

DRAFT

HOMEOWNERS RATE REVIEW OUTLINE

Insurance Departments Charge Regarding Rates

Alabama statute requires filed rates to not be excessive (that is, they must be actuarially justified), inadequate (to the point that insufficient premium could lead to a company's insolvency), or unfairly discriminatory (ensuring that rates are not excessive for any individual territory, policy type, coverage, etc.). The Department therefore reviews all Homeowners rate filings to ensure compliance.

General Outline of Procedure

When an insurance company makes a filing to revise their Homeowners rates, they are required to provide 5 years of premium and loss data on a statewide basis to develop their statewide rate change indication. The premiums and losses from those 5 years need to be adjusted so as to be representative of the premiums and losses that would be generated in the upcoming 12 months after the rate change effective date. The company's projected overhead expenses for the coming year are added to the projected losses, the sum of which is compared to the projected premiums to see if the projected premiums are sufficient or deficient to allow the insurance company to make a 6% profit.

Premium Adjustments

The premiums collected by the company over the past 5 years need to be adjusted so as to be a good proxy for the expected premiums for the upcoming year. There are two adjustments required.

- 1) Adjust premiums to current rate level. The company has most likely taken some rate increases or decreases over the past 5 years, and these changes must be taken into consideration. To test the current rate structure, all of the policies written in the last 5 years must have their premiums recomputed using the rates the company is currently charging. Some companies have sophisticated computer systems that can rerate all policies from the last 5 years at today's rates so as to accomplish this adjustment, and this is the most accurate way to accomplish this. Most companies, however, do not have this capability, so a standard, approved mathematical formula is used to make this adjustment. These calculations must be provided to the Department for verification.
- 2) Adjust premiums for premium trend. Over the years a company's policy profile will undergo coverage changes such as change in the average amount of insurance, deductible mix, territorial mix, construction mix, protection class mix, and other endorsement changes. Past years' premiums must be adjusted to reflect this change from the past and into next year. These calculations must be provided to the Department for verification.

Applying these two adjustments to the actual collected premium yields trended earned premiums at current rates that can be used to calculate a loss ratio (which is the projected losses divided by projected premiums) for each year.

Loss Adjustments

Losses will typically be separated into three categories: non-wind losses (such as fire, theft, water, liability), non-catastrophe wind losses (wind losses not attributed to a hurricane or tornado), and catastrophe losses.

Catastrophe losses: Most companies now have access to hurricane/tornado computer models and must provide the model's "average annual loss (AAL)" for their company by territory in Alabama. Many companies will run two different models (from two different model vendors) and take an average of the two models' results, or just use the output from one model. Models provide both a long-term result and a near-term result (the latter is currently always higher, as it reflects anticipated greater frequency and severity of storms due to the warmer Atlantic water temperatures). The Department does not currently permit the use of the near-term versions of the models for ratemaking purposes. The Department always asks the company what model they used, verifies which version they used, and verifies what adjustments were made to the model. The Department generally only permits two adjustments to the models: (1) demand surge (reflecting the anticipated increased cost of building materials and labor after a hurricane due to supply shortage), and (2) loss adjustment expense (covers the cost of the claims adjusters handling the claims).

On the rare occasion that a company doesn't have access to a model, they usually refer to an Insurance Services Office (ISO) filing and use ISO's hurricane load for Alabama by territory.

Non-catastrophe wind losses: Companies will typically calculate the ratio of their non-catastrophe wind losses to non-wind losses for each of the last 20 years and determine an average ratio over the 20-year period, then apply this ratio to their trended ultimate non-wind losses in order to incorporate a non-catastrophe wind load. Some companies may have this ratio generated by a model. The calculation of this load must be provided to the Department in the company's rate filing for verification.

Non-wind losses: These losses must be provided for each of the 5 data years being used in the filing. Two adjustments must be made to these losses: (1) trend (i.e. the impact of inflation), and (2) loss development factors to project reported losses to their ultimate, settled level.

- 1) Trend: The trend factor is intended to bring a past year's losses up to the inflationary level the company will experience in the coming year. The calculation of the annual trend factor begins with the average pure premium for a company, which is the total incurred losses (paid losses plus reserves) from all claims for a data year divided by the earned policy counts

in that data year. The pure premium may also be calculated as the average claim frequency for the year (claim counts divided by earned policy counts) times the average claim severity for the year (total incurred losses divided by the claims count). Companies will either develop an annual trend factor for the average pure premium per policy, or they will calculate the trend separately for frequency and severity and then multiply those two trends together. Either method is appropriate.

To calculate these trends, the company will display their company's frequency, severity, or pure premium for Alabama by quarterly periods for approximately 20 quarters, then fit a statistical curve to the data to calculate the average annual percentage change in the frequency, severity, or pure premium. If the company does not write much business in Alabama (suggesting that their data is not statistically credible), they will need to supplement their own Alabama data with industry Alabama data to develop the annual trend factor. This data and the calculation of the annual trend factor must be provided to the Department for verification.

The annual trend factor for Homeowners is usually in the 5% range, not much higher than the annual change in CPI. This annual trend factor is now applied to each of the 5 data years' losses. For the oldest year, the losses are increased by the annual trend factor 6 times in order to account for the inflation for the six years from that data year to the year after these new rates go into effect. The second oldest year's losses are increased by the annual trend factor 5 times, and so on for the remaining three years of losses.

- 2) Loss development factors to generate ultimate losses: Reported incurred losses for each of the 5 data years are immature, in that some claims are still not settled and their reserves that are included in incurred losses are often understated. Loss development factors are calculated to project these immature incurred losses to an ultimate settled level, and the calculation of these development factors must be provided to the Department for verification.

Data Year Loss Ratio

For each data year, the company takes the incurred losses that have been multiplied by that year's loss trend factor and loss development factor, and divides it by the earned premium that have been multiplied by the rate level factor and the premium trend factor, which yields the trended ultimate loss ratio for each data year. The company then takes a weighted average of these 5 loss ratios using weights of 10%, 15%, 20%, 25%, and 30%, giving the more recent years the greater weight since they should be more representative of what the company can expect to happen next year. This yields the trended ultimate weighted average non-wind loss ratio.

If the company computed a non-catastrophe wind factor (discussed above), then this ultimate non-wind loss ratio needs to be multiplied by that factor to arrive at the non-catastrophe ultimate loss

ratio. If the company computed a non-catastrophe wind loss ratio, then that loss ratio needs to be added to the non-wind loss ratio. The Department verifies all of these calculations.

Credibility: The company now needs to determine how credible this non-catastrophe ultimate loss ratio is. Different companies use different standards based on statistical assumptions, but the more common standard is 40,000 policy counts. They add up the number of policies they wrote over the 5 year experience period, divide that total by 40,000 house years, then take the square root of that result to arrive at the credibility ratio. The Department verifies this calculation. To the degree that the non-catastrophe ultimate loss ratio has a credibility factor less than 100%, then that loss ratio needs to be averaged with the trended permissible loss ratio.

Trended Permissible Loss Ratio: To develop the Permissible Loss Ratio, the company first develops its expense ratio, which is the sum of their Commission ratio, General Expense ratio, Other Acquisition ratio, Taxes/Licenses/Fees ratio, and their Profit margin. The company provides an exhibit displaying their actual ratio for each of these component ratios for the last 3 years, and computes the 3-year average of each component ratio. (Commissions can range from 0% to 25% depending on whether they sell through agents or directly on the internet, General Expenses (Overhead) are usually 8-15%, Other Acquisition (Marketing) Expenses are usually 8-15%, Taxes are usually 4-5%, and Profit cannot exceed 6%.) They will then select a ratio for each component and add these to get their Permissible Loss Ratio. Multiplying this Permissible by the annual loss trend factor (discussed above) and dividing it by the annual premium trend factor (discussed above) yields the trended permissible loss ratio. The Department reviews and verifies these calculations.

Credibility-Weighted Non-Catastrophe Loss Ratio: This ratio is derived by multiplying the non-catastrophe ultimate loss ratio by the company's credibility factor, then adding to it the product of the trended permissible loss ratio and the complement of credibility (100% minus the credibility factor). The Department verifies this calculation.

Loss Adjustment Expense: At this point, assuming loss adjustment expenses were not already included with the original incurred losses, the credibility-weighted non-catastrophe loss ratio needs to be multiplied by the loss adjustment expense factor. The company provides an exhibit showing the calculation of this factor by comparing loss adjustment expenses to losses for the last 3 years or more, and computing an average factor.

To this result is now added the company's catastrophe loss ratio (discussed above).

Reinsurance Load: Companies must add in a reinsurance load to reflect their net cost of reinsurance. The reinsurance load is computed by subtracting from the company's reinsurance cost (as a percent of premium) what the catastrophe model says the company can expect to recover from their reinsurers if a catastrophe occurs. The company must provide this calculation to the Department for verification. Generally the Department only allows a company to include their reinsurance cost for reinsurance purchased from a non-affiliated reinsurer.

This now yields the final adjusted loss ratio.

Indicated Rate Change: The indicated rate change is determined by dividing this final adjusted loss ratio by the Permissible Loss Ratio (discussed above), multiplying that result by 100, then subtracting 100%.

Territorial Changes

Most companies are not going to change the rates in all territories by the statewide rate indication, but will want to vary the change by territory. To justify the territorial rate changes they must follow these steps:

- 1) Provide 5 years of earned premiums at current rate level for each territory separately, and for statewide.
- 2) Provide 5 years of incurred losses (separately for non-wind, non-catastrophe wind, and the model losses for catastrophe) by territory and statewide.
- 3) Calculate each territory's 5-year loss ratio by dividing the total losses in (2) by the premiums in (1). Also calculate the statewide loss ratio in the same manner.
- 4) Calculate each territory's loss ratio relativity by dividing each territory's loss ratio in (3) by the statewide loss ratio calculated in (3).
- 5) Multiply each territory's relativity in (4) by the statewide rate level indication derived above to yield the indicated territory rate change. The Department does not permit companies to raise any territory's rates by more than the territory's indication. In order to be more competitive, however, a company may choose not to raise the rates in a territory by the full indication.

In this way, each territory's rates are developed based on the relative difference in their losses and premiums compared to all the other territories across the state. The Department verifies all of the data calculations in the 5 steps above.