AllProvince Homeowners' Insurance Plan

Team 13

Lawrence Chen, Brandon Cheng, Serene Supakkul, Kevin Zhu

Background

- AllProvince's homeowners' insurance line needs a 10% premium increase
- Management's expected credit score distribution was not realized

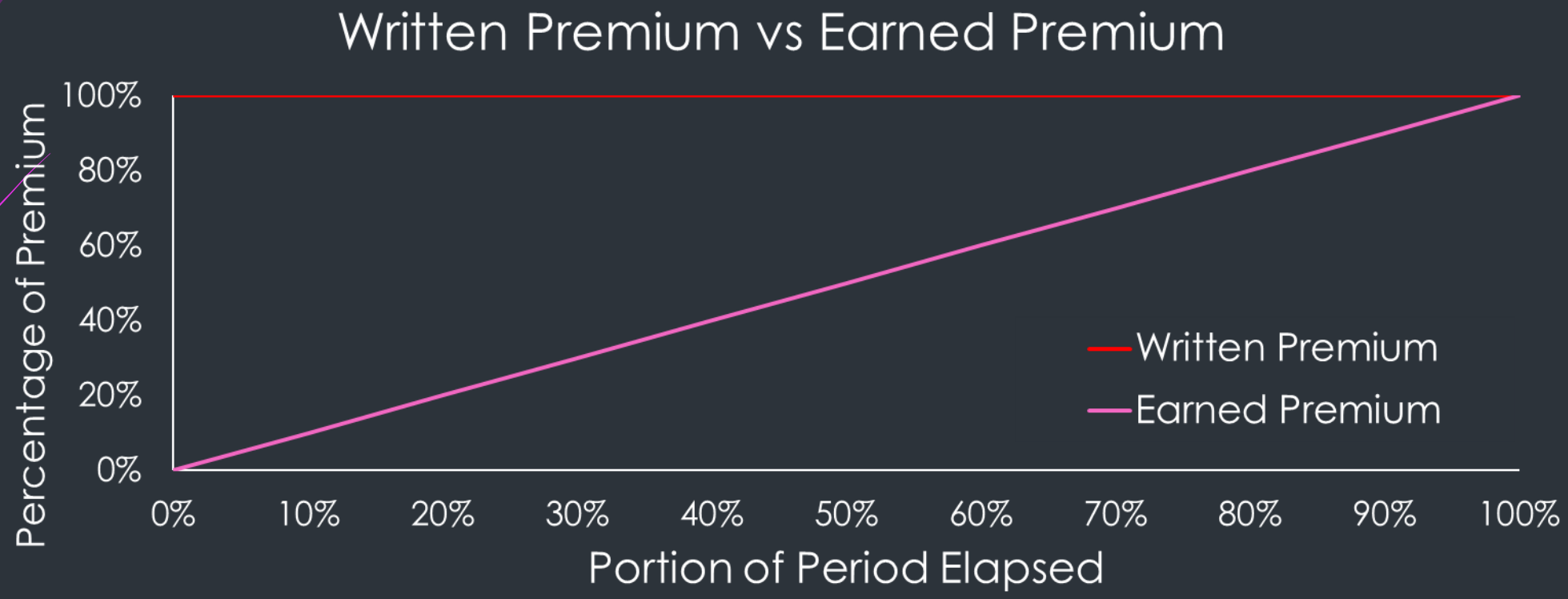
Our Goal

- Reevaluate pricing factors and base rate
- Address credit score concerns
- Minimize policy-level premium dislocation

Agenda

- Rate Analysis
- Proposed Rates
- Business Concerns
- Other Considerations

Premiums


Written Premium vs Earned Premium
Percentage of Premium
100%
80%
60%
40%
20%
0%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Portion of Period Elapsed
Written Premium
Earned Premium

Loss Ratios

$$\text{Paid Claims Loss Ratio} = \frac{\text{Paid Losses}}{\text{Earned Premiums}}$$

$$\text{Incurred Loss Ratio} = \frac{\text{Paid Losses} + \text{Case Reserve}}{\text{Earned Premiums}}$$

Individual's Premium

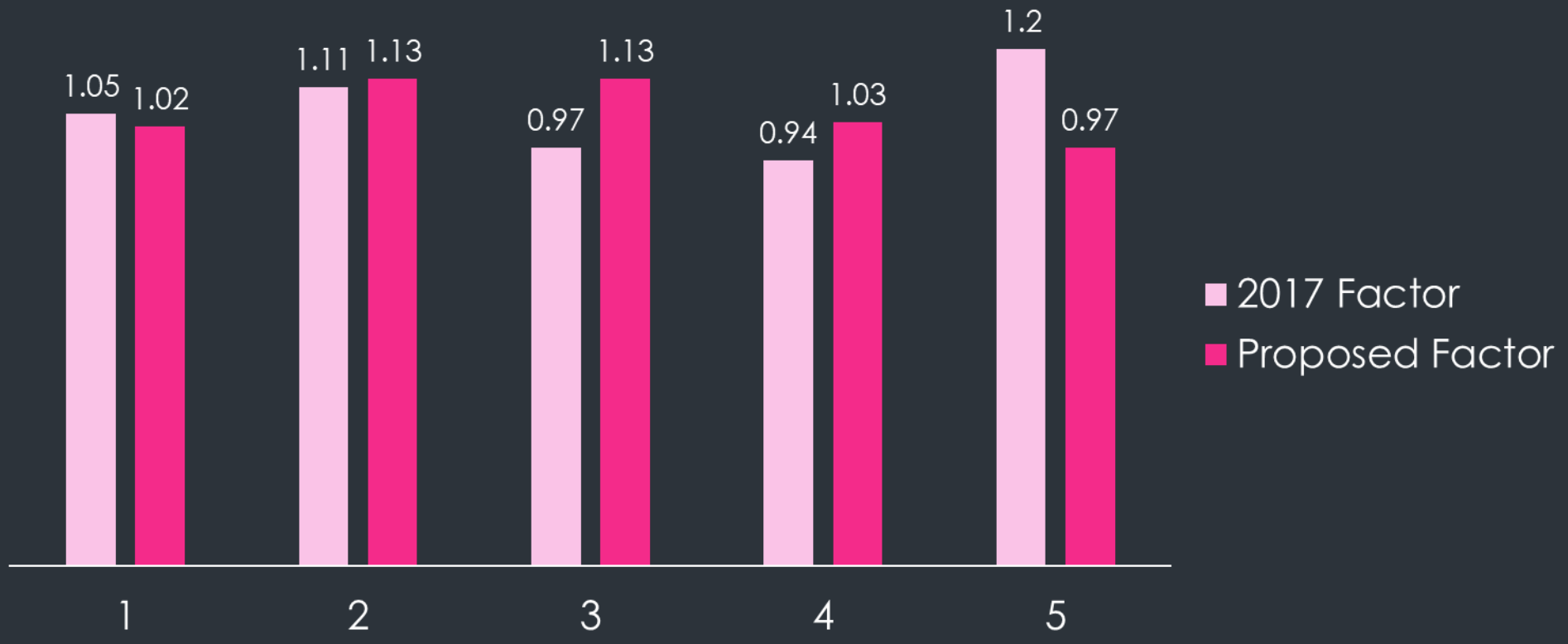
Base Rate

× Territory × CoverageA × AgeOfHome × CreditGroup

Territory Factors

Territory	1	2	3	4	5	Wtd. Avg.
2017 Factor	1.05	1.11	0.97	0.94	1.20	
Loss Ratio	0.62	0.65	0.75	0.70	0.52	0.64

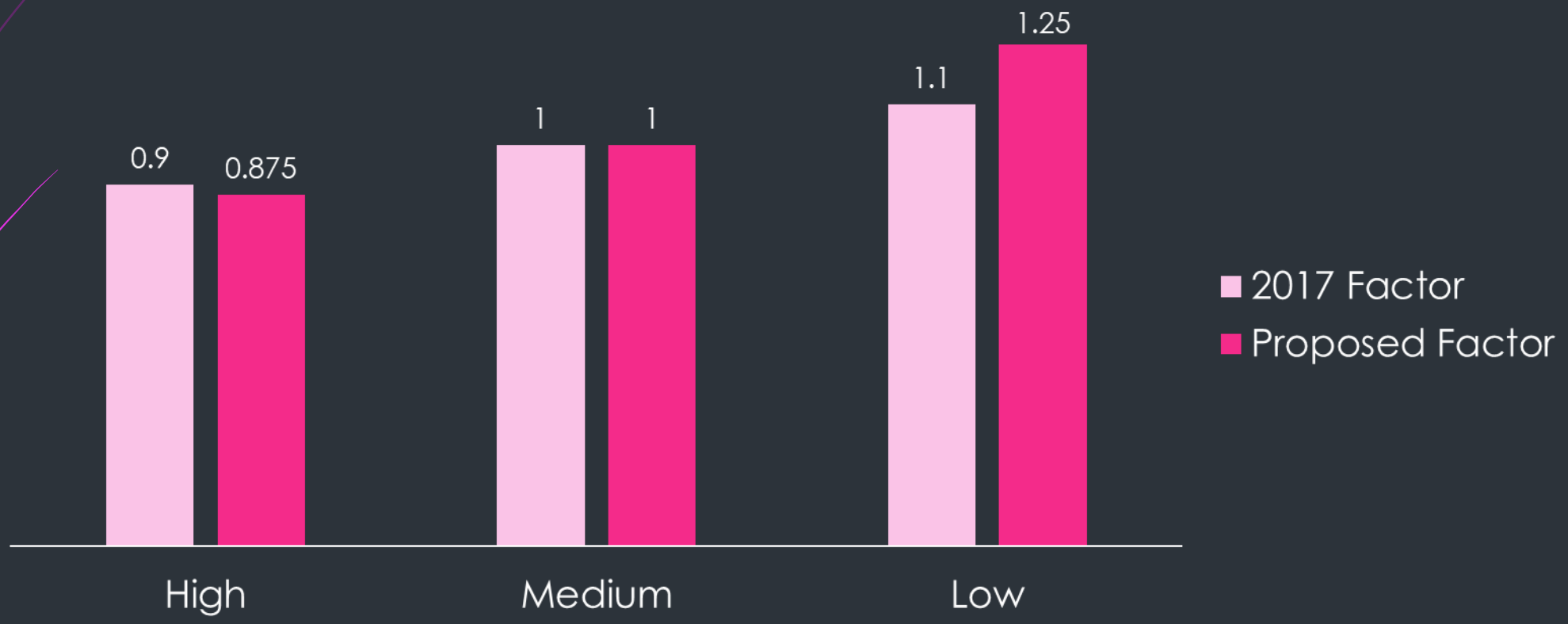
Territory Factors



Credit Factors

Credit Type	High	Medium	Low	Wtd. Avg.
2017 Factor	0.90	1.00	1.10	
Loss Ratio	0.25	0.54	1.08	0.64

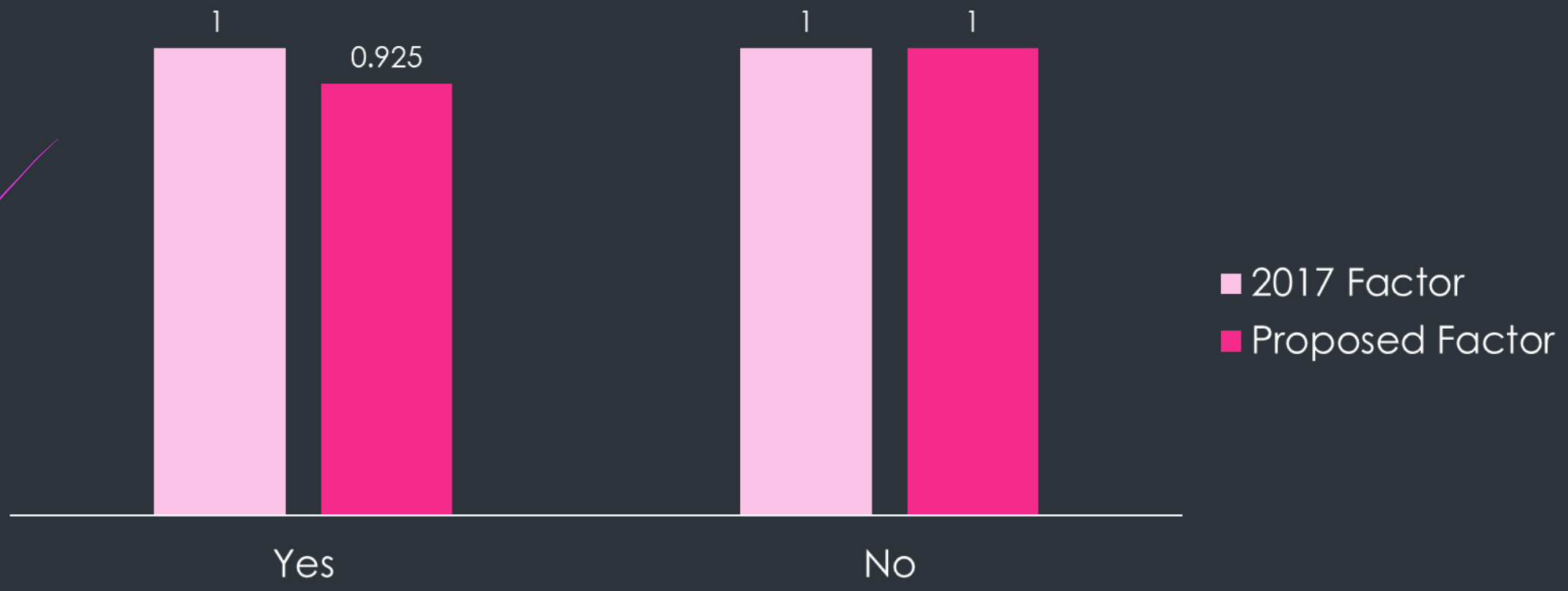
Credit Factors



Multipolicy Factors

Multipolicy	Yes	No	Wtd. Avg.
2017 Factor	1.00	1.00	
Loss Ratio	0.57	0.66	0.64

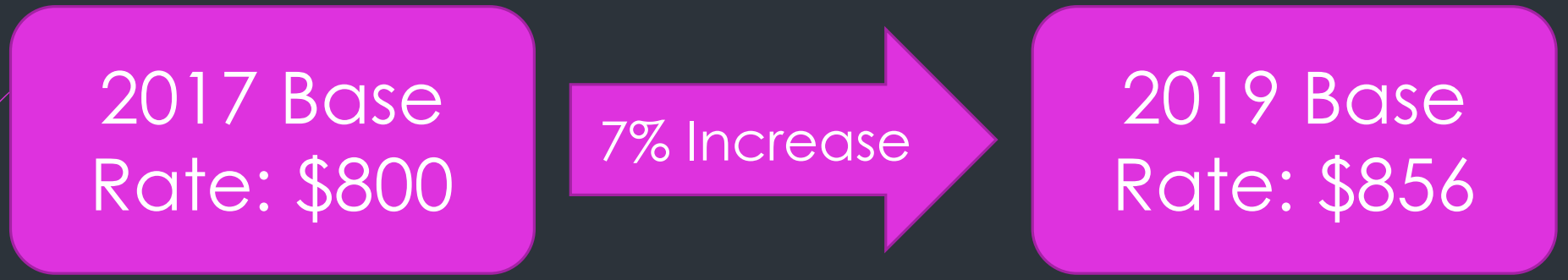
Multipolicy Factors



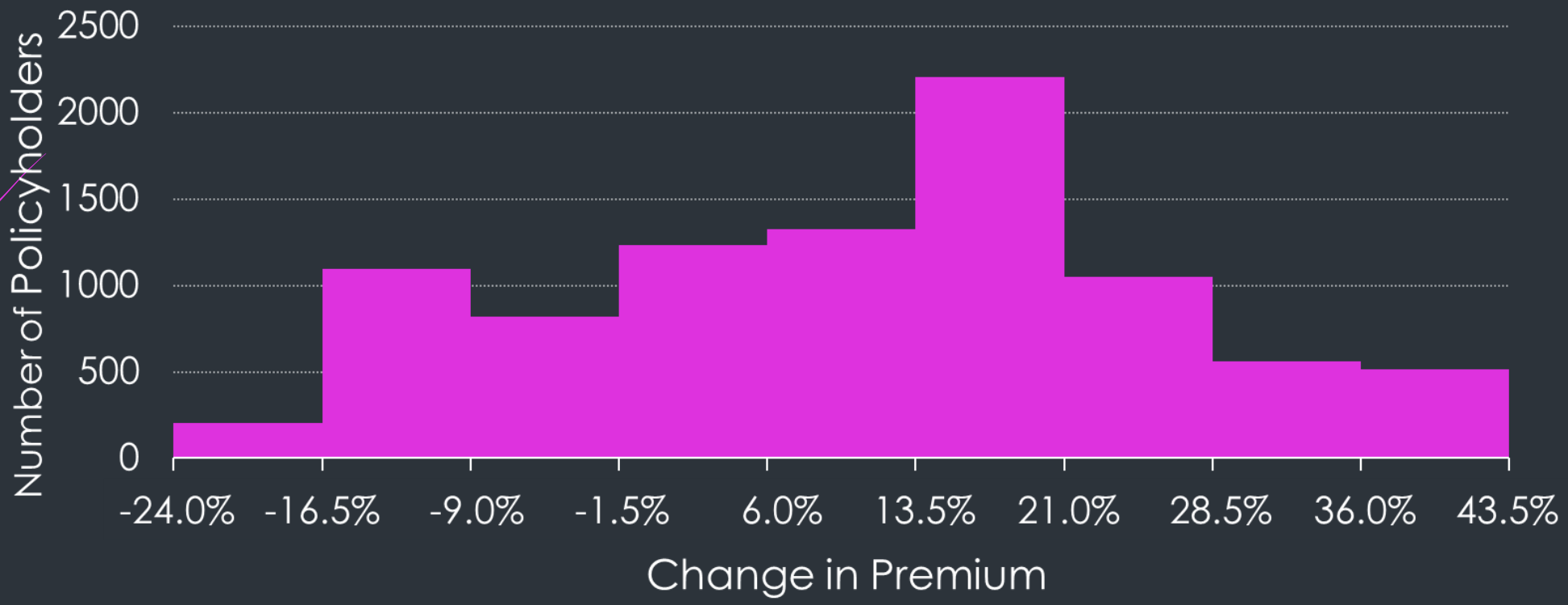
Base Rate Changes

- We want to achieve an average premium increase of 10%
- Assumption: population distribution stays similar to 2017

Base Rate Changes



Policy-Level Premium Dislocation



Consequences

- Encourages high-credit, discourages low-credit
- Encourages people to sign more policies for discount

Other Recommendations

- Add-on policies
- Deductibles
- Reinsurance
- Diversification

Conclusion

- Adjust existing rate factors
- Add new rate factors
- Modify policies
- Consider purchasing reinsurance or diversifying

Questions?