



ONTARIO RISK SHARING POOL

FEBRUARY 2016 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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

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1 Summary

1.1 Valuation Schedule (Fiscal Year 2016)

The February 2016 Operational Report leverages actuarial assumptions consistent with last month (that is, it does not reflect the results of an updated valuation). The table immediately below summarizes the implemented valuations and future scheduled valuations for fiscal year 2016.

ONTARIO RISK SHARING POOL FISCAL YEAR 2016 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
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		Mar. 2016	update valuation:
Mar. 31, 2016		May 2016	update valuation (roll forward):
Jun. 30, 2016		Aug. 2016	update valuation:
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 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.

1.3 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation¹

Consideration and assessment of potential impacts of legal decisions and changes in legislation /

¹How 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>.

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 prejudgement 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. At the September 30, 2015 valuation, reform adjustments 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, 2014), 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. At the September 30, 2015 valuation, reform adjustments 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, 2014) and nominal valuation estimates, impacting the selection of ultimates.

1.4 Ontario RSP Bodily Injury Case Reserve summary

As indicated in the previous section, reform adjustments, specifically related to changes in the non-pecuniary prejudgement 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 December 31, 2014).

There have been two conflicting Ontario Superior Court decisions in relation to the application of prejudgement 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 prejudgement interest for non-

pecuniary losses² 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 judgement 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 two 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) and *Vickers v. Palacious* (December 8, 2015). 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, the judge 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 second judgment, is that the changes to the applicable tort threshold and deductibles are applied on a settlement date basis. We've included a -3% 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, 2014) by accident year as well as projected average duration, from accident date to projected settlement date, from the December 31, 2014 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.

²**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."

ON RSP (Amounts in \$'000s; as at Dec. 31, 2014)

AY	curr BI Case	avg yrs to Dec 2014	projected avg # yrs to settlement	projected avg duration
1993	0	21.5	-	21.5
1994	(0)	20.5	-	20.5
1995	0	19.5	-	19.5
1996	346	18.5	3.1	21.6
1997	(0)	17.5	-	17.5
1998	(0)	16.5	-	16.5
1999	21	15.5	4.9	20.4
2000	0	14.5	-	14.5
2001	49	13.5	5.6	19.1
2002	5	12.5	6.2	18.7
2003	1,777	11.5	6.8	18.3
2004	178	10.5	7.4	17.9
2005	415	9.5	6.2	15.7
2006	4,651	8.5	4.6	13.1
2007	3,341	7.5	3.4	10.9
2008	8,587	6.5	2.7	9.2
2009	19,357	5.5	2.6	8.1
2010	42,378	4.5	2.6	7.1
2011	37,846	3.5	2.6	6.1
2012	51,653	2.5	2.9	5.4
2013	47,321	1.5	3.5	5.0
2014	32,285	0.5	4.3	4.8
TOTAL	250,211	3.2	3.1	6.3

In the above table, the column “projected avg duration” is an estimate of the number of years from claim occurrence³ to claim settlement, via summing the average number of years from claim occurrence to December 31, 2014 (3rd column) and from December 31, 2014 to settlement (4th column).

1.5 Current Provision Summary

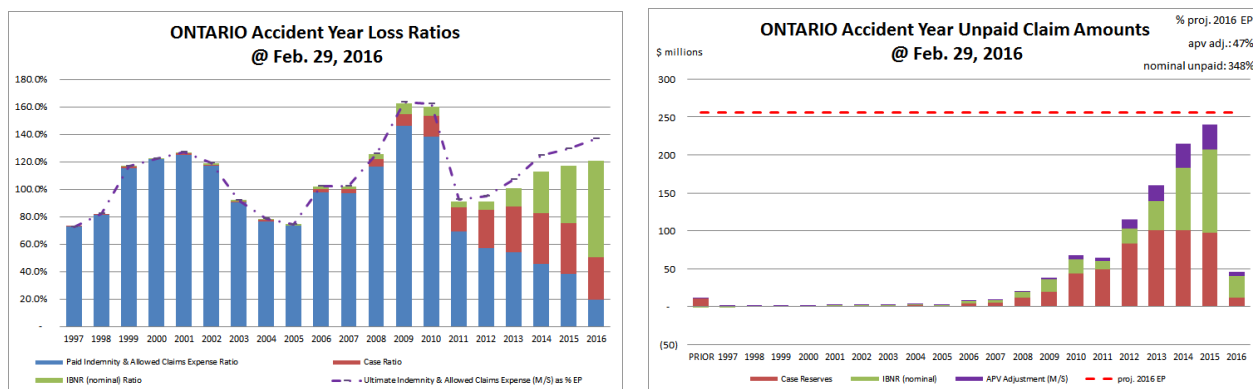
The charts at the top of the next page show the current levels of claim liabilities⁴ booked by accident year⁵. The left chart displays life-to-date payments, case reserves, IBNR, and the total including

³Pre-judgement 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 judgement to be applied in estimating the lag between occurrence and reporting.

⁴Claim 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.

⁵The 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 2016 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 (\$120.0 million – see table below) represents 47% 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	543,065	53.9%	
ibnr	345,139	34.2%	
M/S apv adjust.	119,965	11.9%	
M/S total	1,008,169	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 40% of the IBNR balance relates to accident years 2015 and 2016 (see Exhibit B). Approximately 77% 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 2% 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	114,987	73.3%	claim	888,204	76.2%
prem def/(dpac)	24,070	15.3%	premium	139,057	11.9%
M/S apv adjust.	17,809	11.4%	M/S apv adjust.	137,774	11.8%
M/S total	156,866	100.0%	M/S total	1,165,035	100.0%

2 Activity During the Month of February 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 Report⁶.

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	(2)	(2)	11,161	1,747	(6,485)	342	4,676	2,089
2014	(3)	(3)	2,264	(1,444)	994	2,978	3,257	1,533
2015	(77)	(77)	4,229	2,116	7,662	5,512	11,891	7,628
2016	19,025	(474)	5,791	(187)	5,679	(2,277)	11,471	(2,464)
TOTAL	18,943	(556)	23,444	2,231	7,850	6,555	31,295	8,786

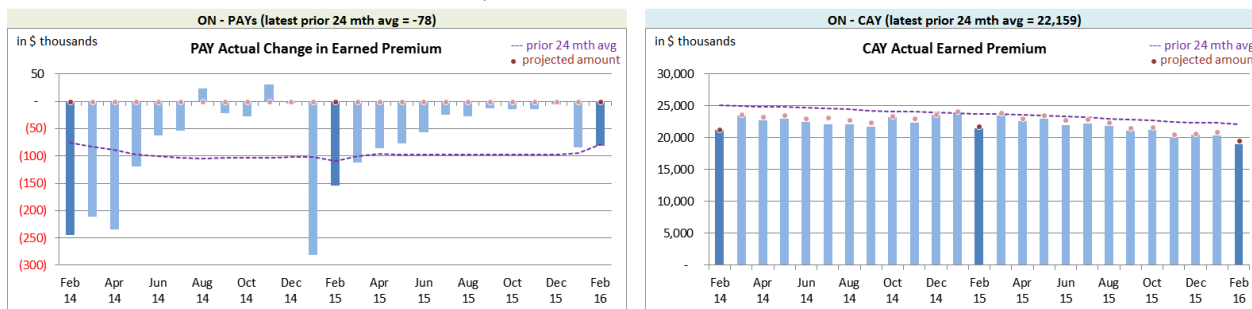
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

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**⁷ 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.

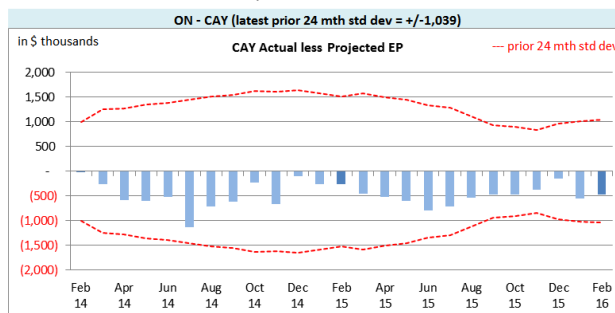
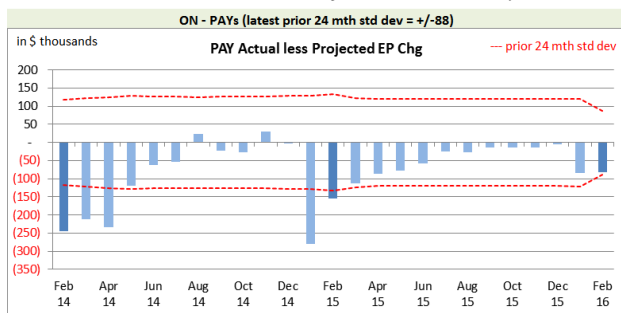
The associated variance between the actual changes and the projections from the previous month are shown in the charts at the top of the next page. **Earned premium** change projections are all attributed to the current accident year as the projection upload does not accept **earned premium** changes 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**

⁶There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

⁷Premium 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.

change in relation to prior accident years.

*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)	(78)	22,159	
std dev	88	1,039	
A-P <> std dev	5	-	
% <> std dev	20.0%	0.0%	
norm <> std dev	31.7%	31.7%	

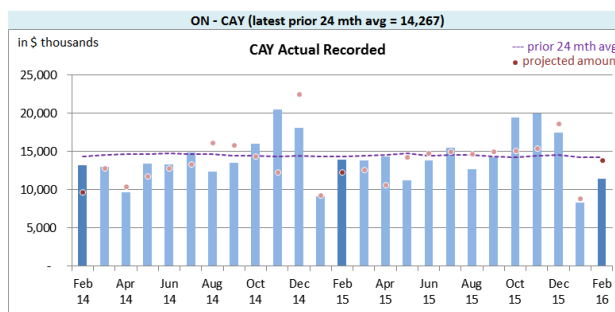
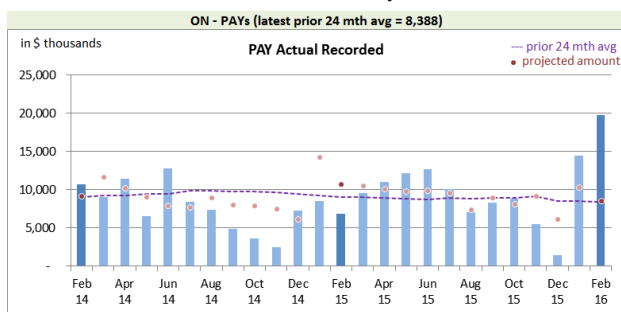
We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated bias⁸, with actuals generally lower than projected. However, the magnitude is not high relative to monthly 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). 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.

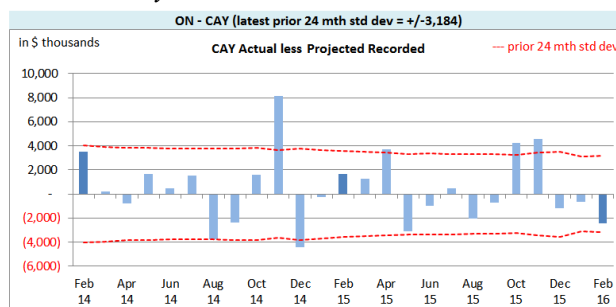
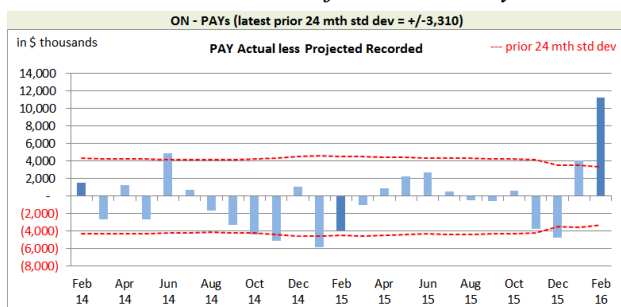
*Ontario RSP Actual **Recorded** by Calendar Month*



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.

⁸The 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

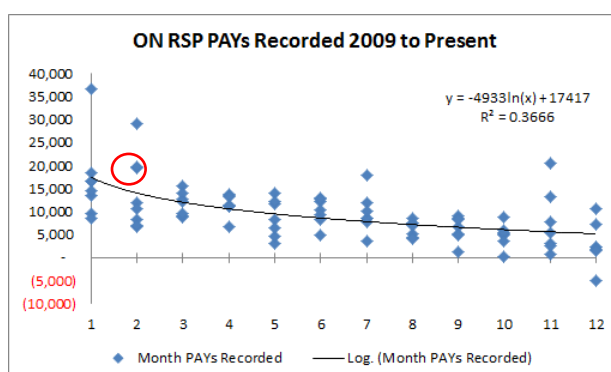
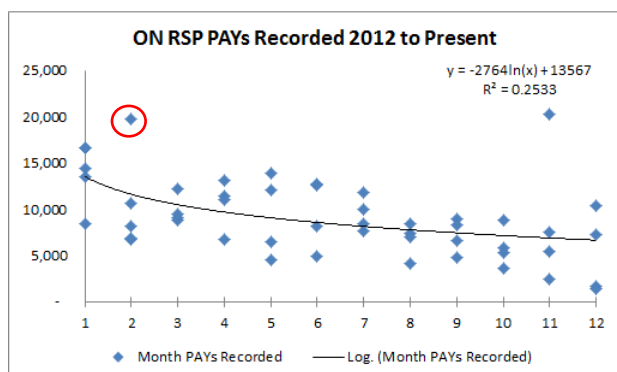


On Latest \$ thousands			
	Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	8,388	14,267	
std dev	3,310	3,184	
A-P <> std dev	7	5	
% <> std dev	28.0%	20.0%	
norm <> std dev	31.7%	31.7%	

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 not performed much better than simply projecting the prior 24-month average amount. In addition,

there was evidence that bias may have been creeping in at the end of 2014 into the start of 2015 (where actuals tended to be lower than our projections), although adjustments made to our projections seem to have been successful in reducing this bias. We also note that the ratio of PAYs' **recorded** activity relative to beginning IBNR has been below the average of the preceding 24-months for those months where our projections have been too high (see bottom left chart at top of the next page). We continue to investigate to understand the implications to our projections and make adjustments accordingly.

The PAYs **recorded** variance for the current month was outside the one standard deviation band. The recorded level at \$19.8 million is high relative to the levels seen over the last 24 months (left chart at the bottom of the previous page) and, in fact, high relative to levels seen since January 2012 (see left scatter chart below – the x-axis is month and the y-axis is the PAYs recorded activity level – we've circled the February 2016 level on the chart) – only November 2013 has seen a higher level (\$20.4 million). However, February 2016 is not so unusual if we go back to January 2009.



Our investigation revealed that the level was not related to any accident year in particular, nor any member in particular, leading to our conclusion that the month's activity is due to process variance. Nonetheless, this month's \$11.3 million variance combined with last month's underestimation of

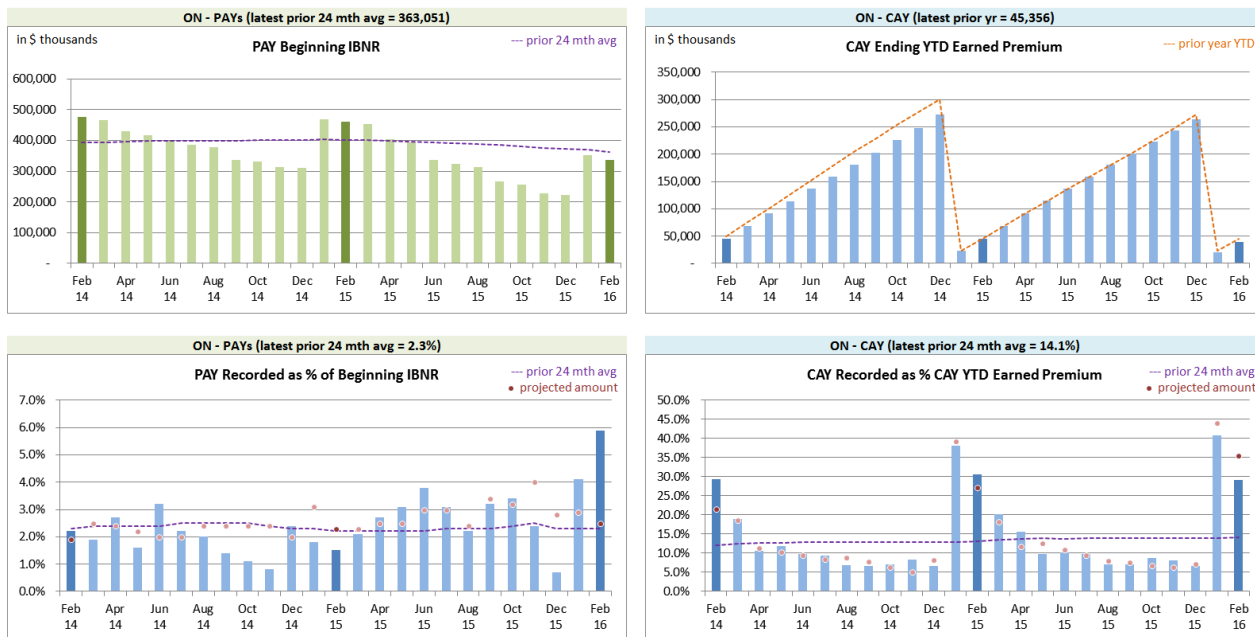
\$4.1 million results in over \$15 million of activity in excess of our projections so far this quarter (in fact, with our December 31, 2015 results, we projected PAYs recorded activity of \$28.1 million during the first quarter of 2016 – we are already at \$34.3 million with one month to go). We will continue to monitor.

The current accident year (CAY) **recorded** variances (right chart at the top of the previous page) fell outside of one standard deviation 20% of the time over the entire period, suggesting that the projection process performs somewhat better than simply projecting the prior 24-month average amount. We see no evidence of systemic bias in the variances.

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.

Ontario RSP Levels that influence⁹ **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

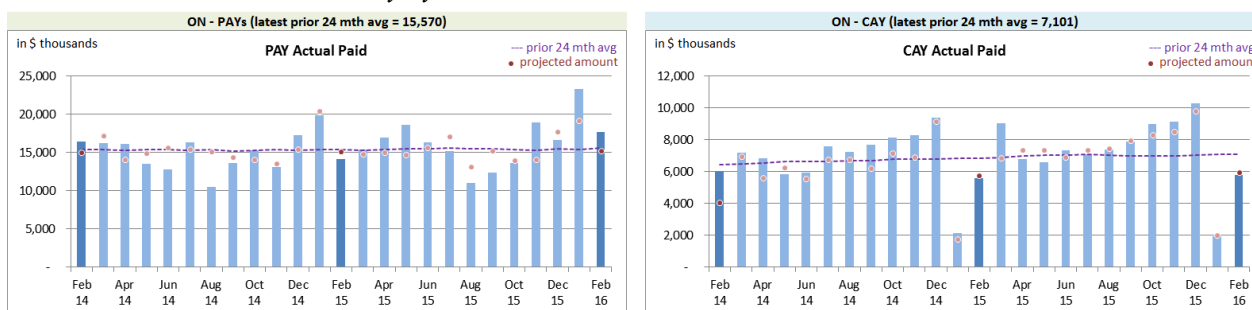
⁹Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned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

- 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

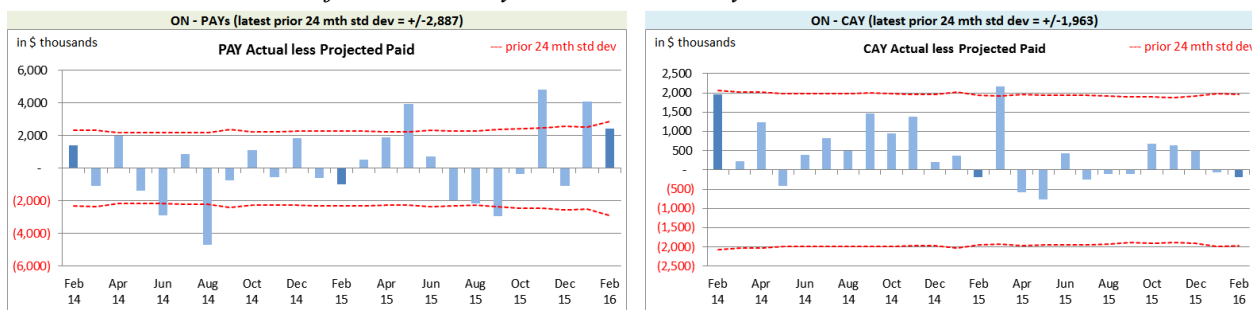
The charts immediately below show actual **paid** activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

*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)		15,570	7,101
std dev		2,887	1,963
A-P <> std dev		6	1
% <> std dev		24.0%	4.0%
norm <> std dev		31.7%	31.7%

With respect to **paid** indemnity & allowed claims expense, 24% 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 somewhat better than projecting simply based on the preceding 24-month average.

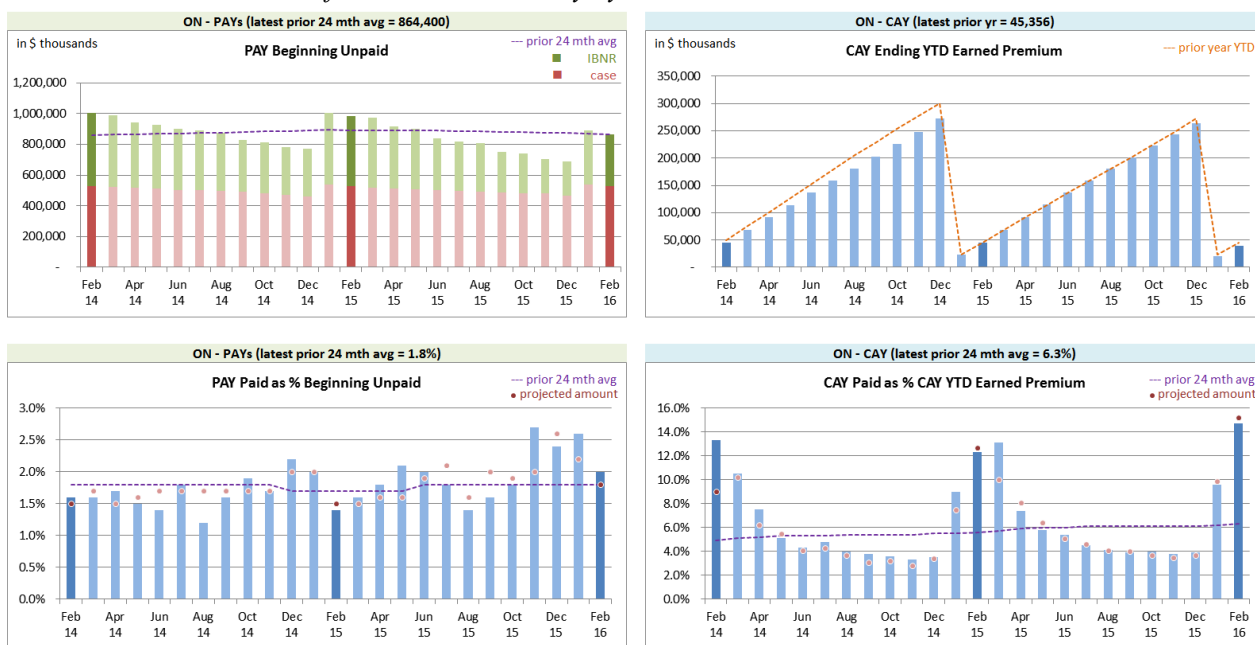
There does not appear to be evidence of bias.

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). We have implemented adjustments to address this and

they seem to be working.

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

Ontario RSP Levels that influence¹⁰ 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 IBNR¹¹, and factors are applied to the nominal unpaid claims liability (case plus IBNR) to determine

¹⁰Our paid projections for the prior accident years are based on selected ratios of paid to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date paid to year-to-date selected ultimate indemnity (i.e. selected LR x earned premium). In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

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

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 February 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		actuarial present value adjustments						
Accident Year	IBNR		Discount Amount		Provisions for Adverse Deviations		IBNR + actuarial present value adjustments	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	124,671	(2,091)	(17,567)	108	66,336	(113)	173,440	(2,096)
2014	82,942	(1,537)	(5,311)	(42)	36,668	289	114,299	(1,290)
2015	109,826	(7,718)	(6,625)	70	40,133	(428)	143,334	(8,076)
2016	27,700	1,892	(1,391)	14	7,722	(74)	34,031	1,832
TOTAL	345,139	(9,454)	(30,894)	150	150,859	(326)	465,104	(9,630)

The IBNR provision is \$9.5 million lower than projected, counterbalancing the recorded claims activity and adjusting for the earned premium variance impacts indicated in section 2.1.

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

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

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

The table immediately below summarizes the variances in the provisions for the premium deficiency amounts (this RSP remains in a premium deficiency liability position) included in the February 2016 Operational Report and the one-month projections from last month's Report. Variances are mainly driven by the unearned premium variance.

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:	24,070	(493)	17,809	(358)	41,879	(851)
balance as % unearned premium:	20.9%	-	15.5%	-	36.4%	-
actual unearned premium:	114,987					
less projected:		(2,291)				

3 Ultimate Loss Ratio Matching Method

An “ultimate loss ratio matching method” continues to be applied to the current month and two projected months shown in the Operational Reports, with IBNR determined by accident year as follows:

- (a) Earned premium to-date
- (b) Ultimate loss¹² ratio per latest valuation
- (c) Estimated ultimate incurred = (a) x (b)
- (d) Recorded indemnity & allowed claims expense to-date
- (e) IBNR = (c) – (d)

4 Calendar Year-to-Date Results

The table below summarizes the calendar year-to-date results for indemnity & allowed claims expenses¹³, including IBNR.

In calculating the amounts as percentages of earned premium, the calendar year-to-date earned premium has been used, which includes earned premium associated with the current accident year but also earned premium adjustments related to prior accident years. Specifically, the current accident year (CAY) ratio in the table is 121.1% rather than 120.6% (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	(194)	(0.5%)	(5,366)	(13.7%)	(5,560)	(14.2%)	(2,182)	2.5%
CAY	47,487	121.1%	6,331	16.1%	53,818	137.3%	25,677	(1.6%)
TOTAL	47,293	120.6%	965	2.5%	48,258	123.1%	23,495	0.9%

(“% EP” based on 2016 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. 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.

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.

5 Current Operational Report – Additional Exhibits

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

¹²“Loss” here refers to indemnity and allowed claims expenses, but does not include the claims expense allowance included in member company overall expense allowances (“Expense Allowance” in the Operational Report).

¹³Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this analysis.

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

 IBNR + M/S actuarial present
 value adjustments

 discount rate
 0.98%

 interest rate margin
 25 basis pts

Amounts in \$000s					
Accident Year	Actual Jan. 2016	Actual Feb. 2016	Projected Mar. 2016	Projected Apr. 2016	Projected Dec. 2016
prior	368	352	345	336	290
1997	(30)	(30)	(29)	(28)	(22)
1998	79	78	77	76	67
1999	303	304	299	292	250
2000	295	295	288	283	240
2001	719	719	706	692	588
2002	1,073	1,064	1,042	1,021	869
2003	1,231	1,226	1,201	1,178	1,002
2004	1,605	1,512	1,481	1,451	1,234
2005	1,563	1,575	1,545	1,513	1,287
2006	3,683	3,823	3,746	3,672	3,123
2007	4,067	4,082	3,999	3,919	3,333
2008	9,483	8,882	8,705	8,531	7,258
2009	18,970	19,005	18,626	18,252	15,529
2010	24,126	23,780	23,305	22,840	19,432
2011	17,405	16,154	15,831	15,514	13,221
2012	32,790	31,540	30,905	30,285	25,808
2013	61,386	59,079	58,000	56,939	48,523
2014	117,948	114,299	112,326	110,234	94,051
2015	156,015	143,334	137,006	129,407	111,077
2016	19,825	34,031	48,526	63,490	171,348
TOTAL	472,904	465,104	467,930	469,897	518,508
Change		(7,800)	2,826	1,967	

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 Jan. 2016	Actual Feb. 2016	Projected Mar. 2016	Projected Apr. 2016	Projected Dec. 2016
-	prior	(383)	(395)	(387)	(379)	(320)
72.7%	1997	(40)	(40)	(39)	(38)	(30)
82.1%	1998	20	20	20	20	20
116.7%	1999	220	221	217	213	181
122.4%	2000	275	275	269	264	224
126.8%	2001	624	624	612	600	510
118.8%	2002	960	951	932	913	776
91.8%	2003	1,118	1,113	1,091	1,069	909
78.5%	2004	1,454	1,360	1,333	1,306	1,110
74.4%	2005	1,472	1,485	1,455	1,426	1,213
102.1%	2006	3,326	3,468	3,399	3,331	2,834
101.9%	2007	3,581	3,630	3,557	3,486	2,965
125.4%	2008	8,206	7,716	7,562	7,411	6,305
162.1%	2009	16,637	16,719	16,385	16,057	13,661
160.0%	2010	18,497	18,389	18,021	17,661	15,026
90.7%	2011	12,101	11,055	10,834	10,617	9,033
91.1%	2012	20,577	19,428	19,039	18,658	15,874
100.5%	2013	40,704	38,652	37,879	37,121	31,580
113.0%	2014	86,203	82,942	81,283	79,657	67,771
116.8%	2015	121,807	109,826	104,335	97,553	82,994
120.6%	2016	16,227	27,700	39,449	51,506	135,726
	TOTAL	353,586	345,139	347,246	348,452	388,362
	Change		(8,447)	2,107	1,206	

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

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

	Amounts in \$000s				
Premium Liabilities	Actual Jan. 2016	Actual Feb. 2016	Projected Mar. 2016	Projected Apr. 2016	Projected Dec. 2016
(1) unearned premium (UP)	117,219	114,987	117,443	121,932	146,069
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	136.3%	136.4%	136.6%	137.0%	142.2%
(3) expected future costs {(1) x (2)}	159,810	156,866	160,470	166,990	207,670
(4) premium deficiency / (deferred policy acquisition cost)	42,591	41,879	43,027	45,058	61,601
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	120.9%	120.9%	121.1%	121.4%	126.0%
(6) expected future costs {(1) x (5)}	141,665	139,057	142,251	148,032	184,091
(7) premium deficiency / (deferred policy acquisition cost)	24,446	24,070	24,808	26,100	38,022

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	8,560	(320)	8,240	(257)	69	798	610	8,850
1997	130	(30)	100	(3)	1	10	8	108
1998	614	20	634	(19)	5	61	47	681
1999	766	181	947	(31)	8	92	69	1,016
2000	13	224	237	(9)	2	23	16	253
2001	730	510	1,240	(53)	12	119	78	1,318
2002	774	776	1,550	(74)	19	148	93	1,643
2003	777	909	1,686	(89)	22	160	93	1,779
2004	1,290	1,110	2,400	(134)	31	227	124	2,524
2005	338	1,213	1,551	(95)	23	146	74	1,625
2006	3,231	2,834	6,065	(376)	97	568	289	6,354
2007	3,919	2,965	6,884	(372)	89	651	368	7,252
2008	9,767	6,305	16,072	(755)	177	1,531	953	17,025
2009	15,659	13,661	29,320	(1,261)	323	2,806	1,868	31,188
2010	35,832	15,026	50,858	(2,187)	509	6,084	4,406	55,264
2011	40,016	9,033	49,049	(2,207)	540	5,855	4,188	53,237
2012	68,600	15,874	84,474	(3,041)	760	12,215	9,934	94,408
2013	83,876	31,580	115,456	(3,464)	808	19,599	16,943	132,399
2014	85,714	67,771	153,485	(4,451)	1,074	29,657	26,280	179,765
2015	90,513	82,994	173,507	(5,552)	1,388	32,247	28,083	201,590
PAYs (sub-total):	451,119	252,636	703,755	(24,430)	5,957	112,997	94,524	798,279
CAY (2016)	87,914	135,726	223,640	(7,827)	2,013	41,436	35,622	259,262
claims liabilities:	539,033	388,362	927,395	(32,257)	7,970	154,433	130,146	1,057,541
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	development PfAD	Total apvs	TOTAL*
premium liabilities:	146,069	38,022	184,091	(5,513)	1,286	27,806	23,579	207,670
*Total may not be sum of parts, as apvs apply to future costs within UPR								
policy liabilities:			1,111,486	(37,770)	9,256	182,239	153,725	1,265,211

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, 2015 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs (Sep. 30, 2015)				
Accident Year	Third Party Liability	Accident Benefits	Other Coverages	Total
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%	9.8%	10.0%
2009	10.0%	10.0%	8.2%	10.0%
2010	12.5%	12.5%	11.9%	12.5%
2011	12.5%	12.5%	12.3%	12.5%
2012	15.0%	15.0%	14.1%	15.0%
2013	17.5%	17.5%	16.1%	17.5%
2014	19.9%	20.0%	17.1%	19.9%
2015	19.3%	20.0%	7.8%	19.2%
2016	20.0%	20.0%	20.0%	20.0%
prem liab	15.7%	20.0%	5.4%	15.6%

discount rate: 0.98%
 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, 2015 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 (0.98%) and the prior valuation assumption (1.19%) 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, 2015 projected Unpaid							
	0.48%	0.98%	1.19%	1.48%	1.98%	2.48%	2.98%	3.48%
2001 & prior	17,694	17,455	17,357	17,221	16,995	16,776	16,557	16,348
2002	2,312	2,249	2,223	2,188	2,130	2,074	2,021	1,969
2003	2,218	2,153	2,127	2,091	2,032	1,975	1,920	1,869
2004	3,196	3,094	3,054	2,998	2,906	2,818	2,734	2,654
2005	3,108	3,009	2,969	2,915	2,825	2,740	2,659	2,582
2006	9,784	9,511	9,402	9,254	9,010	8,778	8,559	8,350
2007	9,716	9,479	9,383	9,254	9,041	8,839	8,647	8,465
2008	23,590	23,069	22,861	22,578	22,109	21,666	21,244	20,842
2009	41,984	41,048	40,670	40,160	39,317	38,519	37,754	37,029
2010	76,323	74,543	73,827	72,851	71,248	69,729	68,280	66,898
2011	68,992	67,698	67,171	66,465	65,297	64,182	63,117	62,107
2012	114,792	112,998	112,260	111,282	109,642	108,084	106,579	105,149
2013	164,599	162,139	161,135	159,775	157,483	155,299	153,203	151,181
2014	222,360	218,710	217,249	215,231	211,853	208,629	205,494	202,501
2015	258,336	253,686	251,814	249,289	245,019	240,899	236,933	233,142
Total	1,019,004	1,000,841	993,502	983,552	966,907	951,007	935,701	921,086
		valuation assumption	prior val assumption					

AY	Dollar Impact Relative to Valuation Assumption							
	0.48%	0.98%	1.19%	1.48%	1.98%	2.48%	2.98%	3.48%
Total	18,163	-	(7,339)	(17,289)	(33,934)	(49,834)	(65,140)	(79,755)
		valuation assumption	prior val assumption					

AY	Percentage Impact Relative to Valuation Assumption							
	0.48%	0.98%	1.19%	1.48%	1.98%	2.48%	2.98%	3.48%
2001 & prior	1.4%	-	(0.6%)	(1.3%)	(2.6%)	(3.9%)	(5.1%)	(6.3%)
2002	2.8%	-	(1.2%)	(2.7%)	(5.3%)	(7.8%)	(10.1%)	(12.4%)
2003	3.0%	-	(1.2%)	(2.9%)	(5.6%)	(8.3%)	(10.8%)	(13.2%)
2004	3.3%	-	(1.3%)	(3.1%)	(6.1%)	(8.9%)	(11.6%)	(14.2%)
2005	3.3%	-	(1.3%)	(3.1%)	(6.1%)	(8.9%)	(11.6%)	(14.2%)
2006	2.9%	-	(1.1%)	(2.7%)	(5.3%)	(7.7%)	(10.0%)	(12.2%)
2007	2.5%	-	(1.0%)	(2.4%)	(4.6%)	(6.8%)	(8.8%)	(10.7%)
2008	2.3%	-	(0.9%)	(2.1%)	(4.2%)	(6.1%)	(7.9%)	(9.7%)
2009	2.3%	-	(0.9%)	(2.2%)	(4.2%)	(6.2%)	(8.0%)	(9.8%)
2010	2.4%	-	(1.0%)	(2.3%)	(4.4%)	(6.5%)	(8.4%)	(10.3%)
2011	1.9%	-	(0.8%)	(1.8%)	(3.5%)	(5.2%)	(6.8%)	(8.3%)
2012	1.6%	-	(0.7%)	(1.5%)	(3.0%)	(4.3%)	(5.7%)	(6.9%)
2013	1.5%	-	(0.6%)	(1.5%)	(2.9%)	(4.2%)	(5.5%)	(6.8%)
2014	1.7%	-	(0.7%)	(1.6%)	(3.1%)	(4.6%)	(6.0%)	(7.4%)
2015	1.8%	-	(0.7%)	(1.7%)	(3.4%)	(5.0%)	(6.6%)	(8.1%)
Total	1.8%	-	(0.7%)	(1.7%)	(3.4%)	(5.0%)	(6.5%)	(8.0%)
		valuation assumption	prior val assumption					

EXHIBIT G

Page 1 of 2

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 Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount							
prior	368		(7)	(9)	-	(16)	(4.3%)	352
1997	(30)		1	(1)	-	-	-	(30)
1998	79		(2)	1	-	(1)	(1.3%)	78
1999	303		(6)	7	-	1	0.3%	304
2000	295		(7)	7	-	-	-	295
2001	719		(13)	13	-	-	-	719
2002	1,073		(22)	13	-	(9)	(0.8%)	1,064
2003	1,231		(24)	19	-	(5)	(0.4%)	1,226
2004	1,605		(31)	(62)	-	(93)	(5.8%)	1,512
2005	1,563		(30)	42	-	12	0.8%	1,575
2006	3,683		(74)	214	-	140	3.8%	3,823
2007	4,067		(81)	96	-	15	0.4%	4,082
2008	9,483		(189)	(412)	-	(601)	(6.3%)	8,882
2009	18,970		(379)	414	-	35	0.2%	19,005
2010	24,126		(483)	137	-	(346)	(1.4%)	23,780
2011	17,405		(348)	(903)	-	(1,251)	(7.2%)	16,154
2012	32,790		(658)	(592)	-	(1,250)	(3.8%)	31,540
2013	61,386		(1,227)	(1,080)	-	(2,307)	(3.8%)	59,079
2014	117,948		(2,359)	(1,290)	-	(3,649)	(3.1%)	114,299
2015	156,015		(4,605)	(8,076)	-	(12,681)	(8.1%)	143,334
2016	19,825		12,374	1,832	-	14,206	71.7%	34,031
Grand Total	472,904		1,830	(9,630)	-	(7,800)	(1.6%)	465,104

EXHIBIT G

Page 2 of 2

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	(383)	7	(19)	-	(12)	3.1%	(395)
1997	(40)	1	(1)	-	-	-	(40)
1998	20	-	-	-	-	-	20
1999	220	(4)	5	-	1	0.5%	221
2000	275	(6)	6	-	-	-	275
2001	624	(12)	12	-	-	-	624
2002	960	(19)	10	-	(9)	(0.9%)	951
2003	1,118	(22)	17	-	(5)	(0.4%)	1,113
2004	1,454	(29)	(65)	-	(94)	(6.5%)	1,360
2005	1,472	(29)	42	-	13	0.9%	1,485
2006	3,326	(67)	209	-	142	4.3%	3,468
2007	3,581	(72)	121	-	49	1.4%	3,630
2008	8,206	(164)	(326)	-	(490)	(6.0%)	7,716
2009	16,637	(333)	415	-	82	0.5%	16,719
2010	18,497	(370)	262	-	(108)	(0.6%)	18,389
2011	12,101	(242)	(804)	-	(1,046)	(8.6%)	11,055
2012	20,577	(412)	(737)	-	(1,149)	(5.6%)	19,428
2013	40,704	(814)	(1,238)	-	(2,052)	(5.0%)	38,652
2014	86,203	(1,724)	(1,537)	-	(3,261)	(3.8%)	82,942
2015	121,807	(4,263)	(7,718)	-	(11,981)	(9.8%)	109,826
2016	16,227	9,581	1,892	-	11,473	70.7%	27,700
Grand Total	353,586	1,007	(9,454)	-	(8,447)	(2.4%)	345,139