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Overview & Outlook for the P&C Insurance Industry

Erie and Niagara Insurance Association
Williamsville, NY
September 30, 2015

Download at www.iii.org/presentations

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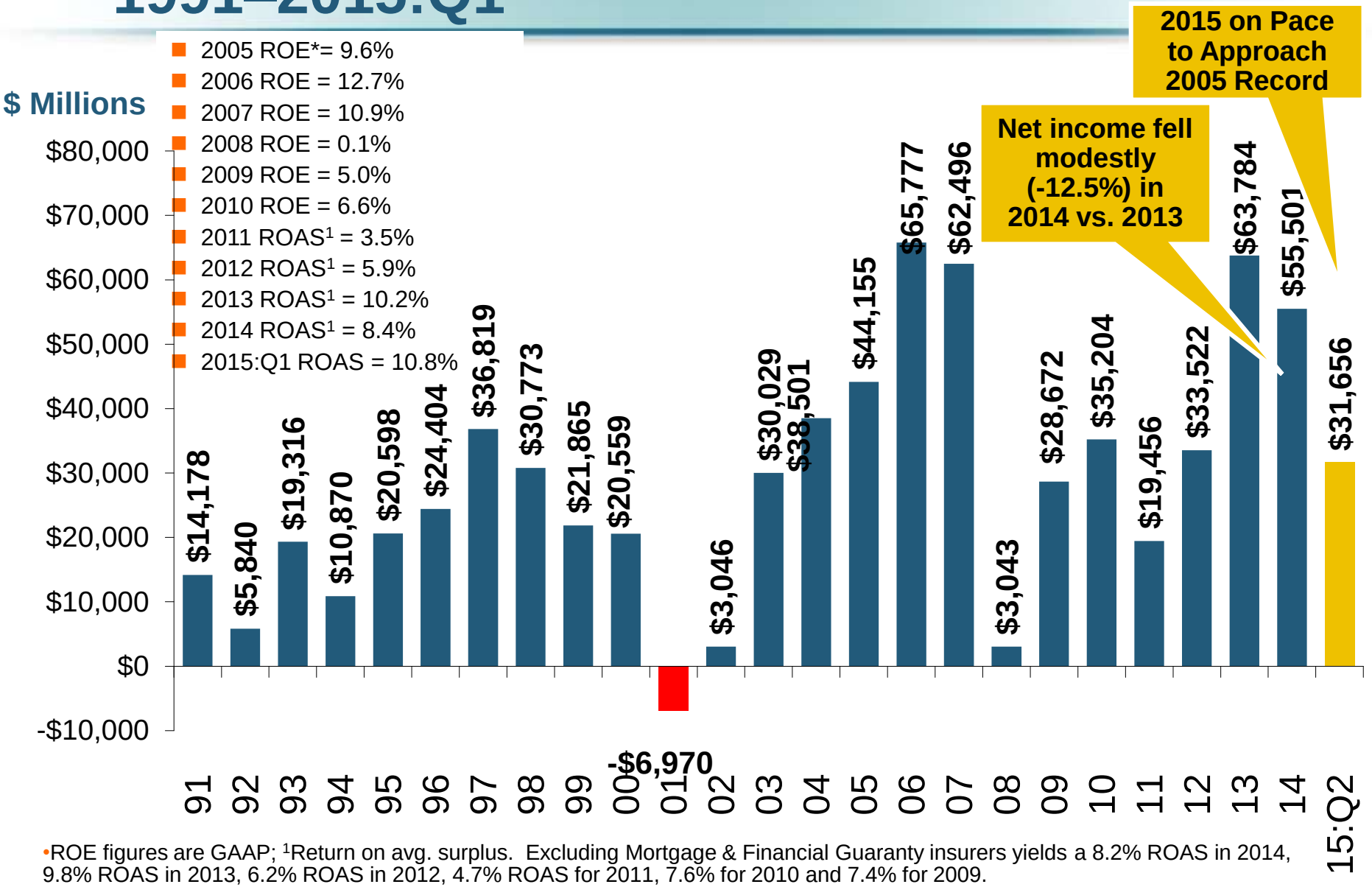
Insurance Industry: *Financial Update & Outlook*

2014 Was a Reasonably Good Year

2015: A Repeat of 2014?

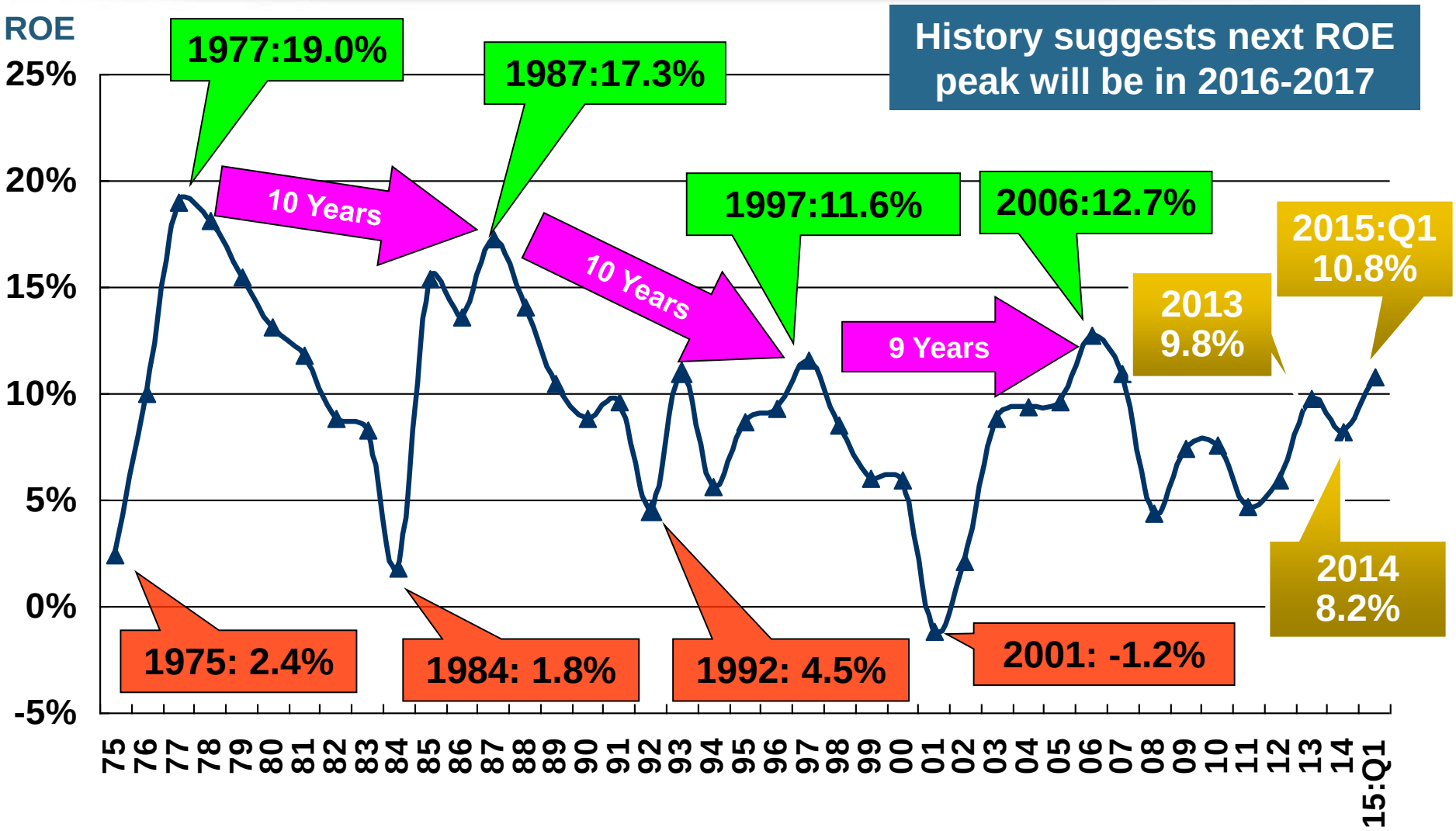
P/C Industry Net Income After Taxes 1991–2015:Q1



•ROE figures are GAAP; [1]Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

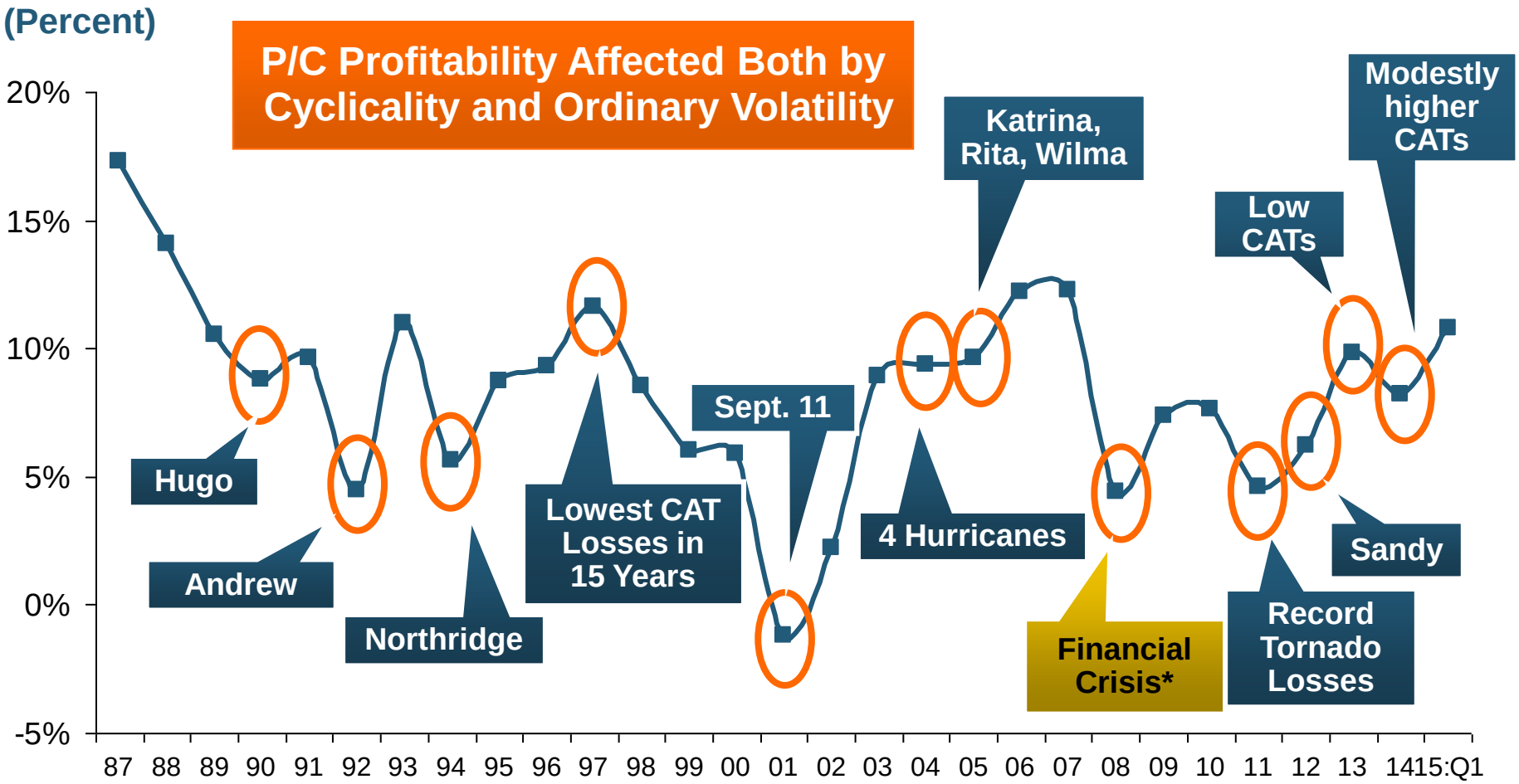
Sources: A.M. Best, ISO; SNL Financial; Insurance Information Institute

Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2015:Q1



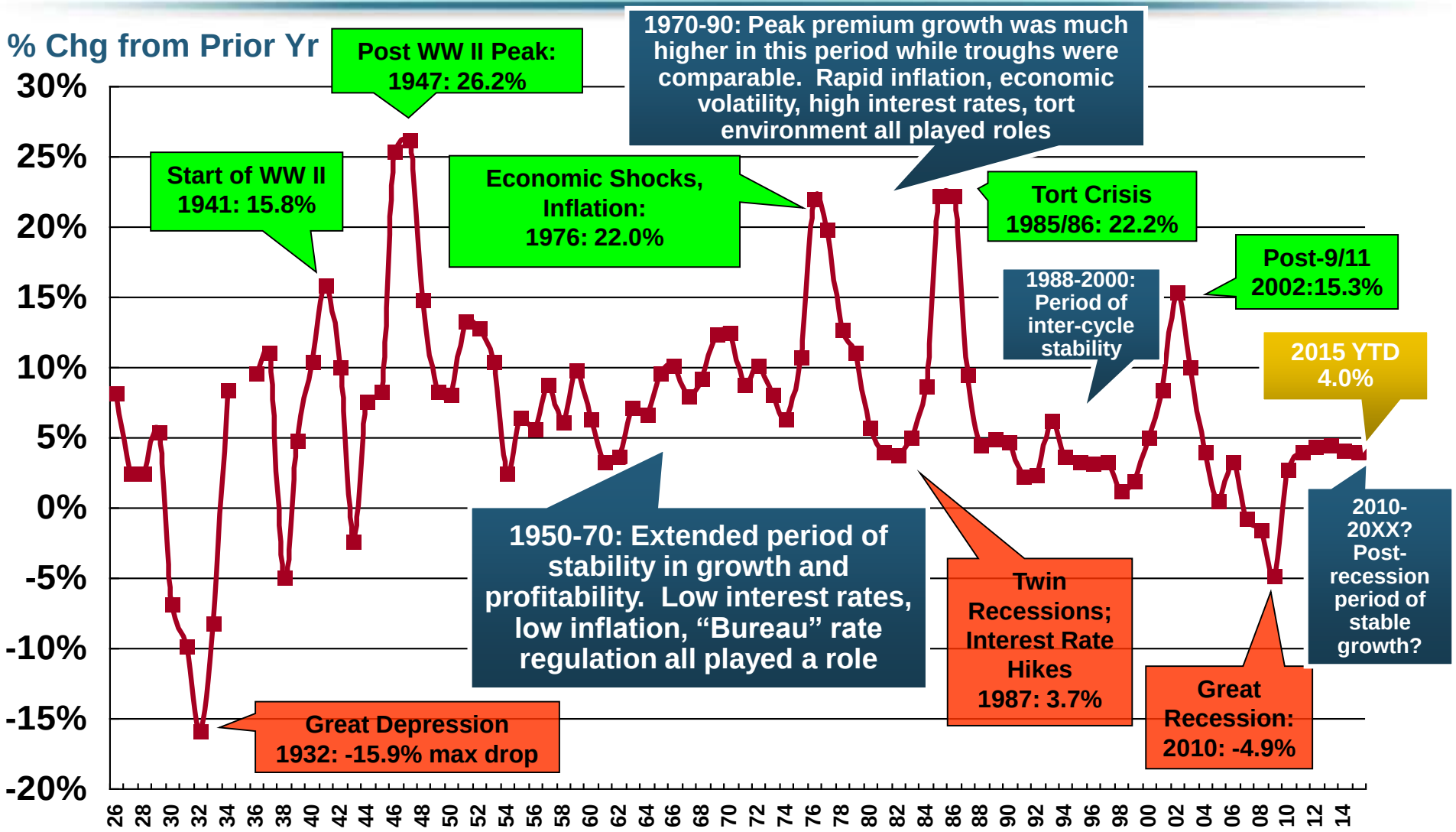
*Profitability = P/C insurer ROEs. 2011-14 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.
Source: Insurance Information Institute; NAIC, ISO, A.M. Best, Conning

ROE: Property/Casualty Insurance by Major Event, 1987–2015:Q1



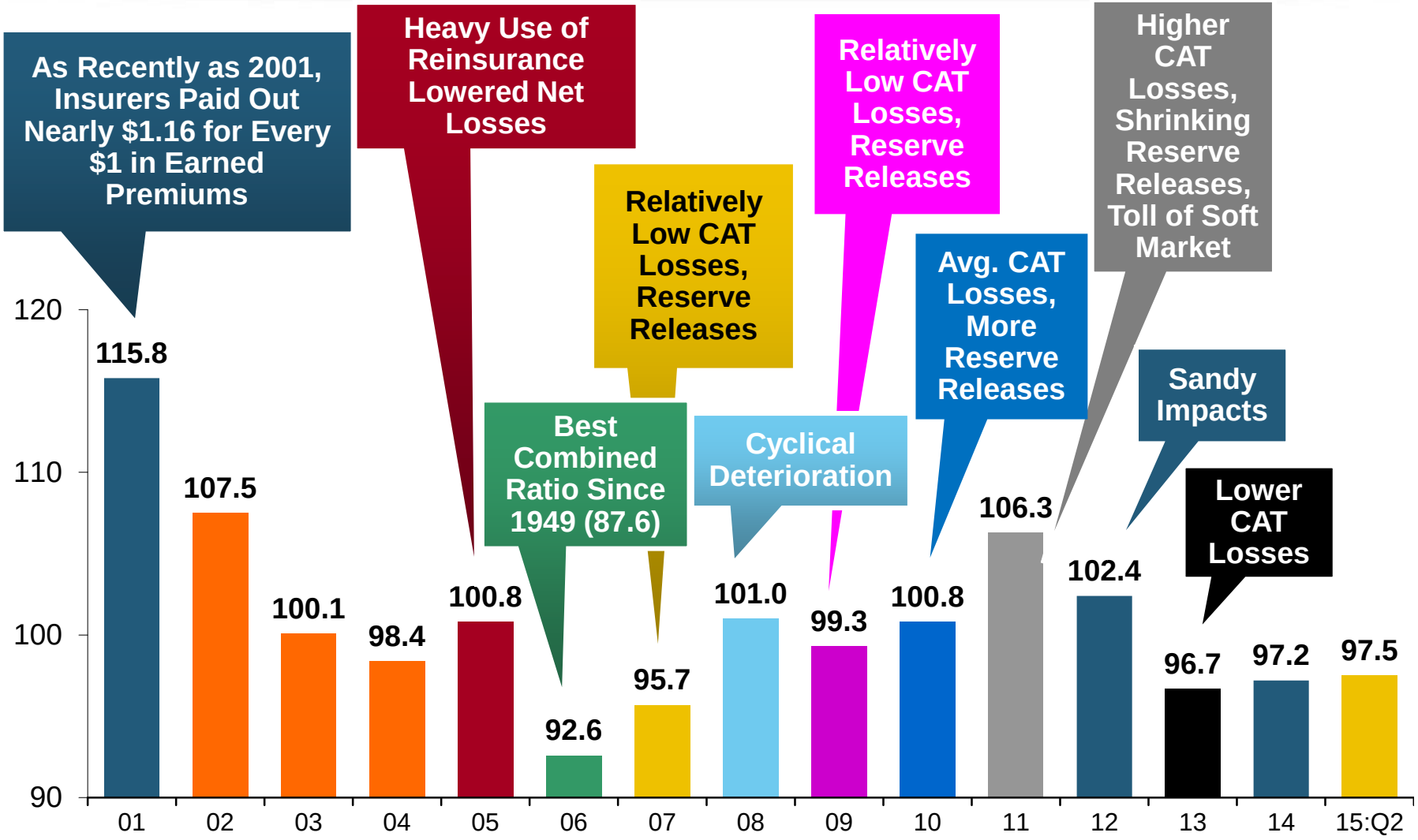
* Excludes Mortgage & Financial Guarantee in 2008 – 2014.
Sources: ISO, *Fortune*; Insurance Information Institute.

NPW Premium Growth: Peaks & Troughs in the P/C Insurance Industry, 1926–2015



Note: Data through 1934 are based on stock companies only. Data include state funds beginning in 1998.
Source: A.M. Best; Insurance Information Institute.

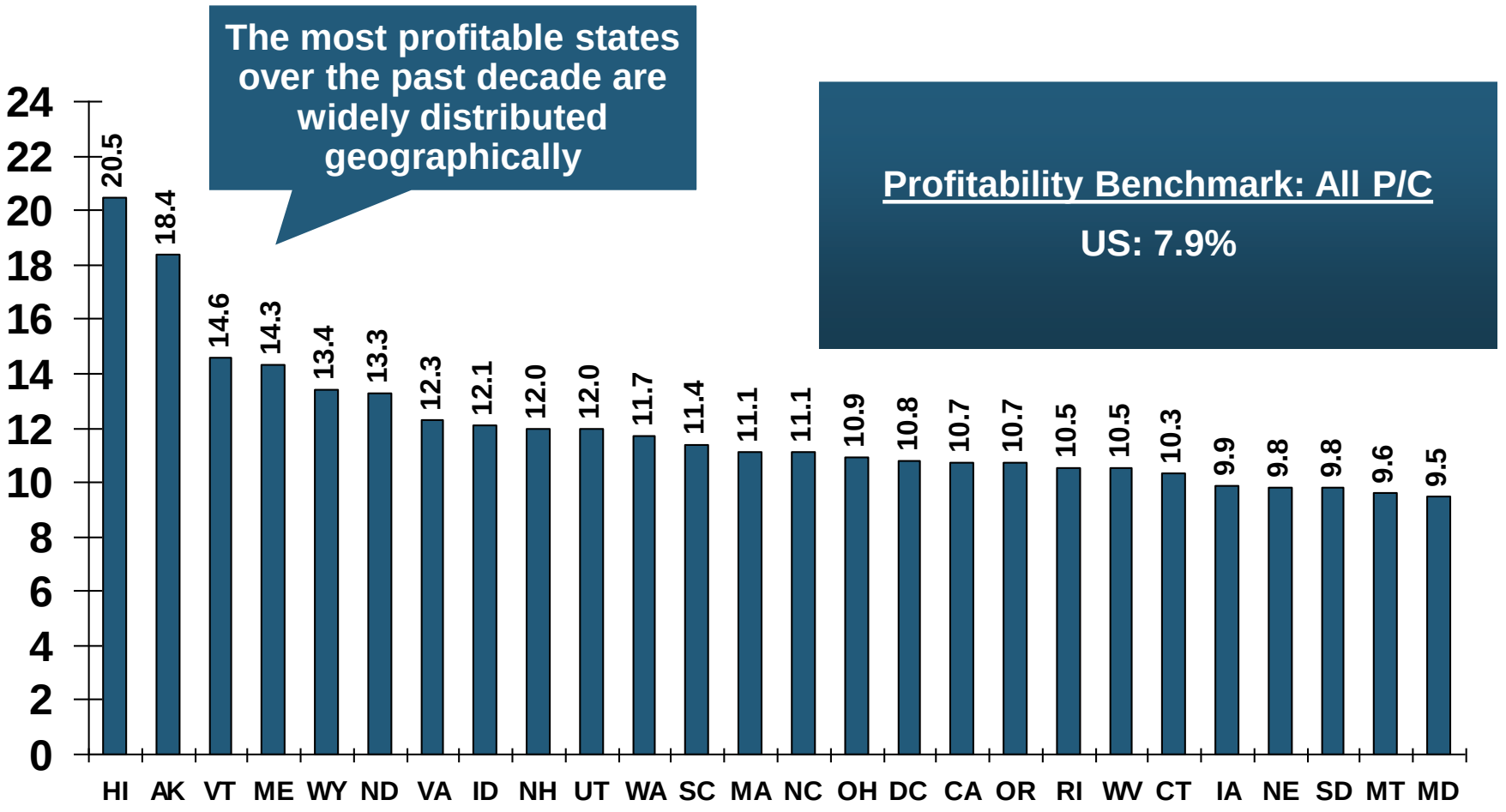
P/C Insurance Industry Combined Ratio, 2001–2015:Q2*



* 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.

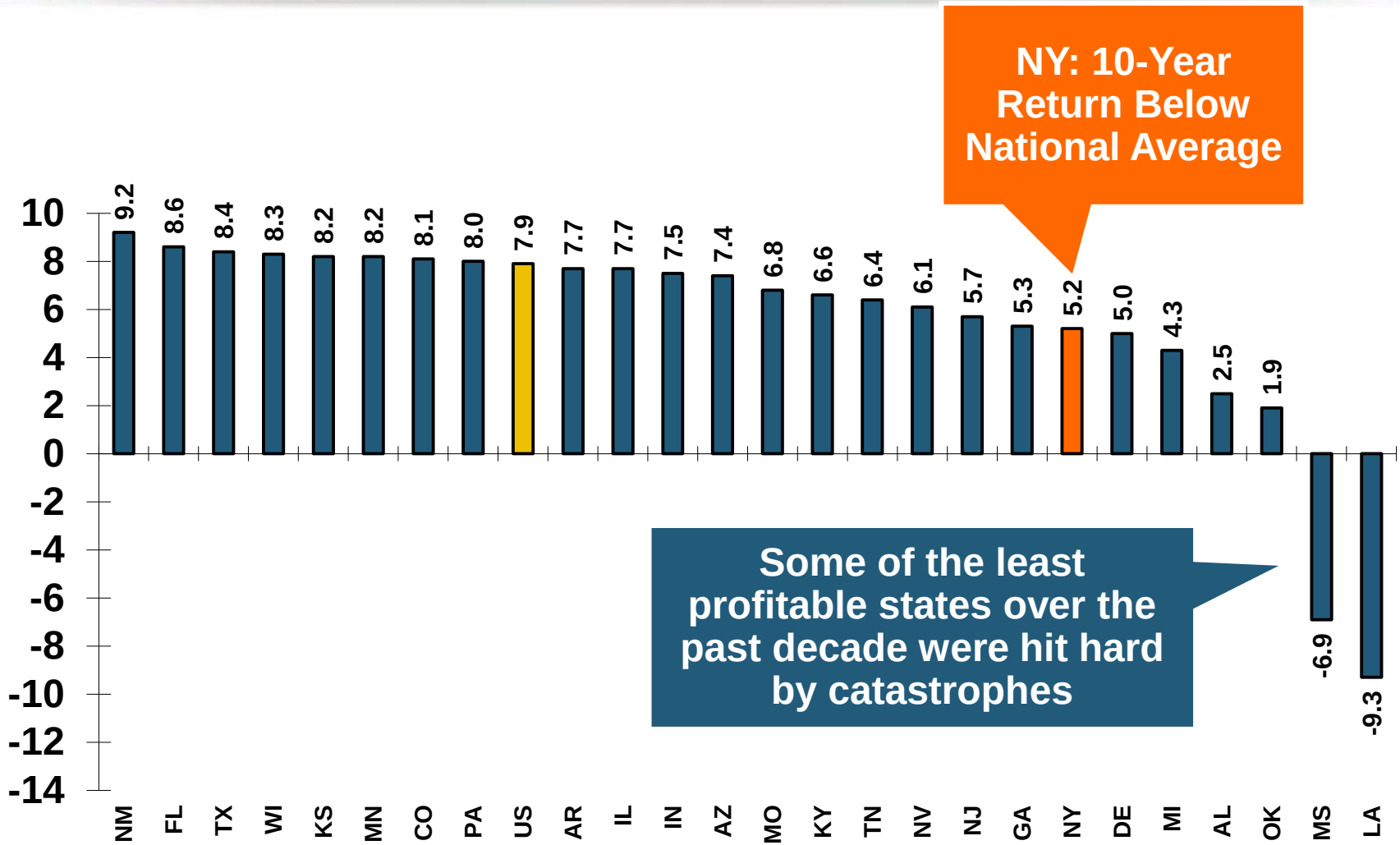
Sources: A.M. Best, ISO.

RNW All Lines by State, 2004-2013 Average: Highest 25 States



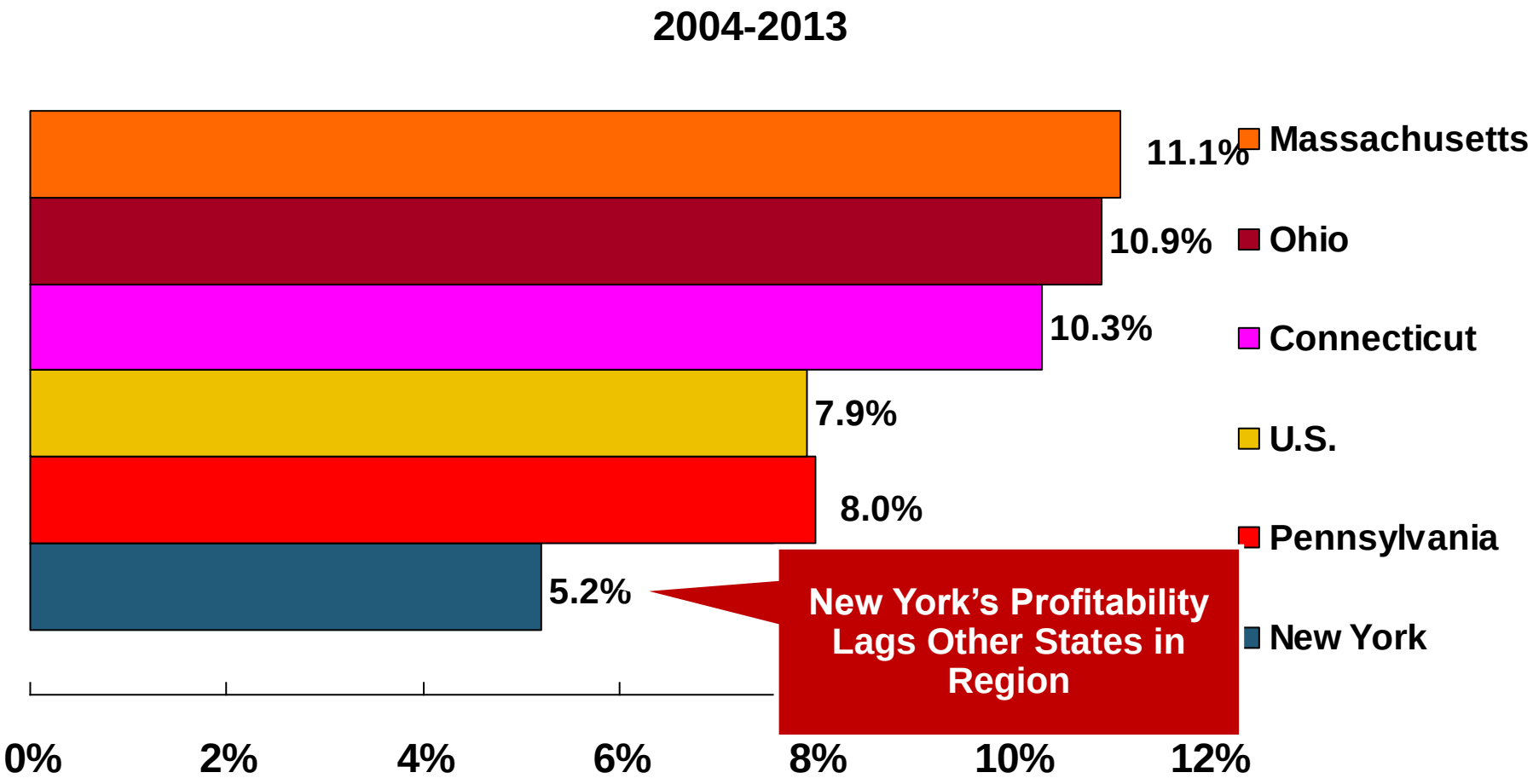
Source: NAIC; Insurance Information Institute.

RNW All Lines by State, 2004-2013 Average: Lowest 25 States



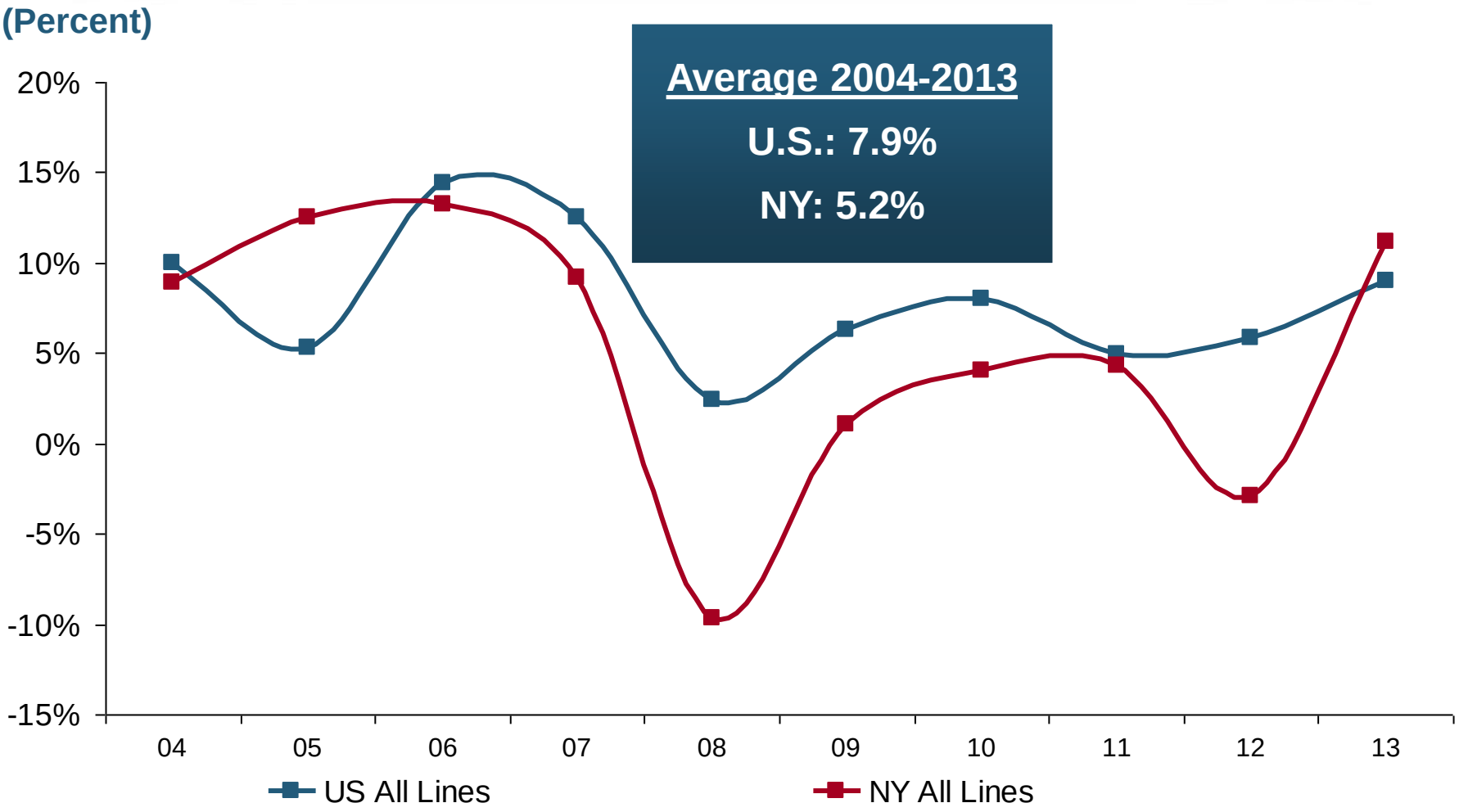
Source: NAIC; Insurance Information Institute.

All Lines: 10-Year Average RNW NY & Nearby States



Source: NAIC, Insurance Information Institute

RNW All Lines: NY vs. U.S., 2004-2013



Source: NAIC, Insurance Information Institute.

P/C Insurance Loss Reserve Development, 1992 – 2016E*

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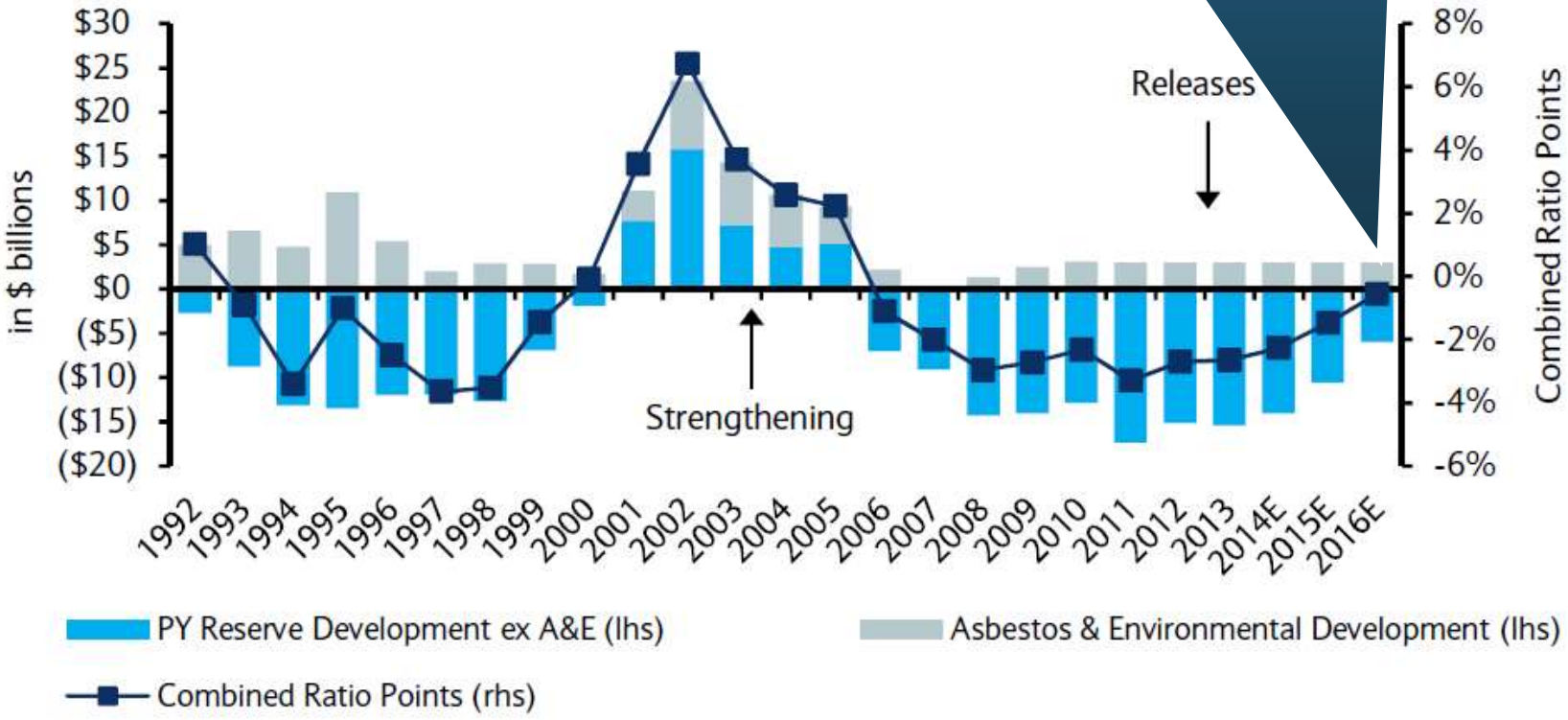
Reserve releases are expected to gradually taper off, but will continue to benefit the bottom line and combined ratio through at least 2016

Reserve Change

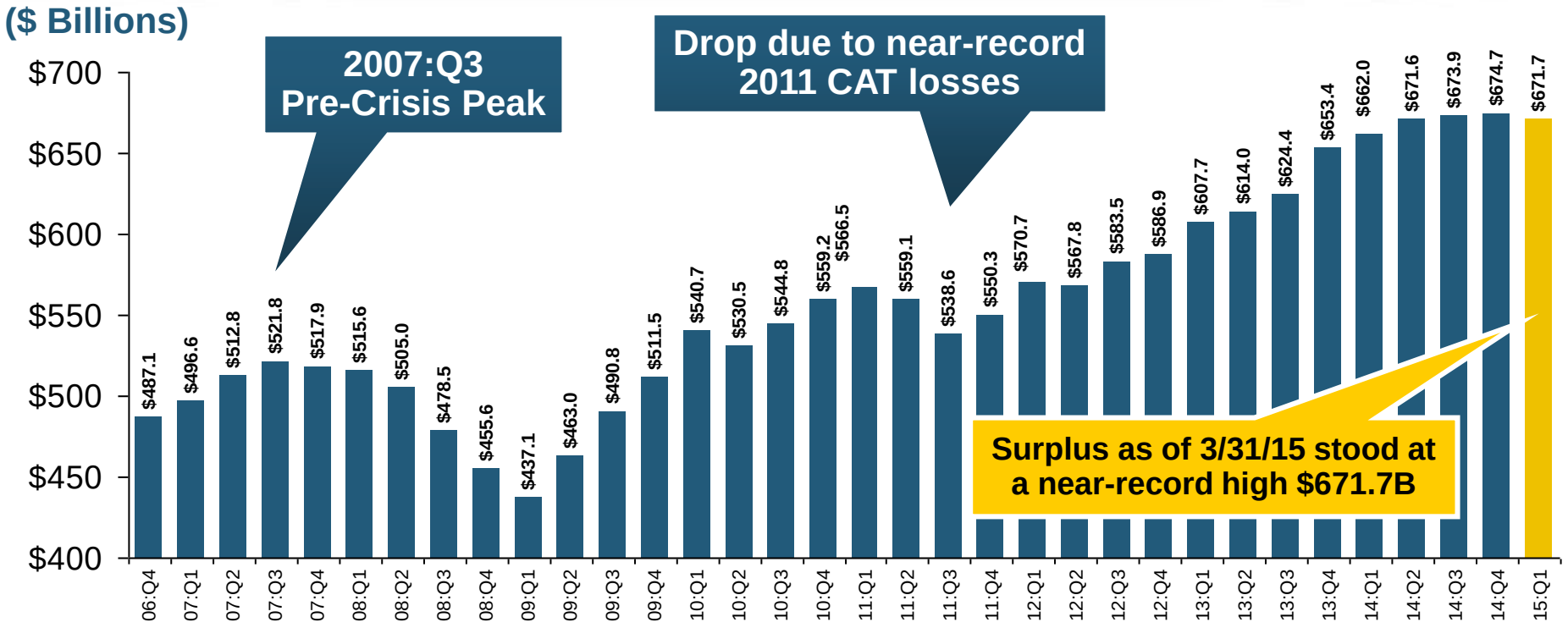


Source: A.M. Best; Barclays research for estimates.

CAPITAL/CAPACITY

Capital Accumulation Has Multiple Impacts

Policyholder Surplus, 2006:Q4–2015:Q1



The industry now has $1 of surplus for every $0.73 of NPW, close to the strongest claims-paying status in its history.

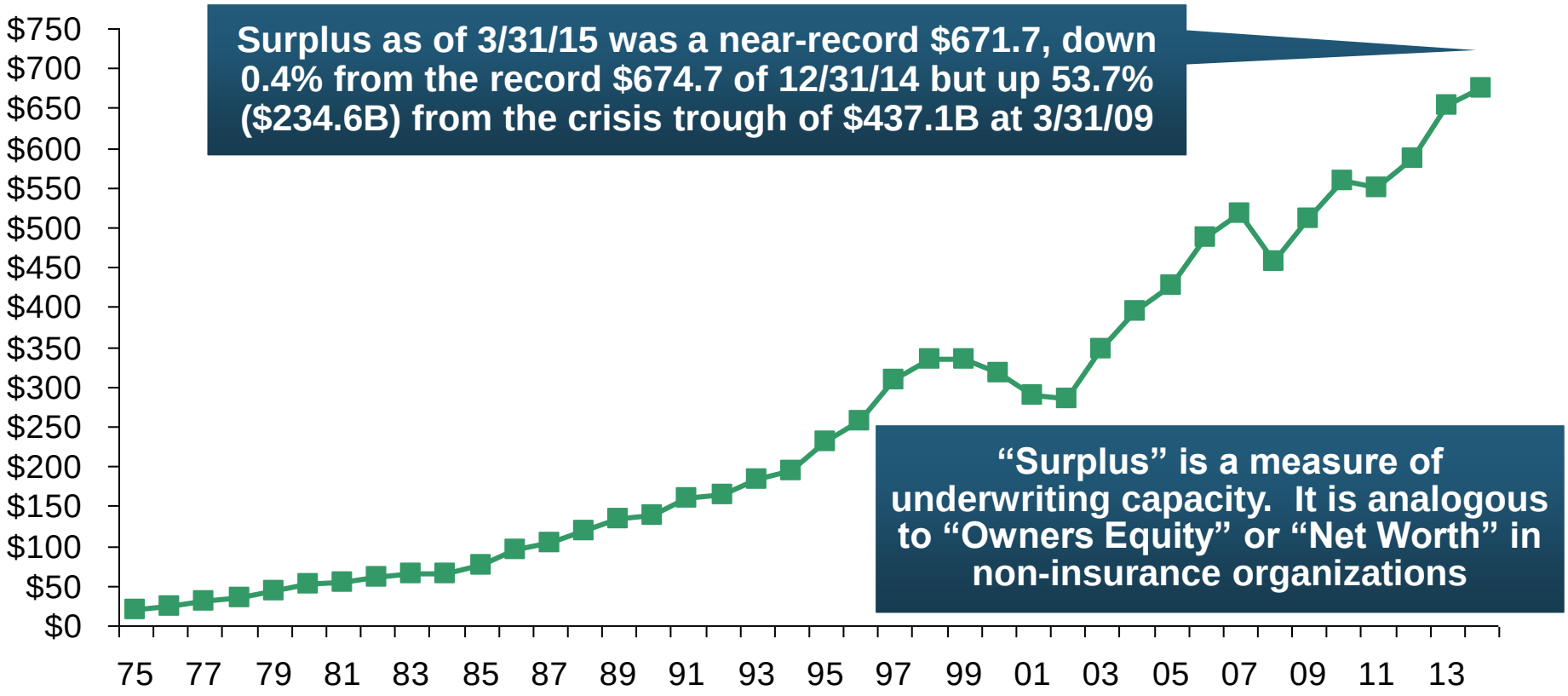
2010:Q1 data includes $22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business .

The P/C insurance industry entered 2015 in very strong financial condition.

Sources: ISO, A.M .Best.

US Policyholder Surplus: 1975–2015:Q1*

($ Billions)

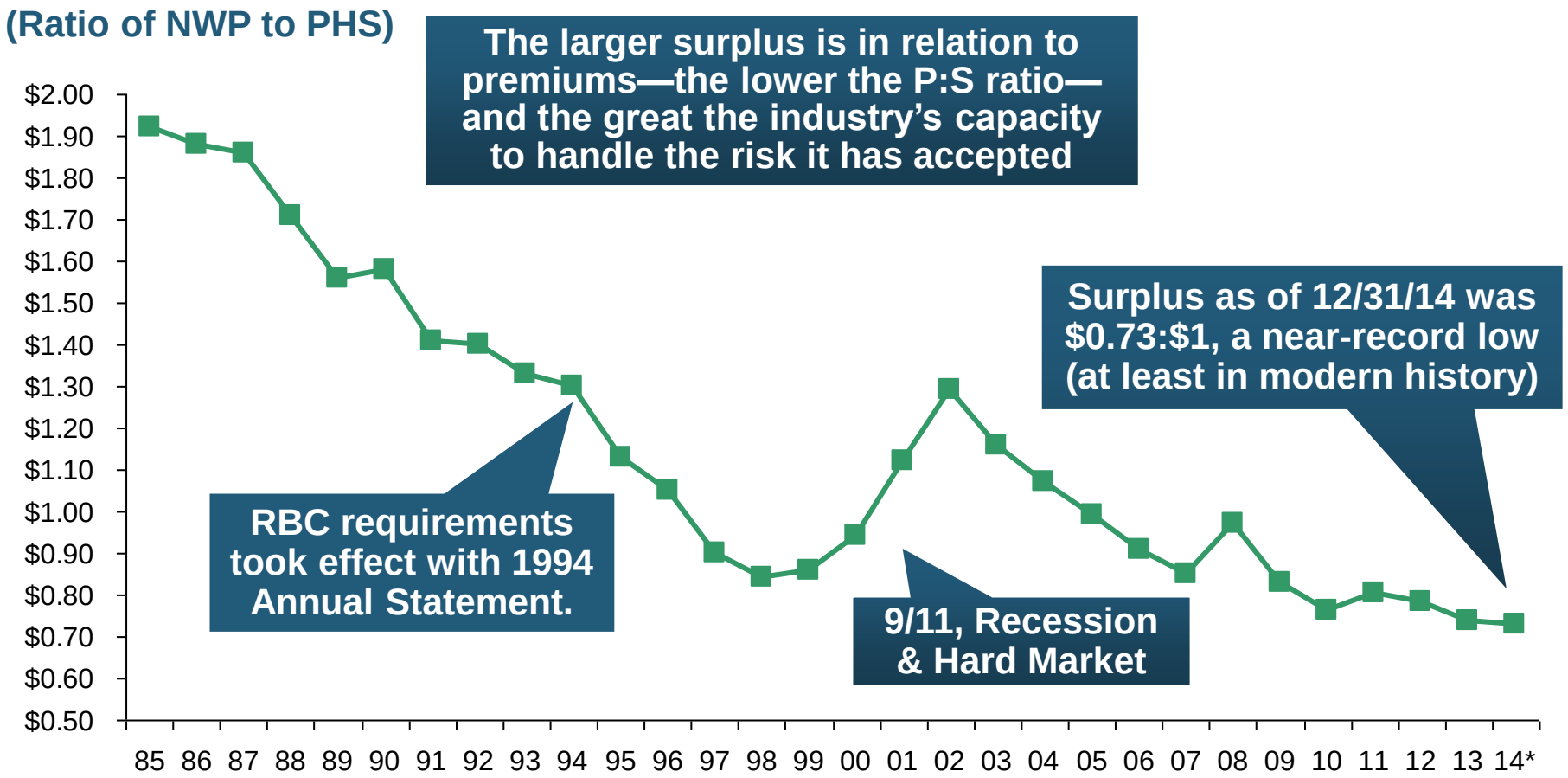


The Premium-to-Surplus Ratio Stood at $0.73:$1 as of 3/31/15, a Near Record Low (at Least in Recent History)

* As of 3/31/15.

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

Premium-to-Surplus Ratio: 1985–2014*

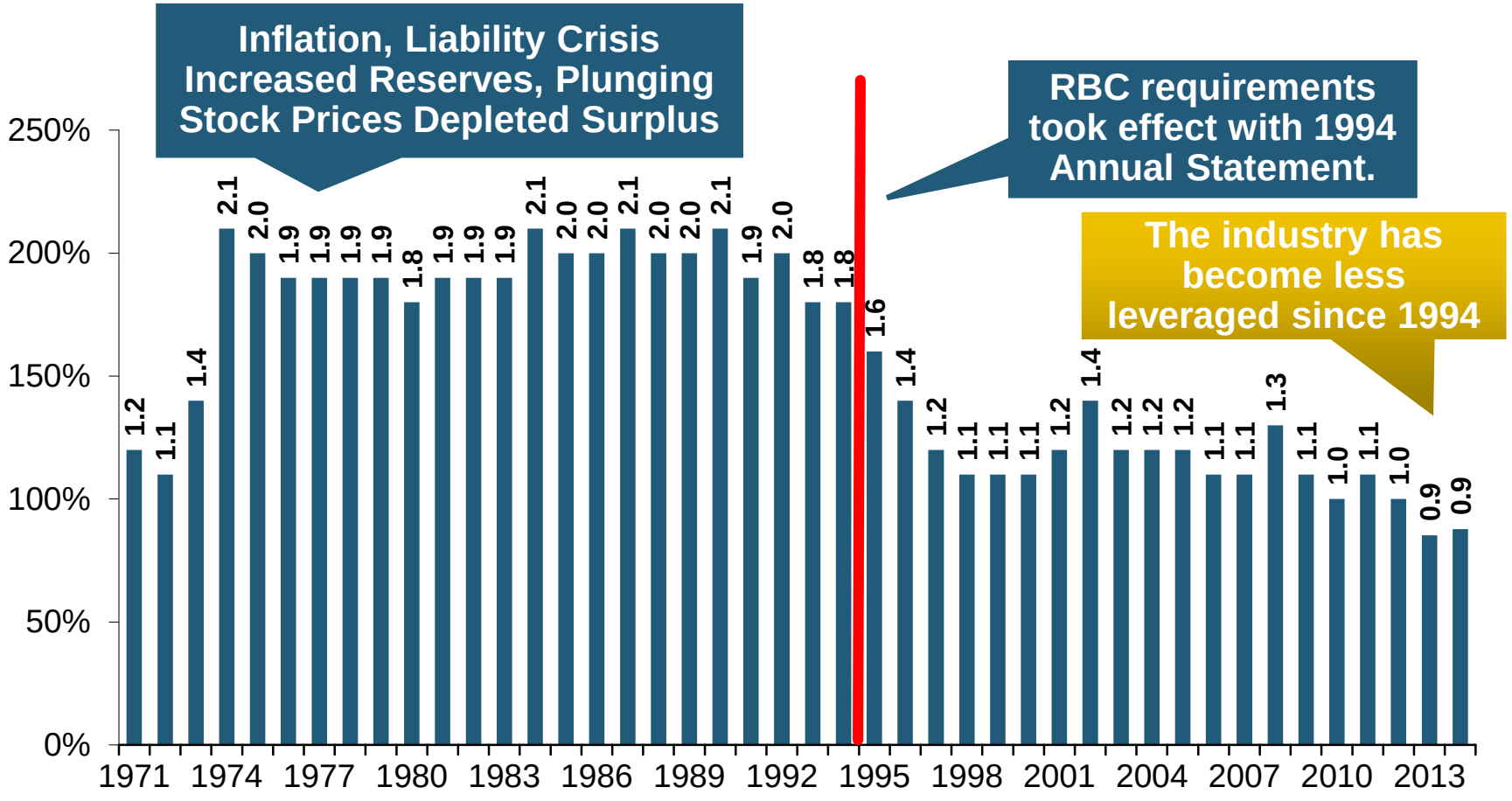


The Premium-to-Surplus Ratio Stood at $0.73:$1 as of 12/31/14, a Record Low (at Least in Recent History)

* As of 12/31/14.

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

P/C Industry: Loss Reserve-to-Surplus Ratio, 1971-2014



The Property/Casualty Industry Adjusted Its Risk Portfolio in Response to Risk-Based Capital Requirements Implemented in 1994.

Source: Calculations from A.M. Best and ISO data by Insurance Information Institute.

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INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

Property/Casualty Insurance Industry Investment Income: 2000–2015E[1]

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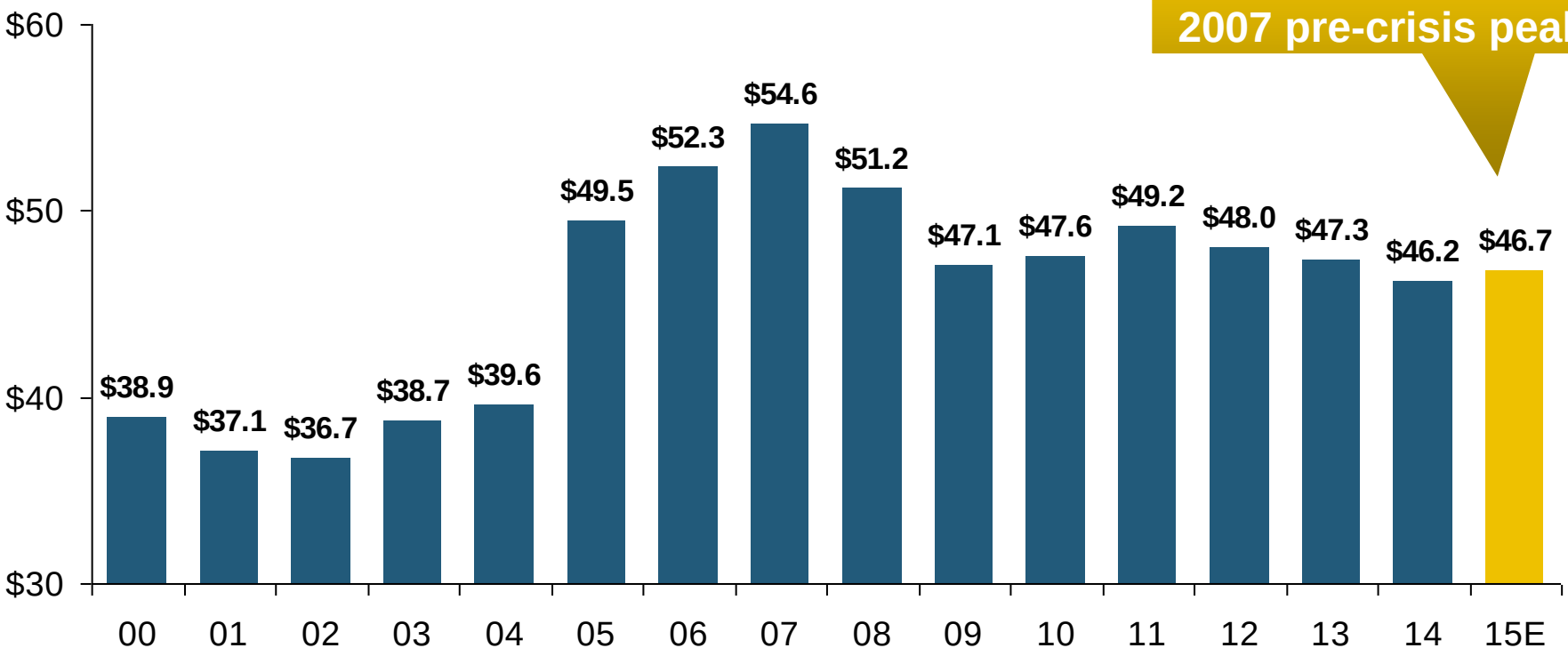
($ Billions)



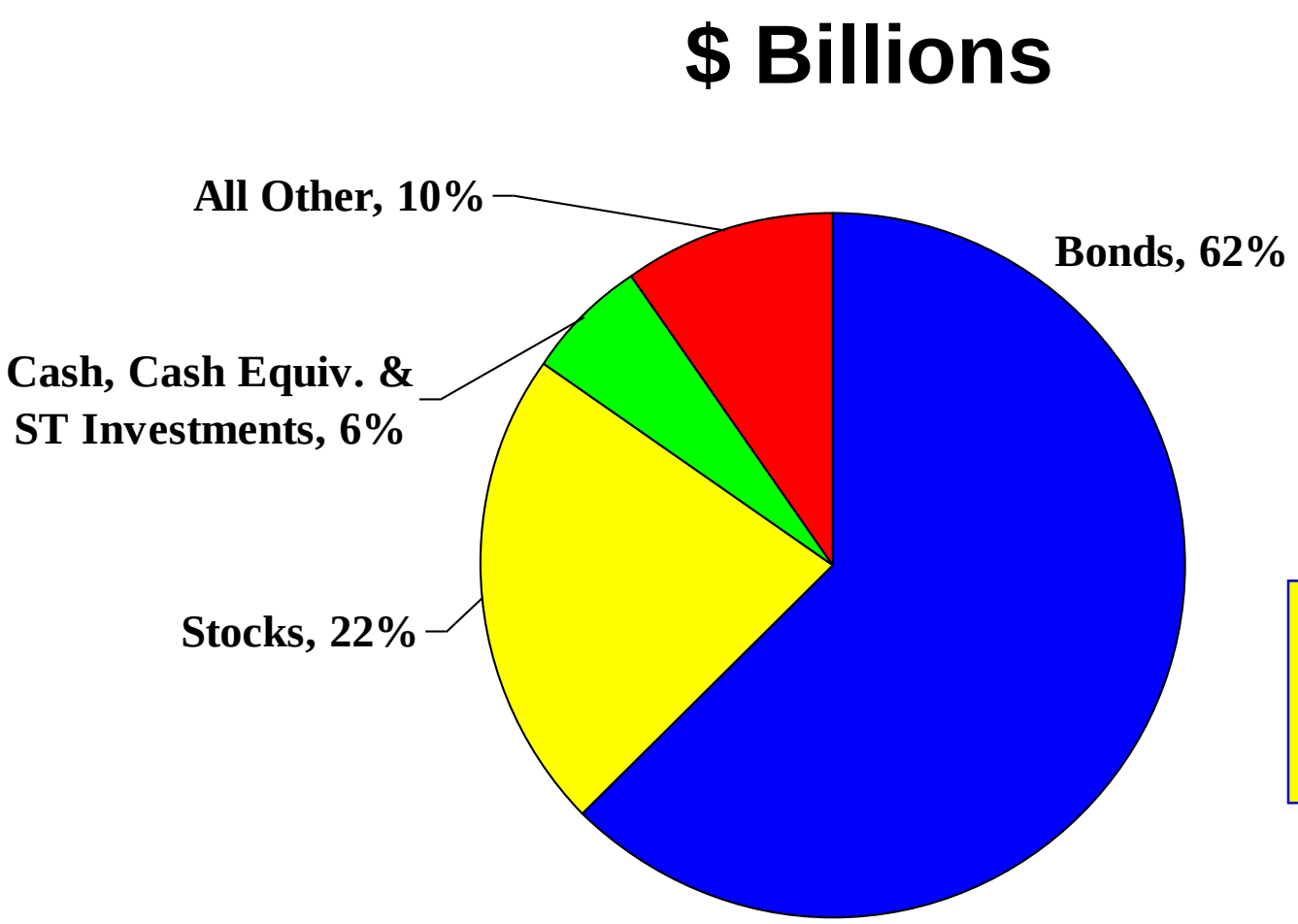
Due to persistently low interest rates, investment income fell in 2012, 2013 and 2014 – Despite Record Surplus.

[1] Investment gains consist primarily of interest and stock dividends.

*2015 figure is estimated based on annualized data through Q1.

Sources: ISO; Insurance Information Institute.

Distribution of Invested Assets: P/C Insurance Industry, 2013



Total Invested Assets = $1.5 Trillion

Source: Insurance Information Institute *Fact Book 2015,* A.M. Best.

U.S. Treasury Security Yields: A Long Downward Trend, 1990–2015*

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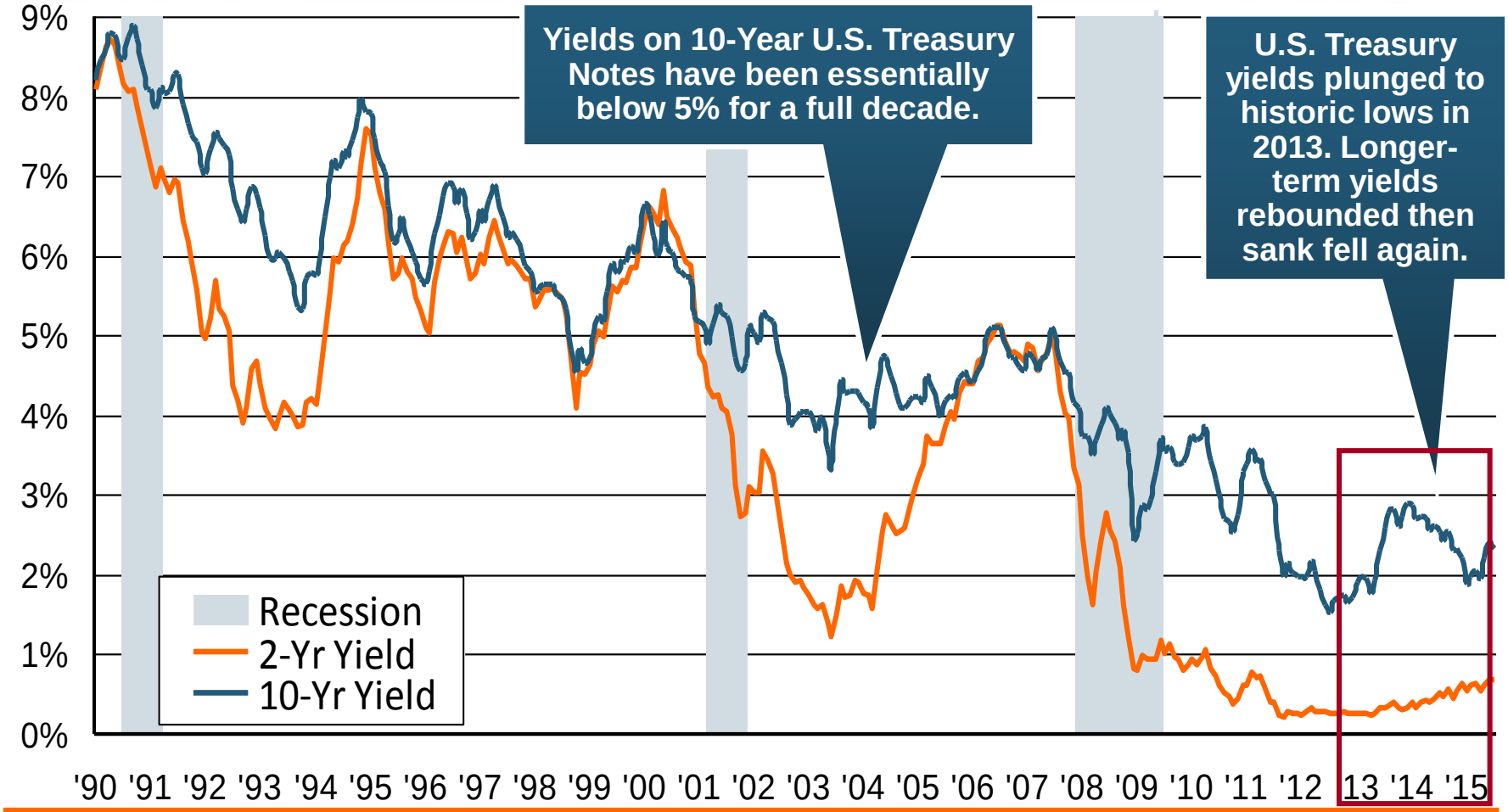
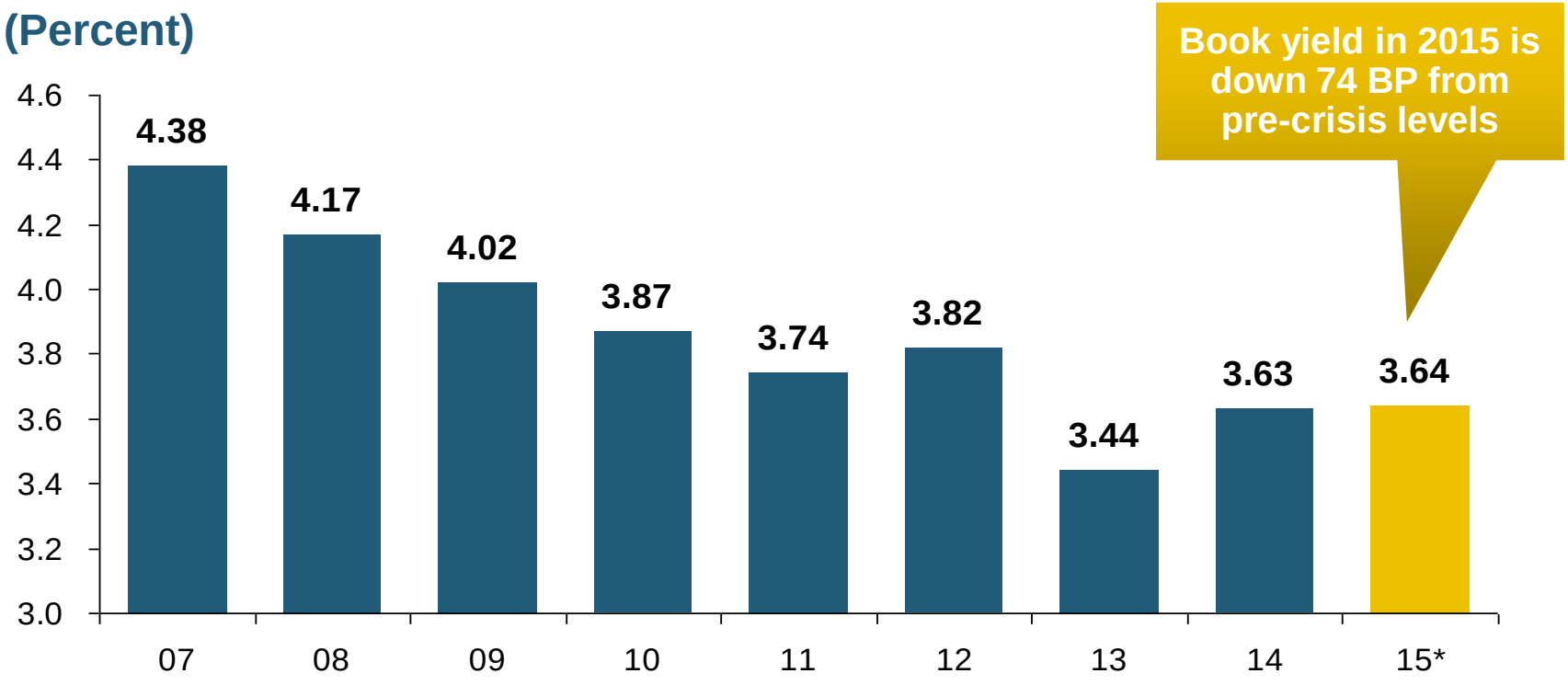


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, through July 2015.

Sources: Federal Reserve Bank at http://www.federalreserve.gov/releases/h15/data.htm. National Bureau of Economic Research (recession dates); Insurance Information Institute.

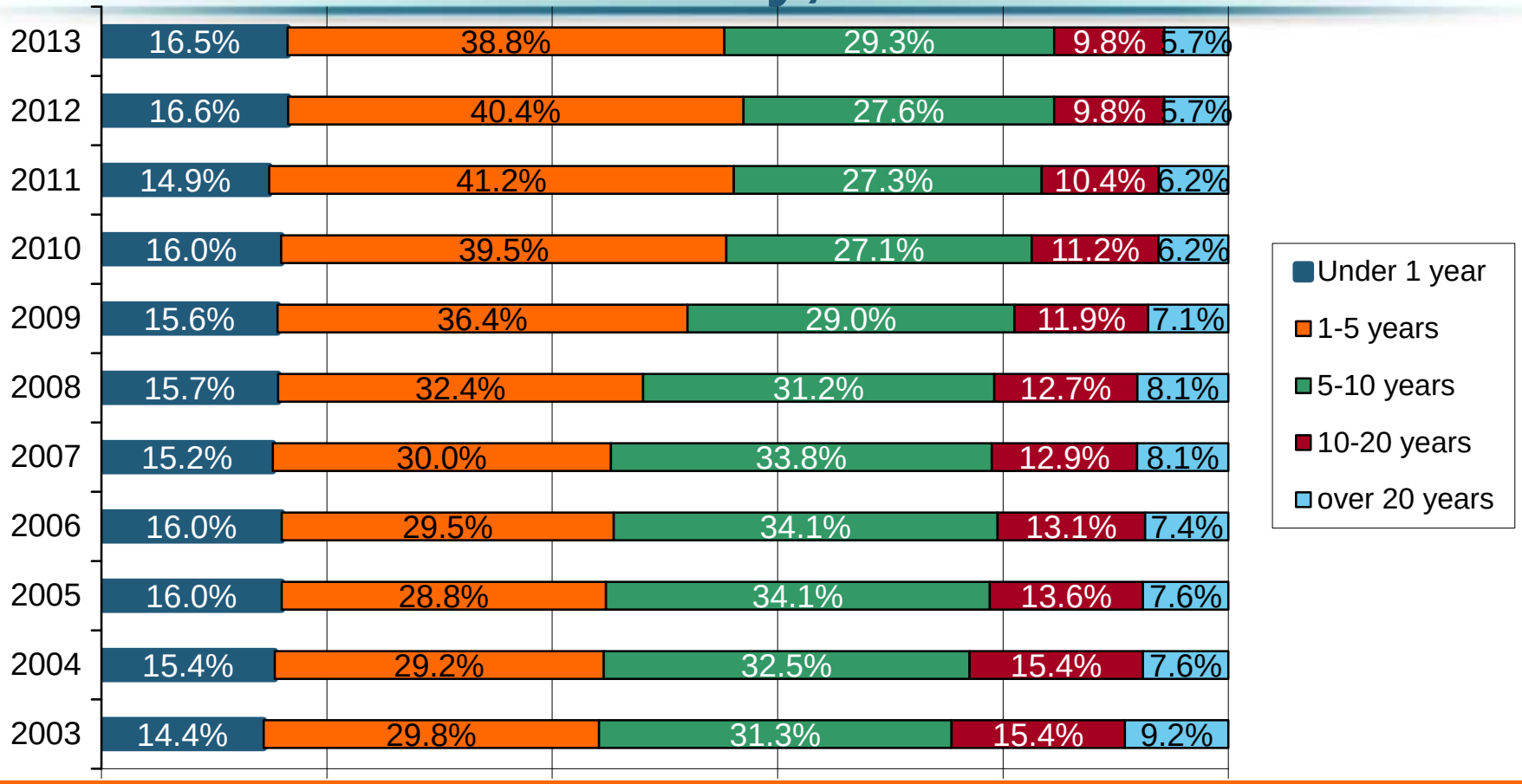
Book Yield on Property/Casualty Insurance Invested Assets, 2007–2015*



The yield on invested assets remains low relative to pre-crisis yields. The Fed's plan to raise interest rates in late 2015 has already pushed up some yields, albeit quite modestly.

*2015 figure is the average of the four quarters ending in 2015:Q1.
Sources: SNL Financial; Insurance Information Institute

Distribution of Bond Maturities, P/C Insurance Industry, 2003-2013



The main shift over these years has been from bonds with longer maturities to bonds with shorter maturities. The industry first trimmed its holdings of over-10-year bonds (from 24.6% in 2003 to 15.5% in 2012) and then trimmed bonds in the 5-10-year category (from 31.3% in 2003 to 27.6% in 2012) . Falling average maturity of the P/C industry's bond portfolio is contributing to a drop in investment income along with lower yields.

Sources: SNL Financial; Insurance Information Institute.

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Alternative Capital

New Investors Continue to Change the Reinsurance Landscape

First I.I.I. White Paper on Issue Was Released in March 2015

Global Reinsurance Capital (Traditional and Alternative), 2006-2014

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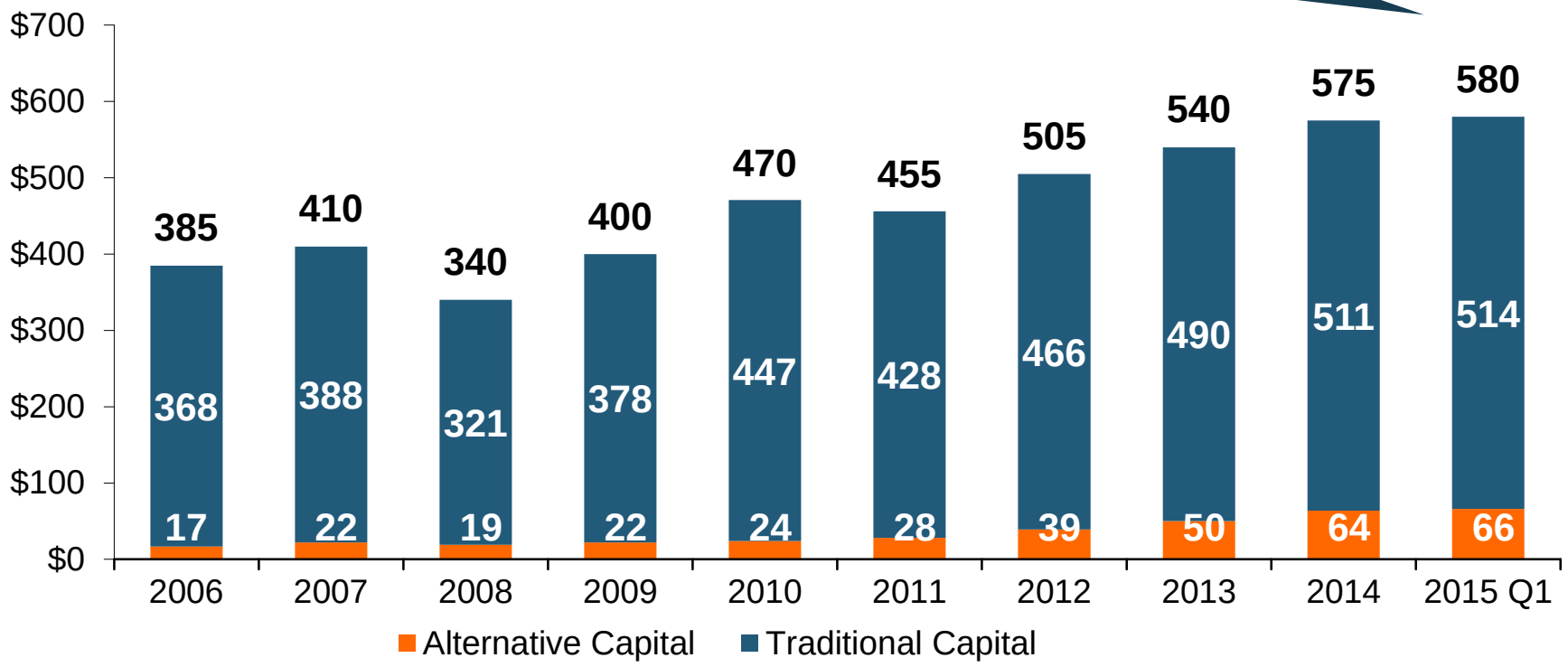
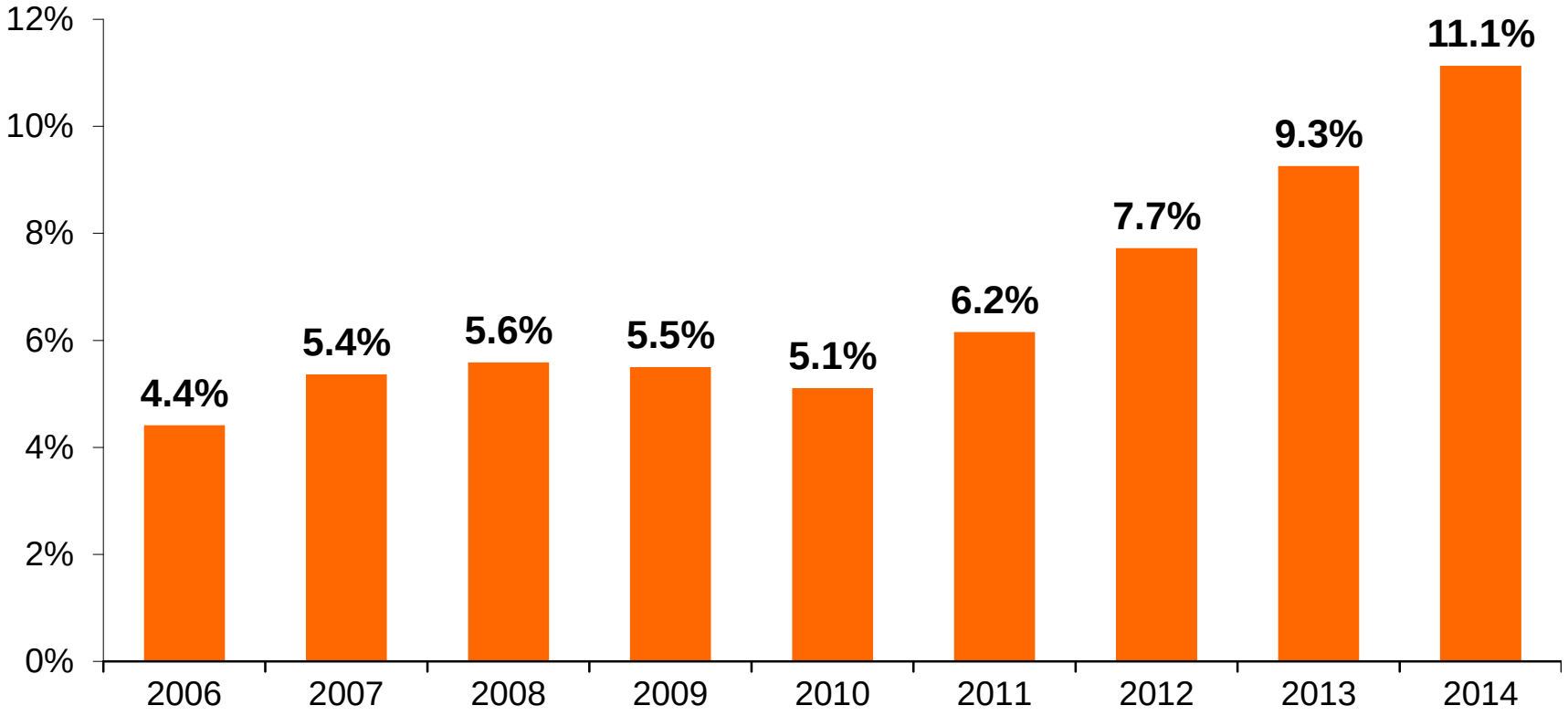
Total reinsurance capital reached a record $580B in 2014, up 71% from 2008.



But alternative capacity has grown 247% since 2008, to $66B. It has more than doubled in the past three years.

Source: Aon Benfield Analytics; Insurance Information Institute.

Global Reinsurance Capital (Traditional and Alternative), 2006 - 2014

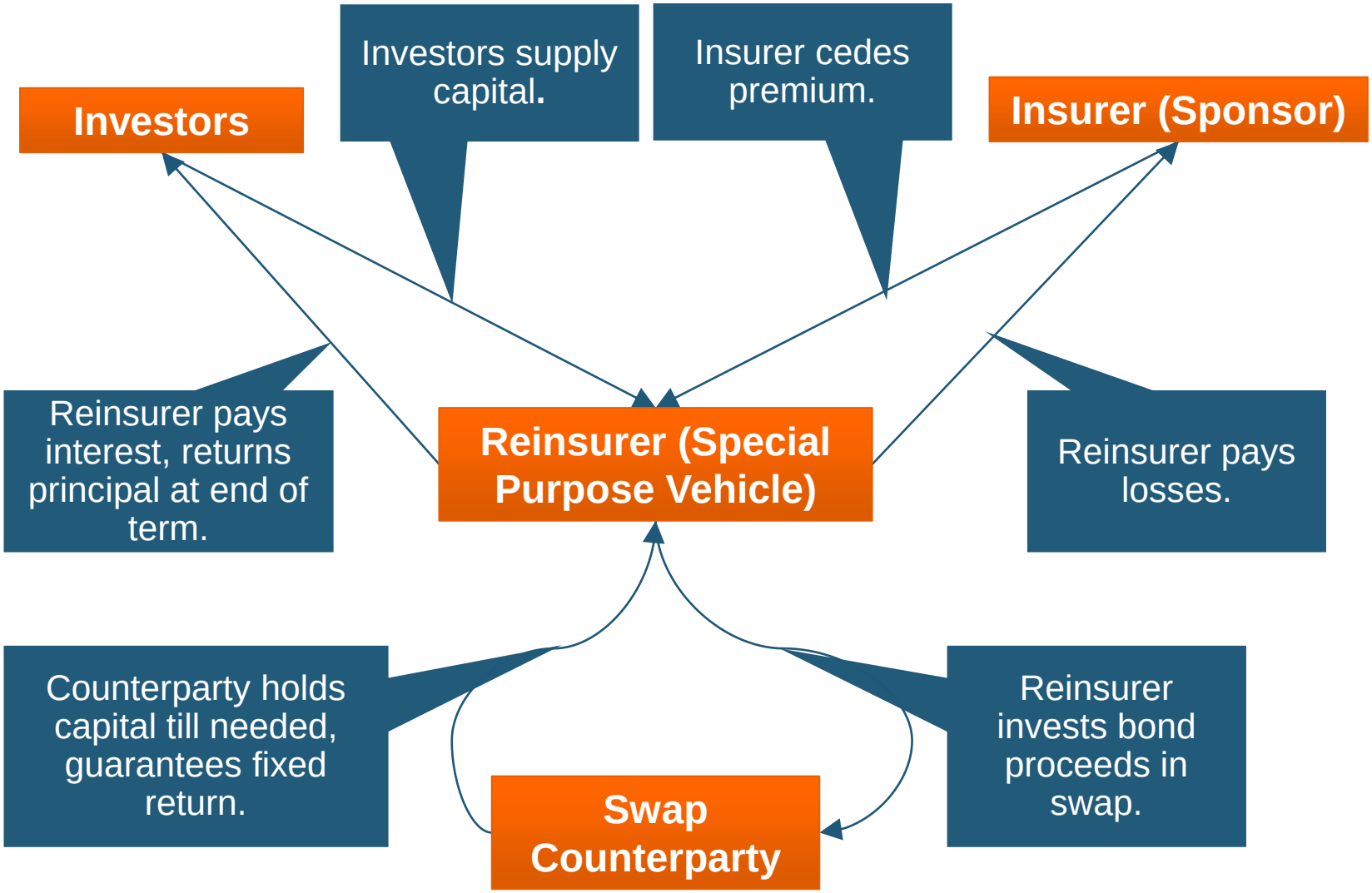


Share of Global Reinsurance Capital Has More Than Doubled Since 2010. In Cat Reinsurance, Alternative Capital Holds Up to 50% of Market.

2014 data is as of December 31, 2014.

Source: Aon Benfield Analytics; Insurance Information Institute.

How a Catastrophe Bond Works



Growth in Traditional and Alternative Capital, 2007-2014

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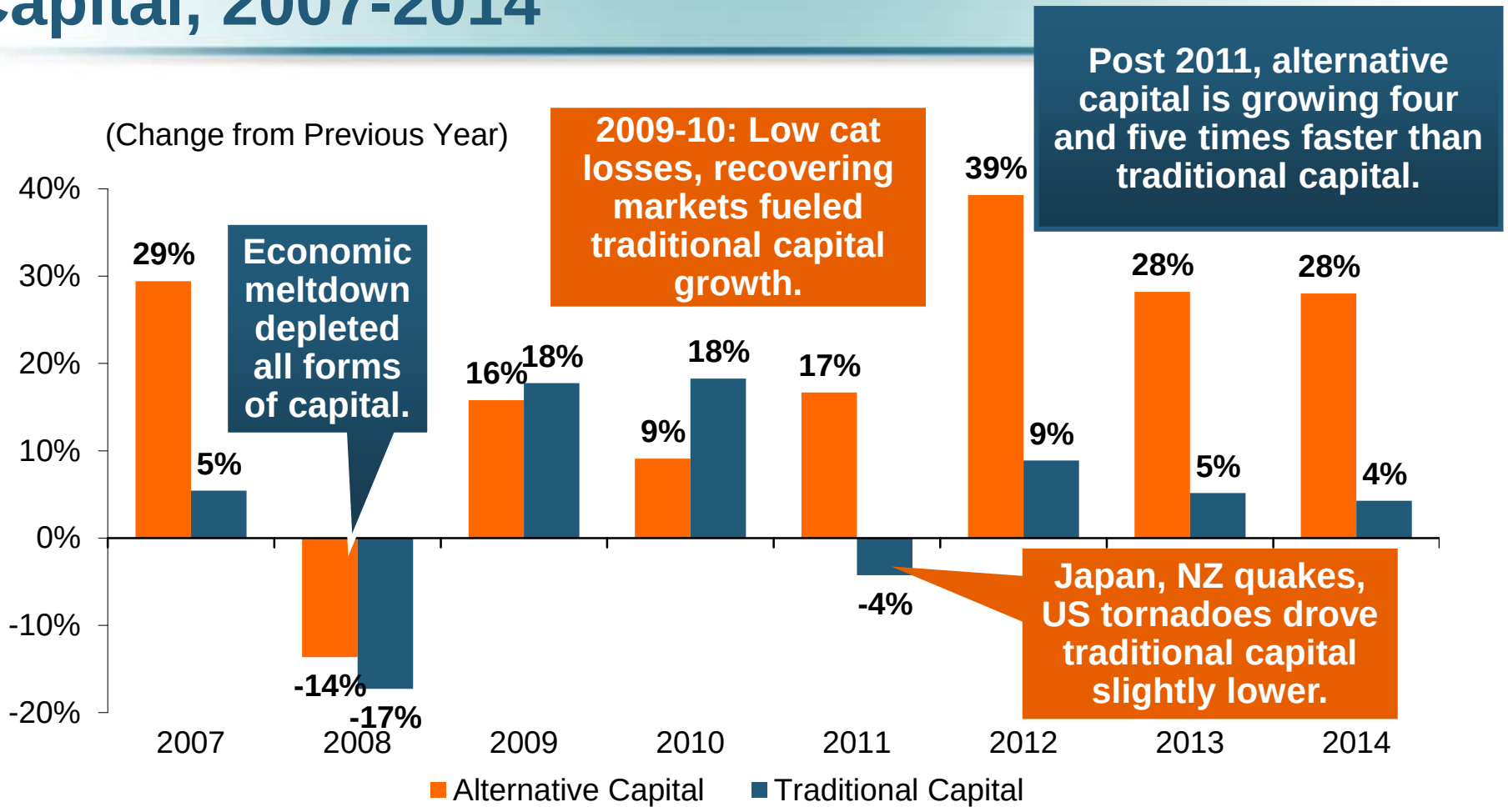

Alternative capital has grown 276% since 2006, vs. 39% growth in traditional capital.

Source: Aon Benfield Analytics; Insurance Information Institute.

Growth of Alternative Capital Structures, 2002 - 2014

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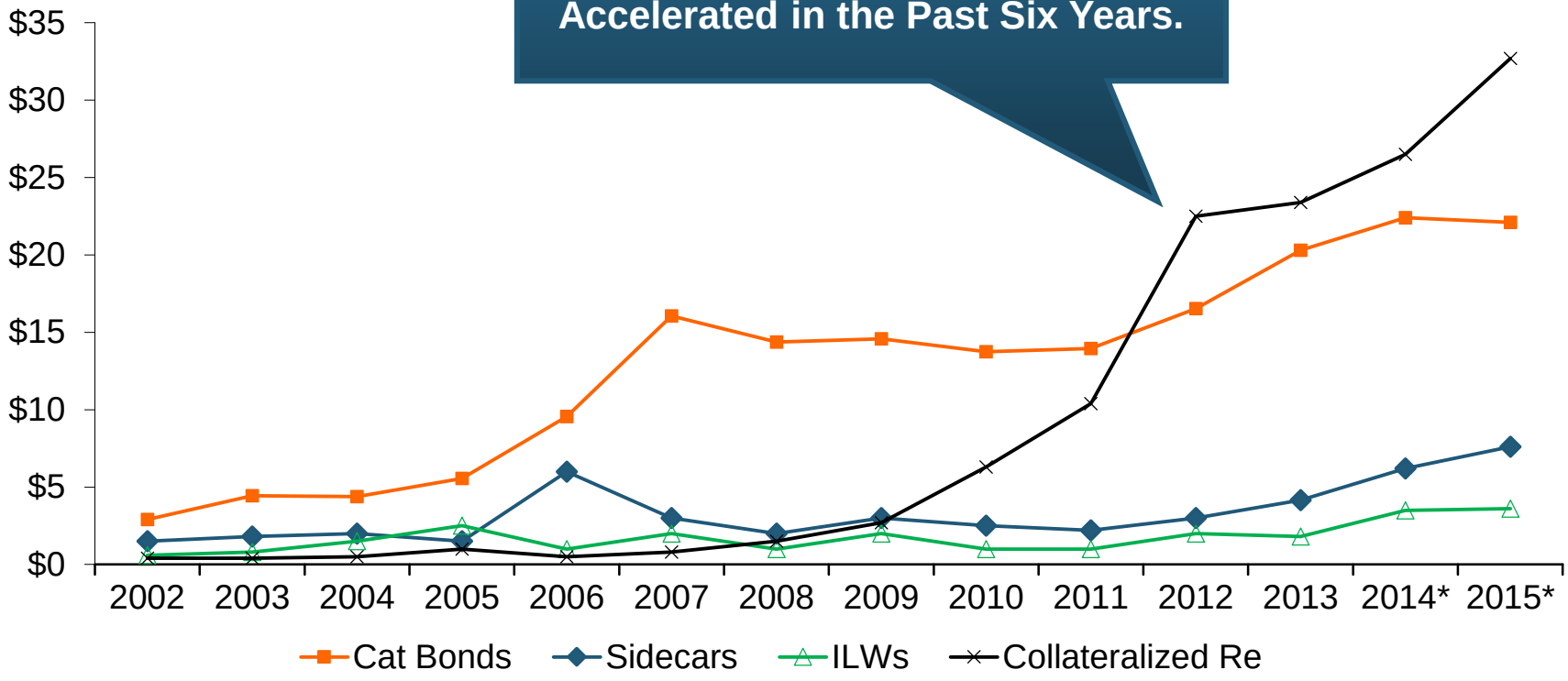
(Billions of USD)

Collateralized Re's Growth Has Accelerated in the Past Six Years.



Collateralized Reinsurance and Catastrophe Bonds Currently Dominate the Alternative Capital Market.

* 2014 data are as of June 30, and 2015 data are as of March 31.

Source: Aon Benfield Analytics; Insurance Information Institute.

Catastrophe Bond Issuance and Outstanding: 1997-2015

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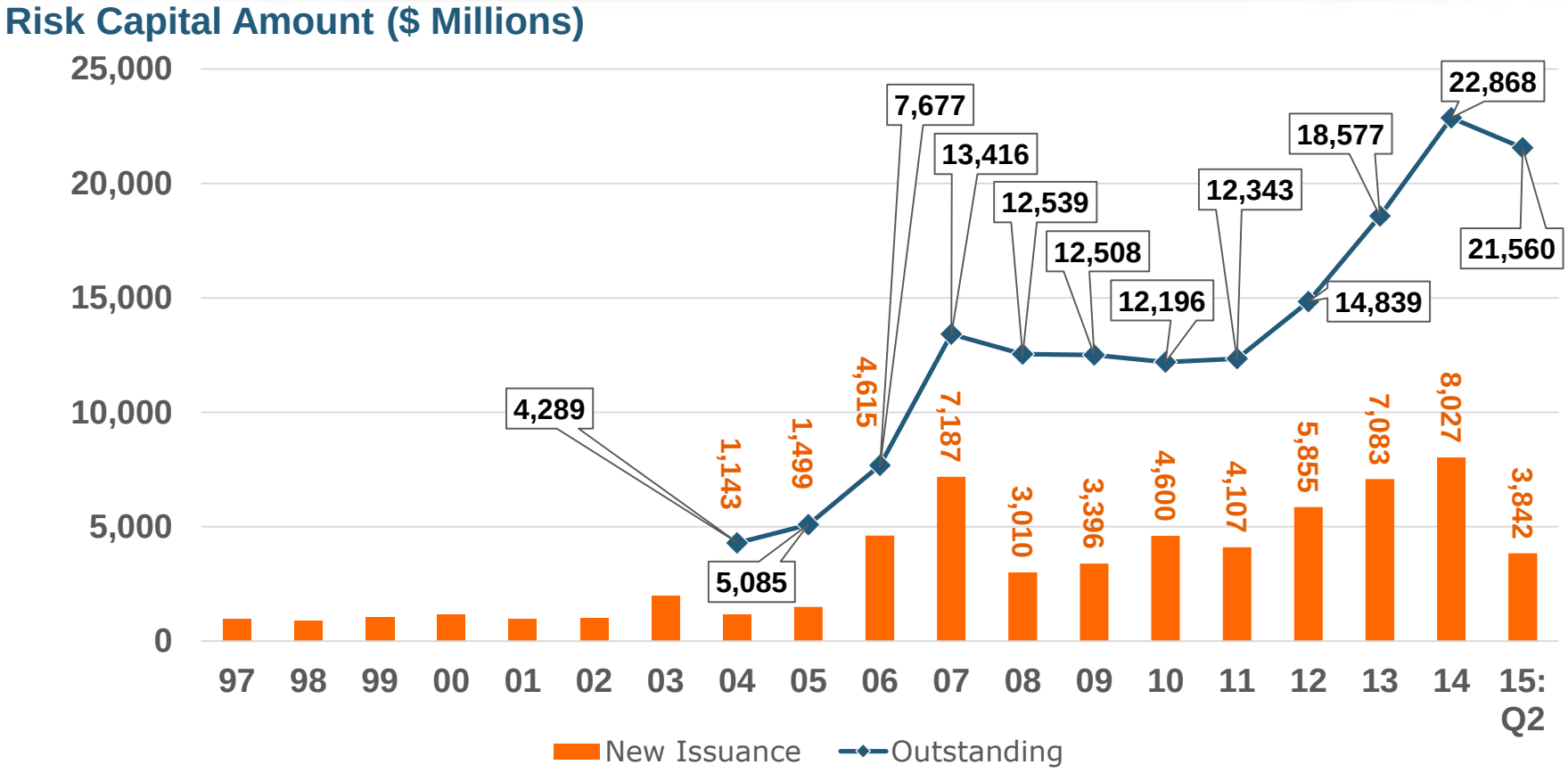
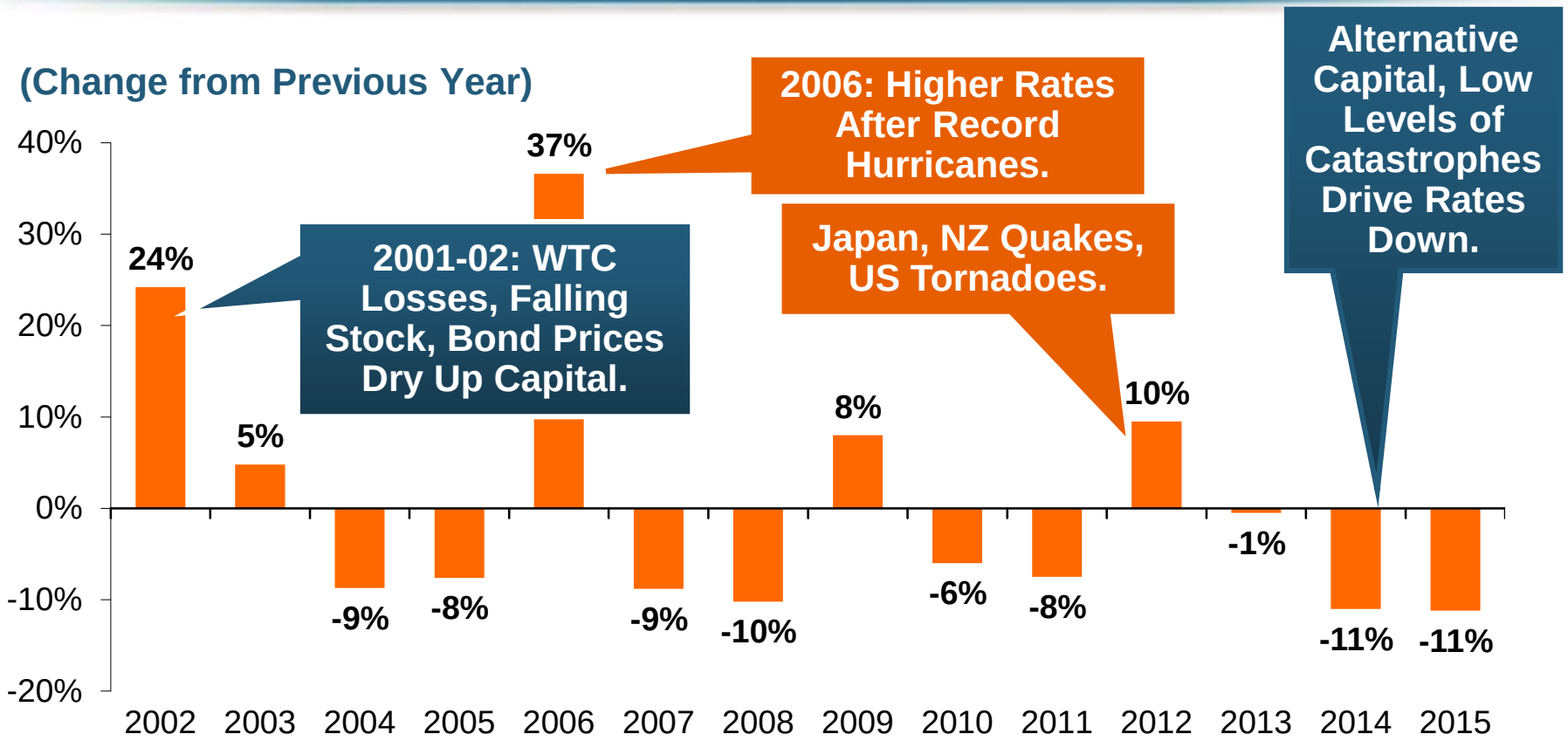


Q1 2015 Set A First-Quarter Record With $1.49 Billion in New Issues; Q2 Issuance Lagged Prior Two Years.

Source: Guy Carpenter.

Reinsurance Pricing: Change in Rate on Line for Global Cat Business



One Effect of Alternative Capital: Lower Cat Reinsurance Prices. Price is As Low Now as Before 9/11.

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

U.S. INSURANCE MERGERS AND ACQUISITIONS, P/C SECTOR, 1994-2014 (1)

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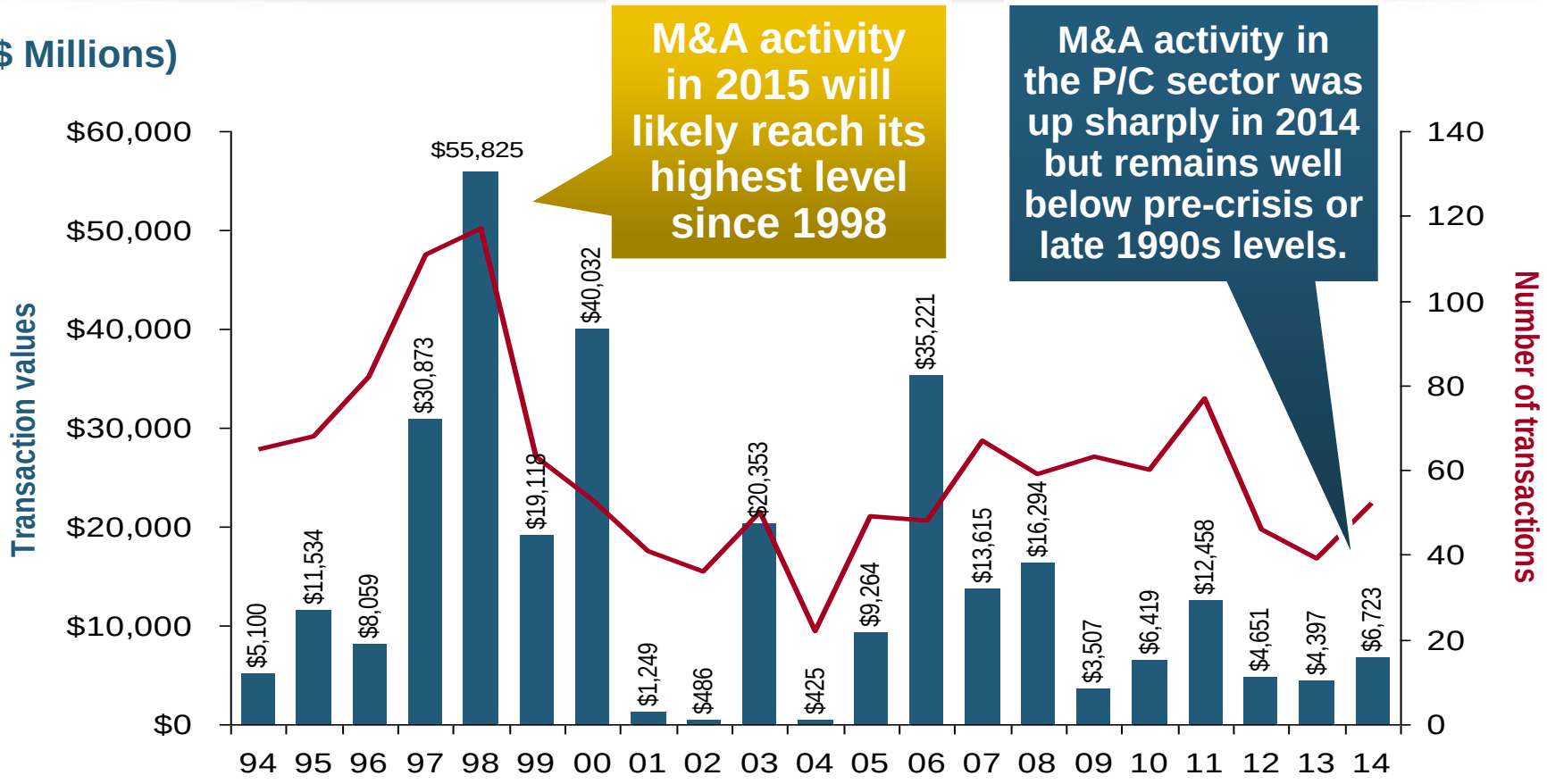
($ Millions)



Another Effect of Alternative Capital: Merger Mania.

(1) Includes transactions where a U.S. company was the acquirer and/or the target.
Source: Conning proprietary database.

Another Result:
$68 Billion in Mergers, 2014-2015 YTD

Acquirer	Target	Value ($millions)
ACE (Switzerland)	**Chubb (US)**	**$28,300**
Tokio Marine Holdings (Japan)	HCC Insurance Holding (U.S.)	7,500
Exor (Italy)	PartnerRe Ltd. (Bermuda)	6,700
Mitsui Sumitomo	Amlin (UK)	5,400
XL Group plc (Ireland)	Catlin Group Ltd. (Bermuda)	4,200
Fosun International (China)	Ironshore (US)	2,300
RenaissanceRe Holdings Ltd. (Bermuda)	Platinum Underwriters Holdings Ltd. (Bermuda)	1,900
Endurance Specialty Hldgs Ltd. (Bermuda)	Montpelier Re Holdings Ltd. (Bermuda)	1,800
Fairfax Financial Holdings Ltd. (Canada)	Brit Insurance Holdings NV (Netherlands)	1,880
Desjardins Financial Corp. (Canada)	State Farm's P/C, Life (Canada)	1,500
TPG Capital LP	The Warranty Group, Inc. (Canada)	1,500
Fosun International Ltd. (China)	Caixa Seguros e Saude SGPA SA (Portugal)	1,360
Progressive Corp.	ARX Holding Corp.	875
Assured Guaranty Ltd. (Bermuda)	Radian Asset Assurance, Inc.	810
Mapfre S.A. (Spain)	Direct Line Insurance Group plc (Germany/Italy only)	701
Validus Holdings Ltd. (Bermuda)	Western World Insurance Group, Inc.	690
ACE Ltd. (Switzerland)	P/C business from Itau Seguros S.A. (Brazil)	685

Update: Alleghany Corp. announced in May 2015 that it is considering the sale of Transatlantic Holding Co. (TransRe).
*Source: Conning; Insurance information Institute.

What's Driving Global Insurance M&A Activity and Will It Continue?

- **Excess Capital in Global Reinsurance and Primary Commercial Insurance in US**
  - **(Re)Insurers, like corporations in many industry, are sitting are large amounts of cash accumulated since the Global Financial Crisis that earns very little**
- **Alternative Capital**
- **Slow Top Line (Premium) Growth**
- **Slowdown in Pace of Earnings Growth/ROE**
- **Desire to Achieve Economies of Scale**
- **Peer Pressure/Momentum**
  - **Management concerns about being "left out"**

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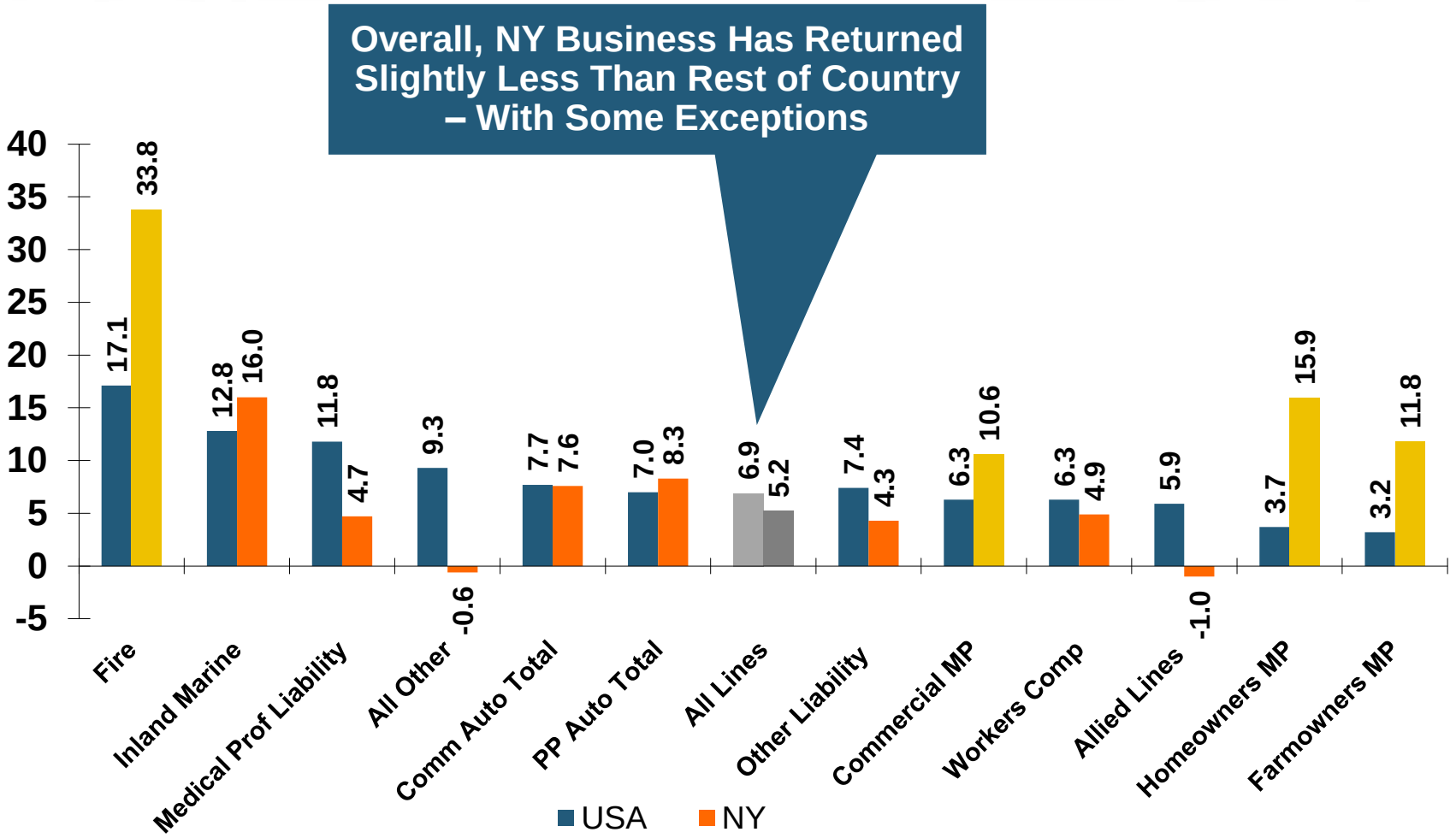
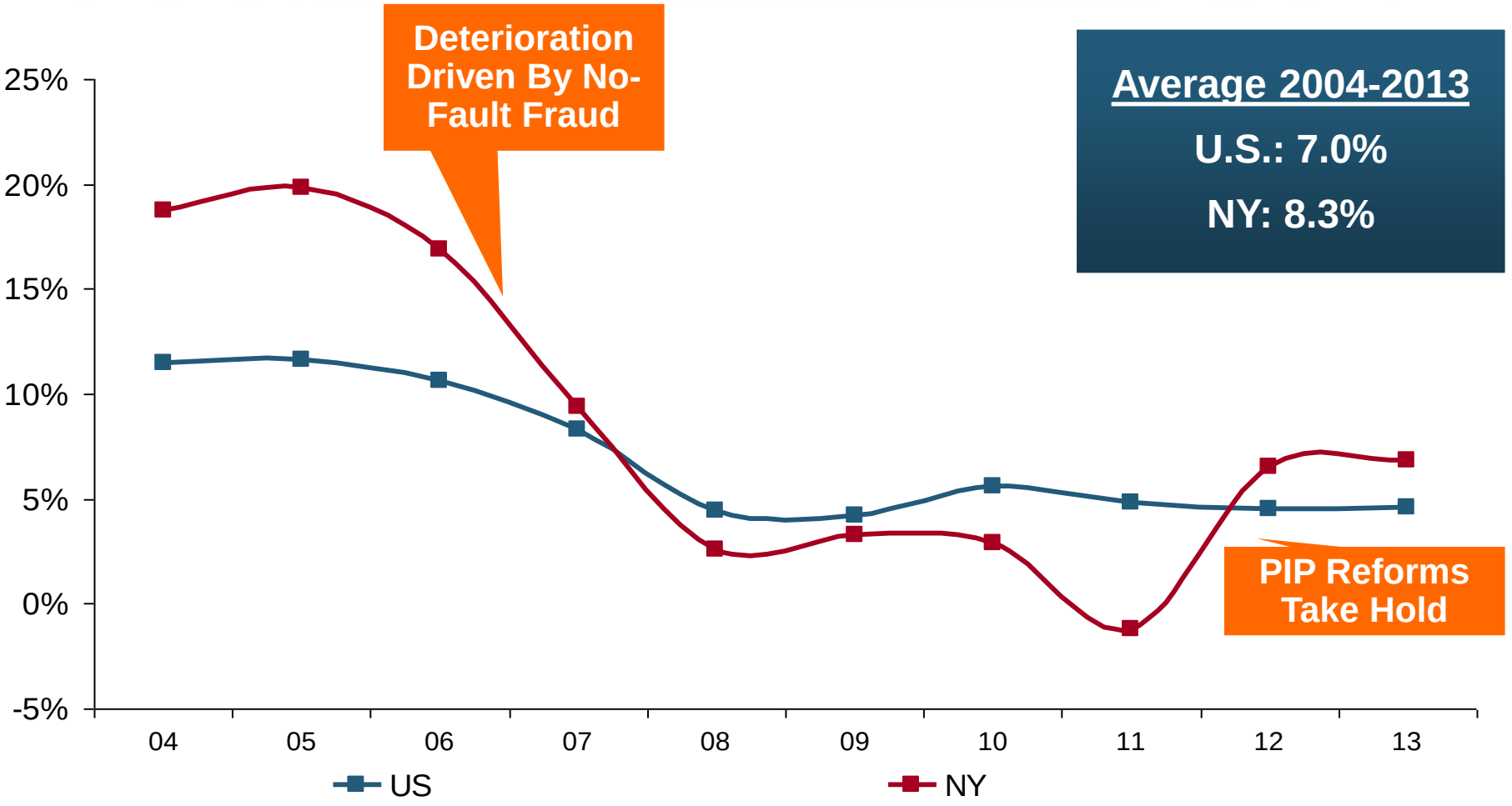
Performance by Segment

Return on Net Worth (RNW) All Lines: 2004-2013 Average



Source: NAIC; Insurance Information Institute.

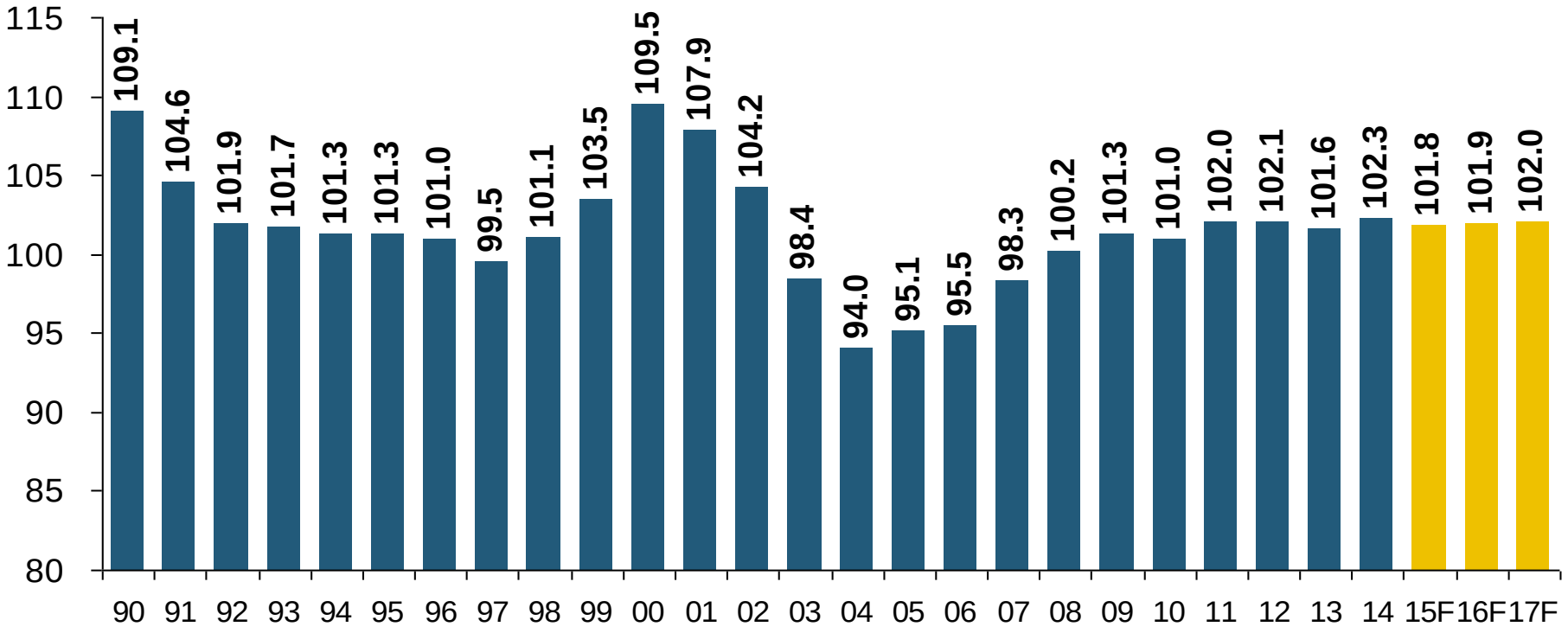
RNW PP Auto: NY vs. U.S., 2004-2013



Countrywide Increases in Frequency, Severity Force Rates Higher/Margins Lower While Consumer/Regulatory Challenges Emerge.

Source: NAIC, Insurance Information Institute

Personal Auto Net Combined Ratio: 1990–2017F

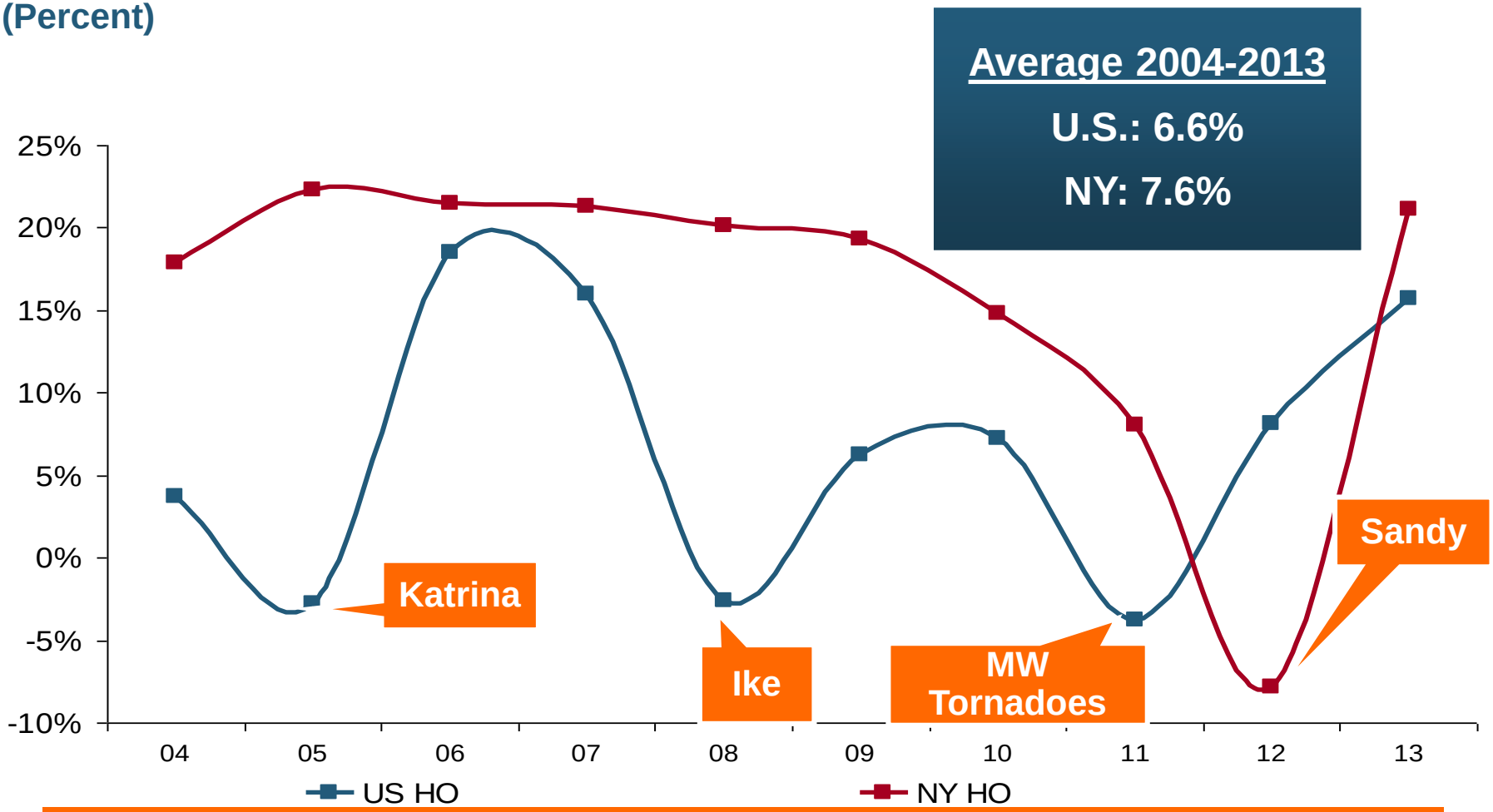


Rising Frequency and Severity Since Fall 2014 Means Forecasts May Rise for 2015 and Later.

Sources: A.M. Best (1990-2014);Conning (2015F-2017F); Insurance Information Institute.

RNW Homeowners: NY vs. U.S., 2004-2013

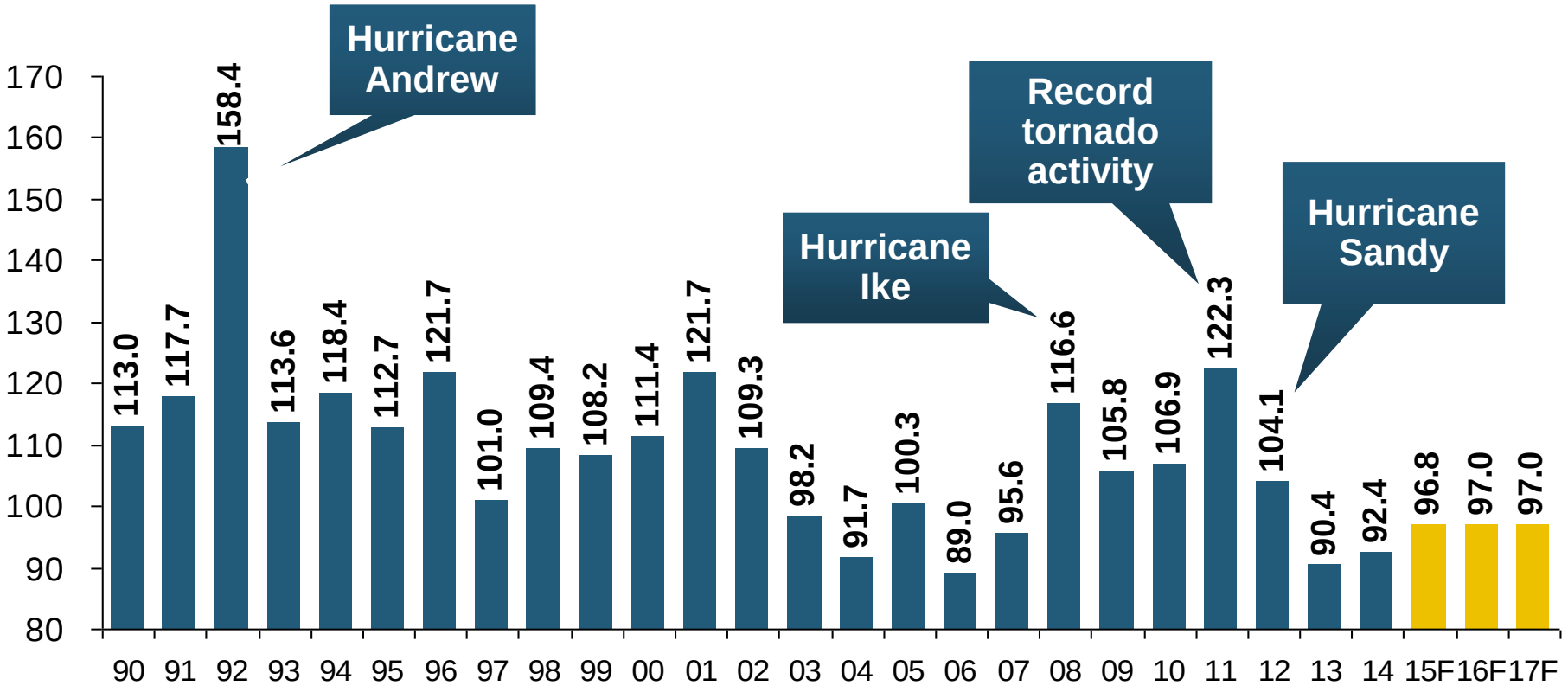
(Percent)



Gradual Decadelong Improvement in This Cat-Driven Line May Be Bringing in New Players from the Sidelines.

Source: NAIC, Insurance Information Institute

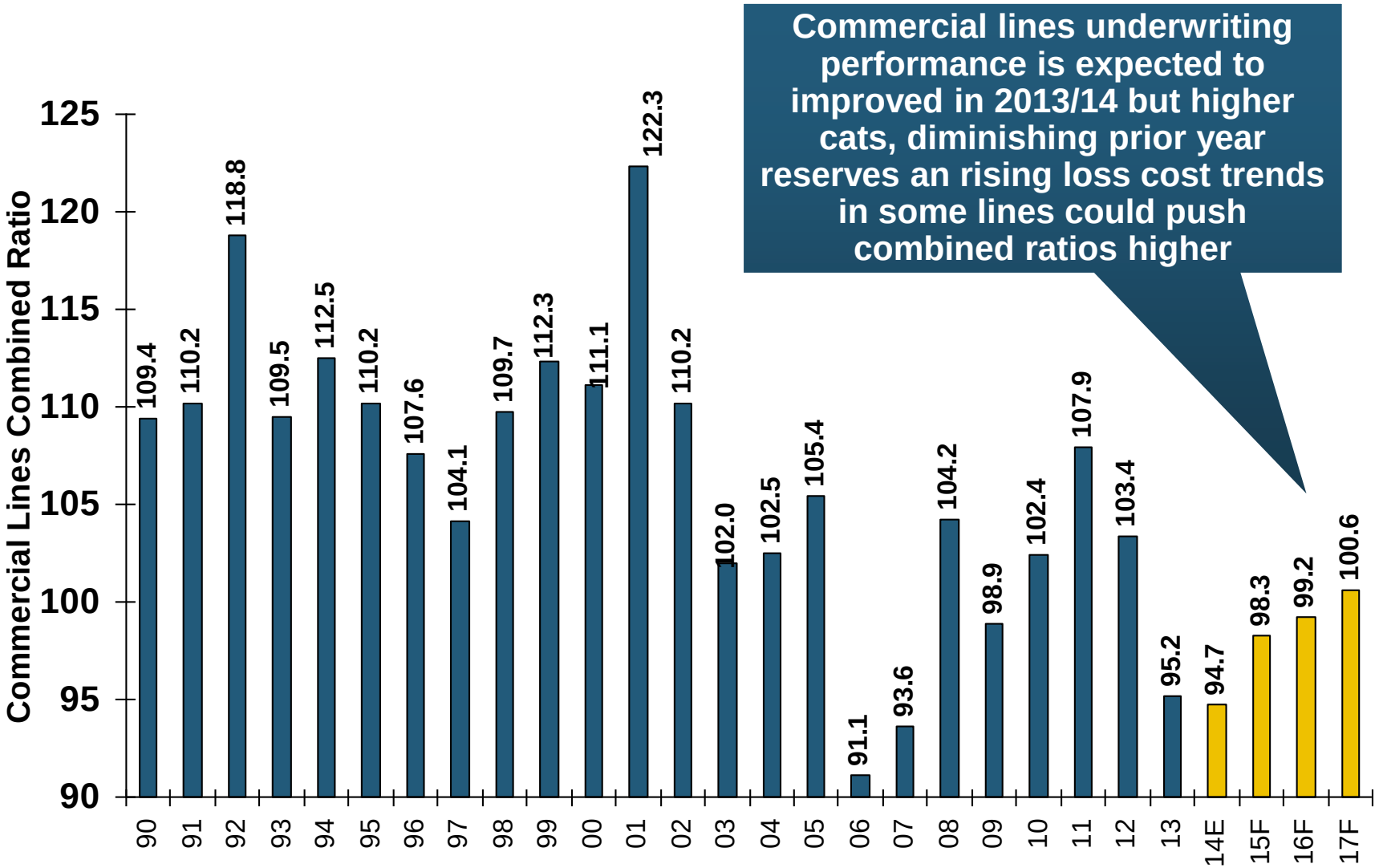
Homeowners Insurance Net Combined Ratio: 1990–2017F



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

Sources: A.M. Best (1990-2014);Conning (2015F-2014F); Insurance Information Institute.

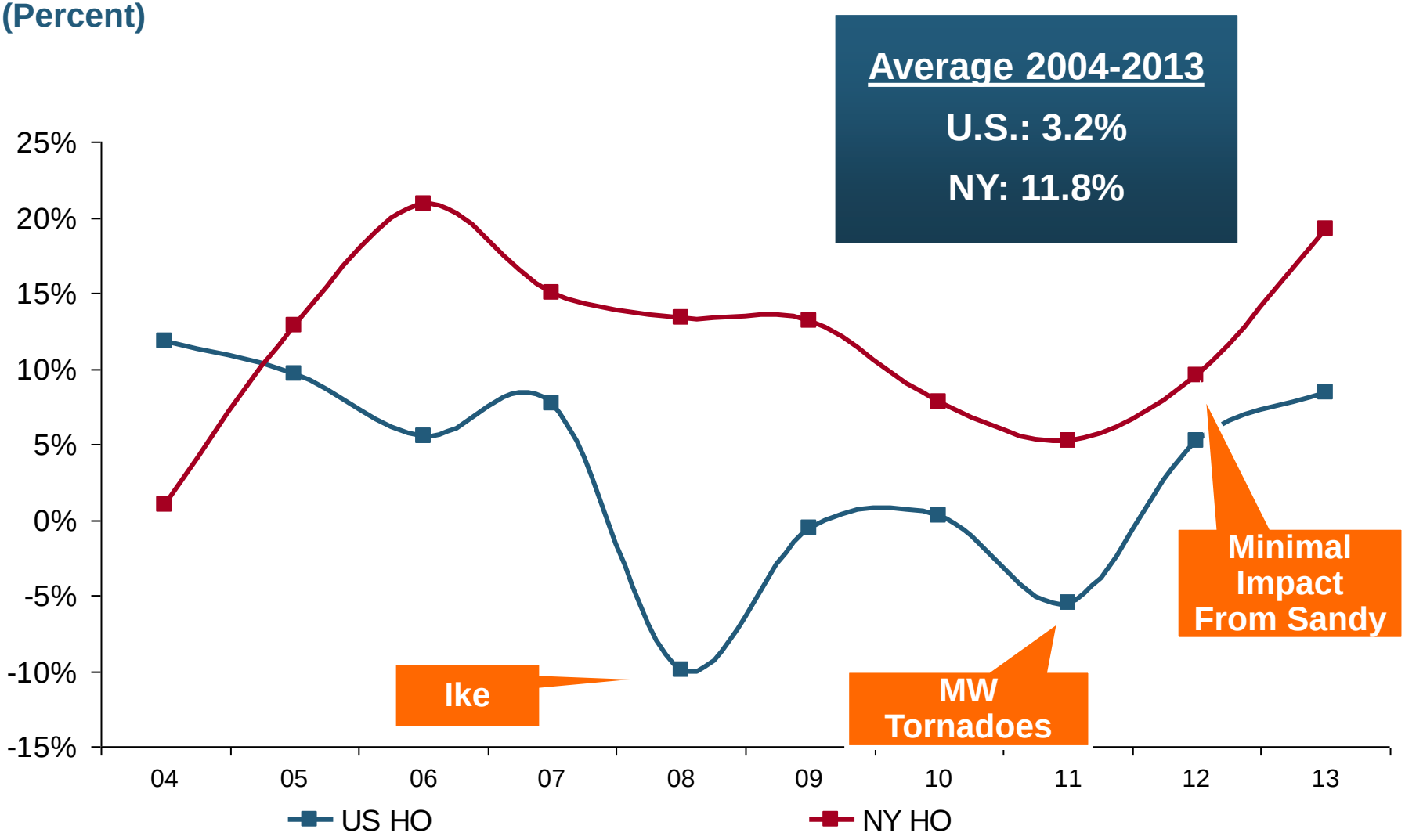
Commercial Lines Combined Ratio, 1990-2017F*



*2007-2012 figures exclude mortgage and financial guaranty segments.
Source: A.M. Best (1990-2014E); Conning (2015-17F) Insurance Information Institute.

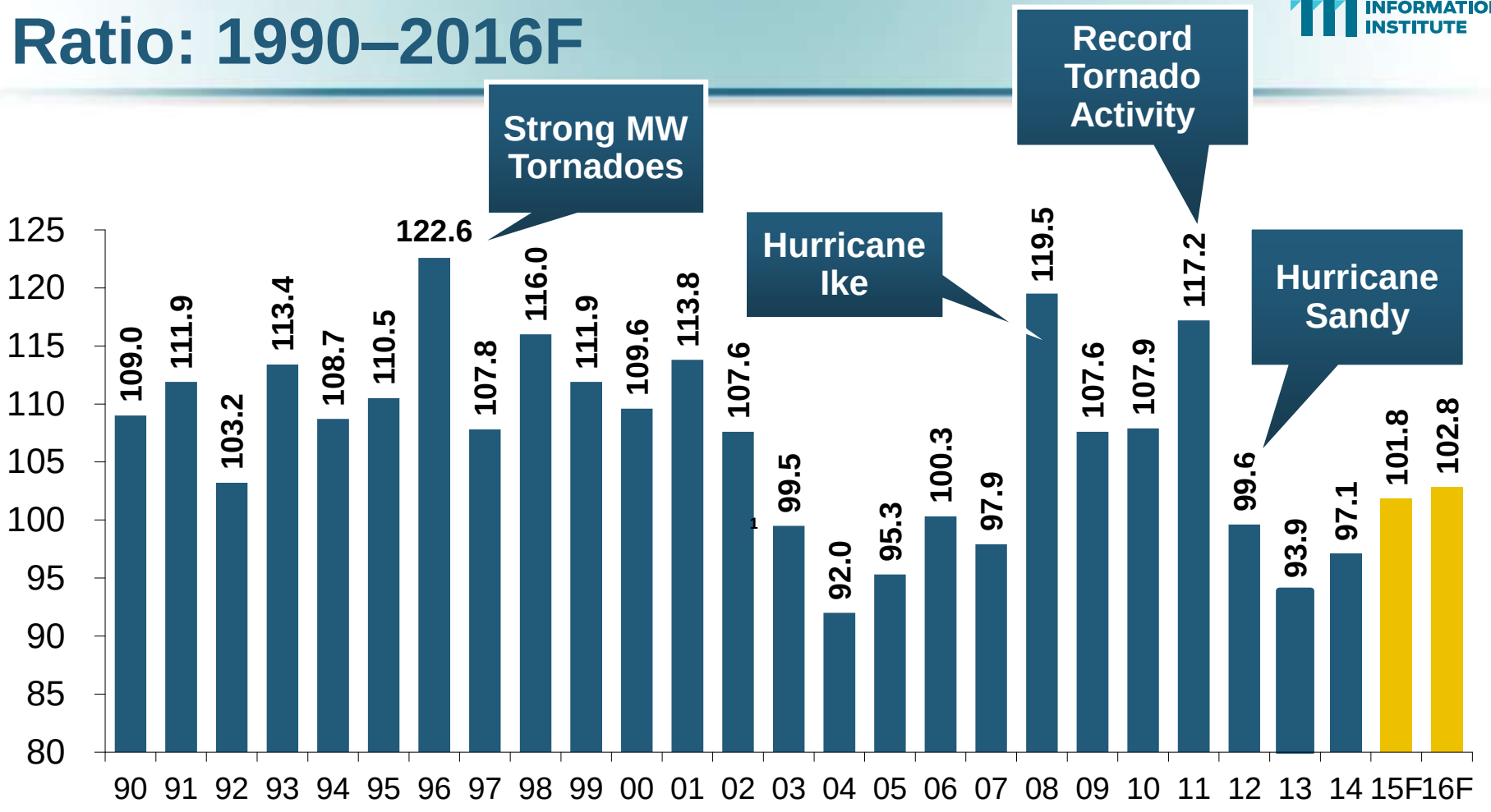
RNW Farmowners: NY vs. U.S., 2004-2013

(Percent)



Source: NAIC, Insurance Information Institute

Farmowners Insurance Combined Ratio: 1990–2016F



Results Vary (Extremely) By Region Due to Local Catastrophe Activity, Which Has Been Favorable Recently Countrywide.

Sources: A.M. Best (1990-2014);Conning (2015F-2016F); Insurance Information Institute.

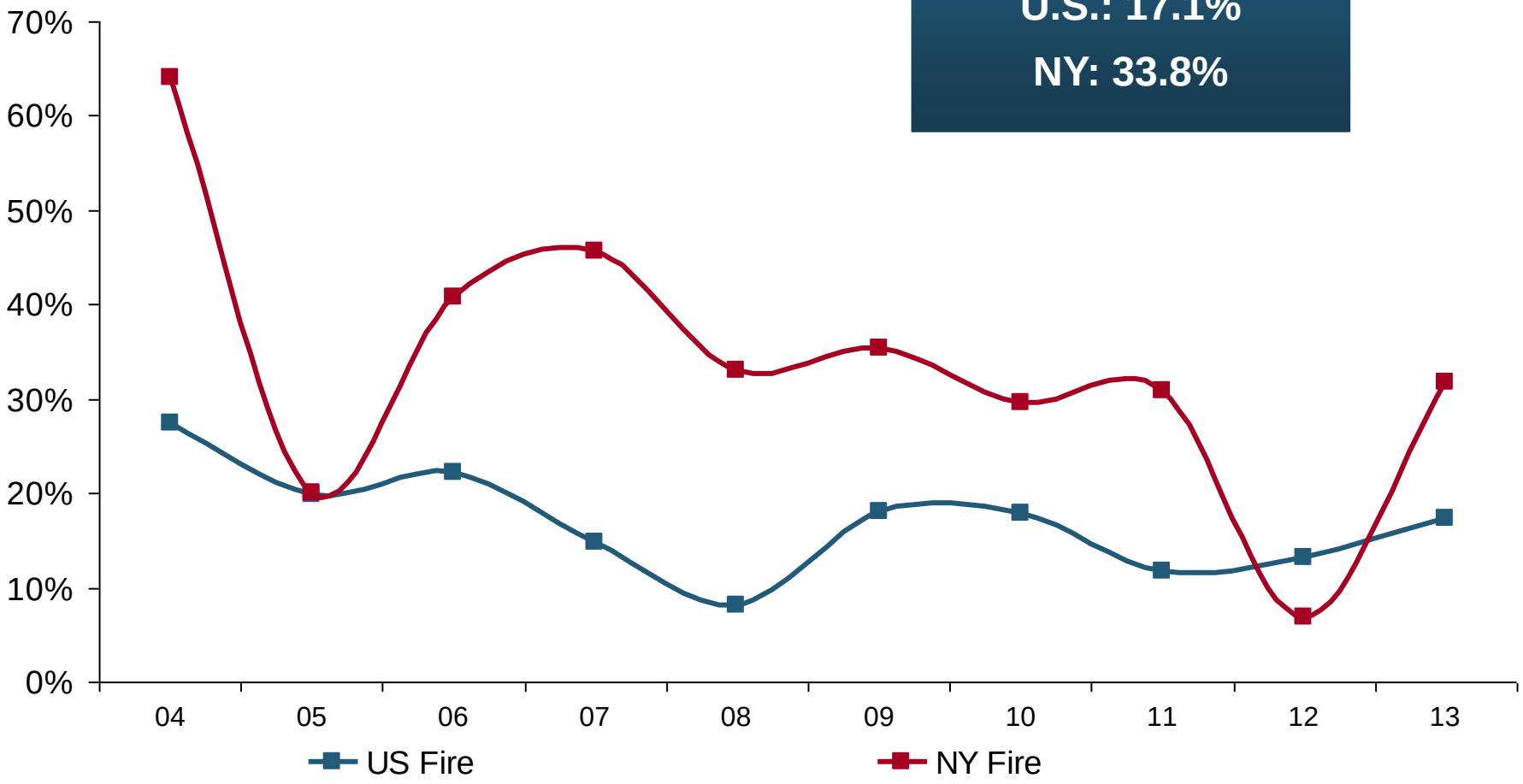
RNW Fire: NY vs. U.S., 2004-2013

(Percent)

Average 2004-2013

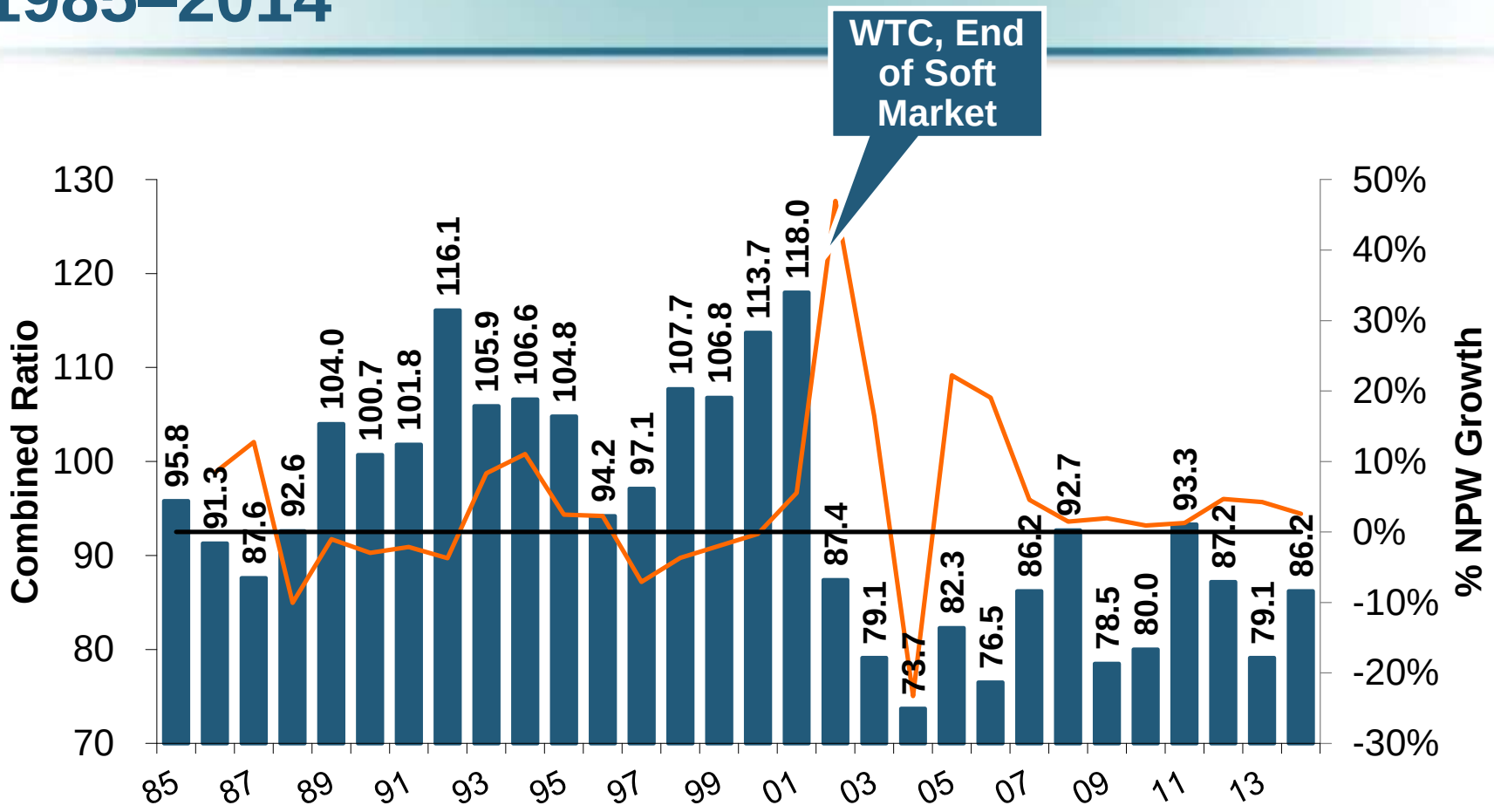
U.S.: 17.1%

NY: 33.8%



Source: NAIC, Insurance Information Institute

Fire Combined Ratio: 1985–2014

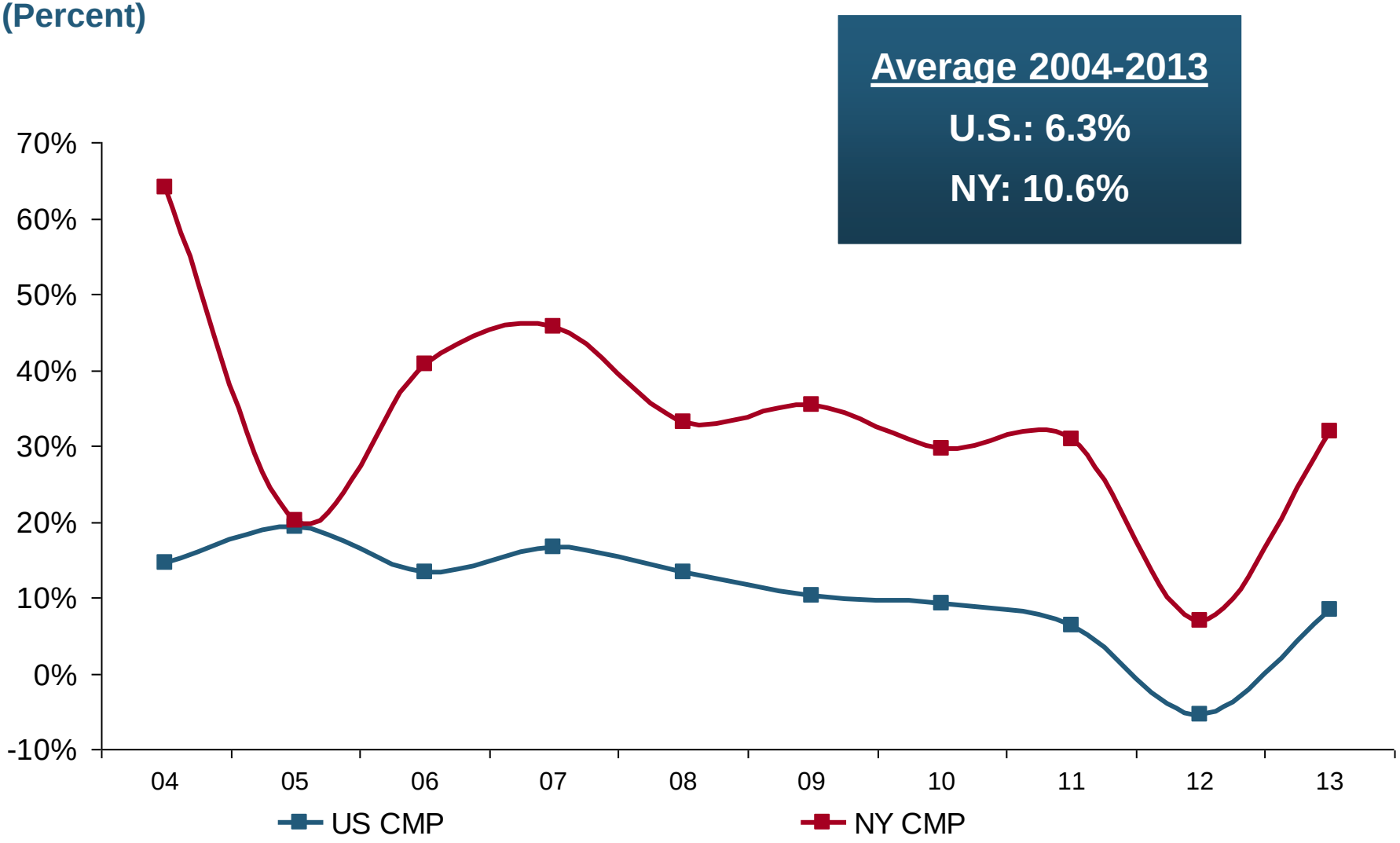


Absent Wildfires and Conflagrations, Fire Results Vary But Have Generated Industrywide U/W Profit When Insurance Cycle Permits. Individual Company Results Vary.

Source: Insurance Information Institute calculations from A.M. Best.

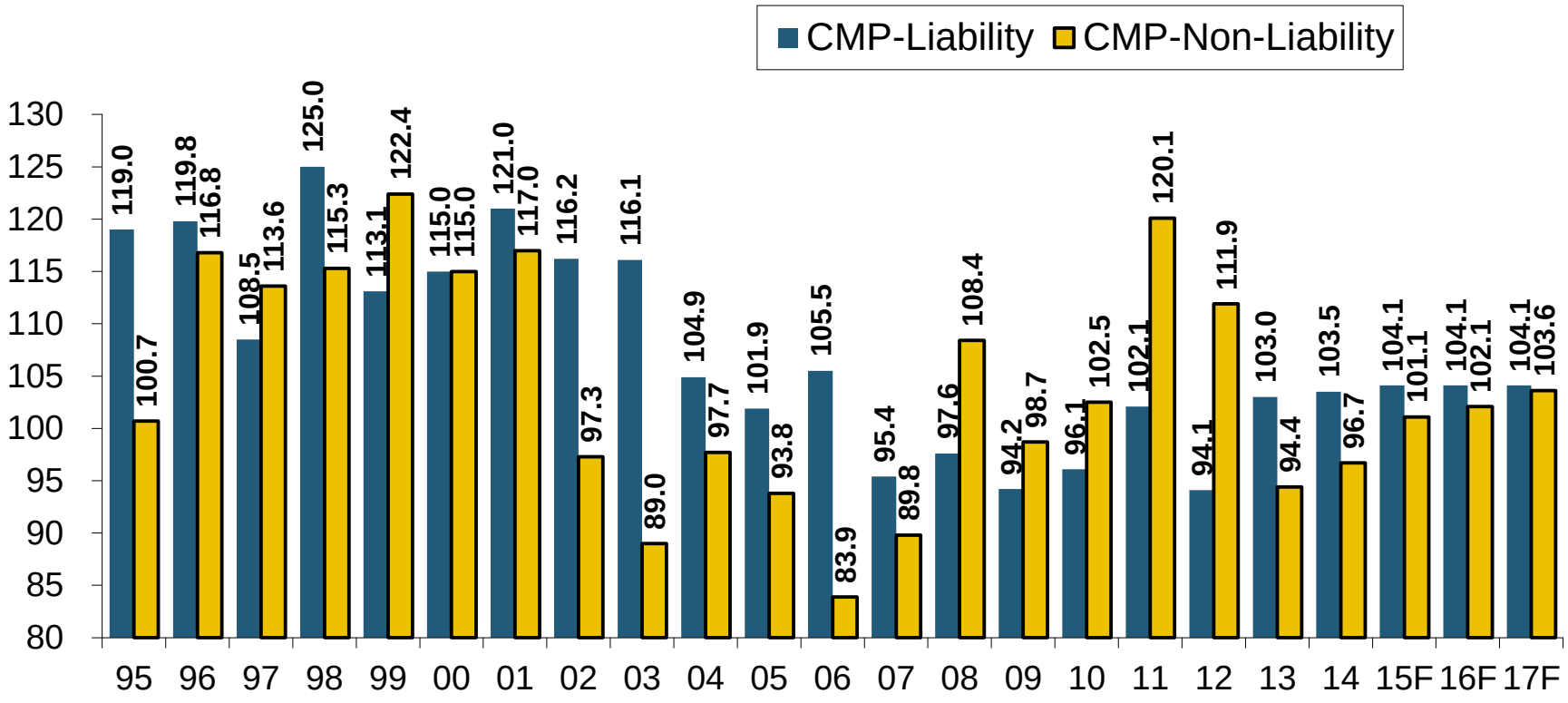
RNW Commercial Multi-Peril: NY vs. U.S., 2004-2013

(Percent)



Source: NAIC, Insurance Information Institute

Commercial Multi-Peril Combined Ratio: 1995-2017F



Commercial Multi-Peril Underwriting Performance is Expected to Remains Stable in 2015 Assuming Normal Catastrophe Loss Activity

Sources: A.M. Best (1995-2014); Conning (2015F-2017F); Insurance Information Institute.

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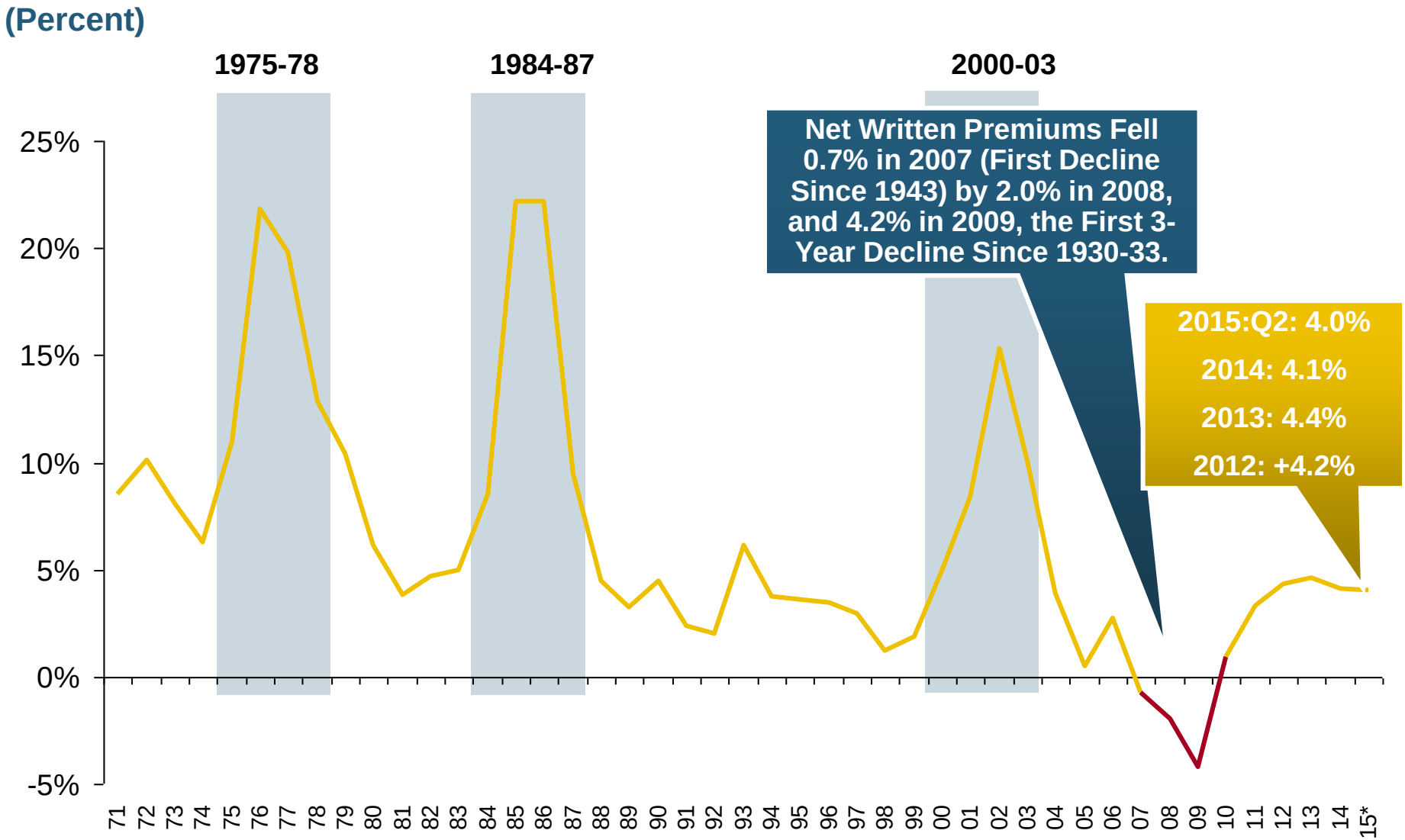
Growth Analysis by State and Business Segment

Post-Crisis Paradox?

Premium Growth Rates Vary Tremendously by State

Net Premium Growth (All P/C Lines): Annual Change, 1971—2015:Q2



Shaded areas denote "hard market" periods
Sources: A.M. Best (1971-2013), ISO (2014-15).

Direct Premiums Written: Total P/C Percent Change by State, 2007-2014

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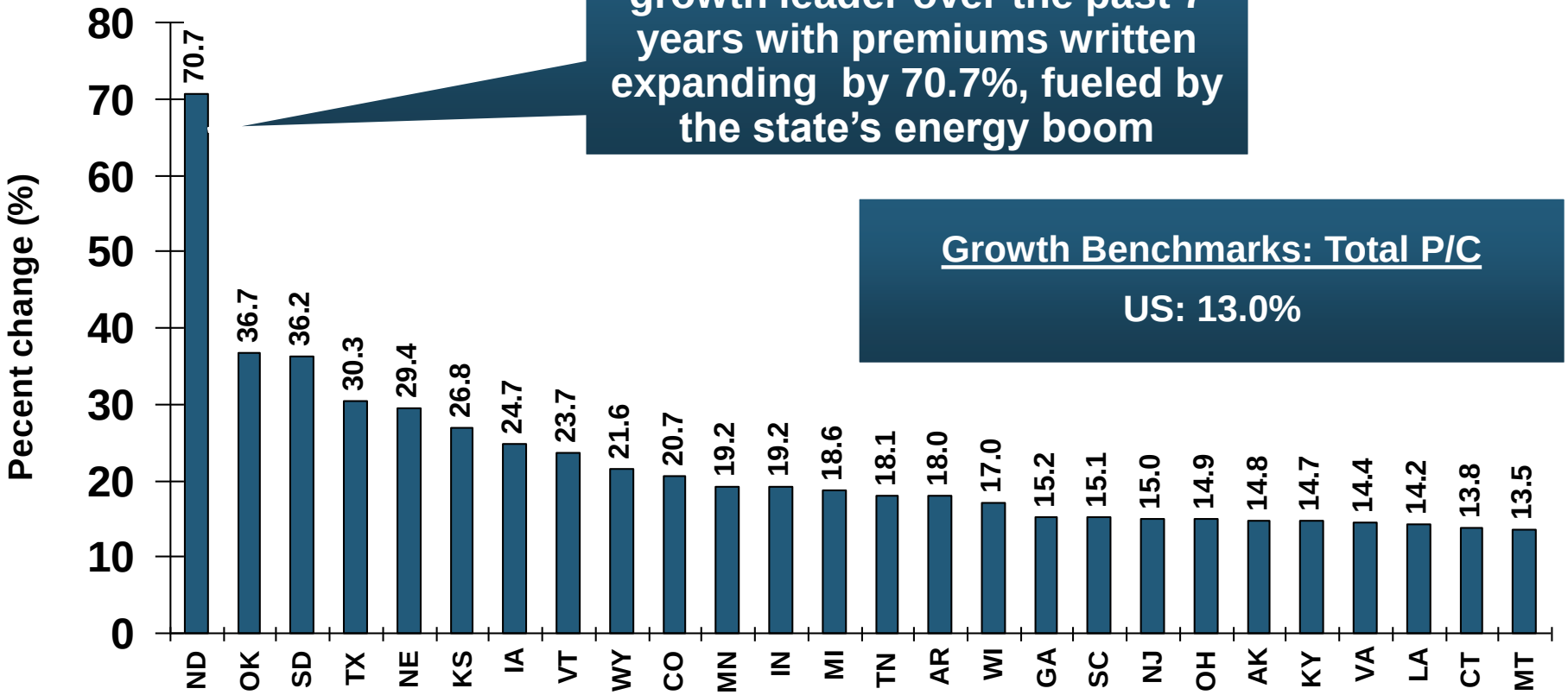
Top States

North Dakota was the country's growth leader over the past 7 years with premiums written expanding by 70.7%, fueled by the state's energy boom

Growth Benchmarks: Total P/C

US: 13.0%



Sources: SNL Financial LC.; Insurance Information Institute.

Direct Premiums Written: Total P/C Percent Change by State, 2007-2014

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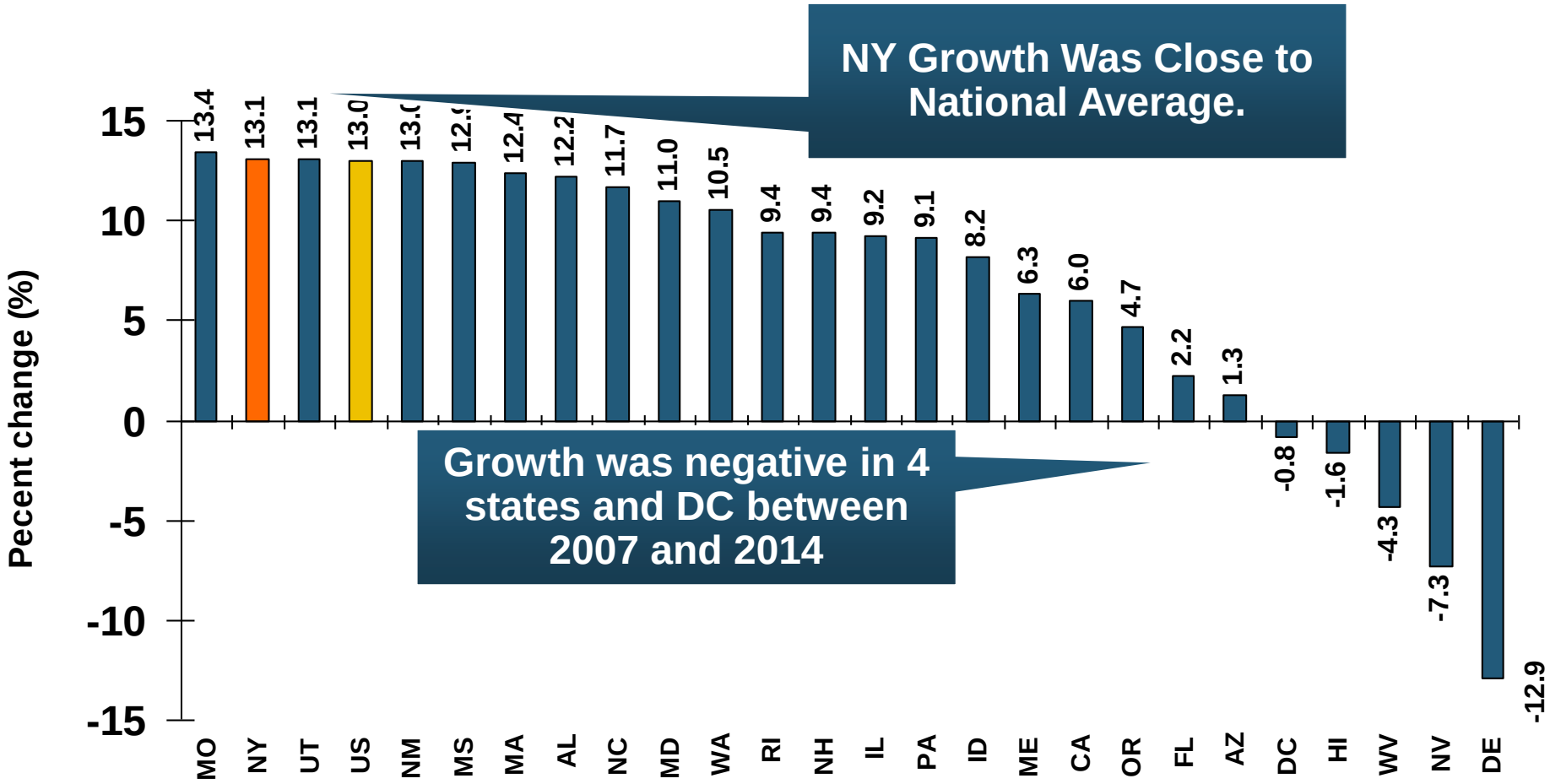
Bottom States



Sources: SNL Financial LC.; Insurance Information Institute.

Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2014

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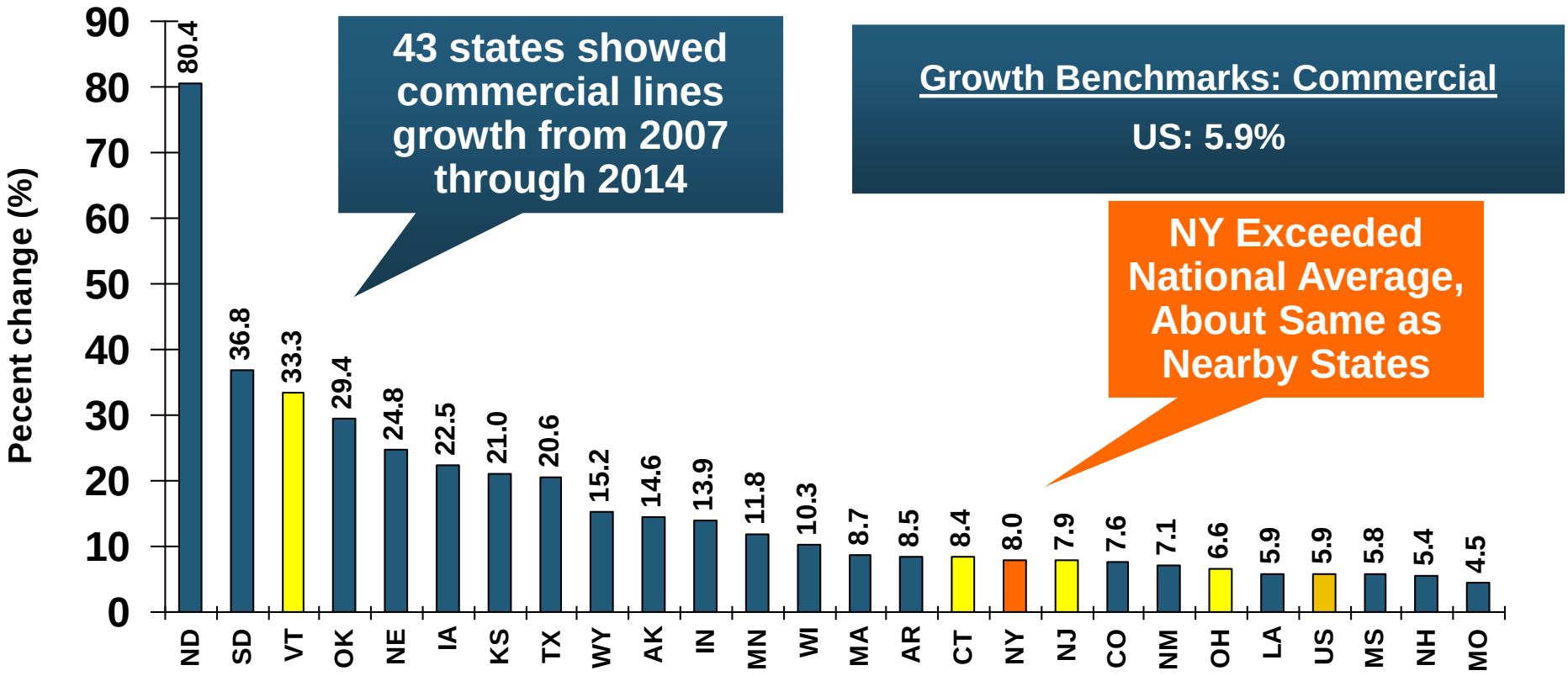
Top States



Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2014

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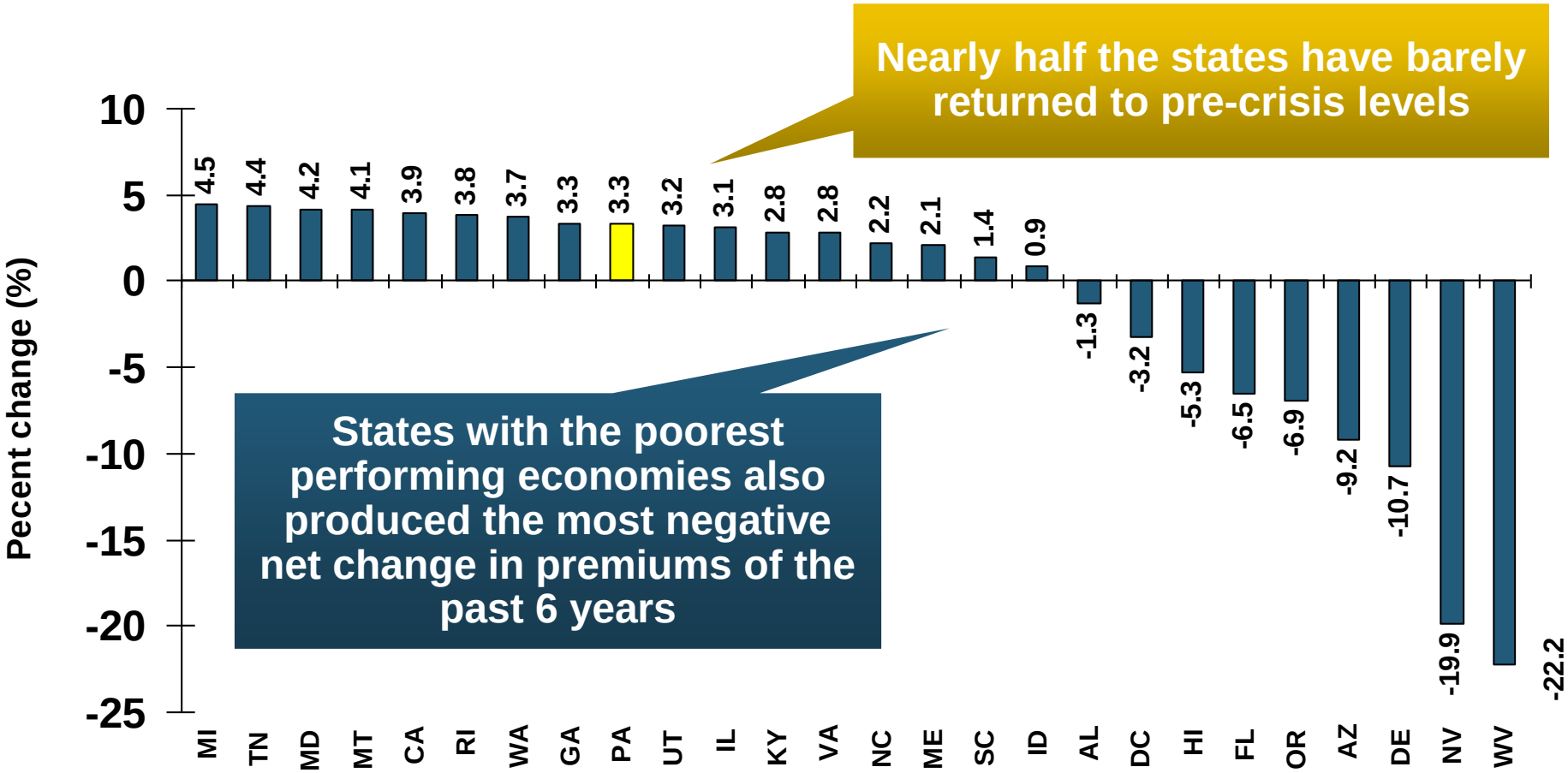
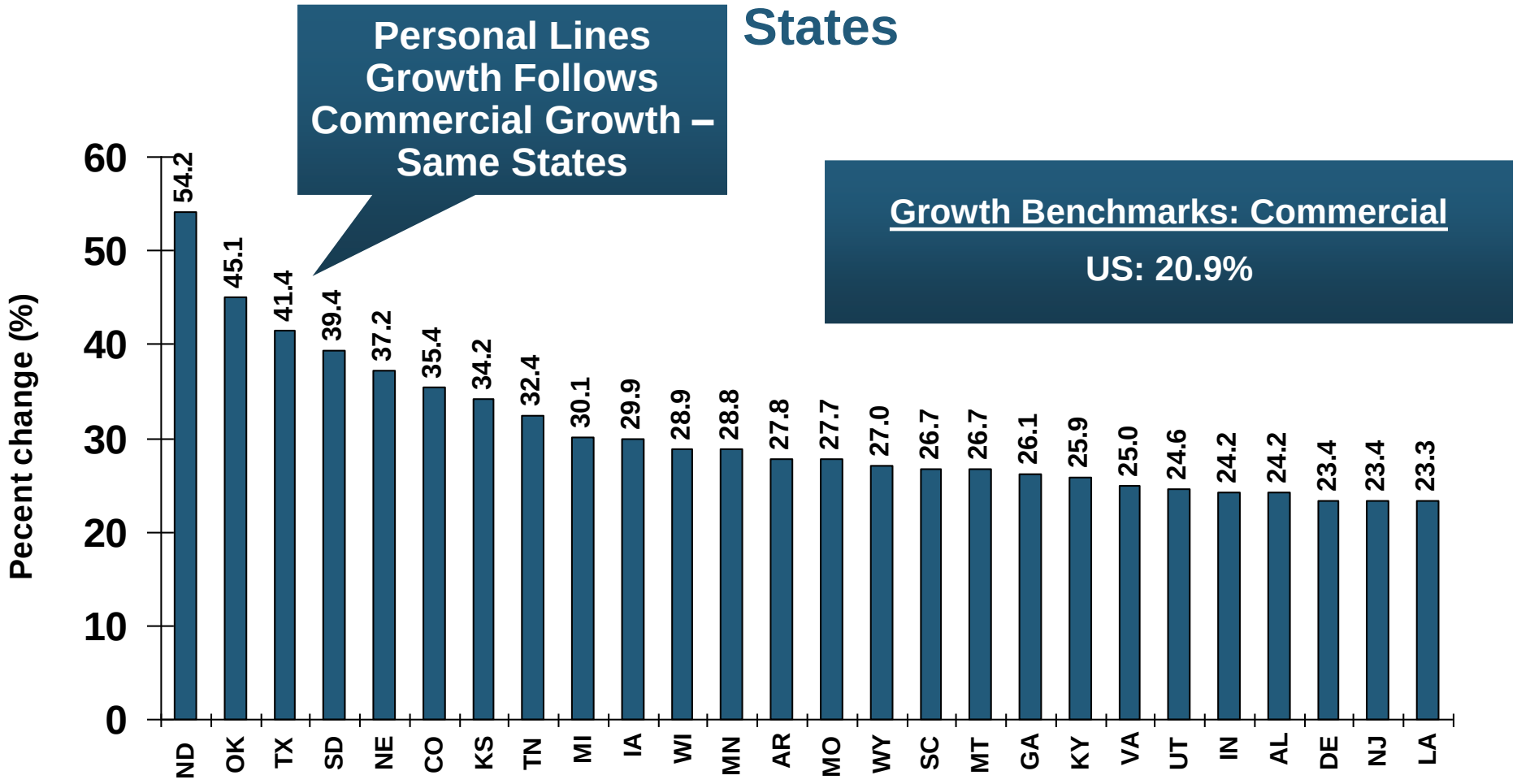
Bottom States



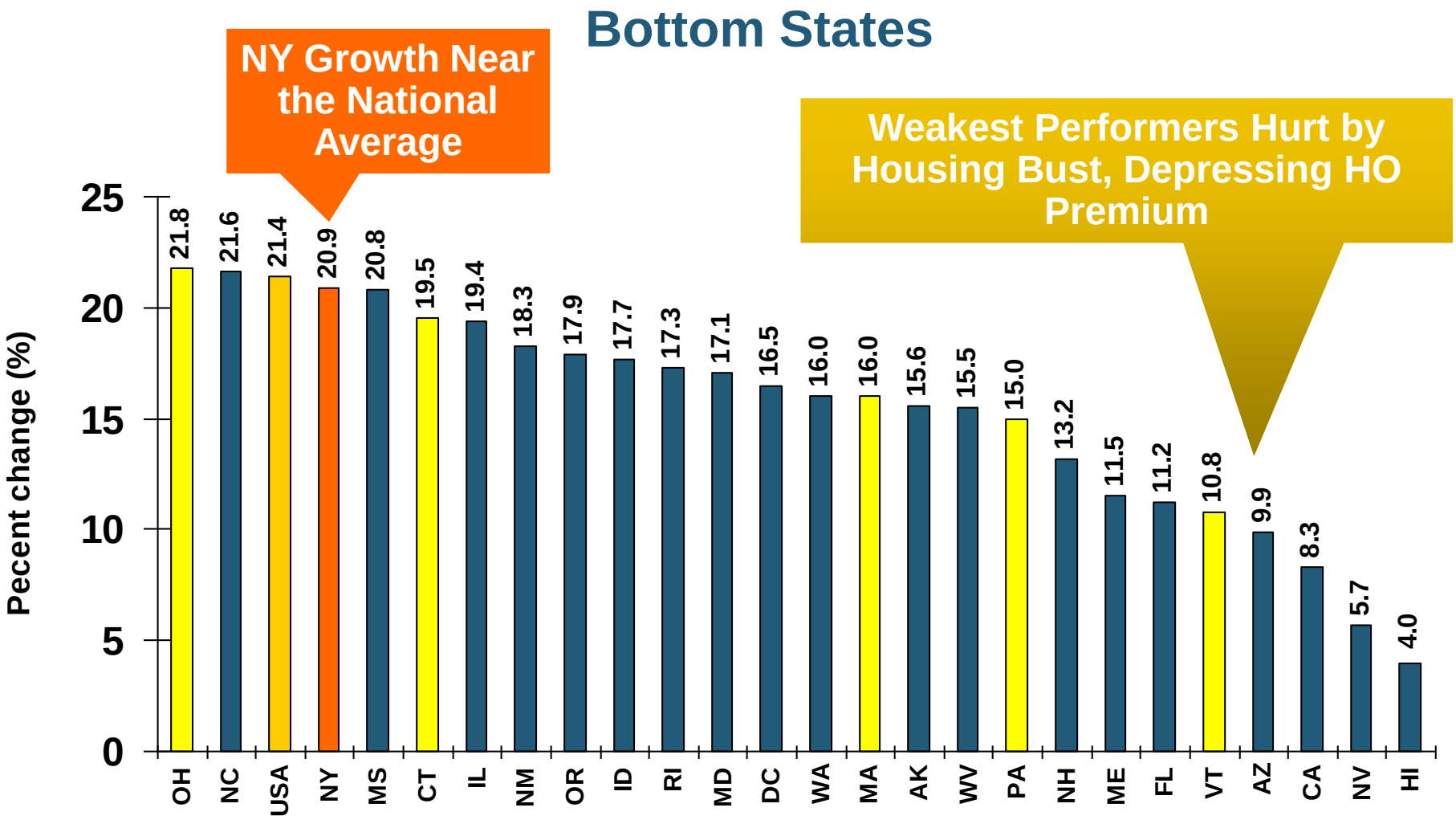
Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Pers. Lines Percent Change by State, 2007-2014



Sources: SNL Financial LLC.; Insurance Information Institute.

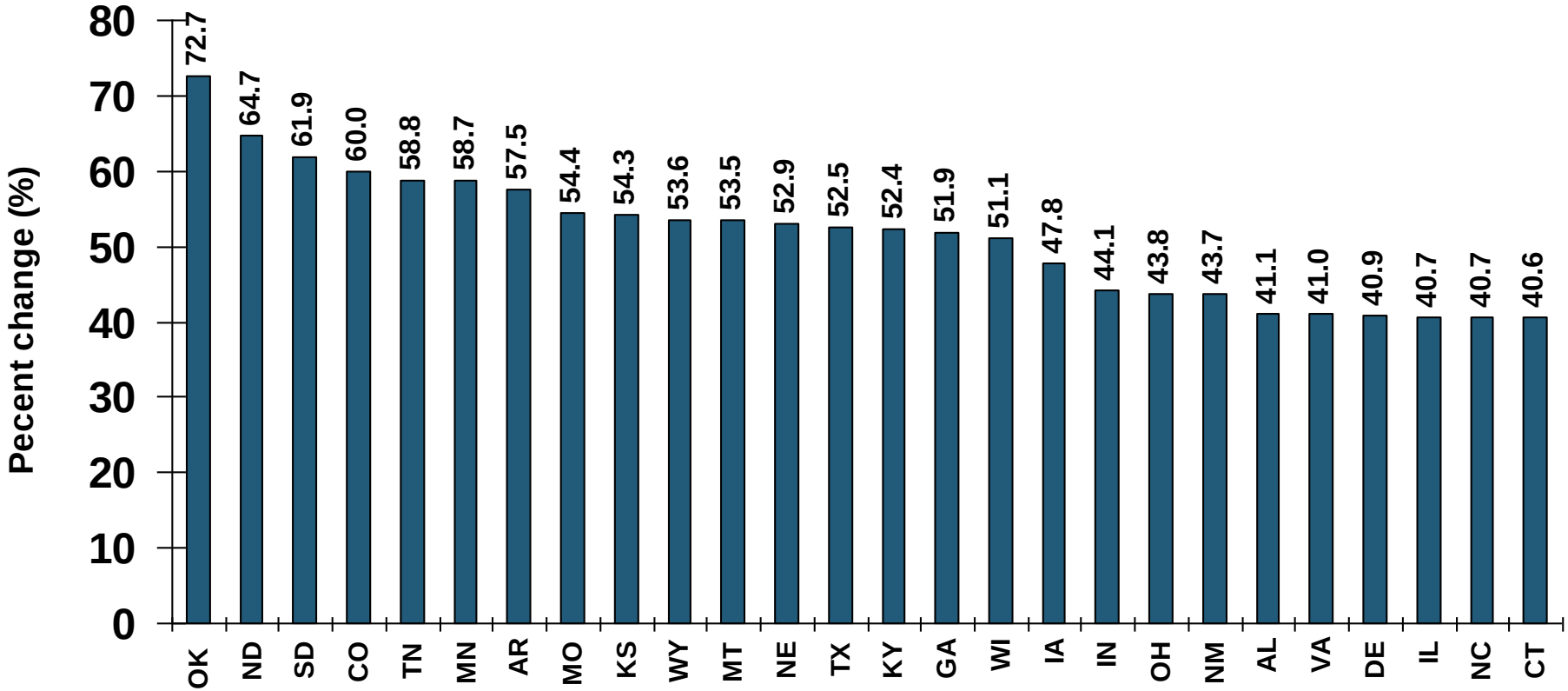
Direct Premiums Written: Pers. Lines Percent Change by State, 2007-2014



Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Homeowners Percent Change by State, 2007-2014

Top States



Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Homeowners Percent Change by State, 2007-2014

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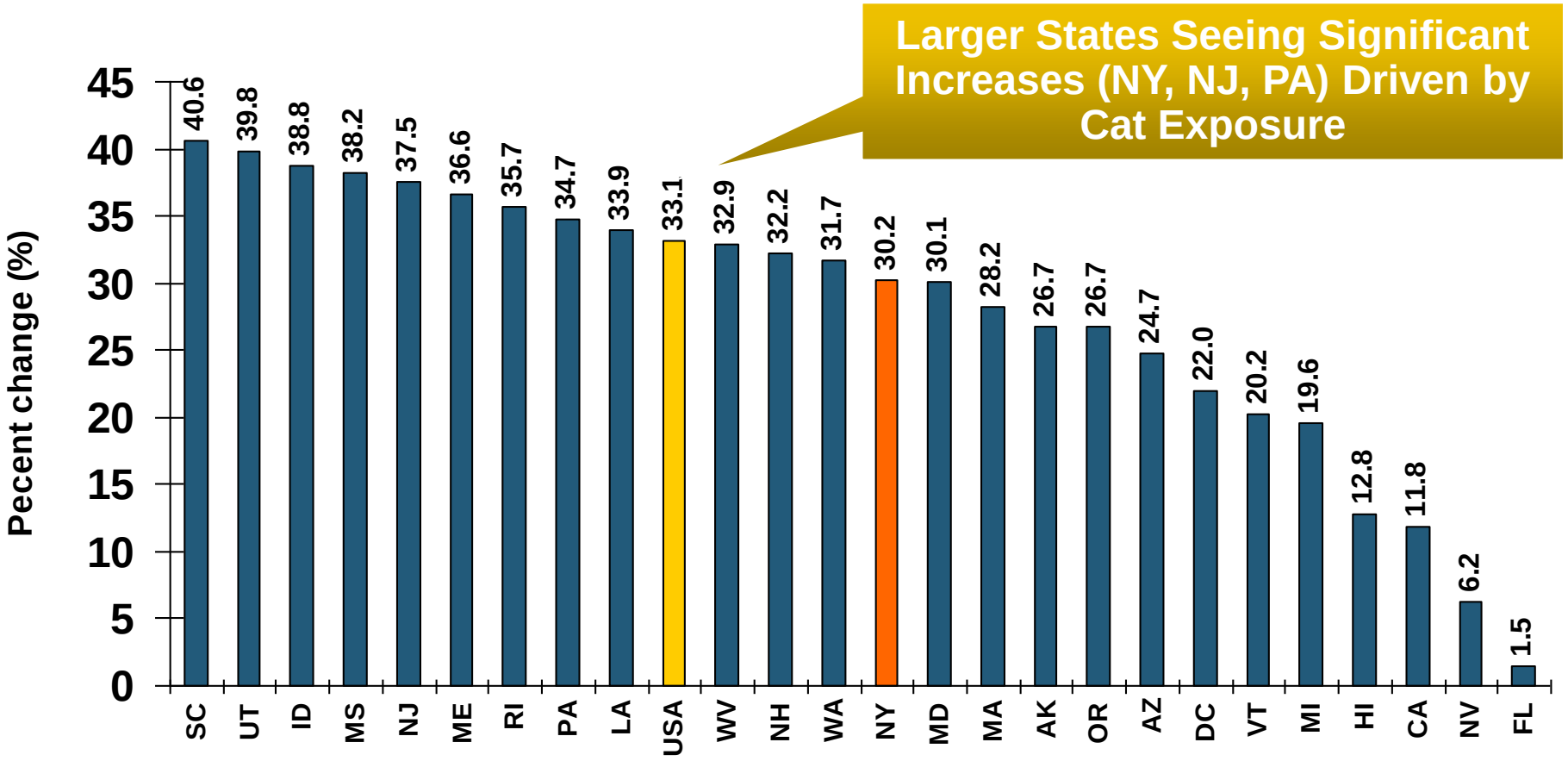
Bottom States



Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Farmowners Percent Change by State, 2007-2014

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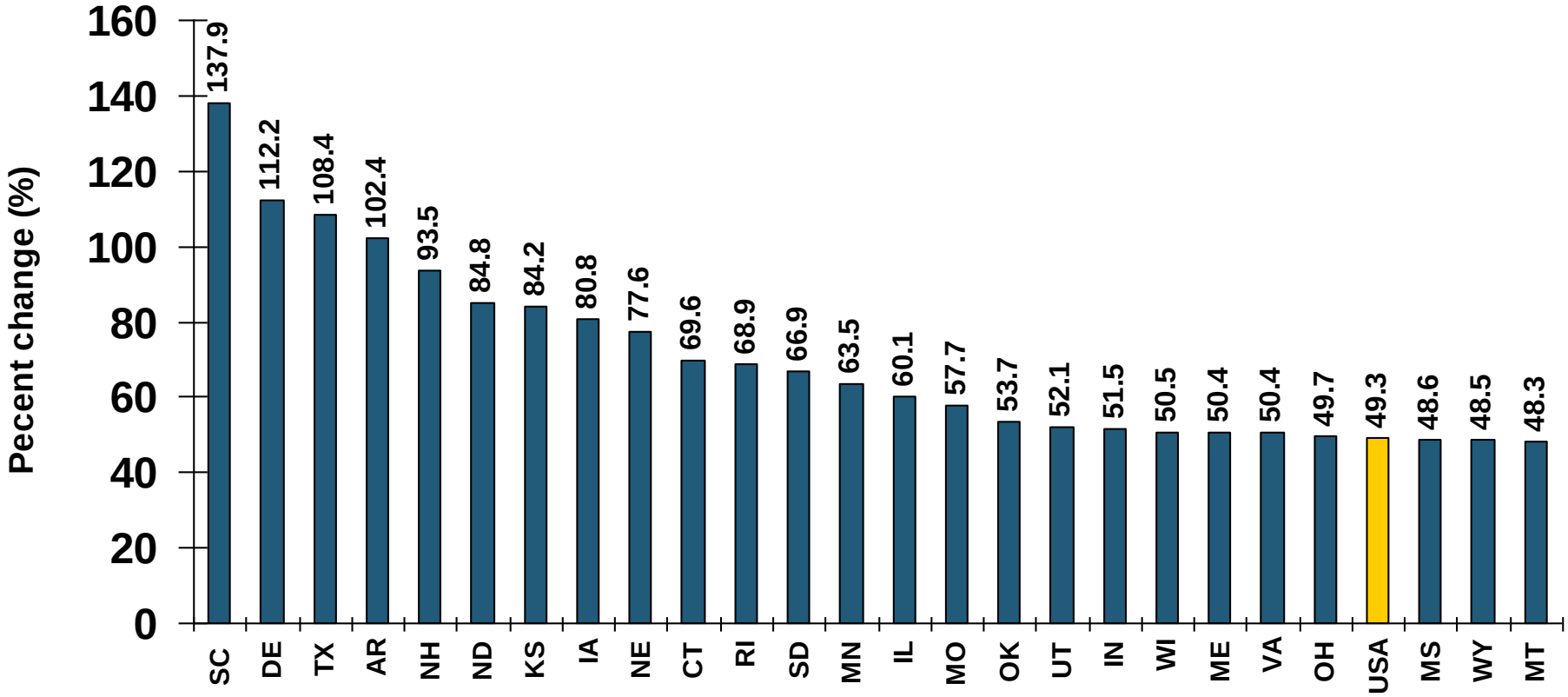
Top States



Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Farmowners Percent Change by State, 2007-2014

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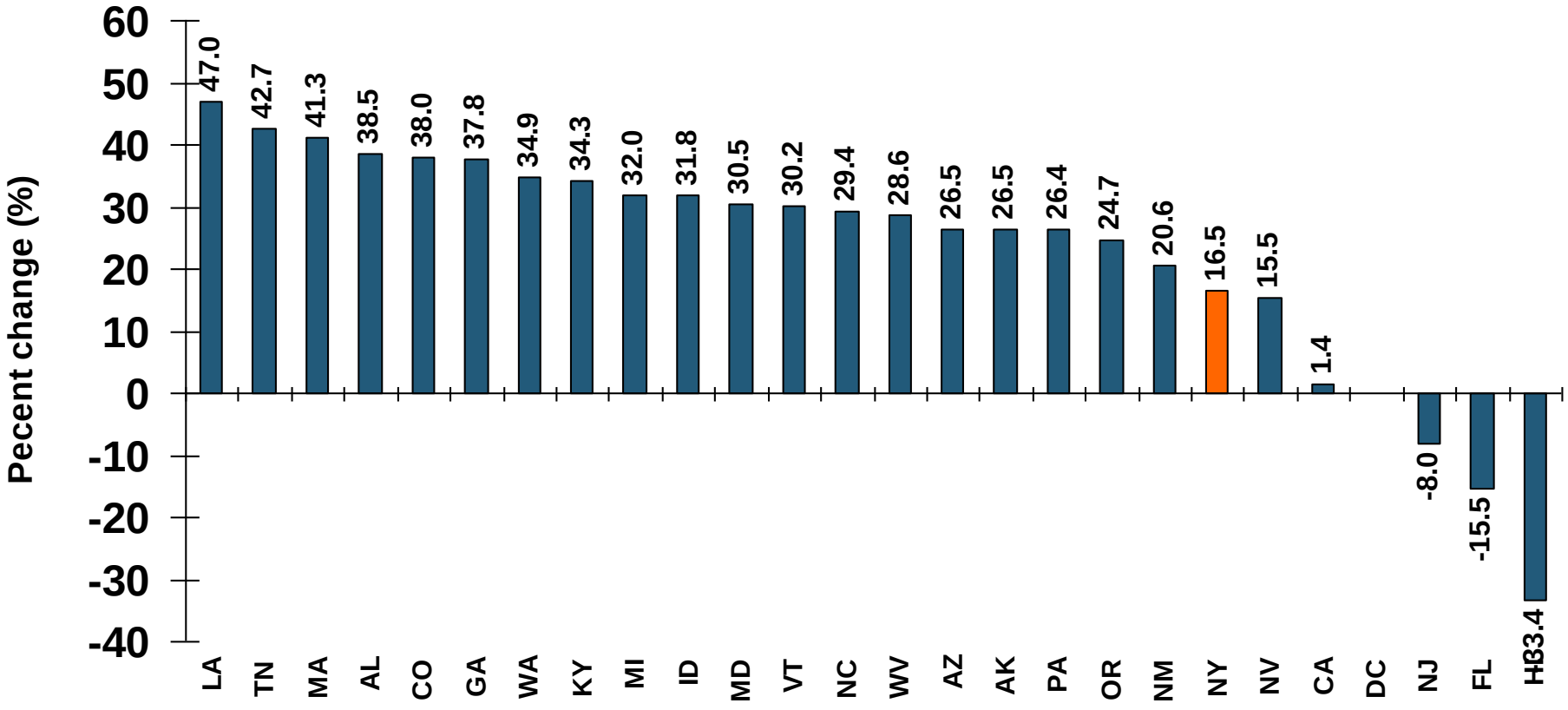
Bottom States

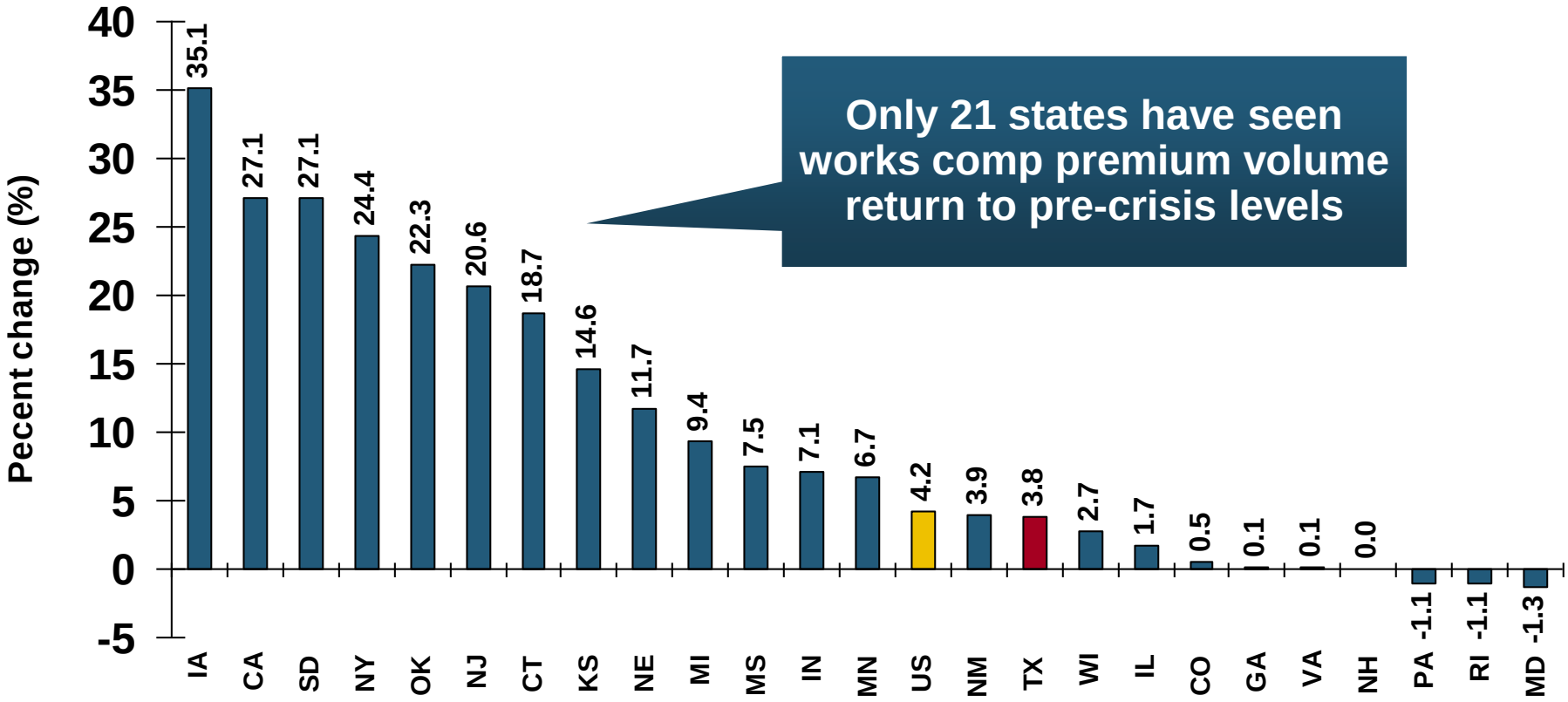


Note: No Premium in D.C.

Sources: SNL Financial LLC.; Insurance Information Institute.

Direct Premiums Written: Workers' Comp Percent Change by State, 2007-2014*

Top 25 States

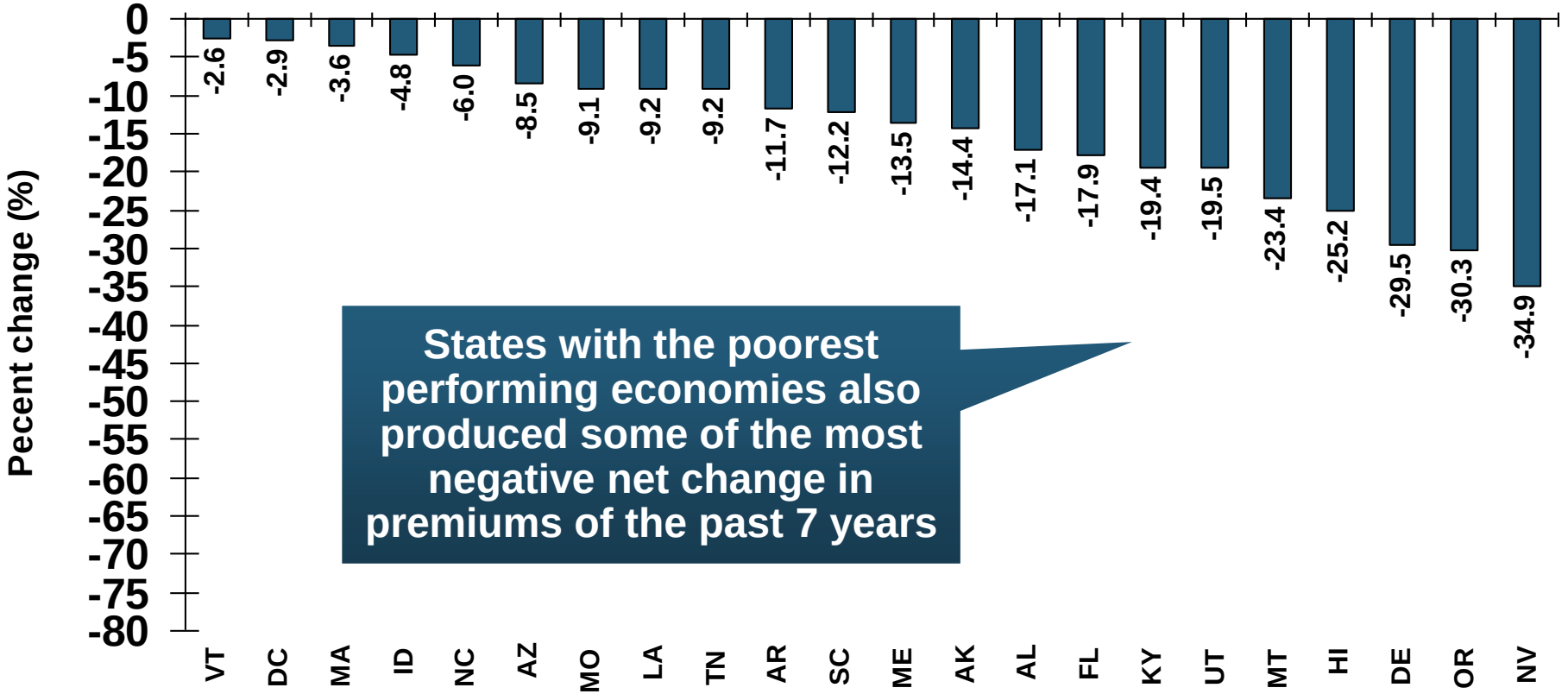


*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

Sources: SNL Financial LC.; Insurance Information Institute.

Direct Premiums Written: Worker's Comp Percent Change by State, 2007-2014*

Bottom 25 States



*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

Sources: SNL Financial LC.; Insurance Information Institute.

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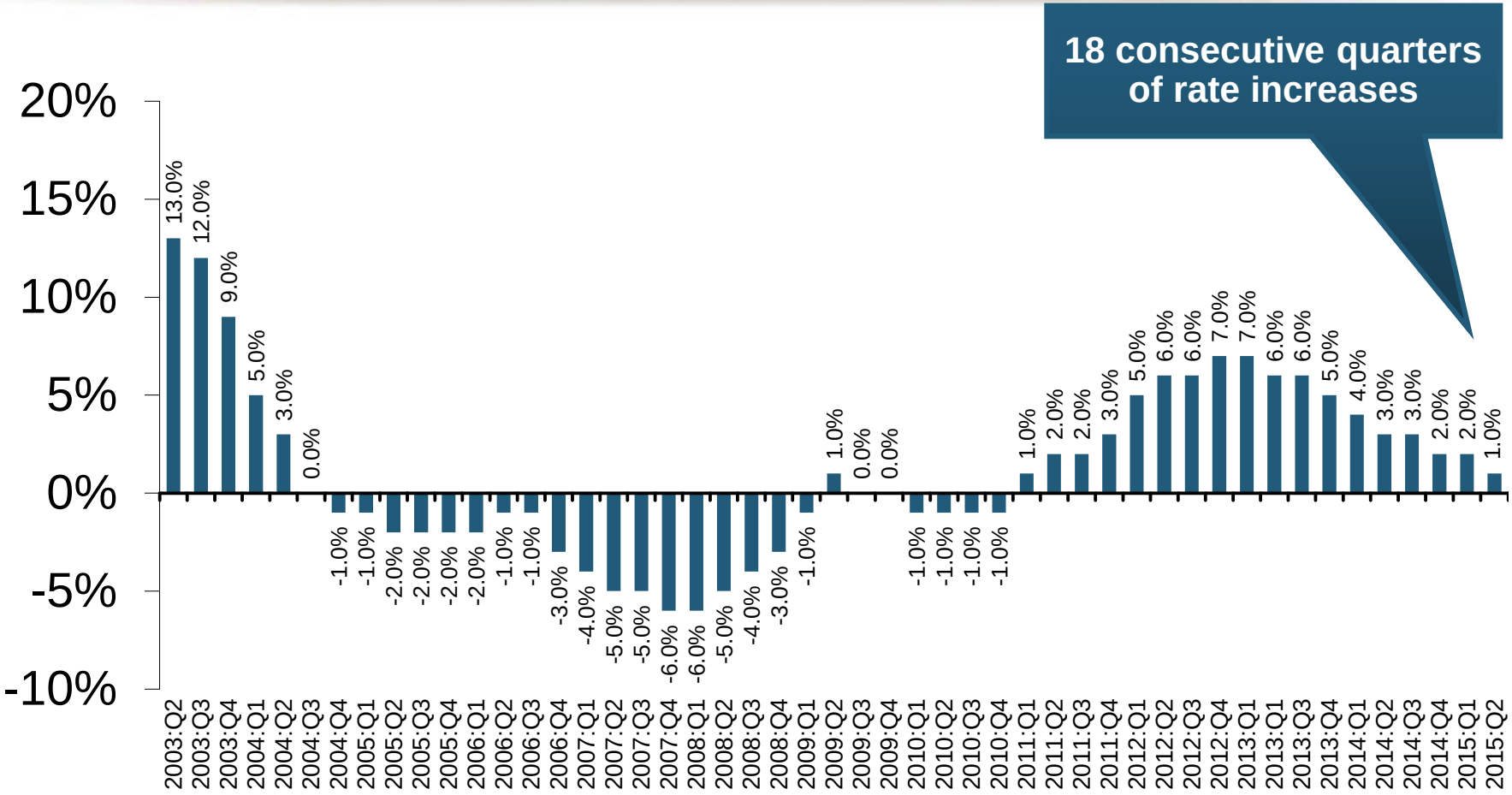
Pricing Trends

Survey Results Suggest Commercial Pricing Has Flattened Out

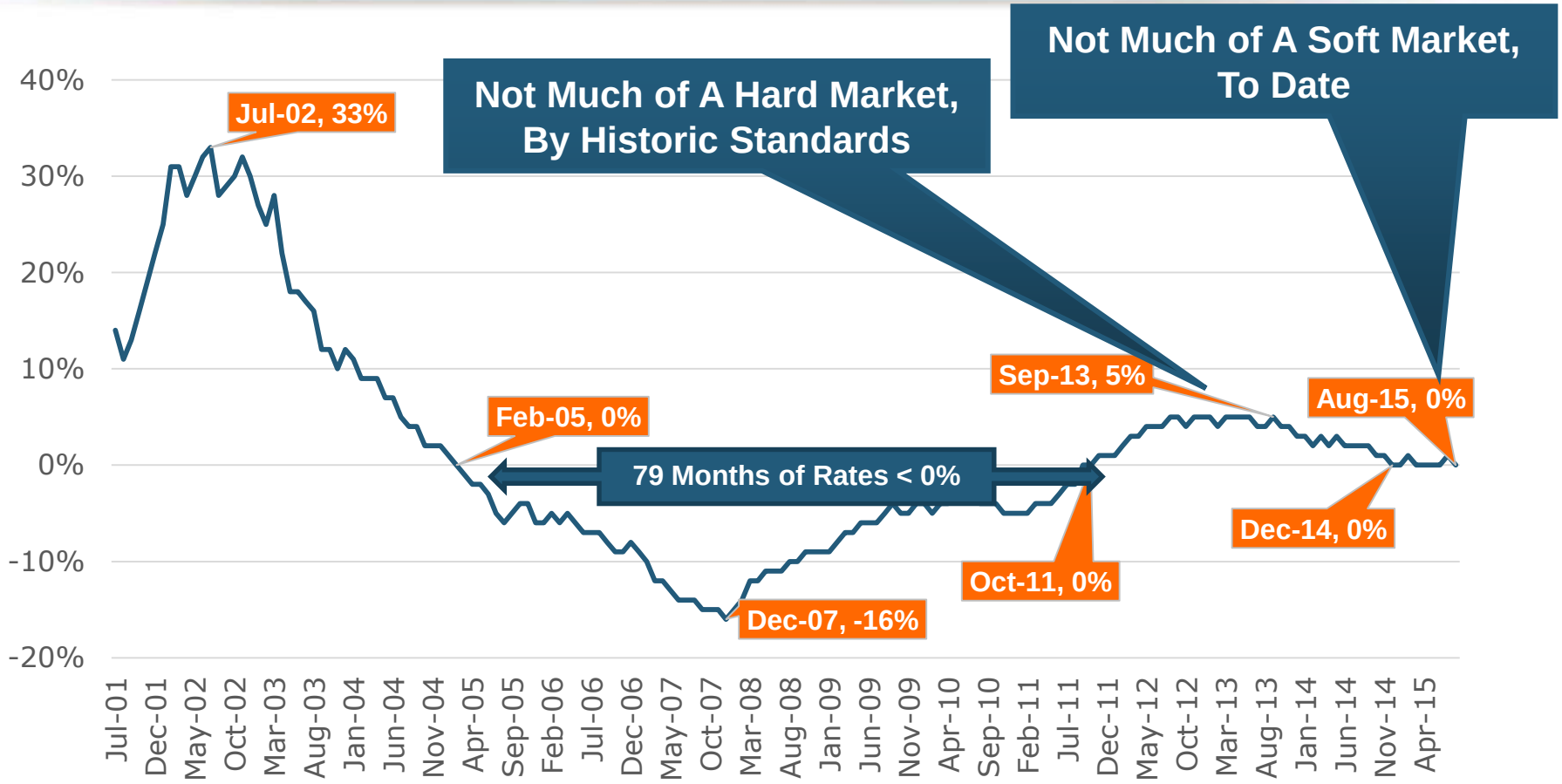
Commercial Lines Rate Change by Qtr (vs. Year Earlier)



Hard Market (Such As It Is) Appears to Have Passed Its Peak.

Sources: Towers Watson Commercial Lines Insurance Pricing Survey, Insurance Information Institute.

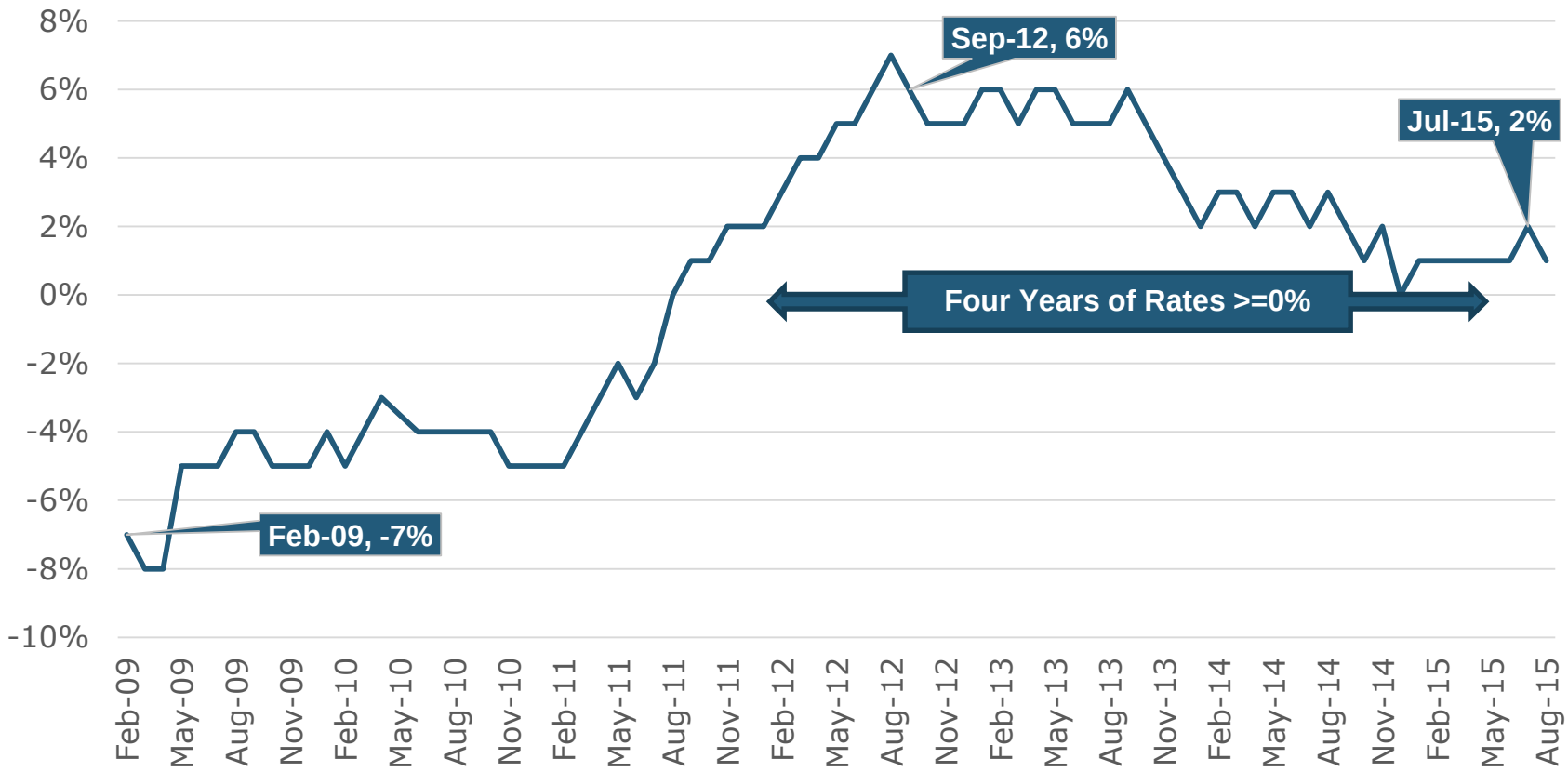
Commercial Lines Rate Change by Month (vs. Year Earlier)



Overall, Rates Are As Stable As They Have Been in 15 Years, Though Individual Markets Often Vary Significantly.

SOURCE: MarketScout, Insurance Information Institute.

Commercial Property Rate Change by Month (vs. Year Earlier)



Commercial Property Rates Track Closely With Commercial Rates Overall.

SOURCE: MarketScout, Insurance Information Institute.
Interpolated Commercial Property Estimates for May, August, September 2010.

BOP Rate Change by Month (vs. Year Earlier)

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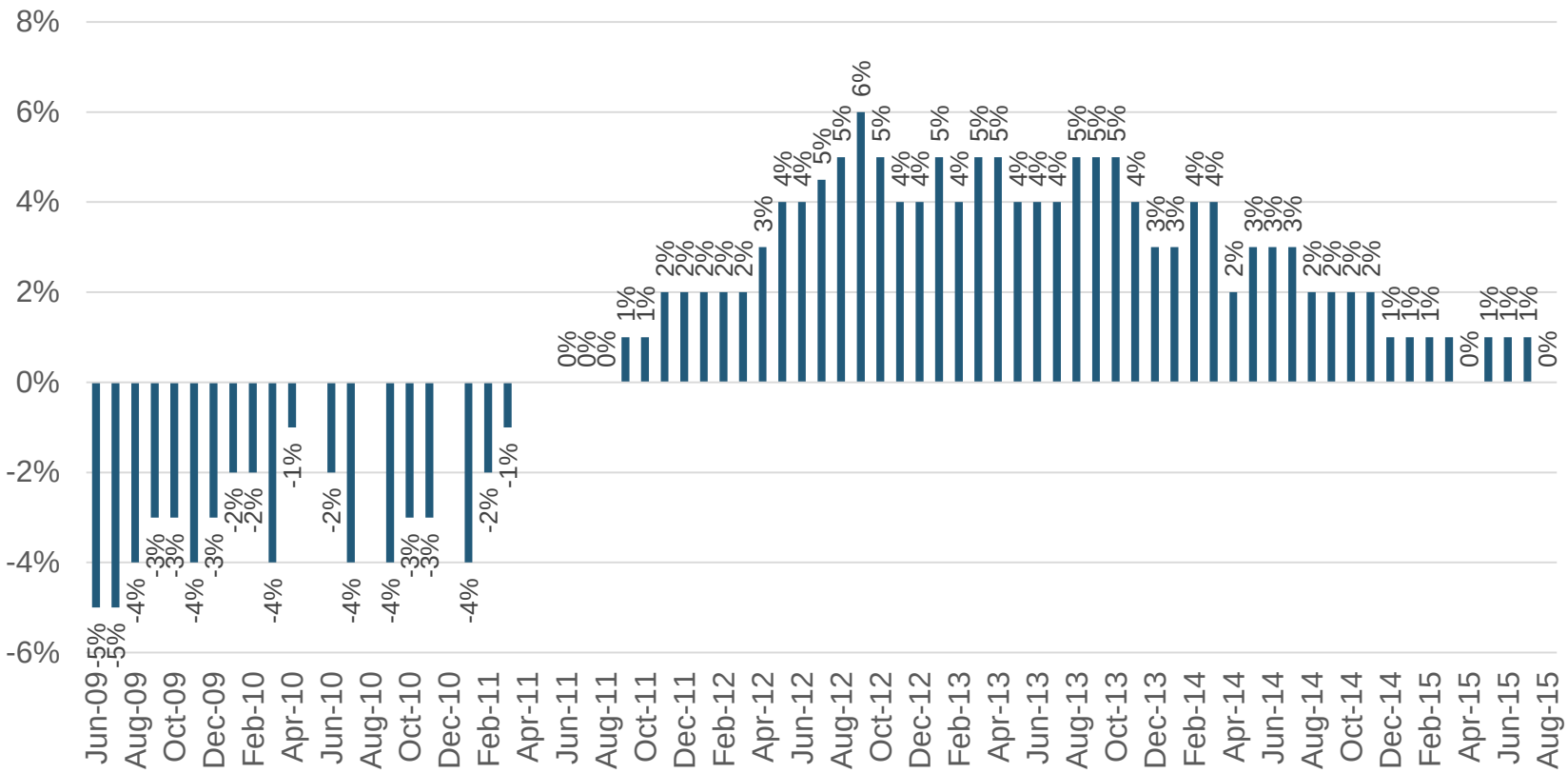
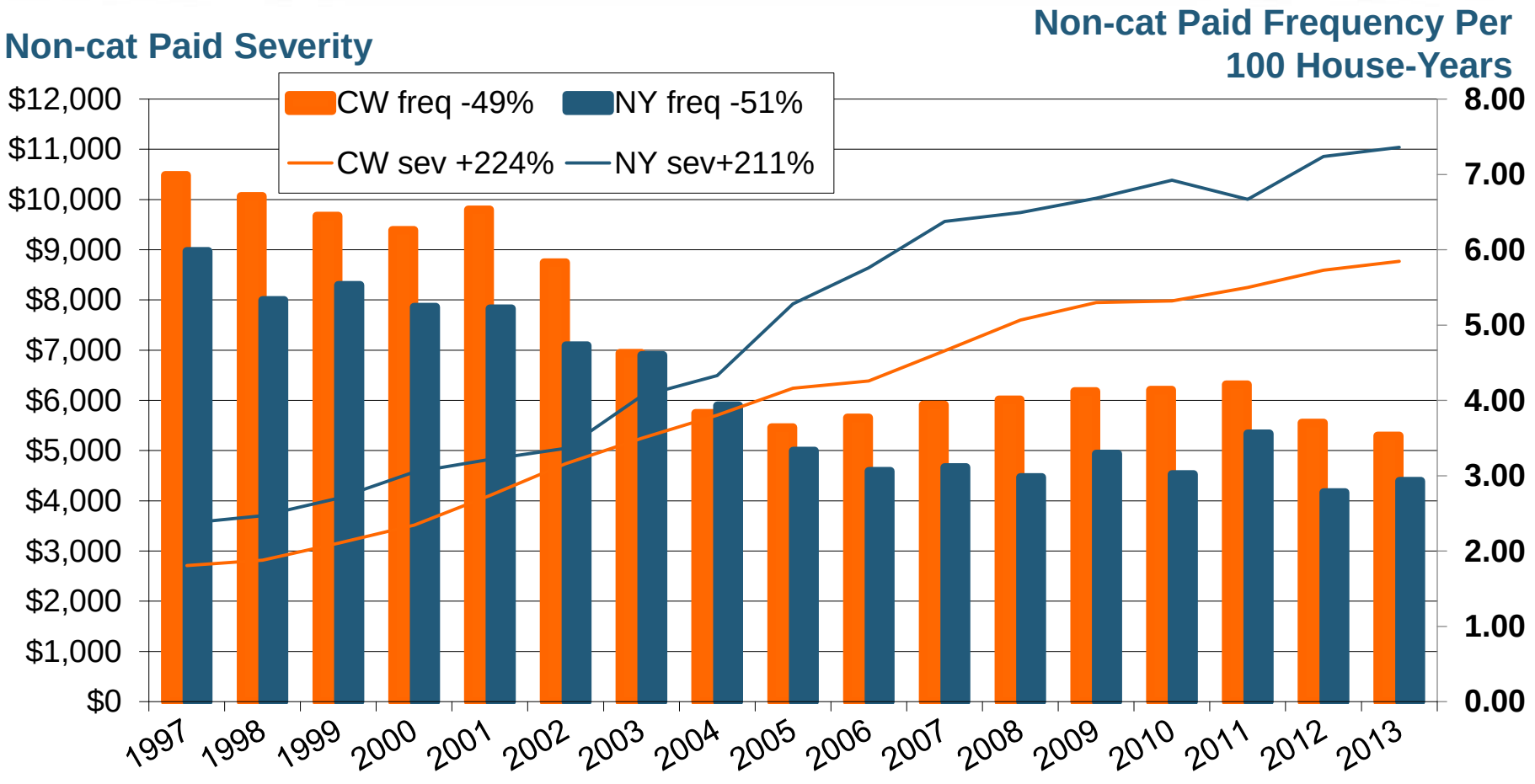


Rates on the BOP Have Been Flat, Like Much of the Market.

Loss Trends

Growth in Claim Size Continues to Outpace Inflation - Barely

An Example: NY Homeowners



Severity Rises Faster Than Frequency Falls. NY Frequency, Severity Close to CW Averages.

Sources: Insurance Research Council, "Trends in Homeowners Insurance Claims," 2015 edition, pp. 41, 80.

Insurance Loss Trends vs. Inflation

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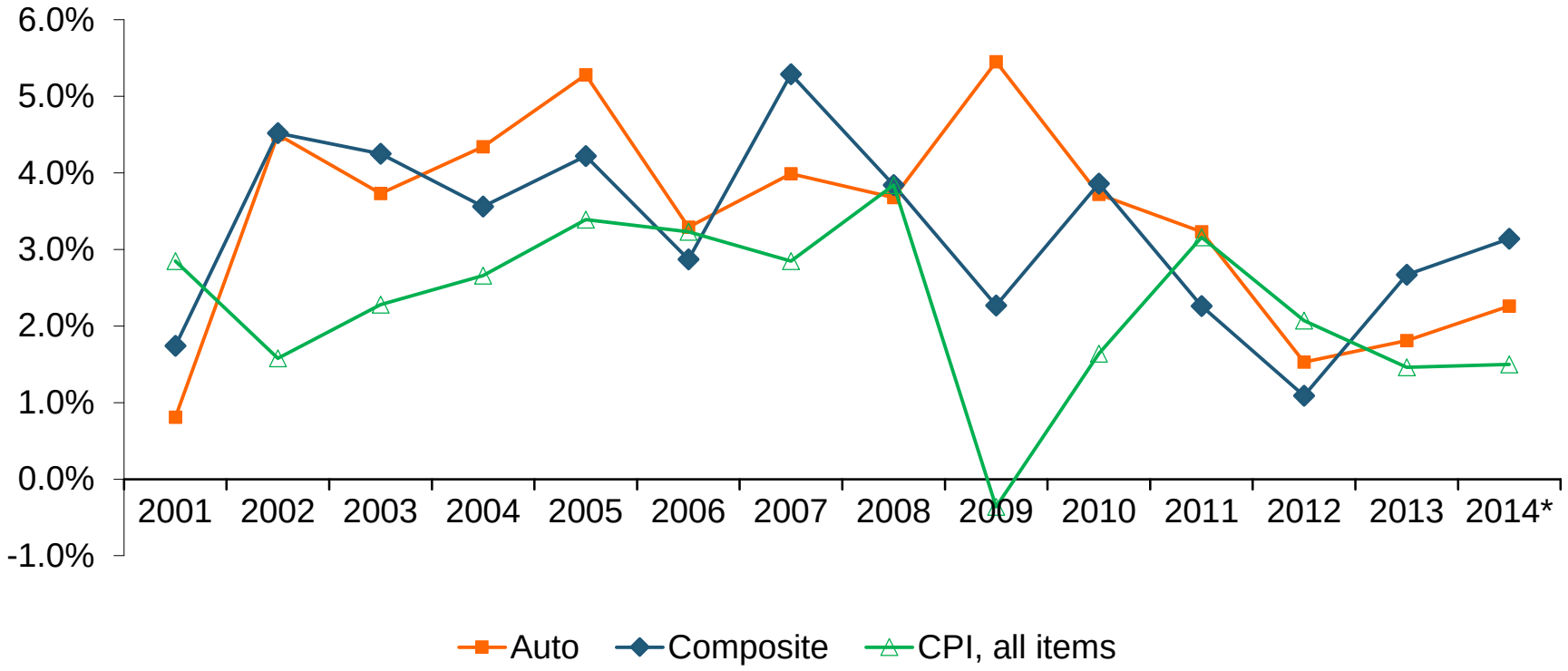
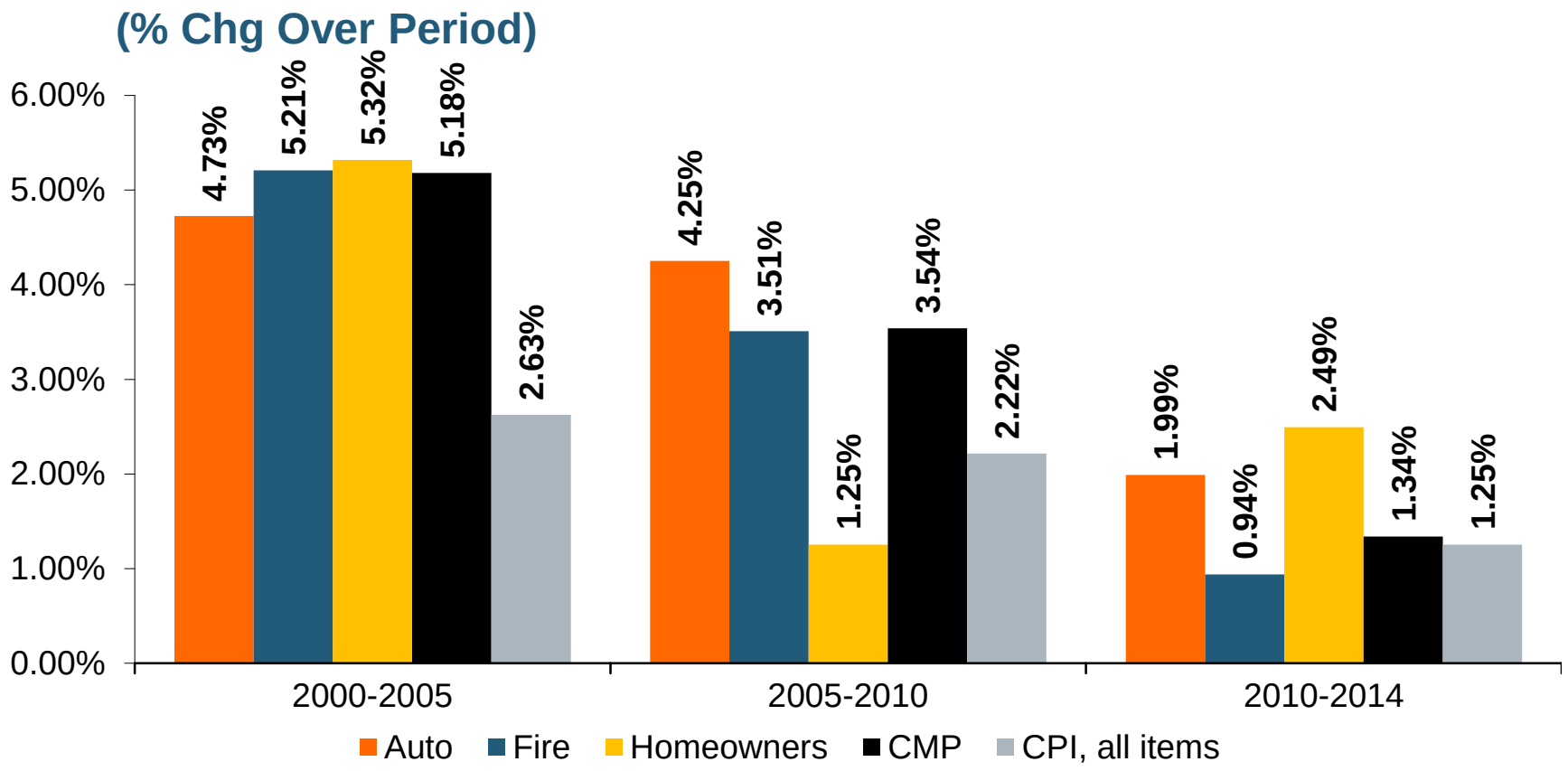
(% Chg from Prior Yr)



* Preliminary claim cost estimates for 2014.

Source: Towers Watson.

Claim Inflation vs. CPI

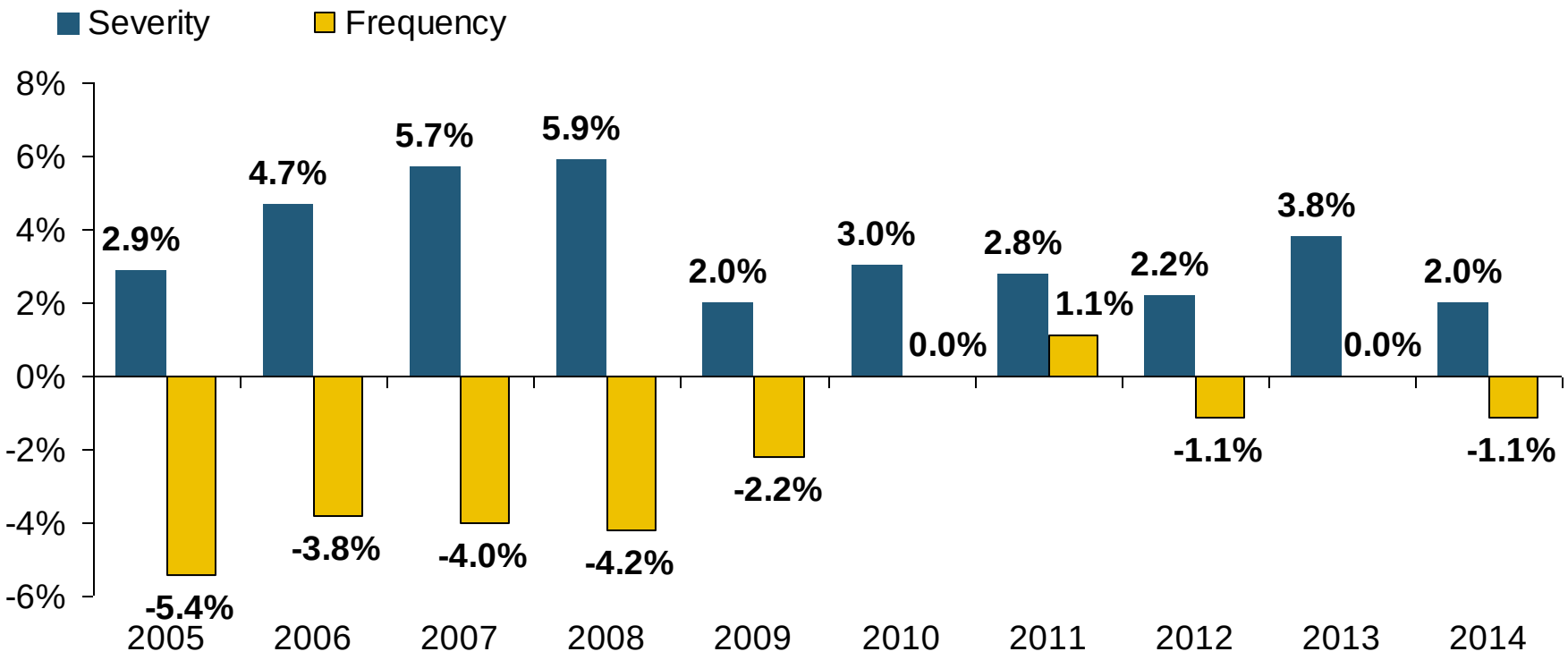


In Recent Years, Claim Costs Have Risen at About the Inflation Rate.

Source: Insurance Information Institute calculation from Towers Watson data.

Homeowners: Severity, Frequency Trend Are Moderating

Annual Change, 2005 through 2014



Cost Pressures Will Increase if BI Severity Increases Continue or Frequency Ticks Up

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

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Insured Catastrophe Losses

2013/14 and YTD 2015 Experienced Below Average CAT Activity After Very High CAT Losses in 2011/12

Winter Storm Losses Far Above Average in 2014 and 2015

U.S. Insured Catastrophe Losses

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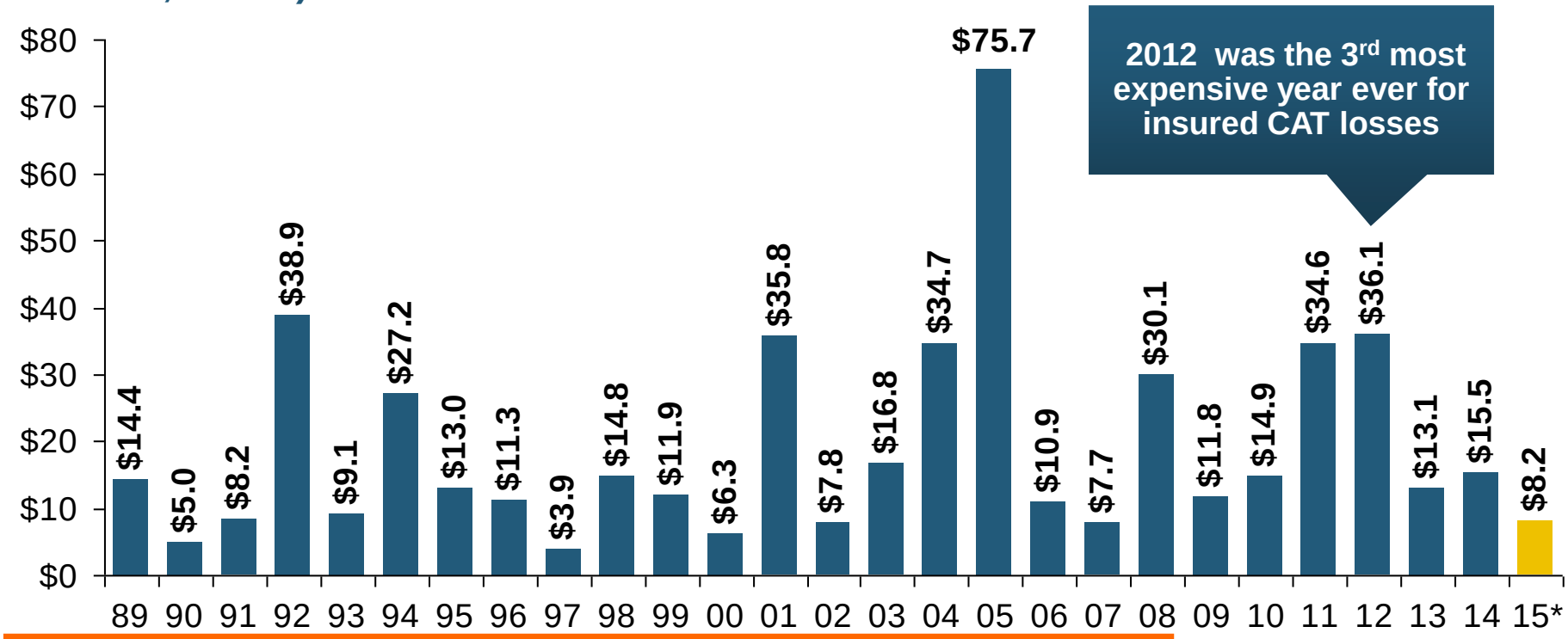
($ Billions, $ 2014)



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

$8.2B in insured CAT losses though 6/30/15, up slightly from $7.3B in 2014

*Through 6/30/15 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; AonBenfield Insurance Information Institute.

Top 16 Most Costly Disasters in U.S. History—Katrina Still Ranks #1

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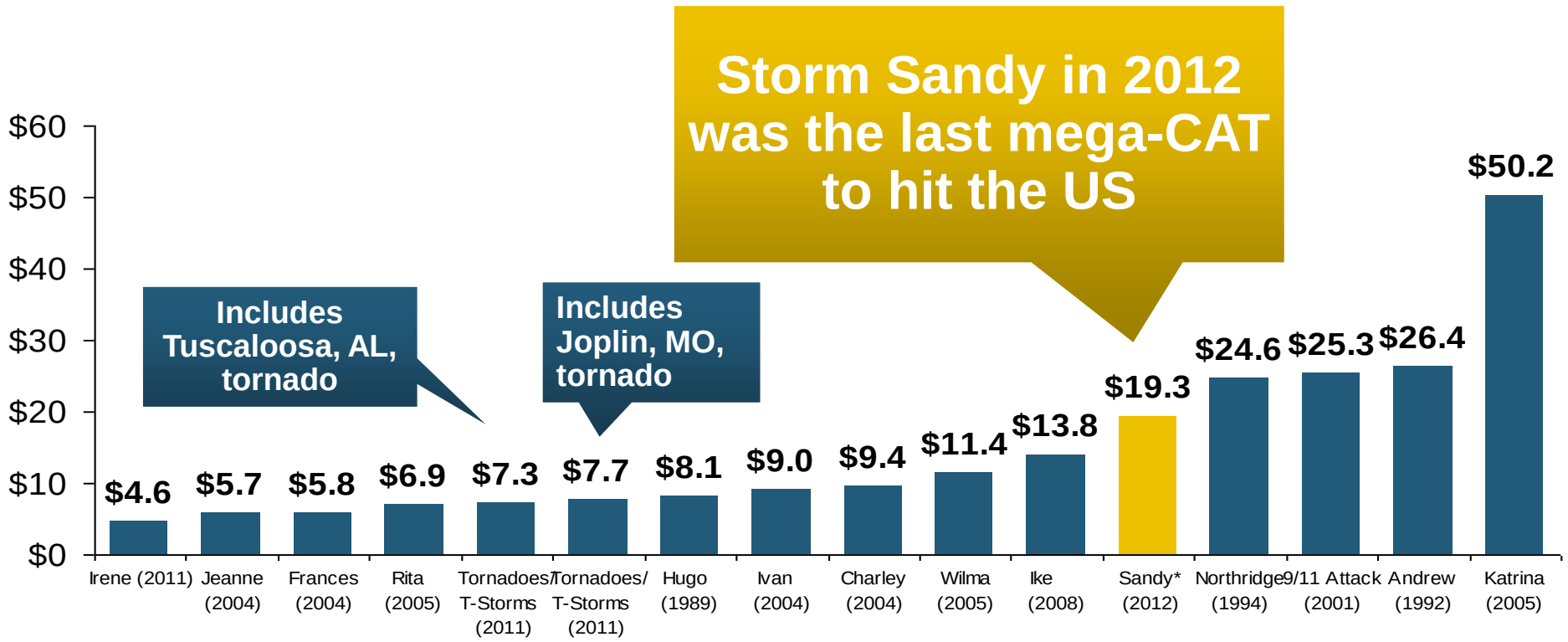
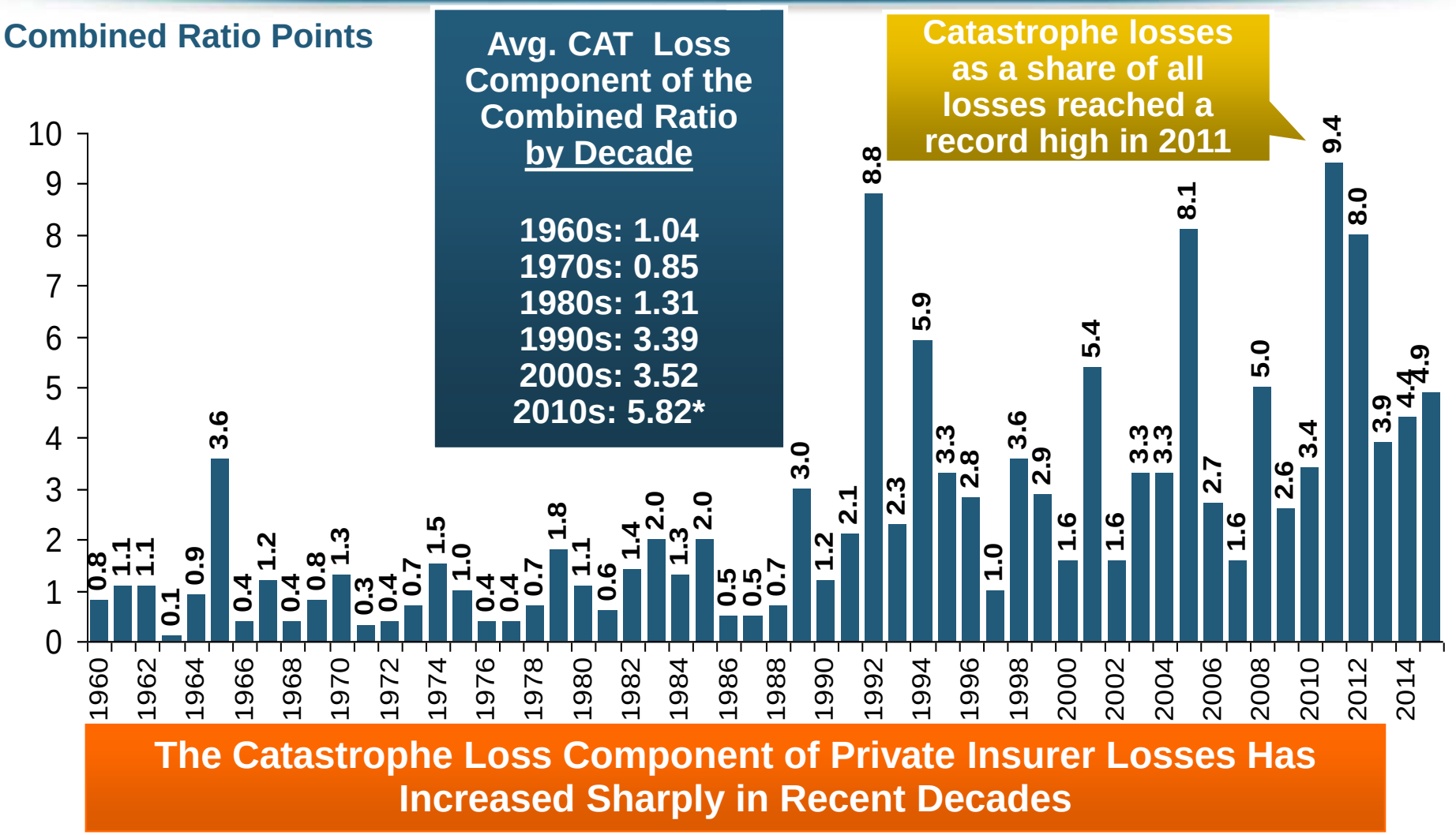
(Insured Losses, 2014 Dollars, $ Billions)



12 of the 16 Most Expensive Events in US History Have Occurred Since 2004

Sources: PCS; Insurance Information Institute inflation adjustments to 2014 dollars using the CPI.

Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2015F*

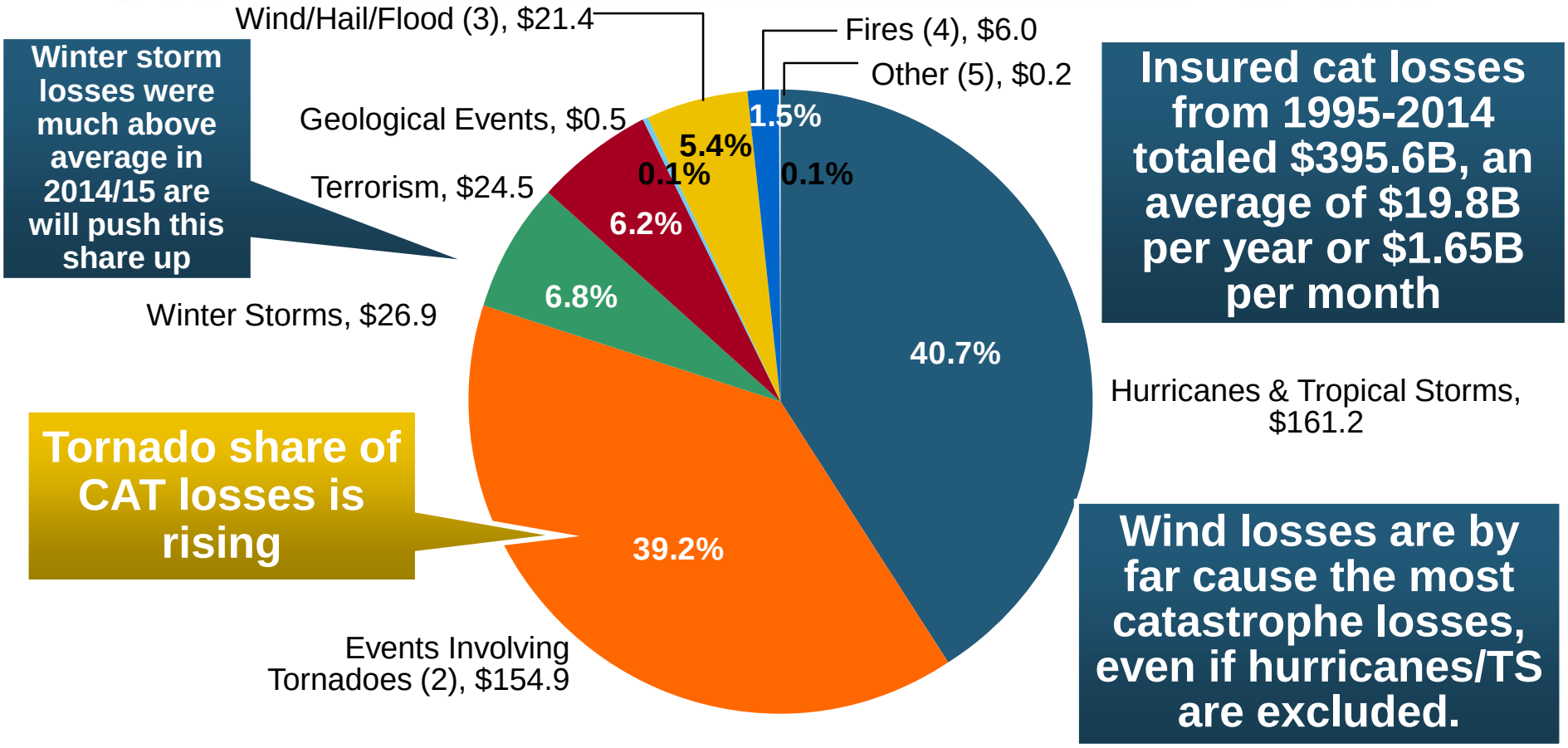


*2010s represent 2010-2014.

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 (1960-2010); A.M. Best (2011-15E) Insurance Information Institute.

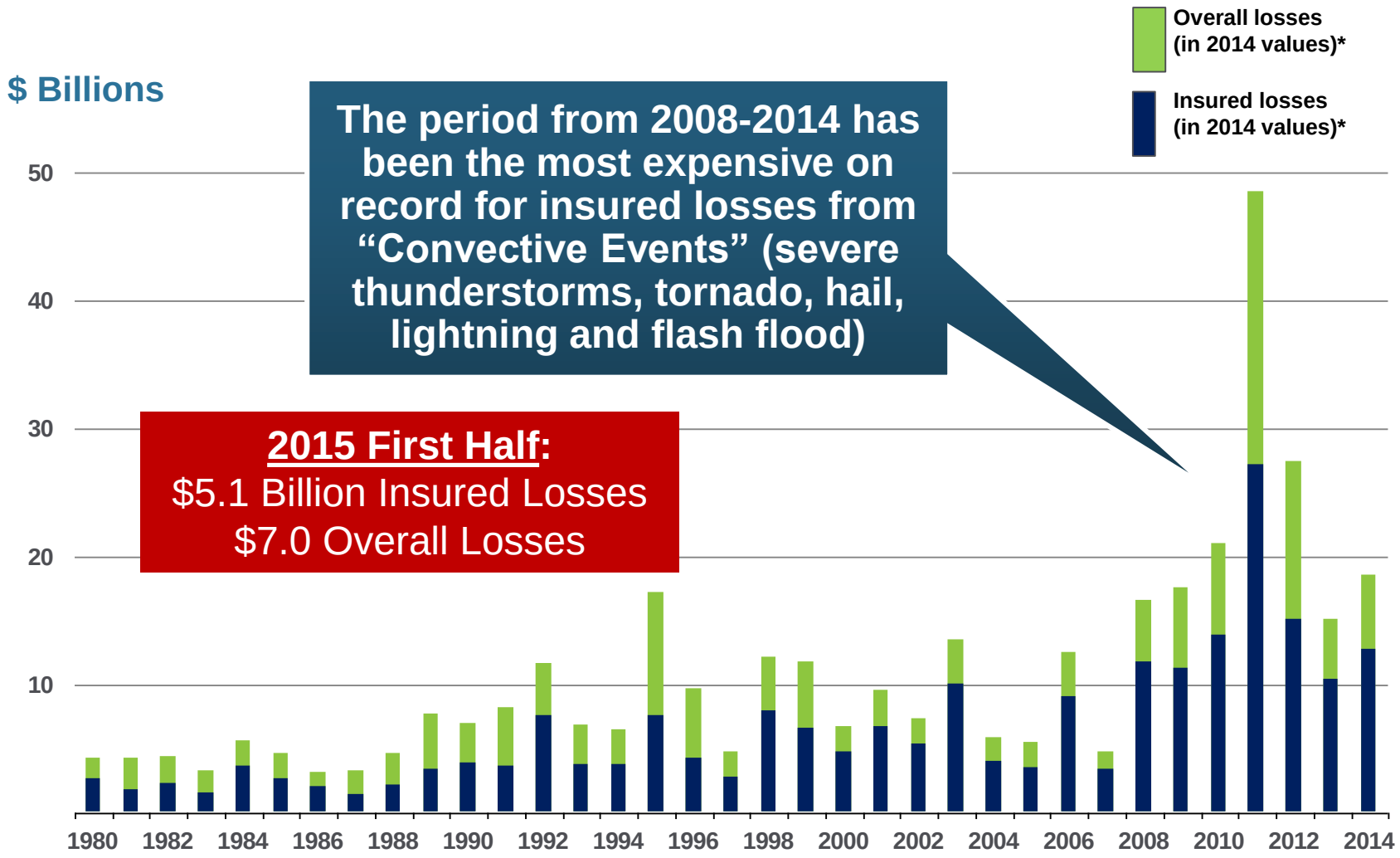
Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1995–2014[1]



1. Catastrophes are defined as events causing direct insured losses to property of $25 million or more in 2014 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.

Convective Loss Events in the US Overall and Insured Losses, 1980-2014



*Losses adjusted to inflation based on CPI

Source: Geo Risks Research, NatCatSERVICE

Analysis contains:
severe storm, tornado, hail, flash flood and lightning

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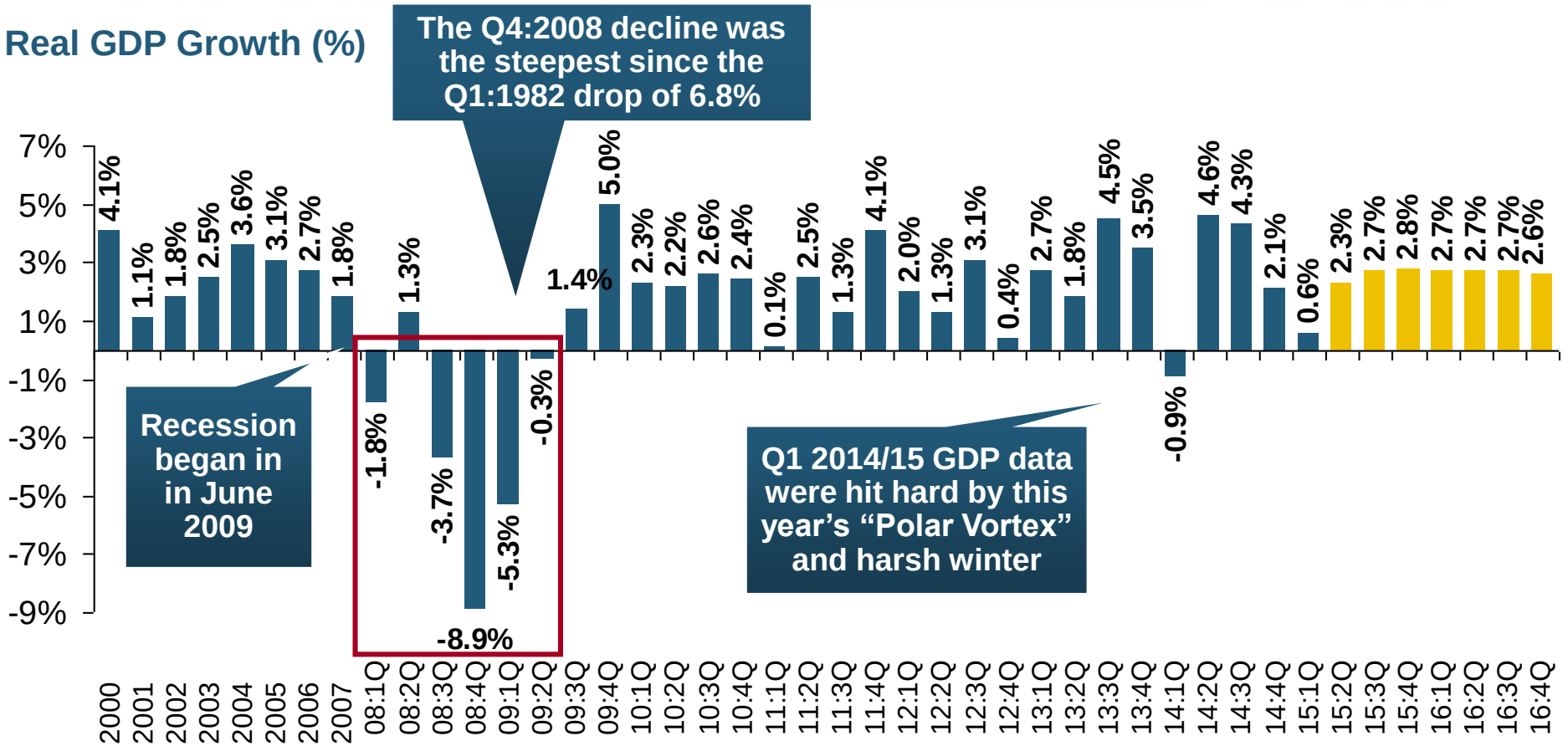
The Strength of the Economy Will Influence P/C Insurer Growth Opportunities

Growth Will Expand Insurer Exposure Base Across Most Lines

US Real GDP Growth*

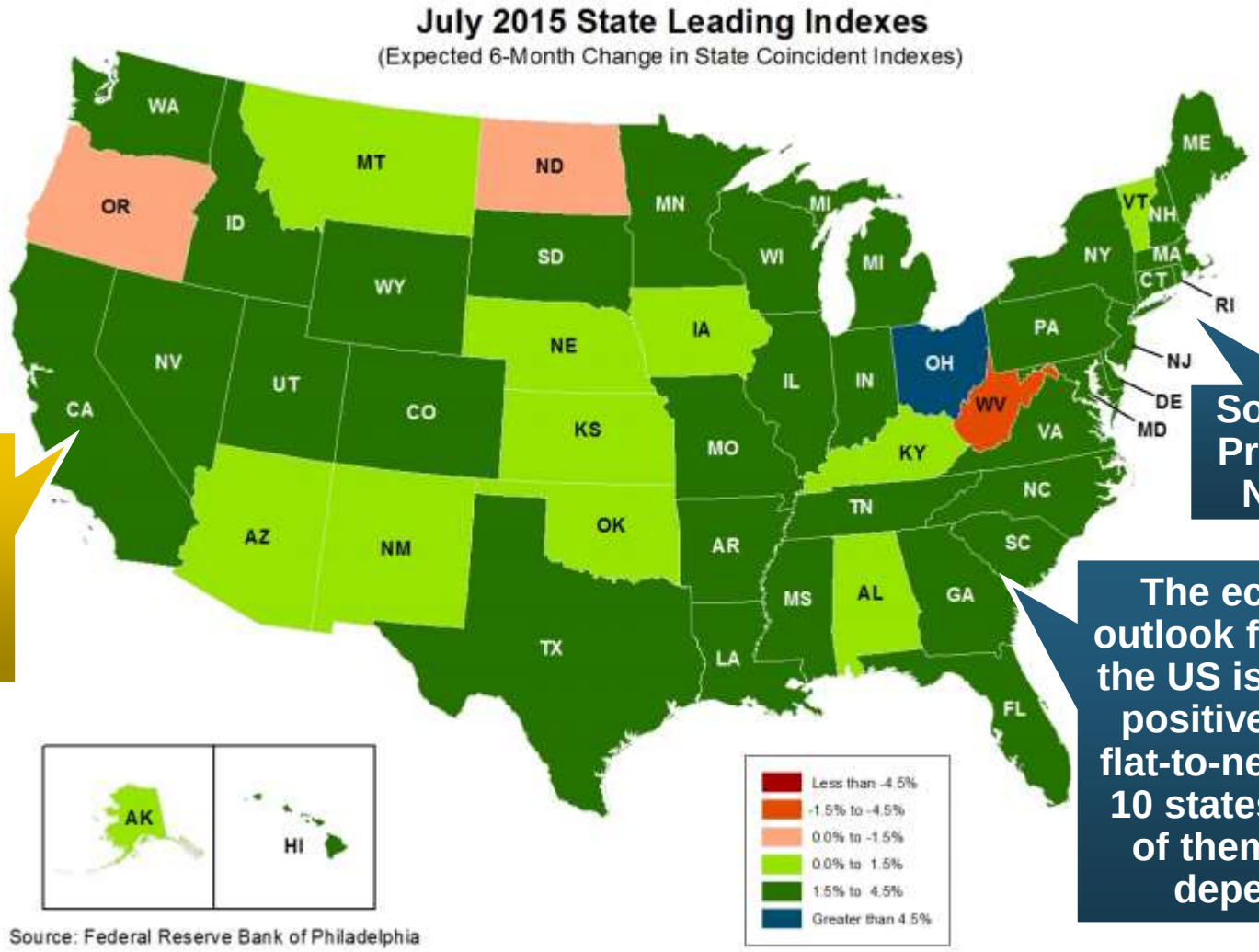


Demand for Insurance Should Increase in 2015 as GDP Growth Accelerates Modestly and Gradually Benefits the Economy Broadly

* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 8/15; Insurance Information Institute.

State Leading Economic Indicators through January 2016



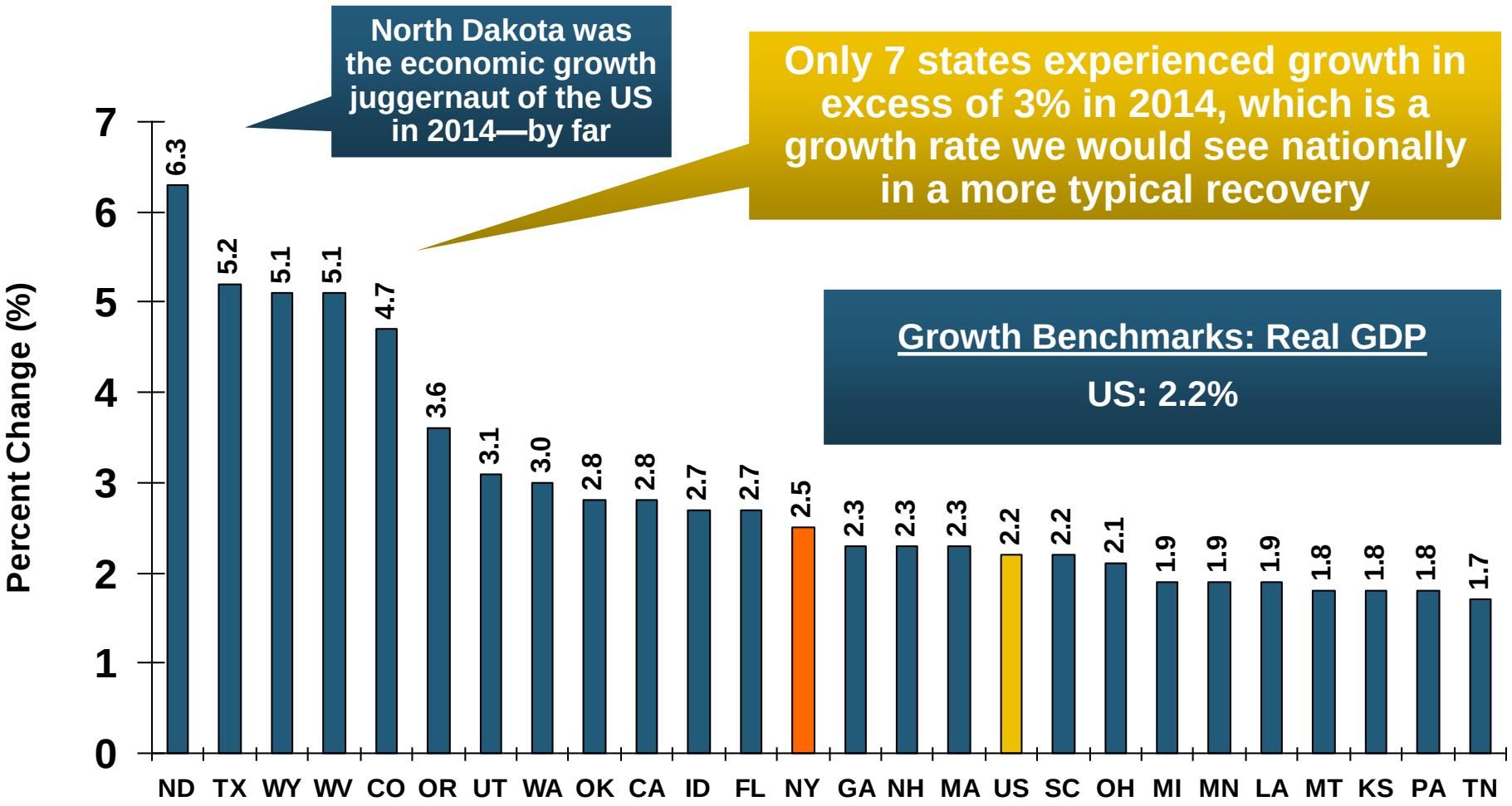
Growth in the West is finally beginning to pick up

Solid Growth Projected for Northeast.

The economic outlook for most of the US is generally positive, though flat-to-negative for 10 states, several of them energy dependent

Sources: Federal Reserve Bank of Philadelphia at http://www.philadelphiafed.org/index.cfm ;Insurance Information Institute.

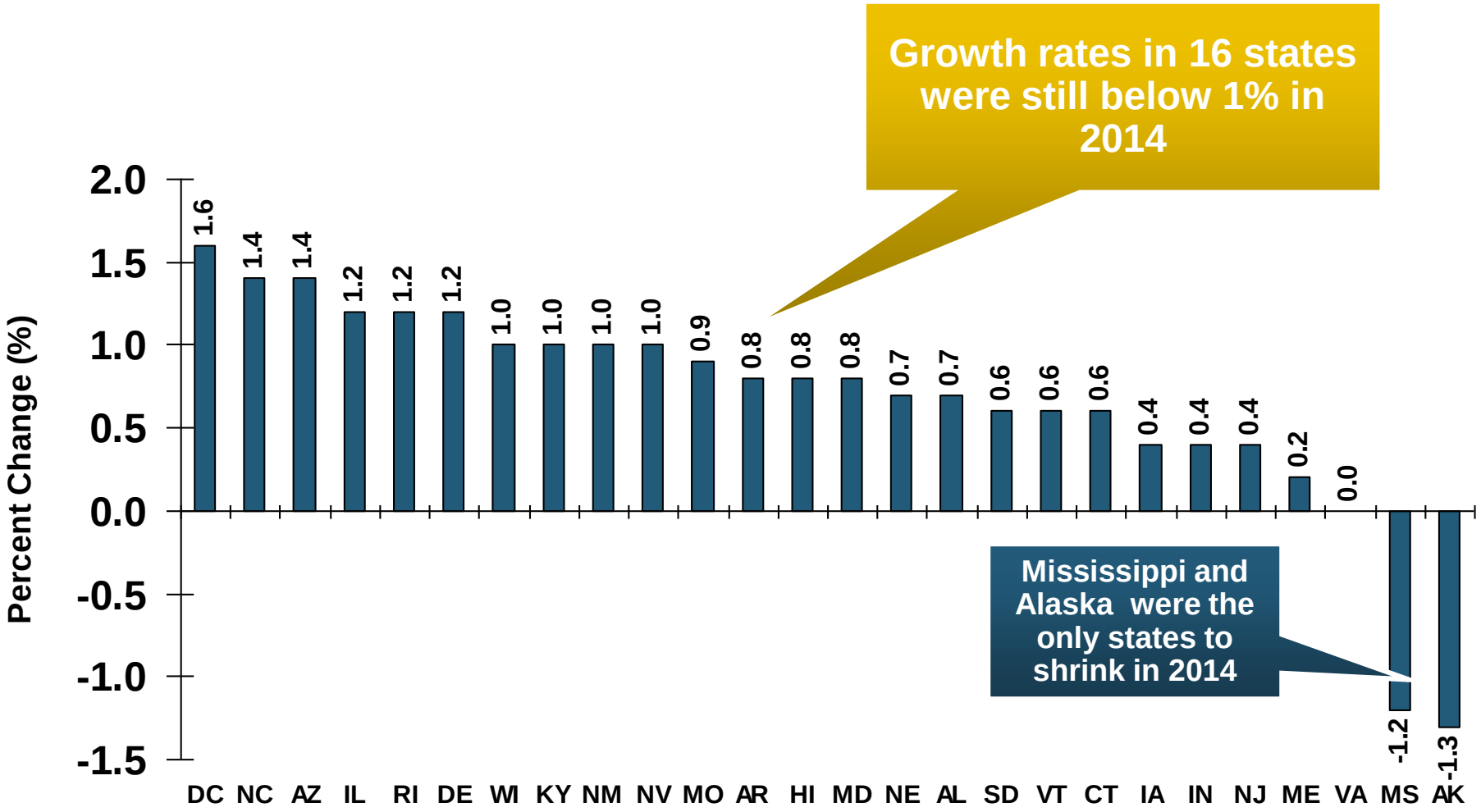
Real GDP by State Percent Change, 2014*: Highest 25 States



*Advance statistics

Sources: U.S. Bureau of Economic Analysis; Insurance Information Institute.

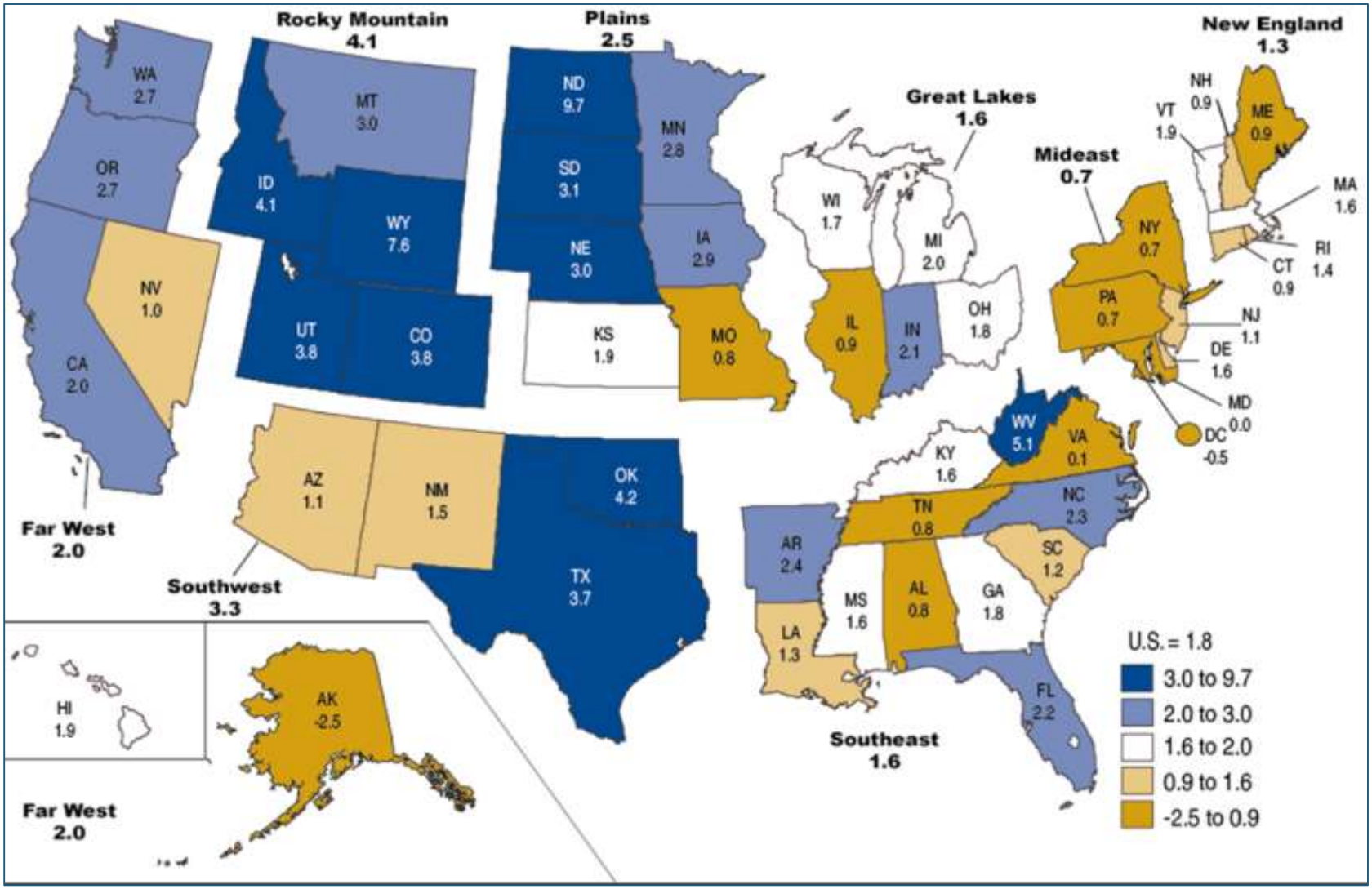
Real GDP by State Percent Change, 2014*: Lowest 25 States



*Advance statistics

Sources: US Bureau of Economic Analysis; Insurance Information Institute.

Percent Change in Real GDP by State, 2013



Sources: US Bureau of Economic Analysis; Insurance Information Institute.

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Labor Market Trends

Massive Job Losses Sapped the Economy and Commercial/Personal Lines Exposure, But Trend Has Greatly Improved

Unemployment and Underemployment Rates: Still Too High, But Falling

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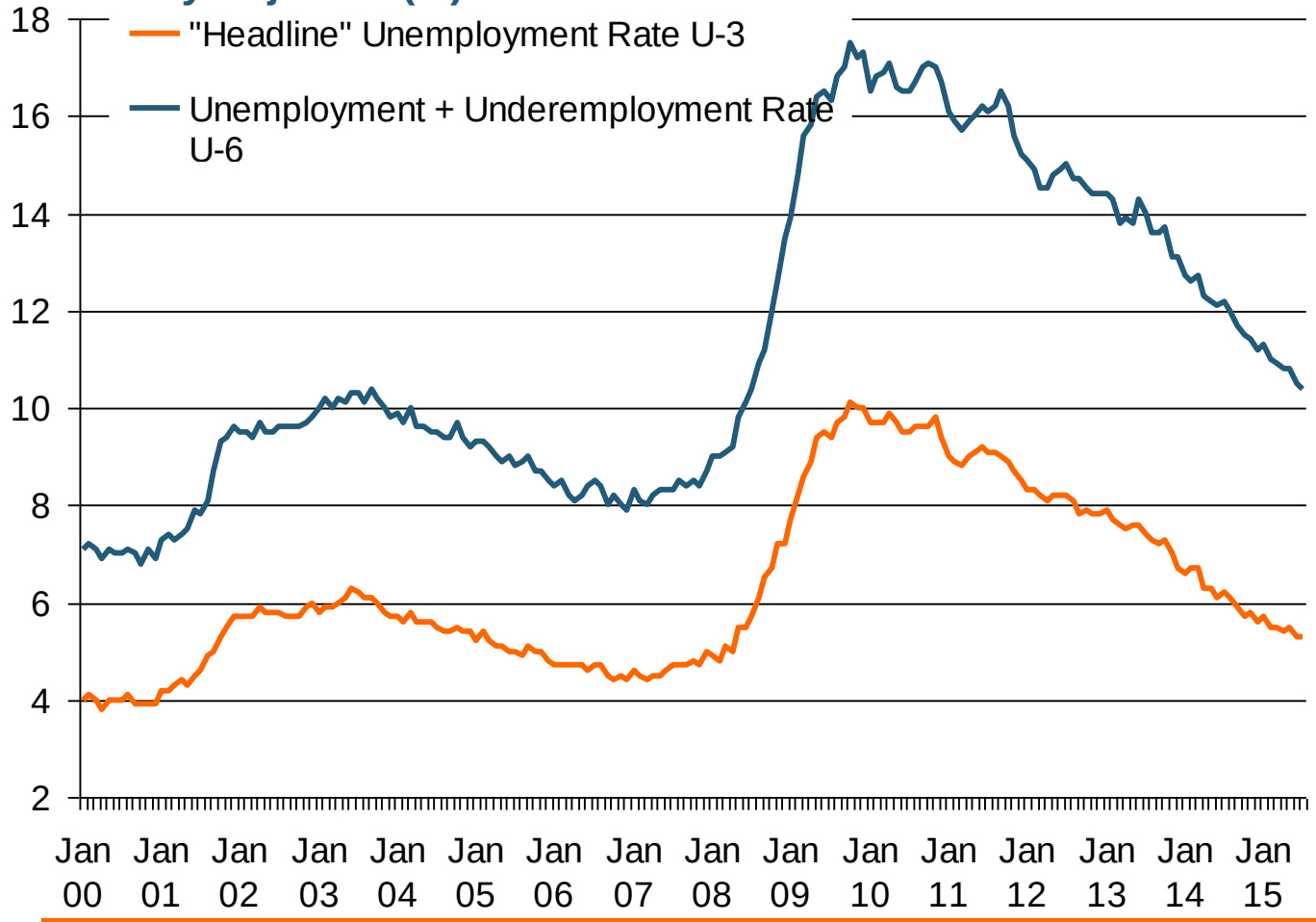
January 2000 through July 2015, Seasonally Adjusted (%)



U-6 soared from 8.0% in March 2007 to 17.5% in October 2009; Stood at 10.4% in June 2015. 8% to 10% is "normal."

"Headline" unemployment was 5.3% in July 2015. 4.5% to 5.5% is "normal."

Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is continuing to improve.

Source: US Bureau of Labor Statistics; Insurance Information Institute.

Monthly Change in Private Employment

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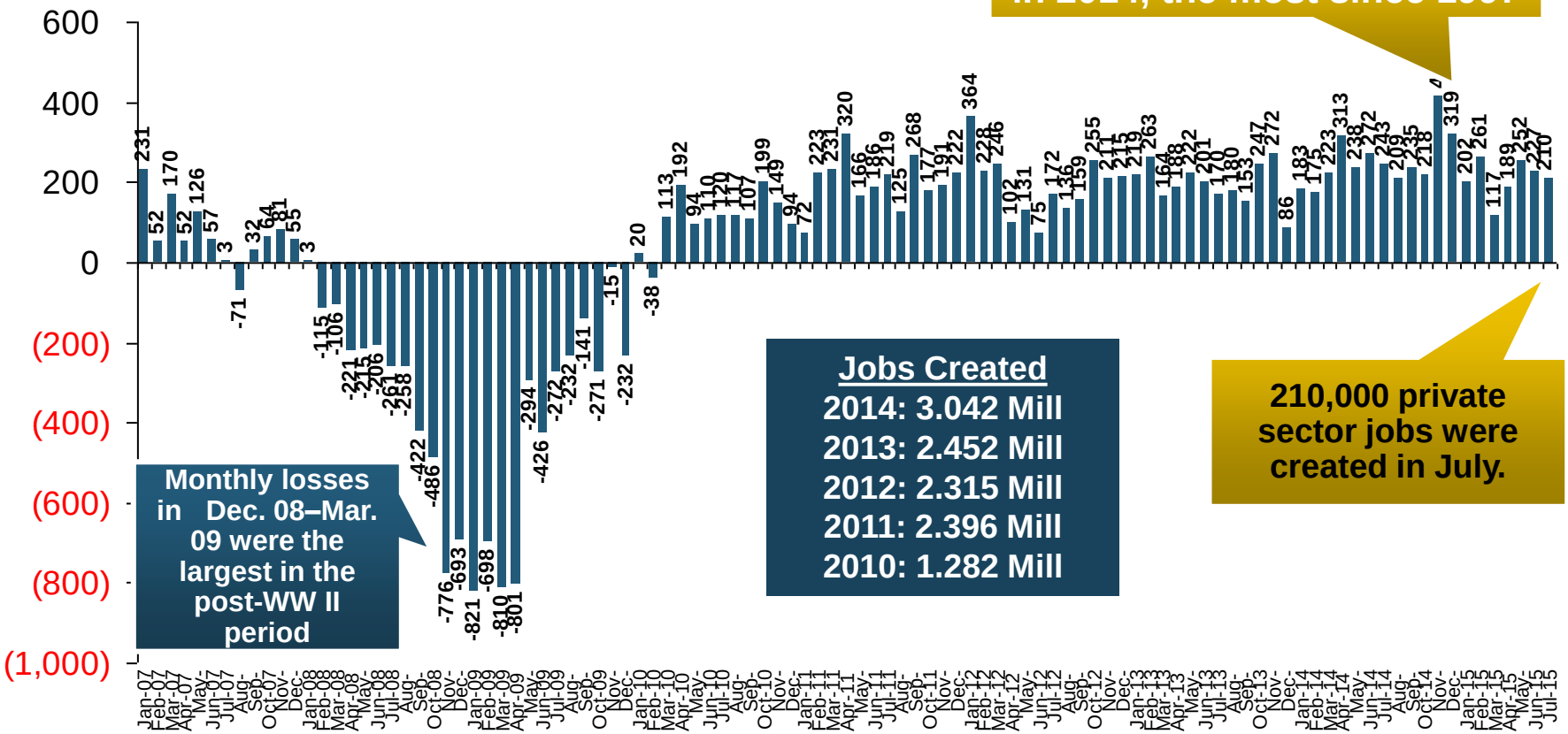
January 2007 through July 2015 (000s, Seasonally Adj.)

3,042,000 jobs were created in 2014, the most since 1997



Private Employers Added 12.84 Million Jobs Since Jan. 2010 After Having Shed 5.01 Million Jobs in 2009 and 3.76 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

Source: US Bureau of Labor Statistics: http://www.bls.gov/ces/home.htm; Insurance Information Institute

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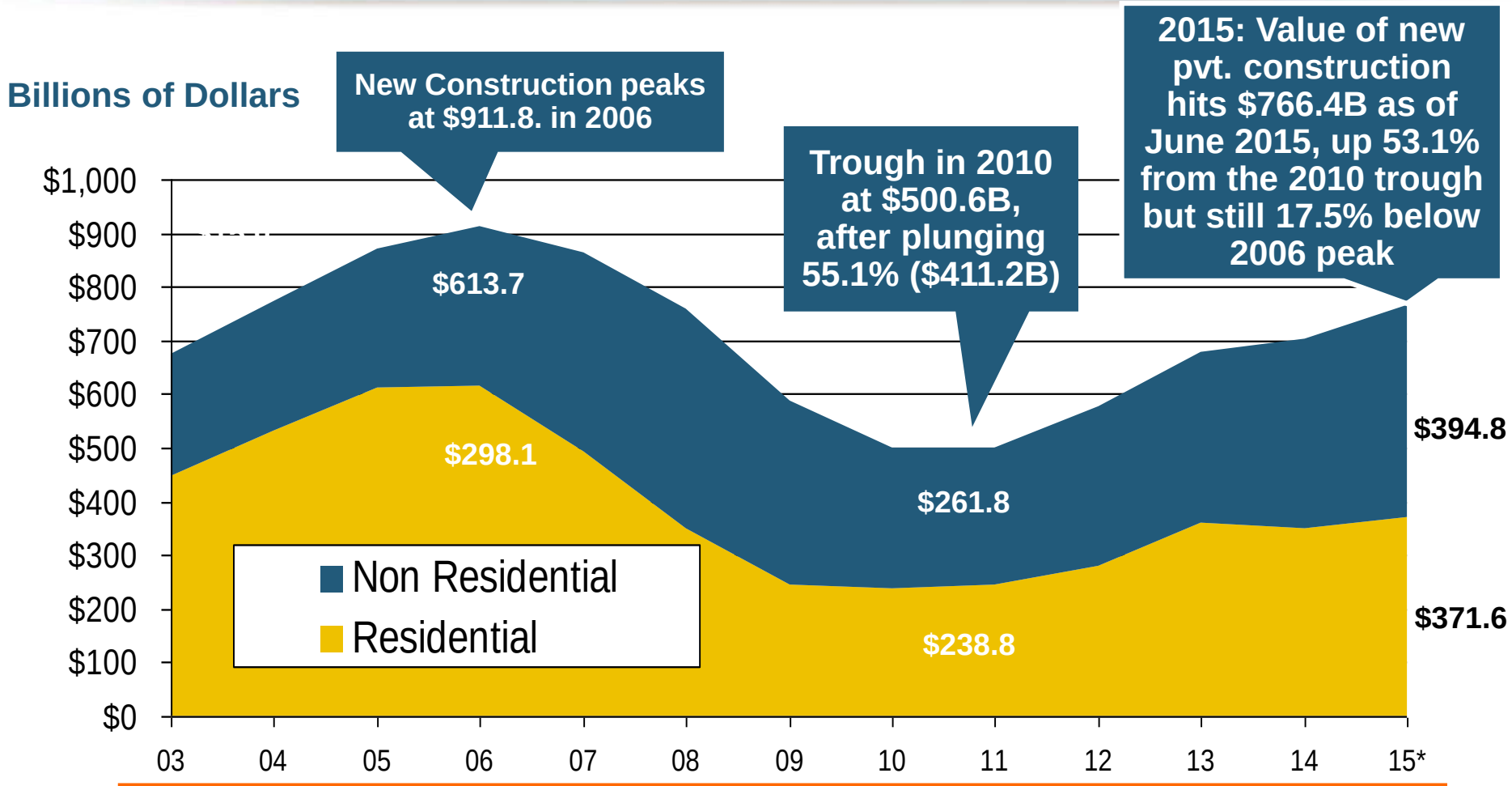
CONSTRUCTION INDUSTRY OVERVIEW & OUTLOOK

The Construction Sector Is Critical to the Economy and the P/C Insurance Industry

Value of New Private Construction: Residential & Nonresidential, 2003-2015*

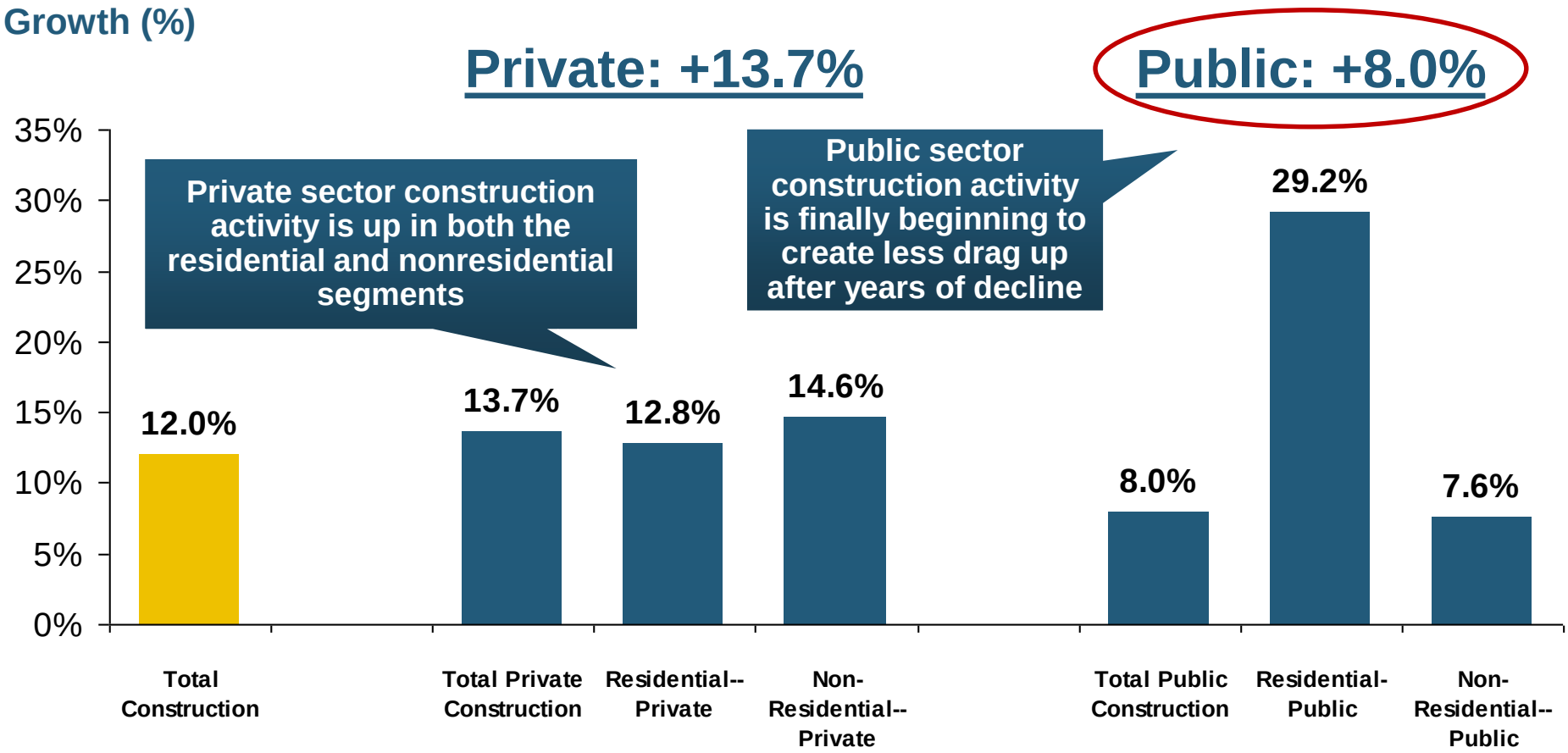


Private Construction Activity Is Moving in a Positive Direction though Remains Well Below Pre-Crisis Peak; Residential Dominates

*2015 figure is a seasonally adjusted annual rate as of June.

Sources: US Department of Commerce http://www.census.gov/construction/c30/c30index.html ; Insurance Information Institute.

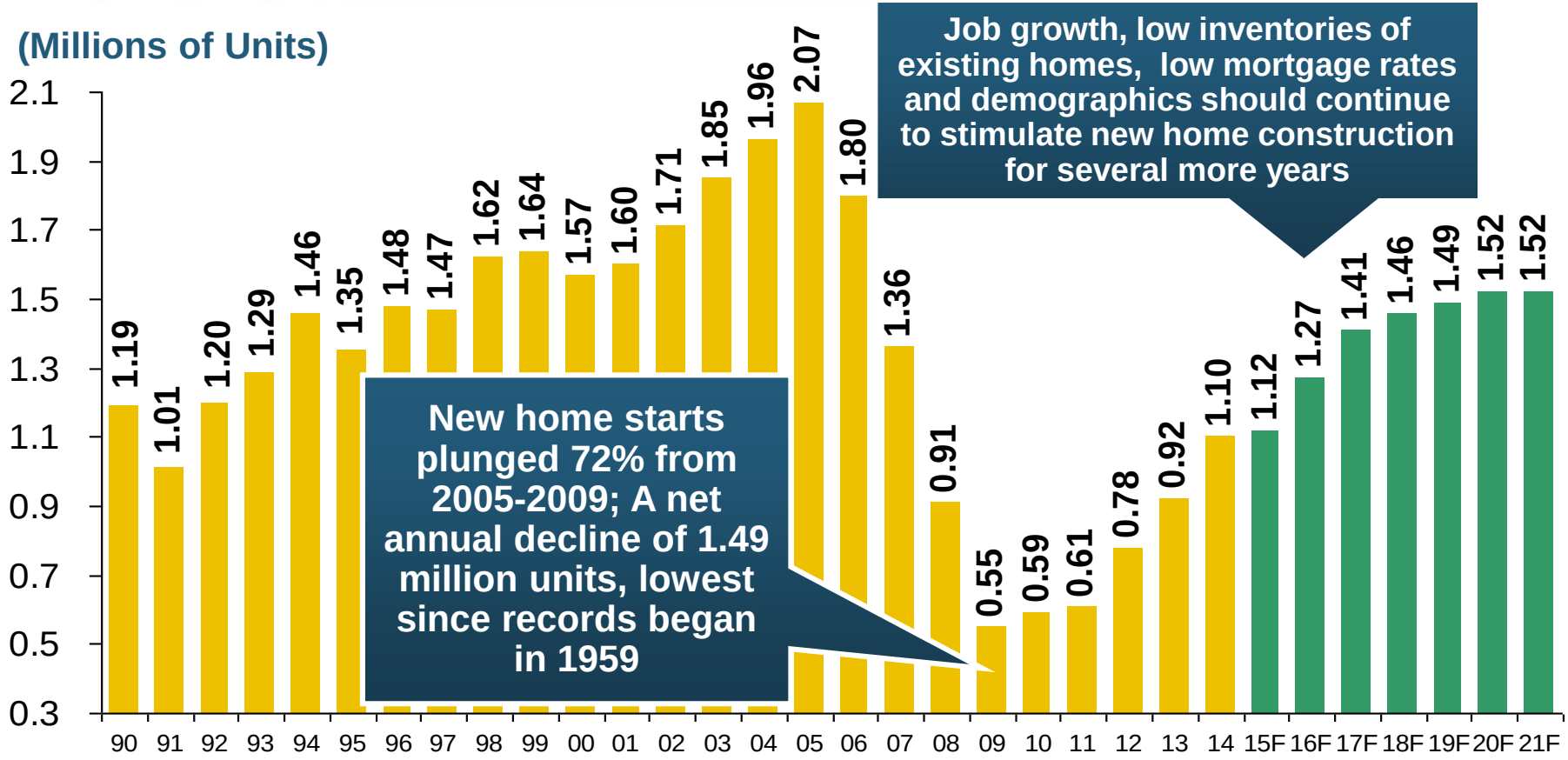
Value of Construction Put in Place, June 2015 vs. June 2014*



Overall Construction Activity is Up Again After Languishing in Early 2015; State/Local Sector Government Sector May Be Recovering as Budget Woes Ease in Some Jurisdictions

*seasonally adjusted
Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html ; Insurance Information Institute.

New Private Housing Starts, 1990-2021F



Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the "Great Recession" Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (8/15); Insurance Information Institute.

Construction Employment, Jan. 2010—July 2015*

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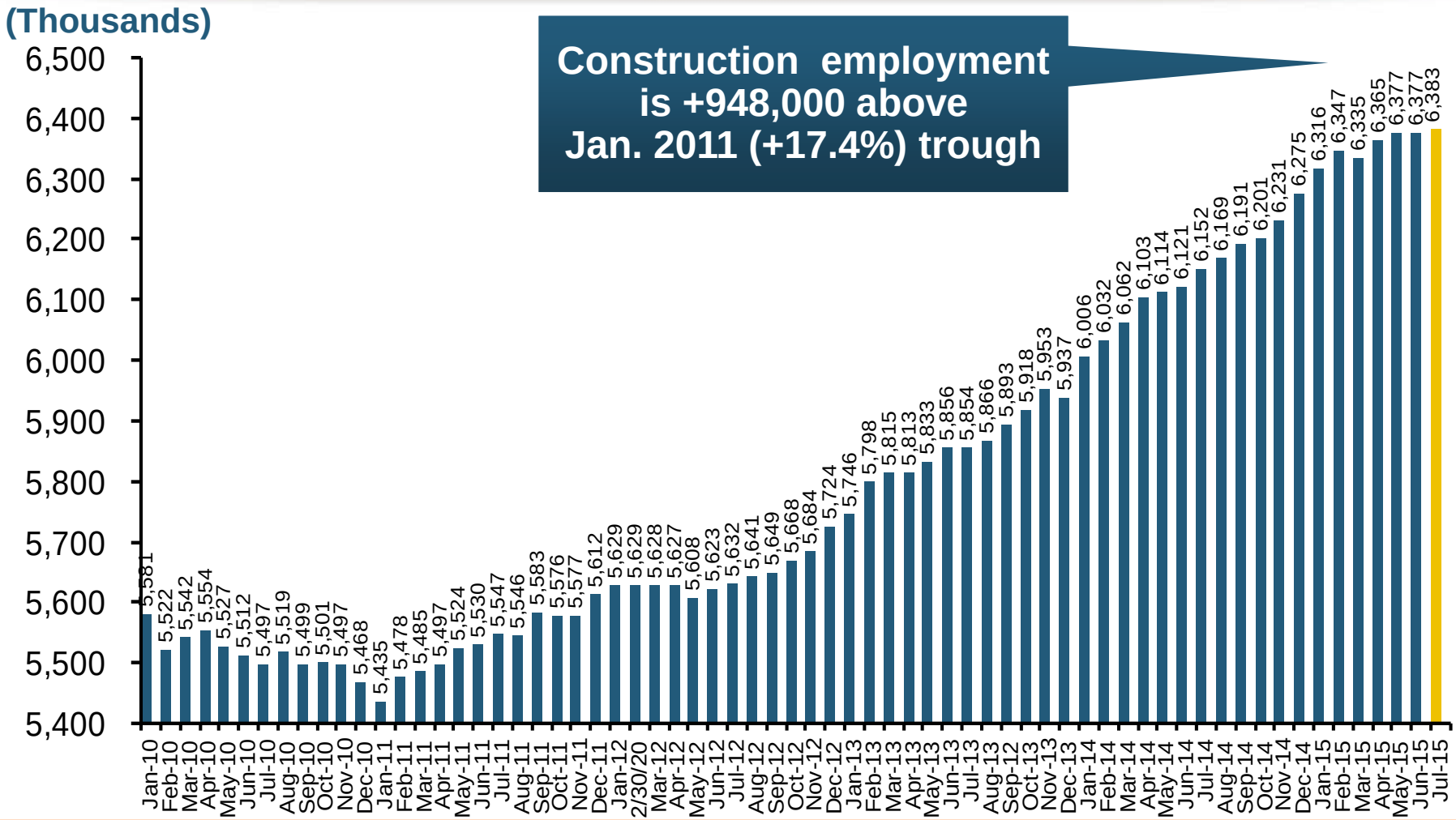

Construction and manufacturing employment constitute 1/3 of all WC payroll exposure.

*Seasonally adjusted.

Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

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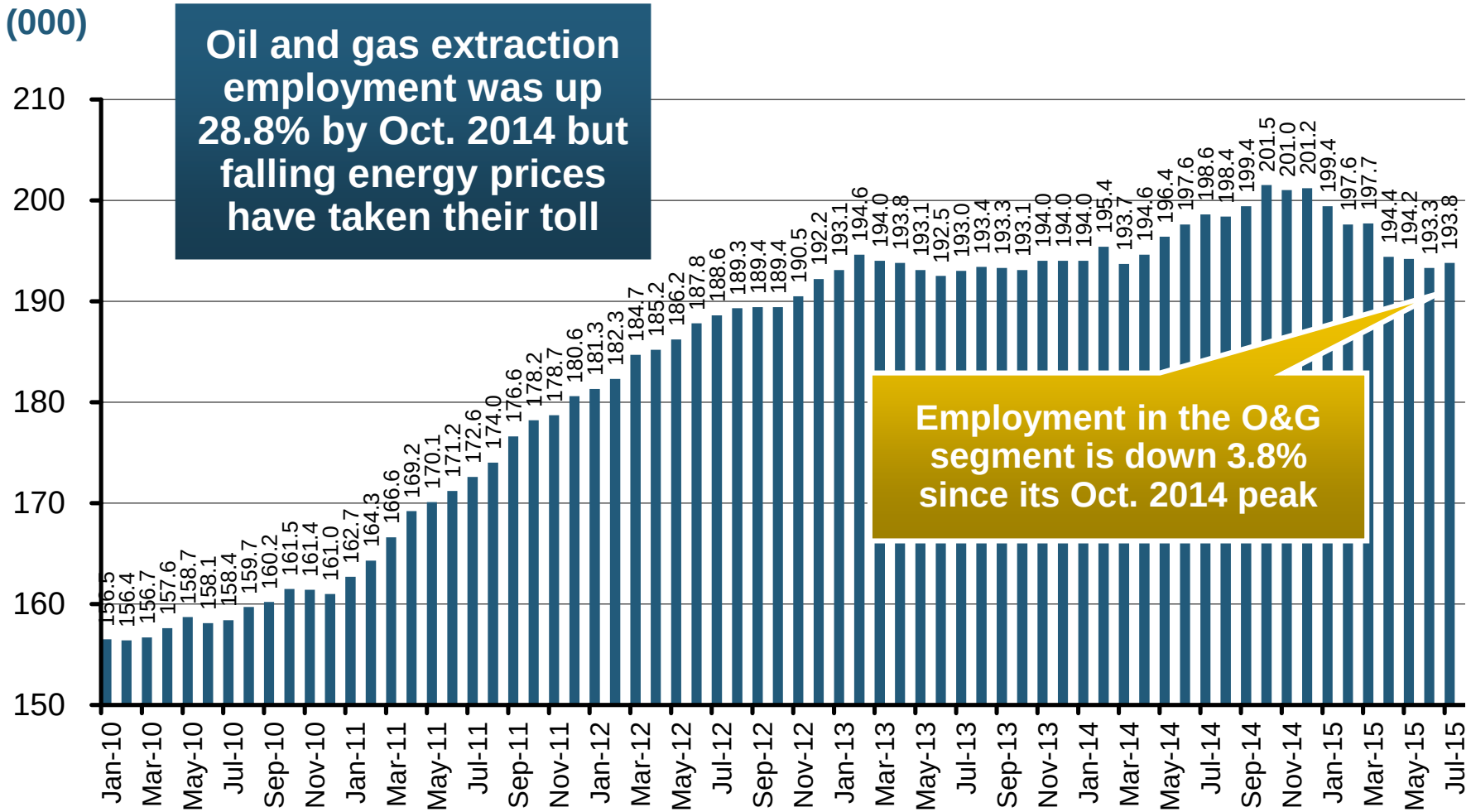
ENERGY SECTOR: OIL & GAS INDUSTRY FUTURE IS BRIGHT BUT VOLATILE

US Is Becoming an Energy Powerhouse but Fall in Prices Will Have Negative Impact

Employment in Oil & Gas Extraction, Jan. 2010—July 2015*



*Seasonally adjusted

Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

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DISRUPTORS

Technology, Society and the Economy Are All Changing at a Rapid Pace

Thoughts on the Future

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Cyber Risk & Cyber Insurance

Cyber Risk is a Rapidly Emerging Exposure for Businesses Large and Small in Every Industry

I.I.I. White Paper Coming Out in October

Data Breaches 2005-2015, by Number of Breaches and Records Exposed

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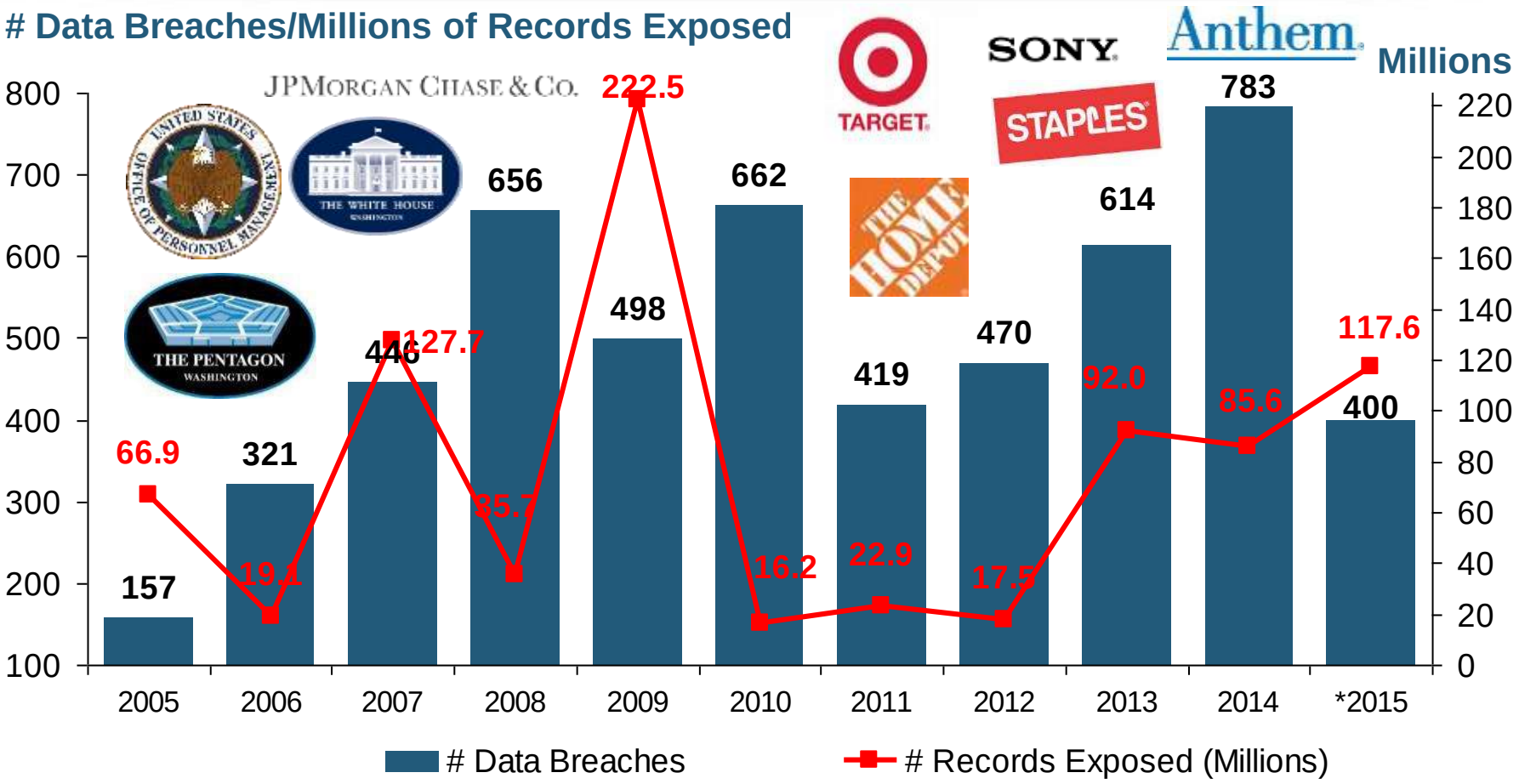


The total number of data breaches (+27.5%) hit a record high of 783 in 2014, exposing 85.6 million records. Through June 30, this year has seen 117.6 million records exposed in 400 breaches.*

*Figures as of June 30, 2015, from the Identity Theft Resource Center, http://www.idtheftcenter.org/images/breach/ITRCBreachReport2015.pdf

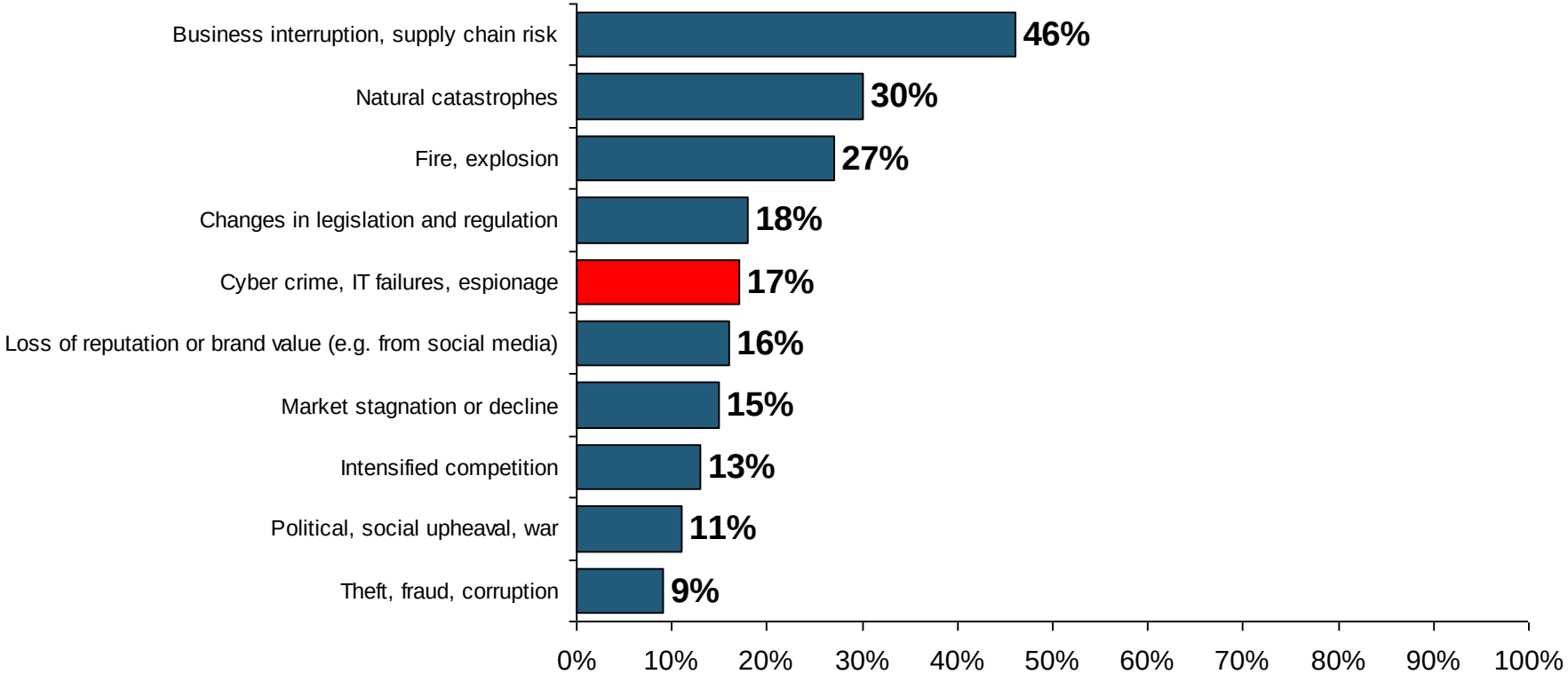
High Profile Data Breaches, 2014-2015

Date	Company	Description of Breach
May 2015	OPM	Hackers broke into U.S. Government Personnel Office stealing personal identifying information of as many as 14 million civilian U.S. government employees.
Mar 2015	Premera Blue Cross	Data breach compromises financial and medical records of 11 million customers.
Feb 2015	Anthem, Inc	Massive data breach after hackers gained access to corporate data base containing personal information of as many as 80 million current and former U.S. customers and employees.
Dec 2014	Sony Pictures Entertainment	Hacker break-in involving theft of unreleased motion pictures, and theft of more than 25 gigabytes of sensitive data on tens of thousands of Sony employees, including social security numbers, medical and salary information.
Nov 2014	Staples	Point-of-sale (POS) malware attack and breach exposing customer data, and resulting in compromise of 1.2 million records.
Sept 2014	Home Depot	Huge data breach exposes 56 million credit and debit cards and 53 million email addresses.
Aug 2014	Community Health Systems	Cyber attack originating in China resulted in data breach, compromising 4.5 million patient records. Hackers broke into company's computer system by exploiting Heartbleed bug.
June/July 2014	JP Morgan Chase	Massive data breach compromised data associated with 76 million household and 7 million small business accounts. Hackers obtained personal identifying nformation.
June 2014	PF Changs	Security breach affected customers at 33 restaurants located in 16 states, with potential credit and debit card data stolen.
May 2014	eBay	Massive data breach exposed records of site's 233 million customers, including names, email addresses, physical addresses, phone numbers and birthdates.
Feb 2014	Michaels Stores	Possible fraudulent activity on some U.S. payment cards used at Michaels stores suggests it may have experienced data security attack, exposing 2.6 million records.
Jan 2014	Snapchat	Security breach compromises phone numbers and usernames for 4.6 million accounts.
Jan 2014	Neiman Marcus	Hacker break-in exposed unknown no. of customer cards, compromising est. 1.1 million records.
Nov/Dec 2013	Target	Malware stored on Target's checkout registers led to theft of data from about 40 million credit and debit card accounts and the personal information of up to 70 million customers.

Sources: Identity Theft Resource Center; Insurance Information Institute (I.I.I.) research.

Top 10 Global Business Risks for 2015

Cyber is one of the most significant movers in this year's Risk Barometer rankings, gaining five percentage points to move into the top 5 global business risks for the first time.



Source: Allianz Risk Barometer on Business Risks 2015

Worldwide Cybersecurity Spending, 2011- 2016F

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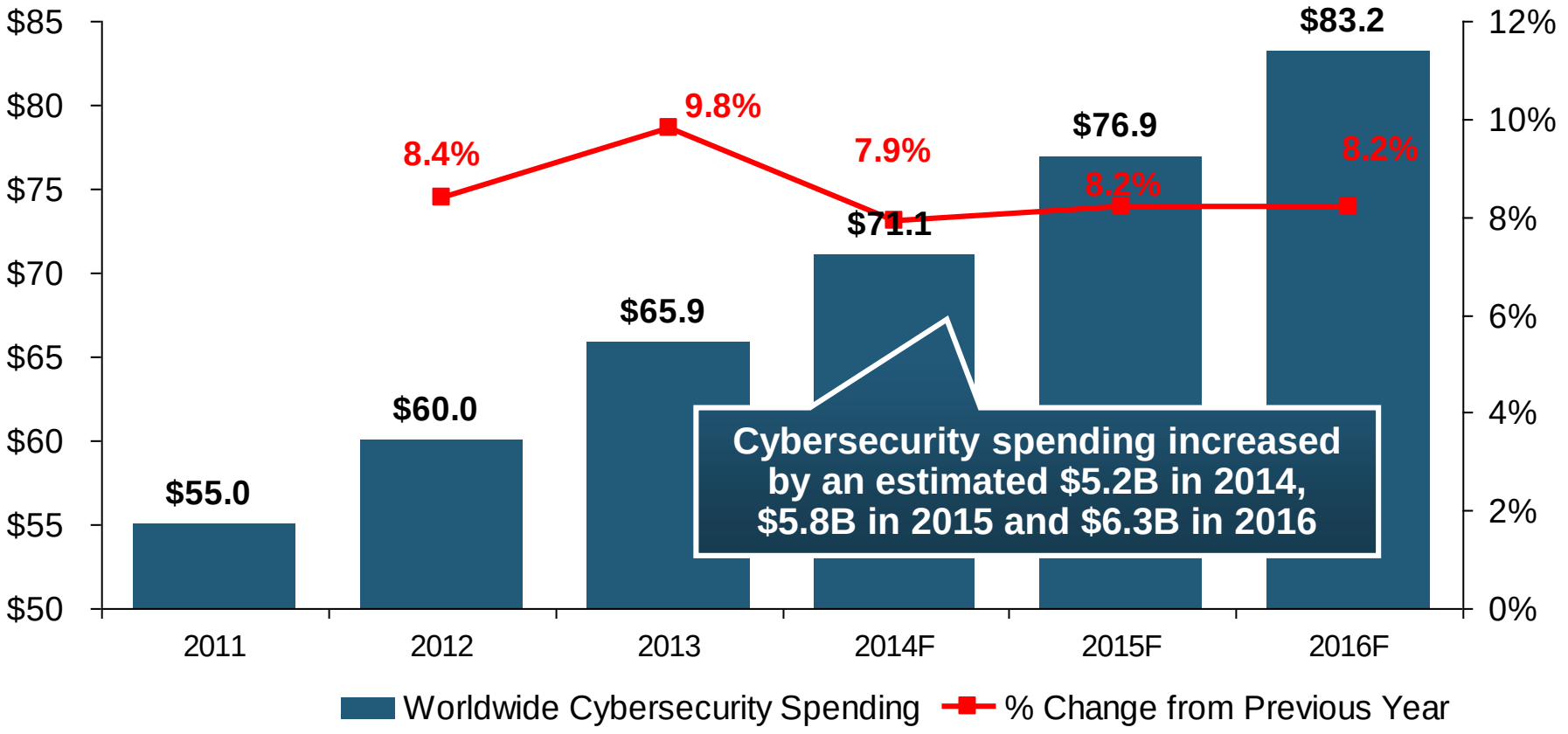
($ Billions)

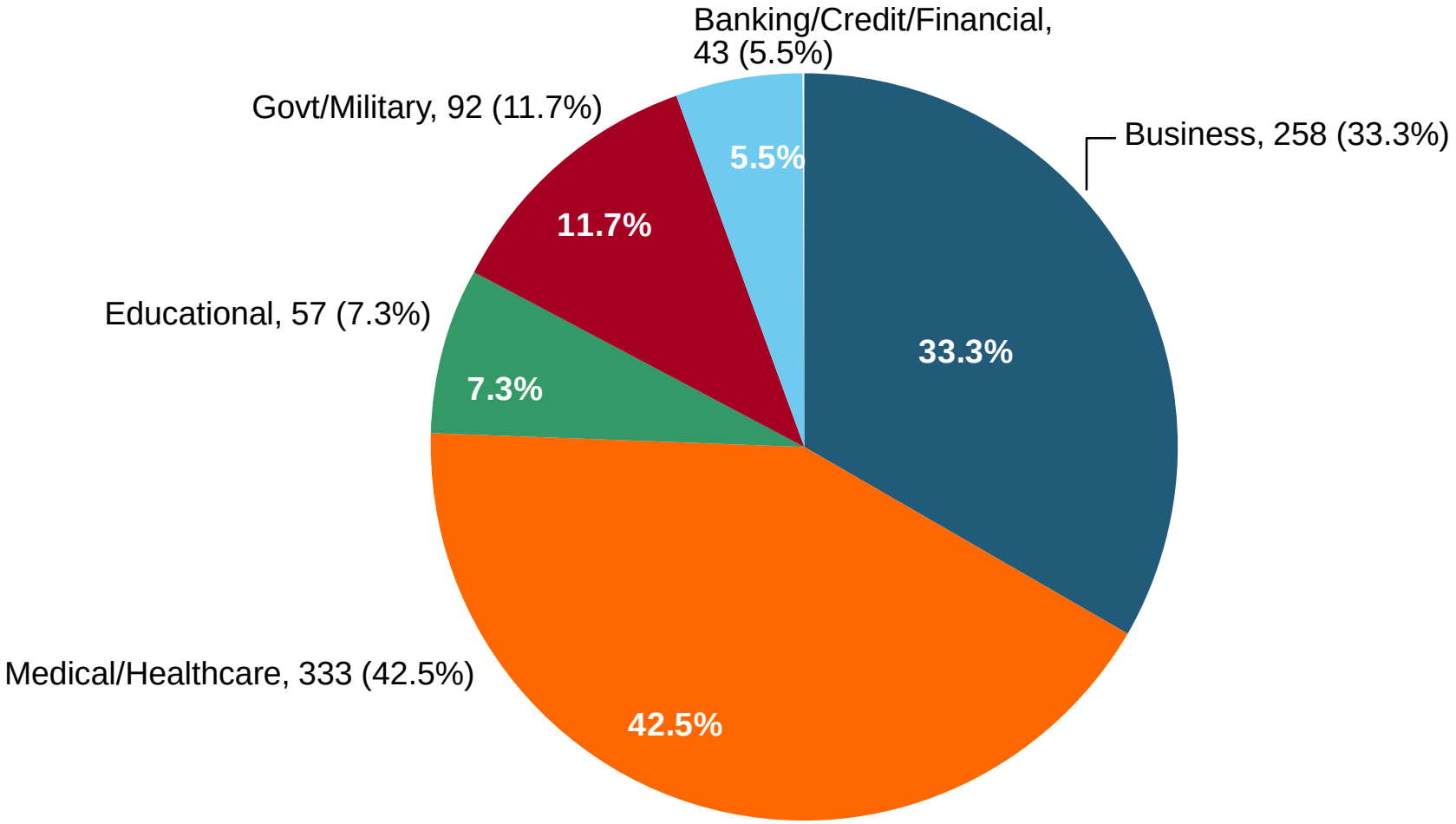


Cybersecurity Spending Is Rising Sharply, Up by About 8%+ Annually through 2016—a Projected Increase of $12.1 Billion from 2014 to 2016

Source: Gartner Group; Insurance Information Institute; Adapted from *Wall Street Journal*: "Financial Firms Boost Cybersecurity Funds," Nov. 17, 2014.

2014 Data Breaches By Business Category, By Number of Breaches

The majority of the 783 data breaches in 2014 affected business and medical/healthcare organizations, according to the Identity Theft Resource Center.



Source: Identity Theft Resource Center, http://www.idtheftcenter.org/ITRC-Surveys-Studies/2014databreaches.html

Evolving Threats: Cyber Crime and Cyber Terrorism

State sponsored groups:

- Foreign government sponsored
- Sophisticated and well-funded

Organized cyber criminals:

- Traditional organized crime groups
- Loosely organized global hacker crews

Hacktivists:

- Politically-motivated hackers
- Increasing capabilities

Insiders:

- Easy access to sensitive information
- Difficult to detect

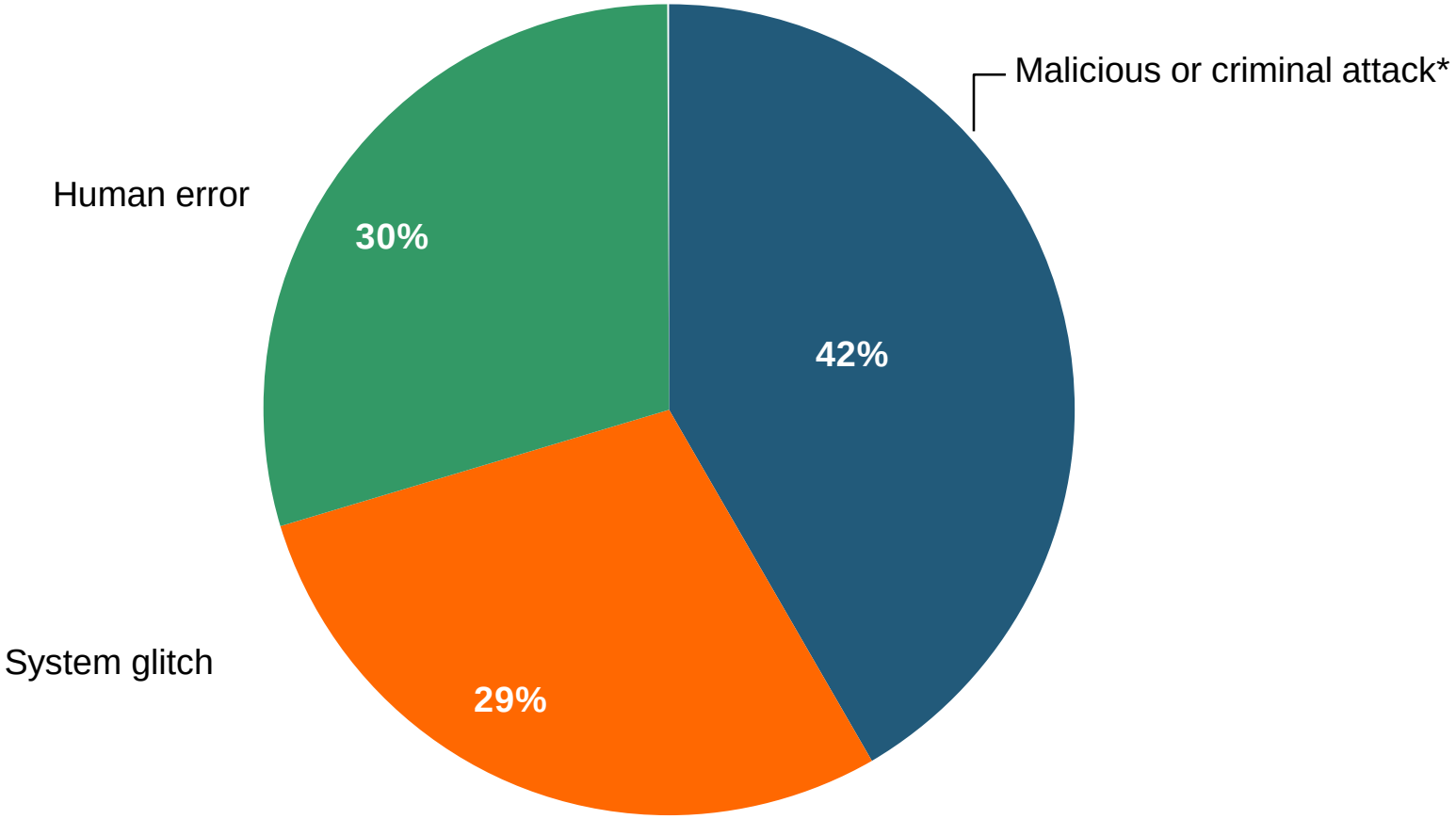
Terrorists:

- Destruction of physical **and** digital assets

Source: Lewis Brisbois, *Practical Strategies to Address Cyber Risk in Your Business*, November 2014

Main Causes of Data Breach Globally

Malicious or criminal attacks are most often the cause of data breach globally. Some 42 percent of incidents concern a malicious or criminal attack, while 30 percent concern a negligent employee or contractor (human factor).

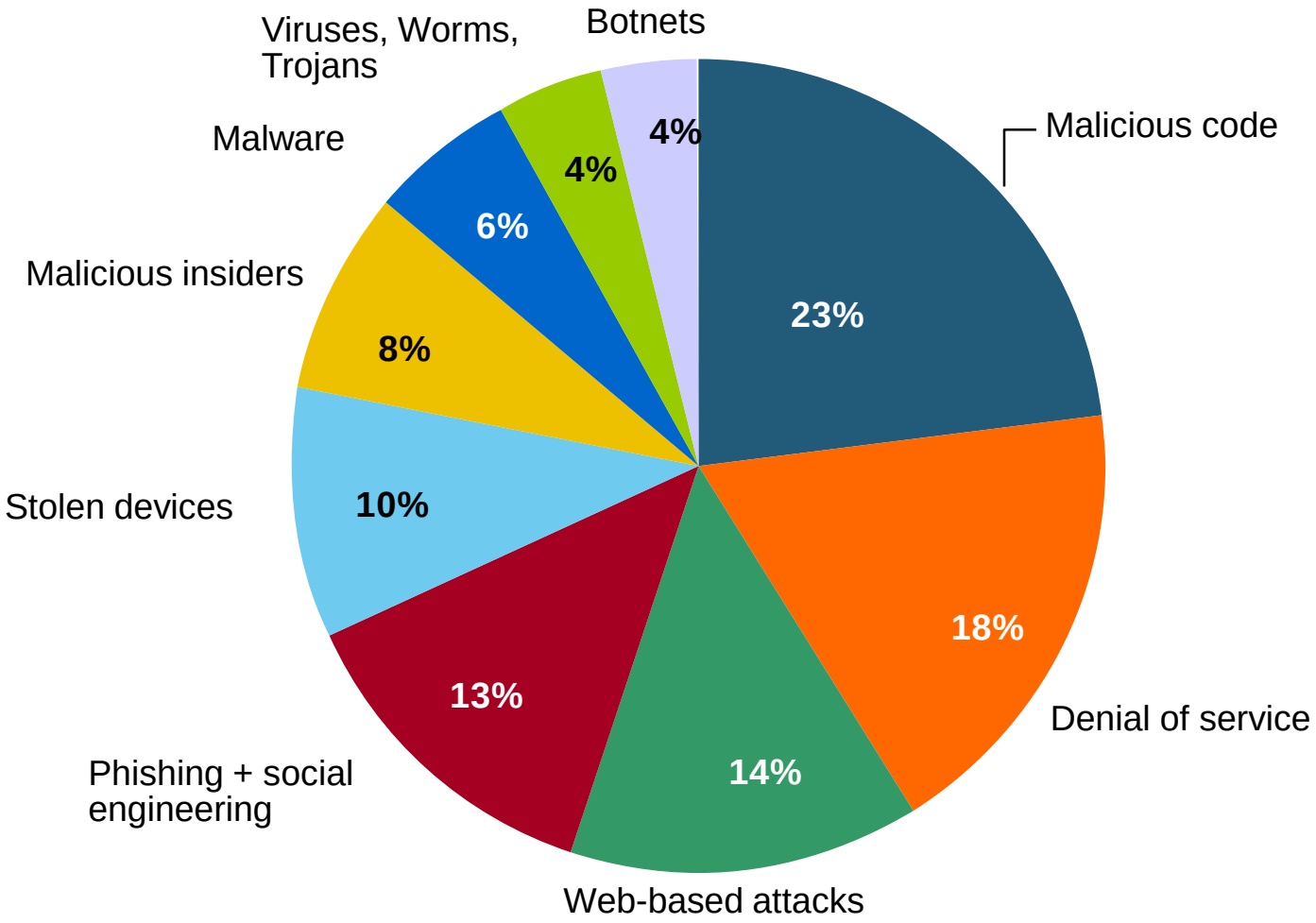


*The most common types of malicious or criminal attacks include malware infections, criminal insiders, phishing/social engineering and SQL injection.

Source: 2014 Cost of a Data Breach Study: Global Analysis, the Ponemon Institute, sponsored by IBM, May 2014

US: Most Costly Types of Cyber Crimes, Fiscal Year 2014

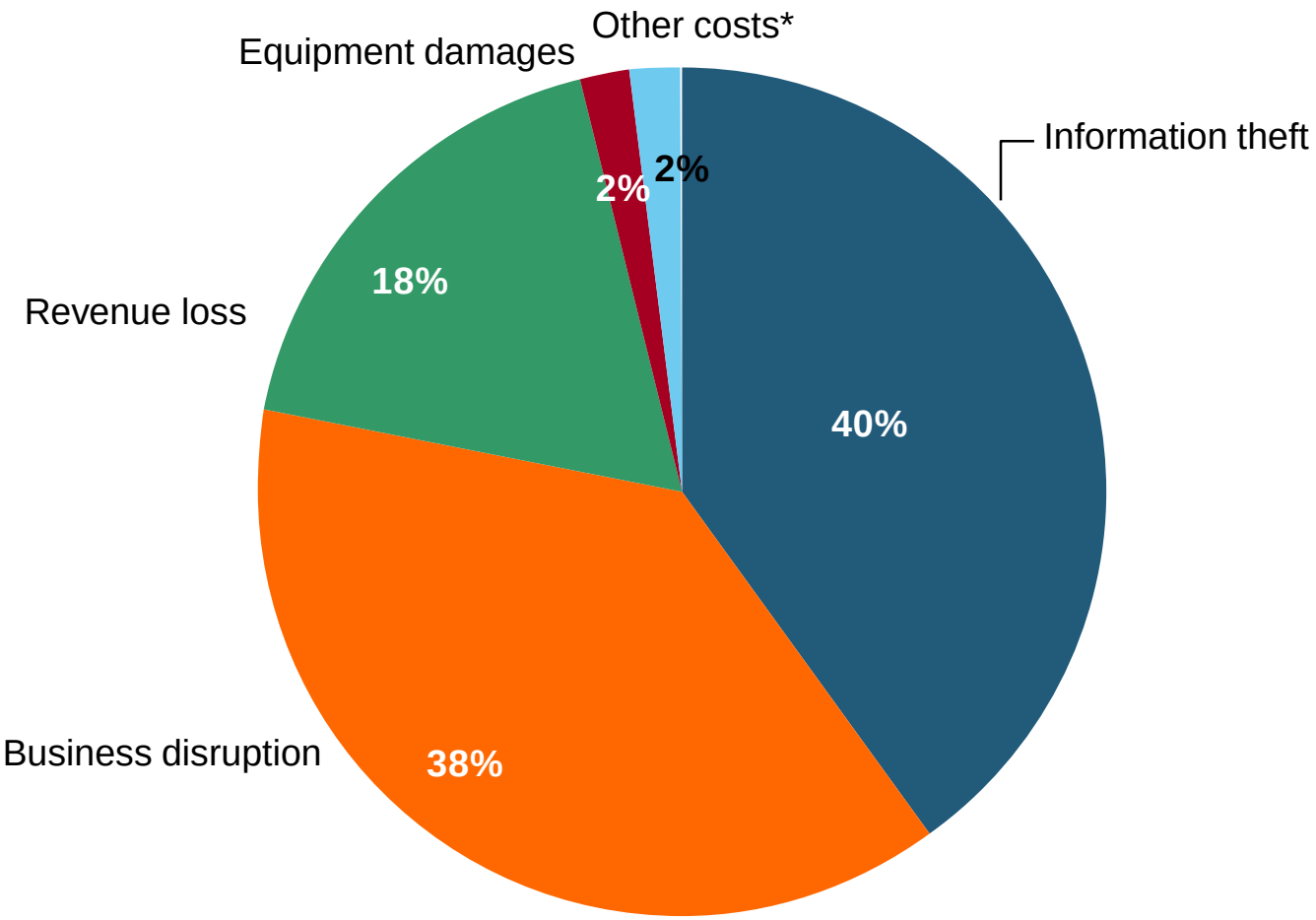
Malicious code, denial of service and web-based attacks account for more than 55 percent of the total annualized cost of cyber crime experienced by 59 U.S. companies.



Source: *2014 Cost of Cyber Crime: United States*, Ponemon Institute.

US: External Cyber Crime Costs: Fiscal Year 2014

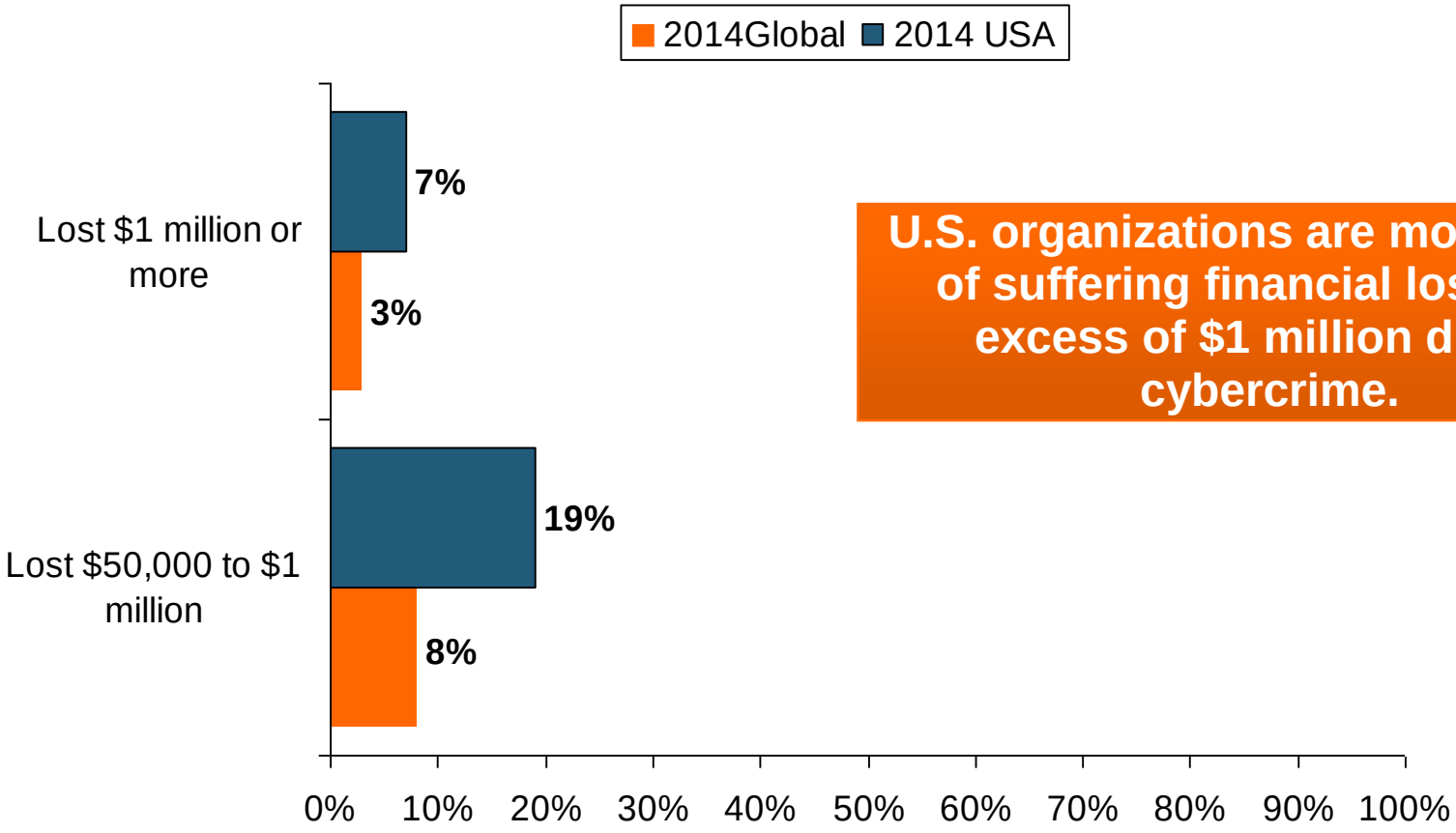
Information theft (40%) and business disruption or lost productivity (38%) account for the majority of external costs due to cyber crime.



* Other costs include direct and indirect costs that could not be allocated to a main external cost category

Source: *2014 Cost of Cyber Crime: United States*, Ponemon Institute.

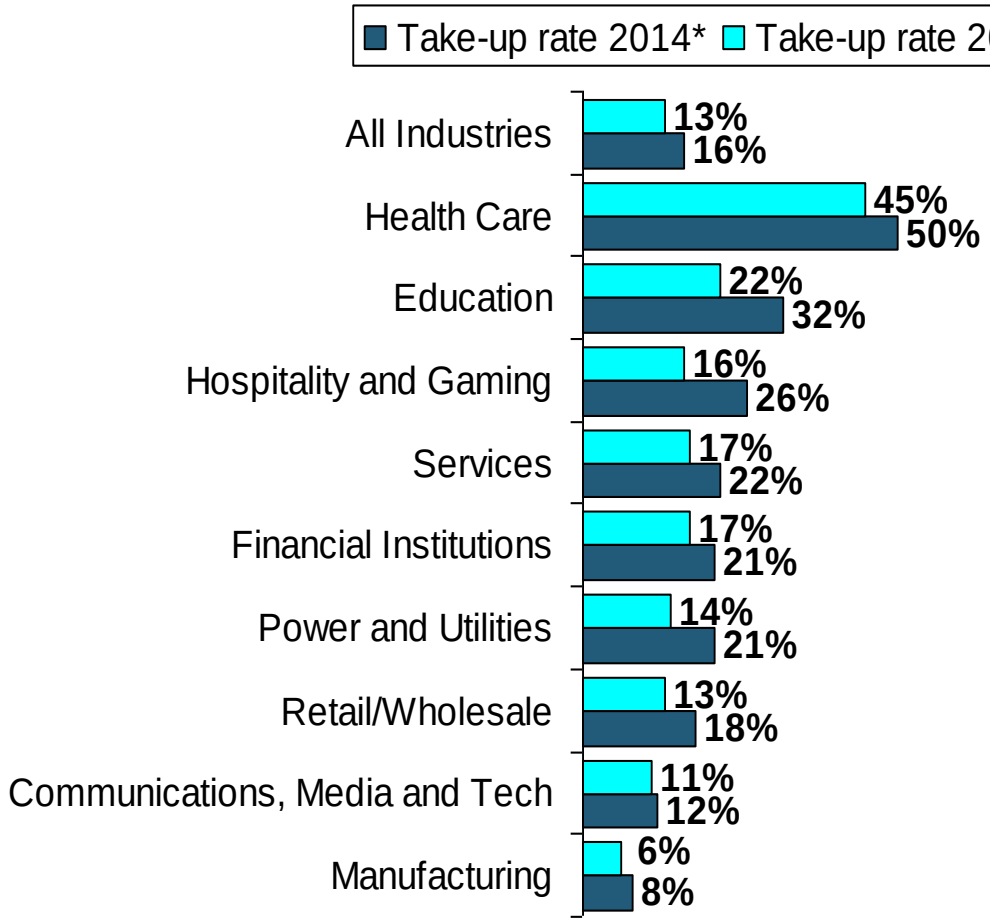
PWC Survey: Cybercrime Costs Greater for U.S. Companies



U.S. organizations are more at risk of suffering financial losses in excess of $1 million due to cybercrime.

Source: 2014 Global Economic Crime Survey, PWC.

Marsh: Percentage of U.S. Companies Purchasing Cyber Insurance Increased in 2014



Take-Up Rate Edging Up, but Small Business, the "Soft Underbelly" Has Been Slow to Respond.

*Take-up rate refers to the overall percentage of clients that purchased standalone cyber insurance.

Source: *Benchmarking Trends: As Cyber Concerns Broaden, Insurance Purchases Rise*, Marsh Risk Management Research Briefing, March 2015

Marsh: Total Limits Purchased, By Industry – Cyber Liability, All Revenue Size

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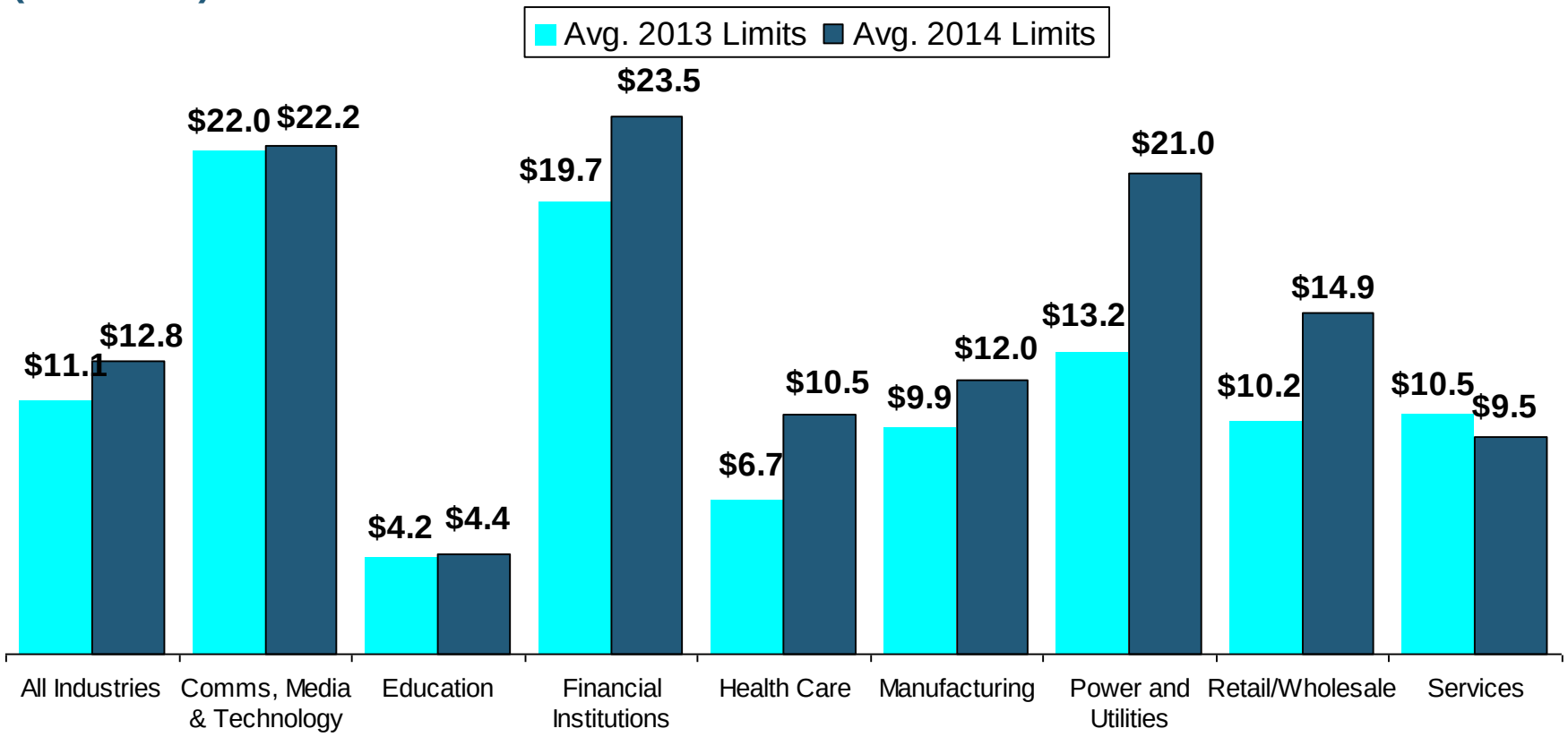
Average limits purchased for cyber risk rose to $12.8 million for all industries and all company sizes in 2014. *Power and utility companies witnessed the sharpest percentage increase in average limits, at 59 percent.*

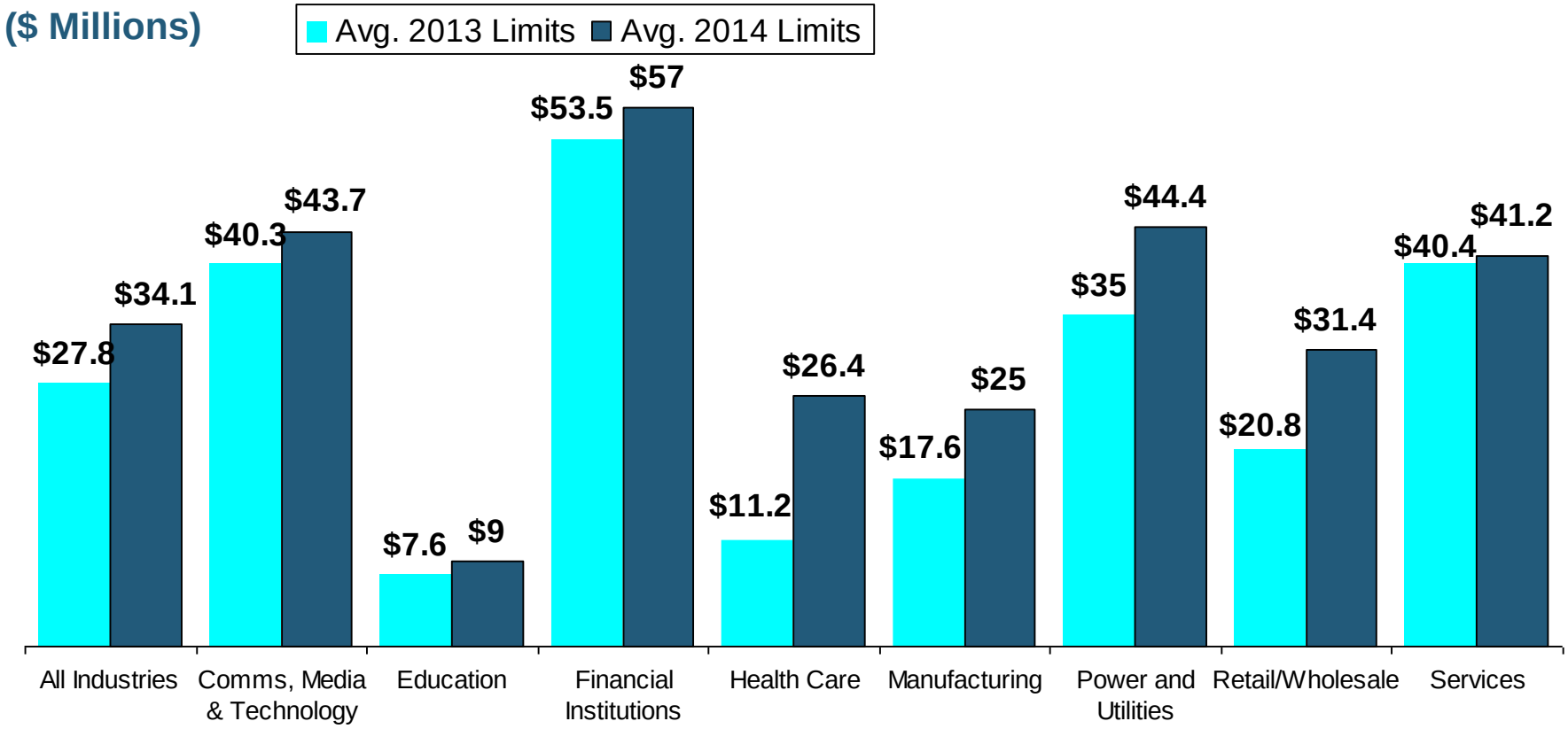
($ Millions)



Source: *Benchmarking Trends: As Cyber Concerns Broaden, Insurance Purchases Rise*, Marsh Risk Management Research Briefing, March 2015

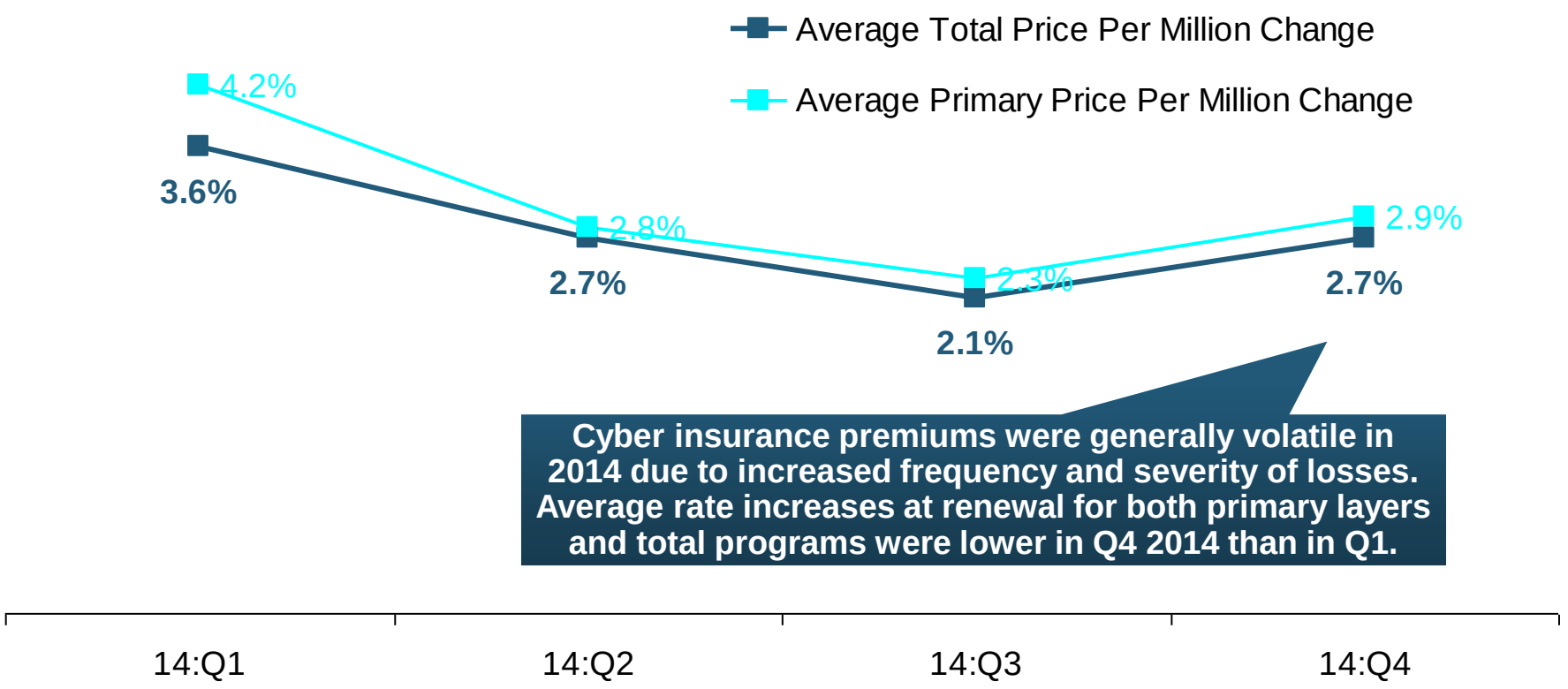
Marsh: Total Limits Purchased, By Industry – Cyber Liability, Revenue $1 Billion+

Among larger companies, average cyber insurance limits purchased increased by 22 percent to $34.1 million in 2014, from $27.8 million in 2013.



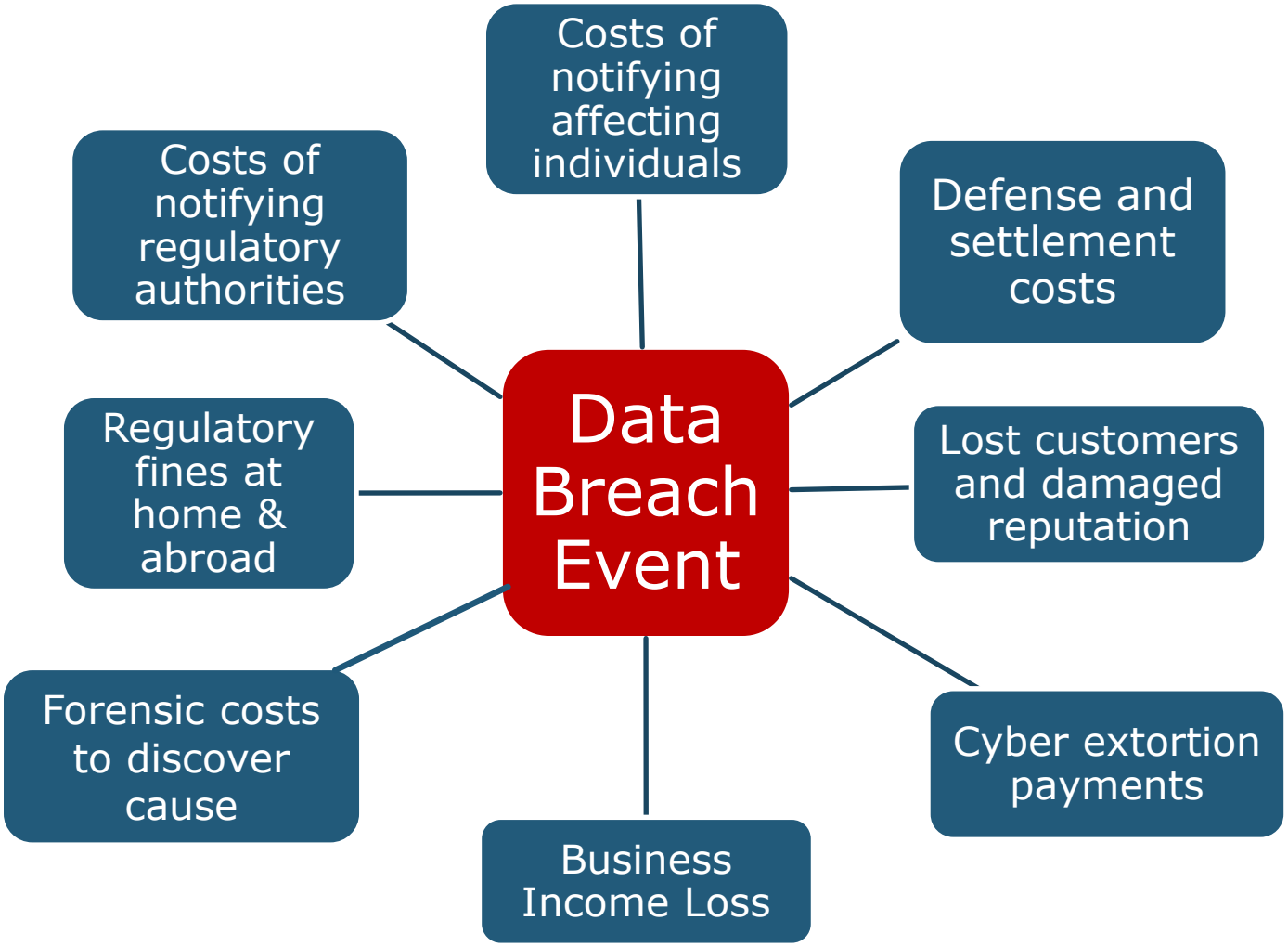
Source: *Benchmarking Trends: As Cyber Concerns Broaden, Insurance Purchases Rise*, Marsh Risk Management Research Briefing, March 2015

Cyber Liability: Historical Rate (price per million) Changes



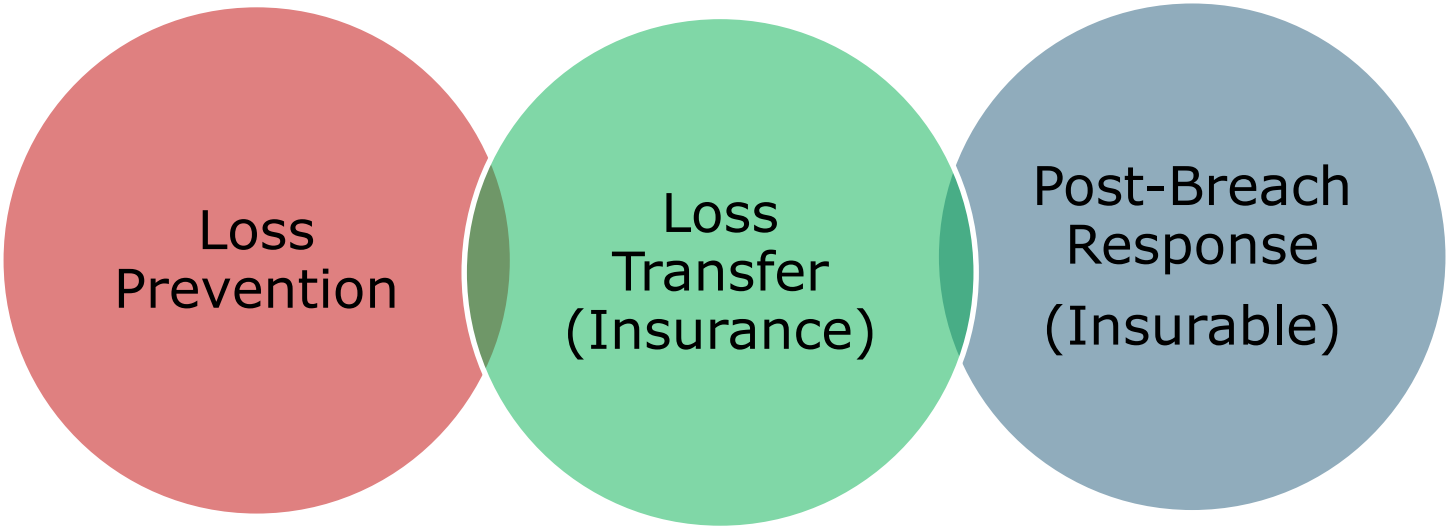
Source: *Benchmarking Trends: As Cyber Concerns Broaden, Insurance Purchases Rise*, Marsh Risk Management Research Briefing, March 2015

Data/Privacy Breach: Many Potential Costs Can Be Insured



Source: Zurich Insurance; Insurance Information Institute

The Three Basic Elements of Cyber Coverage: Prevention, Transfer, Response



Cyber risk management today involves three essential components, each designed to reduce, mitigate or avoid loss. An increasing number of cyber risk products offered by insurers today provide all three.

Source: Insurance Information Institute research.

I.I.I. Will Release its Third Cyber Report in 2015: *Cyber Risks Threat and Opportunity*

- **I.I.I.'s 3rd report on cyber risk scheduled for Q3 2015**
- **Provides information on cyber threats and insurance market solutions**
- **Global cyber risk overview**
  - **Quantification of threats by type and industry**
- **Cyber security and cost of attacks**
- **Cyber terrorism**
- **Cyber liability**
- **Insurance market for cyber risk**

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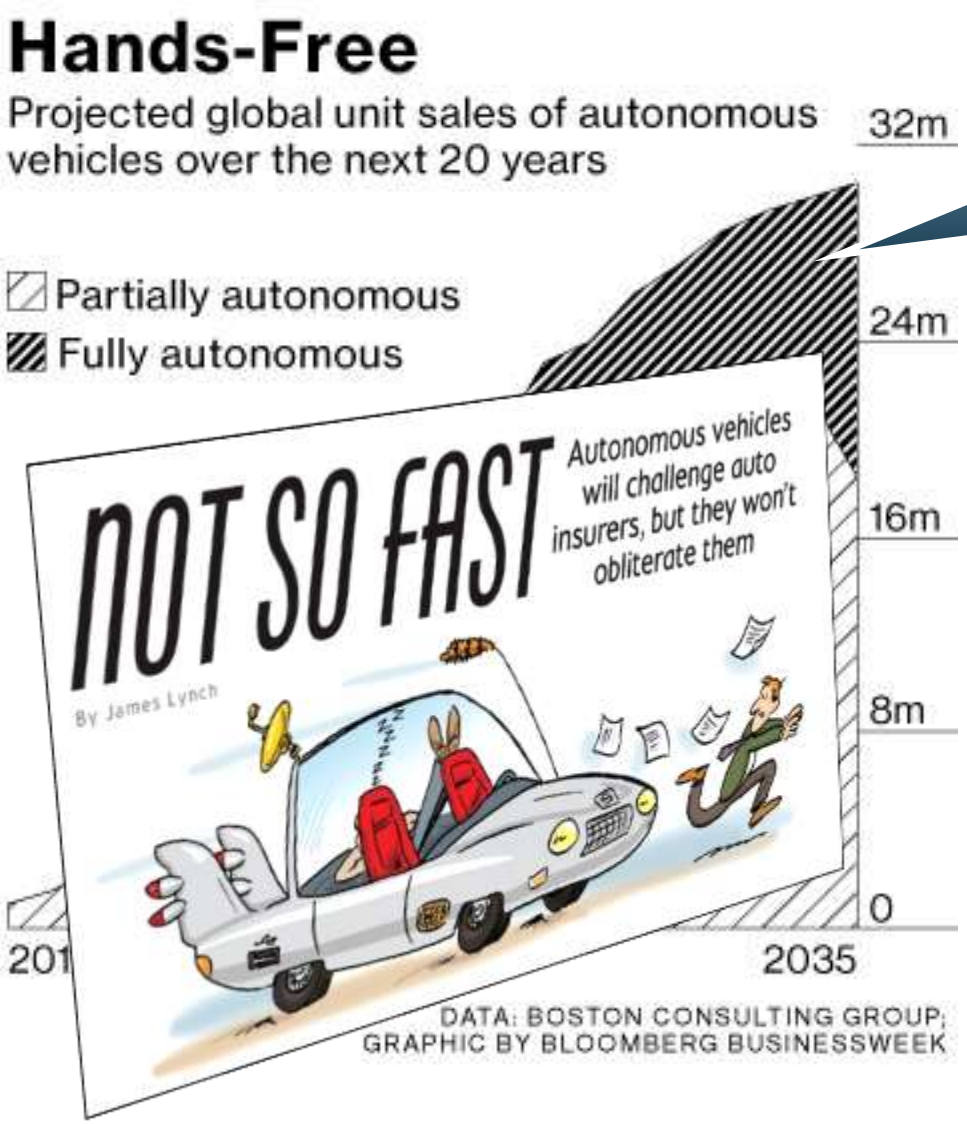
Technology and Insurance

Rapid Technological Innovations Are Impacting Many Segments of the P/C Insurance Industry

Media Are Obsessed with Driverless Vehicles: Often Predicting the Demise of Auto Insurance



By 2035, it is estimated that 25% of new vehicle sales could be fully autonomous models

Questions

- **Are auto insurers monitoring these trends?**
- **How are they reacting?**
- **Will Google take over the industry?**
- **Will the number of auto insurers shrink?**
- **How will liability shift?**

Source: Boston Consulting Group.

On-Demand/Sharing/Peer-to-Peer Economy Impacts Many Lines of Insurance

- **The "On-Demand" Economy is or will impact many segments of the economy important to P/C insurers**
  - **Auto (personal and commercial)**
  - ***Homeowners/Renters***
  - **Many Liability Coverages**
  - **Professional Liability**
  - **Workers Comp**
- **Many unanswered insurance questions**
- **Insurance solutions are increasingly available to fill the many insurance gaps that arise**

Labor on Demand: Huge Implications for the US Economy, Workers & Insurers

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Will YOUR job be reduced to an app?

THE WALL STREET JOURNAL.

There's an Uber for Everything Now

Apps do your chores: shopping, parking, cooking, cleaning, packing, shipping and more

Send in the Drones: Potential Rapid Adoption in Industry

- **Drones or Unmanned Aerial Vehicle (UAV) technology is seeing rapid adoption rate in many industries, including insurance**
- **FAA granting Section 333 exemptions for commercial use and testing of UAS**
- **At least 5 insurers have received permission to test**
- **Wide variety of applications: claims, pre-event property inspections…**
- **Insurers partnering with construction industry to guide R&D and regulation of UAV use via *Property Drone Consortium*: www.propertydrone.org**

Summary

- Calm Eddies . . .
  - Low Interest Rates . . .
  - Flat Premium Rates . . .
  - Light Catastrophes (so far)
  - Underwriting Profits . . .
  - Steady Economic Growth . . .

Make 2015 Look Good (so far)

Summary

- Turbulent Waters
  - Excess Capital. . .
  - Waves of Mergers and Acquisitions. . .
  - Cybersecurity Risks . . .
  - Disruptive Technology . . .

Make the Future an Exciting Challenge

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