



ONTARIO RISK SHARING POOL

MAY 2017 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

Related Bulletin: [F17-043 Ontario RSP May 2017 Operational Report](#)

Related Quarterly Valuation Highlights:

[Actuarial Quarterly Valuation Highlights Risk Sharing Pools as at March 31, 2017](#)

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ACTUARIAL HIGHLIGHTS

RSP ONTARIO

OPERATIONAL REPORT

MAY 2017

TABLE OF CONTENTS

1	Summary.....	3
1.1	Valuation Schedule (Fiscal Year 2017).....	3
1.2	New Valuation.....	3
1.3	Appointed Actuary and Hybrid Actuarial Services Model.....	5
1.4	Consideration of Recent Legal Decisions and Changes in Legislation / Regulation.....	5
1.5	Ontario RSP Bodily Injury Case Reserve summary	7
1.6	Current Provision Summary.....	8
2	Activity During the Month of May 2017.....	9
2.1	Recorded Premium and Claims Activity	9
2.1.a	Actual vs. Projected (AvsP): Earned Premium.....	10
2.1.b	AvsP: Recorded Indemnity & Allowed Claims Expense	11
2.1.c	AvsP: Paid Indemnity & Allowed Claims Expense	14
2.2	Actuarial Provisions	16
3	Ultimate Loss Ratio Matching Method.....	17
4	Calendar Year-to-Date Results.....	17
5	Current Operational Report – Additional Exhibits	18
6	EXHIBITS	19

1 Summary

1.1 Valuation Schedule (Fiscal Year 2017)

The May 2017 Operational Report incorporates the results of an updated valuation (as at March 31, 2017) – 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 2017.

ONTARIO RISK SHARING POOL			
FISCAL YEAR 2017 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2016 (completed)	0.62% mfad: 25 bp	Oct. 2016	updated valuation (roll forward): accident year 2016 loss ratio increased 0.8 points to 119.2%; discount rate decreased by 6 basis points; no change to selected margins for adverse deviations
Dec. 31, 2016 (completed)	1.12% mfad: 25 bp	Mar. 2017	updated valuation: accident year 2016 loss ratio increased 0.5 points to 119.7%; accident year 2017 loss ratio increased 0.4 points to 117.9%; discount rate increased by 50 basis points; no change to selected margins for adverse deviations
Mar. 31, 2017 (completed)	1.04% mfad: 25 bp	May 2017	updated valuation (roll forward): accident year 2017 loss ratio increased 0.7 points to 118.6%; discount rate decreased by 8 basis points; no change to selected margins for adverse deviations
Jun. 30, 2017		Aug. 2017	update valuation:
Sep. 30, 2017		Oct. 2017	update valuation (roll forward):

Under the proposed schedule for fiscal year 2017, the “off-half” valuation quarters ending March 31, 2017 and September 30, 2017 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 March 31, 2017 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 at the top of the next page.

Summary of Impact (\$000s) of Implementing Result of Valuation as at March 31, 2017¹

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	4,763	764	5,527	2,194	-	7,721
CAY	1,049	162	1,211	479	-	1,690
Prem Def	1,117	(280)	837	531	-	1,368
TOTAL	6,929	646	7,575	3,204	-	10,779

As indicated in the table above, the incorporation of the new valuation had an estimated **\$10.8 million unfavourable impact** on the month's net result from operations, adding an estimated 7.2 points (see table immediately below) from the **year-to-date Combined Operating Ratio** to end at **128.9%**.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at March 31, 2017

Ontario	ytd EP 149,254 (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	3.2%	0.5%	3.7%	1.5%	-	5.2%
CAY	0.7%	0.1%	0.8%	0.3%	-	1.1%
Prem Def	0.7%	(0.2%)	0.6%	0.4%	-	0.9%
TOTAL	4.6%	0.4%	5.1%	2.1%	-	7.2%

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 unfavourable by \$6.9 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 \$4.8 million unfavourable variance with the implementation and the total favourable impact is 0.7% of the prior accident years' nominal unpaid balance of \$723.1 million determined at the end of last month (April 2017).

The current accident year and premium deficiency impacts are a result of the changes in the selected loss ratio for accident year **2017** (up 0.7 points from 117.9% to **118.6%**). There was no change to the selected loss ratio for accident year **2018** (remains at **123.2%**).

¹In these tables, "PAYs" refers to prior accident years, "CAY" refers to the current accident year, and "Prem Def" refers to the provision for premium deficiency or the deferred policy acquisition asset (as applicable). "Nominal" refers to changes excluding any actuarial present value adjustments, whereas "apv adj." refers to actuarial present value adjustments.

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

The impacts related to actuarial present value (“apv”) 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 an unfavourable change of \$0.6 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 March 2017. Column [4] accounts for the change in the **discount rate** selected (decreased 8 basis points to **1.04%**), indicating an unfavourable impact of \$3.2 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$2.7 million at May 2017 (projected \$2.9 million impact at December 31, 2017) – this compares to the \$2.6 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 / Regulation²

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 (the addition of a discussion on the recent Supreme Court decision on Saadati v. Moorhead is new this month).

²How 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>.

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 most recent valuation (March 31, 2017), 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 June 30, 2016), 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 most recent valuation (March 31, 2017), 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 June 30, 2016) and nominal valuation estimates, impacting the selection of ultimates.

The **Supreme Court of Canada** rendered its judgment on **Saadati v Moorhead** (2017 SCC 28, rendered on Jun 2, 2017). Saadati was involved in a collision in July of 2005 in British Columbia and sued the at-fault driver for damages. According to the Supreme Court decision, “*The trial judge found that the ... accident caused S psychological injuries, including personality change and cognitive difficulties. ...and awarded S \$100,000 for non-pecuniary damages.*” The trial decision was appealed to the BC Court of Appeal where the trial’s \$100,000 non-pecuniary award was dismissed. The Supreme Court upheld the \$100,000 non-pecuniary award, determining:

- “*A finding of legally compensable mental injury need not rest, in whole or in part, on the claimant proving a recognized psychiatric injury.*”
- “*...a trier of fact adjudicating a claim of mental injury is not concerned with diagnosis, but with symptoms and their effects.*”
- “*Expert evidence can assist in determining whether or not a mental injury has been shown,*

but where psychiatric diagnosis is unavailable, it remains open to a trier of fact to find on other evidence adduced by the claimant that he or she has proven on a balance of probabilities the occurrence of mental injury.”

At the current time, no adjustments have been made to our valuation estimates or views based on the judgment as rendered, but we continue to review and consider the implications of the judgment.

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 accident year 2015 and subsequent, was included with the updated Ontario Private Passenger Vehicle industry trend analysis (completed using industry data as at June 30, 2016).

In the recent Ontario Divisional Court decision in Carr v. Modi (November 18, 2016; 2016 ONSC 7255), the court of appeal ruled that the change to prejudgment interest for non-pecuniary losses³ from a set level of 5% to the level that applies to pecuniary losses is a matter of substantive law, not procedural, and is presumed not to have retroactive effect (i.e. indexed prejudgment interest rates applies only to accidents where notification was provided to the insurer on or after January 1, 2015). FA’s current view is consistent with this Ontario Divisional Court decision, 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. With the current valuation (as at March 31, 2017), no additional reform adjustment was included as we have assumed the retroactive impact of this product reform change has been fully reflected in outstanding case reserves.

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, 2016) by accident year as well as projected average duration, from accident date to projected settlement date, from the December 31, 2016 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

³**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.”

interest, if any, is included in the case reserve estimates.

ON RSP (Amounts in \$000s; as at Dec. 31, 2016)

AY	Curr BI Case	avg yrs to Dec 2016	projected avg # yrs to settlement	projected avg duration
[1]	[2]	[5]	[6]	[7]
1993	-	23.5	-	-
1994	-	22.5	-	-
1995	-	21.5	-	-
1996	168	20.5	2.0	22.5
1997	-	19.5	-	-
1998	-	18.5	-	-
1999	-	17.5	-	-

2000	-	16.5	-	-
2001	-	15.5	-	-
2002	-	14.5	-	-
2003	8	13.5	6.0	19.5
2004	-	12.5	-	-
2005	50	11.5	7.4	18.9
2006	123	10.5	8.0	18.5
2007	907	9.5	5.2	14.7
2008	2,289	8.5	1.7	10.2
2009	6,856	7.5	1.7	9.2

2010	14,342	6.5	2.1	8.6
2011	15,171	5.5	2.0	7.5
2012	27,936	4.5	2.0	6.5
2013	44,461	3.5	2.2	5.7
2014	44,176	2.5	2.6	5.1
2015	44,279	1.5	3.1	4.6
2016	29,519	0.5	3.9	4.4
TOTAL	230,285	3.2	2.6	5.8

In the above table, the column referenced as [7] (“projected avg duration”) is an estimate of the number of years from claim occurrence⁴ to claim settlement, via summing the average number of years from claim occurrence to December 31, 2016 (column [5]) and from December 31, 2016 to settlement (column [6]).

1.6 Current Provision Summary

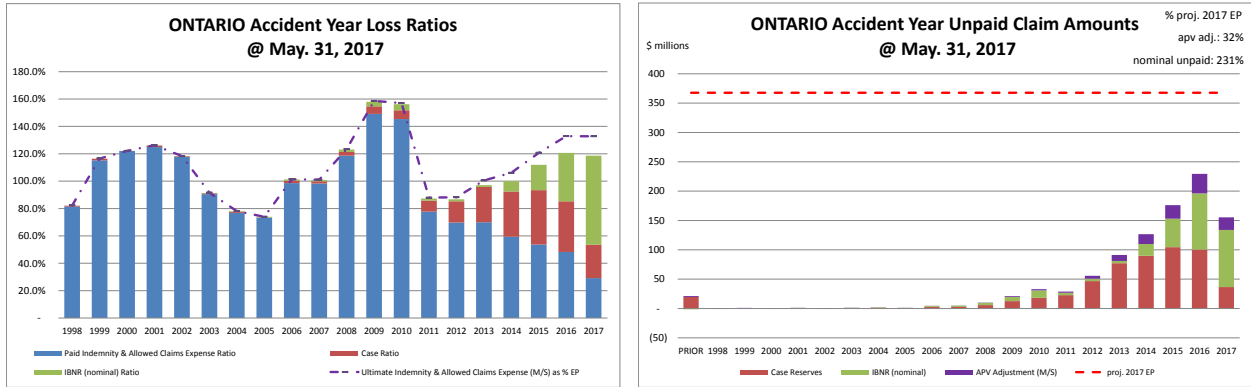
The charts at the top of the next page show the current levels of claim liabilities⁵ booked by accident year⁶. The left chart displays life-to-date payments, case reserves, IBNR, and the total including

⁴Prejudgment 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.

⁵Claim 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.

⁶The 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”.

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 2017 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 (\$117.2 million – see table below) represents 32% of the earned premium projected for the full year 2017 (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	544,467	56.4%
ibnr	303,045	31.4%
M/S apv adjust.	117,221	12.2%
M/S total	964,733	100.0%

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 64% of the IBNR balance relates to accident years 2016 and 2017 (see Exhibit B). Approximately 81% of the M/S total claim

liabilities are related to accident years 2013-2017 inclusive (i.e. the most recent 5 accident years), and approximately 4% is related to accident years 2007 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)	amt	%
unearned prem	193,543	74.5%
prem def/(dpac)	38,023	14.6%
M/S apv adjust.	28,161	10.8%
M/S total	259,727	100.0%

policy liabilities (\$000s)	amt	%
claim	847,512	69.2%
premium	231,566	18.9%
M/S apv adjust.	145,382	11.9%
M/S total	1,224,460	100.0%

2 Activity During the Month of May 2017

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 Report⁷.

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	(0)	(0)	8,918	854	(3,895)	2,616	5,023	3,470
2015	(27)	(27)	2,366	(698)	314	1,905	2,681	1,208
2016	(143)	(143)	2,890	(3,009)	2,600	2,566	5,490	(443)
2017	32,208	(184)	12,059	1,275	8,717	2,026	20,777	3,301
TOTAL	32,037	(355)	26,234	(1,577)	7,736	9,113	33,970	7,535

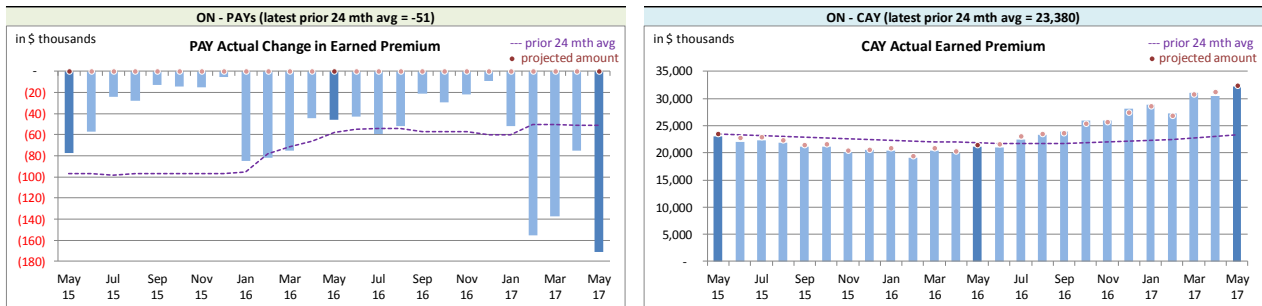
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

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**⁸ 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



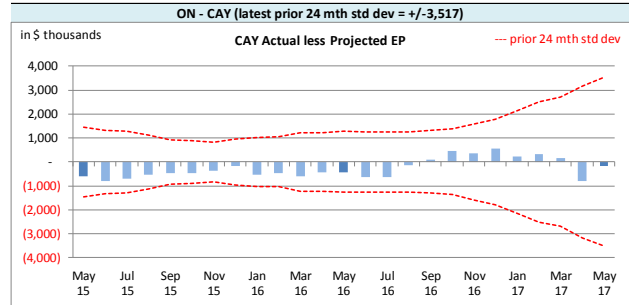
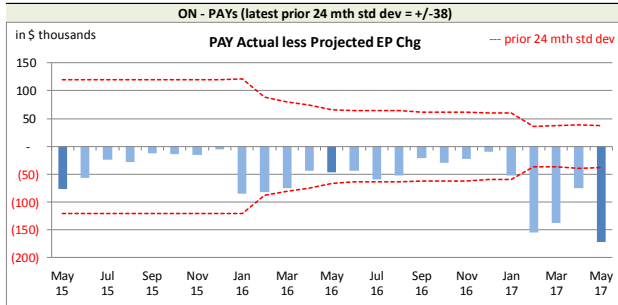
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the charts above), although relatively high levels generally occur at the beginning of each year.

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.

⁷There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

⁸Premium 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		
Earned Premium	PAYS	CAY
Mthly Avg EP Chg (prior 24 mths)	(51)	23,380
std dev	38	3,517
A-P <> std dev	4	-
% <> std dev	16.0%	0.0%
norm <> std dev	31.7%	31.7%

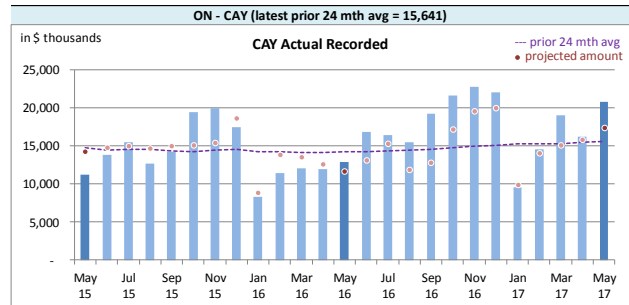
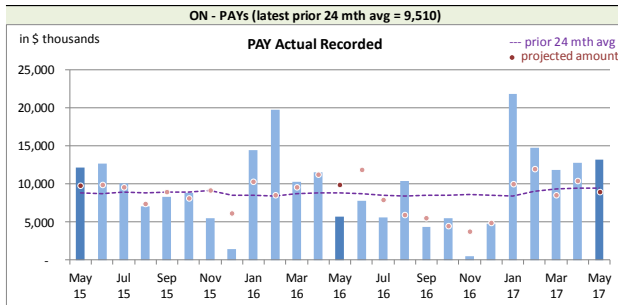
We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYS) bias⁹, with actuals generally lower than projected. However, the magnitude is 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 and to the left). In addition to the PAYS' bias, the CAY has also shown bias, with actuals being generally lower than projected. Starting with the August 2016 projections, we have modified our projections processes in an attempt to account for CAY bias, although this may have overcompensated for the original bias. 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.

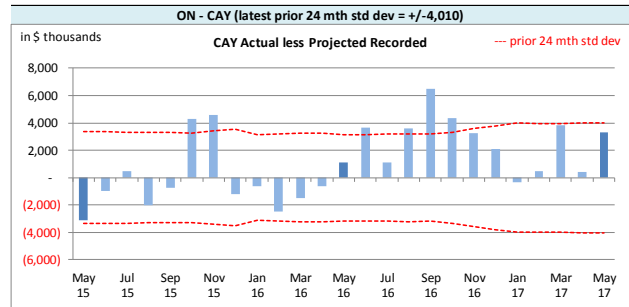
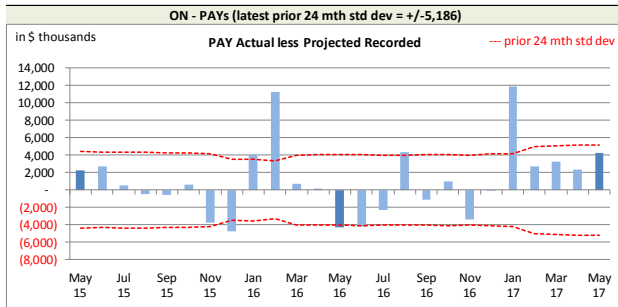
*Ontario RSP Actual **Recorded** by Calendar Month*



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.

⁹The PAYS' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

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



On Latest \$ thousands			
	Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	9,510	15,641	15,641
std dev	5,186	4,010	4,010
A-P <> std dev	7	6	6
% <> std dev	28.0%	24.0%	24.0%
norm <> std dev	31.7%	31.7%	31.7%

With respect to **recorded** indemnity & allowed claims expense, 28% 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 little better than simply projecting the prior 24-month average amount.

The current accident year (CAY) **recorded** variances (right chart above) fell outside of one standard deviation 24% of the time over the entire period, suggesting that the projection process performs somewhat better than simply projecting the prior 24-month average amount. There does appear to be evidence of some bias as this is the twelfth time in the past thirteen months where our projection was below the actual CAY **recorded** amount. Among these twelve months, four variances were outside the one standard deviation band. The CAY **recorded** during the month as a percentage of the year-to-date **earned premium** table at the bottom of the next page does show consistently higher ratios during 2016 than 2015. This is also occurring in relation to the **paid-to-ytd-earned premium** ratio (next section).

In fact, looking at results over the last 8 years, 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 at the top of the next page. 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 May) provides the average of the 5 monthly ratios (i.e. Jan-May) for that row’s calendar year.

With respect to the left table (average of 12 months to Dec for each year), the 2016 average **recorded** ratio at 15.8% and the **paid** ratio at 7.6% were both at their highest levels since 2010. For the right table (average of 5 months to May for each year), the average ratios for 2016 were up from 2015 for both **recorded** and **paid**, and although the 2017 ratios are both down in relation to 2016, they remain at “elevated” levels compared with the ratios for the 3 calendar years immediately following the 2010 reforms.

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%

CAY avg of mthly ratios for yr

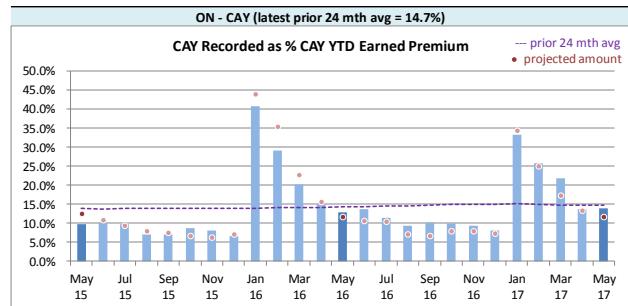
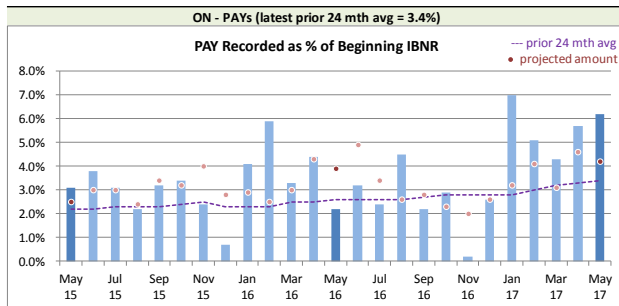
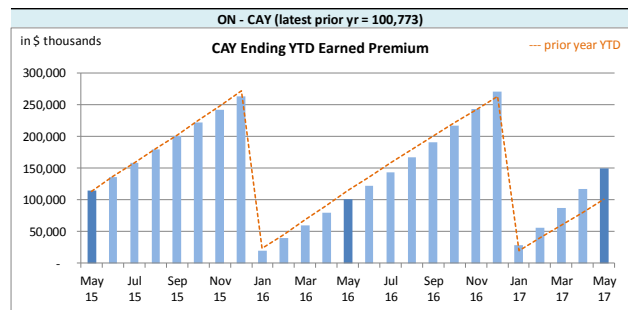
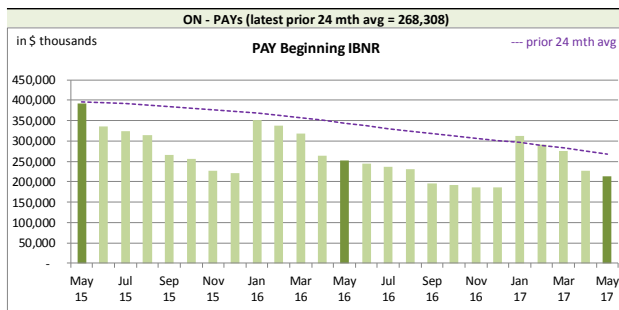
as at	Rec'd	yr-on-yr chg	Paid	yr-on-yr chg
May 2009	24.4%		8.1%	
May 2010	32.9%	8.5%	9.5%	1.4%
May 2011	17.5%	(15.4%)	6.9%	(2.6%)
May 2012	16.7%	(0.8%)	6.5%	(0.4%)
May 2013	18.3%	1.6%	7.0%	0.5%
May 2014	21.8%	3.5%	8.7%	1.7%
May 2015	22.9%	1.1%	9.5%	0.8%
May 2016	23.6%	0.7%	10.6%	1.1%
May 2017	21.7%	(1.9%)	10.3%	(0.3%)

These ratios may be signalling an actual increase in claim amounts generally, or simply signalling a change in the pattern of **recorded** / **paid** activity, or 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 immediately below 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 influence¹⁰ Recorded activity by Calendar Month



¹⁰Our 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.

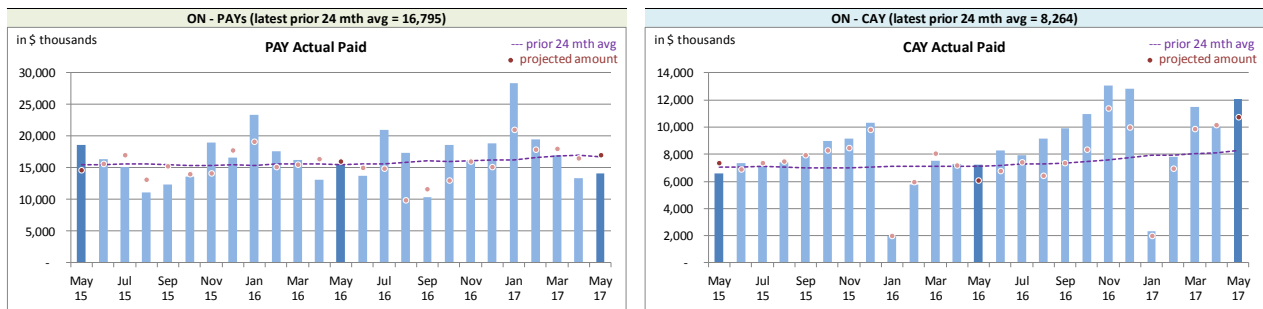
We track beginning prior accident years’ IBNR as **recorded** activity “comes out of” IBNR. Changes in the prior accident years’ beginning IBNR (see upper left chart at bottom of previous page) occur for several possible reasons:

- 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

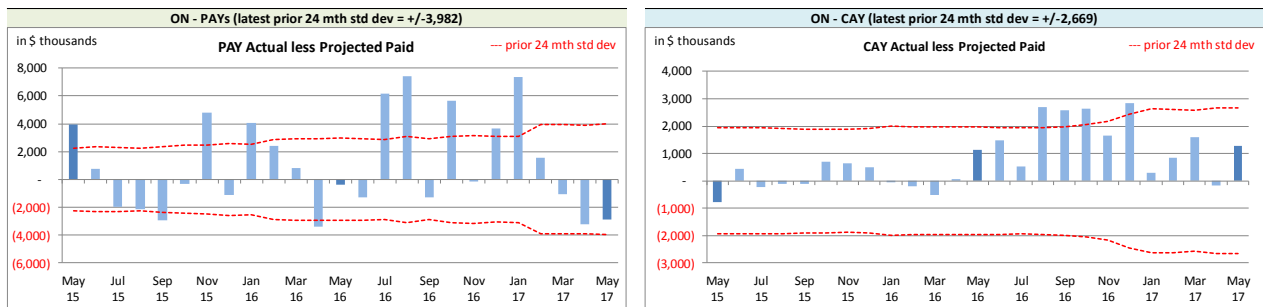
The charts immediately below show actual **paid** activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

Ontario RSP Actual Paid activity by Calendar Month



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		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	16,795	8,264
std dev	3,982	2,669
A-P <> std dev	10	4
% <> std dev	40.0%	16.0%
norm <> std dev	31.7%	31.7%

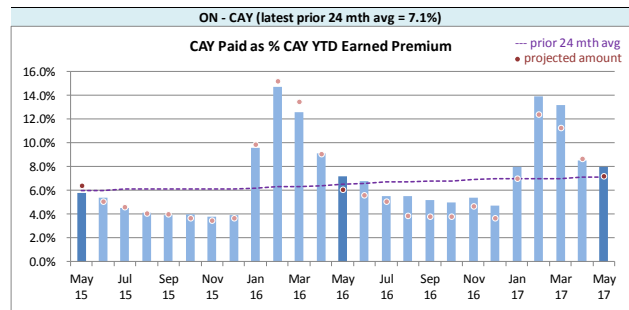
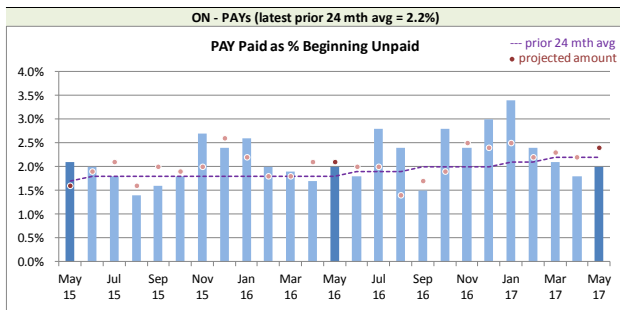
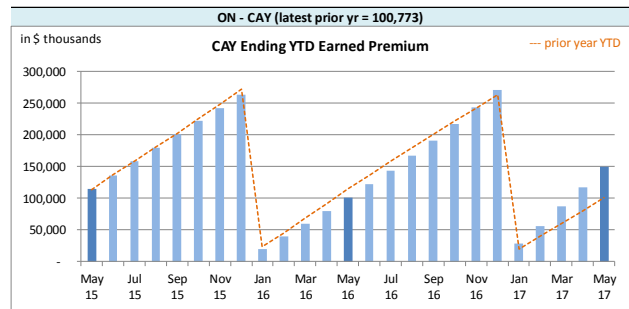
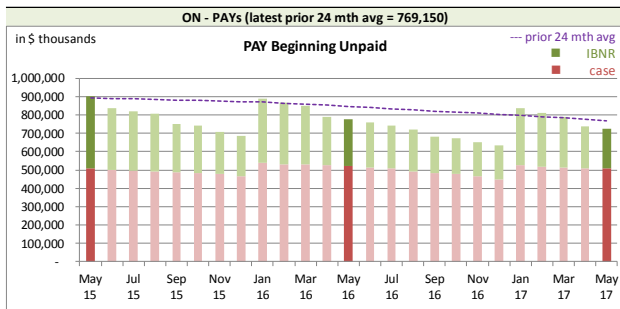
With respect to **paid** indemnity & allowed claims expense, 40% of the prior accident years' (PAYs) variances (left chart at bottom of previous page) over the last 25 calendar months have fallen outside of one standard deviation, suggesting the projection process has performed worse than projecting simply based on the

preceding 24-month average. There does appear to be some evidence of bias, with actuals coming in higher than our projections (of the 10 occurrences where the variance was outside of a standard deviation, 8 had actuals higher than our projection). Efforts to address this bias seem to be working.

The current accident year (CAY) **paid** variances (right chart at bottom of previous page) has shown actuals have been higher than projected for thirteen of the past fourteen months, four of which were also outside the one standard deviation band. The bottom right chart below shows that the rolling 24-month ratio of CAY **paid** to ytd **earned premium** has been increasing, which adds to the difficulty in projecting **paid**s. We have made adjustments to our assumption selections in an attempt to account for these issues, but recognize, as discussed in the previous section, that the results may be signalling a change in paid patterns, a change in claims levels in general, or the impact of rate changes.

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

Ontario RSP Levels that influence¹¹ Paid activity by Calendar Month



¹¹Our 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.

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 at bottom of previous page) 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 IBNR¹², 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 immediately below summarizes variances in provisions included in the May 2017 Operational Report and the associated one-month projections from last month’s Report.

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

Accident Year	actuarial present value adjustments							
	IBNR		Discount Amount		Provisions for Adverse Deviations		IBNR + actuarial present value adjustments	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	60,901	(3,783)	(11,084)	856	51,090	(21)	100,907	(2,948)
2015	48,744	1,127	(4,289)	216	27,129	739	71,584	2,082
2016	95,930	2,981	(6,085)	400	39,222	1,222	129,067	4,603
2017	97,470	(2,469)	(4,556)	418	25,794	(7)	118,708	(2,058)
TOTAL	303,045	(2,144)	(26,014)	1,890	143,235	1,933	420,266	1,679

The IBNR provision is \$2.1 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:

- the change projected last month;
- 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

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

(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 below summarizes the variances in the provisions for the premium deficiency amounts included in the May 2017 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:	38,023	1,263	28,161	357	66,184	1,620
balance as % unearned premium:	19.6%	0.5%	14.6%	0.2%	34.2%	0.7%
actual unearned premium:	193,543					
less projected:	722					

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 loss¹³ 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 at the top of the next page summarizes the calendar year-to-date results for indemnity & allowed claims expenses¹⁴, 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 119.1% rather than 118.6% (the valuation ultimate ratio for accident year 2017), as the calendar year-to-date earned premium includes prior accident year earned

¹³“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).

¹⁴Allowed 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.

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	(32,722)	(21.9%)	(25,168)	(16.9%)	(57,890)	(38.8%)	5,709	15.5%
CAY	177,715	119.1%	21,238	14.2%	198,953	133.3%	43,678	0.8%
TOTAL	144,993	97.1%	(3,930)	(2.6%)	141,063	94.5%	49,387	16.3%

(“% EP” based on 2017 calendar year-to-date earned premium; ratios may not total due to rounding)

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

5 Current Operational Report – Additional Exhibits

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

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

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

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

6 EXHIBITS

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

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

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

		Amounts in \$000s					
IBNR + M/S actuarial present value adjustments		Accident Year	Actual Apr. 2017	Actual May. 2017	Projected Jun. 2017	Projected Jul. 2017	Projected Dec. 2017
prior			2,187	186	183	180	163
1998			77	77	77	75	71
1999			126	55	54	53	47
2000			72	72	71	70	64
2001			205	208	204	200	179
2002			60	286	279	274	248
2003			550	554	542	532	481
2004			711	720	706	692	626
2005			977	816	800	784	708
2006			1,507	1,749	1,713	1,679	1,519
2007			2,402	2,274	2,232	2,187	1,976
2008			4,058	4,388	4,306	4,225	3,819
2009			9,982	8,645	8,473	8,303	7,505
2010			15,651	14,780	14,484	14,196	12,832
2011			5,695	6,134	6,012	5,869	5,304
discount rate 1.04%		2012	7,364	8,996	8,817	8,601	7,775
		2013	14,990	14,122	13,840	13,524	12,225
		2014	39,634	36,845	35,666	34,952	31,594
interest rate margin 25 basis pts		2015	71,422	71,584	68,691	66,167	57,386
		2016	131,372	129,067	122,318	115,943	86,402
		2017	95,807	118,708	137,654	157,654	194,901
TOTAL			404,849	420,266	427,122	436,160	425,825
Change				15,417	6,856	9,038	

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 Apr. 2017	Actual May. 2017	Projected Jun. 2017	Projected Jul. 2017	Projected Dec. 2017
	-	prior	556	(1,431)	(1,402)	(1,374)	(1,243)
	82.1%	1998	23	23	23	23	23
	116.4%	1999	61	(8)	(8)	(8)	(8)
	122.1%	2000	66	66	65	64	59
	126.2%	2001	144	144	141	138	123
	118.3%	2002	34	244	239	234	212
	91.5%	2003	477	477	467	458	414
	78.0%	2004	622	622	610	598	541
	74.0%	2005	928	770	755	740	668
	101.3%	2006	1,347	1,564	1,533	1,502	1,358
	101.0%	2007	2,199	2,071	2,030	1,989	1,798
	123.1%	2008	3,546	3,831	3,754	3,679	3,325
	158.0%	2009	8,587	7,284	7,138	6,995	6,323
	156.2%	2010	13,416	12,573	12,322	12,076	10,915
	87.3%	2011	3,902	4,267	4,182	4,057	3,667
	86.6%	2012	2,654	4,122	4,040	3,919	3,543
	97.1%	2013	4,879	3,991	3,911	3,794	3,430
	100.0%	2014	22,796	20,291	19,276	18,890	17,075
	112.0%	2015	49,090	48,744	46,307	44,455	37,761
	120.7%	2016	98,882	95,930	90,174	84,764	60,188
	118.6%	2017	79,225	97,470	112,453	128,377	148,513
		TOTAL	293,434	303,045	308,010	315,370	298,685
		Change		9,611	4,965	7,360	

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

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

	Amounts in \$000s				
	Actual Apr. 2017	Actual May. 2017	Projected Jun. 2017	Projected Jul. 2017	Projected Dec. 2017
Premium Liabilities					
(1) unearned premium (UP)	185,236	193,543	190,409	189,013	172,198
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	133.1%	134.2%	134.5%	135.0%	138.4%
(3) expected future costs {(1) x (2)}	246,494	259,727	256,169	255,214	238,384
(4) premium deficiency / (deferred policy acquisition cost)	61,258	66,184	65,760	66,201	66,186
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	118.7%	119.6%	119.9%	120.4%	123.4%
(6) expected future costs {(1) x (5)}	219,866	231,566	228,392	227,543	212,535
(7) premium deficiency / (deferred policy acquisition cost)	34,630	38,023	37,983	38,530	40,337

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2017, broken down by component.

Ontario		Projected Balances as at Dec. 31, 2017 (\$000s)							
ending 2017		nominal values			actuarial present value adjustments (apvs)				
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	development PfAD	Total apvs	TOTAL	
prior	17,029	(1,243)	15,786	(201)	47	1,560	1,406	17,192	
1998	586	23	609	(15)	4	59	48	657	
1999	745	(8)	737	(22)	5	72	55	792	
2000	11	59	70	(3)	1	7	5	75	
2001	757	123	880	(37)	9	84	56	936	
2002	381	212	593	(27)	7	56	36	629	
2003	785	414	1,199	(60)	13	114	67	1,266	
2004	1,083	541	1,624	(89)	21	153	85	1,709	
2005	181	668	849	(52)	12	80	40	889	
2006	2,429	1,358	3,787	(254)	61	354	161	3,948	
2007	2,422	1,798	4,220	(279)	63	394	178	4,398	
2008	5,164	3,325	8,489	(407)	93	808	494	8,983	
2009	10,959	6,323	17,282	(622)	138	1,666	1,182	18,464	
2010	15,814	10,915	26,729	(882)	214	2,585	1,917	28,646	
2011	19,934	3,667	23,601	(850)	212	2,275	1,637	25,238	
2012	40,593	3,543	44,136	(1,456)	353	5,335	4,232	48,368	
2013	66,958	3,430	70,388	(1,900)	422	10,273	8,795	79,183	
2014	79,425	17,075	96,500	(2,509)	579	16,449	14,519	111,019	
2015	93,870	37,761	131,631	(3,686)	921	22,390	19,625	151,256	
2016	95,079	60,188	155,267	(4,813)	1,087	29,940	26,214	181,481	
PAYs (sub-total):	454,205	150,172	604,377	(18,164)	4,262	94,654	80,752	685,129	
CAY (2017)	144,145	148,513	292,658	(9,950)	2,341	53,997	46,388	339,046	
claims liabilities:	598,350	298,685	897,035	(28,114)	6,603	148,651	127,140	1,024,175	
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	development PfAD	Total apvs	TOTAL*	
premium liabilities:	172,198	40,337	212,535	(5,939)	1,273	30,515	25,849	238,384	
policy liabilities:			1,109,570	(34,053)	7,876	179,166	152,989	1,262,559	

*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, 2017 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Accident Year	Selected Claims Development MfADs (Mar. 31, 2017)			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	8.8%	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%	9.8%	10.0%
2012	12.5%	12.5%	11.6%	12.5%
2013	15.0%	15.0%	14.5%	15.0%
2014	17.5%	17.5%	16.8%	17.5%
2015	17.5%	17.5%	16.3%	17.5%
2016	19.9%	20.0%	14.7%	19.9%
2017	19.1%	20.0%	6.8%	19.1%
2018	20.0%	20.0%	20.0%	20.0%
prem liab	14.6%	20.0%	5.3%	14.8%

discount rate: 1.04%
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, 2017 from the latest valuation date (projections in exhibits A to D are also to Dec. 31, 2017, but are based on more up-to-date information). We have included the current valuation selection (1.04%), the prior valuation assumption (1.12%) and the prior fiscal year end valuation assumption (0.62%) 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, 2017 projected Unpaid							
	0.54%	1.04%	1.54%	2.04%	2.54%	3.04%	1.12%	0.62%
2002 & prior	17,793	17,641	17,492	17,347	17,202	17,066	17,619	17,768
2003	1,340	1,307	1,275	1,245	1,216	1,188	1,302	1,334
2004	1,855	1,805	1,757	1,711	1,667	1,625	1,797	1,847
2005	1,001	971	943	916	890	865	967	996
2006	4,191	4,054	3,925	3,800	3,682	3,570	4,033	4,169
2007	3,965	3,837	3,717	3,602	3,493	3,390	3,817	3,944
2008	7,035	6,872	6,717	6,569	6,430	6,298	6,846	7,009
2009	16,777	16,481	16,201	15,933	15,680	15,440	16,434	16,728
2010	29,867	29,391	28,937	28,503	28,091	27,697	29,318	29,791
2011	23,481	23,073	22,686	22,315	21,959	21,621	23,011	23,414
2012	41,922	41,252	40,614	40,003	39,421	38,862	41,149	41,811
2013	68,522	67,616	66,743	65,914	65,105	64,334	67,474	68,367
2014	106,204	104,888	103,633	102,412	101,231	100,087	104,680	105,990
2015	153,604	151,524	149,513	147,576	145,700	143,882	151,198	153,269
2016	206,556	203,431	200,371	197,420	194,593	191,851	202,912	206,059
2017	380,192	373,912	367,837	361,975	356,360	350,918	372,896	379,149
Total	1,064,305	1,048,055	1,032,361	1,017,241	1,002,720	988,694	1,045,453	1,061,645
	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	curr + 200bp	prior val assumption	prior fyr end assumption

AY	Dollar Impact Relative to Valuation Assumption							
	0.54%	1.04%	1.54%	2.04%	2.54%	3.04%	1.12%	0.62%
Total	16,250	-	(15,694)	(30,814)	(45,335)	(59,361)	(2,602)	13,590
	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	curr + 200bp	prior val assumption	prior fyr end assumption

AY	Percentage Impact Relative to Valuation Assumption							
	0.54%	1.04%	1.54%	2.04%	2.54%	3.04%	1.12%	0.62%
2002 & prior	0.9%	-	(0.8%)	(1.7%)	(2.5%)	(3.3%)	(0.1%)	0.7%
2003	2.5%	-	(2.4%)	(4.7%)	(7.0%)	(9.1%)	(0.4%)	2.1%
2004	2.8%	-	(2.7%)	(5.2%)	(7.6%)	(10.0%)	(0.4%)	2.3%
2005	3.1%	-	(2.9%)	(5.7%)	(8.3%)	(10.9%)	(0.4%)	2.6%
2006	3.4%	-	(3.2%)	(6.3%)	(9.2%)	(11.9%)	(0.5%)	2.8%
2007	3.3%	-	(3.1%)	(6.1%)	(9.0%)	(11.6%)	(0.5%)	2.8%
2008	2.4%	-	(2.3%)	(4.4%)	(6.4%)	(8.4%)	(0.4%)	2.0%
2009	1.8%	-	(1.7%)	(3.3%)	(4.9%)	(6.3%)	(0.3%)	1.5%
2010	1.6%	-	(1.5%)	(3.0%)	(4.4%)	(5.8%)	(0.2%)	1.4%
2011	1.8%	-	(1.7%)	(3.3%)	(4.8%)	(6.3%)	(0.3%)	1.5%
2012	1.6%	-	(1.5%)	(3.0%)	(4.4%)	(5.8%)	(0.2%)	1.4%
2013	1.3%	-	(1.3%)	(2.5%)	(3.7%)	(4.9%)	(0.2%)	1.1%
2014	1.3%	-	(1.2%)	(2.4%)	(3.5%)	(4.6%)	(0.2%)	1.1%
2015	1.4%	-	(1.3%)	(2.6%)	(3.8%)	(5.0%)	(0.2%)	1.2%
2016	1.5%	-	(1.5%)	(3.0%)	(4.3%)	(5.7%)	(0.3%)	1.3%
2017	1.7%	-	(1.6%)	(3.2%)	(4.7%)	(6.1%)	(0.3%)	1.4%
Total	1.6%	-	(1.5%)	(2.9%)	(4.3%)	(5.7%)	(0.2%)	1.3%
	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	curr + 200bp	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 - 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	2,187	(46)	(1,751)	(204)	(2,001)	(91.5%)	186
1998	77	(1)	-	1	-	-	77
1999	126	(3)	3	(71)	(71)	(56.3%)	55
2000	72	(1)	1	-	-	-	72
2001	205	(4)	3	4	3	1.5%	208
2002	60	(2)	(16)	244	226	376.7%	286
2003	550	(12)	12	4	4	0.7%	554
2004	711	(12)	13	8	9	1.3%	720
2005	977	(20)	21	(162)	(161)	(16.5%)	816
2006	1,507	(30)	83	189	242	16.1%	1,749
2007	2,402	(49)	88	(167)	(128)	(5.3%)	2,274
2008	4,058	(82)	144	268	330	8.1%	4,388
2009	9,982	(200)	(11)	(1,126)	(1,337)	(13.4%)	8,645
2010	15,651	(333)	272	(810)	(871)	(5.6%)	14,780
2011	5,695	(132)	187	384	439	7.7%	6,134
2012	7,364	(147)	(37)	1,816	1,632	22.2%	8,996
2013	14,990	(300)	(2,433)	1,865	(868)	(5.8%)	14,122
2014	39,634	(1,019)	(161)	(1,609)	(2,789)	(7.0%)	36,845
2015	71,422	(1,920)	(1,141)	3,223	162	0.2%	71,584
2016	131,372	(6,908)	739	3,864	(2,305)	(1.8%)	129,067
2017	95,807	24,959	(3,748)	1,690	22,901	23.9%	118,708
Grand Total	404,849	13,738	(7,732)	9,411	15,417	3.8%	420,266

EXHIBIT G

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

RSP **Ontario**
AccountCode Desc **IBNR - Undisc**

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	556	(11)	(1,779)	(197)	(1,987)	(357.4%)	(1,431)
1998	23	-	-	-	-	-	23
1999	61	(1)	1	(69)	(69)	(113.1%)	(8)
2000	66	(1)	1	-	-	-	66
2001	144	(3)	3	-	-	-	144
2002	34	(1)	(17)	228	210	617.6%	244
2003	477	(10)	10	-	-	-	477
2004	622	(12)	12	-	-	-	622
2005	928	(19)	20	(159)	(158)	(17.0%)	770
2006	1,347	(27)	80	164	217	16.1%	1,564
2007	2,199	(44)	97	(181)	(128)	(5.8%)	2,071
2008	3,546	(71)	141	215	285	8.0%	3,831
2009	8,587	(172)	(11)	(1,120)	(1,303)	(15.2%)	7,284
2010	13,416	(268)	278	(853)	(843)	(6.3%)	12,573
2011	3,902	(78)	163	280	365	9.4%	4,267
2012	2,654	(53)	11	1,510	1,468	55.3%	4,122
2013	4,879	(98)	(2,286)	1,496	(888)	(18.2%)	3,991
2014	22,796	(684)	(195)	(1,626)	(2,505)	(11.0%)	20,291
2015	49,090	(1,473)	(1,238)	2,365	(346)	(0.7%)	48,744
2016	98,882	(5,933)	271	2,710	(2,952)	(3.0%)	95,930
2017	79,225	20,714	(3,518)	1,049	18,245	23.0%	97,470
Grand Total	293,434	11,755	(7,956)	5,812	9,611	3.3%	303,045