

Ratemaking

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Agenda

Ratemaking

1. Basic Rates & Breakeven Rate Indication
2. Public Major Class Rate Change
3. Motorcycle Major Class Rate Change
4. Passenger Vehicle-for-Hire Rates

Other related items

5. Alternate Rate Indication
6. Selected Trends by Coverage
7. Serious Loss Loading



Basic Rates

- The Basic ratemaking methodology is proven and stable over time
- Required rates are determined on a breakeven basis i.e. no profit provision, and based on Accepted Actuarial Practice
- Current rating methodology: Minimum Bias Procedure (MBP)
- Commitment to investigate Generalized Linear Model (GLM)



Basic Rates – Continued

2022/23 breakeven rate indication = -1.2%:

- Initial GRA filing in June = -2.8%
- Increase of 1.6% (-1.2% less -2.8%) – increase in expenses and lower new money yield

To achieve the -1.2%:

- Changes to the vehicle premium discounts = -2.6% premium decrease:
 - Discounts increasing for DSR levels +10 to +15 ranging from a 1% to 4% increase
- Changes to rates = 1.5% premium increase



Breakeven Rate Indication

Components	2021 Undiscounted AAP Rates, \$	2022 Undiscounted AAP Rates, \$	\$ Change/ Impact on AAP Rates	% Change	\$ Change as % of 2021 AAP Required Rate
Claims	751.21	748.05	(3.16)	-0.4%	-0.3%
Claims Expense	131.79	135.92	4.14	3.1%	0.5%
Road Safety/Loss Prevention	11.37	10.12	(1.26)	-11.1%	-0.1%
Operating Expense	61.95	69.17	7.22	11.7%	0.8%
Regulatory Appeal	4.32	3.64	(0.67)	-15.6%	-0.1%
Commission	39.89	43.96	4.07	10.2%	0.4%
Premium Tax	31.01	31.42	0.41	1.3%	0.0%
Reinsurance	11.69	13.06	1.37	11.8%	0.1%
Fleet Rebates	14.77	14.93	0.16	1.1%	0.0%
Anti-Theft Discount	1.33	1.08	(0.26)	-19.3%	0.0%
Driver Premium	(56.73)	(51.73)	5.01	-8.8%	0.5%
Service Fees	(25.70)	(23.91)	1.79	-7.0%	0.2%
Total Undiscounted	976.91	995.72	18.81	1.9%	2.0%
Impact of Discounting	(59.34)	(70.58)	(11.25)	19.0%	-1.2%
Required Rate	917.58	925.14	7.56	0.8%	0.8%
Natural Upgrade (Difference in forecasted upgrade plus upgrade for one additional year)					-2.0%
AAP/Breakeven Required Rate Change					-1.2%



Breakeven Rate Indication – Contributing Factors

2022/23 Basic Rate Indication

Required Rate*	0.8%
Vehicle Upgrade	-2.0%
AAP/Breakeven Required Rate Change	-1.2%

*Contributing factors to the required rate increase of 0.8% from 2021 GRA:

- Claims Costs (incl. Claims Exp.) = +0.1%
- Increase in New Money Yield = -1.2%
- Increase in Operating Expense (initiative expenses) = +0.8%
- Increase in Commission (higher commission rate) = +0.4%
- Decrease in Driver Premium (greater movement up the DSR scale) = +0.5%
- All Other Expenses = +0.2%



1.2% Overall Required Rate Decrease

- Table shows required rate changes by major class based on snapshot population of vehicles as of November 1, 2020
- Includes changes to the vehicle premium discounts for DSR levels +10 to +15

Major Class	Current Average Rate	Indicated Average Rate	Indicated Rate Change
Private Passenger	\$1,161	\$1,149	-1.0%
Commercial	\$865	\$872	0.9%
Public	\$2,139	\$2,243	4.8%
Motorcycles	\$903	\$907	0.5%
Trailers	\$73	\$67	-8.9%
Off-Road Vehicles	\$7	\$7	0.0%
Overall	\$885	\$877	-0.9%
DSR Scale Movement			-0.3%
Overall including DSR Scale Movement			-1.2%



1.2% Overall Required Rate Decrease – Continued

- 0.9% overall rate reduction is based on a snapshot population of vehicles as of November 1, 2020
- A further 0.3% overall rate reduction is expected by rating year 2022/23 from changes to the distribution of vehicles by DSR level:
 - COVID-19 pandemic led to significantly lower collision frequency in 2020/21
 - As a result, there will be significant movement up the DSR scale in 2021/22, which will carry into 2022/23. More customers will receive higher discounts.
- The total impact of both the -0.9% and -0.3% is the 2022/23 breakeven overall required rate decrease of -1.2%



Rate Change – Public Major Class

Public major class rate increase of 4.8%

- 4.4% increase in average costs:
 - 2.9% - higher claims costs (incl. claims expense)
 - 1.1% - higher expenses primarily operating expenses and commissions
 - 0.4% - lower premium offsets i.e. driver premiums and service fees
- Low upgrade factor:
 - Forecasted 0.4% upgrade (compared to 2.55% for the Private Passenger major class)
- 2021 required rate change:
 - Required rate change of 0.8% compared to full credibility required rate change of 2.8%



Rate Change - Motorcycle Major Class

Rate change disproportionately affected by changes in the new money yield (NMY):

- Significant proportion of loss costs are for long-tail PIPP benefits
- Favourable impact for 2022 given the increase in NMY from 1.94% to 2.34%

	Private Passenger Motorcycles	
PIPP % of total claims costs	30.6%	92.3%
Required rate change* @ 2022 NMY of 2.34%	-1.3%	0.2%
Required rate change* @ 2021 NMY of 1.94%%	-0.2%	2.7%
Variance from the change in NMY	-1.0%	-2.5%

*Per Figure RM-13

Main driver of minor required rate increase (0.2%) is low upgrade factor:

- Negative upgrade for three most recent years
- Forecast assumes 0.15% upgrade



Passenger VFH Rates

Order 1/21, directive 10.3 – “There shall be consecutive rate increases of 20% for the Passenger VFH Major Class in the 2022/23 and 2023/24 GRAs, unless MPI can demonstrate that the Passenger VFH Major Class is no longer being subsidized.”

- For the 2022/23 GRA, MPI applied the full 100% credibility to the raw relativity for the Passenger VFH (Passenger Vehicle) insurance use:
 - Fully recognize the actual loss experience for the insurance use (relative to the Private Passenger major class)
- Thereafter, MPI applied the same experience adjustment rules as applicable to all insurance uses:
 - Experience adjustments for Passenger VFH (Passenger Vehicle) between 13% to 15% (maximum) depending on territory



Alternate Rate Indication

Order 1/21, directive 10.6 – MPI “*shall provide a rate indication by Major Use Class including the use of interest rates at points on the yield curve corresponding to the duration of liabilities.*”

- Current methodology for determining investment return for ratemaking:
 - Single investment return of 2.34% to discount all cash flows
 - Point on the yield curve corresponding to the duration of unpaid claim liabilities as of October 1, 2022 i.e. the midpoint of rating year 2022/23
 - Investment return used does not correspond to the duration of the cash flows for rating year 2022/23:
 - Rationale – all revenue received gets invested in the same Basic investment portfolio



Alternate Rate Indication – Continued

Alternate methodology per Order 1/21, directive 10.5:

- Multiple investment returns based on the duration of the cash flows for the cost components that make up the required rate
- Claims costs – durations and investment returns determined for each coverage
- Duration of the cash flows is for rating year 2022/23

Coverage	Duration (years)	Investment Return
Income Replacement Indemnity		
Normal	7.92	2.01%
Enhancement	11.42	2.58%
Accident Benefits - Other (Indexed)		
Normal	5.94	1.64%
Enhancement	9.94	2.40%
Accident Benefits - Other (Non-Indexed)		
Normal	2.22	0.88%
Enhancement	3.31	0.97%
Bodily Injury	3.70	1.08%
Property Damage	0.96	0.88%
Collision	0.71	0.88%
Comprehensive	0.76	0.88%



Alternate Rate Indication – Continued

- Table compares the rate indications using the current methodology vs. the alternate methodology applied to the initial GRA filing.
- The overall required rate change increases by 2.1% due to the significantly shorter duration of cash flows for rating year 2022/23 when compared to the unpaid claim liabilities. This results in a lower investment return.

Coverage	Overall	Private Pass	Comm	Public	Motor-Cycle	Trailer	ORV
2022 General Rate Application - Per Part VI, Ratemaking							
Credibility Weighted Required Rate	934.20	1,236.44	907.36	2,243.85	917.44	71.98	6.50
Credibility Weighted Required Rate Change	-0.2%	-0.2%	-0.7%	3.6%	1.1%	-6.5%	-7.4%
Change: Investment Return Matching the Duration of Liabilities for Rating Year 2022/23							
Credibility Weighted Required Rate	954.13	1,262.44	929.38	2,294.18	953.53	72.83	6.80
Impact of Change	19.94	26.00	22.02	50.33	36.09	0.85	0.30
Credibility Weighted Required Rate Change	1.9%	1.9%	1.7%	6.0%	5.1%	-5.4%	-3.1%
Impact of Change	2.1%	2.1%	2.4%	2.3%	4.0%	1.1%	4.3%



Selected Trends by Coverage

- Selected trends by coverage based on expert evidence provided by CAC
- No impact on overall indication – claims costs based on robust claims forecasting process
- Table shows impact on major classification rate indications

Coverage	Overall	Private Pass	Comm	Public	Motor-Cycle	Trailer	ORV
2022 General Rate Application - Per Rate Update, Figure RM-14							
Credibility Weighted Required Rate	949.75	1,257.65	923.27	2,280.70	938.08	70.25	6.54
Credibility Weighted Required Rate Change	1.5%	1.5%	1.0%	5.3%	3.4%	-8.8%	-6.8%
Change: Selected Trend							
Credibility Weighted Required Rate	949.75	1,258.14	904.60	2,304.98	948.63	70.18	6.55
Impact of Change	0.00	0.49	-18.68	24.28	10.55	-0.08	0.01
Credibility Weighted Required Rate Change	1.5%	1.6%	-1.0%	6.5%	4.5%	-8.9%	-6.7%
Impact of Change	0.0%	0.0%	-2.0%	1.1%	1.2%	-0.1%	0.1%



Serious Loss Loading

Serious Losses

- Incidents whereby total Accident Benefits (PIPP) claims costs > \$500,000
- Less than 100 incidents a year, representing less than 1% of total PIPP incidents
- Significant year-over-year variability with regards to frequency and severity

At the Insurance Use Level

- Many insurance uses have no Serious Losses in the last 10 years
- For vehicle-for-hire (VFH) insurance uses, this includes Accessible VFH and Limousine VFH
- Passenger VFH have no Serious Losses since introduced in 2018



Serious Loss Loading

- Determination of a Serious Loss loading for insurance uses with no Serious Losses would be very subjective
- For Passenger VFH, many suggested options for per unit load including:

Load	Reflects...	Assumption
\$428	Average for Taxicab VFH	Similar operations to Taxicab VFH.
\$258	Average for all VFH insurance uses	Similar operations for all VFH. Accessible and Limousine VFH have no Serious Losses in most recent 10 years.
\$157	Average for Public major class	Similar operations to insurance uses in the Public major class, which includes Taxicab, Accessible and Limousine VFH.



Serious Loss Loading

Passenger VFH does not require a Serious Loss loading:

- Load would be very subjective, assumes similar operations to another group, and is not reflective of the actual Passenger VFH experience
- 2022/23 GRA – Full 100% credibility applied to the raw relativity for Passenger VFH i.e. fully recognizing the actual loss experience:
 - Resulted in experience adjustments between 13% to 15% (maximum)
 - Same methodology can be applied to 2023/24 GRA if applicable
- The random occurrence of Serious Losses is accounted for in ratemaking:
 - Use of longer term averages and credibility so that rates do not fluctuate from the occurrence/non-occurrence, especially for smaller groups like Passenger VFH



Summary

- 2022/23 breakeven rate indication of -1.2%:
 - Changes to the vehicle premium discounts = -2.6% premium decrease
 - Changes to rates = 1.5% premium increase
- MPI commits to reviewing the use of Generalized Linear Models

