

October 20, 2023

Undertaking #008

For MPI to provide, if instead of two (2) separate models, a second time parameter was incorporated in the model to trend from 2020 onwards, what the estimated impact of that change in the trend would have on the overall rate indication.

RESPONSE:

MPI fit an alternative severity trend model for Property Damage (Loss of Use) coverage severity. This is a single model with a "Time 1" (2009 through 2020) set as a categorical variable of 0 and "Time 2" (2020 through 2022) set as an increasing categorical variable.

The figure below displays the selected severity trend used for 2024 GRA submission and the indicated severity trend based on the alternative model.

Figure 1 Comparison of 2024 GRA Selected Severity Trend to Severity based on Alternative Severity Trend Model

Line No.	Accident Insurance Year	2024 GRA Selected Severity Trend	Alternative Severity Trend
1	2009-2020	-0.72%	-0.67%
2	2021-2022	24.86%	18.61%

Assuming the above past severity trends under alternative severity trend model for Property Damage (Loss of Use) coverage with no other changes, the indicated rate change is reduced from -1.48% to -1.55%, i.e. a -0.07% change to the rate indication.