



# Overview and Outlook for the P/C Insurance Industry: *Focus on Lawyers' Professional Liability Market and Tort Issues*

Missoula, MT  
July 25, 2013

Robert P. Hartwig, Ph.D., CPCU, President & Economist  
Insurance Information Institute ♦ 110 William Street ♦ New York, NY 10038

Tel: 212.346.5520 ♦ Cell: 917.453.1885 ♦ bobh@iii.org ♦ www.iii.org

## ■ P/C Insurance Market Overview

- ◆ Where is the market today?
- ◆ Where is it headed?
- ◆ Market drivers

## ■ Performance by Segment

- ◆ Underwriting
- ◆ Growth
- ◆ Lawyer's Professional Liability Market Overview

## ■ Tort System Update

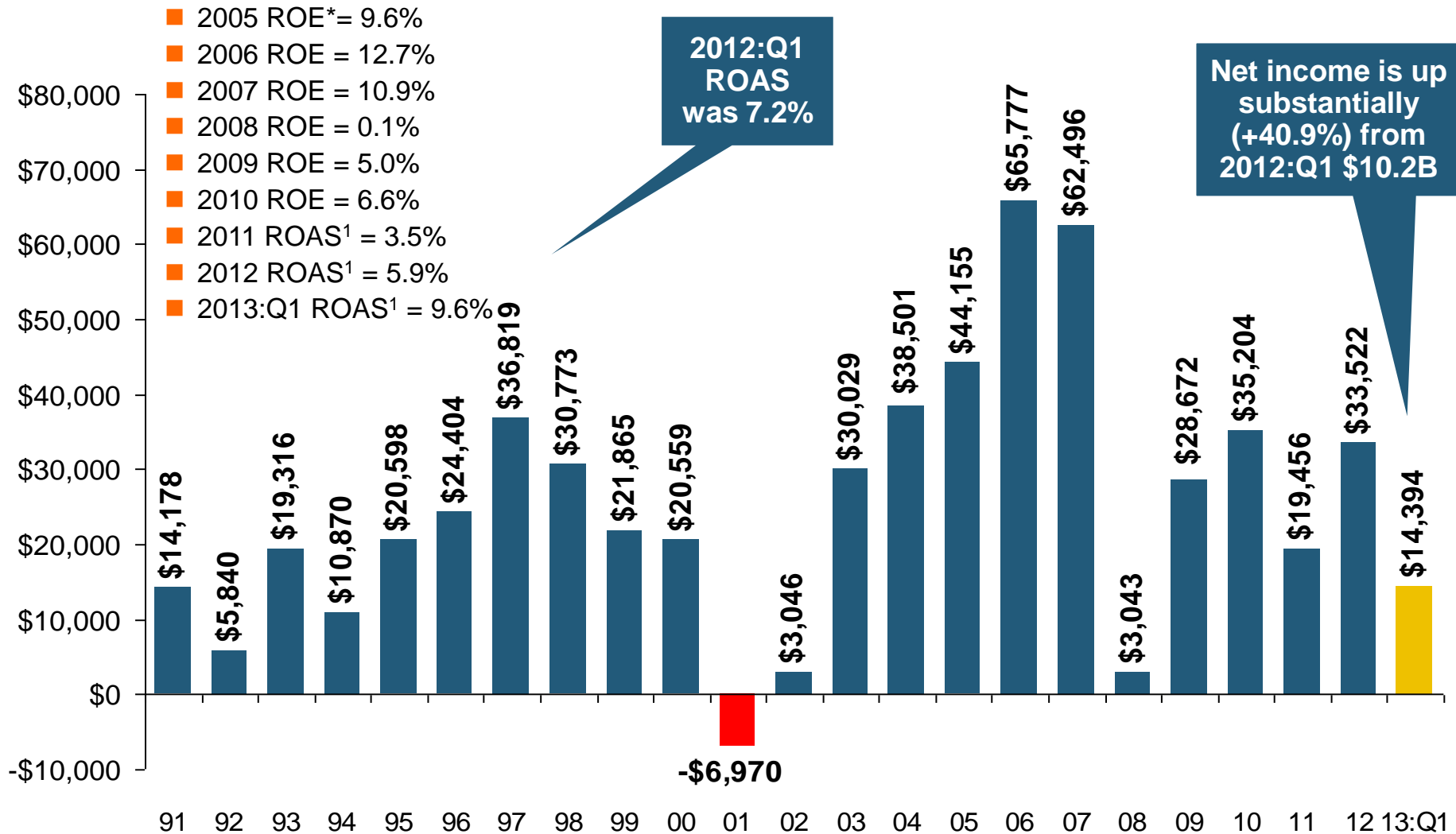
## ■ Q&A



# P/C Insurance Industry Financial Overview

**Profit Recovery in Underway  
After High CAT Losses in  
2011 and 2012**

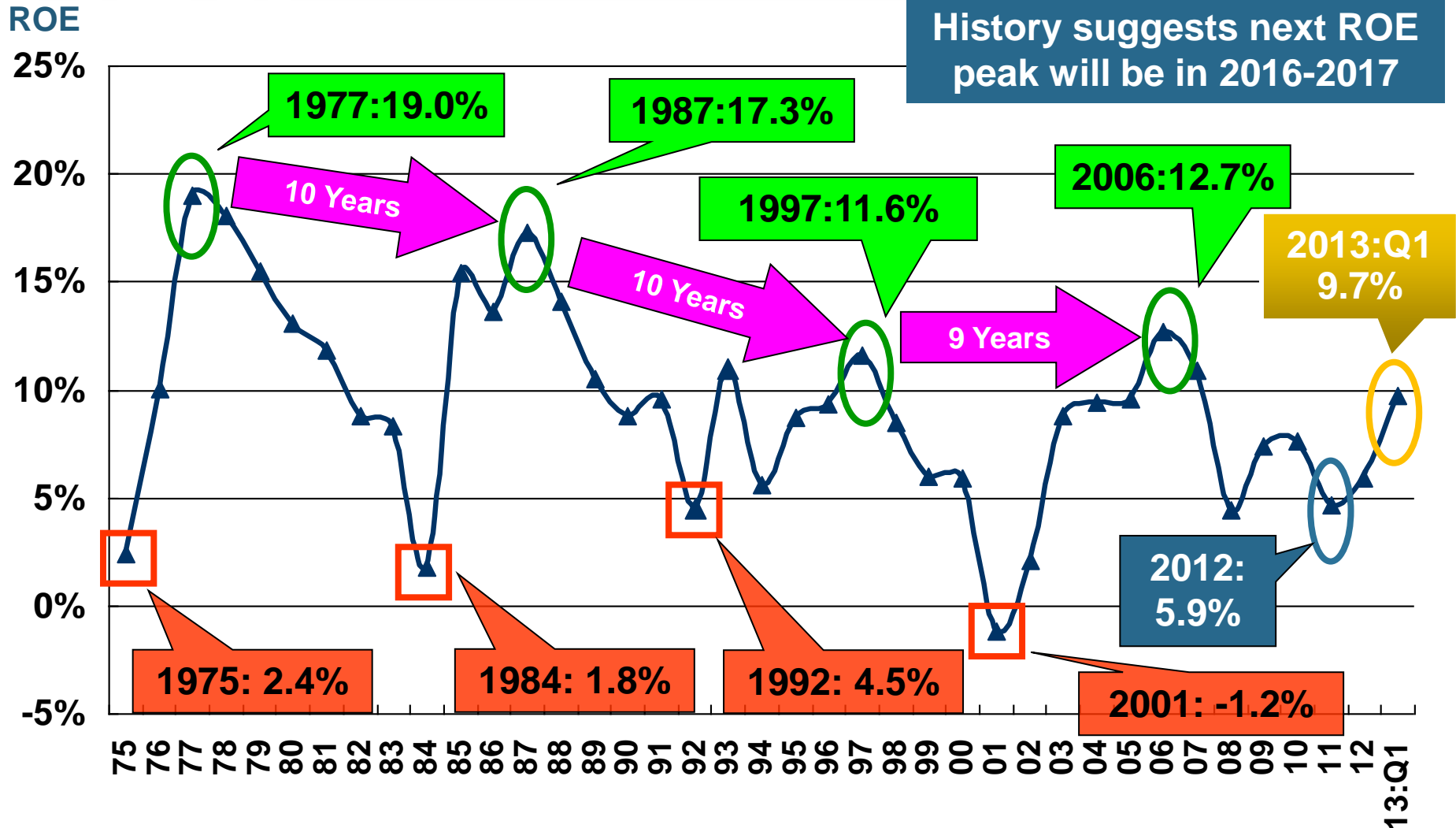
# P/C Net Income After Taxes 1991–2013:Q1 (\$ Millions)



\*ROE figures are GAAP; <sup>1</sup>Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 9.7% ROAS in 2013:Q1, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

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

# Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2013:Q1\*



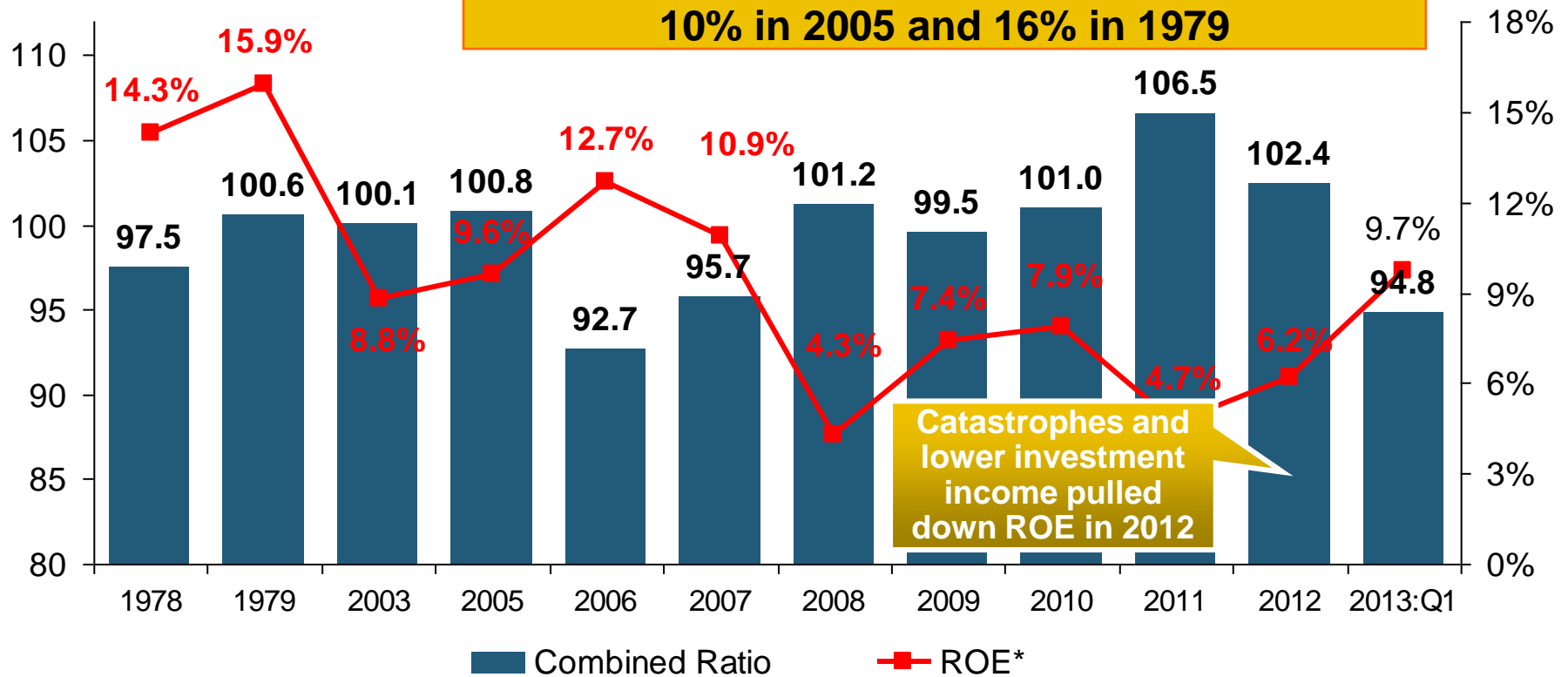
\*Profitability = P/C insurer ROEs. 2011-13 figures are estimates based on ROAS data. Note: Data for 2008-2013 exclude mortgage and financial guaranty insurers.

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

# 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 ~7.0% in 2012, ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979



Catastrophes and lower investment income pulled down ROE in 2012

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

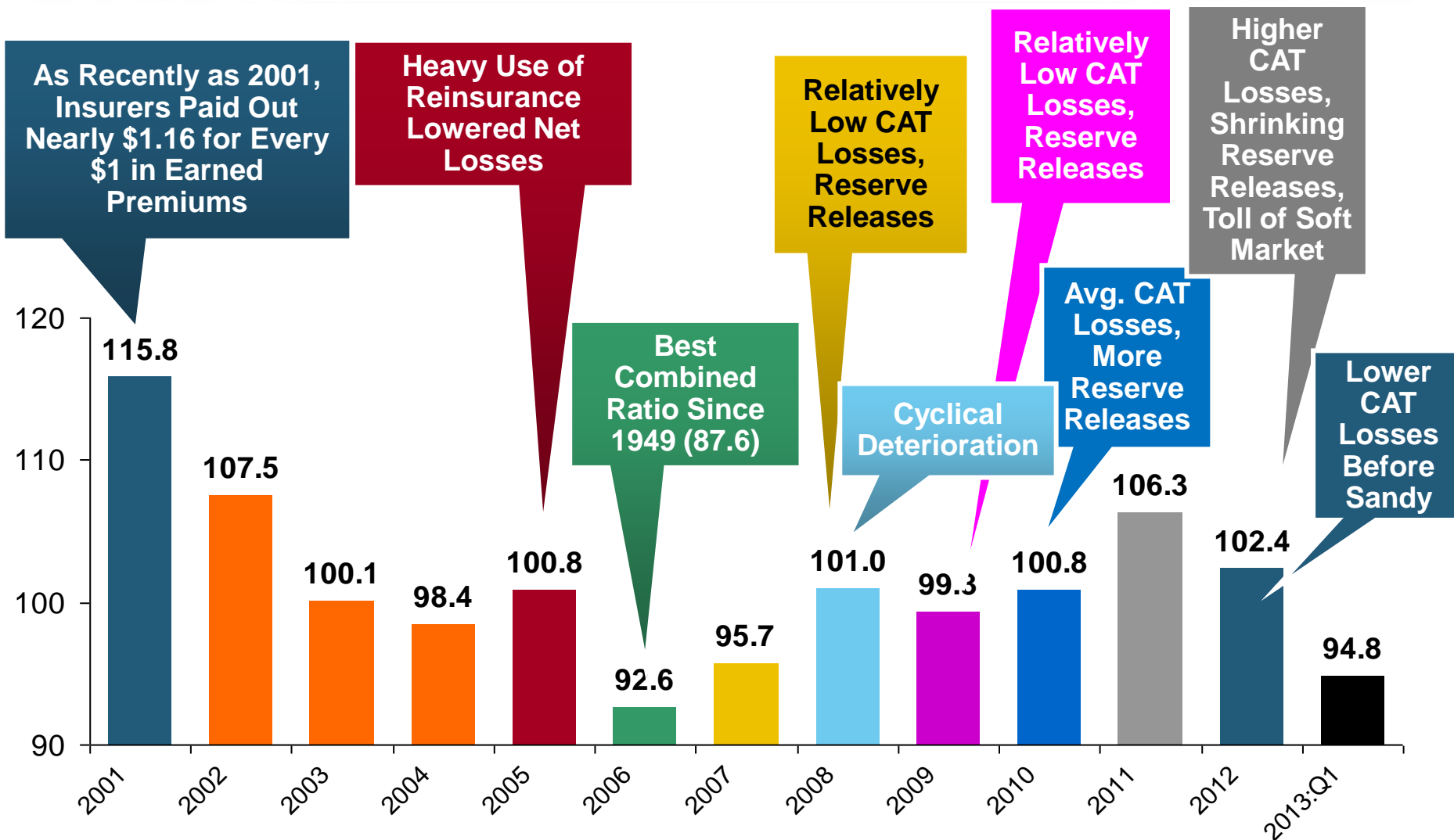
\* 2008 -2012 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2012 combined ratio including M&FG insurers is 103.2, 2011 combined ratio including M&FG insurers is 108.1, ROAS = 3.5%.

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

# UNDERWRITING

**Underwriting Losses in 2011  
and 2012 Were Elevated by  
High Catastrophe Losses**

# P/C Insurance Industry Combined Ratio, 2001–2013:Q1\*

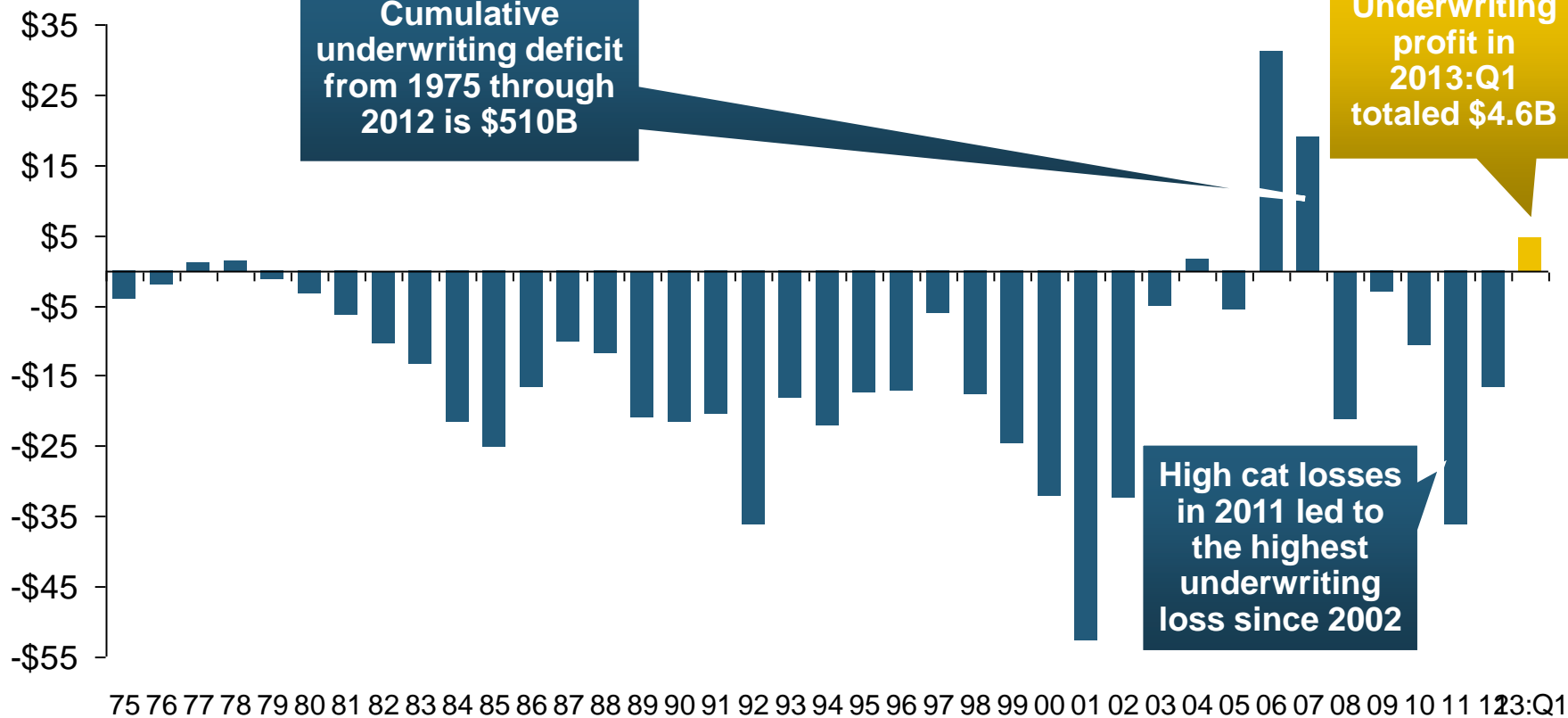


\* Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2.  
Sources: A.M. Best, ISO.



# Underwriting Gain (Loss) 1975–2013:Q1\*

(\$ Billions)

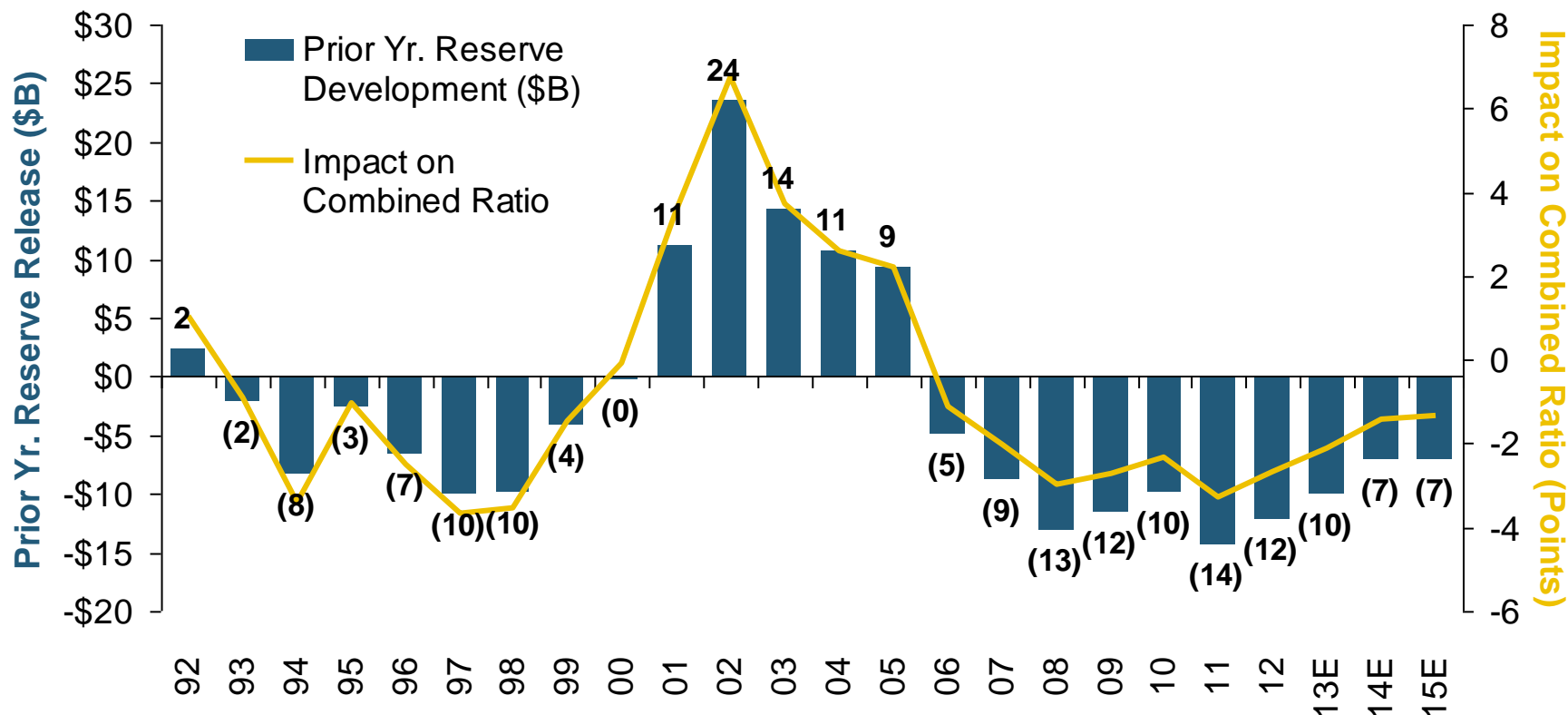


**Large Underwriting Losses Are *NOT* Sustainable  
in Current Investment Environment**

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

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

# P/C Reserve Development, 1992–2015E

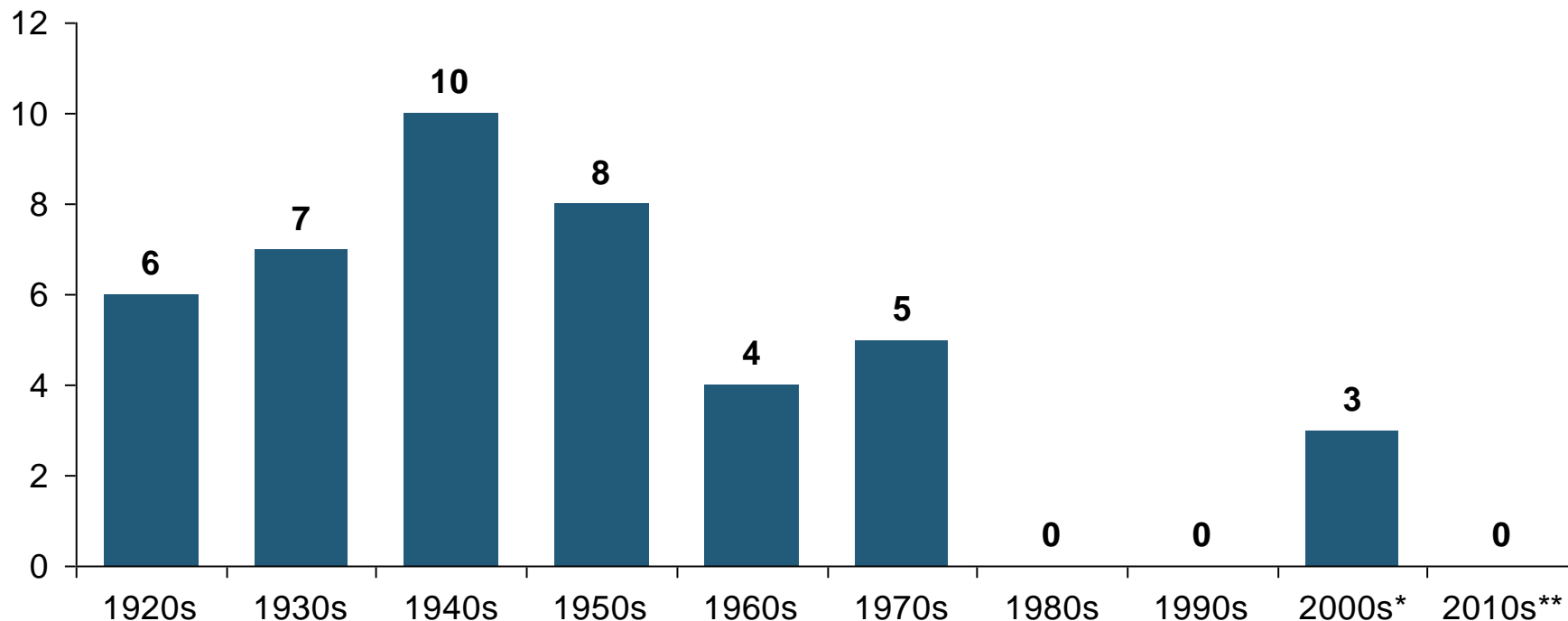


Note: 2005 reserve development excludes a \$6 billion loss portfolio transfer between American Re and Munich Re. Including this transaction, total prior year adverse development in 2005 was \$7 billion. The data from 2000 and subsequent years excludes development from financial guaranty and mortgage insurance.

Sources: A.M. Best, ISO, Barclays Research (estimates).

# Number of Years with Underwriting Profits by Decade, 1920s–2010s

## Number of Years with Underwriting Profits



**Underwriting Profits Were Common Before the 1980s (40 of the 60 Years Before 1980 Had Combined Ratios Below 100) – But Then They Vanished. Not a Single Underwriting Profit Was Recorded in the 25 Years from 1979 Through 2003**

\* 2009 combined ratio excl. mort. and finl. guaranty insurers was 99.3, which would bring the 2000s total to 4 years with an u/w profit.

\*\*Data for the 2010s includes 2010 through 2012.

Note: Data for 1920–1934 based on stock companies only.

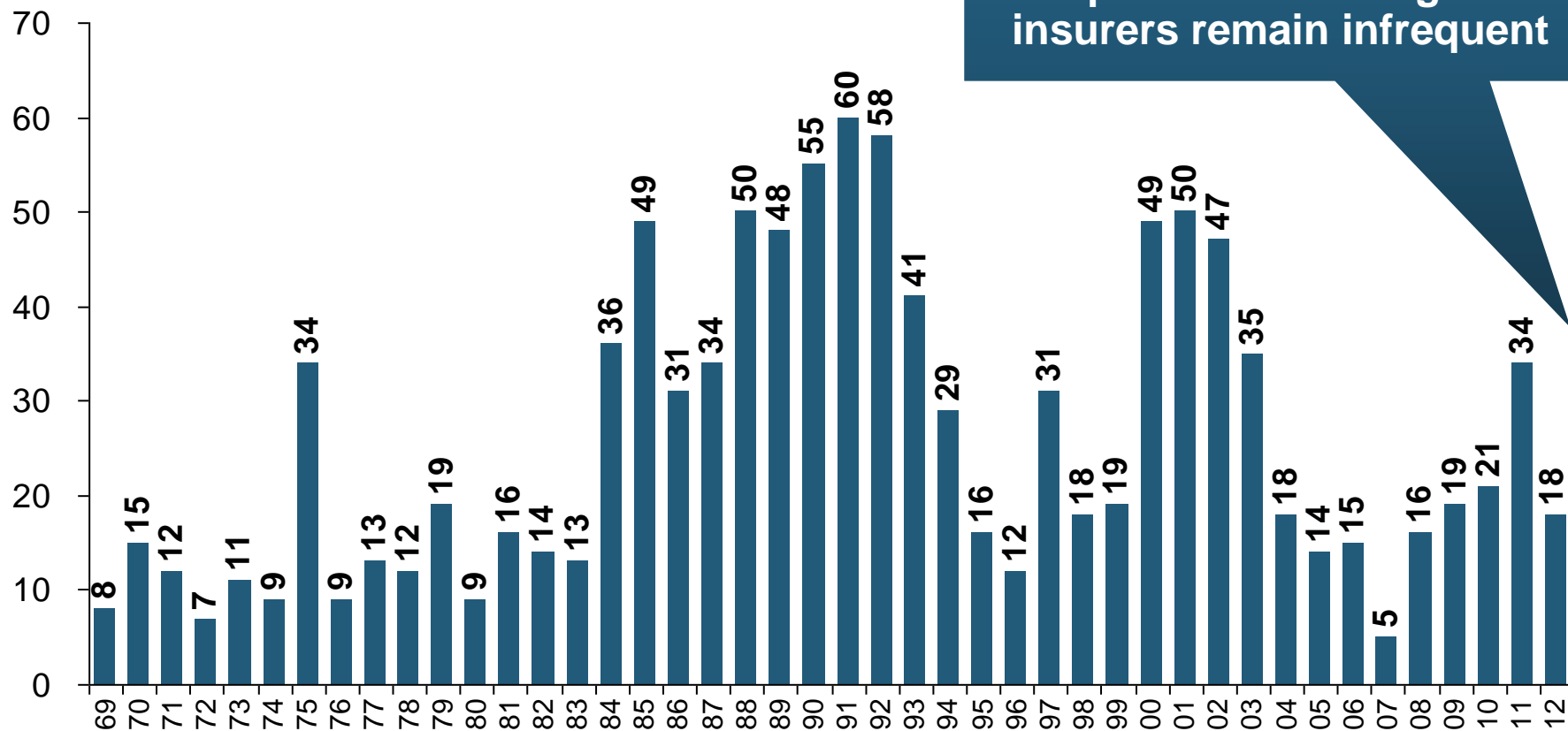
Sources: Insurance Information Institute research from A.M. Best Data.



# Financial Strength & Underwriting

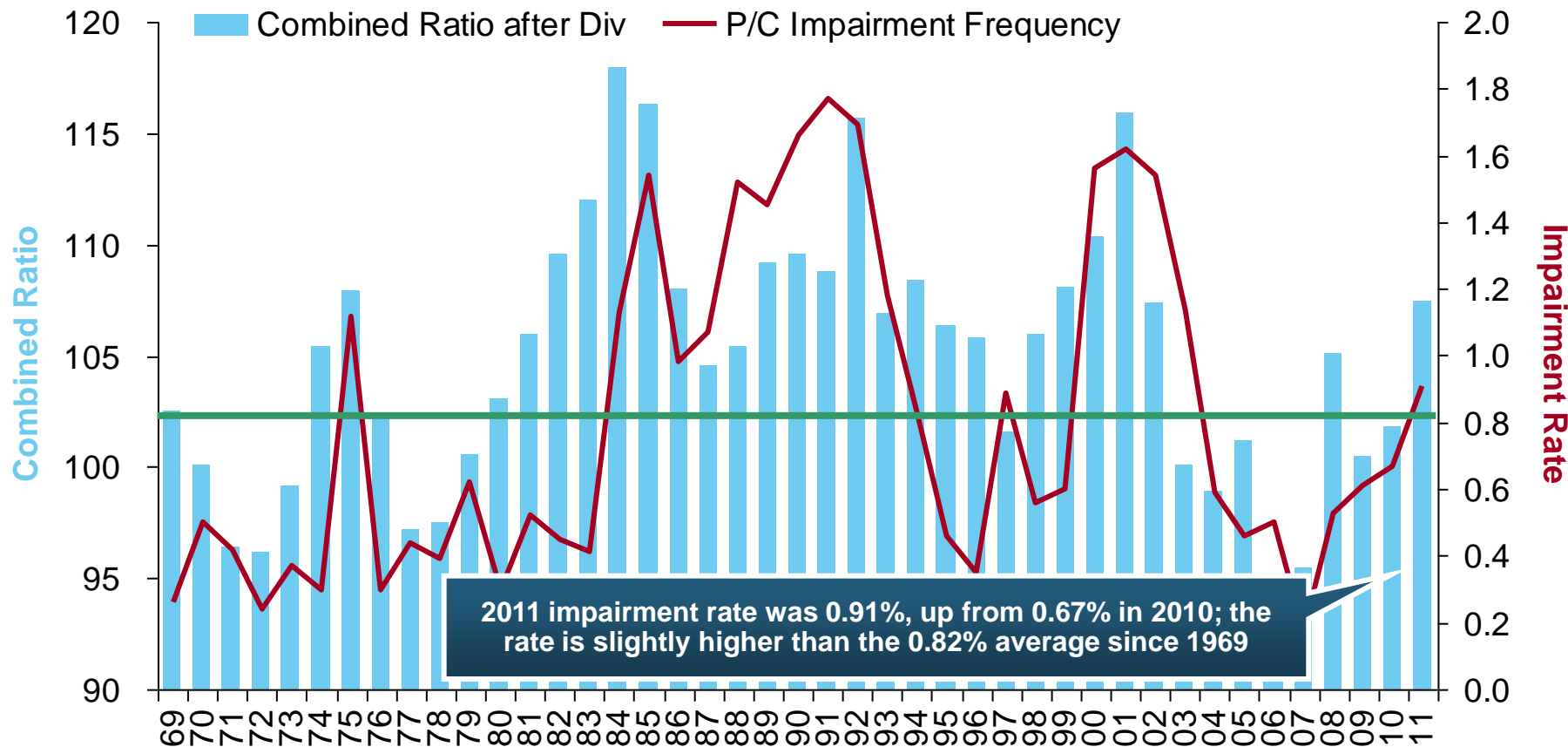
**Cyclical Pattern is P-C Impairment  
History is Directly Tied to  
Underwriting, Reserving & Pricing**

# P/C Insurer Impairments, 1969–2012



**The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets**

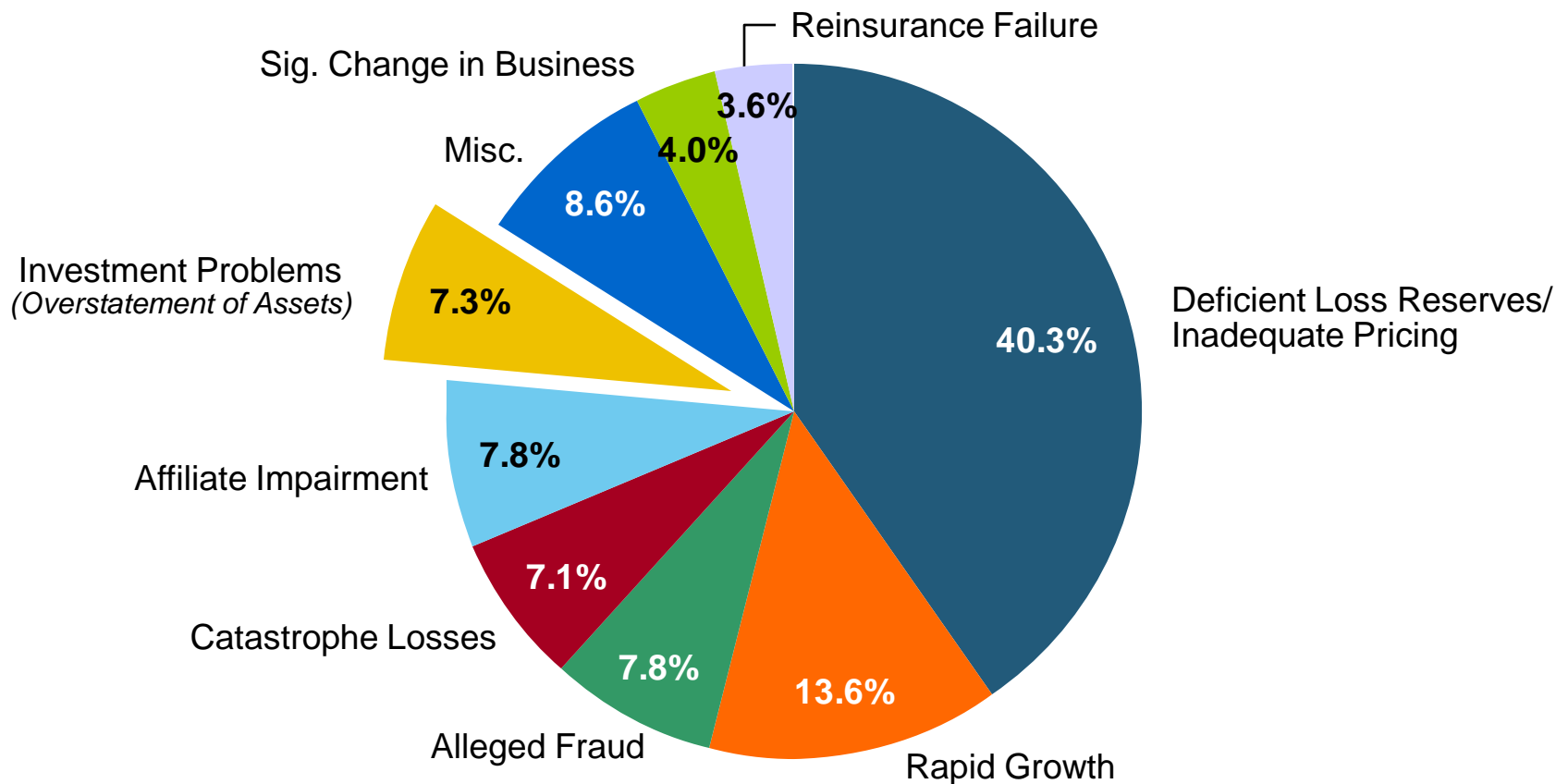
# P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2011



**Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall**

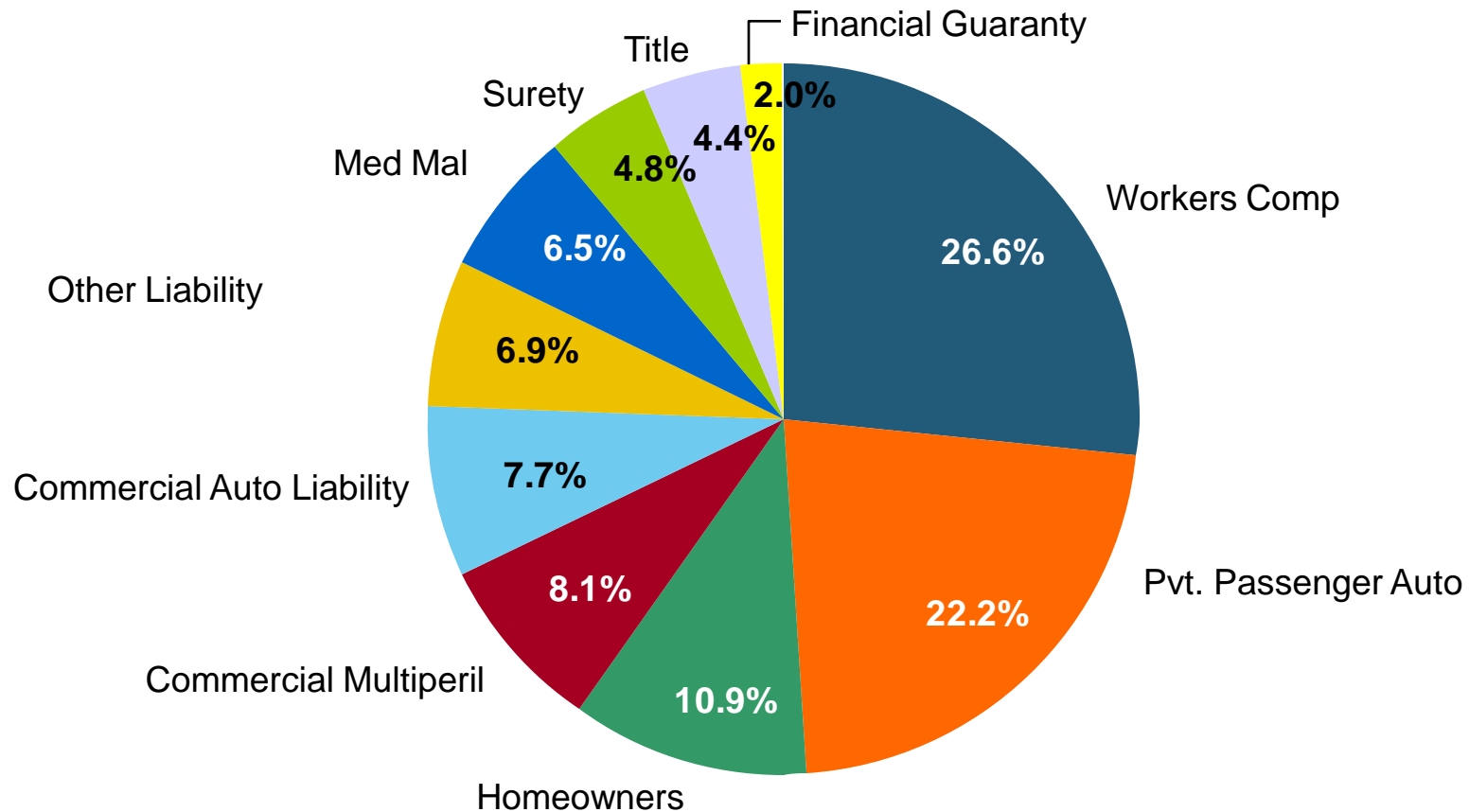
# Reasons for US P/C Insurer Impairments, 1969–2010

Historically, Deficient Loss Reserves and Inadequate Pricing Are By Far the Leading Cause of P-C Insurer Impairments. Investment and Catastrophe Losses Play a Much Smaller Role



# Top 10 Lines of Business for US P/C Impaired Insurers, 2000–2010

Workers Comp and Pvt. Passenger Auto Account for Nearly Half of the Premium Volume of Impaired Insurers Over the Past Decade

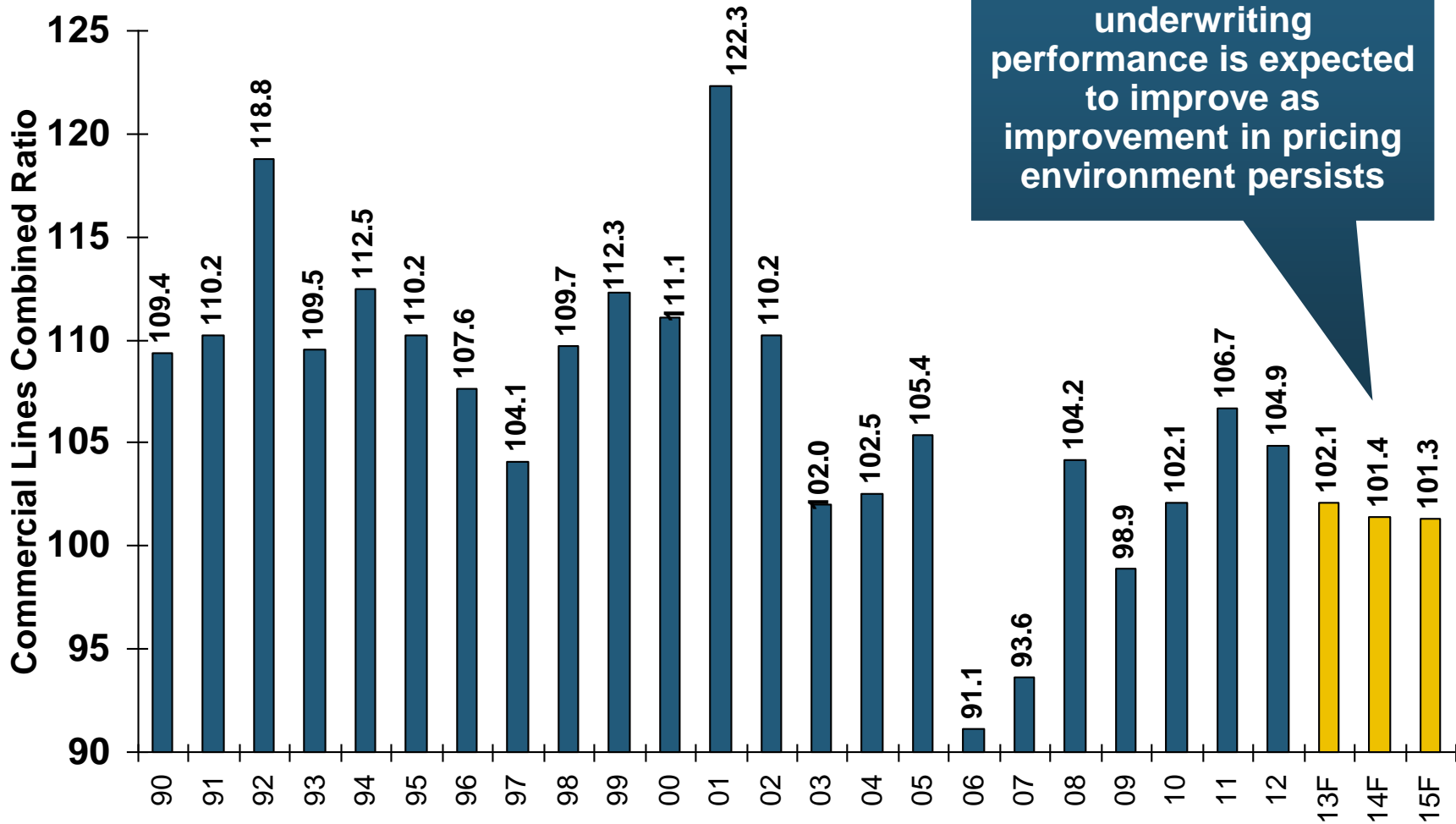






# Performance by Segment

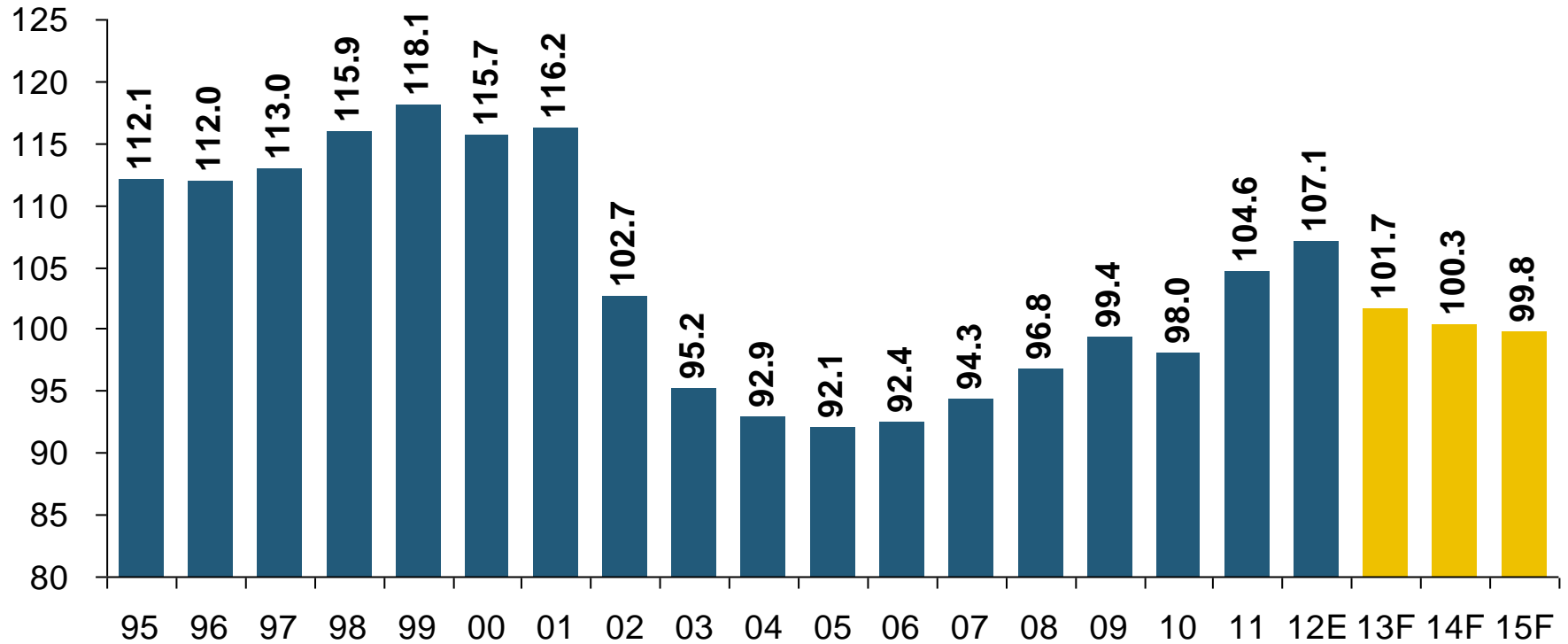
# Commercial Lines Combined Ratio, 1990-2015F\*



\*2007-2012 figures exclude mortgage and financial guaranty segments.

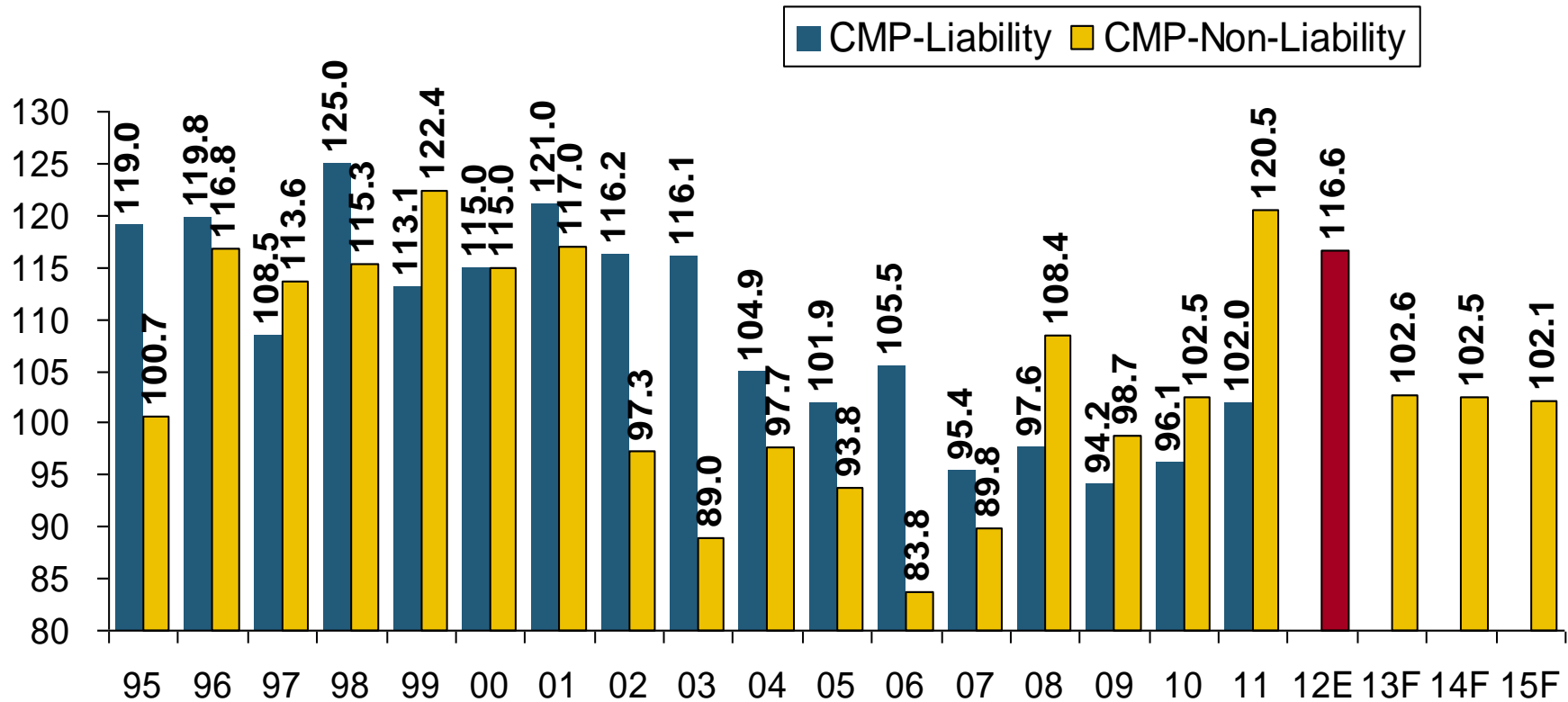
Source: A.M. Best (1990-2011); Conning (2012-2015F) Insurance Information Institute

# Commercial Auto Combined Ratio: 1993–2015F



**Commercial Auto is Expected to Improve as Rate Gains Outpace Any Adverse Frequency and Severity Trends**

# Commercial Multi-Peril Combined Ratio: 1995–2015F

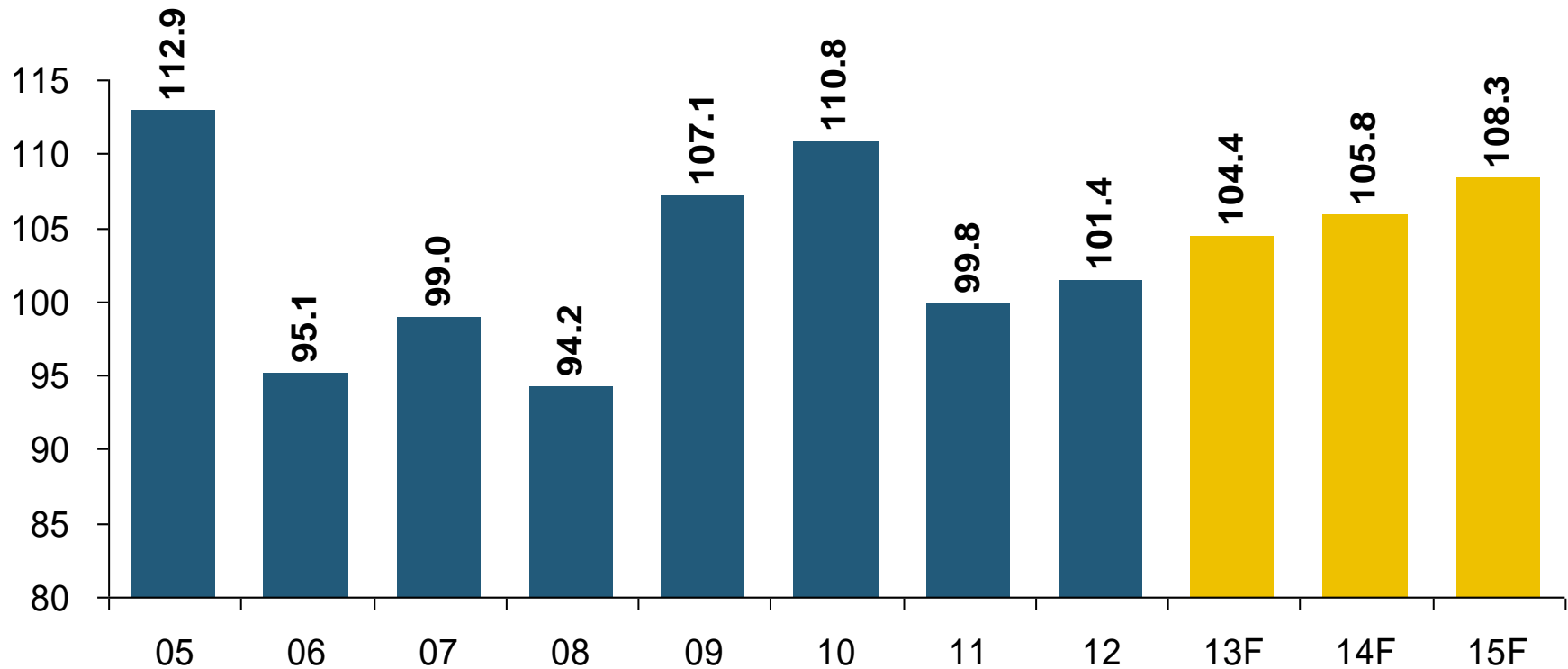


**Commercial Multi-Peril Underwriting Performance is Expected to Improve in 2013 Assuming Normal Catastrophe Loss Activity**

\*2012-2013 figures are A.M. Best estimate/forecast for the combined liability and non-liability components. Same for Conning 2014-2015F figures.

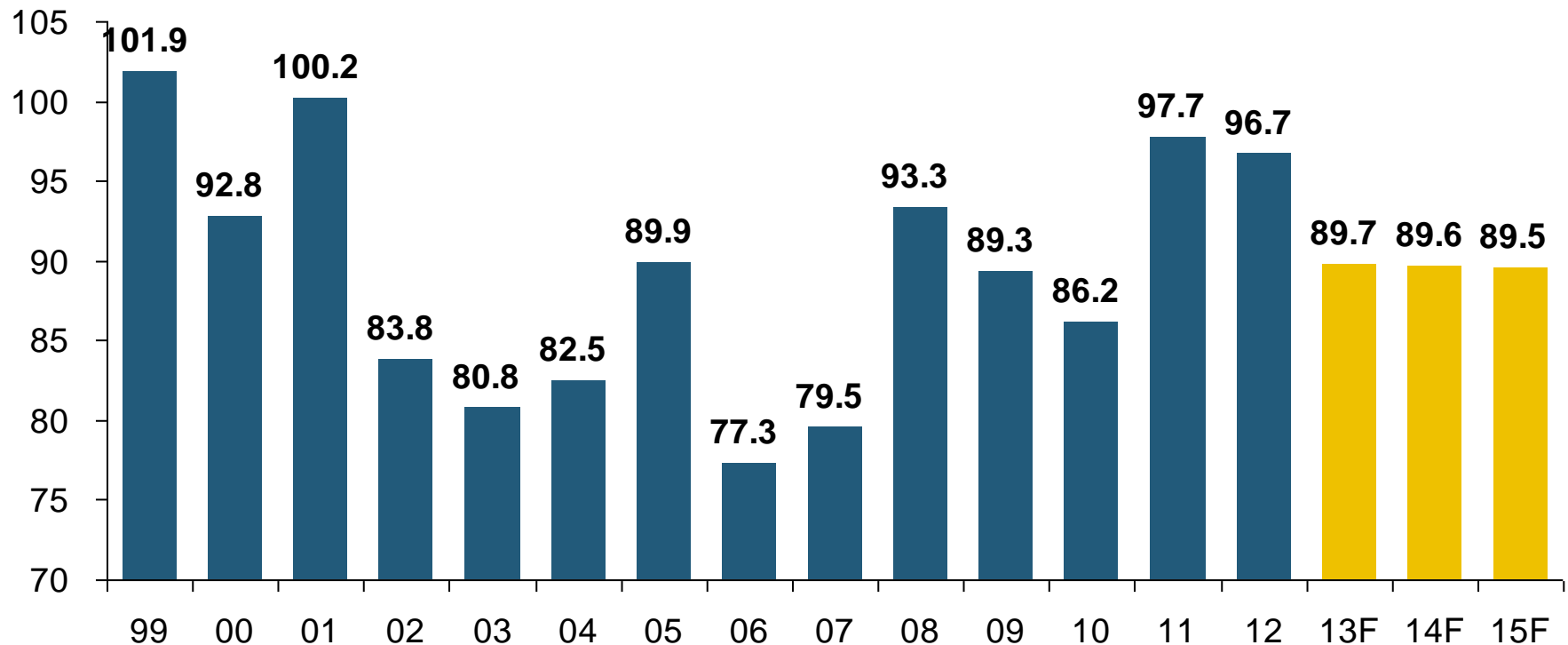
Sources: A.M. Best; Conning; Insurance Information Institute.

# General Liability Combined Ratio: 2005–2015F



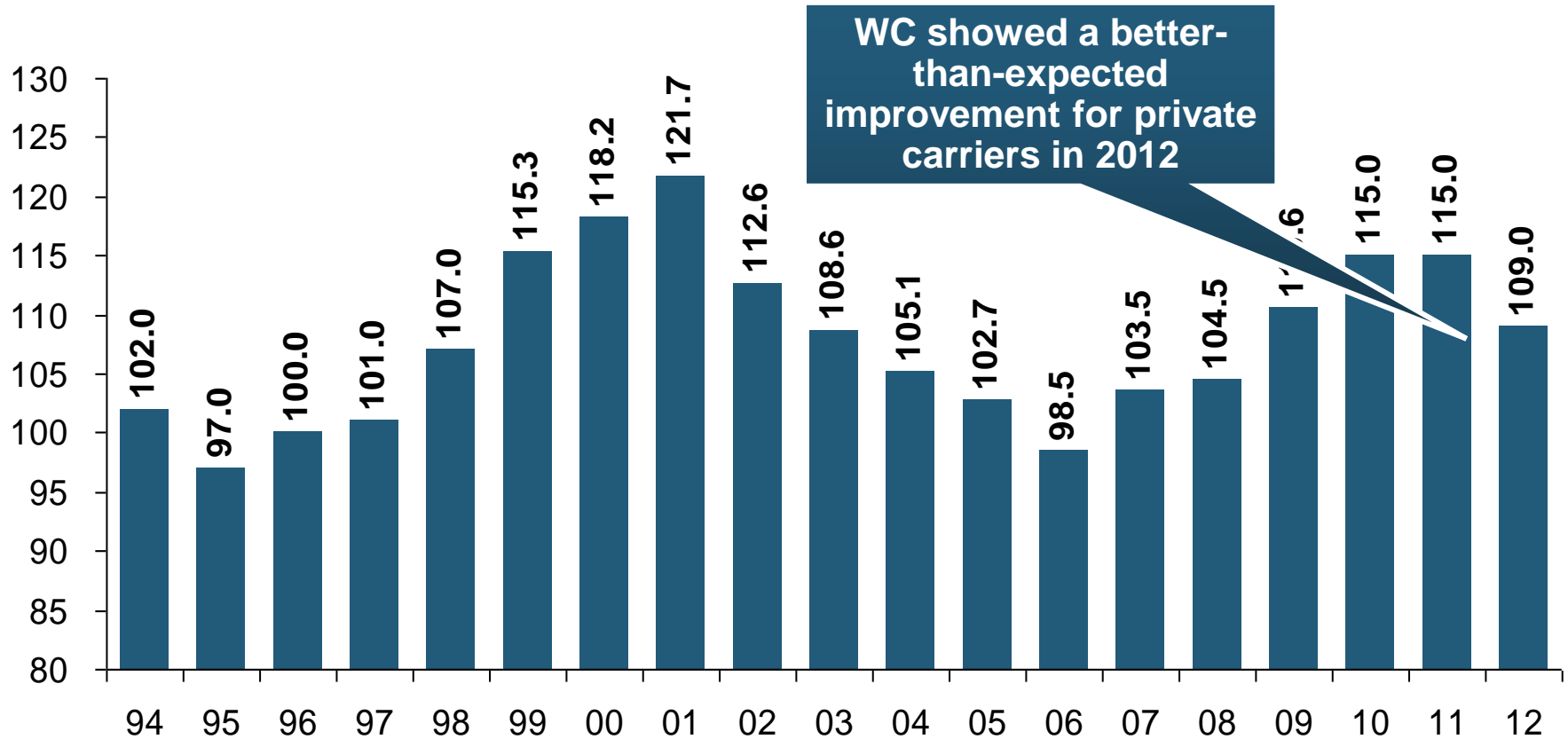
**Commercial General Liability Underwriting  
Performance Has Been Volatile in Recent Years**

# Inland Marine Combined Ratio: 1999–2015F



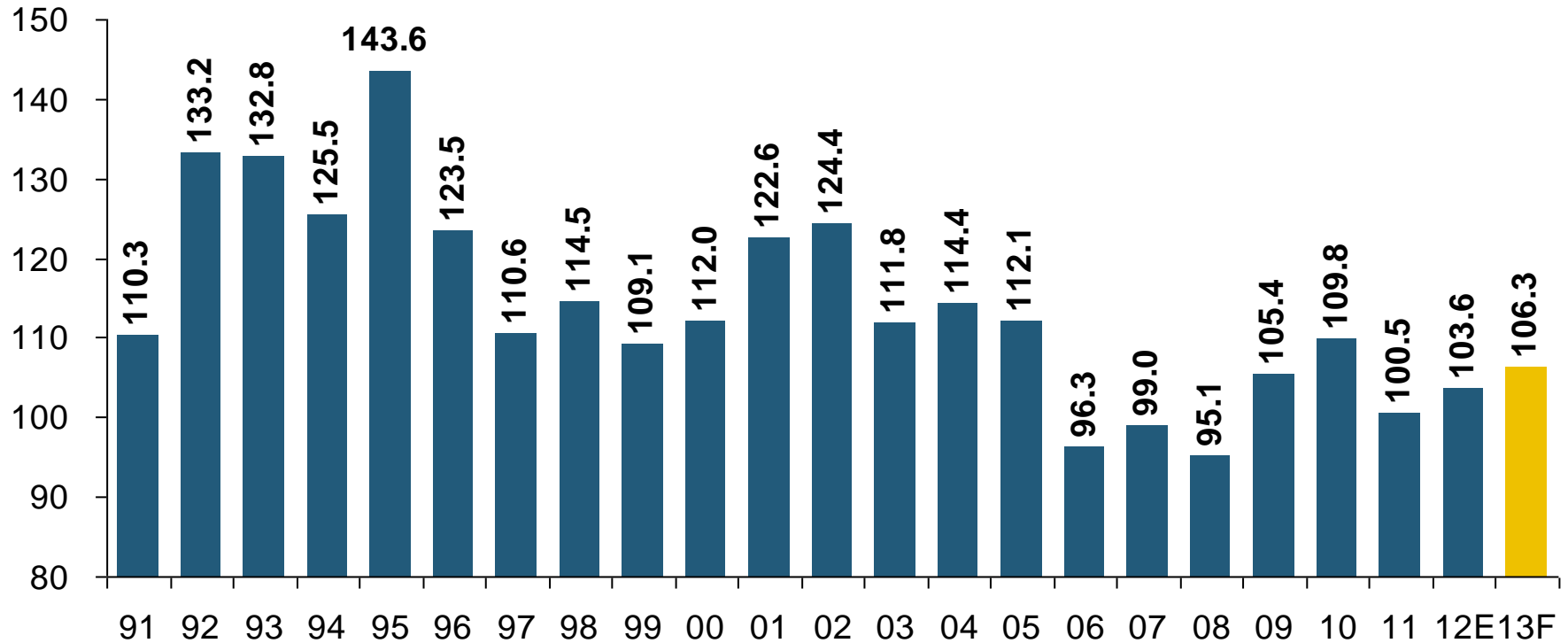
**Inland Marine is Expected to Remain Among the Most Profitable of All Lines**

# Workers Compensation Combined Ratio: 1994–2012P



**Workers Comp Results Began to Improve in 2012. Underwriting Results Deteriorated Markedly from 2007-2010/11 and Were the Worst They Had Been in a Decade.**

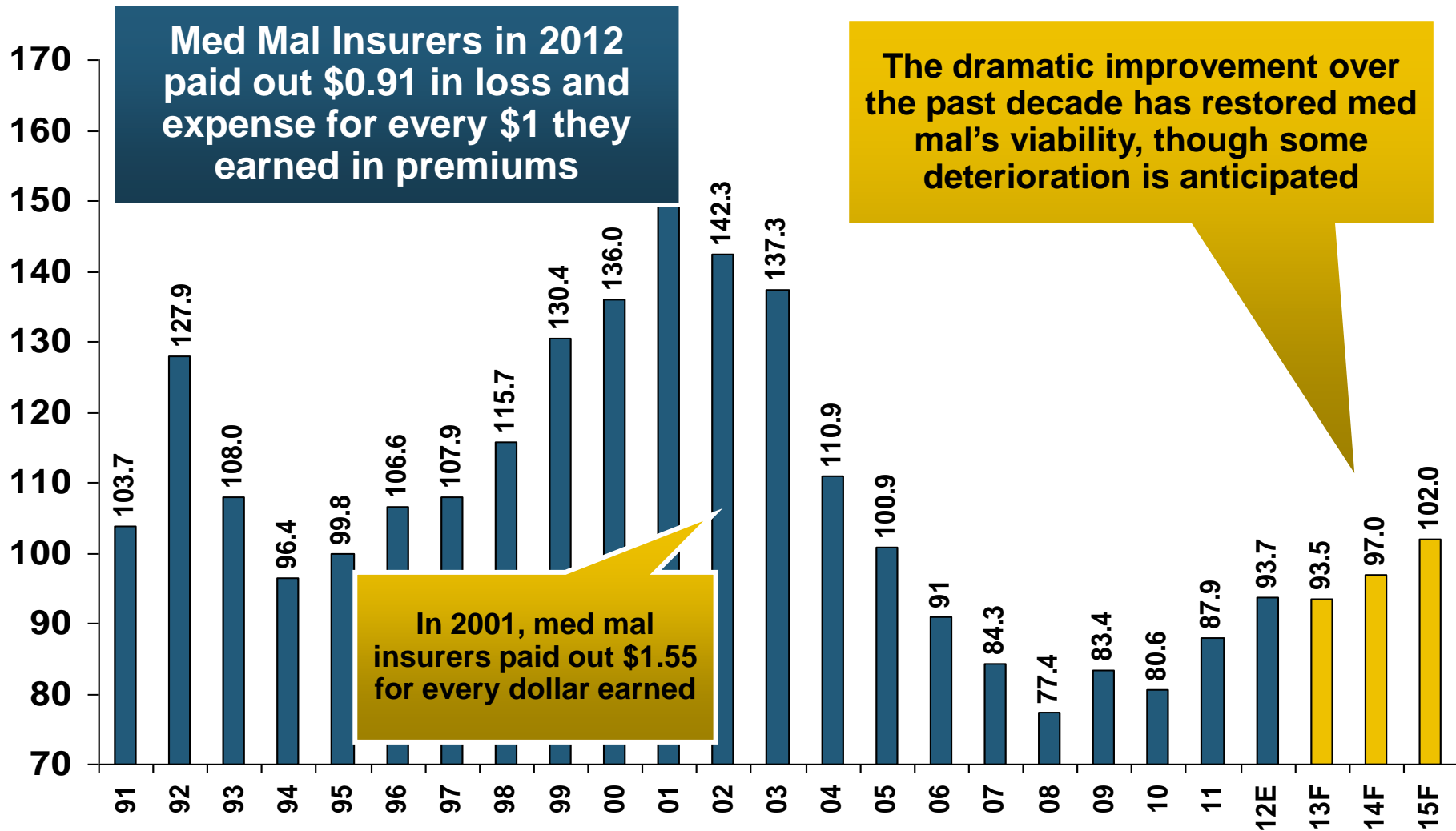
# Other & Products Liability Combined Ratio: 1991–2013F



**Liability Lines Have Performed Better in the Post-Tort Reform Era (~2005), but There Has Been Some Deterioration in Recent Years**



# Medical Malpractice Combined Ratio vs. All Lines Combined Ratio, 1991-2015F



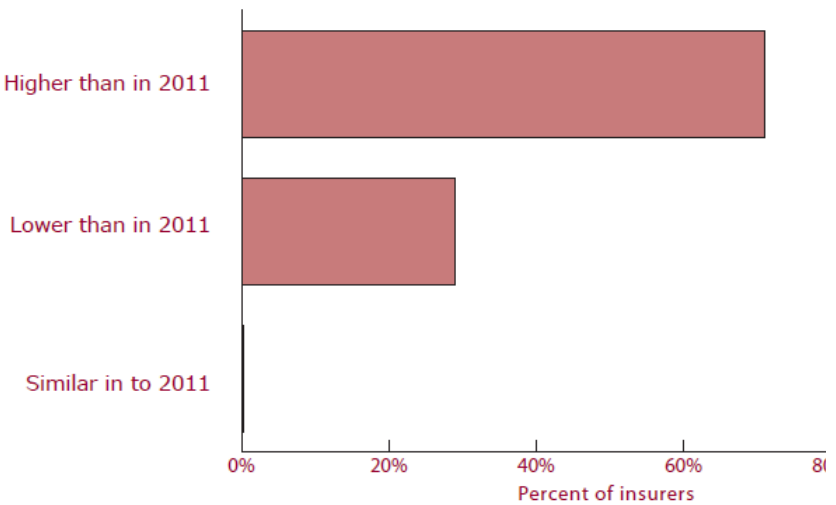


# Lawyer's Professional Liability Operating Environment

**Operating Performance Has Been Quite  
Variable Over Time**

# Lawyers' Professional Liability Claims Frequency Trends

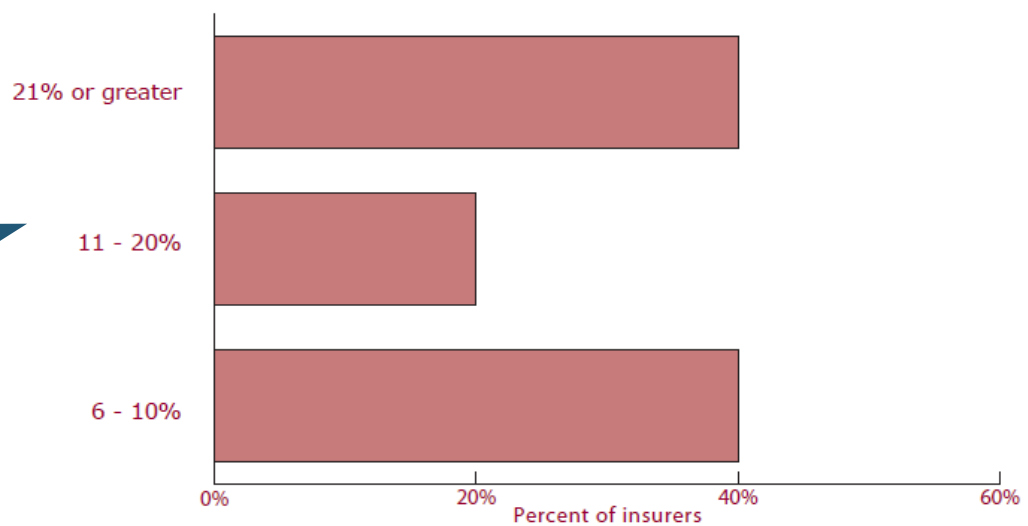
**Lawyers' Professional Liability Claims Frequency  
2012 vs 2011**



**Claim frequency increased in 2012**

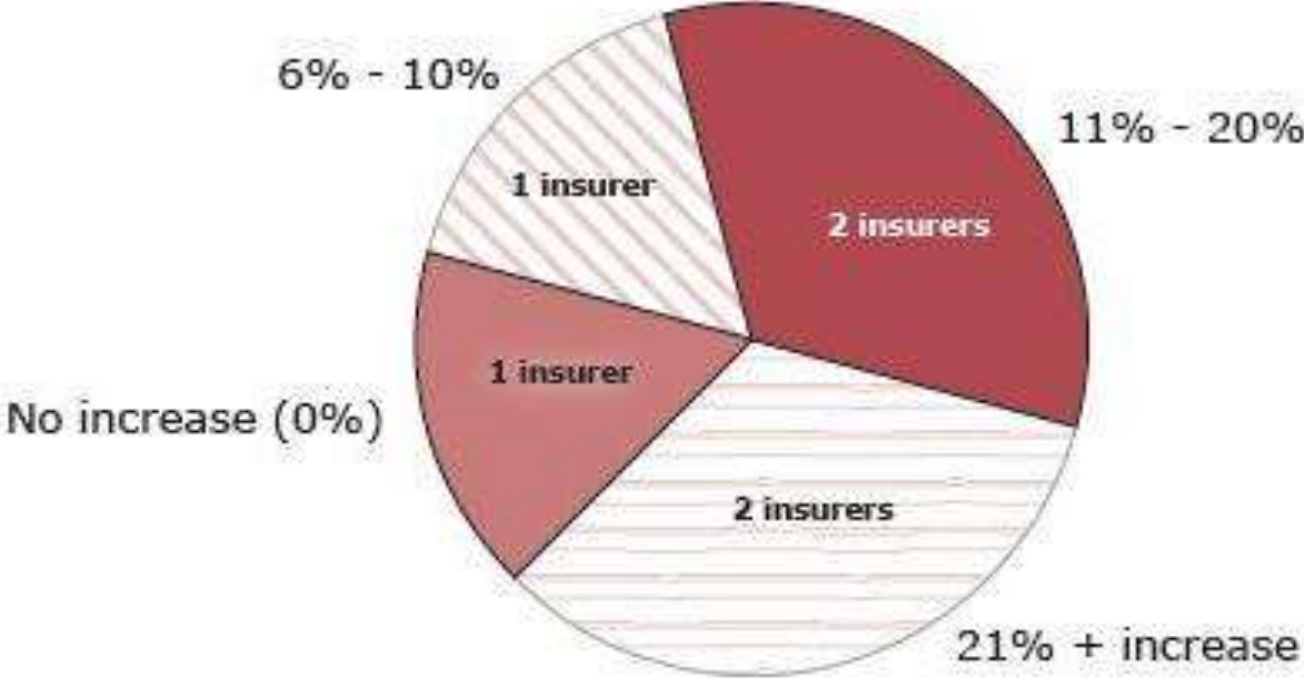
**The magnitude of claim frequency growth was fairly high**

**Percentage Increase\* in Claims Frequency**



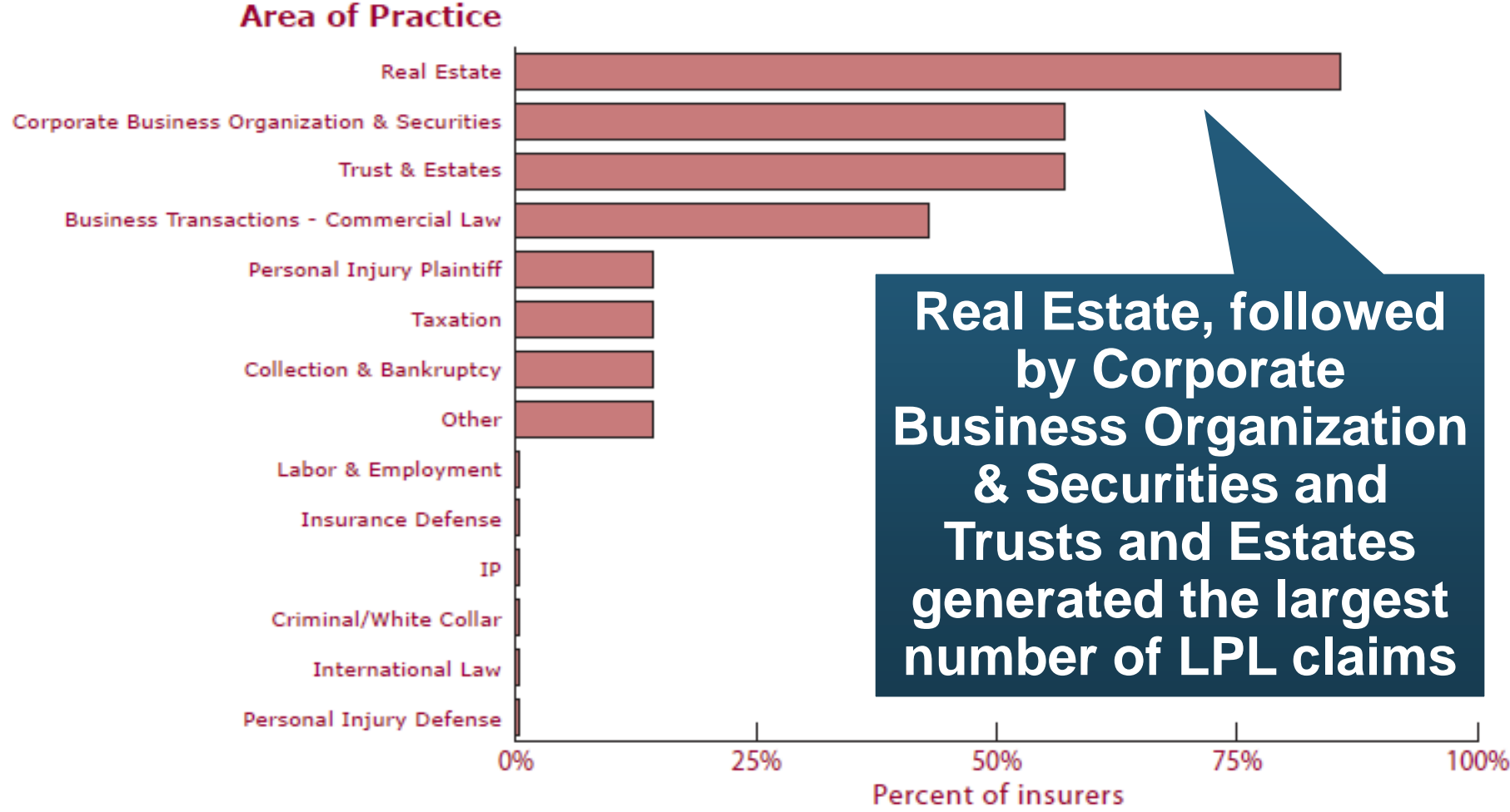
\*NOTE: Among five insurers (in seven) reporting an increase in claims.

# Estimated Year-Over-Year Percentage Increase in Large Claims (Combined Reserve Exceeding \$500K)



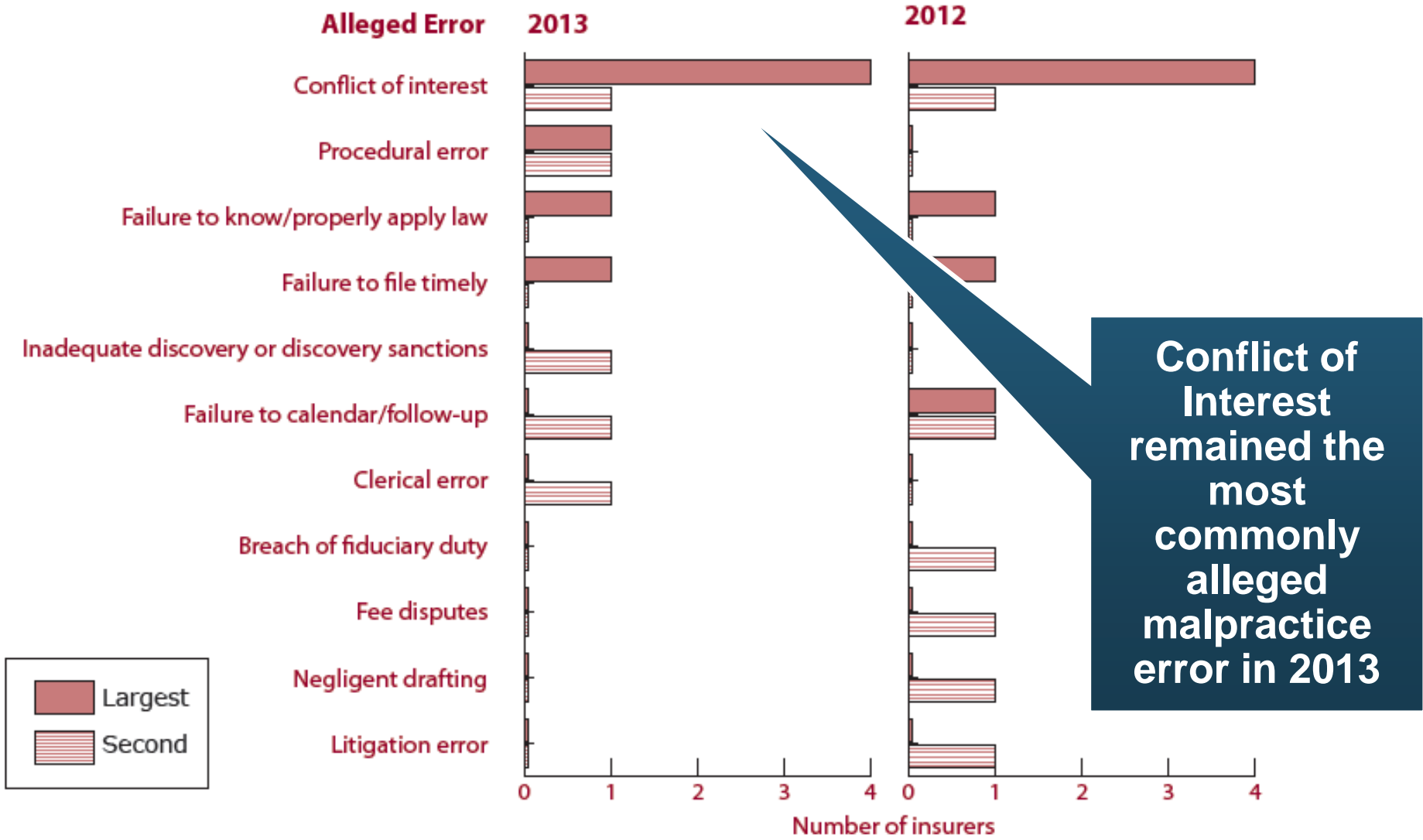
Source: Ames & Gough, *Lawyers' Professional Liability Claims Trends: 2013*.

# Practice Areas Generating Largest Number of Lawyers' Professional Liability Claims\*



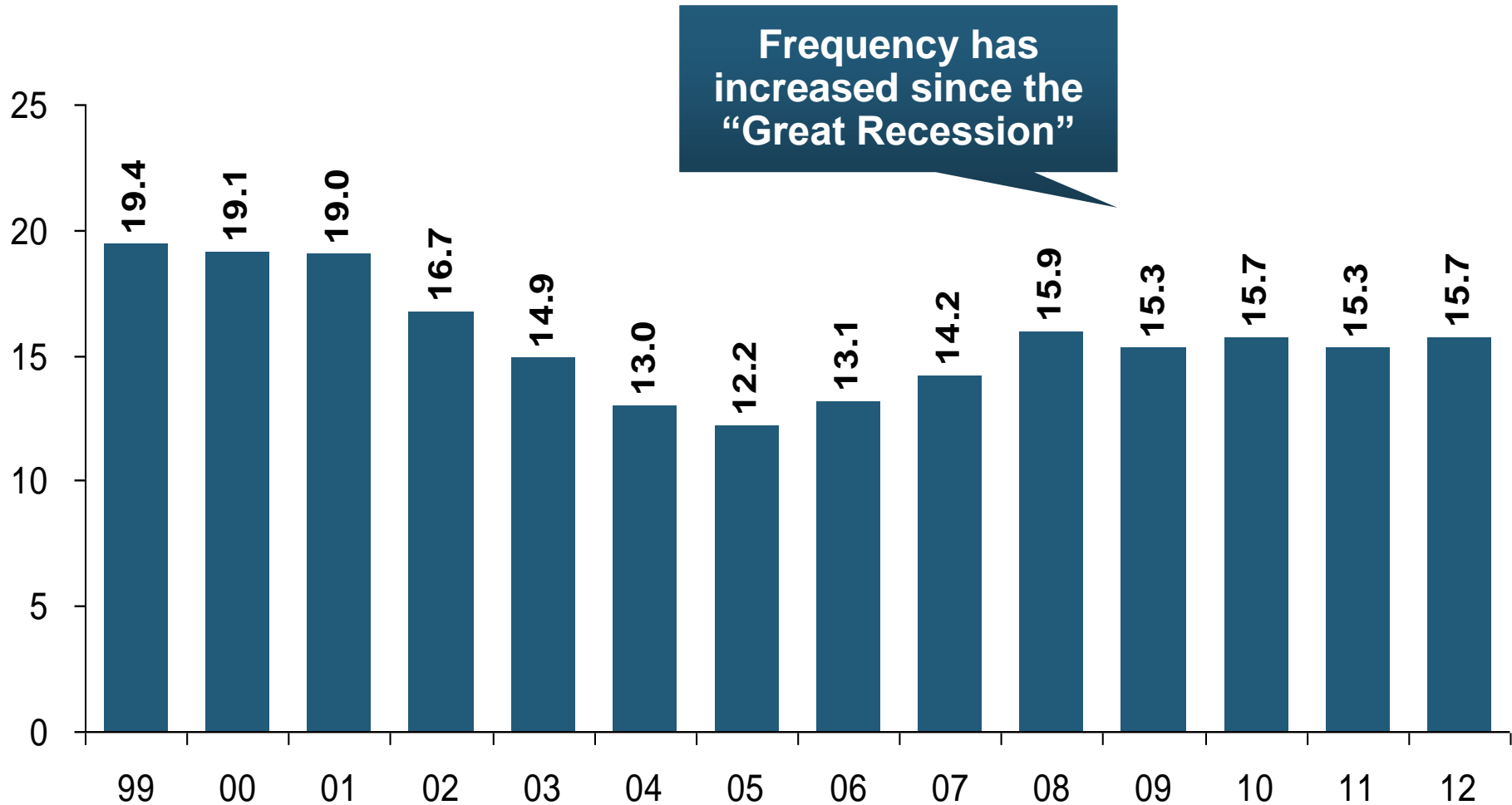
\*Note: Survey participants provided multiple responses, so the total sums above 100 percent.

# First and Second Most Frequently Alleged Malpractice Errors

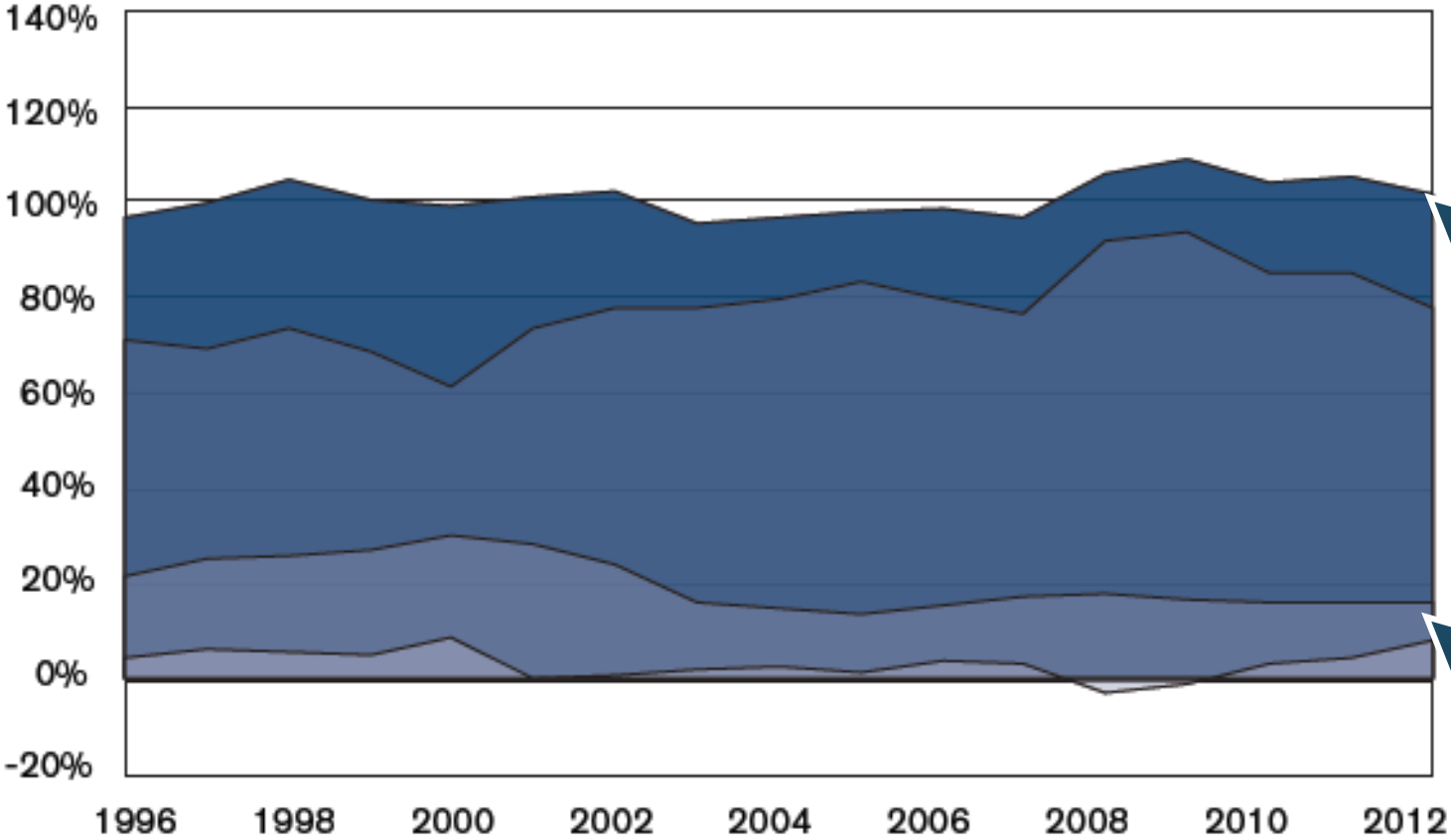


Source: Ames & Gough, *Lawyers' Professional Liability Claims Trends: 2013*.

# Reported LPL Claim Frequency per \$1 Million of Gross Earned Premium



# Aggregate Calendar-Year Operating Results for LPL Specialty Writers



**Combined Ratio improved in 2012 but remains elevated**

**Investment Income Ratio is shrinking due to low interest rates**

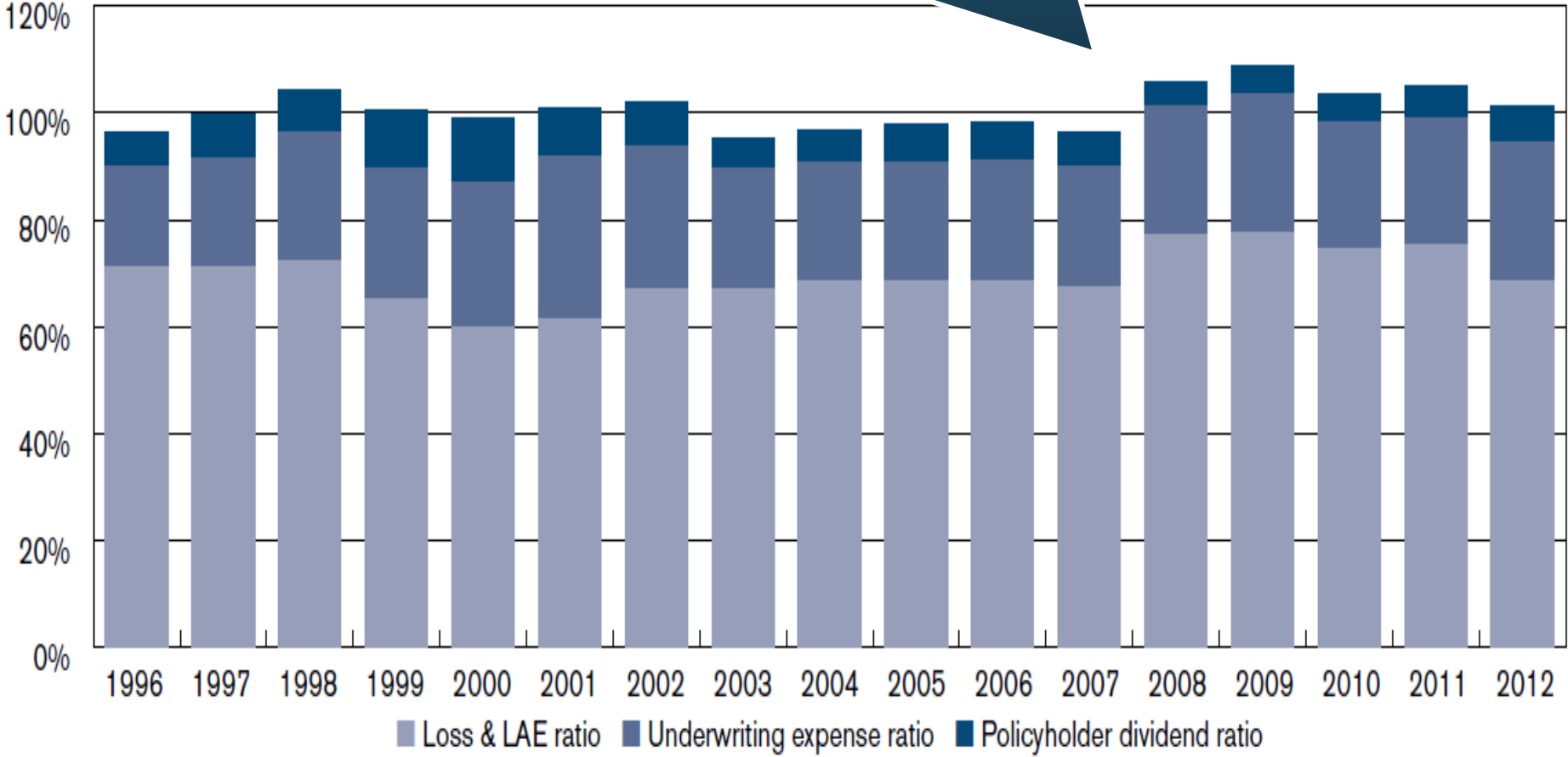
- Combined ratio
- Investment income ratio
- Operating ratio
- Realized capital gains ratio

Sources: Milliman, *P&C Perspectives*, May 2013, compiled from SNL Financial data.



# Breakdown of Aggregate Combined Ratio by Calendar Year for LPL Specialty Writers

**Combined Ratio have shown volatility over the past 17 years (1996-2012, inclusive)**



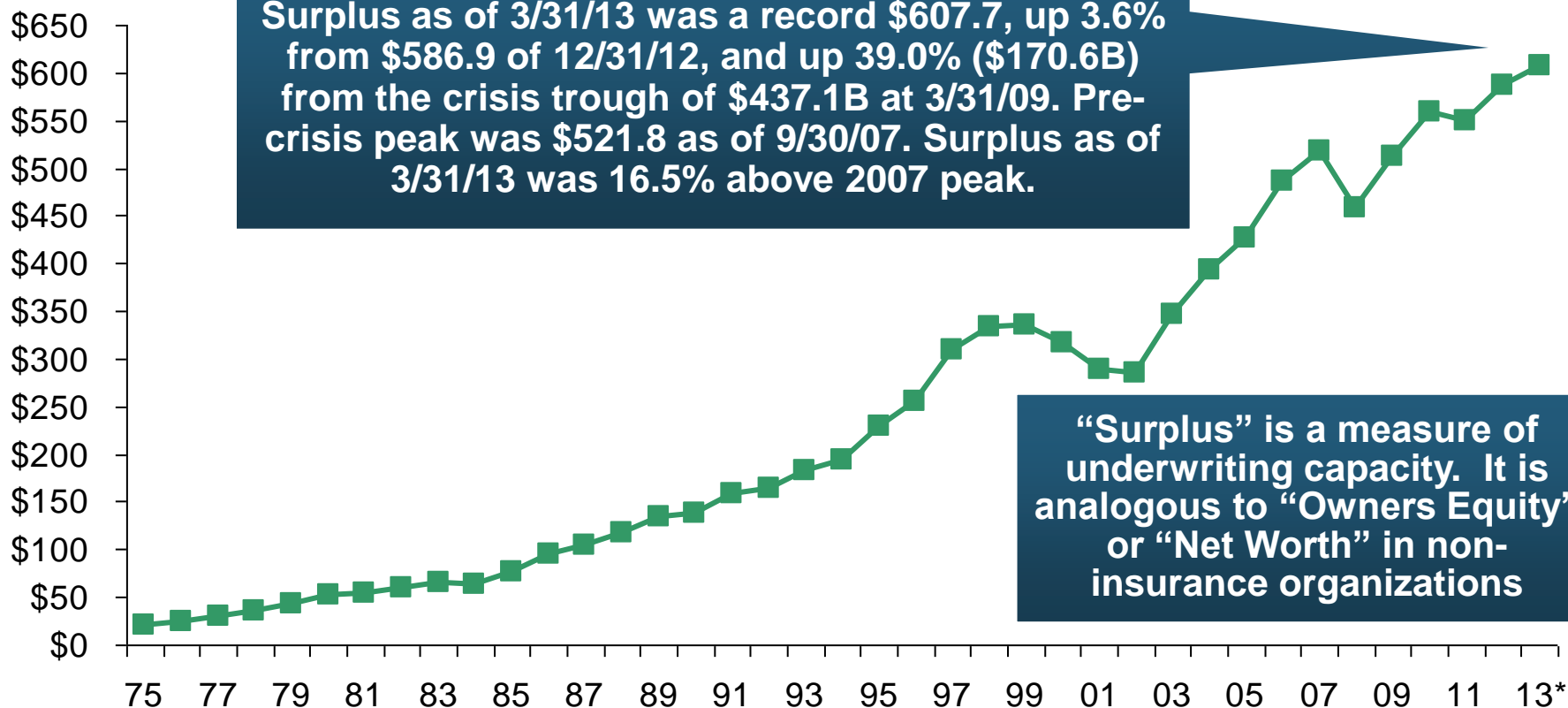
Sources: Milliman, *P&C Perspectives*, May 2013, compiled from SNL Financial data.

# **SURPLUS/CAPITAL/CAPACITY**

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

# US Policyholder Surplus: 1975–2013\*

(\$ Billions)



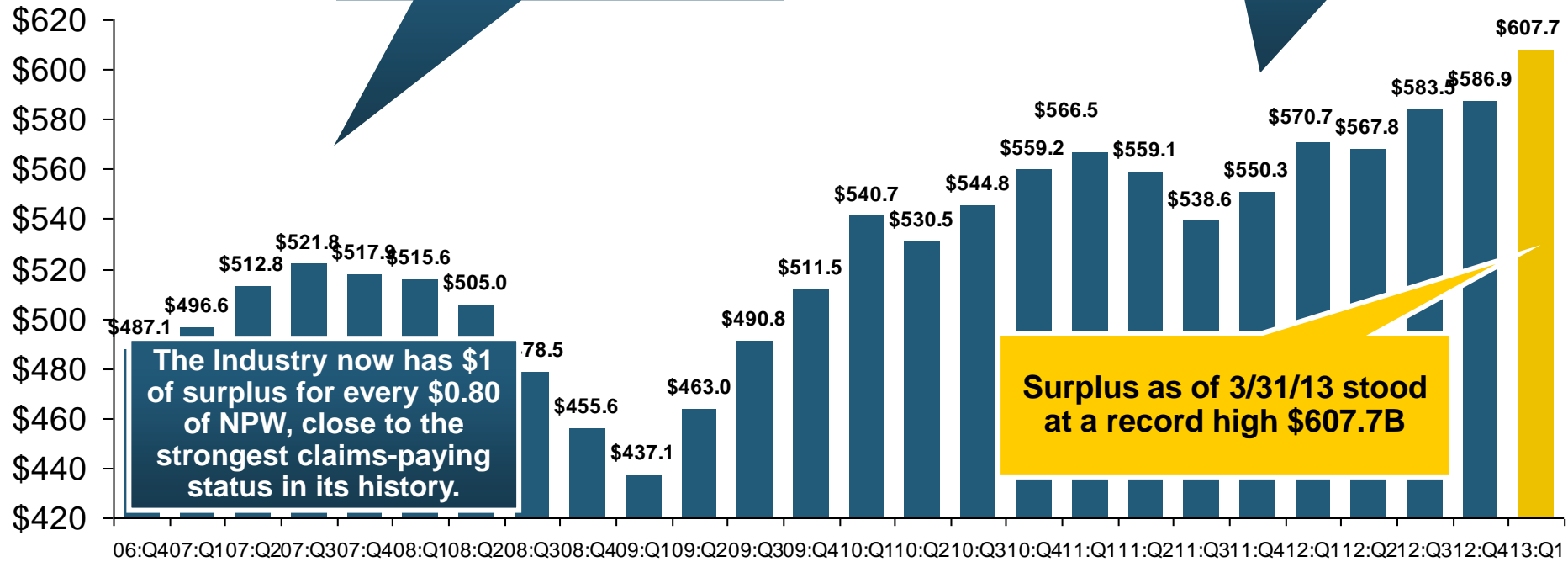
**The Premium-to-Surplus Ratio Stood at \$0.77:\$1 as of 3/31/13, A Near Record Low (at Least in Recent History)\***

\* As of 3/31/13.

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

# Policyholder Surplus, 2006:Q4–2013:Q1

(\$ Billions)

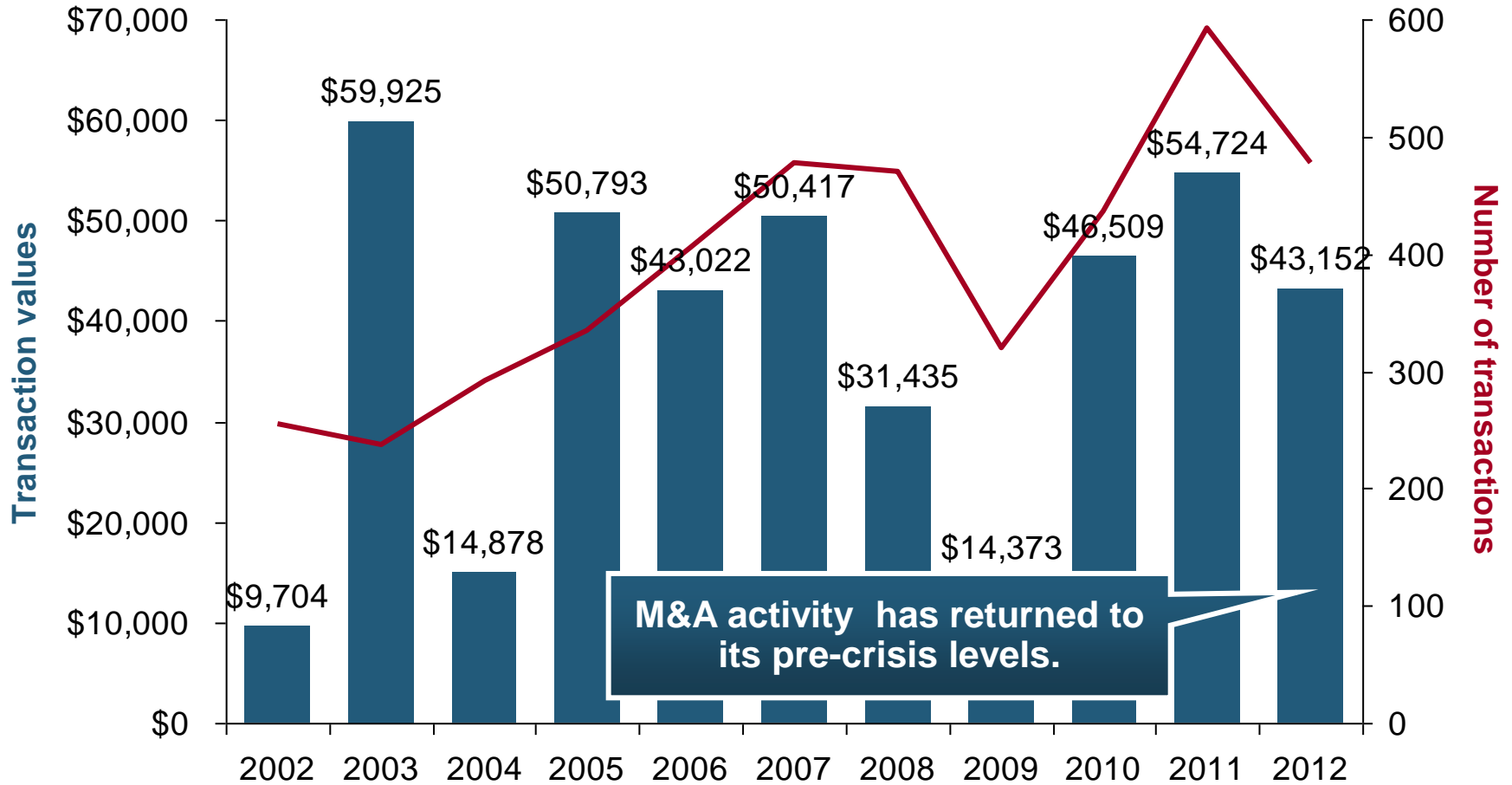


\*Includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business in early 2010.

**The P/C Insurance Industry Both Entered and Emerged from the 2012 Hurricane Season Very Strong Financially.**

# U.S. INSURANCE MERGERS AND ACQUISITIONS, 2002-2012 (1)

(\$ Millions)



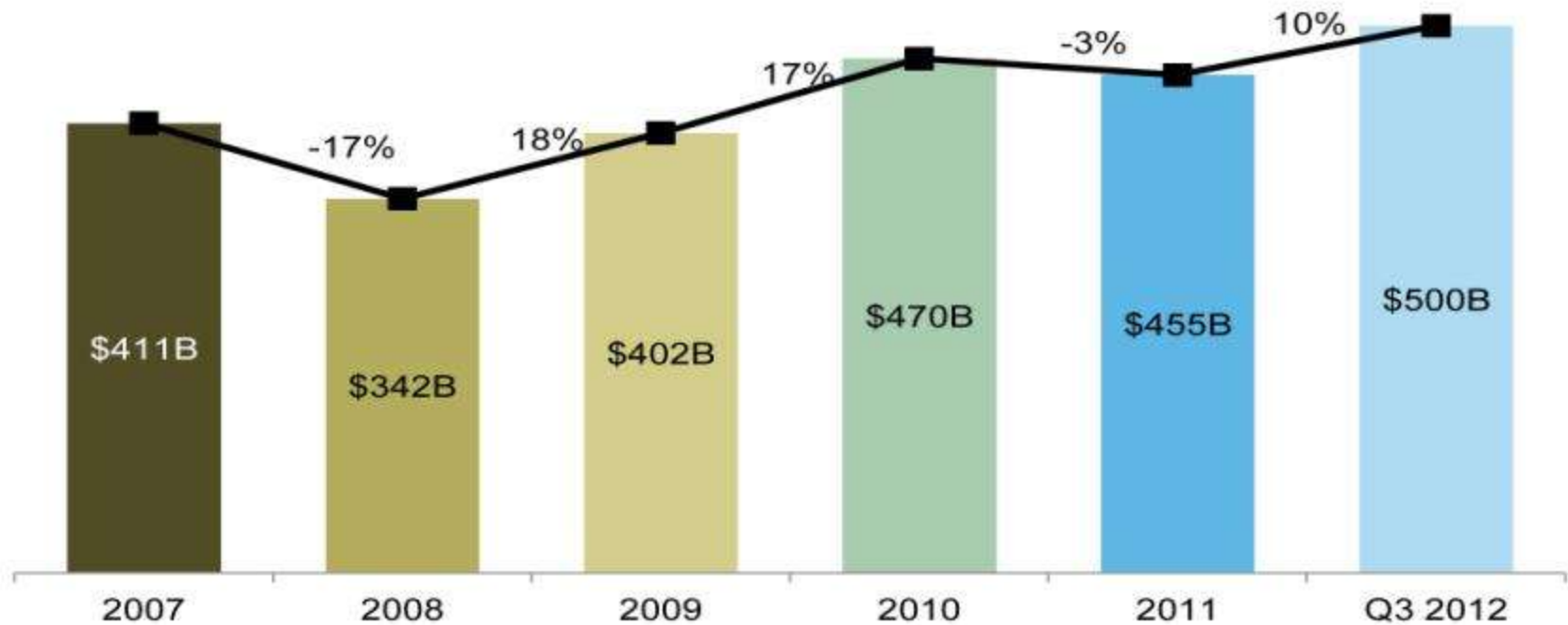
(1) Includes transactions where a U.S. company was the acquirer and/or the target.

# **REINSURANCE MARKET CONDITIONS**

**Capacity Has Recovered  
from the Effects of High  
Global Catastrophes  
Losses**

# Reinsurance Capital Is at a Record High

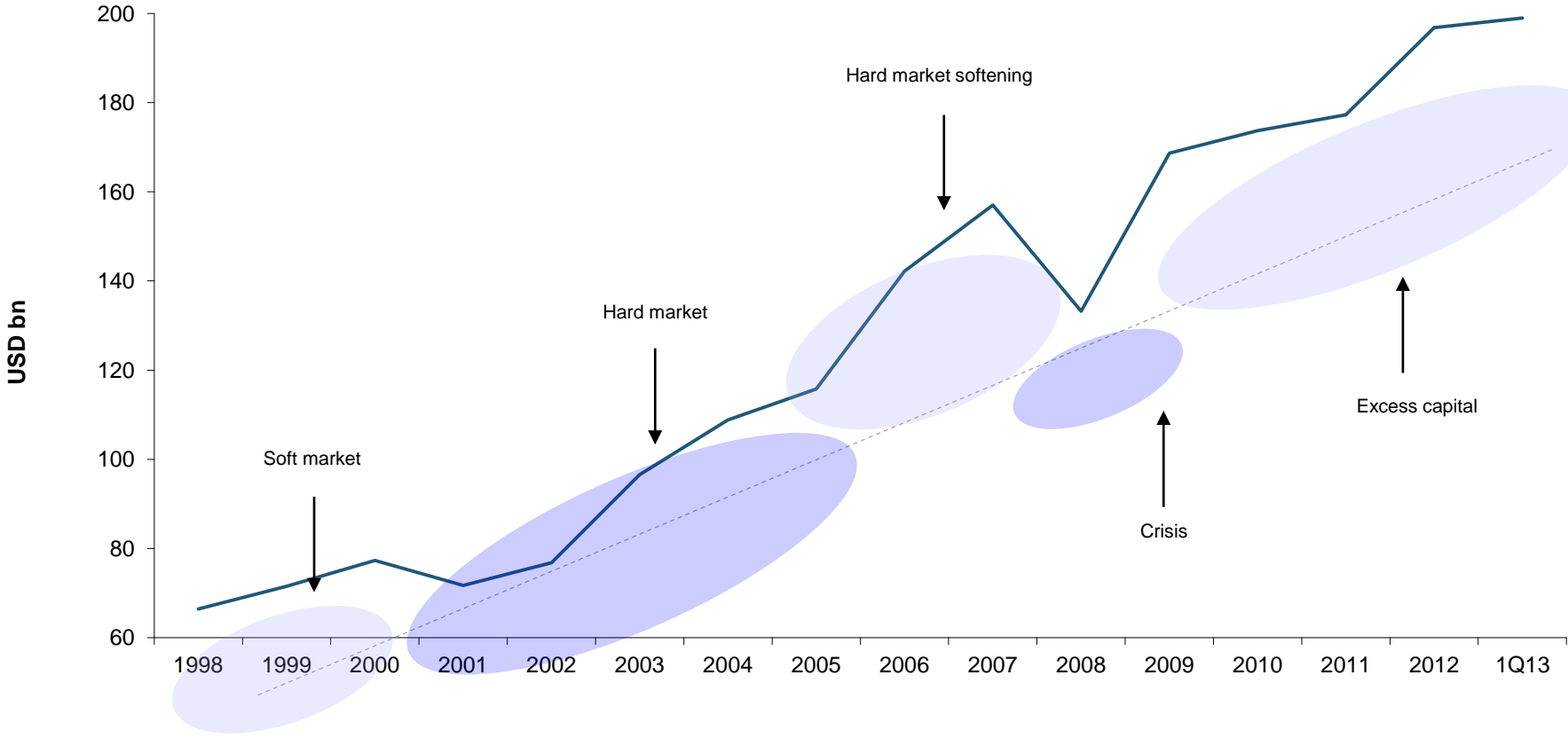
## Change in Global Reinsurer Capital



Source: Individual company reports, Aon Benfield Analytics

Source: Reinsurance Association of America from company reports and Aon Benfield Analytics.

# Long-Term Evolution of Shareholders' Funds for the Guy Carpenter Global Reinsurance Composite



Source: Guy Carpenter

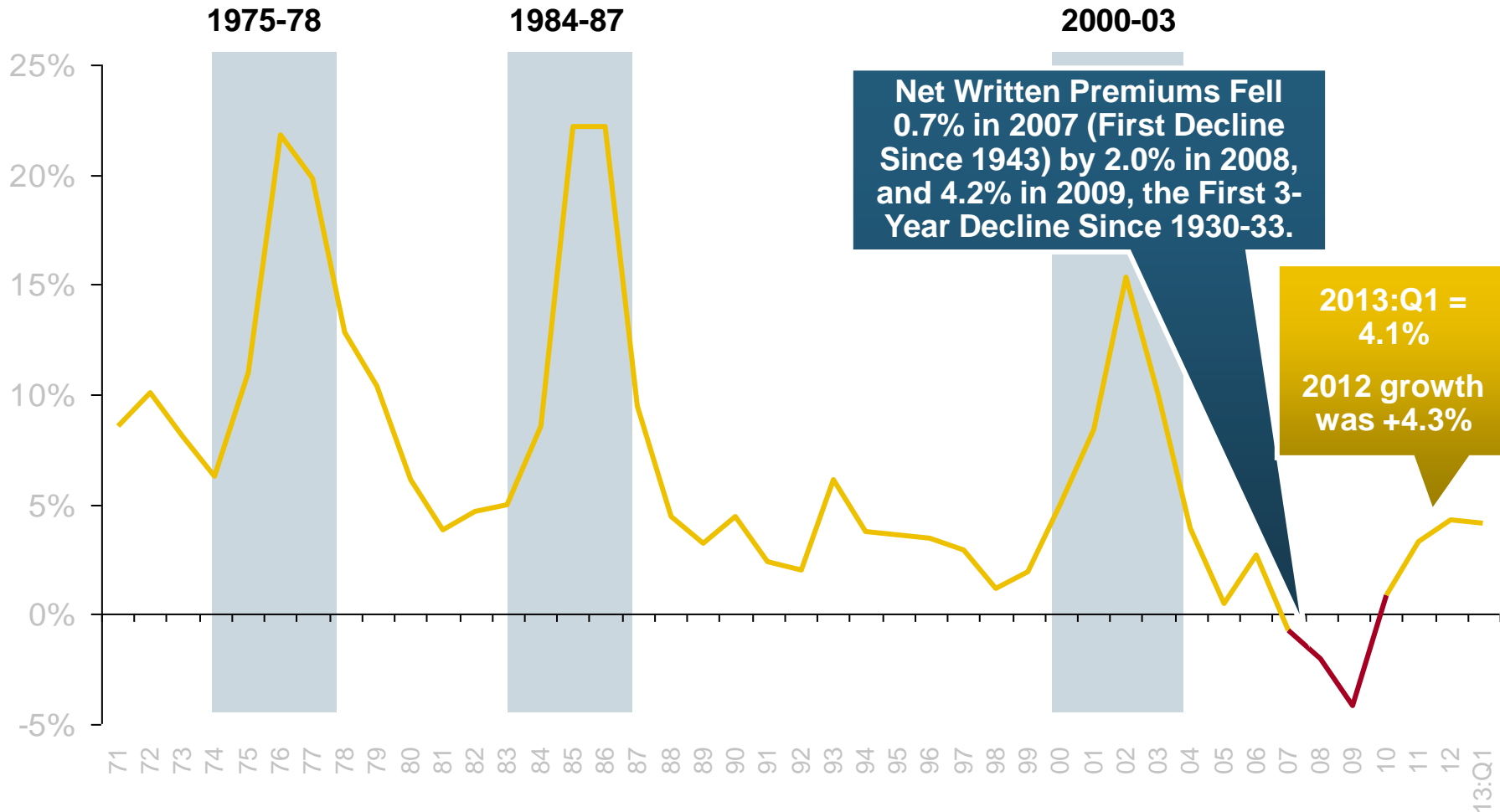


# RENEWED PRICING DISCIPLINE

**Evidence of a Broad and  
Sustained Shift in Pricing**

# Net Premium Growth: Annual Change, 1971—2013:Q1

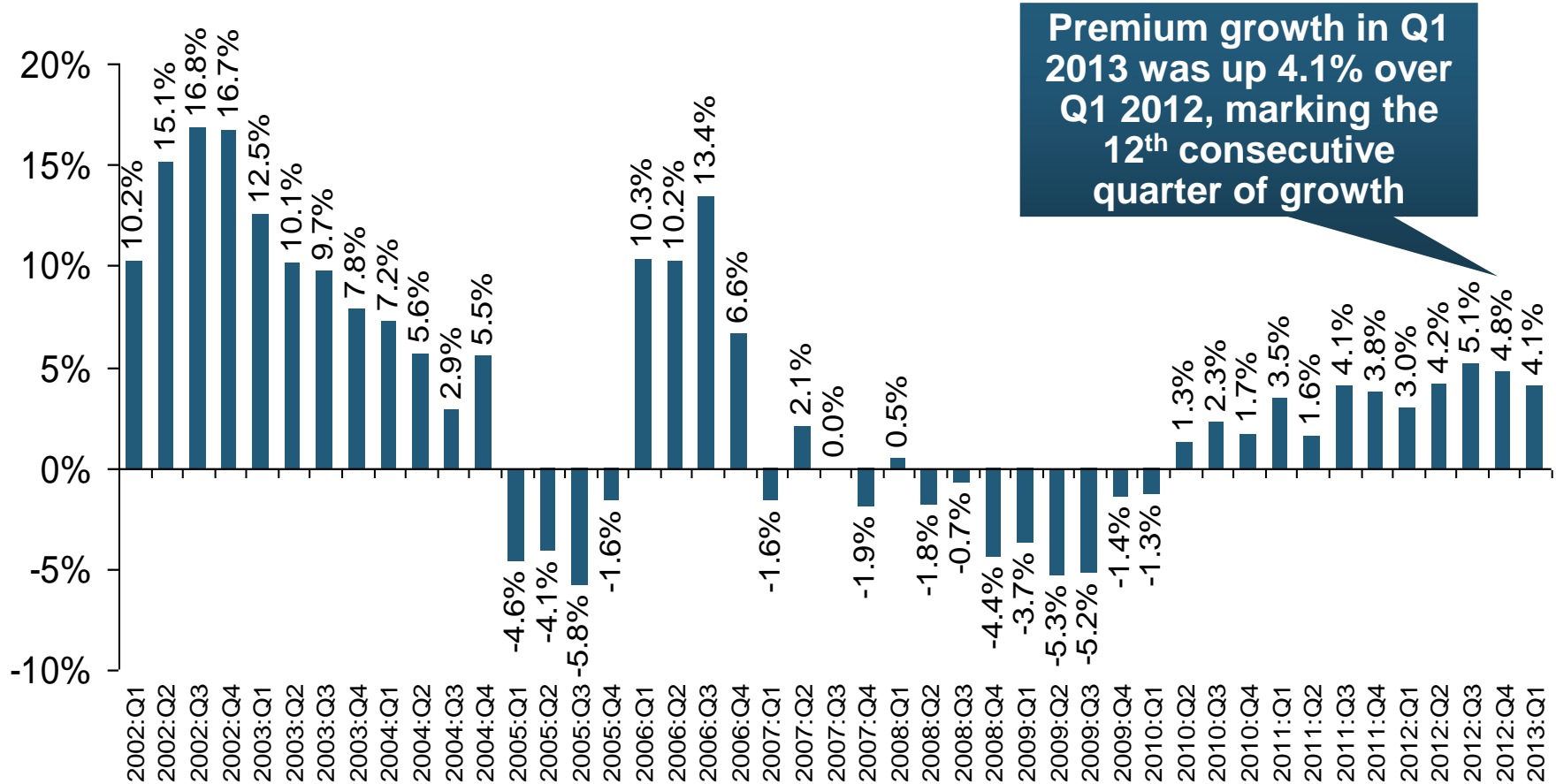
(Percent)



Shaded areas denote “hard market” periods

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

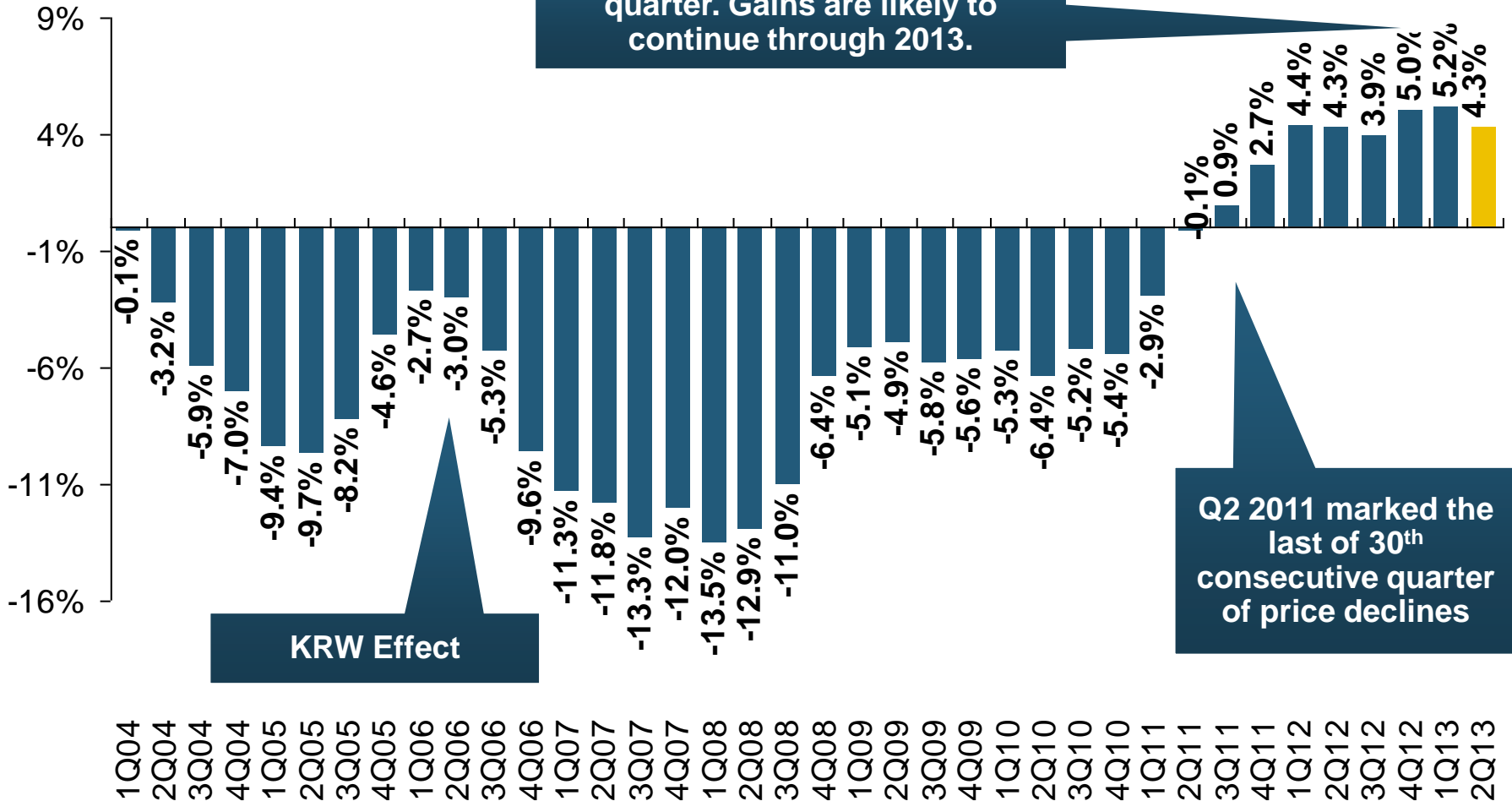
# P/C Net Premiums Written: % Change, Quarter vs. Year-Prior Quarter



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

# Average Commercial Rate Change, All Lines, (1Q:2004–2Q:2013)

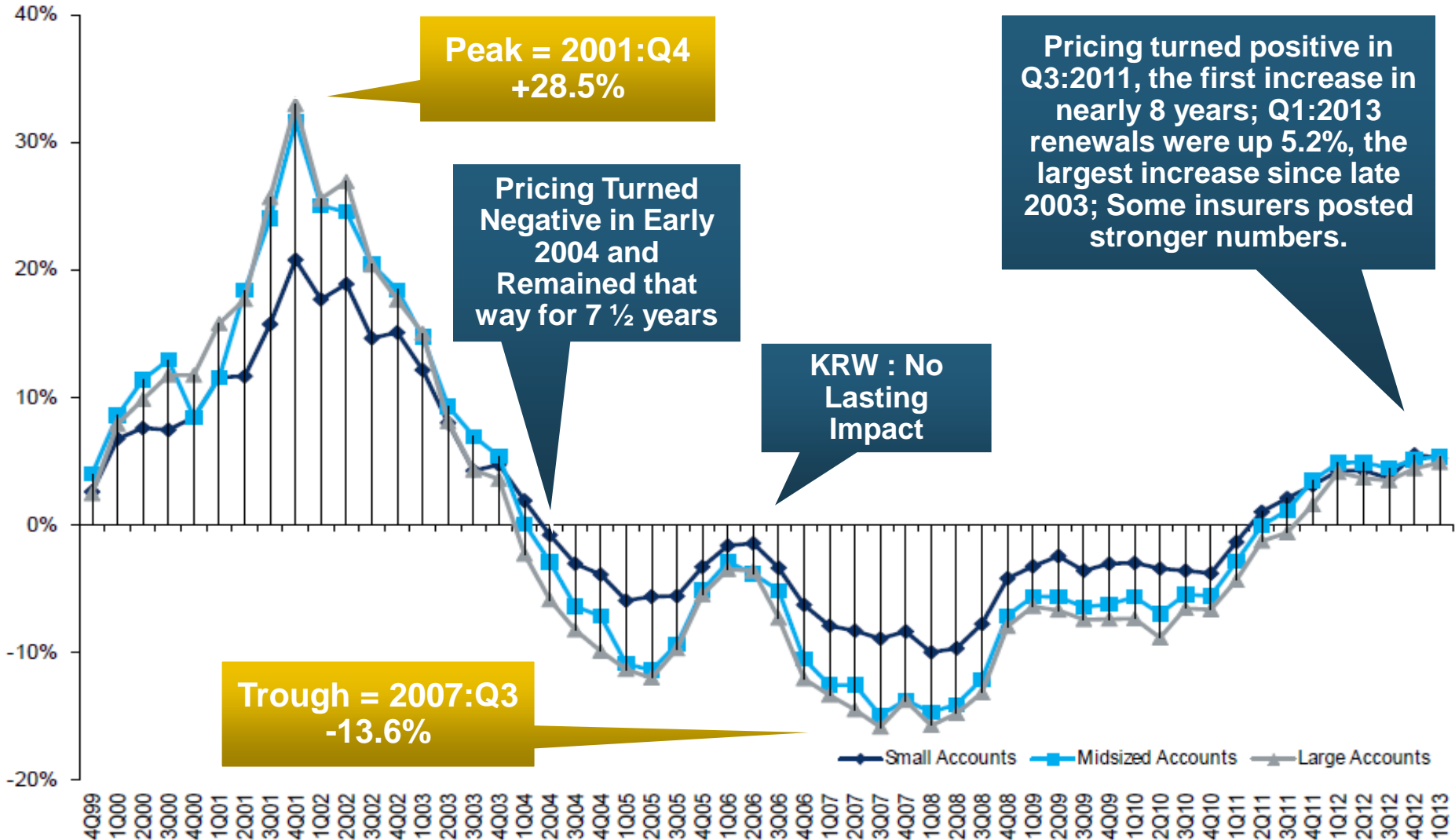
(Percent)



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 2013:Q1

Percentage Change (%)

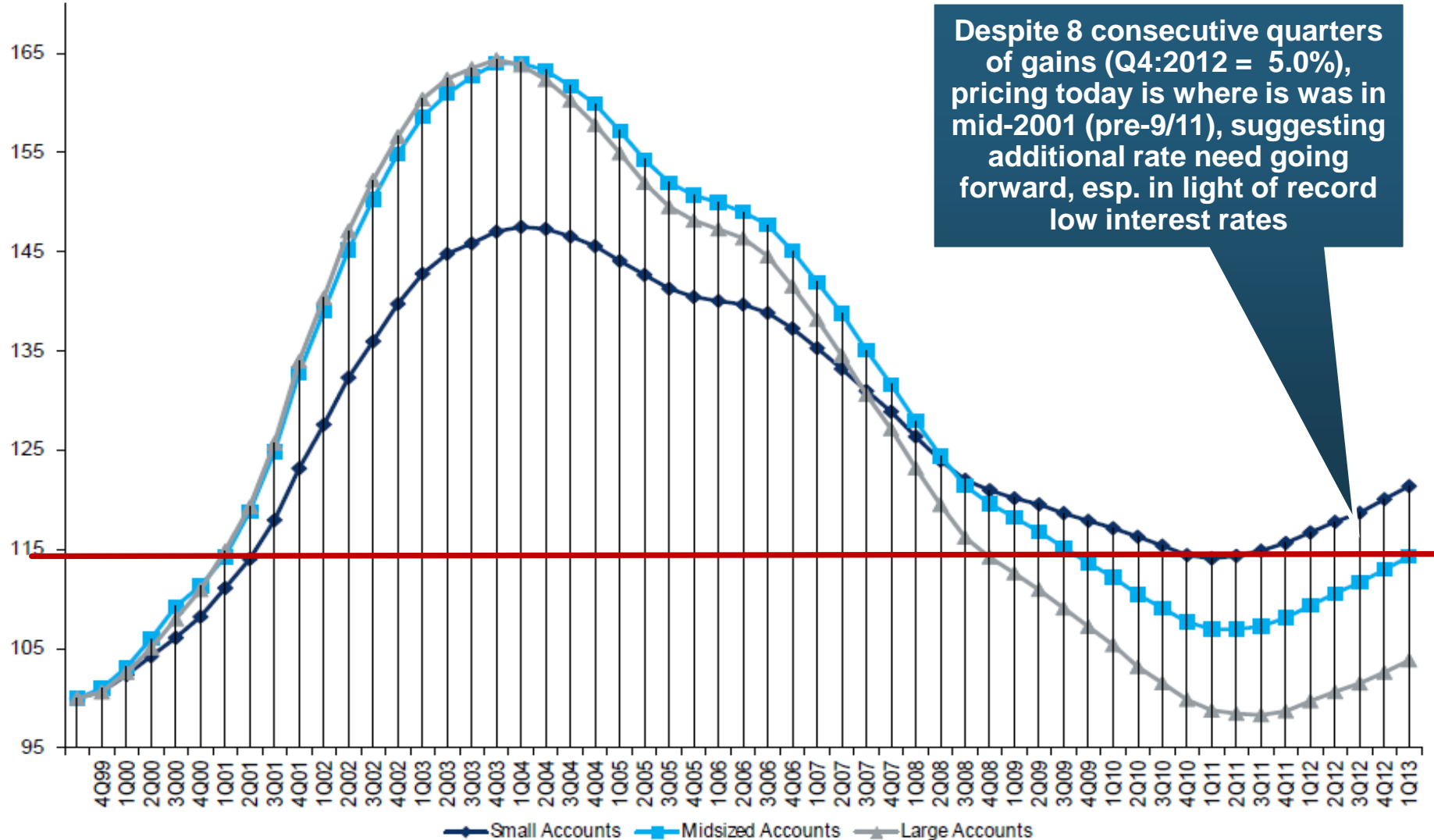


Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.

Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

# Cumulative Qtrly. Commercial Rate Changes, by Account Size: 1999:Q4 to 2013:Q1

1999:Q4 = 100

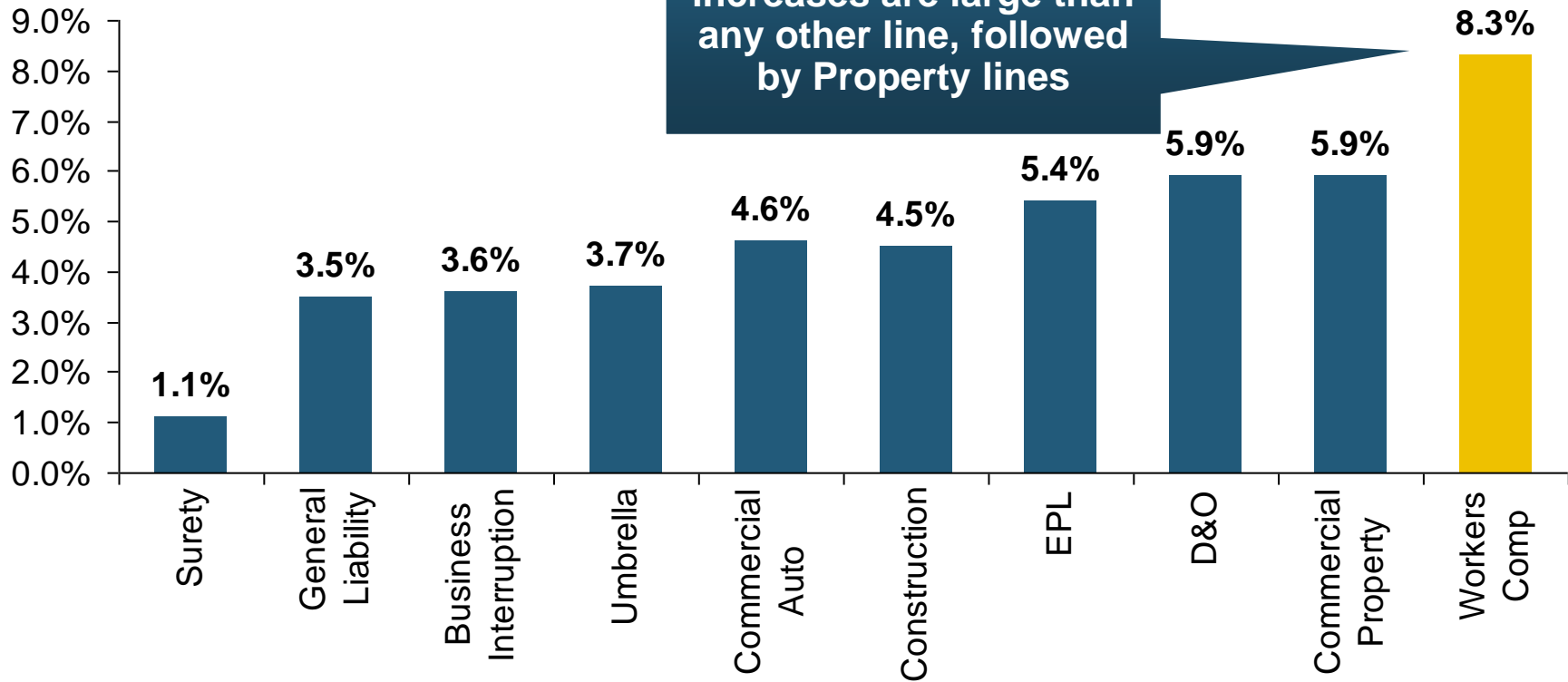


Despite 8 consecutive quarters of gains (Q4:2012 = 5.0%), pricing today is where it was in mid-2001 (pre-9/11), suggesting additional rate need going forward, esp. in light of record low interest rates

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: 2013:Q2

## Percentage Change (%)



**Major Commercial Lines Renewed Uniformly Upward in Q2:2013 for the 8th Consecutive Quarter; 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.



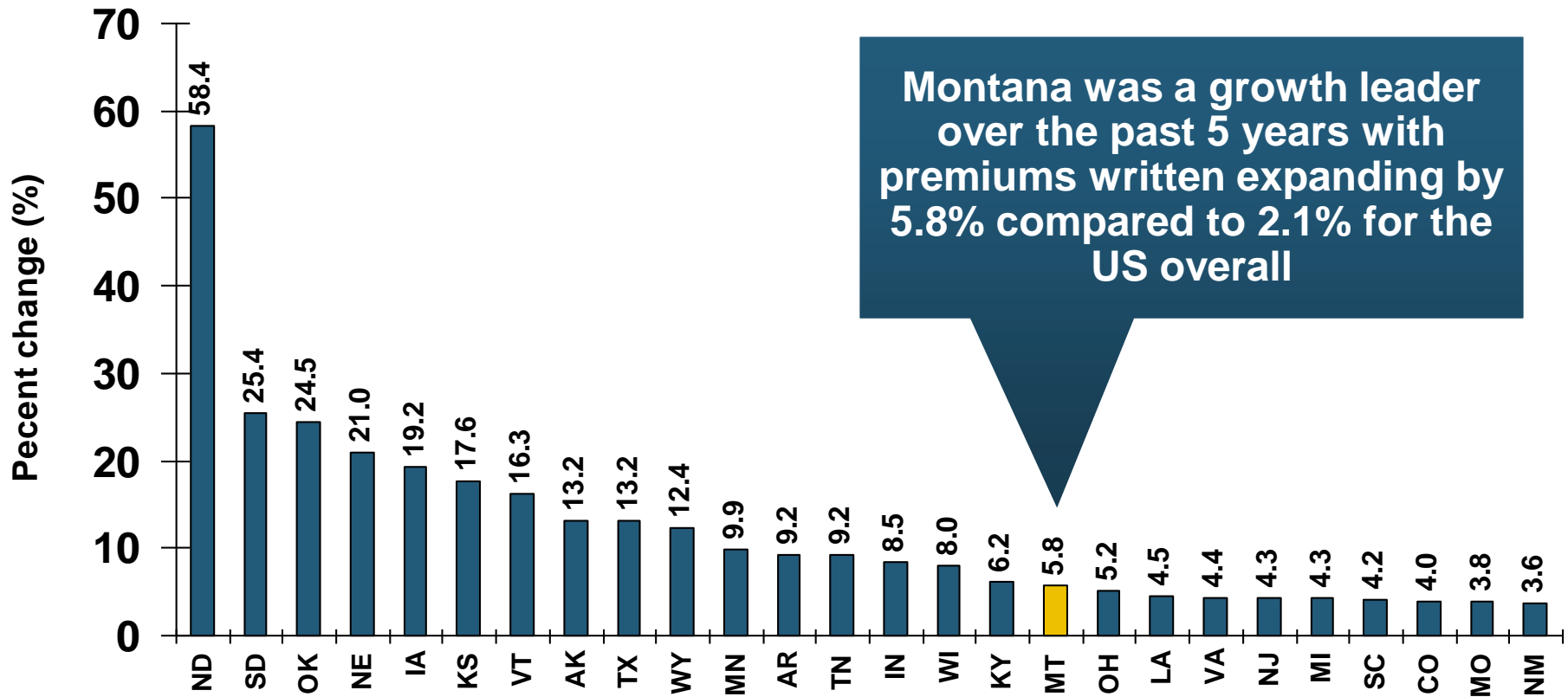
# Growth Analysis by State and Business Segment

**Premium Growth Rates Vary Tremendously by State**



# Direct Premiums Written: Total P/C Percent Change by State, 2007-2012\*

## Top 25 States

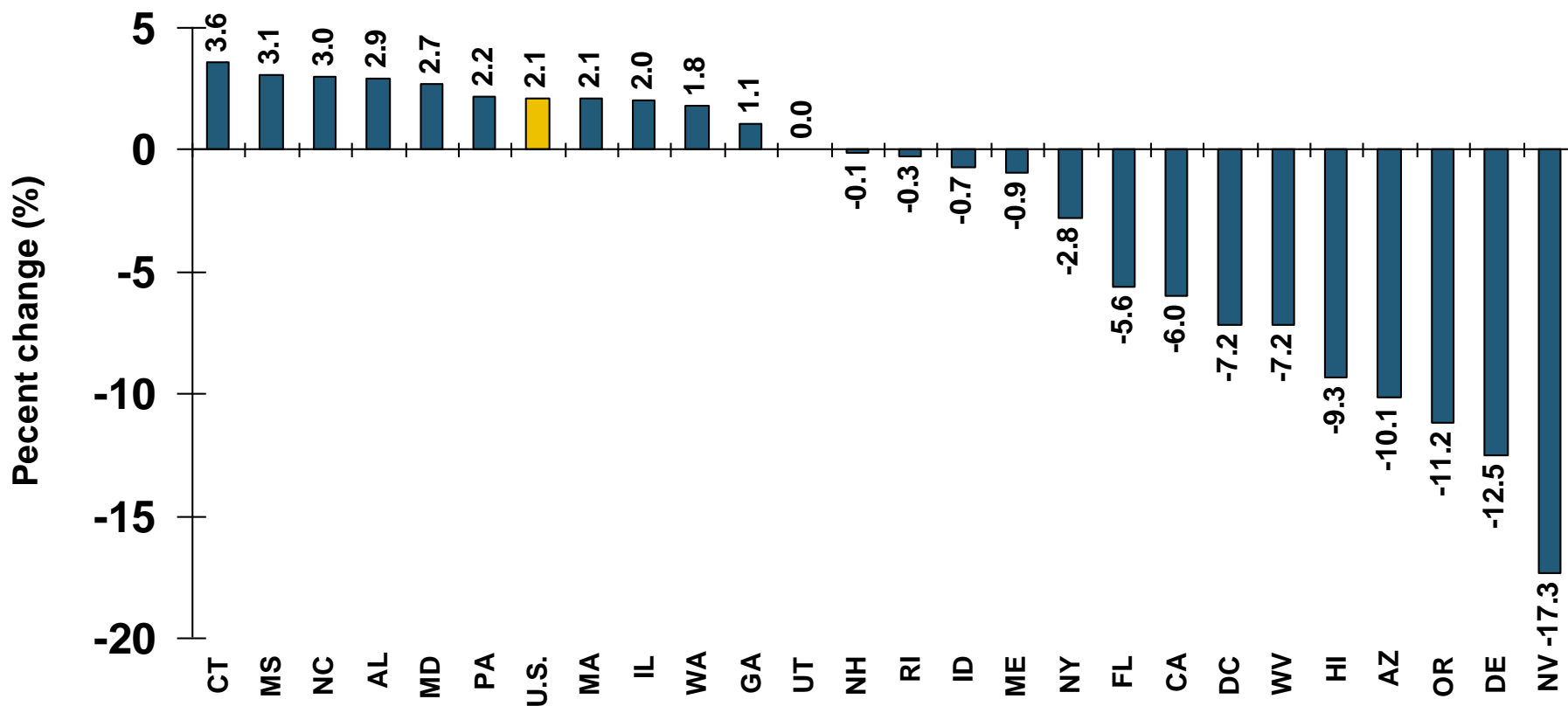


\*Data are preliminary as of 5/1/13 and do not yet fully reflect the impact of state-run pools and plans.

Sources: SNL Financial LC.; Insurance Information Institute.

# Direct Premiums Written: Total P/C Percent Change by State, 2007-2012\*

## Bottom 25 States



\*Data are preliminary as of 5/1/13 and do not yet fully reflect the impact of state-run pools and plans.

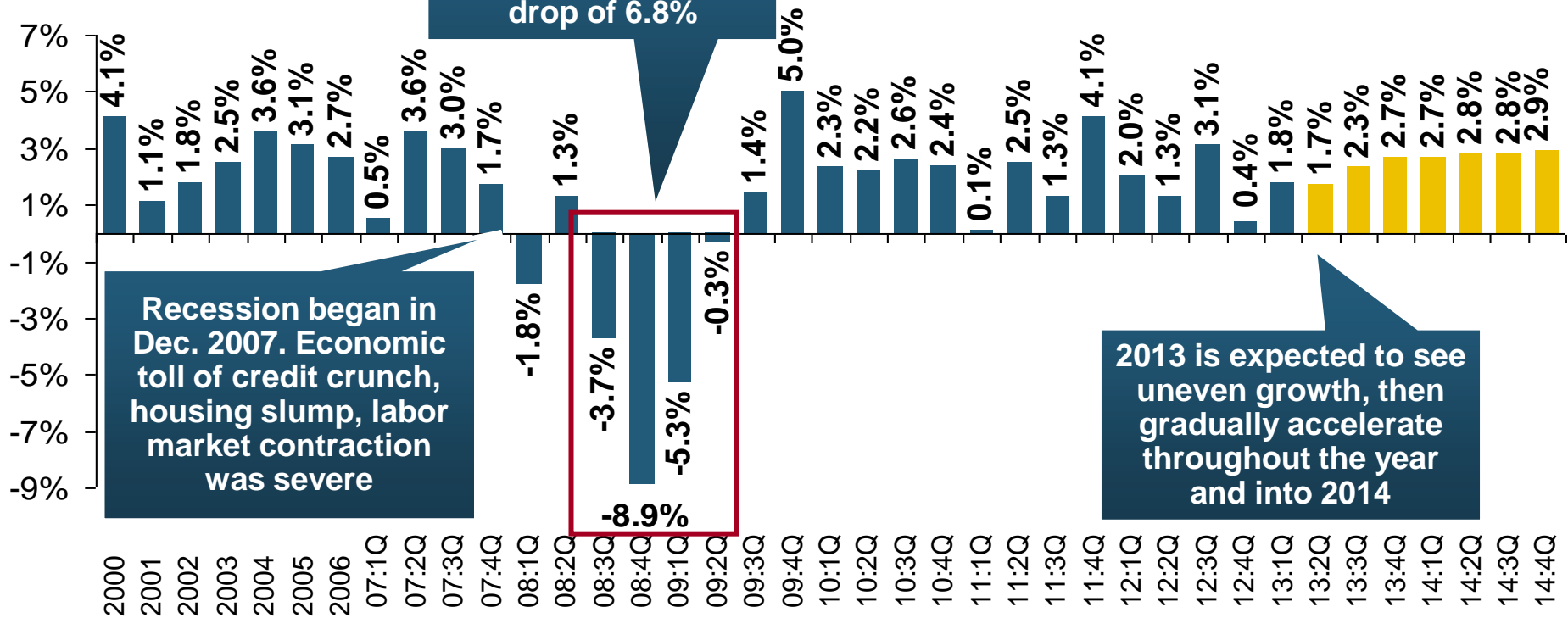
Sources: SNL Financial LC.; Insurance Information Institute.

# **The Strength of the Economy Will Influence P/C Insurer & Policyholder Growth Opportunities**

**Growth Will Expand Insurer Exposure  
Base Across Most Lines; Impacts on  
Loss Experience**

# US Real GDP Growth\*

Real GDP Growth (%)

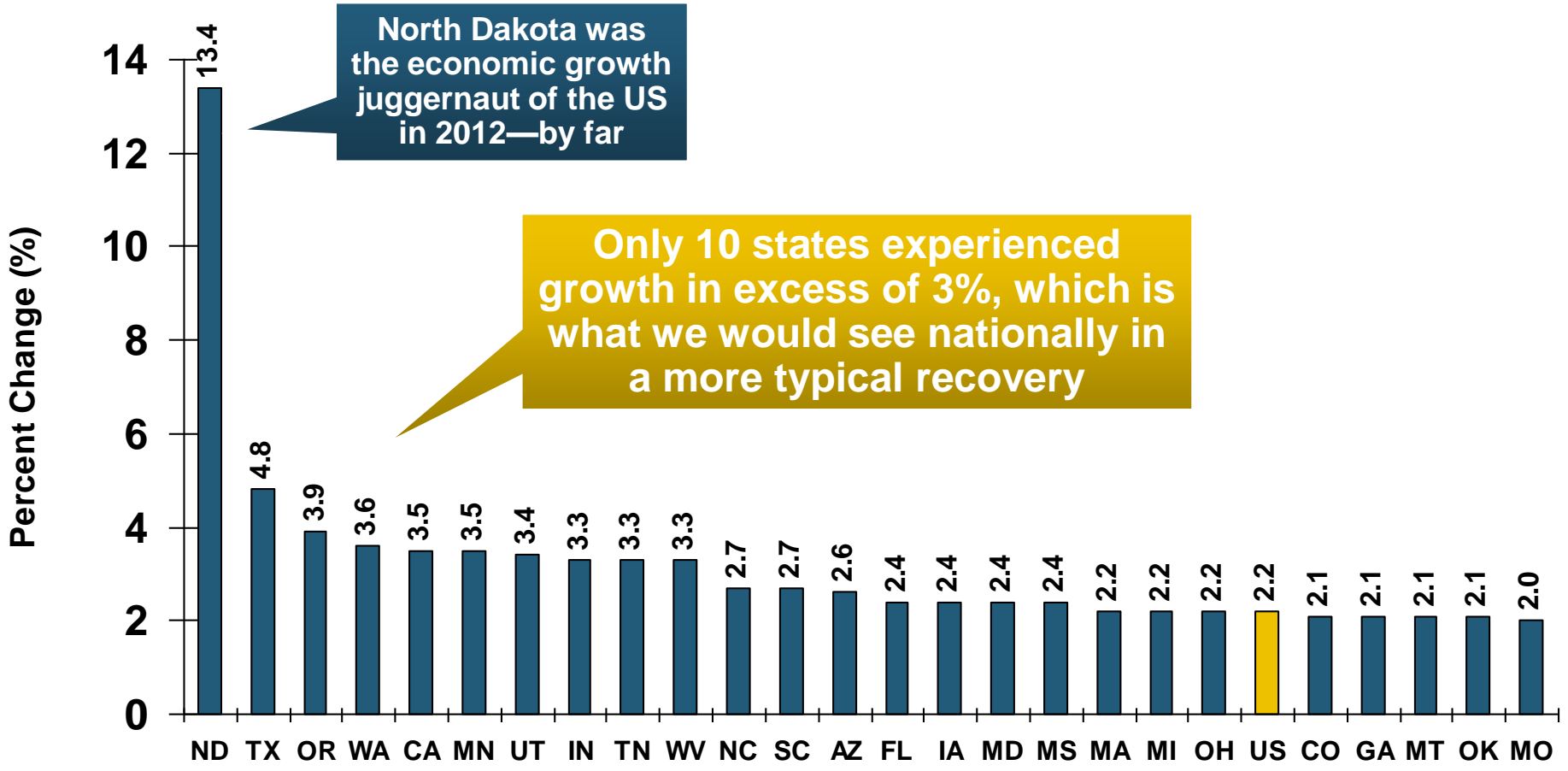


**Demand for Insurance Continues To Be Impacted by Sluggish Economic Conditions, but the Benefits of Even Slow Growth Will Compound and Gradually Benefit the Economy Broadly**

\* Estimates/Forecasts from Blue Chip Economic Indicators.

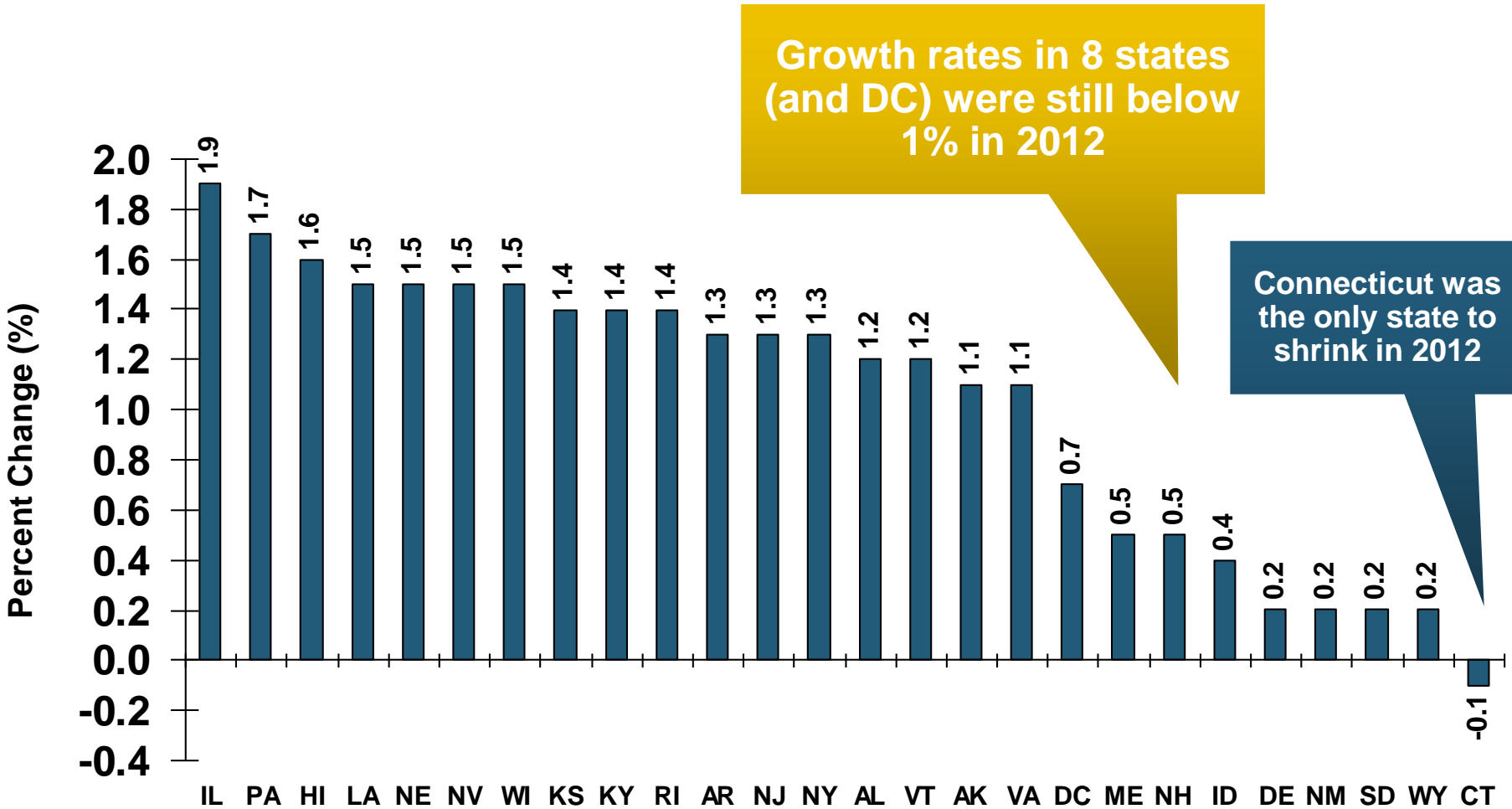
Source: US Department of Commerce, Blue Economic Indicators 7/13; Insurance Information Institute.

# Real GDP by State Percent Change, 2012: Highest 25 States



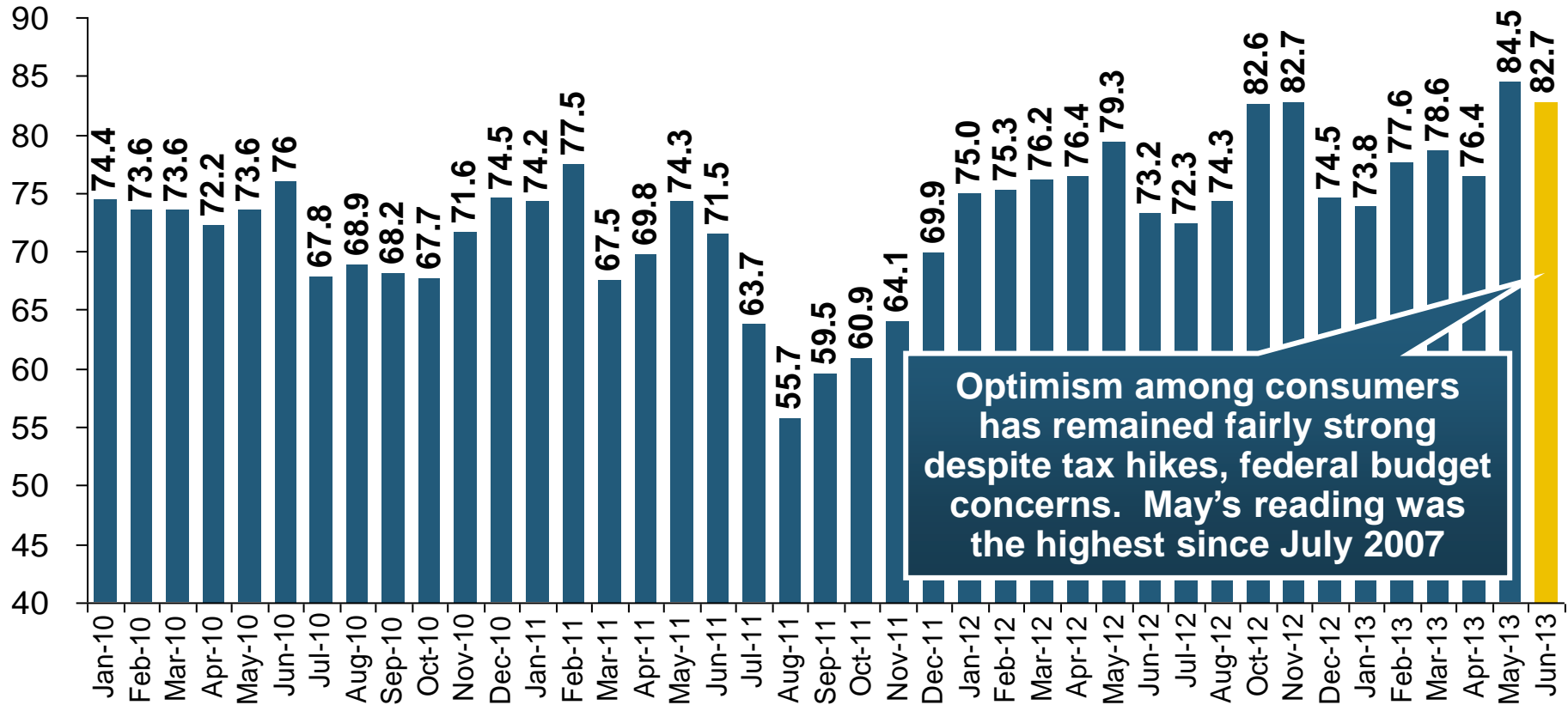
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

# Real GDP by State Percent Change, 2012: Lowest 25 States



# Consumer Sentiment Survey (1966 = 100)

January 2010 through June 2013

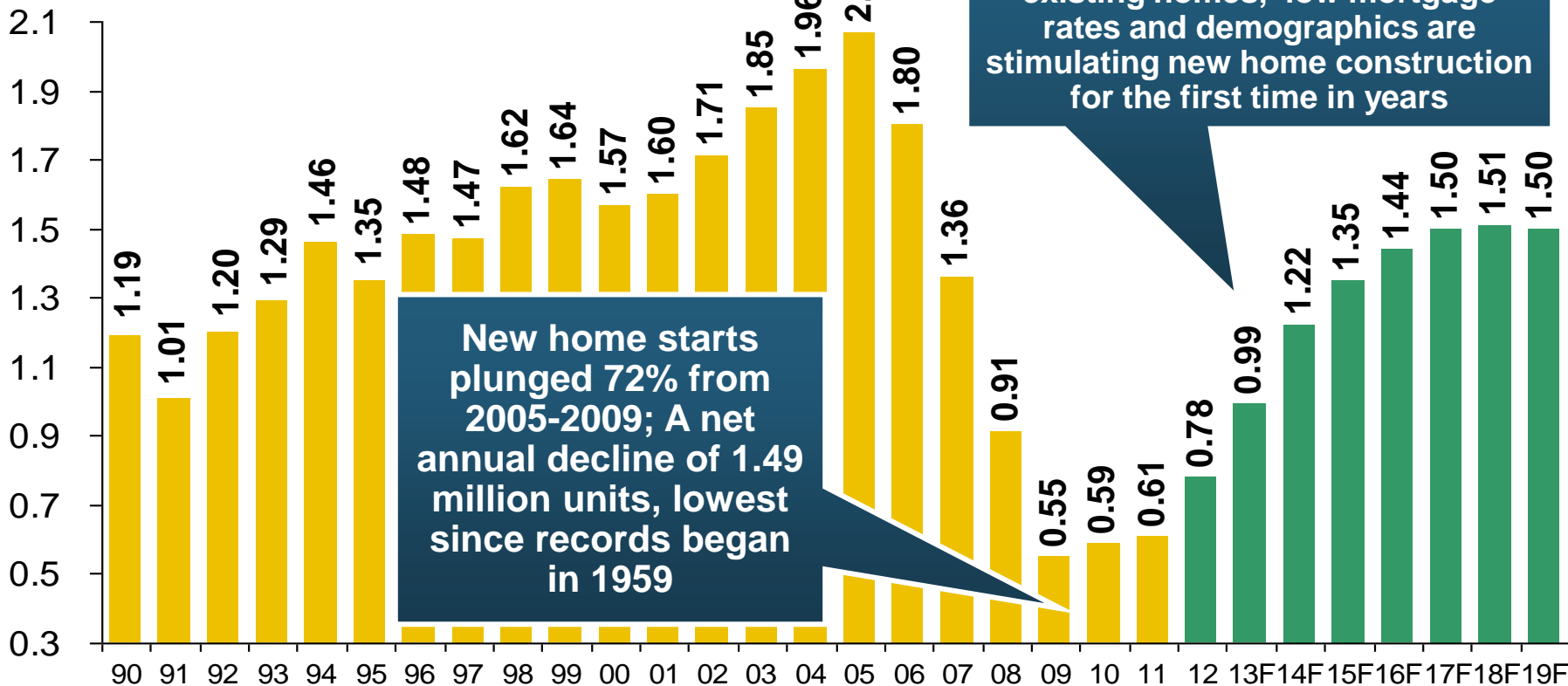


Optimism among consumers has remained fairly strong despite tax hikes, federal budget concerns. May's reading was the highest since July 2007

Consumer confidence has been low for years amid high unemployment, falling home prices and other factors adversely impact consumers, but improved substantially over the past two years

# New Private Housing Starts, 1990-2019F

(Millions of Units)



Job growth, low inventories of existing homes, low mortgage rates and demographics are stimulating new home construction for the first time in years

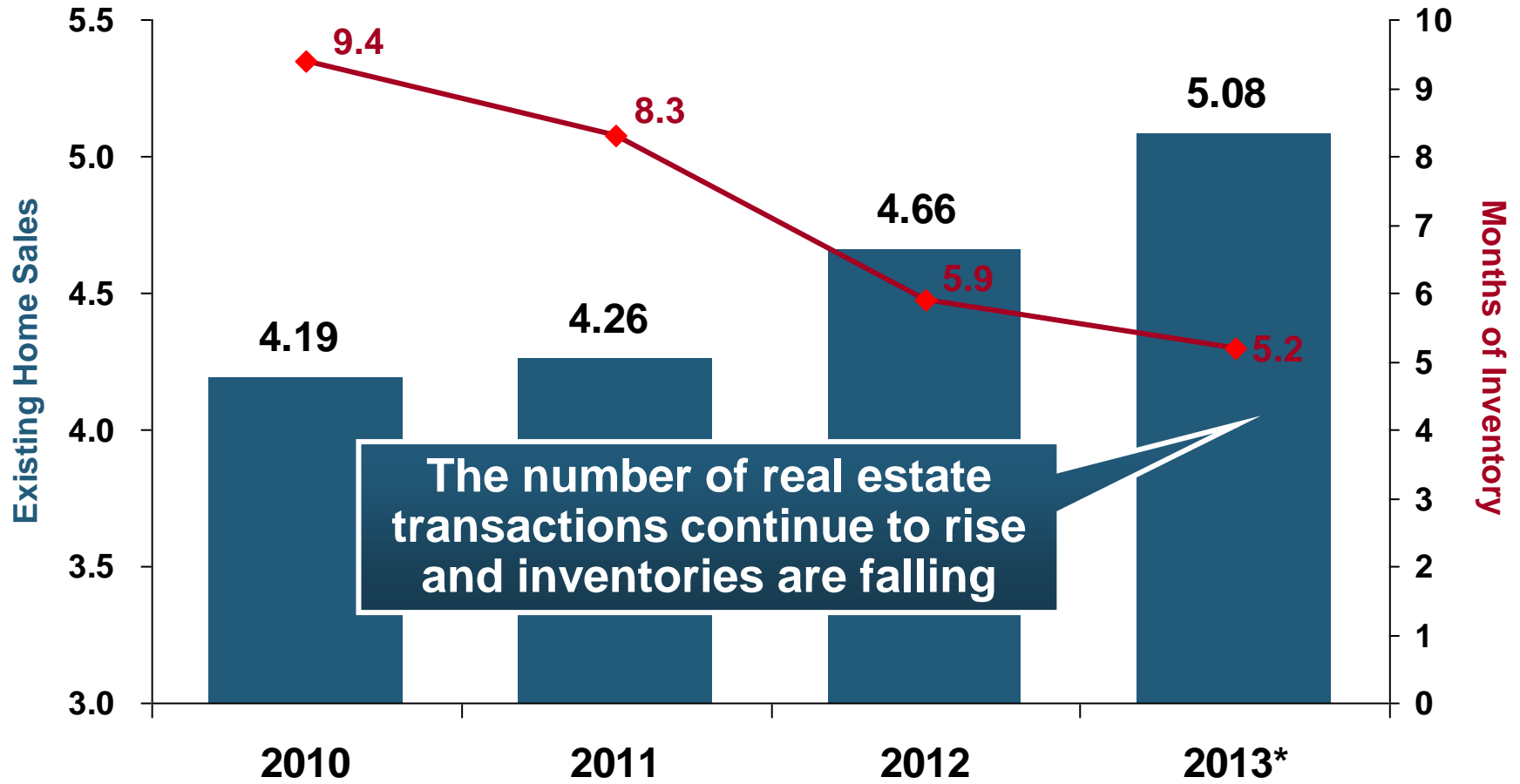
New home starts plunged 72% from 2005-2009; A net annual decline of 1.49 million units, lowest since records began in 1959

**Insurers Are Starting to See Meaningful Exposure Growth for the First Time Since 2005 Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure**



# Existing Home Sales and Months of Inventory, 2010-2013\*

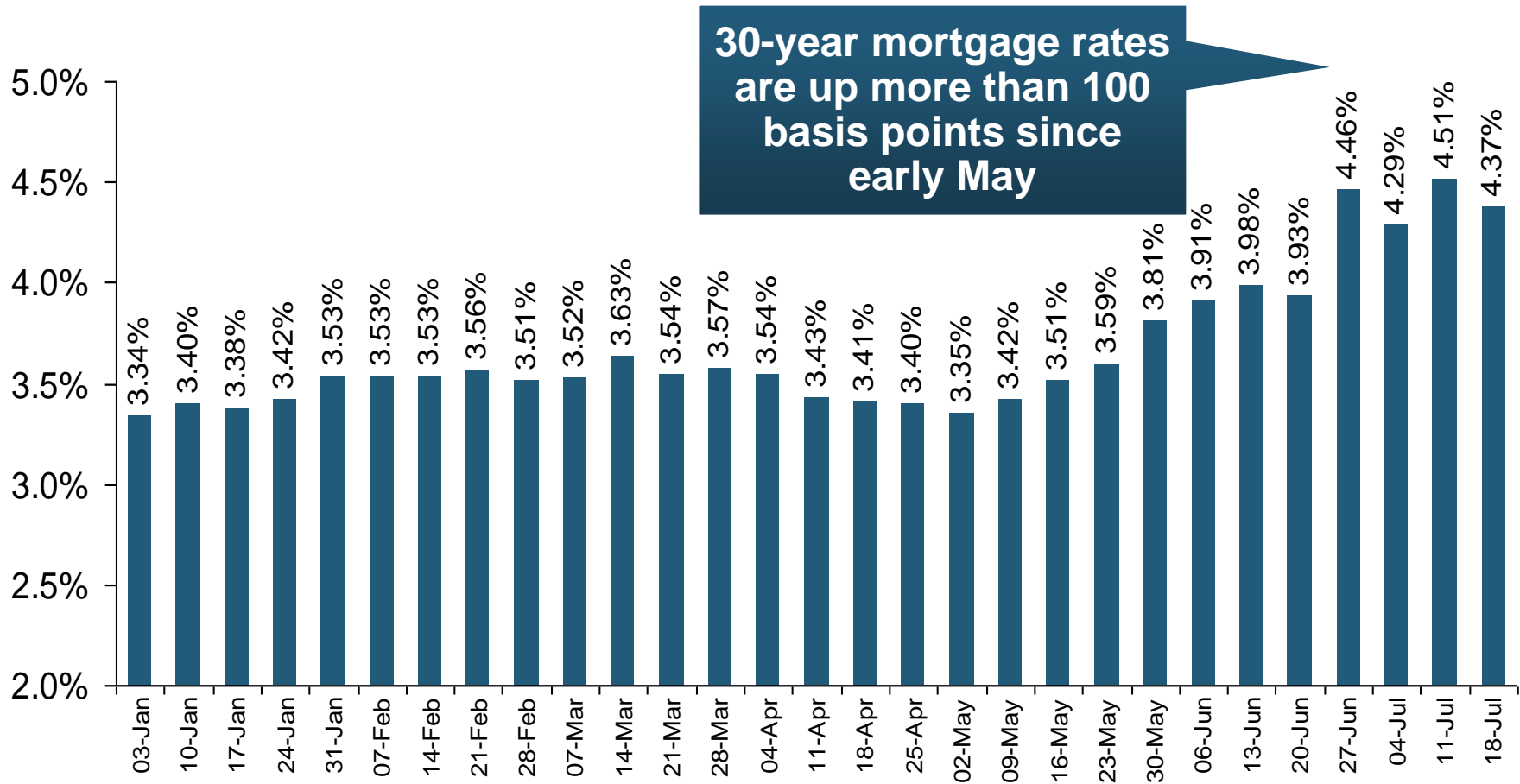
(Millions)



\*Seasonally adjusted annualized figure for June 2013.

Source: Conning proprietary database.

# 30-Year Mortgages in 2013 Are Rising: What Will Be the Impact on Real Estate?

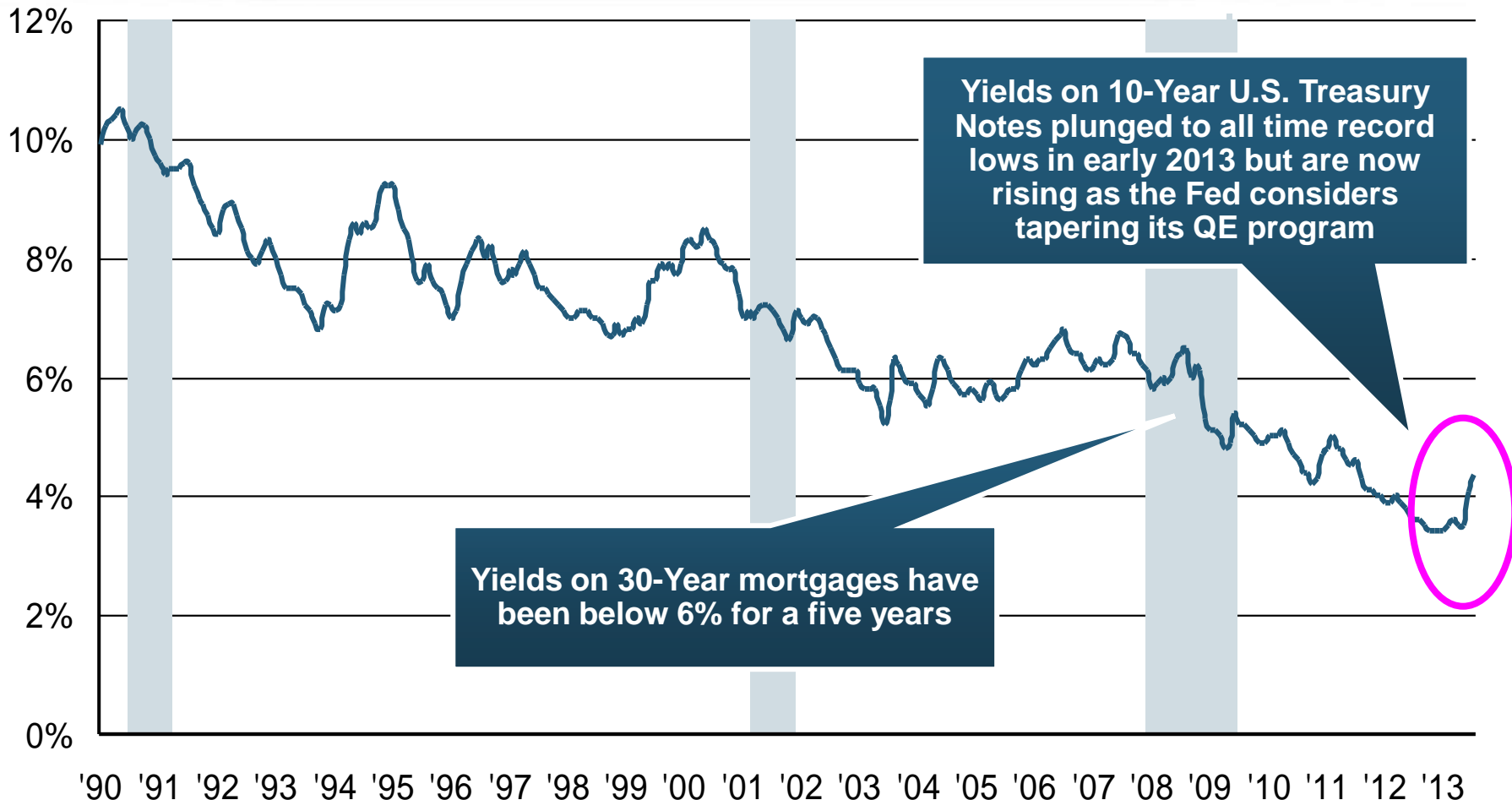


**Mortgage Interest Rates Will Rise as Expectations Over the Fed's Tapering of QE3 Persist; Still Low by Historical Standards**

\*Weekly through July 18, 2013.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>; Insurance Information Institutes.

# Interest Rate on Conventional 30-Year Mortgages: Headed Back Up, 1990–2013\*



**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, through July 2013 (as of July 18).

Note: Recessions indicated by gray shaded columns.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>.

National Bureau of Economic Research (recession dates); Insurance Information Institutes.

# Construction Employment, Jan. 2010—June 2013\*

(Thousands)

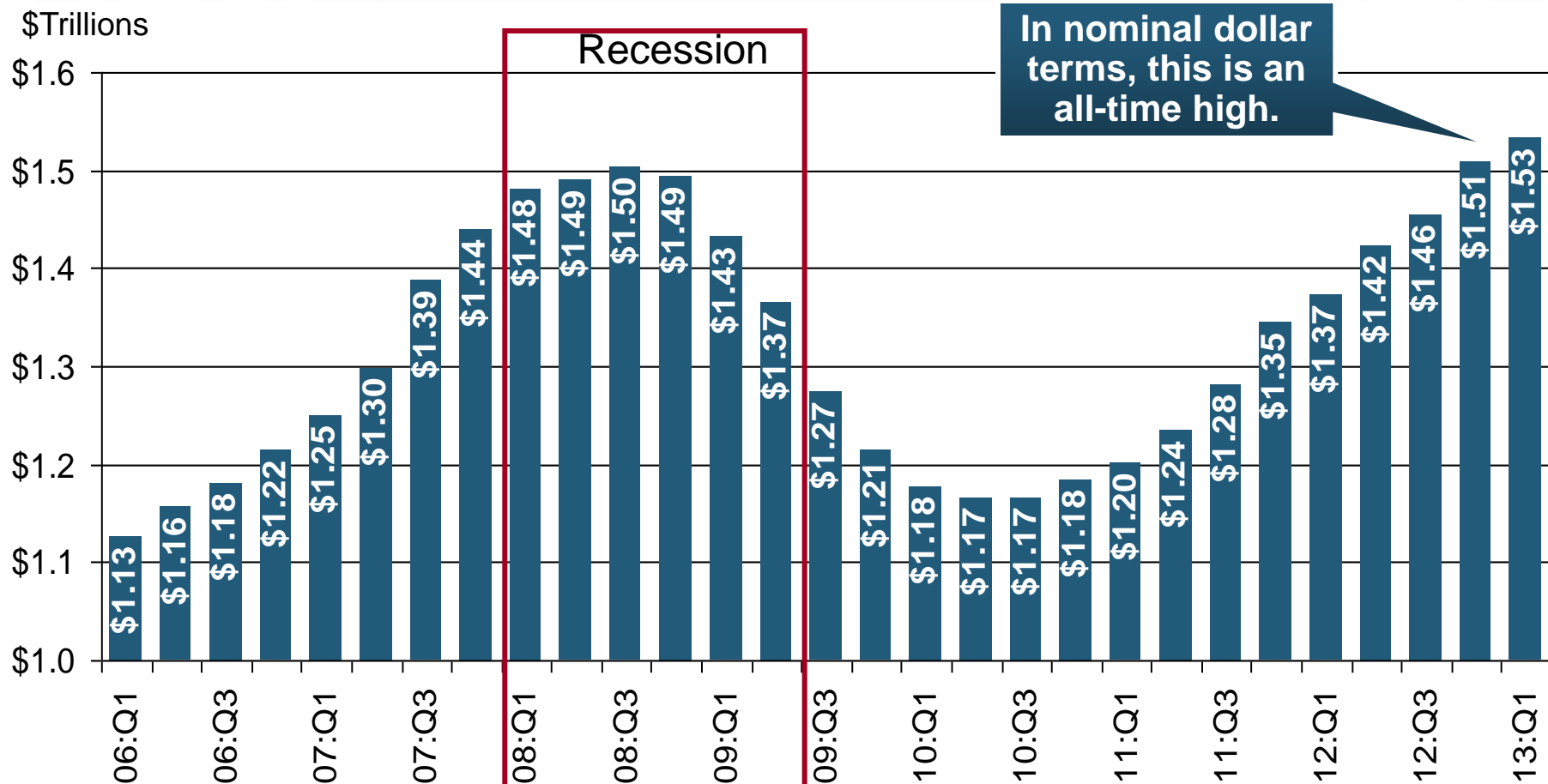
Construction employment growth accelerated in the second half of 2012. Continued growth in this key sector is possible through 2013. Construction is a key driver of workers comp exposure growth.



\*Seasonally adjusted

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

# Commercial & Industrial Loans Outstanding at FDIC-Insured Banks, Quarterly, 2006-2013\*

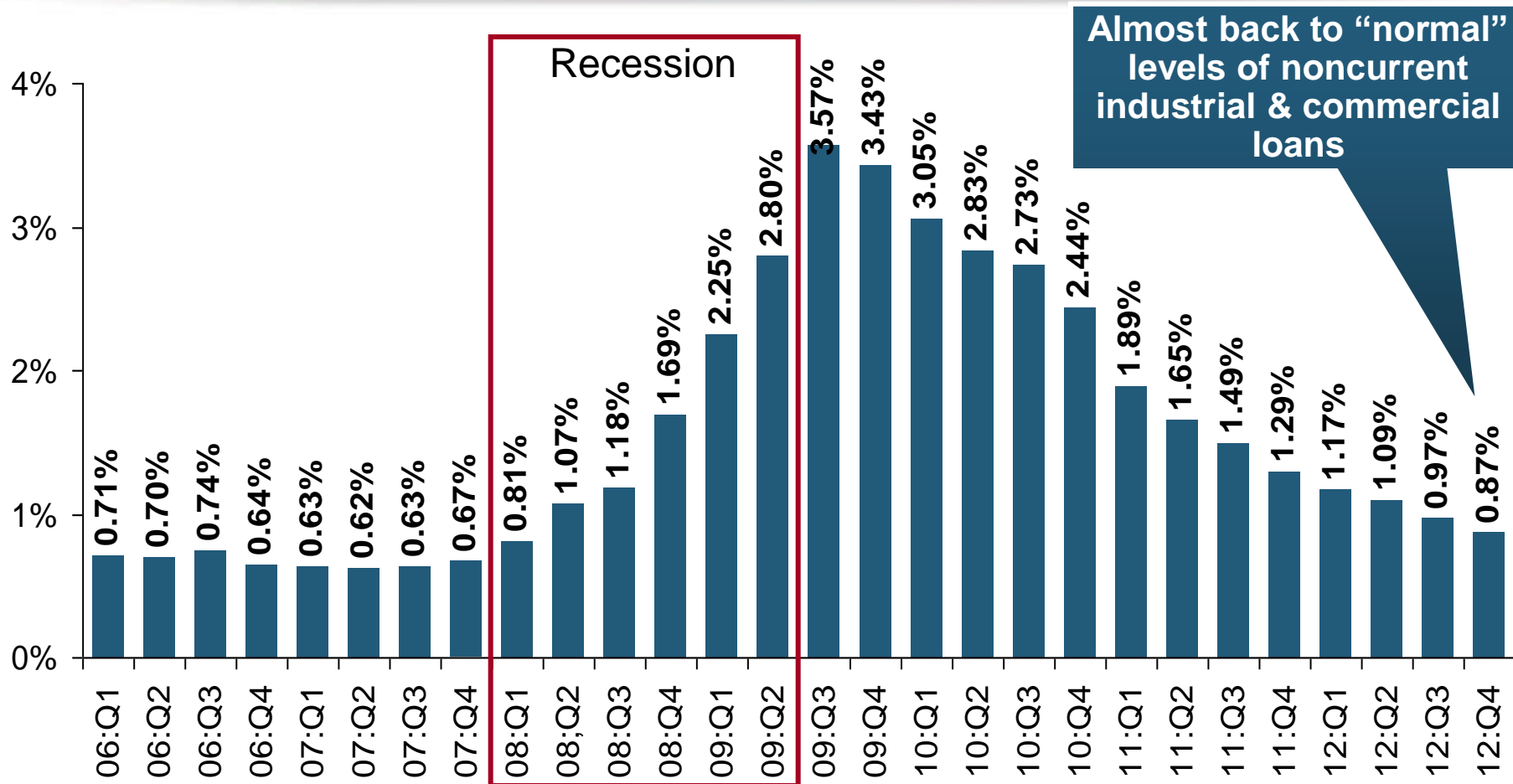


**Outstanding loan volume has been growing for over two years and (as of year-end 2012) surpassed previous peak levels.**

\*Latest data as of 6/14/2013.

Source: FDIC at <http://www2.fdic.gov/qbp/> (Loan Performance spreadsheet); Insurance Information Institute.

# Percent of Non-current Commercial & Industrial Loans Outstanding at FDIC-Insured Banks, Quarterly, 2006-2012:Q4\*



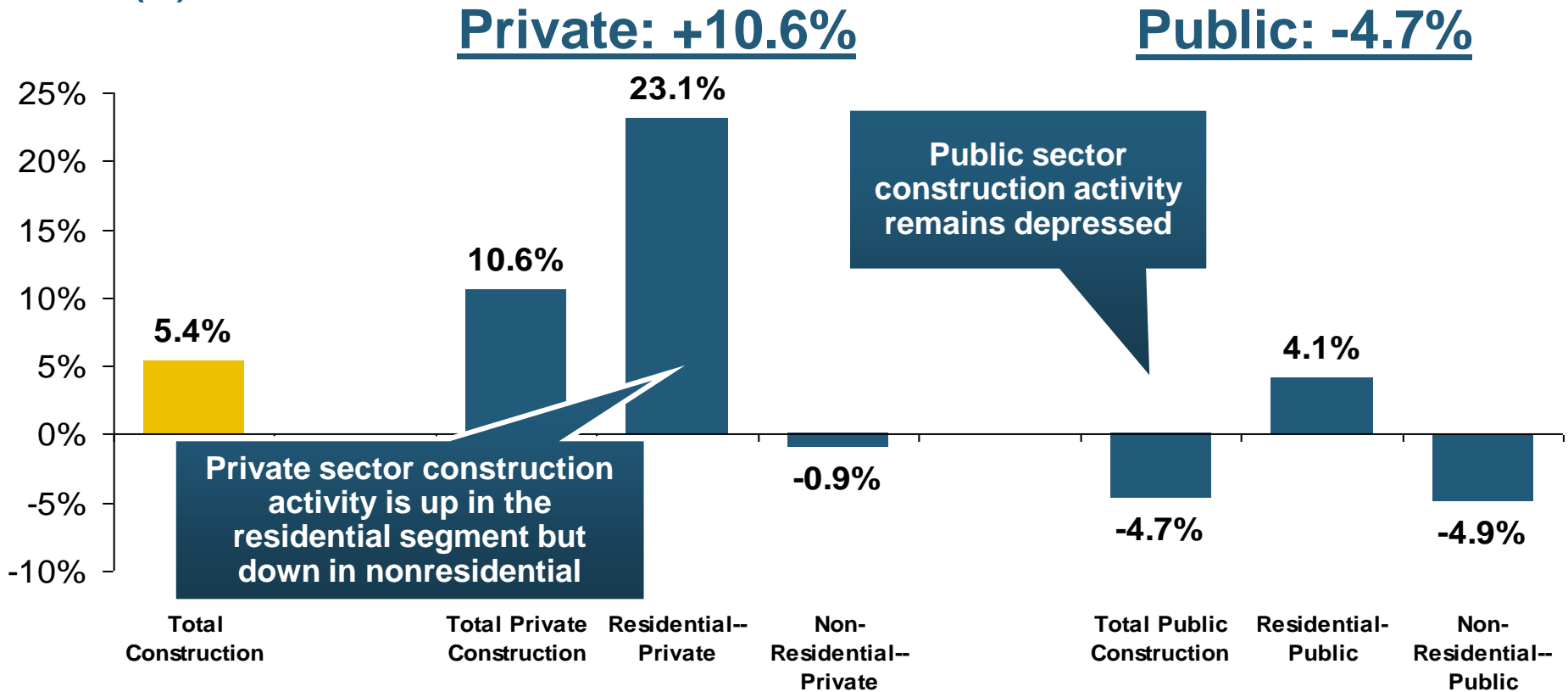
**Non-current loans (those past due 90 days or more or in nonaccrual status) are back to early-recession levels, fueling bank willingness to lend.**

\*Latest data as of 3/18/2013.

Source: FDIC at <http://www2.fdic.gov/qbp/> (Loan Performance spreadsheet); Insurance Information Institute.

# Value of Construction Put in Place, May 2013 vs. May 2012\*

Growth (%)



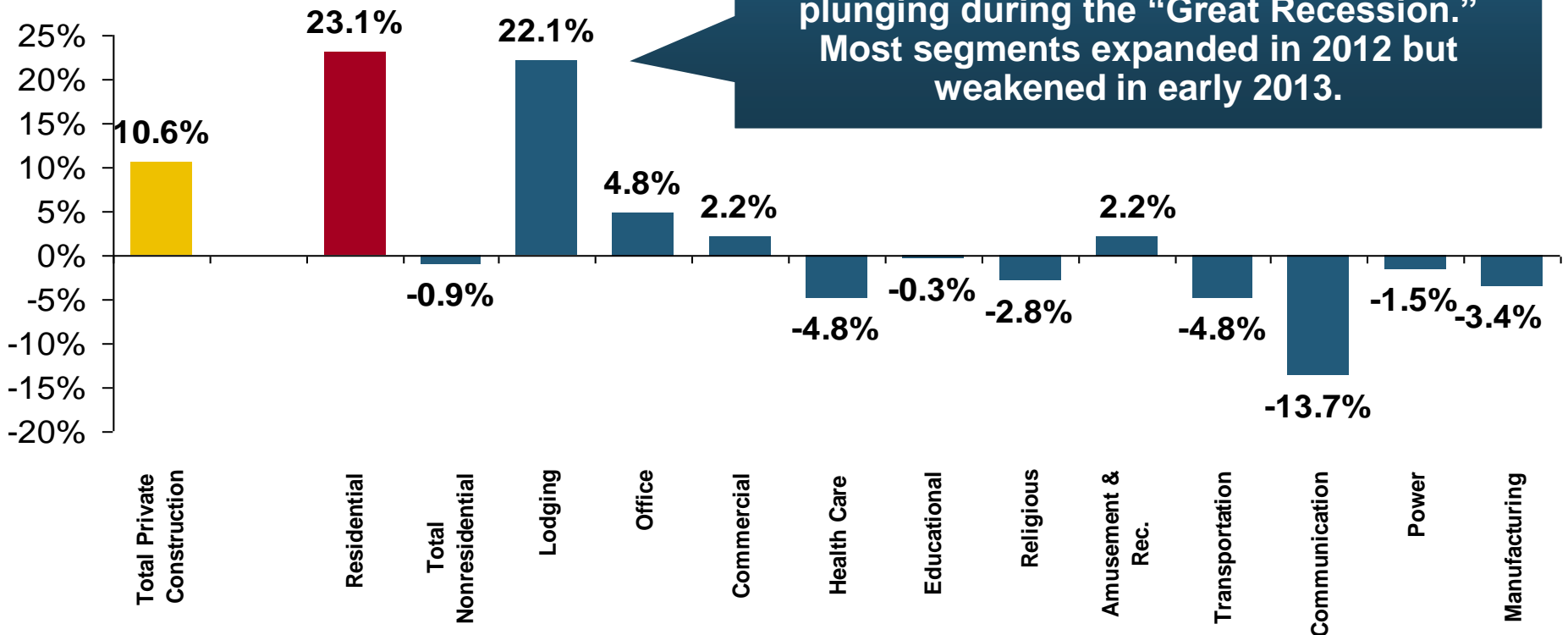
**Overall Construction Activity is Up, But Growth Is Entirely in the Private Sector as State/Local Government Budget Woes Continue**

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

# Value of Private Construction Put in Place, by Segment, May 2013 vs. May 2012\*

Growth (%)

Led by the Residential Construction, Lodging and Office segments, Private sector construction activity remains mixed after plunging during the "Great Recession." Most segments expanded in 2012 but weakened in early 2013.



Private Construction Activity is Up in Some Segments, Including the Key Residential Construction Sector, But Weakening in Early 2013

\*seasonally adjusted

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

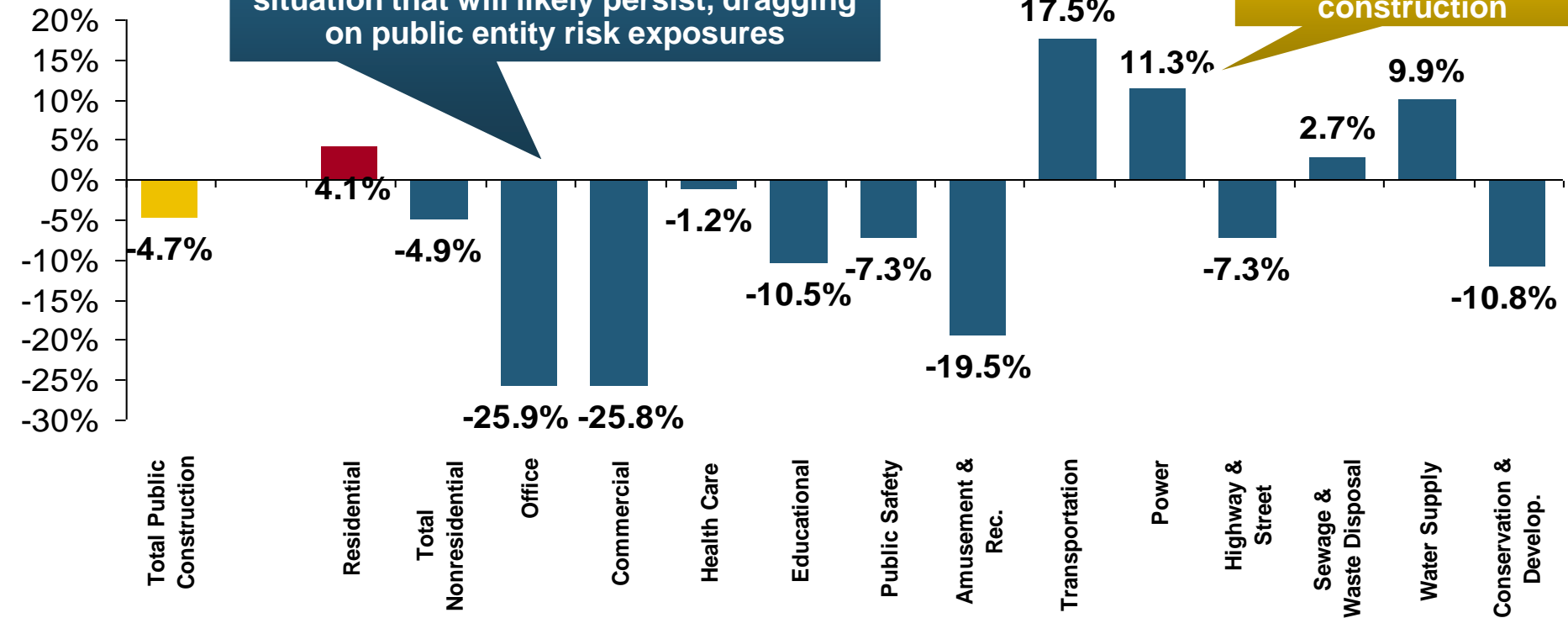


# Value of Public Construction Put in Place, by Segment, May 2013 vs. May 2012\*

Growth (%)

Public sector construction activity is down substantially in most segments, a situation that will likely persist, dragging on public entity risk exposures

Transportation and Power projects lead public sector construction



**Public Construction Activity is Down in Many Segments as State and Local Budgets Remain Under Stress; Improvement Possible in 2014.**

\*seasonally adjusted

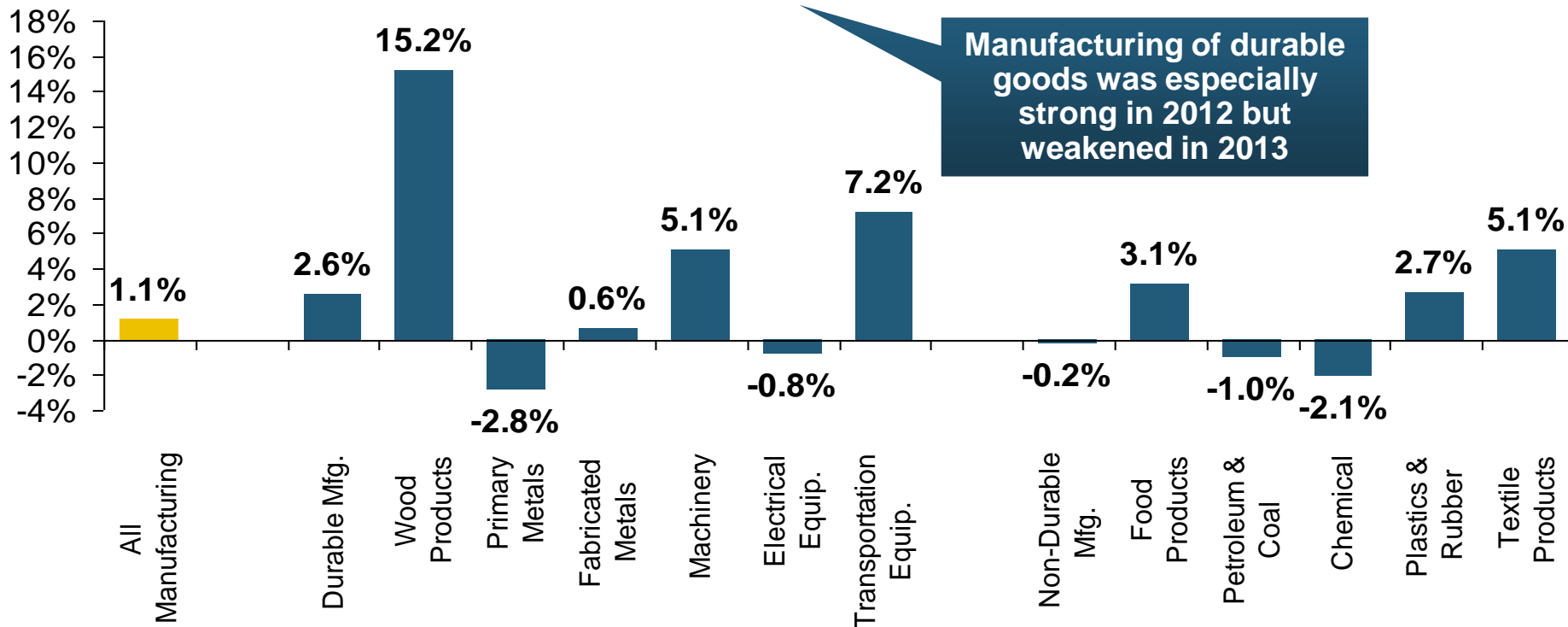
Source: U.S. Census Bureau, <http://www.census.gov/construction/c30/c30index.html> ; Insurance Information Institute.

# Manufacturing Growth for Selected Sectors, 2013 vs. 2013\*

Growth (%)

**Durables: +2.6%**

**Non-Durables: -0.2%**



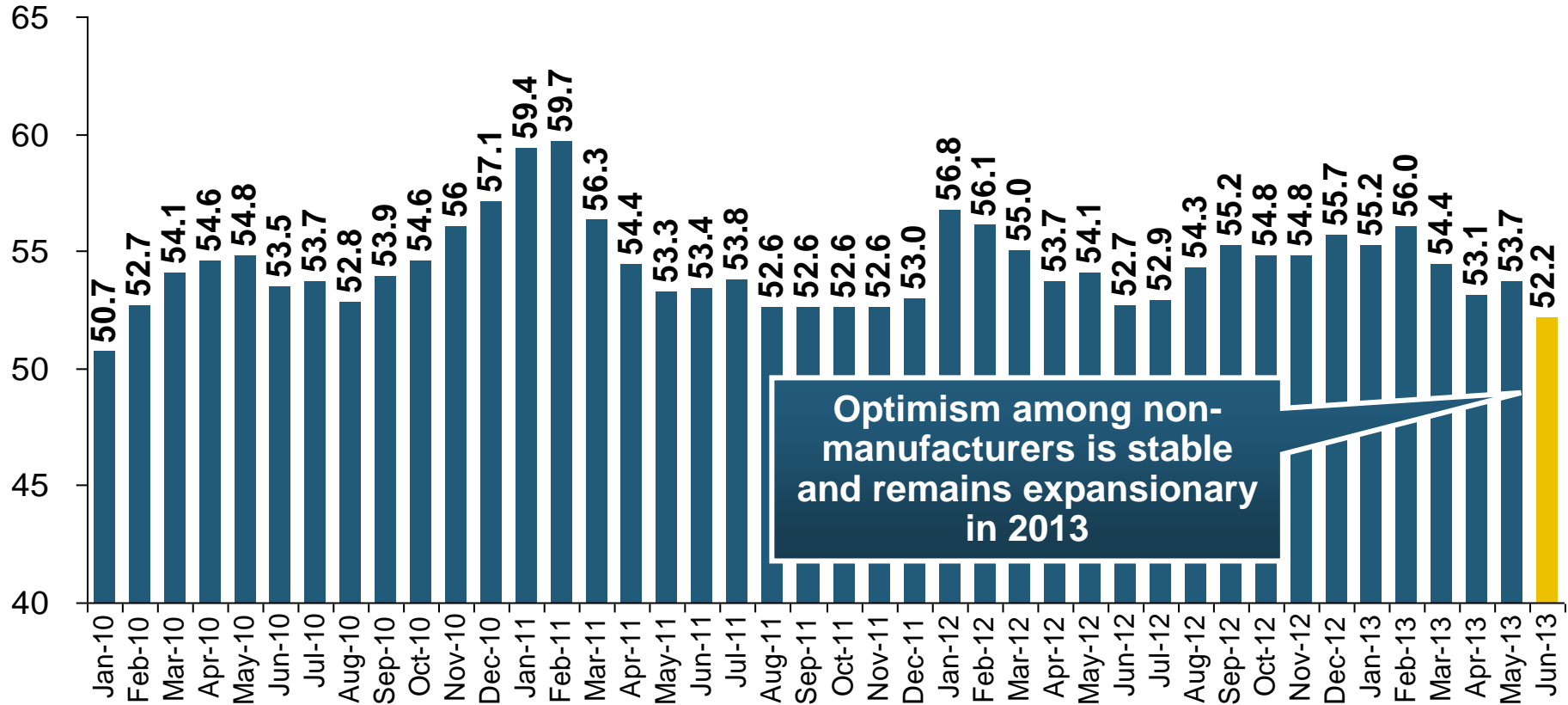
**Manufacturing Is Expanding—Albeit More Slowly—Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages**

\*Seasonally adjusted; Date are YTD comparing data through May 2013 to the same period in 2012.

Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders*, <http://www.census.gov/manufacturing/m3/>

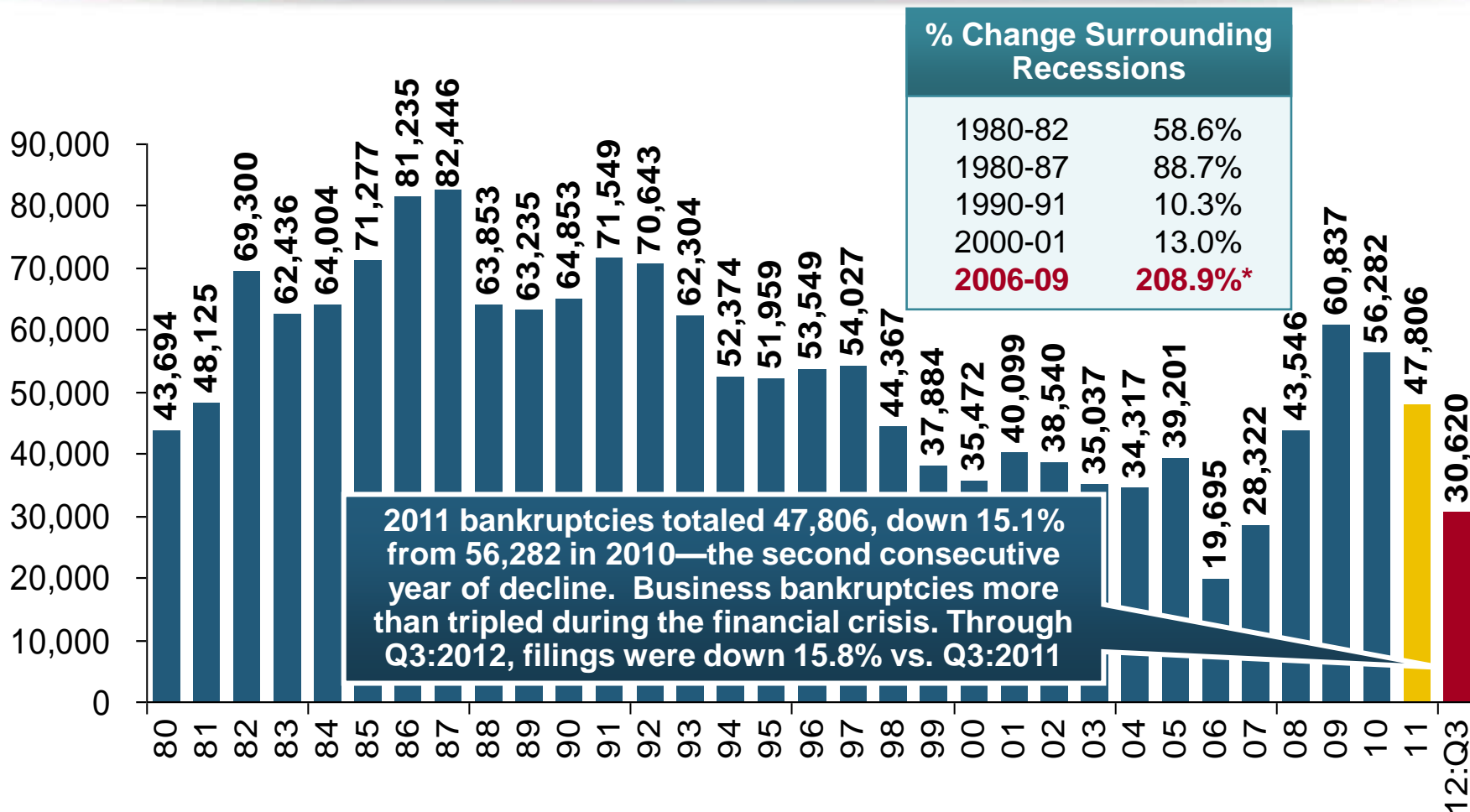
# ISM Non-Manufacturing Index (Values > 50 Indicate Expansion)

January 2010 through June 2013



**Non-manufacturing industries have been expanding and adding jobs. The question is whether this will continue.**

# Business Bankruptcy Filings, 1980-2012:Q3

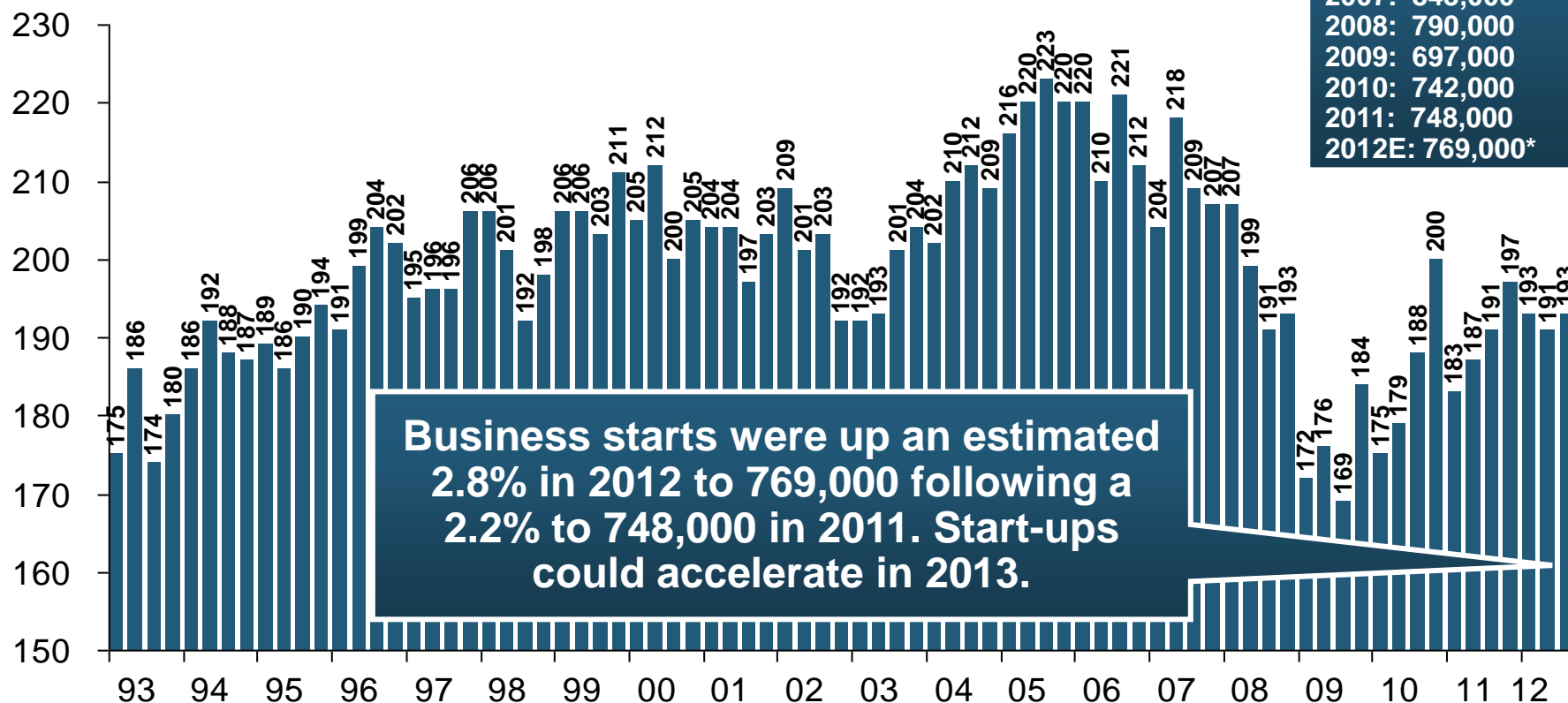


**Significant Exposure Implications for All Commercial Lines as Business Bankruptcies Begin to Decline**

Sources: American Bankruptcy Institute at <http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=61633>; Insurance Information Institute

# Private Sector Business Starts, 1993:Q2 – 2012:Q3\*

(Thousands)



Business Starts	
2006:	872,000
2007:	843,000
2008:	790,000
2009:	697,000
2010:	742,000
2011:	748,000
2012E:	769,000*

Business starts were up an estimated 2.8% in 2012 to 769,000 following a 2.2% to 748,000 in 2011. Start-ups could accelerate in 2013.

**Business Starts Were Down Nearly 20% in the Recession, Holding Back Most Types of Commercial Insurance Exposure, But Are Recovering Slowly**

\* Data through Sep. 30, 2012 are the latest available as of June 21, 2013; Seasonally adjusted.

Source: Bureau of Labor Statistics, <http://www.bls.gov/news.release/cewbd.t08.htm>.

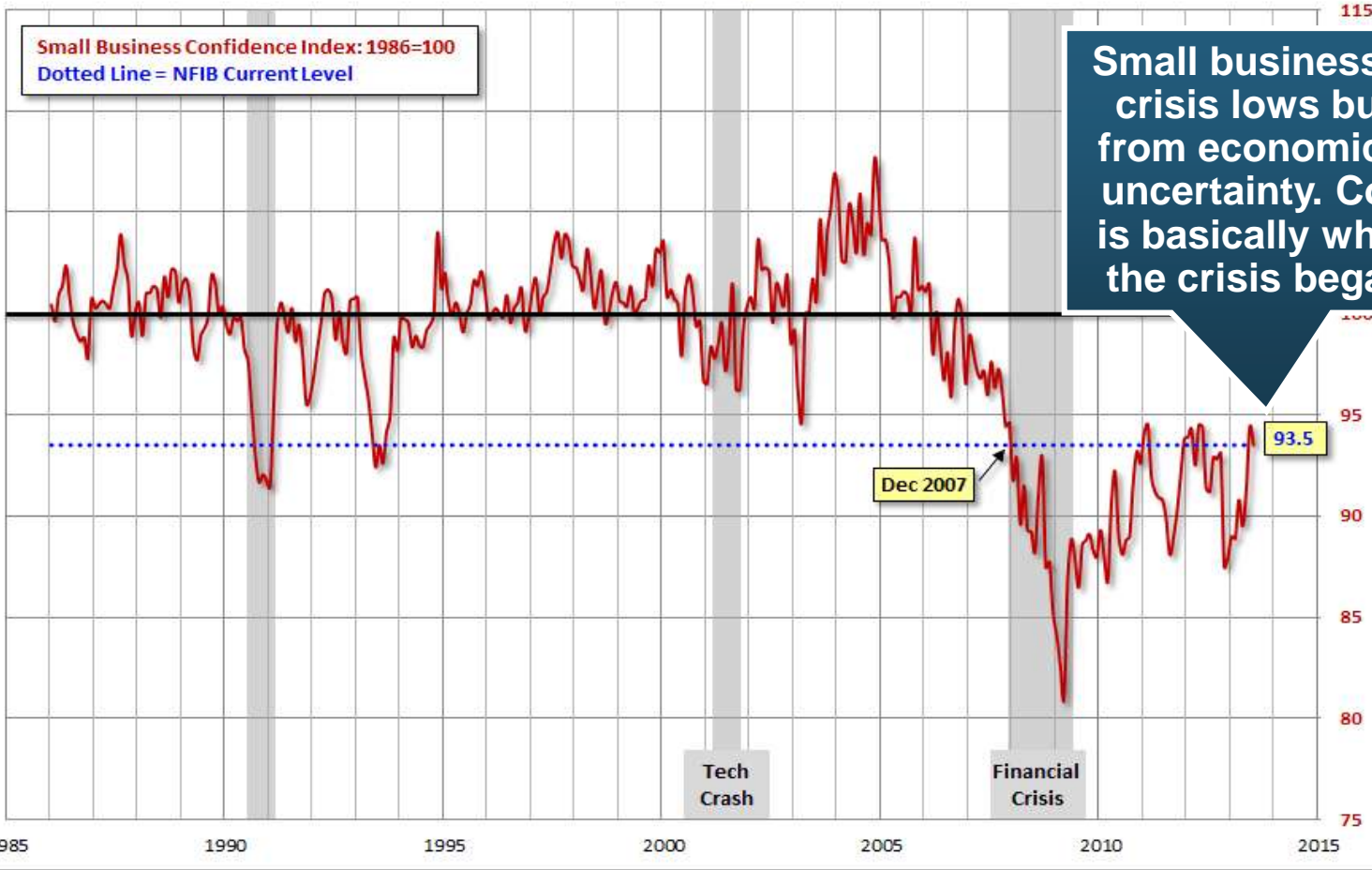
# NFIB Small Business Optimism Index

January 1985 through June 2013

Data through  
June 2013

NFIB Small Business Optimism Index  
with Recessions Highlighted

dshort.com  
July 2013



Small business optimism is off crisis lows but still suffering from economic and regulatory uncertainty. Confidence today is basically where it was when the crisis began in Dec. 2007.

# 12 Industries for the Next 10 Years: Insurance (and Legal) Solutions Needed

Health Care

Health Sciences

Energy (Traditional)

Alternative Energy

Petrochemical

Agriculture

Natural Resources

Technology (incl. Biotechnology)

Light Manufacturing

Inourced Manufacturing

Export-Oriented Industries

Shipping (Rail, Marine, Trucking, Pipelines)



Many industries are poised for growth, though insurers' ability to capitalize on these industries varies widely



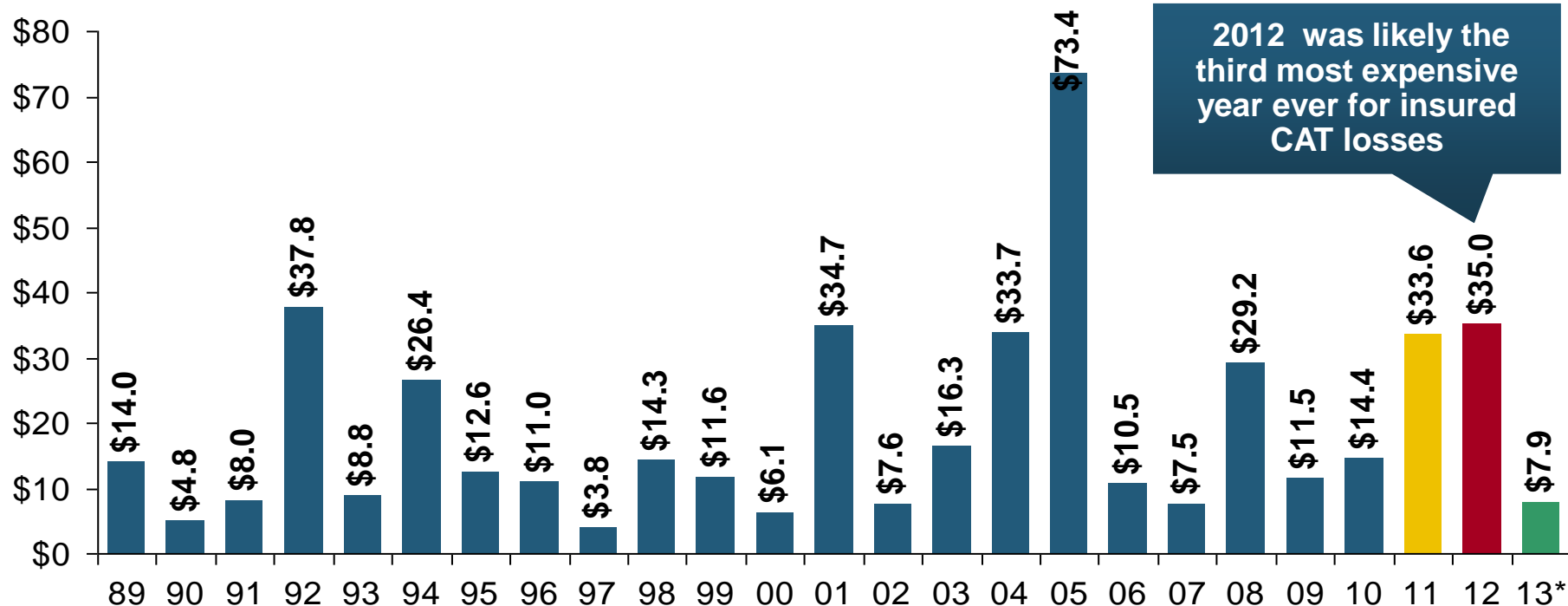
# U.S. Insured Catastrophe Loss Update

**Catastrophe Losses in Recent Years  
Have Been Very High**



# U.S. Insured Catastrophe Losses

(\$ Billions, 2012 Dollars)



2012 was likely the third most expensive year ever for insured CAT losses

**2012 Was the 3<sup>rd</sup> Highest Year on Record for Insured Losses in U.S. History on an Inflation-Adj. Basis. 2011 Losses Were the 6<sup>th</sup> Highest. YTD 2013 Running Below Average But Q3 Is Typically the Costliest Quarter.**

Record tornado losses caused 2011 CAT losses to surge

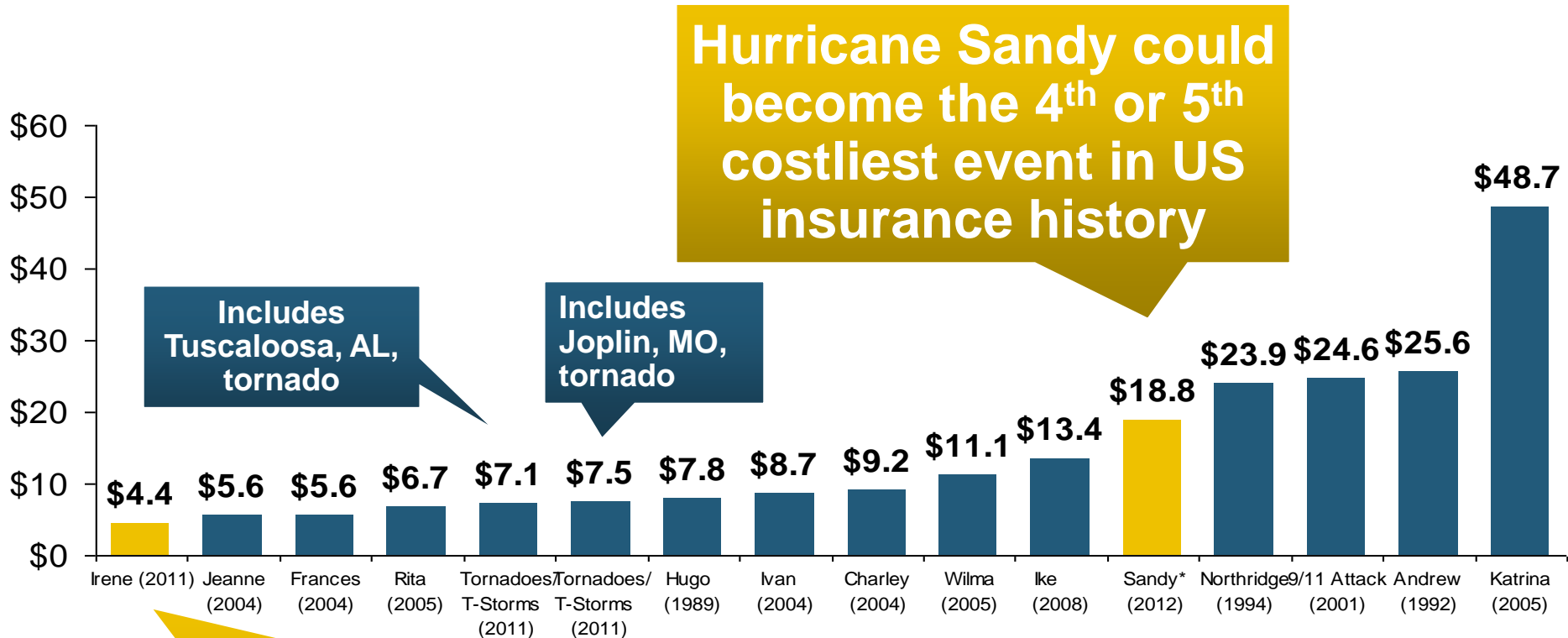
\*Through 6/2/13. Includes \$2.6B for 2013:Q1 (PCS) and \$5.32B for the period 4/1 – 6/2/13 (Aon Benfield Monthly Global Catastrophe Recap).

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.

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

(Insured Losses, 2012 Dollars, \$ Billions)



Hurricane Sandy could become the 4<sup>th</sup> or 5<sup>th</sup> costliest event in US insurance history

Includes Tuscaloosa, AL, tornado

Includes Joplin, MO, tornado

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

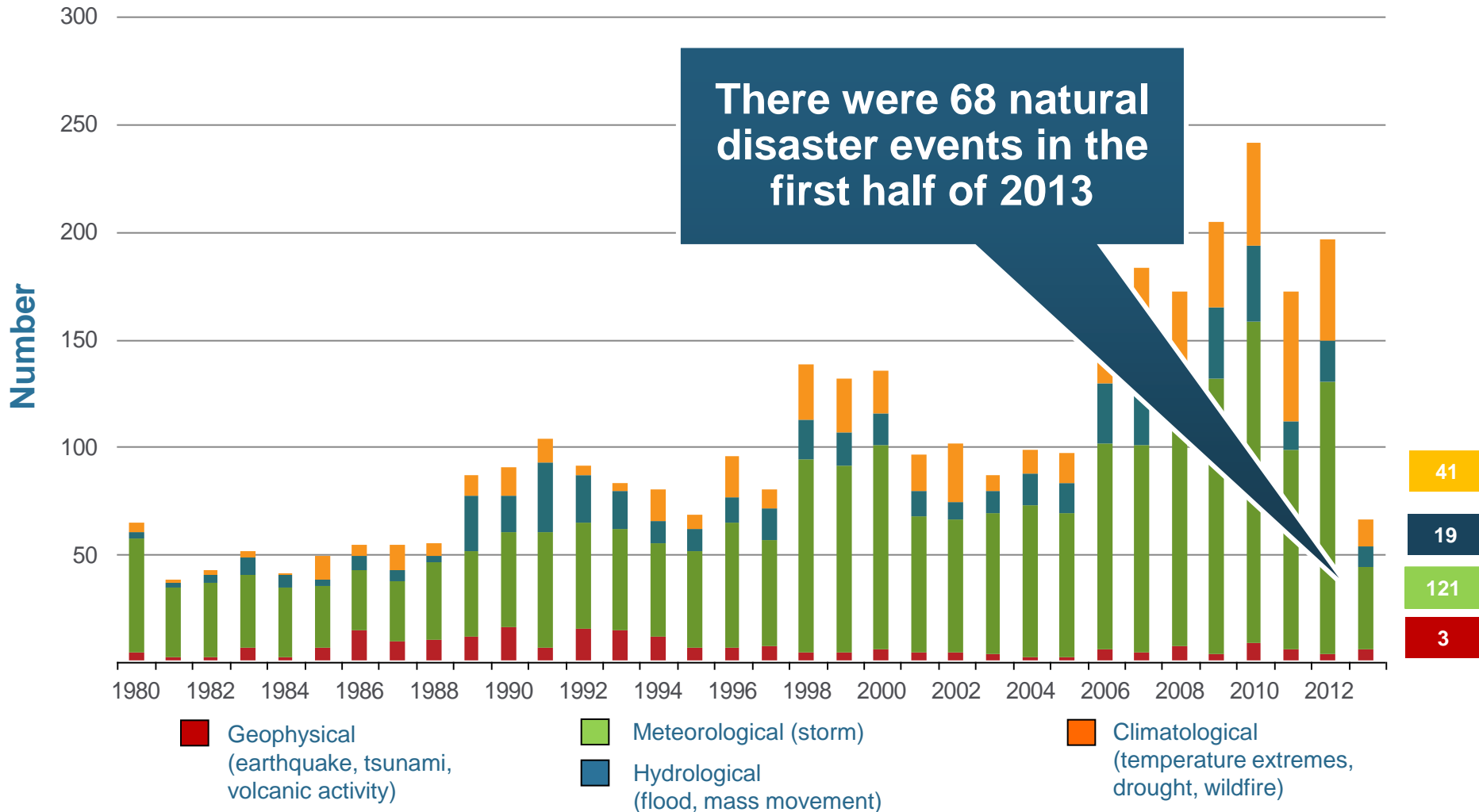
12 of the 16 Most Expensive Events in US History Have Occurred Over the Past Decade

\*PCS estimate as of 4/12/13.

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

# Natural Disasters in the United States, 1980 – June 2013\*

Number of Events (Annual Totals 1980 – June 2013\*)



\*Through June 30, 2013.  
Source: MR NatCatSERVICE

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

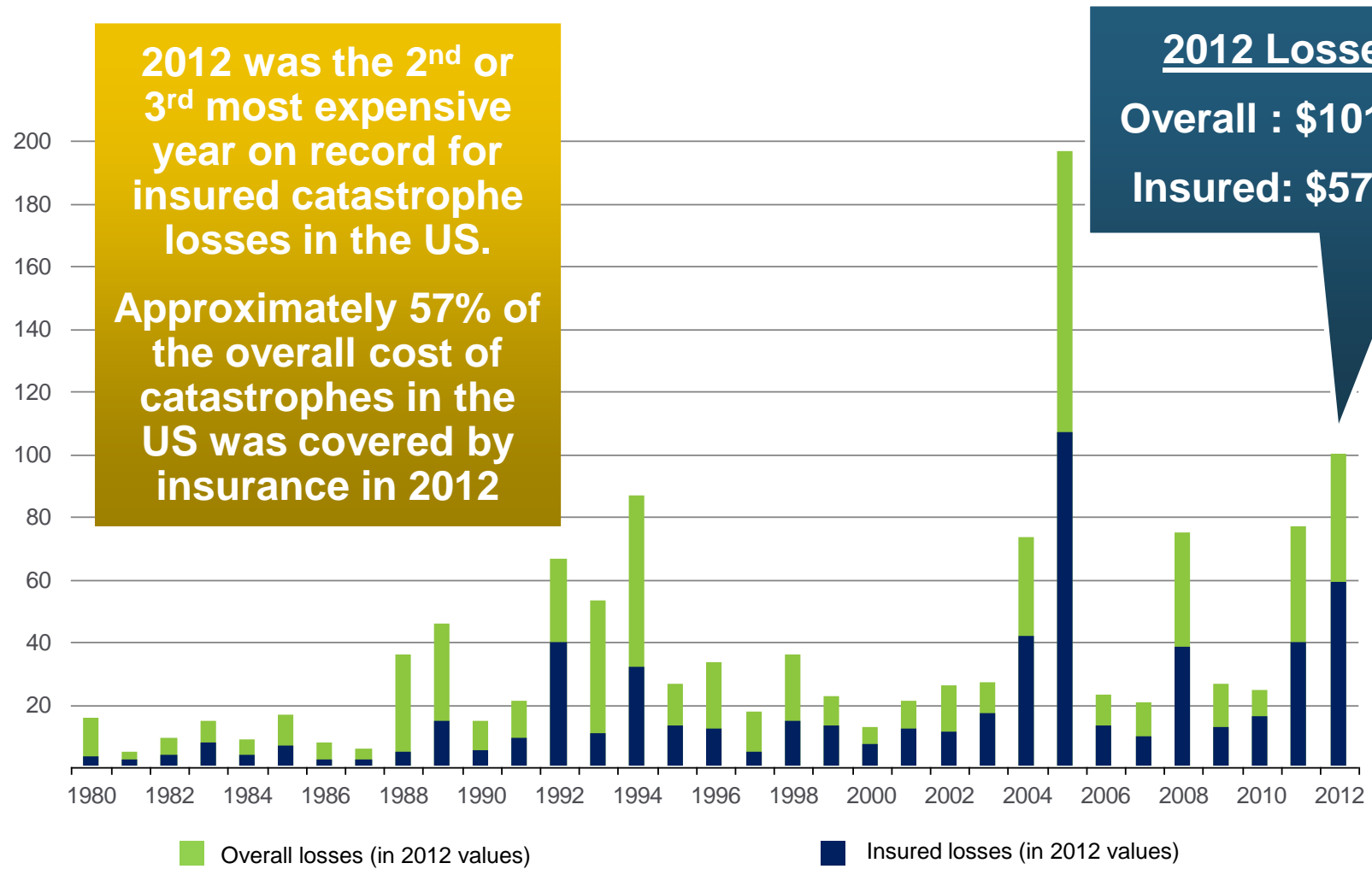
## (Overall and Insured Losses)

(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**

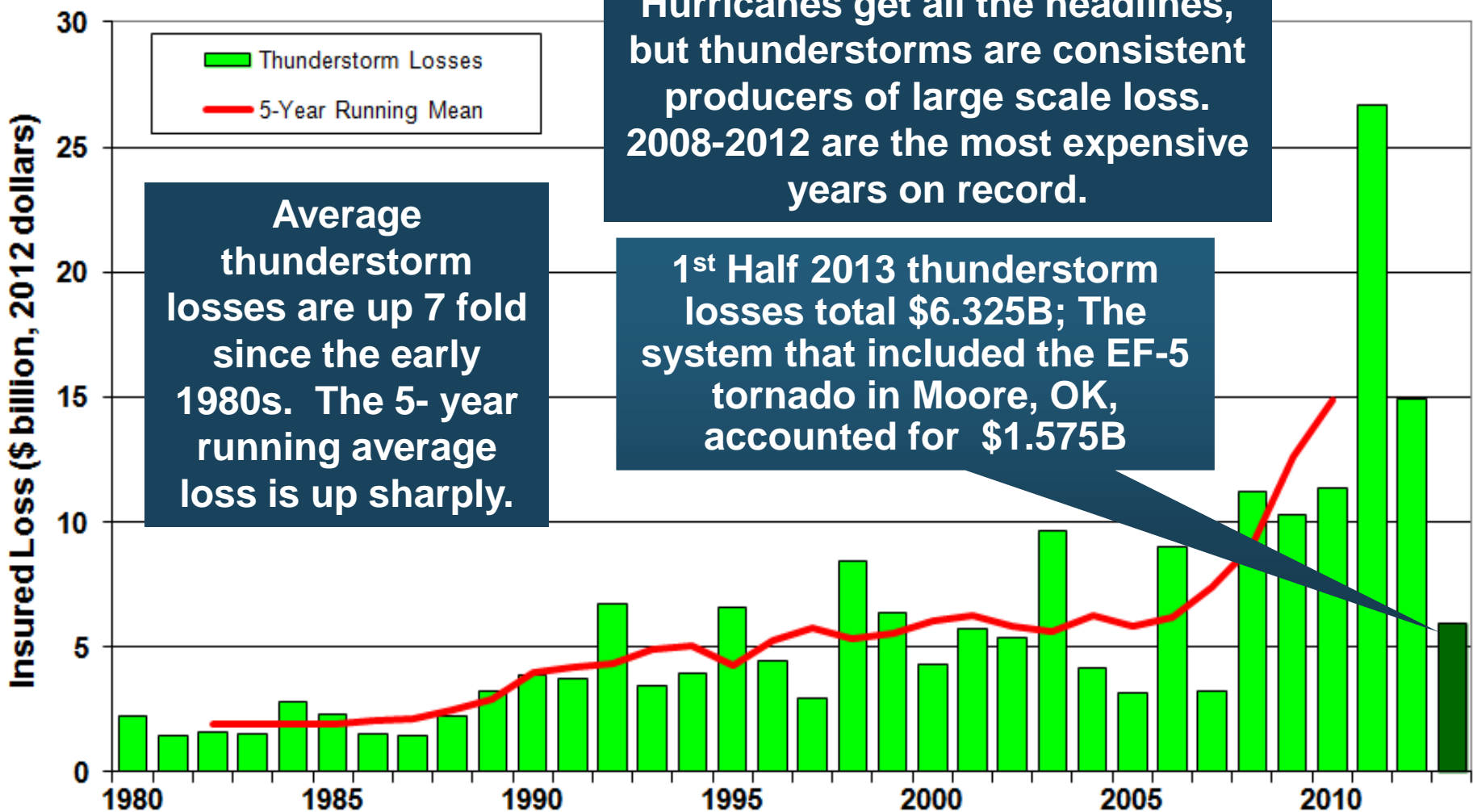
**2012 Losses**  
**Overall : \$101.1B**  
**Insured: \$57.9B**



# Natural Disaster Losses in the United States: First Half 2013

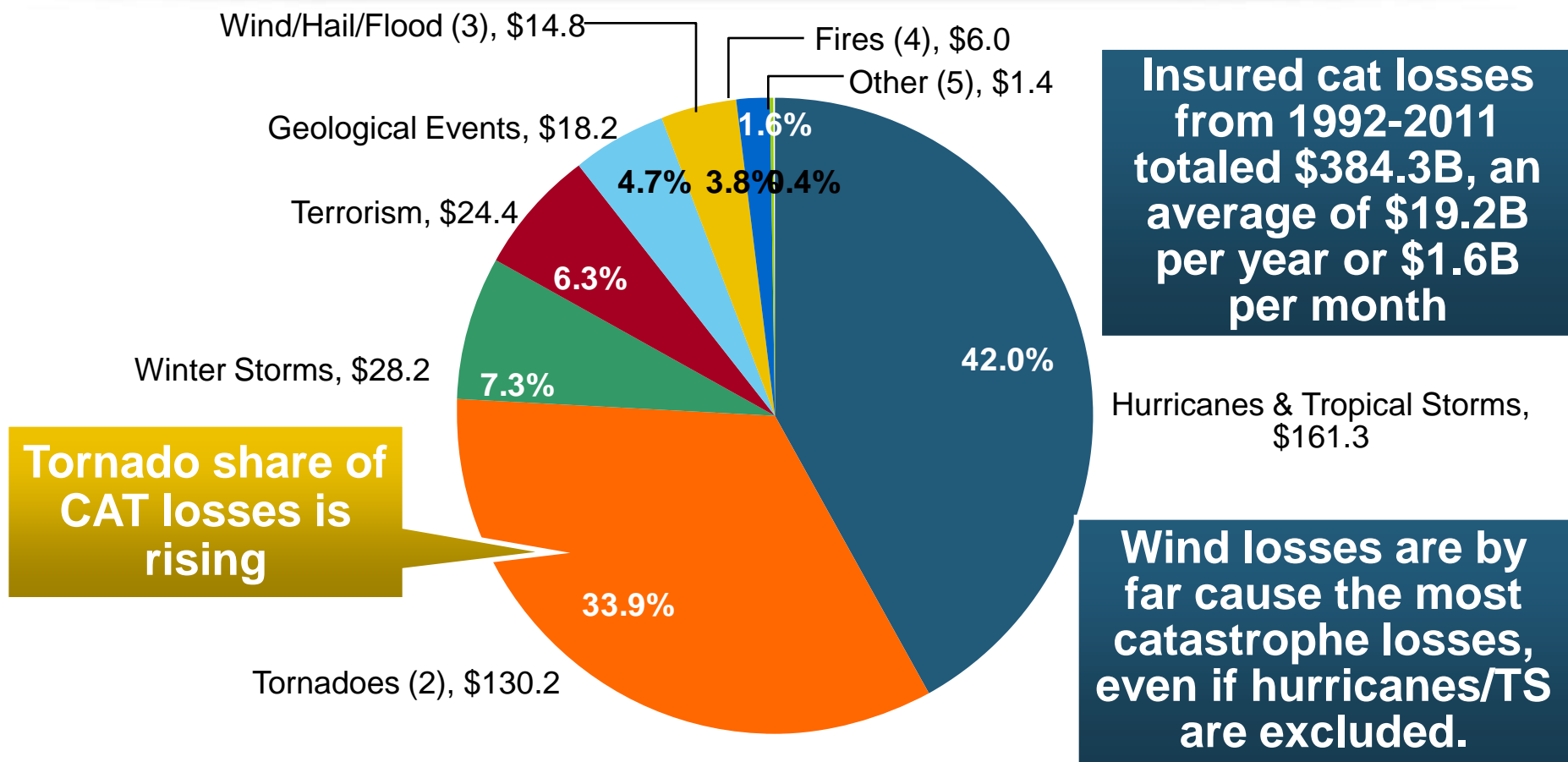
As of July 1, 2013	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
<b>Severe Thunderstorm</b>	29	66	10,180	6,325
<b>Winter Storm</b>	13	17	2,434	1,255
<b>Flood</b>	10	9	500	Minor
<b>Earthquake &amp; Geophysical</b>	5	0	Minor	Minor
<b>Tropical Cyclone</b>	1	1	Minor	Minor
<b>Wildfire, Heat, &amp; Drought</b>	11	23	700	365
<b>Totals</b>	<b>68</b>	<b>116</b>	<b>13,814</b>	<b>7,945</b>

# U.S. Thunderstorm Loss Trends, 1980 – June 30, 2013



Source: Property Claims Service, MR NatCatSERVICE

# Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1992–2011<sup>1</sup>



**Tornado share of CAT losses is rising**

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

**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.

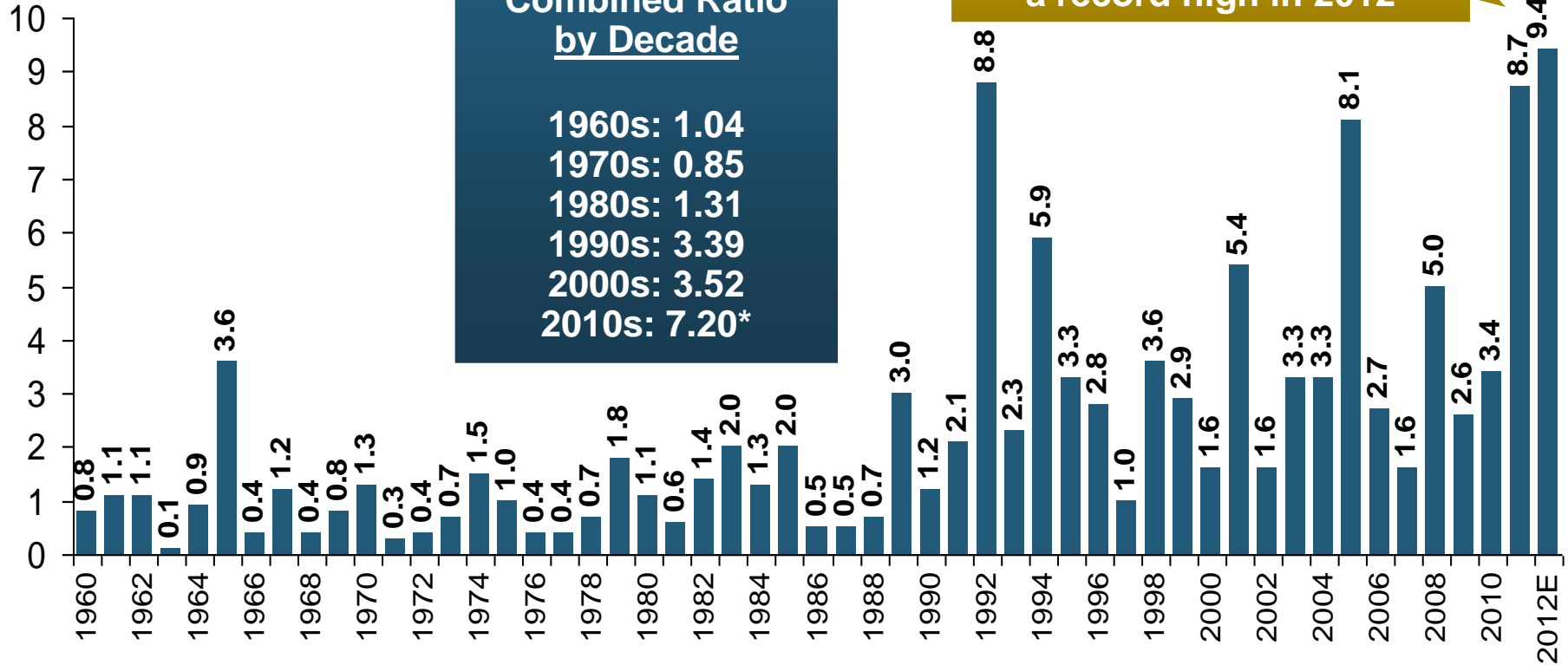
# Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2012\*

## 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.

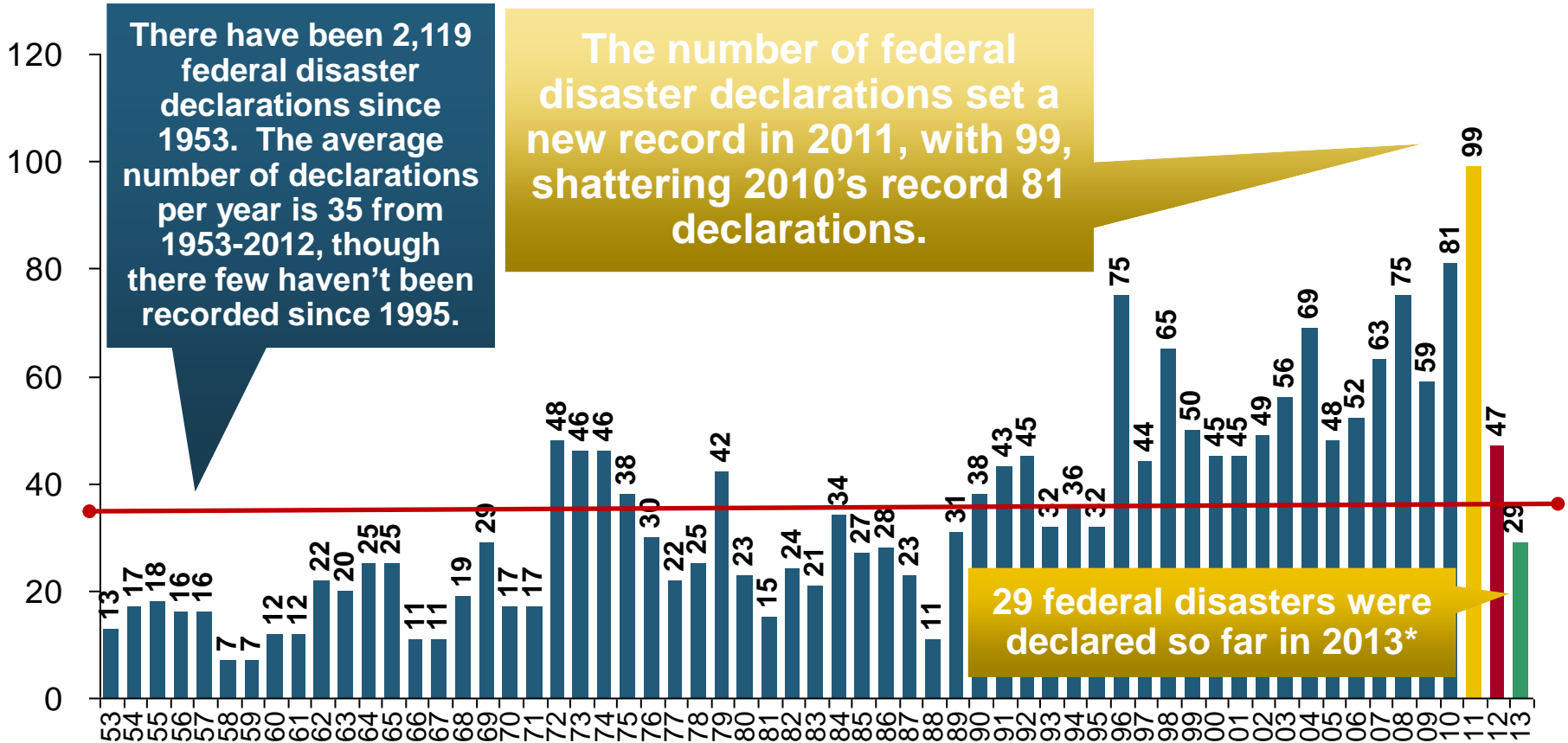




# Federal Disaster Declarations Patterns: 1953-2013

**Disaster Declarations Set New  
Records in Recent Years**

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

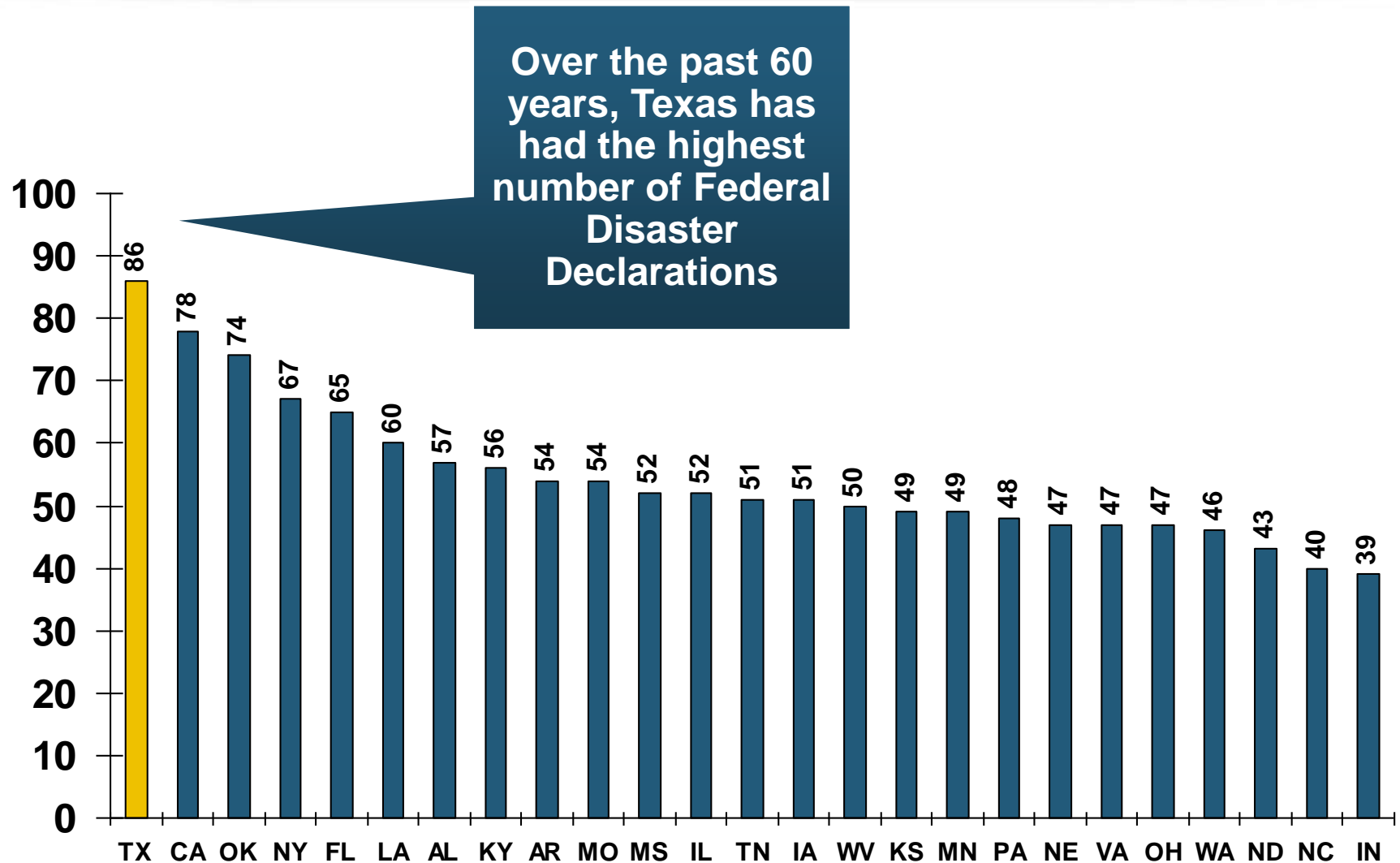


**The Number of Federal Disaster Declarations Is Rising and Set New Records in 2010 and 2011. Hurricane Sandy Produced 13 Declarations in 2012/13.**

\*Through July 19, 2013.

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

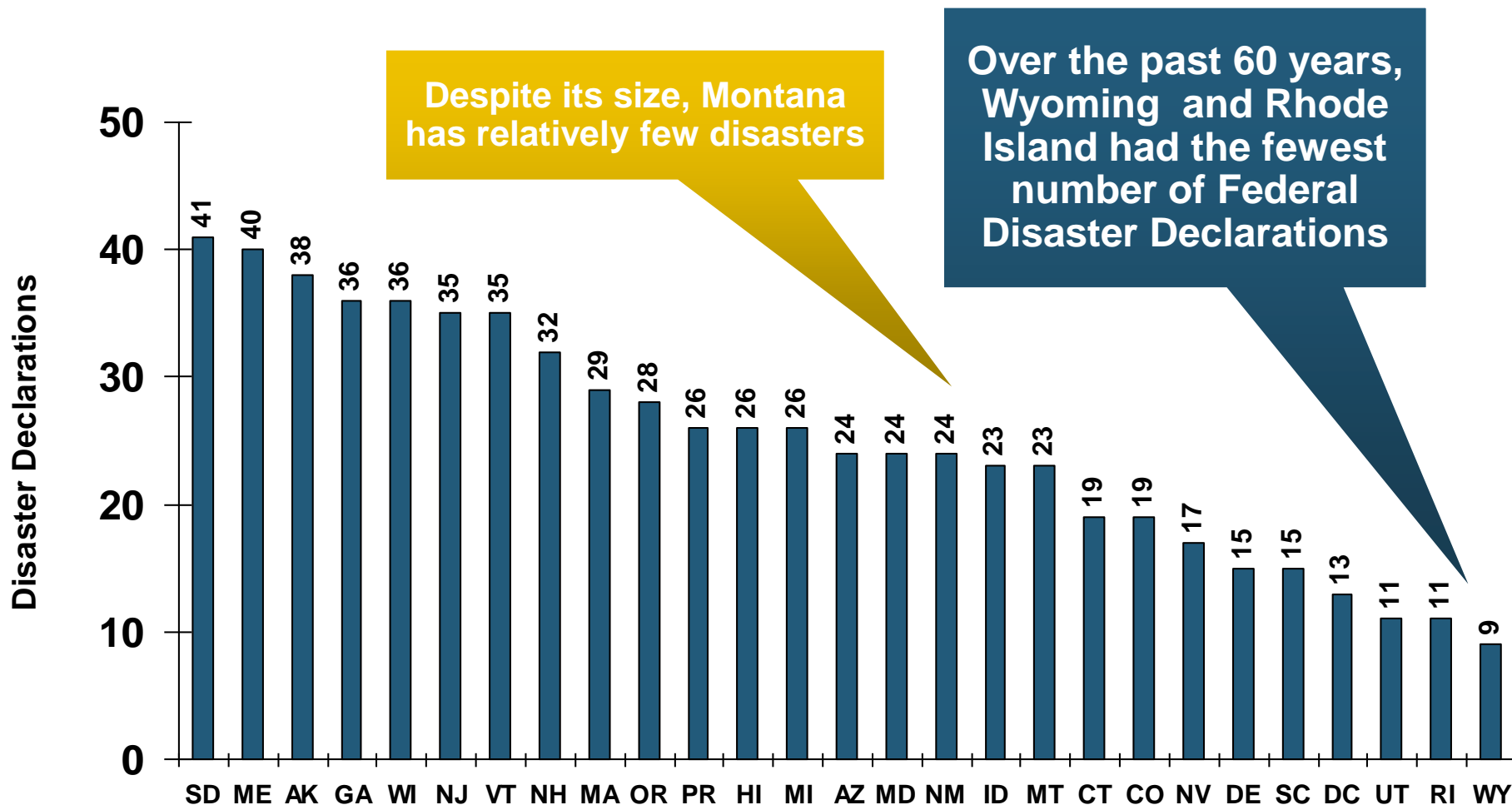
# Federal Disasters Declarations by State, 1953 – 2013: Highest 25 States\*



\*Through July 19, 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.

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



\*Through July 19, 2013. Includes Puerto Rico and the District of Columbia.

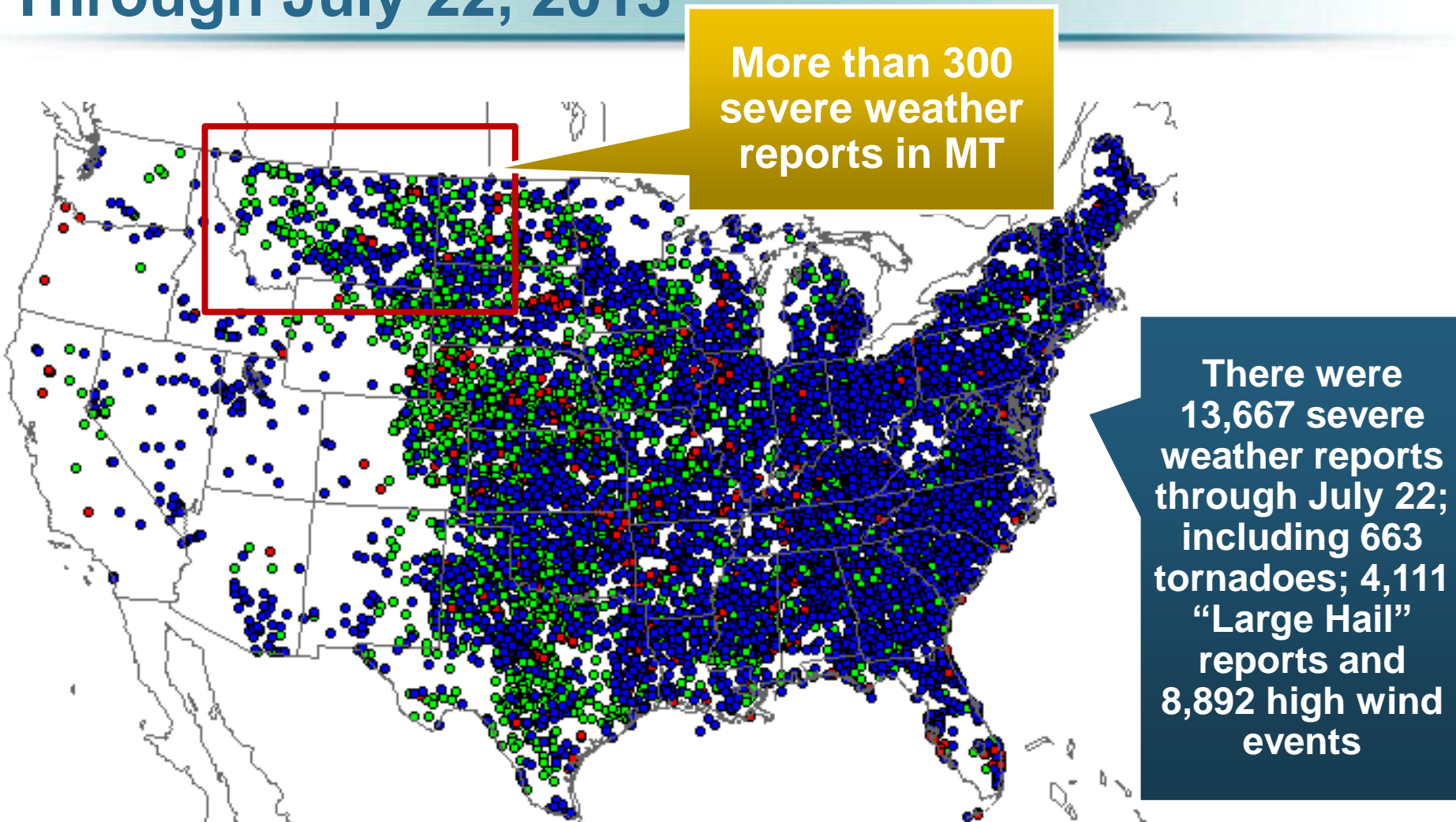
Source: FEMA: [http://www.fema.gov/news/disaster\\_totals\\_annual.fema](http://www.fema.gov/news/disaster_totals_annual.fema); Insurance Information Institute.



## SEVERE WEATHER REPORT UPDATE: 2013

*Damage from Tornadoes, Large Hail  
and High Winds Keep Insurers Busy*

# Severe Weather Reports: Through July 22, 2013



PRELIMINARY SEVERE WEATHER  
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Severe Weather Reports  
January 01, 2013 - July 22, 2013

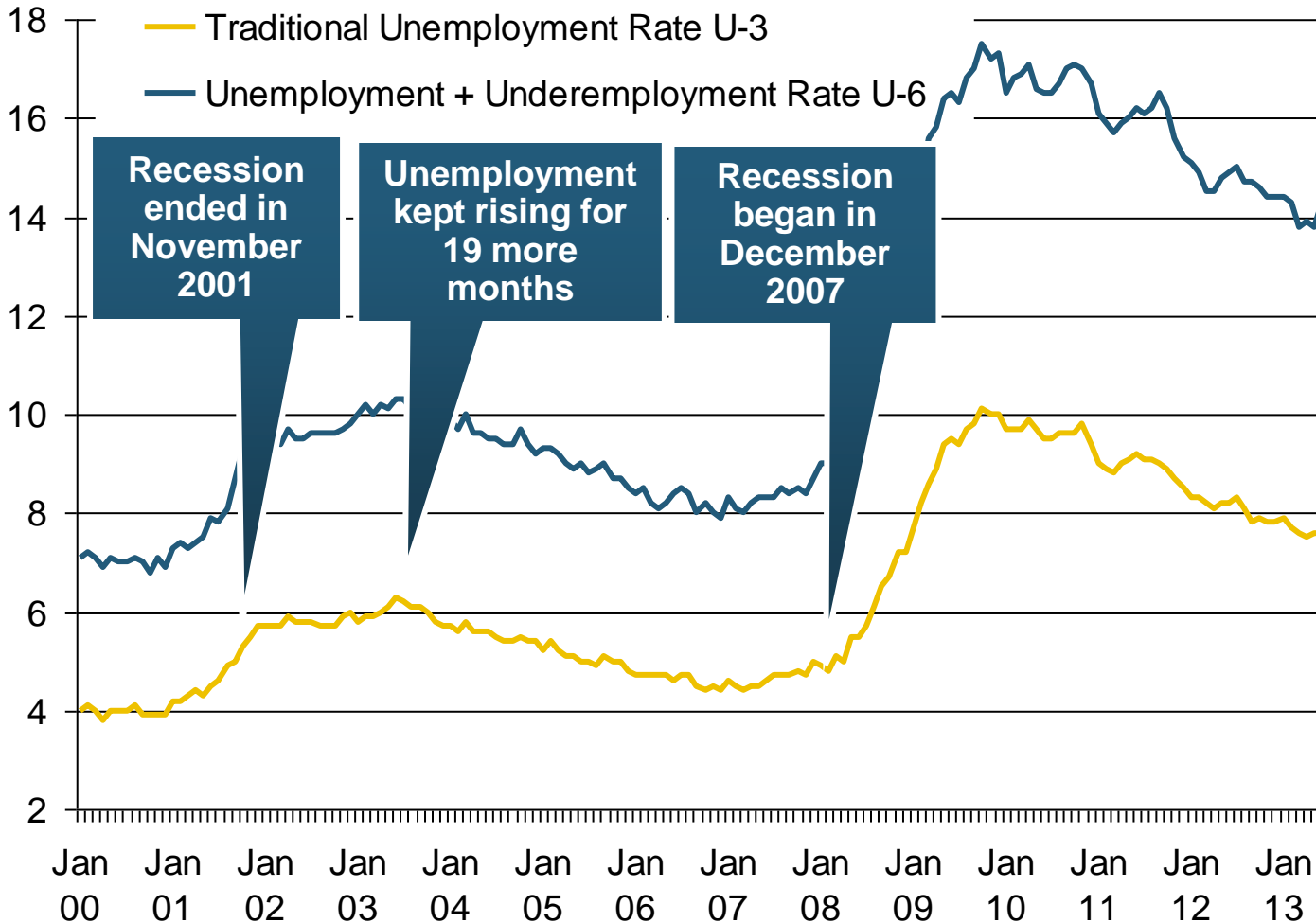
Updated: Monday July 22, 2013 07:50 CT

# Labor Market Trends

**Massive Job Losses Sapped the Economy and Commercial/Personal Lines Exposure, But Trend is Improving**

# Unemployment and Underemployment Rates: Stubbornly High in 2012, But Falling

January 2000 through June 2013, Seasonally Adjusted (%)



**U-6 went from 8.0% in March 2007 to 17.5% in October 2009; Stood at 14.3% in June 2013**

**Unemployment stood at 7.6% in June 2013—nearly its lowest level in 4 years.**

**Unemployment peaked at 10.1% in October 2009, highest monthly rate since 1983.**

**Peak rate in the last 30 years: 10.8% in November - December 1982**

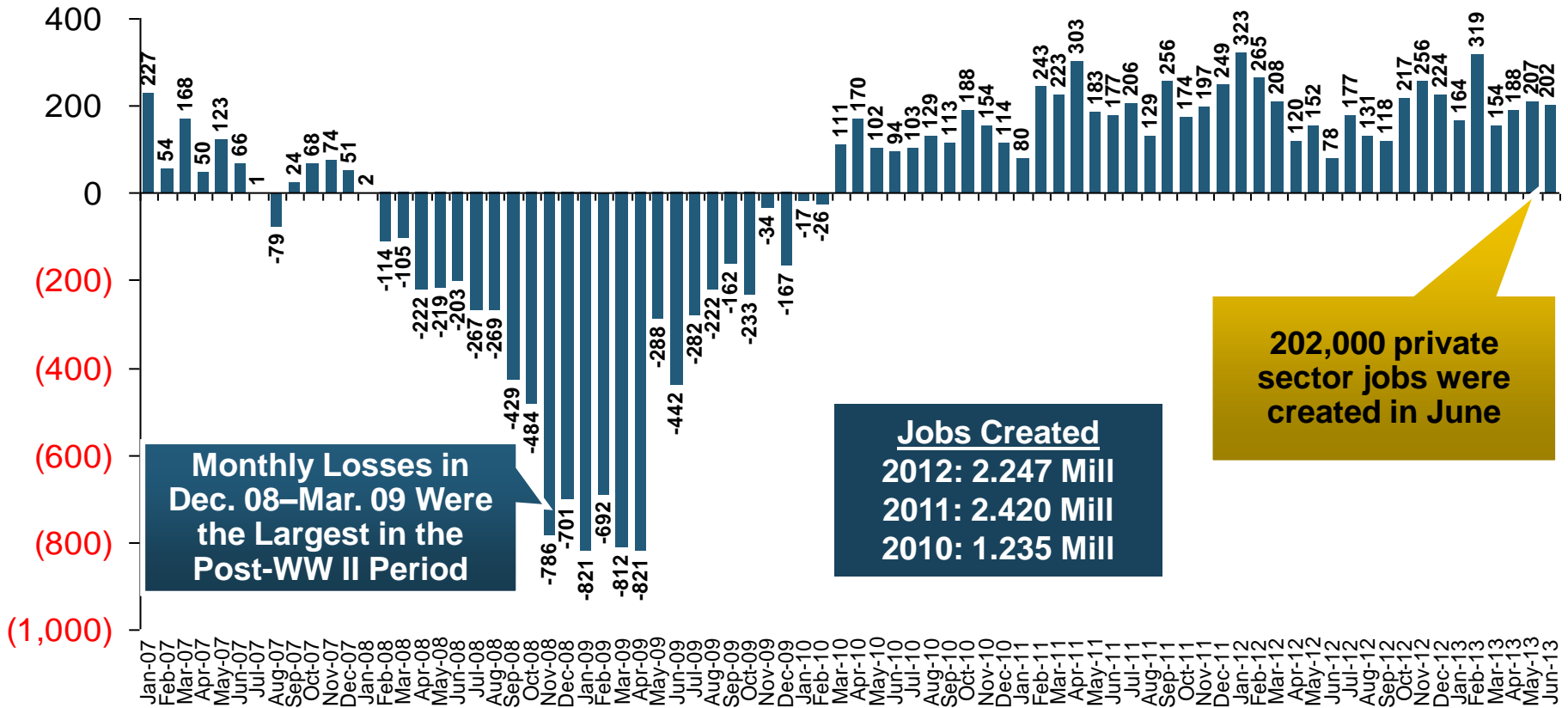
**Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is now clearly improving**

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



# Monthly Change in Private Employment

January 2007 through June 2013 (Thousands)



Monthly Losses in Dec. 08–Mar. 09 Were the Largest in the Post-WW II Period

**Jobs Created**  
 2012: 2.247 Mill  
 2011: 2.420 Mill  
 2010: 1.235 Mill

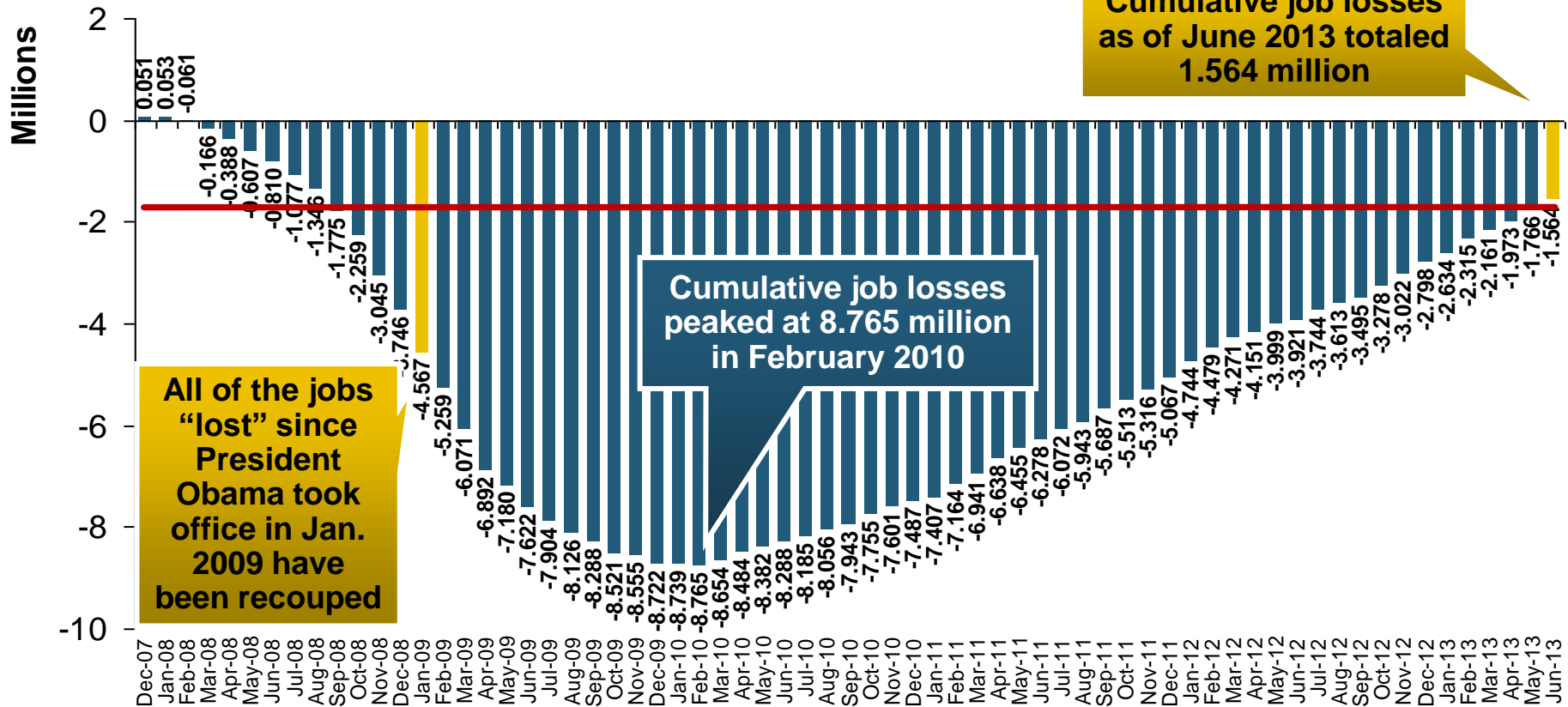
202,000 private sector jobs were created in June

Private Employers Added 7.16 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 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

# Cumulative Change in Private Employment: Dec. 2007—May 2013

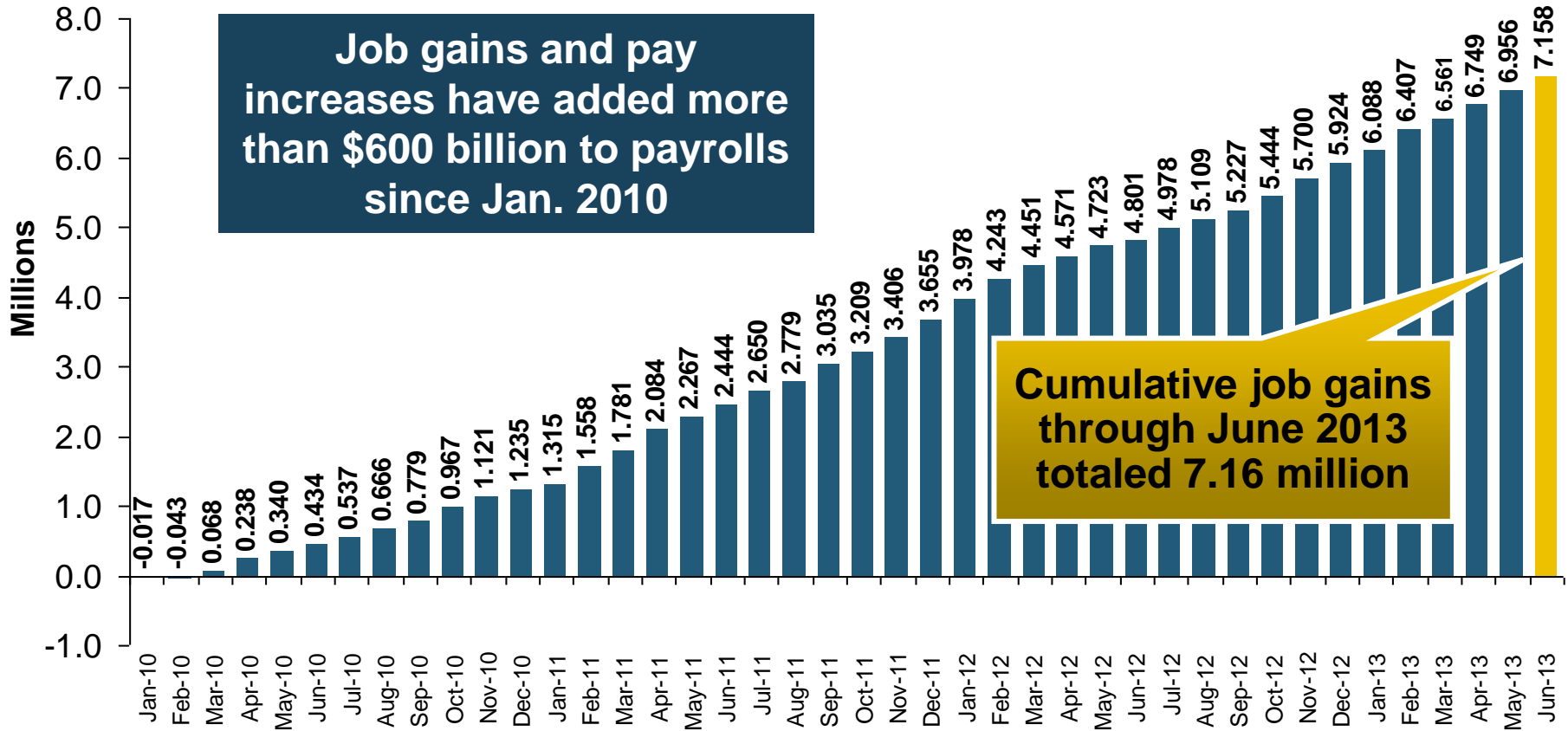
December 2007 through May 2013 (Millions)



**Private Employers Added 7.16 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)**

# Cumulative Change in Private Sector Employment: Jan. 2010—June 2013

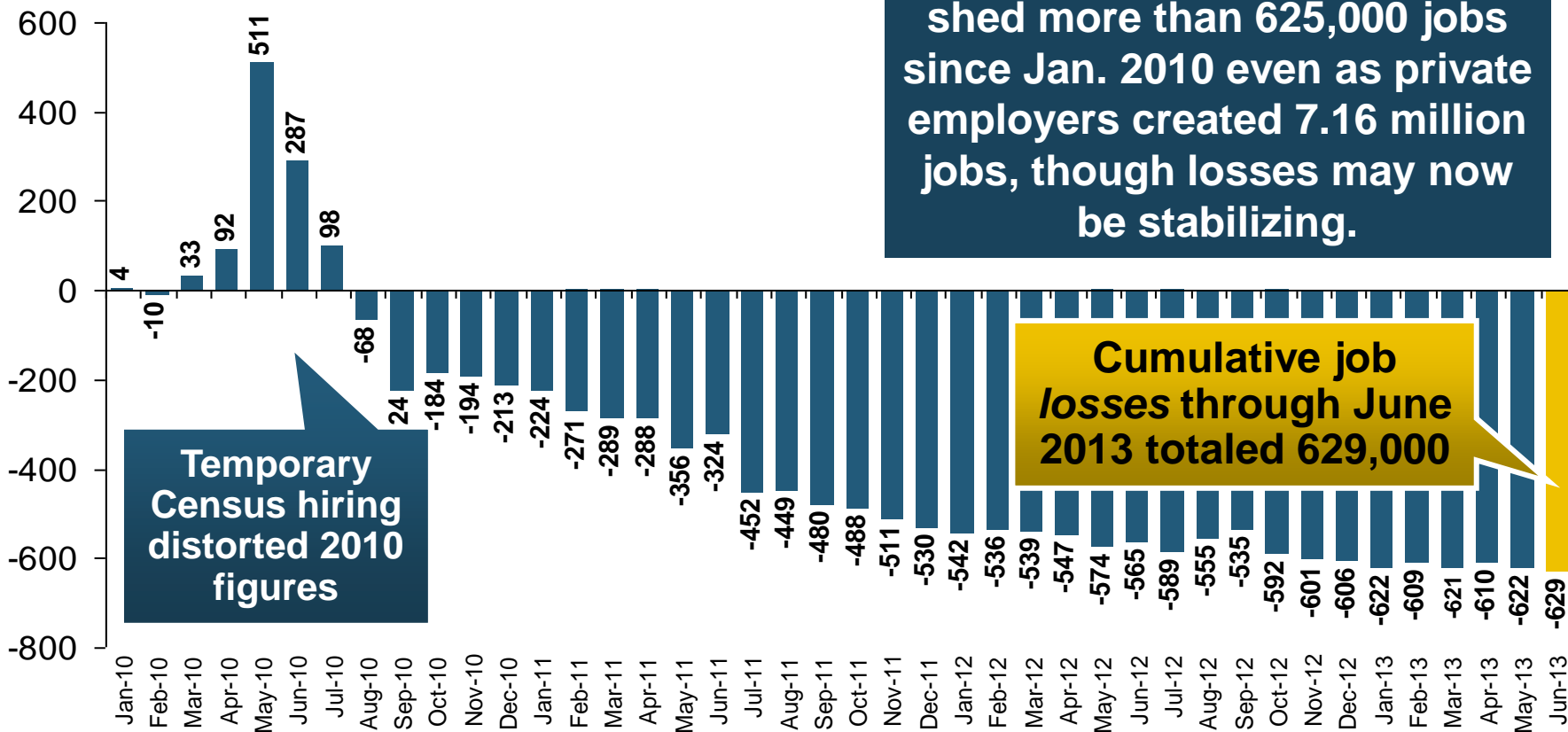
January 2010 through June 2013\* (Millions)



**Private Employers Added 7.16 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)**

# Cumulative Change in Government Employment: Jan. 2010—June 2013

January 2010 through June 2013\* (Millions)



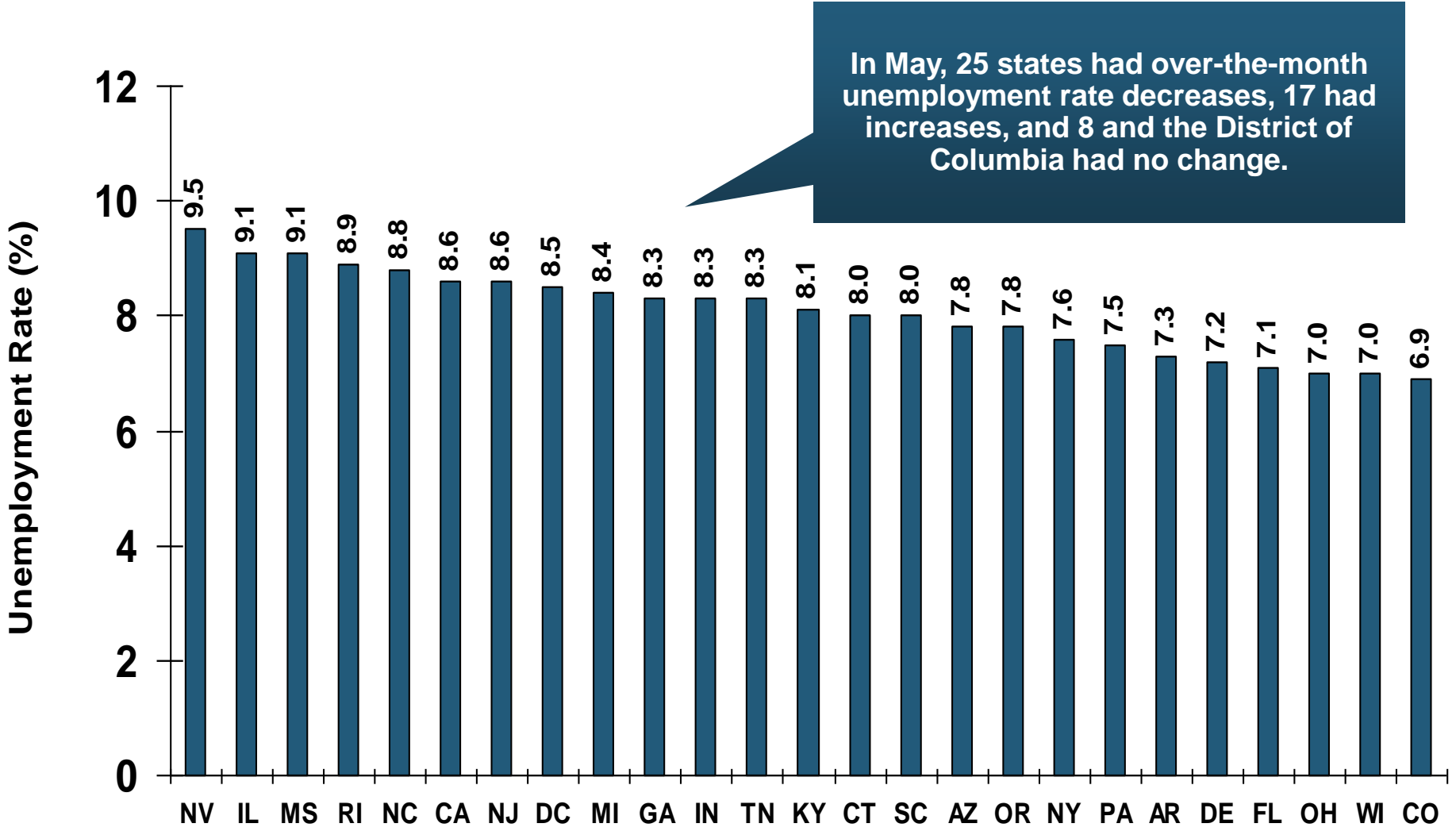
Government at all levels has shed more than 625,000 jobs since Jan. 2010 even as private employers created 7.16 million jobs, though losses may now be stabilizing.

Temporary Census hiring distorted 2010 figures

Cumulative job losses through June 2013 totaled 629,000

**Governments at All Levels are Under Severe Fiscal Strain As Tax Receipts Plunged and Pension Obligations Soared During the Financial Crisis: Sequestration Will Add to this Toll**

# Unemployment Rates by State, May 2013: Highest 25 States\*

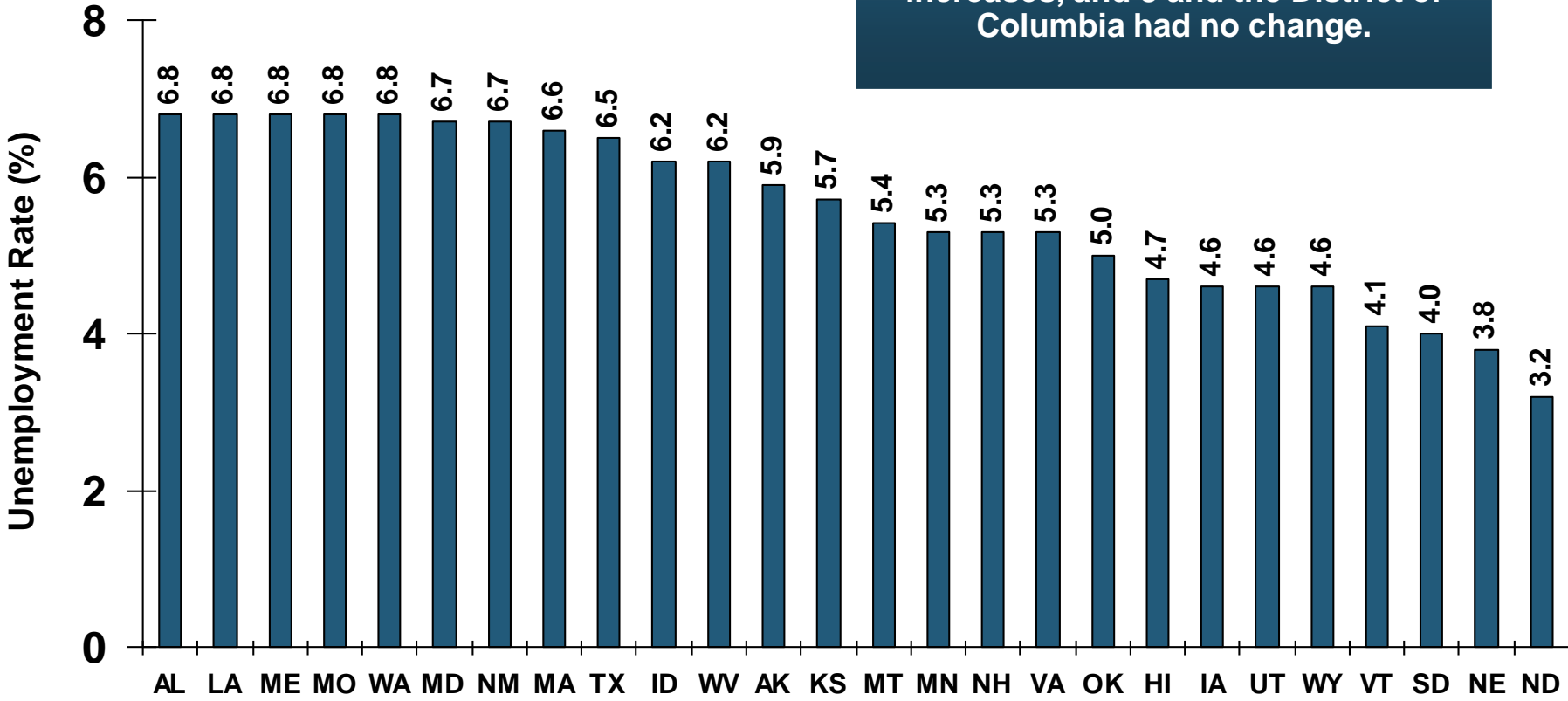


\*Provisional figures for May 2013, seasonally adjusted.

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

# Unemployment Rates by State, May 2013: Lowest 25 States\*

In May, 25 states had over-the-month unemployment rate decreases, 17 had increases, and 8 and the District of Columbia had no change.

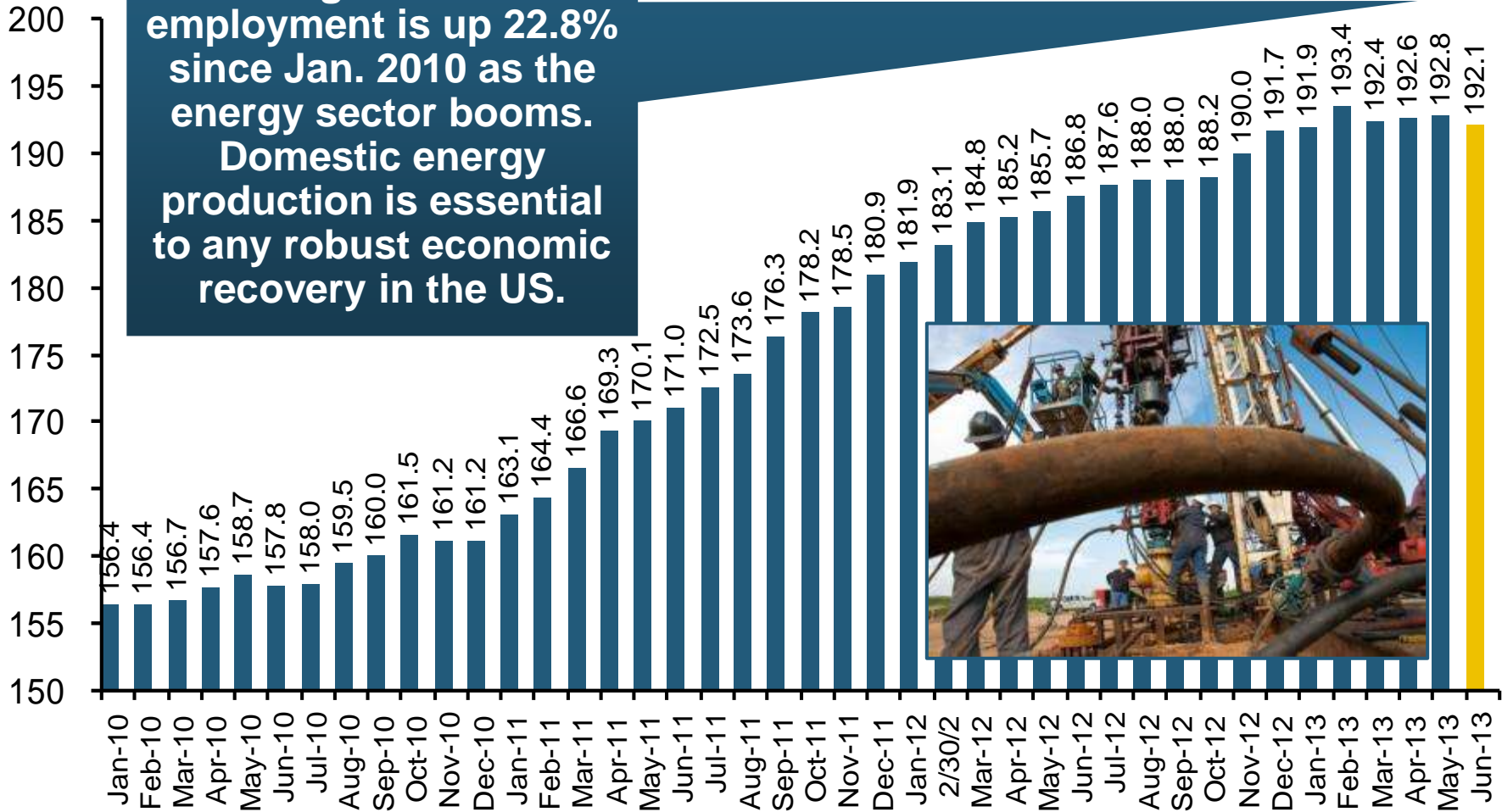


\*Provisional figures for May 2013, seasonally adjusted.  
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

# Oil & Gas Extraction Employment, Jan. 2010—June 2013\*

(Thousands)

Oil and gas extraction employment is up 22.8% since Jan. 2010 as the energy sector booms. Domestic energy production is essential to any robust economic recovery in the US.



\*Seasonally adjusted

# **The BIG Question: Where Is the Market Heading?**

**Catastrophes and Other Factors Are  
Pressuring Insurance Markets**

***New Factor: Record Low Interest  
Rates Are Contributing to  
Underwriting and Pricing Pressures***



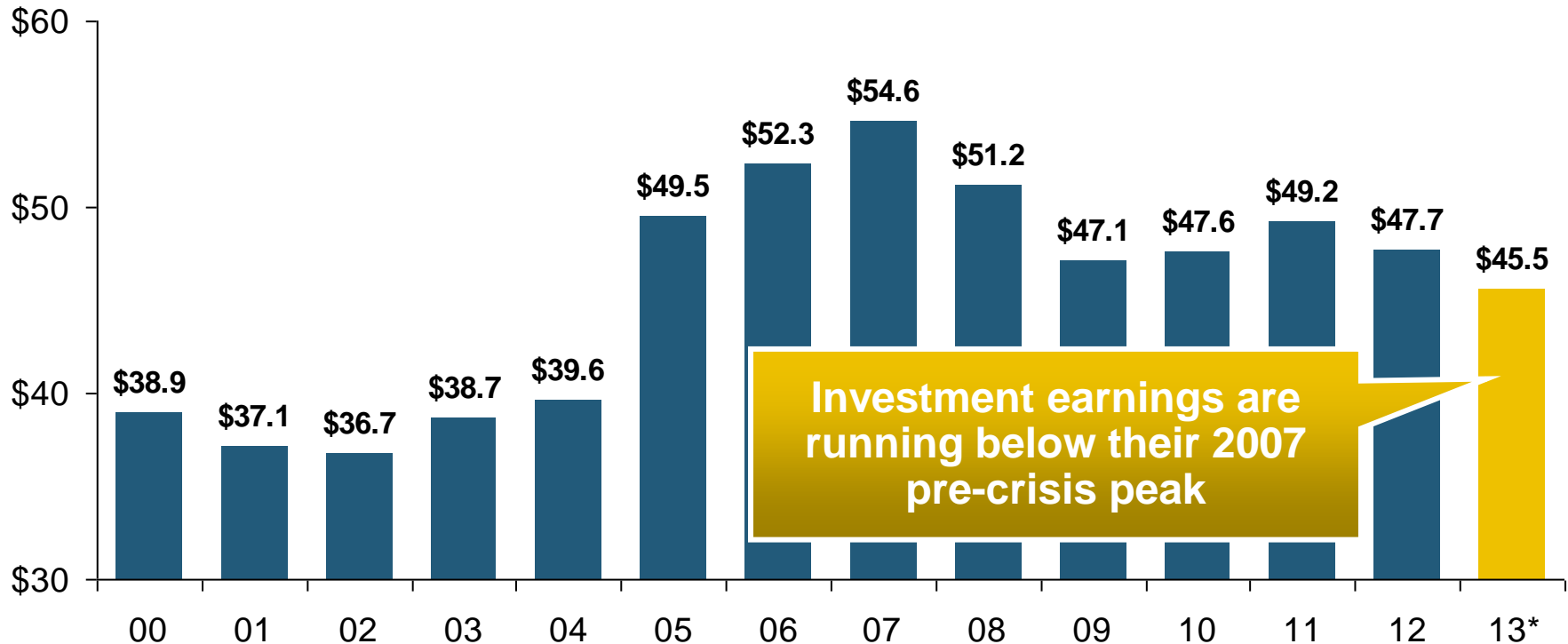
# **INVESTMENTS: THE NEW REALITY**

**Investment Performance is a Key  
Driver of Profitability**

***Depressed Yields Will Necessarily  
Influence Underwriting & Pricing***

# Property/Casualty Insurance Industry Investment Income: 2000–2013\*1

(\$ Billions)



**Investment Income Fell in 2012 and is Falling in 2013 Due to Persistently Low Interest Rates, Putting Additional Pressure on (Re) Insurance Pricing**

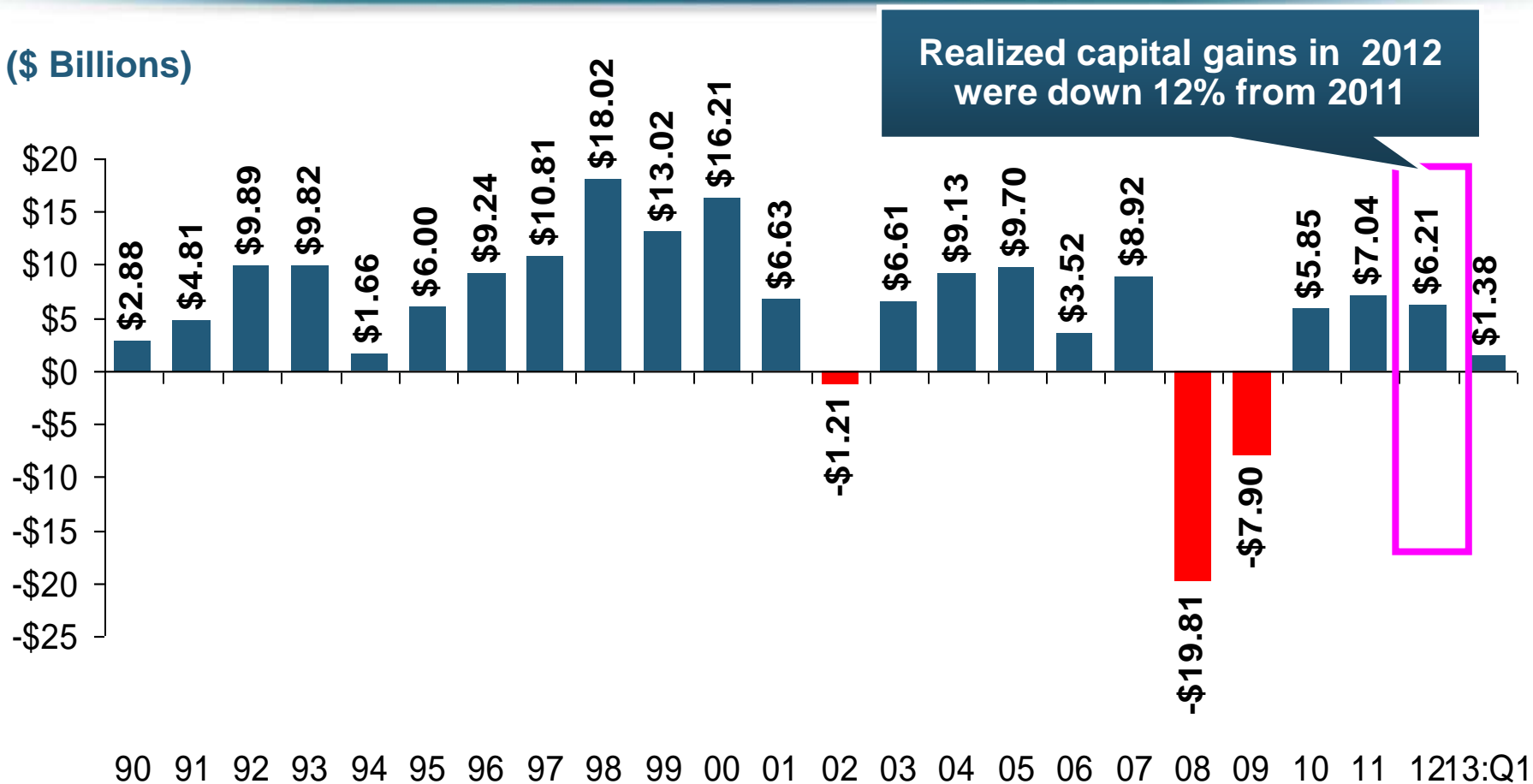
<sup>1</sup> Investment gains consist primarily of interest and stock dividends..

\*Estimate based on annualized actual Q1:2013 investment income of \$11.385B.

Sources: ISO; Insurance Information Institute.

# P/C Insurer Net Realized Capital Gains/Losses, 1990-2013:Q1

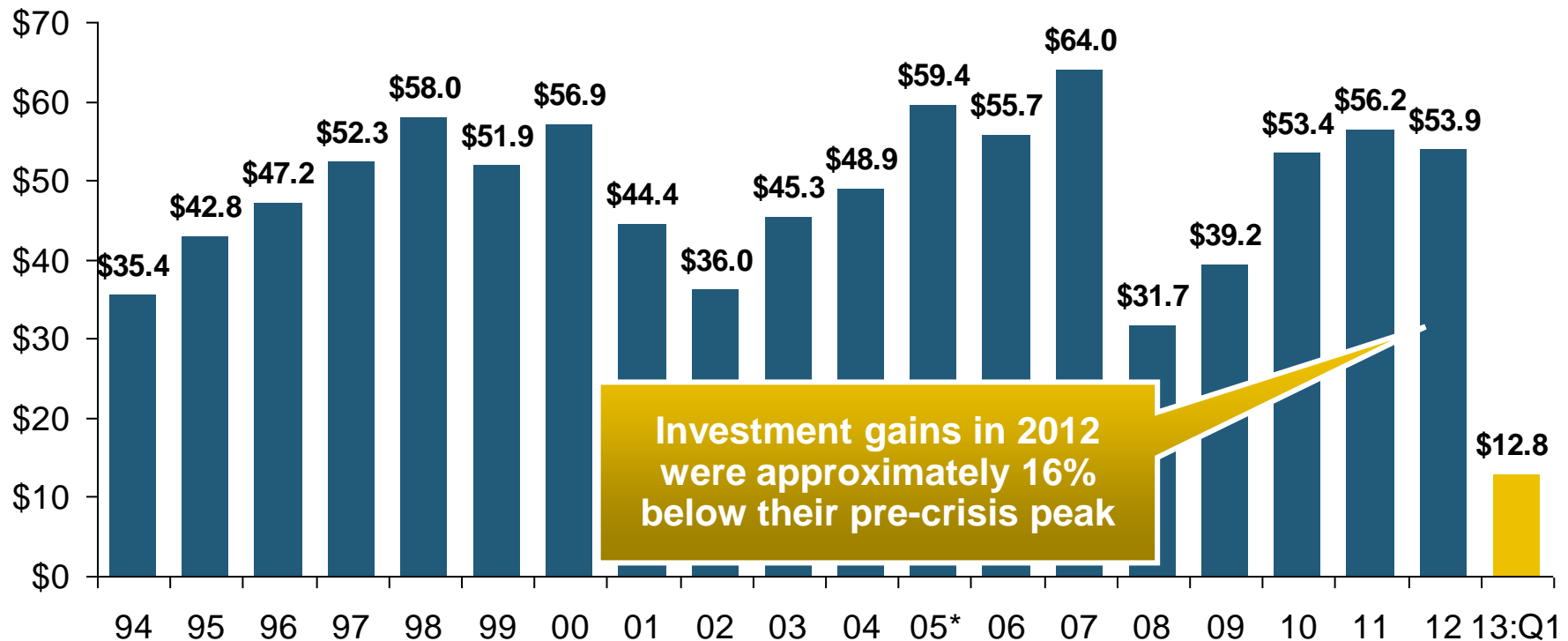
(\$ Billions)



**Insurers Posted Net Realized Capital Gains in 2010, 2011 and 2012 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were the Primary Cause of 2008/2009's Large Drop in Profits and ROE**

# Property/Casualty Insurance Industry Investment Gain: 1994–2013:Q1<sup>1</sup>

(\$ Billions)



**Investment Gains Are Slipping in 2012 as Low Interest Rates Reduce Investment Income and Lower Realized Investment Gains; The Financial Crisis Caused Investment Gains to Fall by 50% in 2008**

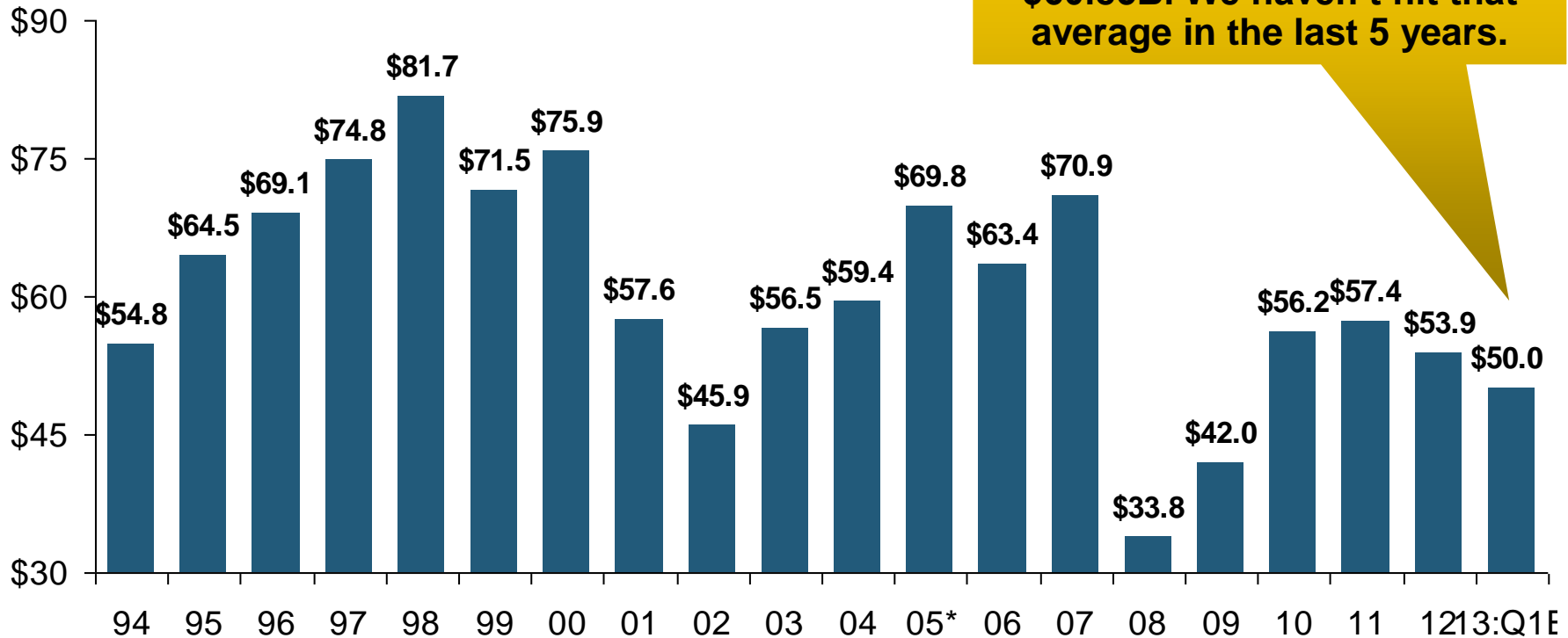
<sup>1</sup> Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

\* 2005 figure includes special one-time dividend of \$3.2B;

Sources: ISO; Insurance Information Institute.

# P/C Industry Investment Gains, Inflation-Adjusted: 1994–2012<sup>1</sup>

(\$ Billions, 2012 dollars)



**1994-2012 average yearly gain: \$60.85B. We haven't hit that average in the last 5 years.**

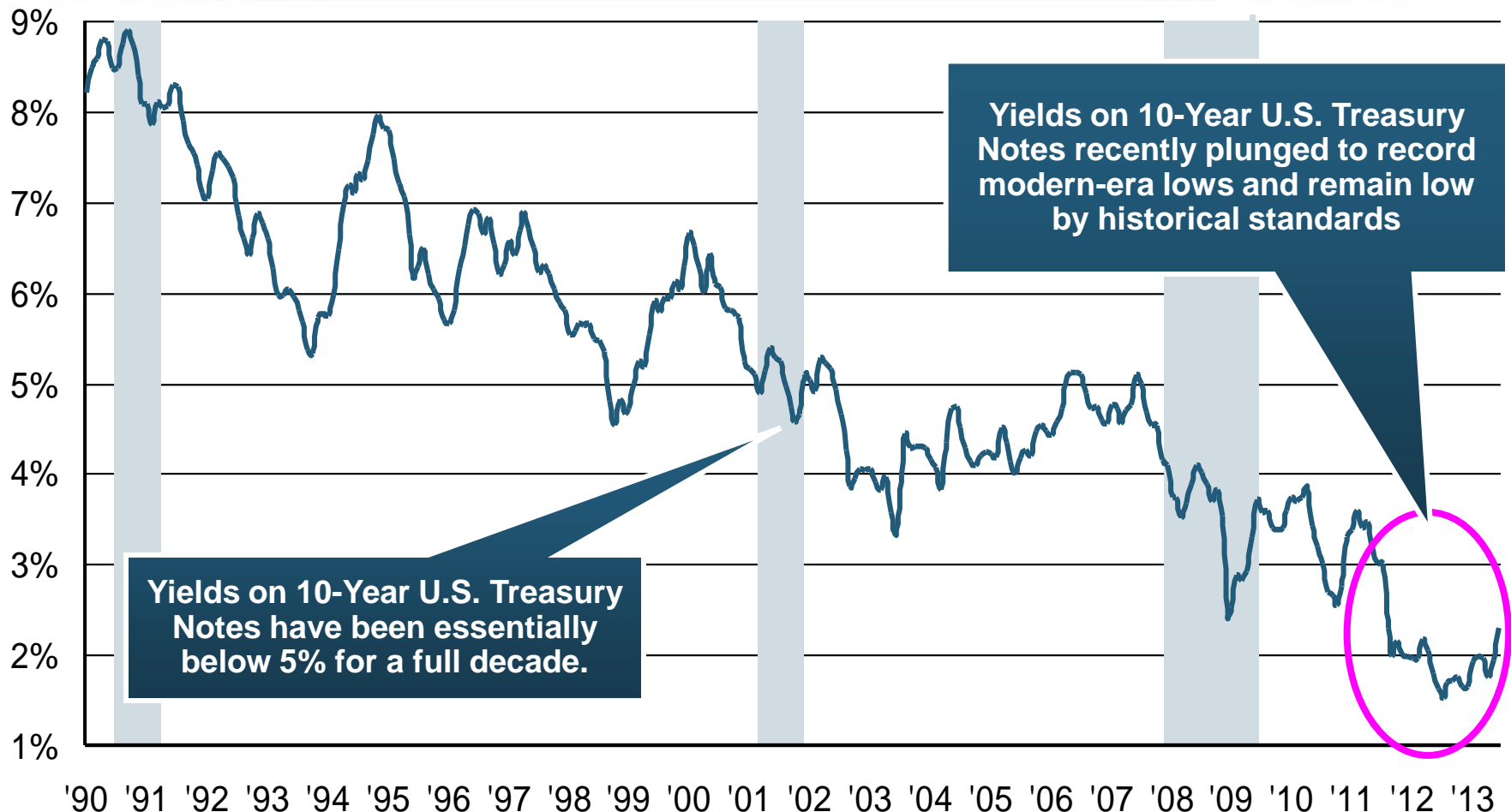
**Because the Federal Reserve Board aims to keep interest rates exceptionally low until the unemployment rate hits 6.5%—likely at least another year off—maturing bonds will be re-invested at even lower rates.**

<sup>1</sup>Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

\*2005 figure includes special one-time dividend of \$3.2B; 2013F figure is I.I.I. estimate for 2013:Q1, annualized.

Sources: ISO; Insurance Information Institute.

# U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2013\*



**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.**

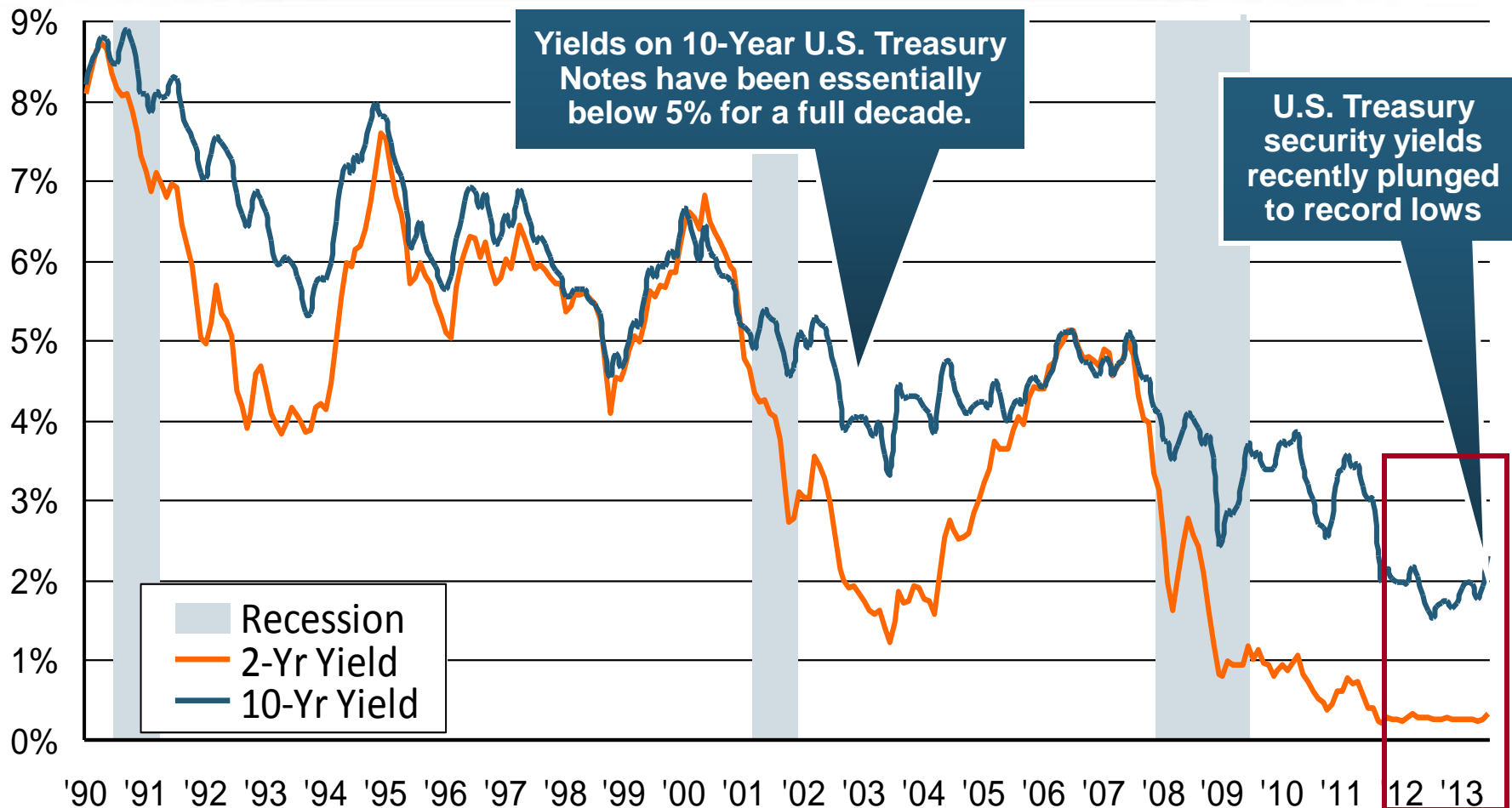
\*Monthly, through June 2013.

Note: Recessions indicated by gray shaded columns.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>.

National Bureau of Economic Research (recession dates); Insurance Information Institutes.

# U.S. Treasury Security Yields: A Long Downward Trend, 1990–2013\*

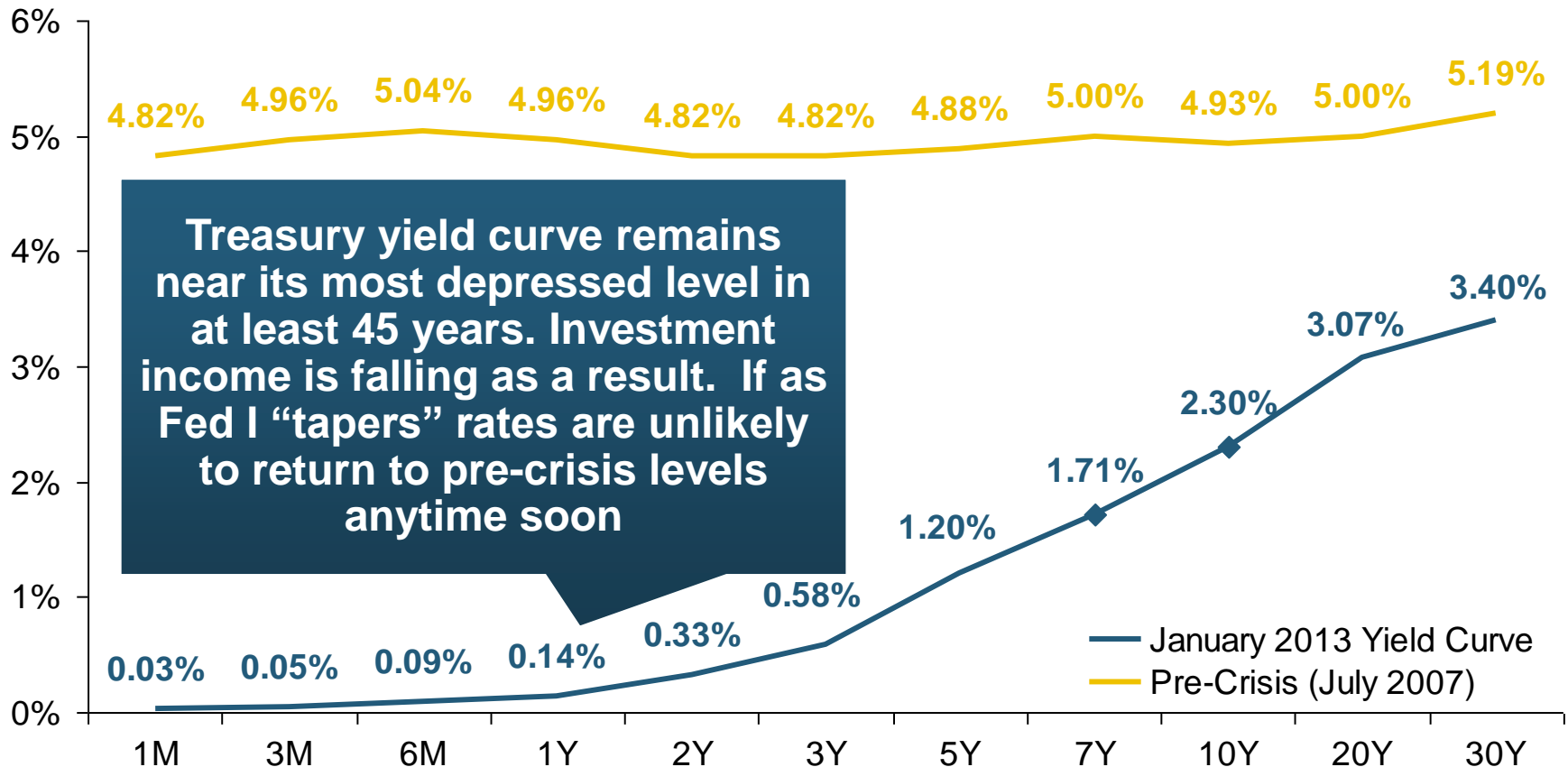


**Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.**

\*Monthly, constant maturity, nominal rates, through June 2013.

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

# Treasury Yield Curves: Pre-Crisis (July 2007) vs. June 2013

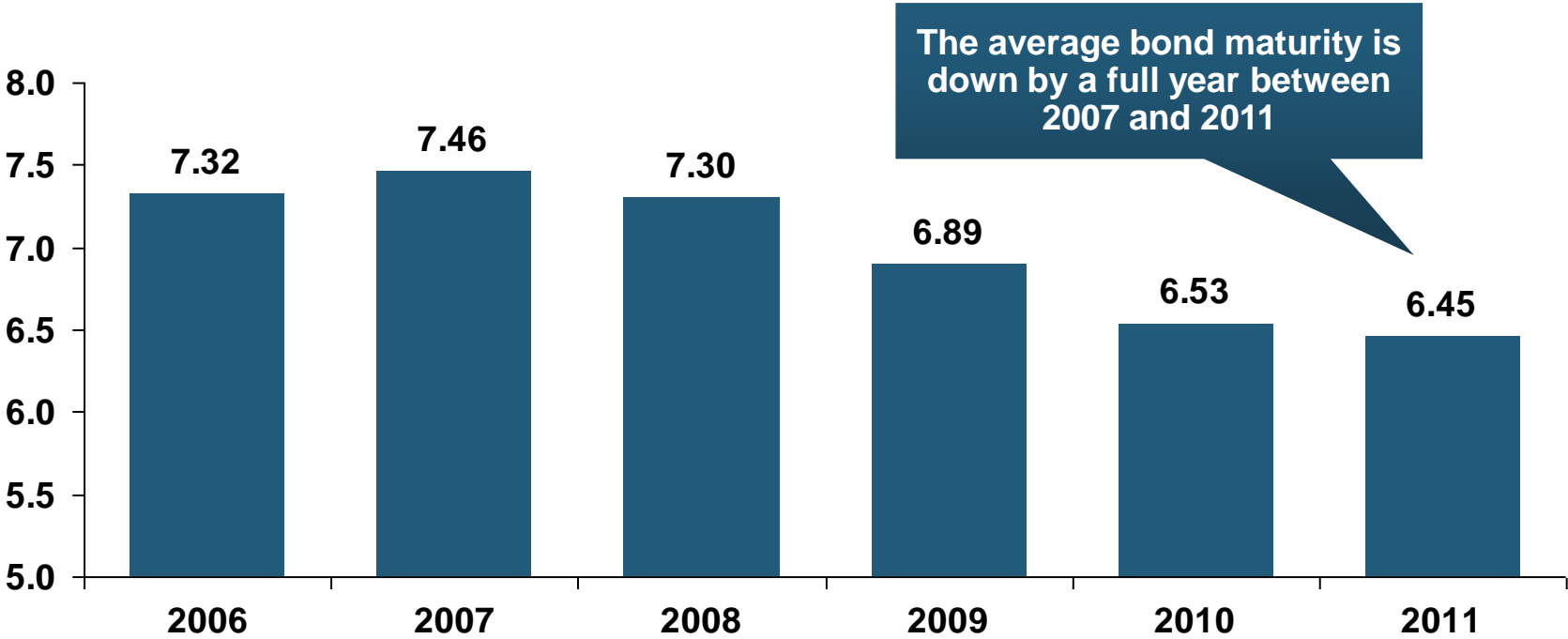


**The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Until Unemployment Drops Below 6.5% or Until Inflation Expectations Exceed 2.5%; Low Rates Add to Pricing Pressure for Insurers.**



# Average Maturity of Bonds Held by US P/C Insurers, 2006—2011\*

Average Maturity (Years)

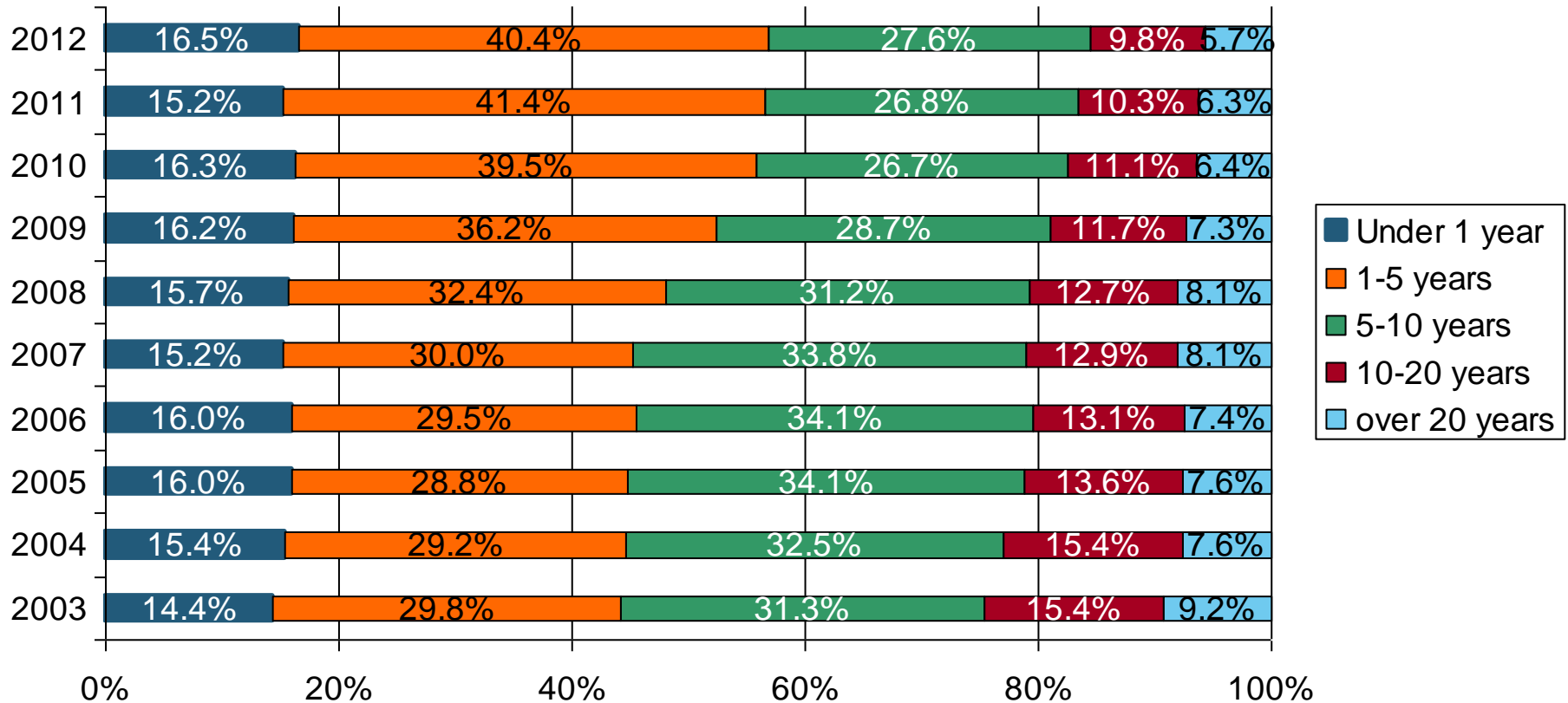


**Falling Average Maturity (and Duration) of the P/C Industry's Bond Portfolio is Contributing to the Drop in Investment Income Along With Lower Yields**

\*Year-end figures. Latest available.

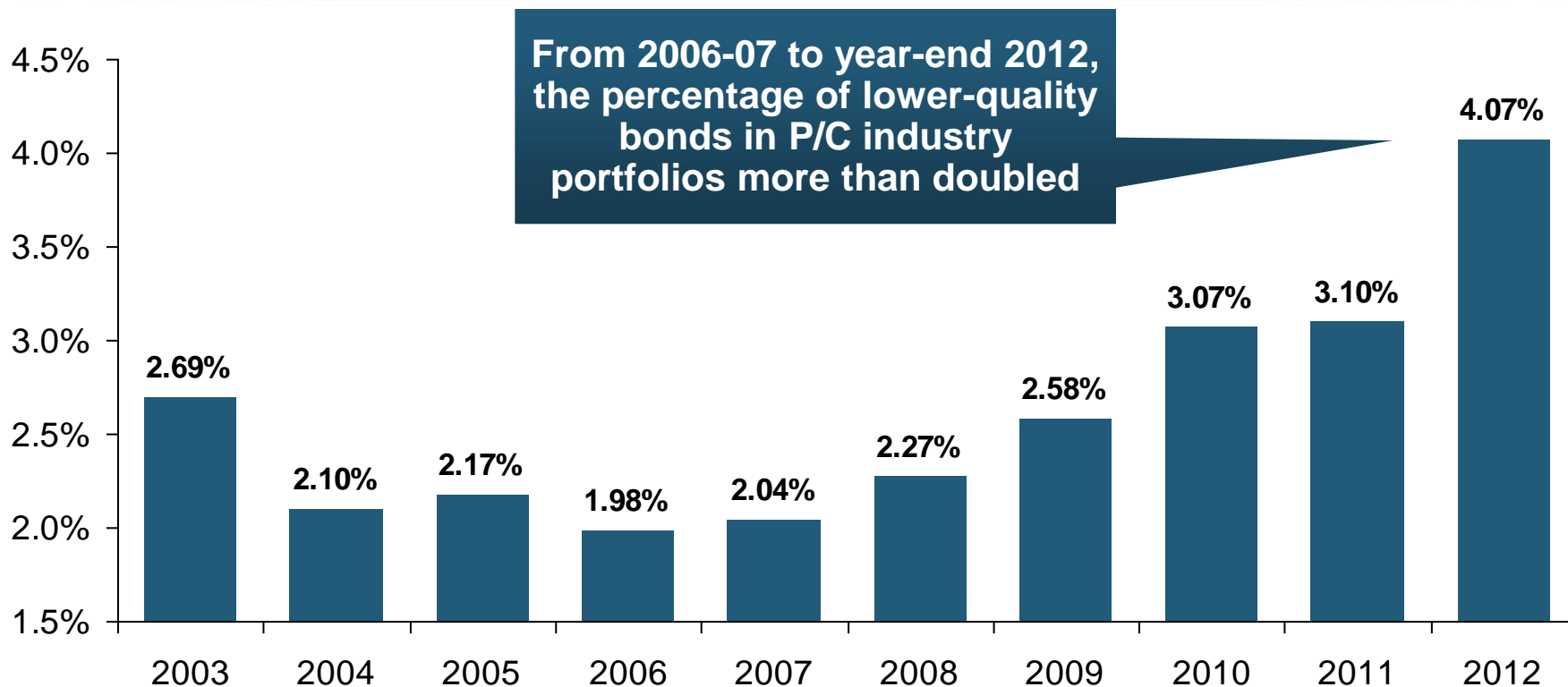
Sources: Insurance Information Institute calculations based on A.M. Best data.

# Distribution of Bond Maturities, P/C Insurance Industry, 2003-2012



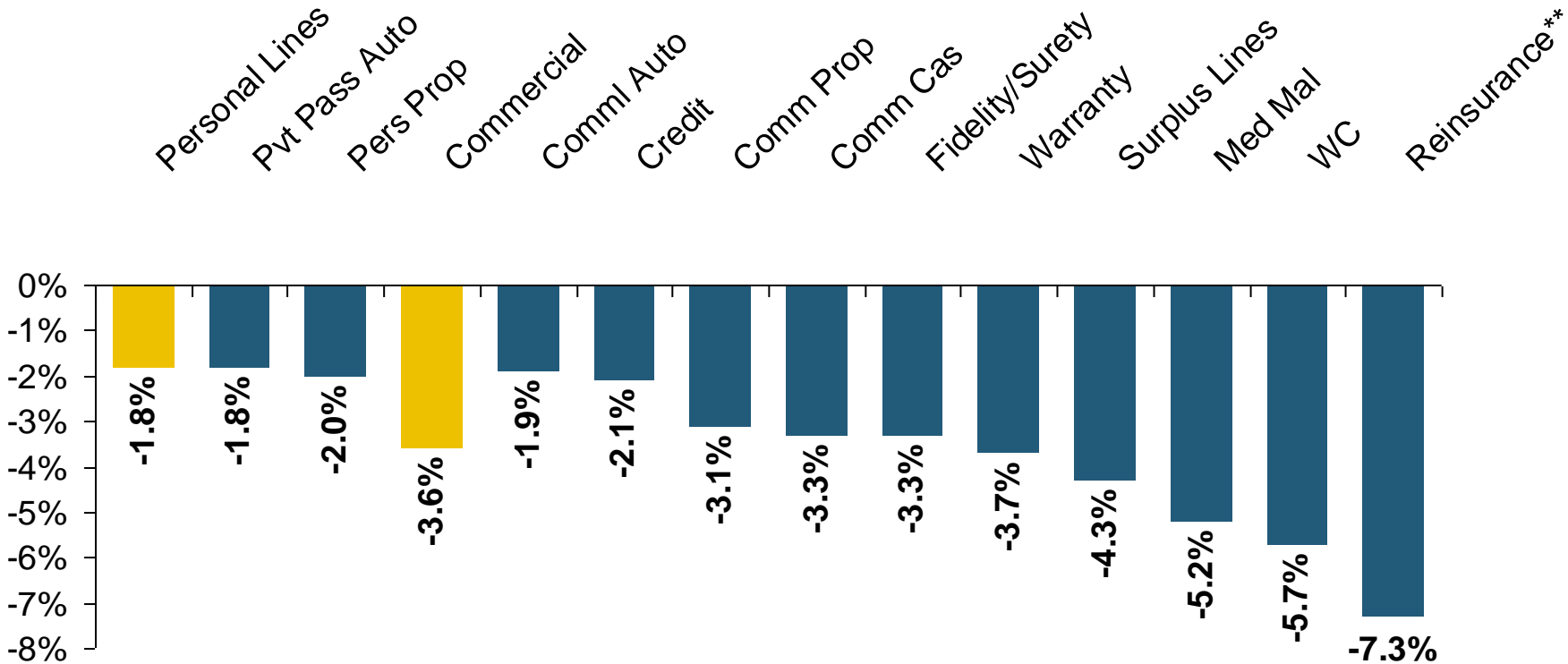
The main shift over these years has been from bonds with longer maturities to bonds with shorter maturities. The industry first trimmed its holdings of over-10-year bonds (from 24.6% in 2003 to 15.5% in 2012) and then trimmed bonds in the 5-10-year category (from 31.3% in 2003 to 27.6% in 2012). Falling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

# Bonds Rated NAIC Quality Category 3-6 as a Percent of Total Bonds, 2003–2012



There are many ways to capture higher yields on bond portfolios. One is to accept greater risk, as measured by NAIC bond ratings. The ratings range from 1 to 6, with the highest quality rated 1. Even in 2012, over 95% of the industry's bonds were rated 1 or 2.

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



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

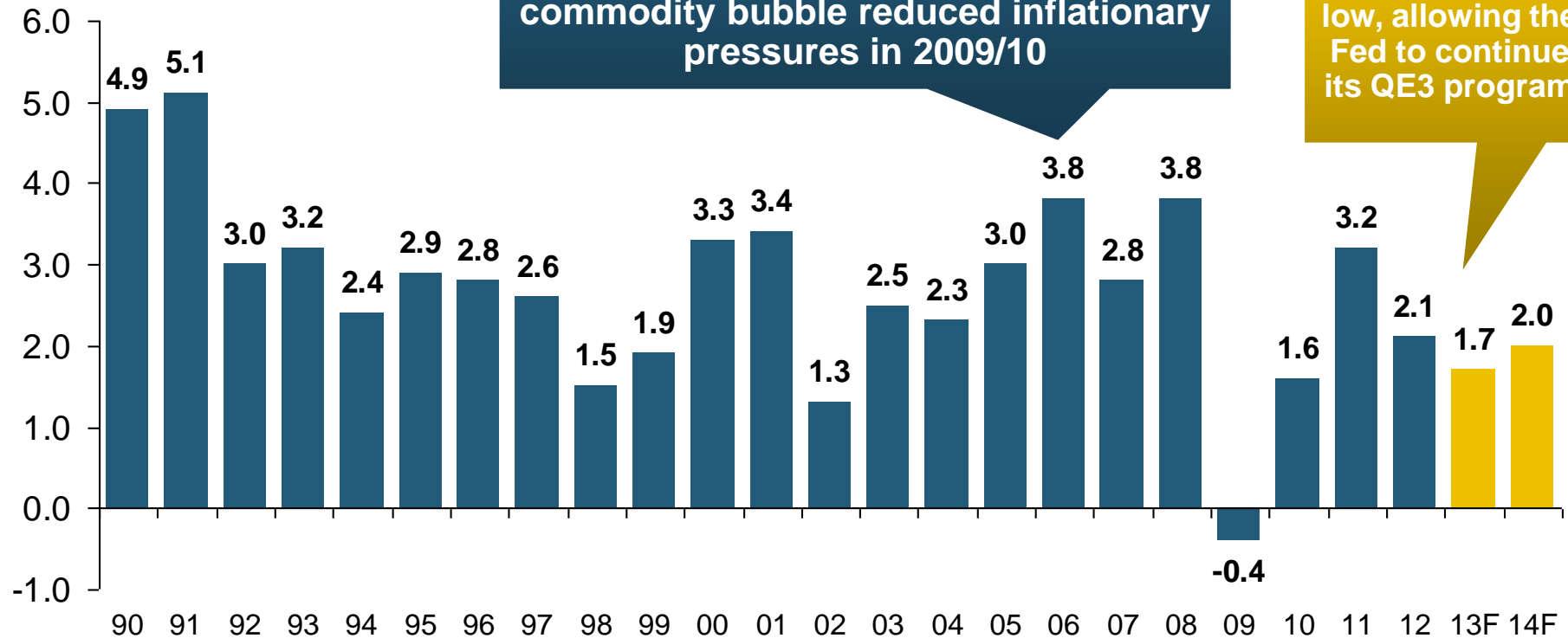
\*Based on 2008 Invested Assets and Earned Premiums

\*\*US domestic reinsurance only

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

# Annual Inflation Rates, (CPI-U, %), 1990–2014F

Annual Inflation Rates (%)



Inflation peaked at 5.6% in August 2008 on high energy and commodity crisis. The recession and the collapse of the commodity bubble reduced inflationary pressures in 2009/10

Inflationary expectations remain quite low, allowing the Fed to continue its QE3 program

The slack in the U.S. economy suggests that inflationary pressures should remain subdued for an extended period of times. Energy, health care and commodity prices, plus U.S. debt burden, remain longer-run concerns

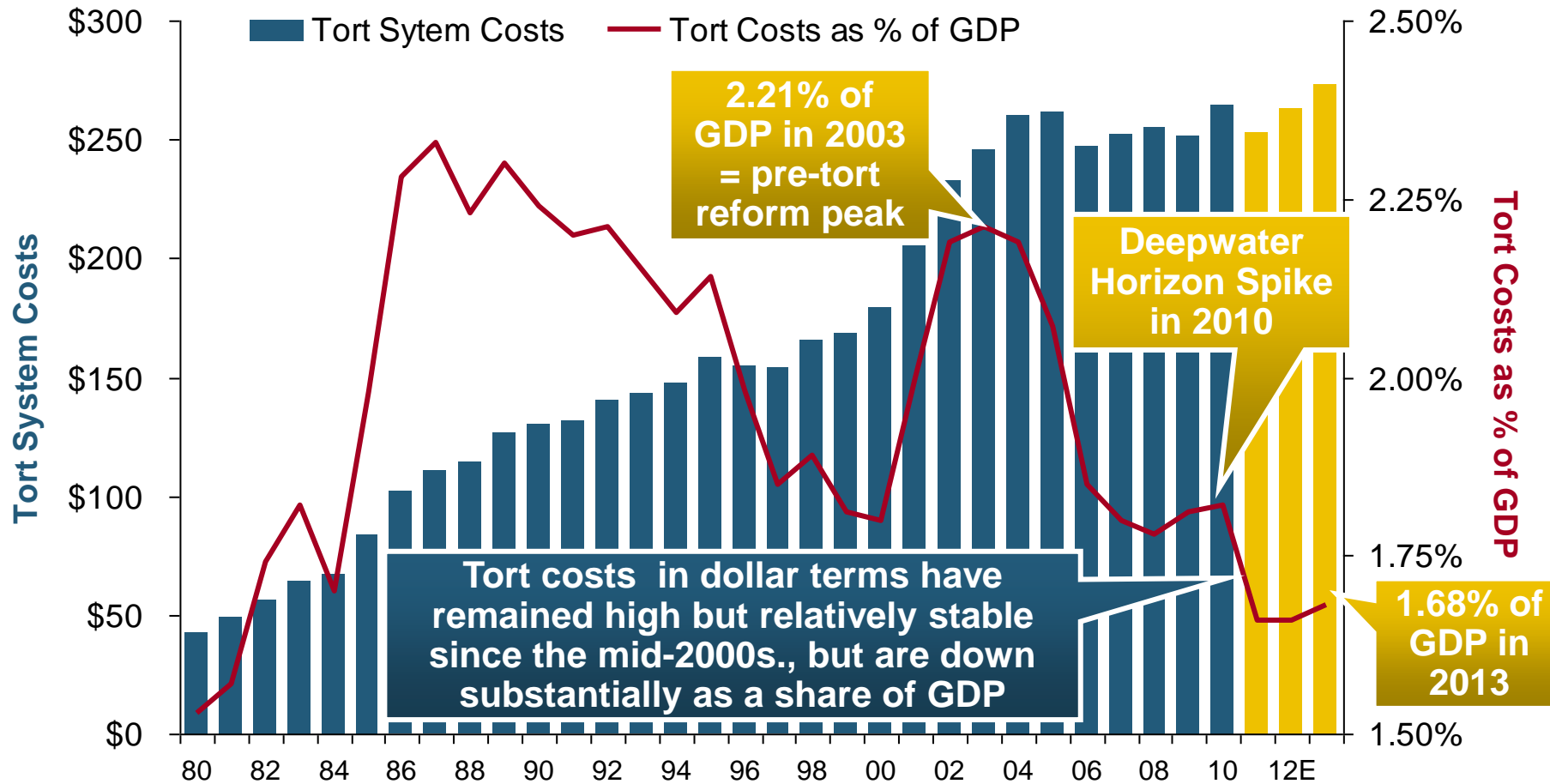
Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators, 5/13 (forecasts).

# Shifting Legal Liability & Tort Environment

## Is the Tort Pendulum Swinging Against Insurers?

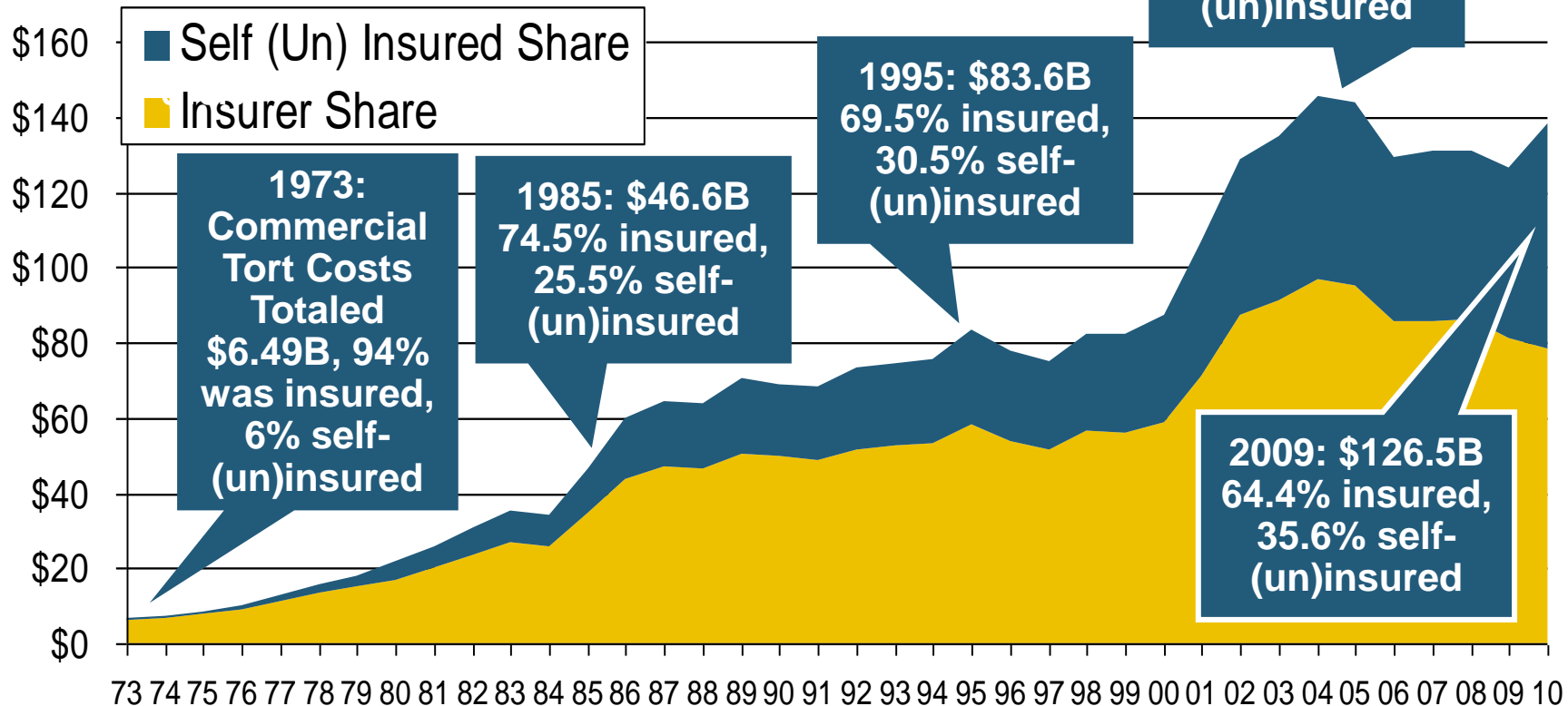
# Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical, 1980-2013E

(\$ Billions)



# Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010

Billions of Dollars

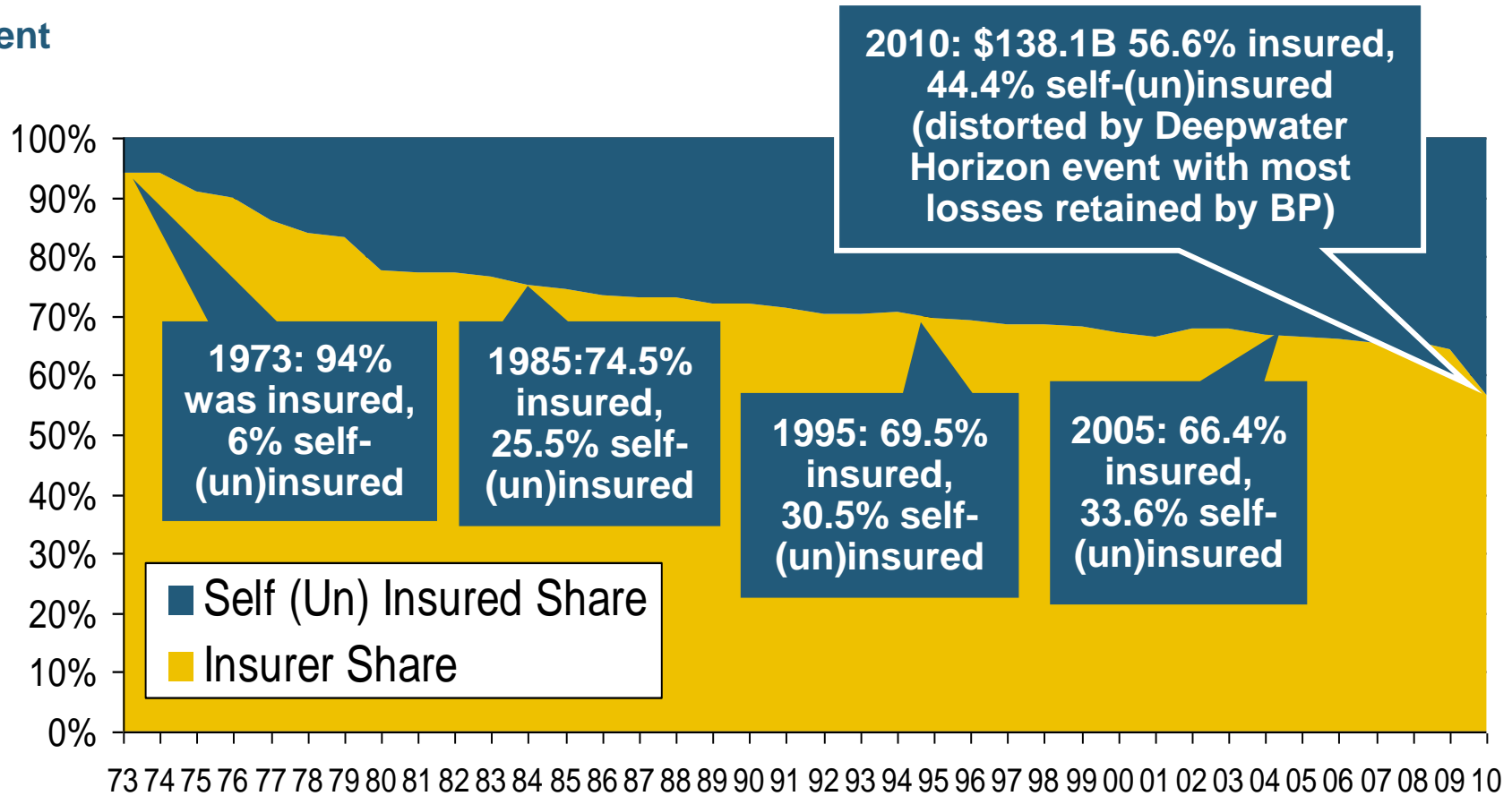


**Tort Costs and the Share Retained by Risks Both Grew Rapidly from the mid-1970s to mid-2000s, When Tort Costs Began to Fall But Self-Insurance Shares Continued to Rise**



# Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010

Percent



**The Share of Tort Costs Retained by Risks Has Been Steadily Increasing for Nearly 40 Years. This Trend Contributes Has Left Insurers With Less Control Over Pricing.**

# Business Leaders Ranking of Liability Systems in 2012

## Best States

1. Delaware
2. Nebraska
3. Wyoming
4. Minnesota
5. Kansas
6. Idaho
7. Virginia
8. North Dakota
9. Utah
10. Iowa

### New in 2012

- Wyoming
- Minnesota
- Kansas
- Idaho

### Drop-offs

- Indiana
- Colorado
- Massachusetts
- South Dakota

## Worst States

41. Florida
42. Oklahoma
43. Alabama
44. New Mexico
45. Montana
46. Illinois
47. California
48. Mississippi
49. Louisiana
50. West Virginia

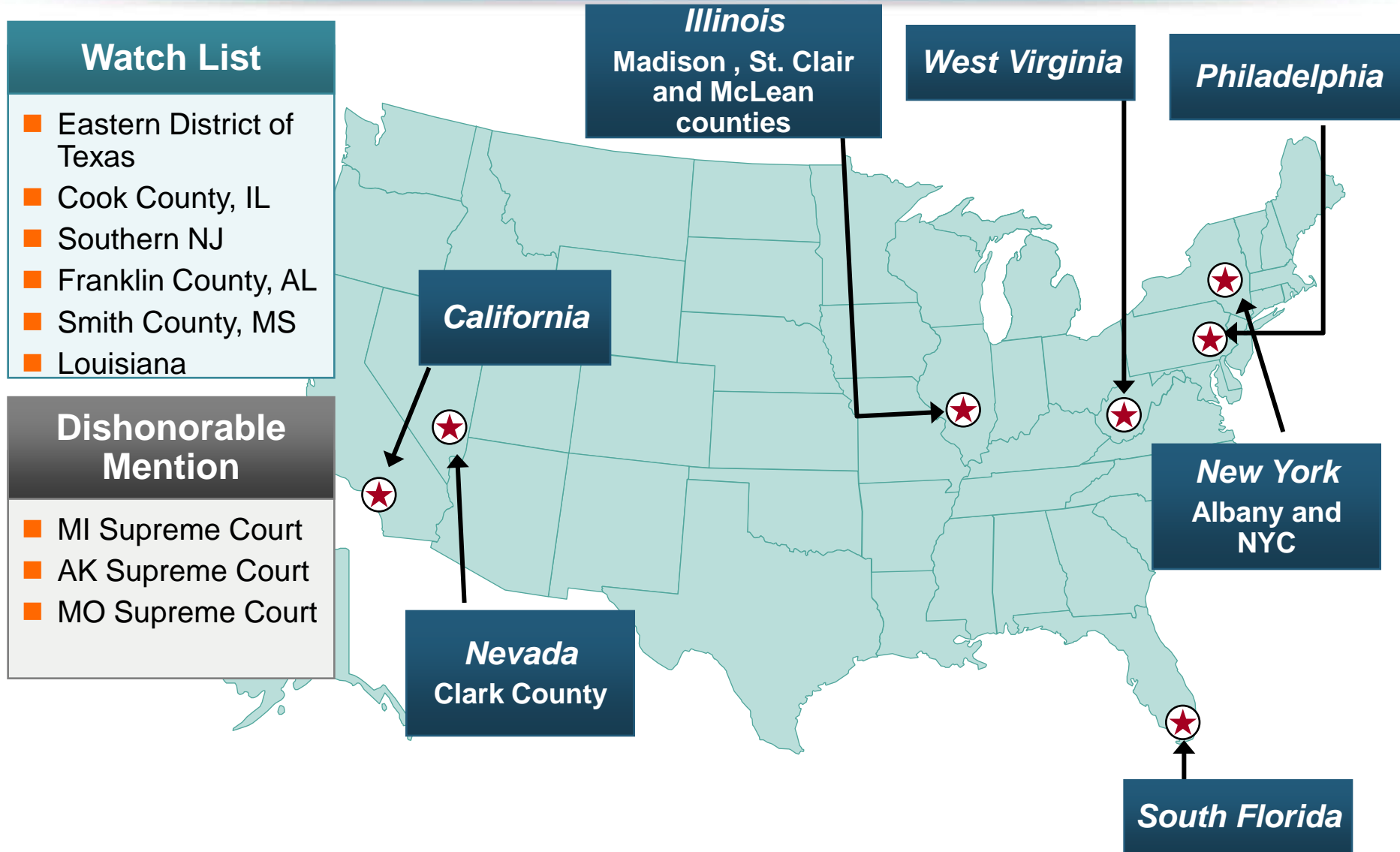
### Newly Notorious

- Oklahoma

### Rising Above

- Arkansas

# The Nation's Judicial Hellholes: 2011



# CYBER RISK

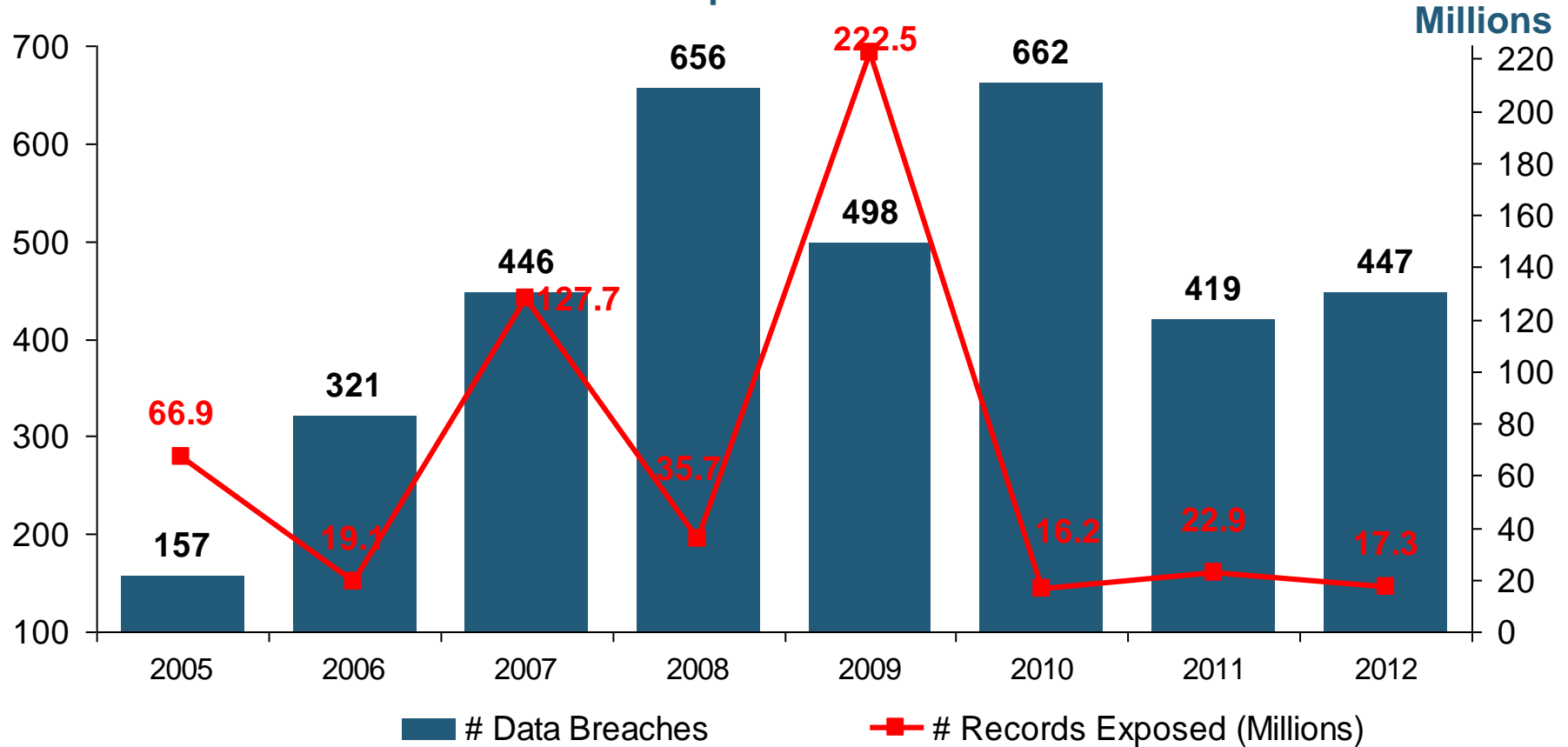
**Cyber Risk is a Rapidly Emerging  
Exposure for Businesses Large  
and Small in Every Industry**

**NEW III White Paper:**

**[http://www.iii.org/assets/docs/pdf/paper\\_CyberRisk\\_2013.pdf](http://www.iii.org/assets/docs/pdf/paper_CyberRisk_2013.pdf)**

# Data Breaches 2005-2013, By Number of Breaches and Records Exposed

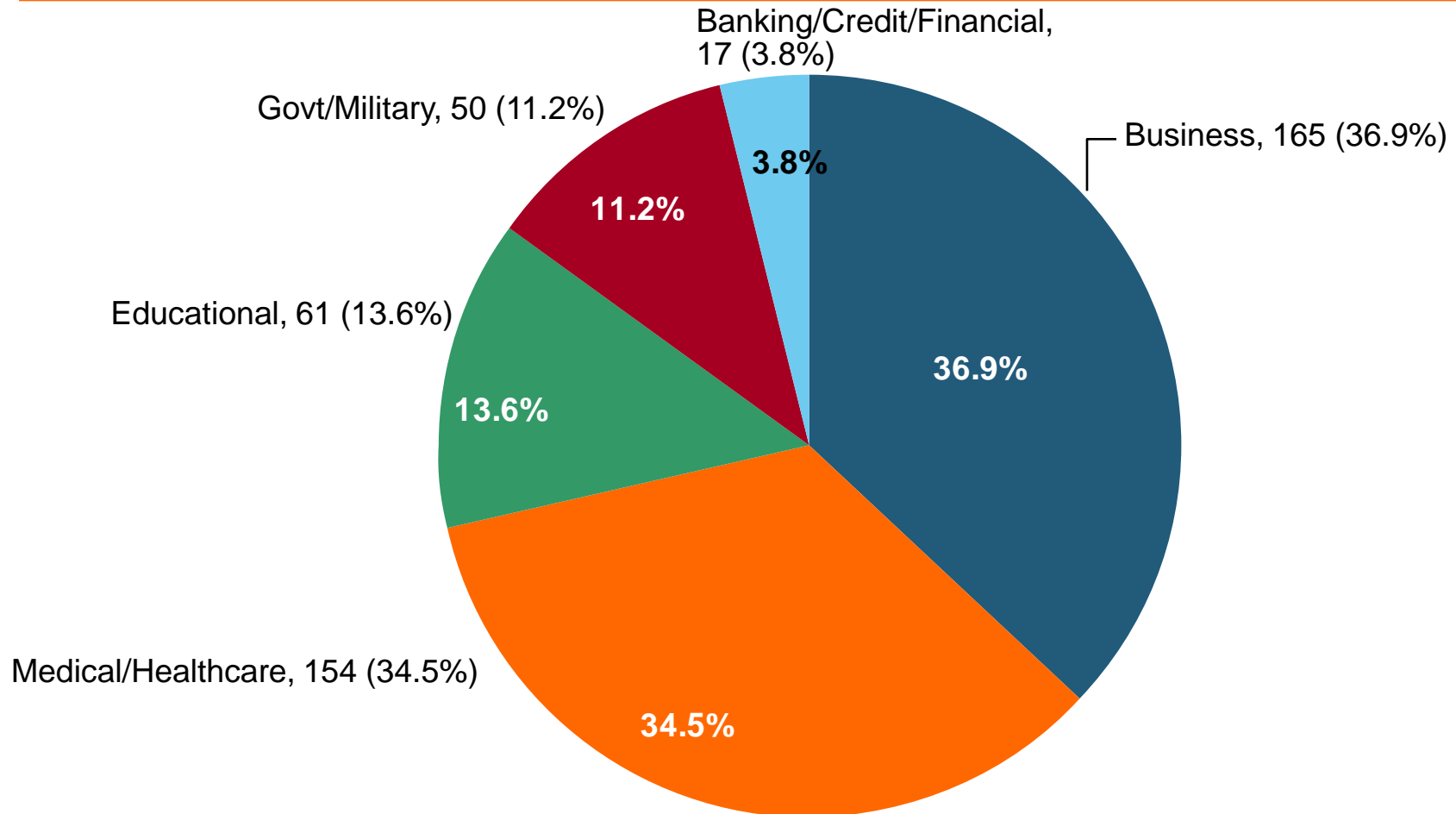
# Data Breaches/Millions of Records Exposed



The total number of data breaches and number of records exposed fluctuates from year to year and over time.

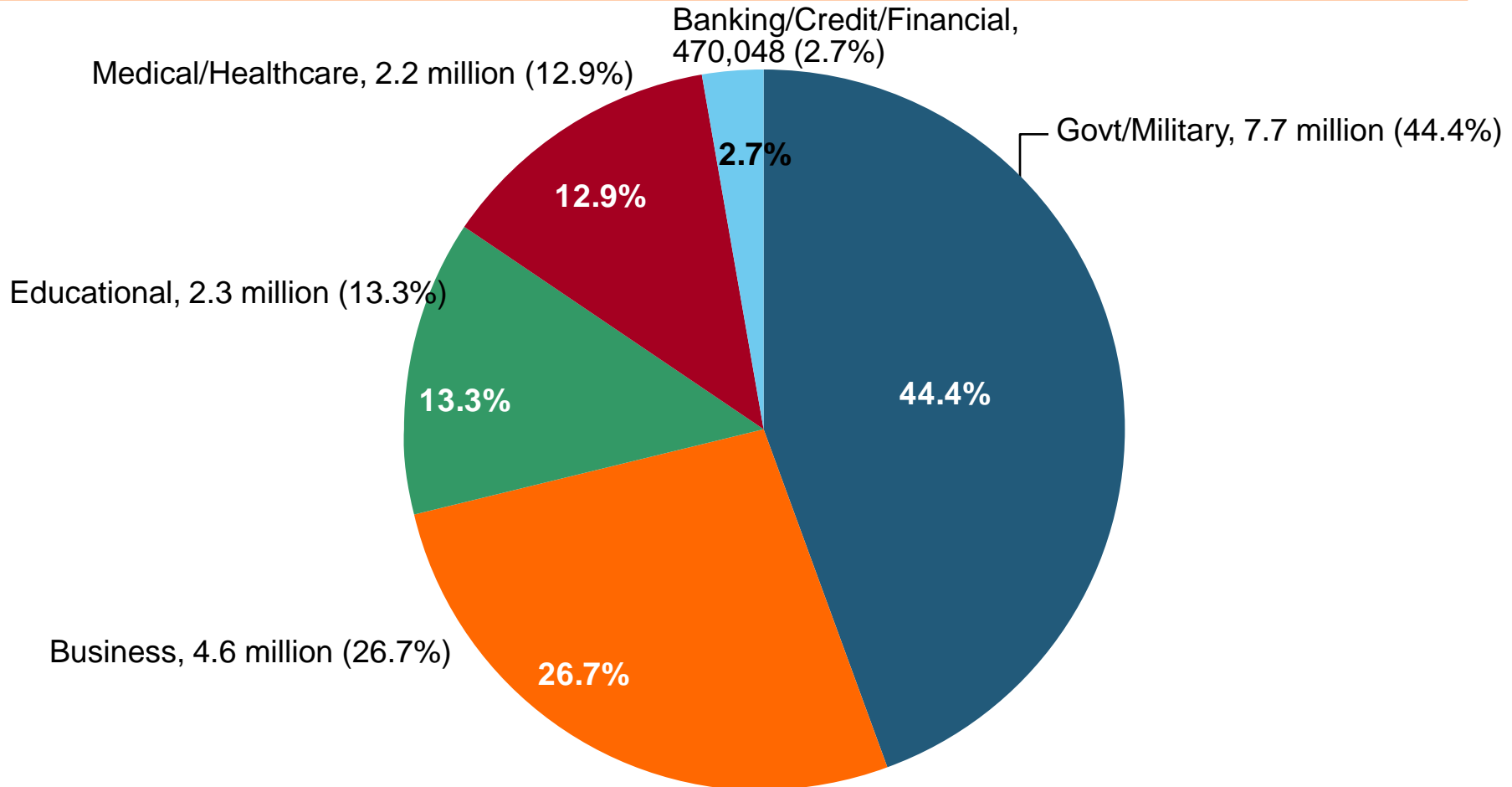
# 2012 Data Breaches By Business Category, By Number of Breaches

The majority of the 447 data breaches in 2012 affected business and medical/healthcare organizations, according to the Identity Theft Resource Center.



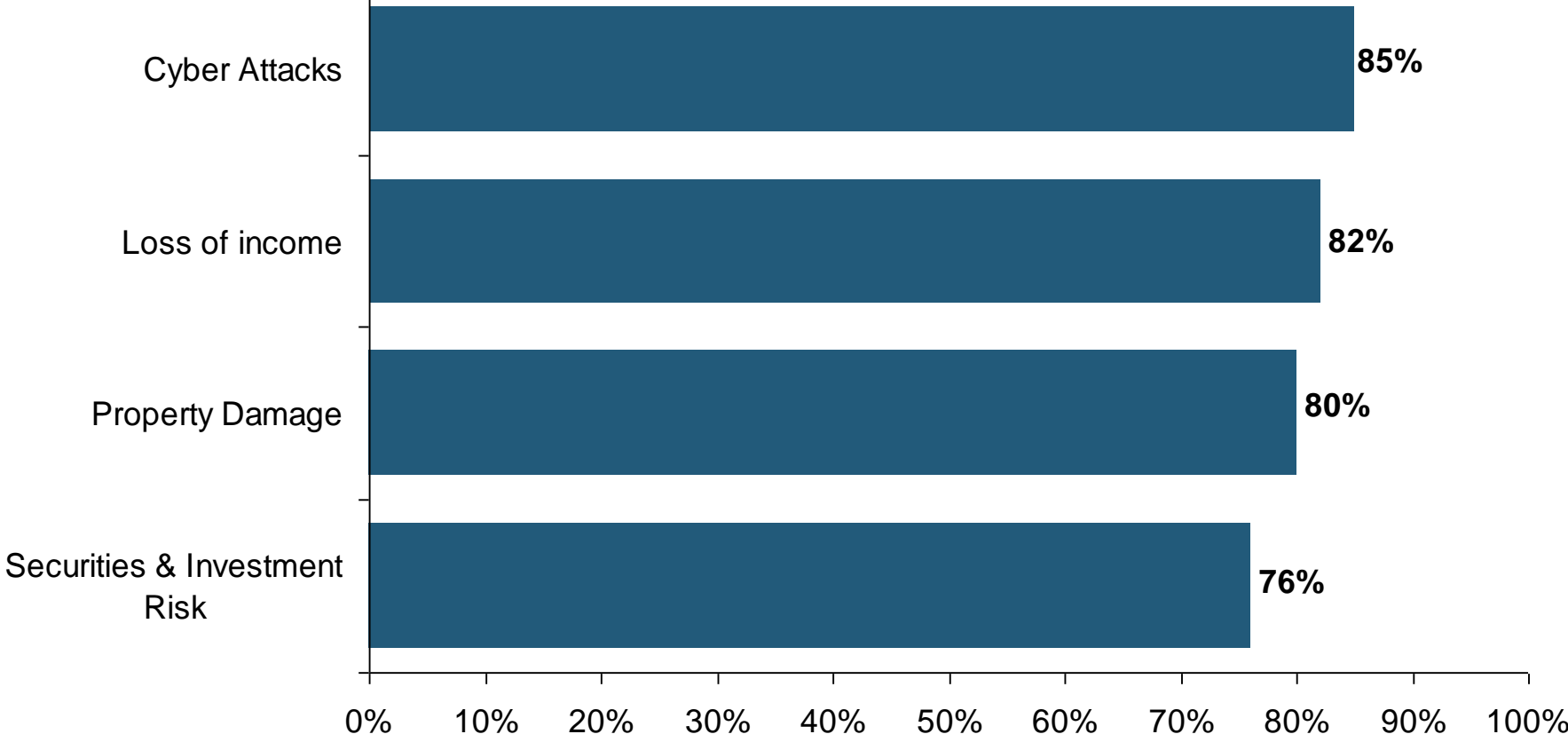
# 2012 Data Breaches By Category, By Number of Records Exposed

Government/Military and Business organizations accounted for the majority of records exposed by data breaches during 2012.



# AIG Survey: Cyber Attacks Top Concern Among Execs

**While companies are focused on managing a variety of business risks, cyber attacks are a top concern. Some 85% of 258 executives surveyed said they were very or somewhat concerned about cyber attacks on their businesses.**

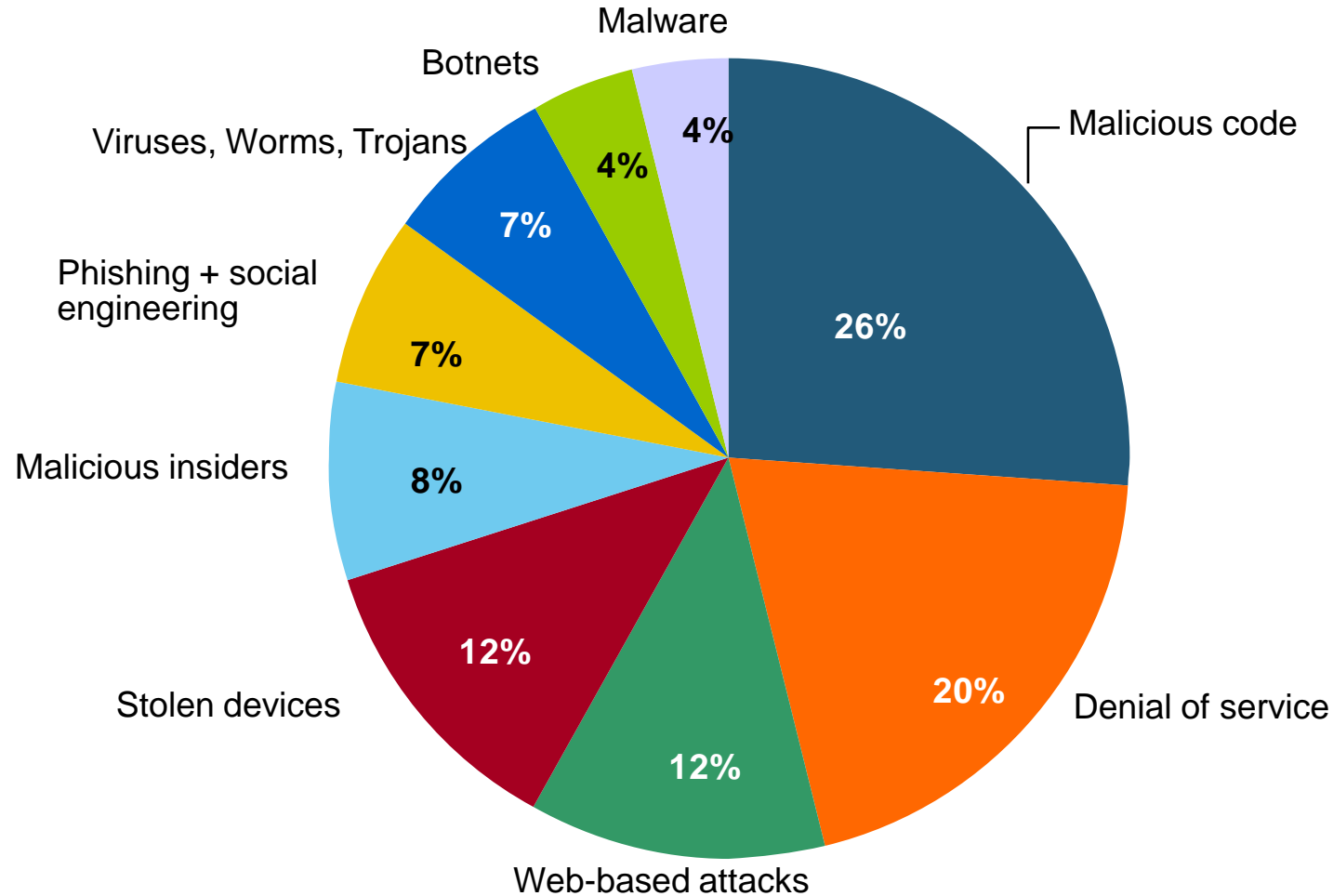


Source: Penn Schoen Berland on behalf of American International Group.



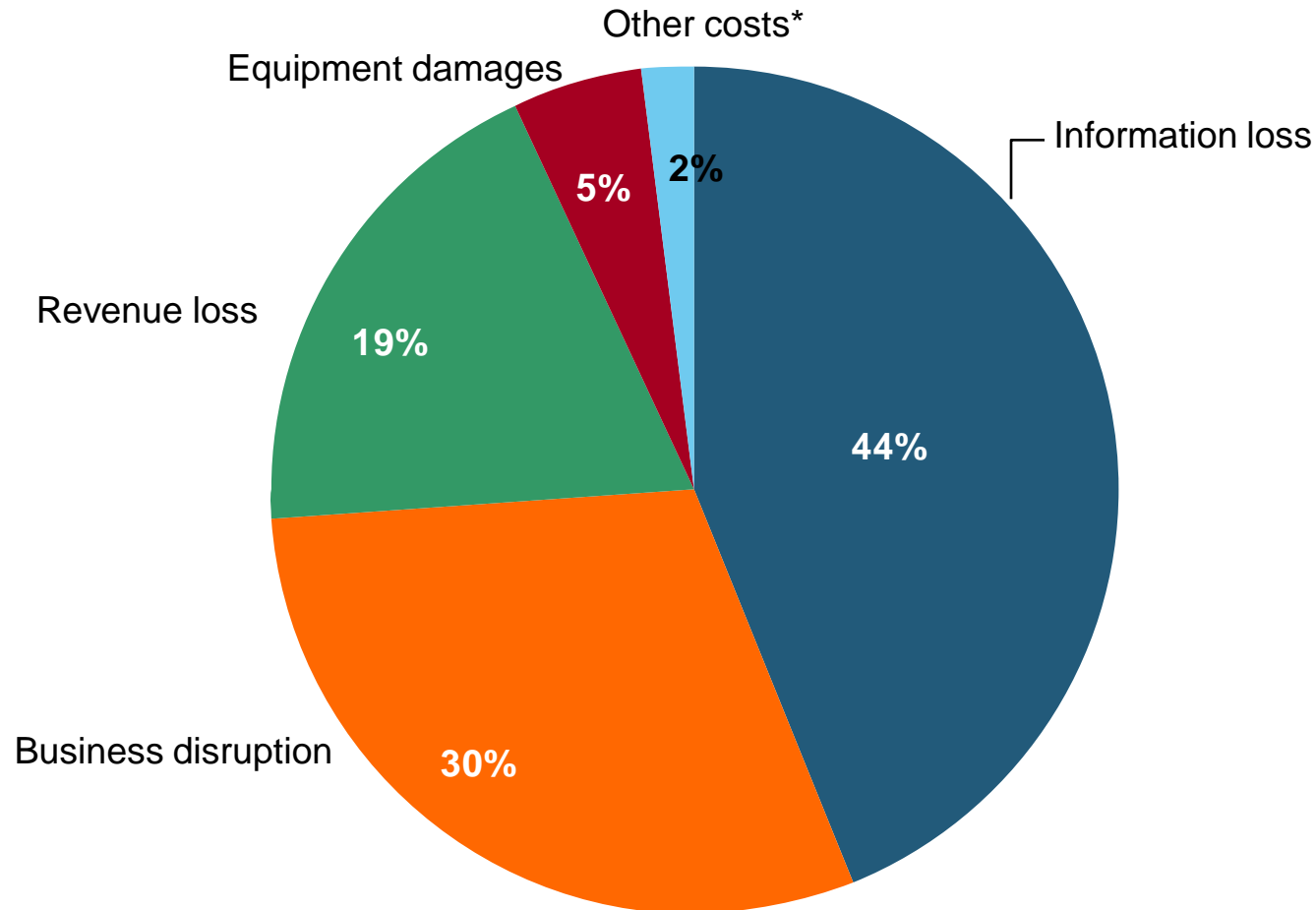
# The Most Costly Cyber Crimes, Fiscal Year 2012

Malicious code, denial of service and web-based attacks account for more than 58 percent of the total annualized cost of cyber crime experienced by 56 companies.



# External Cyber Crime Costs: Fiscal Year 2012

Information loss (44%) and business disruption or lost productivity (30%) 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: 2012 Cost of Cyber Crime: United States, Ponemon Institute.

# High Profile Data Breaches, 2012-2013

Date	Company	Description of Breach
Mar 2013*	South Korean banks, media cos	Cyber attack causes computers to crash at South Korean banks and media companies, paralyzing bank machines across the country. No immediate reports of records compromised.
July 2012	Yahoo	Security breach at Yahoo in which some 450,000 passwords lifted and posted to the Internet.
July 2012	eHarmony	Online dating site eHarmony confirms security breach in which some 1.5 million user names and passwords compromised.
July 2012	LinkedIn	Social networking site LinkedIn reportedly targeted in hacker attack that saw 6.5 million hashed passwords posted to the Internet.
April 2012	Utah Dept of Technology Services	Utah Department of Technology notifies of a March 30 breach of a server containing personal data including social security numbers for about 780,000 Medicaid patient claims. Breach traced to Eastern Europe hackers.
Mar 2012	Global Payments	Credit card processor Global Payments confirms hacker attack has compromised the payment card numbers of around 1.5 million cardholders.
Mar 2012	CA Dept of Child Support Services	Officials announce that four computer storage devices containing personal information for about 800,000 adults and children in California's child support system were lost by IBM and Iron Mountain Inc.
Jan 2012	Zappos	Online shoe retailer Zappos announces that information, such as names, addresses and passwords on as many as 24 million customers illegally accessed.
Jan 2012	NY State Electric + Gas Co	Security breach at NYSEG that allowed unauthorized access to NYSEG customer data, containing social security numbers, dates of birth and bank account numbers, exposing 1.8 million records.

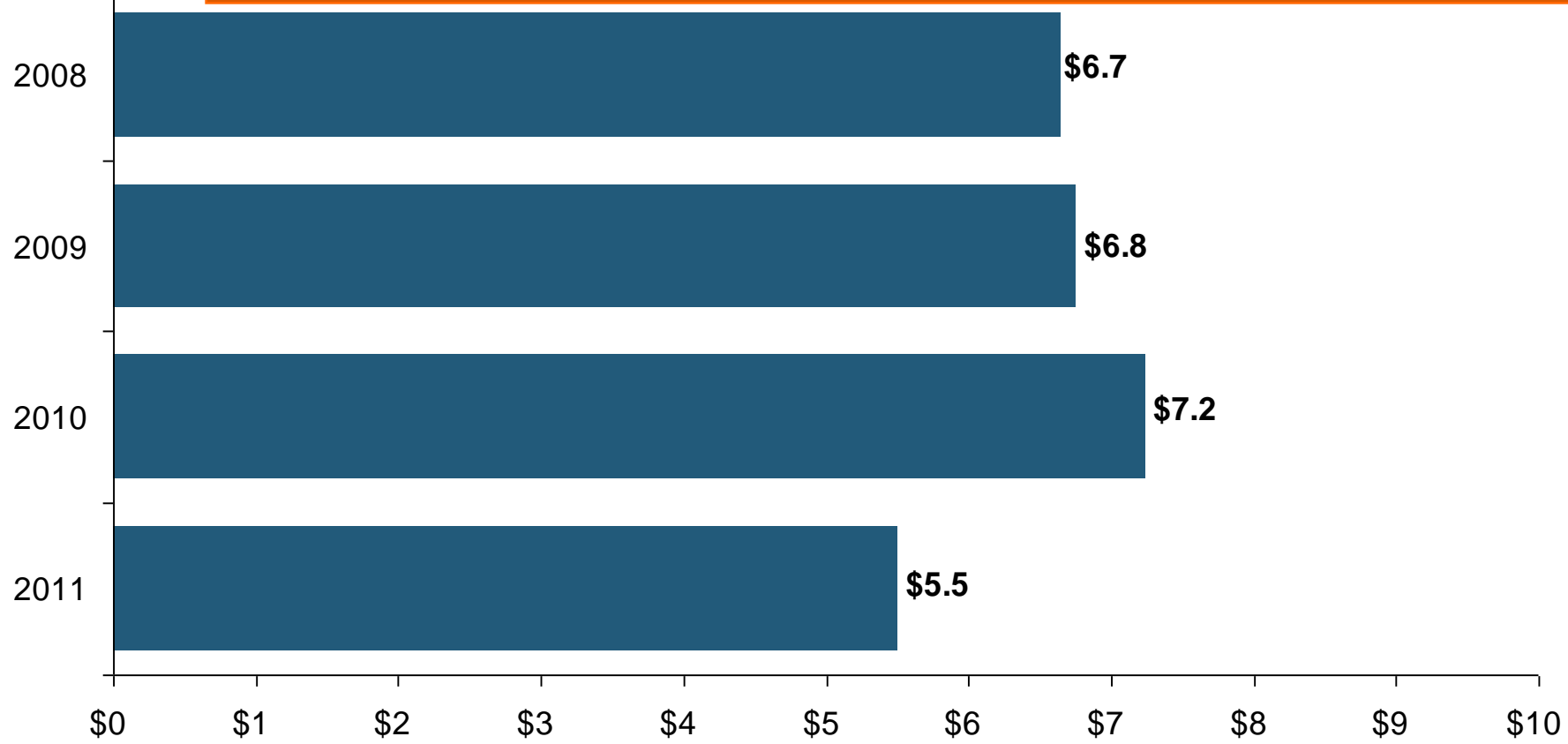
\*March 2013 attack is not part of ITRC research.

# Average Organizational Cost of a Data Breach, 2008-2011\* (\$ Millions)



The average organizational cost of a data breach in 2011 was \$5.5 million, down 24% from \$7.2 million in 2010. Companies have improved steps taken in both preparing for and responding to a data breach.

(\$ Millions)

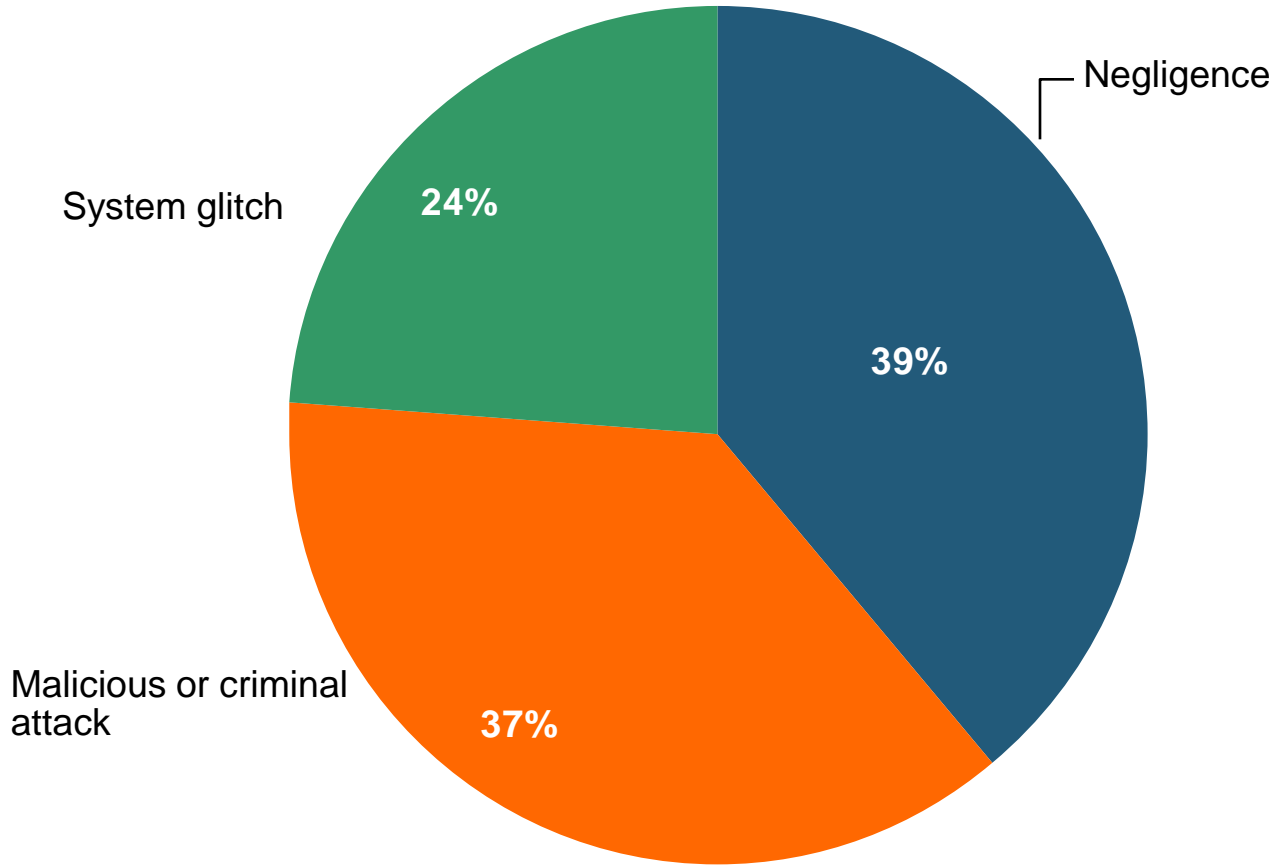


\*Findings of this benchmark study pertain to the actual data breach experiences of 49 U.S. companies from 14 different industry sectors, all of which participated in the 2011 study. Total breach costs include: lost business resulting from diminished trust or confidence of customers ;costs related to detection, escalation, and notification of the breach; and ex-post response activities, such as credit report monitoring.

Source: 2011 Annual Study: U.S. Cost of a Data Breach, the Ponemon Institute.

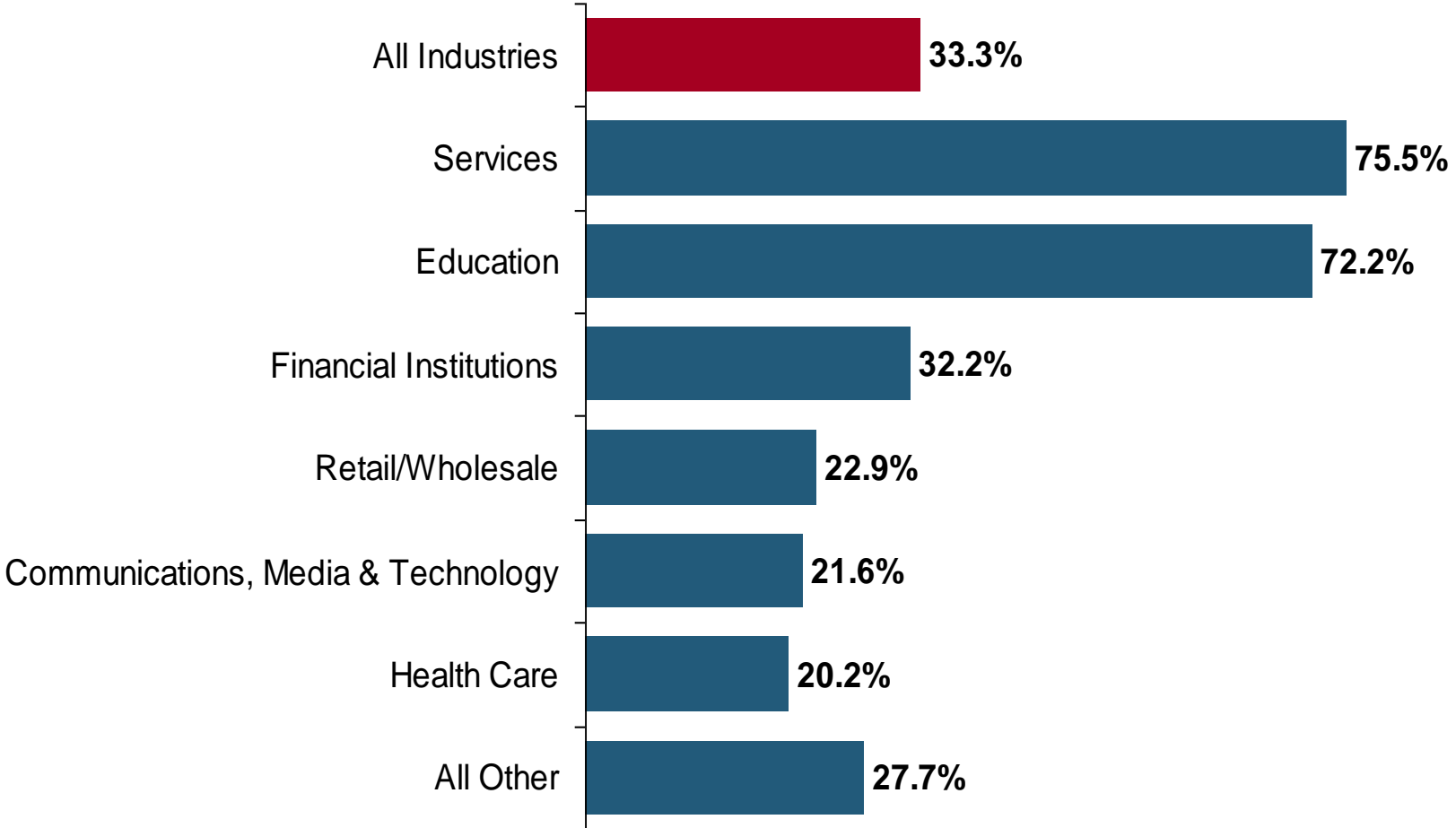
# Main Causes of Data Breach

Negligent employees and malicious attacks are most often the cause of the data breach. Some 39 percent of incidents involve a negligent employee or contractor, while 37 percent concern a malicious or criminal attack.



# Marsh: Increase in Purchase of Cyber Insurance Among U.S. Companies, 2012

Interest in cyber insurance continues to climb. The number of companies purchasing cyber insurance increased 33 percent from 2011 to 2012.

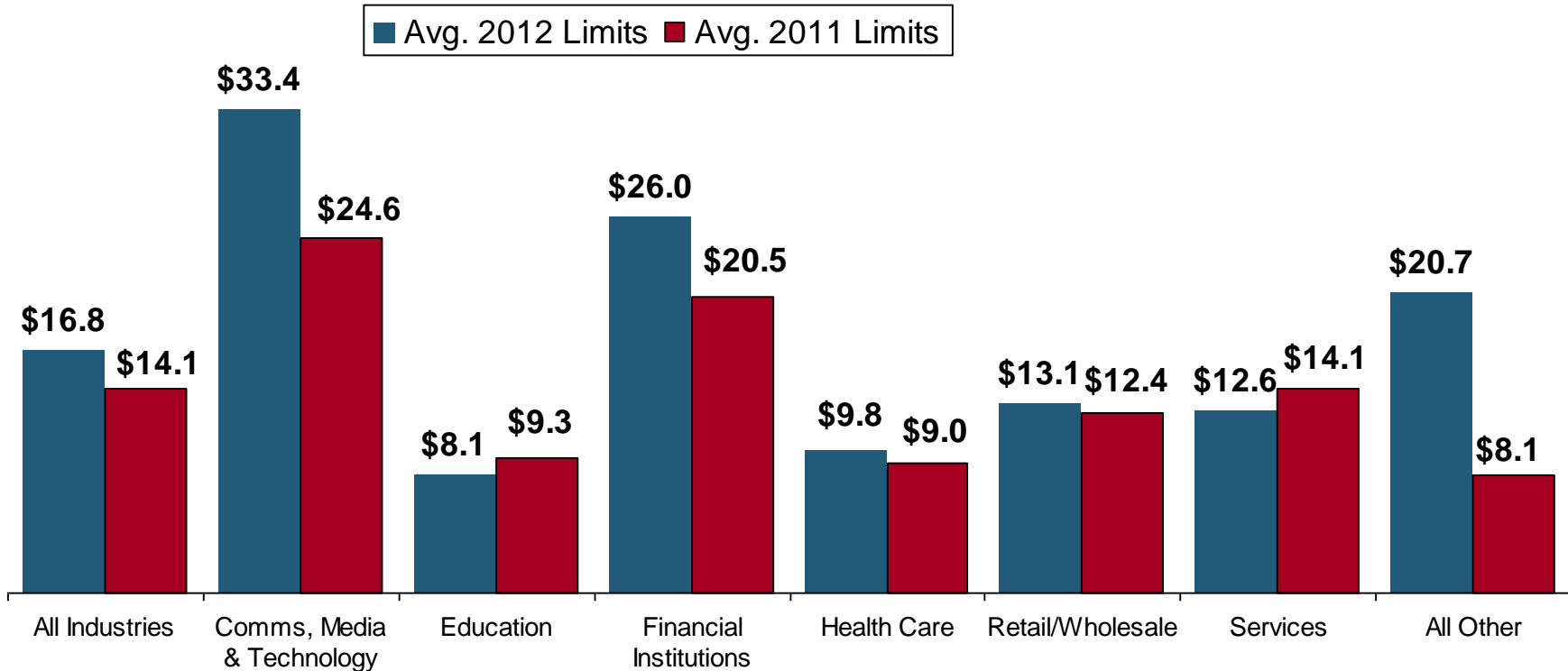


Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

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

Cyber insurance limits purchased in 2012 averaged \$16.8 million across all industries, an increase of nearly 20% over 2011.

(\$ Millions)

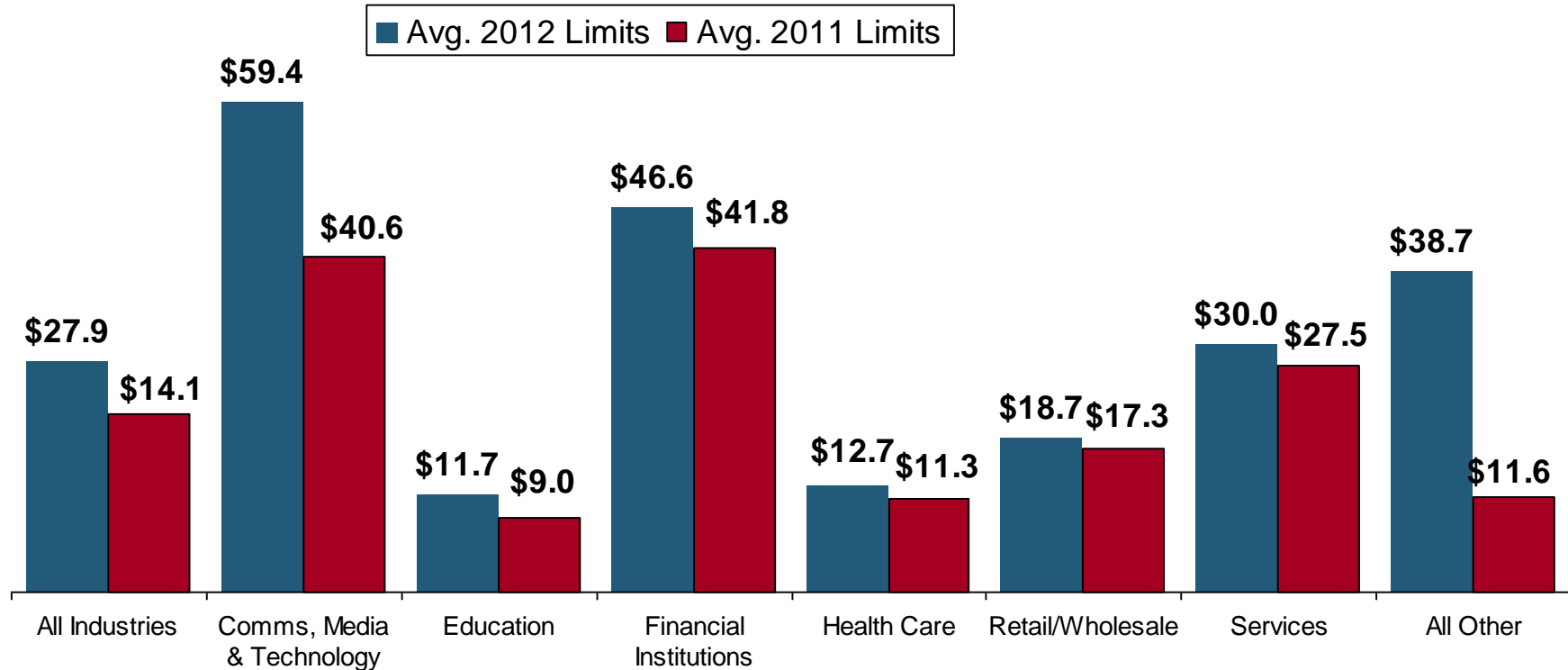


Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

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

Among larger companies, average cyber insurance limits purchased in 2012 increased nearly 30% over 2011.

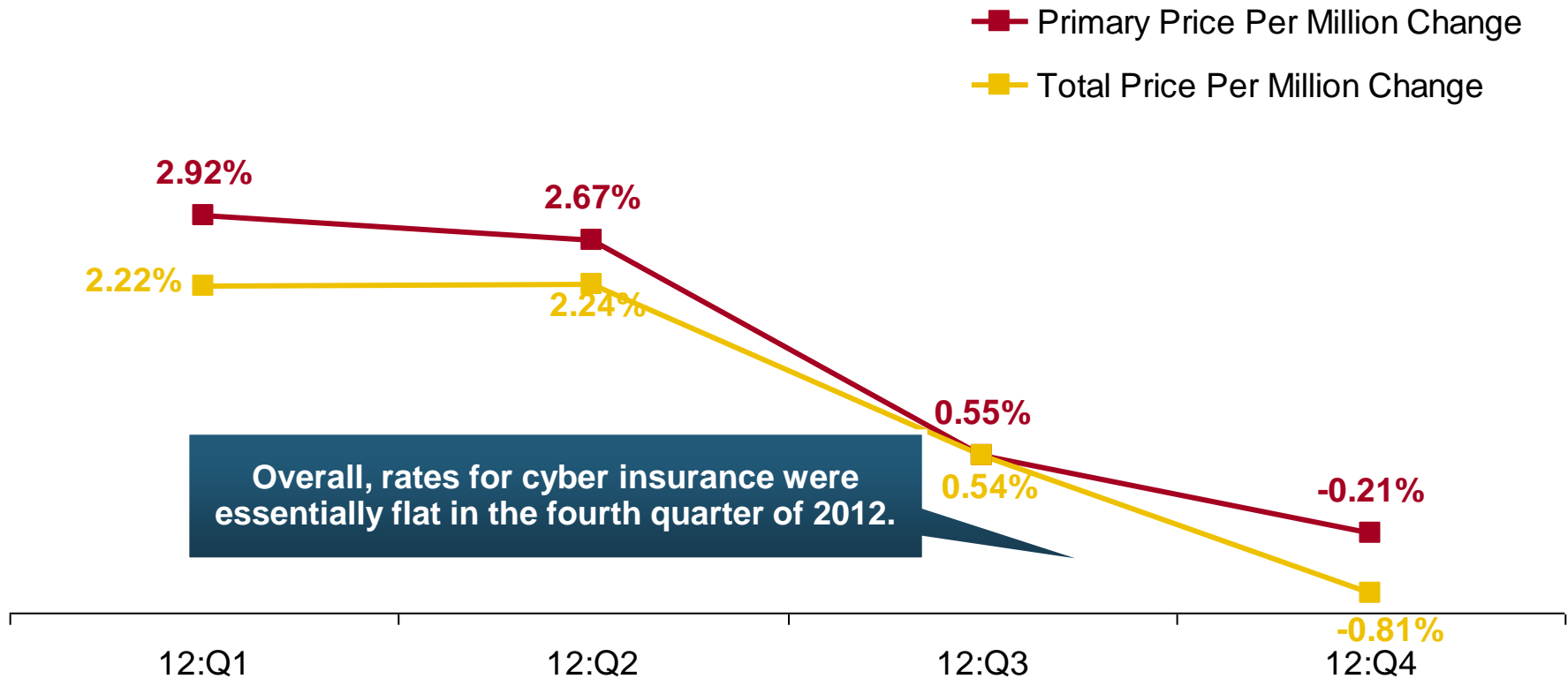
(\$ Millions)



Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013



# Cyber Liability: Historical Rate (price per million) Changes



Insurance Information Institute Online:

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

*Thank you for your time  
and your attention!*

*Twitter: [twitter.com/bob\\_hartwig](https://twitter.com/bob_hartwig)*