



TO: MEMBERS OF THE FACILITY ASSOCIATION

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

BULLETIN NO.: F2020 – 087

DATE: NOVEMBER 27, 2020

SUBJECT: NOVA SCOTIA RISK SHARING POOL
– OCTOBER 2020 OPERATIONAL REPORT

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

Please be advised that the October 2020 Nova Scotia Risk Sharing Pool Operational Report is available on the Facility Association (FA) Portal at <https://portal.facilityassociation.com>.

Key Points

- (a) This month's results include the *implementation of the 2020 Q3 valuation*, resulting in an estimated **\$2.2 million favourable impact**; the updated valuation loss ratios include a review and assessment of the incurred impacts associated with the COVID-19 pandemic;
- (b) The *2020 year-to-date net operating deficit was \$7.2 million*, with a COR of 124% on earned premium of \$29.9 million; and
- (c) The *projected 2020 year-end net operating deficit is now \$9.9 million*, with a COR at 126.6% on earned premium of \$37.2 million (our Outlook for 2020 was \$14.5 million of net operating deficit with a COR of 140.5% on earned premium of \$35.8 million).

New This Month

Valuation

A valuation of the Nova Scotia Risk Sharing Pool ("RSP") as at September 30, 2020 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 **\$2.2 million favourable** impact on the month's net result from operations, subtracting an estimated 7.5 points to the year-to-date Combined Operating Ratio (ending at 124.0%). The impact is summarized in the following

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tables¹.

NS	unfav / (fav) for the month and ytd						ytd EP 29,887 (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	(2,030)	(249)	(2,279)	4	-	(2,275)	(6.8%)	(0.8%)	(7.6%)	-	-	(7.6%)
CAY	61	7	68	2	-	70	0.2%	-	0.2%	-	-	0.2%
Prem Def	14	(47)	(33)	3	-	(30)	-	(0.2%)	(0.1%)	-	-	(0.1%)
TOTAL	(1,955)	(289)	(2,244)	9	-	(2,235)	(6.5%)	(1.0%)	(7.5%)	-	-	(7.5%)

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

Summary of Financial Results

The calendar year-to-date Operating Result is -\$7.2 million and the incurred loss ratio to the end of ten months is 79.5%, as summarized in the following table.

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

Amounts in \$000s	October 2020	October 2019	Year to date Oct 2020	Year to Date Oct 2019
Premium Written	5,244	3,451	37,467	27,609
Premium Earned	3,560	2,670	29,887	24,814
Incurred Losses	1,102	3,411	23,766	26,220
Underwriting & Admin Expense	2,268	1,236	13,311	9,844
Operating Result	190	(1,977)	(7,190)	(11,250)
Ratios:				
Loss ratio				
- Prior Accident Years	(67.2%)	17.2%	(16.7%)	1.8%
- Current Accident Year	98.2%	110.6%	96.2%	103.8%
<i>Total</i>	31.0%	127.8%	79.5%	105.6%
Underwriting & Admin Expense	63.7%	46.3%	44.5%	39.7%
Combined Operating Ratio	94.7%	174.1%	124.0%	145.3%

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 2020” attached to this bulletin.

Updated Projection to Year-end 2020

The projected calendar year Operating Result to December 2020 is -\$9.9 million and the estimated combined operating ratio to December 2020 is 126.6%, as summarized in the following table.

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

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

NS RSP 2020 Yr-end Projection Amounts in \$000s	Current (Oct 2020)	Prior Mth (Sep 2020)	Change	Final 2020 Outlook*
Premium Written	44,589	43,948	641	38,176
Premium Earned	37,221	37,074	147	35,830
Incurred Losses	30,521	32,517	(1,996)	36,407
Underwriting & Admin Expense	16,598	16,442	155	13,949
Net Result from Operations	(9,898)	(11,885)	1,988	(14,526)
Ratios:				
Loss ratio - Prior Accident Years	(13.9%)	(7.7%)	(6.2%)	(2.1%)
- Current Accident Year	95.9%	95.4%	0.5%	103.7%
<i>Total</i>	82.0%	87.7%	(5.7%)	101.6%
Underwriting & Admin Expense	44.6%	44.3%	0.3%	38.9%
Combined Operating Ratio	126.6%	132.0%	(5.4%)	140.5%

rounding differences may occur

*as posted to FA's website Nov. 5, 2019

This updated projection in Net Result from Operations to the end of the year has improved by \$2.0 million from the projection provided last month (see the second and third columns in the table above). The updated projection includes the overall \$2.2 million favourable impact of the valuation, as at September 30, 2020, as summarized in the following table (see more information under "Effect of Quarterly Valuation" on page 4). The remaining difference was driven by the overall increase in projected written premium and the associated impacts on earned premium, claims, and expense projections.

NS	unfav / (fav) projected for full year						year EP 18,026 (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	(2,030)	(240)	(2,270)	4	-	(2,266)	(11.3%)	(1.3%)	(12.6%)	-	-	(12.6%)
CAY	75	6	81	3	-	84	0.4%	-	0.4%	-	-	0.5%
Prem Def	-	(50)	(50)	2	-	(48)	-	(0.3%)	(0.3%)	-	-	(0.3%)
TOTAL	(1,955)	(284)	(2,239)	9	-	(2,230)	(10.8%)	(1.6%)	(12.4%)	-	-	(12.4%)

Current Month Results

The Nova Scotia Risk Sharing Pool produced a \$0.2 million Operating Result in the month of October 2020, a \$2.2 million improvement compared with the same month last year. This improvement is composed of a \$2.8 million favourable impact associated with the overall decrease in the combined ratio (from 174.1% to 94.7% applied to \$3.6 million in earned premium), offset by an approximately \$0.6 million unfavourable impact associated with the \$0.9 million increase in earned premium (at a prior combined ratio of 174.1%).

This month's results moved the year-to-date combined operating ratio from 128.0% at the end of nine months to 124.0% at the end of ten months. The 4.0 percentage point decrease is composed of a 6.8 percentage point decrease in Prior Accident Years Loss Ratio, offset by a 2.6 percentage

point increase in the Expense Ratio, coupled with a 0.2 percentage point increase in the Current Accident Year loss ratio.

Variances from Projections

The following table 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

October 2020	Actual	Projection	Difference	Difference %
Written Premium	5,244	4,603	641	13.9%
Earned Premium	3,560	3,604	(44)	(1.2%)
Reported Losses				
Paid Losses	1,457	1,768	(311)	(17.6%)
Paid Expenses	72	87	(15)	(17.2%)
Change in Outstanding Losses	216	531	(315)	(59.3%)
Total Reported Losses	1,745	2,386	(641)	(26.9%)
Change in IBNR Provision *	(643)	921	(1,564)	
Change in Premium Deficiency (DPAC) *	488	461	27	

(Amounts in \$000's)

rounding differences may occur

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 October 2020, total reported losses were \$0.6 million lower than projected, and it was mainly from the Current Accident Year. No single Accident Year had a reported loss variance in excess of \$1.0 million.

The variances for claims activity were beyond the set thresholds for some specific individual Accident Years for the month. Management investigated the 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 October 2020 Nova Scotia Risk Sharing Pool Operational Report reflects the results of an updated valuation as at September 30, 2020, with the associated impacts in relation to the results for October 2020 summarized in the following table.

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NS	unfav / (fav) for the month and ytd						mth EP 3,560 (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	(2,030)	(249)	(2,279)	4	-	(2,275)	(57.0%)	(7.0%)	(64.0%)	0.2%	-	(63.9%)
CAY	61	7	68	2	-	70	1.7%	0.2%	1.9%	0.1%	-	2.0%
Prem Def	14	(47)	(33)	3	-	(30)	0.4%	(1.3%)	(0.9%)	0.2%	-	(0.8%)
TOTAL	(1,955)	(289)	(2,244)	9	-	(2,235)	(54.9%)	(8.1%)	(63.0%)	0.5%	-	(62.8%)

The valuation result is due to changes generated from updated nominal ultimate selections and projected cash flows (generating a \$2.2 million favourable impact – see column [3] in the preceding table on the left). The selected discount rate had decreased 4 basis point, from 0.23% to 0.19% (generating minimal impact).

There was no change in the margin for adverse deviation in investment yield (25 basis points). As well, the margins for adverse deviation for claims development as selected at the coverage / accident year level were left unchanged with this valuation. Our usual practice is to review / update margins for investment yield and claims development at the June 30 valuations. As a result, column [5] in the left table above shows \$0 impact for margin changes with this valuation.

Management has observed favourable total valuation impacts over the last 12 valuation implementations as shown in column [5] of the following table (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: 2020 Q3		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]	
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%	
2019 Q2	Aug 2019	(835)	(32)	24	(71)	(914)	70,580	(1.3%)	(1.2%)	
2019 Q3	Oct 2019	816	66	(84)	-	798	75,355	1.1%	1.1%	
2019 Q4	Mar 2020	1,842	161	(323)	-	1,680	80,737	2.1%	2.3%	
2020 Q1	May 2020	(827)	(86)	2,120	-	1,207	84,532	1.4%	(1.0%)	
2020 Q2	Aug 2020	(8,555)	(932)	840	(96)	(8,743)	88,459	(9.9%)	(9.7%)	
2020 Q3	Oct 2020	(1,955)	(289)	9	-	(2,235)	93,804	(2.4%)	(2.1%)	
12-qtrs	-	(8,455)	(835)	3,091	(218)	(6,417)				
% of total		131.8%	13.0%	(48.2%)	3.4%	100.0%				
		6 unfavourable (nominal) valuations						3 impacts were outside of 2.5%		
Averages										
12-qtrs		(705)	(70)	258	(18)	(535)	71,174	(0.8%)	(1.0%)	
2017 Q4 to 2019 Q3		130	39	56	(15)	209	63,319	0.3%	0.2%	
2019 Q4 to 2020 Q3		(2,374)	(287)	662	(24)	(2,023)	86,883	(2.3%)	(2.7%)	

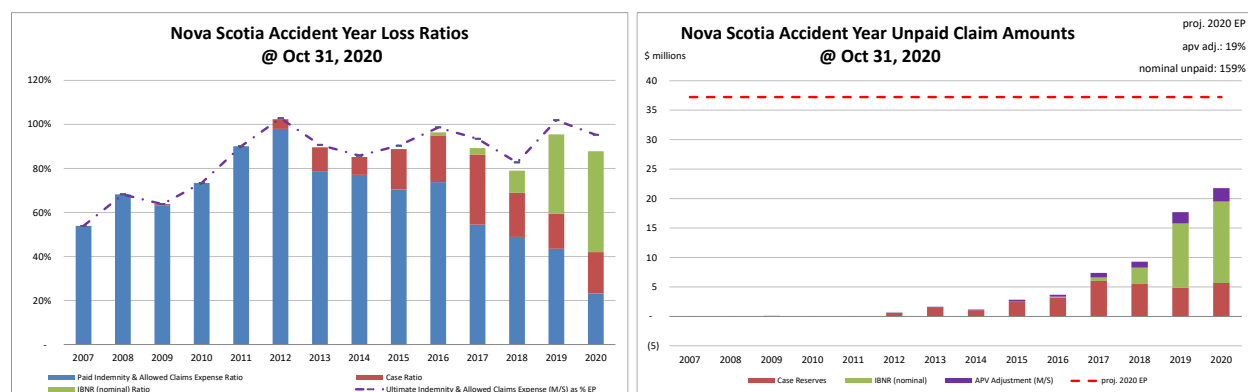
The FA valuation approach is focused on providing (i) best estimates on a nominal basis (i.e. the longer term average of nominal changes in column [1] should be close-to-zero); (ii) the nominal

changes of any one valuation in relation to policy liabilities², 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 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 \$8.5 million favourable. We note that the average impact of the most recent 6 valuations is significantly more favourable than the earlier 6 valuations were unfavourable. That said, the 12-quarter average at \$0.7 million (nominal only) represents 1.0% of ending policy liabilities per column [8], which we would view as not significant.
- (ii) **Nominal size measurement: This objective has not been met**, with 3 individual valuations showing nominal changes in excess of 2.5% of ending policy liabilities per column [8] in the preceding table, being higher than our expectation (0). We are currently in the process of reviewing the valuation process (including how assumptions are struck, the accuracy of various valuation methodologies, and our default selections). We expect this review to continue over the next 2-5 months.
- (iii) **Bias evidence measurement: This objective has not been met**, as 6 of 12 valuations show unfavourable changes (column [1] of the preceding table), 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).

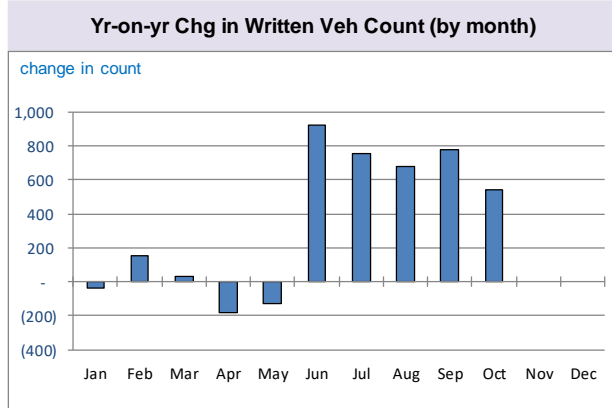
The following charts summarize the current view of the historical loss ratios (indemnity and allowed claims adjustment expenses on a nominal basis) and the associated claims liabilities.



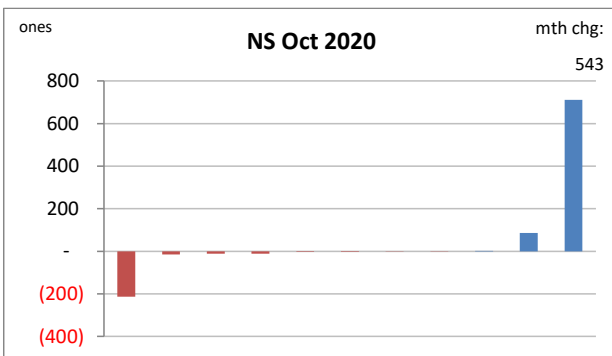
The actuarial valuation will be updated next as at December 31, 2020 and we anticipate that the results will be reflected in the March 2021 Operational Report.

²We 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.

Management Comments



The chart on the left shows the year-on-year change in the vehicles transferred to the RSP by month, with October showing an increase of 543 vehicles. Our projection last month (in part based on previous projections provided by select member company groups) was for an increase of 467 vehicles, indicating a variance of 76 from the actual transfers. This variance was mainly due to one member company group transferring a higher number of vehicles to the RSP in October than projected.



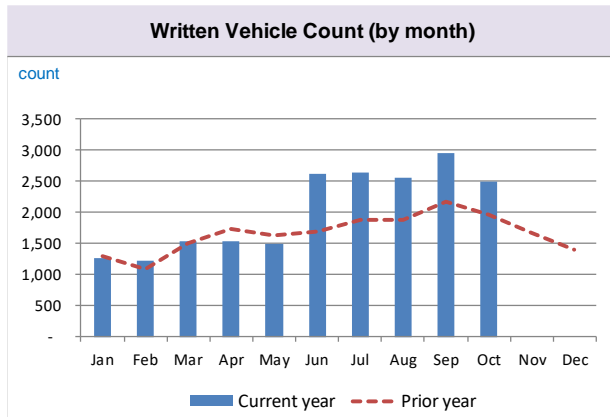
The chart on the left shows the overall change in the **month**, broken down by member company group changes (each blue or red bar represents the change for a single member company group), sorted by magnitude of change. Eight member company groups transferred fewer vehicles to the RSP this month compared with a year ago, while three transferred more. Of the 8 member company groups transferring fewer vehicles, 1 member company group accounted for 83% of the total transfer decrease for these “decliner” members. Of the 3 member company groups transferring more vehicles, 1 member company group accounted for 89% of the total transfer increase for these “grower” members.

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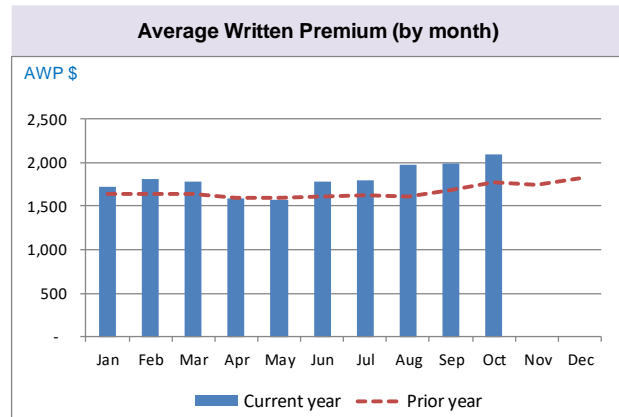


The chart on the left presents the same information as the previous chart, but on a **year-to-date** basis. That is, it shows the overall change in transfer counts year-to-date, broken down by member company group changes (each blue or red bar represents the change for a single member company group),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

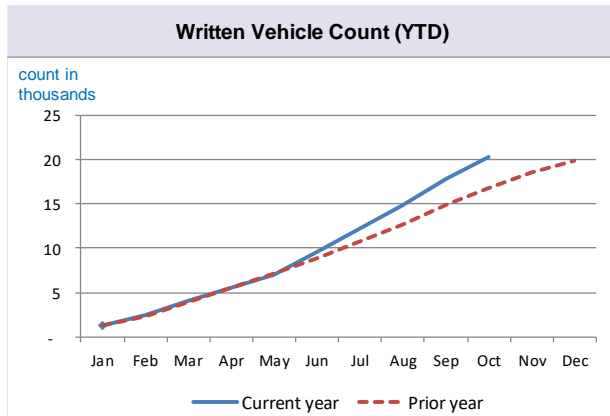
October’s vehicle count transfers to the RSP represent a 27.8% increase from October 2019, and counts were up 20.9% year-to-date. Average written premium was up 18.9% in October 2020, and up 12.2% year-to date (see the following charts).



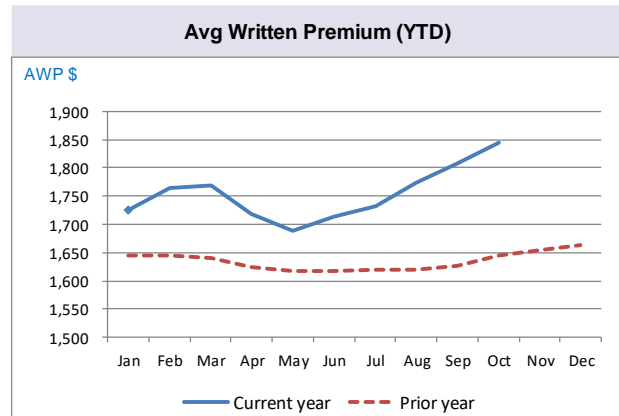
	Oct-20	Oct-19	Amt Chg	% Chg
W. Veh curr mth	2,495	1,953	543	27.8%



	Oct-20	Oct-19	Amt Chg	% Chg
AWP curr mth	2,101	1,767	334	18.9%

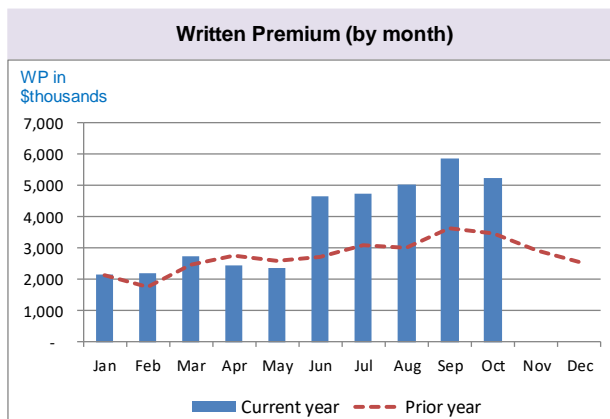


	Oct-20	Oct-19	Amt Chg	% Chg
W. Vehicles YTD	20,308	16,797	3,511	20.9%

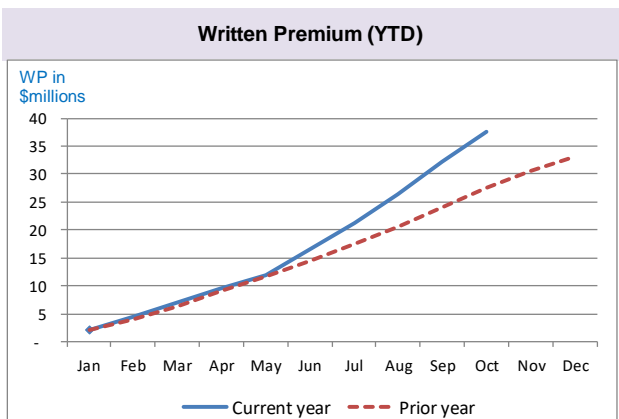


	Oct-20	Oct-19	Amt Chg	% Chg
Avg W. Prem YTD	1,845	1,644	201	12.2%

As a result of the movements in transfer vehicle counts and average written premium, the transferred premium was up 52.0% for the month compared with the 33.4% increase we projected last month, and was up 35.7% year-to-date (see the following charts).



	Oct-20	Oct-19	Amt Chg	% Chg
WP (\$000s) curr mth	5,244	3,451	1,793	52.0%



	Oct-20	Oct-19	Amt Chg	% Chg
WP (\$000s) YTD	37,467	27,608	9,860	35.7%

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Should you require any further information, please call Aidan Chen, AVP Data & Analytics at (416) 863-1750 x4804.

Saskia Matheson
President & CEO

Related links:

[Nova Scotia RSP October 2020 Operational Report – Actuarial Highlights](#)

*For additional details on Actual vs Projected variances, IBNR, and valuation (if applicable)

SUMMARY OF OPERATIONS - CALENDAR YEAR 2020

Risk Sharing Pool - Nova Scotia
 Operating Results for the 10 Months Ended October 31, 2020 (Discounted basis)
 Source: Monthly Operational Report
 (thousands of dollars)

EXHIBIT 1

	January	February	March	April	May	June	July	August	September	October	CY2020 YTD	CY2020 12 MONTHS Updated Projection	CY2019 12 MONTHS Actual
Underwriting Revenue:													
Net Premiums Written	\$2,168	\$2,212	\$2,731	\$2,443	\$2,367	\$4,647	\$4,755	\$5,036	\$5,864	\$5,244	\$37,467	\$44,589	\$33,046
Decrease (Increase) in Unearned Premiums	657	464	(4)	320	492	(1,887)	(1,652)	(1,775)	(2,511)	(1,684)	(7,580)	(7,368)	(2,781)
Net Premiums Earned	\$2,825	\$2,676	\$2,727	\$2,763	\$2,859	\$2,760	\$3,103	\$3,261	\$3,353	\$3,560	\$29,887	\$37,221	\$30,265
Claims Incurred:													
Prior Accident Years:													
Undiscounted	(\$17)	(\$11)	\$567	(\$24)	\$139	(\$32)	(\$13)	(\$3,673)	\$0	(\$2,079)	(\$5,143)	(\$5,143)	\$107
Effect of Discounting	92	(50)	(292)	(38)	1,154	(60)	(71)	(150)	(126)	(314)	145	(25)	249
Discounted	\$75	(\$61)	\$275	(\$62)	\$1,293	(\$92)	(\$84)	(\$3,823)	(\$126)	(\$2,393)	(\$4,998)	(\$5,168)	\$356
Current Accident Year:													
Undiscounted	\$2,802	\$2,651	\$3,195	\$2,873	\$2,465	\$2,783	\$3,103	\$449	\$2,934	\$3,224	\$26,479	\$32,910	\$29,858
Effect of Discounting	200	176	94	154	525	230	246	188	201	271	2,285	2,779	1,505
Discounted	\$3,002	\$2,827	\$3,289	\$3,027	\$2,990	\$3,013	\$3,349	\$637	\$3,135	\$3,495	\$28,764	\$35,689	\$31,363
Claims Incurred	\$3,077	\$2,766	\$3,564	\$2,965	\$4,283	\$2,921	\$3,265	(\$3,186)	\$3,009	\$1,102	\$23,766	\$30,521	\$31,719
Underwriting Expenses:													
Expense Allowance	\$689	\$701	\$867	\$775	\$751	\$1,474	\$1,508	\$1,597	\$1,859	\$1,663	\$11,884	\$14,141	\$10,247
Change in UPDR/DPAC:													
Undiscounted	3	11	792	14	(473)	167	192	(1,850)	219	331	(594)	199	279
Effect of Discounting	(42)	(33)	(20)	(21)	416	187	169	195	276	157	1,284	1,343	504
Discounted	(\$39)	(22)	772	(7)	(57)	354	361	(1,655)	495	488	690	1,542	783
Underwriting Expenses	\$650	\$679	\$1,639	\$768	\$694	\$1,828	\$1,869	(\$58)	\$2,354	\$2,151	\$12,574	\$15,683	\$11,030
Net Underwriting Gain (Loss)	(\$902)	(\$769)	(\$2,476)	(\$970)	(\$2,118)	(\$1,989)	(\$2,031)	\$6,505	(\$2,010)	\$307	(\$6,453)	(\$8,983)	(\$12,484)
Administrative Expenses	\$60	\$85	\$61	\$70	\$67	\$75	\$75	\$62	\$65	\$117	\$737	\$915	\$753
Operating Result	(\$962)	(\$854)	(\$2,537)	(\$1,040)	(\$2,185)	(\$2,064)	(\$2,106)	\$6,443	(\$2,075)	\$190	(\$7,190)	(\$9,898)	(\$13,237)
Ratios:													
Claims & Expenses Incurred (Earned)													
Prior Accident Years	2.7%	-2.3%	10.1%	-2.2%	45.2%	-3.3%	-2.7%	-117.2%	-3.8%	-67.2%	-16.7%	-13.9%	1.2%
Current Accident Year	106.3%	105.6%	120.6%	109.6%	104.6%	109.2%	107.9%	19.5%	93.5%	98.2%	96.2%	95.9%	103.6%
All Accident Years Combined	109.0%	103.3%	130.7%	107.4%	149.8%	105.9%	105.2%	-97.7%	89.7%	31.0%	79.5%	82.0%	104.8%
Underwriting & Administrative Expenses (Earned)	25.1%	28.6%	62.3%	30.3%	26.6%	68.9%	62.6%	0.1%	72.1%	63.7%	44.5%	44.6%	38.9%
Combined Operating Ratio	134.1%	131.9%	193.0%	137.7%	176.4%	174.8%	167.8%	-97.6%	161.8%	94.7%	124.0%	126.6%	143.7%

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