

**The Actuarial Profession**  
making financial sense of the future

General Insurance Reserving Seminar  
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## The American Experience

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### Topics to be covered

Topic	
1. Pricing Trends	CLIPS price and cost trends
	Use of predictive modeling
2. Reserving Trends	US Reserve adequacy trends
	Trends in reserving practices
	Inflation risk modeling
3. Industry Performance	Industry profitability outlook

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## 1. US Pricing Trends

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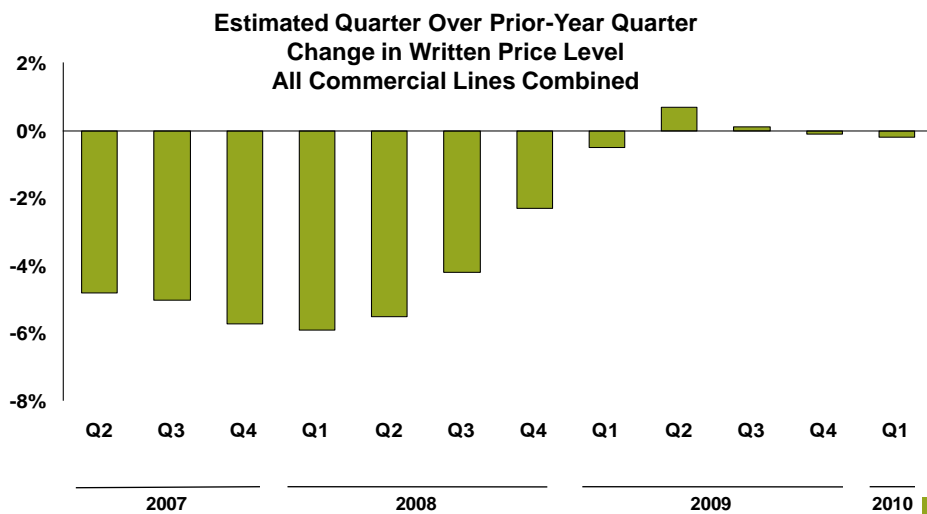
### **Towers Watson's CLIPS (Commercial Lines Insurance Pricing Survey)**

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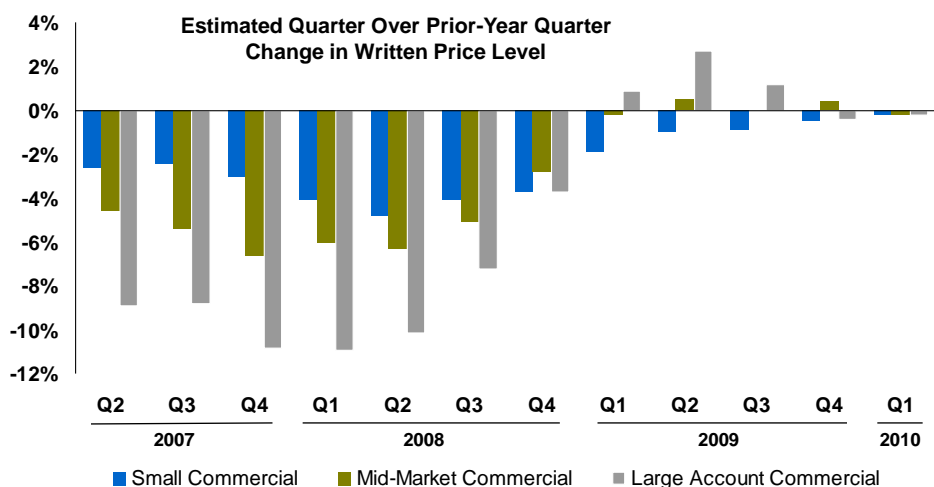
- Quarterly survey of writers of US commercial lines insurers
  - Price changes drawn from their price monitoring systems
  - Loss cost changes drawn from experience analysis
- Segmented by line, with breakout of specialty lines
- Segmented by account size
  - Small commercial segment is further segmented by region
- Currently 37 participants, who get back only what they provide
- Very useful in reserve analysis

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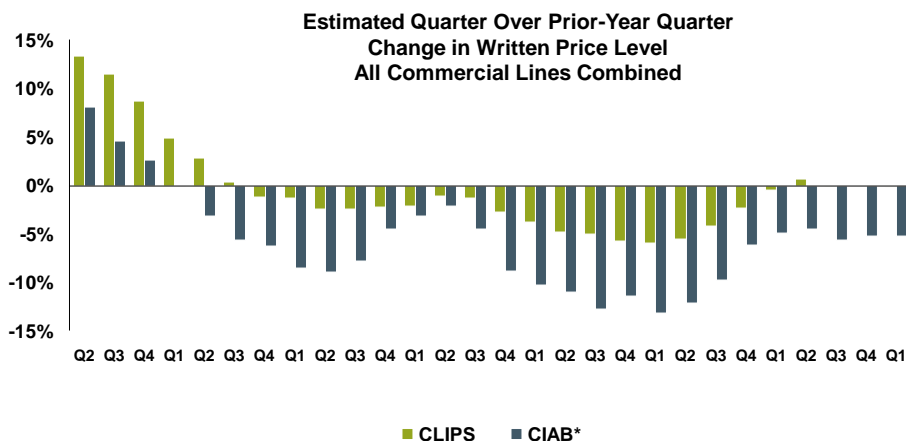
## Q1 2010 CLIPS shows nearly flat prices for five quarters, after five years of decline



## Prices are nearly flat for all account sizes

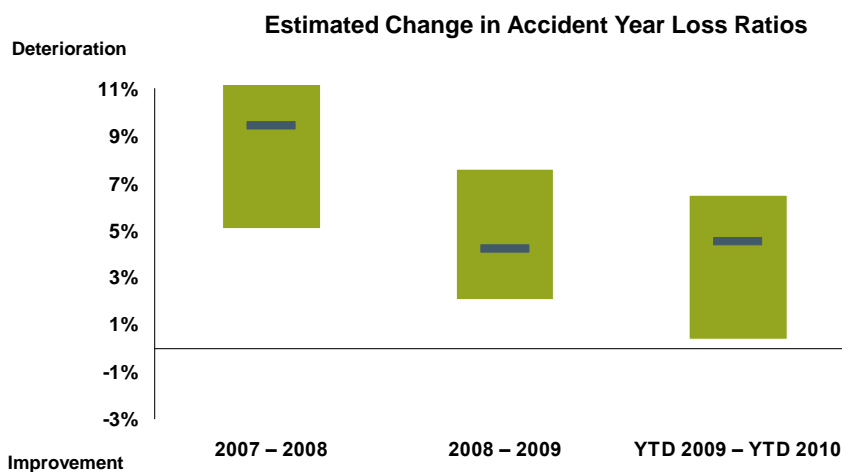


## CLIPS indicates less severe deterioration in pricing than broker-based pricing surveys



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## CLIPS indicates that commercial lines loss ratio deterioration will continue into 2010



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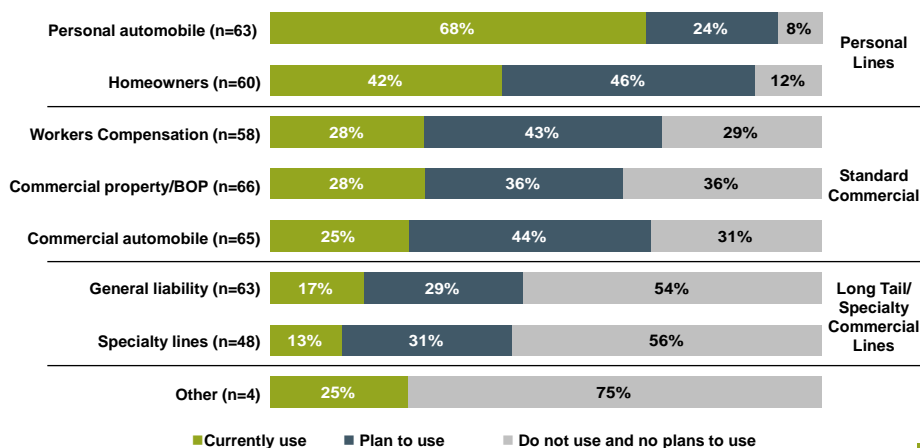
## Use of predictive modeling as a pricing and risk selection tool is exploding in the US

- Predictive modeling survey results
- Implications

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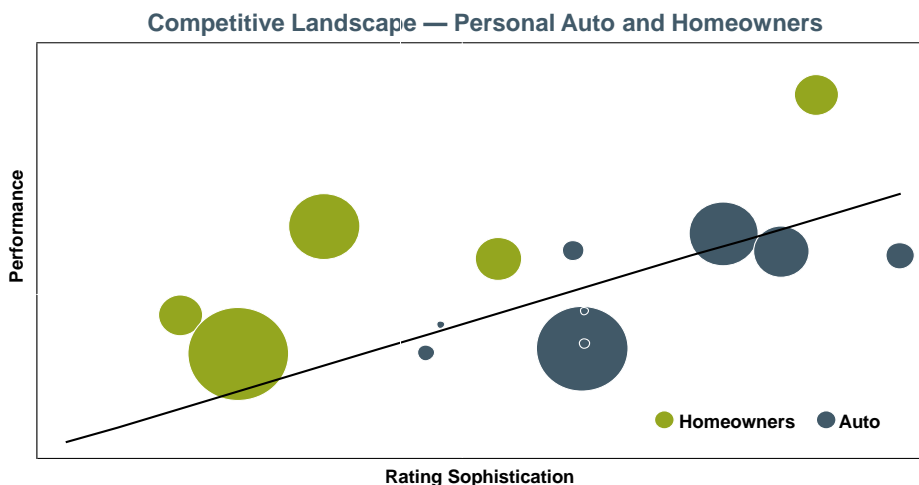
## Use of predictive models in pricing and underwriting is expanding beyond private motor

Do you currently use or plan to use predictive modeling in rating or underwriting for the following lines of business?



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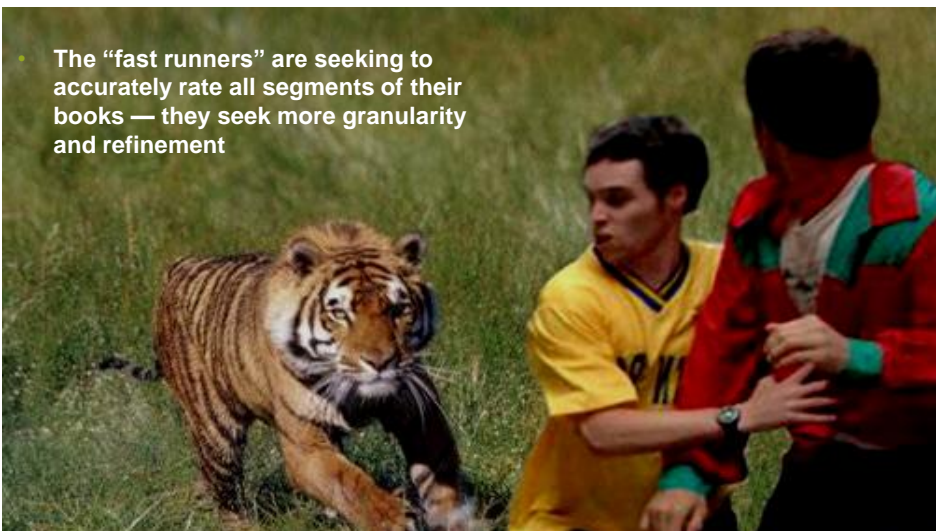
## There is a clear relationship between performance and price sophistication



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## There always will be competitors that are running fast — you don't need to be the fastest, just faster than others

- The “fast runners” are seeking to accurately rate all segments of their books — they seek more granularity and refinement

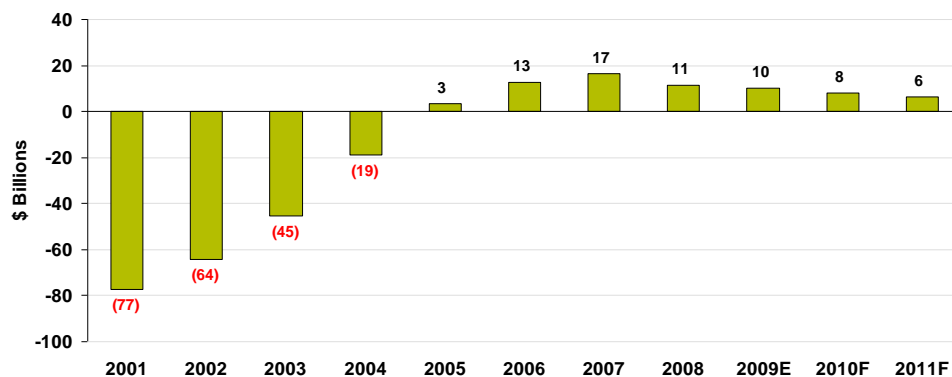


## 2. US Reserving Trends

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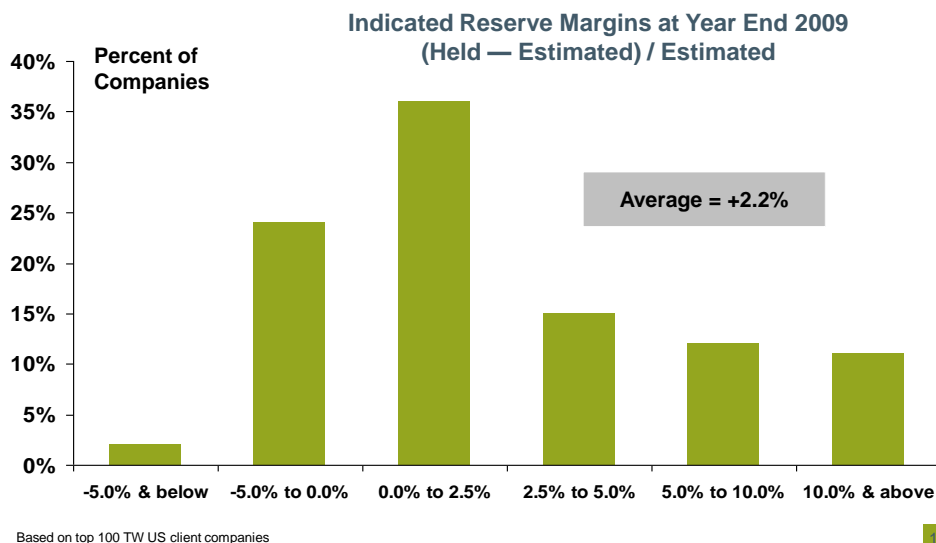
Despite published reserve releases,  
the US industry is in a strong reserve position today

US Primary Industry Reserve Adequacy  
Nine-Line Composite

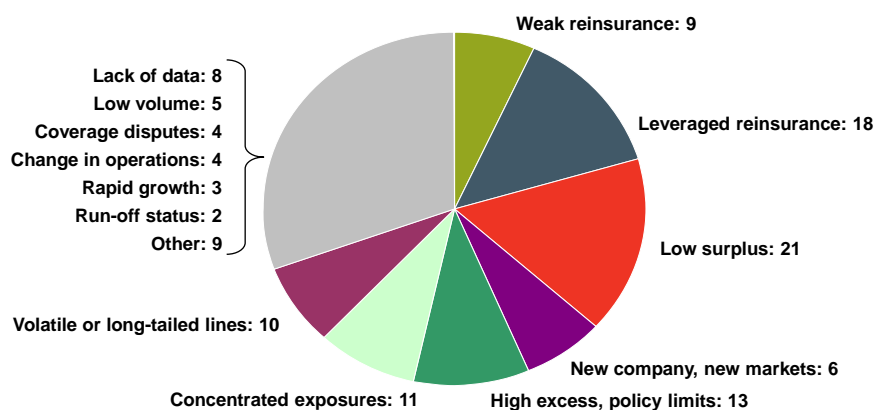


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## Reserve strength varies by company



## Risks of material adverse deviation were cited in 26% of year-end 2009 US statutory opinions



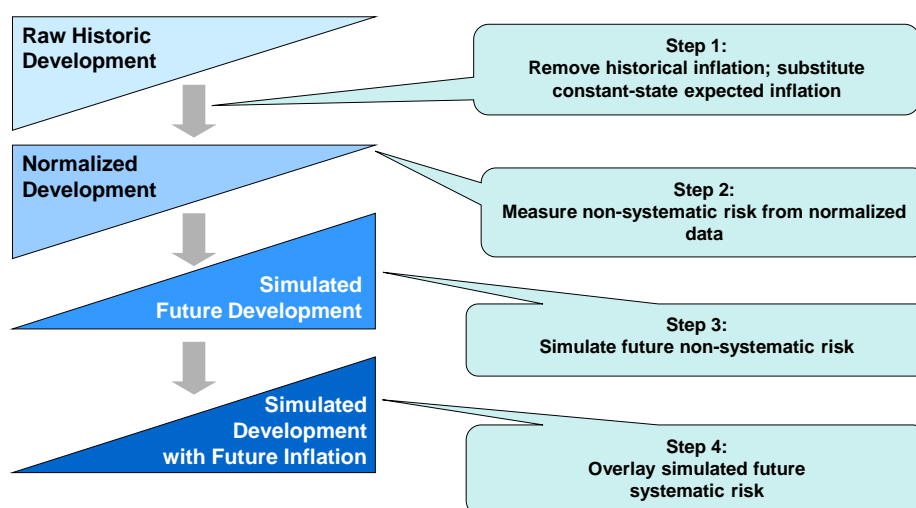


## New developments in US reserving practices

- Performance testing: how do you know which method is the “best” method?
  - See paper in 2009 03/02 issue at [www.variancejournal.org](http://www.variancejournal.org)
- Skepticism of published stochastic reserving methods
  - Performance in predicting best estimates is poor
  - Ranges don’t validate against historical reserve errors
- Interest in inflation-adjusted methods
  - Structural stochastic simulation, separates inflation
  - See paper in latest issue of CAS *eForum* at [www.casact.org](http://www.casact.org)

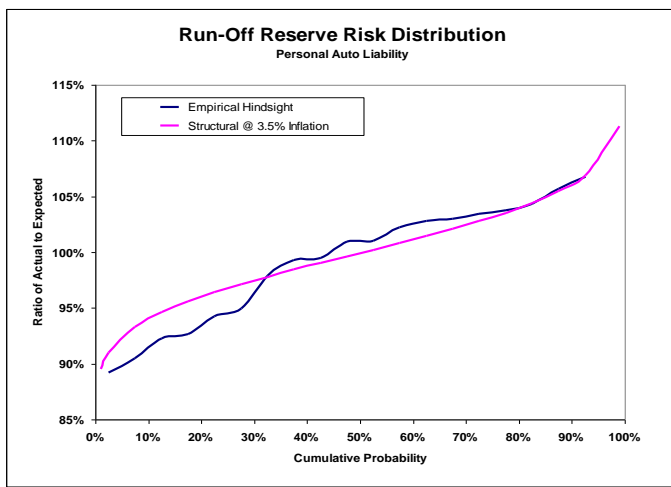
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## Overview of structural stochastic claim liability simulation model



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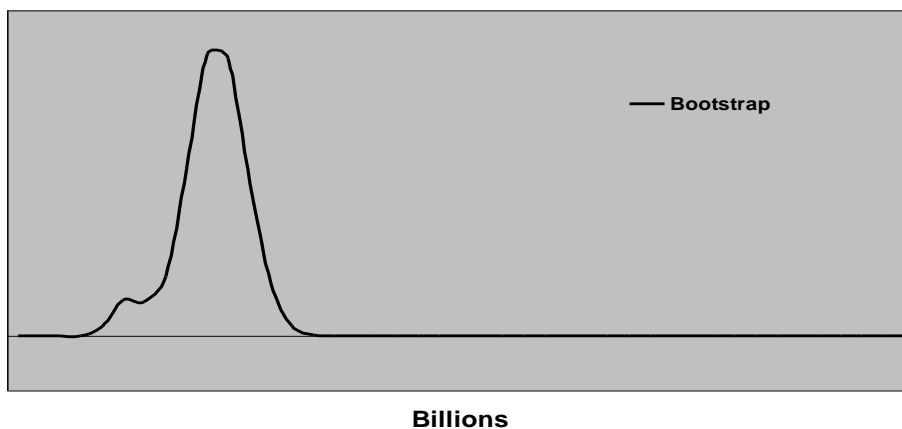
## Validation results of the structural model look good!



- Overall run-off reserve risk generated by model compares reasonably well with historical observed reserve errors
- This is not always the case with stochastic reserving methods, for example Mack

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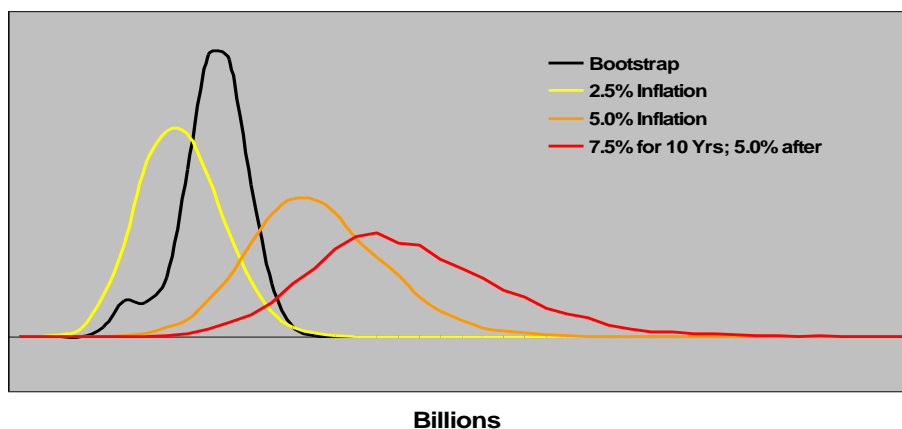
## Reserve Range Distributions – Workers Compensation Classical Bootstrap



Proprietary and Confidential.

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## Reserve Range Distributions – Workers Compensation Bootstrap versus Structural Simulation



Proprietary and Confidential.

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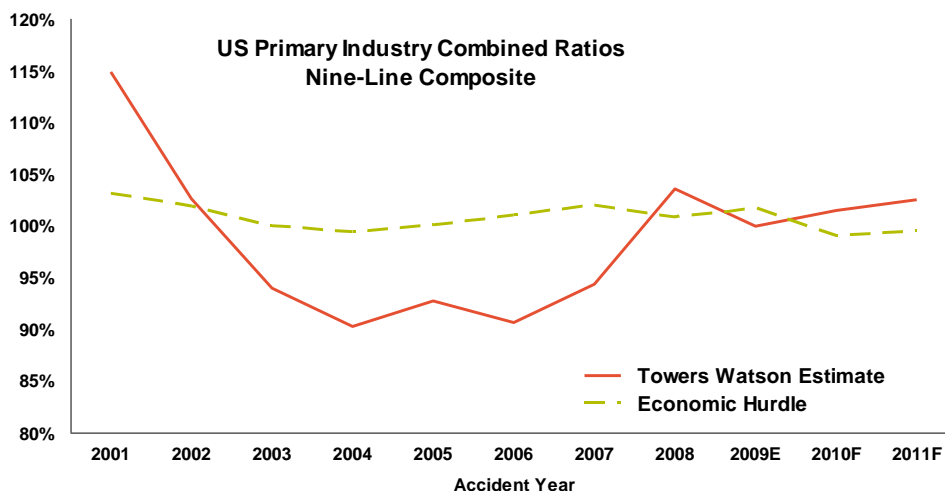
## 3. US P&C industry outlook

### Not a pretty picture

- Strong base of capital
- Low investment returns
- Price cutting in commercial lines
- Highly competitive markets
- Increasing sophistication in pricing and risk selection
- No catalyst for turn in cycle

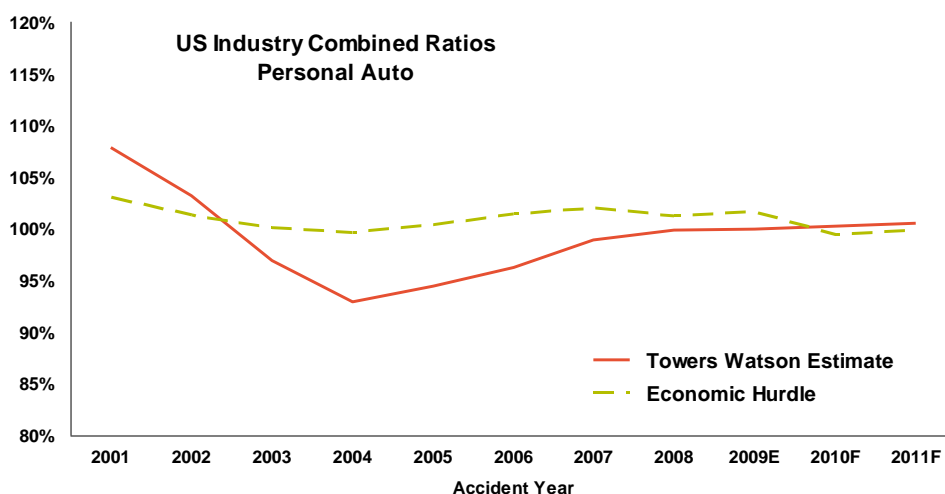
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## For the US industry as a whole, profit margins are now at or below the minimum



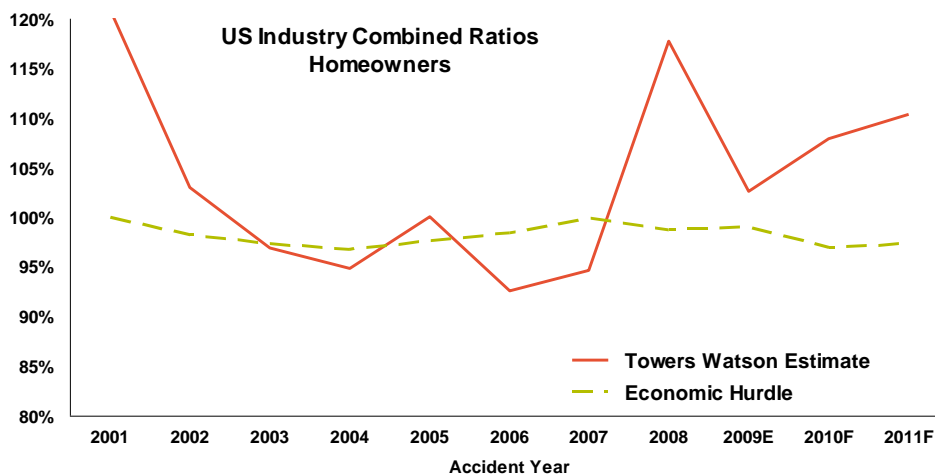
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## Fierce competition in personal auto will make the class unrewarding for the industry



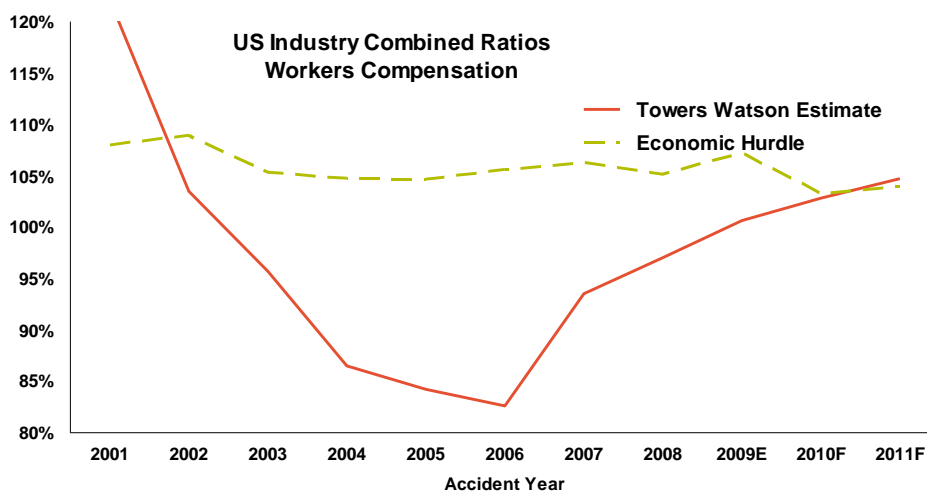
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## Due to natural catastrophes, homeowners is volatile and unrewarding



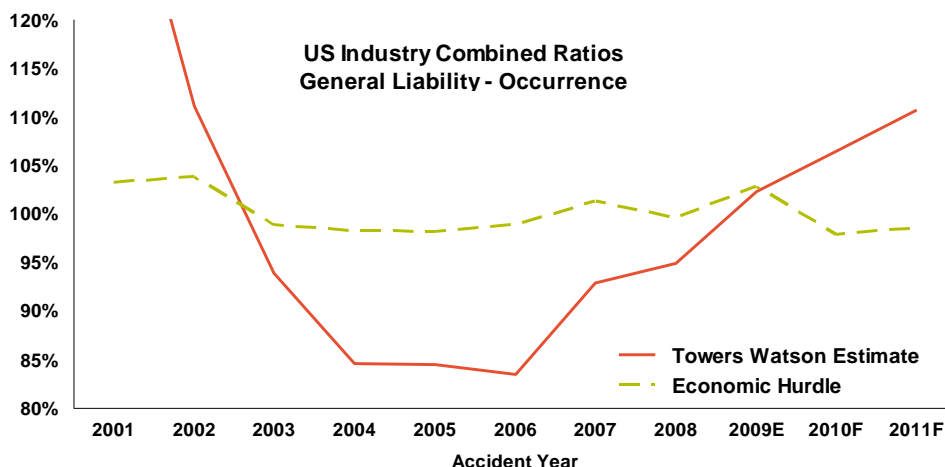
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## Price and cost trends imply that margins in workers compensation will disappear in 2010



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## Standard liability pricing is already unrewarding, and is expected to deteriorate further

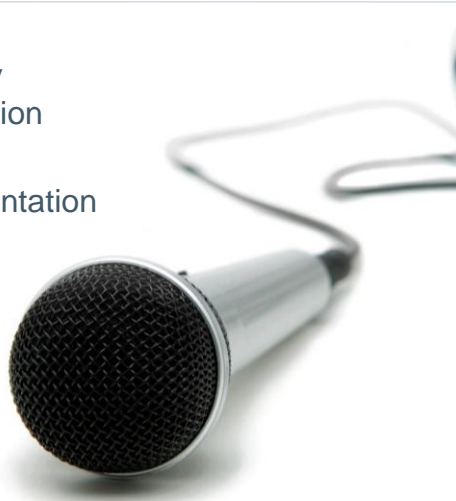


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## Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



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