

# ONTARIO RISK SHARING POOL MAY 2022 OPERATIONAL REPORT ACTUARIAL HIGHLIGHTS

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# **ACTUARIAL HIGHLIGHTS**

# **RSP ONTARIO**

# **OPERATIONAL REPORT**

#### **May 2022**

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#### 1 Summary

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

#### 1.1 Valuation Schedule (Fiscal Year 2022)

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

	Ontario Risk Sharing Pool						
	FISCAL	YEAR 2021 - SCHED	ULE OF VALUATIONS				
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes				
Sep. 30, 2021 (completed)	0.88% mfad <sup>1</sup> 25 bp	Oct. 2021	update valuation (roll-forward): accident year 2021 loss ratio <u>de</u> creased 2.5 points to 90.6%; discount rate <u>in</u> creased 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 decreased 4.0 points to 86.6 % and accident year 2022 loss ratio increased 9.3 points to 122.0 %; discount rate increased 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 increased 114 basis points; no change to selected margins for adverse deviations				
Jun. 30, 2022	% mfad bp	Aug. 2022	update valuation:				
Sep. 30, 2022	% mfad bp	Oct. 2022	update valuation (roll-forward):				

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

<sup>&</sup>lt;sup>1</sup> The selected interest rate margin is limited to reducing the selected discount rate to 0%; the approach is that if the net impact is negative, the discount rate will be capped at 0%.



#### 1.2 New Valuation

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

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

Summary of Impact (\$000s) of Implementing Result of Valuation as at Mar.31, 2022<sup>2</sup>

Ontario	unfav / (fav) for the month and ytd						
		IMPA	CT in \$000s	from change	es in:		
	ults &	payout patt	erns	dsct rate	margins		
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	
	[1]	[2]	[3]	[4]	[5]	[6]	
PAYs	1,925	694	2,619	(26,884)	-	(24,265)	
CAY	-	(35)	(35)	(5,978)	-	(6,013)	
Prem Def		(2,588)	(2,588)	(8,190)	-	(10,778)	
TOTAL	1,925	(1,929)	(4)	(41,052)	-	(41,056)	

As indicated in the preceding table, the incorporation of the new valuation had an estimated *\$41.1 million favourable impact* on the month's net result from operations, subtracting an estimated 10.3 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **140.7%**. The favourable impact is due to the increase in discounting.

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

Ontario	ytd EP 397,371 (actual)						
	IN	/IPACT unfa	v / (fav) as %	% ytd EP from changes in:			
	ults &	payout pat	terns	dsct rate	margins		
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	
	[1] [2] [3]		[4]	[5]	[6]		
PAYs	0.5%	0.2%	0.7%	(6.8%)	-	(6.1%)	
CAY	-	-	-	(1.5%)	-	(1.5%)	
Prem Def	-	(0.7%)	(0.7%)	(2.1%)	-	(2.7%)	
TOTAL	0.5%	(0.5%)	-	(10.3%)	-	(10.3%)	

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

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

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



The change in the selected nominal ultimates was **unfavourable by \$1.9 million** overall. This reflects the impact attributable to the changes in the selected ultimate loss ratios (i.e. for each accident year, it is the product of life-to-date earned premium for the accident year and the change in the selected ultimate loss ratio). As this quarter is a roll-forward valuation, the impacts are mainly driven by claims development on short-tailed lines of business and on older accident years. Since the impact is relatively small, this indicates that claims are developing more or less as expected.

The **PAYs** overall showed a **\$1.9** million unfavourable nominal variance or 0.2% of the PAYs nominal unpaid balance of \$768.8 million determined at the end of last month (April 2022), due to favourable valuation impacts. The unfavourable development was caused by higher than usual claims development on short-tailed (physical damage) coverages from the most recent prior accident year (2021). This unfavourable development was partially offset by other adjustments.

The **CAY** and premium deficiency impacts are unchanged due to the selected loss ratios for accident year 2022 remaining unchanged from last quarter. These loss ratios were kept unchanged as a result of a data issue regarding AY 2022 losses. This data issue has since been corrected and the AY 20222 loss ratios will be updated following the 2022Q2 valuation.

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 an favourable change of \$1.9 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 selected risk-free yield curve, derived from Government of Canada benchmark bond yields monthly series using values for March 2022. Column [4] accounts for the change in the **discount rate** selected (<u>increased 114</u> basis points to **2.25%**), indicating a favourable impact of \$41.1 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$32.9 million at May 2022 – this compares to the \$33.7 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 4, 2021.

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

### 1.4 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation<sup>3</sup>

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

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

In **Tomec v Economical Mutual Insurance Company (2019 ONCA 882)**, the Ontario Court of Appeal set aside the Divisional Court judicial review and decision of the Licence and Appeal Tribunal to deny enhanced housekeeping and attendant care benefits. The unanimous panel concluded that the rule of discoverability applied to s. 281.1(1) of the Insurance Act and to s. 51(1) of the old Statutory Accident Benefits Schedule such that the two-year limitation period to dispute benefits could not run before an insured was determined to be catastrophically impaired (CAT). On June 4<sup>th</sup>, 2020, the Supreme Court of Canada dismissed the insurer's application to appeal the Ontario Court of Appeal's decision in this matter. At the current time, no adjustments have been made to our valuation estimates as a result of this decision, however, we will continue to monitor and reassess with the next valuation.

#### 1.5 Current Provision Summary

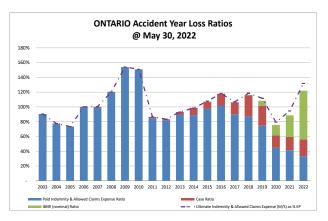
The following charts show the current levels of claim liabilities<sup>4</sup> booked by accident year<sup>5</sup>. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2022 full year earned premium (the red hash-mark line) to provide some perspective.

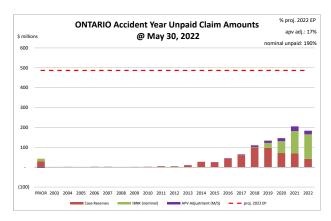
<sup>&</sup>lt;sup>3</sup>This url to a pdf is to a helpful guide on how bills become laws: <a href="https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf">https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf</a>.

<sup>&</sup>lt;sup>4</sup>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.

<sup>&</sup>lt;sup>5</sup>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".







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

The current actuarial present value adjustments provision for claims liabilities (\$80.7 million – see the following table) represents 17% 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.

claim liabilities (\$000s)		
	amt	%
case	588,425	58.6%
ibnr	334,687	33.3%
M/S apv adjust.	80,679	8.0%
M/S total	1.003.791	100.0%

The table to the left breaks down the Member Statement (M/S) claim liabilities total into component parts, showing that the majority of the claim liabilities for this RSP is in case reserves. Approximately 71% of the IBNR balance relates to accident years 2021 and 2022 (see Exhibit B).

Approximately 77% 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 6% 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)			policy liabilities (\$000s)				
	amt	%		amt	%		
unearned prem	253,295	75.5%	claim	923,112	68.9%		
prem def/(dpac)	57,330	17.1%	premium	310,625	23.2%		
M/S apv adjust.	24,790	7.4%	M/S apv adjust.	105,469	7.9%		
M/S total	335.415	100.0%	M/S total	1.339.206	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.

--- prior 24 mth avg



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	April	(55)	(55)	12,990	(4,502)	10,055	348
		May	(84)	(84)	12,806	(387)	7,131	(2,834)
PAY Total			(139)	(139)	25,796	(4,889)	17,186	(2,486)
CAY	2022	April	38,563	1,714	16,114	3,265	23,030	6,123
		May	41,093	1,893	18,219	3,320	25,143	7,171
CAY Total			79,656	3,607	34,333	6,585	48,173	13,294
<b>Grand Total</b>			79,517	3,468	60,129	1,696	65,359	10,808

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

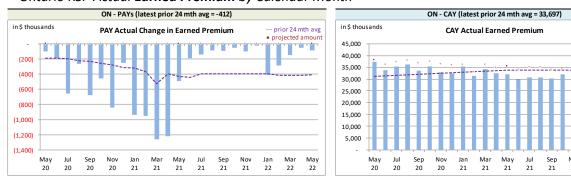
Note that claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the 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**<sup>6</sup> 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 **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.

<sup>&</sup>lt;sup>6</sup>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.

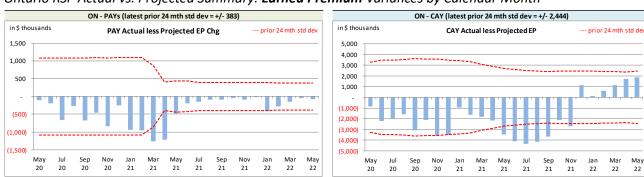


On Latest \$ thousands					
Earned Premium	PAYs	CAY			
Mthly Avg EP Chg (prior 24 mths)	(412)	33,697			
std dev	383	2,444			
A-P <> std dev	4	7			
% <> std dev	16.0%	28.0%			
norm <> std dev	31.7%	31.7%			
performance vs 24-mth avg:	better	no better			

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) bias<sup>7</sup>, 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.

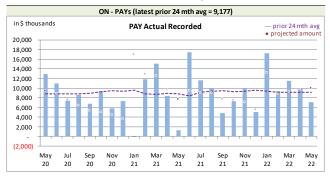
#### 2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

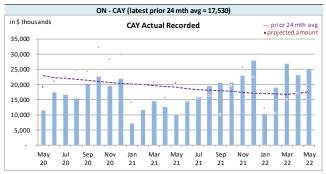
The following charts show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

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



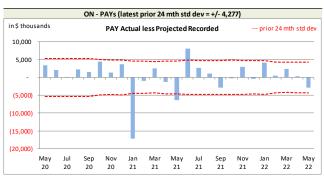
#### Ontario RSP Actual **Recorded** by Calendar Month

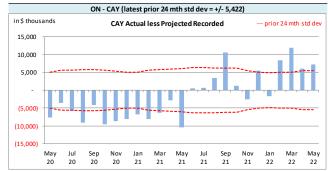




**Recorded** activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

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





On Latest \$ thousands					
Recorded	PAYs	CAY			
Mthly Avg Recorded (prior 24 mths)	9,177	17,530			
std dev	4,277	5,422			
A-P <> std dev	3	16			
% <> std dev	12.0%	64.0%			
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). Bias<sup>8</sup> has not been indicated at a 95% confidence level on a rolling 25-month basis (14 of 25 variances were positive).

The current accident year (CAY) **recorded** variances (preceding table on the left) fell outside of one standard deviation 64% 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 (10 of 25 variances were positive).

The method for establishing IBNR adjusts automatically for changes in earned premium and recorded

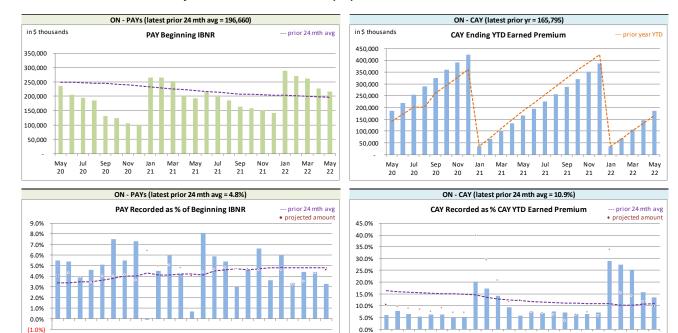
<sup>&</sup>lt;sup>8</sup> For the binomial distribution with 25 trials and an assumed 50% success probability, the 95% confidence range is 8 to 17 successes. That is, favourable or unfavourable counts of 0 to 7 or 18 to 25 out of 25 outcomes would suggest bias.



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<sup>9</sup> **Recorded** activity by Calendar Month



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

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

#### 2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

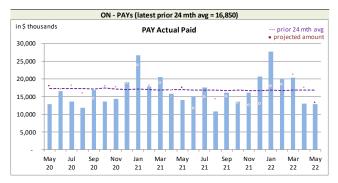
The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average

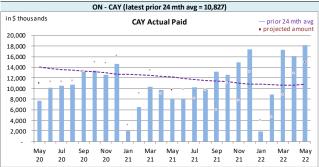
<sup>&</sup>lt;sup>9</sup>Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. 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.



amount of the preceding 24 calendar months.

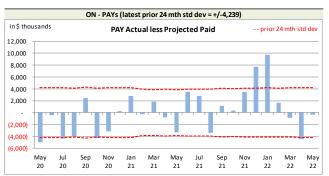
Ontario RSP Actual **Paid** activity by Calendar Month

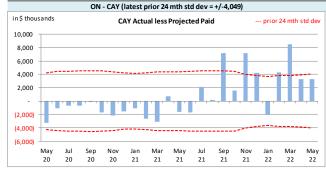




**Paid** activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

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





On Latest	On Latest \$ thousands				
Paid	PAYs	CAY			
Mthly Avg Paid (prior 24 mths)	16,850	10,827			
std dev	4,239	4,049			
A-P <> std dev	6	5			
% <> std dev	24.0%	20.0%			
norm <> std dev	31.7%	31.7%			
performance vs 24-mth avg:	better	better			

With respect to **paid** indemnity & allowed claims expense, 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 (12 of 25 variances are positive).

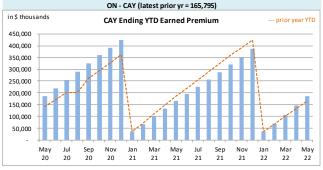
The current accident year (CAY) **paid** variances fell outside of one standard deviation 20% of the time over the last 25 calendar months (preceding table on the left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (10 of 25 variances are positive).

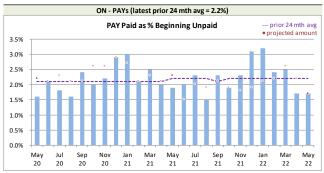
We have included, for reference, the following charts related to levels influencing paid activity.

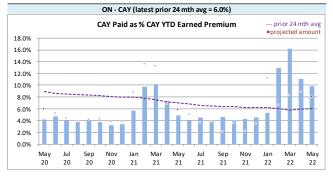


## Ontario RSP Levels that influence<sup>10</sup> Paid activity by Calendar Month









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 IBNR<sup>11</sup>, 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.

<sup>&</sup>lt;sup>10</sup>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.

<sup>&</sup>lt;sup>11</sup>For ease of discussion, "IBNR" is used in place of "provisions for incurred but not recorded (IBNR) and development".



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

- (i) the change in projections;
- 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<sup>12</sup> 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<sup>13</sup>, 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 122.6% rather than 122.0% (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.)

<sup>&</sup>lt;sup>12</sup>"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).

<sup>&</sup>lt;sup>13</sup>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.



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	(22,667)	(12.2%)	(44,744)	(24.1%)	(67,411)	(36.3%)	(25,899)	(7.6%)
CAY	227,640	122.6%	18,217	9.8%	245,857	132.5%	48,799	(3.8%)
TOTAL	204,972	110.4%	(26,527)	(14.3%)	178,445	96.1%	22,900	(11.5%)

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

In general, prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments, except when valuations are implemented. The loss ratio change year-to-date in Table 04 reflects not only changes in the prior accident year levels, but also the increase in the calendar year-to-date earned premium with an additional month's earned premium, and 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 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										
IBNR + M/S actuarial present	Accident	Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected			
value adjustments	Year	Apr. 2022	May. 2022	Jun. 2022	Jul. 2022	Aug. 2022	Sep. 2022	Oct. 2022	Dec. 2022			
	prior	14,188	9,719	9,352	9,325	8,920	8,891	8,716	8,652			
	2003	24	24	23	23	22	22	22	22			
	2004	(20)	(52)	(50)	(48)	(46)	(47)	(45)	(45)			
	2005	(43)	(43)	(42)	(42)	(40)	(40)	(39)	(39)			
	2006	58	(23)	(23)	(24)	(21)	(23)	(21)	(23)			
	2007	130	27	27	26	24	26	25	26			
	2008	65	(172)	(166)	(164)	(158)	(156)	(153)	(149)			
	2009	609	74	70	71	69	67	66	64			
	2010	874	180	174	172	165	165	161	159			
	2011	390	119	115	114	109	109	107	104			
	2012	666	34	32	34	32	33	32	36			
	2013	1,053	180	176	172	168	164	160	153			
	2014	95	(301)	(283)	(294)	(269)	(280)	(277)	(297)			
	2015	1,889	1,559	1,521	1,485	1,449	1,416	1,382	1,318			
	2016	2,282	1,282	1,265	1,213	1,204	1,158	1,127	1,041			
discount rate	2017	3,323	2,547	2,500	2,418	2,382	2,306	2,249	2,110			
2.25%	2018	16,337	11,001	10,775	10,411	9,992	9,734	9,417	8,317			
	2019	42,249	36,337	34,997	34,007	33,113	31,564	29,914	27,343			
interest rate margin	2020	83,828	74,671	71,404	69,454	65,580	60,733	56,716	49,278			
25 basis pts	2021	138,606	136,410	130,890	125,567	121,299	118,319	114,578	106,794			
	2022	118,137	141,793	170,230	202,071	240,407	280,189	323,036	409,408			
	TOTAL	424,740	415,366	432,987	455,991	484,401	514,350	547,173	614,272			
	Change		(9,374)	17,621	23,004	28,410	29,949	32,823				

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



# **EXHIBIT B**

# **IBNR**

TABLE EXHIBIT B					A	Amounts in \$00	00s			
IBNR	Ultimate	Accident	Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected
	Loss Ratio	Year	Apr. 2022	May. 2022	Jun. 2022	Jul. 2022	Aug. 2022	Sep. 2022	Oct. 2022	Dec. 2022
	-	prior	13,777	13,758	13,305	13,171	12,685	12,557	12,294	12,047
	90.4%	2003	23	23	22	22	21	21	21	21
	77.5%	2004	(83)	(84)	(81)	(80)	(77)	(76)	(74)	(72)
	73.4%	2005	(43)	(43)	(42)	(42)	(40)	(40)	(39)	(39)
	100.1%	2006	(41)	(43)	(42)	(42)	(40)	(40)	(39)	(39)
	100.3%	2007	26	25	24	24	23	23	23	23
	120.2%	2008	33	(171)	(165)	(163)	(157)	(155)	(152)	(148)
	154.0%	2009	539	92	89	88	85	84	82	80
	150.9%	2010	754	237	229	227	219	217	212	208
	86.5%	2011	133	131	127	126	121	120	117	115
	83.4%	2012	441	150	145	144	139	138	135	133
	93.1%	2013	404	25	24	24	23	23	23	23
	98.2%	2014	(1,658)	(1,165)	(1,127)	(1,116)	(1,075)	(1,064)	(1,042)	(1,022)
	107.2%	2015	(33)	300	290	287	276	273	267	261
	117.4%	2016	(1,091)	(1,035)	(1,001)	(991)	(954)	(944)	(924)	(906)
	106.0%	2017	(1,696)	(862)	(834)	(826)	(795)	(787)	(770)	(754)
	116.3%	2018	5,456	2,908	2,763	2,680	2,492	2,467	2,376	1,813
	108.4%	2019	26,542	24,436	23,214	22,518	21,842	20,531	19,299	17,417
	75.7%	2020	63,960	59,630	56,648	54,949	51,322	46,703	42,967	36,208
	88.5%	2021	108,946	112,799	107,610	102,660	98,759	96,093	92,730	85,726
	122.0%	2022	98,586	123,576	148,771	176,936	210,142	244,609	281,772	356,951
		TOTAL	314,975	334,687	349,969	370,596	395,011	420,753	449,278	508,046
		Change		19,712	15,282	20,627	24,415	25,742	28,525	·

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



# **EXHIBIT C**

# **Premium Liabilities**

TABLE EXHIBIT C	Amounts in \$000s								
Premium Liabilities	Actual Apr. 2022	Actual May. 2022	Projected Jun. 2022	Projected Jul. 2022	Projected Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Dec. 2022	
(1) unearned premium (UP)	248,526	253,295	258,532	261,867	271,655	280,566	285,699	283,347	
FOR MEMBER SHARING									
(2) expected future costs ratio {% of (1)}	136.5%	132.4%	132.6%	132.9%	133.2%	133.5%	133.8%	134.6%	
<ul><li>(3) expected future costs {(1) x (2)}</li><li>(4) premium deficiency / (deferred policy</li></ul>	339,239	335,415	342,870	347,970	361,774	374,507	382,331	381,288	
acquisition cost)	90,713	82,120	84,338	86,103	90,119	93,941	96,632	97,941	
Excluding Actuarial Present Value Adjustments									
(5) expected future costs ratio {% of (1)}	122.5%	122.6%	122.8%	123.1%	123.3%	123.6%	123.9%	124.6%	
<ul><li>(6) expected future costs {(1) x (5)}</li><li>(7) premium deficiency / (deferred policy</li></ul>	304,385	310,625	317,529	322,253	335,036	346,828	354,073	353,107	
acquisition cost)	55,859	57,330	58,997	60,386	63,381	66,262	68,374	69,760	



# **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)								
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL		
prior	23,791	12,047	35,838	(6,978)	689	3,591	(697)	2,894	(3,395)	32,443		
2003	(2)	21	19	(1)	-	2	-	2	1	20		
2004	819	(72)	747	(48)	5	75	(5)	70	27	774		
2005	37	(39)	(2)	-	-	-	-	-	-	(2		
2006	1,401	(39)	1,362	(120)	12	136	(12)	124	16	1,378		
2007	1,316	23	1,339	(132)	14	134	(13)	121	3	1,342		
2008	408	(148)	260	(27)	3	26	(3)	23	(1)	259		
2009	792	80	872	(103)	10	87	(10)	77	(16)	856		
2010	1,662	208	1,870	(236)	24	187	(24)	163	(49)	1,821		
2011	3,989	115	4,104	(421)	42	410	(42)	368	(11)	4,093		
2012	3,902	133	4,035	(501)	50	404	(50)	354	(97)	3,938		
2013	8,437	23	8,460	(716)	72	846	(72)	774	130	8,590		
2014	22,285	(1,022)	21,263	(1,402)	141	2,126	(140)	1,986	725	21,988		
2015	20,561	261	20,822	(1,027)	105	2,082	(103)	1,979	1,057	21,879		
2016	36,018	(906)	35,112	(1,567)	163	3,507	(156)	3,351	1,947	37,059		
2017	51,031	(754)	50,277	(2,163)	226	5,017	(216)	4,801	2,864	53,141		
2018	79,947	1,813	81,760	(3,630)	382	10,205	(453)	9,752	6,504	88,264		
2019	84,154	17,417	101,571	(5,027)	528	15,176	(751)	14,425	9,926	111,497		
2020	77,448	36,208	113,656	(6,269)	658	19,772	(1,091)	18,681	13,070	126,726		
2021	76,366	85,726	162,092	(10,203)	1,069	32,231	(2,029)	30,202	21,068	183,160		
PAYs (sub-total):	494,362	151,095	645,457	(40,571)	4,193	96,014	(5,867)	90,147	53,769	699,226		
CAY (2022)	118,984	356,951	475,935	(29,509)	3,082	84,098	(5,214)	78,884	52,457	528,392		
claims liabilities:	613,346	508,046	1,121,392	(70,080)	7,275	180,112	(11,081)	169,031	106,226	1,227,618		
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*		
premium liabilities:	283,347	69,760	353,107	(16,637)	1,738	45,214	(2,134)	43,080	28,181	381,288		
						*	Total may not be s	um of parts, as ap	vs apply to future	costs within UPR		
policy liabilities:			1,474,499	(86,717)	9,013	225,326	(13,215)	212,111	134,407	1,608,906		



#### **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.

	Selected Claims Development MfA Third Other						
Accident Year	Party Liability	Accident Benefits	Coverage s	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%	8.8%	10.0%			
2017	10.0%	10.0%	6.9%	10.0%			
2018	12.5%	12.5%	11.9%	12.5%			
2019	14.9%	15.0%	11.6%	14.9%			
2020	17.4%	17.5%	13.4%	17.4%			
2021	19.9%	20.0%	14.2%	19.9%			
2022	17.4%	20.0%	5.8%	17.7%			
2023	13.0%	20.0%	5.1%	12.8%			
prem liab	13.0%	20.0%	5.1%	12.8%			

discount rate: 2.25%

margin (basis points): 25

<sup>\*</sup>prem liabilities as at 2022m03



#### **EXHIBIT F**

# **Interest Rate Sensitivity**

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2022 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2022, and are based on more up-to-date information). We have included the most recent valuation selection (2.25%), the prior valuation assumption (1.11%) 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.

	Actuaria	l Present Val	ue of Provisi	ons at Variou	s Discount Rat	es - Dec. 31, 2	2022 projected	Unpaid
AY	1.25%	1.75%	2.25%	2.75%	3.25%	3.75%	1.11%	0.26%
2005 &	,			,	1			
prior	42,870	40,865	38,971	37,182	35,491	33,892	43,452	47,197
2005	40	39	39	38	37	37	40	41
2006	1,637	1,604	1,572	1,541	1,511	1,482	1,646	1,706
2007	1,765	1,725	1,686	1,649	1,613	1,578	1,777	1,849
2008	350	342	334	326	319	311	353	368
2009	965	939	913	889	866	844	973	1,021
2010	1,682	1,633	1,585	1,540	1,497	1,456	1,696	1,787
2011	4,314	4,212	4,115	4,023	3,934	3,850	4,343	4,530
2012	4,718	4,582	4,452	4,329	4,212	4,100	4,757	5,008
2013	6,705	6,576	6,452	6,334	6,222	6,114	6,742	6,980
2014	17,418	17,159	16,912	16,676	16,451	16,236	17,493	17,970
2015	16,679	16,494	16,316	16,145	15,980	15,821	16,732	17,067
2016	31,077	30,765	30,464	30,172	29,890	29,615	31,166	31,725
2017	48,626	48,157	47,701	47,258	46,828	46,409	48,760	49,600
2018	88,646	87,761	86,900	86,062	85,245	84,449	88,898	90,473
2019	111,076	109,837	108,632	107,458	106,316	105,202	111,429	113,636
2020	129,055	127,447	125,883	124,362	122,881	121,439	129,514	132,381
2021	178,043	175,501	173,032	170,633	168,300	166,031	178,768	183,304
2022	346,647	341,693	336,888	332,225	327,698	323,301	348,062	356,921
Total	1,032,272	1,017,290	1,002,809	988,805	975,253	962,131	1,036,560	1,063,521
	curr - 100 bp	curr - 50 bp	curr val	curr + 50bp	curr + 100bp	curr + 150bp	prior val	prior fyr end
			assumption				assumption	assumption
				'			,	
			Dollar Im	pact Relative	to Valuation A	ssumption		
AY	1.25%	1.75%	2.25%	2.75%	3.25%	3.75%	1.11%	0.26%
Total	29,462	14,481		(14,005)	(27,557)	(40,678)	33,751	60,711
		11,101		(14,003)	(27,337)	(40,078)	33,/31	00,711
	curr - 100 bp	curr - 50 bp	curr val		curr + 100bp		prior val	prior fyr end
		curr - 50 bp	curr val assumption	curr + 50bp				
		curr - 50 bp		curr + 50bp			prior val	prior fyr end
	curr - 100 bp	curr - 50 bp	assumption Percentage	curr + 50bp	curr + 100bp	curr + 150bp n Assumption	prior val assumption	prior fyr end assumption
AY		curr - 50 bp	assumption Percentage	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end
2005 &	curr - 100 bp	curr - 50 bp	assumption Percentage 2.23%	curr + 50bp	ve to Valuatio	n Assumption 3.73%	prior val assumption 1.05%	prior fyr end assumption 0.22%
2005 & prior	curr - 100 bp 1.23% 10.0%	1.73% 4.9%	Percentage 2.23%	curr + 50bp Impact Relati 2.73%	ve to Valuatio 3.23%	n Assumption 3.73%	prior val assumption 1.05%	prior fyr end assumption  0.22%
2005 & prior 2005	1.23% 10.0% 3.5%	1.73% 4.9% 1.7%	Percentage 2.23% 0.0%	curr + 50bp Impact Relati 2.73% -4.6% -1.7%	ve to Valuatio 3.23%  -8.9% -3.3%	n Assumptior 3.73% -13.0% -4.8%	prior val assumption 1.05% 11.5% 4.0%	prior fyr end assumption 0.22% 21.1% 7.1%
2005 & prior 2005 2006	1.23% 10.0% 3.5% 4.1%	1.73% 4.9% 1.7% 2.0%	Percentage 2.23% 0.0% 0.0% 0.0%	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0%	ve to Valuatio 3.23%  -8.9% -3.3% -3.9%	n Assumptior 3.73% -13.0% -4.8% -5.7%	prior val assumption 1.05% 11.5% 4.0% 4.7%	0.22% 21.1% 7.1% 8.5%
2005 & prior 2005 2006 2007	1.23% 10.0% 3.5% 4.1% 4.7%	1.73% 4.9% 1.7% 2.0% 2.3%	Percentage 2.23% 0.0% 0.0% 0.0% 0.0%	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2%	ve to Valuatio 3.23% -8.9% -3.3% -3.9% -4.4%	n Assumptior 3.73% -13.0% -4.8% -5.7% -6.4%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.4%	0.22% 21.1% 7.1% 8.5% 9.7%
2005 & prior 2005 2006 2007 2008	1.23% 1.00% 3.5% 4.1% 4.7% 4.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4%	9 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2% -2.3%	curr + 100bp  ve to Valuatio 3.23%  -8.9% -3.3% -3.9% -4.4% -4.6%	n Assumptior 3.73% -13.0% -4.8% -5.7% -6.4% -6.7%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.4% 5.6%	21.1% 7.1% 8.5% 9.7%
2005 & prior 2005 2006 2007 2008 2009	1.23% 10.0% 3.5% 4.1% 4.7% 4.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8%	9 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	curr + 50bp Impact Relati 2.73%   -4.6% -1.7% -2.0% -2.2% -2.3% -2.7%	ve to Valuatio 3.23%  -8.9% -3.3% -3.9% -4.4% -5.2%	n Assumptior 3.73%  -13.0% -4.8% -5.7% -6.4% -6.7% -7.7%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.4% 5.6% 6.5%	prior fyr end assumption 0.22% 21.1% 7.1% 8.5% 9.7% 10.1% 11.8%
2005 & prior 2005 2006 2007 2008 2009 2010	1.23% 10.0% 3.5% 4.1% 4.7% 5.7% 6.1%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8%	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	curr + 50bp  Impact Relati 2.73%   -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8%	ve to Valuatio 3.23% -8.9% -3.3% -3.3% -4.4% -4.6% -5.2% -5.6%	n Assumptior 3.73% -13.0% -4.8% -5.7% -6.4% -6.7% -7.7% -8.2%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.6% 6.5% 7.0%	prior fyr end assumption 0.22% 21.1% 7.1% 8.5% 9.7% 10.1% 11.8% 12.7%
2005 & prior 2005 2006 2007 2008 2009 2010 2011	1.23% 10.0% 3.5% 4.1% 4.7% 6.1% 4.8%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4%	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.2%	ve to Valuatio 3.23%  -8.9% -3.3% -4.4% -5.2% -5.6% -4.4%	n Assumptior 3.73%  -13.0% -4.8% -5.7% -6.4% -6.7% -7.79% -8.2% -6.4%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.4% 6.5% 7.0%	21.1% 7.11% 8.5% 9.7% 10.1% 12.7% 10.1%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012	1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 5.7% 6.1% 4.8%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4%	assumption Percentage 2.23% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.8% -2.8%	ve to Valuatio 3.23%  -8.9% -3.3% -4.4% -5.2% -5.6% -4.4% -5.4%	n Assumption 3.73%  -13.0% -4.8% -5.7% -6.4% -6.7% -7.7% -8.2% -6.4% -7.9%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.6% 6.5% 7.0% 5.5%	21.1% 7.1% 8.5% 9.7% 10.18% 12.7% 10.18 12.5%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013	1.23% 10.0% 3.5% 4.1% 4.9% 5.7% 6.1% 4.8% 6.0% 3.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.886 3.0% 2.496 2.9%	Percentage 2.23% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%   -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.8% -1.8%	ve to Valuatio 3.23% -8.9% -3.3% -4.4% -5.2% -5.6% -3.4% -3.6%	n Assumptior 3.73% -13.0% -4.8% -5.7% -6.4% -6.79 -8.296 -6.49% -7.99% -5.2%	prior val assumption 1.05% 11.5% 4.0% 5.4% 5.6% 6.5% 7.0% 5.5% 6.8% 4.5%	21.1% 2.1.1% 2.1.1% 3.5% 10.1% 11.8% 12.7% 10.19 12.5% 8.2%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 5.7% 6.1% 6.0% 3.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4% 1.9%	Percentage 2.23%; 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.8% -1.8% -1.8% -1.4%	ve to Valuatio 3.23%  -8.9% -3.3% -3.9% -4.4% -4.6% -5.2% -5.6% -3.4% -3.6% -2.7%	n Assumptior 3.73%  -13.0% -4.8% -5.7% -6.4% -6.7% -7.7% -8.2% -7.9% -7.9% -5.2% -4.0%	1.05% 1.05% 1.05% 4.0% 4.7% 5.6% 6.5% 7.0% 6.8% 4.5% 3.4%	prior fyr end assumption 0.22% 21.1% 7.1%; 8.5% 10.1% 11.8% 12.7% 10.1% 12.5% 8.2% 6.3%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	1.23% 10.0% 3.5% 4.1% 4.7% 5.7% 6.1% 4.8% 6.0% 3.9% 3.0% 2.2%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.4% 2.4% 1.9% 1.5% 1.1%	Percentage 2.23% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.3% -2.3% -2.7% -2.8% -2.2% -1.8% -1.4% -1.0%	ve to Valuatio 3.23%  -8.9% -3.3% -3.9% -4.4% -4.6% -5.2% -4.4% -5.4% -3.6% -3.6% -2.7% -2.1%	n Assumptior 3.73% -13.0% -4.8% -5.7% -6.4% -6.7% -7.7% -8.2% -6.49% -7.9% -3.0%	1.05% 1.05% 1.05% 4.0% 4.7% 5.4% 5.6% 6.5% 7.0% 6.8% 4.5% 3.4% 2.5%	21.1% 21.1% 21.1% 21.1% 21.18 2.7% 10.1% 11.8% 12.7% 10.1% 2.5% 8.2% 6.3% 4.6%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	1.23% 10.0% 3.5% 4.1% 4.7% 5.7% 6.1% 4.8% 6.0% 3.9% 2.2% 2.0%	1.73% 4.9% 1.796 2.0% 2.3% 2.4% 2.4% 2.9% 1.9% 1.5% 1.1%	Percentage 2.23% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%  -4.6% -1.796 -2.0% -2.2% -2.3% -2.7% -2.8% -2.28% -1.8% -1.0% -1.0%	ve to Valuatio 3.23%  -8.9% -3.39% -3.9% -4.4% -4.69% -5.2% -5.4% -3.69% -2.1% -1.9%	n Assumption 3.73%  -13.0% -4.8% -5.7% -6.4% -6.7% -7.7% -8.2% -6.4% -7.9% -3.0% -3.0% -2.8%	1.05% 1.05% 1.05% 4.0% 4.7% 5.4% 5.6% 6.5% 7.0% 6.8% 4.5% 2.5% 2.3%	21.1% 21.1% 21.1% 21.1% 21.1% 21.1% 21.1% 21.1% 21.2.7% 21.1.8% 22.6% 3.2% 4.6% 4.1%
2005 & prior 2005   2006   2007   2008   2009   2010   2011   2012   2013   2014   2015   2016   2017	1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 6.1% 6.0% 3.9% 3.0% 2.2% 2.0%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4% 1.9% 1.5% 1.1% 1.0%	Percentage 2.23%  0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0	curr + 50bp  Impact Relati 2.73%   -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.2% -1.8% -1.0% -1.0% -0.9%	ve to Valuatio 3.23%  -8.9% -3.3% -4.4% -5.2% -5.6% -4.4% -2.7% -1.9% -1.9% -1.8%	n Assumptior 3.73% -13.0% -4.8% -5.7% -6.4% -7.796 -8.2% -7.9% -5.2% -4.0% -3.0% -2.8% -2.8%	prior val assumption 1.05% 11.5% 4.0% 5.4% 5.6% 6.5% 7.0% 6.8% 4.5% 3.4% 2.5% 2.3%	21.1% 21.1% 21.1% 21.1% 21.1% 21.1% 21.1% 21.1% 21.7% 21.1% 21.7% 21.2.7% 21.2.7% 21.2.7% 4.6% 4.6% 4.1% 4.0%
2005 & prior 2005 2006 2007 2008 2009 2011 2012 2013 2014 2015 2016 2017 2018	1.23% 10.0% 3.5% 4.1% 4.9% 5.7% 6.1% 4.8% 6.0% 3.9% 2.2% 2.0% 1.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.4% 2.4% 1.9% 1.5% 1.1% 1.0%	Percentage 2.23%; 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%   -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.8% -1.8% -1.4% -1.0% -0.9% -0.9%	ve to Valuatio 3.23% -8.9% -3.3% -3.9% -4.4% -5.2% -5.6% -2.1% -2.1% -1.9% -1.8% -1.9%	n Assumptior 3.73%  -13.0% -4.8% -5.7% -6.4% -6.7% -7.7% -8.2% -6.4% -7.9% -5.2% -2.8% -2.7% -2.8%	prior val assumption 1.05% 11.5% 4.0% 5.4% 5.6% 6.5% 7.0% 5.5% 6.8% 4.5% 2.2% 2.3% 2.2%	21.1% 21.1% 7.1%; 8.5% 10.1% 11.8% 12.7% 6.3% 4.6% 4.1% 4.1%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 5.7% 6.1% 4.8% 6.0% 3.9% 3.0% 2.2% 2.0% 2.0% 2.3%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4% 1.9% 1.5% 1.1% 1.0% 1.0%	Percentage 2.23%	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2% -2.3% -2.79 -2.8% -2.8% -1.8% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0%	ve to Valuatio 3.23%  -8.9% -3.3% -3.9% -4.4% -5.6% -5.4% -3.6% -2.1% -1.9% -1.8% -2.1% -2.1%	n Assumptior 3.73%  -13.0% -4.8% -5.7% -6.4% -6.79 -7.7% -8.2% -6.4% -5.2% -4.0% -3.0% -2.8% -2.7% -2.8% -3.2%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.6% 6.5% 7.0% 5.5% 4.5% 2.25% 2.3% 2.2% 2.3%	prior fyr end assumption  0.22%  21.1% 7.1%; 8.5% 9.7% 10.1% 11.8% 12.7% 10.1% 6.3% 4.6% 4.1% 4.0% 4.1% 4.0% 4.1% 4.6%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 5.7% 6.1% 4.8% 6.0% 3.9% 2.0% 2.0% 2.0% 2.3% 2.5%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4% 1.9% 1.1% 1.0% 1.0% 1.0% 1.1%	Percentage 2.23% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%   -4.6% -1.7% -2.0% -2.2% -2.3% -2.7% -2.8% -2.8% -1.8% -1.4% -1.0% -0.9% -0.9%	ve to Valuatio 3.23% -8.9% -3.3% -3.9% -4.4% -5.2% -5.6% -2.1% -2.1% -1.9% -1.8% -1.9%	n Assumptior 3.73%; -13.0% -4.8% -5.7% -6.4% -6.79 -7.7% -8.2% -6.496 -5.2% -4.0% -3.0% -2.8% -2.7% -3.2% -3.2% -3.5%	1.05% 1.05% 1.05% 4.0% 4.7% 5.4% 5.6% 6.5% 7.0% 5.5% 4.5% 2.2% 2.3% 2.6% 2.9%	prior fyr end assumption  0.22%  21.1%  7.1%  8.5%  9.7%  10.1%  11.8%  12.7%  10.1%  4.0%  4.1%  4.0%  4.1%  4.6%  5.2%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2013 2014 2015 2016 2017 2018 2019 2020 2021	1.23% 10.0% 1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 5.7% 6.1% 4.8% 6.0% 3.9% 3.0% 2.2% 2.0% 2.2% 2.0% 2.3% 2.5% 2.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 2.4% 1.9% 1.5% 1.1% 1.0% 1.0%	Percentage 2.23%	curr + 50bp  Impact Relati 2.73%  -4.6% -1.7% -2.0% -2.2% -2.3% -2.79 -2.8% -2.8% -1.8% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0% -1.0%	ve to Valuatio 3.23%  -8.9% -3.3% -3.9% -4.4% -5.6% -5.4% -3.6% -2.1% -1.9% -1.8% -2.1% -2.1%	n Assumptior 3.73%  -13.0% -4.8% -5.7% -6.4% -6.79 -7.7% -8.2% -6.4% -5.2% -4.0% -3.0% -2.8% -2.7% -2.8% -3.2%	prior val assumption 1.05% 11.5% 4.0% 4.7% 5.6% 6.5% 7.0% 5.5% 4.5% 2.25% 2.3% 2.2% 2.3%	prior fyr end assumption  0.22%  21.1% 7.1%; 8.5% 9.7%; 10.1% 11.8% 12.7%; 10.1.5% 8.2%; 6.3% 4.6% 4.1% 4.0% 4.1% 4.0%
2005 & prior 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022	1.23% 10.0% 3.5% 4.1% 4.7% 4.9% 6.1% 4.8% 6.0% 3.9% 3.0% 2.2% 2.0% 2.0% 2.3% 2.5% 2.5% 2.9%	1.73% 4.9% 1.7% 2.0% 2.3% 2.4% 2.8% 3.0% 1.9% 1.5% 1.1% 1.0% 1.0% 1.0% 1.1% 1.2% 1.4% 1.2% 1.4%	Percentage 2.23%; 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.	curr + 50bp  Impact Relati 2.73%    -4.6%   -1.7%   -2.0%   -2.2%   -2.3%   -2.7%   -2.8%   -1.8%   -1.0%   -1.0%   -1.1%   -1.2%   -1.4%   -1.4%   -1.4%   -1.1%   -1.4%   -1.1%   -1.1%   -1.4%	ve to Valuatio 3.23% -8.9% -3.3% -3.9% -4.4% -5.2% -5.6% -2.7% -1.9% -1.9% -2.1% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.4% -2.7% -2.4% -2.4% -2.4% -2.4% -2.7% -2.4% -2.4%	n Assumptior 3.73% -13.0% -13.0% -4.8% -5.7% -6.4% -6.7% -7.79% -8.2% -6.4% -7.9% -2.2% -2.8% -2.7% -2.8% -3.2% -3.2% -4.0% -4.0% -4.0%	prior val assumption 1.05% 11.5% 4.0% 5.4% 5.6% 6.5% 7.0% 5.5% 6.8% 4.5% 3.4% 2.2% 2.3% 2.2% 2.3% 3.33%	prior fyr end assumption  21.1% 7.1% 8.5% 9.7% 10.1% 11.8% 12.7% 6.3% 4.6% 4.1% 4.0% 4.1% 4.0% 5.2% 5.9% 5.9%
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# **EXHIBIT G**

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# Components of Member Statement IBNR (i.e. "Discounted") Change (April 2022 to May 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	14,212	(1,386)	1,348	(4,455)	(4,493)	(31.6%)	9,719
2003	15	(2)	11	-	9	60.0%	24
2004	(19)	6	(8)	(31)	(33)	173.7%	(52)
2005	(43)	5	(5)	-	-	-	(43)
2006	60	-	(5)	(78)	(83)	(138.3%)	(23)
2007	140	(9)	(18)	(86)	(113)	(80.7%)	27
2008	64	(6)	12	(242)	(236)	(368.8%)	(172)
2009	609	(56)	57	(536)	(535)	(87.8%)	74
2010	851	(79)	153	(745)	(671)	(78.8%)	180
2011	343	(22)	66	(268)	(224)	(65.3%)	119
2012	557	(54)	167	(636)	(523)	(93.9%)	34
2013	966	(68)	69	(787)	(786)	(81.4%)	180
2014	934	70	(973)	(332)	(1,235)	(132.2%)	(301)
2015	2,147	(90)	1,006	(1,504)	(588)	(27.4%)	1,559
2016	2,224	(43)	(179)	(720)	(942)	(42.4%)	1,282
2017	3,176	(55)	831	(1,405)	(629)	(19.8%)	2,547
2018	18,584	(892)	(3,397)	(3,294)	(7,583)	(40.8%)	11,001
2019	44,721	(2,332)	(2,205)	(3,847)	(8,384)	(18.7%)	36,337
2020	86,438	(6,671)	1,994	(7,090)	(11,767)	(13.6%)	74,671
2021	142,337	(11,483)	3,765	1,791	(5,927)	(4.2%)	136,410
2022	89,586	67,435	(9,215)	(6,013)	52,207	58.3%	141,793
<b>Grand Total</b>	407,902	44,268	(6,526)	(30,278)	7,464	1.8%	415,366



# **EXHIBIT G**

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# Components of IBNR (i.e. "Undiscounted") Change (April 2022 to May 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	13,799	(1,362)	1,325	(4)	(41)	(0.3%)	13,758
2003	14	(2)	11	-	9	64.3%	23
2004	(82)	8	(10)	-	(2)	2.4%	(84)
2005	(43)	5	(5)	-	-	-	(43)
2006	(39)	4	(8)	-	(4)	10.3%	(43)
2007	36	(3)	(8)	-	(11)	(30.6%)	25
2008	33	(4)	14	(214)	(204)	(618.2%)	(171)
2009	539	(53)	54	(448)	(447)	(82.9%)	92
2010	729	(74)	151	(569)	(492)	(67.5%)	237
2011	86	(12)	57	-	45	52.3%	131
2012	330	(42)	164	(302)	(180)	(54.5%)	150
2013	311	(38)	52	(300)	(286)	(92.0%)	25
2014	(832)	150	(1,025)	542	(333)	40.0%	(1,165)
2015	219	(1)	870	(788)	81	37.0%	300
2016	(1,192)	109	(221)	269	157	(13.2%)	(1,035)
2017	(1,984)	173	949	-	1,122	(56.6%)	(862)
2018	7,398	(413)	(3,378)	(699)	(4,490)	(60.7%)	2,908
2019	28,774	(1,792)	(2,186)	(360)	(4,338)	(15.1%)	24,436
2020	66,286	(5,951)	1,820	(2,525)	(6,656)	(10.0%)	59,630
2021	112,108	(10,374)	3,742	7,323	691	0.6%	112,799
2022	74,569	57,901	(8,894)	-	49,007	65.7%	123,576
<b>Grand Total</b>	301,059	38,229	(6,526)	1,925	33,628	11.2%	334,687