

And the Final Indication Is?

CAS Ratemaking & Product Management
Seminar
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Rate Capping

- A rating plan gives a premium for insured I at time t of $P_{i,t}$
- With rate capping, $P_{i,t}$ depends on $P_{i,t-1}$
- 2 identical insureds would be charged different premiums depending on their prior premium.
- Rate change effective at time t is spread to times t, t+1, . . . , t+n.

Assumptions & Concerns

- Actual premium collected is primary.
 - "When we originally launched our product back in August 2007, we implemented a symmetrical cap of +4/-4%. This symmetrical cap caused us to loose about 1% of our expected premium. With this launch we made the business decision to choose caps that would be more rate neutral."
 - From an Ohio private passenger auto filing

New Rating Plan

Old Plan		
	B1	B2
A1	1	1.1
A2	1.1	1.21

New Plan			
	C1	C2	C3
A1	1	1.1	1.4
A2	1.15	1.265	1.61

Exposures			
	B1	B2	
	C1	C2	C3
A1	20	20	10
A2	20	20	10

B2 is split into C2 & C3.
Cell factors are revised.
Multiplicative Model

More Detail on Rate Change

CY	Earned Premium	
	Uncapped	Capped
06	111,300	111,300
07	115,850	113,216
08	120,400	116,064
09	120,400	117,996
10	120,400	119,699
11	120,400	120,400

- New plan 1/1/2007
- Uncapped Change 8.2%
- Change capped at 7.5% per year (annual policies)
- No change to exposures
- All at indicated rate by 4th renewal
- No rate change in 04 - 06

Premium Trend Results

Years	Ann. % Change	R ²
05-07	-.3%	.750
06-08	-1.4%	.895
07-09	-.3%	.061
08-10	1.4%	.989

- Premium Trend estimated from the 3 years used for the indication
- Uncapped rate change
- No changes to exposures

Applying Premium Trend Results

- How do you get the estimate?
- Two Stage Trending
- Selected trend values?
- Current trend?
- Projected trend?

Another Challenge

Coverage.	Ind.	Sel.	Equal Exposures
BI	30%	16%	Capped at + or – 5% of total premium
PD	15%	0	
Col	-10%	0	How allocate capped & uncapped premium?
Comp	-15%	-4%	
Total	20%	3%	Changes to rating plan?

Questions From a Regulator

- Why?
 - Acquired Book of Business
 - New/Revised Rating Plan
 - Trade offs
- How?
 - Can the regulator understand the capping rule?
 - Can your IT staff understand & program the rule?
 - Do you know what your IT staff has programmed?
 - Can consumers understand it? Do they need to understand it?
 - What changes get capped?

More Questions From a Regulator

- How long till capping disappears?
 - Over priced risks?
 - Under priced risks?
 - Number of insureds & dollars of premium at each renewal
 - We like everyone to be at the “right rate” by the 3rd renewal.

Questions If Capping in Place

- How is premium treated in the Indication?
 - See the other PowerPoint that we don't go over for today for one potential problem.
- Is the capping scheme being changed?
- What change will the Insured see?
 - From this selected change
 - From prior capping of rates
 - From trigger points

Final Question / Heuristic

- Does it pass the smell test or front page of the newspaper test?
- Would you want to see your capping rule described on the front page of the paper?
 - No, you don't get to write the article or the headline.
 - Yes, they will be writing about how decreases are capped?
