The Global Economy, Rising Risk and Marine Insurance Markets

Risk and Reward in a Troubled World

San Francisco Board of Marine Underwriters

San Francisco, CA

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Download at www.iii.org/presentations

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Outlook: Property/Casualty & Economy

- **Modest growth will continue in 2016 (~ 3.5% DPW in US)**
  - **Exposure growth tied primarily to overall GDP growth/key sector drivers**
  - **Rates remain flat to marginally negative for commercial lines in 2016**
  - **Reinsurance pricing under pressure—more so for property risks**
- **Underlying loss cost trends remain manageable**
- **Industry is very well capitalized on a global scale**
- **Continued pressure from alternative capital**
- **Anti-trade, nationalistic sentiments bad for marine ins.**
- **Sluggish growth abroad impacts trade flows**
- **Strong dollar has hurt US manufacturing, exports**
- **Commodity prices remain weak but have likely bottomed**

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Risk & Insurance

U.S. and Global Perspective

Marine Insurance Is Very Sensitive to the Global Economic and Political Environment

5 Major Categories for External Global Risks, Uncertainties and Fears: Insurance Solutions

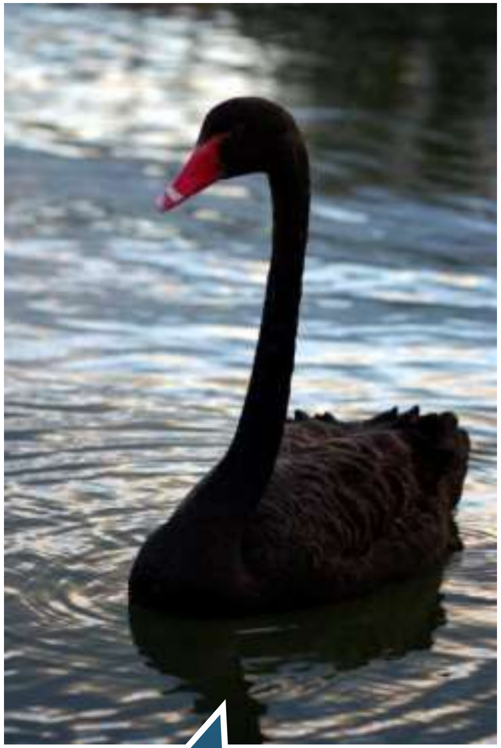
1. **Economic Risks**
2. **Geopolitical Risks**
3. **Environmental Risks**
4. **Technological Risks**
5. **Societal Risks**

While risks can be broadly categorized, none are mutually exclusive

Source: Adapted from World Economic Forum, *Global Risks 2014*; Insurance Information Institute.

Multitude of Exogenous Factors Influence Growth, Performance & Cyclicality

- Tepid growth in US, Europe
- Weakness in China/Emerging Economies
- Political uncertainty in the US, Brazil, Argentina
- UK "Brexit" concern
- Low/Negative Interest Rates
- Resurgent Terrorism Risk: ISIS & Other Groups
- Cyber Attacks
- Sabre Rattling (e.g., US-China, Russia)
- Severe Natural Disaster Losses→Supply Chain
- Nationalism
- International trade deals under siege
- (Over)Regulation: Systemic Risk?
- Strong dollar has impacted manufacturing



Are "Black Swans" everywhere or does it just seem that way?

Top 5 Global Risks in Terms of *Likelihood*, 2007—2016: Insurance Can Help With Most

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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1st	Breakdown of critical information infrastructure	Asset price collapse	Asset price collapse	Asset price collapse	Storms and cyclones	Severe income disparity	Severe income disparity	Income disparity	Interstate conflict with regional consequences	Large-scale involuntary migration
2nd	Chronic disease in developed countries	Middle East instability	Slowing Chinese economy (<6%)	Slowing Chinese economy (<6%)	Flooding	Chronic fiscal imbalances	Chronic fiscal imbalances	Extreme weather events	Extreme weather events	Extreme weather events
3rd	Oil price shock	Failed and failing states	Chronic disease	Chronic disease	Corruption	Rising greenhouse gas emissions	Rising greenhouse gas emissions	Unemployment and underemployment	Failure of national governance	Failure of climate-change mitigation and adaptation
4th	China economic hard landing	Oil and gas price spike	Global governance gaps	Fiscal crises	Biodiversity loss	Cyber attacks	Water supply crises	Climate change	State collapse or crisis	Interstate conflict with regional consequences
5th	Asset price collapse	Chronic disease, developed world	Retrenchment from globalization (emerging)	Global governance gaps	Climate change	Water supply crises	Mismanagement of population ageing	Cyber attacks	High structural unemployment or underemployment	Major natural catastrophes

Economic | Environmental | Geopolitical | Societal | Technological

In 2016, societal and environ-mental issues dominated frequency concerns

Concerns Shift Considerably Over Short Spans of Time. 2016 Includes a Mix of Environmental Economic, Social and Environmental Risks

Source: World Economic Forum, *Global Risks 2016*; Insurance Information Institute.

Top 5 Global Risks in Terms of *Impact*, 2007—2016: Insurance Can Help With Most

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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1st	Asset price collapse	Asset price collapse	Asset price collapse	Asset price collapse	Fiscal crises	Major systemic financial failure	Major systemic financial failure	Fiscal crises	Water crises	Failure of climate-change mitigation and adaptation
2nd	Retrenchment from globalization	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Climate change	Water supply crises	Water supply crises	Climate change	Rapid and massive spread of infectious diseases	Weapons of mass destruction
3rd	Interstate and civil wars	Slowing Chinese economy (<6%)	Oil and gas price spike	Oil price spikes	Geopolitical conflict	Food shortage crises	Chronic fiscal imbalances	Water crises	Weapons of mass destruction	Water crises
4th	Pandemics	Oil and gas price spike	Chronic disease	Chronic disease	Asset price collapse	Chronic fiscal imbalances	Diffusion of weapons of mass destruction	Unemployment and underemployment	Interstate conflict with regional consequences	Large-scale involuntary migration
5th	Oil price shock	Pandemics	Fiscal crises	Fiscal crises	Extreme energy price volatility	Extreme volatility in energy and agriculture prices	Failure of climate-change mitigation and adaptation	Critical information infrastructure breakdown	Failure of climate-change mitigation and adaptation	Severe energy price shock

Economic Environmental Geopolitical Societal Technological

In 2016, societal issues dominated severity concerns

Concerns Over the Impacts of Societal Risks Remained High in 2016, but Economic, Environment and Geopolitical Risks Also Loom Large

Source: World Economic Forum, *Global Risks 2016*; Insurance Information Institute.

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Globalization: The Global Economy Creates and Transmits Cycles & Risks

Globalization Is a Double Edged Sword—Creating Opportunity and Wealth But Potentially Creating and Amplifying Risk

Emerging vs. “Advanced” Economies

Commercial Lines Outlook: 2016

- **Flat to modest deceleration in premium growth in 2016**
- **Rate environment suggests flat-to-slightly negative renewals in 2016**
- **Economic growth continues at a modest pace but unevenly across industries and regions; Nearly full employment and tighter labor market conditions are pluses and should drive new exposures**
- **Construction, Service sectors are positives but manufacturing, energy, commodities face headwinds**
- **Loss costs driven by modest frequency and severity trends, but helped by reserve releases, low cats, low infl.**
- **Property cat reinsurance costs continue to fall**
- **Investment income still under pressure from low yields**

GDP Growth: Advanced & Emerging Economies vs. World, 1970-2016F

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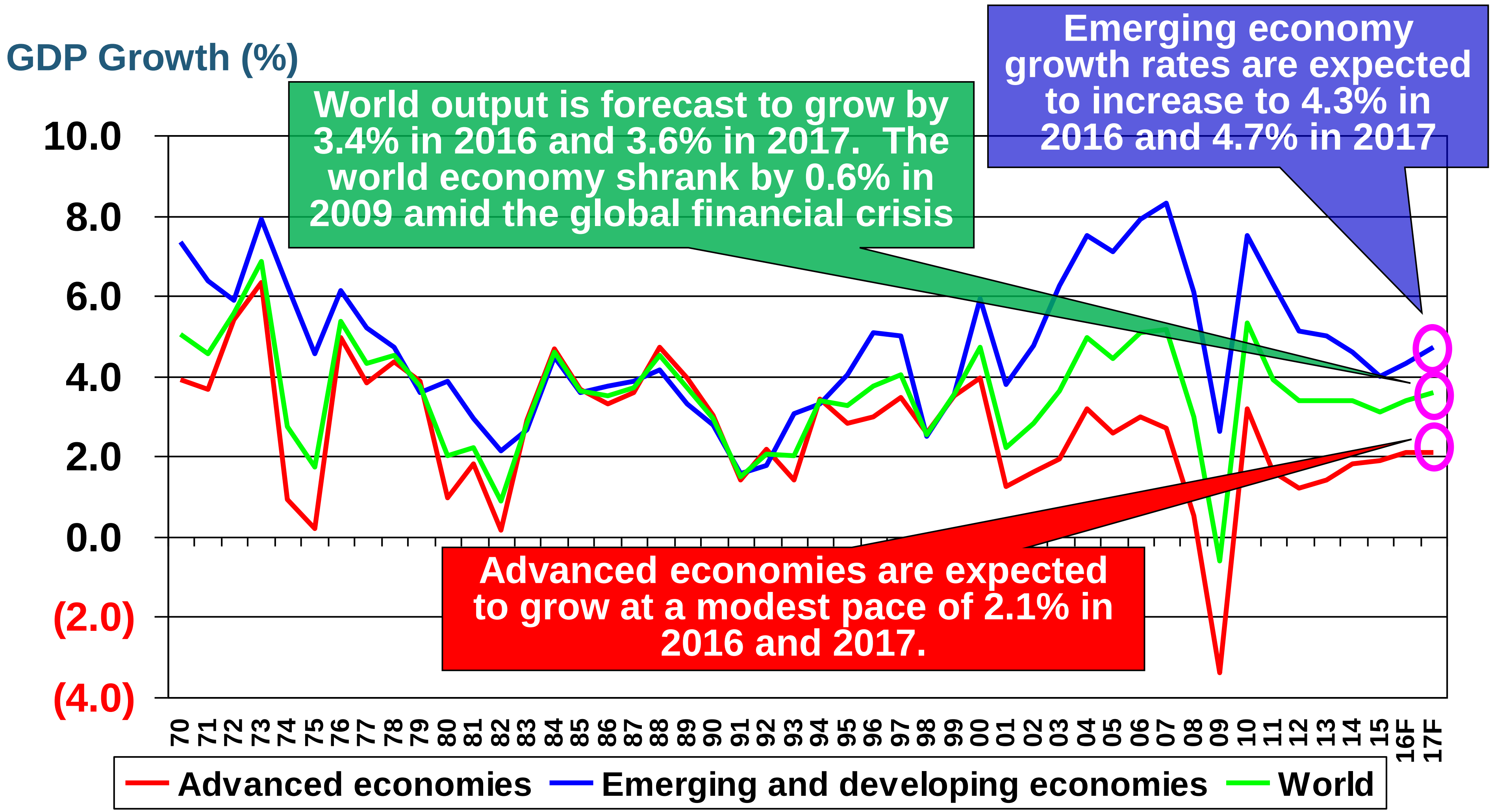
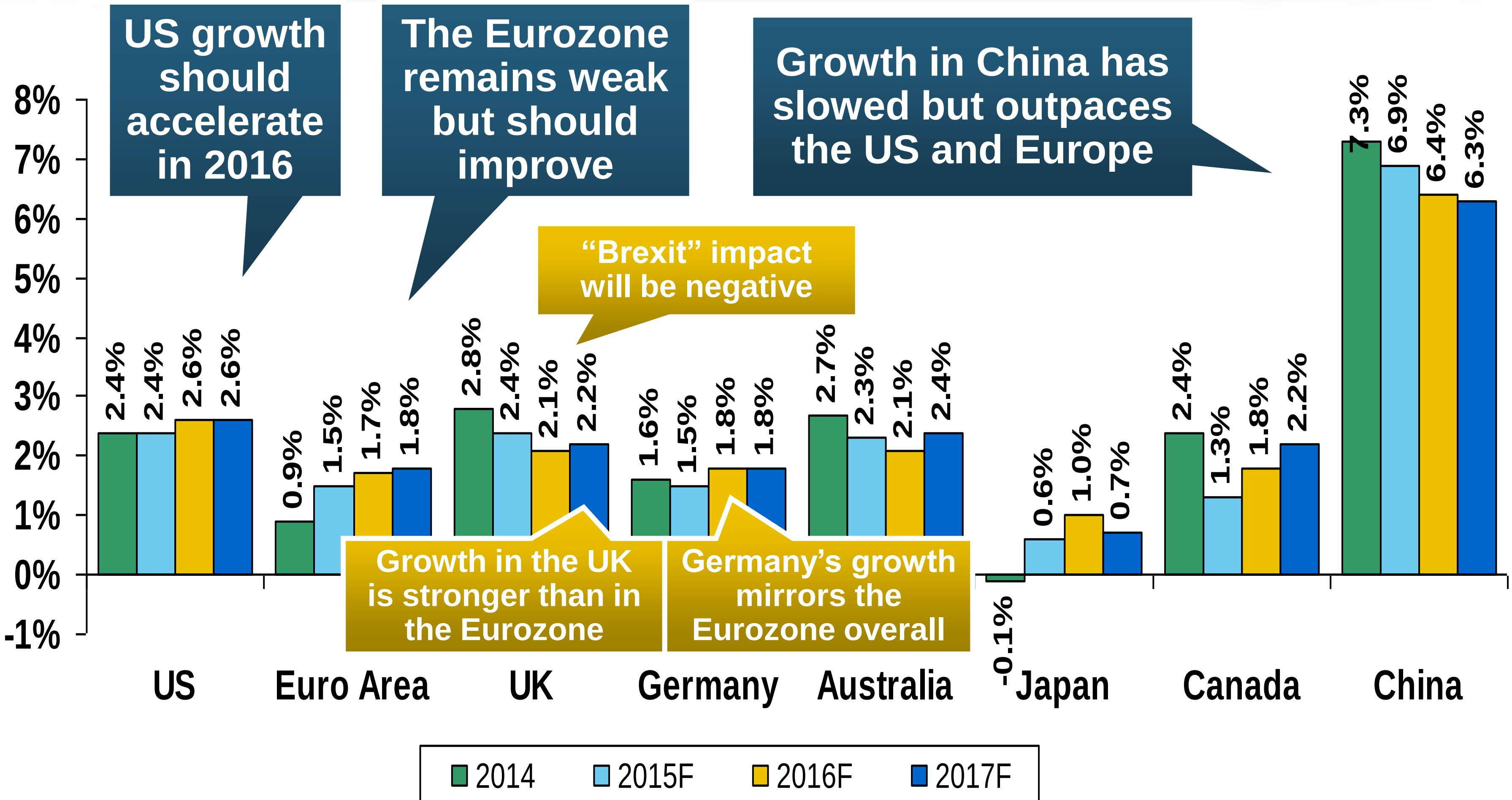


Source: International Monetary Fund, *World Economic Outlook*, Jan. 2016; Insurance Information Institute.

Real GDP Growth Forecasts: Major Economies: 2014 – 2017F



Growth Prospects Vary Widely by Region; US and the UK Lead the Advanced Economies; Germany Leads in the Euro Area; China Has Slowed

Sources: Blue Chip Economic Indicators (2/2016 issue); IMF (Jan. 2016); Insurance Information Institute.

Non-Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2014

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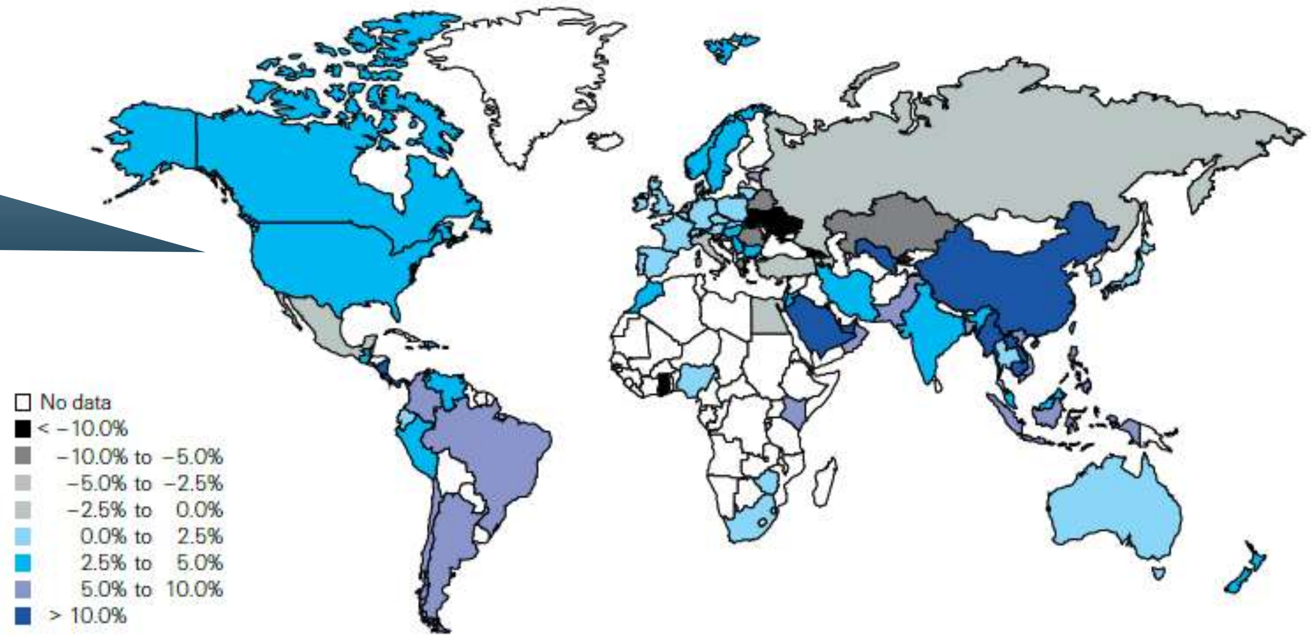
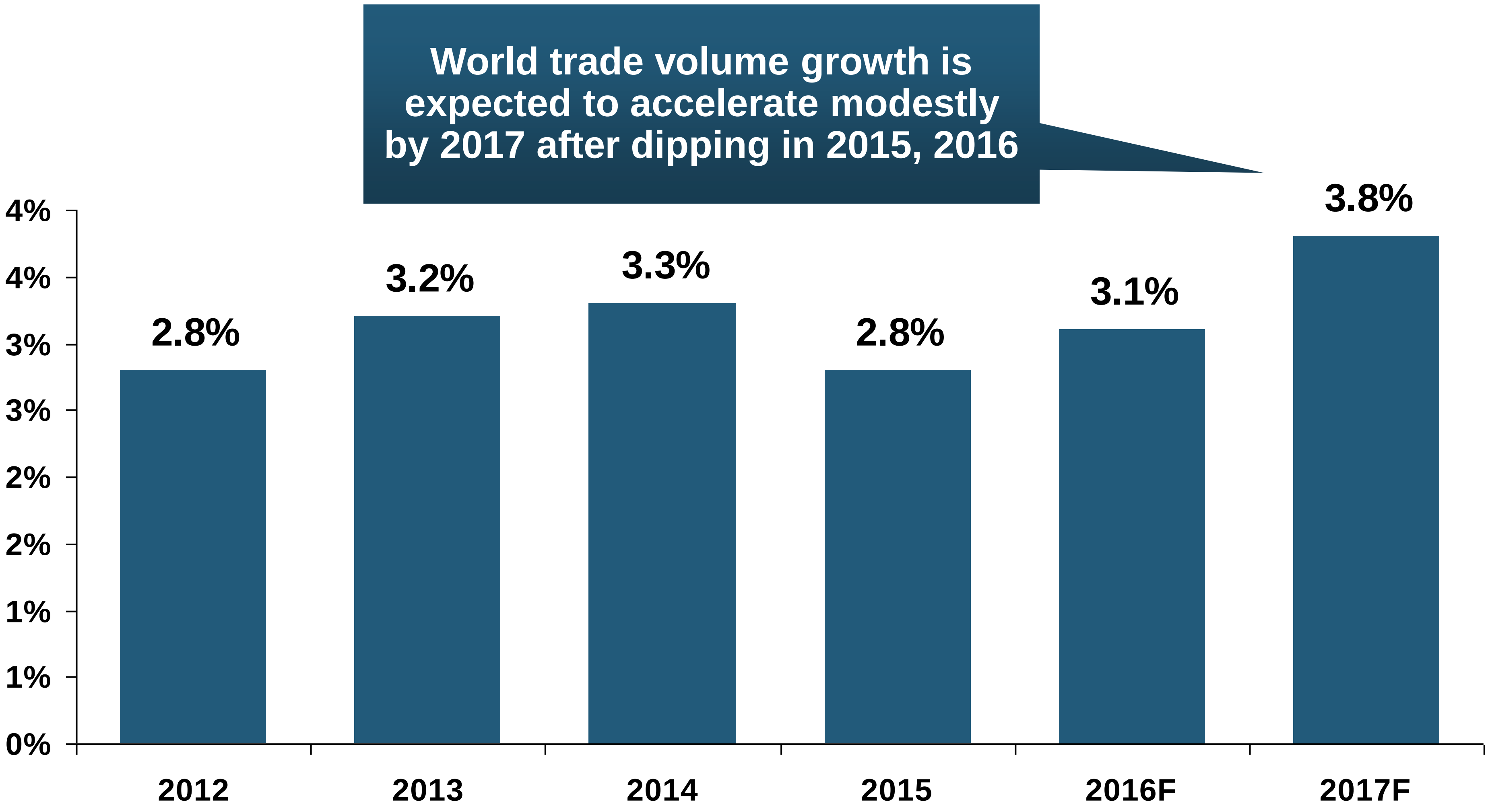
Real nonlife premium growth was stronger in the US in 2014 than in most of Europe



Market	Life	Non-Life	Total
Advanced	3.8	**1.8**	2.9
Emerging	6.9	**8.0**	7.4
World	4.3	**2.9**	3.7

Source: Swiss Re, *sigma*, No. 4/2015.

World Trade Volume Growth*, 2012 – 2017F

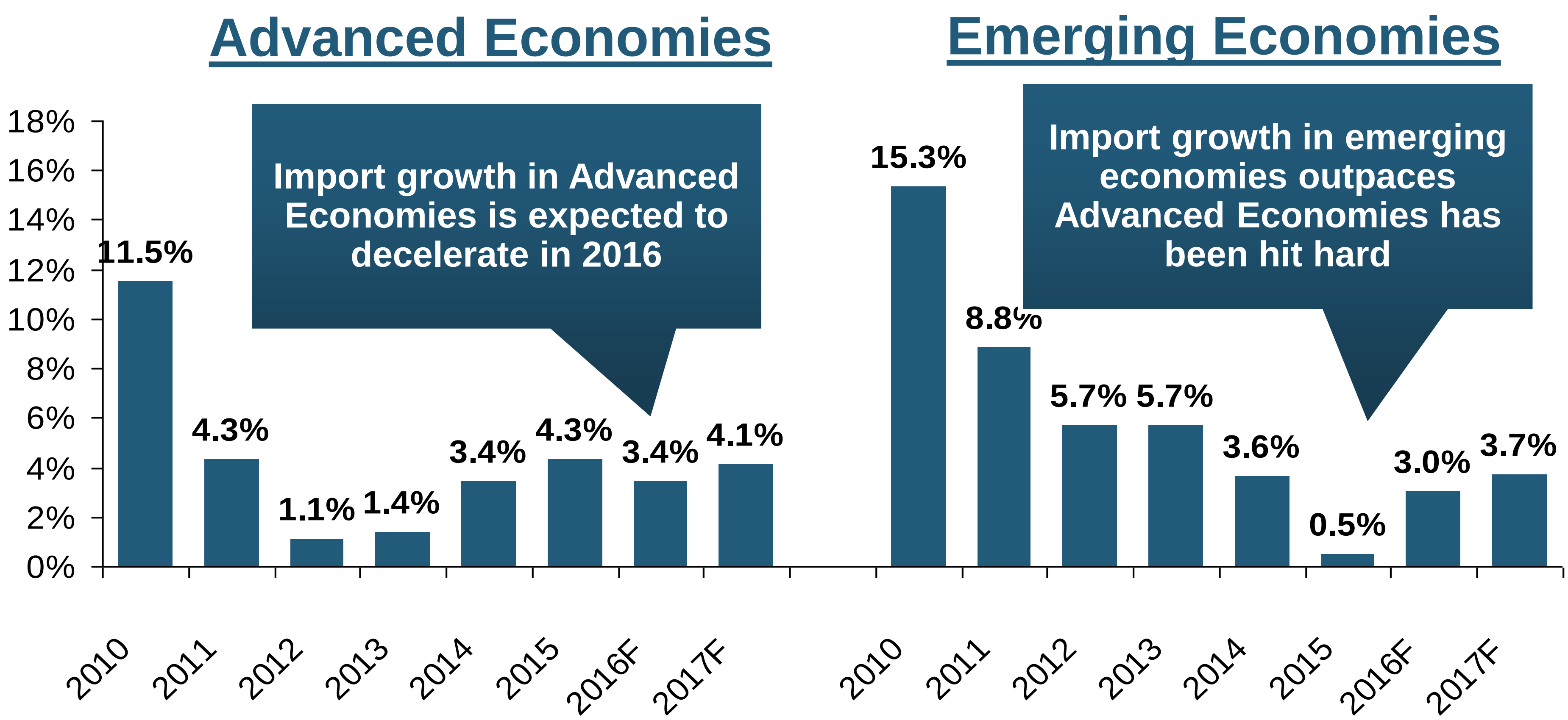


*Goods and services.

Source: International Monetary Fund, *World Economic Outlook*, April 2016; Insurance Information Institute.

World Trade Volume: IMPORTS 2010 – 2017F

Growth (%)



Sources: IMF *World Economic Outlook* (April 2016); Insurance Information Institute.

World Trade Volume: EXPORTS 2010 – 2017F

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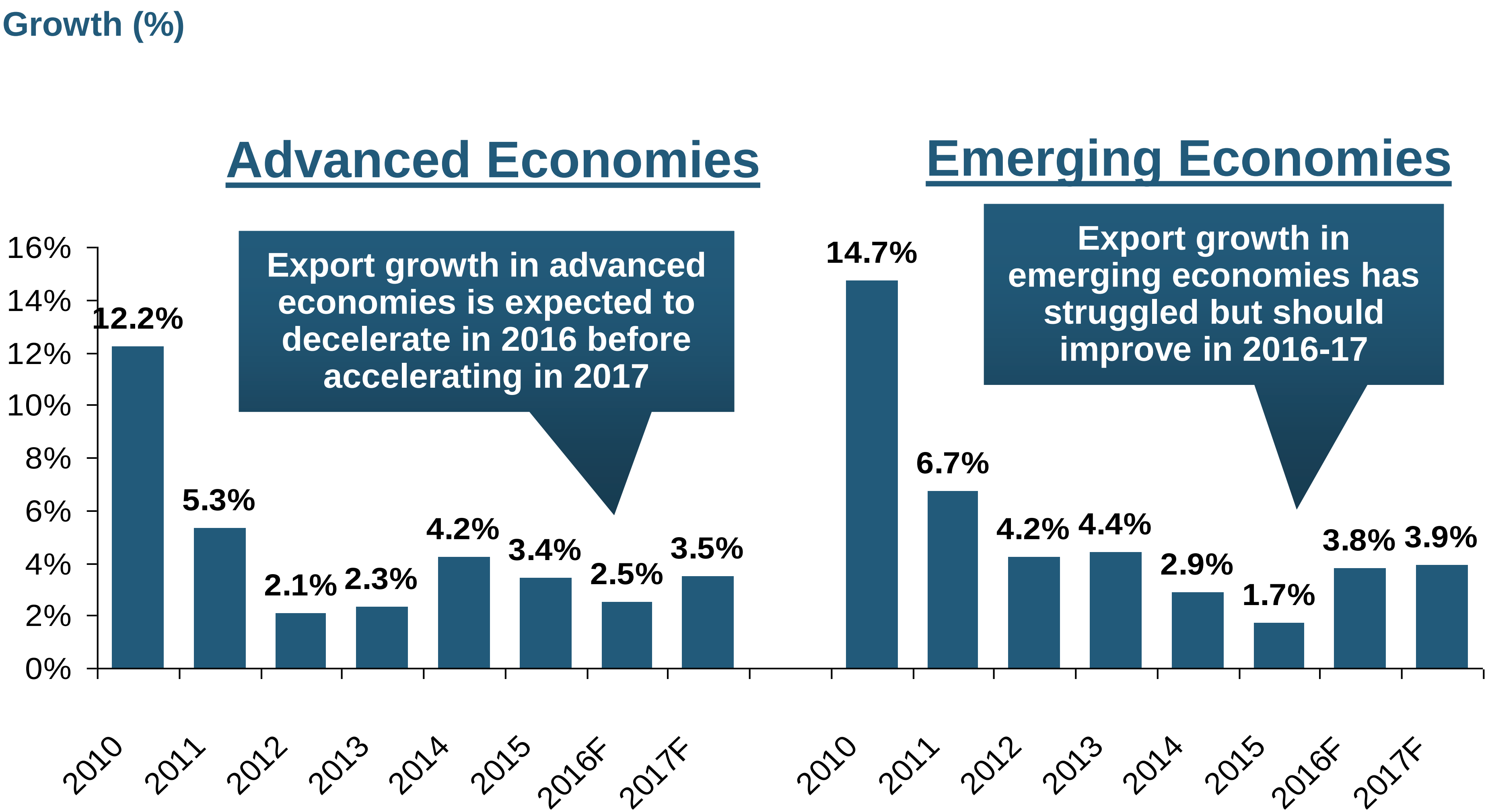

Sources: IMF *World Economic Outlook* (April 2016); Insurance Information Institute.

World Trade is an Increasingly Important Part of Global Economic Output

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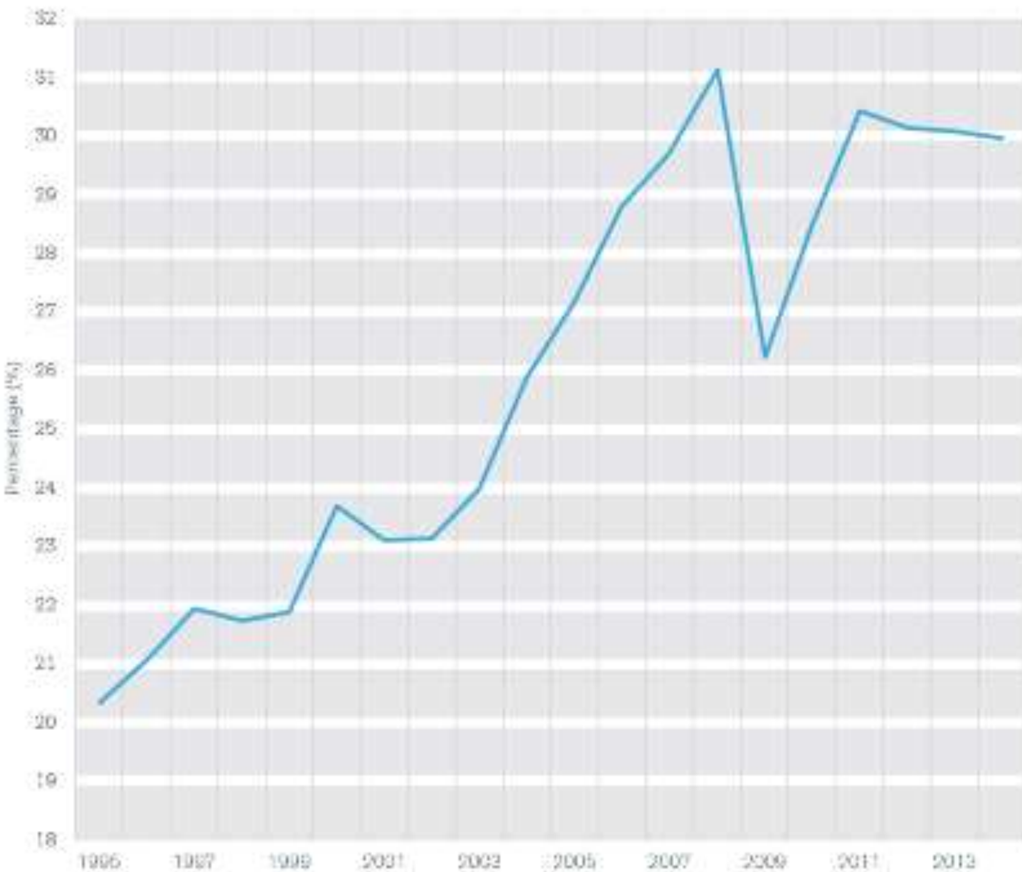
Ratio of trade in goods and commercial services to GDP, 1995-2014

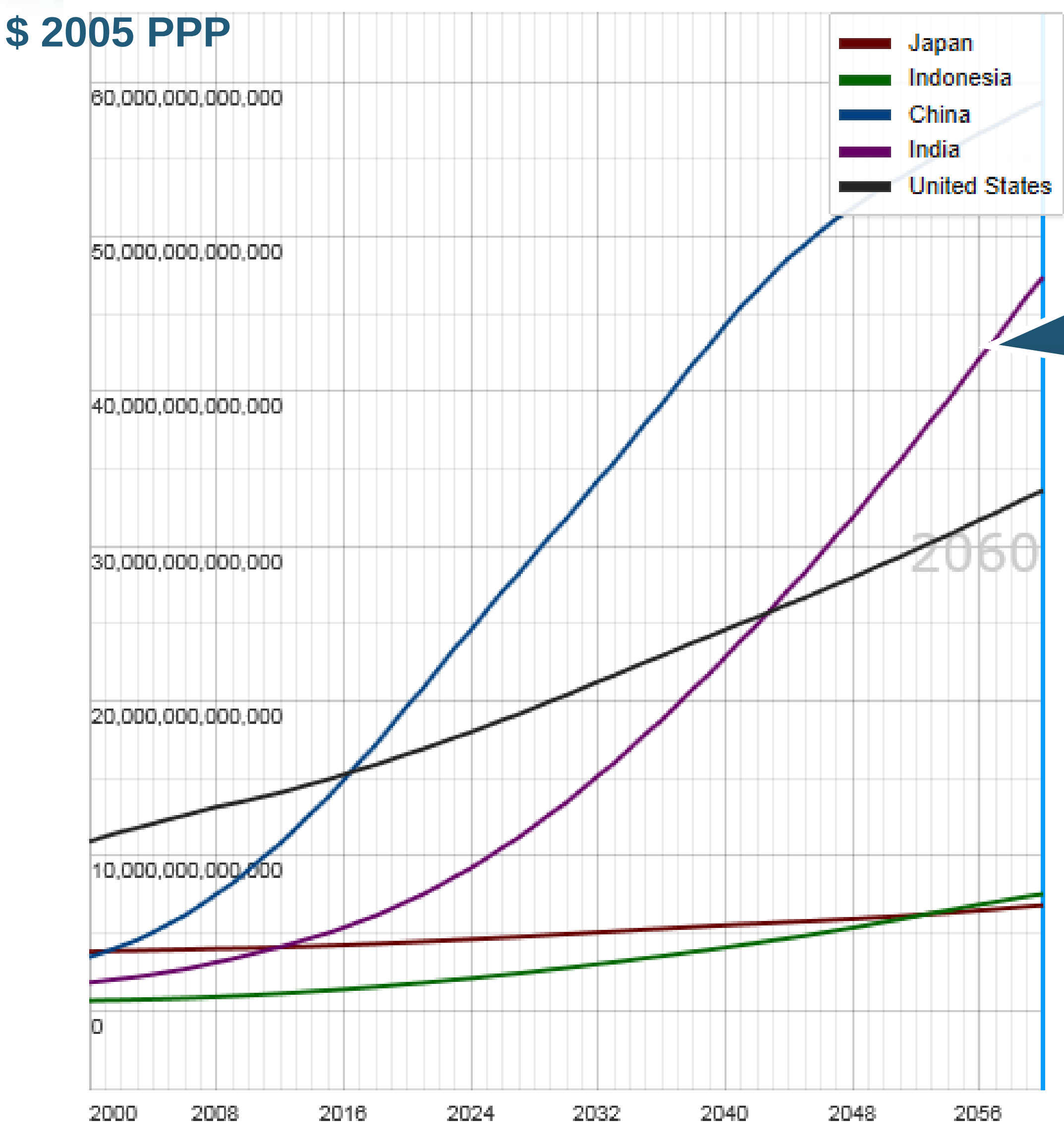


Note: Trade to GDP ratio is estimated as total trade of goods and commercial services under BPM5 (exports + imports, balance of payments basis) divided by GDP, which is measured in nominal terms and with market exchange rates.

Two decades ago, world trade powered just 20 percent of global economic activity—now it's 30 percent but has struggled recently

Sources: World Trade Organization data through 2014 from *International Trade Statistics 2015*; Insurance Information Institute

Potential Output of Total Economy: US, China, India, Indonesia and Japan, 2000-2060F



Growth in economic output will be concentrated in certain developing economies such as China and India

China will likely become the world's largest economy between 2025 and 2030

Source: OECD; Insurance Information Institute .

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Ocean Marine Overview

Underwriting is Historically Volatile But Improved in Recent Years

U.S. Ocean Marine Combined Ratio: 2004–2014

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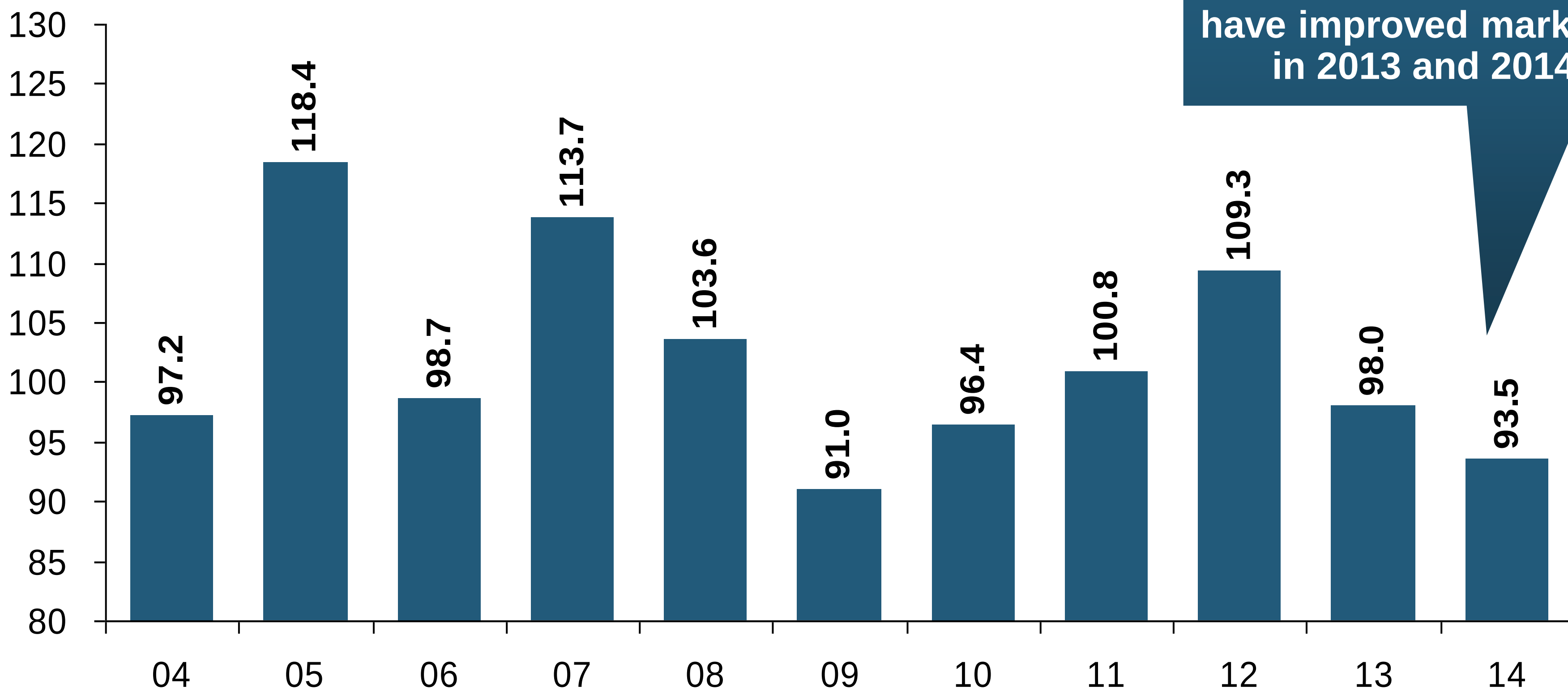

Ocean Marine results have improved markedly in 2013 and 2014

Ocean Marine Results Have Been Quite Volatile Over the Past Decade, with the Combined Ratio Ranging by More than 20 Points

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

Ocean Marine vs. Commercial Lines Combined Ratio: 1989–2014

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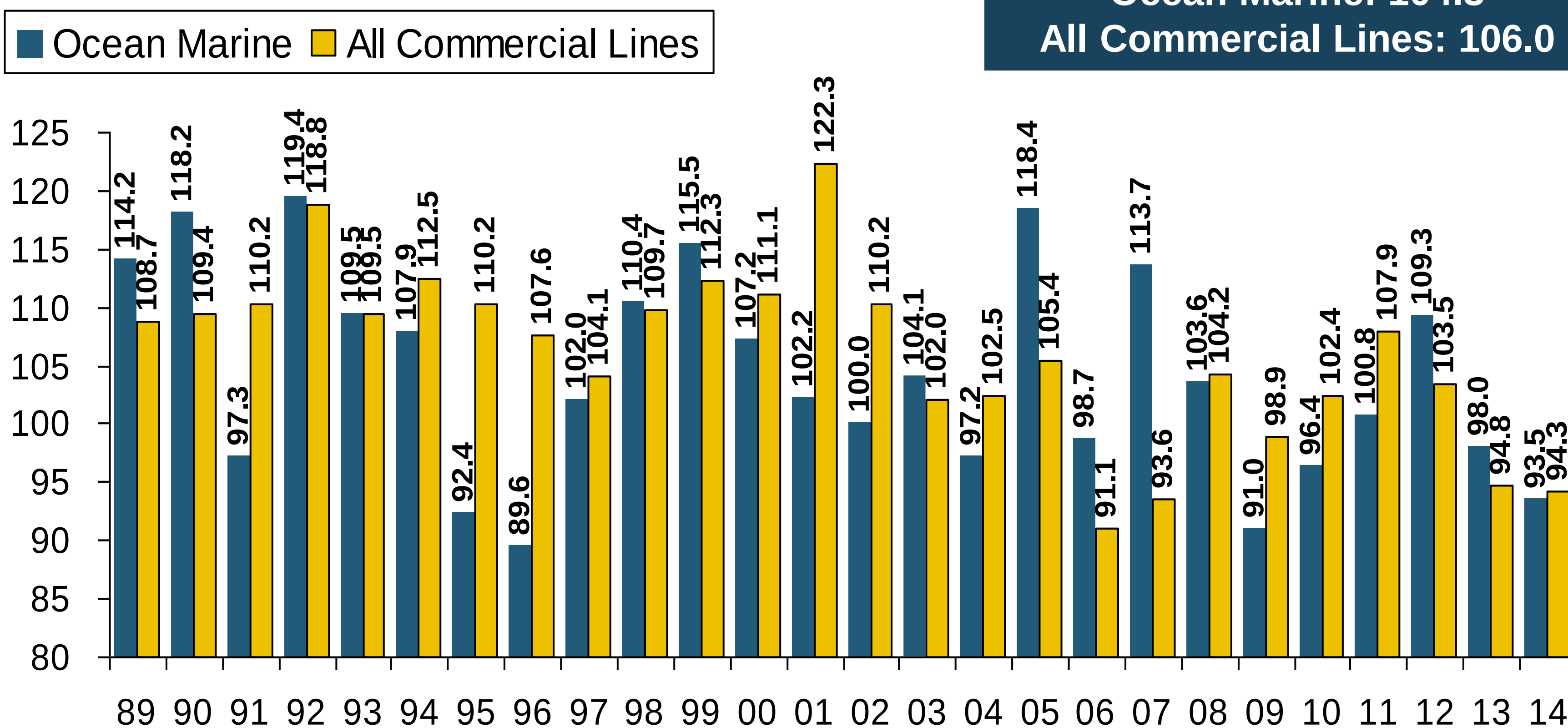
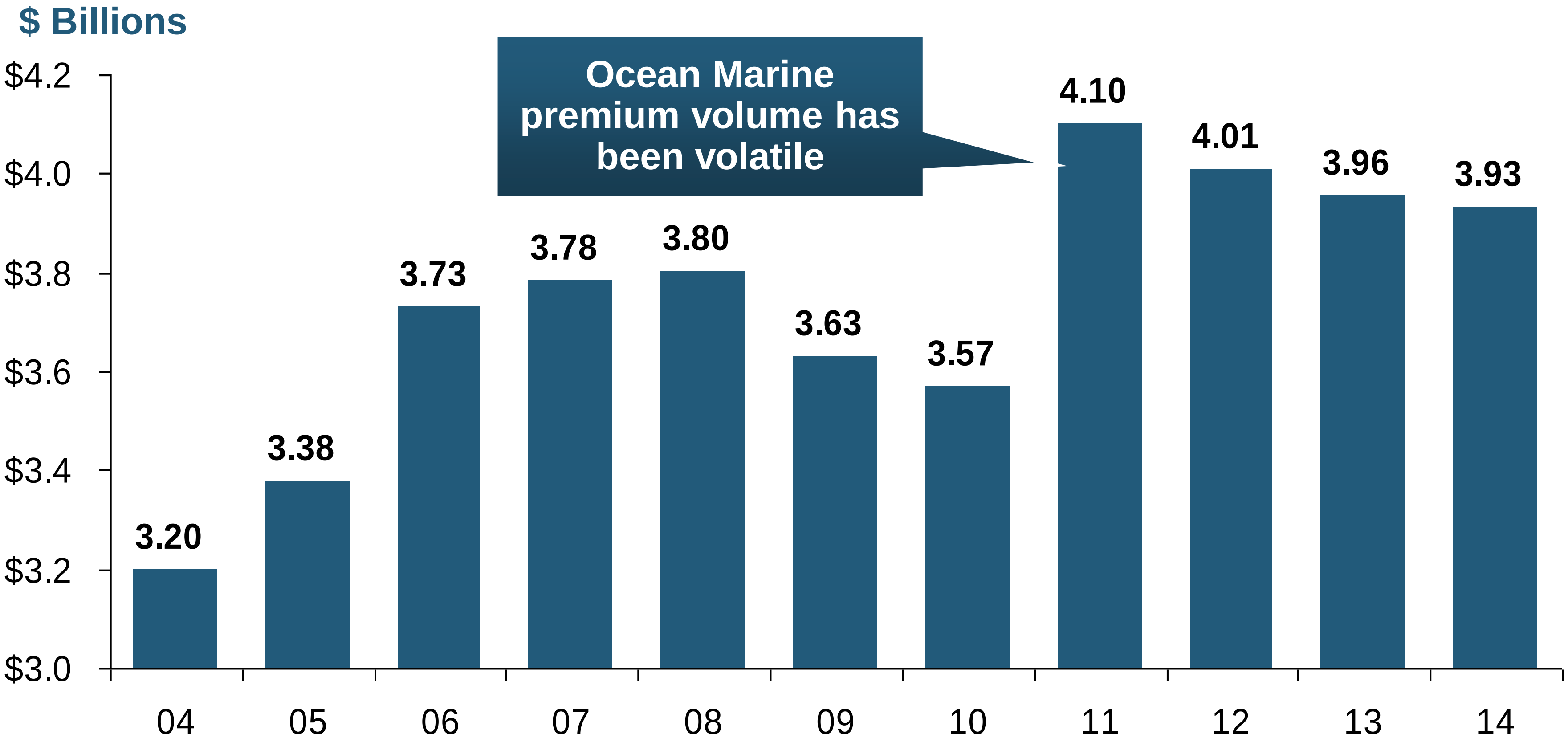
Average: 1989-2014
Ocean Marine: 104.3
All Commercial Lines: 106.0



Ocean Marine has marginally outperformed Commercial Lines overall over the period from 1989 – 2014

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

U.S. Ocean Marine Direct Written Premiums: 2004–2014



Ocean Marine Premium Volume Fell During the Global Financial Crisis, Increased but Is Now Falling Again

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

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Global Insurance Premium Growth Trends

Growth Is Uneven Across Regions and Market Segments

Distribution of Global Insurance Premiums, 2012 ($ Trillions)

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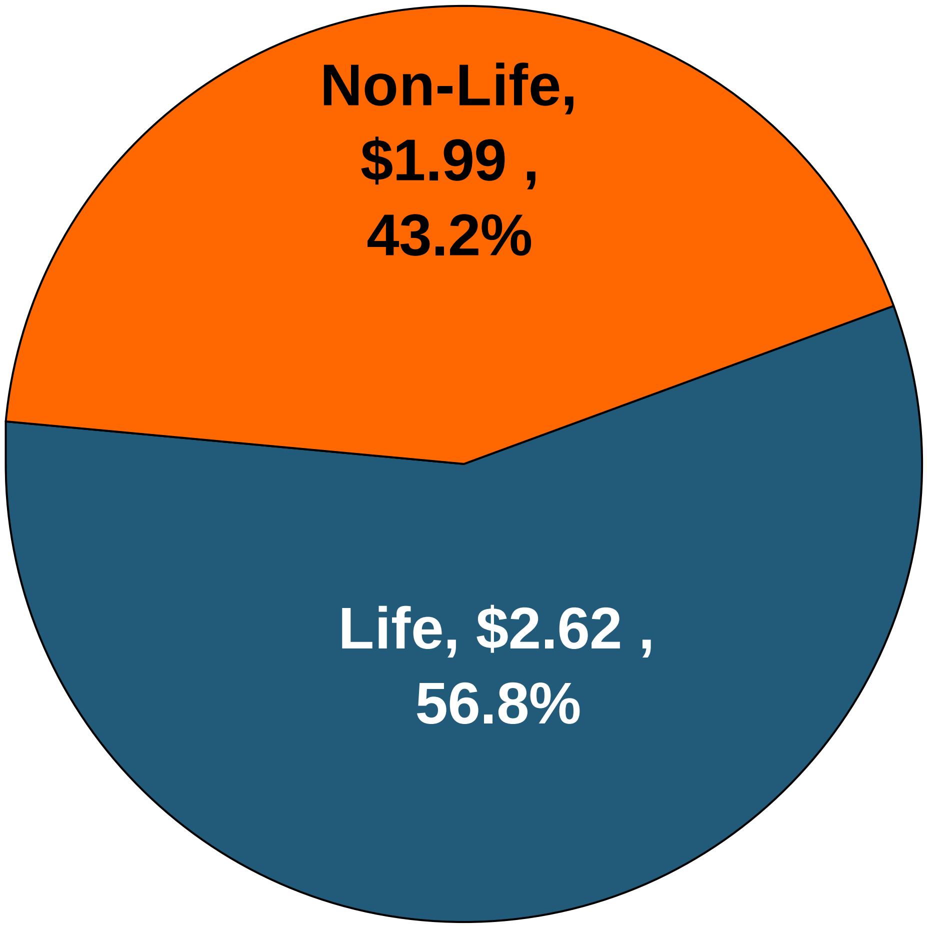
Total Premium Volume = $4.613 Trillion*



Life insurance accounted for nearly 57% of global premium volume in 2012 vs. 43% for Non-Life

Source: Swiss Re, *sigma*, No. 3/2013; Insurance Information Institute.

Non-Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2014

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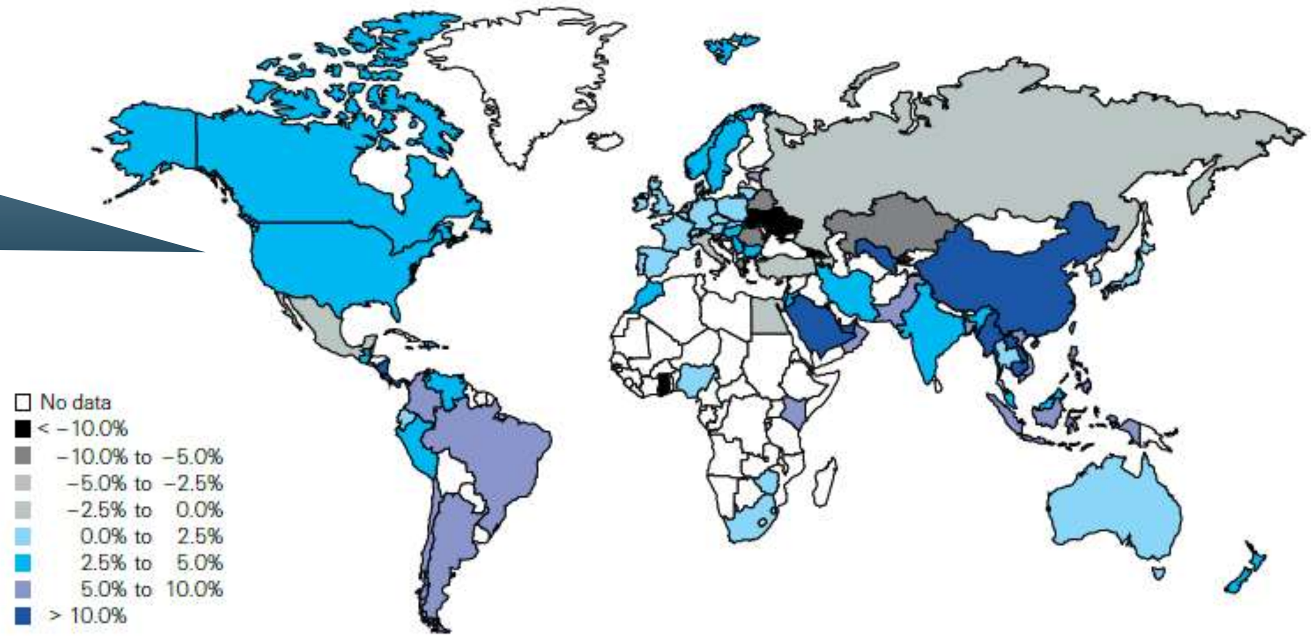
Real nonlife premium growth was stronger in the US in 2014 than in most of Europe



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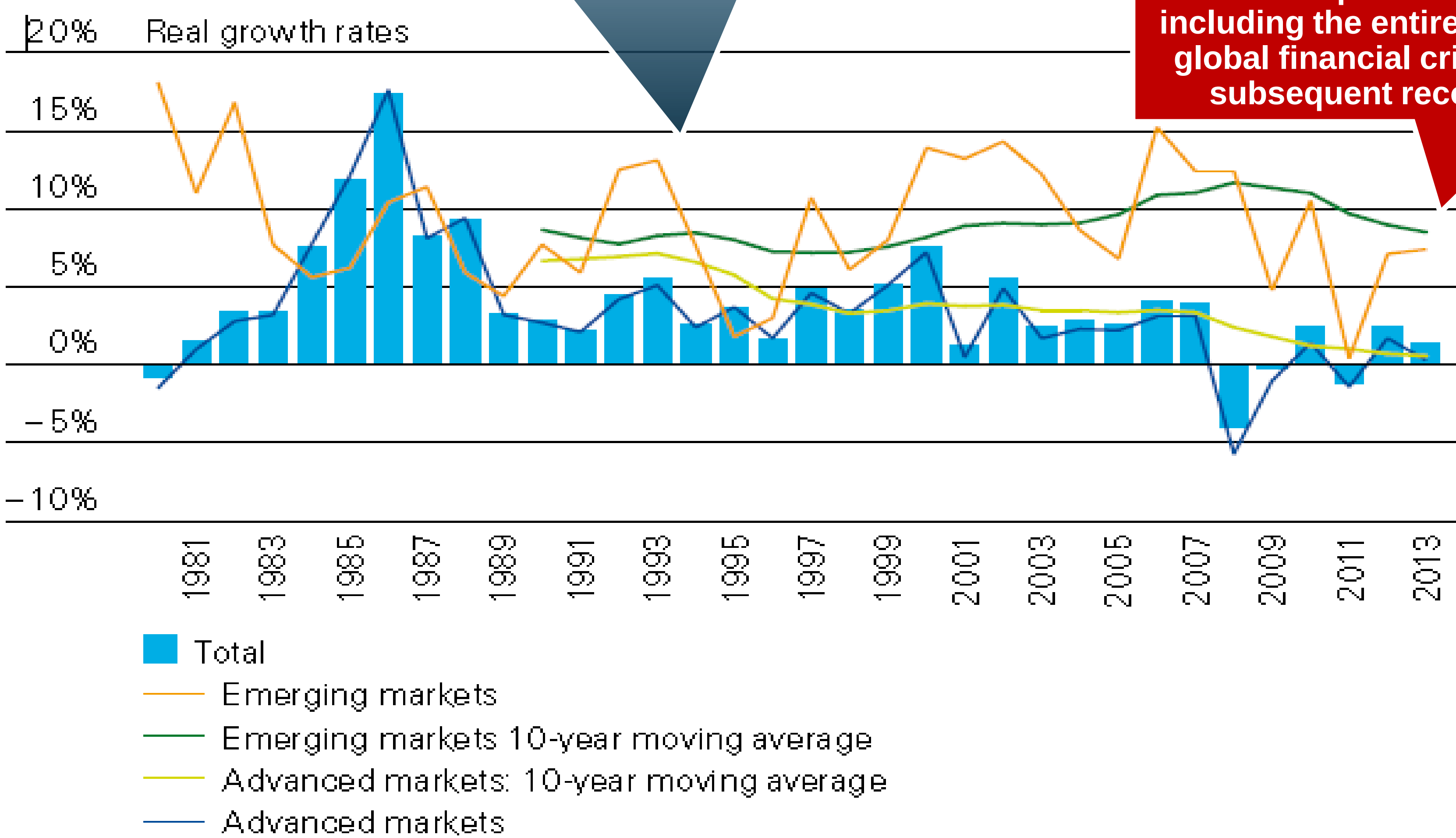
Source: Swiss Re, *sigma*, No. 4/2015.

Global Real (Inflation Adjusted) Premium Growth: 1980-2013

Premium growth is very erratic in part to inflation volatility in emerging markets as well as a lack of consistent cyclicality

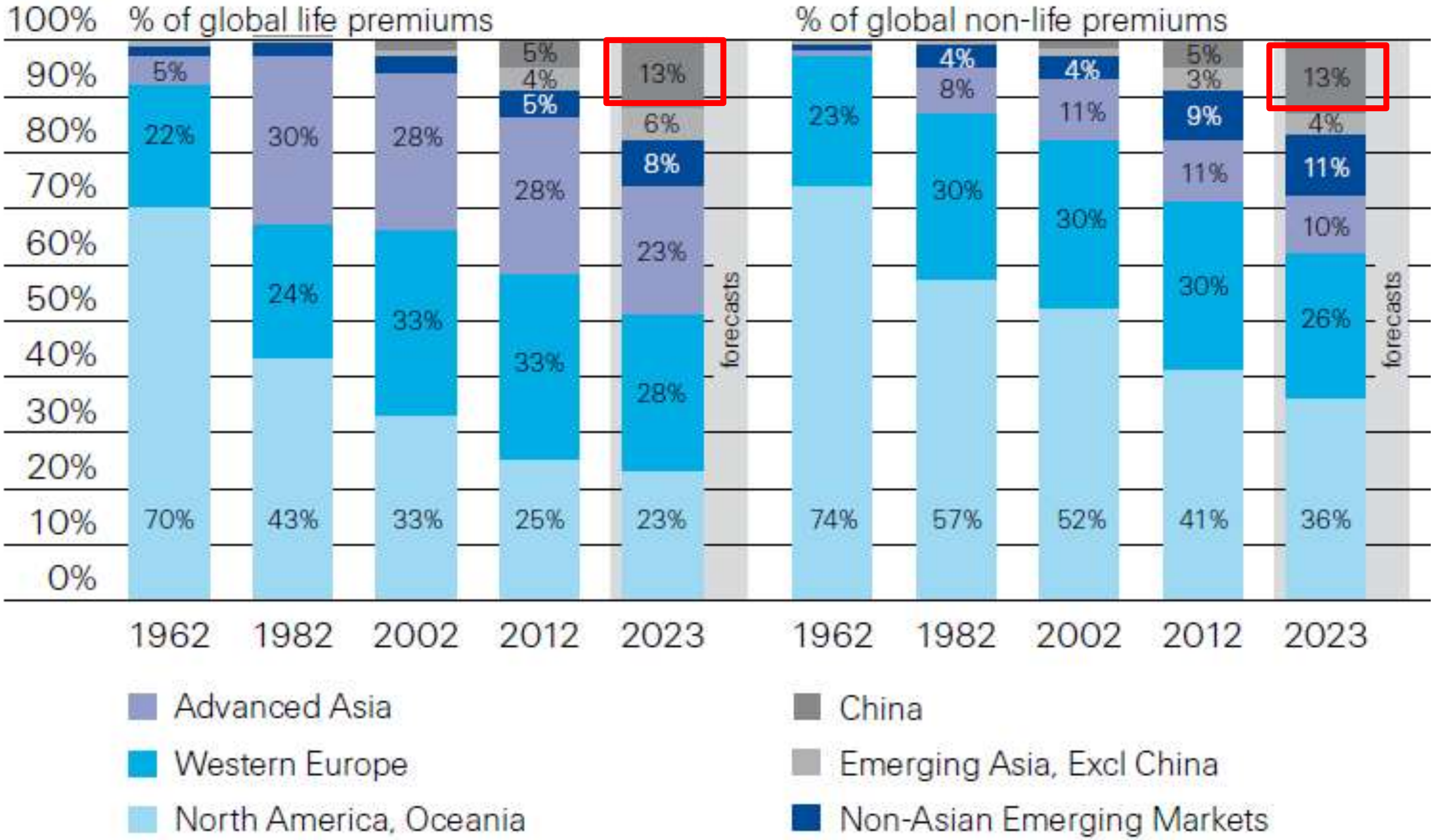
Emerging market growth has exceeded that of industrialized countries in 30 of the past 34 years, including the entirety of the global financial crisis and subsequent recovery



Source: Swiss Re, *sigma*, No. 3/2014.

Premiums Written in Life and Non-Life, by Region: 1962-2012

Emerging market shares rose rapidly over the past 50 years



Source: Swiss Re, *sigma*, No. 3/2013.

Population Distribution, by Region: 1962-2062F

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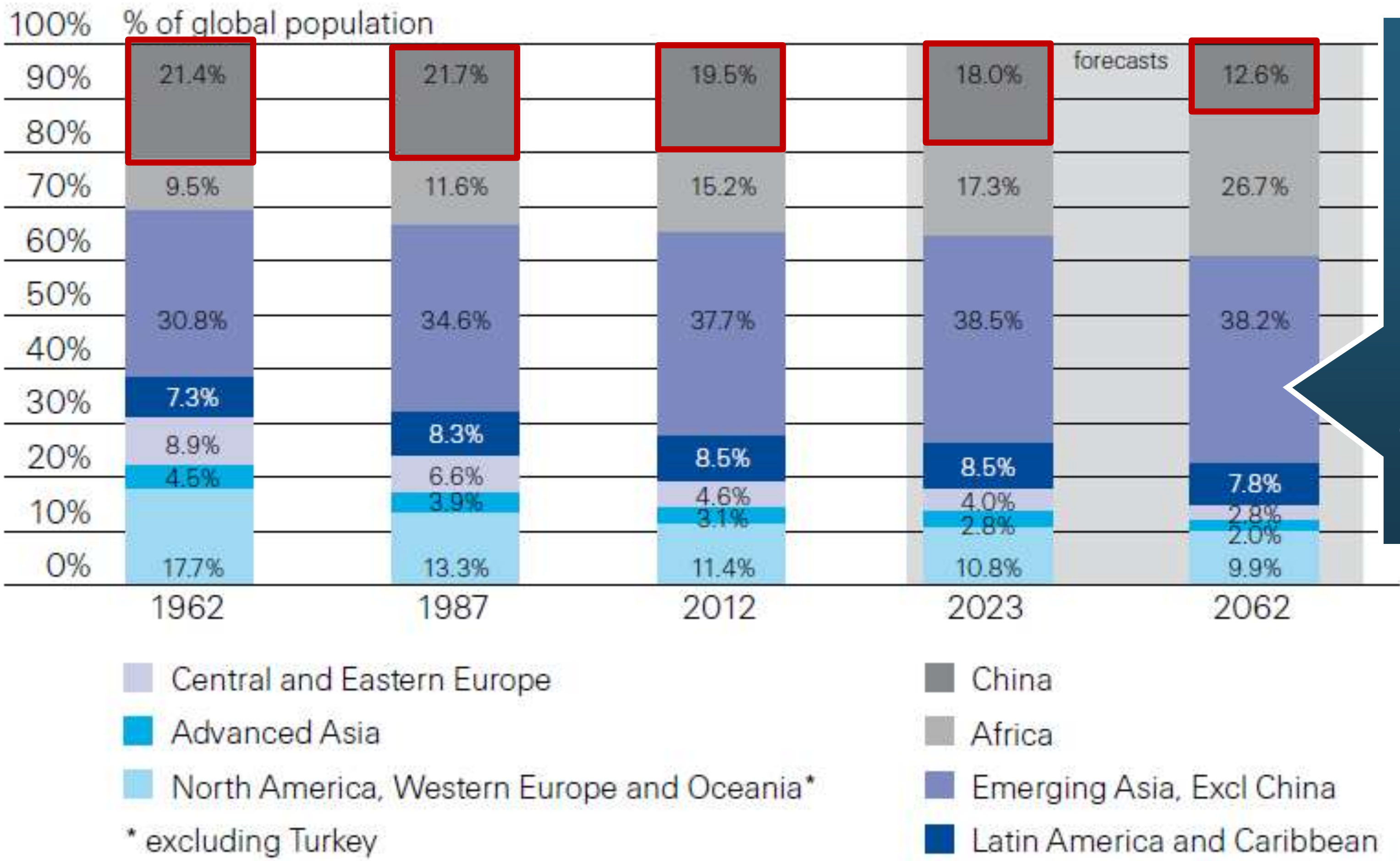
Enormous population shifts will impact insurance demand over the next half century



Africa is expected to be the fastest population growth over the next 50 years, but no expectation now of Asia-like growth in economies or insurance demand

Source: Swiss Re, *sigma*, No. 3/2013 from United Nations Department of Economic and Sovial Affairs, Population Division.

Relationship Between Real GDP and Real Life and Non-Life Premium Growth, 2012

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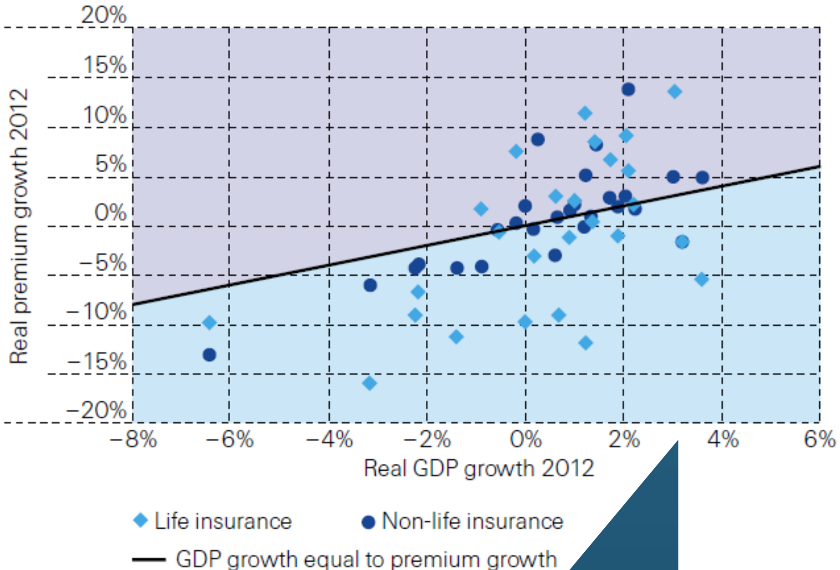
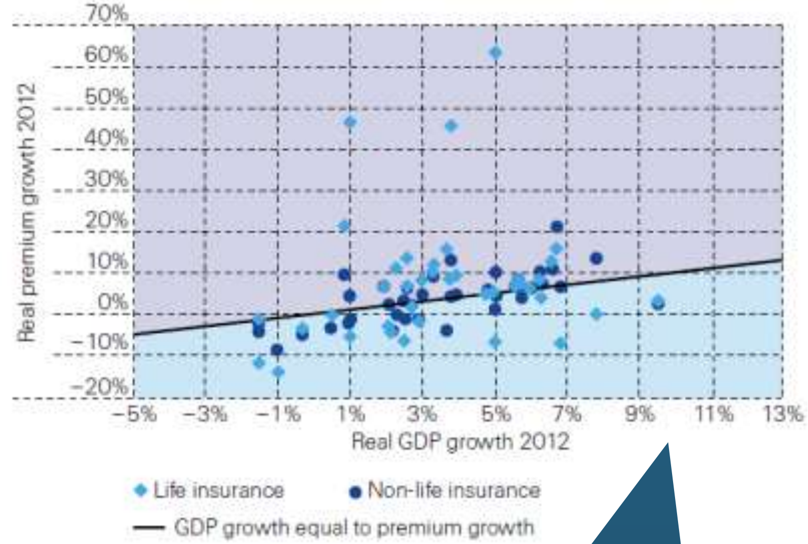
Advanced Markets



The was a clear but highly relationship between real GDP growth and real premium growth in advance markets in 2012

Emerging Markets



The correlation between real GDP growth and real premium growth in emerging markets was much stronger than in advanced markets in 2012

Source: Swiss Re, *sigma*, No. 3/2013.

Insurance Density and Penetration for Advanced and Emerging Markets, 2012

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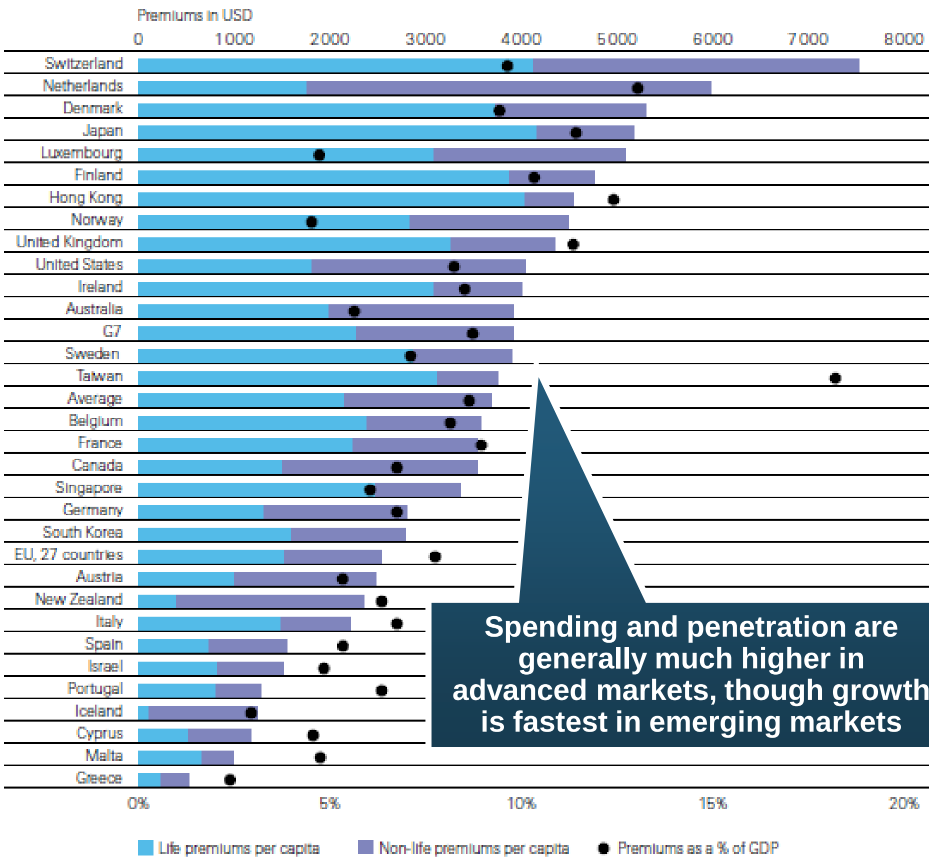
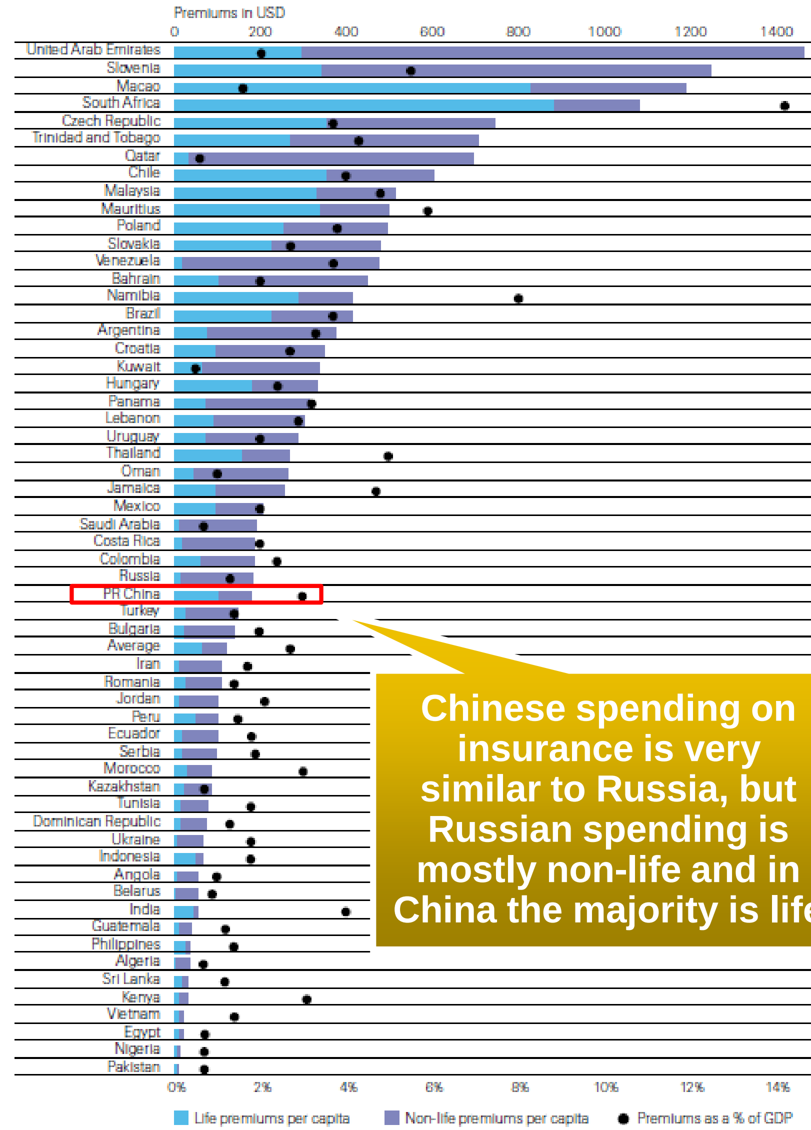
Advanced Markets



Spending and penetration are generally much higher in advanced markets, though growth is fastest in emerging markets

Emerging Markets



Chinese spending on insurance is very similar to Russia, but Russian spending is mostly non-life and in China the majority is life

Source: Swiss Re, *sigma*, No. 3/2013.

The Unfortunate Nexus: Opportunity, Risk & Instability

Most of the Global Economy's Future Gains Will be Fraught with Much Greater Risk and Uncertainty than in the Past

Political Risk: Greatest Opportunities Often in Risky Nations

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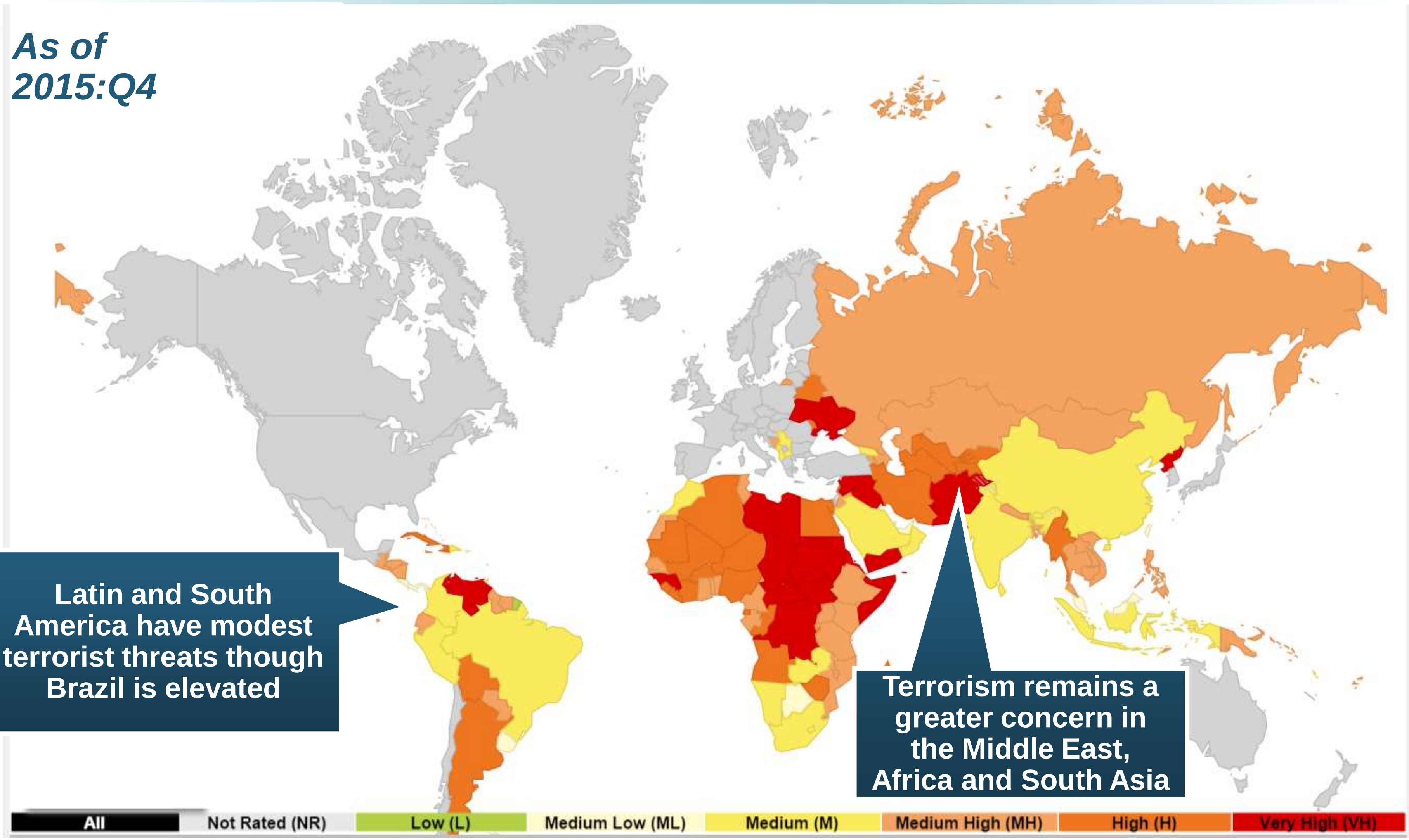
As of 2015:Q4



Latin and South America have modest terrorist threats though Brazil is elevated

Terrorism remains a greater concern in the Middle East, Africa and South Asia

Source: Aon PLC; Insurance Information Institute.

Terrorism Risk: Greatest Opportunities Are Often in Risky Nations

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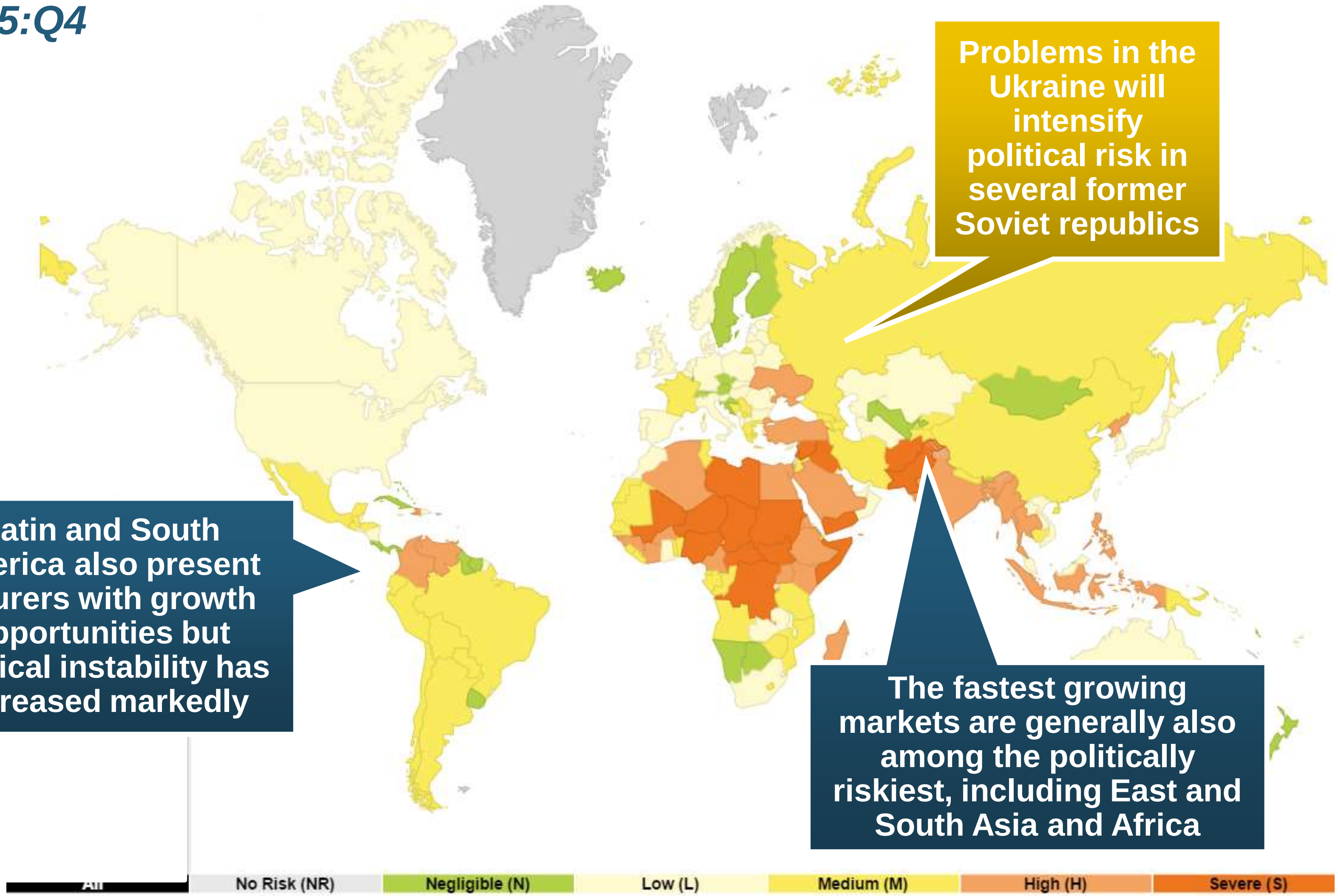
As of 2015:Q4



Problems in the Ukraine will intensify political risk in several former Soviet republics

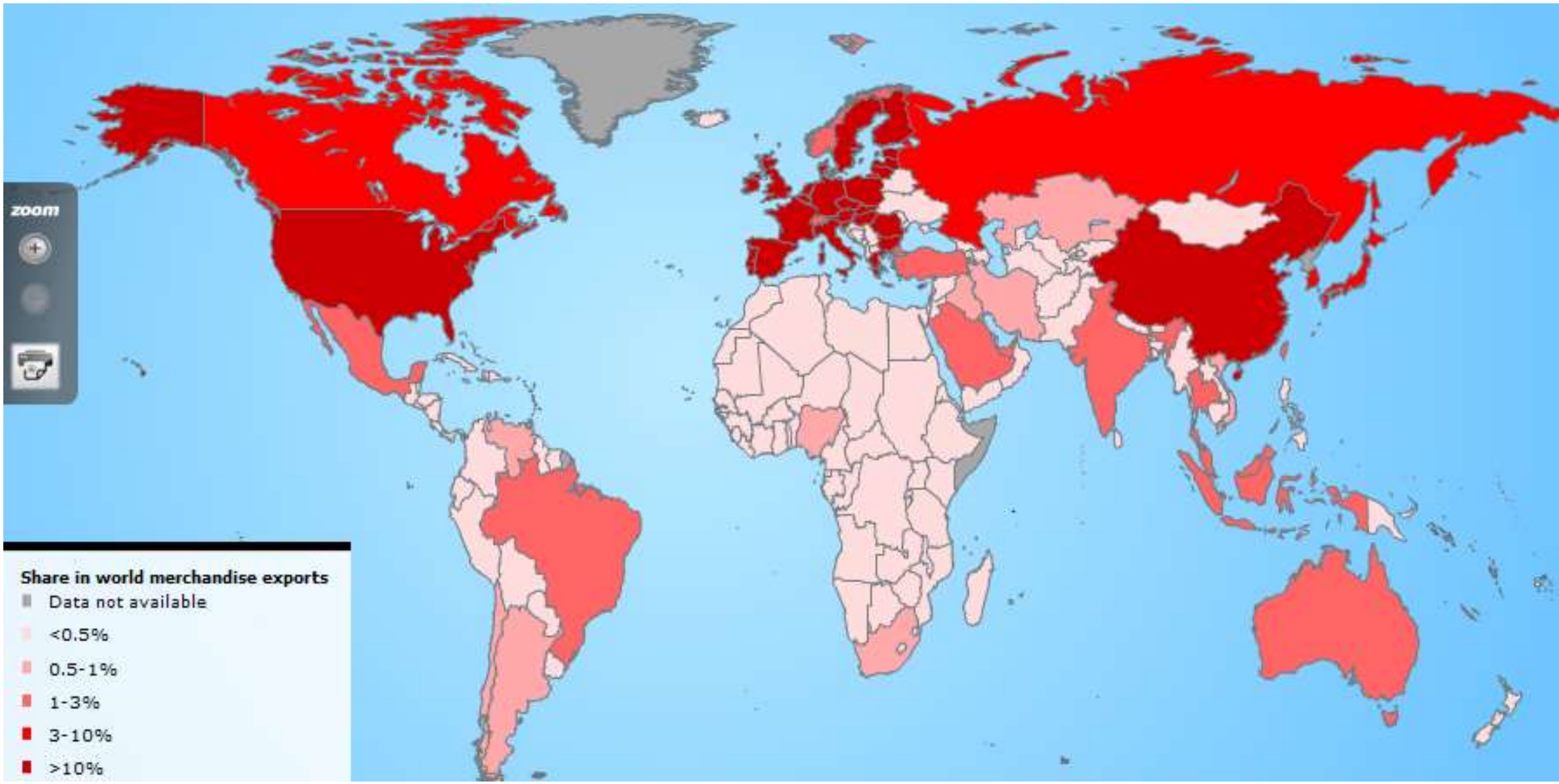
Latin and South America also present insurers with growth opportunities but political instability has increased markedly

The fastest growing markets are generally also among the politically riskiest, including East and South Asia and Africa

Source: Aon PLC; Insurance Information Institute.

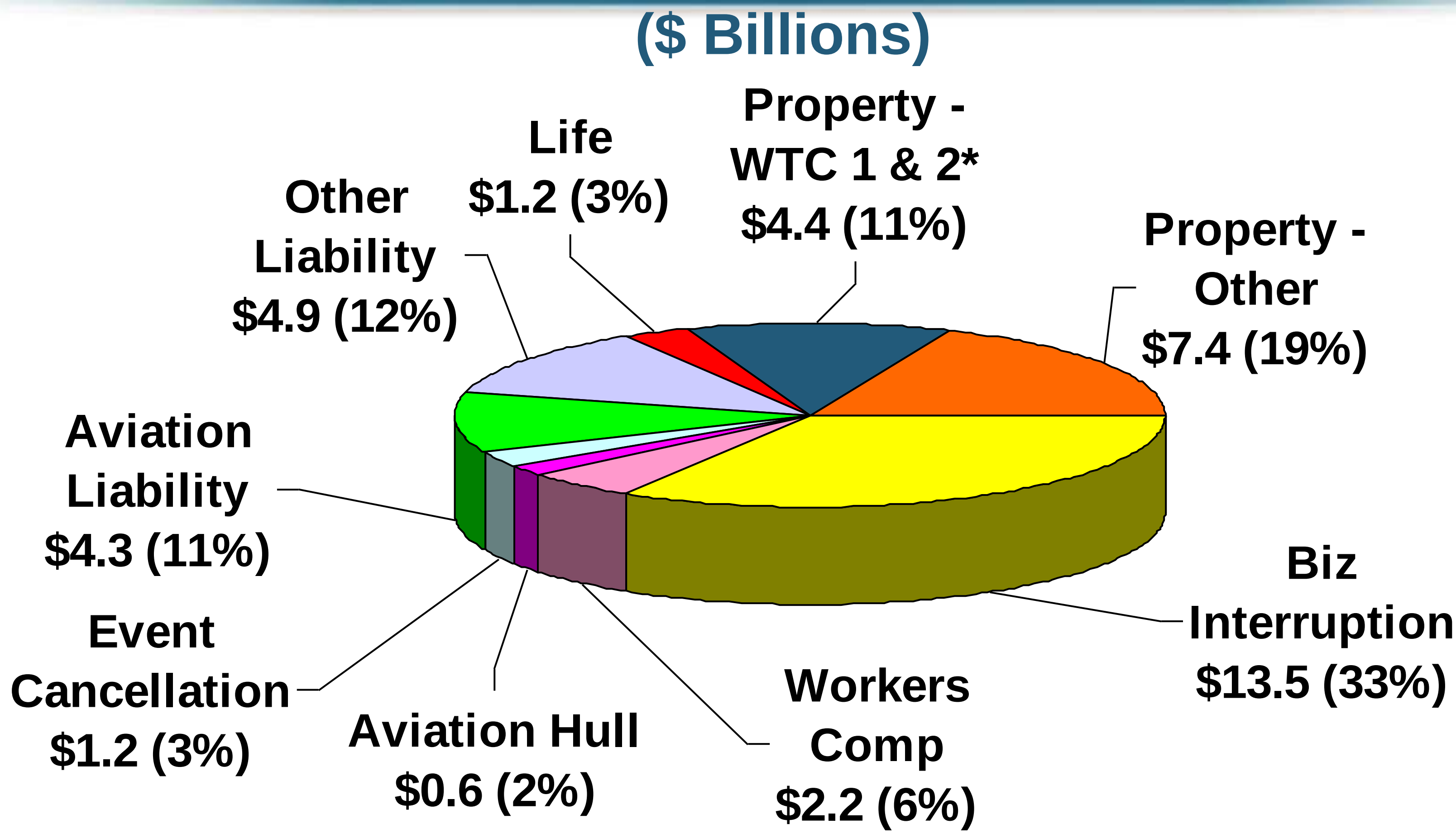
Country Shares of World Merchandise Exports

The US, China, Japan and Western Europe lead the world in merchandise exports



Source: World Trade Organization accessed 4/30/14 at: http://www.wto.org/english/res_e/statis_e/statis_e.htm ; Insurance Information Institute.

Loss Distribution by Type of Insurance from Sept. 11 Terrorist Attack ($ 2015)



Total Insured Losses Estimate: $43.7B**

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

**$32.5 billion in 2001 dollars.

Source: Insurance Information Institute.

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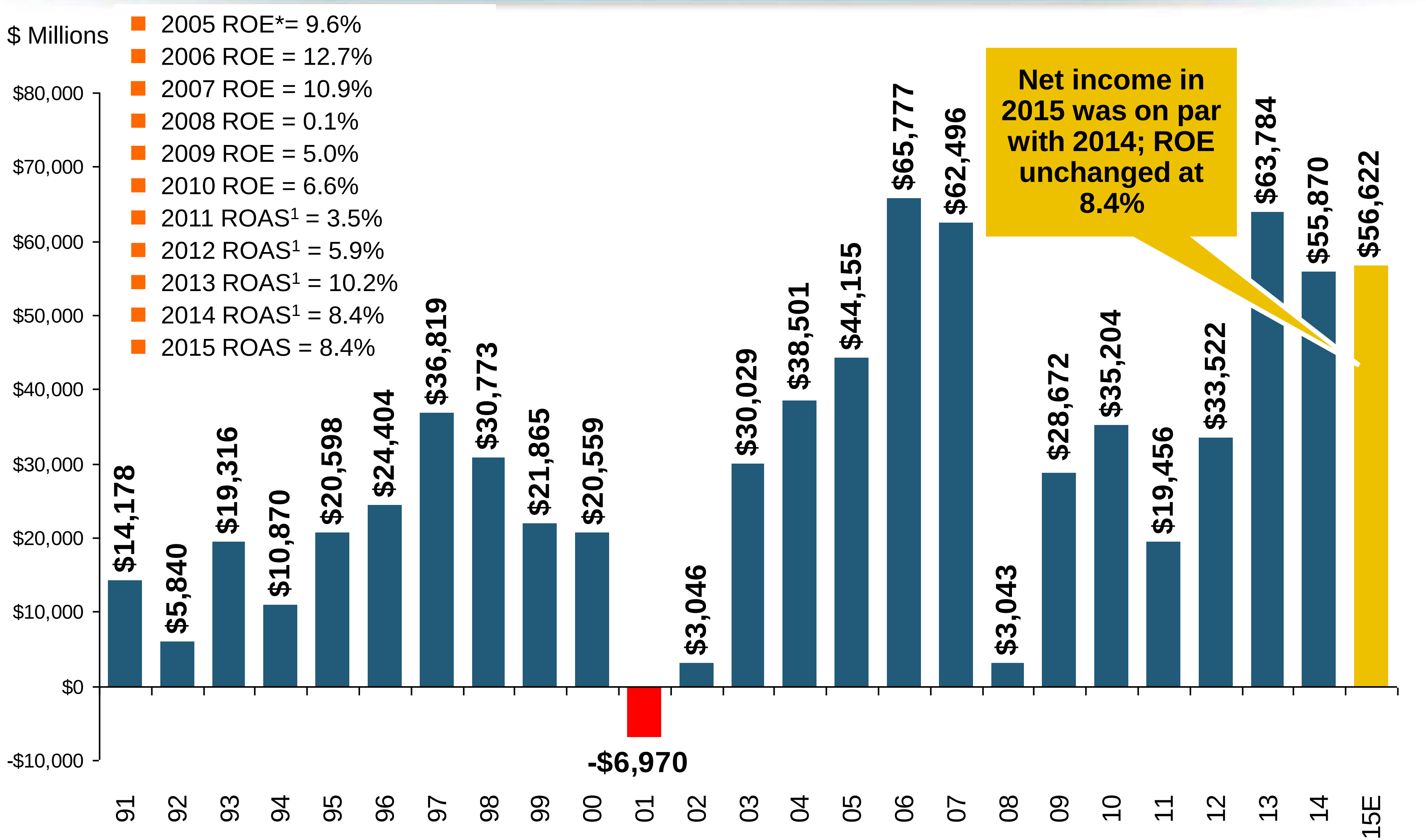
P/C (Re)Insurance Industry Financial Overview

2015 Was a Reasonably Good Year and Very Similar to 2014

Commercial Lines Outlook: 2016

- Flat to modest deceleration in premium growth in 2016
- Rate environment suggests flat-to-slightly negative renewals in 2016
- Economic growth continues at a modest pace but unevenly across industries and regions; Nearly full employment and tighter labor market conditions are pluses and should drive new exposures
- Construction, Service sectors are positives but manufacturing, energy, commodities face headwinds
- Loss costs driven by modest frequency and severity trends, but helped by reserve releases, low cats, low infl.
- Property cat reinsurance costs continue to fall
- Investment income still under pressure from low yields

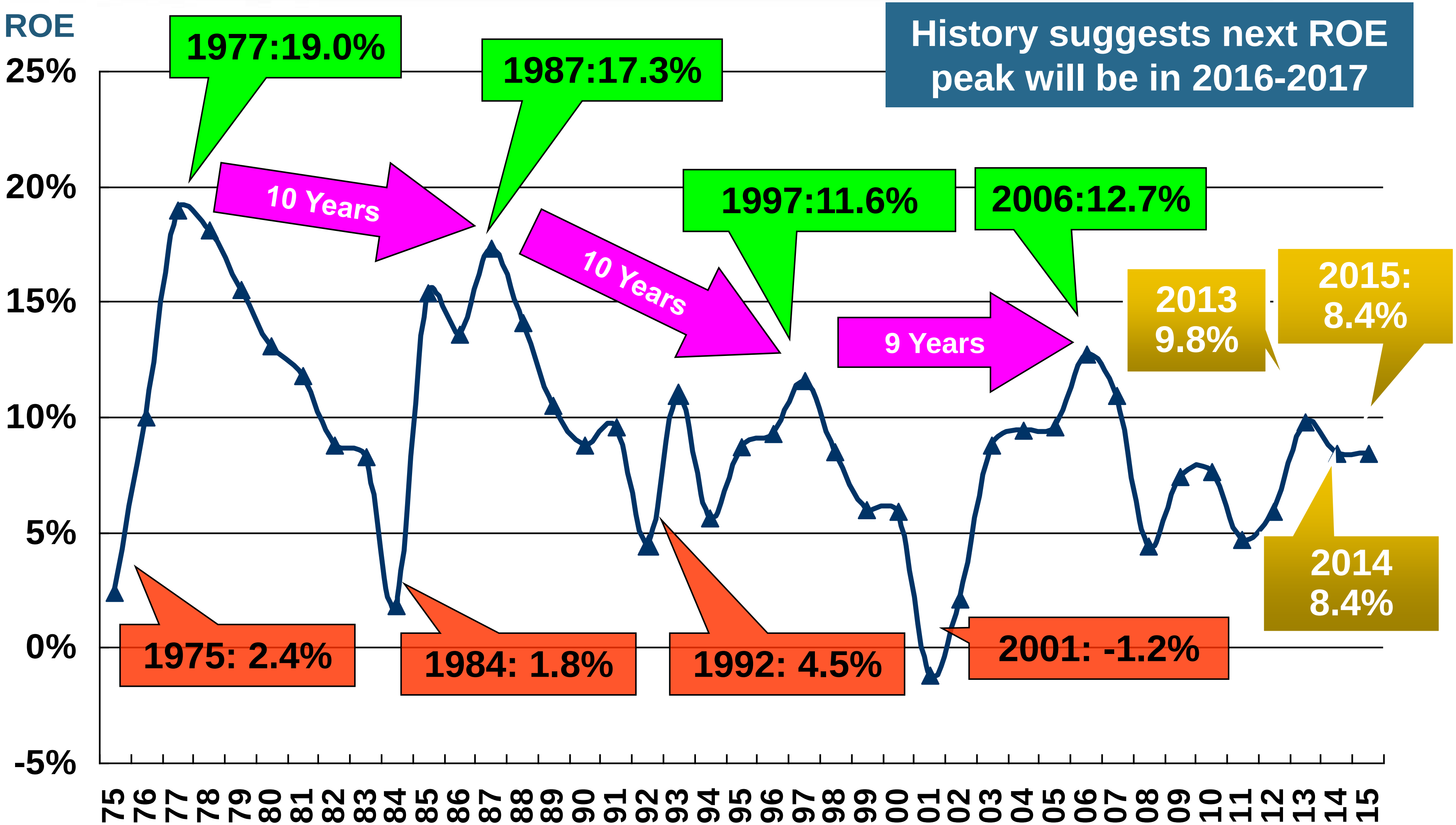
P/C Industry Net Income After Taxes 1991–2015



•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

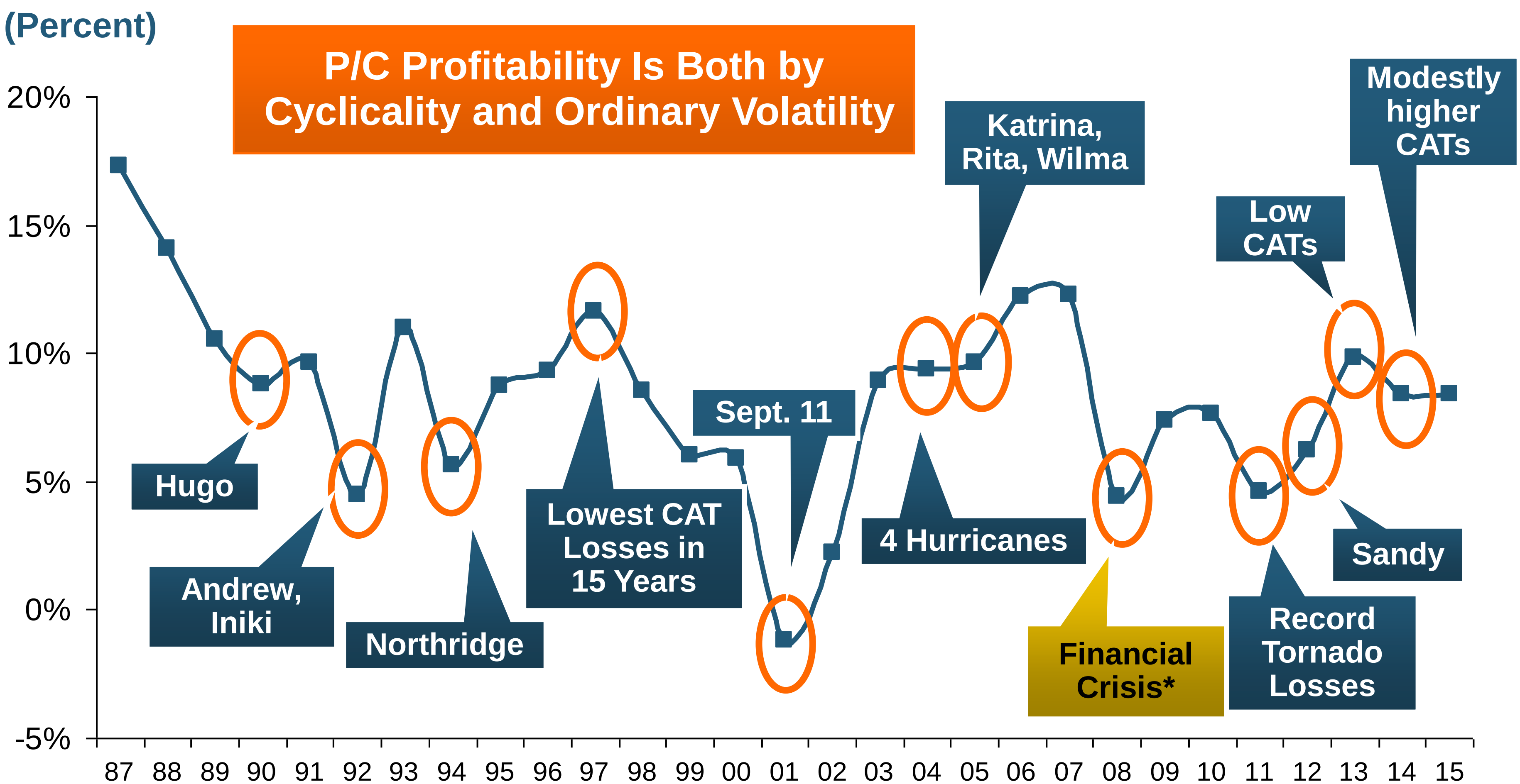
Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2015



*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.

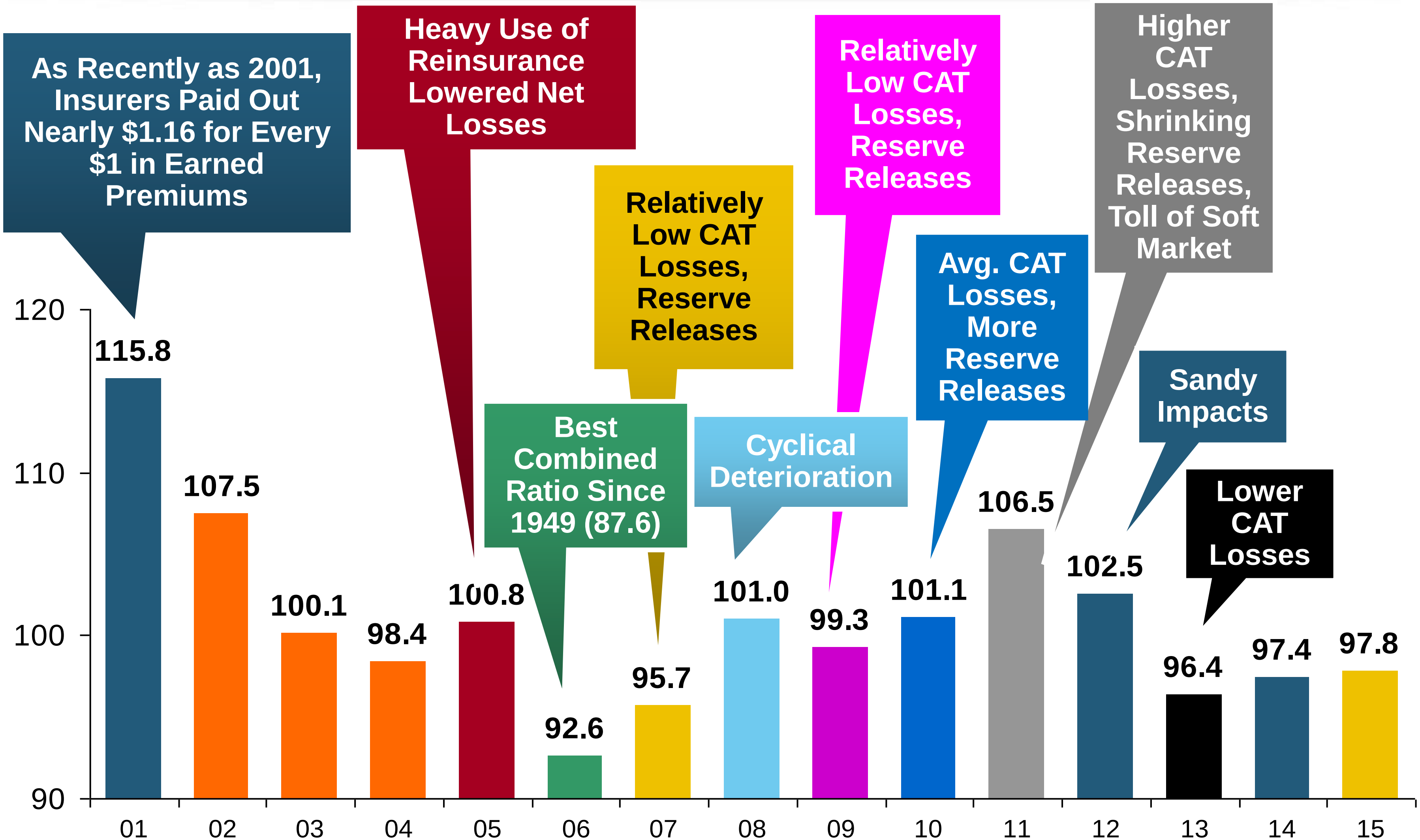
Source: Insurance Information Institute; NAIC, ISO, A.M. Best, Conning

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



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

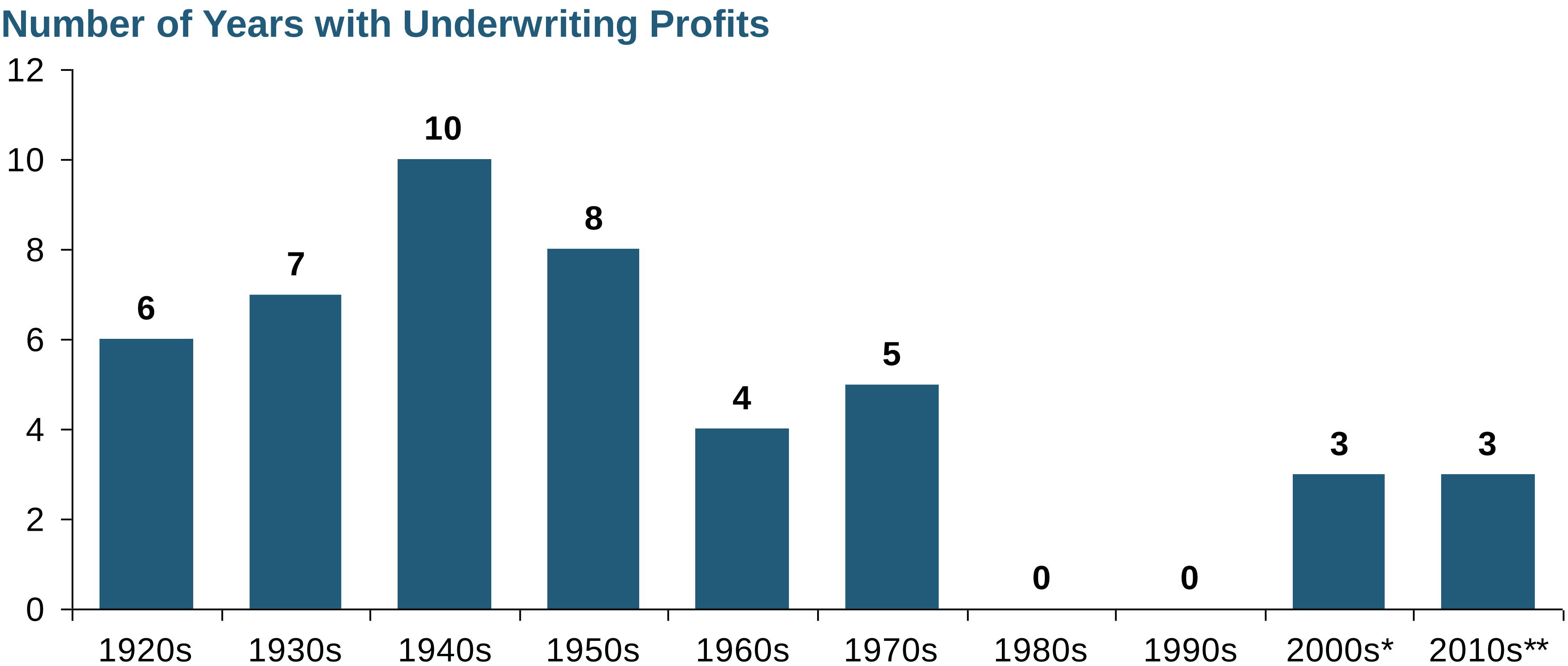
P/C Insurance Industry Combined Ratio, 2001–2015*



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

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.

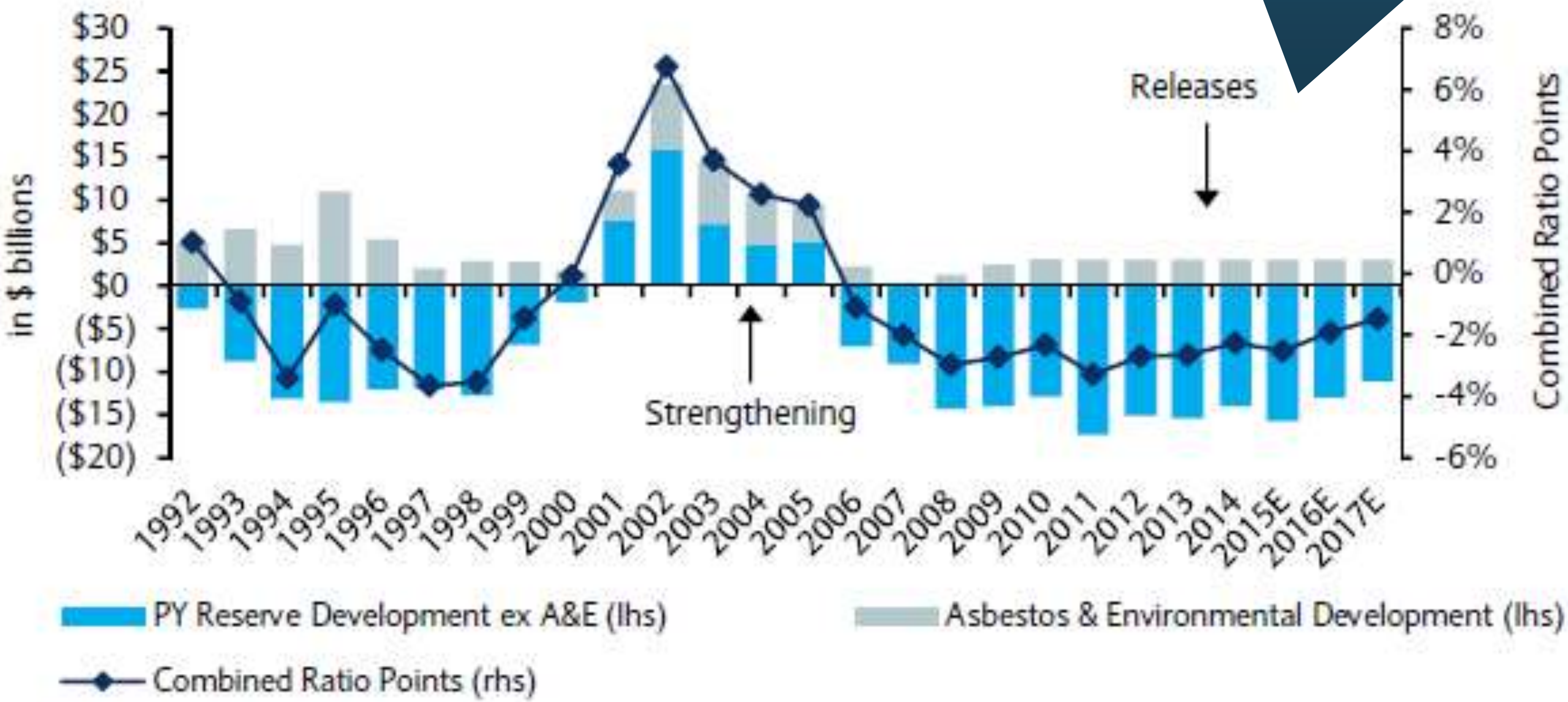
Note: Data for 1920–1934 based on stock companies only.

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

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

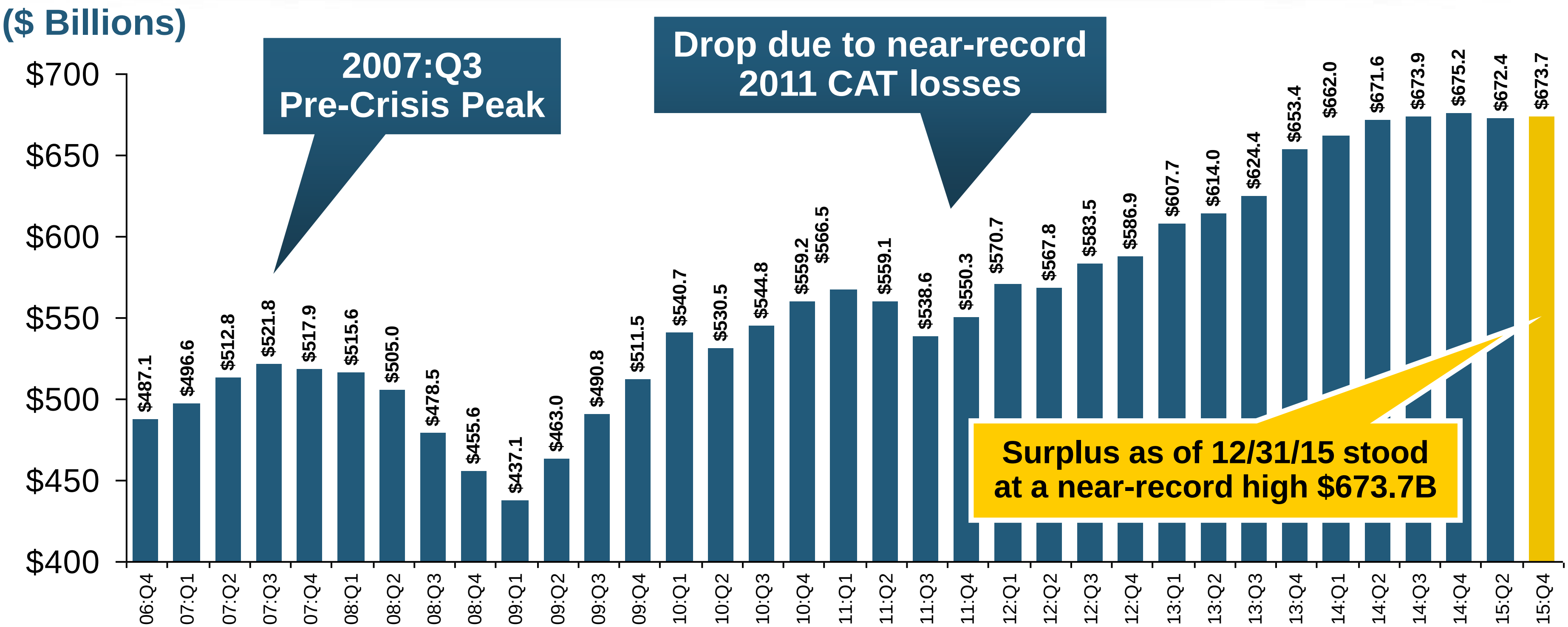
Reserve releases are expected to gradually taper off slowly, but will continue to benefit the bottom line and combined ratio through at least 2017

Reserve Change



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

Policyholder Surplus, 2006:Q4–2015:Q4



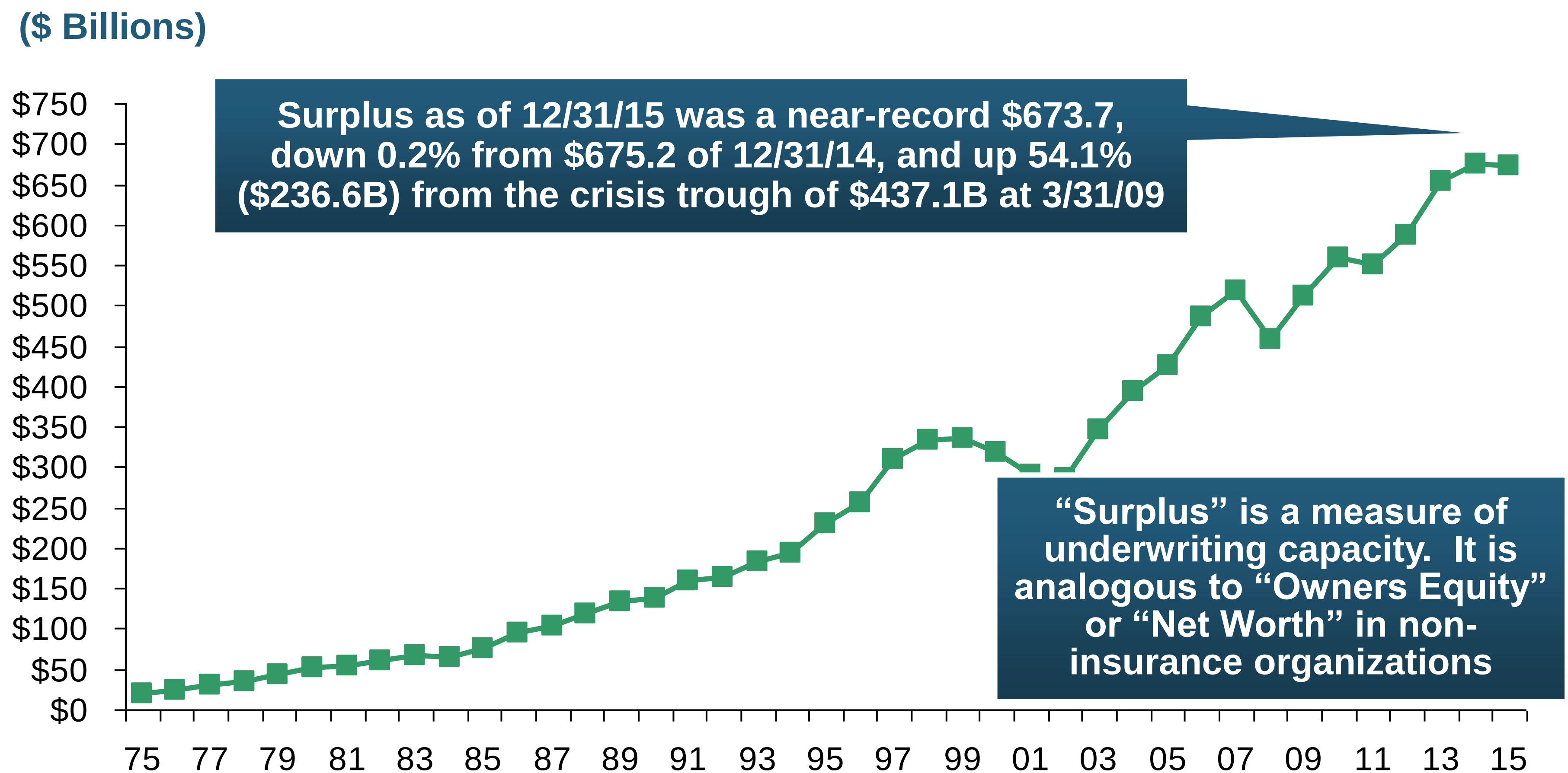
The industry now has $1 of surplus for every $0.76 of NPW, close to the strongest claims-paying status in its history.

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.

US Policyholder Surplus: 1975–2015*



The Premium-to-Surplus Ratio Stood at $0.76:$1 as of 12/31/15, a Near Record Low (at Least in Recent History)

* As of 12/31/15.

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

RNW All Lines, 2005-2014 Average: Highest 25 States

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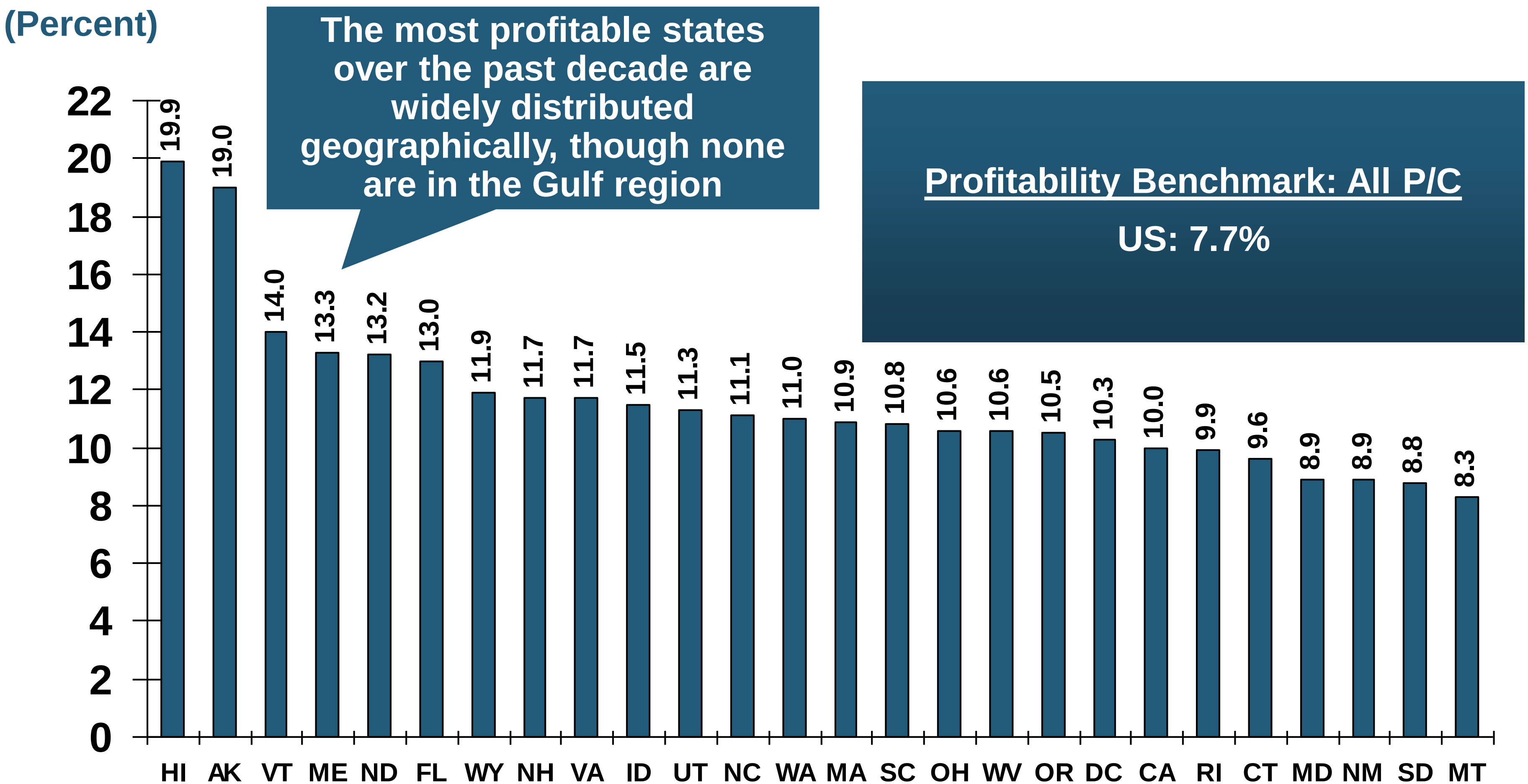
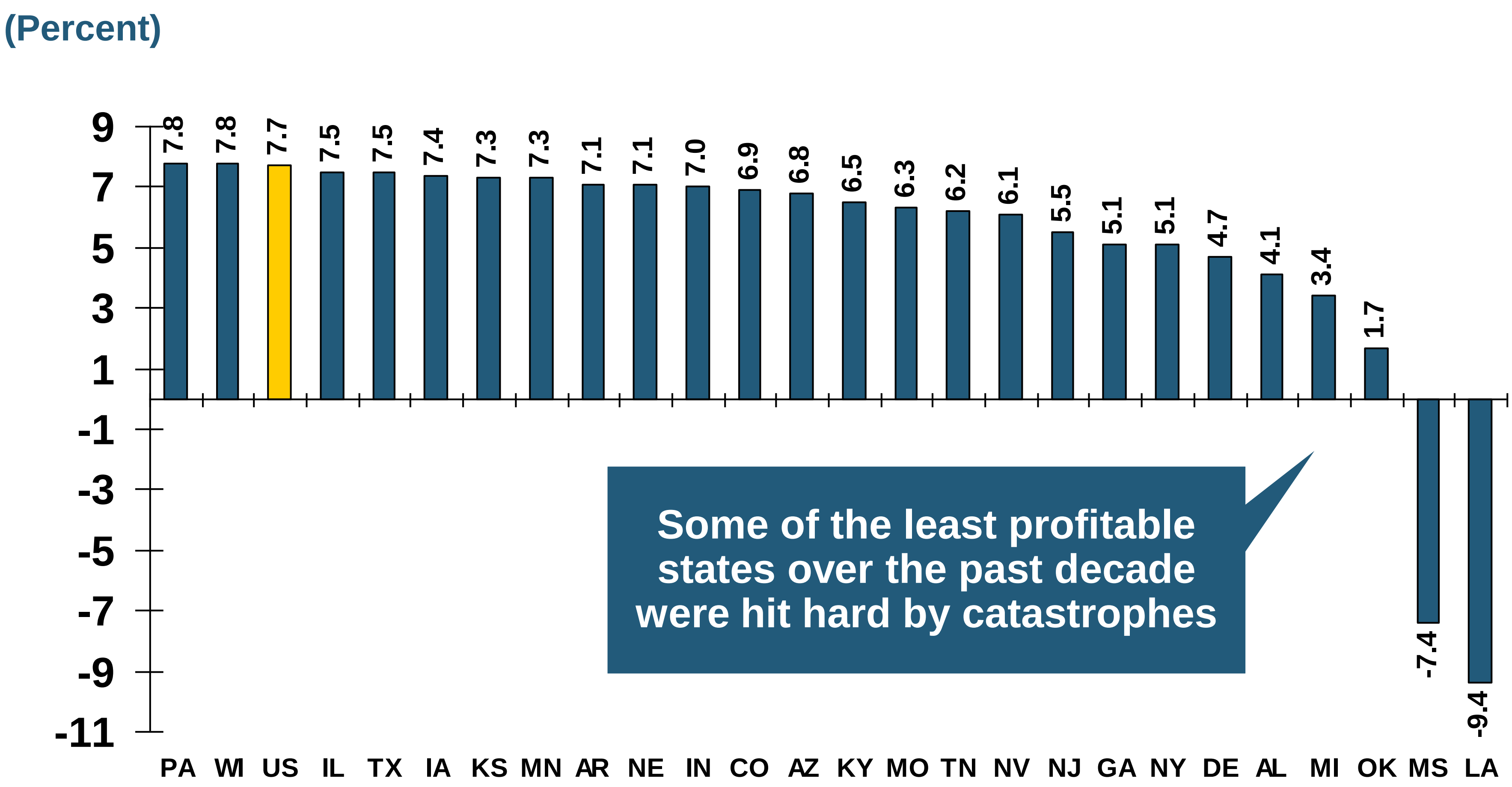


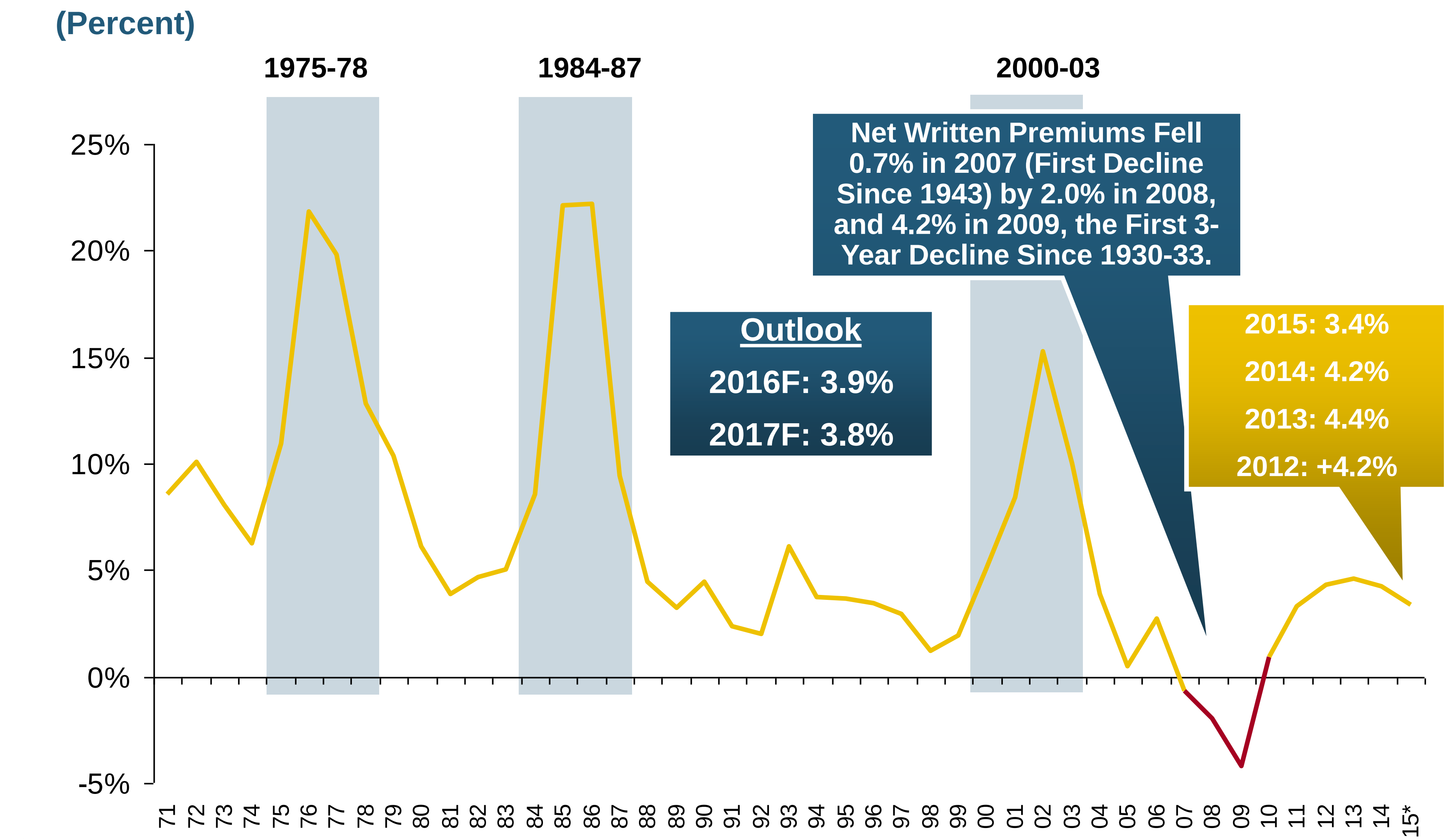
Source: NAIC; Insurance Information Institute.

RNW All Lines, 2005-2014 Average: Lowest 25 States



Source: NAIC; Insurance Information Institute.

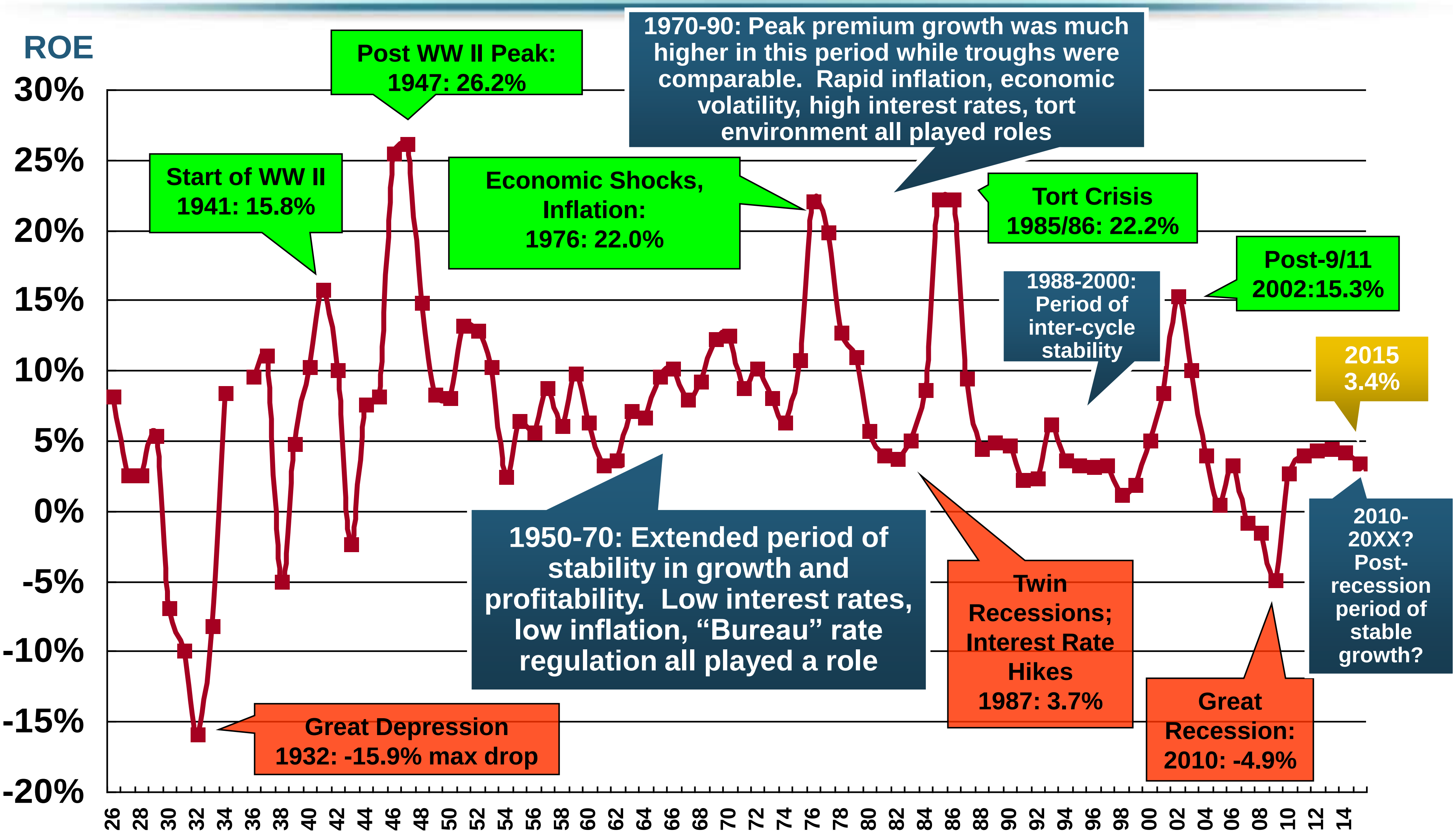
Net Premium Growth (All P/C Lines): Annual Change, 1971—2015



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



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

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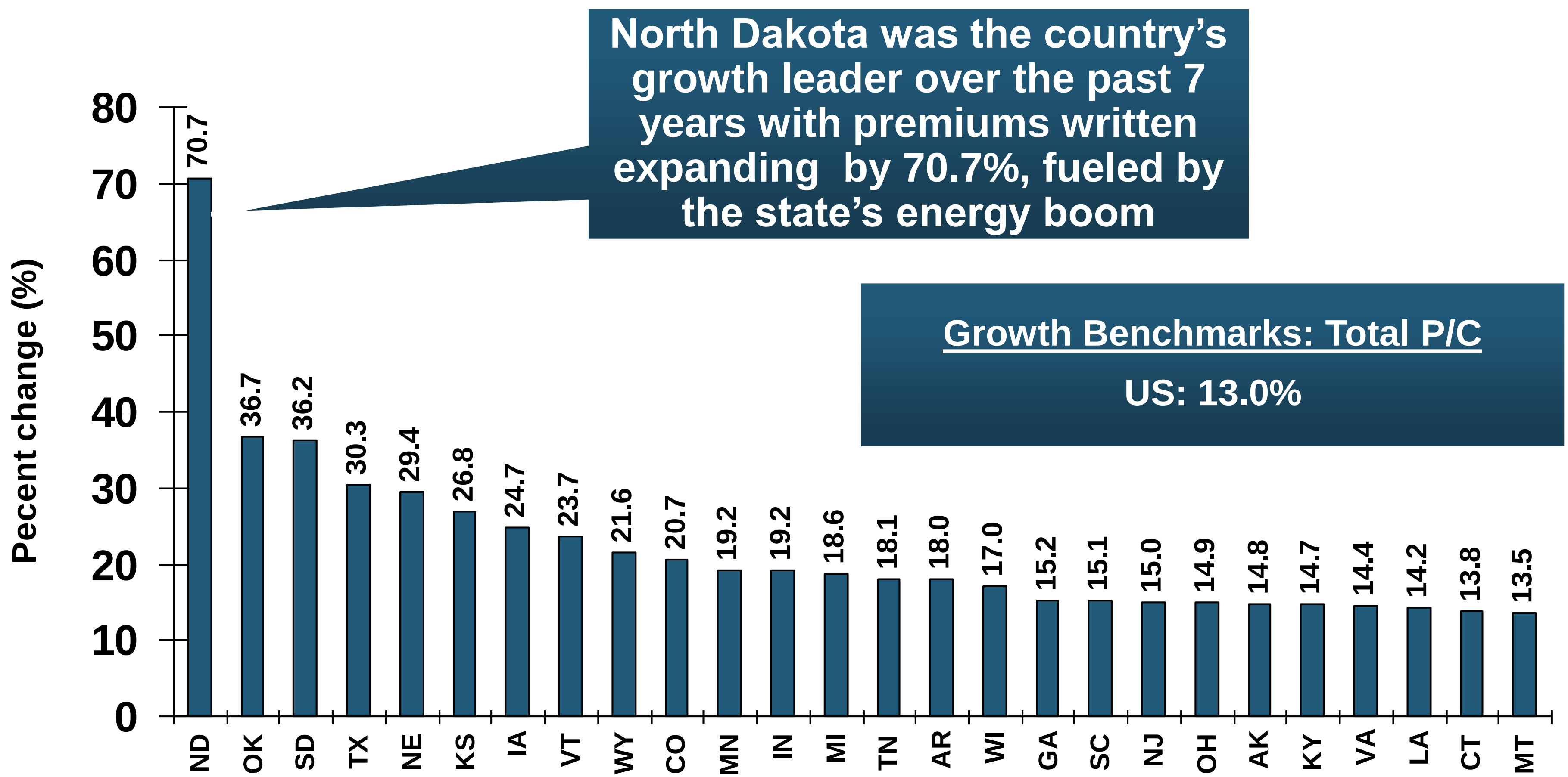
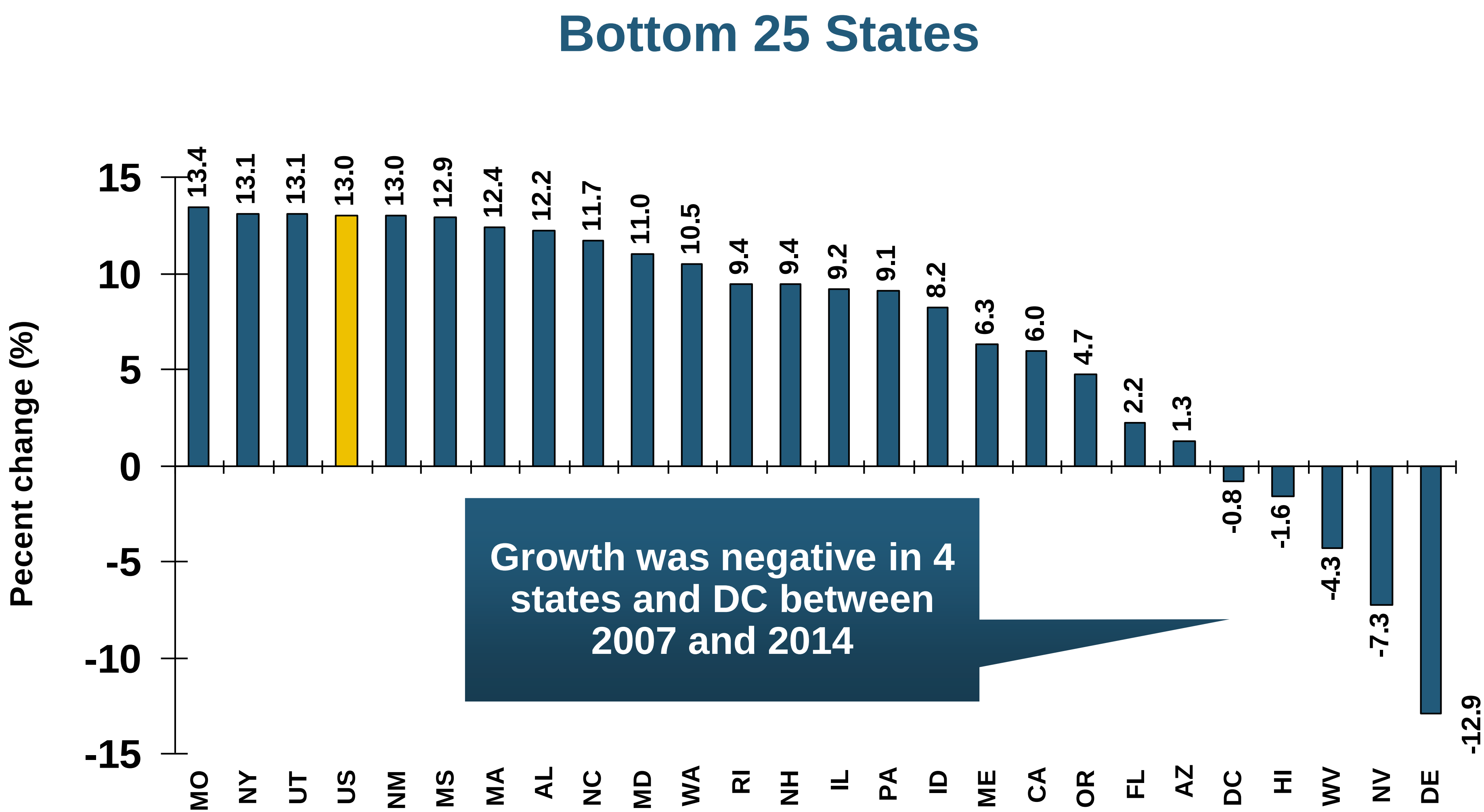
Top 25 States



Sources: SNL Financial LC.; Insurance Information Institute.

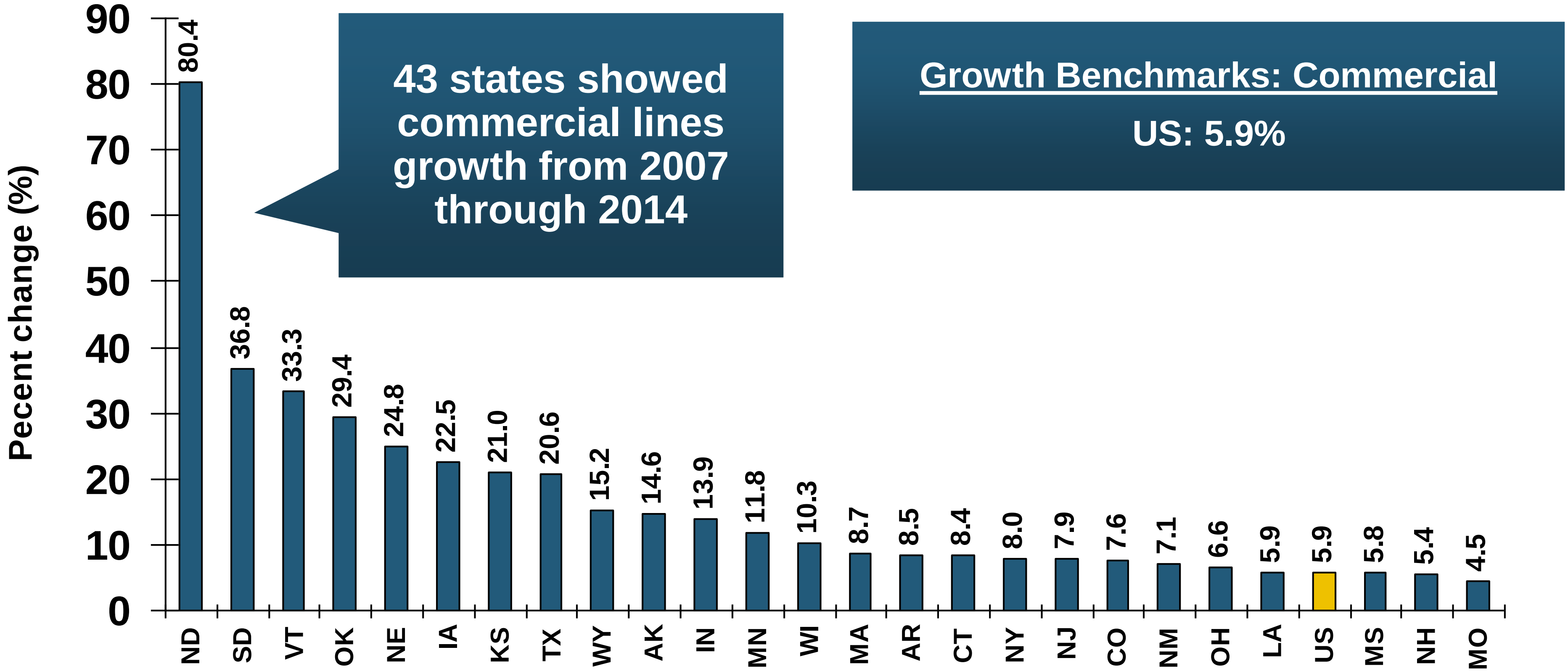
Direct Premiums Written: Total P/C Percent Change by State, 2007-2014



Sources: SNL Financial LC.; Insurance Information Institute.

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

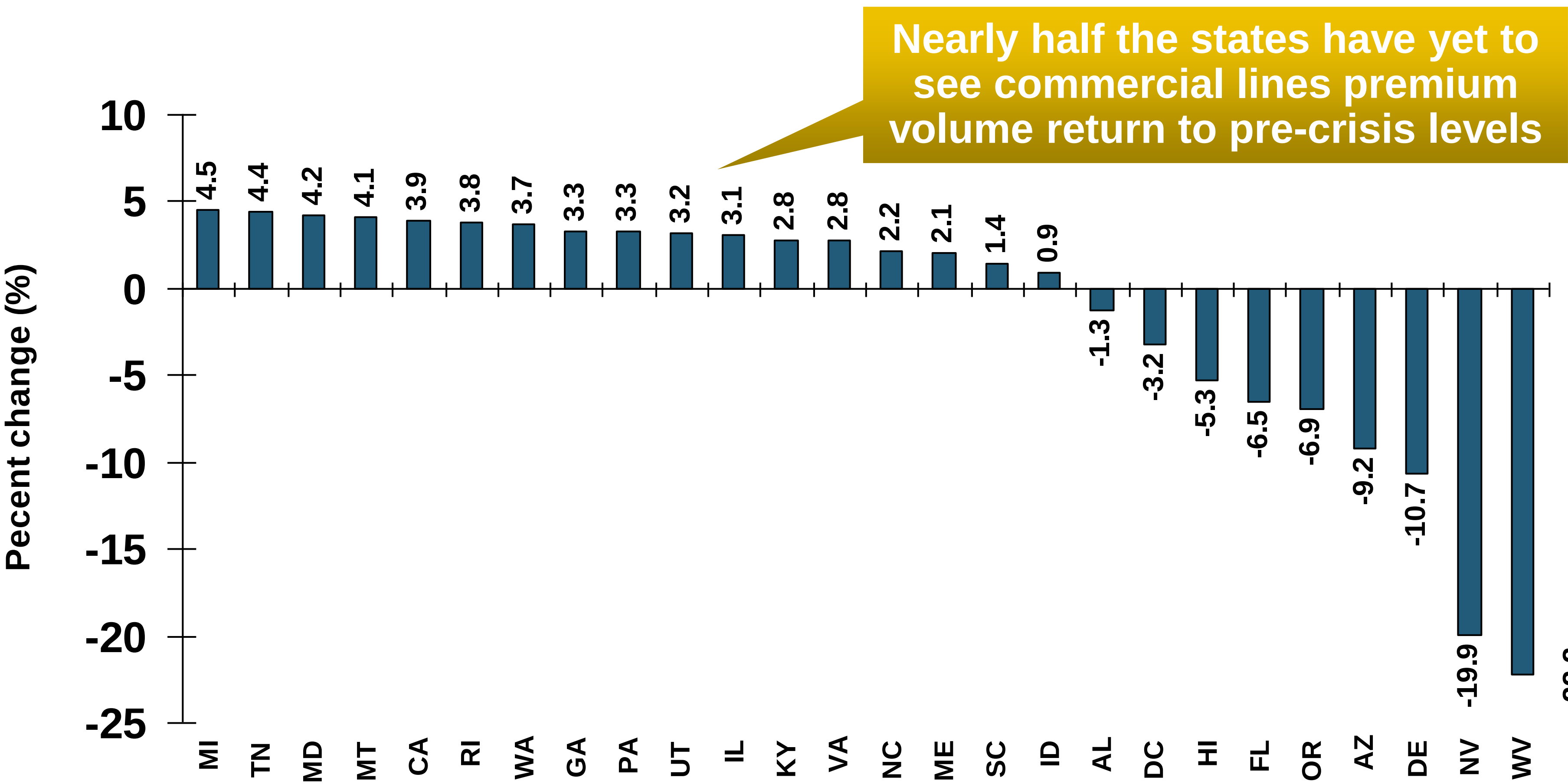
Top 25 States



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.

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

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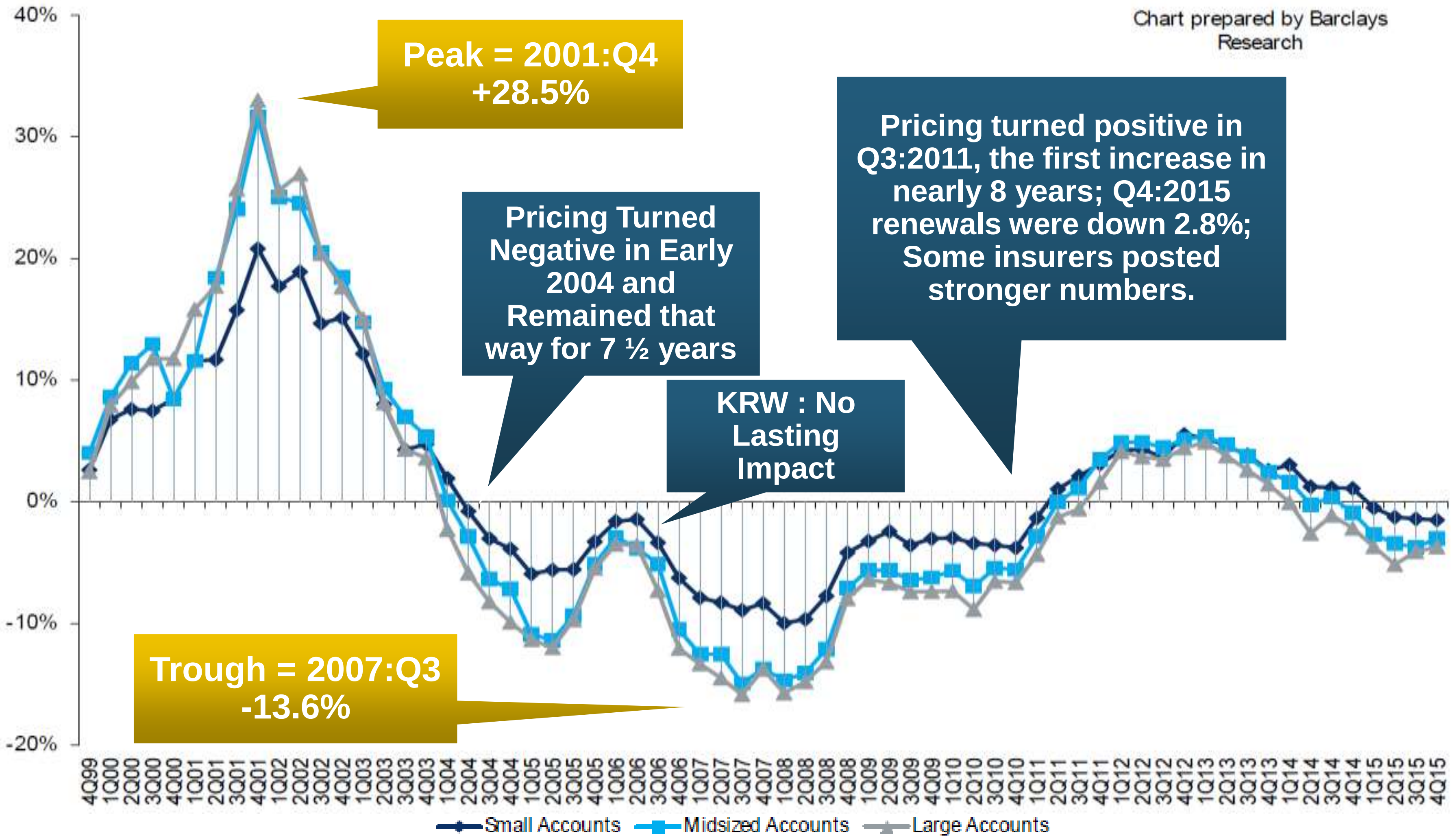
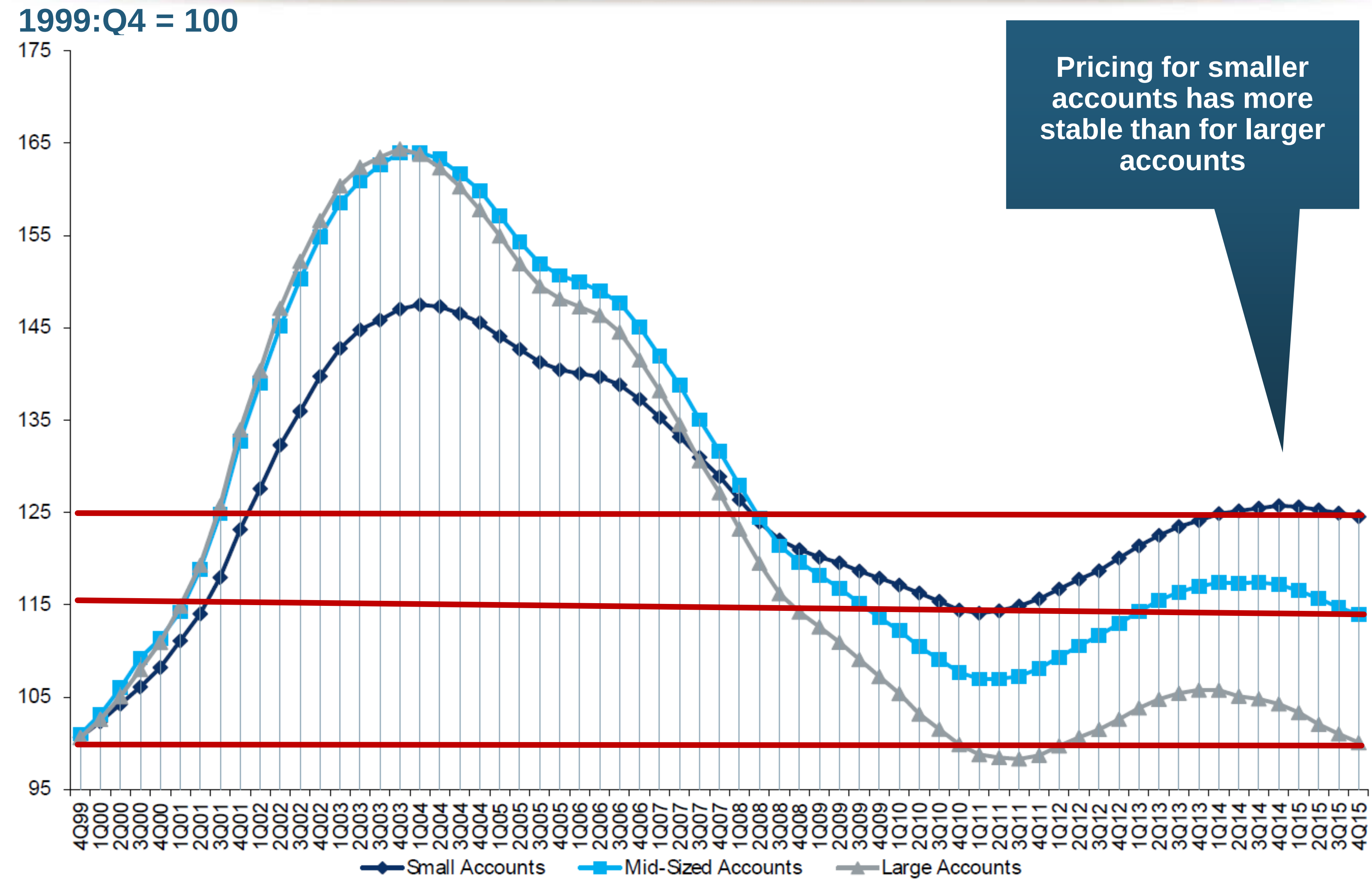
Percentage Change (%)



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. 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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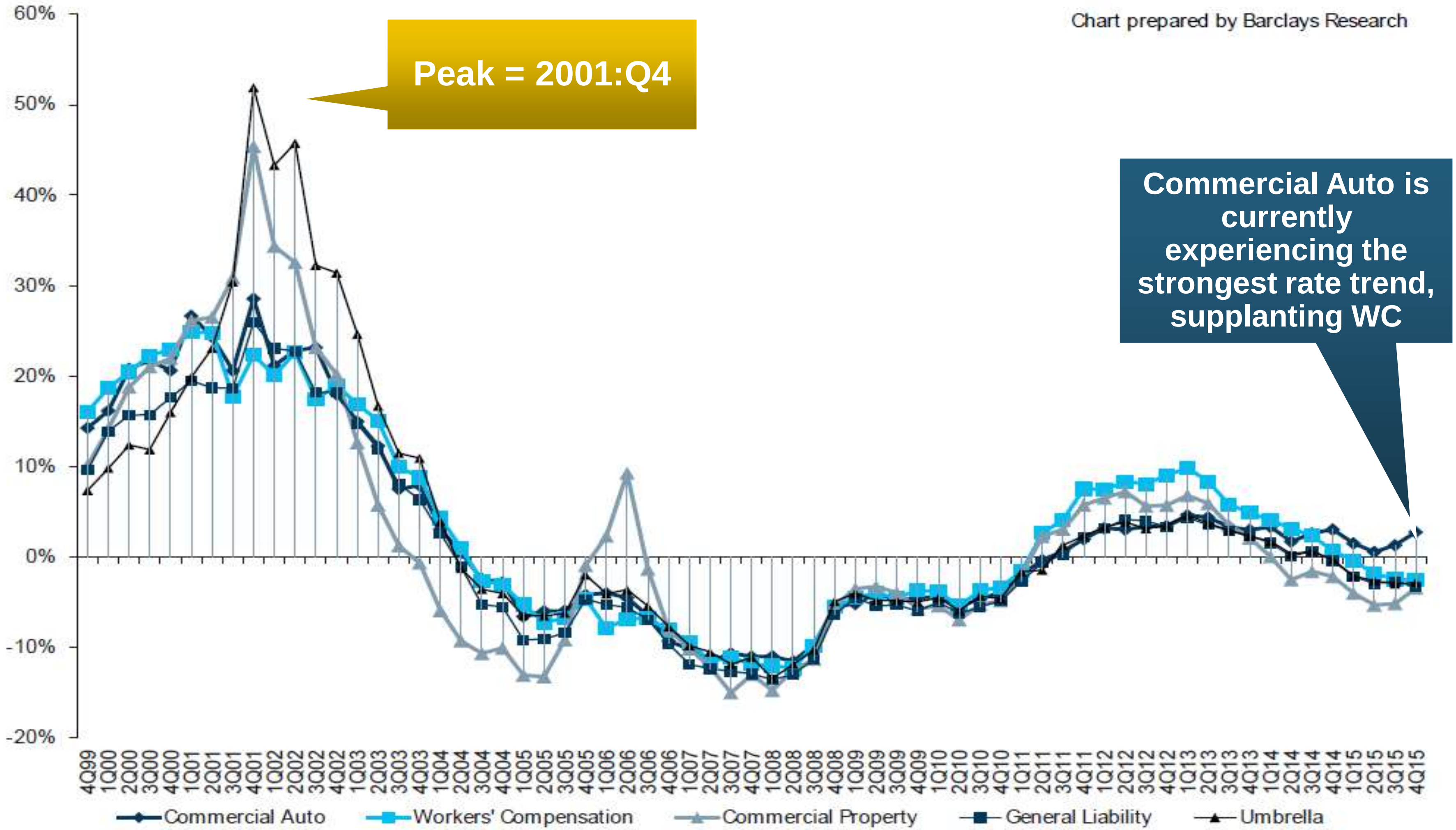
Percentage Change (%)



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

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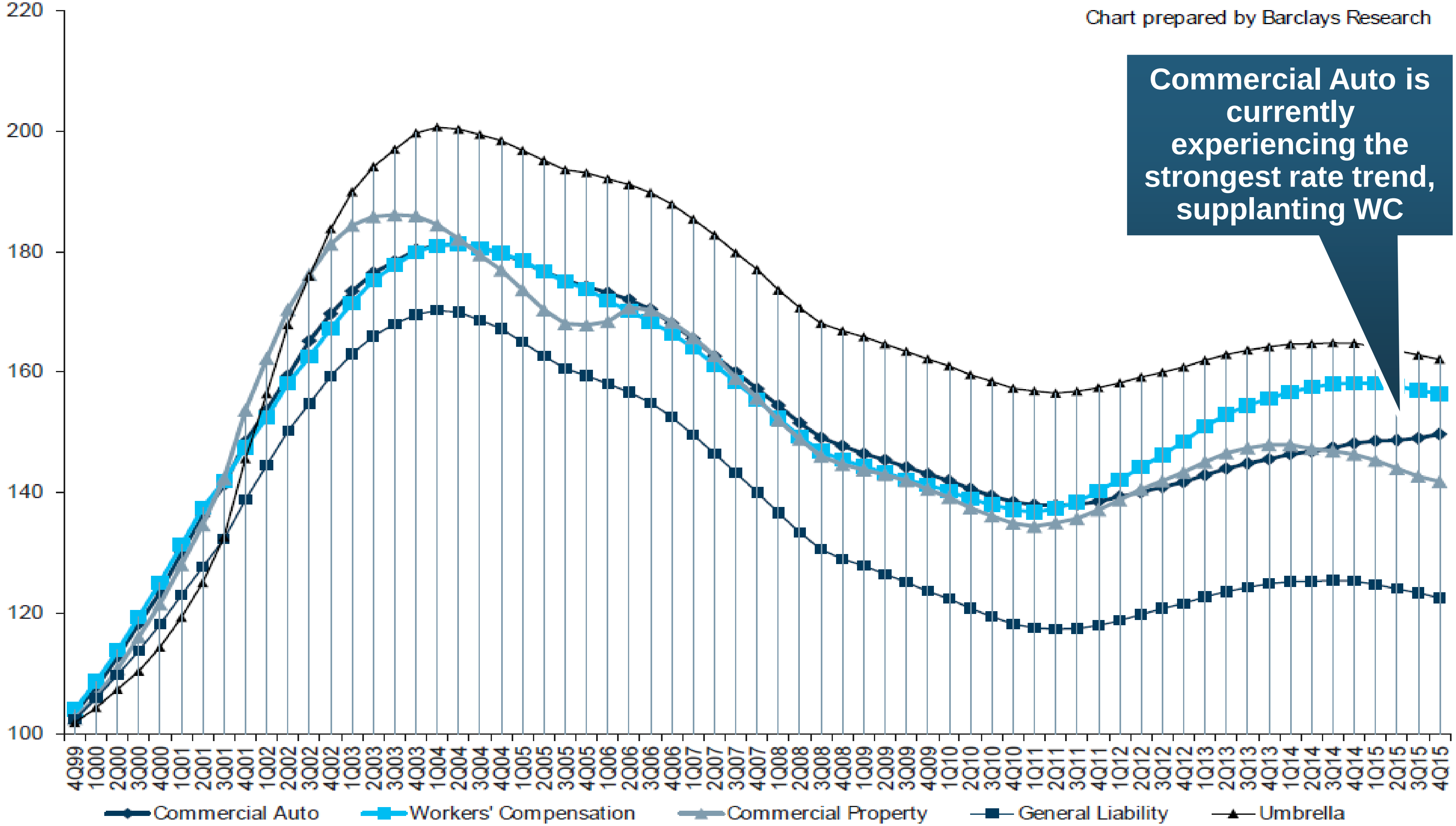
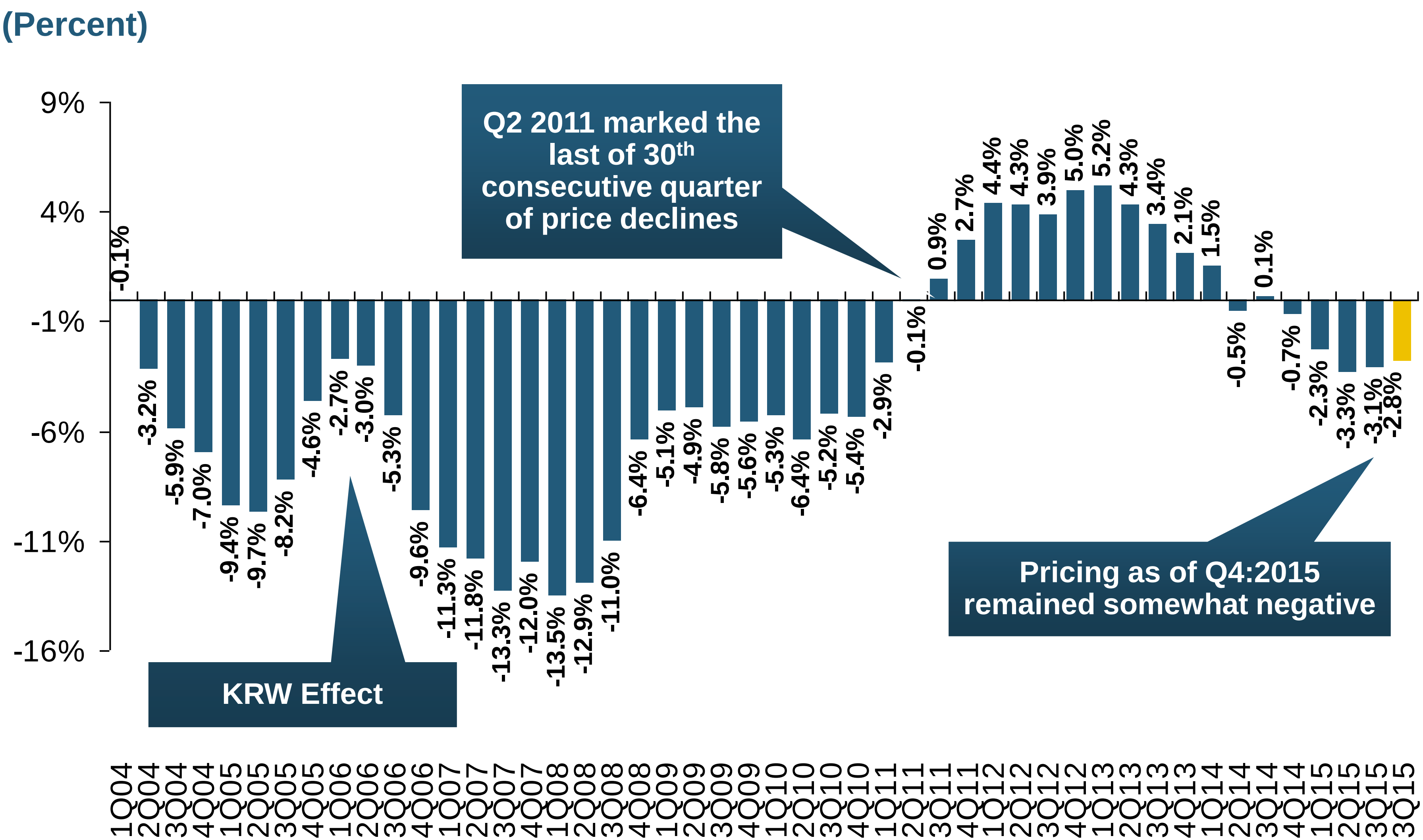
1999:Q4 = 100



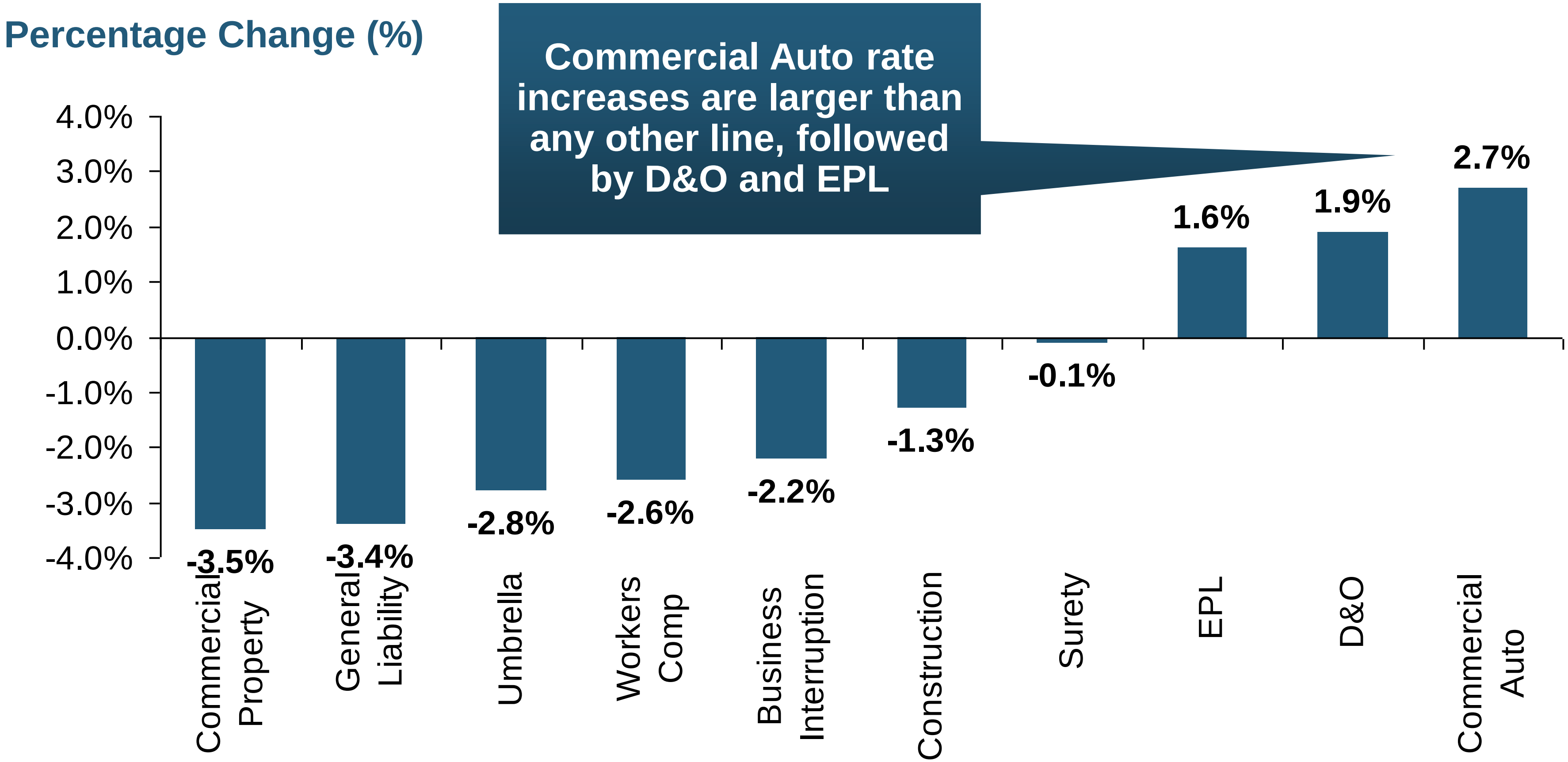
Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

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 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.

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INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

S&P 500 Index Returns, 1950 – 2016*

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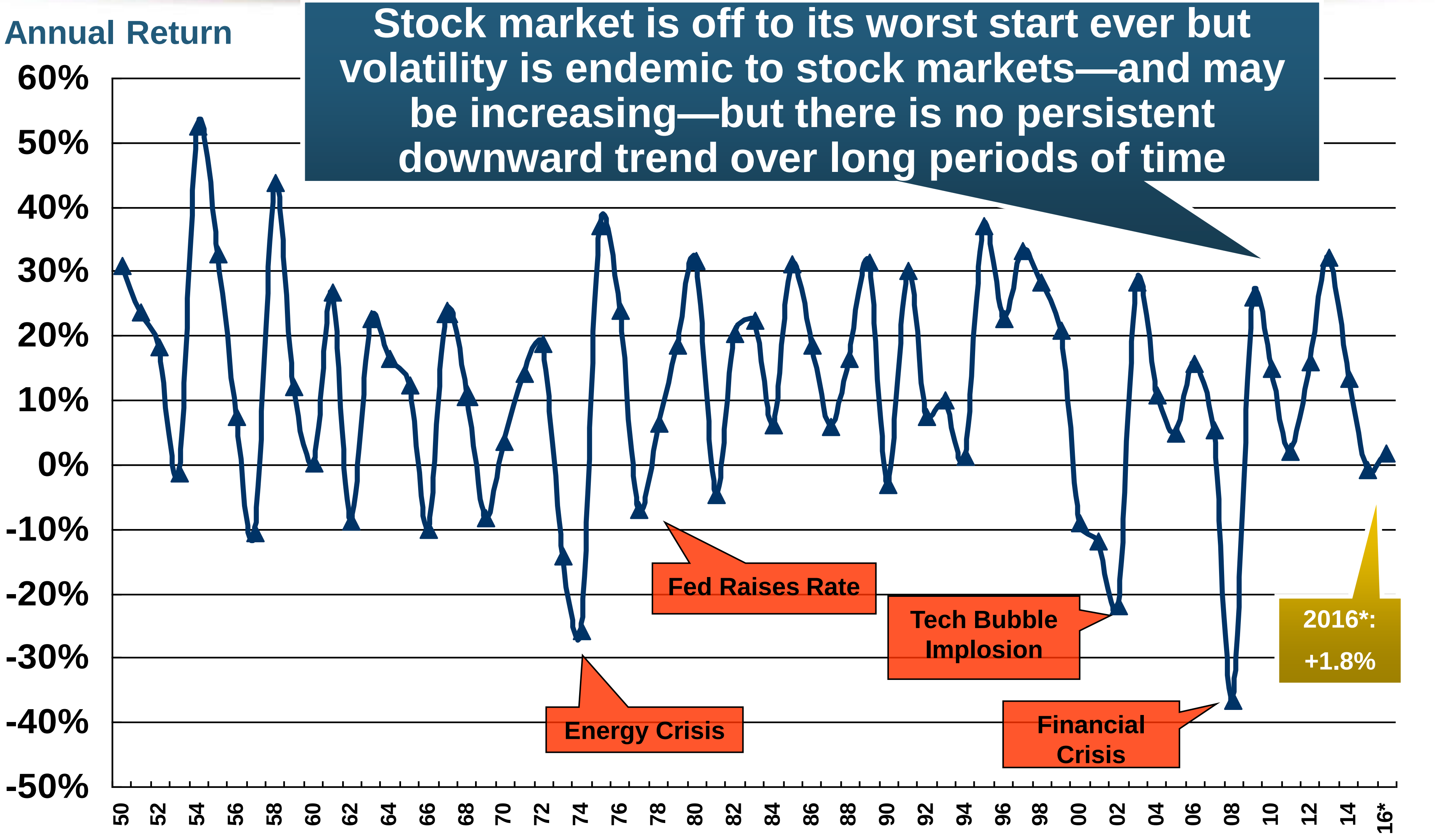

*Through Apr. 15, 2016.

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

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

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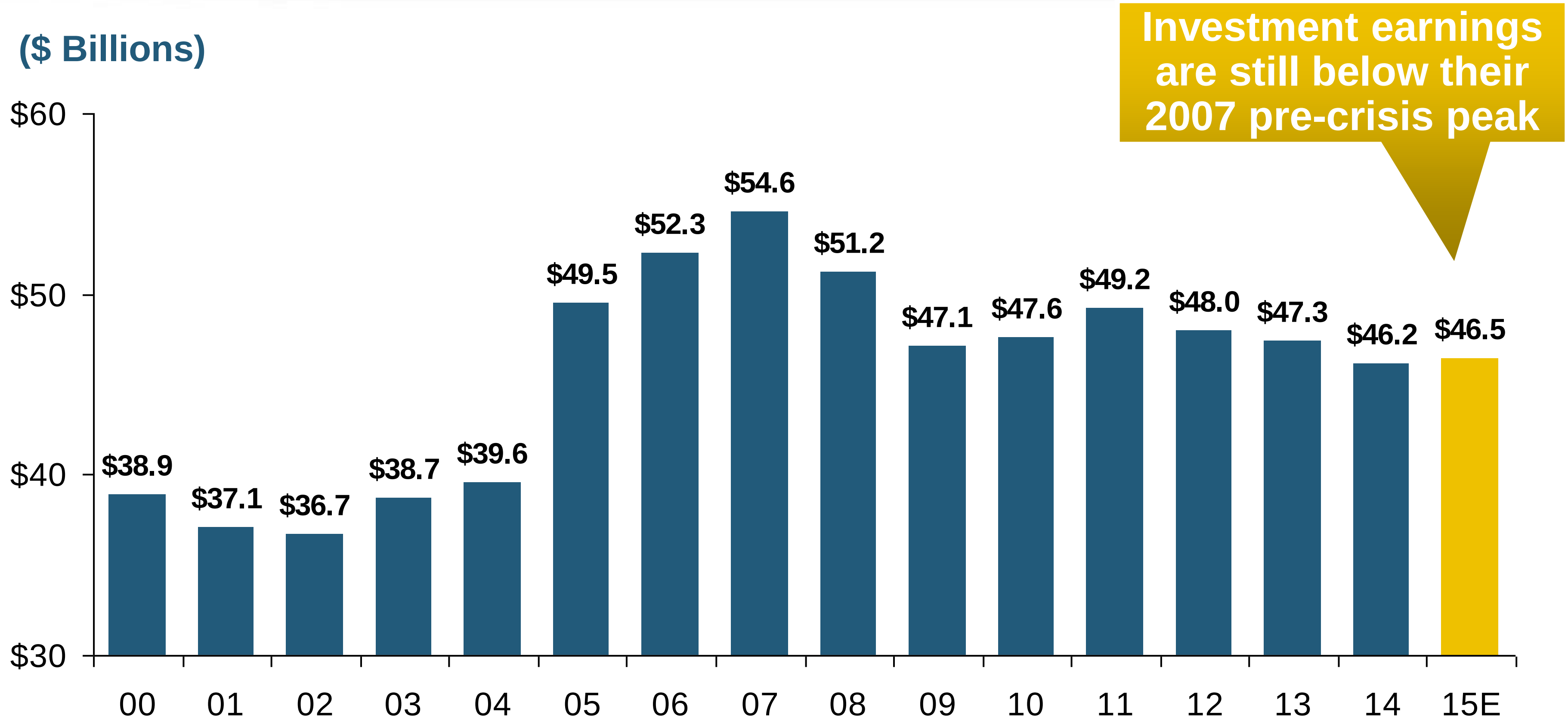

Due to persistently low interest rates, investment income fell in 2012, 2013 and 2014.

[1] Investment gains consist primarily of interest and stock dividends. *2015 figure is estimated based on annualized data through Q3.
Sources: ISO; Insurance Information Institute.

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

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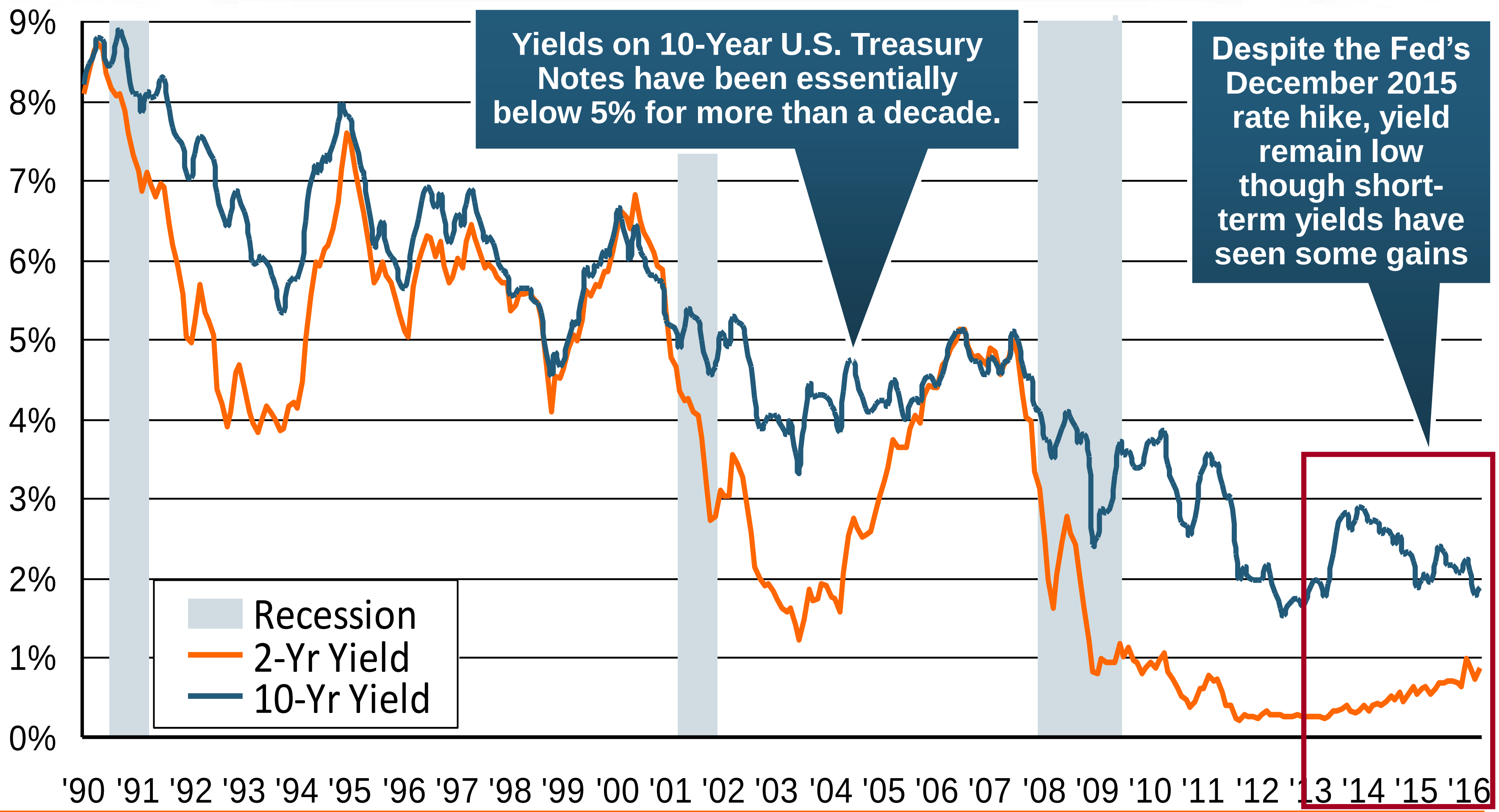

Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*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, 2013

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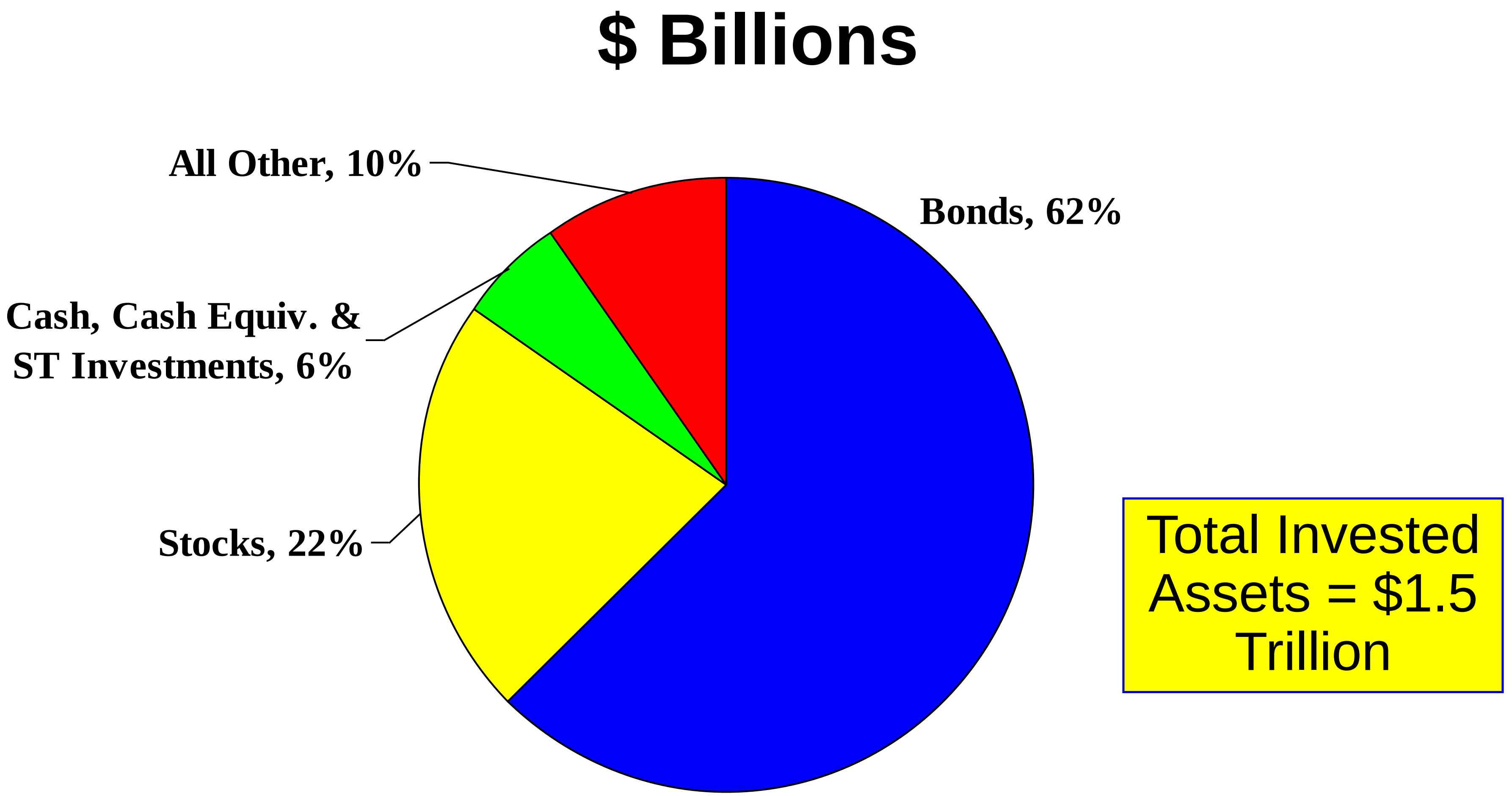
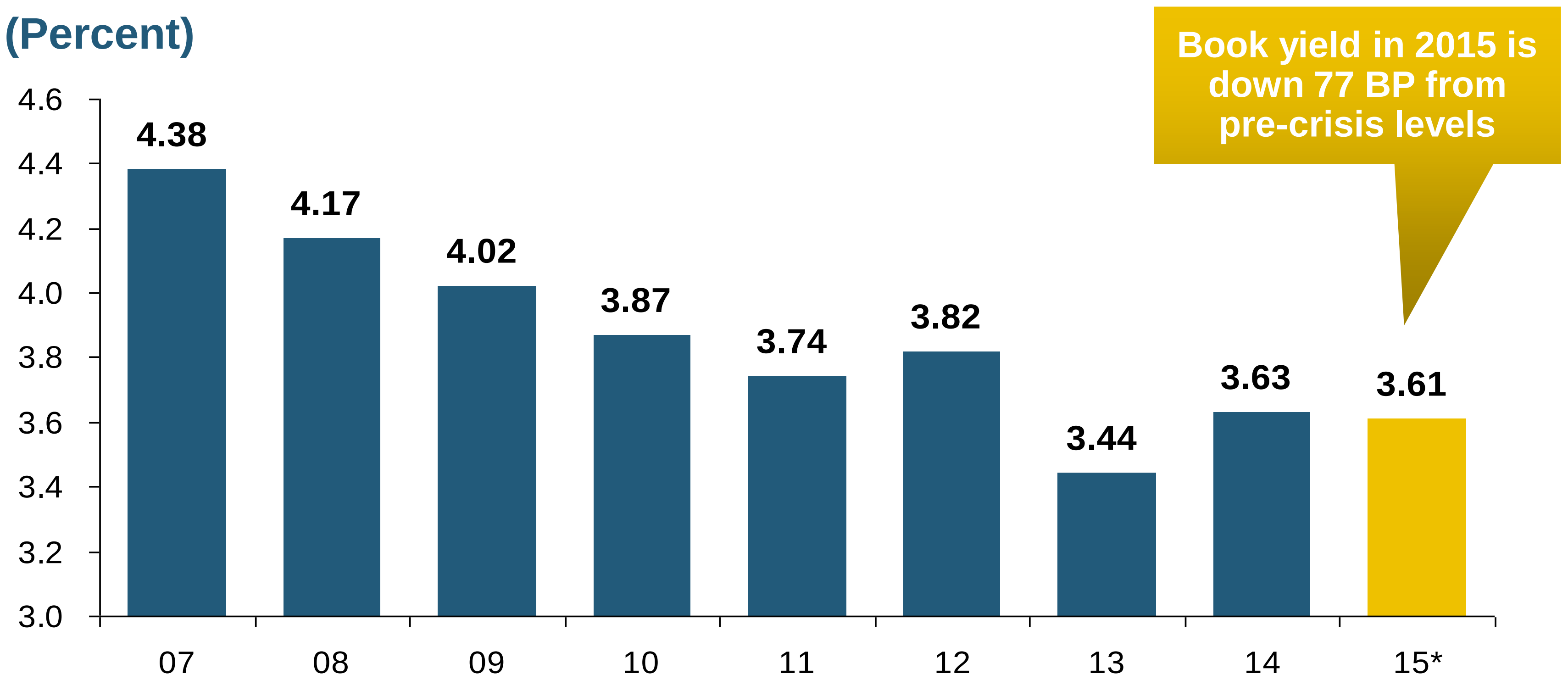


Source: Insurance Information Institute *Fact Book 2015,* A.M. Best.

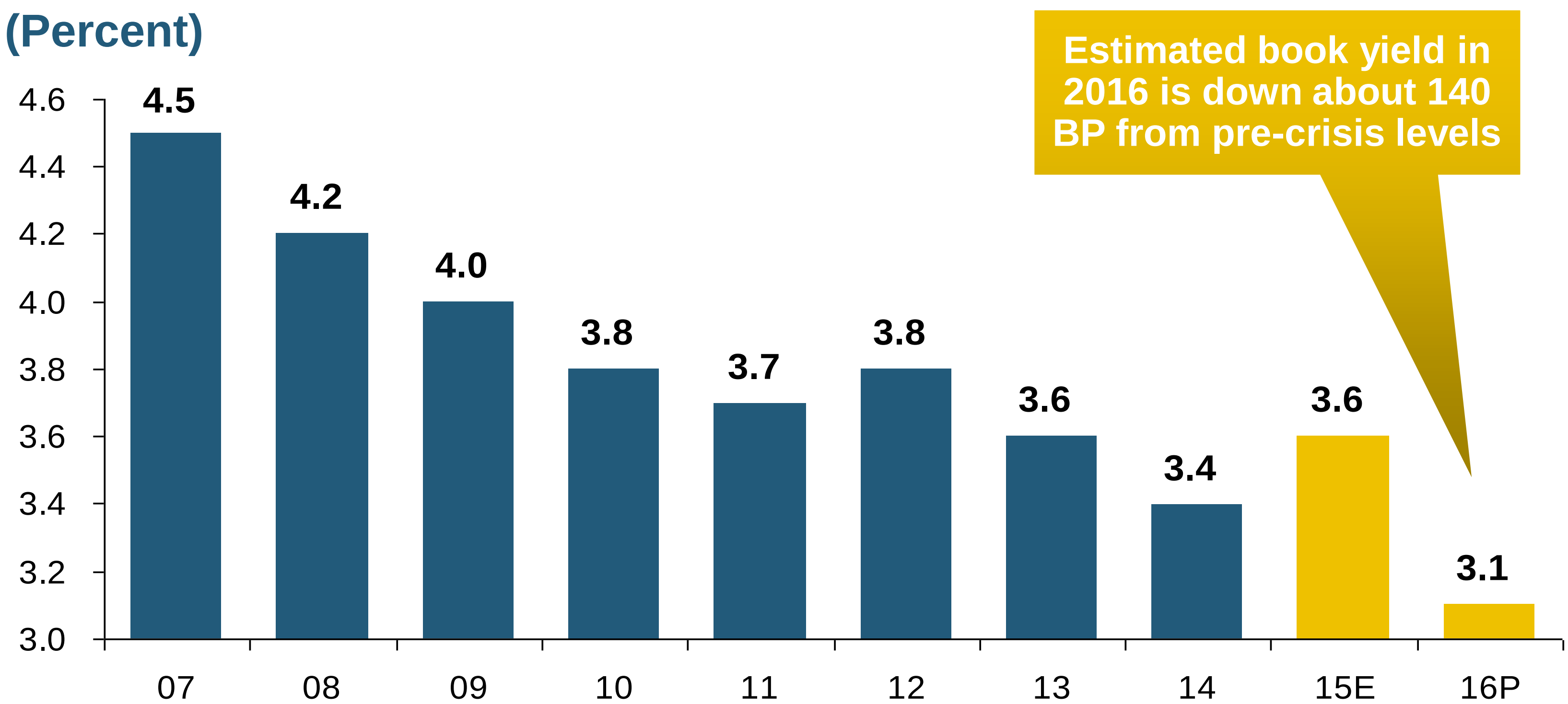
Net Yield on Property/Casualty Insurance Invested Assets, 2007–2015*



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.

*2015 figure is the average of the four quarters ending in 2015:Q2.
Sources: SNL Financial; Insurance Information Institute

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

P/C Insurer Portfolio Yields, 2002-2015:Q3

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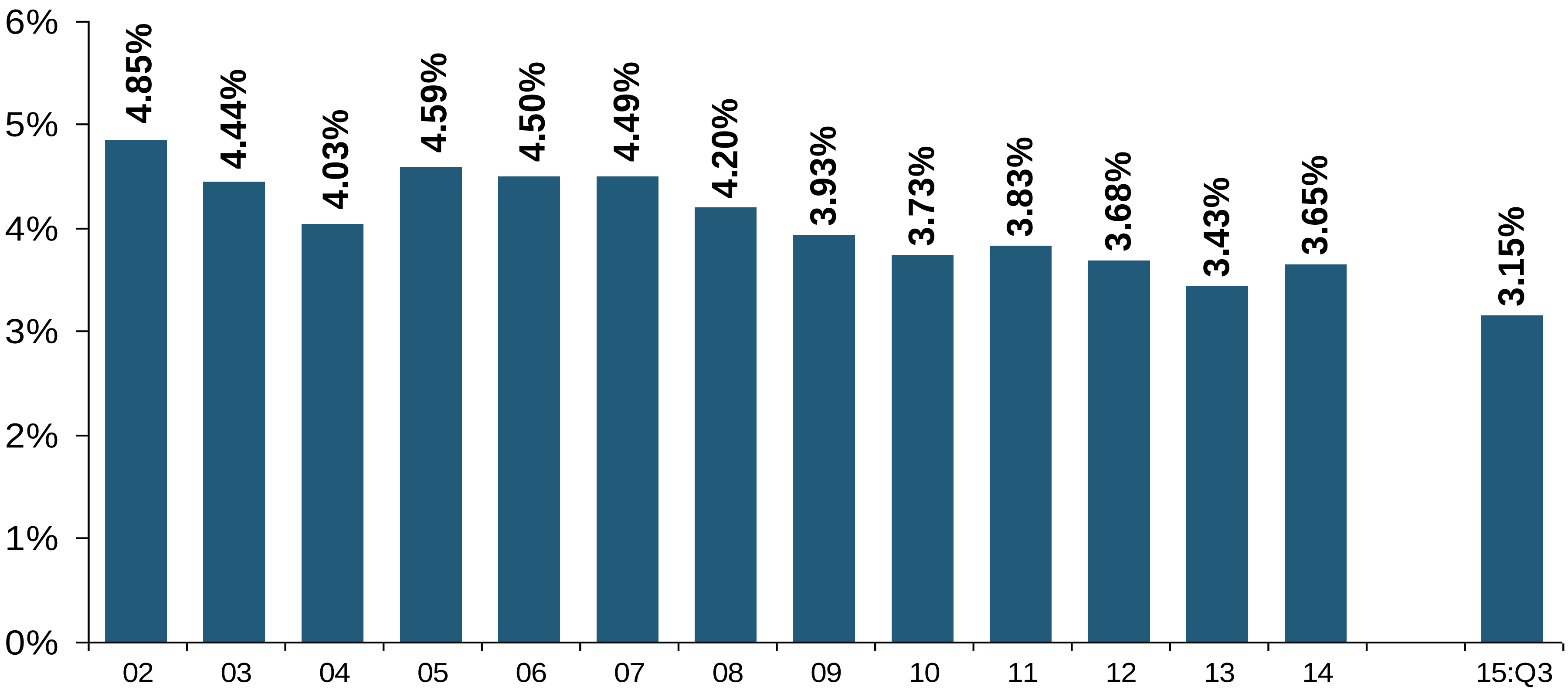
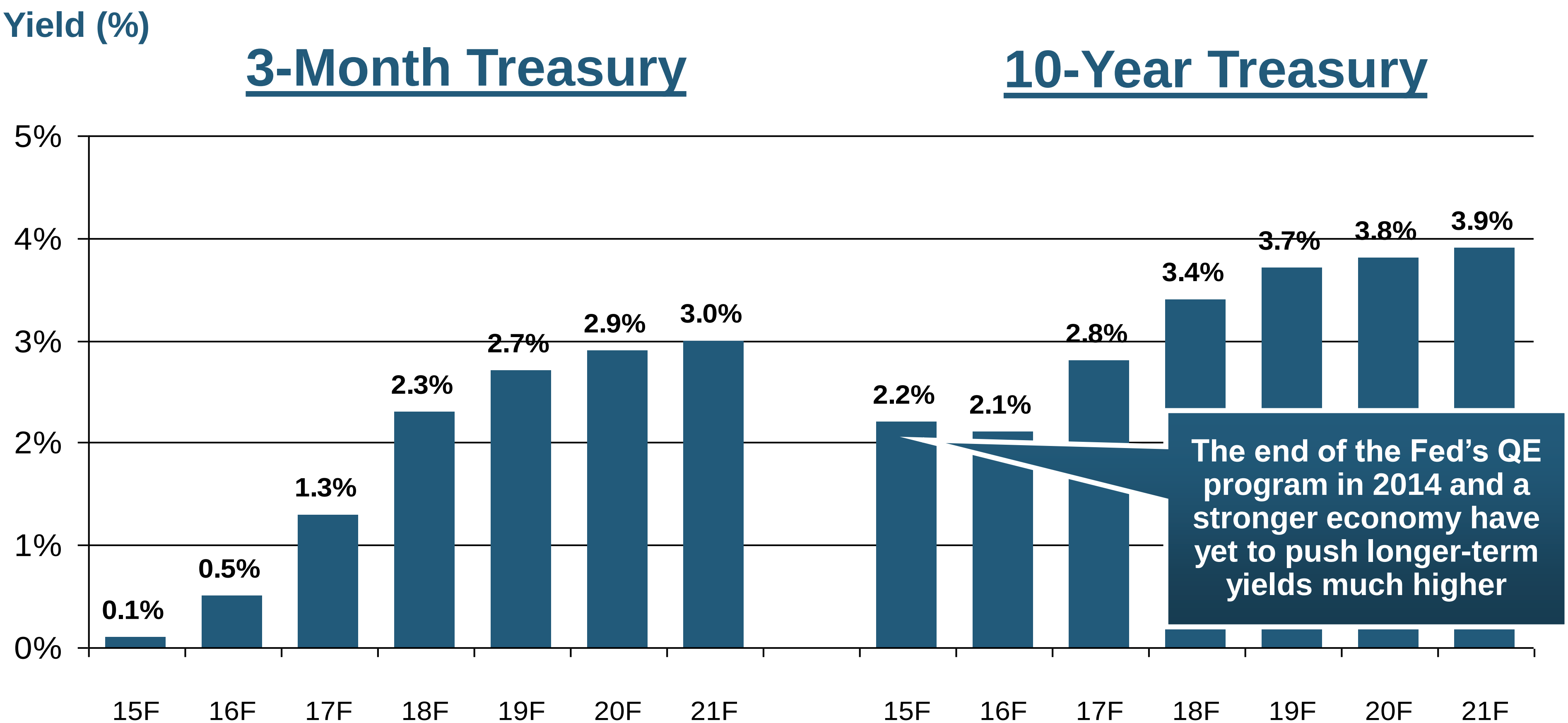


P/C carrier yields have been falling for over a decade, reflecting the long downtrend in prevailing interest rates. Even as prevailing rates rise in the next few years, portfolio yields are unlikely to rise quickly, since low yields of recent years are "baked in" to future returns.

Sources: NAIC, via SNL Financial; 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.

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

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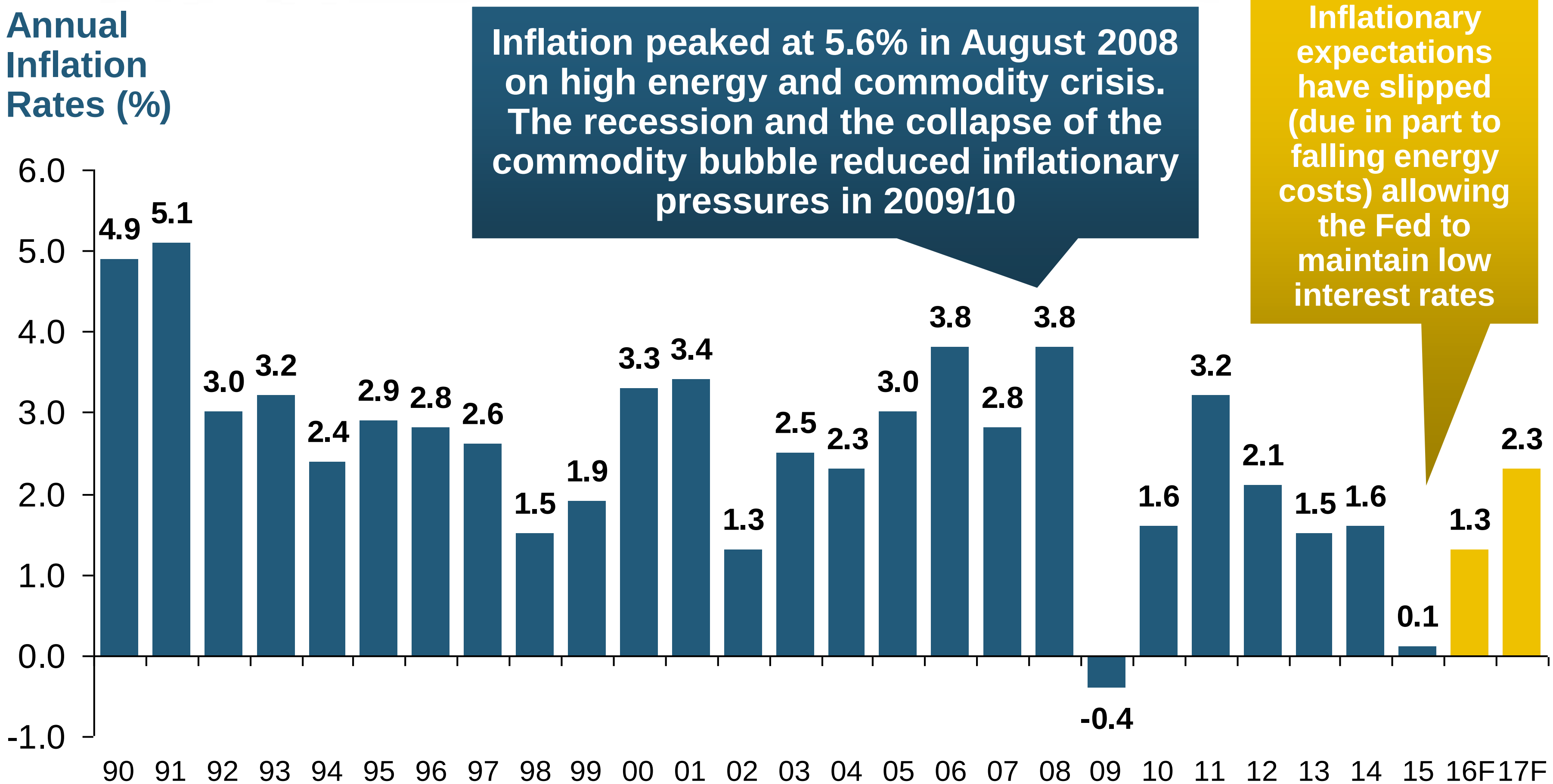
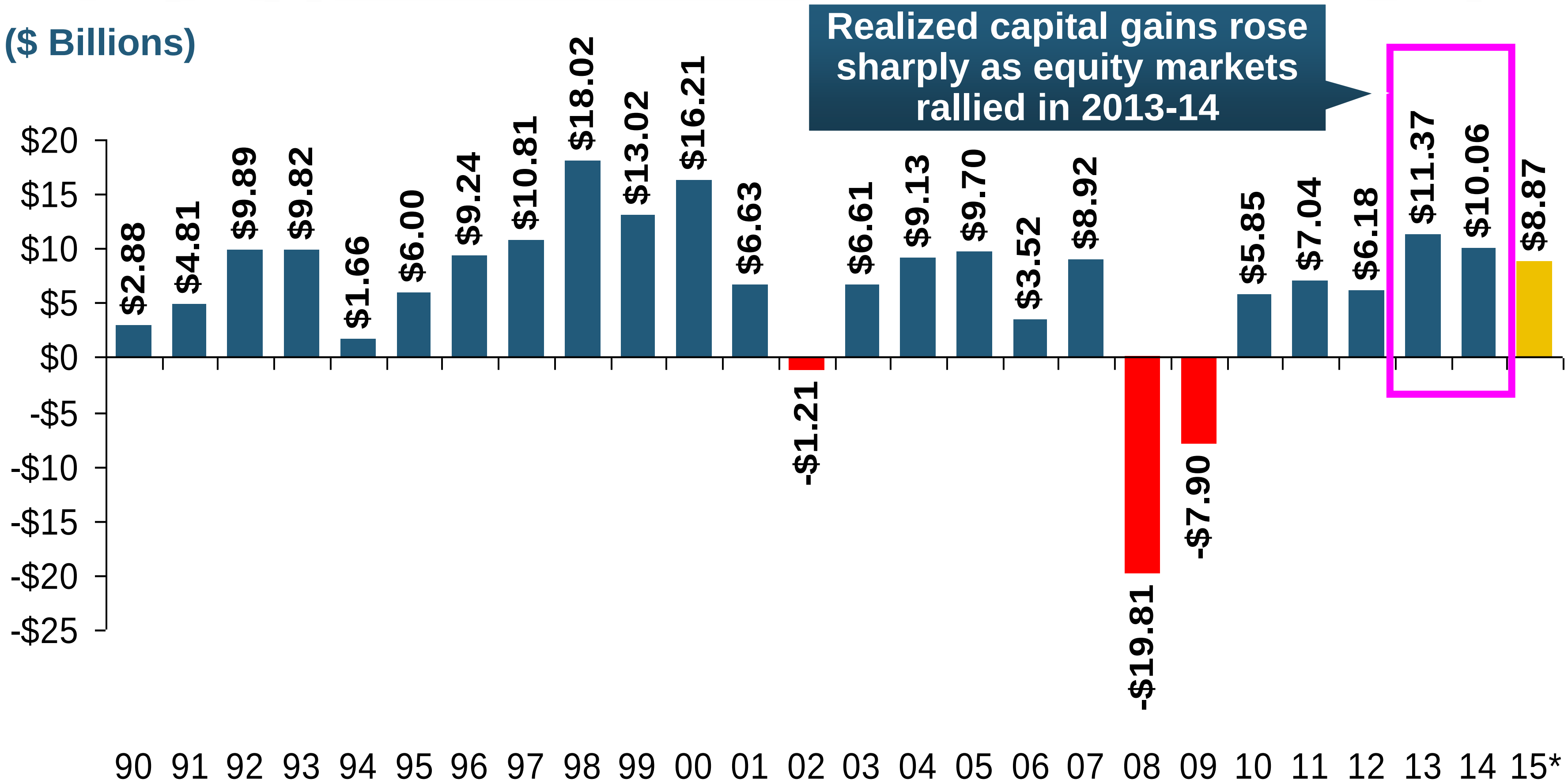


Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

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

P/C Insurer Net Realized Capital Gains/Losses, 1990-2015:Q3*

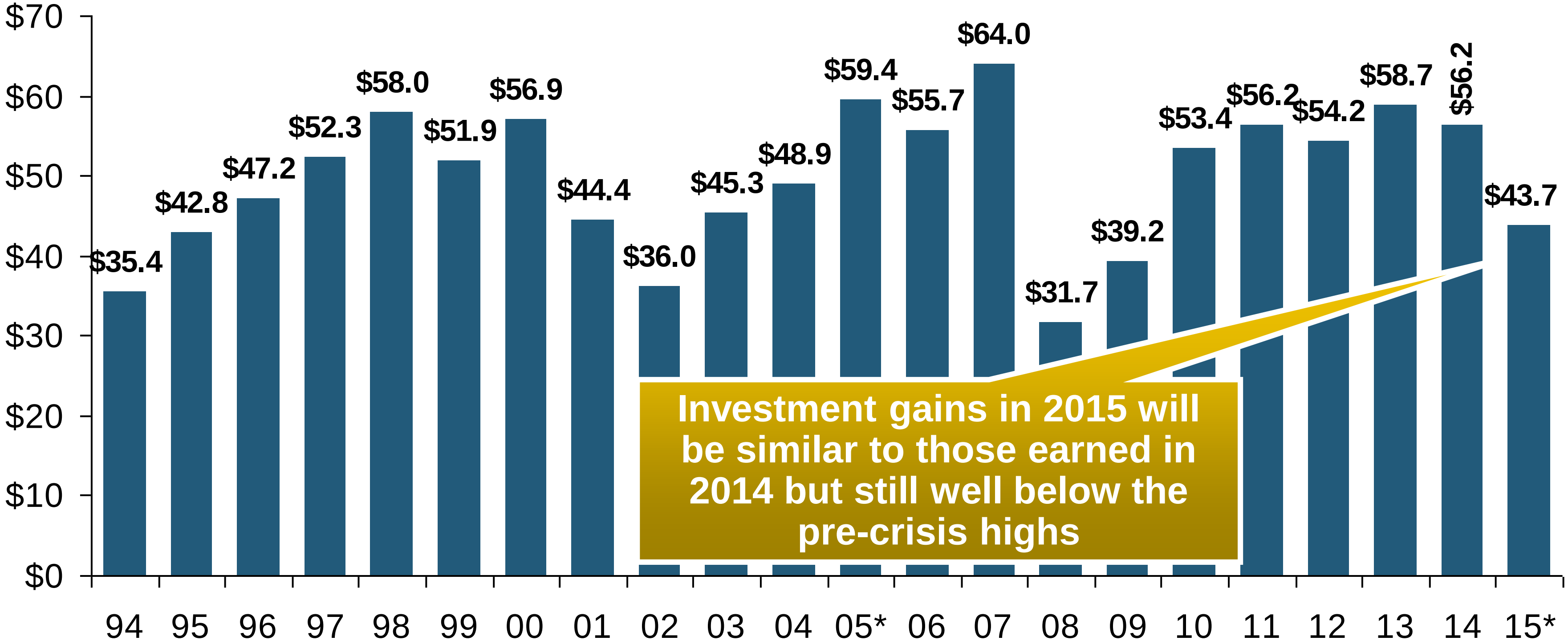


Insurers Posted Net Realized Capital Gains in 2010 - 2014 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were a Primary Cause of 2008/2009's Large Drop in Profits and ROE.

*Through Q3 2015.
Sources: A.M. Best, ISO, SNL, Insurance Information Institute.

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

($ 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.

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

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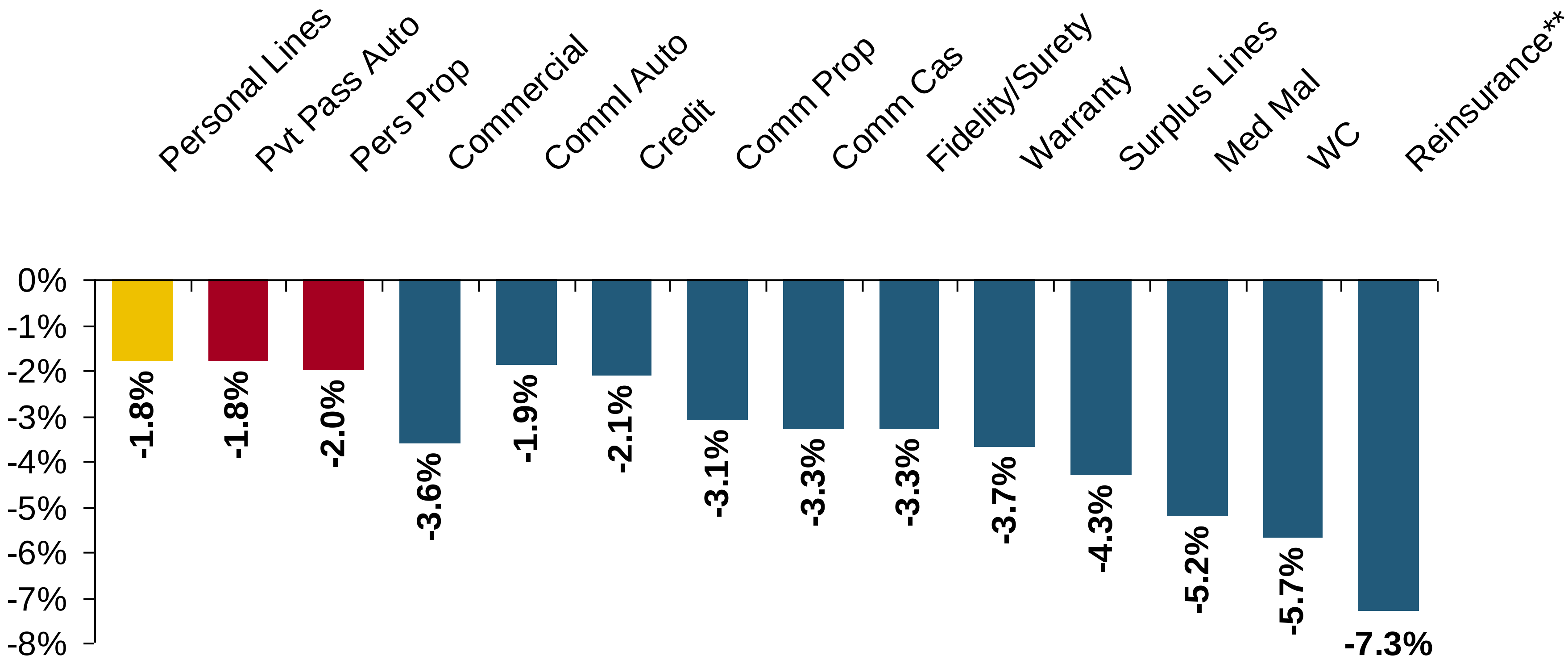

Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline

*Based on 2008 Invested Assets and Earned Premiums

**US domestic reinsurance only

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

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Profitability & Politics

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

P/C Insurance Industry ROE by Presidential Administration, 1950-2015*

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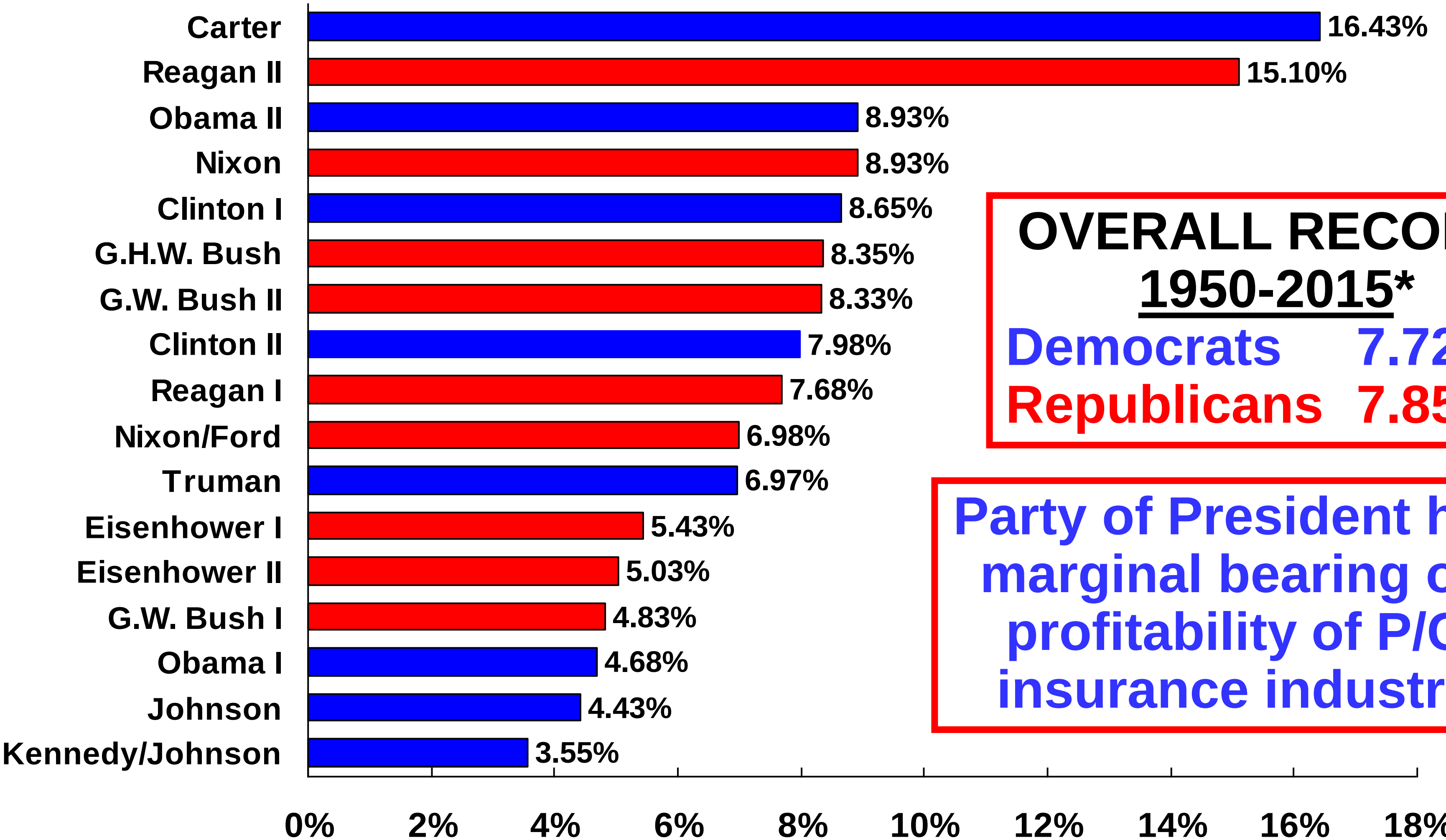

OVERALL RECORD: 1950-2015*

Democrats 7.72%

Republicans 7.85%

Party of President has marginal bearing on profitability of P/C insurance industry

*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- 2015

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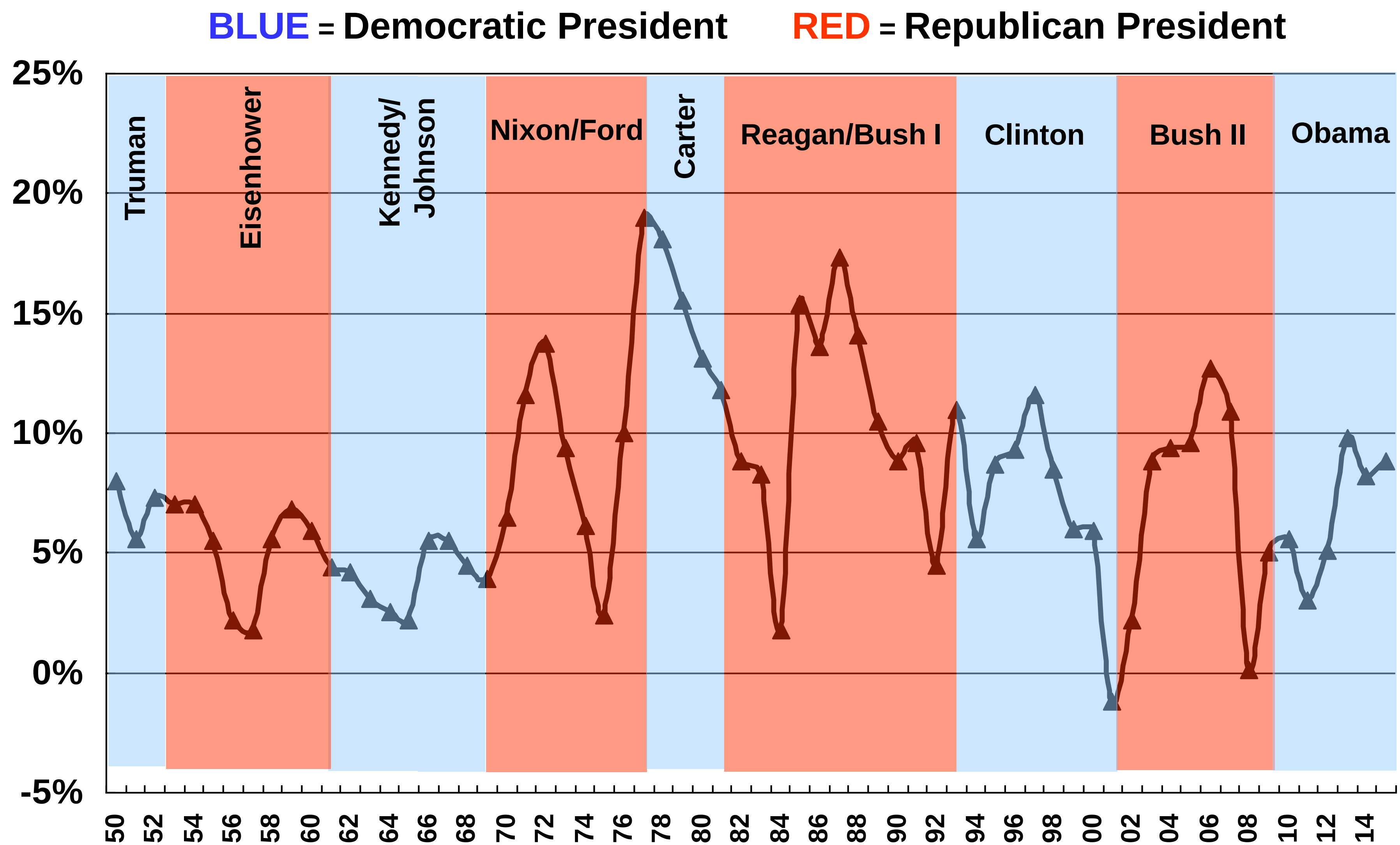

Source: Insurance Information Institute

Trump vs. Clinton: Issues that Matter to P/C Insurers

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Issue	Trump	Clinton
Economy	***Supply Side-Like Philosophy:*** Lower taxes→Faster real GDP growth; Deficits likely grow as tax cuts are combined with targeted increased spending on Homeland Security, Defense, etc.	***Keynesian Philosophy:*** More government spending on infrastructure, education, social services; Deficits likely increase as tax increases likely difficult to pass
Interest Rates	May trend higher with larger deficits; Shift from monetary policy to fiscal focus (tax cuts, government spending)	Status quo at the Fed; Net impact on interest rates unclear
Taxes	Favors lower tax rates for corporate and personal income tax rates; Tax code overhaul?	Unlikely to reduce taxes or embark on major overhaul of tax code
International Trade	Protectionist Tendencies	Has criticized Trans-Pacific Partnership but is a realist on international matters
Tort System	Doesn't like trial lawyers but seems to like filing lawsuits	Status Quo

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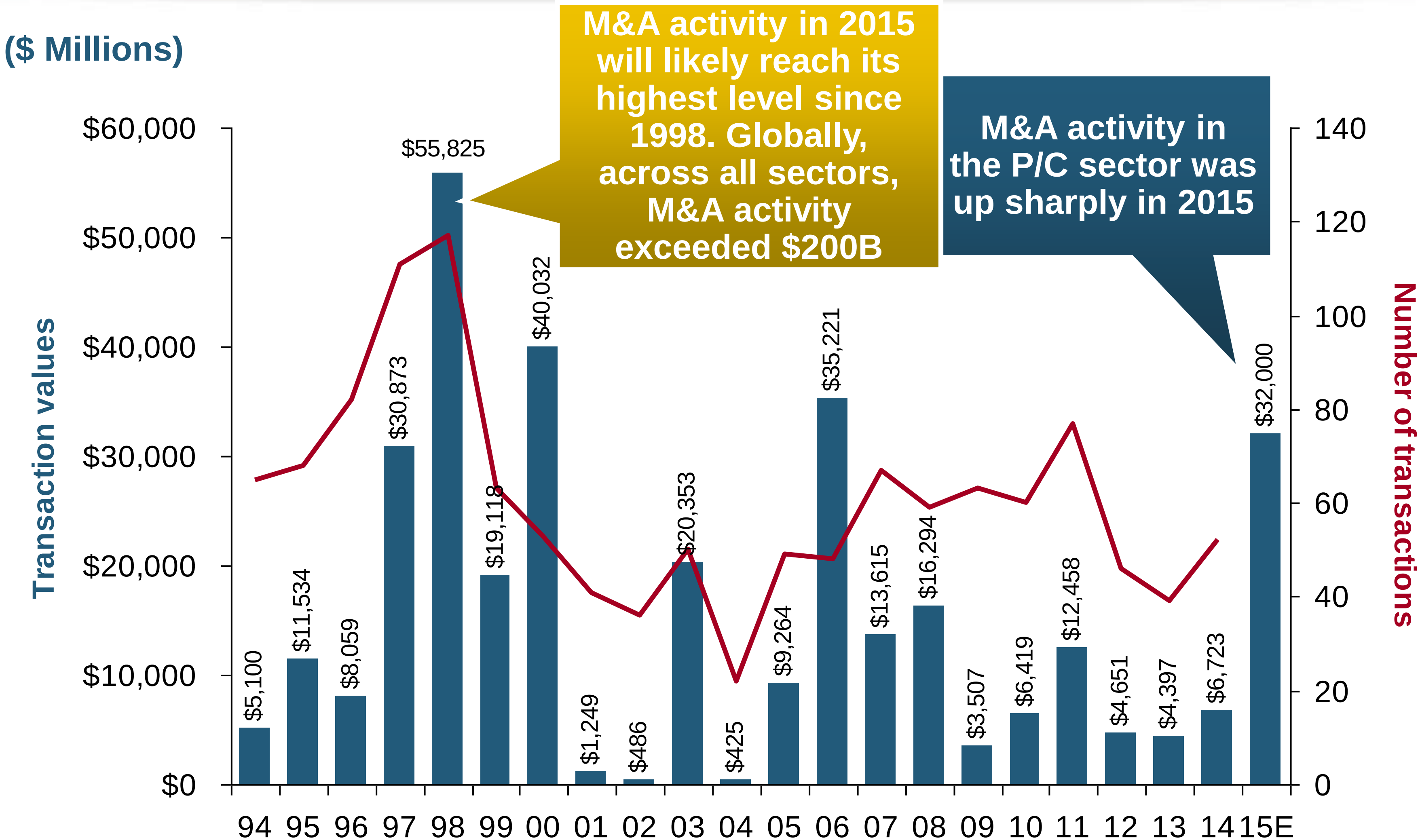
GLOBAL M&A UPDATE:
A PATH TO GROWTH?

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

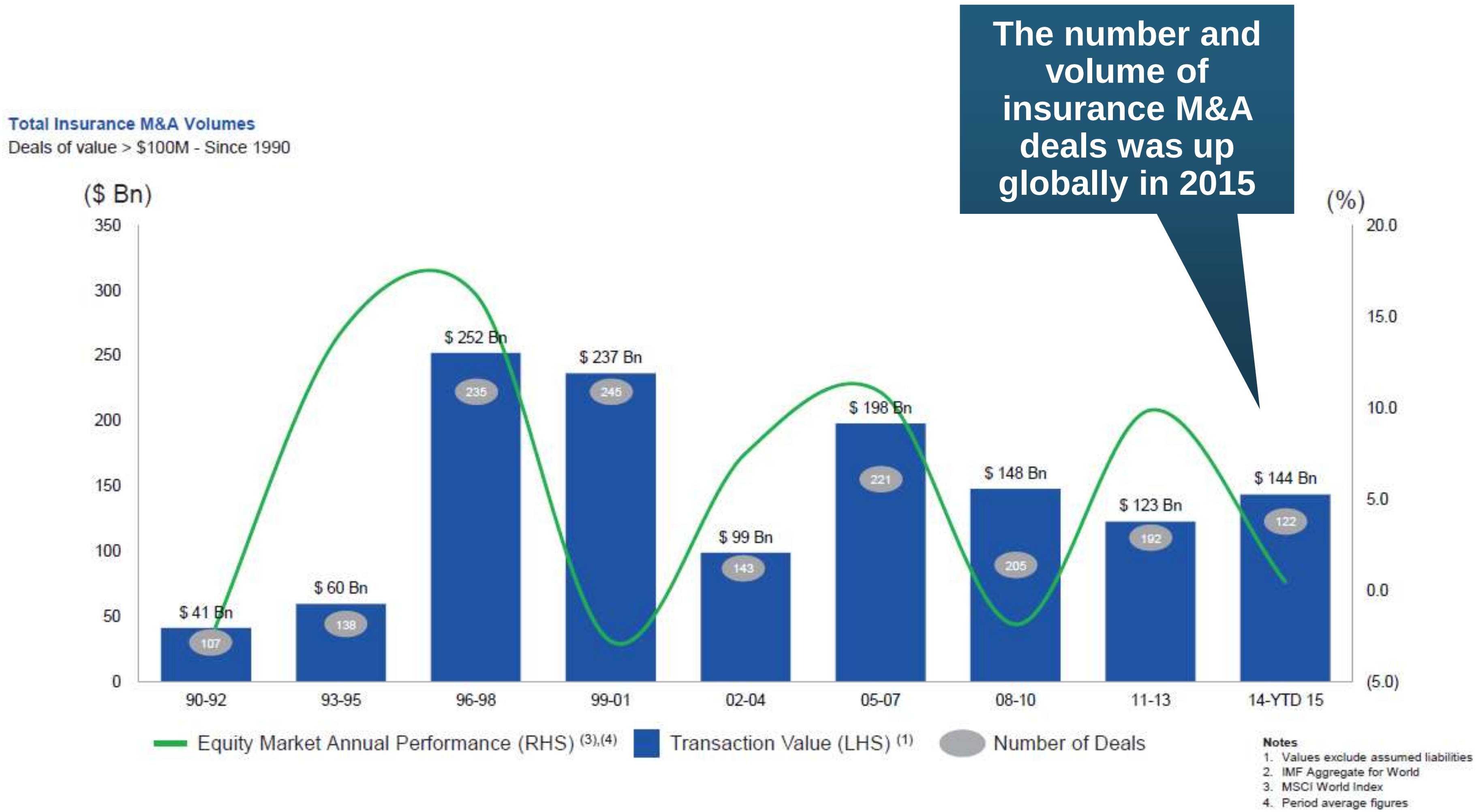
U.S. INSURANCE MERGERS AND ACQUISITIONS, P/C SECTOR, 1994-2015E (1)



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

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

Global M&A Activity Tends to Follow Equity Market Performance



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

Huge Shift from Domestic M&A Activity to Cross-Border

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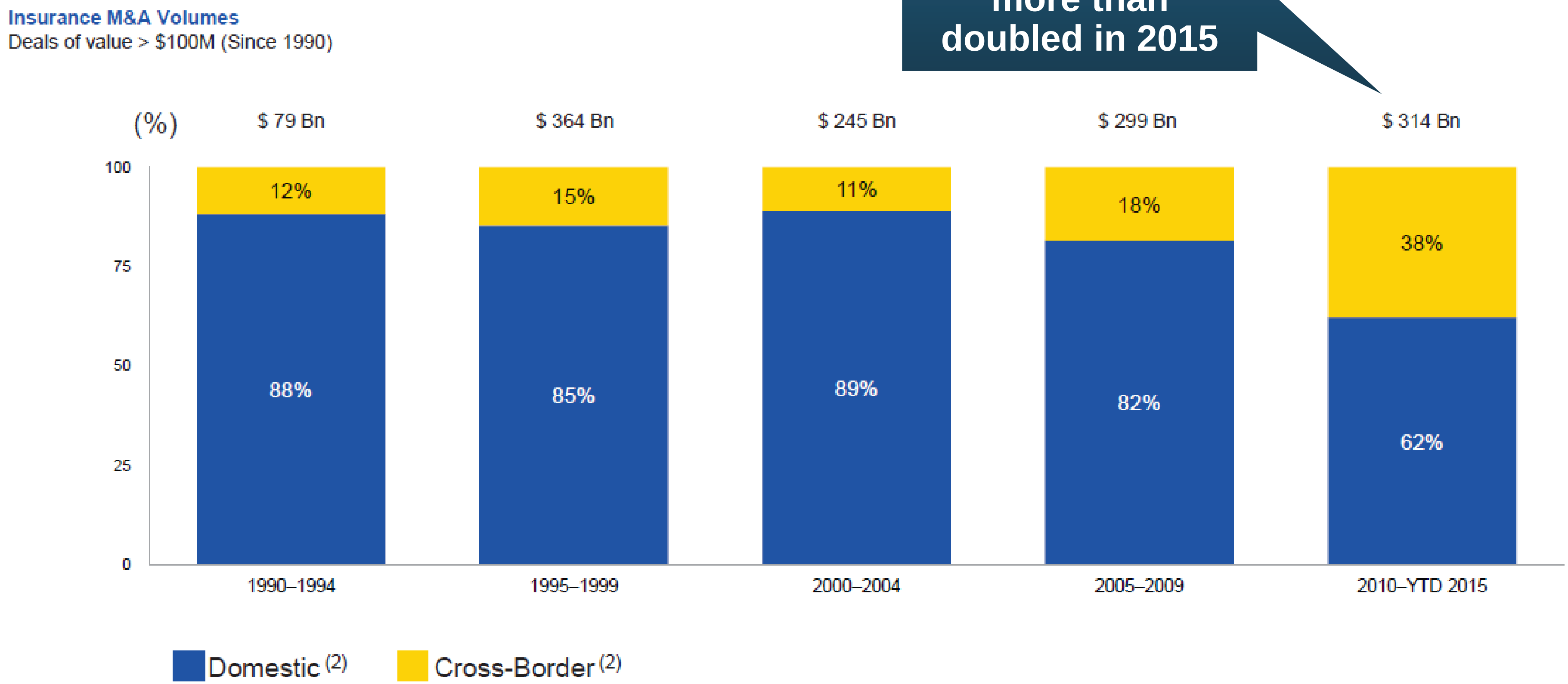
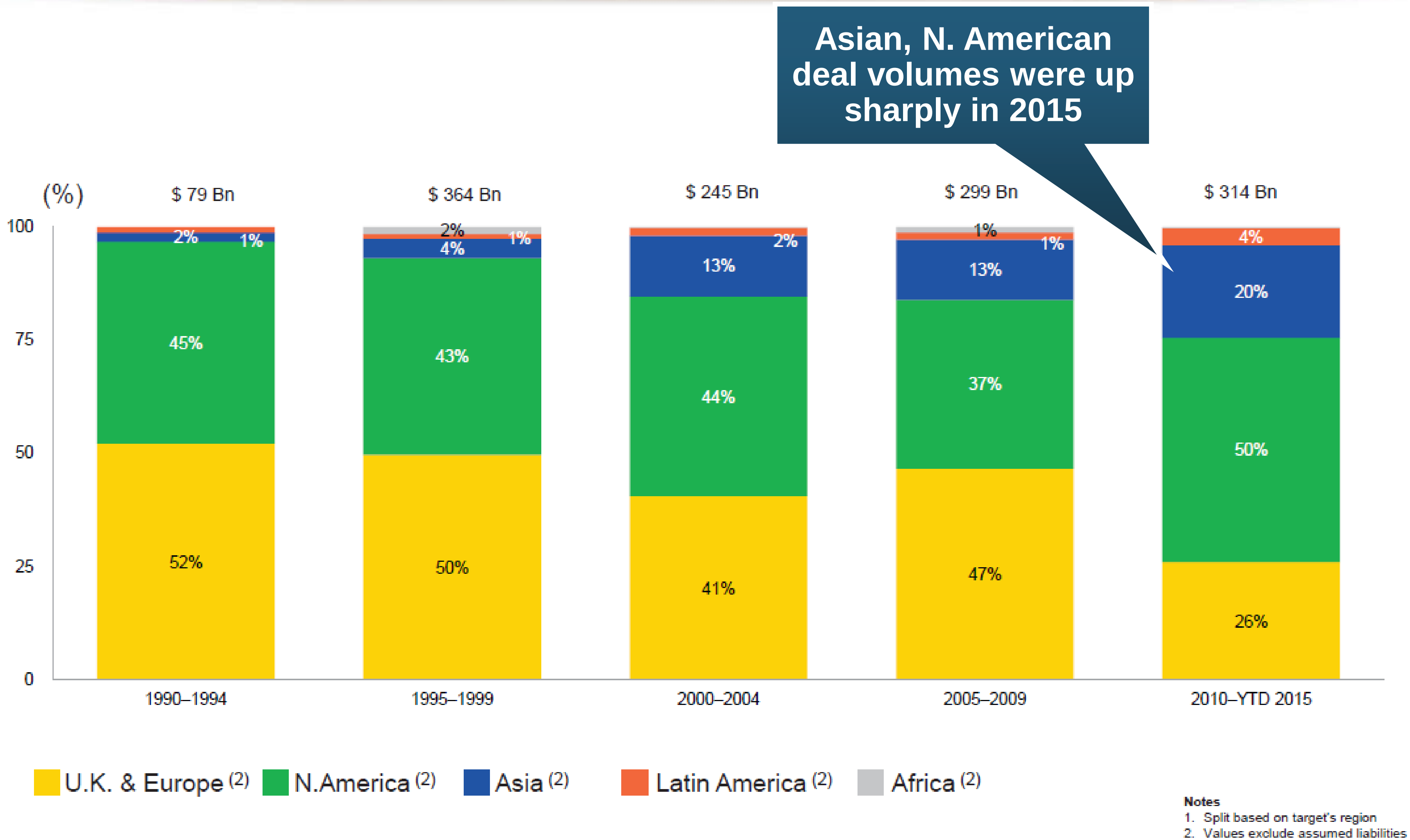
The share of M&A deal volume that was cross-border more than doubled in 2015



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

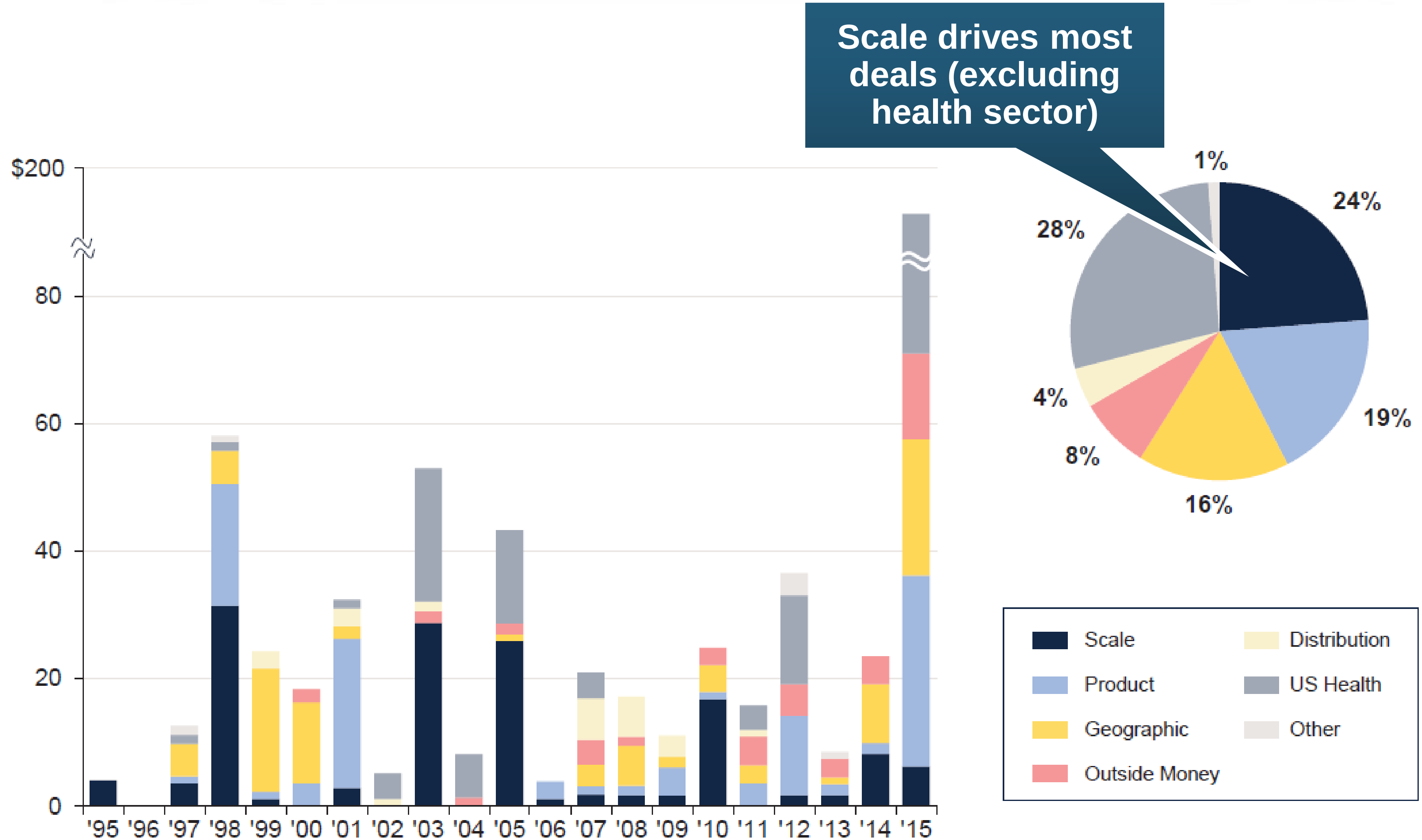
Source: Thomson Reuters as of Oct. 2015 from Geneva Association Newsletter *Insurance and Finance*, Jan. 2016, presentation "*Facts vs. Sentiment: Deals in the Insurance Sector*," by Aviva CEO Mark Wilson.

M&A Activity Has Shifted Away from Europe and Towards Asia and N. America



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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Some Key Drivers in the US Economy

Economic Factors Driving Exposure Growth and Insurer Performance

US Real GDP Growth*

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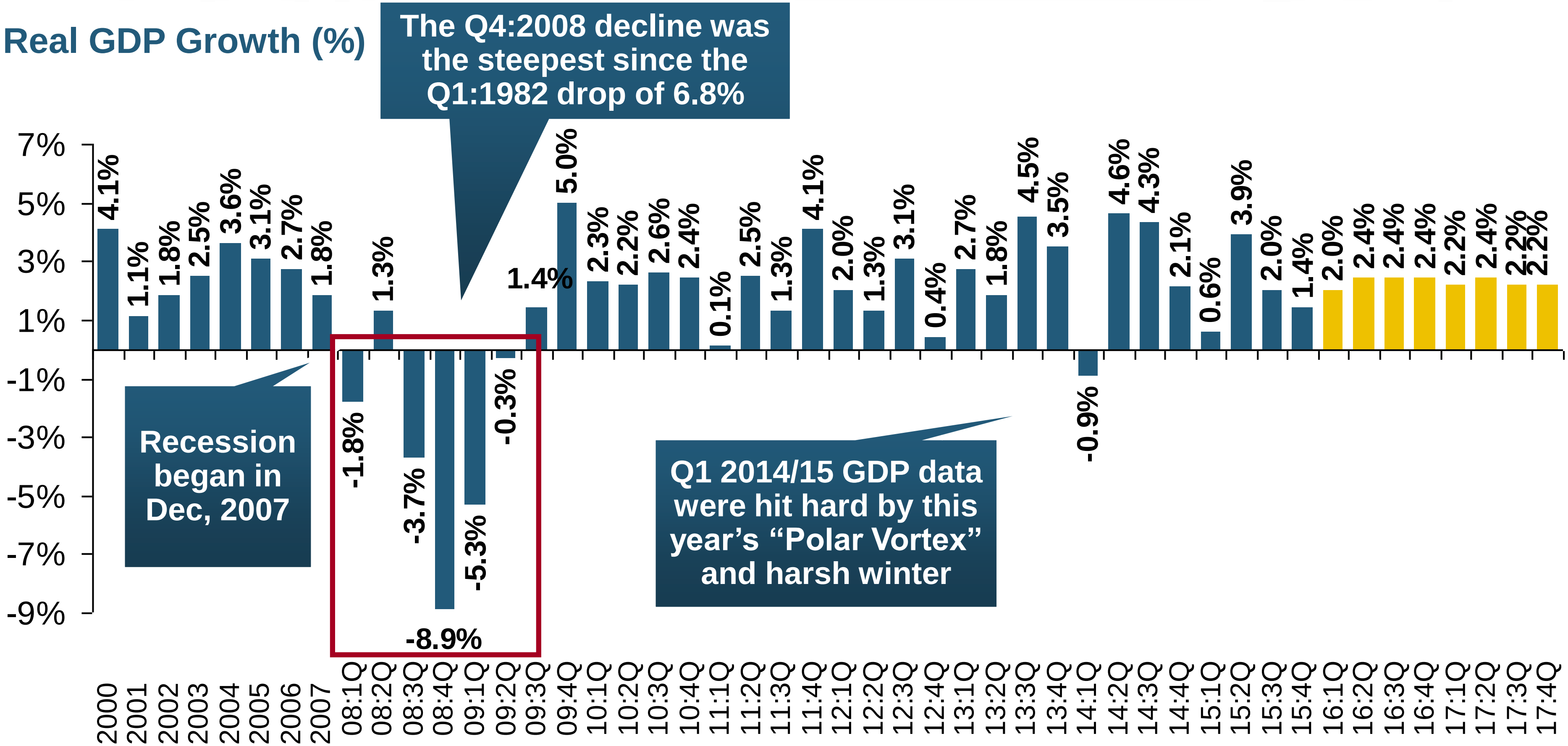


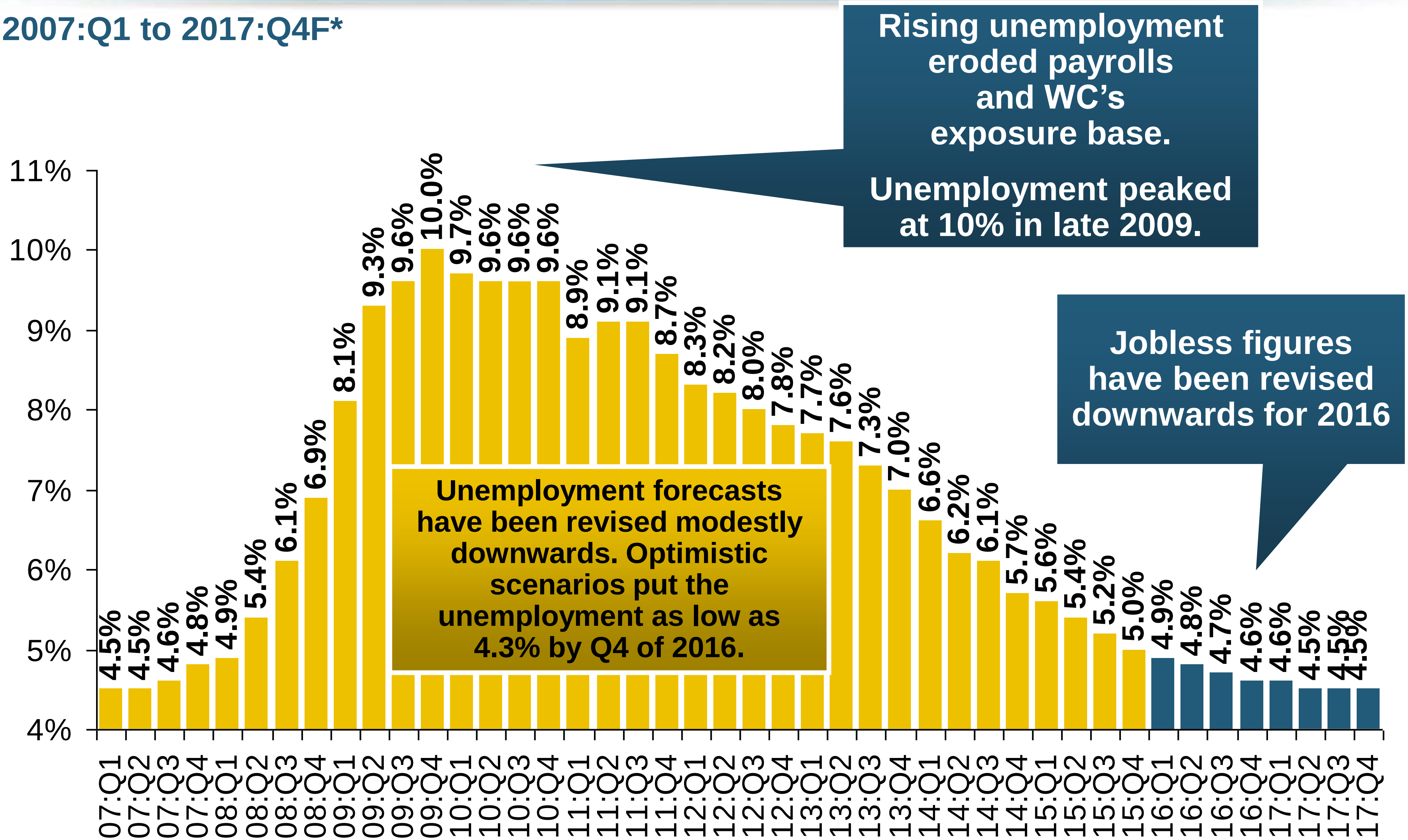
Demand for Insurance Should Increase in 2016 as GDP Growth Continues at a Steady, Albeit Moderate Pace and Gradually Benefits the Economy Broadly

* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 3/16; Insurance Information Institute.

US Unemployment Rate Forecast

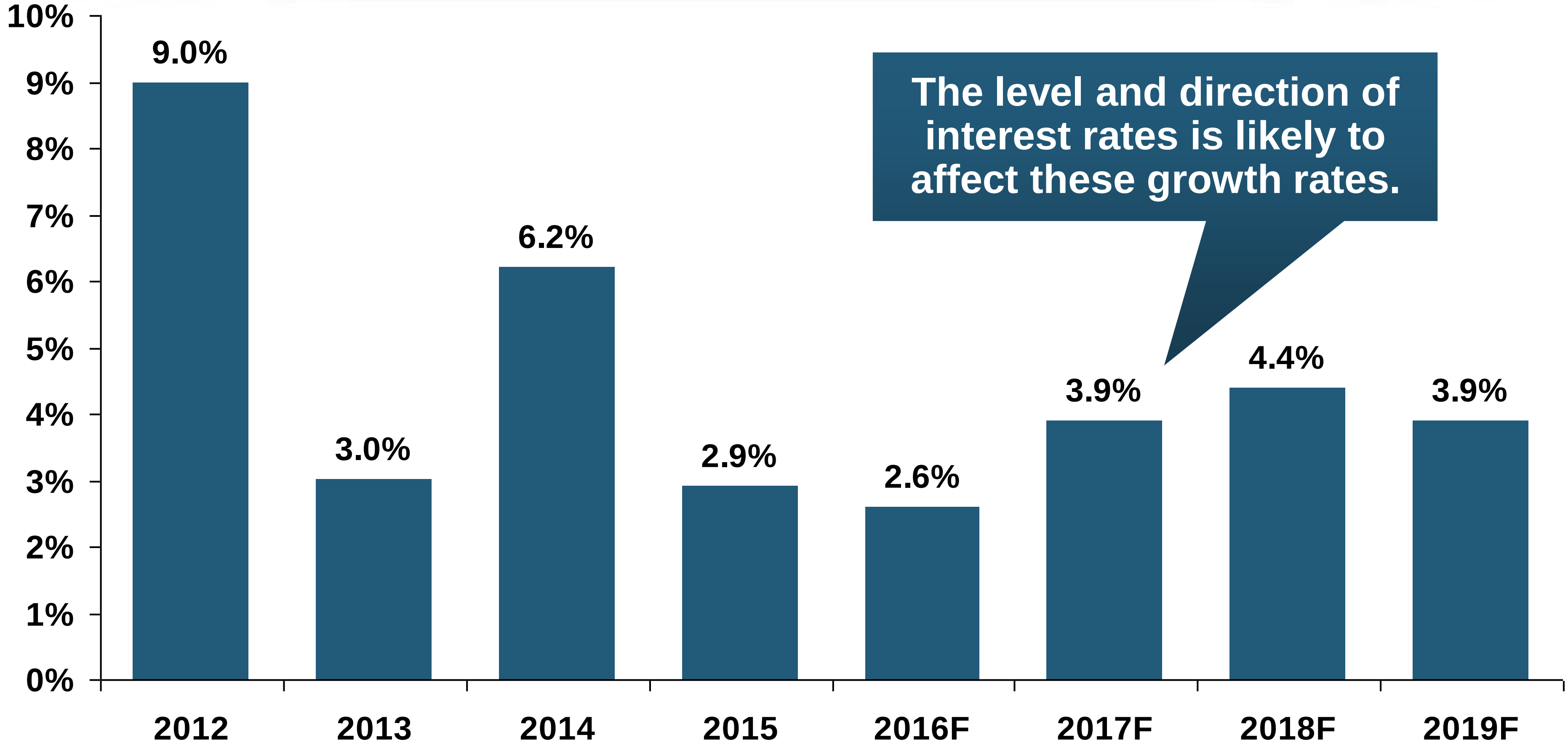
2007:Q1 to 2017:Q4F*



* = actual; = forecasts

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (3/16 edition); Insurance Information Institute.

Continued Business Investment Will Spur Commercial Exposure Growth



Continued business investment will be a potent driver of commercial property and liability insurance exposures. It should drive employment and WC payroll exposures as well (with a lag).

Sources: Blue Chip Economic Indicators, 2/2016 (history and forecasts for 2016 and 2017, 10/2015 for forecasts for 2018 and 2019; Insurance Information Institute.

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

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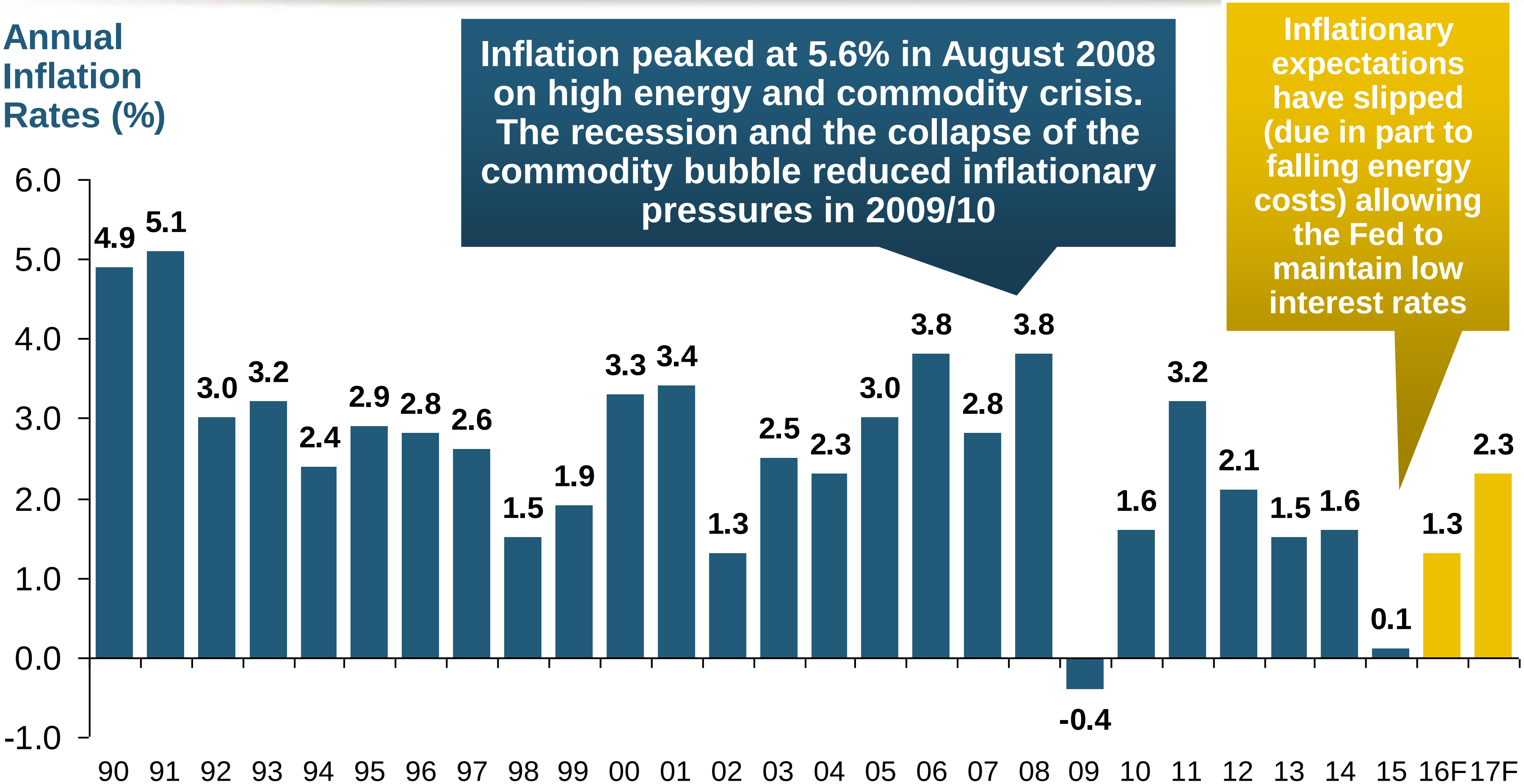
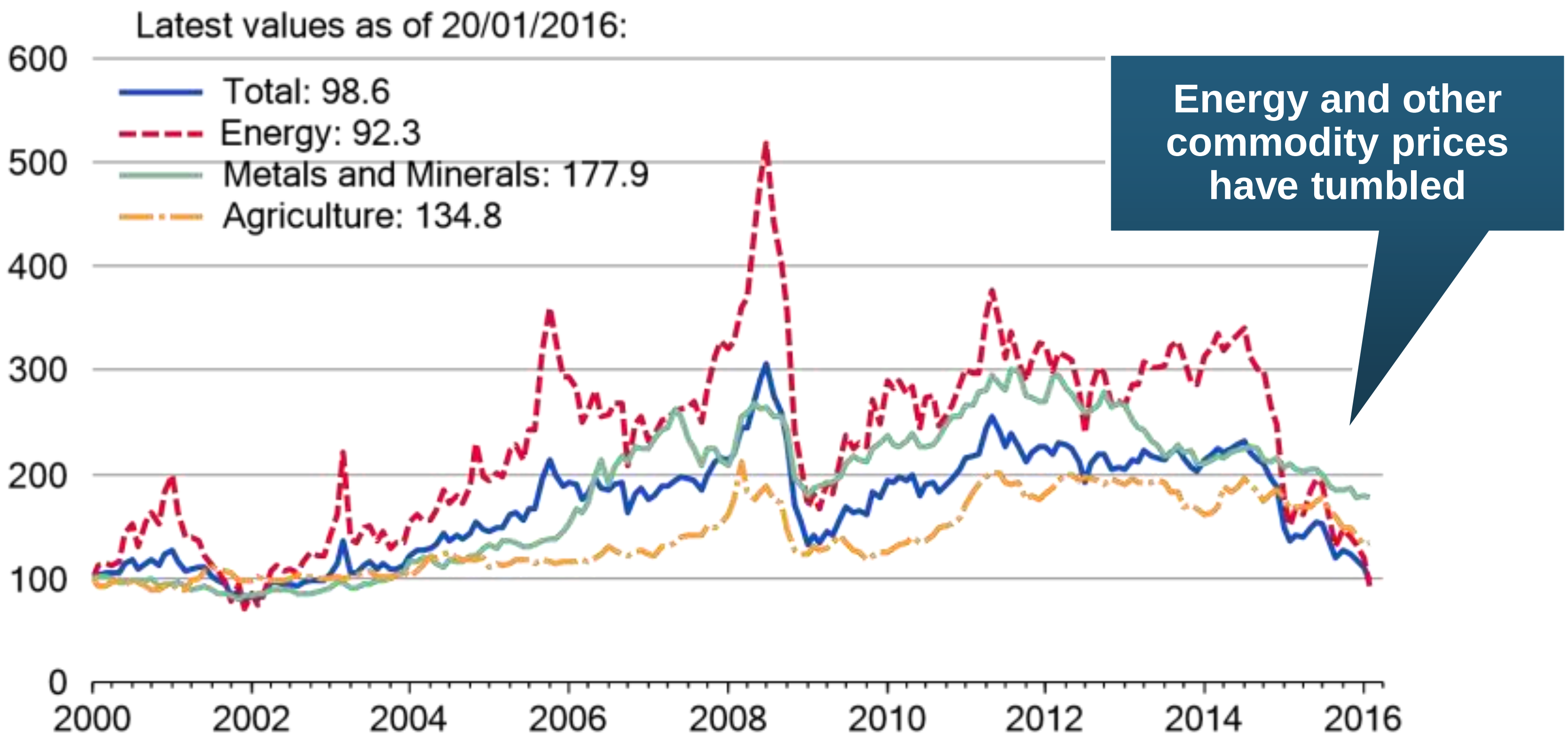


Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

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

Commodity Prices Have Plunged to Lowest Levels Since 2000

Bank of Canada, Commodity price indices, weekly data, (indexed to Jan 2000=100)



Note: Total index includes energy, metals & minerals, agriculture, forestry and fish.

Upside for most advanced economies, but a downside for commodity exporters

Source: Datastream from IUMI Hamburg 2016 presentation by Doug Harrell, Aspen Insurance.

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MANUFACTURING SECTOR OVERVIEW & OUTLOOK

The U.S. Manufacturing Sector Is Being Buffeted by a High Dollar, Weak Export Markets and Plunging Oil Prices

ISM Manufacturing Index
(Values > 50 Indicate Expansion)

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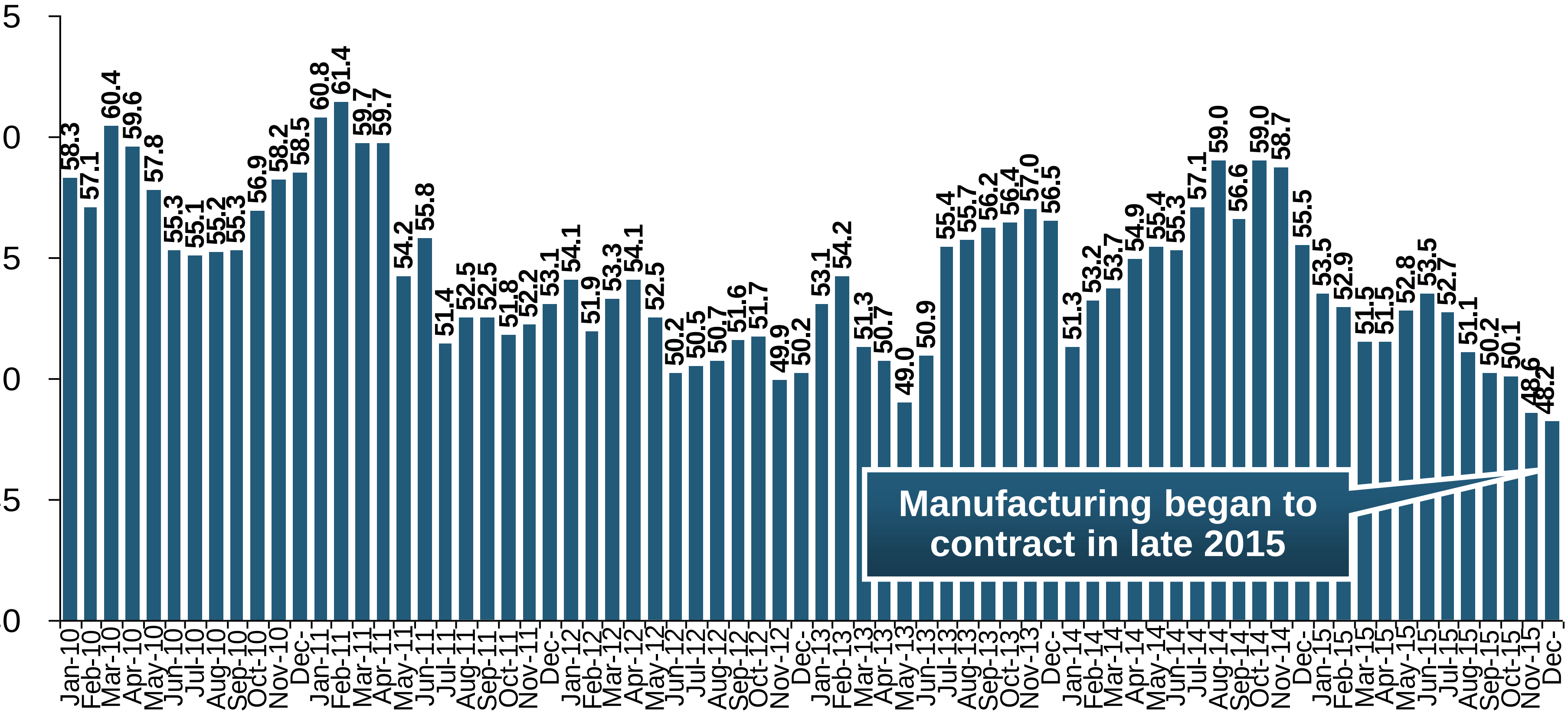
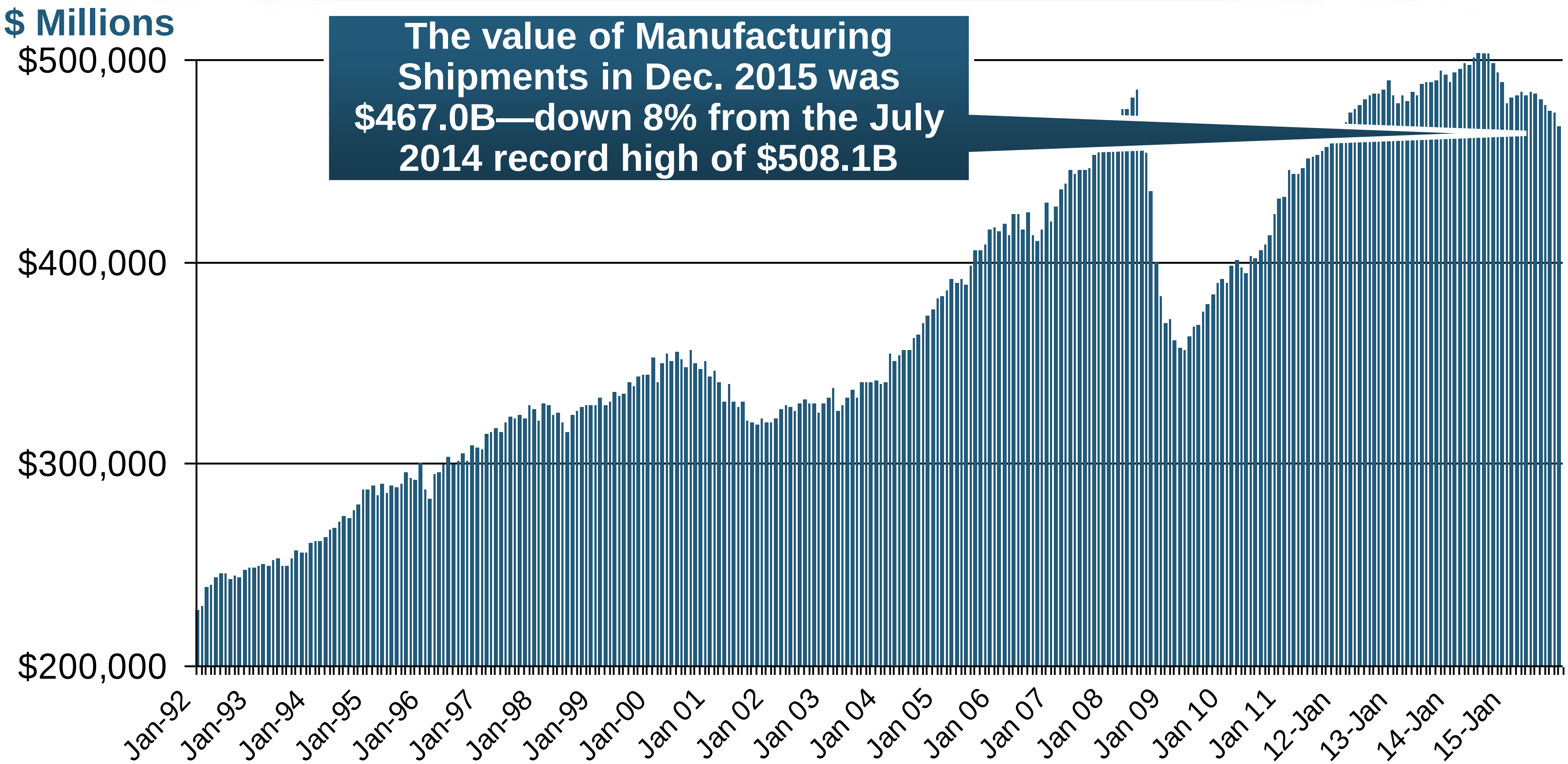
January 2010 through December 2015



The manufacturing sector expanded for 68 of the 72 months from Jan. 2010 through Dec. 2015. Manufacturing sector now appears to be in contraction 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.

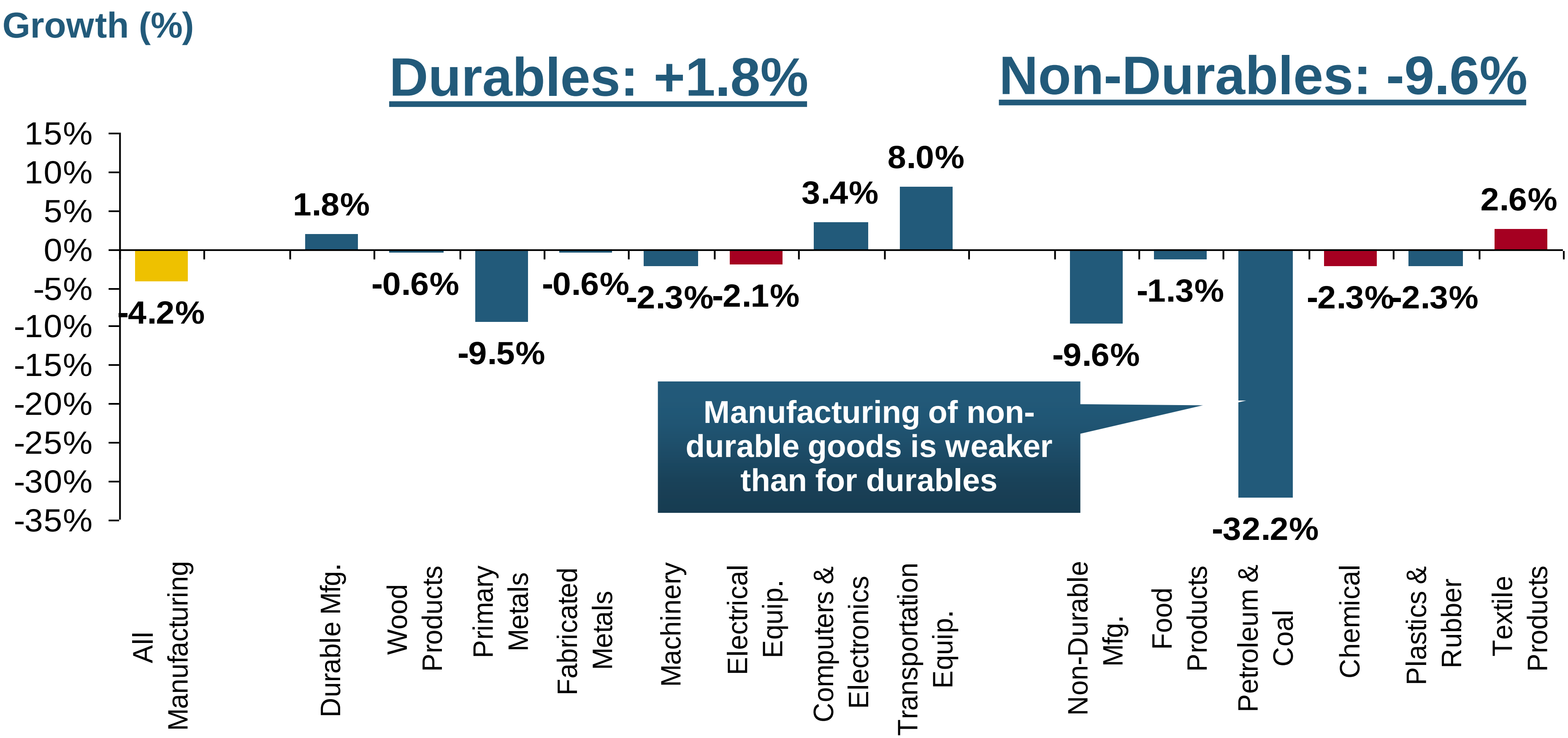
Dollar Value* of Manufacturers' Shipments Monthly, Jan. 1992—December 2015



Monthly shipments in Nov. 2014 exceeded the pre-crisis (July 2008) peak but has declined in recent months. Weakness abroad, falling energy prices and a strong dollar are hurting the 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 Feb. 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, 2015 vs. 2014*



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

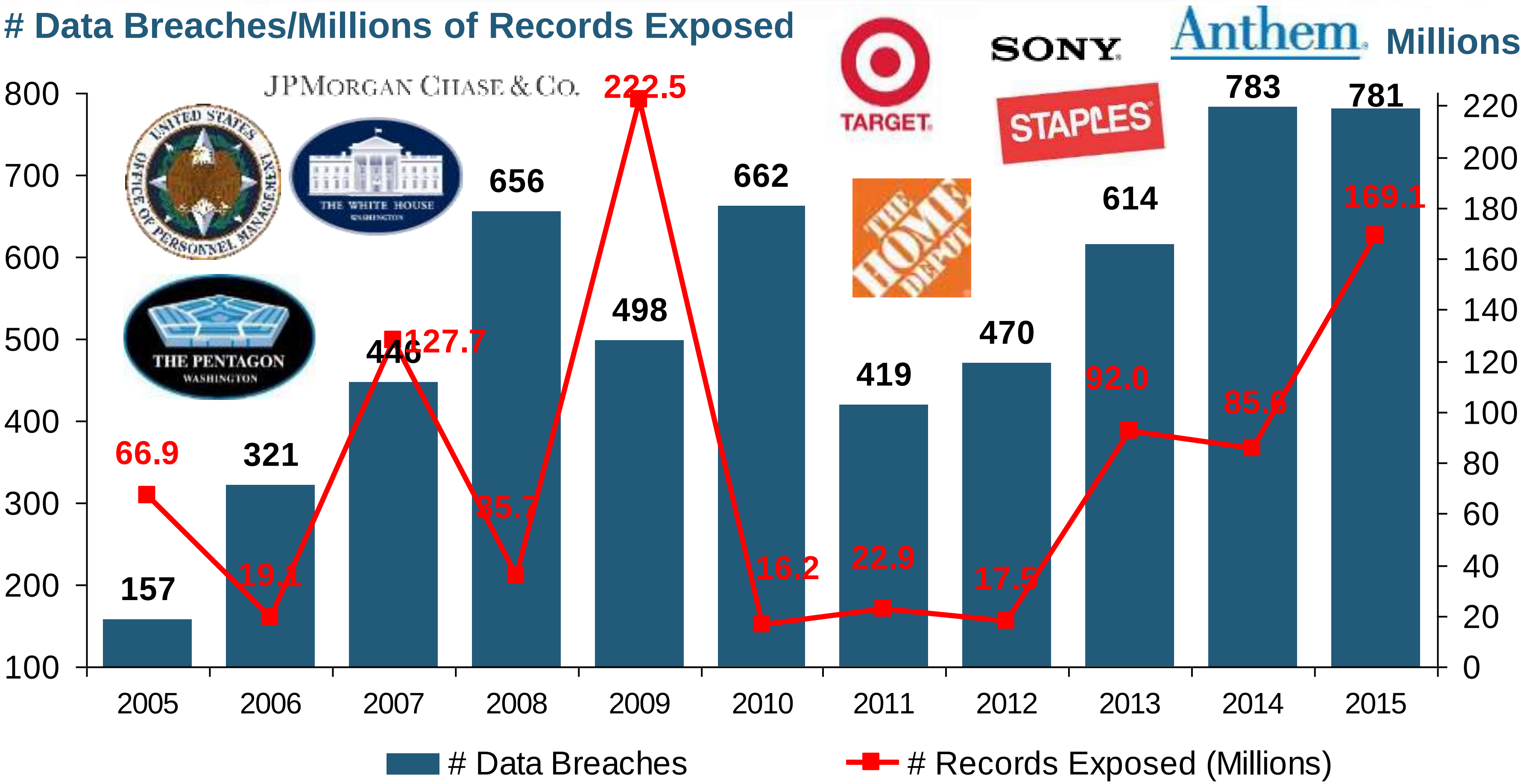
*Seasonally adjusted; Date are YTD comparing data through November 2015 to the same period in 2014.
Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders,* http://www.census.gov/manufacturing/m3/

CYBER RISK AND INSURANCE

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

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

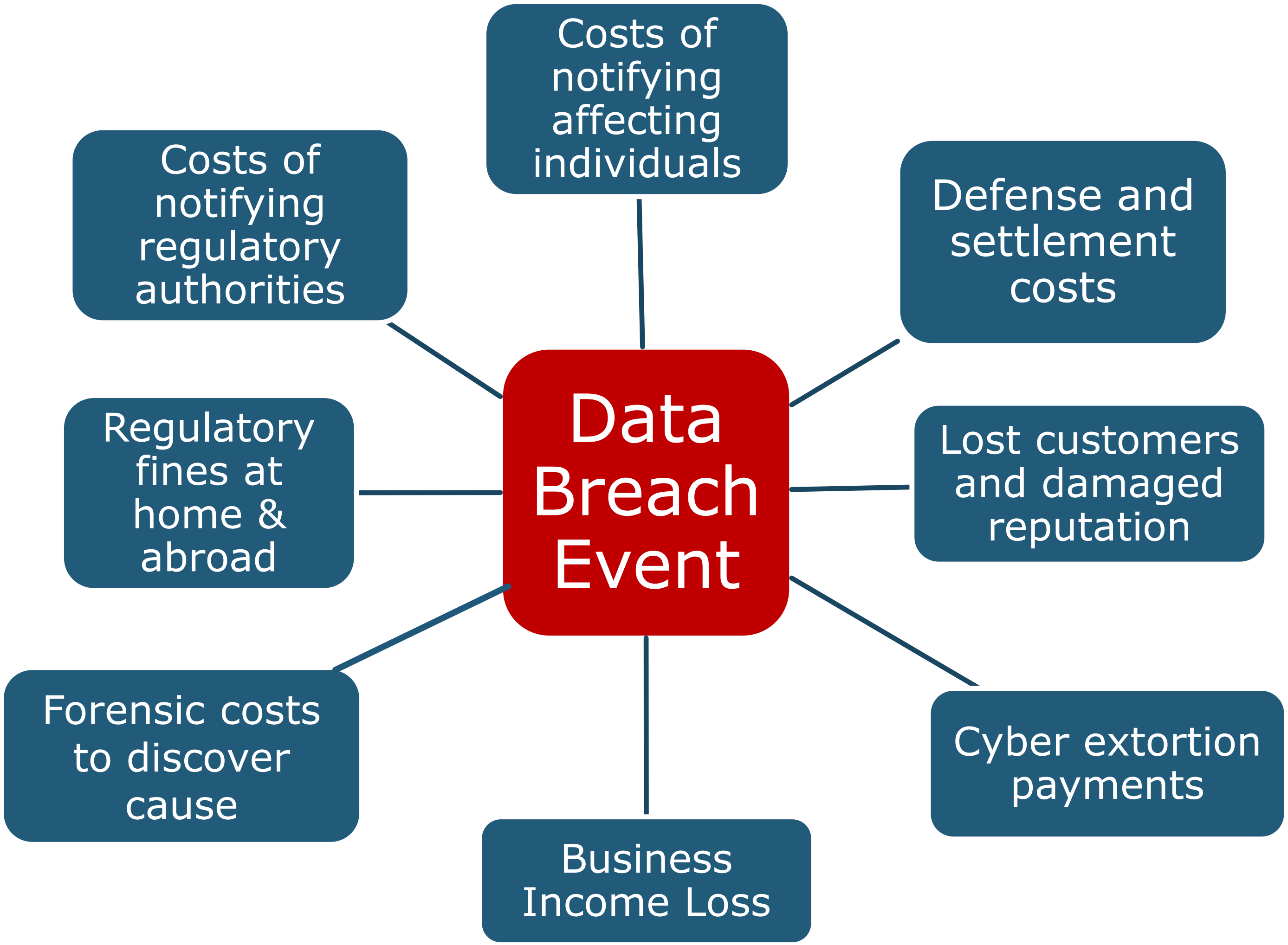
INSURANCE INFORMATION INSTITUTE



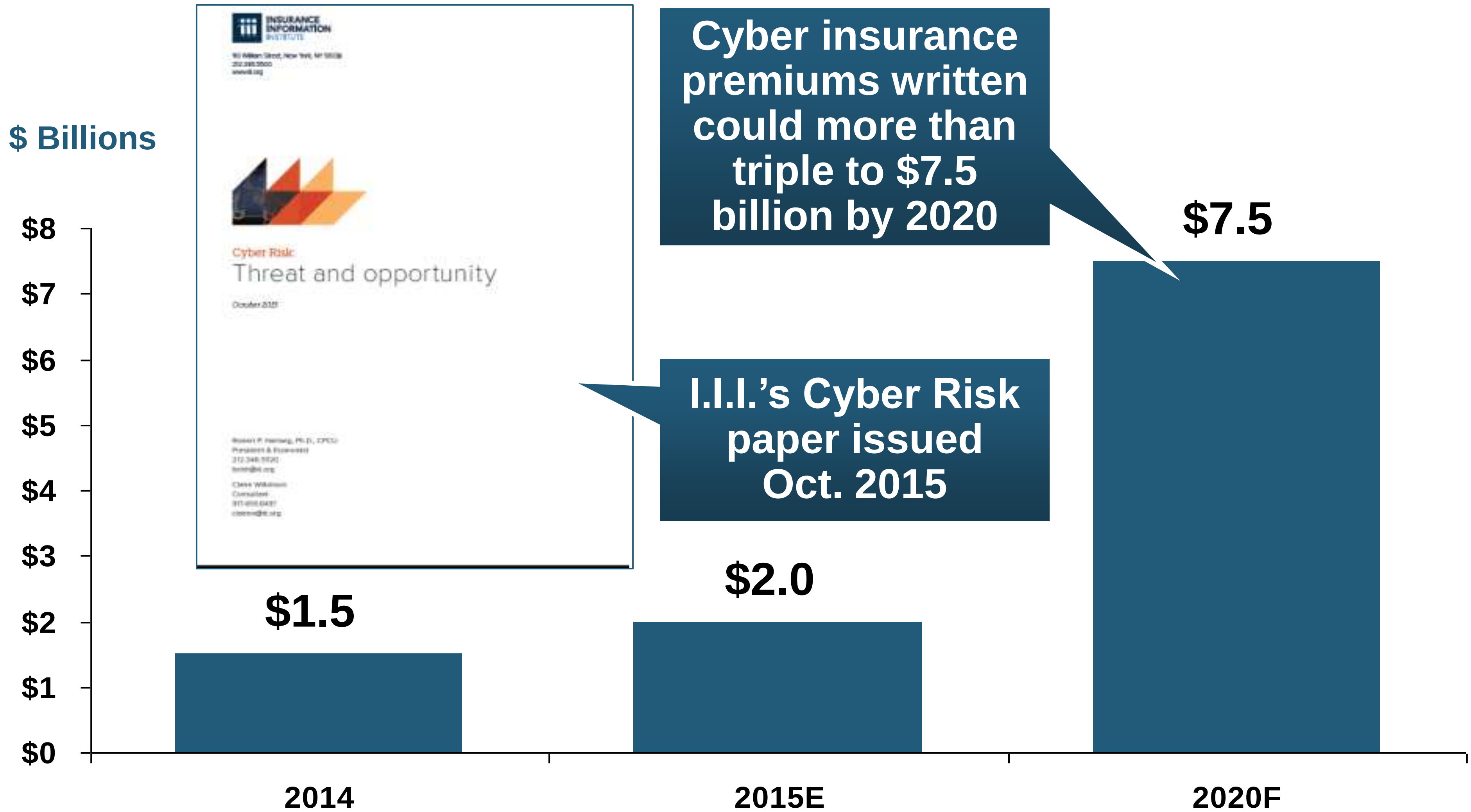
The 781 reported data breaches in 2015 was virtually unchanged form the record 783 reported in 2014. The number of exposed records soared to 169.1 million, and increase of 97.5%.

Source: Identity Theft Resource Center (updated as of Jan. 6, 2016); http://www.idtheftcenter.org/images/breach/ITRCBreachReport2015.pdf

Data/Privacy Breach: Many Potential Costs Can Be Insured



Estimated Cyber Insurance Premiums Written, 2014 – 2020F



Source: Advisen (2014 est.); PwC (2015, 2020); Insurance Information Institute.

Insured Catastrophe Losses

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

2016: Cat Activity Rising

U.S. Insured Catastrophe Losses

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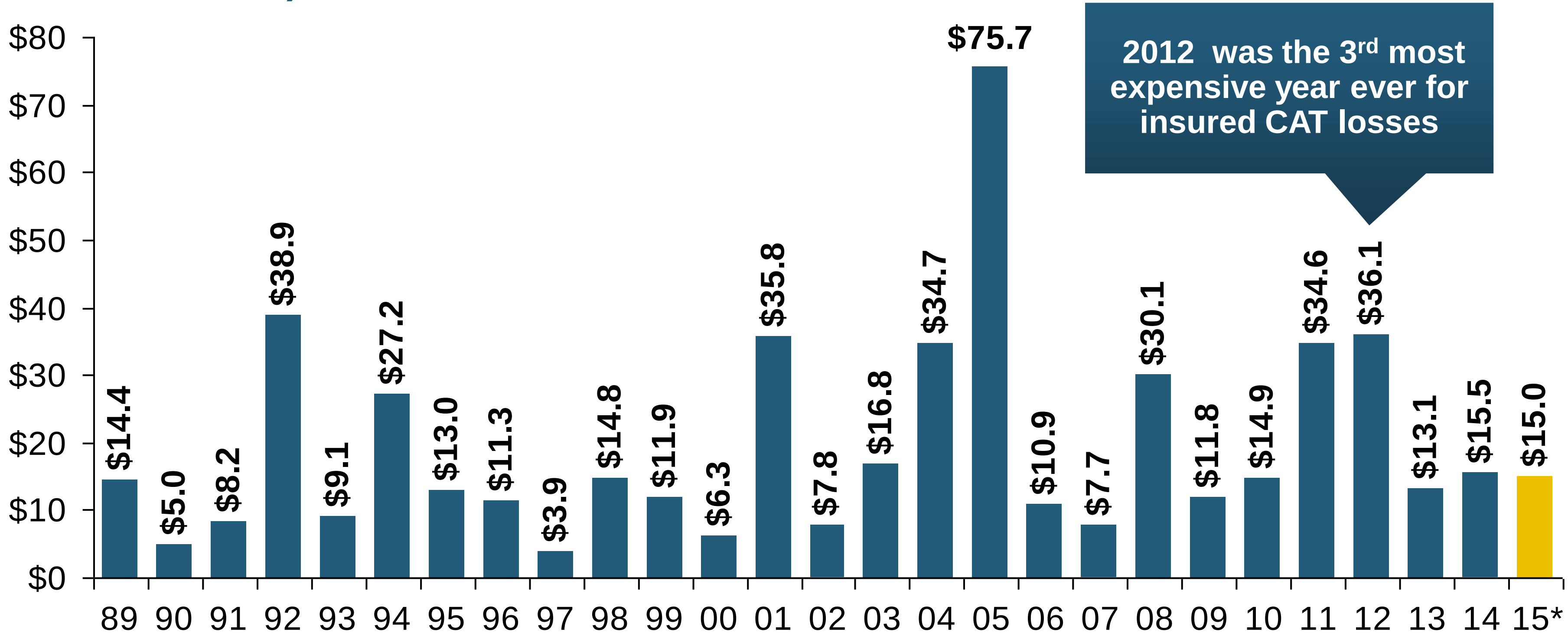
($ Billions, $ 2015)



2012 was the 3rd most expensive year ever for insured CAT 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

$15B in insured CAT losses though 12/31/15 (est.)

*Estimate hrough 12/31/15 in 2015 dollars.

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

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

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

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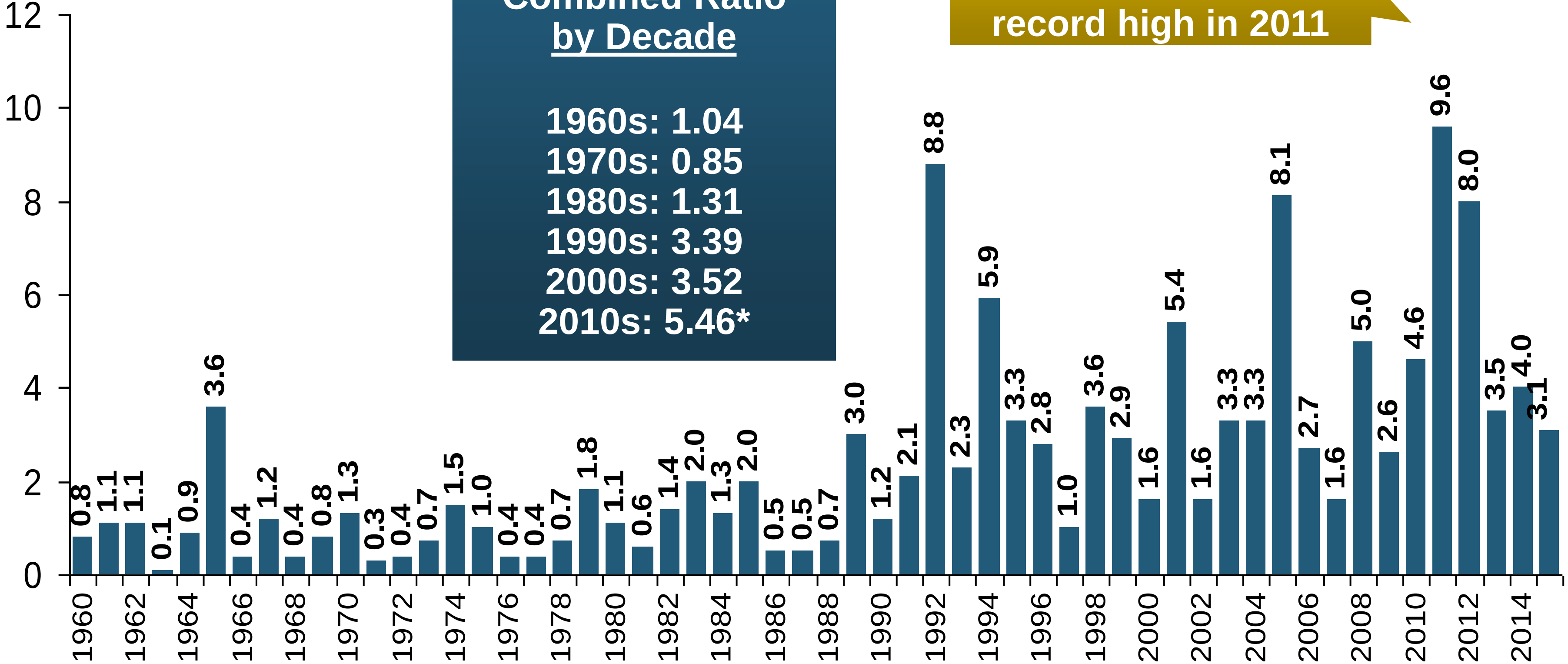
Combined Ratio Points

Avg. CAT Loss Component of the Combined Ratio by Decade

1960s: 1.04
1970s: 0.85
1980s: 1.31
1990s: 3.39
2000s: 3.52
2010s: 5.46*

Catastrophe losses as a share of all losses reached a record high in 2011



The Catastrophe Loss Component of Private Insurer Losses Has Increased Sharply in Recent Decades

*2010s represent 2010-2015E.

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 (1960-2009); A.M. Best (2010-15E) Insurance Information Institute.

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

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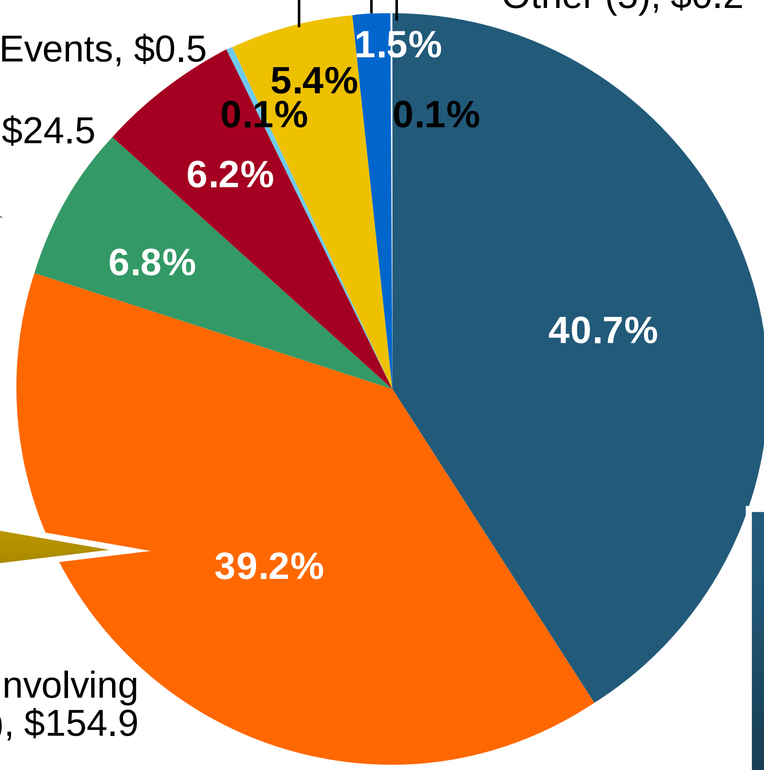
Winter storm losses were much above average in 2014/15 are will push this share up



Insured cat losses from 1995-2014 totaled $395.6B, an average of $19.8B per year or $1.65B per month

Tornado share of CAT losses is rising

Wind losses are by far cause the most catastrophe losses, even if hurricanes/TS are excluded.

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

Source: ISO's Property Claim Services Unit.

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

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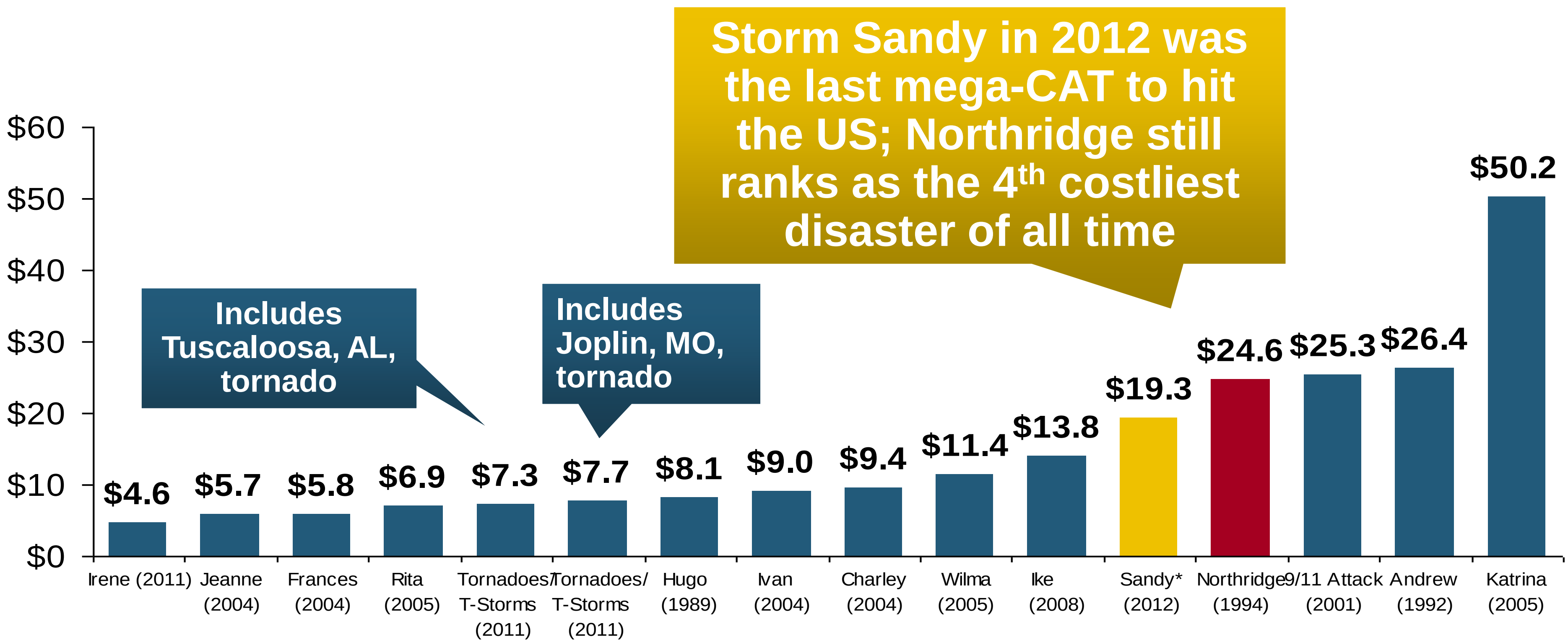
(Insured Losses, 2014 Dollars, $ Billions)

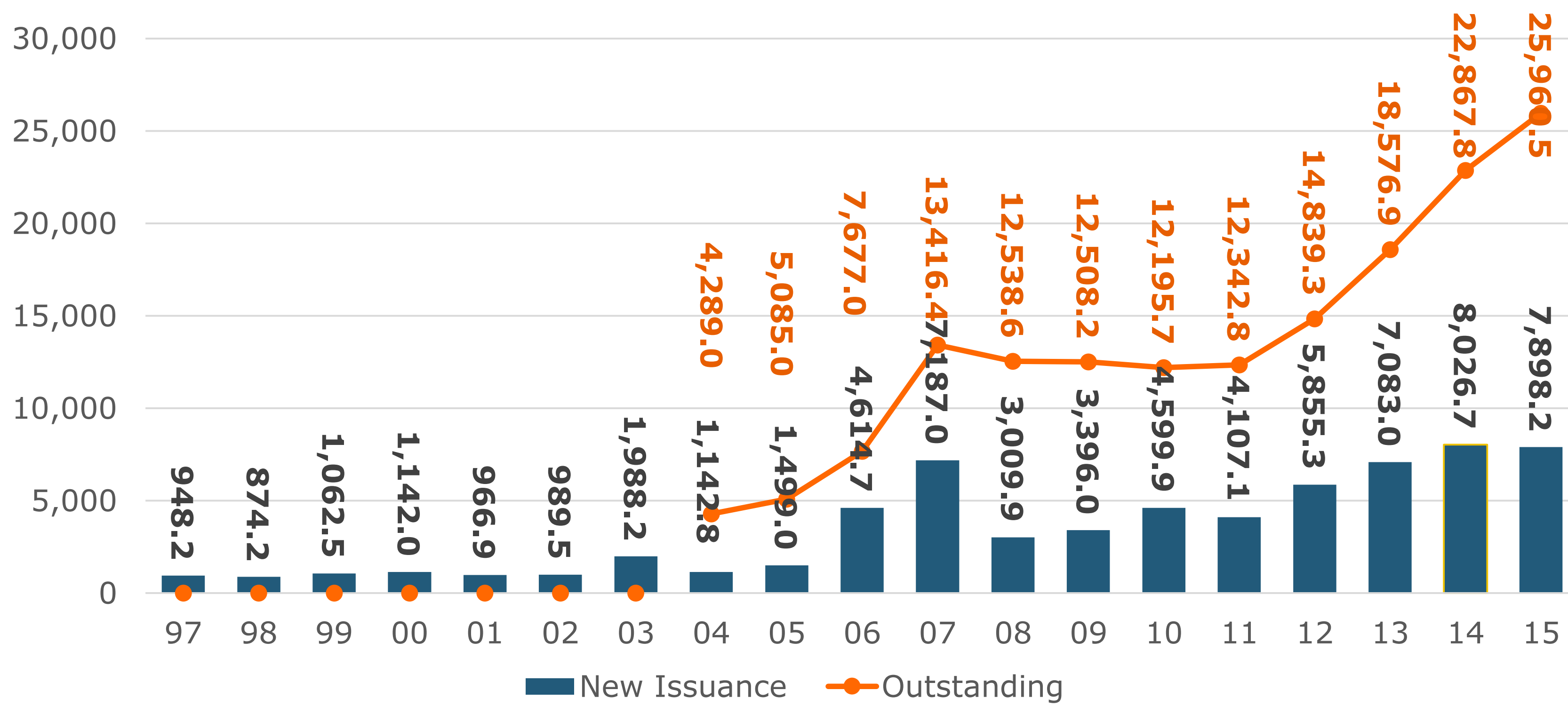


12 of the 16 Most Expensive Events in US History Have Occurred Since 2004

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

Catastrophe Bond Issuance and Outstanding: 1997-2015

Risk Capital Amount ($ Millions)

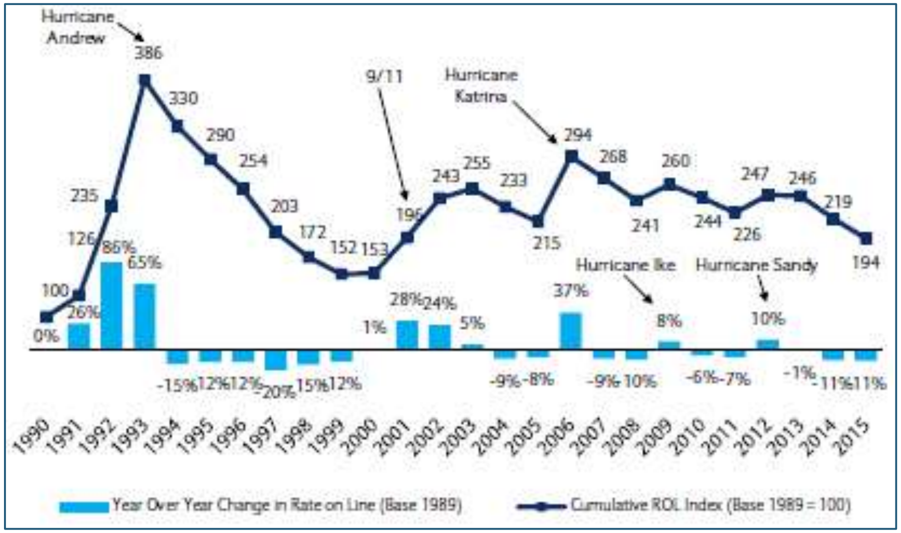


Cat Bond Issuance Declined Slightly in 2015 from 2014's Record Pace. Lower Yields on Bonds Explain Some of the Contraction.

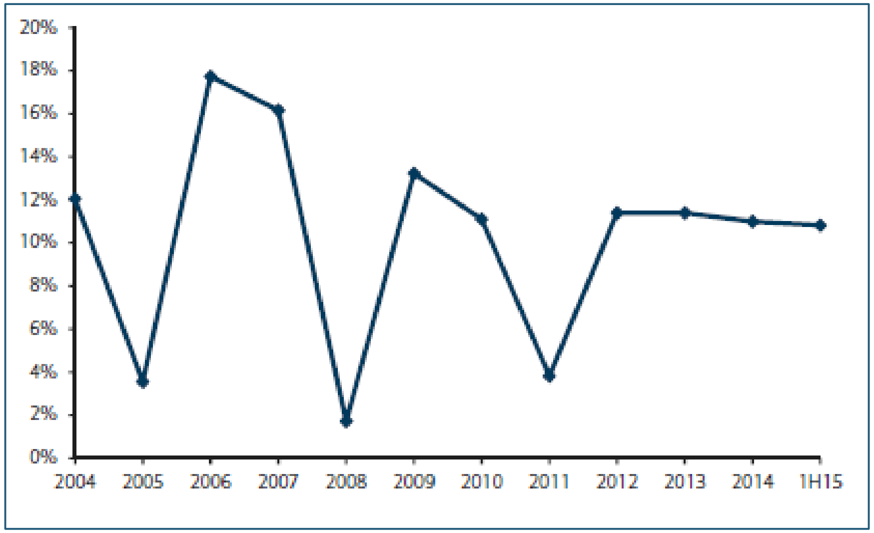
Source: Guy Carpenter, Artemis accessed at http://www.artemis.bm/deal_directory/cat_bonds_ils_issued_outstanding.html .

US Property CAT Rate on Line Index & Global Reinsurance ROE

US Property CAT ROL



Global Reinsurance ROE



Record traditional capacity, alternative capital and low CAT activity have pressured reinsurance prices; ROEs are own only very modestly

Source: Barclays PLC from Guy Carpenter; Insurance Information Institute.

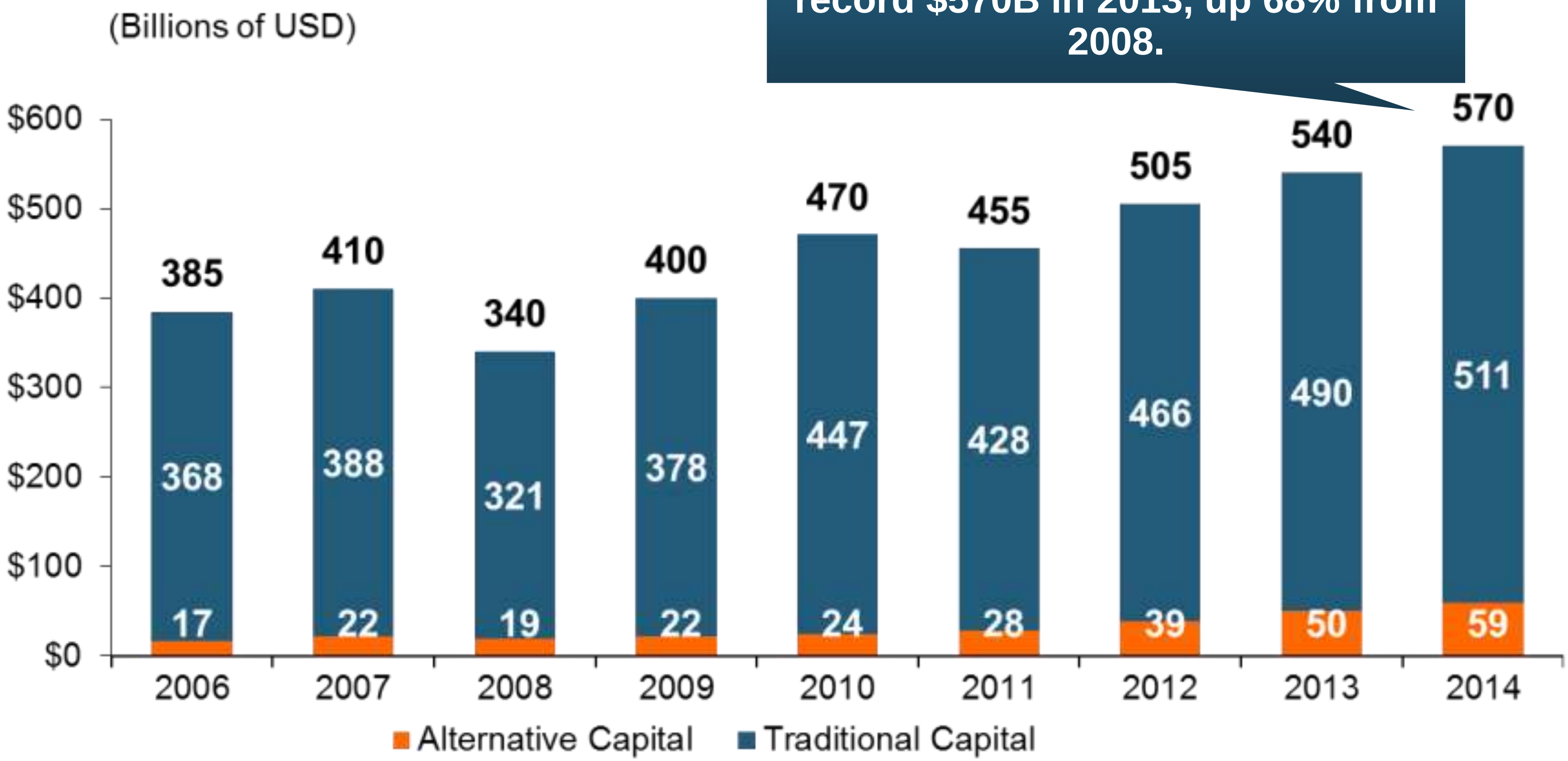
Alternative Capital

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

Total reinsurance capital reached a record $570B in 2013, up 68% from 2008.

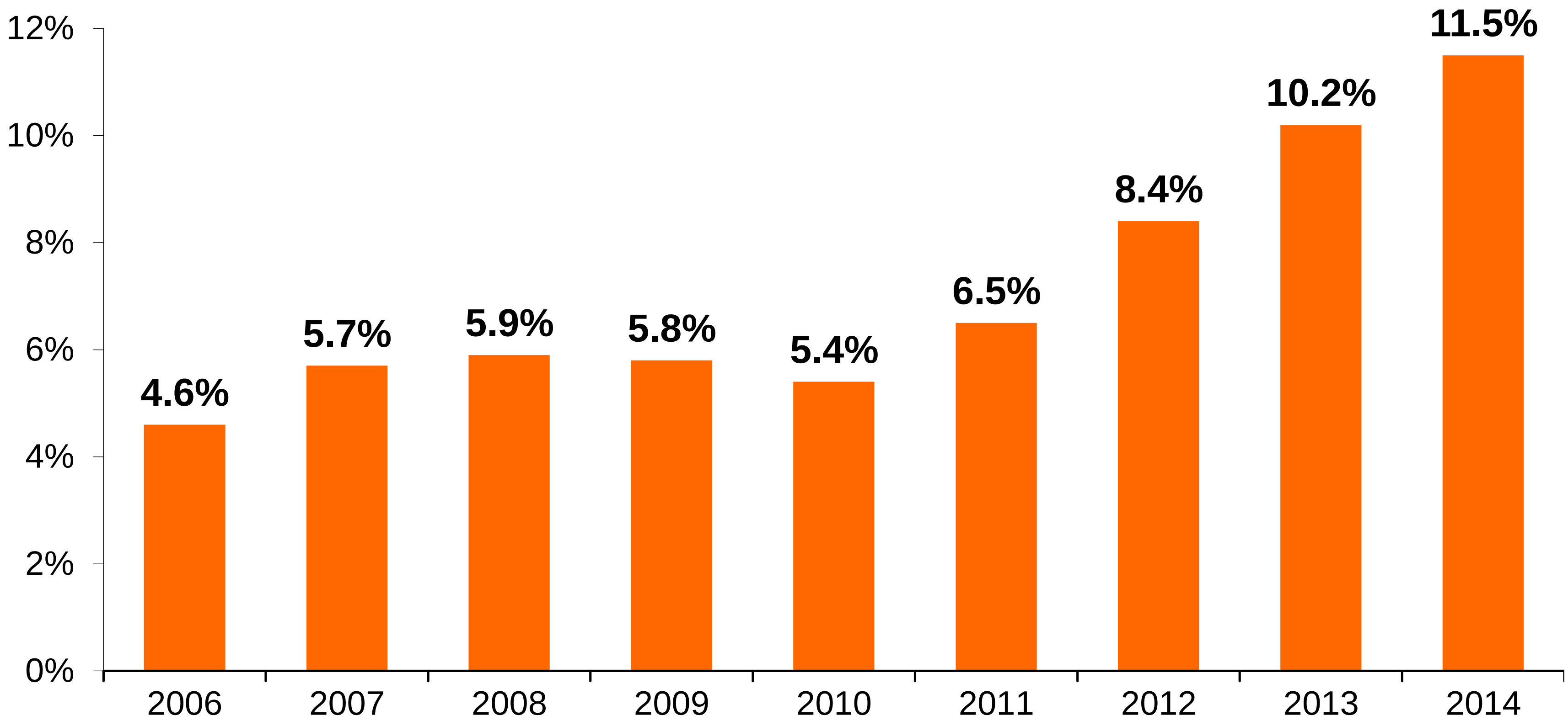


But alternative capacity has grown 210% since 2008, to $50B. It has more than doubled in the past three years.

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.

Catastrophe Bond Issuance and Outstanding: 1997-2015

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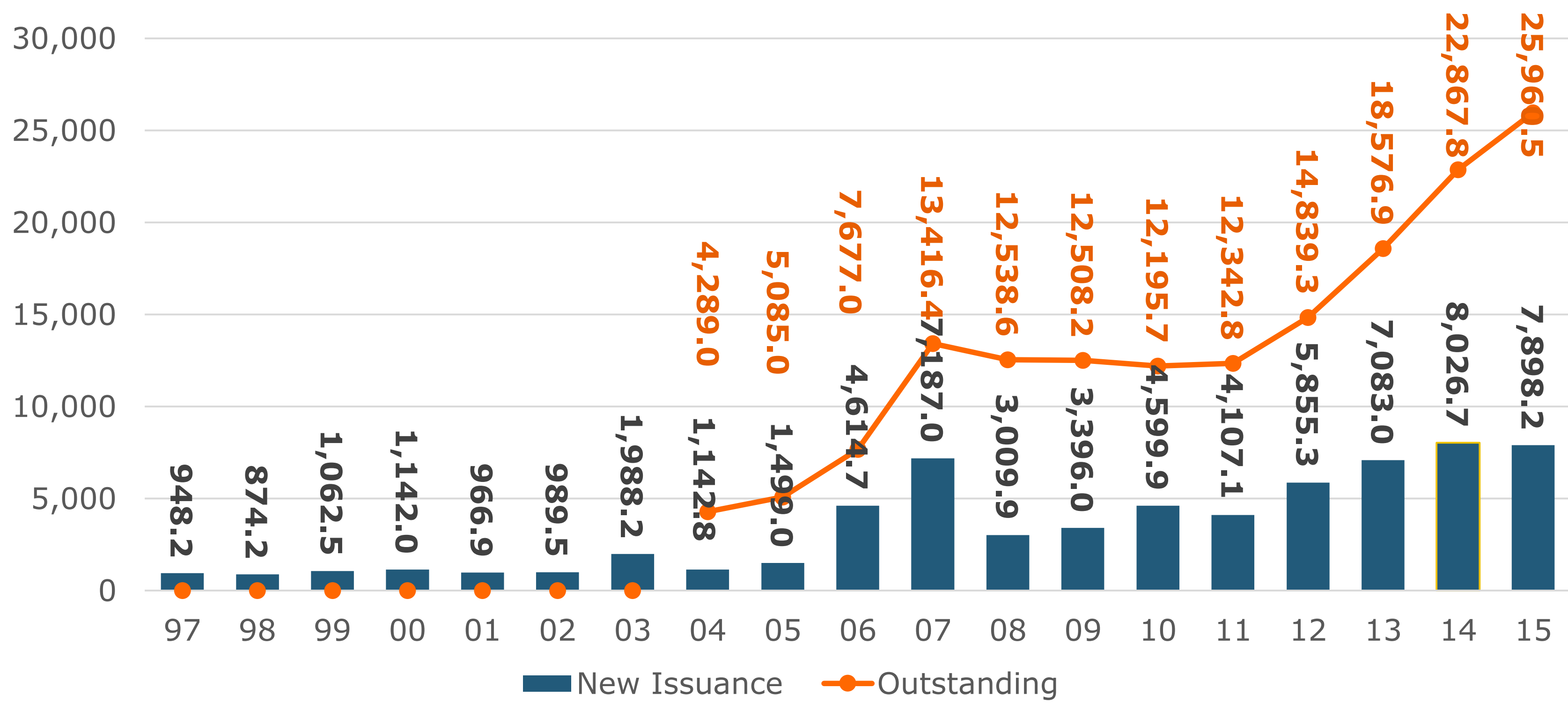
Risk Capital Amount ($ Millions)



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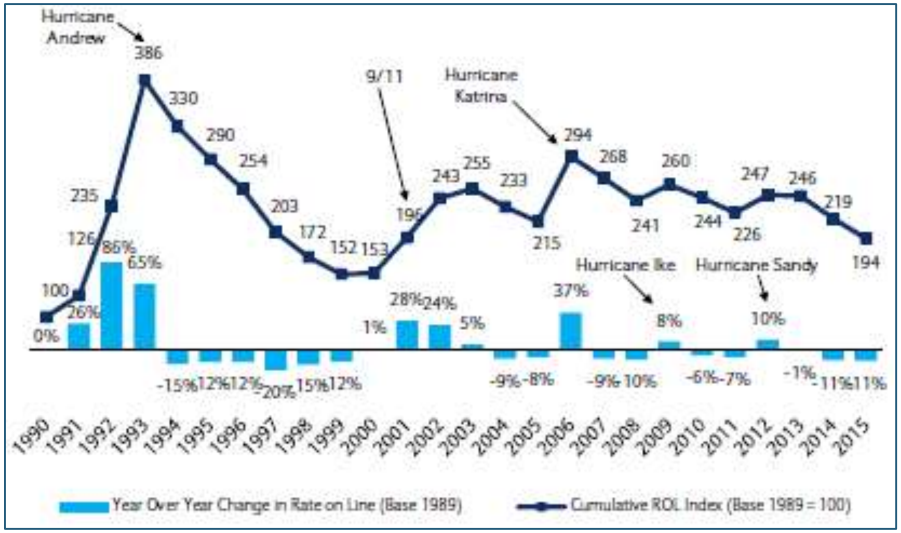
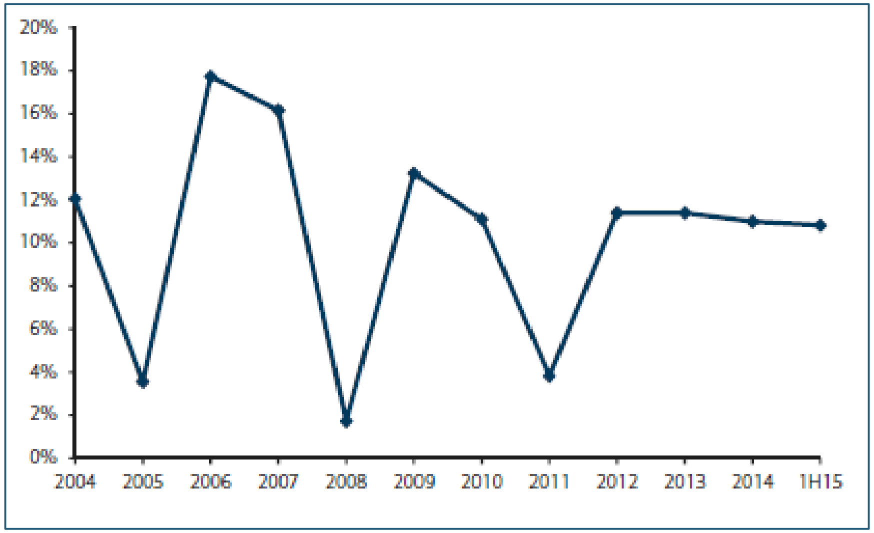
US Property CAT ROL



Global Reinsurance ROE



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Source: Barclays PLC from Guy Carpenter; Insurance Information Institute.

Insurance Information Institute Online:

www.iii.org

Thank you for your time and your attention!

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