

MANAGING EXTREMES

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# Global Reinsurance Market Trends and Impact on Reserving

Casualty Loss Reserve Seminar

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# Global Reinsurance Market Trends & Impact on Reserving

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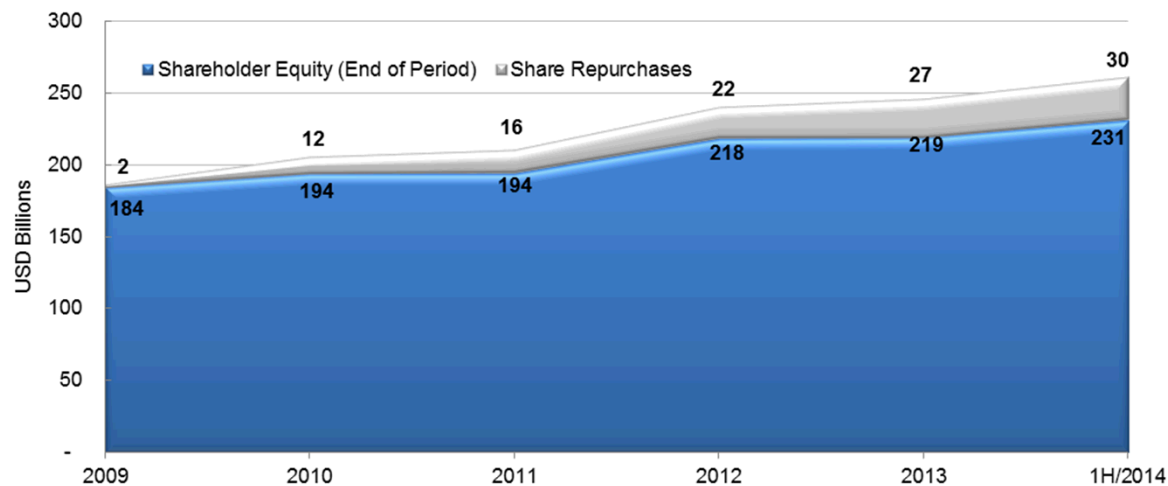
- **Global Reinsurance financial results**
  - Capital, returns, and catastrophe activity
- **Reinsurance pricing trends**
  - Catastrophe, property, and casualty
- **Impact of “new capital”**
  - Insurance Linked Securities (ILS) and “alternative” reinsurers, e.g. collateralized and hedge fund backed reinsurers
- **Casualty underwriting cycle (focus on WC)**
  - Links between pricing, reserving, cash flow, and reinsurance utilization

# Global Reinsurance Market Capital Base Growth

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Exhibit 3  
Global Reinsurance – Shareholder Equity Plus Share Repurchases



Note: Lloyd's YE2013 Total Shareholder Funds used as a proxy for 1H/2014.

Source: A.M. Best data & research

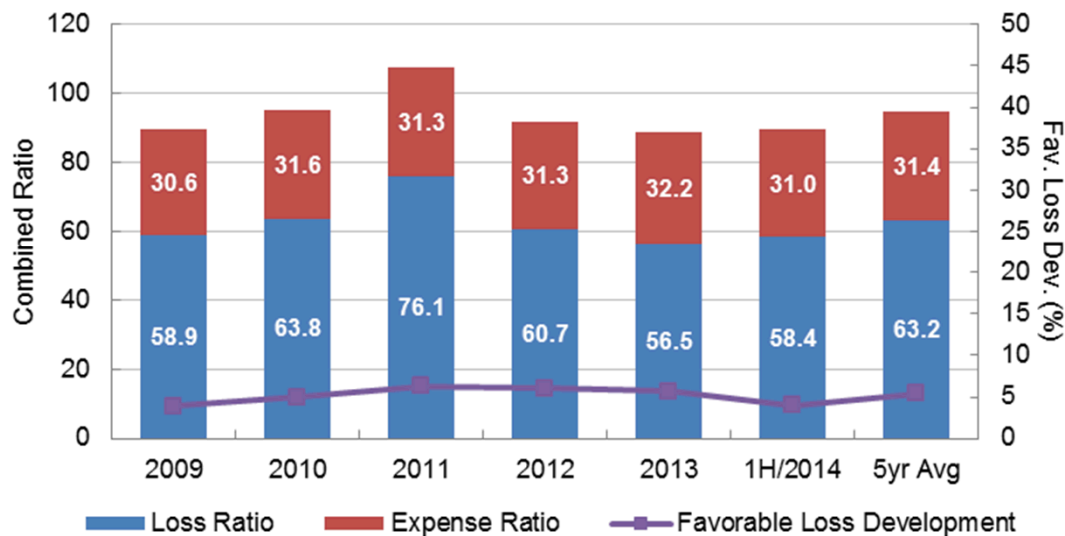
- Global reinsurance capital continues to grow since 2008 financial crises
  - Ongoing share repurchases
- Continued increase in traditional “supply” of reinsurance capacity
- Lower investment yields slowing down capital growth

# Global Reinsurance Market Underwriting Results

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Exhibit 4  
Global Reinsurance – Combined Ratios



Source: A.M. Best data & research

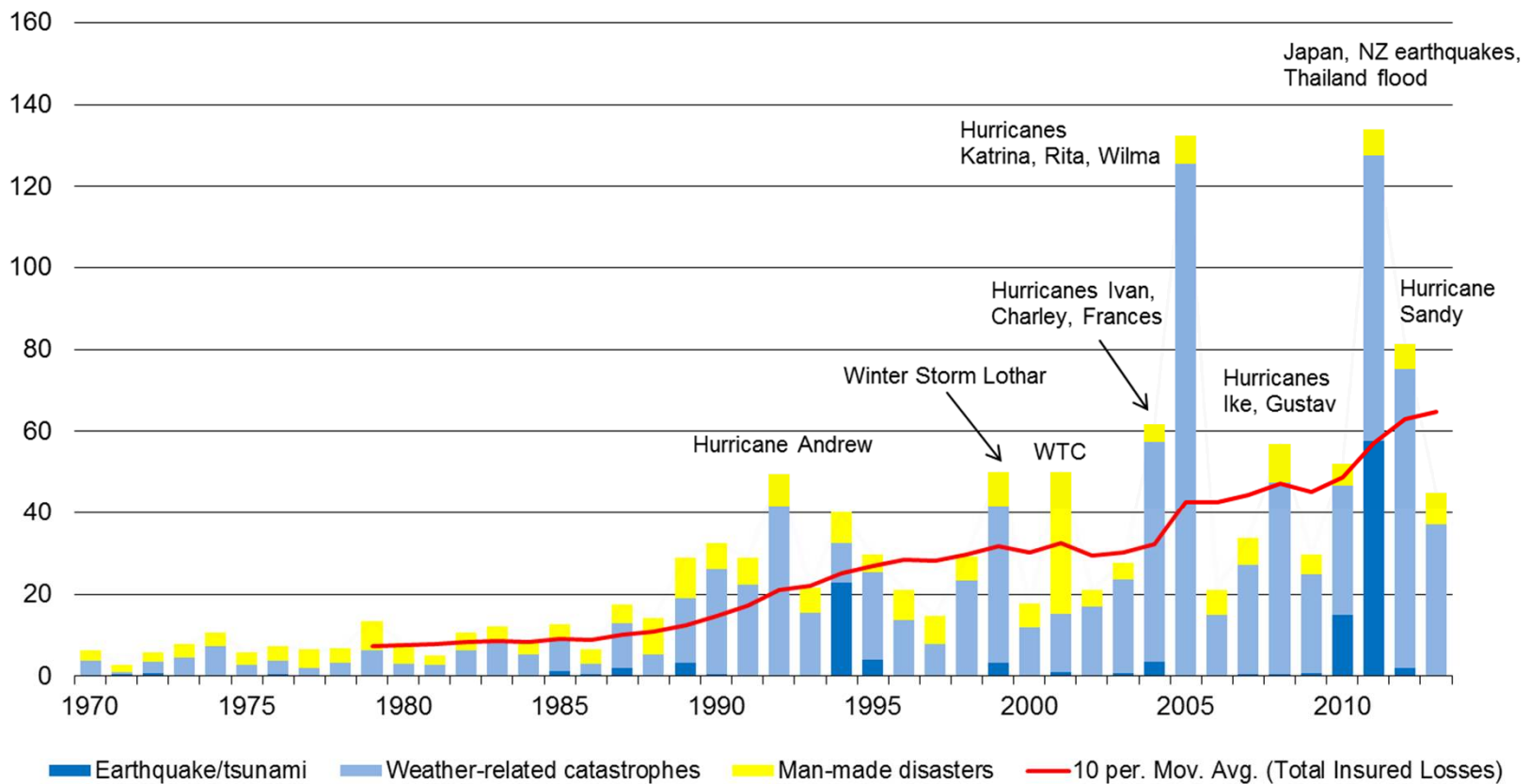
- Combined Ratio below 100% for 4 out past 5 years as is 2014 YTD
  - Favorable loss development averaging 5pts
- Target CR decreased due to lower inv inc
- 2011 reflects global events including Japan/NZ EQs
- US losses (tornados, Irene, Sandy) in 2012-13 have not impacted results 4

# Global Reinsurance Market Catastrophe Losses

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in USD bn,  
at 2013 prices



Source: Swiss Re Sigma 2/2014

# Global Reinsurance Market Property Pricing 2014 YTD

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Property rates						
Territory	Pro rata commission	Risk loss free % change	Risk loss hit % change	Catastrophe loss free % change	Catastrophe loss hit % change	
Australia	0% to +2%	0% to -5%	0% to +10%	-12.5% to -17.5%	0% to +5%	
Caribbean	+1% to +2%	-5% to -10%	0% to -5%	-10% to -15%	-5% to -10%	
China	+2%	N/A	0%	-20% to -50%	0% to -10%	
Latin America	0% to -2.5%	-5% to -15%	-2.5% to +10%	-5% to -10%	N/A	
Middle East	0% to +1%	-5% to -10%	0% to +10%	-7.5% to -12.5%	0%	
South Africa	+2.5%	0%	+5%	-10%	+5%	
United Kingdom	varies	N/A	N/A	-15% to -20%	N/A	
United States – Florida	+2% to +5%	-5% to -15%	varies	-15% to -25%	N/A	
United States – Nationwide	N/A	-10% to -15%	+5% to -5%	-10% to -20%	0% to -5%	

*Note: Movements are risk-adjusted.*

Source: Willis Re1st View July 2014

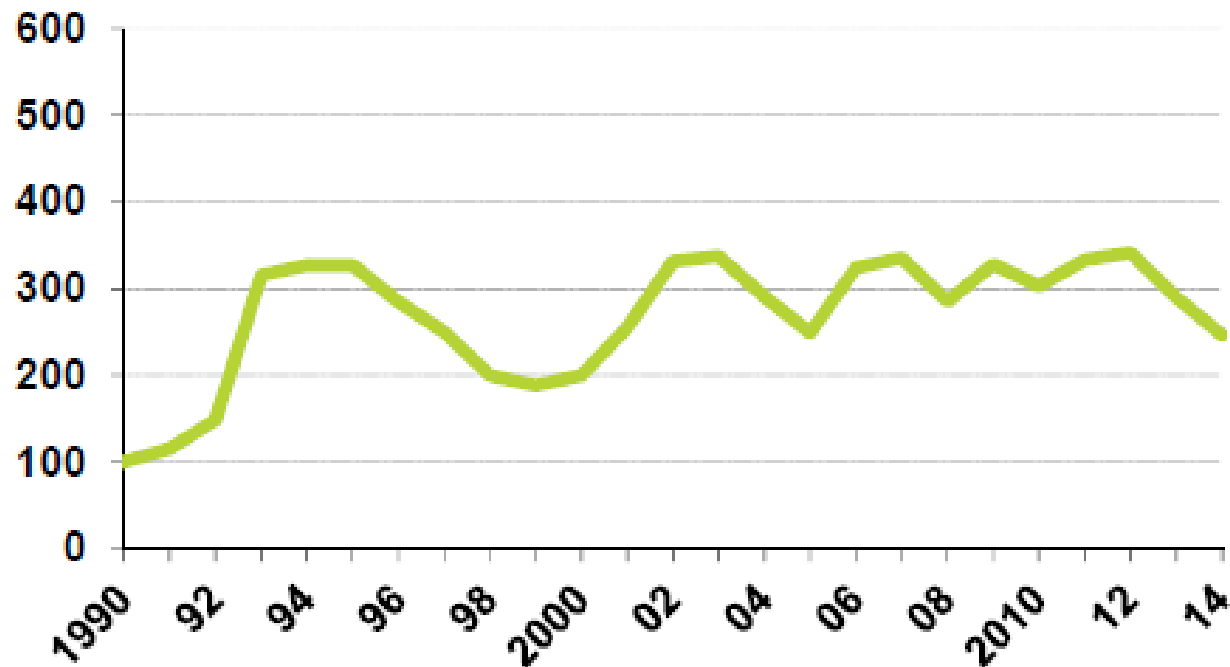
- Per risk and CAT pricing down 25% (varies by region and experience)
- QS commissions up 2% to 5% reflecting reduced cost of inuring coverage
- Contrast to primary market rate increases (decelerating)

# Global Reinsurance Market Catastrophe Pricing Trends

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## United States – Nationwide



Source: Willis Re1st View July 2014

- Overall pricing down over 30% over 2 years (4 Jan/Jun renewal periods)
- Greater reductions in FL and Gulf



# Global Reinsurance Market Casualty Pricing 2014 YTD

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Casualty rates			
Territory	Pro rata commission	XL – No loss emergence % change	XL – With loss emergence % change
Australia	N/A	Casualty -2% to -5% Professional Lines -5% to -7.5%	0% to -2%
China	N/A	-15%	N/A
International – General Third Party Liability	+2% to +7%	-5% to -20%	0% to -10%
International – Motor Liability	varies	-10% to +10%	0% to +15%
South Africa	N/A	-5%	0%
United States – General Third Party Liability	+2% to +7.5%	-5% to -20%	0%
United States – Motor Liability	+1% to +4%	-10% to -20%	+5% to -5%
United States – Professional Liability	+5%	-15% to -20%	varies

Workers' Compensation rates			
Territory	Pro rata commission	Catastrophe XL – % change	Per life XL – % change
United States	+3% to +5%	-5% to -15%	0%

Source: Willis Re 1st View July 2014

- Reinsurance market pricing condition are soft
- Contrast to primary market rate increases (decelerating)



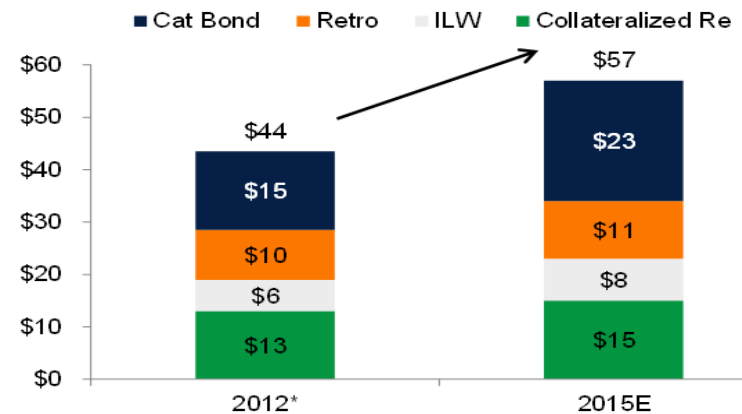
# Capital Market Reinsurance Alternative Vehicles & Capacity

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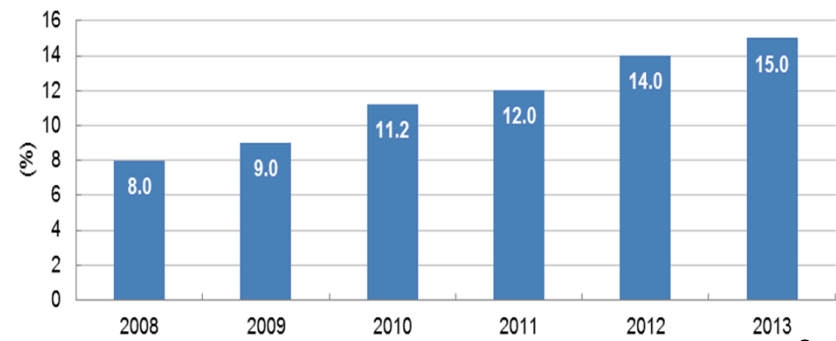
- Reinsurance has become an accepted new asset class
  - Investors seeking diversifying return in low yield environment
  - Growing concern over soft reinsurance market
- A number of different ways to provide capacity, e.g. cat bond, retro, ILWs, and collateralized reinsurance
- Scope of covered risks
  - Cat bonds, ILWs, and collateralized reinsurance typically short tail property catastrophe focused
  - Hedge Fund Re often seeks casualty “float”

NON-TRADITIONAL P/CAT LIMITS BY TYPE



Source: Insurance Information Institute

Global Reinsurance – Third Party Capital as a Percentage of Total Reinsurance Capacity



Source: A.M. Best research

# Capital Market Reinsurance Company and Fund Participants

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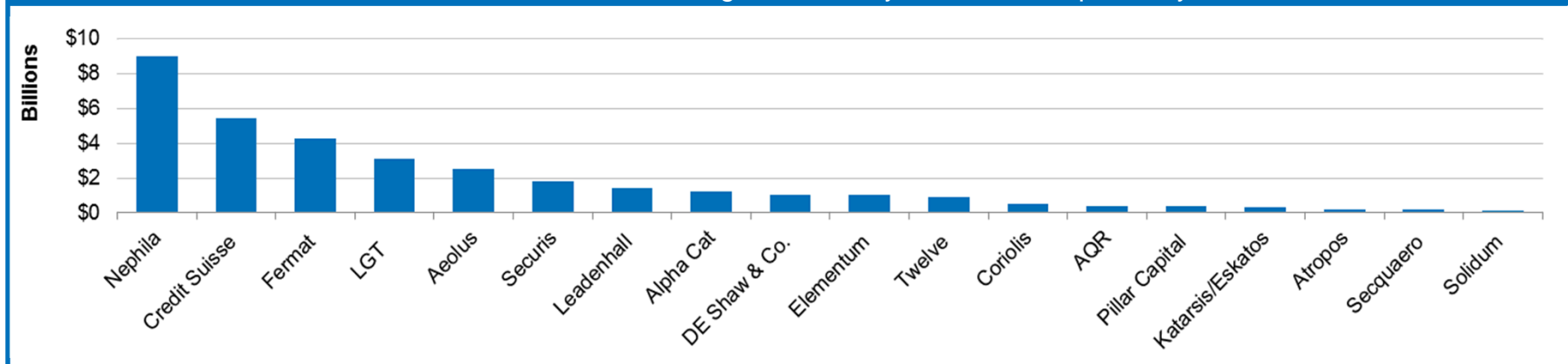
- Growing range in type of investors and varied underwriting strategies
  - Some funds seek high ROLs to meet yield target which come with risk
  - Pension funds are looking for lower yields with remote default probabilities
  - New “Hedge Fund Re” looking for low margin medium tail float business

## A.M. Best Rated Hedge Fund Re(Insurers)

Company Name	Location	Issuer Credit Rating	Outlook	Public/Private	Capital (USD Billions)	Business Strategy	Investment Strategy	Underwriter/Reinsurer	Asset Manager
Greenlight Reinsurance, Ltd.	Cayman Islands	a	stable	Public	1.2	High frequency/low severity casualty	Equity long/short	Independent	Greenlight Capital
Third Point Re	Bermuda	a-	stable	Public	1.5	High frequency/low severity casualty	Multistrategy	Independent	Third Point Capital
PaCRe	Bermuda	a-	stable	Private	0.6	Top layer property cat	Multistrategy	Validus	Paulson & Co
Hamilton Re	Bermuda	a-	stable	Private	0.9	Property cat/low severity casualty	Technical; Multistrategy	Independent	Two Sigma
Watford Re	Bermuda	a-	stable	Private	0.9	Property, casualty, property cat	Fixed Income	Arch Capital	Highbridge (JPM)

Source: A.M. Best data & research

## Estimated Assets Under Management of Key Alternative Capital Players



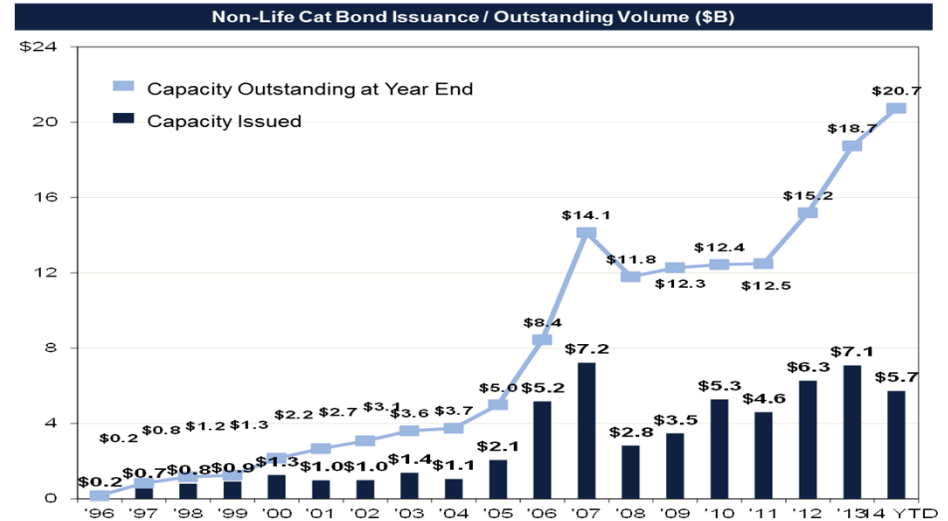
Source: Willis Re research

# Capital Market Reinsurance Catastrophe Bond Activity

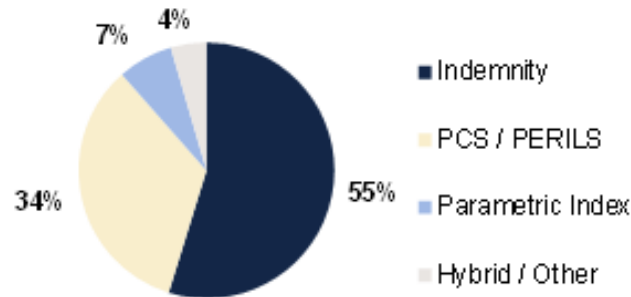
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- Market capacity has surpassed pre-financial crises peak
- Coverage triggers have moved towards “UNL” indemnity based
- Risk spreads (ROL) have declined up to 50% in 2 years, while underlying expected loss (EL) flat
  - Approaching traditional pricing

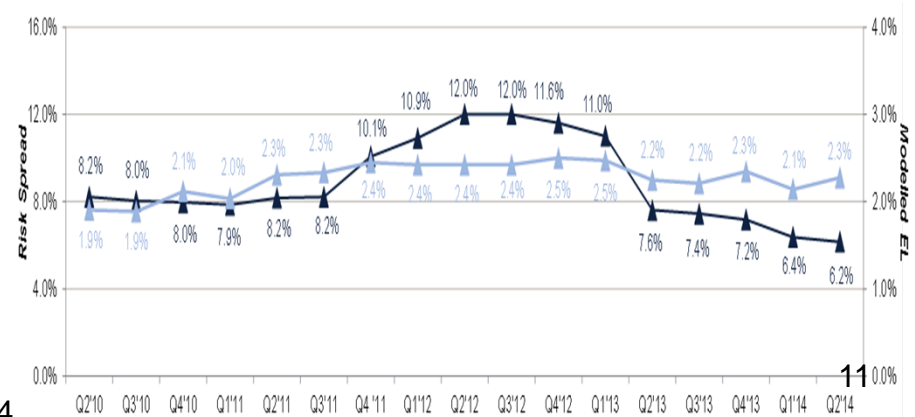


Par Outstanding By Trigger Type



Total: \$20.7 billion

Quarterly LTM U.S. Wind Exposed Weighted Average Risk Premium & Expected Loss



Source: Willis Capital Markets & Advisory, transaction to 9/1/2014

# Capital Market Reinsurance Procedures and Coverage Terms

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- Model driven underwriting and pricing
  - Data quality and transparent risk definition important
  - Dynamically adjusted to maintain constant risk
- Usually multi-year
- Initially only “single shot” but becoming more creative, e.g. reinstatements, shared limits, “top and drops”, and aggregates
- Moving towards “traditional” approach, e.g. un-modeled risks and “UNL” indemnity based covers
- Claims settlement will normally operate under a clearly defined regime of notices and calculations within a set timetable
- Sensitive to terms of capital release at the expiration and commonly require commutation provision after 2-3 years

# Global Reinsurance Market Outlooks and Threats

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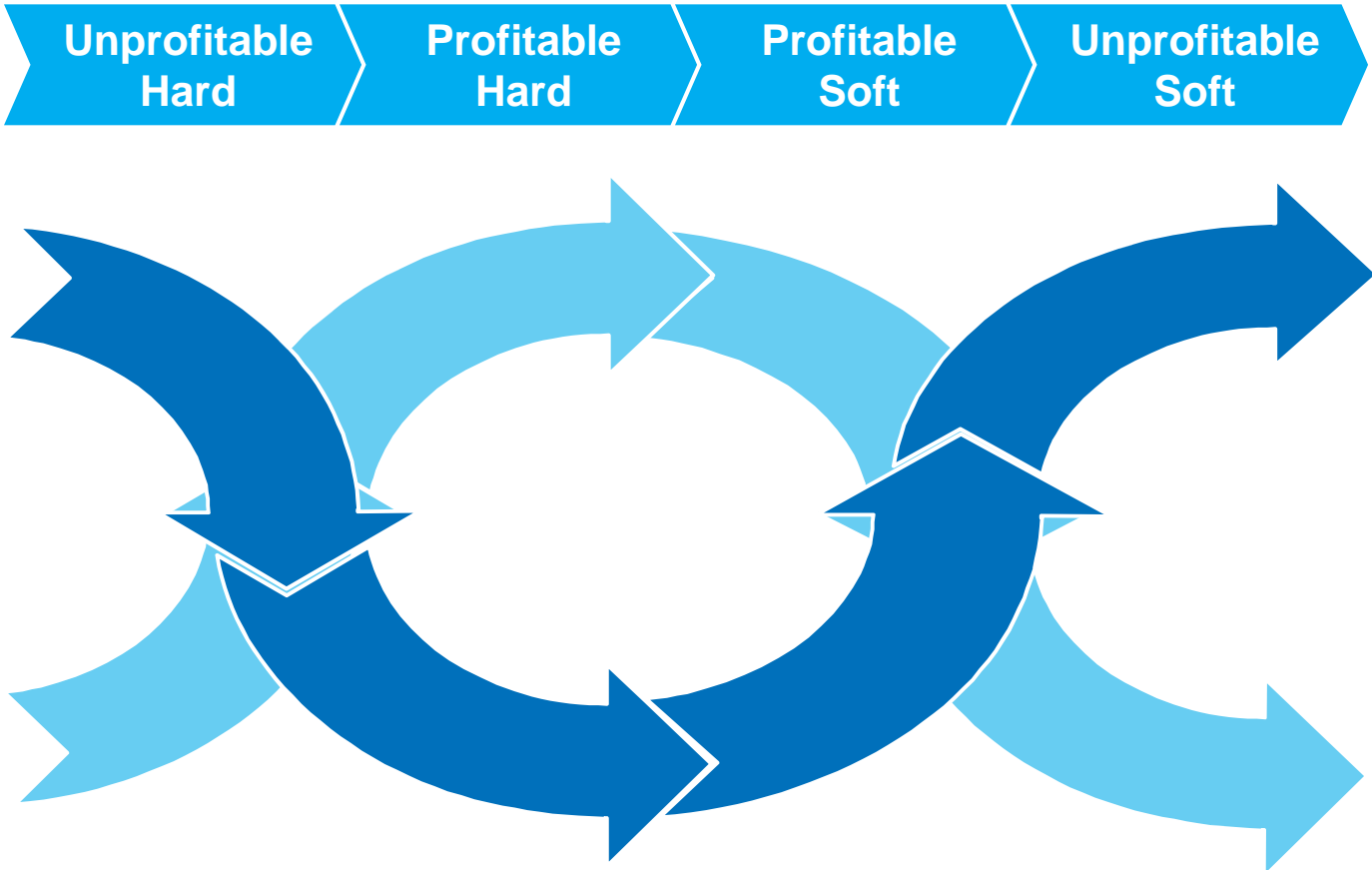
- Rating agencies have Reinsurance sector at a “negative” outlook
  - Expect more downgrades than upgrades (but most actions will be continue to be affirmations)
  - Increasingly competitive landscape with new participants and capital providers as well as increased primary net positions
  - Soft market pricing continuing with lower investment income
  - Diminishing favorable development on prior years
  - Potentially growing reserve deficiencies in recent and future accident years
    - Weakening current year pricing
    - Broadening terms and conditions
    - Inflation risks after extended period of moderate claim trends

***Leading to an analysis of the P&C underwriting cycle***



# UW Cycle - Phases

## Casualty Market



- AccYr Ult L/R
- AY Ult vs Orig
- Indicated Reserve Development
- Ceded WP

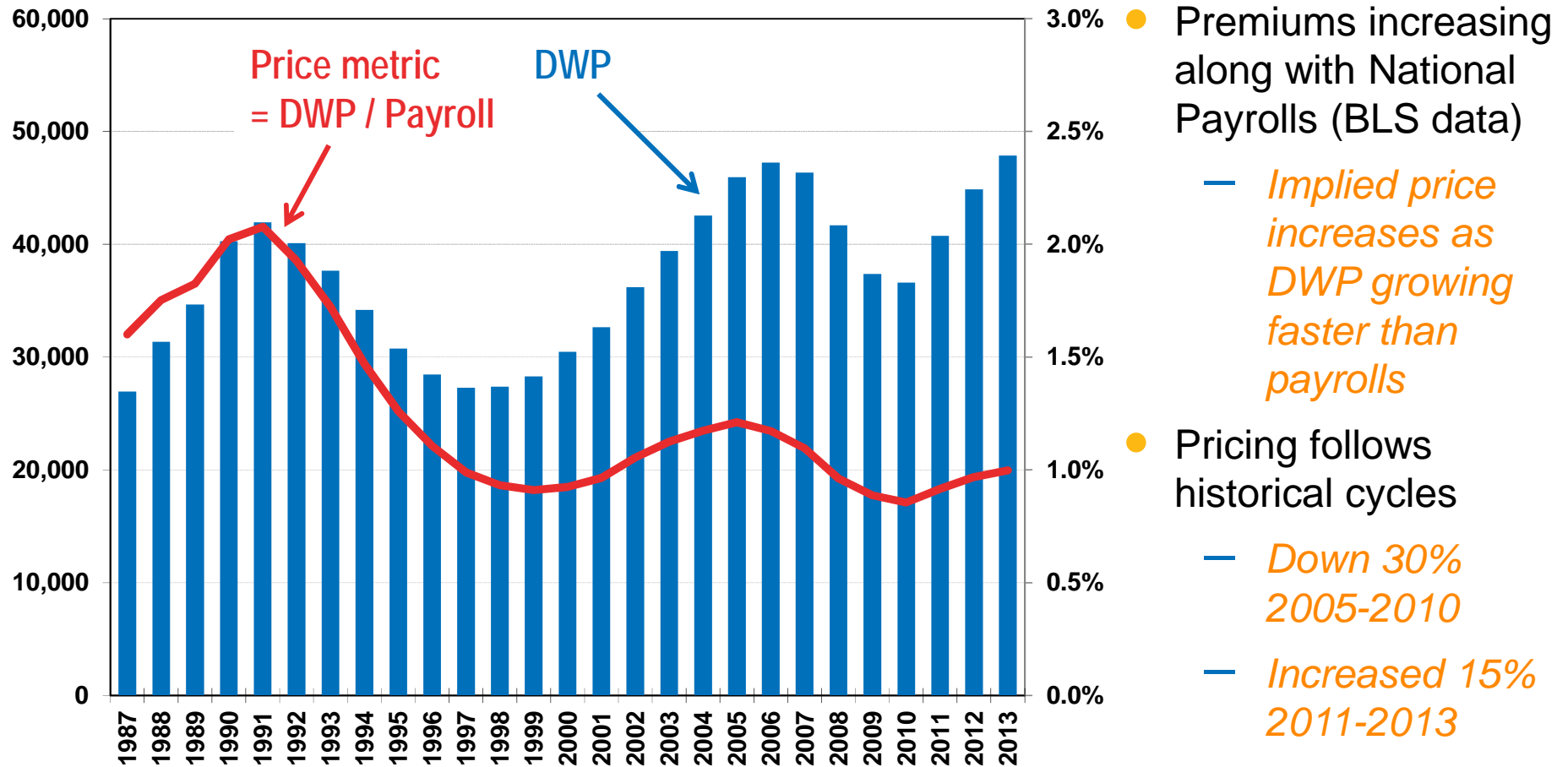
- Pricing Level
- CalYr L/R
- CalYr vs AY L/R
- Reported Development
- UW Cash Flow



# Workers' Comp UW Cycle Trends in Premiums and Price

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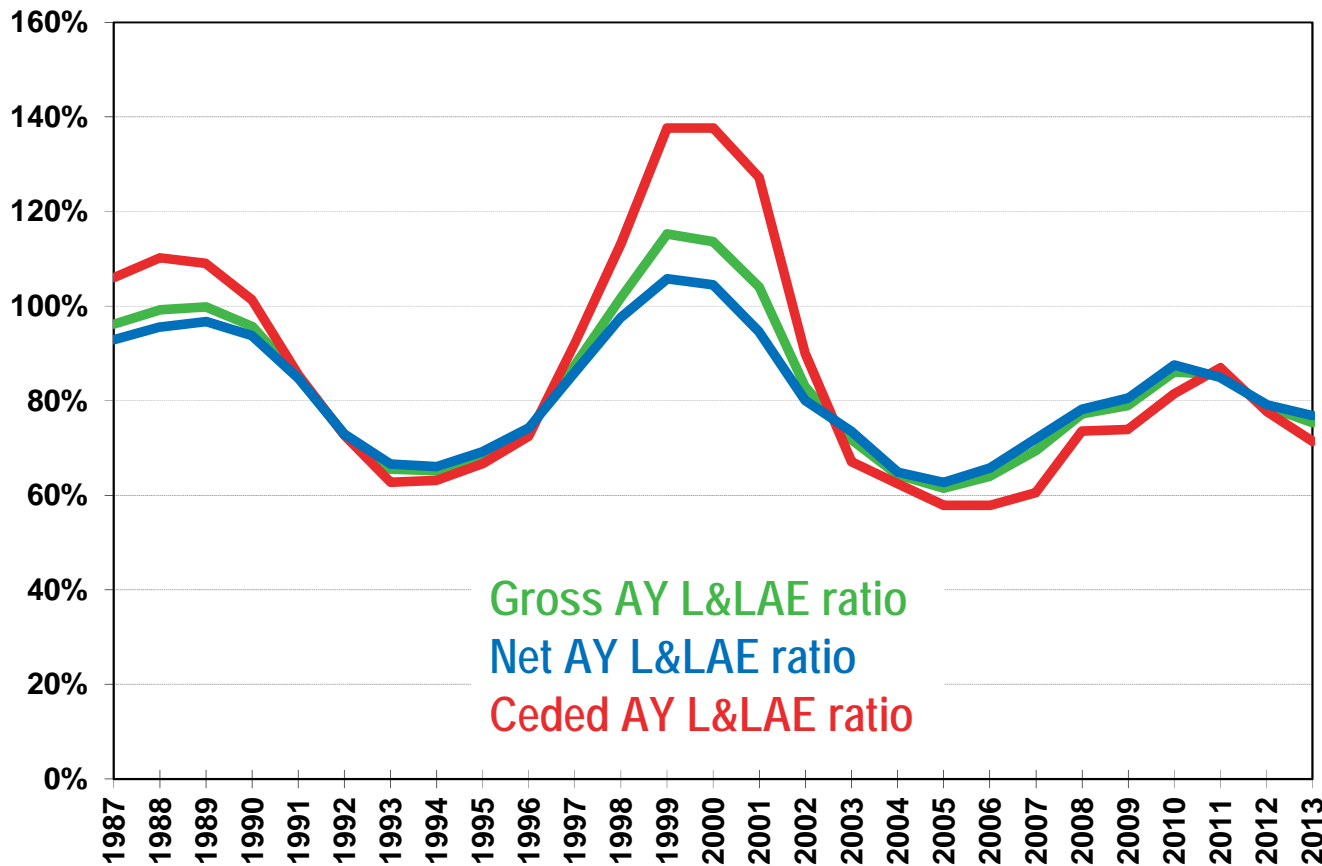


# Workers' Comp UW Cycle

## AY Gross, Ceded, Net Results

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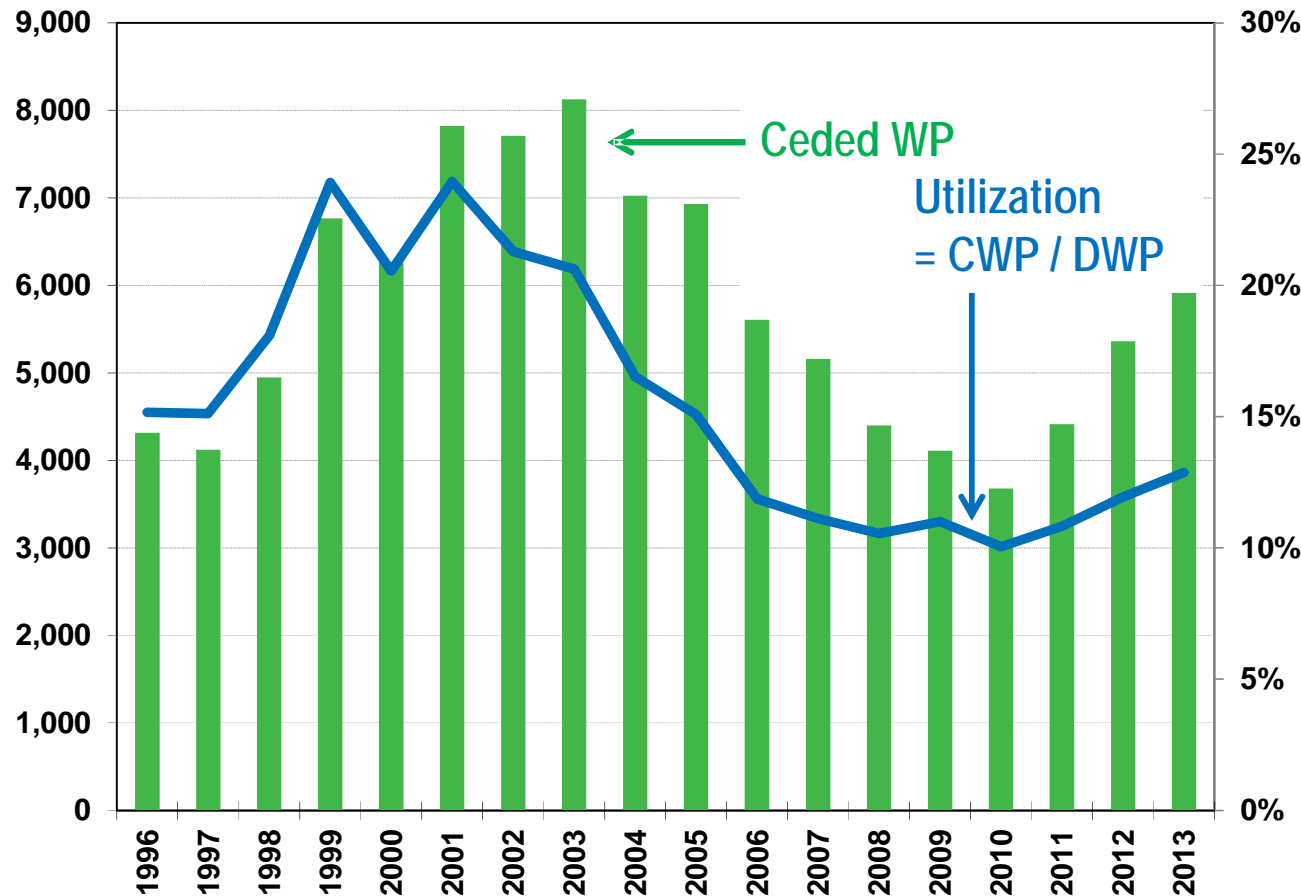
- Ceded L/R's follow same cycle as gross L/R
  - *More volatile*
- During soft market phase, ceded results are worse
  - Recent ceded results have been in line or slightly better than gross

Note: Ceded values may be distorted due to inter-company pooling  
 Source: SNL Financial, Bureau of Labor Statistics, and Willis Re

# Workers' Comp UW Cycle Ceded Premium & Utilization

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- Ceded utilization also tied to UW cycle
  - Increases in hard market *up since 2011*
  - Decreases in soft market
- *Reinsurance may prove valuable going forward*
  - Pricing uncertain
  - Potential for loss trend uptick

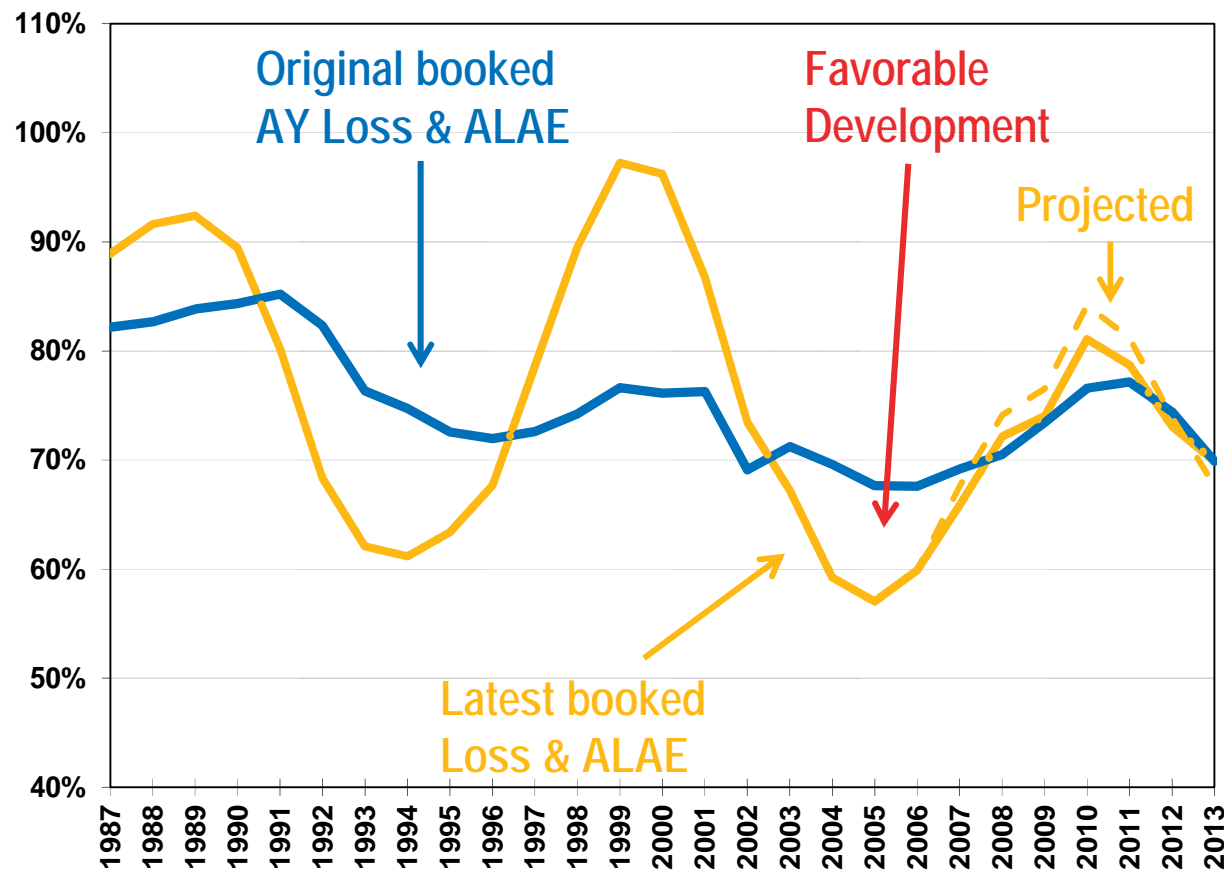
Note: Ceded values may be distorted due to inter-company pooling  
Source: SNL Financial and Willis Re

# Workers' Comp UW Cycle

## Accident Year Results & Development

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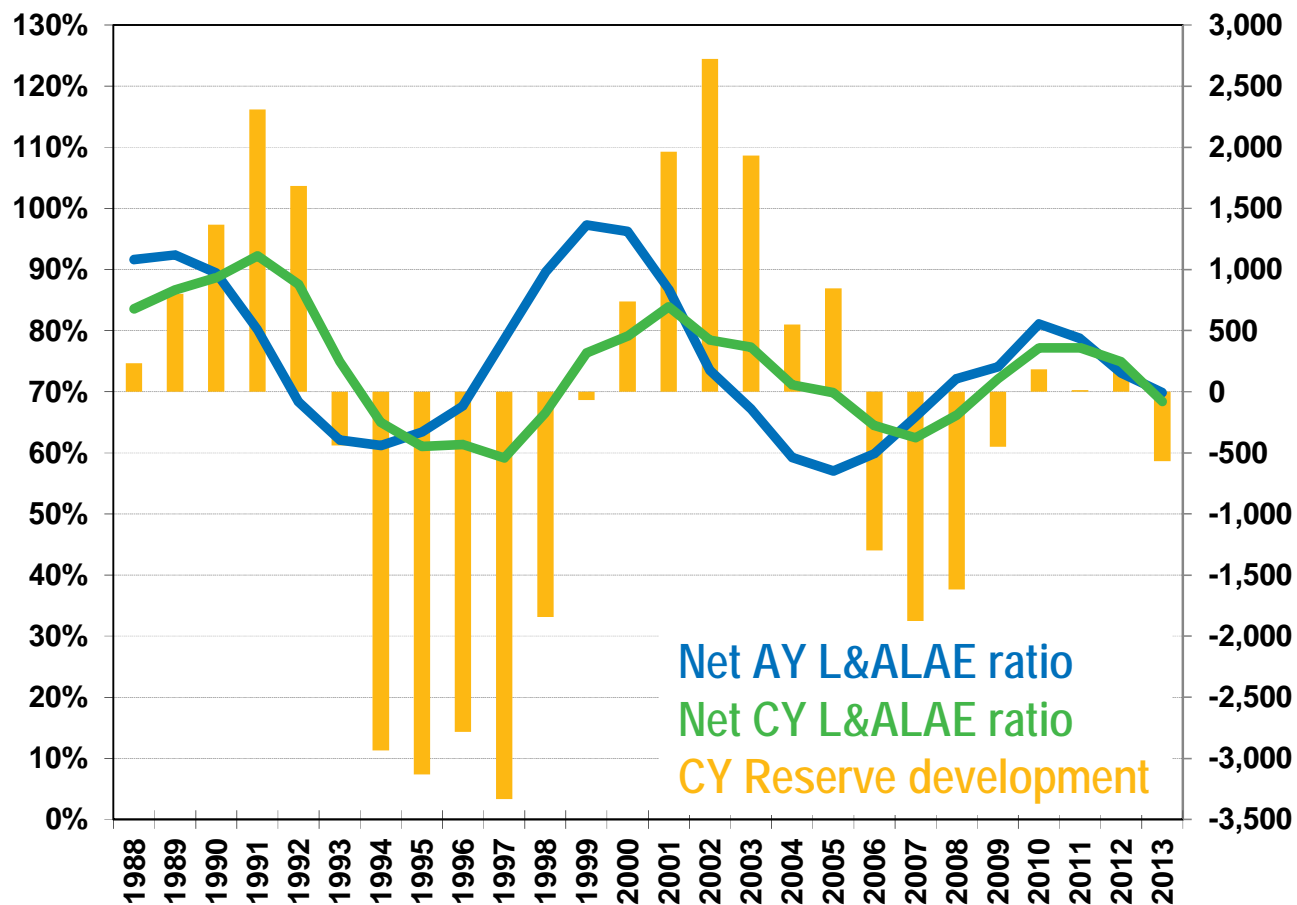
- Original booked AY loss ratios are relatively stable over time
  - However, ultimate results exhibit significant cyclical development
- AY's 2008-2011 have developed adversely, *Trending favorable, 2013 Loss+ALAE redundant*
- Overall total reserves are improving but still deficient
  - Currently \$3.9B est. deficiency

# Workers' Comp UW Cycle

## Calendar Year Impact of Reserves

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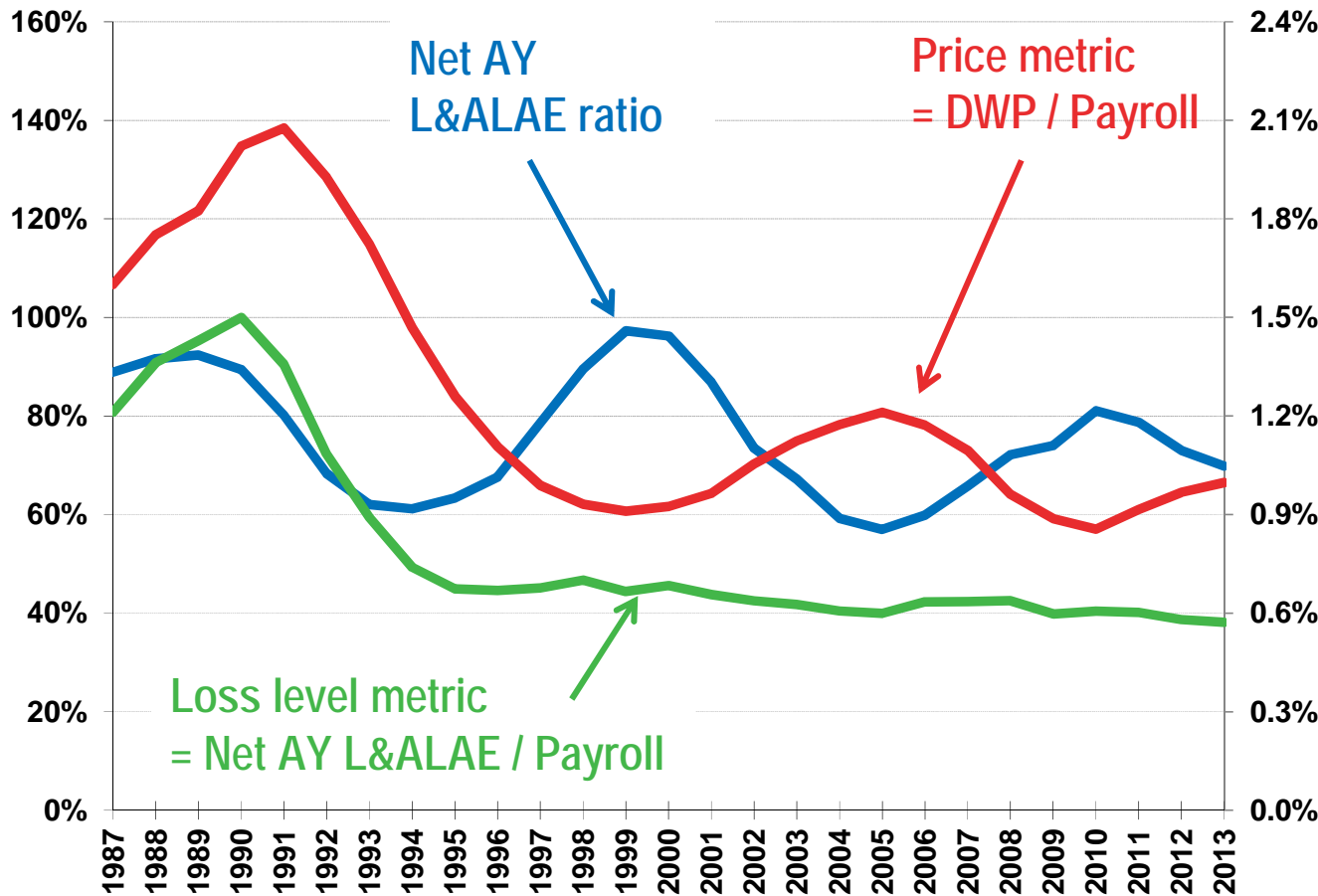
- Calendar year results lag accident years
- Recent Calendar years not significantly impacted by adverse reserve development
- Last year booked favorable
- Deficiencies may play out in future
- *But, current AY's showing some offsetting redundancies*

# Workers' Comp UW Cycle

## Impact of Pricing and Loss Trends

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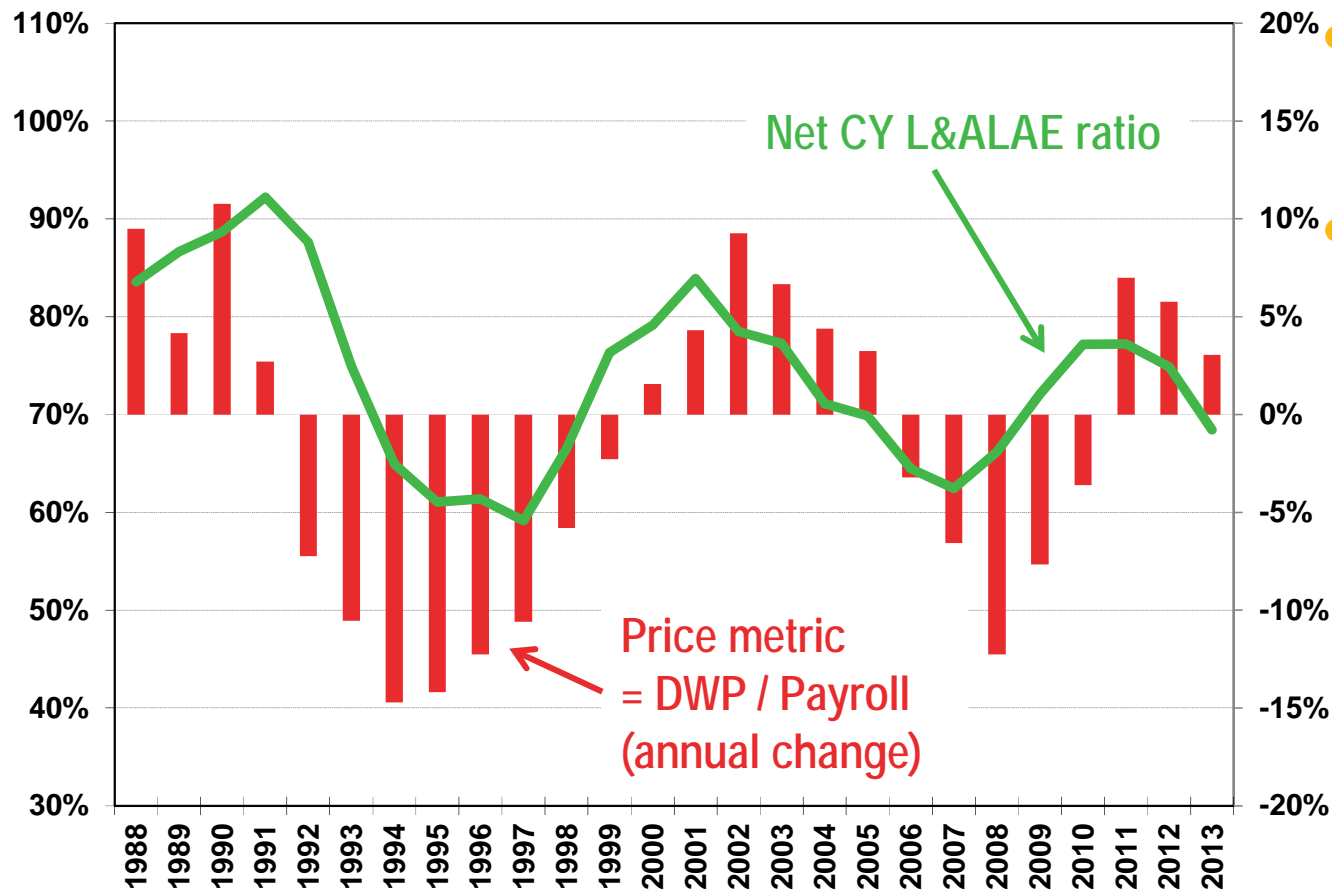
- Pricing significantly drives accident year results
- Variation in loss level relative to exposures is significantly less than variation in pricing

— Since 1995 loss level has been relatively flat

# Workers' Comp UW Cycle Pricing Follows Calendar Year

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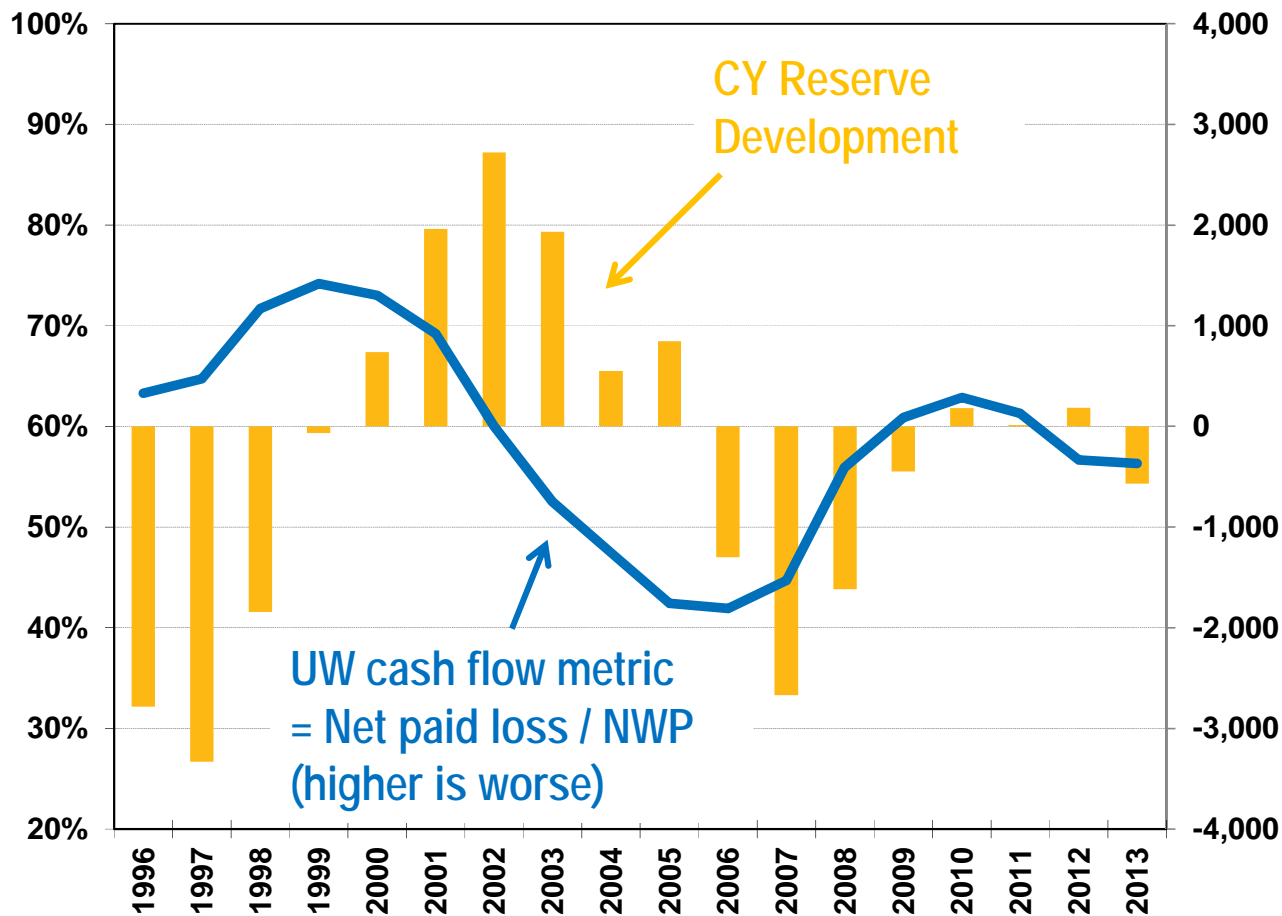
- Pricing follows calendar year results in lagged response
- Projected price increases expected to moderate
- *Improving CY and AY results will alleviate pricing pressure*

# Workers' Comp UW Cycle

## Reserve Position & UW Cash Flow

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- UW Cash Flow appears to be an early indicator of future reserve development
- Cycle determined by:
  - *Cash precedes reserve changes*
  - *Reserve changes cause CY results*
  - *CY drives pricing*
- Cash flows have improved but may have stabilized, improvement in reserves may stall



# Casualty UW Cycle

## Observations and Take-aways

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- Difficult to set current accident year loss ratios
  - Need to accurately monitor real price and exposure levels
  - Carefully select “a priori” ELRs for BF weighting
    - Don’t be overly influenced by “target” pricing ELRs
- Industry-wide pricing follows calendar year results
  - Calendar years results driven by reserve development
  - Need to focus management on prospective AY trends
- Industry reserve position relatively easy to analyze
  - Gives view as to future calendar years AND pricing
  - UW cash flow can be used as early indicator
- Reinsurance can prove valuable in a soft market

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