

**The P&C Insurance Industry:  
A Review,  
Some Gloom & Doom,  
and A View of the New**

**Kevin C. Ahlgrim, A.S.A., M.A.A.A., Ph.D.**

*Associate Professor, Finance, Insurance and Law*

*Illinois State University*

*kahlgrim@ilstu.edu*

**STATE**  
**your business.**

# Where are we?

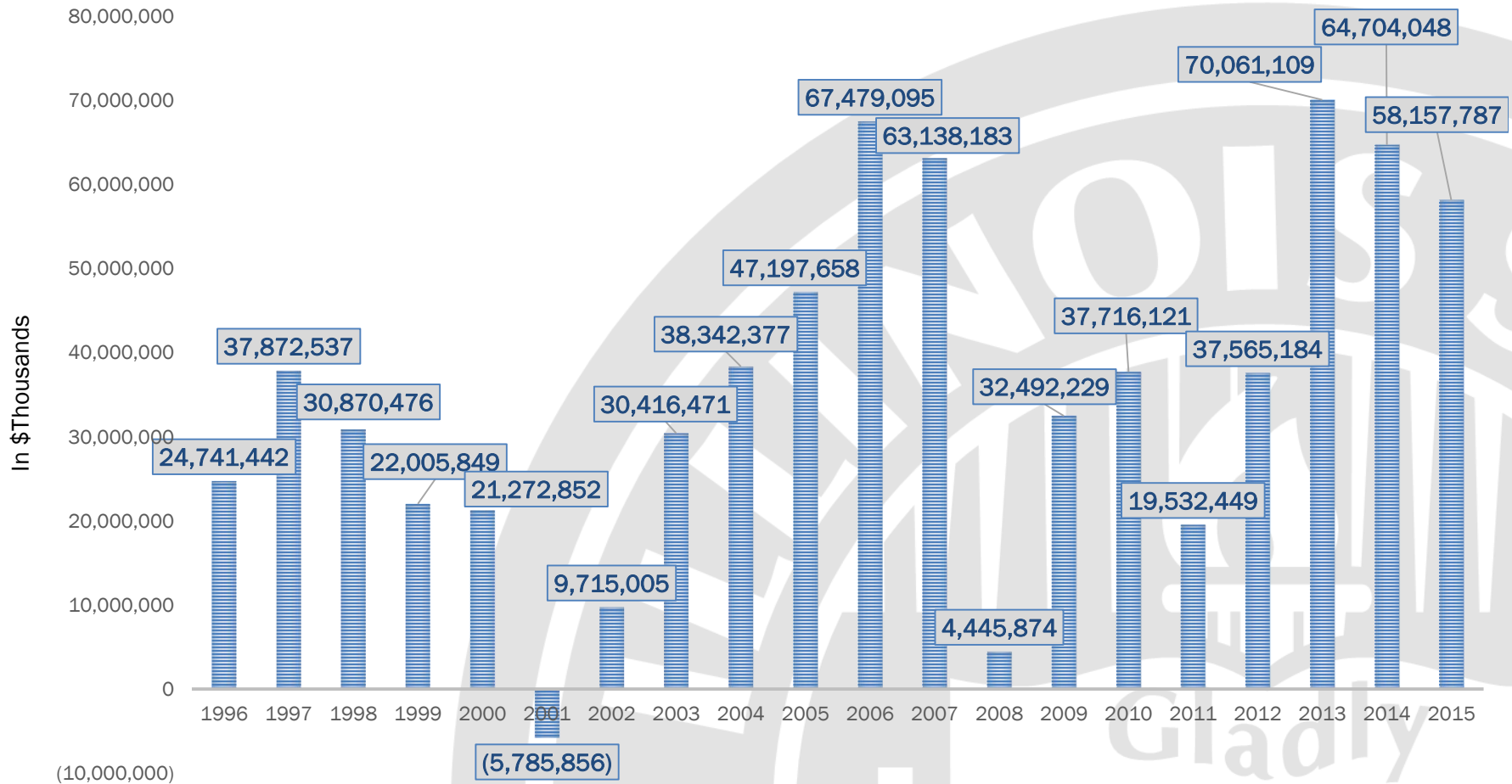


# Outline

- Review: Recent financial performance of the P&C Industry
- Gloom & Doom: Factors that may impede the future
- A View of the New: Where can the insurance industry look for growth?

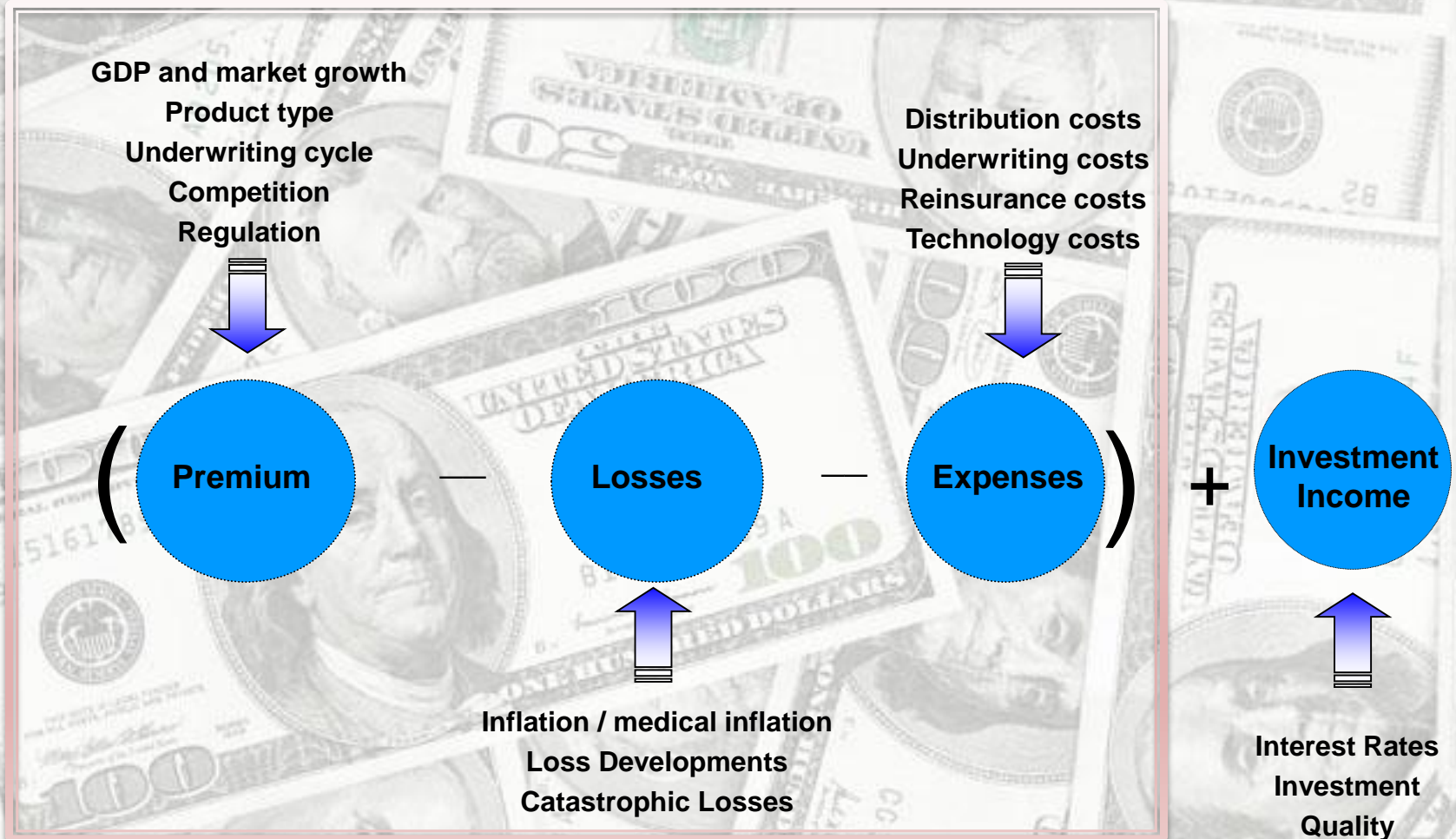
# DISSECTING FINANCIAL PERFORMANCE

# P&C Industry Net Income



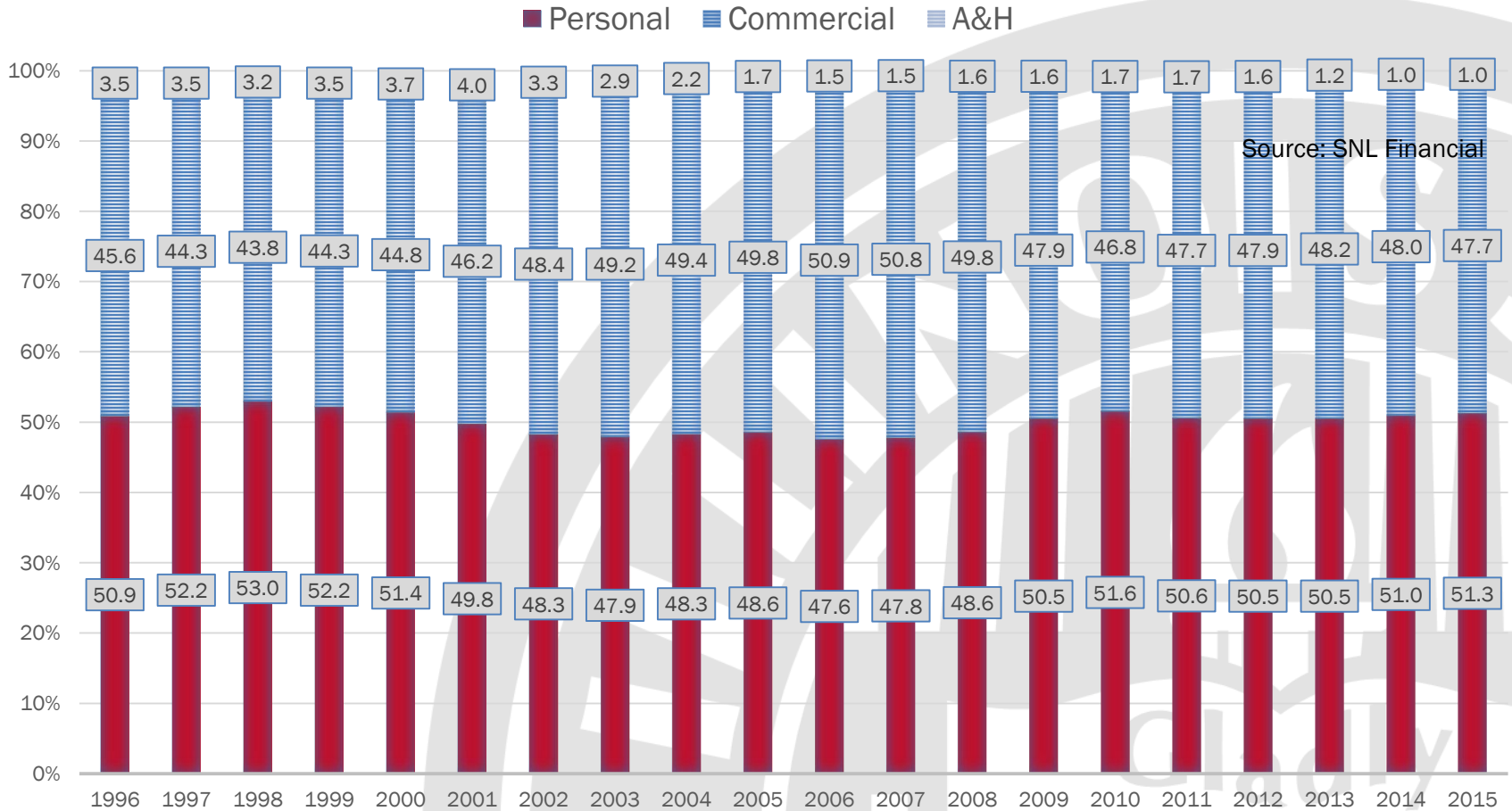
Source: SNL Financial

# How Do Insurers Make Money?



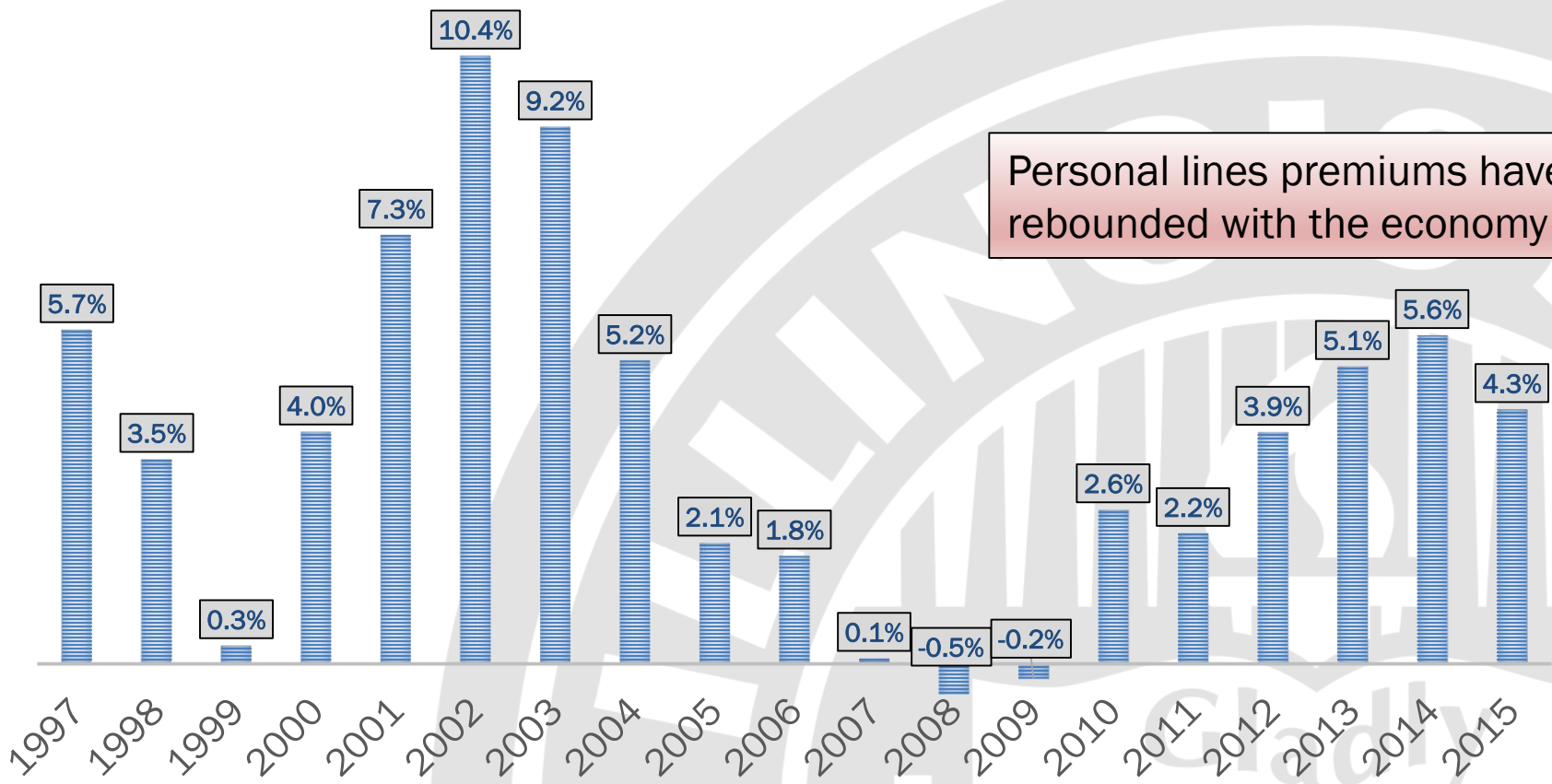
Premiums vs. losses/expenses determine the combined ratio

# P&C Industry Premium Split



Source: SNL Financial

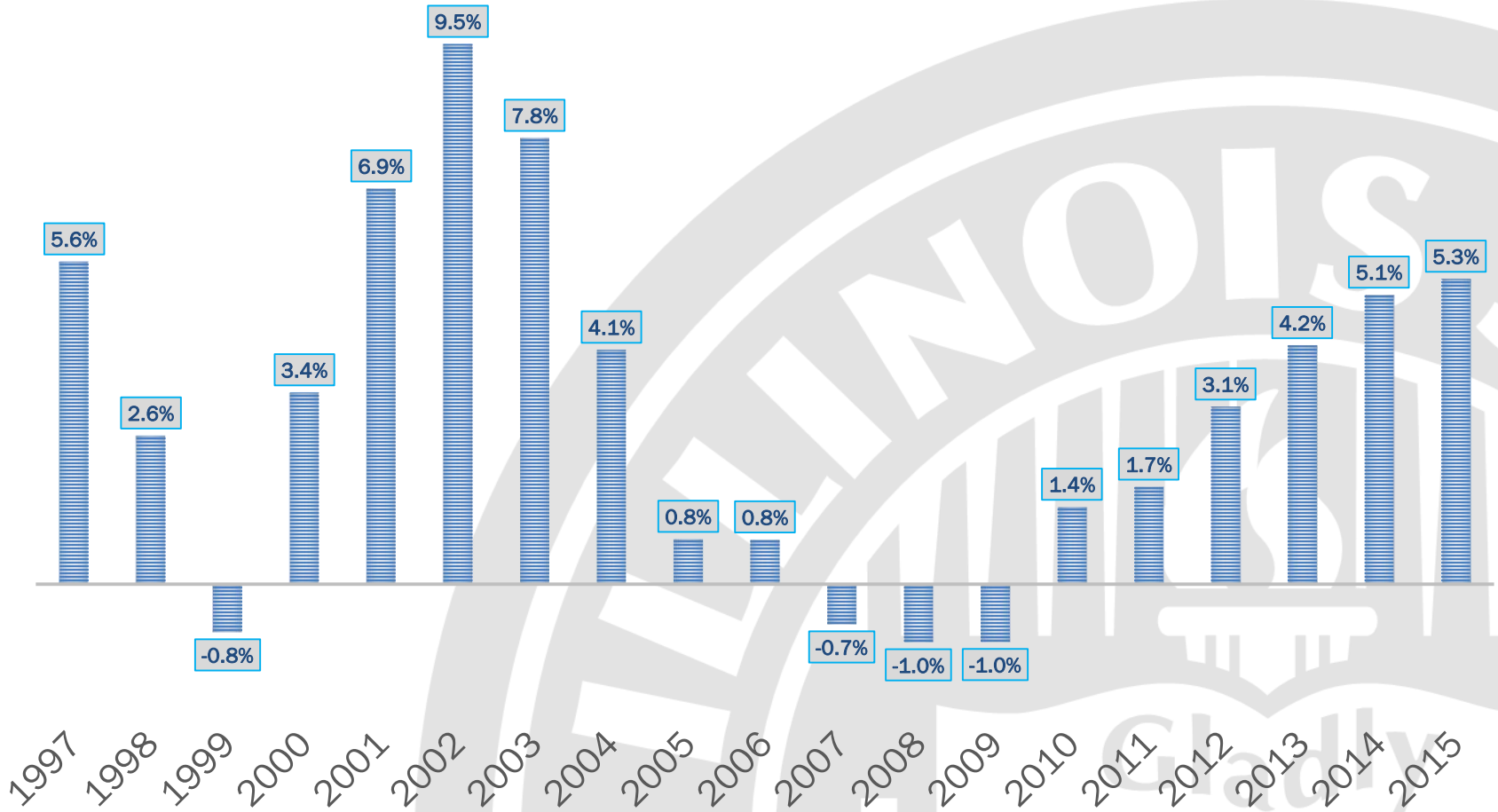
# P&C Personal Lines Premium Growth



Source: SNL Financial

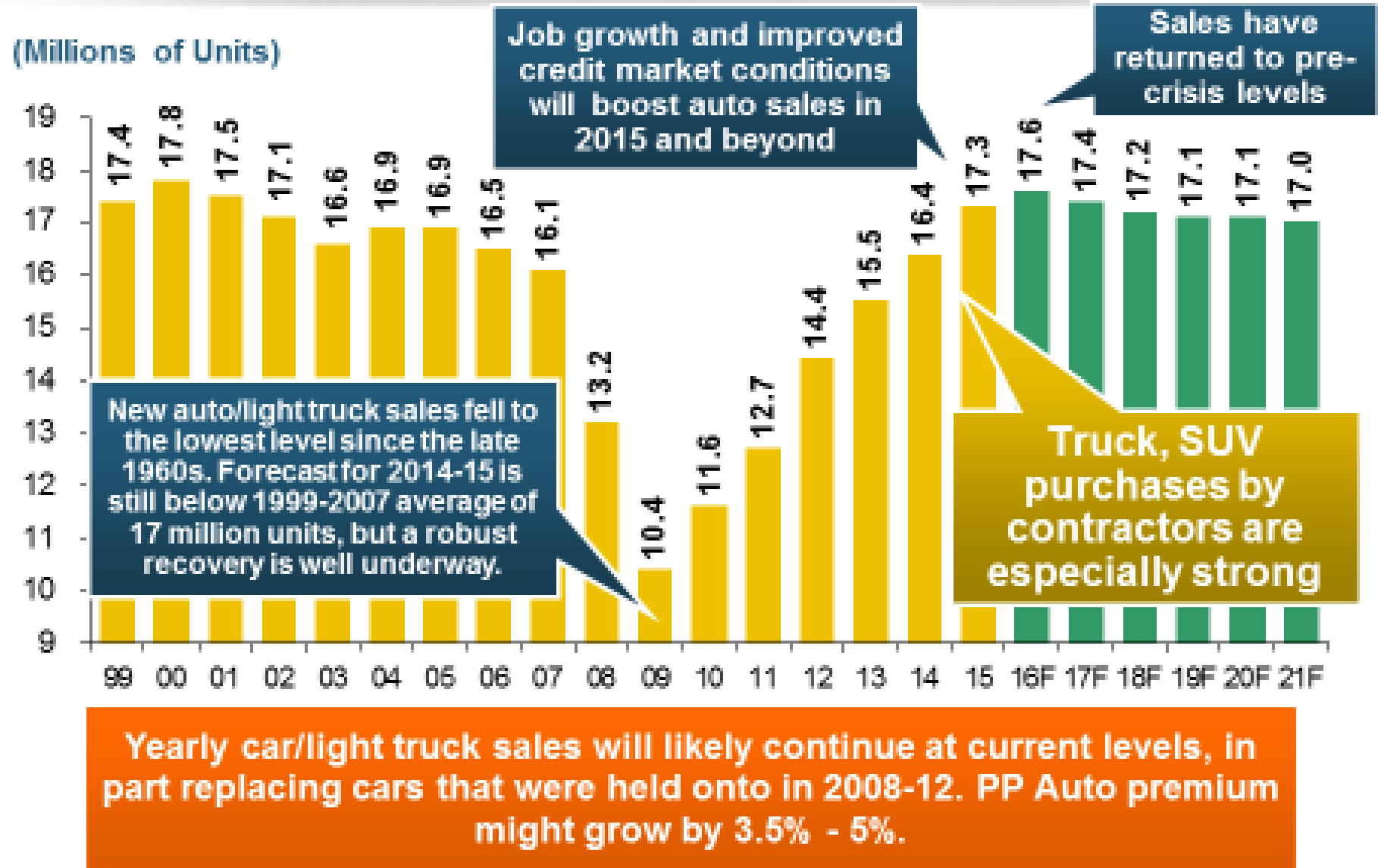


# Industry Personal Auto Premium Growth

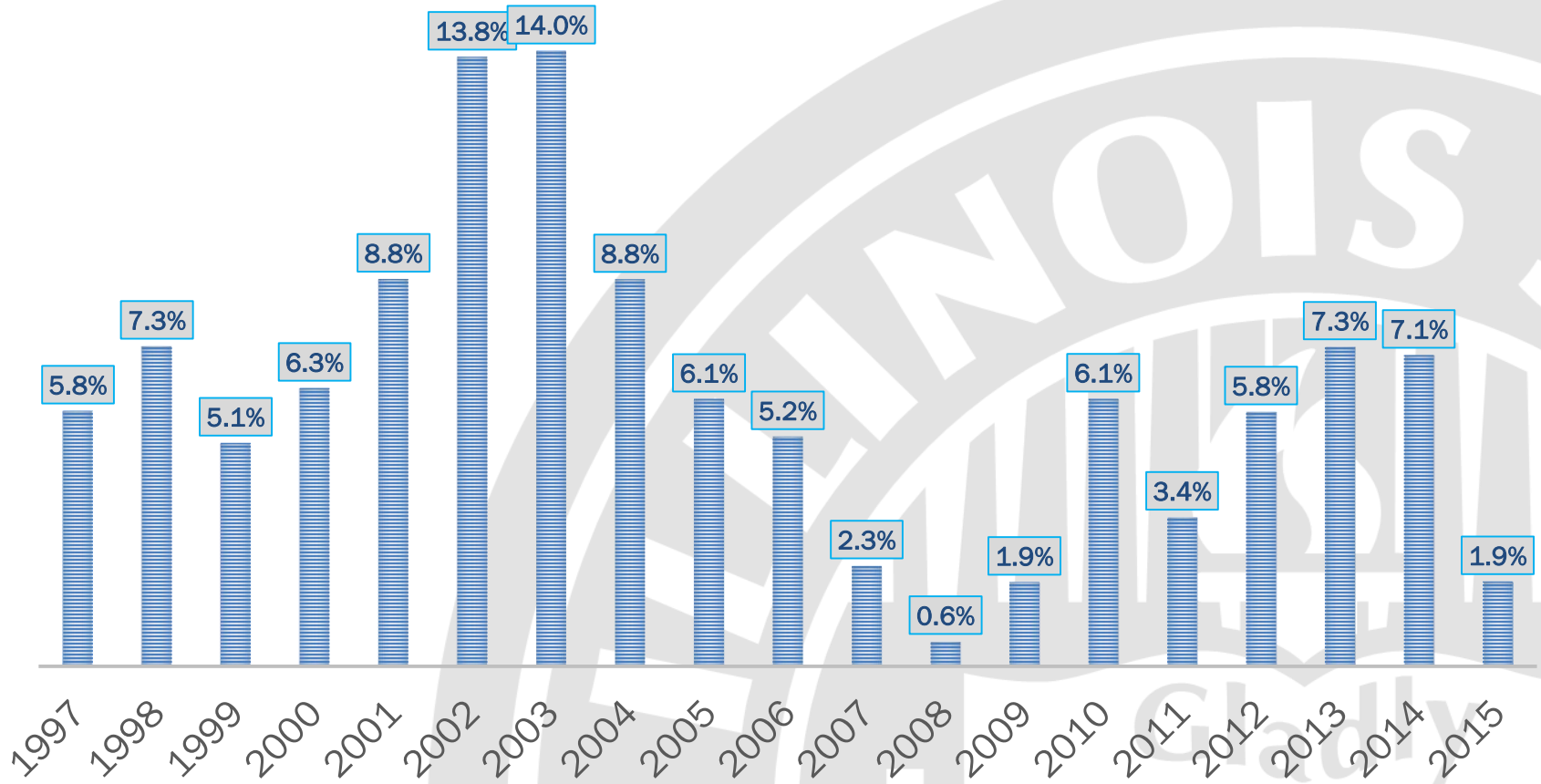


Source: SNL Financial

# Auto/Light Truck Sales, 1999-2021F

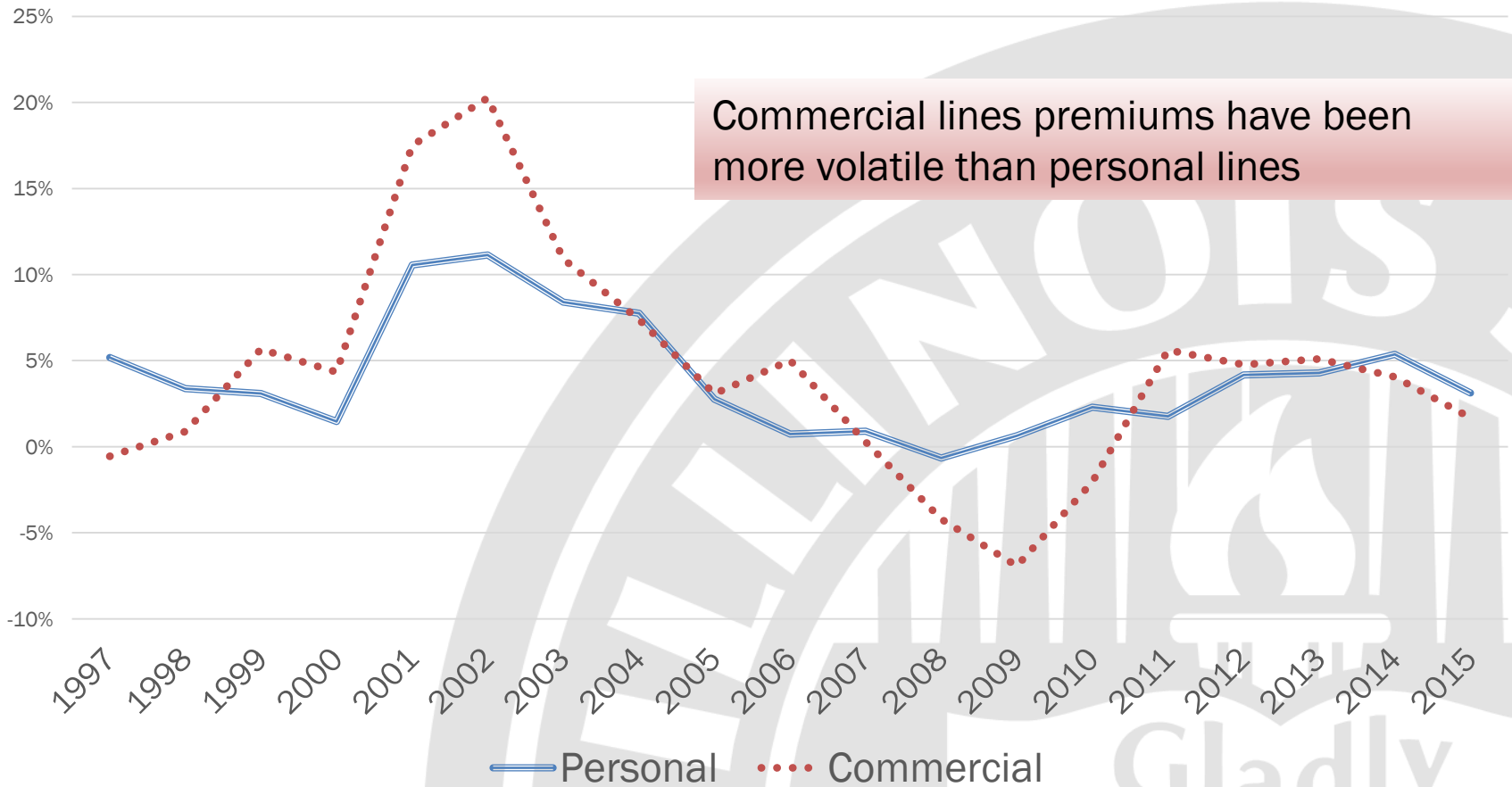


# Industry Homeowners Premium Growth



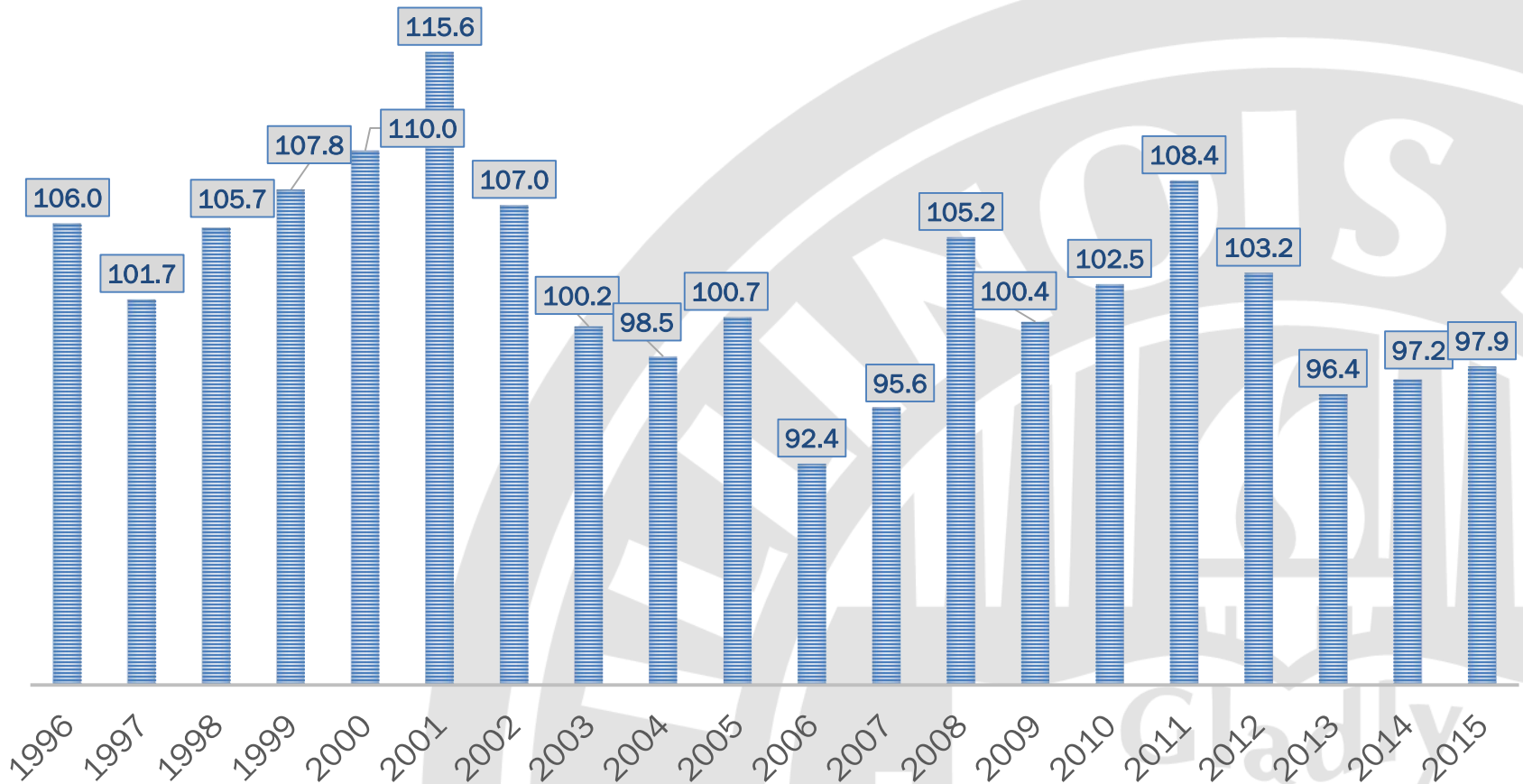
Source: SNL Financial

# Personal vs. Commercial Lines Growth



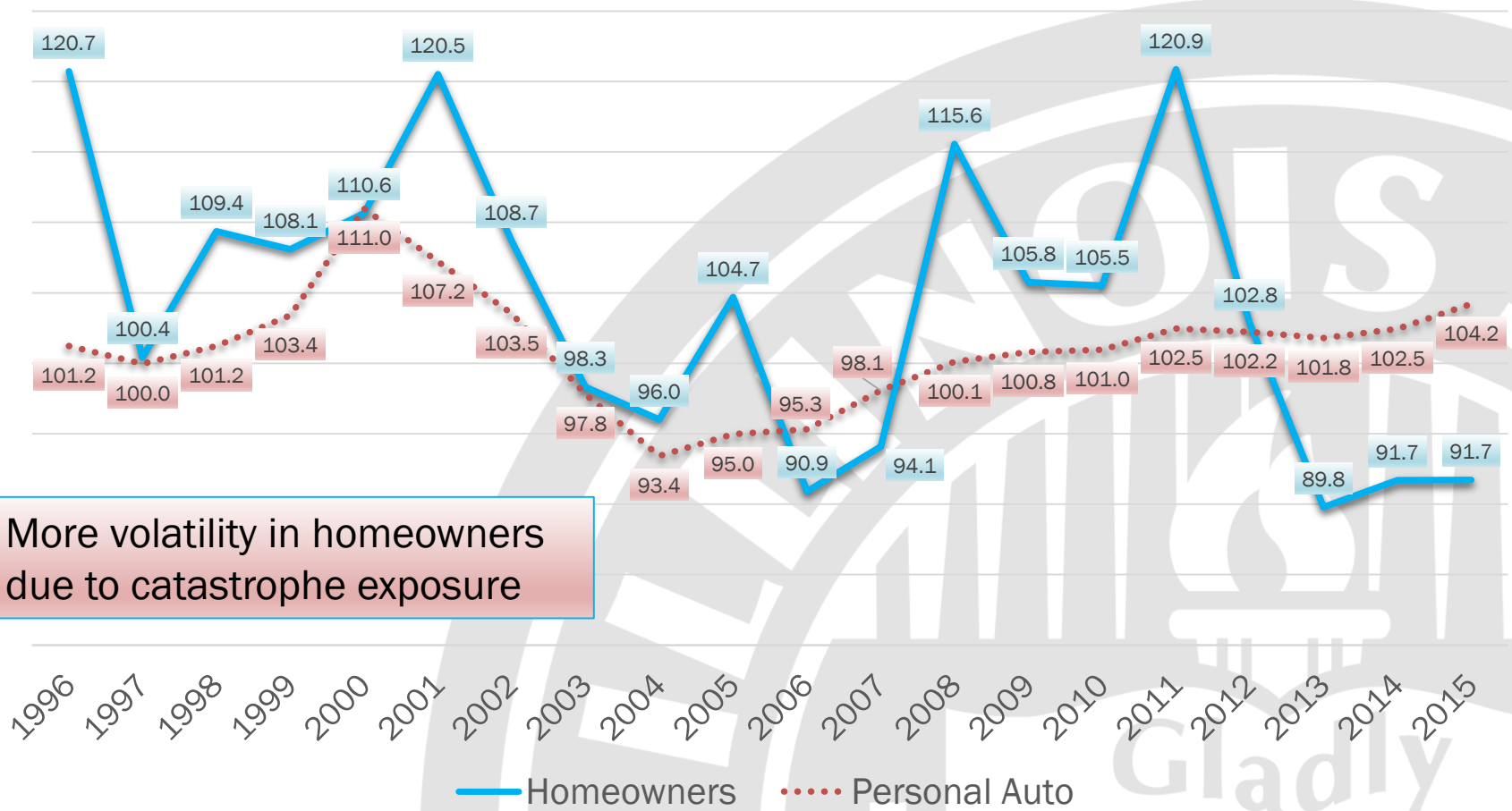
Source: SNL Financial

# P&C Industry Combined Ratio



Source: SNL Financial

# Personal Lines Combined Ratios

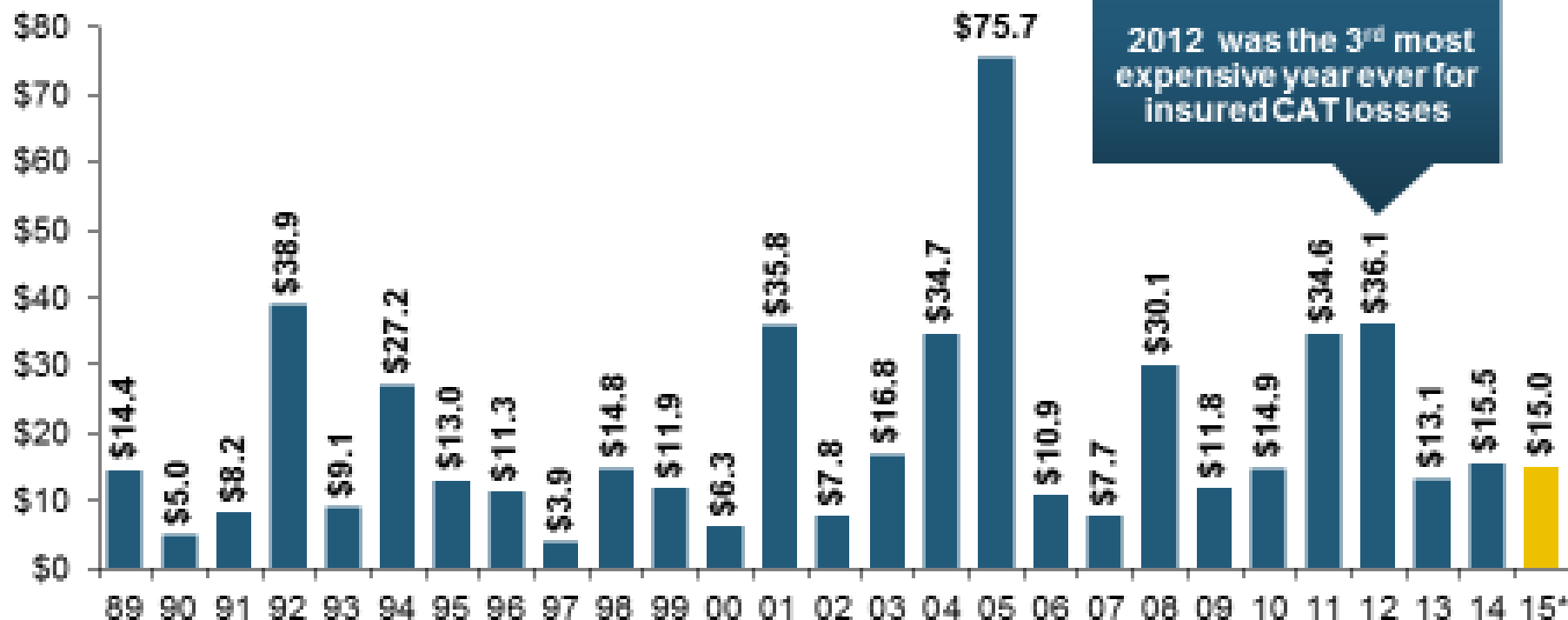


More volatility in homeowners due to catastrophe exposure

Source: SNL Financial

# U.S. Insured Catastrophe Losses

(\$ Billions, \$ 2015)



2012 was the 3<sup>rd</sup> most expensive year ever for insured CAT losses

2013/14 Were Welcome Respite from 2011/12, among the Costliest Years for Insured Disaster Losses in US History. Longer-term Trend is for more—not fewer—Costly Events

\$15B in insured CAT losses through 12/31/15 (est.)

\*Estimate through 12/31/15 in 2015 dollars.

Note: 2001 figure includes \$20.3B for 9/11 losses reported through 12/31/01 (\$25.9B 2011 dollars). Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = \$12.2B (\$15.6B in 2011 dollars.)

Sources: Property Claims Service/ISO; Insurance Information Institute.

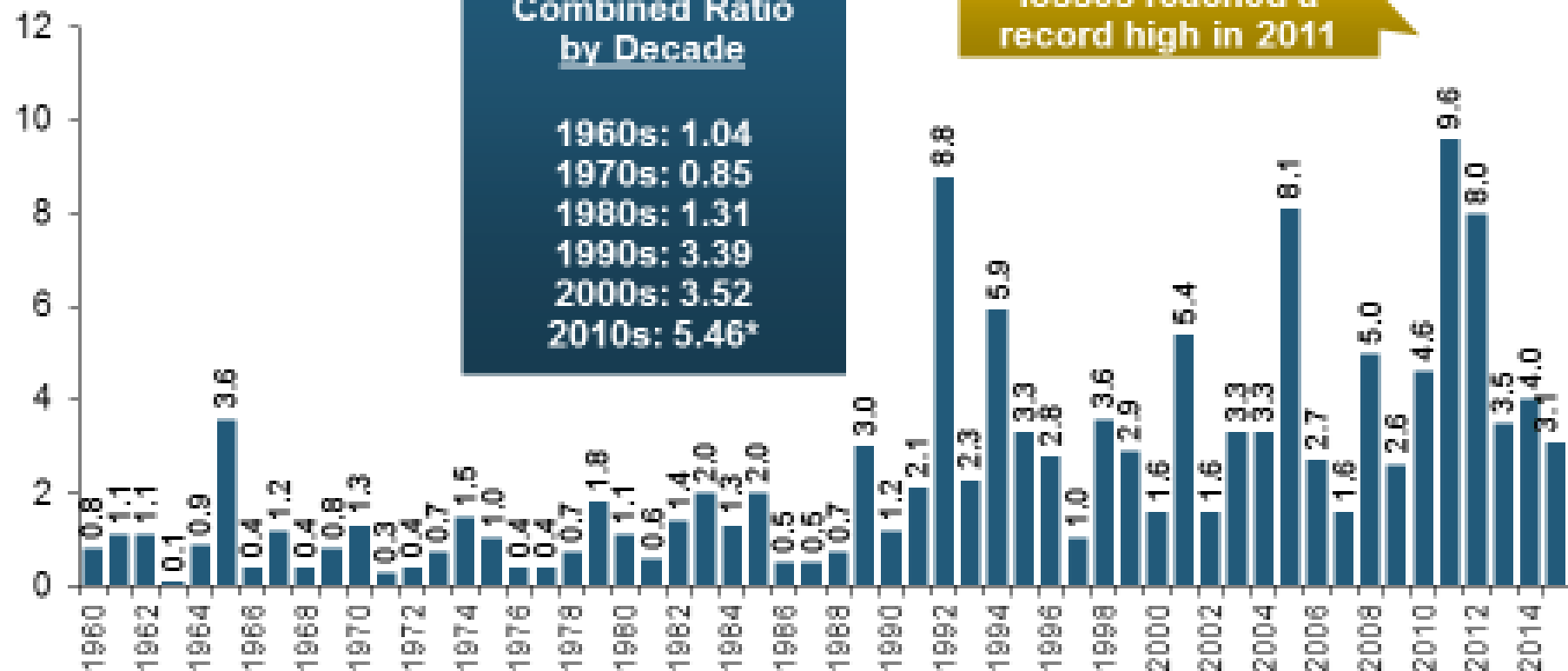
# Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2015E\*

## Combined Ratio Points

Avg. CAT Loss Component of the Combined Ratio by Decade

1960s: 1.04  
 1970s: 0.85  
 1980s: 1.31  
 1990s: 3.39  
 2000s: 3.52  
 2010s: 5.46\*

Catastrophe losses as a share of all losses reached a record high in 2011



The Catastrophe Loss Component of Private Insurer Losses Has Increased Sharply in Recent Decades

\*2010s represent 2010-2015E.

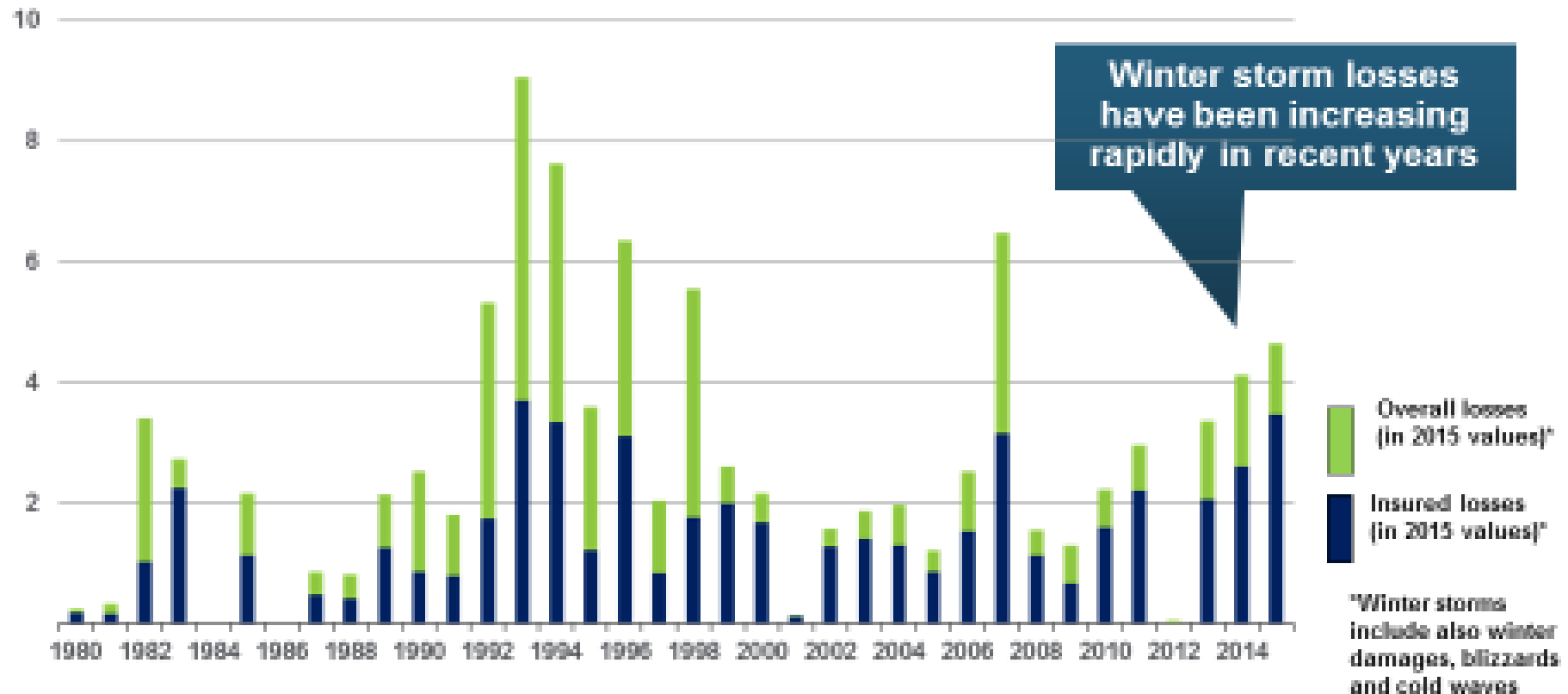
Notes: Private carrier losses only. Excludes loss adjustment expenses and reinsurance reinstatement premiums. Figures are adjusted for losses ultimately paid by foreign insurers and reinsurers.

Source: ISO (1960-2009); A.M. Best (2010-15E) Insurance Information Institute.

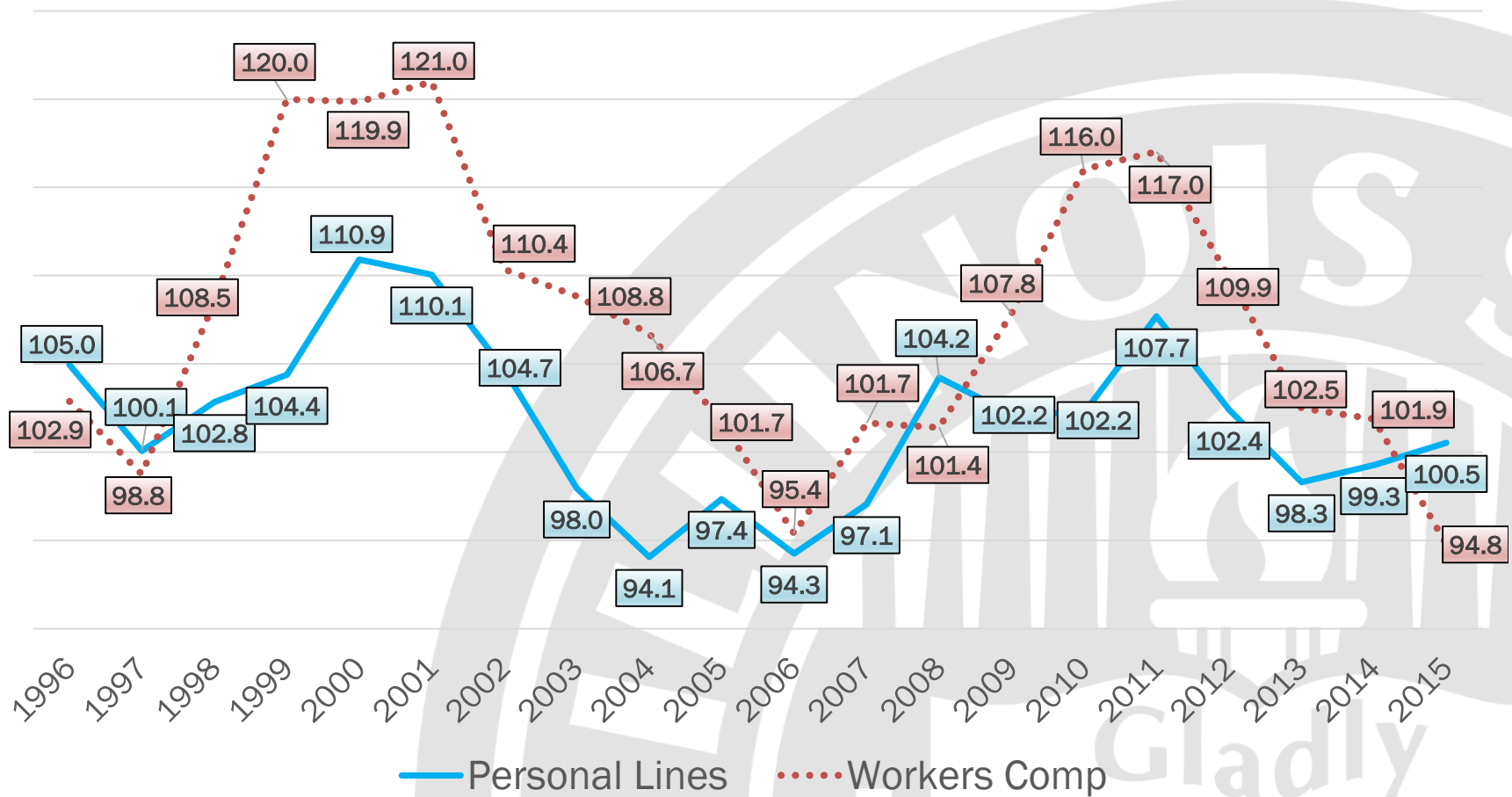


# Winter Storm Losses in the US 1980 – 2015 (Overall and Insured Losses)\*

\$ Billions

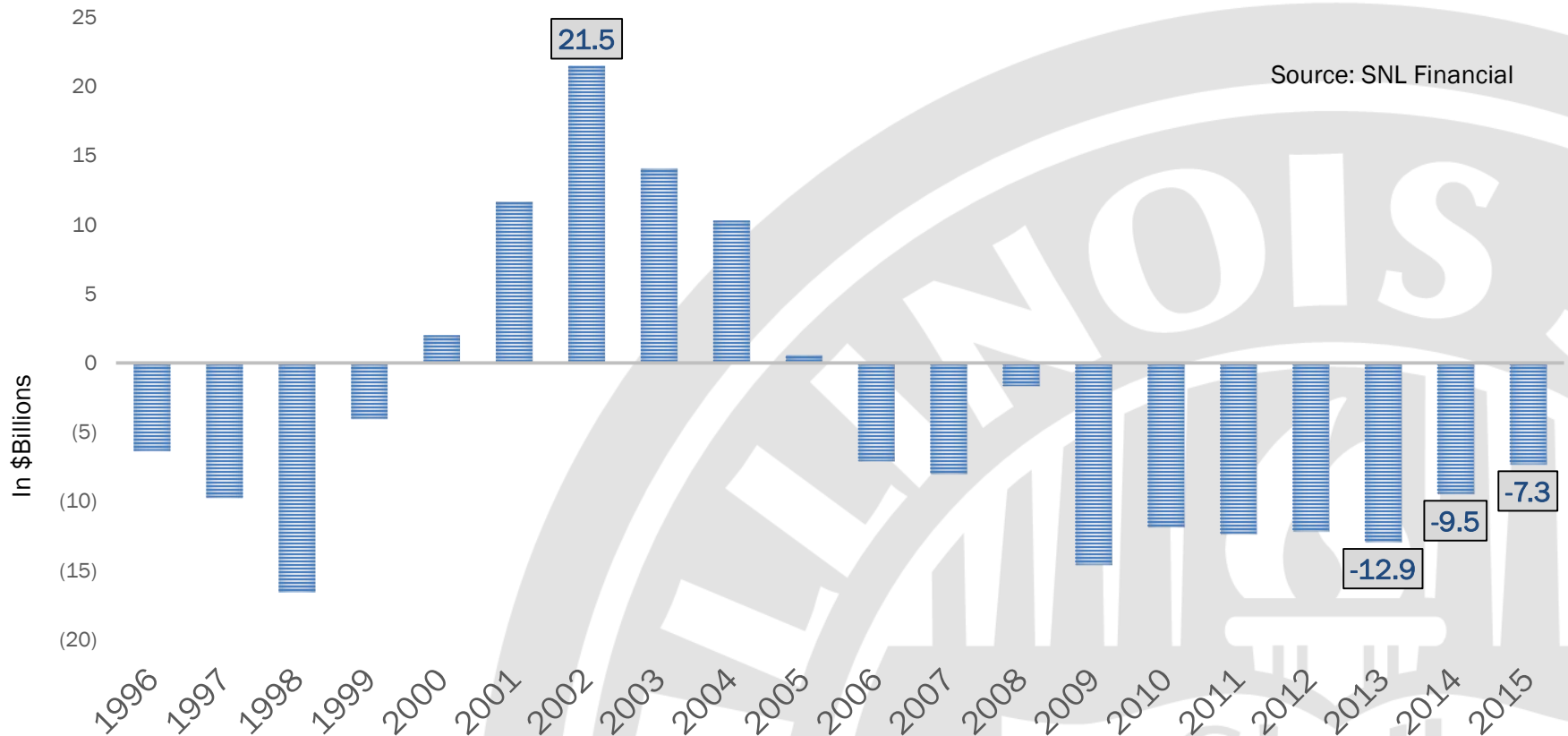


# P&C Industry Combined Ratio by Line



Source: SNL Financial

# P&C Industry Reserve Development



When development is negative, reserves are released, which improves the combined ratio and net income

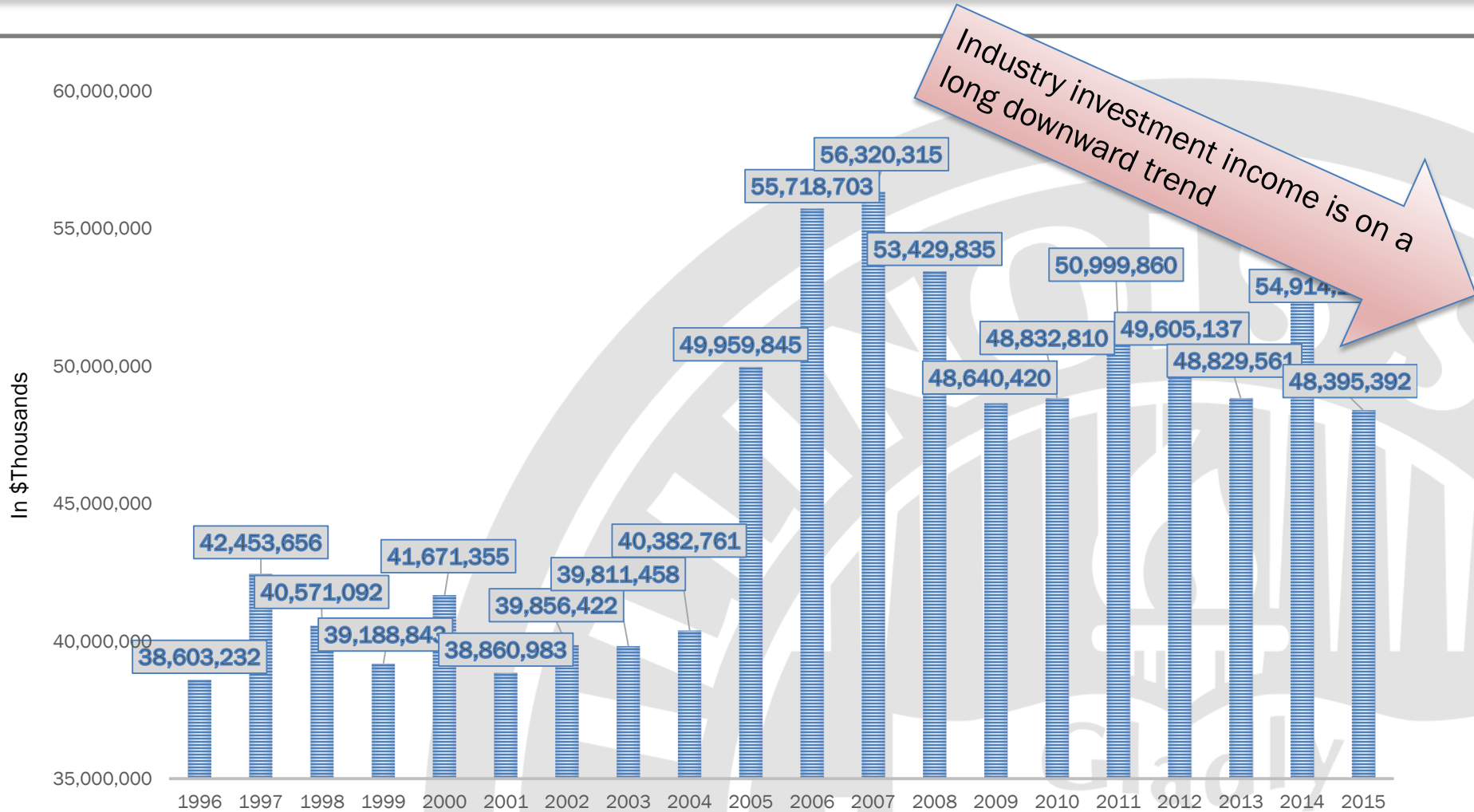
# Summary

- Premium growth has recovered strongly with economy
- Fewer catastrophes have improved recent combined ratio
- Can the positive trends continue?



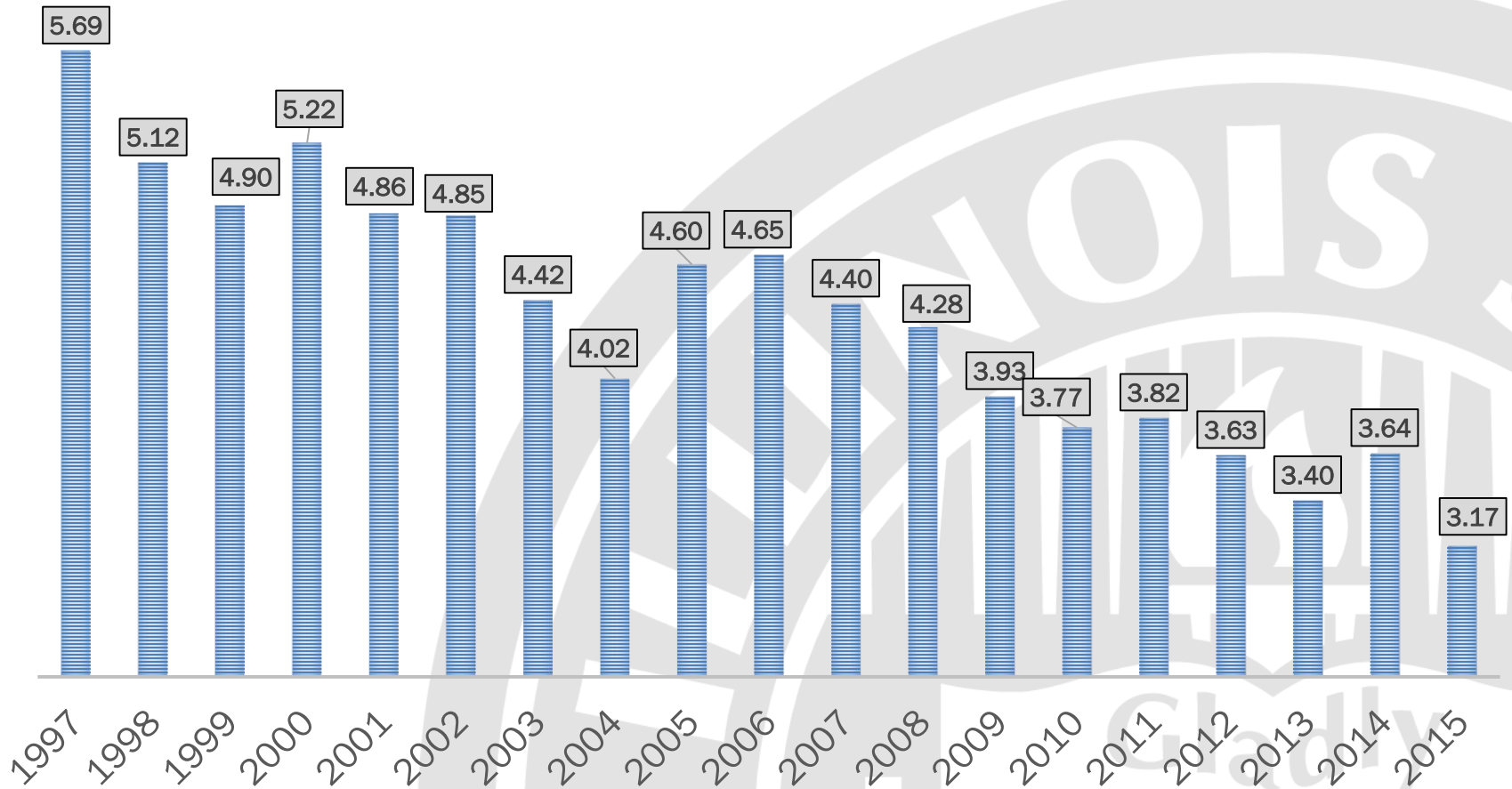
**GLOOM AND DOOM:  
INVESTMENT PERFORMANCE**

# P&C Industry Investment Income



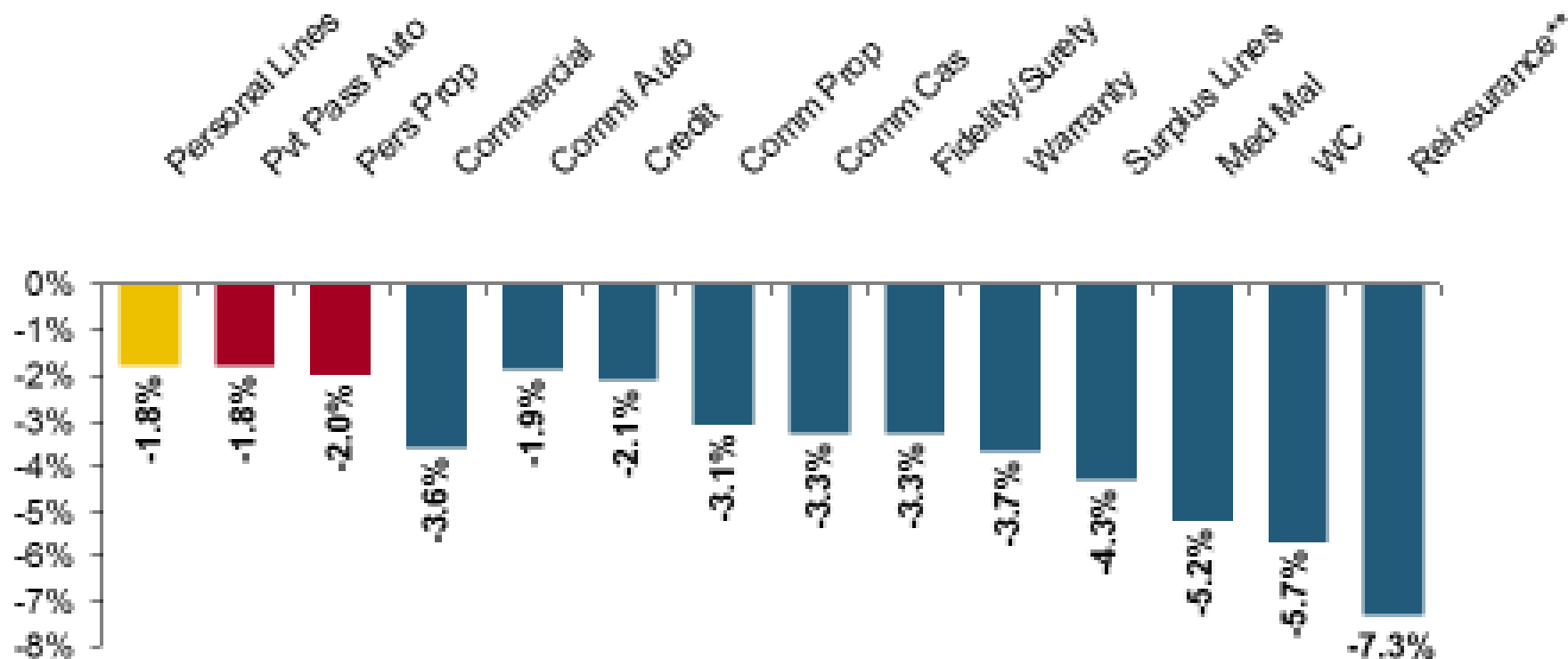
Source: SNL Financial

# P&C Industry Net Yield on Assets



Source: SNL Financial

# Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line\*



**Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline**

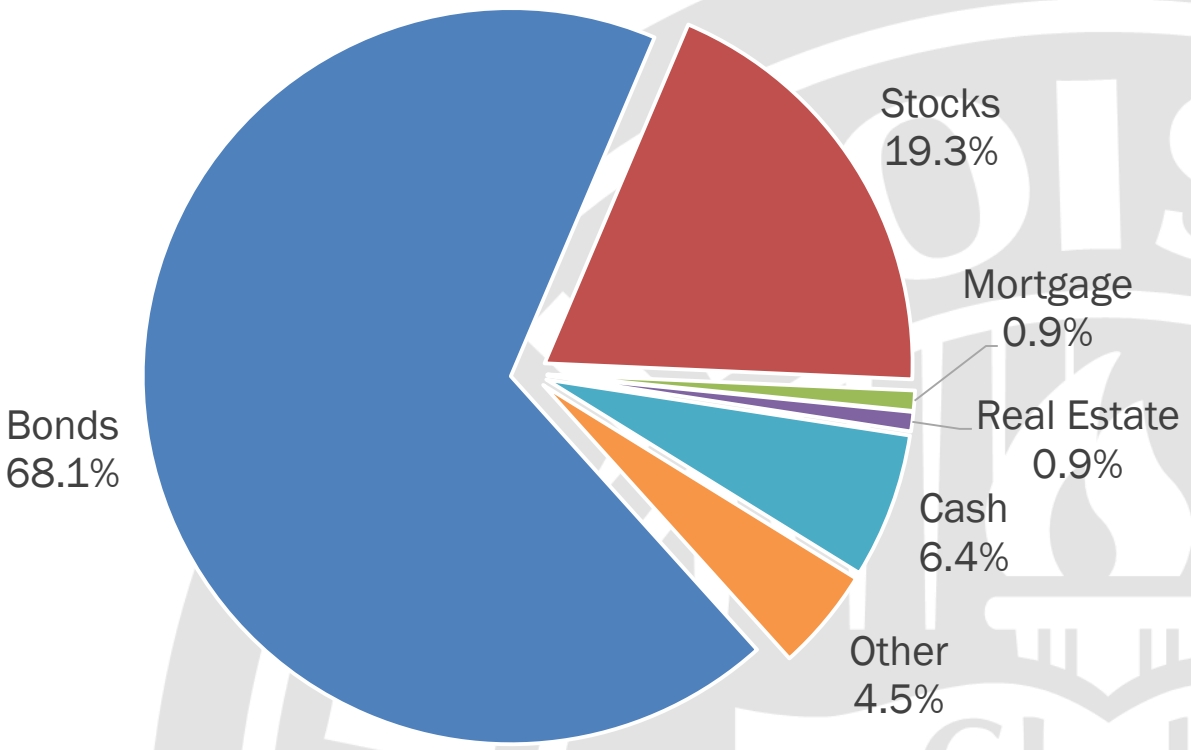
\*Based on 2008 Invested Assets and Earned Premiums

\*\*US domestic reinsurance only

Source: A.M. Best, Insurance Information Institute.

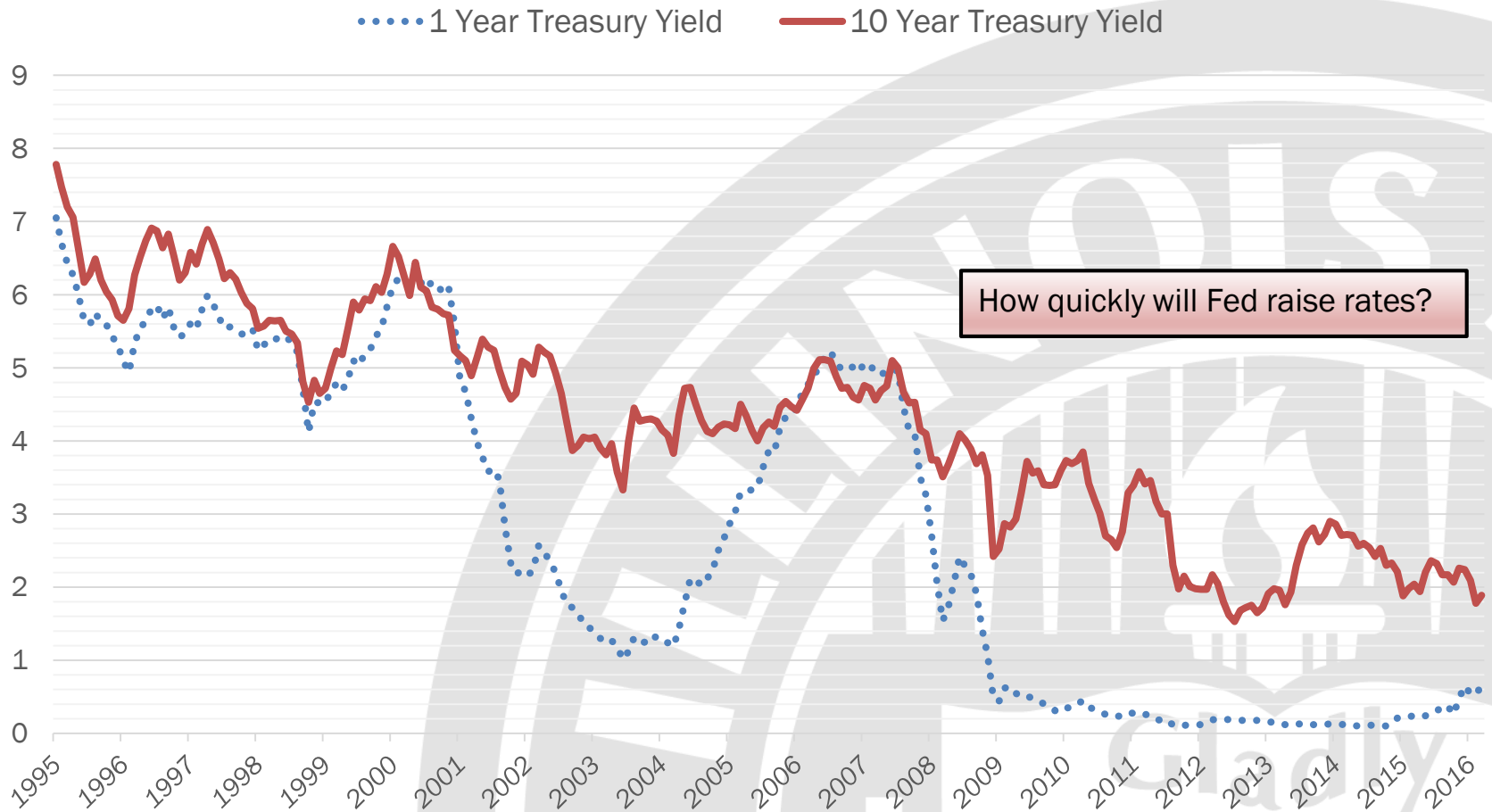


# P&C Industry Portfolio, 2015



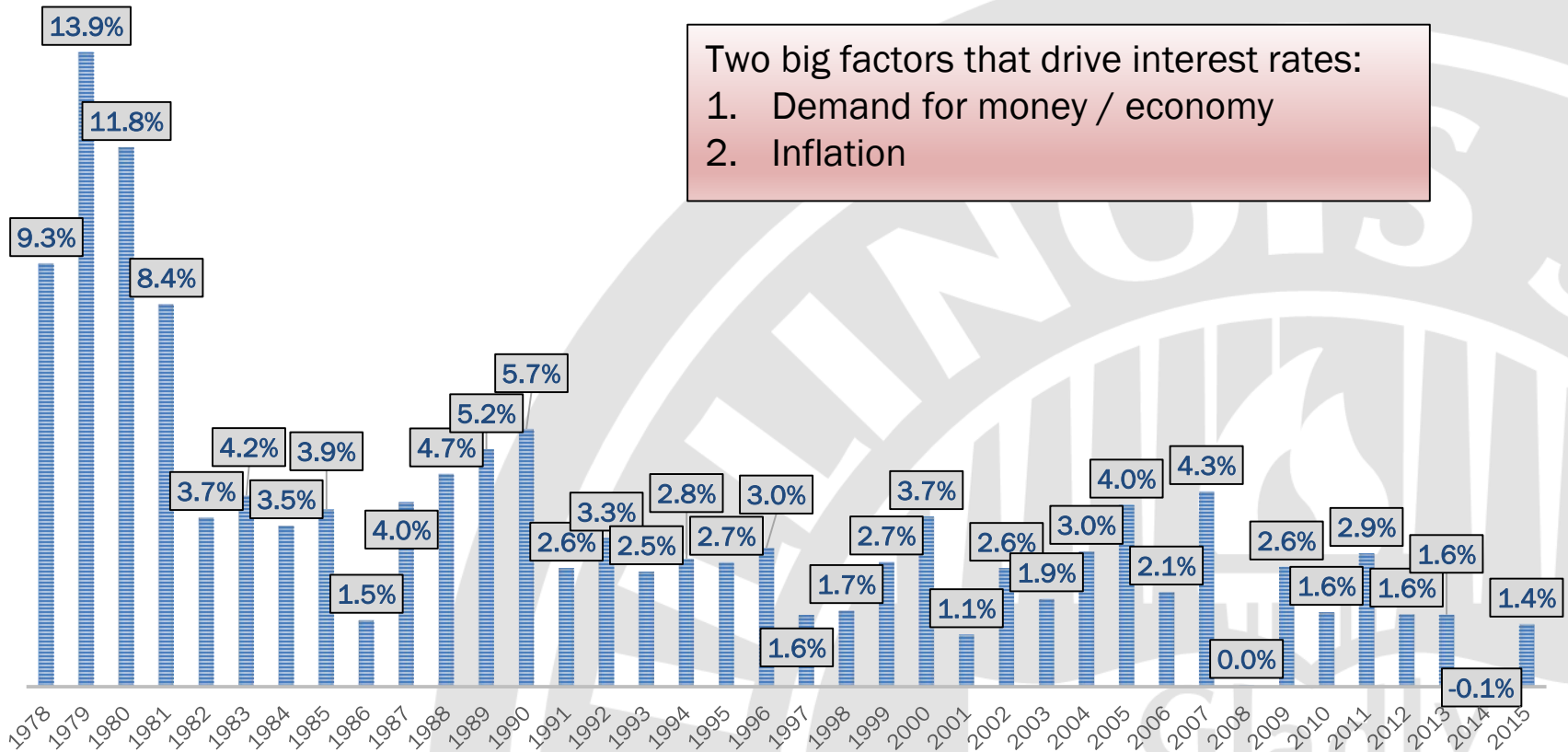
Source: SNL Financial

# Interest Rates are Low



Source: St. Louis Fed (FRED)

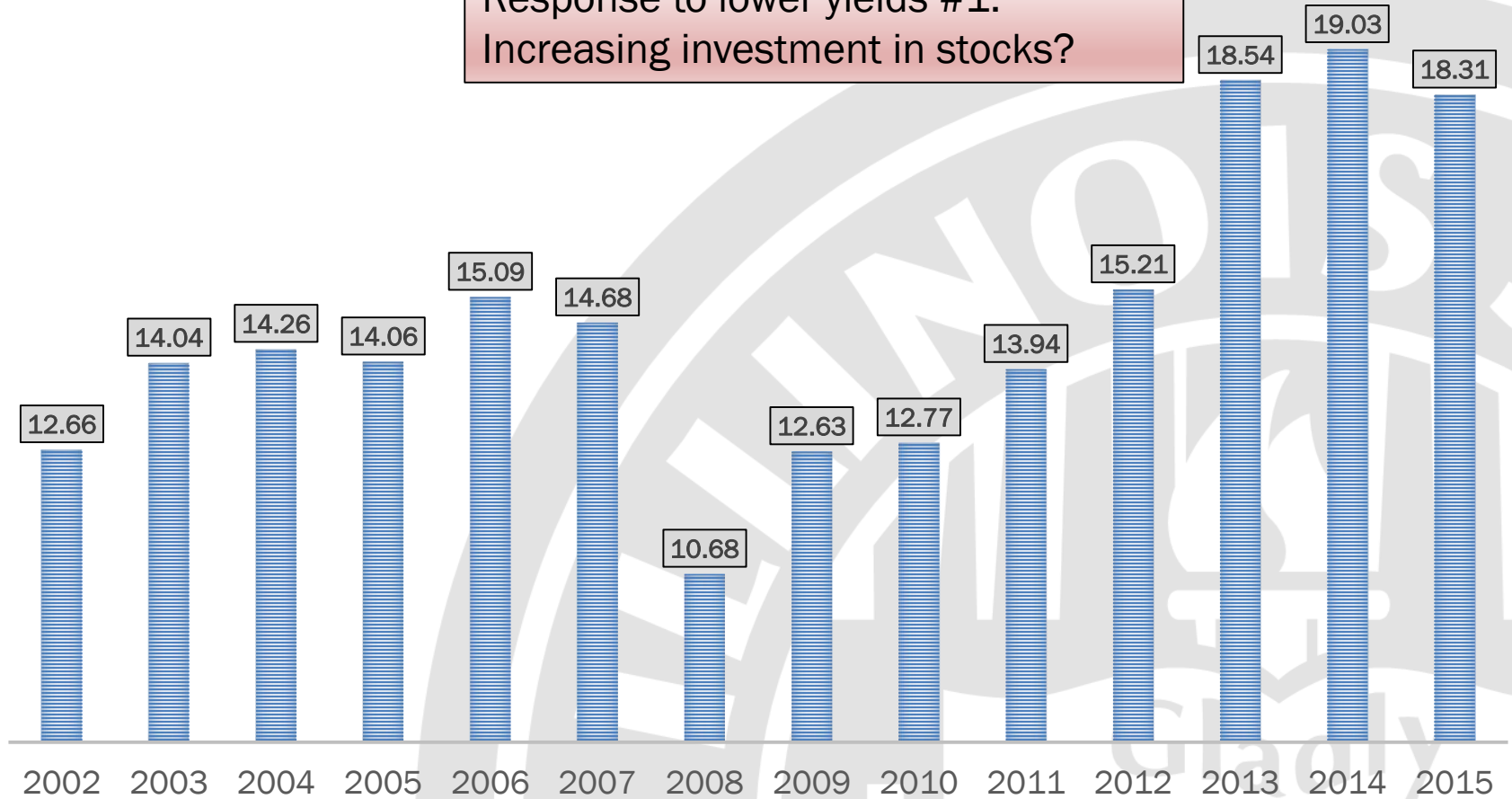
# Inflation Rate



Source: US Bureau of Labor Statistics

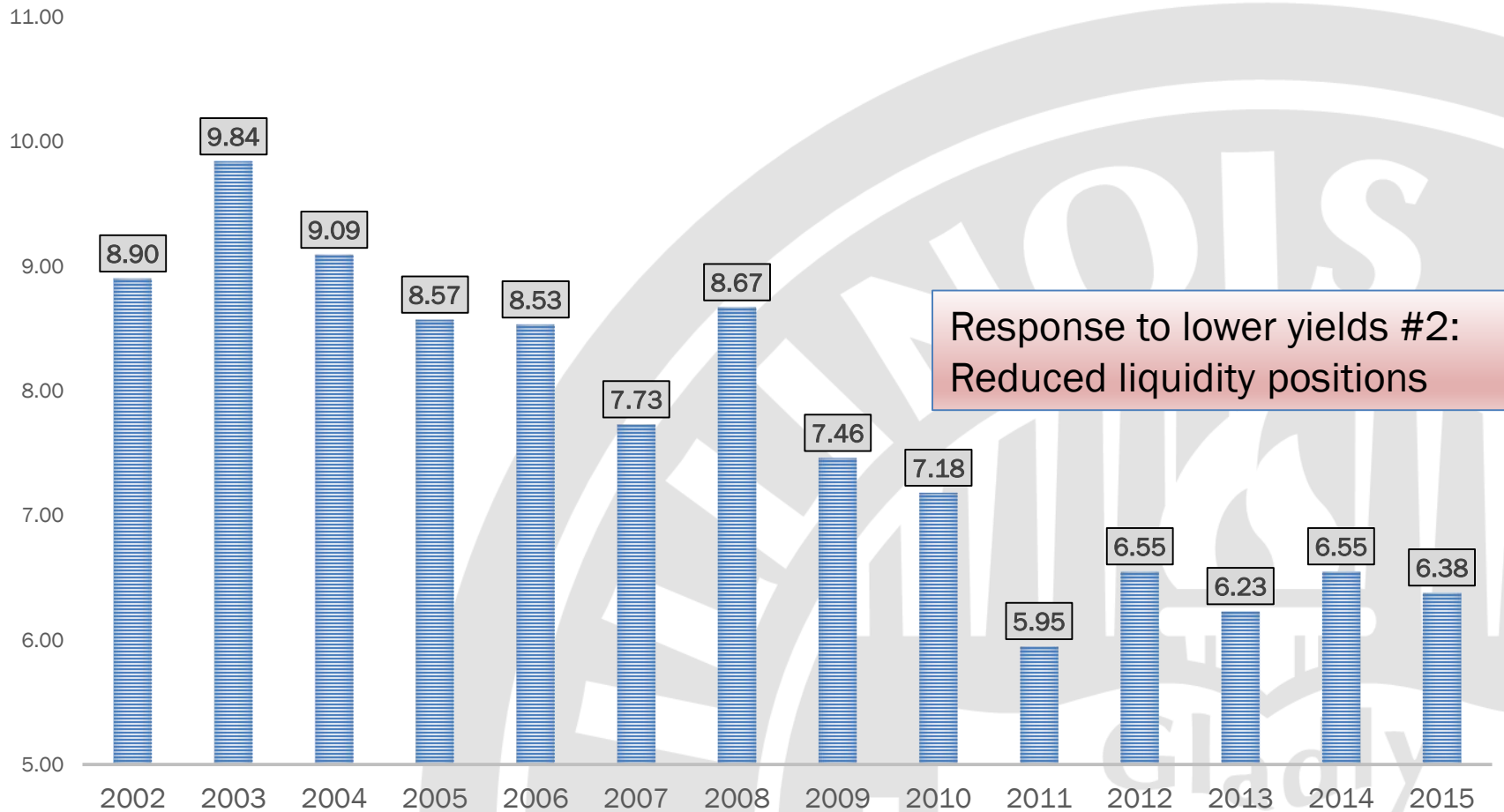
# P&C Industry Investments in Stocks

Response to lower yields #1:  
Increasing investment in stocks?



Source: SNL Financial

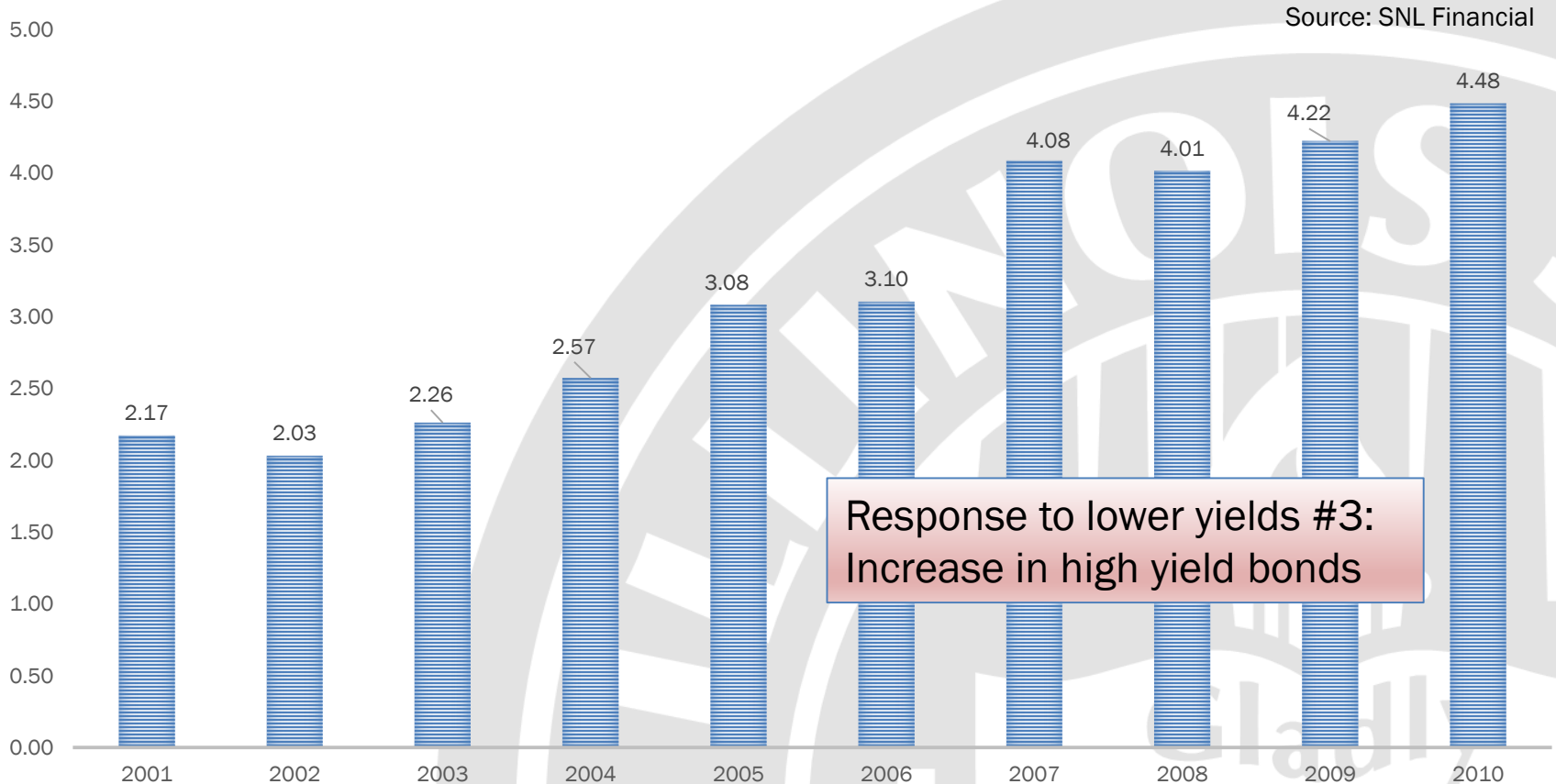
# P&C Industry Investment in Cash



Source: SNL Financial

# P&C Investment in Bonds

## NAIC CATEGORIES 3-6



Response to lower yields #3:  
Increase in high yield bonds

Source: SNL Financial

# Comments

- Will interest rates remain low? For how much longer?
- Thank goodness for lower combined ratios to help offset lower investment returns
  - But how long can this last?
- Are insurers increasing risks to offset lower investment income?

Moving Forward

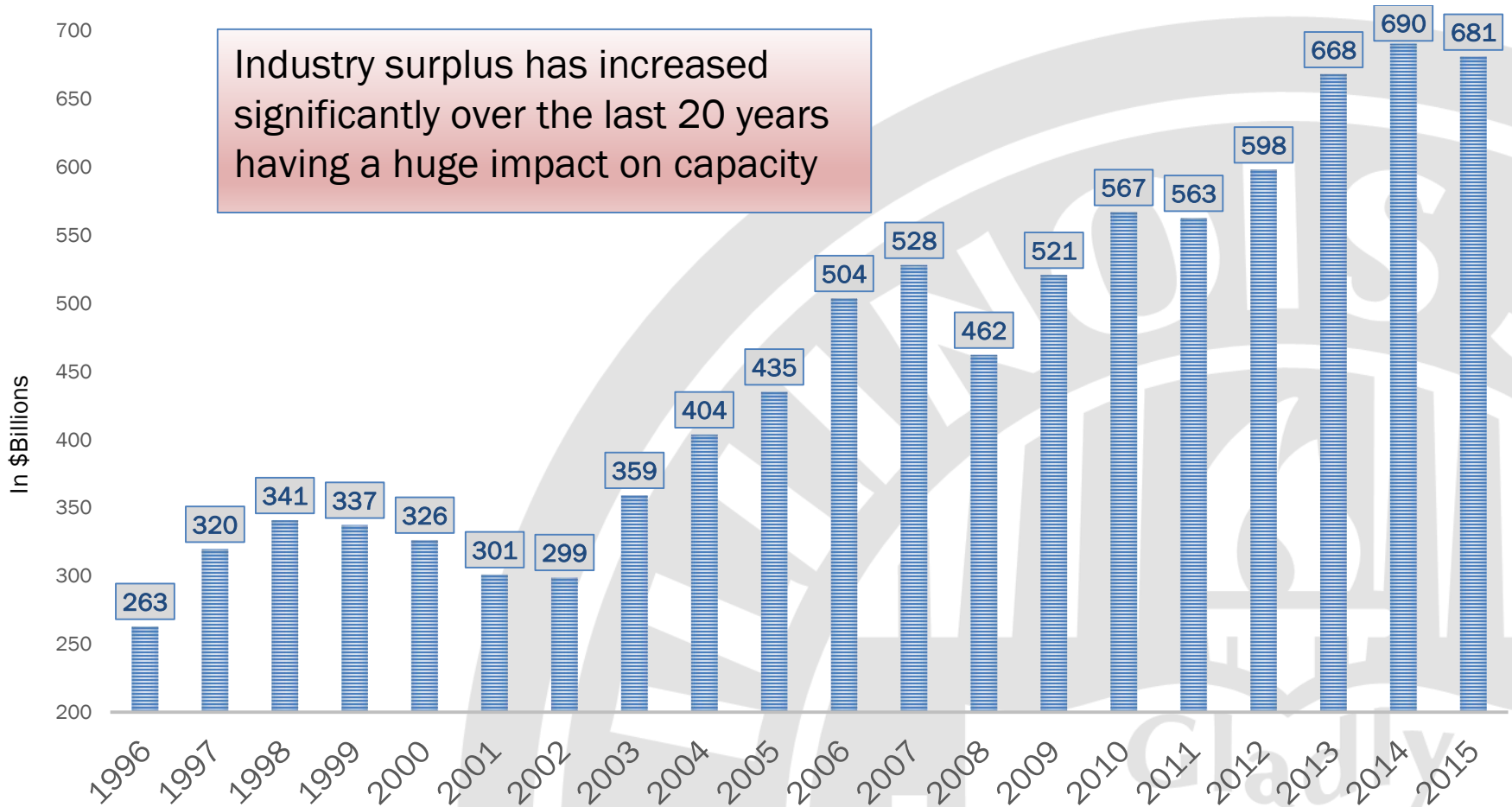
# INDUSTRY CHALLENGES



# The P&C Industry: Looking Forward

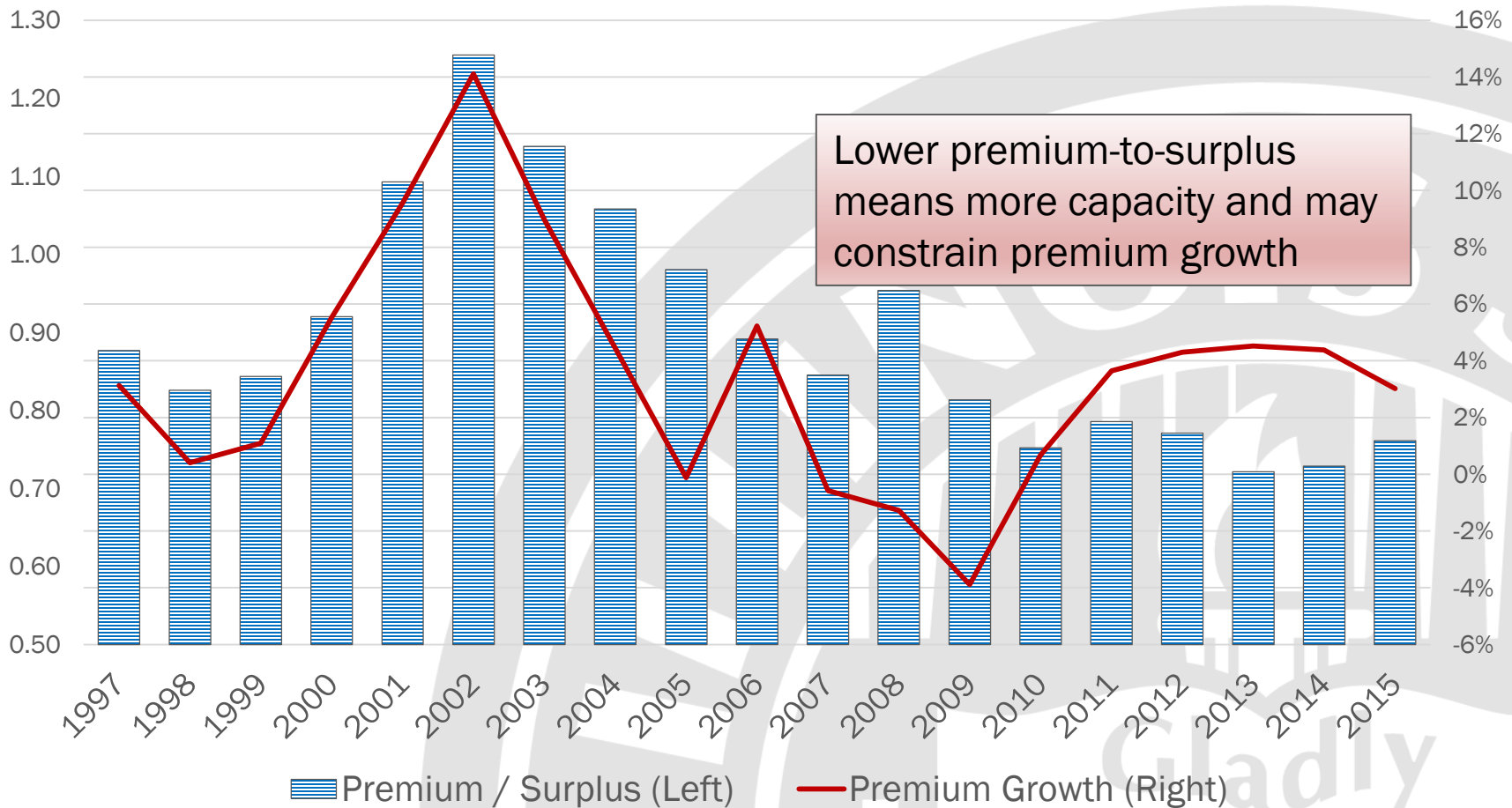
- AM Best Survey lists disruptive forces / industry concerns
  1. Strong capital position / Alternative capital
  2. Impact of technology
    - > Big data
    - > Auto technology
    - > Internet of Things
  3. Need for product innovation

# P&C Industry Surplus



Source: SNL Financial

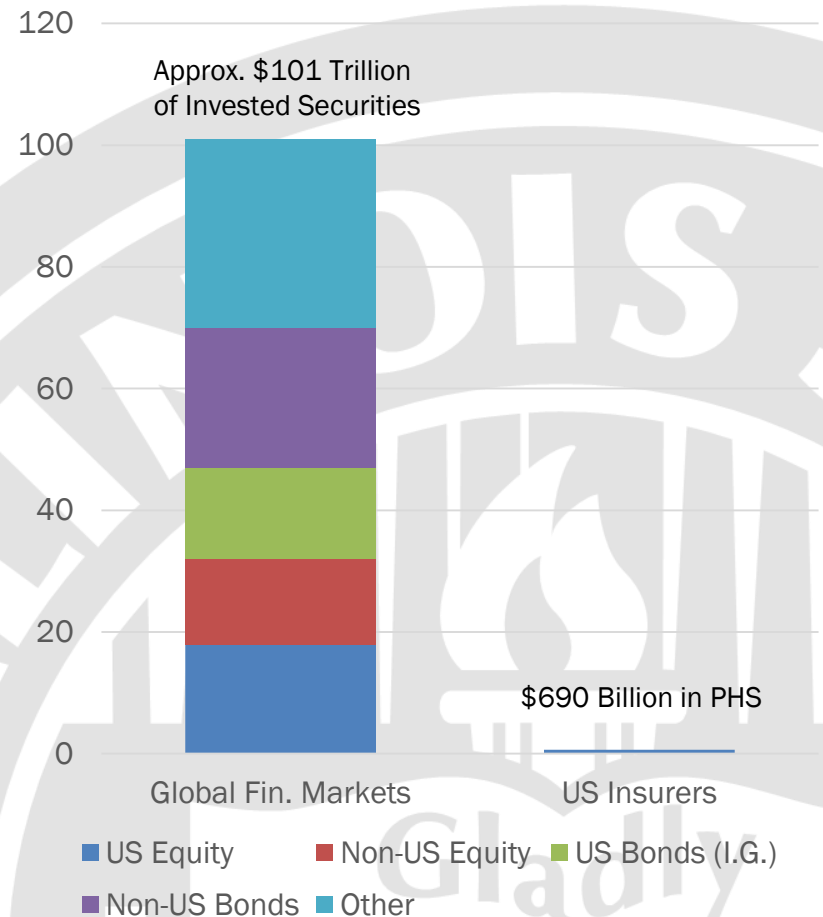
# Insurer Capacity and Premium Growth



Source: SNL Financial

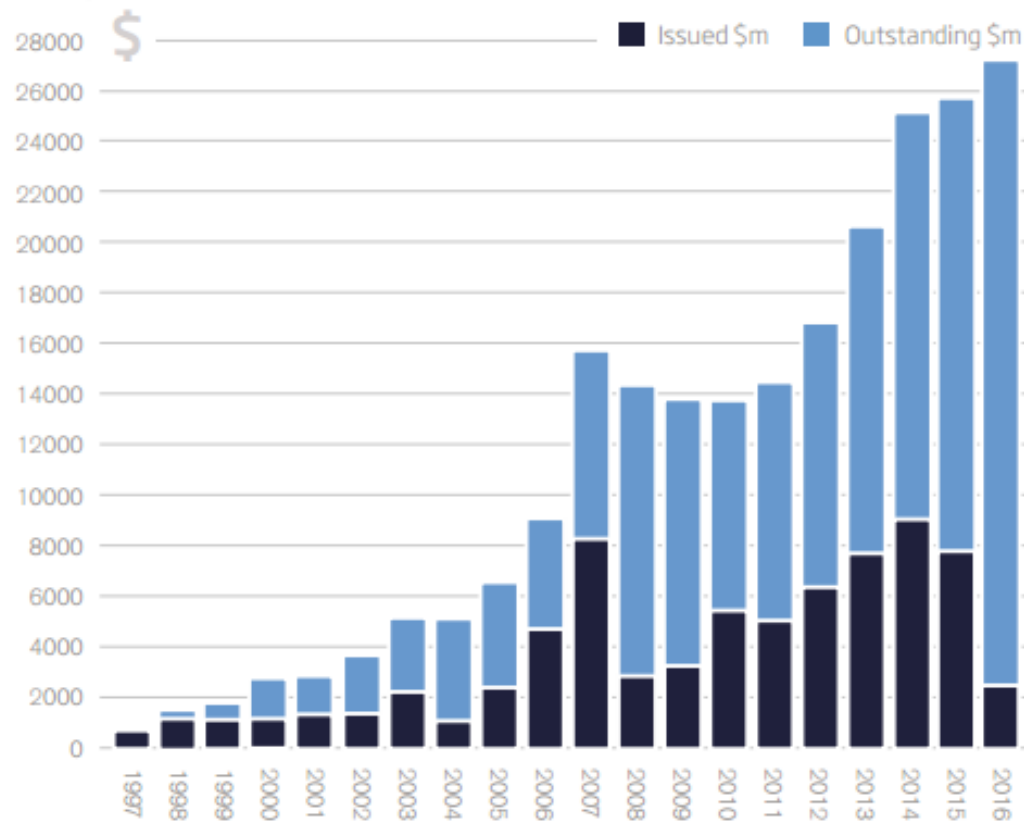
# Increasing Alternative Capital

- Growth in insurance linked securities (ILS)
- Securitization of insurance risk esp. for cats
- Interest by money managers
  - Higher yields
  - Diversification
  - Deep pockets



Sources: Hewitt EnnisKnupp and SNL Financial

# Cat Bond / ILS Market is Growing

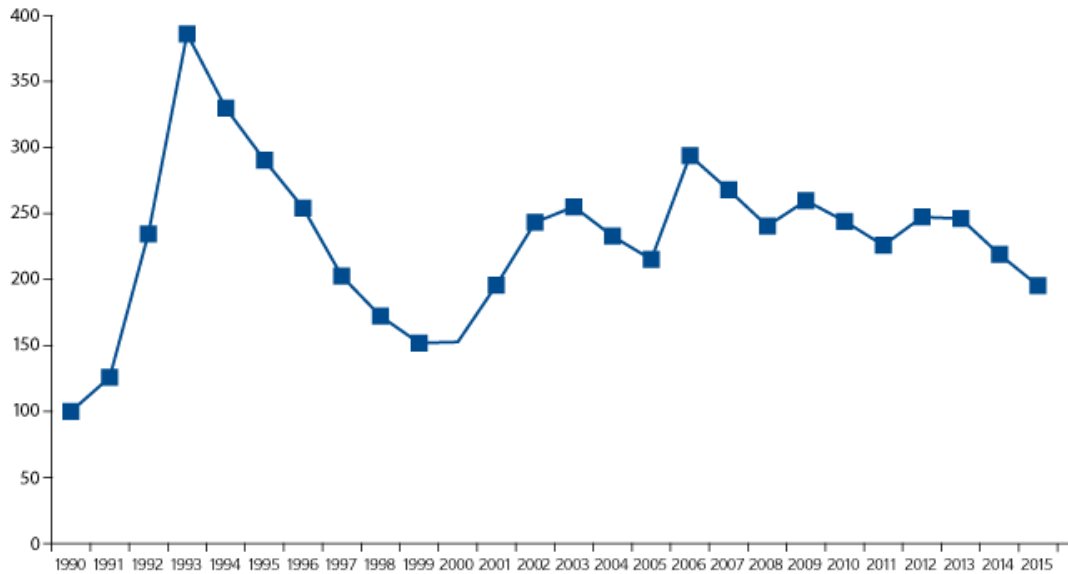


Source: Artemis Q1 2016 Market Report

**\$26B of outstanding capital represents just over 4% of P&C Industry surplus**

# Reinsurance Prices are Falling

GLOBAL PROPERTY CATASTROPHE ROL INDEX – 1990 TO 2015



Source: Guy Carpenter

—■ ROL Index

Source: Guy Carpenter (gccapitalideas.com)

Influx of cheap capital may further hinder premium growth

# Impact of Increasing Capital

- Historically, as capital / capacity increases, premiums fall
- Lower premiums will impact
  - Investment income (already falling)
  - Combined ratio (only direction is up anyway)
  - Investment in technology

# Technology is Changing the Business

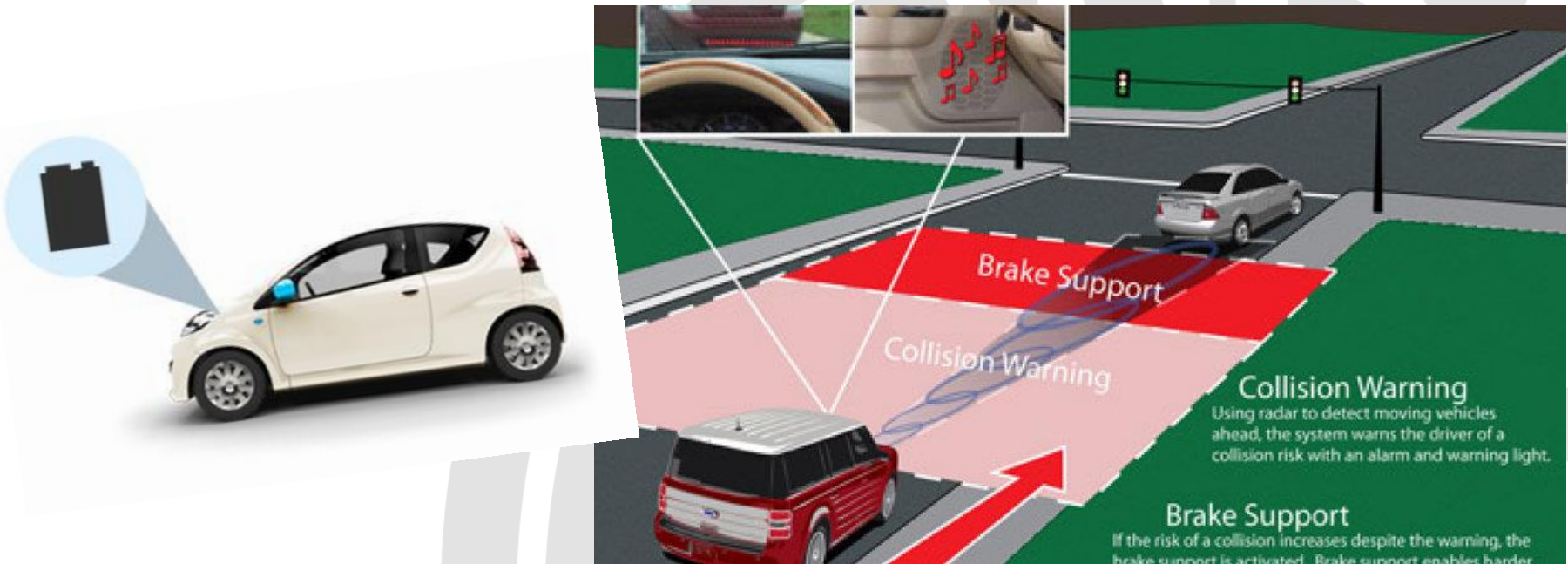
- Big data / predictive analytics
  - Marketing
  - Risk analysis / underwriting
  - Claims management / reserving
  - Pricing / rating
  - Reserving





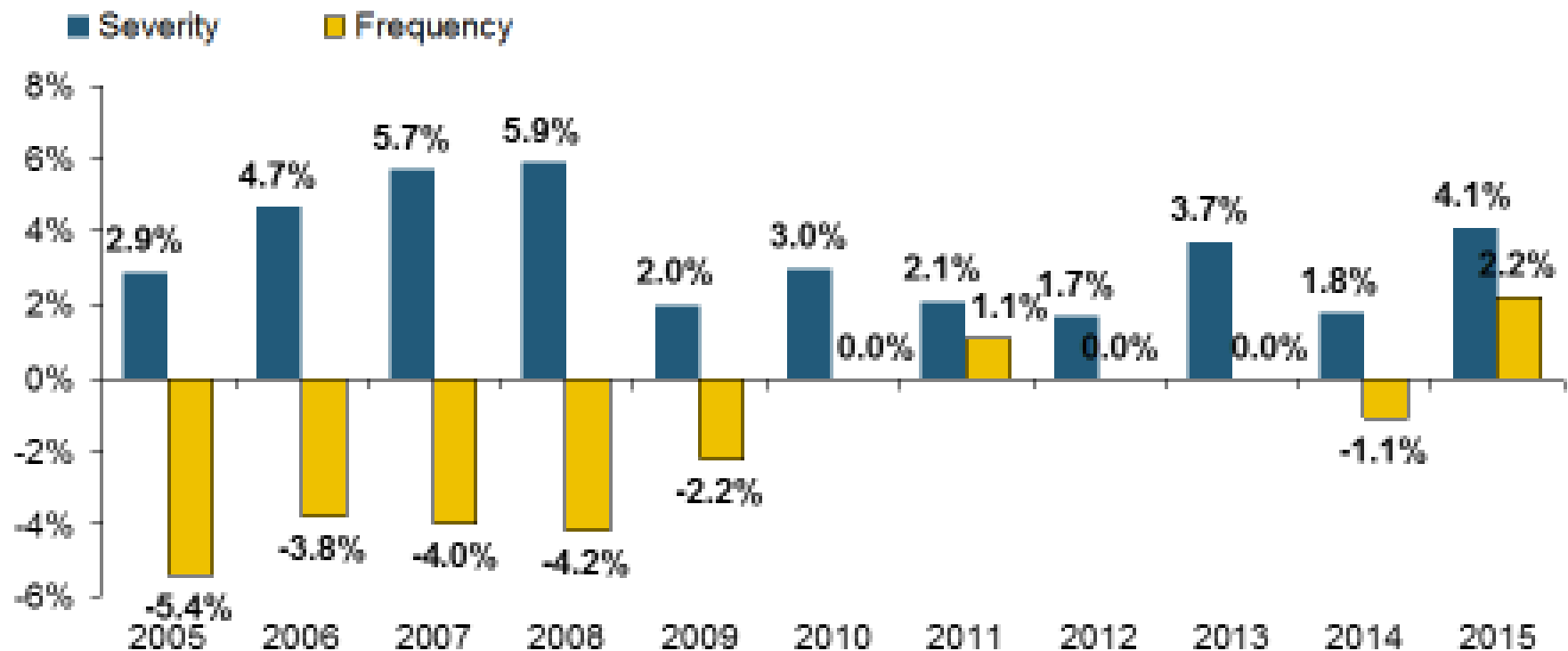
# Impact of Technology Personal Auto

- Does technology help the industry?
- As technology improves, will losses decrease?



# Bodily Injury: Severity Trend Is Up, Frequency Decline Has Ended—Rising?

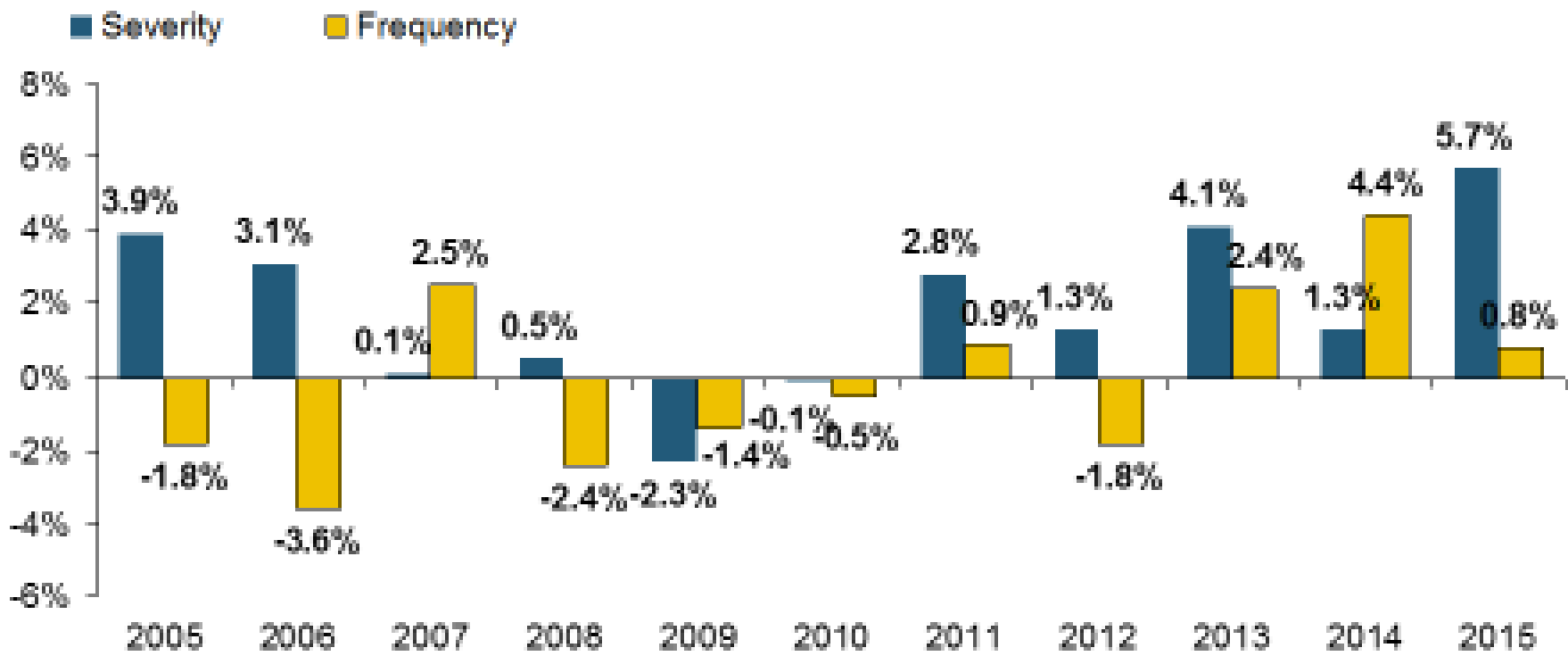
Annual Change, 2005 through 2015



**Cost Pressures Will Increase if BI Frequency and Severity Trends Persist**

# Collision Coverage: Severity & Frequency Trends Are Both Higher in 2015

Annual Change, 2005 through 2015

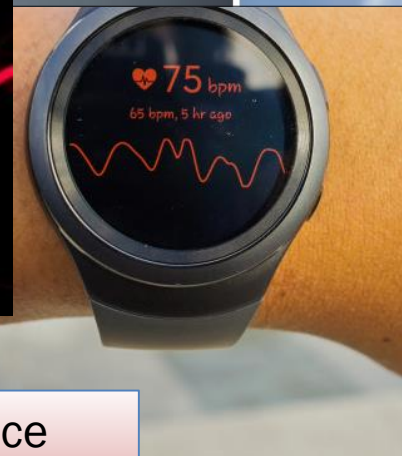
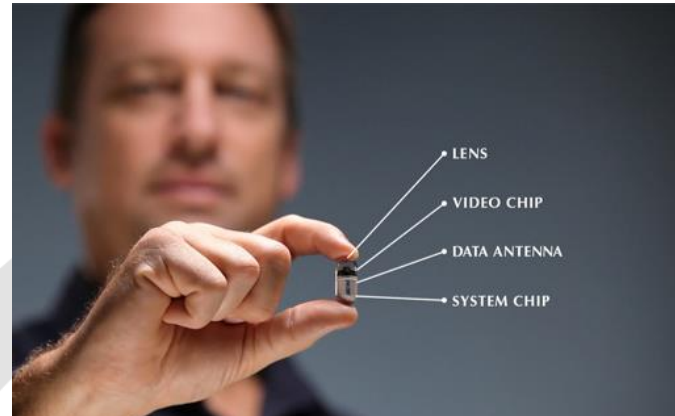


**The Recession, High Fuel Prices Helped Temper Frequency and Severity, But this Trend Has Clearly Reversed, Consistent with Experience from Past Recoveries**

Source: ISO/PCI Fast Track data; Insurance Information Institute

# Tech Increases Consumer Information

- Telematics feedback
- Wearables monitor
  - Heart rate
  - Temperature
  - Sleep
  - Blood chemistry?
- Ingestibles
  - Diagnosis
  - Medication



Will technology yield information to help reduce losses and impede growth in future premiums?

# Internet of Things: Connected Devices



Get a Nest Protect at no cost.  
You could save up to 5% on your home insurance.



# Impact on Insurance

- Historically, insurers are the keepers / experts on risk information
- Consumers may demand sharing of risk information
- Is this a new market for future revenue growth (“personal risk consulting”)?
- Insurers may partner with manufacturers

# Need for Innovation in Insurance

- Traditional products have not changed in many years
- Surplus lines covers risks outside the standard market and can give glimpse into innovation
- Increase from 3.3% to 7.1% of P&C Industry premium over last 20 years (A.M. Best)
- Recent growth in
  - Transportation network companies (TNCs)
  - Drones
  - Cyber
  - On demand / sharing

# On-Demand / Sharing Economy Risks



**Peapod**<sup>®</sup>  
Grocery shop  
anytime, anywhere!





# Today's Speakers

- New / emerging risks
  - Medical marijuana – risks for dispensaries
  - Renewable energy exposures
- New products
  - Cyber liability
  - Pet insurance

# Summary

- Recent financial performance for the industry is good
- Challenges exist in several dimensions
  - Low interest rates
  - Uncertain impact of technology on future growth and/or loss exposures
- “New Insurance for New Exposures”

**THANK YOU!!**

**Kevin C. Ahlgrim, A.S.A., M.A.A.A., Ph.D.**

*Associate Professor, Finance, Insurance and Law*

*Illinois State University*

*kahlgrim@ilstu.edu*

**STATE**  
**your business.**