



INSURANCE  
INFORMATION  
INSTITUTE

# Insurance Leading Through Disruption

Sean Kevelighan  
Chief Executive Officer

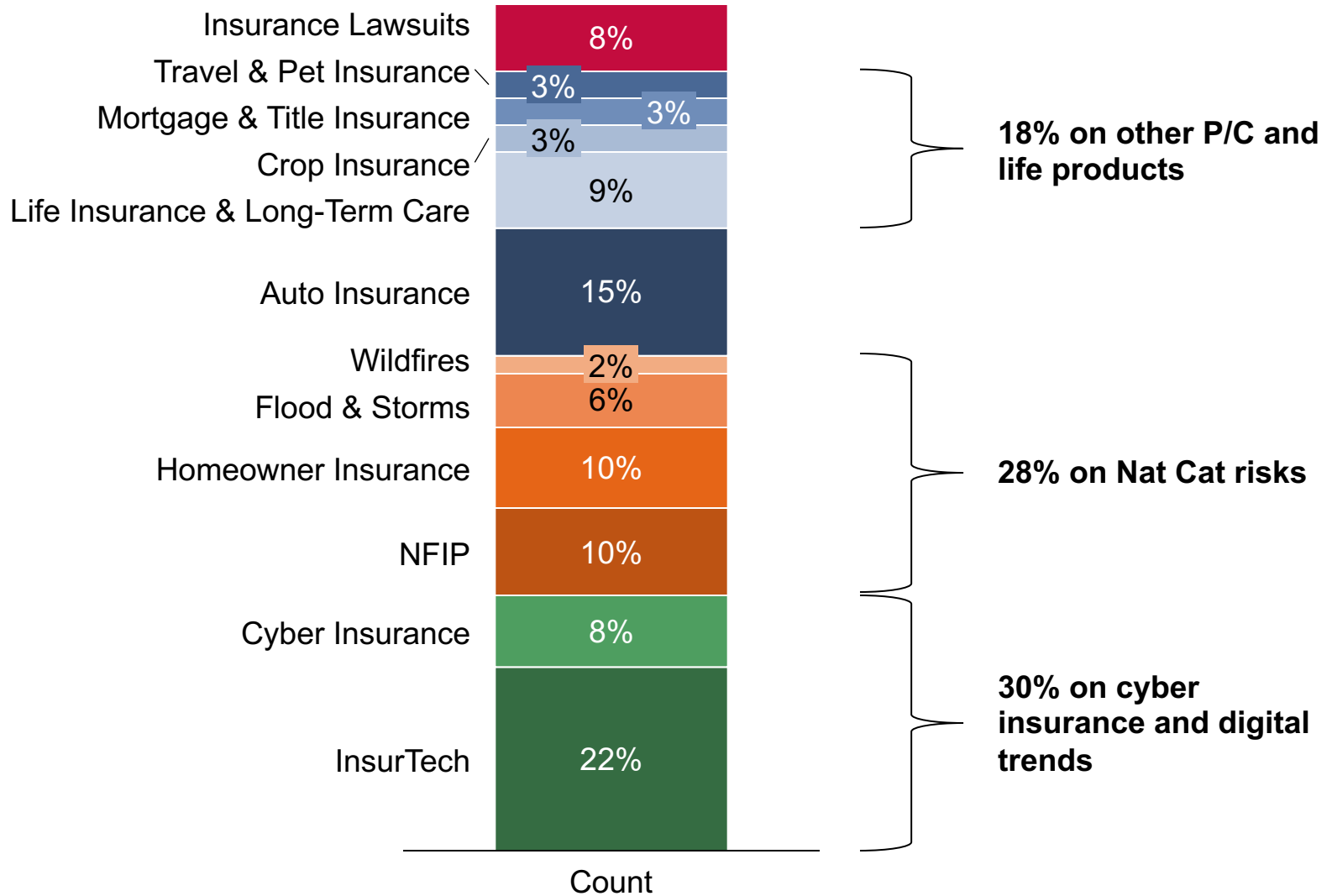
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212.346.5520 ♦ [seank@iii.org](mailto:seank@iii.org) ♦ [www.iii.org](http://www.iii.org)

# I.I.I. Mission Statement

Improving public understanding  
of insurance...

...what it does and how it works.

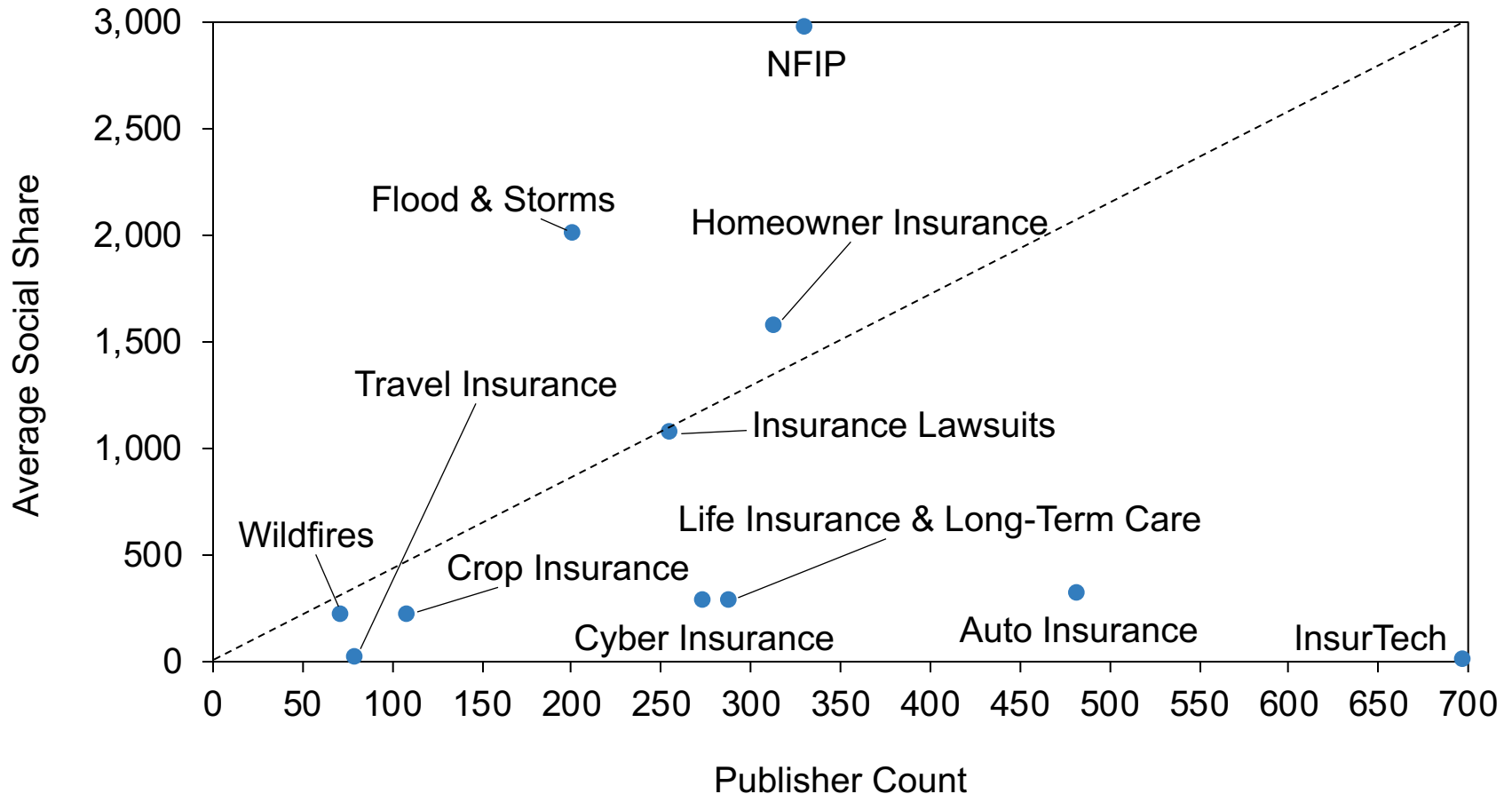
# Over The Past 18 Months, However, Insurance Coverage Has Focused On...



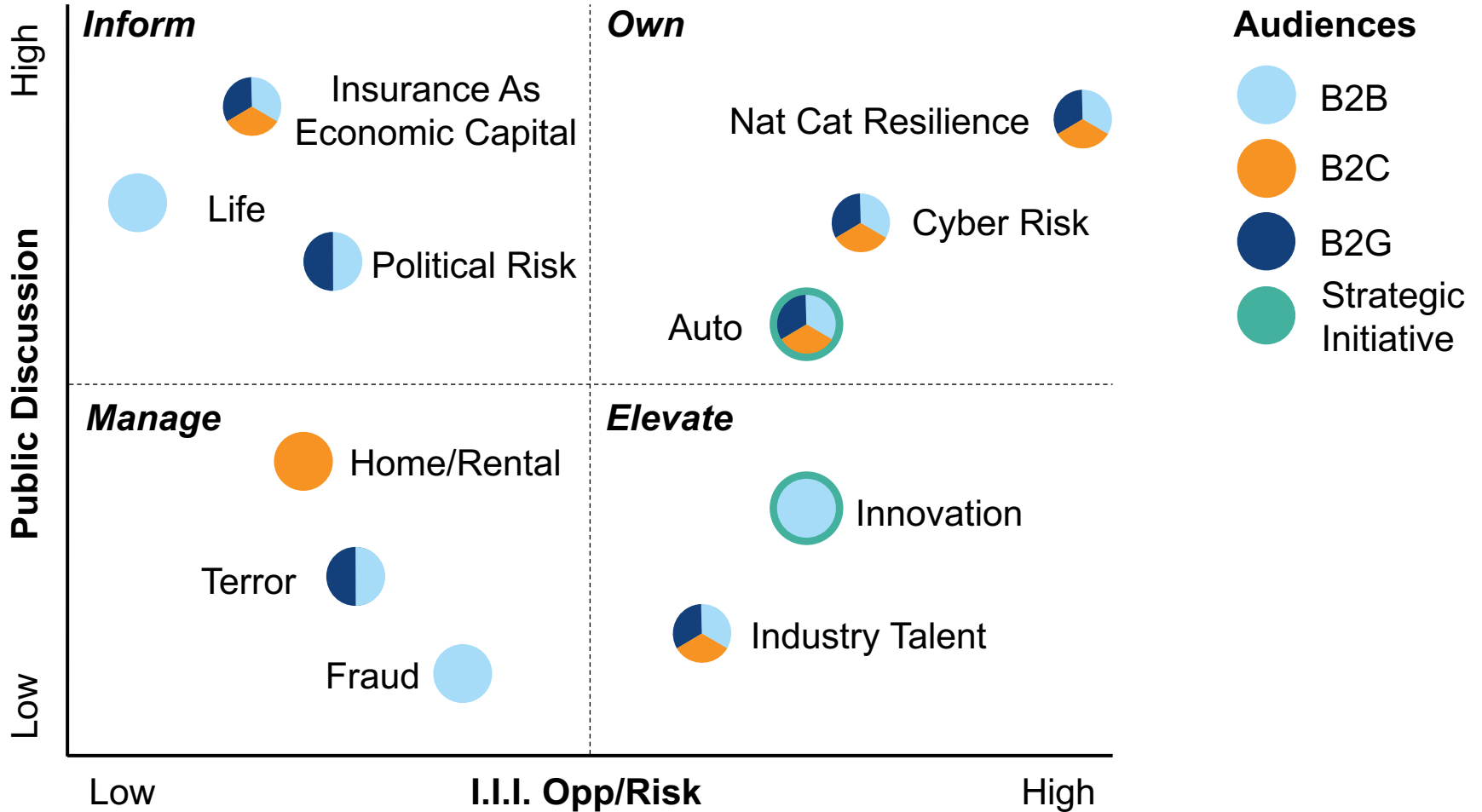
Source: Quid, HPS Analysis, Excludes Health Insurance And Company Performance

# Social Media Focuses More On NatCat Than Cyber, Auto and InsurTech

Traditional Media Coverage vs Social Shares



# 2019 I.I.I. Issue Focus Areas



# Disruptive Forces in the World – The New Normal

**Catastrophes**



**Economics**

**Geopolitical**

**Technology**

# Catastrophes



Flooding events spurred 73% of federal disaster declarations



Thunderstorm related losses 2<sup>nd</sup> highest ever in U.S.



\$14B insured wildfire losses; California estimated ~\$11B



N.A. hurricane season record-breaking insured & economic losses; disasters affected >25 million Americans



Auto: Reaching epidemic proportions

Cyber: Risk continuing to increase

# Economics



Strengthening  
Fundamentals:

All OECD economies  
growing – 1<sup>st</sup> in 10 yrs.



Tepid monetary policies;  
keeping interest rates at  
historical lows — moving  
slow...



Fiscal policies, i.e. tax  
reform and deregulation  
surfacing.



# Geopolitical



Rise in Nationalism: Brexit,  
U.S. – Populist vote in  
Europe tripled since 2000\*.



Political gridlock in  
Congress, with 2018  
election lurking.



“Major conflict threat  
greatest since WWII” – US  
Intelligence Report to  
Congress

\* Source: Harvard University, Tony Blair Institute

# Technology



Robotics  
Artificial Intelligence

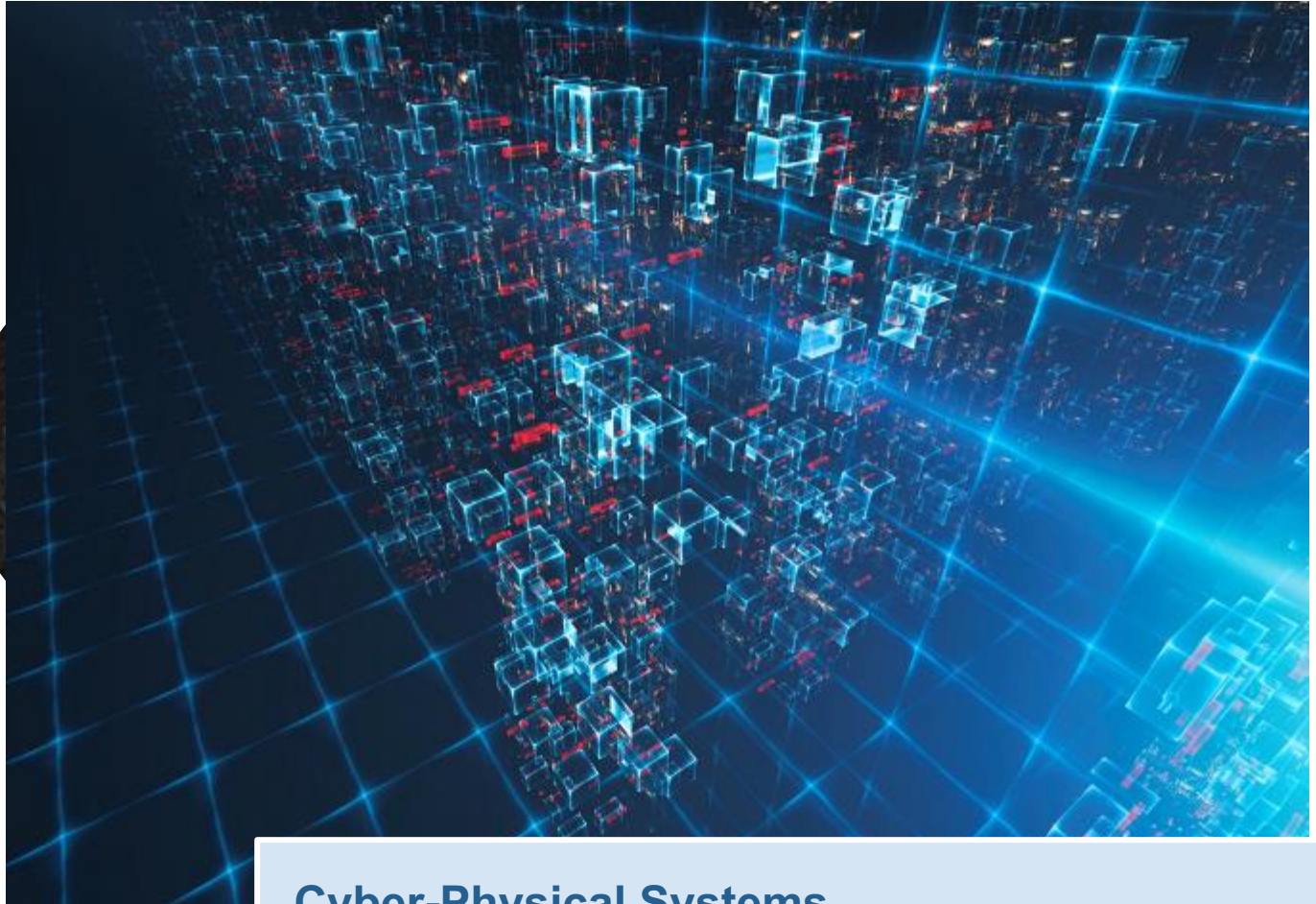
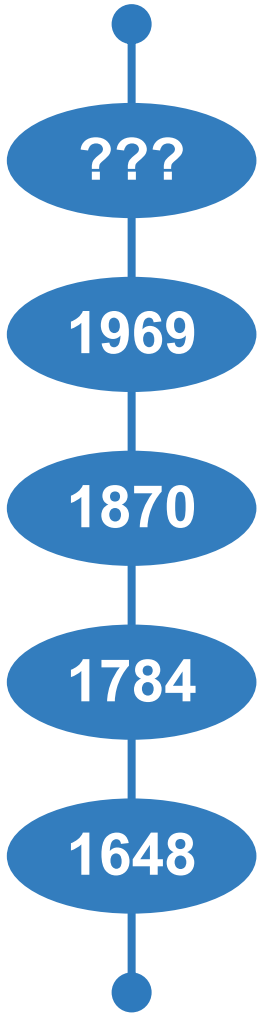


“The Fourth Industrial  
Revolution”  
Cyber meets Physical



Big Data  
Internet of Things  
Social Economy

# Insurance Leading Throughout History



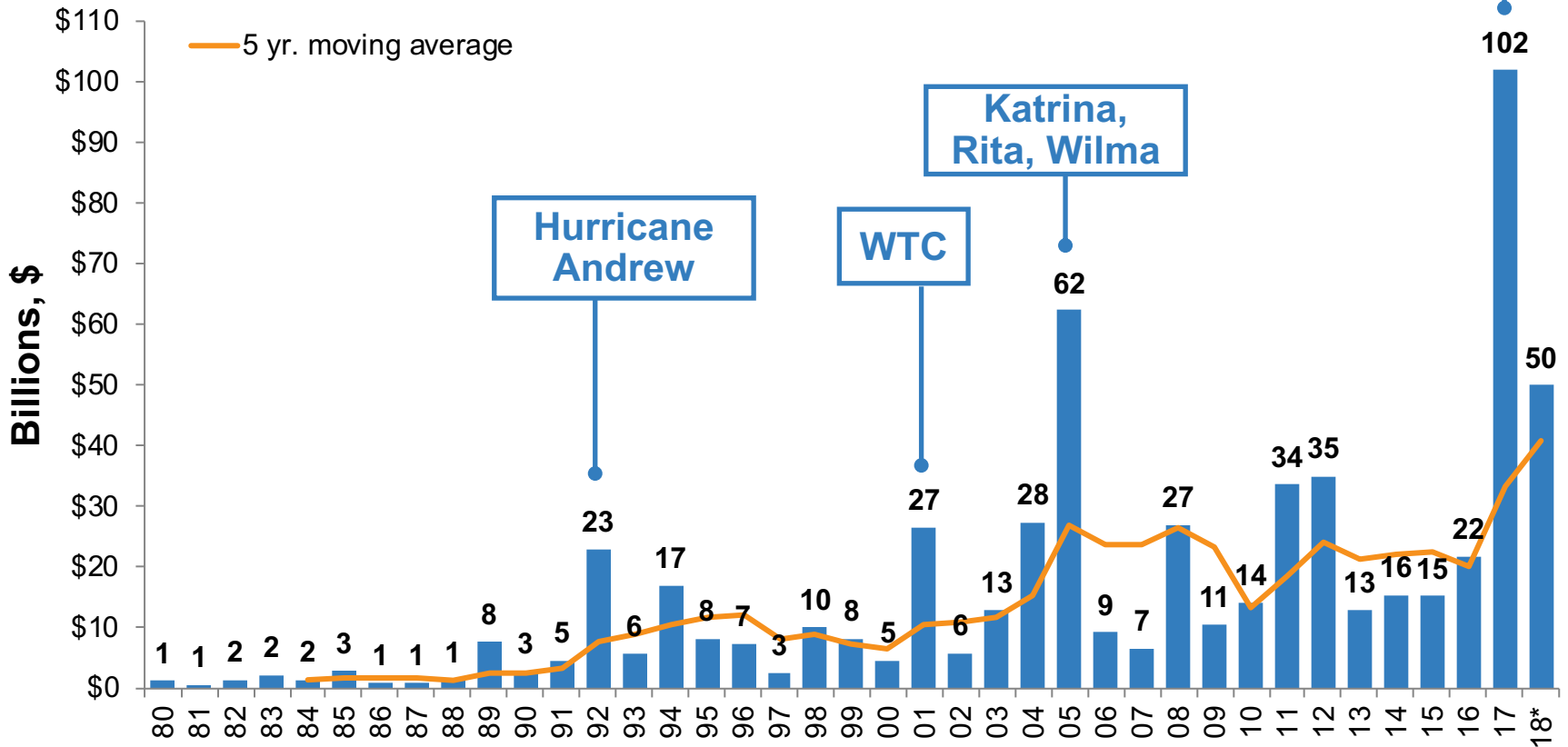
**Cyber-Physical Systems**



# Insurance Industry Economic Trends

# Extreme Weather & Insured Losses

Harvey, Irma, Maria



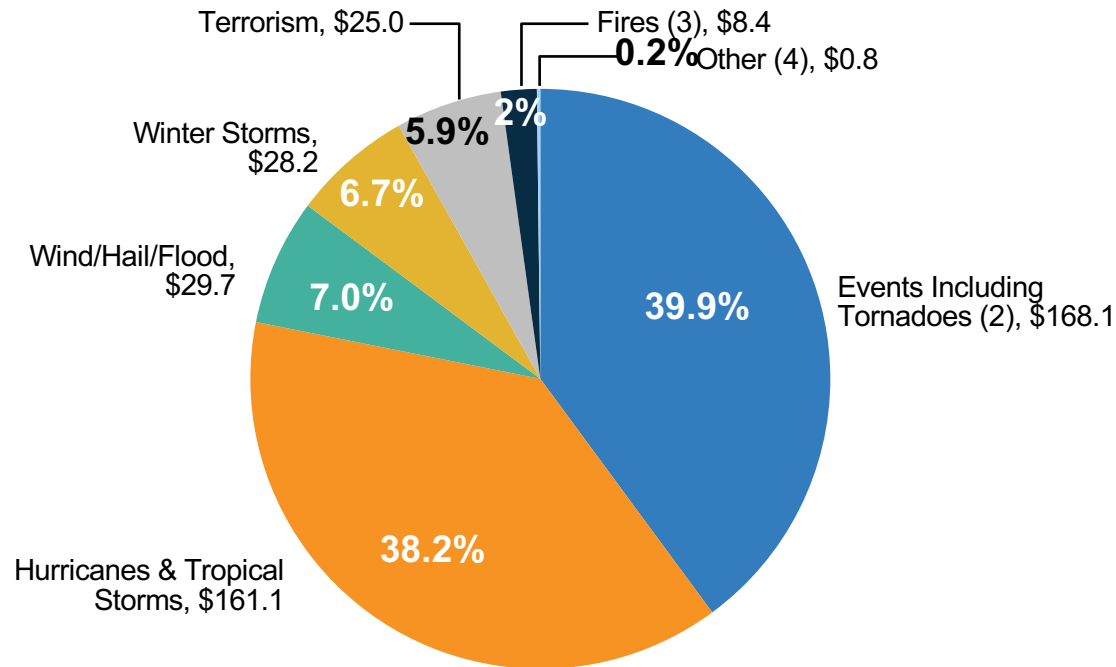
**2018 – Third worst year for U.S. Insured Catastrophe Losses. Average Insured Loss per Year for 1980-2018 is \$15.5 B.**

\*2018: Estimate, subject to change.

Sources: Property Claims Service, a Verisk Analytics business; Swiss Re; Insurance Information Institute.



# Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1997–2016<sup>1</sup>

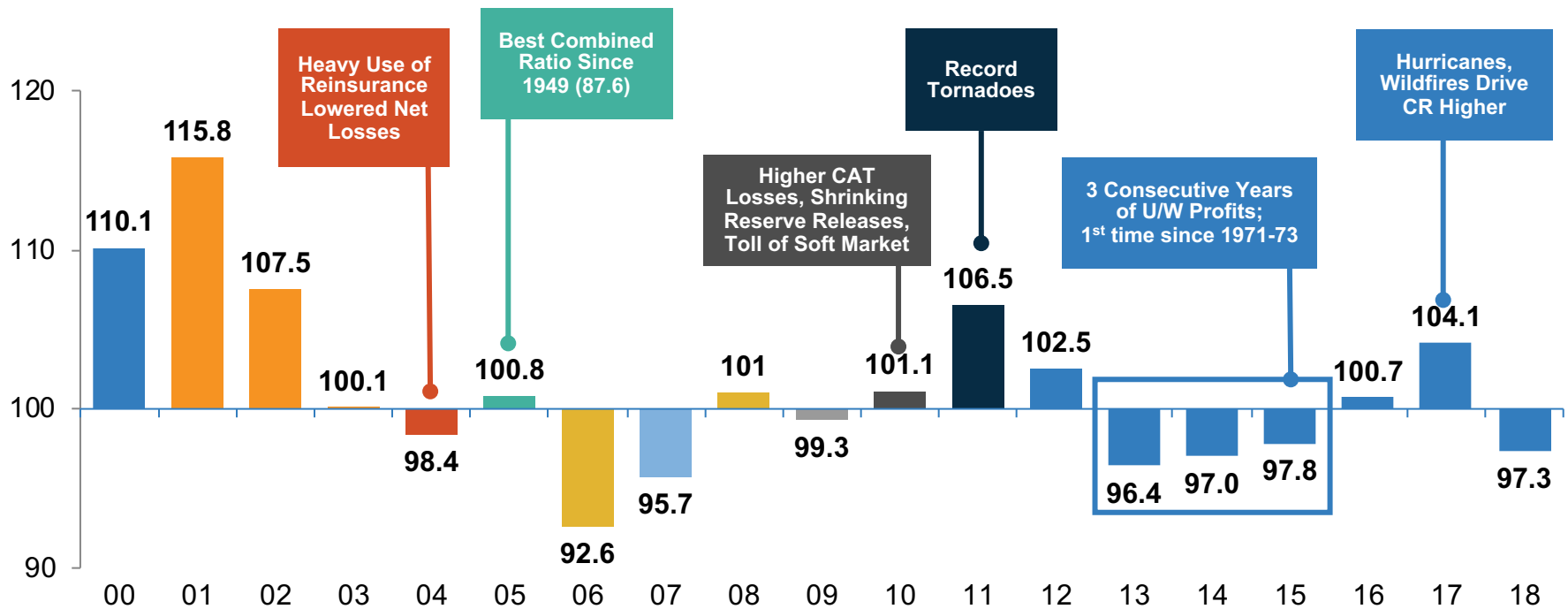


1. Adjusted for inflation through 2016 by ISO using the GDP implicit price deflator. Excludes catastrophes causing direct losses less than \$25 million in 1997 dollars. Does not include flood damage covered by the federally administered National Flood Insurance Program; 2. Includes other wind, hail, and/or flood losses associated with catastrophes involving tornadoes; 3. Includes wildland fires; 4. Includes losses from civil disorders, water damage, utility service disruptions, and any workers compensation catastrophes generating losses in excess of PCS's threshold after adjusting for inflation.

Source: Property Claim Services (PCS)<sup>®</sup>, a unit of ISO<sup>®</sup>, a Verisk Analytics<sup>®</sup> business.



# P/C Insurance Industry Combined Ratio, 2000-2018\*



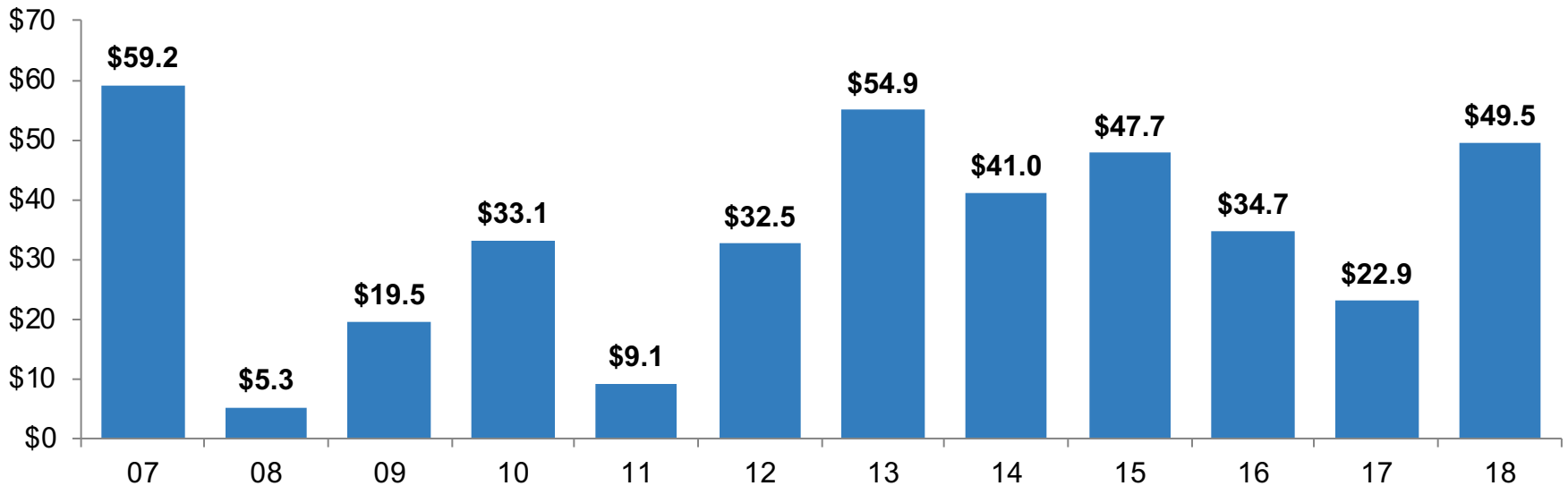
\* Excludes Mortgage & Financial Guaranty insurers 2008-2014. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012=103.2; 2013=96.1; 2014= 97.0.

Sources: A.M. Best; ISO, a Verisk Analytics company; I.I.I. estimate for 2018.



# P/C industry Net Income After Taxes

\$ Billions, 2018



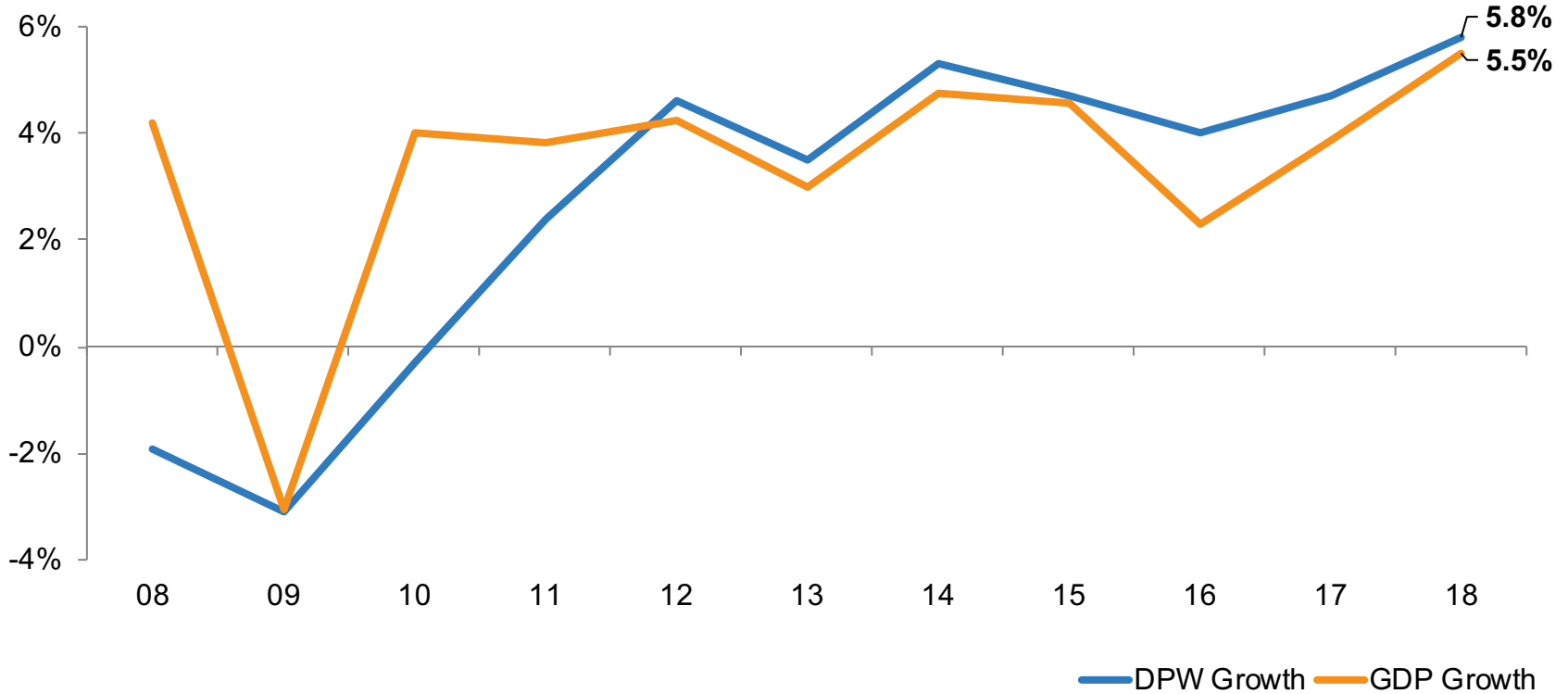
**Catastrophes Drove Earnings Down in 2017,  
Continuing a Four-Year Slide in Inflation-Adjusted Profits**



Through third quarter. Adjusted for inflation using the BLS CPI calculator, to 2018 dollars.  
Sources: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.



# Direct Premium Growth, Annual Change

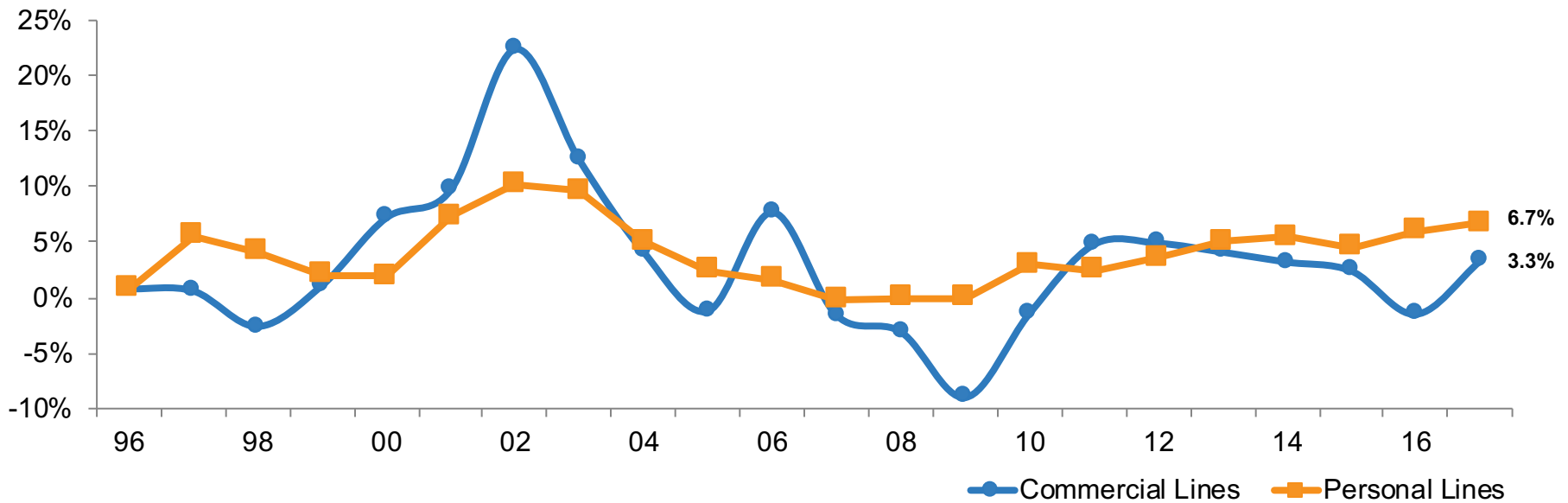


**Direct Premiums Continue to Track Economic Growth**



All data through second quarter.  
Sources: NAIC data sourced through S&P Global Intelligence, Bureau of Economic Affairs, Insurance Information Institute.

# Commercial & Personal Lines NPW Growth: 1996-2017

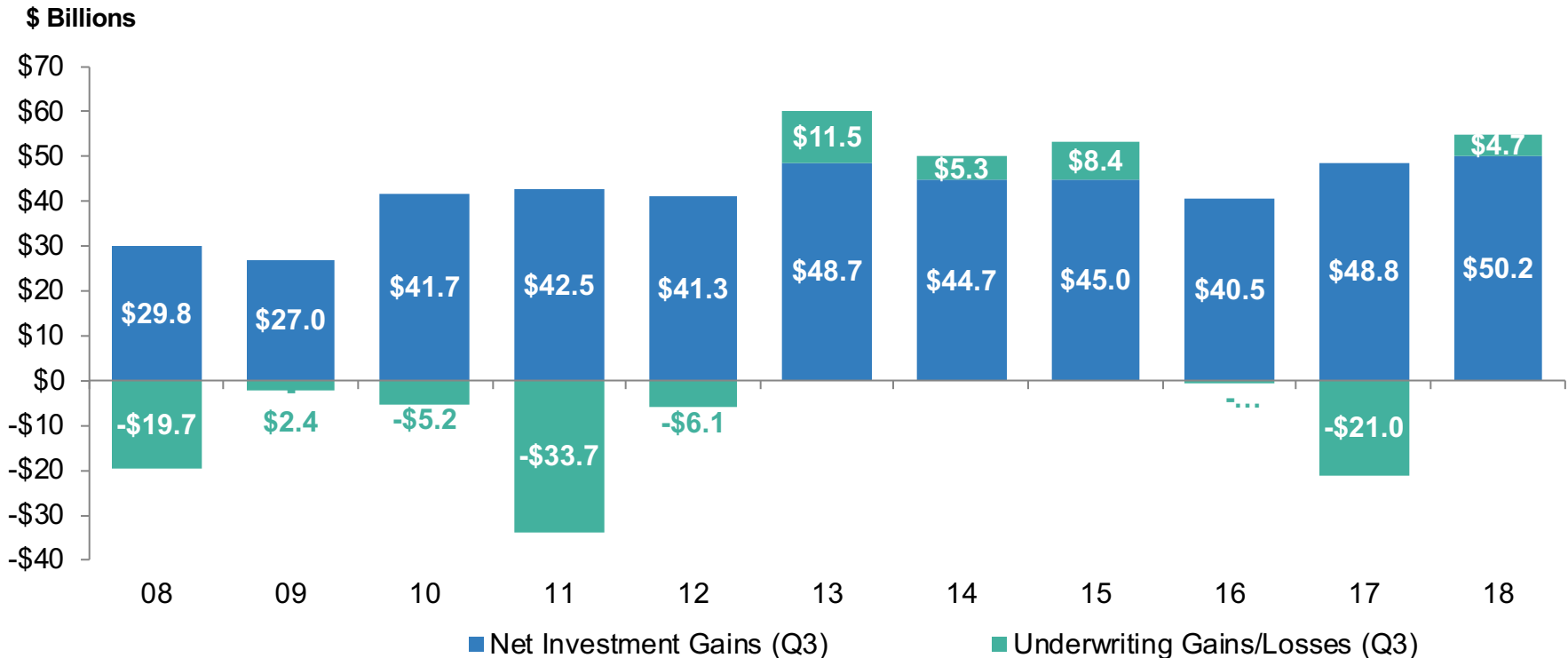


**Commercial Lines is Prone to Much More Cyclical Volatility Than Personal Lines**



Note: Data include state funds beginning in 1998.  
Sources: A.M. Best; Insurance Information Institute.

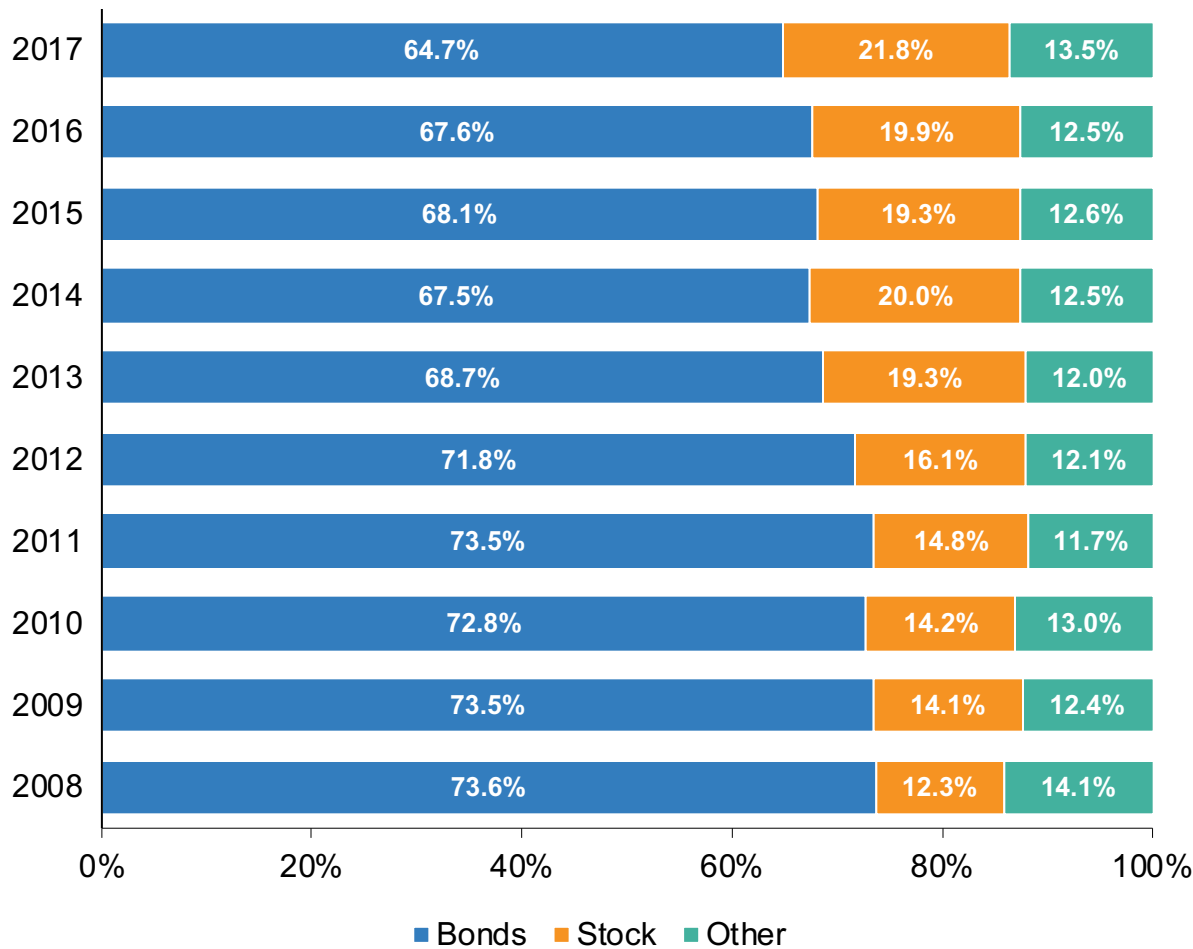
# Key Sources of P/C Insurer Profits



Data are before taxes and exclude extraordinary items.

Sources: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.

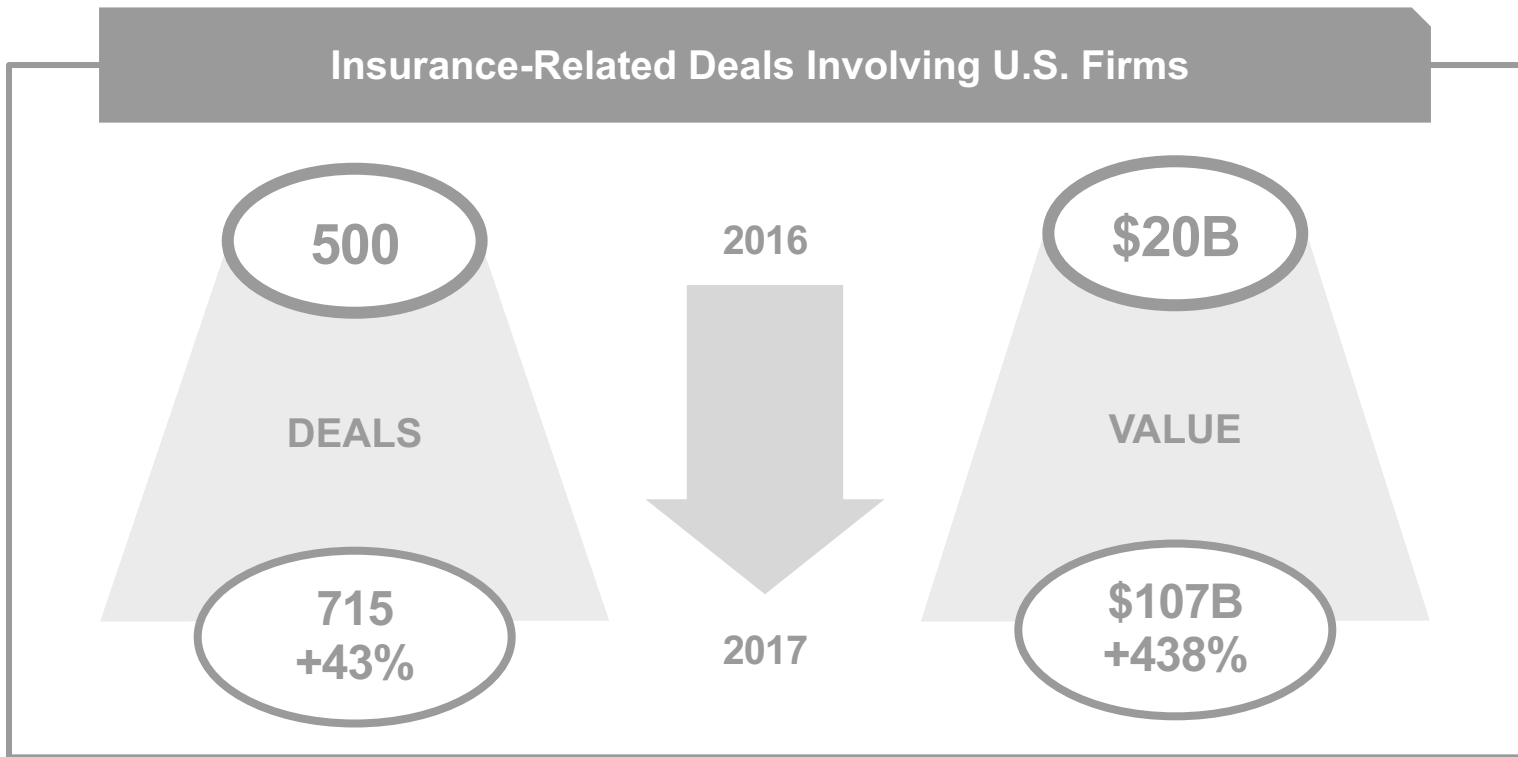
# The Changing Mix of Invested Assets, P/C Industry, 2008-2017



- From 2008 to 2017, P/C portfolios shifted out of bonds (74% of invested assets in 2008 to 65% in 2017) into common stock (up from 12% to 22%).
- The U.S. economy now hovers near full employment, and inflation and interest rates are rising slowly. It would not be surprising to see the decade-long shift out of bonds begin to reverse.



# Consolidation / M&A

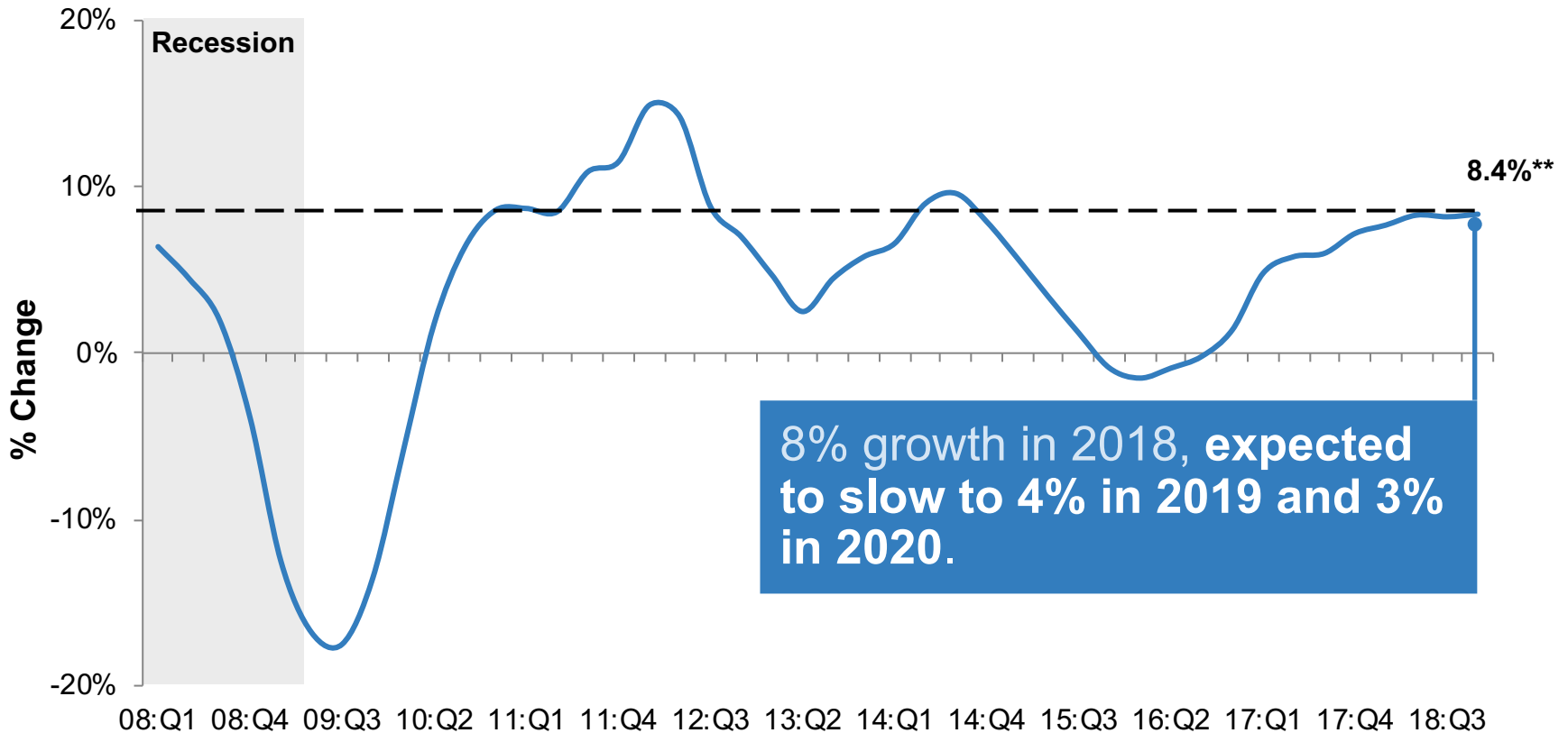




# Commercial Lines Trends

# Commercial property premiums\* grow as private non-residential fixed investment does

**Business Investment Growth (% Change From Same Quarter, Prior Year)**



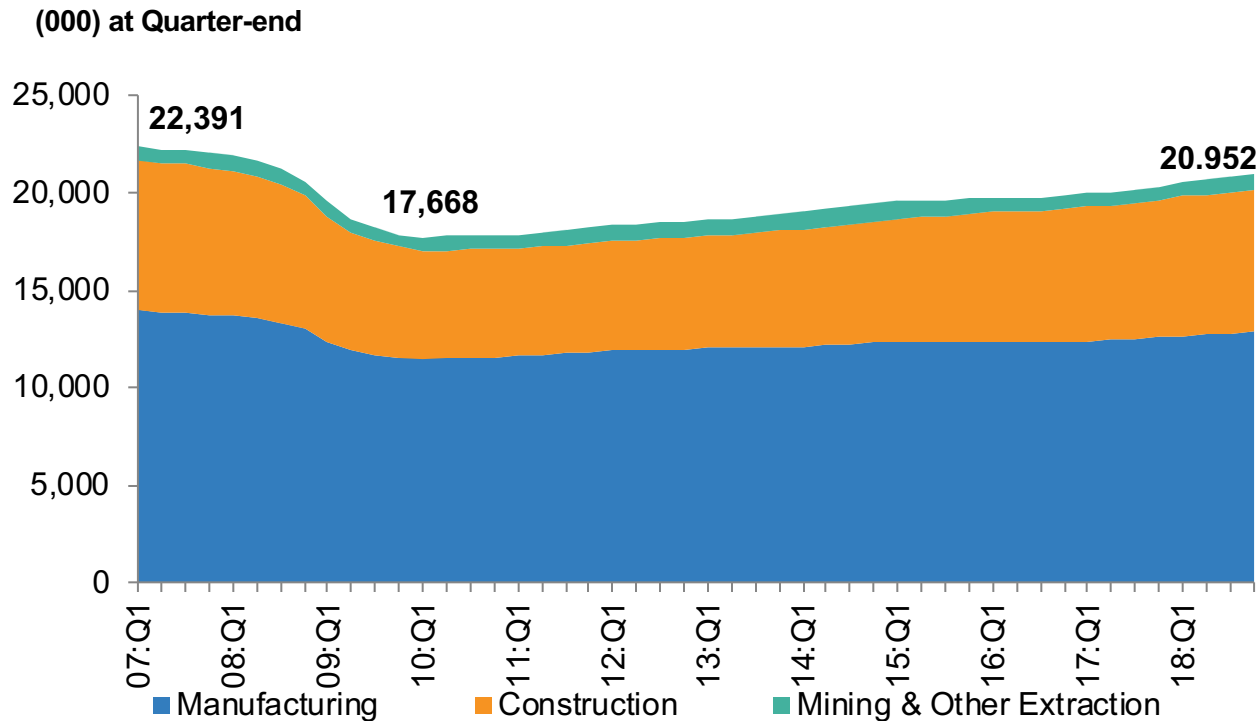
\*Commercial property direct premiums written (fire, allied lines, CMP, inland marine, burglary and theft); business fixed investment (structures, equipment, and software). \*\*Preliminary.

Data are seasonally adjusted annual rates.

Sources: <https://fred.stlouisfed.org/series/PNFI#0>; National Bureau of Economic Research (recession dates); Insurance Information Institute.



# As Hiring Goes, Exposures Follow



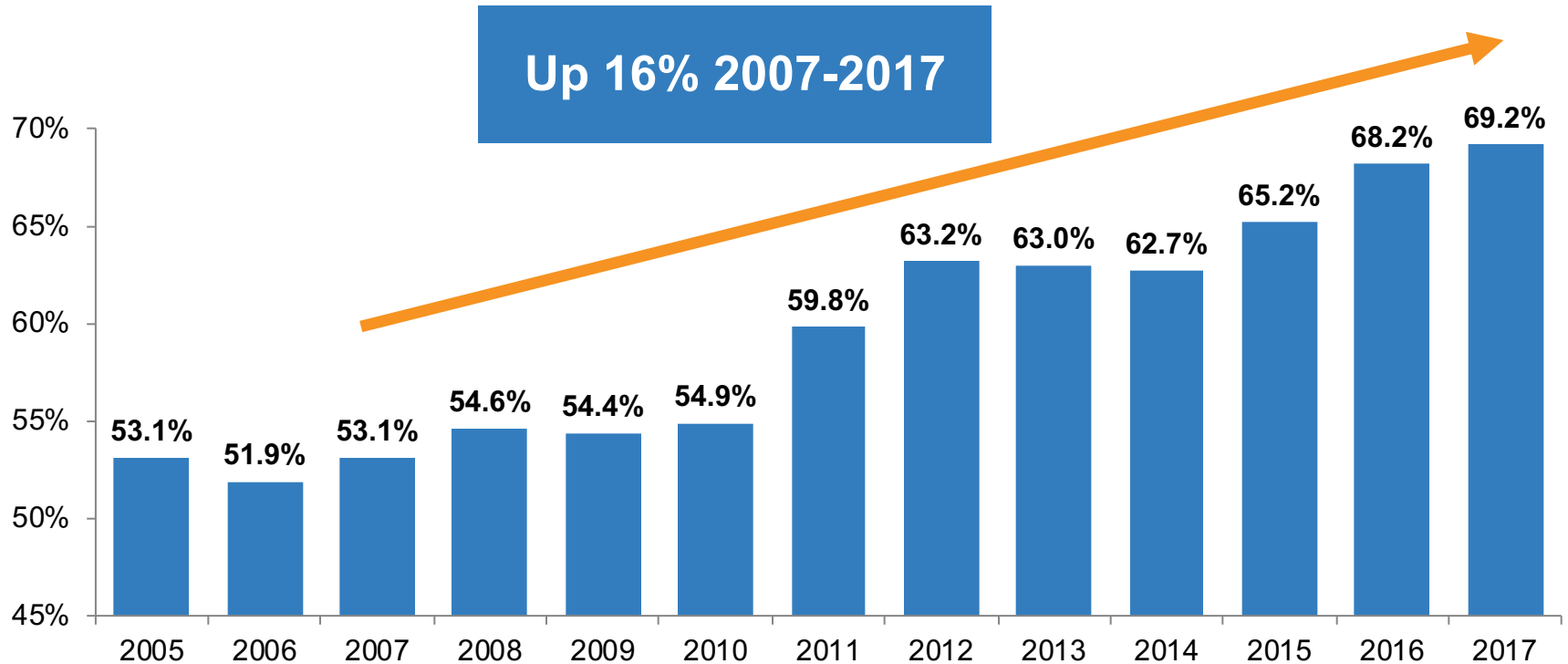
- ▼ Of these industries, construction is enjoying the fastest growth. This is expected to continue for at least the short-term
- ▼ At the end of 2018:Q4, employment in these three industries that are the heart of workers composition exposure, at 21.0 million, was not quite back to the level reached before the Great Recession



Sources: U.S. Bureau of Labor Statistics; Insurance Information Institute.



# Commercial Auto Losses On The Rise





# Personal Lines Trends

# Rising Accident Costs

## All Coverages Affected

Increase in Loss Costs, 2016:Q3–2018:Q3



Bodily Injury

6.7%



Property  
Damage

3.8%



Personal Injury  
Protection

4.8%



Collision

3.5%



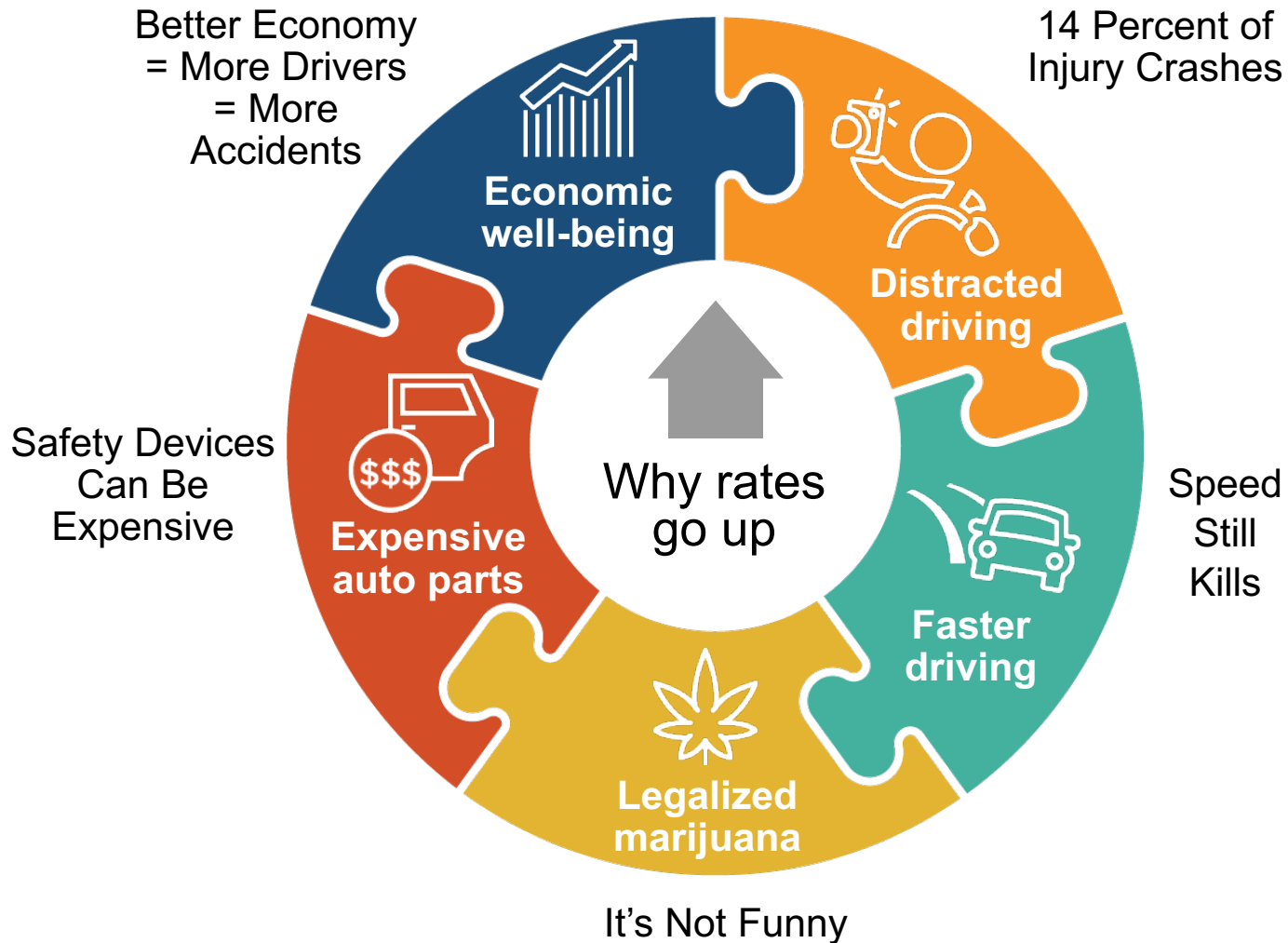
Comprehensive

-4.0%

**From 2016 to 2018, the cost of accidents has risen dramatically. By contrast, consumer prices overall rose 6.6 percent from 2016 to 2018.**



# Road Safety



# Insurance Industry and Innovation

# Insurance Disruption: Technology / Digitalization

## Fundamental Changes

- ▲ Future of Auto
- ▲ Future of Reduced Risk Pools

## Opportunities

- ▲ Automation / Efficiencies
- ▲ New Product Lines (Cyber)
- ▲ Emerging Technologies

## Challenges

- ▲ Consumer Trust – Demonstrate the Societal Value
- ▲ Big Data vs. Individual Privacy

## New Market Entrants “Uber of Insurance”?

- ▲ Lemonade
  - ◆ Offered in CA, GA, IL, NJ, NV, NY, OH, PA, TX

## Regulatory Opportunities/Threats

- ▲ Barrier to Entry
- ▲ US vs. Other Less Regulated Regions
- ▲ Trust Pull-back – the Sandbox Approach

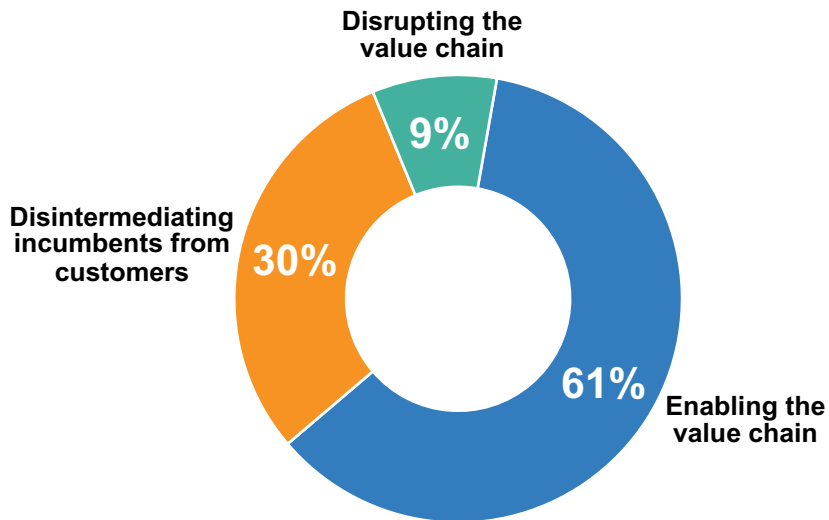


# InsurTech Disruption: Threat or Opportunity?

Automation efficiencies can have powerful impact on industry

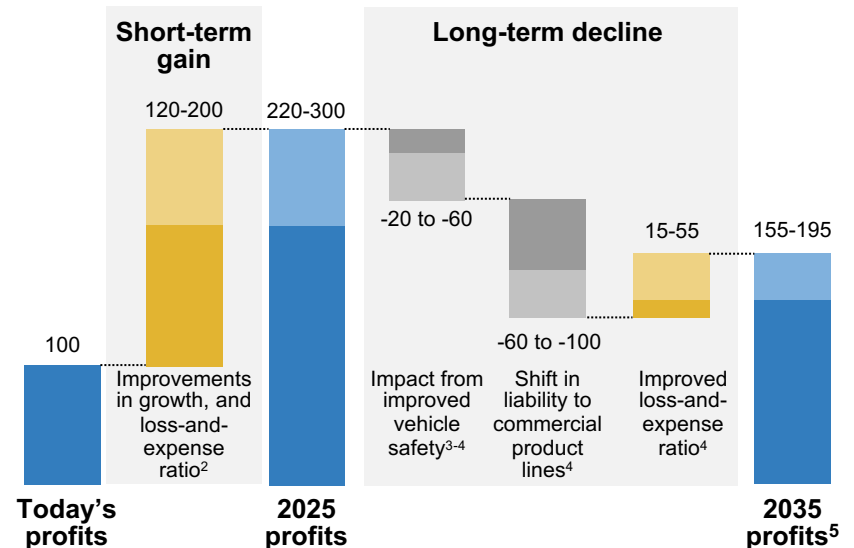
## Focus of InsurTech in the insurance value chain<sup>1</sup>, %

Only nine percent of InsurTechs aim to oust incumbents



## Future profits as a % of today's profits

Digitizing the business, auto insurance example



<sup>1</sup>Insurtechs are insurance businesses, usually startups, that use technologically innovative apps, processes, or business models; 2016 data based on some 500 commercially well-known cases. <sup>2</sup>Assumes a 3 to 5 percentage point improvement in loss ratio, a 2 to 4 percentage point improvement in operating expenses, and a 6 to 8 percentage point improvement in direct sales conversions. <sup>3</sup>Includes growth in investment income as well premiums. Investment income modeled as a flat percentage of premium in each year. <sup>4</sup>Includes impact of semi- and fully autonomous vehicles. <sup>5</sup>Assumes a 25 percent reduction in premiums as a result of telematics and sensors and a 50 percent risk transfer to commercial product liability.

Source: Panorama by McKinsey; Digital and Auto Insurers Value at Stake Analysis, McKinsey, 2016.



# Four Main Effects on Insurance in the Fourth Industrial Revolution



## 1. Customer Expectations

- ▲ Amazon raises the bar
- ▲ AI and robotics



## 2. Product Enhancement

- ▲ More personalized and/or digitally-enhanced
- ▲ Value focus on risk mitigation and resilience



## 3. Collaborative innovation

- ▲ Speed of innovation requires new forms of collaboration to keep up

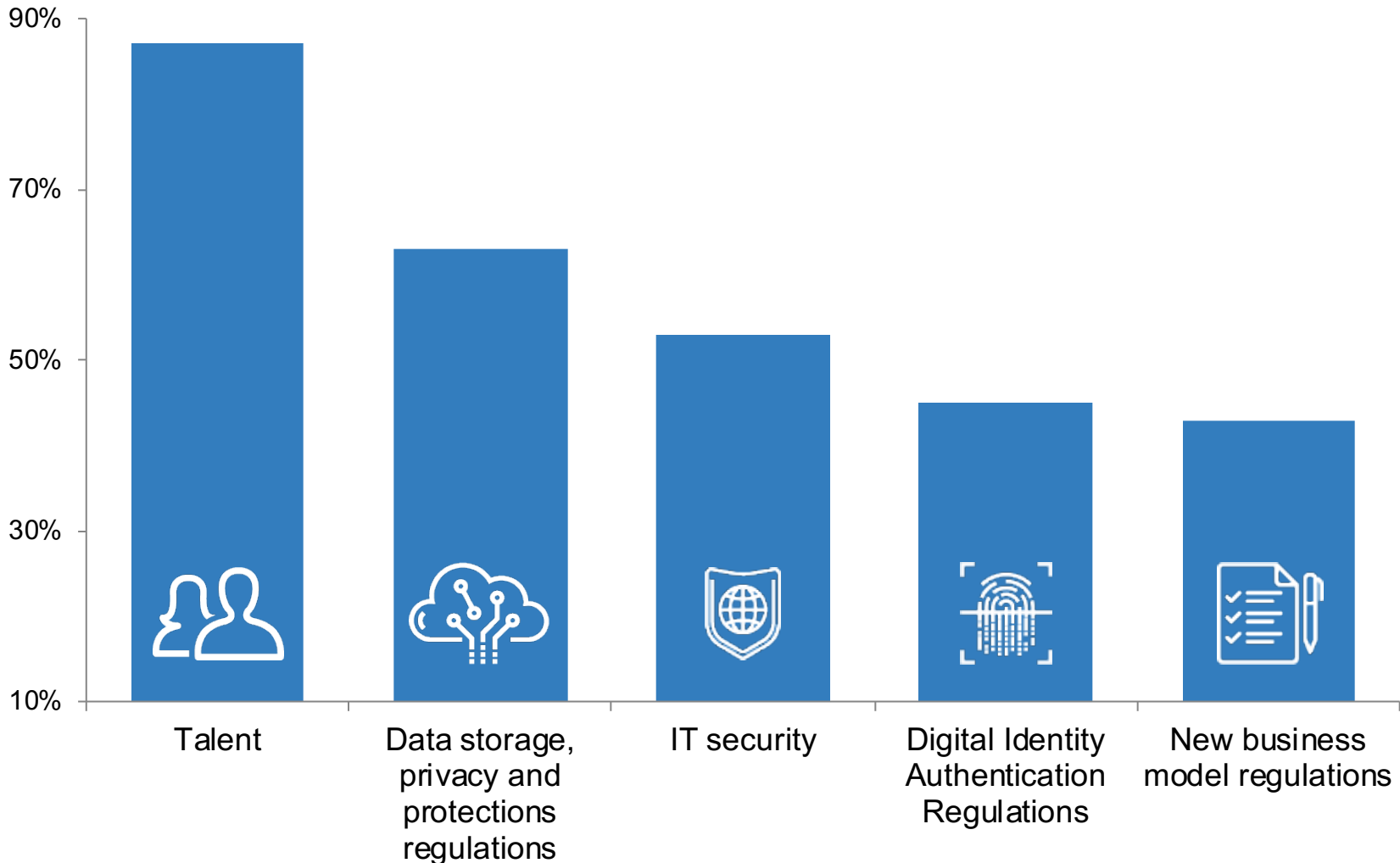


## 4. Organizational forms

- ▲ Talent, culture, and organizational forms will have to be rethought



# Challenges the Insurance Industry Faces in Innovation



# Transparent Communications Will Be Critical...

## THE WALL STREET JOURNAL.

### Drones Are Watching: Railroad Irks Workers With Unmanned Aircraft

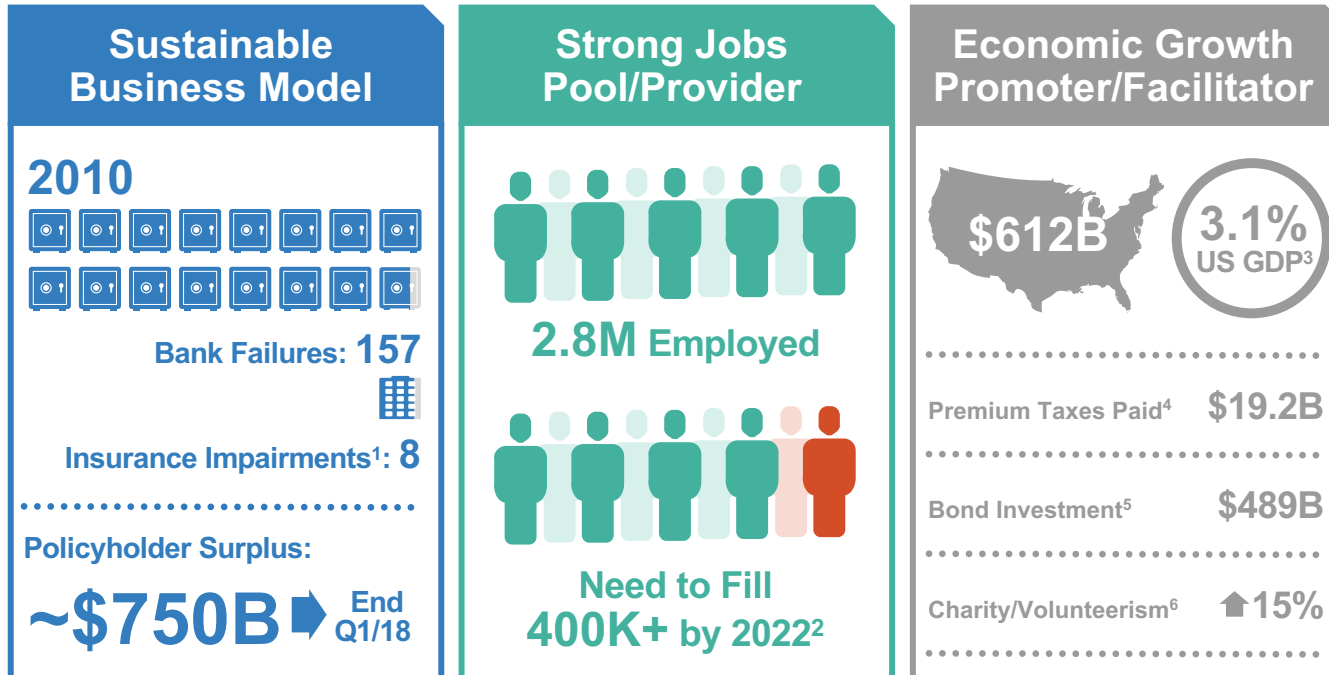
Workers say drones are a distraction; the railroad says the program will coach employees in correcting behaviors that could cause serious injury



Union Pacific Corp. has been flying drones to look for safety-rule violations in rail

# Insurance Leadership in Economics

# Insurance & Economic Leadership



<sup>1</sup>Life/Health and P/C Insurance; <sup>2</sup>PC 360 <http://www.propertycasualty360.com/2013/04/17/insurance-industry-crisis-400000-positions-to-fill?slreturn=1476304299>; <sup>3</sup>U.S. Bureau of Economic Analysis, 2016; <sup>4</sup>U.S. Department of Commerce, 2015; <sup>5</sup>Federal Reserve, 2015; <sup>6</sup>2011–2014, Insurance Industry Charitable Foundation.

# How Insurance Drives Economic Growth

## Safety/ Security



1. Insurers are financial first responders



2. Insurers are risk mitigators

## Economic/ Financial Stability



3. Insurers are capital protectors



4. Insurance is a partner in social policy



5. Insurance sustains the supply chain



6. Insurers are capital infusers

## Development



7. Insurers are community builders



8. Insurance enables infrastructure improvements

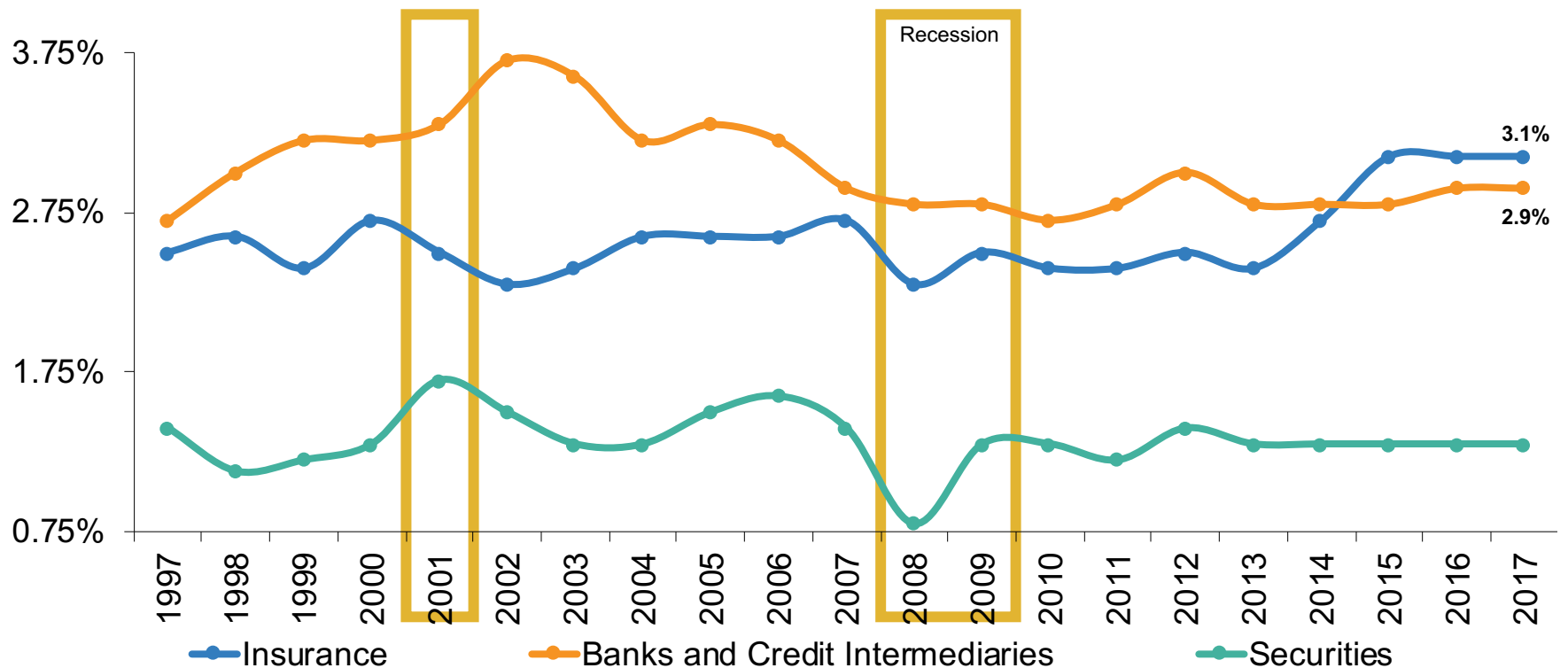


9. Insurers are innovation catalysts



10. Insurers are credit facilitators

# Since 2015, the Insurance Industry's Contribution to GDP Exceeds That of Banks



# Insurers: Vanguards of Resilience

# What do these images have in common?



**It wasn't the first time...**





“Those who cannot remember  
the past are condemned to  
repeat it.”

George Santayana, *The Life of Reason*, 1905



# Extreme Events: A Troubling Trend

Rank	Date	Event	Cause	Insured Loss (1) (\$ millions)
1	Aug. 2005	Hurricane Katrina	Hurricane	\$41,100
<b><u>2</u></b>	<b><u>Sep. 2017</u></b>	<b><u>Hurricane Maria (2)</u></b>	<b><u>Hurricane</u></b>	<b><u>25,000-30,000</u></b>
<b><u>3</u></b>	<b><u>Sep. 2017</u></b>	<b><u>Hurricane Irma (2)</u></b>	<b><u>Hurricane</u></b>	<b><u>20,000-25,000</u></b>
4	Sep. 2001	September 11 Events	Terrorism	18,779
5	Oct. 2011	Hurricane Sandy	Hurricane	18,750
<b><u>6</u></b>	<b><u>Aug. 2017</u></b>	<b><u>Hurricane Harvey (2)</u></b>	<b><u>Hurricane</u></b>	<b><u>16,000-19,000</u></b>
7	Aug. 1992	Hurricane Andrew	Hurricane	15,500
8	Jan. 1994	Northridge, CA earthquake	Earthquake	12,500
9	Sep. 2008	Hurricane Ike	Hurricane	12,500
10	Oct. 2005	Hurricane Wilma	Hurricane	10,300

**Three of 10 Worst US Catastrophes Occurred in 2017.**

(1) Dollars when occurred.

(2) Insurance Information Institute estimate based on data from catastrophe risk modelers, the Property Claims Services unit of Verisk Analytics, et al.

Source: Insurance Information Institute, catastrophe risk modelers, The Property Claim Services® (PCS®) unit of ISO®, a Verisk Analytics® company, et al.



# Uninformed Consumers → Uninsured

Closing the Coverage Gap is Key Step to Resilient Society

- ▲ 2005-2015: \$1.3 Trillion in Uninsured Losses
- ▲ 70 Percent of Catastrophe Losses Are Uninsured

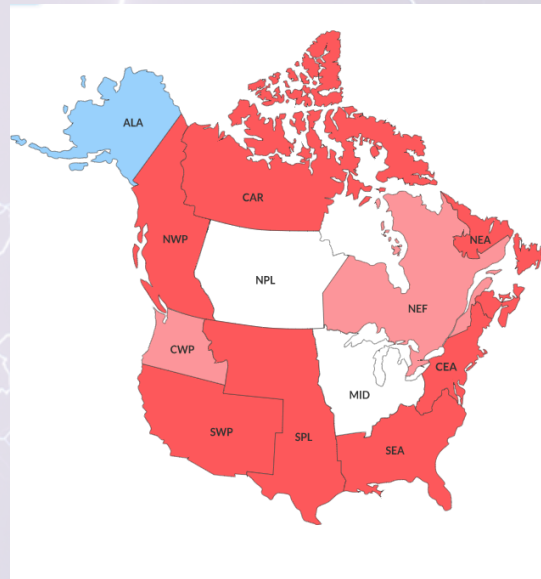


# Insurers Studying Solutions to Extreme Weather

*I.I.I., Actuaries, and IBHS offering resilience know-how to consumers on how to insure and protect themselves*



▲ Proposed I.I.I. white paper



▲ The American Academy of Actuaries Climate Index

The infographic is divided into two main sections. The top section is titled "STORM SURGE KILLS; CAN'T BE OTRUN" and features a photograph of a flooded street. Below the photo is a text box explaining that storm surge is a serious threat during coastal storms and that proper preparation can reduce damage. A "CONTINUE READING" link is provided. The bottom section is titled "5 WAYS TO KEEP FLOOD WATERS OUT OF YOUR BUSINESS" and features a diagram of a building with five numbered points: 1. Flood Defense, 2. Storm Power, 3. Seal Up Gaps, 4. Protect Contents, and 5. Evacuate. Below this diagram is a text box explaining that flooding and flash flooding are leading causes of weather-related fatalities and that property owners should be prepared. A "CONTINUE READING" link is also provided.

▲ Insurance Institute for Business & Home Safety (IBHS) resources

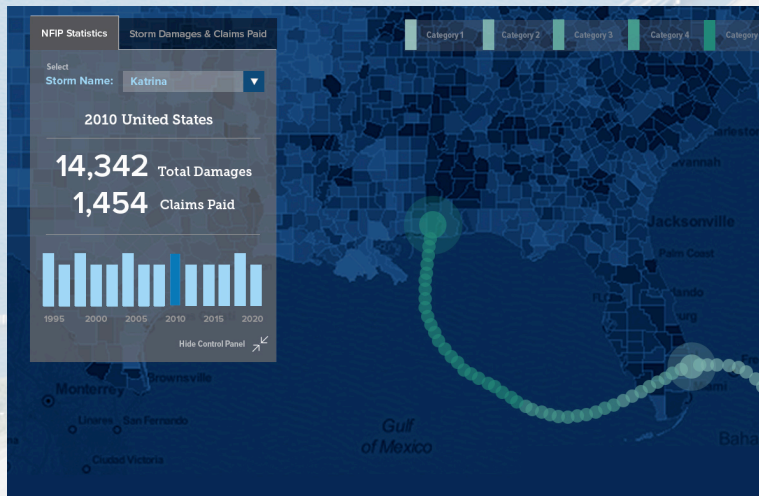


# I.I.I. Resilience Project



The banner features the I.I.I. logo (three vertical bars) and the text "INSURANCE INFORMATION INSTITUTE" on the left. The main title "Resilience Project" is centered, with "HOME" and "DATA" links on the right. The background is a dark blue map of the United States with several colored circles (yellow, orange, red) overlaid. The text "A world with more insurance" is prominently displayed in white, with the subtitle "Closing the insurance gap" below it.

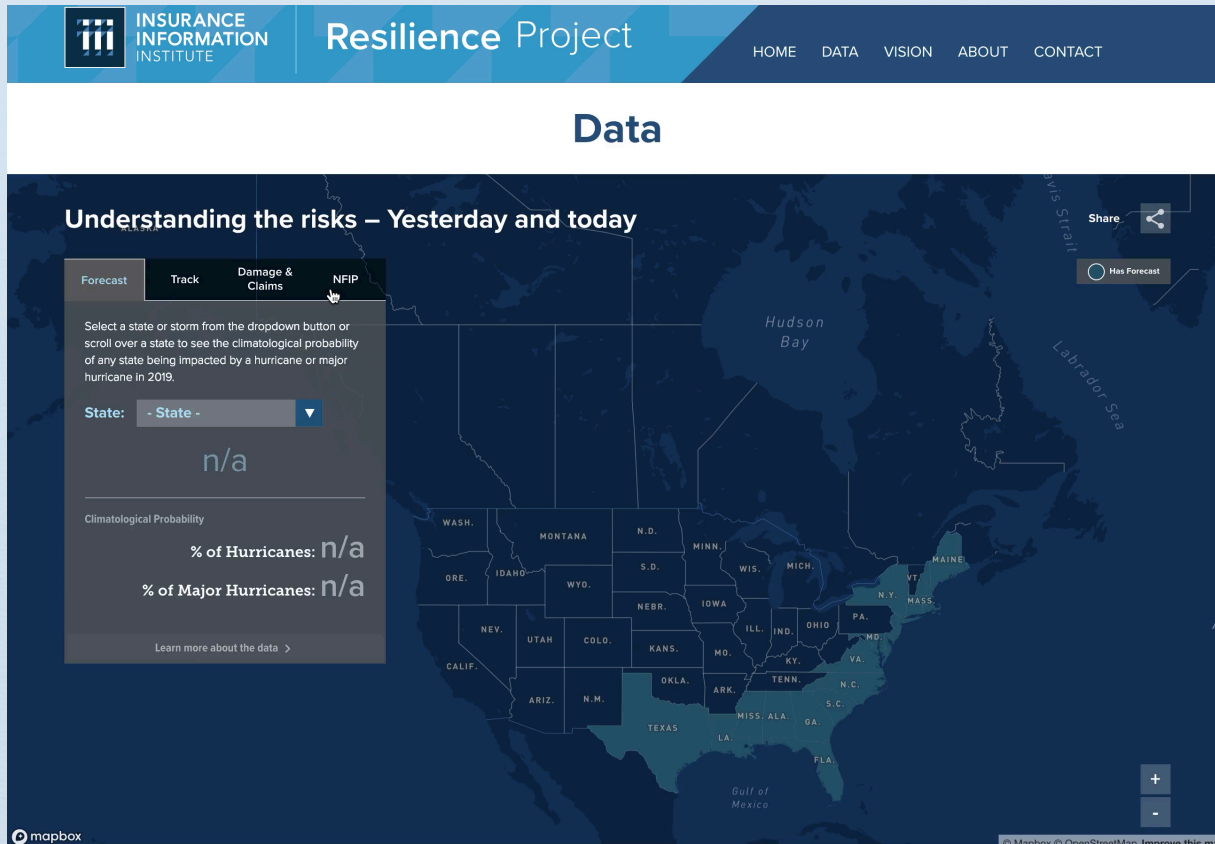
- ▲ How prepared is each state for the natural and man-made disasters they are likely to see?
- ▲ I.I.I. and Aon to share their findings with the industry policy-makers and the general public



Forecasting Powered By:



# Phase 1: Data Visualization Tool



Data transformed to show the power of resilience.

Powered by:

**AON**  
Empower Results®





**A WORLD**  
WITHOUT INSURANCE?





**INSURANCE  
INFORMATION**  
INSTITUTE

**Thank you!**

[www.iii.org](http://www.iii.org)