Collision w AP	Other Coverages	1.33%
Comprehensive w SP	Other Coverages	2.10%
Total	Total	7.21%

	discount rate:	5.46%

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2023 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2023, and are based on more up-to-date information). We have included the most recent valuation selection (5.46%), the prior valuation assumption (3.49%) and the prior fiscal year end valuation assumption (1.11%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

AY	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2023 projected Unpaid							
	4.46%	4.96%	5.46%	5.96%	6.46%	6.96%	3.49%	3.49%
2005 & prior	33,293	31,926	30,627	29,393	28,220	27,105	36,158	36,158
2005	51	50	49	49	48	47	52	52
2006	1,346	1,324	1,302	1,281	1,260	1,240	1,391	1,391
2007	812	797	782	768	754	740	844	844
2008	310	304	298	292	287	281	323	323
2009	799	780	763	746	729	713	837	837
2010	1,450	1,414	1,380	1,346	1,315	1,284	1,524	1,524
2011	2,053	1,998	1,946	1,895	1,847	1,800	2,167	2,167
2012	2,666	2,598	2,532	2,470	2,410	2,353	2,807	2,807
2013	5,071	4,981	4,895	4,812	4,732	4,656	5,258	5,258
2014	10,793	10,634	10,482	10,336	10,196	10,062	11,123	11,123
2015	9,890	9,801	9,714	9,630	9,550	9,471	10,073	10,073
2016	18,699	18,544	18,394	18,248	18,106	17,968	19,014	19,014
2017	29,630	29,378	29,132	28,893	28,660	28,432	30,138	30,138
2018	50,006	49,554	49,114	48,683	48,263	47,852	50,914	50,914
2019	72,800	72,094	71,405	70,733	70,077	69,436	74,220	74,220
2020	81,722	80,874	80,047	79,240	78,452	77,683	83,430	83,430
2021	116,993	115,648	114,336	113,057	111,808	110,590	119,705	119,705
2022	244,071	240,964	237,938	234,990	232,118	229,317	250,343	250,343
Total	994,606	981,382	968,548	956,085	943,978	932,211	1,021,434	1,021,434
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

AY	Dollar Impact Relative to Valuation Assumption							
	4.46%	4.96%	5.46%	5.96%	6.46%	6.96%	3.49%	3.49%
Total	26,058	12,835	-	(12,463)	(24,570)	(36,337)	52,887	52,887
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

AY	Percentage Impact Relative to Valuation Assumption							
	4.53%	5.03%	5.53%	6.03%	6.53%	7.03%	3.56%	3.56%
2005 & prior	8.7%	4.2%	0.0%	-4.0%	-7.9%	-11.5%	18.1%	18.1%
2005	2.8%	1.4%	0.0%	-1.3%	-2.6%	-3.9%	5.6%	5.6%
2006	3.4%	1.7%	0.0%	-1.6%	-3.2%	-4.8%	6.9%	6.9%
2007	3.9%	1.9%	0.0%	-1.8%	-3.6%	-5.4%	7.9%	7.9%
2008	4.1%	2.0%	0.0%	-1.9%	-3.8%	-5.6%	8.3%	8.3%
2009	4.7%	2.3%	0.0%	-2.2%	-4.4%	-6.5%	9.7%	9.7%
2010	5.1%	2.5%	0.0%	-2.4%	-4.7%	-6.9%	10.5%	10.5%
2011	5.5%	2.7%	0.0%	-2.6%	-5.1%	-7.5%	11.4%	11.4%
2012	5.3%	2.6%	0.0%	-2.5%	-4.8%	-7.1%	10.8%	10.8%
2013	3.6%	1.8%	0.0%	-1.7%	-3.3%	-4.9%	7.4%	7.4%
2014	3.0%	1.5%	0.0%	-1.4%	-2.7%	-4.0%	6.1%	6.1%
2015	1.8%	0.9%	0.0%	-0.9%	-1.7%	-2.5%	3.7%	3.7%
2016	1.7%	0.8%	0.0%	-0.8%	-1.6%	-2.3%	3.4%	3.4%
2017	1.7%	0.8%	0.0%	-0.8%	-1.6%	-2.4%	3.5%	3.5%
2018	1.8%	0.9%	0.0%	-0.9%	-1.7%	-2.6%	3.7%	3.7%
2019	2.0%	1.0%	0.0%	-0.9%	-1.9%	-2.8%	3.9%	3.9%
2020	2.1%	1.0%	0.0%	-1.0%	-2.0%	-3.0%	4.2%	4.2%
2021	2.3%	1.1%	0.0%	-1.1%	-2.2%	-3.3%	4.7%	4.7%
2022	2.6%	1.3%	0.0%	-1.2%	-2.4%	-3.6%	5.2%	5.2%
2023	2.9%	1.4%	0.0%	-1.4%	-2.7%	-4.0%	5.8%	5.8%
Total	2.7%	1.3%	0.0%	-1.3%	-2.5%	-3.8%	5.5%	5.5%
	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

	EXHIBIT G - Components of Change in M/S IBNR (i.e. IBNR + Discount Amount + Risk Adjustment): RSP Ontario						
	10/31/2022 to 3/31/2023						
amounts in $000s							
Accident Year	Prior Implementation Month	Projected Change	Change Due to AvsP Variances	Change Due to Valuation Implementation	Total Change	% of Total Change	Current Month Final Amount
prior	(588)	2,288	8,147	(9,451)	984	(167.4%)	396
2004	(84)	50	28	(89)	(11)	13.6%	(95)
2005	(4)	0	(14)	11	(3)	64.9%	(7)
2006	(185)	45	163	(226)	(18)	9.9%	(204)
2007	(111)	20	(5)	(71)	(57)	51.4%	(168)
2008	(111)	3,655	(3,571)	(30)	54	(48.3%)	(58)
2009	(316)	(111)	317	(167)	40	(12.6%)	(276)
2010	(288)	53	682	(468)	268	(93.0%)	(20)
2011	(18)	109	111	(1,114)	(894)	4,907.4%	(912)
2012	(641)	242	886	(682)	447	(69.7%)	(194)
2013	(879)	(317)	(1,284)	297	(1,304)	148.3%	(2,183)
2014	(1,558)	(166)	1,769	(1,152)	450	(28.9%)	(1,108)
2015	(1,685)	155	1,254	548	1,957	(116.2%)	273
2016	(2,212)	90	2,374	(853)	1,611	(72.9%)	(600)
2017	(5,608)	251	(223)	791	818	(14.6%)	(4,790)
2018	(3,726)	570	(5,166)	(2,887)	(7,482)	200.8%	(11,208)
2019	5,659	(606)	(6,399)	2,480	(4,525)	(80.0%)	1,134
2020	36,403	(14,426)	9,167	(9,357)	(14,615)	(40.1%)	21,787
2021	73,817	(19,073)	10,676	(9,999)	(18,396)	(24.9%)	55,421
2022	182,984	(9,811)	(14,834)	621	(24,024)	(13.1%)	158,960
2023	-	49,096	13,803	6,144	69,042	-	69,042
TOTAL	**280,850**	**12,113**	**17,882**	**(25,653)**	**4,341**	**1.5%**	**285,192**

EXHIBIT G

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

| | | | EXHIBIT G - Components of Change in Undiscounted IBNR: RSP Ontario | | | | |
| | | | 10/31/2022 to 3/31/2023 | | | | |

amounts in $000s

Accident Year	Prior Implementation Month	Projected Change	Change Due to AvsP Variances	Change Due to Valuation Implementation	Total Change	% of Total Change	Current Month Final Amount
prior	14,304	(312)	852	11	551	3.9%	14,855
2004	(2)	(1)	(3)	3	(1)	53.8%	(3)
2005	(43)	-	23	20	43	(100.1%)	0
2006	84	(50)	(8)	(21)	(79)	(94.5%)	5
2007	(49)	(29)	(36)	96	31	(64.2%)	(18)
2008	40	3,635	(3,707)	20	(51)	(128.1%)	(11)
2009	(88)	(169)	123	51	5	(5.8%)	(83)
2010	33	(63)	592	(256)	273	826.8%	306
2011	575	37	(378)	(640)	(982)	(170.7%)	(407)
2012	33	33	545	(201)	378	1,146.2%	411
2013	191	(475)	(2,515)	1,178	(1,812)	(948.8%)	(1,621)
2014	(12)	92	(33)	(303)	(244)	2,030.0%	(256)
2015	(1,046)	431	330	959	1,721	(164.5%)	675
2016	(1,281)	198	1,343	(106)	1,434	(112.0%)	153
2017	(4,336)	507	(1,888)	2,206	825	(19.0%)	(3,511)
2018	(1,134)	(2,571)	(4,870)	(205)	(7,646)	674.3%	(8,780)
2019	10,084	(4,368)	(7,120)	6,629	(4,859)	(48.2%)	5,225
2020	42,820	(18,315)	8,502	(5,484)	(15,297)	(35.7%)	27,523
2021	84,934	(22,124)	7,831	(5,479)	(19,773)	(23.3%)	65,161
2022	204,736	(8,277)	(28,477)	6,782	(29,972)	(14.6%)	174,764
2023	-	55,968	11,950	9,598	77,516	-	77,516
TOTAL	349,843	4,147	(16,943)	14,859	2,062	0.6%	351,905