



ONTARIO RISK SHARING POOL

OCTOBER 2020 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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ACTUARIAL HIGHLIGHTS**RSP ONTARIO****OPERATIONAL REPORT****OCTOBER 2020**

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1 Summary

Key Points

- (a) The 2020 Q3 valuation was completed and implemented into the results this month, with a \$32.7 million favourable impact, or 2.5% of beginning policy liabilities (policy liabilities ended at \$1,294 million) and 9.2 points of year-to-date earned premium; the updated valuation loss ratios include a further assessment of the incurred impacts associated with the COVID-19 pandemic.

1.1 Valuation Schedule (Fiscal Year 2020)

The October 2020 Operational Report incorporates the results of an updated valuation (as at September 30, 2020) – 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 2020.

ONTARIO RISK SHARING POOL FISCAL YEAR 2020 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2019 (completed)	1.41% mfad 25 bp	Oct. 2019	updated valuation (roll forward): accident year 2019 loss ratio <u>decreased</u> 0.7 points to 122.3%; discount rate <u>increased</u> 1 basis point; no change to selected margins for adverse deviations
Dec. 31, 2019 (completed)	1.58% mfad 25 bp	Mar. 2020	update valuation: accident year 2019 loss ratio <u>decreased</u> 5.8 points to 116.5%; accident year 2020 loss ratio <u>decreased</u> 5.7 points to 119.5 %; discount rate <u>increased</u> 17 basis points; no change to selected margins for adverse deviations
Mar. 31, 2020 (completed)	0.66% mfad 25 bp	May. 2020	update valuation (partial roll-forward): accident year 2020 loss ratio <u>decreased</u> 7.8 points to 111.7 %; discount rate <u>decreased</u> 92 basis points; no change to selected margins for adverse deviations
Jun. 30, 2020 (completed)	0.29% mfad 25 bp	Aug. 2020	update valuation: accident year 2020 loss ratio <u>decreased</u> 16.3 points to 95.4%; discount rate <u>decreased</u> by 37 basis points; selected margins for adverse deviations were updated
Sep. 30, 2020 (completed)	0.26% mfad 25 bp	Oct. 2020	update valuation (roll-forward): accident year 2020 loss ratio <u>decreased</u> 5.0 points to 90.4 %; discount rate <u>decreased</u> 3 basis points; no change to selected margins for adverse deviations

Under the proposed schedule for fiscal year 2020, the off-half valuation quarters ending March 31, 2020 and September 30, 2020 would not reflect a full valuation update of assumptions, but would rather roll-forward key assumptions from the previous valuation.

1.2 New Valuation

A valuation of the Ontario Risk Sharing Pool (“RSP”) as at September 30, 2020 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 (2020), and “Prem Def” refers to premium deficiency / deferred acquisition costs impacts.

Summary of Impact (\$000s) of Implementing Result of Valuation as at Sep. 30, 2020¹

Ontario	unfav / (fav) for the month and ytd					
	IMPACT in \$000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(7,758)	(1,303)	(9,061)	793	-	(8,268)
CAY	(17,966)	(3,826)	(21,792)	431	-	(21,361)
Prem Def	(3,349)	46	(3,303)	273	-	(3,030)
TOTAL	(29,073)	(5,083)	(34,156)	1,497	-	(32,659)

As indicated in the preceding table, the incorporation of the new valuation had an estimated **\$32.7million favourable impact** on the month’s net result from operations, subtracting an estimated 9.2 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **81.8%**

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Sep.30, 2020

Ontario	ytd EP 356,427 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(2.2%)	(0.4%)	(2.5%)	0.2%	-	(2.3%)
CAY	(5.0%)	(1.1%)	(6.1%)	0.1%	-	(6.0%)
Prem Def	(0.9%)	-	(0.9%)	0.1%	-	(0.9%)
TOTAL	(8.2%)	(1.4%)	(9.6%)	0.4%	-	(9.2%)

¹In 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 impact of the **nominal changes** is shown in column [1] of the two preceding summary tables. The change in the selected nominal ultimates was **favourable by \$29.1 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).

The **PAYs** overall showed a **\$7.8 million favourable** nominal variance or 1.1% of the PAYs nominal unpaid balance of \$686.3 million determined at the end of last month (September 2020), driven by favourable claims development and updates to a priori loss ratios to include more recent data and updated trends. While the valuation implementation impact does differ from the valuation changes themselves (as they apply to different periods), the valuation result by government line provides insight into the relative PAYs nominal changes. As per following table, the primary changes were in relation to Accident Benefits for Accident Year 2017 and Accident Year 2019.

Valuation as at Sep 30, 2020 – PAYs Nominal Changes by Government Line

Ontario RSP - valuation changes in selected ultimate (favourable) / unfavourable during Quarter				
Accident Year	Third Party Liability	Accident Benefits	Other Coverages	Total
2015 & Prior	(539)	54	29	(456)
2016	(312)	334	(51)	(29)
2017	(219)	(3,262)	(204)	(3,685)
2018	2,700	689	199	3,588
2019	(14)	(9,400)	(592)	(10,006)
TOTAL	1,616	(11,585)	(619)	(10,588)

The CAY and premium deficiency impacts are a result of the change in the selected loss ratios for accident year **2020** (decreased 5.0 points to 90.4%) and accident year **2021** (decreased 0.2 points to 113.7%).

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

Column [2] recognizes that changing the nominal selections also changed the unpaid estimates (including changes to the relative mix by government line, which had an impact on the weighted-average MfADs). It also reflects the fact that we updated the projected emergence of claims payments, resulting in a change in the projected cash flows. These changes generated a favourable change of \$5.1 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 September 2020. Column [4] accounts for the change in the **discount rate** selected (decreased 3 basis points to **0.26%**), indicating an unfavourable impact of \$1.5 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$1.2 million at October 2020 – this compares to the \$0.2 million change one would estimate as the impact by interpolation using the interest rate sensitivity table provided in last month's Actuarial Highlights.

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

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

1.3 Appointed Actuary and Hybrid Actuarial Services Model

Mr. Cosimo Pantaleo of Ernst & Young LLP (EY) was appointed as Actuary by the FA Board at its February 18, 2020 meeting.

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 / Regulation²

There have been no changes in these descriptions since last month's Highlights, other than updated references to reflect the new valuation.

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.

Ontario Bill 91 (Building Ontario Up Act (Budget Measures), 2015) was introduced into the Legislature by the Minister of Finance on April 23, 2015 and **received Royal Assent on June 4, 2015**. Bill 91 announced a number of amendments to regulations made under the Insurance Act, including: updating the Catastrophic Impairment Definition and changes to the standard benefit level under the Statutory Accident Benefits Schedule (SABS); restrictions on insurance premium increases and lowering of the maximum interest rate charged on monthly auto insurance premium payments; and adjustments to the monetary threshold beyond which the tort deductible does not apply to reflect inflation (adjustments to reflect inflation in the associated tort deductible were undertaken via an update to regulation 461/96). On August 26, 2015, the Ontario government filed Ontario regulations 250/15 and 251/15 implementing reforms set out in Bill 91. With the most recent valuation (September 30, 2020), consideration of the changes to the SABS impacting the bodily injury and accident benefits coverages, were included with the updated industry trend analysis (completed using

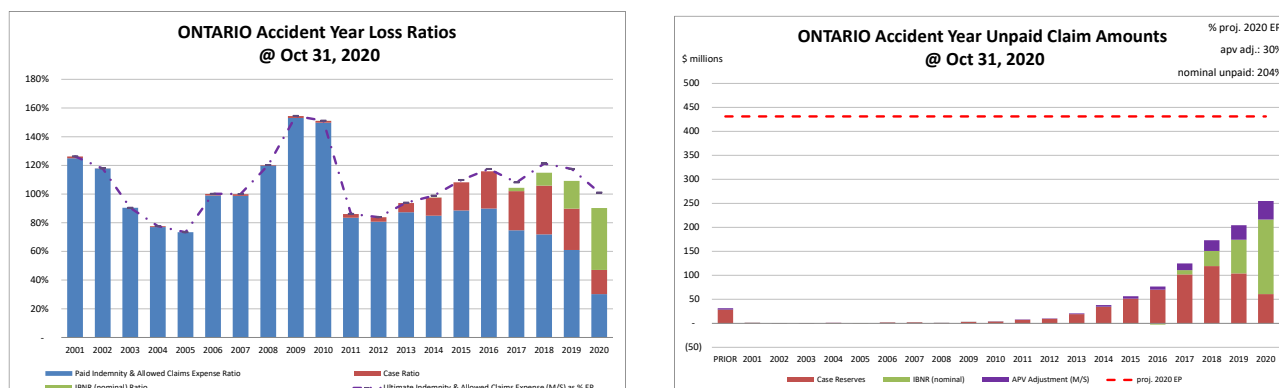
²This url is to a helpful guide on how bills become laws: <https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf>.

industry data as at December 31, 2019).

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 4th, 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.

1.5 Current Provision Summary

The following charts show the current levels of claim liabilities³ booked by accident year⁴. 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 2020 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.

The current actuarial present value adjustments provision for claims liabilities (\$127.6 million – see the following table) represents 30% of the earned premium projected for the full year 2020 (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.

³Claim 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.

⁴The 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".

claim liabilities (\$000s)

	amt	%
case	618,697	61.4%
ibnr	261,885	26.0%
M/S apv adjust.	127,586	12.7%
M/S total	1,008,168	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 86% of the IBNR balance relates to accident years 2019 and 2020 (see Exhibit B). Approximately 83% of the M/S total claim

liabilities are related to accident years 2016-2020 inclusive (i.e. the most recent 5 accident years), and approximately 5% is related to accident years 2010 and prior (i.e. prior to the most recent 10 accident years).

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

premium liabilities (\$000s)

	amt	%
unearned prem	225,667	82.7%
prem def/(dpac)	15,458	5.7%
M/S apv adjust.	31,816	11.7%
M/S total	272,941	100.0%

policy liabilities (\$000s)

	amt	%
claim	880,582	68.7%
premium	241,125	18.8%
M/S apv adjust.	159,402	12.4%
M/S total	1,281,109	100.0%

2 Activity during the Month of October 2020

2.1 Recorded Premium and Claims Activity

The following table summarizes the extent to which premiums and claims amounts recorded during the month differ from projections reflected in the prior month's Operational Report⁵.

Ontario RSP Actual vs Projected Summary: Recorded Transaction Amounts (\$ thousands)

Table 01 Accident Year	Earned Premium		Paid Indemnity & Allowed Claims Expense		Case increase / (decrease)		Recorded increase / (decrease)	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	(224)	(224)	8,812	(2,793)	(8,494)	2,705	318	(88)
2018	(130)	(130)	2,091	(1,033)	3,147	4,632	5,239	3,600
2019	(105)	(105)	2,680	(484)	1,108	1,360	3,788	877
2020	35,306	(2,119)	13,334	(1,683)	9,277	(7,838)	22,611	(9,521)
TOTAL	34,848	(2,577)	26,917	(5,993)	5,039	860	31,956	(5,133)

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

It is unusual to see actual earned premium transactions affecting prior accident years beyond the first prior at this time in the calendar year. We have identified that the prior accident years changes in the month reflects system sweep activity undertaken by two members in responding to audit findings.

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

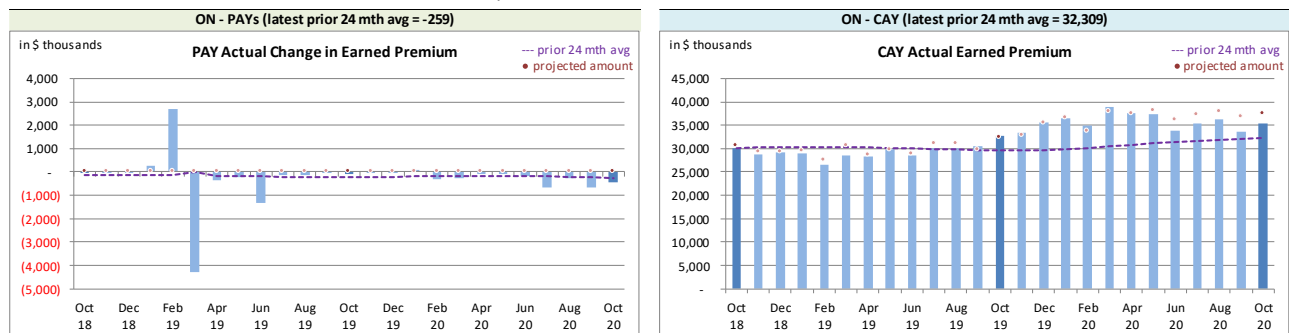
⁵There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

variance. Commentary from our review is provided in the sub-sections that follow.

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 average amount of the preceding 24 calendar months.

Ontario RSP Actual Earned Premium by Calendar Month



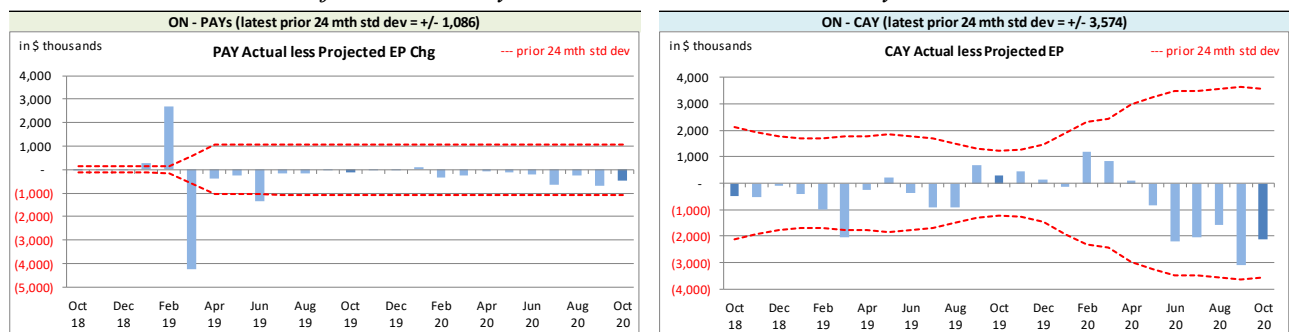
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the preceding charts), although relatively high levels generally occur at the beginning of each year.

On Latest \$ thousands			
	Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(259)	32,309	
std dev	1,086	3,574	
A-P <> std dev	4	1	
% <> std dev	16.0%	4.0%	
norm <> std dev	31.7%	31.7%	
performance vs 24-mth avg:	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

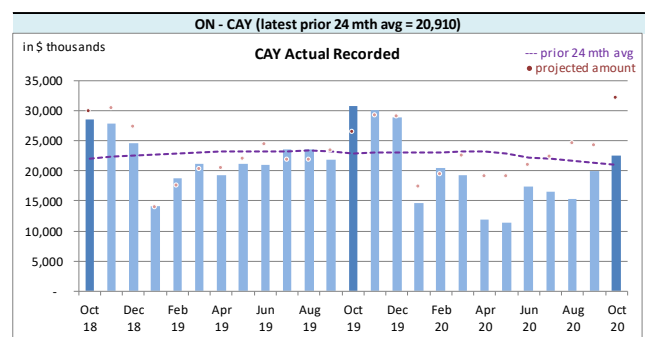
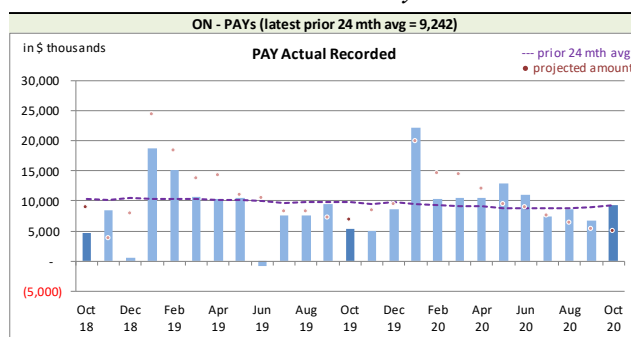
⁶Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias⁷, 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

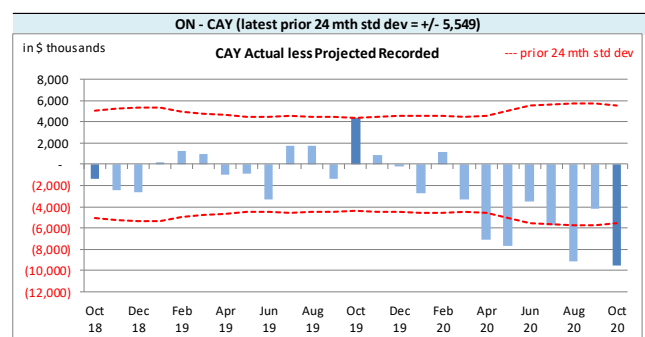
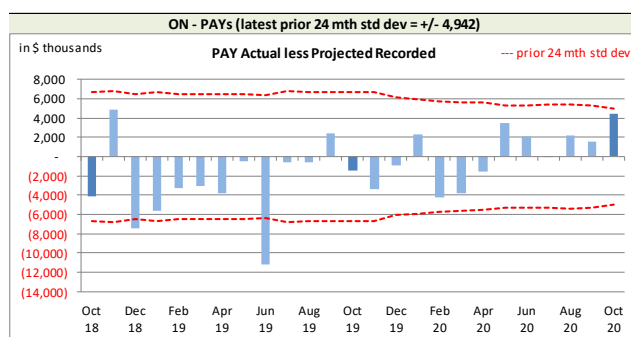
The following charts show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

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)	9,242	20,910
std dev	4,942	5,549
A-P <> std dev	2	5
% <> std dev	8.0%	20.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **recorded** indemnity & allowed claims expense, 8% 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

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

distribution). Bias⁸ has not been indicated at a 95% confidence level on a rolling 25-month basis (8 of 25 variances were positive).

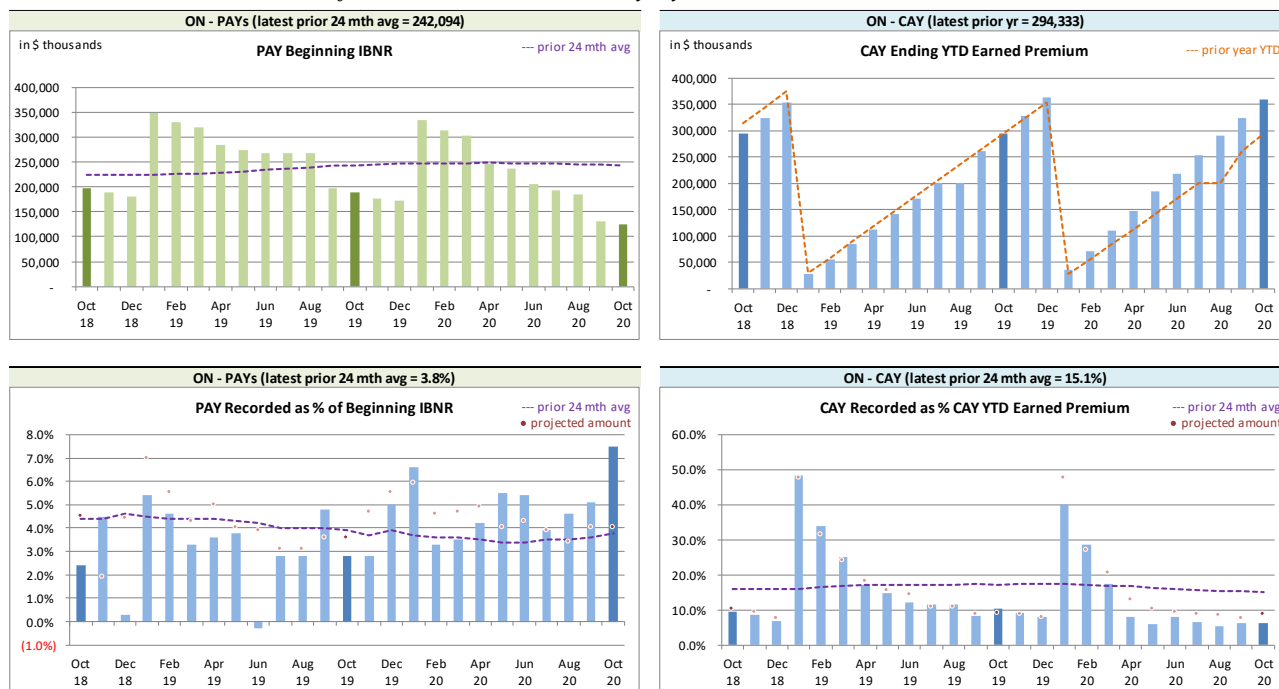
The current accident year (CAY) **recorded** variances (preceding chart on the left) fell outside of one standard deviation 20% of the time over the last 25 calendar months suggesting that the projection process has performed better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (8 of 25 variances were positive).

The CAY **recorded** variance was outside of the one standard deviation band this month (see preceding chart on the right). The lower than projected recorded activity was reviewed, and attributed to the reduction in written premium and low levels of reported physical damage claims experience in the month.

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 influence⁹ 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:

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.

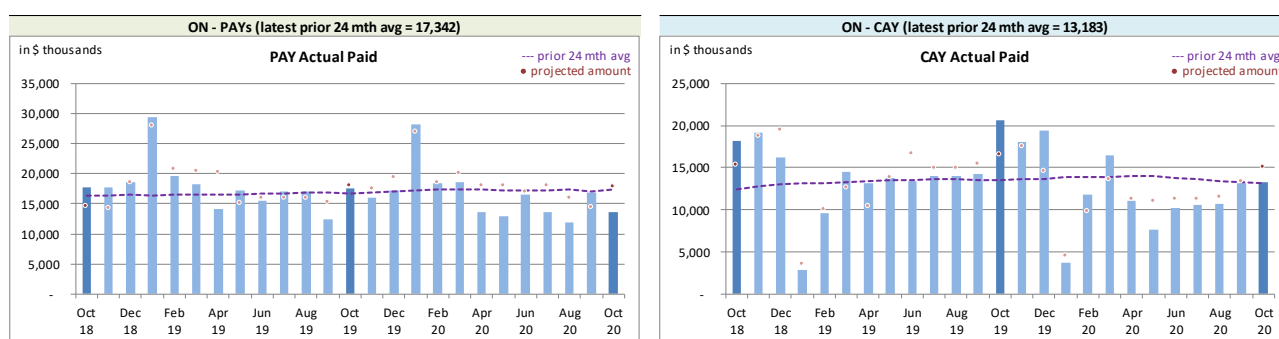
⁹ Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate

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

2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

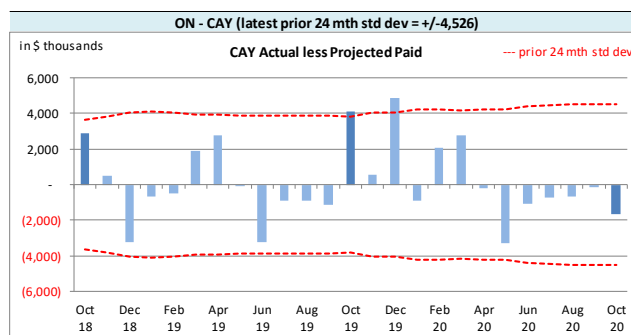
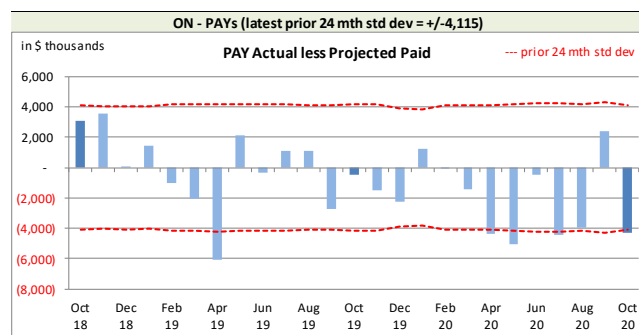
The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

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.

(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.

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


On Latest \$ thousands			
	Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)		17,342	13,183
std dev		4,115	4,526
A-P <> std dev		5	2
% <> std dev		20.0%	8.0%
norm <> std dev		31.7%	31.7%
performance vs 24-mth avg:		better	better

With respect to **paid** indemnity & allowed claims expense, 20% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution).

Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (9 of 25 variances are positive).

The PAY **paid** variance was outside the one standard deviation band this month (see preceding chart on the right) the lower projected recorded activity was reviewed, and attributed to process variance.

The current accident year (CAY) **paid** variances fell outside of one standard deviation 8% of the time over the last 25 calendar months (preceding chart 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 (9 of 25 variances are positive).

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

Ontario RSP Levels that influence¹⁰ 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 the month's IBNR¹¹, 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.

The following table summarizes variances in provisions included in this month's Operational Report

¹⁰Our 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.

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

and the associated one-month projections from last month's Report.

Ontario RSP Actual vs Projected Summary: IBNR and APV Amounts (\$ thousands)

Table 02		actuarial present value adjustments					
Accident Year	IBNR		Discount Amount		Provisions for Adverse Deviations		IBNR + actuarial present value adjustments
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual Actual less Projected
Prior	7,562	(153)	(2,748)	(16)	39,163	256	43,977 87
2018	27,394	(3,747)	(1,172)	(7)	22,831	138	49,053 (3,616)
2019	79,297	(993)	(1,650)	(4)	33,072	66	110,719 (931)
2020	173,356	7,500	(2,107)	3	44,102	(64)	215,351 7,439
TOTAL	287,609	2,607	(7,677)	(24)	139,168	396	419,100 2,979

The IBNR provision is \$2.6 million higher than projected from last month, counterbalancing the recorded claims activity and adjusting for the earned premium variance impacts indicated in section 2.1, and due to the valuation implementation.

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

- (i) the change projected last month;
- (ii) the additional change due to variances in earned premium (because we apply a loss ratio to earned premium in determining ultimate level) and/or recorded claims (as IBNR is calculated as ultimate less recorded) differences; and
- (iii) the additional change due to valuation implementation impacts (as applicable)

The variances associated with (ii) above are discussed in sections 2.1.a and 2.1.b.

The following table summarizes the variances in the provisions for premium deficiency liability / (deferred policy acquisition cost asset) included in this month's Operational Report and the one-month projections from last month's Report. This RSP is in a premium deficiency position (shown as a positive amount) prior to and after actuarial present value adjustments. Actuarial present value adjustments increase the liability value as the adjustments increase the expected future policy obligations (costs) associated with the unearned premium. The variances noted are mainly driven by the unearned premium variance, and the valuation implementation.

Ontario RSP Actual vs Projected Summary: Premium Deficiency / (DPAC) Amounts (\$ thousands)

Table 03

	Premium Deficiency / (Deferred Policy Acquisition Costs)		actuarial present value adjustments		Premium Deficiency / (DPAC) including actuarial present value adjustments	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
balance:	18,807	(373)	31,497	(348)	50,304	(721)
balance as % unearned premium:	8.3%	(0.1%)	14.0%	-	22.3%	(0.1%)
actual unearned premium:	225,667					
less projected:	(2,310)					

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 loss¹² 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 expenses¹³, 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 91.1% rather than 90.4% (the valuation ultimate ratio for accident year 2020), 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.)

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).

¹³Allowed 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	(118,993)	(33.4%)	(15,965)	(4.5%)	(134,958)	(37.9%)	(10,590)	0.8%
CAY	324,829	91.1%	38,600	10.8%	363,429	102.0%	15,970	(6.0%)
TOTAL	205,836	57.8%	22,635	6.4%	228,471	64.1%	5,380	(5.3%)

("% EP" based on 2020 calendar year-to-date earned premium; ratios may not total due to rounding)

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

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

5 Current Operational Report – Additional Exhibits

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

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

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

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

6 EXHIBITS

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

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

EXHIBIT A
IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

Amounts in \$000s						
IBNR + M/S actuarial present value adjustments	Accident Year	Actual Sep. 2020	Actual Oct. 2020	Projected Nov. 2020	Projected Dec. 2020	Projected Dec. 2021
	prior	2,713	2,939	2,863	2,768	2,003
	2001	123	124	122	118	84
	2002	(50)	(50)	(49)	(46)	(27)
	2003	16	16	16	15	10
	2004	204	22	21	21	24
	2005	(43)	(43)	(43)	(41)	(25)
	2006	203	207	202	196	139
	2007	204	208	203	196	143
	2008	78	78	76	74	53
	2009	355	384	376	361	251
	2010	761	508	496	479	327
	2011	431	433	419	410	325
	2012	(515)	167	151	158	204
	2013	1,453	987	948	932	780
	2014	3,196	3,908	3,814	3,684	2,603
discount rate	2015	3,736	4,393	4,268	4,143	3,085
0.26%	2016	3,757	4,049	3,947	3,802	3,094
	2017	28,921	22,768	21,767	20,917	13,744
interest rate margin	2018	54,768	54,052	51,955	49,819	30,164
25 basis pts	2019	115,105	100,331	97,261	94,735	61,283
	2020	200,631	193,990	202,109	209,942	133,194
	TOTAL	416,047	389,471	390,922	392,683	515,350
	Change		(26,576)	1,451	1,761	

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

EXHIBIT B
IBNR

TABLE EXHIBIT B

Amounts in \$000s

IBNR	Ultimate Loss Ratio	Accident Year	Actual Sep. 2020	Actual Oct. 2020	Projected Nov. 2020	Projected Dec. 2020	Projected Dec. 2021
	-	prior	(89)	92	90	84	48
	126.2%	2001	27	28	28	27	17
	117.8%	2002	(51)	(51)	(50)	(47)	(28)
	90.4%	2003	14	14	14	13	8
	77.5%	2004	99	(68)	(67)	(64)	(37)
	73.4%	2005	(43)	(43)	(43)	(41)	(25)
	100.1%	2006	26	26	26	25	15
	99.9%	2007	2	2	2	2	2
	120.2%	2008	7	7	7	7	5
	154.4%	2009	69	93	92	87	49
	151.1%	2010	384	150	148	141	82
	86.0%	2011	(263)	(263)	(260)	(247)	(145)
	83.6%	2012	(1,245)	(689)	(682)	(648)	(380)
	93.4%	2013	(336)	(813)	(805)	(765)	(449)
	97.6%	2014	(325)	482	477	453	265
	107.9%	2015	(1,444)	(653)	(646)	(614)	(361)
	115.0%	2016	(2,936)	(2,651)	(2,518)	(2,392)	(1,403)
	104.4%	2017	14,225	8,979	8,530	8,103	5,099
	114.9%	2018	32,780	31,599	30,019	28,518	14,674
	109.2%	2019	83,202	70,254	67,725	65,761	38,457
	90.4%	2020	162,285	155,390	160,268	164,761	97,051
		TOTAL	286,388	261,885	262,355	263,164	356,559
		Change		(24,503)	470	809	

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

EXHIBIT C
Premium Liabilities

TABLE EXHIBIT C

Amounts in \$000s

Premium Liabilities	Actual Sep. 2020	Actual Oct. 2020	Projected Nov. 2020	Projected Dec. 2020	Projected Dec. 2021
(1) unearned premium (UP)	220,900	225,667	241,285	232,644	243,837
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	119.6%	120.9%	124.7%	128.7%	132.6%
(3) expected future costs {(1) x (2)}	264,156	272,941	300,876	299,424	323,241
(4) premium deficiency / (deferred policy acquisition cost)	43,256	47,274	59,591	66,780	79,404
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	105.9%	106.9%	110.2%	113.7%	117.1%
(6) expected future costs {(1) x (5)}	234,008	241,125	265,800	264,516	285,557
(7) premium deficiency / (deferred policy acquisition cost)	13,108	15,458	24,515	31,872	41,720

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2020, broken down by component.

Ontario		Projected Balances as at Dec. 31, 2020 (\$000s)							
ending 2020		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
prior	26,849	84	26,933	(170)	170	2,701	(17)	2,684	2,684
2001	892	27	919	(6)	6	92	(1)	91	91
2002	58	(47)	11	-	-	1	-	1	1
2003	6	13	19	-	-	2	-	2	2
2004	922	(64)	858	(9)	9	86	(1)	85	85
2005	39	(41)	(2)	-	-	-	-	-	-
2006	1,701	25	1,726	(22)	22	173	(2)	171	171
2007	1,970	2	1,972	(30)	30	197	(3)	194	194
2008	673	7	680	(10)	10	68	(1)	67	67
2009	2,736	87	2,823	(48)	45	282	(5)	277	274
2010	3,328	141	3,469	(62)	59	347	(6)	341	338
2011	6,916	(247)	6,669	(100)	100	667	(10)	657	657
2012	8,821	(648)	8,173	(106)	106	817	(11)	806	806
2013	17,922	(765)	17,157	(189)	189	1,716	(19)	1,697	1,697
2014	32,112	453	32,565	(261)	261	3,257	(26)	3,231	3,231
2015	48,473	(614)	47,859	(287)	287	4,786	(29)	4,757	4,757
2016	64,705	(2,392)	62,313	(374)	374	6,231	(37)	6,194	6,194
2017	95,026	8,103	103,129	(619)	619	12,891	(77)	12,814	12,814
2018	114,487	28,518	143,005	(1,001)	1,001	21,451	(150)	21,301	21,301
2019	102,101	65,761	167,862	(1,343)	1,343	29,208	(234)	28,974	28,974
PAYs (sub-total):	529,737	98,403	628,140	(4,637)	4,631	84,973	(629)	84,344	84,338
CAY (2020)	88,265	164,761	253,026	(2,024)	2,024	45,545	(364)	45,181	45,181
claims liabilities:	618,002	263,164	881,166	(6,661)	6,655	130,518	(993)	129,525	129,519
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs
premium liabilities:	232,644	31,872	264,516	(1,584)	1,584	35,119	(211)	34,908	34,908
*Total may not be sum of parts, as apvs apply to future costs within UPR									
policy liabilities:			1,145,682	(8,245)	8,239	165,637	(1,204)	164,433	164,427

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, 2020 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs (Sep. 30,
2020)

Accident Year	Third Party Liability Margins	Accident Benefits Margins	Other Coverages Margins	Total Margins
1993	10.0%	10.0%	10.0%	10.0%
1994	10.0%	10.0%	10.0%	10.0%
1995	10.0%	10.0%	10.0%	10.0%
1996	10.0%	10.0%	10.0%	10.0%
1997	10.0%	10.0%	10.0%	10.0%
1998	10.0%	10.0%	10.0%	10.0%
1999	10.0%	10.0%	10.0%	10.0%
2000	10.0%	10.0%	10.0%	10.0%
2001	10.0%	10.0%	10.0%	10.0%
2002	10.0%	10.0%	10.0%	10.0%
2003	10.0%	10.0%	10.0%	10.0%
2004	10.0%	10.0%	10.0%	10.0%
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%	9.9%	10.0%
2015	10.0%	10.0%	9.8%	10.0%
2016	10.0%	10.0%	9.9%	10.0%
2017	12.5%	12.5%	12.5%	12.5%
2018	15.0%	15.0%	14.5%	15.0%
2019	17.4%	17.5%	14.4%	17.4%
2020	17.5%	20.0%	6.0%	18.0%
2021	12.7%	20.0%	5.2%	13.3%
prem liab	12.7%	20.0%	5.2%	13.3%

discount rate: 0.26%
margin (basis points): 25

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2020 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2020, and are based on more up-to-date information). We have included the most recent valuation selection (0.26%), the prior valuation assumption (0.29%) and the prior fiscal year end valuation assumption (1.41%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

\$ Format: \$000s

AY	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2020 projected Unpaid							
	0.00%	0.00%	0.26%	0.76%	1.26%	1.76%	0.29%	1.41%
2002 & prior	30,475	30,475	30,451	30,080	29,717	29,364	30,428	29,609
2003	8	8	8	8	8	8	8	8
2004	1,042	1,042	1,041	1,021	1,002	983	1,040	996
2005	43	43	43	42	42	41	43	41
2006	1,960	1,960	1,957	1,908	1,861	1,815	1,954	1,847
2007	2,290	2,290	2,286	2,223	2,161	2,103	2,282	2,144
2009	3,210	3,210	3,204	3,101	3,002	2,909	3,197	2,974
2010	3,814	3,814	3,806	3,675	3,550	3,433	3,797	3,514
2011	7,377	7,377	7,364	7,148	6,944	6,753	7,350	6,885
2012	8,702	8,702	8,688	8,468	8,259	8,064	8,673	8,199
2013	17,592	17,592	17,569	17,213	16,873	16,555	17,546	16,775
2014	33,451	33,451	33,419	32,922	32,445	31,998	33,386	32,309
2015	48,918	48,918	48,883	48,303	47,748	47,225	48,844	47,589
2016	66,168	66,168	66,121	65,388	64,683	64,010	66,078	64,479
2017	118,570	118,570	118,471	117,076	115,732	114,441	118,377	115,344
2018	164,899	164,899	164,718	162,569	160,495	158,499	164,575	159,881
2019	196,066	196,066	195,793	192,888	190,025	187,326	195,602	189,204
2020	278,852	278,852	278,455	274,387	270,420	266,603	278,187	269,271
Total	984,276	984,276	983,114	969,233	955,756	942,897	982,202	951,851
	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							
	0.00%	0.00%	0.26%	0.76%	1.26%	1.76%	0.29%	1.41%
Total	1,162	1,162	-	(13,881)	(27,358)	(40,217)	(912)	(31,263)
	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							
	0.00%	0.00%	0.26%	0.76%	1.26%	1.76%	0.29%	1.41%
2002 & prior	0.1%	0.1%	-	(1.2%)	(2.4%)	(3.6%)	(0.1%)	(2.8%)
2003	-	-	-	-	-	-	-	-
2004	0.1%	0.1%	-	(1.9%)	(3.7%)	(5.6%)	(0.1%)	(4.3%)
2005	-	-	-	(2.3%)	(2.3%)	(4.7%)	-	(4.7%)
2006	0.2%	0.2%	-	(2.5%)	(4.9%)	(7.3%)	(0.2%)	(5.6%)
2007	0.2%	0.2%	-	(2.8%)	(5.5%)	(8.0%)	(0.2%)	(6.2%)
2009	0.2%	0.2%	-	(3.2%)	(6.3%)	(9.2%)	(0.2%)	(7.2%)
2010	0.2%	0.2%	-	(3.4%)	(6.7%)	(9.8%)	(0.2%)	(7.7%)
2011	0.2%	0.2%	-	(2.9%)	(5.7%)	(8.3%)	(0.2%)	(6.5%)
2012	0.2%	0.2%	-	(2.5%)	(4.9%)	(7.2%)	(0.2%)	(5.6%)
2013	0.1%	0.1%	-	(2.0%)	(4.0%)	(5.8%)	(0.1%)	(4.5%)
2014	0.1%	0.1%	-	(1.5%)	(2.9%)	(4.3%)	(0.1%)	(3.3%)
2015	0.1%	0.1%	-	(1.2%)	(2.3%)	(3.4%)	(0.1%)	(2.6%)
2016	0.1%	0.1%	-	(1.1%)	(2.2%)	(3.2%)	(0.1%)	(2.5%)
2017	0.1%	0.1%	-	(1.2%)	(2.3%)	(3.4%)	(0.1%)	(2.6%)
2018	0.1%	0.1%	-	(1.3%)	(2.6%)	(3.8%)	(0.1%)	(2.9%)
2019	0.1%	0.1%	-	(1.5%)	(2.9%)	(4.3%)	(0.1%)	(3.4%)
2020	0.1%	0.1%	-	(1.5%)	(2.9%)	(4.3%)	(0.1%)	(3.3%)
Total	0.1%	0.1%	-	(1.4%)	(2.8%)	(4.1%)	(0.1%)	(3.2%)
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

EXHIBIT G

Page 1 of 2

Components of Member Statement IBNR (i.e. “Discounted”) Change During Month

RSP **Ontario**
AccountCode Desc **IBNR - Discounted**

M/S IBNR - in \$000s

AccYear	Values				Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation			
prior	2,713	(78)	59	245	226	8.3%	2,939
2001	123	(4)	4	1	1	0.8%	124
2002	(50)	3	(3)	-	-	-	(50)
2003	16	(1)	1	-	-	-	16
2004	204	(9)	8	(181)	(182)	(89.2%)	22
2005	(43)	2	(2)	-	-	-	(43)
2006	203	(7)	7	4	4	2.0%	207
2007	204	(5)	5	4	4	2.0%	208
2008	78	(1)	-	1	-	-	78
2009	355	(11)	33	7	29	8.2%	384
2010	761	(31)	82	(304)	(253)	(33.2%)	508
2011	431	(7)	(313)	322	2	0.5%	433
2012	(515)	42	(704)	1,344	682	(132.4%)	167
2013	1,453	(35)	(469)	38	(466)	(32.1%)	987
2014	3,196	(86)	1,058	(260)	712	22.3%	3,908
2015	3,736	(77)	1,543	(809)	657	17.6%	4,393
2016	3,757	(79)	8	363	292	7.8%	4,049
2017	28,921	(1,269)	(1,230)	(3,654)	(6,153)	(21.3%)	22,768
2018	54,768	(2,099)	(3,616)	4,999	(716)	(1.3%)	54,052
2019	115,105	(3,455)	(931)	(10,388)	(14,774)	(12.8%)	100,331
2020	200,631	7,281	7,439	(21,361)	(6,641)	(3.3%)	193,990
Grand Total	416,047	74	2,979	(29,629)	(26,576)	(6.4%)	389,471

EXHIBIT G

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Components of IBNR (i.e. “Undiscounted”) Change During Month

RSP Ontario
AccountCode Desc IBNR - Undiscounted

IBNR - in \$000s

AccYear	Values				Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation			
prior	(89)	3	(19)	197	181	(203.4%)	92
2001	27	(1)	2	-	1	3.7%	28
2002	(51)	3	(3)	-	-	-	(51)
2003	14	(1)	1	-	-	-	14
2004	99	(5)	4	(166)	(167)	(168.7%)	(68)
2005	(43)	2	(2)	-	-	-	(43)
2006	26	(1)	1	-	-	-	26
2007	2	-	-	-	-	-	2
2008	7	-	-	-	-	-	7
2009	69	(3)	27	-	24	34.8%	93
2010	384	(19)	70	(285)	(234)	(60.9%)	150
2011	(263)	13	(293)	280	-	-	(263)
2012	(1,245)	62	(714)	1,208	556	(44.7%)	(689)
2013	(336)	17	(494)	-	(477)	142.0%	(813)
2014	(325)	16	1,062	(271)	807	(248.3%)	482
2015	(1,444)	72	1,507	(788)	791	(54.8%)	(653)
2016	(2,936)	147	(131)	269	285	(9.7%)	(2,651)
2017	14,225	(711)	(1,171)	(3,364)	(5,246)	(36.9%)	8,979
2018	32,780	(1,639)	(3,747)	4,205	(1,181)	(3.6%)	31,599
2019	83,202	(2,912)	(993)	(9,043)	(12,948)	(15.6%)	70,254
2020	162,285	3,571	7,500	(17,966)	(6,895)	(4.2%)	155,390
Grand Total	286,388	(1,386)	2,607	(25,724)	(24,503)	(8.6%)	261,885