

PREMIUM STABILIZATION

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Discussion points

Rate-making



Premium stabilization

What it is

When it's used

Three arguments
for and against



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The goal of ratemaking is to balance the fundamental insurance equation.

$$\begin{array}{l}
 \text{Premium} = \text{Losses} \\
 \quad + \text{loss adjustment expenses} \\
 \quad + \text{underwriting expenses} \\
 \quad + \text{underwriting profit}
 \end{array}
 \left. \vphantom{\begin{array}{l} \text{Premium} = \text{Losses} \\ \quad + \text{loss adjustment expenses} \\ \quad + \text{underwriting expenses} \\ \quad + \text{underwriting profit} \end{array}} \right\} \begin{array}{l} \text{Estimated} \\ \text{using} \\ \text{traditional} \\ \text{actuarial} \\ \text{techniques} \end{array}$$

Basic Ratemaking, Werner and Modlin, 2010, Chapter 1



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The ratemaking actuary can seek guidance in multiple places.

Laws, regulations, and bulletins

-RSMO Section 379.318.1 (*Rates, how made*)
 -20 CSR 500-4 (*Property and Casualty Rating Laws*)

Actuarial standards of practice

-12: *Risk Classification*
 -25: *Credibility Procedures*
 -29: *Expense Provisions in Property/Casualty Insurance Ratemaking*

Statements of principles

Statement of Principles Regarding Property and Casualty Insurance Ratemaking (Casualty Actuarial Society Board of Directors, May 1988)

Textbooks and papers

-*Foundations of Casualty Actuarial Science*
 -*Basic Ratemaking* (Werner & Modlin)
 -*The Underwriting Profit Provision* (Robbin)
 -*Pricing Workers' Compensation Large Deductible and Excess Insurance* (Teng)



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The output of the actuary's analysis is usually rates.

A rate is "an estimate of all future costs per exposure unit associated with an individual risk transfer."¹

$$\text{Rate} \times \text{exposure}^* = \text{premium}$$

*Value of dwelling, payroll, car-years

¹ Second exposure draft of proposed Actuarial Standard of Practice: *Property/Casualty Ratemaking*, Actuarial Standards Board, Dec. 2015



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Other considerations often influence the final price.

Basic Ratemaking, Werner and Modlin, 2010, Chapter 9: "Of course, other considerations (e.g., marketing, operational, and regulatory) may cause management to implement a rating algorithm other than what is indicated by the actuary's analysis... Two reasons that a company may implement something other than the indicated rates are **regulatory constraints** and **operational constraints**. In addition, **marketing considerations such as competitive position, customer demand, and underwriting cycle** may lead the company to deviate from indicated rates."



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Other considerations often influence the final price.

Statement of Principles Regarding Property and Casualty Insurance Ratemaking, CAS, May 1988, I. Definitions:

*“Ratemaking is the process of establishing rates used in insurance or other risk transfer mechanisms. This process involves a number of considerations including **marketing goals, competition and legal restrictions** to the extent they affect the estimation of future costs associated with the transfer of risk. This Statement is limited to principles applicable to the estimation of these costs. Such costs include claims, claim settlement expenses, operational and administrative expenses, and the cost of capital.”*



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Other considerations often influence the final price.

Second exposure draft of proposed Actuarial Standard of Practice: Property/Casualty Ratemaking, Actuarial Standards Board, Dec. 2015, Section 1.2:

*“This standard is limited to the estimation of future costs. While the actuary may play a key role in the company’s decisions in determining the price charged after taking into account other considerations, such as **marketing goals, competition, and legal restrictions**, this standard does not address the other considerations.”*



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WHAT IS PREMIUM STABILIZATION?

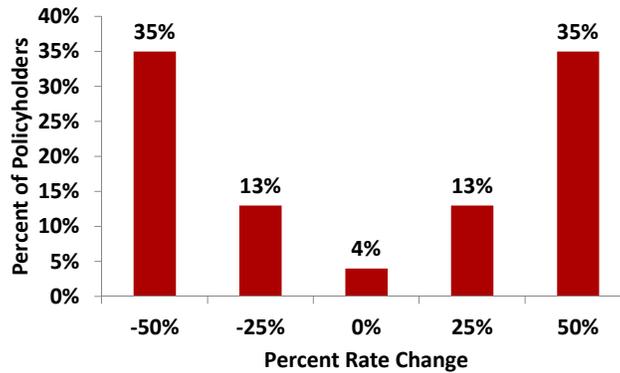
Premium stabilization procedures influence the final price.

Most agree that:

1. Premium stabilization involves moderating premium changes on a segment-by-segment or block-by-block basis, and
2. The premium reaches the uncapped level in a finite period of time.

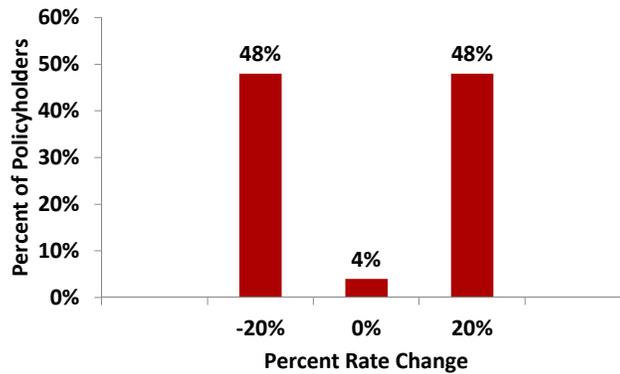
Premium stabilization procedures moderate premium changes.

With no premium stabilization: year 1

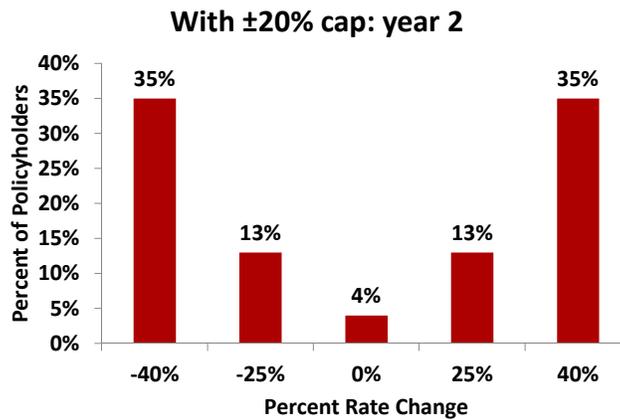


Premium stabilization procedures moderate premium changes.

With $\pm 20\%$ cap: year 1

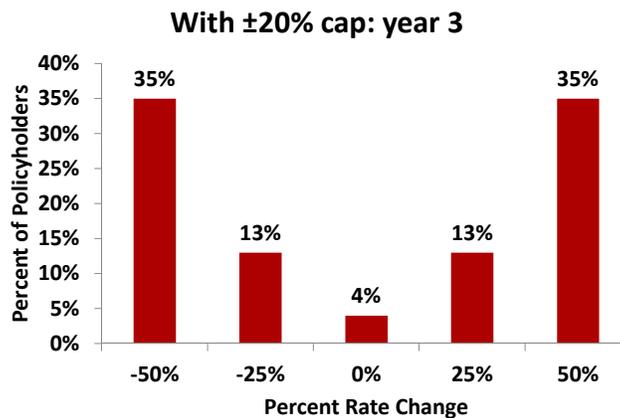


Premium stabilization procedures moderate premium changes.



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Premium stabilization procedures moderate premium changes.



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WHEN IS PREMIUM STABILIZATION USED?

Premium stabilization moderates large price changes for renewal policies.

Large changes can occur when there are:

- Changes in the base rates or rating factors
- New rating factors
- New rating plans, formulas, or models
- Changes in policy language, added to comply with regulations, that affect coverage
- Normal changes in the risk classification of the exposure (e.g., via the aging of a homeowner's roof)

Premium modification in these situations is often called "rate capping" or "premium capping."

Premium stabilization moderates large price changes in transitions.

Transitions occur when policyholders move from the rating methodology, products, and base rates of one company to another. These types of transitions can happen when:

- An agent with ownership rights to a book of business moves the book from one insurer to another
- The insurer acquires a block of business
- Business from a legacy company is rolled into a newer company
- One insurer acquires another
- The insurer purchases the renewal rights of a book of business
- Two insurers with different rating plans merge

In these situations, the premium stabilization procedures are often called "transition rules."

THREE ARGUMENTS FOR AND AGAINST

Argument #1

Argument: Premium stabilization may result in rates that are excessive or inadequate, which violates RSMO Section 379.318.1.

Counterarguments:

1. Premiums converge to the uncapped premium within a finite number of policy periods.
2. Gradual transitions may better reflect the uncertain nature of actuarial estimates.

Response: Premium stabilization is not the appropriate way to address uncertainty in the estimates.

Argument #2

Argument: Premium stabilization may result in rates that are unfairly discriminatory, in violation of RSMO Section 379.318.1, since policyholders with similar risk profiles could be charged different prices.

Counterargument: Premium stabilization is not unfairly discriminatory as long as the rules are applied consistently and uniformly.

Argument #3

Argument: Premium stabilization steadies the insurance marketplace.

1. Policyholders benefit from smoothed premium changes.
2. Insurers benefit from reduced market disruption. Such disruption increases the amount insurers spend on policy acquisition costs, which in turn raises the cost of insurance for consumers.

Argument #3

Counterarguments:

1. Prevention of policyholder disruption should not be a central objective in a competitive insurance market. If policyholders are dissatisfied with large (uncapped) premium changes, they should be encouraged to seek quotes from other insurers.

Response: Policyholders are always free to compare prices, but switching insurers may lead to a loss in customer longevity discount.

2. Premium stabilization masks the true final premium, so policyholders aren't triggered to shop around.



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APPENDIX



RSMO Section 379.318.1: Rates, how made

(4) Rates shall not be excessive, inadequate or unfairly discriminatory.

No rate shall be held to be excessive unless such rate is unreasonably high for the insurance coverage provided and a reasonable degree of competition does not exist in the area with respect to the classification to which such rate is applicable.

No rate shall be held to be inadequate unless such rate is unreasonably low for the insurance coverage provided and is insufficient to sustain projected losses and expenses; or unless such rate is unreasonably low for the insurance coverage provided and the use of such rate has, or if continued, will have, the effect of destroying competition or creating a monopoly.

Unfair discrimination shall be defined to include, but shall not be limited to, the use of rates which unfairly discriminate between risks in the application of like charges or credits or the use of rates which unfairly discriminate between risks having essentially the same hazard and having substantially the same degree of protection against fire and allied lines.