

What's Keeping Insurance CEOs Awake at Night? Trends, Challenges & Opportunities

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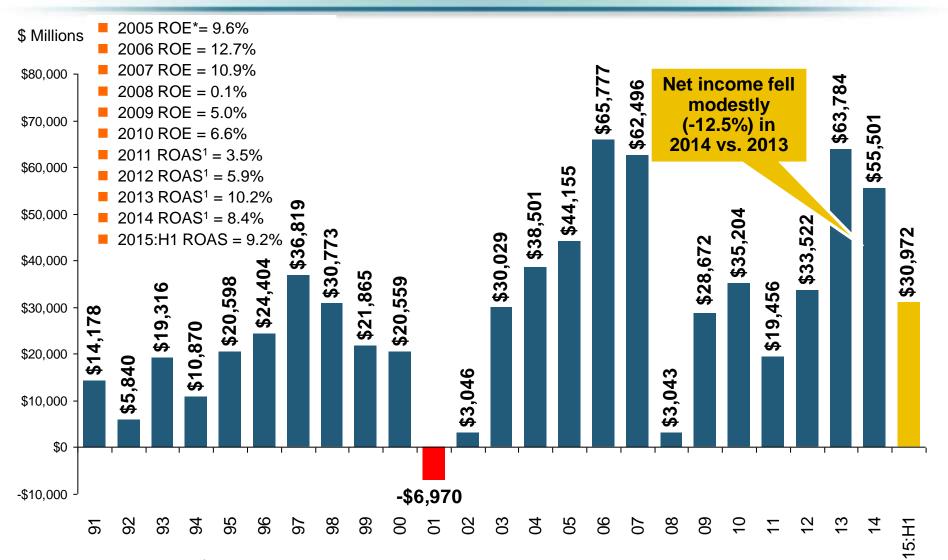


Insurance Industry Financial Performance

2014 Was a Reasonably Good Year 2015: A Repeat of 2014?

P/C Industry Net Income After Taxes 1991–2015:H1



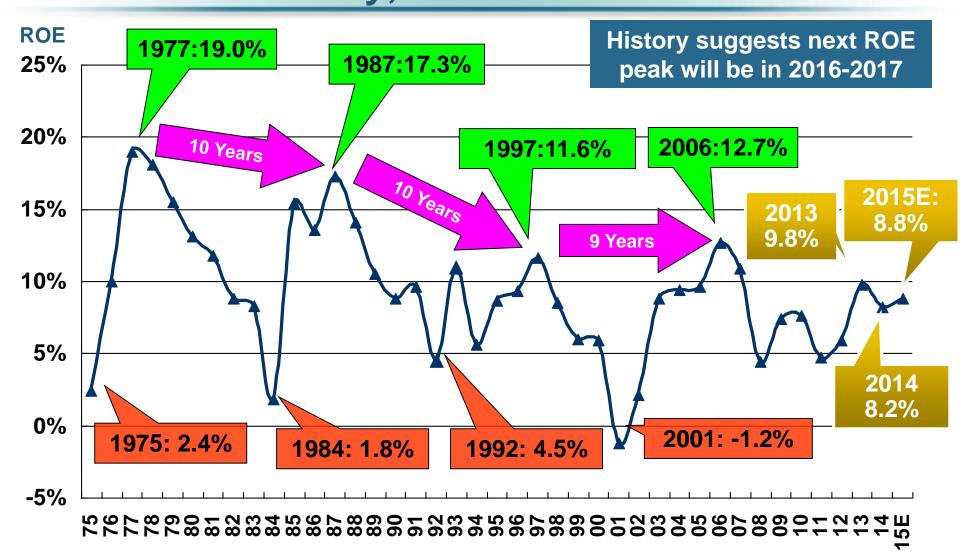


•ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

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

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



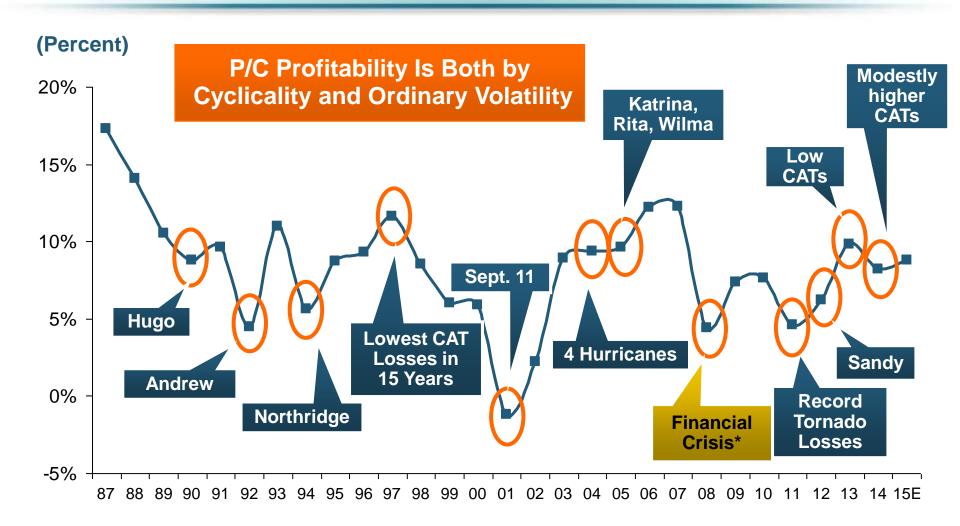


^{*}Profitability = P/C insurer ROEs. 2011-14 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.

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

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

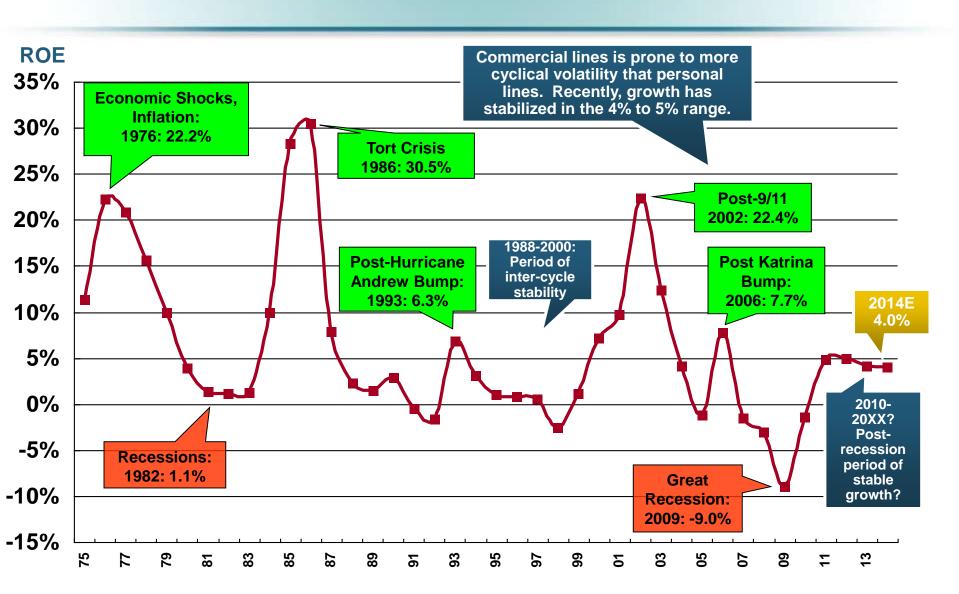




^{*} Excludes Mortgage & Financial Guarantee in 2008 – 2014. Sources: ISO, *Fortune*; Insurance Information Institute.

Commercial Lines NPW Premium Growth: 1975 – 2014E

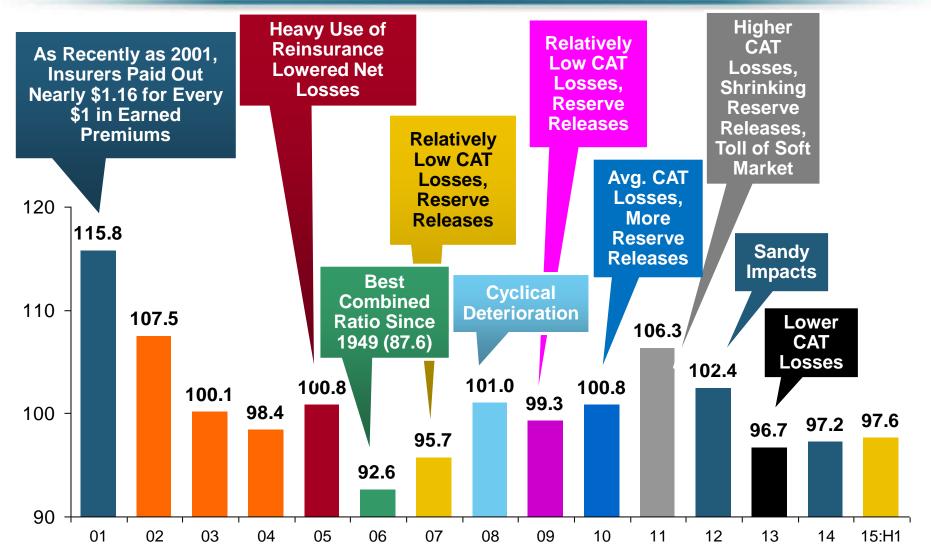




Note: Data include state funds beginning in 1998. Source: A.M. Best: Insurance Information Institute.

P/C Insurance Industry Combined Ratio, 2001–2015:H1*



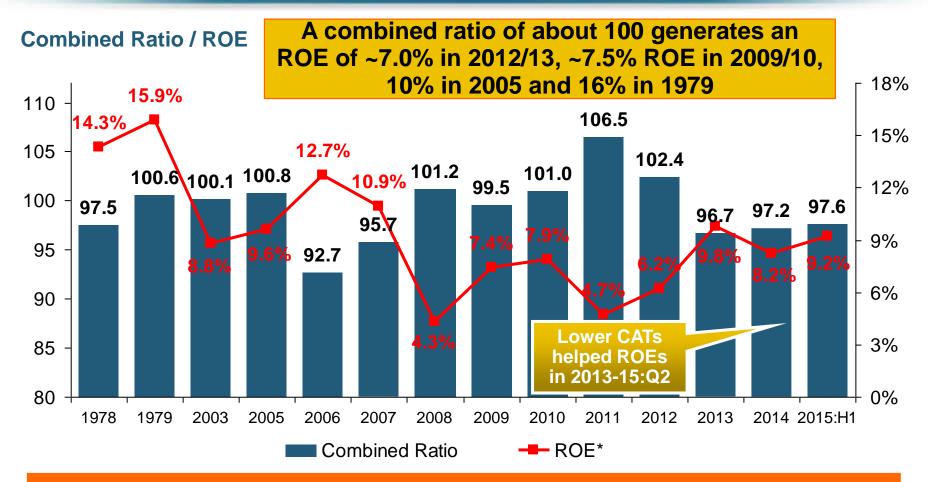


^{*} Excludes Mortgage & Financial Guaranty insurers 2008--2014. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013: = 96.1; 2014: = 97.0.

Sources: A.M. Best, ISO.

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



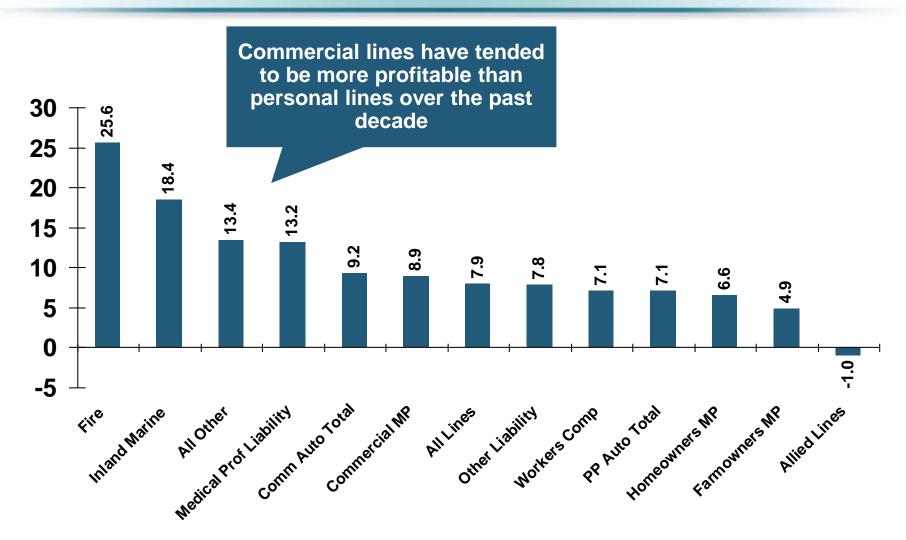


Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

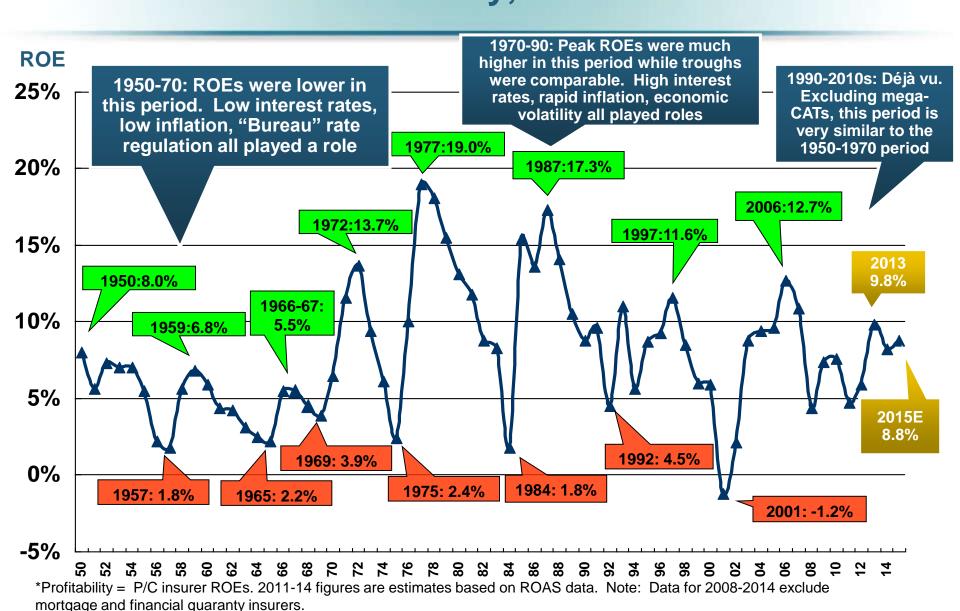
^{* 2008 -2014} figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2014 combined ratio including M&FG insurers is 97.0; 2013 = 96.1; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%. Source: Insurance Information Institute from A.M. Best and ISO Verisk Analytics data.

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





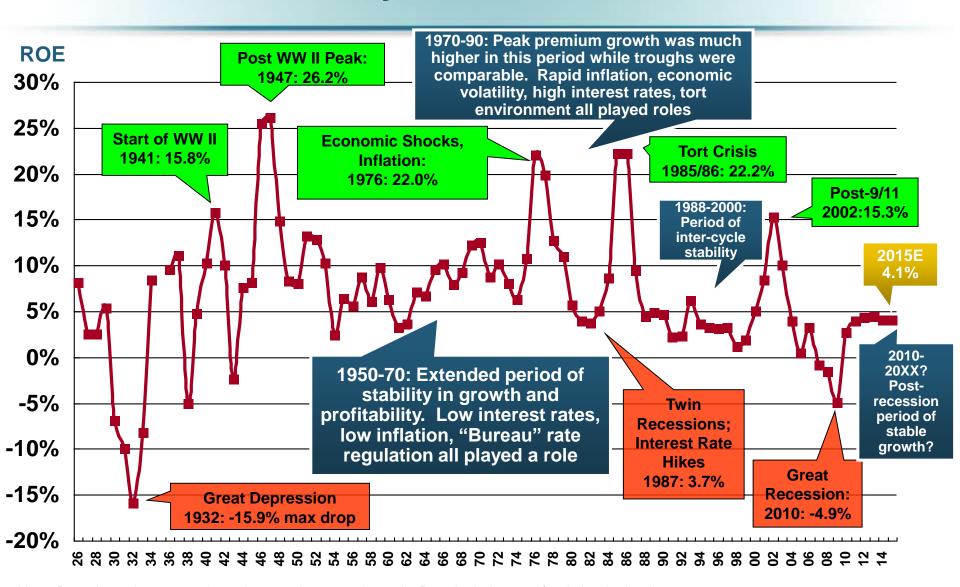
Back to the Future: Profitability Peaks & Troughs in the P/C Insurance Industry, 1950 – 2015E*



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

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





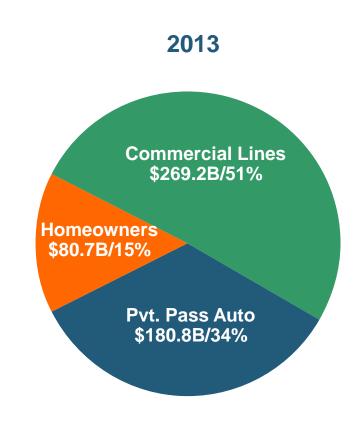
Note: Data through 1934 are based on stock companies only. Data include state funds beginning in 1998. Source: A.M. Best: Insurance Information Institute.

Distribution of Direct Premiums Written by Segment/Line, 2013



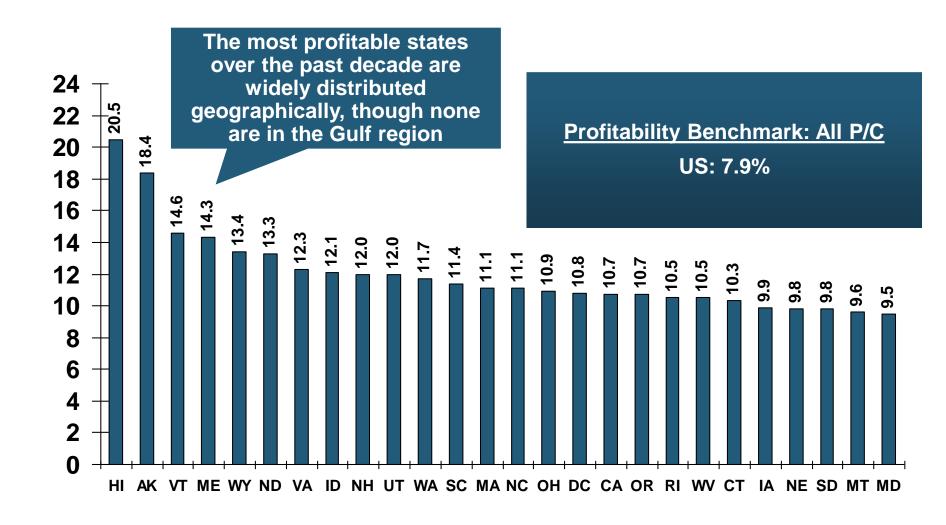
Distribution Facts

- Personal/Commercial lines split has been about 50/50 for many years
- 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



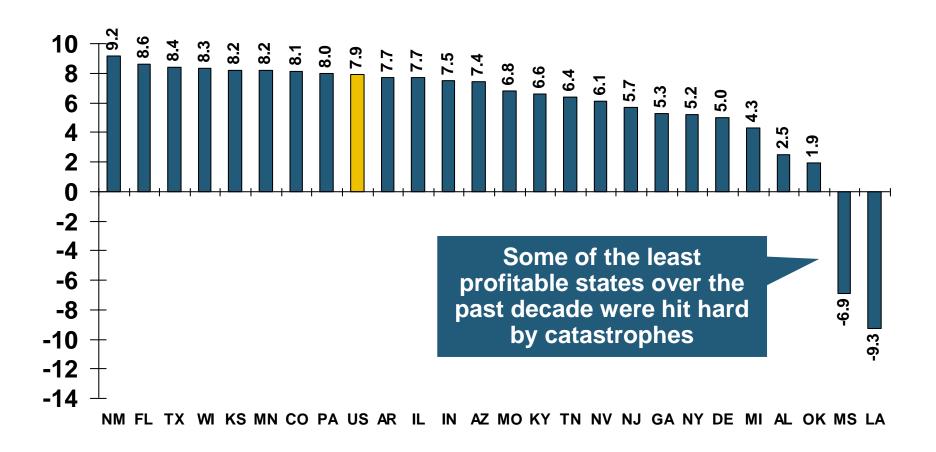
RNW All Lines by State, 2004-2013 Average: Highest 25 States





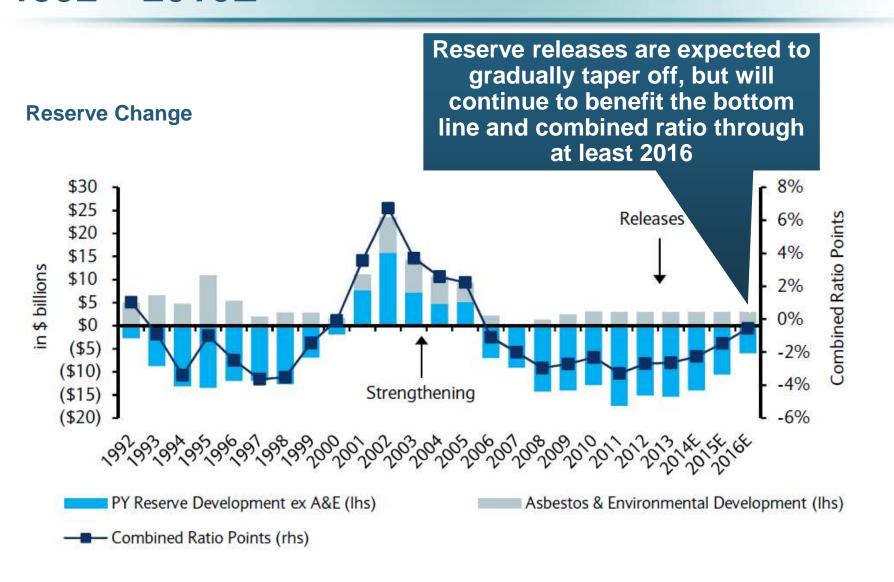
RNW All Lines by State, 2004-2013 Average: Lowest 25 States





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





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



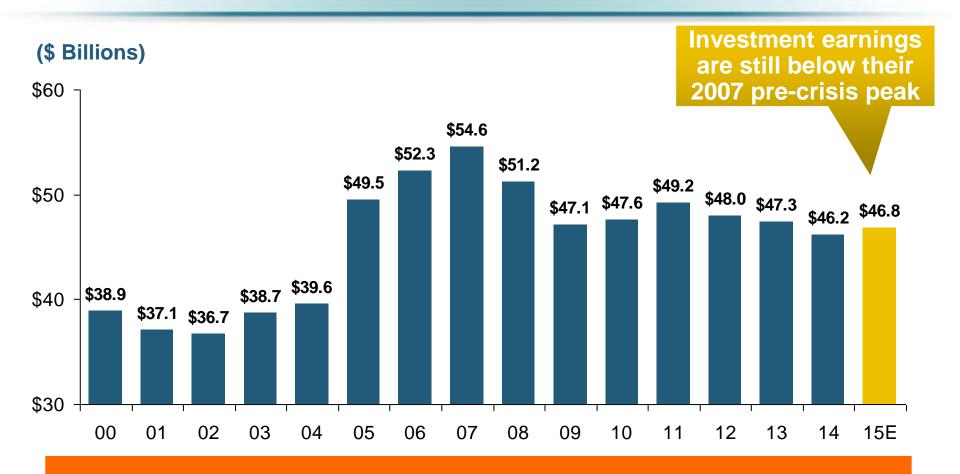
INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

Property/Casualty Insurance Industry Investment Income: 2000–2015E¹





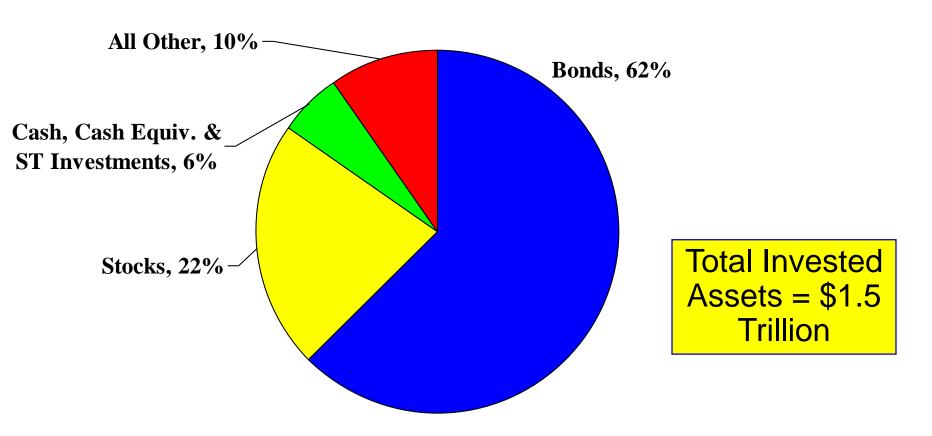
Due to persistently low interest rates, investment income fell in 2012, 2013 and 2014.

¹ Investment gains consist primarily of interest and stock dividends. Sources: ISO: Insurance Information Institute.

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



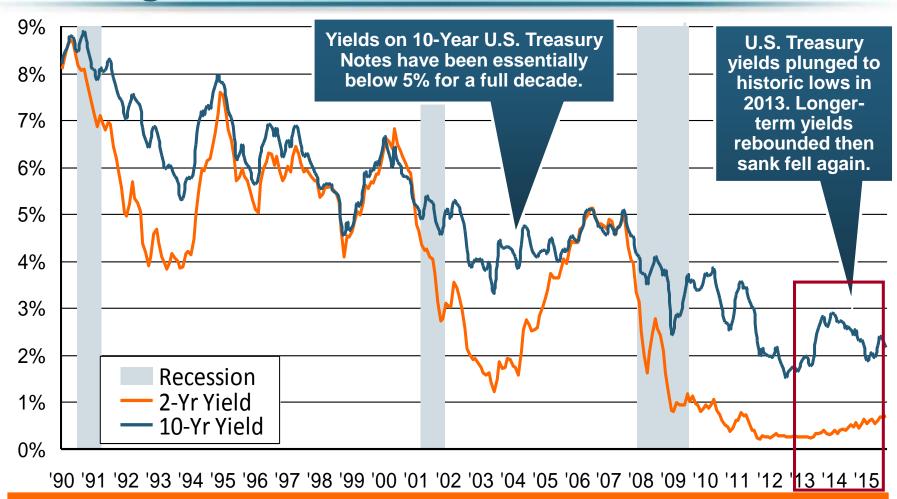
\$ Billions



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

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





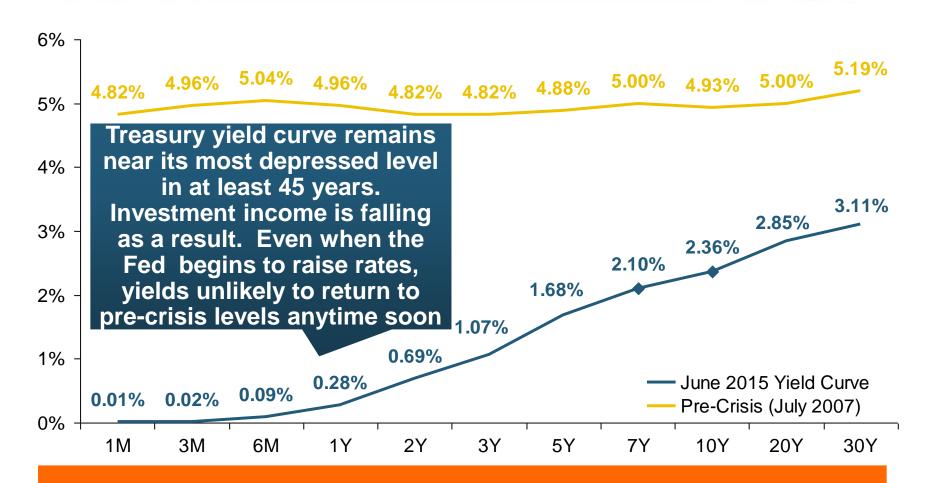
Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

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

^{*}Monthly, constant maturity, nominal rates, through August 2015.

Treasury Yield Curves: Pre-Crisis (July 2007) vs. June 2015



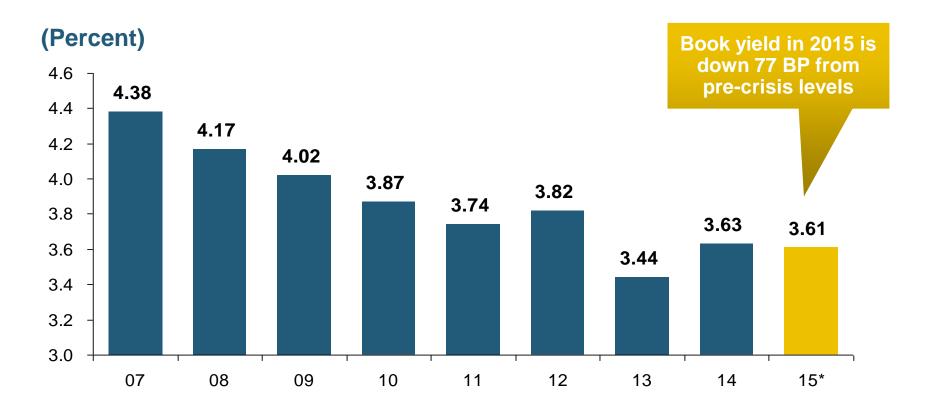


The Fed Is Actively is Signaling that it Is Likely to Begin Raising Rates

Later in 2015 but Only Very Gradually

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

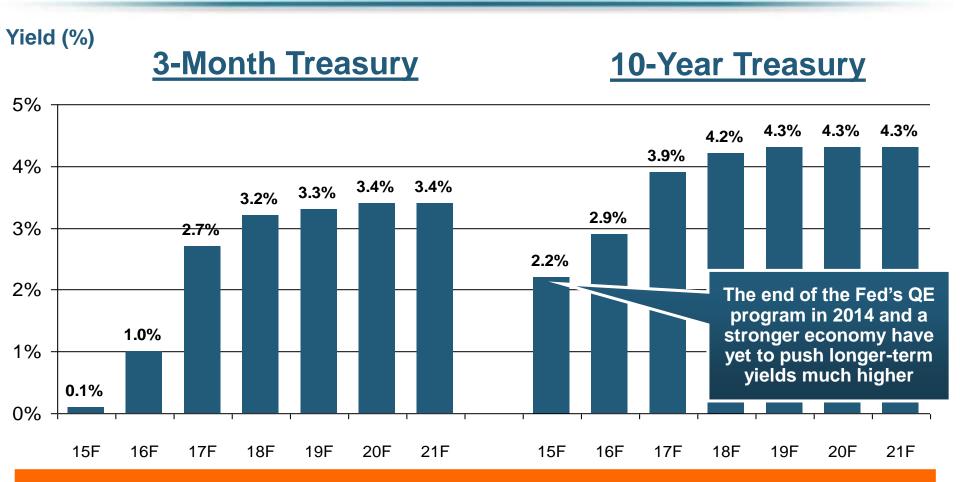




The yield on invested assets remains low relative to pre-crisis yields. The Fed's plan to raise interest rates in late 2015 has already pushed up some yields, albeit quite modestly.

Interest Rate Forecasts: 2015 - 2021



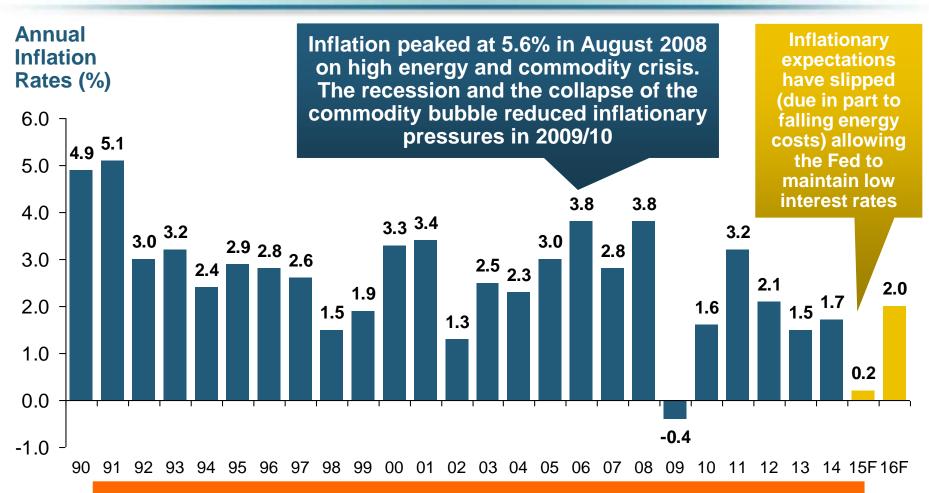


A full normalization of interest rates is unlikely until 2018, more than a decade after the onset of the financial crisis.

Sources: Blue Chip Economic Indicators (9/15 for 2015 and 2016; for 2017-2021 3/15 issue); Insurance Info. Institute.

Annual Inflation Rates, (CPI-U, %), 1990–2016F



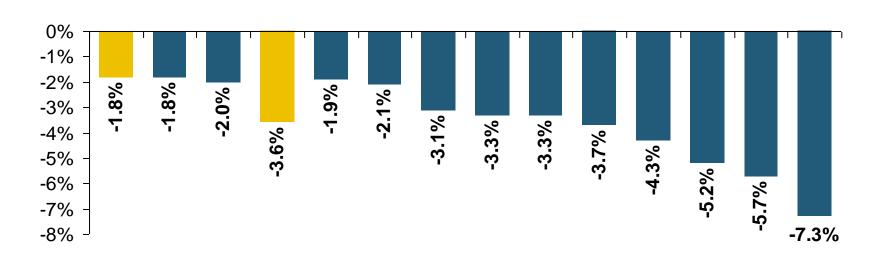


Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

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

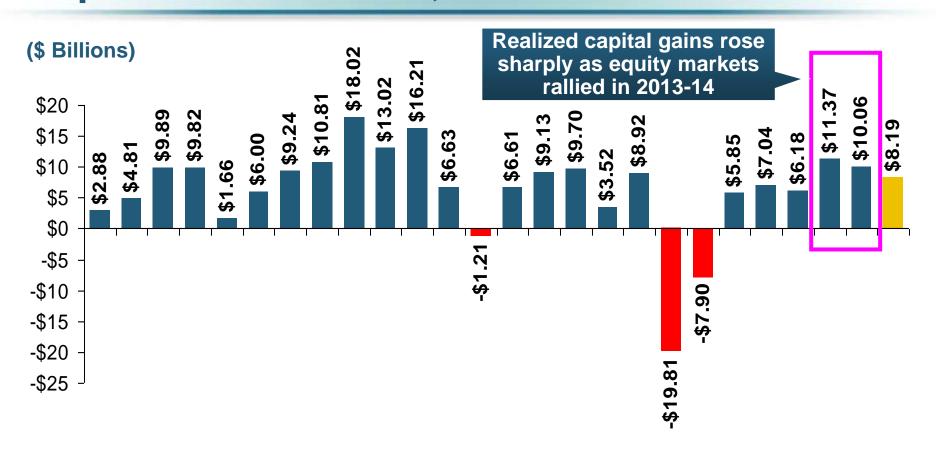
Source: A.M. Best; Insurance Information Institute.

^{*}Based on 2008 Invested Assets and Earned Premiums

^{**}US domestic reinsurance only

P/C Insurer Net Realized Capital Gains/Losses, 1990-2015:Q2





90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15*

Insurers Posted Net Realized Capital Gains in 2010 - 2014 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were a Primary Cause of 2008/2009's Large Drop in Profits and ROE.

^{*}Through Q2 2015. Sources: A.M. Best, ISO, SNL, Insurance Information Institute.

Property/Casualty Insurance Industry Investment Gain: 1994–2015:Q2¹



(\$ Billions)



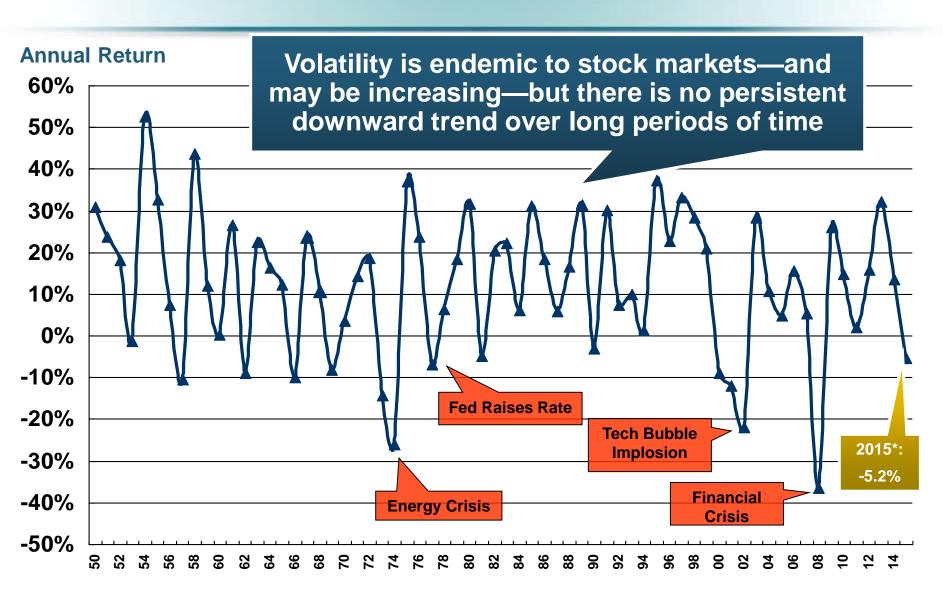
Total Investment Gains Were Down Slightly in 2014 as Low Interest Rates Pressured Investment Income but Realized Capital Gains Remained Robust

¹ Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

^{* 2005} figure includes special one-time dividend of \$3.2B; 2015 figure is through Q2 2015. Sources: ISO, SNL; Insurance Information Institute.

S&P 500 Index Returns, 1950 – 2015*



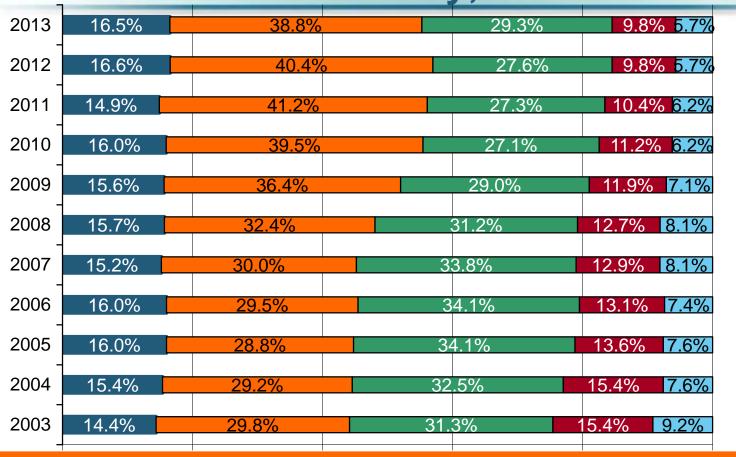


^{*}Through Oct. 2, 2015.

Source: NYU Stern School of Business: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html Ins. Info. Inst.

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







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

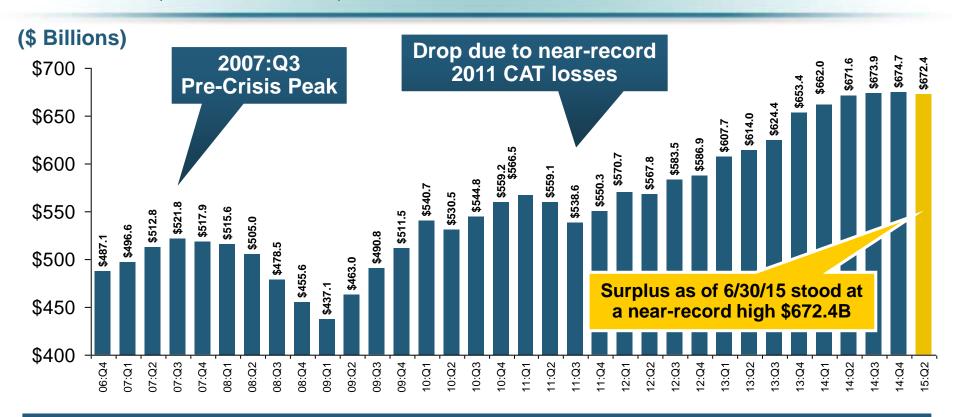


CAPITAL/CAPACITY

Capital Accumulation Has Multiple Impacts

Policyholder Surplus, 2006:Q4–2015:Q2





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

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

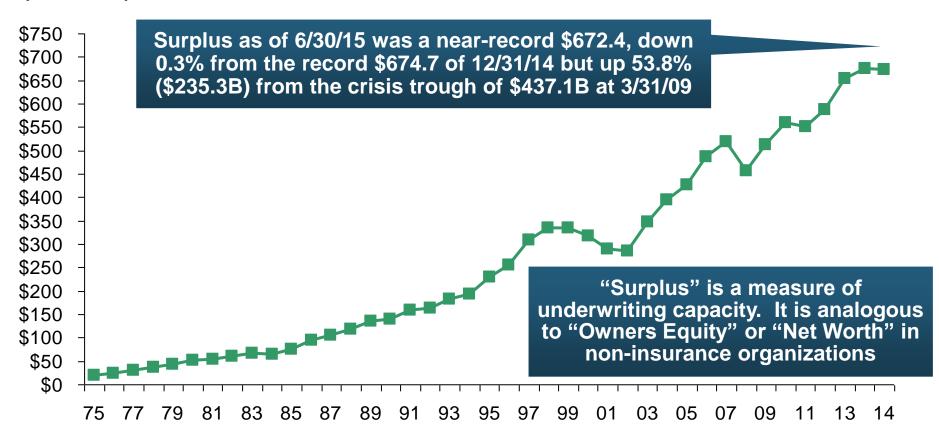
The P/C insurance industry entered 2015 in very strong financial condition.

Sources: ISO, A.M .Best.

US Policyholder Surplus: 1975–2015:Q2*







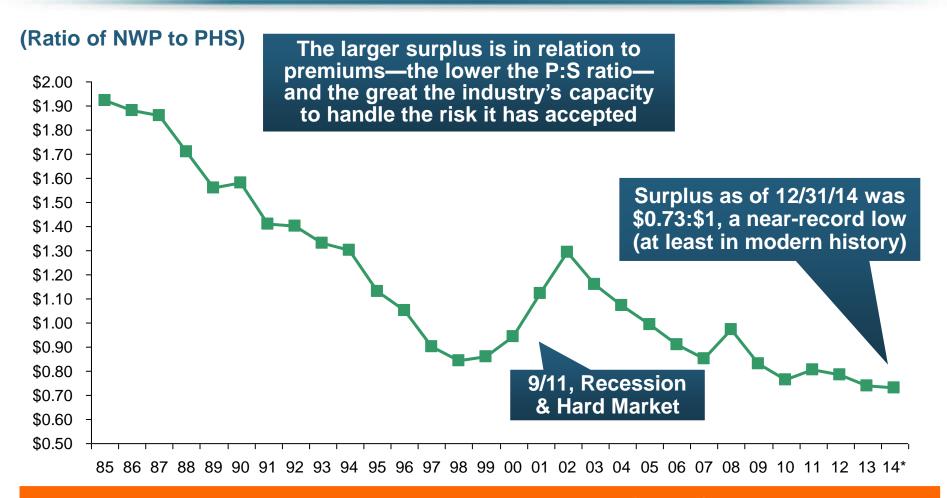
The Premium-to-Surplus Ratio Stood at \$0.76:\$1 as of 6/30/15, a Near Record Low (at Least in Recent History)

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

^{*}As of 6/30/15.

Premium-to-Surplus Ratio: 1985–2014*





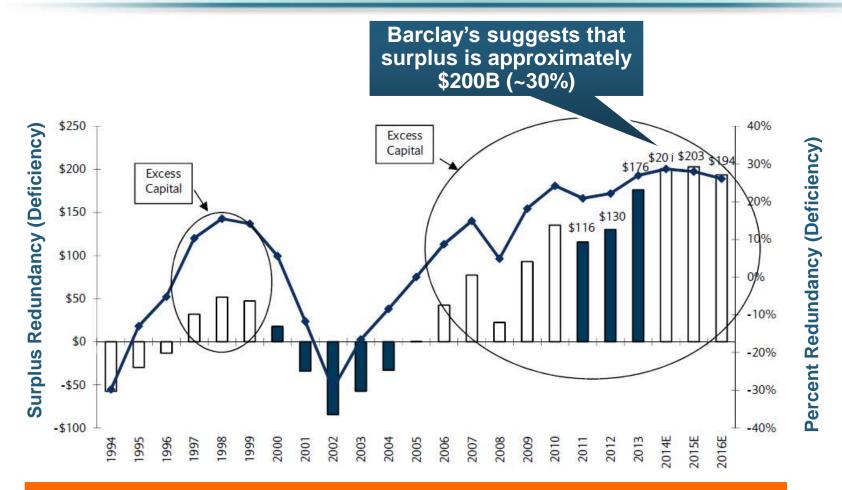
The Premium-to-Surplus Ratio Stood at \$0.73:\$1 as of 12/31/14, a Record Low (at Least in Recent History)

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

^{*} As of 12/31/14.

US P/C Insurance Industry Excess Capital Position: 1994–2016E



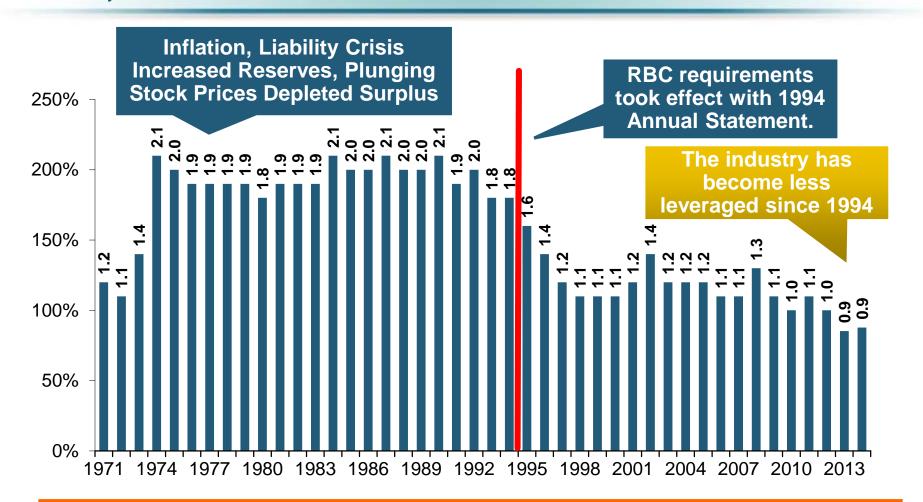


The Industry's Strong Capital Position Suggests Insurers Are in a Good Position to Increase Risk Appetite, Repurchase Shares and Pursue Acquisitions

Source: Barclays Research estimates.

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





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

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



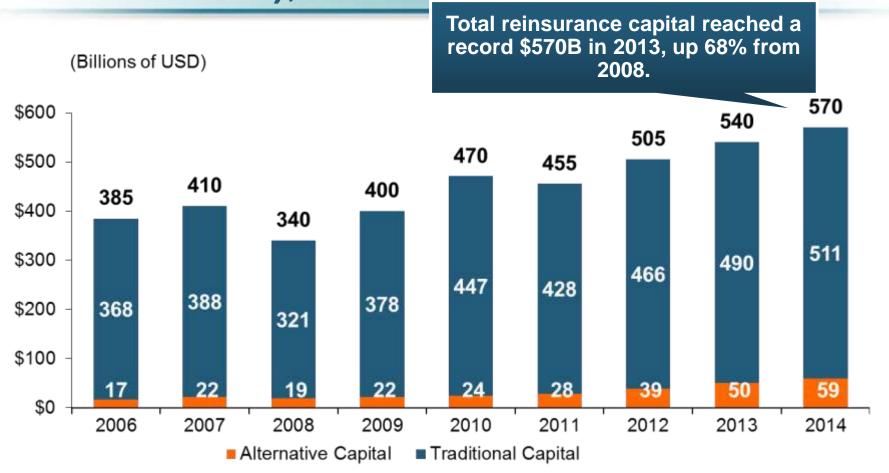
Alternative Capital

New Investors Continue to Change the Reinsurance Landscape

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

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





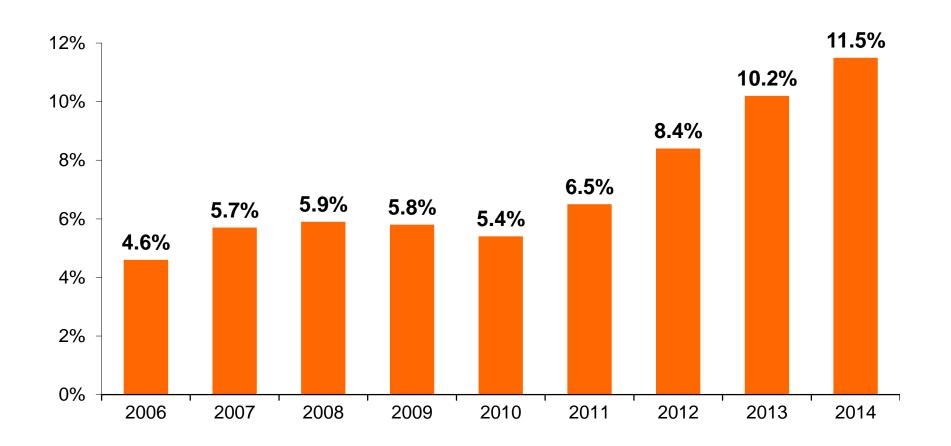
But alternative capacity has grown 210% since 2008, to \$50B. It has more than doubled in the past three years.

2014 data is as of June 30, 2014.

Source: Aon Benfield Analytics; Insurance Information Institute.

Alternative Capital as a Percentage of Traditional Global Reinsurance Capital





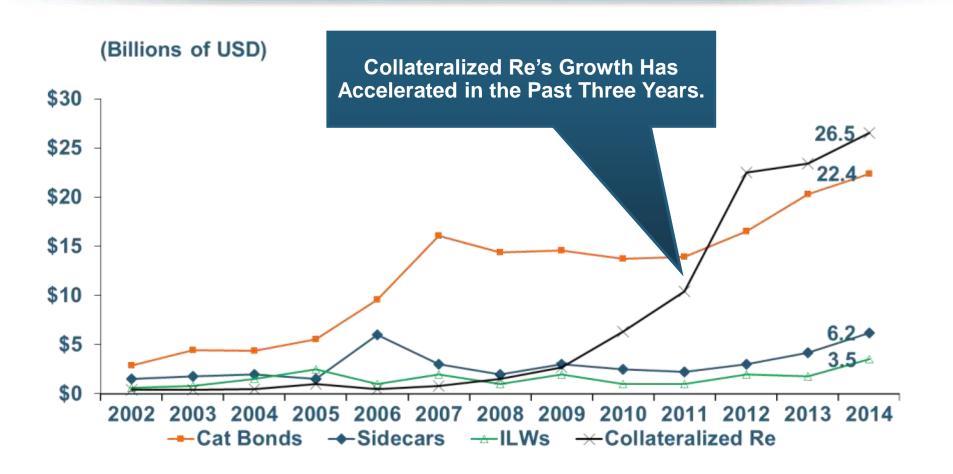
Alternative Capital's Share of Global Reinsurance Capital Has More Than Doubled Since 2010.

2014 data is as of June 30, 2014.

Source: Aon Benfield Analytics; Insurance Information Institute.

Growth of Alternative Capital Structures, 2002 - 2014





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

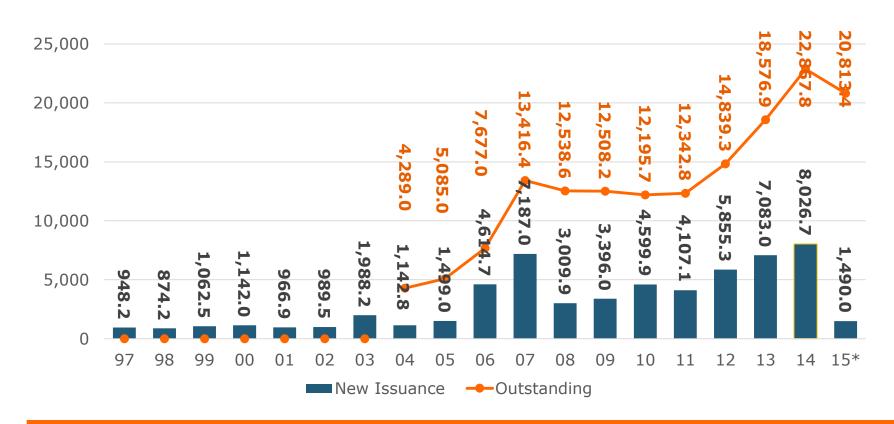
2014 data is as of June 30, 2014.

Source: Aon Benfield Analytics; Insurance Information Institute.

Catastrophe Bond Issuance and Outstanding: 1997-2015:Q1



Risk Capital Amount (\$ Millions)

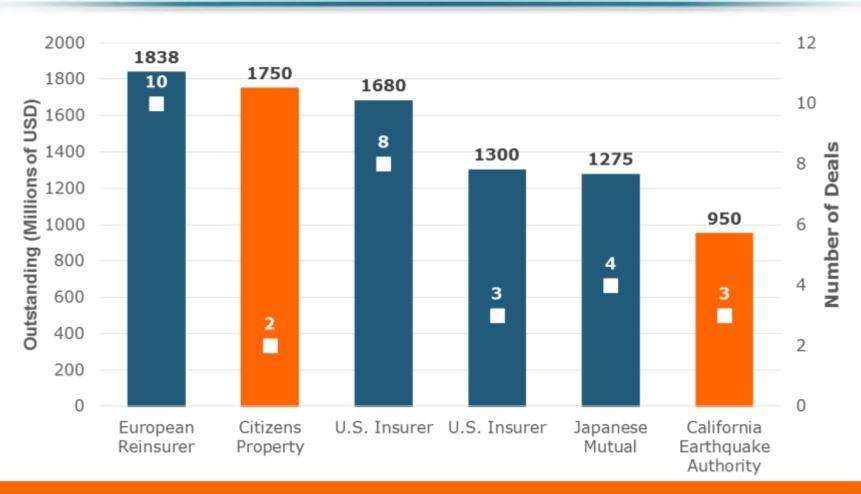


2014 Has Seen the Largest Cat Bond Ever - \$1.5 Billion (Florida Citizens).

Bond Issuance Set a Record.

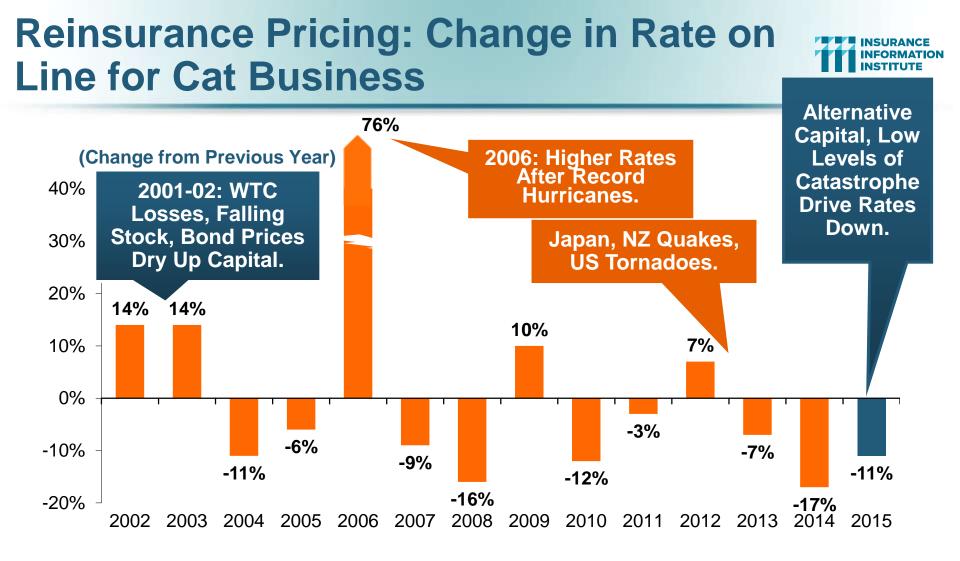
Largest Sponsors of ILS, Year-End 2014





Two of the Largest ILS Issuers Are Government-Sponsored Insurers. Nine Government-Related Insurers Have \$4.6 Billion in Outstanding Securities.

Source: Artemis.bm; Insurance Information Institute.

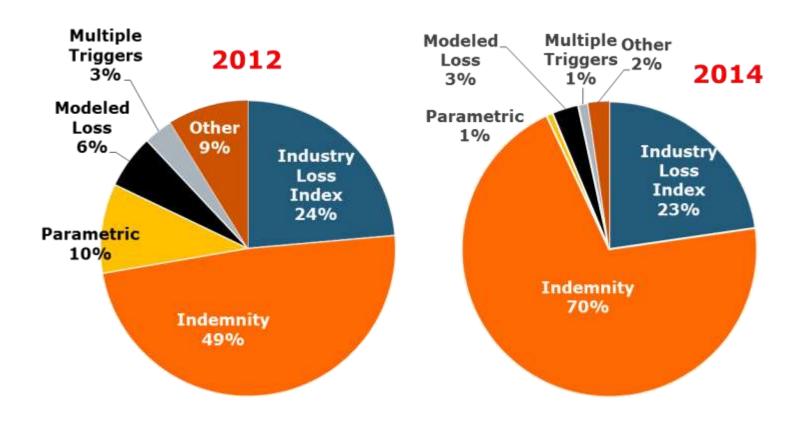


Catastrophe Prices Fell 11 Percent on January 1 Renewals, Driven by Emergence of New Capital, Mild Catastrophe Losses.

2014 reflects change through June 30 from prior year end. 2015 is for January 1 renewals.. Source: Guy Carpenter; Insurance Information Institute.

ILS Issuance by Trigger





Terms Are Shifting Away From 'Objective' Triggers (Favored by Investors)

Toward Indemnity Trigger (Favored by Insurers).

Source: Artemis.bm; Insurance Information Institute.

Questions Arising from Influence of Alternative Capital



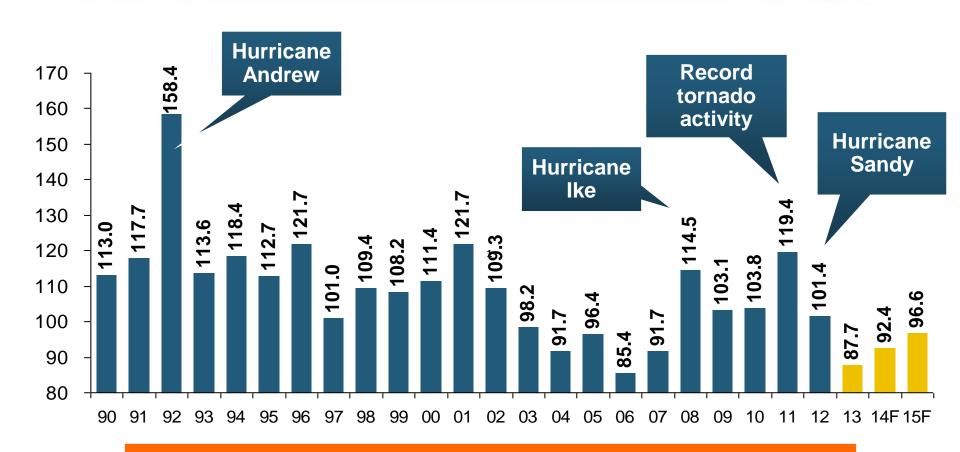
- What Will Happen When Investors Face Large-Scale Losses?
- What Happens When Interest Rates Rise?
- Does ILS Have a Higher Propensity to Litigate?
- How Much Lower Will Risk Premiums Shrink/ROLs Fall?
- Will There Be Spillover Into Casualty Reinsurance?
- **Will Alternative Capital Drive Consolidation?**



Performance by Segment

Homeowners Insurance Combined Ratio: 1990–2015F

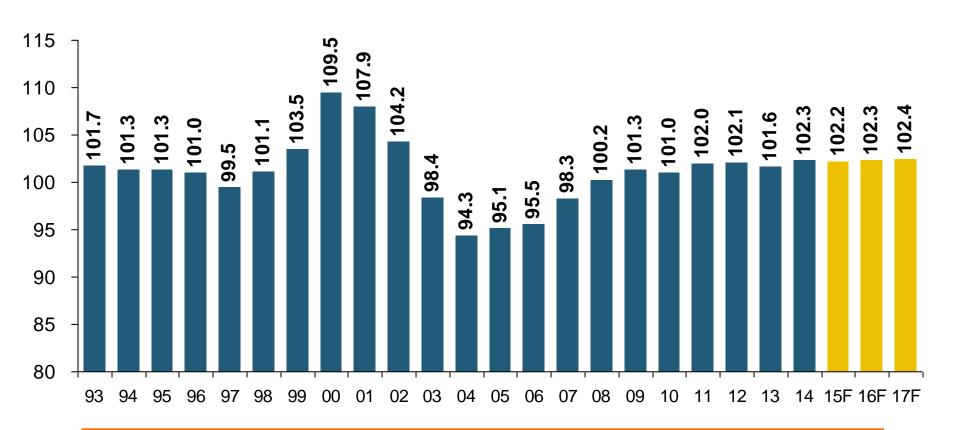




Homeowners Performance in 2011/12 Impacted by Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity

Private Passenger Auto Combined Ratio: 1993–2017F



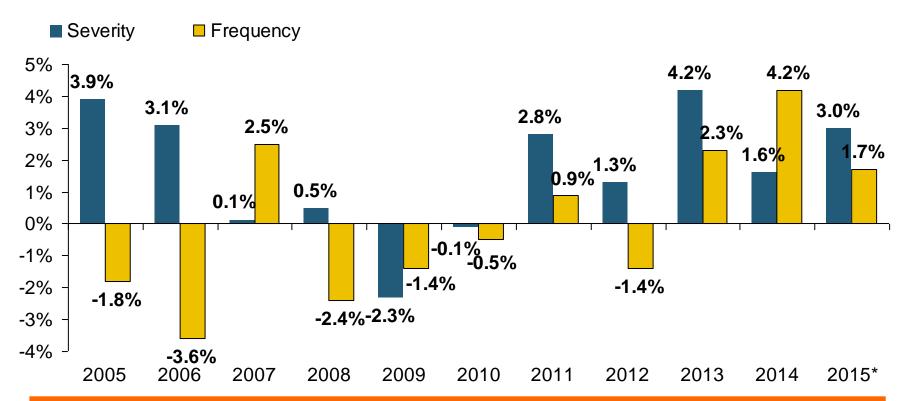


Private Passenger Auto Underwriitng Performance Is Exhibiting Remarkable Stability

Collision Coverage: Severity & Frequency Trends Are Both Higher in 2015*



Annual Change, 2005 through 2015*

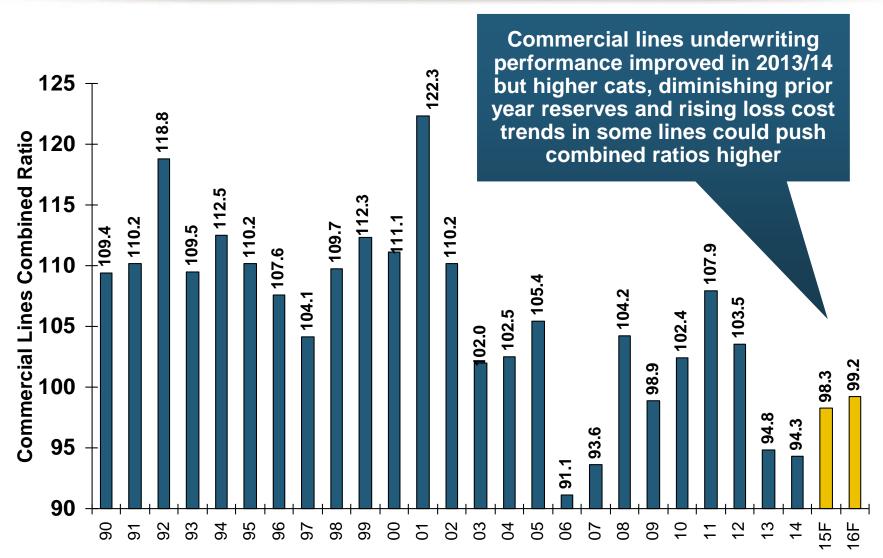


The Recession, High Fuel Prices Helped Temper Frequency and Severity, But this Trend Will Likely Be Reversed Based on Evidence from Past Recoveries

*2015 figure is for the 4 quarters ending with 2015:Q1. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

Commercial Lines Combined Ratio, 1990-2016F*

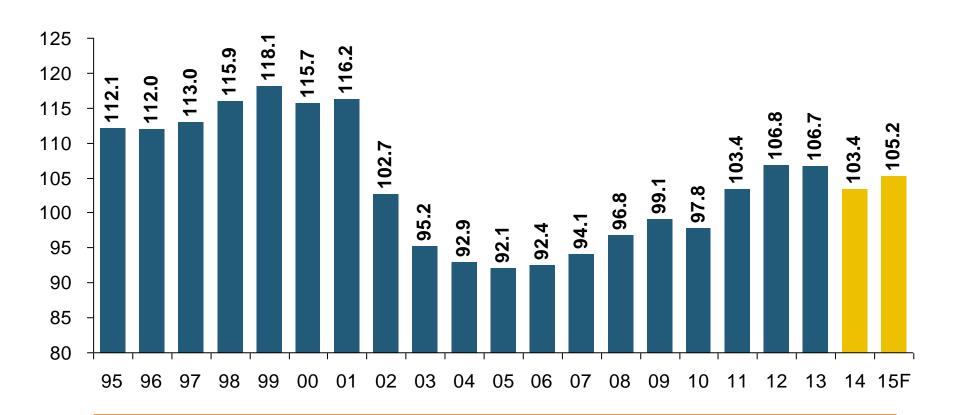




*2007-2012 figures exclude mortgage and financial guaranty segments. Source: A.M. Best (1990-2014); Conning (2015-16F) Insurance Information Institute.

Commercial Auto Combined Ratio: 1993–2015F

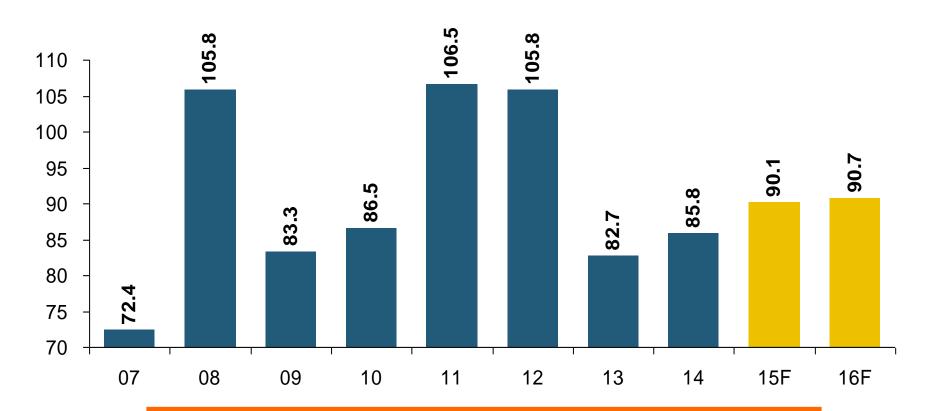




Commercial Auto is Expected to Improve Only Slowly as Rate Gains Barely Offset Adverse Frequency and Severity Trends

Commercial Property Combined Ratio: 2007–2016F

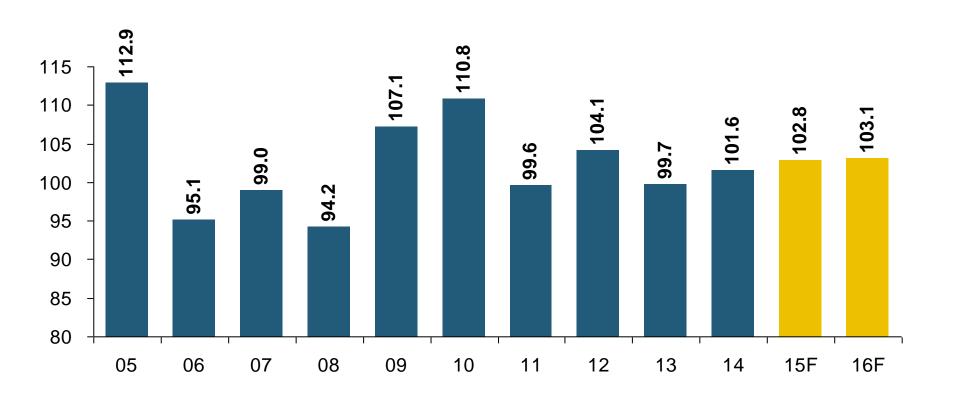




Commercial Property Underwriting Performance
Has Been Volatile in Recent Years, Largely Due to
Fluctuations in CAT Activity

General Liability Combined Ratio: 2005–2016F

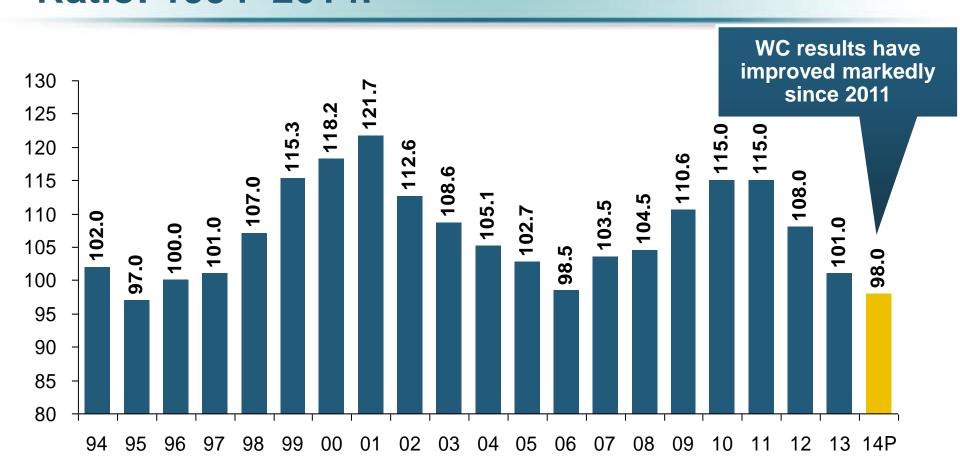




Commercial General Liability Underwriting Performance Has Been Volatile in Recent Years

Workers Compensation Combined Ratio: 1994–2014P

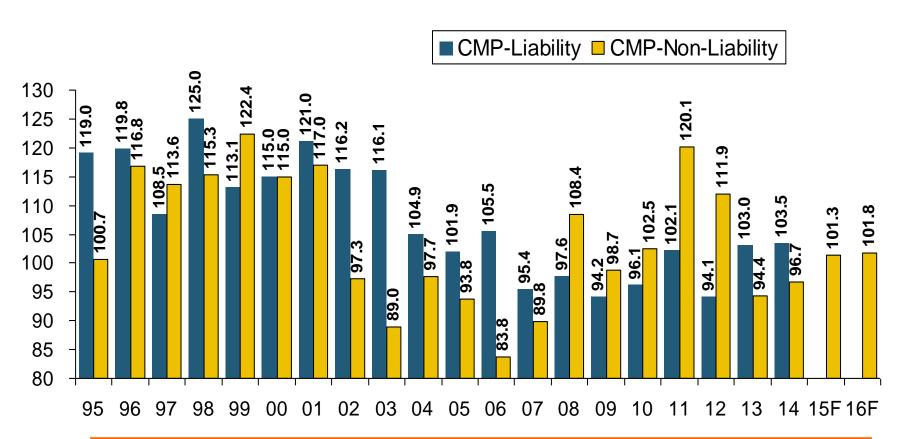




Workers Comp Results Began to Improve in 2012. Underwriting Results Deteriorated Markedly from 2007-2010/11 and Were the Worst They Had Been in a Decade.

Commercial Multi-Peril Combined Ratio: 1995–2016F



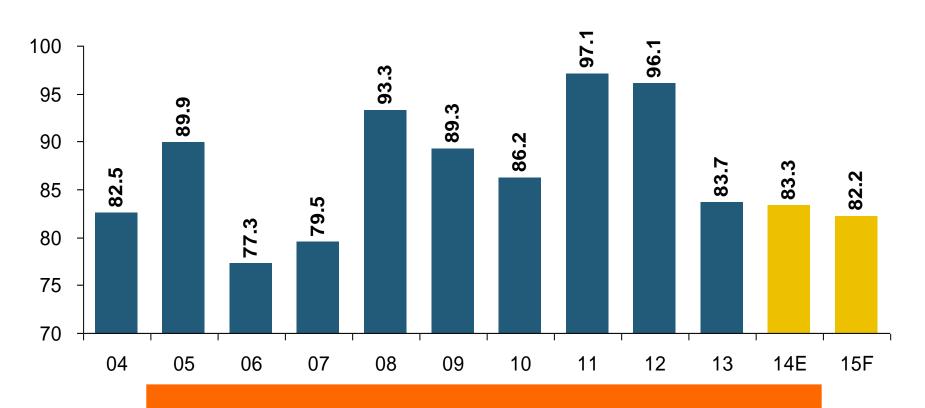


Commercial Multi-Peril Underwriting Performance is Expected to Remains Stable in 2015 Assuming Normal Catastrophe Loss Activity

^{*2015}F-2016F figures are Conning figures for the combined liability and non-liability components. Sources: A.M. Best; Conning; Insurance Information Institute.

Inland Marine Combined Ratio: 2004–2015F





Inland Marine Underwriting Performance Has Been Consistently Strong for Many Years

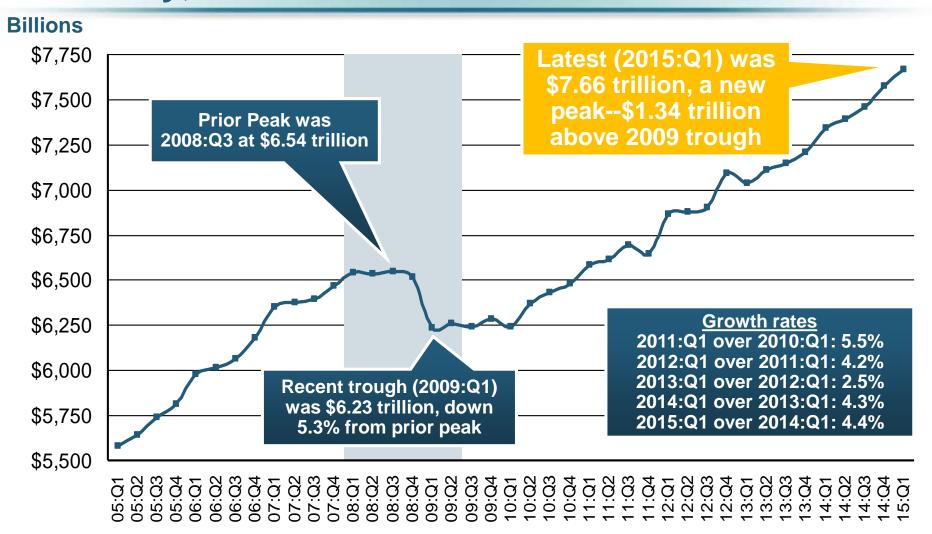


Workers Compensation Operating Environment

Workers Comp Results Have Improved Substantially in Recent Years

Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2015:Q1



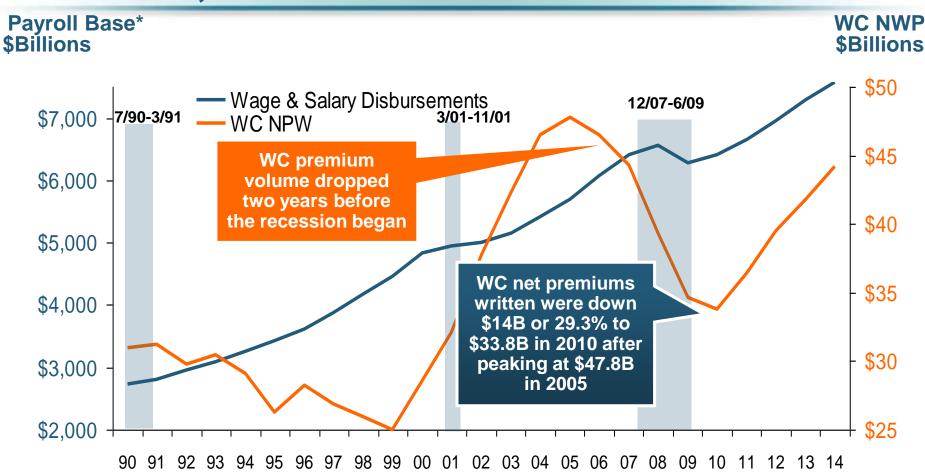


Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

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

Payroll vs. Workers Comp Net Written Premiums, 1990-2014P



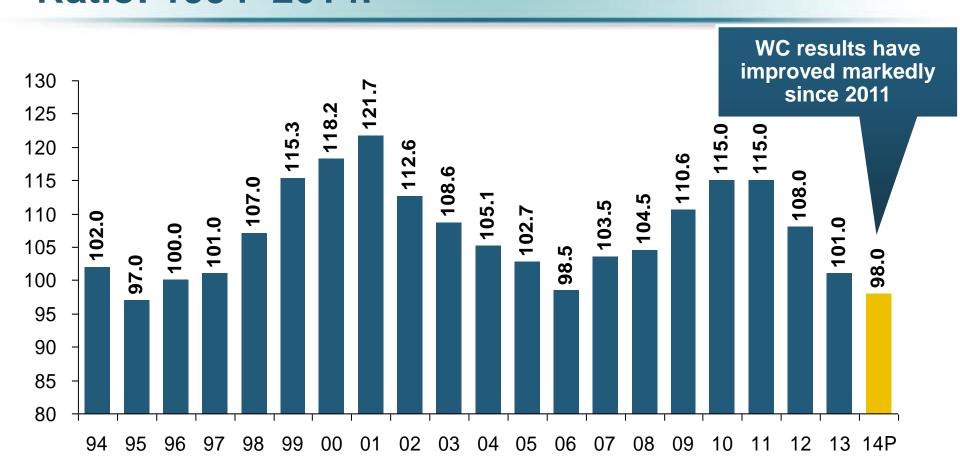


Continued Payroll Growth and Rate Gains Suggest WC NWP Will Grow Again in 2015

^{*}Private employment; Shaded areas indicate recessions. WC premiums for 2014 are from NCCI.
Sources: NBER (recessions); Federal Reserve Bank of St. Louis at http://research.stlouisfed.org/fred2/series/WASCUR; NCCI; I.I.I.

Workers Compensation Combined Ratio: 1994–2014P



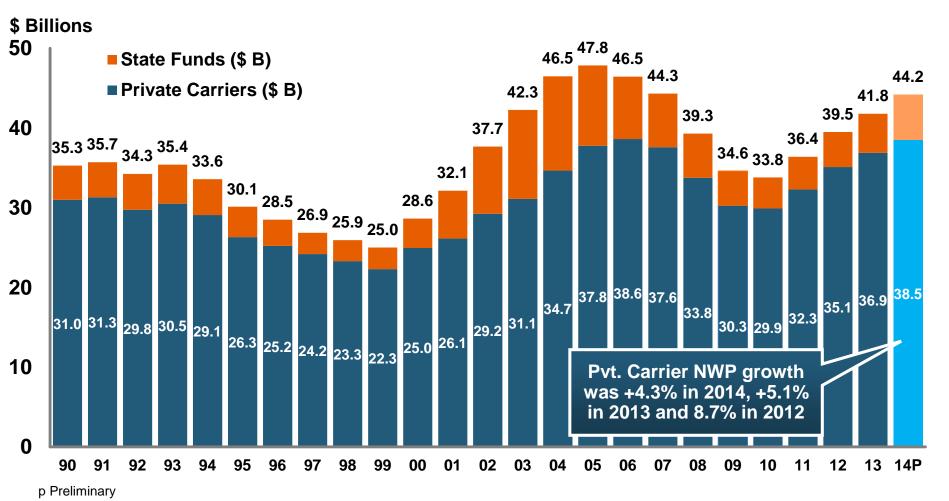


Workers Comp Results Began to Improve in 2012. Underwriting Results Deteriorated Markedly from 2007-2010/11 and Were the Worst They Had Been in a Decade.

Workers Compensation Premium: Fourth Consecutive Year of Increase



Net Written Premium



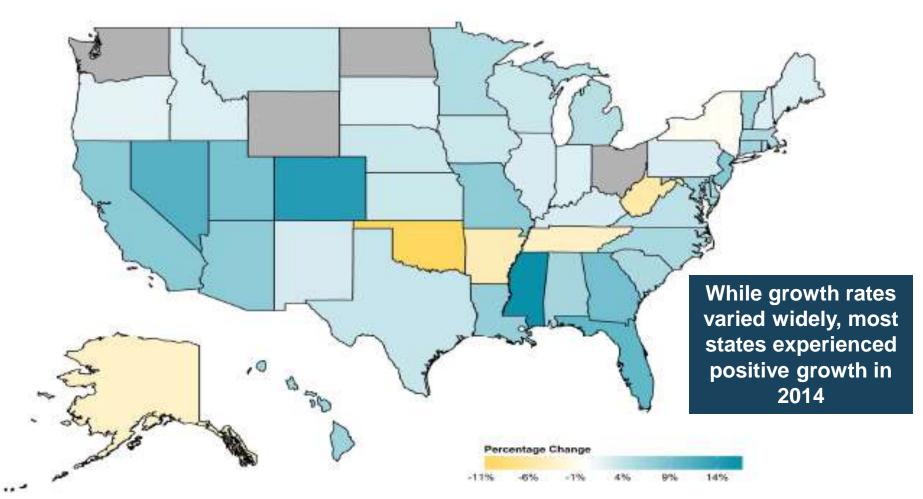
Source: NCCI from Annual Statement Data.

Includes state insurance fund data for the following states: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, UT. Each calendar year total for State Funds includes all funds operating as a state fund that year.

2014 Workers Compensation Direct Written Premium Growth, by State*



PRIVATE CARRIERS: Overall 2014 Growth = +4.6%



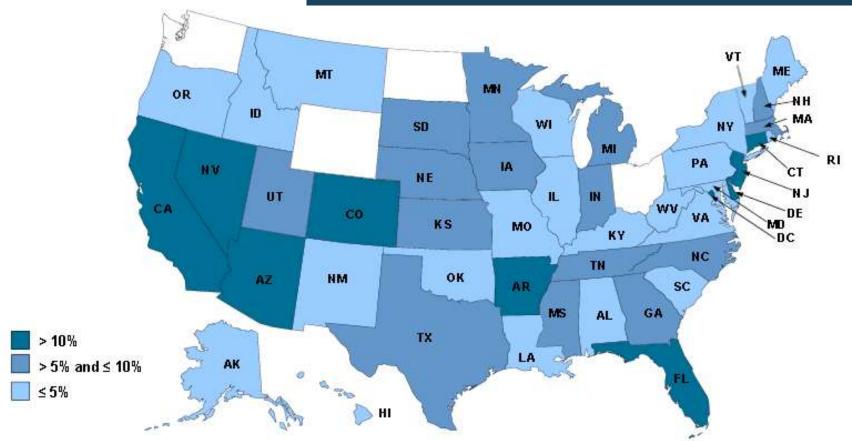
^{*}Excludes monopolistic fund states (in gray): OH, ND, WA and WY. Source: NCCI.

2013 Workers Compensation Direct Written Premium Growth, by State*



PRIVATE CARRIERS: Overall 2013 Growth = +5.4%





^{*}Excludes monopolistic fund states (in white): OH, ND, WA and WY. Source: NCCI.

Workers Compensation Components of Written Premium Change, 2013 to 2014



Written Premium Change from 2013 to 2014	
Net Written Premium—Countrywide	+4.6%
Direct Written Premium—Countrywide	+4.6%
Direct Written Premium—NCCI States	+4.5%
Components of DWP Change for NCCI States	
Change in Carrier Estimated Payroll	+4.7%
Change in Bureau Loss Costs and Mix	-1.4%
Change in Carrier Discounting	+0.4%
Change in Other Factors	+0.8%
Combined Effect	+4.5%

Growth is now almost entirely payroll driven

Sources: Countrywide: Annual Statement data.

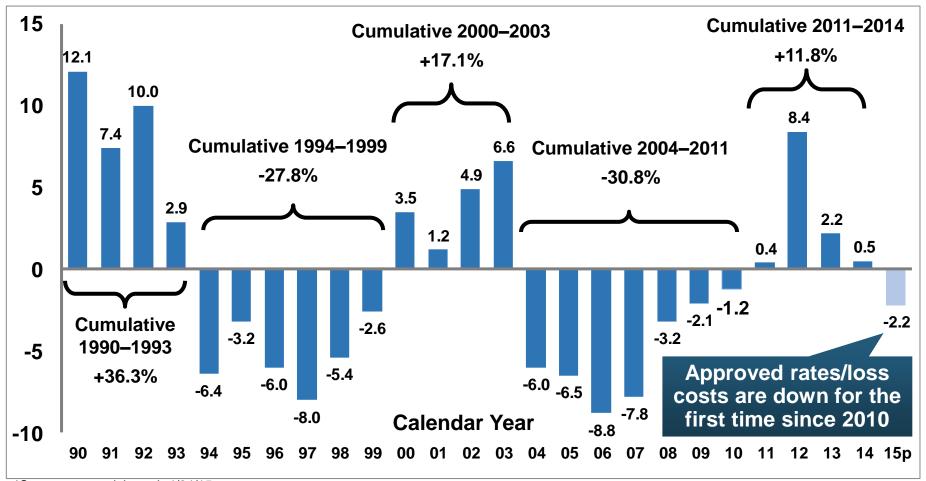
NCCI States: Annual Statement Statutory Page 14 for all states where NCCI provides ratemaking services.

Components: NCCI Policy data.

WC Approved Changes in Bureau Premium Level (Rates/Loss Costs)







^{*}States approved through 4/24/15.

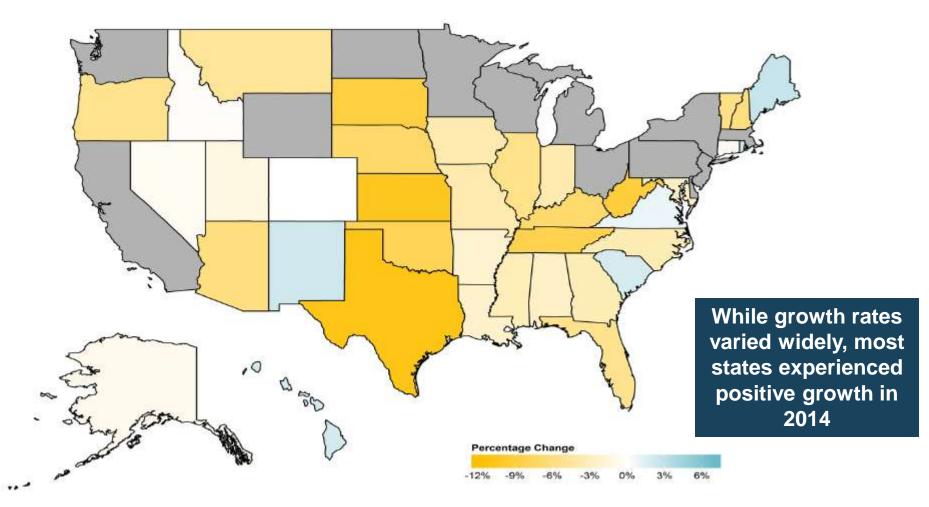
Note: Bureau premium level changes are countrywide approved changes in advisory rates, loss costs and assigned risk rates as filed by applicable rating organization, relative to those previously approved.

Source: NCCI.

WC Approved or Filed and Pending Change in NCCI Premium Level by State



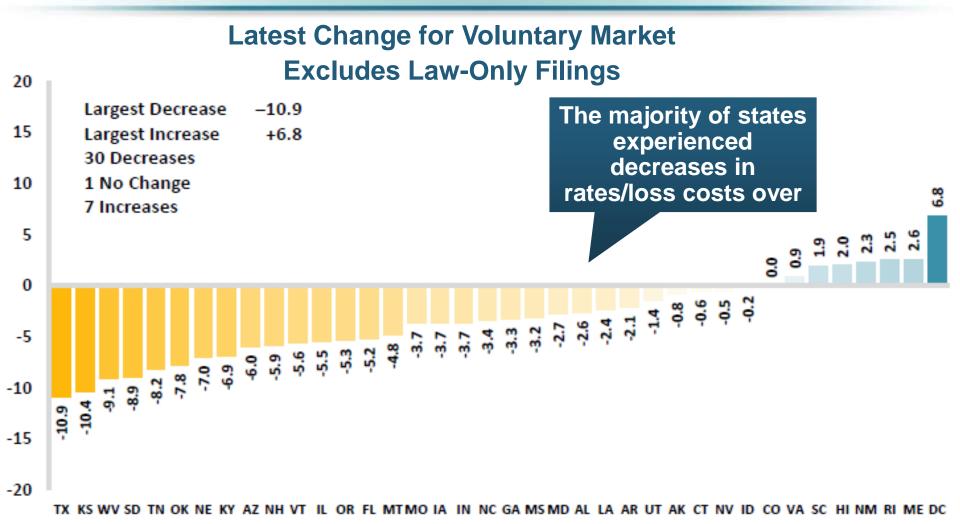
Latest Change for Voluntary Market



^{*}Excludes monopolistic fund states (in gray): OH, ND, WA and WY. Source: NCCI.

WC Approved or Filed and Pending Change in NCCI Premium Level by State



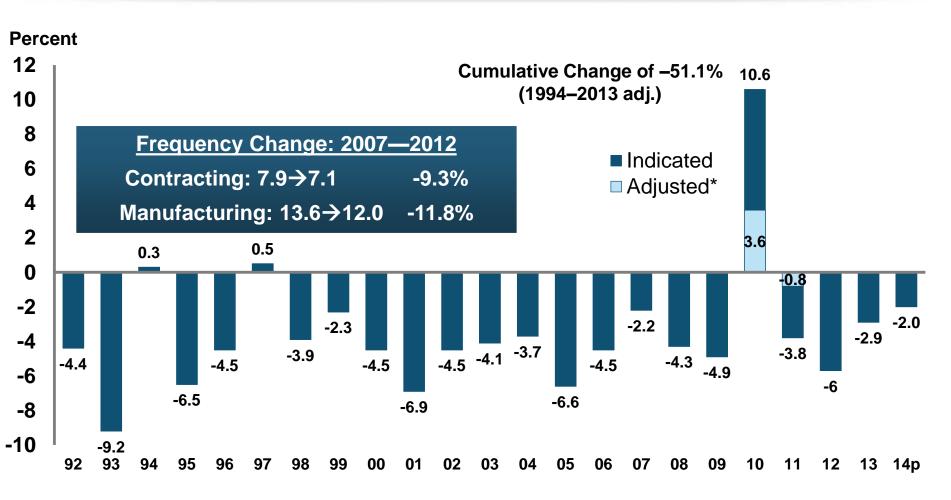


Note: Premium level changes are approved changes are approved or filed and pending changes in advisory rates, loss costs and rating values as of 4/24/15 as filed by applicable rating organization, relative to those previously approved. SC is filed and pending. IN and NC are in cooperation with state rating bureaus.

Source: NCCI.

Workers Compensation Lost-Time Claim Frequency Declined in 2014





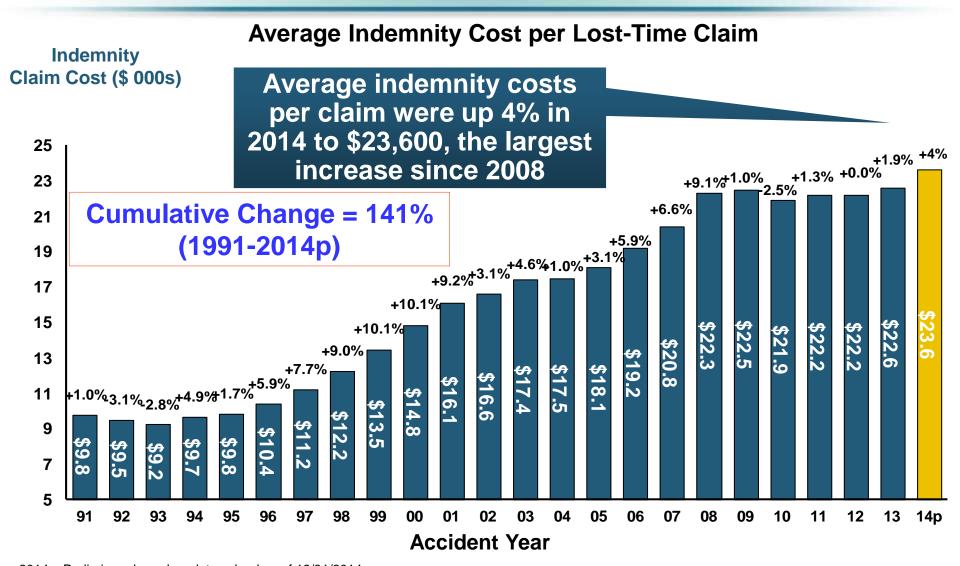
*Adjustments primarily due to significant audit activity. 2014p: Preliminary based on data valued as of 12/31/2014.

Accident Year

Source: NCCI Financial Call data, developed to ultimate and adjusted to current wage an voluntary loss cost level; Excludes high deductible policies; 1994-2013: Based on data through 12/31/13. Data for all states where NCCI provides ratemaking services, excluding WV. Frequency is the number of lost-time claims per \$1M pure premium at current wage and voluntary loss cost level

Workers Comp Indemnity Claim Costs: Modest Increase in 2014





2014p: Preliminary based on data valued as of 12/31/2014.

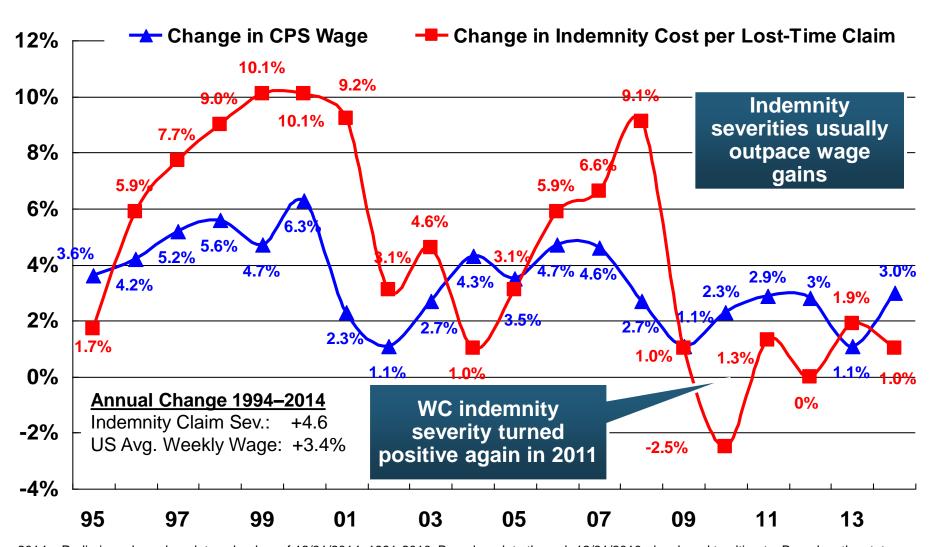
1991-2013: Based on data through 12/31/2013, developed to ultimate

Pased on the states where NCCI provides retempling sonities including state funds, evaluding W

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

WC Indemnity Severity vs. Wage Inflation, 771



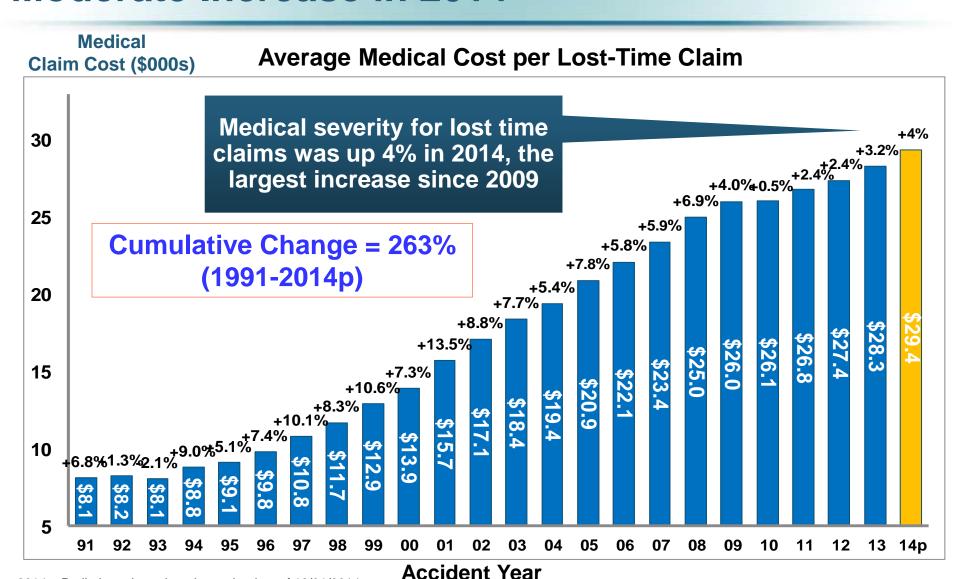


2014p: Preliminary based on data valued as of 12/31/2014; 1991-2010: Based on data through 12/31/2010, developed to ultimate. Based on the states where NCCI provides ratemaking services. Excludes the effects of deductible policies. CPS = Current Population Survey.

Source: NCCI

Workers Compensation Medical Severity: Moderate Increase in 2014





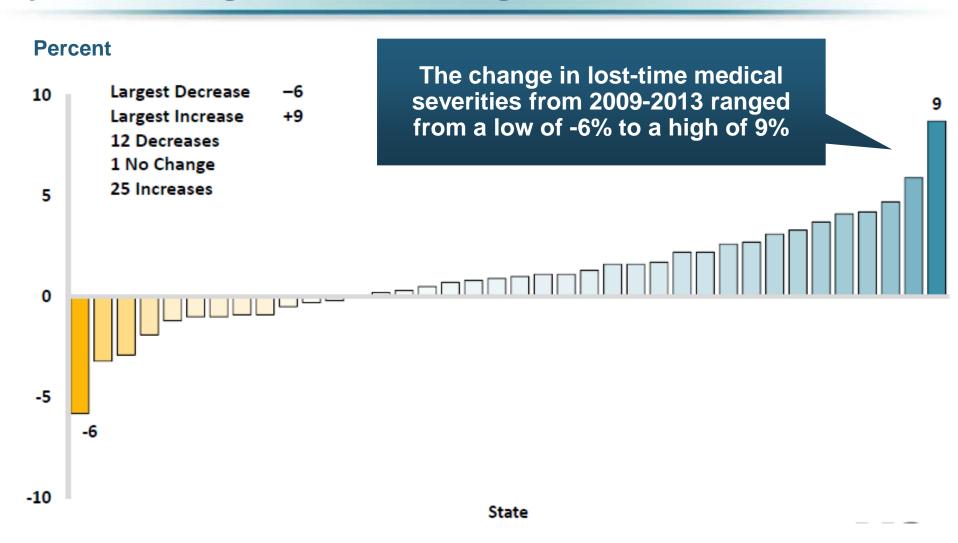
2014p: Preliminary based on data valued as of 12/31/2014.

1991-2013: Based on data through 12/31/2013, developed to ultimate

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

Workers Comp Change in Medical Severity by State, Avg. Annual Change, 2009-2013

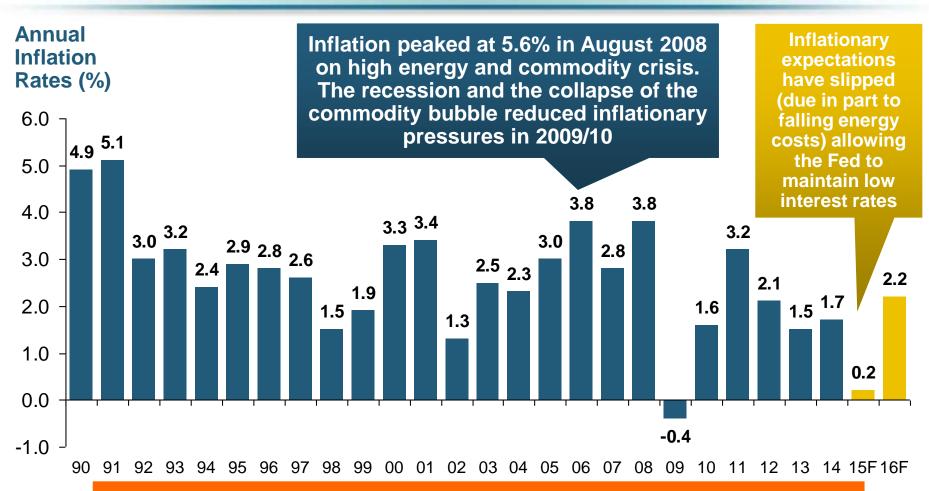




Source: NCCI's Analysis of Frequency and Severity of Claims Across the Country as of 12/31/13 on ncci.com. Values reflect methodology and state data underlying the most recent rate/lost cost filing. TX changes are for the years 2010-2013.

Annual Inflation Rates, (CPI-U, %), 1990–2016F





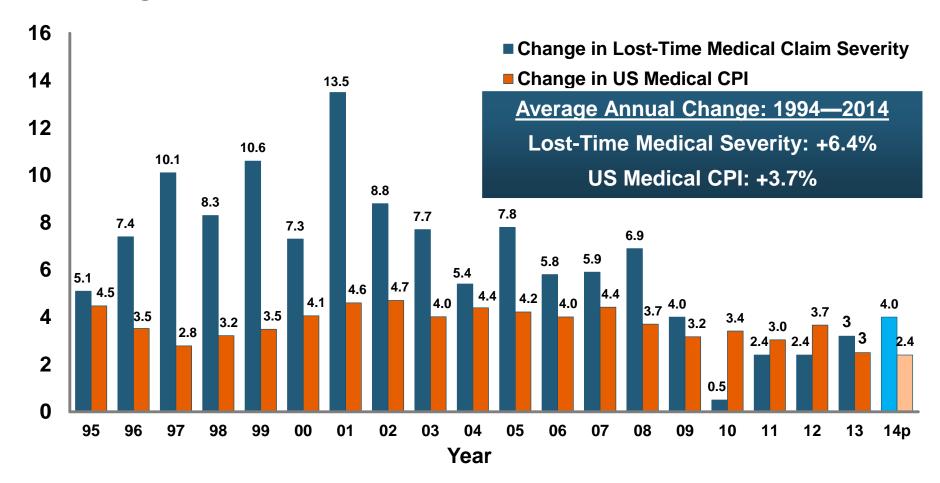
Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

Workers Compensation Change in Medical Severity



Comparison to Change in Medical Consumer Price Index (CPI)

Percent Change



2014p: Preliminary based on data valued as of 12/31/2014.

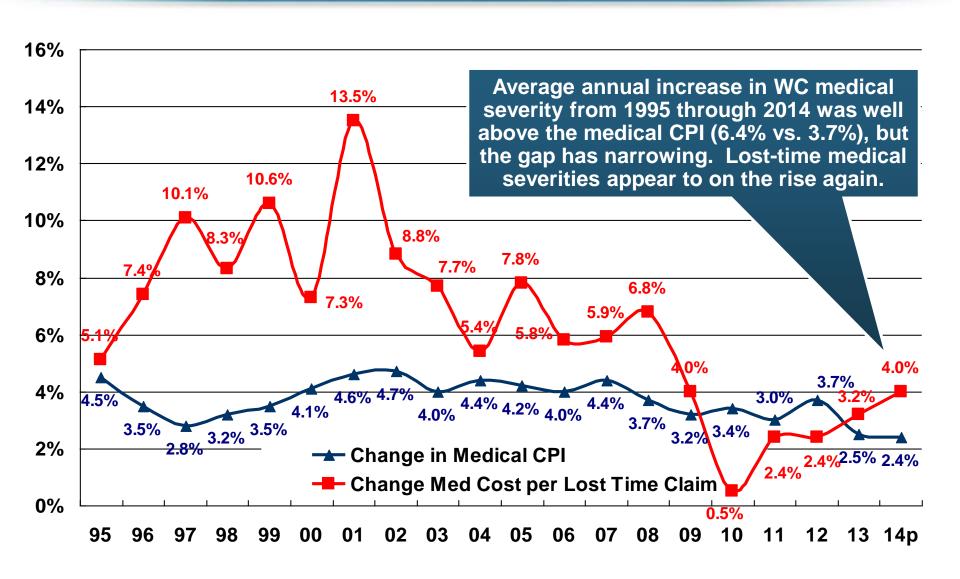
Sources: Severity: 995-2013: Based on data through 12/31/2013, developed to ultimate

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

US Medical CPI: US Bureau of Labor Statistics.

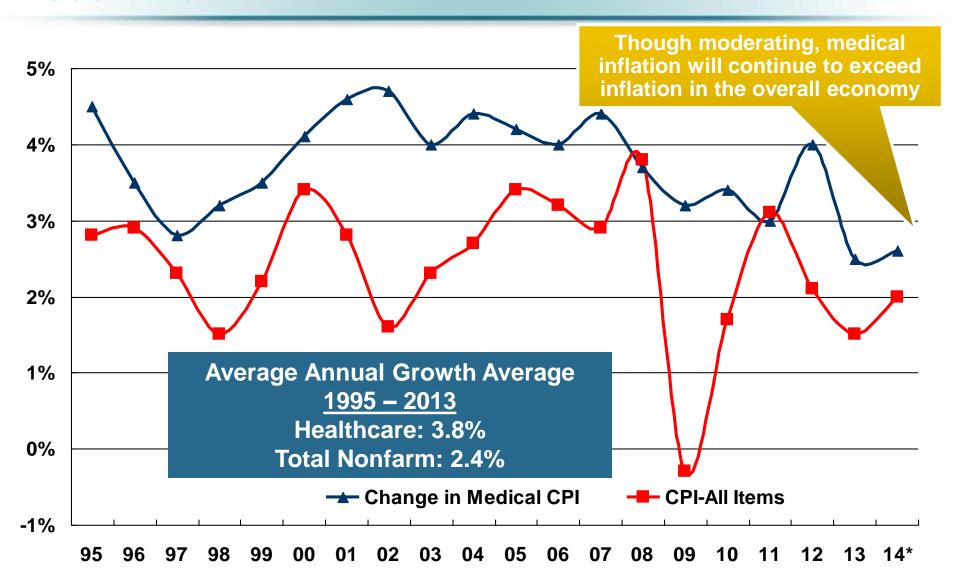
WC Medical Severity Generally Outpaces the Medical CPI Rate





Medical Cost Inflation vs. Overall CPI, 1995 – 2014*



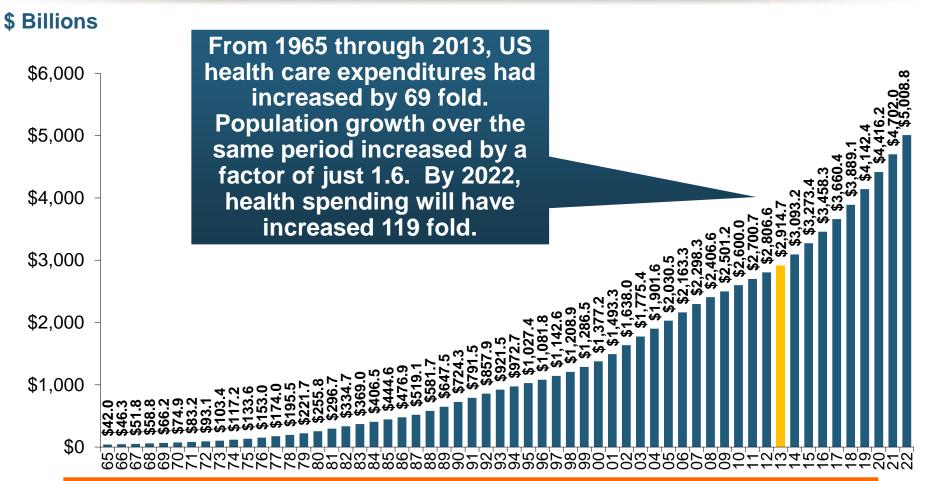


^{*}July 2014 compared to July 2013.

Sources: Med CPI from US Bureau of Labor Statistics, WC med severity from NCCI based on NCCI states.

U.S. Health Care Expenditures, 1965–2022F



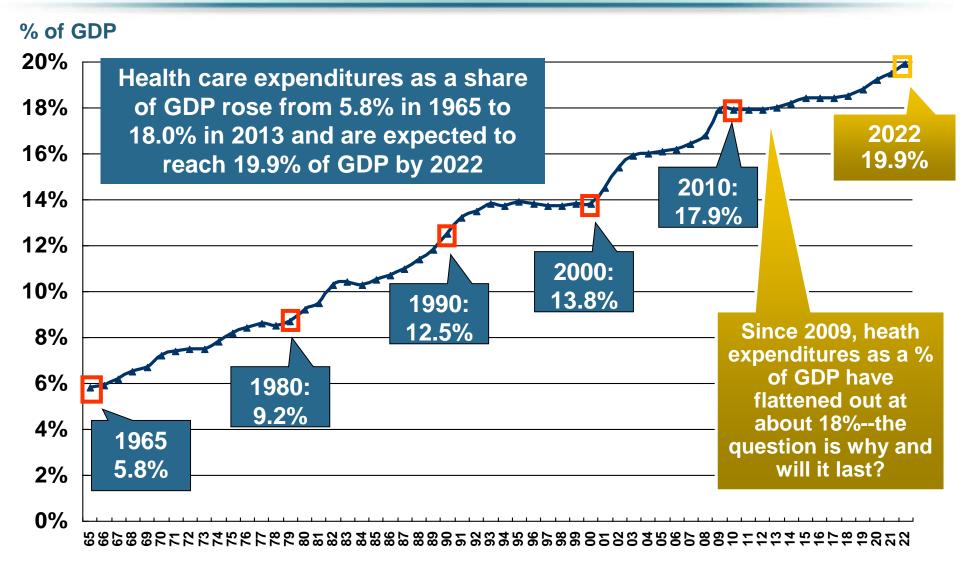


U.S. health care expenditures have been on a relentless climb for most of the past half century, far outstripping population growth, inflation of GDP growth

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at <a href="http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/Statistics-Data-and-Systems/S

National Health Care Expenditures as a Share of GDP, 1965 – 2022F*





Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.



Recent Attacks on the Insurance Industry

Why Are Critics Suddenly More Aggressive?

What's Driving Attacks on the Insurance Industry?



- Recent Surge in Attacks is Associated with Income Inequality Debate in the United States
 - Attacks not confined to auto insurance (e.g., Workers Comp, Health)
 - Not confined to insurance (banks, lending in general, student loans)
- Politics, Economics, Regulation & Demographics Are Principal Drivers
 - CFA/CR and others (ProPublica) emboldened in current environment
 - Dodd-Frank Act stuffed with income inequality mandates and studies
 - FIO now studying auto insurance affordability; Wants to create index.
 - Definition of "fairness" is shifting
- CFA Has Been Able to Attack Certain Rating Factors Based on New Perception of Fairness (which is independent of actual risk)
 - Education Occupation Marital Status Gender
 - Age Credit Profile Location "Price Optimization"
- All of These Are Vulnerable to Attack in the Current Environment
- Infinite Number of Quotes Online → CFA Uses to Highlight Perceived Inequities

I.I.I. Actions: NCOIL Hearing Testimony



PRICE OPTIMIZATION IN AUTO INSURANCE MARKETS

Actuarial, Economic and Regulatory Considerations

Robert P. Hartwig, Ph.D., CPCU

Testified as industry's witness at July 17
National Conference of Insurance Legislators' hearing on Price Optimization;

Worked very closely with PCI, AIA, NAMIC and independent companies.

I.I.I. Media Advisories





Media Advisory: I.I.I. Experts Available to Respond to Consumer Federation of America (CFA) Study on Marital Status and Auto Insurance

I.I.I. has Experts, Information and Analysis on Auto Insurance Rating Criteria

JEE V 27: 2015

FOR IMMEDIATE RELEASE

New York Press Office: (212) 346-5500 ; media@ii.org

Florida Press Office: (813) 480-6446 (3; www.insuringflorida.org

NEW YORK, July 27, 2015 — Reporters interested in interviewing auto insurance experts are encouraged to contact the insurance information institute (LLL).

"Insurers use underwriting criteria that directly correlate with losses," points out Dr. Robert Hartwig, the I.I.I.'s president and an economist, adding that the criteria used by insurers have been demonstrated for decades to be predictive of loss and are reviewed and approved by state insurance regulators. "Auto insurance is a highly competitive business and most people find they have an array of policy options, at various prices, to choose from. Consumers concerned about the price of their auto insurance are encouraged to shop around to find the policy that best suits their needs and budget," said Hartwig.

James Lynch, the I.I.L's chief actuary, and Dr. Hartwig, are available to discuss the rating factors U.S. auto insurers employ when pricing



MEDIA ADVISORY: Use of a Variety of Rating Factors Beyond Driving Record Makes For a Competitive Auto Insurance Marketplace

I.I.I. Experts Available For Media Interviews on Underwriting and Auto Insurance Pricing

4UOUST 3, 2016

FOR IMMEDIATE RELEASE

New York Press Office: (212) 345-5500 (3; media@iii.org

NEW YORK, August 3, 2015 — Recent surveys of insurance pricing by the Consumer Federation of America (CFA) and Consumer Reports have made headlines by purporting to demonstrate that auto insurers use rating factors unfairly. However, the studies are misleading and overlook the importance of using a wide variety of rating factors in order to maintain a competitive market that ultimately benefits consumers.

While the CFA research indicated that auto insurers generally charge married women less for state-mandated liability coverage than they do female policyholders who are divorced, separated, single or widowed, Consumer Reports decried the use of any rating factors other than an individual's driving record.

The reality is that the practices highlighted in both reports have repeatedly been found to be appropriate by state legislators and insurance regulators.

Insurance companies have for decades adjusted rates based on information other than driving record. Actuaries have seen that some

Handout for Government Affairs Staff Attending NAIC Meeting





The Truth about Auto Insurance? Driving records alone offer an incomplete picture

Rating factors used by auto insurers to price policies have come under attack in recent months. Consumer Reports (CR) and the

Consumer Federation of America (CFA) have made headlines by purporting to demonstrate U.S. auto insurers use certain rating factors unfairly, including a driver's credit-based insurance score, gender and marital status. They have also criticized the practice of "price optimization," a term defined

by the Casualty Actuarial Society (CAS) as "the supplementation of traditional actuarial loss cost models to include quantitative customer demand models for use in determining customer prices."

The CR and CFA analyses were misleading and overlooked the ways in which competition in auto insurance markets is enhanced and consumers benefit when a wide variety of rating factors beyond a person's driving record are used to determine risk

Key factors include:



Credit

- Regulators in 47 U.S. states allow the use of creditbased insurance scores.
- "Credit scores are effective predictors of risk under automobile policies." (2007 Federal Trade Commission
- 76 percent of consumers exhibit good or fair credit management behavior

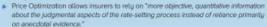
Chierciae

- Women drivers tend to get into fewer and less serious accidents than men.
- Men were behind the wheel in nearly three of every four total crashes nationwide (2003-2012).

Moritot Status

of decodes.

Married drivers tend to get Into fewer and less serious accidents than unmarried drivers, based on the claims experience U.S. auto insurers have complied over a period



 Consumers benefit because, "Price optimization may improve rate stability and lower. an insurer's long-term cost for providing coverage and limit policyholder disruption. If consumers realize more stability through price optimization, policyholder discounts for longevity may increase over time.*

(Fellipsed Association of Insurance Commissioners' Conucity Actuation and Statebook Task Force draft. White popert.

Resources

Consumers who believe

or underserved by their

insurance company can-

and should-shop around

for a better deal. The U.S.

precisely because different insurers give different

auto insurance industry

is highly competitive,

weights to a variety of

underwriting criteria.

they are being overcharged

I.I.I. consumer education articles

- · What Determines the Price of My Auto Insurance Policy? www.li.org/article/what-determines-price-my-auto-insurance-
- How Can I Save Money on Auto Insurance? www.iii.org/article/how-can-i-save-money-auto-insurance

I.I.I. presentations and research

- · Price Optimization in Auto Insurance Markets: Actuarial, Economic. and Regulatory Considerations: www.ii.org/presentation/price-optimization-in-auto-Insurance-markets-actuarial-economic-and-regulatoryconsiderations-071715
- · Facts & Statistics: Auto Insurance: www.ll.org/fact-statistic/auto-insurance
- Issues Update: Credit Scoring and Insurance: www.ll.org/issue-update/credit-scoring

The I's on Insurance-Auto Coverage: You're in the Driver's Seat: www.)ii.org/video/the-is-on-insurance-auto-coverage-youre-in-thedrivers-seat

LLL subject matter experts

- . Dr. Robert Hartwig, president & economist: bobh@iii.org
- . James Lynch, FCAS MAAA, chief actuary and director of Information Services: james@ill.org

I.I.I. medio contact

Michael Barru, vice president, Media Relations: michaelb@iii.org

For more information about insurance: www.lil.org



Growth Analysis by State and Business Segment

Post-Crisis Paradox?

Premium Growth Rates Vary

Tremendously by State

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

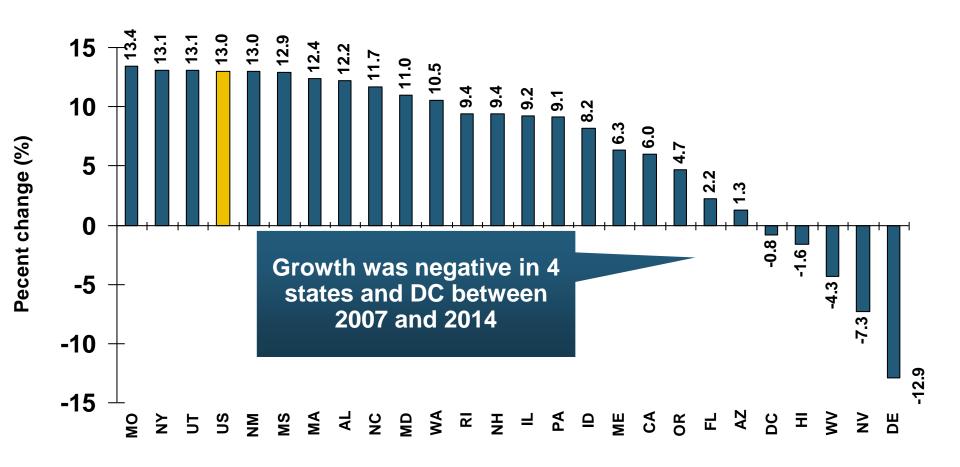




Direct Premiums Written: Total P/C Percent Change by State, 2007-2014

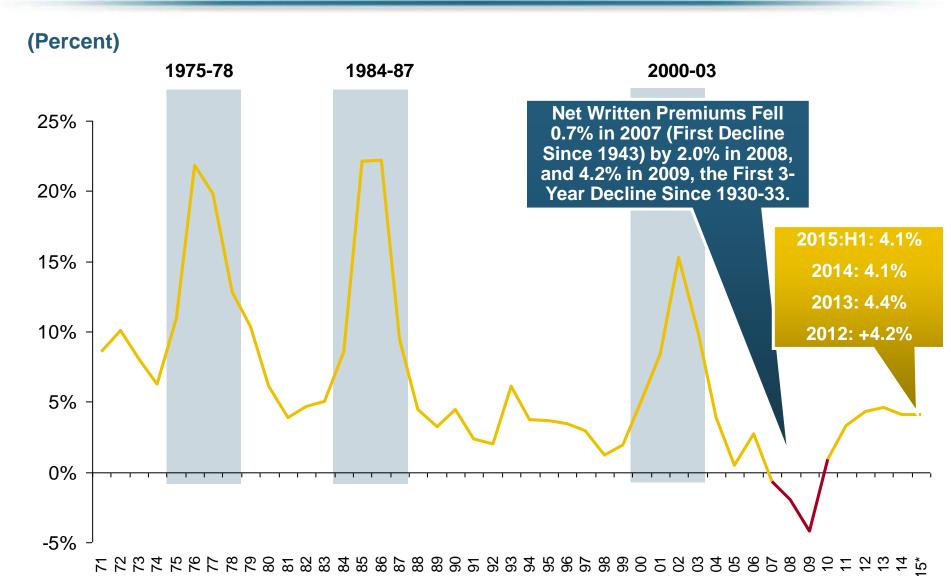


Bottom 25 States



Net Premium Growth (All P/C Lines): Annual Change, 1971—2015:H1



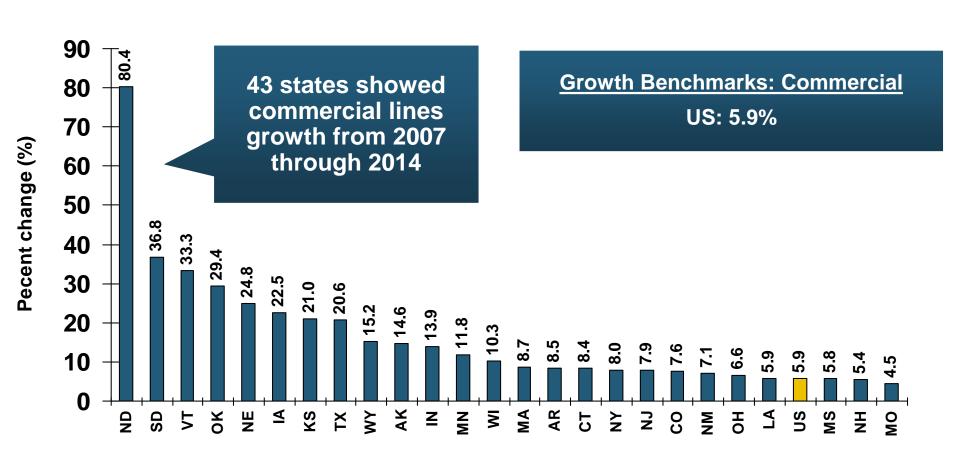


Shaded areas denote "hard market" periods
Sources: A.M. Best (1971-2013), ISO (2014-15).

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



Top 25 States

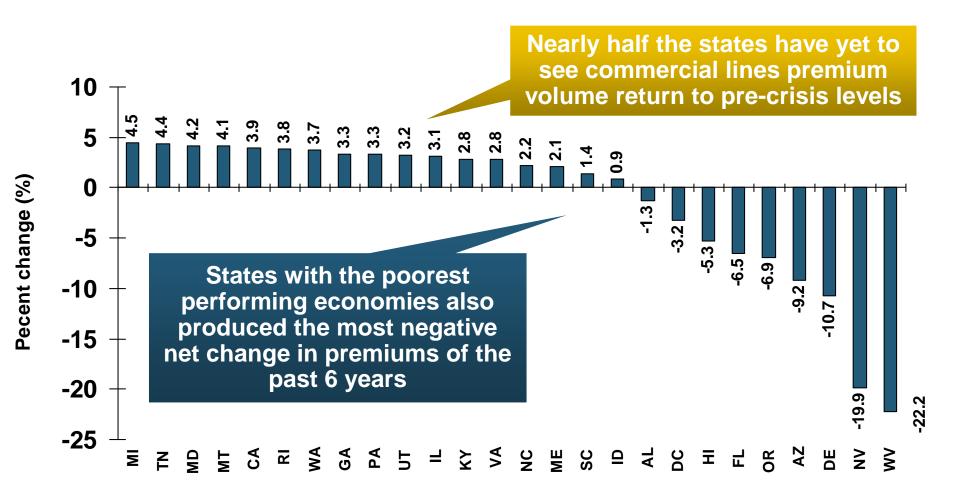


Sources: SNL Financial LLC.; Insurance Information Institute.

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



Bottom 25 States

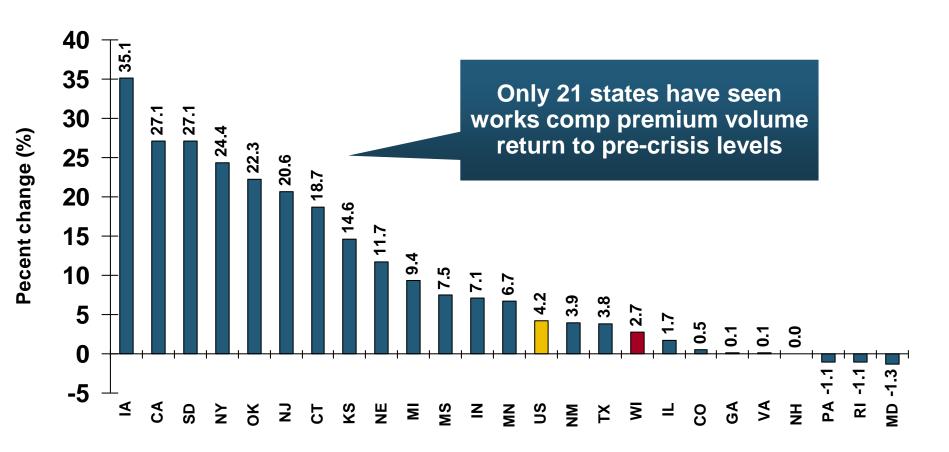


Sources: SNL Financial LLC.; Insurance Information Institute.

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



Top 25 States

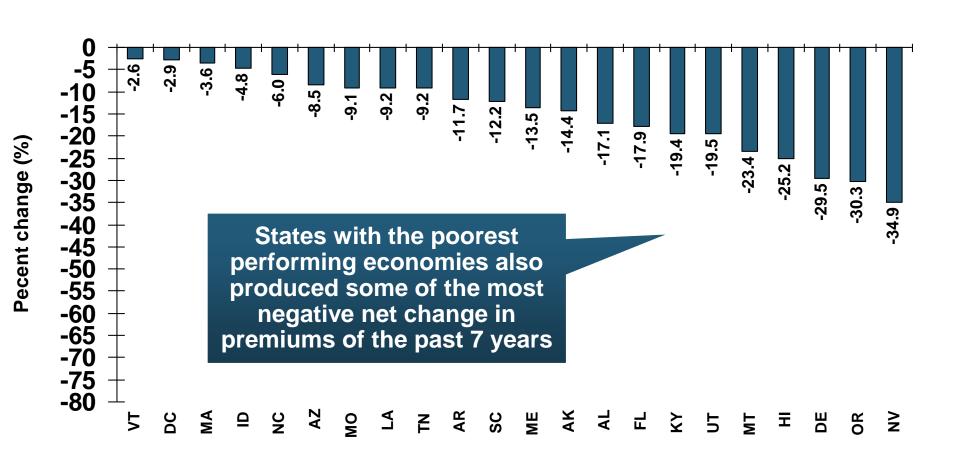


^{*}Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period. Sources: SNL Financial LC.; Insurance Information Institute.

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



Bottom 25 States



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

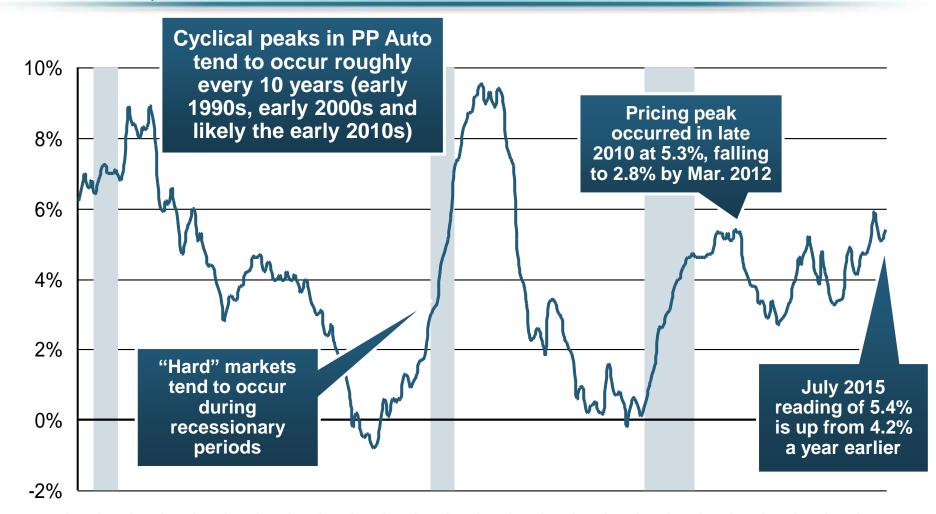


Pricing Trends

Survey Results Suggest Commercial Pricing Has Flattened Out but Personal Lines Are Up

Monthly Change in Auto Insurance Prices, 1991–2015*





'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15

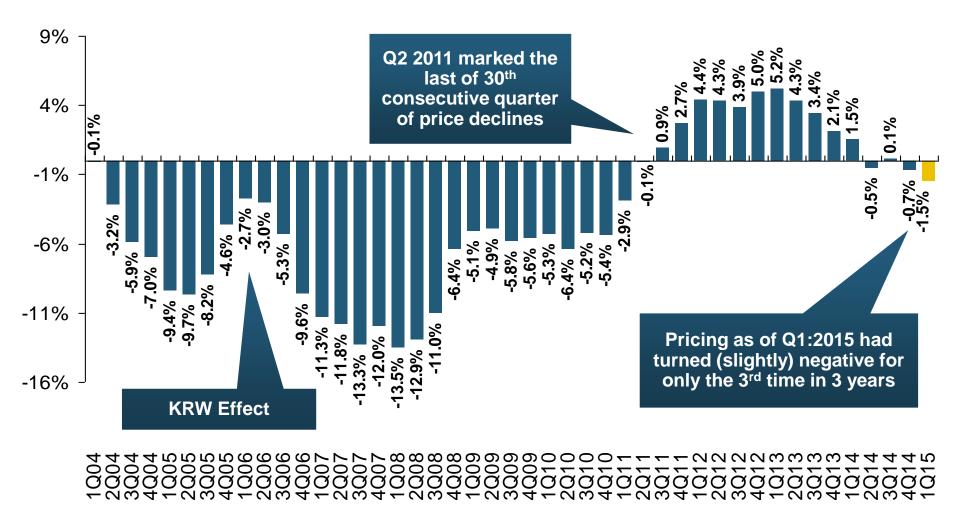
Sources: US Bureau of Labor Statistics; National Bureau of Economic Research (recession dates); Insurance Information Institutes.

^{*}Percentage change from same month in prior year; through July 2015; seasonally adjusted Note: Recessions indicated by gray shaded columns.

Average Commercial Rate Change, All Lines, (1Q:2004–1Q:2015)



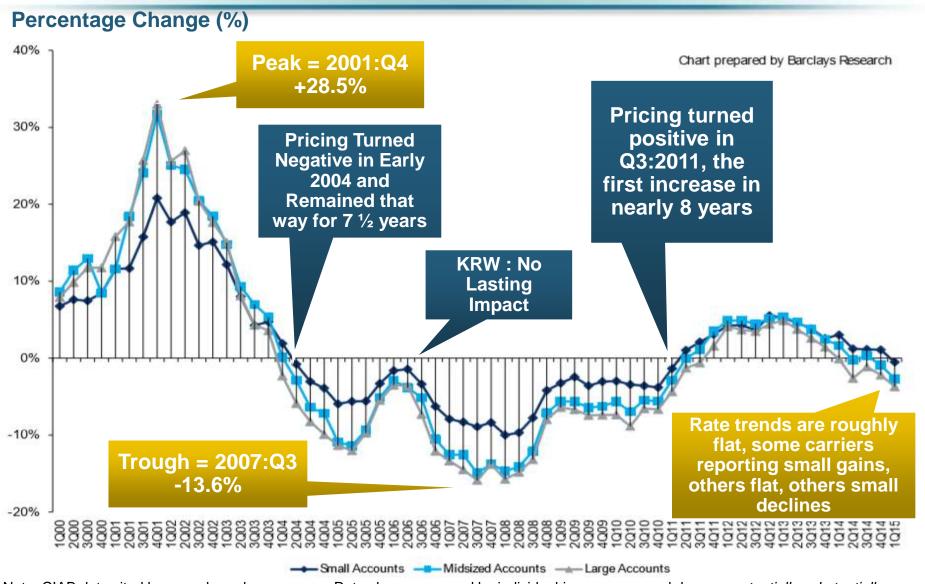




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents & Brokers; Insurance Information Institute

Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2015:Q1

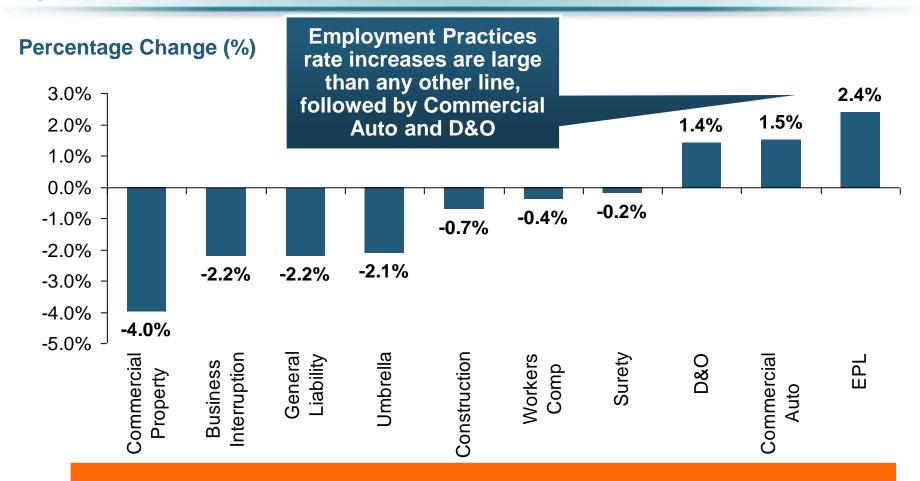




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers <u>can</u> and <u>do</u> vary, *potentially substantially*. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

Change in Commercial Rate Renewals, by Line: 2015:Q1

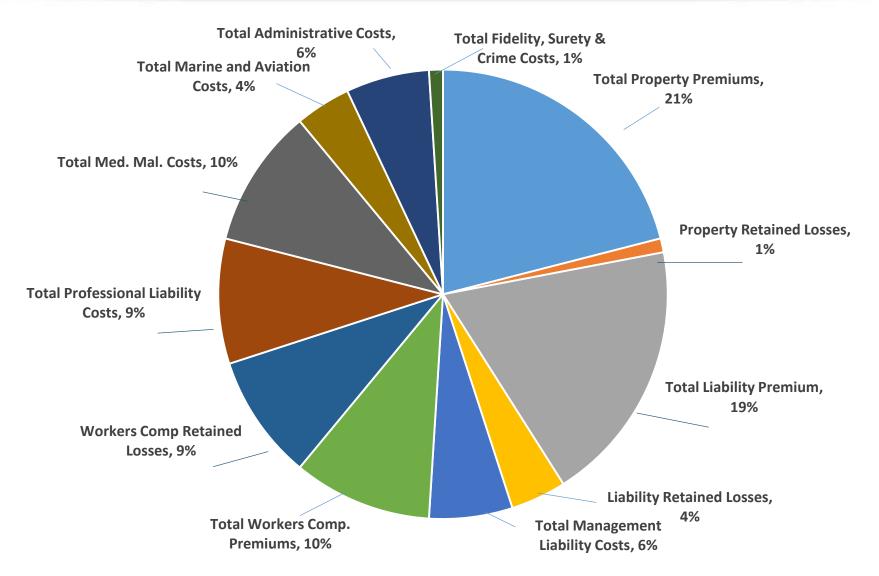




Major Commercial Lines Renewals Were Mixed to Flat in Q1:2015; EPL and Commercial Auto Led the Way

How the Risk Dollar is Spent (U.S. Firms with Revenues Under \$1 Bill)





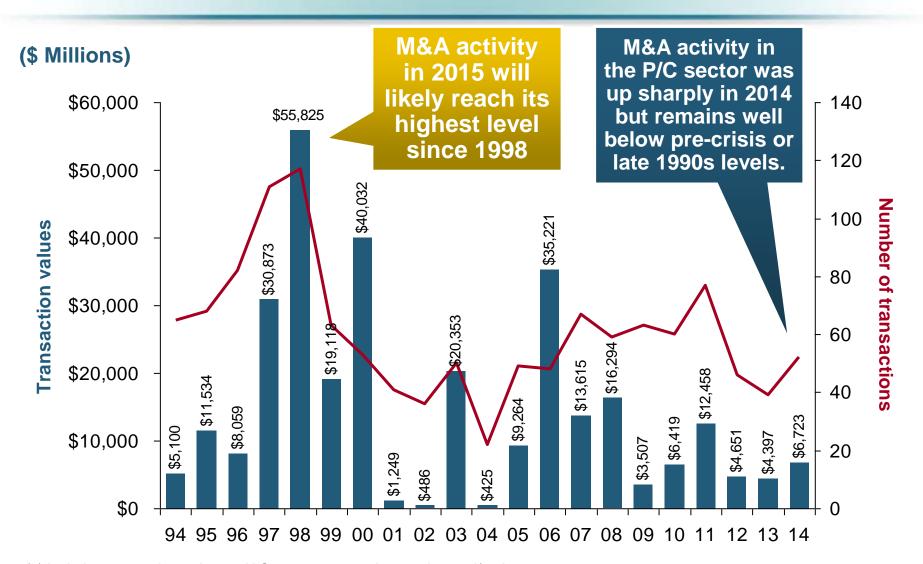


M&A UPDATE: A PATH TO GROWTH?

Are Capital Accumulation, Drive for Growth and Scale Stimulating M&A Activity?

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





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

Source: Conning proprietary database.

Top Global P&C M&As in 2014 - YTD 2015 INSURANCE INFORMATION INSTITUTE



Acquirer	Target	Transaction Value
ACE (Switzerland)	Chubb (US)	\$28,300
Exor (Italy)	PartnerRe Ltd. (Bermuda)	\$6,900
Zurich (Switzerland)	RSA (UK)	8,000
XL Group plc (Ireland)	Catlin Group Ltd. (Bermuda)	4,200
RenaissanceRe Holdings Ltd.		
(Bermuda)	Platinum Underwriters Holdings Ltd. (Bermuda)	1,900
Fairfax Financial Holdings Ltd.		
(Canada)	Brit Insurance Holdings NV (Netherlands)	1,880
	State Farm's property/casualty and life insurance	
Desjardins Financial Corp. (Canada)	operations in Canada (Canada)	1,500
TPG Capital LP	The Warranty Group, Inc. (Canada)	1,500
Fosun International Ltd. (China)	Caixa Seguros e Saude SGPA SA (Portugal)	1,360
Progressive Corp.	ARX Holding Corp.	875
Assured Guaranty Ltd. (Bermuda)	Radian Asset Assurance, Inc.	810
	German and Italina operations of Direct Line	
Mapfre S.A. (Spain)	Insurance Group plc (Germany/Italy)	701
Validus Holdings Ltd. (Bermuda)	Western World Insurance Group, Inc.	690
ACE Ltd. (Switzerland)	P&C business from Itau Seguros S.A. (Brazil)	685

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

Recent M&A Transactions Involving Lloyd's and Bermuda Re/Insurers



Date	Acquirer	Target	Deal Value \$ Billion
Dec 2012	Aquiline	Equity Redstar	0.1
Jun 2013	Enstar/Stone Point	Atrium	0.2
Jul 2013	Enstar/Stone Point	Torus	0.7
Aug 2013	lan Beaton and Management	Ark Syndicate Management	0.4
Aug 2013	Lancashire	Cathedral	0.4
Aug 2013	AmTrust	Sagicor	0.1
Sep 2013	ANV	Jubilee Managing Agency	N/A
Dec 2013	Sompo	Canopius	1.0
Feb 2014	Qatar Insurance Company	Antares	0.2
Jul 2014	BTG Pactual	Ariel Re	0.4
Nov 2014	RenaissanceRe	Platinum Underwriters	1.9
Dec 2014	XL Group	Catlin	4.1
Jan 2015	PartnerRe	AXIS	11.0*
Feb 2015	Fairfax Financial Holdings	Brit	1.9

^{*}Deal was not complete as of 6/4/15 and a rival bid from Italian investment firm Exor was still under consideration. Source: Swiss Re *sigma* 3/2015; Insurance information Institute.

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



- Excess Capital in Global Reinsurance and Primary Commercial Insurance in US
 - (Re)Insurers, like corporations in many industry, are sitting are large amounts of cash accumulated since the Global Financial Crisis that earns very little
- Alternative Capital
- Slow Top Line (Premium) Growth
- Slowdown in Pace of Earnings Growth/ROE
- Low Interest Rates Make Debt Financing for Acquisitions Attractive
 - Concern that interest rates in US may soon rise so best to act now
- Desire to Achieve Economies of Scale
- Peer Pressure/Momentum
 - Management concerns about being "left out"

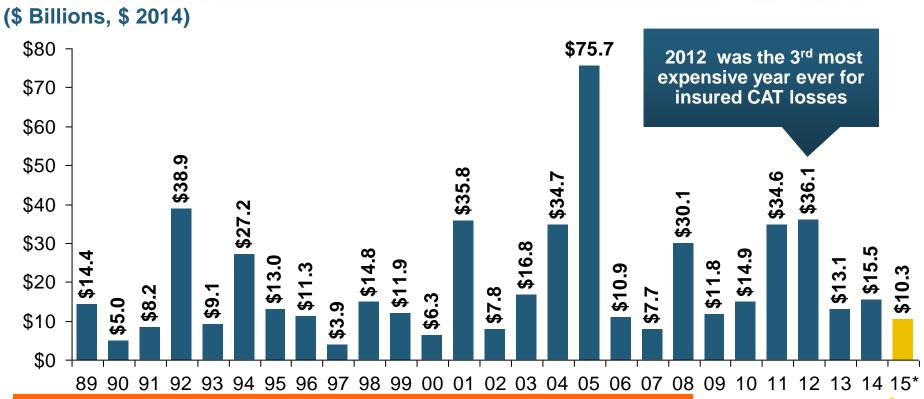


Insured Catastrophe Losses

2013/14 and YTD 2015 Experienced Below Average CAT Activity After Very High CAT Losses in 2011/12 Winter Storm Losses Far Above Average in 2014 and 2015

U.S. Insured Catastrophe Losses





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

\$10.3B in insured CAT losses though 6/30/15, up slightly from \$7.3B in 2014

Note: 2001 figure includes \$20.3B for 9/11 losses reported through 12/31/01 (\$25.9B 2011 dollars). Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = \$12.2B (\$15.6B in 2011 dollars.)

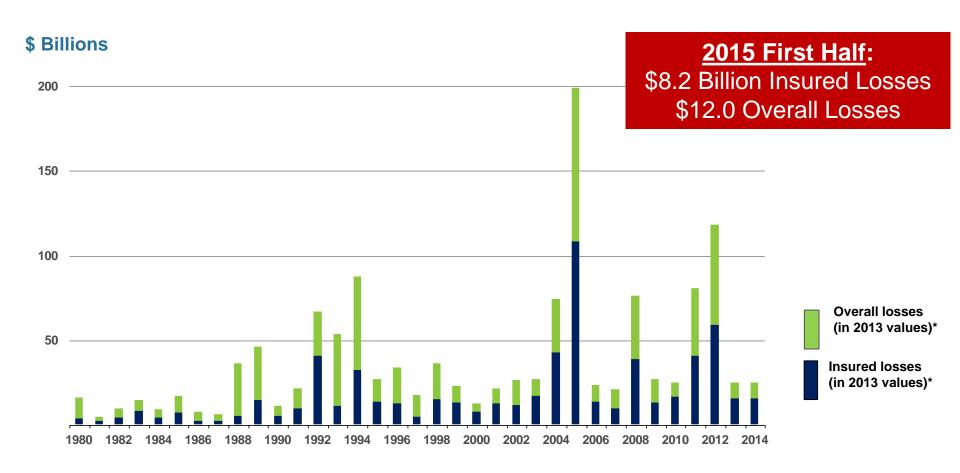
Sources: Property Claims Service/ISO; Insurance Information Institute.

^{*}Through 6/30/15 in 2015 dollars.

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



Overall losses totaled \$25bn; Insured losses totaled \$15.3bn



Top 10 Largest NFIP Flood Claim Payout Events



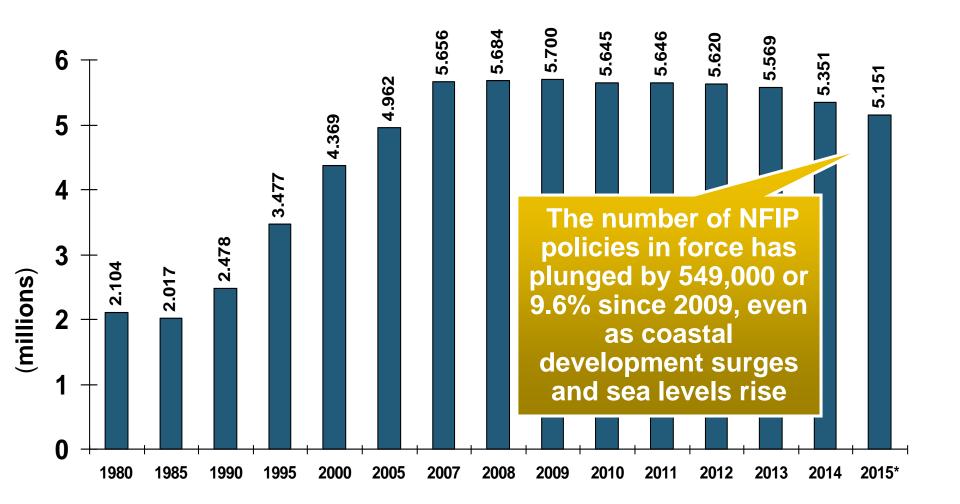
Rank	Date	Event	Location	Number of paid losses	Amount paid (\$ millions)	Average paid loss
1	Aug. 2005	Hurricane Katrina	AL, FL, GA, LA, MS, TN	167,971	\$16,316	\$97,134
2	Oct. 2012	Superstorm Sandy	CT, DC, DE, MA, MD, ME, NC, NH, NJ, NY, OH, PA, RI, VA, VT, WV	129,235	7,946	61,482
3	Sep. 2008	Hurricane Ike	AR, IL, IN, KY, LA, MO, OH, PA, TX	46,589	2,689	57,713
4	Sep. 2004	Hurricane Ivan	AL, DE, FL, GA, LA, MD, MS, NJ, NY, NC, OH, PA, TN, VA, WV	28,290	1,612	56,964
5	Aug. 2011	Hurricane Irene	CT, DC, DE, MA, MD, ME, NC, NH, NJ, NY, PA, RI, VA, VT	44,228	1,337	30,226
6	Jun. 2001	Tropical Storm Allison	FL, LA, MS, NJ, PA, TX	30,784	1,107	35,955
7	May 1995	Louisiana Flood	LA	31,343	585	18,667
8	Aug. 2012	Tropical Storm Isaac	AL, FL, LA, MS	11,992	548	45,728
9	Sep. 2003	Hurricane Isabel	DE, MD, NJ, NY, NC, PA, VA, WV	19,931	500	25,072
10	Sep. 2005	Hurricane Rita	AL, AR, FL, LA, MS, TN, TX	9,528	475	49,820

⁽¹⁾ Includes events from 1978 to June 30, 2015, as of August 21, 2015. Defined by the National Flood Insurance Program as an event that produces at least 1,500 paid losses. Stated in dollars when occurred.

Source: NFIP; Insurance information Institute http://www.iii.org/issue-update/flood-insurance

Number of National Flood Insurance Program Policies in Force at Year-End, 1980-2015*





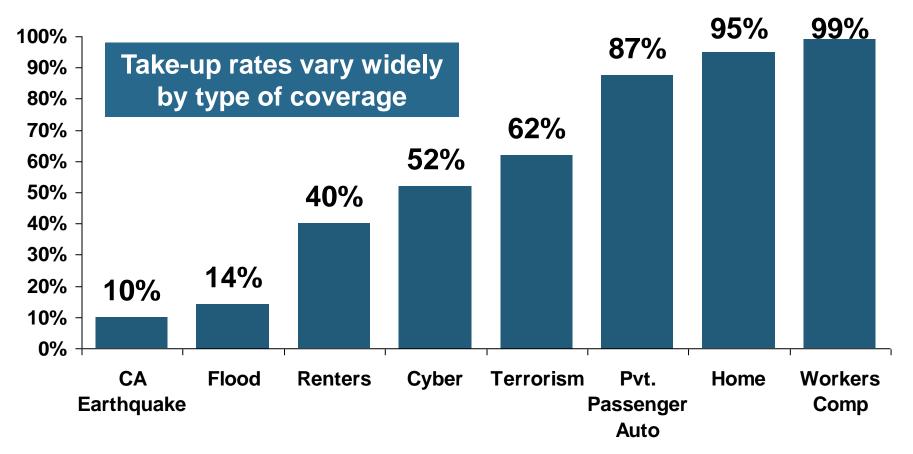
Source: National Flood Insurance Program.

^{*} As of July, 2015

Take-Up Rates for Various Types of Insurance in the U.S.



Take-Up Rate

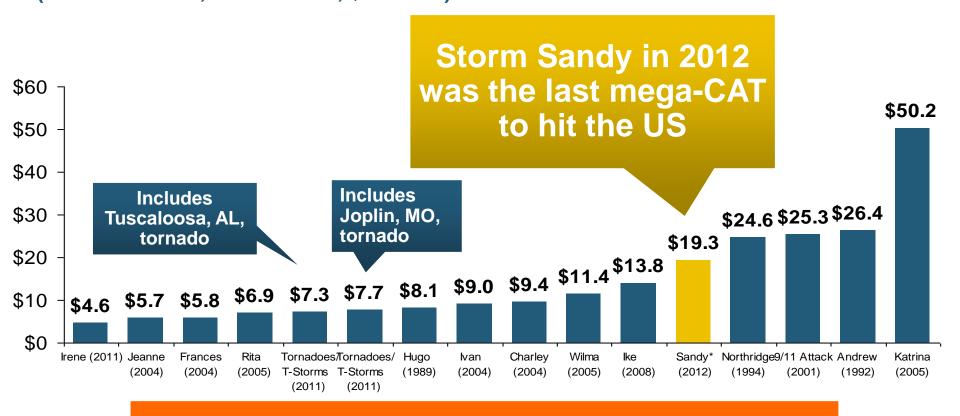


Sources: CA Earthquake (WSJ, http://www.wsj.com/articles/california-pushes-homeowners-to-insure-against-earthquakes-1440980138); Flood and Renters (I.I.I. June 2015 Pulse Survey); Cyber (Advisen, 2015); Terrorism (Marsh Global Analytics, 2014 Terrorism Risk Insurance Report, April 2014; data for 2013); Pvt. Passenger Auto (Insurance Research Council, Uninsured Motorists, 2014 Edition, data for 2012); Home and Workers Comp (I.I.I. estimates); Insurance Information Institute research.

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



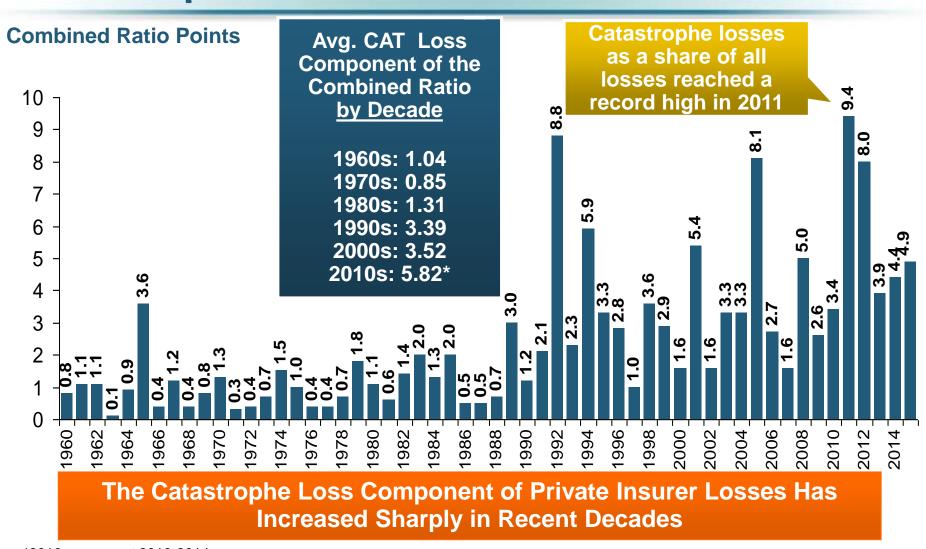
(Insured Losses, 2014 Dollars, \$ Billions)



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

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





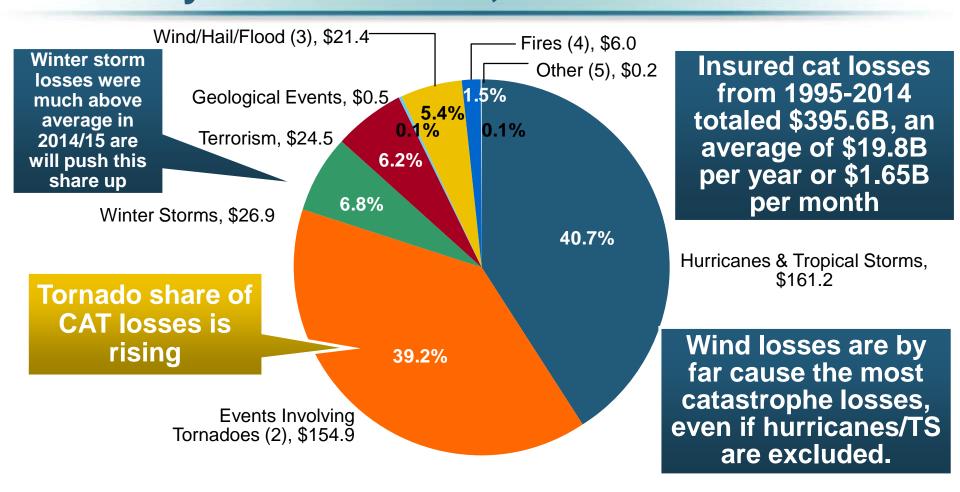
^{*2010}s represent 2010-2014.

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

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

Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1995–2014¹



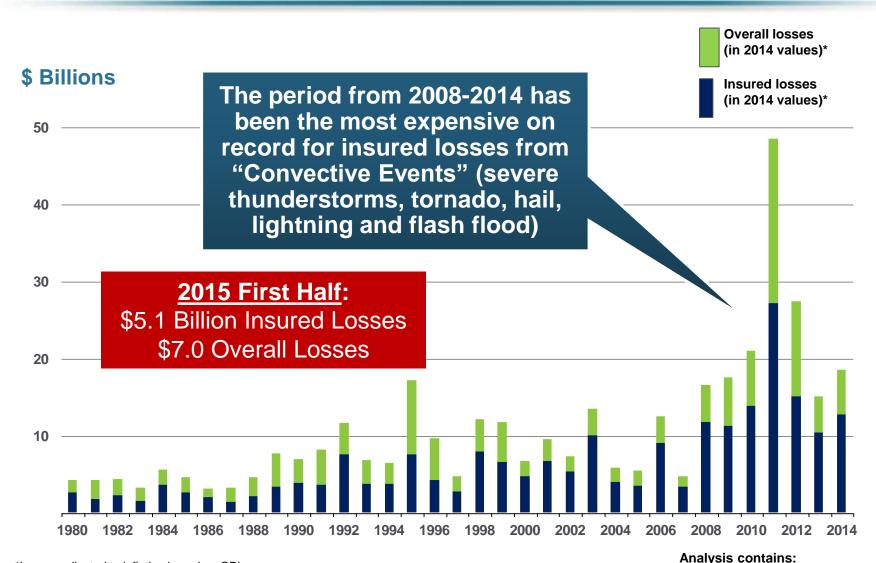


- 1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2014 dollars.
- Excludes snow.
- 3. Does not include NFIP flood losses
- 4. Includes wildland fires
- 5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.

Convective Loss Events in the US Overall and insured losses, 1980 – 2014



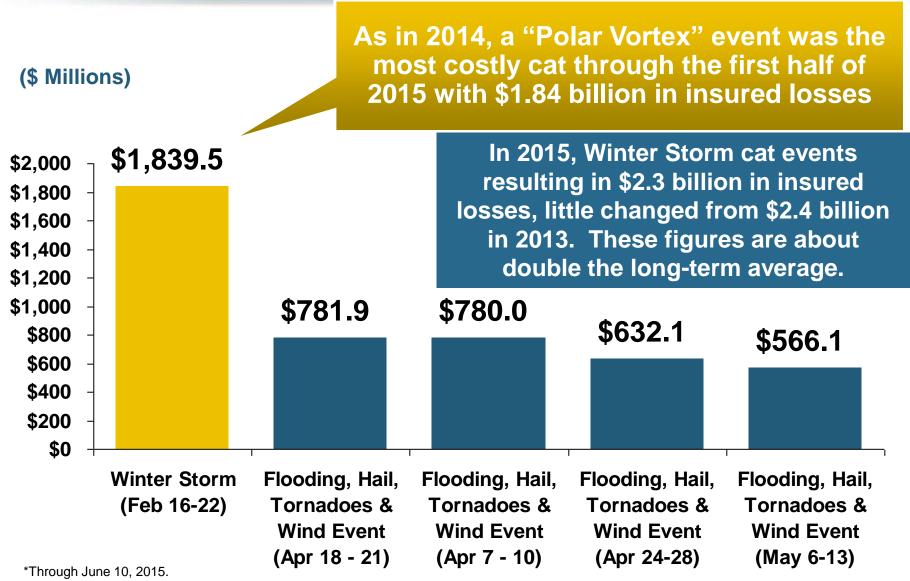


^{*}Losses adjusted to inflation based on CPI

Source: Geo Risks Research, NatCatSERVICE

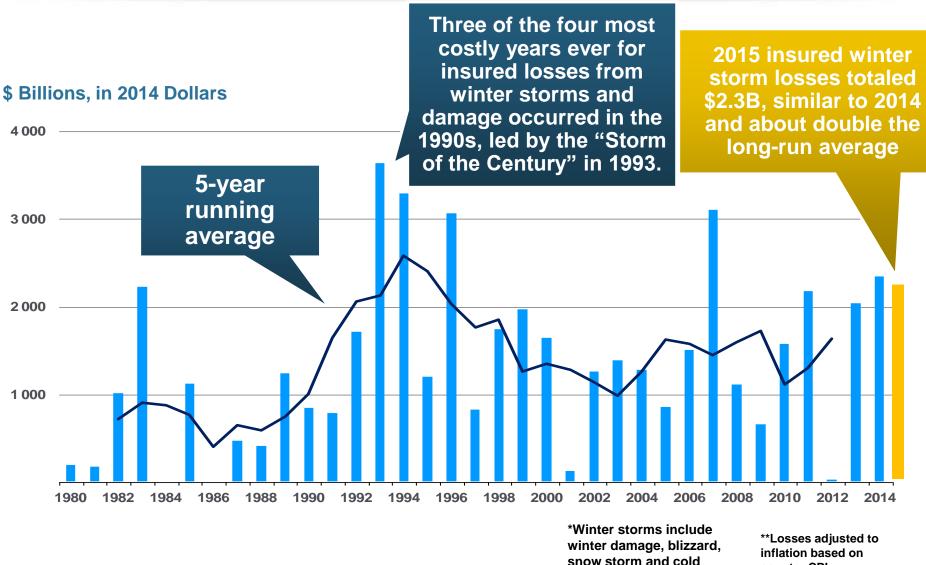
Top 5 Insured Catastrophe Losses in 2015*





Winter Storm and Winter Damage Events in the US, 1980-2015 (2014 US\$)





wave

Natural Disaster Losses in the U.S., First Half 2015



As of July 1, 2015	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)*	
Severe Thunderstorm	38	66	7,000	5,100	
Winter Storms & Cold Waves	11	80	3,800	2,900	
Flood, Flash Flood	10	4	500	150	
Earthquake & Geophysical	1	-	-	-	
Tropical Cyclone	2	4	Loss est. in progress	Loss est. in progress	
Wildfire, Heat Waves, & Drought	18	-	1,300	Minor market loss	
Totals	80	154	12,600	8,200	

¹¹³

Natural Disaster Losses in the US, 2014 Based on perils



As of January, 2015	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)	
Severe Thunderstorm	62	98	17,000	12,300	
Winter Storm, winter damage, cold wave, snow storm	13	115	3,700	2,300	
Flood, flash flood, storm surge	20	5	1,800	500	
Earthquake & Geophysical, landslides	11	45	750	150	
Tropical Cyclone	2	1	95	Minor market losses	
Wildfire, Heat, & Drought	11	2	1,700	Minor market losses	
Totals	119	266	25,000	15,300	

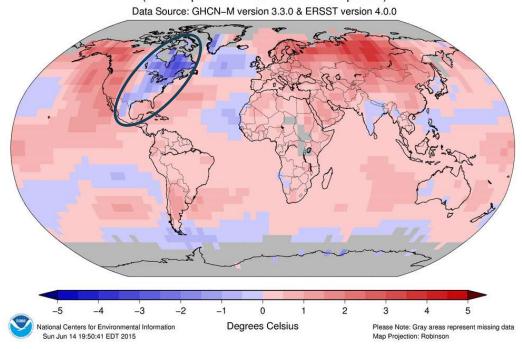
The World is Warmer...With One Big Exception!



HIGHLIGHTS

- 2014 was the warmest year across global land and ocean surfaces since records began in 1880.
- 9 of the 10 warmest years in the 135-year period of record have occurred in the 21st century. 1998 currently ranks as the fourth warmest year on record.
- January to May 2015 warmest first five months on record!

Land & Ocean Temperature Departure from Average Jan–May 2015 (with respect to a 1981–2010 base period)



Top 11 Insured Loss Events from Riots and Civil Commotion



Year	Deaths	Date	State	Insured Loss When Occurred	Insured Losses (2014 \$MM)
1992	14	Apr 29 - May 4	CA	775,000,000	1,307.7
1980	62	May 17 - 19	FL	65,250,000	187.5
1967	48	Jul 23 - 31	MI	41,500,000	294.2
1965	87	11-Aug	CA	38,000,000	285.6
1977	99	Jul 13 - 14	NY	28,000,000	109.4
1967	47	Jul 12 - 21	NJ	11,000,000	78.0
1966	20	12-Jul	IL	4,000,000	29.2
2015	0	Apr 18 – May 1	MD	23,900,000	23.9*
1971	63	Jun 13 - 15	NM	3,000,000	17.5
1977	11	Jul 13 - 14	NY	2,000,000	7.8

April 2015 Baltimore riots were designated a PCS CAT event on April 29 (first PCS designation for a riot in 23 years) as of 6/10/15 insured losses totaled \$23.9 million (2014 Ferguson riots did not receive PCS designation)

^{*}As of 6/10/15.

Insurance Coverage for Riots and Civil Commotions: Home, Auto and Business



- Auto, homeowners, and business insurance policies generally include coverage for property losses caused by riots and civil commotions
- Homeowners policies pay to repair, or rebuild, an insured home if its structure is damaged or destroyed as the result of a riot or civil commotion, as well as to replace the homeowner's personal belongings if they are damaged or stolen during the event.
 - If the home is rendered uninhabitable by the damage caused by a riot or civil commotion, policyholders can file an additional living expenses (ALE) claim to finance their temp. housing expenses until the residence has been repaired.
- The optional comprehensive coverage on an auto insurance policy reimburses losses to a vehicle due to damage caused by falling objects, fire, riots and vandalism, among other things.
- Standard business property insurance policies provide coverage for the structure of the building as well as the contents inside, and cover losses arising from riots or civil commotion. Business interruption (BI) coverage, whereby the policyholder can file a claim for lost income, is usually only triggered when the insured business incurs direct physical damage.

Loss events in the US, 1980 – 2014

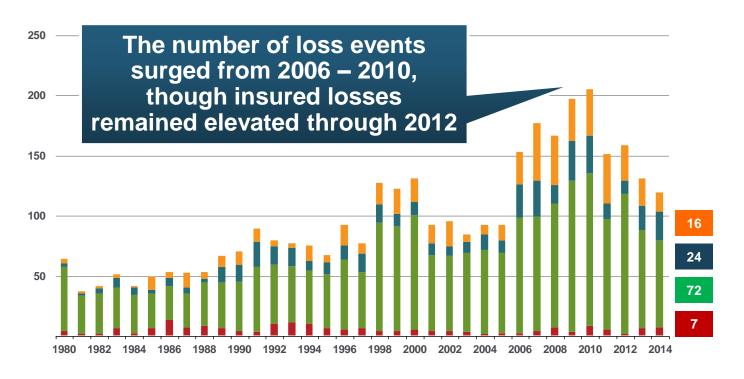
Number of events



Number of Events

2014 Total: 119 Events

2015 First Half: 80 Events



- Geophysical events (Earthquake, tsunami, volcanic activity)
- Meteorological events
 (Tropical storm,
 extratropical storm,
 convective storm,
 local storm)
- Hydrological events (Flood, mass movement)
- Climatological events (Extreme temperature, drought, forest fire)

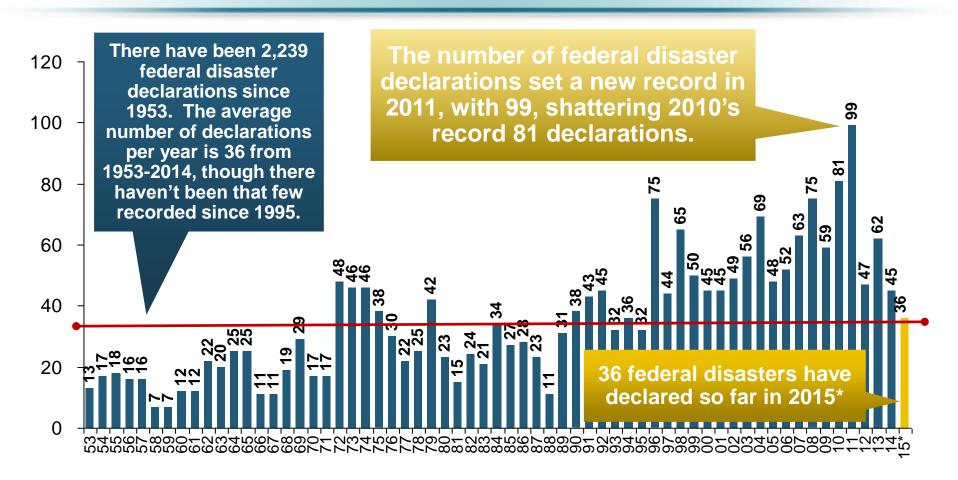


Federal Disaster Declarations Patterns: 1953-2015

Disaster Declarations Set New Records in Recent Years

Number of Federal Major Disaster Declarations, 1953-2015*



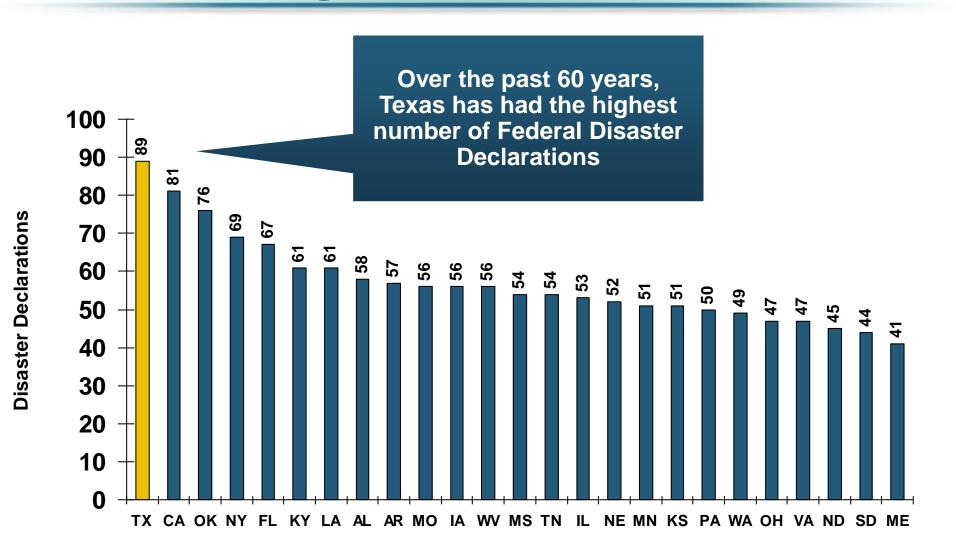


The Number of Federal Disaster Declarations Is Generally Rising and Set New Records in 2010 and 2011 Before Dropping in 2012-2014

^{*}Through October 3, 2015.

Federal Disasters Declarations by State, 1953 – 2015: Highest 25 States*



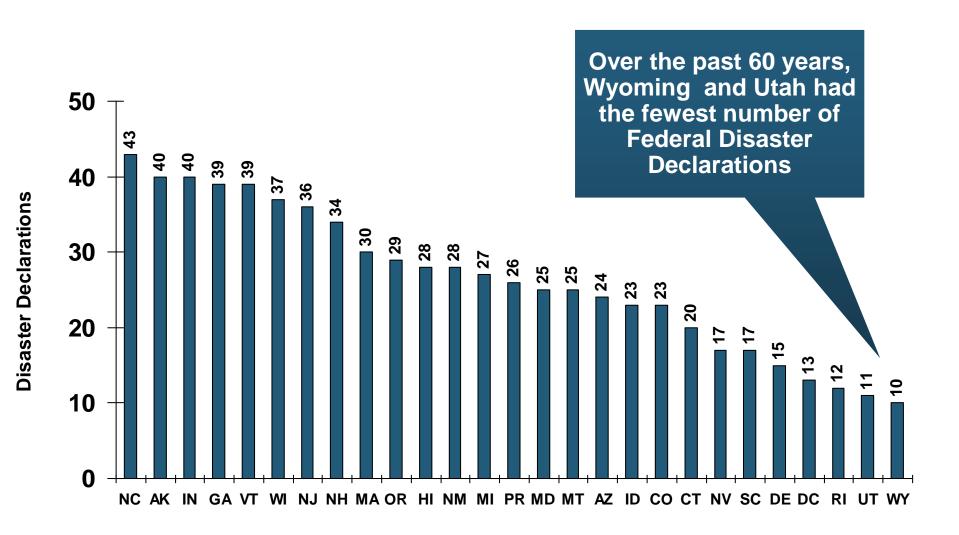


^{*}Through Oct. 3, 2015. Includes Puerto Rico and the District of Columbia.

Source: FEMA: http://www.fema.gov/news/disaster_totals_annual.fema; Insurance Information Institute.

Federal Disasters Declarations by State, 1953 – 2015: Lowest 25 States*





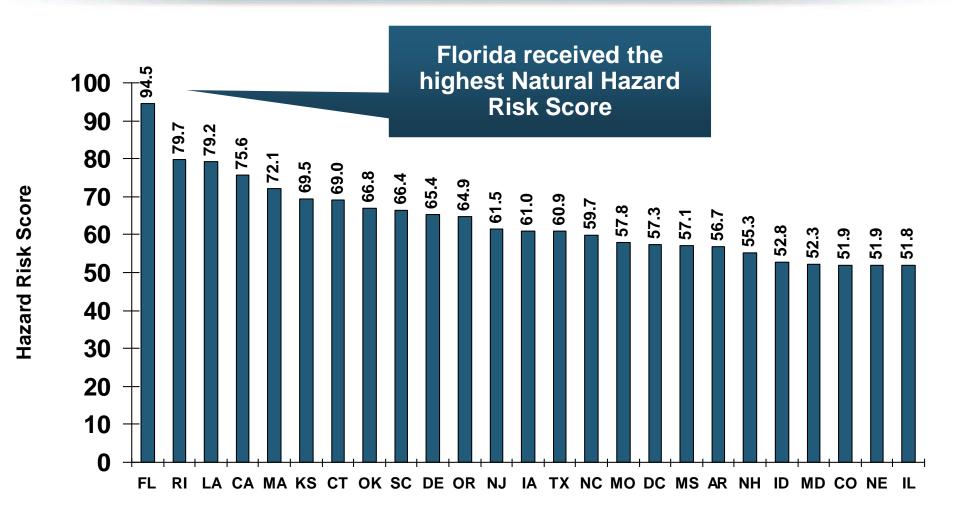
^{*}Through Oct. 3, 2015. Includes Puerto Rico and the District of Columbia.

Source: FEMA: http://www.fema.gov/news/disaster_totals_annual.fema; Insurance Information Institute.

Natural Hazard Risk Scores, 2014 Highest 25 States*



123



Note: Score is based on data on 9 natural hazards: flood, wildfire, tornado, storm surge, earthquake, straight-line wind, hurricane, wind, hail and sinkhole.

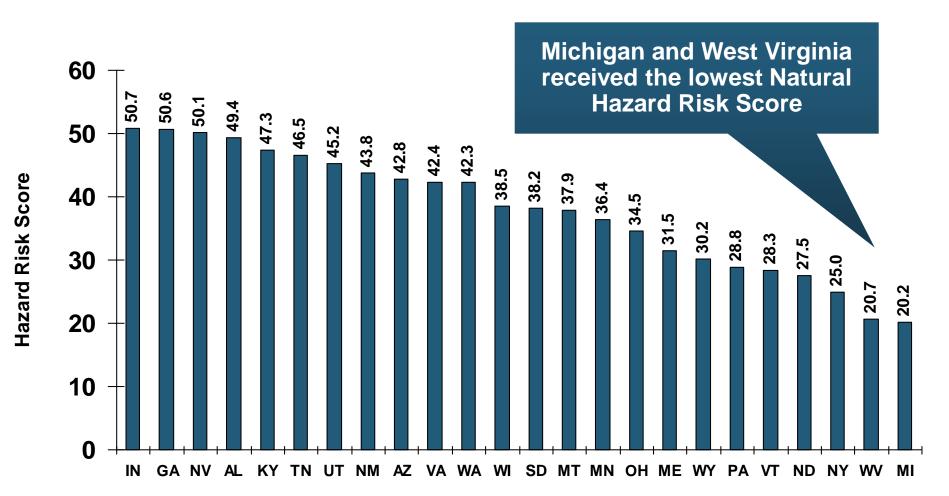
Sources: CoreLogic release "CoreLogic Identifies US States at Highest Risk of Property Damage Loss from Natural Hazards," Sept. 10, 2014; Insurance Information Institute.

^{*}Analysis Includes DC. Excludes Alaska and Hawaii due to limited natural hazard risk data.

Natural Hazard Risk Scores, 2014 Bottom 24 States*



124



Note: Score is based on data on 9 natural hazards: flood, wildfire, tornado, storm surge, earthquake, straight-line wind, hurricane, wind, hail and sinkhole.

Sources: CoreLogic release "CoreLogic Identifies US States at Highest Risk of Property Damage Loss from Natural Hazards," Sept. 10, 2014; Insurance Information Institute.

^{*}Analysis Includes DC. Excludes Alaska and Hawaii due to limited natural hazard risk data.

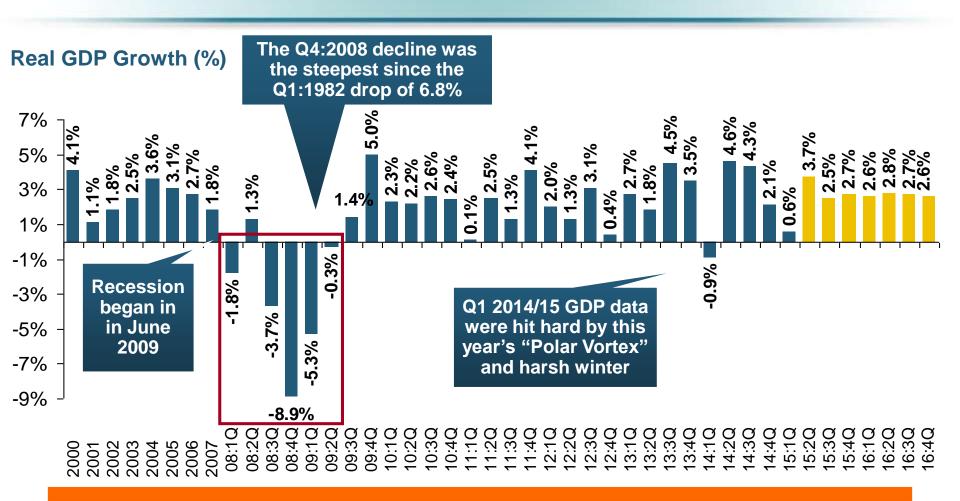


The Strength of the Economy Will Influence P/C Insurer Growth Opportunities

Growth Will Expand Insurer Exposure Base Across Most Lines

US Real GDP Growth*



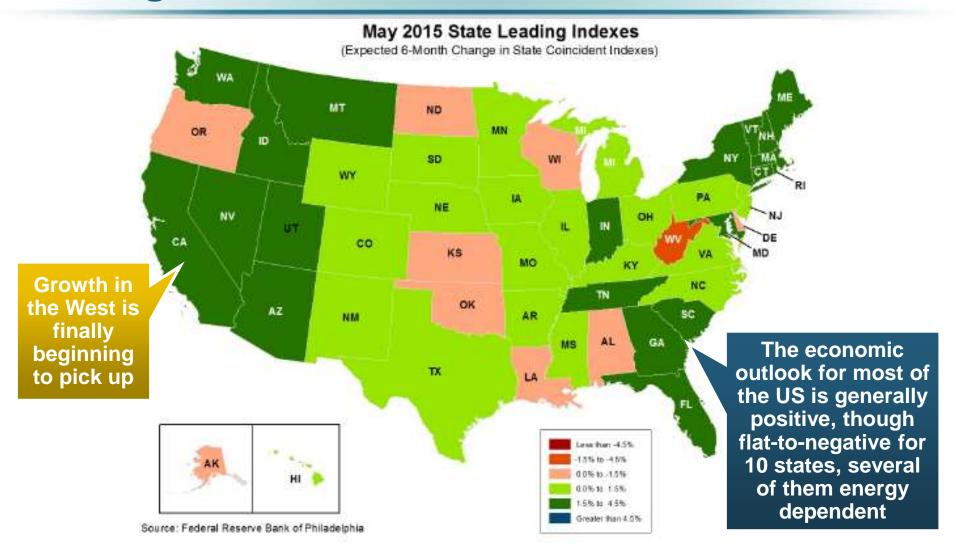


Demand for Insurance Should Increase in 2015 as GDP Growth Accelerates Modestly and Gradually Benefits the Economy Broadly

^{*} Estimates/Forecasts from Blue Chip Economic Indicators.

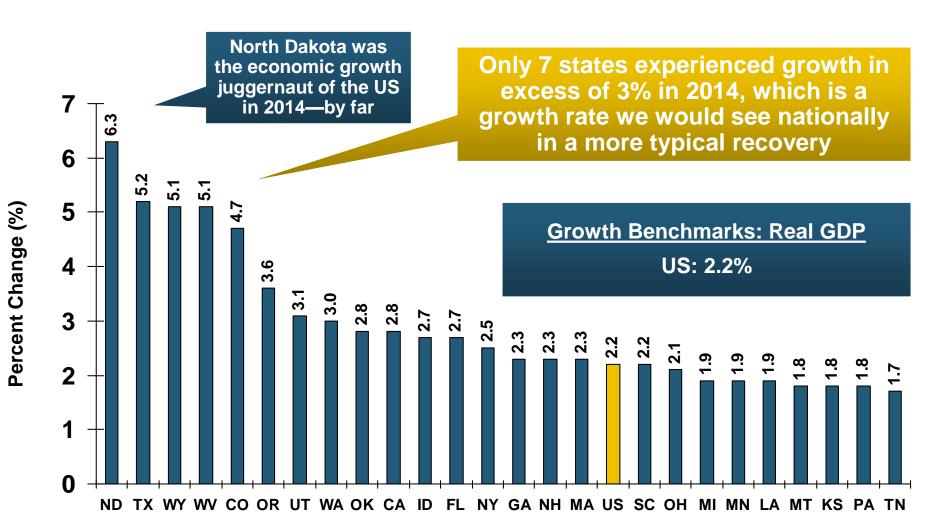
State Leading Economic Indicators through November 2015





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

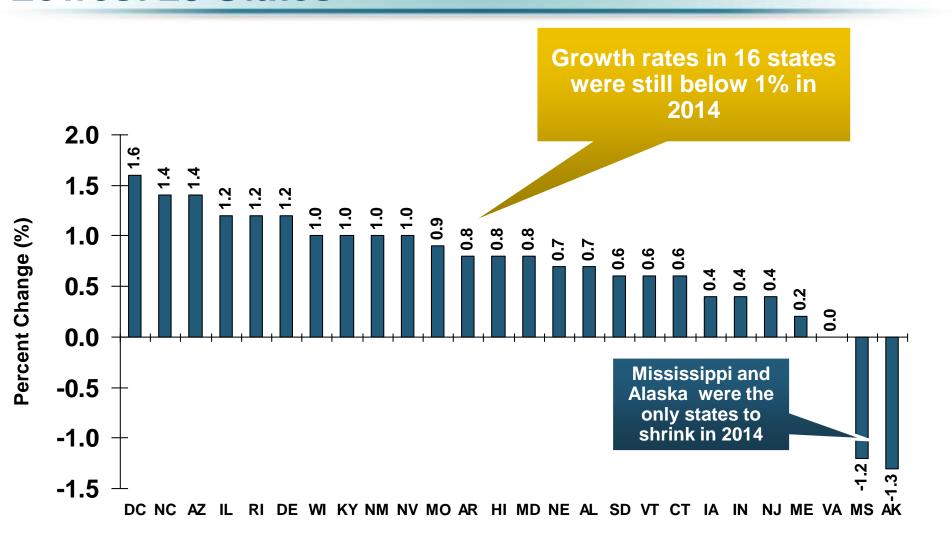




^{*}Advance statistics

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

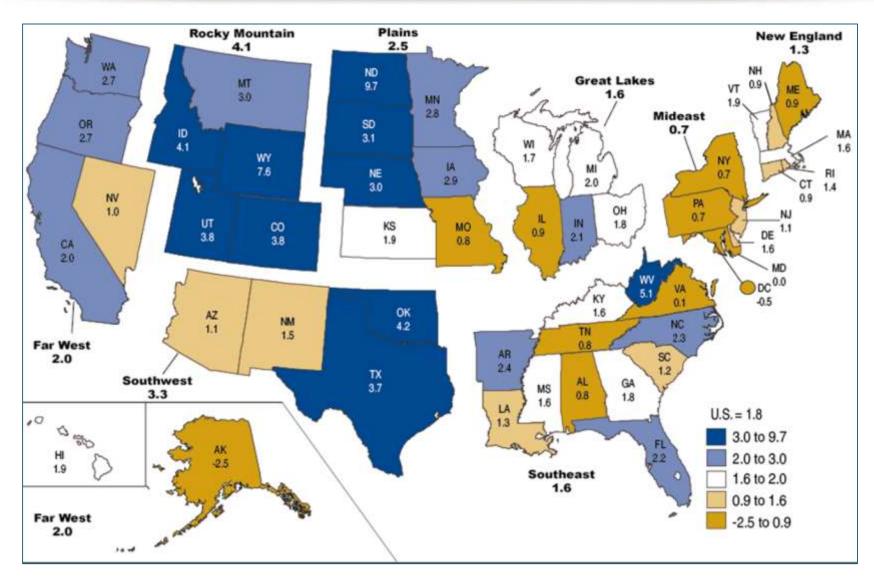




^{*}Advance statistics
Sources: <u>US Bureau of Economic Analysis</u>; Insurance Information Institute.

Percent Change in Real GDP by State, 2013 INSURANCE INFORMATION INSTITUTE







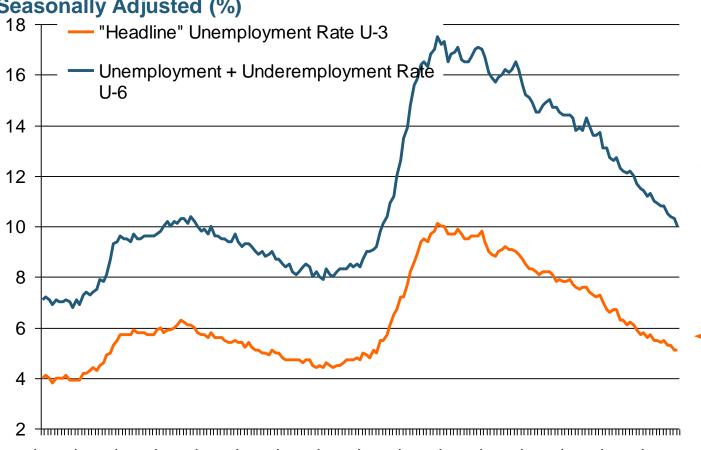
Labor Market Trends

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

Unemployment and Underemployment Rates: Still Too High, But Falling







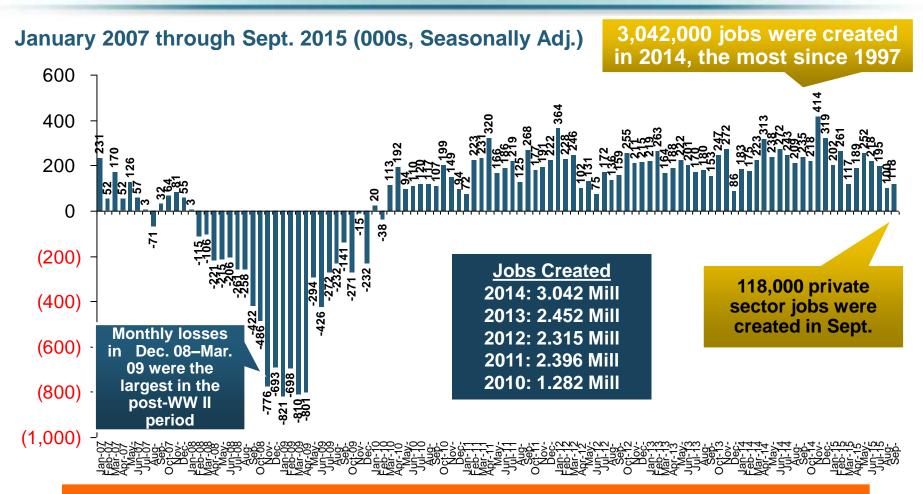
U-6 soared from 8.0% in March 2007 to 17.5% in October 2009; Stood at 10.0% in Sept. 2015. 8% to 10% is "normal."

"Headline" unemployment was 5.1% in Sep. 2015. 4.5% to 5.5% is "normal."

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

Monthly Change in Private Employment

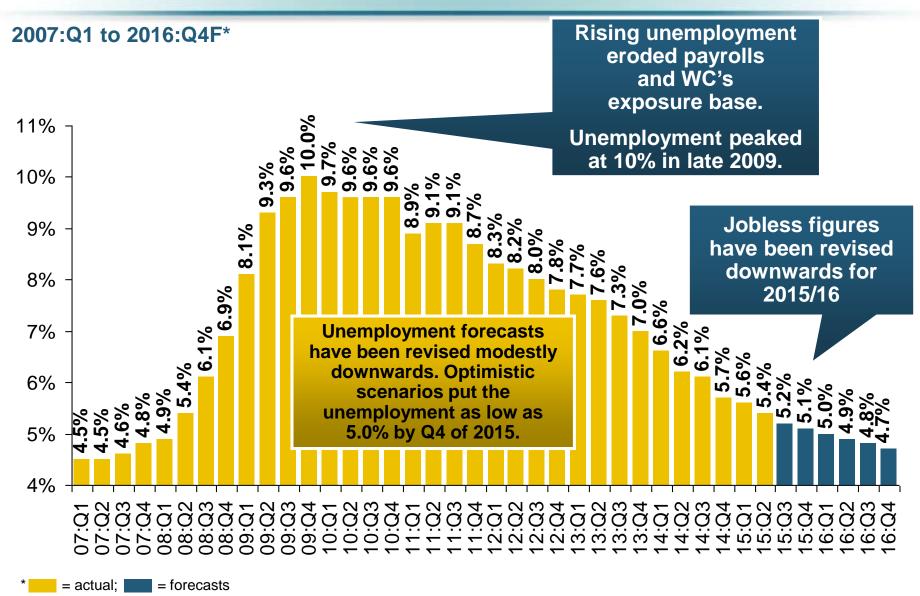




Private Employers Added 13.03 Million Jobs Since Jan. 2010 After Having Shed 5.01 Million Jobs in 2009 and 3.76 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

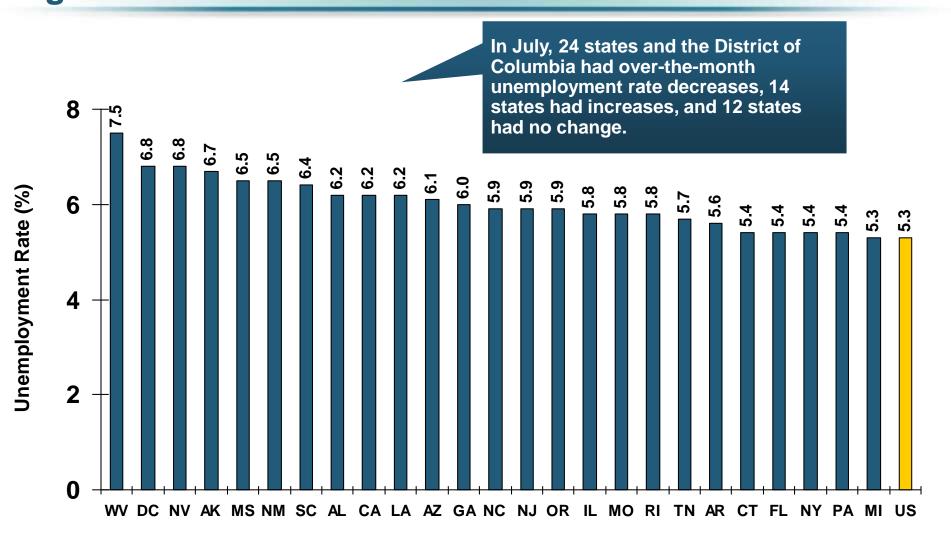
US Unemployment Rate Forecast





Unemployment Rates by State, July 2015: Highest 25 States*

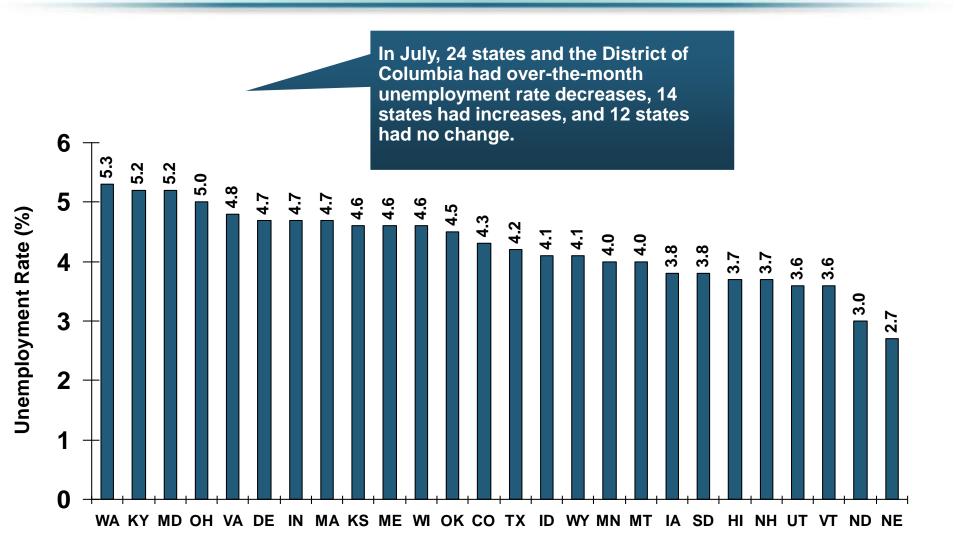




^{*}Provisional figures for July 2015, seasonally adjusted.
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

Unemployment Rates by State, July 2015: Lowest 25 States*





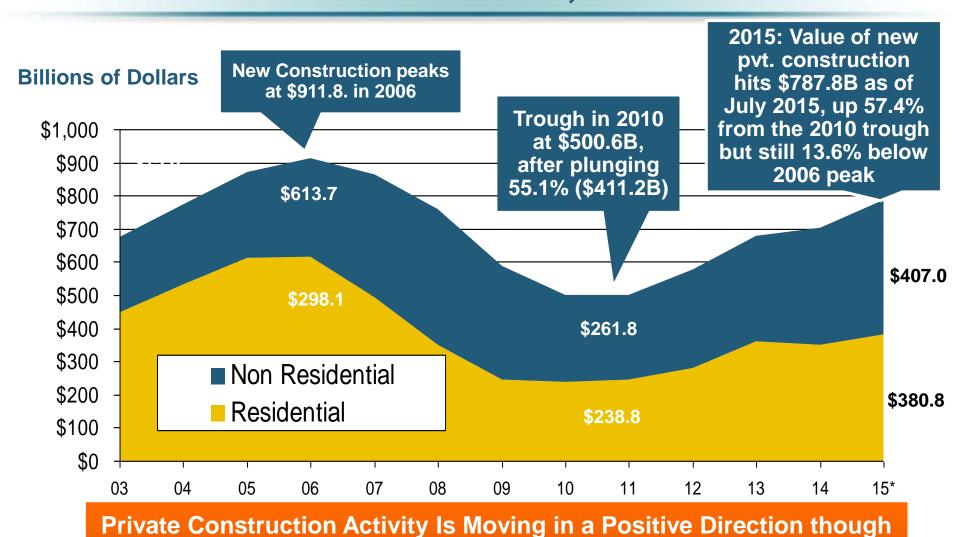


CONSTRUCTION INDUSTRY OVERVIEW & OUTLOOK

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

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



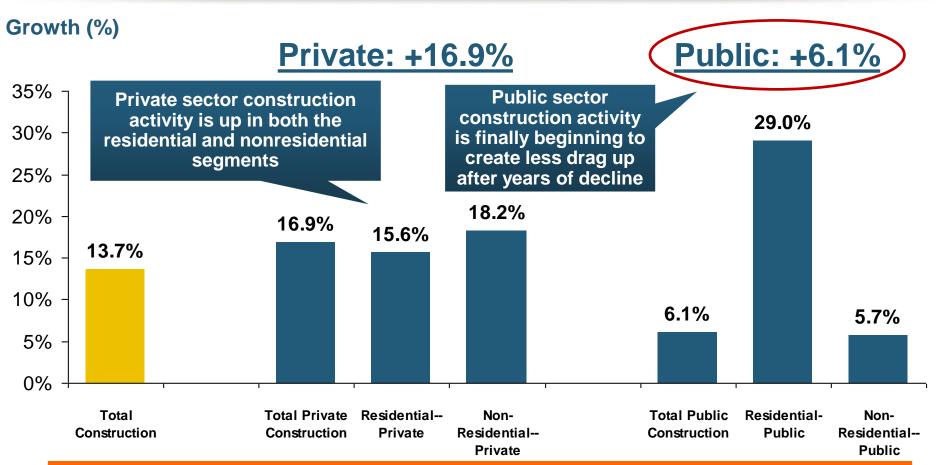


Remains Well Below Pre-Crisis Peak; Residential Dominates

^{*2015} figure is a seasonally adjusted annual rate as of July.

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



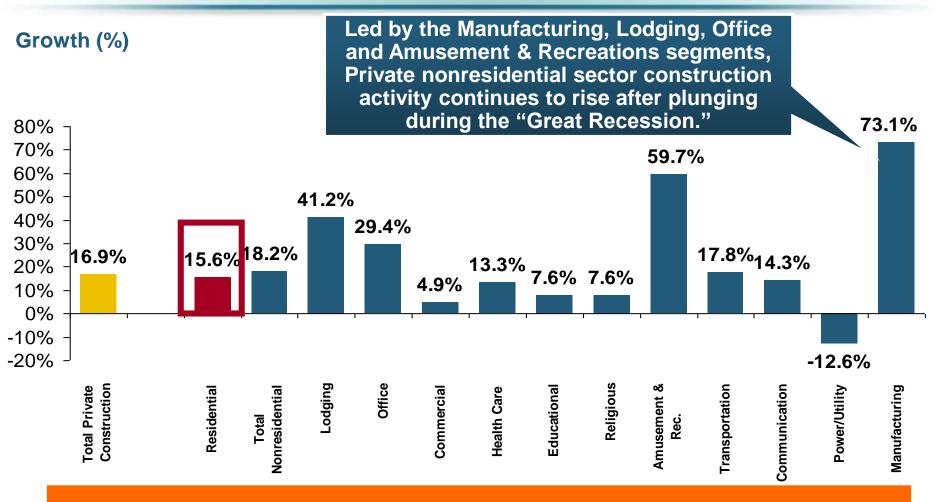


Overall Construction Activity is Up Again After Languishing in Early 2015; State/Local Sector Government Sector May Be Recovering as Budget Woes Ease in Some Jurisdictions

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

Value of Private Construction Put in Place, by Segment, July 2015 vs. July 2014*



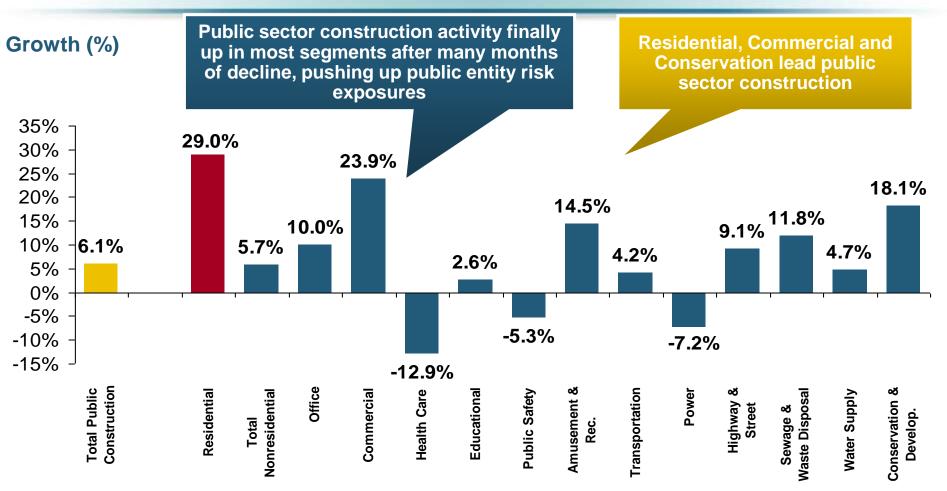


Private Construction Activity is Up in Most Segments in the Second Half of 2015; Expansion Should Continue

^{*}seasonally adjusted

Value of Public Construction Put in Place, by Segment, July 2015 vs. July 2014*

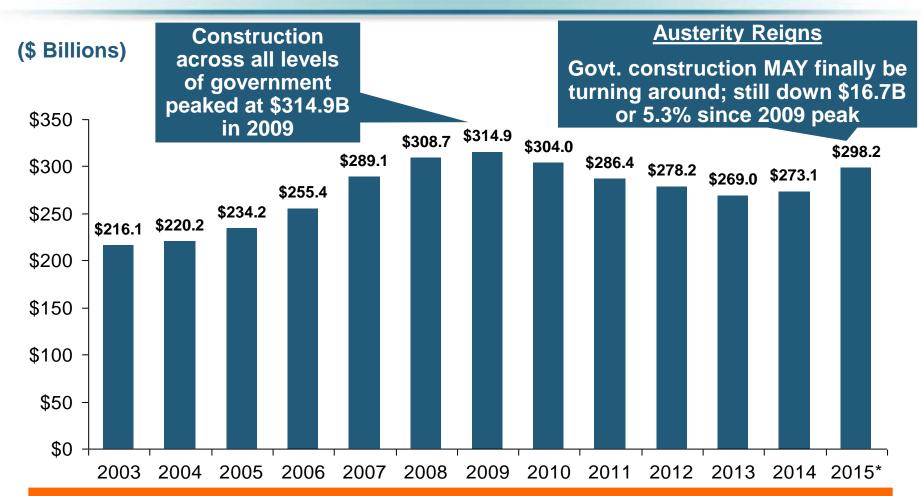




Public Construction Activity is Beginning to Recover from its Long Contraction which Will Drive Demand in Many Commercial Insurance Lines

Value of New Federal, State and Local Government Construction: 2003-2015*



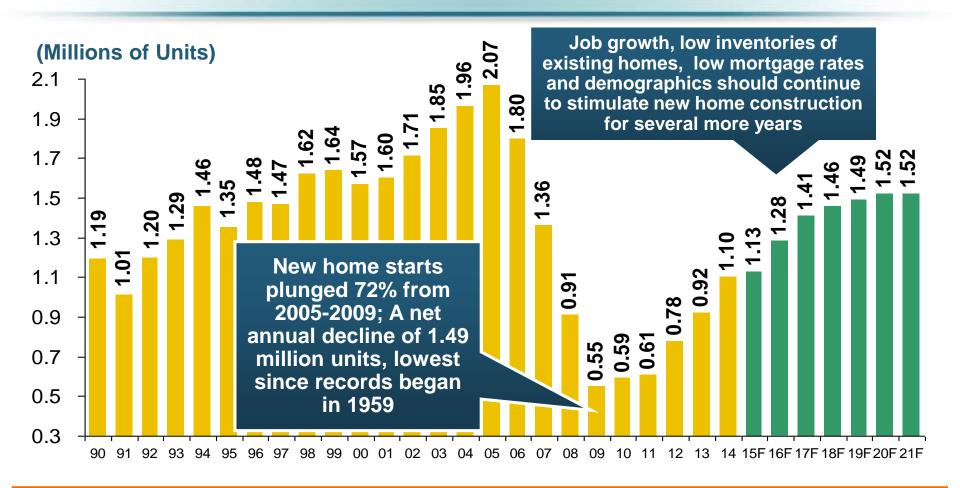


Government Construction Spending Peaked in 2009, Helped by Stimulus Spending, but Contracted As State/Local Governments Grappled with Deficits and Federal Sequestration; Only Now Recovering

^{*2015} figure is a seasonally adjusted annual rate as of June; http://www.census.gov/construction/c30/historical_data.html Sources: US Department of Commerce; Insurance Information Institute.

New Private Housing Starts, 1990-2021F

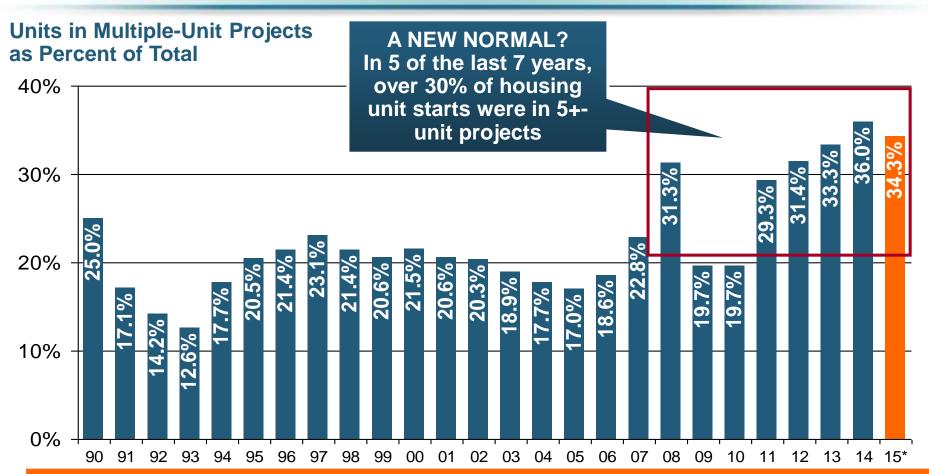




Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the "Great Recession" Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure

U.S.: Pct. Of Private Housing Unit Starts In Multi-Unit Projects, 1990-2015



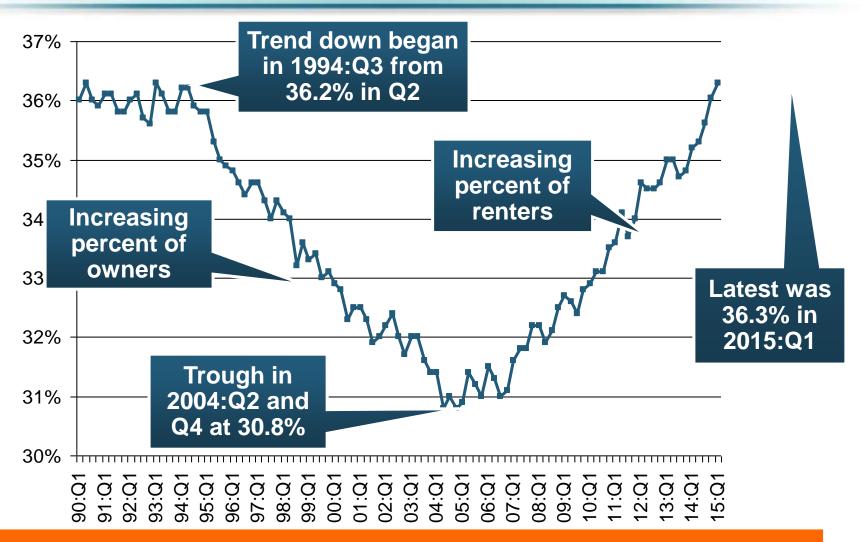


For the U.S. as a whole, the trend toward multi-unit housing projects (vs. single-unit homes) is recent. Commercial insurers with Workers Comp, Construction risk exposure, and Surety benefit.

^{*}January through April 2015; April is preliminary; calculations based on seasonally adjusted at annual rates Sources: U.S. Census Bureau, New Residential Construction in April 2015 and earlier releases; next release June 16, 2015; Insurance Information Institute calculations.

Rental-Occupied Housing Units as % of Total Occupied Units, Quarterly, 1990:Q1-2015:Q1



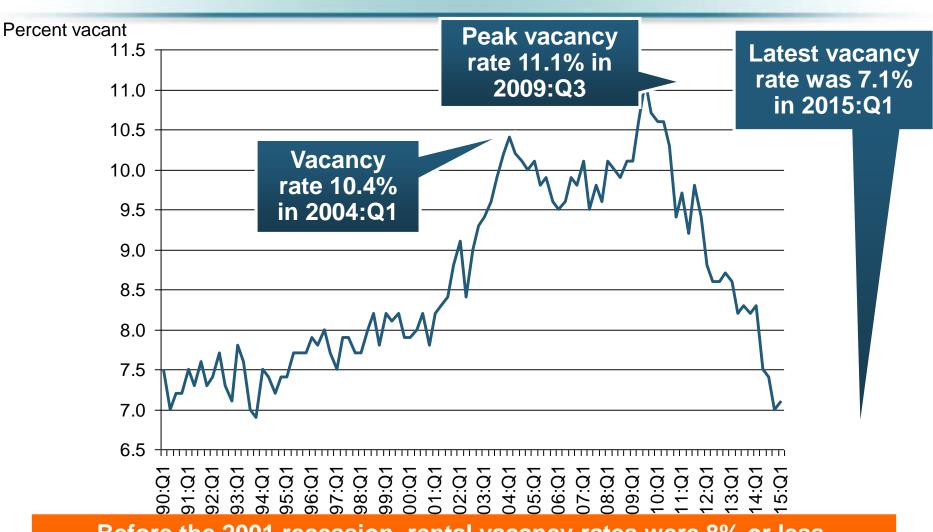


Since the Great Recession ended in June 2009, renters occupied 5.7 million more units (+15.6%).

Sources: US Census Bureau, Residential Vacancies & Home Ownership in the First Quarter of 2015 (released April 28, 2015) and earlier issues; Insurance Information Institute. Next Census Bureau report to be released on July 28, 2015.

Rental Vacancy Rates, Quarterly, 1990:Q1-2015:Q1





Before the 2001 recession, rental vacancy rates were 8% or less. We're below those levels now. => More multi-unit construction?

Sources: US Census Bureau, Residential Vacancies & Home Ownership in the First Quarter of 2015 (released April 28, 2015) and earlier issues; Insurance Information Institute. Next Census Bureau report to be released on July 28, 2015.

Construction Employment, Jan. 2010—Sept. 2015*



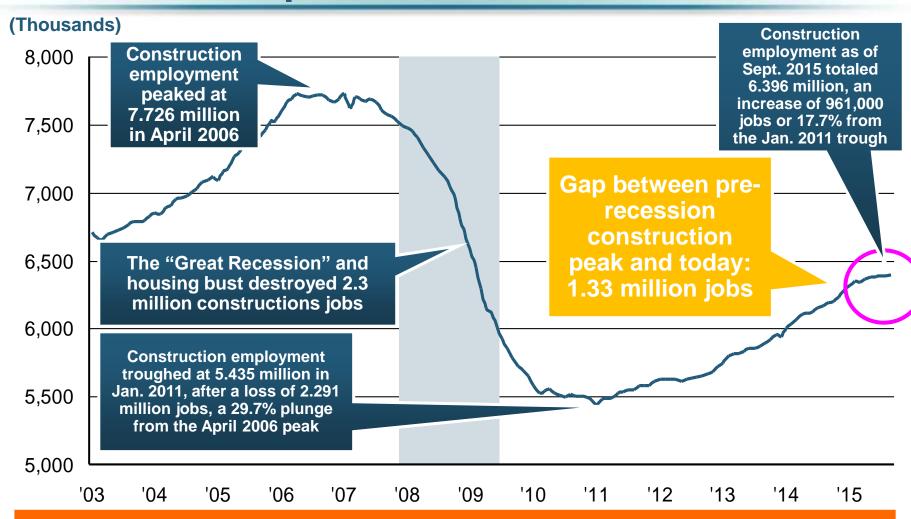


Construction and manufacturing employment constitute 1/3 of all WC payroll exposure.

^{*}Seasonally adjusted.

Construction Employment, Jan. 2003–Sept. 2015





The Construction Sector Was a Growth Leader in 2014-15 as the Housing Market, Private Investment and Govt. Spending Recover. WC Insurers Will Benefit.

Note: Recession indicated by gray shaded column.

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



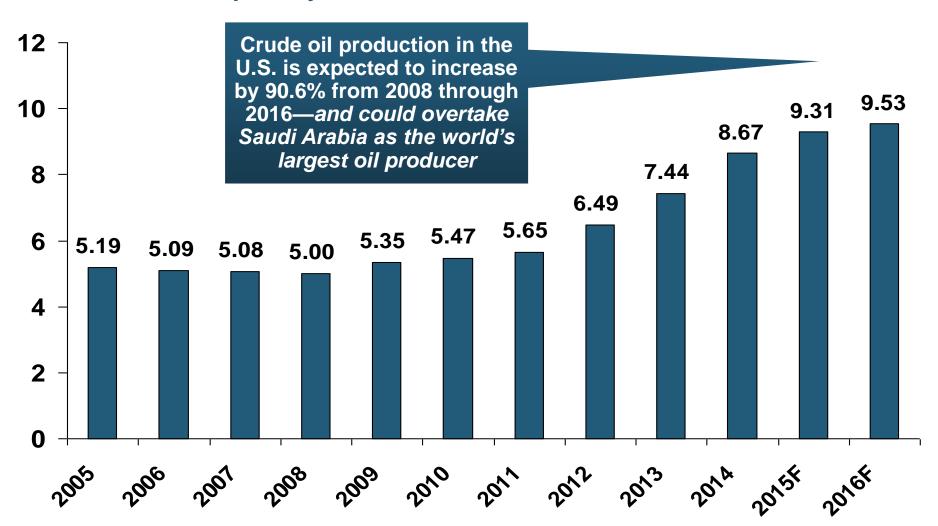
ENERGY SECTOR: OIL & GAS INDUSTRY FUTURE IS BRIGHT BUT VOLATILE

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

U.S. Crude Oil Production, 2005-2016P



Millions of Barrels per Day

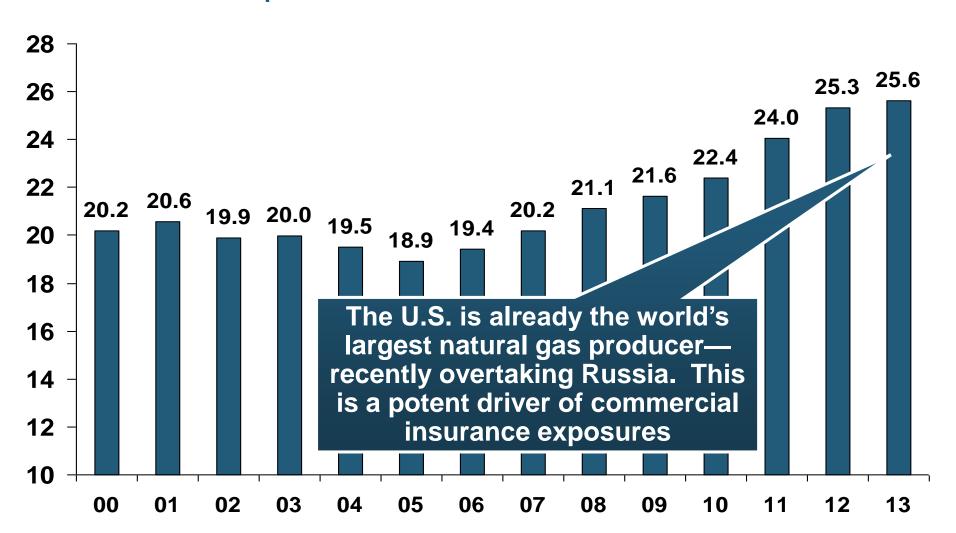


Source: Energy Information Administration, Short-Term Energy Outlook (January 15, 2015), Insurance Information Institute.

U.S. Natural Gas Production, 2000-2013



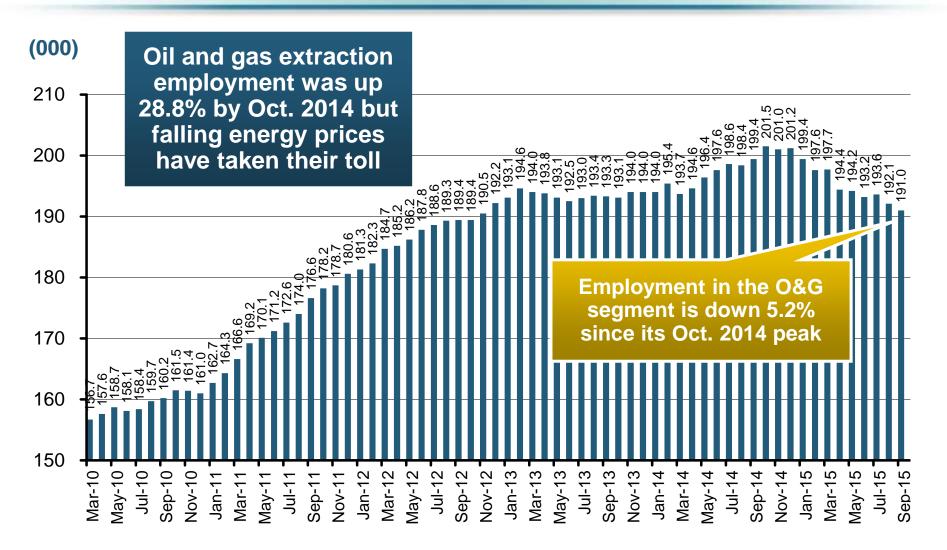
Trillions of Cubic Ft. per Year



Source: Energy Information Administration, Short-Term Energy Outlook (April 8, 2014), Insurance Information Institute.

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





^{*}Seasonally adjusted



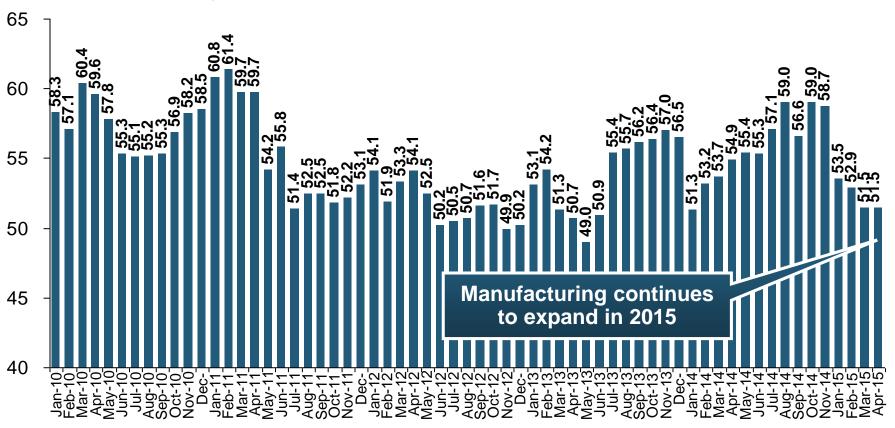
MANUFACTURING SECTOR OVERVIEW & OUTLOOK

The U.S. Is Experiencing a Mini Manufacturing Renaissance but Headwinds from Weak Export Markets and Strong Dollar

ISM Manufacturing Index (Values > 50 Indicate Expansion)



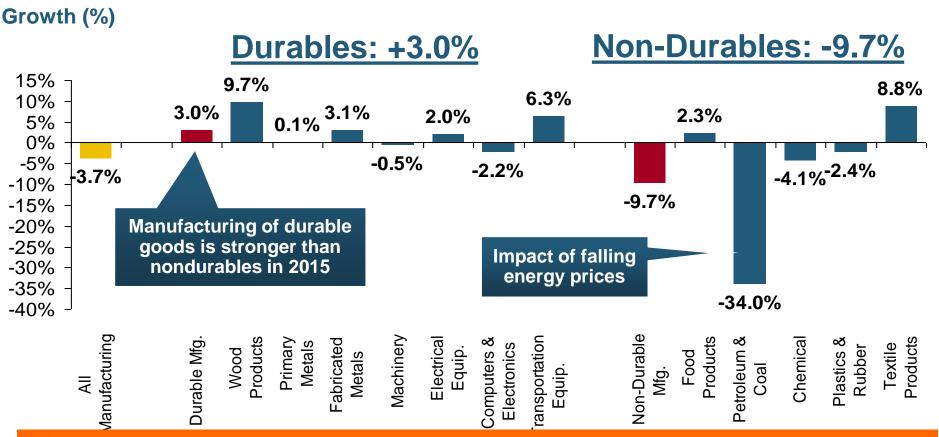
January 2010 through April 2015



The manufacturing sector expanded for 62 of the 64 months from Jan. 2010 through Apr. 2015. Pace of recovery has been uneven due to economic turbulence in the U.S., Europe and China and the high dollar.

Manufacturing Growth for Selected Sectors, 2015 vs. 2014*



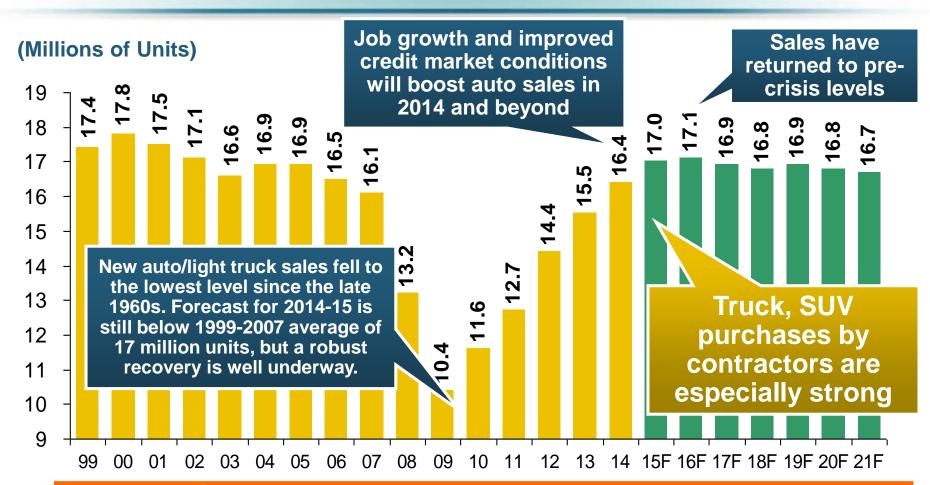


Manufacturing Is Expanding in Many Sectors But Declining Energy Prices Are Dragging Down Industry Figures. Continued Gortwh Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages

^{*}Seasonally adjusted; Date are YTD comparing data through February 2015 to the same period in 2014.
Source: U.S. Census Bureau, Full Report on Manufacturers' Shipments, Inventories, and Orders, http://www.census.gov/manufacturing/m3/ 155

Auto/Light Truck Sales, 1999-2021F

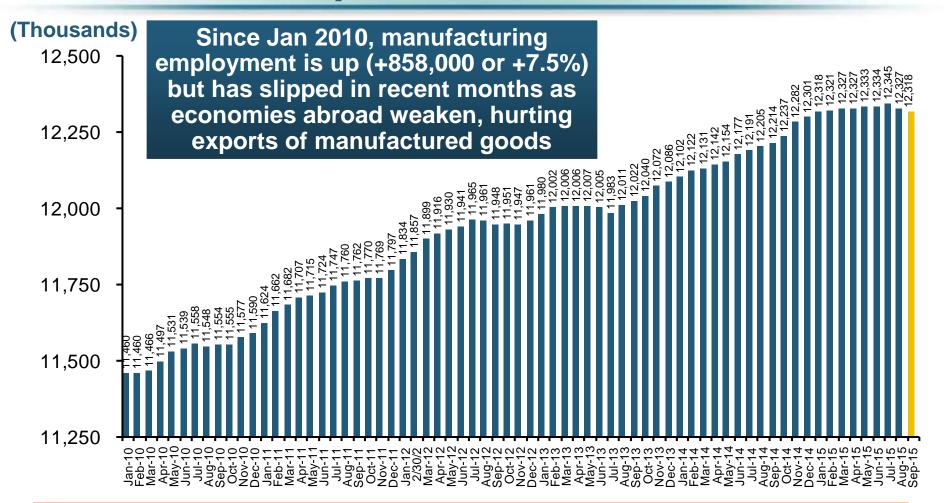




Yearly car/light truck sales will likely continue at current levels, in part replacing cars that were held onto in 2008-12. New vehicles will generate more physical damage insurance coverage but will be more expensive to repair. PP Auto premium might grow by 5% - 6%.

Manufacturing Employment, Jan. 2010—Sept. 2015*



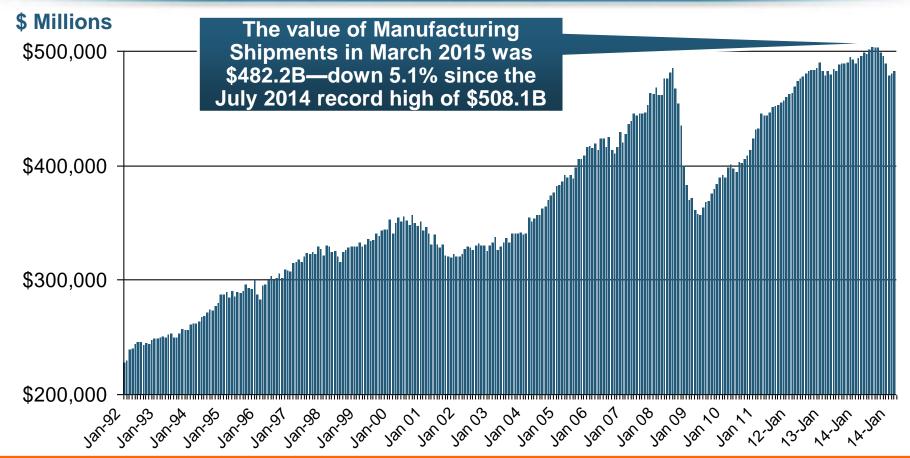


Manufacturing employment has been a surprising source of strength in the economy. Employment was at a multi-year high until recently.

^{*}Seasonally adjusted.

Dollar Value* of Manufacturers' Shipments Monthly, Jan. 1992—March 2015



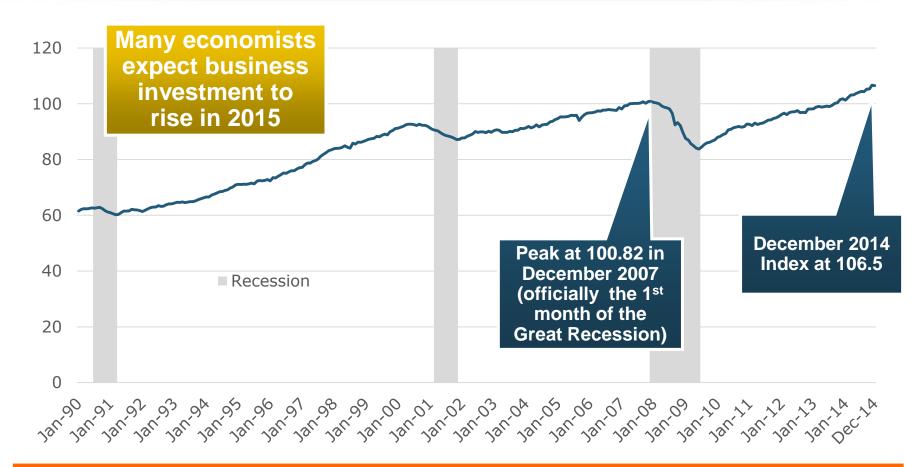


Monthly shipments in March 2015 are similar to pre-crisis (July 2008) peak but has declined in recent months due to the strong US dollar and weakness abroad. Manufacturing is energy-intensive and growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property, and various Liability Coverages.

^{*} Seasonally adjusted; Data published May 4, 2015.

Index of Total Industrial Production:* A Near Peak as of December 2014



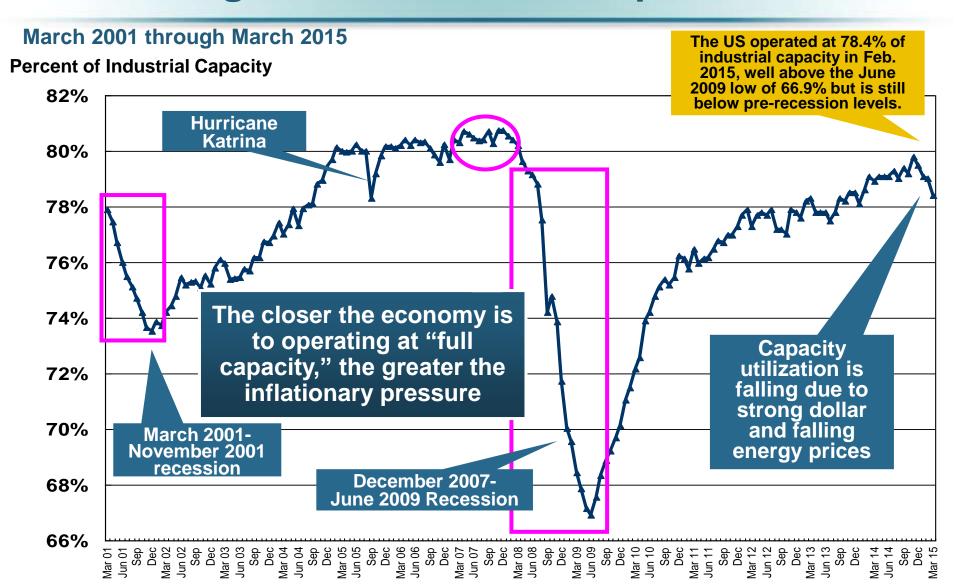


Insurance exposures for industrial production will continue growing in 2015, and commercial insurance premium volume with them. Y-o-Y growth to December 2014 was 4.6%. Both production and premium volume growth for 2015 should exceed this.

^{*}Monthly, seasonally adjusted, through December 2014 (which is preliminary). Index based on year 2007 = 100 Sources: Federal Reserve Board at http://www.federalreserve.gov/releases/g17/ipdisk/ip_sa.txt. National Bureau of Economic Research (recession dates); Insurance Information Institute.

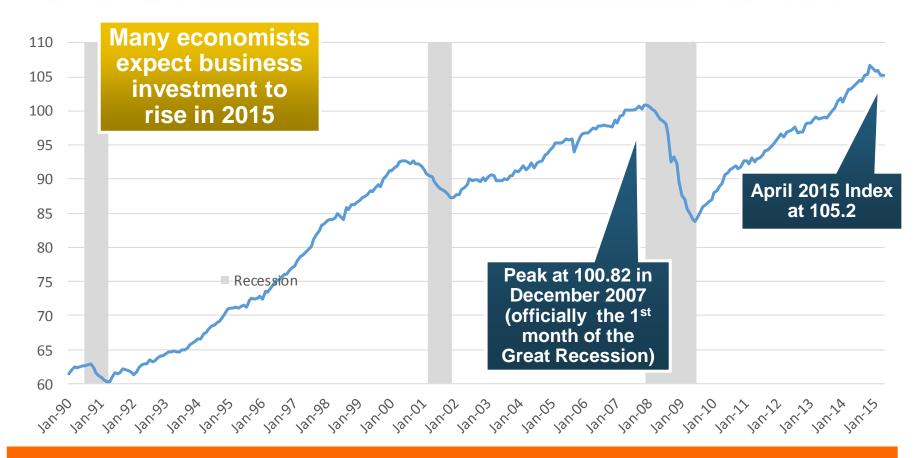
Recovery in Capacity Utilization is a Positive Sign for Commercial Exposures





Index of Total Industrial Production:* Strong Dollar Is a Headwind





Insurance exposures for industrial production will continue growing in 2015, and commercial insurance premium volume with them. Y-o-y growth to December 2014 was 4.6%. Both production and premium volume growth for 2015 should exceed this.

^{*}Monthly, seasonally adjusted, through March 2015 (which is preliminary). Index based on year 2007 = 100 Sources: Federal Reserve Board at http://www.federalreserve.gov/releases/g17/ipdisk/ip_sa.txt. National Bureau of Economic Research (recession dates); Insurance Information Institute.

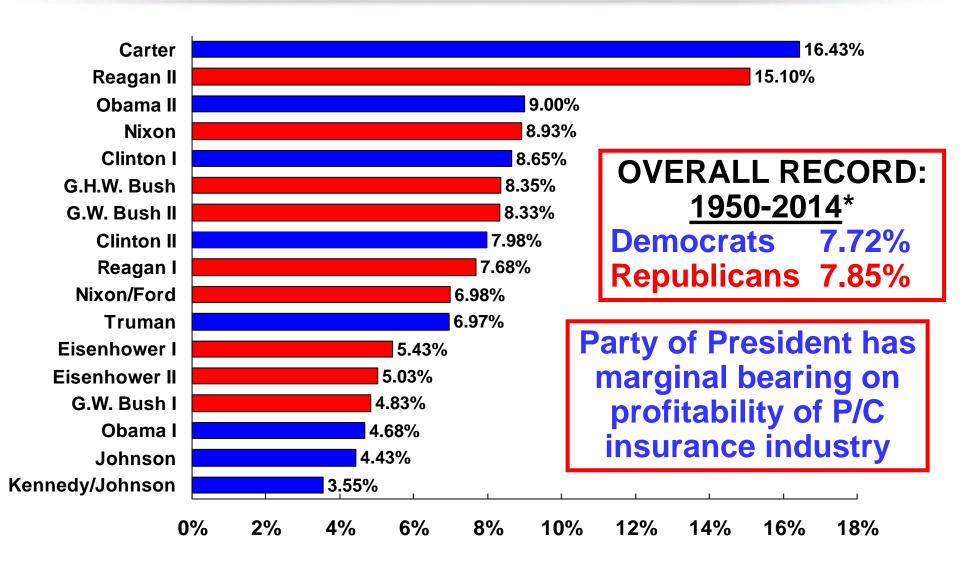


Profitability & Politics

How Is Profitability Affected by the President's Political Party?

P/C Insurance Industry ROE by Presidential Administration, 1950-2014*

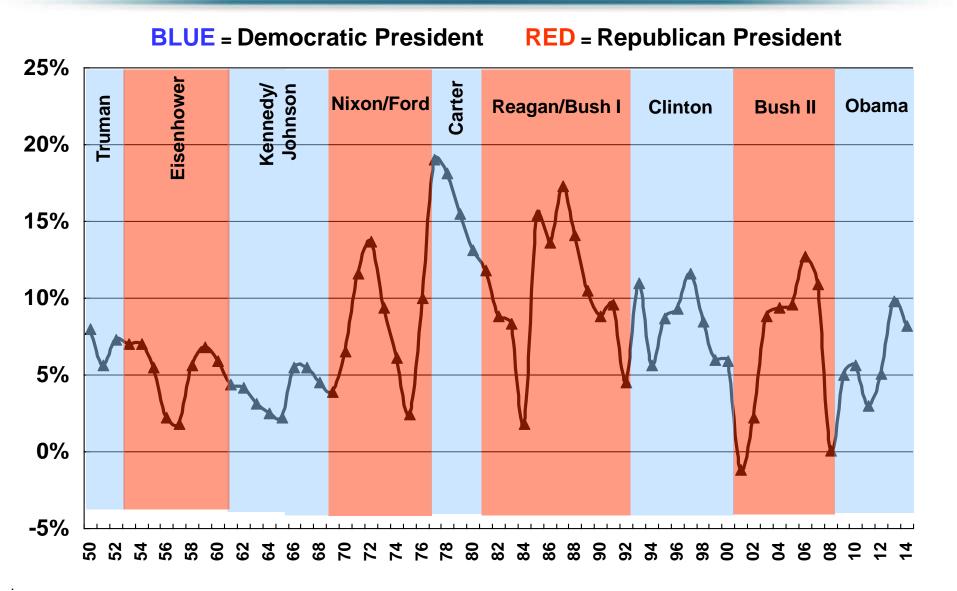




^{*}Truman administration ROE of 6.97% based on 3 years only, 1950-52;. Source: Insurance Information Institute

P/C insurance Industry ROE by Presidential Party Affiliation, 1950-2014







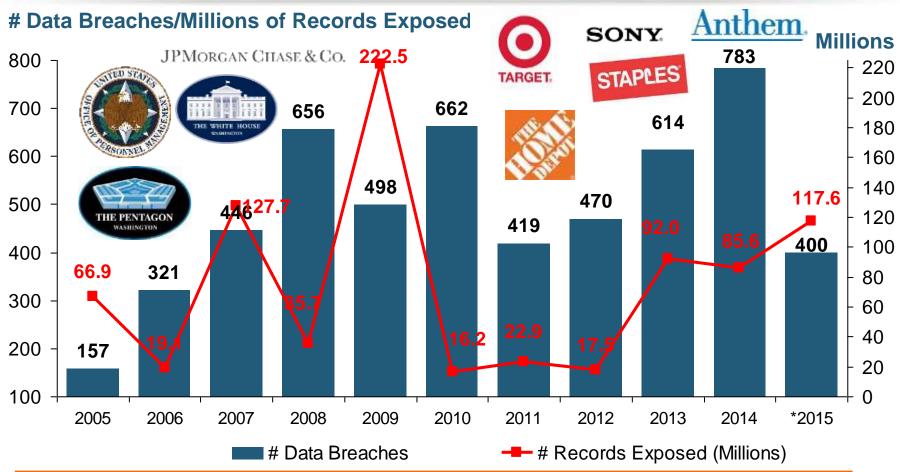
CYBER RISK & CYBER INSURANCE

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

> Nonprofits Including Religious Institutions Are Vulnerable

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





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

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

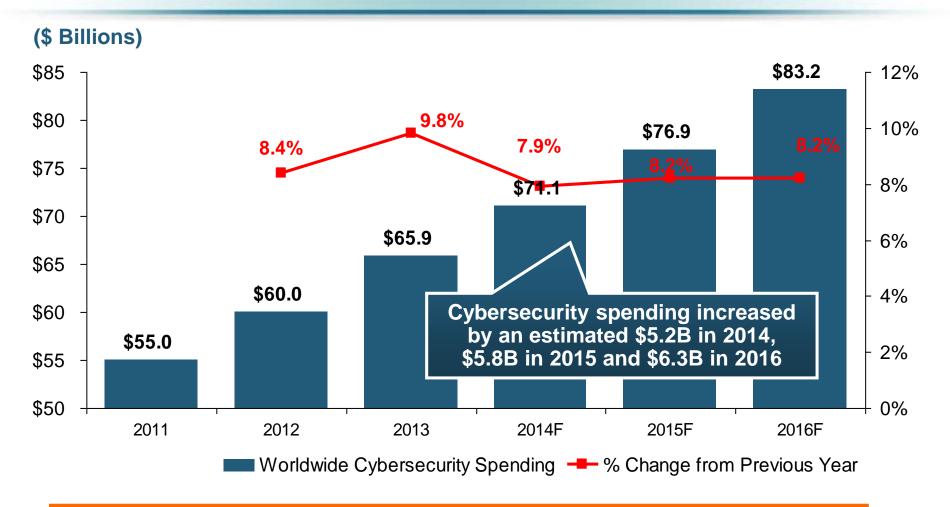
High Profile Data Breaches, 2014-2015



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

Worldwide Cybersecurity Spending, 2011- 2016F



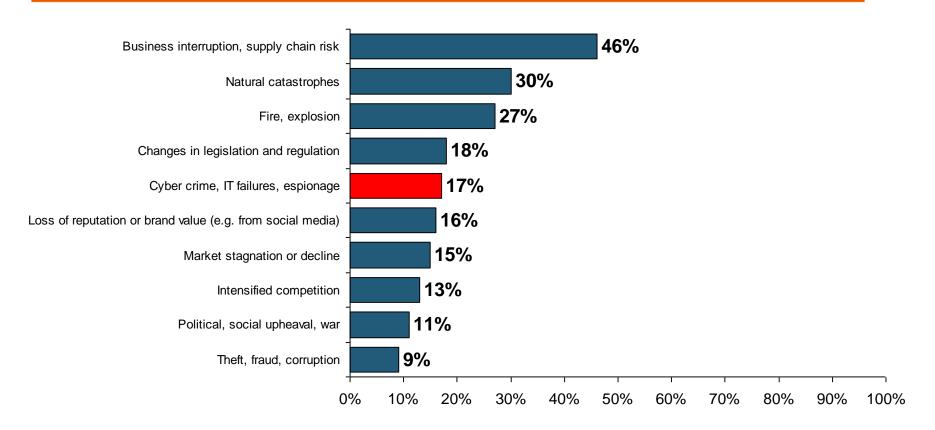


Cybersecurity Spending Is Rising Sharply, Up by About 8%+ Annually through 2016—a Projected Increase of \$12.1 Billion from 2014 to 2016

Top 10 Global Business Risks for 2015



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

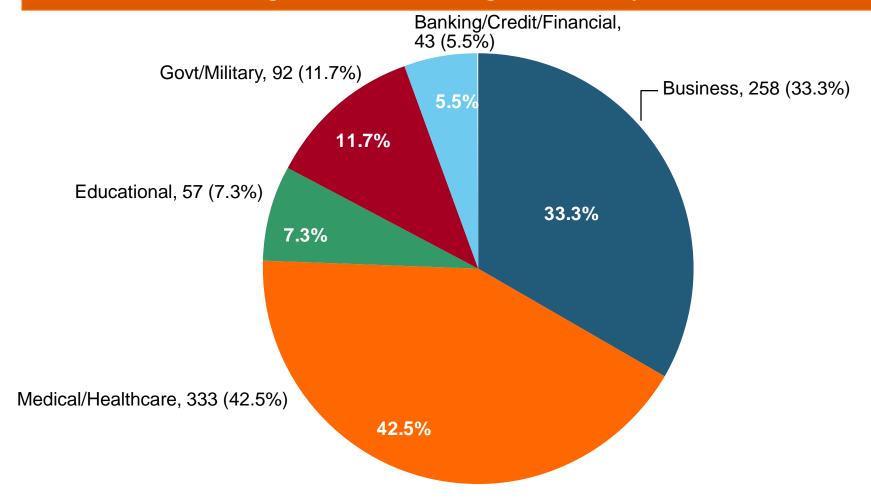


Source: Allianz Risk Barometer on Business Risks 2015

2014 Data Breaches By Business Category, By Number of Breaches



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



Evolving Threats: Cyber Crime and Cyber Terrorism



State sponsored groups:

- Foreign government sponsored
- Sophisticated and well-funded

Organized cyber criminals:

- Traditional organized crime groups
- Loosely organized global hacker crews

Hacktivists:

- Politically-motivated hackers
- Increasing capabilities

Insiders:

- Easy access to sensitive information
- Difficult to detect

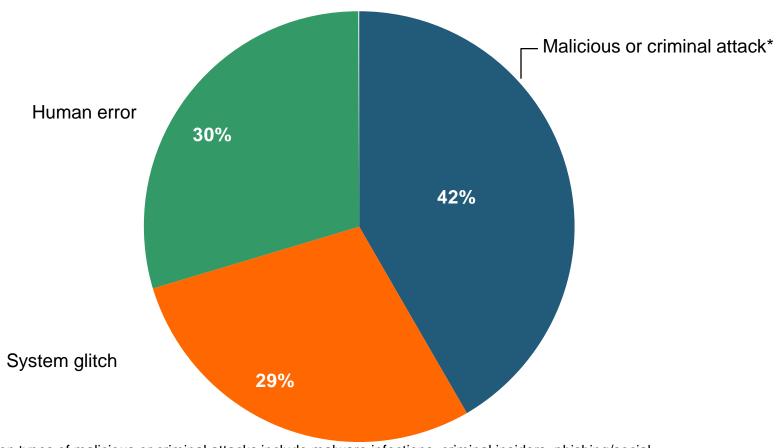
Terrorists:

Destruction of physical and digital assets

Main Causes of Data Breach Globally



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



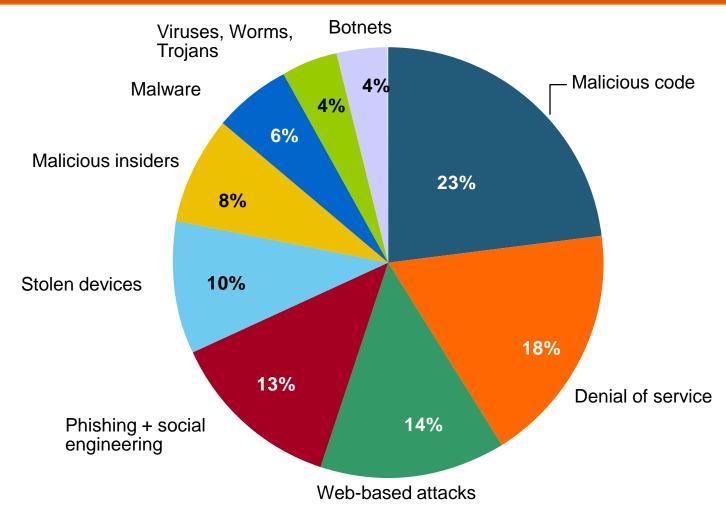
^{*}The most common types of malicious or criminal attacks include malware infections, criminal insiders, phishing/social engineering and SQL injection.

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

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



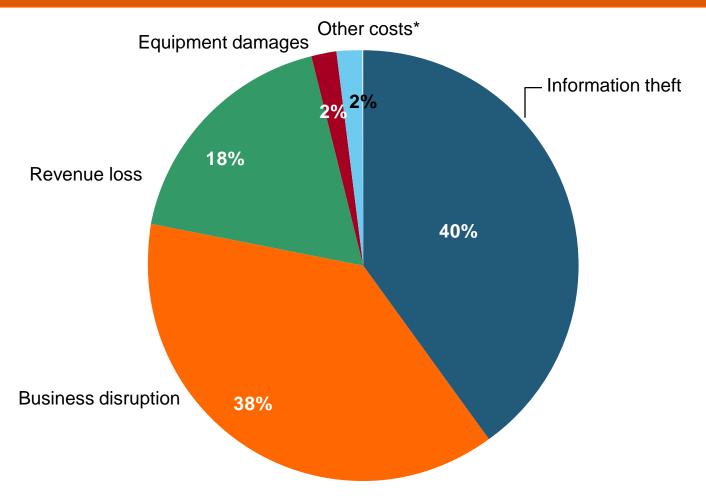
Malicious code, denial of service and web-based attacks account for more than 55 percent of the total annualized cost of cyber crime experienced by 59 U.S. companies.



US: External Cyber Crime Costs: Fiscal Year 2014



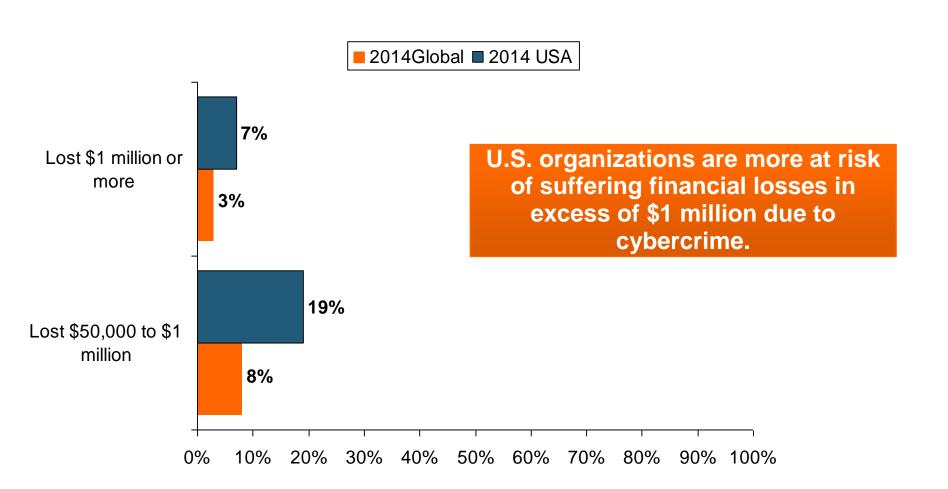
Information theft (40%) and business disruption or lost productivity (38%) account for the majority of external costs due to cyber crime.



^{*} Other costs include direct and indirect costs that could not be allocated to a main external cost category Source: 2014 Cost of Cyber Crime: United States, Ponemon Institute.

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

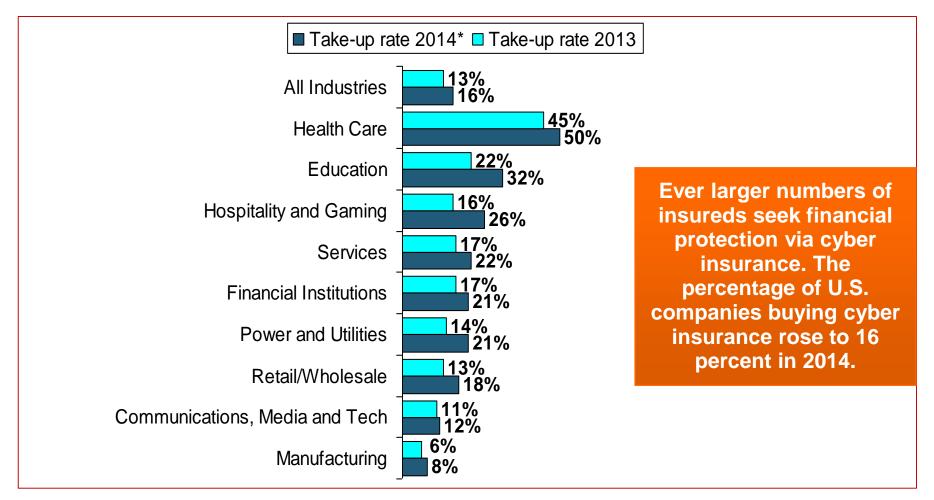




Source: 2014 Global Economic Crime Survey, PWC.

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



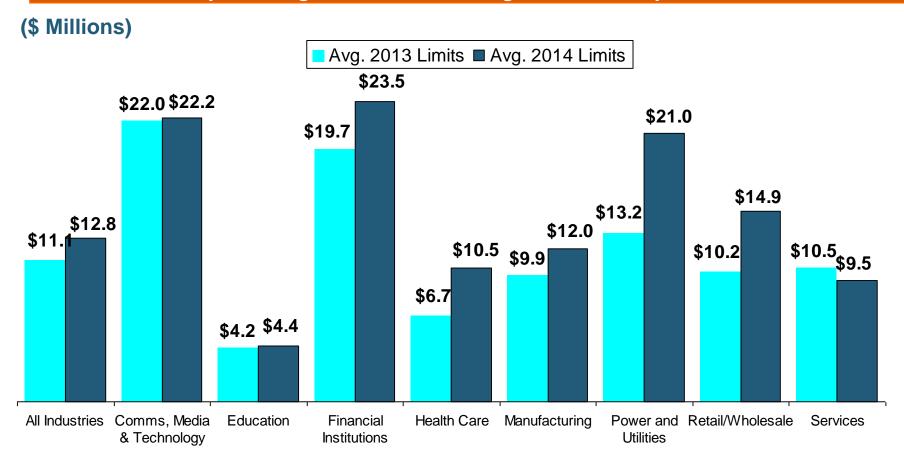


^{*}Take-up rate refers to the overall percentage of clients that purchased standalone cyber insurance. Source: *Benchmarking Trends: As Cyber Concerns Broaden, Insurance Purchases Rise*, Marsh Risk Management Research Briefing, March 2015

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



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

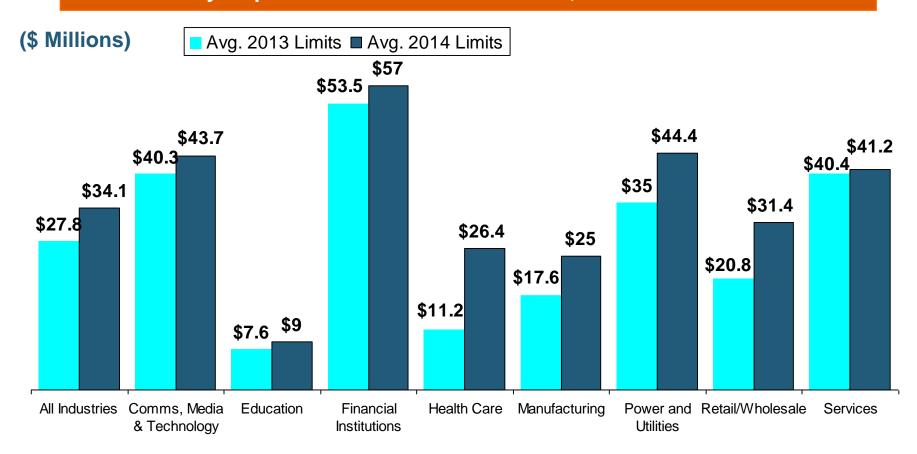


Source: Benchmarking Trends: As Cyber Concerns Broaden, Insurance Purchases Rise, Marsh Risk Management Research Briefing, March 2015

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



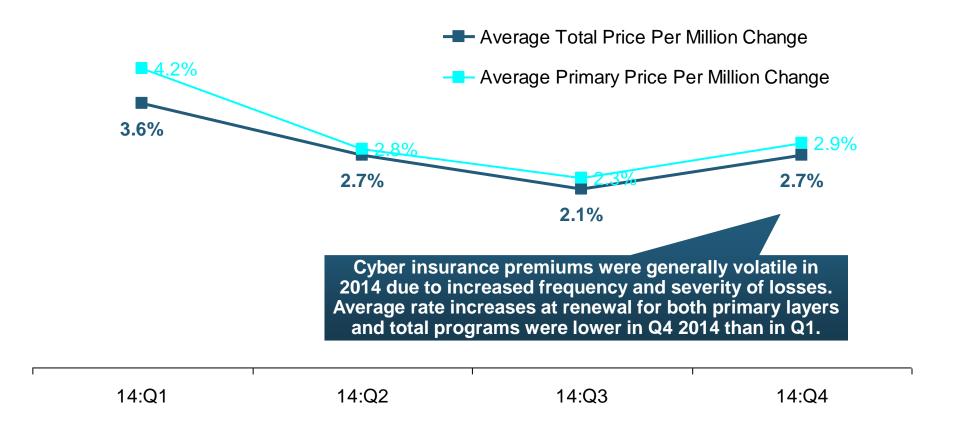
Among larger companies, average cyber insurance limits purchased increased by 22 percent to \$34.1 million in 2014, from \$27.8 million in 2013.



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

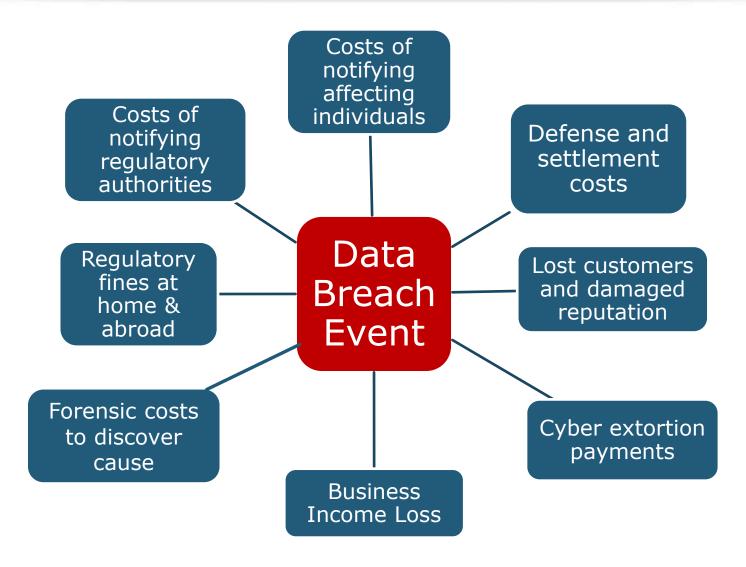
Cyber Liability: Historical Rate (price per million) Changes





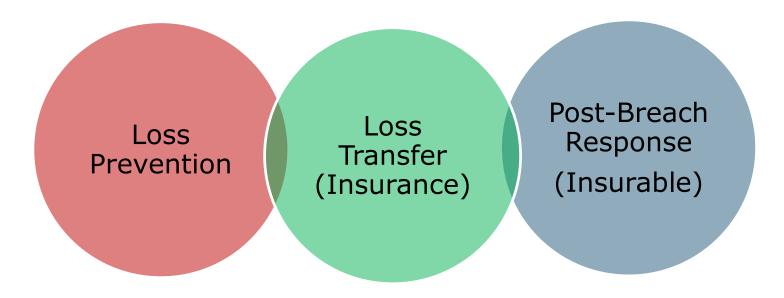
Data/Privacy Breach: Many Potential Costs Can Be Insured





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





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

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



CYBER RISKS: THREAT AND OPPORTUNITY

JULY 2015

Robert P. Hartwig, Ph.D., CPCU President & Economist (212) 346-5520 bobh@iii.org

Claire Wilkinson Consultant (917) 459-6497 clairew@iii.org

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



INDUSTRY DISRUPTORS

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





Technology and Insurance

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

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



Hands-Free

Projected global unit sales of autonomous vehicles over the next 20 years

32m

Partially autonomous 24m Fully autonomous Autonomous vehicles will challenge auto insurers, but they won't 16m obliterate them 8m 2035 DATA: BOSTON CONSULTING GROUP: GRAPHIC BY BLOOMBERG BUSINESSWEEK

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

Questions

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

Source: Boston Consulting Group.

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

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



A Few Thoughts on the Future of Auto Insurance



- Global auto insurance premiums written total about \$600B
 - ~80% personal, 20% commercial
 - US accounts for more than 1/3 of this total (about \$210B in 2014)
- Innovations in automobile safety will, over time, reduced claim frequency but severities could still rise as repair costs escalate
 - Claim activity clearly not immune to economy
- Frequency declines could lead price declines, aiding profitability
- More cars, not fewer will be on highways in the US, world
 - Exposure (insured car years) grows even as frequency declines
- Timeline for large numbers of mass produced autonomous vehicles on American highways is wildly optimistic
 - Mid-2030s is more likely timeframe; Transition occurring through mid-century
 - Tech media is enamored with anything involving Google, Apple
- Auto insurance will be the largest, most important of all P/C lines for many years to come

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

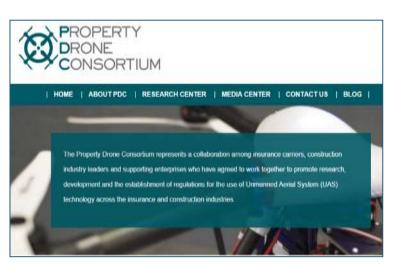




Send in the Drones: Potential Rapid Adoption in Industry; Media Loves It



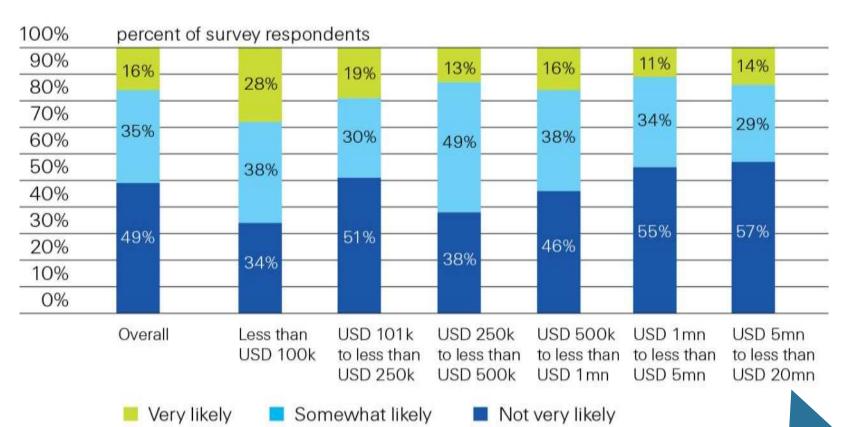




- Drones or Unmanned Aerial Vehicle (UAV) technology is seeing rapid adoption rate in many industries, including insurance
- FAA granting Section 333 exemptions for commercial use and testing of UAS
- At least 5 insurers have received permission to test
- Wide variety of applications: claims, pre-event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

Proportion of Businesses Interested in Buying Insurance Online





Likelihood of small US businesses buying insurance online directly from the insurer, overall and by annual company revenue, in 2013

Source: Swiss Re from "Voice of the Small Commercial Insurance Consumer Survey." Deloitte, March (2013)

Interest diminishes with account size

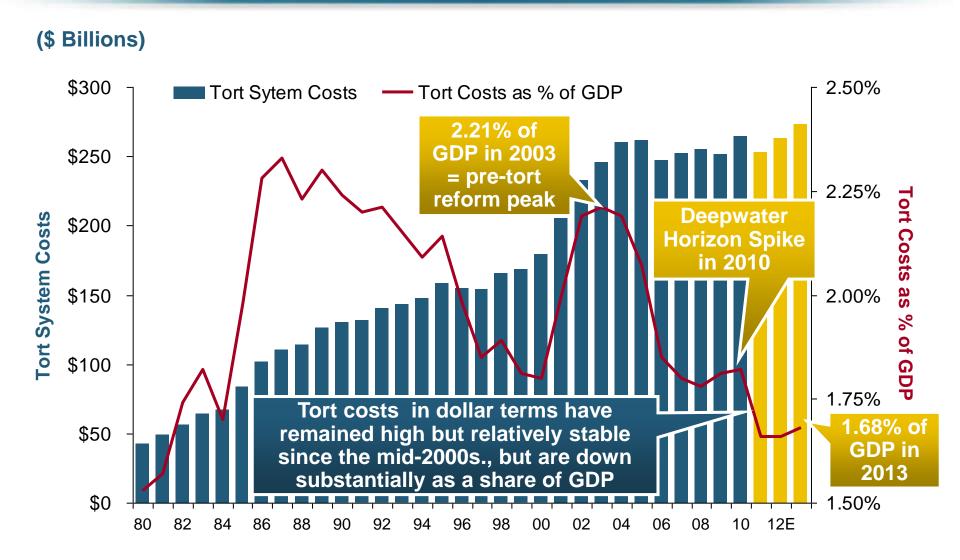


Shifting Legal Liability & Tort Environment

Will the Tort Pendulum Swing Against Insurers?

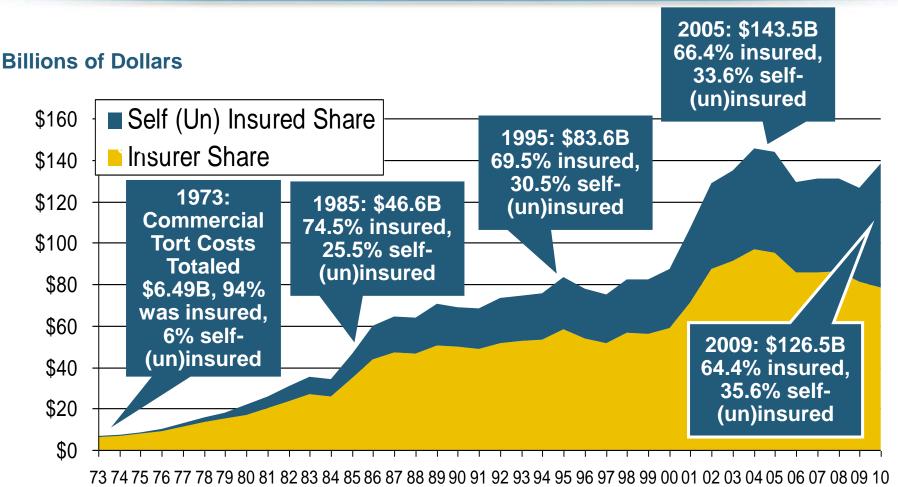
Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical, 1980-2013E





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





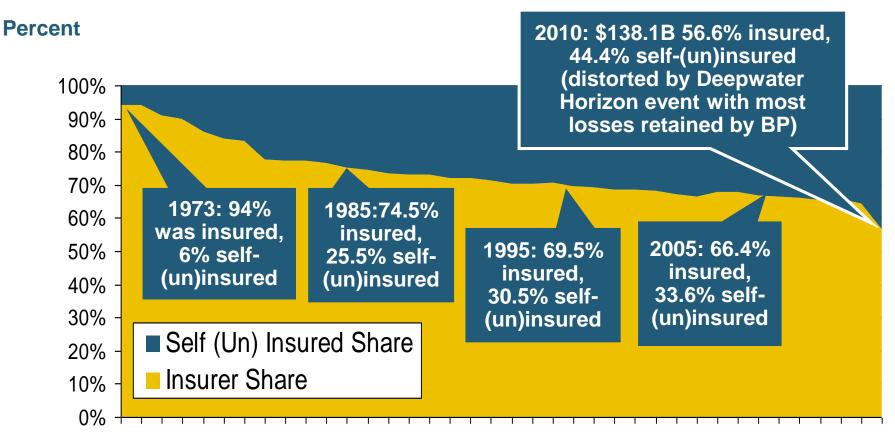
Tort Costs and the Share Retained by Risks Both Grew Rapidly from

the mid-1970s to mid-2000s, When Tort Costs Began to Fall But Self-Insurance Shares Continued to Rise

Sources: Towers Watson, 2011 Update on US Tort Cost Trends, III Calculations based on data from Appendix 4.

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": 2014/2015



Watch List

- Atlantic County, New Jersey
- Mississippi Delta
- Montana
- Nevada
- Newport News, Virginia
- Philadelphia, Pennsylvania

Dishonorable Mention

- AL Supreme Court
- PA Supreme Court





Insurance Information Institute Online:

www.iii.org

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