



# Turning (Non-Life) Markets: History, Triggers, Catalysts and Impediments

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- **Historical Criteria, Triggers and Catalysts Associated With “Market Turns” in Non-Life Insurance Markets**
  - ◆ Underwriting Loss Trends
  - ◆ Capital/Capacity
  - ◆ Reinsurance Markets
  - ◆ Pricing Discipline
  
- **Other Contributing Factors to the Underwriting Cycle**
  - ◆ Investment Environment
  - ◆ Tort/Casualty Environment
  - ◆ Inflation
  - ◆ Economy (Supply/Demand)
  
- **Q&A**



## **Historically Four Criteria Must Be Met for a “Hard Market”**

**Factors Contributing to Markets Turns Are Consistent Over Time, Though the “Great Recession” Has Altered the Cyclical Dynamics**

# Traditional Criteria Necessary for a “Market Turn”: *All Four Criteria Must Be Met*

Criteria	Status	Comments on Current Situation
<b>Sustained Period of Large Underwriting Losses</b>	<i>Early Stage</i>	<ul style="list-style-type: none"> <li>• Apart from 2011 CAT losses, overall p/c underwriting losses remain modest</li> <li>• Combined ratios (ex-CATs) still in low 100s (vs. 110+ at onset of last hard market)</li> <li>• Prior-year reserve releases continue to reduce u/w losses, boost ROEs, though more modestly</li> </ul>
<b>Material Decline in Surplus/ Capacity</b>	<i>Entered 2011 At Record High; Since Fallen</i>	<ul style="list-style-type: none"> <li>• Surplus hit a record \$565B as of 3/31/11</li> <li>• Fell by 4.6% through 9/30/11 (latest available)</li> <li>• Little excess capacity remains in reinsurance markets</li> <li>• Weak growth in demand for insurance is insufficient to absorb much excess capacity</li> </ul>
<b>Tight Reinsurance Market</b>	<i>Somewhat in Place</i>	<ul style="list-style-type: none"> <li>• Much of the global “excess capacity” was eroded by cats</li> <li>• Higher prices in Asia/Pacific</li> <li>• Modestly higher pricing for US risks</li> </ul>
<b>Renewed Underwriting &amp; Pricing Discipline</b>	<i>Spotty; Some Firming esp. in Property, WC</i>	<ul style="list-style-type: none"> <li>• Commercial lines pricing trends have turned from negative to flat or up in some lines (property, WC); Casualty is flat.</li> <li>• Competition remains intense as many seek to maintain market share</li> </ul>



**Historical Premium Growth  
Trends Clearly Show Cyclicity  
Primarily Driven by Large,  
Sustained Underwriting Losses**

**Is There Evidence of a Broad  
and Sustained Shift in Pricing  
Today?**

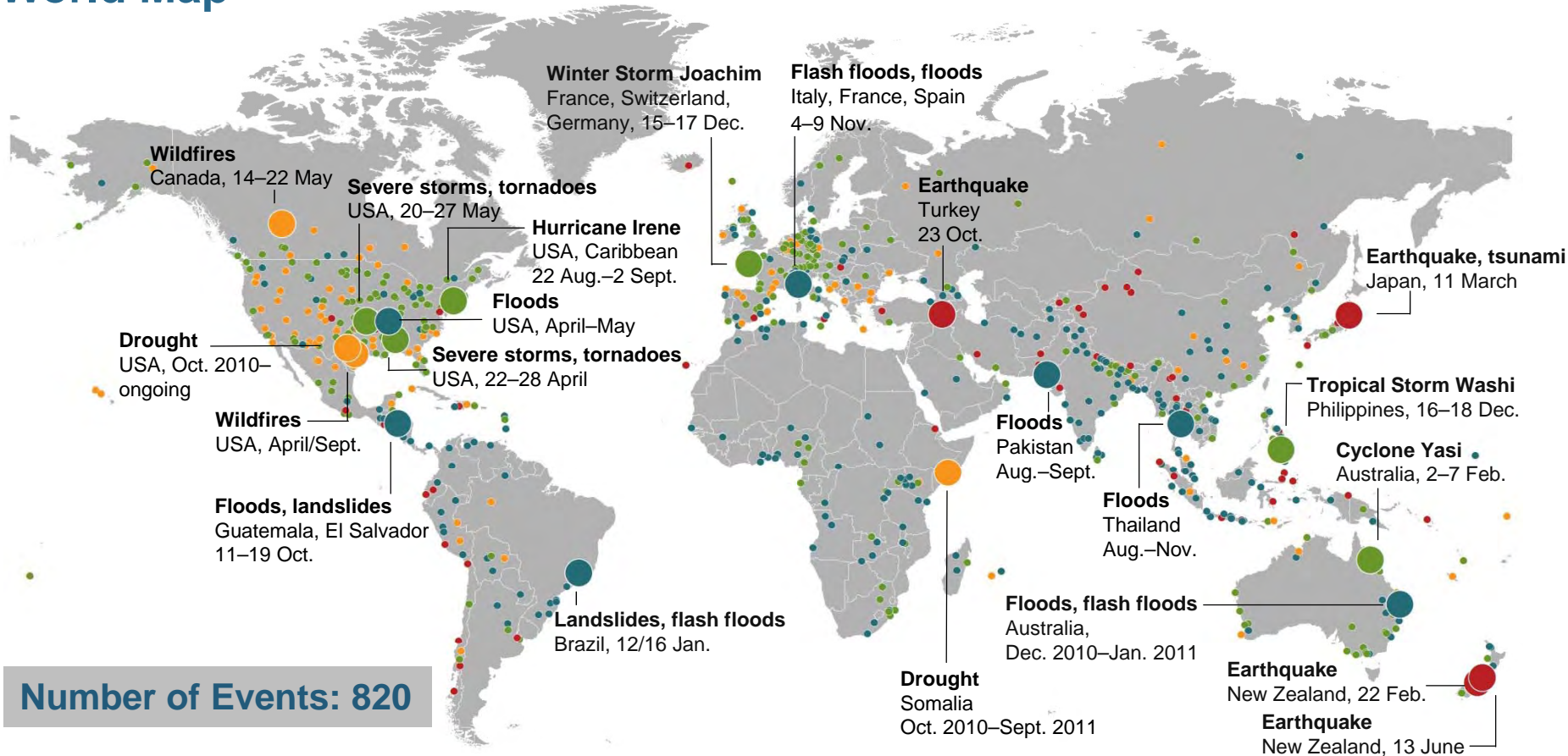
# 1. UNDERWRITING

**Have Underwriting Losses  
Been Large Enough for Long  
Enough to Turn the Market?**

***Effect of Reserve Releases?***

# Natural Loss Events, 2011

## World Map

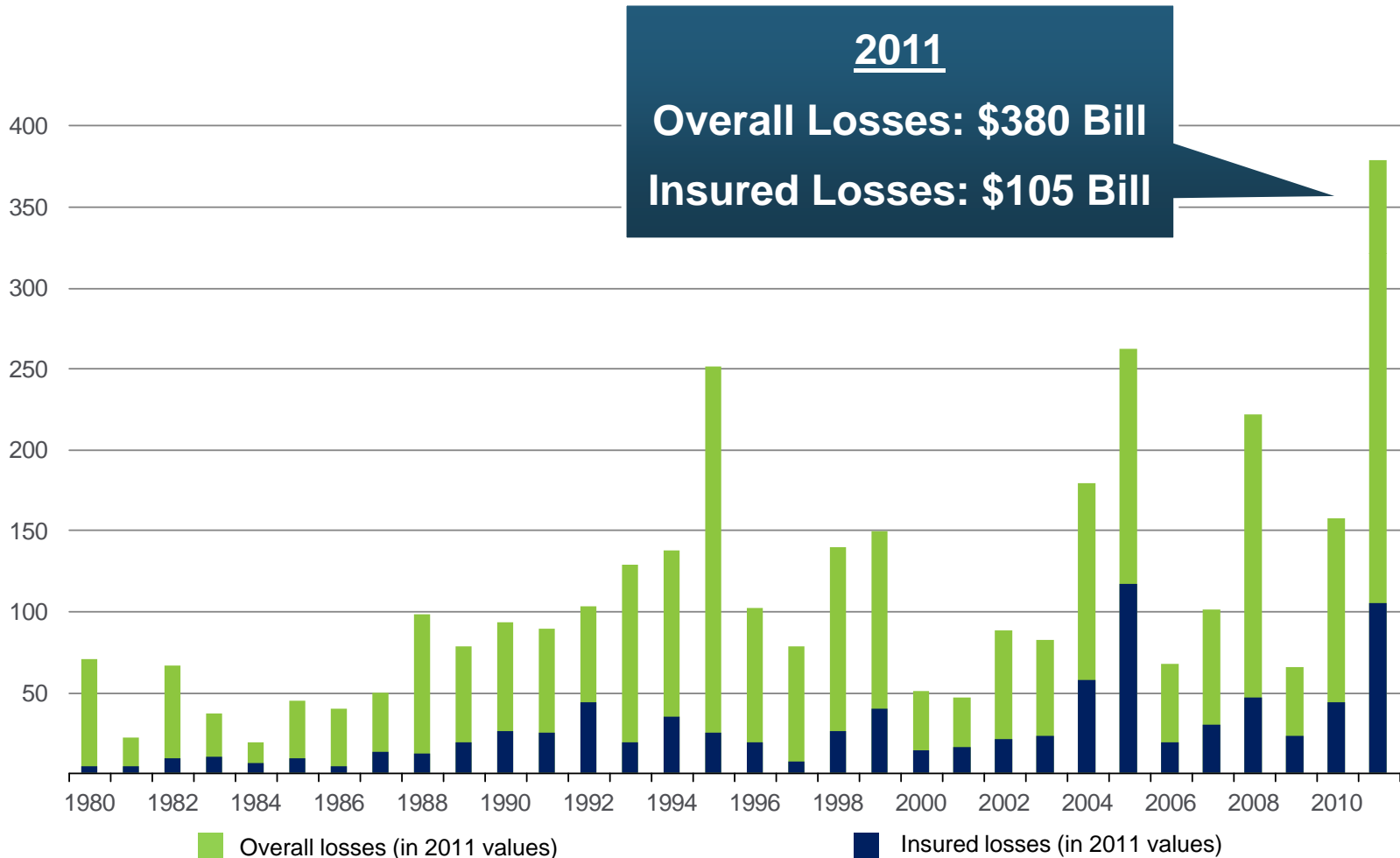


**Number of Events: 820**

○ <b>Natural catastrophes</b>	● <b>Geophysical events</b> (earthquake, tsunami, volcanic activity)	● <b>Hydrological events</b> (flood, mass movement)
○ <b>Selection of significant loss events (see table)</b>	● <b>Meteorological events</b> (storm)	● <b>Climatological events</b> (extreme temperature, drought, wildfire)

# Worldwide Natural Disasters 1980–2011, Overall and Insured Losses

(Insured Losses, 2011 Dollars, \$ Billions)

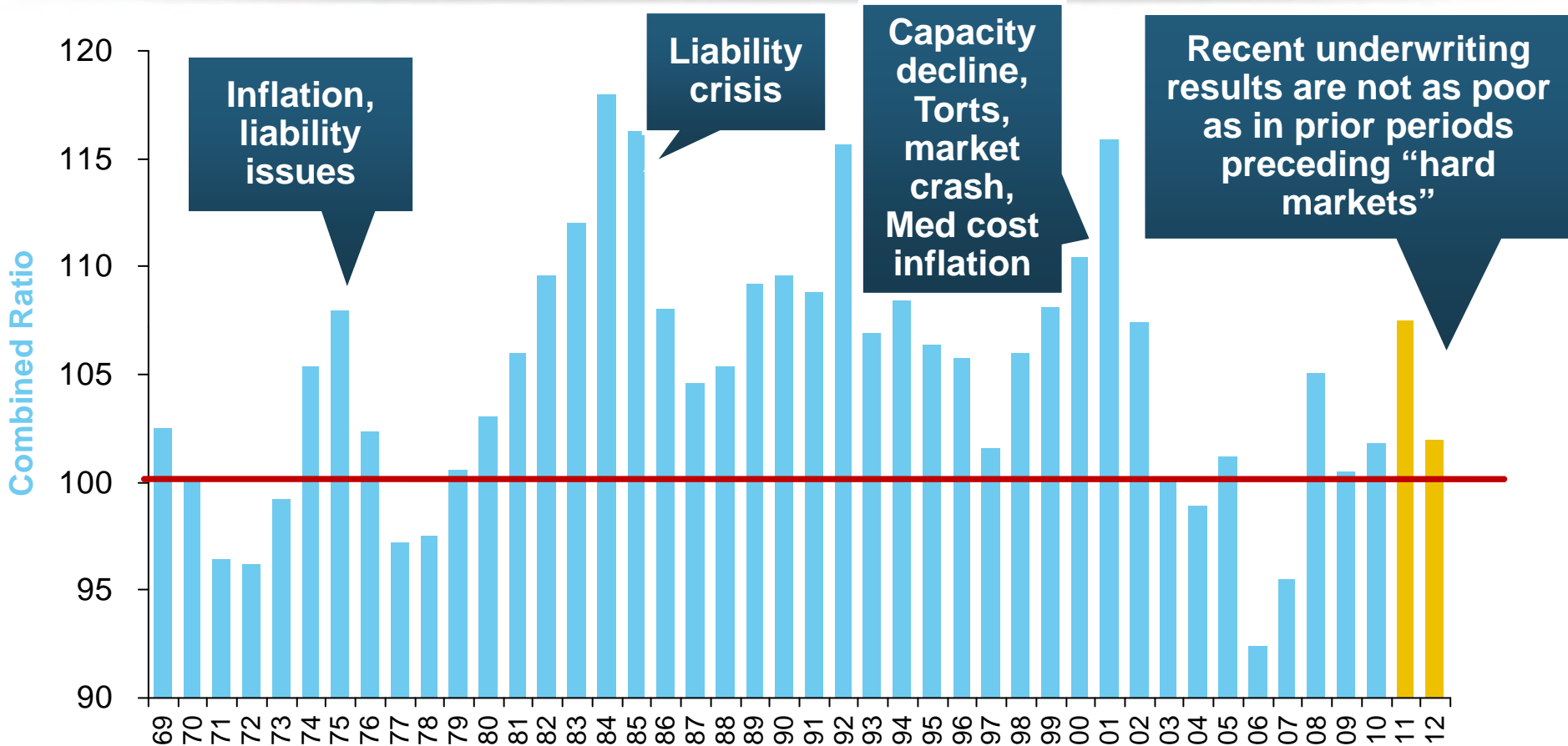




# Global Catastrophe Loss Summary: 2011

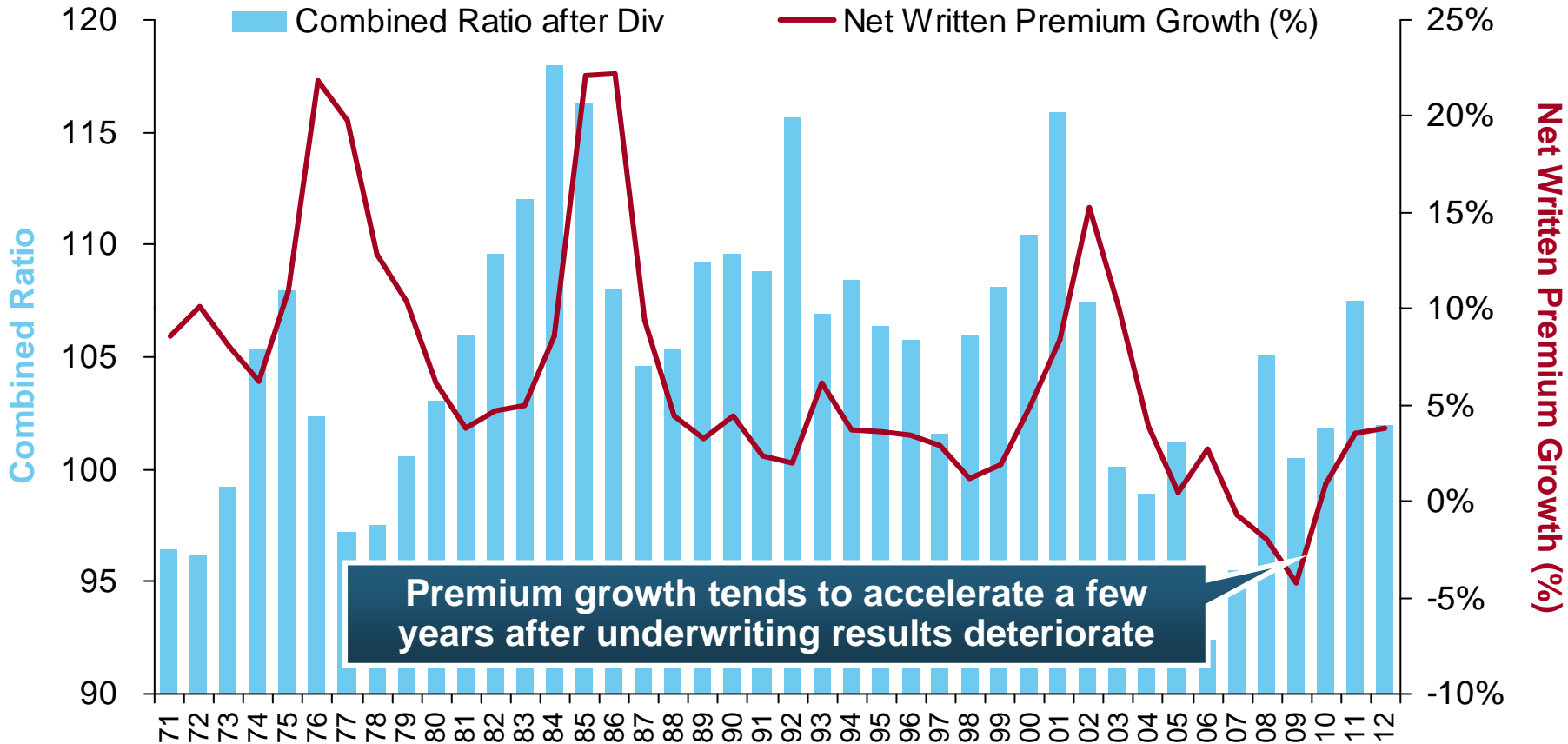
- **2011 Was the *Highest* Loss Year on Record for Economic Losses Globally**
  - ◆ Extraordinary accumulation of severe natural catastrophe: Earthquakes, tsunami, floods and tornadoes are the primary causes of loss
- **\$380 Billion in *Economic* Losses Globally (New Record)**
  - ◆ New record, exceeding the previous record of \$270B in 2005
- **\$105 Billion in *Insured* Losses Globally**
  - ◆ 2011 losses were 2.5 times 2010 insured losses of \$42B
  - ◆ Second only to 2005 on an inflation adjusted basis (new record on a unadjusted basis)
  - ◆ Over 5 times the 30-year average of \$19B
- **\$72.8 Billion in *Economic* Losses in the US**
  - ◆ Represents a 129% increase over the \$11.8 billion amount through the first half of 2010
- **\$35.9 Billion in *Insured* Losses in the US Arising from 171 CAT Events**
  - ◆ Fifth highest year on record
  - ◆ Represents 51% increase over the \$23.8 billion total in 2010

# US Non-Life Combined Ratio, 1969-2012F



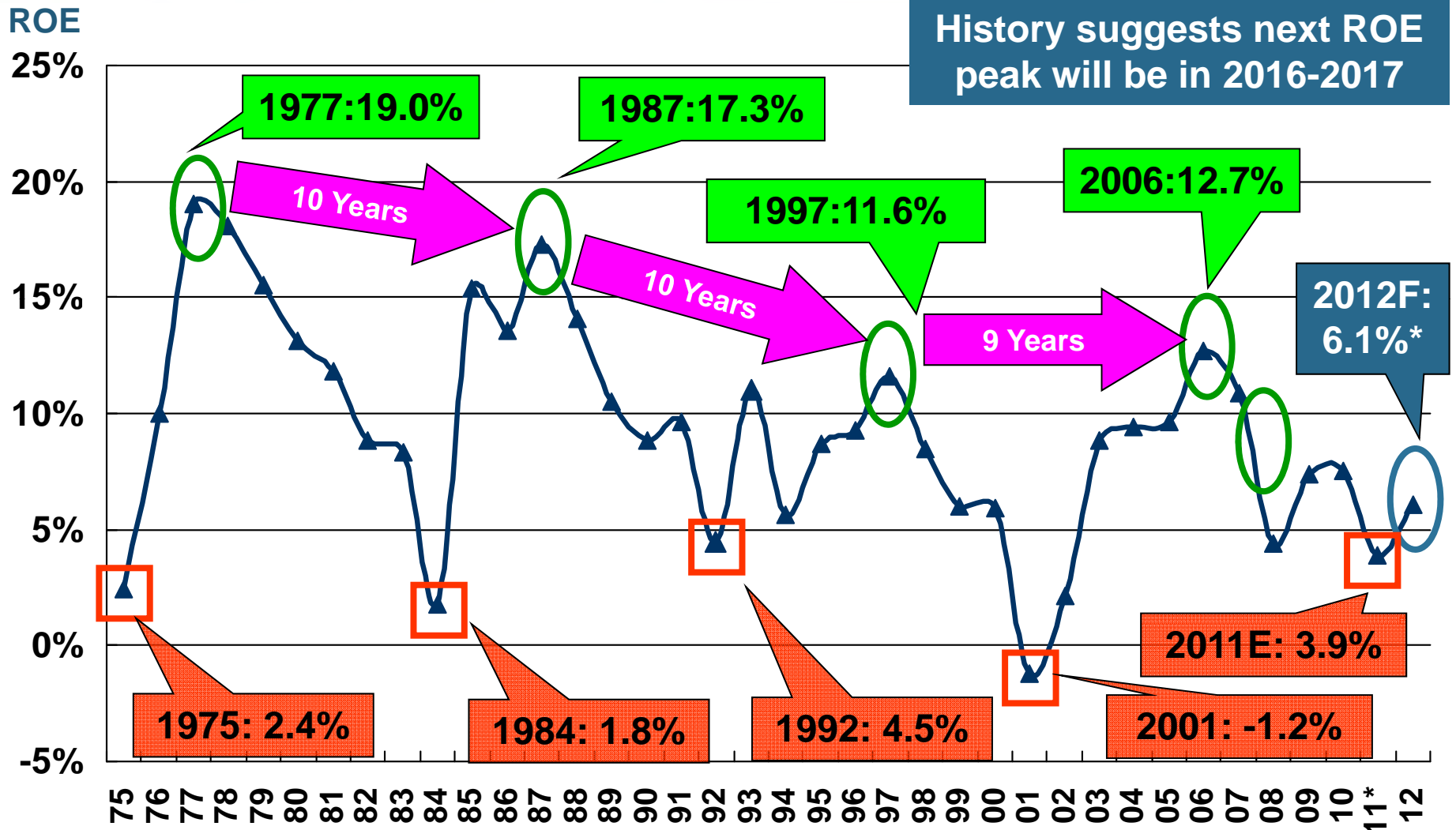
**Current Period Underwriting Results Have Deteriorated But Not to the Extent Experienced Prior to the Hard Markets of a Decade Ago or in the 1980s; Similarities to the Mid-1970s?**

# US Non-Life Net Written Premium Growth vs. Combined Ratio, 1971-2012F



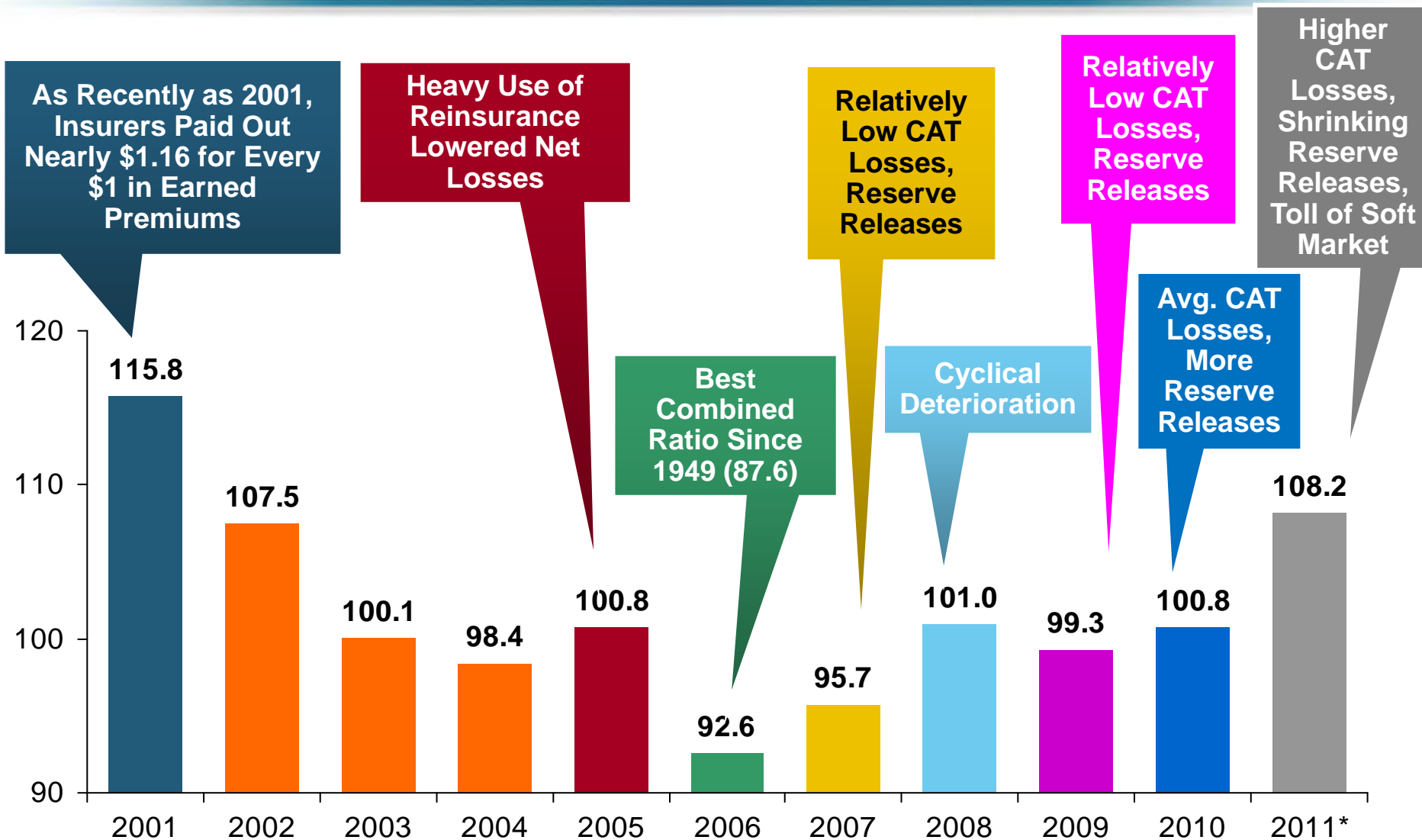
**Premium Growth and Underwriting Results Are Highly Correlated, But the Relationship is Lagged**

# Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2012F\*



\*Profitability = P/C insurer ROEs. 2011-12 figures are A.M. Best estimates. Note: Data for 2008-2012 exclude mortgage and financial guaranty insurers. For 2011:Q3 ROAS = 1.9% including M&FG.

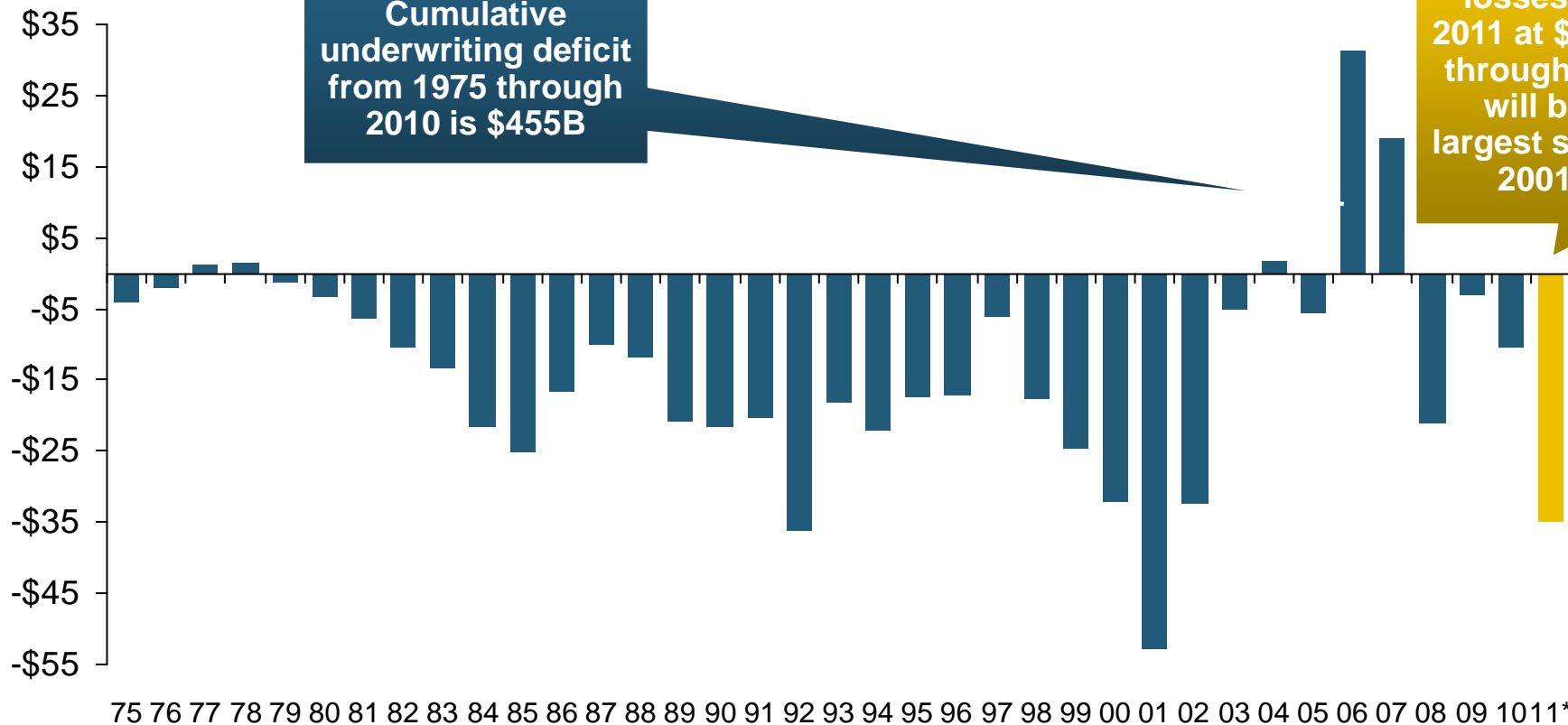
# P/C Insurance Industry Combined Ratio, 2001–2011:Q3\*



\* Excludes Mortgage & Financial Guaranty insurers 2008--2011. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=109.9  
Sources: A.M. Best, ISO.

# Underwriting Gain (Loss) 1975–2011\*

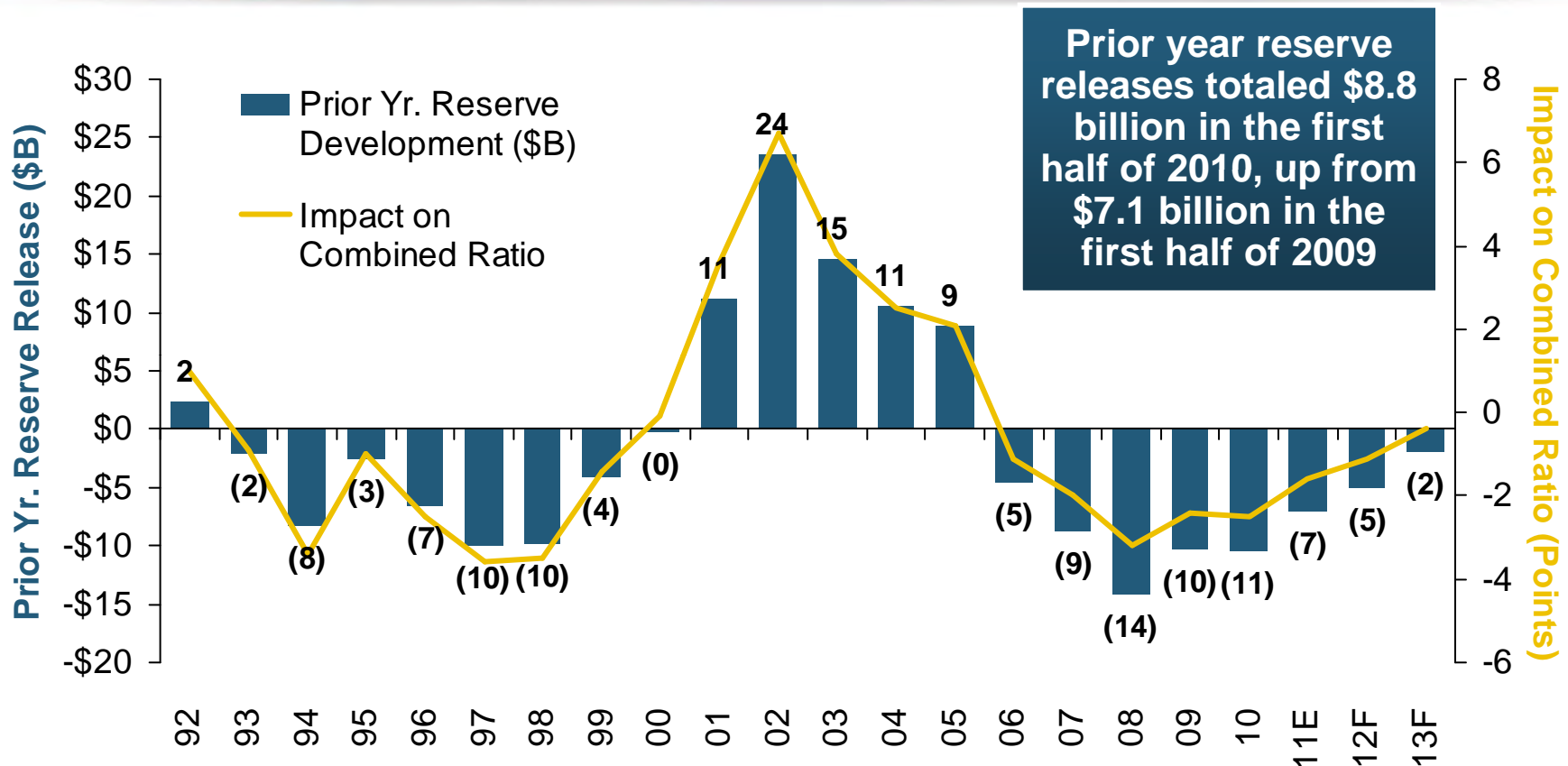
(\$ Billions)



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

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

# P/C Reserve Development, 1992–2013F



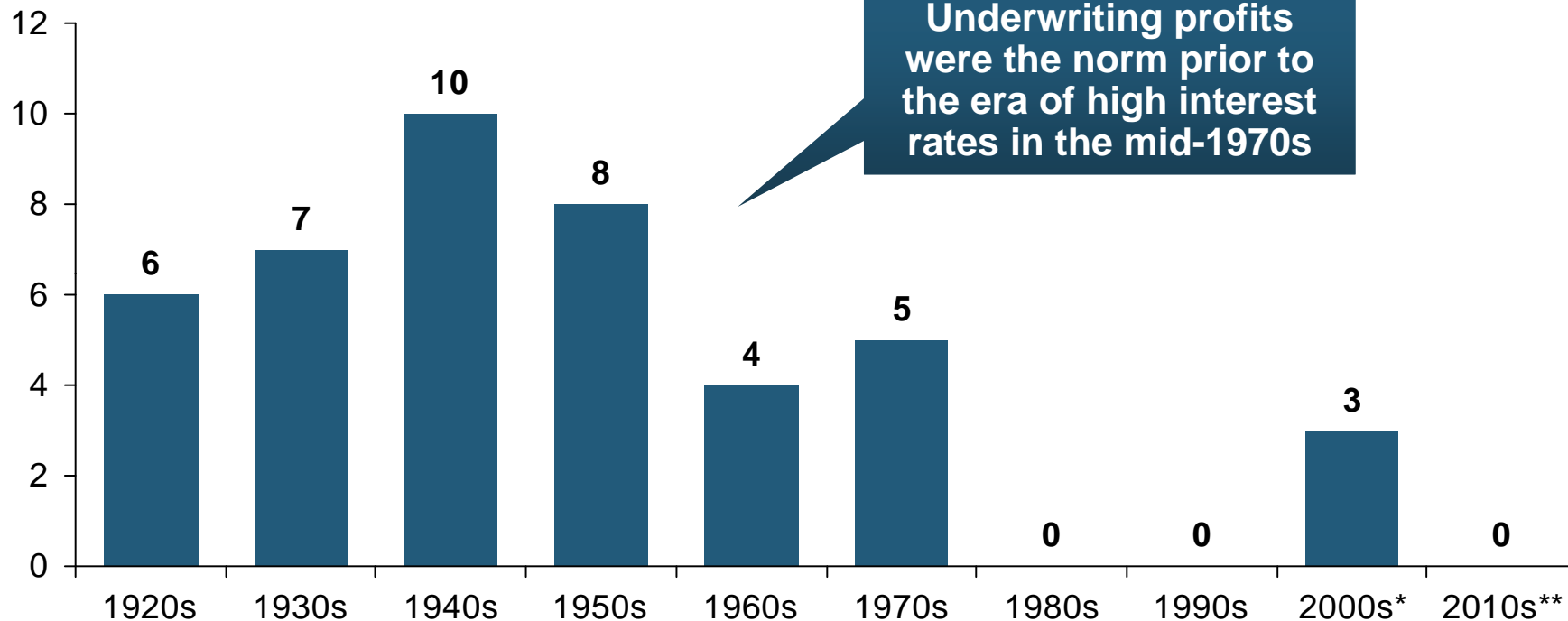
**Reserve Releases Remained Strong in 2010 But Tapered Off in 2011. Releases Are Expected to Further Diminish in 2012 and 2103**

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

Sources: Barclays Capital; A.M. Best.

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

## Number of Years with Underwriting Profits



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

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

\*\*Data for the 2010s includes 2010, 2011 and estimate for 2012.

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

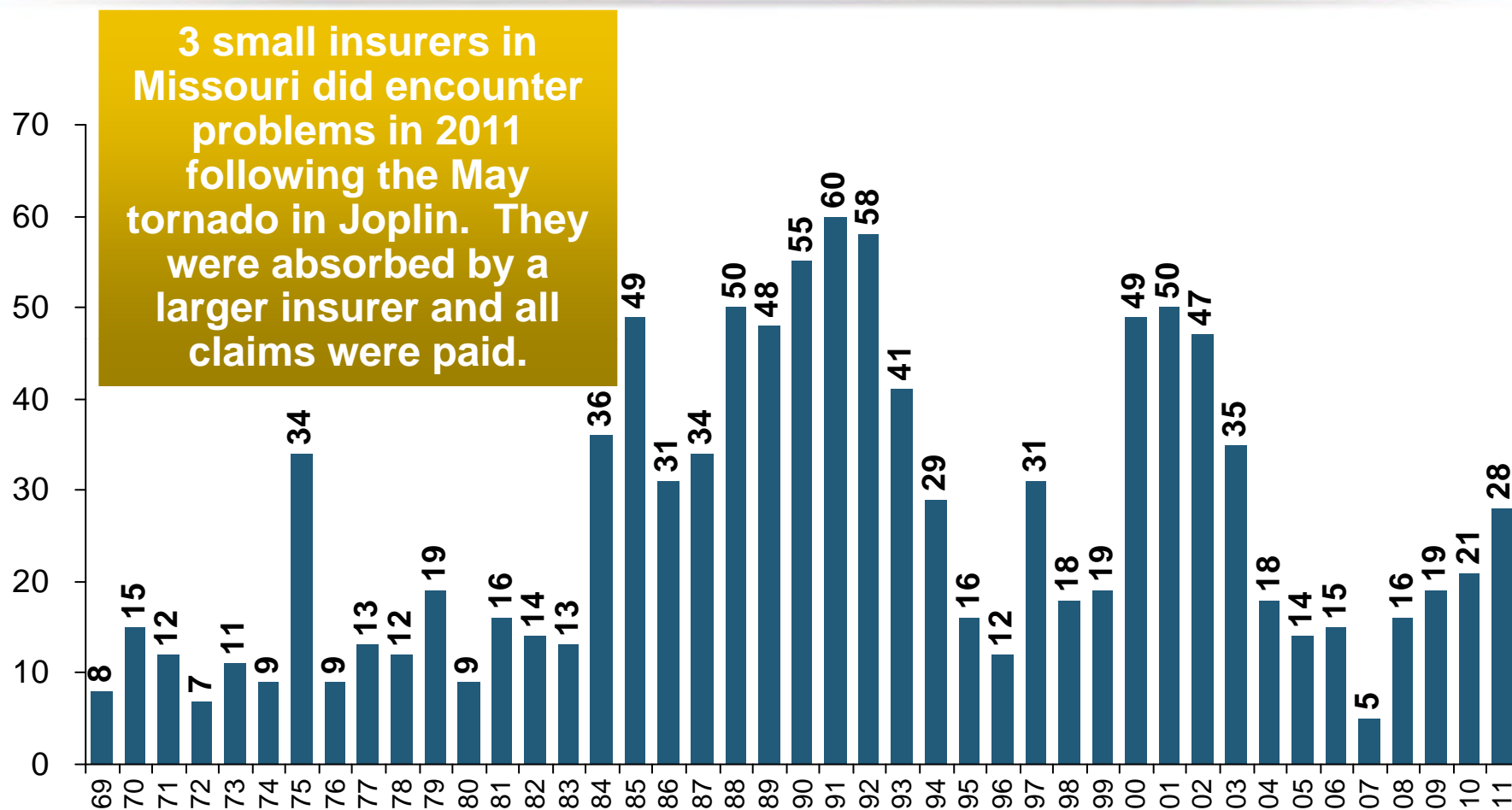
Sources: Insurance Information Institute research from A.M. Best Data.



# **Financial Strength & Underwriting**

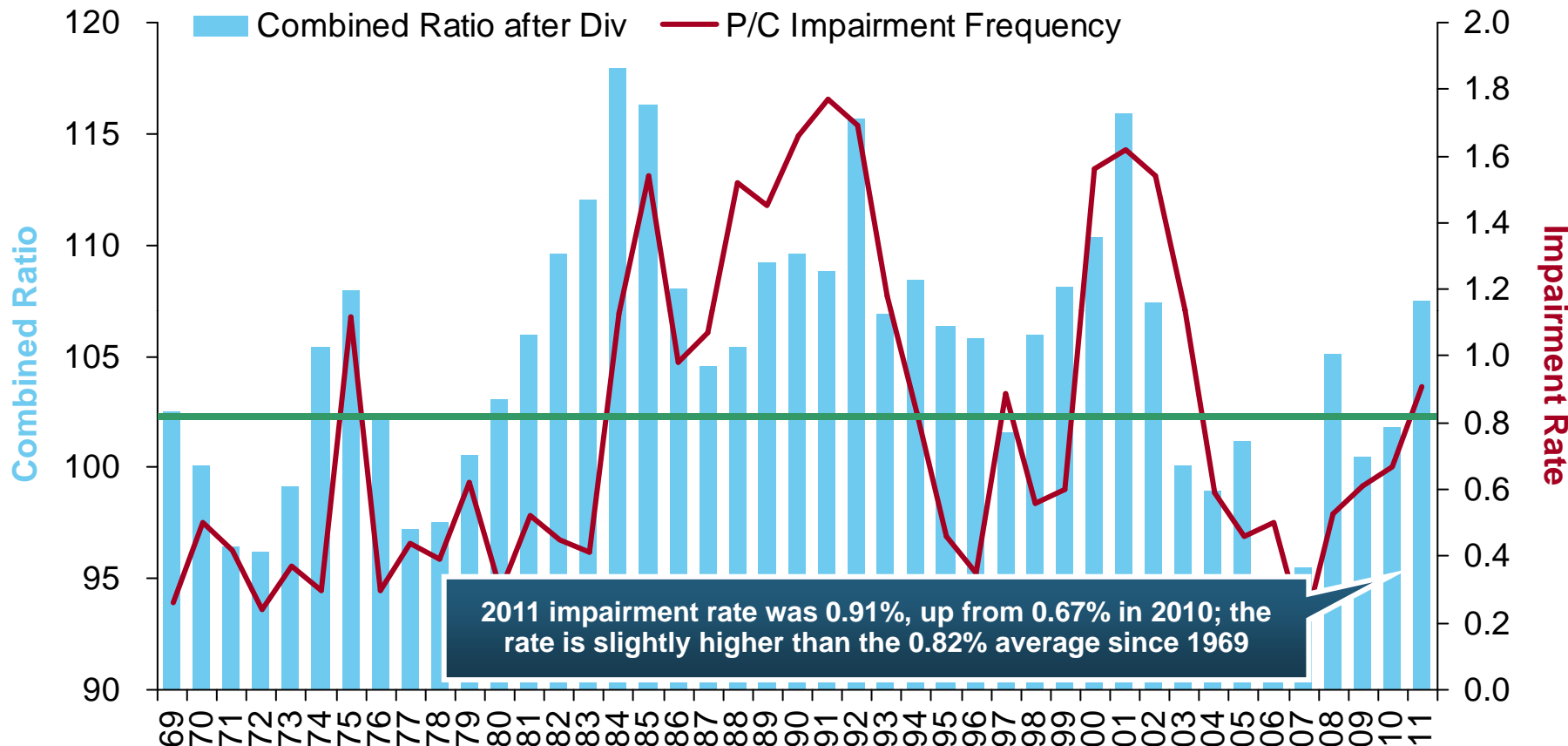
**Cyclical Pattern is P-C Impairment  
History is Directly Tied to  
Underwriting, Reserving & Pricing**

# US Non-Life Insurer Impairments, 1969–2011



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

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

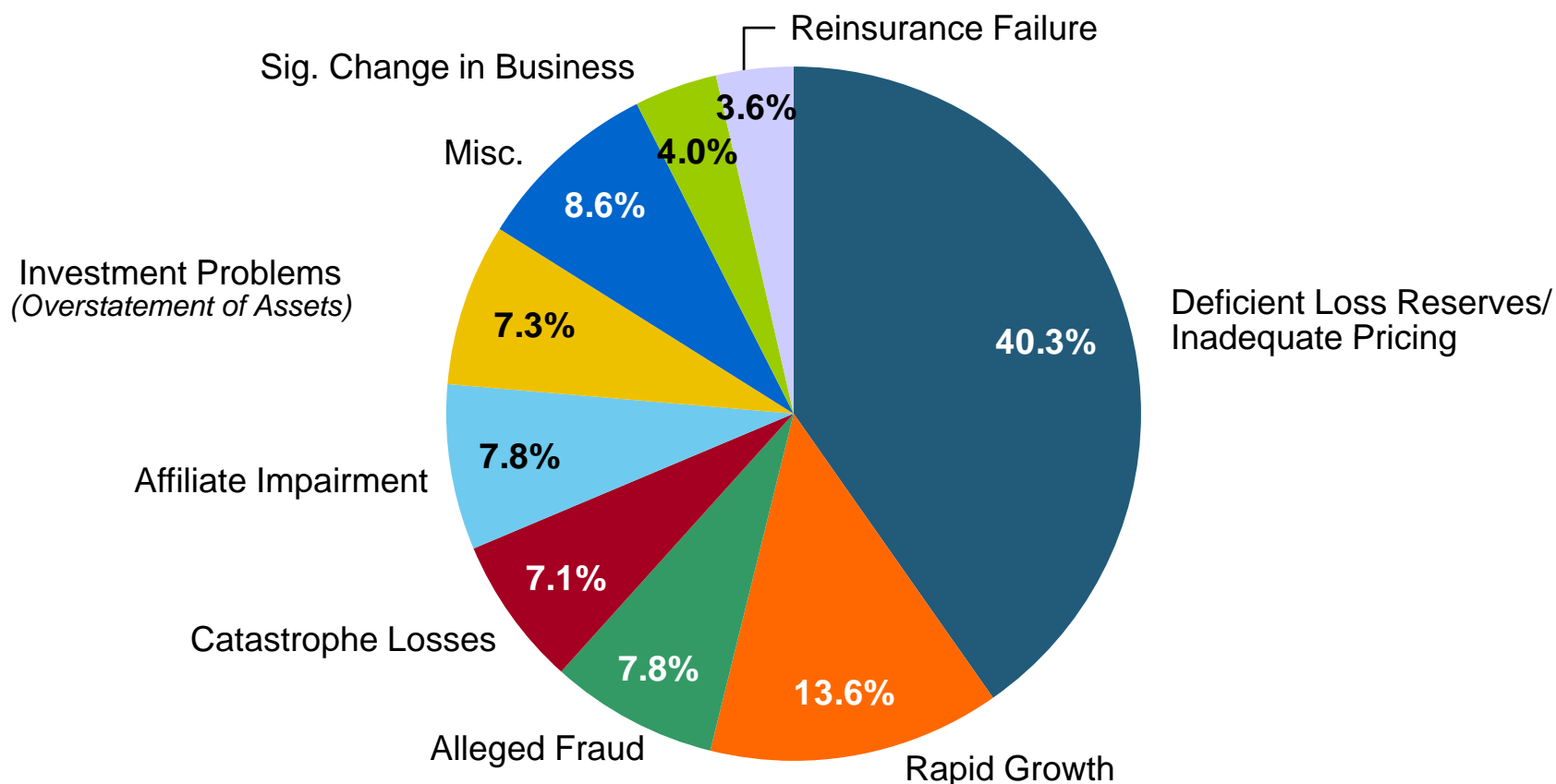


2011 impairment rate was 0.91%, up from 0.67% in 2010; the rate is slightly higher than the 0.82% average since 1969

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

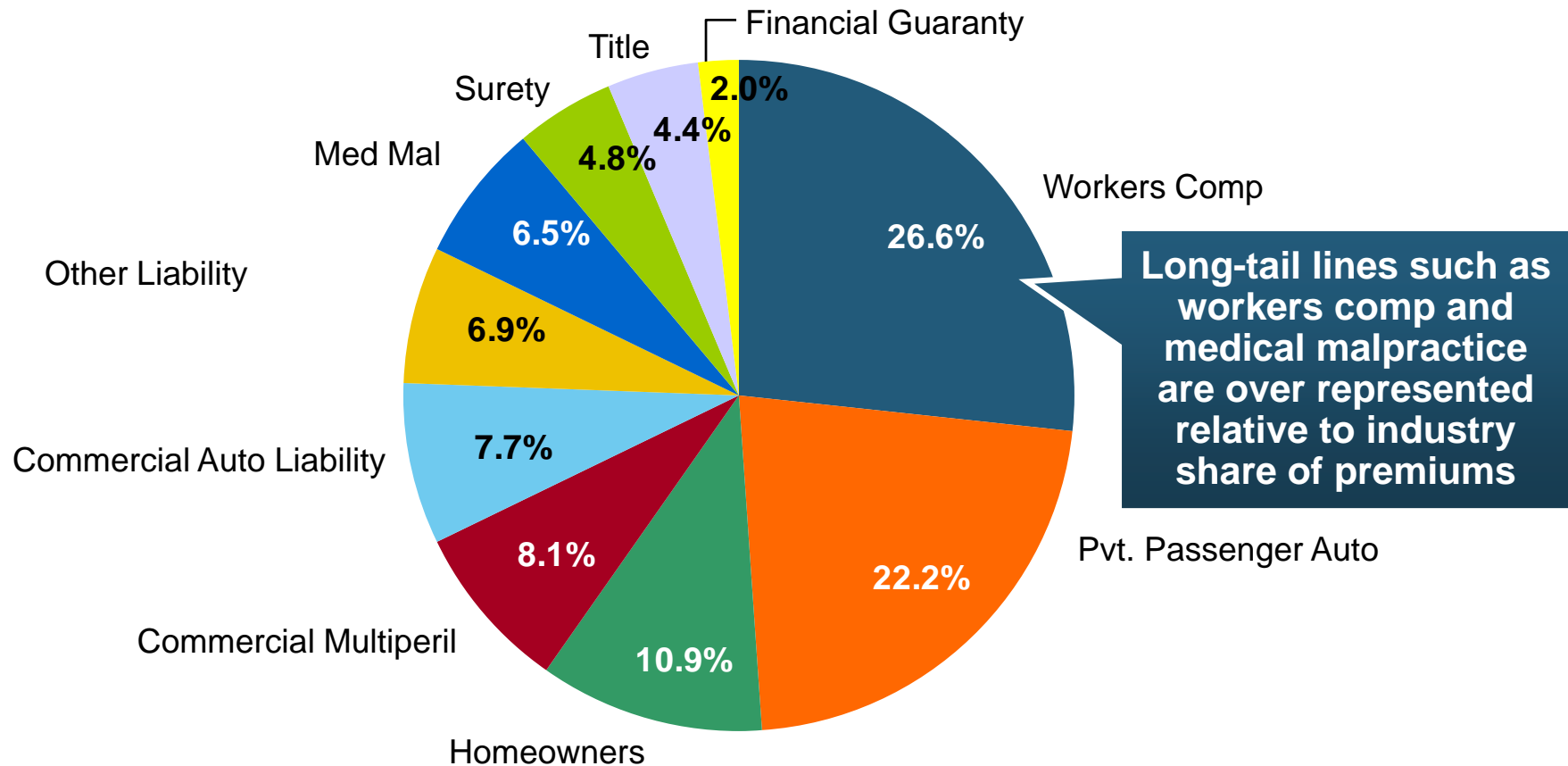
# Reasons for US P/C Insurer Impairments, 1969–2010

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



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

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

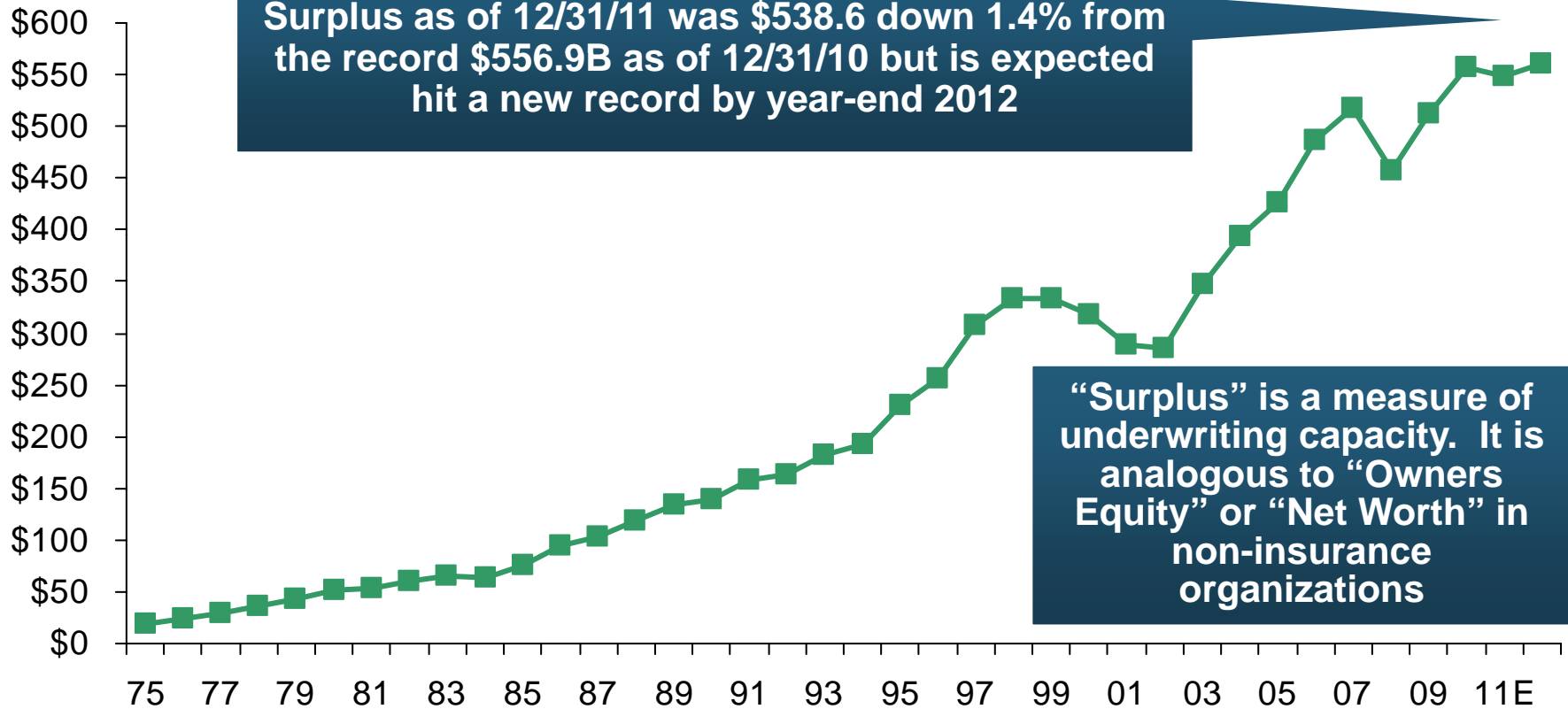


## **2. SURPLUS/CAPITAL/CAPACITY**

**Have Large Global Losses Reduced Capacity in the Industry, Setting the Stage for a Market Turn?**

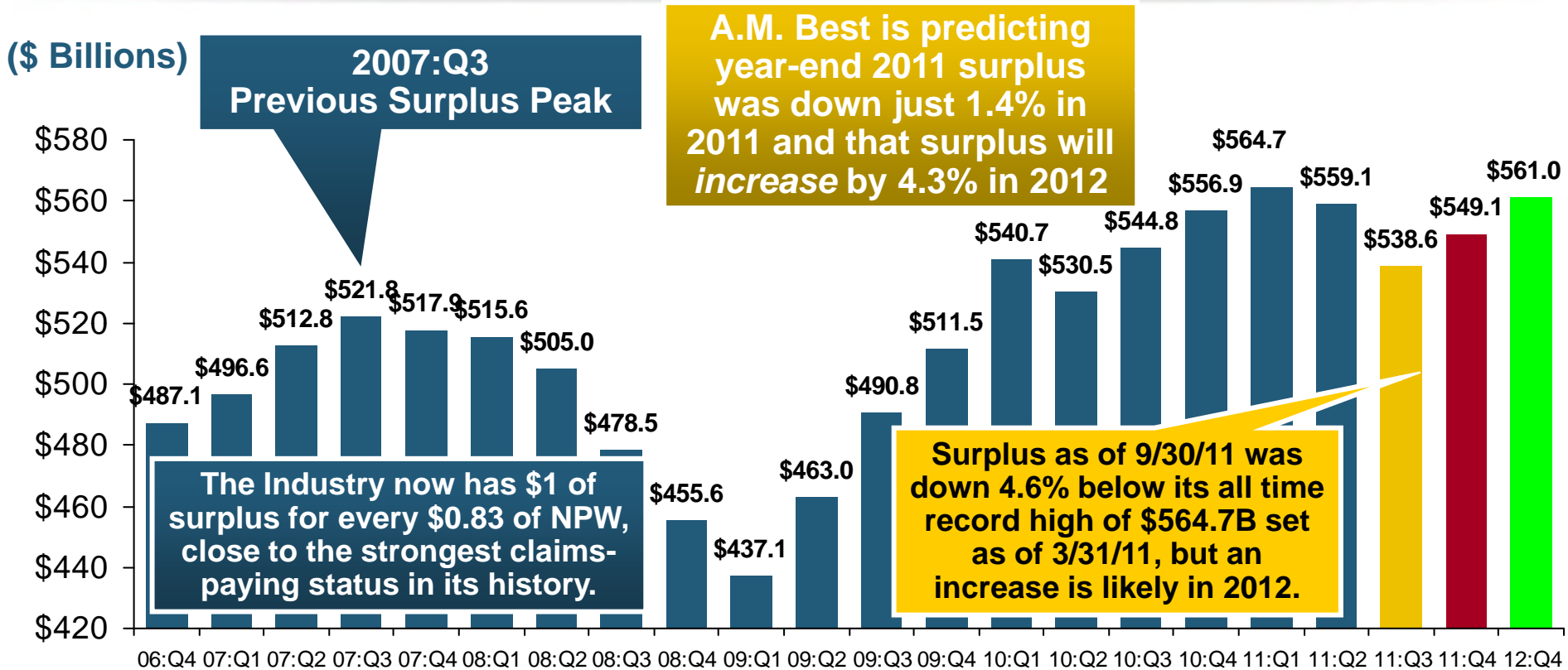
# US Policyholder Surplus: 1975–2012E

(\$ Billions)



The Premium-to-Surplus Ratio Stood at \$0.83:\$1 as of 9/30/11, A Near Record Low (at Least in Recent History)\*

# Policyholder Surplus, 2006:Q4–2012E



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

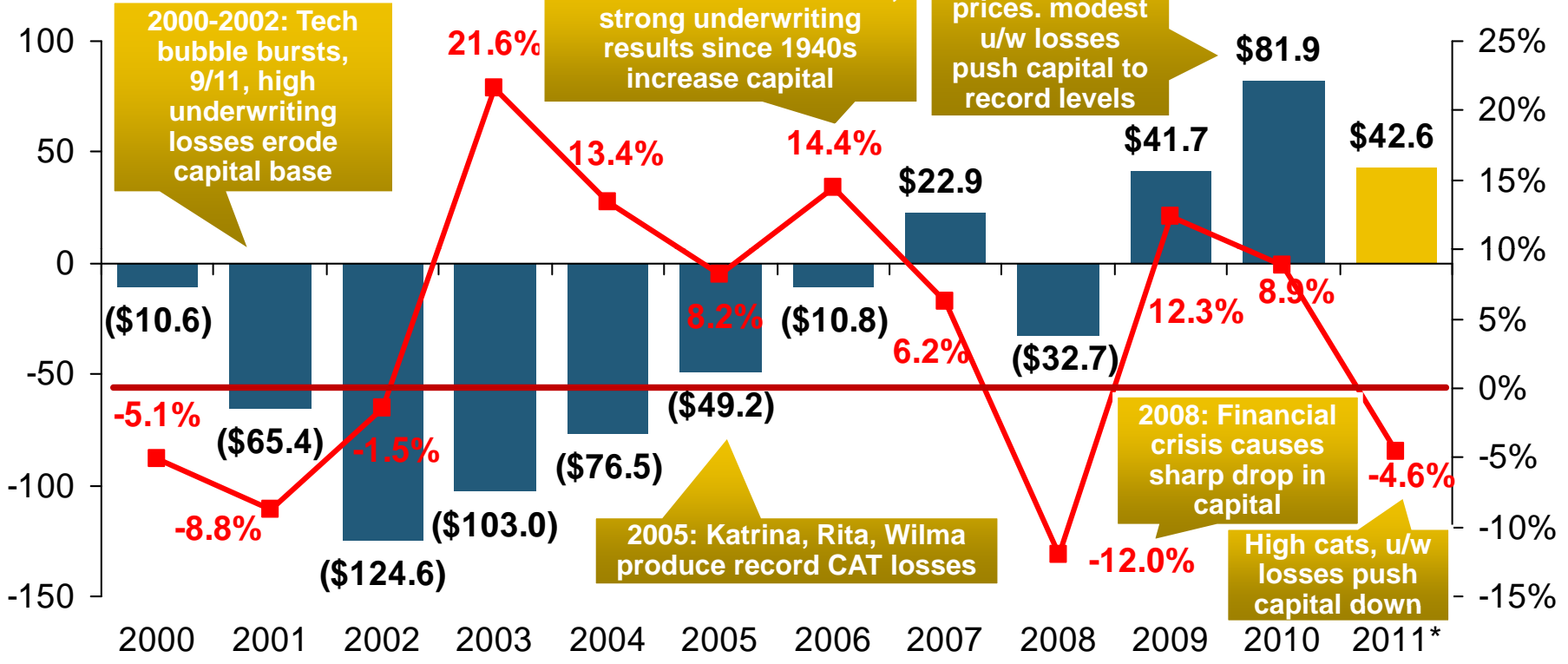
Sources: ISO, A.M. Best (2011:Q4 and 2012:Q4 estimates).



# Implied Excess (Deficit) Capital Assuming Premium/Surplus Ratio = 0.9:1

## Excess/(Deficit) Capital (Policyholder Surplus)

## Annual Change in Policyholder Surplus

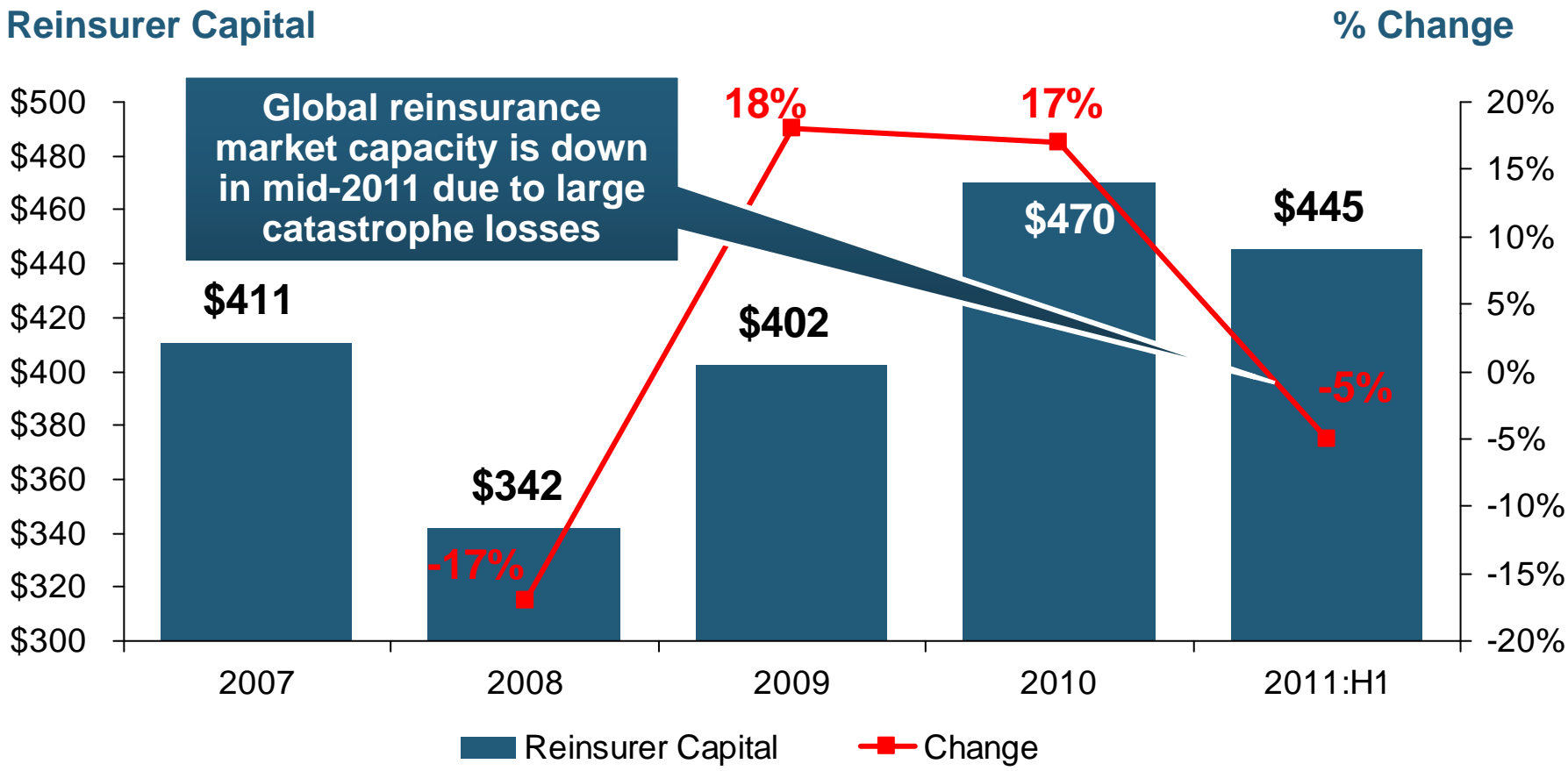


■ Capital Excess (Deficit)      ■ Annual Change in Capital

**Record Policyholder Surplus (Capital) Resulted in Significant Excess Capital in the P/C Insurance Sector in 2010. Deteriorating Underwriting Losses, Higher CAT Activity, More Modest Market Returns Shrank Excess Capital in 2011 by Nearly Half.**

Note: The assumption of a 0.9:1 P/S ratio is derived from a Feb. 2011 announcement by Advisen, Ltd., that the US P/C insurance industry has \$74 billion in excess capital. The implied P/S ratio (calculated by III) is 0.88:1, which was rounded to 0.9:1.  
Source: Insurance Information Institute calculations from A.M. Best and ISO data. \* Net Premiums Written

# Global Reinsurance Capital, 2007-2011:H1

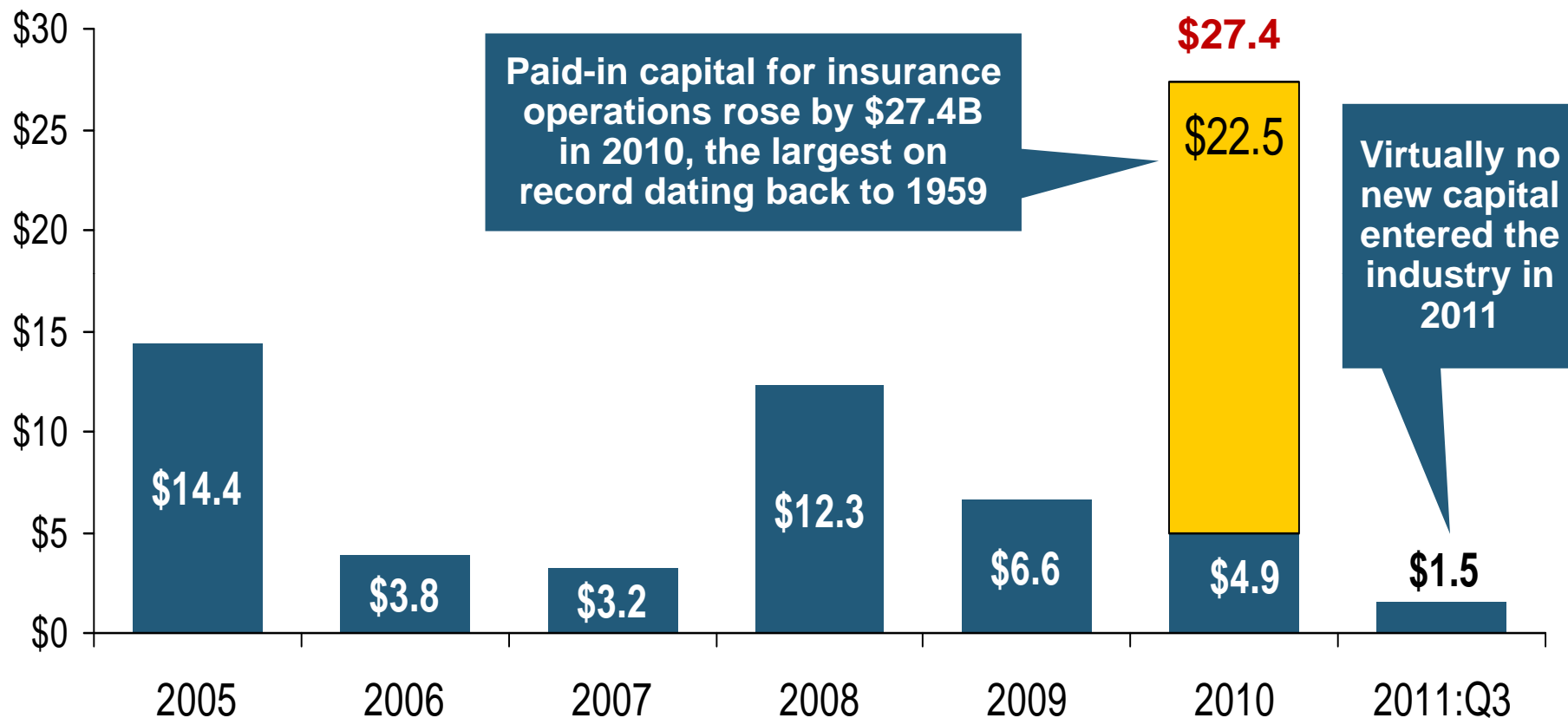


**High Global Catastrophe Losses Have Had a Modest Adverse Impact on Global Reinsurance Market Capacity**

Source: Aon Reinsurance Market Outlook, September 2011 from Individual Company and AonBenfield Analytics; Insurance Information Institute.

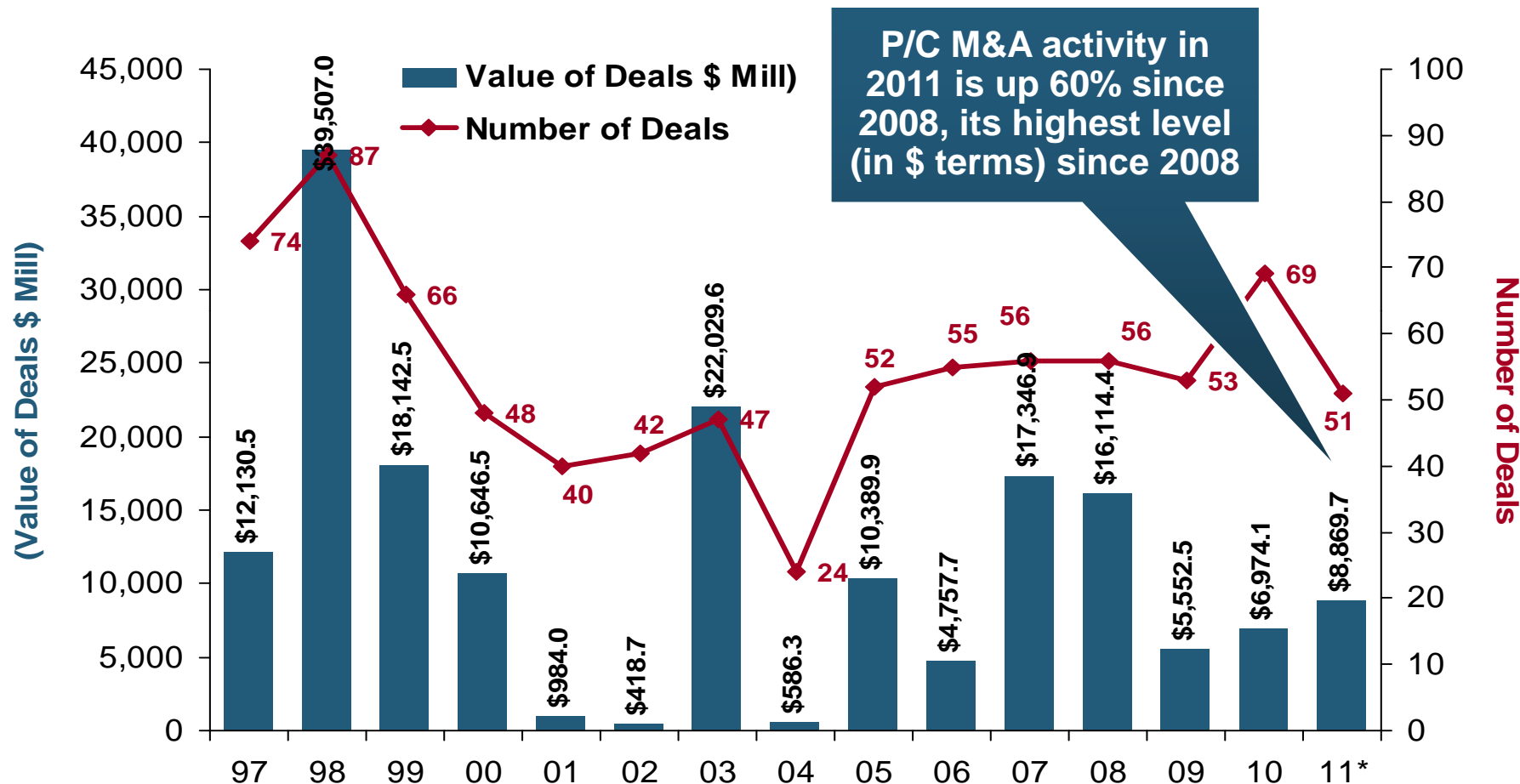
# Paid-in Capital, 2005–2011:Q3

(\$ Billions)



**In 2010 One Insurer's Paid-in Capital Rose by \$22.5B as Part of an Investment in a Non-insurance Business**

# M&A Activity in the US P/C Insurance Industry, 1997-2011\*



P/C M&A activity in 2011 is up 60% since 2008, its highest level (in \$ terms) since 2008

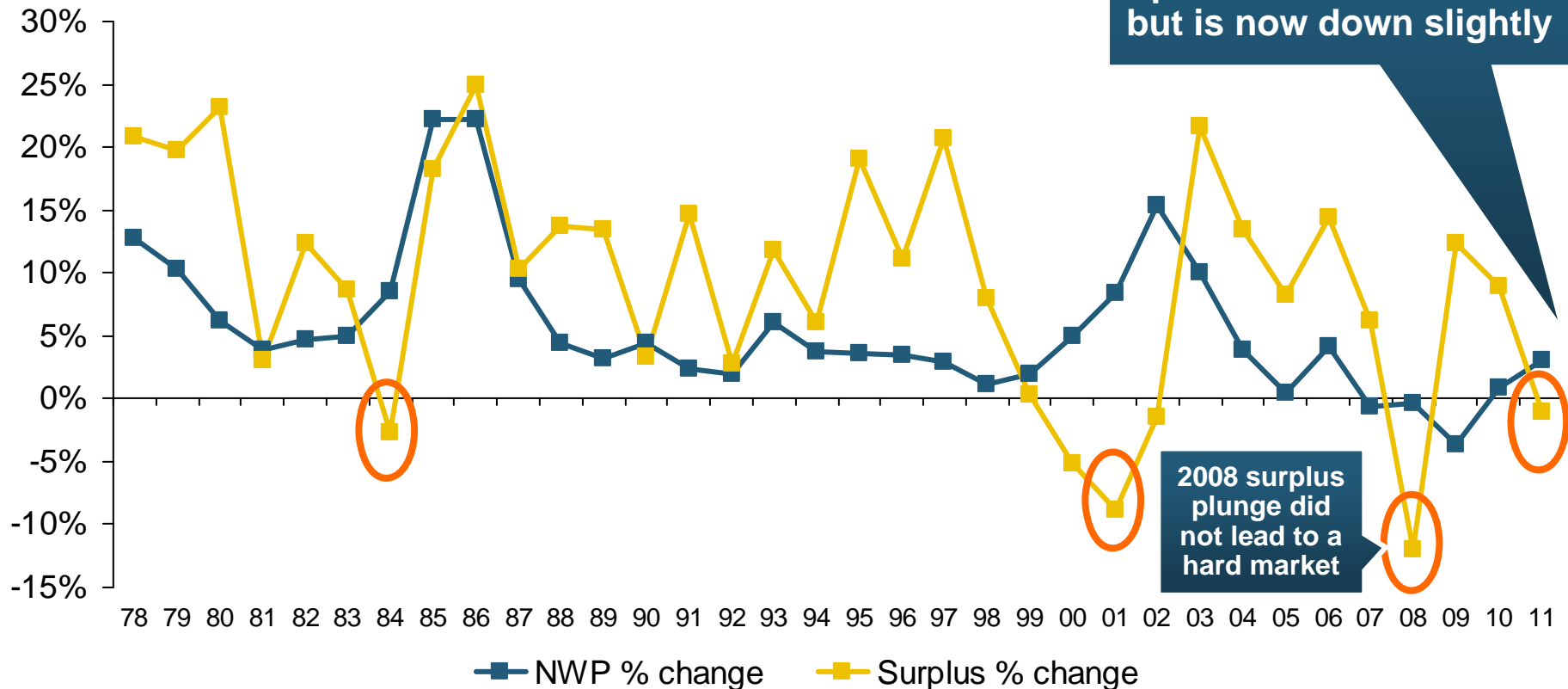
**M&A Activity in the P/C Insurance Industry Remains Well Below its 1990s Peak**

\*2011 data are through December 1.

Source: SNL Securities; Insurance Information Institute.

# Historically, Hard Markets Follow When Surplus “Growth” is Negative\*

(Percent)

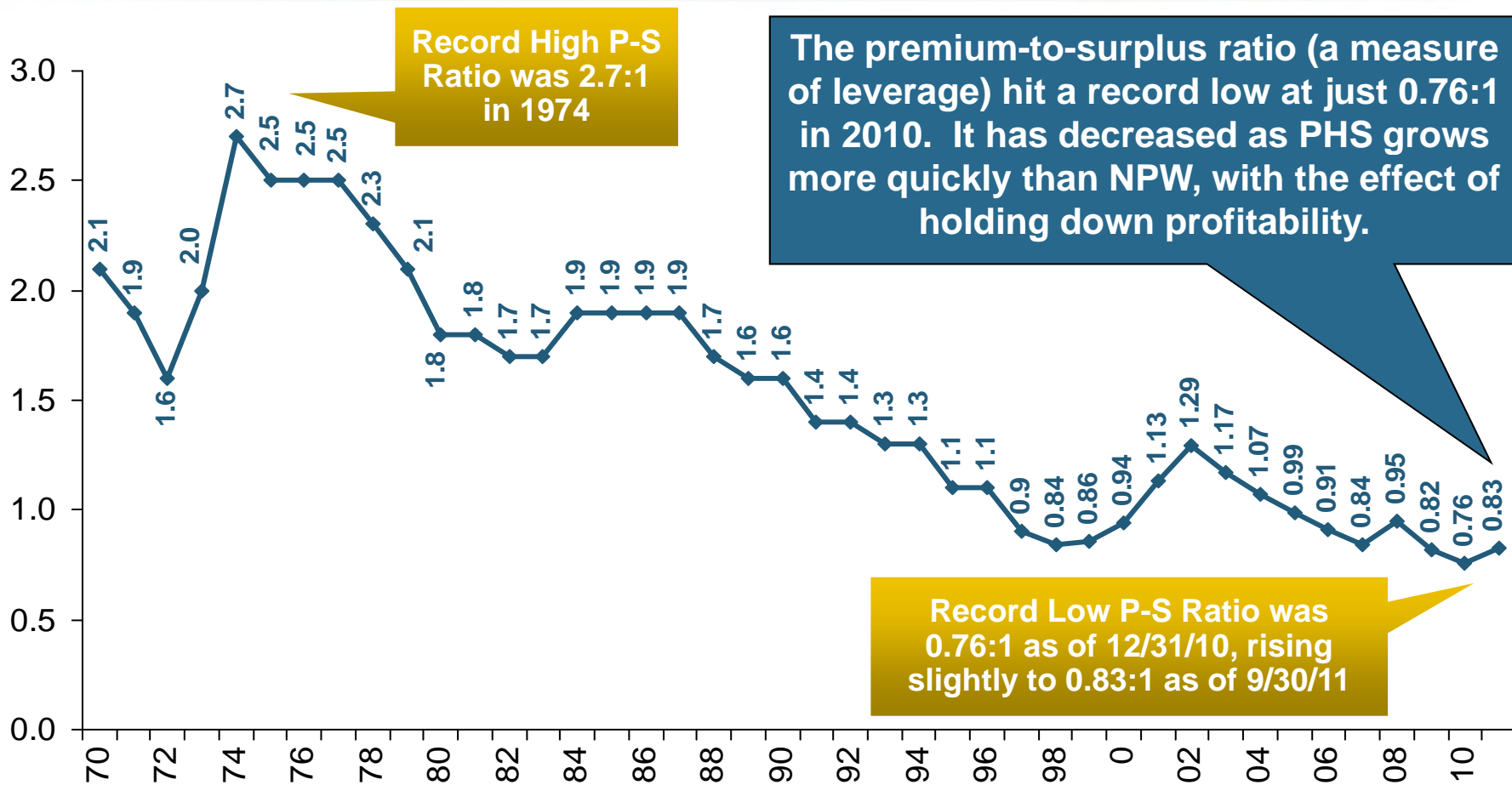


**Sharp Decline in Capacity is a Necessary but Not Sufficient Condition for a True Hard Market**

\* 2011 NWP and Surplus figures are % changes as of Q3:11 vs. Q3:10.

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

# Ratio of Net Premiums Written to Policyholder Surplus, 1970-2011\*



Record High P-S Ratio was 2.7:1 in 1974

The premium-to-surplus ratio (a measure of leverage) hit a record low at just 0.76:1 in 2010. It has decreased as PHS grows more quickly than NPW, with the effect of holding down profitability.

Record Low P-S Ratio was 0.76:1 as of 12/31/10, rising slightly to 0.83:1 as of 9/30/11

**The Premium-to-Surplus Ratio in 2011:Q3 Implies that P/C Insurers Held \$1 in Surplus Against Each \$0.83 Written in Premiums. In 1974, Each \$1 of Surplus Backed \$2.70 in Premium.**

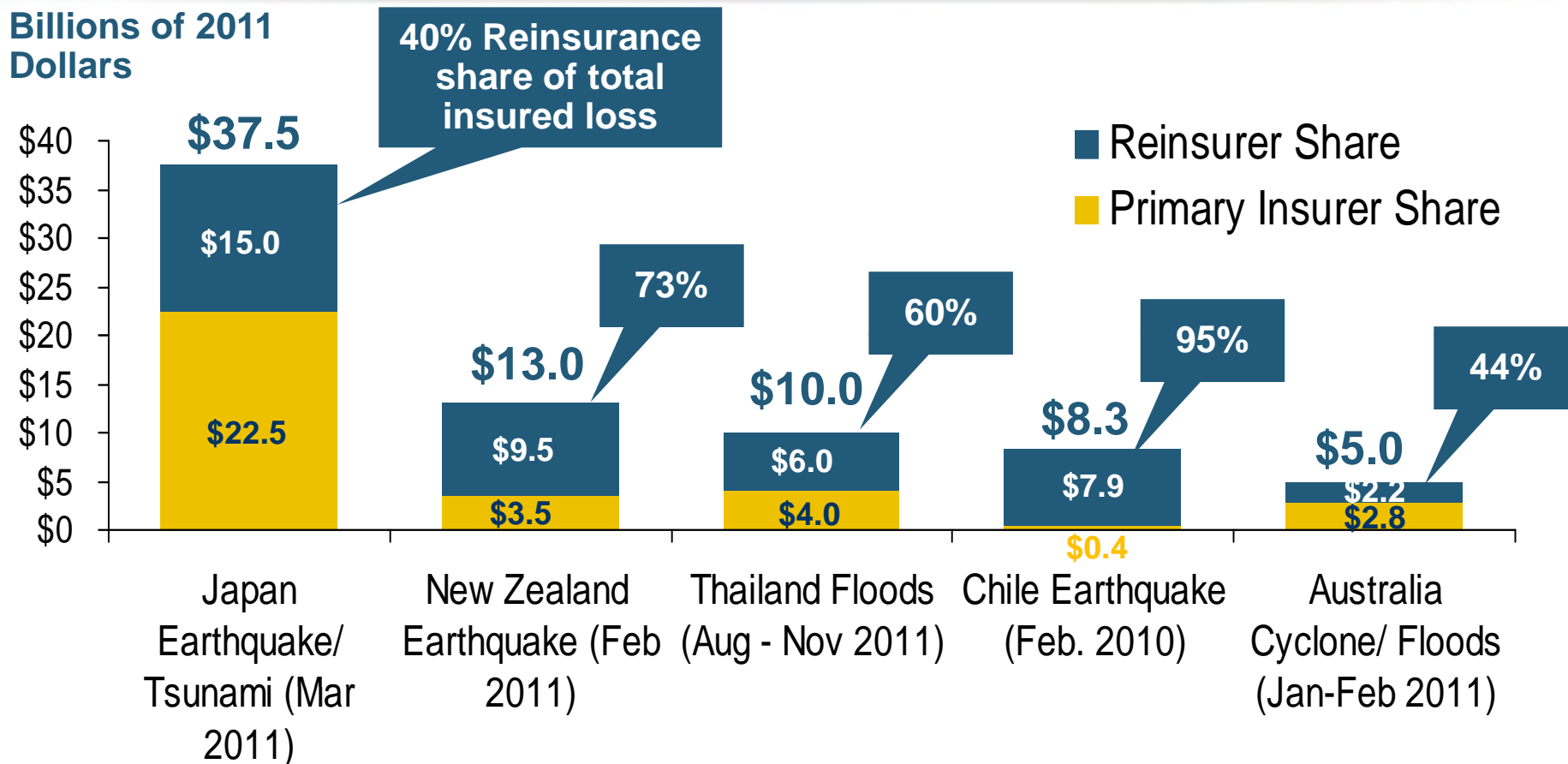
\*2011 data are as of 9/30/11.

Sources: Insurance Information Institute calculations from A.M. Best data.

## **3. REINSURANCE MARKET CONDITIONS**

**Record Global  
Catastrophes Activity is  
Pressuring Pricing**

# Reinsurer Share of Recent Significant Market Losses



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

Source: Insurance Information Institute from reinsurance share percentages provided in RAA, ABIR and CEA press release, Jan. 13, 2011.



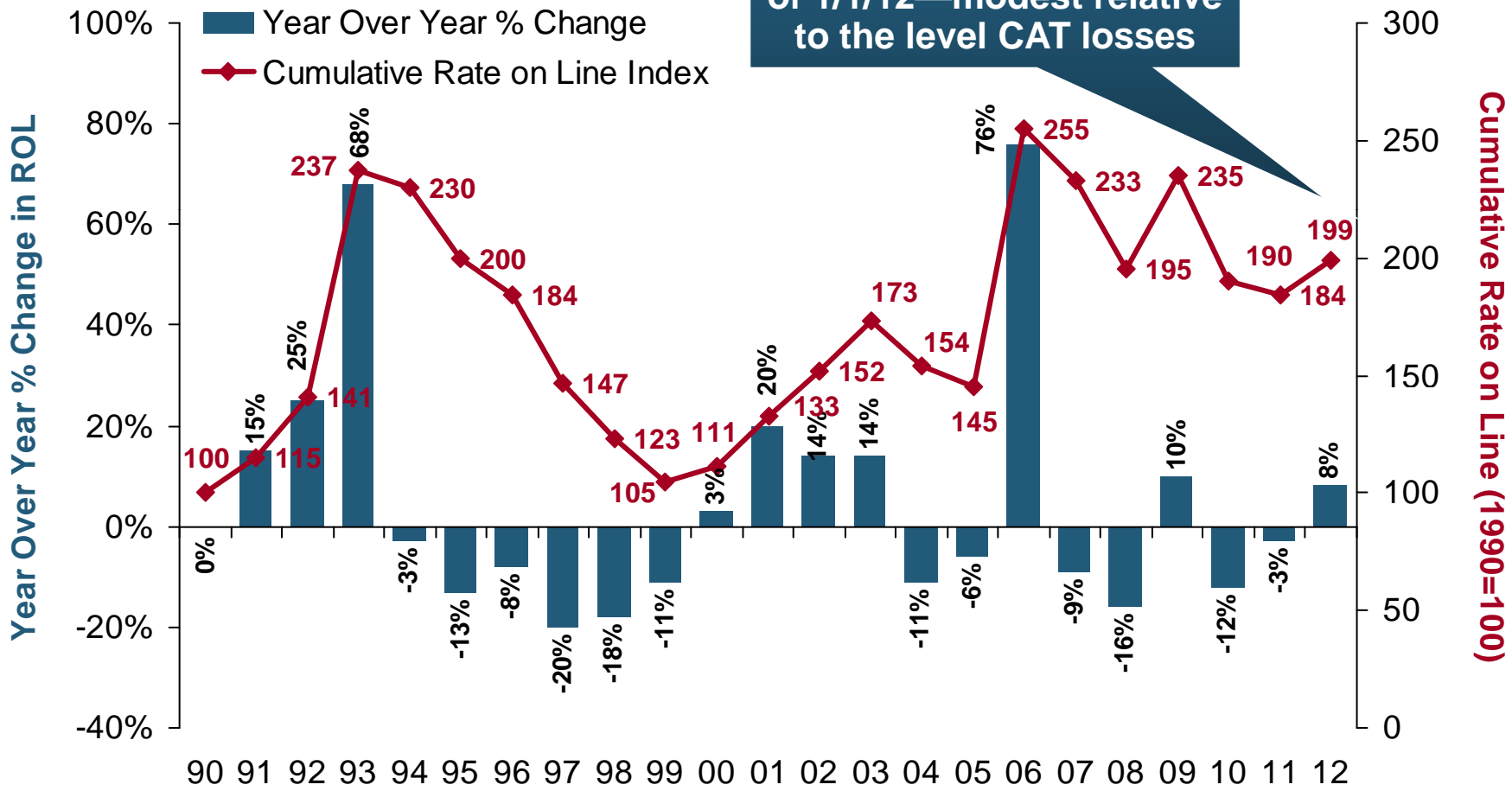
# Historical Capital Levels of Guy Carpenter Reinsurance Composite, 1998—2Q11



**Most excess reinsurance capacity was removed from the market in 2011, but there does not appear to be a shortage, leading relatively flat 2012 reinsurance renewals except in areas hit hard by CATs.**

# Global Property Catastrophe Rate on Line Index, 1990—2012 (as of Jan. 1)

Property-Cat reinsurance pricing is up about 8% as of 1/1/12—modest relative to the level CAT losses



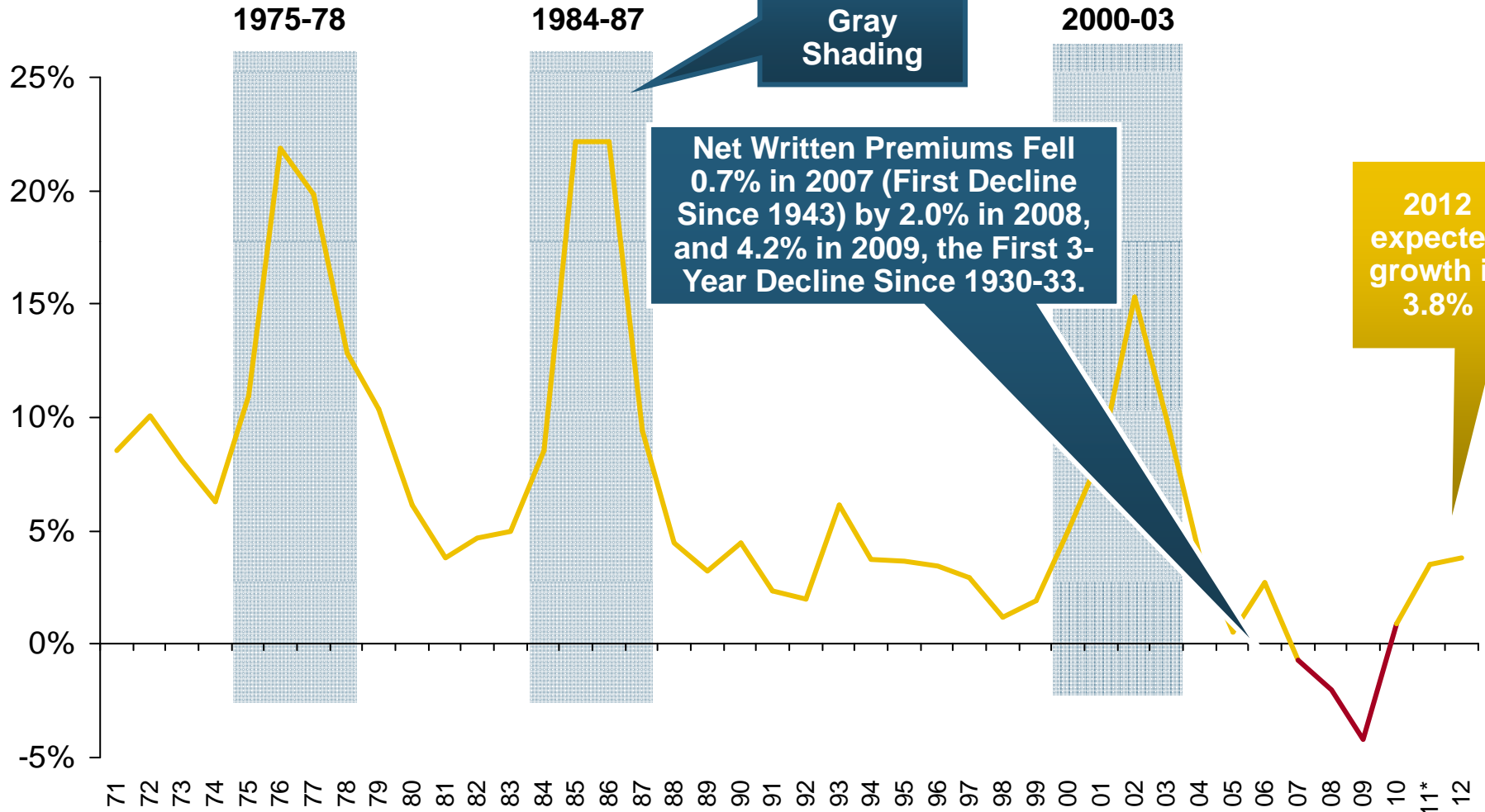
Sources: Guy Carpenter; Insurance Information Institute.

## **4. RENEWED PRICING DISCIPLINE**

**Is There Evidence of a Broad  
and Sustained Shift in Pricing?**

# Annual % Change in Non-Life Premiums: Market Turns Are a Recurrent Event

(Percent)



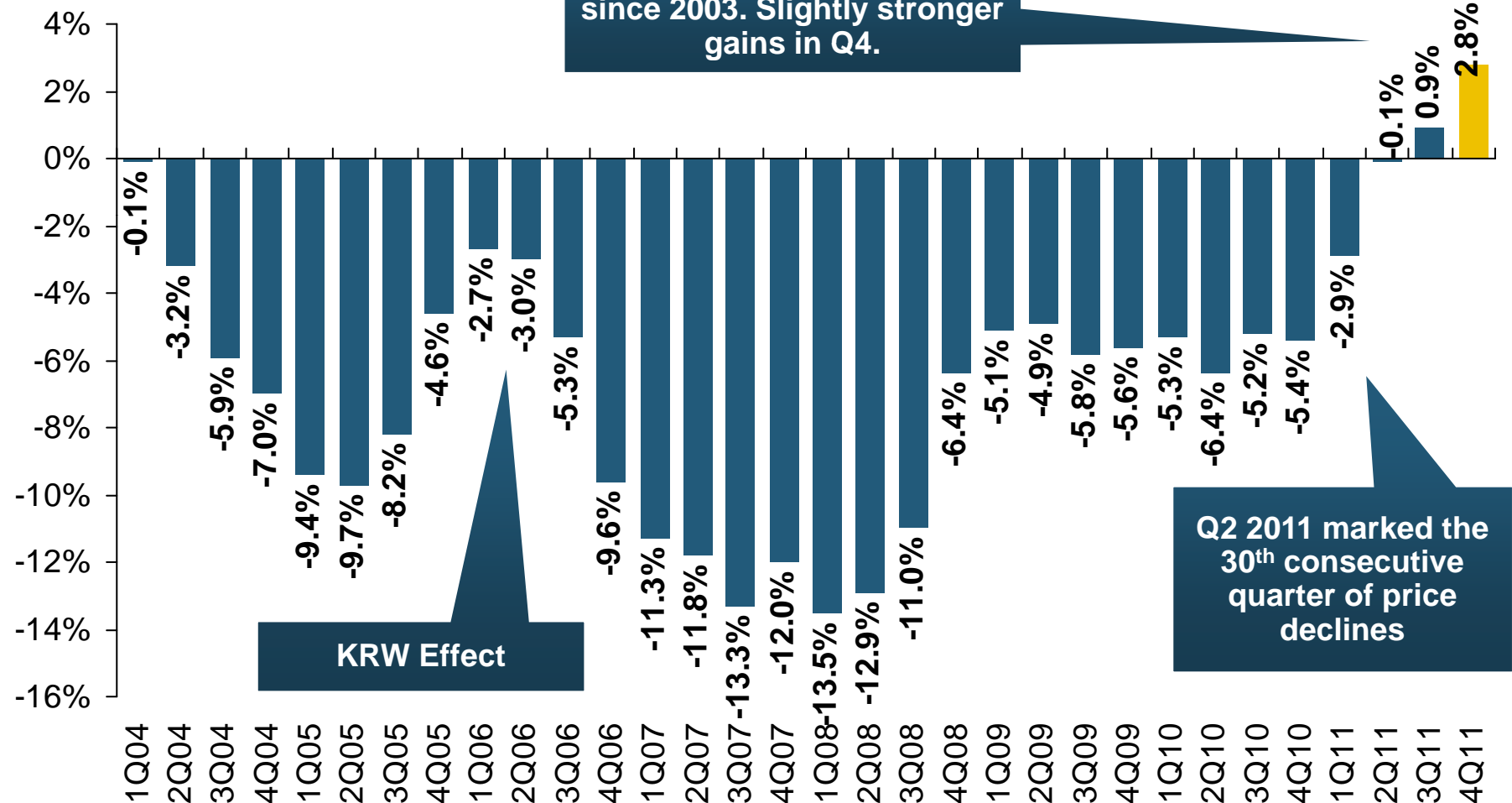
\*2011 and 2012 figures are A.M. Best Estimates

Shaded areas denote "hard market" periods

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

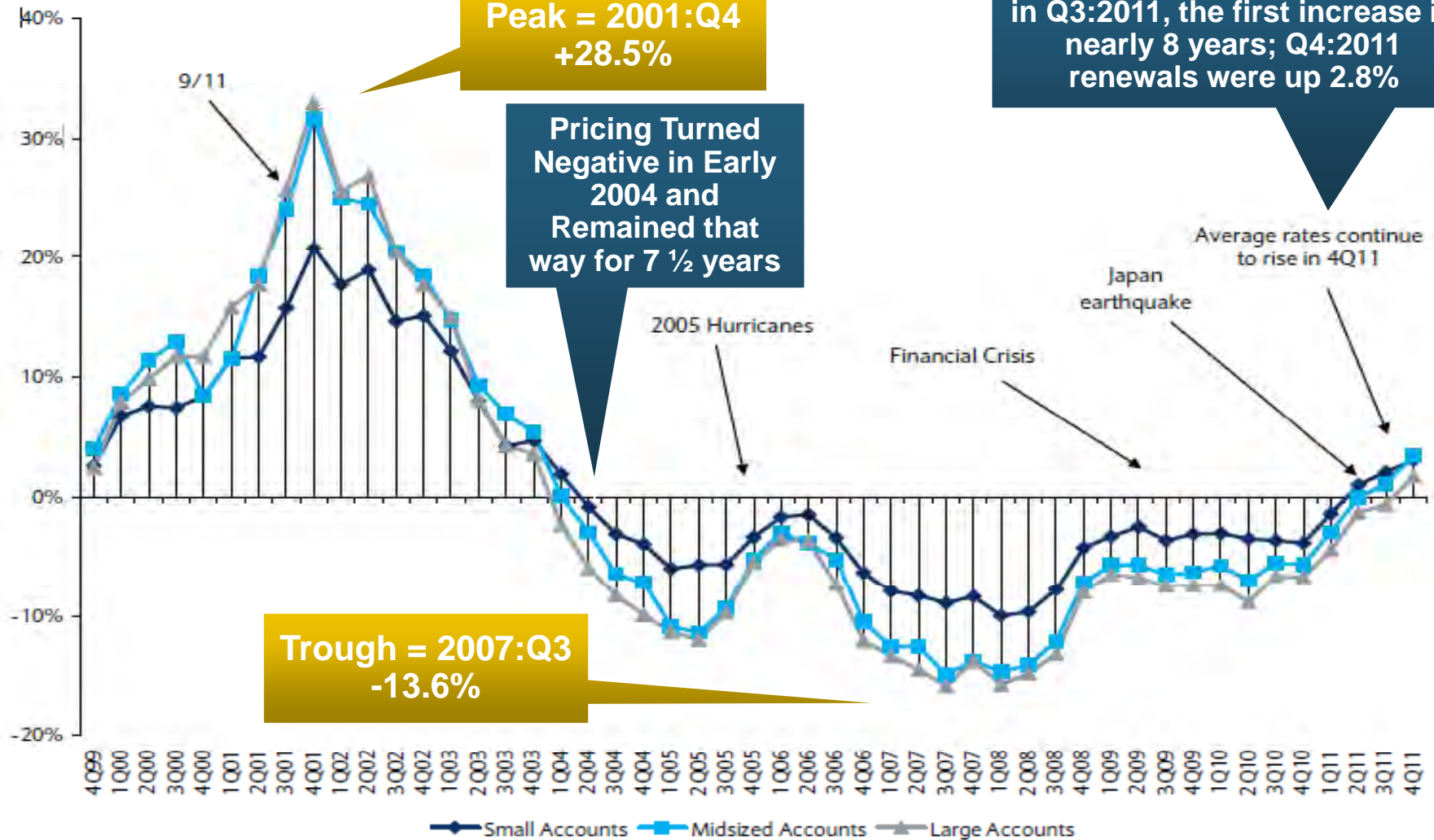
# Average Commercial Rate Change, All Lines, (1Q:2004–4Q:2011)

(Percent)



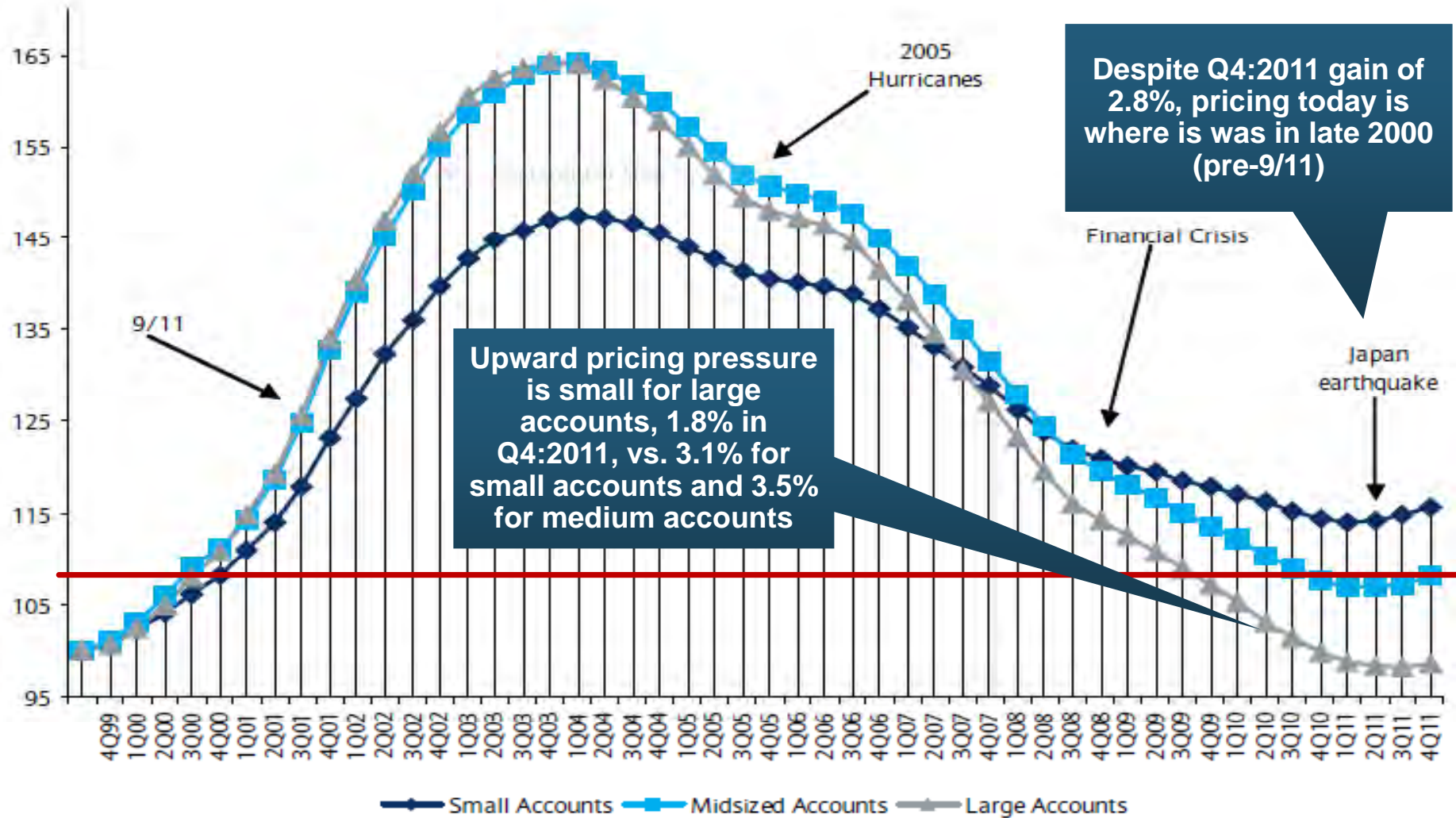
# Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2011:Q4

Percentage Change (%)



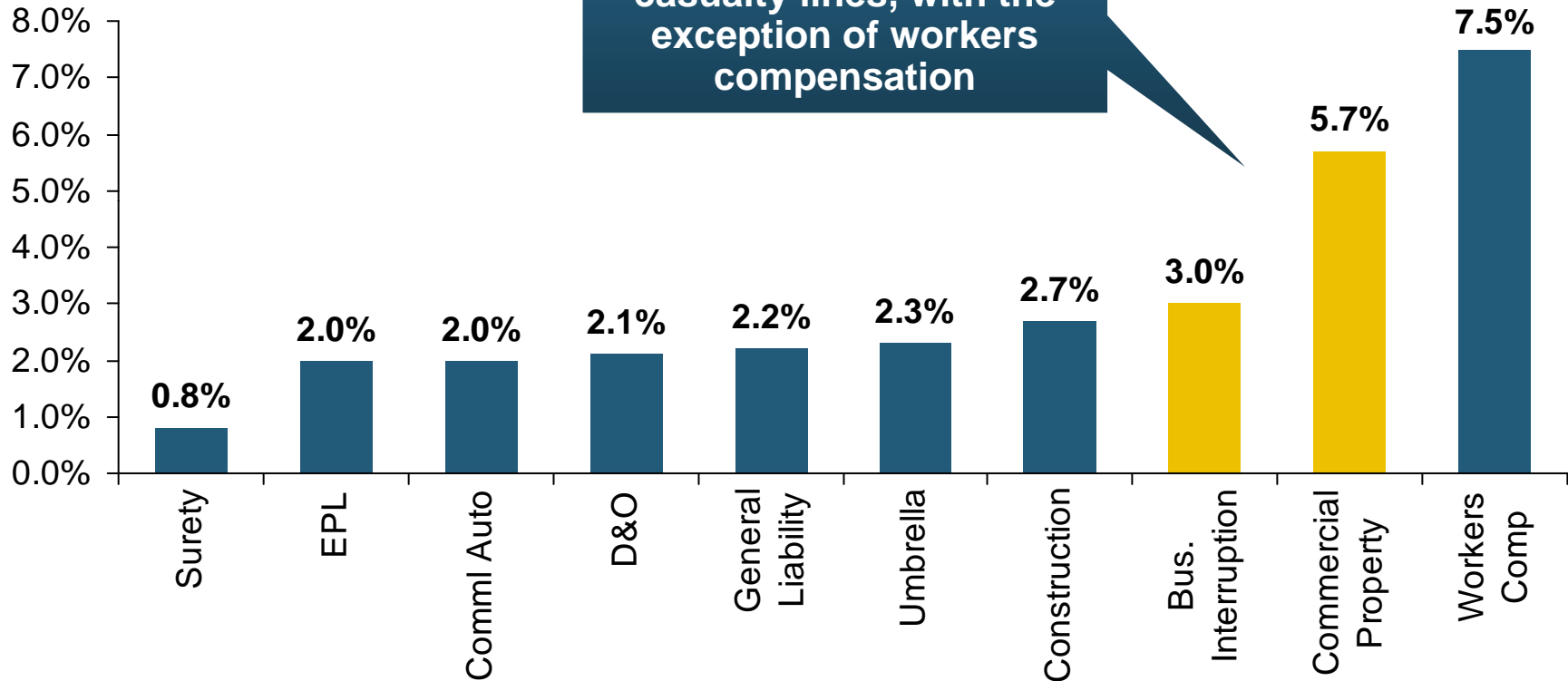
# Cumulative Qtrly. Commercial Rate Changes, by Account Size: 1999:Q4 to 2011:Q4

1999:Q4 = 100



# Change in Commercial Rate Renewals, by Line: 2011:Q4

## Percentage Change (%)



**Major Commercial Lines Renewed Uniformly Upward in Q4:2011 for Only the Second Time Since 2003; Property Lines & Workers Comp Leading the Way**



# Other Cycle-Influencing Factors

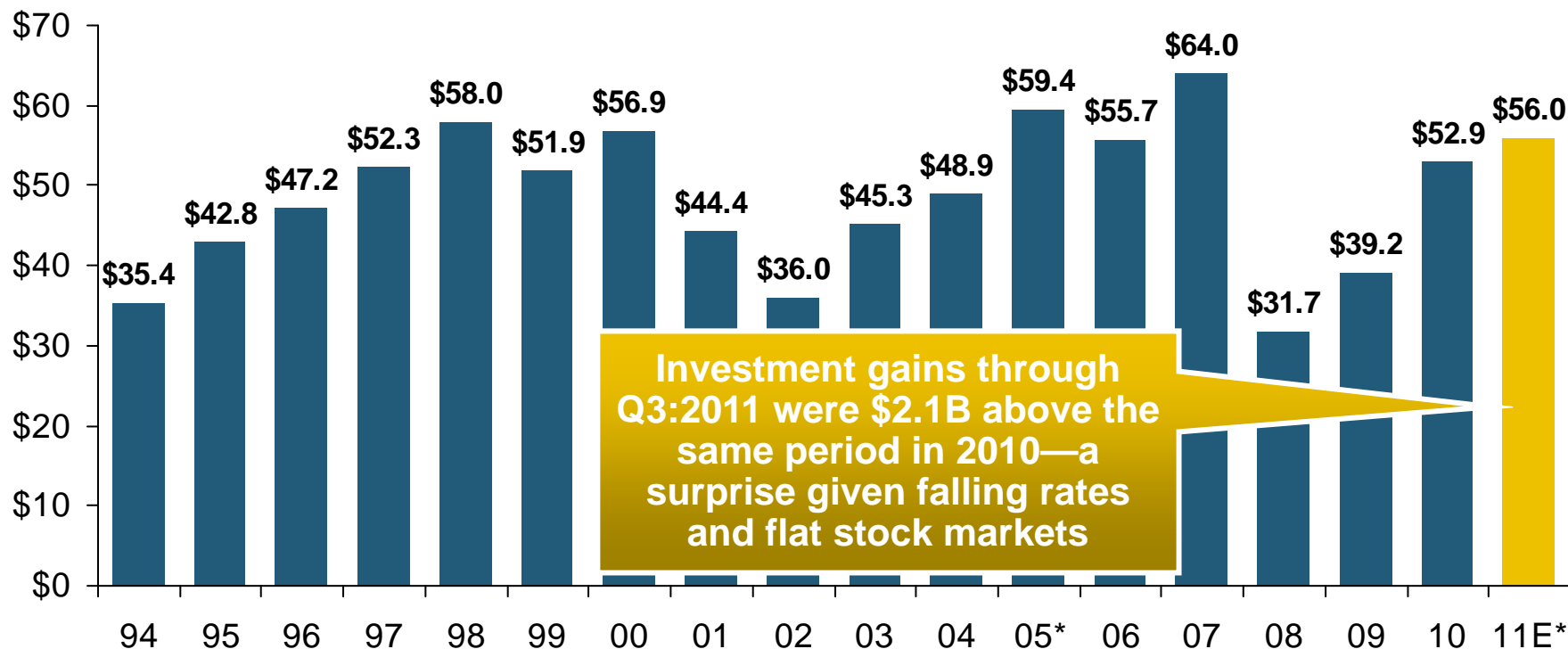
**Could Other Factors Act as a  
Catalyst to Turn the Market?**

# **INVESTMENTS: THE NEW REALITY**

**Investment Performance is a  
Key Driver of Profitability  
*Does It Influence  
Underwriting or Cyclicalities?***

# Property/Casualty Insurance Industry Investment Gain: 1994–2011E<sup>1</sup>

(\$ Billions)



**Investment Gains in 2011 Were Surprisingly Robust. Investment Gains Recovered Significantly Due to Realized Investment Gains; The Financial Crisis Caused Investment Gains to Fall by 50% in 2008**

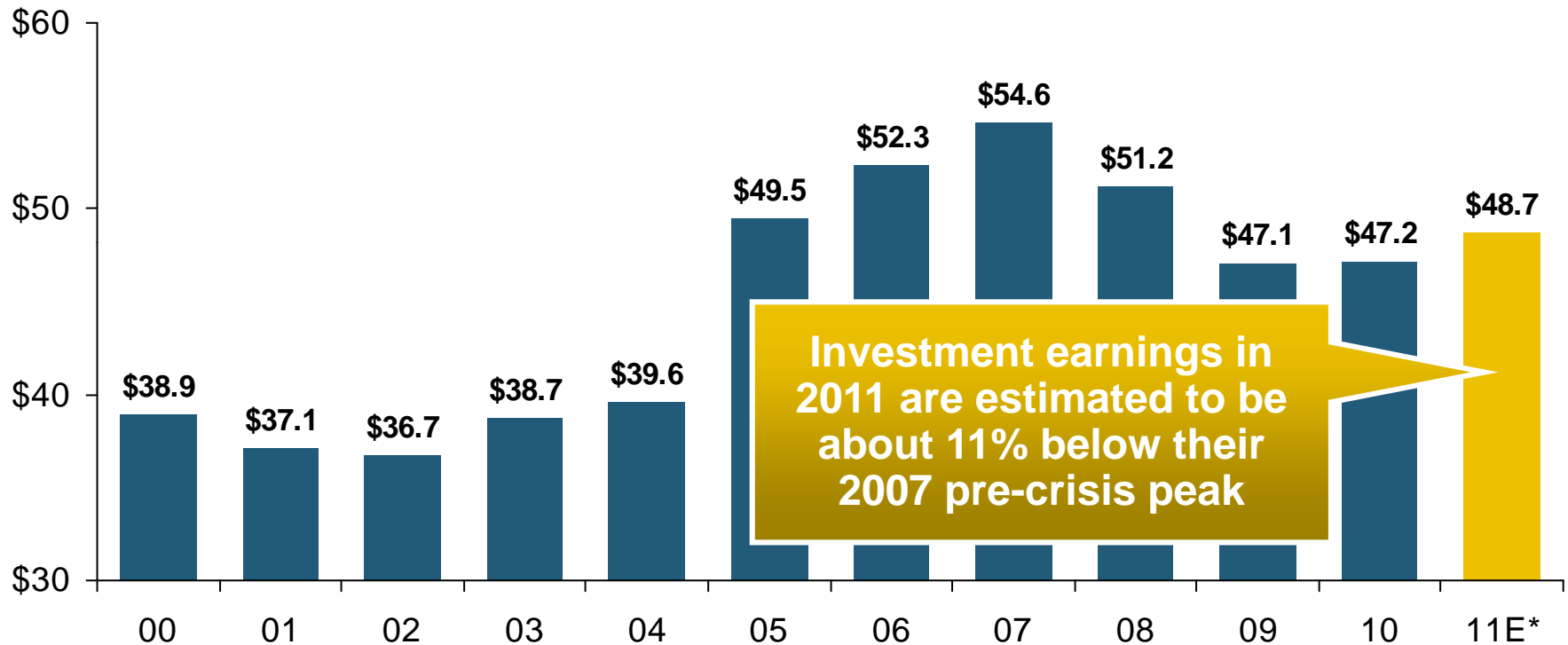
<sup>1</sup> Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

\* 2005 figure includes special one-time dividend of \$3.2B; 2011 figure is annualized based 2011:Q3 actual of \$42.0B.

Sources: ISO; Insurance Information Institute.

# Property/Casualty Insurance Industry Investment Income: 2000–2011E<sup>1</sup>

(\$ Billions)



**Investment Income in 2011 Was Surprisingly Strong, Though Investment Income Is Likely to Weaken in 2012 Due to Persistently Low Interest Rates**

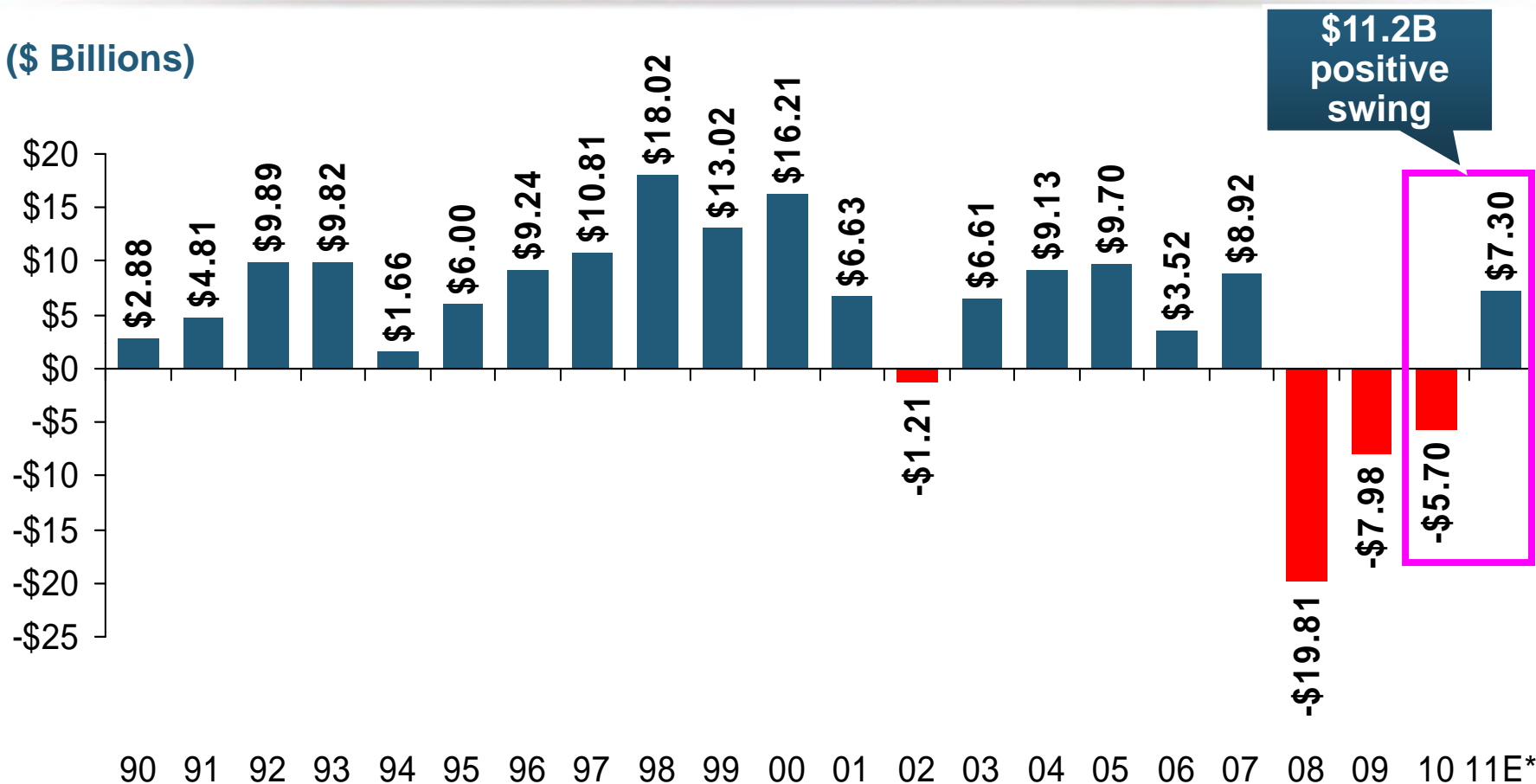
<sup>1</sup> Investment gains consist primarily of interest and stock dividends.

\* 2011E figure is annualized based on actual \$36.5B in investment income through 2011:Q3.

Sources: ISO; Insurance Information Institute.

# P/C Insurer Net Realized Capital Gains/Losses, 1990-2011E

(\$ Billions)

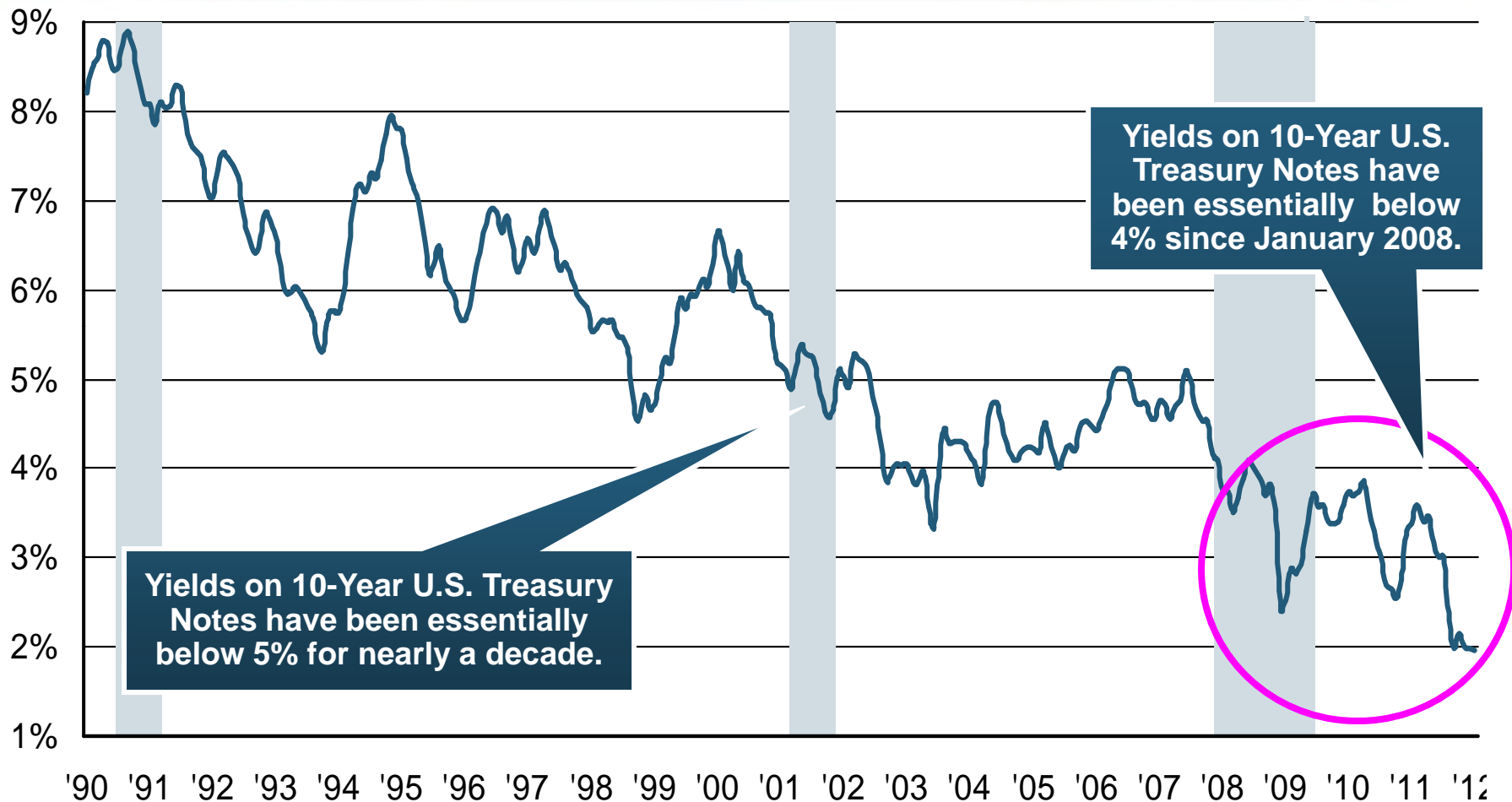


**Insurers Posted Net Realized Capital Gains in 2011 for the First Time Since 2007. Realized Capital Losses Were the Primary Cause of 2008/2009's Large Drop in Profits and ROE**

\*2011 is an estimate based on annualized actual 2011 9-month figure of \$5.5B.

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

# U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2012\*



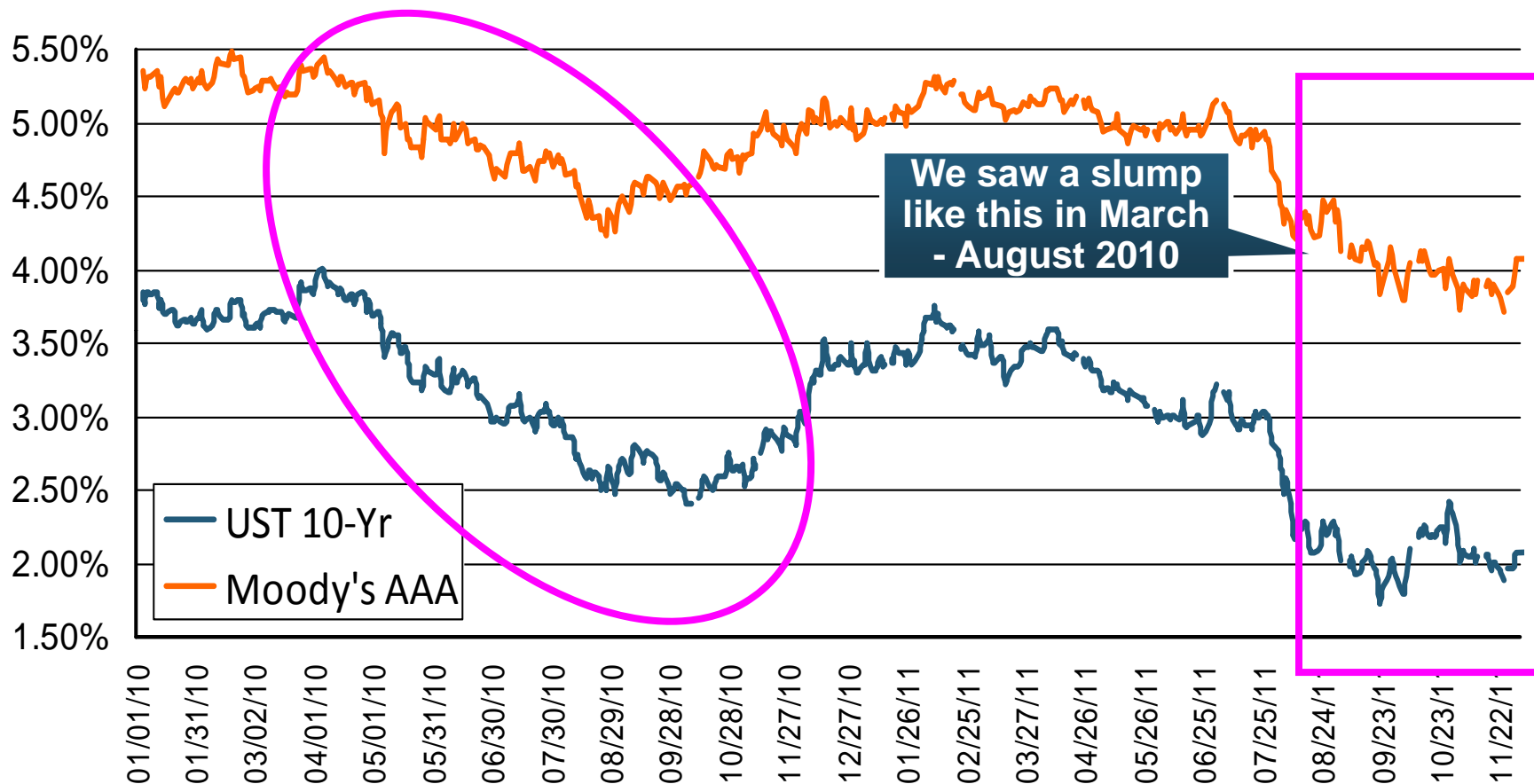
**Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.**

\*Monthly, through January 2012.

Note: Recessions indicated by gray shaded columns.

Sources: Federal Reserve Bank at [http://www.federalreserve.gov/releases/h15/data/Monthly/H15\\_TCMNOM\\_Y10.txt](http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TCMNOM_Y10.txt)  
National Bureau of Economic Research (recession dates); Insurance Information Institutes.

# Daily Yields, 10-Year U.S. T-Notes vs. Moody's Seasoned AAAs, 2010-2011\*

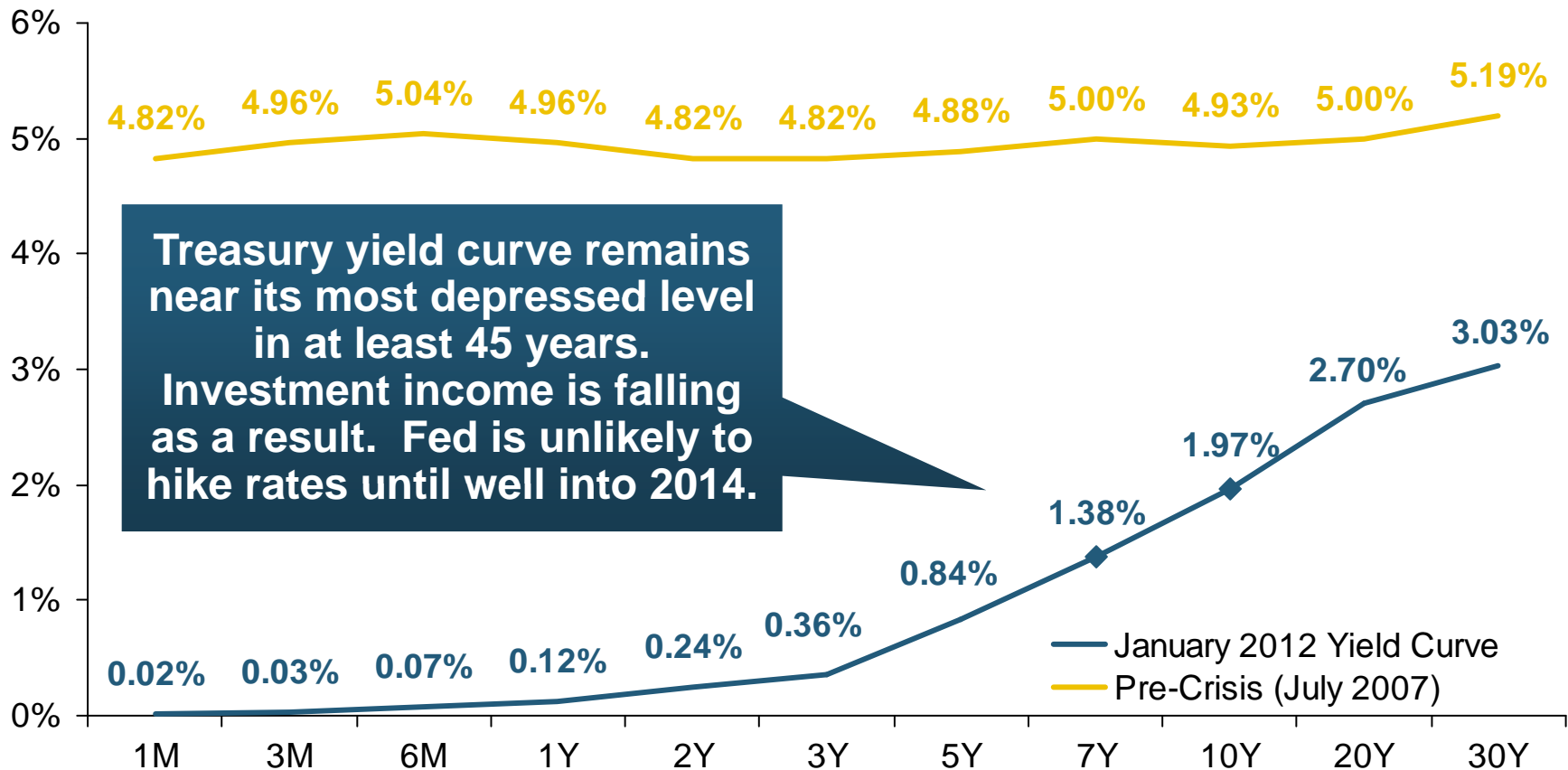


The spread between the two yields reflects confidence (or lack of it) in the economy's prospects. A wider spread indicates worry; narrower = confidence.

\*through 11/30/2011

Sources: Federal Reserve Board at [http://www.federalreserve.gov/releases/h15/data/Business\\_day/H15\\_TCMNOM\\_Y10.txt](http://www.federalreserve.gov/releases/h15/data/Business_day/H15_TCMNOM_Y10.txt) and [http://www.federalreserve.gov/releases/h15/data/Business\\_day/H15\\_AAA\\_NA.txt](http://www.federalreserve.gov/releases/h15/data/Business_day/H15_AAA_NA.txt)

# Treasury Yield Curves: Pre-Crisis (July 2007) vs. Jan. 2012



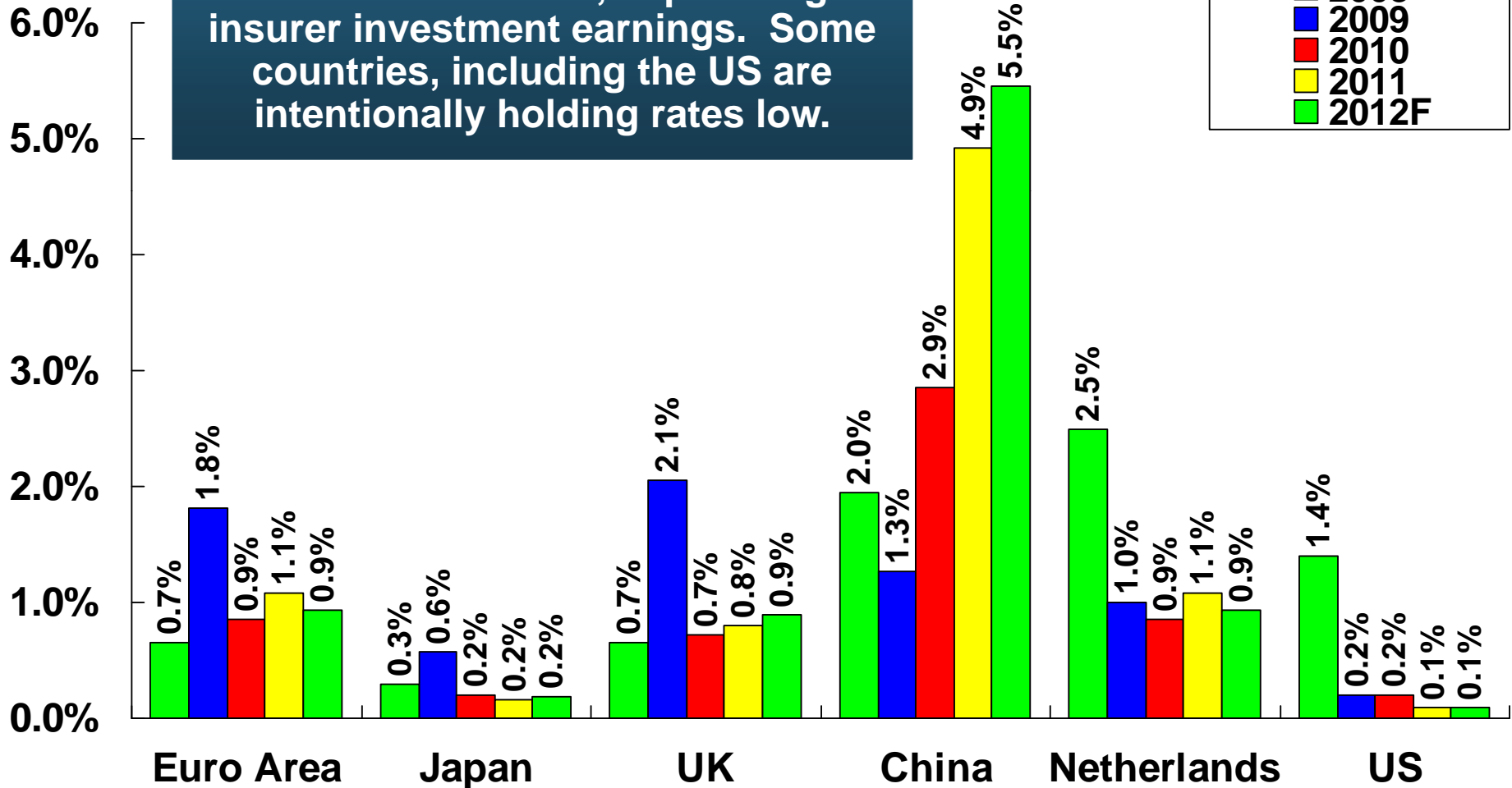
Treasury yield curve remains near its most depressed level in at least 45 years. Investment income is falling as a result. Fed is unlikely to hike rates until well into 2014.

**The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Through Late 2014**

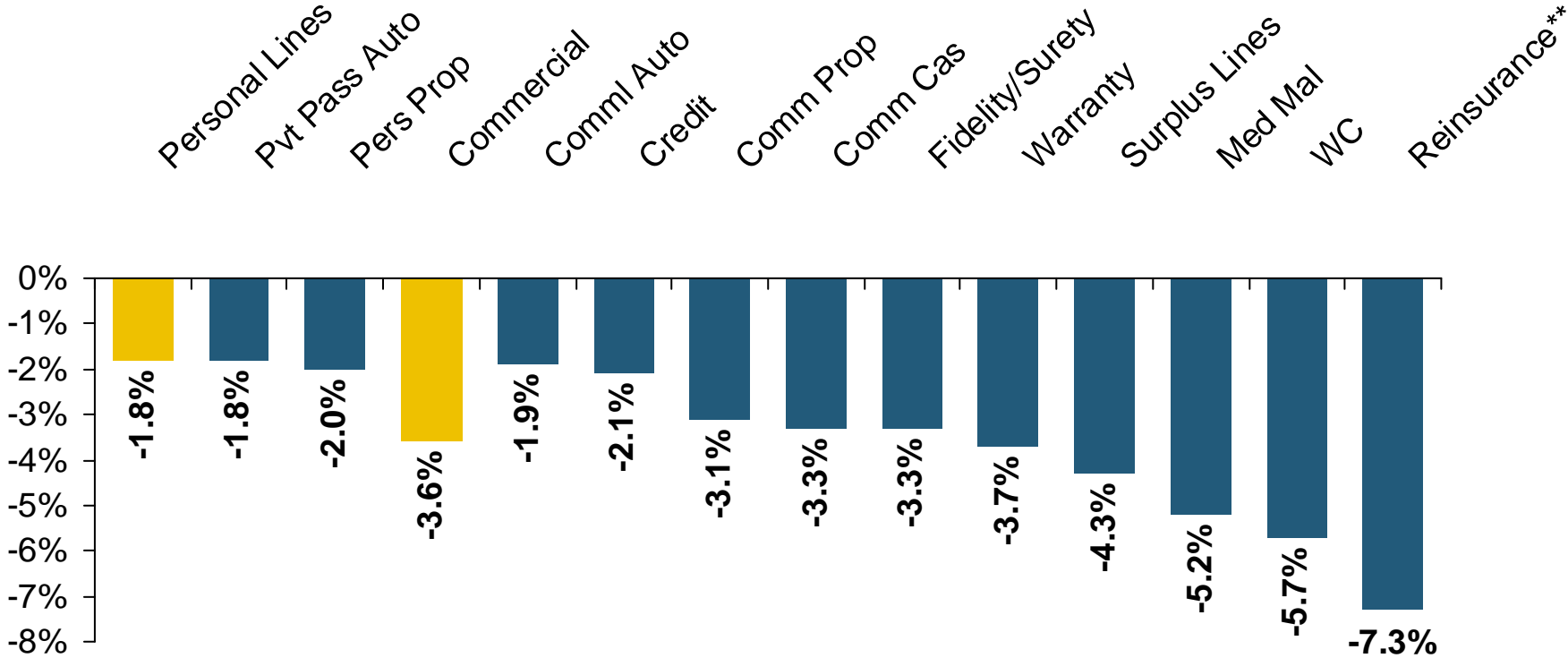


# 3-Month Interest Rates for Major Global Economies, 2008-2012F

Interest rates remain generally low in much of the world, depressing insurer investment earnings. Some countries, including the US are intentionally holding rates low.



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



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

\*Based on 2008 Invested Assets and Earned Premiums

\*\*US domestic reinsurance only

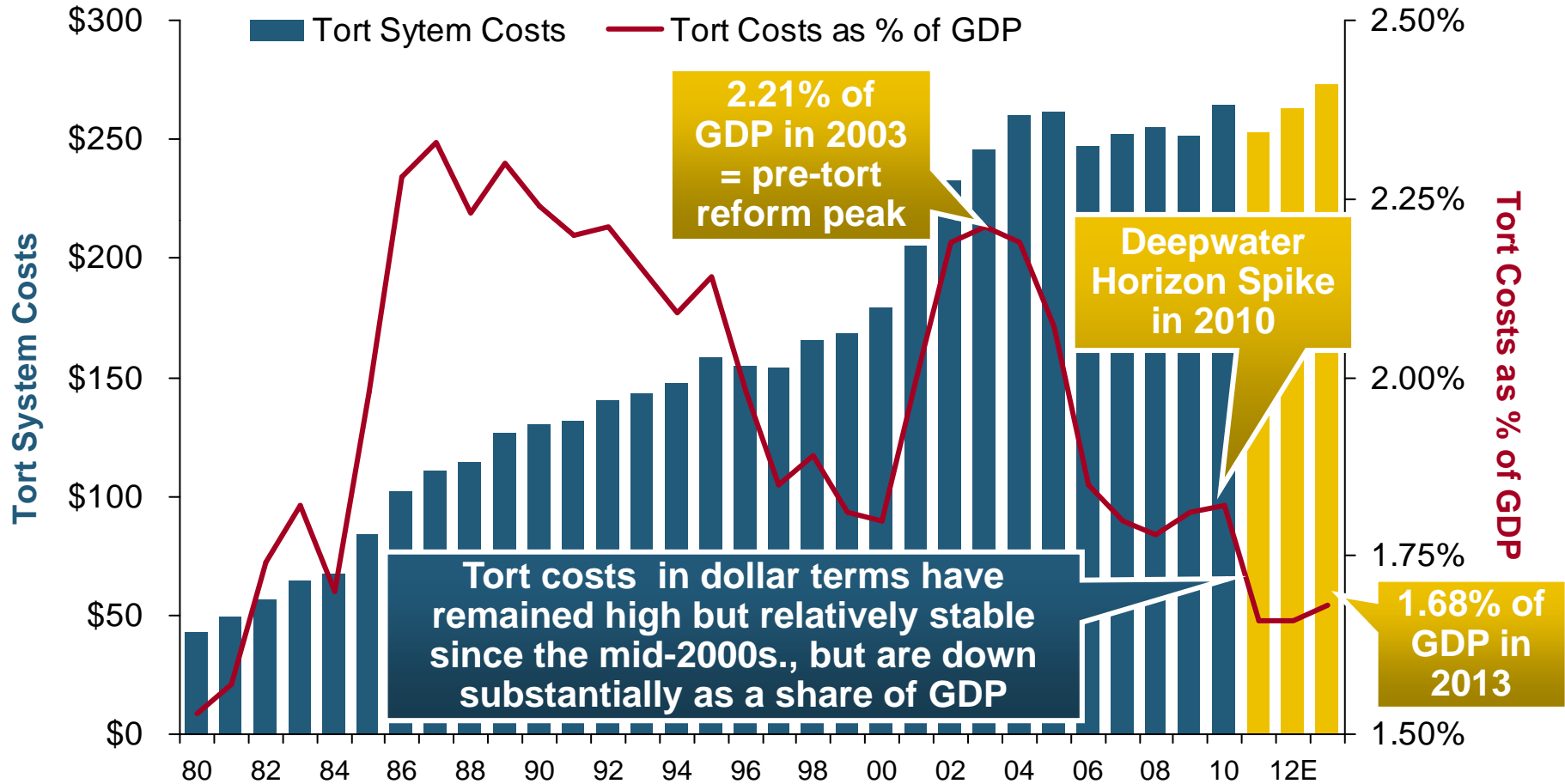
Source: A.M. Best; Insurance Information Institute.

# **Shifting Legal Liability & Tort Environment**

**Tort Environment Appears to Be  
Less of a Driver than in Past**

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

(\$ Billions)

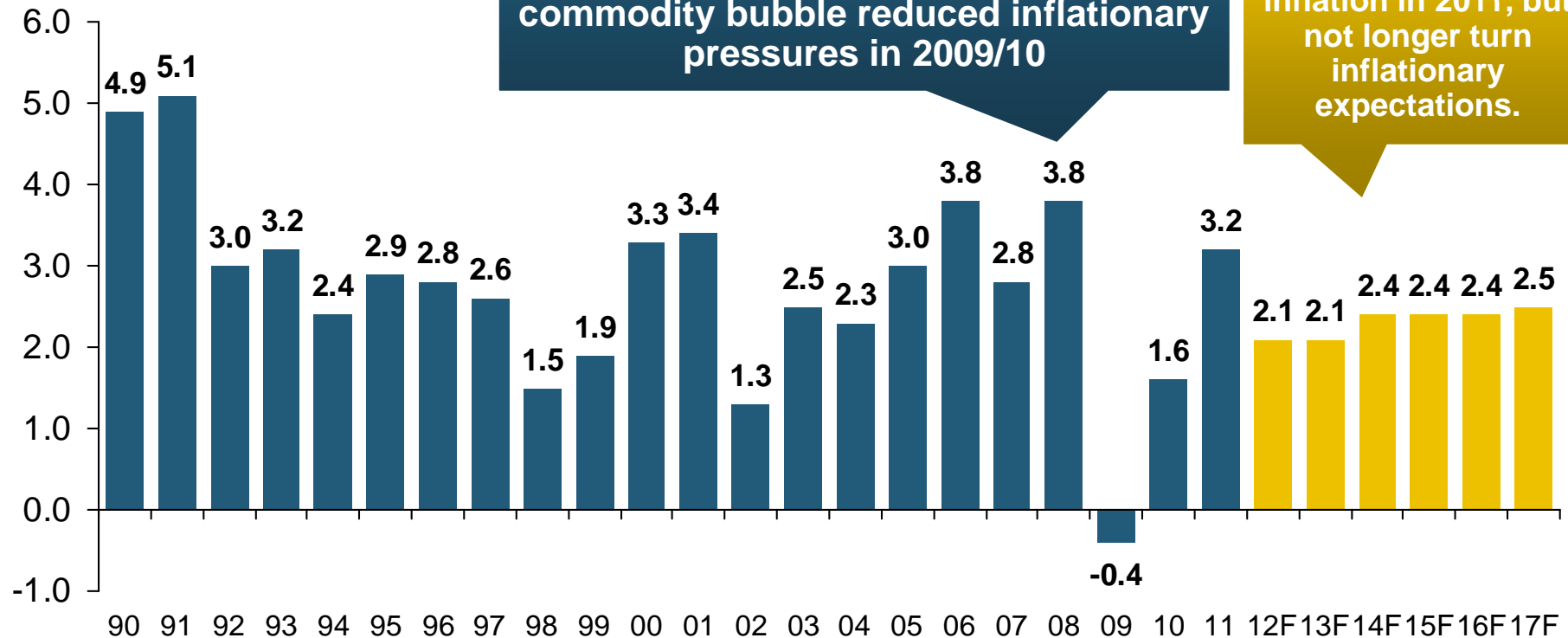


# Inflation

**Is it a Threat to Claim Cost  
Severities?**

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

Annual Inflation Rates (%)



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

Higher energy, commodity and food prices pushed up inflation in 2011, but not longer turn inflationary expectations.

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

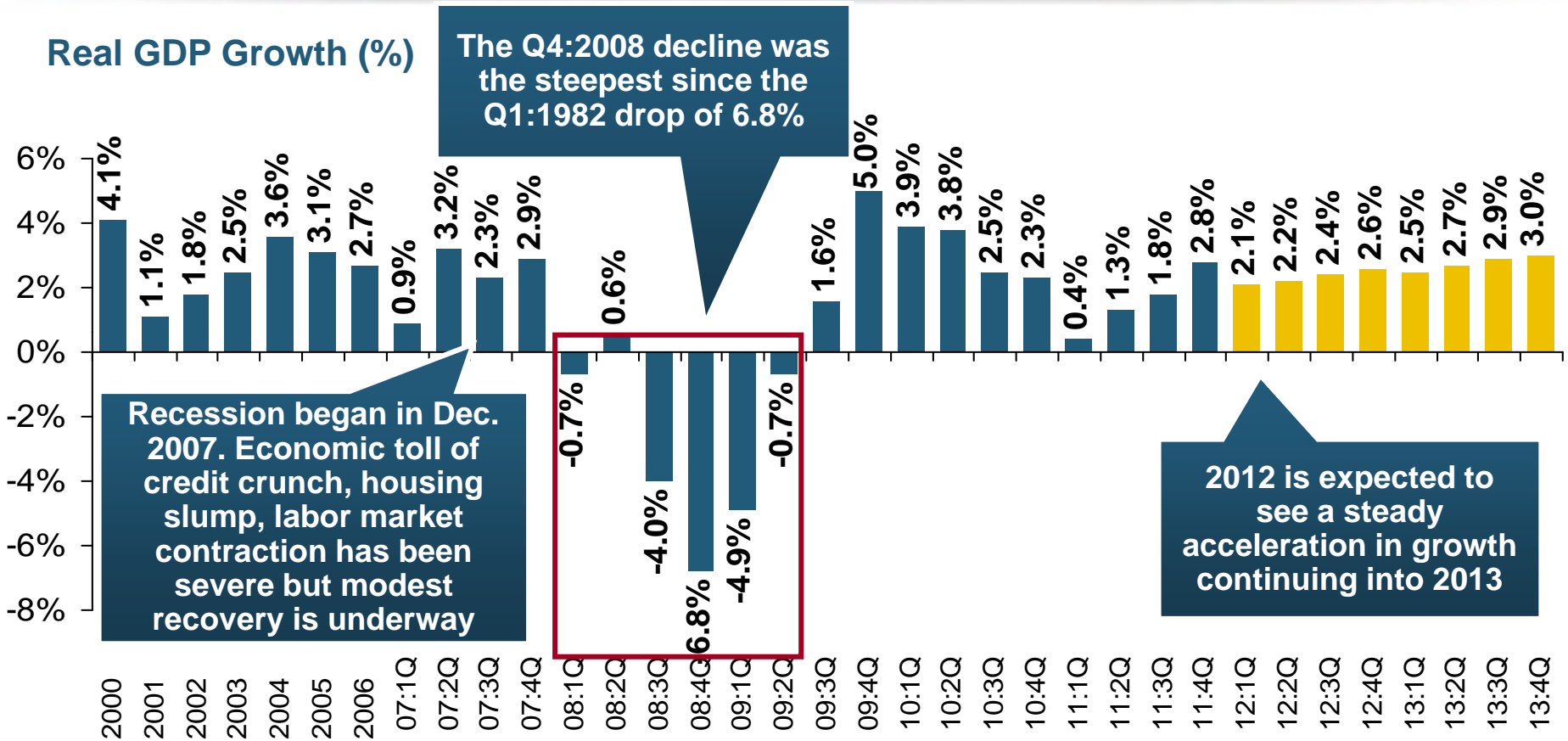
Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators, 10/11 and 1/12 (forecasts).



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

**Growth Will Expand Insurable Exposures  
and Help Absorb Excess Capital**

# US Real GDP Growth\*



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

\* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 2/12; Insurance Information Institute.



- **None of the “Traditional Criteria” for a Market Turn (or “Hard Market”) Has Been Completely Realized**
- **Other Major Driving Factors Such as a Material Deterioration in Tort Environment or Inflation Are Absent**
- **Deterioration in Underwriting Results Has Been Masked**
  - ◆ **Prior-year reserve releases**
- **Investment Earnings in Aggregate Have Yet to Fall Materially**
  - ◆ **Decline in investment income offset by realization of capital gains**

Insurance Information Institute Online:

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

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