Workers Compensation and the New Economy: *Trends, Challenges and Opportunities*

Insurance Information Institute

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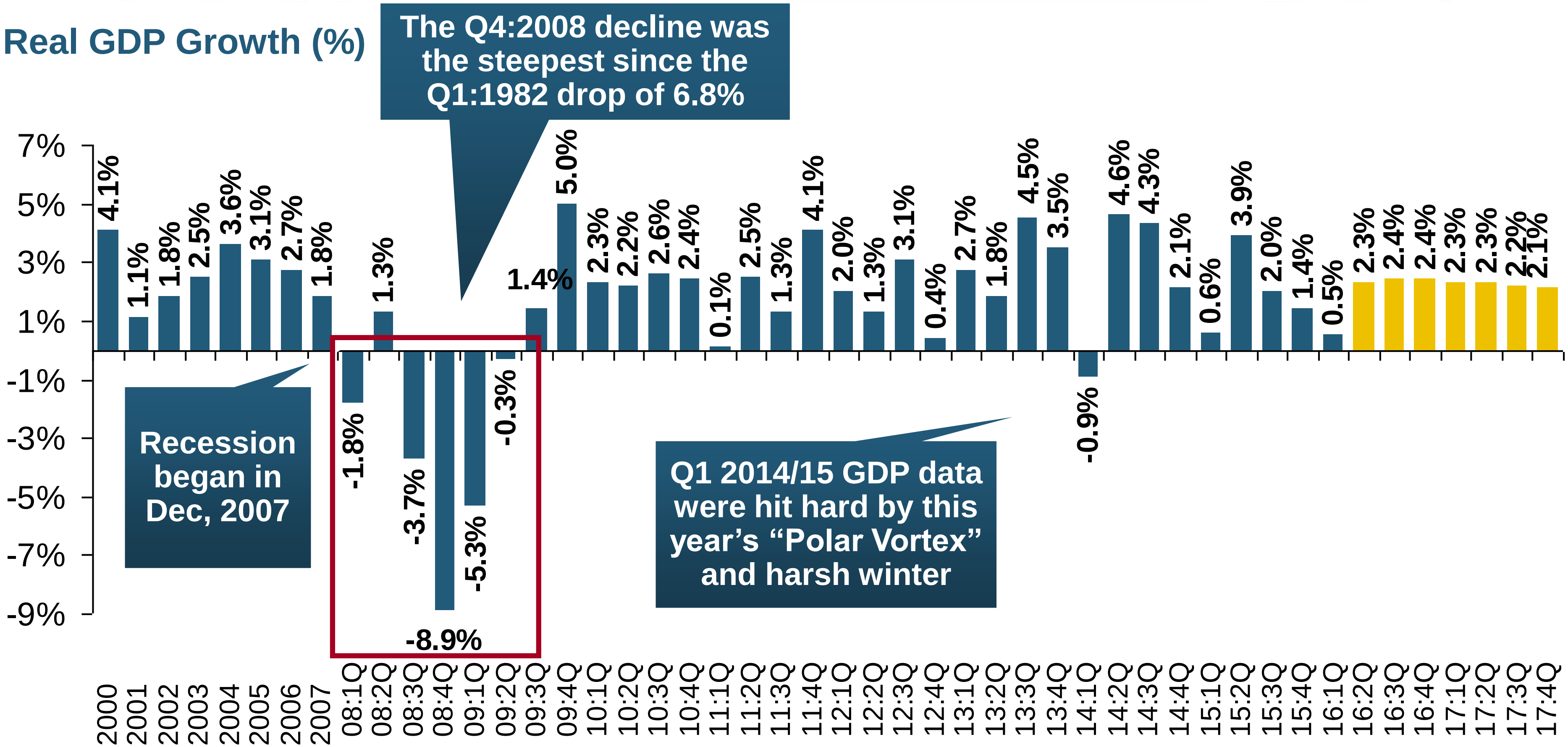
The Economy Will Impact Workers Compensation Growth and Performance

Workers Comp Is Among the Fastest Growing Major Commercial Lines

US Real GDP Growth*



Demand for Insurance Should Increase in 2016 as GDP Growth Continues at a Steady, Albeit Moderate Pace and Gradually Benefits the Economy Broadly

* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 5/16; Insurance Information Institute.

Real GDP by State Percent Change, 2015:II-2015:III - Highest 25 States

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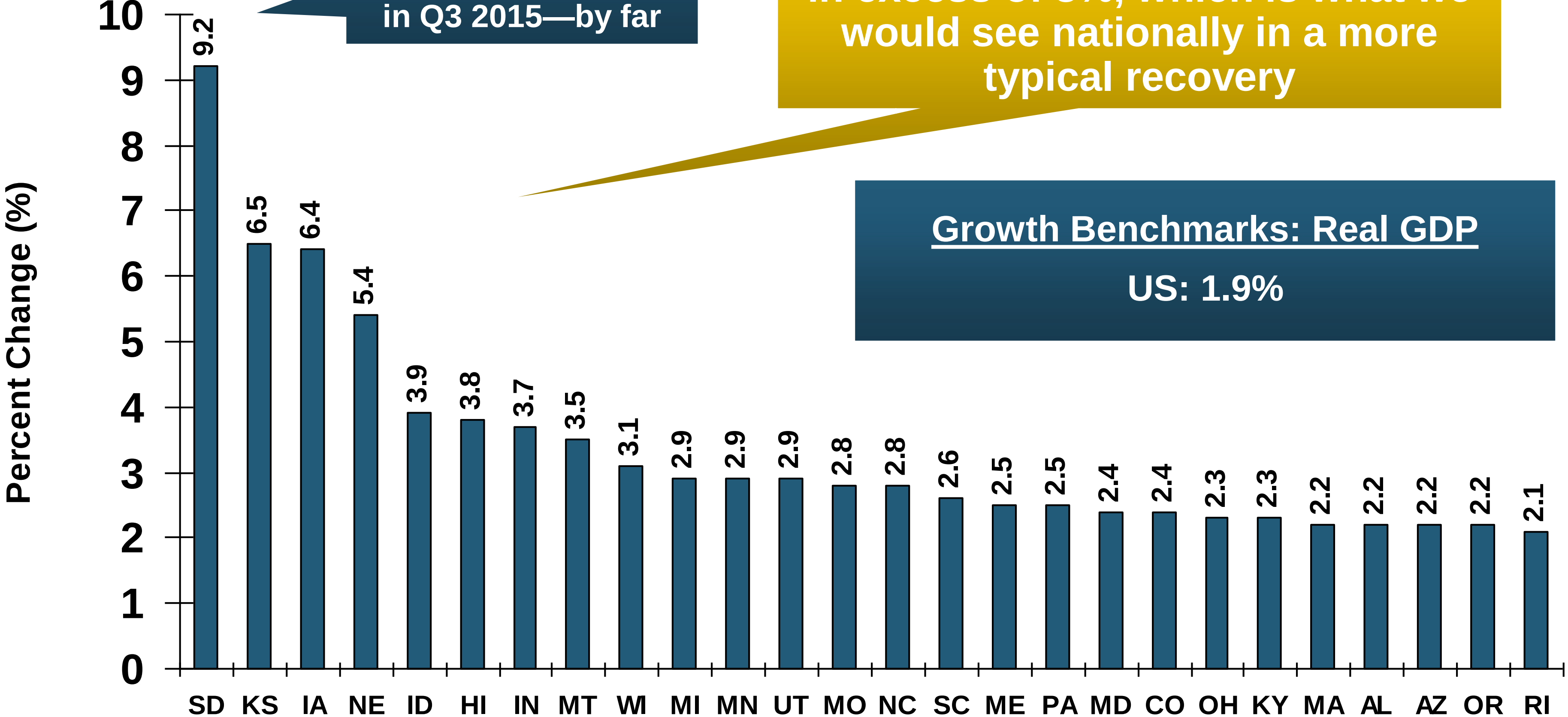
South Dakota was the economic growth juggernaut of the US in Q3 2015—by far

Only 9 states experienced growth in excess of 3%, which is what we would see nationally in a more typical recovery

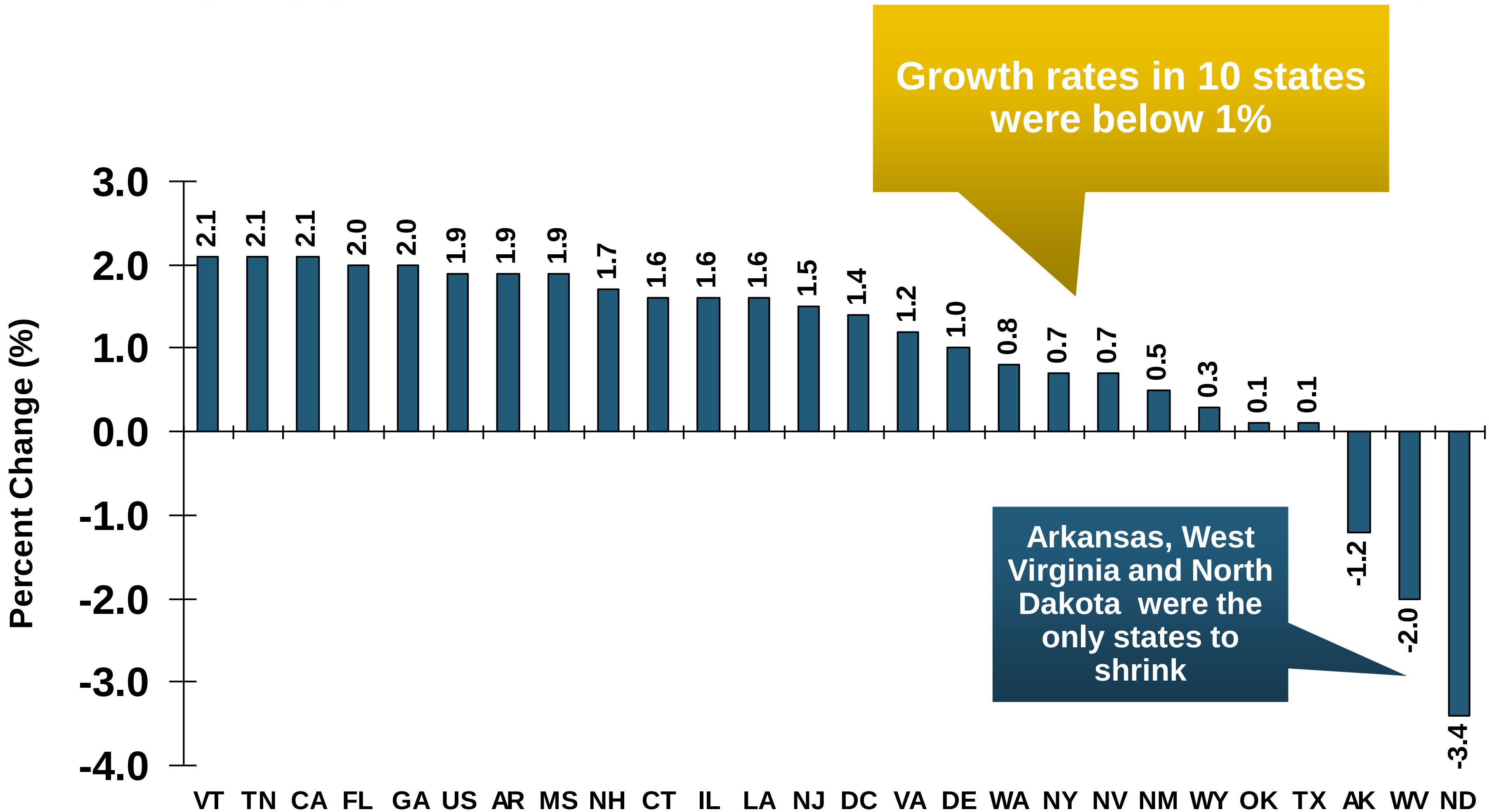
Growth Benchmarks: Real GDP

US: 1.9%



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

Real GDP by State Percent Change, 2015:II-2015:III - Lowest 25 States



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

Percent Change in Real GDP by State, 2015:Q3

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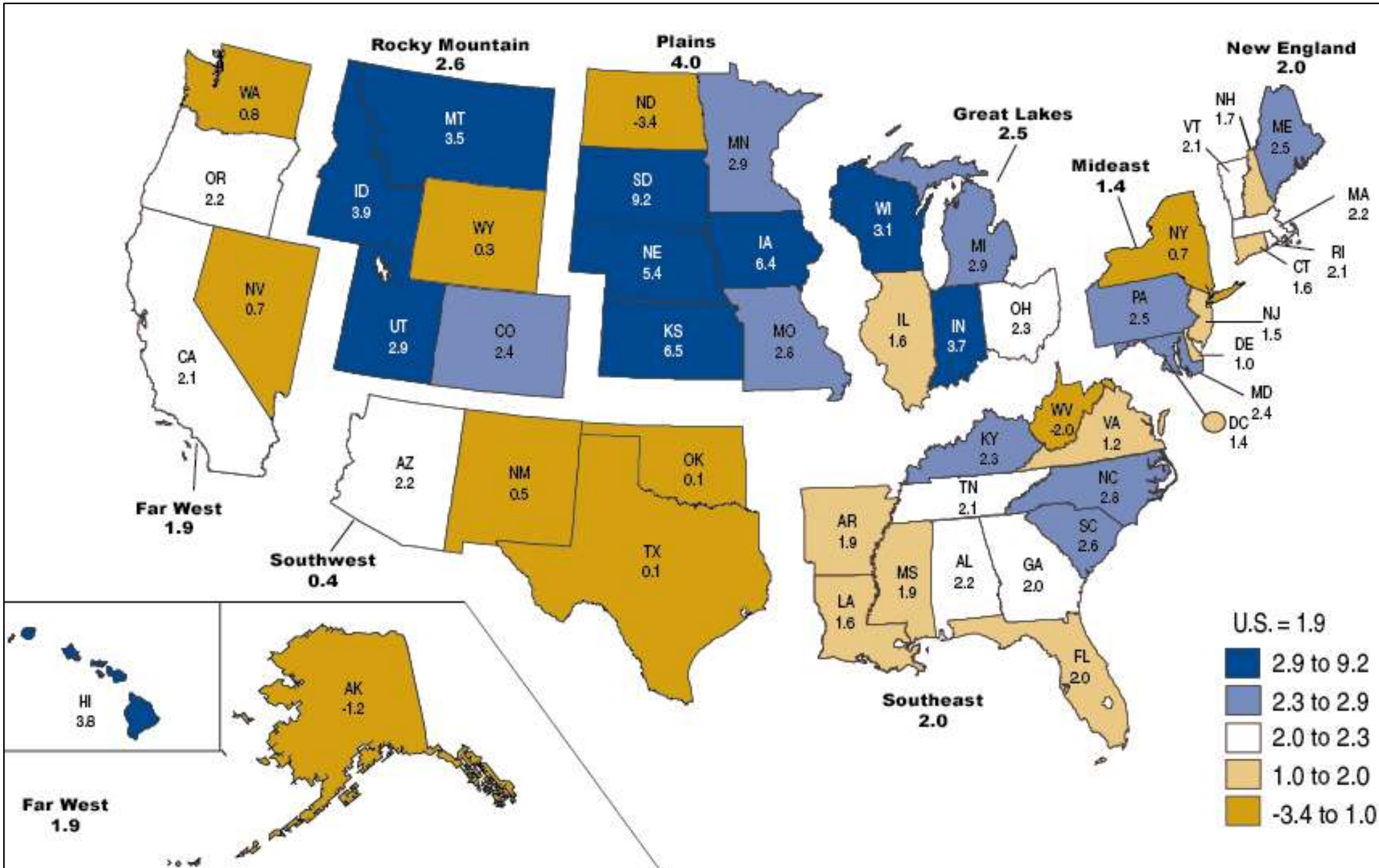

Sources: US Bureau of Economic Analysis; Insurance Information Institute.

State-by-State Leading Indicators through September 2016

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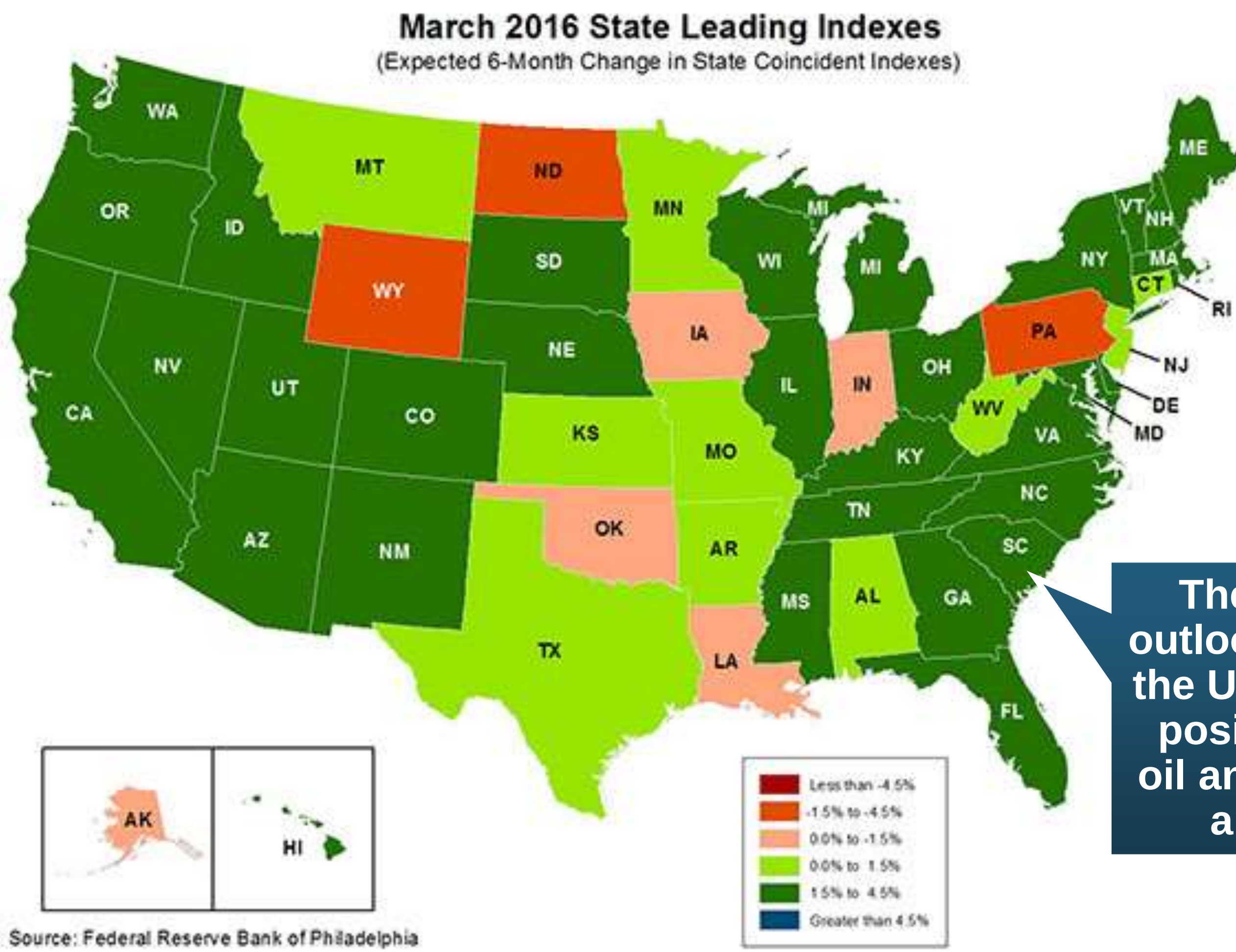
Growth in the West is finally beginning to pick up



The economic outlook for most of the US is generally positive, though oil and coal states are hurting

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

Business Bankruptcy Filings, 1980-2014

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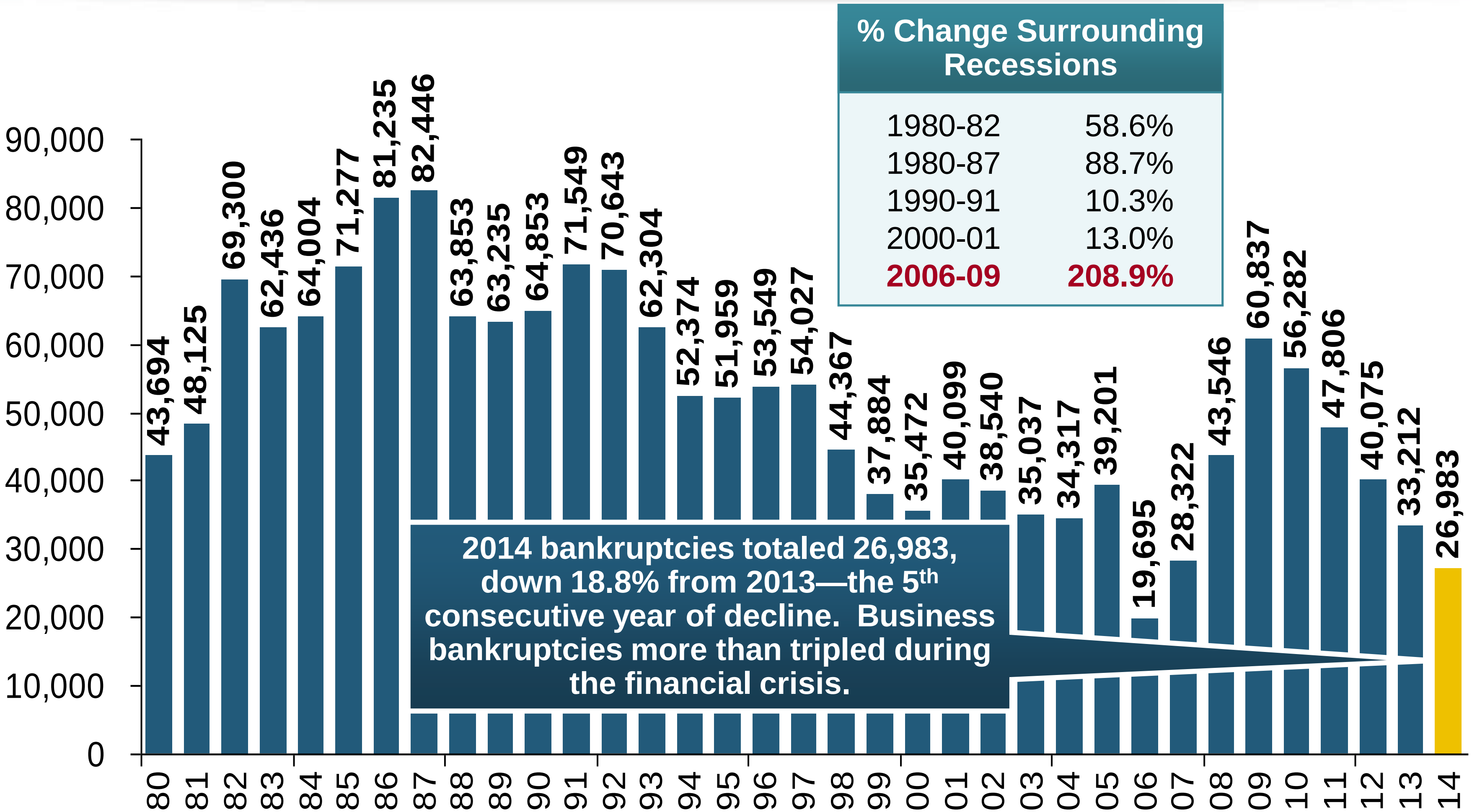

Significant Exposure Implications for All Commercial Lines as Business Bankruptcies Begin to Decline

Sources: American Bankruptcy Institute (1980-2012) at http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=61633; 2013-14 data from United States Courts at http://news.uscourts.gov; Insurance Information Institute.

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Labor Markets Trends:

Recovery Continues in 2016

2015

Largest Job Gains in Many Years

Unemployment Rate Fell to Lowest Level Since 2008

Payrolls Expanded to Record High

Unemployment and Underemployment Rates: Still Falling

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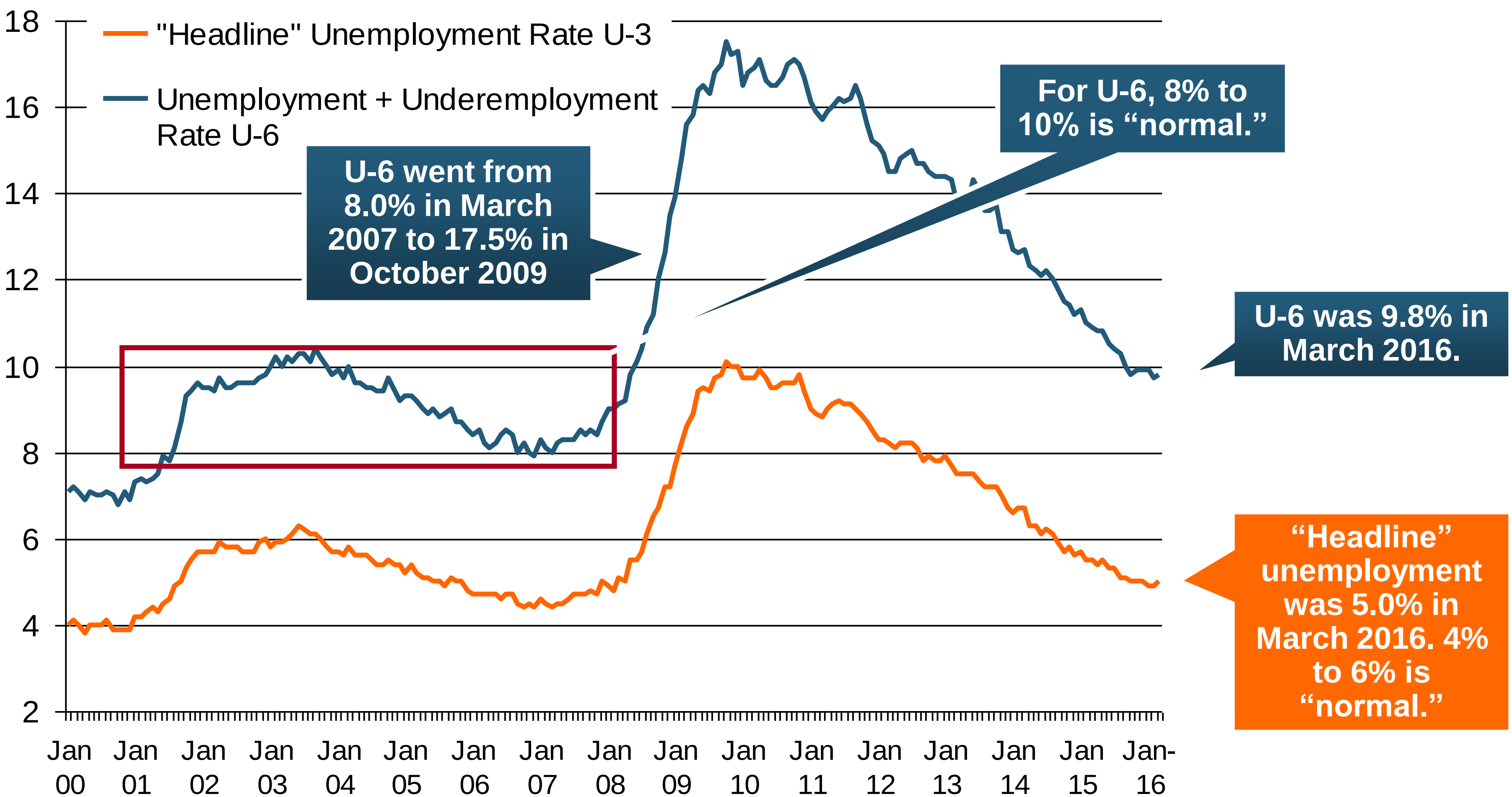
January 2000 through March 2016, Seasonally Adjusted (%)



High unemployment and underemployment constrained overall economic growth for years, but the job market is clearly improving.

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

US Unemployment Rate Forecast

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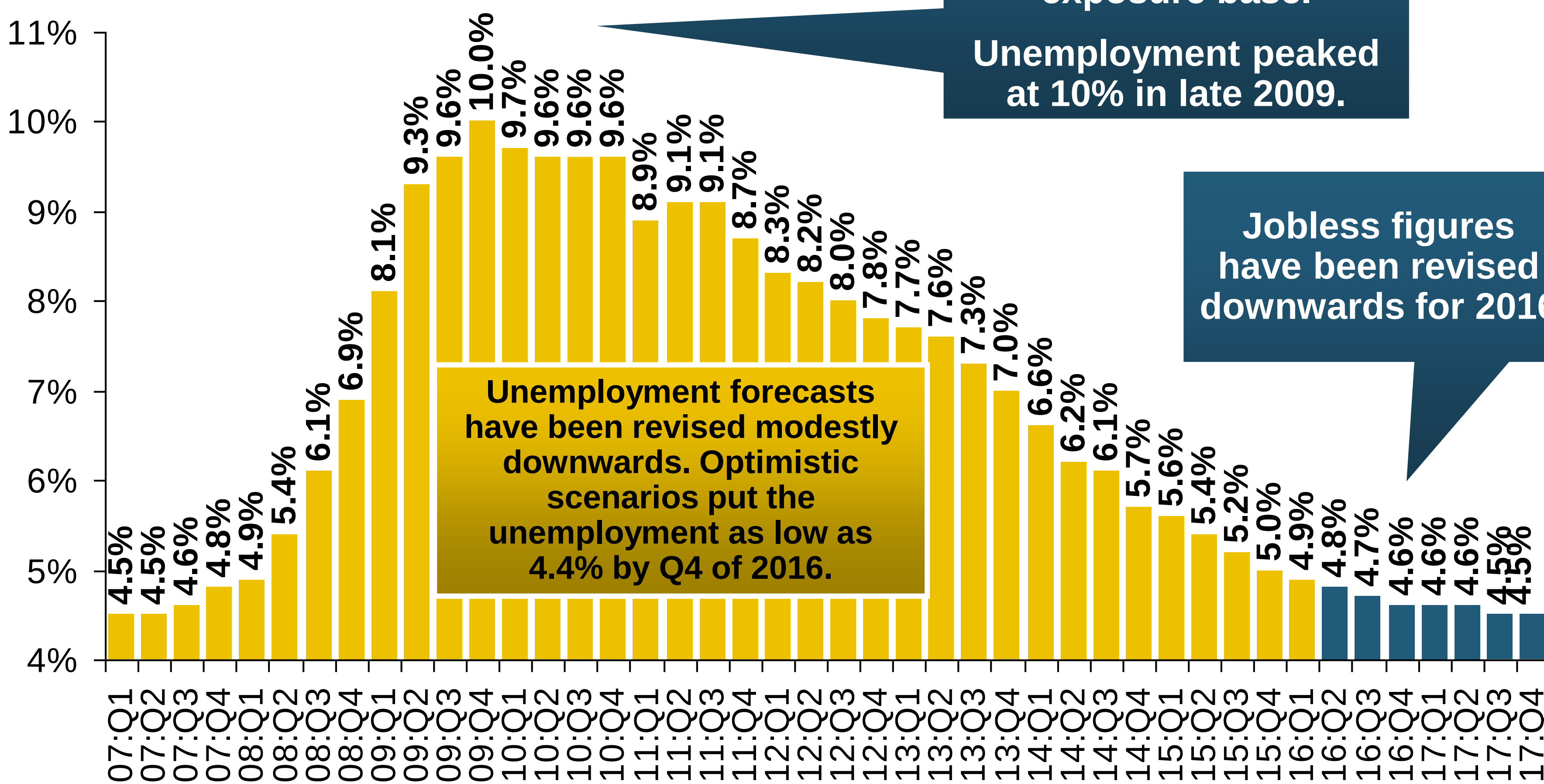
2007:Q1 to 2017:Q4F*

Rising unemployment eroded payrolls and WC's exposure base.

Unemployment peaked at 10% in late 2009.

Jobless figures have been revised downwards for 2016

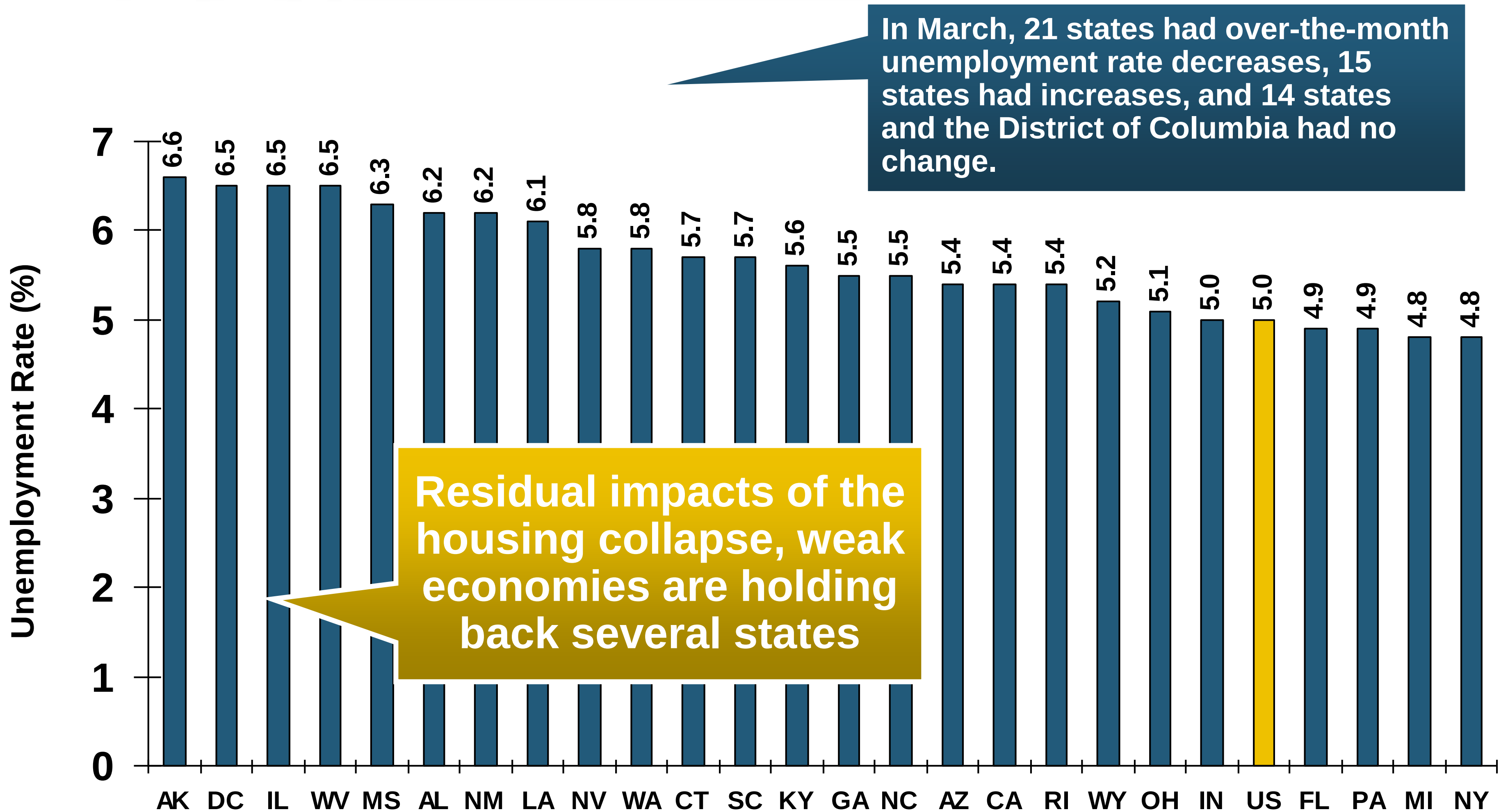


Unemployment forecasts have been revised modestly downwards. Optimistic scenarios put the unemployment as low as 4.4% by Q4 of 2016.

* = actual; = forecasts

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (4/16 edition); Insurance Information Institute.

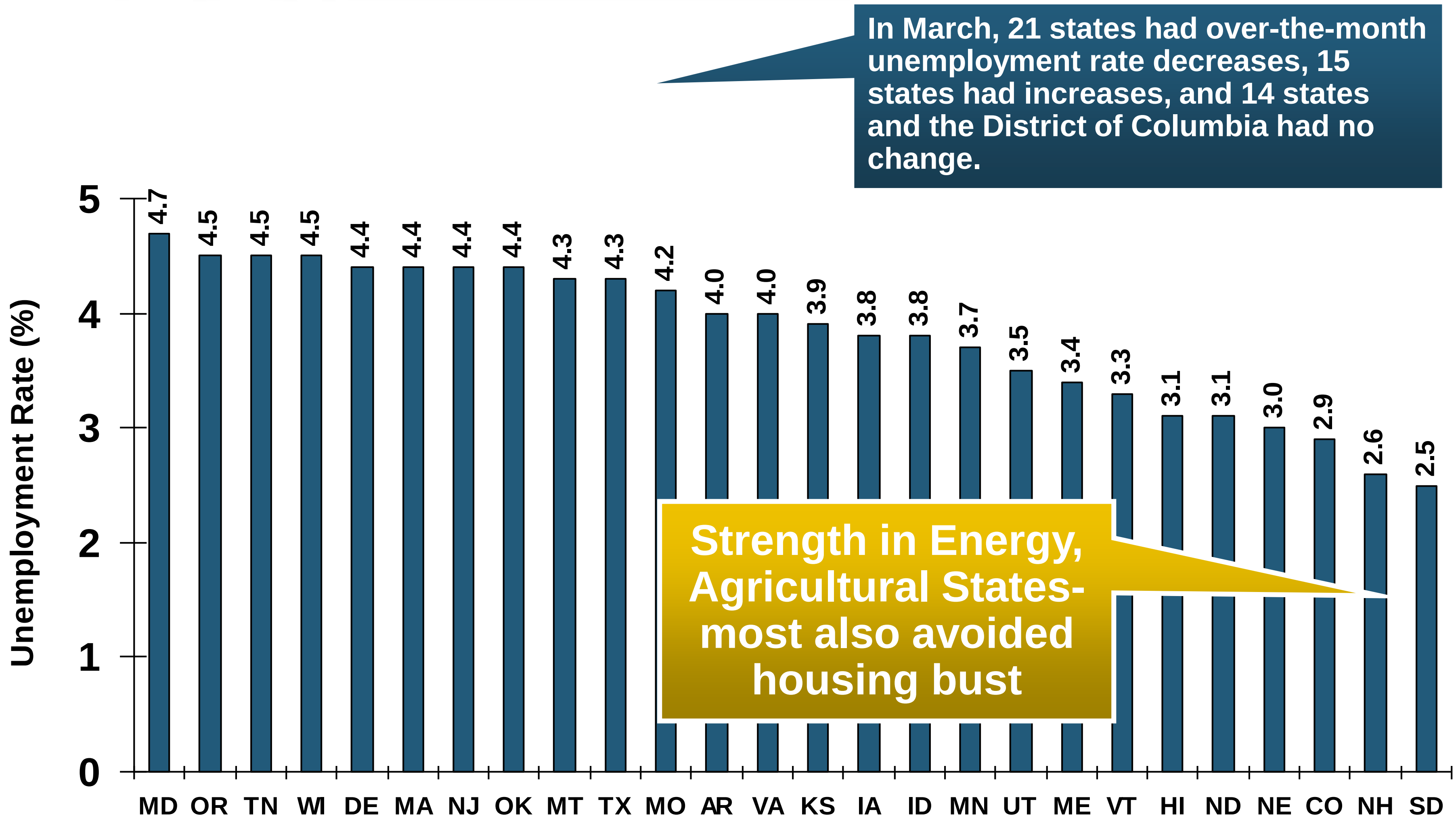
Unemployment Rates by State, March 2016: Highest 25 States*



*Provisional figures for March 2016, seasonally adjusted.

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

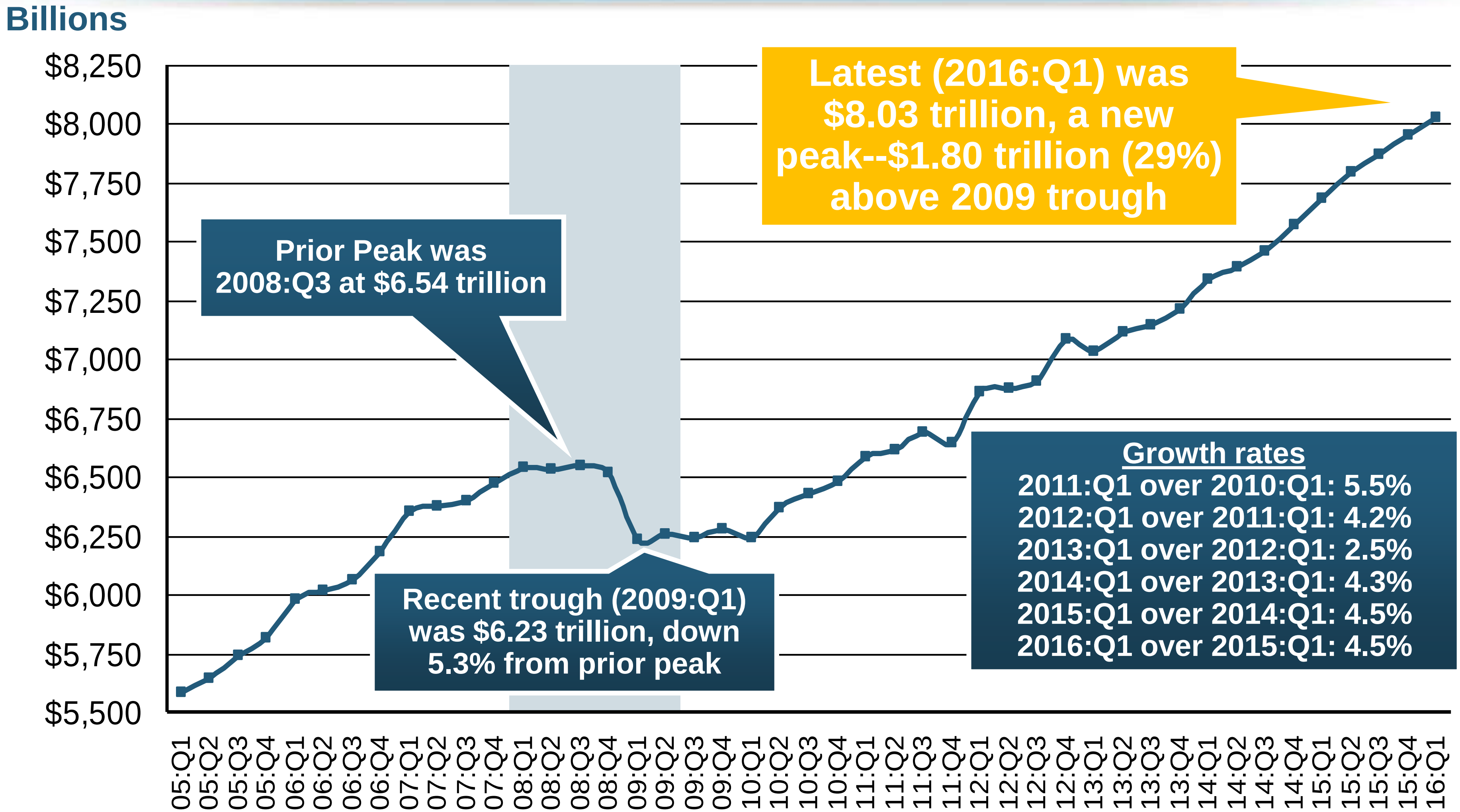
Unemployment Rates by State, March 2016: Lowest 25 States*



*Provisional figures for March 2016, seasonally adjusted.

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

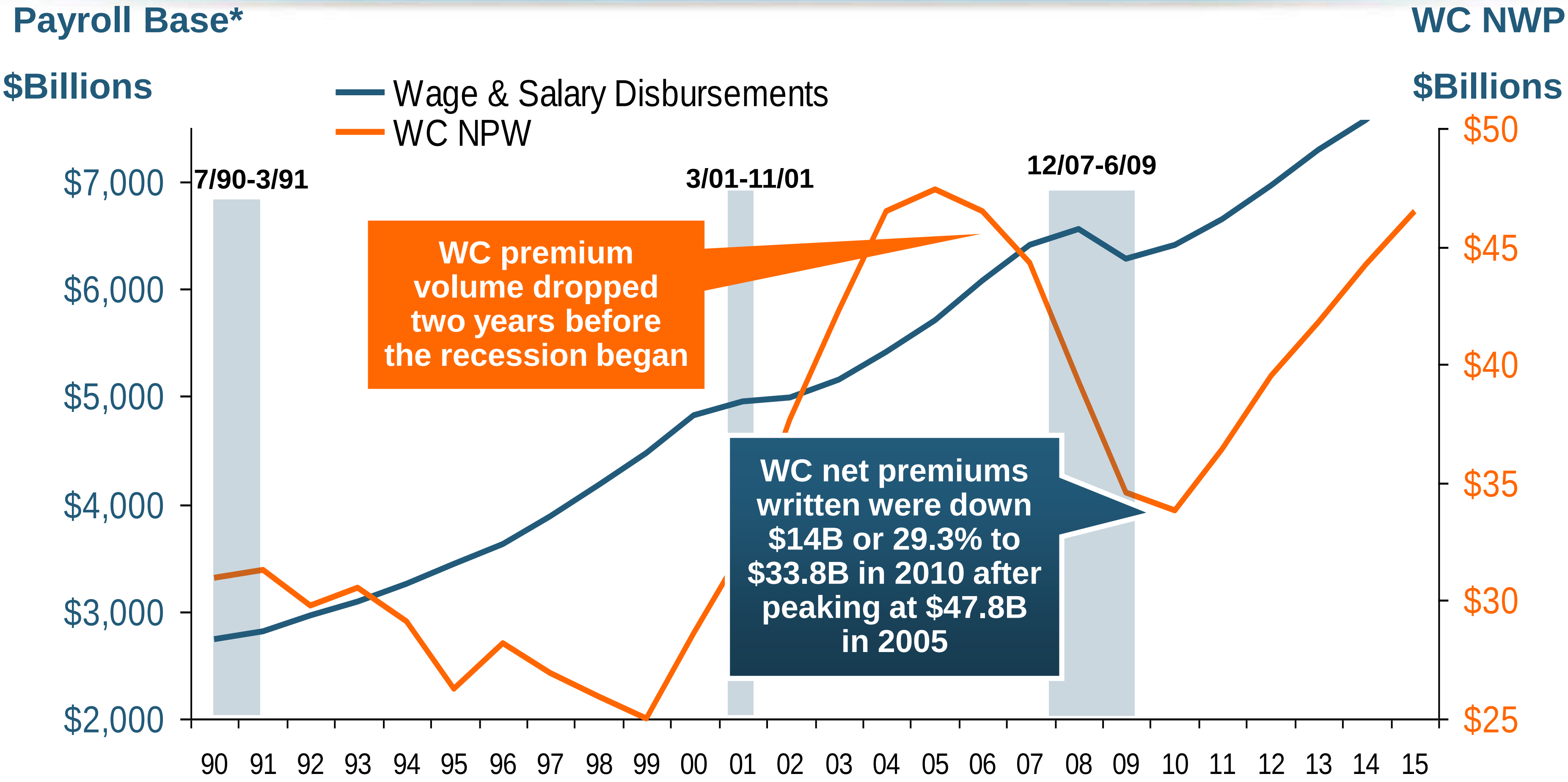
Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2016:Q1



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, 1990-2015E



Continued Payroll Growth and Rate Gains Suggest WC NWP Will Grow Again in 2016

*Private employment; Shaded areas indicate recessions. WC premiums are from NCCI through 2014; I.I.I. estimate for 2015.

Sources: NBER (recessions); Federal Reserve Bank of St. Louis at http://research.stlouisfed.org/fred2/series/WASCUR (annualized as of Q4 2015); NCCI; I.I.I.

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CONSTRUCTION, MANUFACTURING & ENERGY OUTLOOK

Key Sectors Critical to the Economy and the P/C Insurance Industry

Value of New Private Construction: Residential & Nonresidential, 2003-2016*

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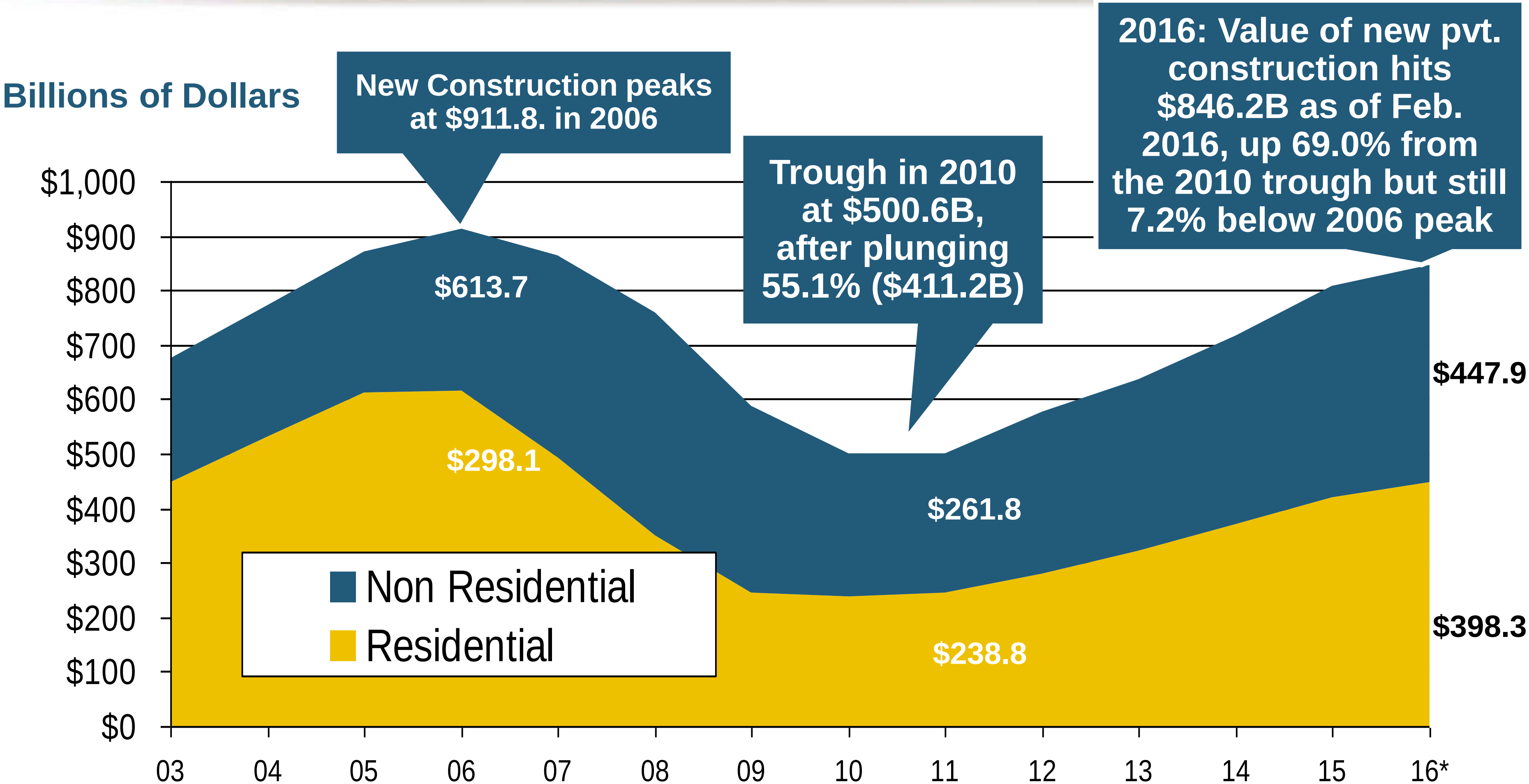
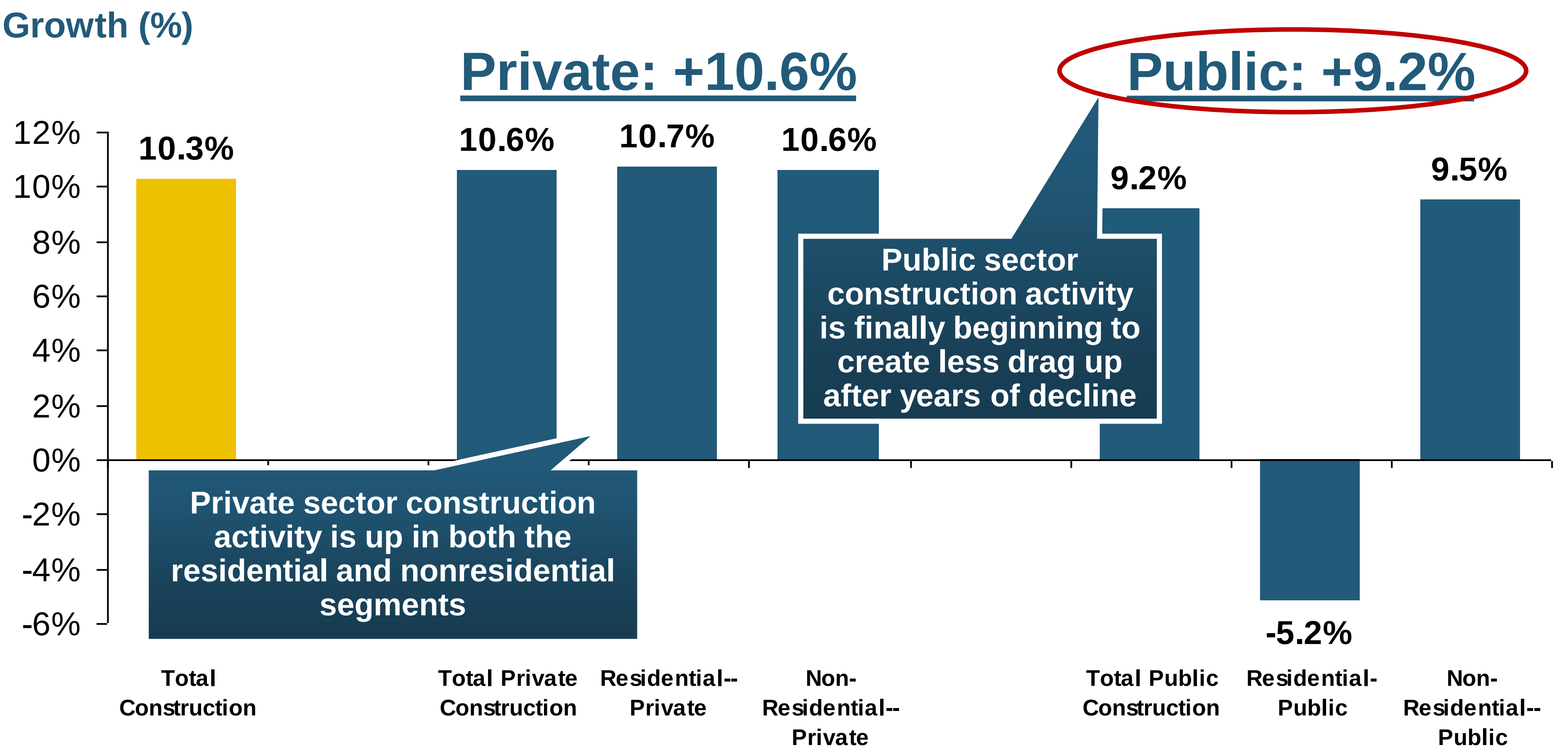


Private Construction Activity Is Moving in a Positive Direction though Remains Well Below Pre-Crisis Peak; Residential Dominates

*2016 figure is a seasonally adjusted annual rate as of February.

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

Value of Construction Put in Place, 2016 vs. 2015*



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 data through February 2016.
Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html ; Insurance Information Institute.

New Private Housing Starts, 1990-2021F

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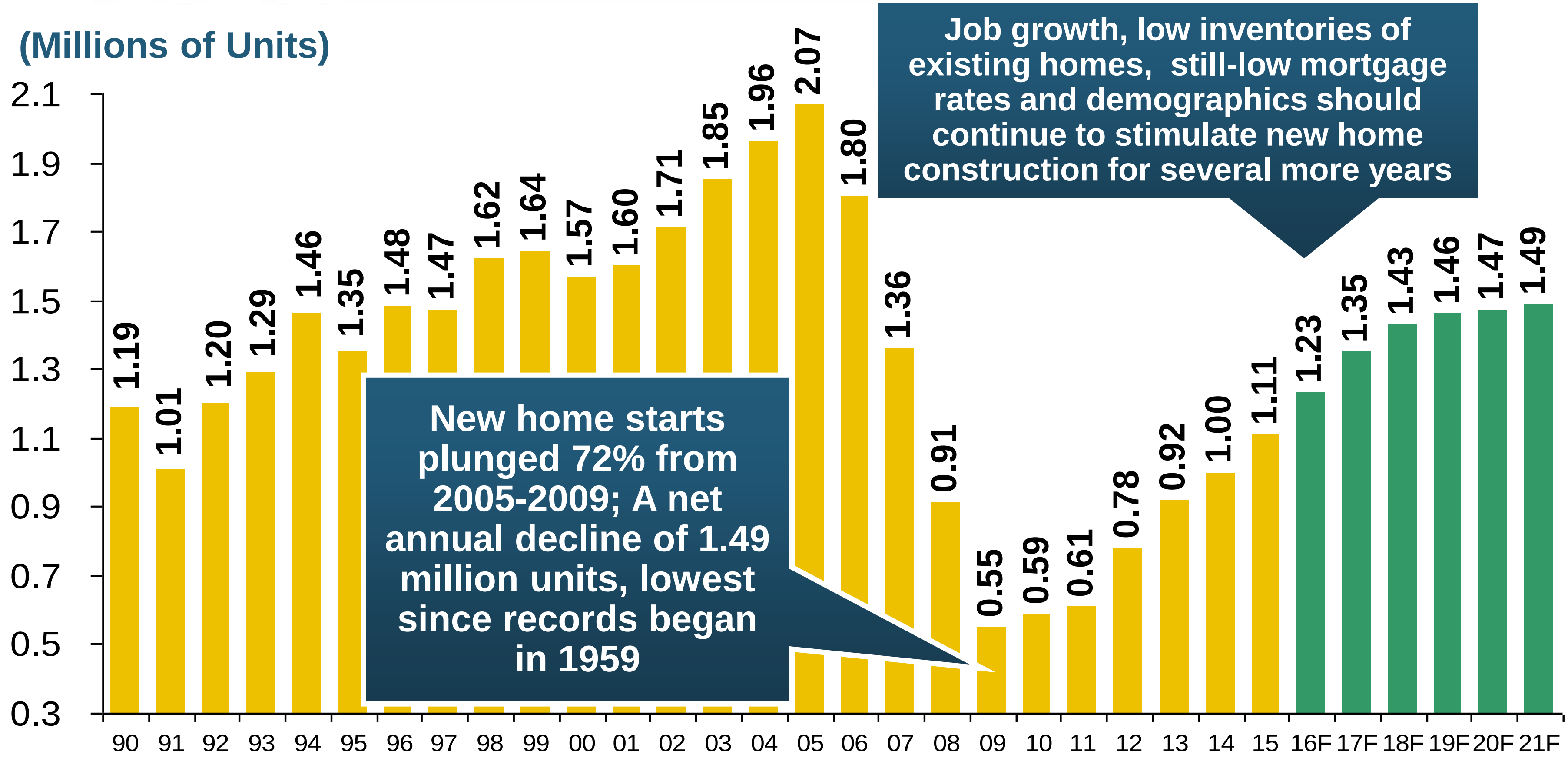

Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the "Great Recession" Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (4/16 for 2016-17; 3/16 for 2018-21F; Insurance Information Institute.

Value of New Federal, State and Local Government Construction: 2003-2016*

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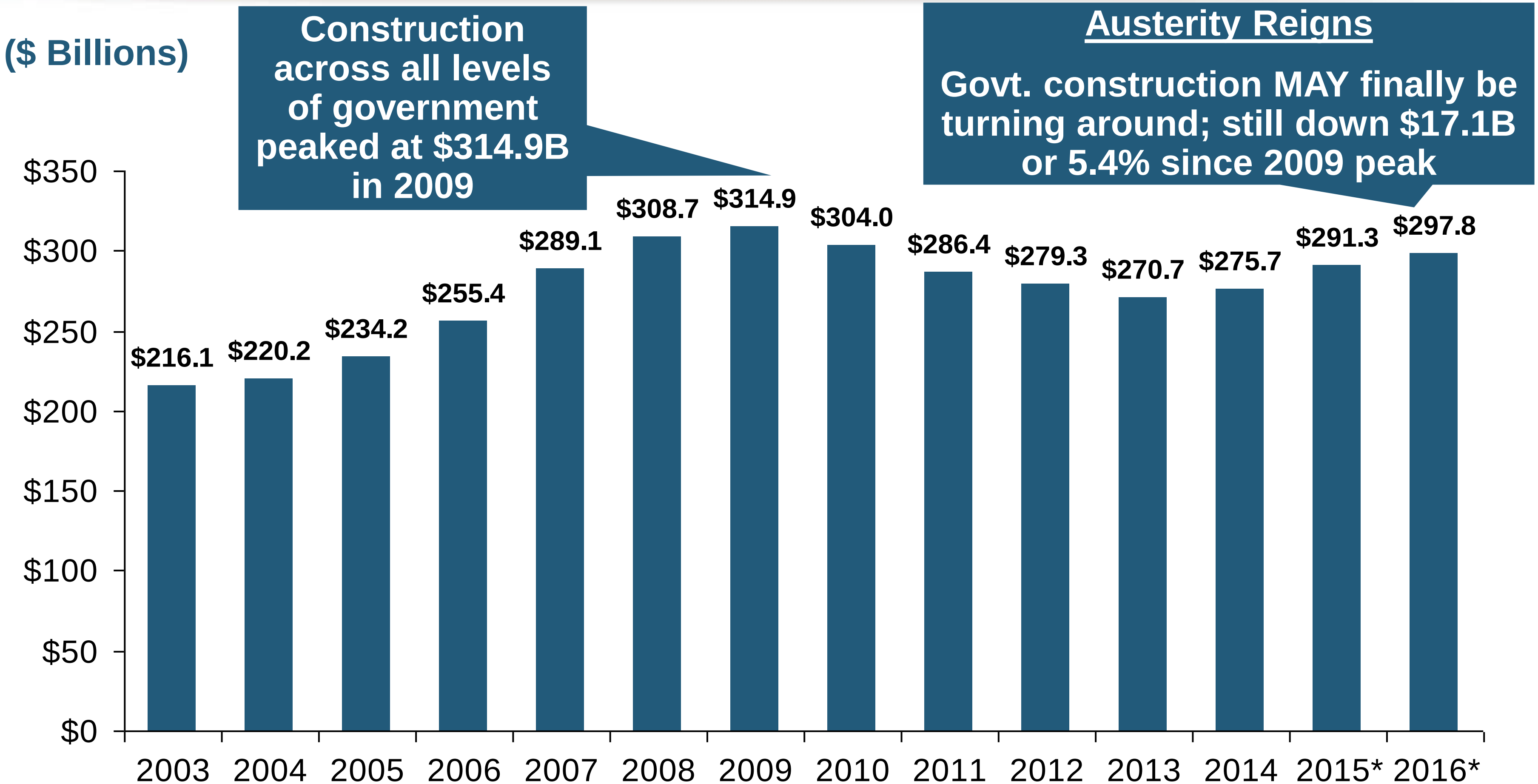

Government Construction Spending Peaked in 2009, Helped by Stimulus Spending, but Contracted As State/Local Governments Grappled with Deficits and Federal Sequestration; Only Now Recovering

*2016 figure is a seasonally adjusted annual rate as of February; http://www.census.gov/construction/c30/historical_data.html

Sources: US Department of Commerce; Insurance Information Institute.

Construction Employment, Jan. 2010—March 2016*

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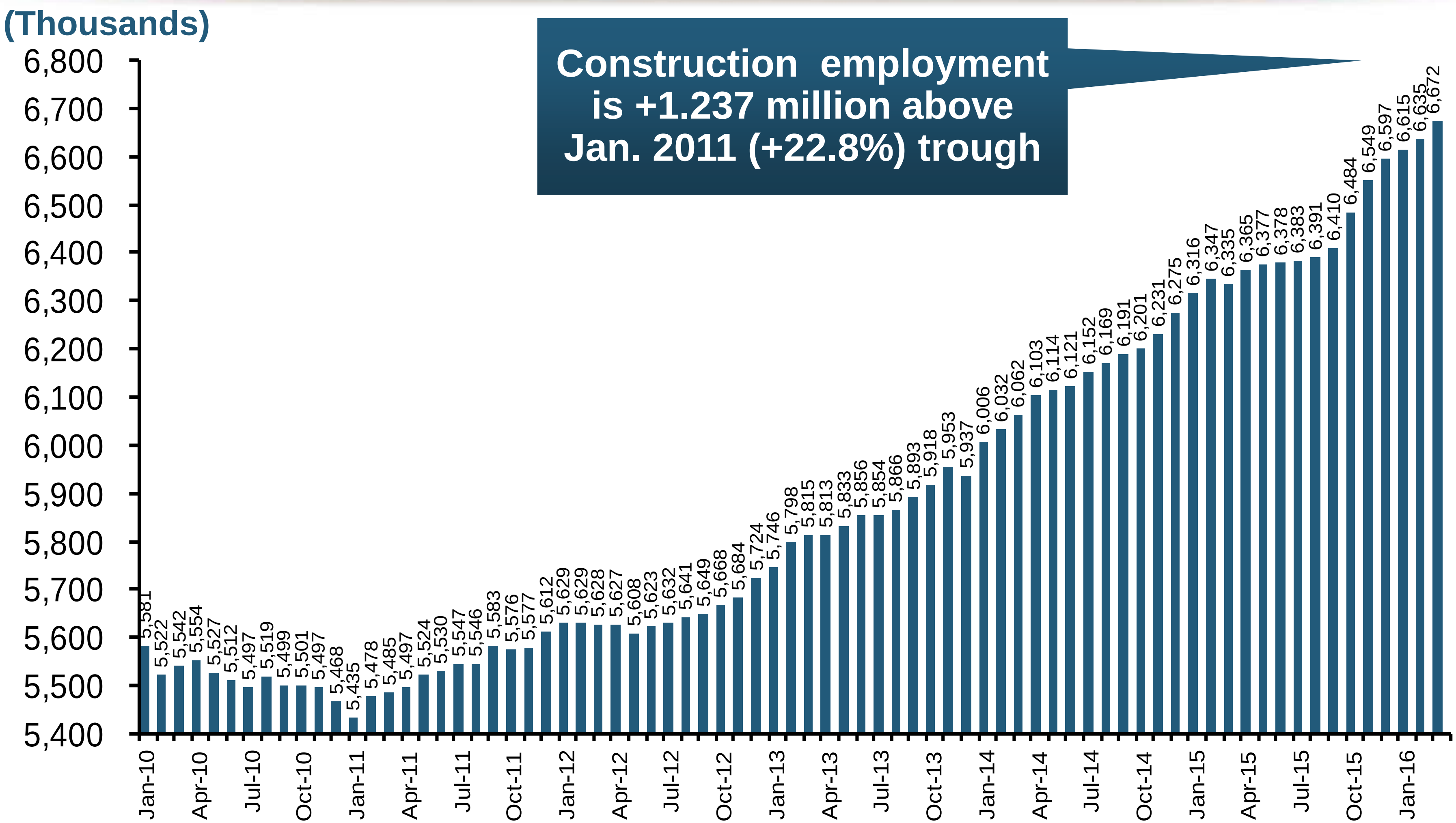
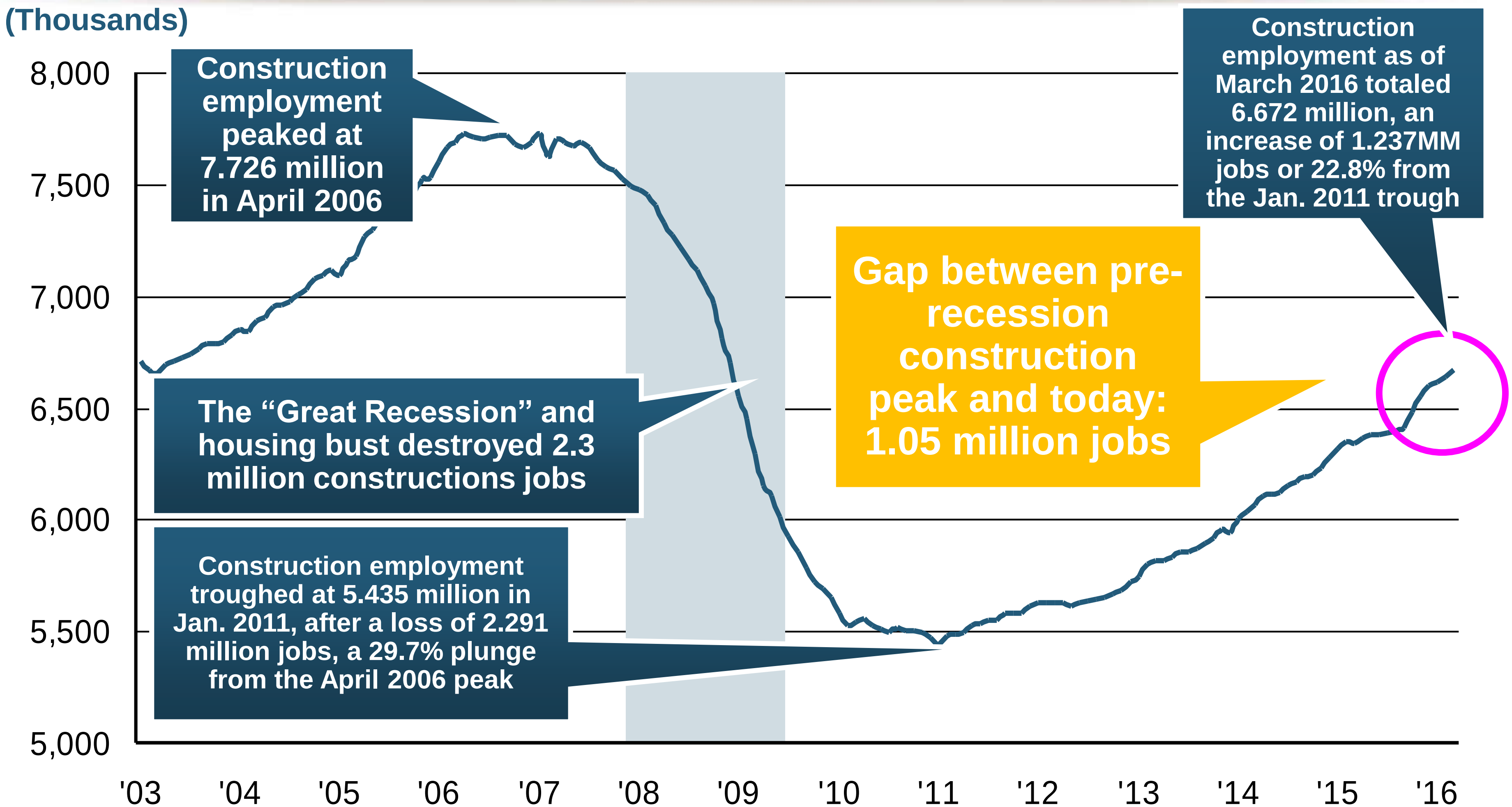


Construction and manufacturing employment constitute 1/3 of all WC payroll exposure.

*Seasonally adjusted.

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

Construction Employment, Jan. 2003–March 2016



The Construction Sector Was a Growth Leader in 2014-16 as the Housing Market, Private Investment and Govt. Spending Recover. WC Insurers Continue to Benefit.

Note: Recession indicated by gray shaded column.

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

MANUFACTURING & ENERGY SECTOR OVERVIEW & OUTLOOK

The U.S. Manufacturing and Energy Sectors Are Being Buffeted by a High Dollar, Weak Export Markets and Plunging Oil Prices

ISM Manufacturing Index
(Values > 50 Indicate Expansion)

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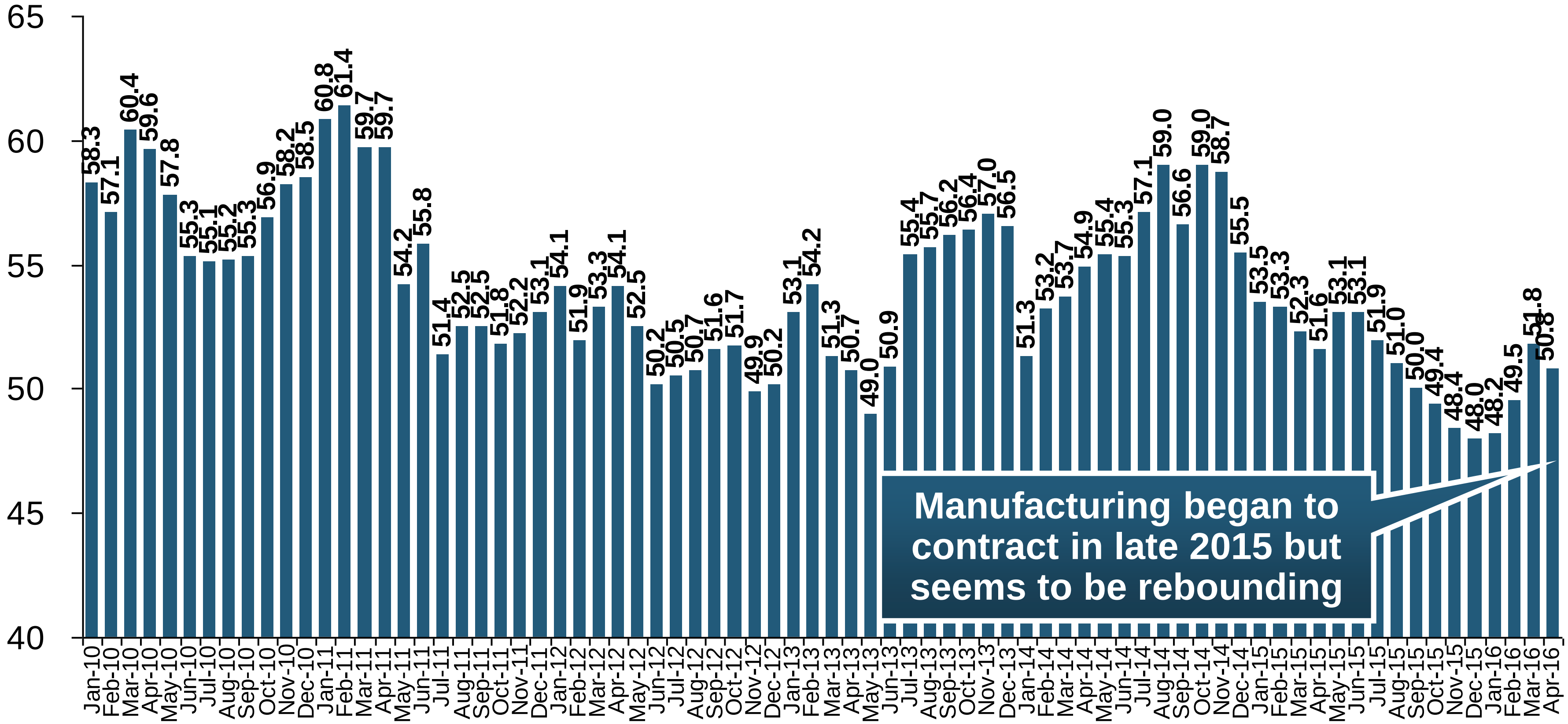
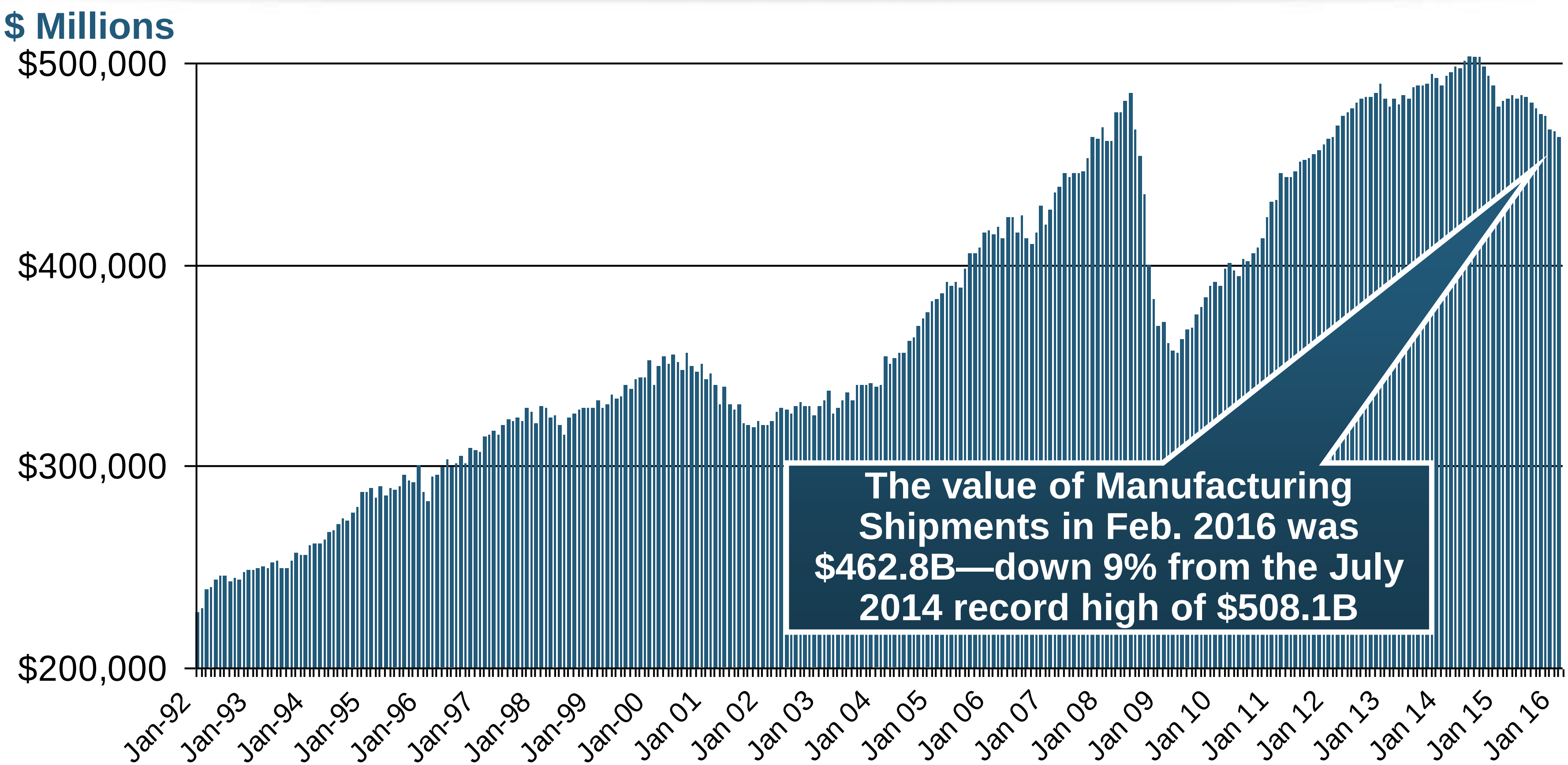
January 2010 through April 2016



The manufacturing sector expanded for 70 of the 76 months from Jan. 2010 through Apr. 2016. Manufacturing sector has weakened recently due to weakness abroad, strong dollar and collapse in oil prices

Source: Institute for Supply Management at http://www.ism.ws/ismreport/mfgrob.cfm; Insurance Information Institute.

Dollar Value* of Manufacturers' Shipments Monthly, Jan. 1992—Feb. 2016



Weakness abroad, falling energy prices and a strong dollar are hurting the manufacturing sector, especially exports. Manufacturing growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property, and various Liability Coverages.

* Seasonally adjusted; Data published Apr. 4, 2016.
Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders*, http://www.census.gov/manufacturing/m3/

Manufacturing Growth for Selected Sectors, 2016 vs. 2015*

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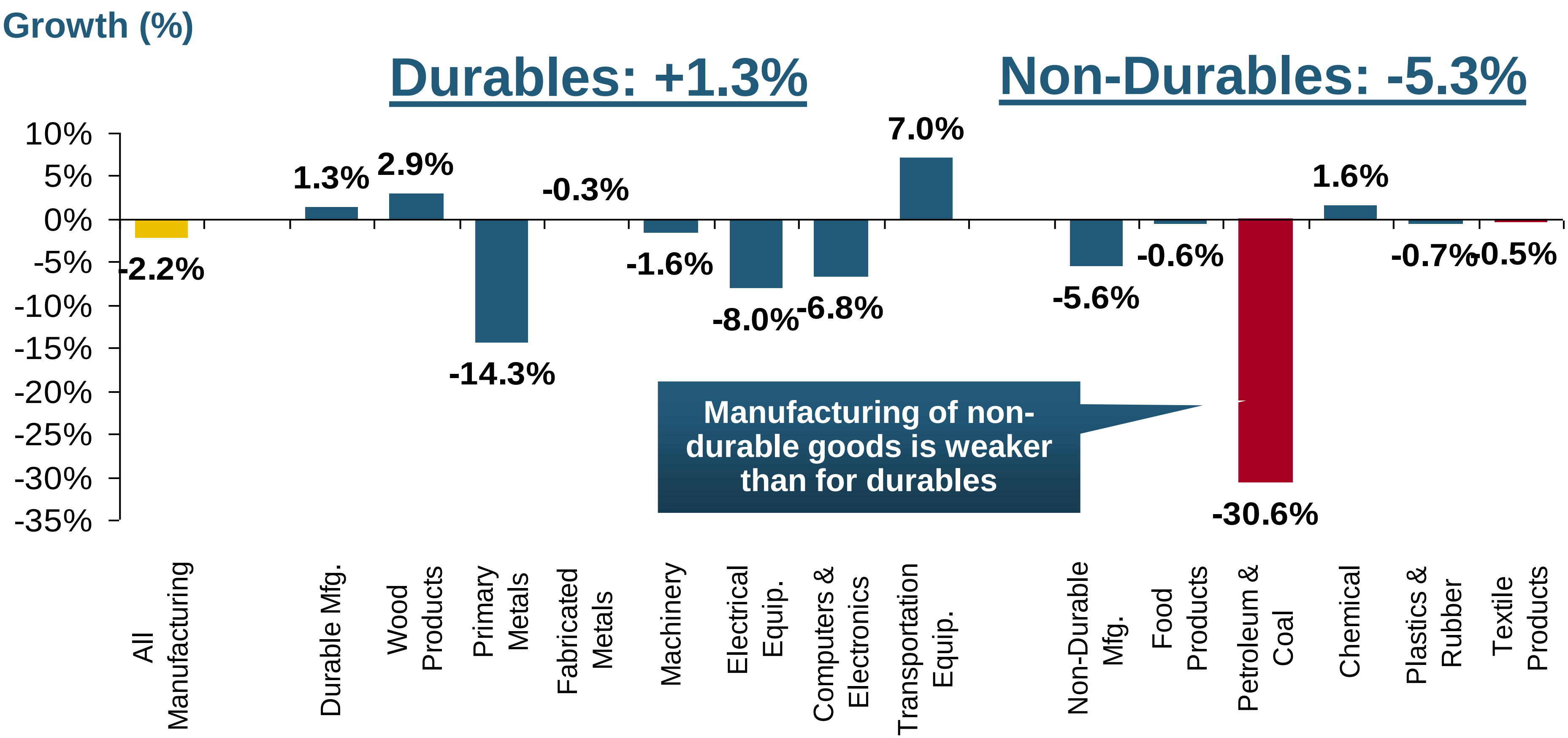

Manufacturing Is Contracting Across a Number of Sectors, Especially Petroleum and Coal. Adverse Exposure Impacts Are Likely for: WC, Commercial Property, Commercial Auto and Certain Liability Coverages

*Seasonally adjusted; Date are YTD comparing data through February 2016 to the same period in 2015.
Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders,* http://www.census.gov/manufacturing/m3/

Manufacturing Employment, Jan. 2010—March 2016*

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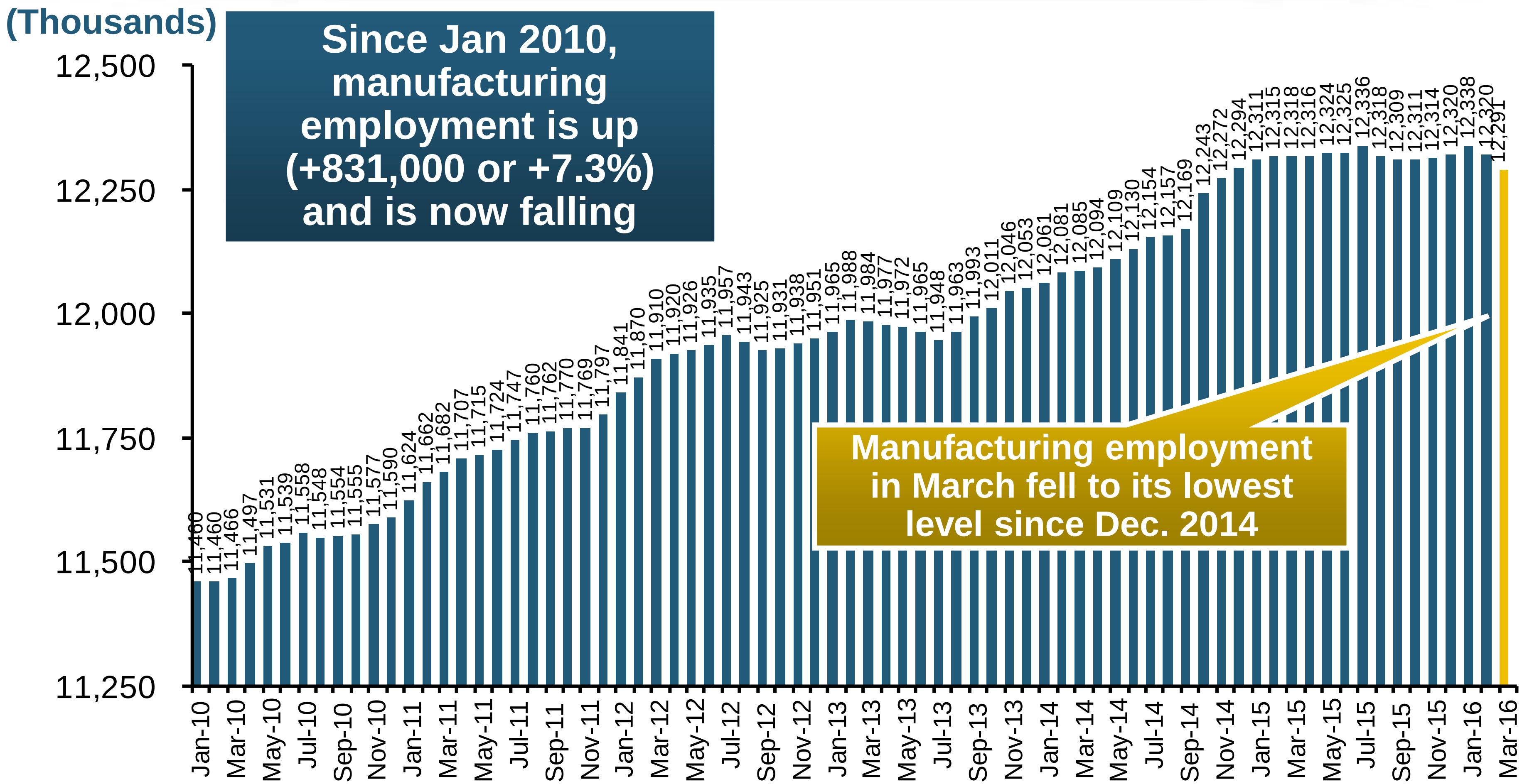
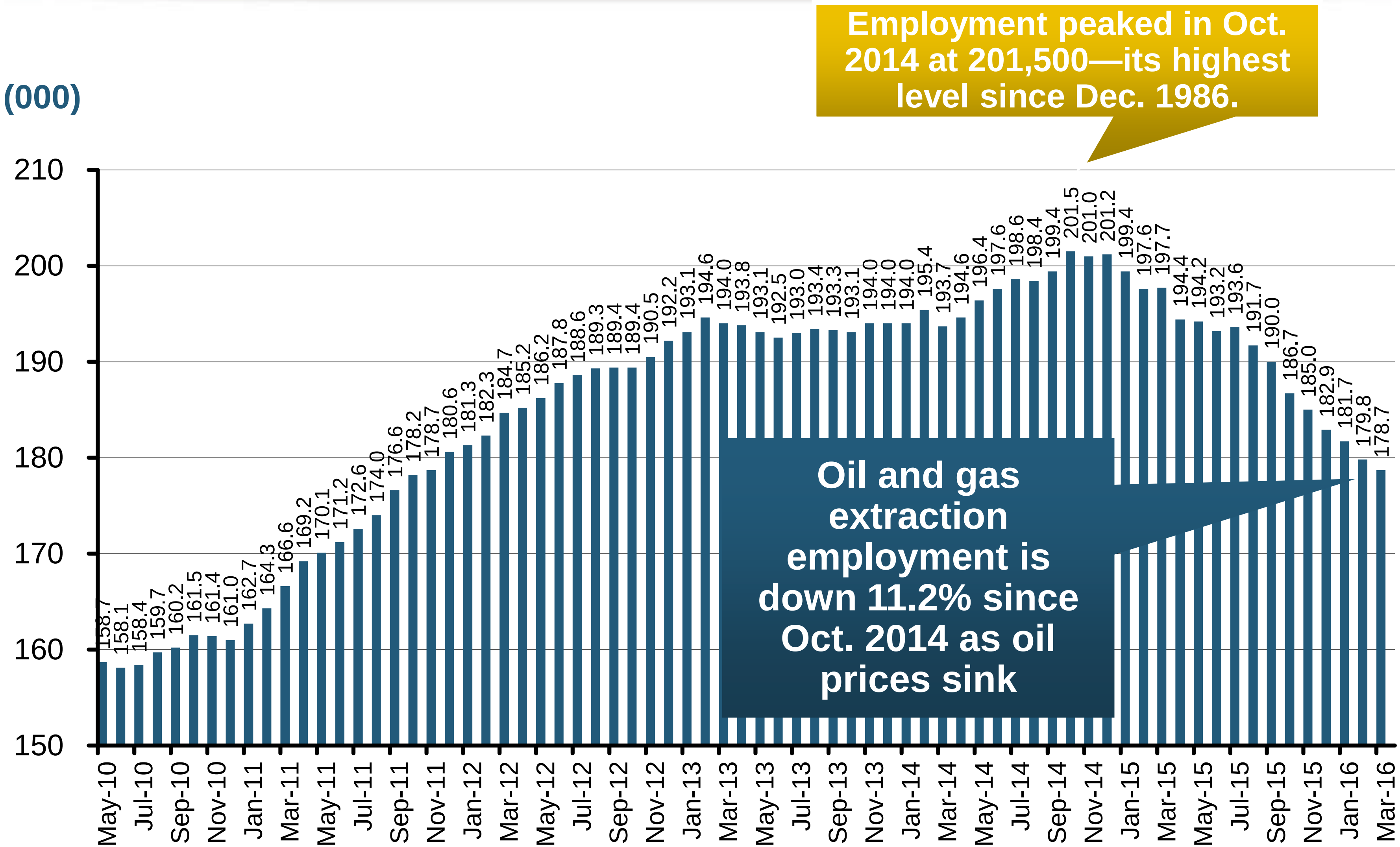


Manufacturing employment has been a surprising source of strength in the economy. Global economic weakness, falling oil prices have hurt.

*Seasonally adjusted.

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

Employment in Oil & Gas Extraction, Jan. 2010—March 2016*



*Seasonally adjusted

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

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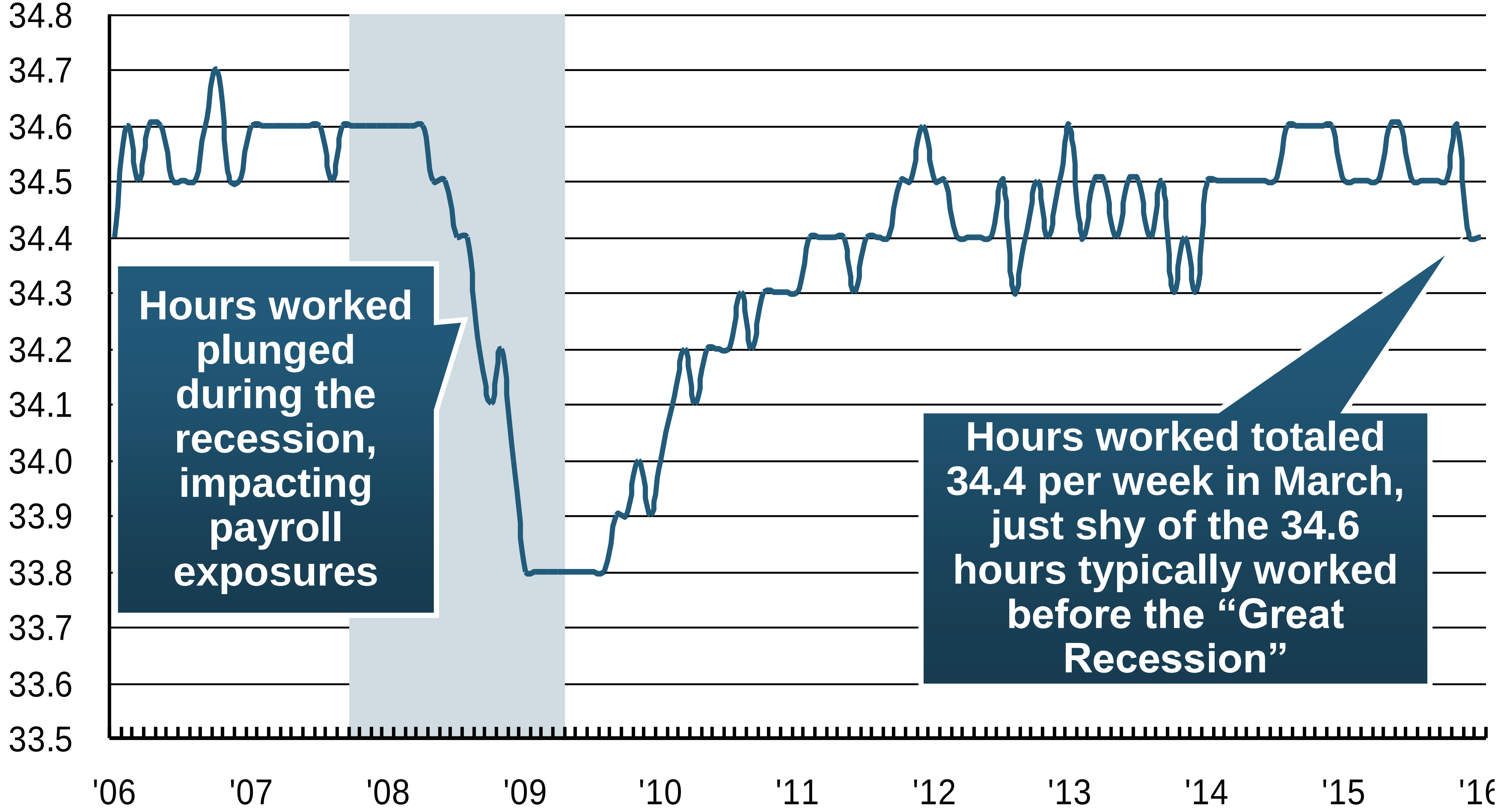
POSITIVE LABOR MARKET DEVELOPMENTS

Key Factors Driving Workers Compensation Exposure

Average Weekly Hours of All Private Workers, March 2006—March 2016

(Hours Worked)

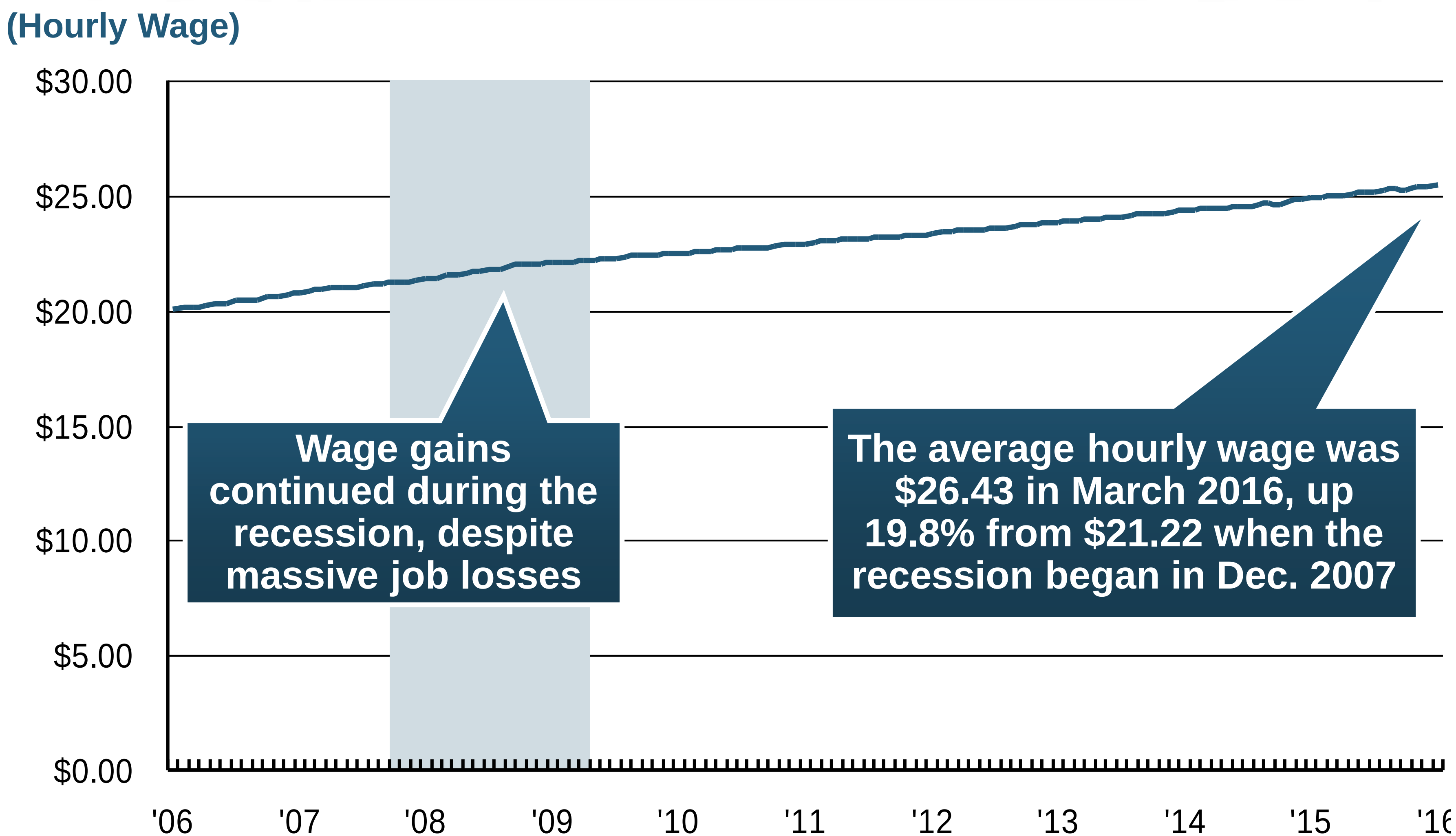


*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/#employment; National Bureau of Economic Research (recession dates); Insurance Information Institute.

Average Hourly Wage of All Private Workers, March 2006—March 2016



*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/#employment; National Bureau of Economic Research (recession dates); Insurance Information Institute.

ADVERSE LONG-TERM LABOR MARKET DEVELOPMENTS

Key Factors Harming Workers Compensation Exposure and the Overall Economy

Labor Force Participation Rate, Jan. 2002—March 2016*

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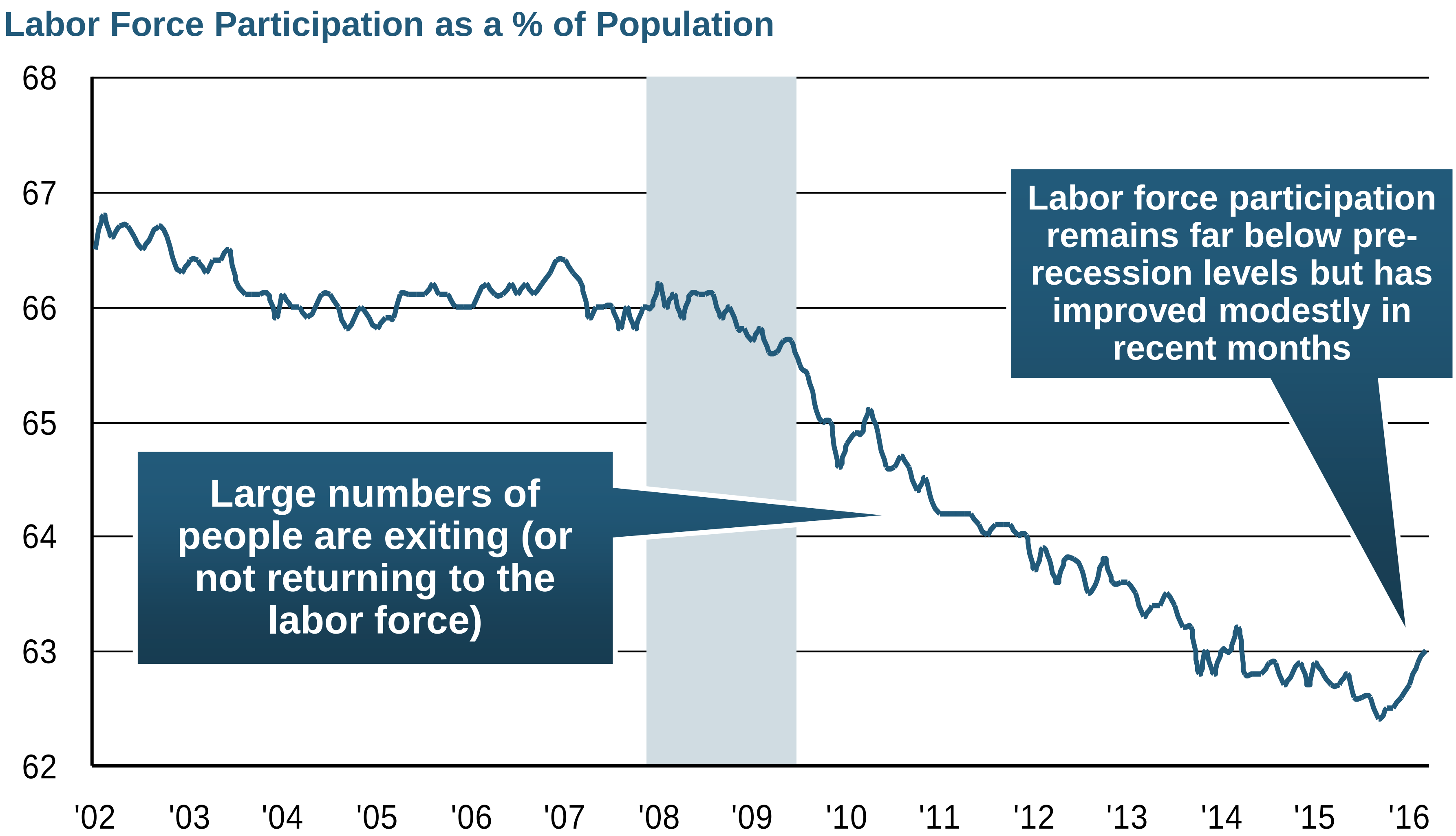

*Defined as the percentage of working age persons in the population who are employed or actively seeking work.

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/; National Bureau of Economic Research (recession dates); Insurance Information Institute.

Number of "Discouraged Workers," Jan. 2002—March 2016

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In recent good times, the number of discouraged workers ranged from 200,000-400,000 (1995-2000) or from 300,000-500,000 (2002-2007).

Notes: Recessions indicated by gray shaded columns. Data are seasonally adjusted.

Sources: Bureau of Labor Statistics http://www.bls.gov/news.release/empsit.a.htm ; NBER (recession dates); Ins. Info. Inst.

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P/C Insurance Industry Financial Overview

2015: Second-Best Year in the Post-Crisis Era & Carbon Copy of 2014

Modest CATs, Reserve Releases

Workers Comp Helped Too

P/C Industry Net Income After Taxes 1991–2015

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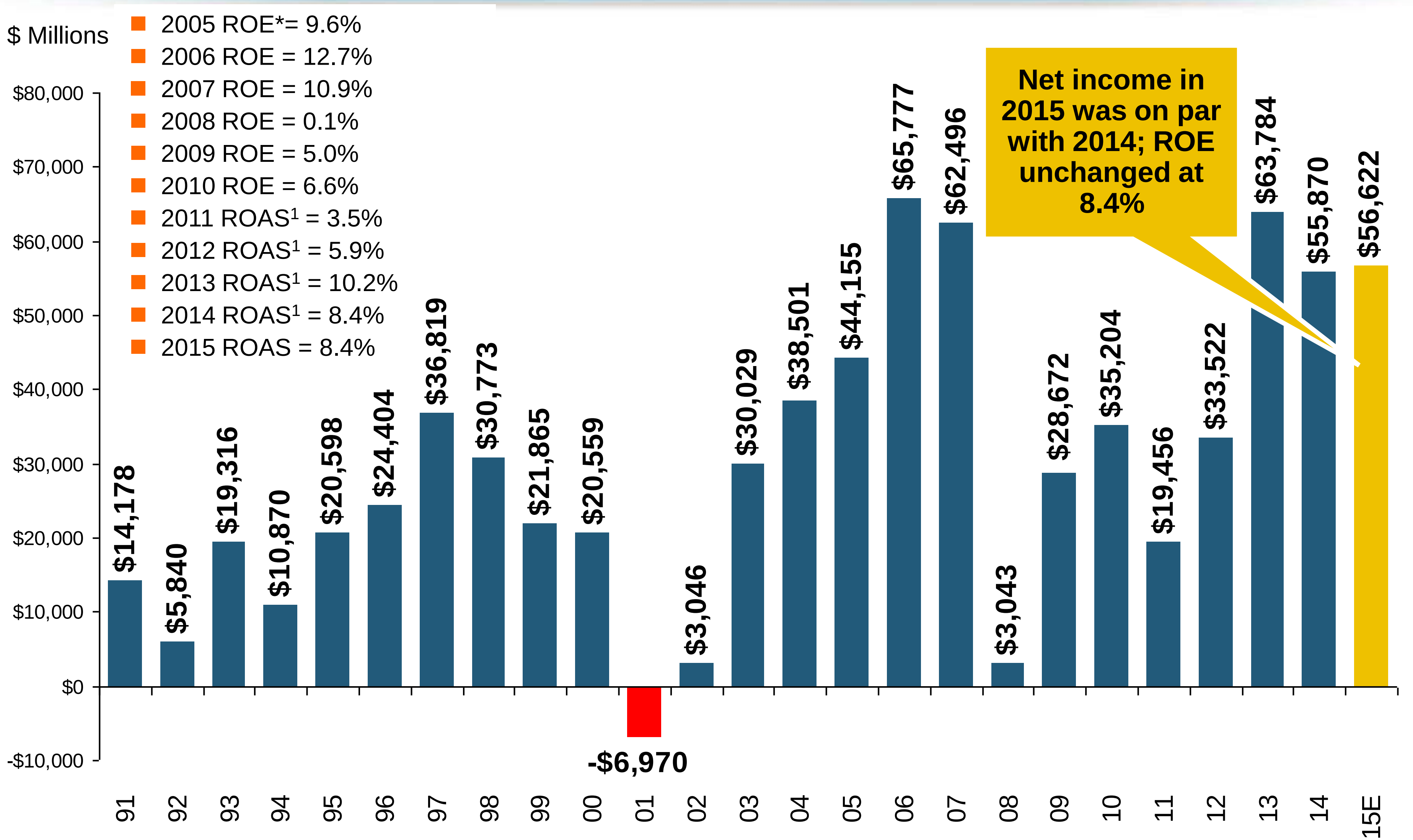
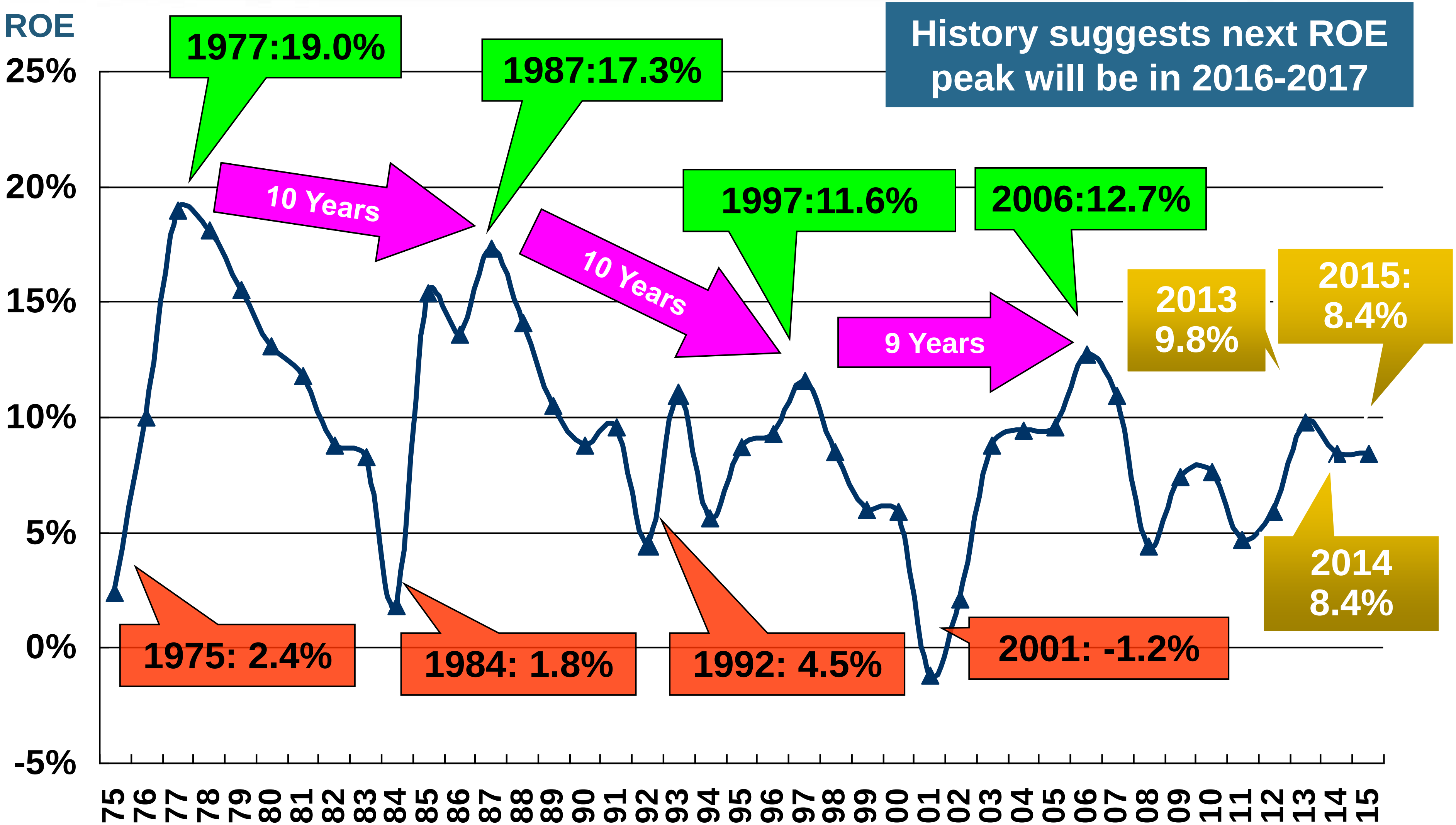


•ROE figures are GAAP; [1]Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009; 2015E is annualized figure based actual figure through Q3 of $44.0

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

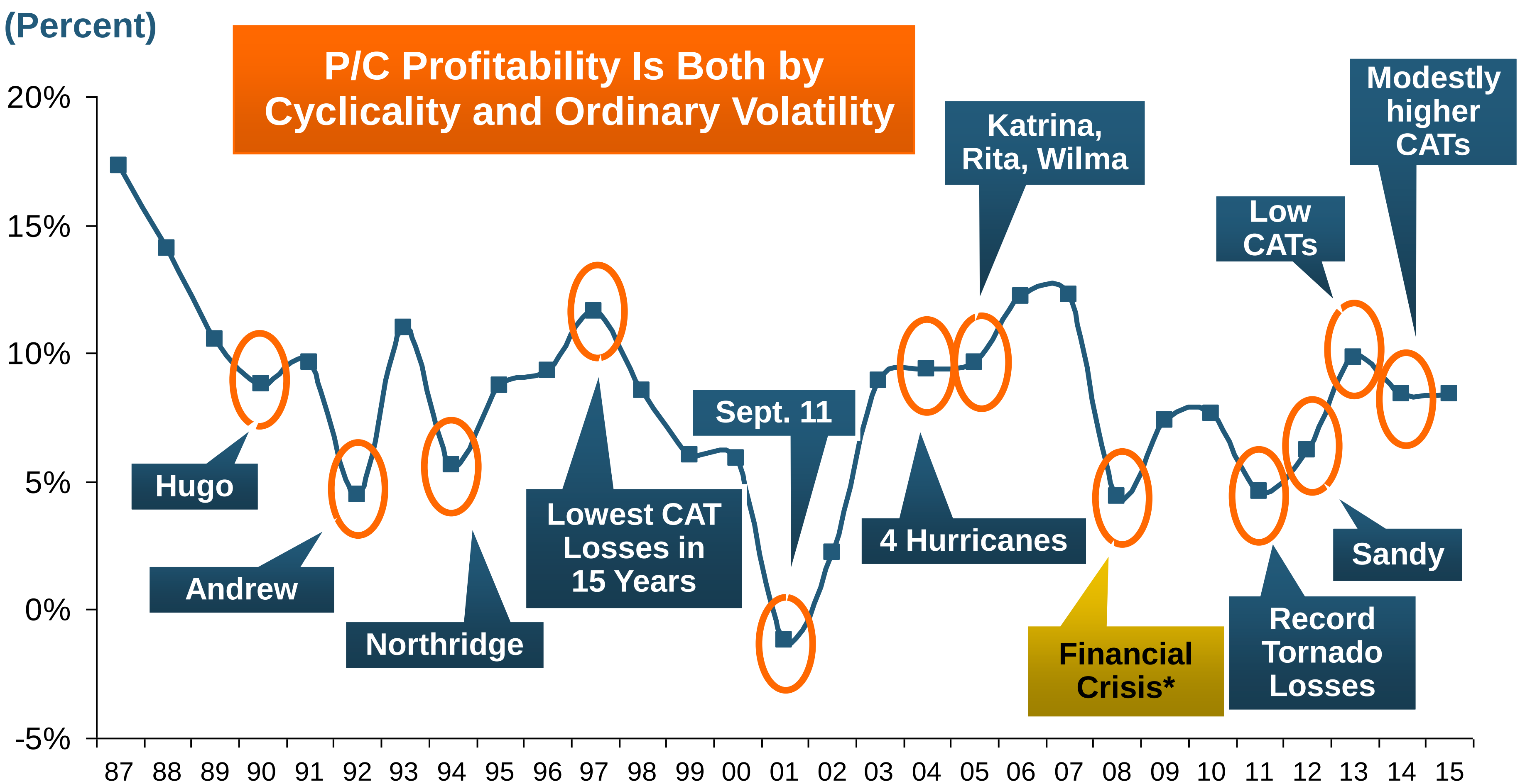
Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2015



*Profitability = P/C insurer ROEs. 2011-15 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.

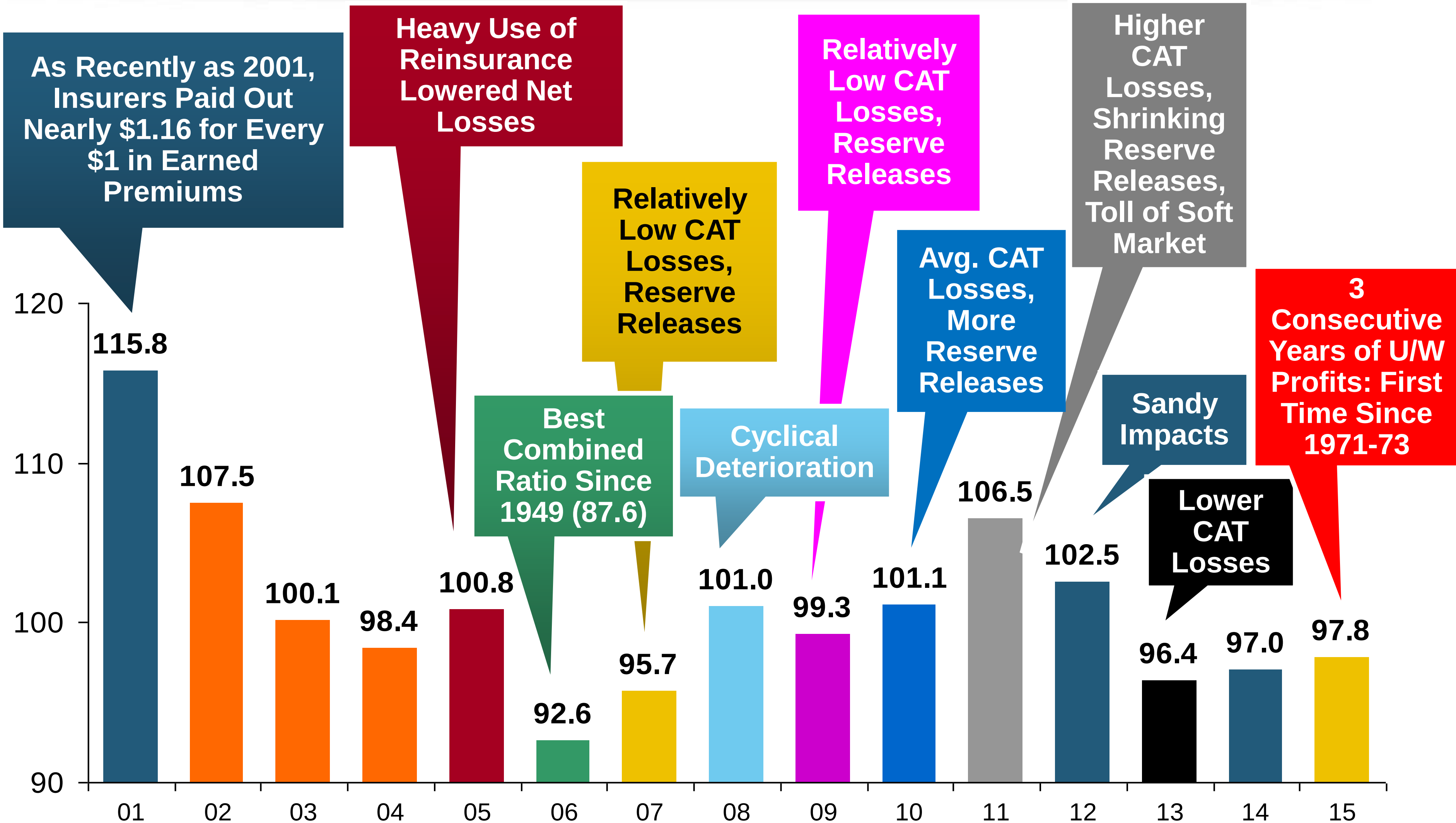
Source: Insurance Information Institute; NAIC, ISO, A.M. Best, Conning

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



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

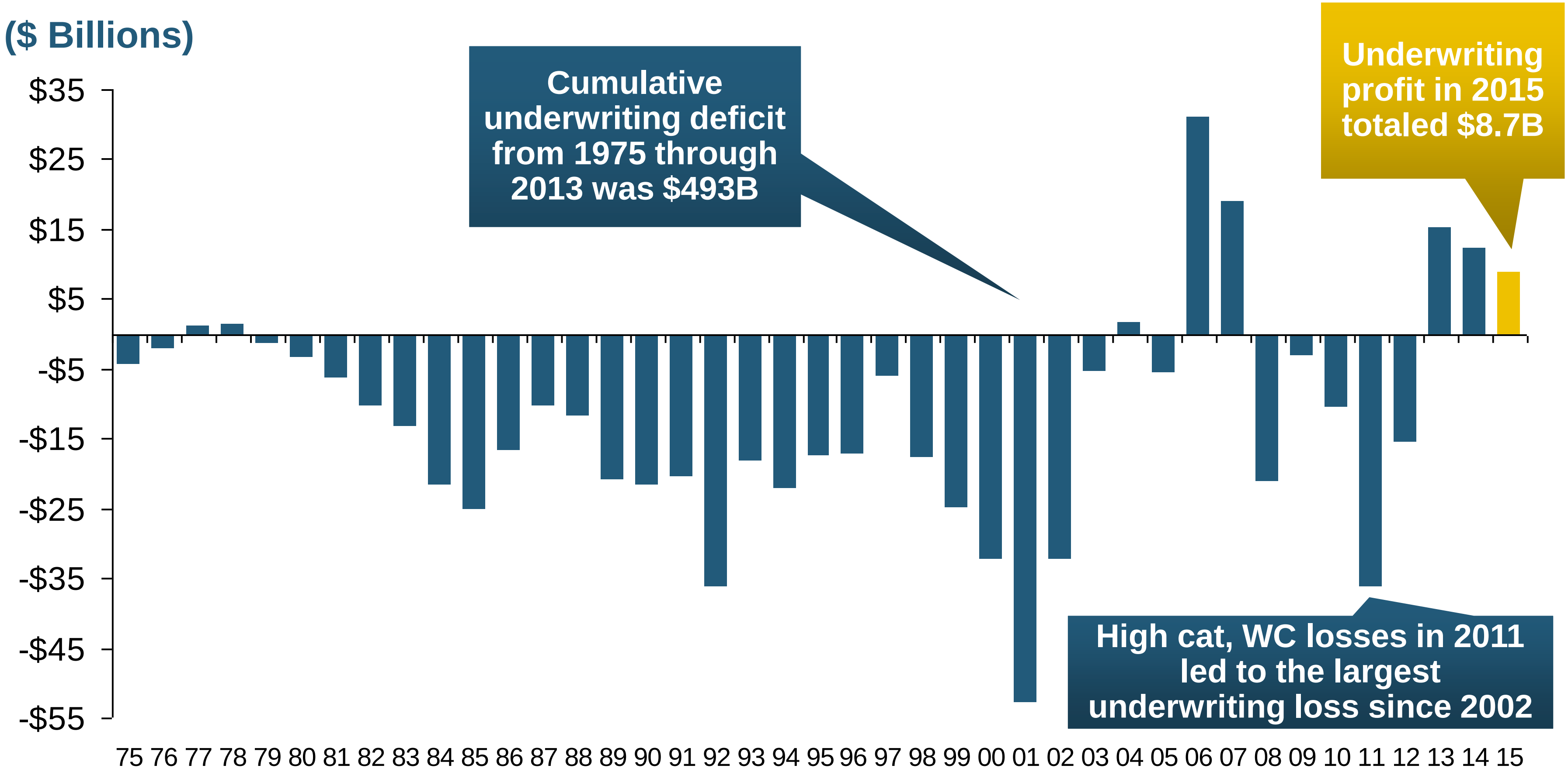
P/C Insurance Industry Combined Ratio, 2001–2015*



* 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 (2014-2015); Figure for 2010-2013 is from A.M. Best P&C Review and Preview, Feb. 16, 2016.

Underwriting Gain (Loss) 1975–2015*

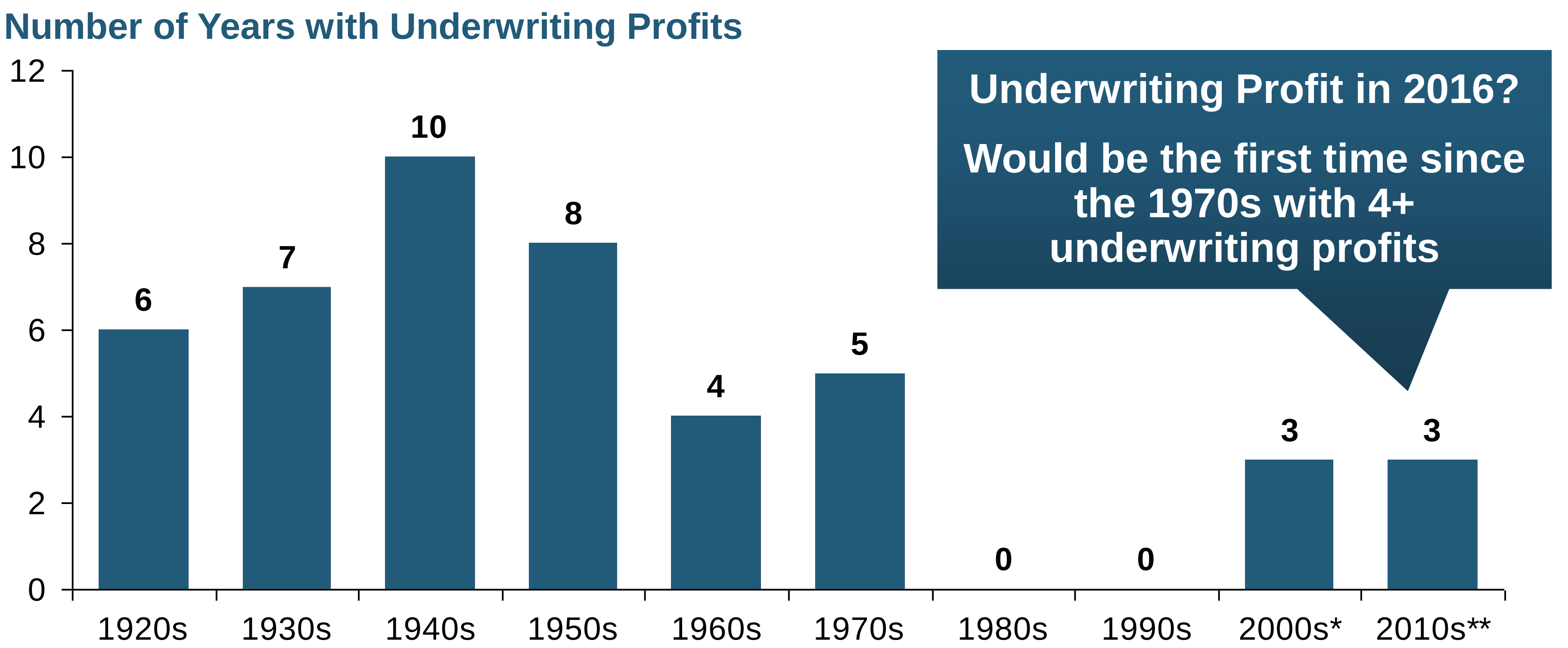


Large Underwriting Losses Are *NOT* Sustainable in Current Investment Environment

* Includes mortgage and financial guaranty insurers in all years.

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

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



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

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

**Data for the 2010s is for the period 2010 through 2015.

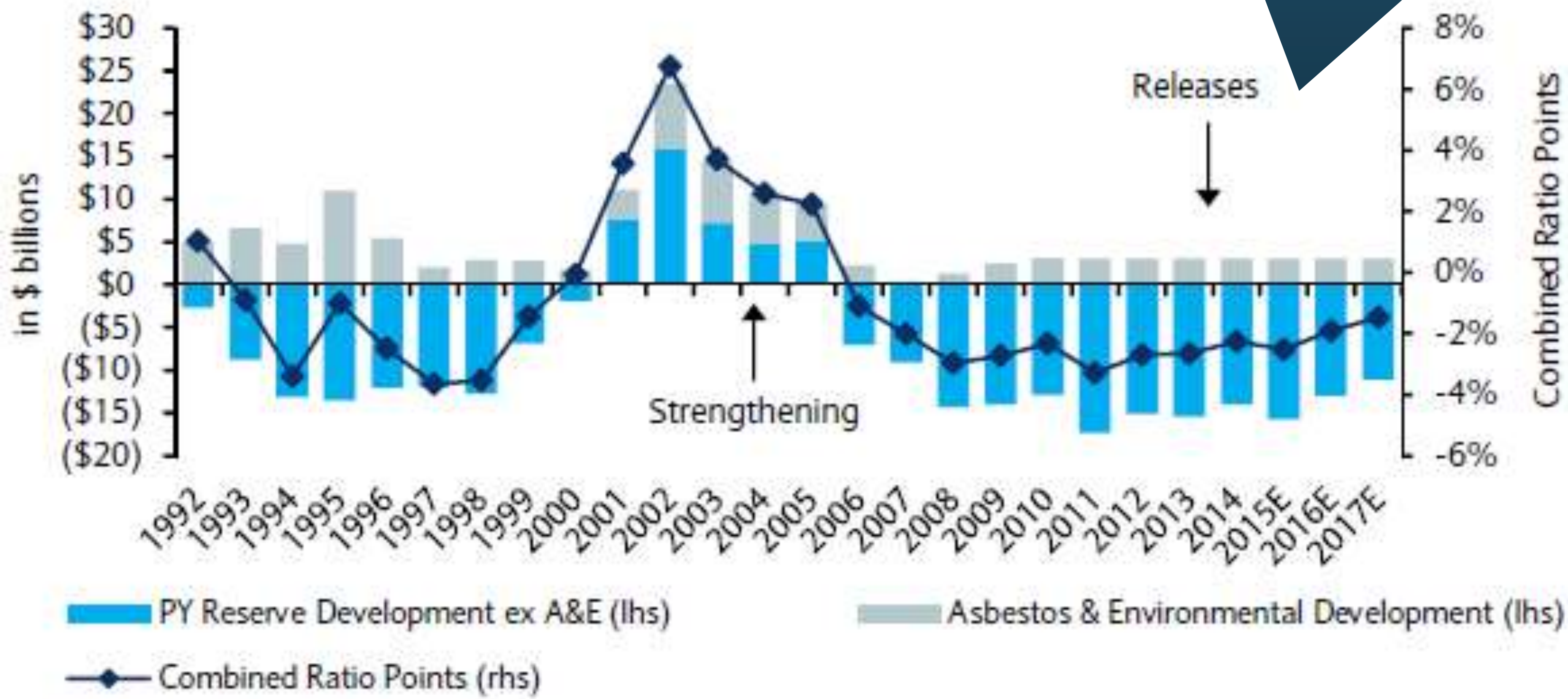
Note: Data for 1920–1934 based on stock companies only.

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

P/C Insurance Loss Reserve Development, 1992 – 2017E*

Reserve releases are expected to gradually taper off slowly, but will continue to benefit the bottom line and combined ratio through at least 2017

Reserve Change



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

Policyholder Surplus, 2006:Q4–2015:Q4

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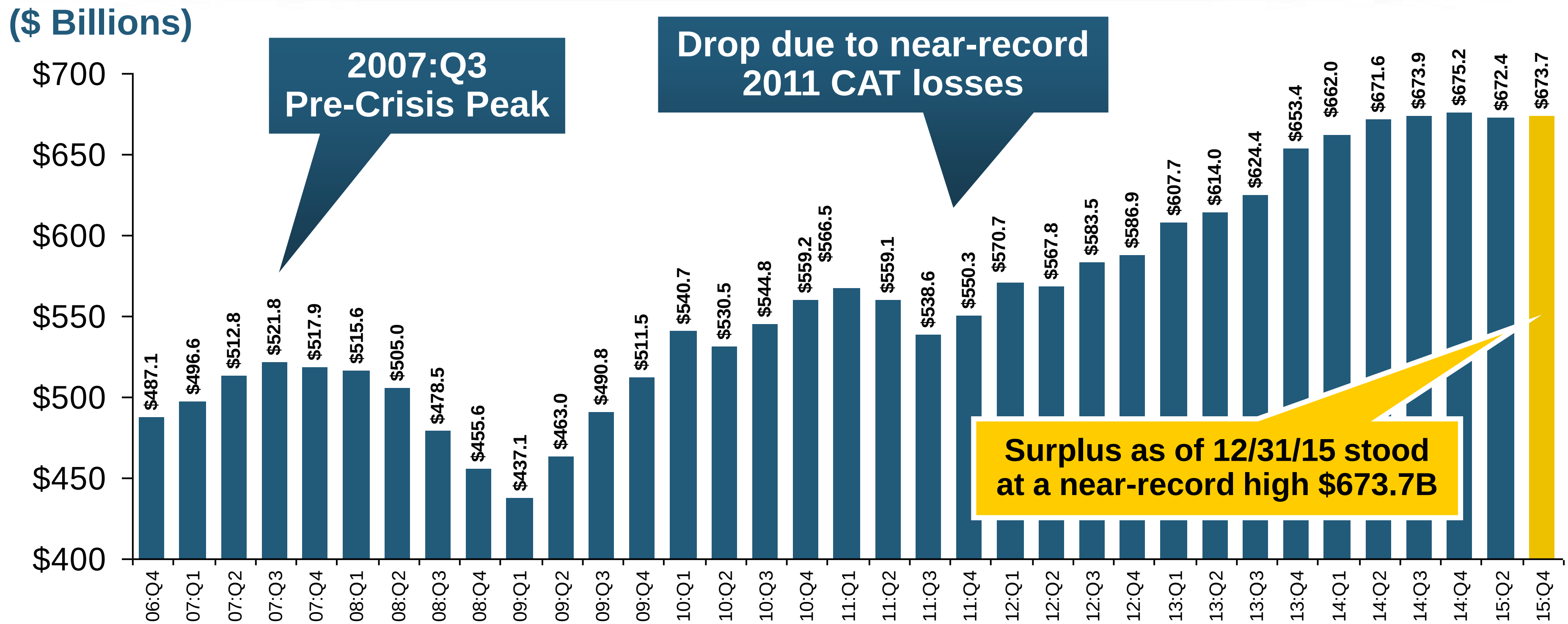

The industry now has $1 of surplus for every $0.76 of NPW, close to the strongest claims-paying status in its history.

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 2016 in very strong financial condition.

Sources: ISO, A.M .Best.

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THE CHALLENGES OF GROWTH

Cycles, M&A and Lingering Scars of the 'Great Recession'

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

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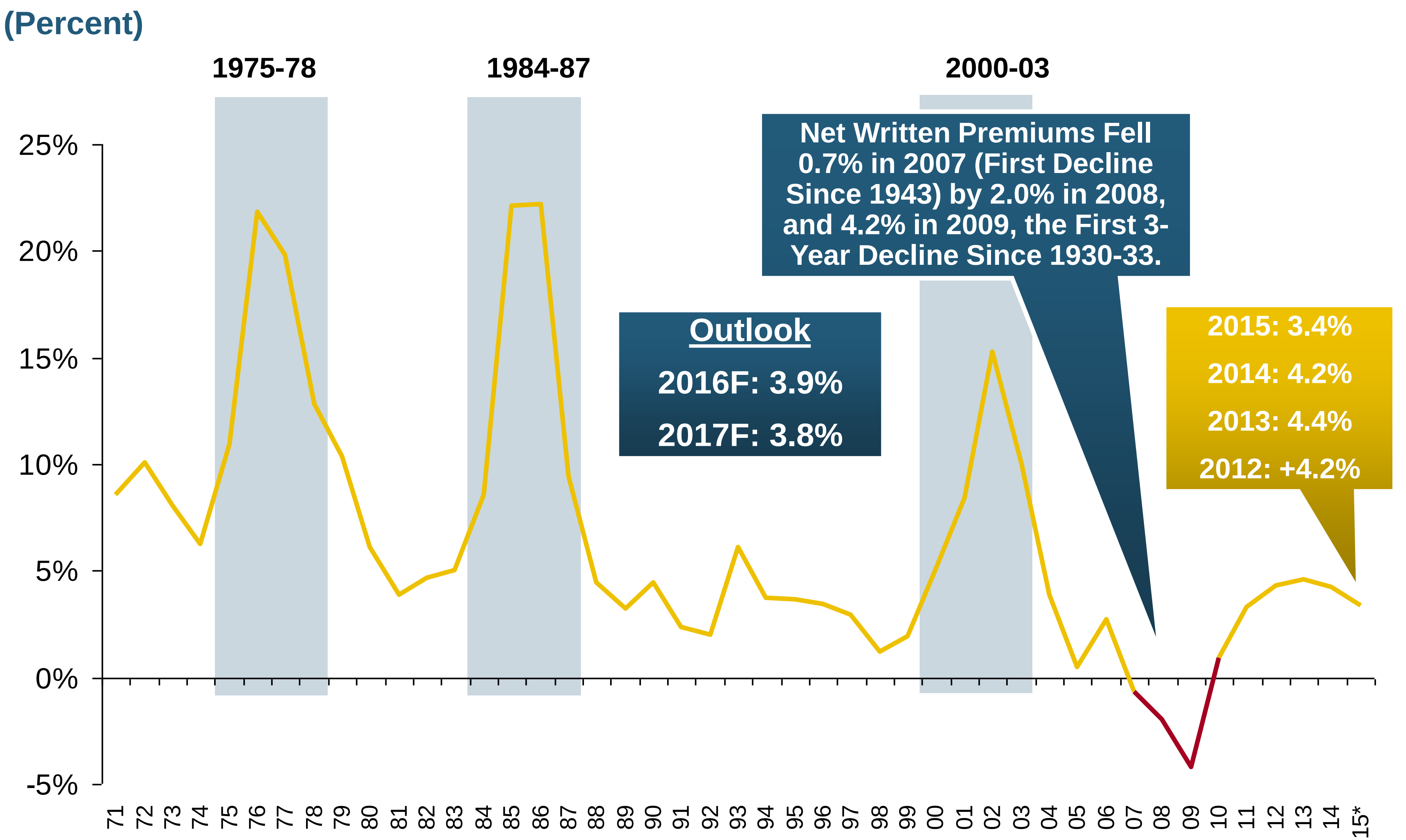

Shaded areas denote “hard market” periods

Sources: A.M. Best (1971-2013), ISO (2014-15).

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

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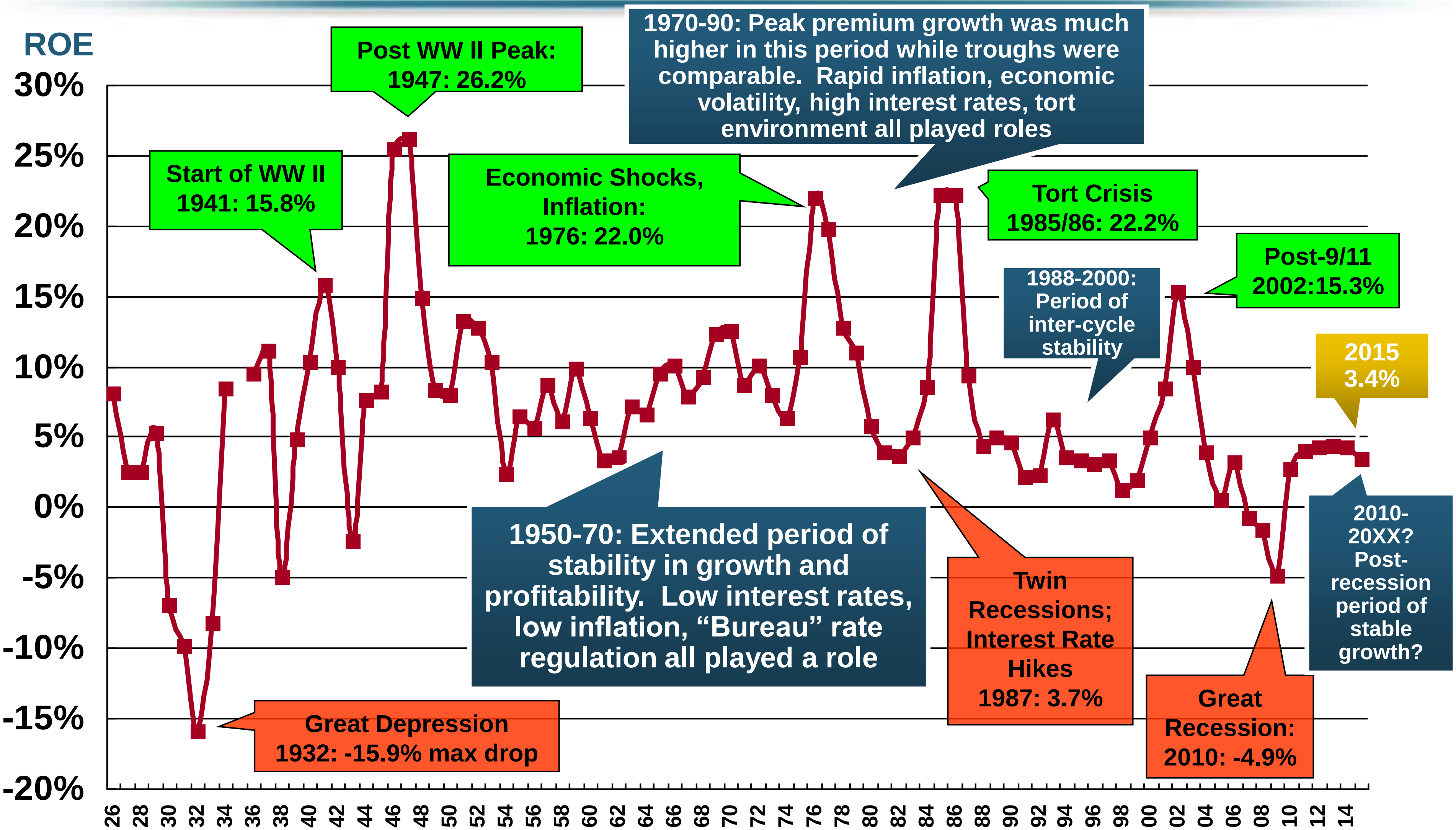
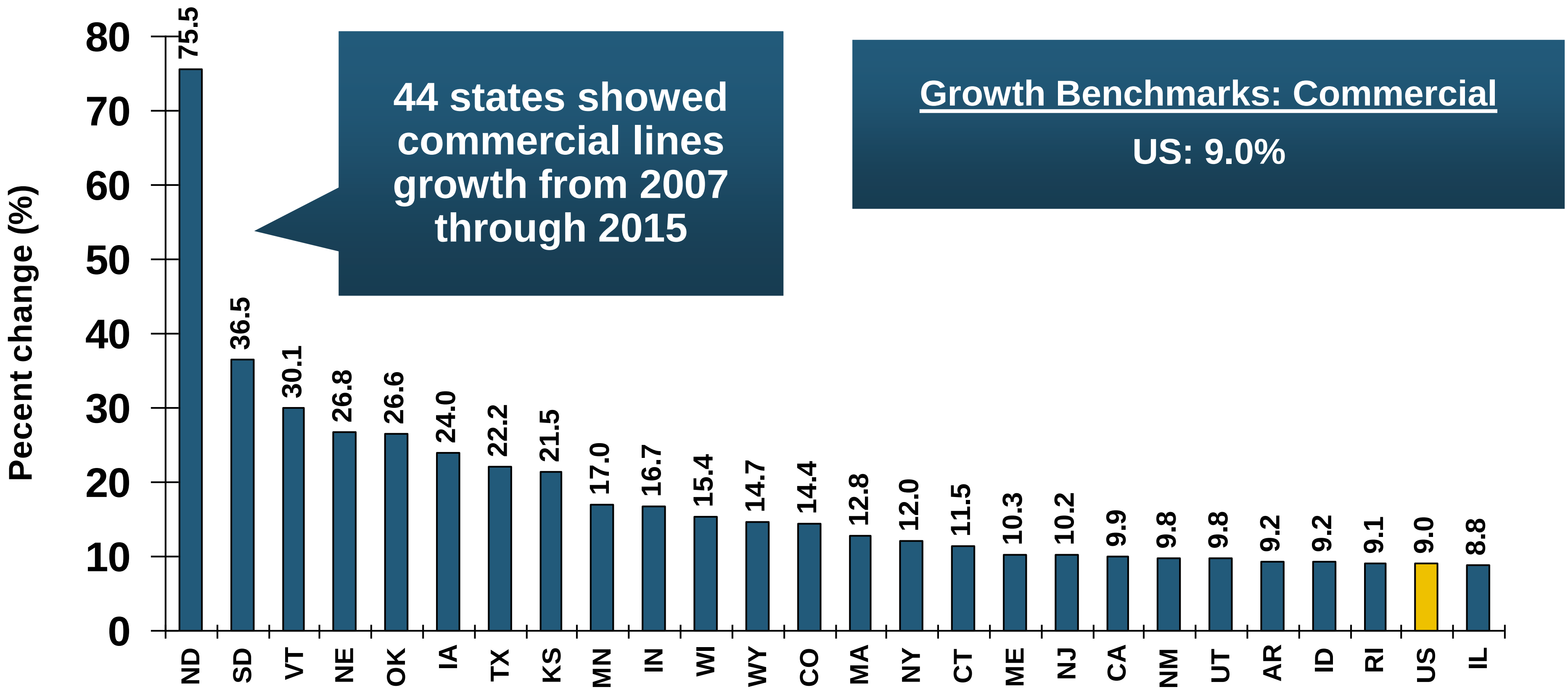


Note: Data through 1934 are based on stock companies only. Data include state funds beginning in 1998.
Source: A.M. Best; Insurance Information Institute.

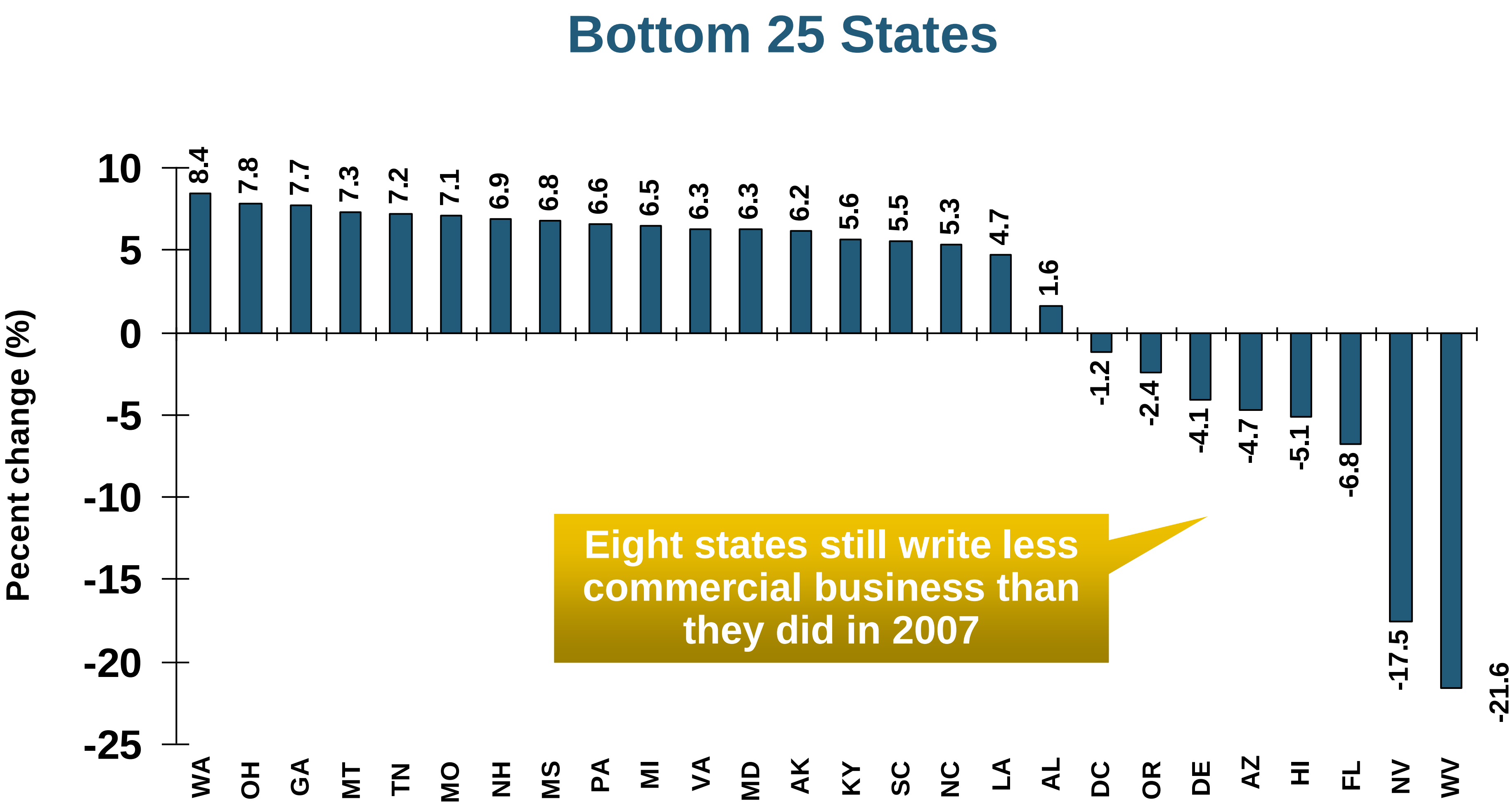
Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2015

Top 25 States



Sources: NAIC via SNL Financial; Insurance Information Institute.

Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2015



Sources: NAIC via SNL Financial; Insurance Information Institute.

Direct Premiums Written: Workers' Comp Percent Change by State, 2007-2015*

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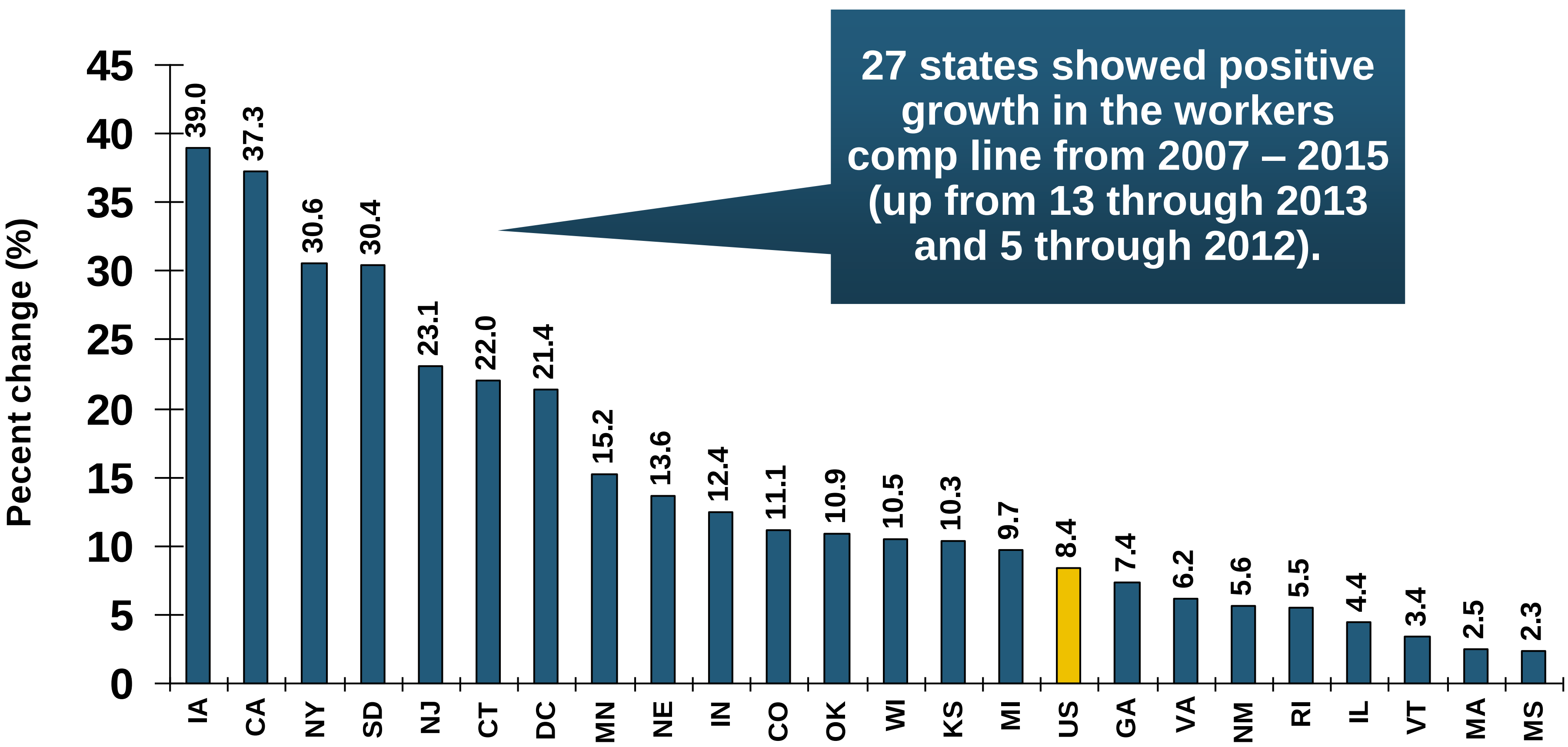
Top 25 States



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

Sources: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.

Direct Premiums Written: Worker's Comp Percent Change by State, 2007-2015*

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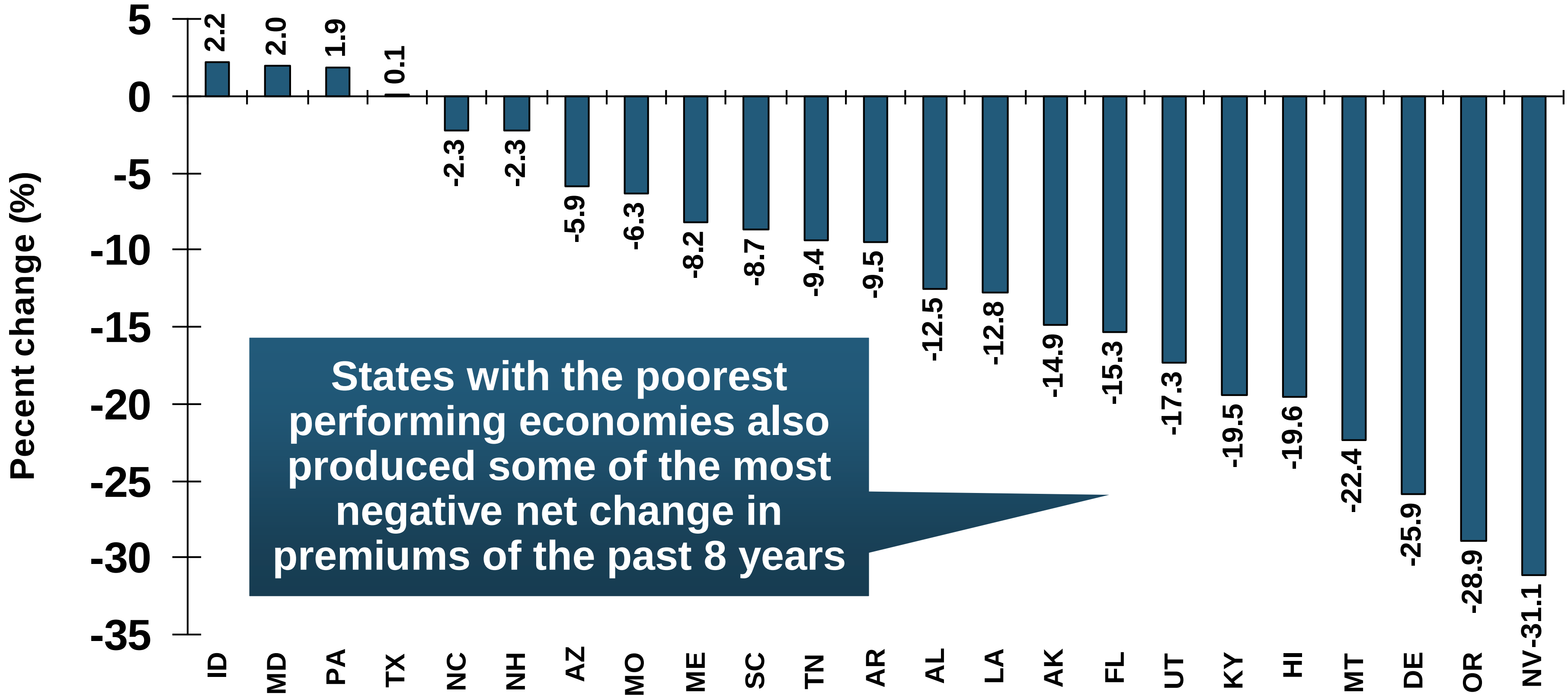
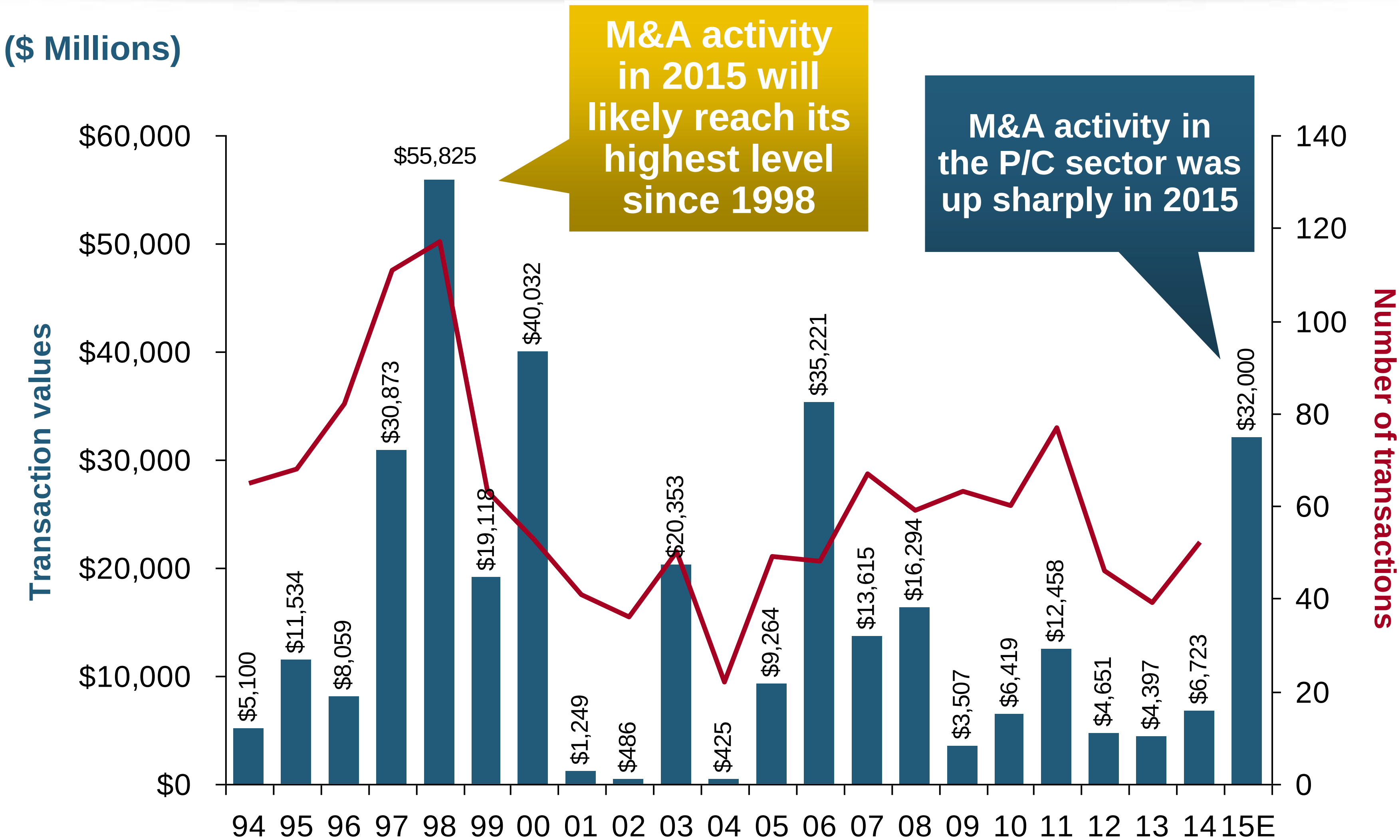
Bottom 25 States



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

Sources: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.

U.S. INSURANCE MERGERS AND ACQUISITIONS, P/C SECTOR, 1994-2015E (1)



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

Source: Conning proprietary database; 2015 I.I.I. estimate.

M&A Activity Is Shifting Toward North America and Asia and Away from Europe

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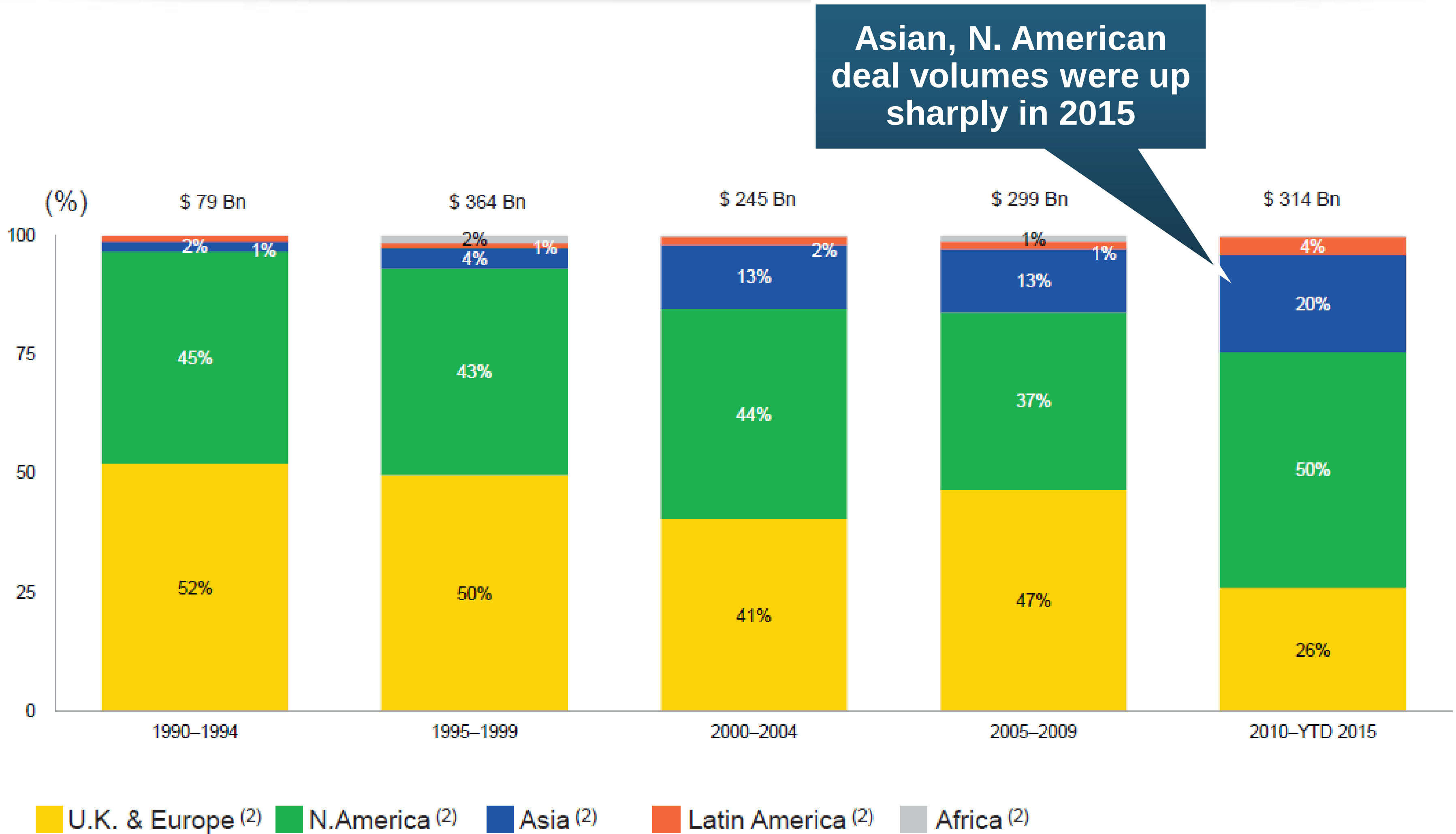
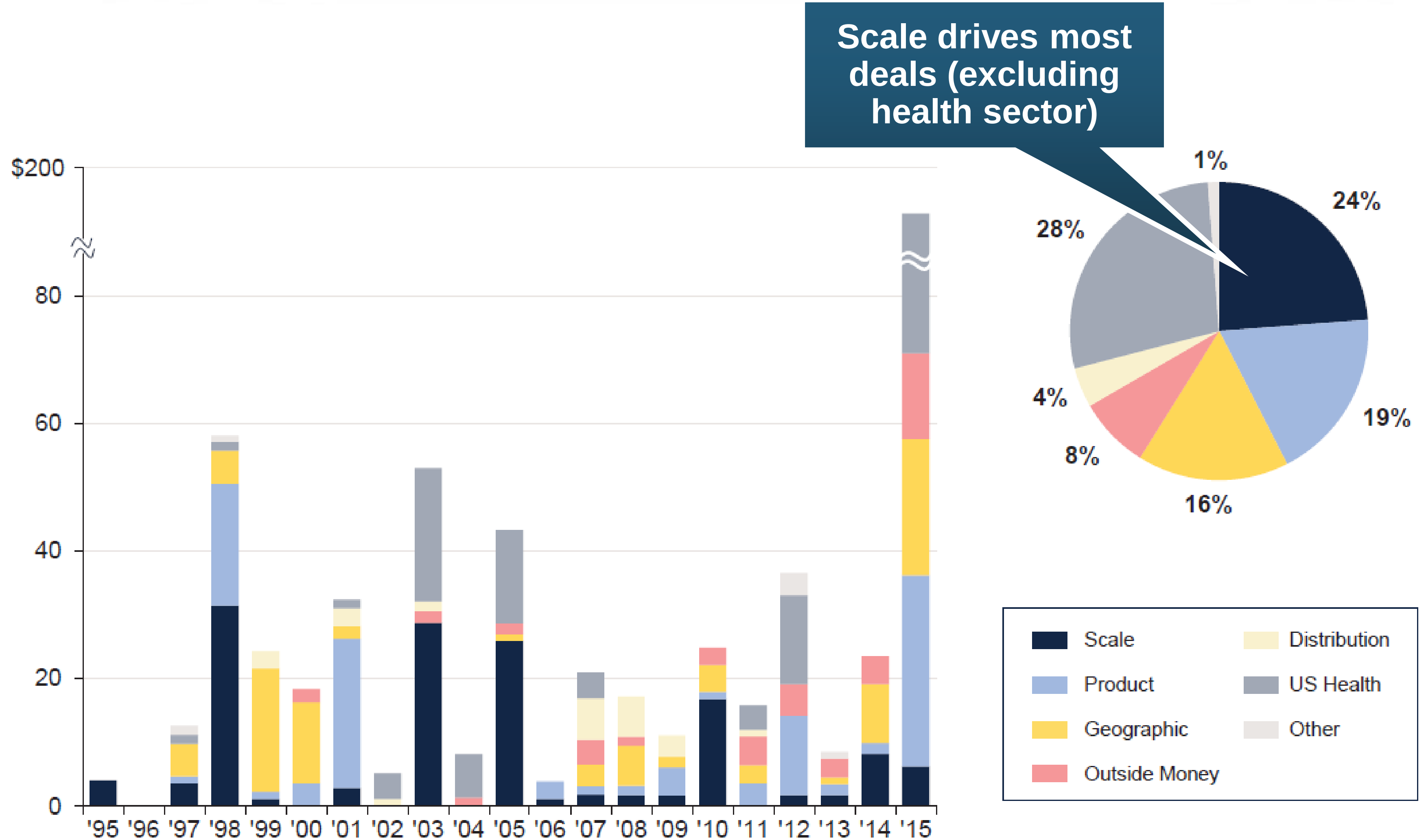


Notes
1. Split based on target's region
2. Values exclude assumed liabilities

Source: Thomson Reuters as of Oct. 2015 from Geneva Association Newsletter *Insurance and Finance*, Jan. 2016, presentation "*Facts vs. Sentiment: Deals in the Insurance Sector*," by Aviva CEO Mark Wilson.

M&A: Deal Rationale by Dollar Amount



Source: SNL Financial and WCMA estimates from Geneva Association Newsletter *Insurance and Finance*, Jan. 2016, presentation "*What is the Logic Behind Consolidation? And Does It Create Value? A View from Outside*," by Brian Shea, Head of Willis Capital Markets & Advisory Europe (WCMA).

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INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

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

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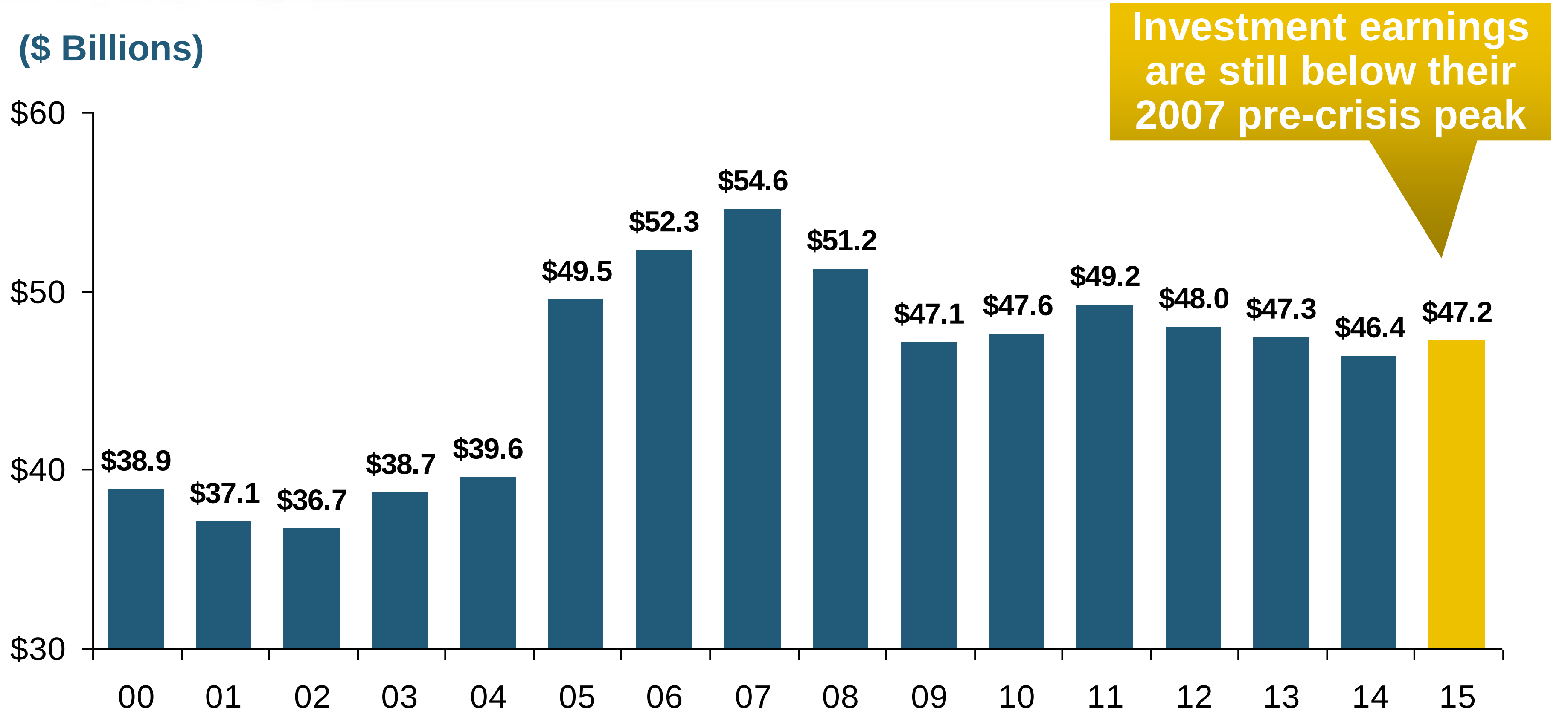

Due to persistently low interest rates, investment income fell in 2012, 2013 and 2014 but showed a small (1.9%) increase in 2015—a trend that may continue

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

U.S. Treasury Security Yields: A Long Downward Trend, 1990–2016*

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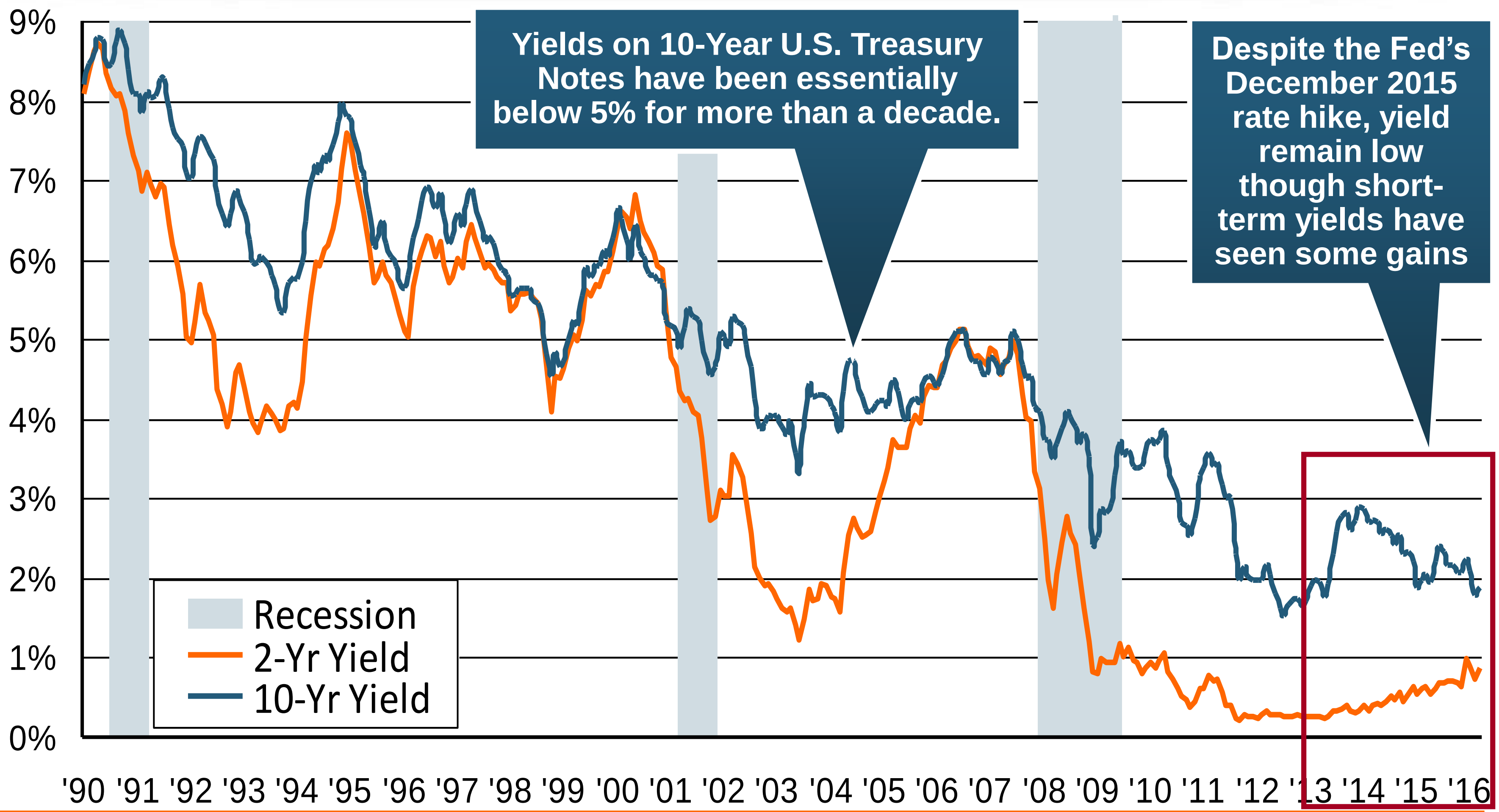

Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, through March 2016.

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

Distribution of Invested Assets: P/C Insurance Industry, 2014

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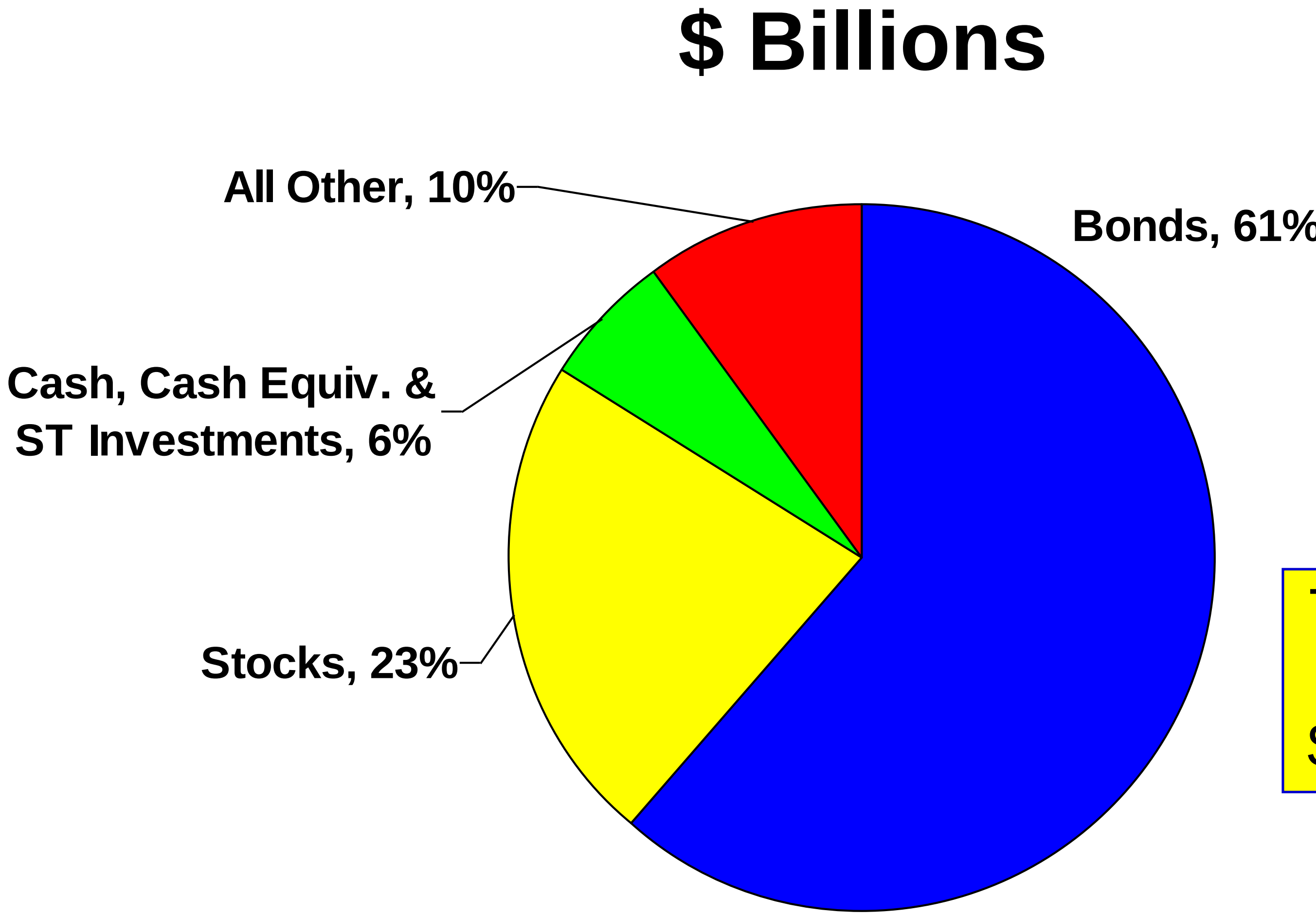
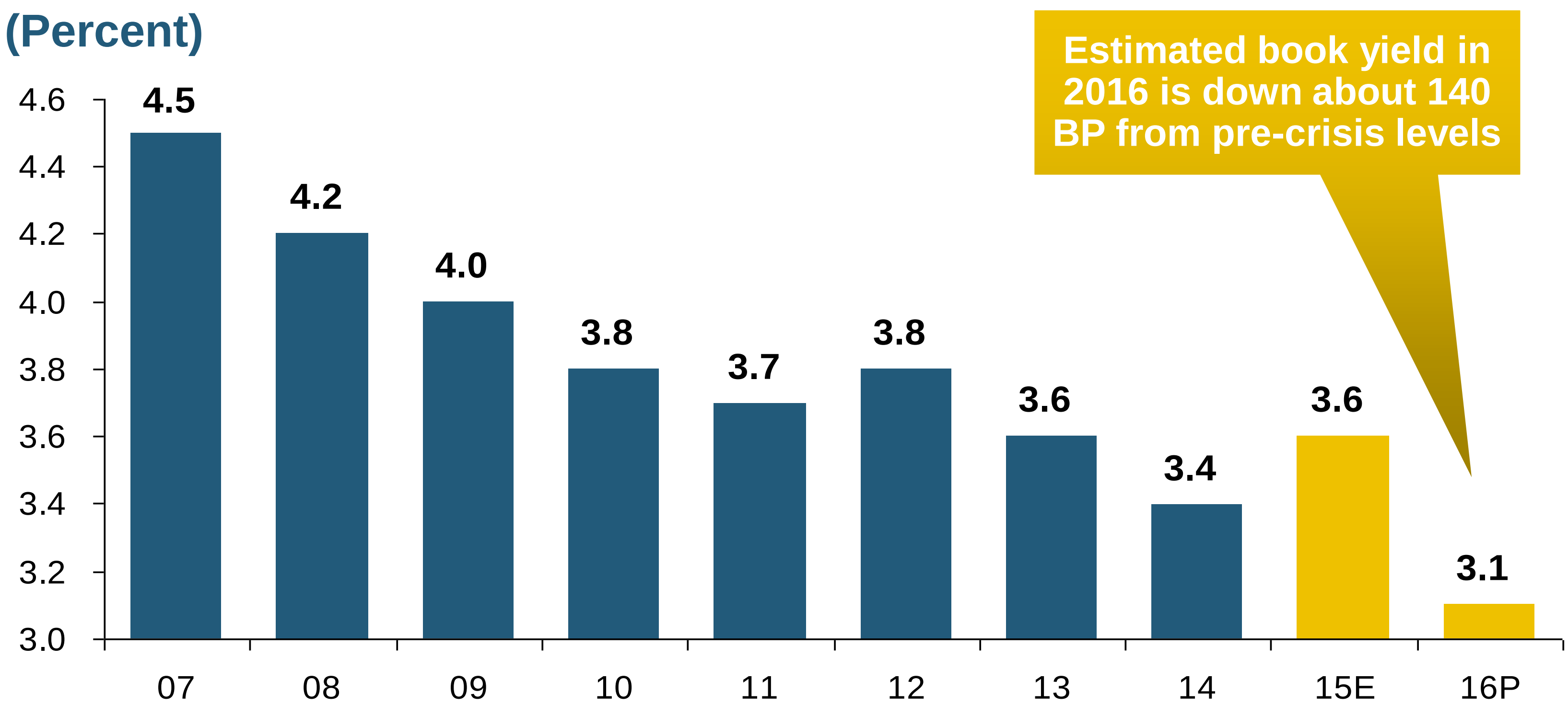


Total Invested Assets = $1.533 Trillion

Source: Insurance Information Institute *Fact Book 2016,* A.M. Best.

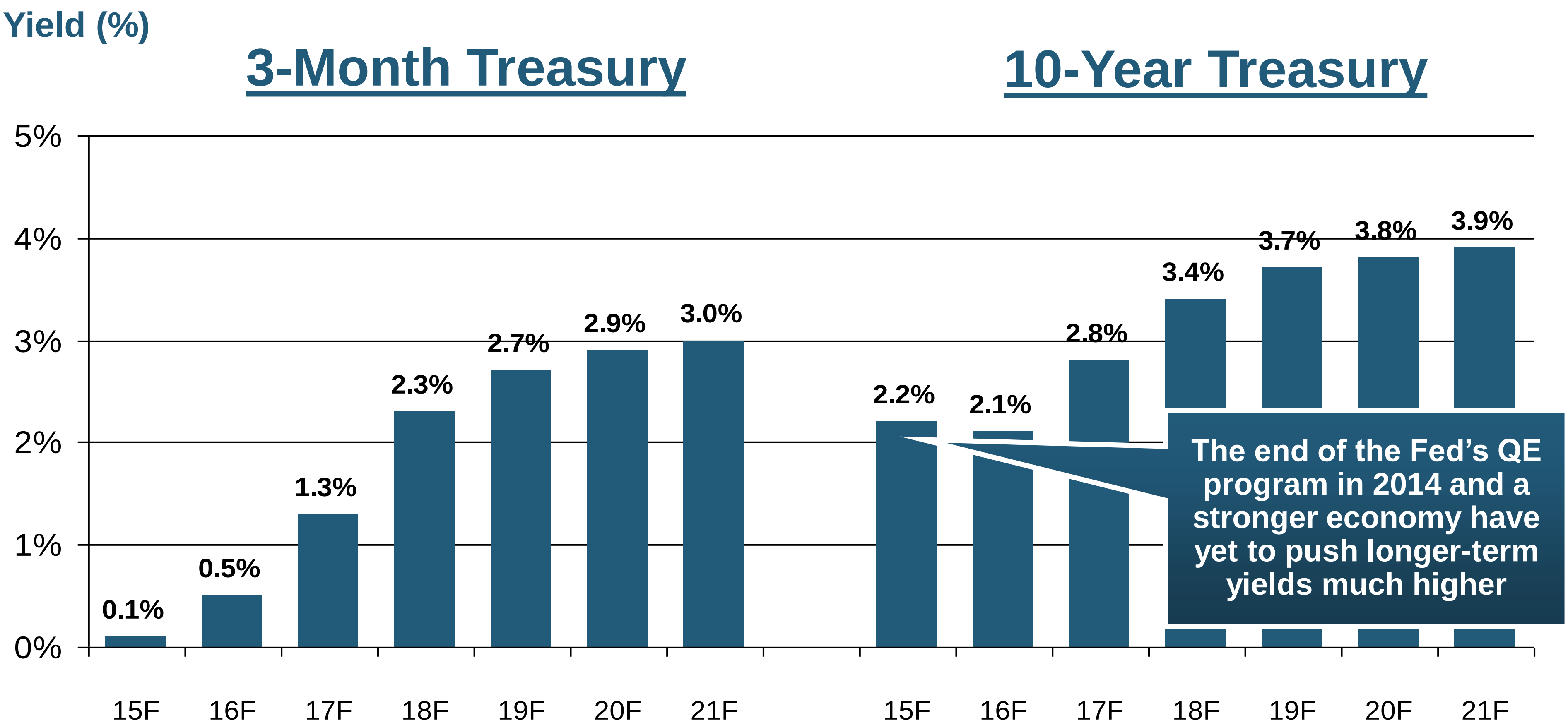
Net Investment Yield on Property/ Casualty Insurance Invested Assets, 2007–2016P*



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

Sources: A.M. Best; 2015E-2016P figures from A.M. Best P/C Review and Preview, Feb. 2016; Insurance Information Institute

Interest Rate Forecasts: 2016 – 2021



A full normalization of interest rates is unlikely until 2019, more than a decade after the onset of the financial crisis.

Sources: Blue Chip Economic Indicators (4/16 for 2016 and 2017; for 2018-2021 3/16 issue); Insurance Info. Institute.

Treasury Yield Curves: Pre-Crisis (July 2007) vs. April 2016*

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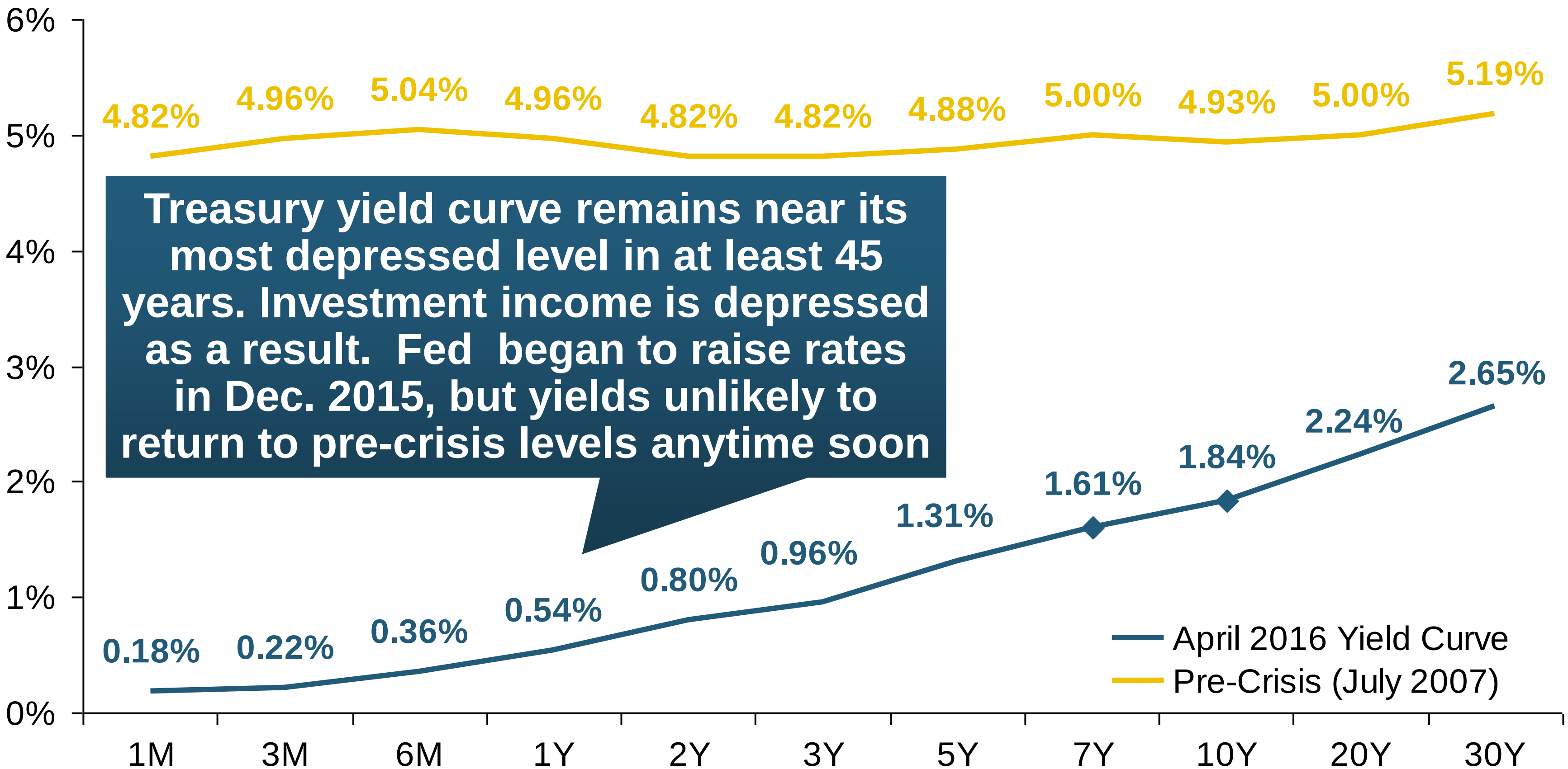


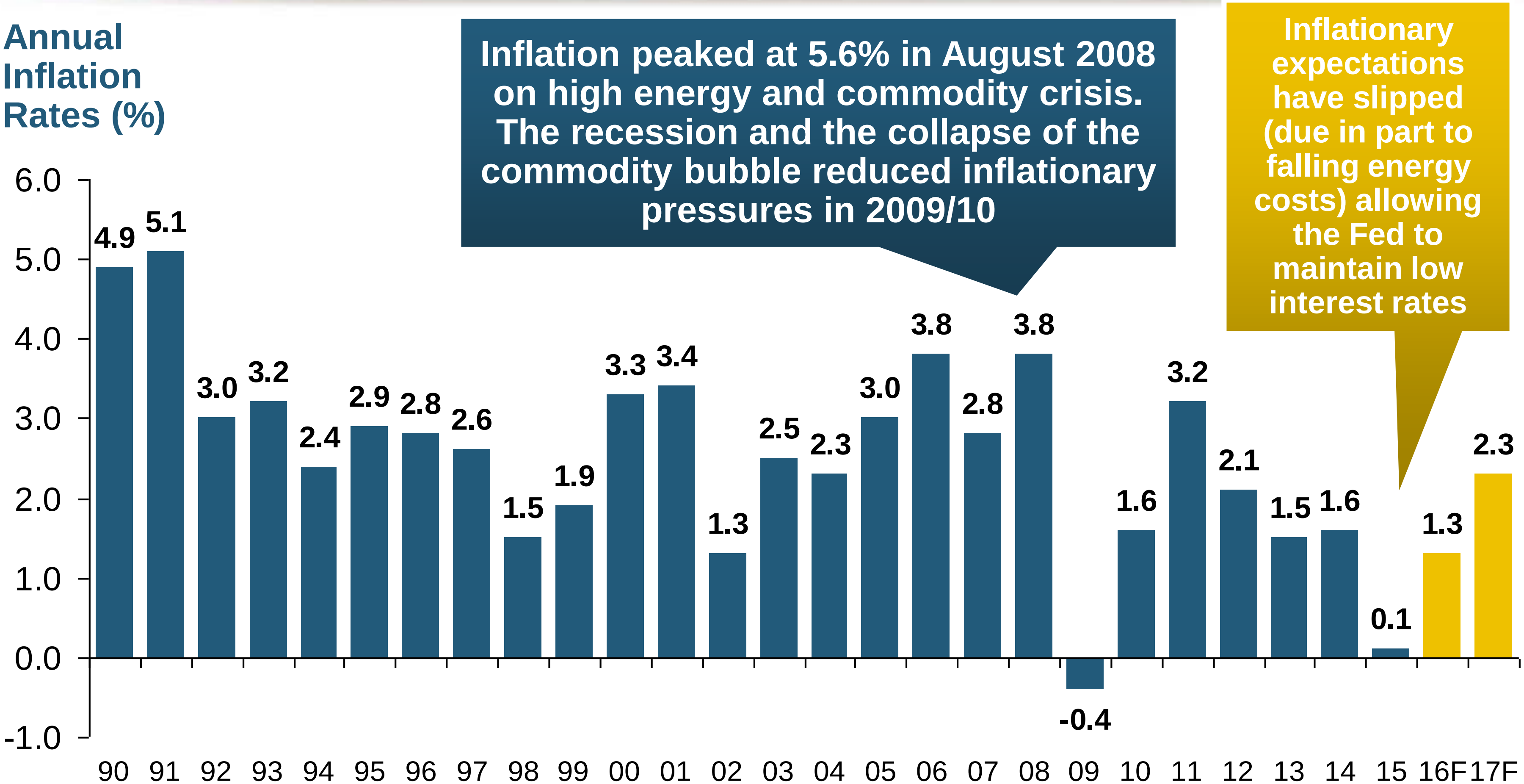
The Fed Began to Raise Rates in Dec. 2015 but Market Volatility and Weakness Abroad Have Made Additional Hikes Difficult

*As of April 22, 2016.

Source: Federal Reserve Board of Governors: http://www.federalreserve.gov/releases/h15/data.htm; Insurance Information Institute.

Annual Inflation Rates, (CPI-U, %), 1990–2017F

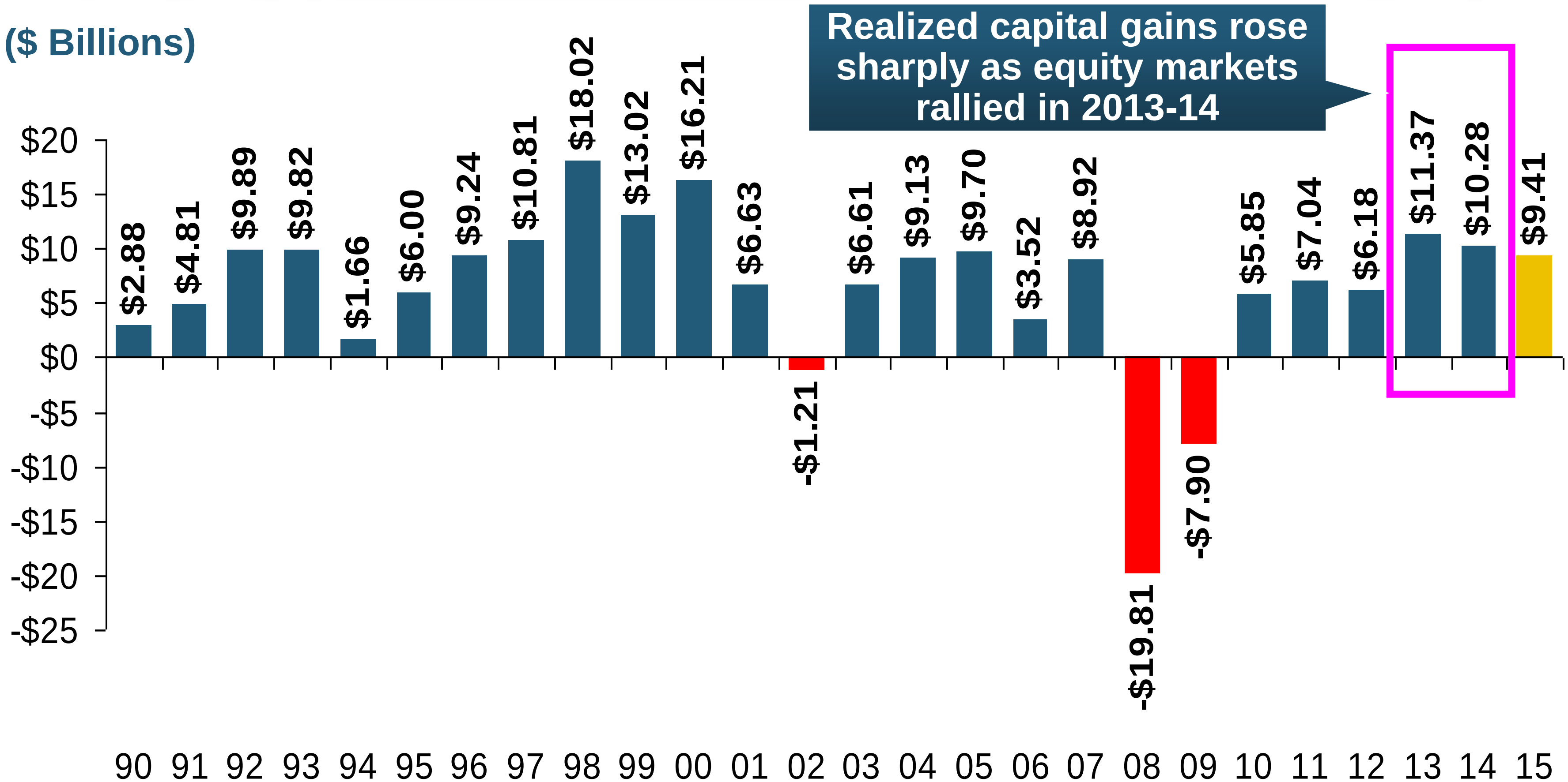
INSURANCE INFORMATION INSTITUTE



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

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators, 4/16 (forecasts).

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



Insurers Posted Net Realized Capital Gains in 2010 - 2015 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.

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

Property/Casualty Insurance Industry Investment Gain: 1994–2015[1]

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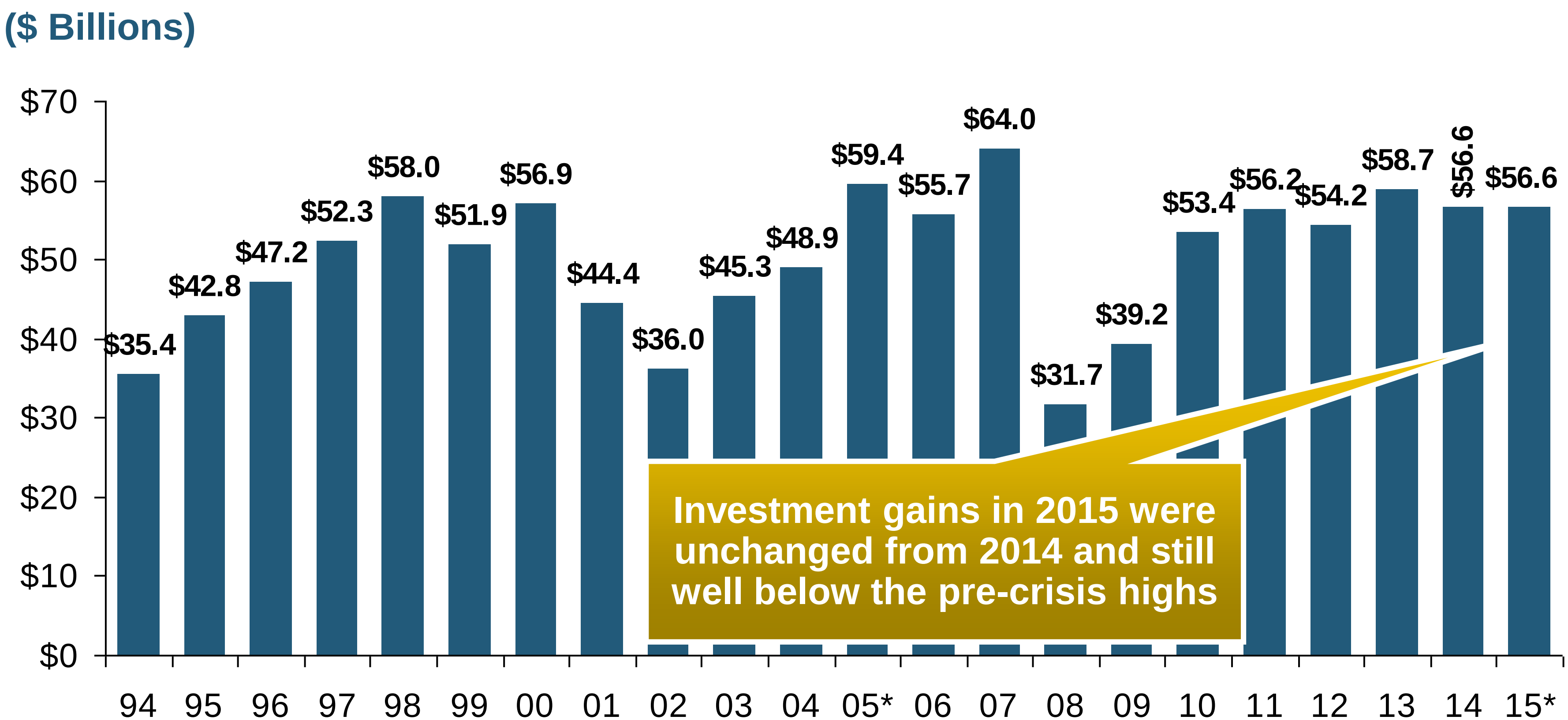

Total Investment Gains Were Flat in 2015 as Investment Income Rose Marginally and Realized Capital Gains Fell Slightly

[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 Q3 2015.
Sources: ISO, SNL; Insurance Information Institute.

Property/Casualty Insurance Industry Investment Gain: 1994–2015:Q3[1]

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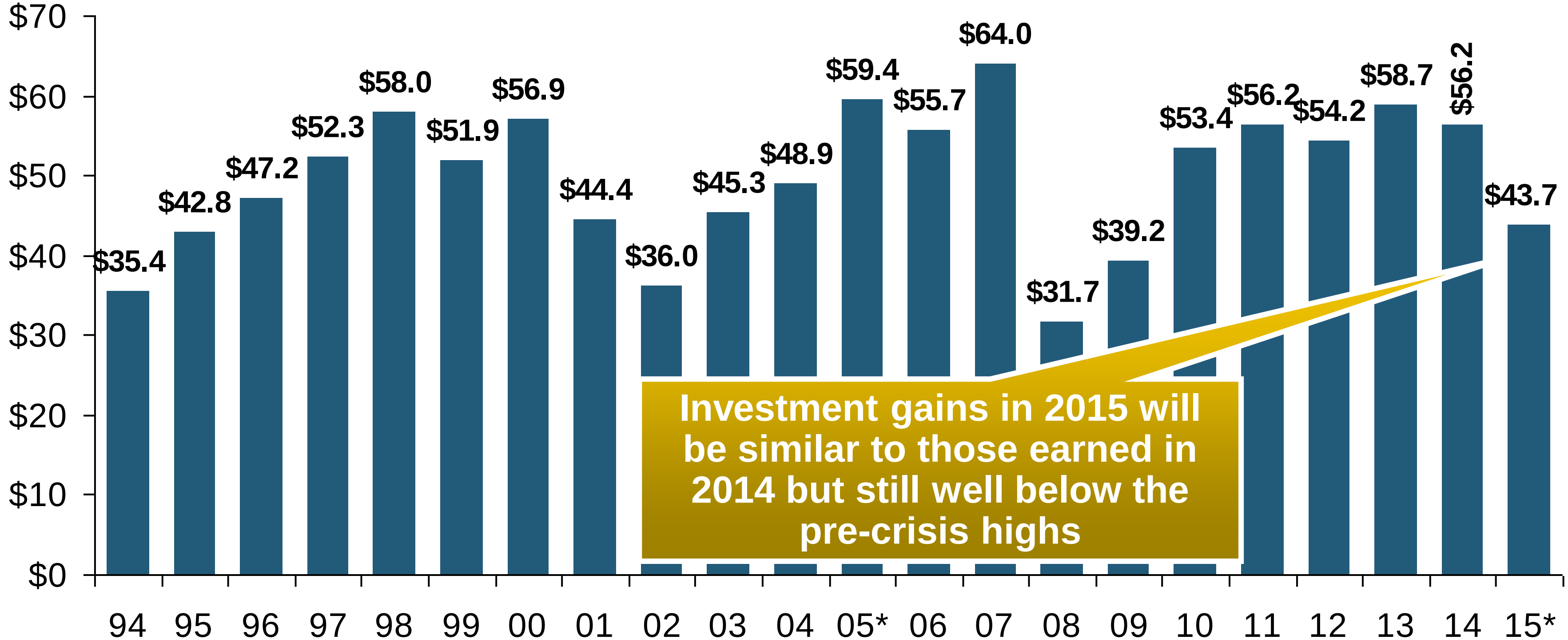
($ Billions)



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 Q3 2015.
Sources: ISO, SNL; Insurance Information Institute.

S&P 500 Index Returns, 1950 – 2016*

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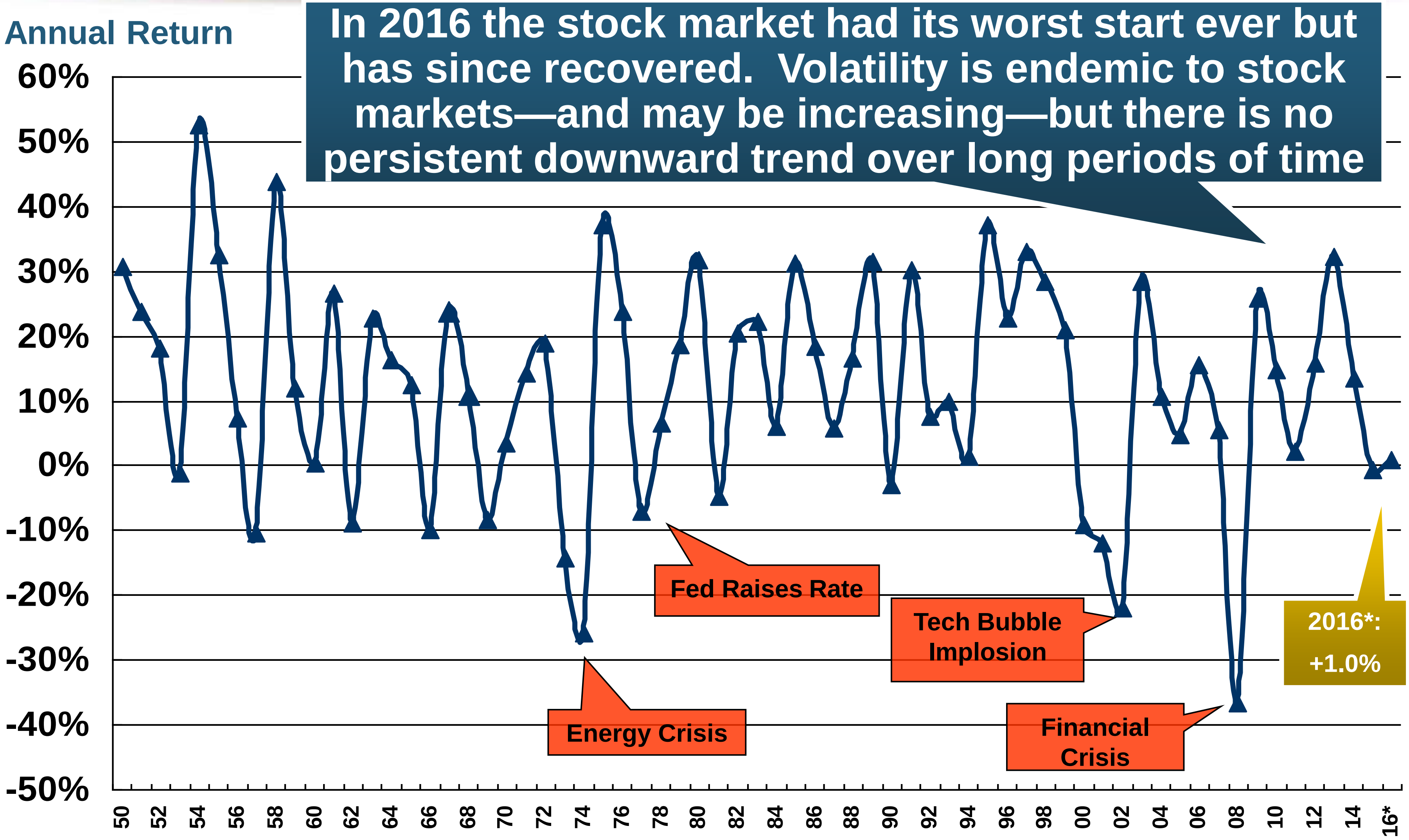
In 2016 the stock market had its worst start ever but has since recovered. Volatility is endemic to stock markets—and may be increasing—but there is no persistent downward trend over long periods of time



*Through May 1, 2016.

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

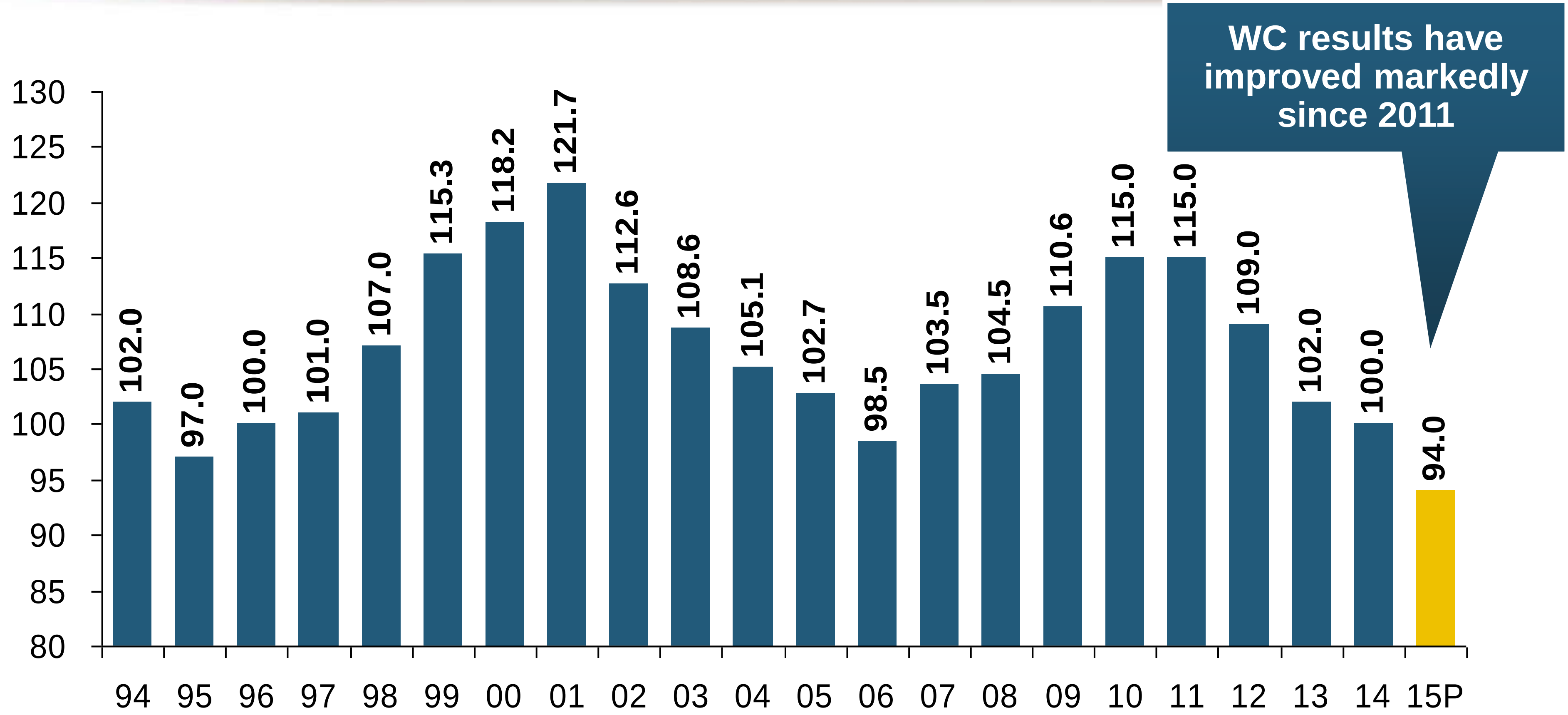
Insurance Information Institute

Workers Compensation Operating Environment

Workers Comp Results Have Improved Substantially in Recent Years

Can Gains Be Maintained?

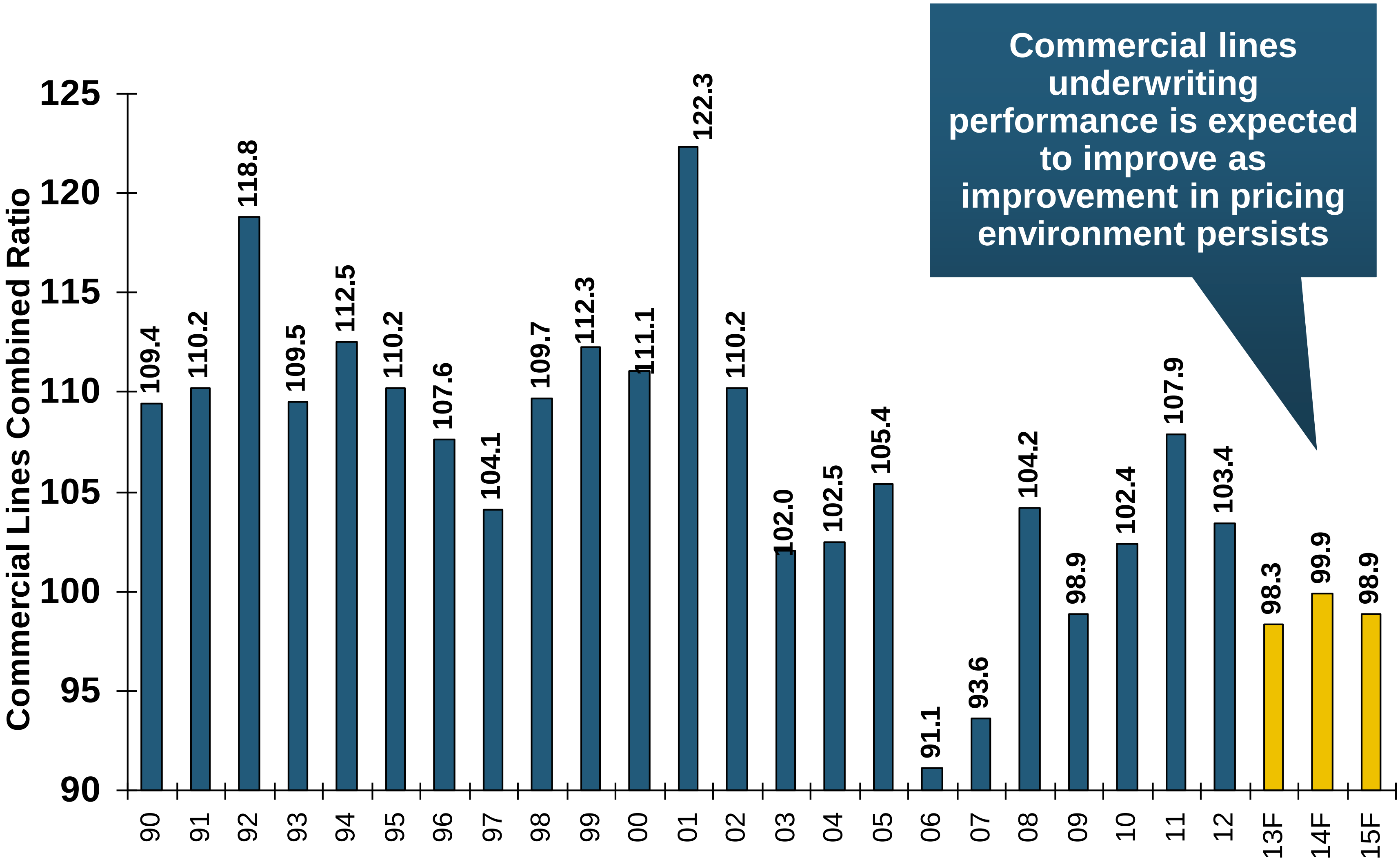
Workers Compensation Combined Ratio: 1994–2015P



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.

Sources: A.M. Best (1994-2009); NCCI (2010-2015P) and are for private carriers only; Insurance Information Institute.

Commercial Lines Combined Ratio, 1990-2015F*



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

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

Workers Compensation Premium: Fifth Consecutive Year of Increase

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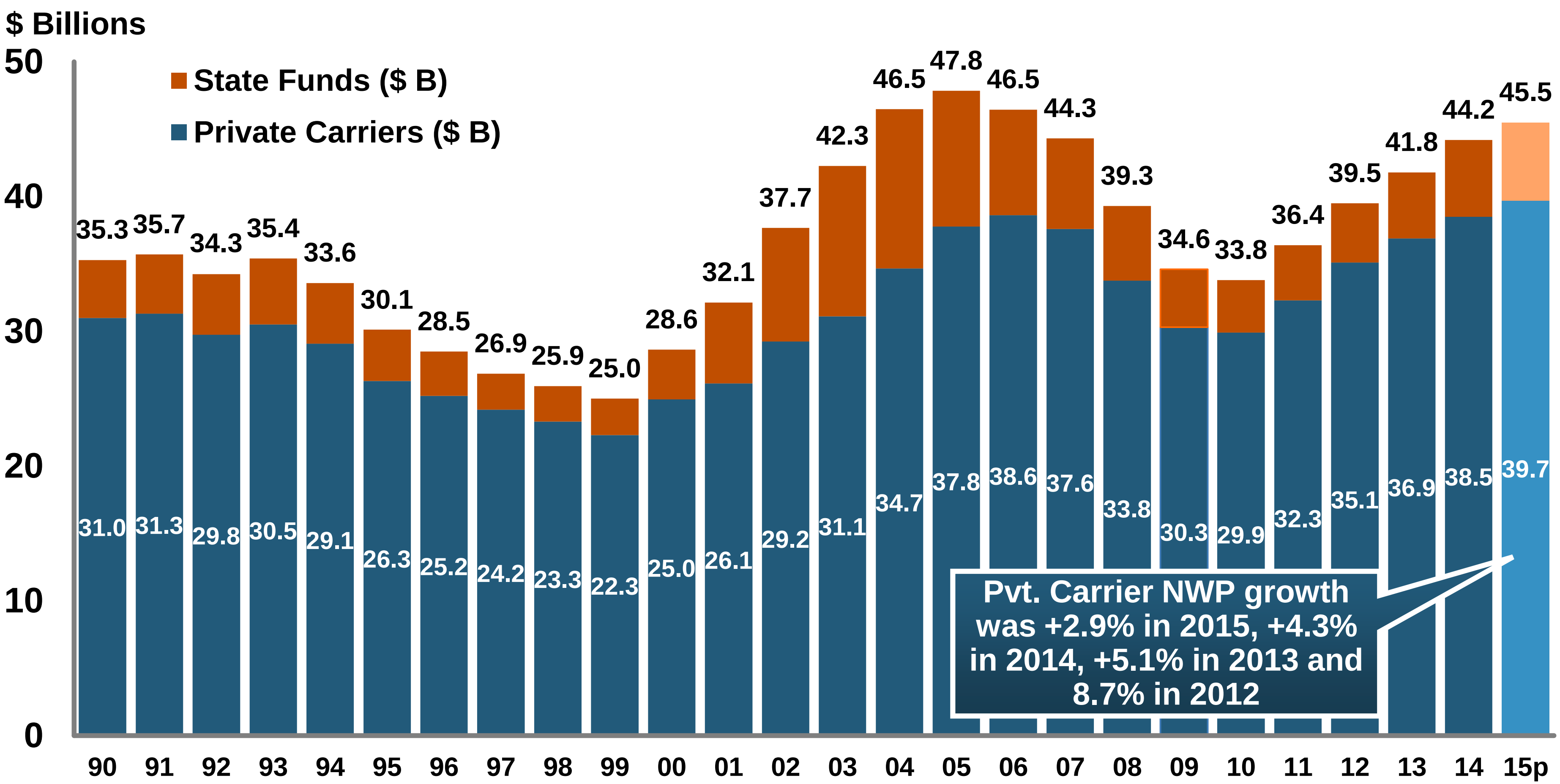
Net Written Premium

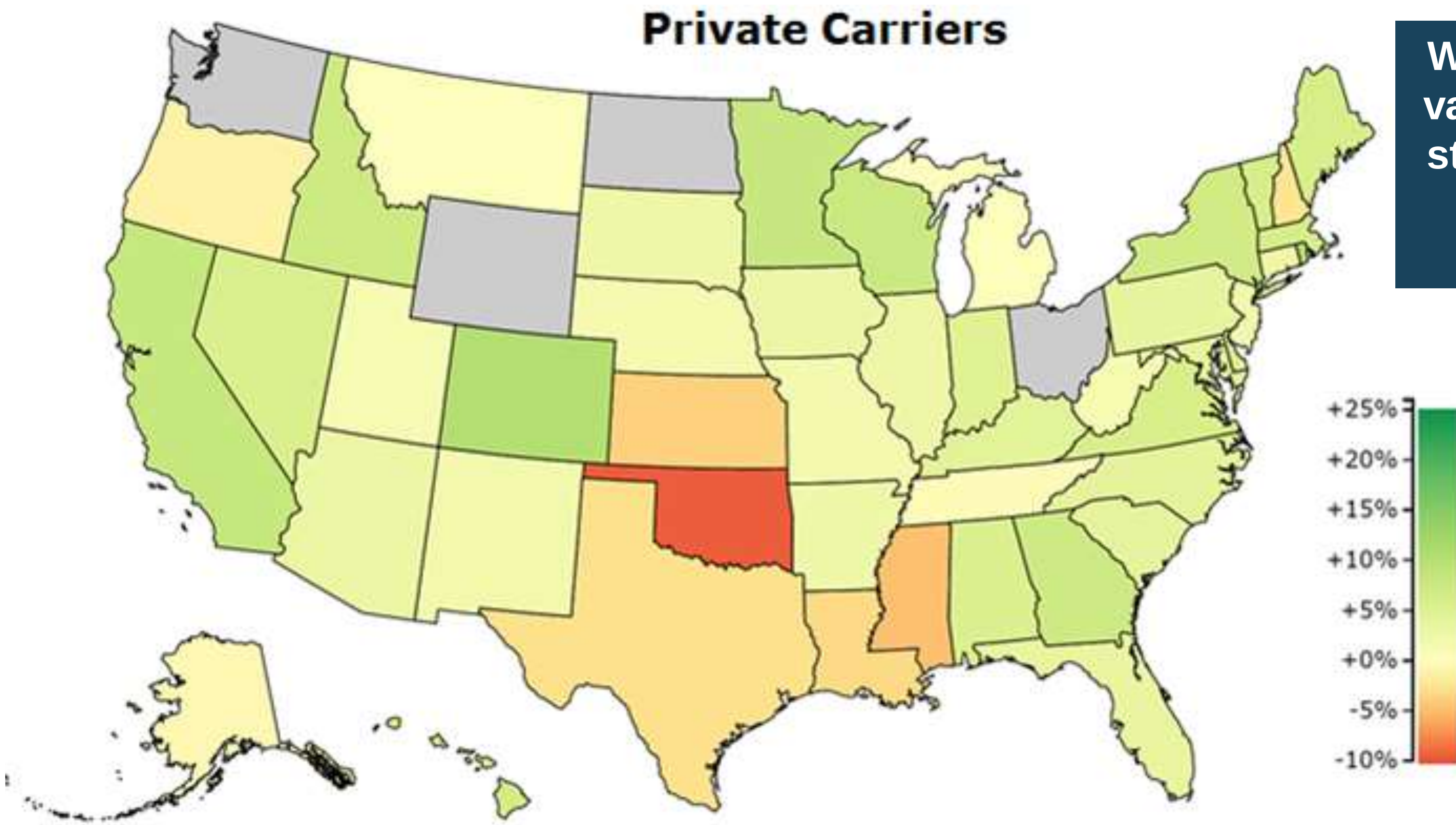


p Preliminary

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.

2015 Workers Compensation Direct Written Premium Growth, by State*

PRIVATE CARRIERS: Overall 2015 Growth = +4.3%



While growth rates varied widely, most states experienced modest positive growth in 2015

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

2014 Workers Compensation Direct Written Premium Growth, by State*

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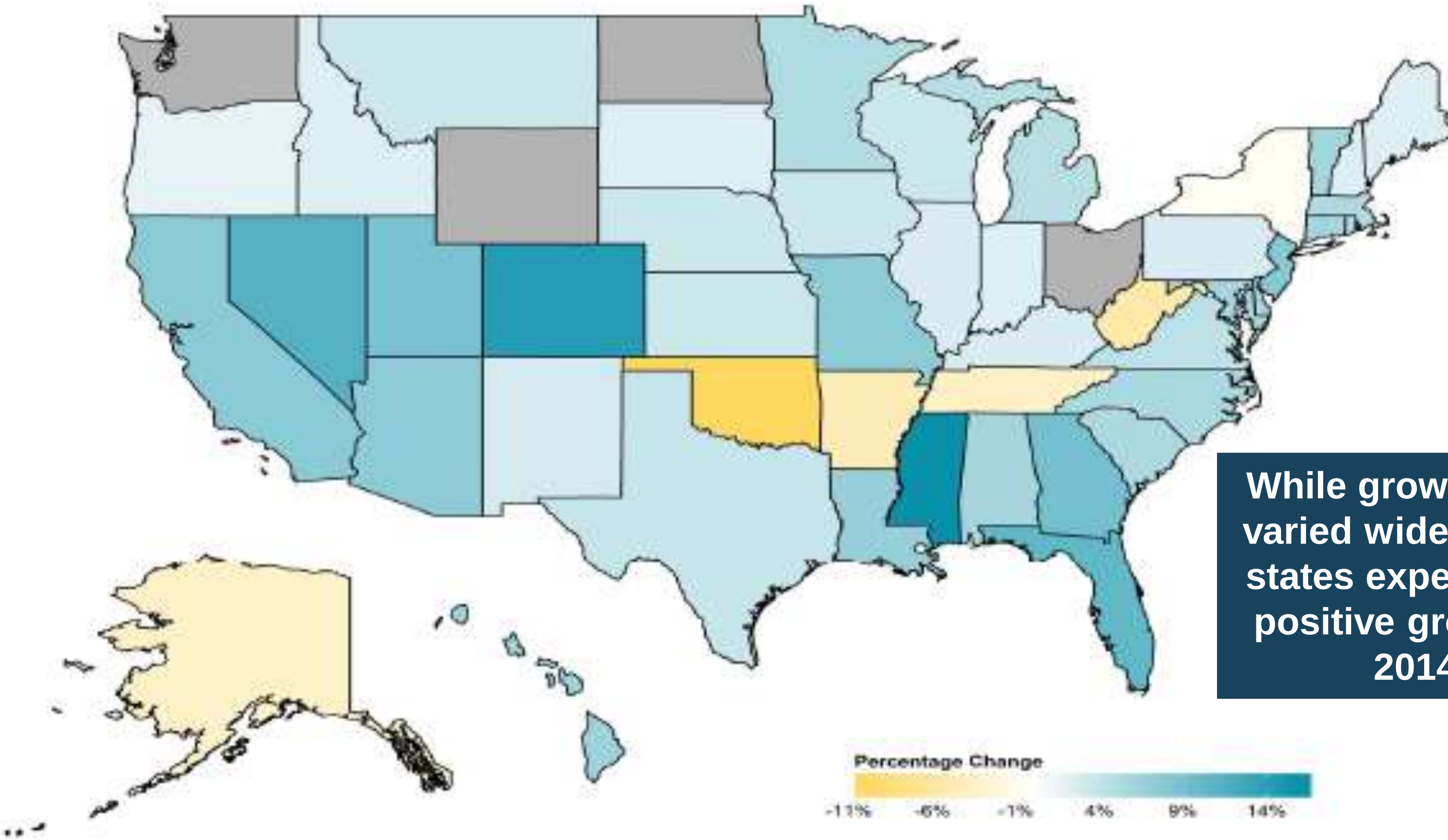
PRIVATE CARRIERS: Overall 2014 Growth = +4.6%



While growth rates varied widely, most states experienced positive growth in 2014

*Excludes monopolistic fund states (in gray): OH, ND, WA and WY.

Source: NCCI.

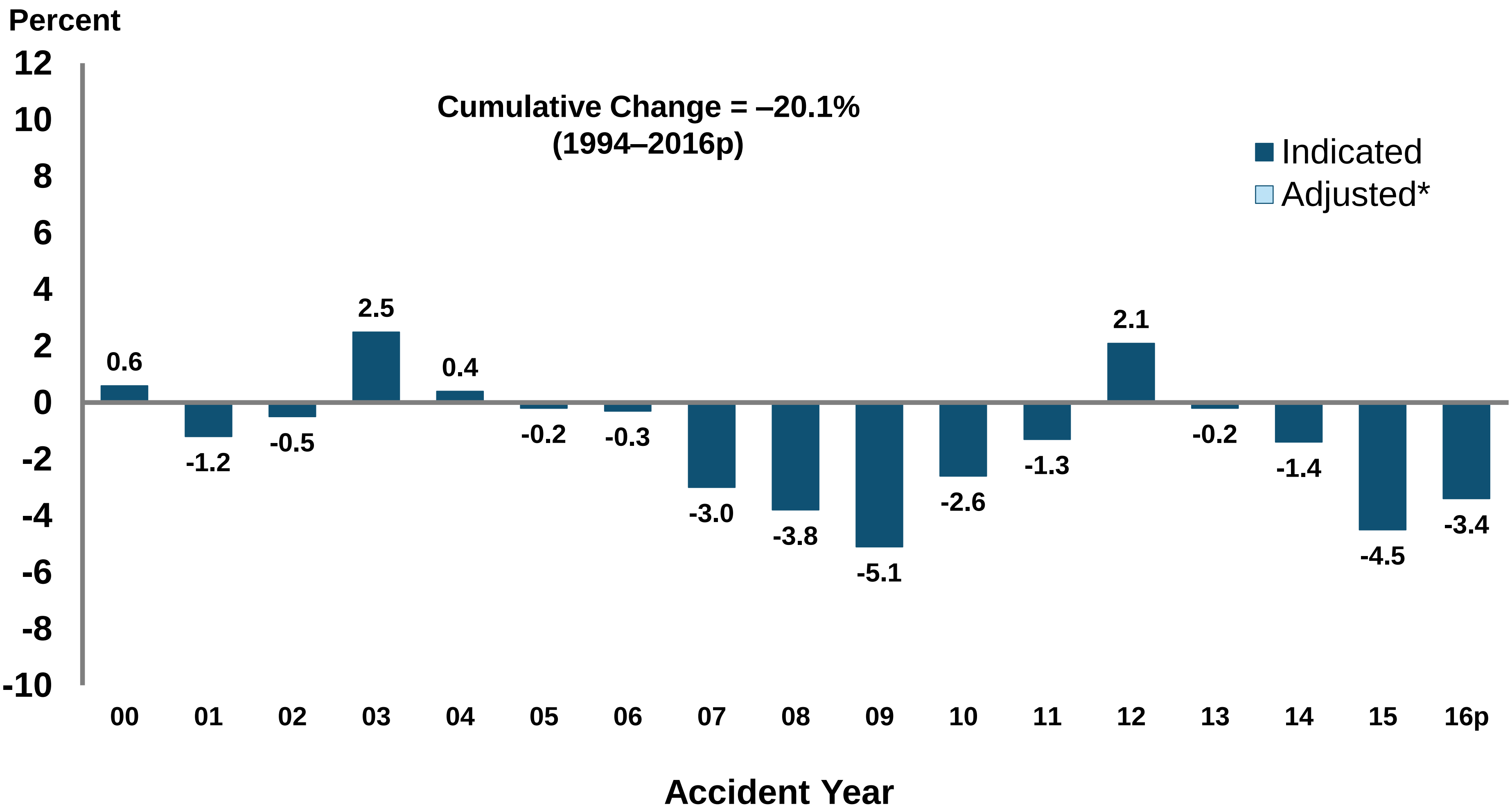
Workers Compensation Components of Written Premium Change, 2014 to 2015

Written Premium Change from 2014 to 2015	
Net Written Premium—Countrywide	**+2.9%**
Direct Written Premium—Countrywide	**+4.3%**
Direct Written Premium—NCCI States	**+2.5%**
Components of DWP Change for NCCI States	
Change in Carrier Estimated Payroll	+4.5%
Change in Bureau Loss Costs and Mix	-4.0%
Change in Carrier Discounting	-0.3%
Change in Other Factors	+2.2%
Combined Effect	**+2.5%**

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.

Workers Comp Approved Changes in Bureau Premium Level, 2000-2016p

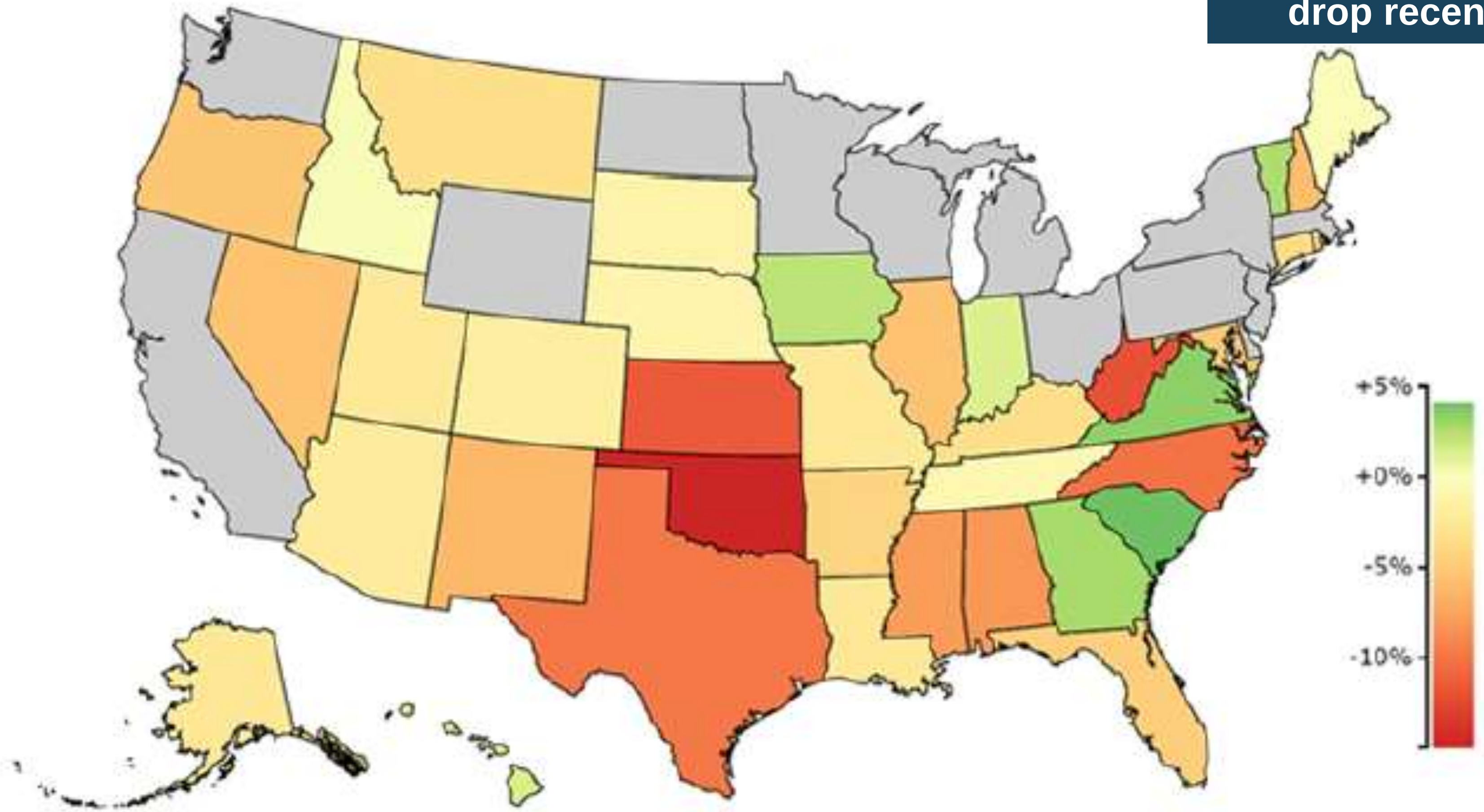


Note: Bureau premium level charges reflect approved changes in advisory rates, loss costs, assigned risk rates relative to those approved in NCCI states only IN and NC are filed in cooperation with state rating bureaus.
2016p: Preliminary based on data valued as of 4/15/2015.
Source: NCCI

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

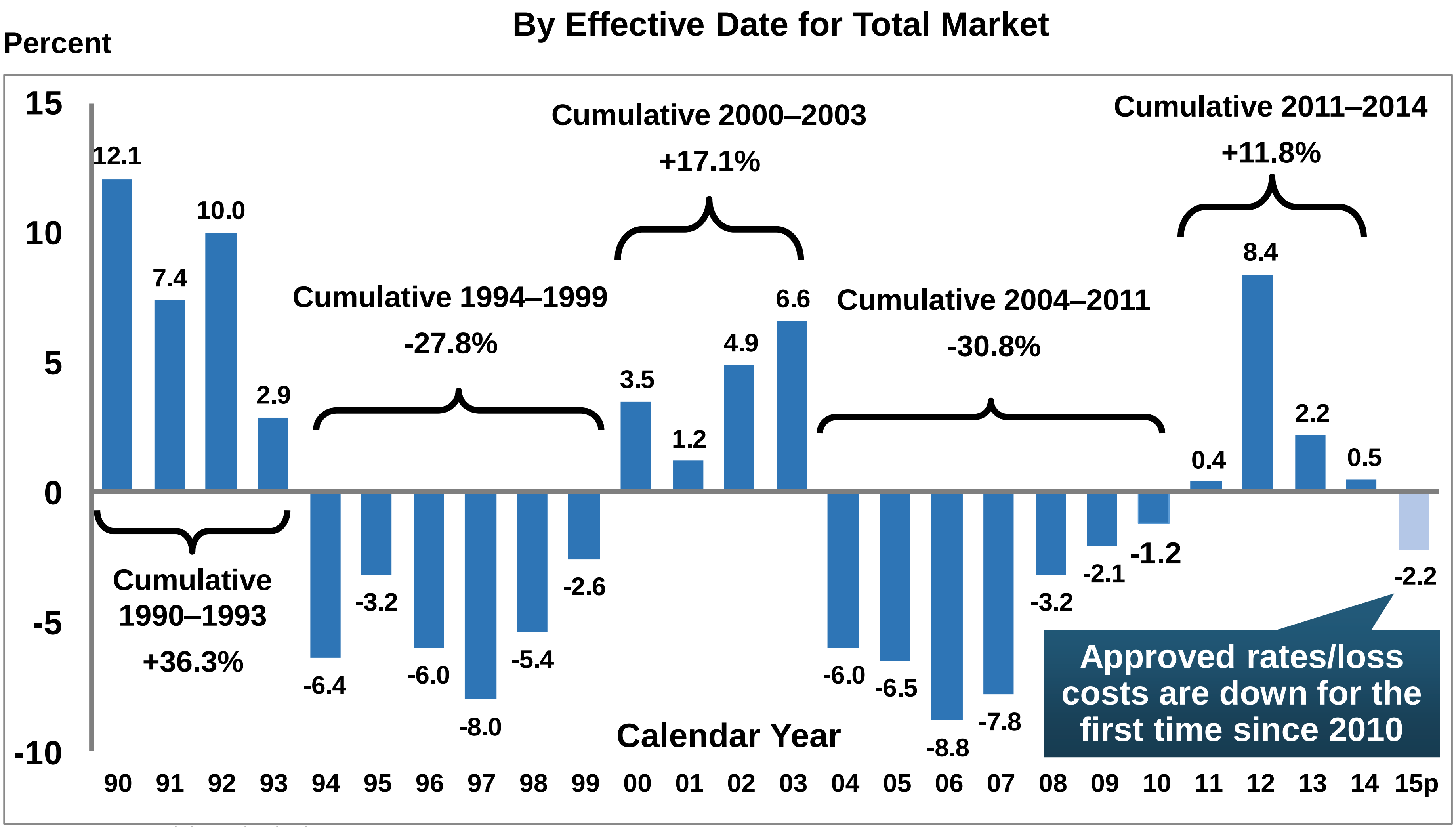
Latest Change for Voluntary Market

Many states have seen rates rates drop recently



*As of 4/15/16. Excludes monopolistic fund states (in gray): OH, ND, WA and WY.
Source: NCCI.

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.

Workers Compensation Lost-Time Claim Frequency Declined in 2015

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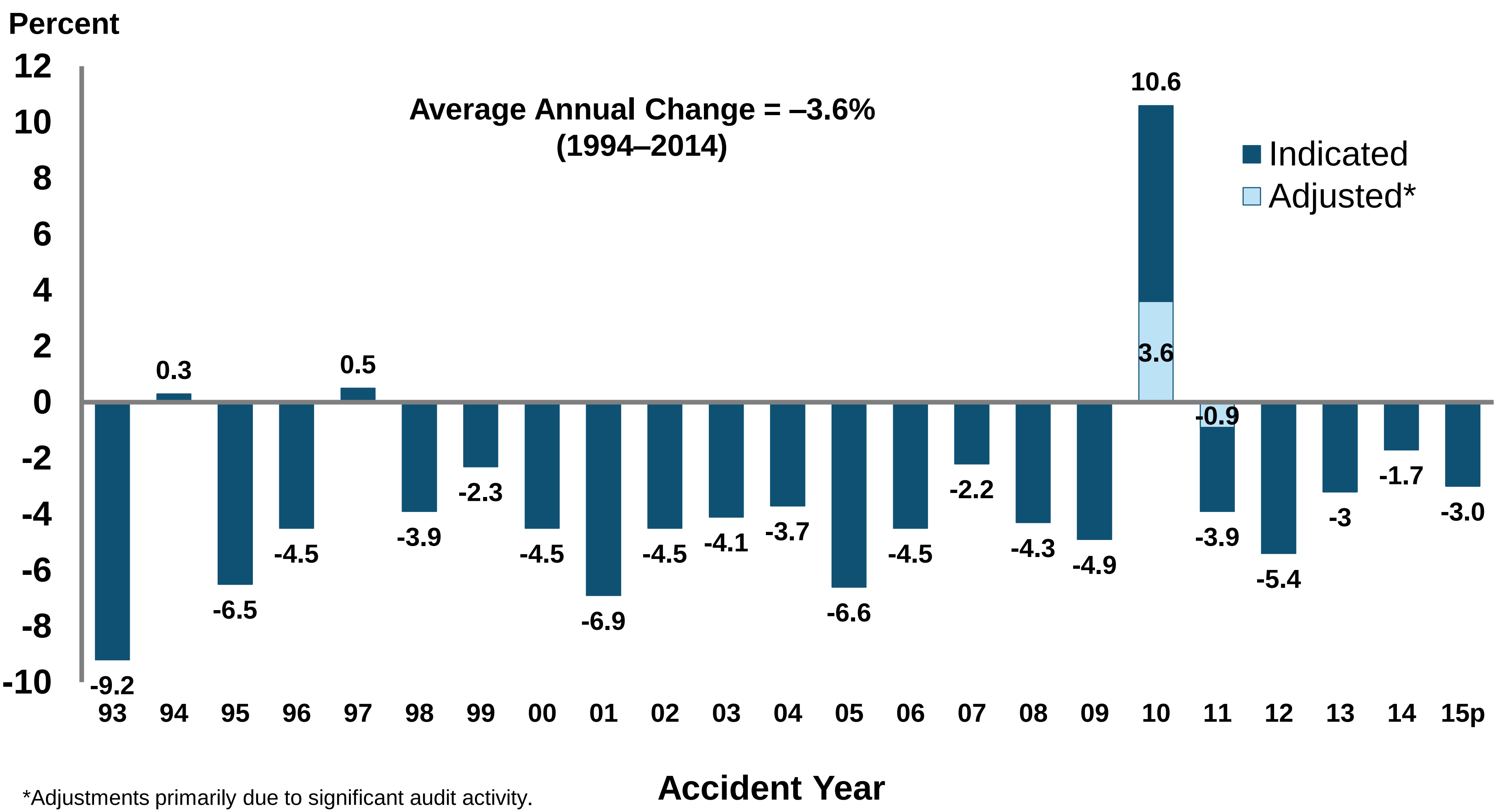

*Adjustments primarily due to significant audit activity.
2015p: Preliminary based on data valued as of 12/31/2015.
Source: NCCI Financial Call data, developed to ultimate and adjusted to current wage an voluntary loss cost level; Excludes high deductible policies; 1994-2014: Based on data through 12/31/14. 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: Slight Increase in 2015

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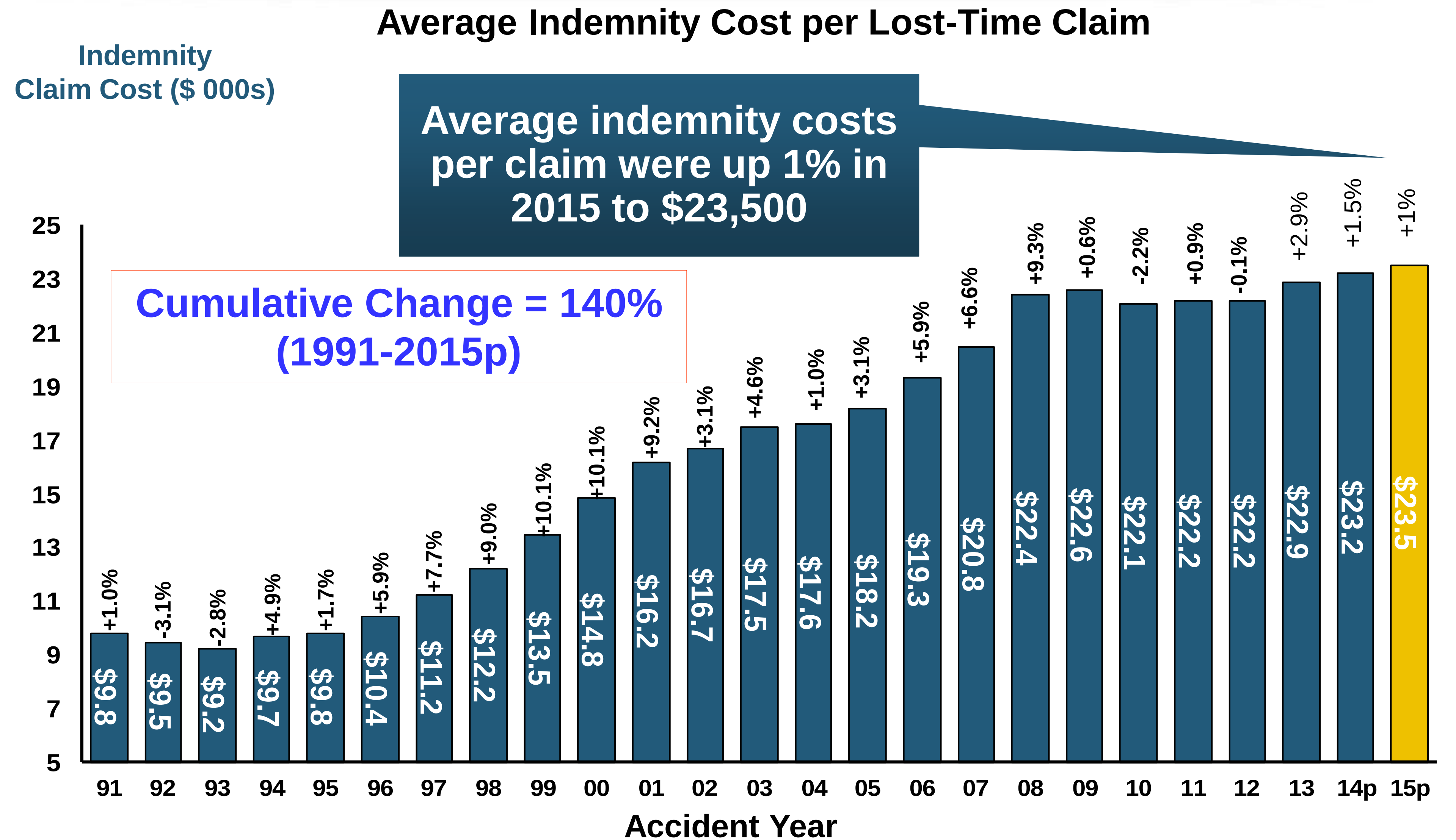

2014p: Preliminary based on data valued as of 12/31/2014.

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

WC Indemnity Severity vs. Wage Inflation, 1995 -2015p

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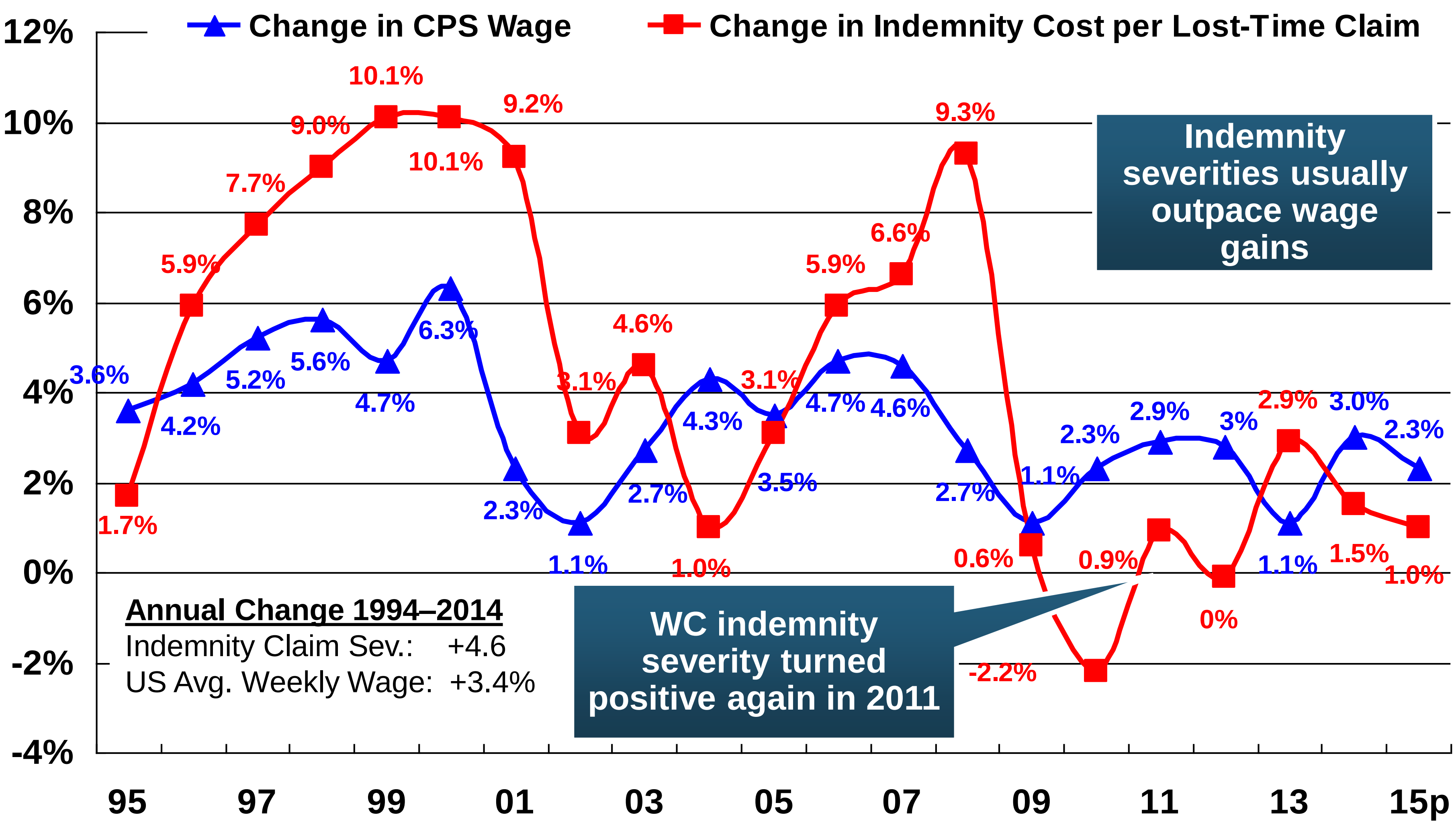

2014p: Preliminary based on data valued as of 12/31/2014; 1991-2010: Based on data through 12/31/2010, developed to ultimate. Based on the states where NCCI provides ratemaking services. Excludes the effects of deductible policies. CPS = Current Population Survey.
Source: NCCI; Insurance Information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

Workers Compensation Medical Severity: Moderate Increase in 2015

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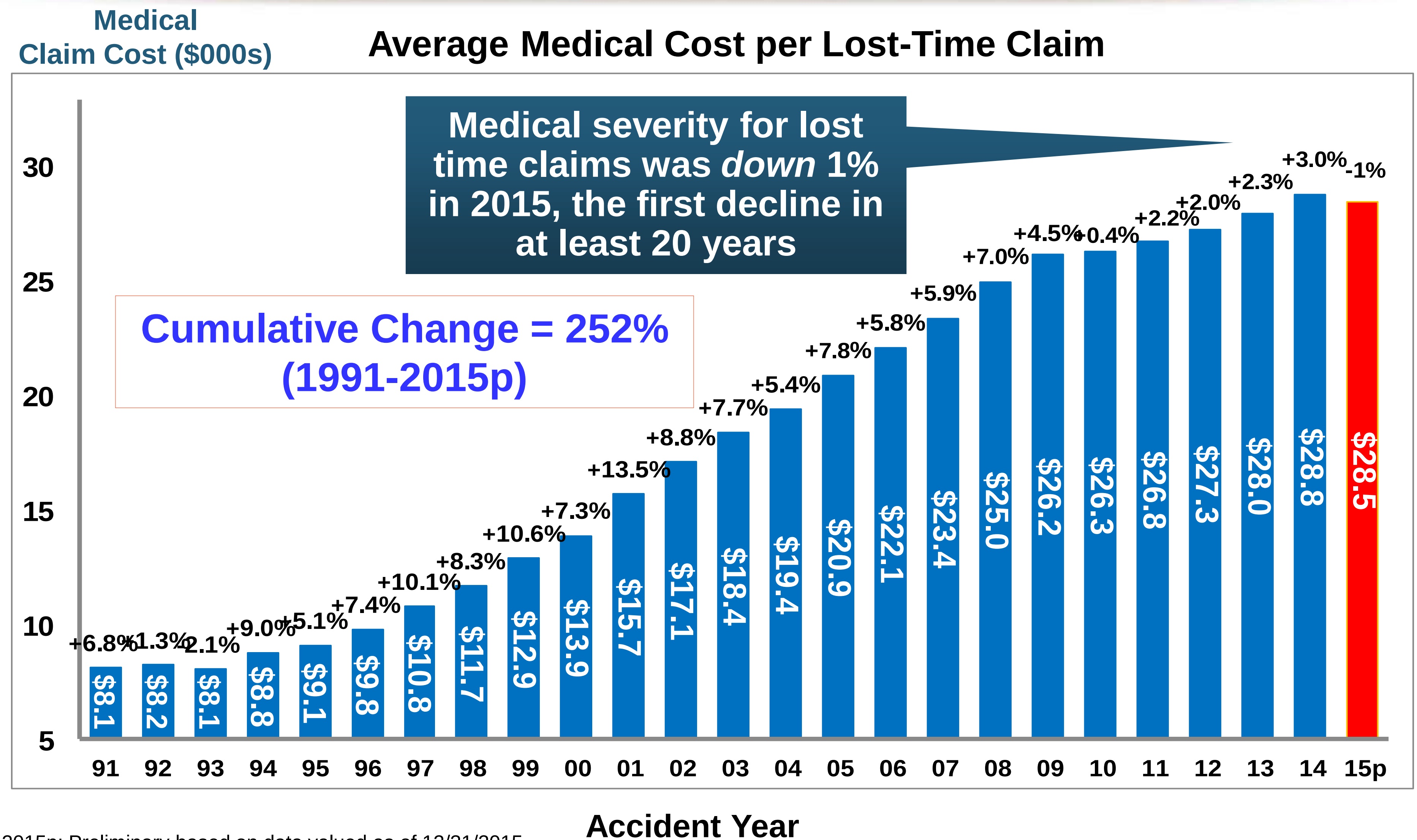

2015p: Preliminary based on data valued as of 12/31/2015.
1991-2013: Based on data through 12/31/2014, developed to ultimate
Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

Annual Inflation Rates, (CPI-U, %), 1990–2017F

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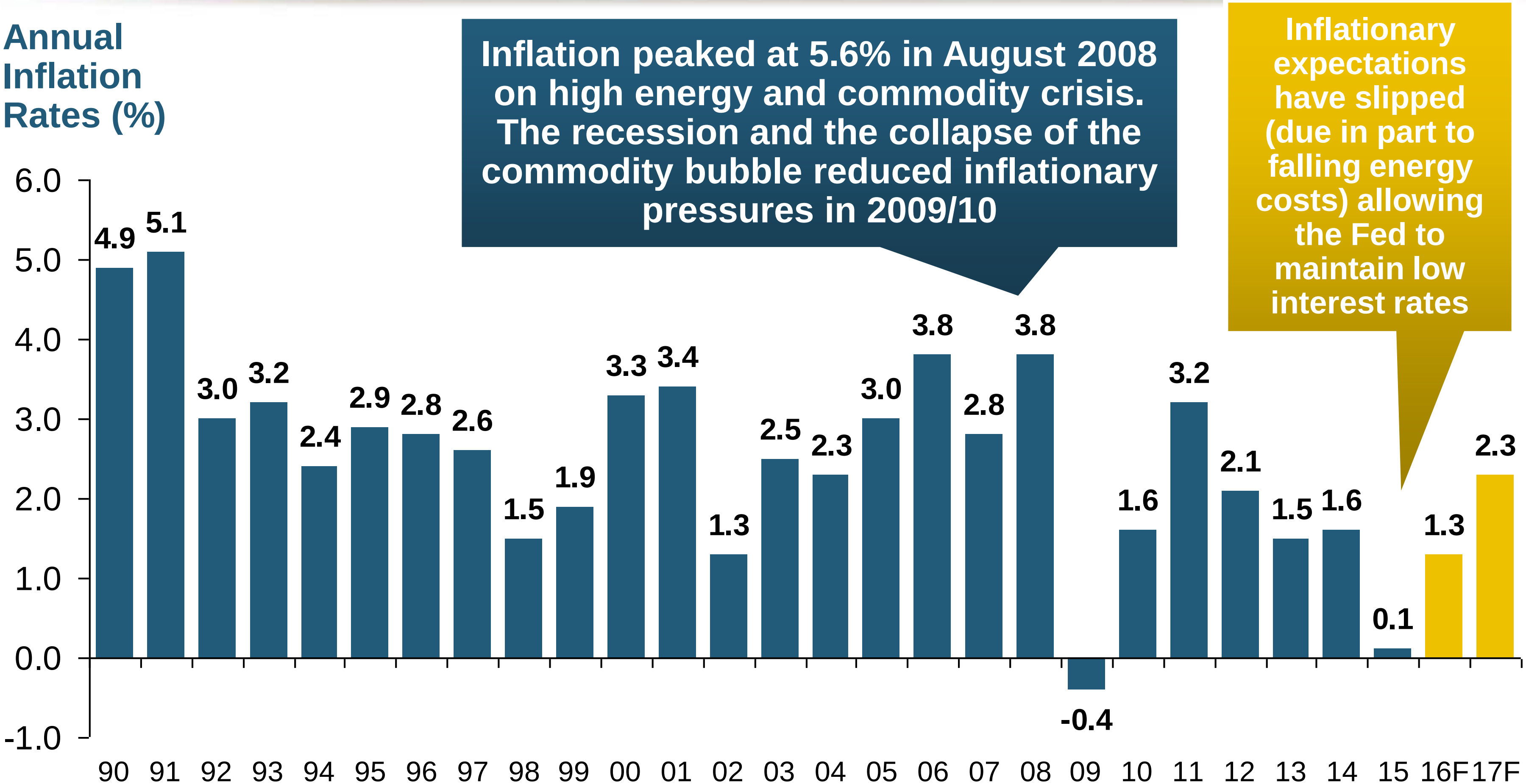
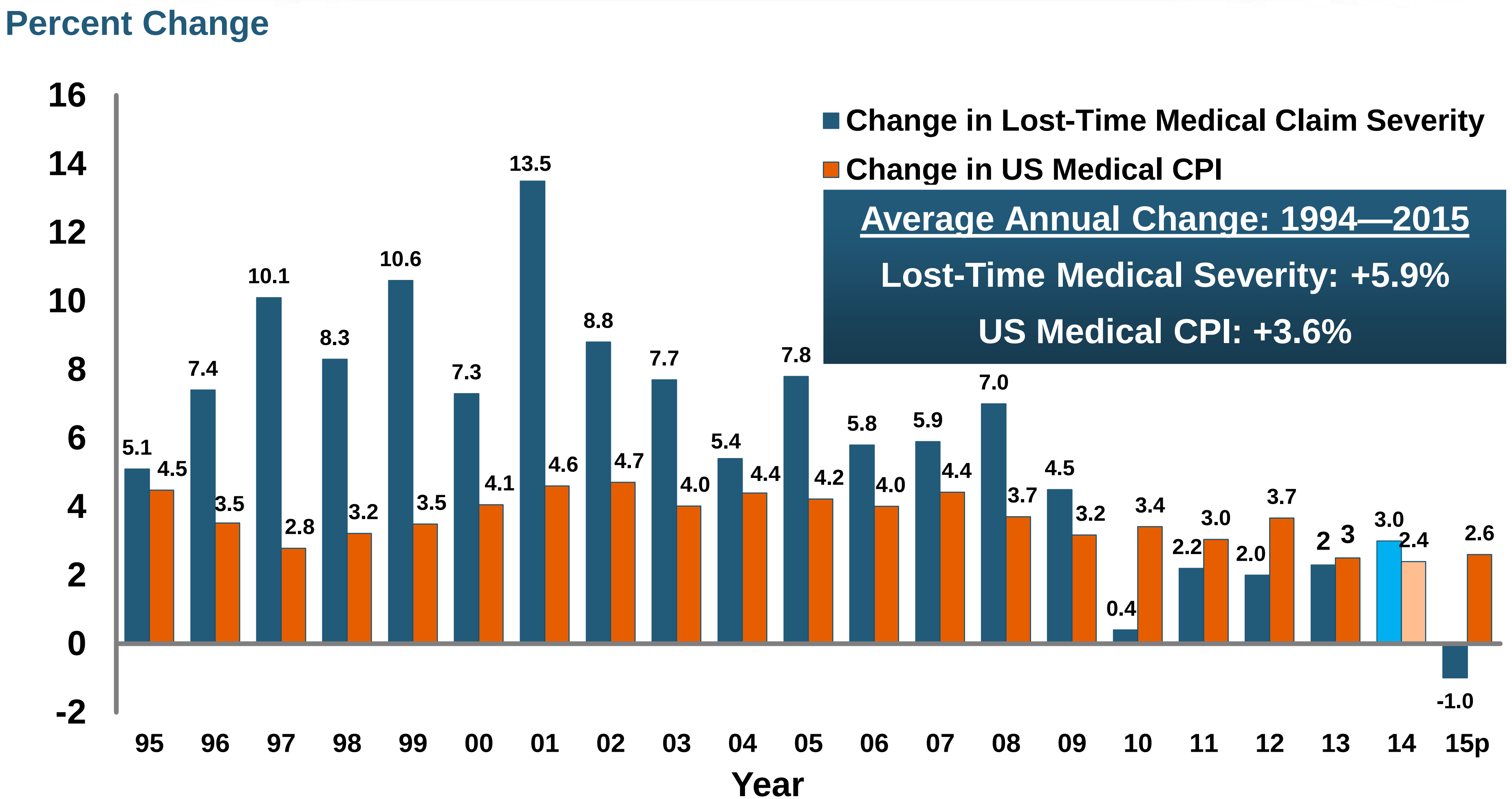


Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators, 4/16 (forecasts).

Workers Compensation Change in Medical Severity

Comparison to Change in Medical Consumer Price Index (CPI)



2015p: Preliminary based on data valued as of 12/31/2015.
Sources: Severity: 995-2013: Based on data through 12/31/2014, 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

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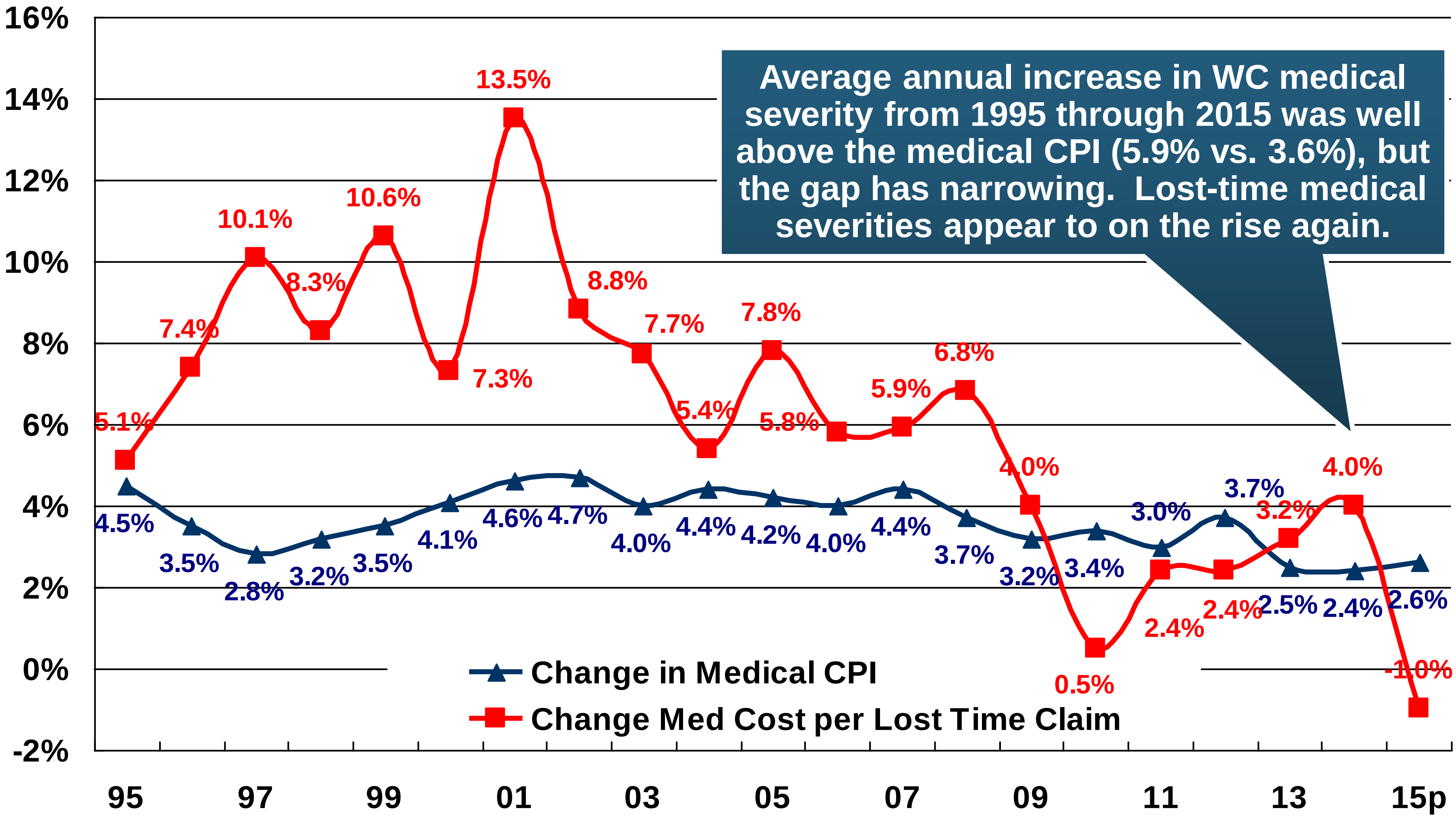
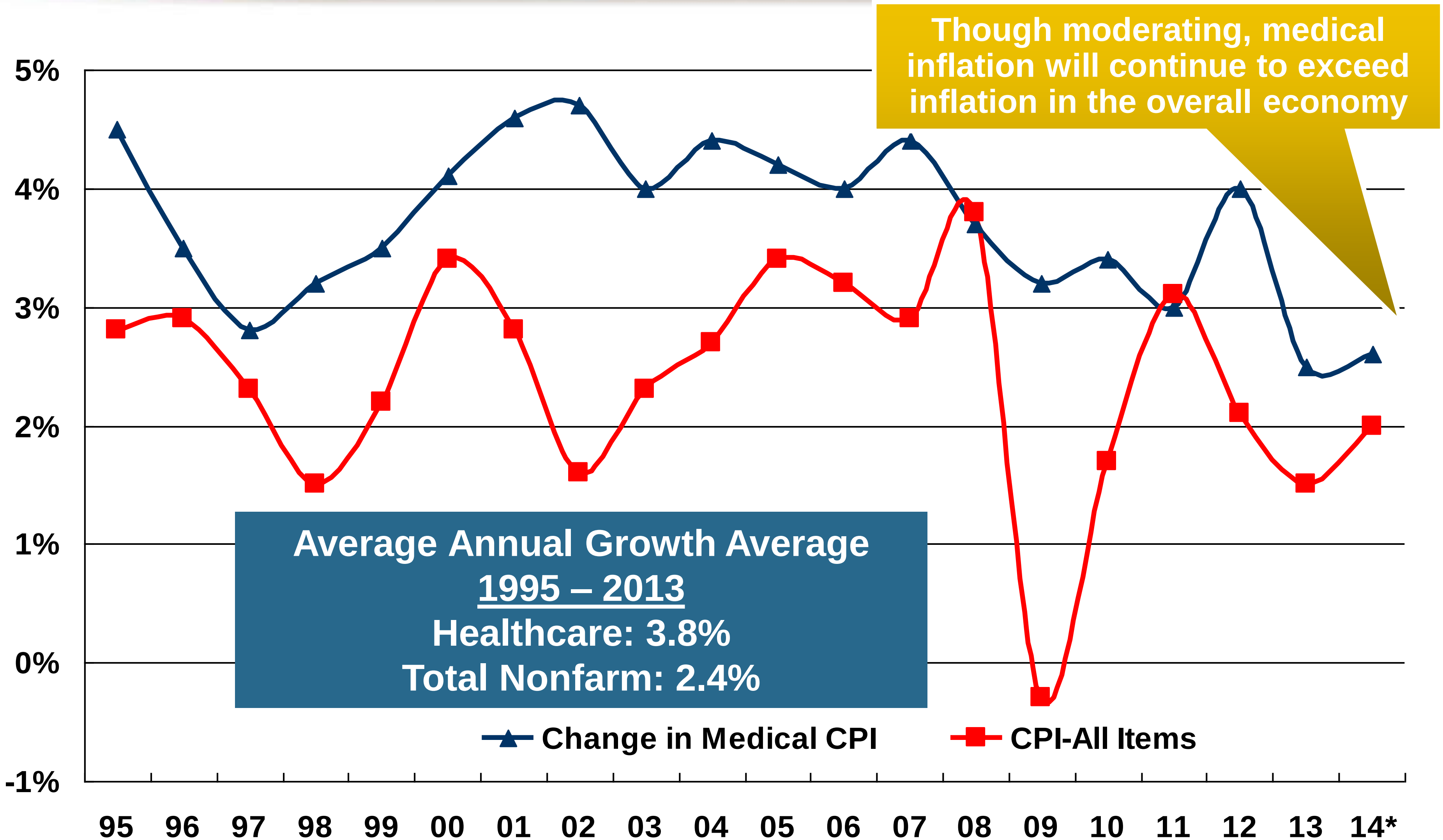


Sources: Med CPI from US Bureau of Labor Statistics, WC med severity from NCCI based on NCCI states.

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

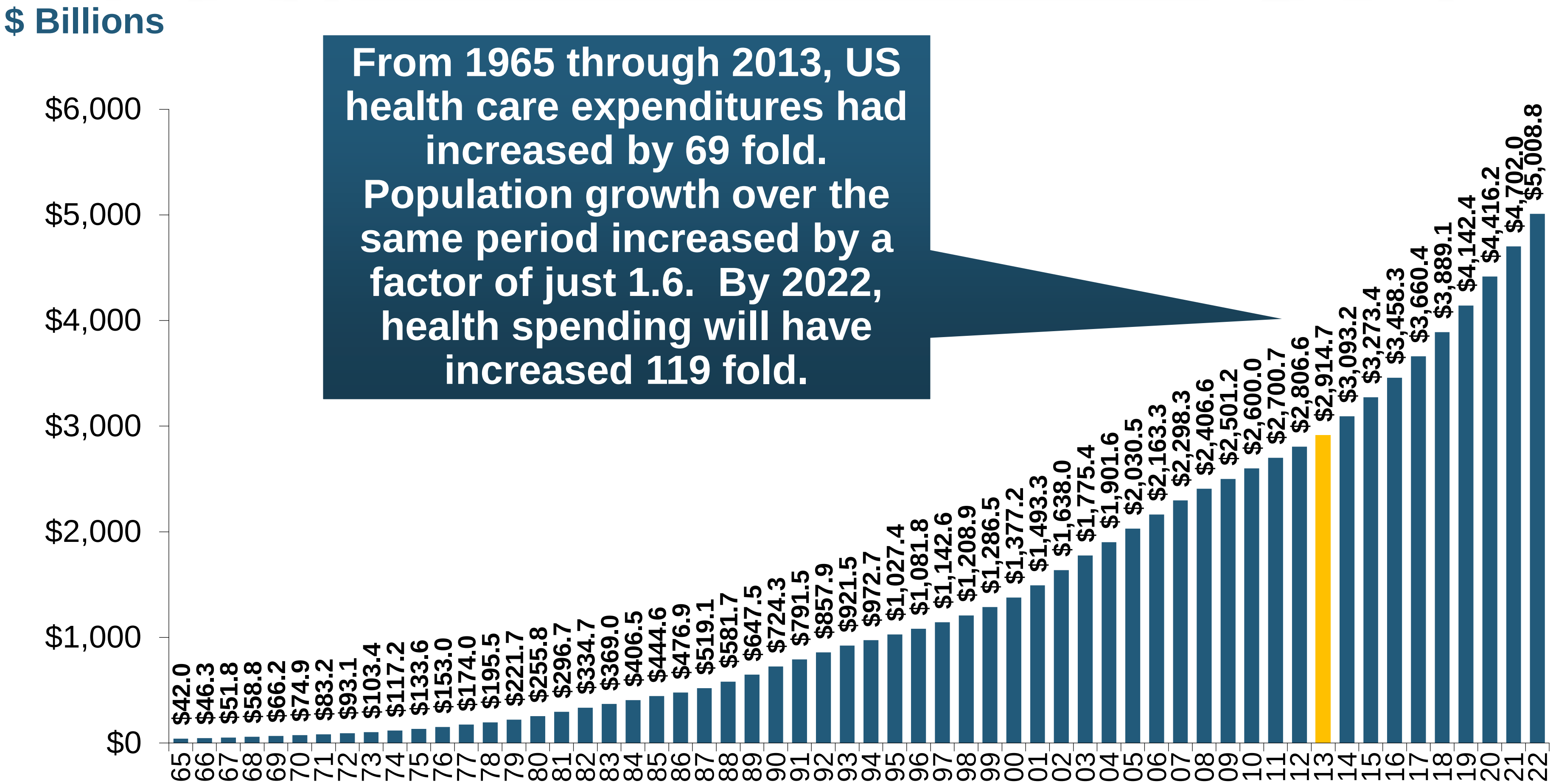


*July 2014 compared to July 2013.

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

From 1965 through 2013, US health care expenditures had increased by 69 fold. Population growth over the same period increased by a factor of just 1.6. By 2022, health spending will have increased 119 fold.



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 http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

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

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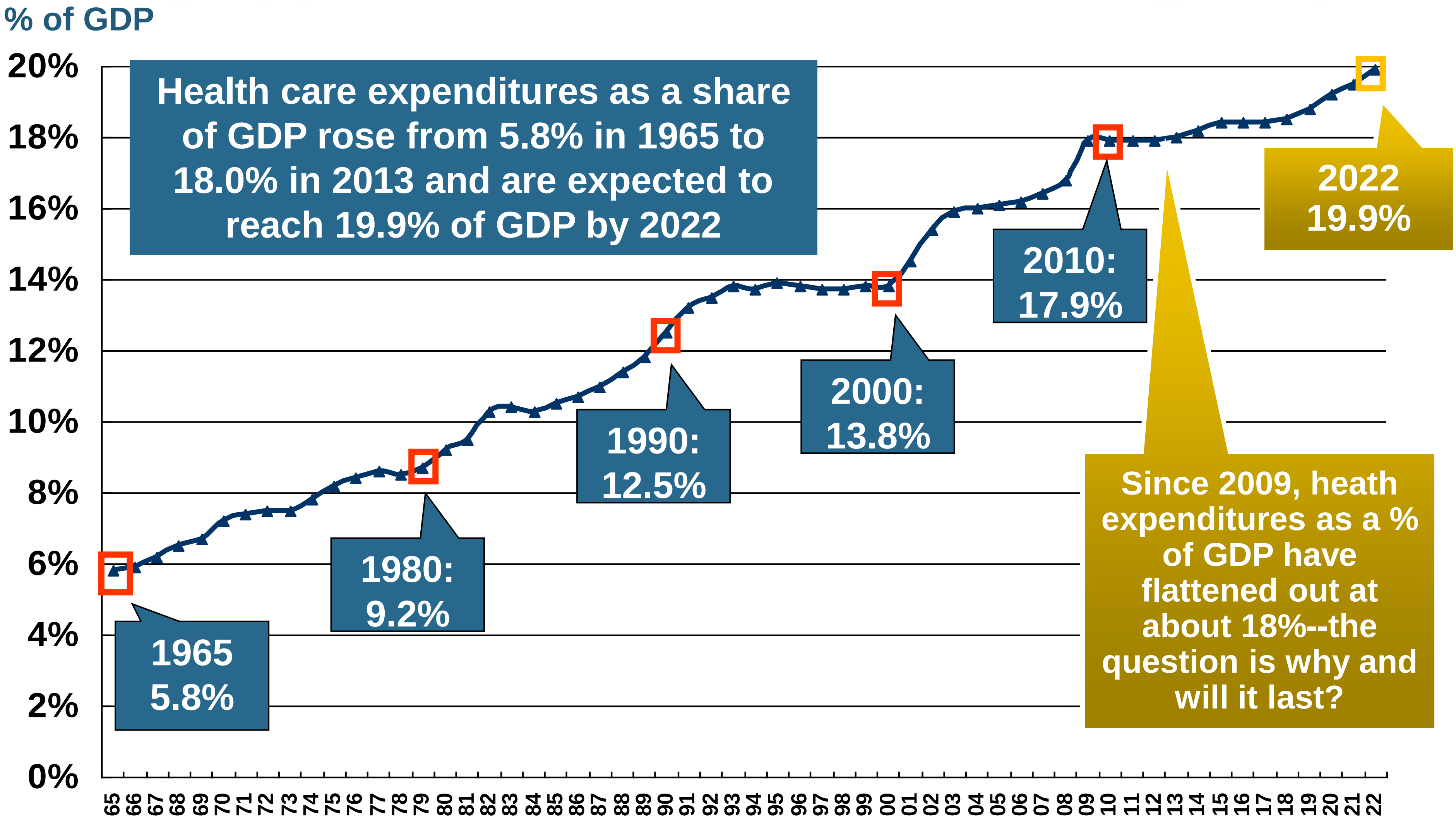

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

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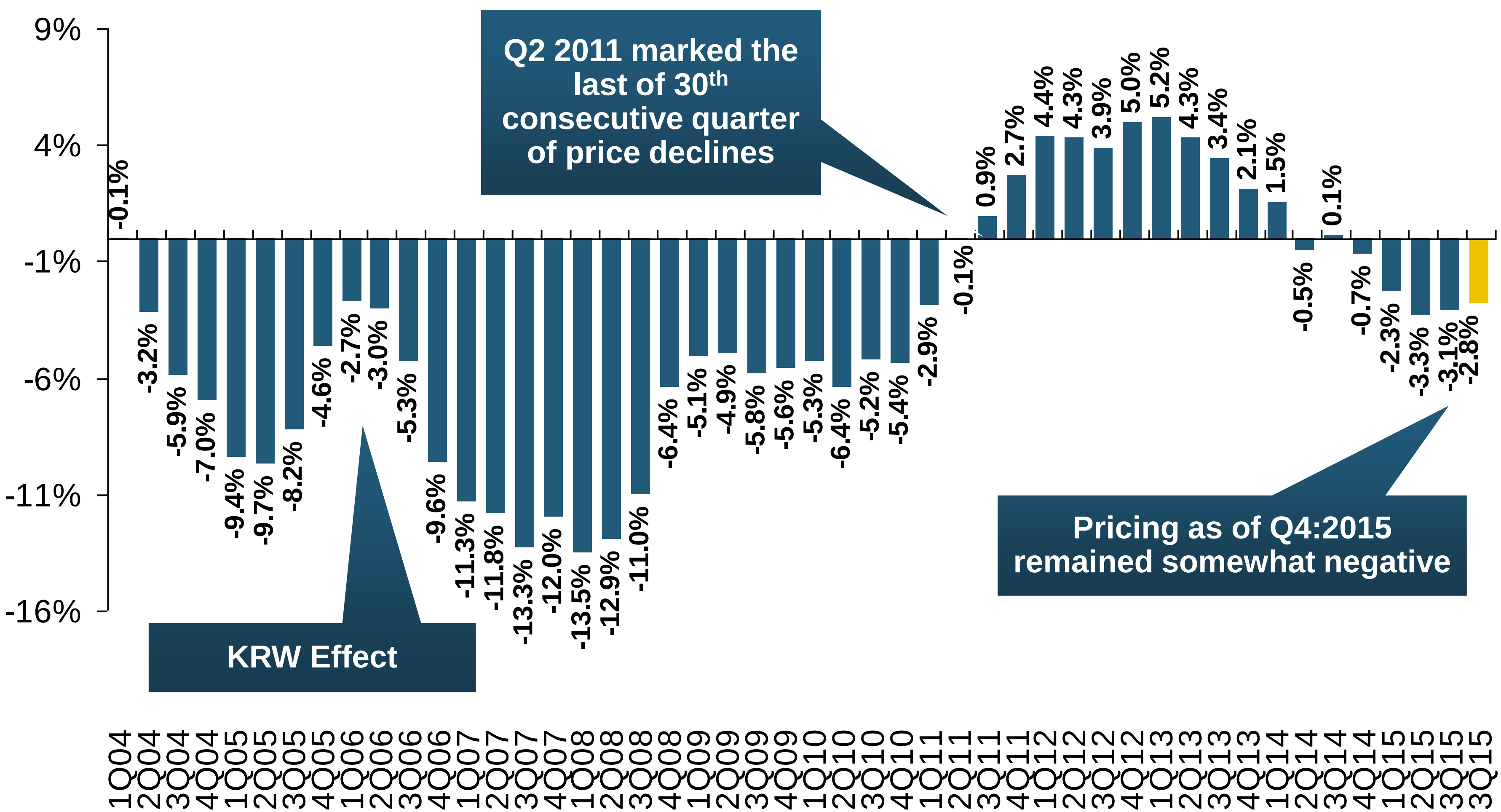
Commercial Lines Pricing Trends

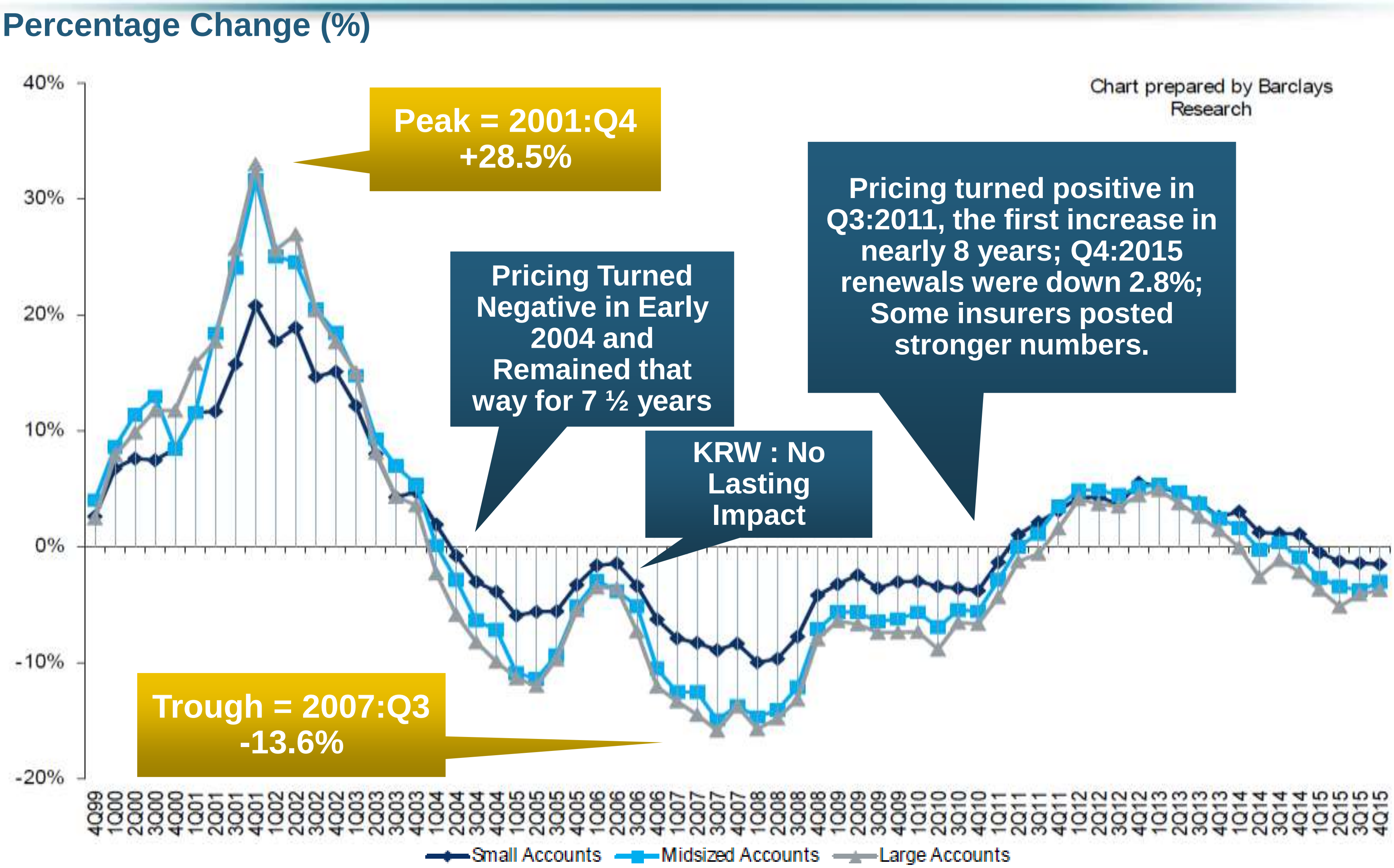
Survey Results Suggest Commercial Pricing Has Flattened Out

CIAB: Average Commercial Rate Change, All Lines, (1Q:2004–4Q:2015)



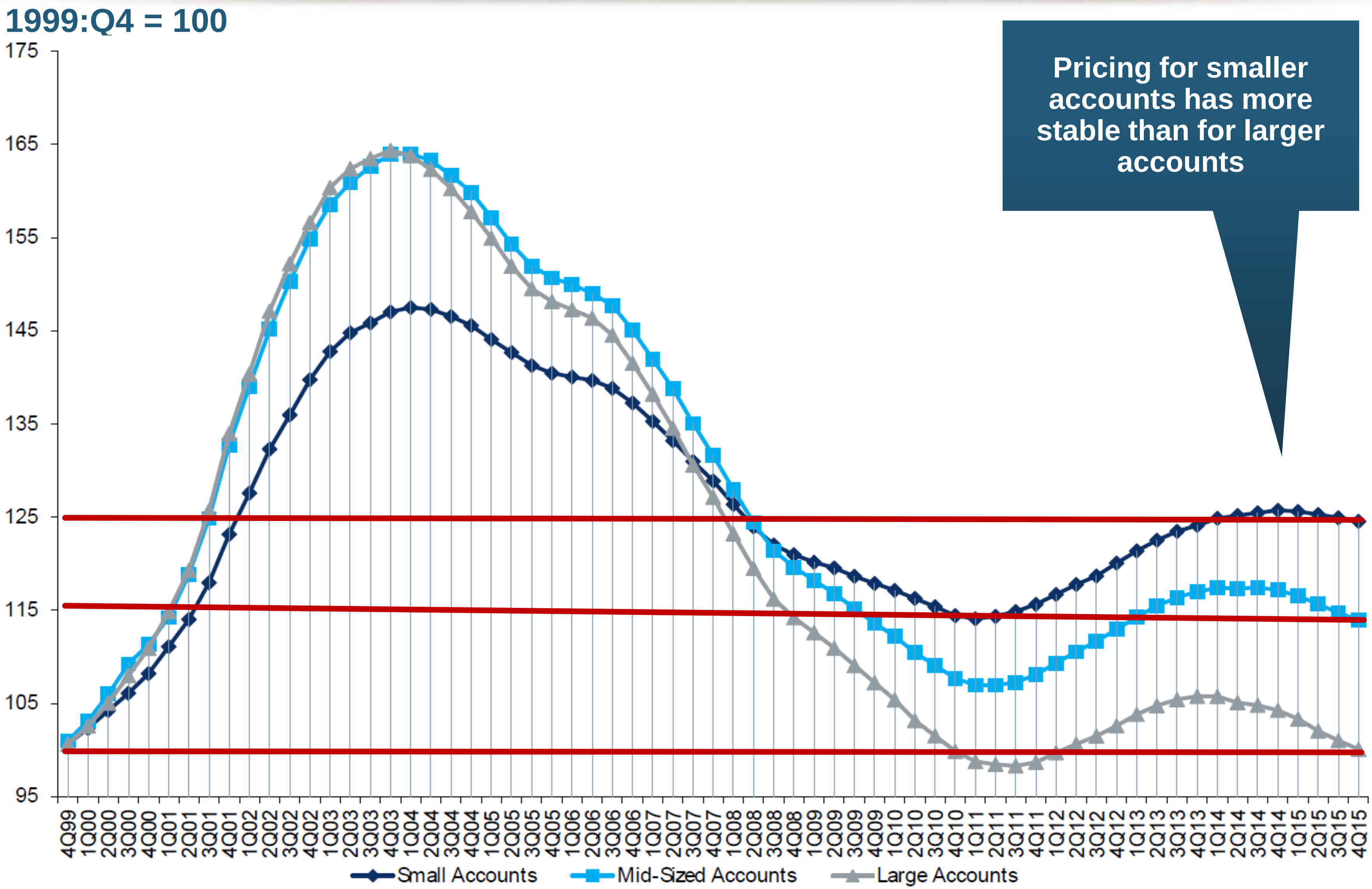
Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

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



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

Cumulative Qtrly. Commercial Rate Changes, by Account Size: 1999:Q4 to 2015:Q4



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

Change in Commercial Rate Renewals, by Line: 1999:Q4 to 2015:Q4

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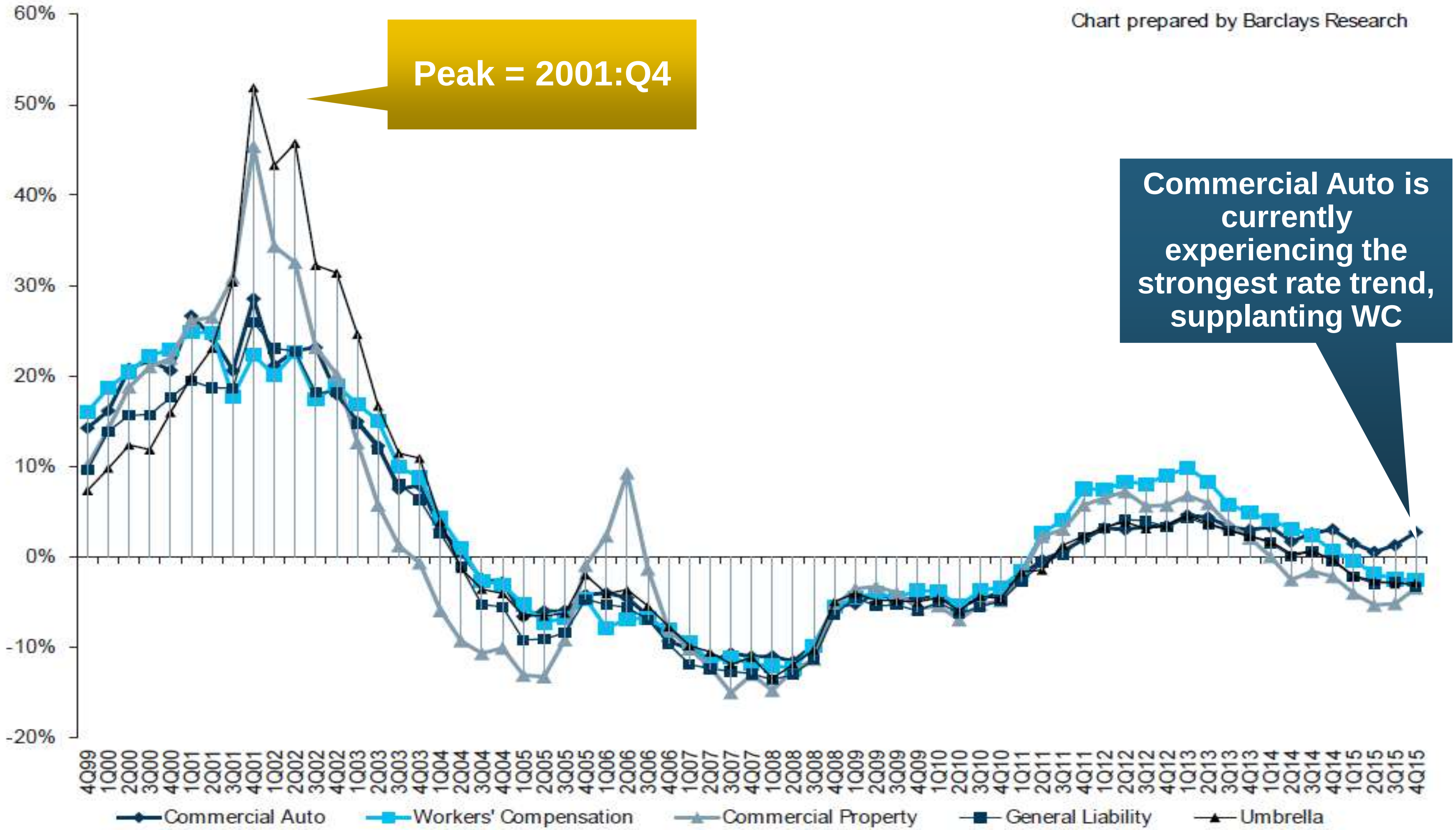
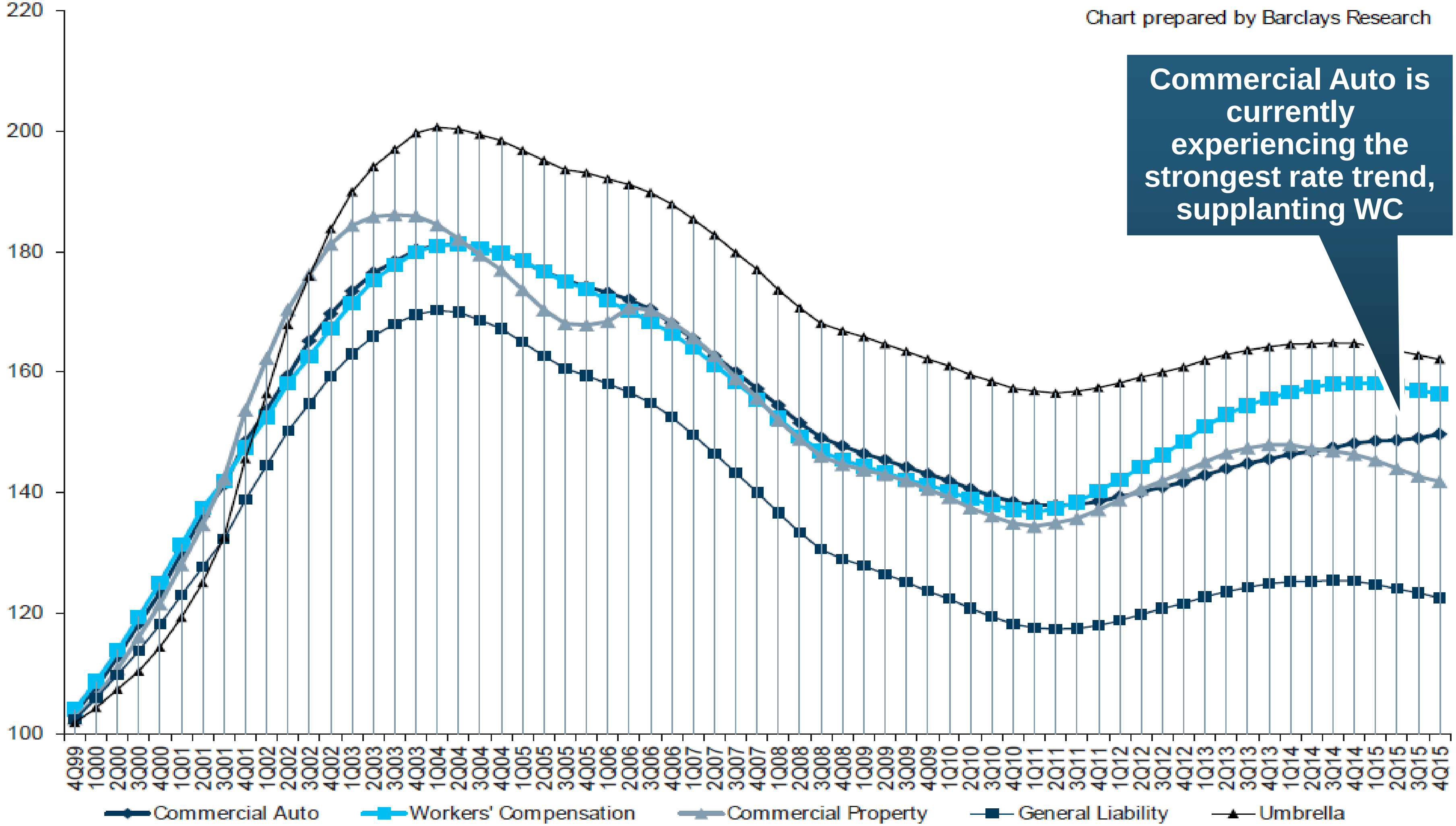
Percentage Change (%)



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

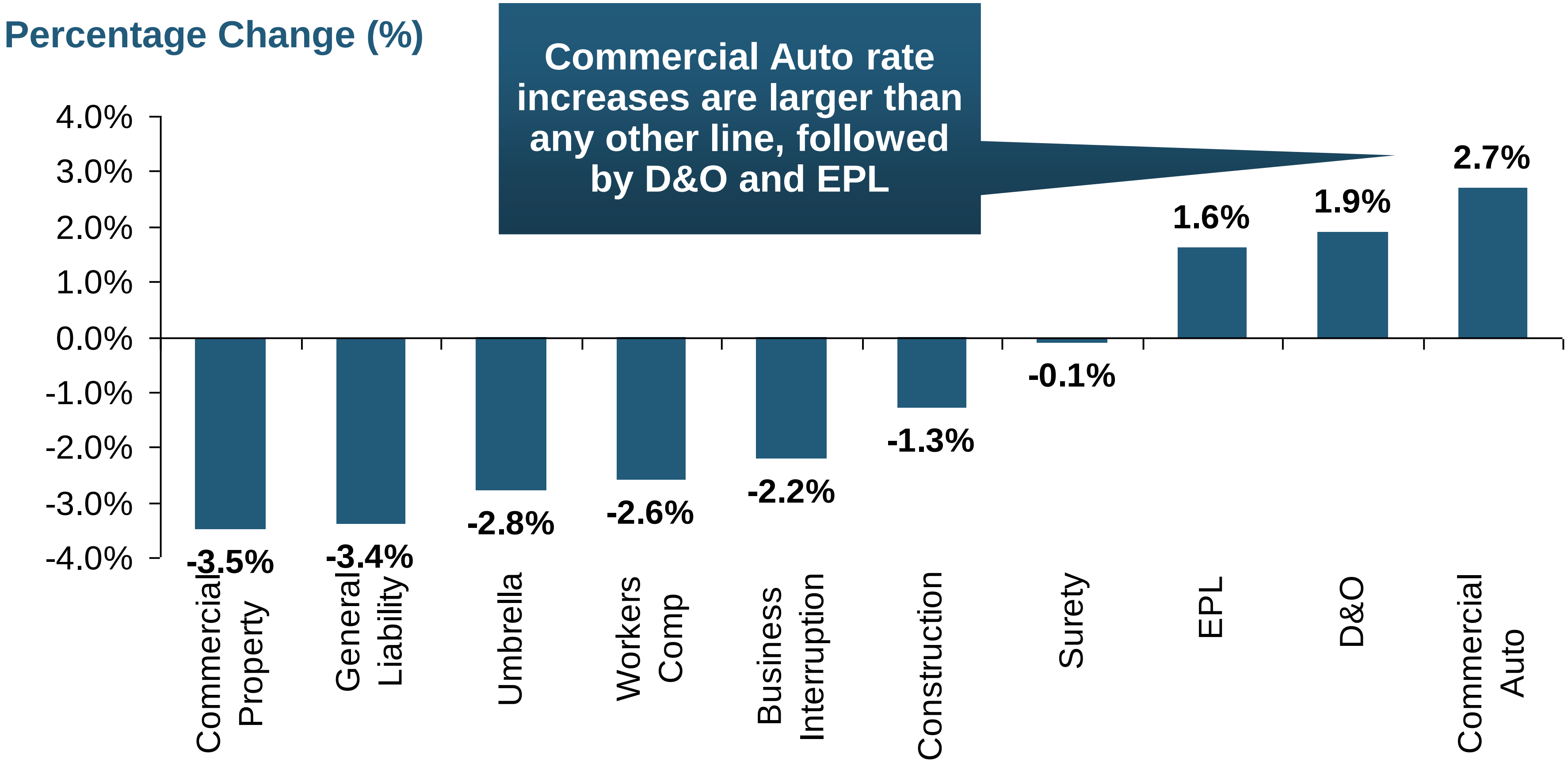
Cumulative Qtrly. Rate Changes, by Line: 1999:Q4 to 2015:Q4

1999:Q4 = 100



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

Change in Commercial Rate Renewals, by Line: 2015:Q4



Major Commercial Lines Renewals Were Mixed to Down in Q4:2015; EPL, D&O and Commercial Auto Saw Gains

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

Workers Comp and the 'Gig' Economy: An Update

The On-Demand Economy Will Transform the American Workforce and the P/C Insurance Industry Too

The Sharing Economy Has Grown—And Attracted Political Scrutiny

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Political Skepticism About the ‘Gig’ Economy

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"Many Americans are making extra money renting out a spare room, designing a website ... even driving their own car. This on demand or so called 'gig' economy is creating exciting opportunities and unleashing innovation, ***but it's also raising hard questions about workplace protections*** *and what a good job will look like in the future."*

--Hillary Clinton,
July 13, 2015

Regulatory Issues Abound as Well, With Implications for Insurance Coverages


REUTERS

In California, Uber Driver Is Employee, Not Contractor

A driver for Uber is an ***employee****,* ***not a contractor****, according to a California Ruling that eventually could push up costs ‘for the smartphone-based ride hailing service and hurt the closely watched start-up's valuation.*

The California Labor Commissioner's decision could ripple through the burgeoning industry of providing services via smartphones, with ***potential implications for other “crowdsourced” services such as Uber rival Lyft, chore service TaskRabbit, and cleaning service Homejoy****.*

--Reuters, June 18, 2015

Percent of Americans Who Have Engaged in the "Gig/Sharing Economy" by Transaction

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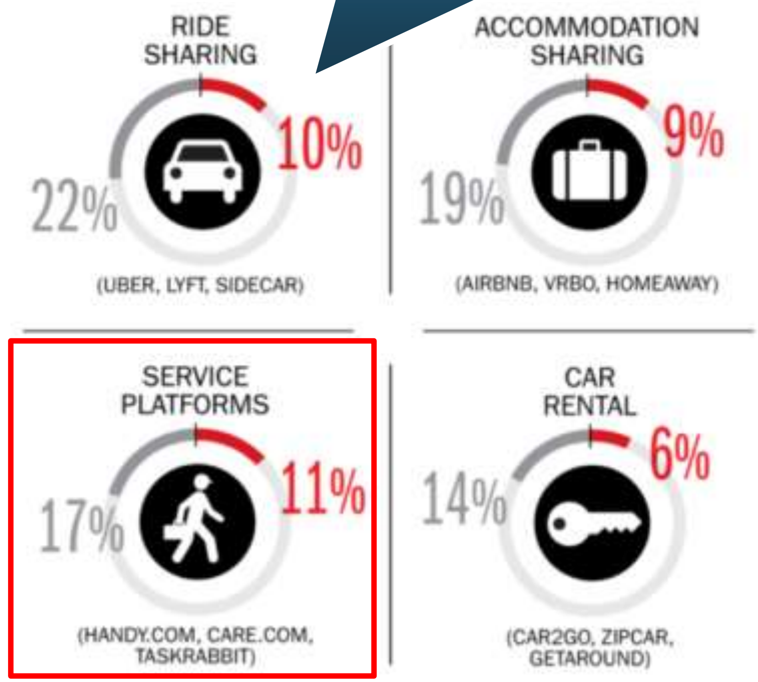
About 22% of Americans have offered services in the sharing economy

Drivers have significant WC exposures



Service platforms have the most direct link to WC; 11% of Americans have offered their services

Sources: The SelfEmployed.com accessed at https://www.theselfemployed.com/gig-economy/infographic-inside-the-new-economy/ based on a poll by Time magazine, Bursten-Marsteller and The Aspen Institute; Insurance Information Institute.

Americans Who Offer Services in the Sharing/Gig Economy Are Statistically More Prone to Workplace Injury

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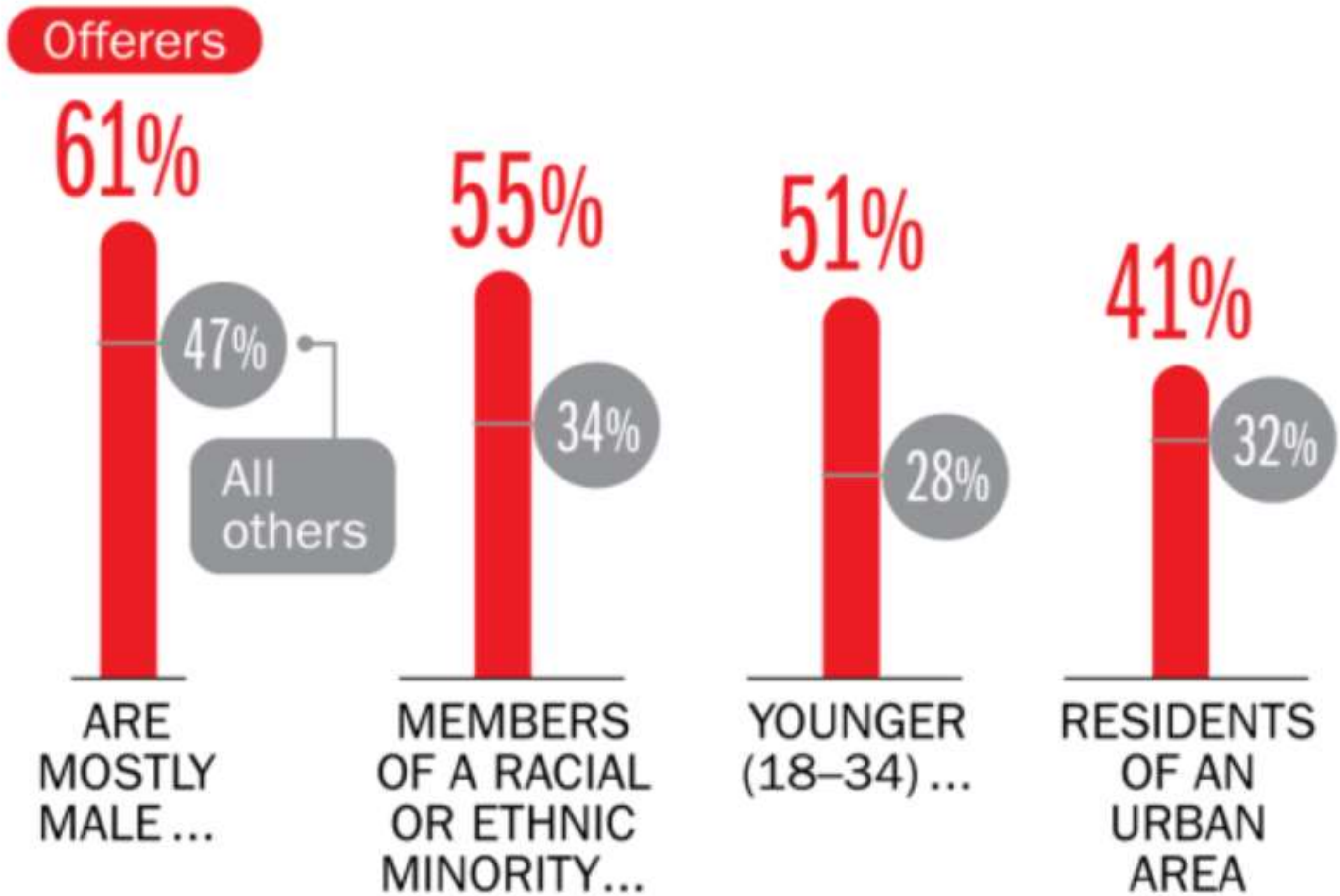

Young, Urban Minority Males Are the Most Likely to Offer their Services in the Sharing Economy

Sources: The SelfEmployed.com accessed at https://www.theselfemployed.com/gig-economy/infographic-inside-the-new-economy/ based on a poll by Time magazine, Bursten-Marsteller and The Aspen Institute; Insurance Information Institute.

Age of People Who are *Providing* the Sharing/On-Demand Economy

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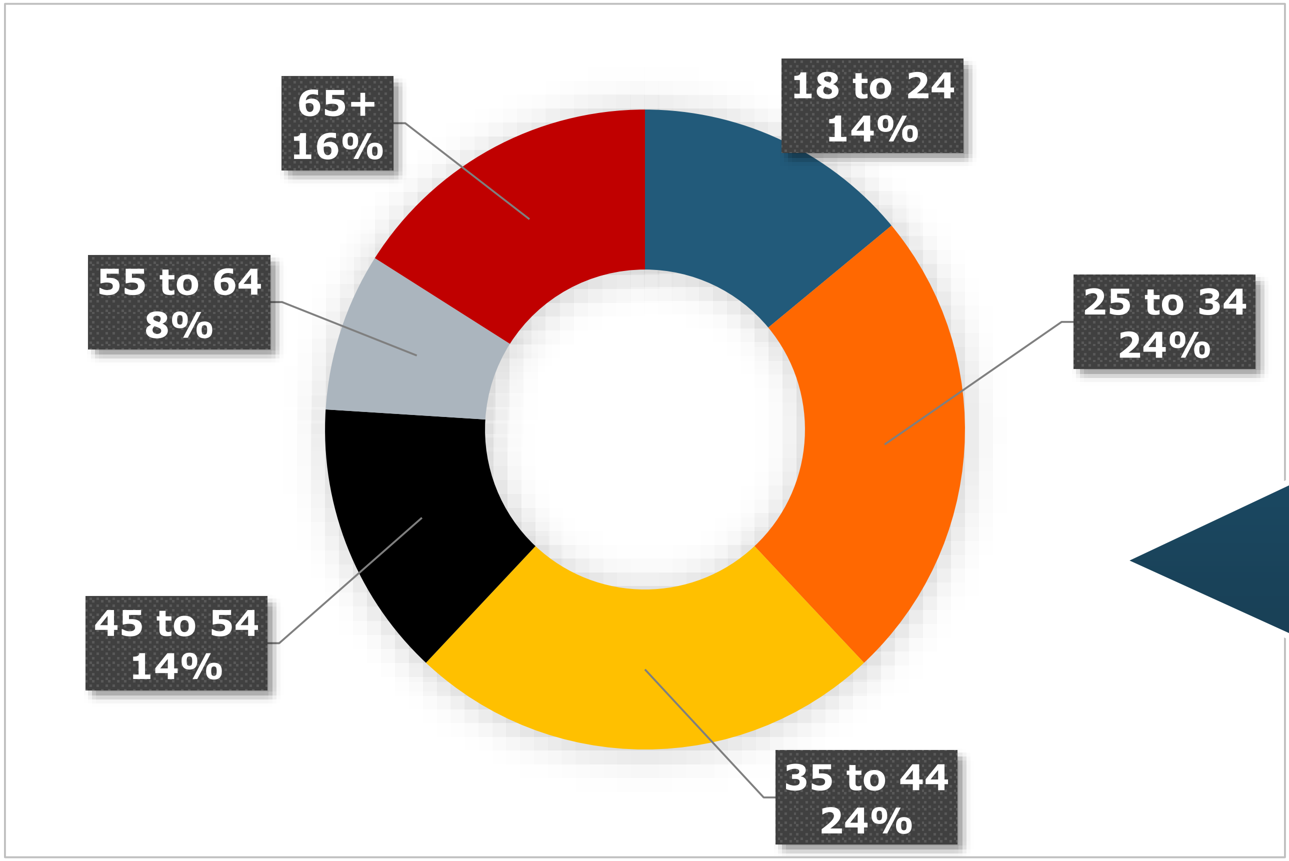
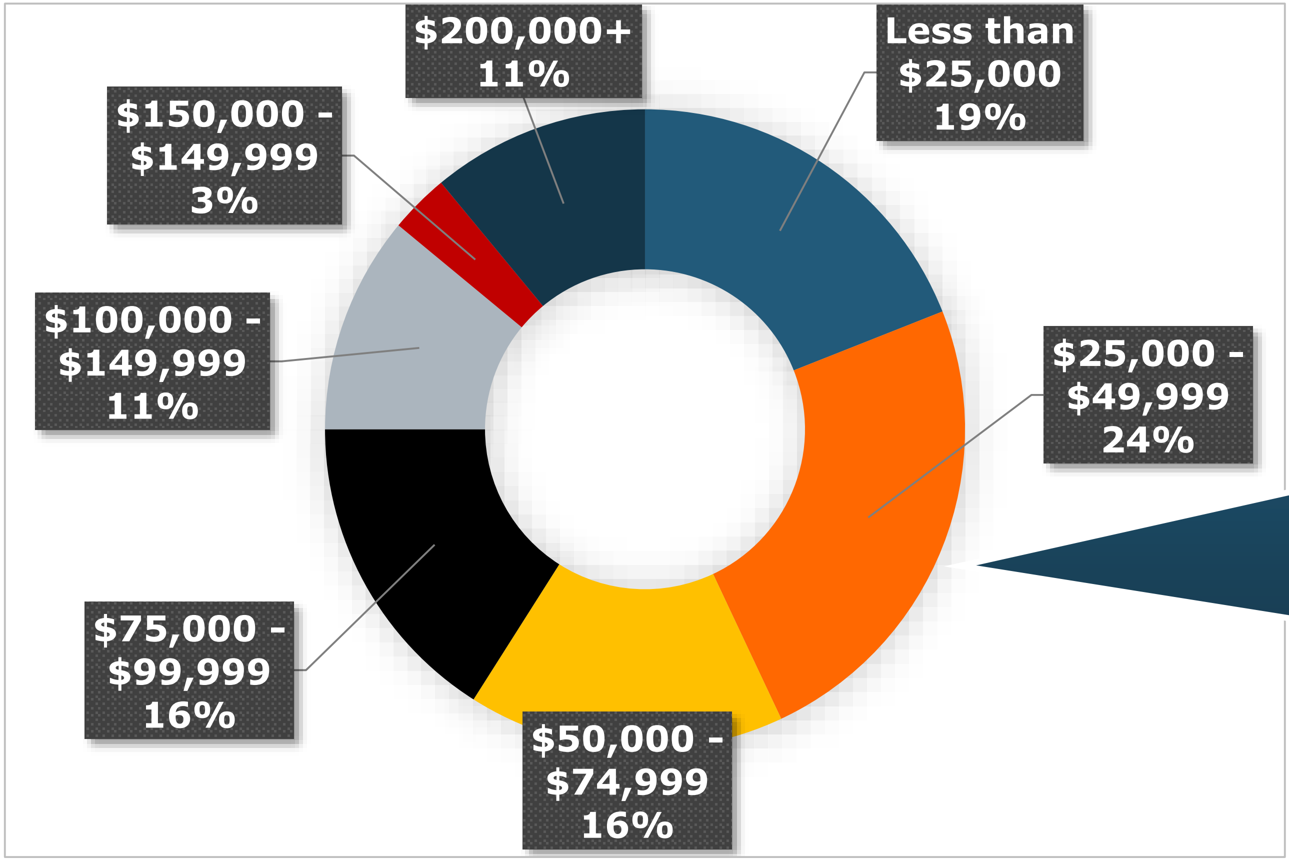


Being a provider of services in the Sharing/On-Demand Economy is attractive to workers in the 25-44 age range (who want flexibility in raising families) as well as seniors age 65+ who see the offering their services on-demand as a way to augment retirement income

About 7% of US population are providers in the Sharing Economy, cutting across age and incomes;
51% of those familiar with the concept could see themselves as providers within the next two years.

Sources: PwC survey of 1,000 adults in the U.S., conducted online, December 2014; Insurance Information Institute.

Household Income: *Providers* of the Sharing/On-Demand Economy

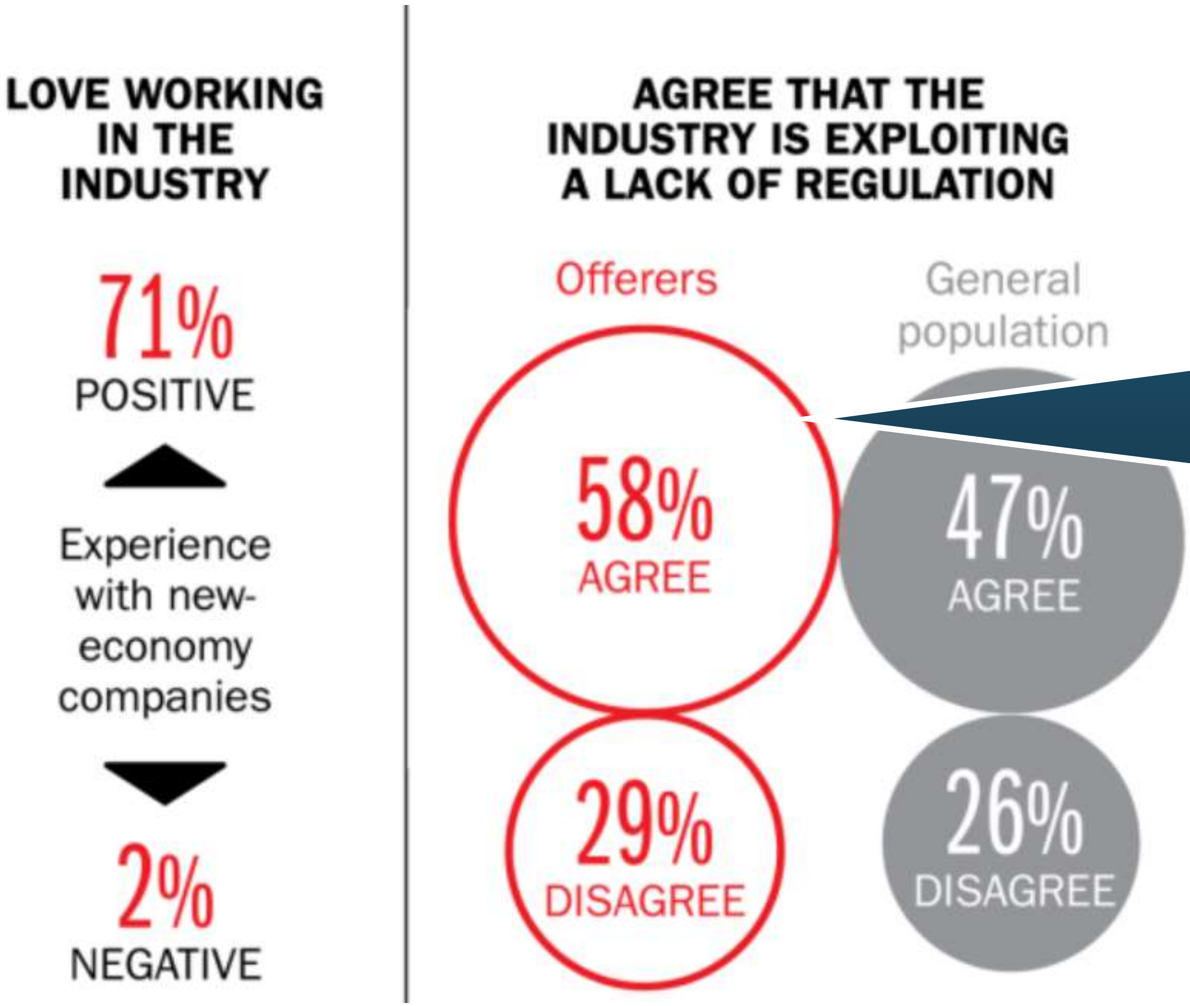


Being a provider of services in the Sharing/On-Demand Economy is particularly attractive to workers with household incomes under $50,000

About 7% of US population are providers in the Sharing Economy, cutting across age and incomes;
51% of those familiar with the concept could see them selves as providers within the next two years.

Sources: PwC survey of 1,000 adults in the U.S., conducted online, December 2014; Insurance Information Institute.

Americans Love Working in the Sharing Economy but Many Feel Exploited



Despite general satisfaction with sharing economy as an "industry," there is a sense that workers are being exploited—especially by the workers themselves

Sources: The SelfEmployed.com accessed at https://www.theselfemployed.com/gig-economy/infographic-inside-the-new-economy/ based on a poll by Time magazine, Bursten-Marsteller and The Aspen Institute; Insurance Information Institute.

Opinions Are Split on Whether the Sharing Economy Needs More Regulation

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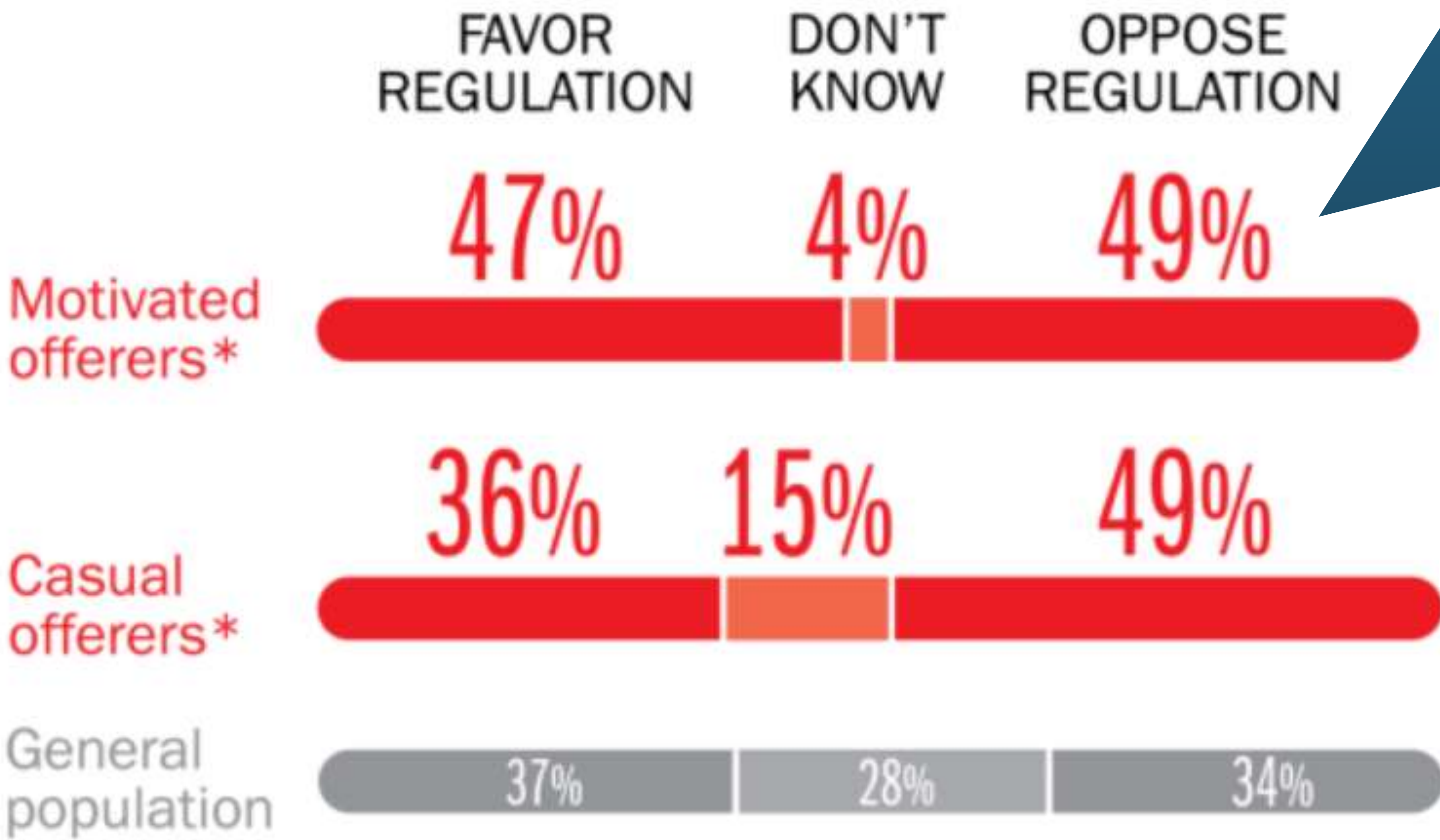


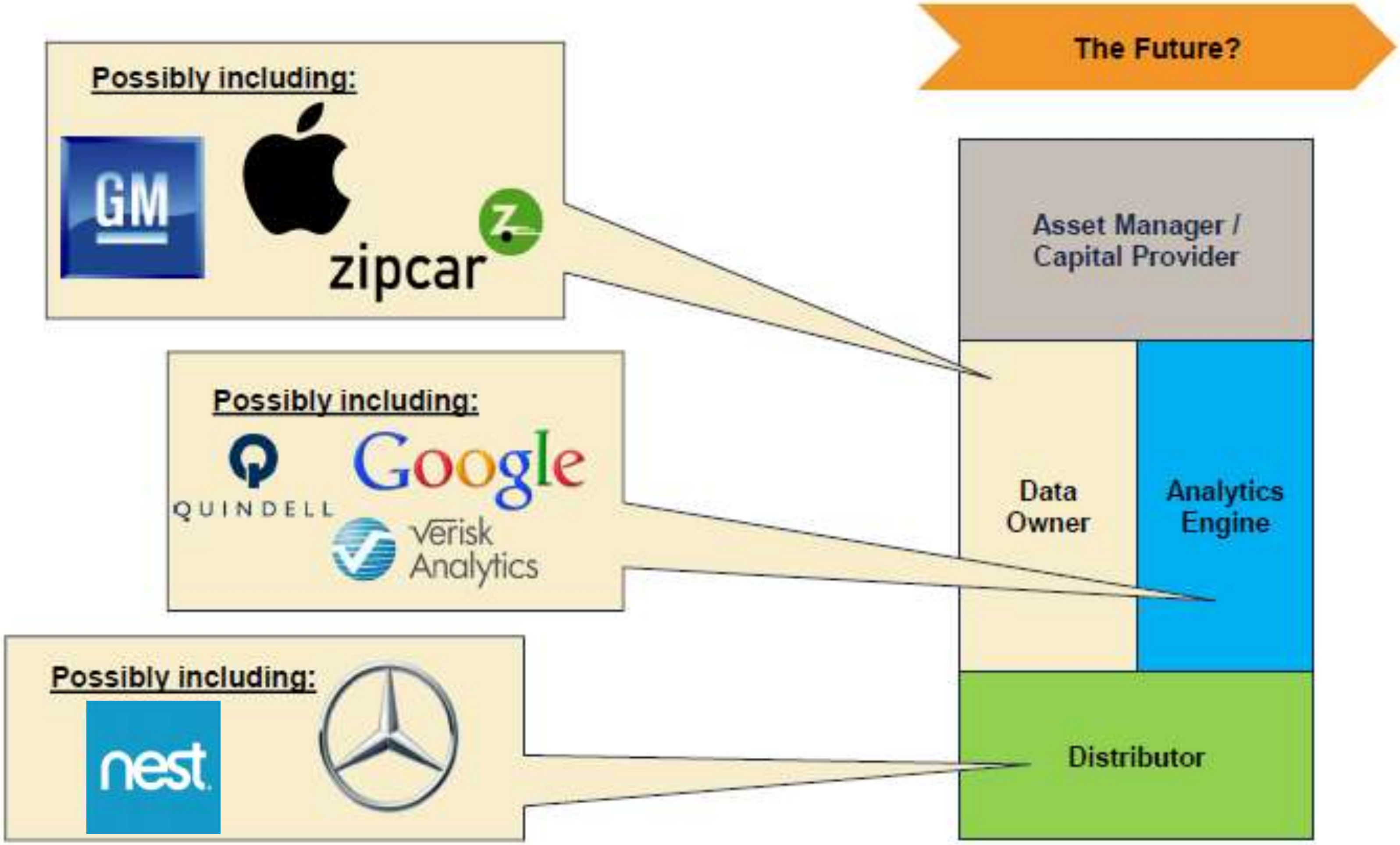
The most frequent offerers of services though online platforms are equally divided over the need for more regulation

Sources: The SelfEmployed.com accessed at https://www.theselfemployed.com/gig-economy/infographic-inside-the-new-economy/ based on a poll by Time magazine, Bursten-Marsteller and The Aspen Institute; Insurance Information Institute.

THE ‘INTERNET OF THINGS’

Capturing Economic Value Amid a Shifting Insurer Value Chain

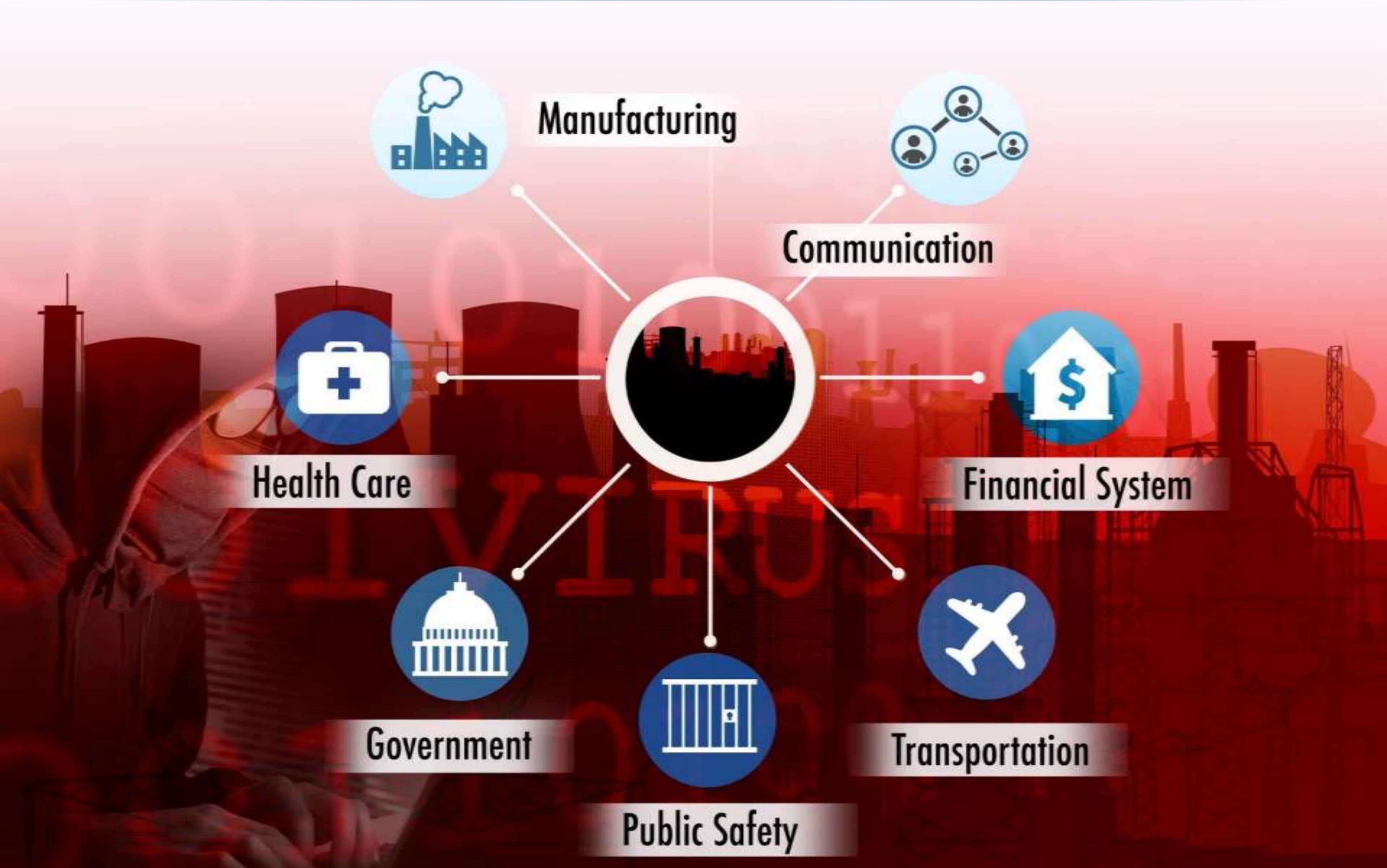
The Internet of Things and the Insurance Industry Value Chain



Who owns the data? Where does It flow? Who does the analytics? Who is the capital provider?

Source: Willis Capital Markets & Advisory; Insurance Information Institute.

The ‘Internet of Things’ and ‘The Insurance-Net of Things’



The Insurance Industry's Future Is in the Cloud…

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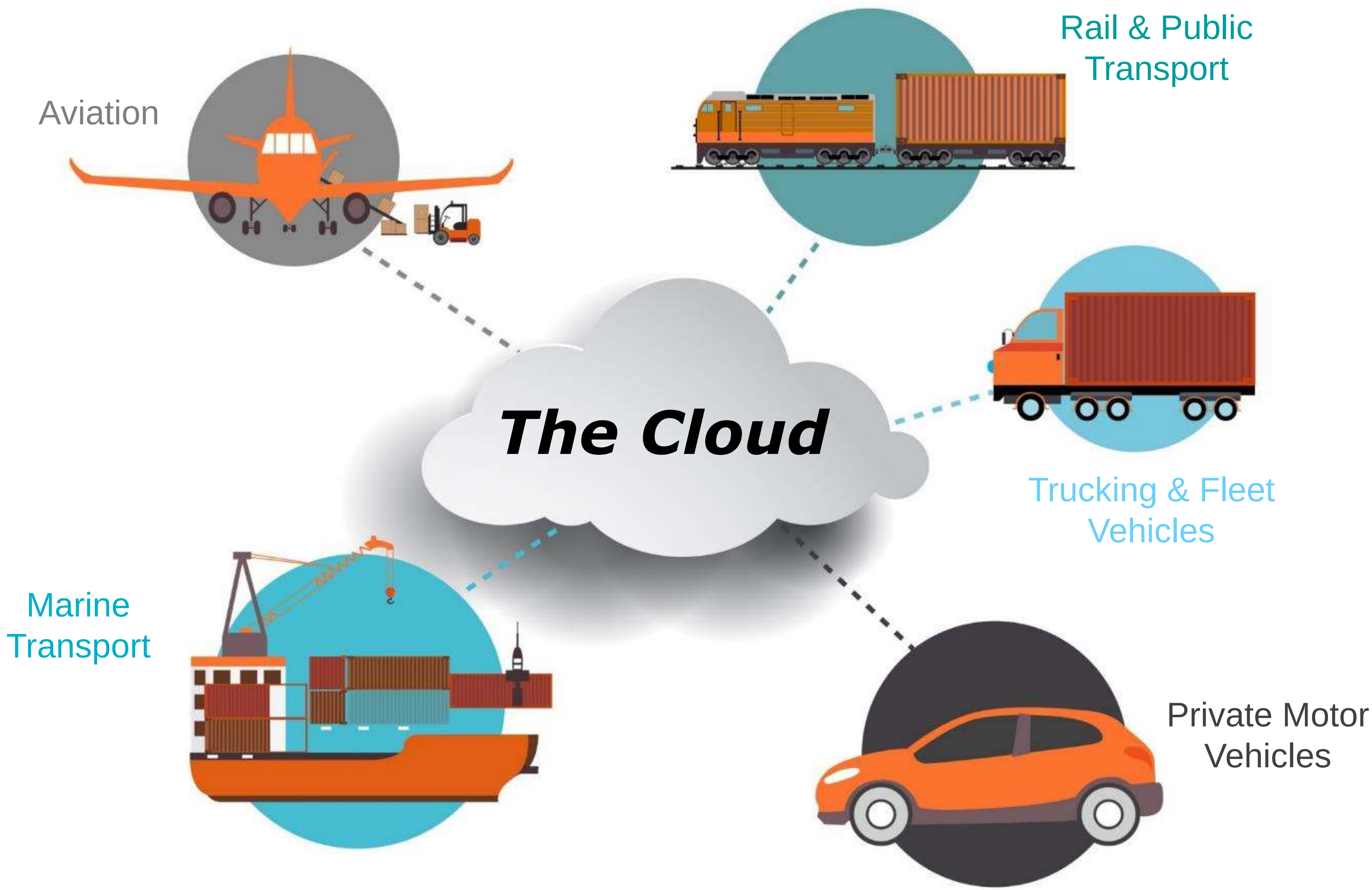
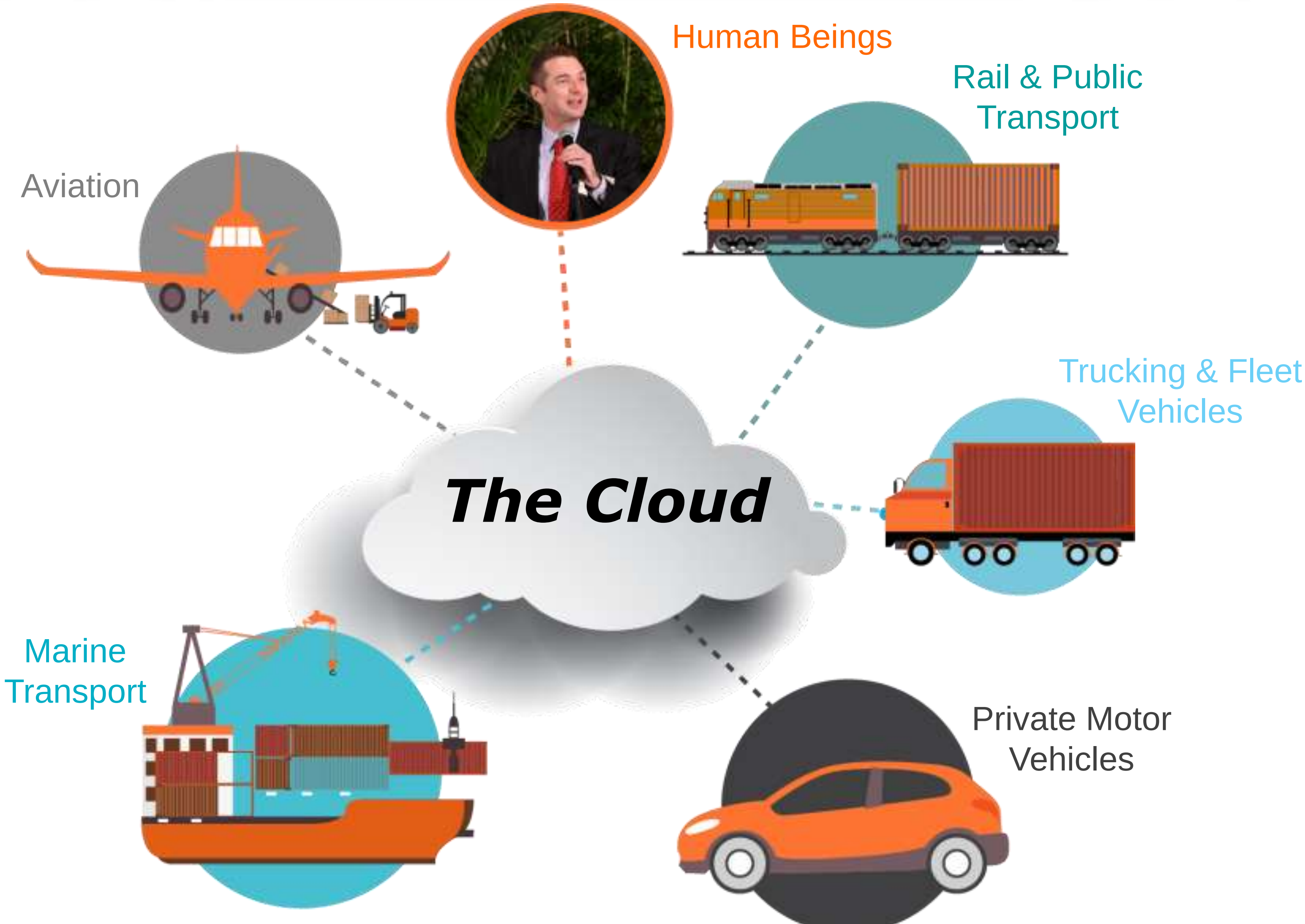


The Insurance Industry's Future Is in the Cloud…



Wearables and Beyond…

Where The Internet of Things Meets Worker Comp

Wearables Show Significant Potential to Reduce Workplace Injury, Death

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- **Wearables Today Can Monitor:**
  - **Location**
  - **Heart rate**
  - **Temperature**
  - **Steps/Exertion**
  - **Sweat**
  - **Sleep**

fitbit

- **In the Near Future Could Monitor:**
  - **Glucose level**
  - **Oxygen levels**
  - **Pain**
  - **Nausea**

iWatch

Beyond Wearables: Ingestibles and Implantables, VR Could Have Big Impacts Too

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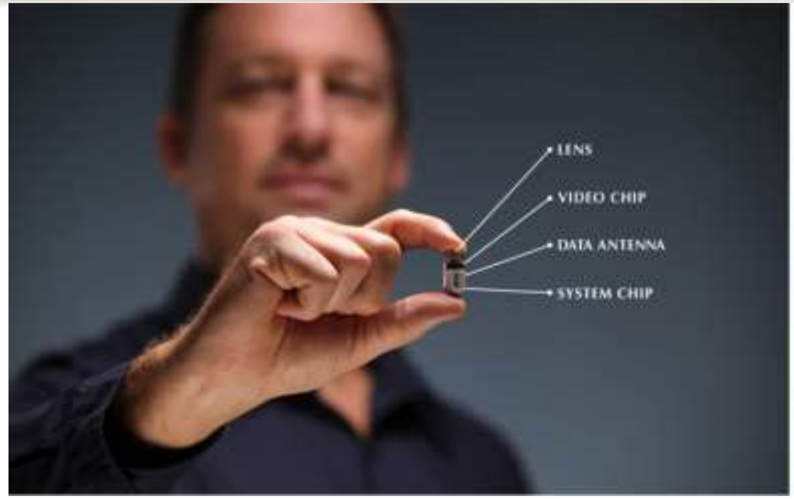
- **Ingestibles:**
  - **Body chemistry**
  - **View malignancies**
  - **Detect diseases**
  - **Medication adherence**



- **Implantables**

- **Smart Fabrics**
- **Virtual Reality**
  - **Computer simulated reality**
- **Augmented Reality**
  - **Real world environment supplemented by computer generated inputs**

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INSURANCE TECHNOLOGY:
FIN TECH ZEROES IN

Number and Value of Deals Is Increasing

In Search of the Elusive Insurance 'Unicorn'

Insurance Technology Financing Trend: Change Is Coming

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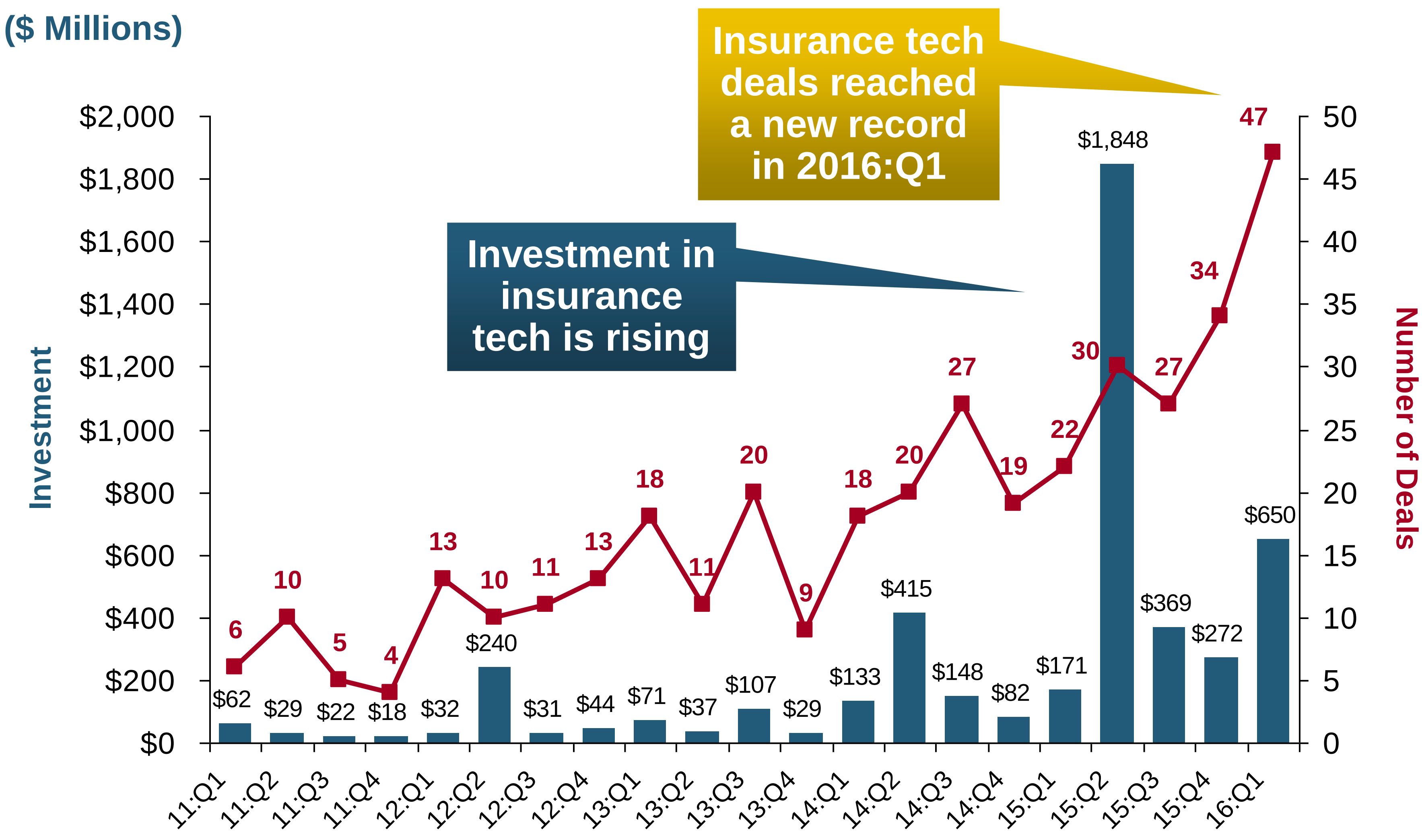

Source: CB Insights at https://www.cbinsights.com/blog/insurance-tech-overview-q1-2016/; Insurance Information Institute.

Insurance Tech Activity by Area of Interest, 2013 – 2016:Q1

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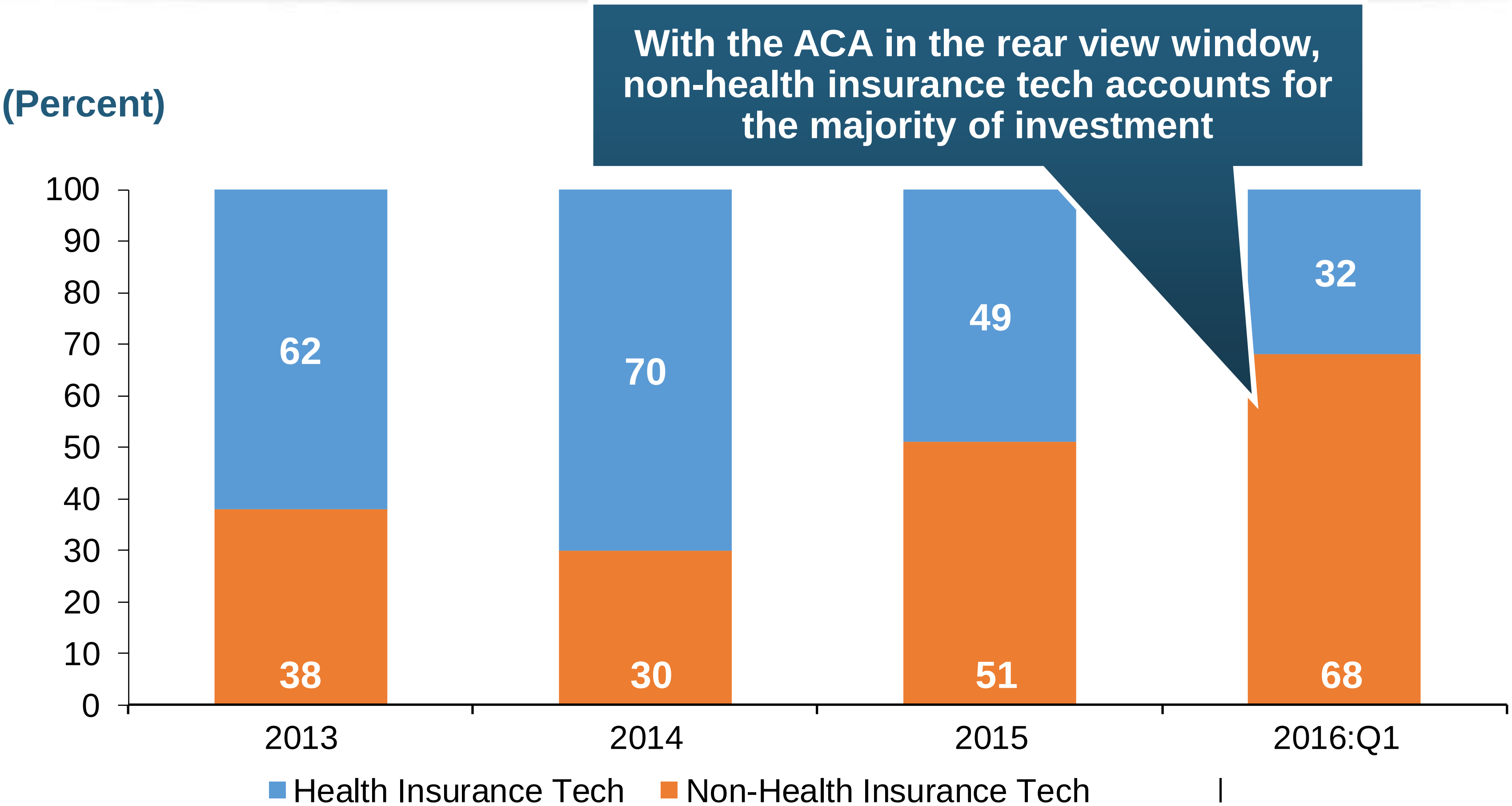

Silicon Valley and the Venture Capital community have the insurance industry in their sights. Most will fail. Some will succeed.

Source: CB Insights at https://www.cbinsights.com/blog/insurance-tech-overview-q1-2016/; Insurance Information Institute.

Insurance Information Institute Online:

www.iii.org

Thank you for your time and your attention!

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