

MANAGING EXTREMES

Willis Re

# REINSURANCE RESERVING AND THE UNDERWRITING CYCLE

Presentation to Casualty  
Loss Reserve Seminar

September 15, 2011



# INSURANCE MARKET OVERVIEW

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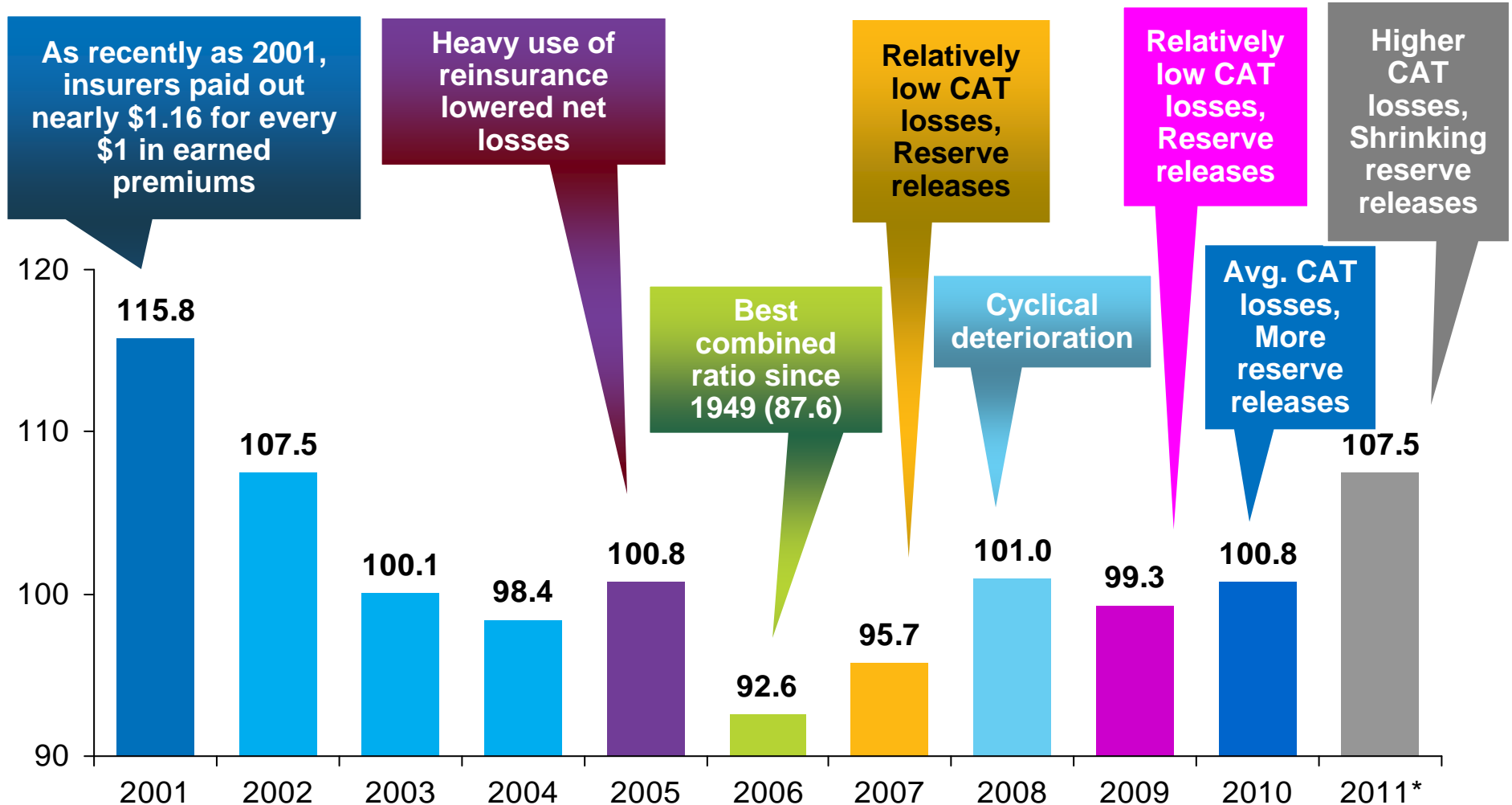
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# P/C Insurance Industry Combined Ratio, 2001–2011:H1\*

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\* Excludes Mortgage & Financial Guaranty insurers 2008--2011. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=109.1<sup>3</sup>  
Sources: A.M. Best, ISO.; III Estimated for 2011:H1 (Q1 actual ex-M&FG was 102.2).

# Insurance market trends: Q2 2011 versus 2010

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- Net income has declined by nearly 73% through Q2 2011 compared to the prior year-period
  - Underwriting losses widened from 4.3B to 23.3B in 2011
  - Investment income increased from 27.1B to 28.6B
  - Net income declined from 17.5B to 4.4B
- Positive premium growth continues in Q2 2011
  - Direct earned premium increased to 236.6B from 232.5B
- Other key factors driving surplus in the first half
  - Unrealized gain of 3.8B in 2011 from a loss of 7.6B in 2010
  - Dividends to stockholders decreased from 16.9B to 11.7B
- Reserve releases continued at 7.5B in 2011, down from 9.1B in 2010
- Surplus as regards policyholders has declined 2.7B in 2011 through Q2
  - Insurers ended 2010 with record surplus levels
  - Extra capital is blamed for contributing to the ongoing imbalance between supply and demand
- Low interest rates have caused an emphasis on underwriting controls and profitability
- Commercial premium softening moderating
  - Workers' compensation premiums up (could drive broader recovery)

# Casualty considerations

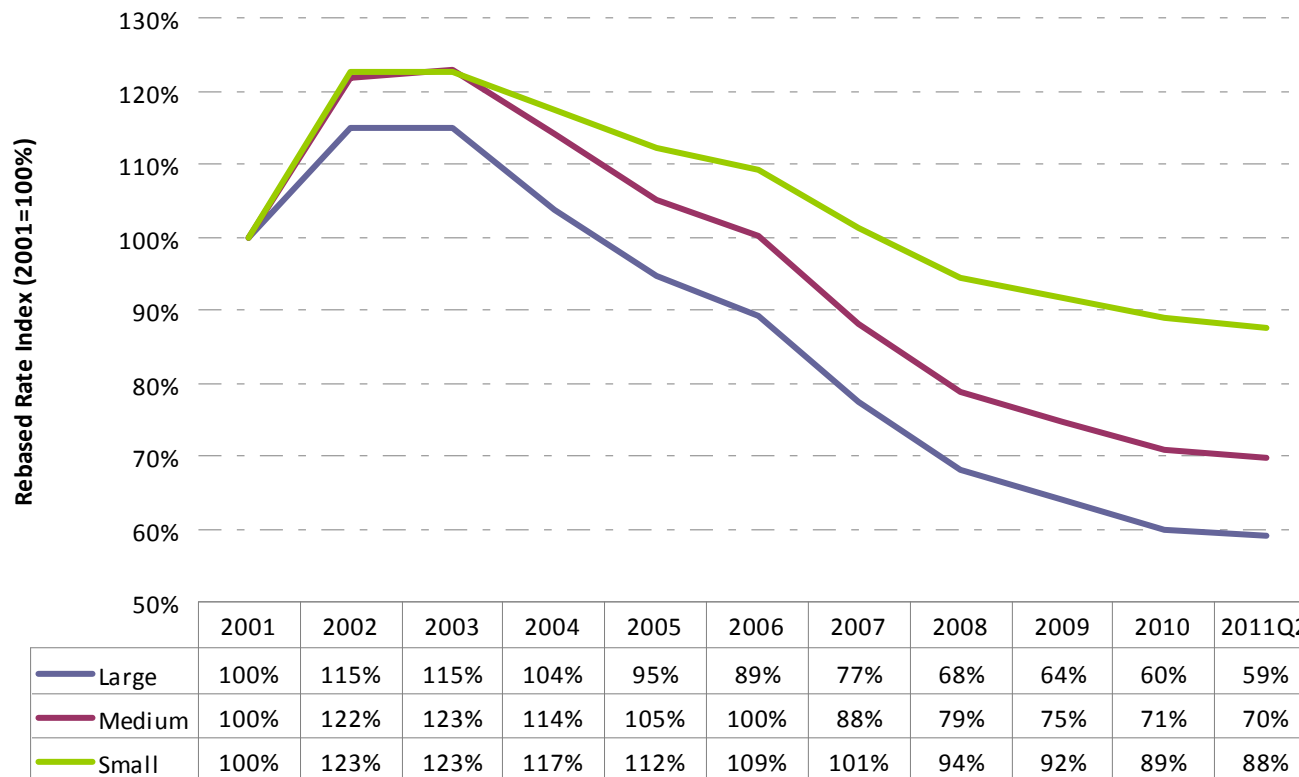
- Will record 2011 property catastrophe losses impact casualty pricing?
  - No: Natural catastrophe and casualty risks are largely uncorrelated
  - No: Record cat losses in 2004/2005 did not impact the casualty market
  - Yes: Aggregate supply is driven by combined balance sheets
- Casualty market has its own issues
  - Economic drivers
    - Tort environment
    - Inflation
    - Public policy
  - So far these drivers are manifested in continued favorable reserve development

# Price indices

- Surveys
  - Advisen
  - Council of Insurance Agents and Brokers
  - Market Scout
  - Towers Watson Commercial Lines
- Bureaus
  - ISO
  - NCCI

# All lines price index (CIAB)

## Nationwide Rate Change by Account Size



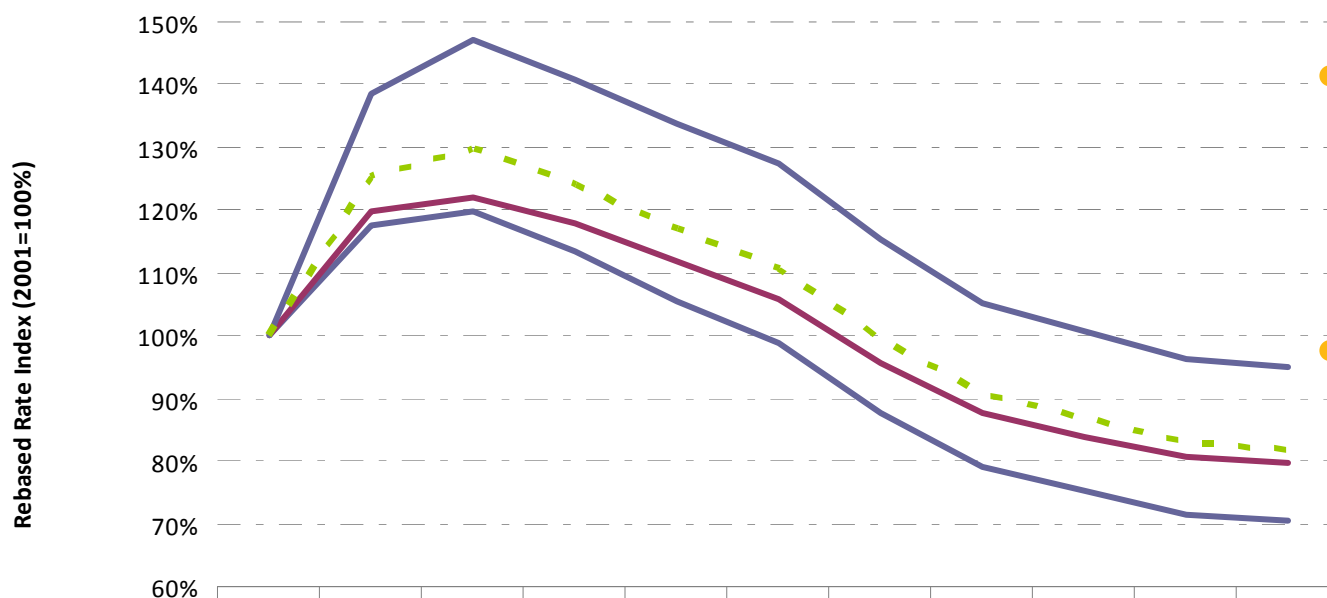
- Rates have come down since 2003, with large accounts at almost half their 2003 level
- 2011 Q2 price declines decelerating for large and medium accounts, small YOY increase for small accounts

# Liability lines price index (CIAB)

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## Nationwide Rate Change by Liability of Business



- Rates have come down since 2003, with large accounts at almost 60% of their 2003 level
- Q2 price declines decelerating liability lines but still declining

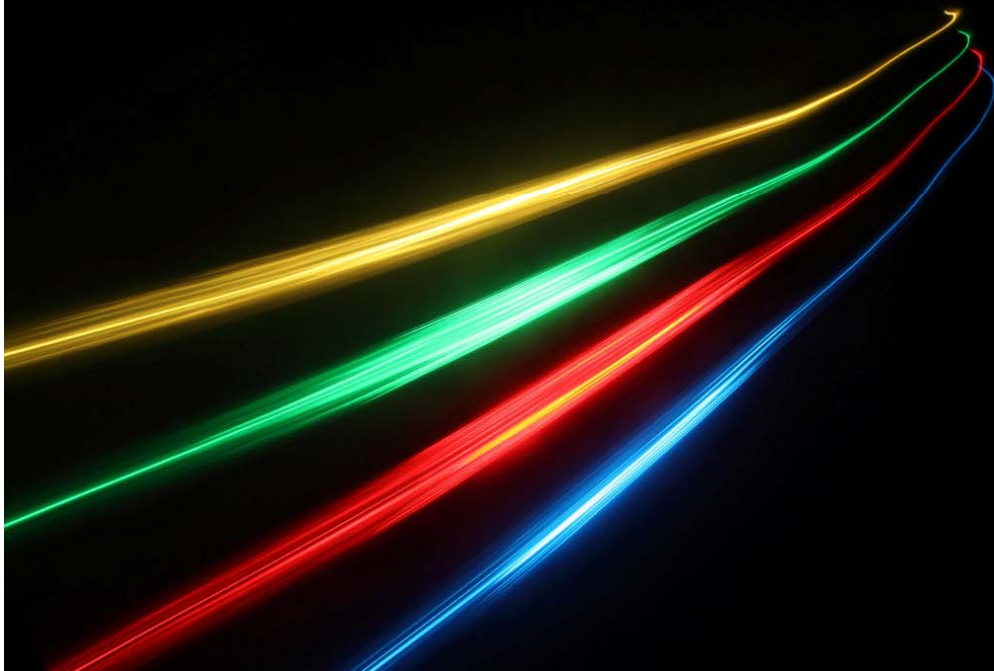
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011Q2
GL	100%	118%	120%	113%	106%	99%	88%	79%	75%	72%	71%
Commercial Auto	100%	120%	122%	118%	112%	106%	96%	88%	84%	81%	80%
Umbrella	100%	139%	147%	141%	134%	127%	115%	105%	101%	96%	95%
Total Casualty	100%	125%	130%	124%	117%	111%	100%	91%	87%	83%	82%



# OTHER LIABILITY UNDERWRITING CYCLE ANALYSIS

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# Underwriting cycle analysis

- 2010 Other Liability (Occurrence) results countrywide
- Analysis of trends and relationships
  - Premiums and price
  - AY and Cal Year results
  - Reserves and cash flow
  - Tort trends
  - Jury awards



# UW cycle - issues

## Other Liability (Occurrence) market

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### Pricing Competition

- Past profitable Calendar Year results have driven significant price decreases
    - Prices still declining
  - Accident year results bottomed in 2004, and increasing but still profitable
  - 2010 Calendar Years continues profitability
    - Reserve position – persistent indicated reserve redundancy
    - UW cash flows favorable, as payments decreasing with prices
- **Pricing to stay soft**

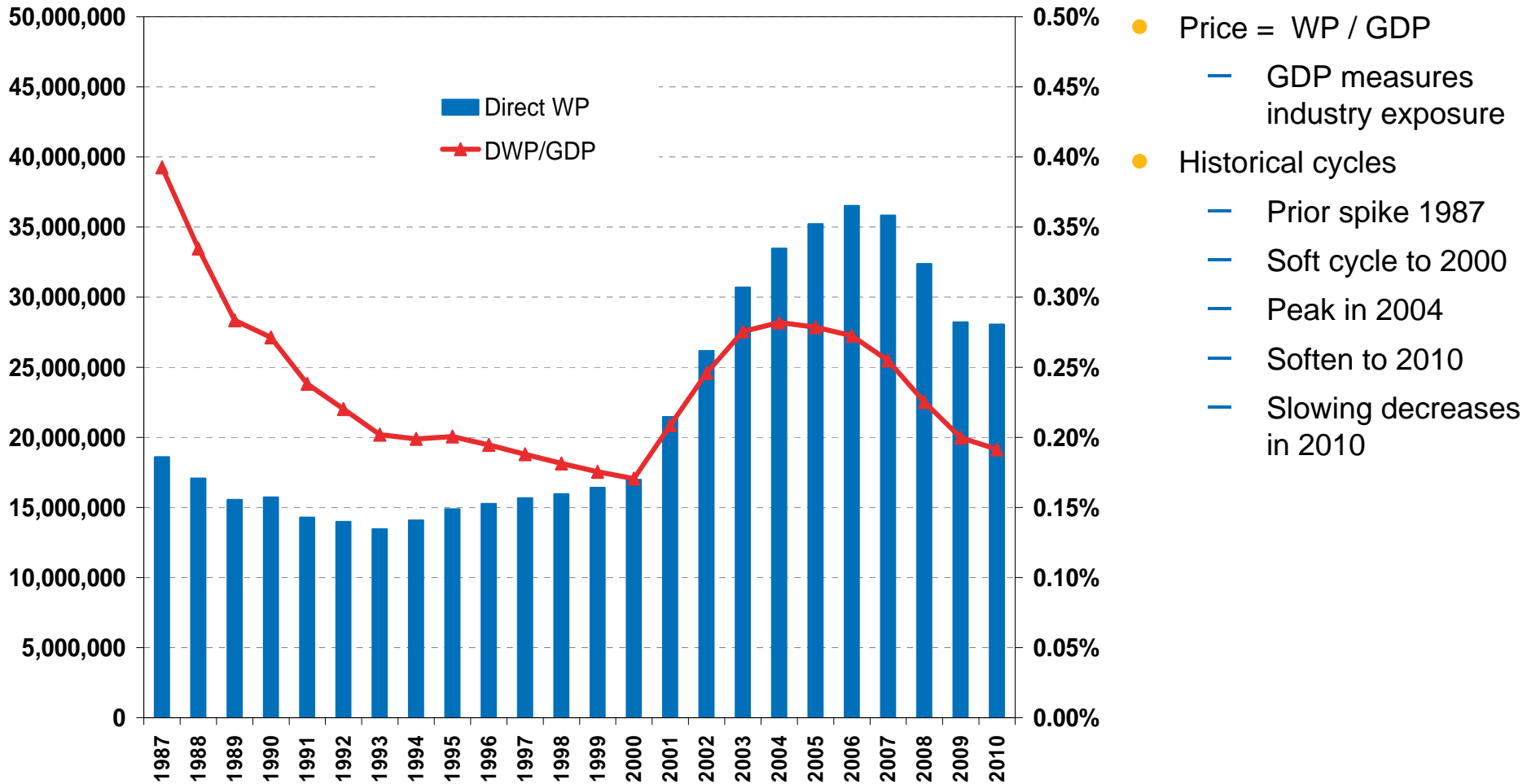
### Loss Trends

- Benign for over a decade
    - Severity trends
    - Declining frequency
  - Reform gains under pressure in various states
  - Possible return of inflation
    - Economic recovery
    - Monetary policy
  - Calendar year implications
    - Pressure on AY results
    - Reserves reflect implicit historical inflation rate
- **Nowhere to go but up**

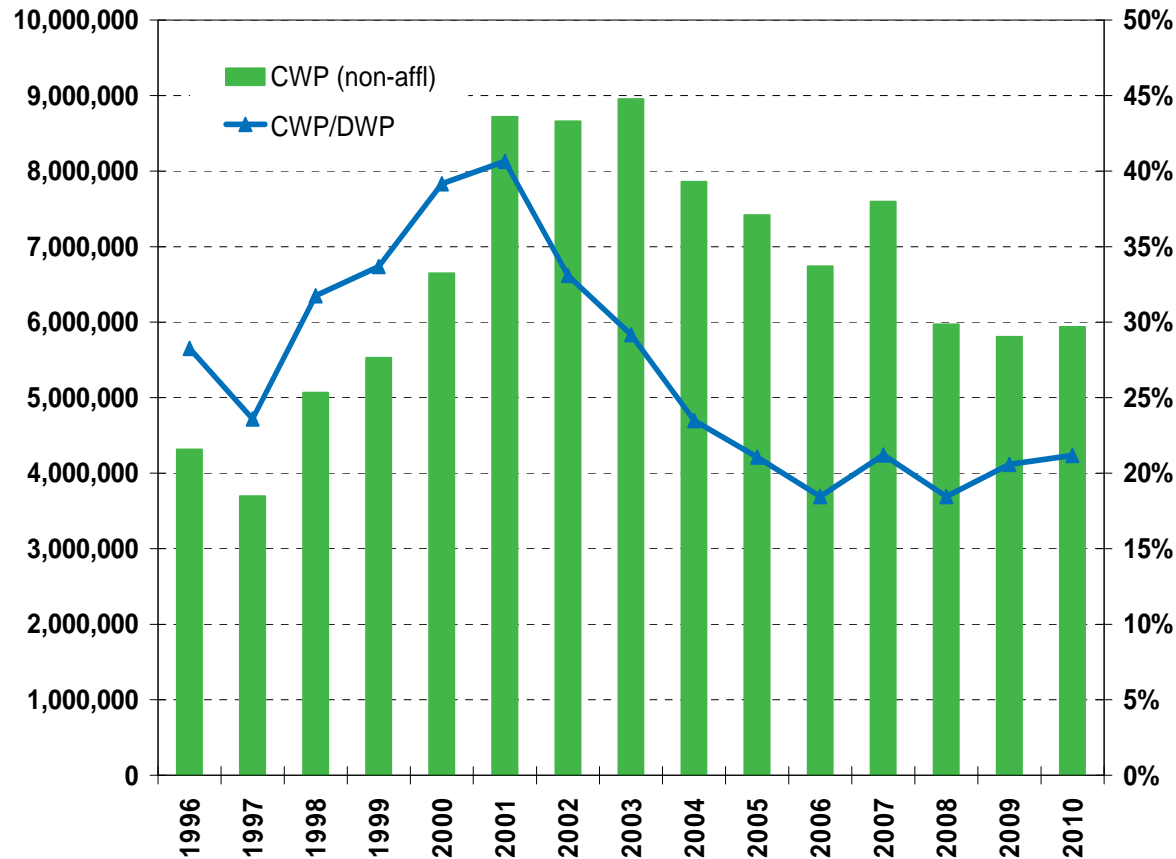
### Economic Environment

- Industry emerged from recent turmoil relatively unscathed
    - Watch treasury yields
  - Pricing did not respond to increase in capital costs
  - Need to bolster liquidity
    - Will insurers compete to generate cash?
  - Business cycle downturn reducing policies
    - Will insurers compete to cover fixed costs?
- **Wildcard**

# Other Liability (Occurrence) Premium & Price

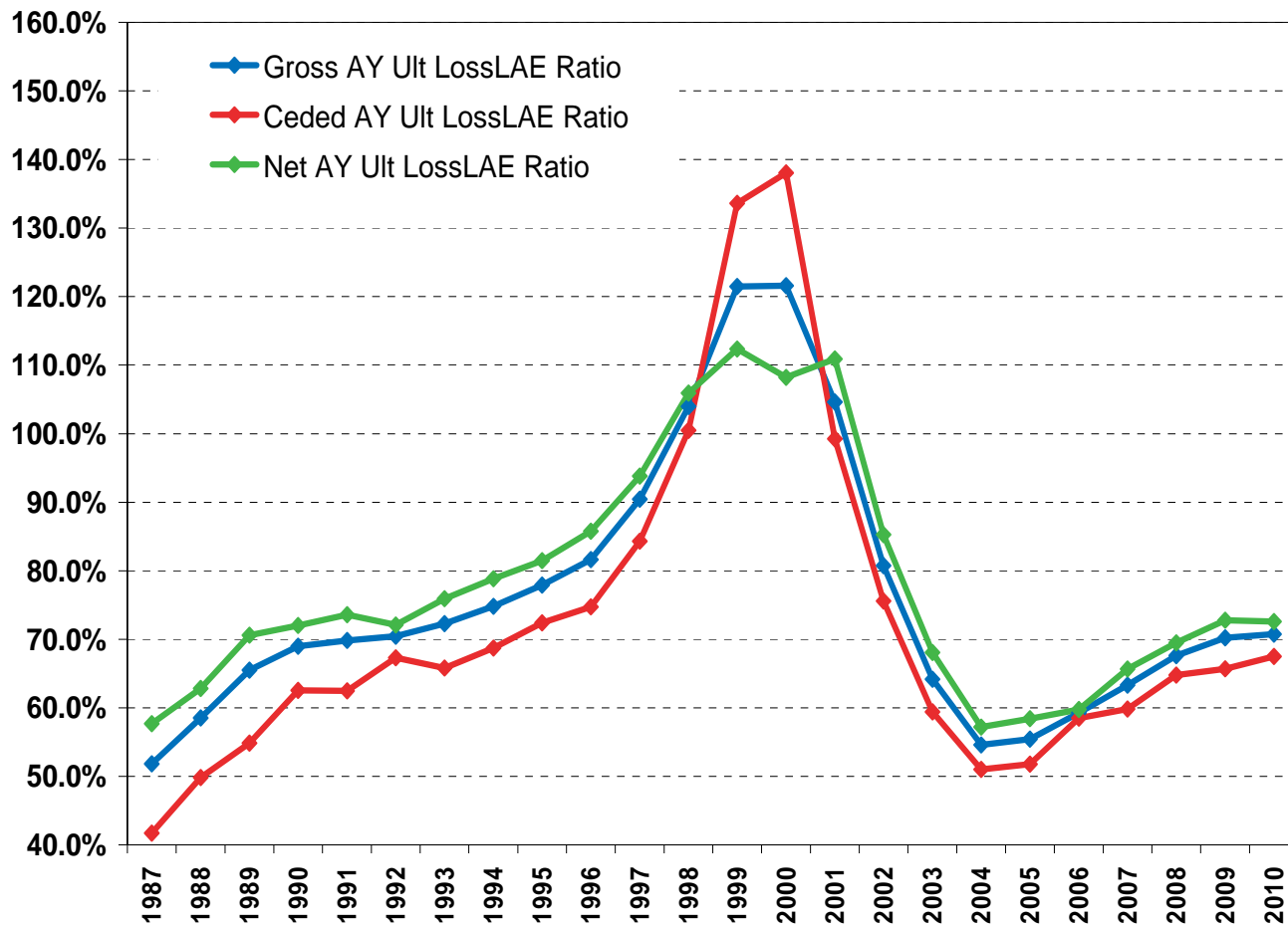


# OTHER LIABILITY (Occurrence) Ceded Premium & Utilization



- Ceded utilization also tied to UW cycle
  - Increases in hard market
  - Decreases in soft market

# Other Liability (Occurrence) Acc Yr Gross, Ceded, Net Results

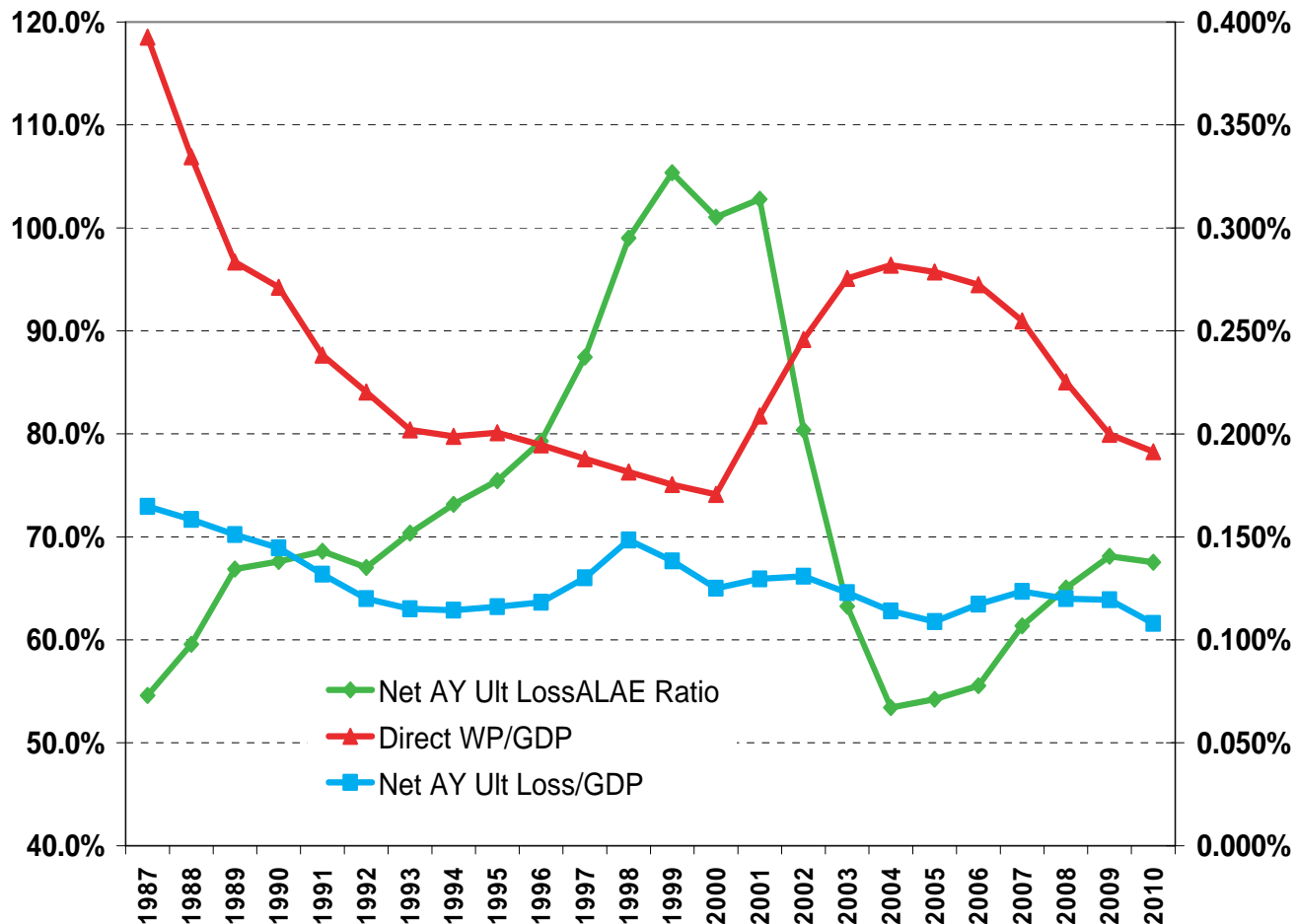


- Ceded L/R's follow same cycle as gross L/R
  - More volatile
- During inadequate soft cycles, ceded business fares significantly worse
- During other parts of cycle slightly better
  - Excess ceded business generally has low expenses

# Other Liability (Occurrence) Acc Yr Premium & Loss Trends

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- Acc Year results move inversely with pricing
  - Pricing changes cause AY results not vice versa
- While loss trends have varied somewhat, most of LR variation driven by pricing movements
- Recent trends flat
  - Investigate freq / severity trends
  - Classes, states
- Potential threats
  - Neg freq dissipates
  - Reform roll-back

# Other Liability (Occurrence) Reserve Position

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- Industry Schedule P data can be evaluated to estimate indicated reserve position
- Willis Re projects 2010 reserve redundancy in core accident years
  - \$5.9B redundancy
- Increase in redundancy from 2009
  - Indications may be distorted by recent low inflation rates
  - Counter risk if inflation increases

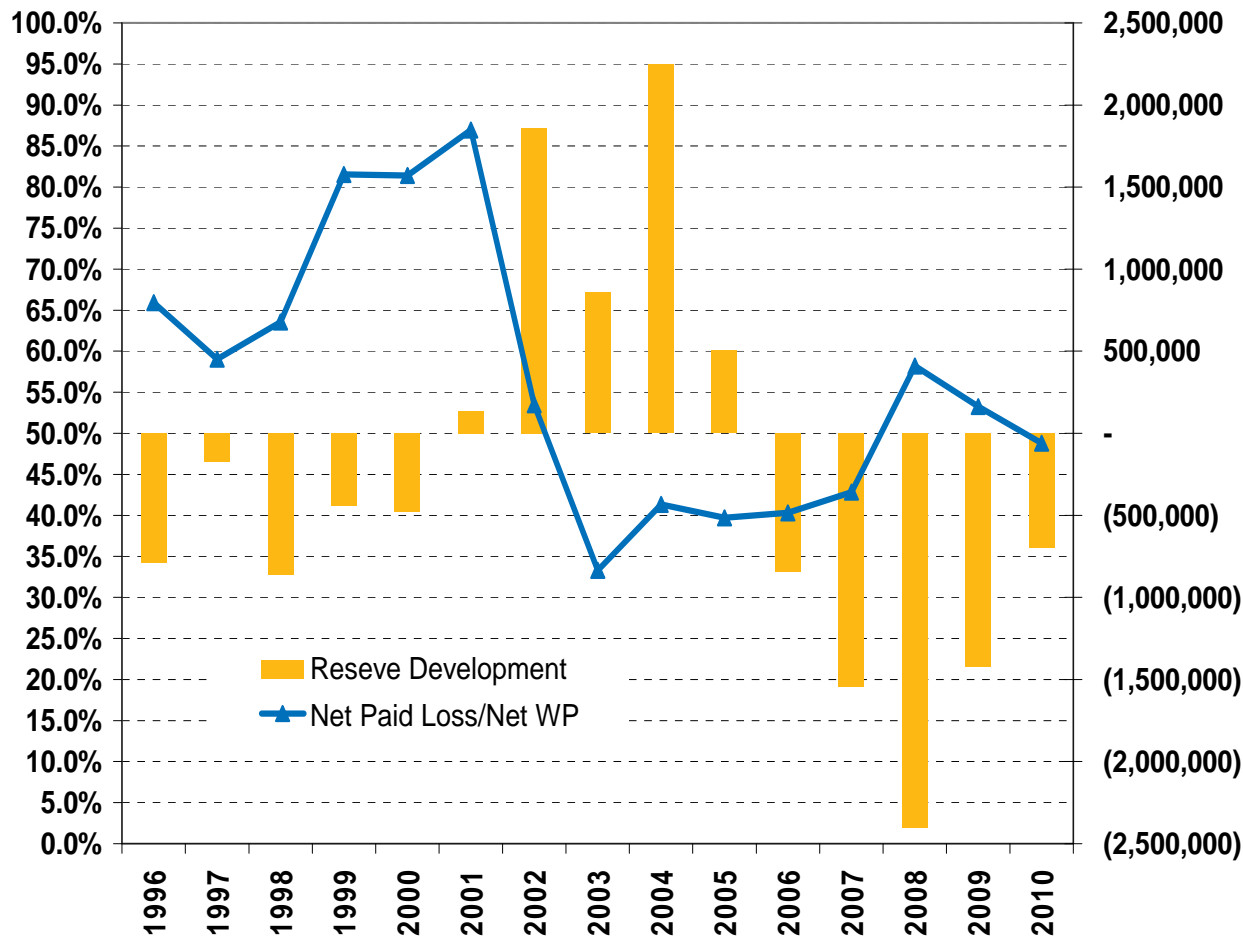
Calendar Year	Indicated (Redundancy)/ Deficiency	Subsequent Booked Development
2010	(5,933)	????
2009	(4,894)	(700)
2008	(6,029)	(1,937)
2007	620	(3,841)
2006	(2,805)	(4,186)
2005	N/A	(2,761)
2004	6,295	490
2003	3,807	6,447
2002	8,095	8,709
2001	13,116	9,137
2000	3,117	7,541



# Other Liability (Occurrence) Reserve Position & UW Cash Flow

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- UW Cash Flow appears to be an early indicator of future reserve development
  - If pricing is weak, reserves generally inadequate  
*paid losses rise relative to WP*
  - Reverse is true as well
- Cycle determined by following:
  - Cash precedes reserve changes
  - Reserve changes cause cal year results
  - Cal year results drive pricing
- Cash flow stabilizing in 2010
- Industry cash flow cut from 17B to 6B in Q2 2011

# REINSURANCE CONSIDERATIONS

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# Financial results

## – Willis Reinsurer Index

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- 2010 deteriorated over comparable period 2009 as catastrophe losses, and rate competition impacted the underwriting results of the Willis RI Index
  - 2010 combined ratio deteriorated to 94.5% compared to full-year 2009 of 88.1%
  - Favorable loss reserve development is masking accident year deterioration
- 2011 second quarter results impacted by catastrophes
  - 118.3% first half combined ratio
  - It is estimated that Chile and Japan events contributed to 5% reduction of reinsurer equity
- Reinsurers expected to increase initial loss estimates for global catastrophes
  - U.S. storms impacted first half 2011 results

Willis RI Index Summary Results			
(\$000's)	Willis RI Index 2009 YTD	Willis RI Index 2010 YTD	Willis RI Index 2011 Q2 YTD
Beginning Policyholder Surplus	58,899,568	80,637,552	85,496,752
Underwriting Gain / (Loss)	5,675,929	2,659,793	-4,439,456
Net Investment Income	8,919,529	8,231,211	3,780,596
Realized Gain/Loss on Securities	-1,392,492	861,910	154,110
Provision for Taxes	1,525,001	1,061,836	70,294
Net Income after Taxes	11,350,802	9,846,218	-1,256,646
Chg in Unrealized Gain	7,125,976	2,304,047	694,696
All other changes to PHS	3,261,206	-7,291,065	-672,302
Ending Policyholder Surplus	80,637,552	85,496,752	84,262,500
Change in PHS	36.9%	6.0%	-1.4%
Net Written Premiums	47,719,015	48,789,413	29,111,111
Change in Premium	0.3%	2.2%	
Combined Ratio (GAAP)	88.1%	94.5%	118.3%

# What Reinsurers Know

- Reinsurers can access all of the industry data discussed above
- Reinsurers obtain comprehensive primary rate change and loss experience information on the business they underwrite
- Reinsurers are in a good position to estimate expected loss ratios for the business they assume