



**ONTARIO RISK SHARING POOL**

**AUGUST 2016 OPERATIONAL REPORT**

**ACTUARIAL HIGHLIGHTS**

Related Bulletin: [F16-070 Ontario RSP August 2016 Operational Report](#)

Related Quarterly Valuation Highlights:

[Actuarial Quarterly Valuation Highlights Risk Sharing Pools as at June 30, 2016](#)

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**ACTUARIAL HIGHLIGHTS**  
**RSP ONTARIO**  
**OPERATIONAL REPORT**  
**AUGUST 2016**

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## 1 Summary

### 1.1 Valuation Schedule (Fiscal Year 2016)

The August 2016 Operational Report incorporates the results of an updated valuation (as at June 30, 2016) – 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 2016.

<b>ONTARIO RISK SHARING POOL</b>			
<b>FISCAL YEAR 2016 – 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, 2015 (completed)	0.98% mfad: 25 bp	Oct. 2015	updated valuation (roll forward): accident year 2015 loss ratio decreased 5.7 points to 116.8%; discount rate decreased by 21 basis points; no change to selected margins for adverse deviations
Dec. 31, 2015 (completed)	0.90% mfad: 25 bp	Mar. 2016	updated valuation: accident year 2015 loss ratio decreased 1.3 points to 115.5%; accident year 2016 loss ratio decreased 3.6 points to 117.0%; discount rate decreased by 8 basis points; no change to selected margins for adverse deviations
Mar. 31, 2016 (completed)	0.81% mfad: 25 bp	May 2016	updated valuation (roll forward): accident year 2016 loss ratio decreased 0.7 points to 116.3%; discount rate decreased by 9 basis points; no change to selected margins for adverse deviations
Jun. 30, 2016 (completed)	0.68% mfad: 25 bp	Aug. 2016	updated valuation: accident year 2016 loss ratio increased 2.1 points to 118.4%; discount rate decreased by 13 basis points; selected claims development margins for adverse deviations were updated
Sep. 30, 2016		Oct. 2016	update valuation (roll forward):

Under the proposed schedule for fiscal year 2016, the “off-half” valuation quarters ending March 31, 2016 and September 30, 2016 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 June 30, 2016 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 to be posted to the FA website at the same time as this report.

The valuation implementation impact is summarized in the tables immediately below.

*Summary of Impact (\$000s) of Implementing Result of Valuation as at June 30, 2016<sup>1</sup>*

Ontario	unfav / (fav) for the month and ytd					
	IMPACT in \$000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal [1]	apv adj. [2]	sub-tot [3]	apv adj. [4]	apv adj. [5]	TOTAL [6]
PAYs	(23,056)	(1,438)	(24,494)	3,190	(14,996)	(36,300)
CAY	3,520	757	4,277	683	-	4,960
Prem Def	922	153	1,075	819	-	1,894
<b>TOTAL</b>	<b>(18,614)</b>	<b>(528)</b>	<b>(19,142)</b>	4,692	(14,996)	(29,446)

As indicated in the table above, the incorporation of the new valuation had an estimated **\$29.4 million favourable impact** on the month's net result from operations, subtracting an estimated 17.6 points (see table immediately below) from the **year-to-date Combined Operating Ratio** to end at **114.6%**.

*Summary of Impact (% YTD EP) of Implementing Result of Valuation as at June 30, 2016*

Ontario	ytd EP 167,141 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal [1]	apv adj. [2]	sub-tot [3]	apv adj. [4]	apv adj. [5]	TOTAL [6]
PAYs	(13.8%)	(0.9%)	(14.7%)	1.9%	(9.0%)	(21.7%)
CAY	2.1%	0.5%	2.6%	0.4%	-	3.0%
Prem Def	0.6%	0.1%	0.6%	0.5%	-	1.1%
<b>TOTAL</b>	<b>(11.1%)</b>	<b>(0.3%)</b>	<b>(11.5%)</b>	2.8%	(9.0%)	(17.6%)

The impact of the nominal changes is shown in column [1] of the two preceding summary tables. The change in the selected nominal ultimates was favourable by \$18.6 million overall. This reflects the impact attributable to the change in the selected ultimate loss ratio (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 \$23.1 million favourable variance with the implementation and the total favourable impact is 3.2% of the prior accident years' nominal unpaid balance of \$722.6 million determined at the end of last month (July 2016).

<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.

The current accident year and premium deficiency impacts are a result of the changes in the selected loss ratios for accident years **2016** (up 2.1 points from 116.3% to **118.4%**) and **2017** (down 1.0 points from 118.5% to **117.5%**).

The impacts related to actuarial present value adjustments are split into the impact prior to any change in the selected discount rate and margin changes (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 margins (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 margins for adverse deviations or “MfADs”). It also reflects the fact that we updated the projected emergence of claims payments, resulting in a change in the projected cash flows. These changes generated a favourable change of \$0.5 million in the actuarial present value adjustments, prior to any changes in the selected discount rate and/or MfADs.

Claims payment emergence patterns were updated and cash flows were reviewed against the selected risk-free yield curve, derived from Government of Canada benchmark bond yields monthly series using values for June 2016. Column [4] accounts for the change in the **discount rate** selected (decreased 13 basis points to **0.68%**), indicating an unfavourable impact of \$4.7 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$3.9 million at August 2016 (projected \$4.0 million impact at December 31, 2016) – this compares to the \$4.3 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**. However, selected **claims development MfADs** were updated for some accident years and coverages, resulting in an estimated **overall favourable impact of \$15.0 million**.

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>**

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. With the current valuation, reform adjustments (originally introduced with the June 30, 2015 valuation) specifically related to changes in the non-pecuniary prejudgment interest provision calculation impacting the bodily injury coverage and the applicable interest rate applied to overdue payments in the SABS impacting the accident benefits coverage, were included with the updated industry trend analysis (completed using industry data as at December 31, 2015), impacting the selection of ultimates.

**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 current valuation, reform adjustments (originally introduced with the September 30, 2015 valuation) specifically related to changes in the tort threshold and deductibles impacting the bodily injury coverage and 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 December 31, 2015) and nominal valuation estimates, impacting the selection of ultimates.

#### **1.5 Ontario RSP Bodily Injury Case Reserve summary**

As indicated in the previous section, reform adjustments, specifically related to changes in the non-pecuniary prejudgment interest provisions in **Ontario Bill 15** and the changes in the tort threshold and deductibles in **Ontario Bill 91** impacting the third party liability - bodily injury coverage for

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<sup>2</sup>How bills become laws in Ontario is described in detail in the publication: <http://www.ontla.on.ca/lao/en/media/laointernet/pdf/bills-and-lawmaking-background-documents/how-bills-become-law-en.pdf>.

accident year 2015 and subsequent, was included with the updated Ontario Private Passenger Vehicle industry trend analysis (completed using industry data as at December 31, 2015).

There have been two conflicting Ontario Superior Court decisions in relation to the application of prejudgment interest provisions: *Carillo v. Rizzo* (April 15, 2015) and *El-Khodr v. Lackie et al* (July 28, 2015). In the first, the judge ruled that the change to prejudgment interest for non-pecuniary losses<sup>3</sup> from a set level of 5% to the level that applies to pecuniary losses applies retroactively (i.e. applies to all open claims), whereas in the second, the judge ruled that the change applies only to claims where notification was provided to the insurer on or after January 1, 2015. FA's current view is that the second judgment supersedes the first, and no adjustments have been made to the provisions for accident years 2014 and prior as a result.

In addition to the above, there have also been multiple conflicting Ontario Superior Court decisions in relation to the application of the changes in the tort threshold and deductibles: *Cobb v. Long Estates* (November 13, 2015), *Vickers v. Palacios* (December 8, 2015) and *Corbett v. Odorico* (March 22, 2016). In the first, the judge ruled that the changes to the tort threshold and deductibles were substantive in nature such that the defendant was not entitled to apply the higher deductible, whereas in the second and third, the judges concluded the deductible change is procedural on the grounds that the cap on damages and the statutory deductible were implemented to achieve particular policy objectives and therefore applied retroactively (i.e. applies to all open claims). FA's current view, consistent with the latter two judgments, is that the changes to the applicable tort threshold and deductibles are applied on a settlement date basis. We've included a -0.75%<sup>4</sup> retroactive adjustment to Ontario third party liability - bodily injury unpaid amounts (outstanding case and selected IBNR) using negative IBNR, impacting AY2014/2 and prior. We have applied a 50% tempering factor to the AY2015/1 selected adjustment factor as these are settlements that are negotiated globally and hence there may be erosion of the deductible.

Recognizing that individual members may interpret these results differently, we have included a table at the top of the next page displaying the current levels of Ontario RSP Third Party Liability – Bodily Injury Case Reserves (as at December 31, 2015) by accident year as well as projected average duration, from accident date to projected settlement date, from the December 31, 2015 valuation paid emergence projection model. No attempt has been made to distinguish case reserves held for pecuniary versus non-pecuniary losses, nor in estimating the amount of prejudgment interest, if any, is included in the case reserve estimates.

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<sup>3</sup>**Pecuniary** awards are defined on the Ontario Attorney General's website as "Damages that can be measured in money (i.e., special damages)" with special damages further defined as "Damages intended to compensate a plaintiff for a quantifiable monetary loss. Examples of such losses include: lost earnings, medical bills, and repair costs." In contrast, **non-pecuniary** awards defined as "Damages that cannot be measured in money, but nevertheless are compensated for with money (i.e., general damages)" with general damages further defined as "Damages for non-monetary losses suffered by a plaintiff. These damages are not capable of exact quantification. Examples of such losses suffered include pain, suffering, and disfigurement."

<sup>4</sup>The original adjustment with the 2015 Q3 valuation was -3.00%, with the intent to reduce this by 0.75 points with each subsequent valuation, reaching 0.00% with the 2016 Q3 valuation.



**ON RSP** (Amounts in \$000s; as at Dec. 31, 2015)

AY	Curr BI Case	avg yrs to Dec 2015	projected avg # yrs to settlement	projected avg duration
1993	-	22.5	-	-
1994	-	21.5	-	-
1995	-	20.5	-	-
1996	168	19.5	2.6	22.1
1997	-	18.5	-	-
1998	-	17.5	-	-
1999	-	16.5	-	-
2000	-	15.5	-	-
2001	-	14.5	-	-
2002	-	13.5	-	-
2003	38	12.5	6.4	18.9
2004	-	11.5	6.9	18.4
2005	70	10.5	7.4	17.9
2006	640	9.5	4.8	14.3
2007	2,012	8.5	3.1	11.6
2008	5,983	7.5	2.6	10.1
2009	11,116	6.5	2.4	8.9
2010	24,857	5.5	2.5	8.0
2011	26,424	4.5	2.3	6.8
2012	40,771	3.5	2.4	5.9
2013	54,426	2.5	2.7	5.2
2014	45,063	1.5	3.3	4.8
2015	29,944	0.5	4.1	4.6
<b>TOTAL</b>	<b>241,512</b>	<b>3.2</b>	<b>2.9</b>	<b>6.0</b>

In the above table, the column “projected avg duration” is an estimate of the number of years from claim occurrence<sup>5</sup> to claim settlement, via summing the average number of years from claim occurrence to December 31, 2015 (3<sup>rd</sup> column) and from December 31, 2015 to settlement (4<sup>th</sup> column).

## 1.6 Current Provision Summary

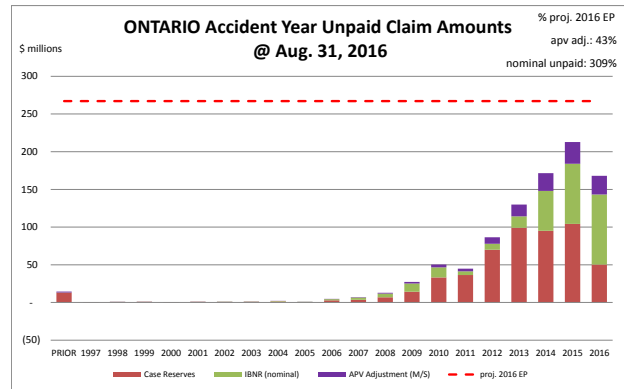
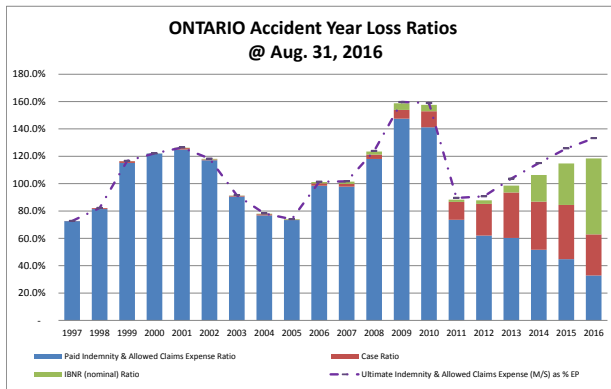
The charts at the top of the next page show the current levels of claim liabilities<sup>6</sup> booked by accident year<sup>7</sup>. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2016 full year earned premium (the red hash-mark line) to provide some perspective.

<sup>5</sup>Prejudgment interest in Ontario applies to the period from the date the claim is reported, not from the time of occurrence. We have provided the latter to allow actuarial judgment to be applied in estimating the lag between occurrence and reporting.

<sup>6</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>7</sup>The loss ratio chart has been limited to show the most recent 20 accident years; the unpaid provision chart has been limited to show the most recent 20 accident years, and show all accident years older than 20 years collectively as “PRIOR”.





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

The current actuarial present value adjustments provision for claims liabilities (\$114.4 million – see table below) represents 43% of the earned premium projected for the full year 2016 (see the upper right corner of the right chart above). 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	535,379	57.0%
ibnr	290,022	30.9%
M/S apv adjust.	114,369	12.2%
<b>M/S total</b>	<b>939,770</b>	<b>100.0%</b>

The table to the left breaks down the Member Statement (M/S) claim liabilities total into component parts, indicating case reserves represent the largest portion. Approximately 60% of the IBNR balance relates to accident years 2015 and 2016 (see Exhibit B). Approximately 82% of the M/S total claim

liabilities are related to accident years 2012-2016 inclusive (i.e. the most recent 5 accident years), and approximately 3% is related to accident years 2006 and prior (i.e. prior to the most recent 10 accident years).

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

premium liabilities (\$000s)			policy liabilities (\$000s)		
	amt	%		amt	%
unearned prem	150,112	74.2%	claim	825,401	72.3%
prem def/(dpac)	27,323	13.5%	premium	177,435	15.5%
M/S apv adjust.	24,944	12.3%	M/S apv adjust.	139,313	12.2%
<b>M/S total</b>	<b>202,379</b>	<b>100.0%</b>	<b>M/S total</b>	<b>1,142,149</b>	<b>100.0%</b>

## 2 Activity During the Month of August 2016

### 2.1 Recorded Premium and Claims Activity

The table at the top of the next page 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>8</sup>.

<sup>8</sup>There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

*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	1	1	12,278	6,560	(6,142)	(2,006)	6,136	4,554
2014	(1)	(1)	2,416	79	(1,027)	(482)	1,389	(403)
2015	(52)	(52)	2,687	781	151	(541)	2,838	240
2016	23,363	(142)	9,147	2,683	6,381	896	15,527	3,579
TOTAL	23,312	(194)	26,528	10,103	(637)	(2,133)	25,891	7,971

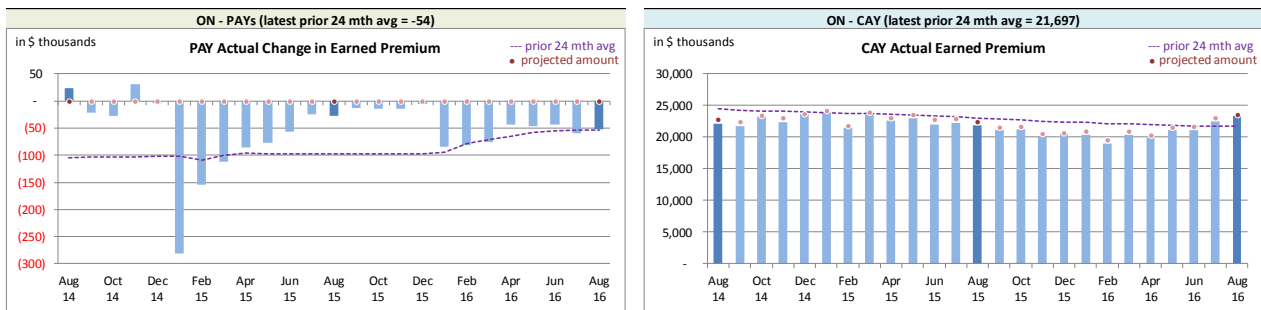
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural “process variance”. 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 immediately below show actual **earned premium**<sup>9</sup> activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

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

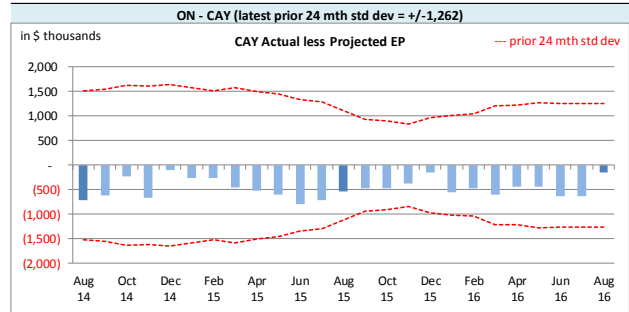
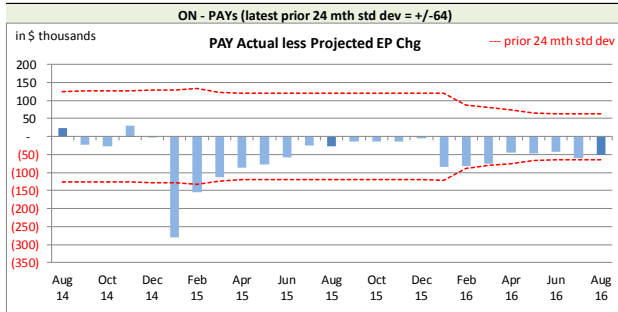


**Earned premium** changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the charts above), although relatively high levels generally occur at the beginning of each year.

The associated variance between the actual changes and the projections from the previous month are shown in the charts at the top of the next page. **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.

<sup>9</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 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)	(54)	21,697
std dev	64	1,262
A-P <> std dev	2	-
% <> std dev	8.0%	0.0%
norm <> std dev	31.7%	31.7%

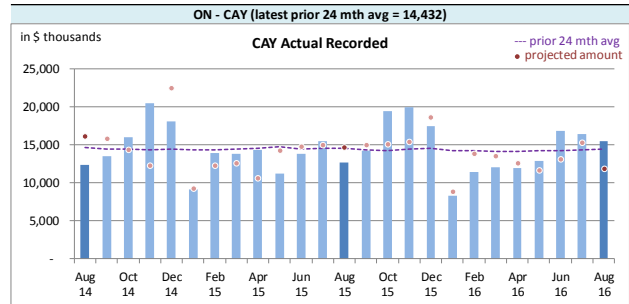
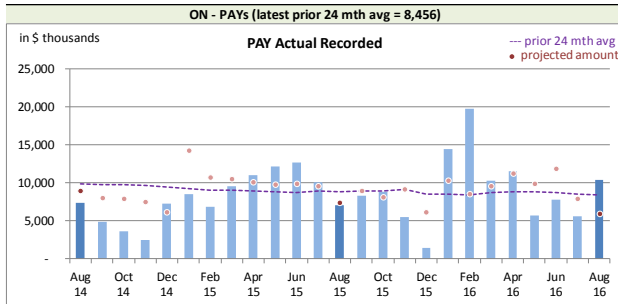
We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated bias<sup>10</sup>, with actuals generally lower than projected. However, the magnitude is not high relative to monthly premium, and the

variances are within the prior 24-month standard deviation for monthly earned premium more often than indicated by a normal distribution (see table above). We are in the process of modifying our projections processes in an attempt to account for bias in the current process. Over time, we may consider other projection approaches to narrow monthly variance levels further, but it is not currently deemed a priority.

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

Actual **recorded** activity (**paid** and case reserve changes) over the last 25-month period is shown in the charts immediately below, including the “prior 24-month average” level.

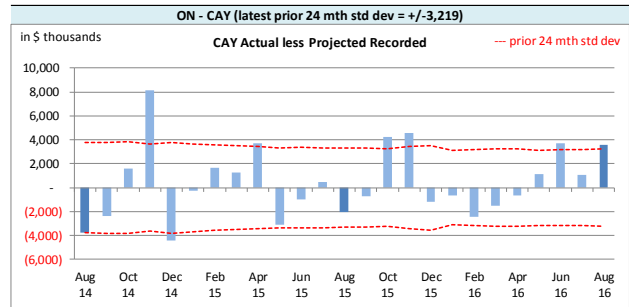
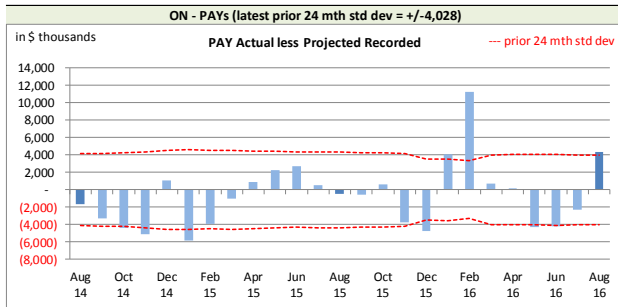
*Ontario RSP Actual **Recorded** by Calendar Month*



**Recorded** activity variances from the previous month’s projections are shown in the charts at the top of the next page, including the “prior 24-month standard deviation” levels.

<sup>10</sup>The prior accident years (PAYs) variances will show bias as the projection upload forces all earned premium projections to be attributed to the current accident year.

*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)	8,456	14,432	
std dev	4,028	3,219	
A-P <> std dev	9	7	
% <> std dev	36.0%	28.0%	
norm <> std dev	31.7%	31.7%	

With respect to **recorded** indemnity & allowed claims expense, 36% of the prior accident years' (PAYS) variances (left chart above) were outside of one standard deviation over the period, suggesting the projection process has performed worse than simply projecting the prior 24-month average amount. We note that the ratio of PAYS'

**recorded** activity relative to beginning IBNR has been below the average of the preceding 24-months for most of those months where our projections have been too high (see bottom left chart at top of next page). We continue to investigate to understand the implications to our projections and make adjustments accordingly.

The PAY **recorded** variance for the current month was outside the one standard deviation band. The activity was reviewed and confirmed. As noted last month, a member is in the process of completing a comprehensive review of their open claims transactions as reported to the FA RSP system. Our review last month (July 2016) noted that correcting transactions were posted to reverse claim closures (and associated case reserve takedowns) posted by this member during the prior month (June 2016). Correcting transactions to reverse the prior claim closures continued to be posted in the current month (August 2016). While the amounts are not large relative to Ontario RSP unpaid balances, our investigation and discussion with the member, in conjunction with review by the FA internal audit team, continues to ensure our records are accurate in relation to the member's own records on their RSP claims' portfolio.

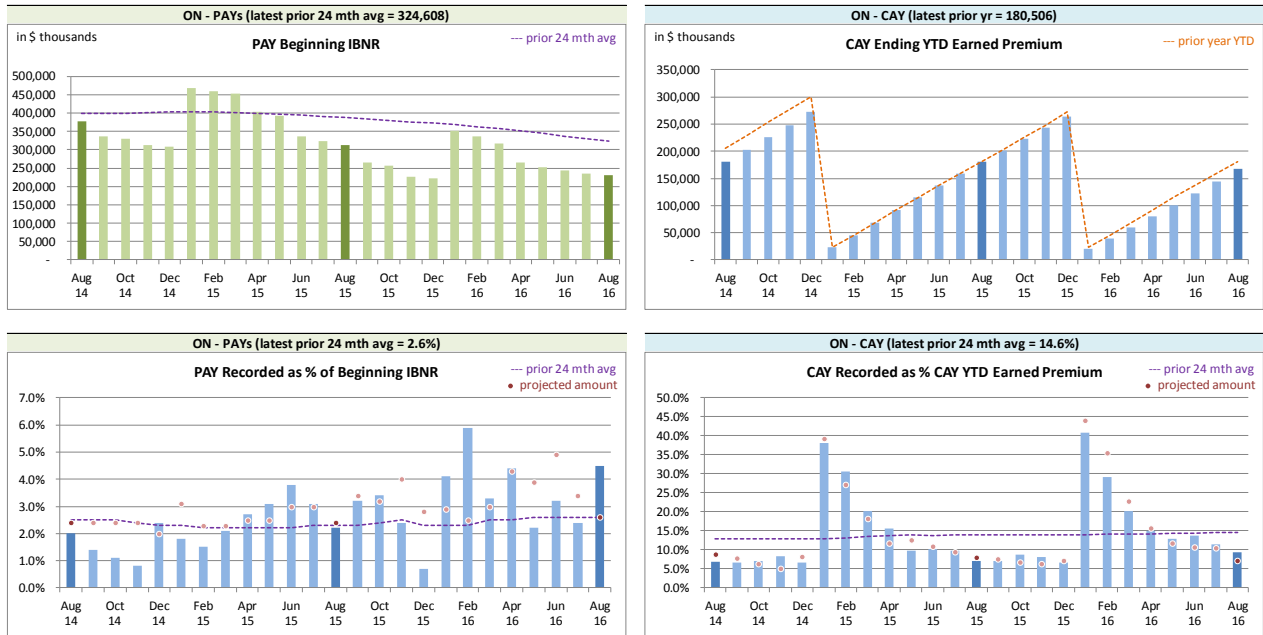
The current accident year (CAY) **recorded** variances (right chart above) fell outside of one standard deviation 28% of the time over the entire period, suggesting that the projection process performs little better than simply projecting the prior 24-month average amount. We see no evidence of systemic bias in the variances.

The CAY **recorded** variance for the current month was outside the one standard deviation band. The activity was reviewed and confirmed, with the variance attributed to process variance.

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>11</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:

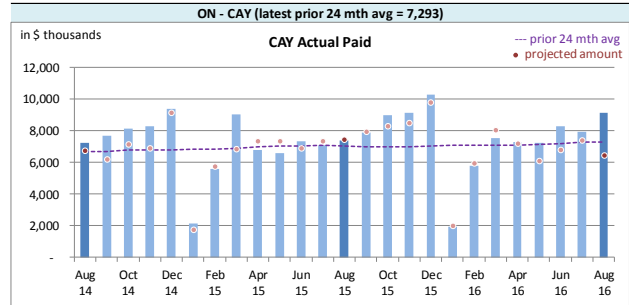
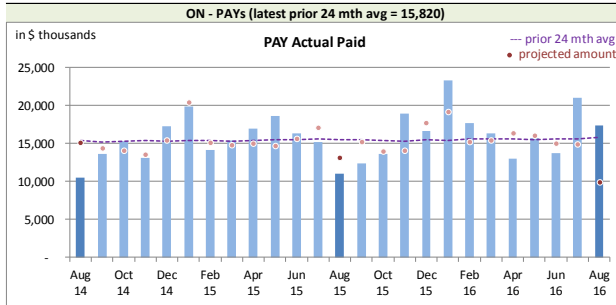
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years’ ultimate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

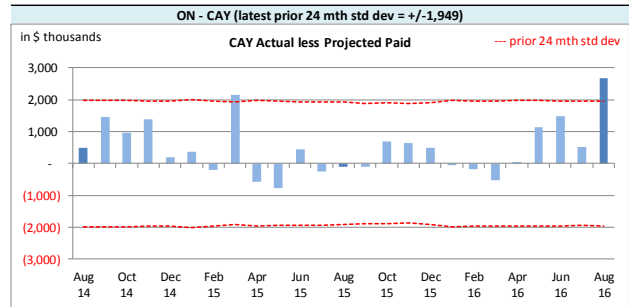
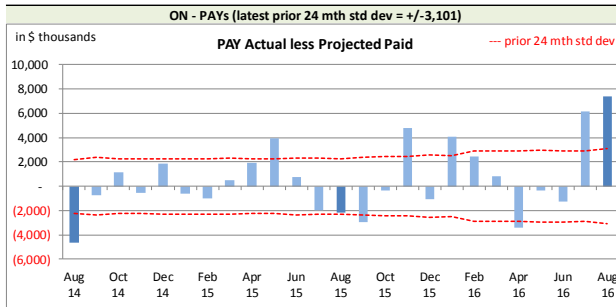
<sup>11</sup>Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected 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*



The charts immediately below show the actual less projected **paid** variances for the last 25 calendar months, along with bands for the “prior 24-month standard deviations” 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)	15,820	7,293
std dev	3,101	1,949
A-P <> std dev	8	2
% <> std dev	32.0%	8.0%
norm <> std dev	31.7%	31.7%

With respect to **paid** indemnity & allowed claims expense, 32% of the prior accident years’ (PAYS) variances (left chart above) over the last 25 calendar months have fallen outside of one standard deviation, suggesting the projection process has performed no better than projecting simply based on the preceding 24-month

average. There does not appear to be evidence of bias.

The PAY **paid** variance for the current month was outside the one standard deviation band. The activity was reviewed and confirmed, with the variance attributed to process variance. We note this is two months in a row where the variance is significant and attributed to process variance. If this repeats again next month, it may indicate a change in payment pattern (i.e. a speed up in claims settlement).

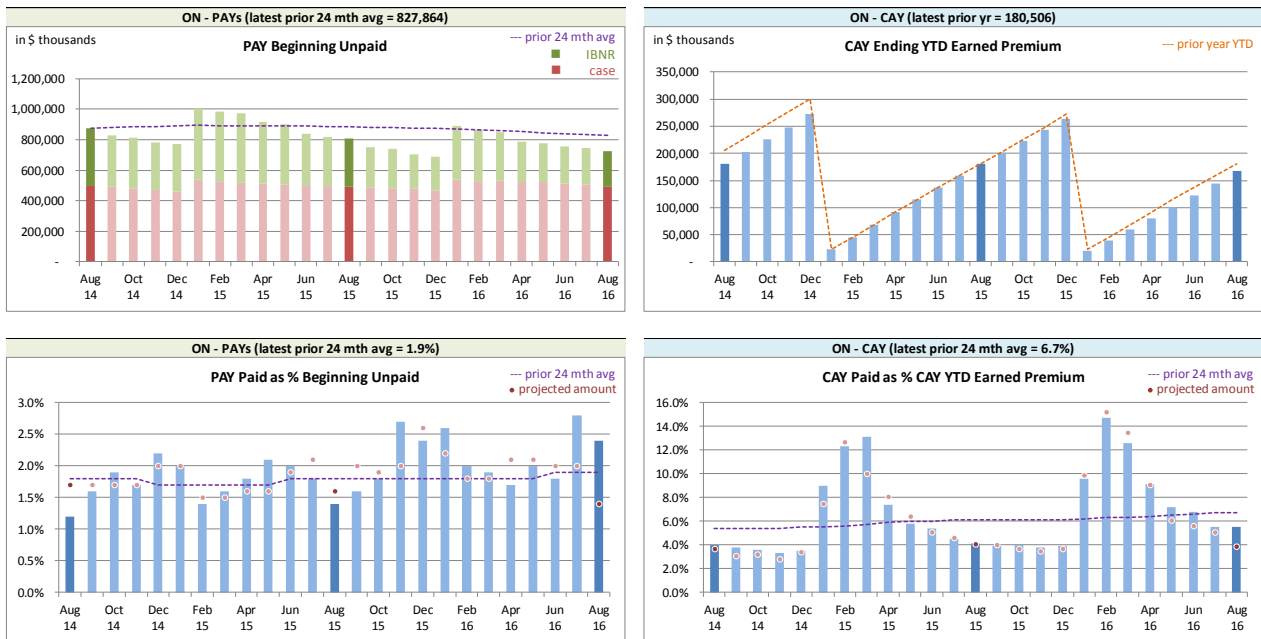
The current accident year (CAY) **paid** variances (right chart above) do not raise concerns over our projection process with respect to magnitudes projected, although there is evidence of bias (actuals tended to be higher than our projections). The right chart on the top of the next page shows the rolling 24-month ratio of CAY paid to ytd earned premium has been increasing, which adds to the difficulty in projecting payments. We have made adjustments to our assumption selections in an attempt to recognize these issues.

The CAY **paid** variance for the current month was outside the one standard deviation band. The

activity was reviewed and confirmed, with the variance attributed to process variance.

We have included, for reference, additional charts immediately below related to levels influencing **paid** activity.

*Ontario RSP Levels that influence<sup>12</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>13</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

<sup>12</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>13</sup>For ease of discussion, “IBNR” is used in place of “provisions for incurred but not recorded (IBNR) and development”.



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 immediately below summarizes variances in provisions included in the August 2016 Operational Report and the associated one-month projections from last month's Report.

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

Table 02

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	64,318	(18,245)	(7,260)	3,416	44,471	(9,410)	101,529	(24,239)
2014	52,919	(5,018)	(2,812)	718	26,295	(4,619)	76,402	(8,919)
2015	79,744	(4,246)	(3,863)	1,044	32,807	(5,285)	108,688	(8,487)
2016	93,041	(224)	(3,296)	698	28,027	268	117,772	742
<b>TOTAL</b>	<b>290,022</b>	<b>(27,733)</b>	<b>(17,231)</b>	<b>5,876</b>	<b>131,600</b>	<b>(19,046)</b>	<b>404,391</b>	<b>(40,903)</b>

The IBNR provision is \$27.7 million lower than projected, 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 at the top of the next page summarizes the variances in the provisions for the premium deficiency amounts included in the August 2016 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. Variances 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)*

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:	27,323	464	24,944	565	52,267	1,029
balance as % unearned premium:	18.2%	0.6%	16.6%	0.6%	34.8%	1.2%
actual unearned premium:	150,112					
less projected:	(2,544)					

### 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>14</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>15</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 118.7% rather than 118.4% (the valuation ultimate ratio for accident year 2016), 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	(69,377)	(41.5%)	(29,362)	(17.6%)	(98,739)	(59.1%)	(38,629)	(17.3%)
CAY	198,470	118.7%	24,731	14.8%	223,201	133.5%	35,136	2.7%
TOTAL	129,093	77.2%	(4,631)	(2.8%)	124,462	74.5%	(3,493)	(14.5%)

(“% EP” based on 2016 calendar year-to-date earned premium; ratios may not total due to rounding)

<sup>14</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>15</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.

The prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments and due to the valuation implementation. The loss ratio change year-to-date 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, 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				
		Actual	Actual	Projected	Projected	Projected
		Jul. 2016	Aug. 2016	Sep. 2016	Oct. 2016	Dec. 2016
IBNR + M/S actuarial present value adjustments	Accident Year					
	prior	381	1,307	1,282	1,257	1,205
	1997	(28)	(22)	(22)	(21)	(19)
	1998	83	86	85	84	82
	1999	161	165	162	158	150
	2000	147	73	72	71	68
	2001	388	310	304	298	286
	2002	931	575	562	551	529
	2003	945	424	416	408	392
	2004	1,365	837	821	804	772
	2005	1,453	833	816	800	768
	2006	2,660	1,930	1,892	1,854	1,782
	2007	3,653	3,526	3,456	3,387	3,252
	2008	7,750	5,918	5,800	5,684	5,461
	2009	16,535	12,938	12,682	12,426	11,933
	2010	22,731	17,133	16,790	16,455	15,803
discount rate	2011	9,308	8,324	8,158	7,978	7,662
0.68%	2012	21,471	16,458	16,128	15,766	15,142
	2013	38,040	30,714	30,024	29,501	28,333
interest rate margin	2014	87,530	76,402	74,197	72,458	66,955
25 basis pts	2015	120,108	108,688	106,007	103,112	93,595
	2016	98,164	117,772	136,602	154,391	174,619
	<b>TOTAL</b>	<b>433,776</b>	<b>404,391</b>	<b>416,234</b>	<b>427,422</b>	<b>428,770</b>
	Change		(29,385)	11,843	11,188	

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 Jul. 2016	Actual Aug. 2016	Projected Sep. 2016	Projected Oct. 2016	Projected Dec. 2016
	-	prior	(737)	87	85	83	79
	72.7%	1997	(39)	(34)	(33)	(32)	(30)
	82.1%	1998	23	23	23	23	23
	116.5%	1999	83	83	81	79	75
	122.1%	2000	136	66	65	64	62
	126.3%	2001	304	224	220	216	208
	118.2%	2002	826	484	474	465	447
	91.4%	2003	830	334	327	320	308
	78.1%	2004	1,201	691	677	663	637
	74.0%	2005	1,357	764	749	734	705
	101.2%	2006	2,354	1,614	1,582	1,550	1,489
	101.4%	2007	3,206	3,011	2,951	2,892	2,777
	123.5%	2008	6,743	4,963	4,864	4,767	4,579
	158.8%	2009	14,419	10,855	10,638	10,425	10,012
	157.6%	2010	17,546	13,334	13,067	12,806	12,299
	88.4%	2011	4,911	4,864	4,767	4,672	4,487
	87.8%	2012	10,908	7,844	7,687	7,495	7,198
	98.5%	2013	20,074	15,111	14,809	14,439	13,867
	106.3%	2014	59,729	52,919	51,067	49,790	45,408
	114.7%	2015	86,588	79,744	77,352	75,031	67,715
	118.4%	2016	77,877	93,041	108,294	121,990	134,691
		<b>TOTAL</b>	<b>308,339</b>	<b>290,022</b>	<b>299,746</b>	<b>308,472</b>	<b>307,036</b>
		Change		(18,317)	9,724	8,726	

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

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

	Amounts in \$000s				
	Actual Jul. 2016	Actual Aug. 2016	Projected Sep. 2016	Projected Oct. 2016	Projected Dec. 2016
Premium Liabilities					
(1) unearned premium (UP)	142,469	150,112	161,413	168,892	175,685
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	133.3%	134.8%	134.7%	134.6%	134.3%
(3) expected future costs {(1) x (2)}	189,890	202,379	217,416	227,276	235,921
(4) premium deficiency / (deferred policy acquisition cost)	47,422	52,267	56,003	58,384	60,236
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	117.3%	118.2%	118.1%	118.0%	117.7%
(6) expected future costs {(1) x (5)}	167,186	177,435	190,618	199,263	206,843
(7) premium deficiency / (deferred policy acquisition cost)	24,718	27,323	29,205	30,371	31,158

## EXHIBIT D

## Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2016, broken down by component.

Ontario		Projected Balances as at Dec. 31, 2016 (\$000s)							
ending 2016		nominal values			actuarial present value adjustments (apvs)				
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	development PfAD	Total apvs	TOTAL	
prior	12,135	79	12,214	(127)	44	1,209	1,126	13,340	
1997	147	(30)	117	(2)	1	12	11	128	
1998	663	23	686	(14)	5	68	59	745	
1999	835	75	910	(22)	8	89	75	985	
2000	11	62	73	(2)	1	7	6	79	
2001	813	208	1,021	(32)	11	99	78	1,099	
2002	667	447	1,114	(39)	14	107	82	1,196	
2003	833	308	1,141	(42)	16	110	84	1,225	
2004	1,293	637	1,930	(77)	27	185	135	2,065	
2005	228	705	933	(41)	15	89	63	996	
2006	2,620	1,489	4,109	(164)	62	395	293	4,402	
2007	3,311	2,777	6,088	(183)	67	591	475	6,563	
2008	6,381	4,579	10,960	(285)	99	1,068	882	11,842	
2009	13,261	10,012	23,273	(559)	209	2,271	1,921	25,194	
2010	30,694	12,299	42,993	(1,075)	387	4,192	3,504	46,497	
2011	33,447	4,487	37,934	(872)	341	3,706	3,175	41,109	
2012	64,618	7,198	71,816	(1,365)	503	8,806	7,944	79,760	
2013	92,144	13,867	106,011	(1,802)	636	15,632	14,466	120,477	
2014	90,376	45,408	135,784	(2,580)	950	23,177	21,547	157,331	
2015	96,761	67,715	164,476	(3,454)	1,316	28,018	25,880	190,356	
PAYs (sub-total):	451,238	172,345	623,583	(12,737)	4,712	89,831	81,806	705,389	
CAY (2016)	96,661	134,691	231,352	(5,321)	1,851	43,398	39,928	271,280	
<b>claims liabilities:</b>	<b>547,899</b>	<b>307,036</b>	<b>854,935</b>	<b>(18,058)</b>	<b>6,563</b>	<b>133,229</b>	<b>121,734</b>	<b>976,669</b>	
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	development PfAD	Total apvs	TOTAL*	
<b>premium liabilities:</b>	175,685	31,158	206,843	(4,129)	1,445	31,762	29,078	235,921	
<b>policy liabilities:</b>			<b>1,061,778</b>	<b>(22,187)</b>	<b>8,008</b>	<b>164,991</b>	<b>150,812</b>	<b>1,212,590</b>	

\*Total may not be sum of parts, as apvs apply to future costs within UPR



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, 2016 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Accident Year	Selected Claims Development MfADs (Jun. 30, 2016)			Total
	Third Party Liability	Accident Benefits	Other Coverages	
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	8.6%	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%	9.9%	10.0%
2009	10.0%	10.0%	9.9%	10.0%
2010	10.0%	10.0%	9.6%	10.0%
2011	10.0%	10.0%	9.9%	10.0%
2012	12.5%	12.5%	11.5%	12.5%
2013	15.0%	15.0%	14.0%	15.0%
2014	17.4%	17.5%	14.5%	17.4%
2015	17.4%	17.5%	15.2%	17.4%
2016	19.1%	20.0%	7.4%	19.2%
2017	20.0%	20.0%	20.0%	20.0%
prem liab	15.3%	20.0%	5.4%	15.7%

discount rate: 0.68%  
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, 2016 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2016 and based on more up-to-date information). We have included both the current valuation selection (0.68%), the prior valuation assumption (0.81%) and the prior fiscal year end valuation assumption (0.98%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

\$ Format: \$000s

Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2016 projected Unpaid								
AY	0.18%	0.68%	1.18%	1.68%	2.18%	2.68%	0.81%	0.98%
2001 & prior	15,818	15,679	15,518	15,363	15,211	15,063	15,636	15,582
2002	1,220	1,193	1,163	1,134	1,106	1,079	1,185	1,175
2003	1,536	1,500	1,459	1,420	1,383	1,348	1,489	1,475
2004	2,309	2,249	2,183	2,120	2,060	2,002	2,232	2,209
2005	1,323	1,286	1,244	1,205	1,168	1,132	1,274	1,261
2006	4,599	4,481	4,352	4,229	4,113	4,002	4,447	4,403
2007	6,046	5,928	5,798	5,676	5,560	5,450	5,893	5,849
2008	12,919	12,702	12,464	12,238	12,025	11,820	12,638	12,558
2009	26,840	26,425	25,970	25,537	25,125	24,729	26,304	26,149
2010	45,864	45,130	44,320	43,551	42,815	42,110	44,916	44,642
2011	42,927	42,298	41,607	40,946	40,312	39,704	42,113	41,880
2012	73,122	72,203	71,181	70,207	69,271	68,372	71,927	71,580
2013	119,000	117,677	116,204	114,781	113,422	112,098	117,286	116,775
2014	160,290	158,328	156,171	154,084	152,088	150,142	157,763	157,022
2015	203,350	200,585	197,510	194,565	191,715	188,966	199,764	198,730
2016	263,798	259,843	255,497	251,295	247,269	243,386	258,693	257,204
<b>Total</b>	<b>980,961</b>	<b>967,507</b>	<b>952,641</b>	<b>938,351</b>	<b>924,643</b>	<b>911,403</b>	<b>963,560</b>	<b>958,494</b>
	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	curr + 200bp	prior val assumption	prior fyr end assumption

Dollar Impact Relative to Valuation Assumption								
AY	0.18%	0.68%	1.18%	1.68%	2.18%	2.68%	0.81%	0.98%
<b>Total</b>	<b>13,454</b>	<b>-</b>	<b>(14,866)</b>	<b>(29,156)</b>	<b>(42,864)</b>	<b>(56,104)</b>	<b>(3,947)</b>	<b>(9,013)</b>
	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	curr + 200bp	prior val assumption	prior fyr end assumption

Percentage Impact Relative to Valuation Assumption								
AY	0.18%	0.68%	1.18%	1.68%	2.18%	2.68%	0.81%	0.98%
2001 & prior	0.9%	-	(1.0%)	(2.0%)	(3.0%)	(3.9%)	(0.3%)	(0.6%)
2002	2.3%	-	(2.5%)	(4.9%)	(7.3%)	(9.6%)	(0.7%)	(1.5%)
2003	2.4%	-	(2.7%)	(5.3%)	(7.8%)	(10.1%)	(0.7%)	(1.7%)
2004	2.7%	-	(2.9%)	(5.7%)	(8.4%)	(11.0%)	(0.8%)	(1.8%)
2005	2.9%	-	(3.3%)	(6.3%)	(9.2%)	(12.0%)	(0.9%)	(1.9%)
2006	2.6%	-	(2.9%)	(5.6%)	(8.2%)	(10.7%)	(0.8%)	(1.7%)
2007	2.0%	-	(2.2%)	(4.3%)	(6.2%)	(8.1%)	(0.6%)	(1.3%)
2008	1.7%	-	(1.9%)	(3.7%)	(5.3%)	(6.9%)	(0.5%)	(1.1%)
2009	1.6%	-	(1.7%)	(3.4%)	(4.9%)	(6.4%)	(0.5%)	(1.0%)
2010	1.6%	-	(1.8%)	(3.5%)	(5.1%)	(6.7%)	(0.5%)	(1.1%)
2011	1.5%	-	(1.6%)	(3.2%)	(4.7%)	(6.1%)	(0.4%)	(1.0%)
2012	1.3%	-	(1.4%)	(2.8%)	(4.1%)	(5.3%)	(0.4%)	(0.9%)
2013	1.1%	-	(1.3%)	(2.5%)	(3.6%)	(4.7%)	(0.3%)	(0.8%)
2014	1.2%	-	(1.4%)	(2.7%)	(3.9%)	(5.2%)	(0.4%)	(0.8%)
2015	1.4%	-	(1.5%)	(3.0%)	(4.4%)	(5.8%)	(0.4%)	(0.9%)
2016	1.5%	-	(1.7%)	(3.3%)	(4.8%)	(6.3%)	(0.4%)	(1.0%)
<b>Total</b>	<b>1.4%</b>	<b>-</b>	<b>(1.5%)</b>	<b>(3.0%)</b>	<b>(4.4%)</b>	<b>(5.8%)</b>	<b>(0.4%)</b>	<b>(0.9%)</b>
	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	curr + 200bp	prior val assumption	prior fyr end assumption

EXHIBIT G

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

RSP Ontario  
AccountCode Desc IBNR - Discour

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	381	(7)	(36)	969	926	243.0%	1,307
1997	(28)	1	4	1	6	(21.4%)	(22)
1998	83	(2)	1	4	3	3.6%	86
1999	161	(3)	2	5	4	2.5%	165
2000	147	(3)	3	(74)	(74)	(50.3%)	73
2001	388	(8)	8	(78)	(78)	(20.1%)	310
2002	931	(18)	18	(356)	(356)	(38.2%)	575
2003	945	(20)	(208)	(293)	(521)	(55.1%)	424
2004	1,365	(28)	13	(513)	(528)	(38.7%)	837
2005	1,453	(28)	(97)	(495)	(620)	(42.7%)	833
2006	2,660	(54)	(37)	(639)	(730)	(27.4%)	1,930
2007	3,653	(73)	42	(96)	(127)	(3.5%)	3,526
2008	7,750	(155)	25	(1,702)	(1,832)	(23.6%)	5,918
2009	16,535	(331)	(602)	(2,664)	(3,597)	(21.8%)	12,938
2010	22,731	(455)	616	(5,759)	(5,598)	(24.6%)	17,133
2011	9,308	(163)	125	(946)	(984)	(10.6%)	8,324
2012	21,471	(378)	366	(5,001)	(5,013)	(23.3%)	16,458
2013	38,040	(481)	(5,527)	(1,318)	(7,326)	(19.3%)	30,714
2014	87,530	(2,209)	388	(9,307)	(11,128)	(12.7%)	76,402
2015	120,108	(2,933)	(449)	(8,038)	(11,420)	(9.5%)	108,688
2016	98,164	18,866	(4,218)	4,960	19,608	20.0%	117,772
<b>Grand Total</b>	<b>433,776</b>	<b>11,518</b>	<b>(9,563)</b>	<b>(31,340)</b>	<b>(29,385)</b>	<b>(6.8%)</b>	<b>404,391</b>

EXHIBIT G

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	(737)	15	(45)	854	824	(111.8%)	87
1997	(39)	1	4	-	5	(12.8%)	(34)
1998	23	-	-	-	-	-	23
1999	83	(2)	2	-	-	-	83
2000	136	(3)	3	(70)	(70)	(51.5%)	66
2001	304	(6)	6	(80)	(80)	(26.3%)	224
2002	826	(17)	17	(342)	(342)	(41.4%)	484
2003	830	(17)	(194)	(285)	(496)	(59.8%)	334
2004	1,201	(24)	12	(498)	(510)	(42.5%)	691
2005	1,357	(27)	(90)	(476)	(593)	(43.7%)	764
2006	2,354	(47)	(38)	(655)	(740)	(31.4%)	1,614
2007	3,206	(64)	50	(181)	(195)	(6.1%)	3,011
2008	6,743	(135)	71	(1,716)	(1,780)	(26.4%)	4,963
2009	14,419	(288)	(587)	(2,689)	(3,564)	(24.7%)	10,855
2010	17,546	(351)	689	(4,550)	(4,212)	(24.0%)	13,334
2011	4,911	(98)	331	(280)	(47)	(1.0%)	4,864
2012	10,908	(218)	475	(3,321)	(3,064)	(28.1%)	7,844
2013	20,074	(301)	(5,260)	598	(4,963)	(24.7%)	15,111
2014	59,729	(1,792)	402	(5,420)	(6,810)	(11.4%)	52,919
2015	86,588	(2,598)	(301)	(3,945)	(6,844)	(7.9%)	79,744
2016	77,877	15,388	(3,744)	3,520	15,164	19.5%	93,041
<b>Grand Total</b>	<b>308,339</b>	<b>9,416</b>	<b>(8,197)</b>	<b>(19,536)</b>	<b>(18,317)</b>	<b>(5.9%)</b>	<b>290,022</b>