



# **Superstorm Sandy: Impacts for Insurers, Reinsurers and the Debate on Climate Change**

**Amsterdam Circle of Chief Economists**

**Geneva Association**

**Amsterdam, Netherlands**

**1 March 2013**

***Download at [www.iii.org/presentations](http://www.iii.org/presentations)***

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- I. Summary of Superstorm Sandy's Impact on the Insurance Industry**
  
- II. Impact on the Discussion Debate on Climate Change**



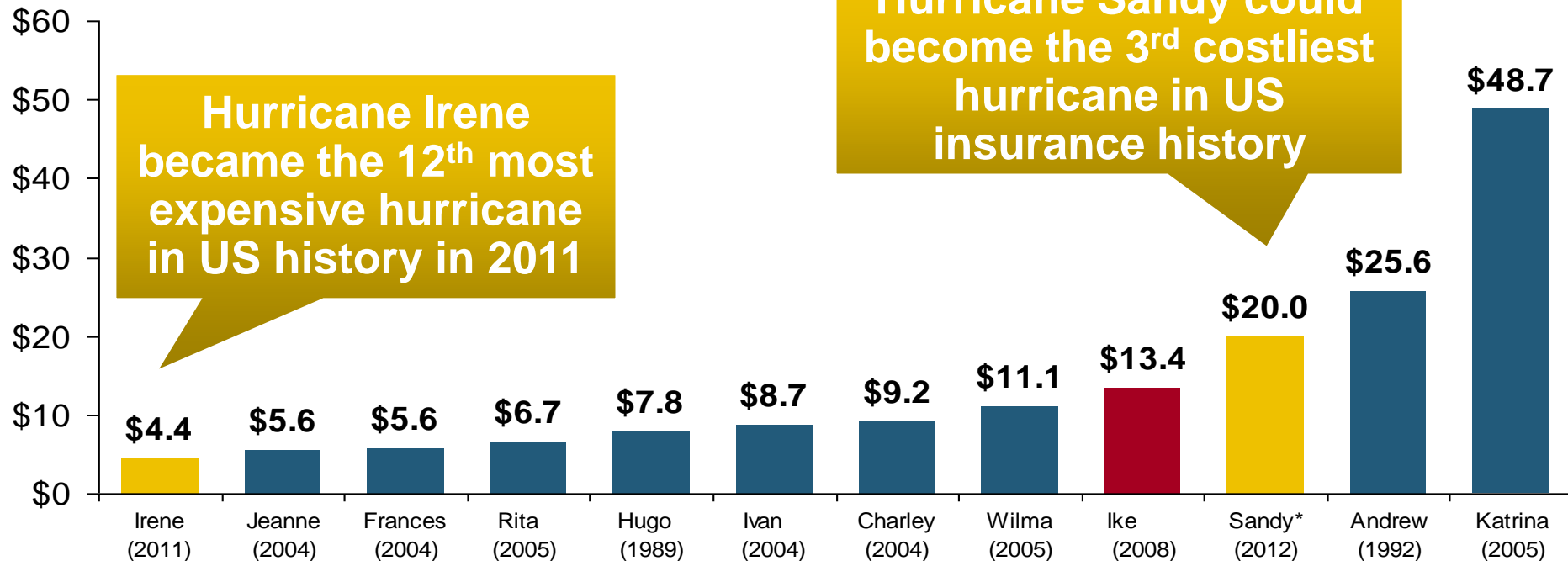
# **Hurricane Sandy: Summary of Insurance Impacts**

**Sandy Will Become One of the  
Most Expensive Events in Global  
Insurance History**

# Top 12 Most Costly Hurricanes in U.S. History

(Insured Losses, 2012 Dollars, \$ Billions)

10 of the 12 most costly hurricanes in insurance history occurred over the past 9 years (2004—2012)



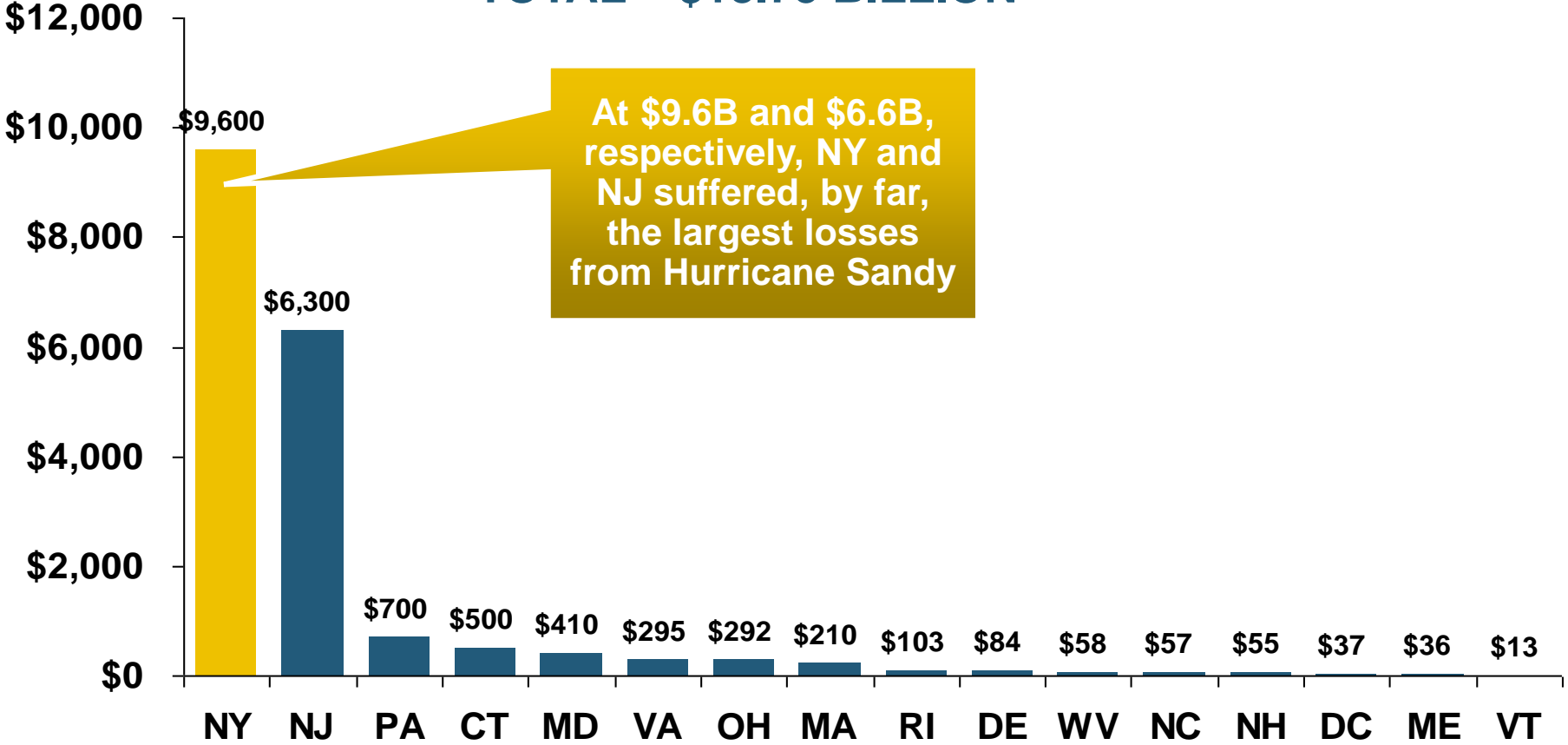
\*Estimate as of 1/18/13 based on estimates of catastrophe modeling firms and reported losses as of 2/26/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

# Hurricane Sandy: Claim Payments to Policyholders, by State

(\$ Thousands)

**TOTAL = \$18.75 BILLION**



At \$9.6B and \$6.6B, respectively, NY and NJ suffered, by far, the largest losses from Hurricane Sandy

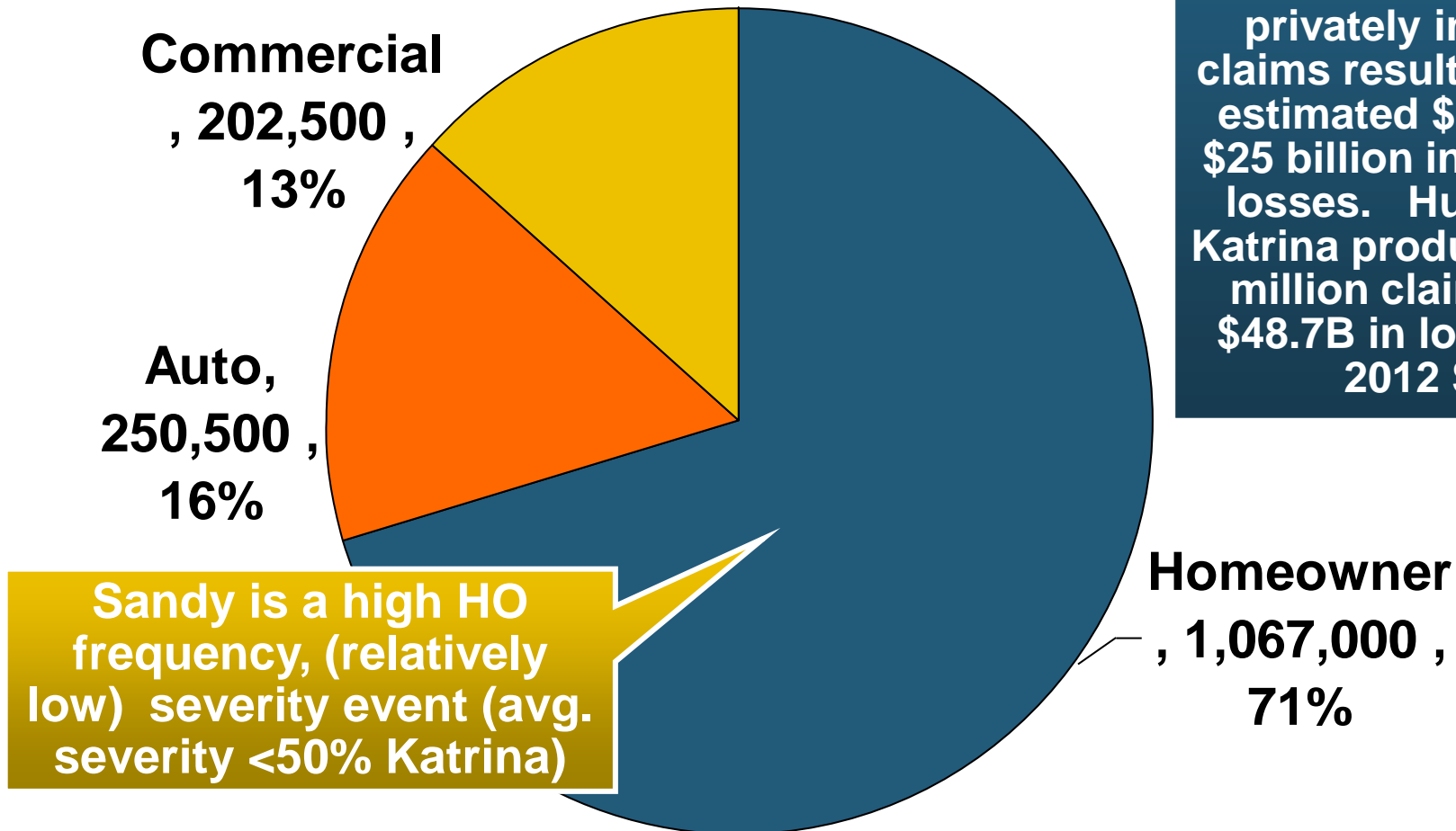
**Insurers Will Pay at Least \$18.75 Billion to 1.52 Million Policyholders Across 15 States and DC in the Wake of Hurricane Sandy**

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of Jan. 18, 2013; Insurance Information Institute .

# Hurricane Sandy: Number of Claims by Type\*

Total Claims = 1.52 Million\*

Hurricane Sandy resulted in an estimated 1.52 million privately insured claims resulting in an estimated \$18.75 to \$25 billion in insured losses. Hurricane Katrina produced 1.74 million claims and \$48.7B in losses (in 2012 \$)

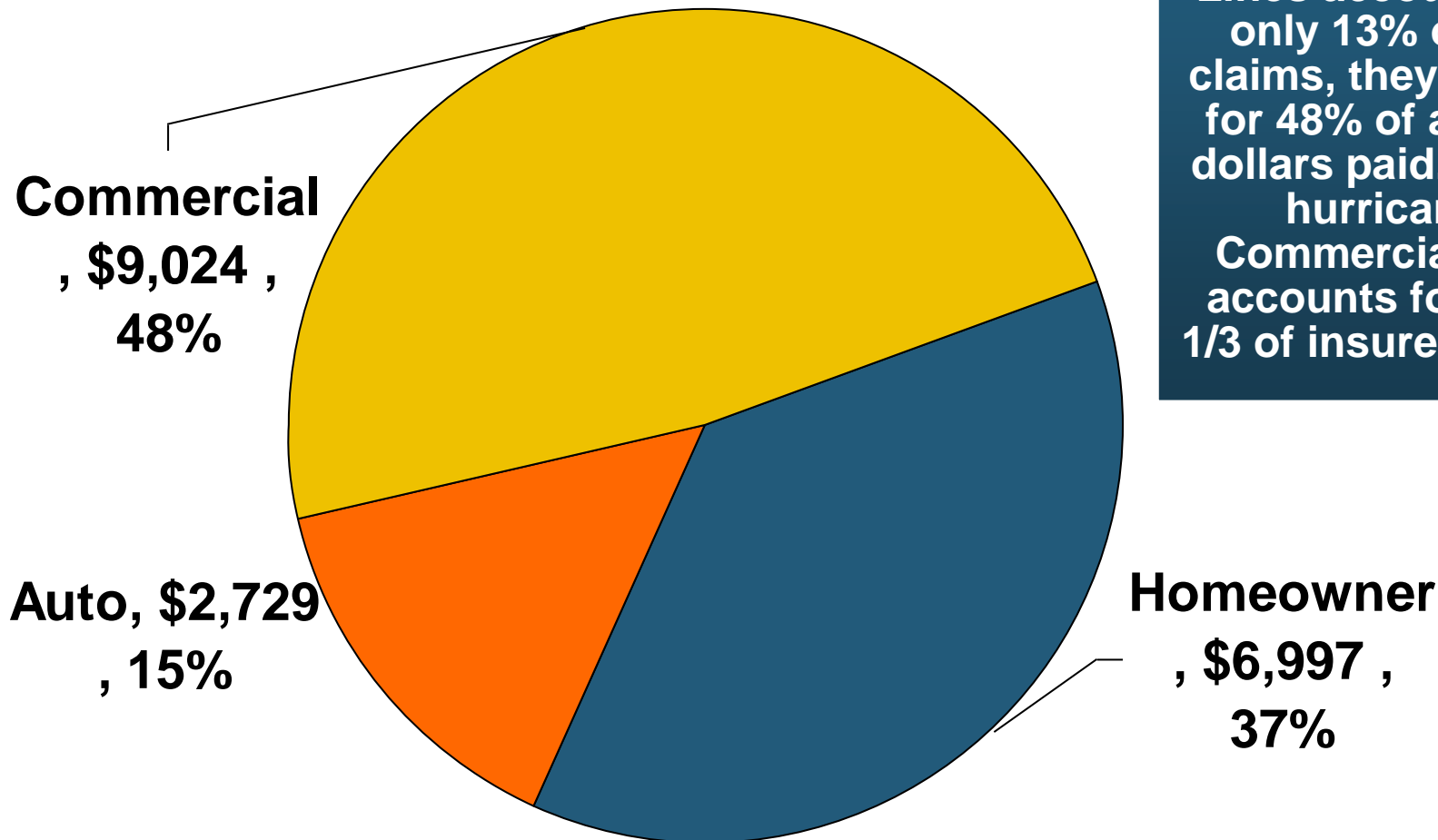


\*PCS claim count estimate s as of 1/18/13. Loss estimate represents PCS total (\$18.75B) and upper end of range estimates by risk modelers RMS, Eqecat and AIR. All figures exclude losses paid by the NFIP.

Source: PCS; AIR, Eqecat, AIR Worldwide; Insurance Information Institute.

# Hurricane Sandy: Insured Loss by Claim Type\* (\$ Millions)

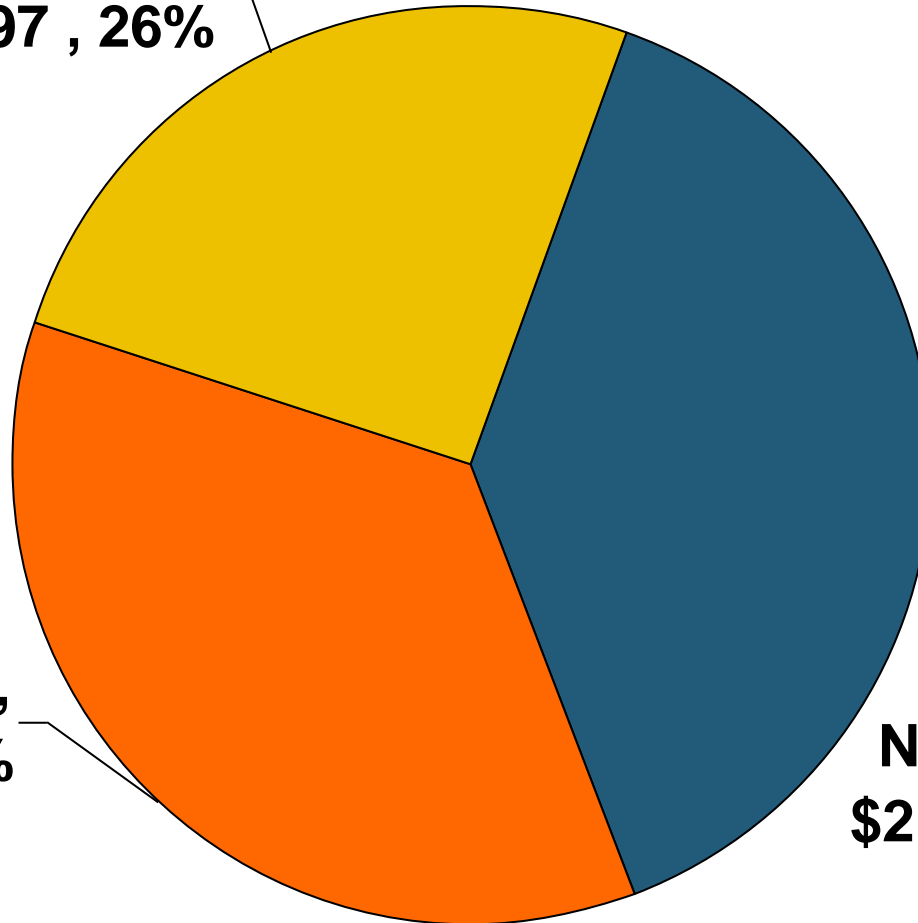
Total Claim Value = \$18.75 Billion\*



Although Commercial Lines accounted for only 13% of total claims, they account for 48% of all claim dollars paid. In most hurricanes, Commercial Lines accounts for about 1/3 of insured losses.

# Hurricane Sandy: Value of Homeowners Claims Paid, by State\* (\$ Millions)

**All Other,  
\$1,797 , 26%**



**New Jersey,  
\$2,500 , 36%**

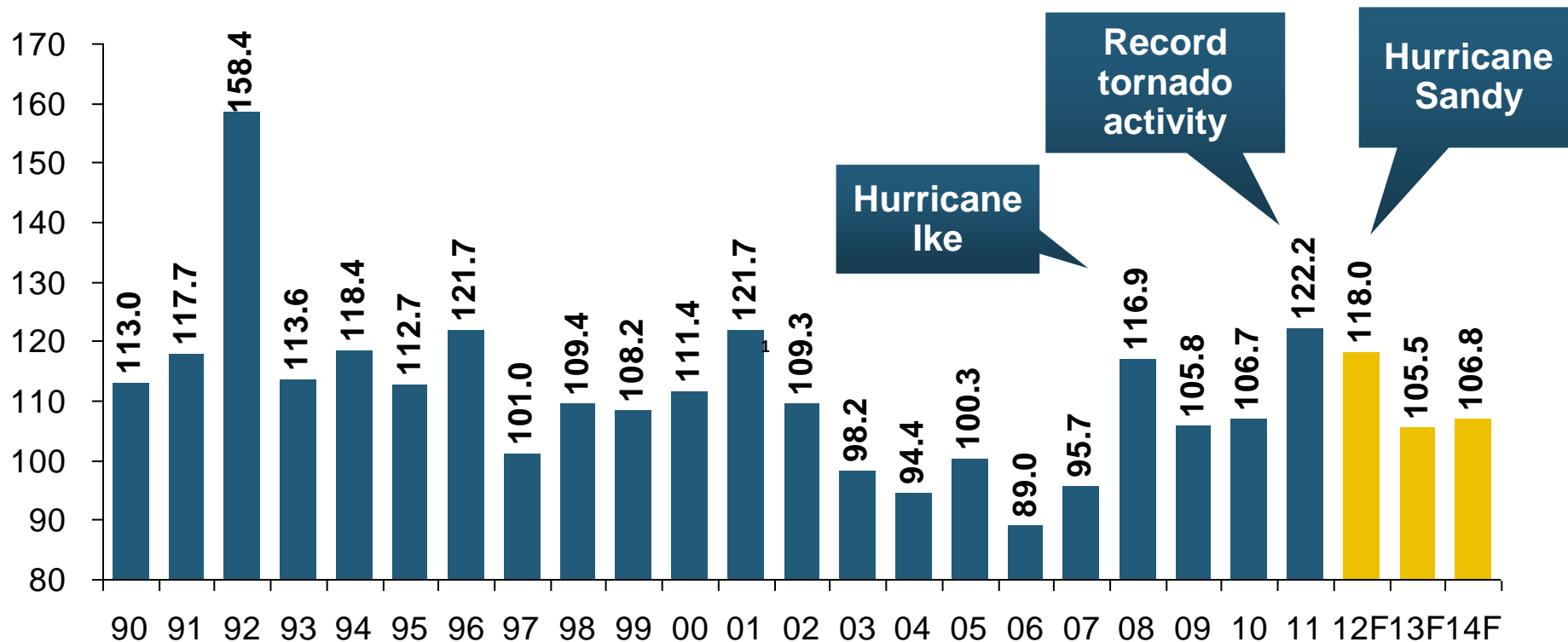
**New York,  
\$2,700 , 38%**

## Hurricane Sandy

- Estimated 1,067,000 homeowners claims\*\*
- \$7.0 billion in insured losses.
- Average loss per claim is \$6,558
- Claims in NJ estimated at \$2.5 billion (36%) and \$2.7 billion in NY (38%)



# Homeowners Insurance Combined Ratio: 1990–2014F

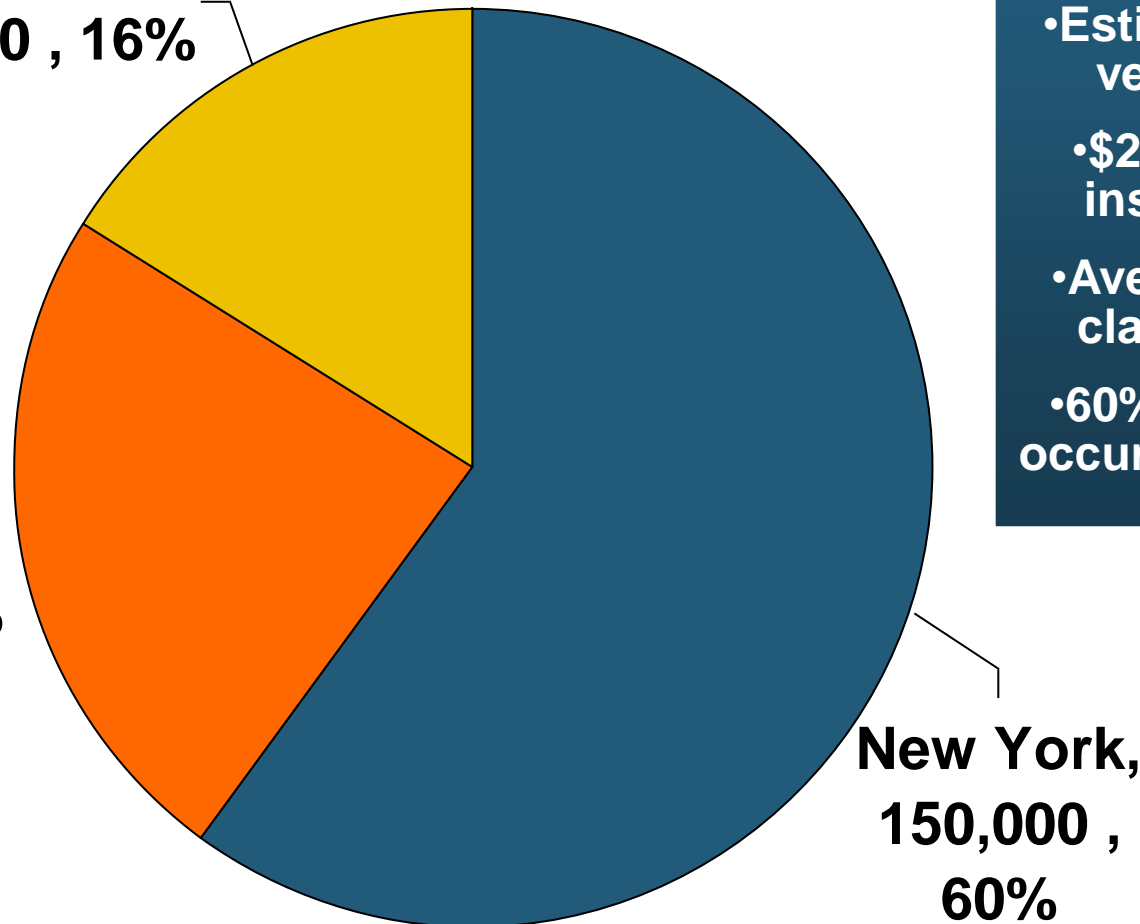


**Homeowners Performance Deteriorated in 2011/12 Due to Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity**

# Hurricane Sandy: Number of Auto Claims by State\*

**All Other,  
40,500 , 16%**

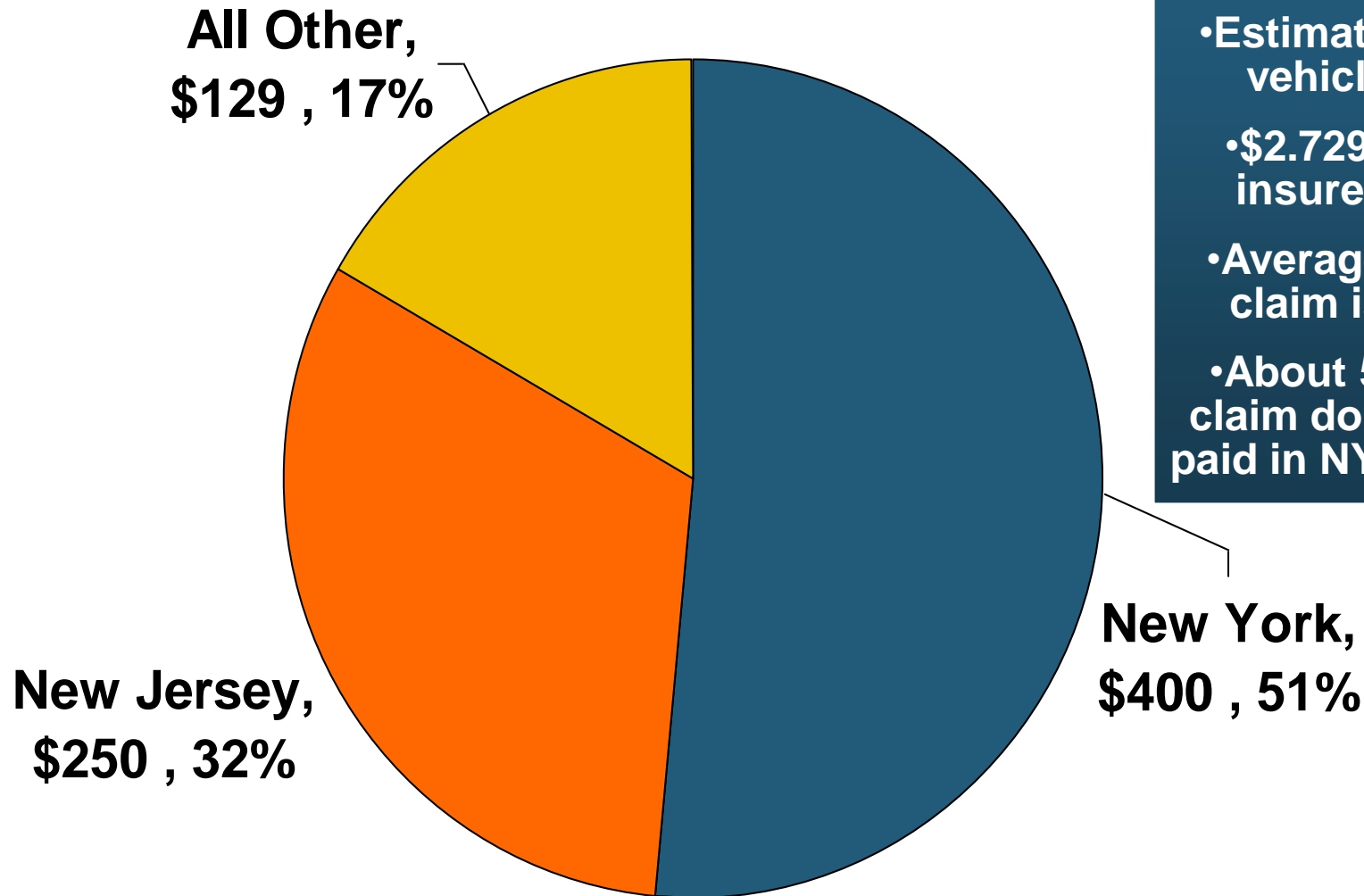
**New Jersey,  
60,000 , 24%**



## Hurricane Sandy

- Estimated 250,500 vehicle claims
- \$2.729 billion in insured losses.
- Average loss per claim is \$10,894
- 60% of the claims occurred in NY state.

# Hurricane Sandy: Value of Auto Claims Paid, by State\* (\$ Millions)

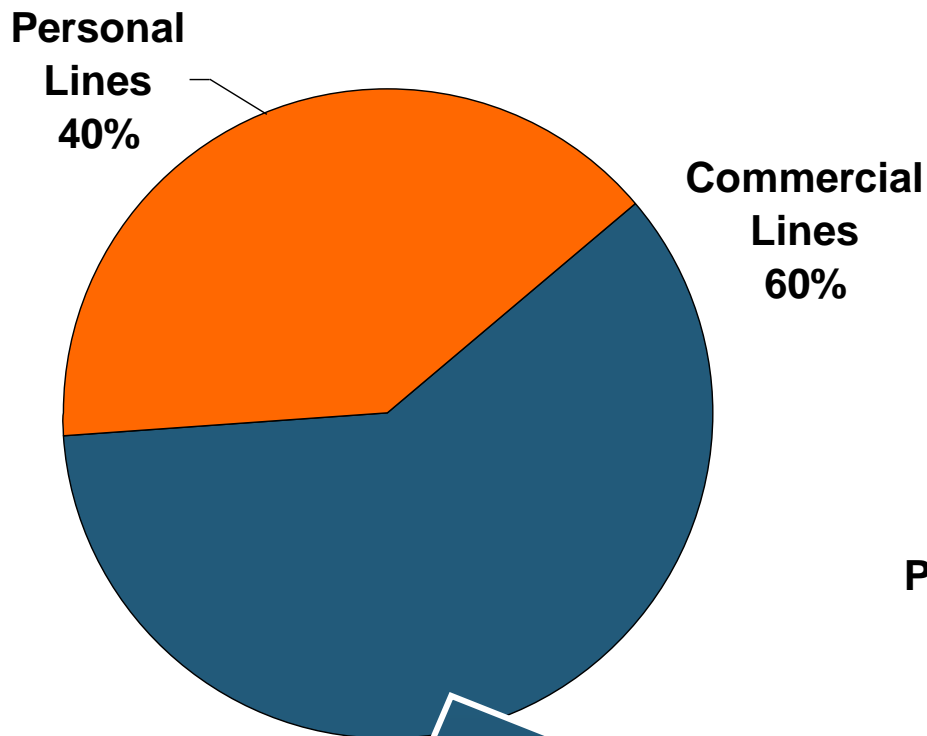


## Hurricane Sandy

- Estimated 250,500 vehicle claims
- \$2.729 billion in insured losses.
- Average loss per claim is \$10,894
- About 50% of the claim dollars will be paid in NY, 32% in NJ.

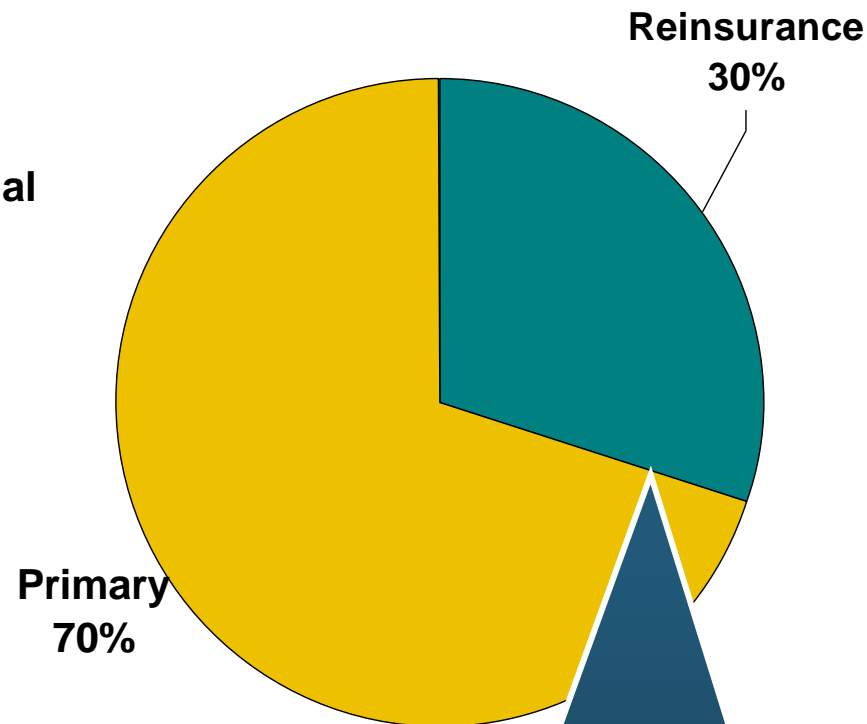
# Hurricane Sandy: Loss Distribution by Commercial/Personal Lines and Reinsurance vs. Primary Insurer

## Personal vs. Commercial Lines\*



**~60-65% of Sandy losses appear to be commercial lines, and 35-40% personal, the opposite of the norm for hurricane losses**

## Primary vs. Reinsurer Share\*\*

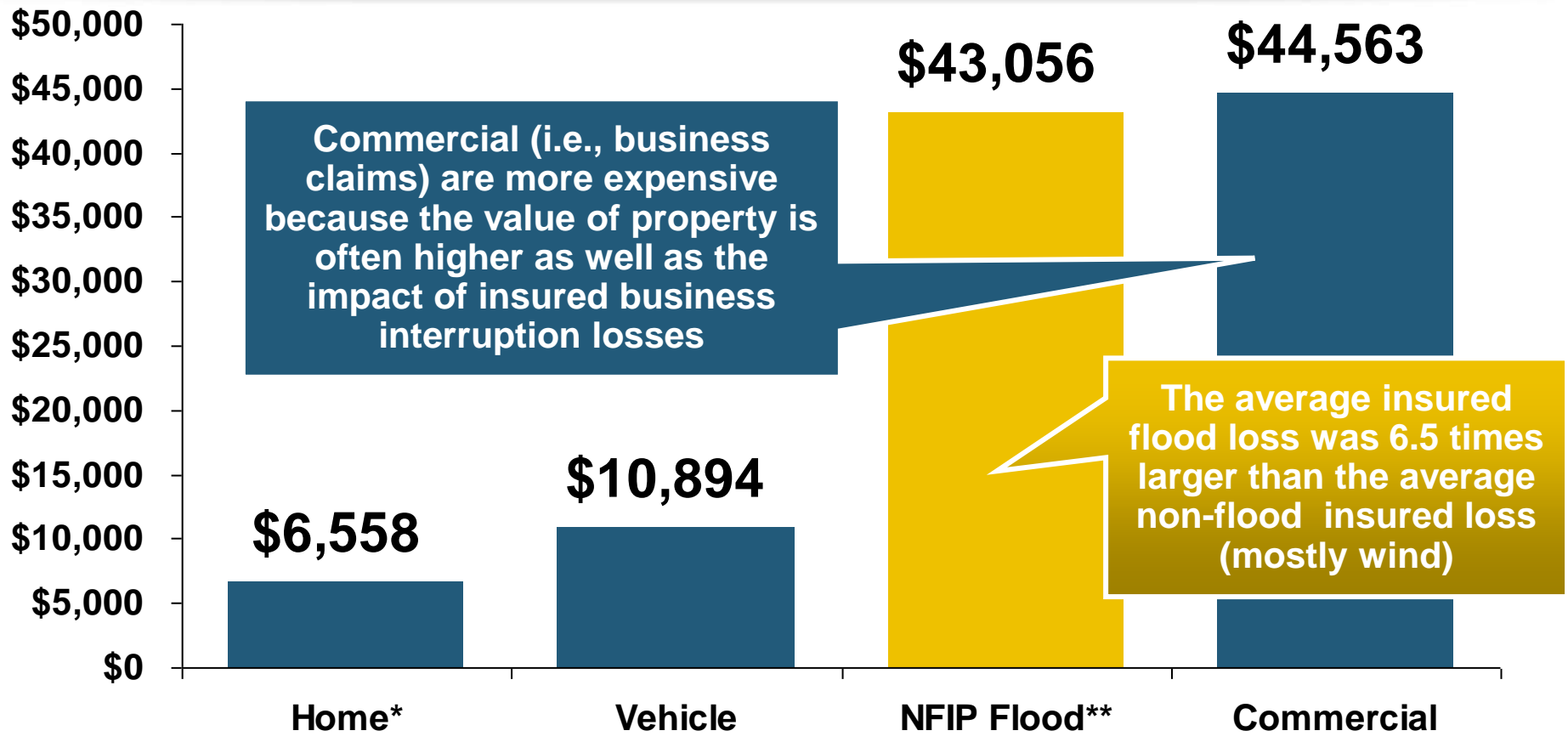


**Reinsurers' share of Sandy losses appears to be in the 30% range, though this is highly preliminary**

\*Fitch Ratings assigns a range of 60-65% commercial and 35-40% personal lines., *Hurricane Sandy Update*, January 8, 2013.

\*\*Source: Insurance Information Institute rough estimate based on company reports as of January 13, 2013. Actual number will vary.

# Hurricane Sandy: Average Claim Payment by Type of Claim



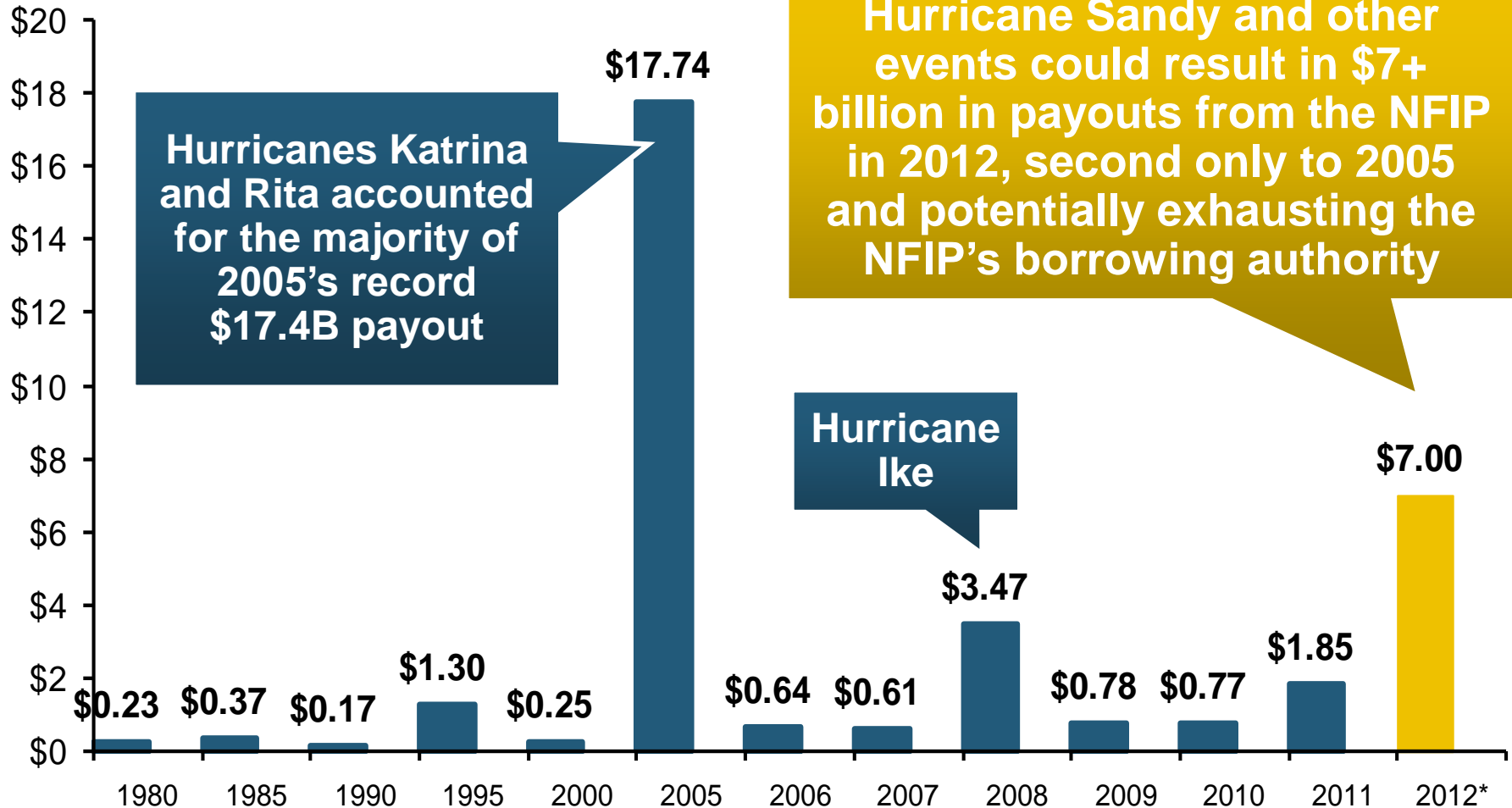
**Commercial (Business) Claims Were Nearly Seven Times More Expensive than Homeowners Claims; Vehicle Claims Were Unusually Expensive Due to Extensive Flooding**

\*Includes rental and condo policies (excludes NFIP flood). \*\*As of Feb. 20, 2013.

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of Jan. 18, 2013; Insurance Information Institute .

# Flood Loss Paid by the National Flood Insurance Program, 1980-2012E

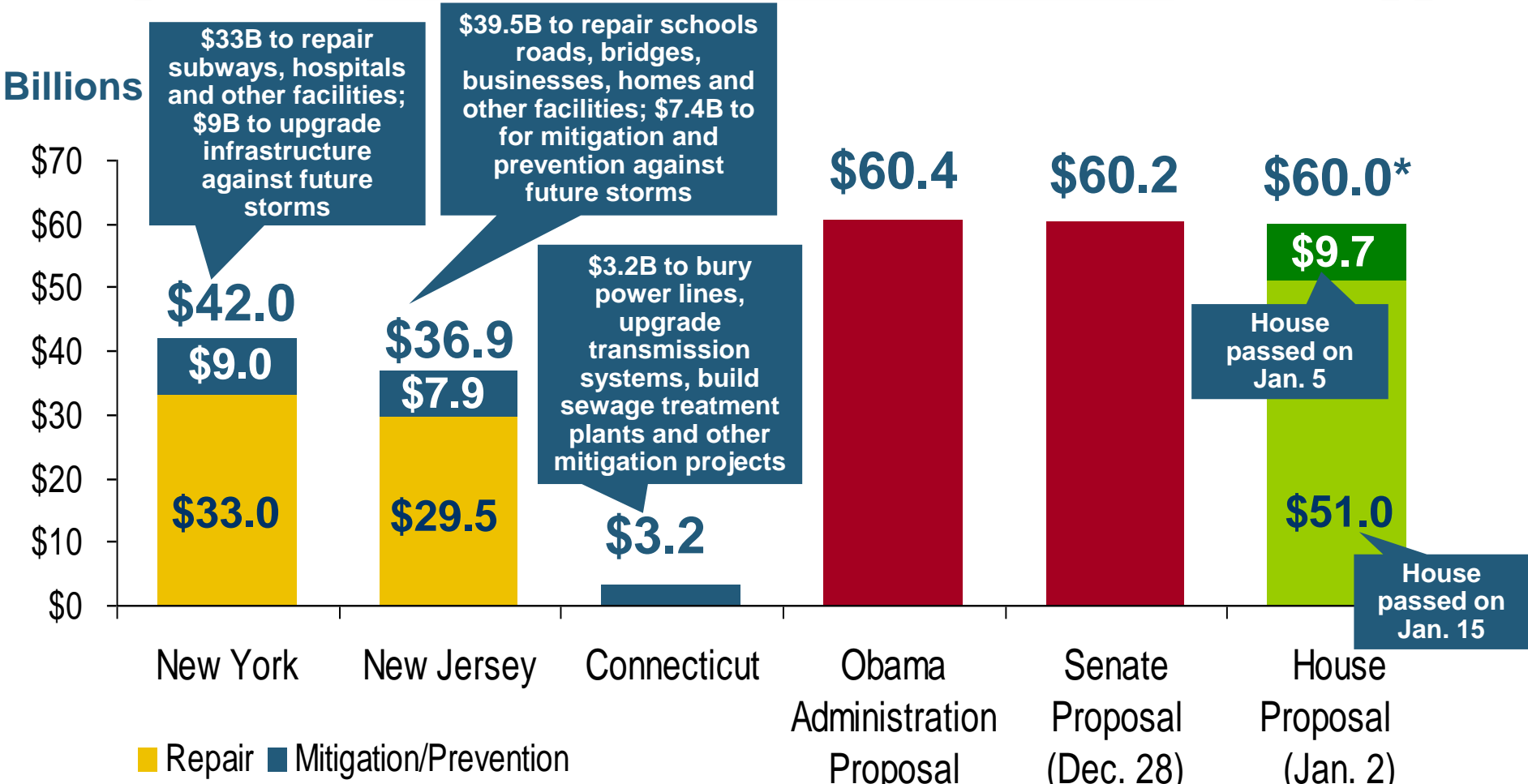
Billions (Original Values)



\*Estimate as of 11/25/12.

Sources: Department of Homeland Security, Federal Emergency Management Agency, NFIP; Insurance Information Institute.

# Federal Aid Requests for States With Greatest Sandy Impact & Federal Aid Proposals (as of 1/6/13)



**States Requested Enormous Sums in Sandy Aid in the Middle of the "Fiscal Cliff" Debate, Causing Delays**

\*As of Jan. 2, 2013.

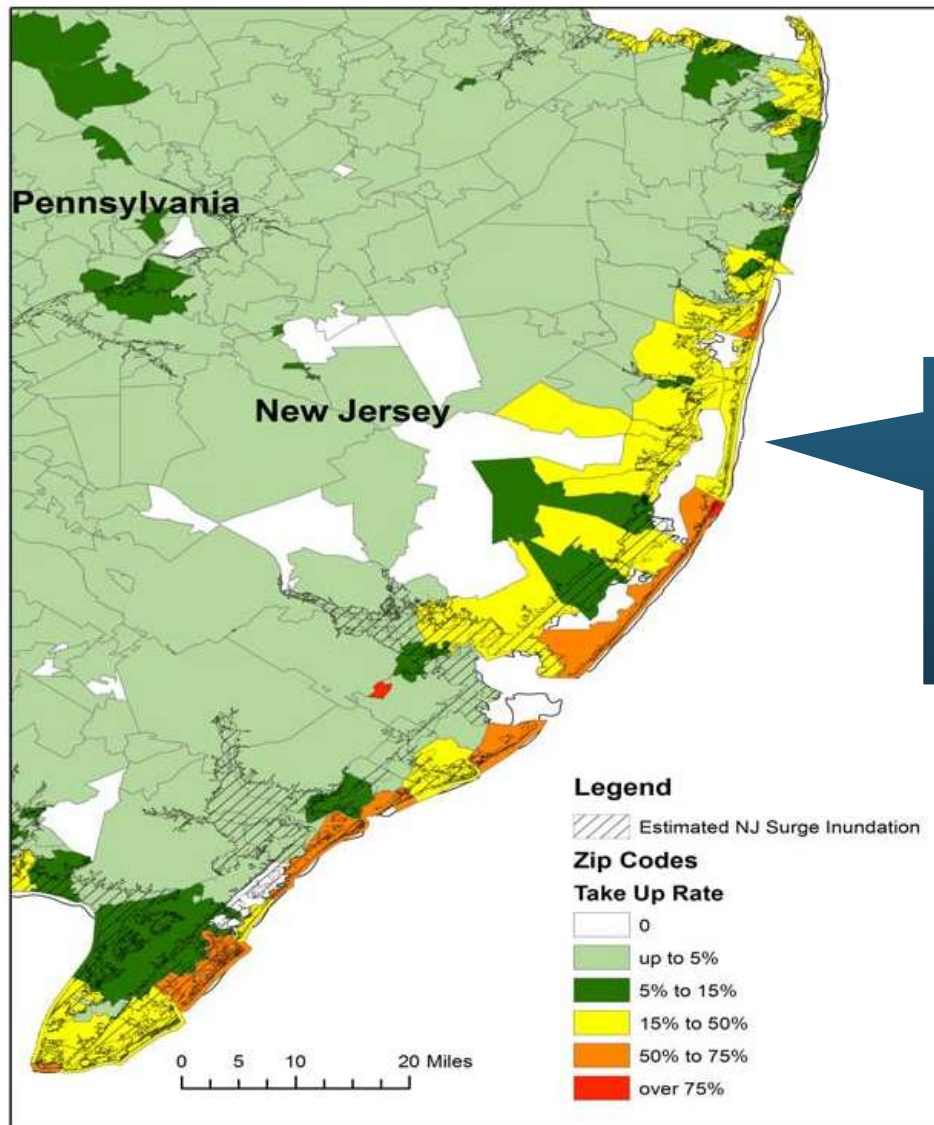
Source: *New York Times*, Dec. 6, 2012; Insurance Information Institute research.

# Hurricane Sandy: Flood Issues

**Most of the Uninsured Direct  
Losses Are Due to Flooding**

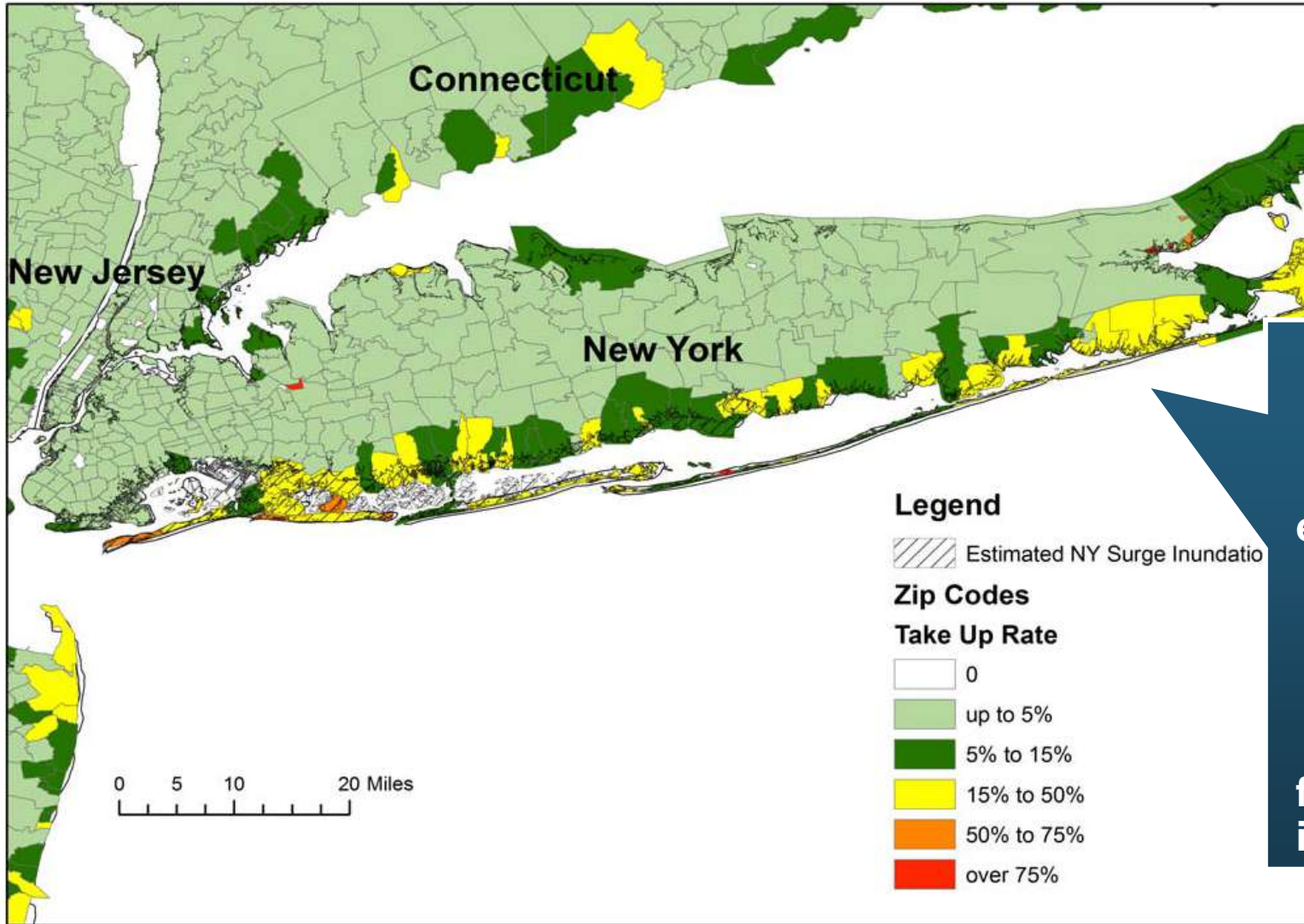


# Residential NFIP Flood Take-Up Rates in NJ (2010) & Sandy Storm Surge



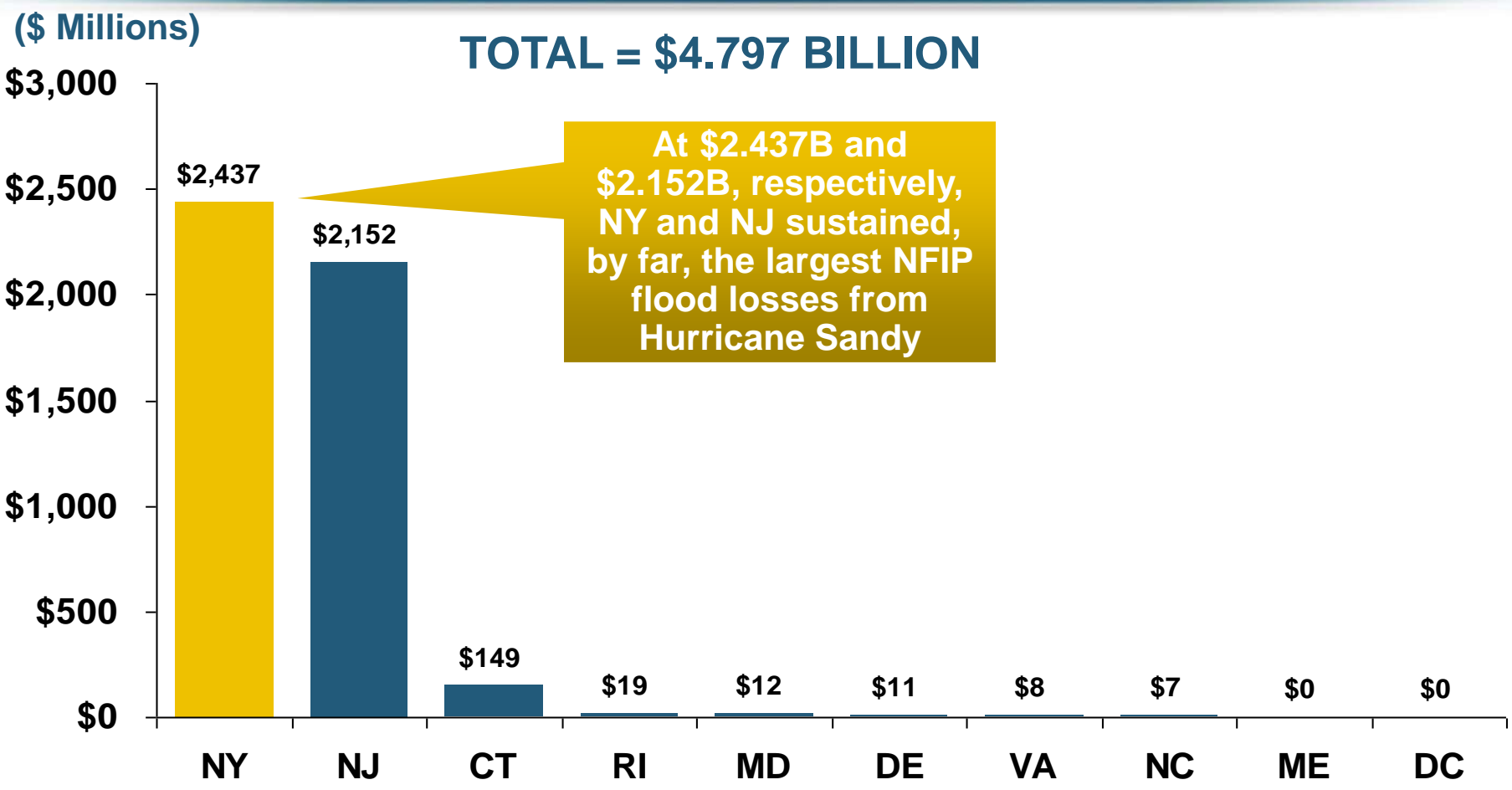
Flood coverage penetration rates were extremely low in many very vulnerable areas in NJ, with take-up rates far below 50% in many areas

# Residential NFIP Flood Take-Up Rates in NY, CT (2010) & Sandy Storm Surge



Flood coverage penetration rates were extremely low in many very vulnerable areas of NY and CT, with take-up rates far below 50% in many areas

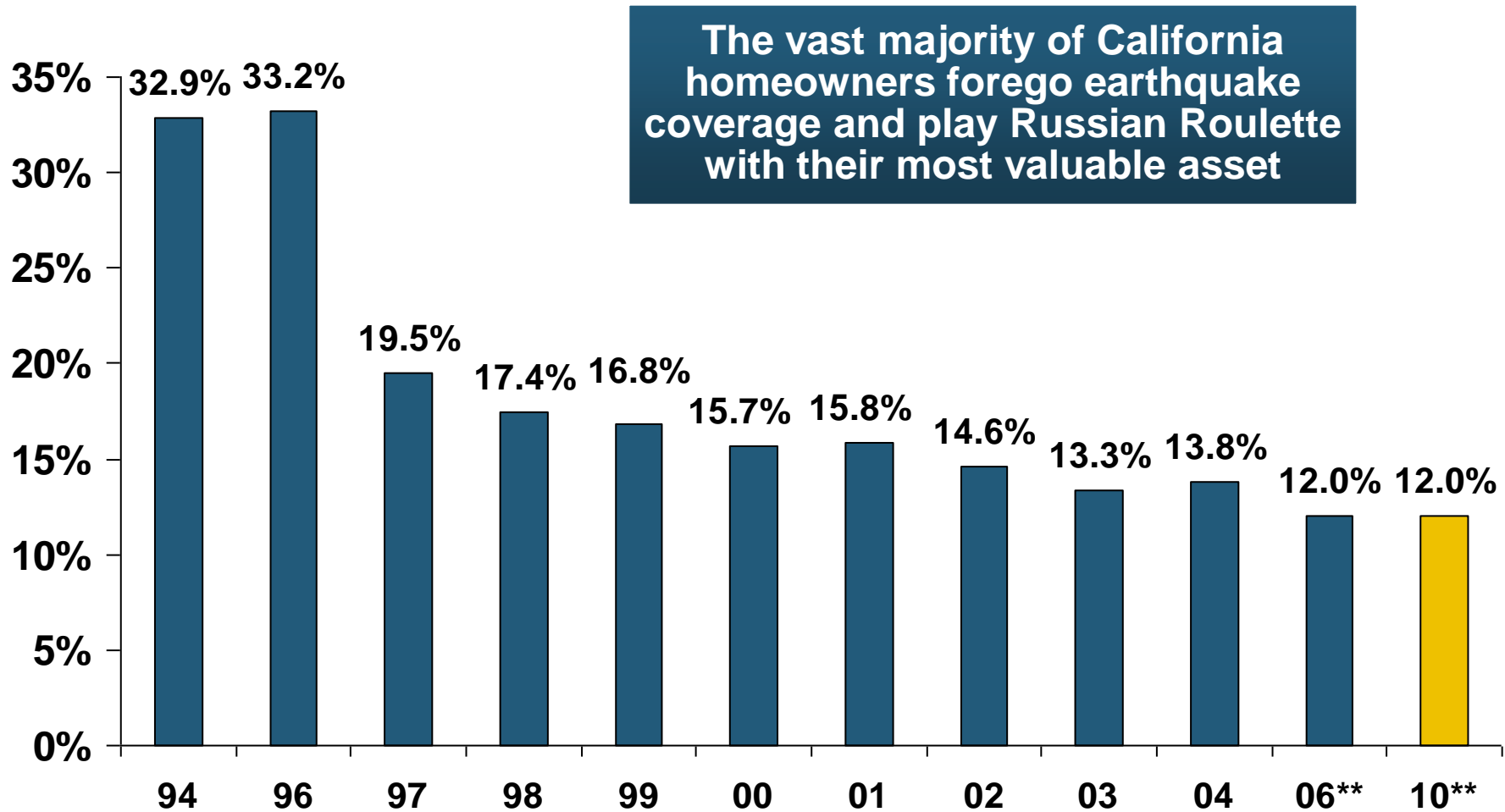
# Hurricane Sandy: National Flood Insurance Program Payment, by State\*



**The NFIP Will Ultimately Likely Pay Close to \$7 Billion to 100,000 Policyholders Across 9 States and DC in the Wake of Hurricane Sandy**

\*As of February 20, 2013.  
Sources: NFIP; Insurance Information Institute .

# Percentage of California Homeowners with Earthquake Insurance, 1994-2010\*



\*Includes CEA policies beginning in 1996. \*\*2006 estimate from Insurance Information Network of CA. 2010 from CEA. Source: California Department of Insurance; Insurance Information Institute.

# Flood Insurance Reform & Modernization Act of 2012: Key Provisions

- **Reauthorized NFIP and Its Financing Through 9/30/17**
- **Increase in Average Annual Limit on Premium Increase**
  - ◆ **Increases annual limit on premium increase from 10% to 20%**
- **Phase-in of Actuarial Rates for Certain Properties**
  - ◆ **Applies to non-primary residences, severe repetitive loss properties, properties where flood losses have exceed property value, business property, property that has sustained damage > 50% of fair market value**
- **Actuarial Sound Rates for Certain Severe Repetitive Loss Properties**
  - ◆ **Charge actuarially sound rates to any prospective or repetitive loss properties that refused to accept offers of mitigation assistance after a major disaster**
- **Prohibition of Premium Rate Subsidy on New or Lapsed Policies**

# Other Changes, Net Impacts & Outstanding Questions

- **Separate Remapping Initiative (Flood maps out of date)**
  - ◆ Already resulting in expansion of high hazard flood zones
  - ◆ Will also increase costs to many
- **Post-Sandy Changes in Building Codes**
- **Use of State and Federal Funds to Purchase Vulnerable Property from Current Owners Who Had Homes Damaged or Destroyed in Sandy**
  - ◆ Most seem willing to sell since they are being offered 100%+ or pre-Sandy value and many were not insured for flood damage
- **Given only 1/2 to 1/3 of Coastal Dwellers Maintain Flood Coverage, What Will Be the Impact of Higher Price?**
  - ◆ What is elasticity of demand for flood insurance?
- **Will Private Insurers Have a Greater Incentive to Participate in the Flood Insurance Market?**

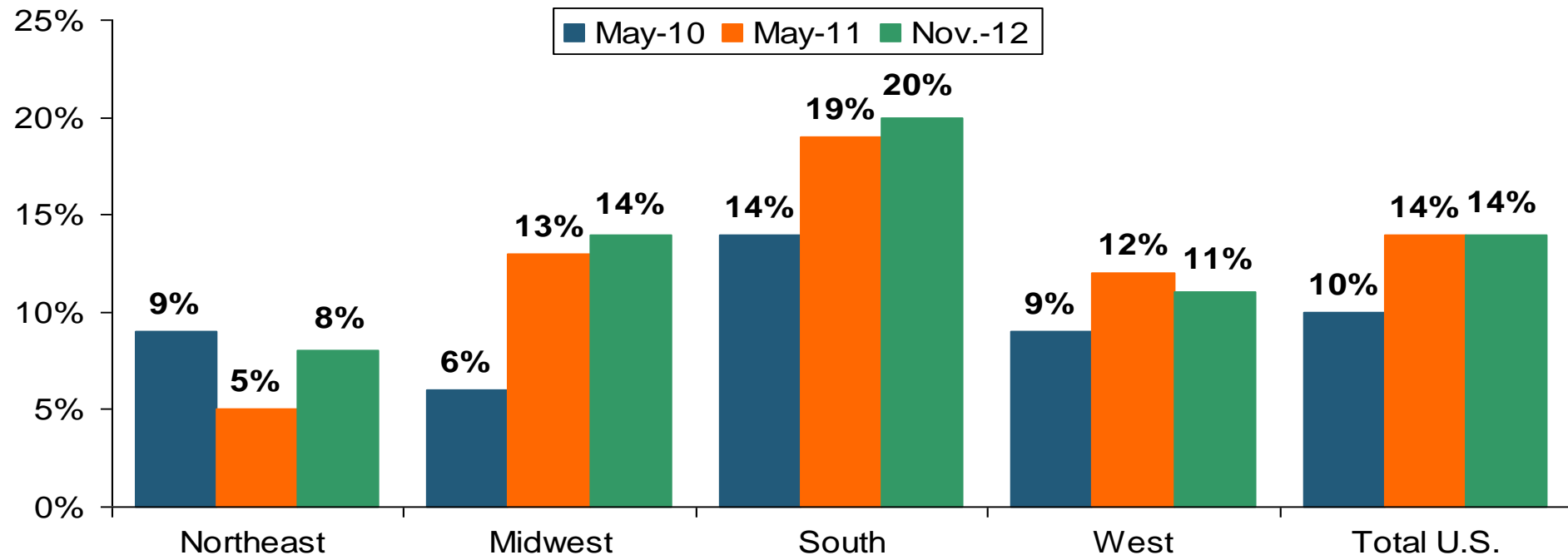


## **I.I.I. *PULSE* SURVEY**

**Despite Education Efforts and Numerous Disasters, Many Insurance Buyers Have Serious Misconceptions or Make Poor Decisions Related to their Insurance Coverage**

# I.I.I. Poll: Disaster Preparedness

Q. Do you have a separate flood insurance policy?<sup>1</sup>



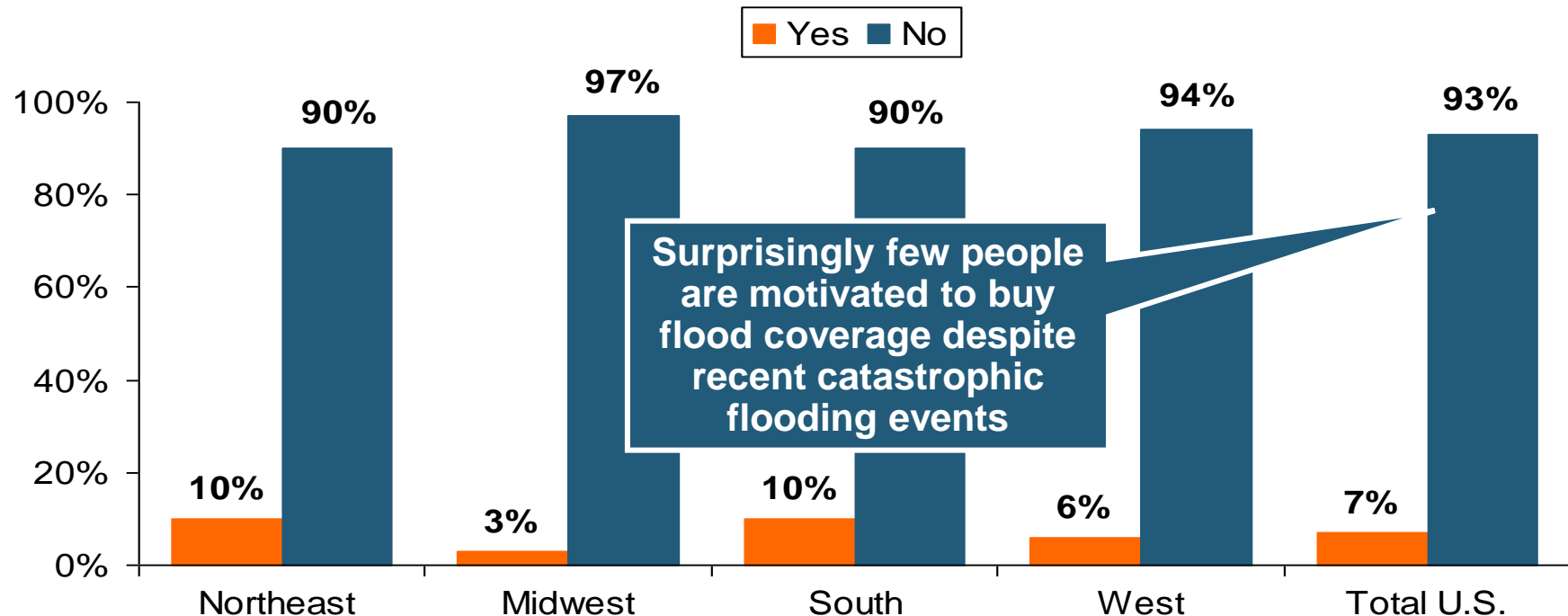
**Only 14 percent of American homeowners say they have a flood insurance policy. The percentage is lowest in the Northeast at 8 percent.**

<sup>1</sup>Asked of those who have homeowners insurance and who responded "yes".



# I.I.I. Poll: Disaster Preparedness

**Q. Have recent flooding events such as Hurricane Sandy or Hurricane Irene motivated you to buy flood coverage?<sup>1</sup>**

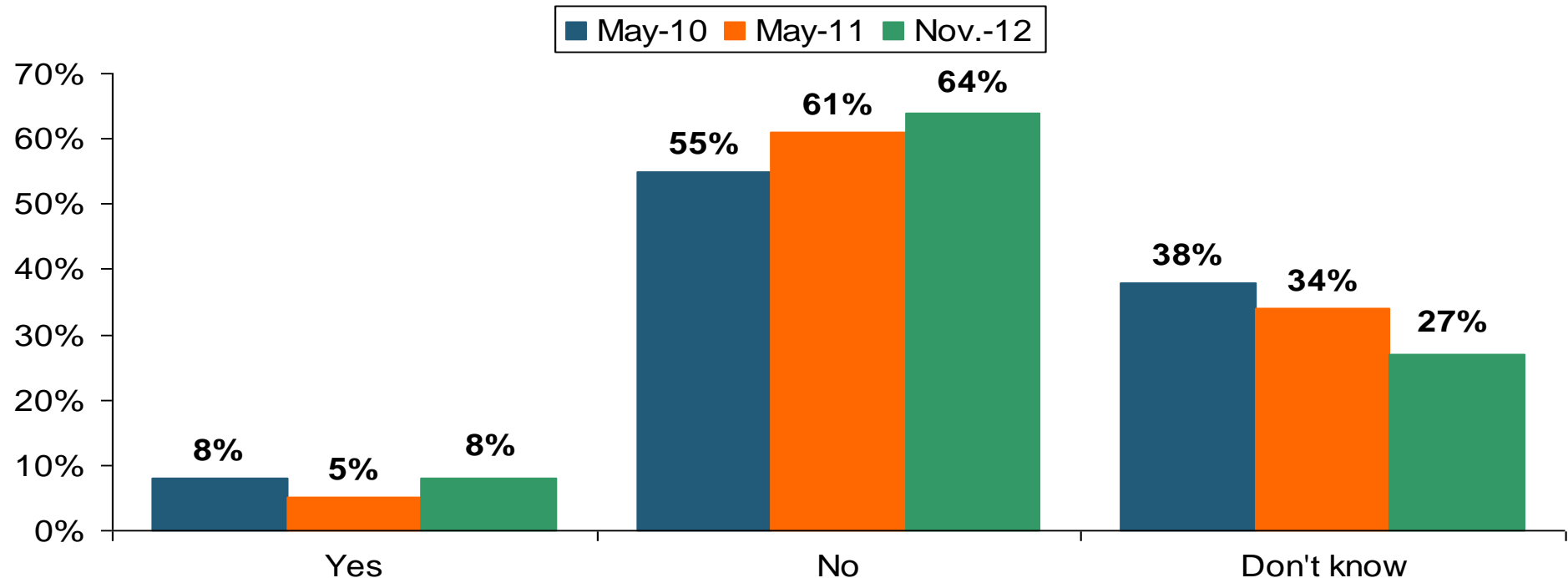


**Recent storms have not motivated people to buy flood insurance coverage.**

<sup>1</sup>Asked of those who have homeowners insurance but not flood insurance.

# I.I.I. Poll: Disaster Preparedness

Q. Will the government pay for damage to your home that is not covered in your homeowners policy?<sup>1</sup>

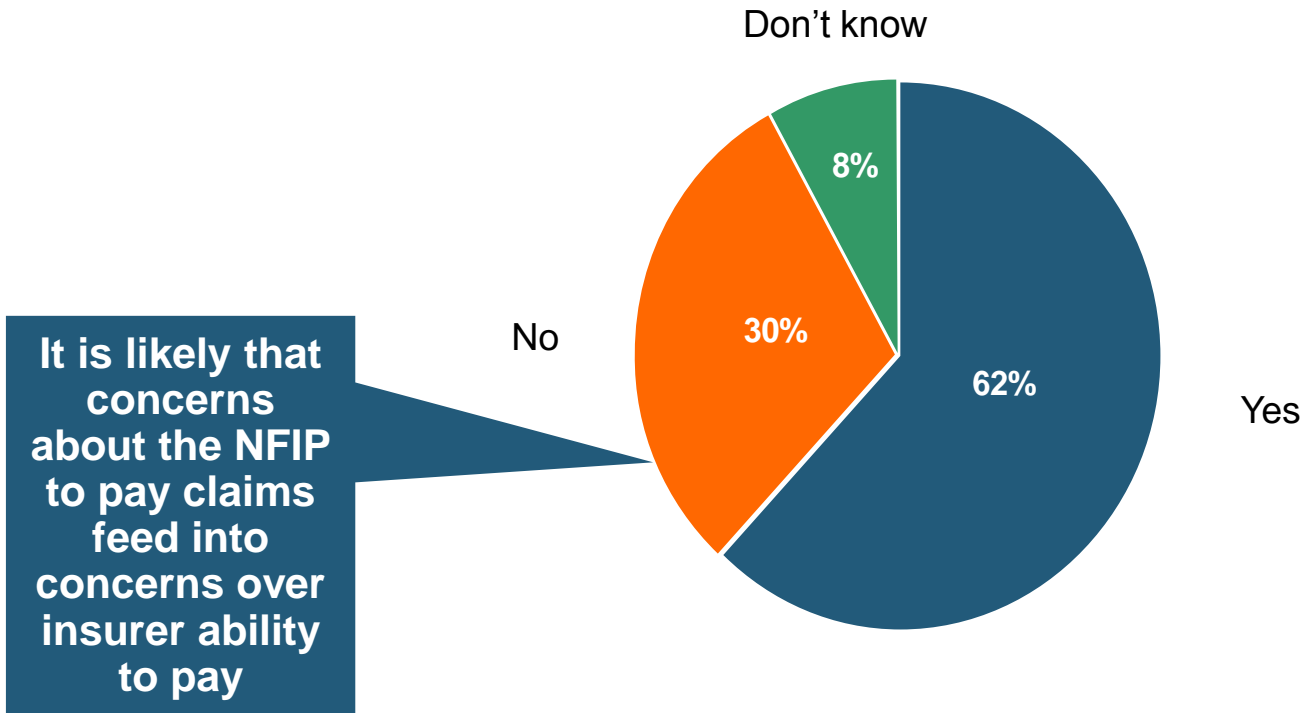


**Sixty-four percent of homeowners say that the government will not pay for damage to their homes that is not covered by their homeowners policy.**

<sup>1</sup>Asked of those who have homeowners insurance and who responded "yes".

# I.I.I. Poll: Financial Strength

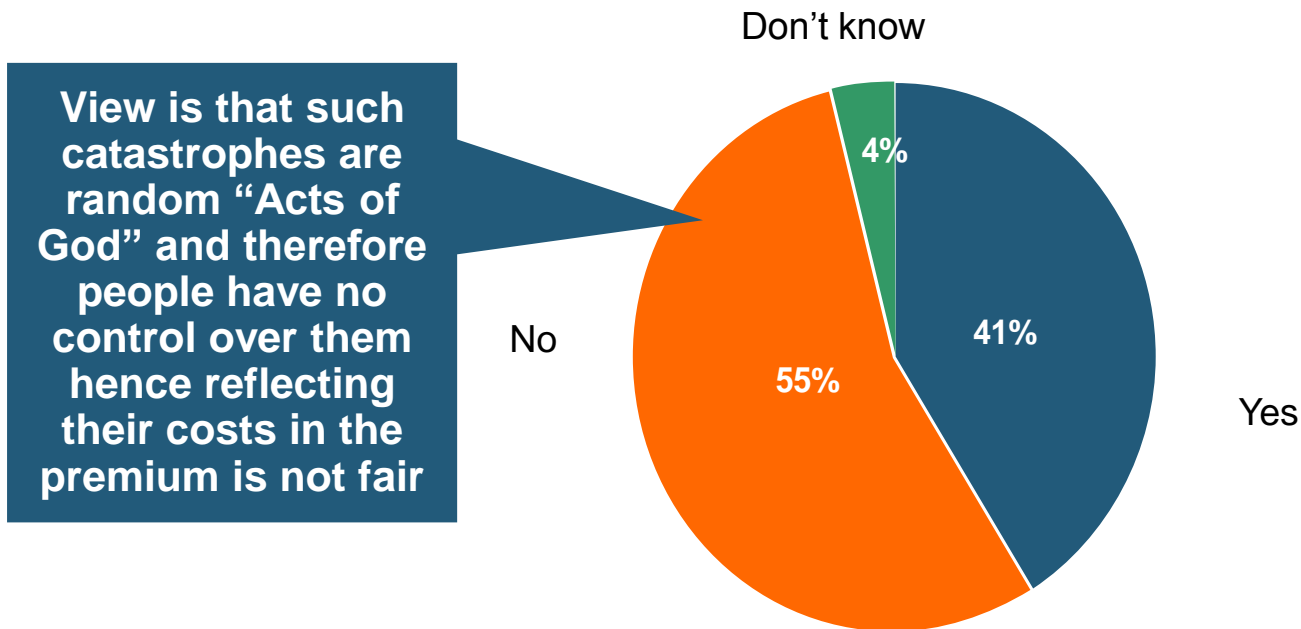
Q. There have been a number of major weather-related events in recent years, such as Hurricane Sandy and severe tornadoes. Do you believe that insurers have the financial strength to pay claims following a natural disaster?



**While more than 60% of Americans believe insurance companies have the resources to pay claims after a natural disaster, nearly one-third do not—about the same as last year.**

# I.I.I. Poll: Homeowners Insurance

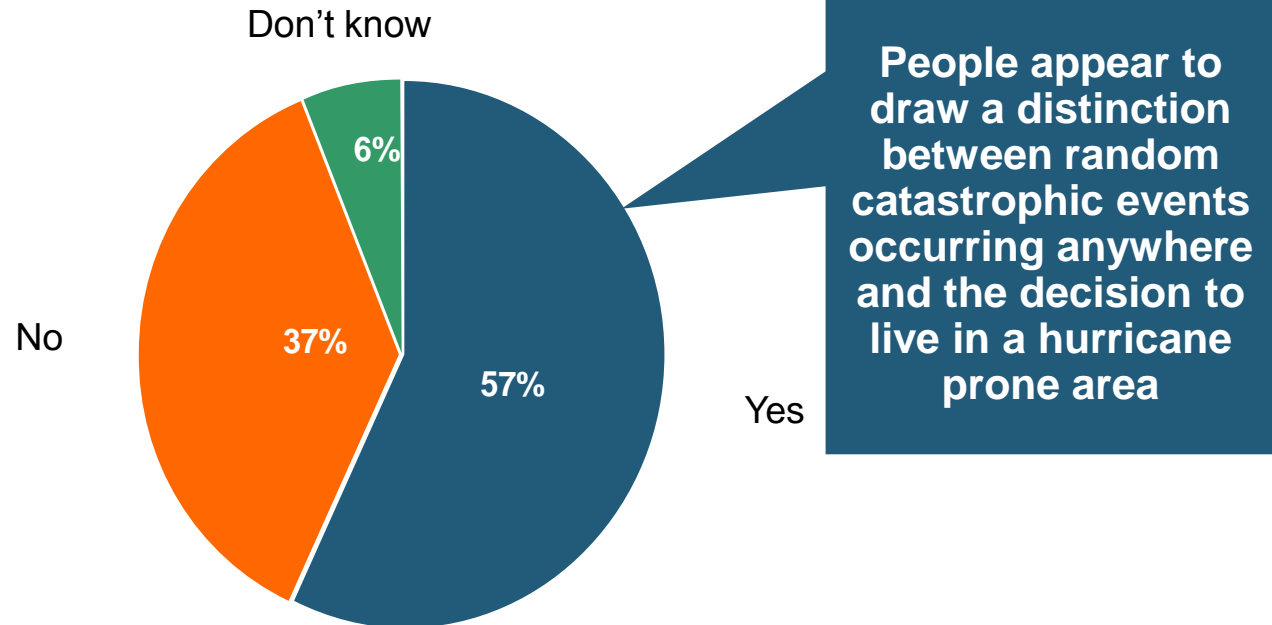
**Q. Do you think that it is fair that people who live in areas affected by record storms in 2011 and 2012 should pay more for their homeowners insurance in the future?**



**About one-half of Americans (55 percent) believe that homeowners insurance premiums should not be raised as a result of recent storms in their areas.**

# I.I.I. Poll: Homeowners Insurance

**Q. Do you think that it's fair that people who live in areas prone to hurricanes pay a 'hurricane deductible' when damage from a hurricane occurs?**



**More than half of Americans think that it is fair that residents of hurricane-prone areas pay a hurricane deductible if a hurricane damages their homes.**



# **Superstorm Sandy: Rewriting of the Insurance History Books Continues**

**Sandy Was Only the Most Recent of  
Many Large Scale Catastrophes  
Around the Globe**

## ■ Catastrophe Communications: US & Global

- **U.S. Focus:** ~\$37-\$42B = 2<sup>nd</sup> Most Costliest Year Ever for Insured Catastrophe Loss (Behind 2005)
  - Economic Losses = \$101B
  - Crop = Additional ~\$16B (\$7B-\$8B privately insured)
  - NFIP Flood = Additional \$9B+
  - Flood losses/NFIP/FEMA has been the #1 communications “issue” in the wake of Sandy
- **Global Focus:** \$65B in Insured Losses → Well Below \$105B in 2011 but Above 10-Yr. Avg. of \$50B
  - Cats abroad did not drive media cycle in 2012, save ongoing Fukushima issues; Climate change
- **Market Consequences:** Primary & Reinsurance
  - Impacts on price, availability

# Natural Disaster Losses in the United States: 2012

As of January 1, 2013	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
<b>Tropical Cyclone</b>	4	143	52,240	<b>26,360</b>
<b>Severe Thunderstorm</b>	115	118	27,688	<b>14,914</b>
<b>Drought</b>	2	0	20,000	<b>16,000<sup>†</sup></b>
<b>Wildfire</b>	38	13	1,112	<b>595</b>
<b>Winter Storm</b>	2	7	81	<b>38</b>
<b>Flood</b>	19	3	13	<b>0<sup>††</sup></b>
<b>TOTALS</b>	<b>184</b>	<b>284</b>	<b>\$101,134</b>	<b>\$57,907</b>

Source: MR NatCatSERVICE

† - Includes Federal Crop Insurance Losses. †† - Excludes federal flood.



# Significant Natural Catastrophes, 2012

(Events with \$1 billion economic loss and/or 50 fatalities)



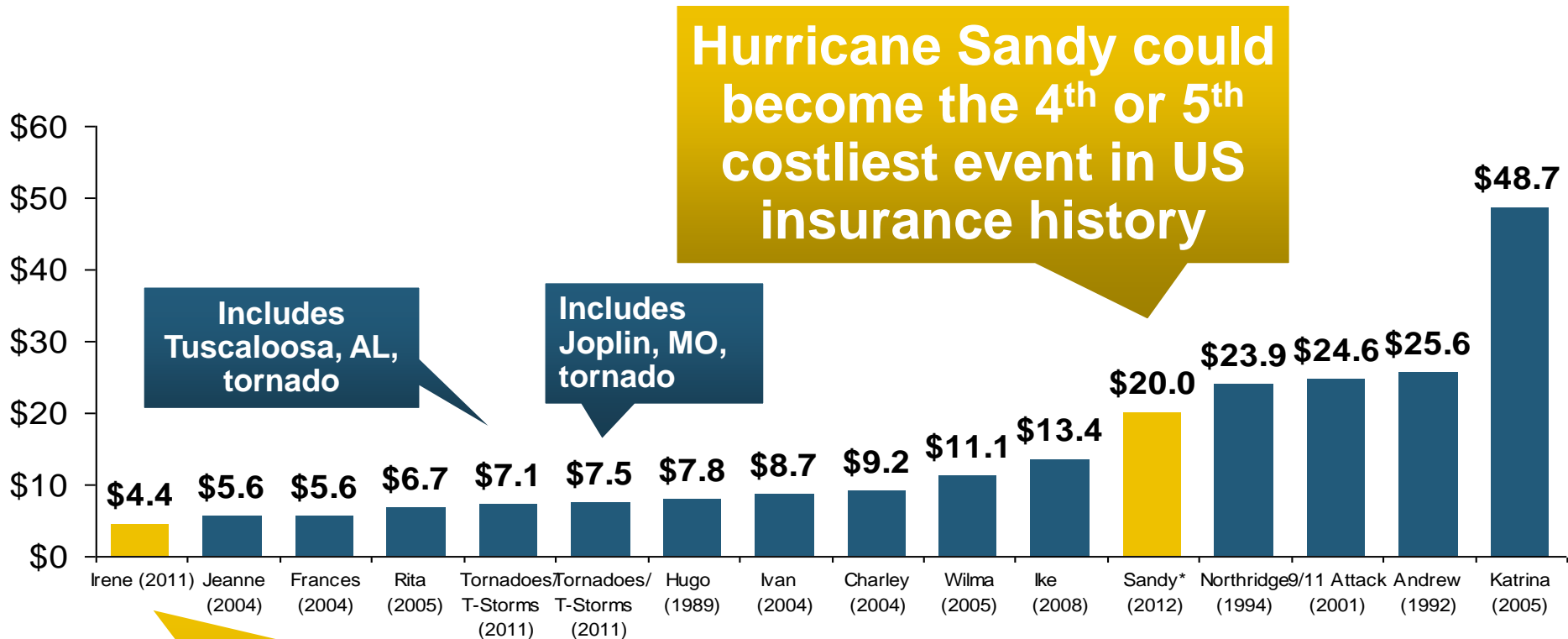
Date	Event	Estimated Economic Losses (US \$m)	Estimated Insured Losses (US \$m)
June – Sept 2012	Central US Drought	20,000	16,000 <sup>†</sup>
March 2 - 3	Thunderstorms	5,000	2,500
April 2 – 4	Thunderstorms	1,550	775
April 13- 15	Thunderstorms	1,800	910
April 28 – 29	Thunderstorms	4,500	2,500
May 25 – 30	Thunderstorms	3,400	1,700
June 6 – 7	Thunderstorms	1,400	1,000
June 11 – 13	Thunderstorms	1,900	950
June 28 – July 2	Thunderstorms	4,000	2,000
August 26 - 30	Hurricane Isaac	2,000	1,220
October 28 - 30	Hurricane Sandy	50,000	25,000 <sup>††</sup>

Source: MR NatCatSERVICE

<sup>†</sup> - Includes Federal Crop Insurance Losses.; <sup>††</sup> - Excludes NFIP losses.

# Top 16 Most Costly Disasters in U.S. History

(Insured Losses, 2012 Dollars, \$ Billions)



**Hurricane Irene became the 12<sup>th</sup> most expensive hurricane in US history in 2011**

**12 of the 16 Most Expensive Events in US History Have Occurred Over the Past Decade**

\*Estimate as of 12/09/12 based on estimates of catastrophe modeling firms and reported losses as of 1/12/13. Estimates range up to \$25B. Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

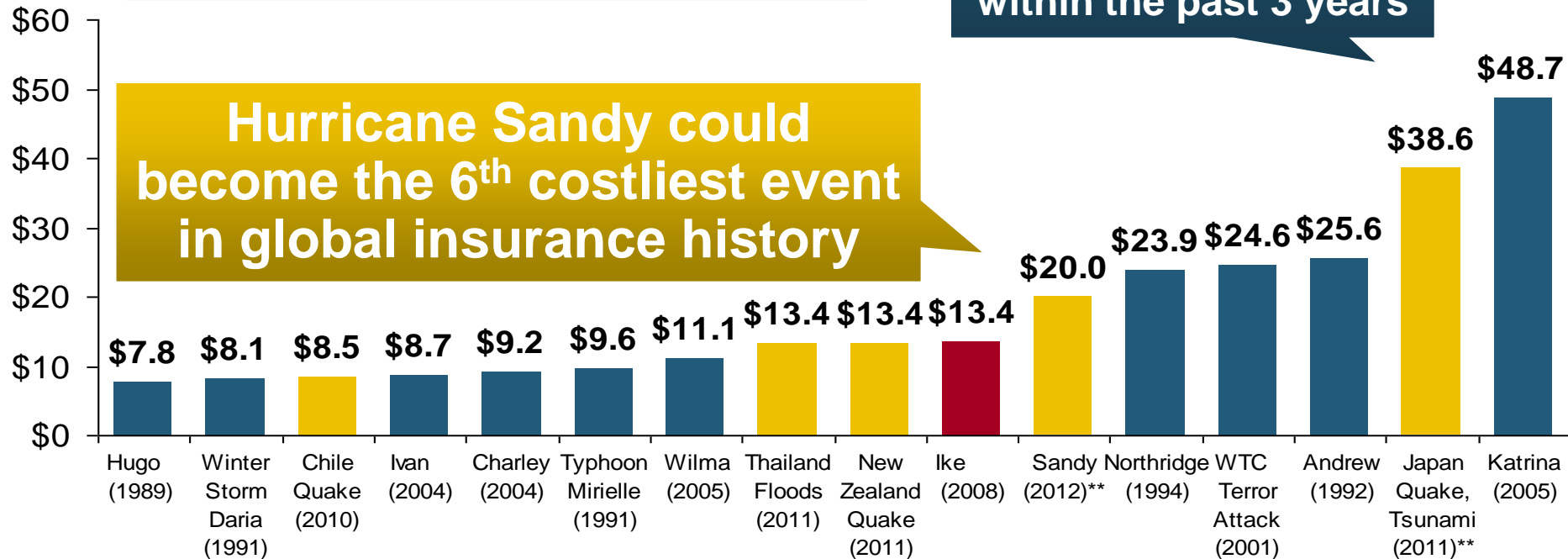
# Top 16 Most Costly World Insurance Losses, 1970-2012\*

(Insured Losses, 2012 Dollars, \$ Billions)

**2012 insured CAT Losses totaled \$60B; Economic losses totaled \$140B, according to Swiss Re**

**5 of the top 14 most expensive catastrophes in world history have occurred within the past 3 years**

**Hurricane Sandy could become the 6<sup>th</sup> costliest event in global insurance history**



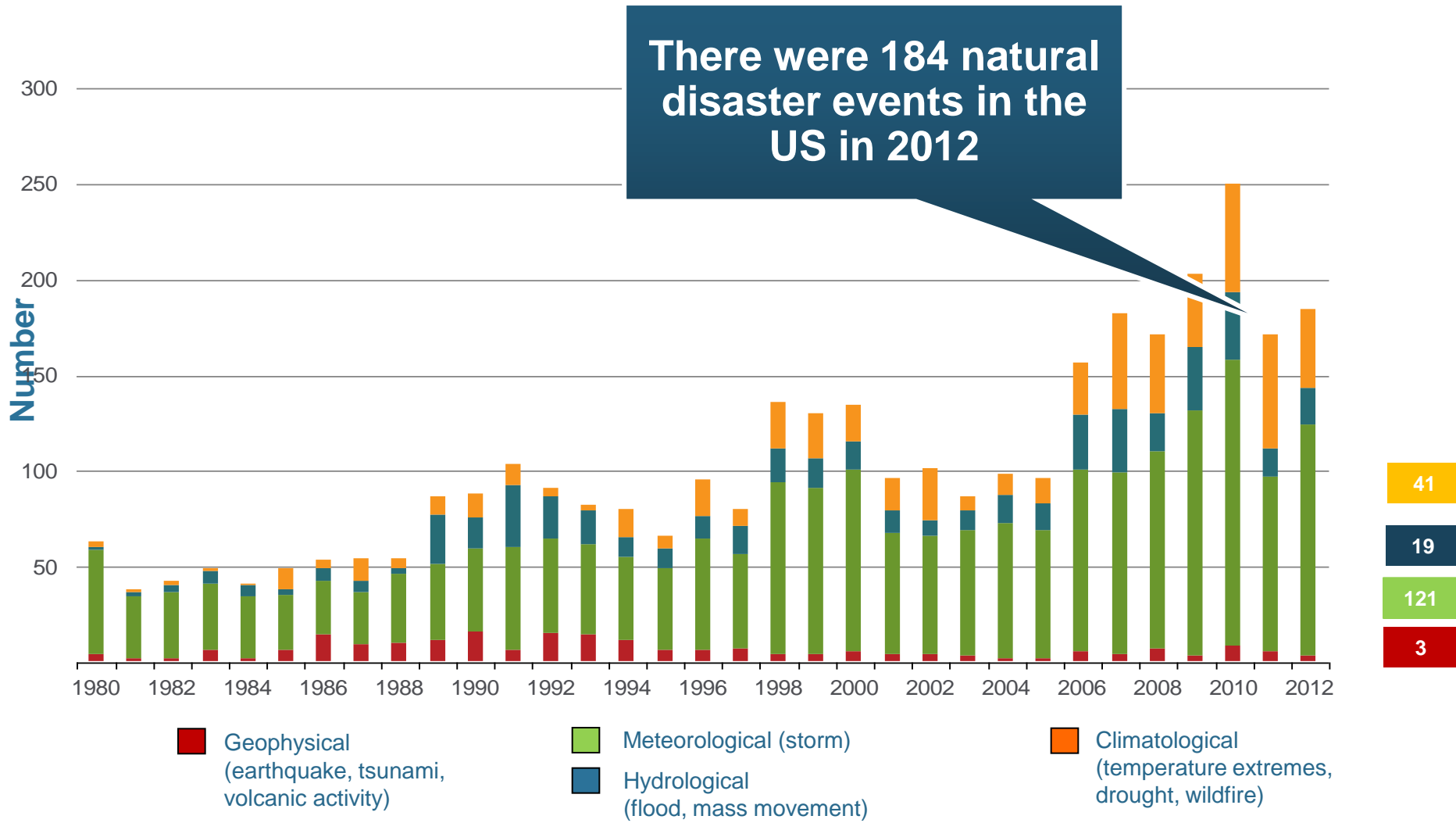
\*Figures do not include federally insured flood losses.

\*\*Estimate based on PCS value of \$18.75B as of 1/18/13 and assumption of upward development based on catastrophe modeler estimates ranging as high as \$25B.

Sources: Swiss Re *sigma* 1/2011; Munich Re; Insurance Information Institute research.

# Natural Disasters in the United States, 1980 – 2012

Number of Events (Annual Totals 1980 – 2012)



41
19
121
3

# Losses Due to Natural Disasters in the US, 1980–2012 (Overall & Insured Losses)

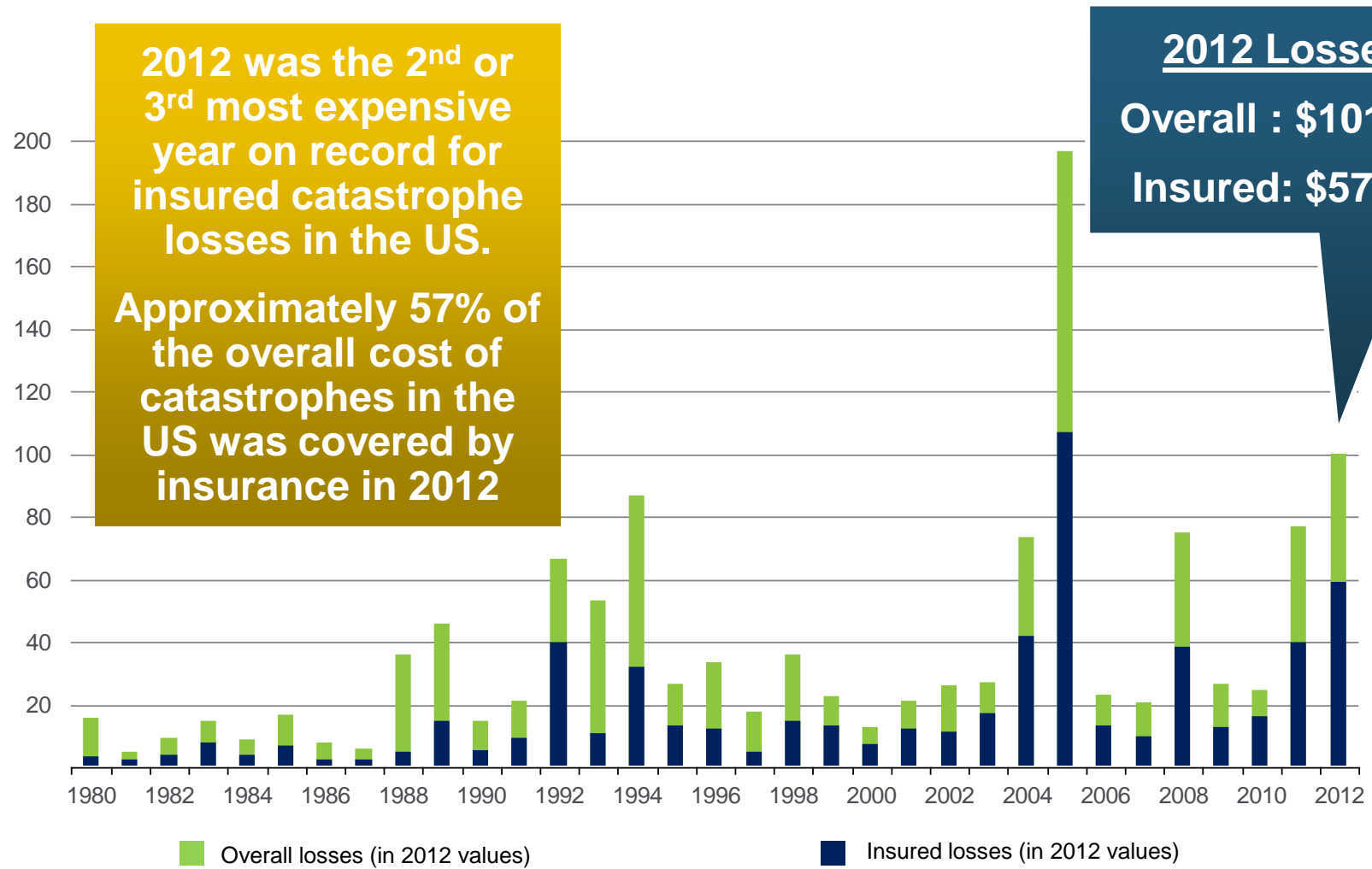
## (Overall and Insured Losses)

(2012 Dollars, \$ Billions)

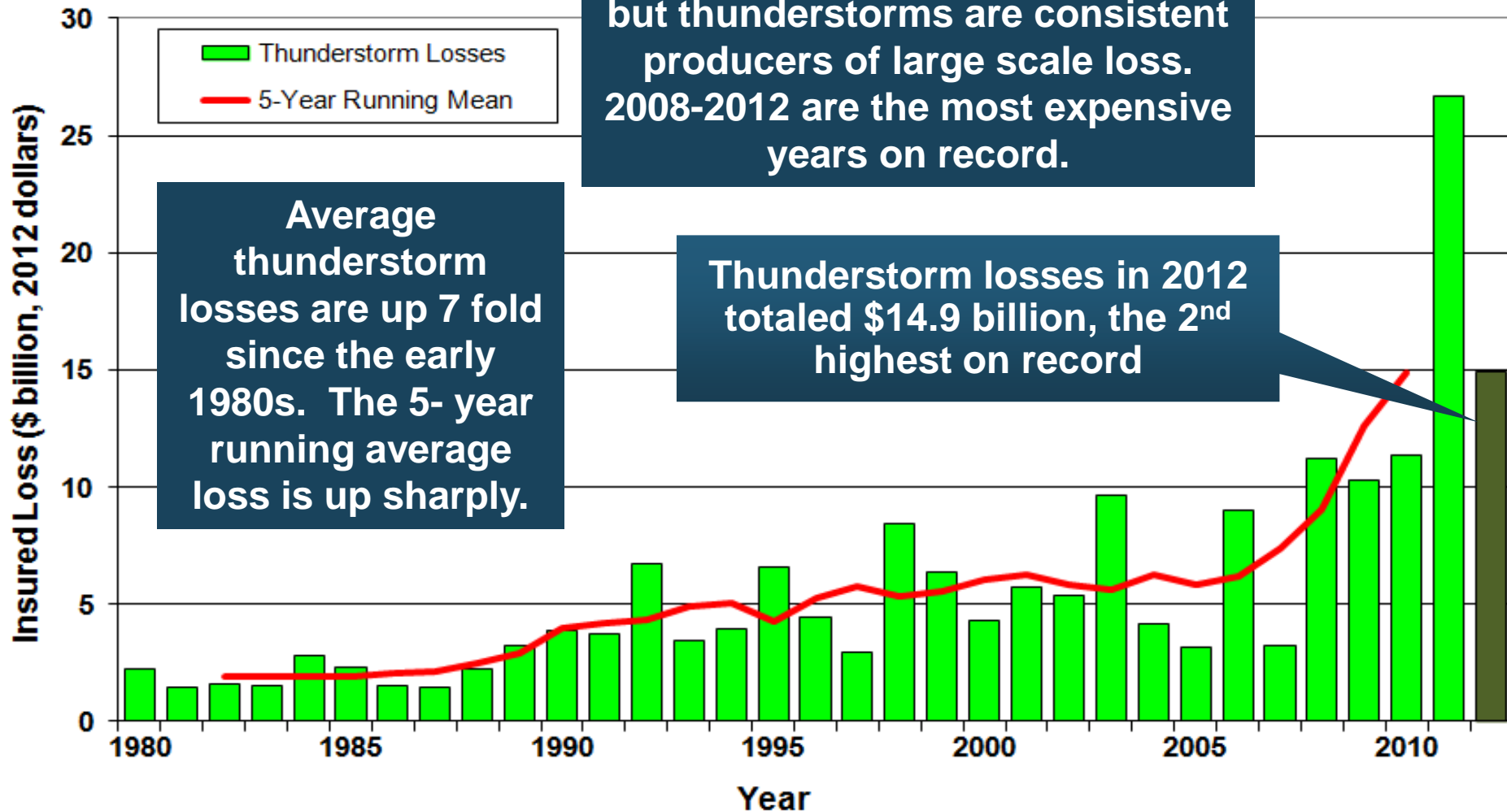
**2012 was the 2<sup>nd</sup> or 3<sup>rd</sup> most expensive year on record for insured catastrophe losses in the US.**

**Approximately 57% of the overall cost of catastrophes in the US was covered by insurance in 2012**

**2012 Losses**  
**Overall : \$101.1B**  
**Insured: \$57.9B**

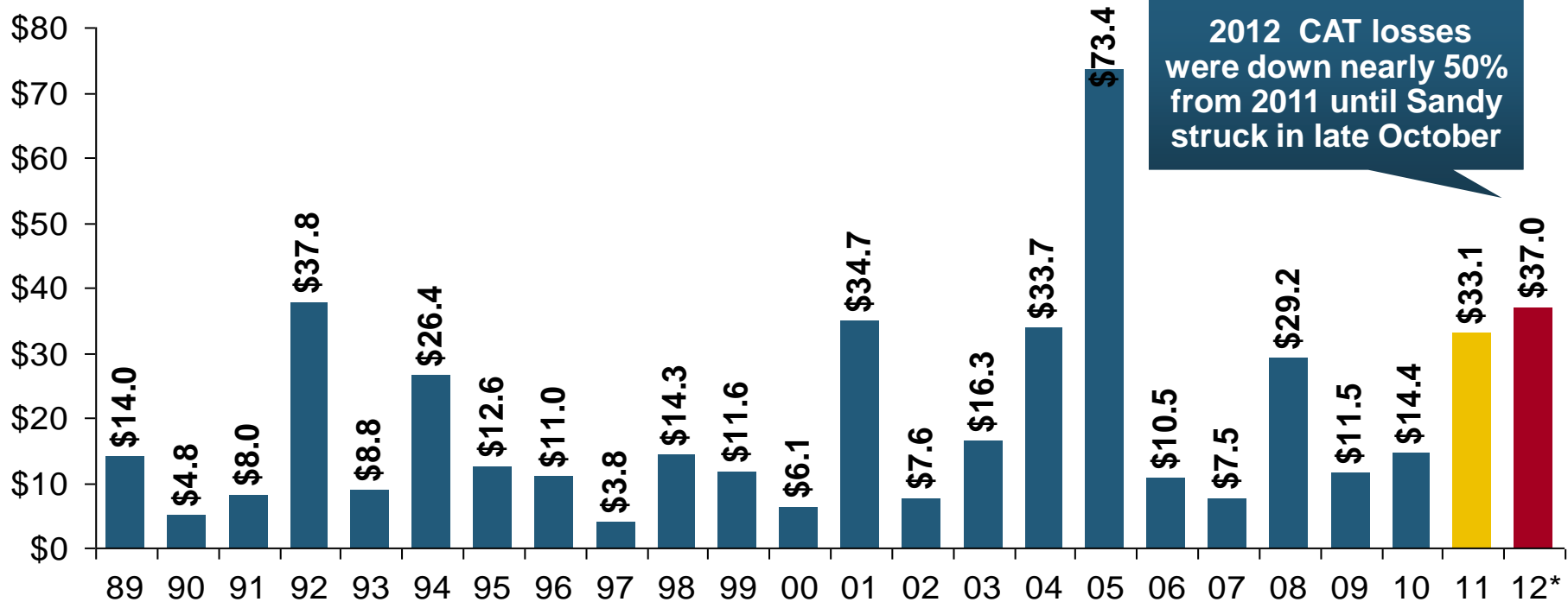


# U.S. Thunderstorm Loss Trends, 1980 – 2012



# US Insured Catastrophe Losses

(\$ Billions, 2012 Dollars)



**US CAT Losses in 2012 Will Likely Become the 2<sup>nd</sup> or 3<sup>rd</sup> Highest in US History on An Inflation-Adjusted Basis (Pvt Insured). 2011 Losses Were the 5<sup>th</sup> Highest**

**Record Tornado Losses Caused 2011 CAT Losses to Surge**

\*As of 1/2/13. Includes \$20B gross loss estimate for Hurricane Sandy.

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.

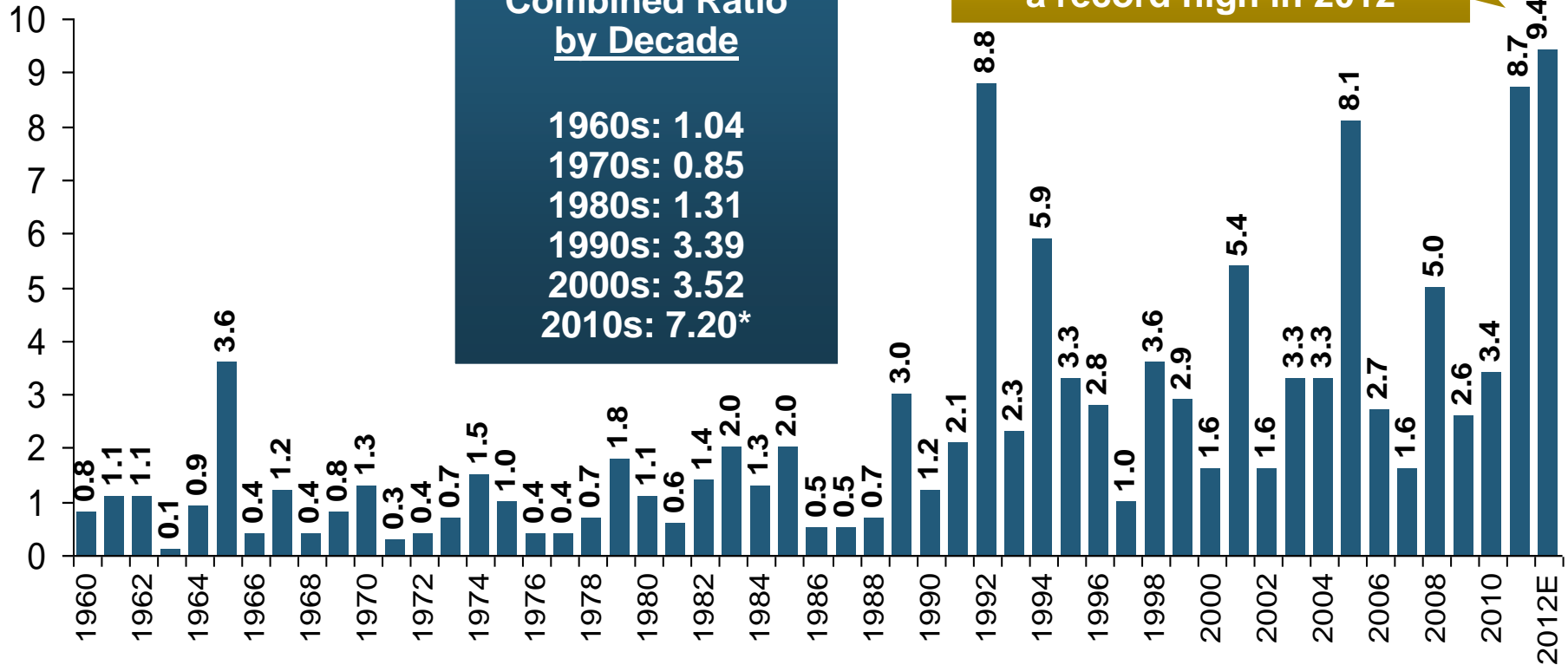
# Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2012\*

## 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: 7.20\*

Catastrophe losses as a share of all losses reached a record high in 2012



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

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 (1960-2011); A.M. Best (2012E) Insurance Information Institute.

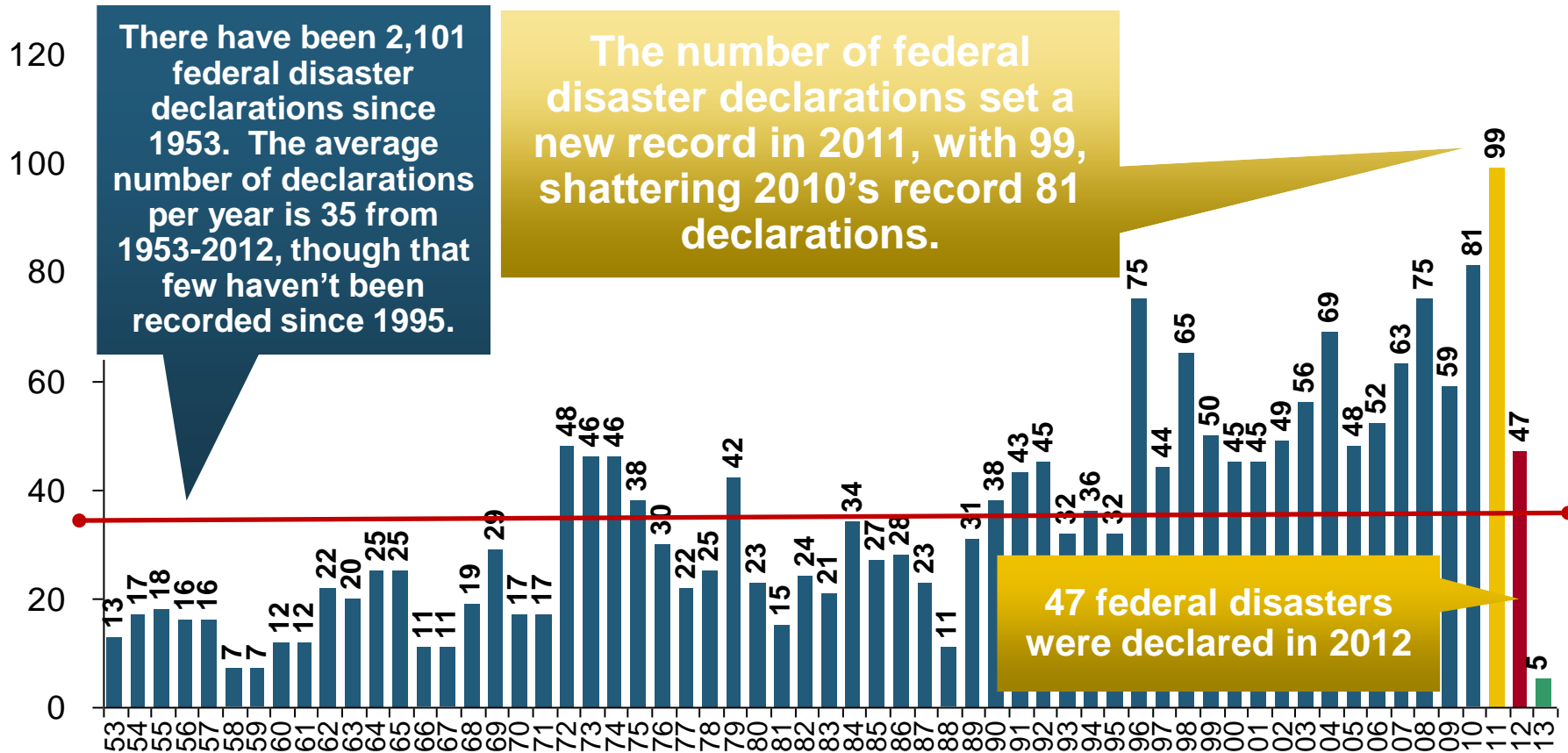




# Federal Disaster Declarations Patterns: 1953-2012

**Despite 11 Sandy Declarations,  
Fewer Disasters Were Declared in  
2012 than the Record Number of  
Declarations in 2010 and 2011**

# Number of Federal Disaster Declarations, 1953-2013\*

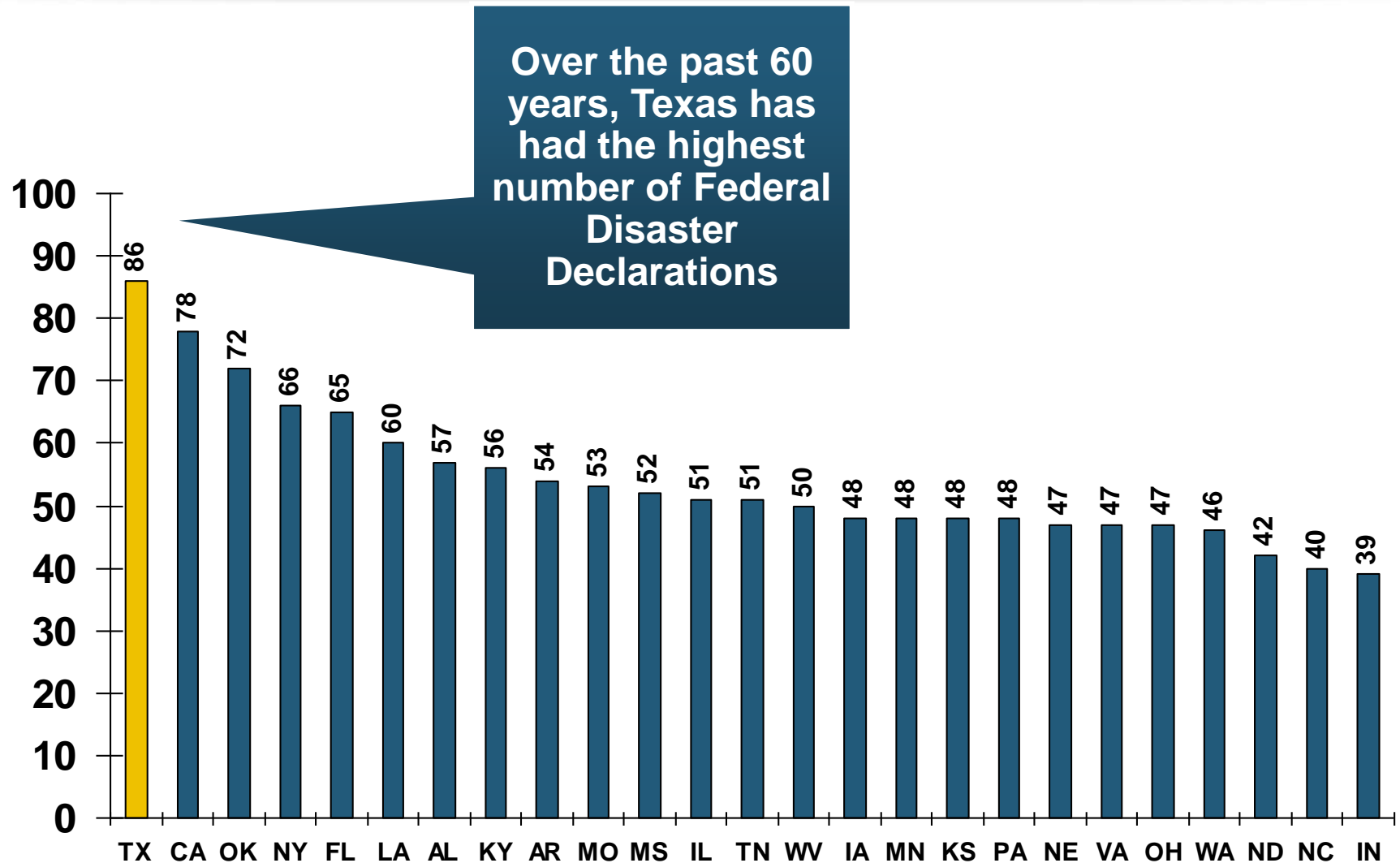


**The Number of Federal Disaster Declarations Is Rising and Set New Records in 2010 and 2011. Hurricane Sandy Produced 13 Declarations in 2012/13.**

\*Through Feb. 24, 2013.

Source: Federal Emergency Management Administration; <http://www.fema.gov/disasters>; Insurance Information Institute.

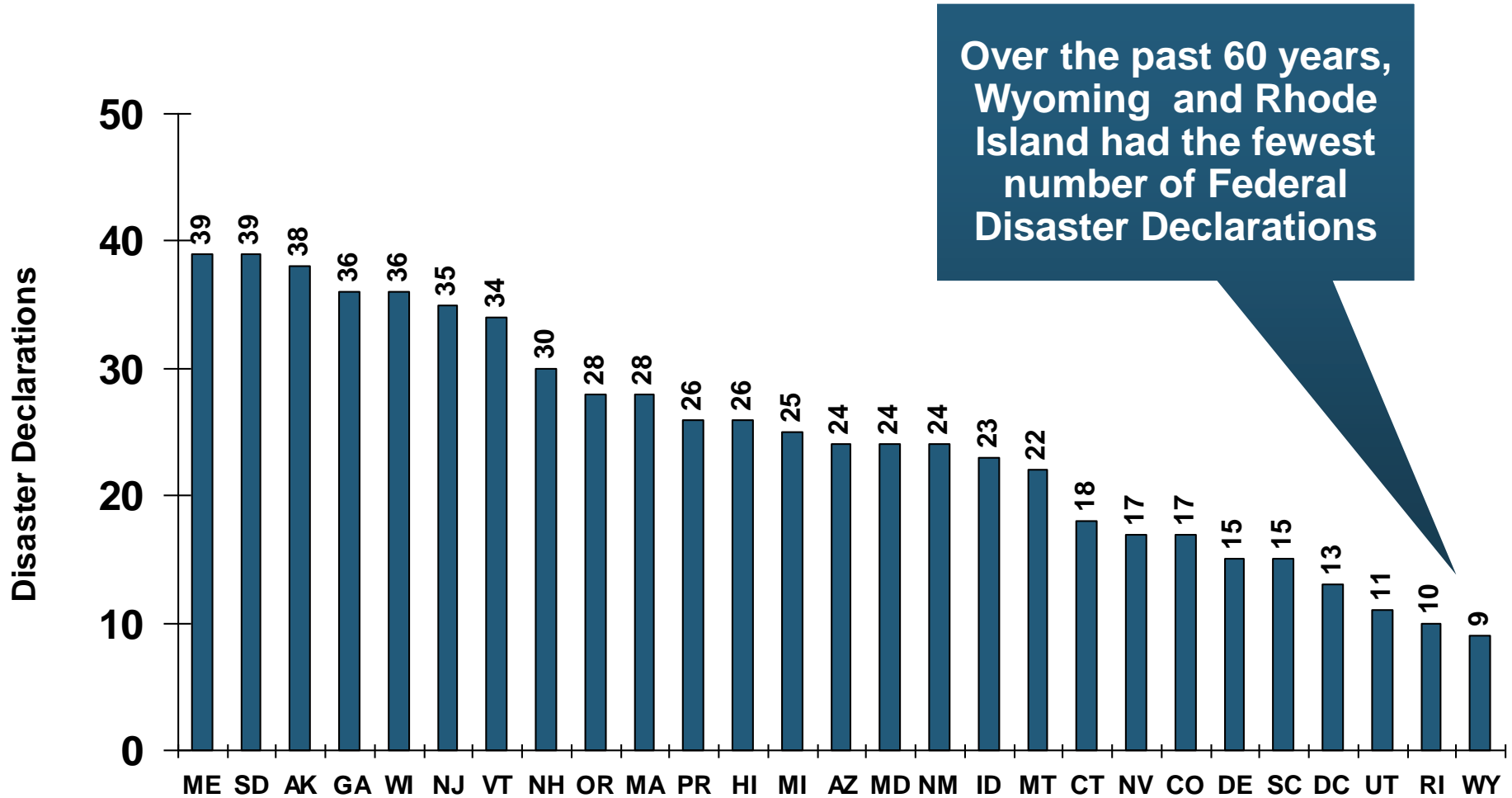
# Federal Disasters Declarations by State, 1953 – 2013: Highest 25 States\*



\*Through Feb. 24, 2012. Includes Puerto Rico and the District of Columbia.

Source: FEMA: [http://www.fema.gov/news/disaster\\_totals\\_annual.fema](http://www.fema.gov/news/disaster_totals_annual.fema); Insurance Information Institute.

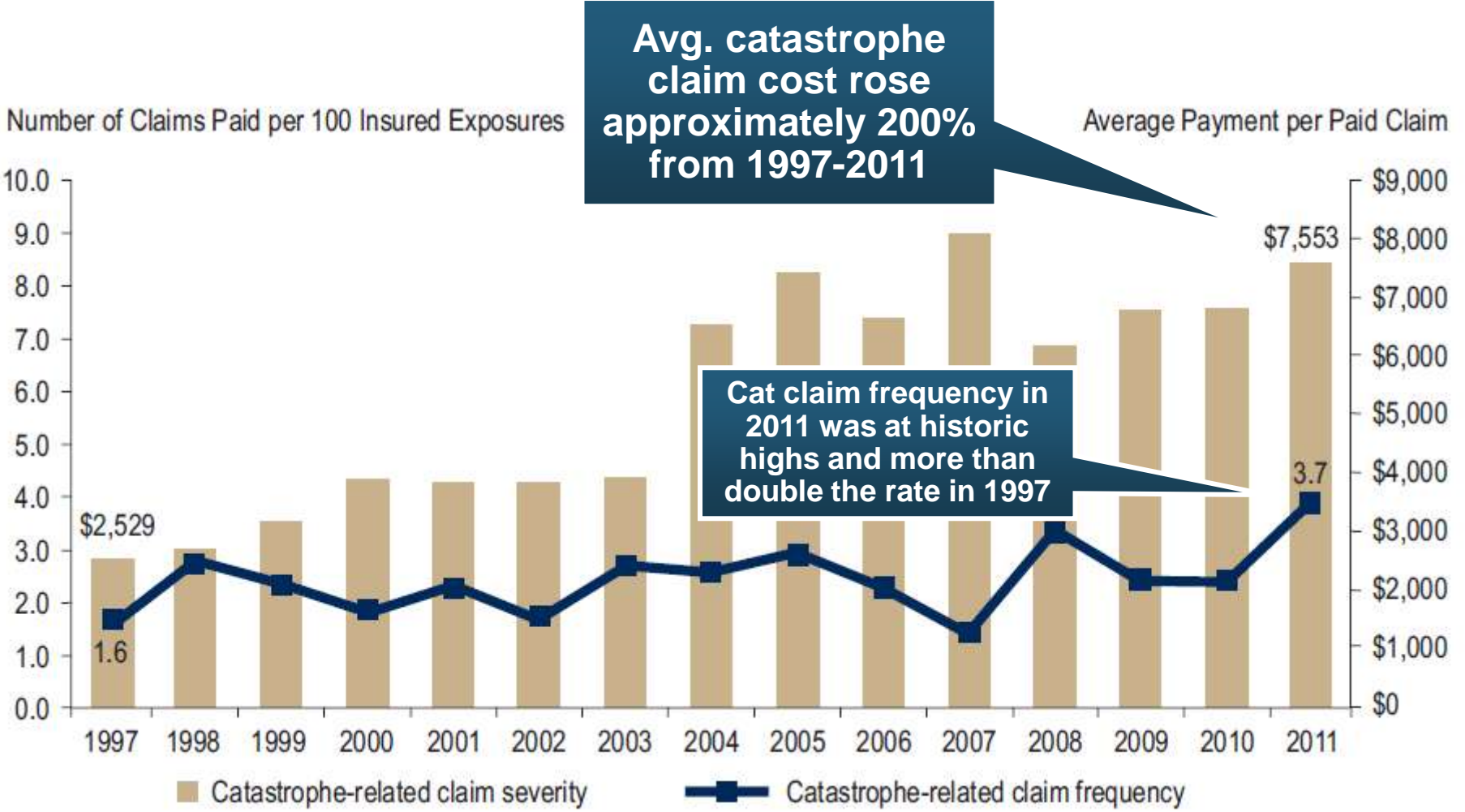
# Federal Disasters Declarations by State, 1953 – 2013: Lowest 25 States\*



\*Through Feb. 24, 2013. Includes Puerto Rico and the District of Columbia.

Source: FEMA: [http://www.fema.gov/news/disaster\\_totals\\_annual.fema](http://www.fema.gov/news/disaster_totals_annual.fema); Insurance Information Institute.

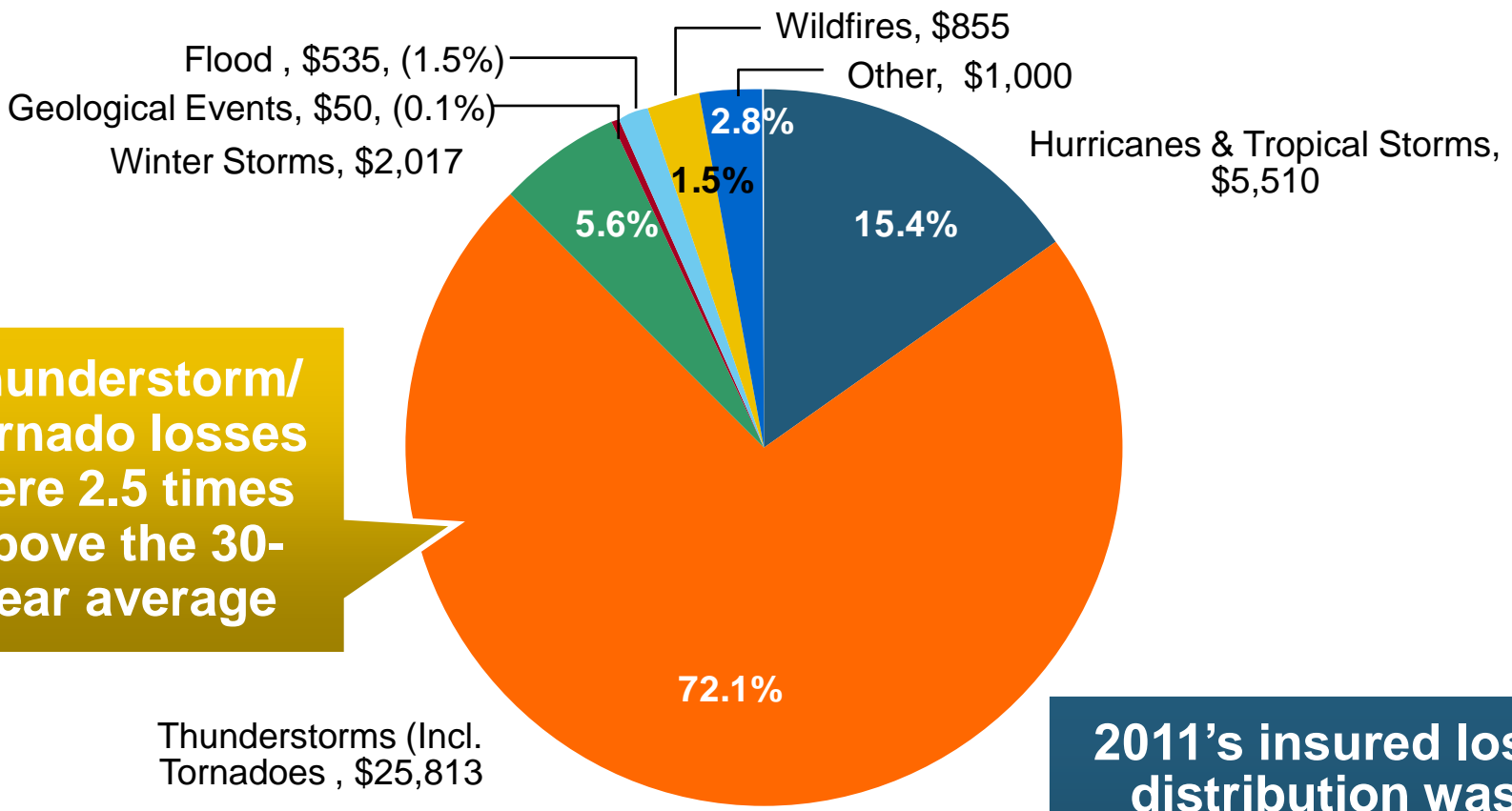
# Homeowners Insurance Catastrophe-Related Claim Frequency and Severity, 1997—2012\*



\*All policy forms combined, countrywide.

Source: Insurance Research Council, *Trends in Homeowners Insurance Claims*, Sept. 2012 from ISO Fast Track data.

# U.S. Insured Catastrophe Losses by Cause of Loss, 2011 (\$ Millions)

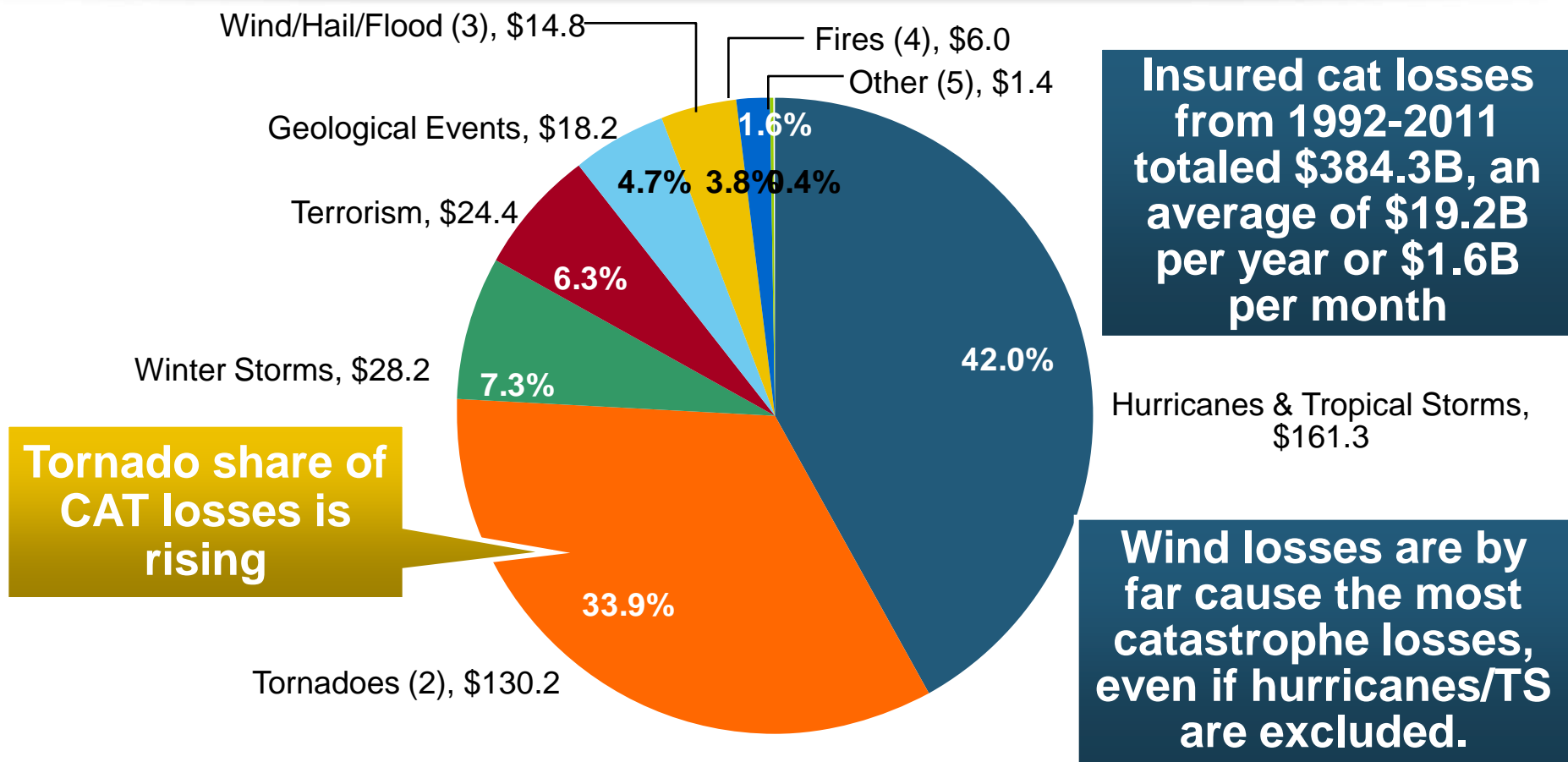


**Thunderstorm/  
Tornado losses  
were 2.5 times  
above the 30-  
year average**

**2011's insured loss  
distribution was  
unusual with tornado  
and thunderstorm  
accounting for the  
vast majority of loss**

Source: ISO's Property Claim Services Unit, Munich Re; Insurance Information Institute.

# Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1990–2011<sup>1</sup>



**Insured cat losses from 1992-2011 totaled \$384.3B, an average of \$19.2B per year or \$1.6B per month**

**Tornado share of CAT losses is rising**

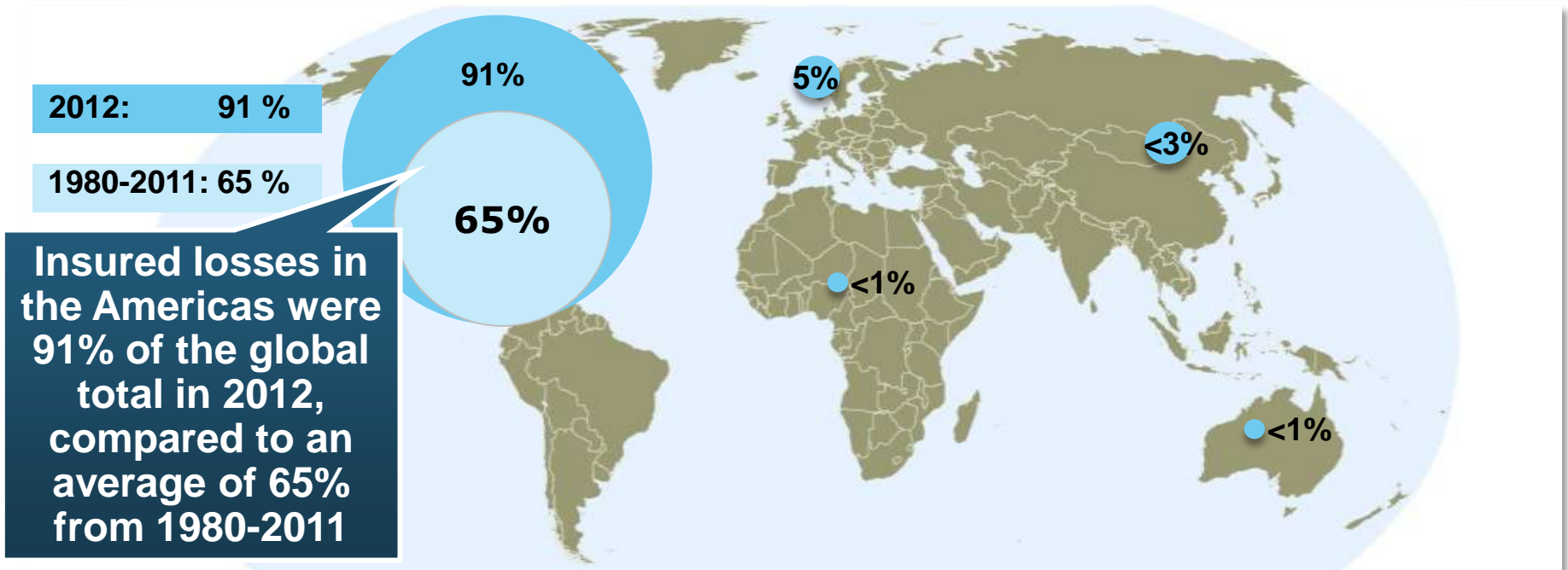
**Wind losses are by far cause the most catastrophe losses, even if hurricanes/TS are excluded.**

1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2009 dollars.
2. Excludes snow.
3. Does not include NFIP flood losses
4. Includes wildland fires
5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.

# Natural Catastrophes Worldwide 2012

Insured Losses = \$65bn - % distribution per continent

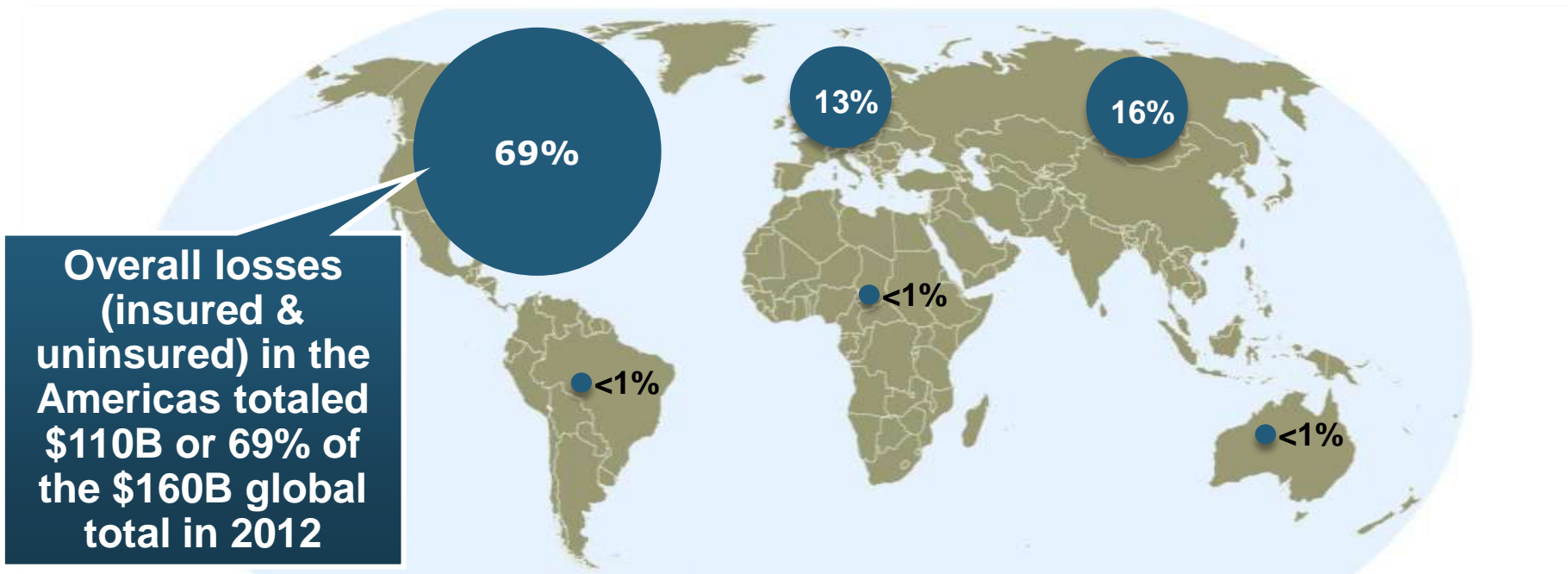


Continent	Insured losses US\$ m
America (North & South Am.)	60,000
Europe	3,200
Africa	200
Asia	1,700
Australia/Oceania	300



# Natural Catastrophes Worldwide 2012

Overall Losses = \$160bn - % distribution per continent



Continent	Overall losses US\$ m
America (North & South)	110,000
Europe	21,000
Africa	1,000
Asia	26,000
Australia/Oceania	1,000

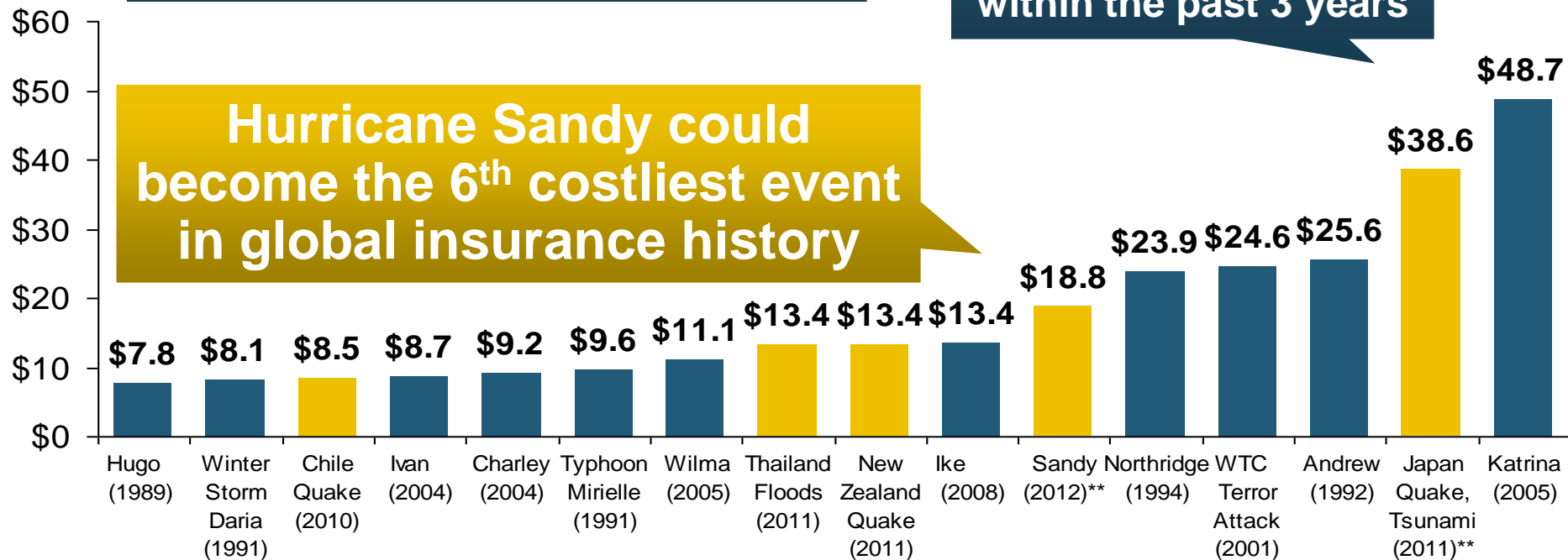
# Top 16 Most Costly World Insurance Losses, 1970-2012\*

(Insured Losses, 2012 Dollars, \$ Billions)

**2012 insured CAT Losses totaled \$60B; Economic losses totaled \$140B, according to Swiss Re**

**5 of the top 14 most expensive catastrophes in world history have occurred within the past 3 years**

**Hurricane Sandy could become the 6<sup>th</sup> costliest event in global insurance history**



\*Figures do not include federally insured flood losses.

\*\*Average of range estimates of \$35B - \$40B as of 1/4/12 adjusted to 2012 dollars; Privately insured losses only.

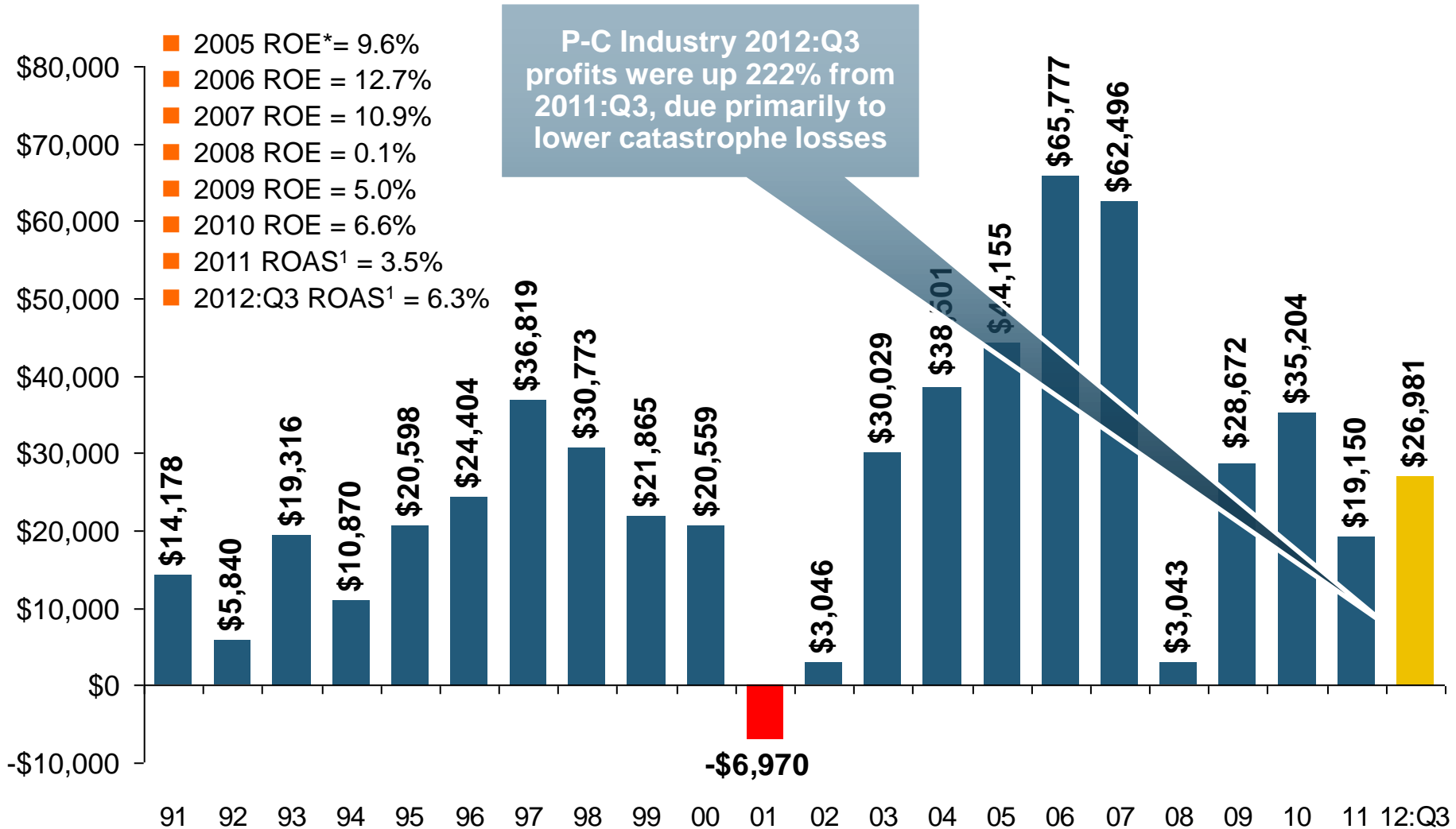
\*\*\*Estimate as of 12/09/12, based on average of midpoints from range estimates from AIR, RMS and Eqecat.

Sources: Swiss Re *sigma* 1/2011; Munich Re; Insurance Information Institute research.

# **P/C Insurance Industry Financial Overview**

**Sandy Impacted 2012  
Financial Performance, But  
the Industry Remains Very  
Strong Financially**

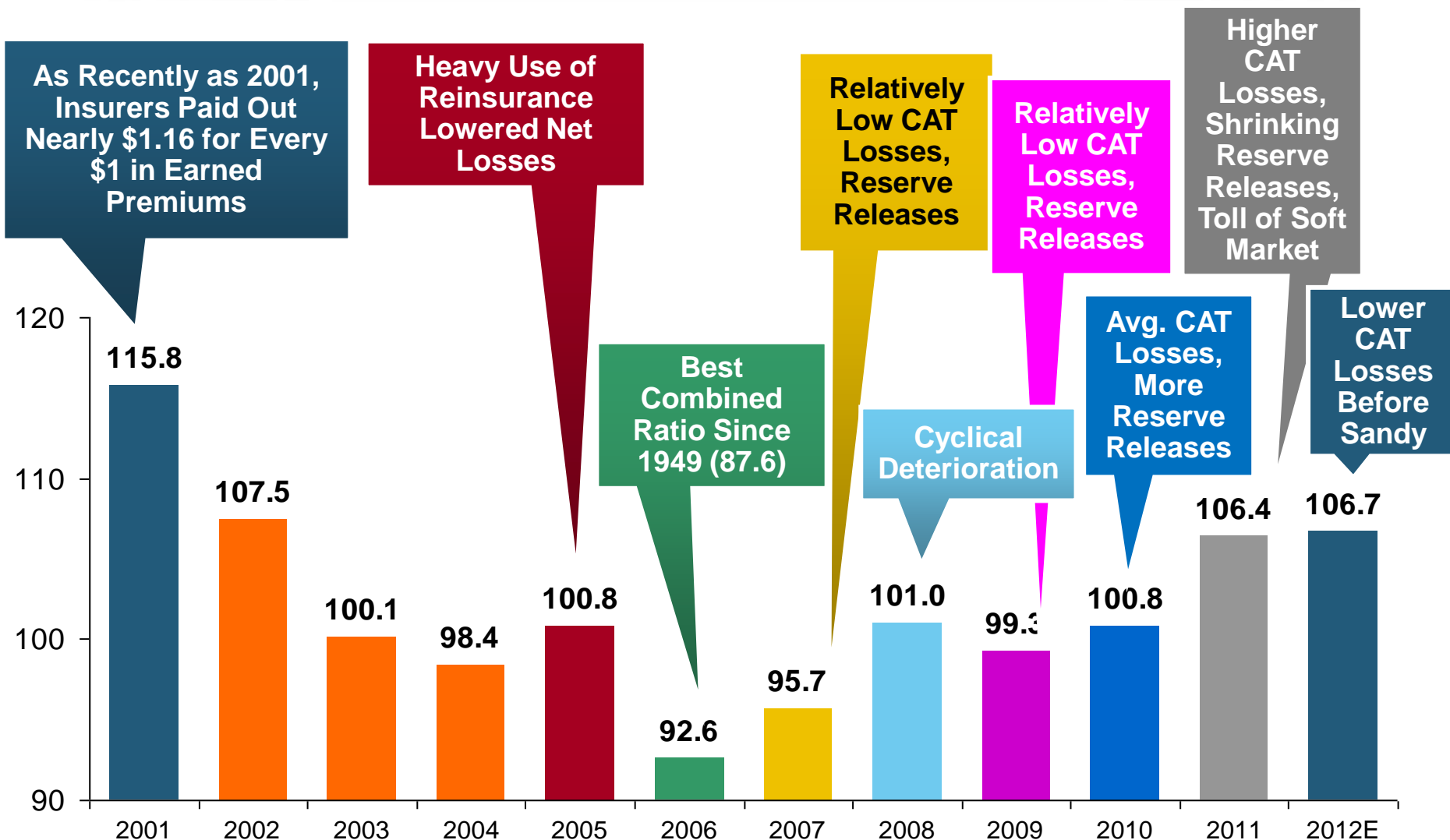
# P/C Net Income After Taxes 1991–2012:Q3 (\$ Millions)



\* ROE figures are GAAP; <sup>1</sup>Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 6.6% ROAS through 2012:Q3, 4.6% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

Sources: A.M. Best, ISO, Insurance Information Institute

# P/C Insurance Industry Combined Ratio, 2001–2012E\*

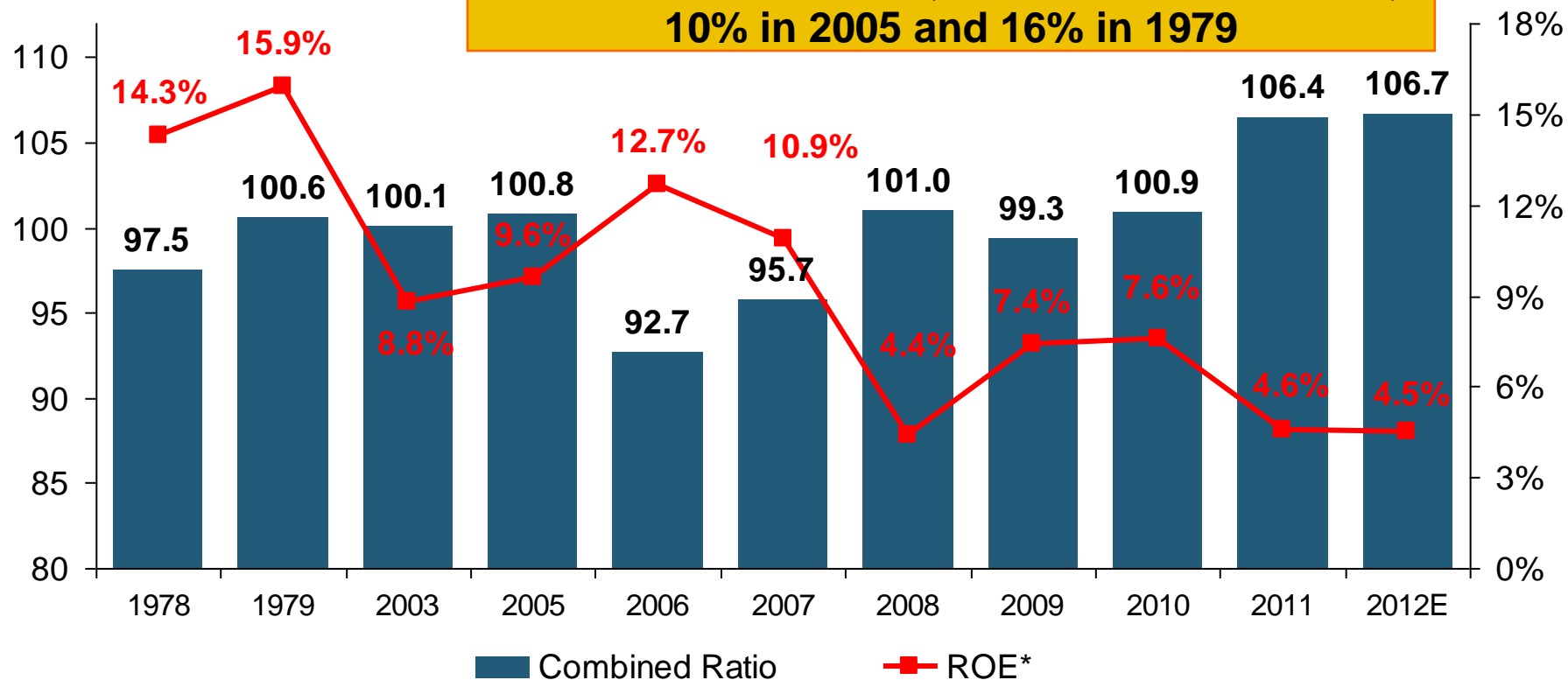


\* Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.2; 2012:Q3=100.0. Sources: A.M. Best, ISO.

# A 100 Combined Ratio Isn't What It Once Was: Investment Impact on ROEs

## Combined Ratio / ROE

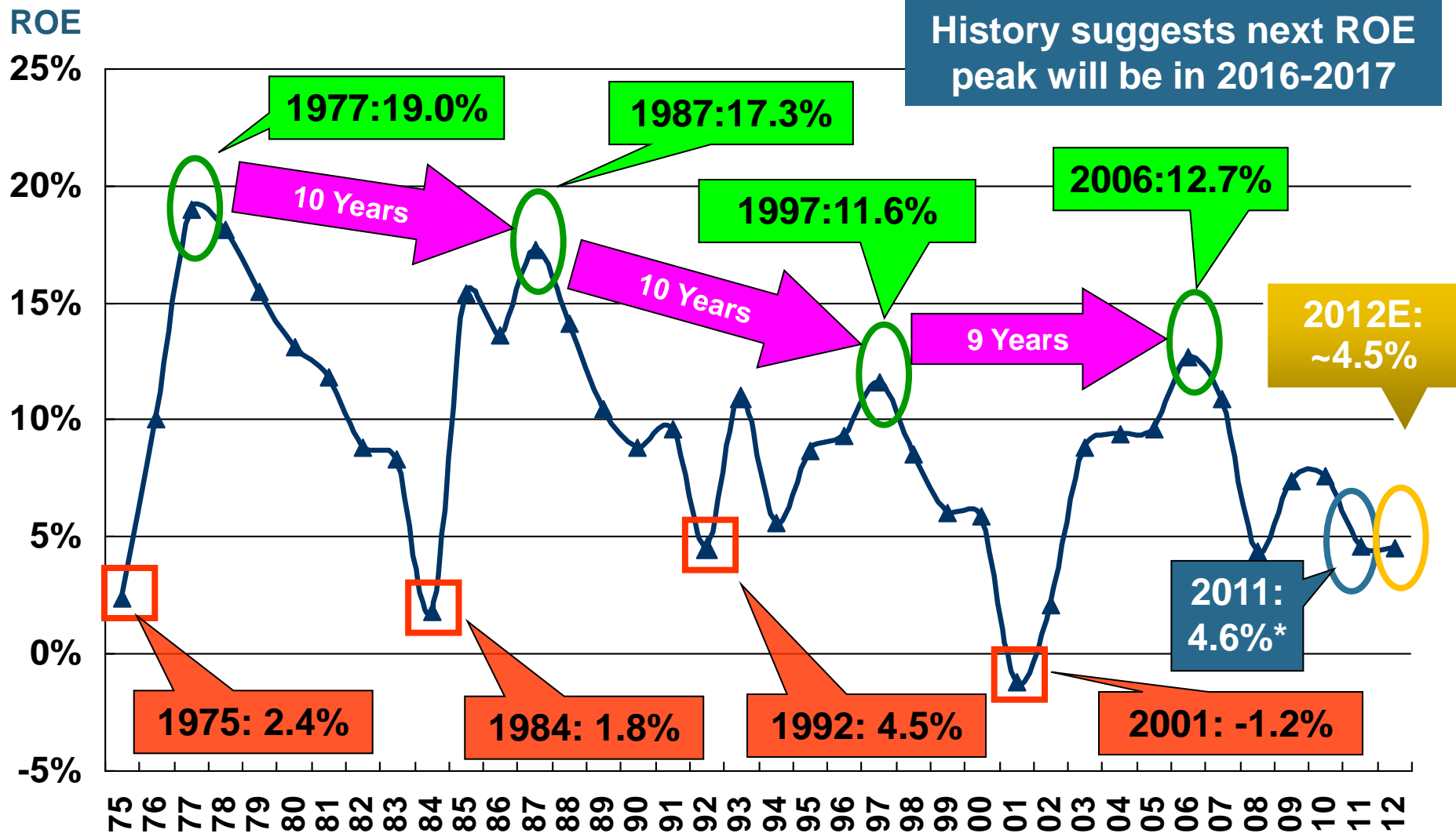
A combined ratio of about 100 generates an ROE of ~6.6% in 2012, ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979



**Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs**

\* 2008 -2012 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2012:Q3 combined ratio including M&FG insurers is 100.9, ROAS = 6.3%; 2011 combined ratio including M&FG insurers is 108.2, ROAS = 3.5%.  
Source: Insurance Information Institute from A.M. Best and ISO data.

# Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2012E\*

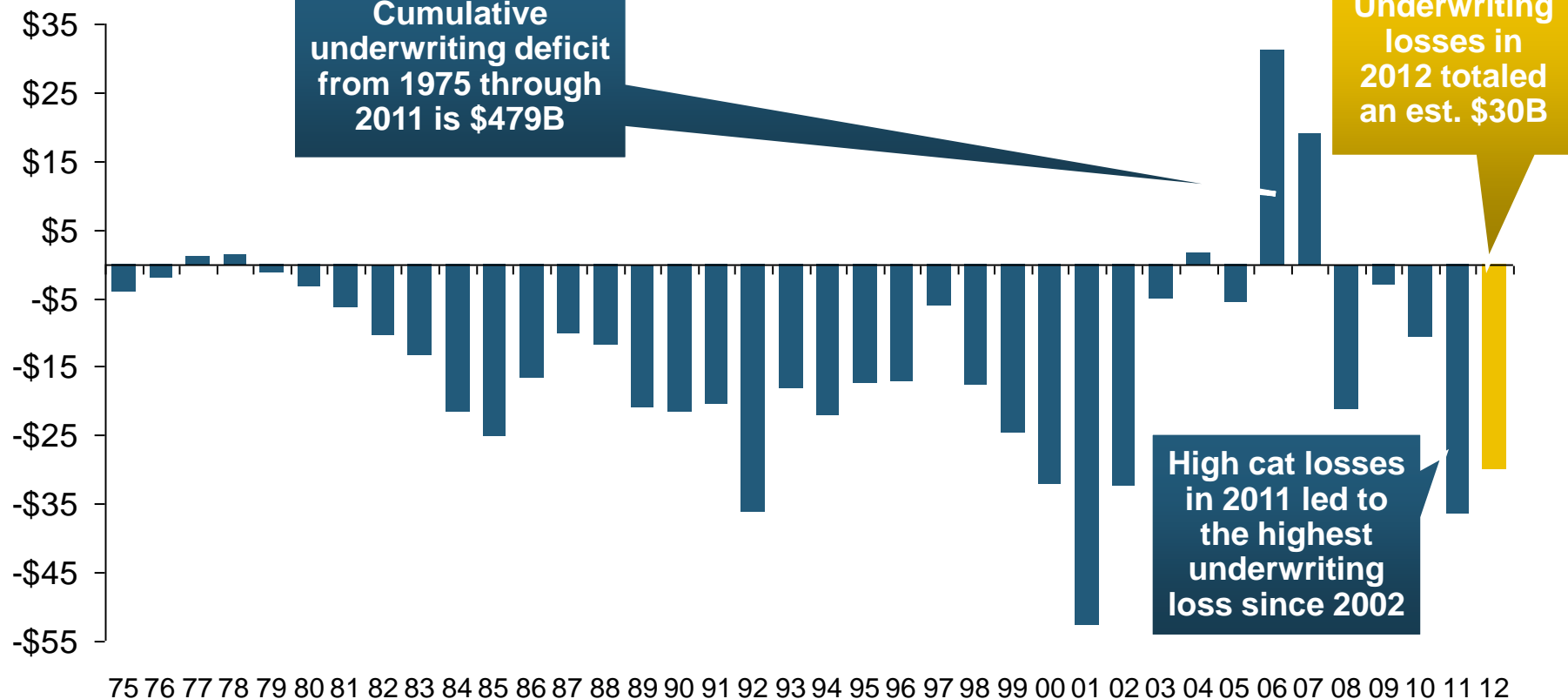


History suggests next ROE peak will be in 2016-2017

\*Profitability = P/C insurer ROEs. 2012 figure is an estimate based on ROAS data. Note: Data for 2008-2012 exclude mortgage and financial guaranty insurers. 2012:Q3 ROAS = 6.2% including M&FG.  
 Source: Insurance Information Institute; NAIC, ISO, A.M. Best.

# Underwriting Gain (Loss) 1975–2012E\*

(\$ Billions)



**Large Underwriting Losses Are *NOT* Sustainable  
in Current Investment Environment**

\* Includes mortgage and financial guaranty insurers in all years.

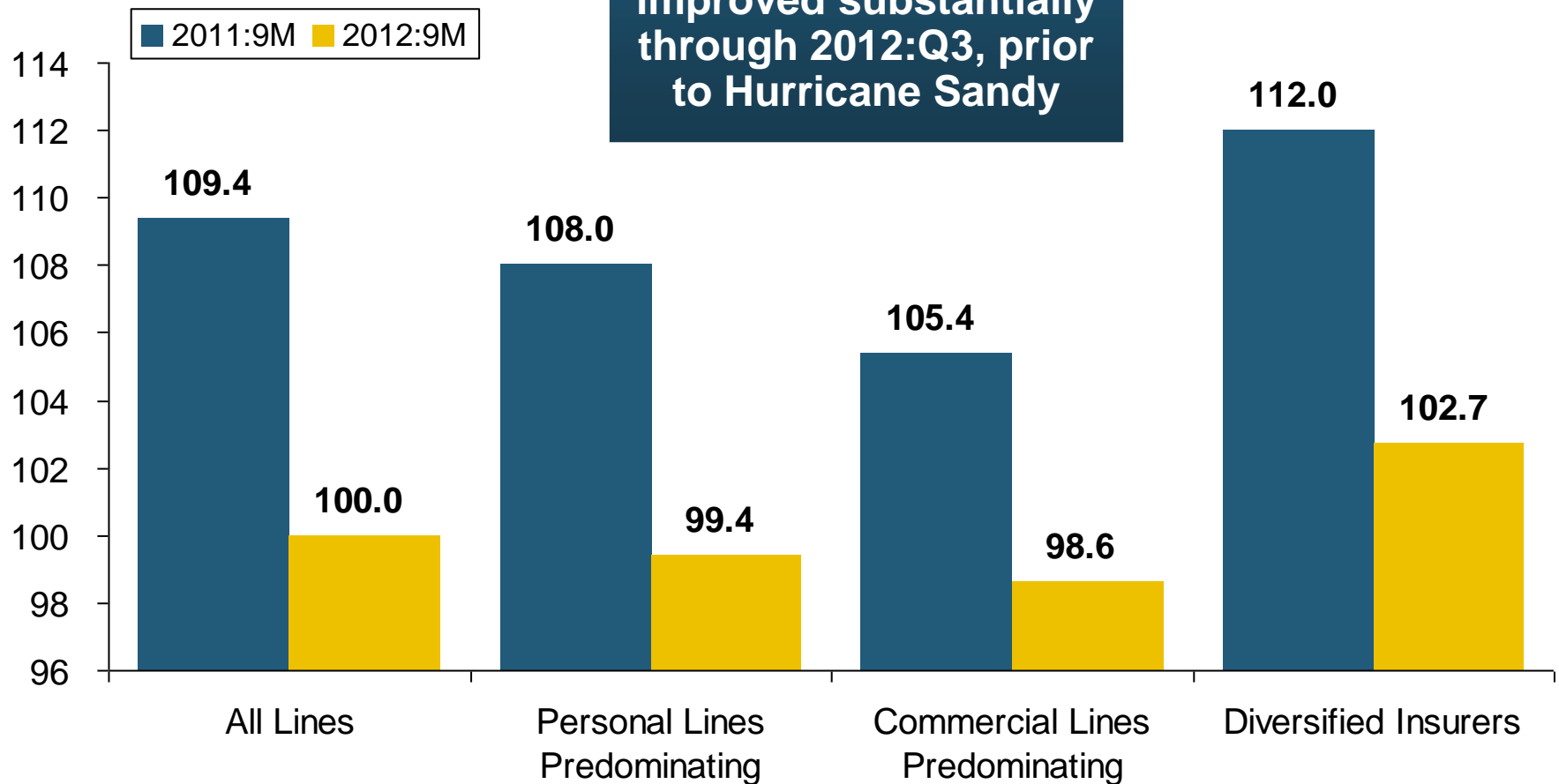
Sources: A.M. Best, ISO; Insurance Information Institute.



# Combined Ratios by Predominant Business Segment, 2012:9 Mos. vs. 2011:9 Mos.\*

(Percent)

The combined ratios for both personal and commercial lines improved substantially through 2012:Q3, prior to Hurricane Sandy



\*Excludes mortgage and financial guaranty insurers.

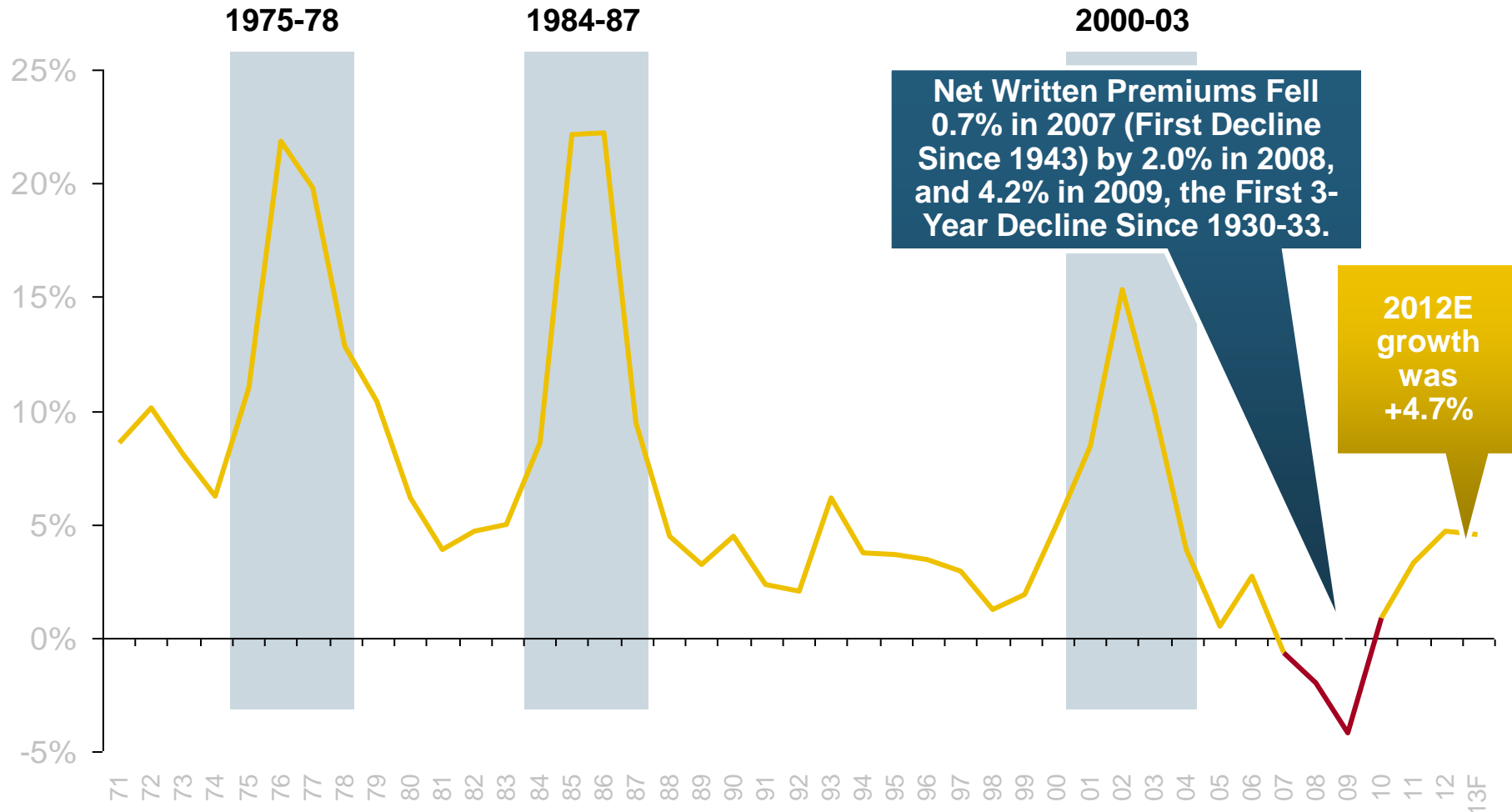
Source: ISO/PCI; Insurance Information Institute

# PREMIUM GROWTH TRENDS

**Sustained Shift in Pricing in the  
Wake of CATs, Low Interest  
Rates**

# Net Premium Growth: Annual Change, 1971—2013F

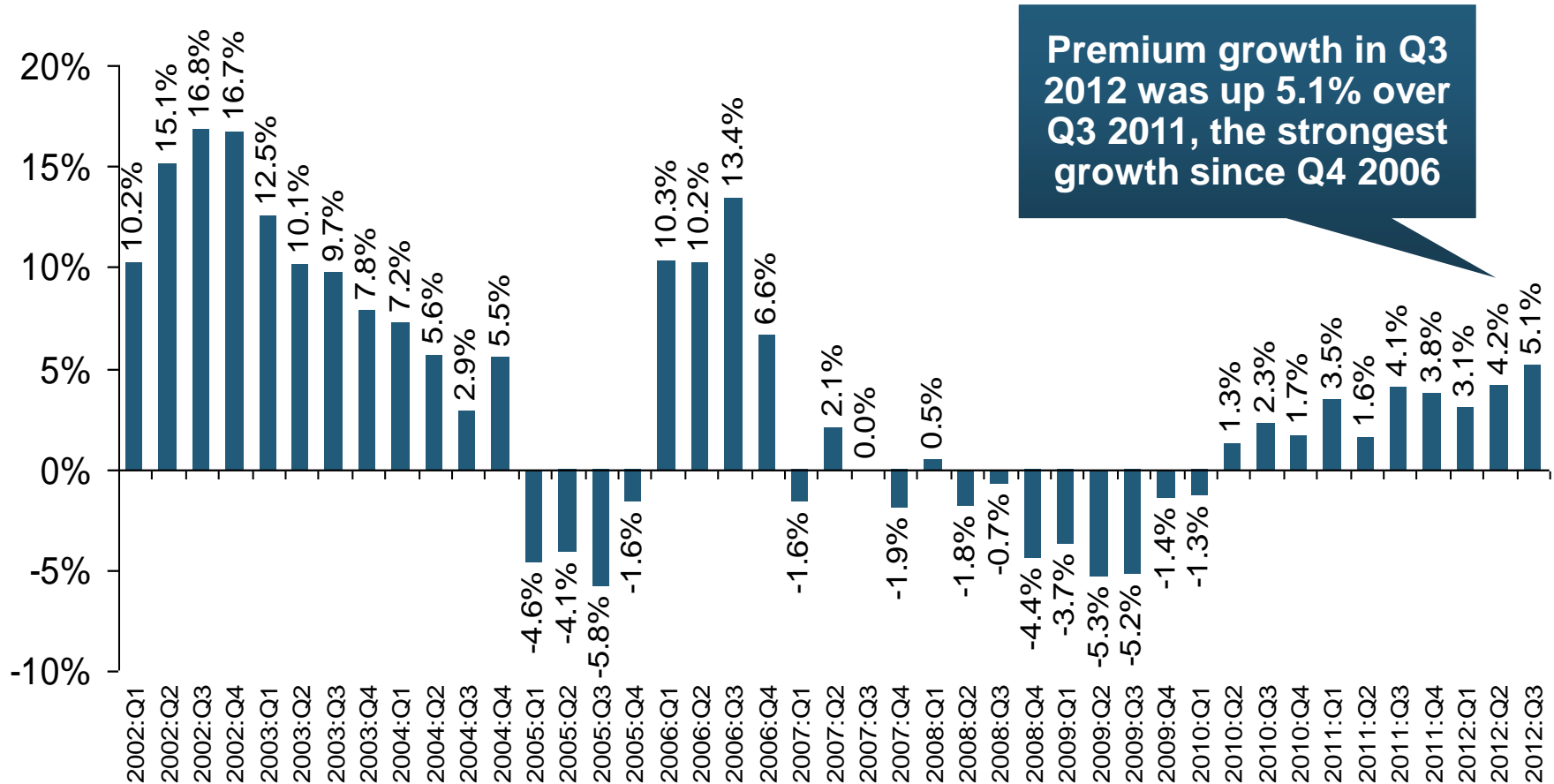
(Percent)



Shaded areas denote “hard market” periods

Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.

# P/C Net Premiums Written: % Change, Quarter vs. Year-Prior Quarter

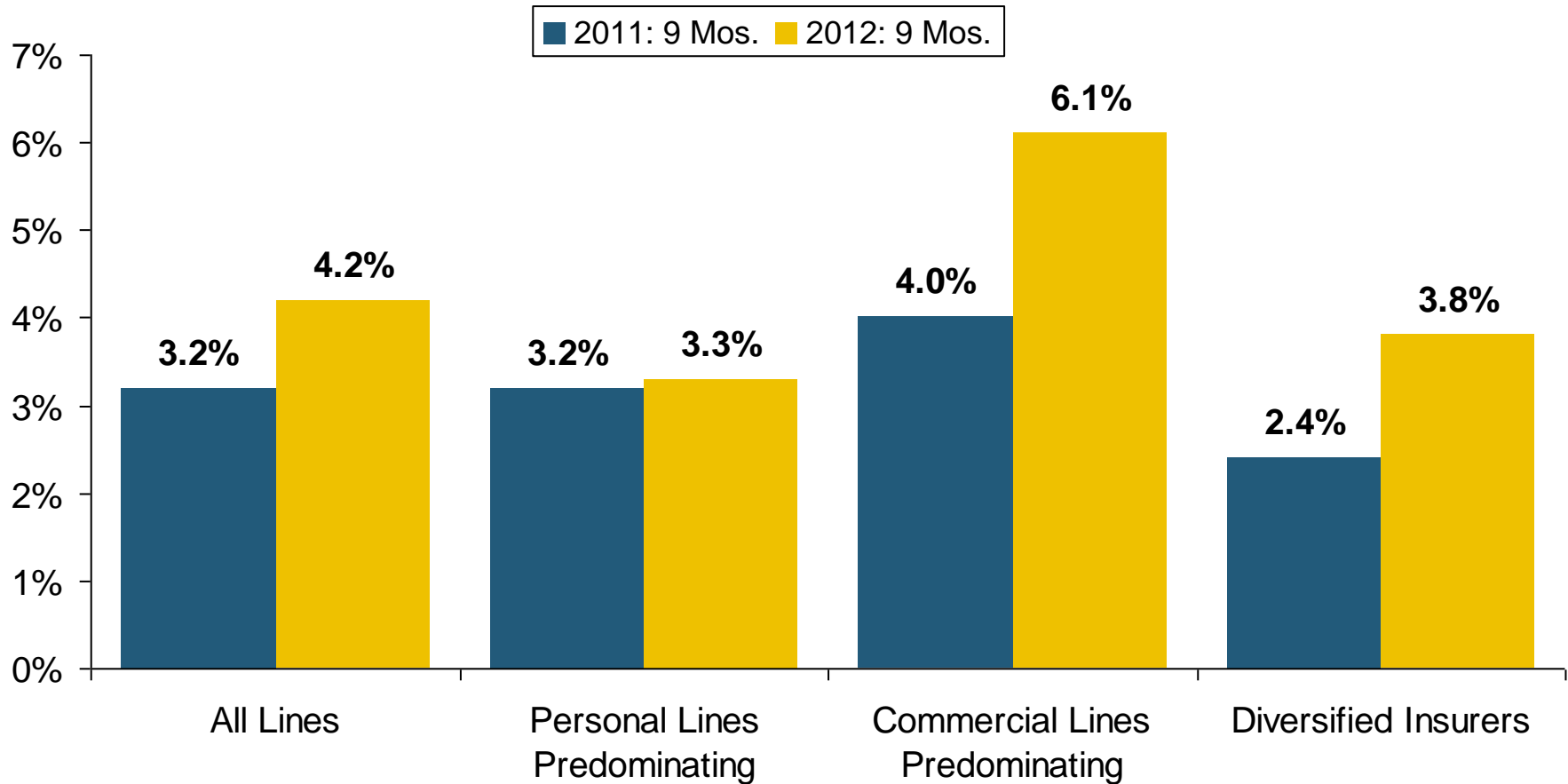


Premium growth in Q3 2012 was up 5.1% over Q3 2011, the strongest growth since Q4 2006

**Sustained Growth in Written Premiums (vs. the same quarter, prior year) Will Continue into 2013**

# Growth in Net Written Premium by Segment, 2012:9 Mos. vs. 2011:9 Mos.\*

(Percent)

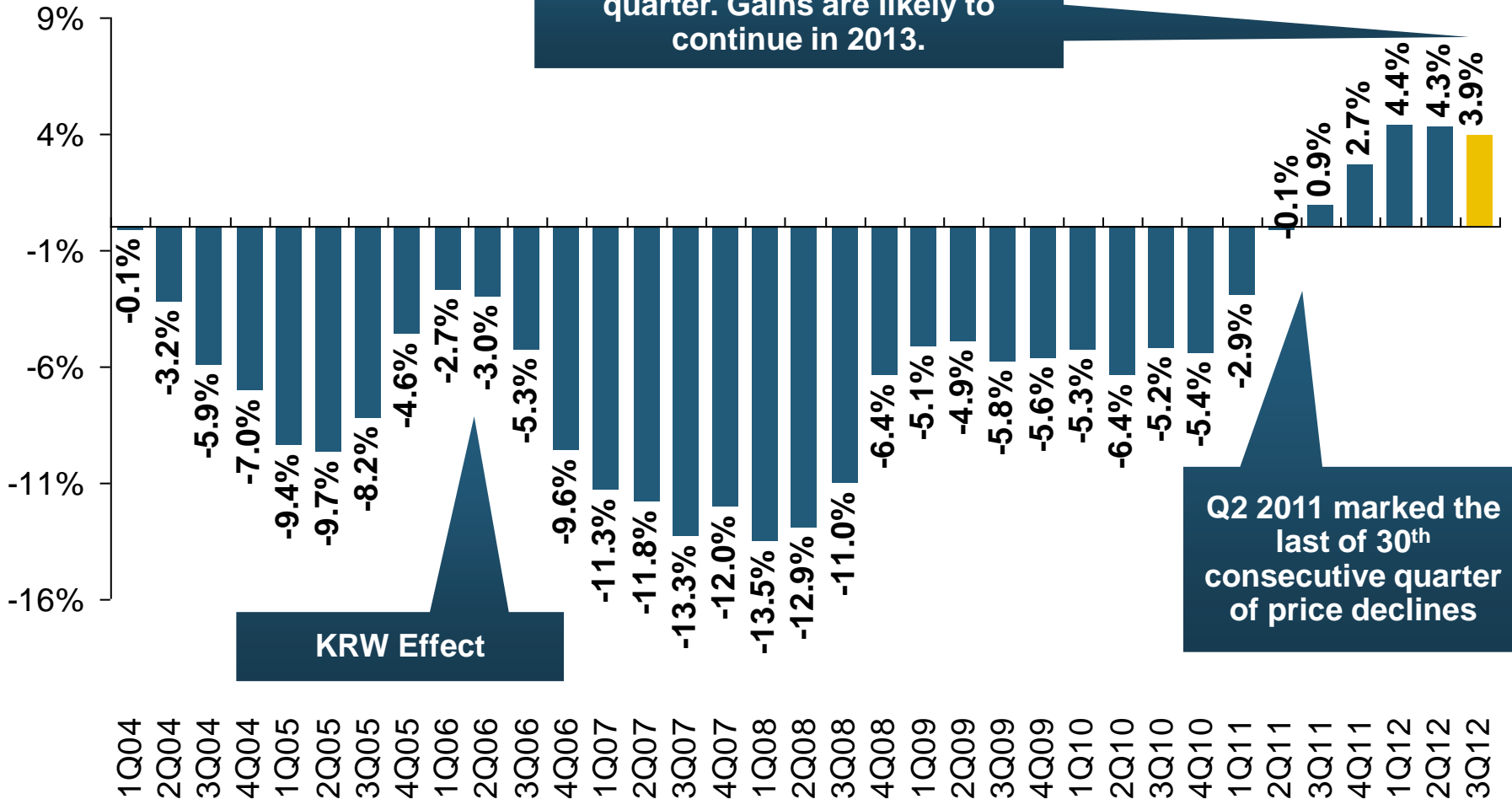


\*Excludes mortgage and financial guaranty insurers.

Source: ISO/PCI; Insurance Information Institute

# Average Commercial Rate Change, All Lines, (1Q:2004–3Q:2012)

(Percent)



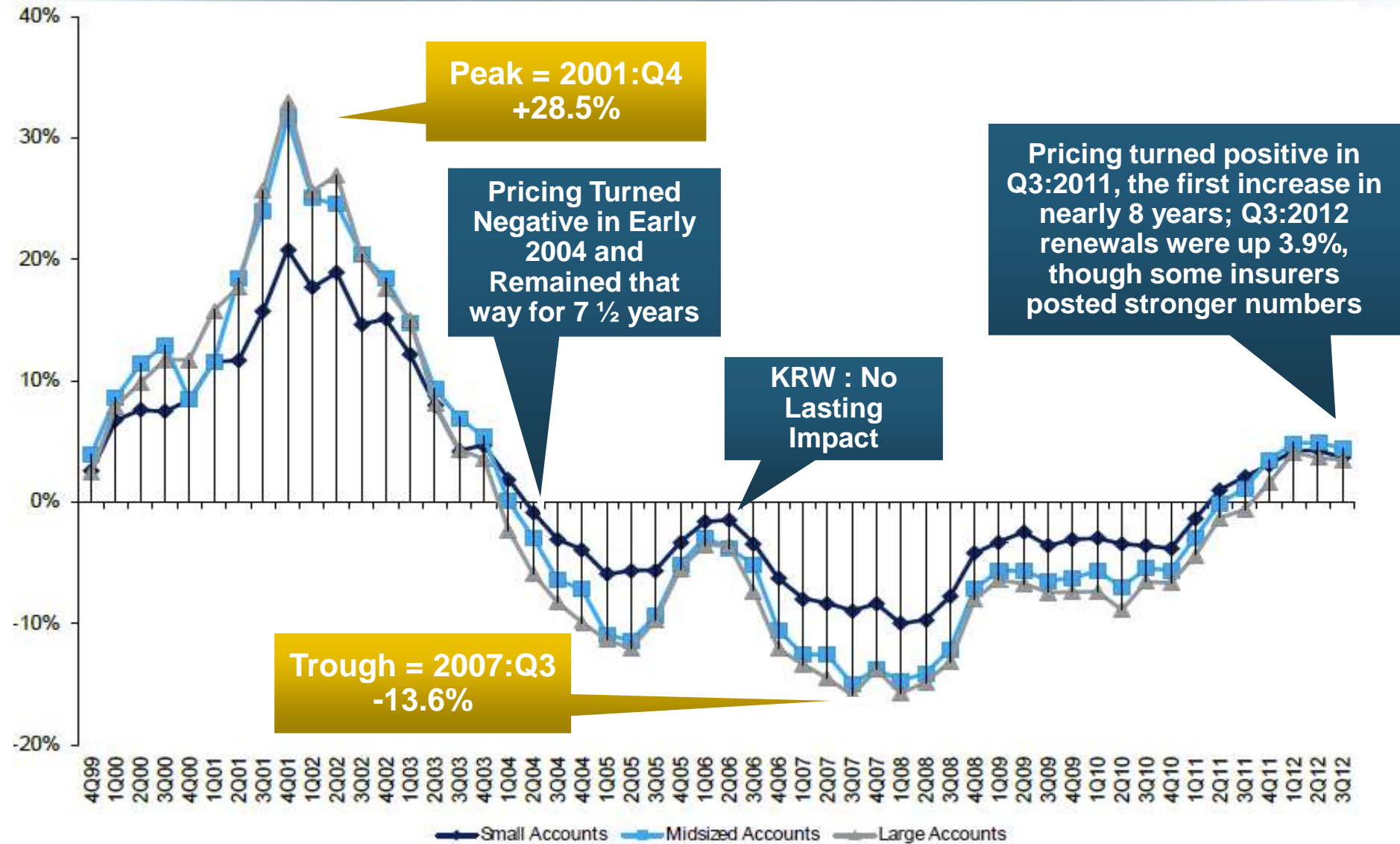
Pricing as of Q3:2012 was positive for the 5<sup>th</sup> consecutive quarter. Gains are likely to continue in 2013.

KRW Effect

Q2 2011 marked the last of 30<sup>th</sup> consecutive quarter of price declines

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.  
 Source: Council of Insurance Agents & Brokers; Insurance Information Institute

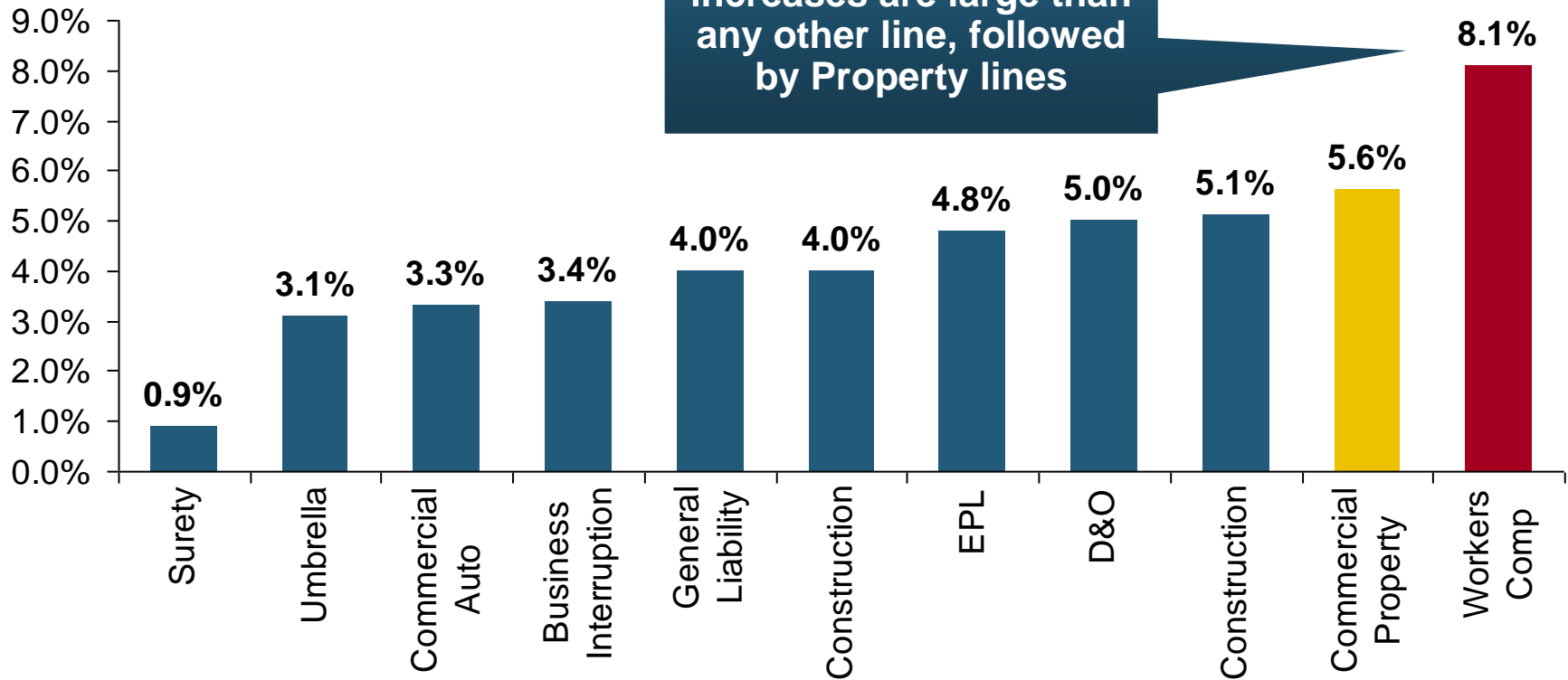
# Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2012:Q3



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.  
 Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

# Change in Commercial Rate Renewals, by Line: 2012:Q3

## Percentage Change (%)

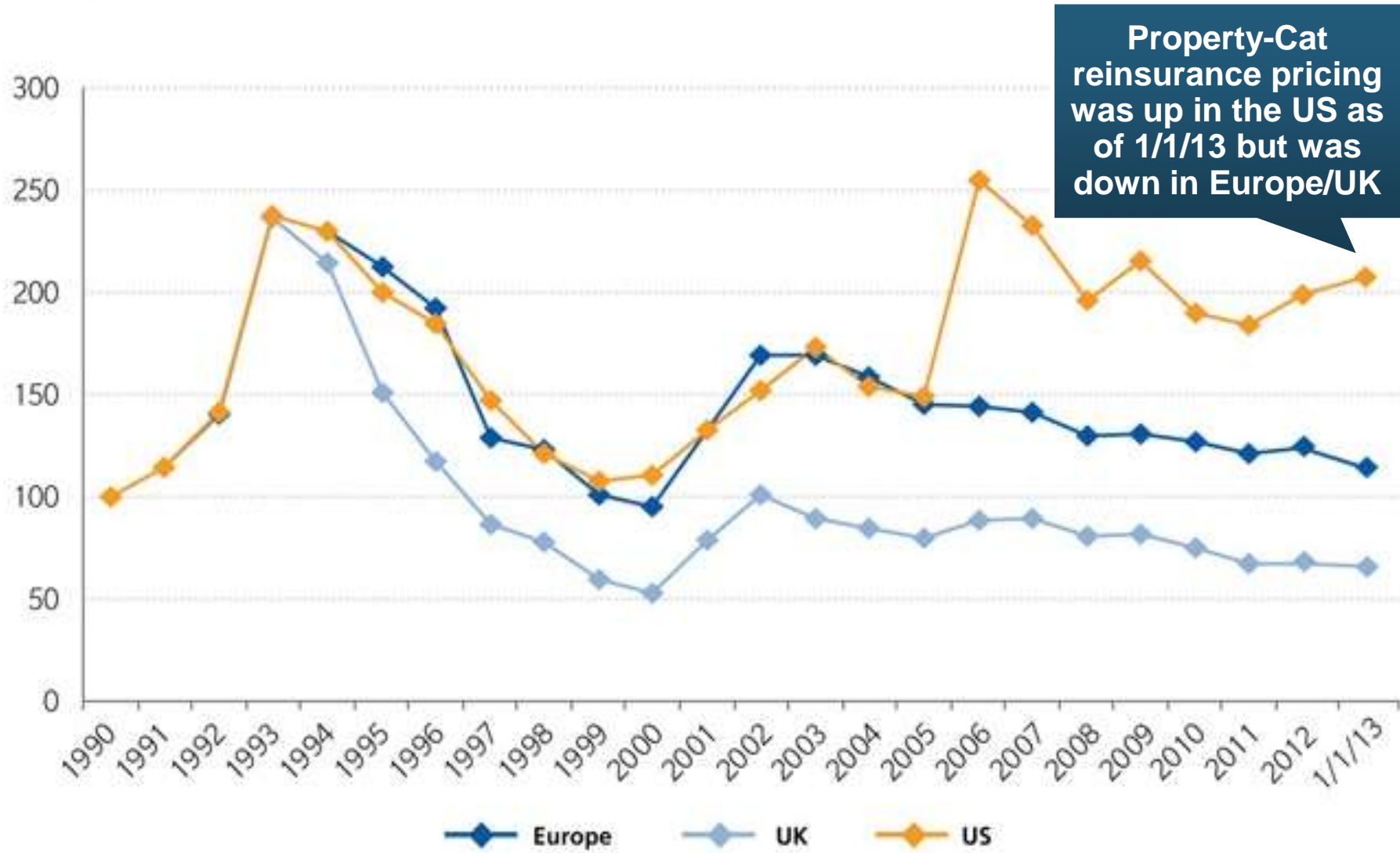


**Major Commercial Lines Renewed Uniformly Upward in Q3:2012 for the Fifth Consecutive Quarter Since 2003; Property Lines & Workers Comp Leading the Way; Cat Losses and Low Interest Rates Provide Momentum Going Forward**

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.  
Source: Council of Insurance Agents and Brokers; Insurance Information Institute.



# Regional Property Catastrophe Rate on Line Index, 1990—2013 (as of January 1)



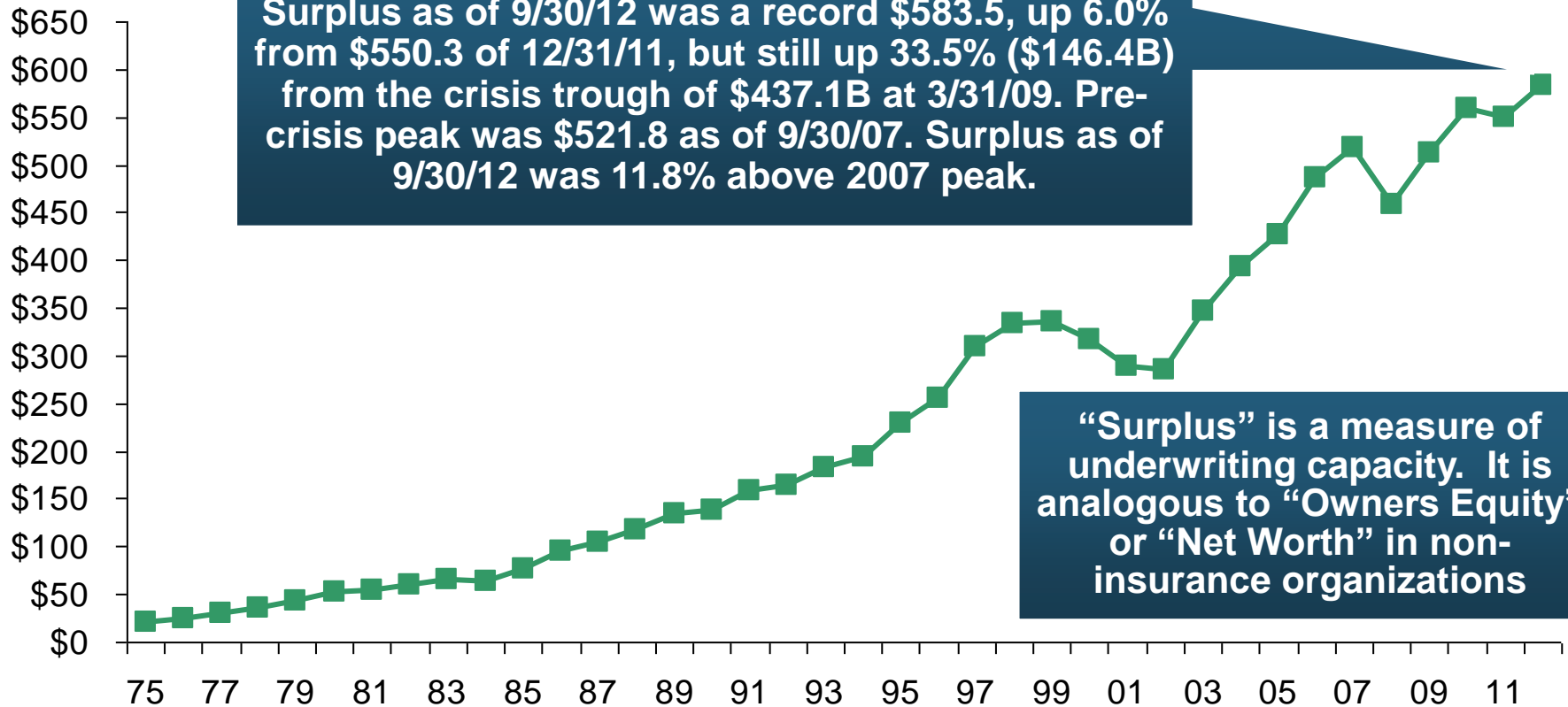
Sources: Guy Carpenter; Insurance Information Institute.

# **SURPLUS/CAPITAL/CAPACITY**

## **How Will Large Catastrophe Losses Impact Capacity?**

# US Policyholder Surplus: 1975–2012\*

(\$ Billions)



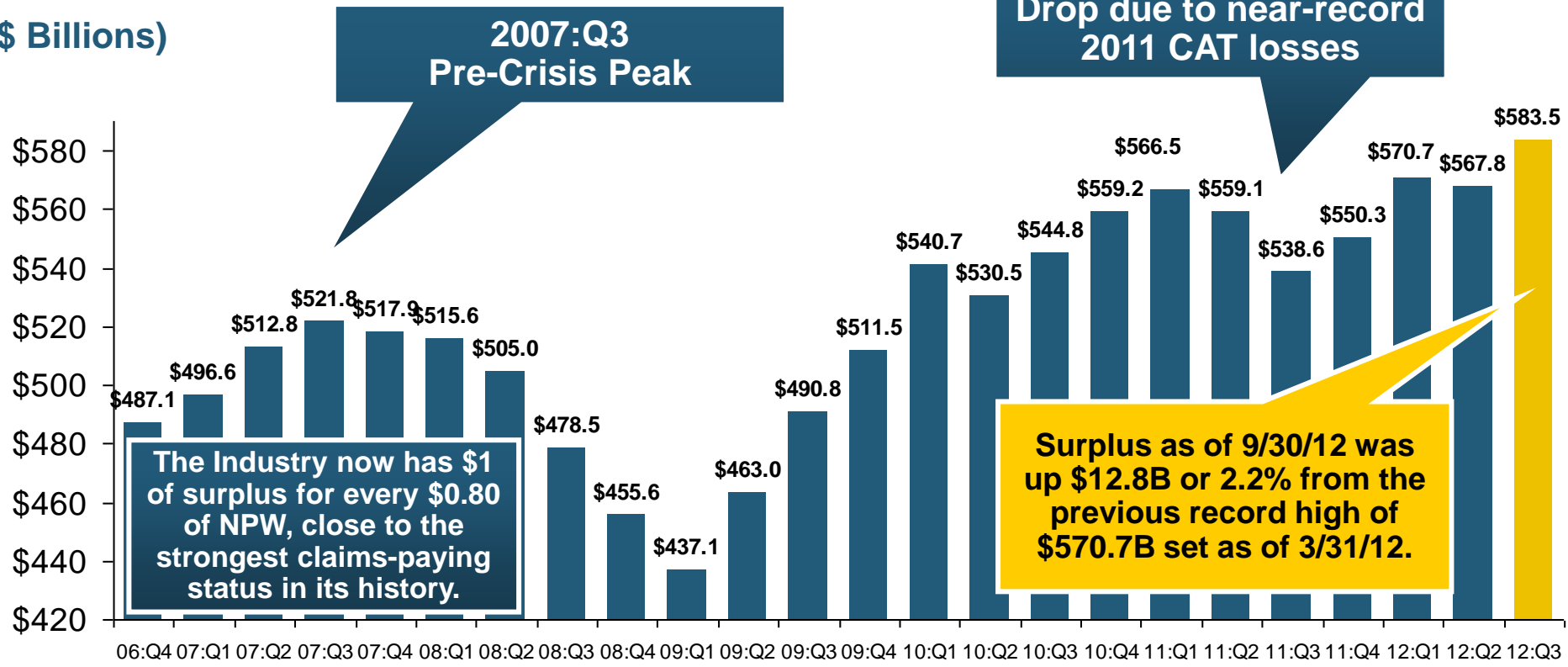
**The Premium-to-Surplus Ratio Stood at \$0.80:\$1 as of 9/30/12, A Near Record Low (at Least in Recent History)\***

\* As of 9/30/12.

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

# Policyholder Surplus, 2006:Q4–2012:Q3

(\$ Billions)



**2007:Q3  
Pre-Crisis Peak**

**Drop due to near-record  
2011 CAT losses**

**The Industry now has \$1 of surplus for every \$0.80 of NPW, close to the strongest claims-paying status in its history.**

**Surplus as of 9/30/12 was up \$12.8B or 2.2% from the previous record high of \$570.7B set as of 3/31/12.**

\*Includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business in early 2010.

**The P/C Insurance Industry Both Entered and Emerged from the 2012 Hurricane Season Very Strong Financially. There is No Insurance Industry "Fiscal Cliff"**



# Hurricane Sandy Reignited in the United States the Debate on Climate Change

## Climate Change Remains a Controversial Topic in the US

# Climate Change: Did Sandy Revitalize the Debate in the US?

- **The Issue of Climate Change Received Relatively Little Attention in the US until Hurricane Katrina in 2005**
  - ◆ Katrina was (and remains) the costliest disaster in US and global history (both in economic and insurance terms)
  - ◆ Katrina occurred near the end of a long series of costly tropical events over the previous two years
  - ◆ Severe floods and wildfires had occurred as well
  - ◆ Coincided with the 2006 release of former Vice President Al Gore's book and film "*An Inconvenient Truth*" which warned of the perils of global warming
- **Real Estate Bubble Was Inflating Rapidly in 2004-2007**
  - ◆ Large share of development in environmentally vulnerable areas
  - ◆ Population shift to more vulnerable areas
- **US Economy Was Strong, Unemployment Was Low**
  - ◆ Climate was an issue the country could "afford" to be concerned about

# Climate Change: Did Sandy Revitalize the Debate in the US? *(continued)*

- **Issue Was an Important One in the Early Stages of 2008 Presidential Election; Cause Championed by Obama**
- **2008 Financial Crisis Pushed Issue to the Back Burner**
  - ◆ View by some that massive job losses during the crisis would be made worse with carbon/GHG legislation
- **Volatile Weather in the US in 2011 (Tornadoes, Wildfire) and Hurricane Sandy and Drought in 2012 Coincided with 2012 Political Cycle and Recovering Economy**
  - ◆ Issue once again became part of political discourse in US
  - ◆ Still polarizing issue, but is now on Obama agenda
  - ◆ Mentioned by politicians such as NY Gov. Andrew Cuomo
- **Sustained Increase in Variability and Volatility in US Weather Cited More Often by Insurance CEOs as Driver of Higher Claim Costs (Associated with Higher Claim Frequency/Severity)**

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