

Analytics and the Market Through the Eyes of a Reinsurance Broker

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Where Did it all Start ?



The Conference Themes

Black Swans

Severity Distributions

Detarrification

Modeled vs Unmodeled

Statistical Techniques

Pricing Flood

Stochastic Methods of Claims Reserving

Prediction Modeling

Commoditization

Reinsurance Optimization

Geo-Spatial Effects

Enterprise Risk Management

The Shift in the Dynamics of the Reinsurance Buyer



The Evolution of the Reinsurance Broking Model

- Reinsurance structuring
- Market intelligence
- Negotiation and placement
- Policy administration
- Run off management

Execution Only - 1990s +

- Catastrophe management
- Reinsurance & portfolio optimisation
- Peer analysis/benchmarking
- Market analysis
- Rating advisory
- Security analysis
- M&A and Capital Market
- Liability management
- Reinsurance structuring
- Market intelligence
- Negotiation and placement
- Policy administration
- Run off management

Advisory and Broking - 2000 +

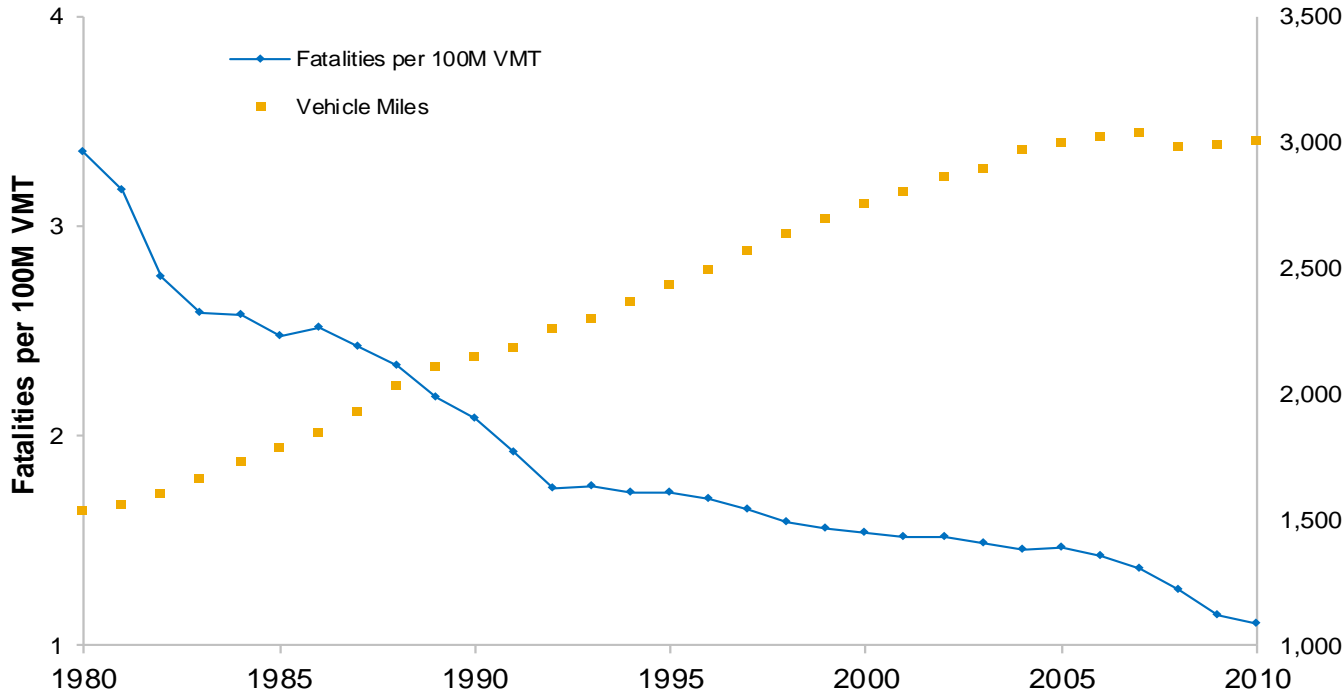
- Multi-model risk assessment
- Proprietary models & solutions
- Reinsurance as capital
- Analytics Product and Solutions
- Risk and Capital Strategy
- Consulting- Inpoint
- Asset Management
- Life Reinsurance
- Catastrophe management
- Reinsurance & portfolio optimisation
- Peer analysis/benchmarking
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Advisory, Consulting and Broking – 2010+

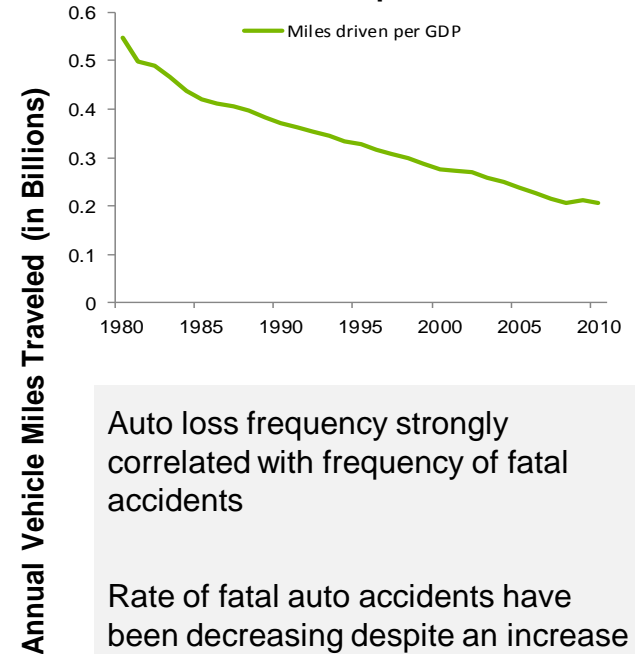
Decreasing Liability Premium Driven by Underlying Trends

Example: Auto Frequency 1980-2010

Fatalities Per 100M Vehicle Miles Traveled



Miles driven per GDP



Auto loss frequency strongly correlated with frequency of fatal accidents

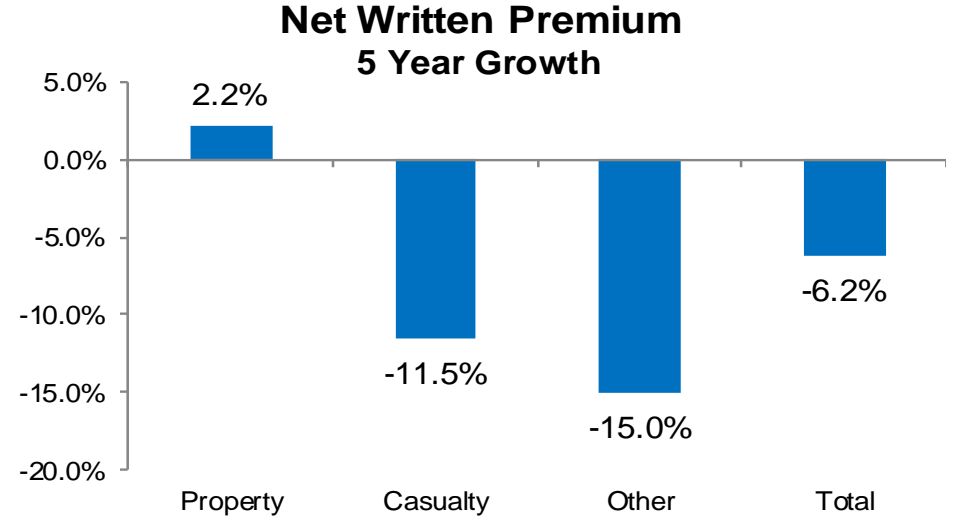
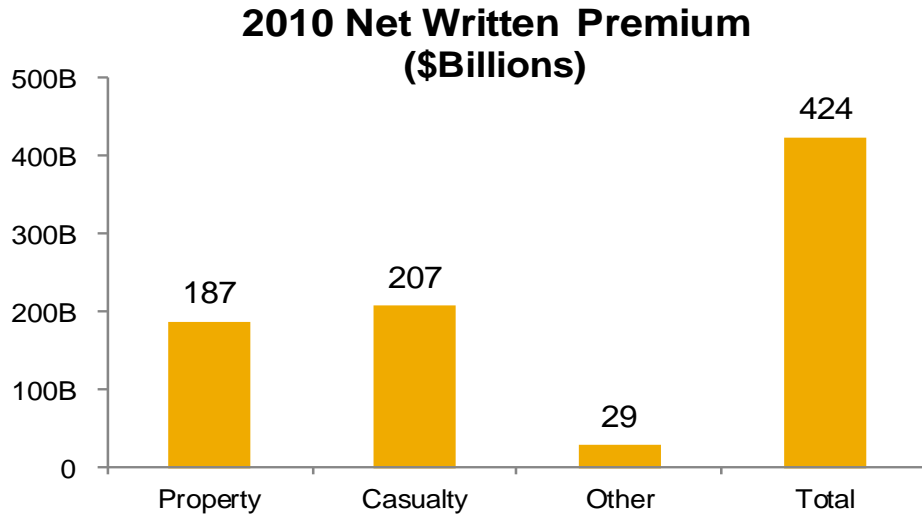
Rate of fatal auto accidents have been decreasing despite an increase in Vehicle Miles Traveled (VMT) exposure over time

- Vehicle Miles Traveled relatively flat since 2006

Miles driven per GDP also decreasing over time

US Net Premium Written 5 Year Trends

Property Growing vs. Casualty Shrinking



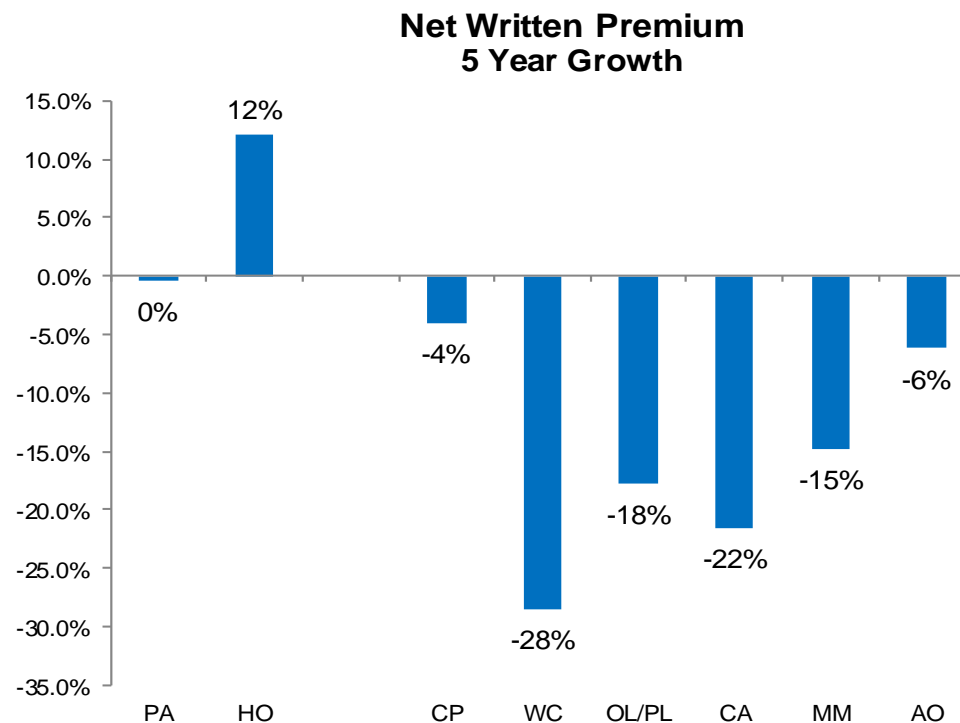
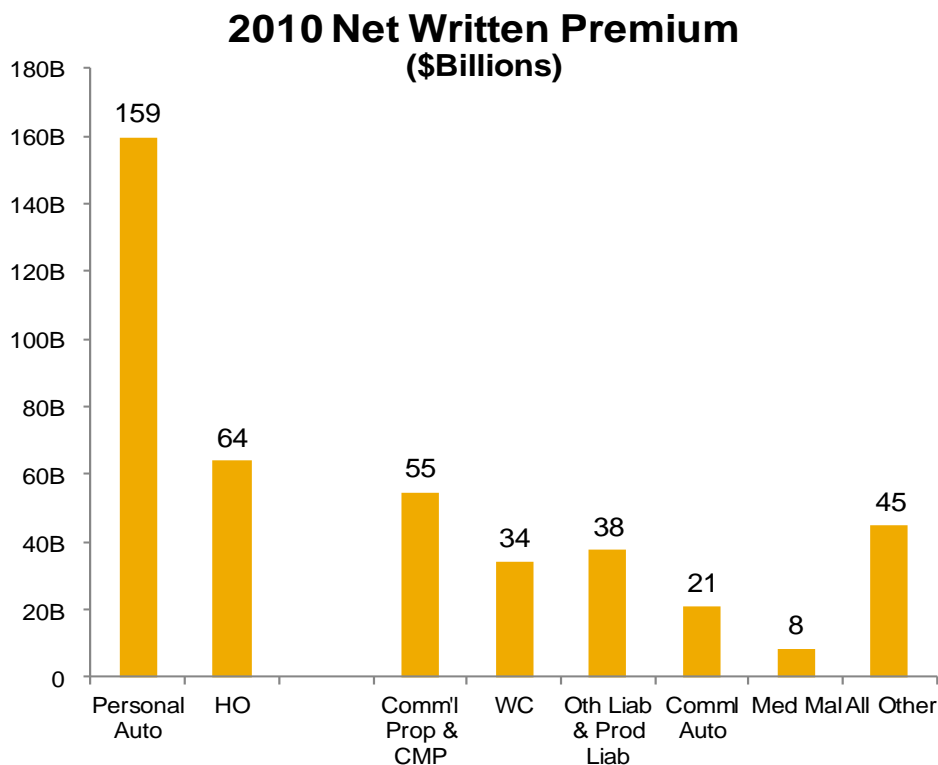
Net written premium growth rates over past 5 years follow macro loss trends

Property growth slightly positive

Casualty premium decreases driving overall negative 6% premium decrease

US Net Premium Written 5 Year Trends

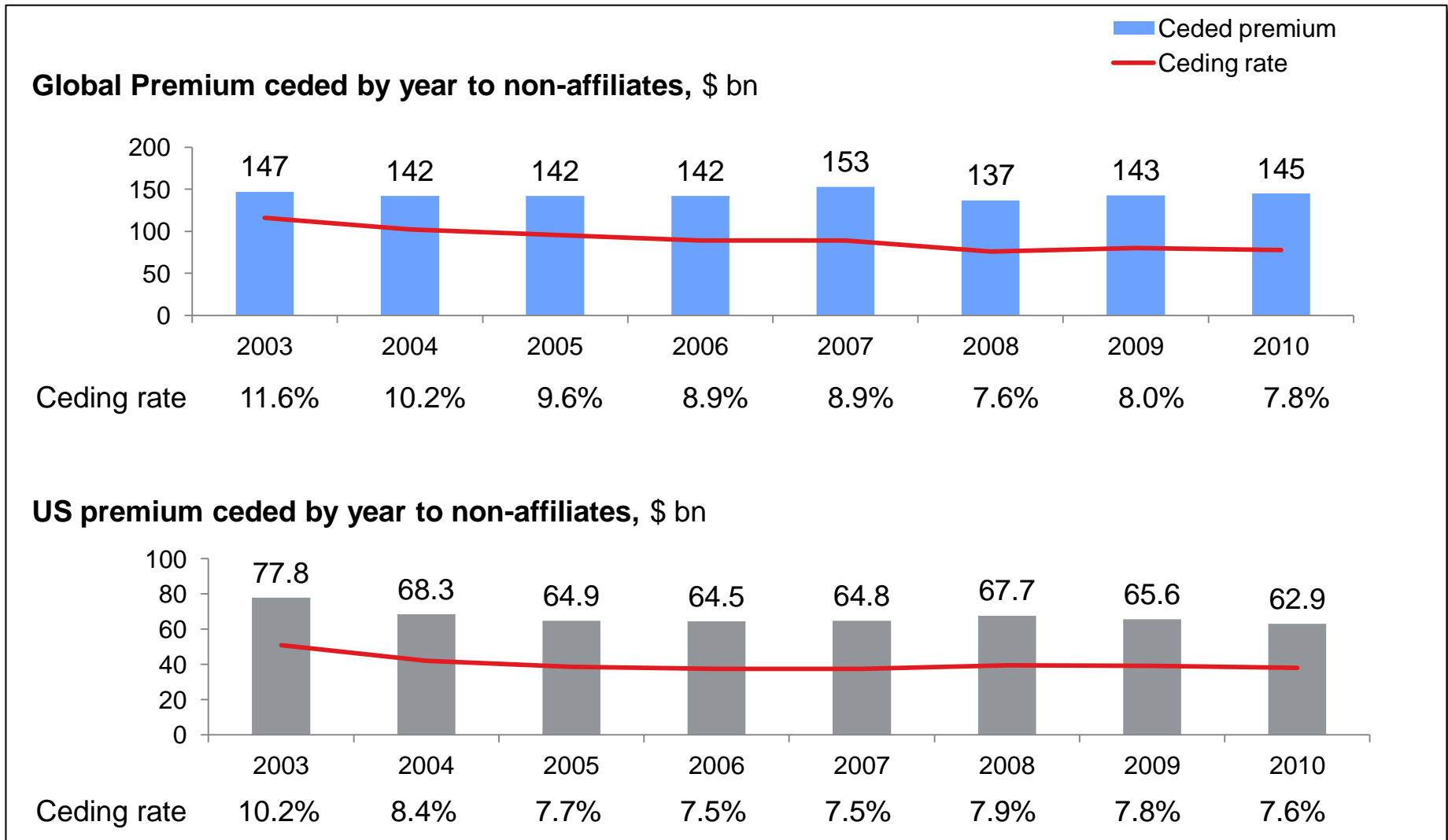
Line of Business Detail



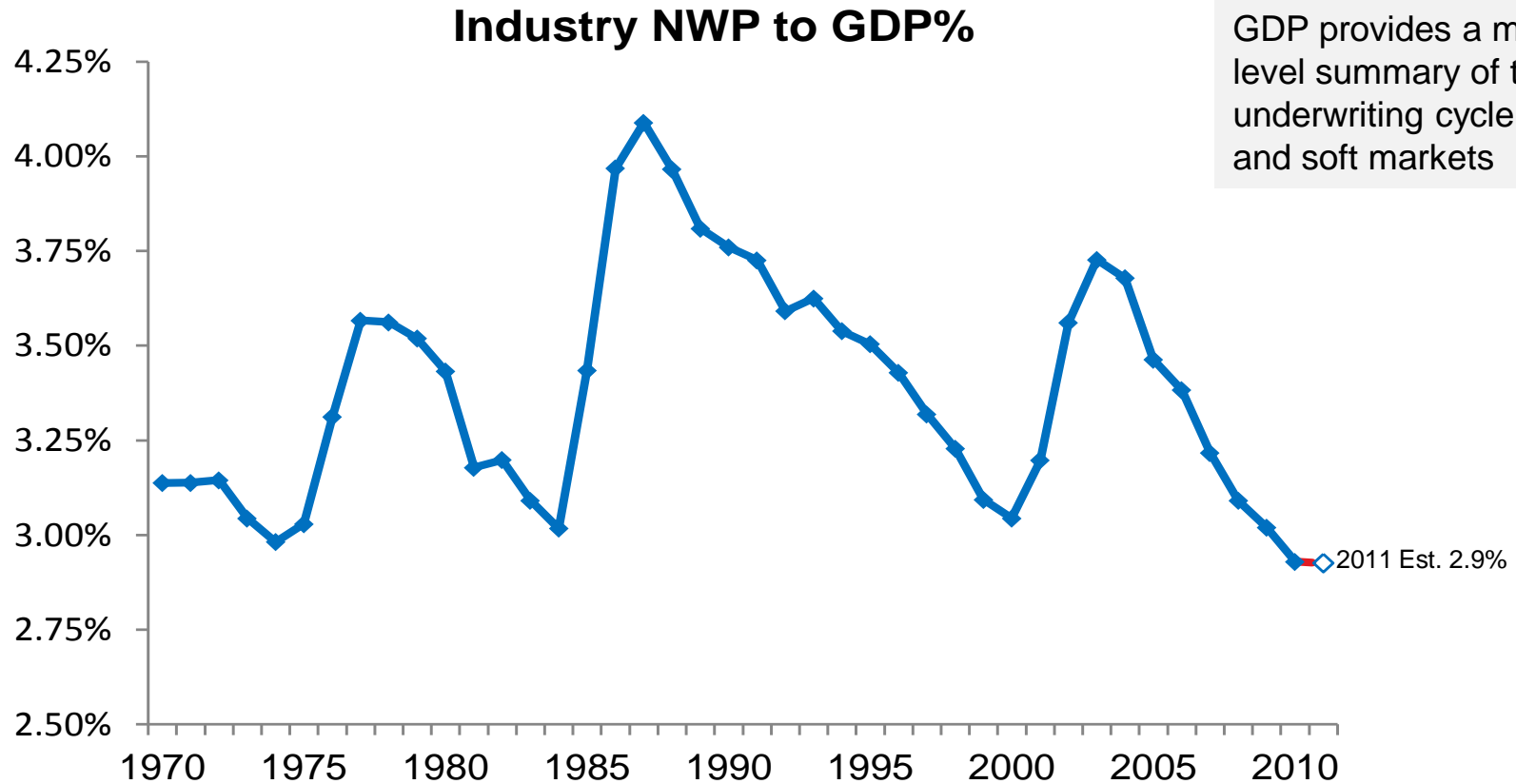
Personal lines able to maintain positive NPW growth over the last 5 years, driven by homeowners

Commercial lines of business experienced significant NPW reductions, with WC the most severely affected at -28%

Global P&C ceded premium and cession rates



Macro Premium Trends - Premium to GDP Ratio



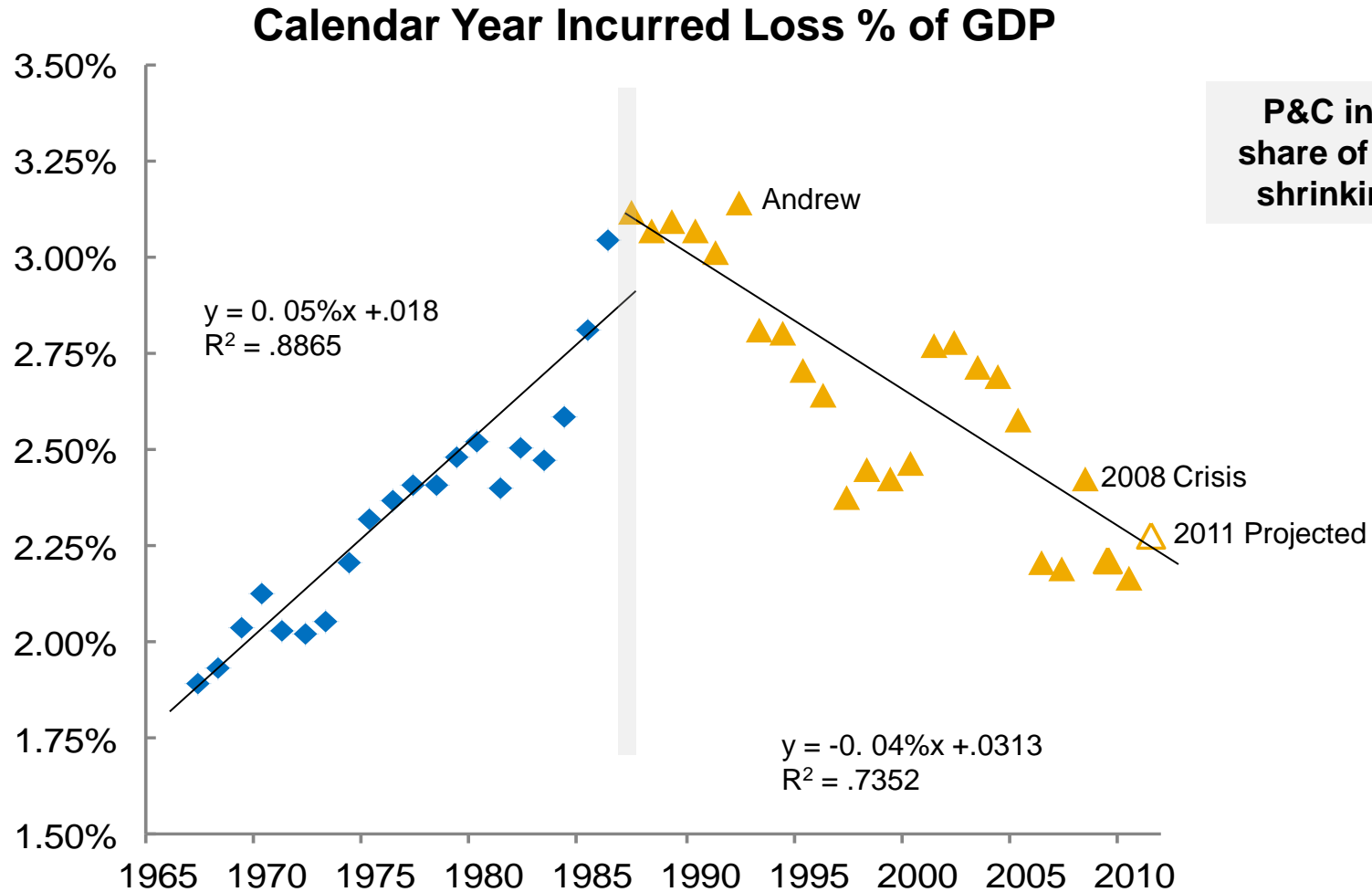
Notes:

- Q1 – Q3 2011 used to estimate 2011 annual GDP and NWP

Sources:

1. A.M. Best's Aggregates and Averages
2. IMF World Economic Outlook Database (www.imf.org)
3. Aon Benfield Analytics

A Tale of Two Trends - Insured Risk Innovation Deficit



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Thank You