



# **Property-Casualty Insurance— Confronting Cyclical and Structural Changes**

Casualty Actuaries of New England  
(CANE) Fall Meeting

Sturbridge, MA

September 30, 2015

# Agenda

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## **About Conning**

## **Cyclical Change**

- ◆ Economic and Insurance Market Conditions
- ◆ Conning Forecast
- ◆ Loss Reserves

## **Structural Pressures**

- ◆ Demographic Change
- ◆ Technology and Economic Trends

## **Not Your Father's Insurance Industry**

- ◆ Alternative Capital
- ◆ Emerging Risks and New Technologies

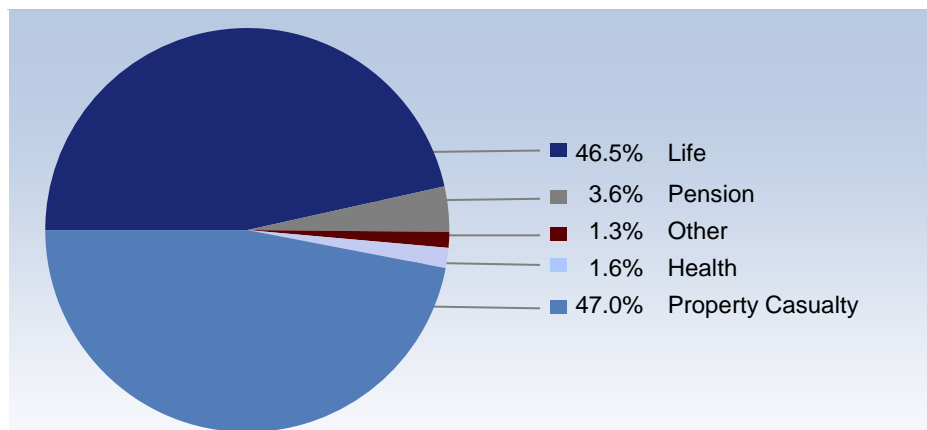
## **Implications**

- ◆ Focus on Customer
- ◆ Going Beyond Risk Transfer to More Value-Added Services

## Who we are...

- ❖ Founded in 1912; insurance specialists for more than 50 years; investing insurance assets for nearly three decades
- ❖ Managing \$94.8 billion for 150 clients\*
- ❖ 296 employees with locations in Hartford, New York, London, Cologne, and Hong Kong\*
- ❖ Independently owned by Aquiline Capital Partners, Conning employees, and Cathay Financial Holdings
- ❖ On November 12, 2014, Cathay Financial Holdings announced that its subsidiary, Cathay Life Insurance Co, Ltd., approved the acquisition of Conning

## Assets by Client Type\*



Prepared by Conning, Inc. \*As of 3/31/2015 Includes Conning, Inc., Conning Asset Management Limited, Cathay Conning Asset Management Limited, Goodwin Capital Advisers, Inc., and Conning Investment Products, Inc.

◆ Company founded by William S. Conning; provides investment advice to high net worth individuals	1912
◆ Began providing insurance stock research and advice to institutional investors	1950
◆ Expanded into consulting and strategic industry research for senior insurance executives	1970
◆ Formed asset management group to manage investments for insurance companies	1988
◆ Acquired insurance asset management business of TCW Group	1999
◆ Acquired insurance asset management business of Charter Oak Asset Management	2000
◆ Acquired assets of DFA Capital Management, a leading provider of risk modeling software	2010
◆ Launched High Dividend Equity strategy (Jan 2011)	
◆ Established Hong Kong investment center through joint venture with Cathay Financial Holdings	
◆ Acquired Goodwin Capital Advisors	2011
◆ Launched European investment center	2012
◆ Launched new Liquid Alternatives and Equity MLP offerings	2013
◆ Acquired certain assets of Brookfield Investment Management Inc.'s Core Fixed Income Insurance Business	2014

# Conning Insurance Research & Consulting Solutions

## Published Research

- ◆ Strategic Studies on Key Industry Issues
- ◆ Forecasts of Line of Business and Industry Performance
- ◆ Line of Business Market Assessment Reports

## Consulting

- ◆ Strategy Development and Review
- ◆ Proprietary Analysis & Surveys
- ◆ Business Development Support
- ◆ Rating Agency Support
- ◆ Peer & Competitor Analyses
- ◆ State Level Premium Forecasting

## Tools

- ◆ Proprietary Models
- ◆ Market Share Analyses
- ◆ Midsized Insurer Analyses
- ◆ Presentations
- ◆ Webinars on Demand

## Experienced Research Professionals

Backgrounds: Actuarial, underwriting, equity research, strategic planning, investment banking, insurance operations, consulting

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(CLICK TO EXPAND)

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Life-Annuity  
Property-Casualty  
Regulatory/Economic/Investment/ERM  
Total Insurance Industry



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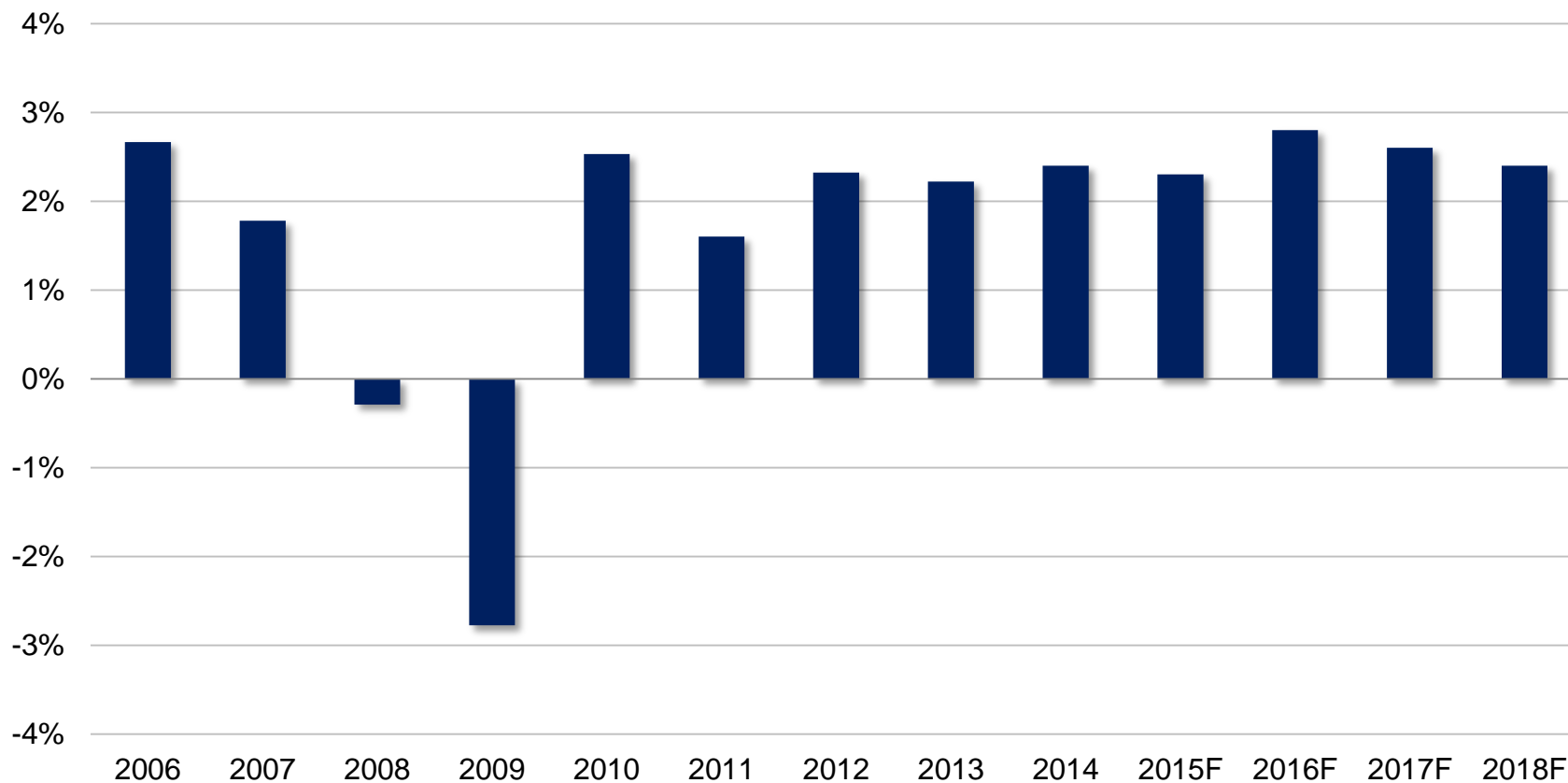
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# CYCLICAL CHANGES

# Slowing Economic Growth Limits Exposure Potential

## U.S. Real GDP Growth



Prepared by Conning, Inc. Source: Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters (<https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters>) (2006-2015).

# Lowest 10-Year Rates Since the 1950s

## U.S. 10-Year Treasury Rates

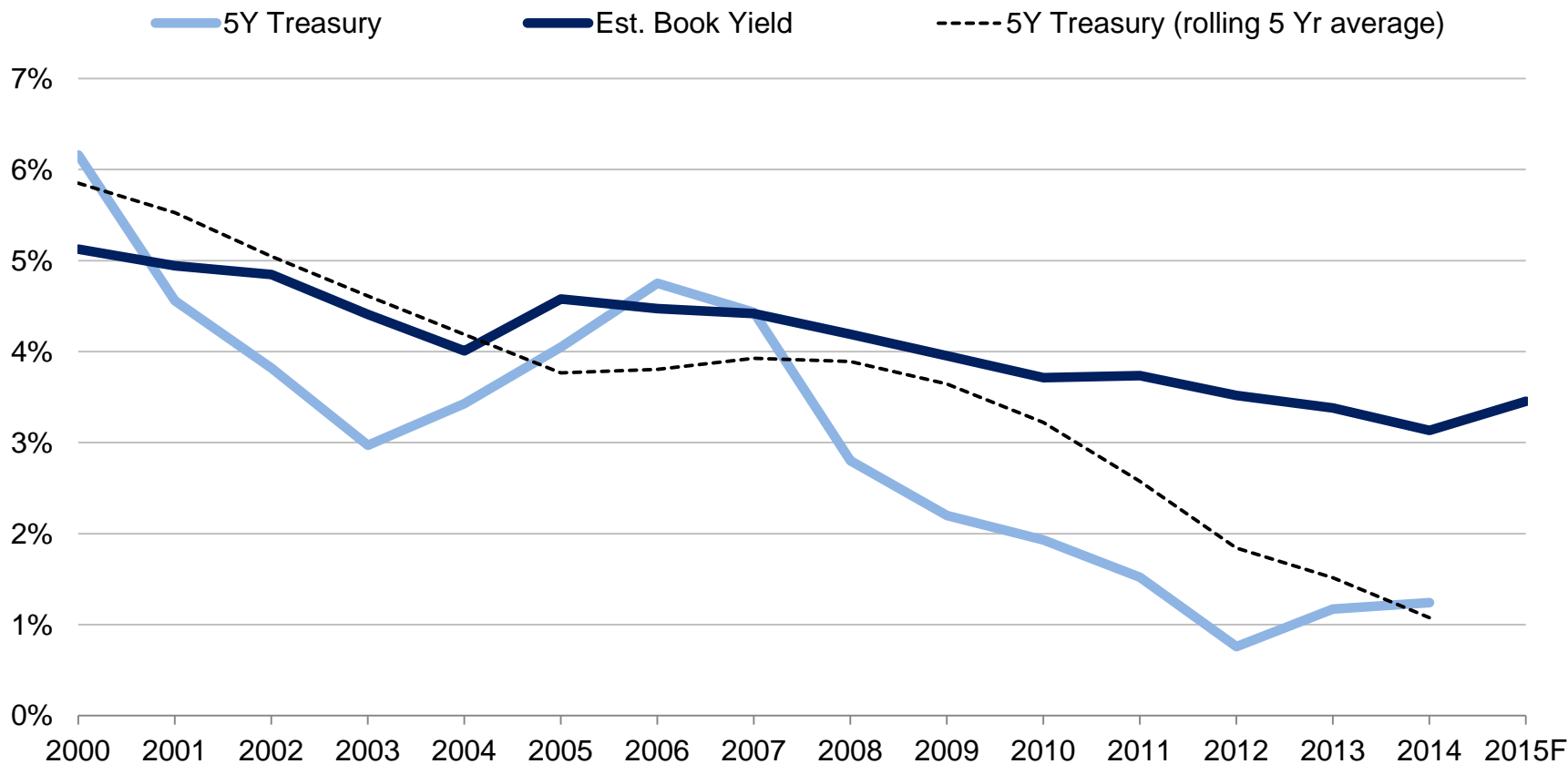


Prepared by Conning, Inc. Source: U.S. Department of the Treasury (1953-2015).



# Insurance Industry Book Yields Down 37% Since 2010

## Property-Casualty Industry Historical Book Yield

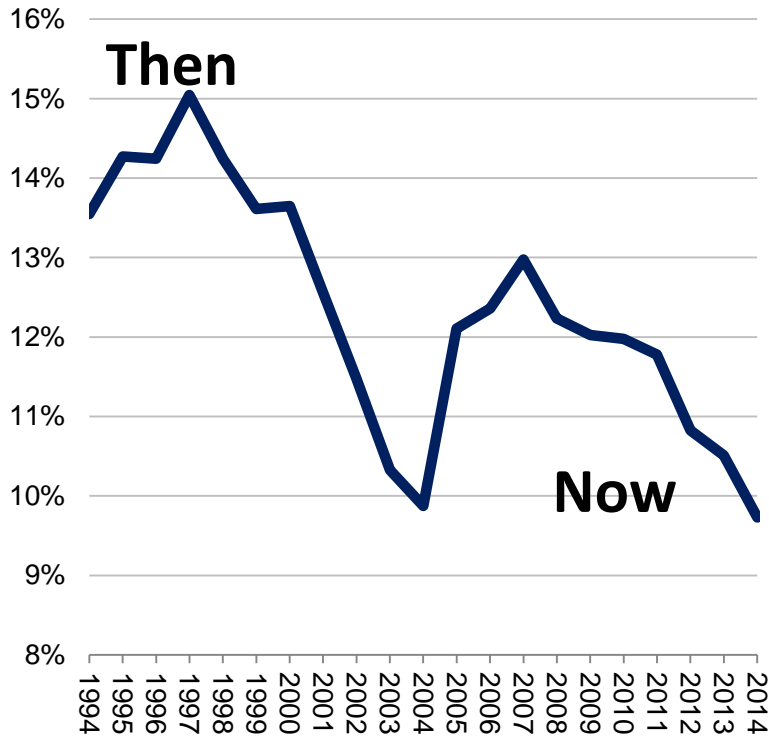


Prepared by Conning, Inc. Source: Conning, Inc. *Property-Casualty Forecast & Analysis by Line of Insurance*, 2015Q2 Edition

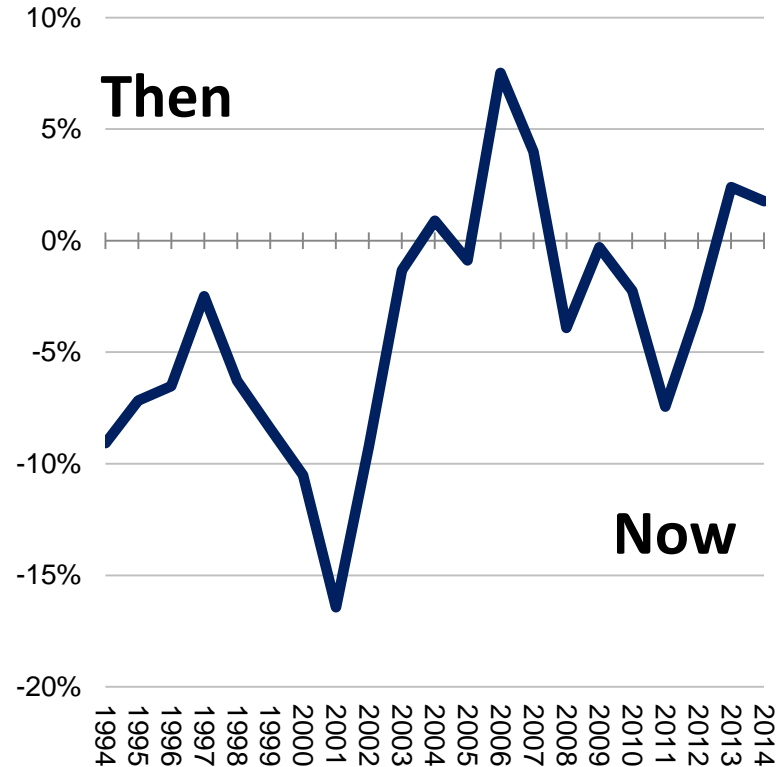
# Lower Interest Rates Put Pressure on Underwriting

## Comparison Between Underwriting and Investment Income as a % of Net Premiums Earned

### Investment Income as a % of Earned Premium



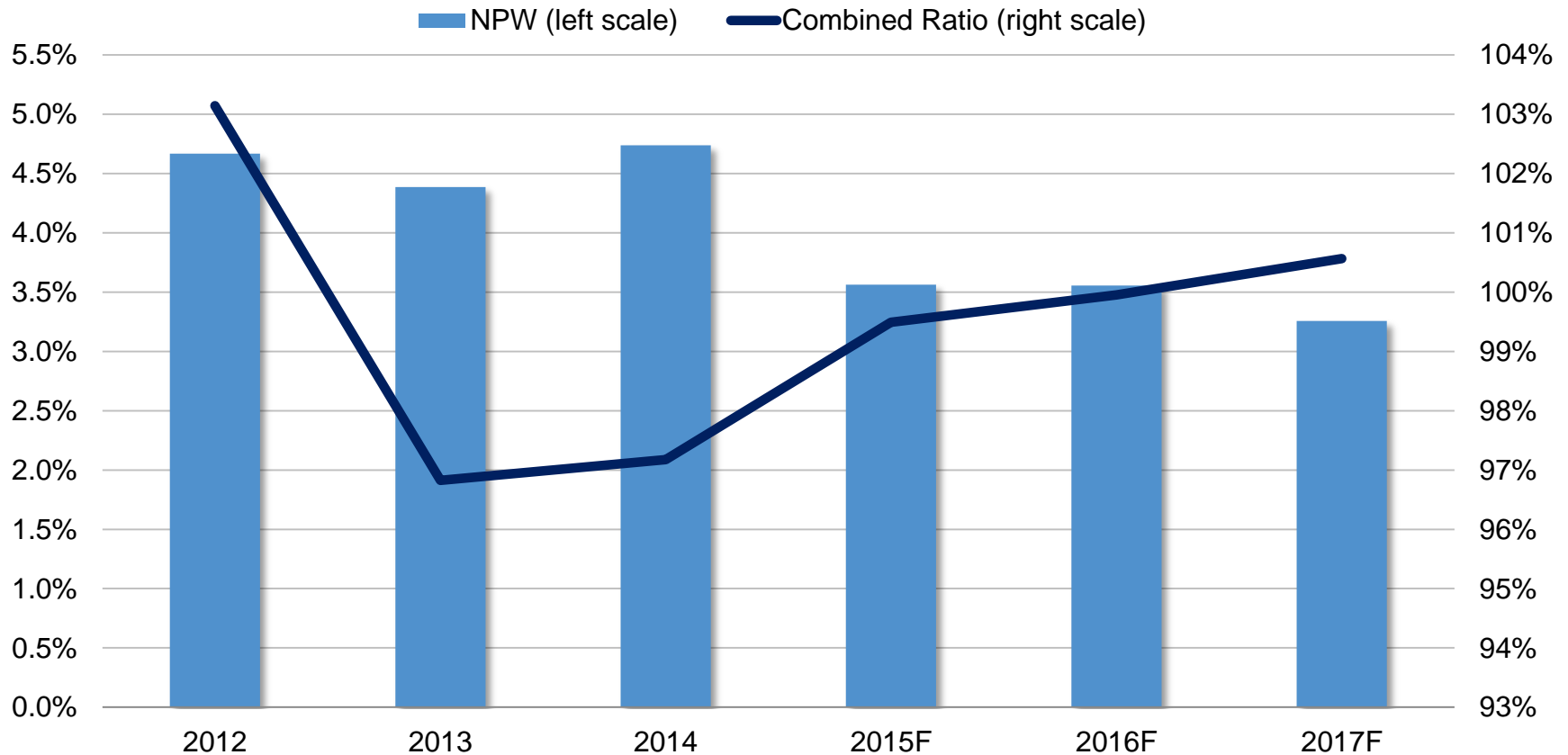
### Underwriting Income as a % of Earned Premium



Prepared by Conning, Inc. Source: ©1994-2014 A.M. Best Company used by permission.

# Forecast Slowing Industry Premium Growth, Rising Combined Ratio

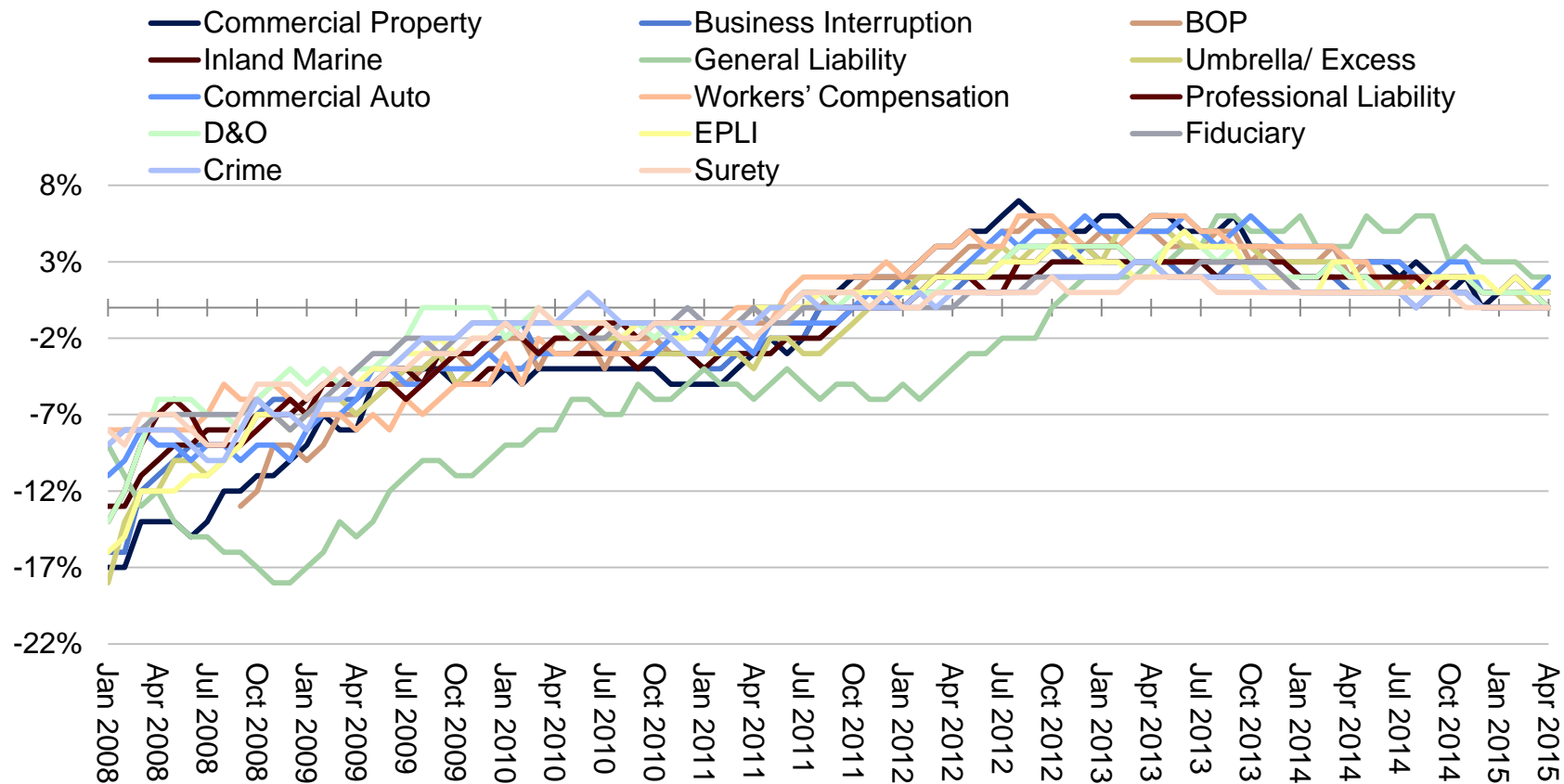
## Change in Net Premiums Written & Combined Ratios, Total All Lines



Prepared by Conning, Inc. Source: Conning, Inc. *Property-Casualty Forecast & Analysis by Line of Insurance*, 2015Q2 Edition

# Insurance Rates—Entering the Soft Market Phase

## Average Renewal Rate Change, Commercial Lines

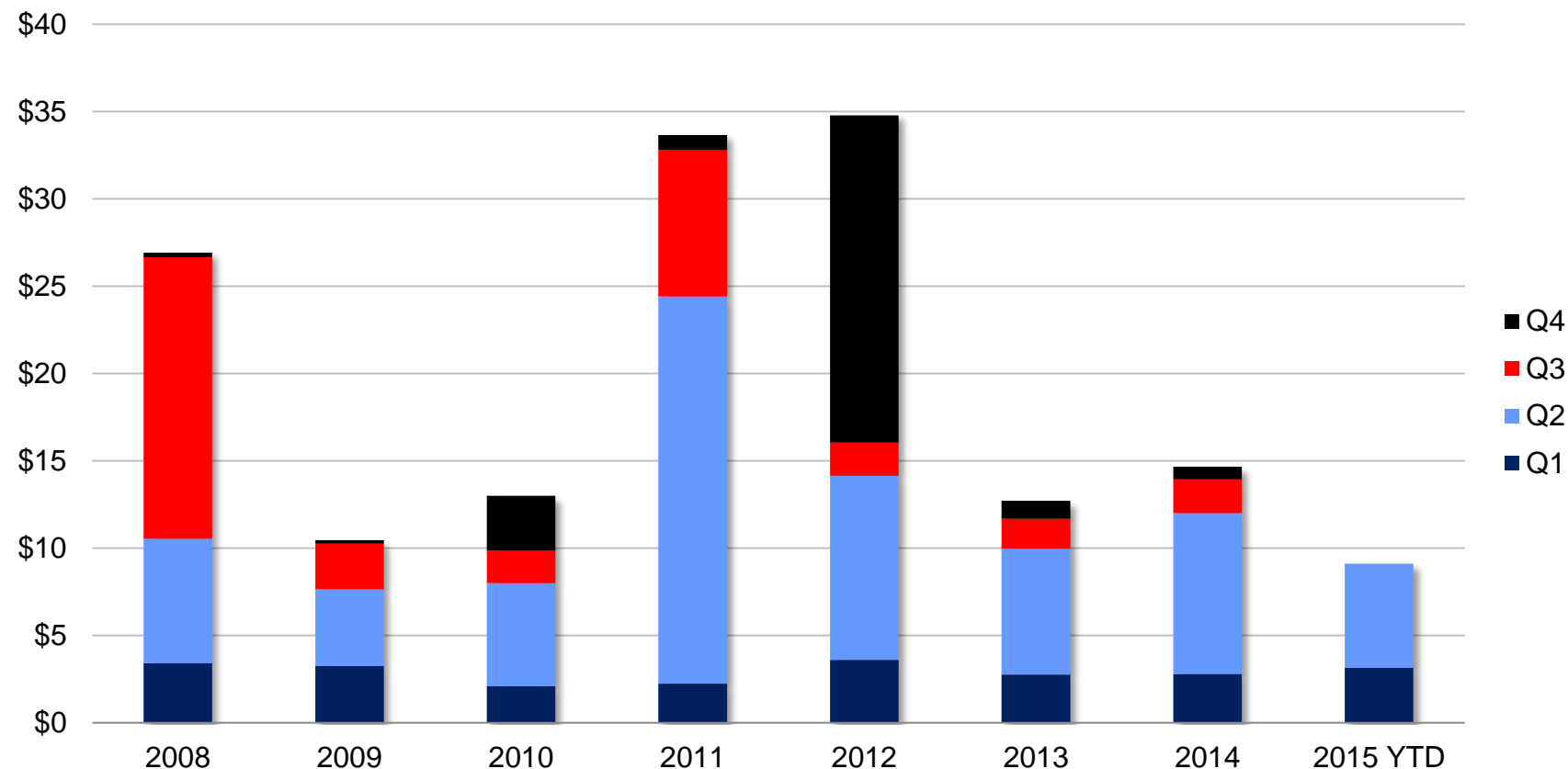


Prepared by Conning, Inc. Source: information from MarketScout.com.

# Nine Years Since FL Hurricane—Longest Hiatus Since 1951...

## Insured Catastrophe Losses by Quarter

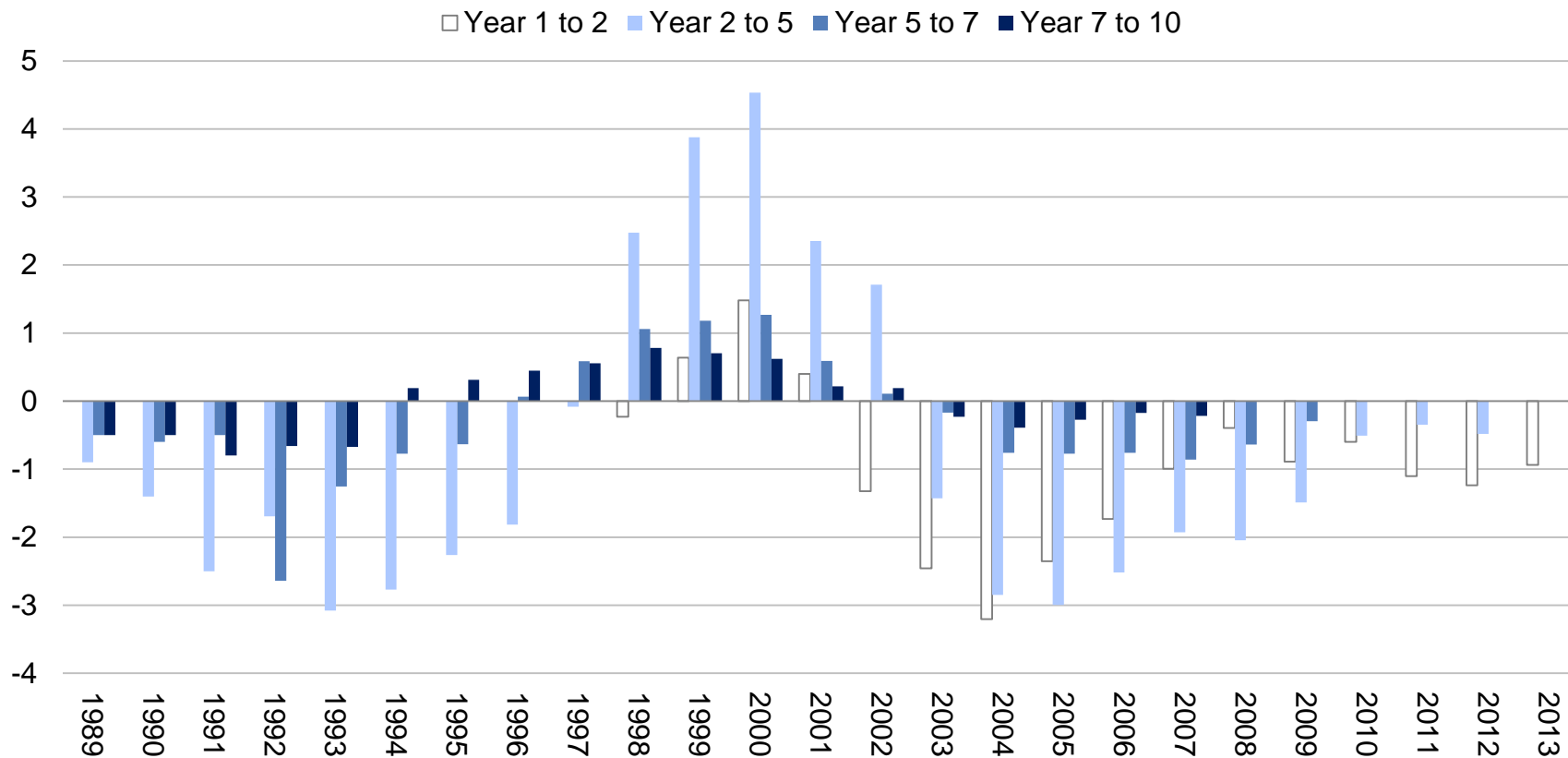
*\$ in billions*



Prepared by Conning, Inc. Source: Property Claim Services Unit of ISO, a division of Verisk Analytics, Inc.

# Loss Reserve Cycle—The Gift That Kept on Giving

## Point Changes in Accident-Year Incurred Loss Ratio, Total All Lines

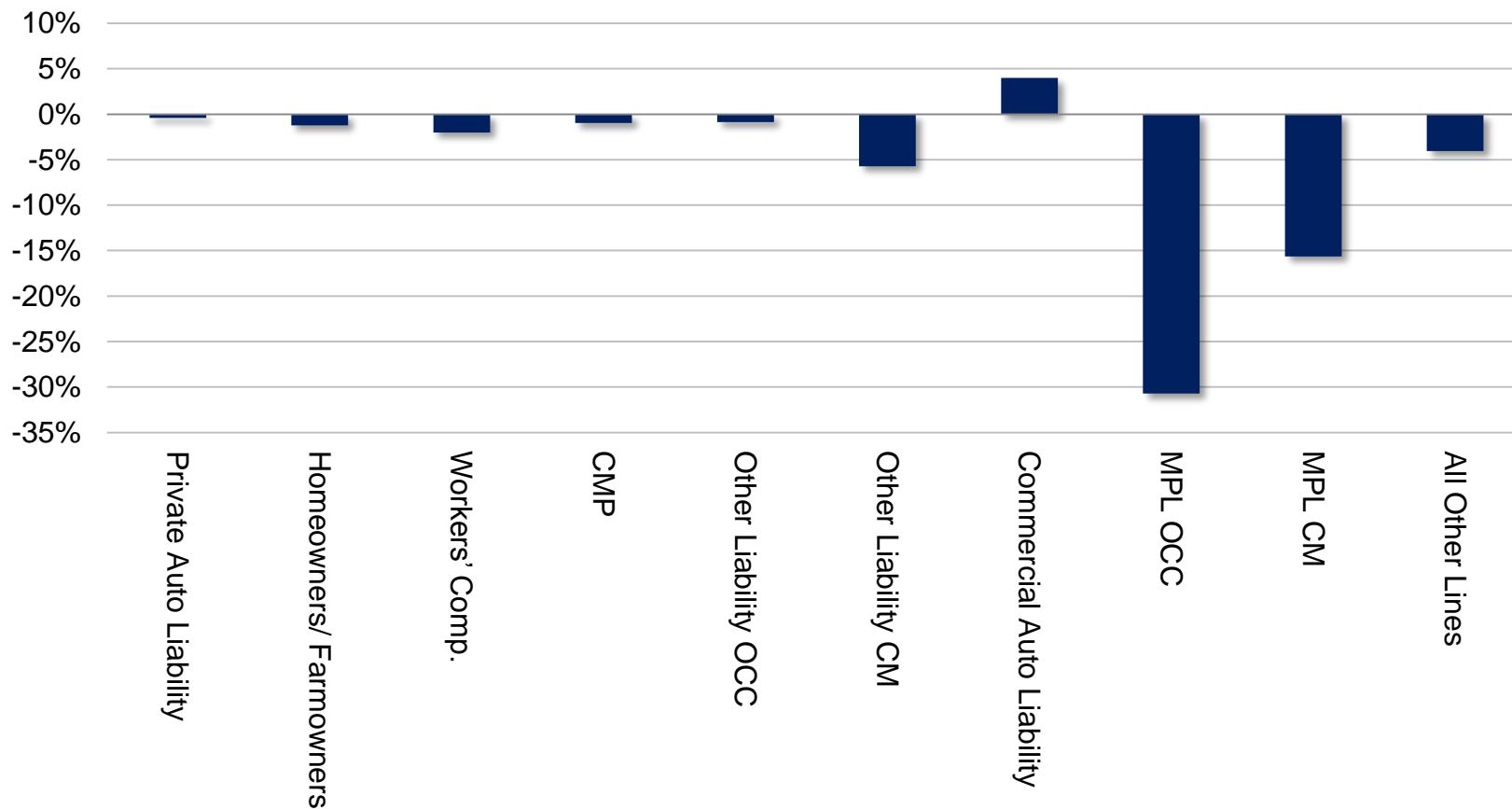


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# Strongest Reserve Releases in Long-Tailed Lines

## Change in Prior-Year Incurred Losses by Line During 2014 Calendar Year

*% of Net Premiums Earned*



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# Industry Reserves Remain Redundant

## Historical Reserve Redundancy/(Deficiency) as a % of Reserves by Line of Business— Including Tail Deficiency

\$ in millions

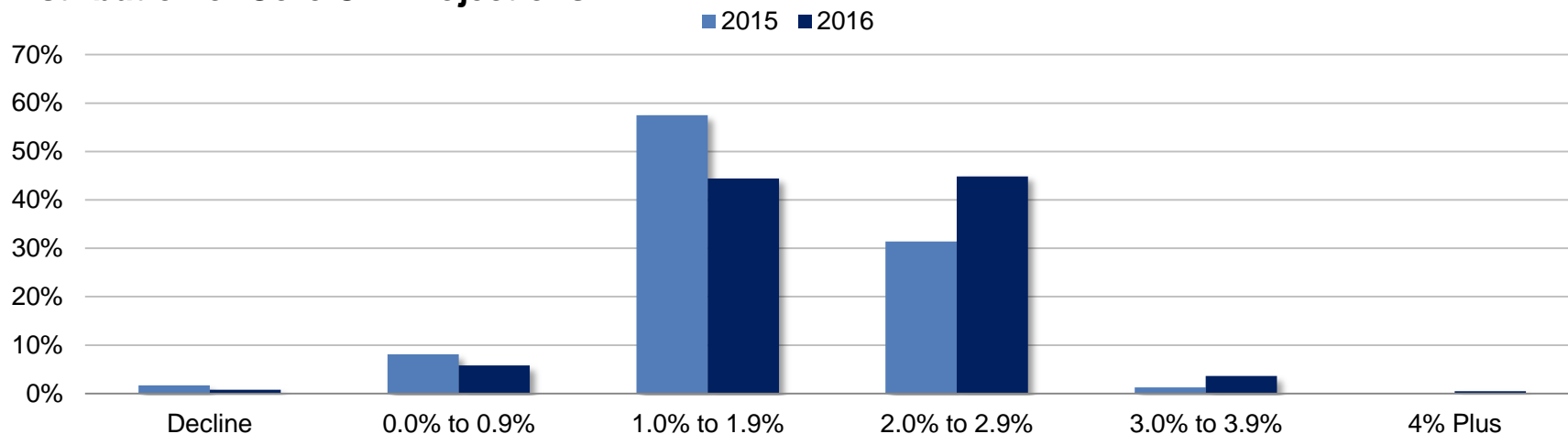
Line	2010	2011	2012	2013	2014	\$ Redundancy/ (Deficiency), 2014
Private Passenger Auto Liability/Medical	6.5%	7.1%	7.2%	6.3%	5.9%	\$5,392
Homeowners/Farmowners	0.0%	2.2%	10.2%	5.4%	5.5%	1,004
Workers' Compensation	(4.2%)	(6.4%)	(1.2%)	1.0%	2.4%	3,099
Commercial Multiperil	(2.7%)	(3.7%)	(0.5%)	(0.3%)	1.2%	386
Other Liability (Occurrence)	4.7%	6.6%	7.3%	5.8%	0.0%	24
Other Liability (Claims-Made)	(0.9%)	2.5%	(3.3%)	5.9%	11.2%	4,279
Commercial Auto/Truck Liability/Medical	5.4%	2.7%	0.5%	3.0%	(4.5%)	(1,102)
Medical Professional Liability (Occurrence)	26.9%	28.3%	28.3%	31.1%	22.5%	2,407
Medical Professional Liability (Claims-Made)	32.3%	33.9%	32.2%	29.8%	24.5%	3,877
<b>Total Study Lines</b>	<b>3.1%</b>	<b>2.6%</b>	<b>4.2%</b>	<b>5.0%</b>	<b>4.4%</b>	<b>\$19,366</b>

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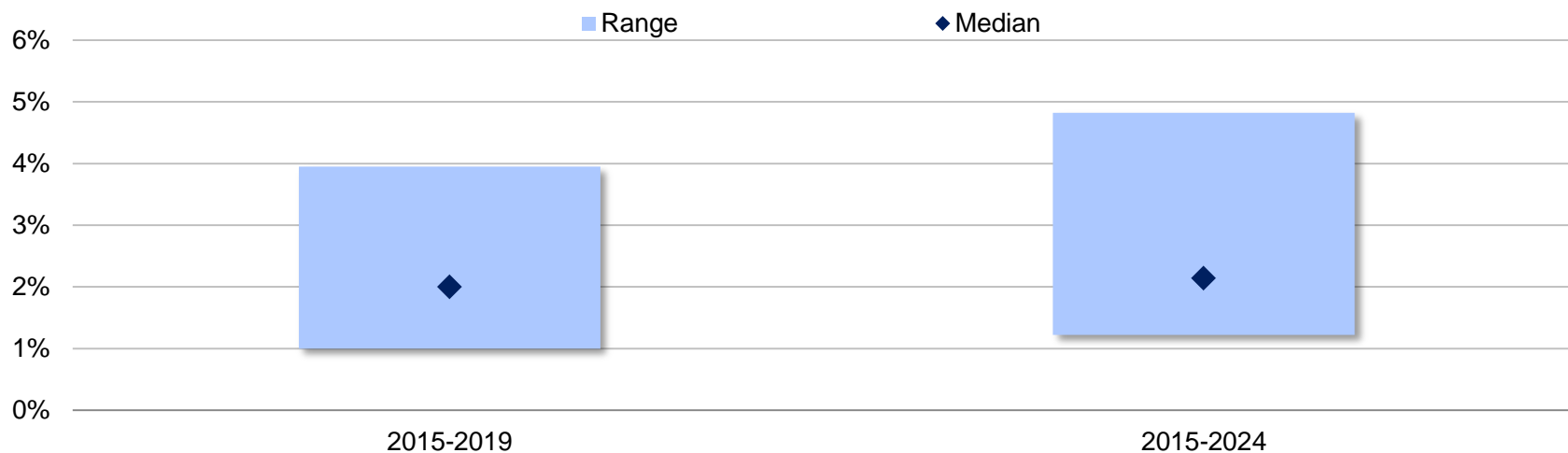


# Mild Inflation, but Upward Bias for Future

## Distribution of Core CPI Projections



## Probabilities for Core CPI Inflation

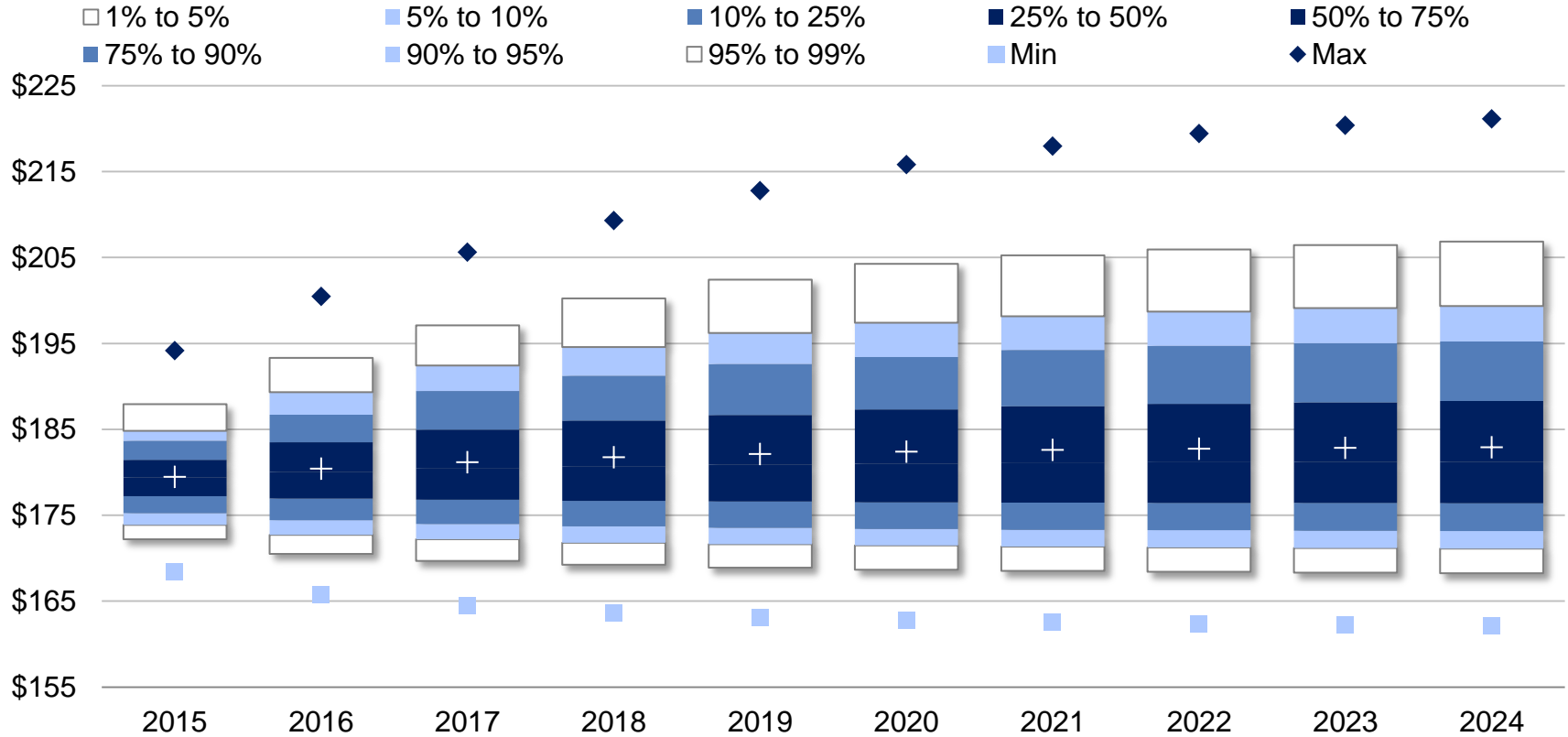


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# Inflation Rise Would Challenge Workers' Comp Reserve Adequacy

## Sample of Stochastic Analysis of Ultimate Loss, Top Workers' Compensation Writers

\$ in billions

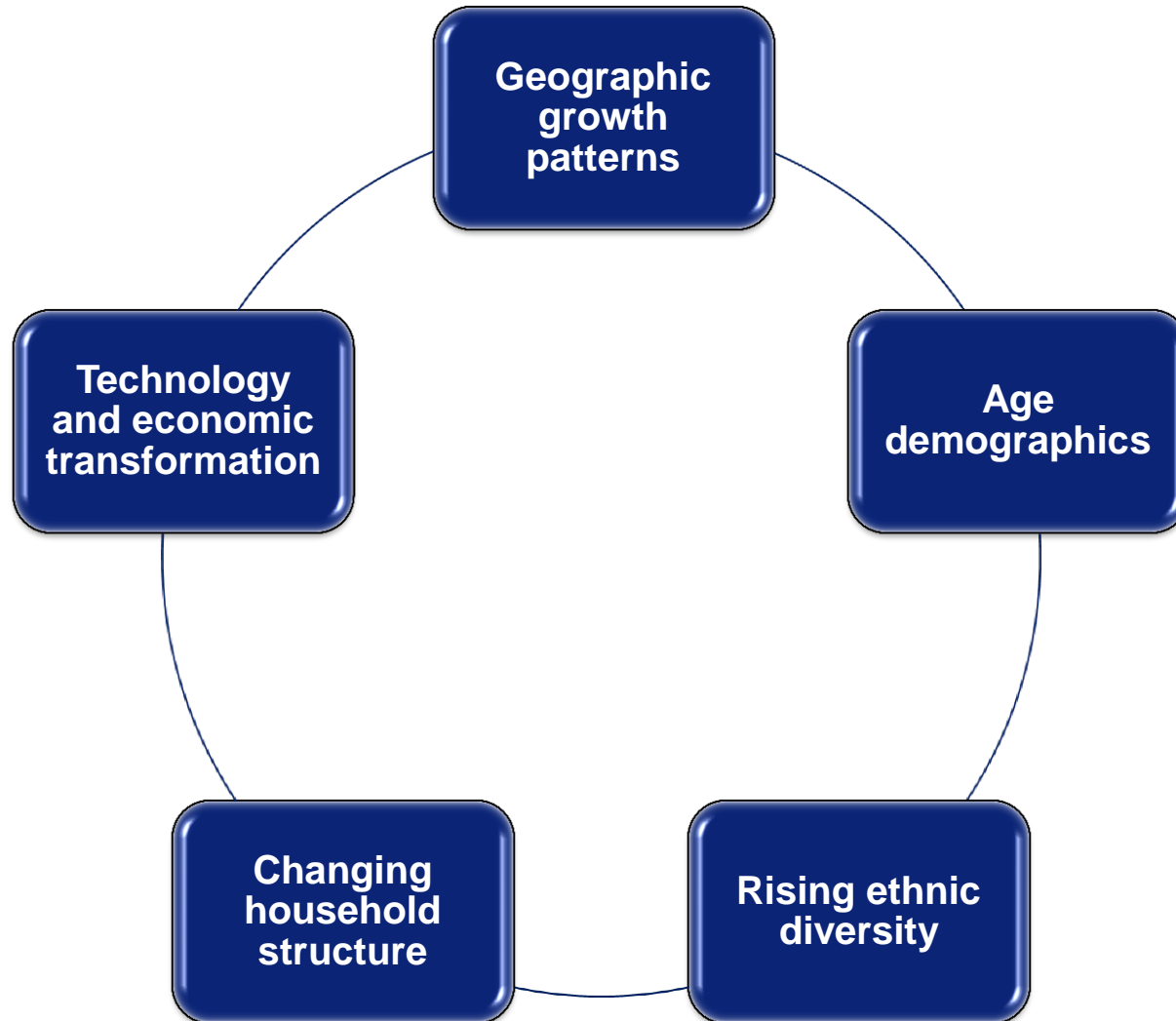


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# STRUCTURAL CHANGES AFFECTING THE INDUSTRY

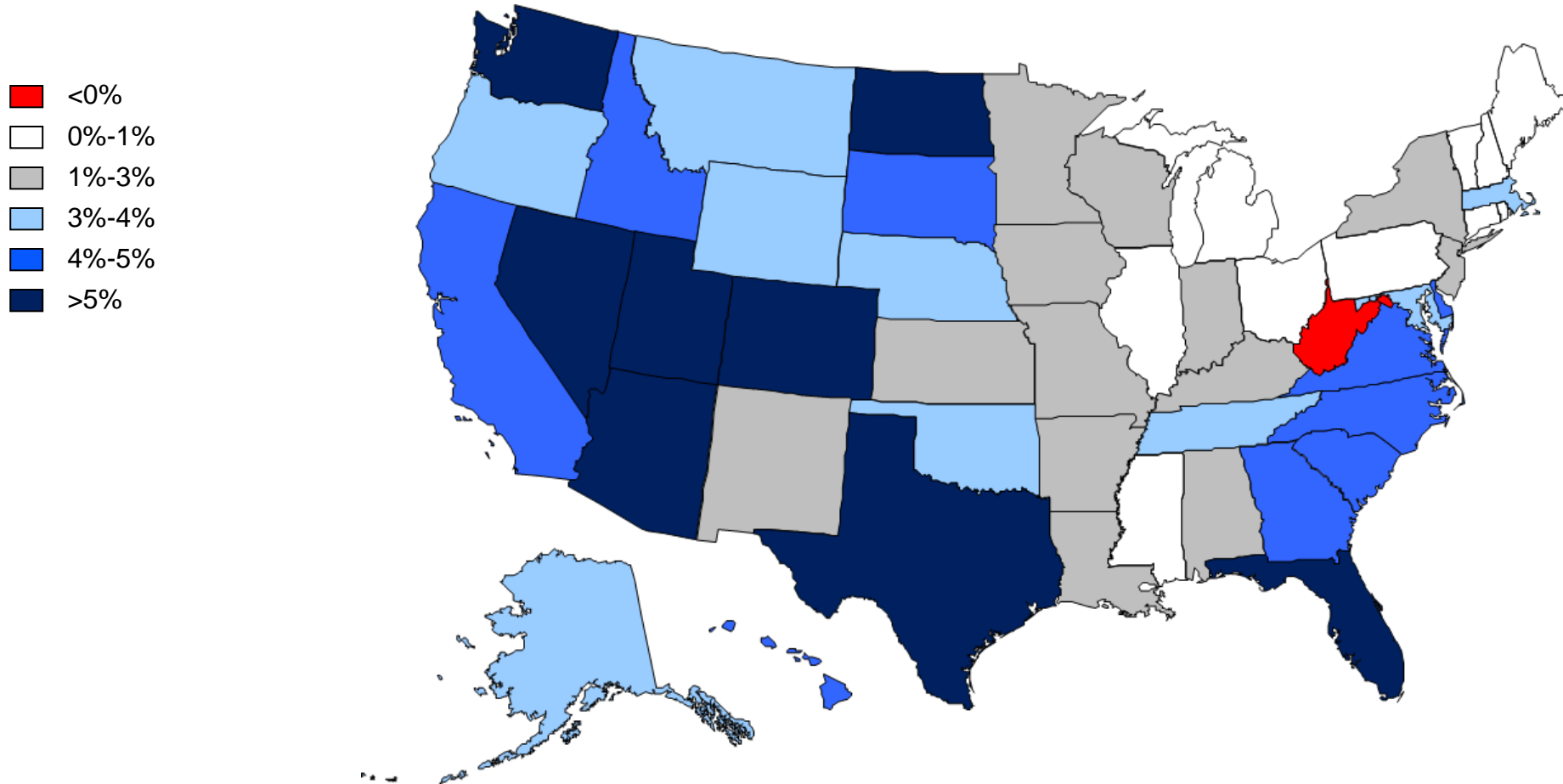
# Five Critical Trends Reshaping Consumer Markets

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# Uneven U.S. Population Growth Geographically

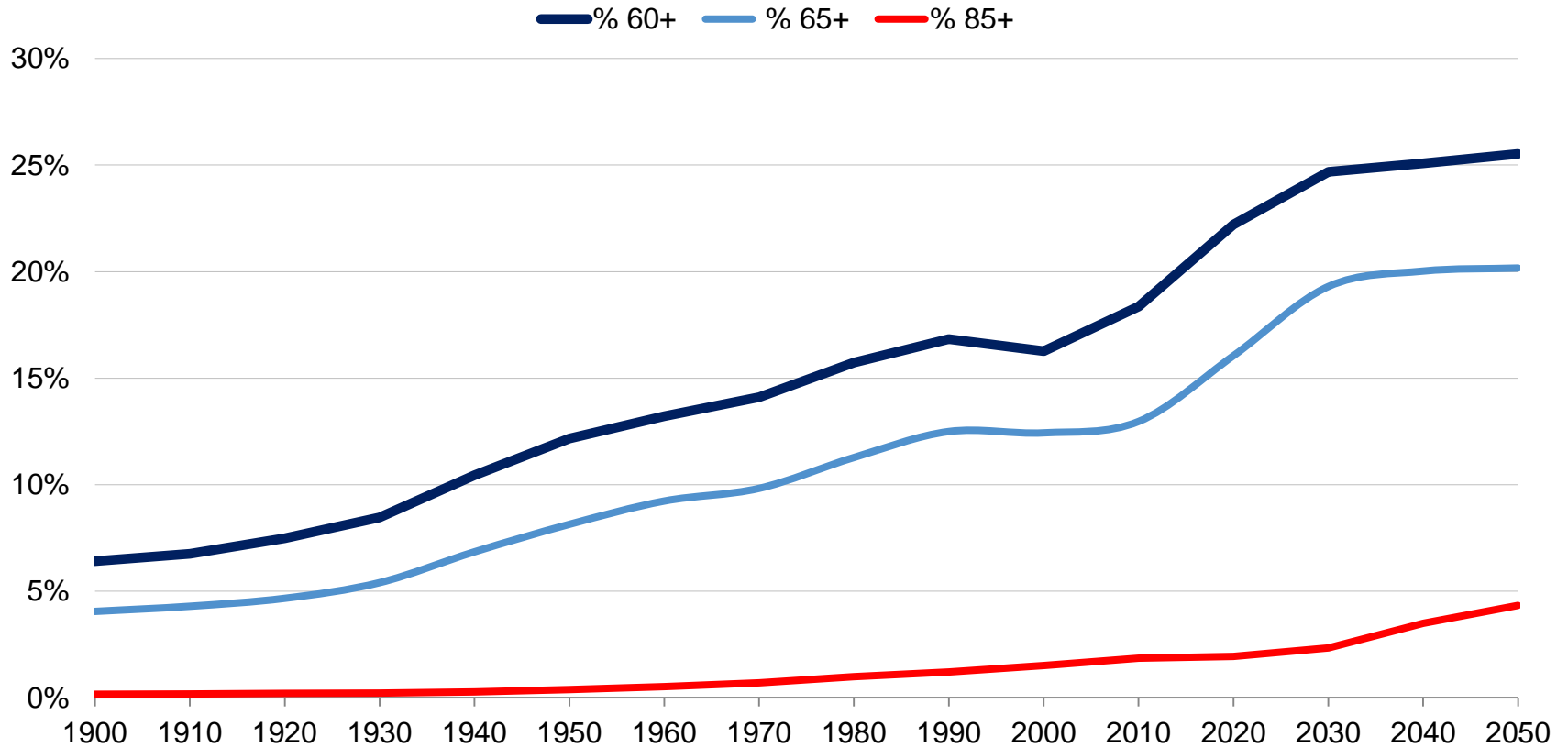
## State Population Growth 2010-2014



©2015 Conning, Inc. Source: U.S. Census Bureau (U.S. Department of Commerce (2010-2014)).

# Aging U.S. Population

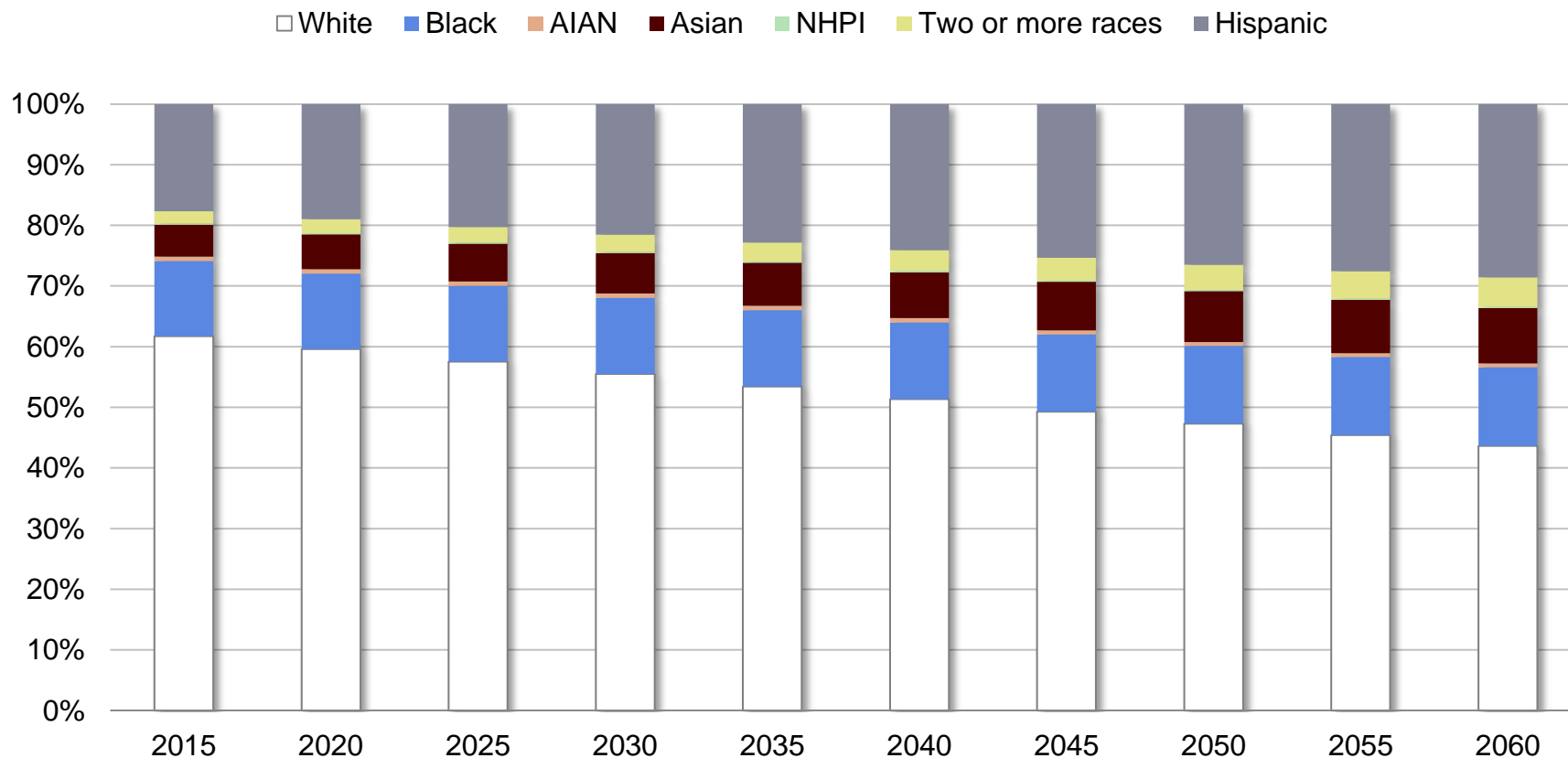
## Older Population by Age as a % of Total Population



Prepared by Conning, Inc. Source: U.S. Department of Health & Human Services (1900-2015)

# U.S. Population Is Approaching “Majority Minority”

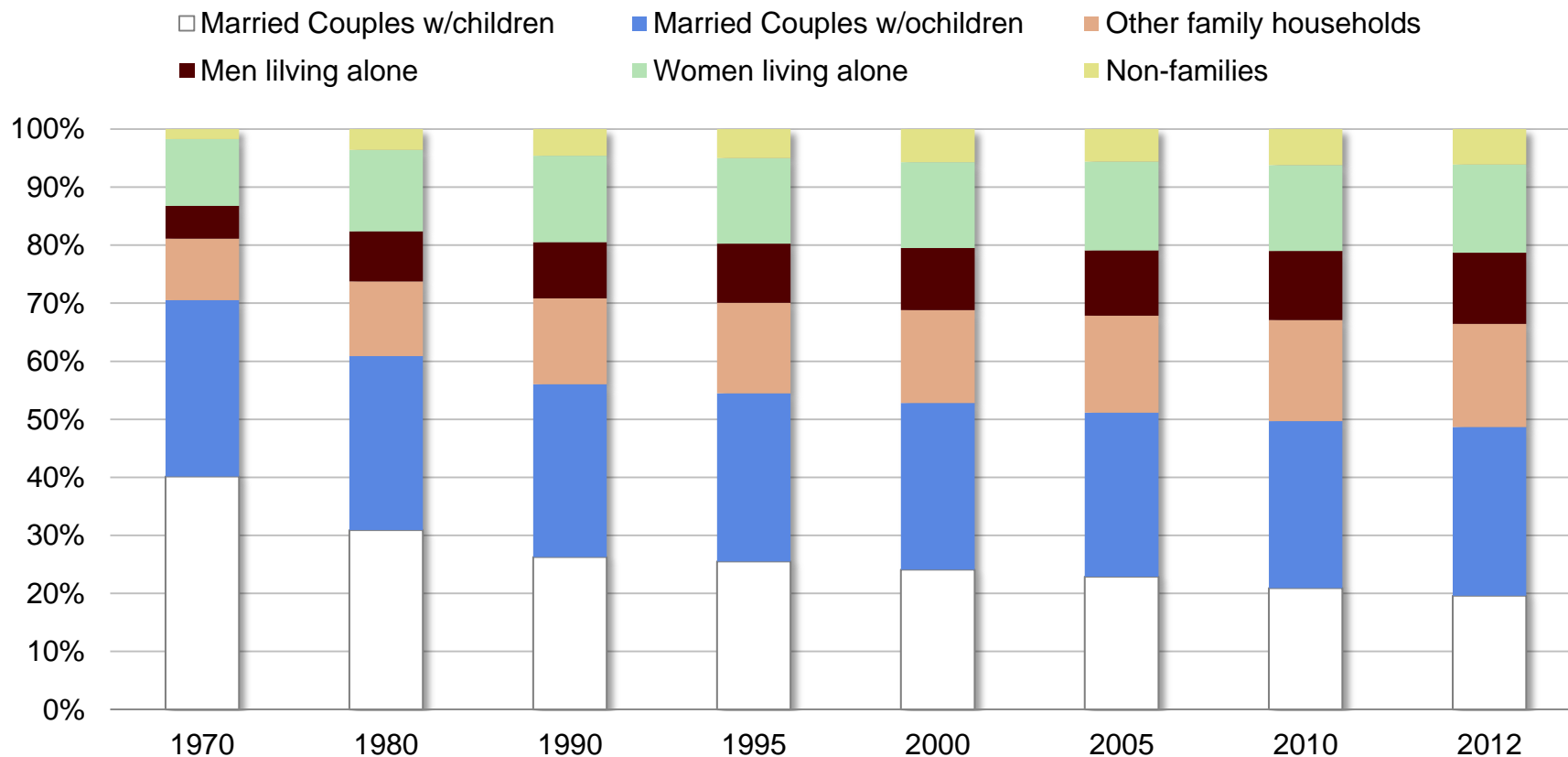
## U.S. Population Estimates and Projections



Prepared by Conning, Inc. Source: U.S. Census Bureau, U.S. Department of Commerce (2015).

# Family Structure of the U.S. Household Changing

## Share of Households by Type, U.S.

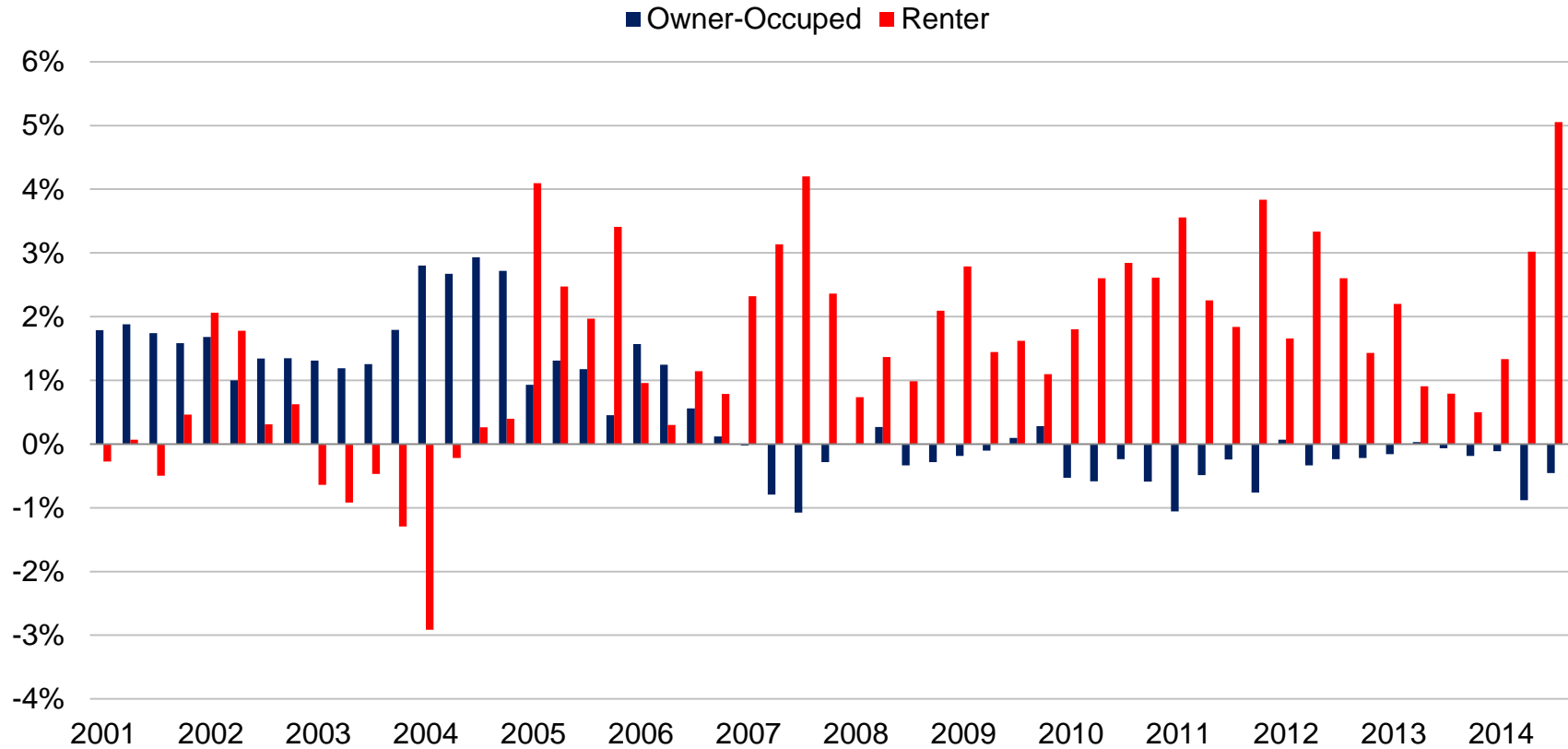


Prepared by Conning, Inc. Source: U.S. Census Bureau, U.S. Department of Commerce (1970-2012).



# Implications of Demographic Shifts: More Renters

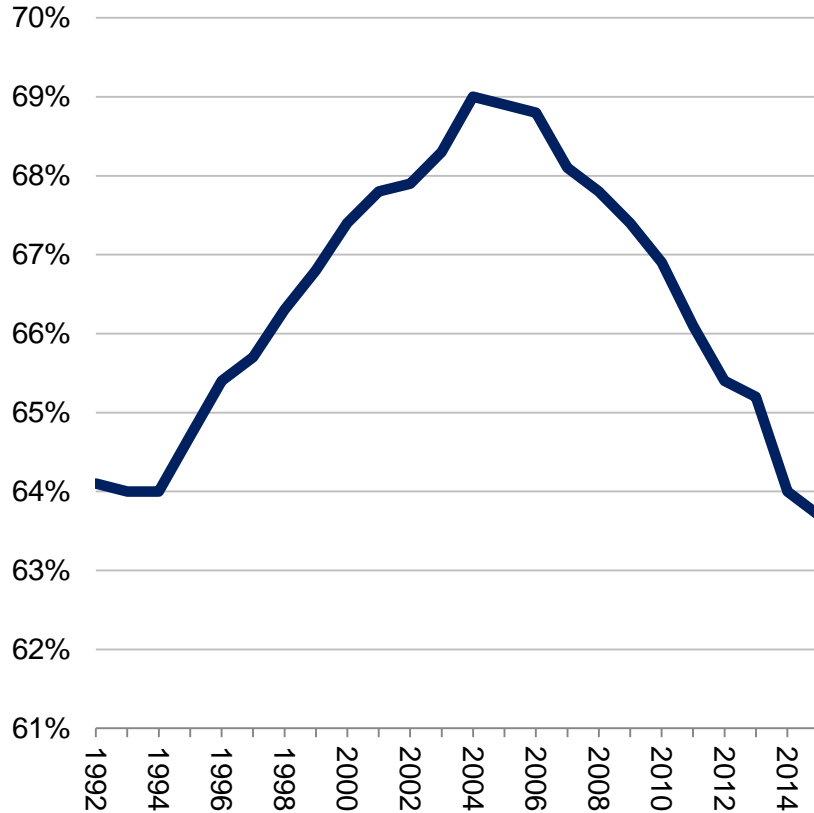
## % Change in Owner vs. Renter Housing



Prepared by Conning, Inc. Source: U.S. Census Bureau, U.S. Department of Commerce (2001-2014).

# Falling Homeownership Affects HO Insurance Potential

## Home Ownership Rate



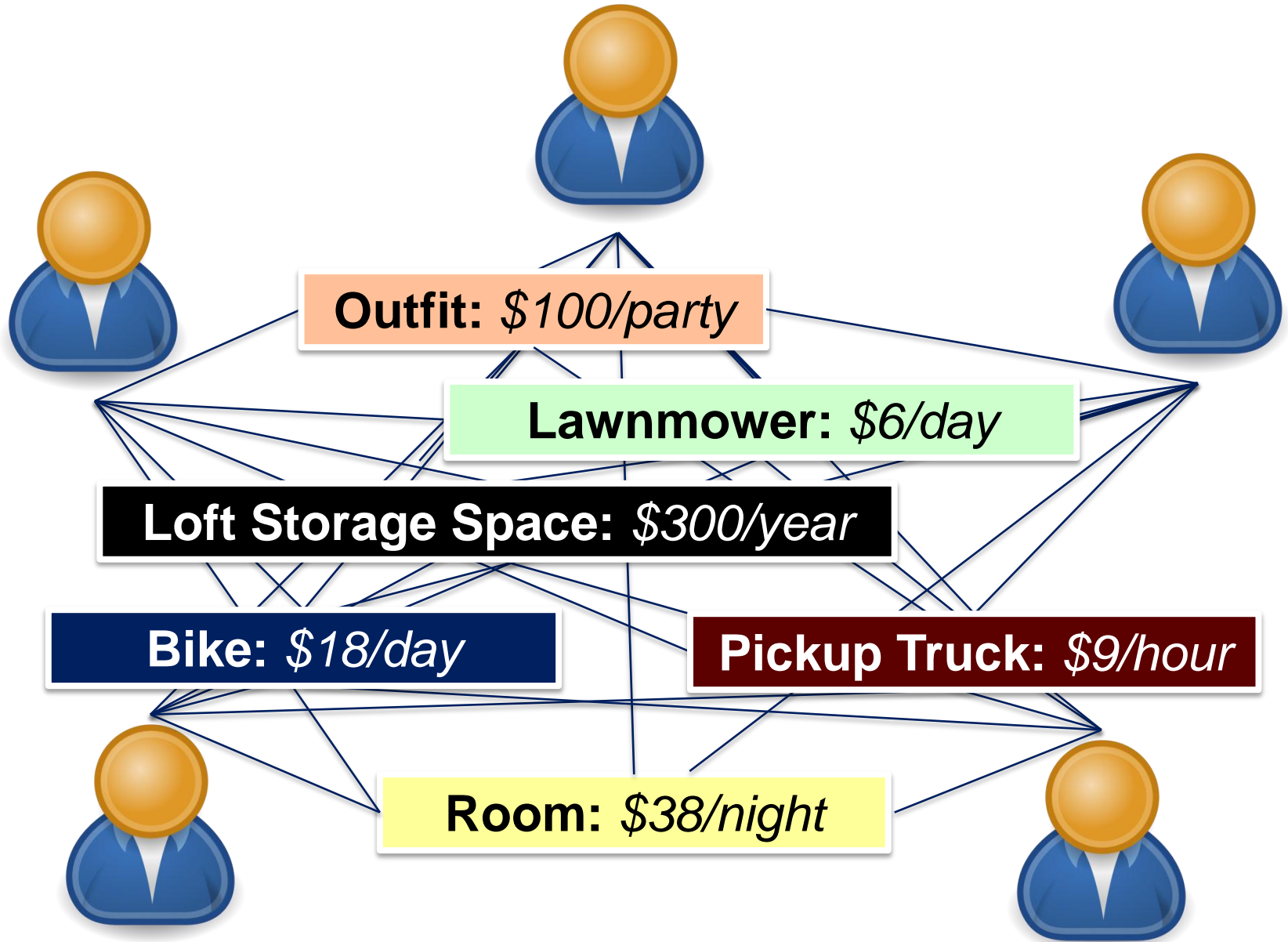
## New Single-Family Home Sales



Home sales = seasonally adjusted rate, in thousands

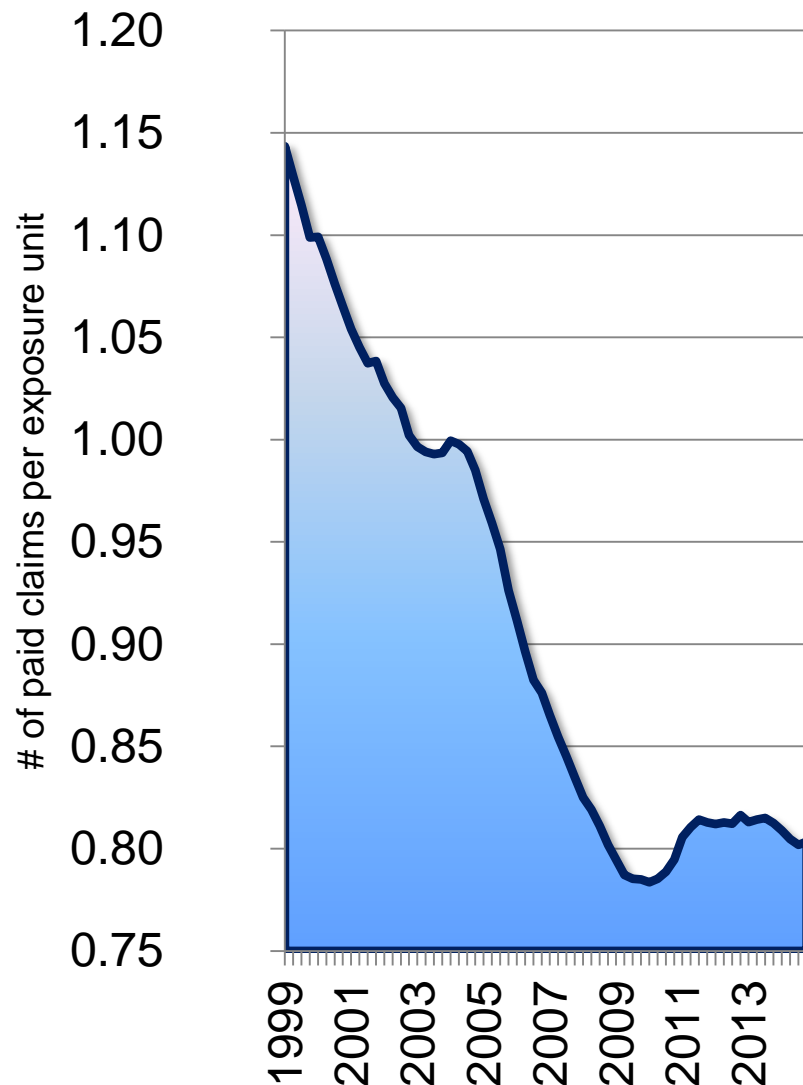
Prepared by Conning, Inc. Source: U.S. Census Bureau, U.S. Department of Commerce (1992-2015).

# Sharing Economy Affects First-Party Premium Potential



# Vehicle Safety Technology Affects Demand for PPA Insurance

## Bodily Injury Frequency



Prepared by Conning, Inc. Source: ISO, a division of Verisk Analytics, Inc.

## Vehicle Safety Developments

- Rear seat lap/shoulder safety belts
- Side impact protection airbags
- Integrated child safety seats
- Daytime running lights
- Backup cameras
- Tire pressure monitoring systems
- Object detection warning systems
- Forward collision warning systems

## Road Safety Developments

- Graduate driver laws
- Mandatory seatbelt laws
- Stricter DUI enforcement

# Demand Influences

Demand Trends	Future Market Impact
Demographic Changes	<ul style="list-style-type: none"><li>• Reduced demand for underlying exposure units</li><li>• Shifting risk profile</li></ul>
Sharing Economy/Behavior Changes	<ul style="list-style-type: none"><li>• Reduced demand for underlying exposure units</li></ul>
Vehicle Safety Technology	<ul style="list-style-type: none"><li>• Reduced claim frequency</li><li>• Mixed impact on severity—net favorable</li></ul>

**The net result of reduced demand likely to be a search for additional growth opportunities:**

- Progressive acquisition of ASX
- Expansion into service offerings
- Broadening geographic reach
- Expand distribution

# Technology Influences

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## Technology Trends

## Future Market Impact

Telematics

- Individual risks vs. pooled risks
- Increased opportunity to interact with customer
- Loss prevention strategies vs. post-loss payment

Advanced Analytics

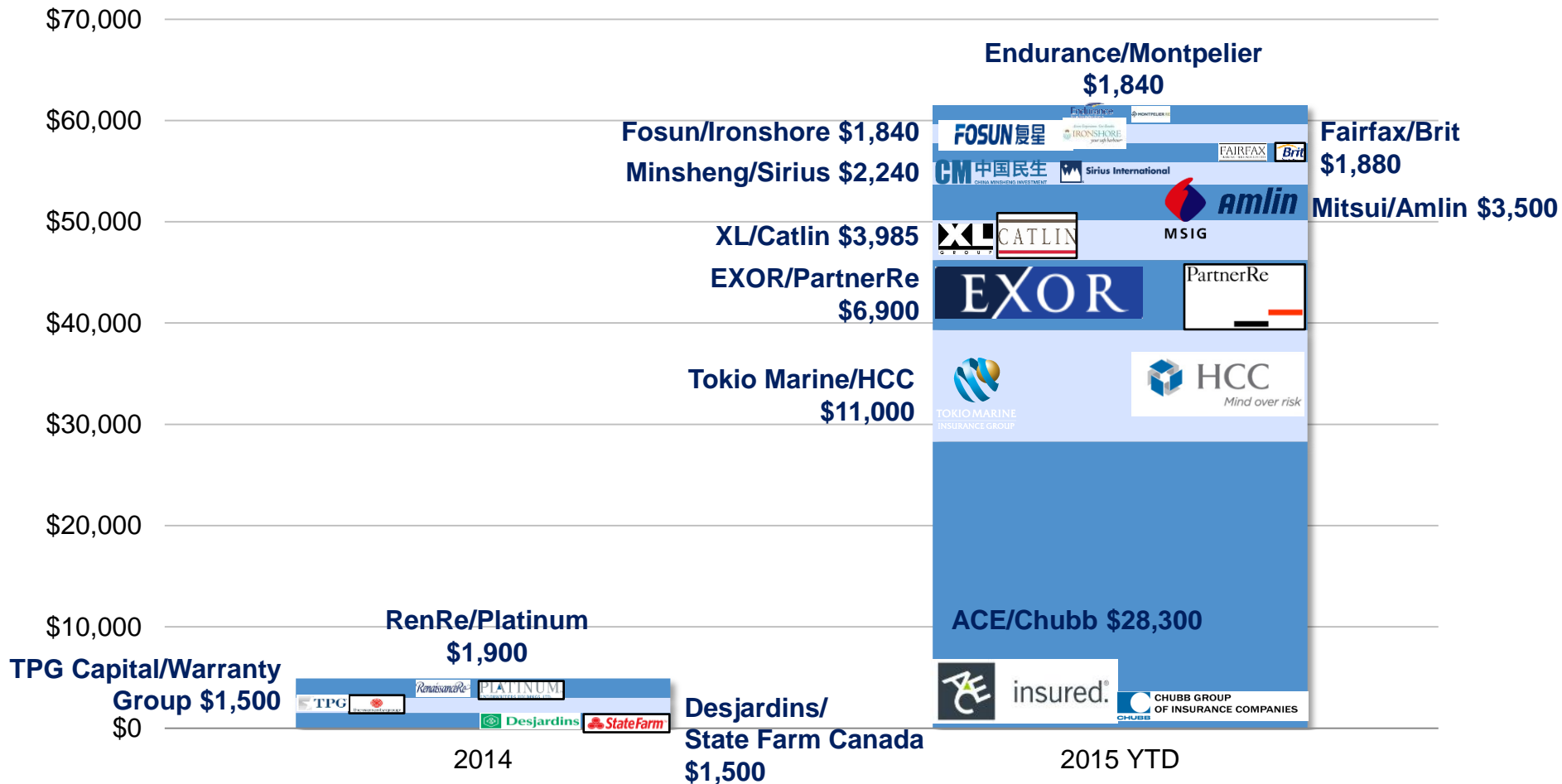
- Causal data vs. correlated data
- Threat of entry from data-savvy organizations

# NOT YOUR FATHER'S INSURANCE INDUSTRY

# M&A Explosion Creating a More Concentrated Industry

## Transformational Mergers for Scale Dominate in 2015\*

\$ in millions



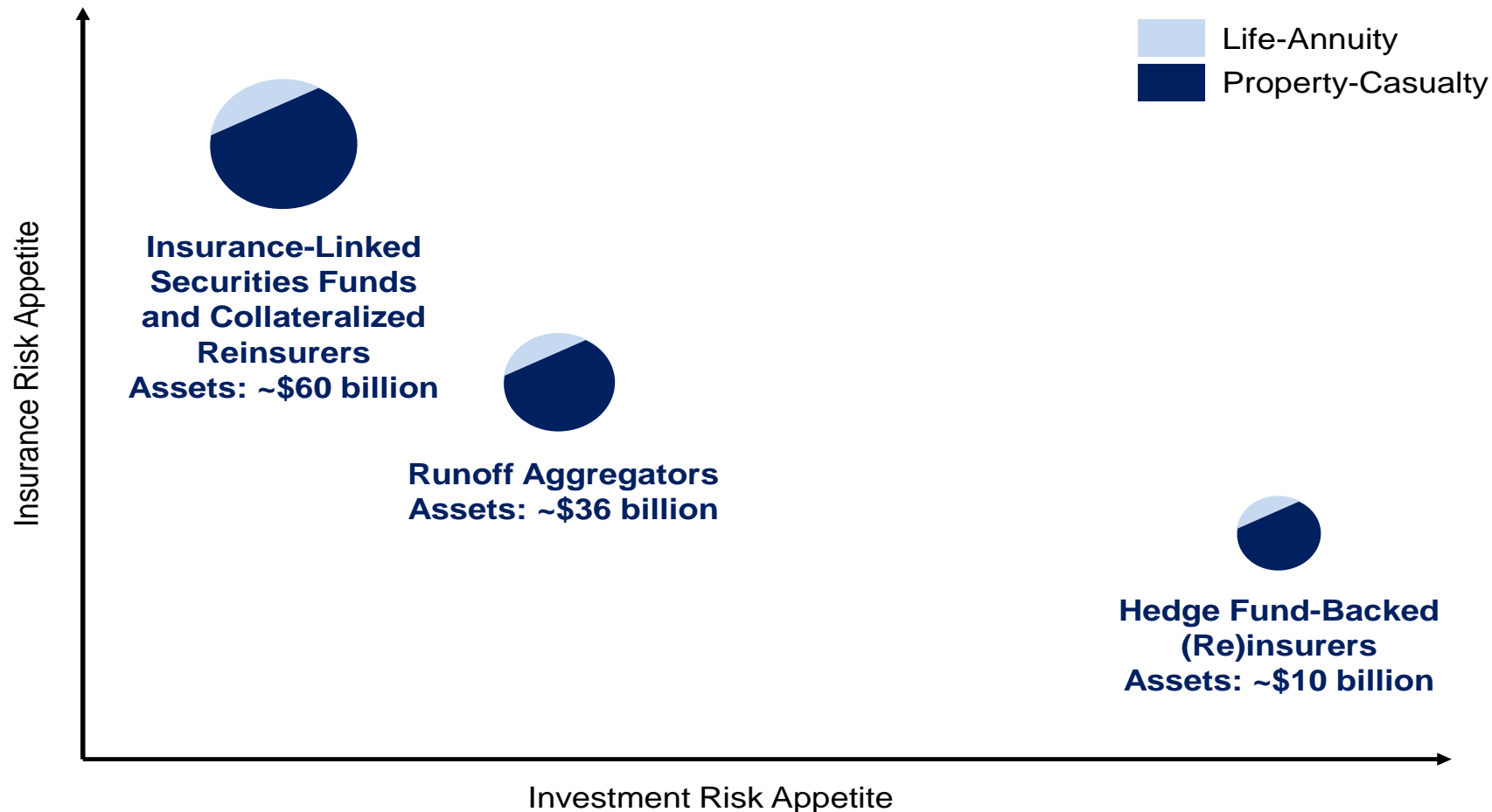
\*Through September 11, 2015

Prepared by Conning, Inc. Sources: Publicly available company press releases and news articles.

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# New Insurance Formations, New Capital Sources

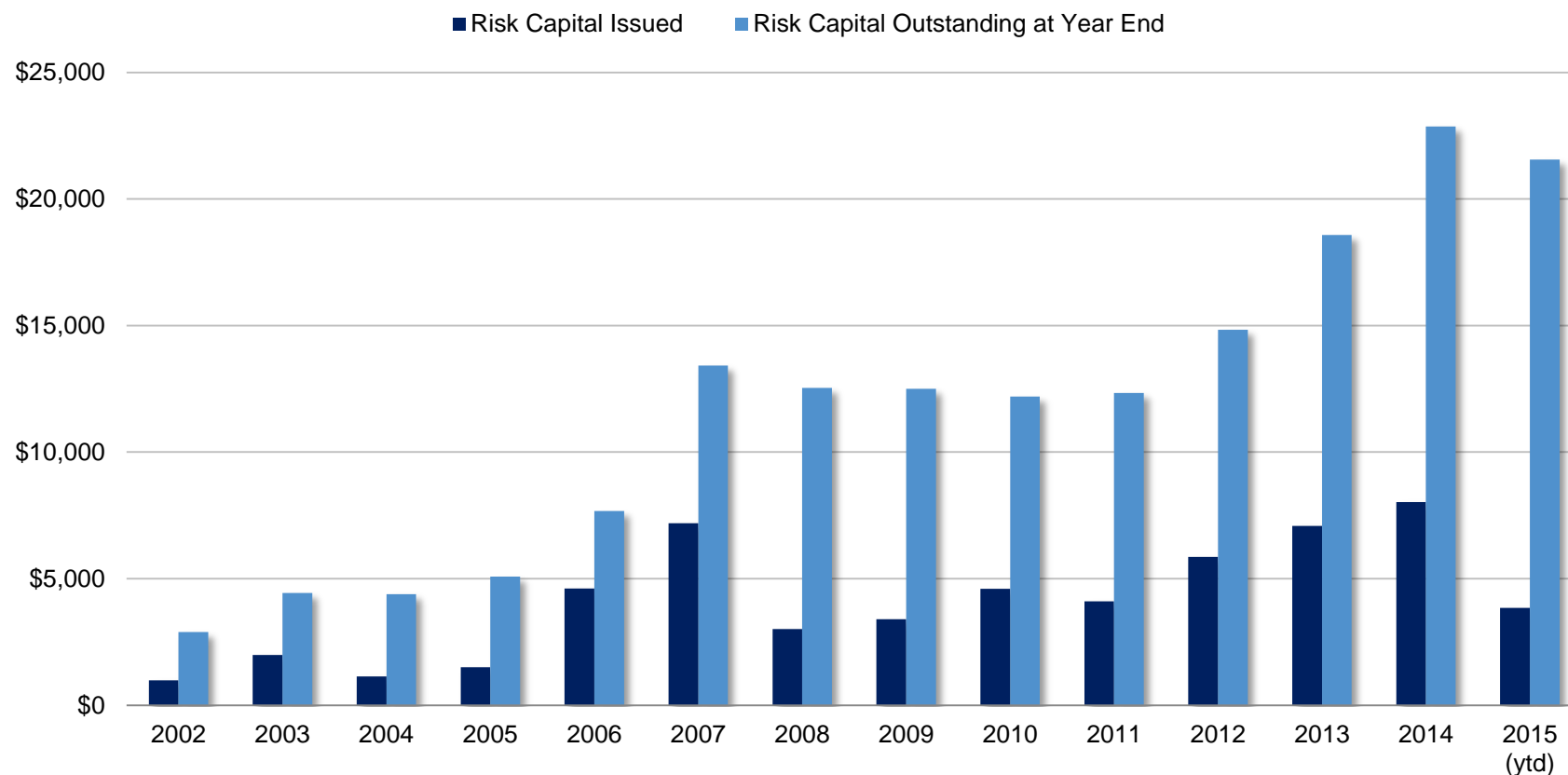


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# A Fast-Growing ILS Market

## Property-Casualty Cat Bond Risk Capital Issued and Outstanding

\$ in millions



Prepared by Conning, Inc. Sources: Guy Carpenter public press releases (2002-2015).

# Billions Flowing into ILS Funds

## Specialized ILS Fund Managers

*\$ in billions*

<b>Fund Manager</b>	<b>Est. AUM</b>	<b>Date Formed</b>	<b>Focus</b>	<b>Related Insurer</b>
Aeolus Capital Management	\$2.6 (as of 1/31/15)	2011	Property catastrophe reinsurance and retrocession	Allied World (minority stake)
AlphaCat Managers	1.9	2008	Cat bonds and private reinsurance transactions	Validus Group
Blue Capital Management Ltd.	0.8	2006	Catastrophe reinsurance	Montpelier
CATCo Investment Management	2.5	2010	ILS and insurance debt	Diverse investor base
Elementum Advisors	1.3		Collateralized natural event reinsurance	
Fermat Capital Management	5.1	2001	ILS and insurance debt	
Kinesis	0.3	2013		Lancashire
Leadenhall Capital Partners	1.8	2008	ILS and insurance debt	Amlin
Nephila Capital	10.0	1998	Natural catastrophe and weather reinsurance risk	
Pillar Capital Management	0.3	2008	Property catastrophe, founded as Juniperus Capital	Transatlantic Holdings
Secquaero Advisors	N/A	2007	Cat bonds and broader ILS funds	

Prepared by Conning, Inc. Source: company public disclosures.

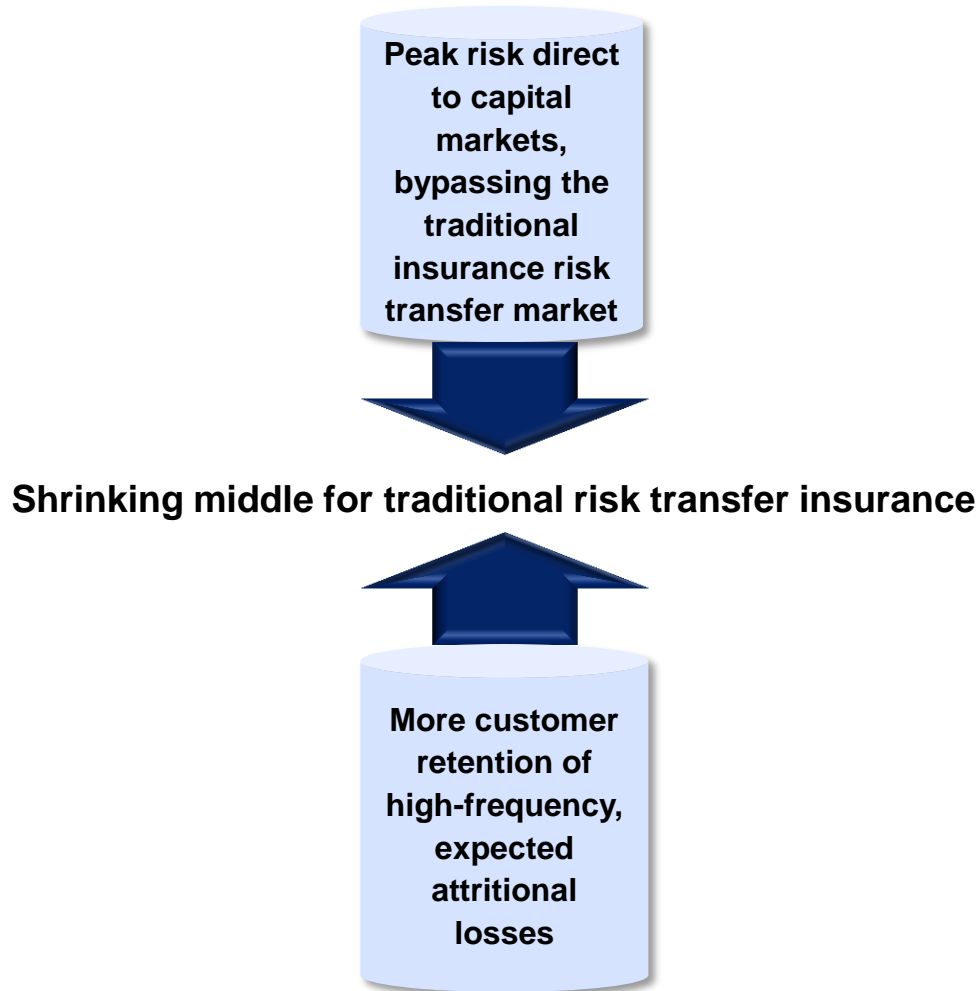
# Traditional Reinsurers and ILS: “If you can’t beat them, join them”

## Reinsurers—Participation in ILS

Reinsurer	Sponsor / Issuer	ILS Investor	Reinsurer	Sponsor / Issuer	ILS Investor
Allied World	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Markel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Amlin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Munich Re	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arch Capital	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	PaCRE	<input type="checkbox"/>	<input type="checkbox"/>
Argo Group	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PartnerRe	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aspen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	RenaissanceRe	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AXIS	<input type="checkbox"/>	<input type="checkbox"/>	SCOR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Beazley	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Swiss Re	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Endurance (via Montpelier acq.)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Third Point	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Everest Re	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tokio Marine	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Greenlight Re	<input type="checkbox"/>	<input type="checkbox"/>	Transatlantic	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hamilton Re	<input type="checkbox"/>	<input type="checkbox"/>	Validus Re	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hannover Re	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	White Mountains	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hiscox	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	XL Catlin	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lancashire	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			

Prepared by Conning, Inc. Sources: Public information on company websites.

# Alternatives to Peak and Attritional Risk Leave Shrinking Middle



# Few Top Business Risks Covered by Insurance

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## AON Global Risk Management Survey of Top Risks, 2015

*risks subject to traditional insurance coverage in red*

1. **Damage to reputation/brand**
2. **Economic slowdown/slow recovery**
3. **Regulatory/legislative changes**
4. **Increasing competition**
5. **Failure to attract or retain top talent**
6. **Failure to innovate/meet customer needs**
7. **Business interruption\***
8. **Third-party liability**
9. **Computer crime/hacking/viruses/malicious codes\*\***
10. **Property damage**

\*insurance can cover some property and operational losses; it cannot make up for loss of market share, reputational damages, declines in investor confidence, or a share price drop caused by an interruption

\*\*developing cyber products are providing limited coverage

Prepared by Conning, Inc. Source: Aon Global Risk Management Survey Press Release April 27, 2015.

# How Relevant Is Traditional Insurance to Today's Risks?

## Deckers Risk Factors

### 1998

- License agreement termination
- Change in fashion trends
- Economic recession impacting sales and retailers' ability to pay
- Foreign suppliers failing to meet production goals and quality standards or obtain sufficient raw materials, or their product being subjected to additional U.S. customs duties or anti-dumping restrictions
- Foreign exchange fluctuations
- Competition and patent infringement
- Departure of key personnel
- Insufficient inventory to meet demand
- Loss of trademark rights
- Tax rate changes
- Stagnation of company strategy due to control by few large shareholders
- Weather

### 2014

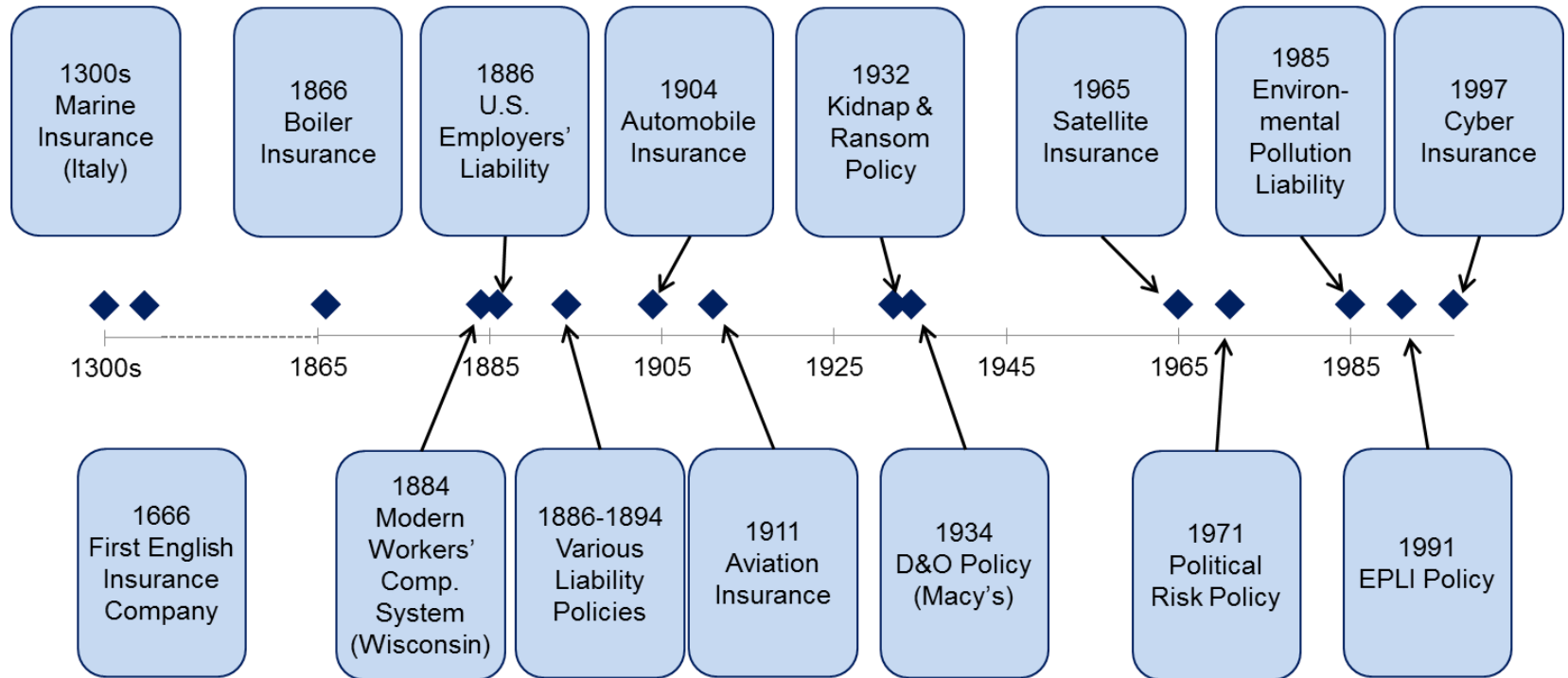
- Weather affecting sales of seasonal shoes
- Failure to obtain raw materials meeting specifications, including **loss of sheepskin warehouses in China from natural disasters and other adverse events**
- Unprofitable retail operations
- Inability to meet demand if it exceeds expectations
- Trademark and intellectual property right infringement, such as counterfeiting of the UGG shoe
- Failure to anticipate fashion trends
- Failure to execute growth strategies successfully
- Goodwill and other intangible impairment losses
- Failure of independent manufacturers to meet quality standards
- Unexpected cost overruns in Chinese manufacturers from tariffs, higher costs, political and regulatory risks
- Foreign exchange fluctuations
- **Hacking or other failures to processing systems; weather and natural catastrophe damage, power loss**
- Inability to attract appropriate staff
- **Loss of warehouses**
- Loss of international sales from political or economic changes in foreign markets
- Higher duties from import restrictions
- Restrictions on credit facility
- Increased U.S. or foreign taxes
- Competition
- **Litigation**
- Stock price decrease
- **Loss, theft, or misuse of sensitive customer or company information**
- Economic slowdown

*Note: risks that can be covered by conventional insurance products, if only partially, are in bold blue*

Prepared by Conning, Inc.  
Sources: Deckers Outdoor Corporation, U.S. Securities and Exchange Commission, 1998 Form 10-K and 2014 Form 10-K.

# Limited Innovation Historically

## Timeline of Significant Property-Casualty Insurance Innovations





# New Reinsurers Linked to Hedge Funds

## Hedge Fund Reinsurers

\$ in millions

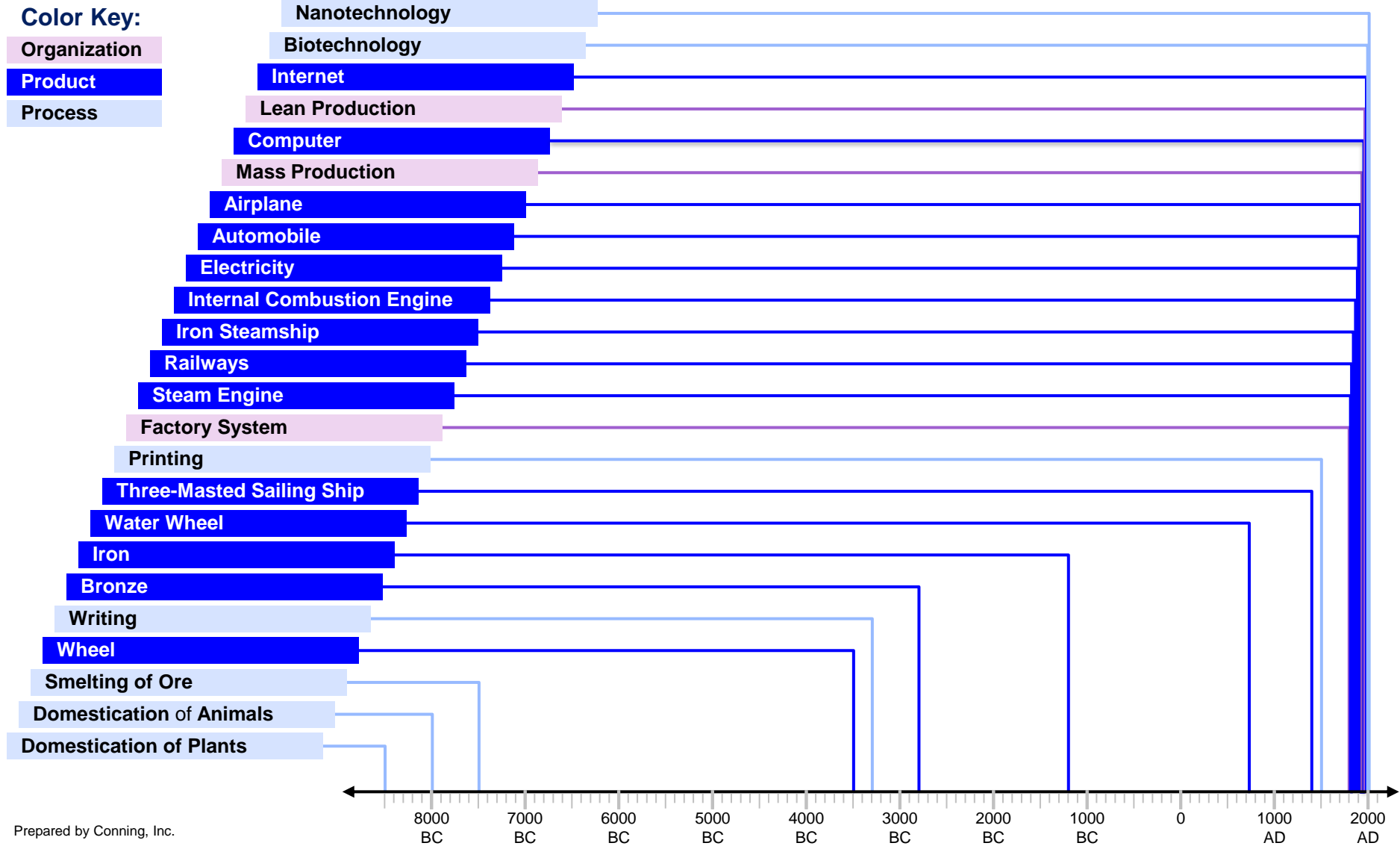
	<b>Greenlight</b>	<b>PaCRe</b>	<b>Hamilton Re</b>	<b>Third Point</b>	<b>Watford Re</b>	<b>Fidelis</b>	<b>ABR Re</b>
<b>Date Formed</b>	2004	2012	2012	2011	2014	2015	2015
<b>Sponsor(s)</b>	Greenlight Capital	Paulson & Co., Validus	Two Sigma	Third Point LLC, Kelso & Co., Pine Brook, Others	Arch Capital, Highbridge Capital	Crestview Partners, CVC Capital Partners, Pine Brook	ACE Ltd., BlackRock Inc.
<b>Domicile</b>	Grand Cayman	Bermuda	Bermuda	Bermuda	Bermuda	Bermuda	Bermuda
<b>Current Capital(1)</b>	\$1,194	\$616	\$500	\$1,452	\$1,485	\$1,500	\$800
<b>Assets % with Sponsor</b>	Substantial	Substantial	100%	100%	100%	0%	100%

(1) As of December 31, 2014, except Hamilton Re, Fidelis, and ABR Re, which are as of formation date

Prepared by Conning, Inc. Sources: Public information on company websites.

# Disruptive Change Acceleration Requires Insurance Responses

## General Purpose Technology



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# What do Customers Want?

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## J.D. Power Small Commercial Insurance Voice of the Customer Survey, 2014

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### Factors Contributing to Customer Experience with Insurer of Small Commercial Business

### High Satisfaction Rating

Interaction	29%
Policy offerings	26%
Price	21%
Billing and payment	18%
Claims	6%

Prepared by Conning, Inc. Source: J.D. Power and Associates, McGraw Hill Financial - used with permission.

# IMPLICATIONS

# New Products Lead with New Service Paradigm

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**The three largest new P&C products introduced in recent decades feature strong service component provided by the insurer.**

- ◆ EPLI—training to prevent harassment, retaliation, and wrongful termination. HR help line specializing in employment law.
- ◆ D&O—panel counsel available as resource during litigation. Loss mitigation/loss prevention literature.
- ◆ Cyber—post-breach notification, credit monitoring, identity monitoring services, forensic, and legal assistance.

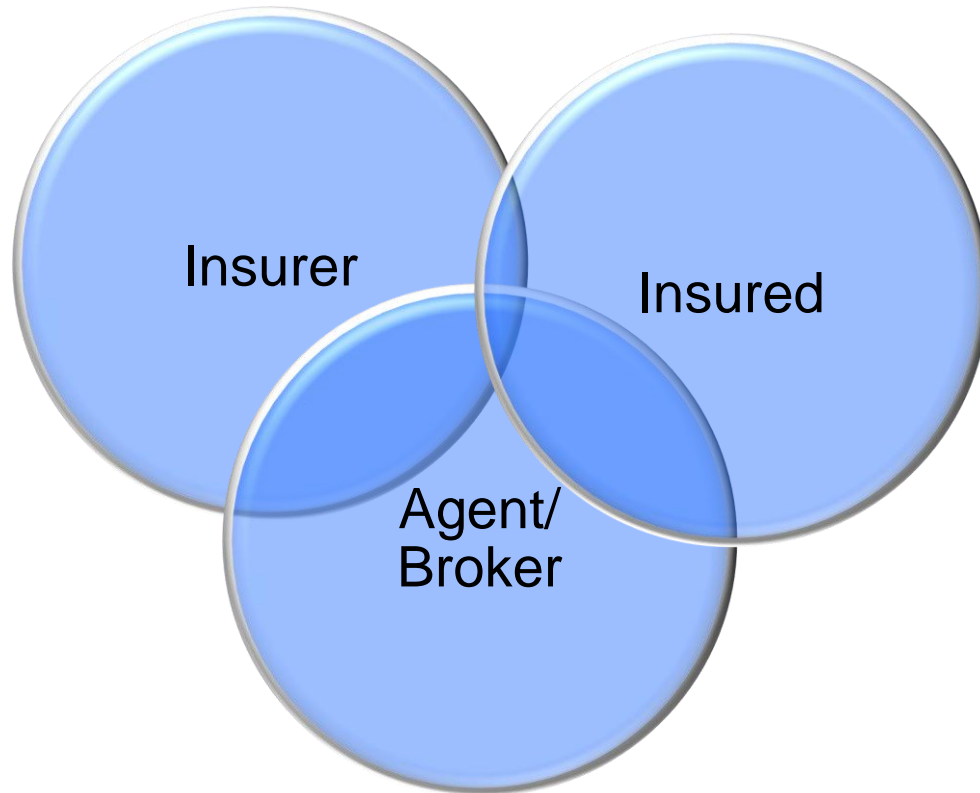
# Value-Added Services in Insurance Product of Future

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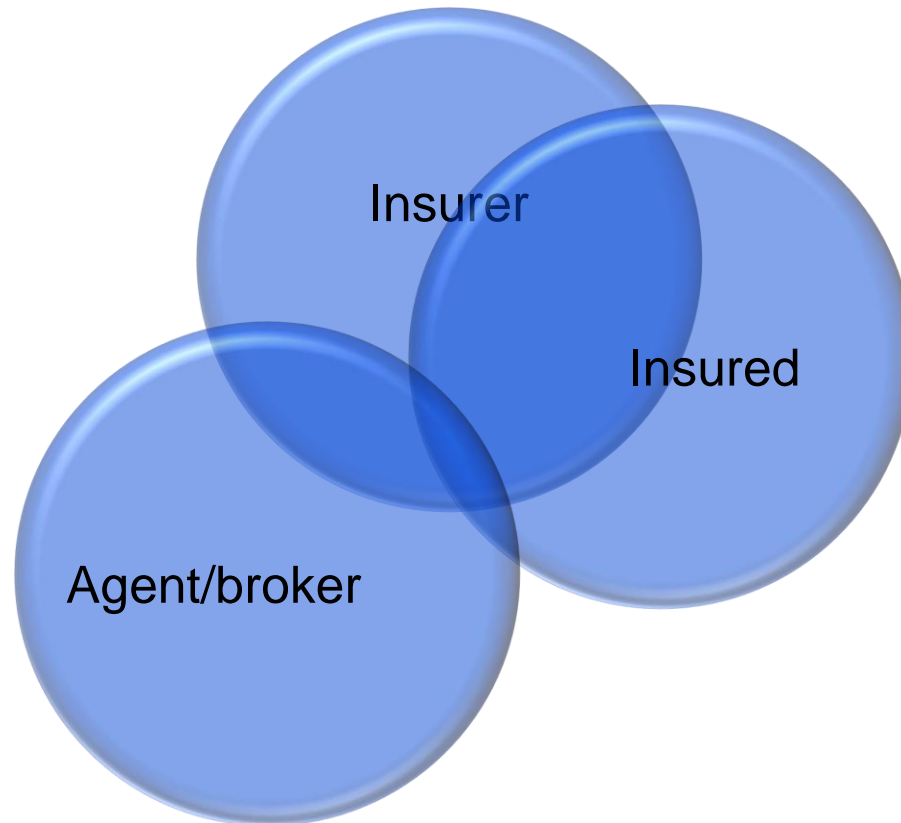
# Traditional Customer Relationship

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# Insurers to Be More in Tune with the Customer

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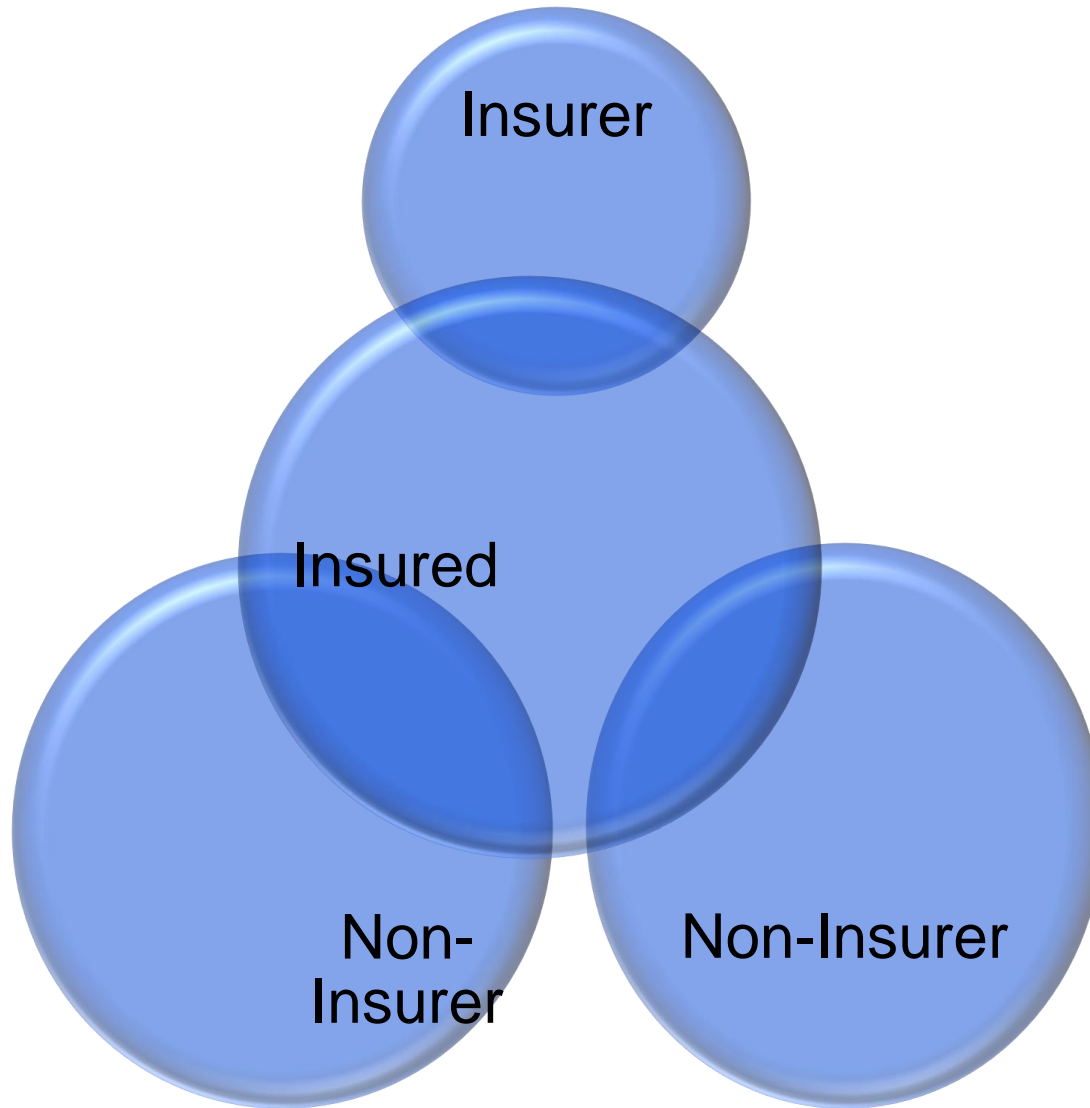


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# Data-Rich Non-Insurers Could Pose a Threat

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Prepared by Conning, Inc.

# Disruptive Structural Forces Point to Industry's Future Shape

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## Tomorrow's Insurance Industry

- ◆ A more concentrated market
- ◆ Shrinking demand for traditional products
- ◆ New data-rich competitors

## Responses to Remain Relevant

- ◆ Introduction of new products addressing technology-driven change
- ◆ Expanded service offerings
- ◆ More customer interaction
- ◆ Increased price transparency
- ◆ Shift to loss prevention and behavior modification

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