The Financial Crisis: Implications for Insurers and Risk Management

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Presentation Outline

I. The Failure of Risk Management at Major Financial Institutions & "*The Great Recession*"

- **Risk Management Failures**
- **Contributing Factors**

II. Critical Distinctions in Risk Management : Banks vs. Insurers

- **Differences in Performance and Outcome During the Crisis**
- **Threats to Insurer Risk Management: 2009-2015**

I. The Failure of Risk Management & The "Great Recession"

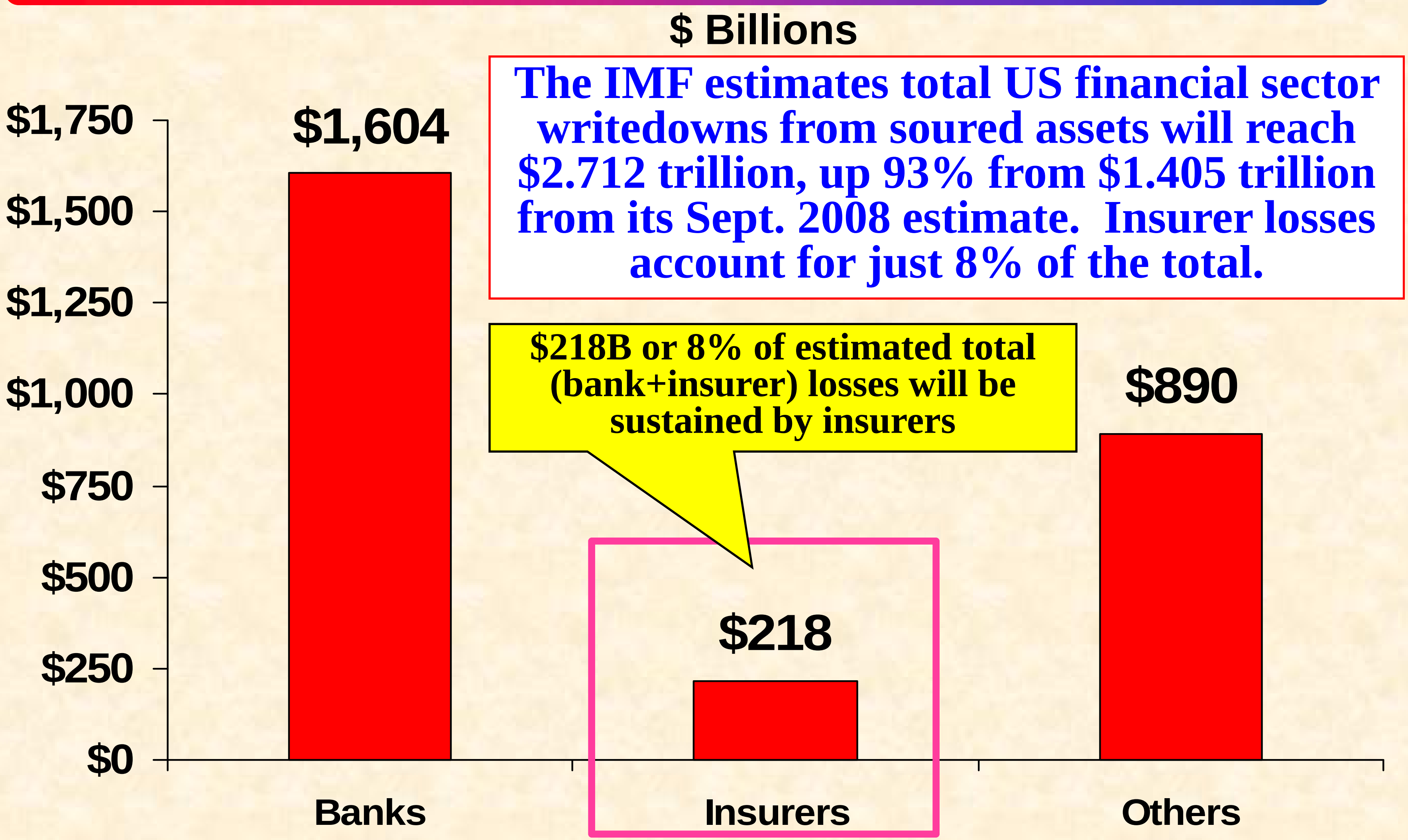
Can Enterprise Risk Management be Saved?

The "Great Recession" and the Failure of Risk Management

- **The Credit Crisis that Began in the US in mid-2007 Was Largely Avoidable and Never Should Have Happened**
- **The Collapse of Major Financial Institutions and the Ensuing Financial Crisis and "Great Recession" Are the Direct Result of Colossal Failures of Risk Management**
- **Many Large Financial Institutions Have Invoked the "Black Swan" Defense (*No Way We Could Have Seen this Coming*)—Real Reasons Include:**
  - Fundamental failure of basic control and supervision
  - Massive misalignment of management incentives (principal-agent problem)
  - Seemingly willful ignorance of basic Econ 101 incentive problems such as moral hazard (incentive shifts when lender and borrower have no financial stake in outcome of loan) and adverse selection (as loan underwriting deteriorated)
  - Excessive/unwarranted trust in models (and the quants who develop them)
  - Excessive/unwarranted trust in counterparties
  - Failure to comprehend correlations among financial markets
  - Downplaying of tail risk

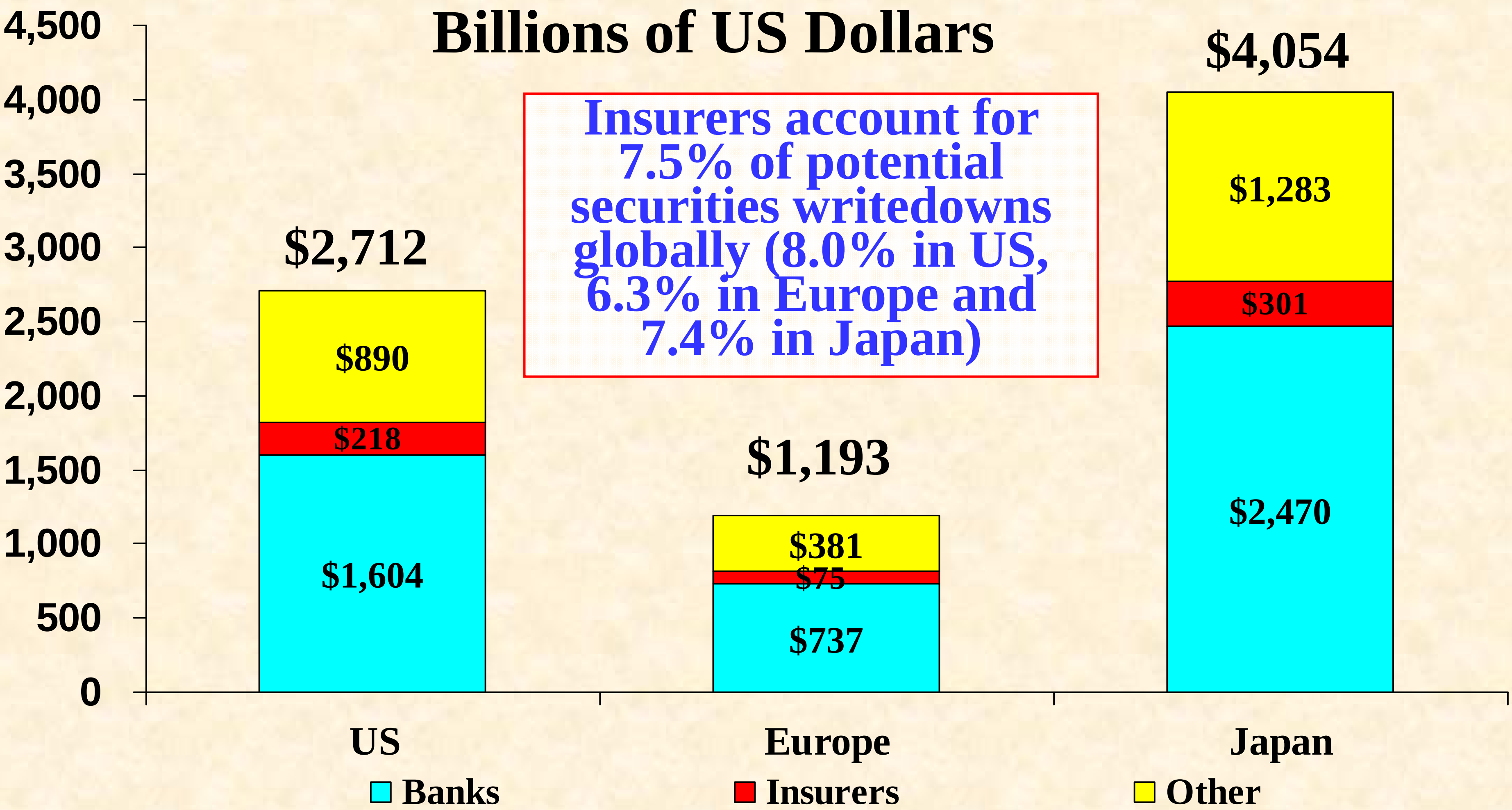
Source: Ins. Info. Inst.

US Financial Institutions Facing Huge Losses from the Credit Crunch*



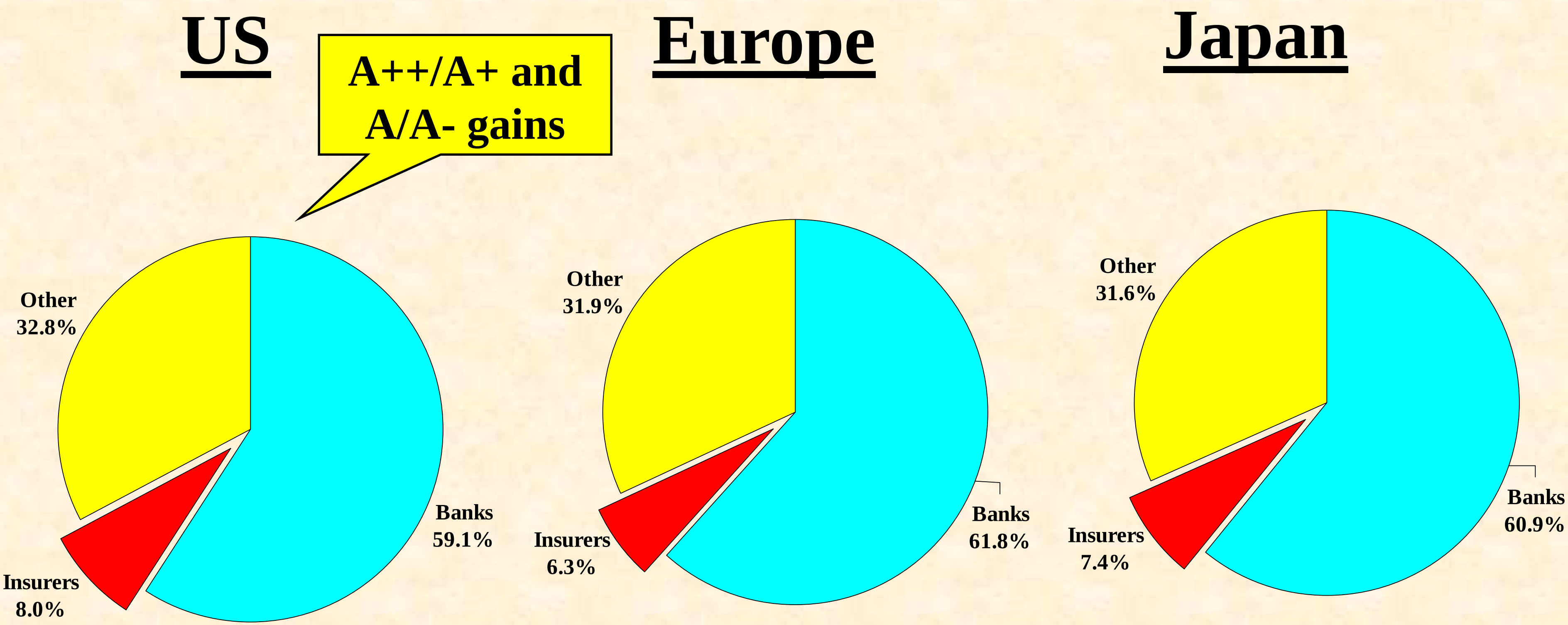
*Estimate of financial sector writedowns, 2007-2010, as of April 2009. Includes loans and securities.
Source: IMF Global Financial Stability Report, April 2009.

Potential Writedowns by Segment and Region: 2007-2010*



* Includes loans and securities. Europe includes euro countries plus United Kingdom. Insurance category includes life and non-life insurers.
Source: IMF Global Financial Stability Report, April 2009.

*Share of Potential Writedowns by Segment and Region: 2007-2010**



Insurer writedowns of securities are expected to total 7.5% of all financial institution losses through 2010

* Includes loans and securities. Europe includes euro countries plus United Kingdom. Insurance category includes life and non-life insurers.

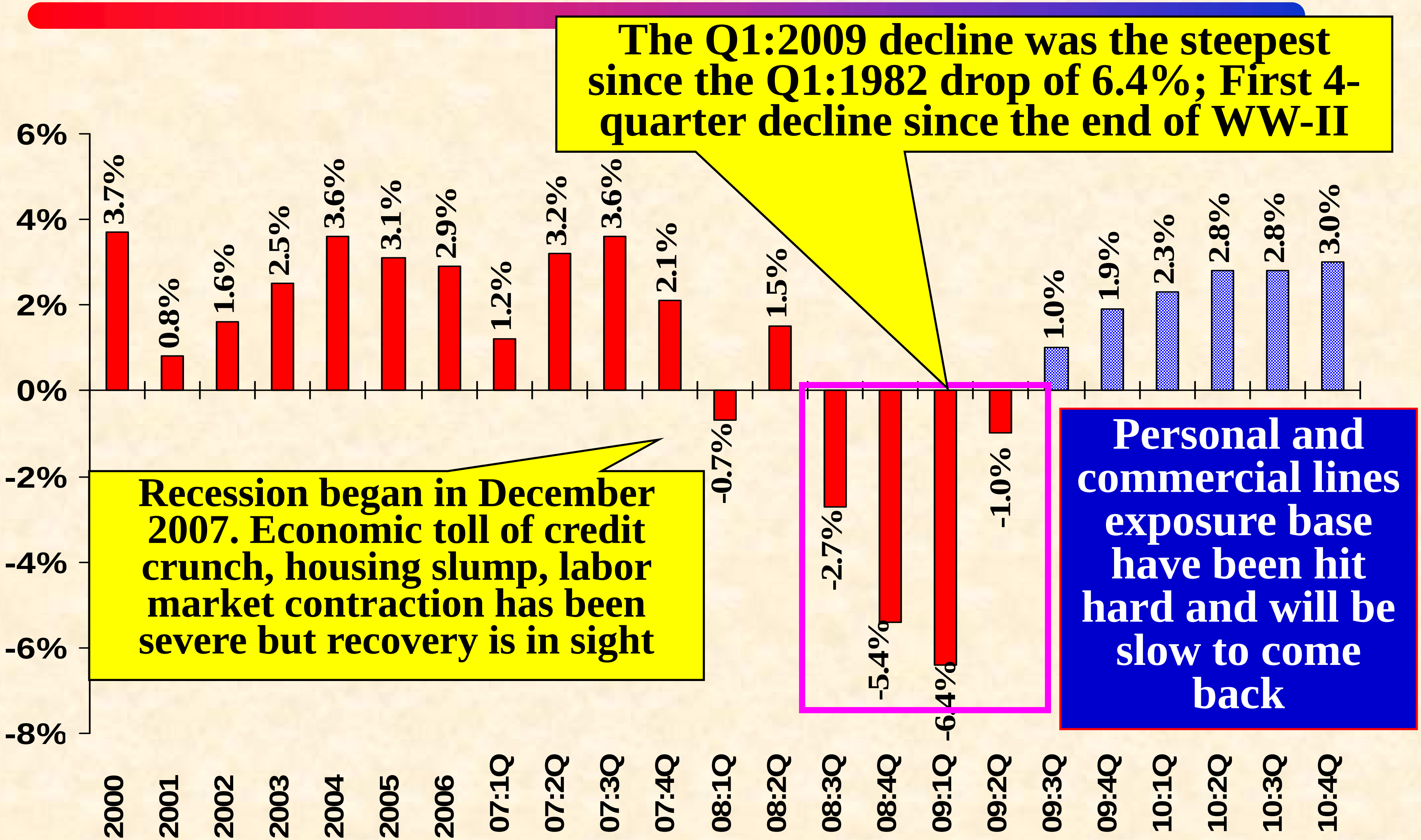
Source: IMF Global Financial Stability Report, April 2009.

The "Great Recession": Contributing Factors

- **Myriad Other Factors Amplified Failings of Risk Management and Contributed to Depth and Breadth of Crisis but Were Not Directly Causal:**
- **Lack of sufficient or appropriate regulatory oversight (1/2 banking sector unregulated—hedge funds, private equity, credit derivatives like Credit Default Swaps)**
- **Federal Reserve monetary policy (int. rates too low for too long)**
- **Public Policy: GSEs like Fannie and Freddie obscured risk**
- **Accounting Rules: Mark-to-Market requirements contributed to volatility by artificially distorting asset values**
- **Credit Ratings Agencies: Conflicted; Poor job evaluating risk**
- **Consumers: Households/Corporations eager to gorge on debt**

Source: Ins. Info. Inst.

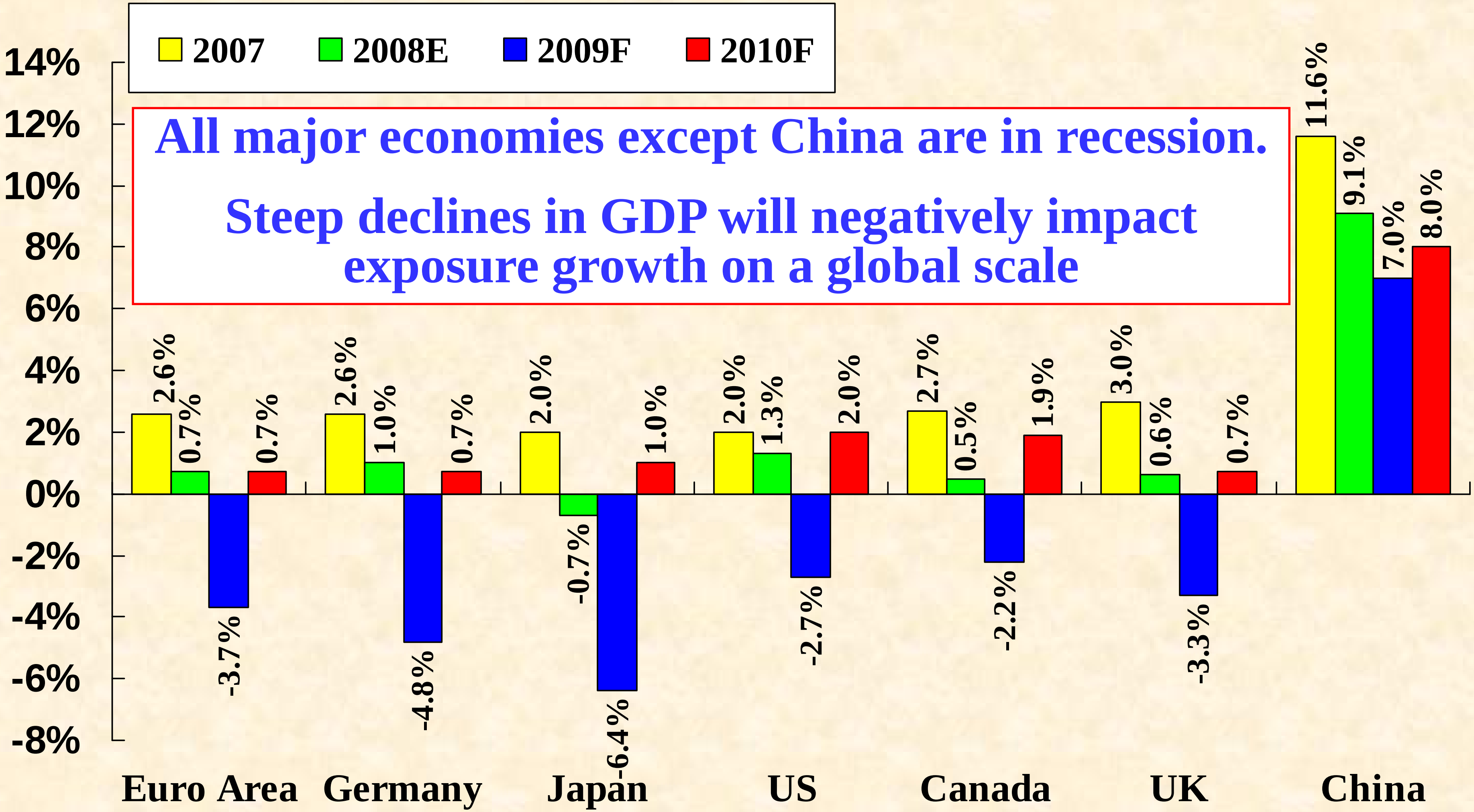
Real GDP Growth*



*Blue bars are Estimates/Forecasts from Blue Chip Economic Indicators.

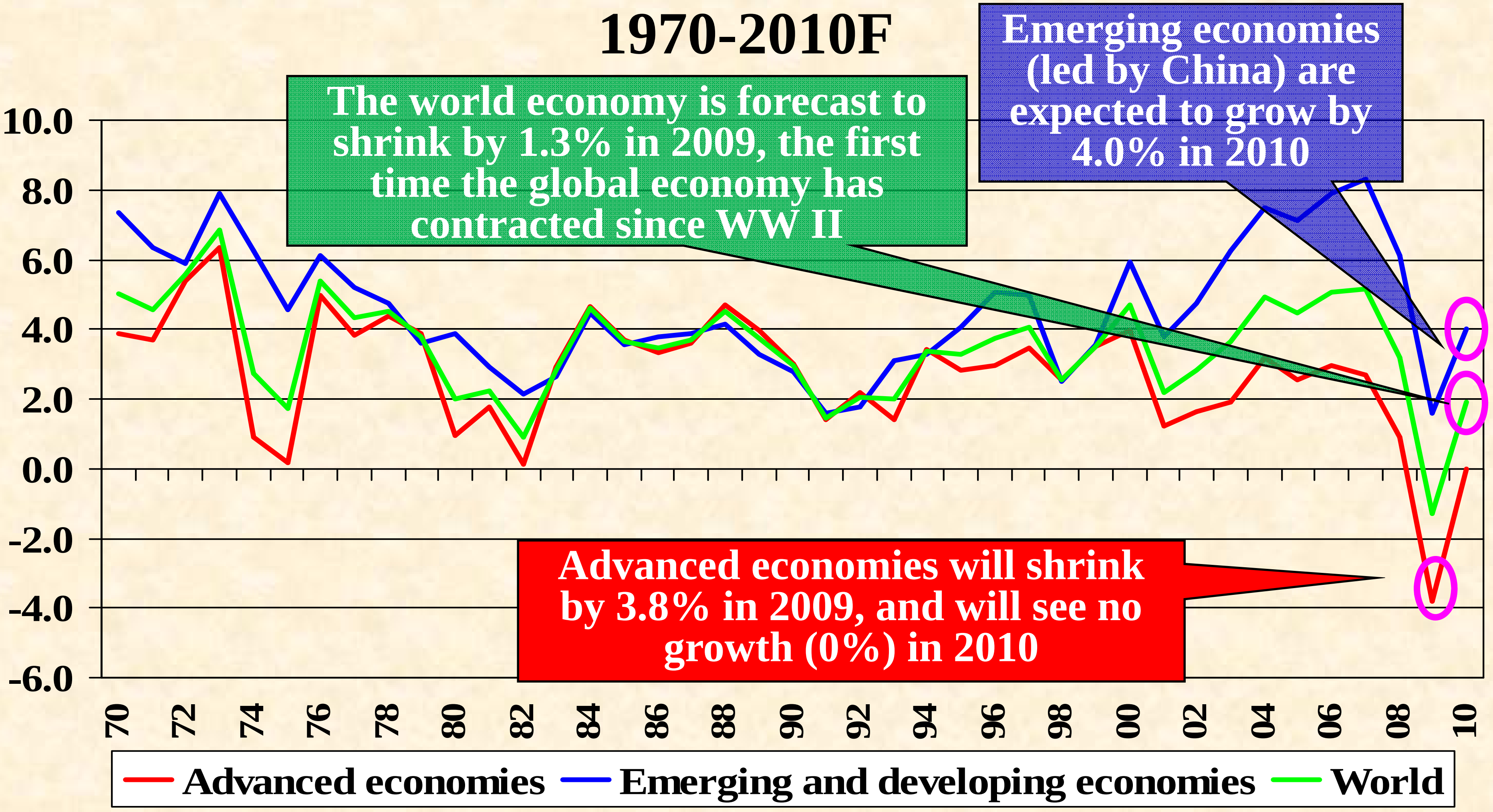
Source: US Department of Commerce, Blue Economic Indicators 7/09; Insurance Information Institute.

Real GDP By Market 2007-2010F
(% change from previous year)



Source: Blue Chip Economic Indicators, 6/10/09 edition.

GDP Growth: Advanced & Emerging Economies vs. World



Source: International Monetary Fund, *World Economic Outlook Update*, April 2009; Ins. Info. Institute.

II. Critical Differences Between P/C Insurers and Banks

Superior Risk Management Model & Low Leverage Make a Big Difference

How Insurance Industry Stability Has Benefitted Consumers

BOTTOM LINE:

- **Insurance Markets—Unlike Banking—Are Operating *Normally***
- **The Basic Function of Insurance—the Orderly Transfer of Risk from Client to Insurer—Continues *Uninterrupted***
- **This Means that Insurers Continue to:**
  - **Pay claims (whereas 89 banks have gone under as of 7/24/09)**
    - ***The Promise is Being Fulfilled***
  - **Renew existing policies (banks are reducing and eliminating lines of credit)**
  - **Write new policies (banks are turning away people who want or need to borrow)**
  - **Develop new products (banks are scaling back the products they offer)**

Source: Insurance Information Institute

Reasons Why P/C Insurers Have Fewer Problems Than Banks: A Superior Risk Management Model

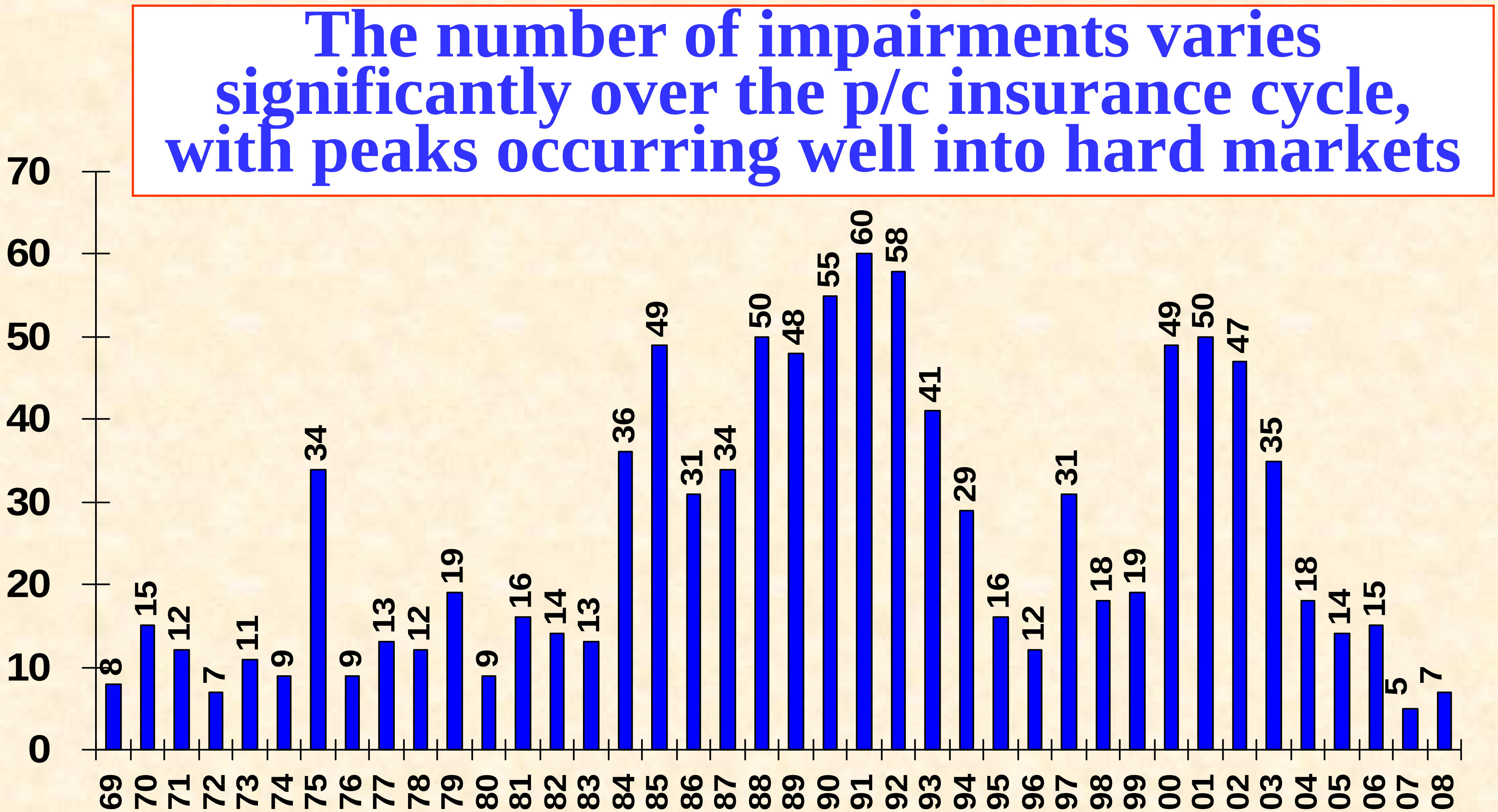
- ***Emphasis on Underwriting***
  - **Matching of risk to price (via experience and modeling)**
  - **Limiting of potential loss exposure**
  - ***Some banks sought to maximize volume and fees and disregarded risk***
- ***Strong Relationship Between Underwriting and Risk Bearing***
  - **Insurers always maintain a stake in the business they underwrite, keeping "skin in the game" at all times**
  - ***Banks and investment banks package up and securitize, severing the link between risk underwriting and risk bearing, with (predictably) disastrous consequences—straightforward moral hazard problem from Econ 101***
- ***Low Leverage***
  - **Insurers do not rely on borrowed money to underwrite insurance or pay claims →*****There is no credit or liquidity crisis in the insurance industry***
- ***Conservative Investment Philosophy***
  - **High quality portfolio that is relatively less volatile and more liquid**
- ***Comprehensive Regulation of Insurance Operations***
  - **The business of insurance remained comprehensively regulated whereas a separate banking system had evolved largely outside the auspices and understanding of regulators (e.g., hedge funds, private equity, complex securitized instruments, credit derivatives—CDS's)**
- ***Greater Transparency***
  - **Insurance companies are an open book to regulators and the public**

Source: Insurance Information Institute

FINANCIAL STRENGTH & RATINGS

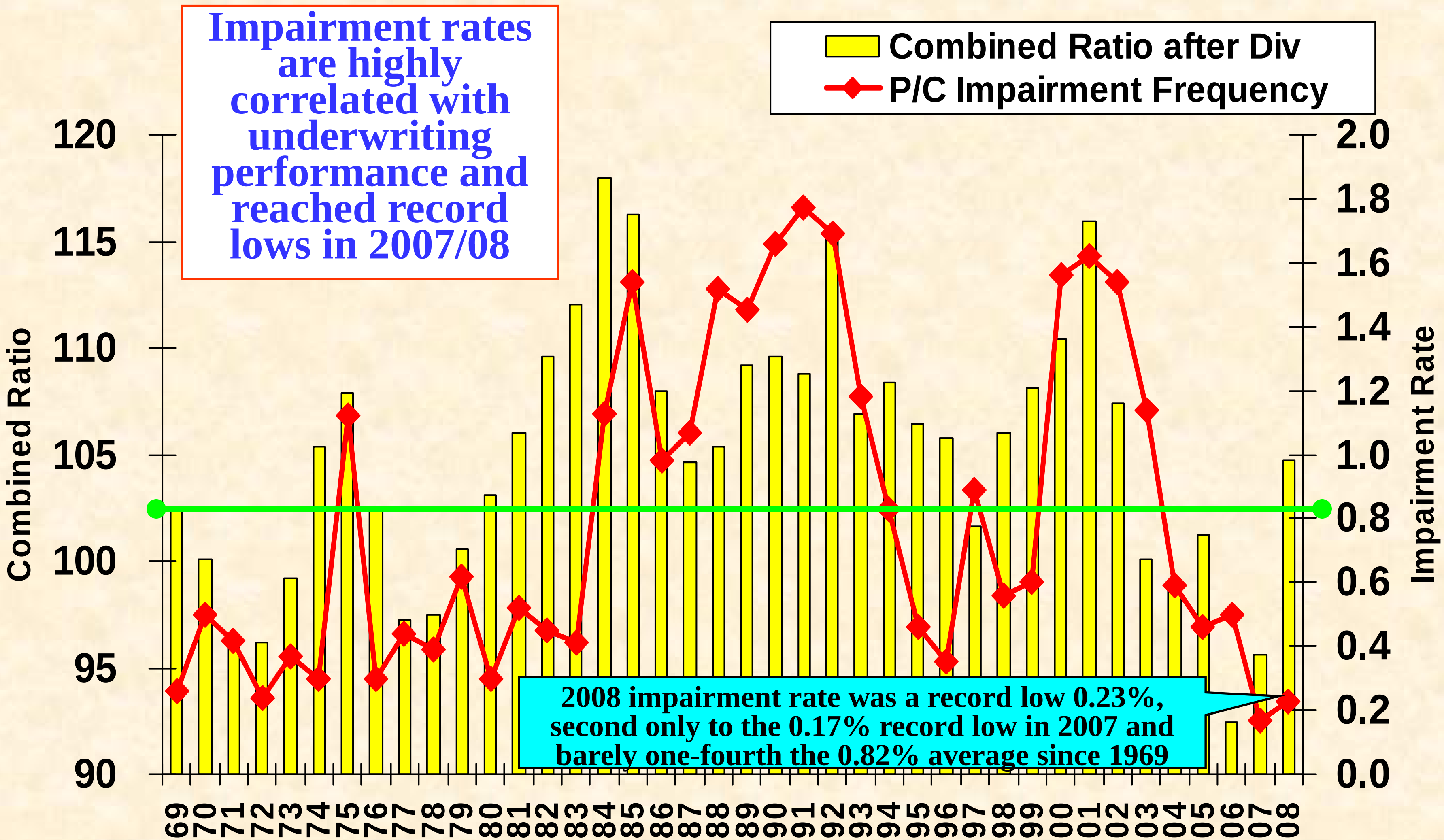
Industry Has Weathered the Storms Well

P/C Insurer Impairments, 1969-2008



Source: A.M. Best; Insurance Information Institute

P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2008

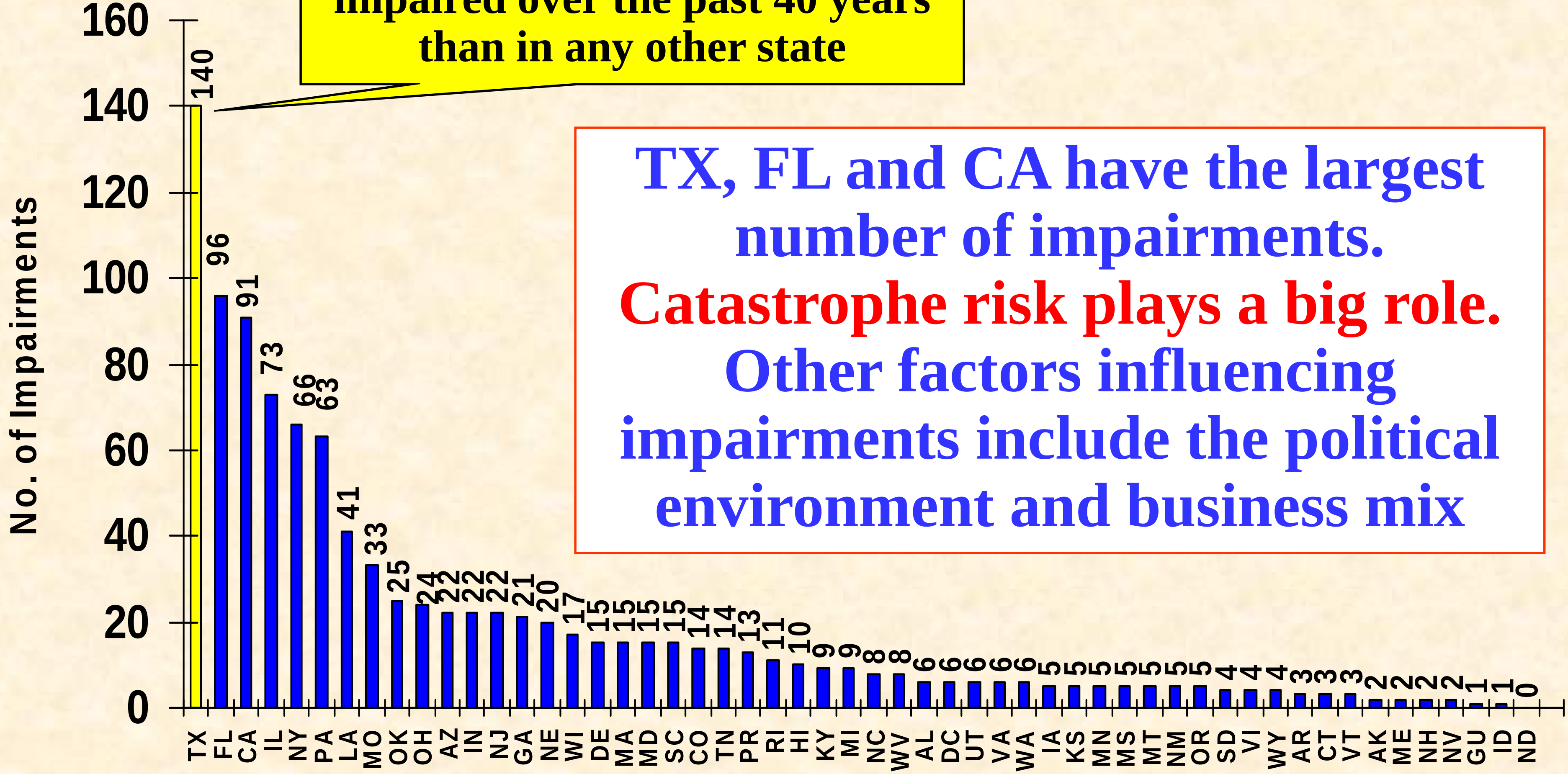


Source: A.M. Best; Insurance Information Institute

Number of Impairments by State, 1969-2008

More TX insurers have become impaired over the past 40 years than in any other state

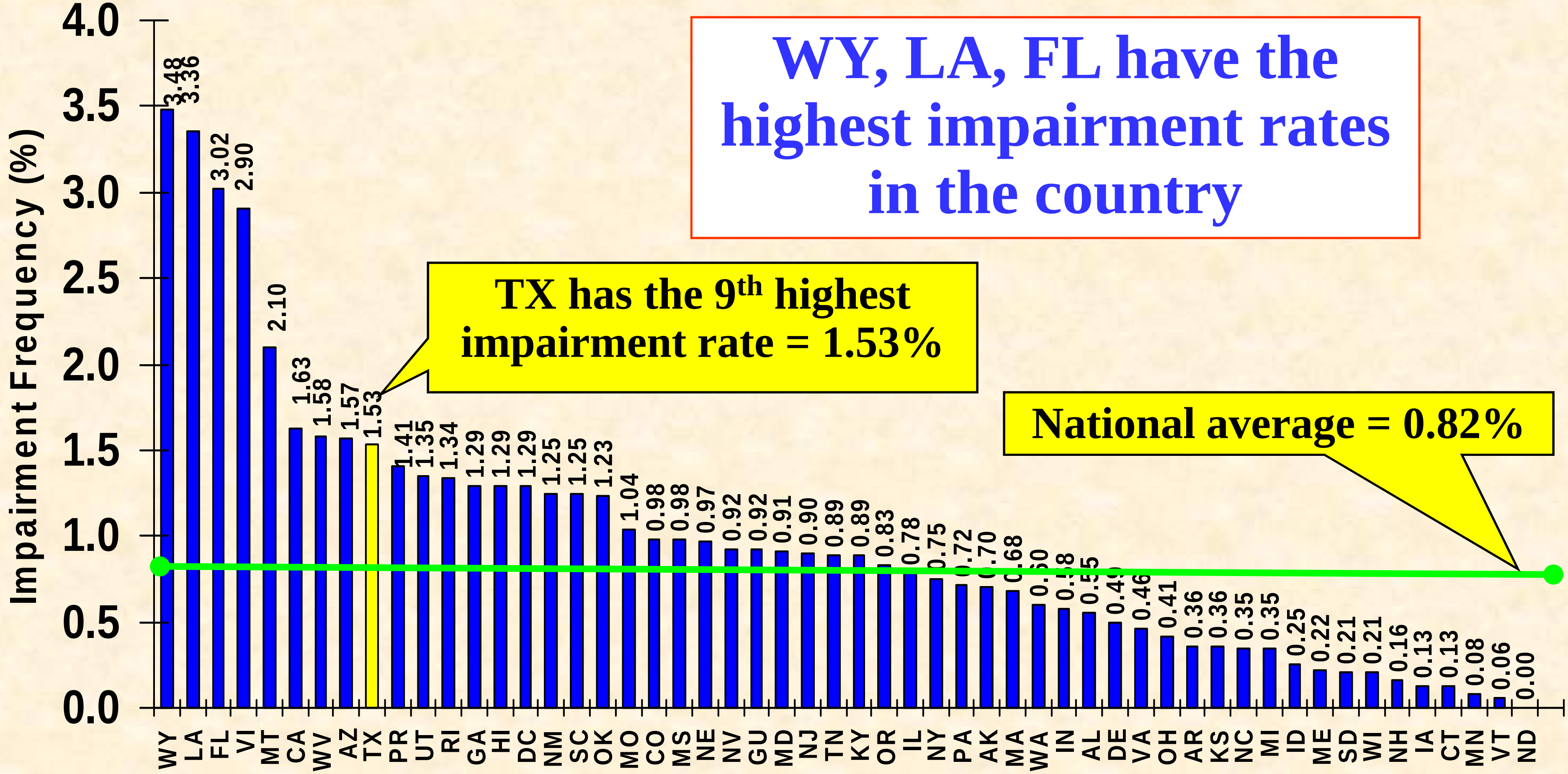
TX, FL and CA have the largest number of impairments.
Catastrophe risk plays a big role.
Other factors influencing impairments include the political environment and business mix



Source: A.M. Best; Insurance Information Institute

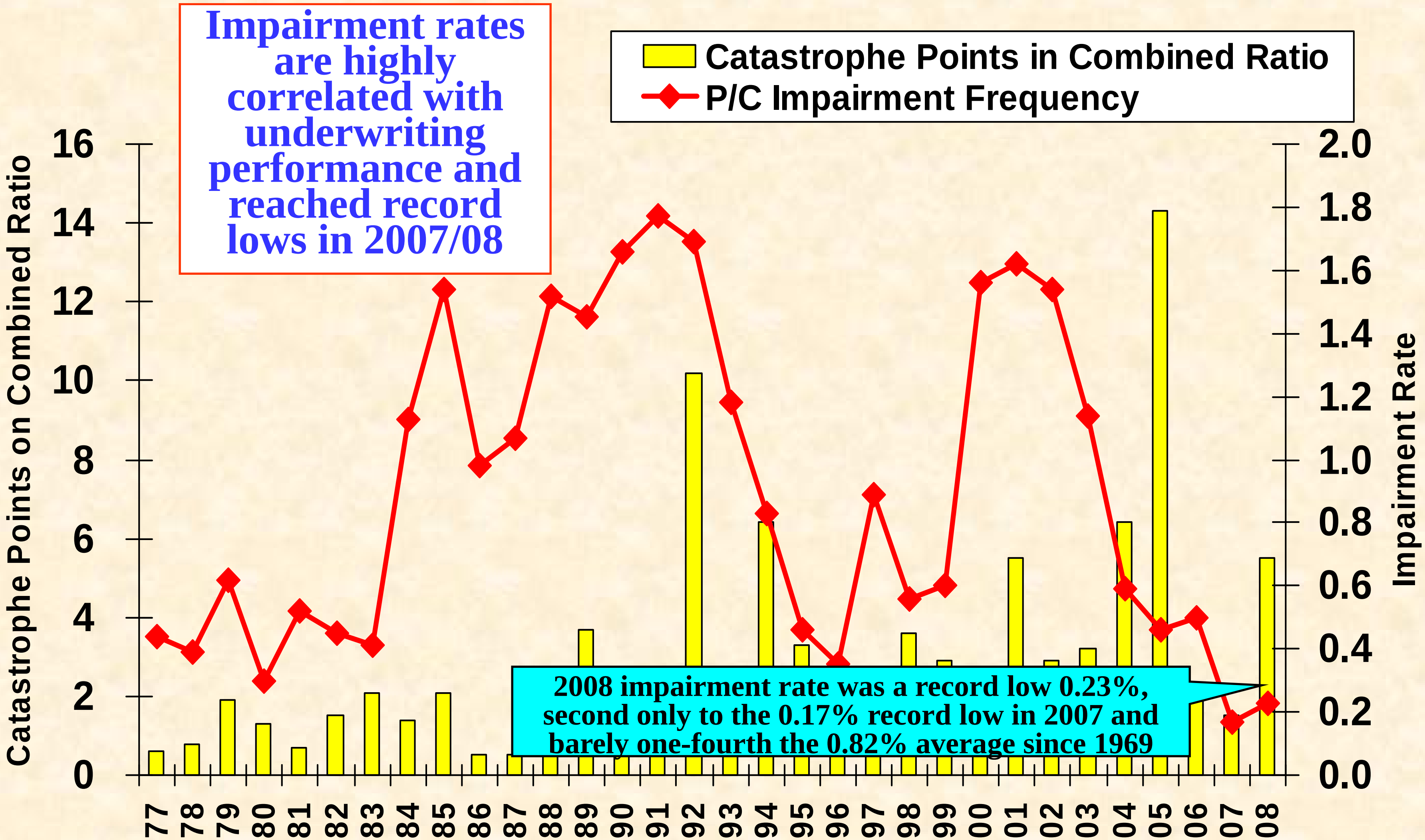
Frequency of Impairments by State, 1969-2008

(Impairments per 100 Insurers Domiciled in State)



Source: A.M. Best; Insurance Information Institute

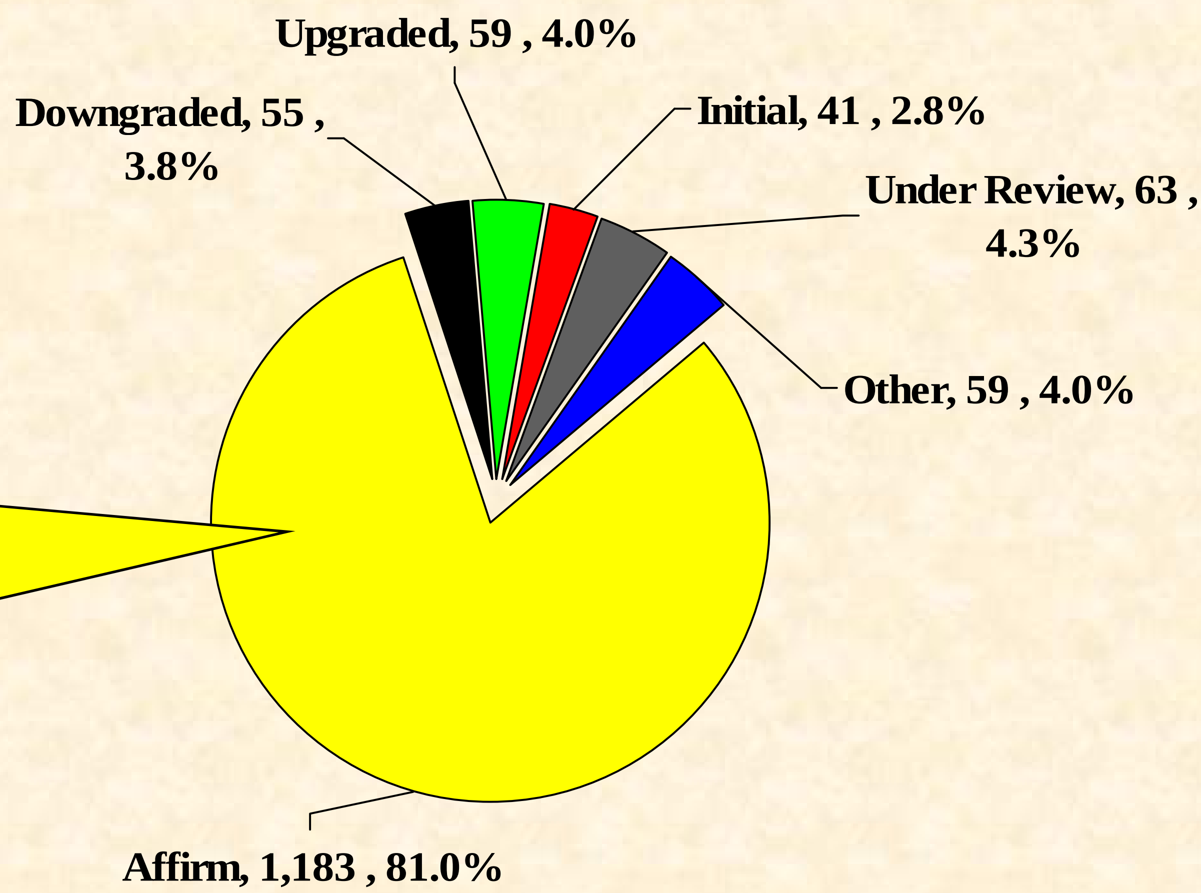
P/C Impairment Frequency vs. Catastrophe Points in Combined Ratio, 1977-2008



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

Summary of A.M. Best's P/C Insurer Ratings Actions in 2008*

P/C insurance is by design a resilient in business. The dual threat of financial disasters and catastrophic losses are anticipated in the industry's risk management strategy.



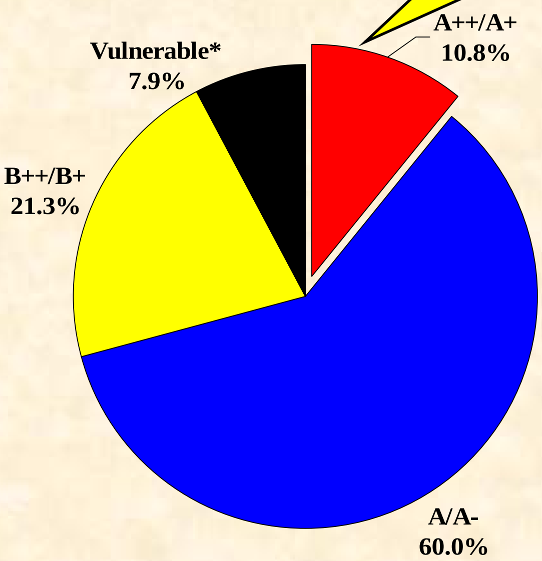
Despite financial market turmoil, high cat losses and a soft market in 2008, 81% of ratings actions by A.M. Best were affirmations; just 3.8% were downgrades and 4.0% upgrades

*Through December 19.
Source: A.M. Best.

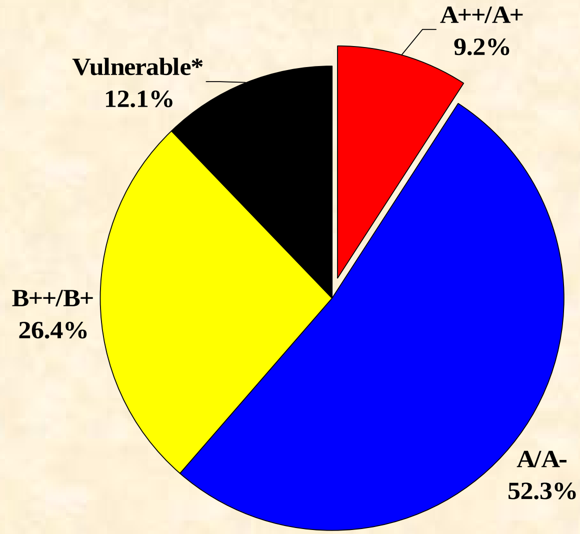
Historical Ratings Distribution,
US P/C Insurers, 2008 vs. 2005 and 2000

2008

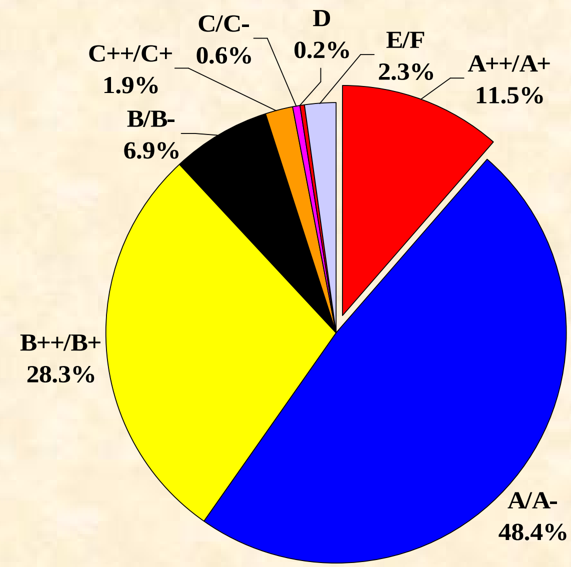
A++/A+ and A/A- gains



2005



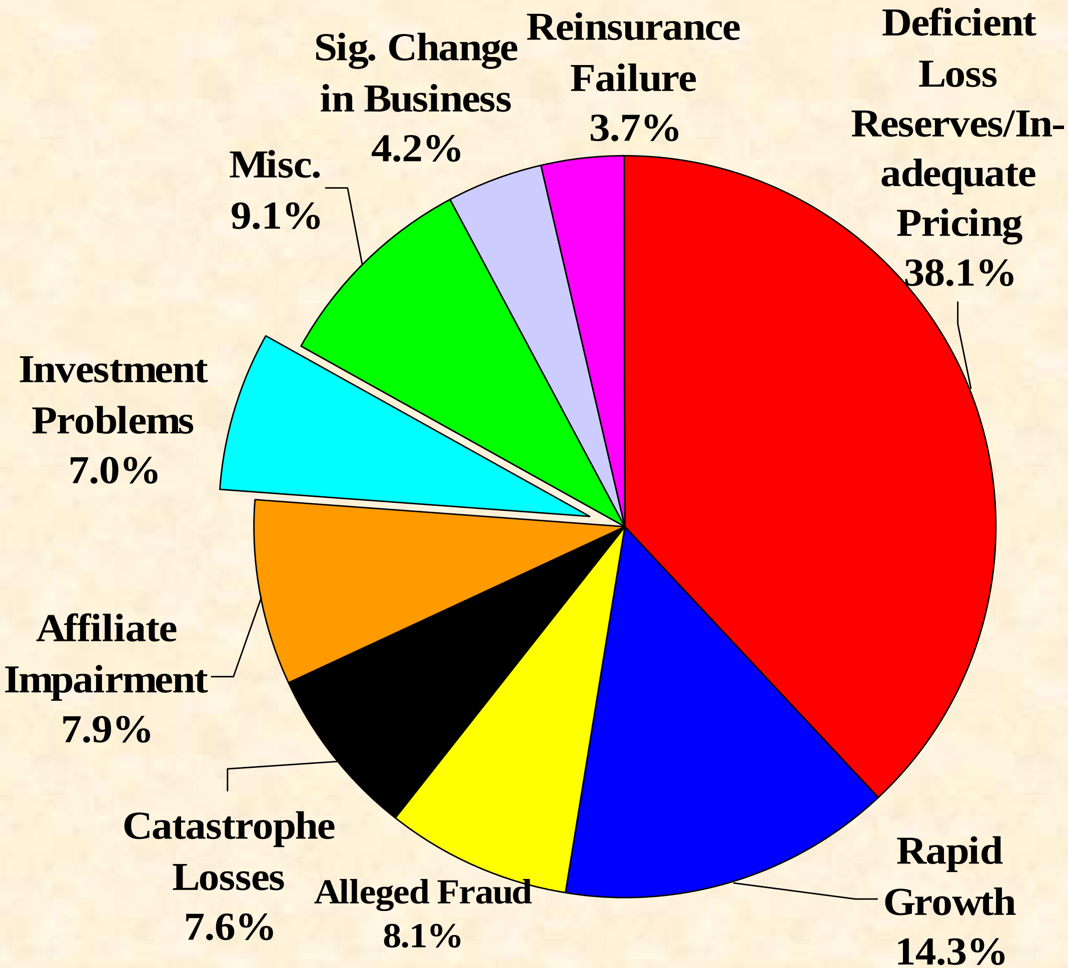
2000



P/C insurer financial strength has improved since 2005 despite financial crisis

Source: A.M. Best: *Rating Downgrades Slowed but Outpaced Upgrades for Fourth Consecutive Year,* Special Report, November 8, 2004 for 2000; 2006 and 2009 *Review & Preview*. *Ratings 'B' and lower.

Reasons for US P/C Insurer Impairments, 1969-2008



Deficient loss reserves and inadequate pricing are the leading cause of insurer impairments, underscoring the importance of discipline. Investment catastrophe losses play a much smaller role.

Source: A.M. Best: *1969-2008 Impairment Review,* Special Report, Apr. 6, 2008

Key Threats Facing Insurers Amid Financial Crisis

Challenges for the Next 5-8 Years

Important Issues & Threats Facing Insurers: 2009 - 2015

1. Erosion of Capital

- Losses are larger and occurring more rapidly than is commonly understood or presumed
- Surplus down 16%=$85B since 9/30/07 peak; 12% ($80B) in 2008
- P/C policyholder surplus could be even more by year-end 2009
- Some insurers propped up results by reserve releases
- Decline in PHS of 1999-2002 was 15% over 3 years and was entirely made up and them some in 2003. Current decline is ~13% in 5 qtrs.
- During the opening years of the Great Depression (1929-1933) PHS fell 37%, Assets fell 28% and Net Written Premiums fell by 35%. It took until 1939-40 before these key measures returned to their 1929 peaks.
- BOTTOM LINE: Capital and assets could fall much farther and faster than many believe. It will take years to return to the 2007 peaks (likely until 2011 with a sharp hard market and 2015 without one)

Source: Insurance Information Inst.

Important Issues & Threats Facing Insurers: 2009 - 2015

2. Reloading Capital After "Capital Event"

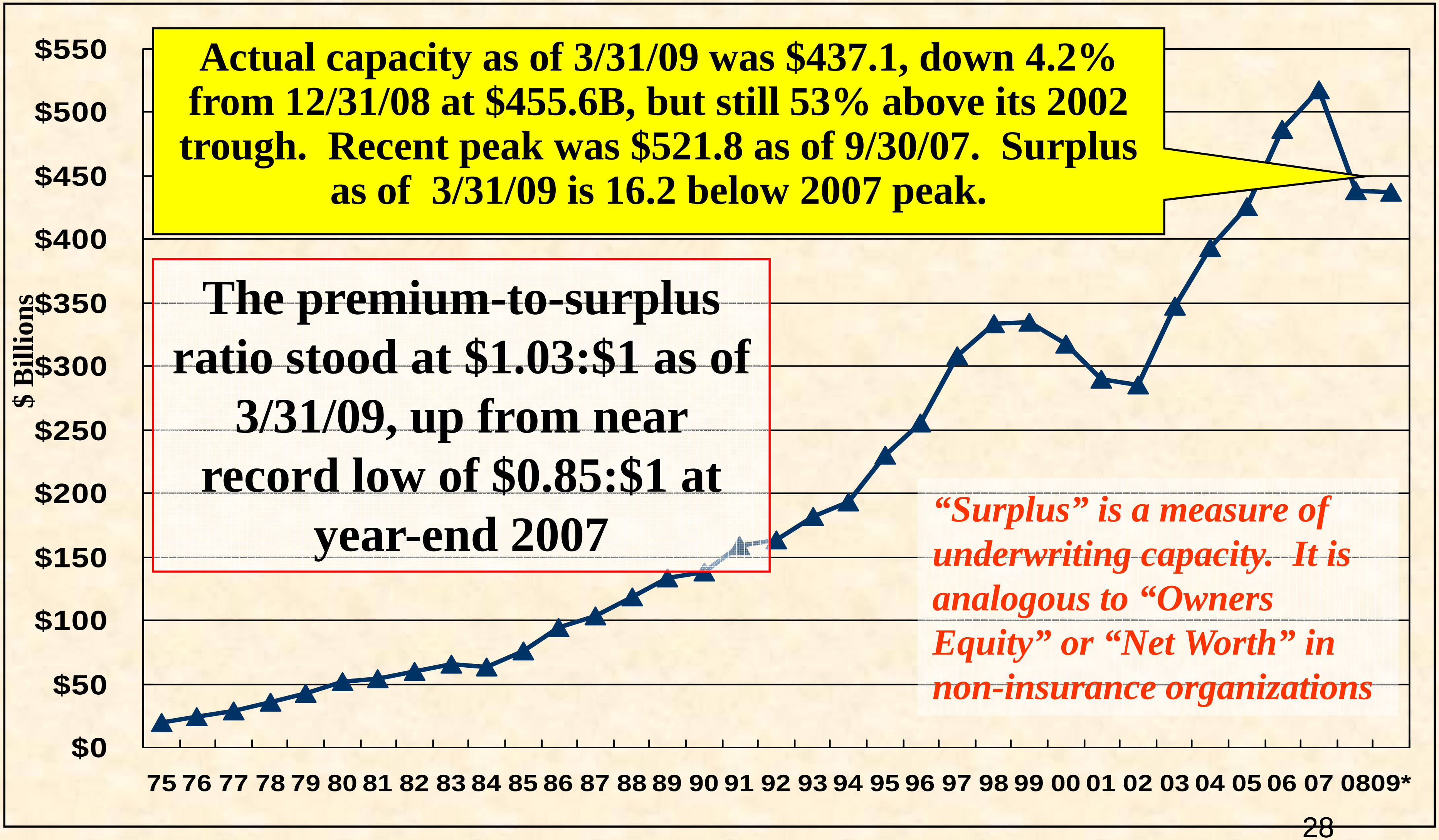
- **Continued asset price erosion coupled with major "capital event" could lead to shortage of capital among *some* companies**
- **Possible Consequences: Insolvencies, forced mergers, calls for govt. aid, requests to relax capital requirements**
- **P/C insurers have come to assume that large amounts of capital can be raised quickly and cheaply after major events (post-9/11, Katrina).**
  - ***This assumption may be incorrect in the current environment***
- **Cost of capital is *much* higher today, reflecting both scarcity & risk**
- **Implications: P/C (re)insurers need to protect capital today and develop detailed contingency plans to raise fresh capital & generate internally. Already a reality for some life insurers.**

Source: Insurance Information Inst.

Capital/ Policyholder Surplus (US)

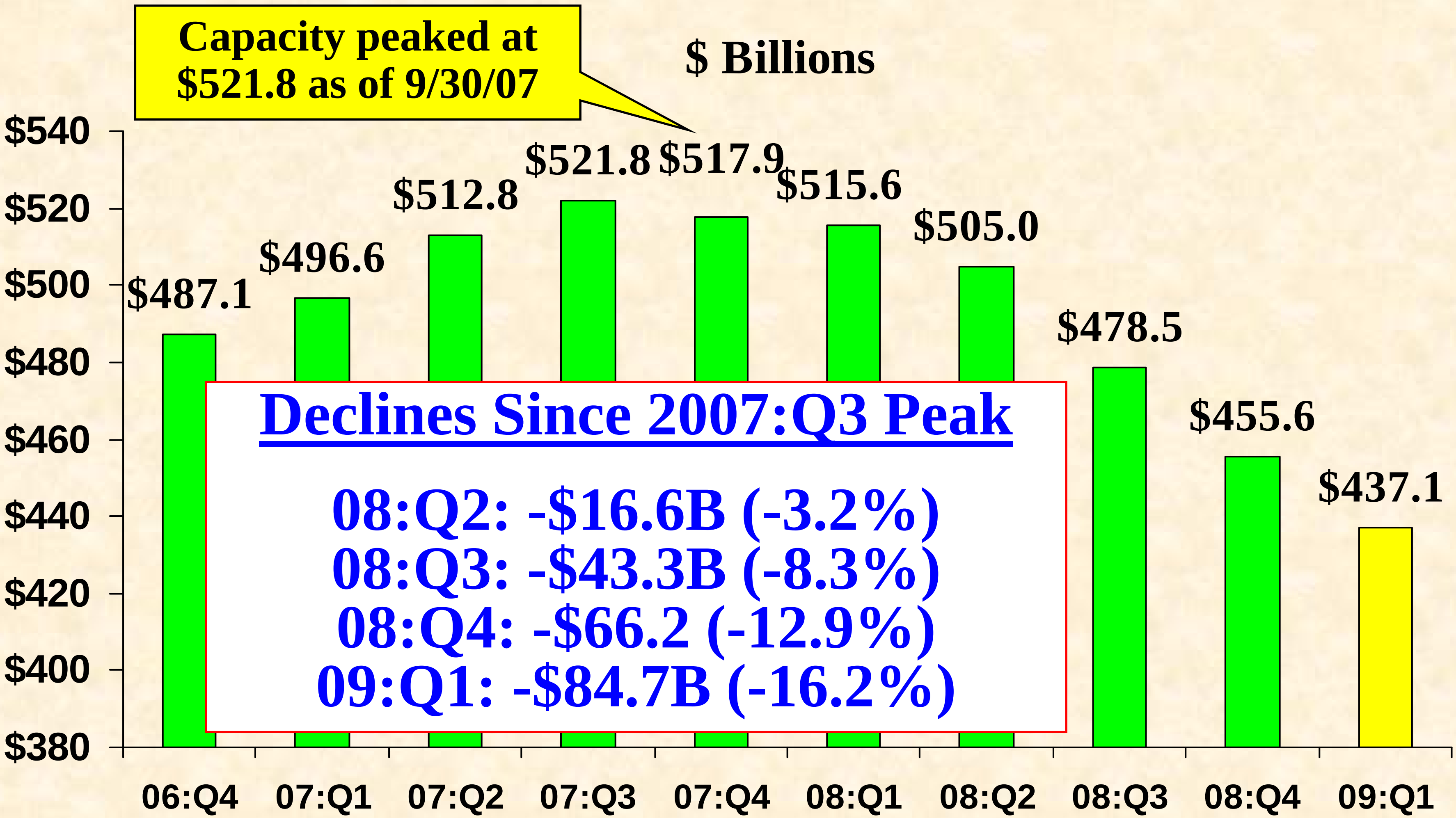
Shrinkage, but Capital is Within Historic Norms

U.S. Policyholder Surplus: 1975-2009:Q1*



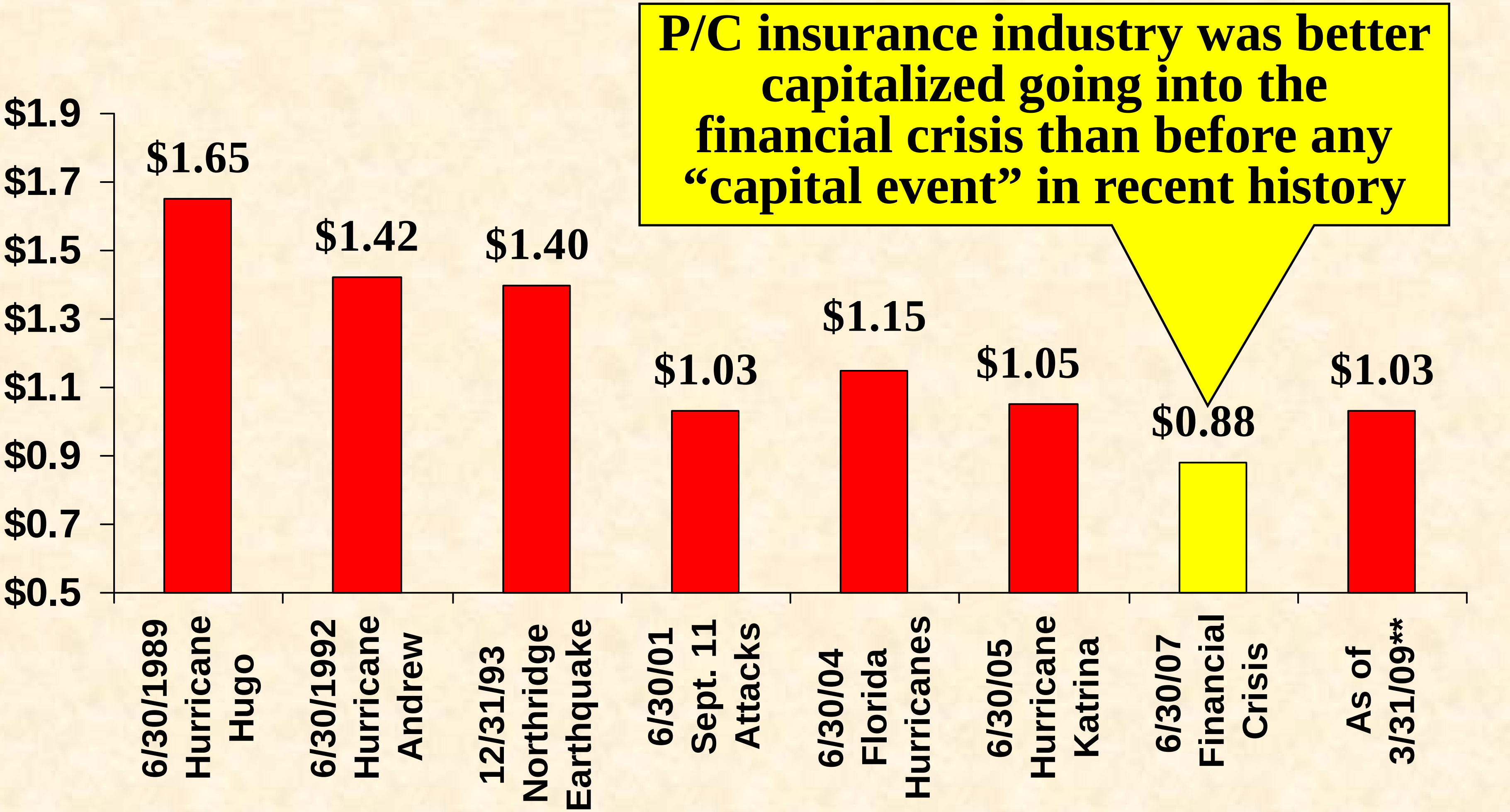
Source: A.M. Best, ISO, Insurance Information Institute. *As of 3/31/09

Policyholder Surplus, 2006:Q4 – 2009:Q1



Source: ISO.

Premium-to-Surplus Ratios Before Major Capital Events*

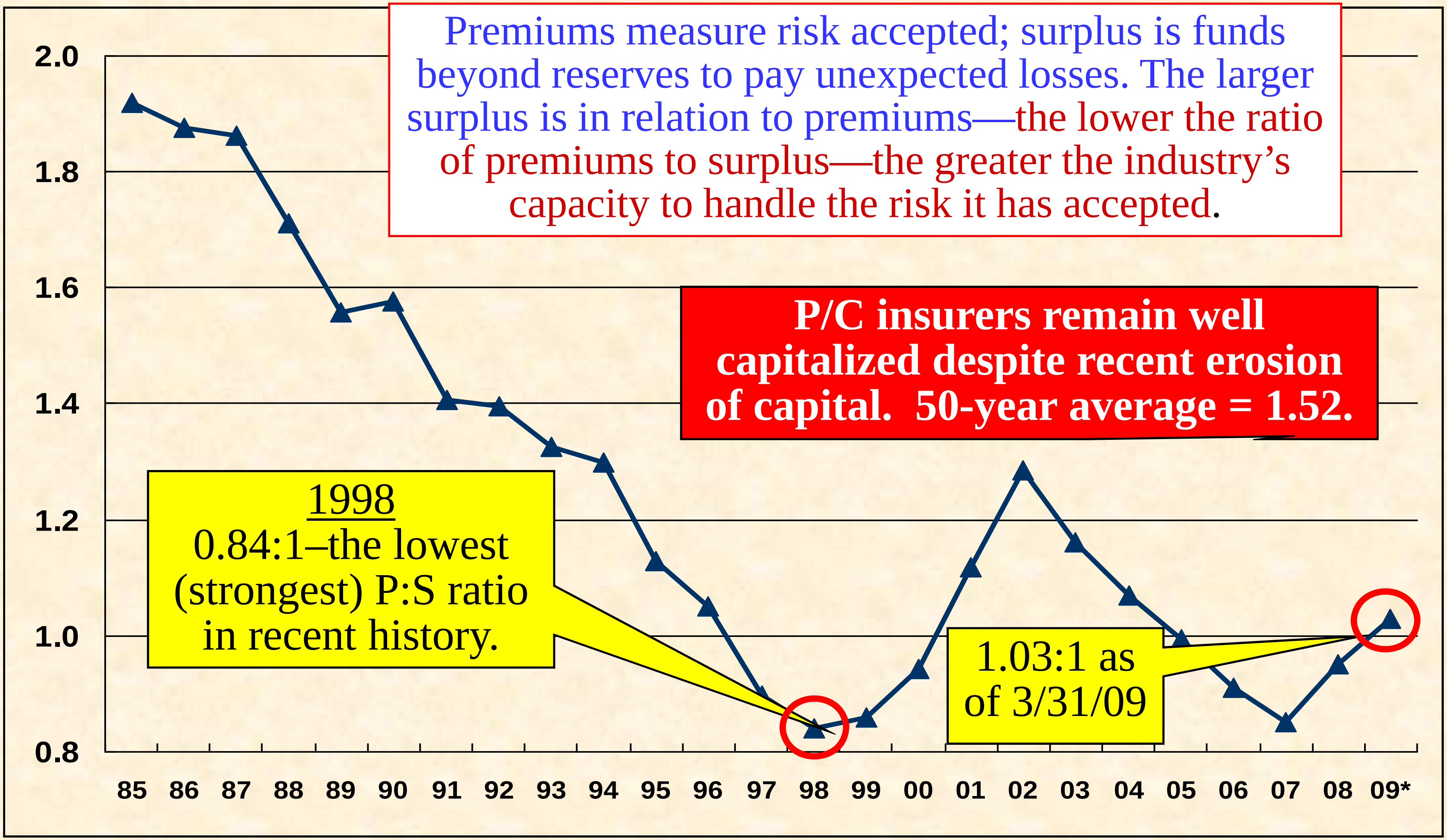


*Ratio is for end of quarter immediately prior to event. Date shown is end of quarter prior to event.

**Latest available

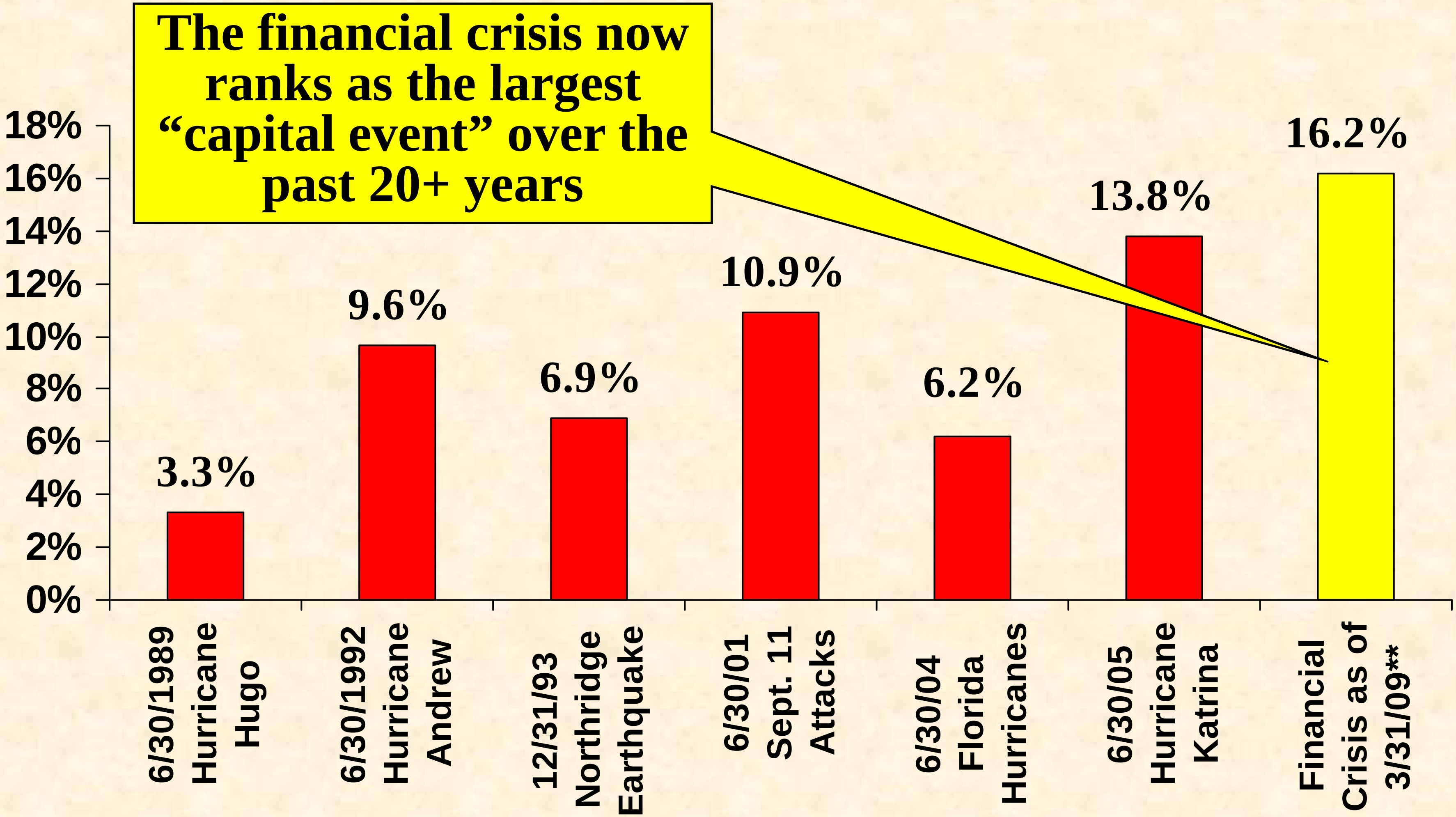
Source: PCS; Insurance Information Institute.

U.S. P/C Industry Premiums-to-Surplus Ratio: 1985-2009:Q1



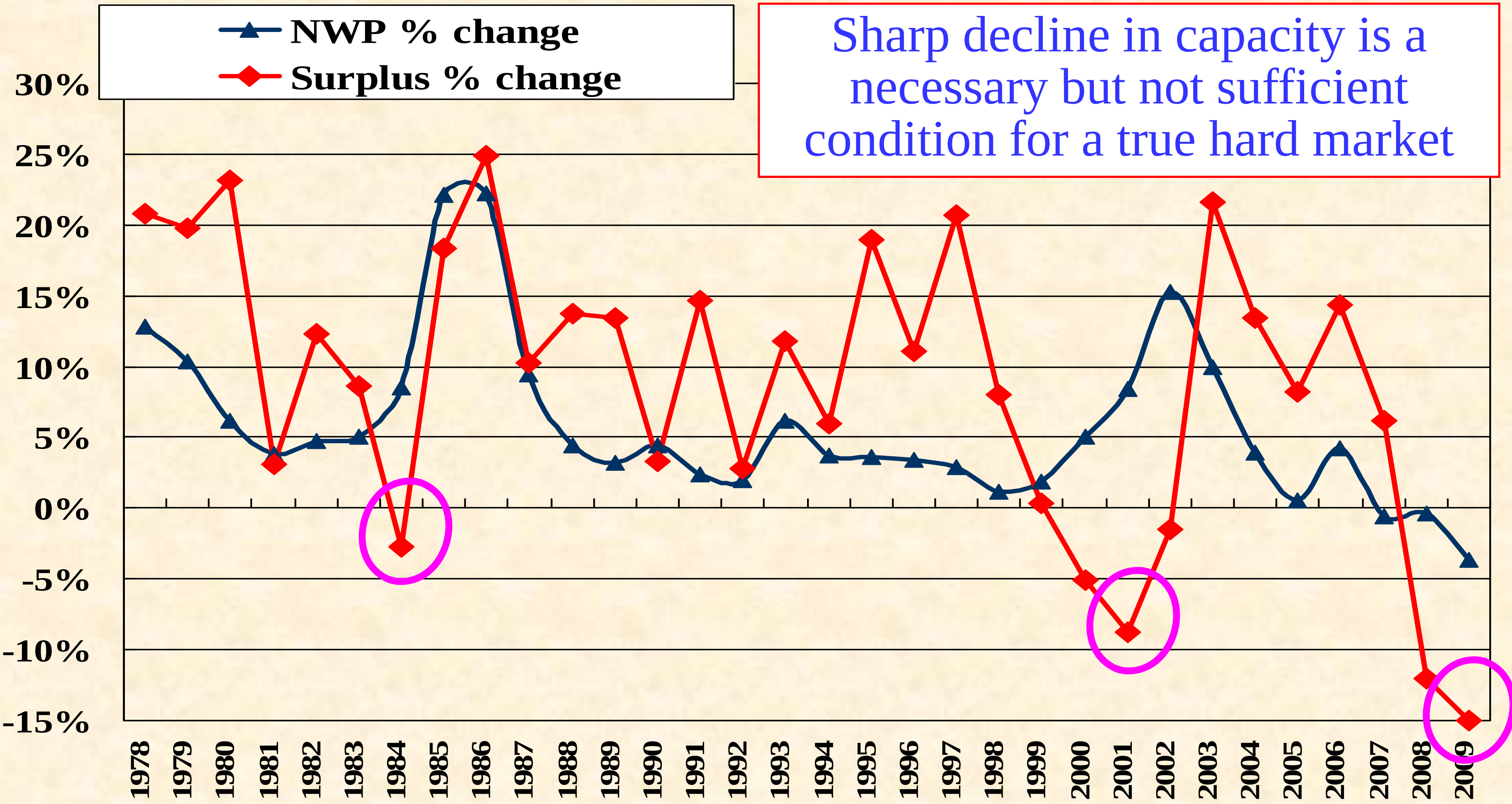
Sources: A.M. Best, ISO, Insurance Information Institute *As of 3/31/09.

Ratio of Insured Loss to Surplus for Largest Capital Events Since 1989*



*Ratio is for end-of-quarter surplus immediately prior to event. Date shown is end of quarter prior to event.
**Latest available
Source: PCS; Insurance Information Institute.

Historically, Hard Markets Follow When Surplus "Growth" is Negative*



*2009 NWP and Surplus figures are % changes for Q1:09 vs Q1:08

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

Important Issues & Threats Facing Insurers: 2009 - 2015

3. Long-Term Reduction in Investment Earnings

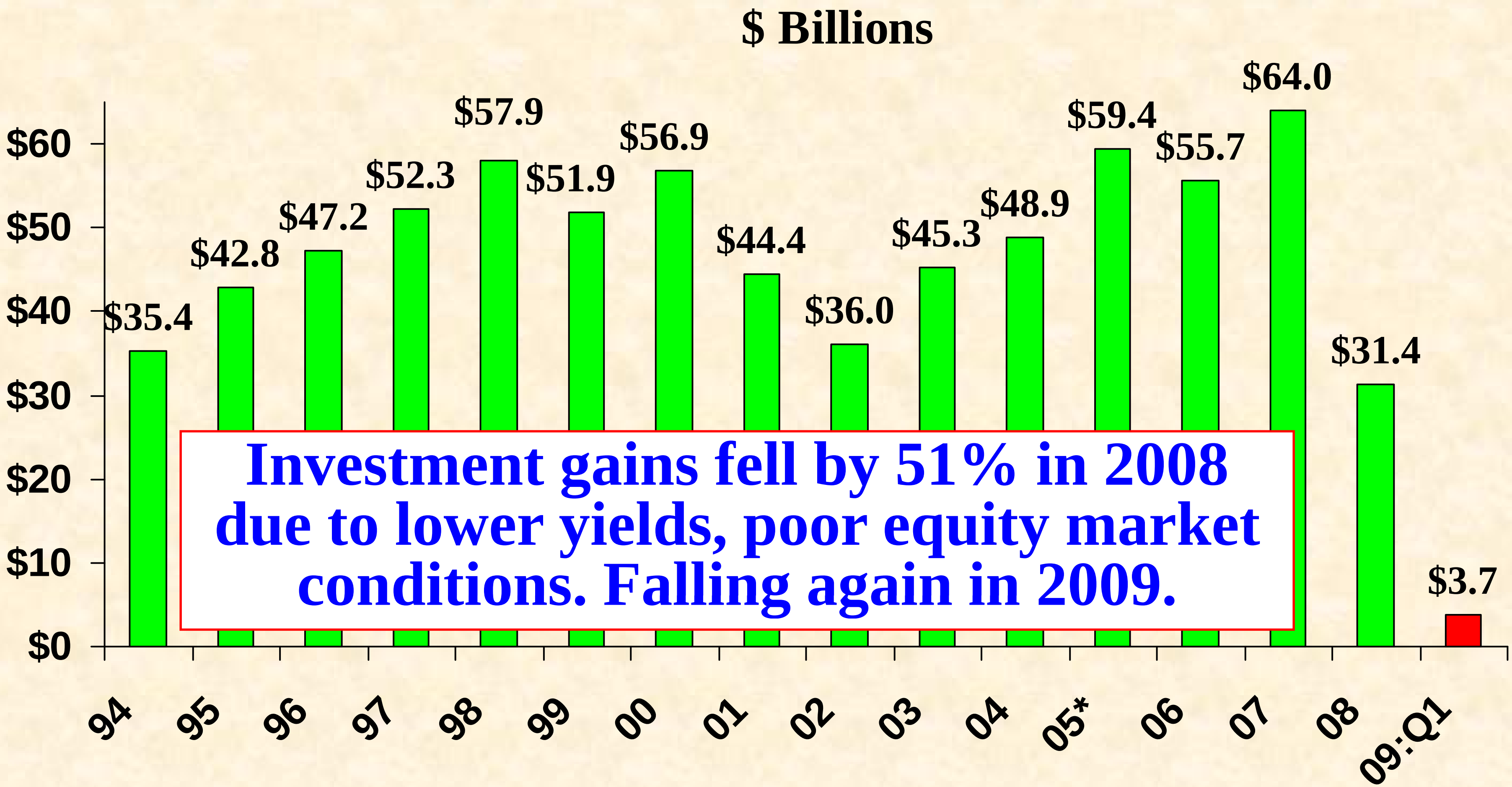
- **Low interest rates, risk aversion toward equities and many categories of fixed income securities lock in a multi-year trajectory toward ever lower investment gains**
- **Price bubble in Treasury securities keeps yields low**
- **Many insurers have not adjusted to this new investment paradigm of a sustained period of low investment gains**
- ***Regulators will not readily accept it*; Many will reject it**
- **Implication 1: Industry must be prepared to operate in environment with investment earnings accounting for a smaller fraction of profits**
- **Implication 2: Implies underwriting discipline of a magnitude not witnessed in this industry in more than 30 years. Yet to manifest itself.**
- **Lessons from the period 1920-1975 need to be relearned**

Source: Insurance Information Inst.

Investment Performance

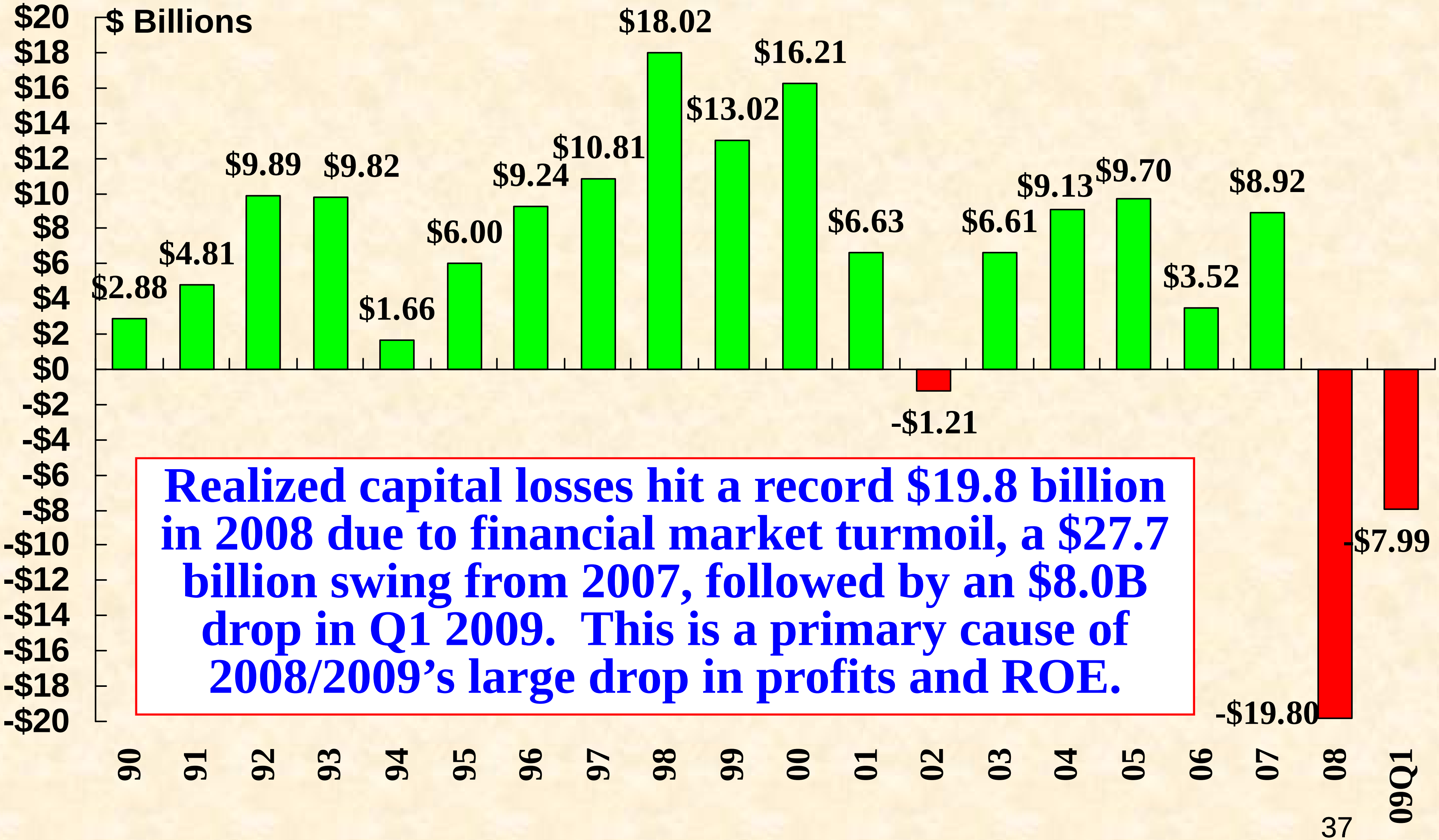
Investments are the Principle Source of Declining Profitability

Property/Casualty Insurance Industry Investment Gain:1994- 2009:Q1[1]



[1]Investment gains consist primarily of interest, stock dividends and realized capital gains and losses. 2006 figure consists of $52.3B net investment income and $3.4B realized investment gain.
*2005 figure includes special one-time dividend of $3.2B.
Sources: ISO; Insurance Information Institute.

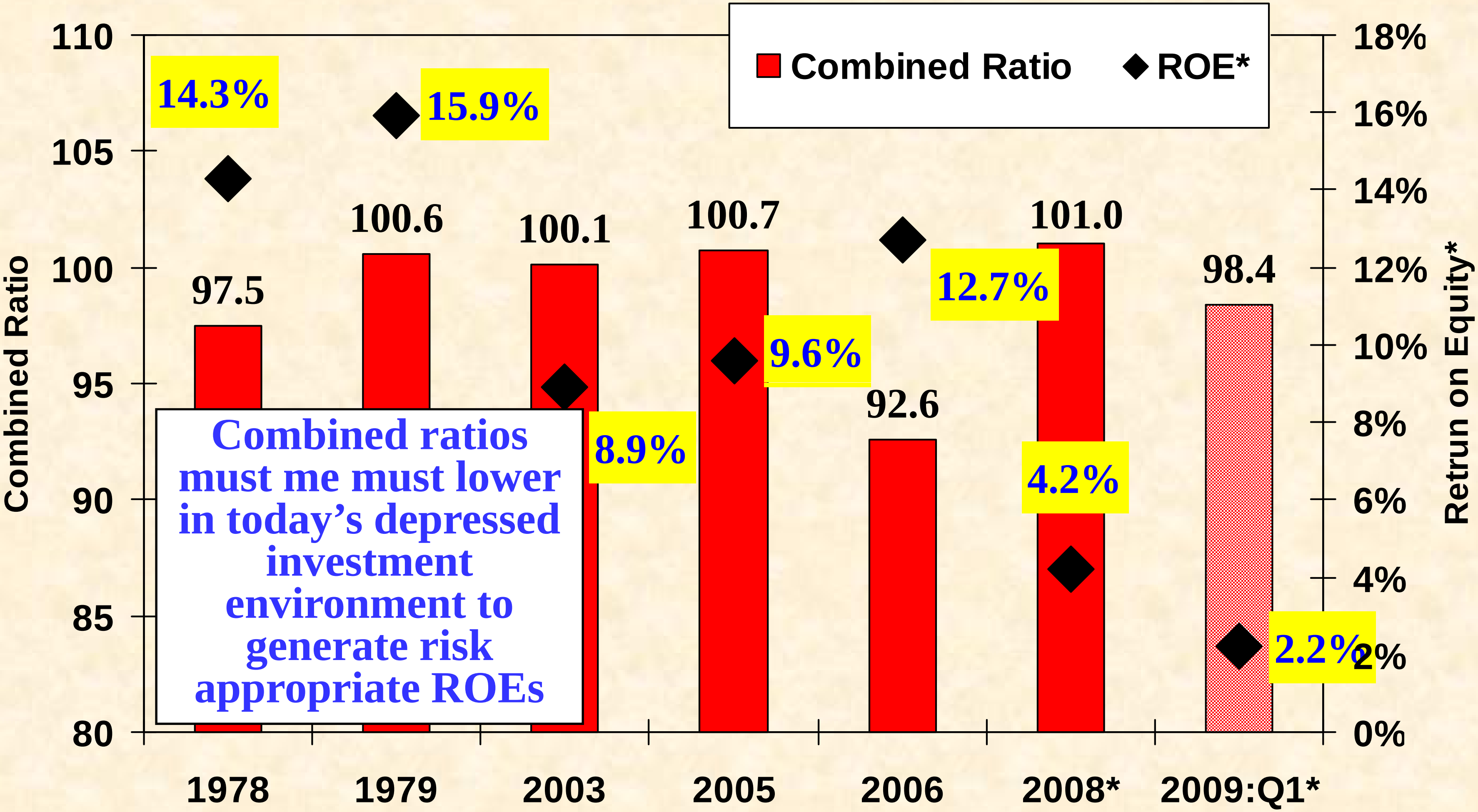
P/C Insurer Net Realized Capital Gains, 1990-2009:Q1



Realized capital losses hit a record $19.8 billion in 2008 due to financial market turmoil, a $27.7 billion swing from 2007, followed by an $8.0B drop in Q1 2009. This is a primary cause of 2008/2009's large drop in profits and ROE.

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

A 100 Combined Ratio Isn't What it Used to Be: 95 is Where It's At



* 2008/9 figures are return on average statutory surplus. Excludes mortgage and financial guarantee insurers.
Source: Insurance Information Institute from A.M. Best and ISO data.

Important Issues & Threats Facing Insurers: 2009 – 2????

4. Regulatory Overreach

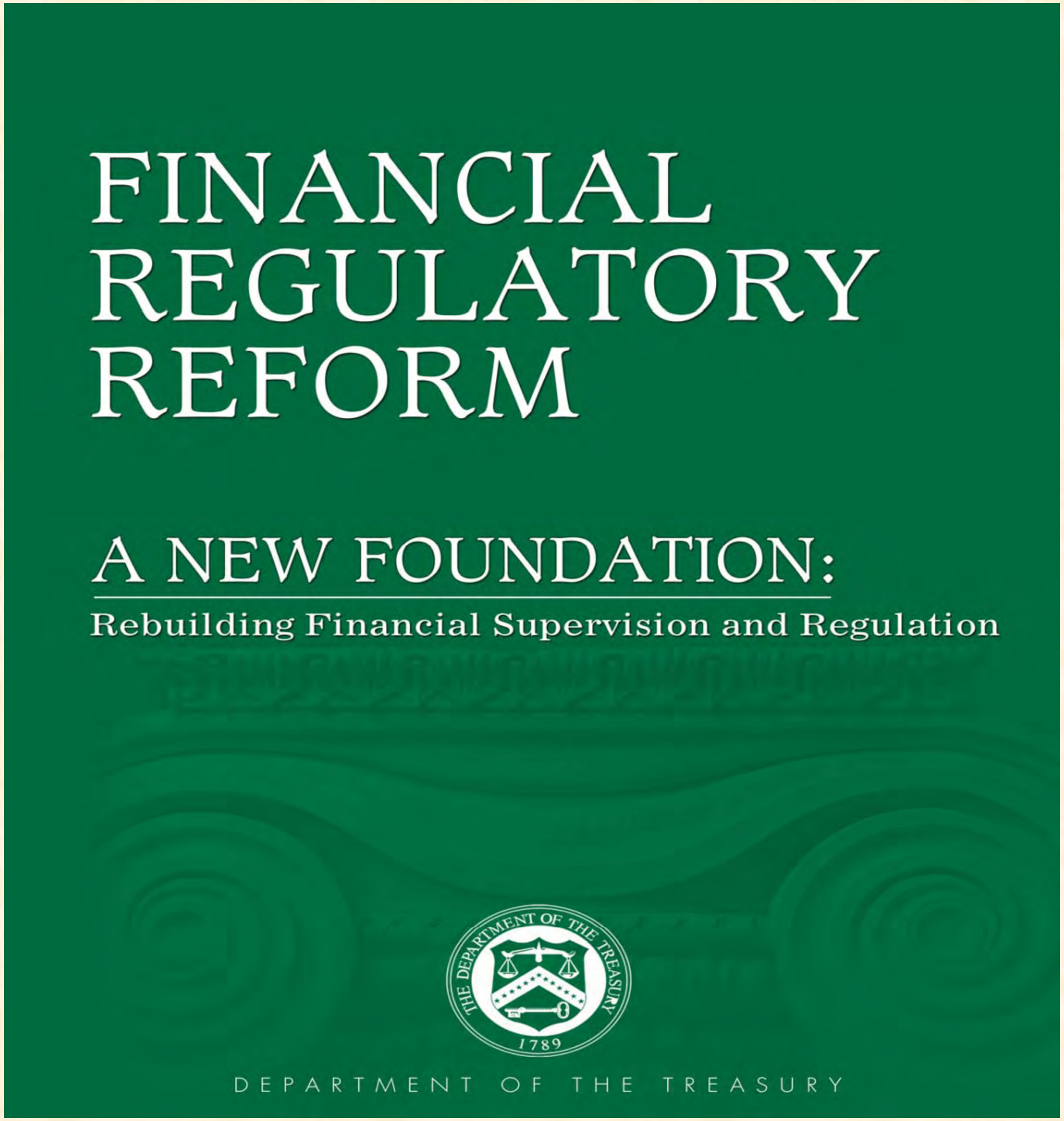
- **Principle danger is that P/C insurers get swept into vast federal regulatory overhaul and subjected to inappropriate, duplicative and costly regulation (Dual Regulation)**
- **Danger is high as feds get their nose under the tent**
- **Status Quo is viewed as unacceptable by all**
- **Pushing for major change is not without *significant* risk in the current highly charged political environment**
- **Insurance & systemic risk**
- **Disunity within the insurance industry**
- **Impact of regulatory changes will be felt for decades**
- **Bottom Line: Regulatory outcome is uncertain and risk of adverse outcome is high**

Source: Insurance Information Inst.

Regulatory Reform

Obama Administration's Plan for Reforming Financial Services Industry Regulation Will Impact Insurers

REGULATORY REFORM: 2009 AND BEYOND



Obama Regulatory Reform Proposal: Plan Components

I. Office of National Insurance (ONI) Duties

1. Monitor "all aspects of the insurance industry"
2. Gather information
3. Identify the emergence of any problems or gaps in regulation that could contribute to a future crisis
4. Recommend to the Federal Reserve insurance companies it believes should be supervised as Tier 1 FHCs
5. Administer the Terrorism Risk Insurance Program
6. Authority to enter into international agreements and increase international cooperation on insurance regulation

Source: "Financial Regulatory Reform, A New Foundation: Rebuilding Financial Supervision and Regulation," US Department of the Treasury, June 2009.

Obama Regulatory Reform Proposal: Plan Components (cont'd)

II. Systemic Risk Oversight & Resolution Authority

- Federal Reserve given authority to oversee systemic risk of large federal holding companies (Tier 1 FHCs)
  - Insurers are explicitly included among the types of entities that could be found to be a Tier 1 FHC
  - ONI given authority to "recommend to the Federal Reserve any insurance companies that the ONI believes should be supervised as Tier 1 FHC."
- Proposal also recommends "creation of a resolution regime to avoid disorderly resolution of failing bank holding companies, including Tier 1 FHCs "…in situations where the stability of the financial system is at risk." Directly affects insurers in 2 ways:
  - Resolution authority may extend to an insurer within the BHC structure if the BHC is failing
  - If systemically important insurer is failing (as identified by ONI as Tier 1 FHC) resolution authority may apply

Source: "Financial Regulatory Reform, A New Foundation: Rebuilding Financial Supervision and Regulation," US Department of the Treasury, June 2009.

Obama Regulatory Reform Proposal: Plan Components (cont'd)

III. Consumer Financial Protection Agency (CFPA)

- Recommendation that "CFPA should have broad jurisdiction to protect consumers in consumer financial products and services such as credit, savings and payment products."
  - Appears that Administration does not intend that the CFPA have jurisdiction over the insurance industry products or market practices
  - At the same time, there is no language that expressly excludes insurance from the scope of the CFPA's authority
- CFPA proposal contains numerous references specific to credit and savings products but none to insurance. However, the Administration clearly anticipates that CFPA would have broad powers with the scope of the agency's agenda defined by several "Principles for Action," which clearly could apply to insurance regulation:
  - Transparency: Disclosures and communications with clients should be "reasonable"
  - Simplicity: Standards for simplified products, straightforward pricing
  - Fairness: Restrictions on products if benefits outweigh costs

Source: "Financial Regulatory Reform, A New Foundation: Rebuilding Financial Supervision and Regulation," US Department of the Treasury, June 2009; "Obama .Proposal Would Create Office of National Insurance But is Unclear on Federal Chartering," Dewey & LeBoeuf, *Client Alert*, June 17, 2009.

Obama Regulatory Reform Proposal: Plan Components (cont'd)

IV. Other Provisions Potentially Affecting Insurers

- Creation of Financial Services Oversight Council (FSOC)
  - ONI is *not* included among Council's membership
- Strengthen Capital and Other Prudential Standards for All Banks, Bank Holding Companies and Tier 1 Financial Holding Companies
- Require Hedge Funds and Other Private Pools of Capital to Register
  - Alternative sources of capital have played a more important role in the wake of major catastrophes such as 9/11 and Hurricane Katrina
- Institute Regulation of All OTC Derivatives, Including CDS's
- International:
  - Strengthen Intl. Capital Framework & Improve Oversight of Global Financial Markets
  - Enhance Supervision of Internationally Active Financial Services Firms
  - Determine appropriate Tier 1 FHC definition for foreign financial firms
- Improve Accounting Standards
- Tighten Oversight of Credit Rating Agencies

Source: "Financial Regulatory Reform, A New Foundation: Rebuilding Financial Supervision and Regulation," US Department of the Treasury, June 2009; "

Important Issues & Threats Facing Insurers: 2009 - 2015

5. Creeping Restrictions on Underwriting

- **Attacks on underwriting criteria such as credit, education, occupation, territory increasing**
- **The are attacks on insurance risk management tools**
- **Industry will lose some battles**
- **View that use of numerous criteria are discriminatory and create an adverse impact on certain populations**
- **Impact will be to degrade the accuracy of rating systems to increase subsidies**
- **Predictive modeling also at risk**
- **Current social and economic environment could accelerate these efforts**
- **Danger that bans could be codified at federal level during regulatory overhaul**
- **Bottom Line: Industry must be prepared to defend existing and new criteria indefinitely**

Source: Insurance Information Inst.

Important Issues & Threats Facing Insurers: 2009 -2015

6. **Creeping Socialization and Partial Nationalization of Insurance System**
   - **Private health insurance is threatened with extinction and overall health insurance will become much more socialized**
   - **CAT risk is, on net, being socialized directly via state-run insurance and reinsurance mechanisms or via elaborate subsidy schemes involving assessments, premium tax credits, etc.**
   - **Some (life) insurers seeking TARP money**
   - **Efforts to expand flood program to include wind**
   - **Terrorism risk—already a major federal role backed by insurers**
   - **Eventually impacts for other lines such as personal auto, *WC*?**
   - **Feds may open to more socialization of private insurance risk**
   - **Ownership stakes in some insurers could be a slippery slope**
   - **States like FL will lean heavily on Washington in the event of a mega-cat that threatens state finance**
   - **Bottom Line: Additional socialization is ceratin. Can insurers/will insurers draw the line? How?**

Source: Insurance Information Inst.

Important Issues & Threats Facing Insurers: 2009 -2015

7. Emerging Tort Threat

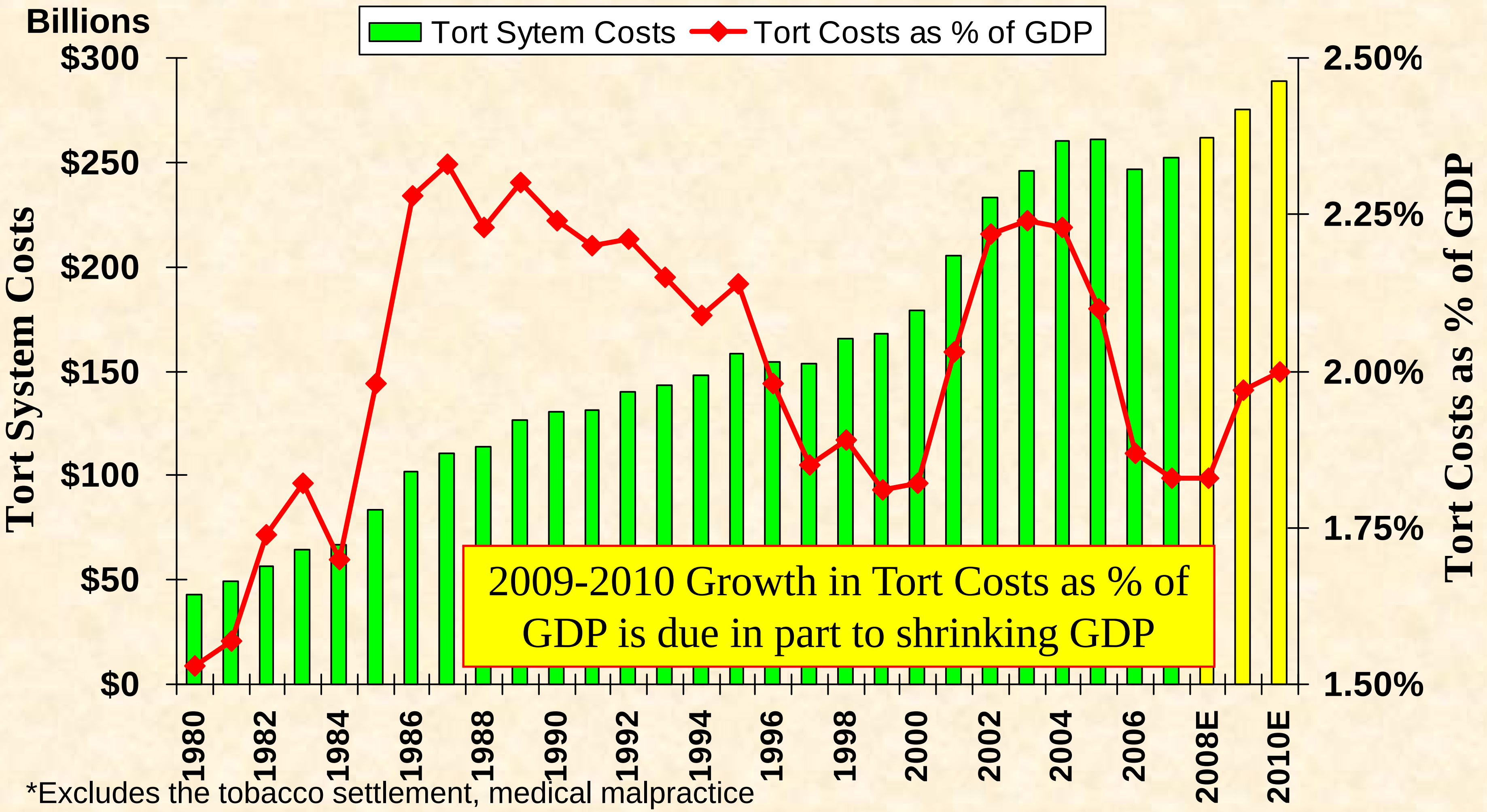
- No tort reform (or protection of recent reforms) is forthcoming from the current Congress or Administration
- Erosion of recent reforms is a certainty (already happening)
- Innumerable legislative initiatives will create opportunities to undermine existing reforms and develop new theories and channels of liability
- Torts twice the overall rate of inflation
- Influence personal and commercial lines, esp. auto liab.
- Historically ***extremely*** costly to p/c insurance industry
- Leads to reserve deficiency, rate pressure
- **Bottom Line: Tort "crisis" is on the horizon and will be recognized as such by 2012-2014**

Source: Insurance Information Inst.

Shifting Legal Liability & Tort Environment

Is the Tort Pendulum Swinging Against Insurers?

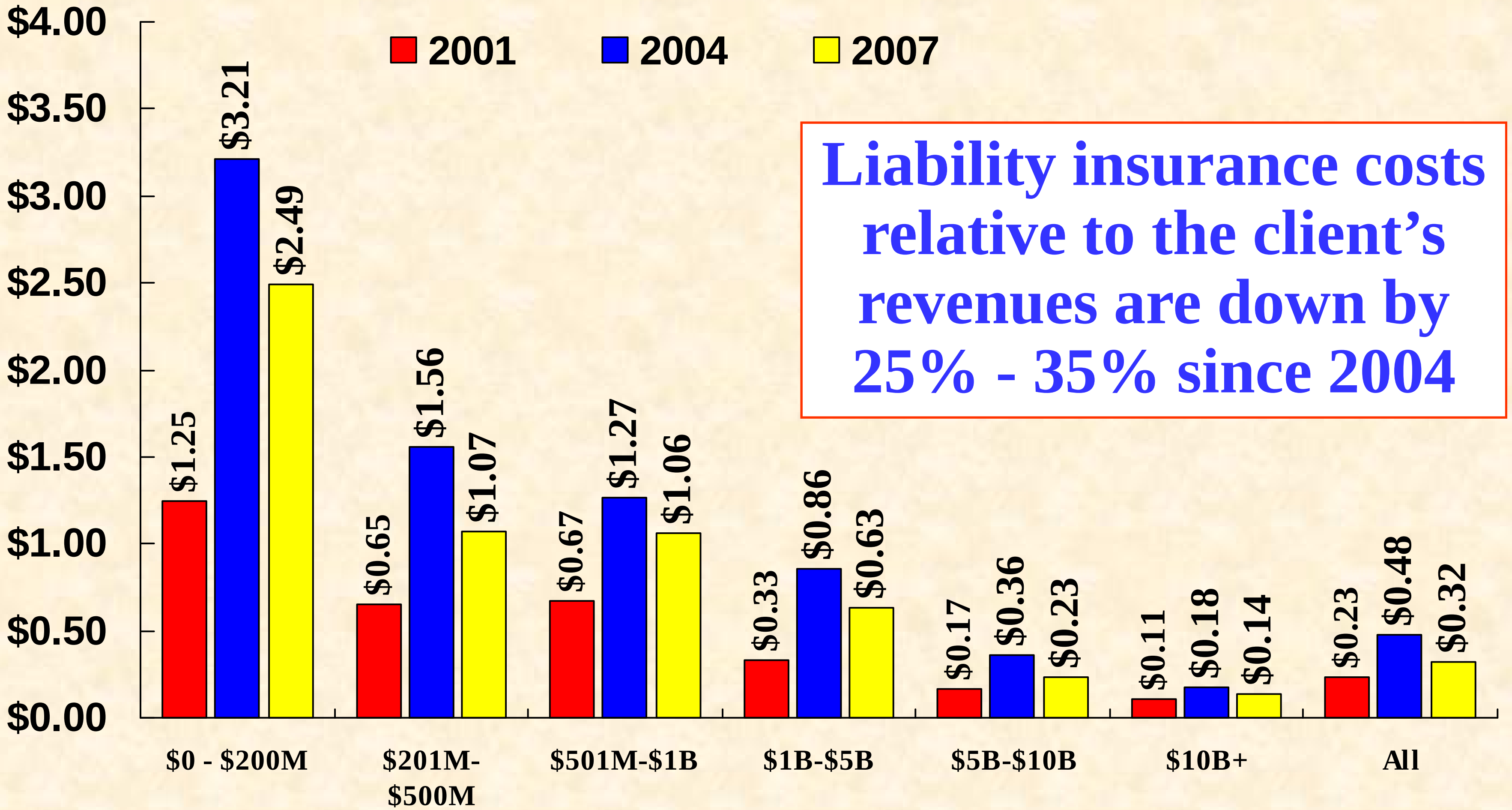
Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical*



*Excludes the tobacco settlement, medical malpractice

Sources: Tillinghast-Towers Perrin, *2008 Update on US Tort Cost Trends,* Appendix 1A; I.I.I. calculations/estimates for 2009 and 2010

*Liability: Average Cost per $1,000 of Revenue** *United States, 2001 to 2007*



*Across entire liability program (full population)

Source: Marsh, 2007 Limits of Liability Report

Business Leaders Ranking of Liability Systems for 2008

Best States

1. Delaware
2. Nebraska
3. Maine
4. Indiana
5. Utah
6. Virginia
7. Iowa
8. Vermont
9. Colorado
10. Kansas

New in 2008

CO, IN, KS, VA, VT

Drop-Offs

MN, NH, TN, WI

Midwest/West has mix of good and bad states

Worst States

41. Texas
42. Florida
43. South Carolina
44. California
45. Hawaii
46. Illinois
47. Alabama
48. Mississippi
49. Louisiana
50. West Virginia

Newly Notorious

FL, SC

Rising Above

AR, AK

Source: US Chamber of Commerce 2008 State Liability Systems Ranking Study; Insurance Info. Institute.

The Nation's Judicial Hellholes (2008/2009)

Watch List

Rio Grande Valley & Gulf Coast, TX

Madison County, IL

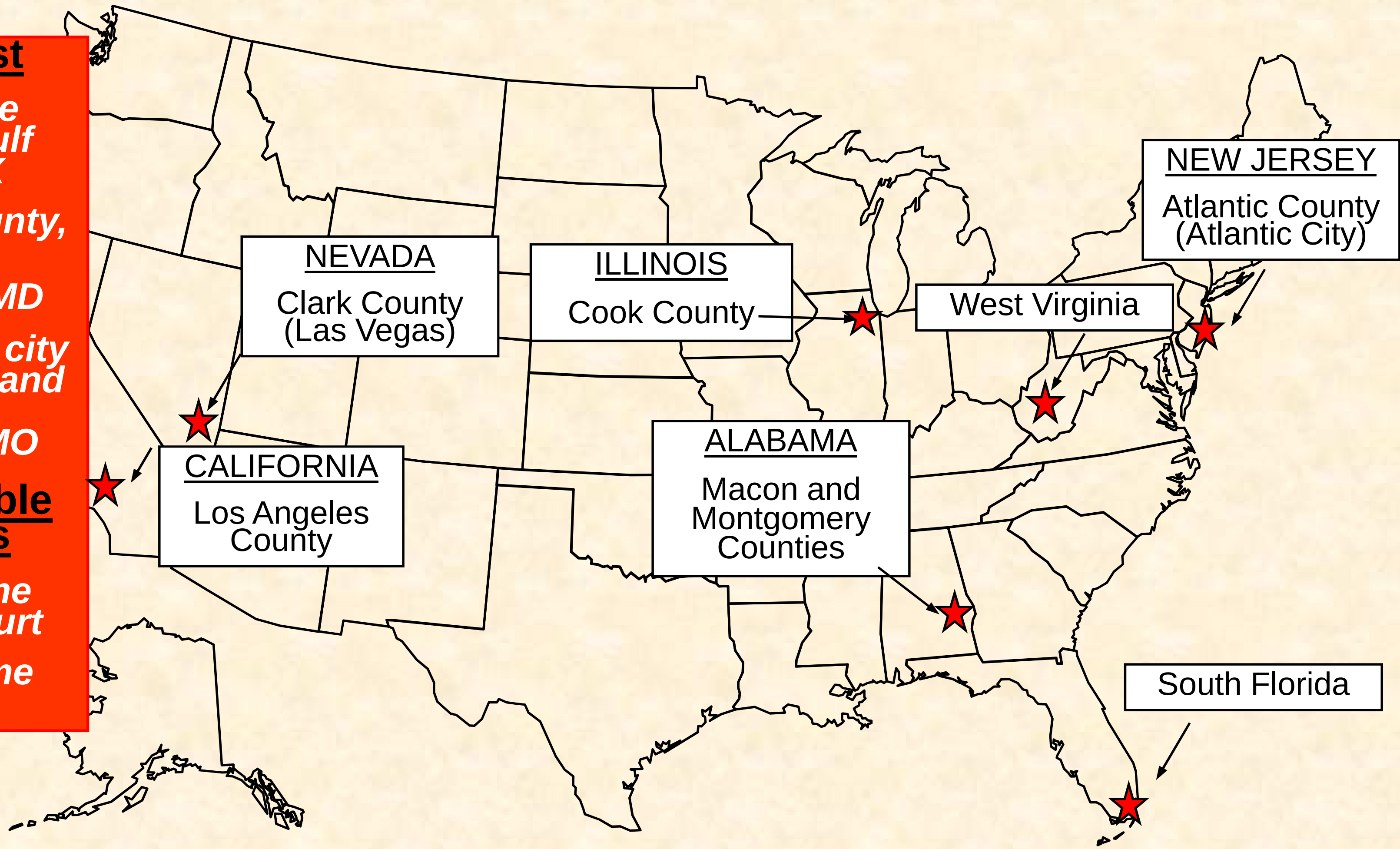
Baltimore, MD

St Louis (the city of), St Louis and Jackson Counties, MO

Dishonorable Mentions

MA Supreme Judicial Court

MO Supreme Court



Source: American Tort Reform Association; Insurance Information Institute

Insurance Information Institute On-Line

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THANK YOU FOR YOUR TIME AND

YOUR ATTENTION!