

**TO:** MEMBERS OF THE FACILITY ASSOCIATION

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

**BULLETIN NO.:** F18 – 046

**DATE:** June 28, 2018

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

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

Please be advised that the May 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**

### *Annual Update of Member Sharing Ratios*

The May 2018 Operational Report reflects the annual update of member sharing ratios for Accident Years 2016, 2017, 2018 and 2019. Please refer to Bulletin [F18-051](#) for additional information.

### *Valuation*

A valuation of the Nova Scotia Risk Sharing Pool (“RSP”) as at March 31, 2018 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 **\$1.3 million unfavourable** impact on the month’s net result from operations, adding an estimated 12.1 points to the year-to-date Combined Operating Ratio (ending at 122.7%). The impact is summarized in the tables at the top of the next page<sup>1</sup>.

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<sup>1</sup>In 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 11,089 (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	1,371	93	1,464	(137)	-	1,327	12.4%	0.8%	13.2%	(1.2%)	-	12.0%
CAY	67	4	71	(50)	-	21	0.6%	-	0.6%	(0.5%)	-	0.2%
Prem Def	67	(1)	66	(69)	-	(3)	0.6%	-	0.6%	(0.6%)	-	-
<b>TOTAL</b>	<b>1,505</b>	<b>96</b>	<b>1,601</b>	<b>(256)</b>	<b>-</b>	<b>1,345</b>	<b>13.6%</b>	<b>0.9%</b>	<b>14.4%</b>	<b>(2.3%)</b>	<b>-</b>	<b>12.1%</b>

The valuation result is due to changes generated from updated nominal ultimate selections and projected cash flows (generating a \$1.6 million unfavourable impact – see column [3] in the left table above), partially offset by the impact due to a 19 basis point increase in the selected discount rate (from 1.73% to 1.92%, generating a \$0.3 million favourable 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).

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: 2018 Q1		unfavourable / (favourable) Valuation Implementation Impact (\$000s)					\$000s		
Valuation	period implemented	updated LR & 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]	[6]	[7]	[8]
						= sum([1] to [5])		= [5] / [6]	= [1] / [6]
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%)
2018 Q1	May 2018	1,505	96	(256)	-	1,345	56,182	2.4%	2.7%
12-qtrs	-	(1,920)	8	(1,584)	(1,121)	(4,617)			
% of total		41.6%	(0.2%)	34.3%	24.3%	100.0%			
Averages									
12-qtrs		(160)	1	(132)	(93)	(385)	45,620	(0.8%)	(0.4%)
2015 Q2 to 2017 Q1		43	20	(35)	(129)	(101)	42,332	(0.2%)	0.1%
2017 Q2 to 2018 Q1		(567)	(38)	(326)	(22)	(952)	52,197	(1.8%)	(1.1%)

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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, 6 of the 12 valuation implementations above indicate an impact greater than 2.5%, although the overall average impact at only 0.4% 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 1/3<sup>rd</sup> of nominal valuation impacts will be unfavourable, and 2/3<sup>rd</sup>s will be favourable (due to the skewness of the development), and this seems to be satisfied.

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 -\$2.5 million and the incurred loss ratio to the end of 5 months is 89.4%, as summarized in the table below.

<b>Amounts in \$000s</b>	<b>May 2018</b>	May 2017	<b>Year to date May 2018</b>	Year to Date May 2017
Premium Written	2,593	2,082	10,601	7,085
Premium Earned	2,361	1,398	11,089	6,412
Incurred Losses	3,620	1,516	9,910	4,655
Underwriting & Admin Expense	855	844	3,690	2,400
<b>Operating Result</b>	<b>(2,114)</b>	<b>(962)</b>	<b>(2,511)</b>	<b>(643)</b>
<b>Ratios:</b>				
<b>Loss ratio</b> - <i>Prior Accident Years</i>	54.5%	(1.1%)	(9.5%)	(33.7%)
- <i>Current Accident Year</i>	98.8%	109.5%	98.9%	106.3%
<i>Total</i>	<b>153.3%</b>	<b>108.4%</b>	<b>89.4%</b>	<b>72.6%</b>
<i>Underwriting &amp; Admin Expense</i>	<b>36.2%</b>	<b>60.4%</b>	<b>33.3%</b>	<b>37.4%</b>
<b>Combined Operating Ratio</b>	<b>189.5%</b>	<b>168.8%</b>	<b>122.7%</b>	<b>110.0%</b>

*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.

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Updated Projection to Year-end 2018

The projected calendar year Operating Result to December 2018 is -\$8.7 million and the estimated combined operating ratio to December 2018 is 130.7%, as summarized in the table below.

<b>NS RSP 2018 Yr-end Projection</b>	<b>Current</b>	Prior Mth	<b>Change</b>	Final 2018
<b>Amounts in \$000s</b>	<b>(May 2018)</b>	<b>(Apr 2018)</b>		<b>Outlook*</b>
Premium Written	30,053	30,241	(188)	39,593
Premium Earned	28,260	28,666	(406)	35,242
Incurred Losses	26,448	25,454	994	33,944
Underwriting & Admin Expense	10,471	10,655	(184)	13,954
<b>Net Result from Operations</b>	<b>(8,659)</b>	<b>(7,443)</b>	<b>(1,216)</b>	<b>(12,656)</b>
<b>Ratios:</b>				
<b>Loss ratio</b> - Prior Accident Years	(4.7%)	(9.3%)	4.6%	(1.6%)
- Current Accident Year	98.3%	98.1%	0.2%	98.0%
<i>Total</i>	<b>93.6%</b>	<b>88.8%</b>	<b>4.8%</b>	<b>96.4%</b>
<b>Underwriting &amp; Admin Expense</b>	<b>37.1%</b>	<b>37.2%</b>	<b>(0.1%)</b>	<b>39.6%</b>
<b>Combined Operating Ratio</b>	<b>130.7%</b>	<b>126.0%</b>	<b>4.7%</b>	<b>136.0%</b>

rounding differences may occur

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

This updated projection to the end of the year has deteriorated by \$1.2 million from the projection provided last month (-\$7.4 million and 126.0%), mainly due to the \$1.3 million overall unfavourable impact of the March 31, 2018 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 13,441 (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		TOTAL	ults & payout patterns		dsct rate	margins		TOTAL
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	1,371	94	1,465	(122)	-	1,343	10.2%	0.7%	10.9%	(0.9%)	-	10.0%
CAY	170	8	178	(118)	-	60	1.3%	0.1%	1.3%	(0.9%)	-	0.4%
Prem Def	-	(4)	(4)	(83)	-	(87)	-	-	-	(0.6%)	-	(0.6%)
<b>TOTAL</b>	<b>1,541</b>	<b>98</b>	<b>1,639</b>	<b>(323)</b>	<b>-</b>	<b>1,316</b>	<b>11.5%</b>	<b>0.7%</b>	<b>12.2%</b>	<b>(2.4%)</b>	<b>-</b>	<b>9.8%</b>

Current Month Results

The Nova Scotia Risk Sharing Pool produced a -\$2.1 million Operating Result in the month of May 2018, a \$1.2 million deterioration from the same month last year. This deterioration is composed of a \$0.7 million unfavourable impact associated with the \$1.0 million increase in earned premium (at a combined ratio of 168.8%), with the remaining \$0.5 million deterioration

stemming from the overall increase in the combined ratio (from 168.8% to 189.5% applied to \$2.4 million in earned premium). 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 104.6% at the end of 4 months to 122.7% at the end of 5 months. The 18.1 percentage point increase is composed of a 17.3 percentage point increase in the Prior Accident Years loss ratio, and a 0.8 percentage point increase in the expense ratio.

### Variances from Projections

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

May 2018	Actual	Projection	Difference	Difference %
Written Premium	2,593	3,146	(553)	(17.6%)
Earned Premium	2,361	2,460	(99)	(4.0%)
Reported Losses				
Paid Losses	1,278	1,176	102	8.7%
Paid Expenses	38	58	(20)	(34.5%)
Change in Outstanding Losses	931	(1,318)	2,249	(170.6%)
<b>Total Reported Losses</b>	<b>2,247</b>	<b>(84)</b>	<b>2,331</b>	<b>&lt;-999.9%</b>
Change in IBNR Provision *	1,373	2,455	(1,082)	
Change in Premium Deficiency (DPAC) *	17	27	(10)	

(Amounts in \$000's)

rounding differences may occur

\*Detailed information is included at [Nova Scotia RSP May 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 May 2018, reported losses were \$2.3 million higher than projected. The Current Accident Year had a \$0.6 million unfavourable variance in reported losses, and the Prior Accident Years had a \$1.7 million unfavourable variance. No single Prior Accident Year had a reported loss variance in excess of \$1.0 million.

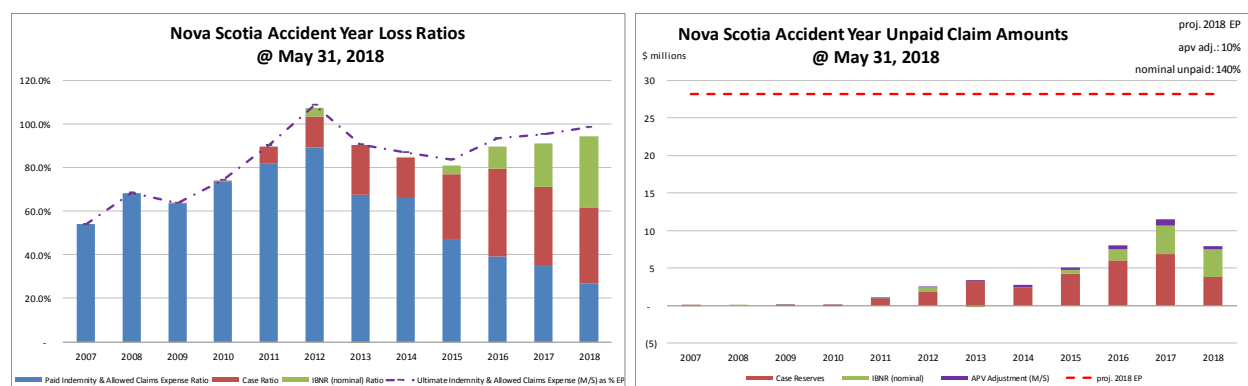
The variances for claims activity were beyond the set thresholds for the Prior Accident Years for the month. Management investigated claims activity and is satisfied that the variances are appropriately accounted for in our current booking process. All other variances were within the set thresholds for the month.

Effect of Quarterly Valuation

The May 2018 Nova Scotia Risk Sharing Pool Operational Report reflects the results of an updated valuation as at March 31, 2018, with the associated impacts in relation to the results for May 2018 summarized in the table immediately below.

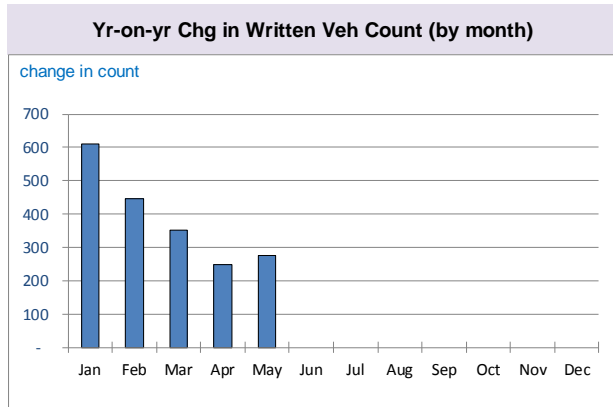
NS	unfav / (fav) for the month and ytd						mth EP 2,361 (actual)					
	IMPACT in \$000s from changes in:						IMPACT unfav / (fav) as % mth EP from changes in:					
	ults & payout patterns			dsct rate	margins		ults & payout patterns			dsct rate	margins	
Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL	
[1]	[2]	[3]	[4]	[5]	[6]	[1]	[2]	[3]	[4]	[5]	[6]	
PAYs	1,371	93	1,464	(137)	-	1,327	58.1%	3.9%	62.0%	(5.8%)	-	56.2%
CAY	67	4	71	(50)	-	21	2.8%	0.2%	3.0%	(2.1%)	-	0.9%
Prem Def	67	(1)	66	(69)	-	(3)	2.8%	-	2.8%	(2.9%)	-	(0.1%)
<b>TOTAL</b>	<b>1,505</b>	<b>96</b>	<b>1,601</b>	<b>(256)</b>	<b>-</b>	<b>1,345</b>	<b>63.7%</b>	<b>4.1%</b>	<b>67.8%</b>	<b>(10.8%)</b>	<b>-</b>	<b>57.0%</b>

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.

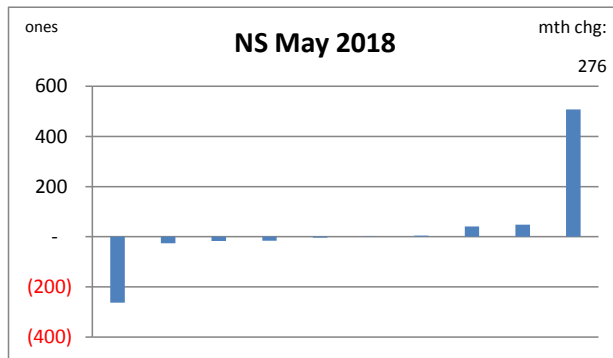


The preceding charts, latest valuation results, and related actuarial present value assumption updates are discussed in more detail in the [Nova Scotia RSP May 2018 Operational Report – Actuarial Highlights](#). The Actuarial Quarterly Valuation Highlights for Risk Sharing Pools as at March 31, 2018 is expected to be posted on or before July 20, 2018. The actuarial valuation will be updated next as at June 30, 2018 and we anticipate the results will be reflected in the August 2018 Operational Report.

Management Comments

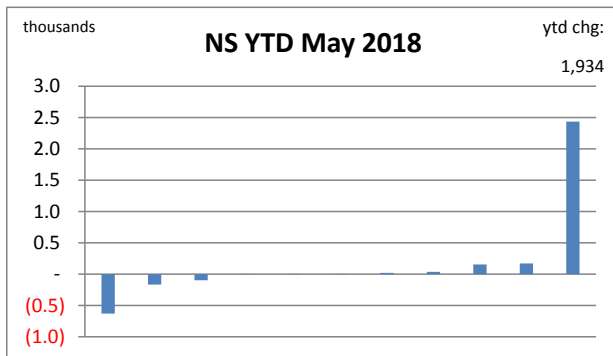


The chart on the left shows the year-on-year change in the vehicles transferred to the pool by month, with May showing an increase of 276 vehicles. Our projection last month (in part based on previous projections provided by select member company groups) was for an increase of 568 vehicles, indicating a variance of 292 from the actual transfers. This variance was mainly due to one member company group transferring a lower number of vehicles to the pool in May than projected.



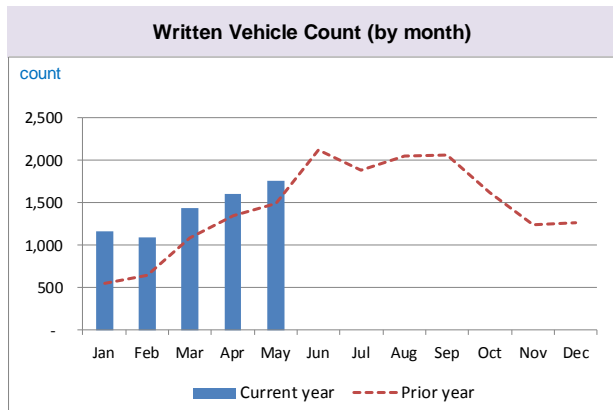
The chart on the left shows the overall change in the **month**, broken down by member company group changes (each blue bar represents the change for a single member company group), sorted by magnitude of change. Five member company groups transferred fewer vehicles to the pool this month compared with a year ago, while five transferred more. Of the 5 member company groups transferring fewer vehicles, 1 member company group accounted for 81% of the total transfer decrease for these “decliner” members.

Of the 5 member company groups transferring more vehicles, 1 member company group accounted for 84% of the total transfer increase for these “grower” members.

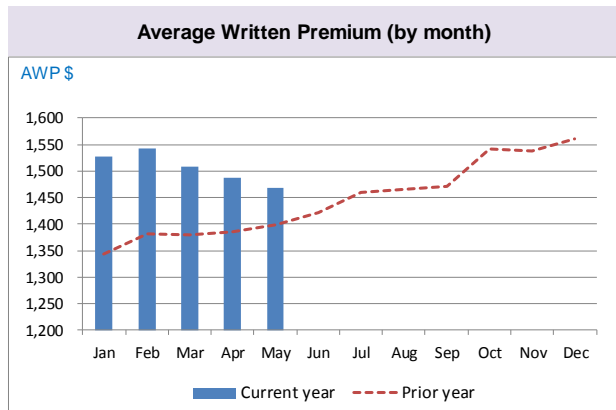


The chart on the left presents the same information as the previous chart, but on a **year-to-date** basis. That is, it shows the overall change in transfer counts year-to-date, broken down by member company group changes (each blue bar represents the change for a single member company group), sorted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

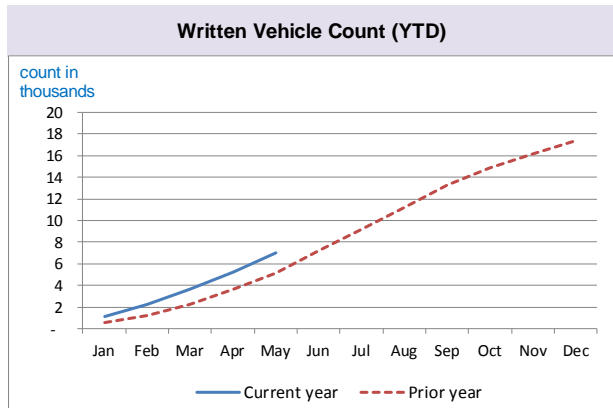
May’s vehicle count transfers to the pool represent an 18.5% increase from May 2017, and vehicle counts were up 37.7% year-to-date. Average written premium was up 5.1% in May 2018, and was up 8.6% year-to-date (see charts at the top of the next page).



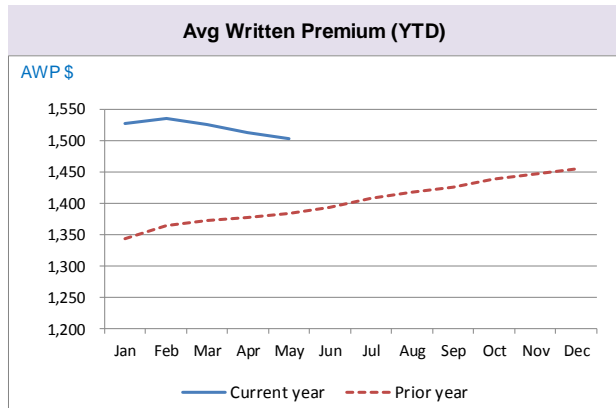
	May-18	May-17	Amt Chg	% Chg
W. Veh curr mth	1,765	1,489	276	18.5%



	May-18	May-17	Amt Chg	% Chg
AWP curr mth	1,469	1,398	71	5.1%

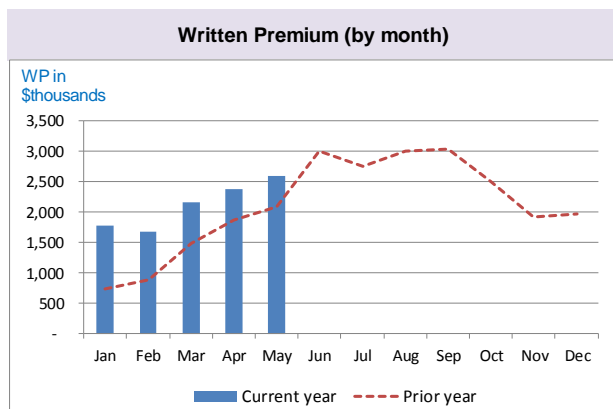


	May-18	May-17	Amt Chg	% Chg
W. Vehicles YTD	7,057	5,124	1,934	37.7%

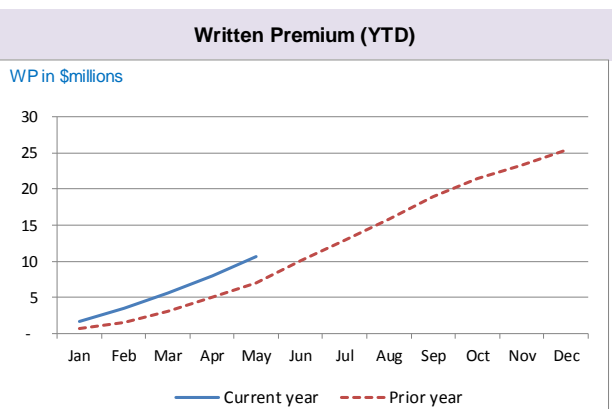


	May-18	May-17	Amt Chg	% Chg
Avg W. Prem YTD	1,502	1,383	119	8.6%

As a result of the movements in transfer vehicle counts and average written premium, the transferred premium was up 24.6% for the month compared with the 51.1% increase we projected last month, and was up 49.7% year-to-date (see charts immediately below).



	May-18	May-17	Amt Chg	% Chg
WP (\$000s) curr mth	2,593	2,082	511	24.6%



	May-18	May-17	Amt Chg	% Chg
WP (\$000s) YTD	10,603	7,085	3,518	49.7%



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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 May 2018 Operational Report – Actuarial Highlights](#)

**SUMMARY OF OPERATIONS - CALENDAR YEAR 2018**  
**Risk Sharing Pool - Nova Scotia**  
**Operating Results for the 5 Months Ended May 31, 2018 (Discounted basis)**  
**Source: Monthly Operational Report**  
(thousands of dollars)

EXHIBIT 1

	January	February	March	April	May	CY2018 YTD	CY2018 12 MONTHS Updated Projection	CY2017 12 MONTHS Actual
<b>Underwriting Revenue:</b>								
Net Premiums Written	\$1,773	\$1,686	\$2,164	\$2,385	\$2,593	\$10,601	\$30,053	\$25,298
Decrease (Increase) in Unearned Premiums	389	337	118	(124)	(232)	488	(1,793)	(6,335)
<b>Net Premiums Earned</b>	<b>\$2,162</b>	<b>\$2,023</b>	<b>\$2,282</b>	<b>\$2,261</b>	<b>\$2,361</b>	<b>\$11,089</b>	<b>\$28,260</b>	<b>\$18,963</b>
<b>Claims Incurred:</b>								
Prior Accident Years:								
Undiscounted	(\$29)	(\$8)	(\$2,276)	\$0	\$1,366	(\$947)	(\$947)	(\$2,136)
Effect of Discounting	90	(39)	(48)	(32)	(79)	(108)	(383)	(1,836)
Discounted	\$61	(\$47)	(\$2,324)	(\$32)	\$1,287	(\$1,055)	(\$1,330)	(\$3,972)
Current Accident Year:								
Undiscounted	\$2,026	\$1,877	\$2,194	\$2,118	\$2,283	\$10,498	\$26,674	\$17,837
Effect of Discounting	117	92	108	100	50	467	1,104	817
Discounted	\$2,143	\$1,969	\$2,302	\$2,218	\$2,333	\$10,965	\$27,778	\$18,654
<b>Claims Incurred</b>	<b>\$2,204</b>	<b>\$1,922</b>	<b>(\$22)</b>	<b>\$2,186</b>	<b>\$3,620</b>	<b>\$9,910</b>	<b>\$26,448</b>	<b>\$14,682</b>
<b>Underwriting Expenses:</b>								
Expense Allowance	\$534	\$509	\$653	\$720	\$783	\$3,199	\$9,073	\$7,829
Change in UPDR/DPAC:								
Undiscounted	25	24	173	8	72	302	359	(773)
Effect of Discounting	(21)	(18)	17	8	(55)	(69)	59	37
Discounted	\$4	\$6	\$190	\$16	\$17	233	418	(\$736)
<b>Underwriting Expenses</b>	<b>\$538</b>	<b>\$515</b>	<b>\$843</b>	<b>\$736</b>	<b>\$800</b>	<b>\$3,432</b>	<b>\$9,491</b>	<b>\$7,093</b>
<b>Net Underwriting Gain (Loss)</b>	<b>(\$580)</b>	<b>(\$414)</b>	<b>\$1,461</b>	<b>(\$661)</b>	<b>(\$2,059)</b>	<b>(\$2,253)</b>	<b>(\$7,679)</b>	<b>(\$2,812)</b>
<b>Administrative Expenses</b>	<b>\$40</b>	<b>\$56</b>	<b>\$59</b>	<b>\$48</b>	<b>\$55</b>	<b>\$258</b>	<b>\$980</b>	<b>\$600</b>
<b>Operating Result</b>	<b>(\$620)</b>	<b>(\$470)</b>	<b>\$1,402</b>	<b>(\$709)</b>	<b>(\$2,114)</b>	<b>(\$2,511)</b>	<b>(\$8,659)</b>	<b>(\$3,412)</b>
<b>Ratios:</b>								
<b>Claims &amp; Expenses Incurred (Earned)</b>								
Prior Accident Years	2.8%	-2.3%	-101.8%	-1.4%	54.5%	-9.5%	-4.7%	-20.9%
Current Accident Year	99.1%	97.3%	100.9%	98.1%	98.8%	98.9%	98.3%	98.4%
All Accident Years Combined	101.9%	95.0%	-0.9%	96.7%	153.3%	89.4%	93.6%	77.5%
Underwriting & Administrative Expenses (Earned)	26.7%	28.2%	39.5%	34.7%	36.2%	33.3%	37.1%	40.6%
<b>Combined Operating Ratio</b>	<b>128.6%</b>	<b>123.2%</b>	<b>38.6%</b>	<b>131.4%</b>	<b>189.5%</b>	<b>122.7%</b>	<b>130.7%</b>	<b>118.1%</b>

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