



**ONTARIO RISK SHARING POOL**

**MARCH 2019 OPERATIONAL REPORT**

**ACTUARIAL HIGHLIGHTS**

Related Bulletin: [F19-029 Ontario RSP March 2019 Operational Report](#)

For your convenience, bookmarks have been added to this document. To view them, please click on the BOOKMARK tab at the left.

Should you require any further information, please call Shawn Doherty, Senior Vice President Actuarial & CFO at (416) 644-4968.

**ACTUARIAL HIGHLIGHTS**  
**RSP ONTARIO**  
**OPERATIONAL REPORT**  
**MARCH 2019**

---

**TABLE OF CONTENTS**

---

<b>1</b>	<b>Summary</b> .....	<b>2</b>
1.1	Valuation Schedule (Fiscal Year 2019).....	2
1.2	New Valuation.....	2
1.3	Appointed Actuary and Hybrid Actuarial Services Model.....	4
1.4	Consideration of Recent Legal Decisions and Changes in Legislation / Regulation.....	4
1.5	Harmonized Sales Tax Class Action - Ontario.....	5
1.6	Current Provision Summary.....	6
<b>2</b>	<b>Activity During the Month of March 2019</b> .....	<b>7</b>
2.1	Recorded Premium and Claims Activity.....	7
2.1.a	Actual vs. Projected (AvsP): Earned Premium.....	7
2.1.b	AvsP: Recorded Indemnity & Allowed Claims Expense.....	9
2.1.c	AvsP: Paid Indemnity & Allowed Claims Expense.....	12
2.2	Actuarial Provisions.....	14
<b>3</b>	<b>Ultimate Loss Ratio Matching Method</b> .....	<b>16</b>
<b>4</b>	<b>Calendar Year-to-Date Results</b> .....	<b>16</b>
<b>5</b>	<b>Current Operational Report – Additional Exhibits</b> .....	<b>17</b>
<b>6</b>	<b>EXHIBITS</b> .....	<b>17</b>

## 1 Summary

### 1.1 Valuation Schedule (Fiscal Year 2019)

The March 2019 Operational Report incorporates the results of an updated valuation (as at December 31, 2018) – the impact of the implementation of the valuation is discussed in section 1.2. The table immediately below summarizes the implemented valuations and future scheduled valuations for fiscal year 2019.

<b>ONTARIO RISK SHARING POOL</b>			
<b>FISCAL YEAR 2019 – SCHEDULE OF VALUATIONS</b>			
<b>Valuation Date</b>	<b>Discount Rate (per annum)</b>	<b>Operational Report</b>	<b>Description of Changes</b>
Sep. 30, 2018 (completed)	2.22% mfad 25 bp	Oct. 2018	updated valuation (roll forward): accident year 2018 loss ratio <u>increased</u> 0.5 points to 127.0%; discount rate <u>increased</u> by 39 basis points; selected margins for adverse deviations were updated
Dec. 31, 2018 (completed)	1.88% mfad 25 bp	Mar. 2019	updated valuation: accident year 2019 loss ratio 127.1%; discount rate <u>decreased</u> by 34 basis points; no change to selected margins for adverse deviations
Mar. 31, 2019		May 2019	update valuation (roll forward)
Jun. 30, 2019		Aug. 2019	update valuation
Sep. 30, 2019		Oct. 2019	update valuation (roll forward)

Under the proposed schedule for fiscal year 2019, the “off-half” valuation quarters ending March 31, 2019 and September 30, 2019 would not reflect a full valuation update of assumptions, but would rather “roll-forward” key assumptions from the previous valuation.

### 1.2 New Valuation

A valuation of the Ontario Risk Sharing Pool (“RSP”) as at December 31, 2018 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. Additional detail will be provided in an “Actuarial Highlights – Quarterly Valuation” report which we anticipate will be posted to the FA website in June 2019.

The valuation implementation impact is summarized in the tables on the next page.

*Summary of Impact (\$000s) of Implementing Result of Valuation as at December 31, 2018<sup>1</sup>*

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	(17,688)	2,371	(15,317)	8,968	-	(6,349)
CAY	-	75	75	950	-	1,025
Prem Def	(9)	(1)	(10)	1,694	-	1,684
<b>TOTAL</b>	<b>(17,697)</b>	<b>2,445</b>	<b>(15,252)</b>	<b>11,612</b>	<b>-</b>	<b>(3,640)</b>

As indicated in the table above, the incorporation of the new valuation had an estimated **\$3.6 million favourable impact** on the month’s net result from operations, subtracting an estimated 4.4 points (see table immediately below) from the **year-to-date Combined Operating Ratio** to end at **153.7%**.

*Summary of Impact (% YTD EP) of Implementing Result of Valuation as at December 31, 2018*

Ontario	ytd EP 82,855 (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	(21.3%)	2.9%	(18.5%)	10.8%	-	(7.7%)
CAY	-	0.1%	0.1%	1.1%	-	1.2%
Prem Def	-	-	-	2.0%	-	2.0%
<b>TOTAL</b>	<b>(21.4%)</b>	<b>3.0%</b>	<b>(18.4%)</b>	<b>14.0%</b>	<b>-</b>	<b>(4.4%)</b>

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 \$17.7 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 prior accident years overall showed a \$17.7 million favourable nominal variance, which is attributed to favourable claims development, particularly for bodily injury and accident benefits recorded claims activity. This overall favourable prior accident years impact is 1.9% of the prior accident years’ nominal unpaid balance of \$913.3 million determined at the end of last month (February 2019).

The current accident year and premium deficiency impacts are a result of the change in the selected

<sup>1</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.

loss ratios for accident year **2019** (no change at **127.1%**) and reflecting **2020** (down 0.1 points to **130.0%**).

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 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 an unfavourable change of \$2.4 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 December 2018. Column [4] accounts for the change in the **discount rate** selected (decreased 34 basis points to **1.88%**), indicating an unfavourable impact of \$11.6 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$9.9 million at March 2019 – this compares to the \$10.3 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 **left unchanged** as well.

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**

Liam McFarlane of Ernst & Young LLP is Facility Association’s Appointed Actuary (effective as of June 1, 2013).

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>2</sup>**

The descriptions in this section have been updated to reflect the most recent valuation (December 2018) and updates arising from the most recent industry trend analyses (June 2018). Discussion related to the Supreme Court of Canada Saadati v Moorhead decision (2017 SCC 28, rendered on June 2, 2017) was removed as at this point we do not believe this judgment will have a further impact on our

---

<sup>2</sup>This link is to a helpful guide on how bills become laws: <http://www.ontla.on.ca/lao/en/media/laointernet/pdf/bills-and-lawmaking-background-documents/how-bills-become-law-en.pdf>.

valuation results.

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 are provided below.

**Ontario Bill 15** (Fighting Fraud and Reducing Automobile Insurance Rates Act, 2014) was introduced into the Legislature by the Minister of Finance on July 15, 2014 and **received Royal Assent on November 20, 2014**. Bill 15 includes various amendments and provisions such as moving the Ontario Automobile Dispute Resolution System (DRS) for statutory accident benefits from the Financial Services Commission of Ontario to the Ministry of the Attorney General (Licence Appeal Tribunal), regulation of the Tow and Storage Industry (amendments to the Consumer Protection Act and Repair and Storage Liens Act), regulations related to licensing of insurance agents and adjusters, changes the applicable interest rate applied to overdue payments in the Statutory Accident Benefits Schedule (SABS), and changes to the prejudgment interest rate on general damages for non-pecuniary loss from the rate as set out in the Courts of Justice Act to rates linked to market conditions.

**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 (December 31, 2018), reform adjustments (originally introduced with the September 30, 2015 valuation) specifically related to changes to the SABS impacting the bodily injury and accident benefits coverages, were included with the updated industry trend analysis (completed using industry data as at June 30, 2018), impacting the selection of ultimates.

### **1.5 Harmonized Sales Tax Class Action - Ontario**

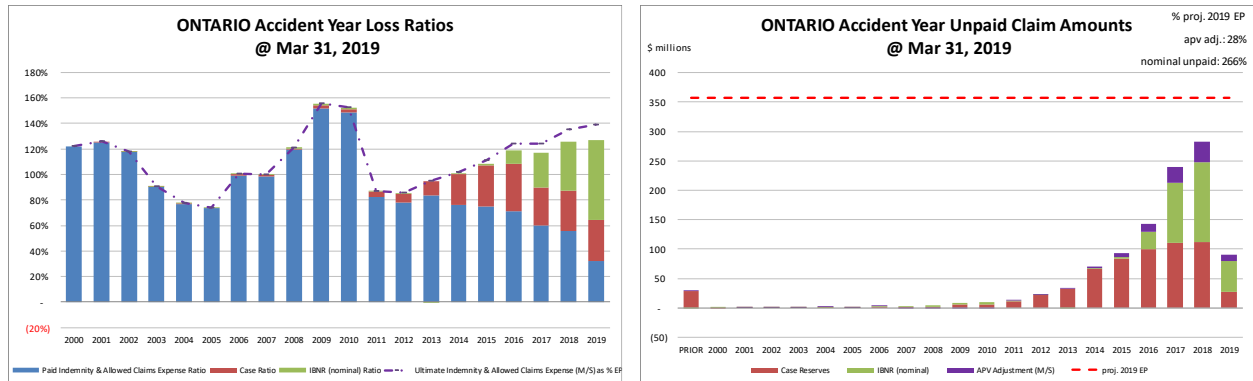
There have been no changes in these descriptions since last month's Highlights.

Since the end of October 2018, class action lawsuits have been brought against multiple insurers related to HST and limits / sub-limits of benefits per the Statutory Accident Benefits Schedule and FSCO's Professional Services Guideline as part of claims settlement practices in Ontario.

At the current time, no adjustments have been made to our valuation estimates, but in conjunction with FA's Appointed Actuary, FA management continues to review and consider the implications of the potential outcomes related to the class action lawsuits. Please contact Shawn Doherty at [sdoherty@facilityassociation.com](mailto:sdoherty@facilityassociation.com) if you need further information.

### 1.6 Current Provision Summary

The charts immediately below show the current levels of claim liabilities<sup>3</sup> booked by accident year<sup>4</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 2019 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 (\$99.1 million – see table immediately below) represents 28% of the earned premium projected for the full year 2019 (see the upper right corner of the right chart above), with the increase in the actuarial present value adjustments from last month a result of the 2018 Q4 valuation implementation, specifically the decrease in the discount rate. 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	614,053	58.4%
ibnr	337,867	32.1%
M/S apv adjust.	99,084	9.4%
<b>M/S total</b>	<b>1,051,004</b>	<b>100.0%</b>

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 56% of the IBNR balance relates to accident years 2018 and 2019 (see Exhibit B). Approximately 81% of the M/S total claim

liabilities are related to accident years 2015-2019 inclusive (i.e. the most recent 5 accident years), and approximately 5% is related to accident years 2009 and prior (i.e. prior to the most recent 10 accident years).

<sup>3</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>4</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”.

The tables immediately below summarize the premium liabilities and the total policy liabilities.

premium liabilities (\$000s)			policy liabilities (\$000s)		
	amt	%		amt	%
unearned prem	164,022	71.8%	claim	951,920	74.4%
prem def/(dpac)	45,099	19.7%	premium	209,121	16.3%
M/S apv adjust.	19,361	8.5%	M/S apv adjust.	118,445	9.3%
<b>M/S total</b>	<b>228,482</b>	<b>100.0%</b>	<b>M/S total</b>	<b>1,279,486</b>	<b>100.0%</b>

## 2 Activity During the Month of March 2019

### 2.1 Recorded Premium and Claims Activity

The table immediately below summarizes the extent to which premiums and claims amounts recorded during the month differ from projections reflected in the prior month’s Operational Report<sup>5</sup>.

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

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	10	10	10,051	(461)	(10,665)	(1,455)	(614)	(1,916)
2017	(141)	(141)	3,100	(1,452)	754	612	3,853	(841)
2018	(4,134)	(4,134)	5,152	(111)	2,238	(177)	7,391	(287)
2019	28,547	(2,057)	14,558	1,903	6,619	(919)	21,178	984
<b>TOTAL</b>	<b>24,283</b>	<b>(6,321)</b>	<b>32,861</b>	<b>(121)</b>	<b>(1,054)</b>	<b>(1,939)</b>	<b>31,807</b>	<b>(2,060)</b>

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Significant prior accident year **earned premium** is unusual, and at \$4.3 million (or 18% of total **earned premium** for the month), the level of prior accident year **earned premium** recorded during this month qualifies as unusual, as it was last month. As also indicated in the next section, this reflects recorded premium transaction activity of a single member company, offsetting certain activity from the prior month. Management has discussed the changes with the member and is satisfied the corrections were appropriate.

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

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

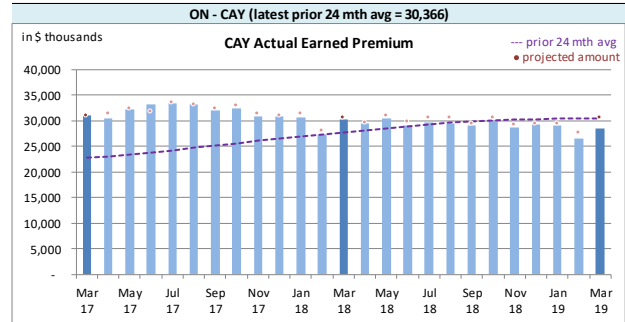
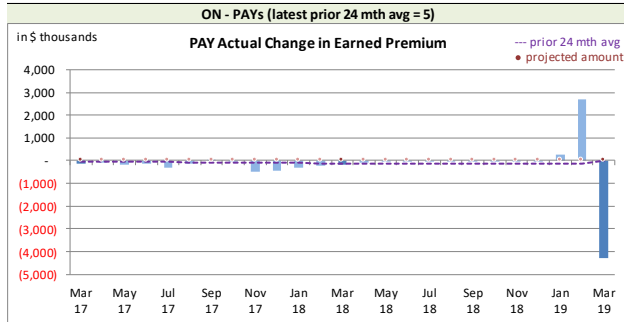
The charts at the top of the next page show actual **earned premium**<sup>6</sup> activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

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

<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.



*Ontario RSP Actual Earned Premium by Calendar Month*

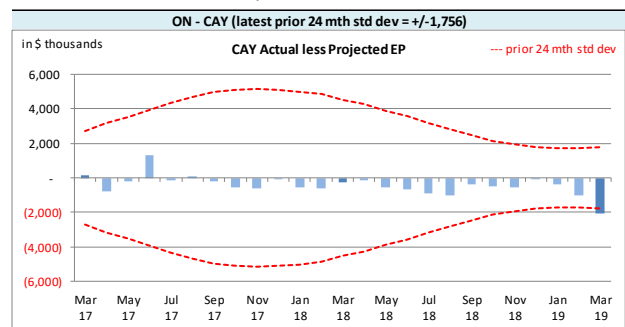
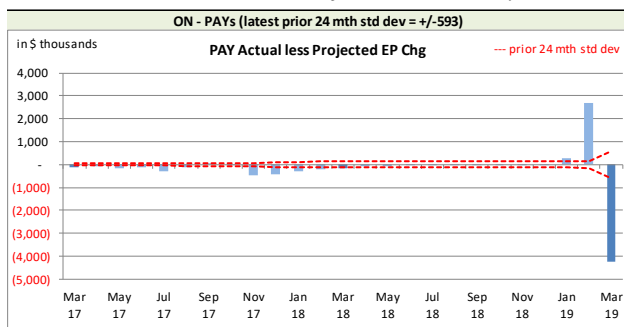


**Earned premium** changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the charts above), although relatively high levels generally occur at the beginning of each year.

We have investigated the unusually high level of PAYs earned premium activity this month, particularly with respect to one member. This activity reflected correcting transactions related to incorrect transactions posted last month by the member. As indicated earlier, management is satisfied the corrections were appropriate.

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



On Latest \$ thousands		
<b>Earned Premium</b>	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	5	30,366
std dev	593	1,756
A-P <> std dev	14	1
% <> std dev	56.0%	4.0%
norm <> std dev	31.7%	31.7%

We project **earned premium** changes from known unearned premium 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. Over time, we may consider other projection approaches to narrow monthly variance levels

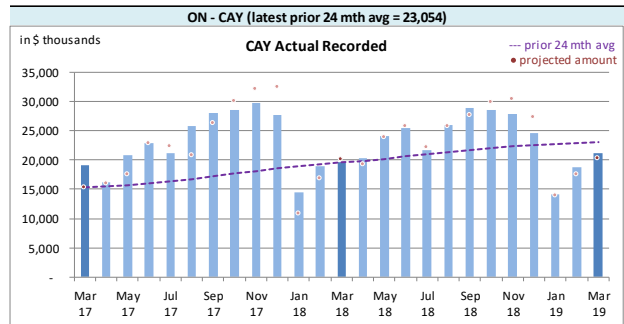
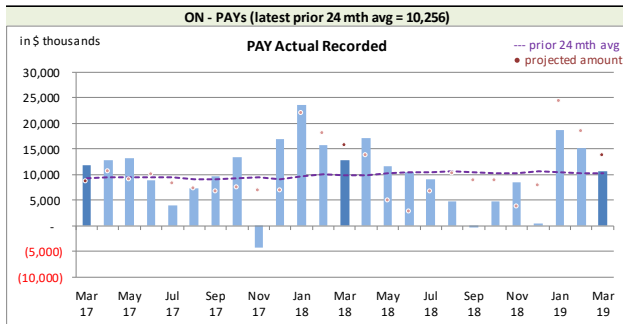
<sup>7</sup>The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

further, but it is not currently deemed a priority. Readers will also note the significant widening then tapering of 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**

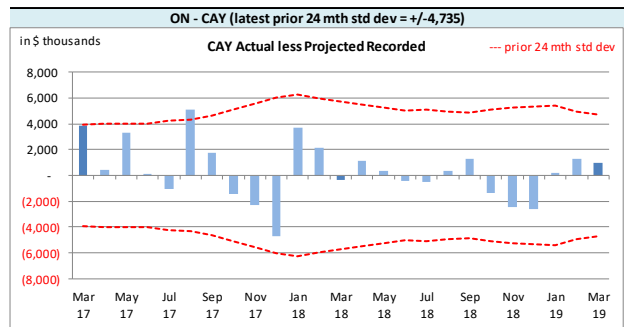
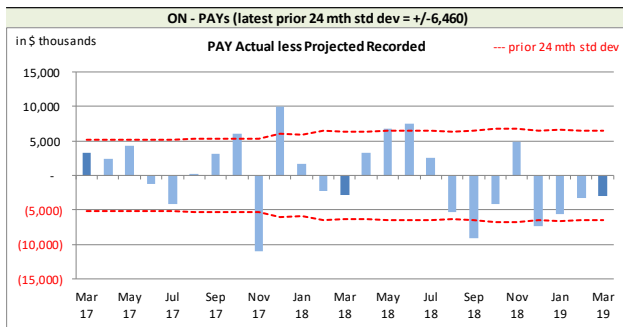
The charts immediately below show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

*Ontario RSP Actual Recorded by Calendar Month*



**Recorded** activity variances from the previous month’s projections are shown in the charts immediately below, 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			
	<b>Recorded</b>	PAYS	CAY
Mthly Avg Recorded (prior 24 mths)		10,256	23,054
std dev		6,460	4,735
A-P <> std dev		7	1
% <> std dev		28.0%	4.0%
norm <> std dev		31.7%	31.7%

With respect to **recorded** indemnity & allowed claims expense, 28% 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 no 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 lagging 24-month basis.

The current accident year (CAY) **recorded** variances (right chart above) fell outside of one standard deviation 4% 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.

The averages of monthly ratios for **recorded** and **paid** to year-to-date earned premium have been on the rise generally since 2012, as is evident in the tables below. These tables show, in each row, the average monthly ratio for each calendar year. That is, each row in the *left* table (as at Dec) provides the average of the 12 monthly-ratios (i.e. Jan, Feb, ... Dec) for that row's calendar year, whereas each row in the *right* table (as at Mar) provides the March ratios.

Per the *left* table below (showing average monthly ratios for each calendar year), the 2018 average **recorded** ratio at 17.3% was the highest ratio since 2010, and the 2018 **paid** ratio at 9.0% was the highest ratio over the last 10 years. That is, both ratios remained at “elevated” levels compared with the ratios for the 3 calendar years immediately following the 2010 reforms.

As can be seen in the *right* table below, three months into 2019 has the highest **recorded** ratio over the last 11 years while the **paid** ratio is the second highest in the last 11 years (March 2018 had the highest **paid** ratio). While we acknowledge that these ratios are more volatile earlier in the year due to smaller year-to-date earned premium levels, this relatively poor start to the year does not seem to bode well.

CAY avg of mthly ratios for yr

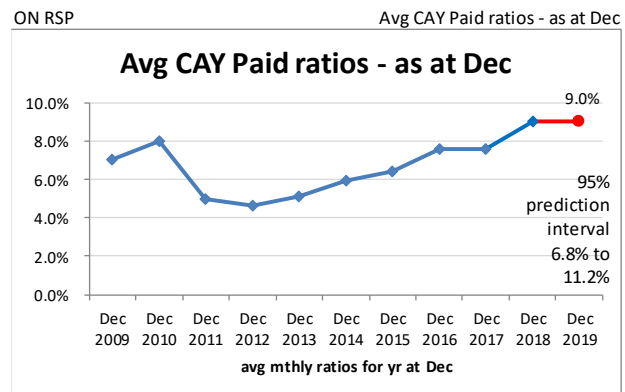
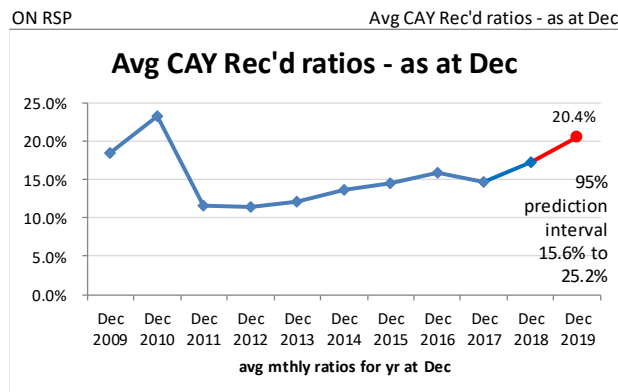
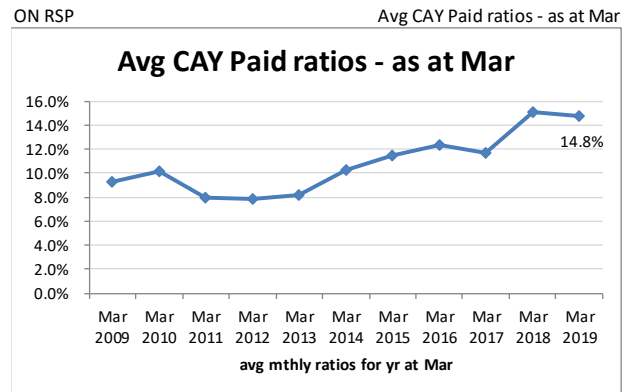
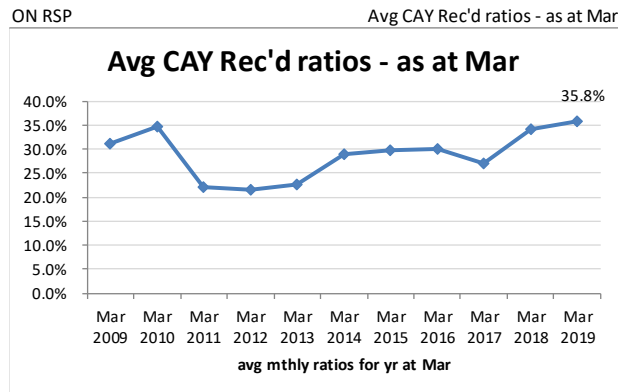
as at	Rec'd	yr-on-yr chg	Paid	yr-on-yr chg
Dec 2009	18.5%		7.0%	
Dec 2010	23.2%	4.7%	8.0%	1.0%
Dec 2011	11.5%	(11.7%)	5.0%	(3.0%)
Dec 2012	11.4%	(0.1%)	4.6%	(0.4%)
Dec 2013	12.0%	0.6%	5.1%	0.5%
Dec 2014	13.7%	1.7%	5.9%	0.8%
Dec 2015	14.4%	0.7%	6.4%	0.5%
Dec 2016	15.8%	1.4%	7.6%	1.2%
Dec 2017	14.7%	(1.1%)	7.6%	0.0%
Dec 2018	17.3%	2.6%	9.0%	1.4%

CAY avg of mthly ratios for yr

as at	Rec'd	yr-on-yr chg	Paid	yr-on-yr chg
Mar 2009	31.1%		9.3%	
Mar 2010	34.7%	3.6%	10.1%	0.8%
Mar 2011	22.0%	(12.7%)	7.9%	(2.2%)
Mar 2012	21.6%	(0.4%)	7.8%	(0.1%)
Mar 2013	22.5%	0.9%	8.2%	0.4%
Mar 2014	28.9%	6.4%	10.3%	2.1%
Mar 2015	29.7%	0.8%	11.5%	1.2%
Mar 2016	30.1%	0.4%	12.3%	0.8%
Mar 2017	27.0%	(3.1%)	11.7%	(0.6%)
Mar 2018	34.0%	7.0%	15.1%	3.4%
Mar 2019	35.8%	1.8%	14.8%	(0.3%)

There has been very strong (90%) correlation between the ytd monthly average **recorded** ratios and very strong (89%) correlation between the ytd monthly average **paid** ratios at March each year and the corresponding ytd monthly average ratios at December, suggesting the March **recorded** ratio is predictive of where the 2019 ytd monthly average **recorded** ratios will be at year-end (that is, the 12 monthly ratios Jan 2019 – Dec 2019), and March ytd monthly **paid** ratios would likewise be predictive of December ytd monthly paid ratios. Using simple regression, we forecast the average of the 12 monthly ratios for calendar year 2019 (i.e. the average of the monthly ratios for Jan 2019 – Dec 2019) will be 20.4% (95% prediction interval of 15.6% to 25.2%) for **recorded** and 9.0% (95% prediction interval of 6.8% to 11.2%) for **paid**. The results are presented in charts at the top of the next page.

*Ontario RSP average of monthly CAY claims activity ratios to EP*



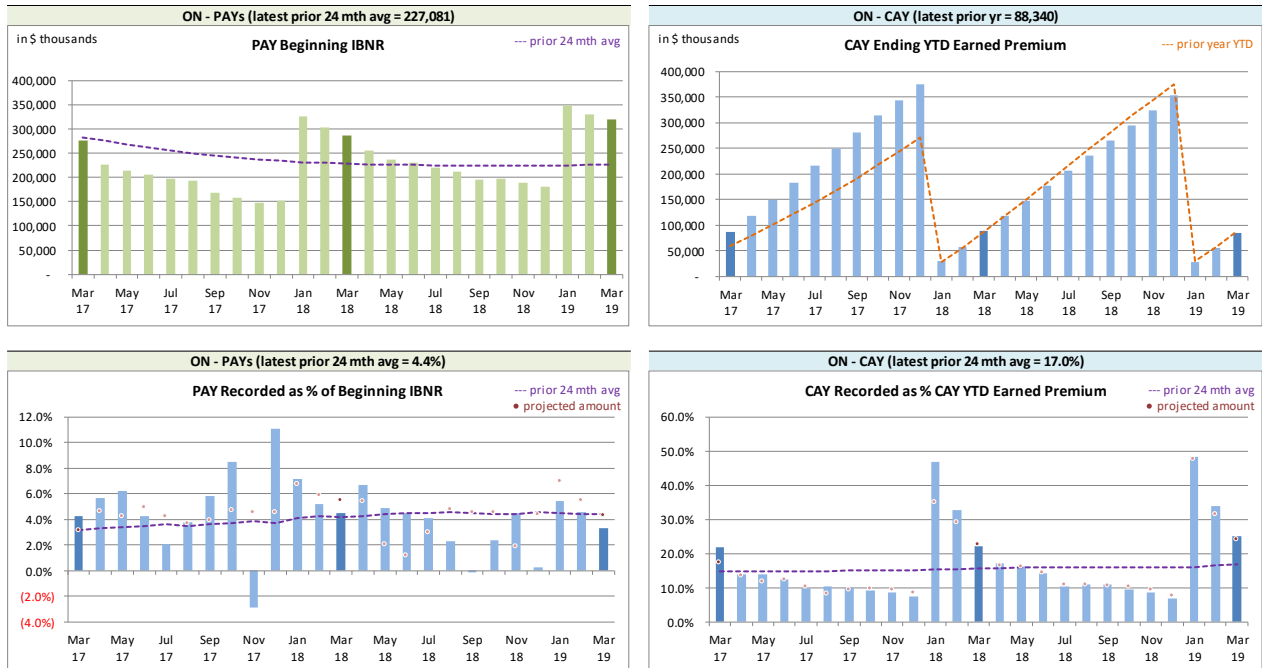
We are taking this information into consideration as part of our projection process.

These monthly-average ratios may be signalling an actual increase in relative claim amounts generally, signaling a change in the pattern of **recorded** / **paid** activity, or signaling belated impacts of rate decreases (reducing **earned premium** level per loss cost level). The CAY **recorded** activity will be monitored to determine if this is an ongoing trend.

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, additional charts at the top of the next page 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 the valuation is implemented (i.e. April, June, September, and November).

*Ontario RSP Levels that influence<sup>8</sup> Recorded activity by Calendar Month*



We track beginning prior accident years’ IBNR as **recorded** activity “comes out of” IBNR. Changes in the prior accident years’ beginning IBNR (see upper left chart above) occur for several possible reasons:

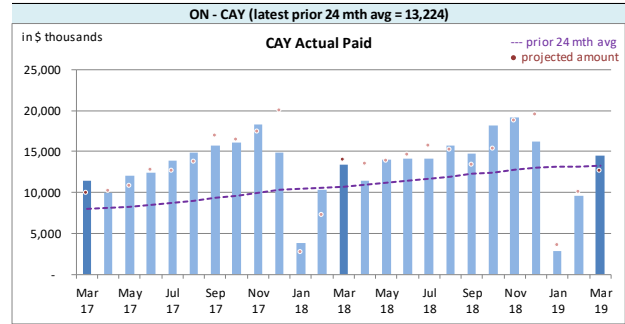
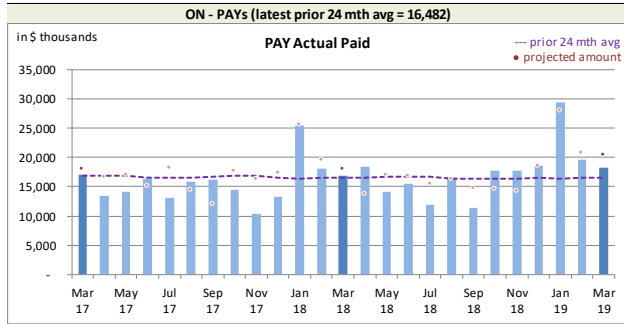
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years’ ultimate (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 charts at the top of the next page 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.

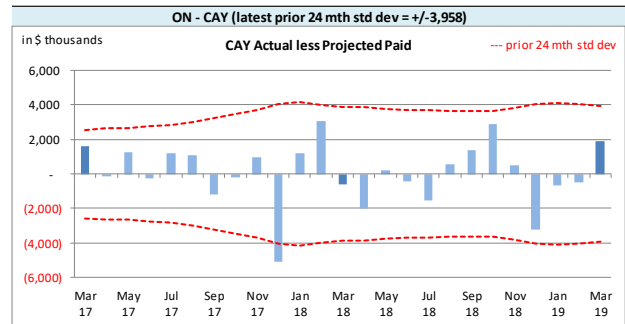
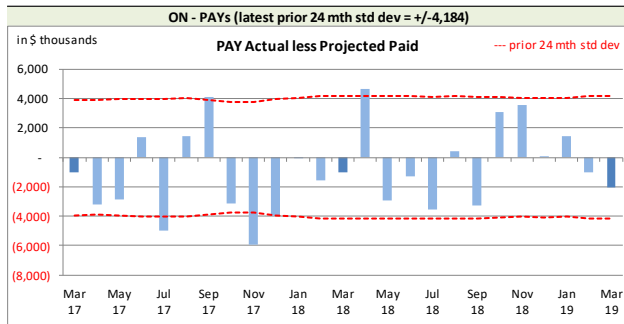
<sup>8</sup>Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR 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.

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



**Paid** activity variances from the previous month’s projections are shown in the charts immediately below, including the “prior 24-month standard deviation” levels to show how the variances from projection compare with historical standard deviations.

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



On Latest \$ thousands		
<b>Paid</b>	PAYS	CAY
Mthly Avg Paid (prior 24 mths)	16,482	13,224
std dev	4,184	3,958
A-P <> std dev	4	1
% <> std dev	16.0%	4.0%
norm <> std dev	31.7%	31.7%

With respect to **paid** indemnity & allowed claims expense, 16% of the prior accident years’ (PAYS) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **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 lagging 24-month basis.

The current accident year (CAY) **paid** variances fell outside of one standard deviation 4% of the time over the last 25 calendar months (see table above), 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 lagging 24-month basis.

We have included, for reference, additional charts at the top of the next page related to levels influencing **paid** activity.

*Ontario RSP Levels that influence<sup>9</sup> Paid activity by Calendar Month*



We track beginning prior accident years’ unpaid balance (case and IBNR) as **paid** activity “comes out of” the unpaid balance. Changes in the prior accident years’ beginning unpaid balance (see upper left chart above) occur for several possible reasons:

- to offset actual **paid** activity (may reduce case or IBNR or both);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years’ ultimate (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 IBNR<sup>10</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. The table at the top of the next page summarizes variances in provisions included in this month’s Operational Report and the associated one-month

<sup>9</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>10</sup>For ease of discussion, “IBNR” is used in place of “provisions for incurred but not recorded (IBNR) and development”.

projections from last month’s Report.

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

Accident Year	IBNR		actuarial present value adjustments				IBNR + actuarial present value adjustments	
	Actual	Actual less Projected	Discount Amount		Provisions for Adverse Deviations		Actual	Actual less Projected
			Actual	Actual less Projected	Actual	Actual less Projected		
Prior	46,100	(315)	(22,618)	4,034	49,896	656	73,378	4,375
2017	102,478	(10,187)	(10,032)	2,458	36,676	(1,085)	129,122	(8,814)
2018	136,342	(9,549)	(13,402)	2,846	48,459	1,963	171,399	(4,740)
2019	52,947	(3,598)	(4,558)	1,103	14,663	(590)	63,052	(3,085)
<b>TOTAL</b>	<b>337,867</b>	<b>(23,649)</b>	<b>(50,610)</b>	<b>10,441</b>	<b>149,694</b>	<b>944</b>	<b>436,951</b>	<b>(12,264)</b>

The IBNR provision is \$23.6 million lower 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 table immediately below 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 due to the valuation implementation.

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

	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:	45,099	(148)	19,361	1,636	64,460	1,488
balance as % unearned premium:	27.5%	-	11.8%	1.0%	39.3%	1.0%
actual unearned premium:	164,022					
less projected:	(534)					



### 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>11</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 table below summarizes the calendar year-to-date results for indemnity & allowed claims expenses<sup>12</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 129.1% rather than 127.1% (the valuation ultimate ratio for accident year 2019), 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.)

*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	(19,304)	(23.3%)	6,856	8.3%	(12,448)	(15.0%)	(13,857)	(17.4%)
CAY	106,969	129.1%	10,105	12.2%	117,074	141.3%	39,775	9.3%
<b>TOTAL</b>	<b>87,665</b>	<b>105.8%</b>	<b>16,961</b>	<b>20.5%</b>	<b>104,626</b>	<b>126.3%</b>	<b>25,917</b>	<b>(8.1%)</b>

(“% EP” based on 2019 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.

<sup>11</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>12</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.

## **5 Current Operational Report – Additional Exhibits**

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

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

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

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

## **6 EXHIBITS**

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

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

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

		Amounts in \$000s				
		Actual	Actual	Projected	Projected	Projected
		Feb. 2019	Mar. 2019	Apr. 2019	May. 2019	Dec. 2019
IBNR + M/S actuarial present value adjustments	Accident Year					
	prior	(816)	1,099	1,065	1,047	859
	2000	(4)	13	13	12	11
	2001	201	40	39	39	33
	2002	66	68	66	64	53
	2003	131	140	136	131	110
	2004	234	257	251	241	204
	2005	430	439	430	413	346
	2006	639	684	670	646	543
	2007	648	813	797	765	644
	2008	1,753	2,154	2,112	2,026	1,704
	2009	885	2,734	2,681	2,570	2,164
	2010	4,382	3,990	3,911	3,754	3,158
	2011	4,667	1,720	1,682	1,621	1,359
	2012	4,577	1,566	1,530	1,478	1,234
	2013	380	(62)	(71)	(46)	(57)
discount rate	2014	2,688	3,862	3,752	3,665	3,032
1.88%	2015	9,222	10,657	9,980	9,616	5,985
	2016	40,724	43,204	41,457	40,067	24,177
interest rate margin	2017	143,145	129,122	123,464	119,049	83,869
25 basis pts	2018	184,434	171,399	163,881	156,718	126,491
	2019	44,455	63,052	82,273	101,392	211,378
	<b>TOTAL</b>	<b>442,841</b>	<b>436,951</b>	<b>440,119</b>	<b>445,268</b>	<b>467,297</b>
	Change		(5,890)	3,168	5,149	

*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 Feb. 2019	Actual Mar. 2019	Projected Apr. 2019	Projected May. 2019	Projected Dec. 2019
	-	prior	(1,959)	(317)	(308)	(296)	(252)
	122.0%	2000	(4)	13	13	12	11
	125.8%	2001	169	9	9	9	9
	117.9%	2002	63	63	62	60	49
	90.7%	2003	125	125	122	117	99
	77.7%	2004	227	227	222	213	180
	73.7%	2005	432	432	423	406	341
	100.4%	2006	678	674	661	635	534
	100.1%	2007	733	823	807	775	652
	121.3%	2008	1,910	2,198	2,154	2,068	1,739
	155.6%	2009	1,140	2,854	2,797	2,685	2,258
	152.4%	2010	4,677	4,050	3,969	3,810	3,205
	87.0%	2011	4,577	1,508	1,478	1,419	1,194
	85.3%	2012	4,140	1,021	1,001	961	807
	94.4%	2013	(238)	(1,196)	(1,172)	(1,125)	(946)
	100.8%	2014	(60)	582	570	547	460
	108.2%	2015	2,955	3,576	3,111	2,955	767
	119.2%	2016	28,152	29,458	27,985	26,866	13,064
	116.9%	2017	117,359	102,478	97,354	93,460	61,882
	125.7%	2018	153,569	136,342	129,525	123,049	96,358
	127.1%	2019	37,841	52,947	68,899	84,690	173,815
		<b>TOTAL</b>	<b>356,486</b>	<b>337,867</b>	<b>339,682</b>	<b>343,316</b>	<b>356,226</b>
		Change		(18,619)	1,815	3,634	

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

## EXHIBIT C

## Premium Liabilities

TABLE EXHIBIT C

	Amounts in \$000s				
	Actual Feb. 2019	Actual Mar. 2019	Projected Apr. 2019	Projected May. 2019	Projected Dec. 2019
Premium Liabilities					
(1) unearned premium (UP)	161,392	164,022	169,464	173,817	209,702
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	138.2%	139.3%	139.5%	139.7%	142.3%
(3) expected future costs {(1) x (2)}	222,967	228,482	236,352	242,787	298,356
(4) premium deficiency / (deferred policy acquisition cost)	61,575	64,460	66,888	68,970	88,654
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	127.4%	127.5%	127.7%	127.8%	130.2%
(6) expected future costs {(1) x (5)}	205,595	209,121	216,323	222,213	273,073
(7) premium deficiency / (deferred policy acquisition cost)	44,203	45,099	46,859	48,396	63,371

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2019, broken down by component.

Ontario		Projected Balances as at Dec. 31, 2019 (\$000s)								
ending 2019		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	22,747	(252)	22,495	(1,173)	144	2,257	(117)	2,140	1,111	23,606
2000	1	11	12	(1)	-	1	-	1	-	12
2001	524	9	533	(30)	4	53	(3)	50	24	557
2002	50	49	99	(6)	1	10	(1)	9	4	103
2003	252	99	351	(25)	3	35	(2)	33	11	362
2004	848	180	1,028	(81)	10	103	(8)	95	24	1,052
2005	52	341	393	(35)	4	39	(3)	36	5	398
2006	1,432	534	1,966	(193)	24	197	(19)	178	9	1,975
2007	1,519	652	2,171	(230)	28	217	(23)	194	(8)	2,163
2008	1,653	1,739	3,392	(383)	47	339	(38)	301	(35)	3,357
2009	4,190	2,258	6,448	(754)	90	645	(75)	570	(94)	6,354
2010	4,839	3,205	8,044	(869)	105	804	(87)	717	(47)	7,997
2011	8,909	1,194	10,103	(869)	111	1,010	(87)	923	165	10,268
2012	16,756	807	17,563	(1,352)	158	1,756	(135)	1,621	427	17,990
2013	26,066	(946)	25,120	(1,658)	201	2,512	(166)	2,346	889	26,009
2014	52,347	460	52,807	(2,799)	370	5,281	(280)	5,001	2,572	55,379
2015	63,161	767	63,928	(2,749)	320	7,991	(344)	7,647	5,218	69,146
2016	91,239	13,064	104,303	(4,485)	626	15,645	(673)	14,972	11,113	115,416
2017	114,267	61,882	176,149	(8,279)	1,057	30,650	(1,441)	29,209	21,987	198,136
2018	116,964	96,358	213,322	(11,519)	1,493	42,451	(2,292)	40,159	30,133	243,455
PAYs (sub-total):	527,816	182,411	710,227	(37,490)	4,796	111,996	(5,794)	106,202	73,508	783,735
CAY (2019)	123,500	173,815	297,315	(16,947)	2,081	55,598	(3,169)	52,429	37,563	334,878
claims liabilities:	651,316	356,226	1,007,542	(54,437)	6,877	167,594	(8,963)	158,631	111,071	1,118,613
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	209,702	63,371	273,073	(12,268)	1,363	37,893	(1,705)	36,188	25,283	298,356
*Total may not be sum of parts, as apvs apply to future costs within UPR										
policy liabilities:			1,280,615	(66,705)	8,240	205,487	(10,668)	194,819	136,354	1,416,969

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, 2019 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Accident Year	Selected Claims Development MfADs (Dec. 31, 2018)			Total Margins
	Third Party Liability	Accident Benefits	Other Coverages	
	Margins	Margins	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	9.1%	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%	8.6%	10.0%
2013	10.0%	10.0%	8.5%	10.0%
2014	10.0%	10.0%	9.5%	10.0%
2015	12.5%	12.5%	11.9%	12.5%
2016	15.0%	15.0%	13.3%	15.0%
2017	17.4%	17.5%	11.9%	17.4%
2018	19.8%	20.0%	14.0%	19.9%
2019	18.5%	20.0%	6.2%	18.7%
prem liab	13.5%	20.0%	5.2%	13.9%

discount rate: 1.88%  
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, 2019 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2019, and are based on more up-to-date information). We have included the most recent valuation selection (1.88%), the prior valuation assumption (2.22%) and the prior fiscal year end valuation assumption (2.22%) 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, 2019 projected Unpaid							
	0.88%	1.38%	1.88%	2.38%	2.88%	3.38%	2.22%	2.22%
2004 & prior	29,525	29,095	28,669	28,259	27,856	27,462	28,387	28,387
2005	421	411	401	391	382	373	394	394
2006	2,432	2,366	2,303	2,243	2,184	2,129	2,261	2,261
2007	2,846	2,763	2,683	2,607	2,534	2,464	2,631	2,631
2008	4,189	4,058	3,932	3,814	3,699	3,591	3,851	3,851
2009	7,169	6,936	6,713	6,502	6,301	6,110	6,568	6,568
2010	7,307	7,088	6,880	6,684	6,497	6,320	6,745	6,745
2011	10,073	9,836	9,610	9,397	9,195	9,003	9,464	9,464
2012	19,680	19,265	18,870	18,497	18,142	17,805	18,614	18,614
2013	21,476	21,087	20,718	20,367	20,031	19,713	20,476	20,476
2014	43,513	42,888	42,291	41,725	41,180	40,658	41,903	41,903
2015	67,910	67,122	66,359	65,634	64,932	64,255	65,860	65,860
2016	114,736	113,414	112,129	110,903	109,709	108,553	111,286	111,286
2017	207,889	205,257	202,691	200,205	197,810	195,486	200,993	200,993
2018	253,670	249,962	246,344	242,879	239,494	236,208	243,964	243,964
2019	359,983	354,380	348,976	343,743	338,636	333,740	345,363	345,363
Total	1,152,819	1,135,928	1,119,569	1,103,850	1,088,582	1,073,870	1,108,760	1,108,760
	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							
	0.88%	1.38%	1.88%	2.38%	2.88%	3.38%	2.22%	2.22%
Total	33,250	16,359	-	(15,719)	(30,987)	(45,699)	(10,809)	(10,809)
	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							
	0.88%	1.38%	1.88%	2.38%	2.88%	3.38%	2.22%	2.22%
2004 & prior	3.0%	1.5%	-	(1.4%)	(2.8%)	(4.2%)	(1.0%)	(1.0%)
2005	5.0%	2.5%	-	(2.5%)	(4.7%)	(7.0%)	(1.7%)	(1.7%)
2006	5.6%	2.7%	-	(2.6%)	(5.2%)	(7.6%)	(1.8%)	(1.8%)
2007	6.1%	3.0%	-	(2.8%)	(5.6%)	(8.2%)	(1.9%)	(1.9%)
2008	6.5%	3.2%	-	(3.0%)	(5.9%)	(8.7%)	(2.1%)	(2.1%)
2009	6.8%	3.3%	-	(3.1%)	(6.1%)	(9.0%)	(2.2%)	(2.2%)
2010	6.2%	3.0%	-	(2.8%)	(5.6%)	(8.1%)	(2.0%)	(2.0%)
2011	4.8%	2.4%	-	(2.2%)	(4.3%)	(6.3%)	(1.5%)	(1.5%)
2012	4.3%	2.1%	-	(2.0%)	(3.9%)	(5.6%)	(1.4%)	(1.4%)
2013	3.7%	1.8%	-	(1.7%)	(3.3%)	(4.9%)	(1.2%)	(1.2%)
2014	2.9%	1.4%	-	(1.3%)	(2.6%)	(3.9%)	(0.9%)	(0.9%)
2015	2.3%	1.1%	-	(1.1%)	(2.2%)	(3.2%)	(0.8%)	(0.8%)
2016	2.3%	1.1%	-	(1.1%)	(2.2%)	(3.2%)	(0.8%)	(0.8%)
2017	2.6%	1.3%	-	(1.2%)	(2.4%)	(3.6%)	(0.8%)	(0.8%)
2018	3.0%	1.5%	-	(1.4%)	(2.8%)	(4.1%)	(1.0%)	(1.0%)
2019	3.2%	1.5%	-	(1.5%)	(3.0%)	(4.4%)	(1.0%)	(1.0%)
Total	3.0%	1.5%	-	(1.4%)	(2.8%)	(4.1%)	(1.0%)	(1.0%)
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption



EXHIBIT G

Components of Member Statement IBNR (i.e. “Discounted”) Change 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	(816)	24	(70)	1,961	1,915	(234.7%)	1,099
2000	(4)	-	17	-	17	(425.0%)	13
2001	201	(5)	5	(161)	(161)	(80.1%)	40
2002	66	(2)	2	2	2	3.0%	68
2003	131	(4)	4	9	9	6.9%	140
2004	234	(6)	6	23	23	9.8%	257
2005	430	(13)	13	9	9	2.1%	439
2006	639	(19)	15	49	45	7.0%	684
2007	648	(19)	292	(108)	165	25.5%	813
2008	1,753	195	309	(103)	401	22.9%	2,154
2009	885	(27)	399	1,477	1,849	208.9%	2,734
2010	4,382	(131)	79	(340)	(392)	(8.9%)	3,990
2011	4,667	(140)	(411)	(2,396)	(2,947)	(63.1%)	1,720
2012	4,577	(137)	25	(2,899)	(3,011)	(65.8%)	1,566
2013	380	935	192	(1,569)	(442)	(116.3%)	(62)
2014	2,688	(80)	315	939	1,174	43.7%	3,862
2015	9,222	(715)	708	1,442	1,435	15.6%	10,657
2016	40,724	(1,660)	16	4,124	2,480	6.1%	43,204
2017	143,145	(5,209)	819	(9,633)	(14,023)	(9.8%)	129,122
2018	184,434	(8,295)	(5,565)	825	(13,035)	(7.1%)	171,399
2019	44,455	21,682	(4,110)	1,025	18,597	41.8%	63,052
<b>Grand Total</b>	<b>442,841</b>	<b>6,374</b>	<b>(6,940)</b>	<b>(5,324)</b>	<b>(5,890)</b>	<b>(1.3%)</b>	<b>436,951</b>

EXHIBIT G

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

RSP		Ontario						IBNR - in \$000s
AccountCode Desc		IBNR - Undiscounted						
AccYear	Values							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	Sum of Total Change	Sum of % Total Change		
prior	(1,959)	60	(102)	1,684	1,642	(83.8%)	(317)	
2000	(4)	-	17	-	17	(425.0%)	13	
2001	169	(5)	5	(160)	(160)	(94.7%)	9	
2002	63	(2)	2	-	-	-	63	
2003	125	(4)	4	-	-	-	125	
2004	227	(7)	7	-	-	-	227	
2005	432	(13)	13	-	-	-	432	
2006	678	(20)	16	-	(4)	(0.6%)	674	
2007	733	(22)	293	(181)	90	12.3%	823	
2008	1,910	191	312	(215)	288	15.1%	2,198	
2009	1,140	(34)	404	1,344	1,714	150.4%	2,854	
2010	4,677	(140)	82	(569)	(627)	(13.4%)	4,050	
2011	4,577	(137)	(411)	(2,521)	(3,069)	(67.1%)	1,508	
2012	4,140	(124)	25	(3,020)	(3,119)	(75.3%)	1,021	
2013	(238)	952	185	(2,095)	(958)	402.5%	(1,196)	
2014	(60)	2	370	270	642	(1,070.0%)	582	
2015	2,955	(591)	686	526	621	21.0%	3,576	
2016	28,152	(1,408)	19	2,695	1,306	4.6%	29,458	
2017	117,359	(4,694)	672	(10,859)	(14,881)	(12.7%)	102,478	
2018	153,569	(7,678)	(4,962)	(4,587)	(17,227)	(11.2%)	136,342	
2019	37,841	18,704	(3,598)	-	15,106	39.9%	52,947	
<b>Grand Total</b>	<b>356,486</b>	<b>5,030</b>	<b>(5,961)</b>	<b>(17,688)</b>	<b>(18,619)</b>	<b>(5.2%)</b>	<b>337,867</b>	