

# Overview & Outlook for the P/C Insurance Industry: Trends, Challenges and Opportunities in 2013 and Beyond

P/C Insurance Company Survey Group Meeting Washington, DC August 19, 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

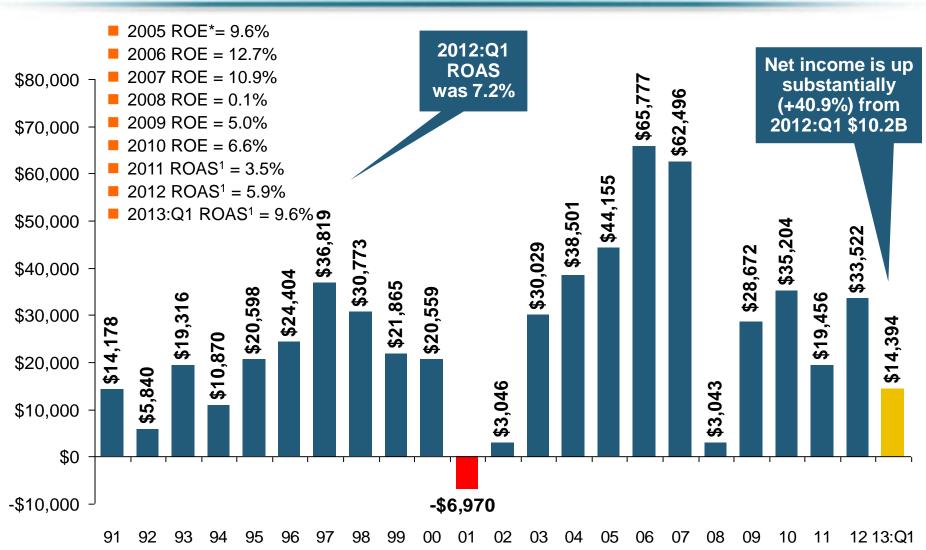


#### P/C Insurance Industry Financial Overview

So Far, So Good:
Profit Recovery in 2013 After
High CAT Losses in 2011-12

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



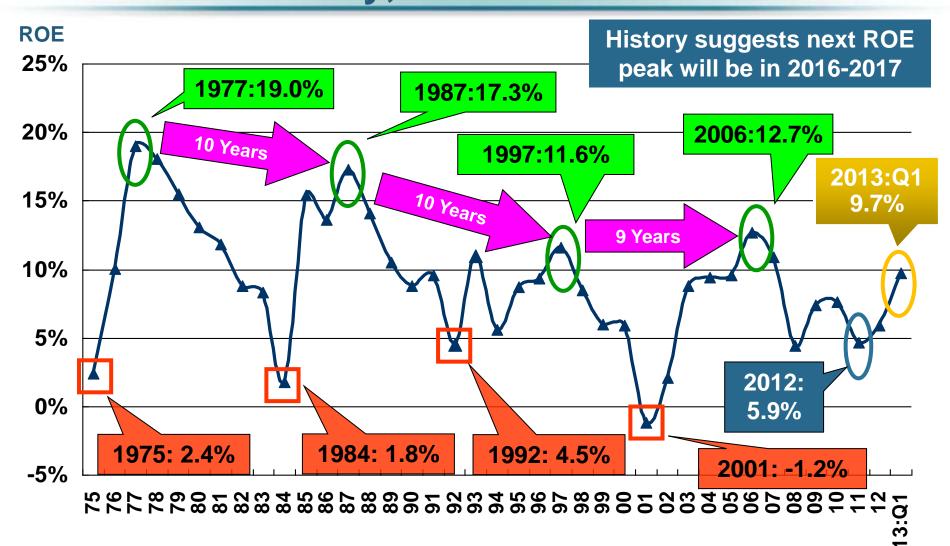


•ROE figures are GAAP; <sup>1</sup>Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 9.7% ROAS in 2013:Q1, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

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

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



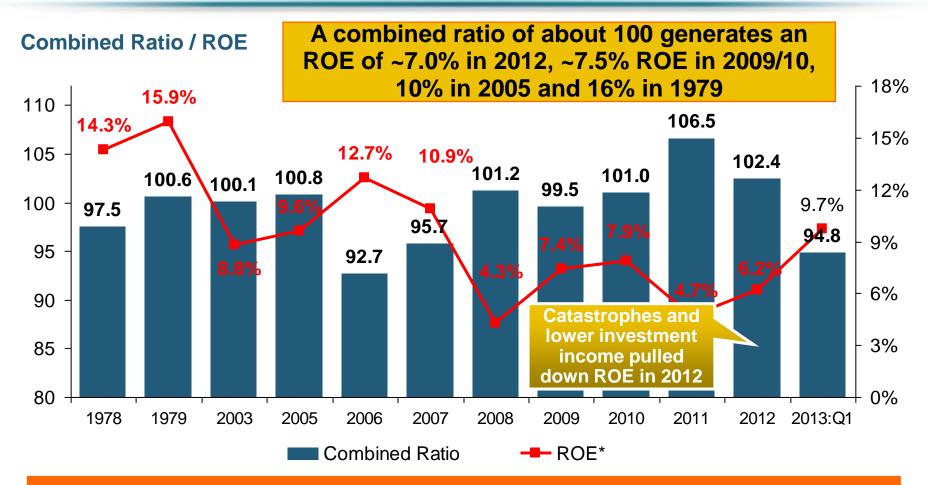


\*Profitability = P/C insurer ROEs. 2011-13 figures are estimates based on ROAS data. Note: Data for 2008-2013 exclude mortgage and financial guaranty insurers.

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

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



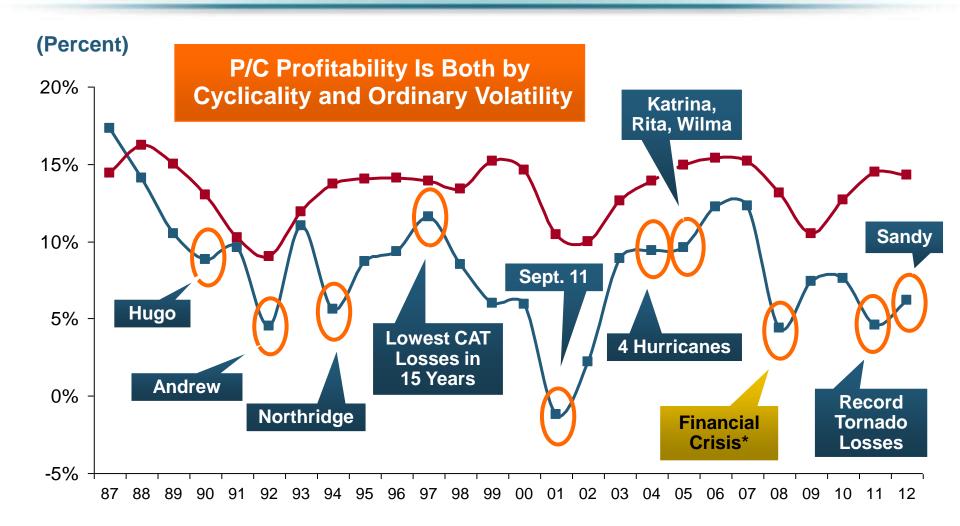


Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

<sup>\* 2008 -2012</sup> 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.

#### ROE: Property/Casualty Insurance vs. Fortune 500, 1987–2012\*

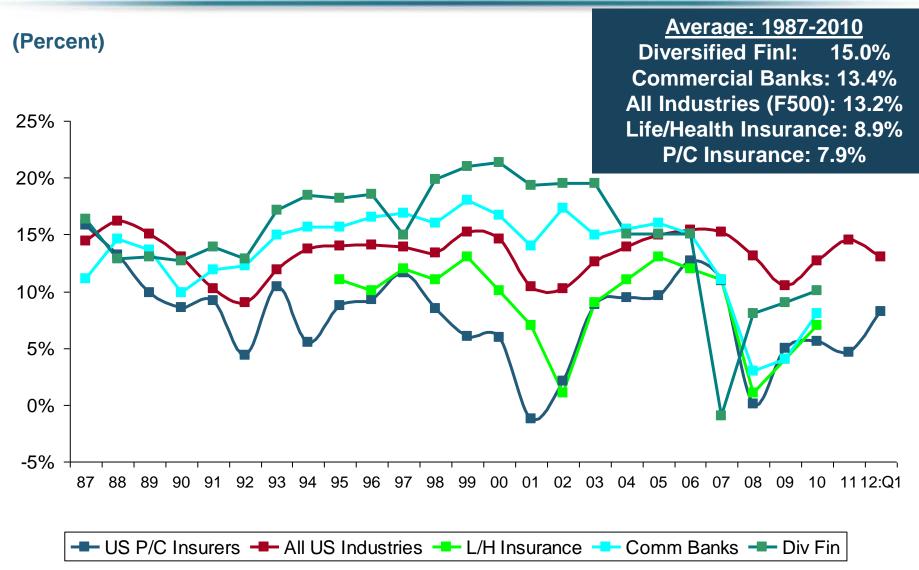




<sup>\*</sup> Excludes Mortgage & Financial Guarantee in 2008 – 2012. Sources: ISO, *Fortune*; Insurance Information Institute.

#### ROE: ROEs by Industry vs. Fortune 500, 1987–2012:Q1\*

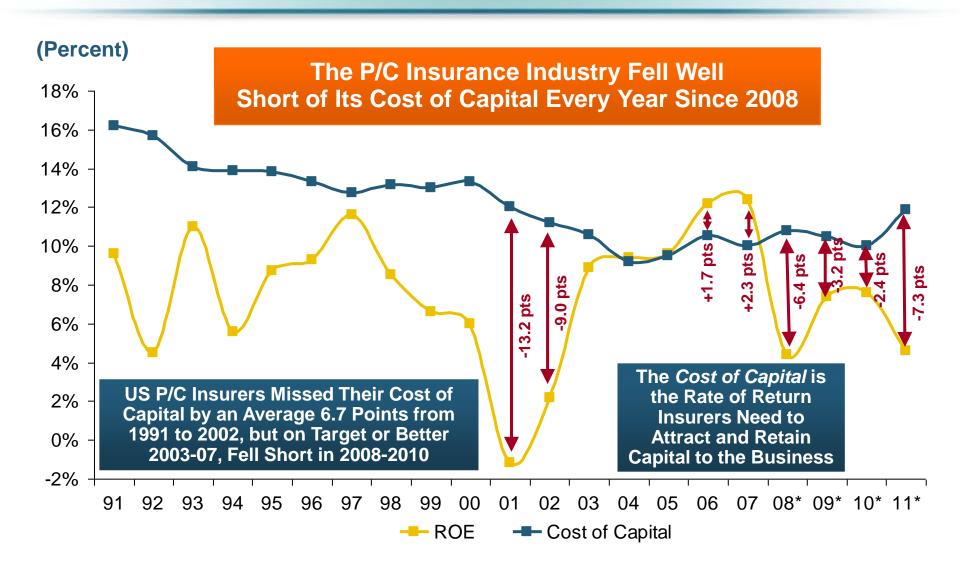




<sup>\*</sup> Excludes Mortgage & Financial Guarantee in 2008 – 2012. 2012 Fortune 500 figure is III estimate. Sources: ISO, *Fortune*; Insurance Information Institute.

#### ROE vs. Equity Cost of Capital: U.S. P/C Insurance:1991-2011\*





<sup>\*</sup> Return on average surplus in 2008-2011 excluding mortgage and financial guaranty insurers. Source: The Geneva Association, Insurance Information Institute

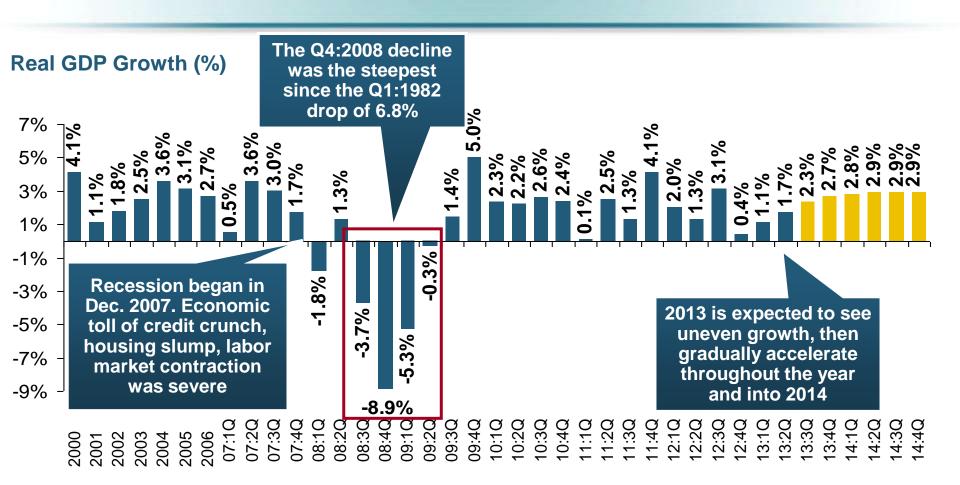


## The Strength of the Economy Will Influence P/C Insurer Growth Opportunities

**Growth Will Expand Insurer Exposure Base Across Most Lines** 

#### **US Real GDP Growth\***



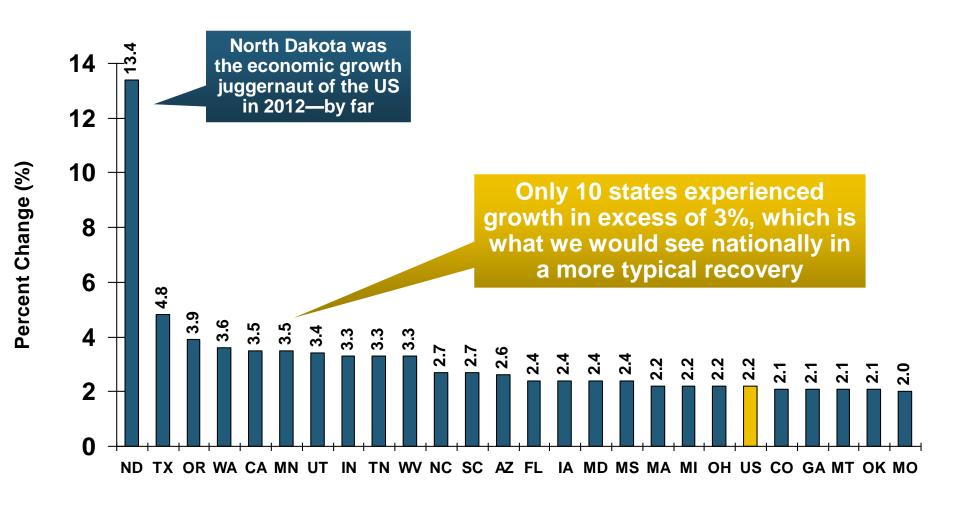


Demand for Insurance Continues To Be Impacted by Sluggish Economic Conditions, but the Benefits of Even Slow Growth Will Compound and Gradually Benefit the Economy Broadly

<sup>\*</sup> Estimates/Forecasts from Blue Chip Economic Indicators.

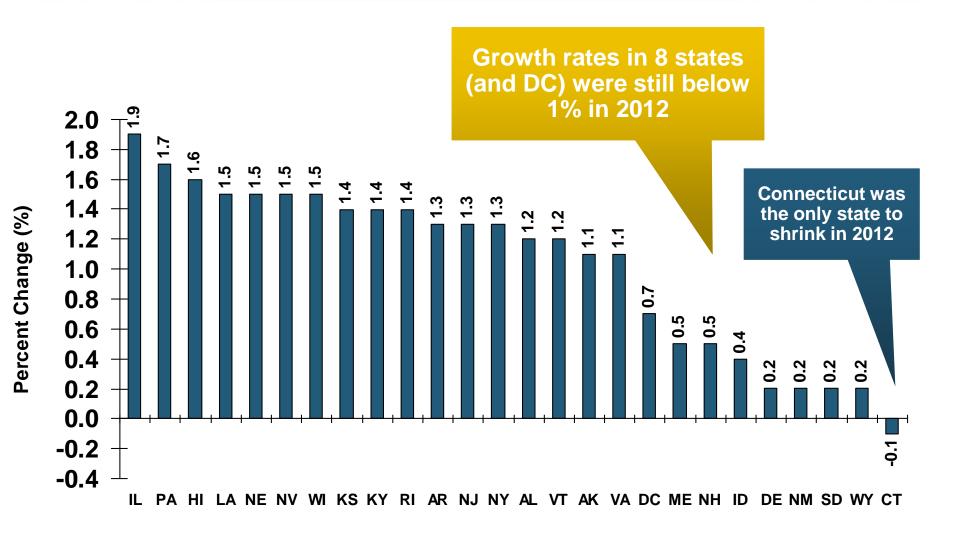
#### Real GDP by State Percent Change, 2012: Highest 25 States





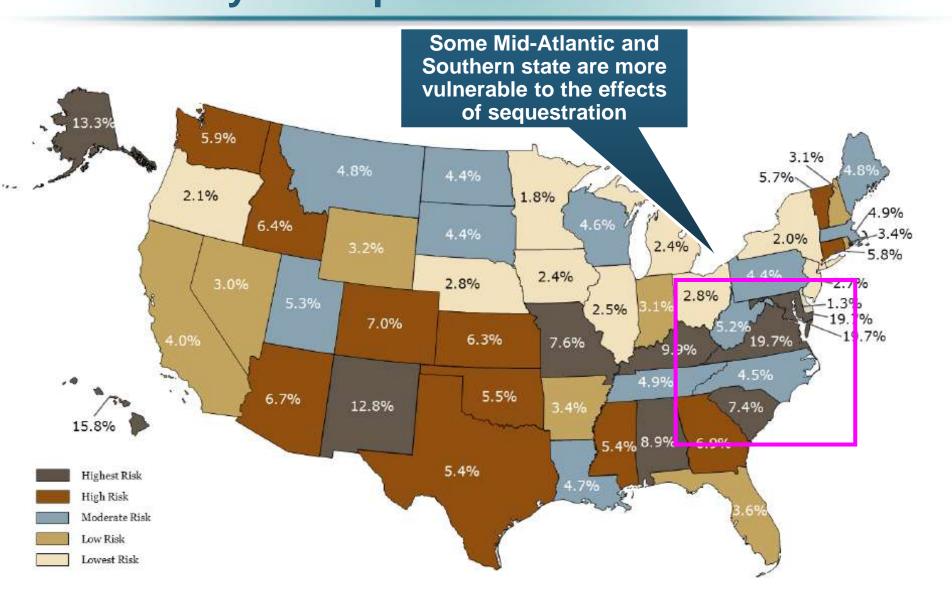
#### Real GDP by State Percent Change, 2012: Lowest 25 States





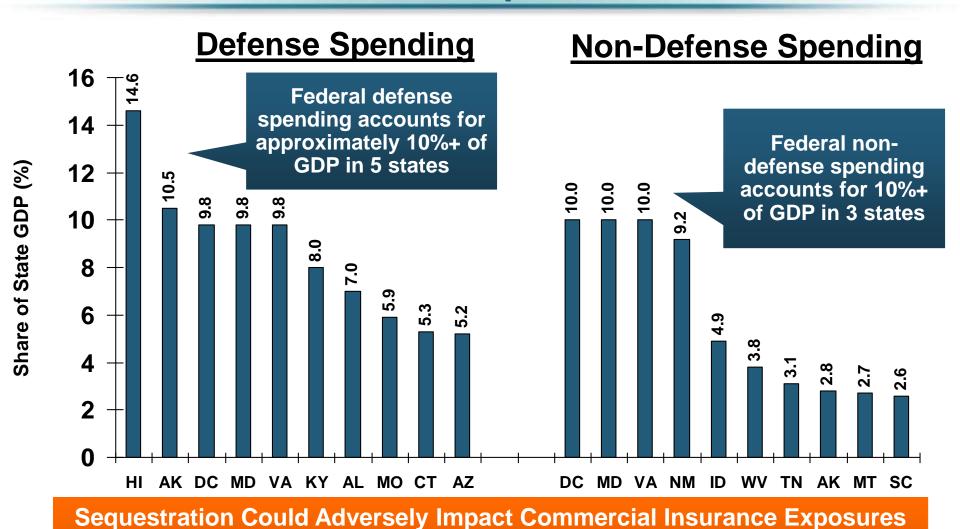
#### Federal Spending as a Share of State GDP: INSURANCE **Vulnerability to Sequestration Varies**





#### Defense and Non-Defense Federal Spending as a Share of State GDP: Top 10 States\*





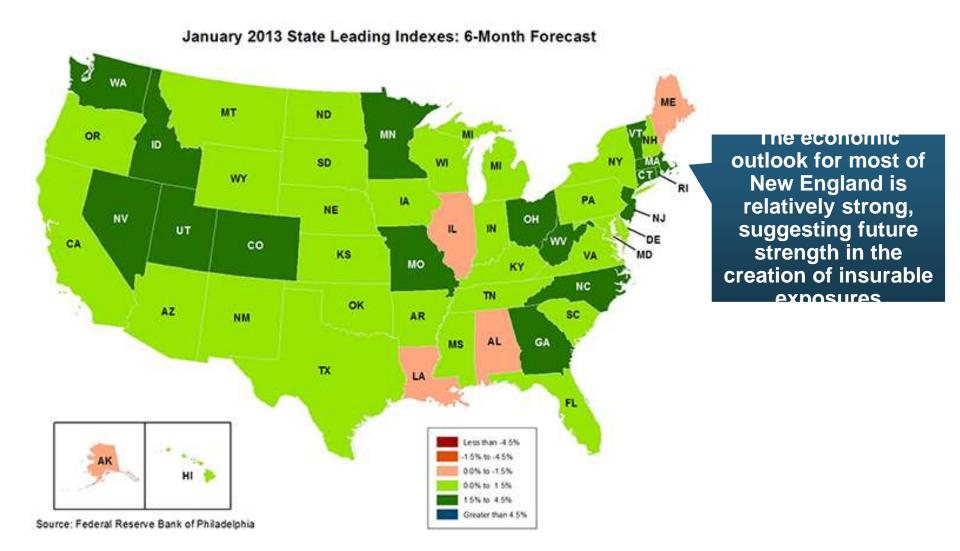
\*As of 2010.

Sources: Pew Center on the States (2012) Impact of the Fiscal Cliff on the States; Wells Fargo Securities; Insurance Information Institute.

**Directly at Defense Contractors and Indirectly in Impacted Communities** 

### State-by-State Leading Indicators through 2013:Q2

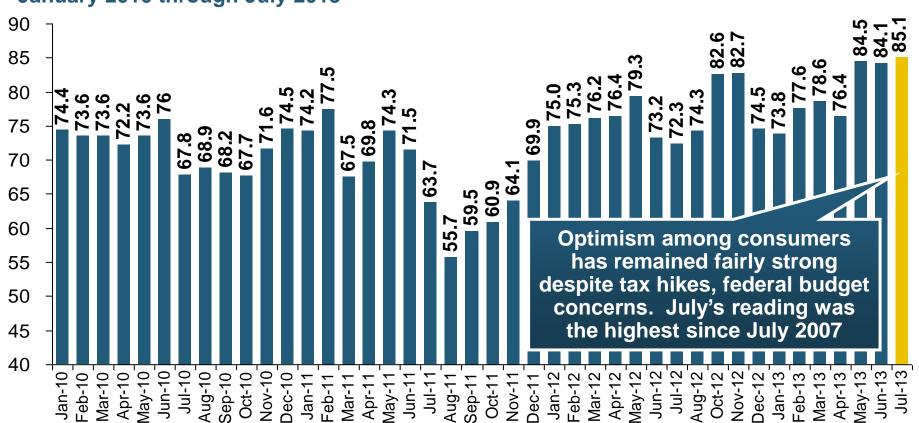




#### **Consumer Sentiment Survey** (1966 = 100)



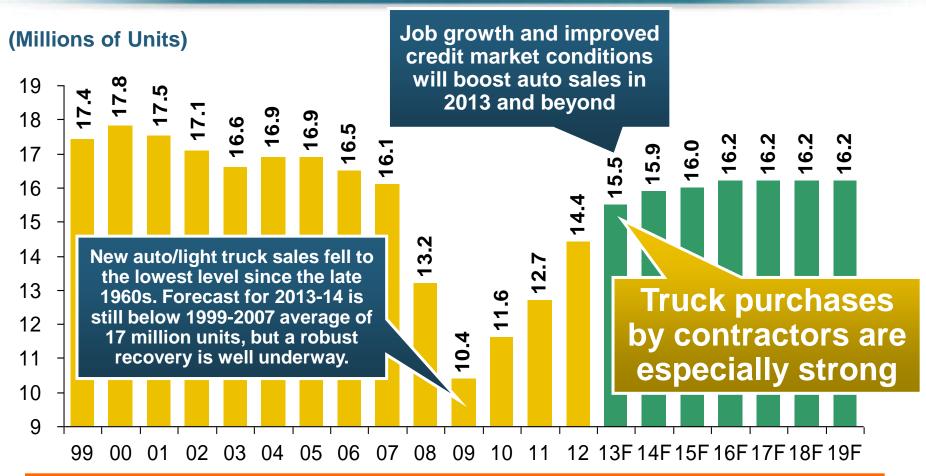




Consumer confidence has been low for years amid high unemployment, falling home prices and other factors adversely impact consumers, but improved substantially over the past two years

#### Auto/Light Truck Sales, 1999-2019F

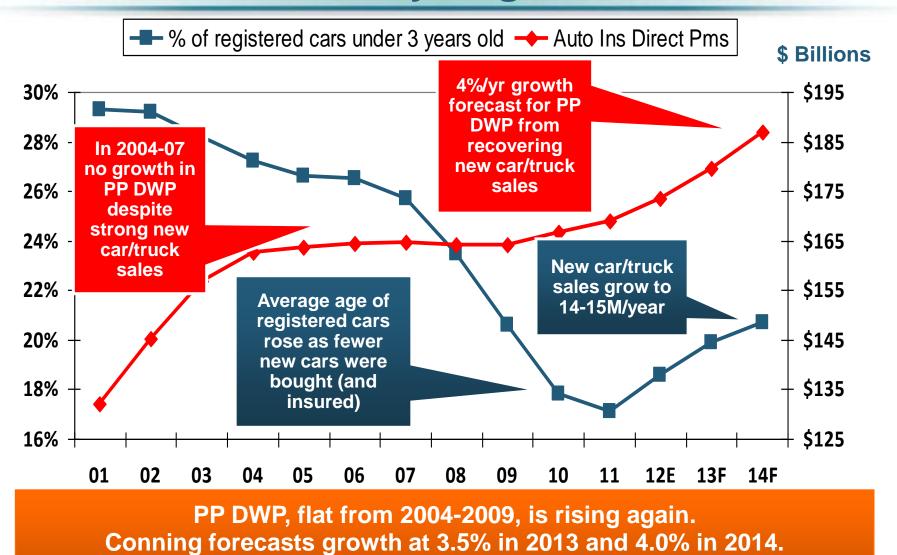




Car/Light Truck Sales Will Continue to Recover from the 2009 Low Point, Bolstering the Auto Insurer Growth and the Manufacturing Sector Along With Workers Comp Exposures

## Personal Auto Insurance Direct Written Premiums vs. Recently-Registered Cars

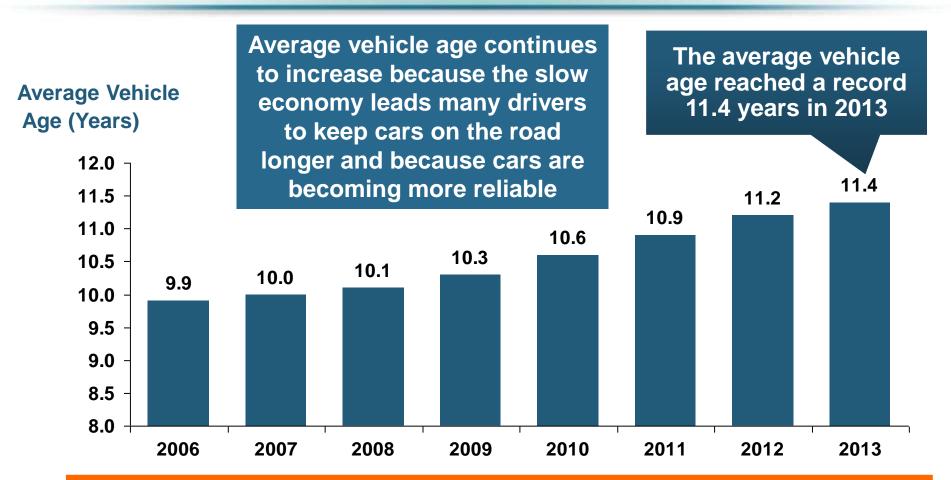




Sources: AIPSO Facts (various issues); SNL Financial; Conning Research & Consulting, *Property-Casualty Forecast and Analysis*, First Quarter 2012; Insurance Information Institute.

#### Average Age of Vehicles on the Road, 2006—2013

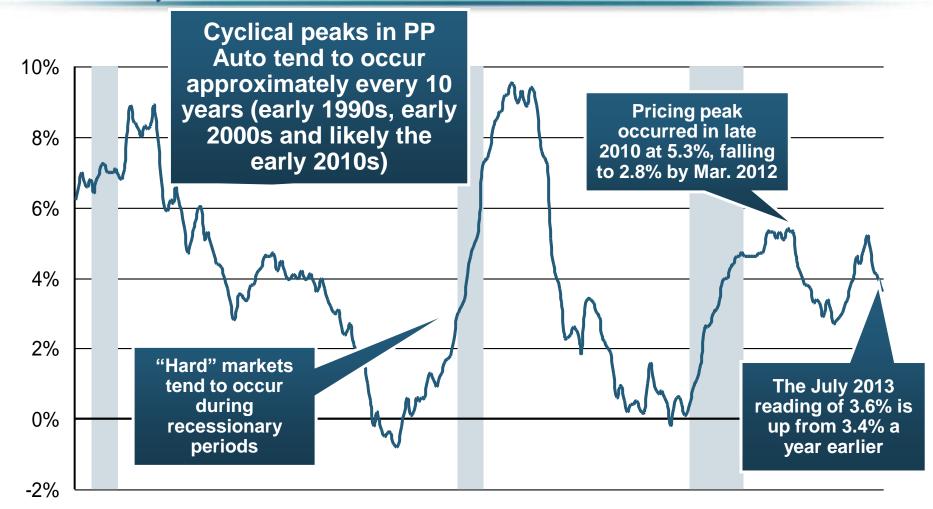




The average age of a vehicle on the road is is expected to continue to increase until 2018. By 2018, the number of vehicles 12+ years old is expected to rise 11.6% from 2013 and the number that are under 5 years old is expected to increase by 41%

## Monthly Change\* in Auto Insurance Prices, 1991–2013\*



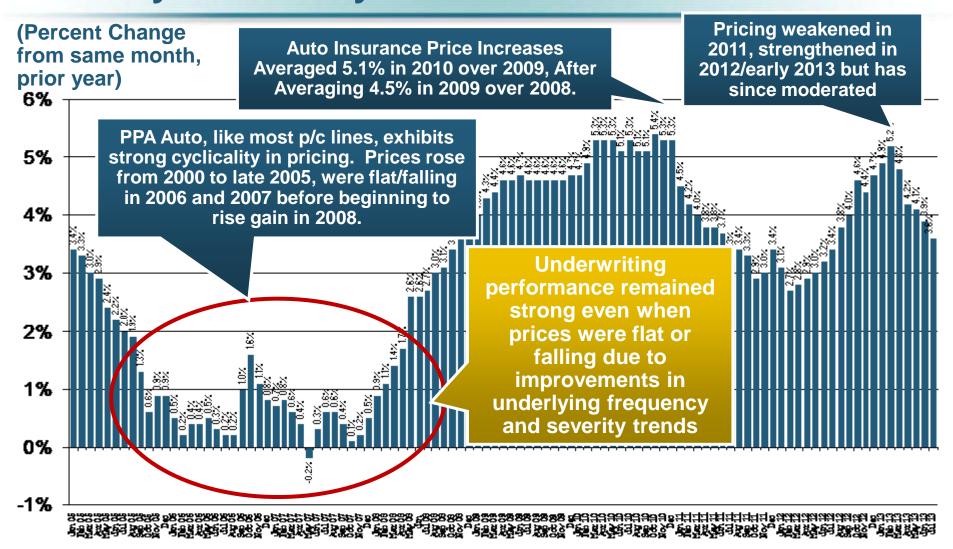


'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

<sup>\*</sup>Percentage change from same month in prior year; through July 2013; seasonally adjusted Note: Recessions indicated by gray shaded columns.

#### Monthly Change\* in Auto Insurance Prices, January 2005 - July 2013

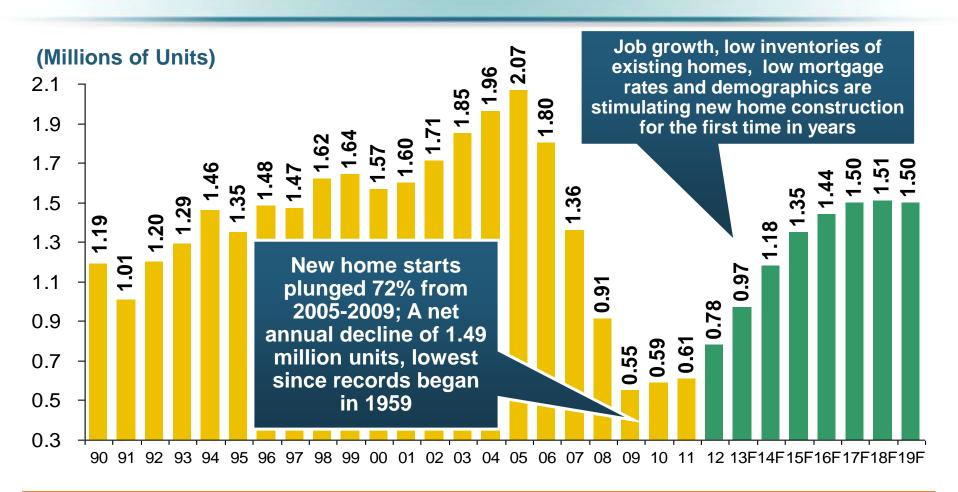




<sup>\*</sup>Percentage change from same month in prior year, seasonally adjusted. Sources: US Bureau of Labor Statistics; Insurance Information Institute

#### New Private Housing Starts, 1990-2019F





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

### Pvt. Passenger Auto: Industry's Biggest Line Some of its Biggest Issues



- Growth
- Profitability
- Distribution Channels, Advertising
- Highly Competitive Markets
- Underwriting
  - Predictive analytics
  - "Big Data"
  - Usage-Based Insurance (UBI)
- No-Fault Issues
  - MI no-fault claim severity is up 88% since 2004
- Regulation
  - Attacks on underwriting criteria
- End of Motorization in America?

## **Change Since Peak for Key Vehicle Metrics**

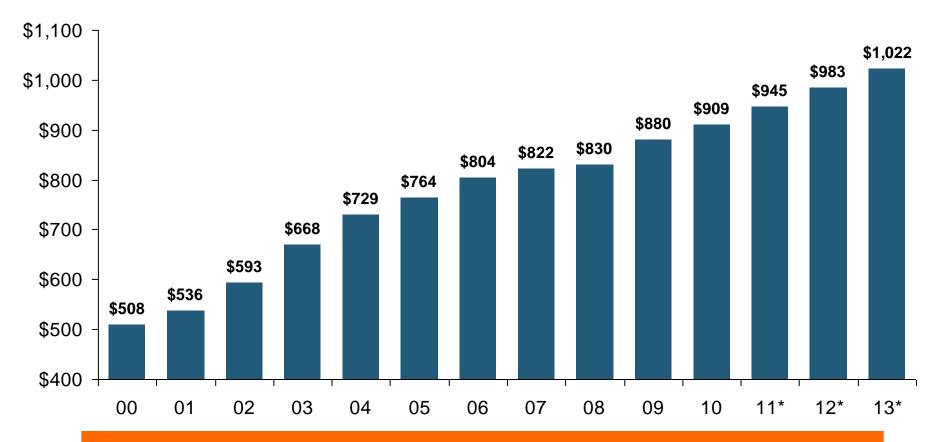


Measure	Peak year(s)	Reduction in 2011 from the peak
Vehicles	2008	-1%
Vehicles per person, per licensed driver, and per household	2001-2006	-5%
Distance driven	2006	-5%
Distance driven per person, per licensed driver, and per household	2004	-9%
Distance driven per vehicle	2004	-5%

Source: University of Michigan Transportation Research Institute: "Has Motorization in the U.S. Peaked? Part 2: Use of Light-Duty Vehicles," by Michael Sivak, July 2013.

#### Average Premium for Home Insurance Policies\*\*





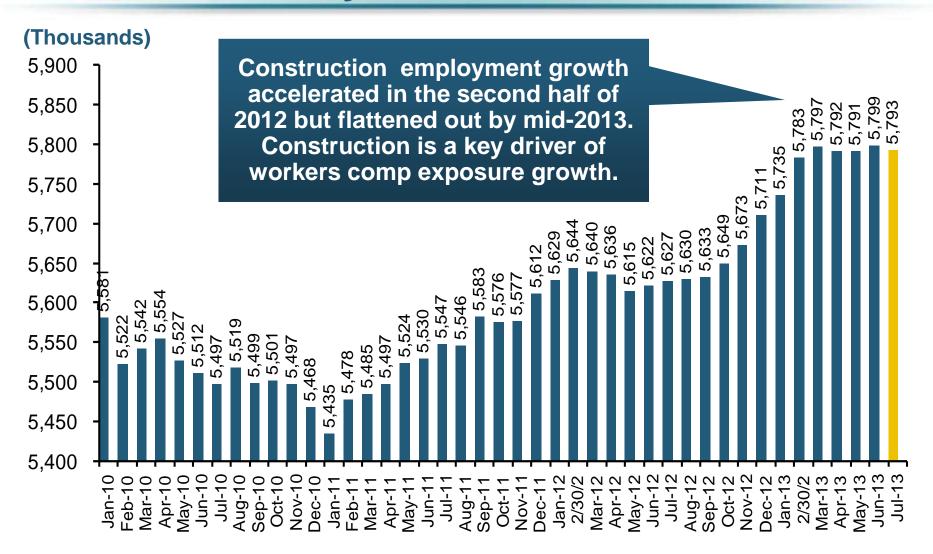
Countrywide Home Insurance Expenditures Increased by an Estimated 4.0% in 2011-2013

<sup>\*</sup> Insurance Information Institute Estimates/Forecasts \*\*Excludes state-run insurers.

Source: NAIC, Insurance Information Institute estimates for 2011-2013 based on CPI data and other data.

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

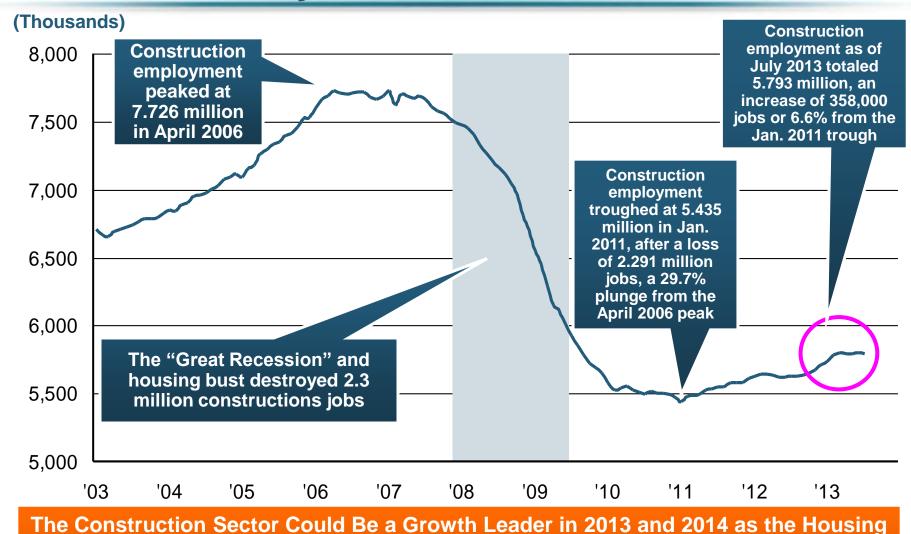




<sup>\*</sup>Seasonally adjusted

## Construction Employment, Jan. 2003–July 2013





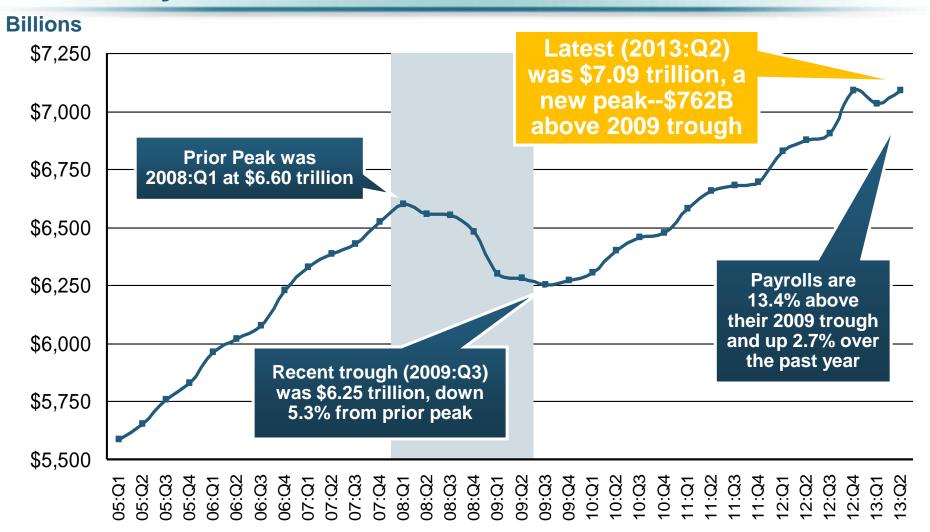
Market and Private Investment Recover. WC Insurers Will Benefit.

Note: Recession indicated by gray shaded column.

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

#### Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q2



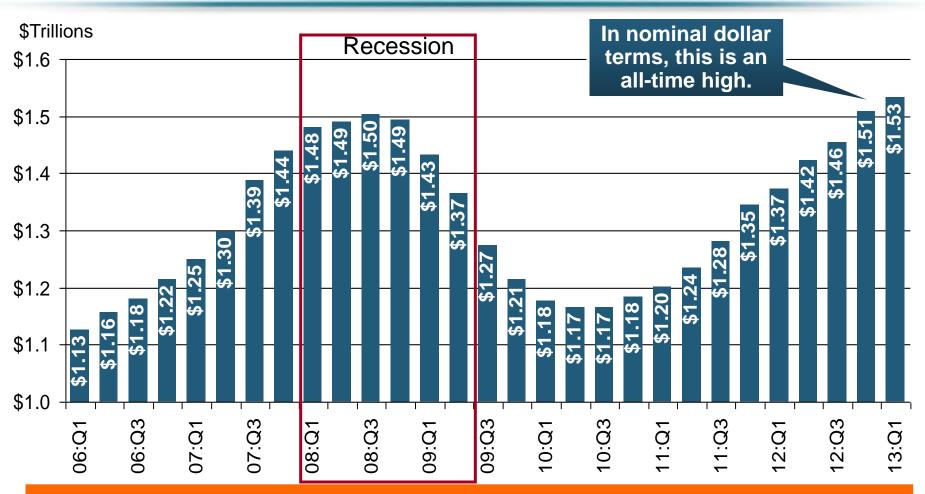


Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: <a href="http://research.stlouisfed.org/fred2/series/WASCUR">http://research.stlouisfed.org/fred2/series/WASCUR</a>; National Bureau of Economic Research (recession dates); 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.

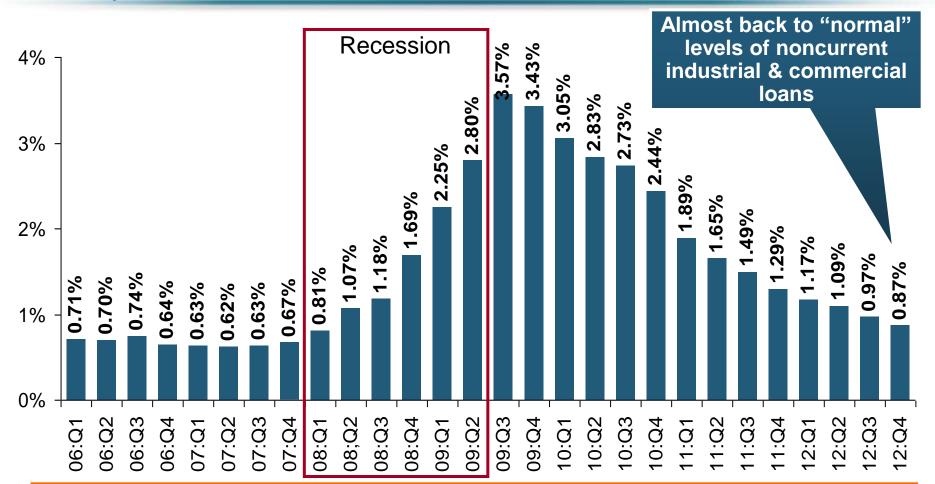
Source: FDIC at <a href="http://www2.fdic.gov/qbp/">http://www2.fdic.gov/qbp/</a> (Loan Performance spreadsheet); Insurance Information Institute.

<sup>\*</sup>Latest data as of 6/14/2013.

#### Percent of Non-current Commercial & Industrial Loans Outstanding at FDIC-Insured Banks,



Quarterly, 2006-2012:Q4\*



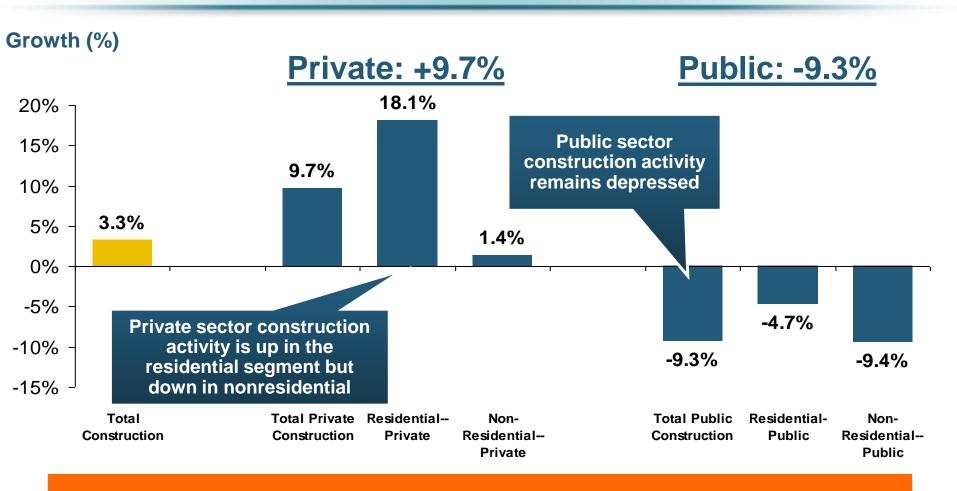
Non-current loans (those past due 90 days or more or in nonaccrual status) are back to early-recession levels, fueling bank willingness to lend.

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

<sup>\*</sup>Latest data as of 3/18/2013.

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



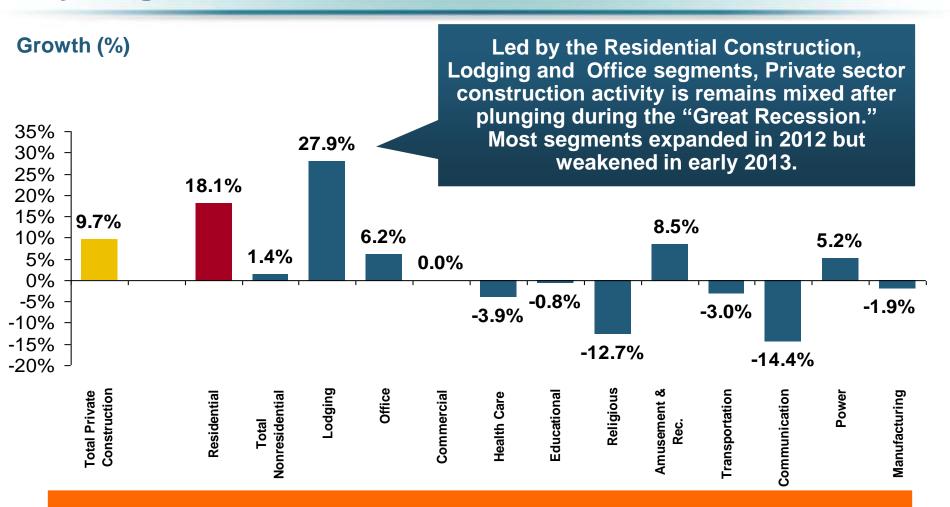


Overall Construction Activity is Up, But Growth Is Entirely in the Private Sector as State/Local Government Budget Woes Continue

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

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



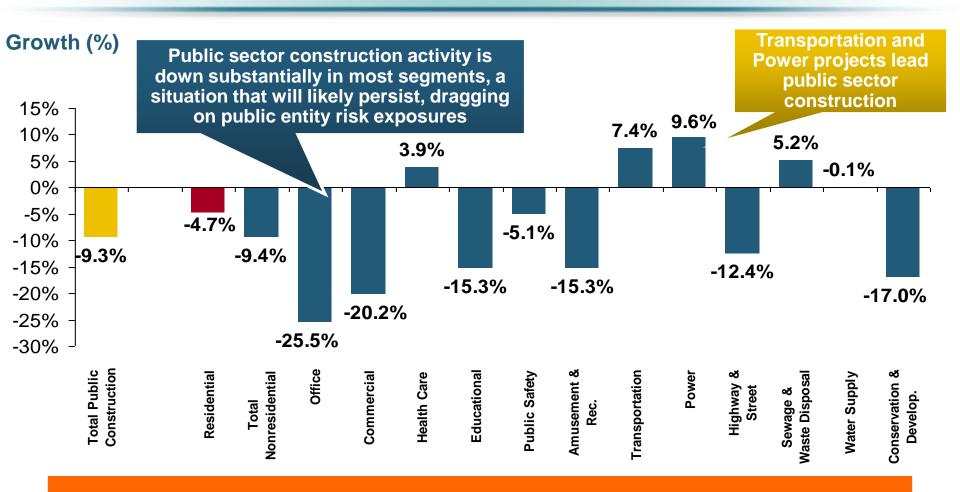


Private Construction Activity is Up in Some Segments, Including the Key Residential Construction Sector, But Weakened in the First Half of 2013

<sup>\*</sup>seasonally adjusted

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





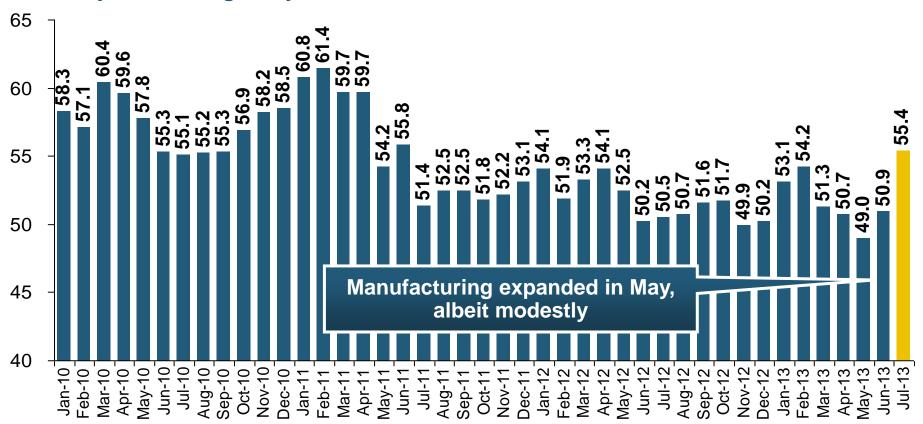
Public Construction Activity is Down in Many Segments as State and Local Budgets Remain Under Stress; Improvement Possible in 2014.

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

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



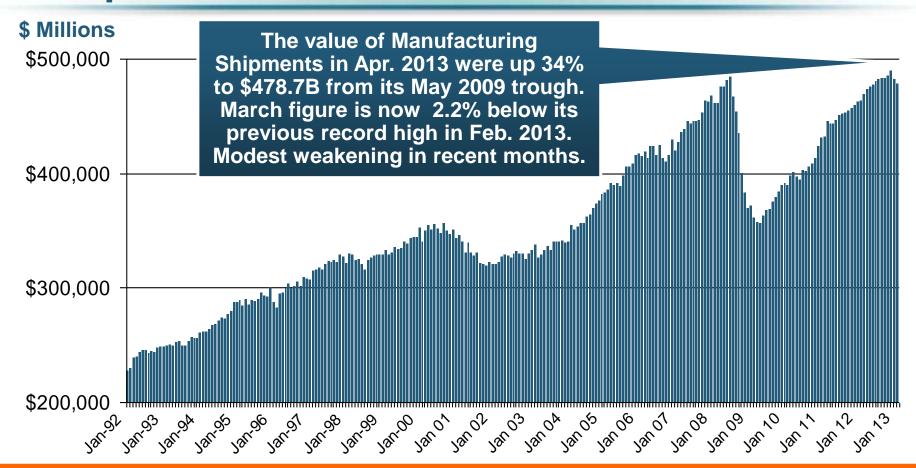
January 2010 through July 2013



The manufacturing sector expanded for 39 of the 43 months from Jan. 2010 through June 2013. Recent weakness stems largely from woes in Europe and a Slowdown in China.

## Dollar Value\* of Manufacturers' Shipments Monthly, Jan. 1992—Apr. 2013

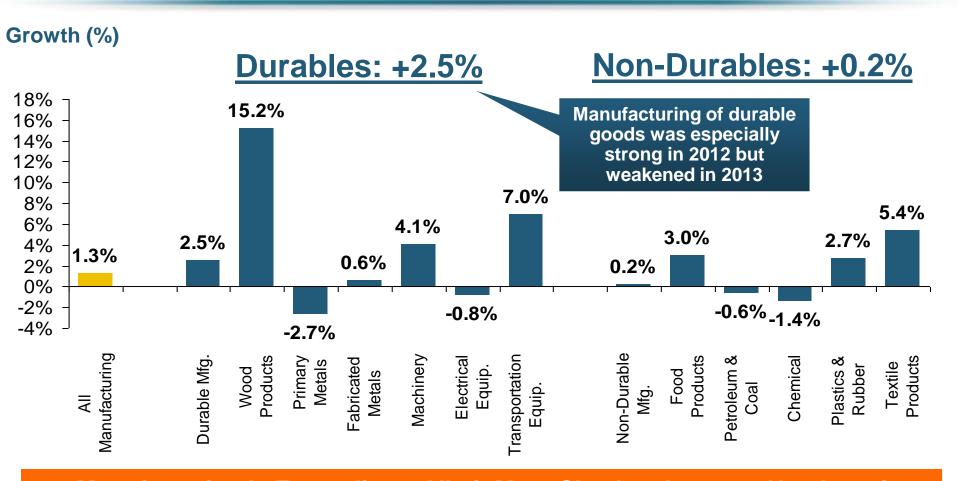




Monthly shipments in Feb. 2013 exceeded their pre-crisis (July 2008) peak. Trough in May 2009. Growth from trough to Apr. 2013 was 34%. Manufacturing is an energy intensive activity and growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property and Various Liability Coverages

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



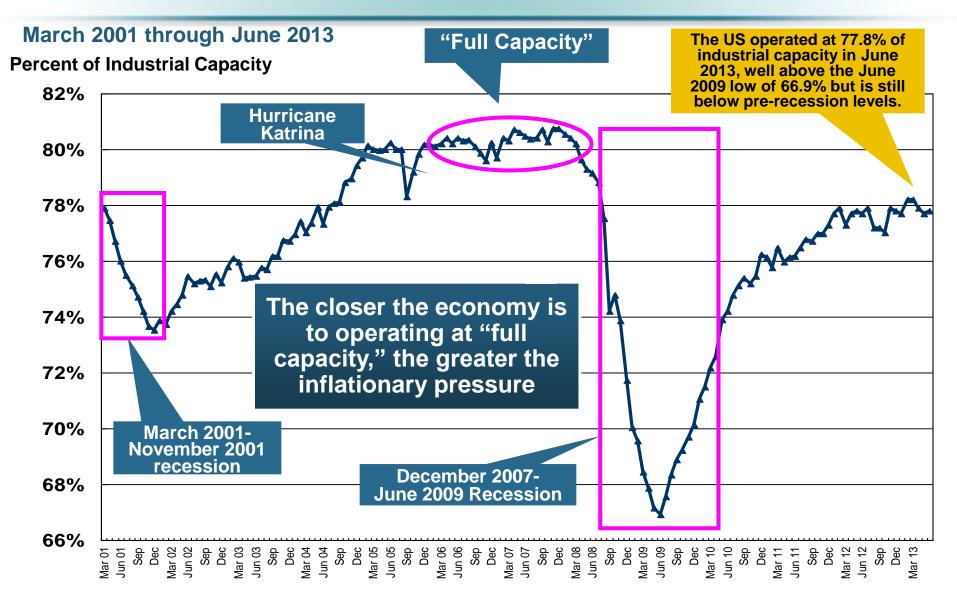


Manufacturing Is Expanding—Albeit More Slowly—Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages

<sup>\*</sup>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, <a href="http://www.census.gov/manufacturing/m3/36">http://www.census.gov/manufacturing/m3/36</a>

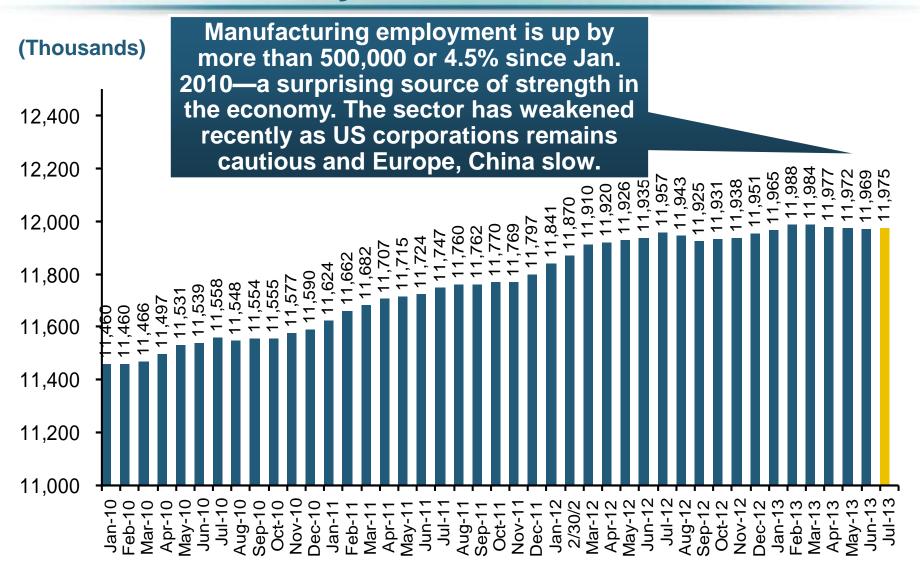
### Recovery in Capacity Utilization is a Positive Sign for Commercial Exposures





# Manufacturing Employment, Jan. 2010—July 2013\*



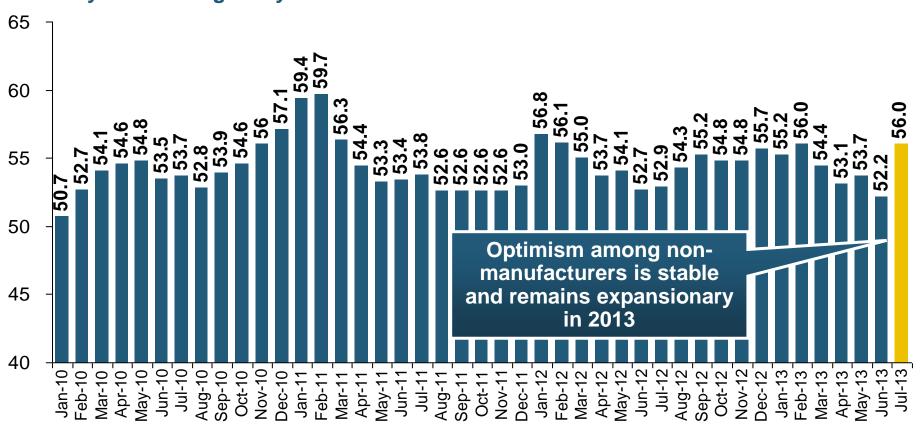


<sup>\*</sup>Seasonally adjusted

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



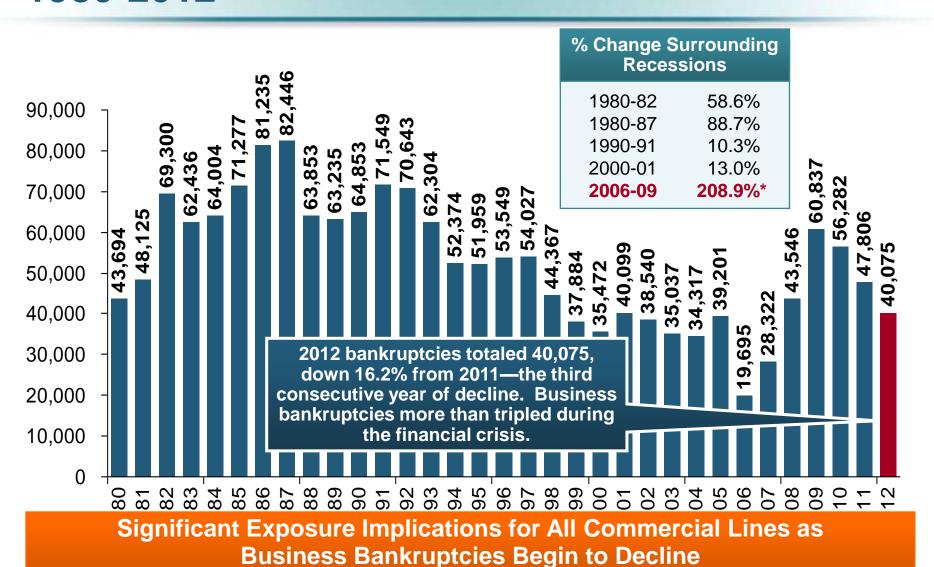
January 2010 through July 2013



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

#### **Business Bankruptcy Filings**, 1980-2012





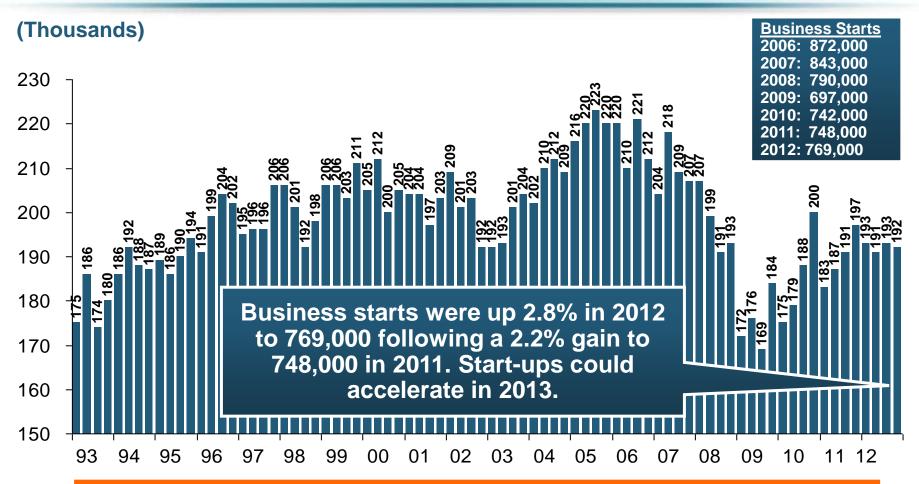
Sources: American Bankruptcy Institute at

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:Q4\*





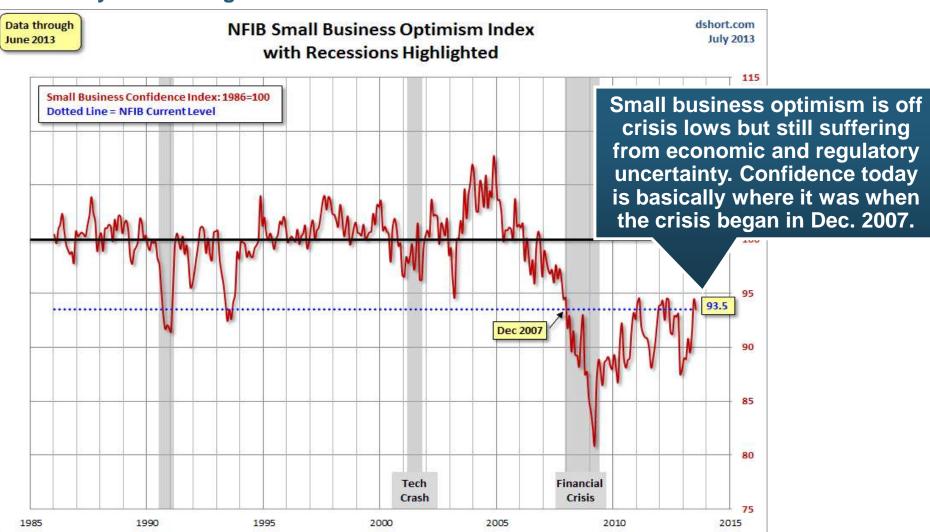
Business Starts Were Down Nearly 20% in the Recession, Holding Back Most Types of Commercial Insurance Exposure, But Are Recovering Slowly

<sup>\*</sup> Data through Dec. 30, 2012 are the latest available as of Aug. 16, 2013; Seasonally adjusted. Source: Bureau of Labor Statistics, <a href="http://www.bls.gov/news.release/cewbd.t08.htm">http://www.bls.gov/news.release/cewbd.t08.htm</a>.

#### **NFIB Small Business Optimism Index**



#### January 1985 through June 2013



Source: National Federation of Independent Business at <a href="http://www.advisorperspectives.com/dshort/charts/indicators/Sentiment.html?NFIB-optimism-index.gif">http://www.advisorperspectives.com/dshort/charts/indicators/Sentiment.html?NFIB-optimism-index.gif</a>; Insurance Information Institute.

#### 12 Industries for the Next 10 Years: Insurance Solutions Needed



**Health Care** 

**Health Sciences** 

**Energy (Traditional)** 

**Alternative Energy** 

**Petrochemical** 

Agriculture

**Natural Resources** 

Technology (incl. Biotechnology)

**Light Manufacturing** 

**Insourced 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

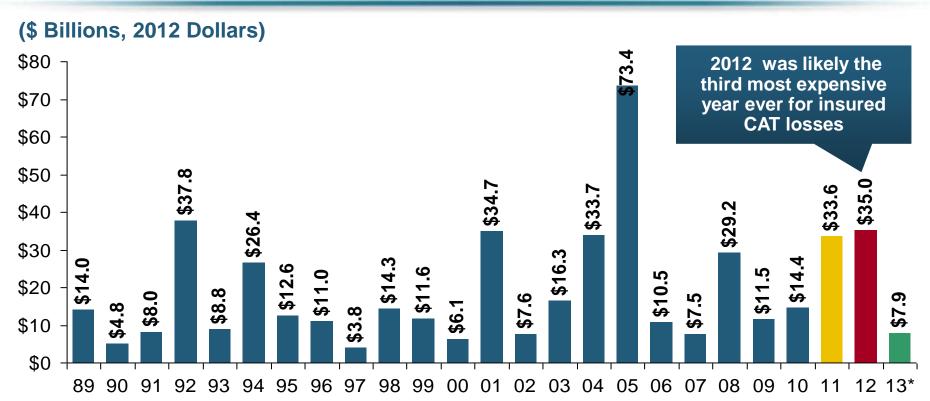


# U.S. Insured Catastrophe Loss Update

Catastrophe Losses in Recent Years
Have Been Very High

#### **U.S. Insured Catastrophe Losses**





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

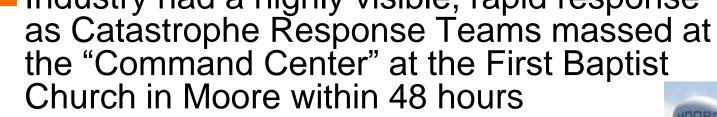
Sources: Property Claims Service/ISO; Insurance Information Institute.

<sup>\*</sup>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.)

#### Moore, OK, Tornado: Media Coverage **Was Generally Favorable**



Industry had a highly visible, rapid response as Catastrophe Response Teams massed at the "Command Center" at the First Baptist



Developed good working relationship with OK Insurance Commissioner John Doak

















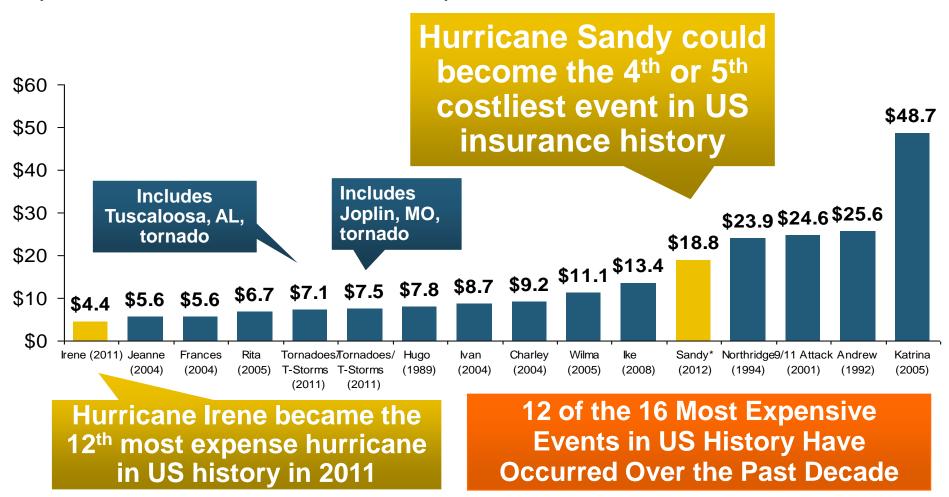




## Top 16 Most Costly Disasters in U.S. History



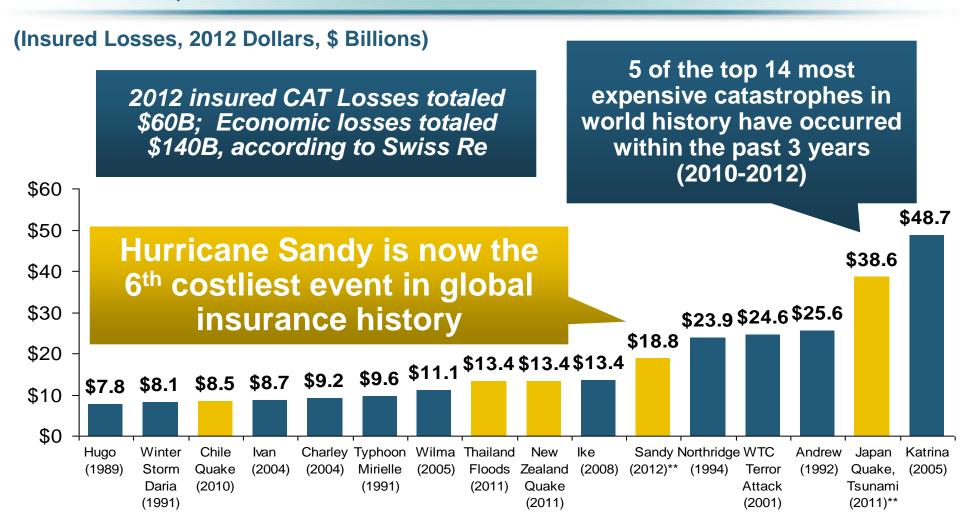
(Insured Losses, 2012 Dollars, \$ Billions)



<sup>\*</sup>PCS estimate as of 4/12/13.

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





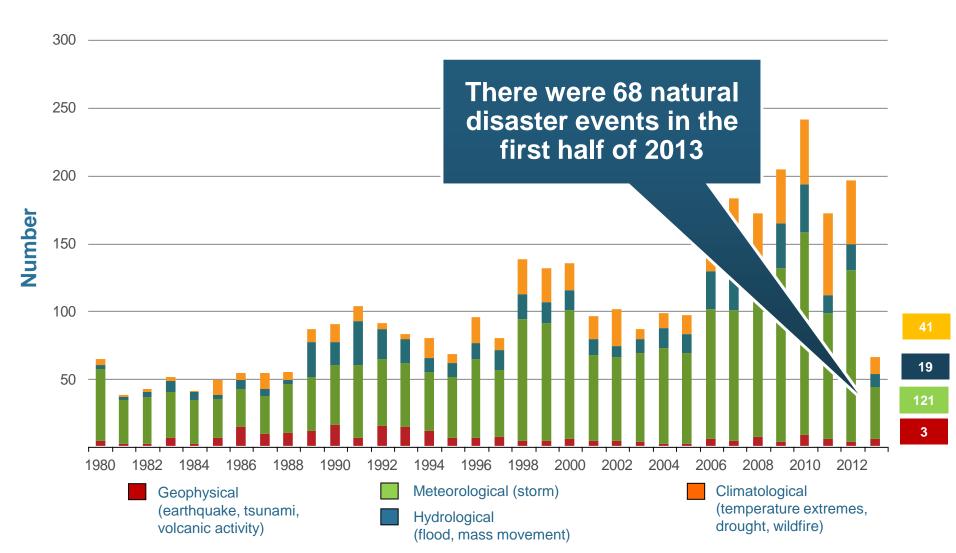
<sup>\*</sup>Figures do not include federally insured flood losses.

<sup>\*\*</sup>Estimate based on PCS value of \$18.75B as of 4/12/13.
Sources: Munich Re; Swiss Re; Insurance Information Institute research.

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



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

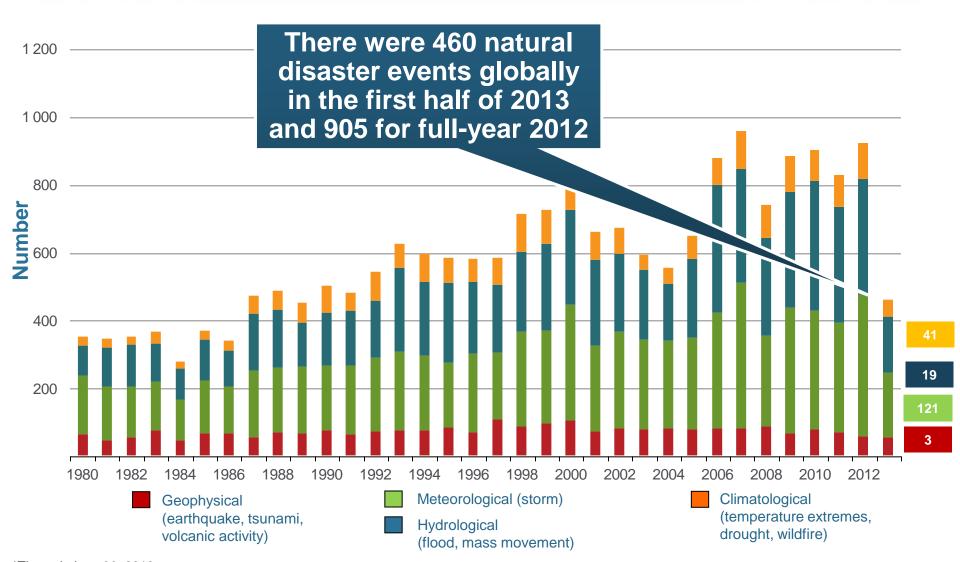


\*Through June 30, 2013.

Source: MR NatCatSERVICE

#### Natural Disasters Worldwide, 1980 – 2013\* (Number of Events)



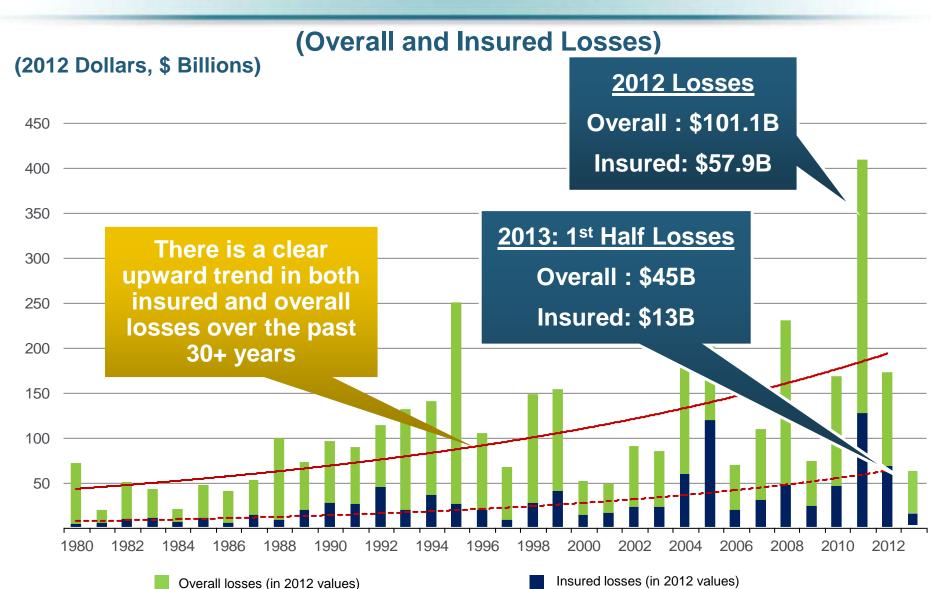


\*Through June 30, 2013. Source: MR NatCatSERVICE

: MR NatCatSERVICE 50

### Losses Due to Natural Disasters Worldwide, 1980–2013\* (Overall & Insured Losses)





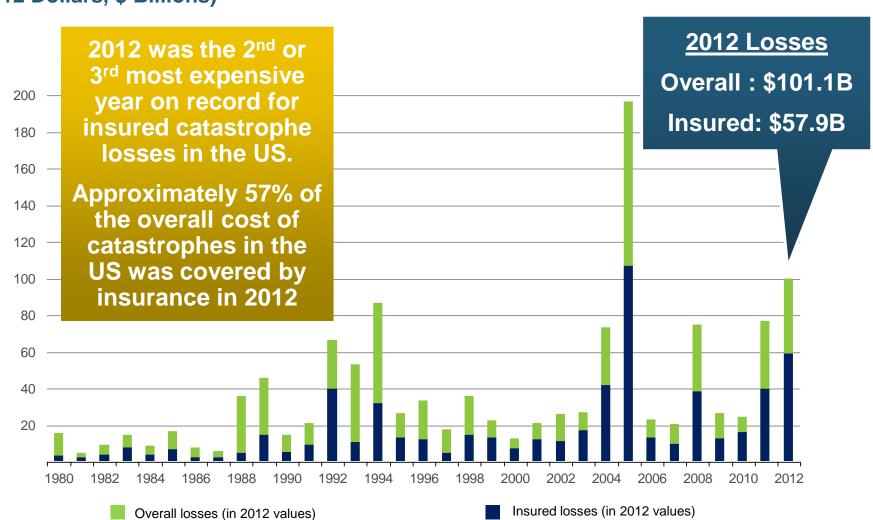
\*Through June 30, 2013. Source: MR NatCatSERVICE

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



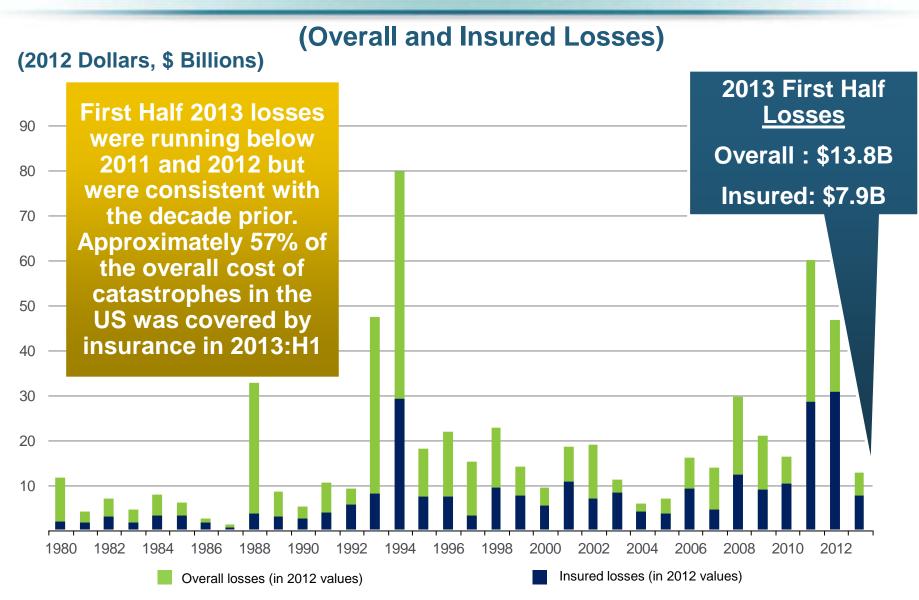
#### (Overall and Insured Losses)

(2012 Dollars, \$ Billions)



#### Losses Due to Natural Disasters in the US, 1980–2013 (Jan.-June Only)





#### Natural Disaster Losses in the United States: 2012



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

### 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)
Severe Thunderstorm	29	66	10,180	6,325
Winter Storm	13	17	2,434	1,255
Flood	10	9	500	Minor
Earthquake & Geophysical	5	0	Minor	Minor
Tropical Cyclone	1	1	Minor	Minor
Wildfire, Heat, & Drought	11	23	700	365
Totals	68	116	13,814	7,945

Source: MR NatCatSERVICE 55

#### Significant Natural Catastrophes, 2012



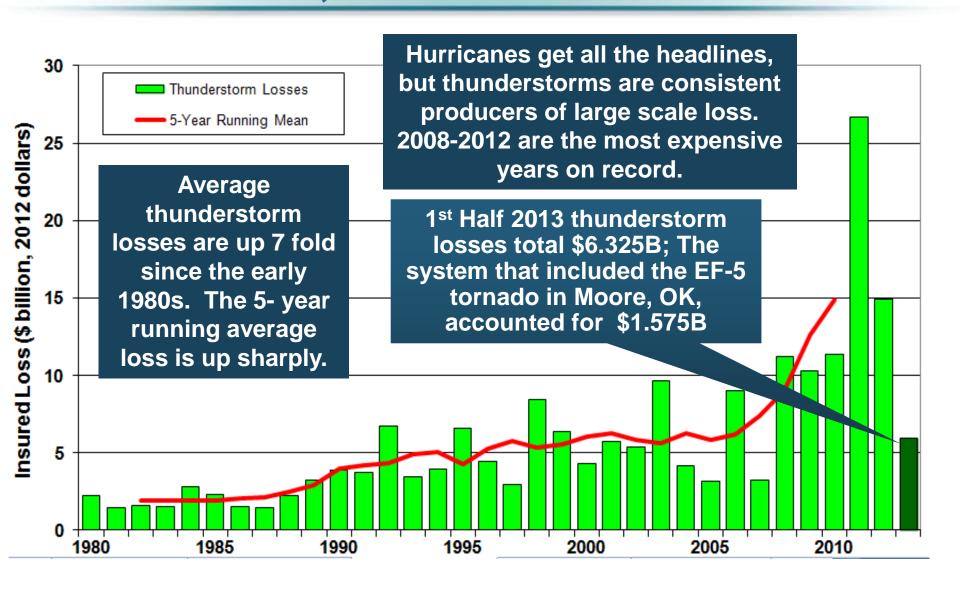
(Events with \$1 billion economic loss and/or 50 fatalities)

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

Source: MR NatCatSERVICE

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

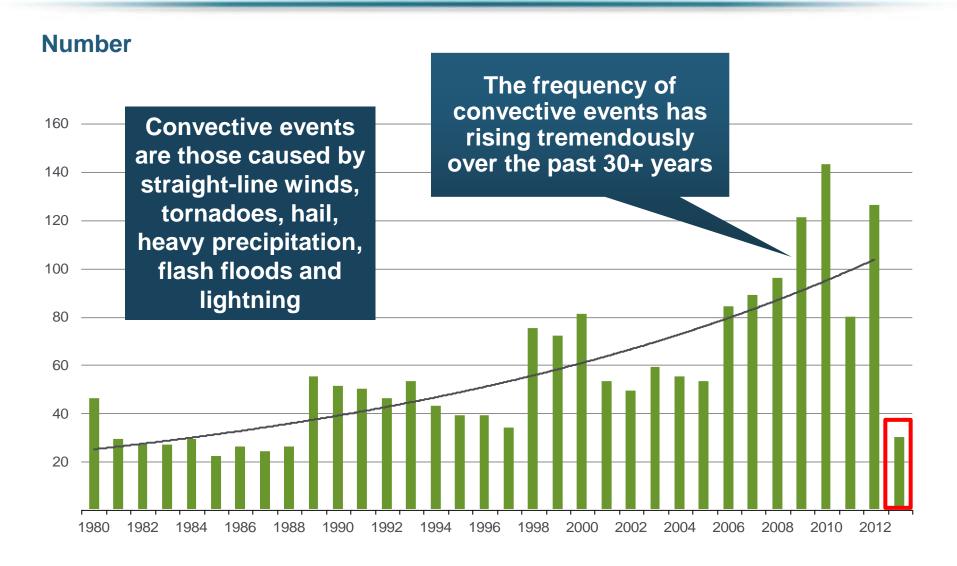




#### Convective Loss Events in the U.S.



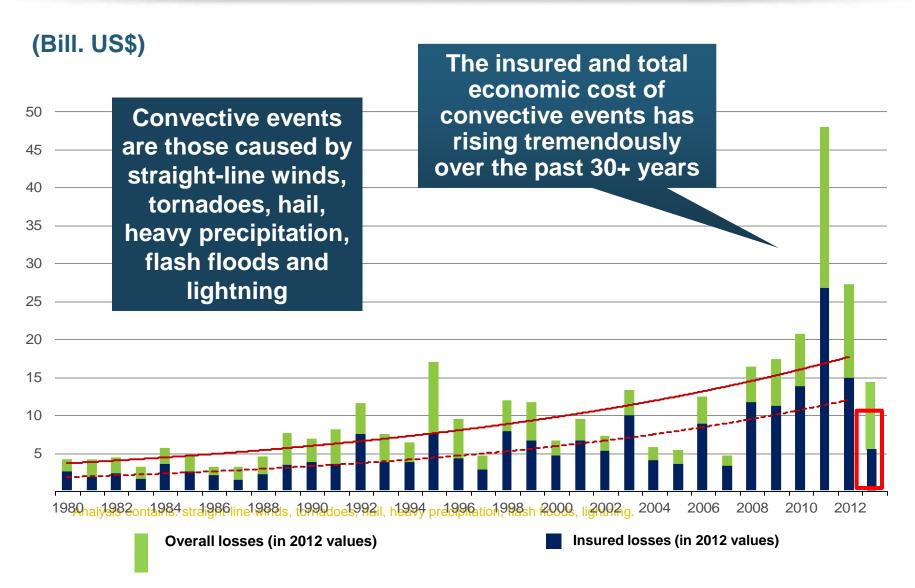
Number of events 1980 - 2012 and First Half 2013



#### Convective Loss Events in the U.S.





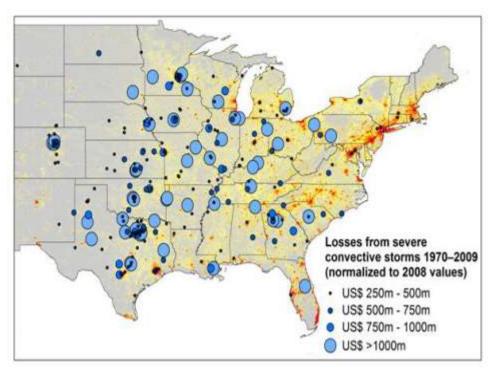


### New Research Suggests Increase in Convective Activity Is Costly for Insurers



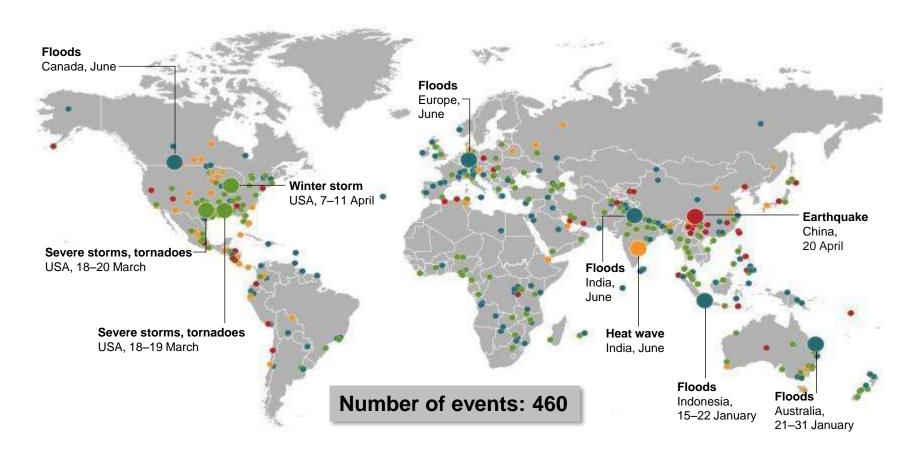
- Study examines convective (hail, tornado, thundersquall and heavy rainfall) events in the US with losses exceeding US\$ 250m in the period 1970–2009 (80% of all losses)
- Past losses are normalized (i.e., adjusted) to currently exposed values
- After normalization there are still increases of losses
- Increases are correlated with the increase in the meteorological potential for severe thunderstorms and its variability

For the first time research shows that climatic changes have already influenced US thunderstorm losses



#### Natural Catastrophes January – June 2013 World map with significant events





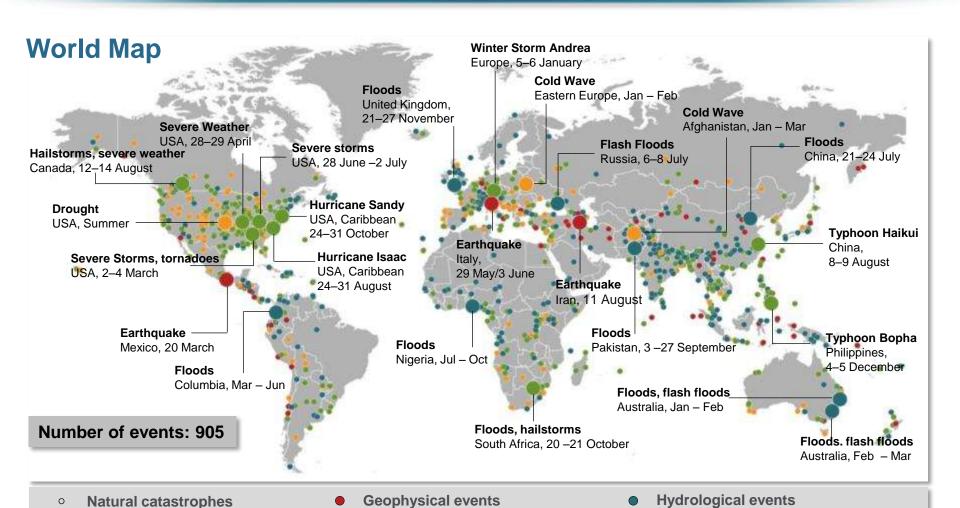
- Natural catastrophes
- Selection of significant loss events

- Geophysical events
   (earthquake, tsunami, volcanic activity)
- Meteorological events (storm)

- Hydrological events (flood, mass movement)
- Climatological events
   (extreme temperature, drought, wildfire)

#### Natural Loss Events: Full Year 2012





(earthquake, tsunami, volcanic activity)

**Meteorological events** 

(storm)

(flood, mass movement)

Climatological events

(extreme temperature, drought, wildfire)

Selection of significant

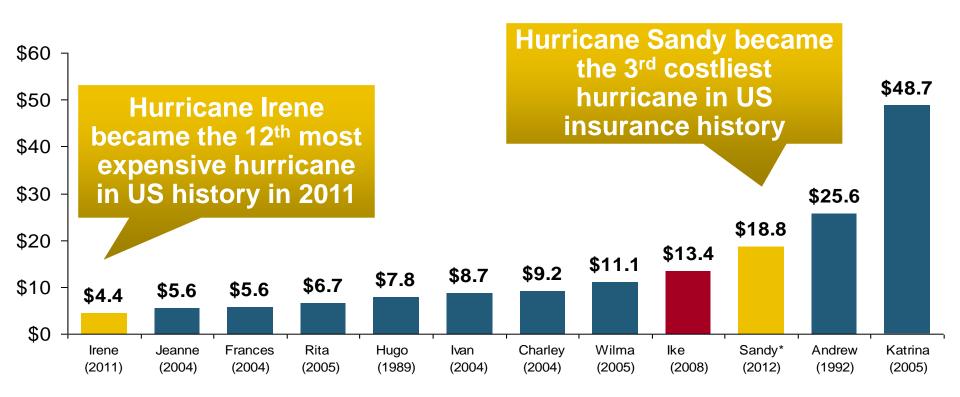
**Natural catastrophes** 

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



(Insured Losses, 2012 Dollars, \$ Billions)

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



<sup>\*</sup>PCS estimate as of 4/12/13.

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

### Outlook for 2013 Hurricane Season: 75% Worse Than Average



Forecast Parameter	<b>Median</b> (1981-2010)	2013F
Named Storms	12.0	18
Named Storm Days	60.1	95
Hurricanes	6.5	9
Hurricane Days	21.3	40
Major Hurricanes	2.0	4
Major Hurricane Days	3.9	9
Accumulated Cyclone Energy	92.0	165
Net Tropical Cyclone Activity	103%	175%

Source: Philip Klotzbach and Dr. William Gray, Colorado State University, June 2013, accessed at <a href="http://tropical.atmos.colostate.edu/forecasts/2013/apr2013/apr2013.pdf">http://tropical.atmos.colostate.edu/forecasts/2013/apr2013/apr2013.pdf</a>; Insurance Information Institute...

### Landfall Probabilities for 2013 Hurricane Season: Above Average



	Average*	2013F
Entire US East & Gulf Coasts	52%	72%
US East Coast Including Florida Peninsula	31%	48%
Gulf Coast from Florida Panhandle to Brownsville	30%	47%
Caribbean	42%	61%

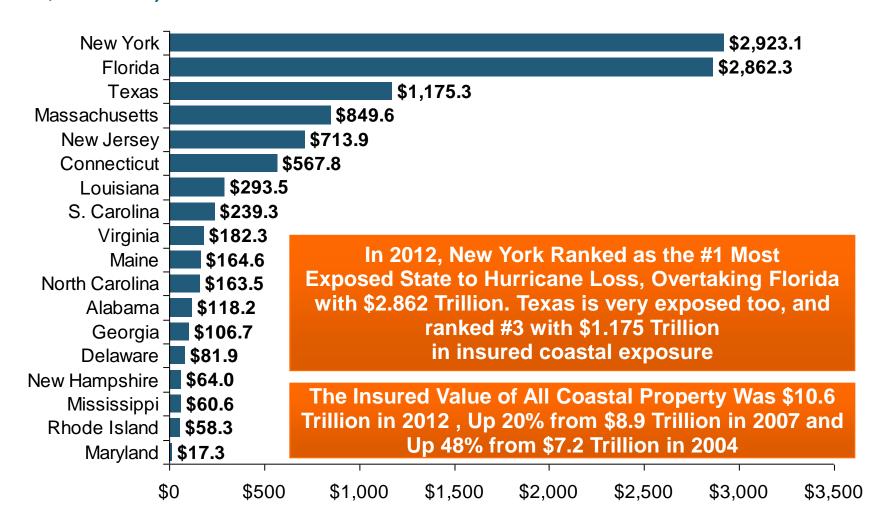
Source: Philip Klotzbach and Dr. William Gray, Colorado State University, June 2013.

<sup>\*</sup>Average over the past century.

#### **Total Value of Insured Coastal Exposure** in 2012



(2012, \$ Billions)

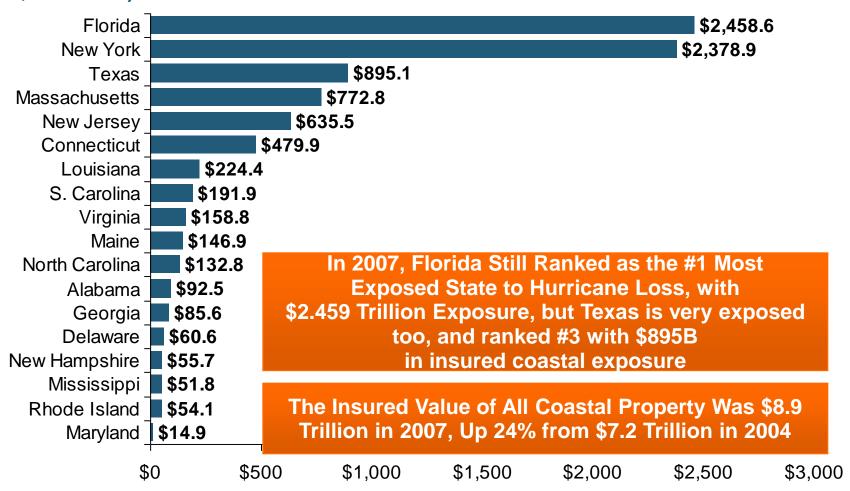


Source: AIR Worldwide

#### **Total Value of Insured Coastal Exposure** in 2007



(2007, \$ Billions)

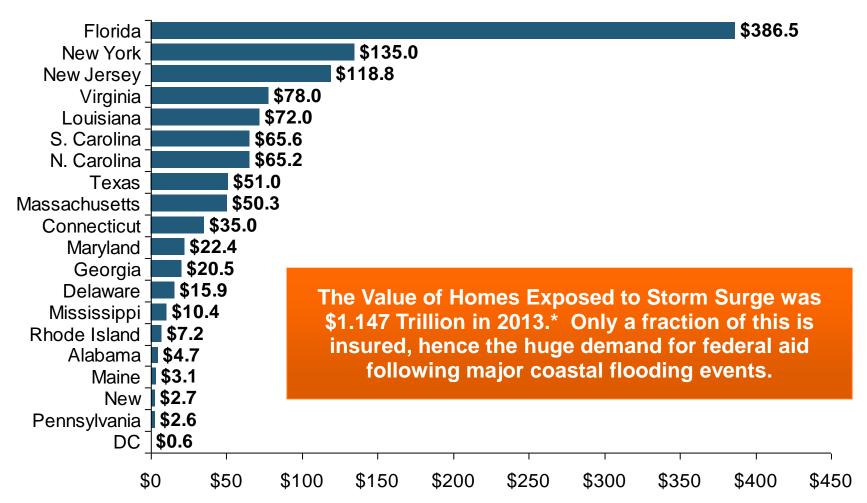


Source: AIR Worldwide

### Total Potential Home Value Exposure to Storm Surge Risk in 2013\*

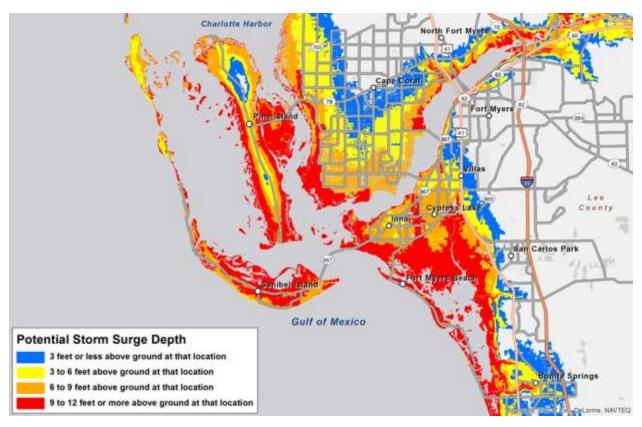


(\$ Billions)



<sup>\*</sup>Insured and uninsured property. Based on estimated property values as of April 2013. Source: *Storm Surge Report 2013*, CoreLogic.

#### **Storm Surge Inundation Graphic**



NHC shooting for mid-season for deployment.
 First of many ways of distributing storm-surge forecasts.

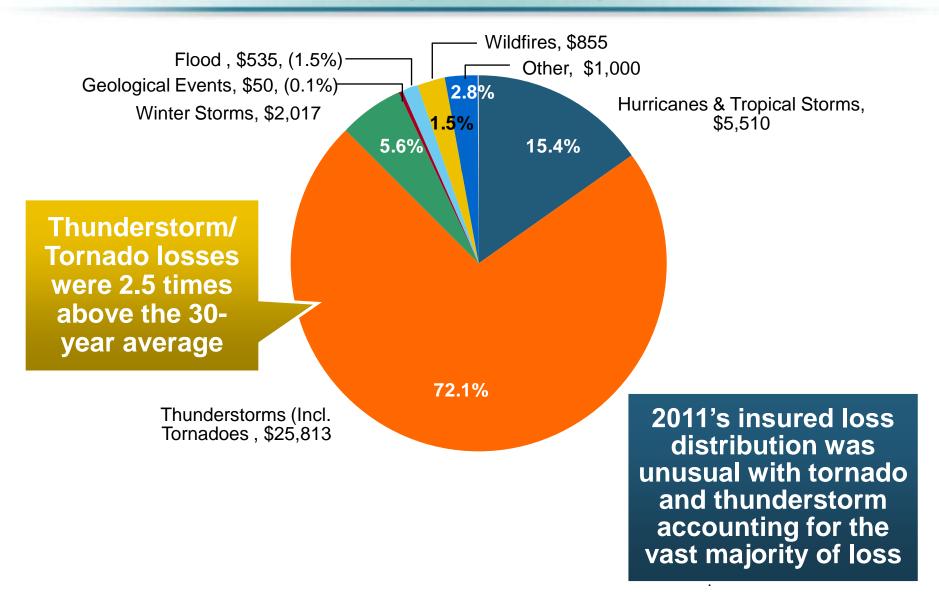
#### **Storm Surge Warning**

- Separate from the Hurricane Warning
- Different timing than Hurricane Warning
  - Development, plan, test in 2013 & 2014
    - Deploy in 2015



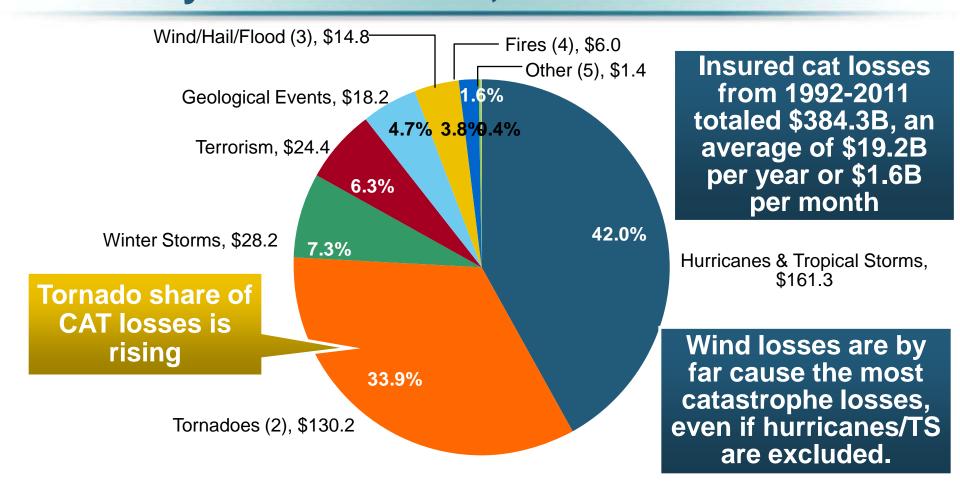
### U.S. Insured Catastrophe Losses by Cause of Loss, 2011 (\$ Millions)





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



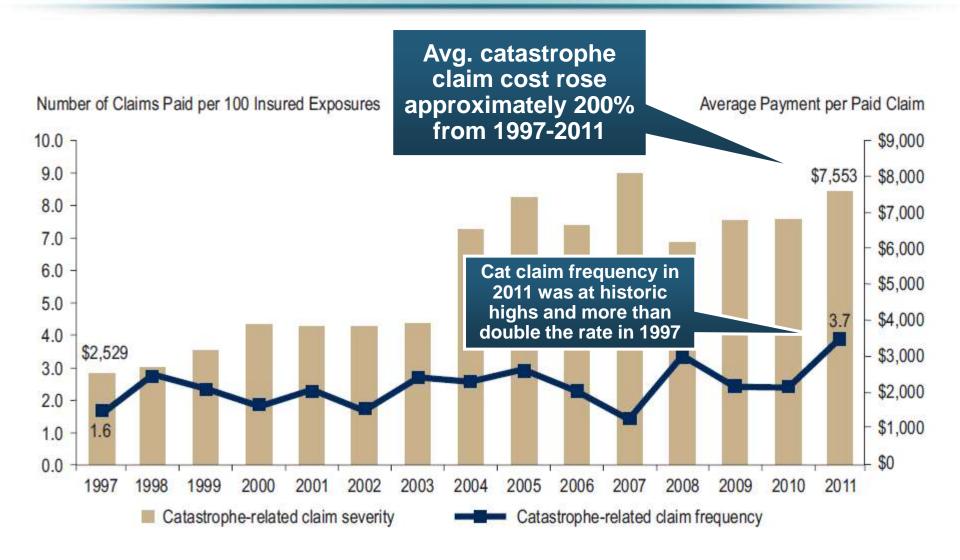


- 1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2009 dollars.
- 2. Excludes snow.
- 3. Does not include NFIP flood losses
- 4. Includes wildland fires
- 5. Includes civil disorders, water damage, utility disruptions and non-property losses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

Source: ISO's Property Claim Services Unit.

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

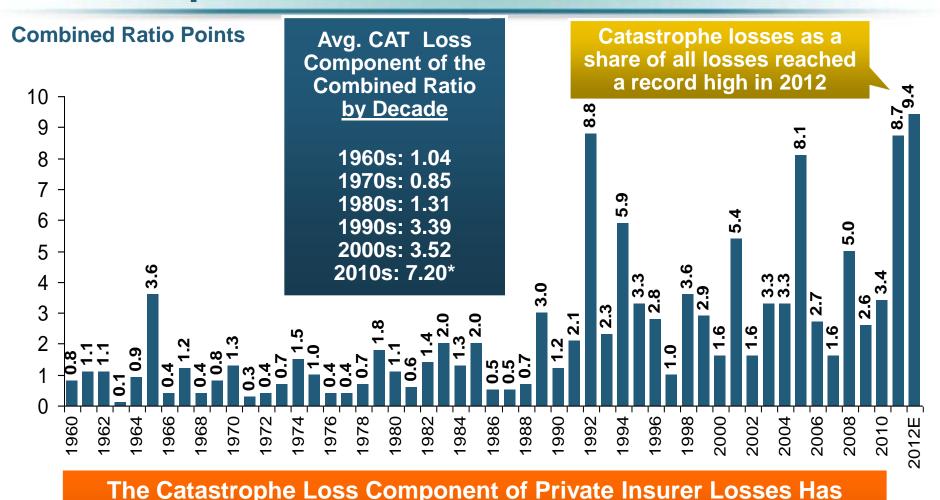




<sup>\*</sup>All policy forms combined, countrywide.
Source: Insurance Research Council, *Trends in Homeowners Insurance Claims*, Sept. 2012 from ISO Fast Track data.

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





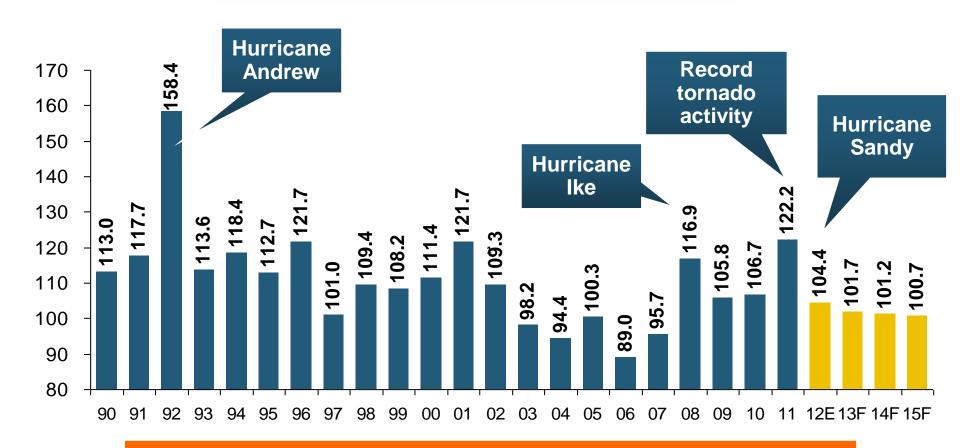
Notes: Private carrier losses only. Excludes loss adjustment expenses and reinsurance reinstatement premiums. Figures are adjusted for losses ultimately paid by foreign insurers and reinsurers.

**Increased Sharply in Recent Decades** 

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

### Homeowners Insurance Combined Ratio: 1990–2015F





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

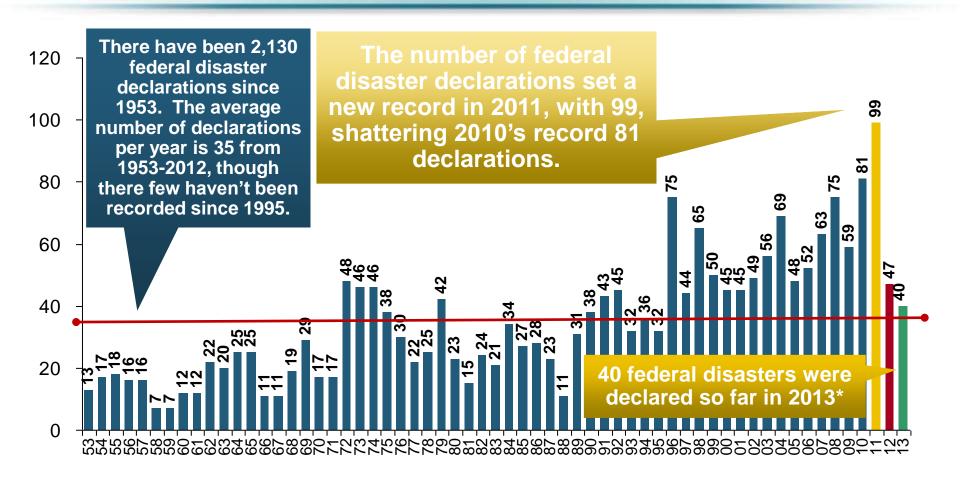


# Federal Disaster Declarations Patterns: 1953-2013

### Disaster Declarations Set New Records in Recent Years

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



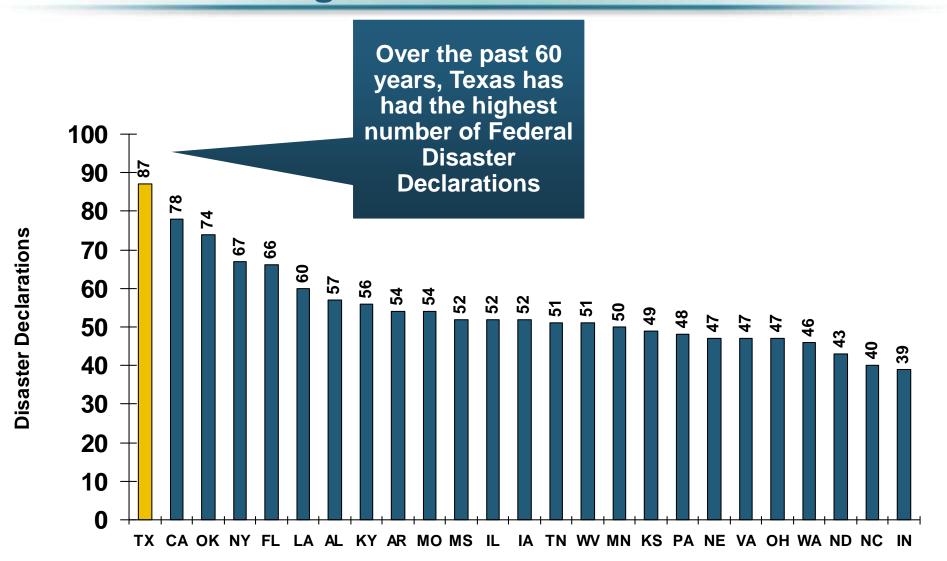


The Number of Federal Disaster Declarations Is Rising and Set New Records in 2010 *and* 2011. Hurricane Sandy Produced 13 Declarations in 2012/13.

<sup>\*</sup>Through August 15, 2013.

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



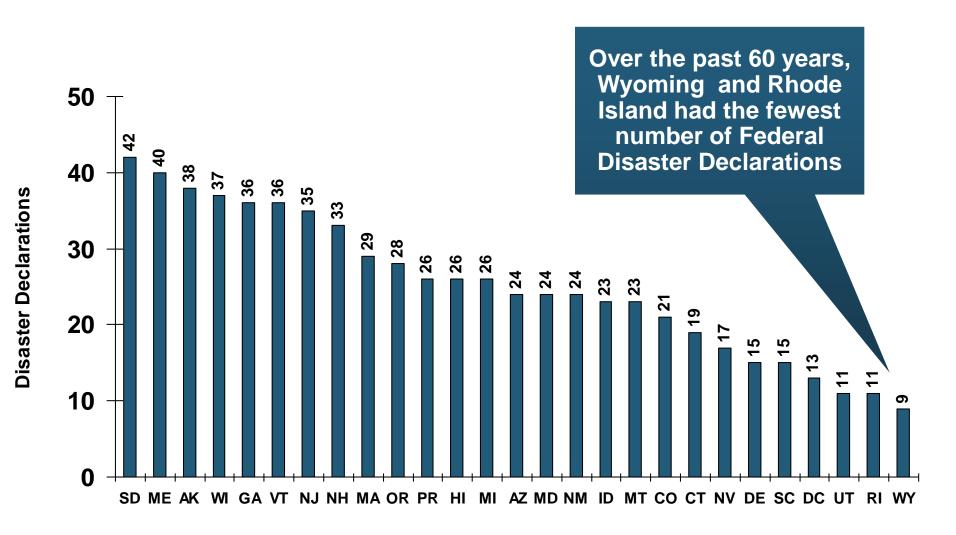


<sup>\*</sup>Through Aug. 7, 2013. Includes Puerto Rico and the District of Columbia.

Source: FEMA: <a href="http://www.fema.gov/news/disaster">http://www.fema.gov/news/disaster</a> totals annual.fema; Insurance Information Institute.

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





<sup>\*</sup>Through Aug. 15, 2013. Includes Puerto Rico and the District of Columbia.

Source: FEMA: <a href="http://www.fema.gov/news/disaster">http://www.fema.gov/news/disaster</a> totals annual.fema; Insurance Information Institute.

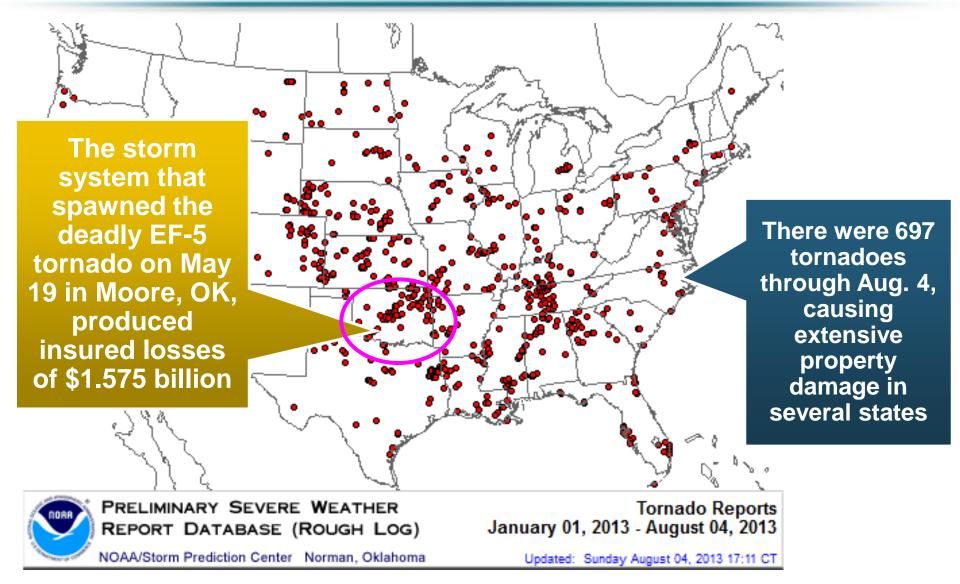


#### **SEVERE WEATHER REPORT UPDATE: 2013**

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

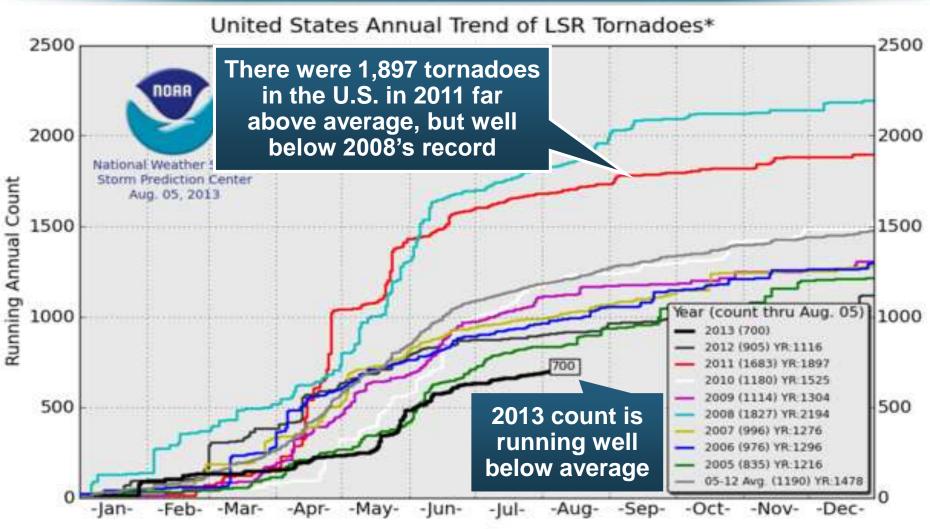
### Location of Tornado Reports: Through August 4, 2013





#### U.S. Tornado Count, 2005-2013\*





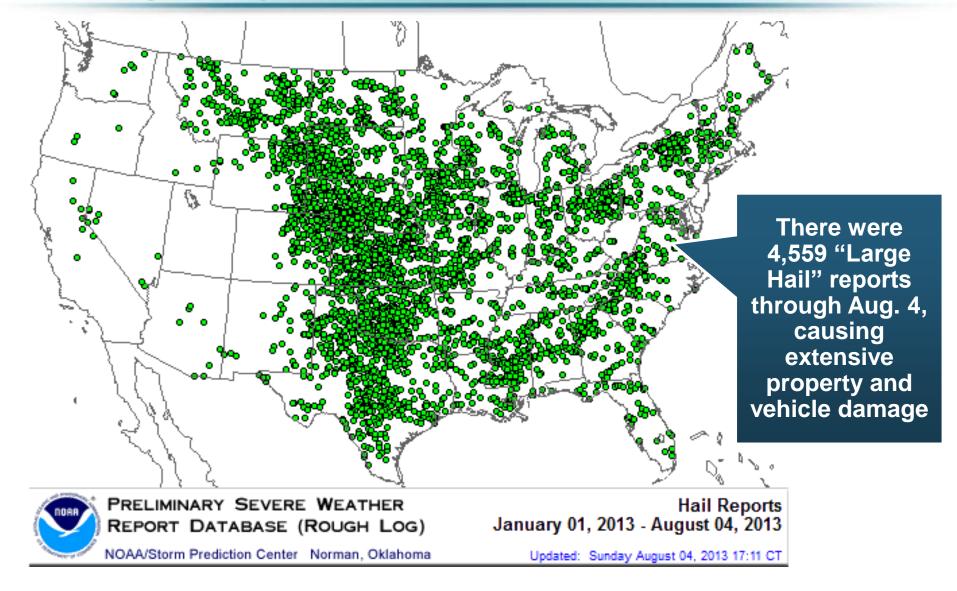
\*Preliminary tornadoes from NWS Local Storm Reports (LSRs) Annual average is based on preliminary LSRs, 2005-2012

\*Through August 5, 2013.

Source: http://www.spc.noaa.gov/wcm/.

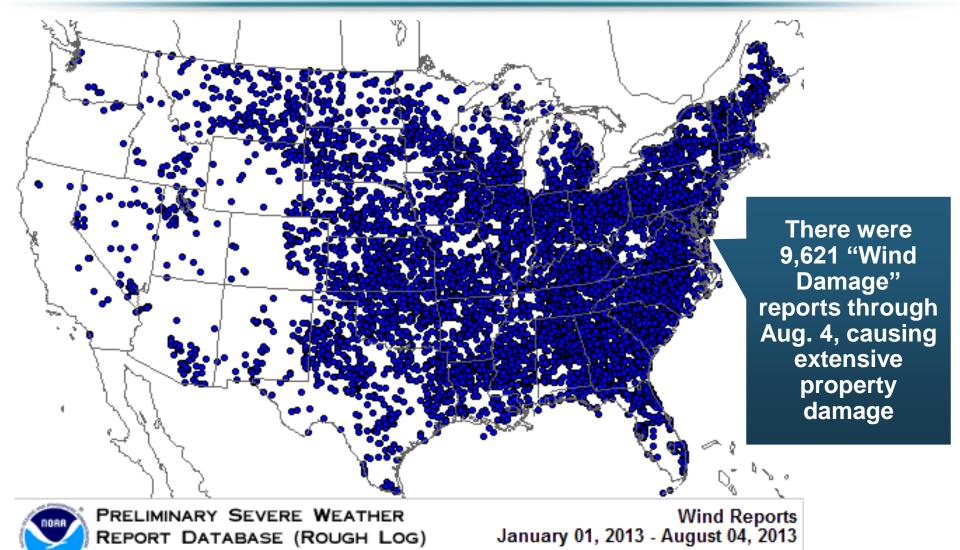
### Location of Large Hail Reports: Through August 4, 2013





### Location of High Wind Reports: Through August 4, 2013





Updated: Sunday August 04, 2013 17:11 CT

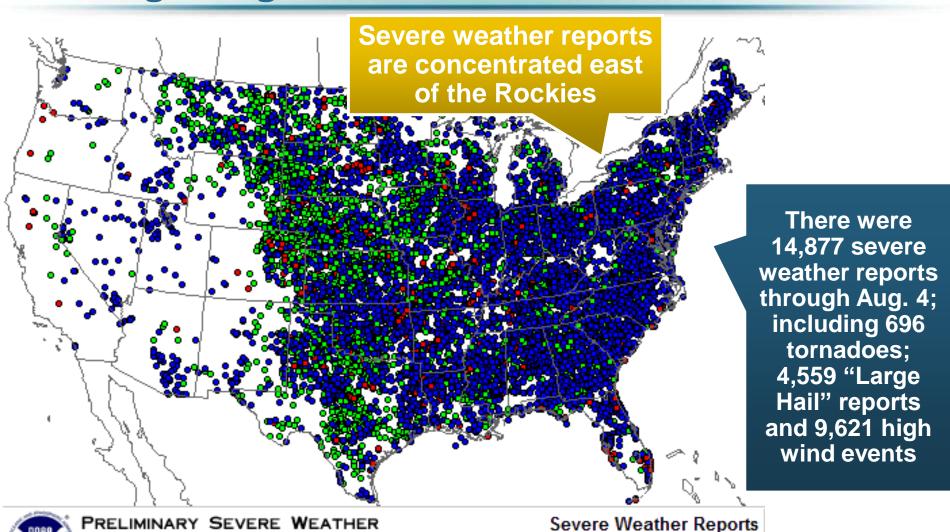
NOAA/Storm Prediction Center Norman, Oklahoma

### Severe Weather Reports: Through August 4, 2013

REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma





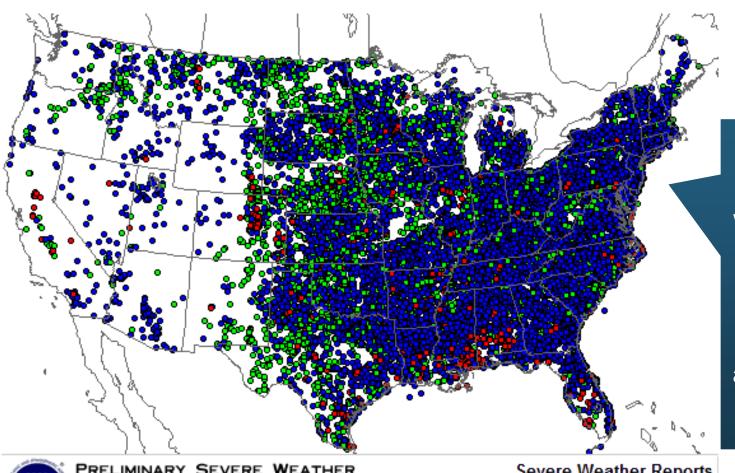
January 01, 2013 - August 04, 2013

Updated: Sunday August 04, 2013 17:11 CT

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2013 annual summary.html#

#### **Severe Weather Reports, 2012**





There were
22,503 severe
weather reports
in 2011;
including 1,119
tornadoes;
7,033 "Large
Hail" reports
and 14,351 high
wind events

PRELIMINARY SEVERE WEATHER
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Severe Weather Reports January 01, 2012 - December 31, 2012

Updated: Sunday January 06, 2013 02:10 CT



#### **Terrorism Update**

Boston Marathon Bombings Underscore the Need for Extension of the Terrorism Risk Insurance Program

Download III's Terrorism Insurance Report at: <a href="http://www.iii.org/white\_papers/terrorism-risk-a-constant-threat-2013.html">http://www.iii.org/white\_papers/terrorism-risk-a-constant-threat-2013.html</a>

#### **Terrorism Risk Insurance Program**



- Reauthorization Was a Major Industry Initiative for 2013 Even Before Boston
- I.I.I. Testified at First Congressional Hearing on 9/11/12
  - Provided testimony at NYC hearing on 6/17/13
- I.I.I. Accelerated Planned Study on Terrorism Risk and Insurance in the Wake of Boston and Was Well Received
  - Terrorism: A Constant Threat issued in June 2013







#### **Terrorism Risk Insurance Program**



- Boston Marathon Bombing Has Helped Focus Attention in Congress on TRIPRA and its Looming Expiration
  - Act expires 12/31/14
  - Exclusionary language will likely be inserted for post-1/1/2014 renewals and will likely lead to significant media interest (educational opportunity)
  - Numerous headwinds; not a priority issue in 2013 in Congress
  - 3 extension bills introduced in 2013—2 since Boston

#### Media Interest Soared

- I.I.I. was conducting its first interviews within minutes after live-tweeting (nearly) from the scene; TV interest was high
- Local, national and international media focused on this topic for the first time in any significant way since TRIA's inception in late 2002
- Inquiries revealed very little/no understanding (or even awareness) outside insurance industry and business owners
- Certification process caused confusion

### Summary of Terrorism Risk Insurance Program Extension Bills Introduced in 2013

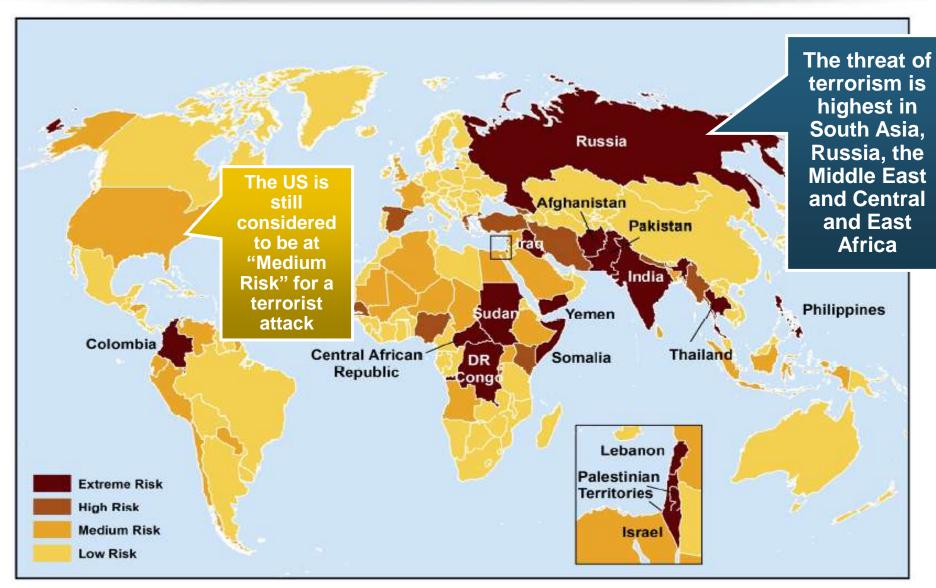


Bill	Summary
•H.R. 508: "Terrorism Risk Insurance Act of 2002 Reauthorization Act of 2013" •Introduced Feb. 5 by Rep. Michael Grimm (D-NY)	●5-Year Extension (through 2019)  ●Extend recoupment period for any TRIA assistance from 2017 to 2019
•H.R. 2146: "Terrorism Risk Insurance Program Reauthorization Act of 2013" •Introduced May 23 by Rep. Michael Capuano (D-MA)	<ul> <li>10-Year Extension (through 2024)</li> <li>Extend recoupment period for any TRIA assistance from 2017 to 2024</li> <li>Requires President's Working Group on Financial Markets (PWGFM) to issue reports on long-term availability and affordability of terrorism insurance in 2017, 2020 and 2023</li> <li>Reports to be drafted with consultation from NAIC and representatives of the insurance and securities industries and policyholders</li> </ul>
•H.R. 1945: "Fostering Resilience to Terrorism Act of 2013" •Introduced May 9 by Rep. Benny Thompson (D-MS)	<ul> <li>10-Year Extension (through 2024)</li> <li>Recoupment period changed to 2024</li> <li>Would transfer responsibility for certification of a "act of terrorism" to the Secretary of Homeland Security from Secretary of Treasury.</li> <li>PWGFM to issue reports in 2017, 2020 and 2023</li> <li>Requires Sec. of DHS to provide insureds with "timely homeland security information, including terrorism risk information, at the appropriate level of classification and information on best practices to foster resilience to an act of terrorism."</li> </ul>

Source: Nelson, Levine, de Luca & Hamilton, FIO Focus, June 10, 2013; Insurance Information Institute.

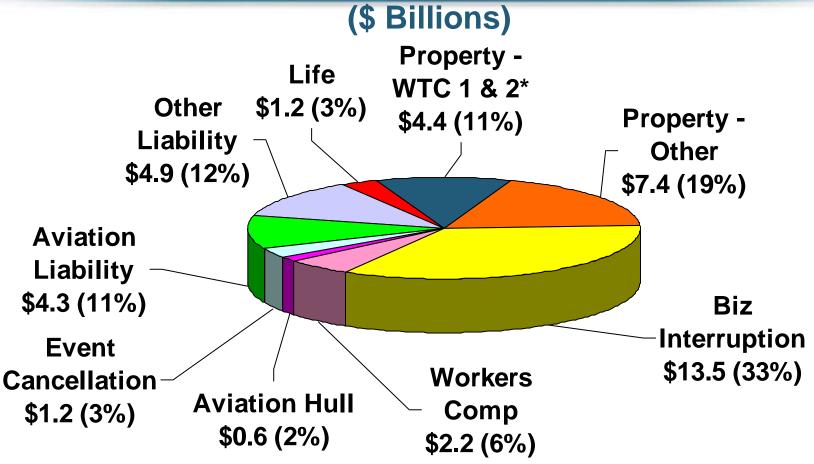
#### **Terrorist Risk Index**





#### Loss Distribution by Type of Insurance from Sept. 11 Terrorist Attack (\$ 2011)





#### **Total Insured Losses Estimate: \$40.0B\*\***

\*Loss total does not include March 2010 New York City settlement of up to \$657.5 million to compensate approximately 10,000 Ground Zero workers or any subsequent settlements.

Source: Insurance Information Institute.

<sup>\*\*\$32.5</sup> billion in 2001 dollars.

### Terrorism Violates Traditional Requirements for Insurability



Requirement	Definition	Violation
Estimable Frequency	•Insurance requires large number of observations to develop predictive rate- making models (an actuarial concept known as credibility)	<ul> <li>Very few data points</li> <li>Terror modeling still in infancy, untested.</li> <li>Inconsistent assessment of threat</li> </ul>
Estimable Severity	•Maximum possible/ probable loss must be at least estimable in order to minimize "risk of ruin" (insurer cannot run an unreasonable risk of insolvency though assumption of the risk)	<ul> <li>Potential loss is virtually unbounded.</li> <li>Losses can easily exceed insurer capital resources for paying claims.</li> <li>Extreme risk in workers compensation and statute forbids exclusions.</li> </ul>

Source: Insurance Information Institute

### Terrorism Violates Traditional Requirements for Insurability (cont'd)



Requirement	Definition	Violation
Diversifiable Risk	<ul> <li>•Must be able to spread/distribute risk across large number of risks</li> <li>•"Law of Large Numbers" helps makes losses manageable and less volatile</li> </ul>	concentrated geographically or
Random Loss Distribution/ Fortuity  Source: Insurance Information Institute	<ul> <li>Probability of loss occurring must be purely random and fortuitous</li> <li>Events are individually unpredictable in terms of time, location and magnitude</li> </ul>	



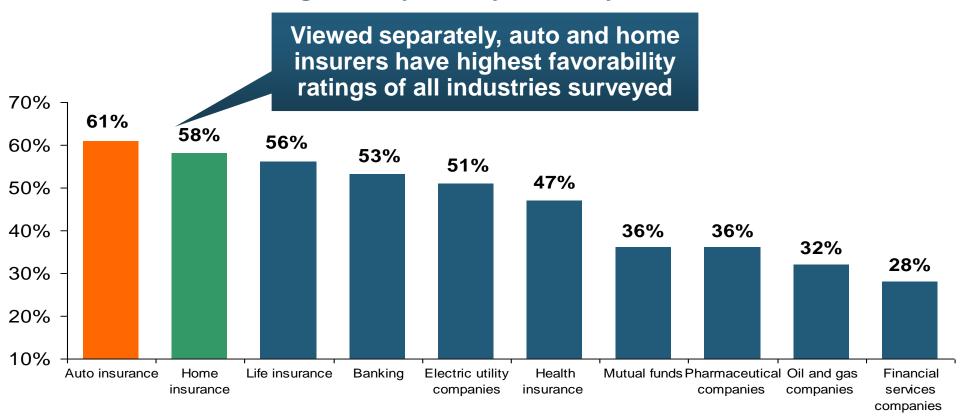
#### **Public Opinion Survey**

# Industry Favorability Ratings Policy Forms & Disclosure Disaster Preparedness

#### I.I.I. Poll: Favorability



#### Percent of Public Rating Industry as Very or Mostly Favorable, 2013

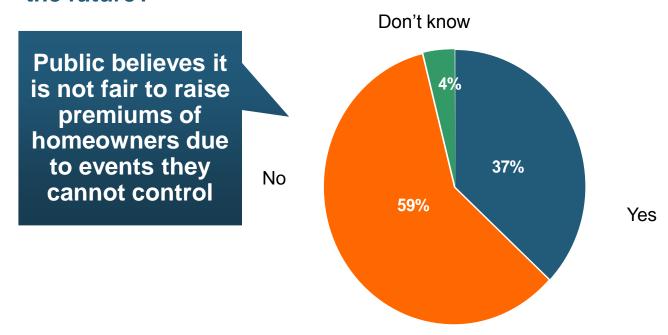


**Auto Insurers and Home Insurers Ranked Highest.** 

#### I.I.I. Poll: Homeowners Insurance



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

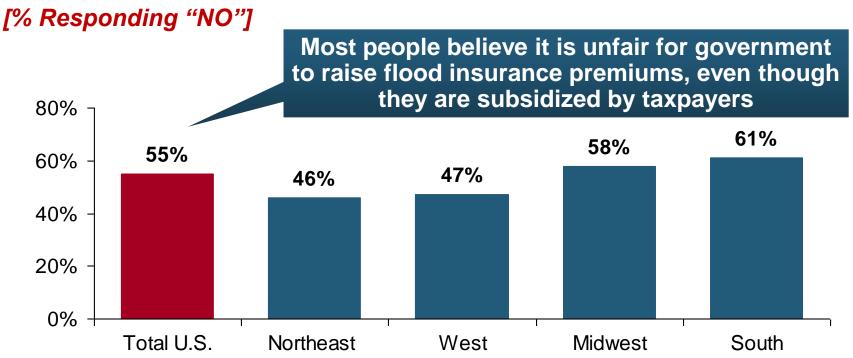


Nearly 60 percent of Americans believe that homeowners insurance premiums should not be raised as a result of recent storms in their areas.

#### I.I.I. Poll: Flood Insurance



Q. The federal government plans to raise the price of flood insurance so it reflects the costs of paying claims. Do you believe this is fair?

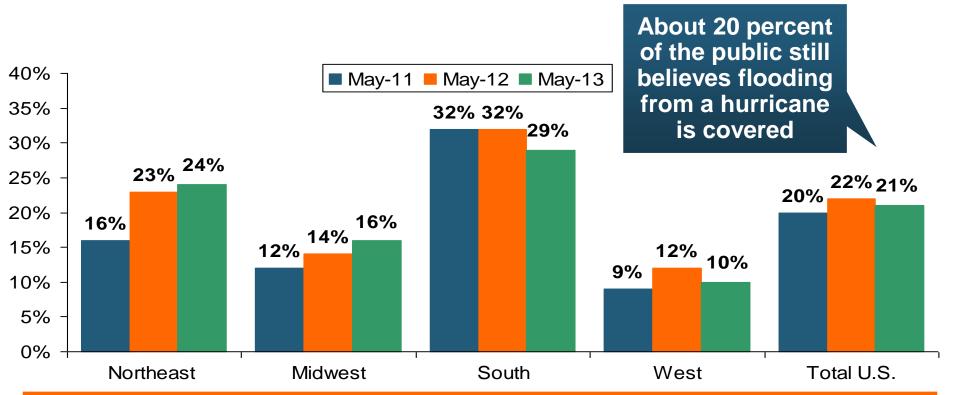


More than one-half of Americans do not think it is fair for the federal government to raise its flood insurance premiums to better reflect claims payouts.

#### I.I.I. Poll: Disaster Preparedness



Q. Does your homeowners policy cover damage from flooding during a hurricane?<sup>1</sup>



The proportion of homeowners who believe their homeowners policy covers damage from flooding during a hurricane stands at 21 percent. This proportion rises eight percentage points in the South, to 29 percent.

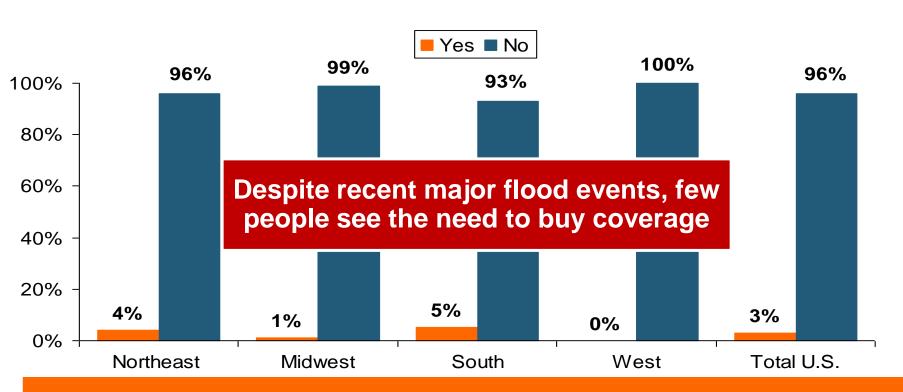
Source: Insurance Information Institute Annual *Pulse* Survey.

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

#### I.I.I. Poll: Disaster Preparedness



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



Recent storms have not motivated people to buy flood insurance coverag.e

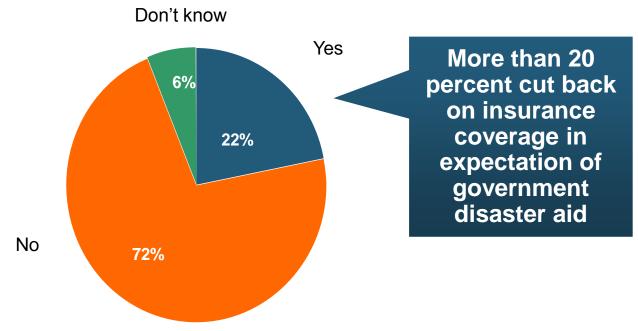
Source: Insurance Information Institute Annual *Pulse* Survey.

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

#### I.I.I. Poll: Disaster Preparedness



Q. If you expect some relief from the government, do you purchase less insurance coverage against these natural disasters than you would have otherwise?



Seventy-two percent of Americans would not purchase less insurance if they expect some relief from the government—but 22% would.



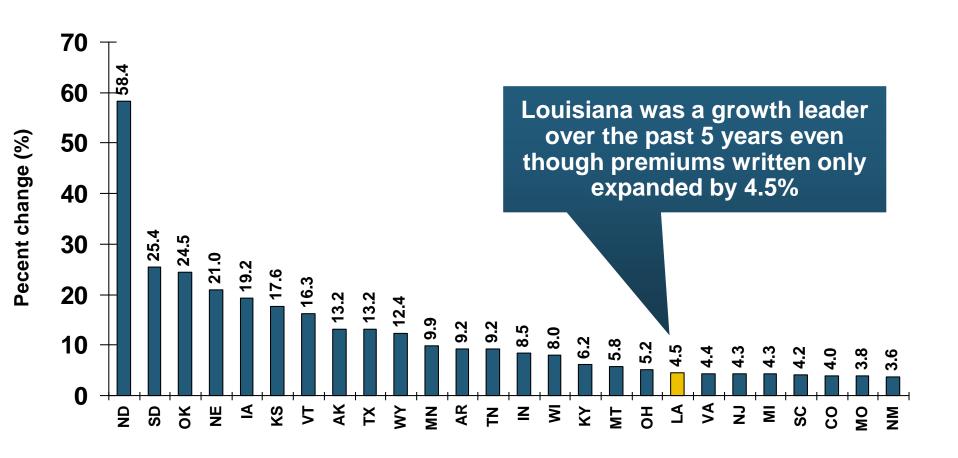
## Growth Analysis by State and Business Segment

## Premium Growth Rates Vary Tremendously by State

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



#### Top 25 States

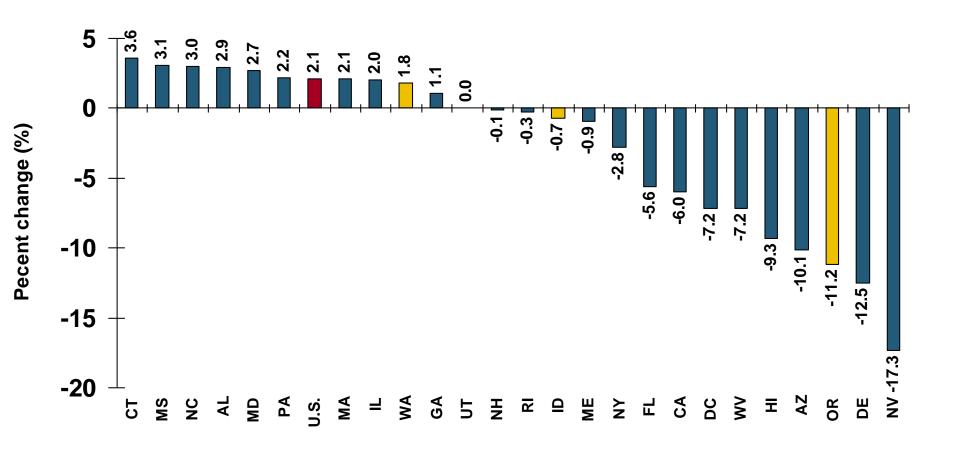


<sup>\*</sup>Data are preliminary as of 5/1/13 and do not yet fully reflect the impact of state-run pools and plans. Sources: SNL Financial LC.; Insurance Information Institute.

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



#### **Bottom 25 States**

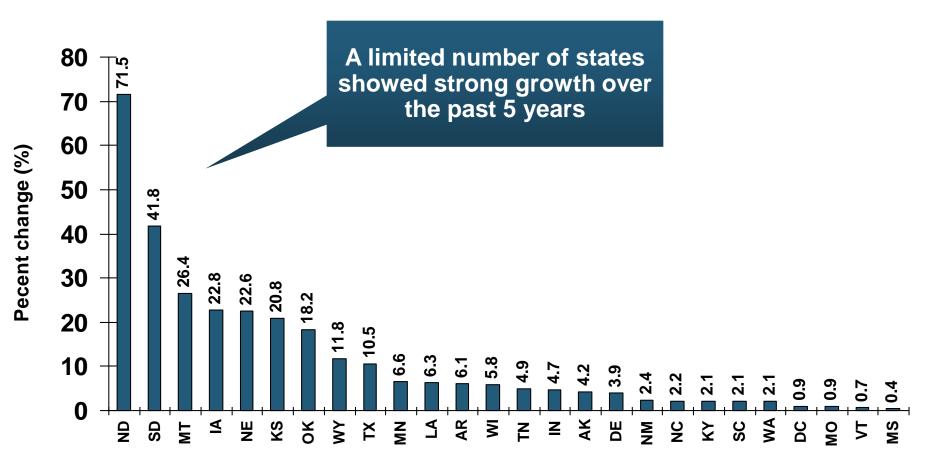


\*Data are preliminary as of 5/1/13 and do not yet fully reflect the impact of state-run pools and plans. Sources: SNL Financial LC.; Insurance Information Institute.

### Direct Premiums Written: Total P/C Percent Change by State, 2006-2011\*

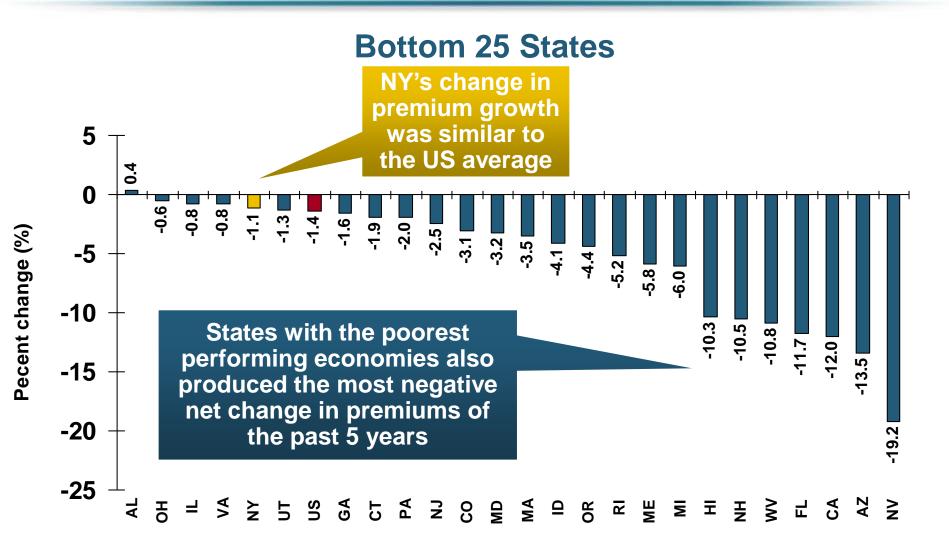






### Direct Premiums Written: Total P/C Percent Change by State, 2006-2011\*

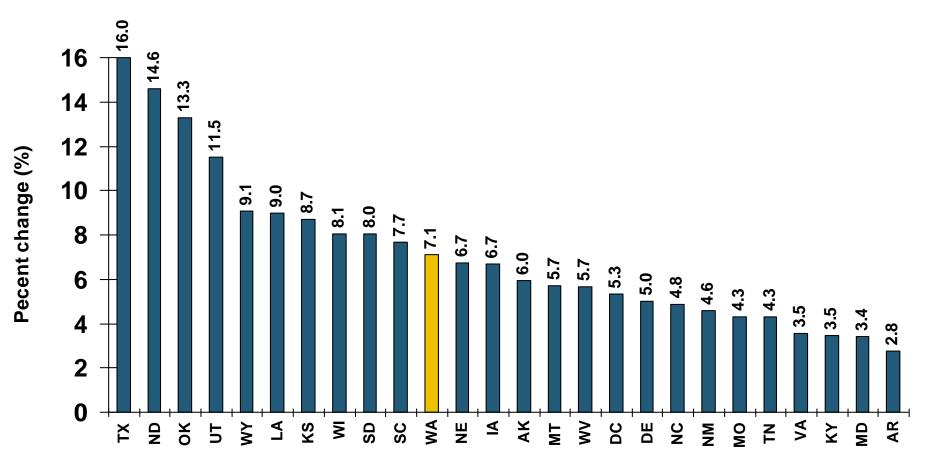




### Direct Premiums Written: PP Auto Percent Change by State, 2006-2011\*

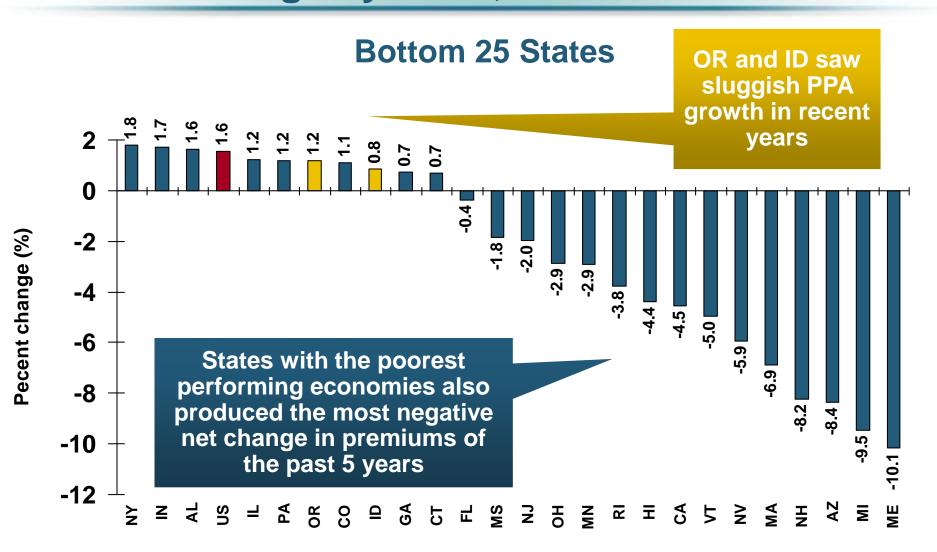


**Top 25 States** 



### Direct Premiums Written: PP Auto Percent Change by State, 2006-2011\*

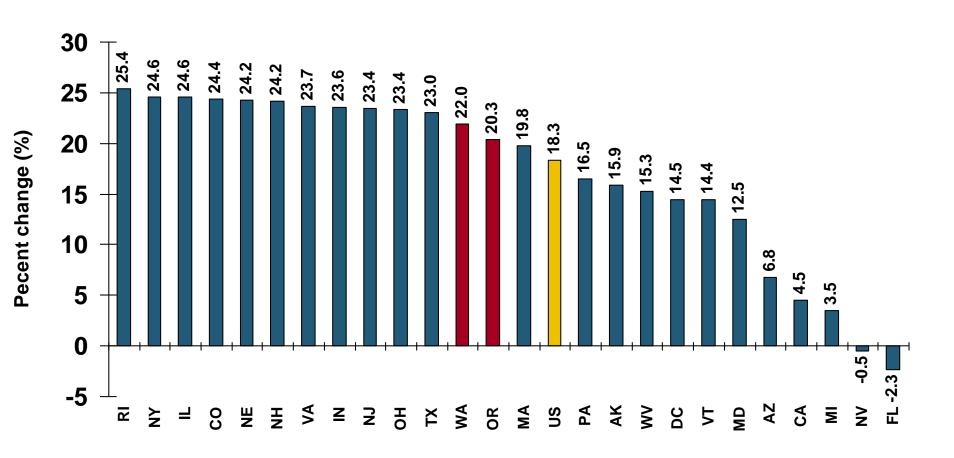




### Direct Premiums Written: Homeowners Percent Change by State, 2006-2011\*



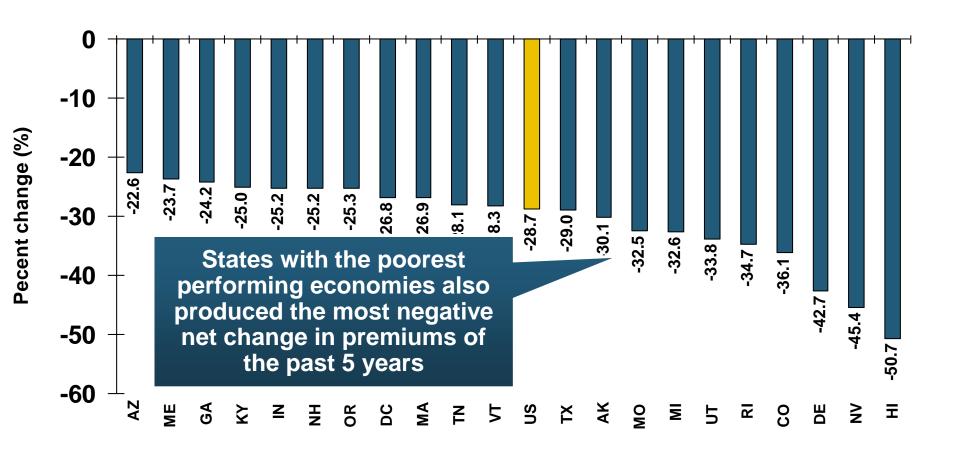
#### **Top 25 States**



### Direct Premiums Written: Homeowners Percent Change by State, 2006-2011\*



#### **Bottom 25 States**

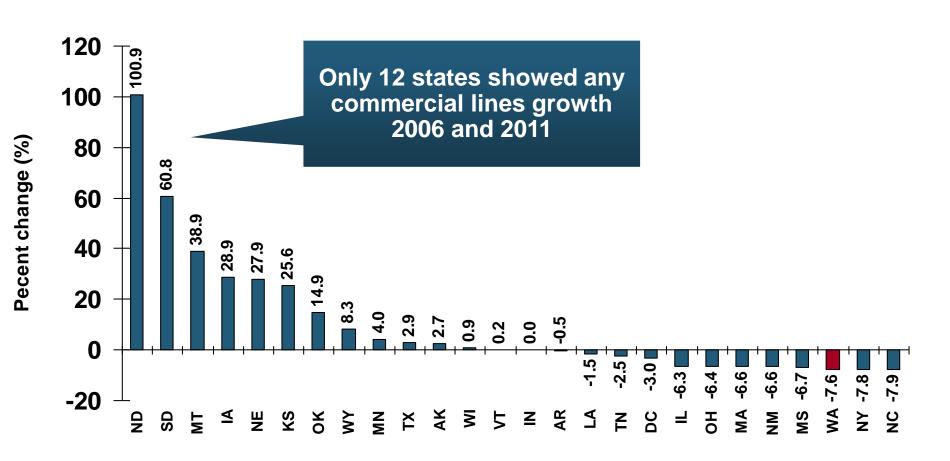


Sources: SNL Financial LC.; Insurance Information Institute.

### Direct Premiums Written: Comm. Lines Percent Change by State, 2006-2011\*



#### **Top 25 States**

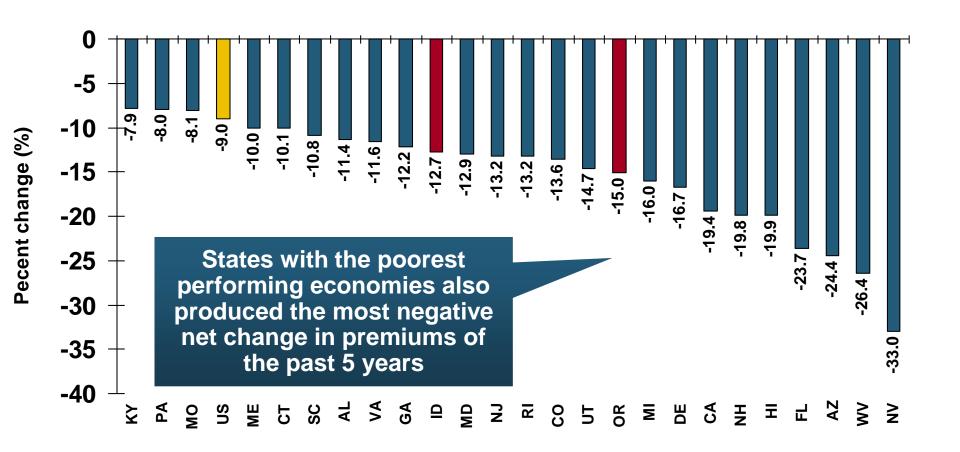


Sources: SNL Financial LC.; Insurance Information Institute.

### Direct Premiums Written: Comm. Lines Percent Change by State, 2006-2011\*



#### **Bottom 25 States**

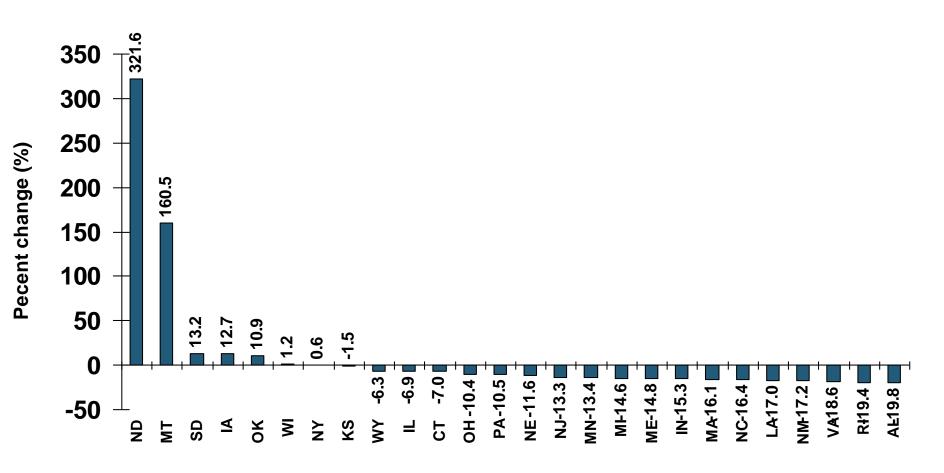


Sources: SNL Financial LC.; Insurance Information Institute.

#### Direct Premiums Written: Workers' Comp Percent Change by State, 2006-2011\*



#### **Top 25 States**

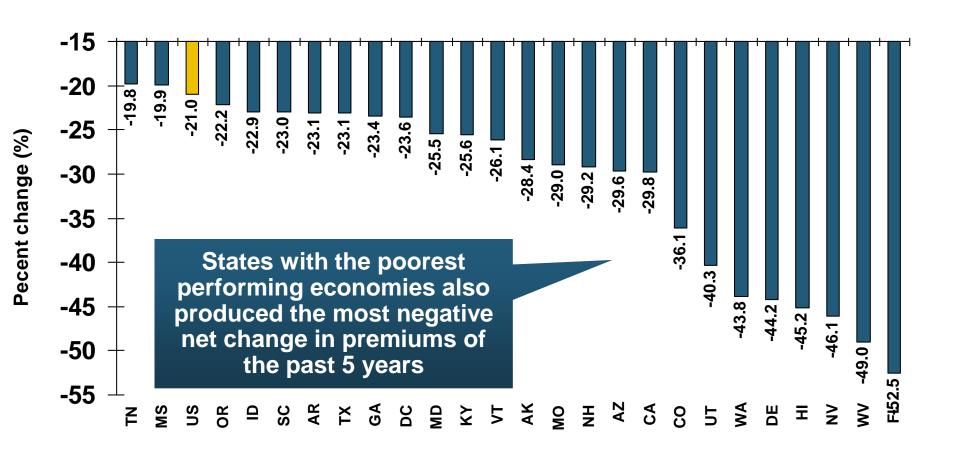


<sup>\*</sup>Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period. Sources: SNL Financial LC.; Insurance Information Institute.

#### Direct Premiums Written: Worker's Comp Percent Change by State, 2006-2011\*



#### **Bottom 25 States**



<sup>\*</sup>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.

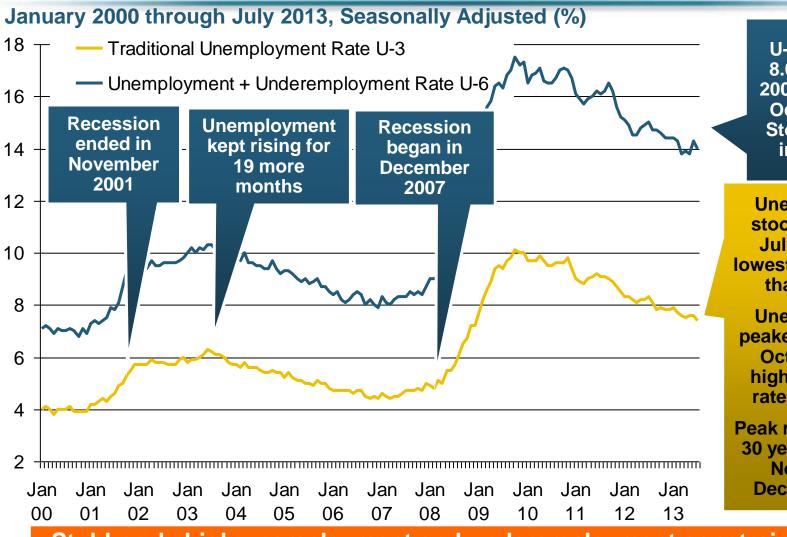


#### **Labor Market Trends**

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

### **Unemployment and Underemployment Rates: Stubbornly High, But Falling**





U-6 went from 8.0% in March 2007 to 17.5% in October 2009; Stood at 14.0% in July 2013

Unemployment stood at 7.4% in July 2013—its lowest level in more than 4 years.

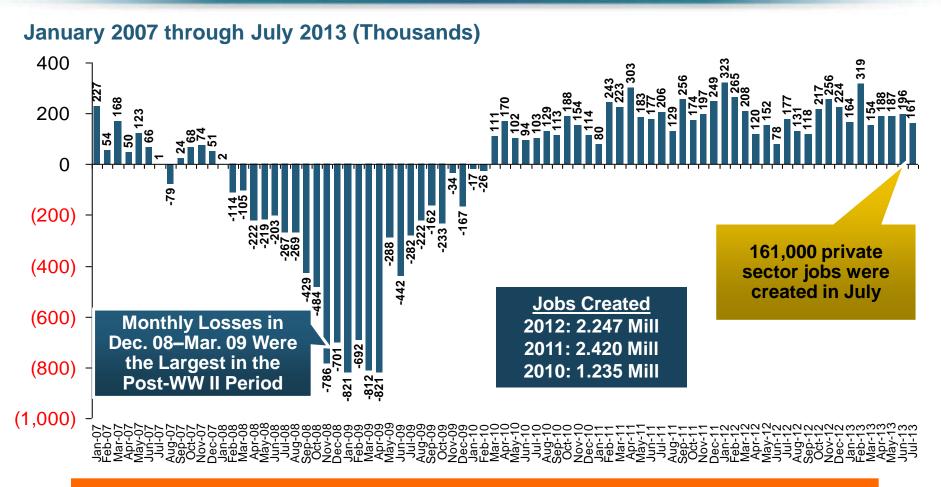
Unemployment peaked at 10.1% in October 2009, highest monthly rate since 1983.

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

#### **Monthly Change in Private Employment**

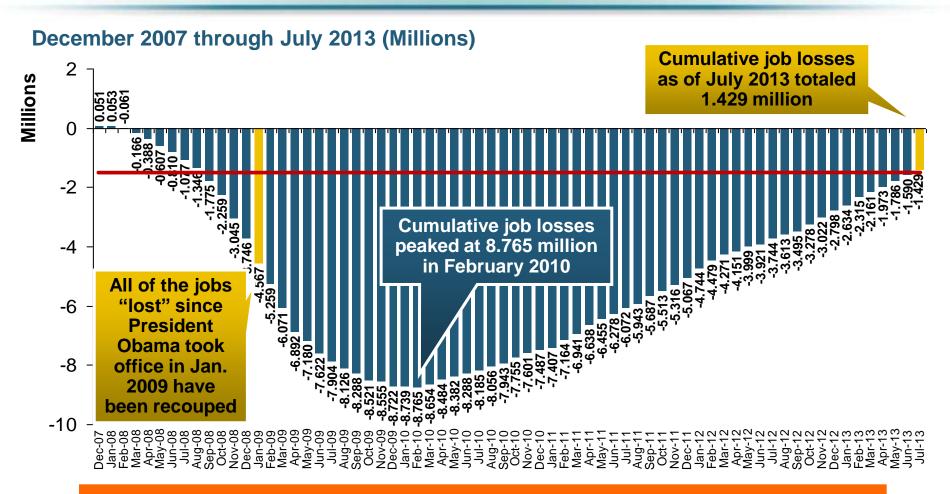




Private Employers Added 7.29 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

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



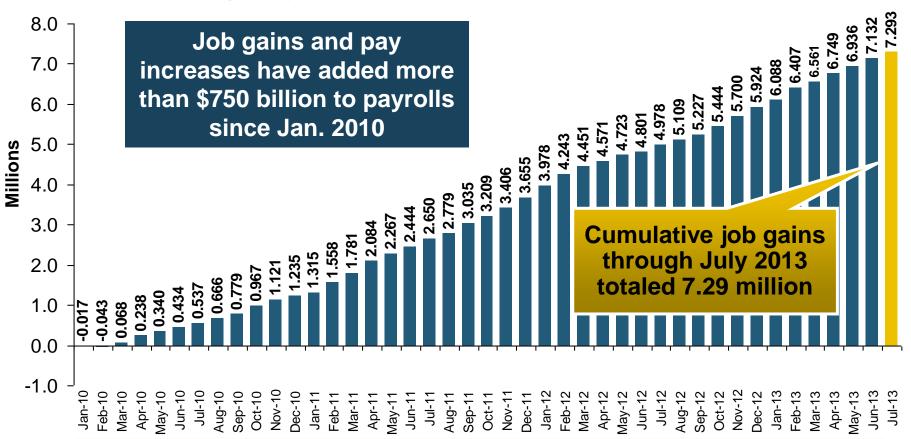


Private Employers Added 7.29 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

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



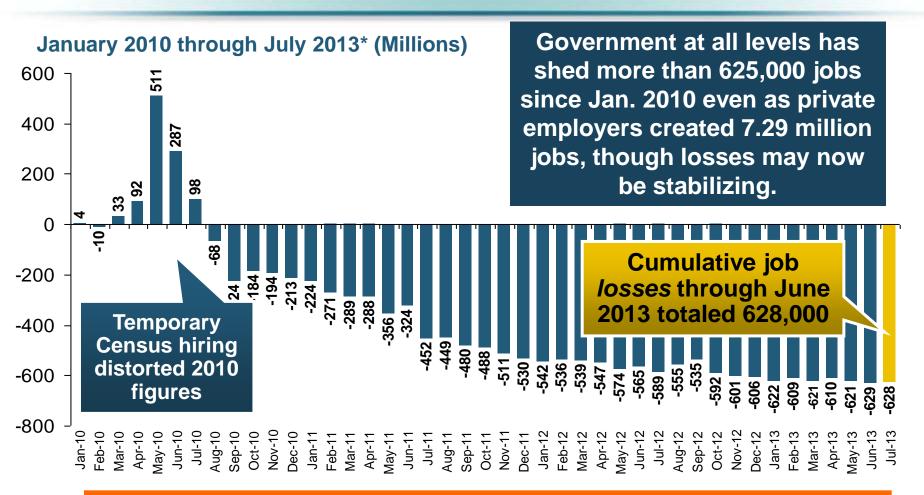
**January 2010 through July 2013\* (Millions)** 



Private Employers Added 7.29 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—July 2013

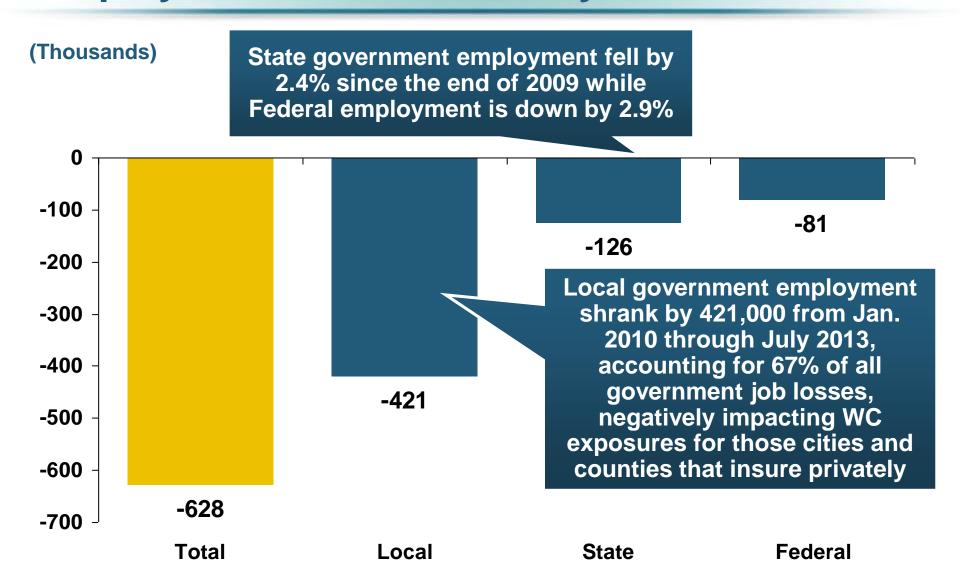




Governments at All Levels are Under Severe Fiscal Strain As Tax Receipts Plunged and Pension Obligations Soared During the Financial Crisis: Sequestration Will Add to this Toll

### Net Change in Government Employment: Jan. 2010—July 2013\*



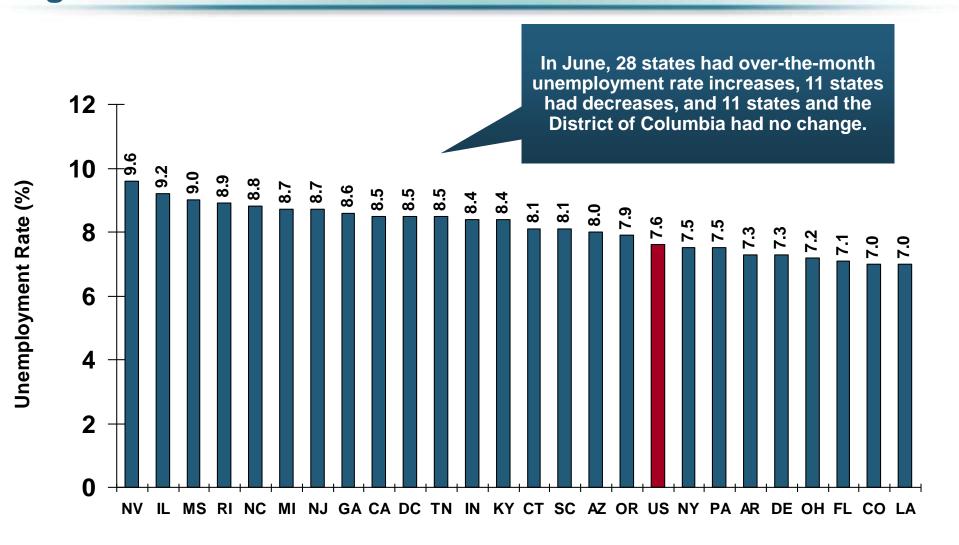


<sup>\*</sup>Cumulative change from prior month; Base employment date is Dec. 2009.

Source: US Bureau of Labor Statistics http://www.bls.gov/data/#employment; Insurance Information Institute

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



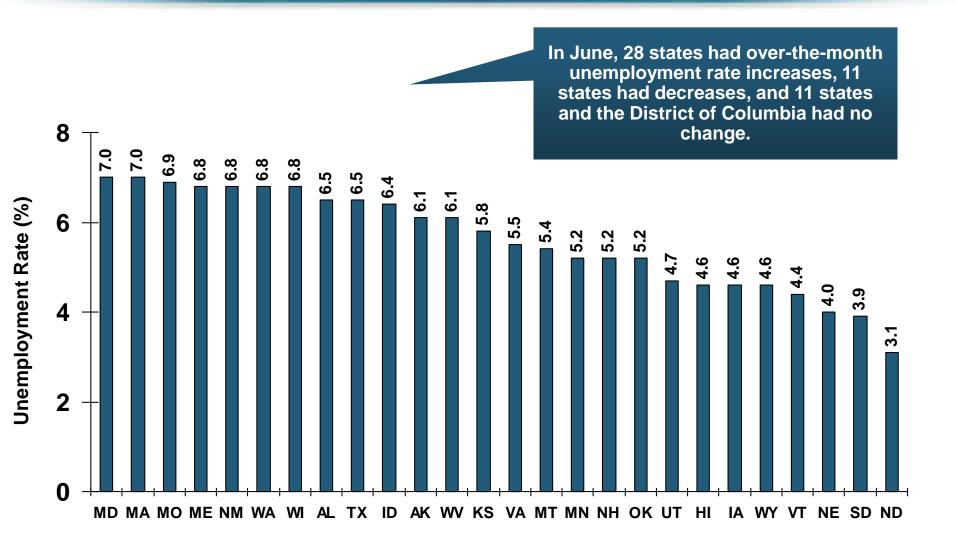


<sup>\*</sup>Provisional figures for June 2013, seasonally adjusted.

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

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

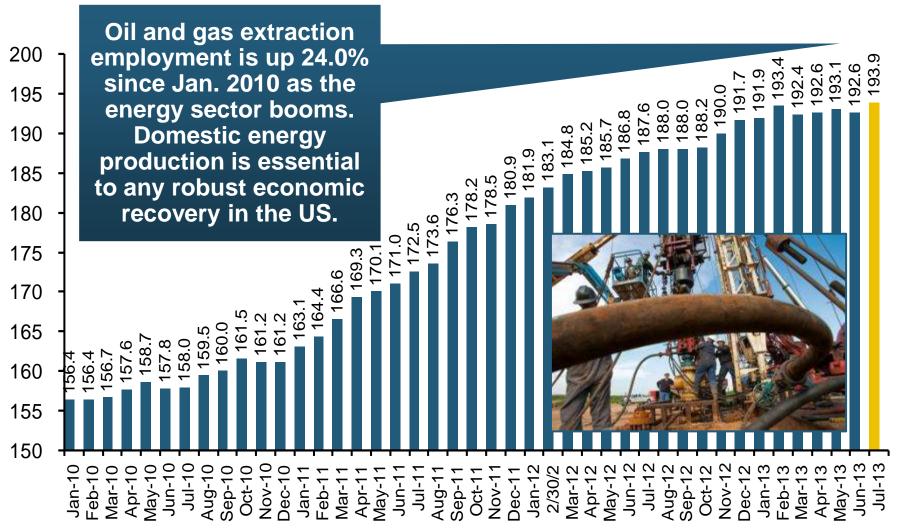




### Oil & Gas Extraction Employment, Jan. 2010—July 2013\*



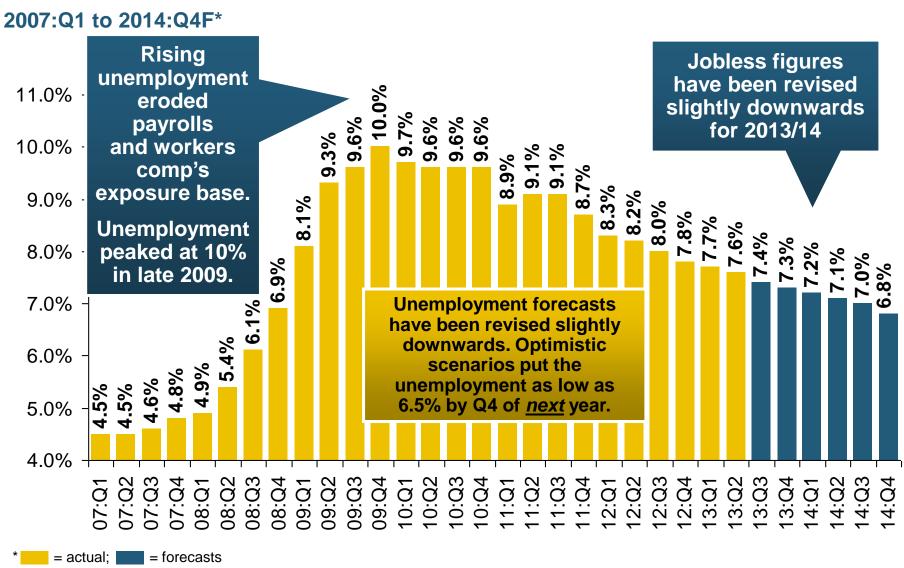
#### (Thousands)



<sup>\*</sup>Seasonally adjusted

#### **US Unemployment Rate Forecast**

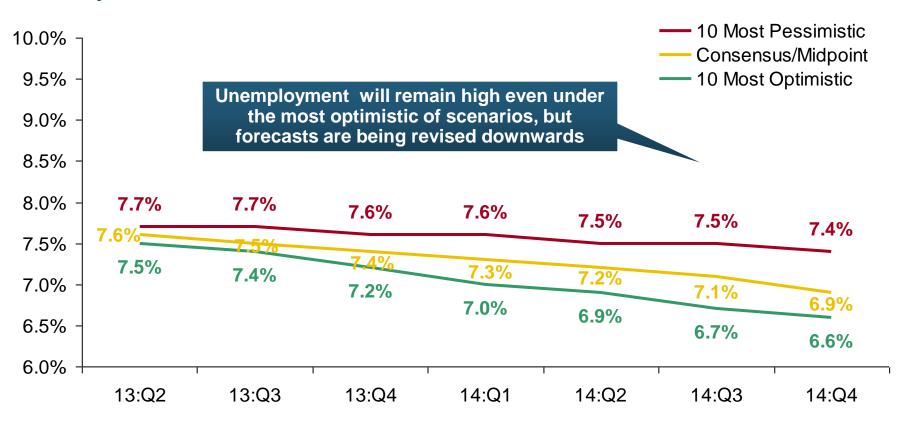




#### **US Unemployment Rate Forecasts**

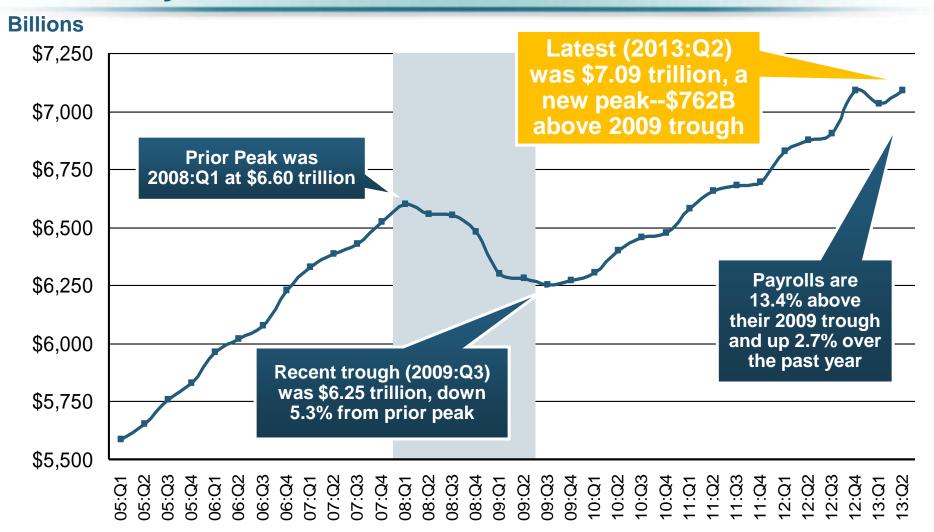


#### Quarterly, 2013:Q1 to 2014:Q4



### Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q2



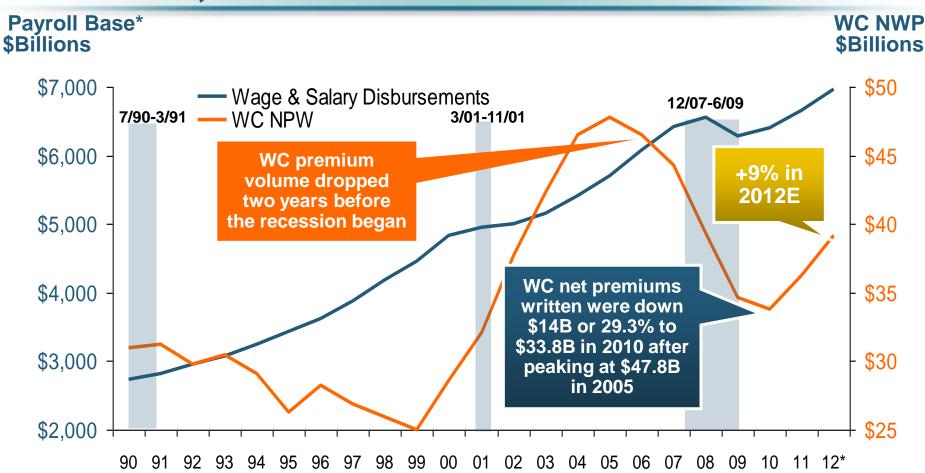


Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: <a href="http://research.stlouisfed.org/fred2/series/WASCUR">http://research.stlouisfed.org/fred2/series/WASCUR</a>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

### Payroll vs. Workers Comp Net Written Premiums, 1990-2012E





Continued Payroll Growth and Rate Increases Suggest WC NWP Will Grow Again in 2012; +7.9% Growth in 2011 Was the First Gain Since 2005

<sup>\*</sup>Private employment; Shaded areas indicate recessions. WC premiums for 2012 are I.I.I. estimate based YTD 2012 actuals. Sources: NBER (recessions); Federal Reserve Bank of St. Louis at <a href="http://research.stlouisfed.org/fred2/series/WASCUR">http://research.stlouisfed.org/fred2/series/WASCUR</a>; NCCI; I.I.I.



# Insurance Industry Employment Trends: 1990-2013

#### Overview of Insurance Sector Employment Changes\*



Insurance Subsector	May 2013 Employment	June 2013 Employment	Change
P-C Direct	522,800	523,600	+800
Reinsurers	26,300	27,000	+700
Claims Adjusters	50,700	51,000	+300
Agents/Brokers	661,000	662,500	+1,500
Life Direct	335,500	335,700	+200
Health/Medical Direct	469,100	471,900	+2,800
Title & other Direct	75,300	75,600	+300
3rd-Party Administration	144,400	144,800	+400
All other insurance- related activities	63,300	63,300	+0
Net Total	2,349,500	2,356,200	+6,700

<sup>\*</sup>Data are through June 2013 and are preliminary (i.e., subject to later revision); seasonally adjusted.

### August 2013 Report: 1-Month and 12-Month Changes\*



#### P-C Insurers

- Employment up by 800 (+0.2%) vs. May 2013
- Employment up by 4,800 (+0.9%) vs. June 2012

#### Reinsurers

- Employment up by 700 (+2.7%) vs. May 2013
- Employment up by 1,300 (+5.1%) vs. June 2012

#### Claims Adjusters

- Employment up by 300 (+0.6%) vs. May 2013
- Employment down by 1,200 (-2.3%) vs. June 2012

#### Insurance Agents & Brokers

- Employment up by 1,500 (+0.2%) vs. May 2013
- Employment up by 4,000 (+0.6%) vs. June 2012

#### Life Insurers

- Employment up by 200 (+0.1%) vs. May 2013
- Employment down by 13,000 (-3.7%) vs. June 2012

#### Health/Medical Insurers

- Employment up by 2,800 (+0.6%) vs. May 2013
- Employment up by 10,200 (+2.2%) vs. June 2012

<sup>\*</sup>Data are through June 2013 and are preliminary (i.e., subject to later revision).

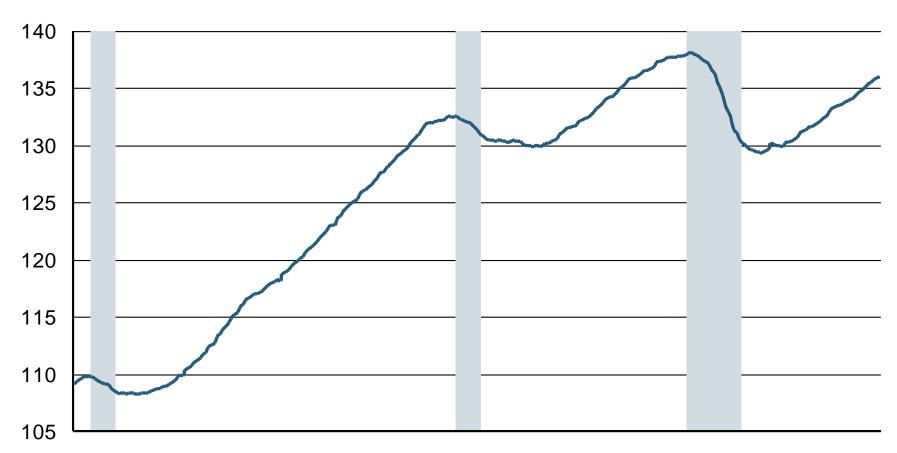


# Baselines: U.S. Employment Trends

### U.S. Nonfarm Employment, Monthly, 1990–2013\*



#### **Millions**



'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

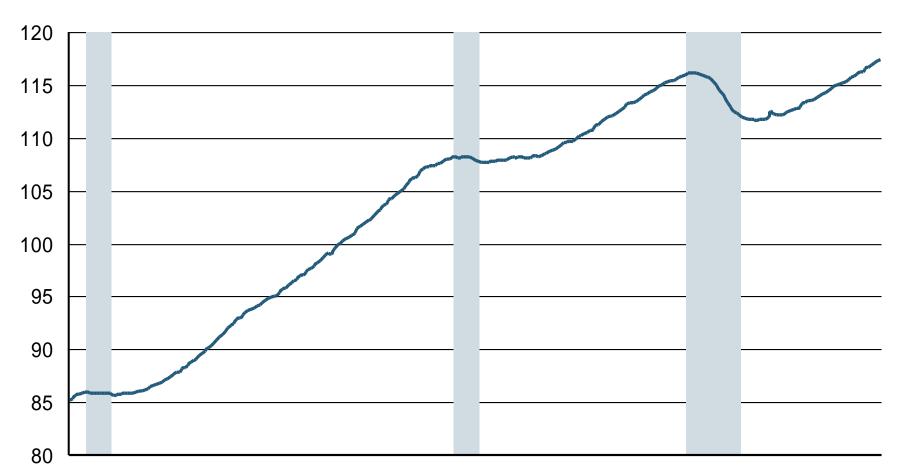
Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of July 2013; Seasonally adjusted.

### U.S. Employment in Service Industries, Monthly, 1990–2013\*



#### **Millions**



'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted.



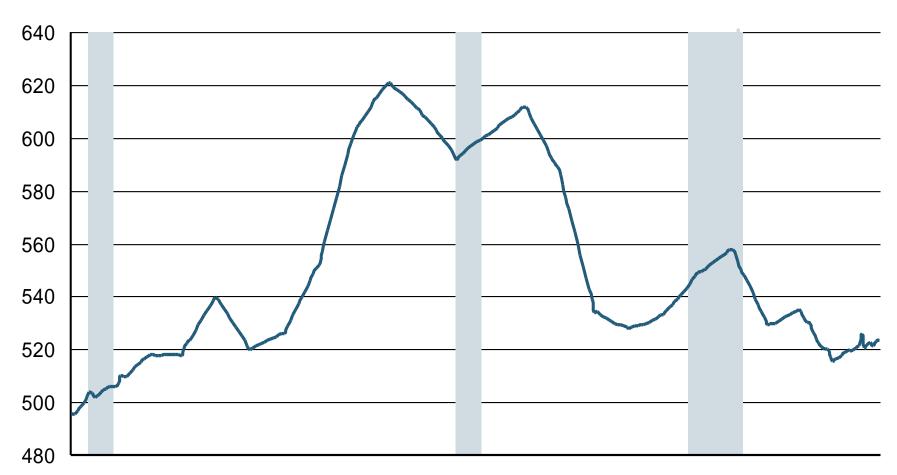
# **Insurance Industry Employment Trends**

For the last 15 years, total industry employment has stayed in a narrow band of 2.29-2.38 million

### U.S. Employment in the Direct P/C Insurance Industry: 1990–2013\*



#### **Thousands**



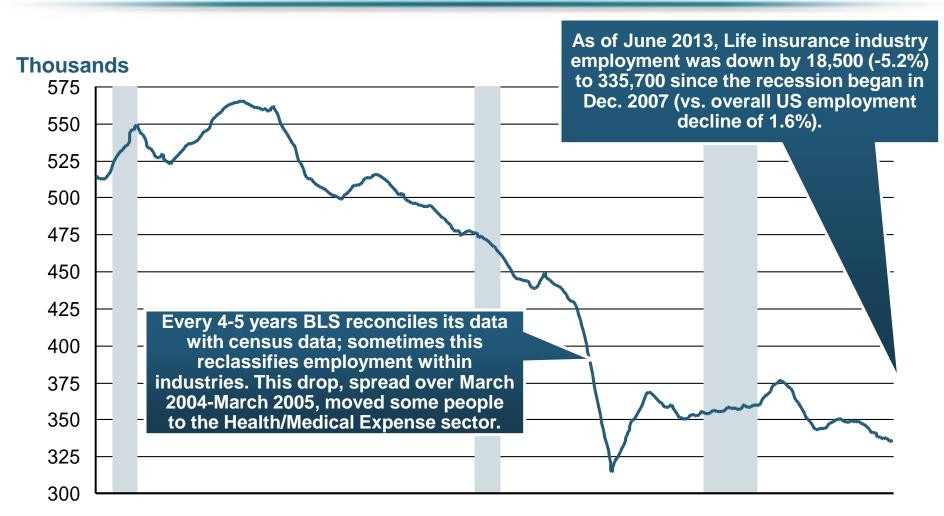
'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted; Does not including agents & brokers.

### U.S. Employment in the Direct Life Insurance Industry: 1990–2013\*





'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

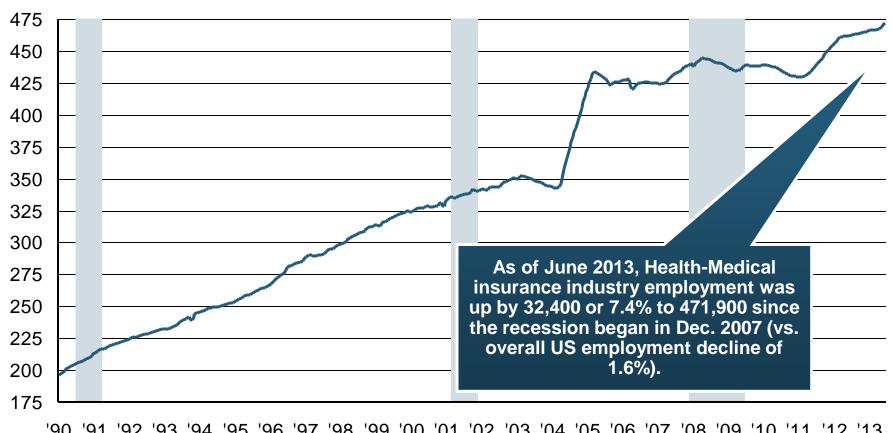
Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted; Does not including agents & brokers.

#### U.S. Employment in the Direct Health-Medical Insurance Industry: 1990–2013\*



#### **Thousands**



'92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

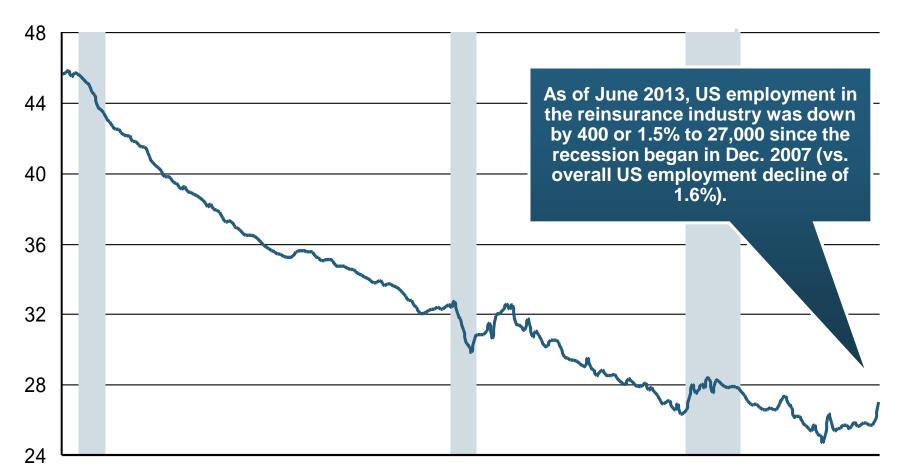
Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted; Does not including agents & brokers.

### U.S. Employment in the Reinsurance Industry: 1990–2013\*



#### **Thousands**



'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

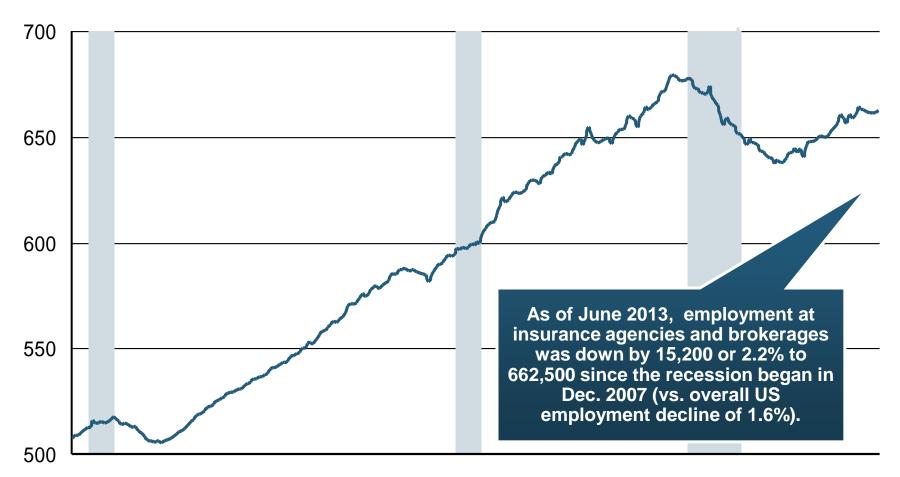
Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted; Does not including agents & brokers.

#### U.S. Employment in Insurance Agencies & Brokerages: 1990–2013\*



#### **Thousands**



'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

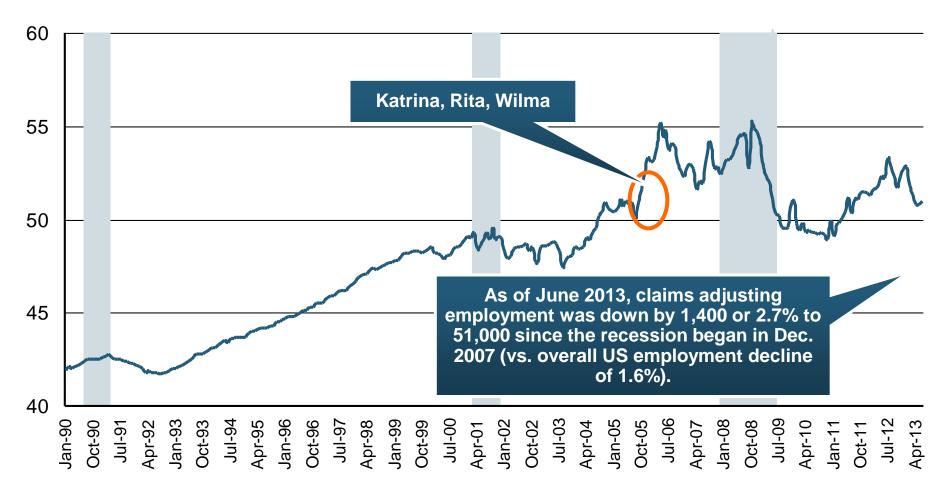
Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted. Includes all types of insurance.

### U.S. Employment in Insurance Claims Adjusting: 1990–2013\*



#### **Thousands**



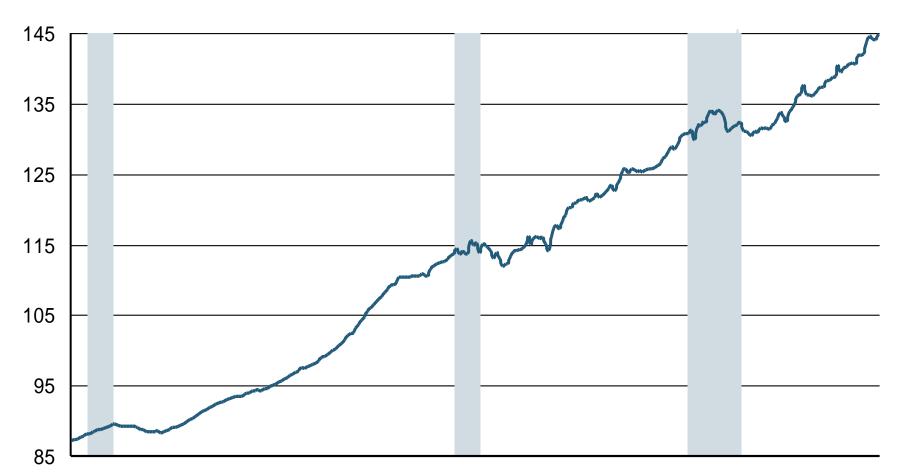
<sup>\*</sup>As of June 2013; Seasonally adjusted.

Note: Recessions indicated by gray shaded columns.

### U.S. Employment in Third-Party Administration of Insurance Funds: 1990–2013\*



#### **Thousands**



'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>As of June 2013; Seasonally adjusted. Includes all types of insurance.



# 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







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

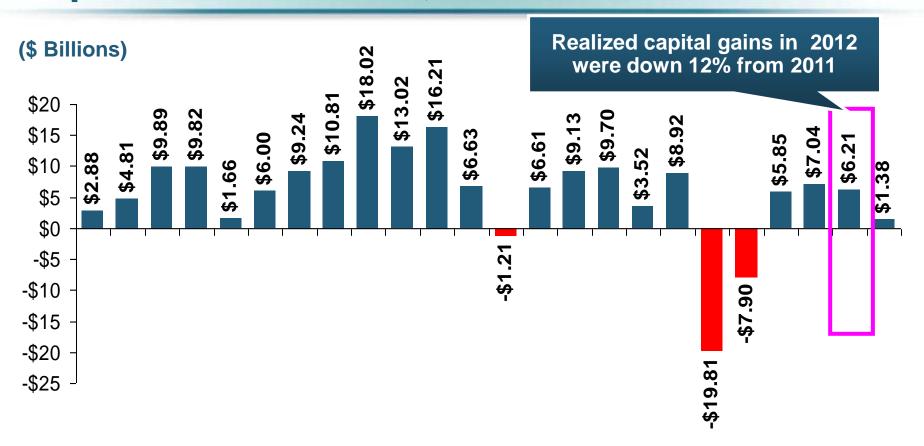
Sources: ISO; Insurance Information Institute.

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

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

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





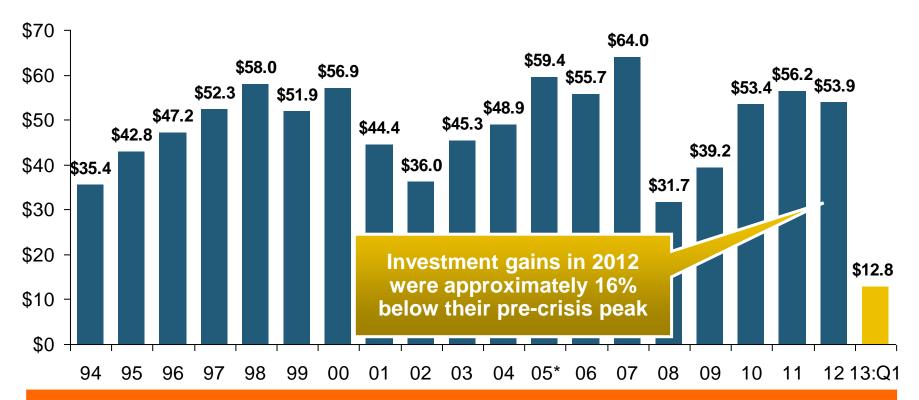
90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 1213:Q1

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

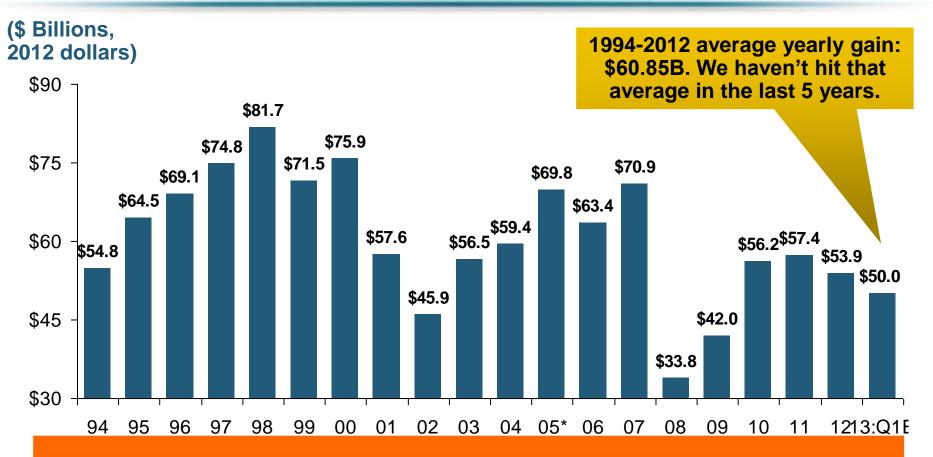
Sources: ISO: Insurance Information Institute.

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

<sup>\* 2005</sup> figure includes special one-time dividend of \$3.2B;

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





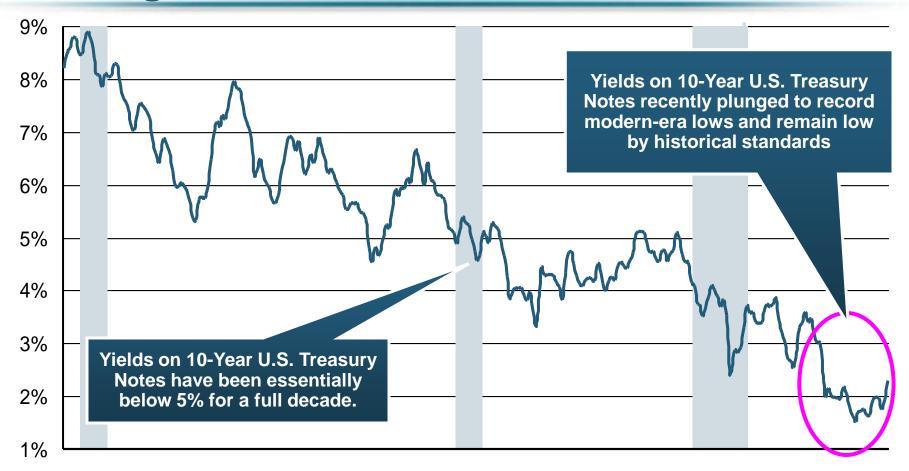
Because the Federal Reserve Board aims to keep interest rates exceptionally low until the unemployment rate hits 6.5%—likely at least another year off—maturing bonds will be re-invested at even lower rates.

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

<sup>\*2005</sup> 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\*





'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13

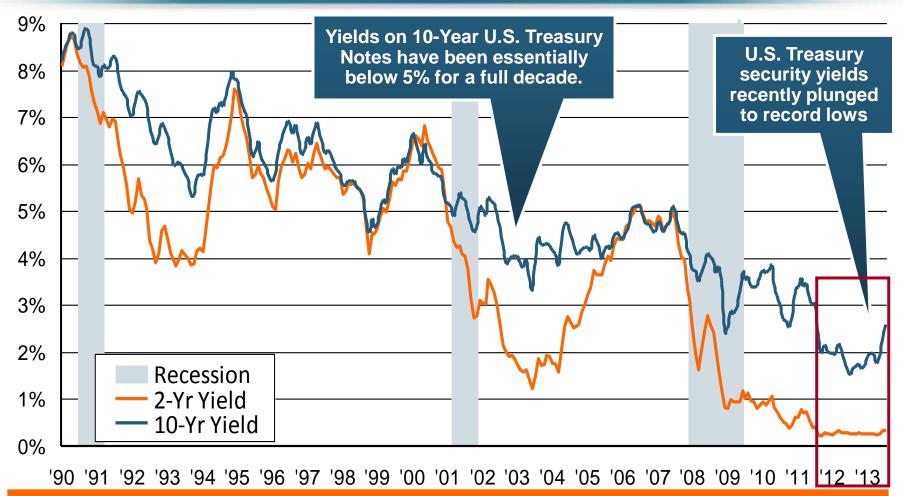
Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

Note: Recessions indicated by gray shaded columns.

<sup>\*</sup>Monthly, through June 2013.

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



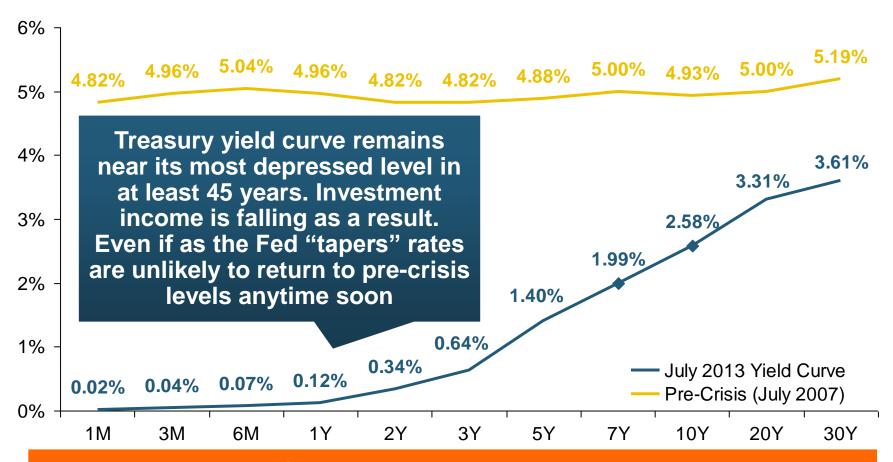


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

<sup>\*</sup>Monthly, constant maturity, nominal rates, through July 2013.

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



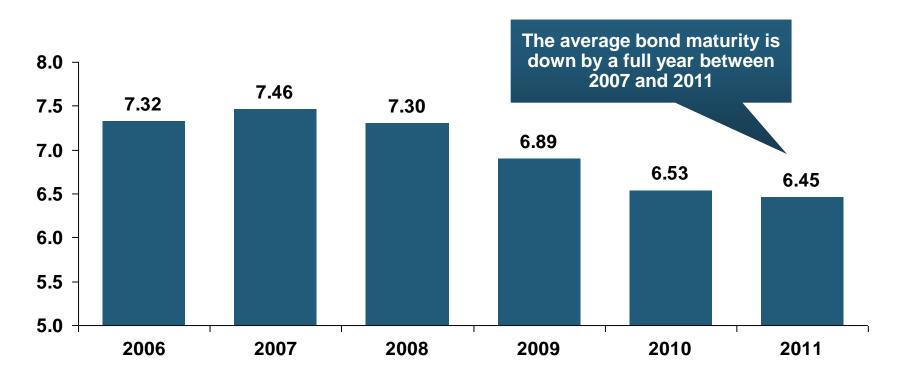


The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Until Unemployment Drops Below 6.5% or Until Inflation Expectations Exceed 2.5%; Low Rates Add to Pricing Pressure for Insurers.

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



#### **Average Maturity (Years)**

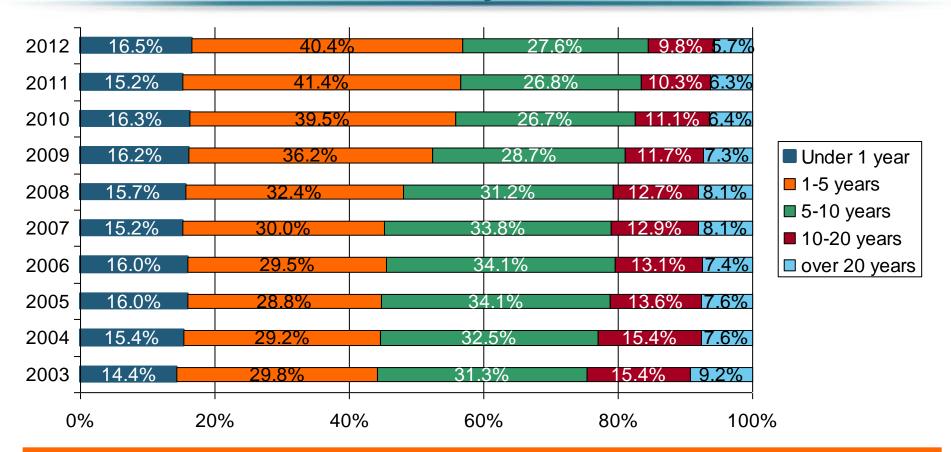


Falling Average Maturity (and Duration) of the P/C Industry's Bond Portfolio is Contributing to the Drop in Investment Income Along With Lower Yields

<sup>\*</sup>Year-end figures. Latest available.

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

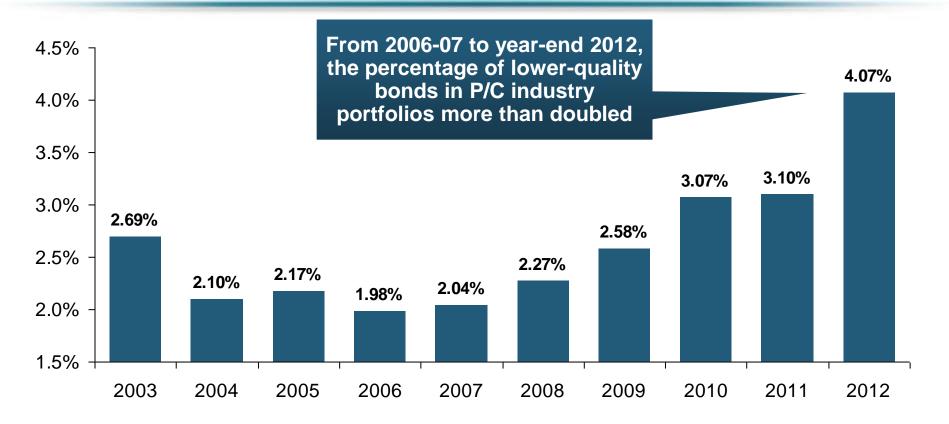




The main shift over these years has been from bonds with longer maturities to bonds with shorter maturities. The industry first trimmed its holdings of over-10-year bonds (from 24.6% in 2003 to 15.5% in 2012) and then trimmed bonds in the 5-10-year category (from 31.3% in 2003 to 27.6% in 2012). Falling 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



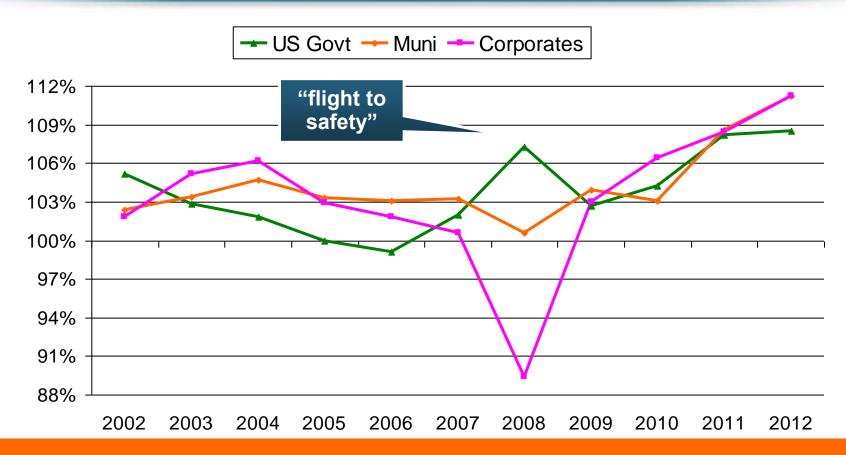


There are many ways to capture higher yields on bond portfolios. One is to accept greater risk, as measured by NAIC bond ratings. The ratings range from 1 to 6, with the highest quality rated 1. Even in 2012, over 95% of the industry's bonds were rated 1 or 2.

Sources: SNL Financial; Insurance Information Institute.

#### Insurance Industry Fair Value as a Percent of Par History, by Bond Type, 2002–2012



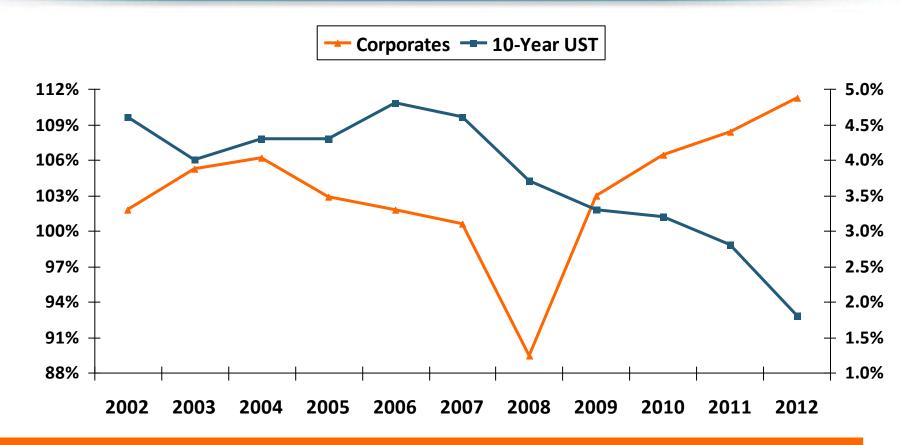


Because the Federal Reserve Board aims to keep interest rates exceptionally low until the "headline" unemployment rate hits 6.5%, maturing bonds will be re-invested at even lower rates.

Sources: NAIC Capital Markets Special Report 5.21.13 "The Trajectory of Interest Rates and Its Impact on the Market Value of the U.S. Insurance Industry's Bond Portfolio," Table 2; Insurance Information Institute.

#### As Yields (Blue) Sank, Fair Value as a Percent of Par (Orange) Rose, 2002–2012





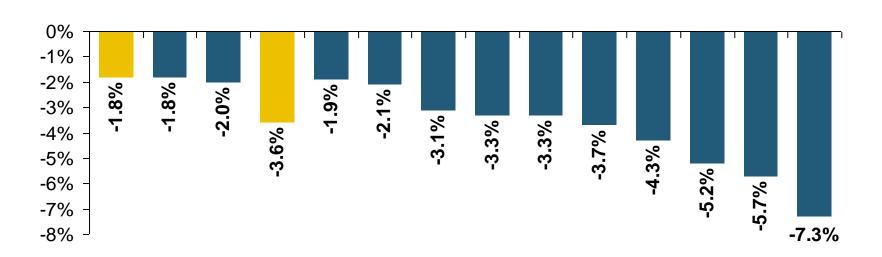
When interest rates rise again, the Fair Value of Insurance Industry bonds will fall. How far and how fast the fall occurs depends on many factors, but the direction of change is clear.

Sources: NAIC Capital Markets Special Report 5.21.13 "The Trajectory of Interest Rates and Its Impact on the Market Value of the U.S. Insurance Industry's Bond Portfolio," Table 2; Insurance Information Institute.

## 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

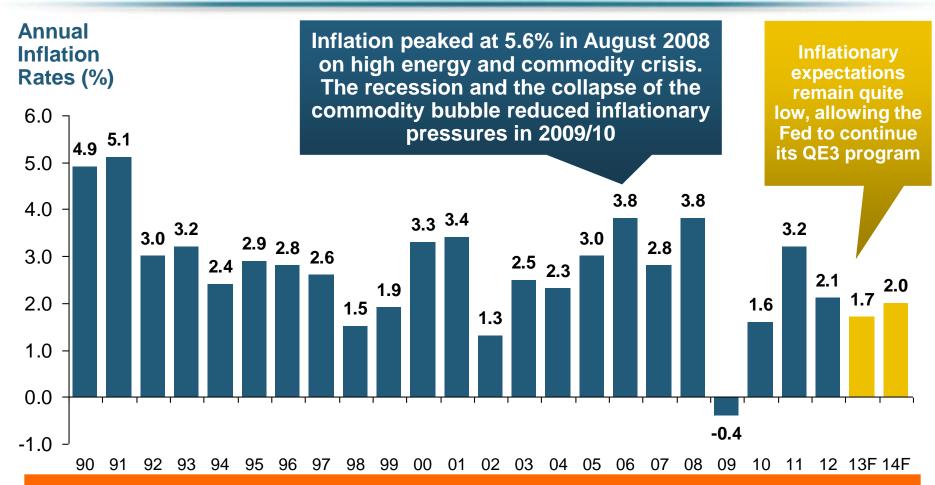
Source: A.M. Best; Insurance Information Institute.

<sup>\*</sup>Based on 2008 Invested Assets and Earned Premiums

<sup>\*\*</sup>US domestic reinsurance only

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





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

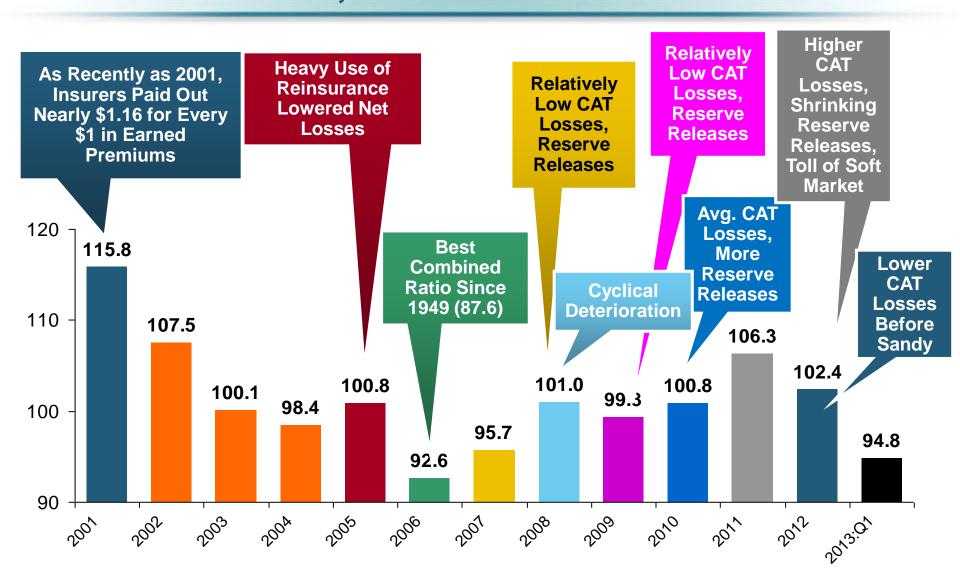


#### 1. UNDERWRITING

# Underwriting Losses in 2011 and 2012 Are Elevated by High Catastrophe Losses

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

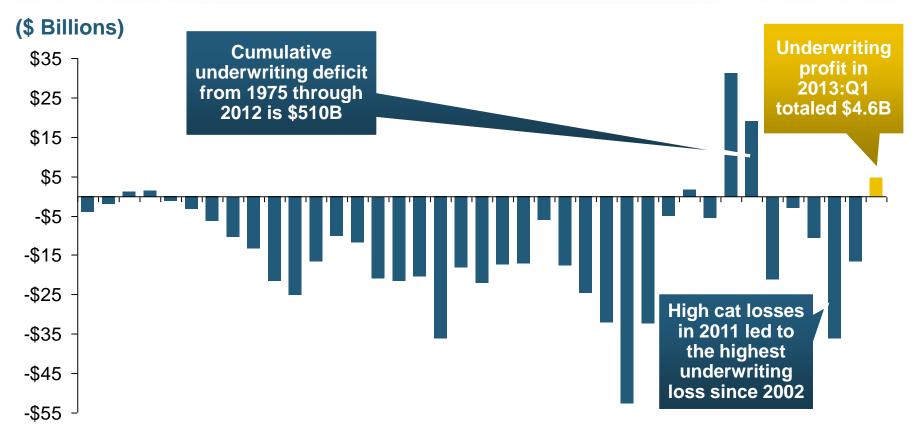




<sup>\*</sup> Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2. Sources: A.M. Best, ISO.

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





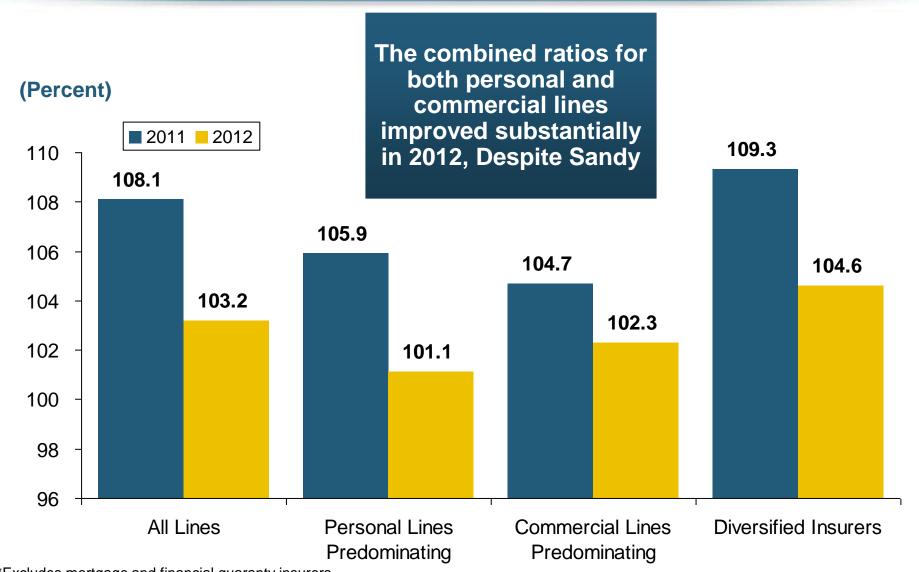
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 1**2**3:Q1

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

<sup>\*</sup> Includes mortgage and financial guaranty insurers in all years. Sources: A.M. Best, ISO: Insurance Information Institute.

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

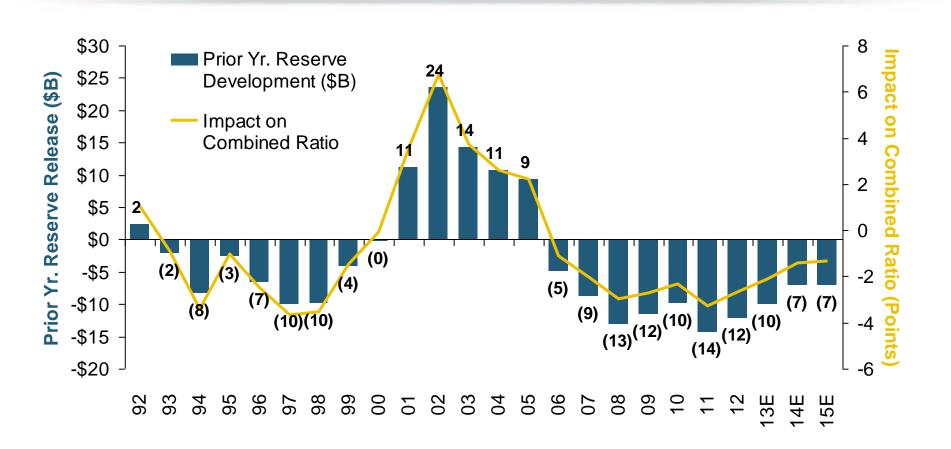




<sup>\*</sup>Excludes mortgage and financial guaranty insurers. Source: ISO/PCI; Insurance Information Institute

#### P/C Reserve Development, 1992–2015E



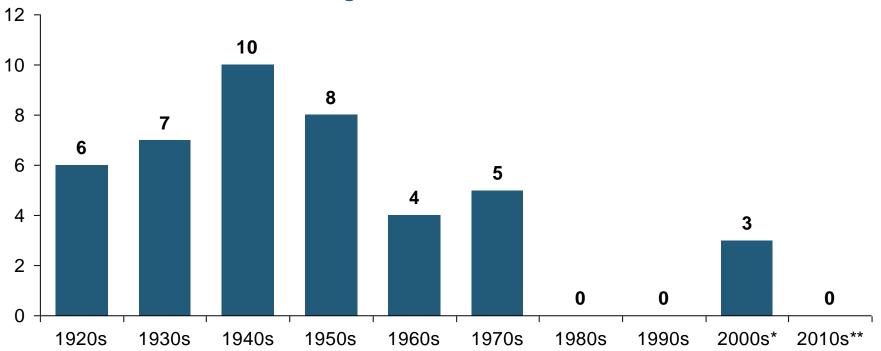


Note: 2005 reserve development excludes a \$6 billion loss portfolio transfer between American Re and Munich Re. Including this transaction, total prior year adverse development in 2005 was \$7 billion. The data from 2000 and subsequent years excludes development from financial guaranty and mortgage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

### 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

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

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

<sup>\* 2009</sup> 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.

<sup>\*\*</sup>Data for the 2010s includes 2010 and 2011.

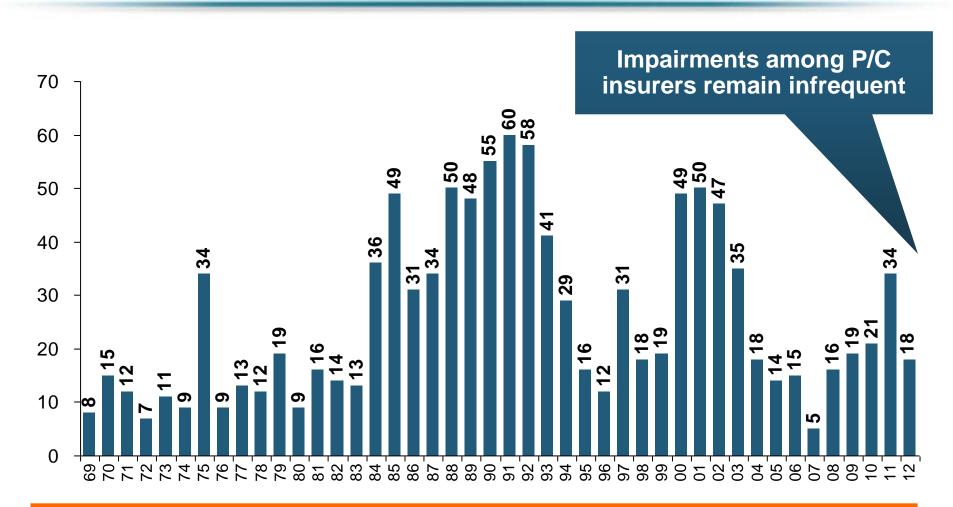


# Financial Strength & Underwriting

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

#### P/C Insurer Impairments, 1969–2012

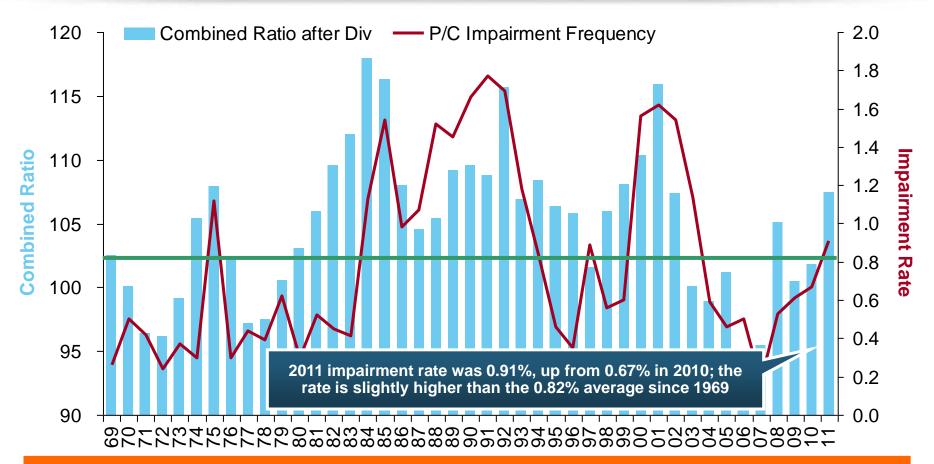




The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets

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





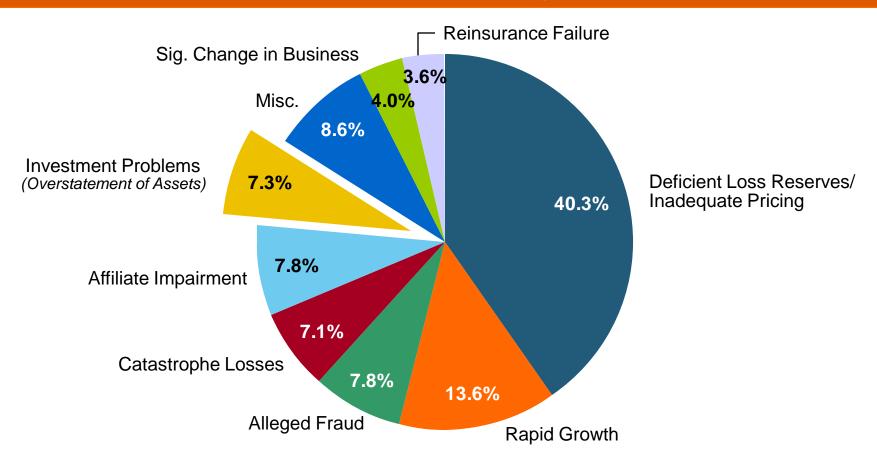
Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall

### 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.

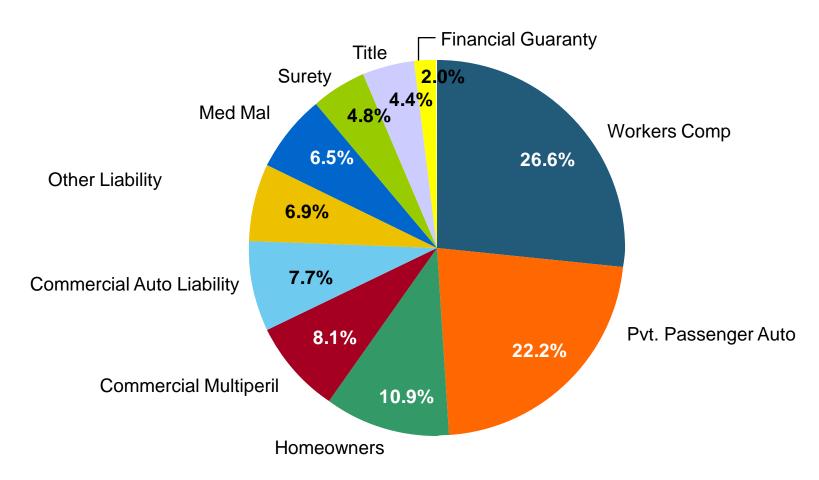
Investment and Catastrophe Losses Play a Much Smaller Role



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

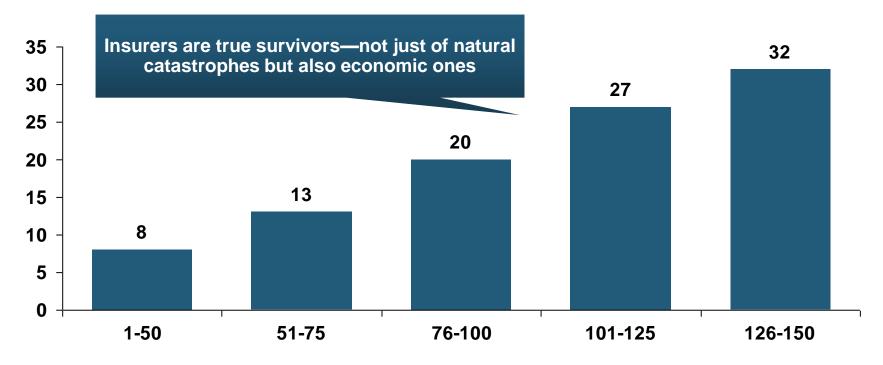


Workers Comp and Pvt. Passenger Auto Account for Nearly Half of the Premium Volume of Impaired Insurers Over the Past Decade



### Number of Recessions Endured by P/C Insurers, by Number of Years in Operation Insurers

#### **Number of Recessions Since 1860**



**Number of Years in Operation** 

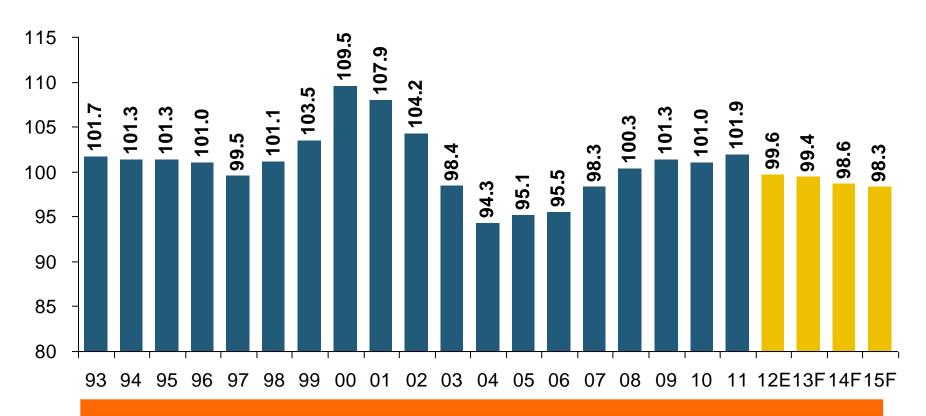
Many US Insurers Are Close to a Century Old or Older



#### Performance by Segment

#### Private Passenger Auto Combined Ratio: 1993–2015F

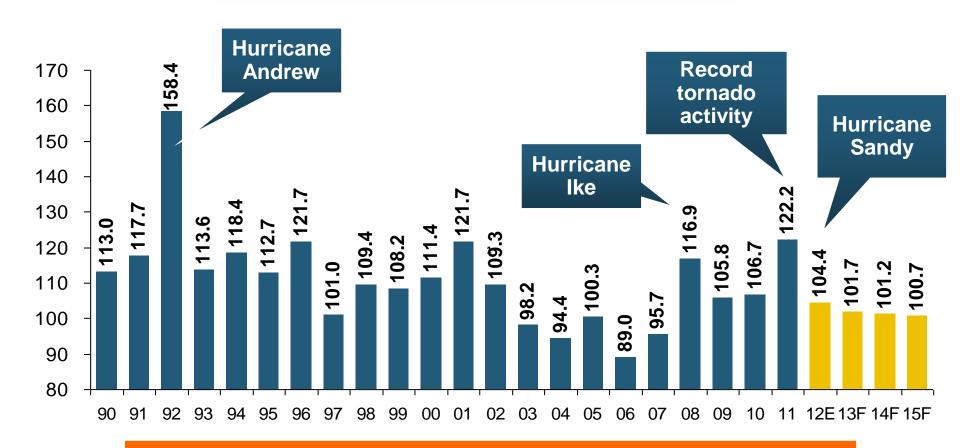




Private Passenger Auto Accounts for 34% of Industry Premiums and Remains the Profit Juggernaut of the P/C Insurance Industry

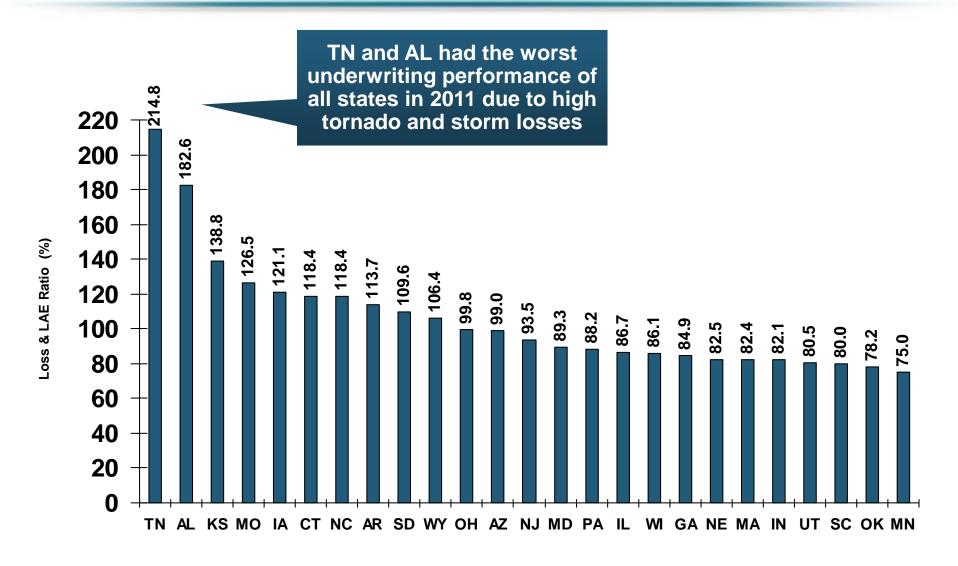
#### Homeowners Insurance Combined Ratio: 1990–2015F



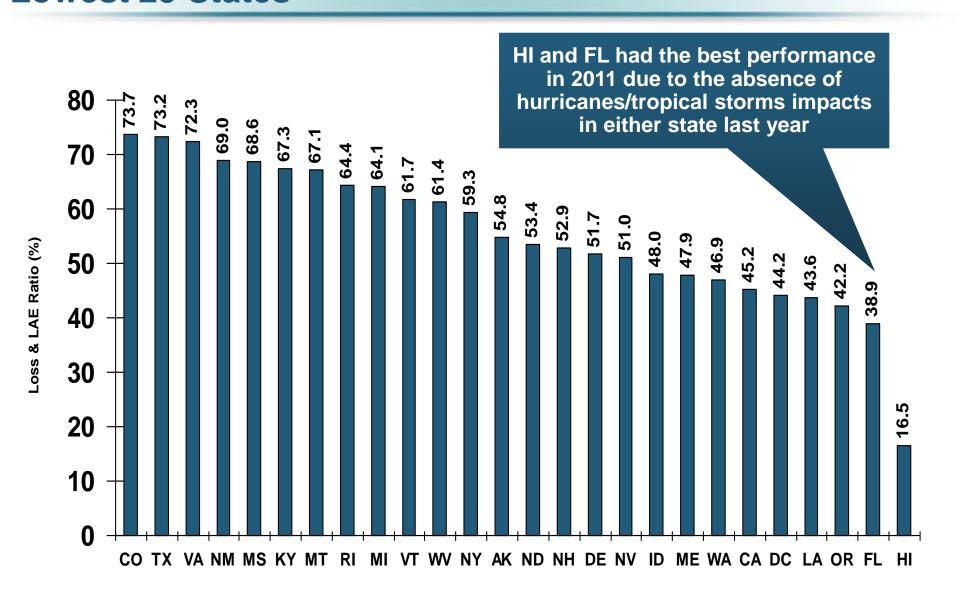


Homeowners Performance in 2011/12 Impacted by Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity

#### Homeowners Multi-Peril Loss & LAE Ratio, 2011: Insurance Information Highest 25 States

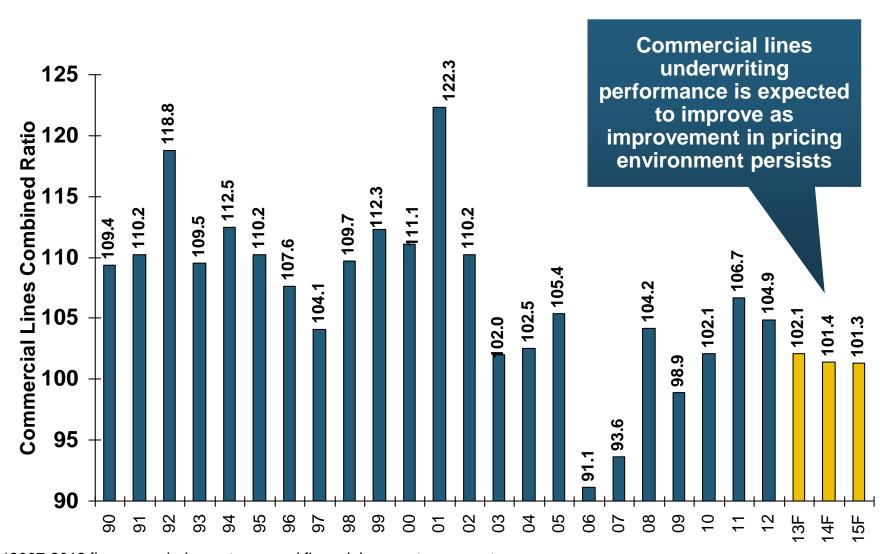


#### Homeowners Multi-Peril Loss & LAE Ratio, 2011: INSURANCE INFORMATION Lowest 25 States



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

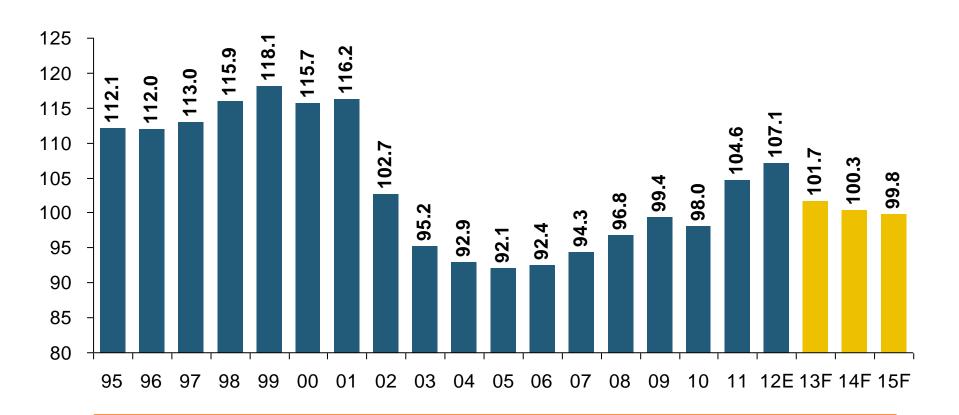




\*2007-2012 figures exclude mortgage and financial guaranty segments. Source: A.M. Best (1990-2011); Conning (2012-2015F) Insurance Information Institute

#### Commercial Auto Combined Ratio: 1993–2015F

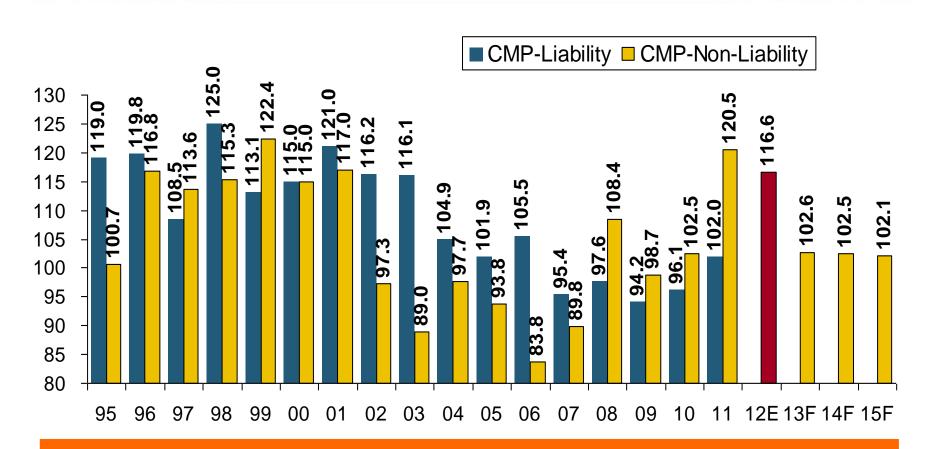




Commercial Auto is Expected to Improve as Rate Gains
Outpace Any Adverse Frequency and Severity Trends

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





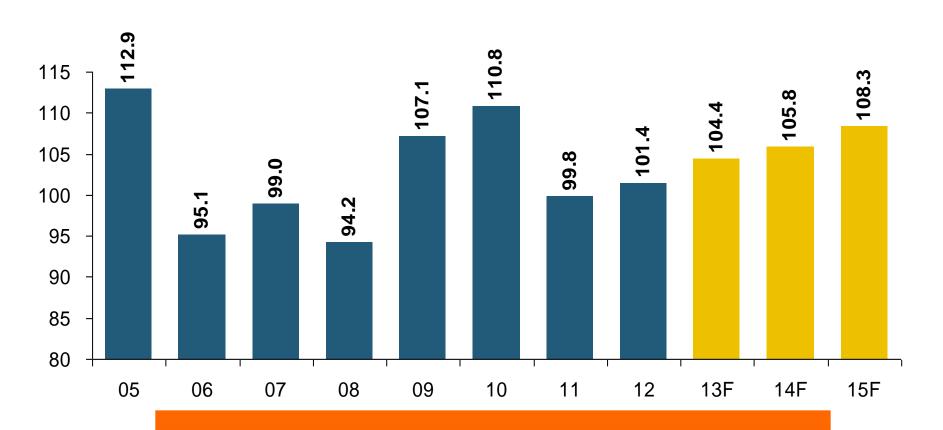
Commercial Multi-Peril Underwriting Performance is Expected to Improve in 2013 Assuming Normal Catastrophe Loss Activity

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

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

#### **General Liability Combined Ratio:** 2005–2015F

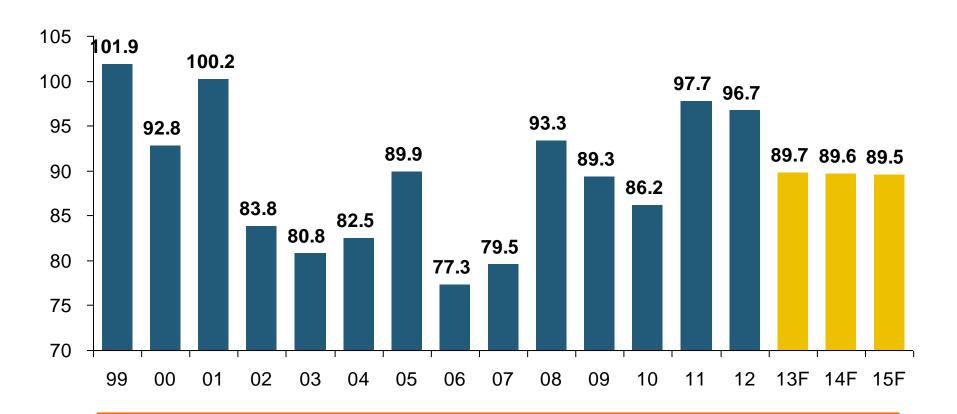




Commercial General Liability Underwriting Performance Has Been Volatile in Recent Years

#### **Inland Marine Combined Ratio:** 1999–2015F

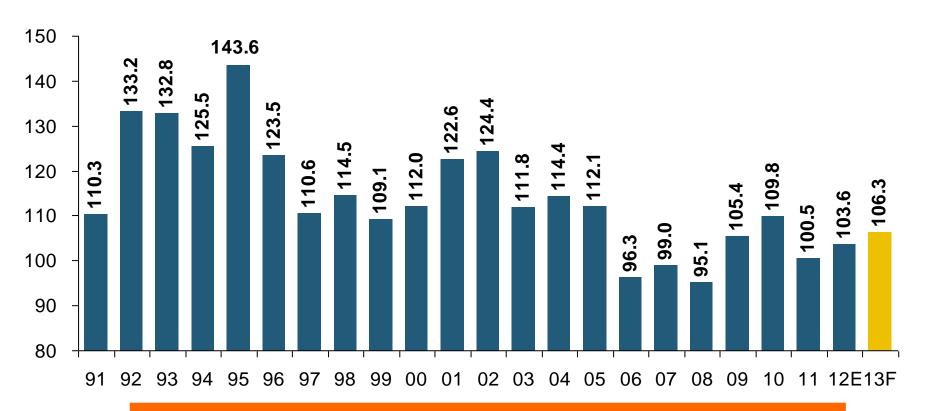




Inland Marine is Expected to Remain Among the Most Profitable of All Lines

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

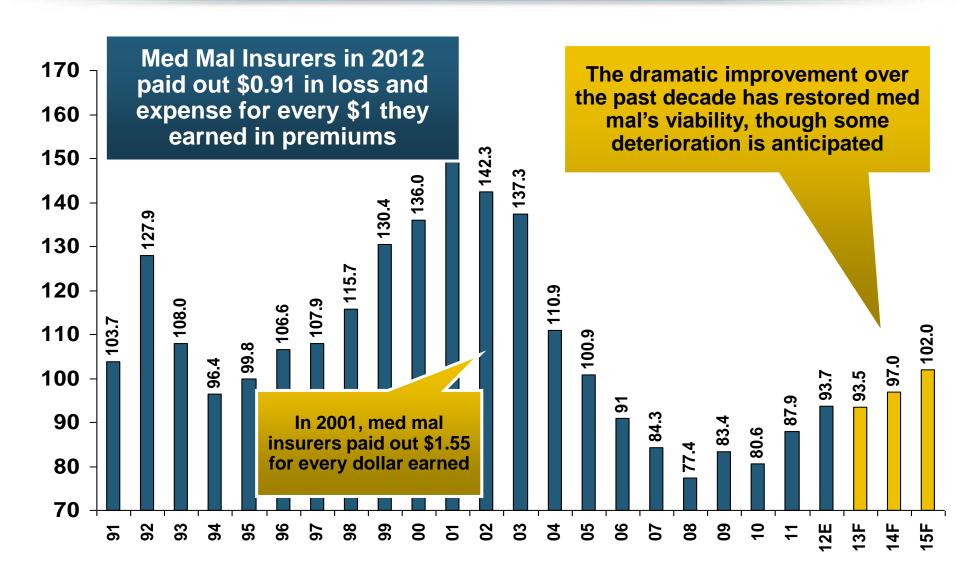




Liability Lines Have Performed Better in the Post-Tort Reform Era (~2005), but There Has Been Some Deterioration in Recent Years

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





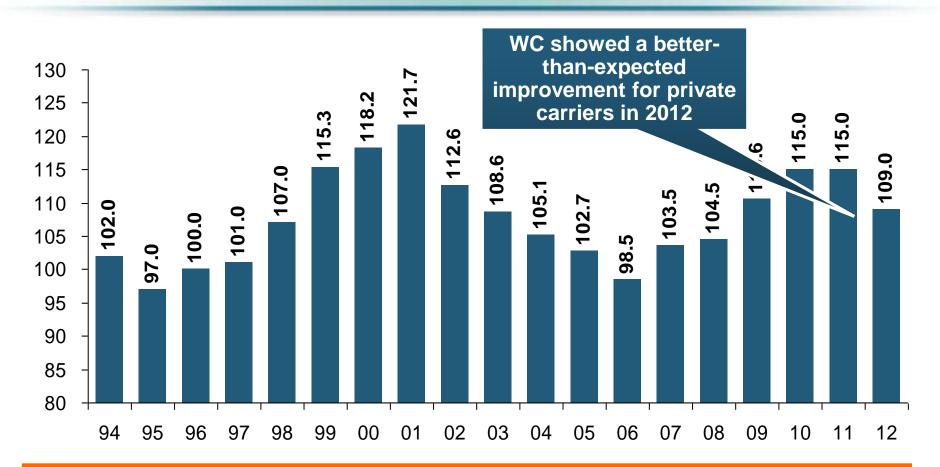


#### Workers Compensation Operating Environment

The Weak Economy and Soft Market Have Made the Workers Comp Operating Increasingly Challenging

#### Workers Compensation Combined Ratio: 1994–2012P





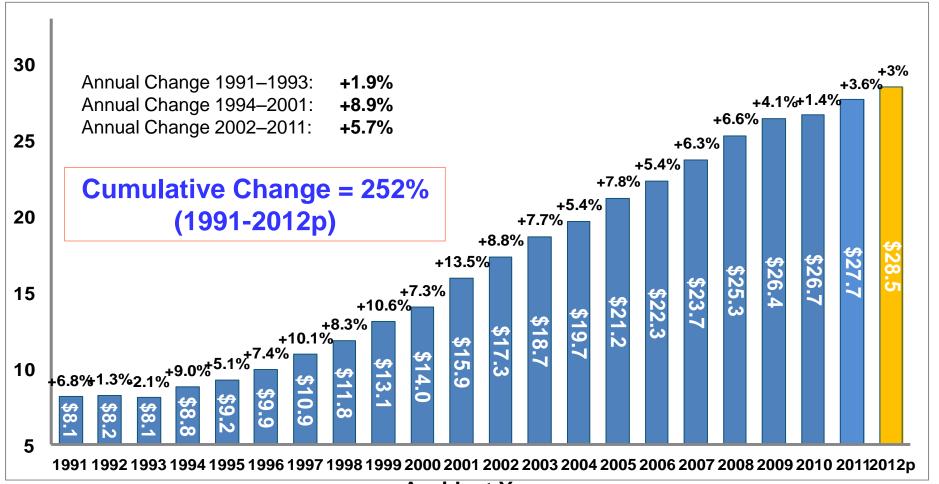
Workers Comp Results Began to Improve in 2012. Underwriting Results Deteriorated Markedly from 2007-2010/11 and Were the Worst They Had Been in a Decade.

#### Workers Compensation Medical Severity Moderate Increase in 2012



Medical
Claim Cost (\$000s)

**Average Medical Cost per Lost-Time Claim** 



**Accident Year** 

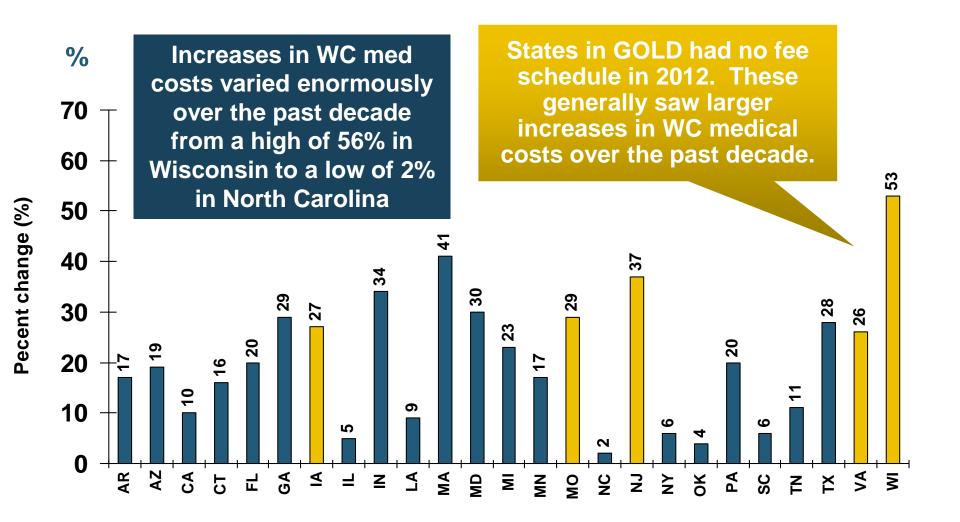
2012p: Preliminary based on data valued as of 12/31/2012.

1991-2011: Based on data through 12/31/2011, developed to ultimate

Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

#### Change in Price Paid for Medical Professional Services in WC, 2002-2012\*

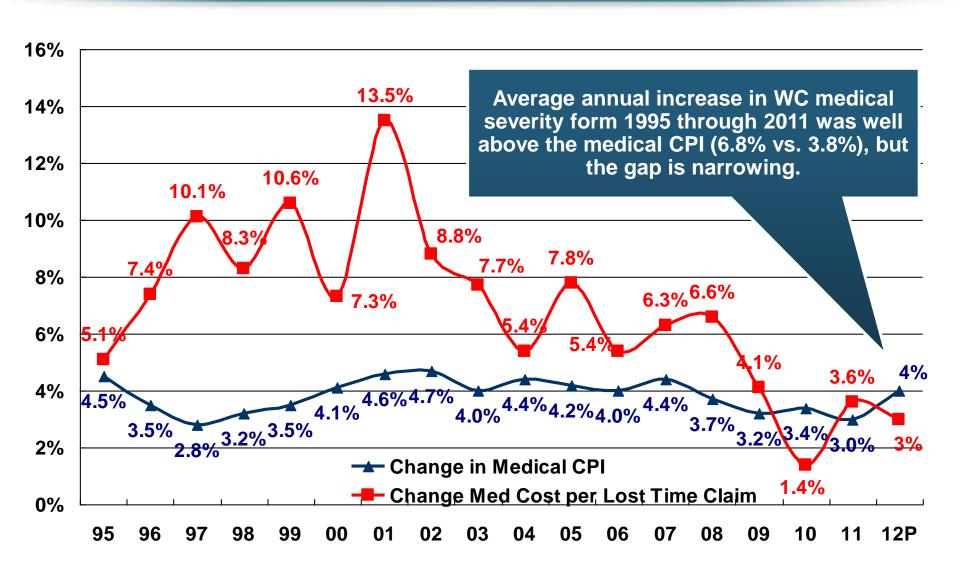




<sup>\*</sup>Data are preliminary as of 6/30/12.

#### WC Medical Severity Generally Outpaces the Medical CPI Rate

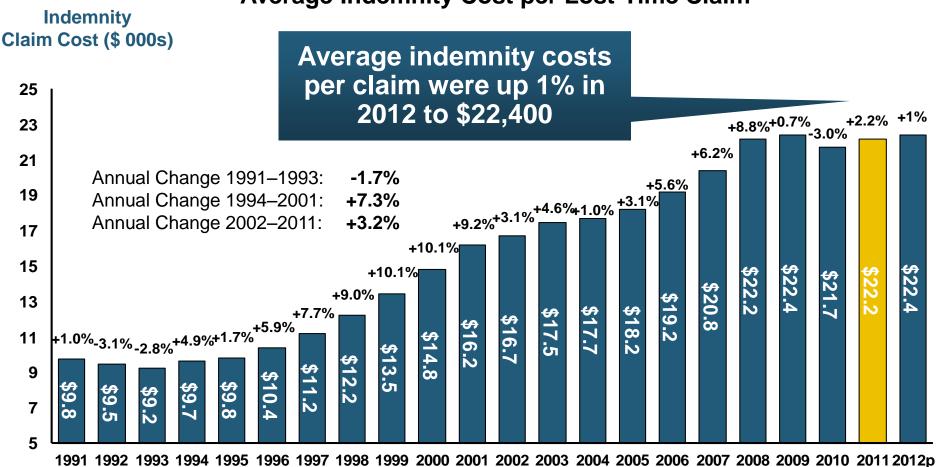




### Workers Comp Indemnity Claim Costs: Small Increase in 2012



#### **Average Indemnity Cost per Lost-Time Claim**



**Accident Year** 

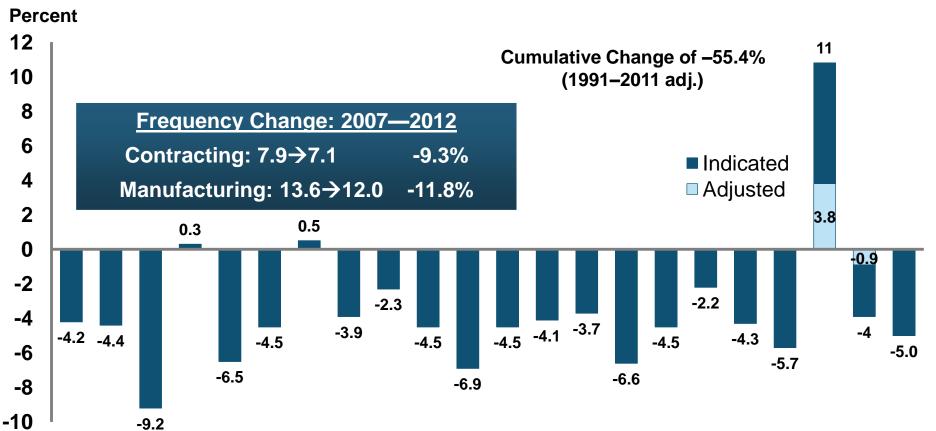
2012p: Preliminary based on data valued as of 12/31/2012. 1991-2011: Based on data through 12/31/2011, developed to ultimate

Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

# Workers Compensation Lost-Time Claim Frequency Declined in 2012







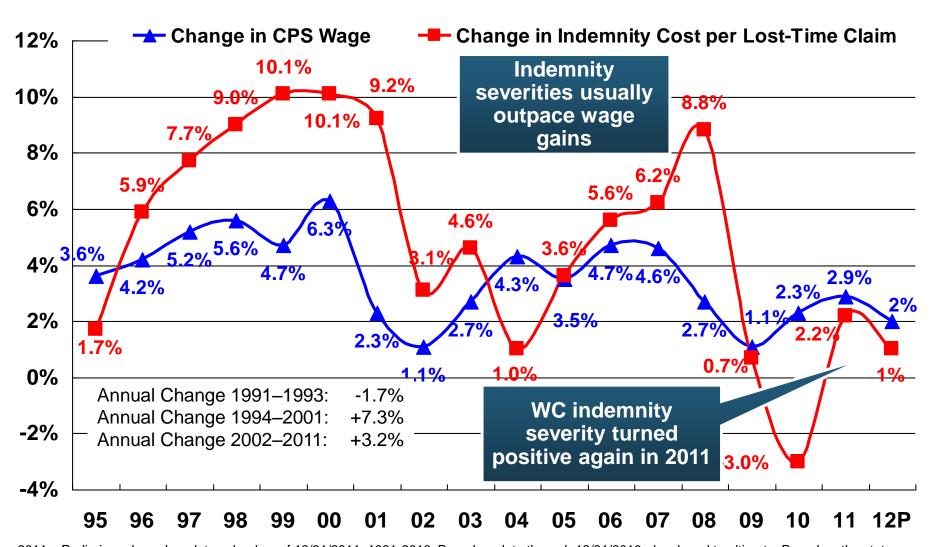
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 20112012p

#### **Accident Year**

<sup>\*</sup>Adjustments primarily due to significant audit activity.
2012p: Preliminary based on data valued as of 12/31/2012
1991–2011: Based on data through 12/31/2011, developed to ultimate

### WC Indemnity Severity vs. Wage Inflation, 777



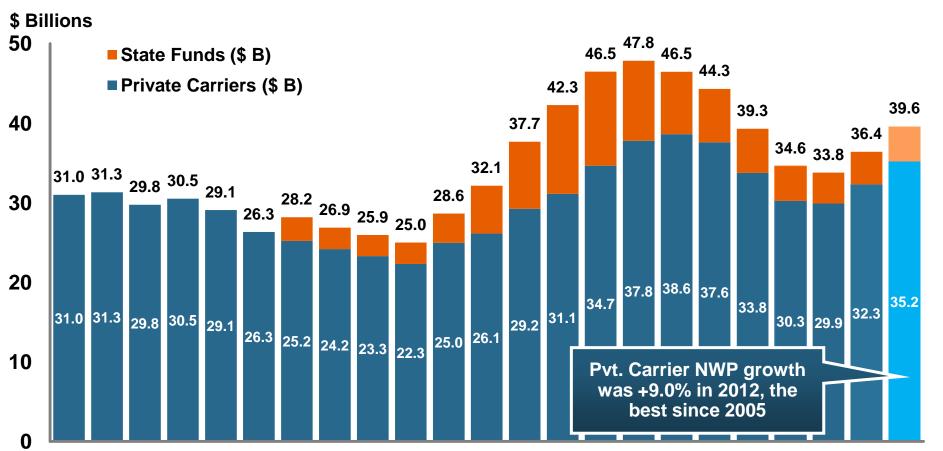


2011p: Preliminary based on data valued as of 12/31/2011; 1991-2010: Based on data through 12/31/2010, developed to ultimate. Based on the states where NCCI provides ratemaking services. Excludes the effects of deductible policies. CPS = Current Population Survey. Source: NCCI

### Workers Compensation Premium: Second Consecutive Year of Increase



#### **Net Written Premium**



1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 20112012p

p Preliminary

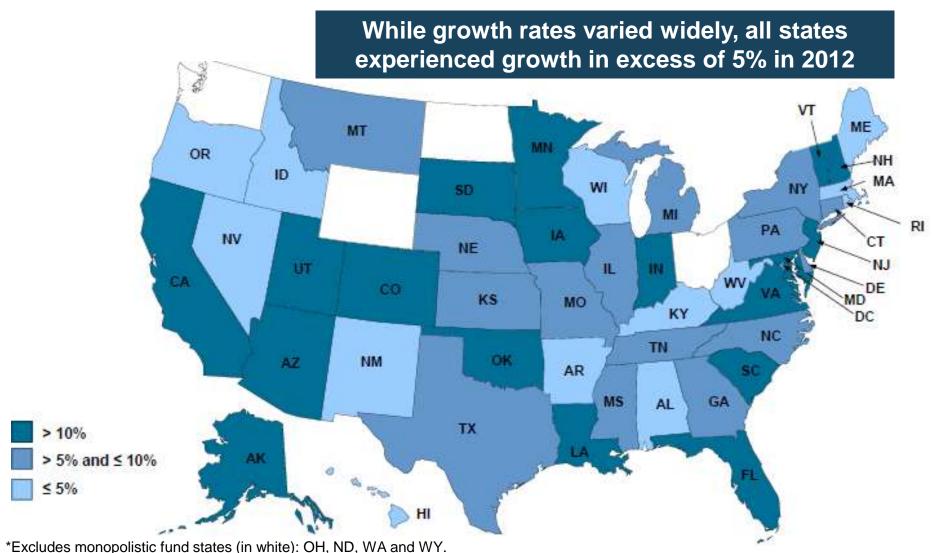
Source: 1990–20102p Private Carriers, Annual Statement Data, NCCI.
1996–2012p State Funds: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, UT Annual Statements

State Funds available for 1996 and subsequent

### 2012 Workers Compensation Direct Written Premium Growth, by State\*



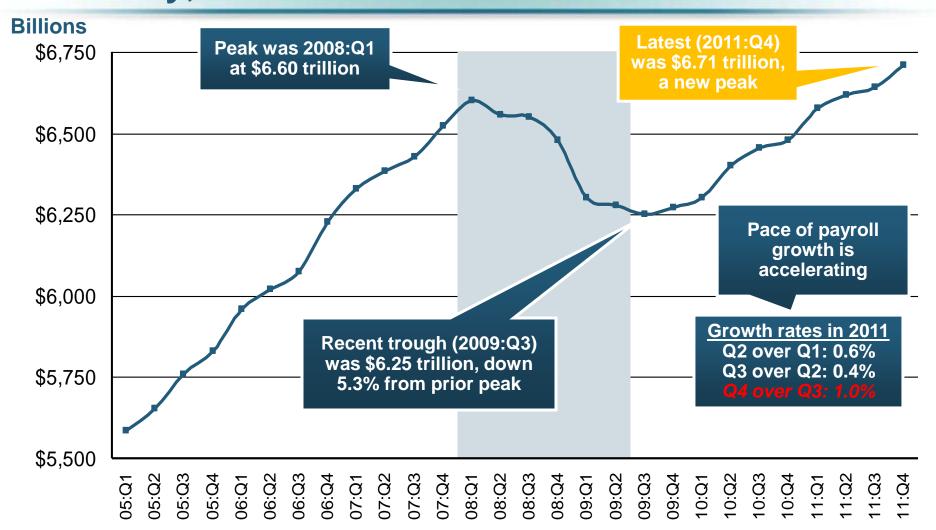
PRIVATE CARRIERS: Overall 2012 Growth = +9%



\*Excludes monopolistic fund states (in white): OH, ND, WA and W Source: NCCI.

### Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2011:Q4



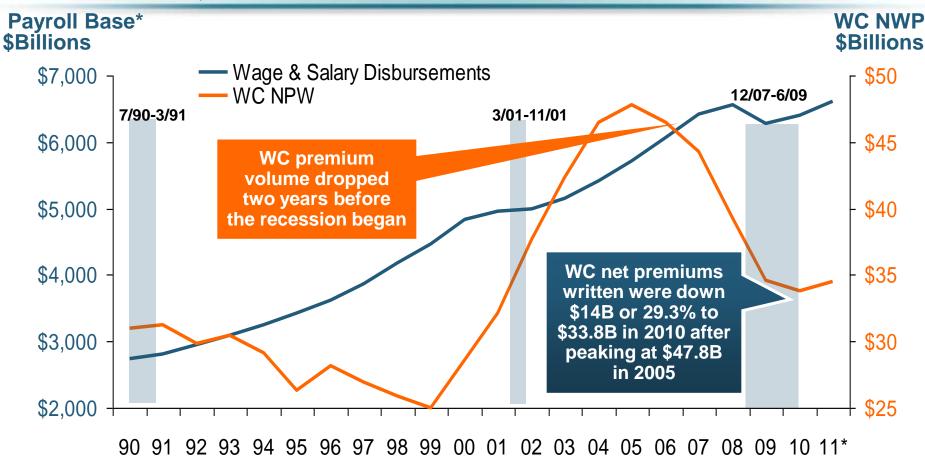


Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: <a href="http://research.stlouisfed.org/fred2/series/WASCUR">http://research.stlouisfed.org/fred2/series/WASCUR</a>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

## Payroll vs. Workers Comp Net Written Premiums, 1990-2011





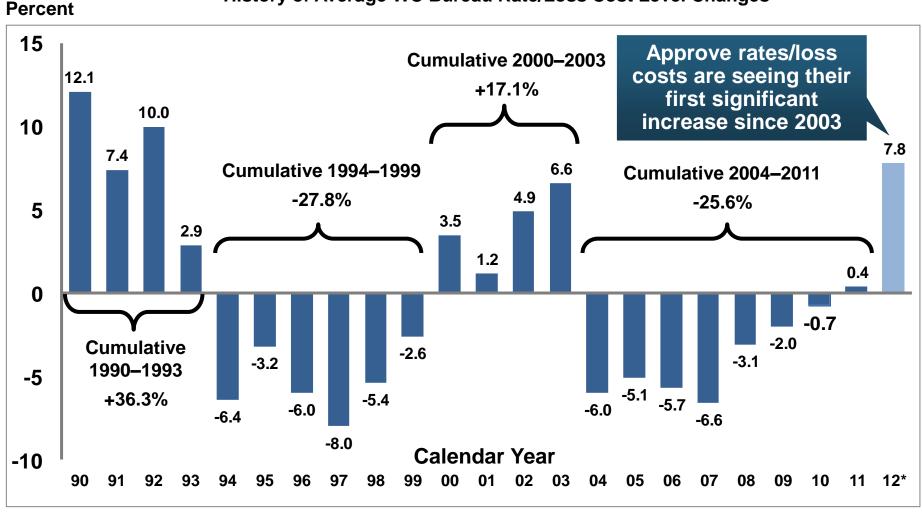
Resumption of payroll growth and rate increases suggests WC NWP will grow again in 2012

<sup>\*</sup>Private employment; Shaded areas indicate recessions. Payroll and WC premiums for 2011 is I.I.I. estimate Sources: NBER (recessions); Federal Reserve Bank of St. Louis at <a href="http://research.stlouisfed.org/fred2/series/WASCUR">http://research.stlouisfed.org/fred2/series/WASCUR</a>; NCCI; I.I.I.

#### Average Approved Bureau Rates/Loss Costs







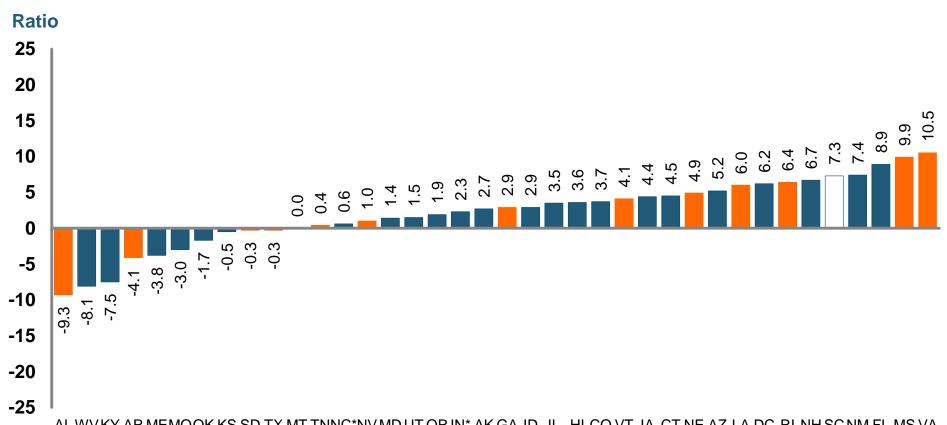
<sup>\*</sup>States approved through 7/31/12.

Note: Countrywide approved changes in advisory rates, loss costs and assigned risk rates as filed by applicable rating organization. Source: NCCI.

#### **Current NCCI Voluntary Market** Filed Rate/Loss Cost Changes



(Excludes Law-Only Filings)



ALWVKY AR MEMOOK KS SD TX MT TNNC\*NV MD UT OR IN\* AK GA ID IL HI CO VT IA CT NE AZ LA DC RI NH SC NM FL MS VA

# Impact of Discounting on Workers Compensation Premium



#### **NCCI States—Private Carriers**

-25

#### **Percent** 10 ■ Rate/Loss Cost Departure Schedule Rating Dividends 2.1 5 0.7 0 -5 -4.0 -2.2 -7.1 <sub>-7.4</sub> -7.1 -7.4 -8.3 -10 -8.5 -10.5 -15 -14.3 -14.6 -17.7 -20 -19.2

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 p

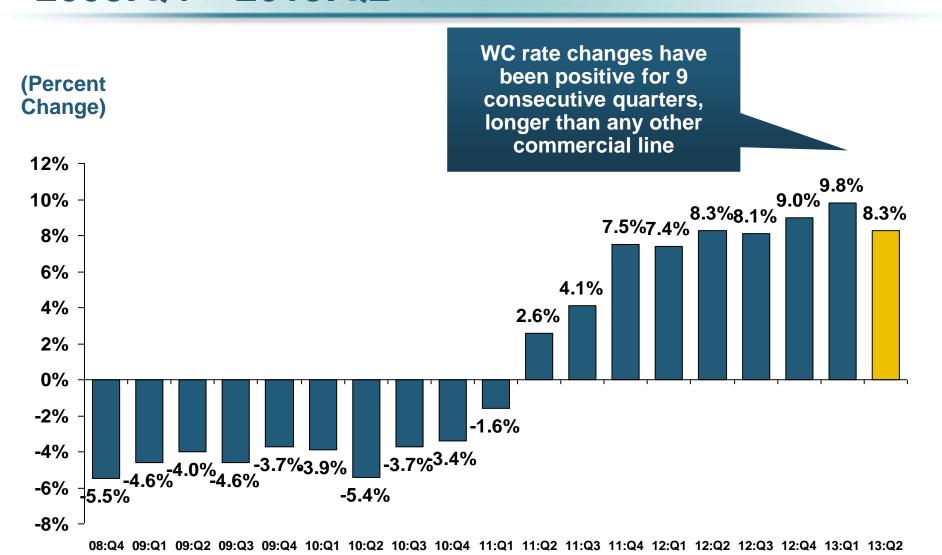
Policy Year

Dividend ratios are based on calendar year statistics NCCI benchmark level does not include an underwriting contingency provision Based on data through 12/31/2011 for the states where NCCI provides ratemaking services Source: NCCI.

-22.6 -23.2

### Workers Comp Rate Changes, 2008:Q4 – 2013:Q2





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; Information Institute.

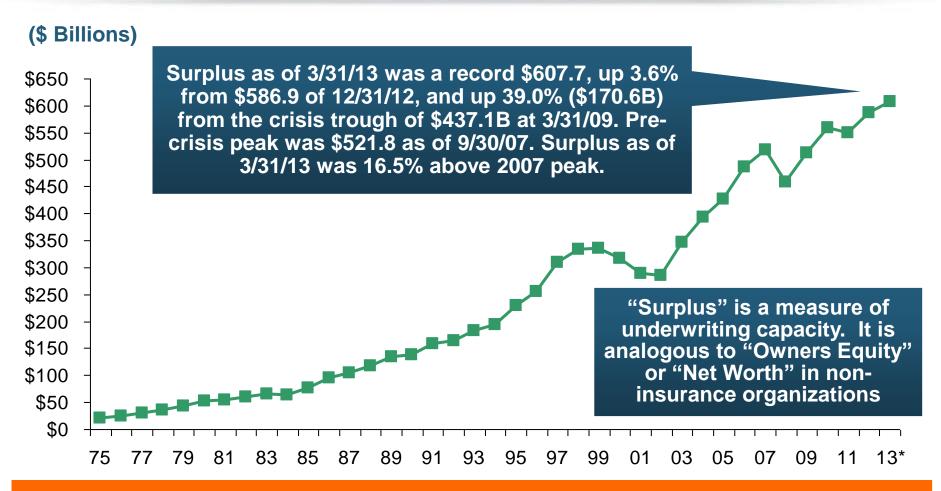


#### 2. SURPLUS/CAPITAL/CAPACITY

# How Will Large Catastrophe Losses Impact Capacity?

#### US Policyholder Surplus: 1975–2013\*





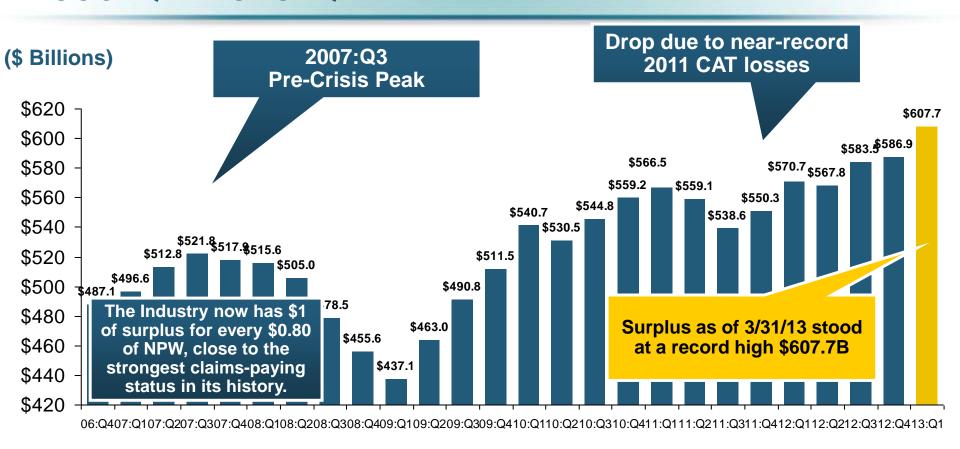
The Premium-to-Surplus Ratio Stood at \$0.77:\$1 as of 3/31/13, A Near Record Low (at Least in Recent History)\*

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

<sup>\*</sup> As of 3/31/13.

### Policyholder Surplus, 2006:Q4–2013:Q1





\*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.

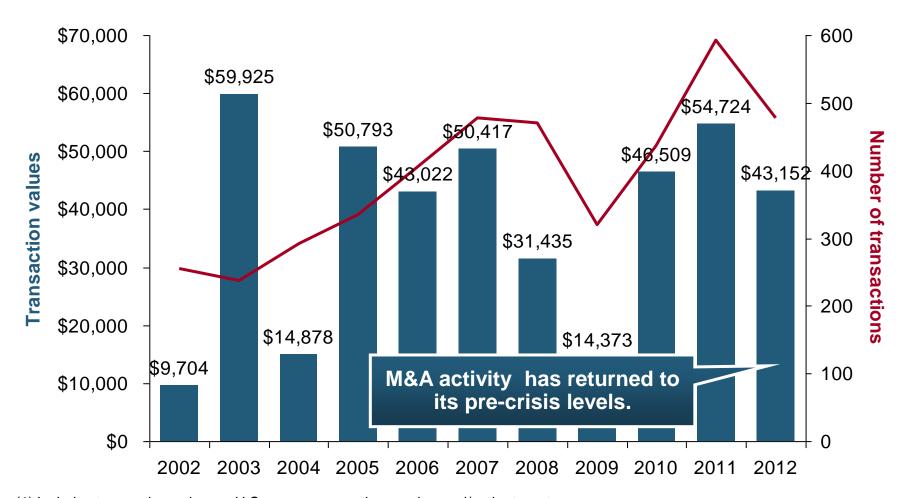
The P/C Insurance Industry Both Entered and Emerged from the 2012 Hurricane Season Very Strong Financially.

Sources: ISO, A.M .Best.

#### 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.

Source: Conning proprietary database.

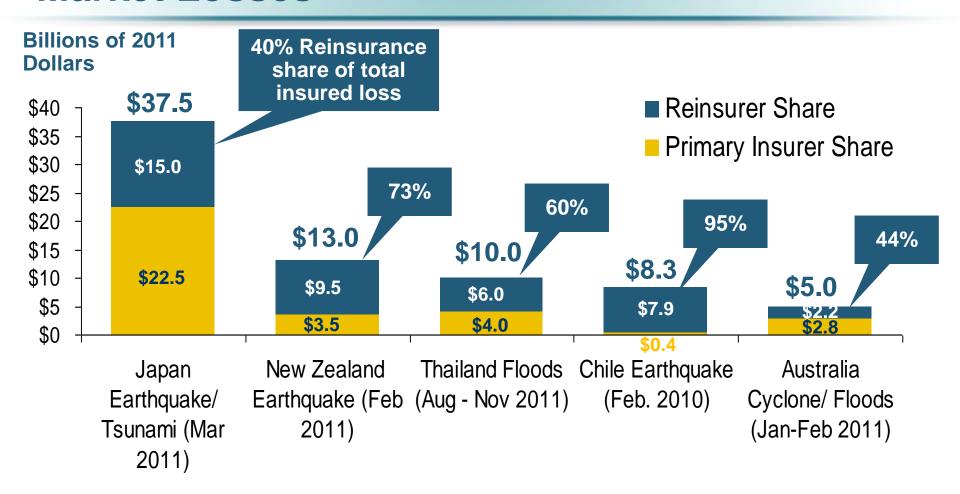


# 3. REINSURANCE MARKET CONDITIONS

Ample Capacity Despite
Heavy Global
Catastrophe Activity in
Recent Years

### Reinsurer Share of Recent Significant Market Losses

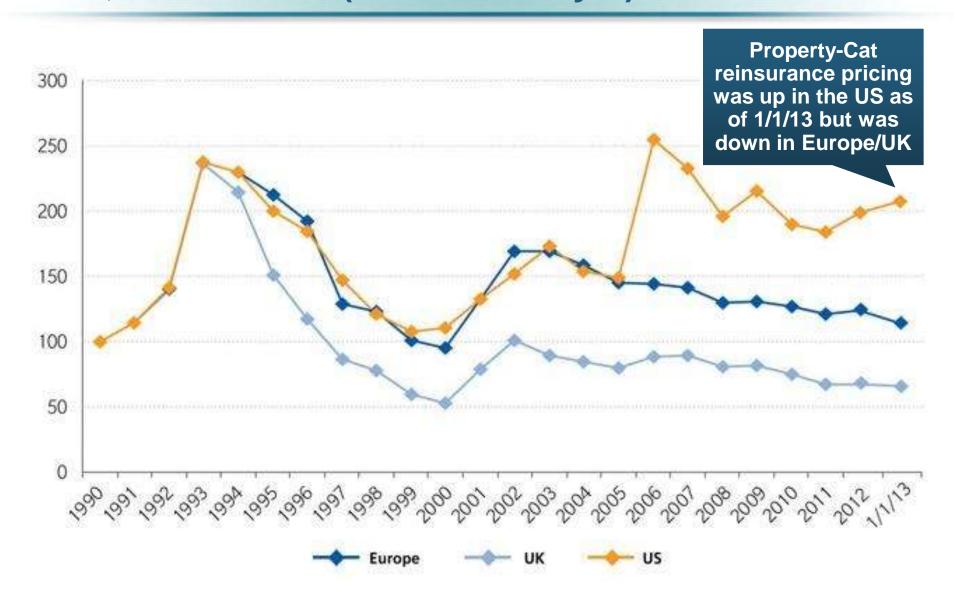




Reinsurers Paid a High Proportion of Insured Losses Arising from Major Catastrophic Events Around the World in Recent Years

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

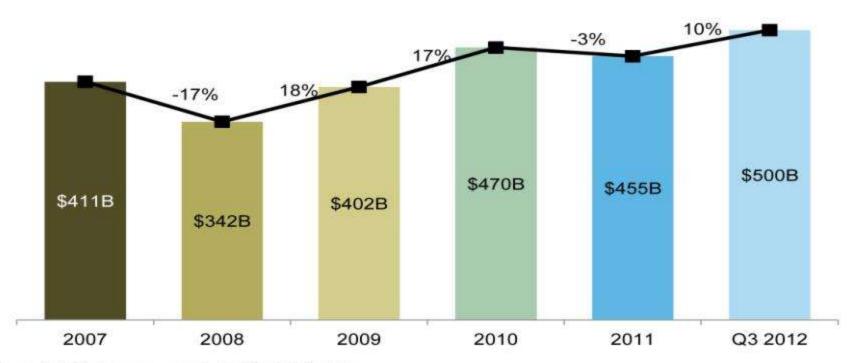




#### Reinsurance Capital Is at a Record High



#### **Change in Global Reinsurer Capital**

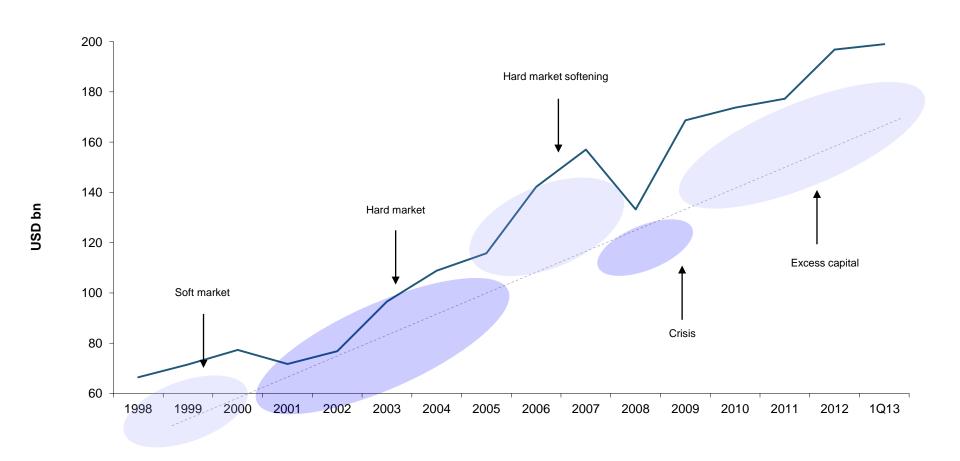


Source: Individual company reports, Aon Benfield Analytics

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



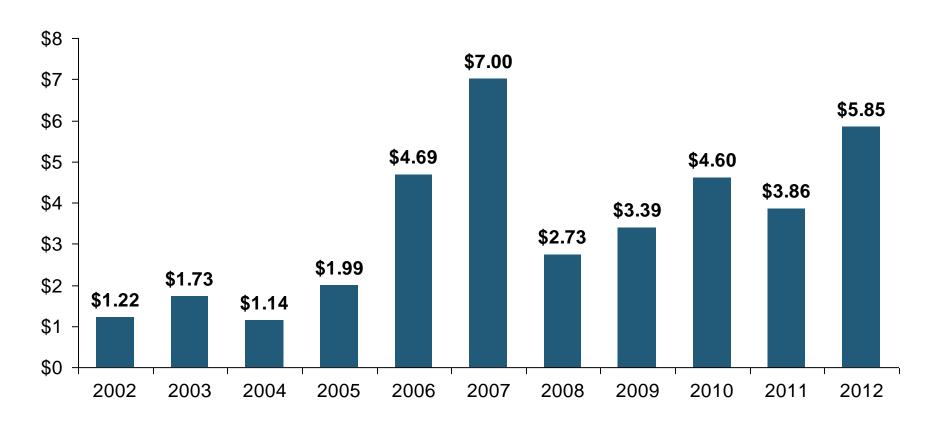


Source: Guy Carpenter

## CATASTROPHE BONDS, ANNUAL RISK CAPITAL ISSUED, 2002-2012



#### (\$ Billions)

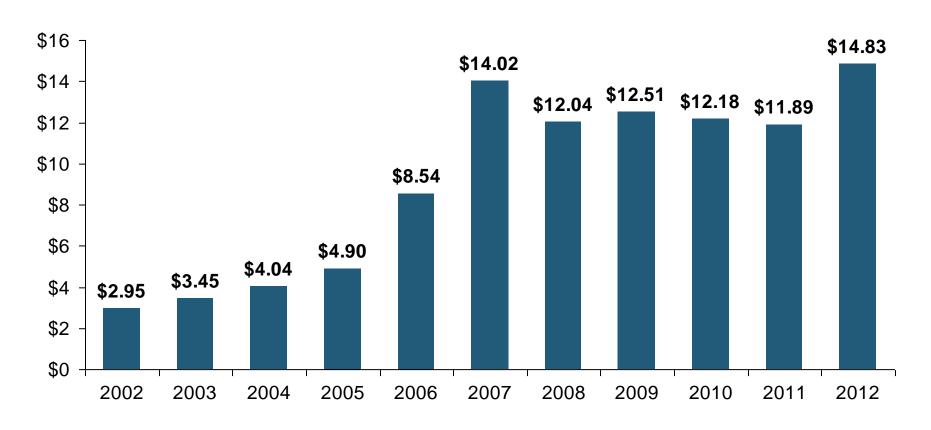


**Note** 

## CATASTROPHE BONDS, RISK CAPITAL OUTSTANDING, 2002-2012



#### (\$ Billions)



Note



# 4. RENEWED PRICING DISCIPLINE

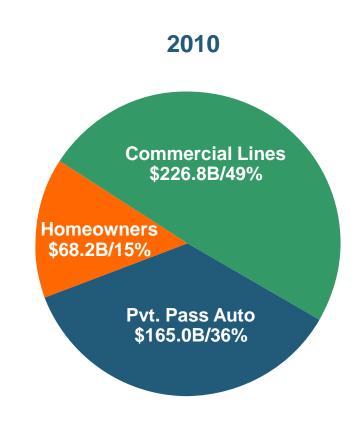
# **Evidence of a Broad and Sustained Shift in Pricing**

## Distribution of Direct Premiums Written by Segment/Line, 2010



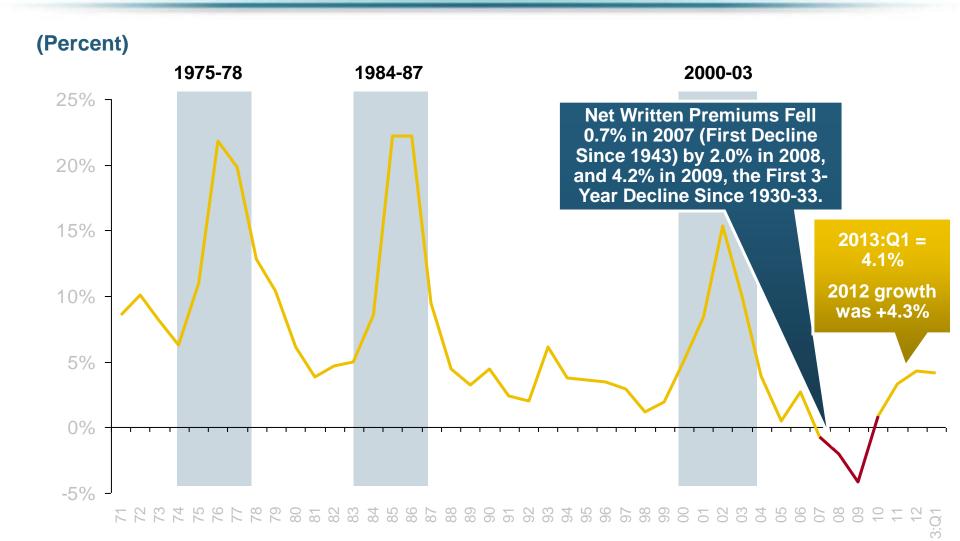
#### **Distribution Facts**

- Personal/Commercial lines split has been about 50/50 for many years; Personal Lines overtook Commercial Lines in 2010
- Pvt. Passenger Auto is by far the largest line of insurance and is currently the most important source of industry profits
- Billions of additional dollars in homeowners insurance premiums are written by staterun residual market plans



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





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



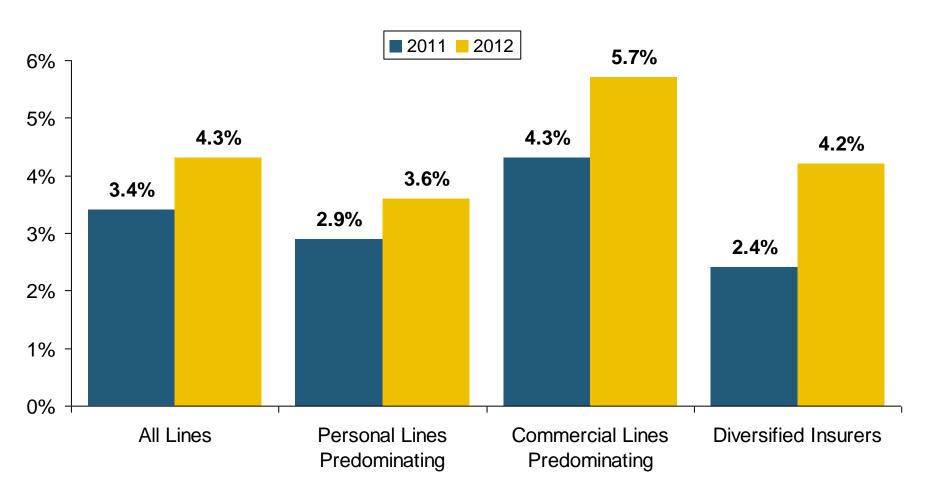


Sustained Growth in Written Premiums (vs. the same quarter, prior year) Will Continue through 2013

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



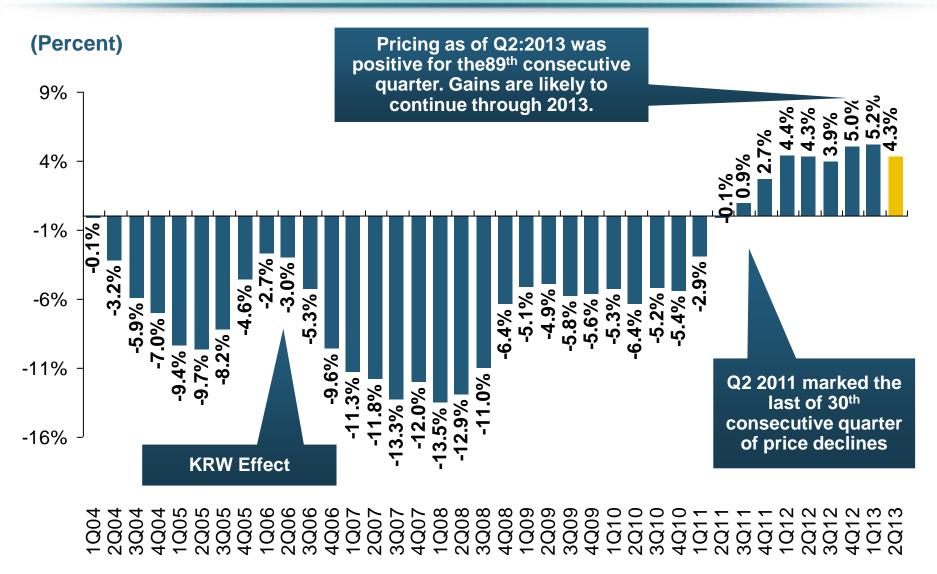
#### (Percent)



<sup>\*</sup>Excludes mortgage and financial guaranty insurers. Source: ISO/PCI; Insurance Information Institute

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

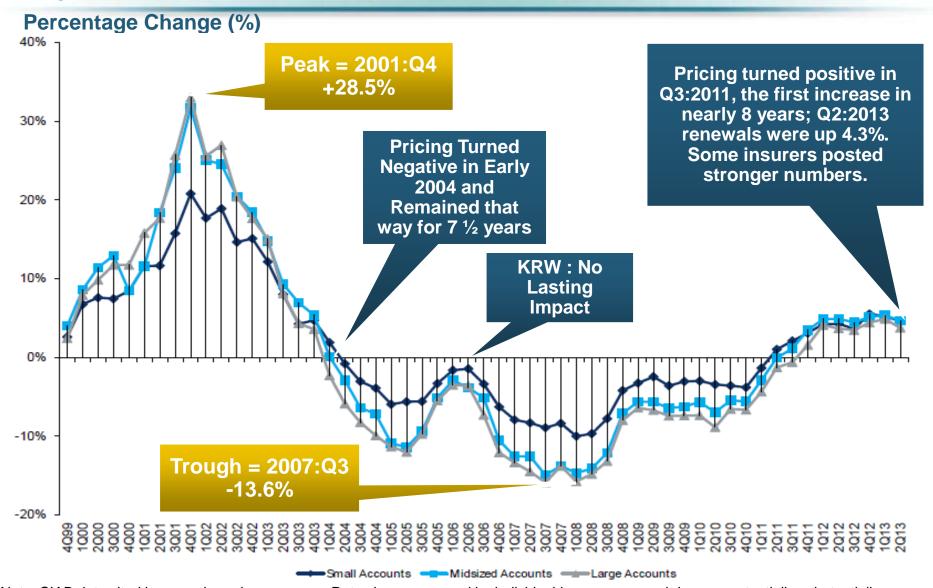




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents & Brokers; Insurance Information Institute

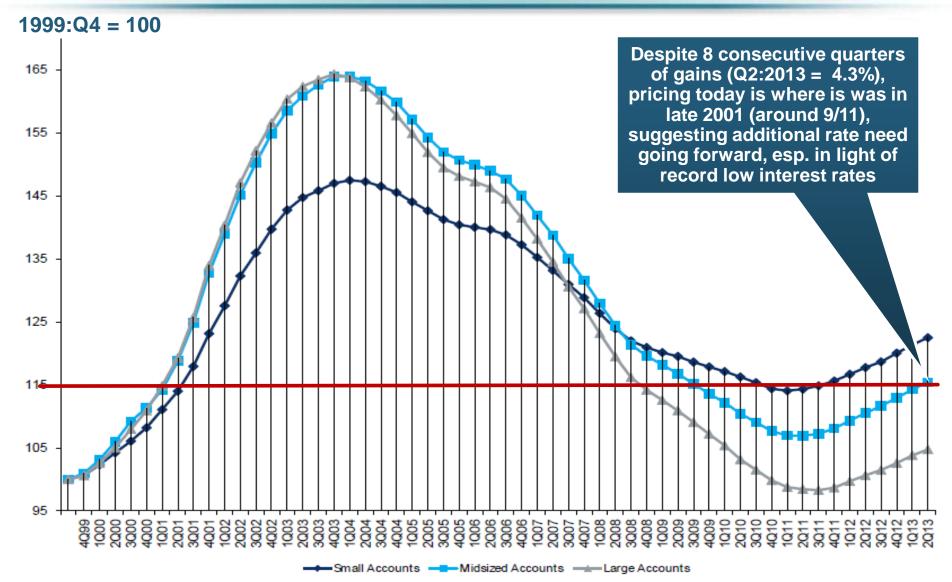
# Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2013:Q2





### Cumulative Qtrly. Commercial Rate Changes, by Account Size: 1999:Q4 to 2013:Q2

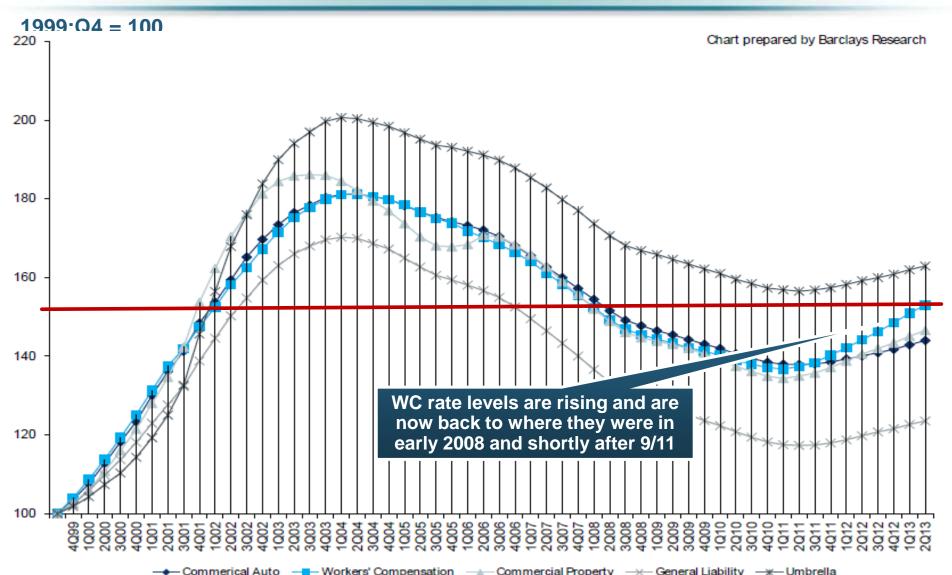




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

### Cumulative Qtrly. Commercial Rate Changes, by Line: 1999:Q4 to 2013:Q2

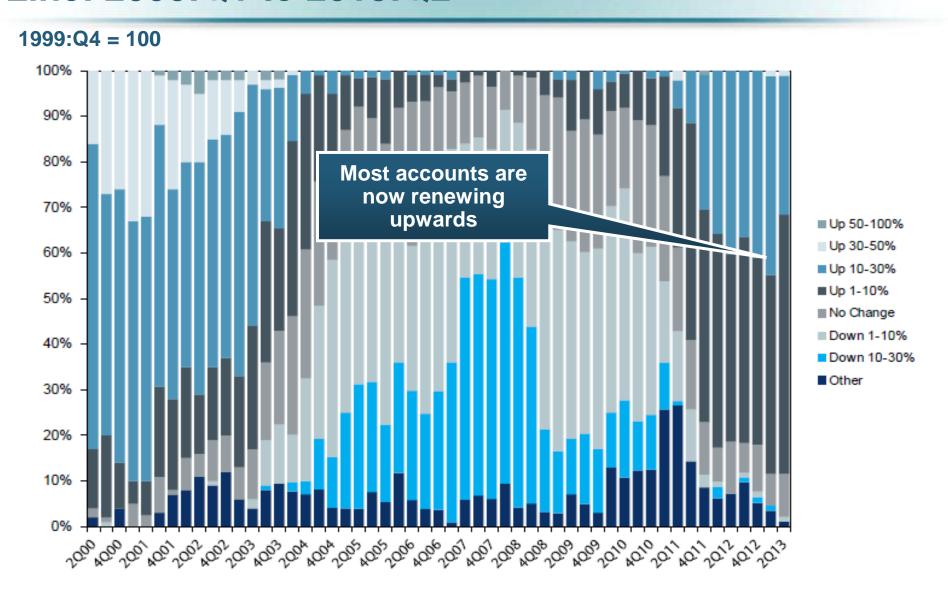




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

### Workers Comp. Quarterly Rate Changes, by Line: 2000:Q1 to 2013:Q2

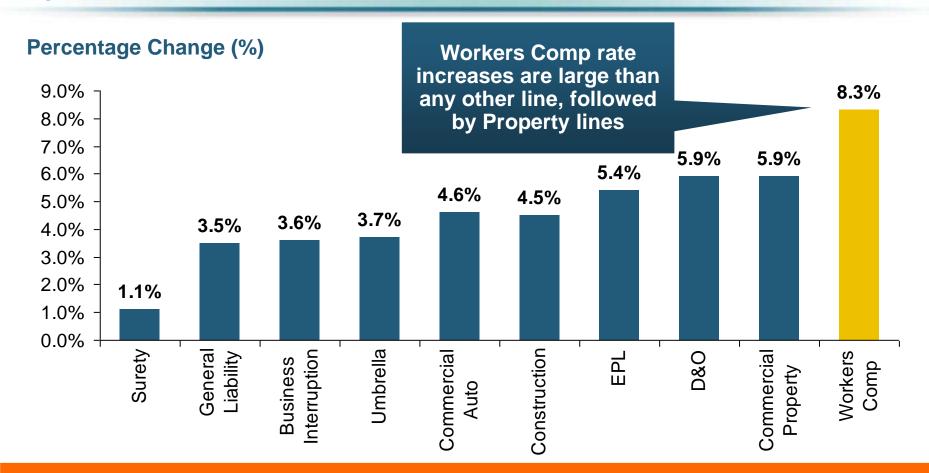




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

## Change in Commercial Rate Renewals, by Line: 2013:Q2

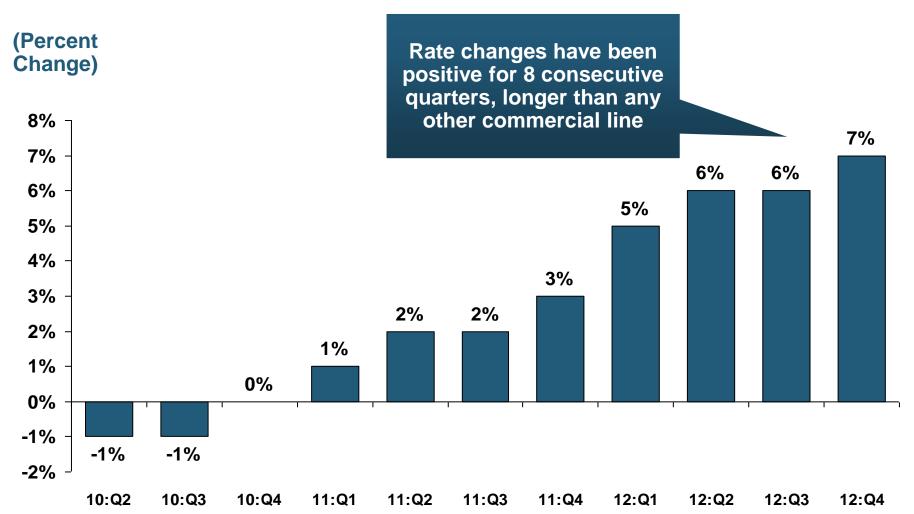




Major Commercial Lines Renewed Uniformly Upward in Q2:2013 for the 8th Consecutive Quarter; Property Lines & Workers Comp Leading the Way; Cat Losses and Low Interest Rates Provide Momentum Going Forward

## CLIPS: Change in Written Price Level: All Lines, 2010:Q2 – 2012:Q4



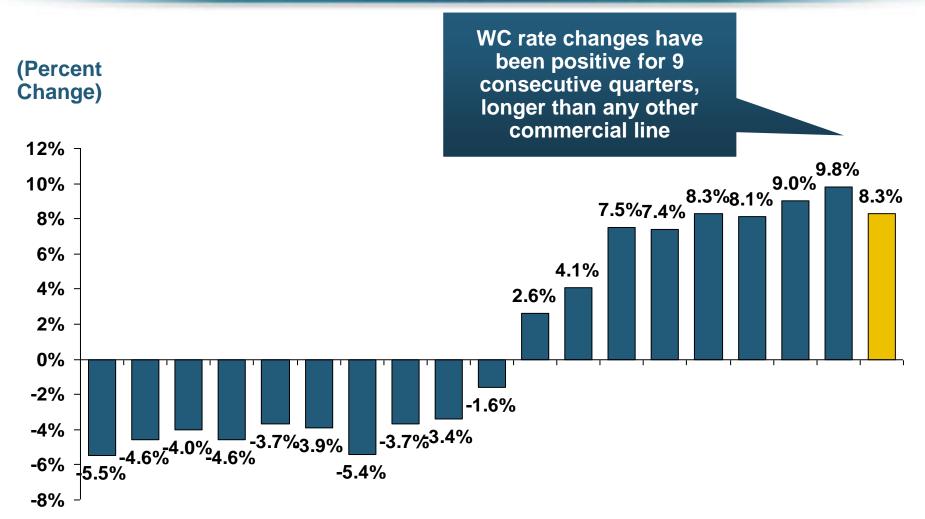


Note: Towers Watson data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.

Source: Towers Watson; Information Institute.

### Workers Comp Rate Changes, 2008:Q4 – 2013:Q2





08:Q409:Q109:Q209:Q309:Q410:Q110:Q210:Q310:Q411:Q111:Q211:Q311:Q412:Q112:Q212:Q312:Q413:Q113:Q2

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; Information Institute.

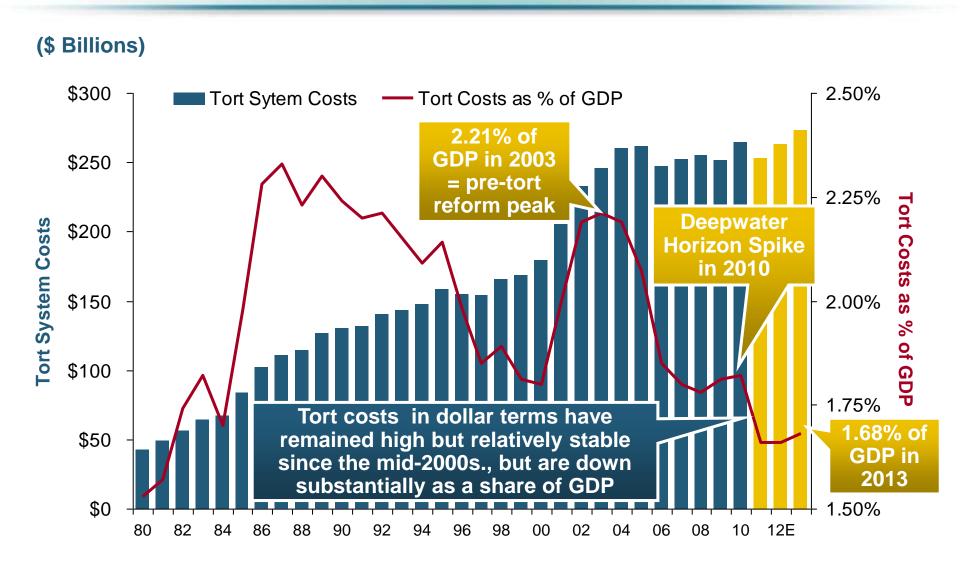


# Shifting Legal Liability & Tort Environment

Is the Tort Pendulum Swinging Against Insurers?

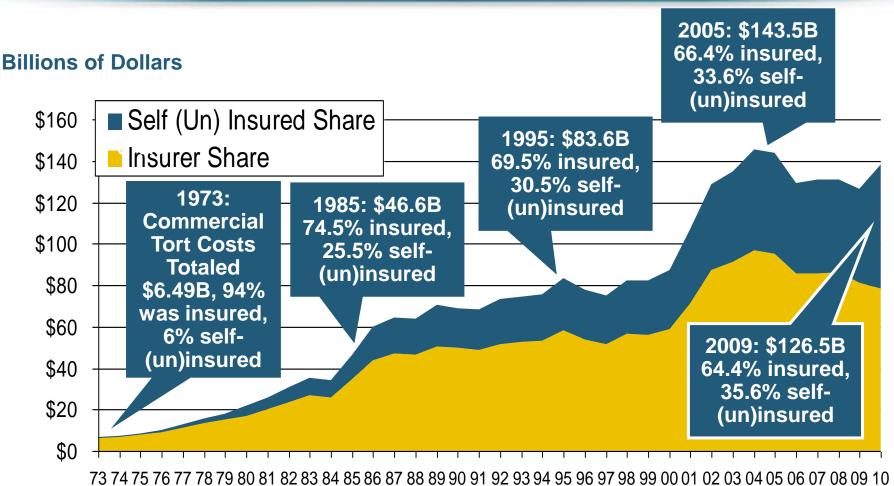
### Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical, 1980-2013E





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

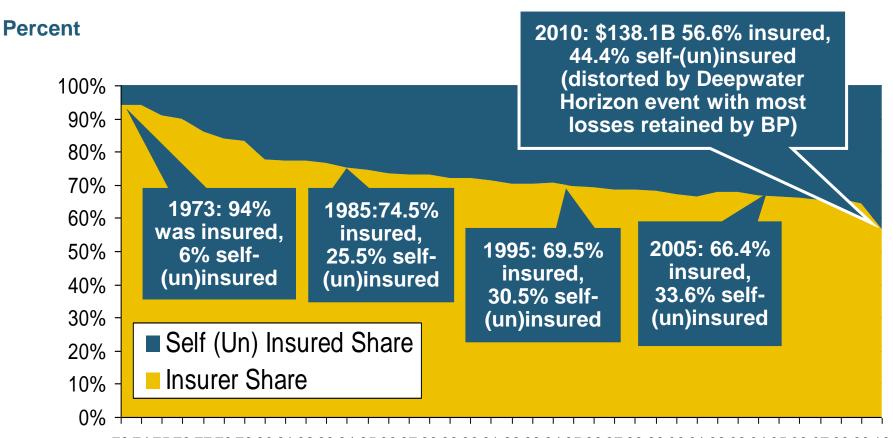




Tort Costs and the Share Retained by Risks Both Grew Rapidly from the mid-1970s to mid-2000s, When Tort Costs Began to Fall But Self-**Insurance Shares Continued to Rise** 

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





73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10

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

- Delaware
- Nebraska
- 3. Wyoming
- 4. Minnesota
- 5. Kansas
- 6. Idaho
- 7. Virginia
- 8. North Dakota
- 9. Utah

10. lowa

#### **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: 2012/2013







### CYBER RISK

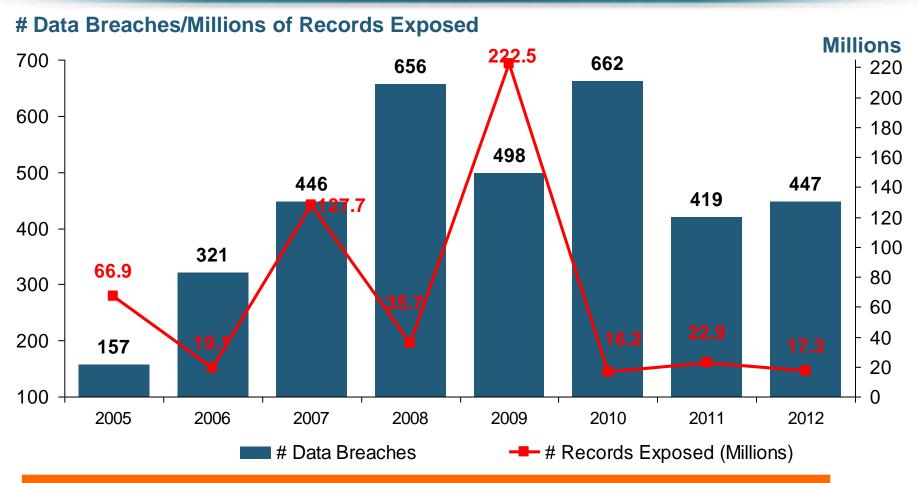
### Cyber Risk is a Rapidly Emerging Exposure for Businesses Large and Small in Every Industry

**NEW III White Paper:** 

http://www.iii.org/assets/docs/pdf/paper\_CyberRisk\_2013.pdf

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





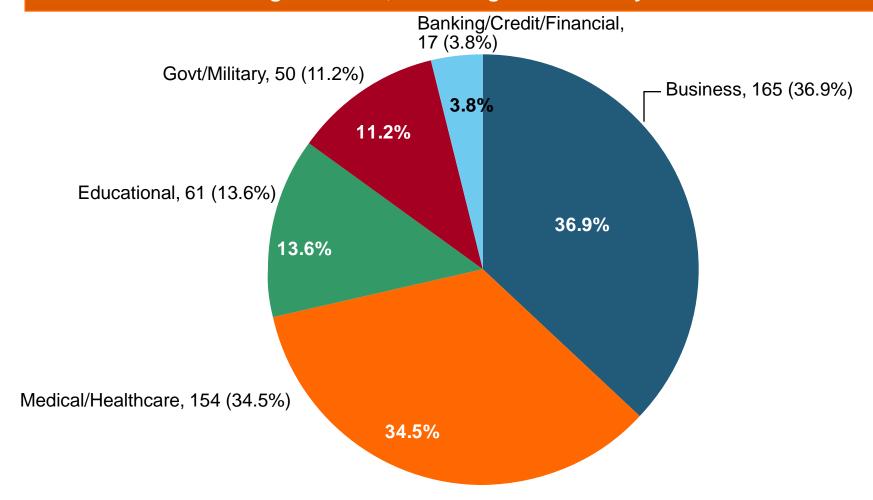
The total number of data breaches and number of records exposed fluctuates from year to year and over time.

<sup>\* 2013</sup> figures as of March 19, 2013. Source: Identity Theft Resource Center

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



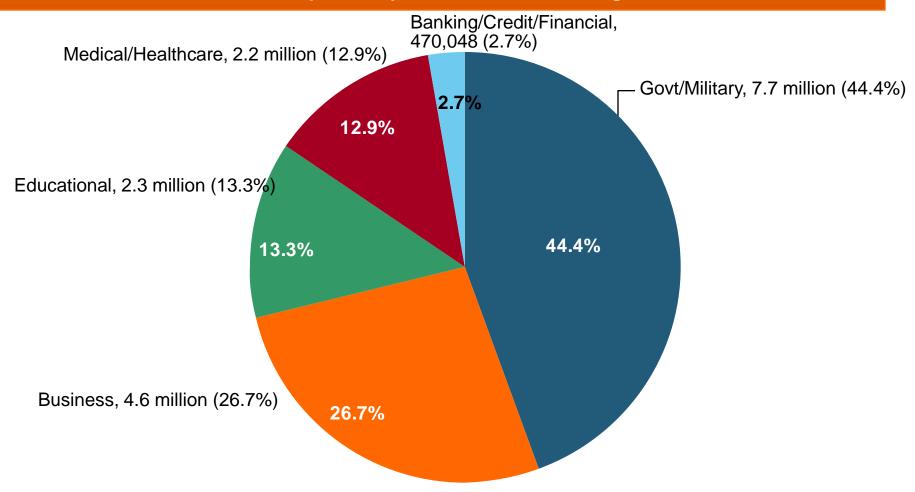
The majority of the 447 data breaches in 2012 affected business and medical/healthcare organizations, according to the Identity Theft Resource Center.



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



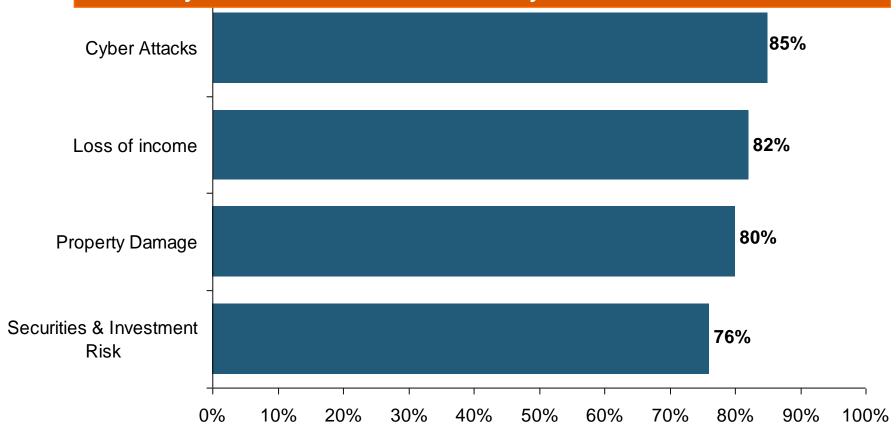
Government/Military and Business organizations accounted for the majority of records exposed by data breaches during 2012.



### 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.

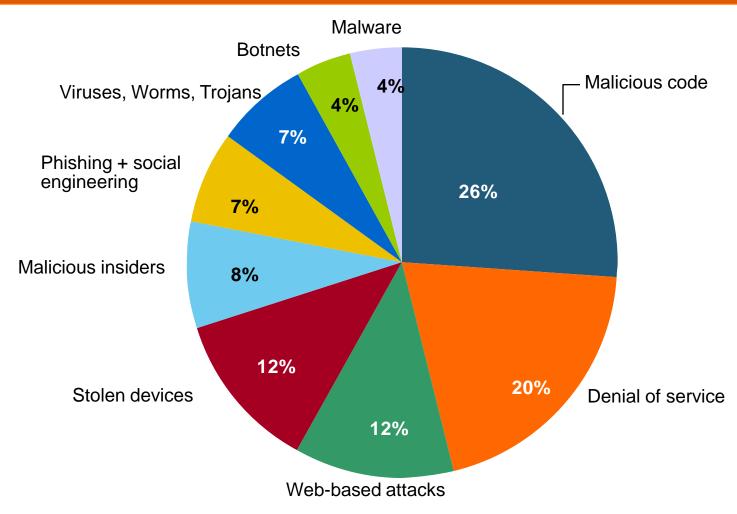


Source: Penn Schoen Berland on behalf of American International Group.

### The Most Costly Cyber Crimes, Fiscal Year 2012



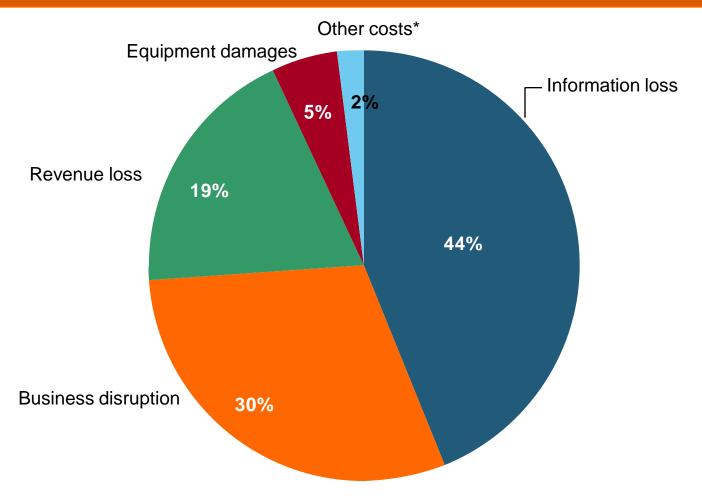
Malicious code, denial of service and web-based attacks account for more than 58 percent of the total annualized cost of cyber crime experienced by 56 companies.



### **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.



<sup>\*</sup> 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



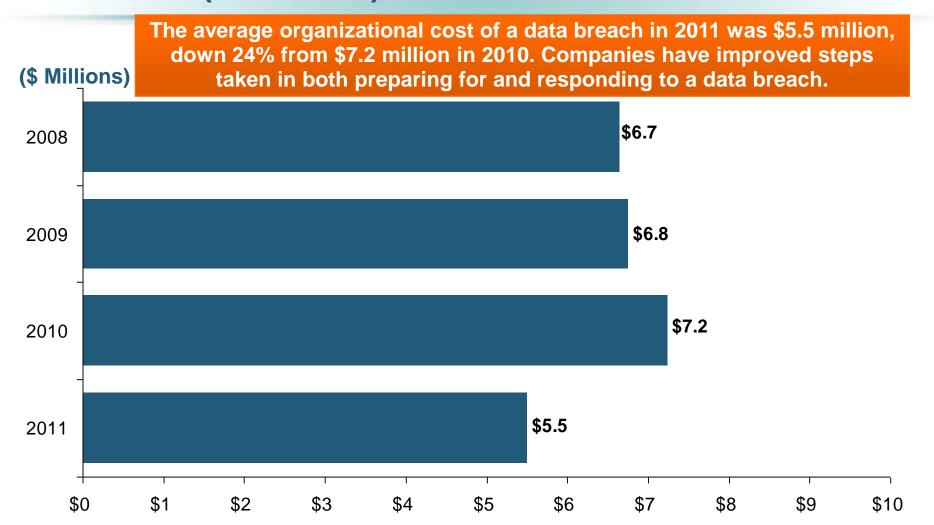
Date	Company	Description of Breach
Mar 2013*	South Korean banks, media cos	Cyber attack causes computers to crash at South Korean banks and media companies, paralyzing bank machines across the country. No immediate reports of records compromised.
July 2012	Yahoo	Security breach at Yahoo in which some 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.

<sup>\*</sup>March 2013 attack is not part of ITRC research.

Sources: Identity Theft Resource Center, <a href="http://www.idtheftcenter.org/ITRC%20Breach%20Report%202012.pdf">http://www.idtheftcenter.org/ITRC%20Breach%20Report%202012.pdf</a>; Insurance Information Institute (I.I.I.) research.

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





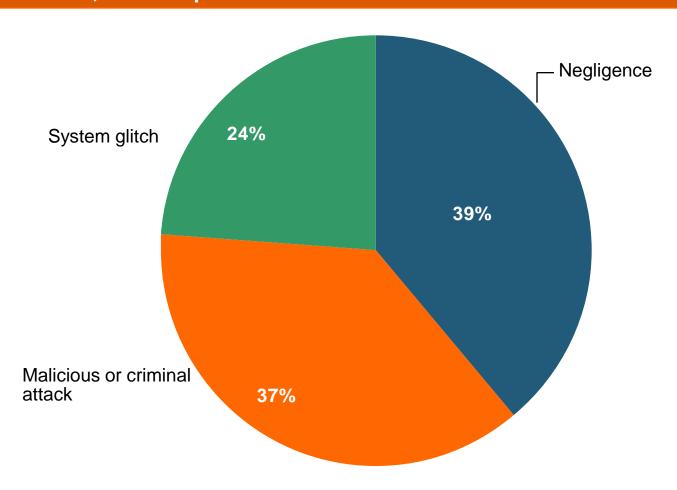
<sup>\*</sup>Findings of this benchmark study pertain to the actual data breach experiences of 49 U.S. companies from 14 different industry sectors, all of which participated in the 2011 study. Total breach costs include: lost business resulting from diminished trust or confidence of customers ;costs 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**



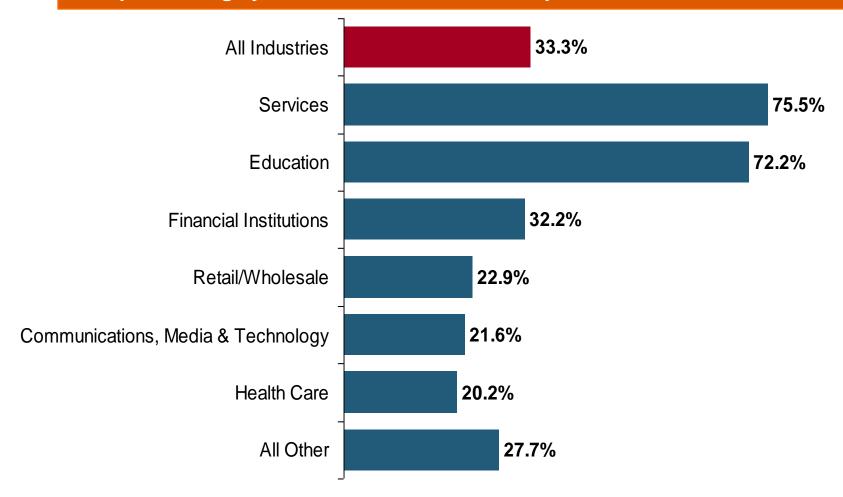
Negligent employees and malicious attacks are most often the cause of the data breach. Some 39 percent of incidents involve a negligent employee or contractor, while 37 percent concern a malicious or criminal attack.



### 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.

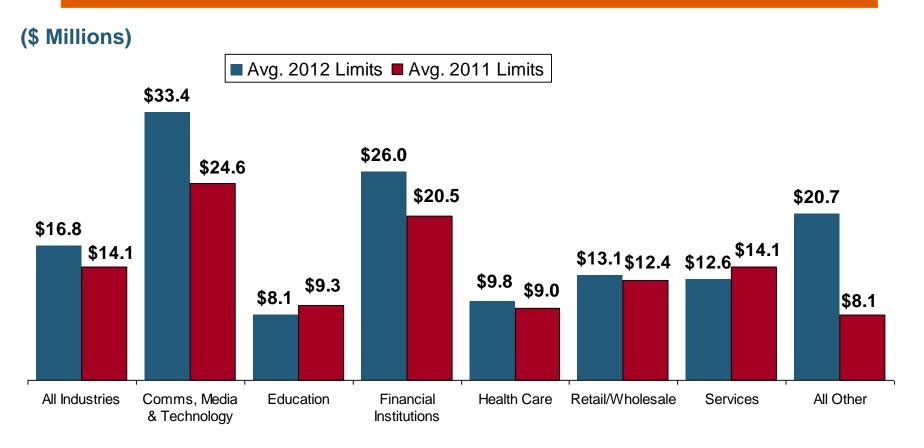


Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

### 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.

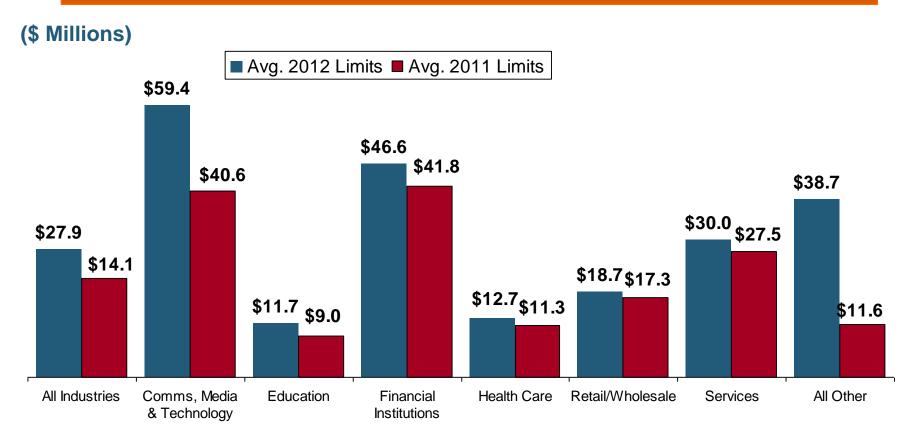


Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

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



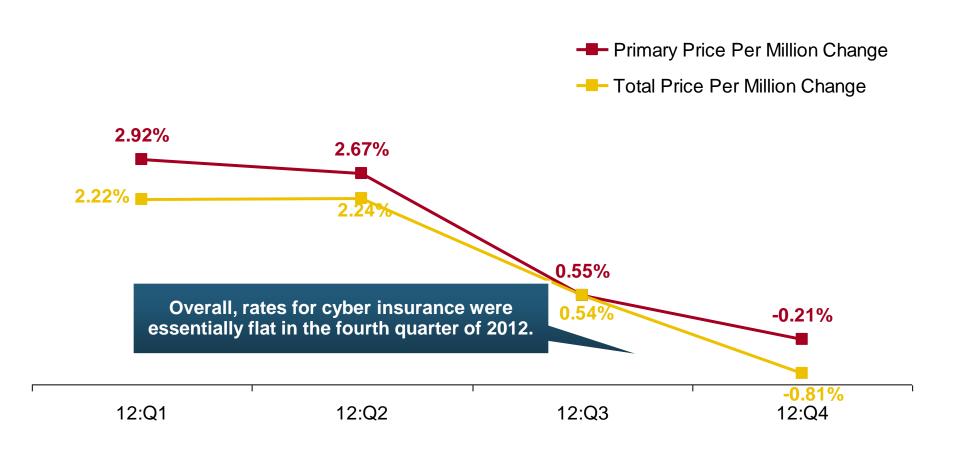
Among larger companies, average cyber insurance limits purchased in 2012 increased nearly 30% over 2011.



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

Thank you for your time and your attention!

Twitter: twitter.com/bob\_hartwig
Download at www.iii.org/presentations