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Reserve Adequacy and Volatility Estimator Model (RAVE)

Model Summary Document (MSD)

1. Model Purpose and Description

RAVE Serves Three Purposes:

1. A point estimate of the estimated redundancy (or deficiency) of the reported statutory reserves for all lines combined and each material line of business (“squaring the triangle”). This redundancy (deficiency) is used by rating analysts as part of the overall Insurance Rating Criteria and serves as the best estimate of reserves within the Prism U.S. Non-Life Capital Model.

2. A volatility measure that can be used to produce a distribution of ultimate incurred losses by using actuarial methods, known as the Mack Method and the Bootstrapping Method. These volatility measures are input into the Prism U.S. Non-Life Capital Model as part of the stochastic process within that model.

3. Estimates future claim payout patterns based on the historical loss experience. These projected payouts are an input into the Prism U.S. Non-Life Capital Model, which is a cash flow model.

The structure is an Excel spreadsheet that reviews the loss development factors for various business lines of insurance using information reported in Schedule P of an insurer's regulatory financial statements. The analyst selects certain loss development factors using their professional judgement which "squares the triangle" and establishes Fitch's view of reserves. This is compared to the company's reported reserves to determine sufficiency (or deficiency). So-called "squaring the triangle" forms of reserve analysis are very common in the actuarial community.

2. Model Assumptions

The assumptions in the model are described in the Model Definition Document in Fitch’s criteria

- Insurance Rating Criteria

3. Model Inputs

All statutory data utilized in RAVE is electronically sourced from a third-party data provider, S&P Cap IQ. It comprises over 37,000 pieces of data. Statutory financial statements provide for an insurer’s business in aggregate and for 16 individual product lines.

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4. Model Development Data

Not applicable to this rating model as it does not use historical data for its development and calibration, and it only uses issuer specific data and other related data as described in the RAC or the respective Model Definition Document.

5. Model Limitations

The model is intended only to analyse U.S. non-life insurance issuers within the scope of Fitch's "Insurance Rating Criteria".

6. Material Changes

The current model version is 1.4.x. Any future material changes will be disclosed in this section.

Contact Information

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