

## Understanding Competitor Premiums

**Colin Priest** 



# What is Really Happening to Rates?

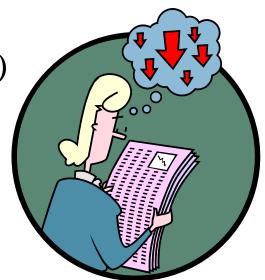
- Increases?
  - "renewals reveal premium rises" (Cover Note 1595)
  - "CGU was increasing premiums rates 2% 12%" (Cover Note 1564)





# What is Really Happening to Rates?

- Or Decreases?
  - "many insurers say they intend to increase premiums in these classes, they are reluctant to give up hard-won market share, based on price alone" (Cover Note 1577)





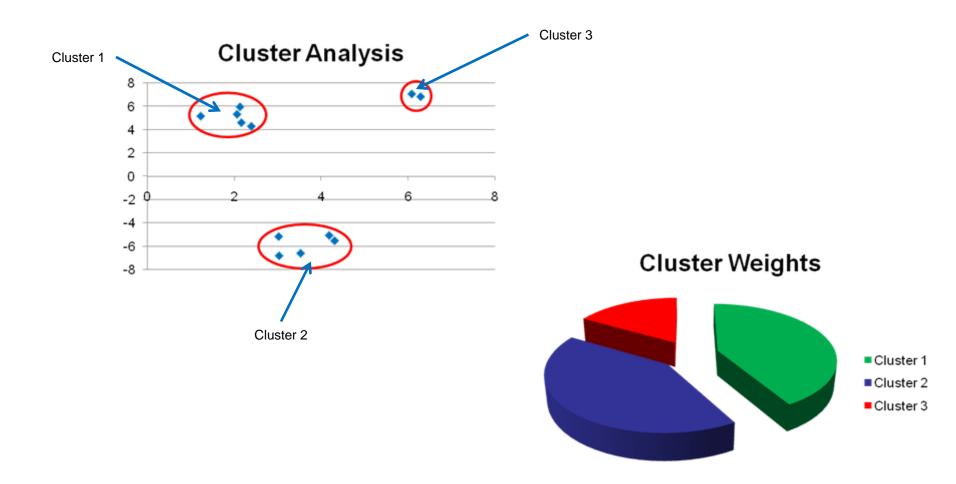
## **Actuaries = Skeptics**

- We like to see numbers
- We distrust anecdotal evidence
- We want proof





### **Constructing Profiles**





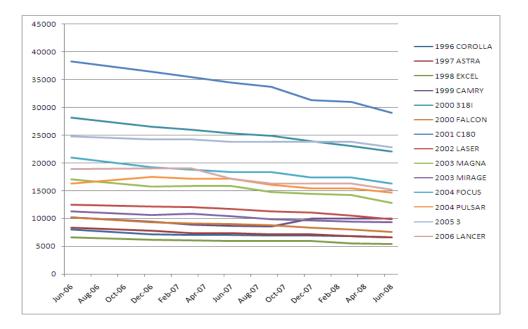
## **Tracking Rates Through Time**

#### **Premium Index**





#### **Understanding Rate Structure...**

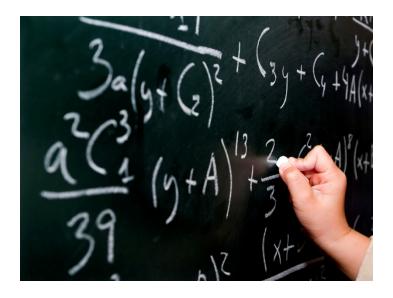


#### ... is a pre-requisite for tracking rates through time and for comparing insurers



## Complexity

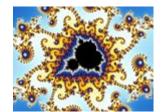
- insurers rate differently on the same rating factors
- insurers use different rating factors
- policyholder risk characteristics vary

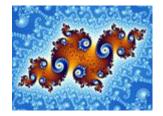




#### **Chaos**







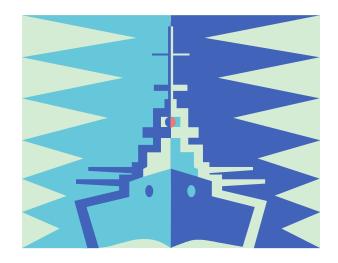


\* Mandelbrot images and video sourced from Wikipedia

	Insurer						
	А	В	С	D	E	F	G
Suburb 1	6	4	7	2	5	3	1
Suburb 2	5	2	6	1	7	4	3
Suburb 3	7	3	5	1	4	6	2
Suburb 4	4	2	7	1	5	6	3
Suburb 5	2	6	7	5	3	4	1

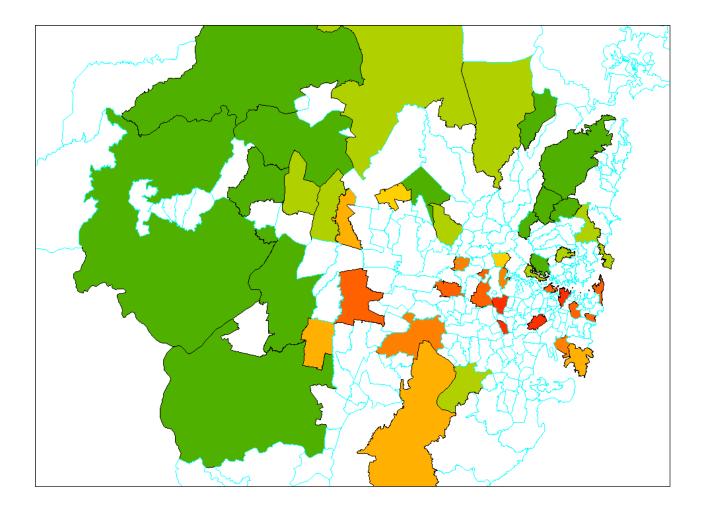


#### **Battleship**



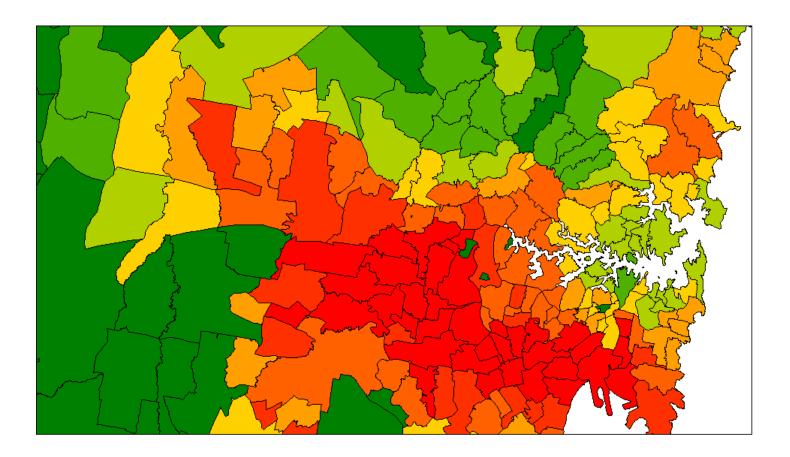


#### **Diverse Samples**





## Interpolation





## **Targeted Sampling**

