

TO: MEMBERS OF THE FACILITY ASSOCIATION

**ATTENTION: CHIEF EXECUTIVE OFFICER
NOVA SCOTIA RISK SHARING POOL PROJECT MANAGER**

BULLETIN NO.: F18– 030

DATE: APRIL 27, 2018

**SUBJECT: NOVA SCOTIA RISK SHARING POOL
– MARCH 2018 OPERATIONAL REPORT**

A copy of this bulletin should be provided to your Chief Financial Officer and Appointed Actuary.

Please be advised that the March 2018 Nova Scotia Risk Sharing Pool Operational Report is now available on the Facility Association (FA) Portal at <https://portal.facilityassociation.com>.

New This Month

Valuation

A valuation of the Nova Scotia Risk Sharing Pool (“RSP”) as at December 31, 2017 has been completed since last month’s Operational Report and the results of that valuation have been incorporated into this month’s Operational Report. The valuation was completed by the Facility Association’s internal staff in conjunction with, and reviewed and approved by, the Appointed Actuary.

The implementation of the new valuation resulted in an estimated overall **\$2.0 million favourable** impact on the month’s net result from operations, subtracting an estimated 31.1 points to the year-to-date Combined Operating Ratio (ending at 95.2%). The impact is summarized in the tables at the top of the next page¹.

¹In the tables, “ults & payout patterns” refers to the impacts associated with changes in selected ultimates and updated cashflows of claims payments; “dsct rate” refers to the impact of changes in the selected discount rate applied to projected cashflows; and “apv adj.” refers to “actuarial present value adjustments”.

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NS	unfav / (fav) for the month and ytd						ytd EP 6,467 (actual)					
	IMPACT in \$000s from changes in:						IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins		ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(2,271)	(13)	(2,284)	-	-	(2,284)	(35.1%)	(0.2%)	(35.3%)	-	-	(35.3%)
CAY	78	16	94	-	-	94	1.2%	0.2%	1.5%	-	-	1.5%
Prem Def	155	23	178	-	-	178	2.4%	0.4%	2.8%	-	-	2.8%
TOTAL	(2,038)	26	(2,012)	-	-	(2,012)	(31.5%)	0.4%	(31.1%)	-	-	(31.1%)

The valuation result is due to changes generated from updated nominal ultimate selections and projected cash flows (generating a \$2.0 million favourable impact – see column [3] in the left table above), with no impact due to the selected discount rate (left unchanged at 1.73%, generating no impact – see column [4] in the left table above). There was no change in the margin for adverse deviation in investment yield (remains at 25 basis points), and no change in the margins for adverse deviation for claims development as selected at the coverage / accident year level (hence generating no impact – see column [5] in the left table above).

As indicated in the table above, the prior accident years (PAYs) nominal impact was \$2.3 million favourable (first row under column [1]). Of this amount, \$1.3 million was directly attributable to valuation adjustments made to reflect a known overstatement of a member’s reported case reserves. Specifically, as noted in the last two month’s Bulletins, FA management was notified on January 31, 2018 by a member of a potential recorded case reserve overstatement. Furthermore, during the current valuation review, FA management was advised of an additional and separate recorded case reserve understatement primarily due to incorrect reporting after FA’s October 31, 2017 fiscal year end. Management investigated and estimated the overall overstatement for the Nova Scotia RSP as at December 31, 2017 as indicated in the table immediately below.

Estimated case reserve overstatement as at Dec 31, 2017

<u>overstatement / (understatement)</u>	
Accident Year	Total Case Reserve Adjustment (\$'000s)
2012	36
2013	204
2014	42
2015	91
2016	583
2017	349
Total	1,305

A decision was made by management and the Appointed Actuary, after receiving the initial January 2018 notification, to not make an adjustment to selected loss ratios until the 2017 Q4 RSP valuation was completed (however, for the purposes of the fiscal year-end financial reporting, an adjustment was made). With this valuation, prior accident years’ ultimates selections have now taken into account the member’s overstatement (both the original amount as

notified, and the subsequent amount, with the combination of the two being summarized in the table above). FA management is working with the member on a process to correct the reported levels, and we currently anticipate that this will be either partially or entirely completed in time for the 2018 Q2 valuation.

Management has observed favourable *total* valuation impacts over the last 12 valuation implementations, although with 7 of 12 valuation implementations being unfavourable over that period, as shown in the table below (summarizing the same information as provided in the left table above as relates to the most recent 12 valuation implementations). Nominal estimate updates (column [1]) drive the overall impacts. It should be noted that the impacts in column [3] are largely outside of the control of FA (as being related to macroeconomic factors).

RSP: Nova Scotia, as at: 2017 Q4		unfavourable / (favourable) Valuation Implementation Impact (\$000s)					\$000s		
Valuation	period implemented	updated LRs & exp	APVs @ prior assumptions	updated dsct rate	updated margins	Total Impact	Booked Policy Liabilities	Total Impact as % Book Liabs	Nominal Impact as % Book Liabs
		[1]	[2]	[3]	[4]	[5] = sum([1] to [5])	[6]	[7] = [5] / [6]	[8] = [1] / [6]
2015 Q1	May 2015	(74)	(25)	551	(218)	234	35,839	0.7%	(0.2%)
2015 Q2	Aug 2015	1,510	195	(265)	(116)	1,324	39,491	3.4%	3.8%
2015 Q3	Oct 2015	(117)	12	216	-	111	39,941	0.3%	(0.3%)
2015 Q4	Mar 2016	(772)	(56)	48	-	(780)	39,517	(2.0%)	(2.0%)
2016 Q1	May 2016	294	94	33	-	421	41,963	1.0%	0.7%
2016 Q2	Aug 2016	(92)	(43)	67	(918)	(986)	43,376	(2.3%)	(0.2%)
2016 Q3	Oct 2016	836	88	62	-	986	45,643	2.2%	1.8%
2016 Q4	Mar 2017	(1,416)	(140)	(535)	-	(2,091)	43,088	(4.9%)	(3.3%)
2017 Q1	May 2017	103	10	92	-	205	45,635	0.4%	0.2%
2017 Q2	Aug 2017	(3,429)	(363)	(286)	(87)	(4,165)	47,893	(8.7%)	(7.2%)
2017 Q3	Oct 2017	1,696	89	(760)	-	1,025	52,341	2.0%	3.2%
2017 Q4	Mar 2018	(2,038)	26	-	-	(2,012)	52,371	(3.8%)	(3.9%)
12-qtrs	-	(3,499)	(113)	(777)	(1,339)	(5,728)			
% of total		61.1%	2.0%	13.6%	23.4%	100.0%			
Averages									
12-qtrs		(292)	(9)	(65)	(112)	(477)	43,925	(1.1%)	(0.7%)
2015 Q1 to 2016 Q4		21	16	22	(157)	(98)	41,107	(0.2%)	0.1%
2017 Q1 to 2017 Q4		(917)	(60)	(239)	(22)	(1,237)	49,560	(2.5%)	(1.9%)

The FA valuation approach is focused on providing best estimates on a nominal basis, and we expect this to manifest itself as a close-to-zero 12-quarter impact for column [1] in the table above. This objective has not been met, although the impact on average has been small. Further, the nominal impacts, as a percentage of booked policy liabilities, should ideally be small (less than 2.5%) – this percentage is provided in column [8] above, with 5 of the 12 valuation implementations above indicate an impact greater than 2.5%, and the overall average impact at 0.7% is below the 2.5% level. Finally, potential “bias” in the nominal impacts should be considered (per either column [1] or [8]). We generally anticipate approximately 1/3rd of nominal valuation impacts will be unfavourable, and 2/3^{rds} will be favourable (due to the skewness of the development), and this seems to be satisfied.

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In summary, we believe the nominal valuation impacts are moving toward our target impacts (long term zero impact; individual valuation impact of no more than 2.5% of policy liabilities; no bias evident), although the small RSP size may make it challenging to meet the 2.5% target.

Please see “Effect of Quarterly Valuation” on page 6 for additional valuation result detail.

Summary of Financial Results

The calendar year-to-date Operating Result is \$0.3 million and the incurred loss ratio to the end of 3 months is 63.5%, as summarized in the table below.

Amounts in \$000s	March 2018	March 2017	Year to date Mar 2018	Year to Date Mar 2017
Premium Written	2,164	1,493	5,623	3,127
Premium Earned	2,282	1,300	6,467	3,704
Incurred Losses	(22)	(583)	4,104	1,839
Underwriting & Admin Expense	902	334	2,051	878
Operating Result	1,402	1,549	312	987
<i>Ratios:</i>				
Loss ratio - <i>Prior Accident Years</i>	(101.8%)	(145.2%)	(35.7%)	(56.5%)
- <i>Current Accident Year</i>	100.9%	100.3%	99.2%	106.2%
<i>Total</i>	(0.9%)	(44.9%)	63.5%	49.7%
<i>Underwriting & Admin Expense</i>	39.5%	25.7%	31.7%	23.7%
<i>Combined Operating Ratio</i>	38.6%	(19.2%)	95.2%	73.4%

rounding differences may occur

These results are discussed in some detail in the “Current Month Results” section. For additional numeric details, please refer to Exhibit 1 “Summary of Operations for Calendar Year 2018” attached to this bulletin.

Updated Projection to Year-end 2018

The projected calendar year Operating Result to December 2018 is -\$7.5 million and the estimated combined operating ratio to December 2018 is 126.2%, as summarized in the table at the top of the next page.

NS RSP 2018 Yr-end Projection	Current	Prior Mth		Final 2018
Amounts in \$000s	(Mar 2018)	(Feb 2018)	Change	Outlook*
Premium Written	30,506	30,647	(141)	39,593
Premium Earned	28,887	29,046	(159)	35,242
Incurred Losses	25,665	27,721	(2,056)	33,944
Underwriting & Admin Expense	10,770	10,744	26	13,954
Net Result from Operations	(7,548)	(9,419)	1,871	(12,656)
Ratios:				
Loss ratio - Prior Accident Years	(9.2%)	(1.2%)	(8.0%)	(1.6%)
- Current Accident Year	98.1%	96.6%	1.5%	98.0%
<i>Total</i>	88.9%	95.4%	(6.5%)	96.4%
Underwriting & Admin Expense	37.3%	37.0%	0.3%	39.6%
Combined Operating Ratio	126.2%	132.4%	(6.2%)	136.0%

rounding differences may occur

*as posted to FA's website Oct. 3, 2017

This updated projection to the end of the year has improved by \$1.9 million from the projection provided last month (-\$9.4 million and 132.4%), mainly due to the \$1.8 million overall favourable impact of the December 31, 2017 valuation, as summarized in the table below (see also the “Effect of Quarterly Valuation” on page 6). Remaining differences were driven by changes in projected premium volumes, and the associated impacts on claims and expense projections.

NS	unfav / (fav) projected for full year						year EP 13,899 (projected this month)					
	IMPACT in \$000s from changes in:						IMPACT unfav / (fav) as % full year EP from changes in:					
	ults & payout patterns			dsct rate	margins		ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(2,271)	(35)	(2,306)	-	-	(2,306)	(16.3%)	(0.3%)	(16.6%)	-	-	(16.6%)
CAY	347	55	402	-	-	402	2.5%	0.4%	2.9%	-	-	2.9%
Prem Def	63	21	84	-	-	84	0.5%	0.2%	0.6%	-	-	0.6%
TOTAL	(1,861)	41	(1,820)	-	-	(1,820)	(13.4%)	0.3%	(13.1%)	-	-	(13.1%)

Current Month Results

The Nova Scotia Risk Sharing Pool produced a \$1.4 million Operating Result in the month of March 2018, a \$0.1 million deterioration from the same month last year. This deterioration is composed of an estimated \$1.3 million unfavourable impact stemming from the overall increase in the combined ratio (from -19.2% to 38.6% applied to \$2.3 million in earned premium), offset by a \$1.2 million favourable impact associated with the \$1.0 million increase in earned premium (at a combined ratio of -19.2%). The primary driver of the difference in combined ratios is the difference in the respective valuation implementation impacts.

This month's results moved the year-to-date combined operating ratio from 126.1% at the end of 2 months to 95.2% at the end of 3 months. The 30.9 percentage point decrease is composed of a 36.0 percentage point decrease in the Prior Accident Years loss ratio, offset by a 0.9 percentage

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point increase in the Current Accident Year loss ratio, further offset by a 4.2 percentage point increase in the expense ratio.

Variances from Projections

The table immediately below provides a summary of key components of the operating results as compared to the estimates projected last month.

March 2018	Actual	Projection	Difference	Difference %
Written Premium	2,164	2,305	(141)	(6.1%)
Earned Premium	2,282	2,327	(45)	(1.9%)
Reported Losses				
Paid Losses	1,137	951	186	19.6%
Paid Expenses	25	53	(28)	(52.8%)
Change in Outstanding Losses	413	488	(75)	(15.4%)
Total Reported Losses	1,575	1,492	83	5.6%
Change in IBNR Provision *	(1,597)	729	(2,326)	
Change in Premium Deficiency (DPAC) *	190	14	176	

(Amounts in \$000's)

rounding differences may occur

*Detailed information is included at [Nova Scotia RSP March 2018 Operational Report - Actuarial Highlights](#).

Each month, management reviews the variance between reported premium activity and claims activity (actual reported claims payments and changes in case reserves) and the associated actuarial projections. The projection process involves many assumptions including claims reporting patterns. Actual reporting patterns vary from month-to-month, sometimes considerably. Although variances from our projections are expected, management investigates variances beyond set thresholds and responds as appropriate.

For the month of March 2018, reported losses were \$83 thousand higher than projected. The Current Accident Year had a \$127 thousand unfavourable variance in reported losses, while the Prior Accident Years had a \$44 thousand favourable variance. No single Prior Accident Year had a reported loss variance in excess of \$1.0 million.

Effect of Quarterly Valuation

The March 2018 Nova Scotia Risk Sharing Pool Operational Report reflects the results of an updated valuation as at December 31, 2017, with the associated impacts in relation to the results for March 2018 summarized in the table at the top of the next page.

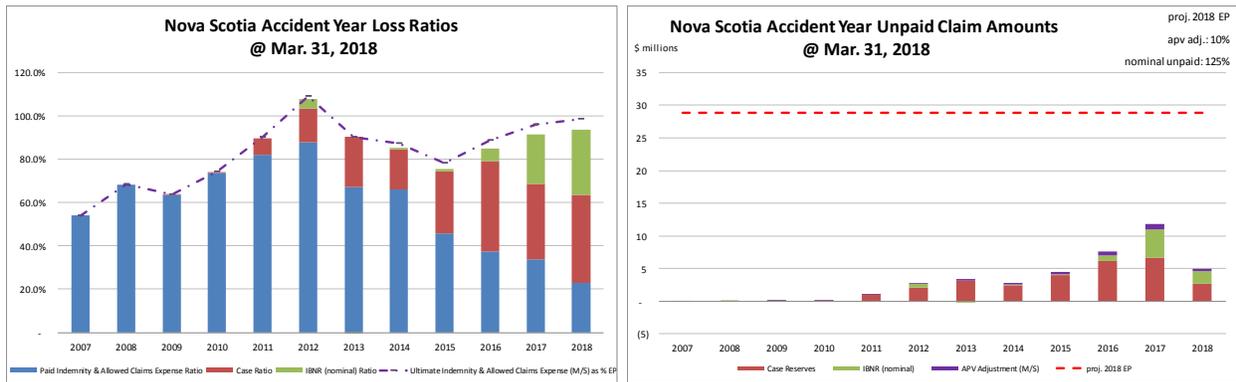
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NS

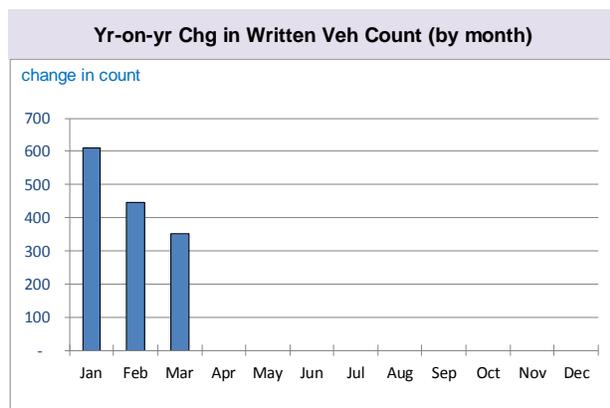
	unfav / (fav) for the month and ytd						mth EP 2,282 (actual)					
	IMPACT in \$000s from changes in:						IMPACT unfav / (fav) as % mth EP from changes in:					
	ults & payout patterns			dsct rate	margins		ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(2,271)	(13)	(2,284)	-	-	(2,284)	(99.5%)	(0.6%)	(100.1%)	-	-	(100.1%)
CAY	78	16	94	-	-	94	3.4%	0.7%	4.1%	-	-	4.1%
Prem Def	155	23	178	-	-	178	6.8%	1.0%	7.8%	-	-	7.8%
TOTAL	(2,038)	26	(2,012)	-	-	(2,012)	(89.3%)	1.1%	(88.2%)	-	-	(88.2%)

The charts below summarize the current view of the historical loss ratios (indemnity and allowed claims adjustment expenses on a nominal basis) and the associated claims liabilities.

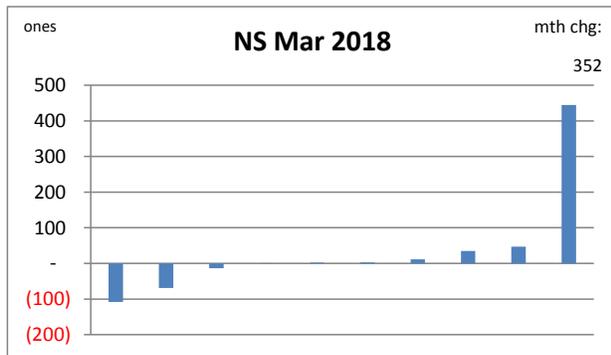


The preceding charts, latest valuation results, and related actuarial present value assumption updates are discussed in more detail in the [Nova Scotia RSP March 2018 Operational Report – Actuarial Highlights](#). The Actuarial Quarterly Valuation Highlights for Risk Sharing Pools as at December 31, 2017 is expected to be posted on or before May 11, 2018. The actuarial valuation will be updated next as at March 31, 2018 and we anticipate the results will be reflected in the May 2018 Operational Report.

Management Comments

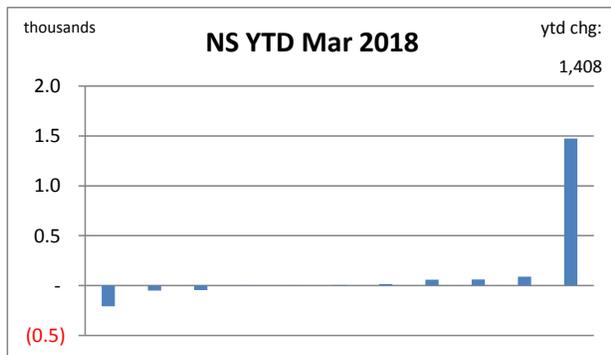


The chart on the left shows the year-on-year change in the vehicles transferred to the pool by month, with March showing an increase of 352 vehicles. Our projection last month (in part based on previous projections provided by select member company groups) was for an increase of 427 vehicles, indicating a variance of 75 from the actual transfers. This variance was mainly due to one member company group transferring a lower number of vehicles to the pool in March than projected.



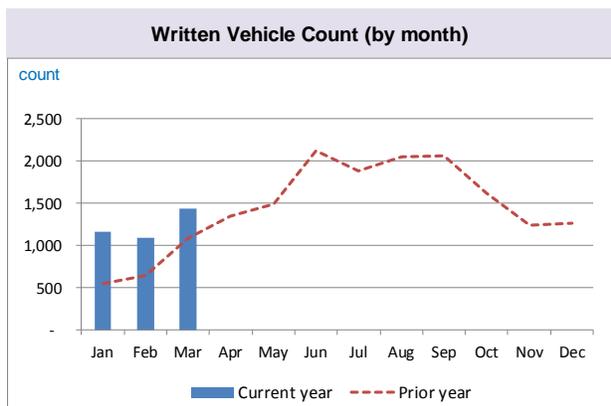
The chart on the left shows the overall change in the **month**, broken down by member company group changes (each blue bar represents the change for a single member company group), sorted by magnitude of change. Three member company groups transferred fewer vehicles to the pool this month compared with a year ago, while seven transferred more. Of the 3 member company groups transferring fewer vehicles, 2 member company groups accounted for 93% of the total transfer decrease for these “decliner” members.

Of the 7 member company groups transferring more vehicles, 1 member company group accounted for 82% of the total transfer increase for these “grower” members.

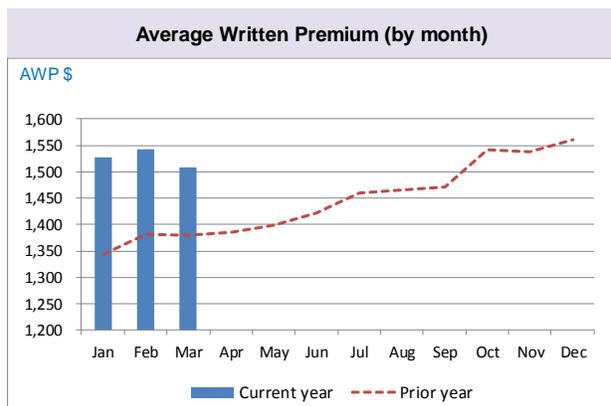


The chart on the left presents the same information as the previous chart, but on a **year-to-date** basis. That is, it shows the overall change in transfer counts year-to-date, broken down by member company group changes (each blue bar represents the change for a single member company group), sorted by magnitude of change.

March’s vehicle count transfers to the pool represent a 32.6% increase from March 2017, and vehicle counts were up 61.8% year-to-date. Average written premium was up 9.4% in March 2018, and was up 11.2% year-to-date (see charts immediately below and at the top of the next page).

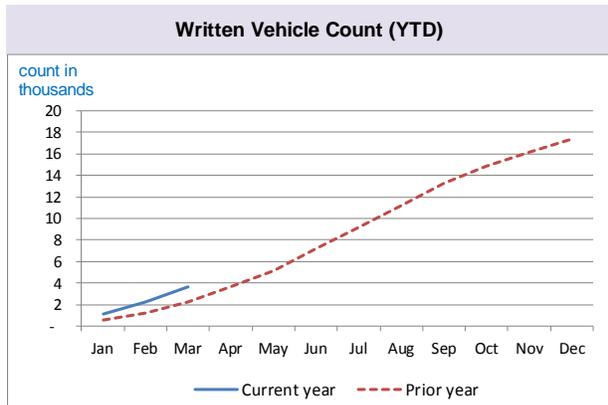


	Mar-18	Mar-17	Amt Chg	% Chg
W. Veh curr mth	1,434	1,082	352	32.6%

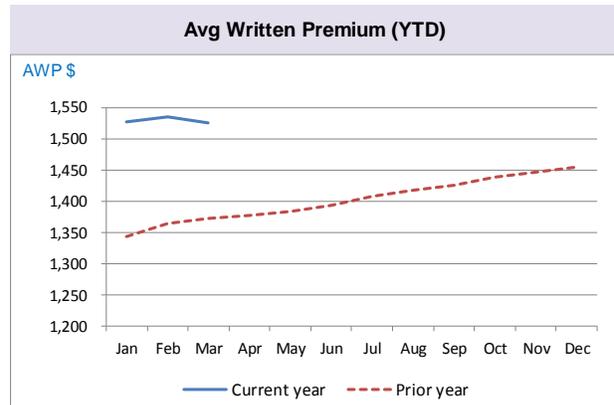


	Mar-18	Mar-17	Amt Chg	% Chg
AWP curr mth	1,509	1,379	130	9.4%

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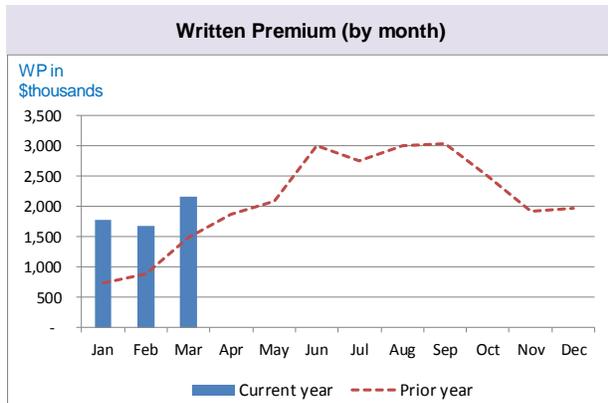


	Mar-18	Mar-17	Amt Chg	% Chg
W. Vehicles YTD	3,688	2,280	1,408	61.8%



	Mar-18	Mar-17	Amt Chg	% Chg
Avg W. Prem YTD	1,525	1,372	153	11.2%

As a result of the movements in transfer vehicle counts and average written premium, the transferred premium was up 45.0% for the month compared with the 54.4% increase we projected last month, and was up 79.9% year-to-date (see charts immediately below).



	Mar-18	Mar-17	Amt Chg	% Chg
WP (\$000s) curr mth	2,164	1,493	672	45.0%



	Mar-18	Mar-17	Amt Chg	% Chg
WP (\$000s) YTD	5,624	3,127	2,497	79.9%

Should you require any further information, please call Norm Seeney, Vice President, Finance and Member Services at (416) 644-4914.

David J. Simpson, M.B.A., FCIP, C. Dir.
 President & CEO

Related links:

[Nova Scotia RSP March 2018 Operational Report – Actuarial Highlights](#)

SUMMARY OF OPERATIONS - CALENDAR YEAR 2018

Risk Sharing Pool - Nova Scotia

Operating Results for the 3 Months Ended March 31, 2018 (Discounted basis)

Source: Monthly Operational Report

(thousands of dollars)

EXHIBIT 1

	January	February	March	CY2018 YTD	CY2018 12 MONTHS Updated Projection	CY2017 12 MONTHS Actual
Underwriting Revenue:						
Net Premiums Written	\$1,773	\$1,686	\$2,164	\$5,623	\$30,506	\$25,298
Decrease (Increase) in Unearned Premiums	389	337	118	844	(1,619)	(6,335)
Net Premiums Earned	\$2,162	\$2,023	\$2,282	\$6,467	\$28,887	\$18,963
Claims Incurred:						
Prior Accident Years:						
Undiscounted	(\$29)	(\$8)	(\$2,276)	(\$2,313)	(\$2,313)	(\$2,136)
Effect of Discounting	90	(39)	(48)	3	(347)	(1,836)
Discounted	\$61	(\$47)	(\$2,324)	(\$2,310)	(\$2,660)	(\$3,972)
Current Accident Year:						
Undiscounted	\$2,026	\$1,877	\$2,194	\$6,097	\$27,084	\$17,837
Effect of Discounting	117	92	108	317	1,241	817
Discounted	\$2,143	\$1,969	\$2,302	\$6,414	\$28,325	\$18,654
Claims Incurred	\$2,204	\$1,922	(\$22)	\$4,104	\$25,665	\$14,682
Underwriting Expenses:						
Expense Allowance	\$534	\$509	\$653	\$1,696	\$9,211	\$7,829
Change in UPDR/DPAC:						
Undiscounted	25	24	173	222	364	(773)
Effect of Discounting	(21)	(18)	17	(22)	136	37
Discounted	\$4	\$6	\$190	200	500	(\$736)
Underwriting Expenses	\$538	\$515	\$843	\$1,896	\$9,711	\$7,093
Net Underwriting Gain (Loss)	(\$580)	(\$414)	\$1,461	\$467	(\$6,489)	(\$2,812)
Administrative Expenses	\$40	\$56	\$59	\$155	\$1,059	\$600
Operating Result	(\$620)	(\$470)	\$1,402	\$312	(\$7,548)	(\$3,412)
Ratios:						
Claims & Expenses Incurred (Earned)						
Prior Accident Years	2.8%	-2.3%	-101.8%	-35.7%	-9.2%	-20.9%
Current Accident Year	99.1%	97.3%	100.9%	99.2%	98.1%	98.4%
All Accident Years Combined	101.9%	95.0%	-0.9%	63.5%	88.9%	77.5%
Underwriting & Administrative Expenses (Earned)	26.7%	28.2%	39.5%	31.7%	37.3%	40.6%
Combined Operating Ratio	128.6%	123.2%	38.6%	95.2%	126.2%	118.1%

Note: Amounts shown above do not reflect costs incurred directly by member companies e.g. income and premium taxes, health levies, association dues, cost of capital as a result of their compulsory participation in Facility Association and investment income earned on Facility Association premium dollars invested directly by members.

Rounding difference may apply