

TO: MEMBERS OF THE FACILITY ASSOCIATION

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

BULLETIN NO.: F19 – 047

DATE: JUNE 27, 2019

**SUBJECT: NOVA SCOTIA RISK SHARING POOL
– MAY 2019 OPERATIONAL REPORT**

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

Please be advised that the May 2019 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 March 31, 2019 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 **\$2.4 million unfavourable** impact on the month’s net result from operations, adding an estimated 19.8 points to the year-to-date Combined Operating Ratio (ending at 148.2%). The impact is summarized in the tables below¹.

NS	unfav / (fav) for the month and ytd						ytd EP 12,077 (actual)					
	IMPACT in \$000s from changes in:						IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate		argins	ults & payout patterns			dsct rate		argins
	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	1,180	73	1,253	464	-	1,717	9.8%	0.6%	10.4%	3.8%	-	14.2%
CAY	172	(5)	167	138	-	305	1.4%	-	1.4%	1.1%	-	2.5%
Prem Def	172	2	174	195	-	369	1.4%	-	1.4%	1.6%	-	3.1%
TOTAL	1,524	70	1,594	797	-	2,391	12.6%	0.6%	13.2%	6.6%	-	19.8%

Please see “Effect of Quarterly Valuation” on page 4 for additional valuation result detail.

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”.

Summary of Financial Results

The calendar year-to-date Operating Result is -\$5.8 million and the incurred loss ratio to the end of 5 months is 111.8%, as summarized in the table below.

NS RSP Summary of Financial Results (for month and year-to-date)

Amounts in \$000s	May 2019	May 2018	Year to date May 2019	Year to Date May 2018
Premium Written	2,593	2,593	11,688	10,601
Premium Earned	2,347	2,361	12,077	11,089
Incurred Losses	4,293	3,620	13,509	9,910
Underwriting & Admin Expense	1,270	855	4,400	3,690
Operating Result	(3,216)	(2,114)	(5,832)	(2,511)
Ratios:				
Loss ratio - Prior Accident Years	63.1%	54.5%	7.2%	(9.5%)
- Current Accident Year	119.8%	98.8%	104.6%	98.9%
<i>Total</i>	182.9%	153.3%	111.8%	89.4%
<i>Underwriting & Admin Expense</i>	54.1%	36.2%	36.4%	33.3%
<i>Combined Operating Ratio</i>	237.0%	189.5%	148.2%	122.7%

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 2019” attached to this bulletin.

Updated Projection to Year-end 2019

The projected calendar year Operating Result to December 2019 is -\$12.6 million and the estimated combined operating ratio to December 2019 is 141.9%, as summarized in the table at the top of the next page.

NS RSP Summary of **Projected Year-end Financial Results** (current month's projection, prior month's projection, and Outlook posted last fall)

NS RSP 2019 Yr-end Projection Amounts in \$000s	Current (May 2019)	Prior Mth (Apr 2019)	Change	Final 2019 Outlook*
Premium Written	30,517	31,809	(1,292)	31,089
Premium Earned	29,980	30,668	(688)	30,272
Incurred Losses	31,391	29,729	1,662	30,014
Underwriting & Admin Expense	11,153	11,464	(312)	11,148
Net Result from Operations	(12,564)	(10,525)	(2,038)	(10,890)
Ratios:				
Loss ratio - Prior Accident Years	1.3%	(3.5%)	4.8%	(1.5%)
- Current Accident Year	103.4%	100.4%	3.0%	100.7%
<i>Total</i>	104.7%	96.9%	7.8%	99.2%
Underwriting & Admin Expense	37.2%	37.4%	(0.2%)	36.8%
Combined Operating Ratio	141.9%	134.3%	7.6%	136.0%

rounding differences may occur

*as posted to FA's website Oct. 18, 2018

This updated projection to the end of the year has deteriorated by \$2.0 million from the projection provided last month (see the second and third columns in the table), and included the overall \$2.6 million unfavourable impact of the March 31, 2019 valuation, as summarized in the table below (see also the "Effect of Quarterly Valuation" on page 4). 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 15,761 (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	1,180	71	1,251	404	-	1,655	7.5%	0.5%	7.9%	2.6%	-	10.5%
CAY	422	(22)	400	326	-	726	2.7%	(0.1%)	2.5%	2.1%	-	4.6%
Prem Def	-	(5)	(5)	210	-	205	-	-	-	1.3%	-	1.3%
TOTAL	1,602	44	1,646	940	-	2,586	10.2%	0.3%	10.4%	6.0%	-	16.4%

Current Month Results

The Nova Scotia Risk Sharing Pool produced a -\$3.2 million Operating Result in the month of May 2019, a \$1.1 million deterioration from the same month last year. This deterioration mainly stems from the overall increase in the combined ratio (from 189.5% to 237.0% applied to \$2.3 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 126.9% at the end of 4 months to 148.2% at the end of 5 months. The 21.3 percentage point increase is composed of a 13.5 percentage point increase in the Prior Accident Years loss ratio, coupled with a 3.6 percentage point increase in the Current Accident Year loss ratio, and a 4.2 percentage point increase in the expense ratio.

Variations from Projections

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

NS RSP Summary of Actual vs Projected variances

May 2019	Actual	Projection	Difference	Difference %
Written Premium	2,593	2,968	(375)	(12.6%)
Earned Premium	2,347	2,613	(266)	(10.2%)
Reported Losses				
Paid Losses	1,774	1,231	543	44.1%
Paid Expenses	67	61	6	9.8%
Change in Outstanding Losses	(385)	389	(774)	(199.0%)
Total Reported Losses	1,456	1,681	(225)	(13.4%)
Change in IBNR Provision *	2,837	901	1,936	
Change in Premium Deficiency (DPAC) *	414	47	367	

(Amounts in \$000's)

rounding differences may occur

*Detailed information is included at [Nova Scotia RSP May 2019 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 2019, reported losses were \$0.2 million lower than projected. The Current Accident Year had a \$0.2 million favourable variance in reported losses, and the Prior Accident Years had a \$27 thousand favourable variance. No single Prior Accident Year had a reported loss variance in excess of \$1.0 million.

There were no variances for claims activity beyond the set thresholds for specific individual Prior Accident Years for the month.

Effect of Quarterly Valuation

The May 2019 Nova Scotia Risk Sharing Pool Operational Report reflects the results of an updated valuation as at March 31, 2019, with the associated impacts in relation to the results for May 2019 summarized in the table below.

NS	unfav / (fav) for the month and ytd						mth EP 2,347 (actual)					
	IMPACT in \$000s from changes in:						IMPACT unfav / (fav) as % mth EP from changes in:					
	ults & payout patterns			dsct rate		argins	ults & payout patterns			dsct rate		argins
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	1,180	73	1,253	464	-	1,717	50.3%	3.1%	53.4%	19.8%	-	73.2%
CAY	172	(5)	167	138	-	305	7.3%	(0.2%)	7.1%	5.9%	-	13.0%
Prem Def	172	2	174	195	-	369	7.3%	0.1%	7.4%	8.3%	-	15.7%
TOTAL	1,524	70	1,594	797	-	2,391	64.9%	3.0%	67.9%	34.0%	-	101.9%

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 at the bottom of the previous page), augmented by the impact due to a 50 basis point decrease in the selected discount rate (from 1.93% to 1.43% generating a \$0.8 million unfavourable impact – see column [4] in the left table at the bottom of the previous page). There was no change in the margin for adverse deviation in investment yield (remains at 25 basis points), and no changes to margins for adverse deviation for claims development² (hence \$0 in column [5] in the left table at the bottom of the previous page).

Management has observed favourable *total* valuation impacts over the last 12 valuation implementations as shown in column [5] of the table below (summarizing the same information as provided in the left table above as relates to the most recent 12 valuation implementations). 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: 2019 Q1		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]	[6]	[7]	[8]	
						= sum([1] to [4])		= [5] / [6]	= [1] / [6]	
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%	
2018 Q2	Aug 2018	68	(50)	95	(51)	62	59,463	0.1%	0.1%	
2018 Q3	Oct 2018	869	137	(635)	-	371	62,791	0.6%	1.4%	
2018 Q4	Mar 2019	(869)	(2)	504	-	(367)	62,820	(0.6%)	(1.4%)	
2019 Q1	May 2019	1,524	70	797	-	2,391	66,991	3.6%	2.3%	
12-qtrs	-	(1,243)	(82)	(855)	(1,056)	(3,236)				
% of total		38.4%	2.5%	26.4%	32.6%	100.0%				
		7 unfavourable (nominal) valuations						5 impacts were outside of 2.5%		
Averages										
12-qtrs		(104)	(7)	(71)	(88)	(270)	53,216	(0.5%)	(0.2%)	
2016 Q2 to 2018 Q1		(354)	(30)	(202)	(126)	(712)	48,316	(1.5%)	(0.7%)	
2018 Q2 to 2019 Q1		398	39	190	(13)	614	63,016	1.0%	0.6%	

The FA valuation approach is focused on providing (i) best estimates on a nominal basis (i.e. the longer term average of nominal changes in column [1] should be close-to-zero); (ii) the nominal changes of any one valuation in relation to policy liabilities³, should be “small” (less than 2.5%); and (iii) the valuation results should not indicate bias – that is, we generally anticipate approximately 1/3rd of nominal valuation impacts will be unfavourable, and 2/3^{rds} will be

²Our usual practice is to only update margins for adverse deviation for claims development (selected at the coverage / accident year level) at the June 30 valuation.

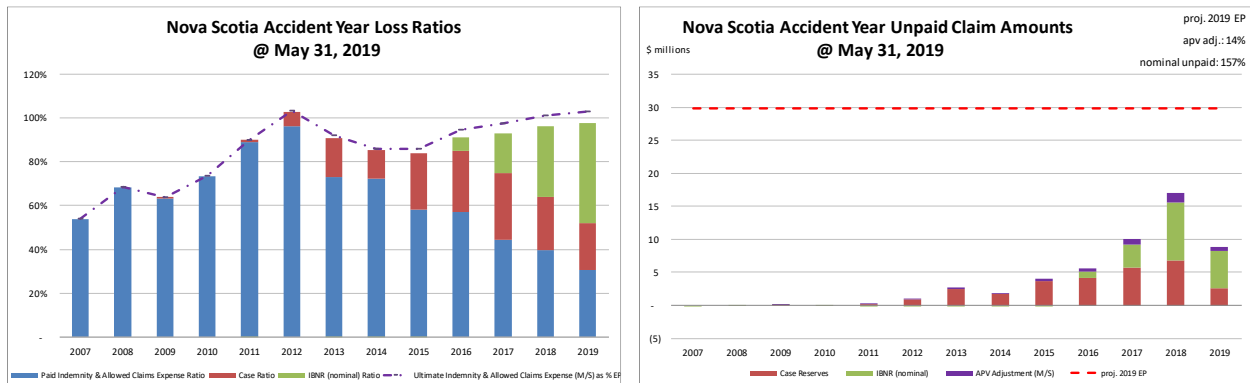
³We also consider changes in nominal estimates relative to beginning claims liabilities, with this metric also ideally being small, but in this case, less than 5.0%. Over time, our view of “small” for each of these metrics may change.

favourable (due to the skewness of the development). On these 3 measures:

- (i) **Best estimate measurement: This objective has not been met**, as the 12-quarter nominal change in column [1] is \$1.2 million favourable. That said, the average favourable impact over the 12 quarters at \$0.1 million (nominal only) represents 0.2% of ending policy liabilities per column [8], which we would view as not significant. We do note that the latest 4 valuations have been on average more unfavourable than the earlier 8 valuations were favourable.
- (ii) **Nominal size measurement: This objective has not been met**, with 5 individual valuations showing nominal changes in excess of 2.5% of ending policy liabilities per column [8] in the table above, being higher than our expectation (0).
- (iii) **Bias evidence measurement: This objective has not been met**, as 7 of 12 valuations show unfavourable changes (column [1] of the table above), higher than our expectation (3 to 5 of 12).

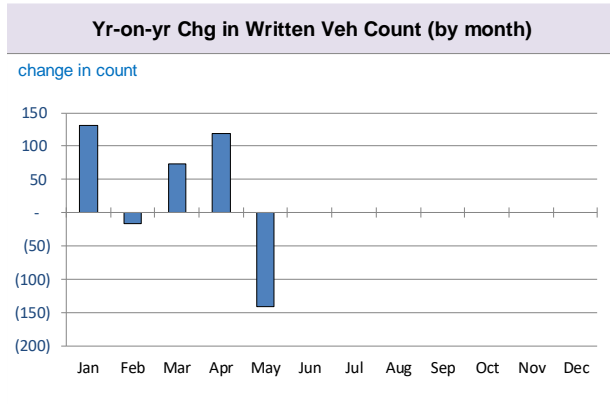
In summary, while challenging as a small RSP, we believe the nominal valuation impacts are moving toward our target impacts (long term zero impact; individual valuation impact of no more than 2.5% of policy liabilities; no bias evident).

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.

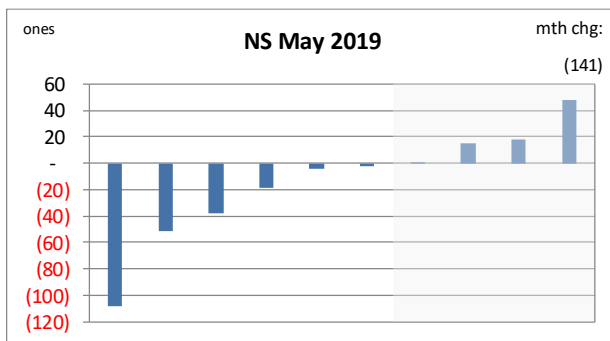


The preceding charts, latest valuation results, and related actuarial present value assumption updates are discussed in more detail in the [Nova Scotia RSP May 2019 Operational Report – Actuarial Highlights](#). The Actuarial Quarterly Valuation Highlights for Risk Sharing Pools as at March 31, 2019 is expected to be posted in July 2019. The actuarial valuation will be updated next as at June 30, 2019 and we anticipate that the results will be reflected in the August 2019 Operational Report.

Management Comments

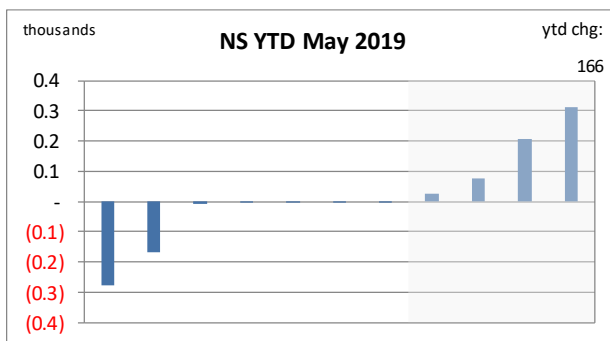


The chart on the left shows the year-on-year change in the vehicles transferred to the RSP by month, with May showing a decrease of 141 vehicles. Our projection last month (in part based on previous projections provided by select member company groups) was for an increase of 115 vehicles, indicating a variance of 256 from the actual transfers. This variance was mainly due to two member company groups transferring a lower number of vehicles to the RSP in May than projected.



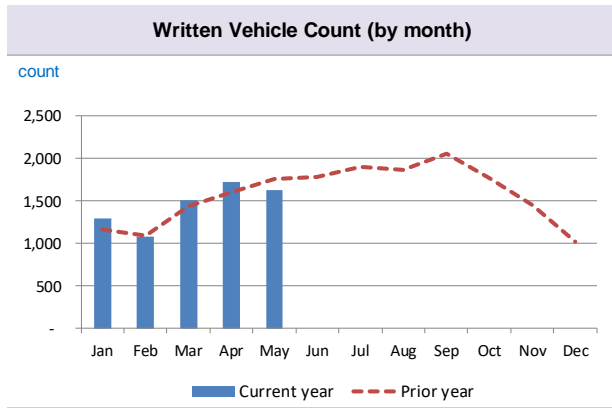
The chart on the left shows the overall change in the **month**, broken down by member company group changes (each blue bar represents the change for a single member company group), sorted by magnitude of change. Six member company groups transferred fewer vehicles to the RSP this month compared with a year ago, while four transferred more. Of the 6 member company groups transferring fewer vehicles, 1 member company group accounted for 48% of

the total transfer decrease for these “decliner” members. Of the 4 member company groups transferring more vehicles, 1 member company group accounted for 58% of the total transfer increase for these “grower” members.

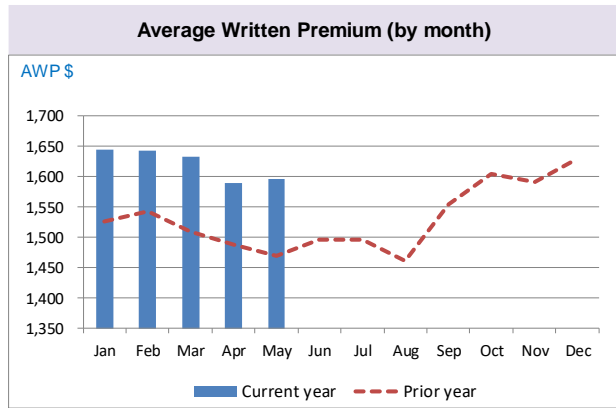


The chart on the left presents the same information as the previous chart, but on a **year-to-date** basis. That is, it shows the overall change in transfer counts year-to-date, broken down by member company group changes (each blue bar represents the change for a single member company group), sorted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

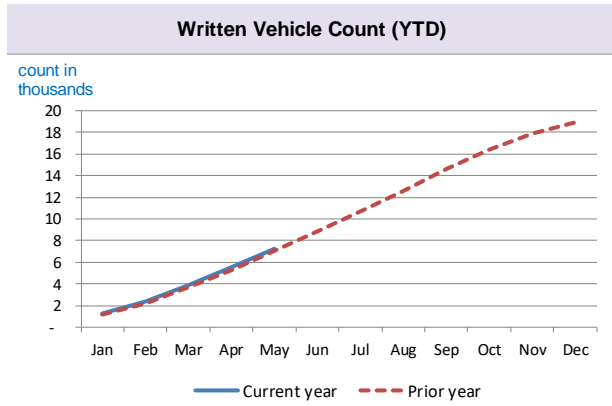
May’s vehicle count transfers to the RSP represent an 8.0% decrease from May 2018, but vehicle counts were up 2.4% year-to-date. Average written premium was up 8.6% in May 2019, and was up 7.7% year-to-date (see charts at the top of the next page).



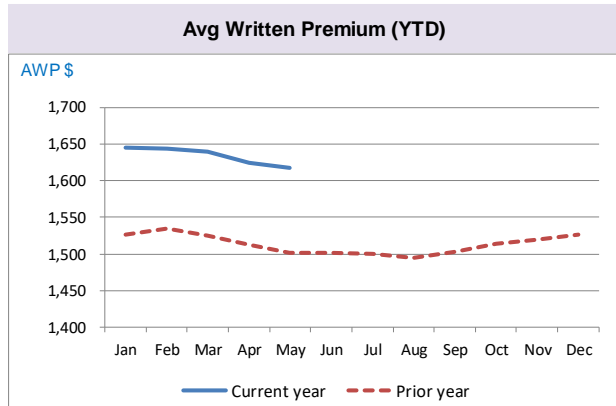
	May-19	May-18	Amt Chg	% Chg
W. Veh curr mth	1,625	1,765	(141)	-8.0%



	May-19	May-18	Amt Chg	% Chg
AWP curr mth	1,596	1,469	127	8.6%

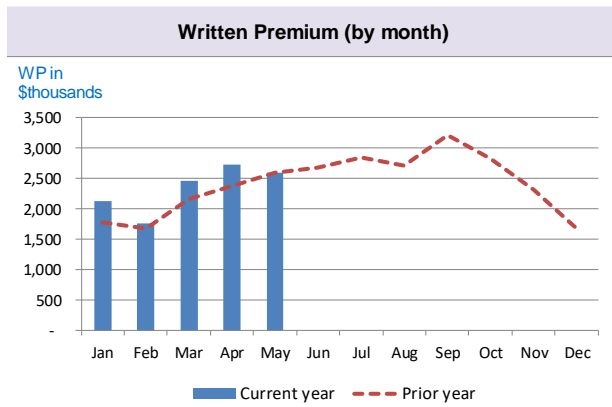


	May-19	May-18	Amt Chg	% Chg
W. Vehicles YTD	7,223	7,057	166	2.4%

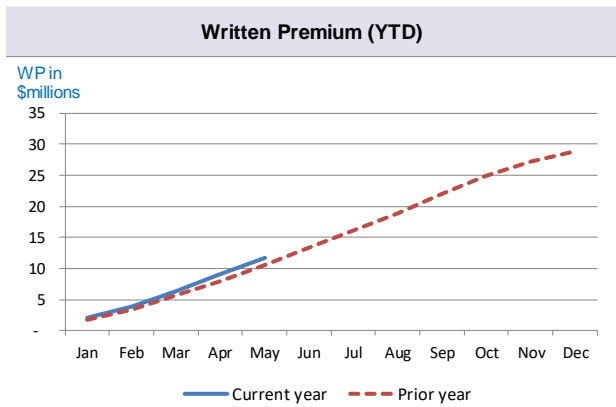


	May-19	May-18	Amt Chg	% Chg
Avg W. Prem YTD	1,618	1,502	116	7.7%

As a result of the movements in transfer vehicle counts and average written premium, the transferred premium had no change for the month compared with the 14.4% increase we projected last month, but was up 10.2% year-to-date (see charts below).



	May-19	May-18	Amt Chg	% Chg
WP (\$000s) curr mth	2,593	2,593	(0)	0.0%



	May-19	May-18	Amt Chg	% Chg
WP (\$000s) YTD	11,687	10,603	1,085	10.2%

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Nova Scotia Risk Sharing Pool – May 2019 Operational Report

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

Saskia Matheson
President & CEO

Related links:

[Nova Scotia RSP May 2019 Operational Report – Actuarial Highlights](#)

SUMMARY OF OPERATIONS - CALENDAR YEAR 2019

Risk Sharing Pool - Nova Scotia

Operating Results for the 5 Months Ended May 31, 2019 (Discounted basis)

Source: Monthly Operational Report

(thousands of dollars)

EXHIBIT 1

	January	February	March	April	May	CY2019 YTD	CY2019 12 MONTHS Updated Projection	CY2018 12 MONTHS Actual
Underwriting Revenue:								
Net Premiums Written	\$2,126	\$1,769	\$2,462	\$2,738	\$2,593	\$11,688	\$30,517	\$28,869
Decrease (Increase) in Unearned Premiums	368	479	59	(271)	(246)	389	(537)	(1,213)
Net Premiums Earned	\$2,494	\$2,248	\$2,521	\$2,467	\$2,347	\$12,077	\$29,980	\$27,656
Claims Incurred:								
Prior Accident Years:								
Undiscounted	(\$14)	(\$17)	(\$834)	(\$5)	\$1,030	\$160	\$160	\$195
Effect of Discounting	153	(70)	228	(50)	452	713	244	(683)
Discounted	\$139	(\$87)	(\$606)	(\$55)	\$1,482	\$873	\$404	(\$488)
Current Accident Year:								
Undiscounted	\$2,422	\$2,185	\$2,429	\$2,381	\$2,586	\$12,003	\$29,494	\$25,819
Effect of Discounting	115	81	126	86	225	633	1,493	872
Discounted	\$2,537	\$2,266	\$2,555	\$2,467	\$2,811	\$12,636	\$30,987	\$26,691
Claims Incurred	\$2,676	\$2,179	\$1,949	\$2,412	\$4,293	\$13,509	\$31,391	\$26,203
Underwriting Expenses:								
Expense Allowance	\$659	\$549	\$763	\$849	\$805	\$3,625	\$9,463	\$8,714
Change in UPDR/DPAC:								
Undiscounted	10	15	(13)	17	200	229	420	537
Effect of Discounting	(16)	(22)	105	15	214	296	373	(86)
Discounted	(6)	(7)	92	32	414	525	793	451
Underwriting Expenses	\$653	\$542	\$855	\$881	\$1,219	\$4,150	\$10,256	\$9,165
Net Underwriting Gain (Loss)	(\$835)	(\$473)	(\$283)	(\$826)	(\$3,165)	(\$5,582)	(\$11,667)	(\$7,712)
Administrative Expenses	\$49	\$59	\$41	\$50	\$51	\$250	\$897	\$608
Operating Result	(\$884)	(\$532)	(\$324)	(\$876)	(\$3,216)	(\$5,832)	(\$12,564)	(\$8,320)
Ratios:								
Claims & Expenses Incurred (Earned)								
Prior Accident Years	5.6%	-3.9%	-24.0%	-2.2%	63.1%	7.2%	1.3%	-1.8%
Current Accident Year	101.7%	100.8%	101.3%	100.0%	119.8%	104.6%	103.4%	96.5%
All Accident Years Combined	107.3%	96.9%	77.3%	97.8%	182.9%	111.8%	104.7%	94.7%
Underwriting & Administrative Expenses (Earned)	28.1%	26.7%	35.5%	37.7%	54.1%	36.4%	37.2%	35.3%
Combined Operating Ratio	135.4%	123.6%	112.8%	135.5%	237.0%	148.2%	141.9%	130.0%

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