

# Analytics Insights Conference Industry Perspectives: Challenges and Opportunities

July 10-12, 2012

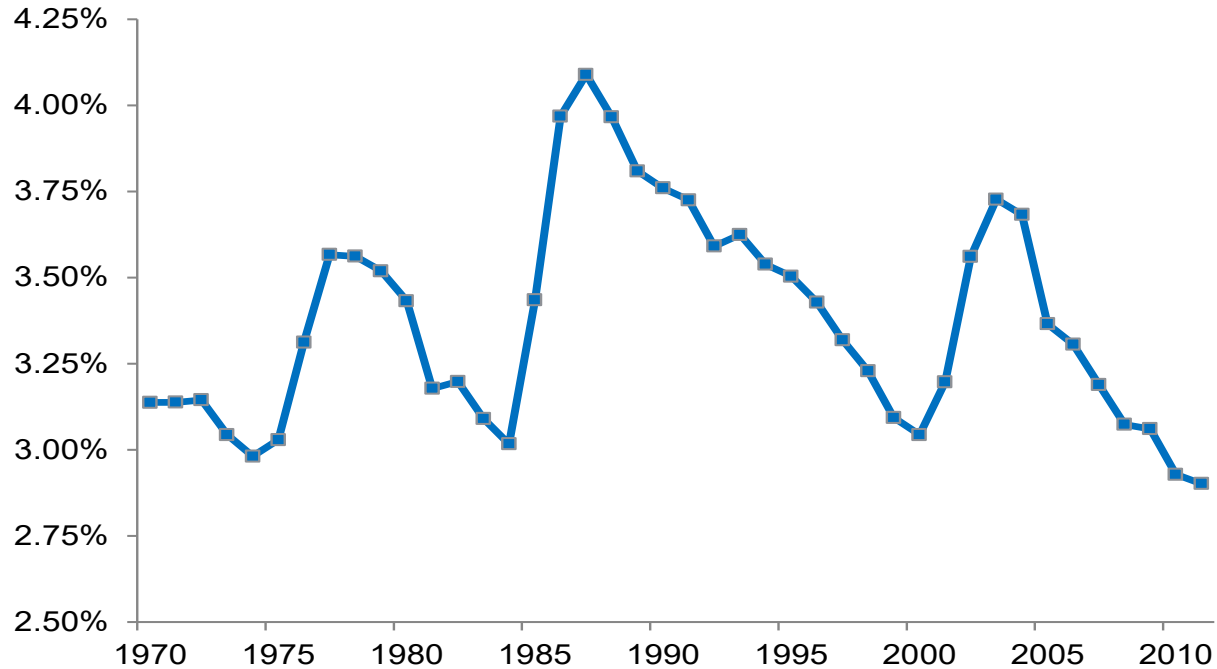
*Empower Results*

**AON** BENFIELD



# Macro Premium Trends

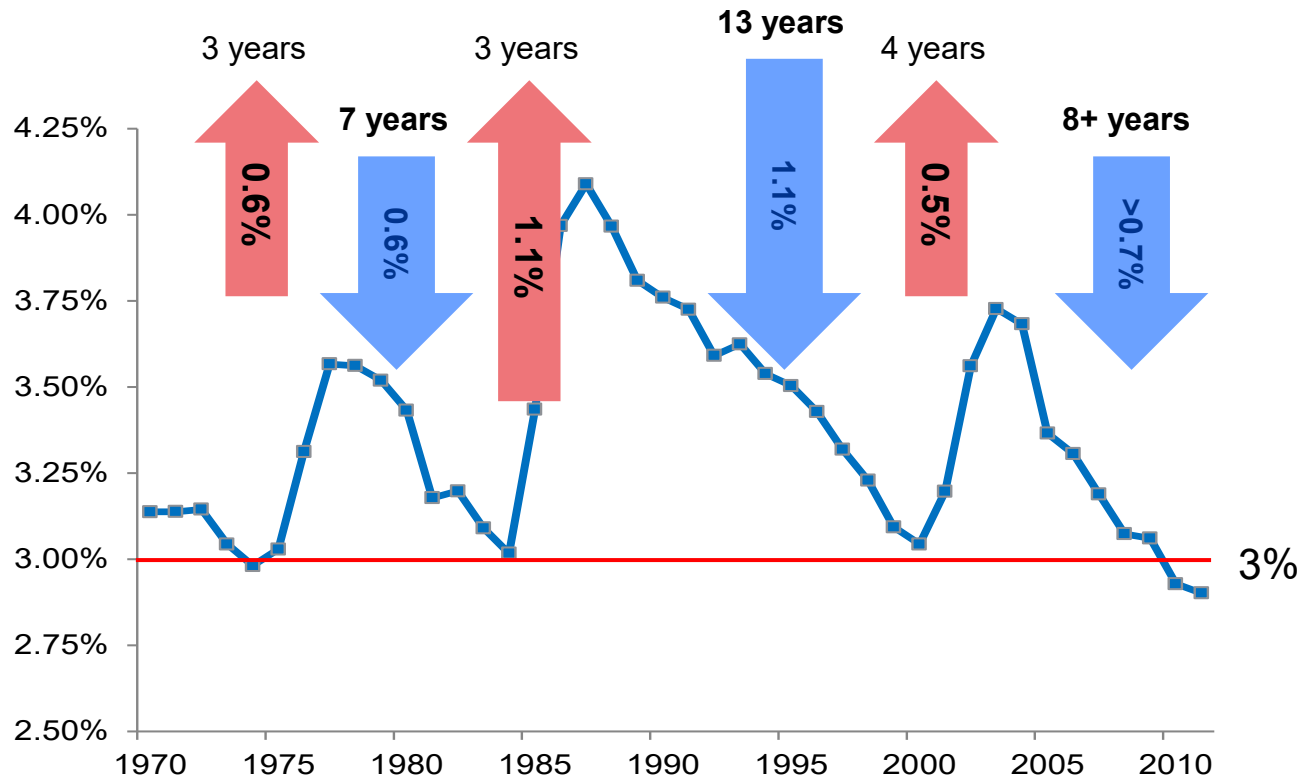
## Premium to GDP Ratio



Historical ratio of NPW to GDP provides a macro-level summary of the underwriting cycle of hard and soft markets

# Macro Premium Trends

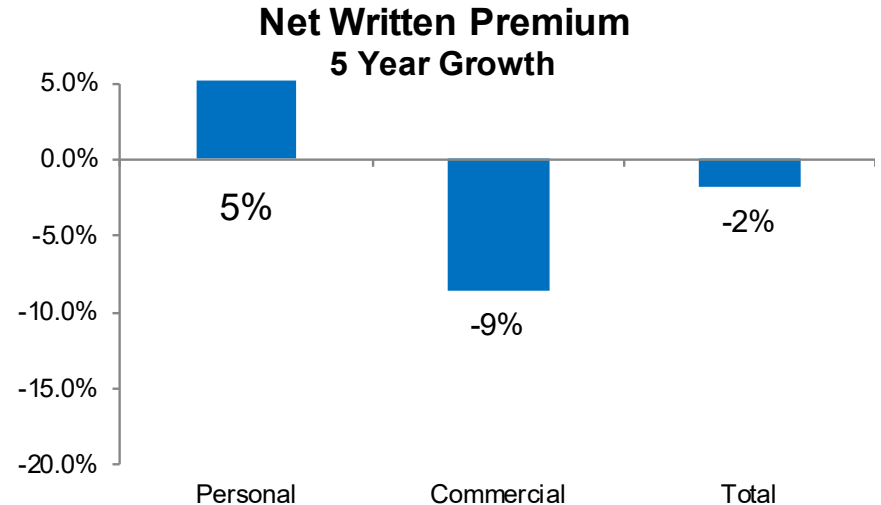
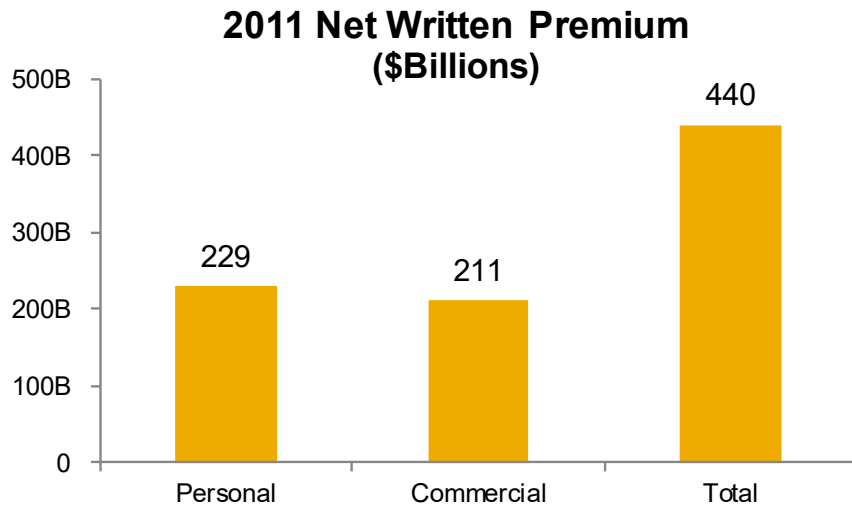
## Premium to GDP Ratio



Historical ratio of NPW to GDP provides a macro-level summary of the underwriting cycle of hard and soft markets

# US Net Premium Written, 5 Year Trends

## Personal Lines Growing vs. Commercial Lines Shrinking



Net written premium growth rates over past 5 years follow macro loss trends

Personal growth slightly positive driven by homeowners

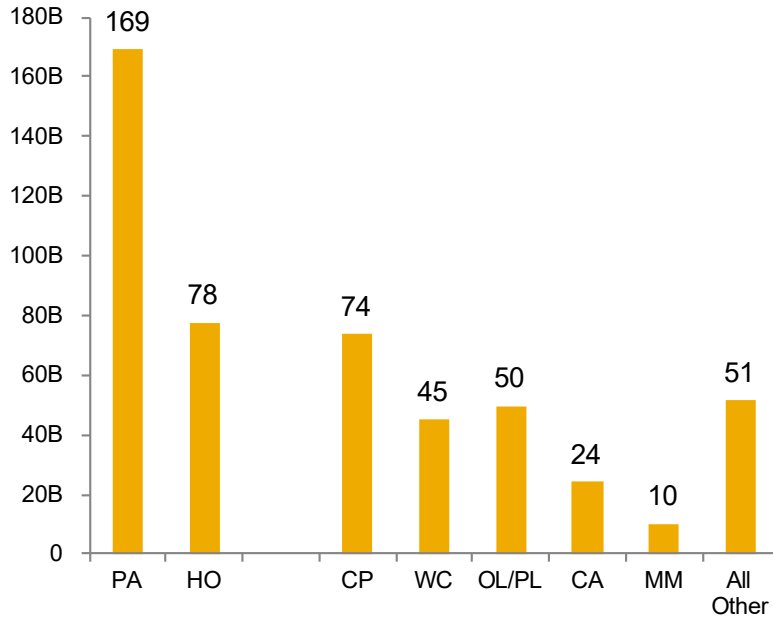
Commercial premium decreases driving overall negative 2% premium change

Statutory NWP increased 3.3% in 2011

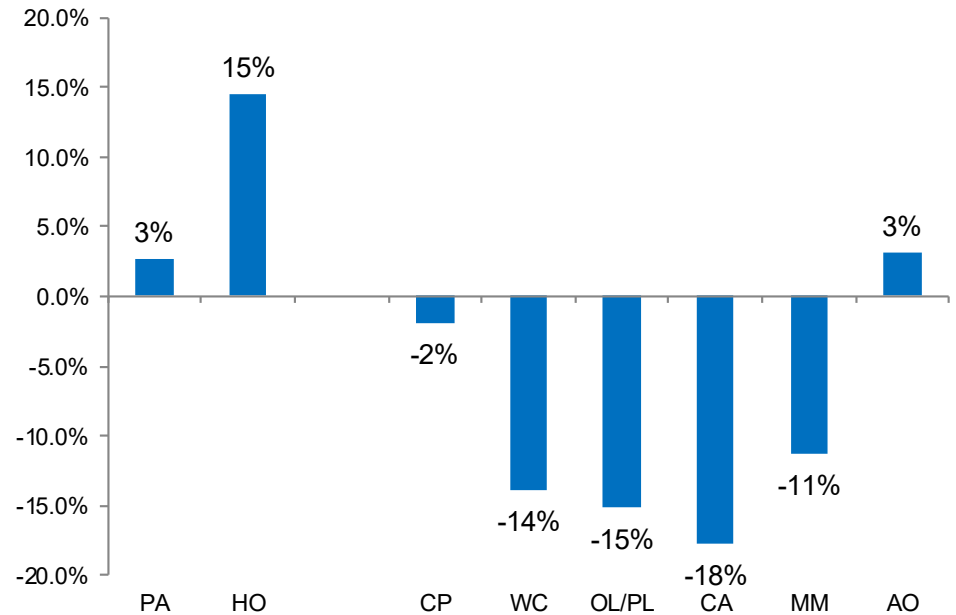
# US Direct Written Premium, 5 Year Trends

## Line of Business Detail

**2011 Direct Written Premium  
(\$Billions)**



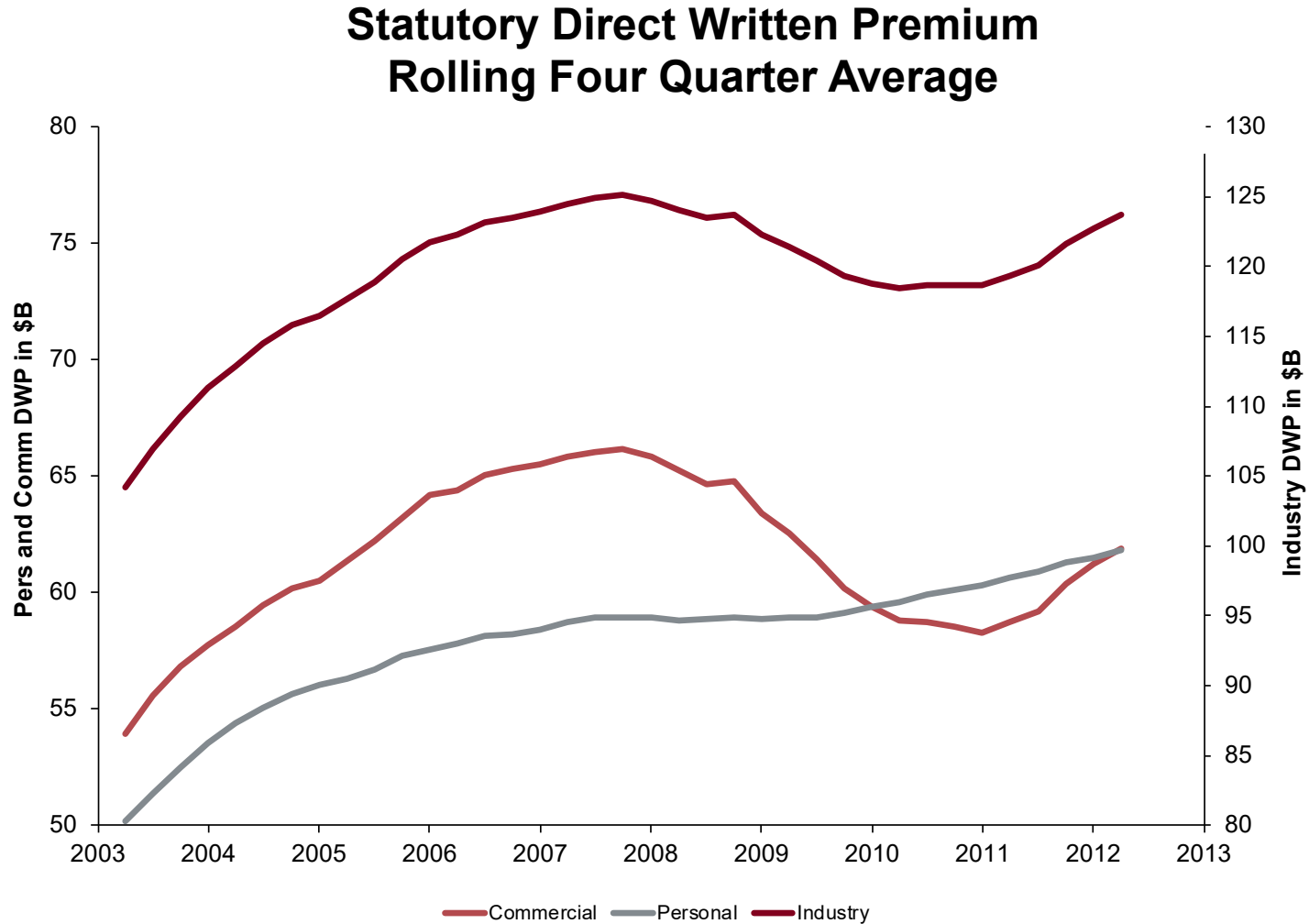
**Direct Written Premium  
5 Year Growth**



Personal lines able to maintain positive growth over the last 5 years, largely driven by homeowners

Commercial lines of business experienced significant premium reductions, with workers compensation, general liability & professional liability, and commercial auto all down mid- to high-teens

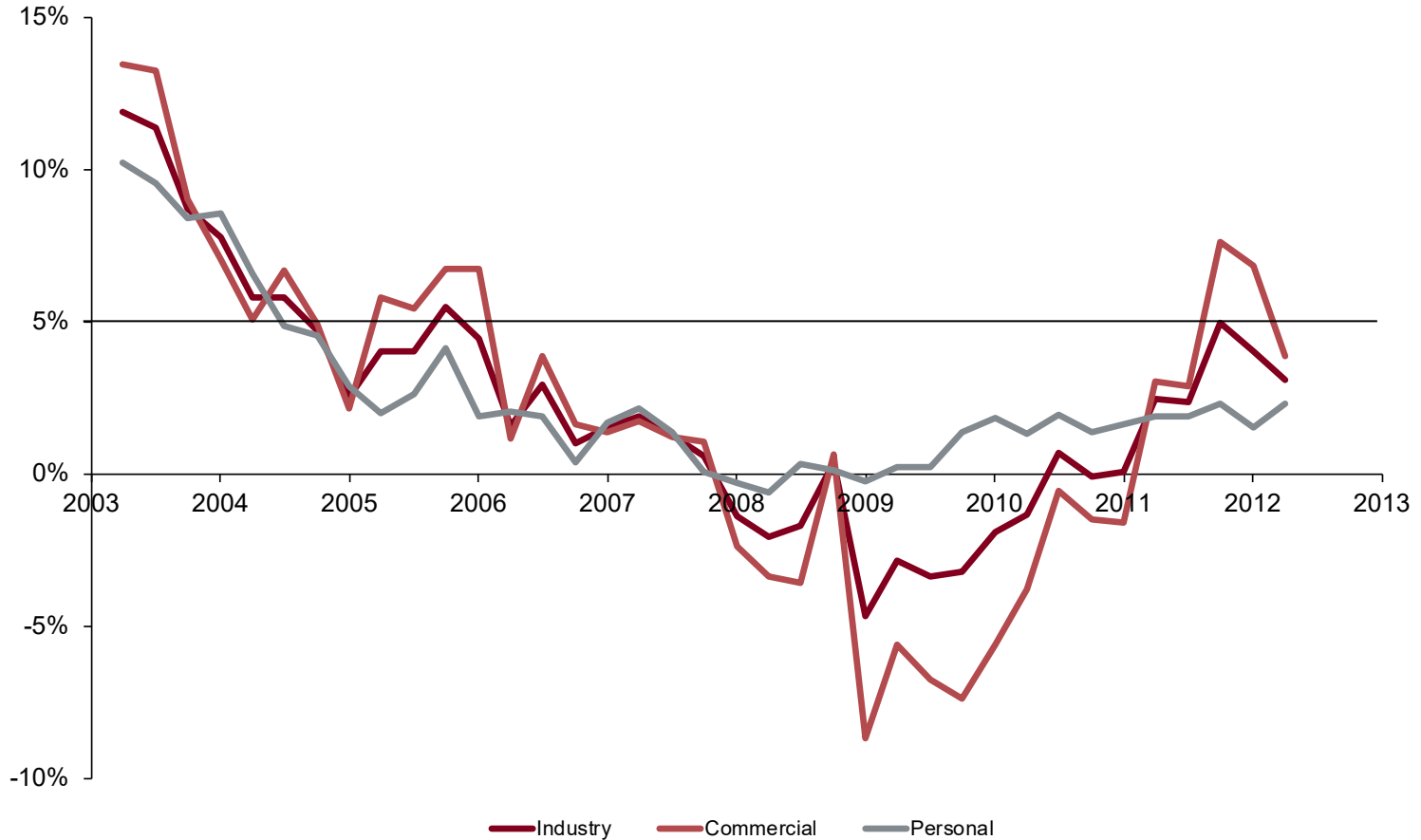
# Macro Premium Trends: Personal Lines (Briefly) Overtakes Commercial



# Top Line Premium Change

Statutory Reported Direct Written Premium Change, Through Q3 2011

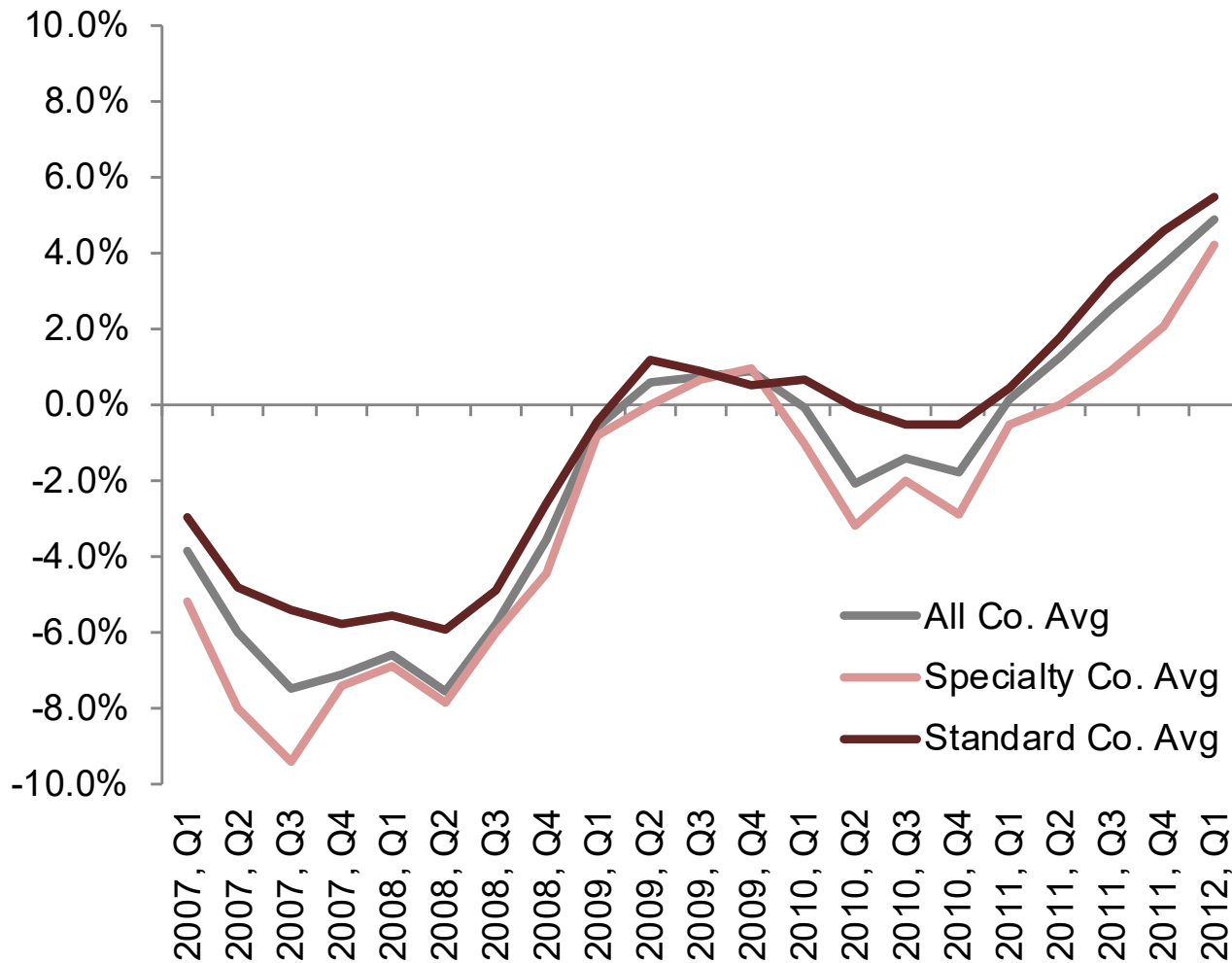
## Quarter over Prior Year Quarter Change in DWP Back Below Five Percent





# Commercial Lines Casualty Rate Change

## Aon Benfield Indices

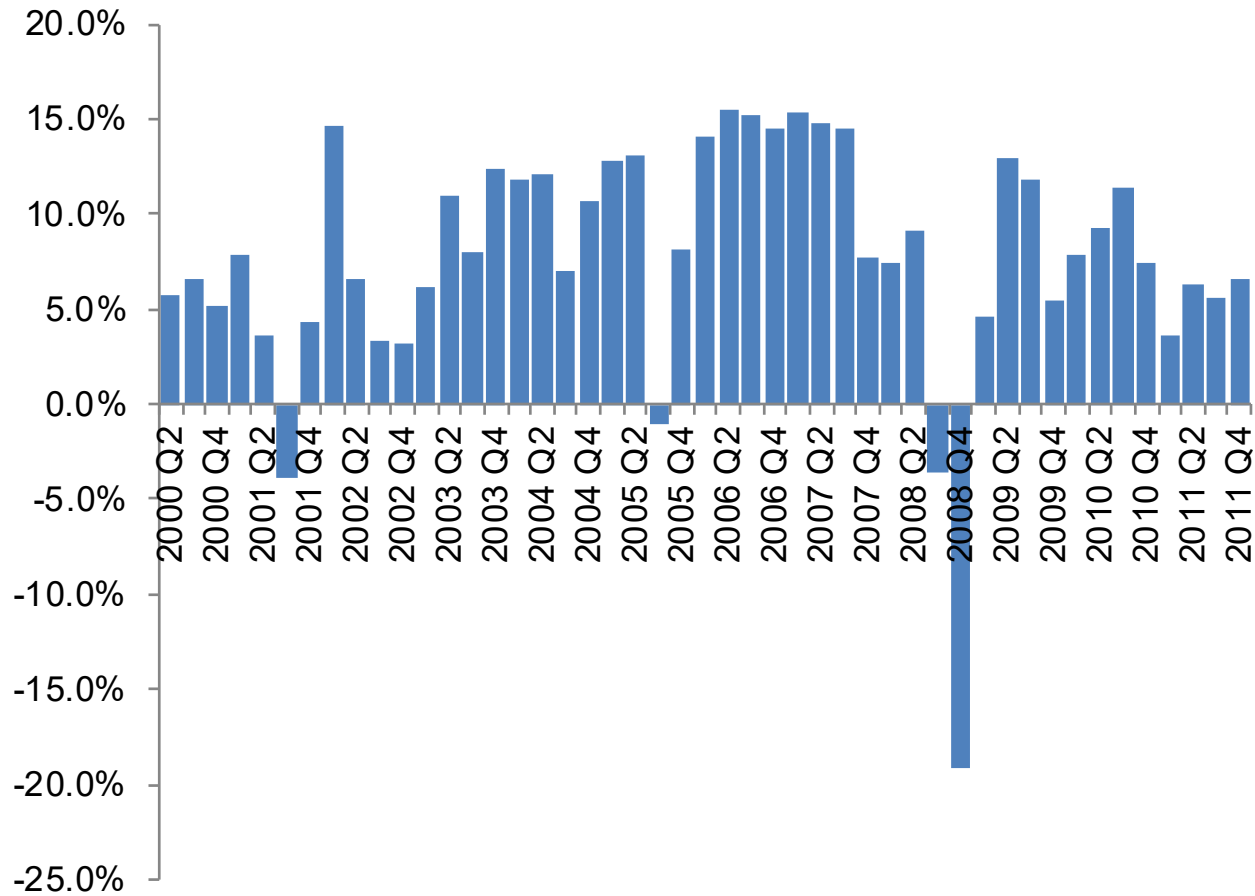


Gap between top line and reported rate has closed in most recent quarter as audit premiums decreased

# Quarterly Weighted-Average After-Tax Return **CHALLENGED**

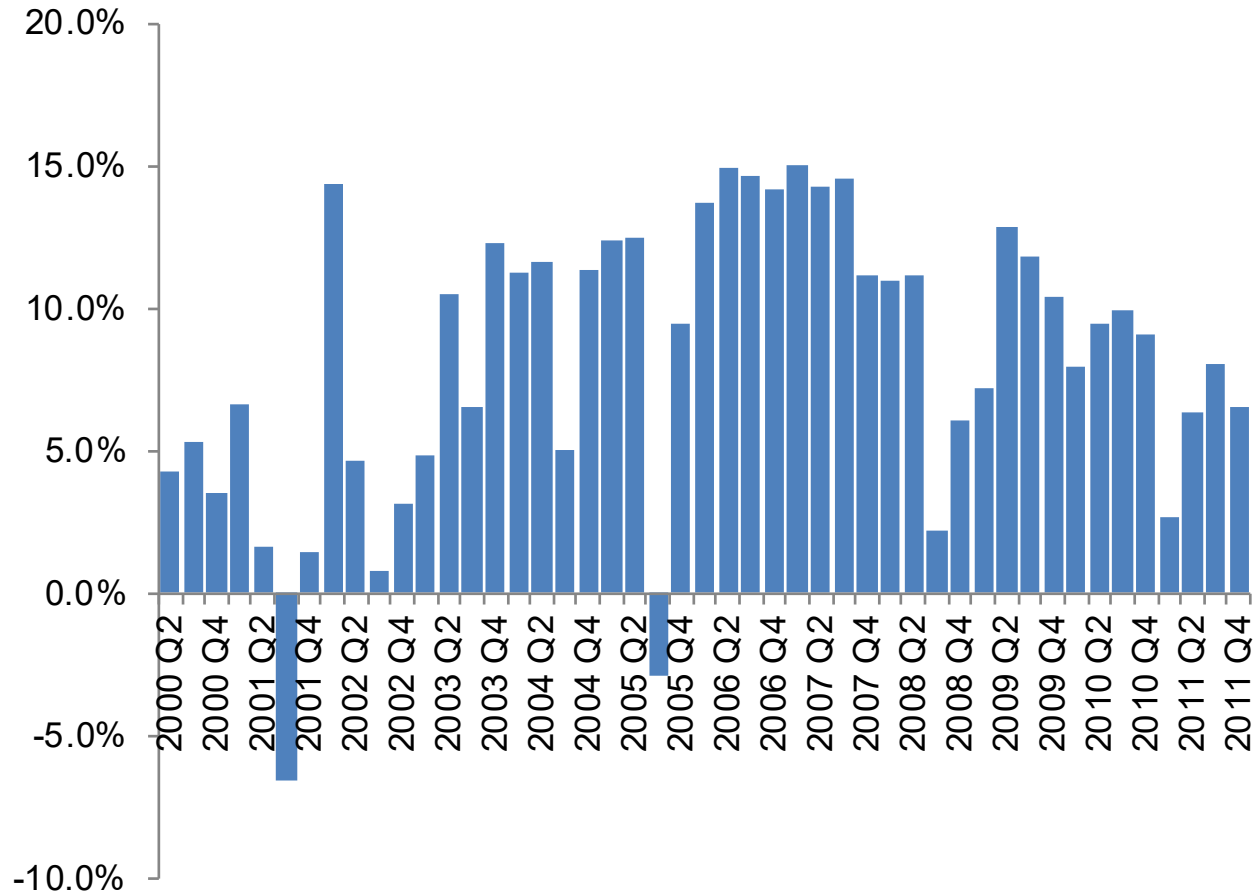
2000- Present, All P&C Stock Companies

**All P&C, Average 7.6%, SD 6.2%**



# Quarterly Weighted-Average After-Tax Return **CHALLENGED** 2000-Present, All P&C Stock Companies Adjusted

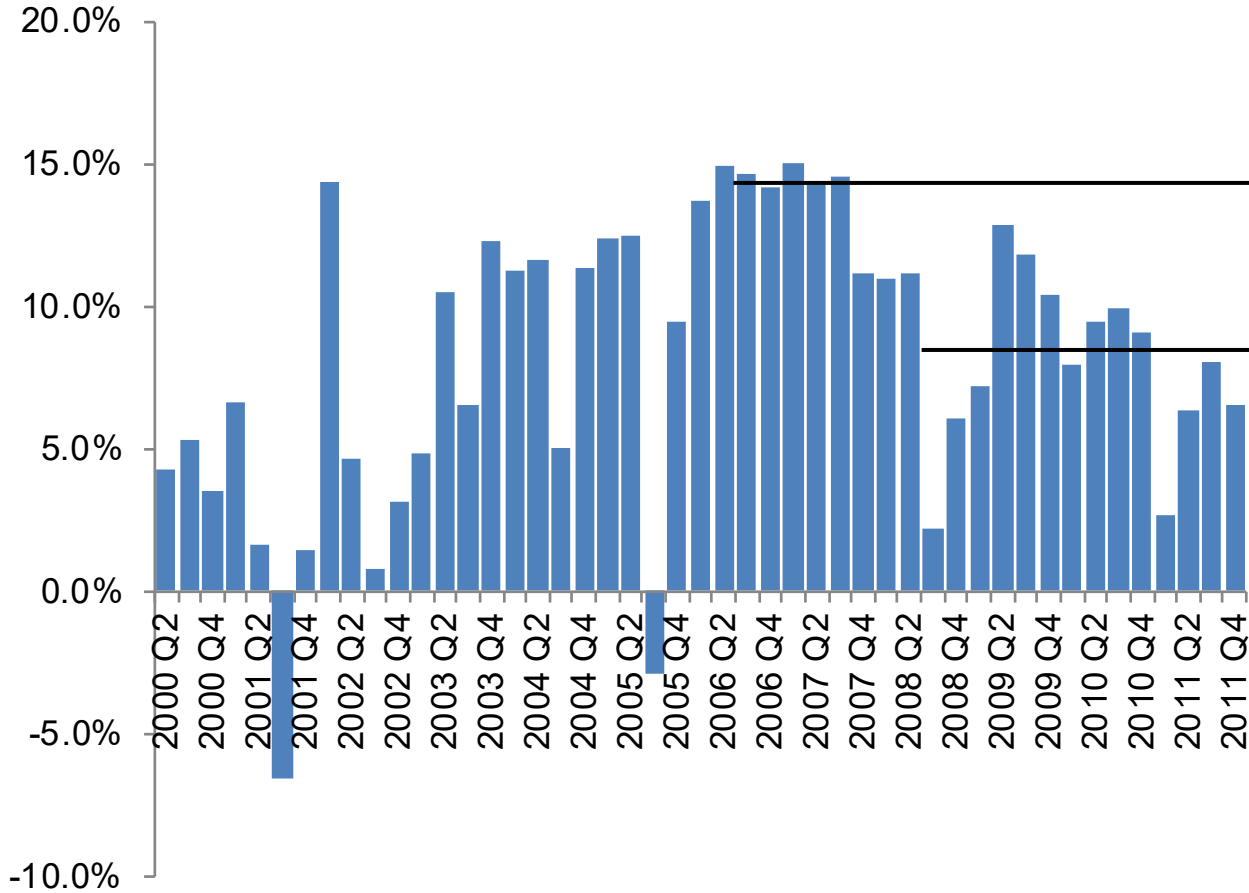
**All P&C Adjusted, Average 8.2%, SD 5.0%**



# Quarterly Weighted-Average After-Tax Return **CHALLENGED**

2000-Present, All P&C Stock Companies Adjusted

**All P&C Adjusted, Average 8.2%, SD 5.0%**



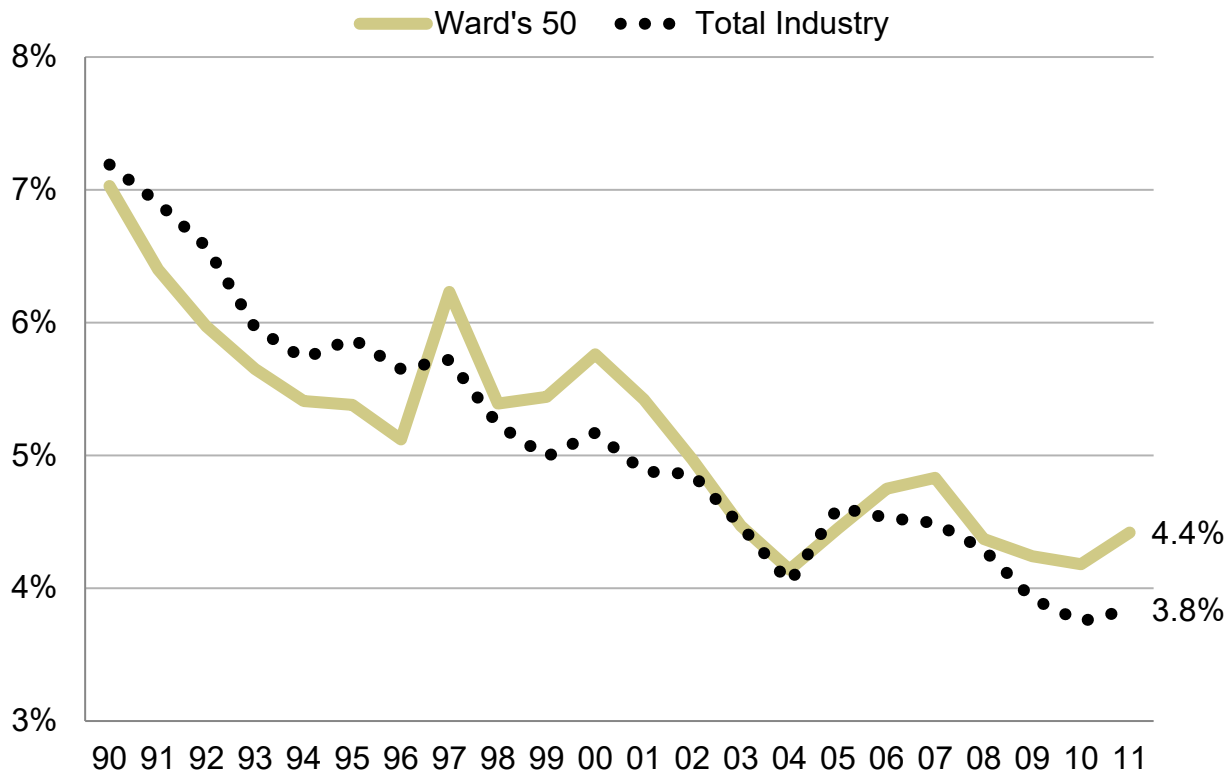
Pre-financial crisis 14% ROE

Post-financial crisis 8% ROE

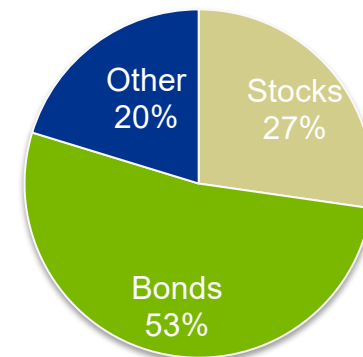
**600 bps: 1-200 bps lost yield x 3:1 asset leverage**

# Declining Investment Returns

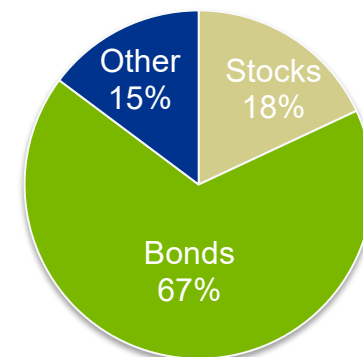
## Overall Investment Yield



## Ward's 50 Asset Mix



## Industry Asset Mix



### Key Points

- Returns are almost half of what they were 20 years ago
- Lower investment results forces more attention on underwriting performance

## Opportunities

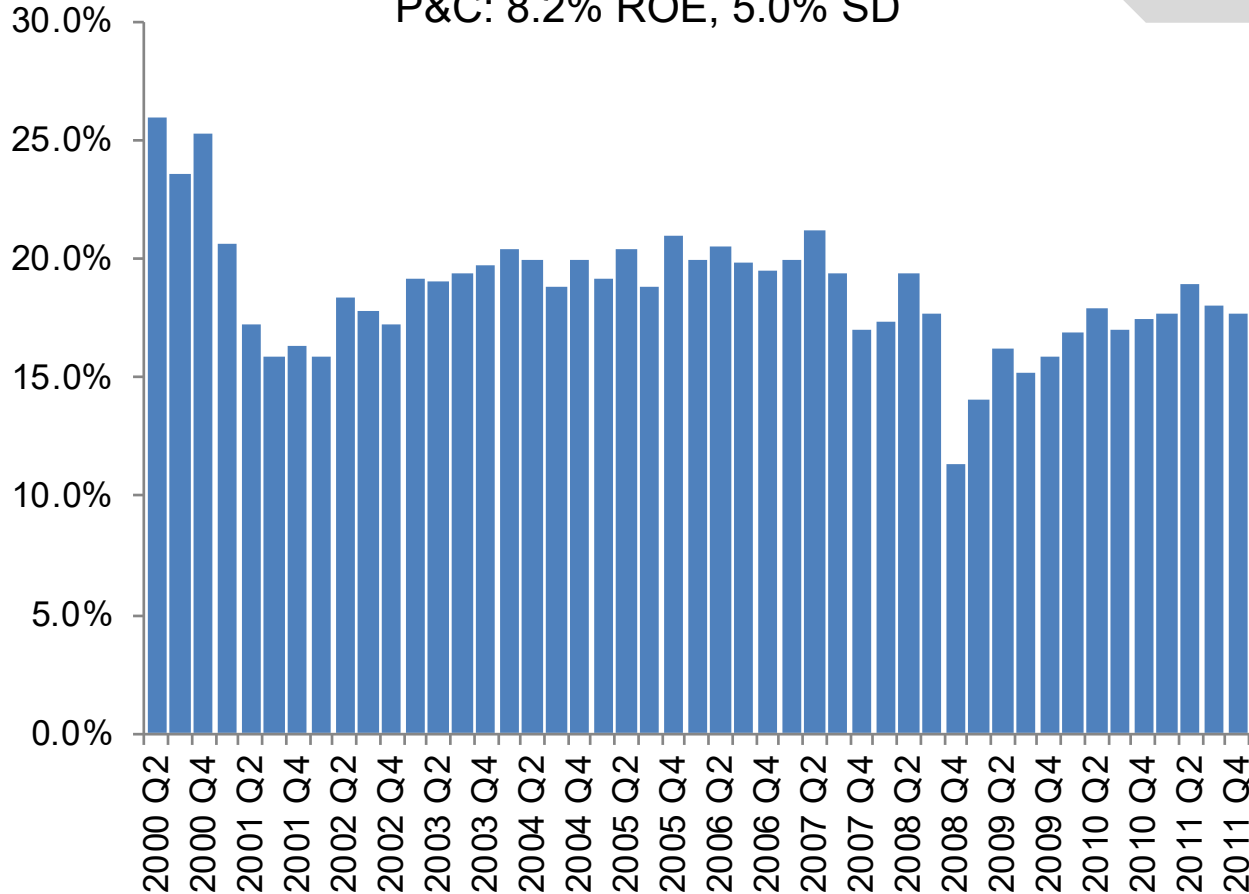
---

- Accounting
  - US industry operates underwriting and investment operations independently
  - Recent low interest rates driving ~ half of 600 bp decline in ROE
  - Underwriting reacts slowly to changes in investment climate
  - Opportunity: accounting changes, including discounted reserves and underwriting income provide needed impetus for closer link
  - Headwind: record capital levels in industry
  - Tailwind: low insurance company valuations

# Quarterly Weighted-Average After-Tax Return – Why Invest in Insurance?

**S&P 100, Average 18.6%, SD 2.6%**  
P&C: 8.2% ROE, 5.0% SD

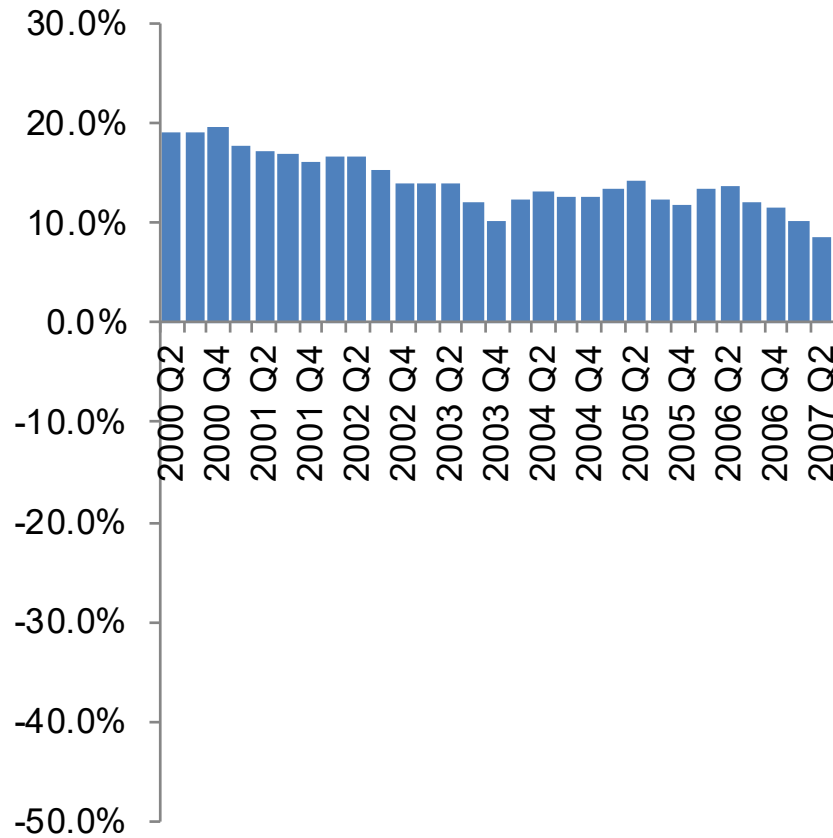
Twice the return  
Half the volatility



## Past Performance...

---

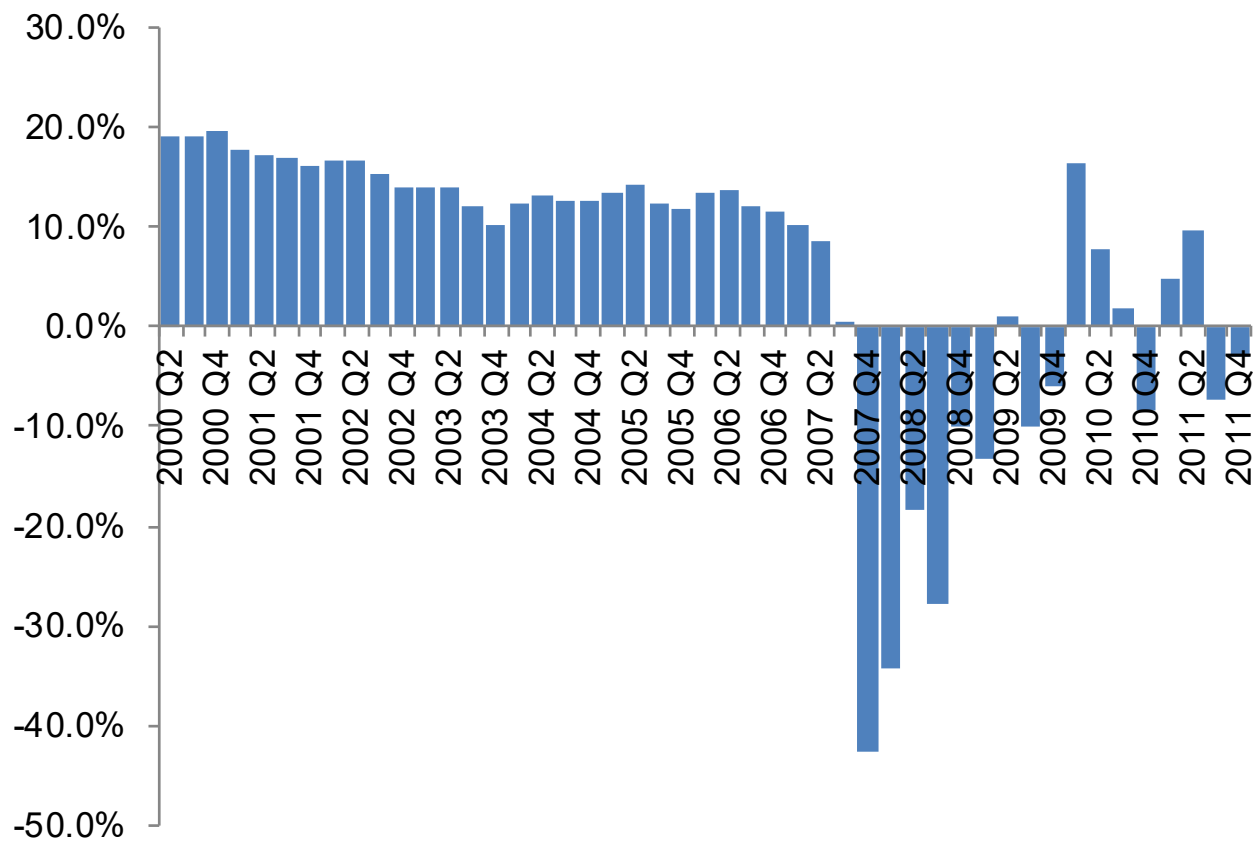
### Financial and Mortgage Gty, Average 12% Return, Low Volatility





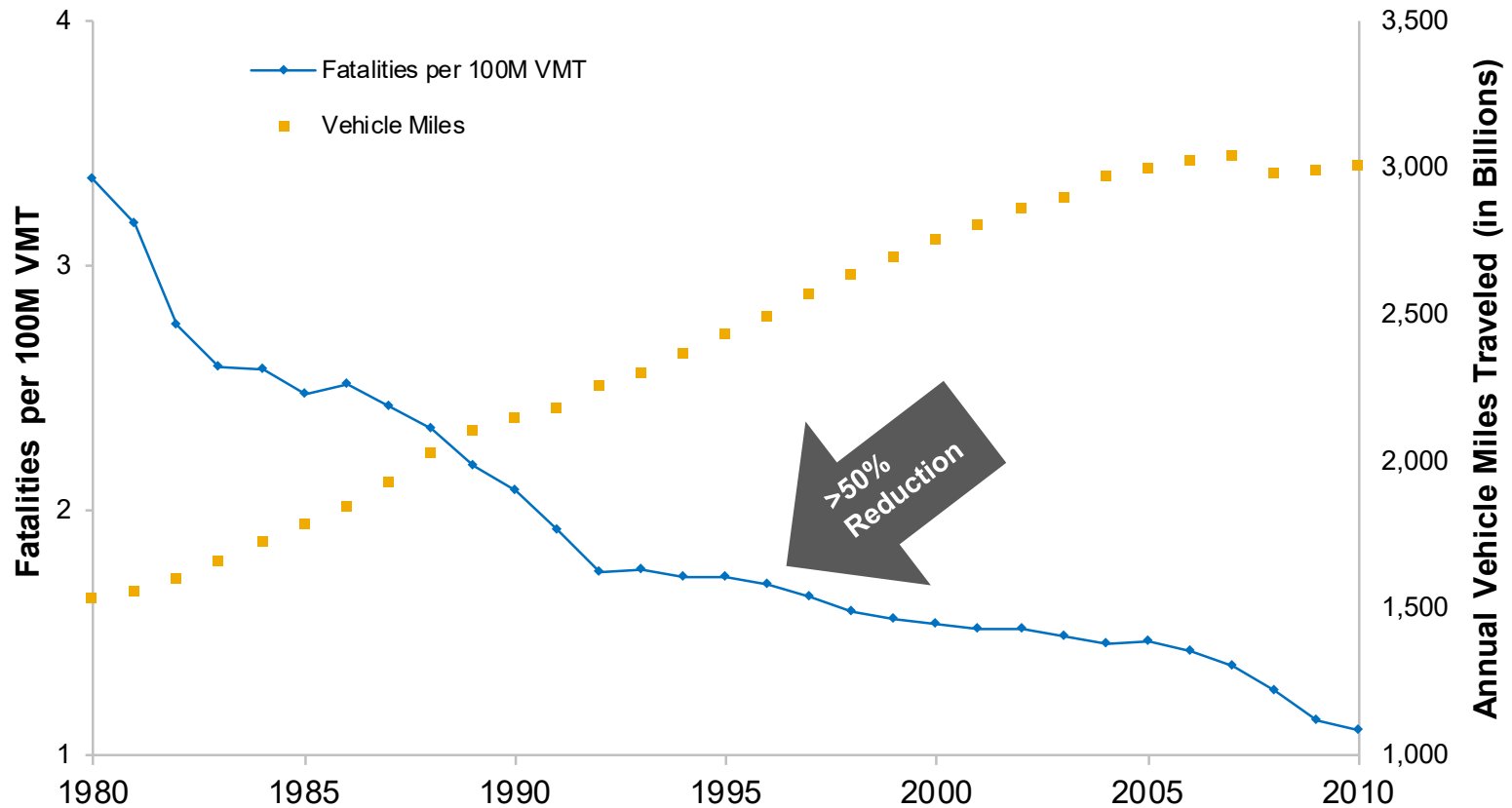
## ...Not Necessarily Indicative of Future Performance

### Financial and Mortgage Gty, Average 4.6%, SD 14.4%



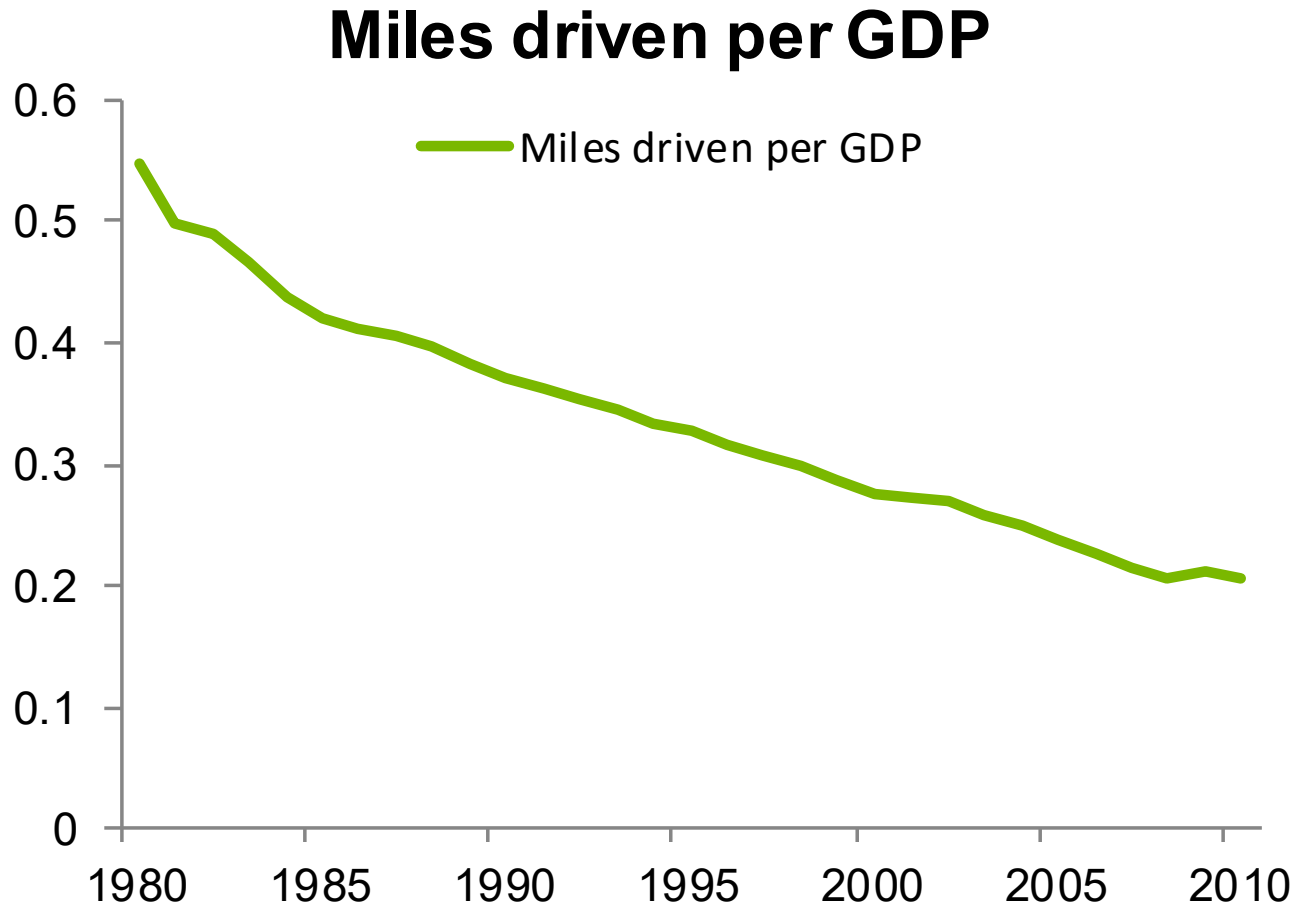
# Auto Frequency **DOWN** 1980-2010

## Fatalities Per 100M Vehicle Miles Traveled

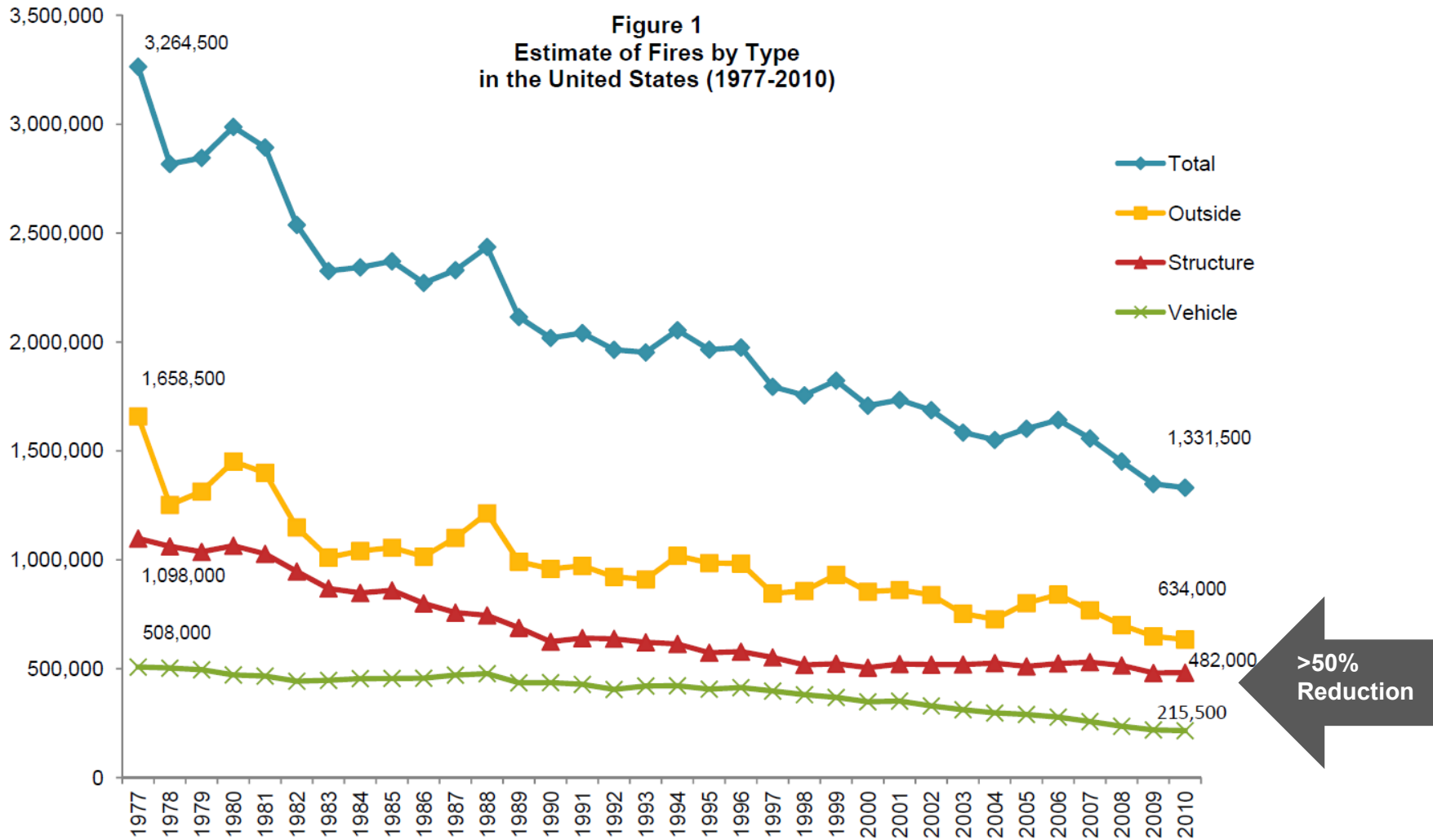


## Auto Economic Efficiency **UP** 1980-2010

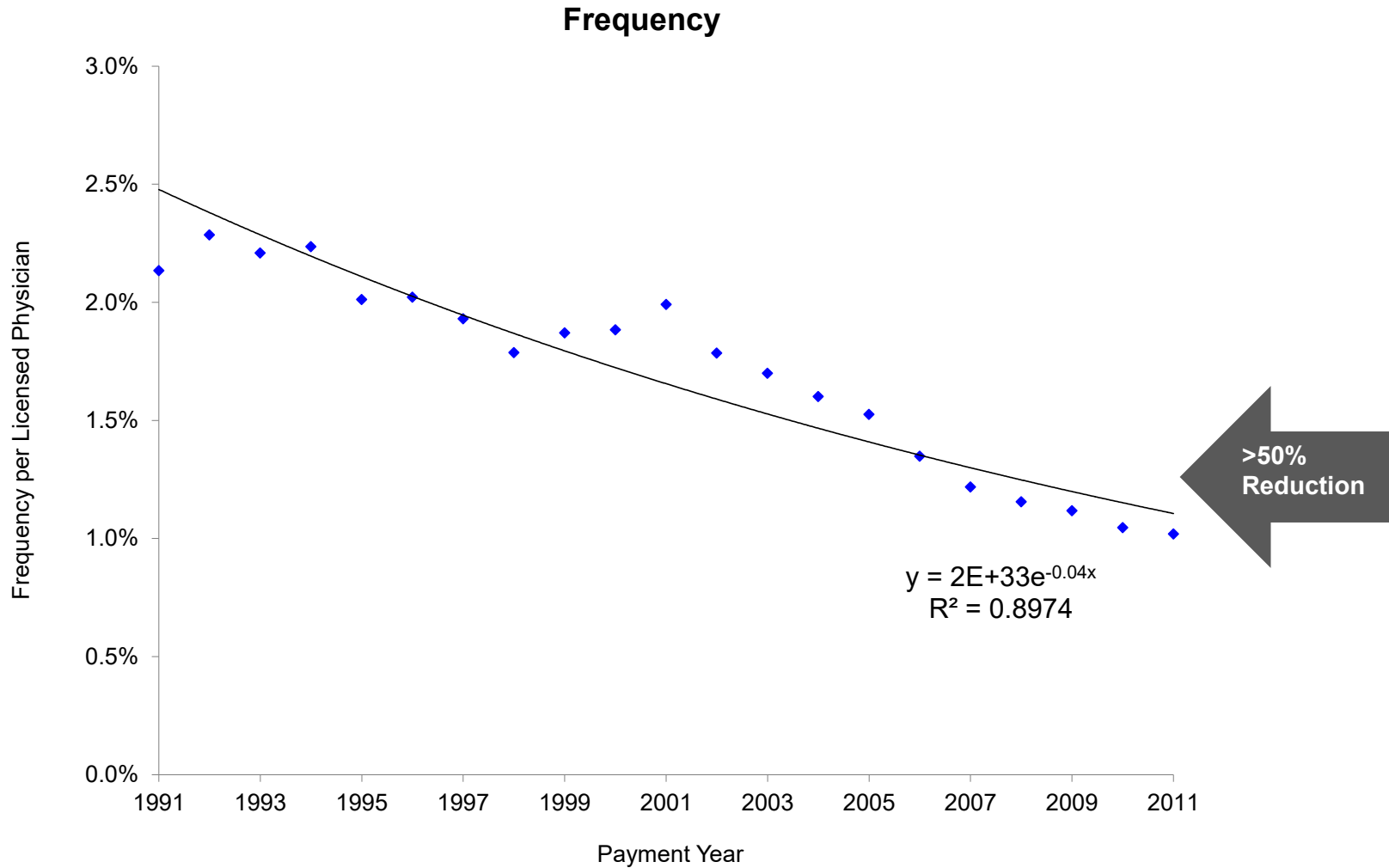
---



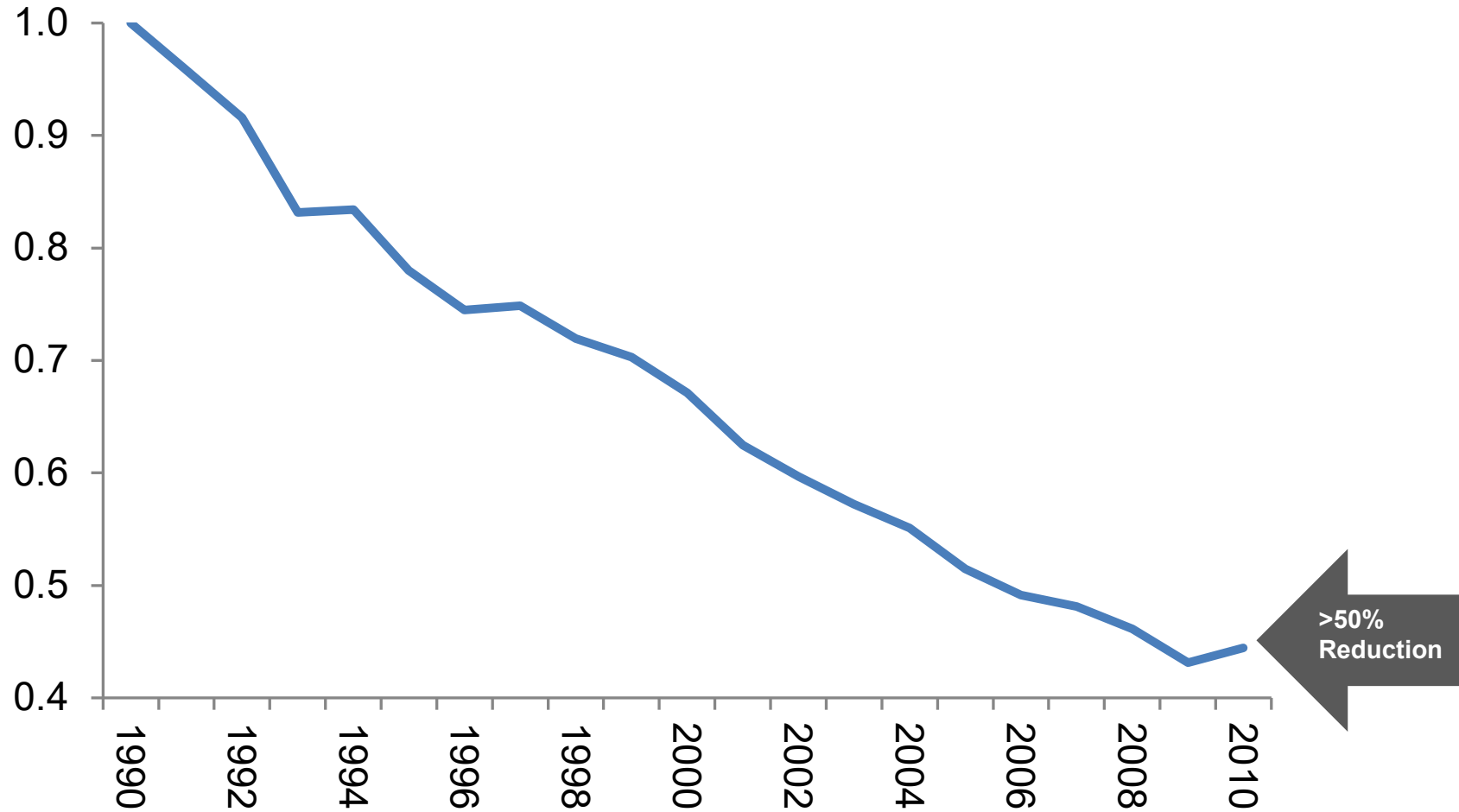
# Fire Loss Frequency **DOWN** 1977-2010



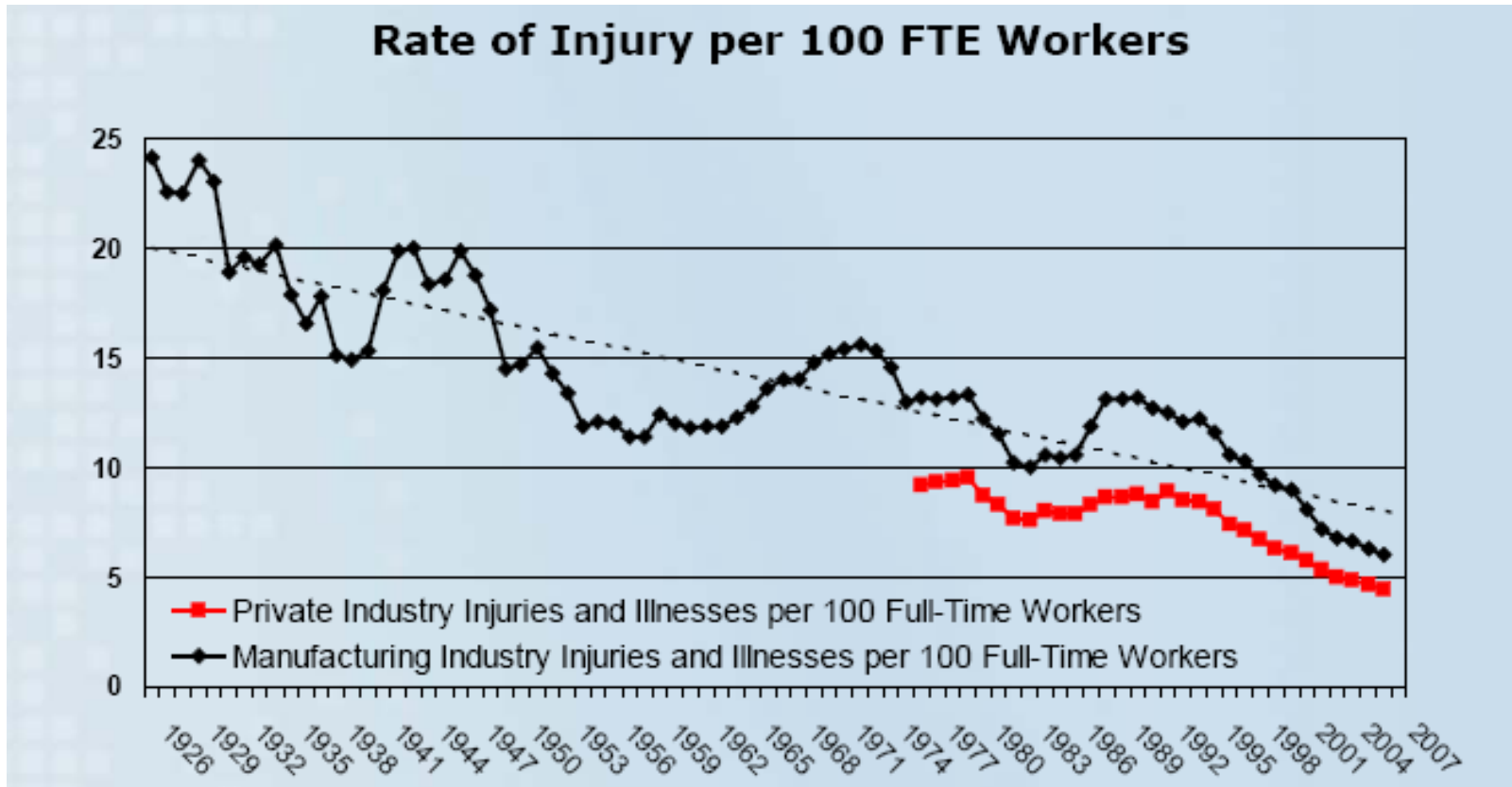
# Medical Malpractice Liability Frequency **DOWN** 1991-2011



## WC Loss Time Frequency **DOWN** 1991-2010

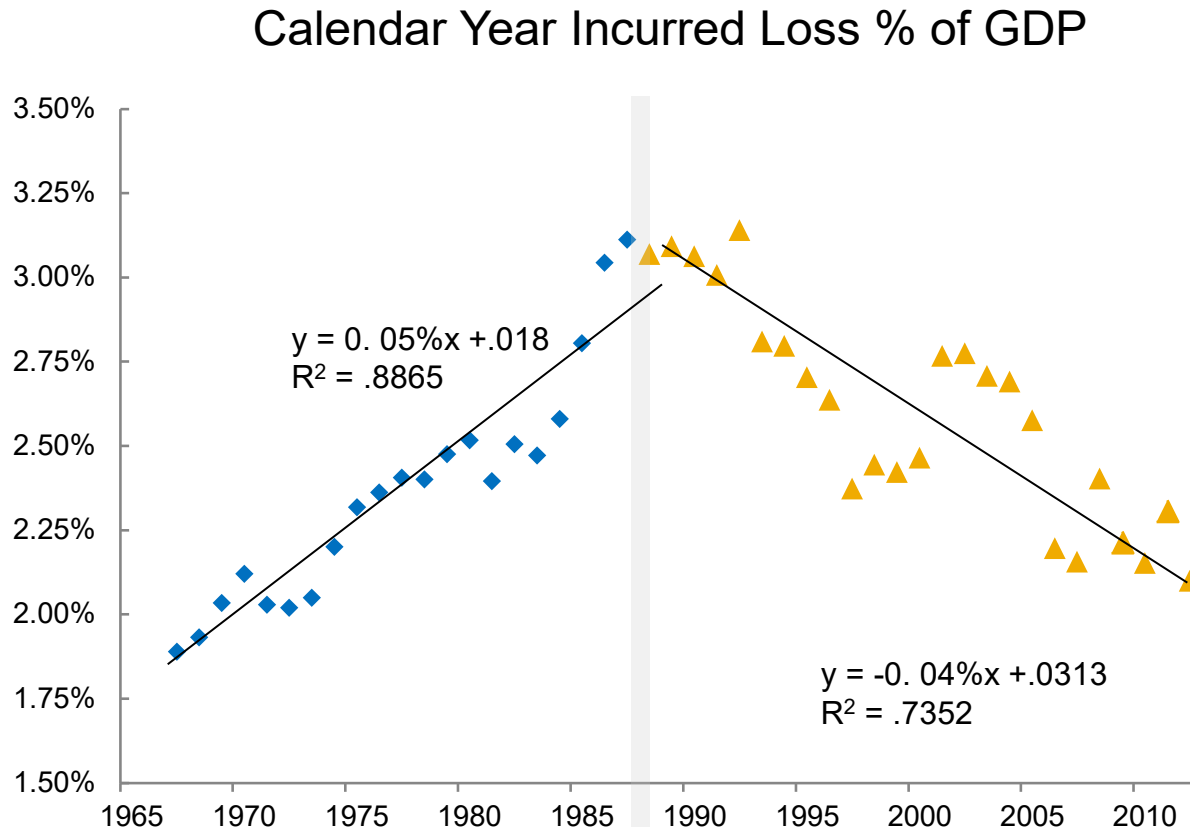


# WC Frequency Declines Since 1920s Within Manufacturing



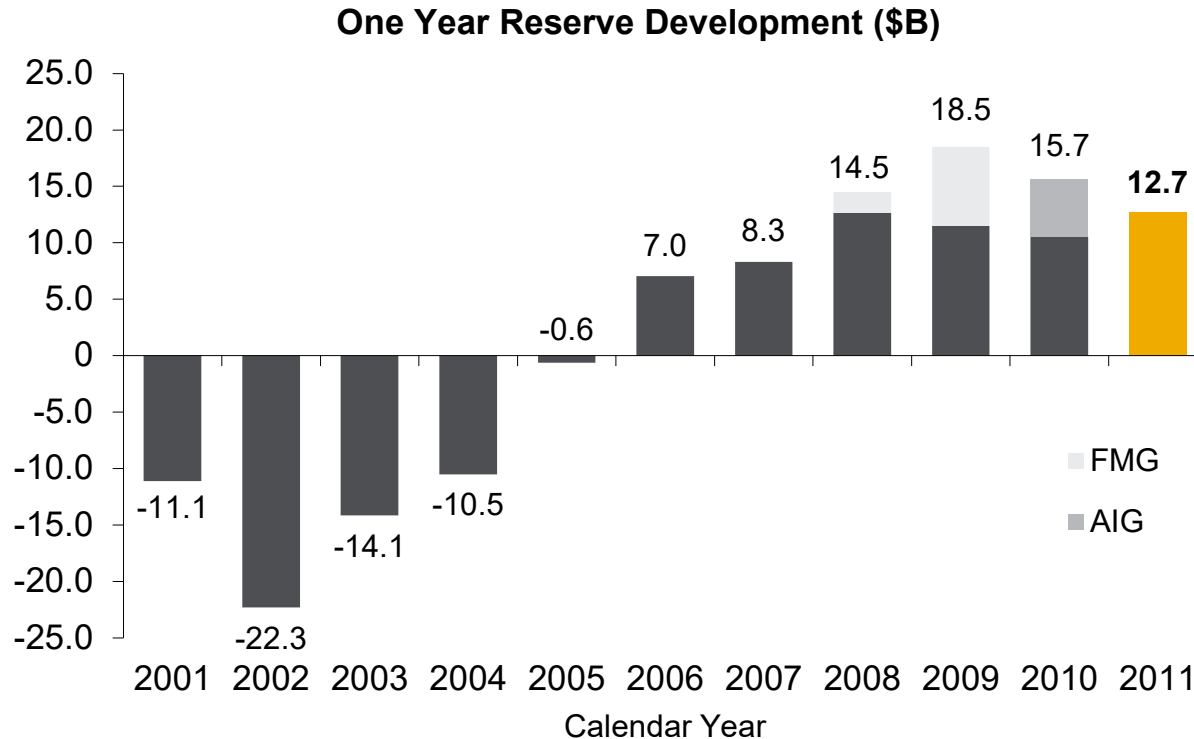
# Insured Loss % Gross Domestic Product **DOWN** 1986-2011

## Insured Risk Innovation Deficit





# U.S. P&C Industry Reserve Development (2001 – 2011)



- 2011 estimated redundancy \$22B
- Total favorable development in 2011 of USD13B
- 2012 estimated redundancy \$12B
- Estimated favorable development for 2011 of USD7-10B

# Opportunities

---

- Casualty
  - World getting safer for attritional losses, up to ~\$10M/EU/GBP
    - Declining frequency in major lines
  - World getting riskier for mega losses (Tepco, BP) but insurance not responding
    - Insurance bonded risk management advice
    - Rating agency treatment of debt
  - Opportunity: move out of comfort zone, possibly with reinsurance support, and grow by broadening coverage and getting appropriate rate
  - Social science: adaptive, controlled and managed environment, hard to model

# Opportunities

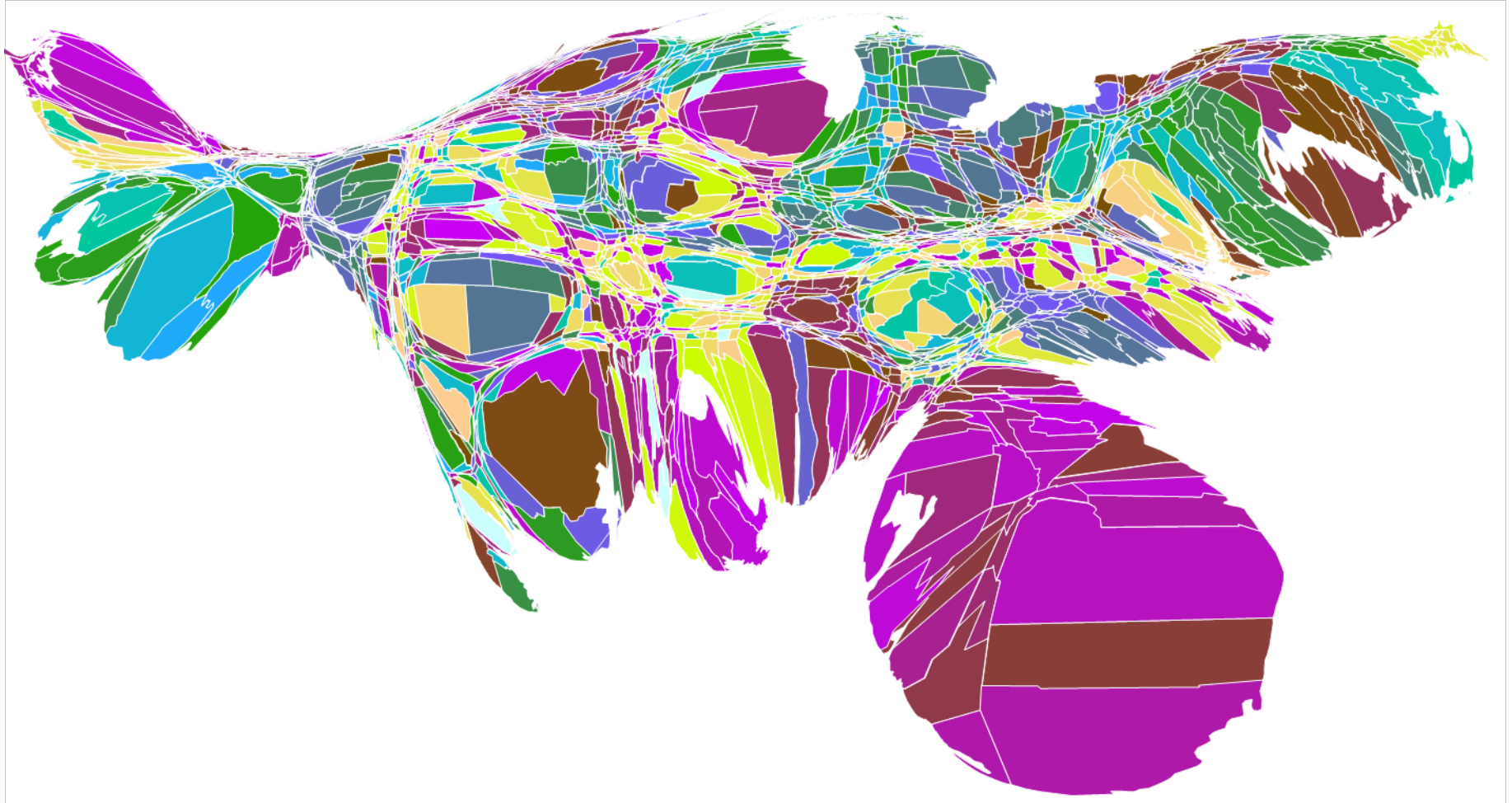
---

- Property
  - Science: constant, understandable, risk can be effectively modeled
  - Uncontrollable peril and demographics inexorably driving increased risk
  - Clear path to growth for industry: 15% five year growth in homeowners premium
  - Opportunity: clear for superior, analytically-led insurance and reinsurance solutions, risk and exposure management, and profitable, competitive pricing
  - Opportunity: improve catastrophe model input data, VIN for houses

# Uncontrollable Peril And Demographics Inexorably Driving Increased Risk

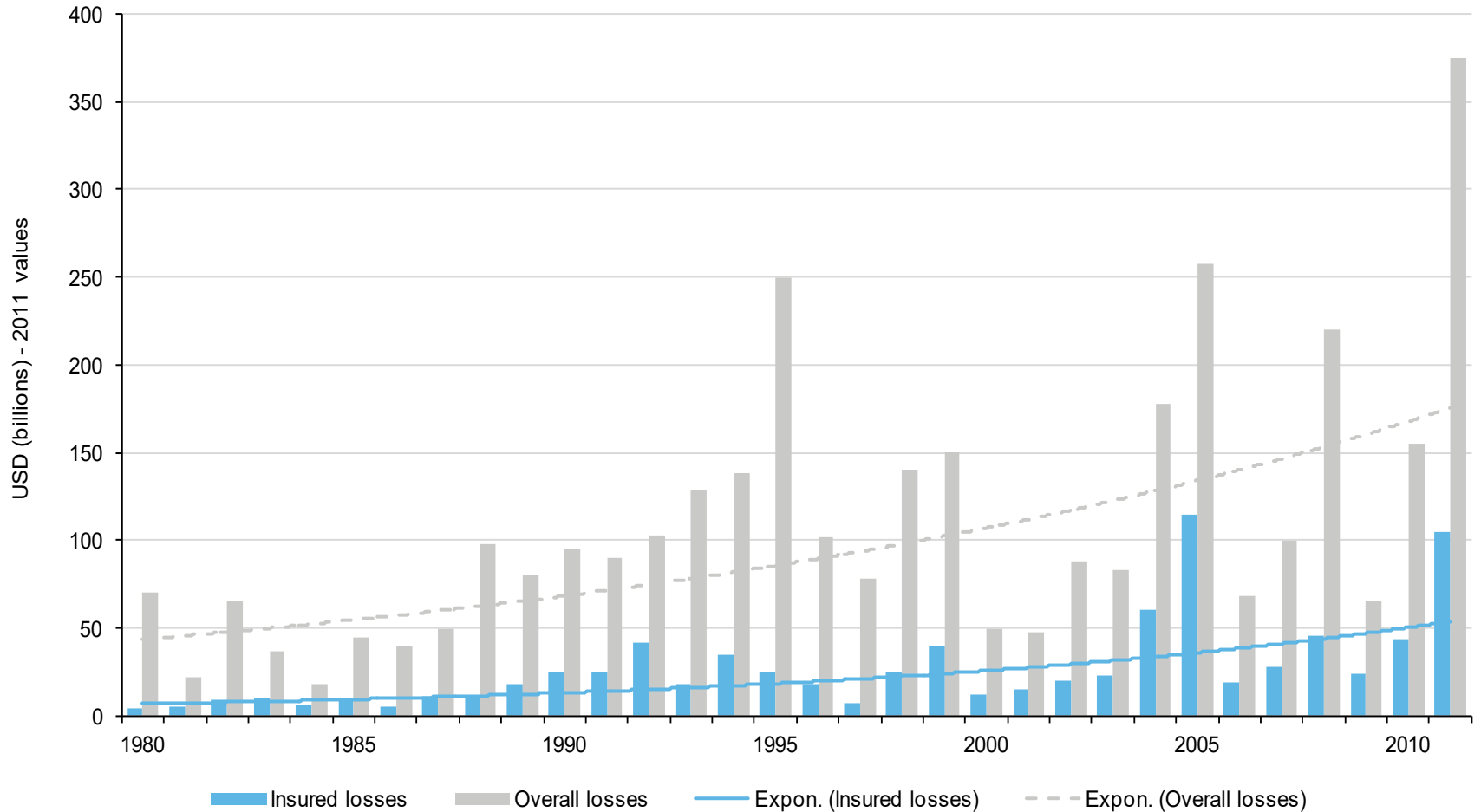
## County Level Catastrophe Average Annual Loss

---



# Economic and Insured Catastrophe Losses

## INCREASING Globally 1980-2011



Source: Munich Re Topics Geo 2011

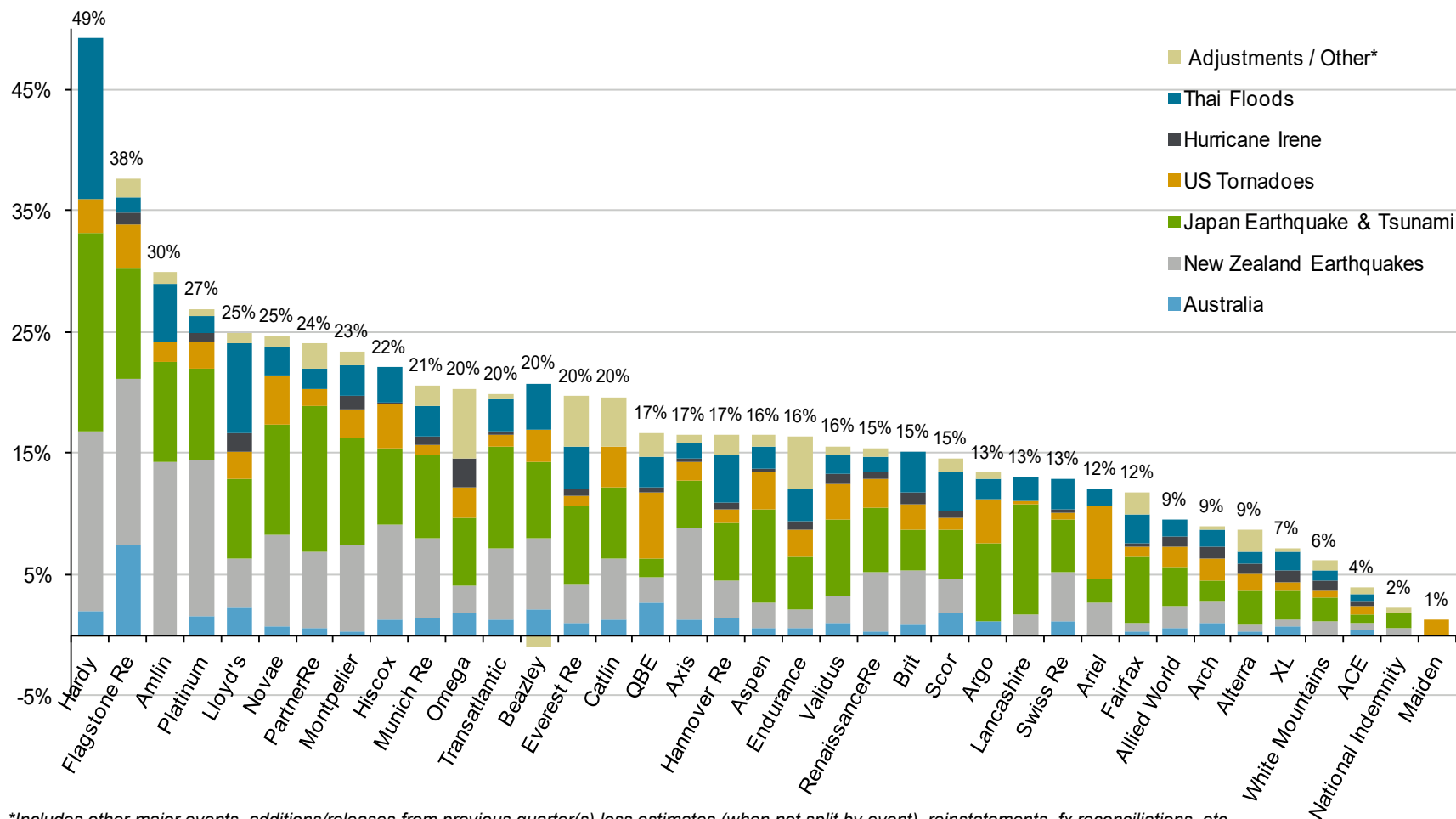
# Opportunities

---

- Reinsurance
  - Reinsurance has proven track record of cost-effective risk transfer, durable availability through the financial crisis, and very low credit risk
  - Effective partnership with reinsurers helps lower net volatility and improve valuation while facilitating product enhancement and expansion
  - Opportunity: more effective aggregate risk management, building on aggregate covers successfully placed in market, with effective recovery in filed rates
  - Opportunity: encourage innovation through new products and product enhancements such as accident & health

# FY 2011 Net Natural Catastrophe Loss **MANAGABLE**

## Percent of FY 2010 Shareholders' Funds, Aon Benfield Aggregate



\*Includes other major events, additions/releases from previous quarter(s) loss estimates (when not split by event), reinstatements, fx reconciliations, etc. Splits by event are shown as latest reported, i.e. could be from 1Q, 1H, 9M or FY 2011 results. Some Thai flood loss estimates are from preliminary announcements.

All losses are assumed pre-tax except for Validus' Thai flood estimate

All losses are net of reinstatement premiums except for Validus and ACE

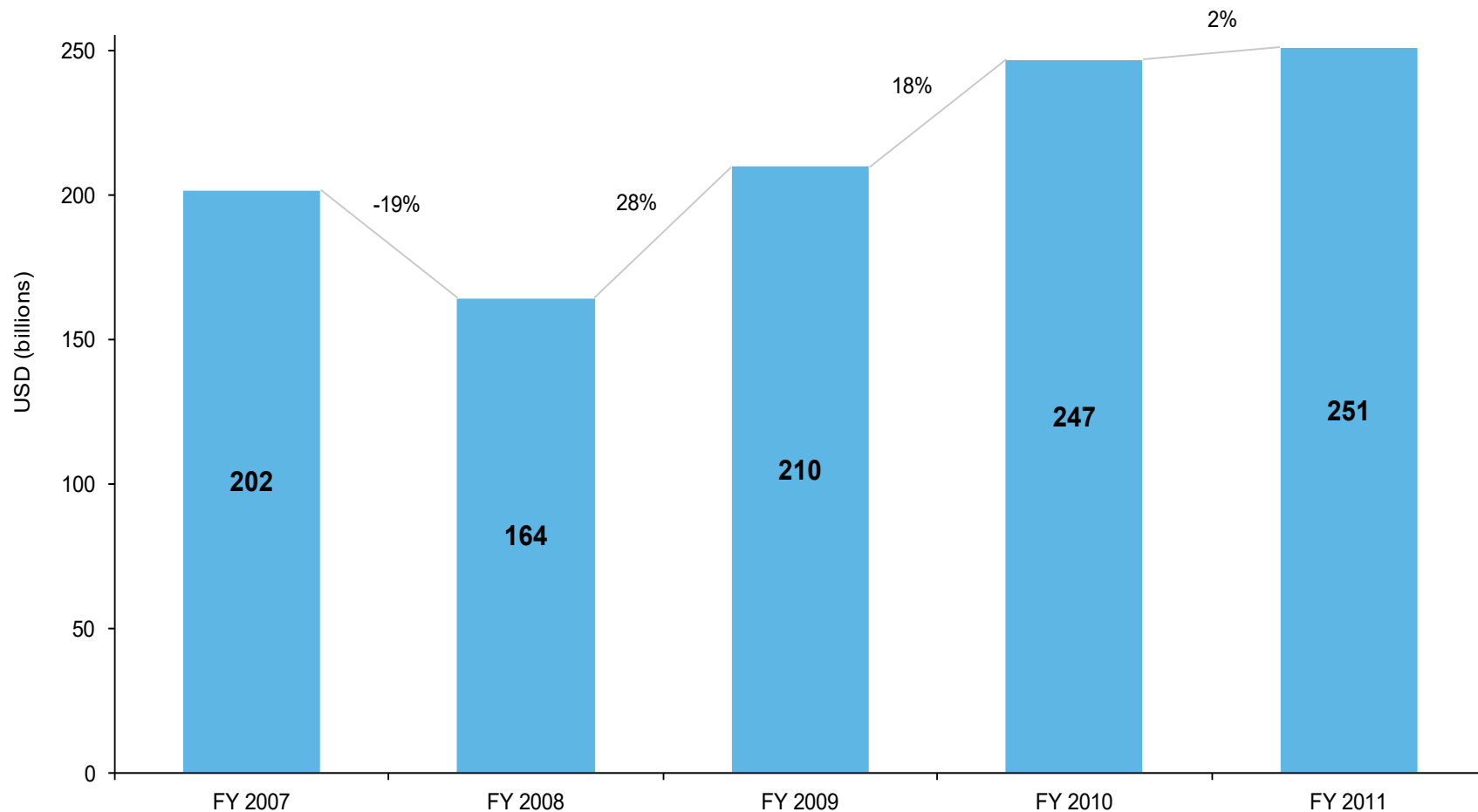
All losses converted to USD at 2011 full year average FX rates

US tornadoes includes Hurricane Irene for Argo, Ariel and Novae

Source: Company information, Aon Benfield Market Analysis

# Reinsurance: A Solid Promise

## ABA Shareholders' Funds





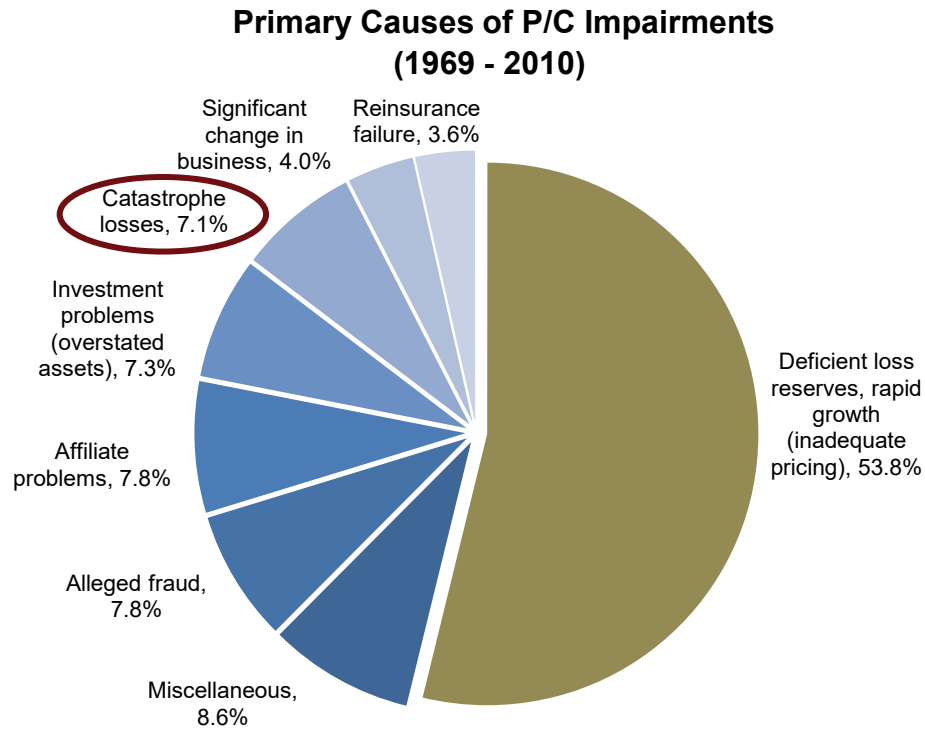
# Reinsurance Effectively Manages Catastrophe Risk

## A. M. Best Impairment Study

Cause (1969-2010)	Pct Total
Deficient loss reserves, rapid growth (inadequate pricing)	53.8%
Miscellaneous	8.6%
Alleged fraud	7.8%
Affiliate problems	7.8%
Investment problems (overstated assets)	7.3%
Catastrophe losses	7.1%
Significant change in business	4.0%
Reinsurance failure	3.6%

Source: A.M. Best Co.

1066 impairments\* over 42 year period 1969-2010



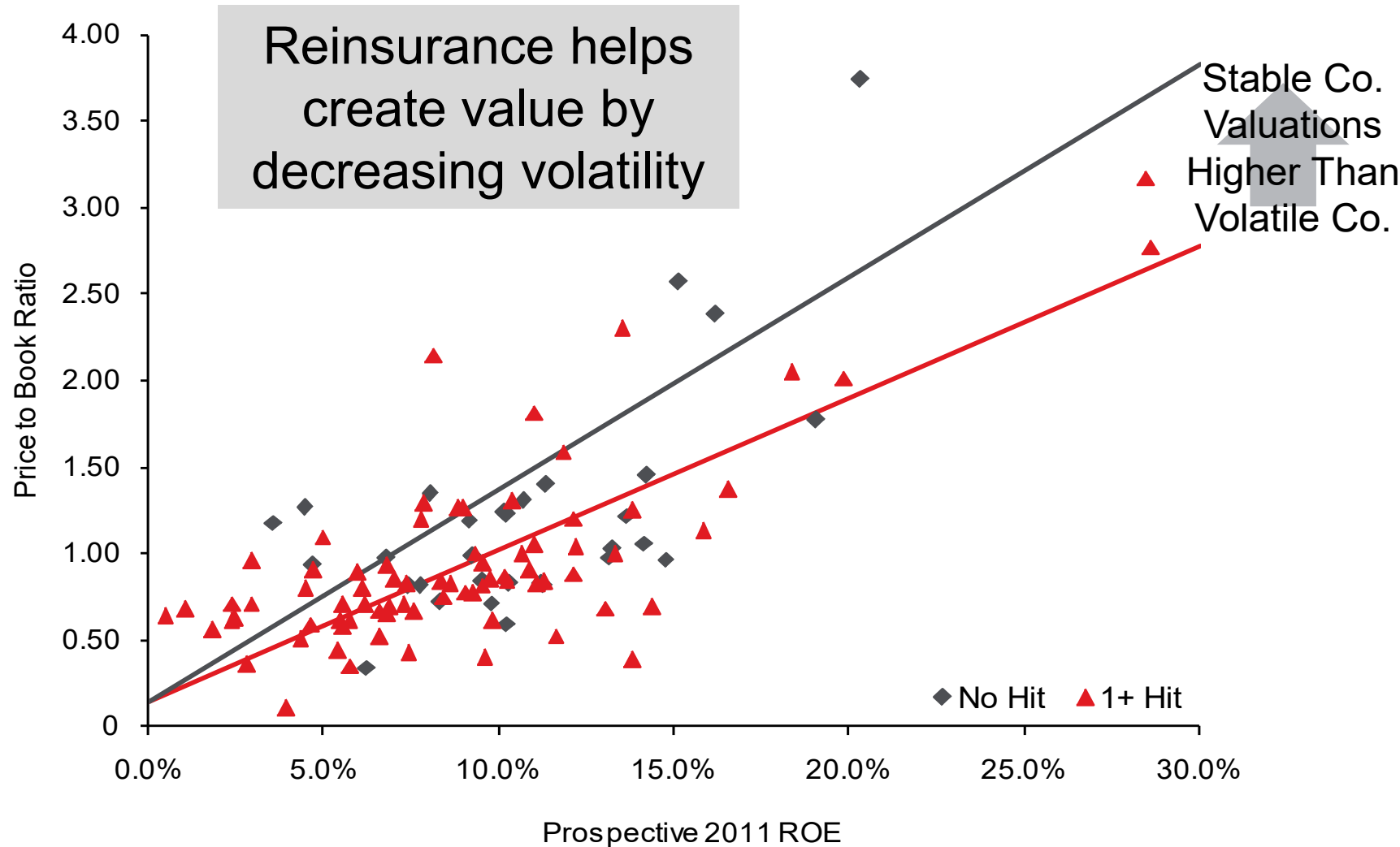
Insurance risk is the main killer of US P&C companies based on 40 year track record

Source: A. M. Best Impairment Study, 2011

\* A. M. Best defines impairment as any type of restrictive regulatory action

# Aon Benfield Global Price to Book Regression Study

## 2011 Q4 Update



# Aon Benfield Global Price to Book Regression Study by Region

## 2011 Q4 Update

	Global	US	Europe	APAC
<b>Valuation Differential</b>				
At 10% ROE	36%	59%	34%	49%
At 15% ROE	38%	70%	28%	53%
<b>Number of Companies in Regression</b>	115	61	38	16
Percentage of Companies with a Hit	67.8%	68.9%	68.4%	62.5%
<b>Average Values for Companies with Hits</b>				
ROE	9.8%	6.7%	12.3%	16.8%
Price to Book Ratio	102.0%	83.4%	99.2%	186.9%
<b>Average Values for Companies with No Hits</b>				
ROE	12.2%	9.7%	15.8%	13.1%
Price to Book Ratio	158.8%	146.1%	146.5%	223.5%
<b>Regression R<sup>2</sup></b>	77.0%	53.4%	92.8%	80.1%

## Operational Challenges

---

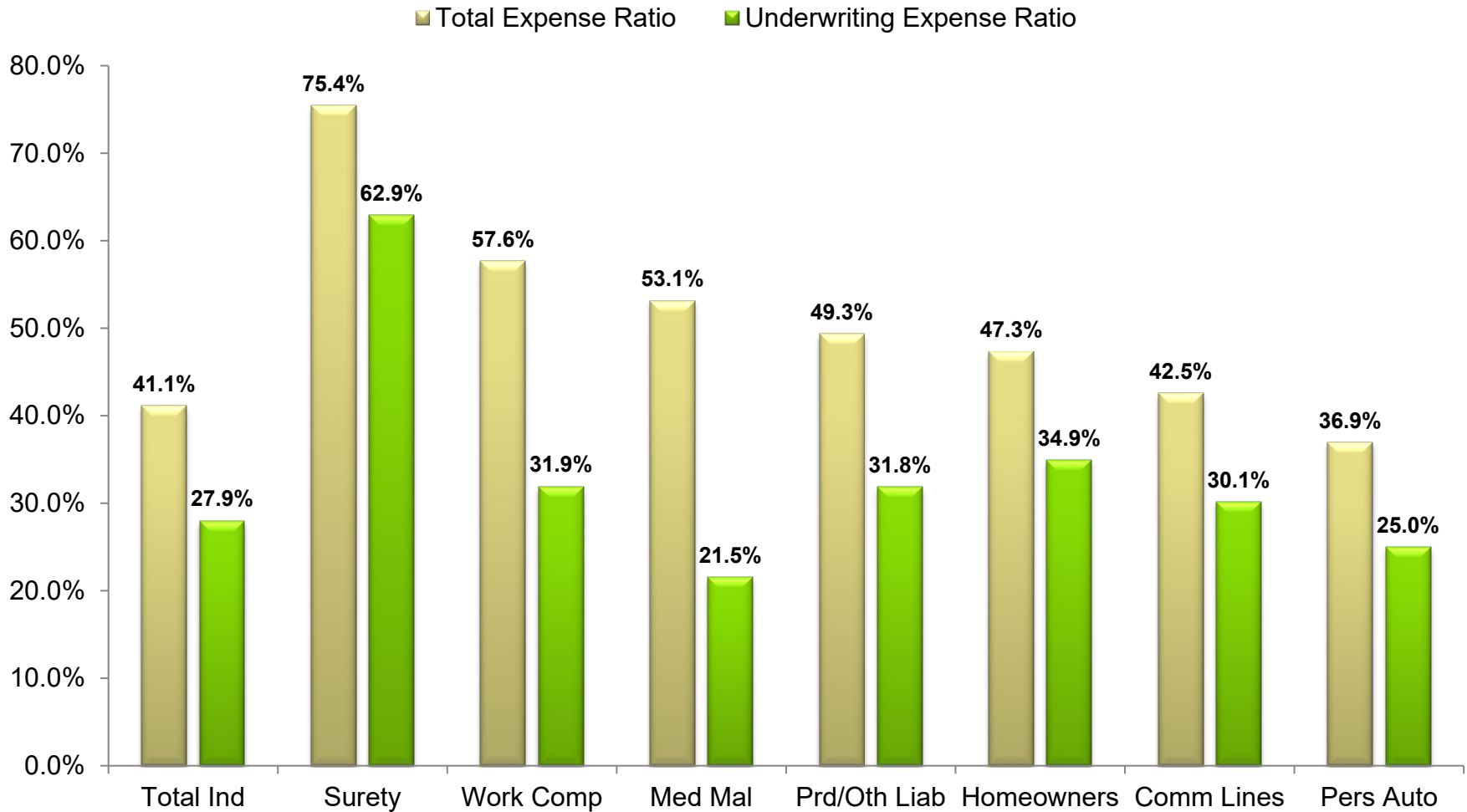
- Technology investments will continue to increase in virtually every area of the company
- Expense ratio should begin to decline due to premium growth (rather than staff reductions)
- Web and mobile transactions will increase and likely to be product differentiator
- Expansion in market offerings and niche strategies will continue

# Declining Premium – Increasing Expense Trends

## Total Expenses as % of Net Premiums Written



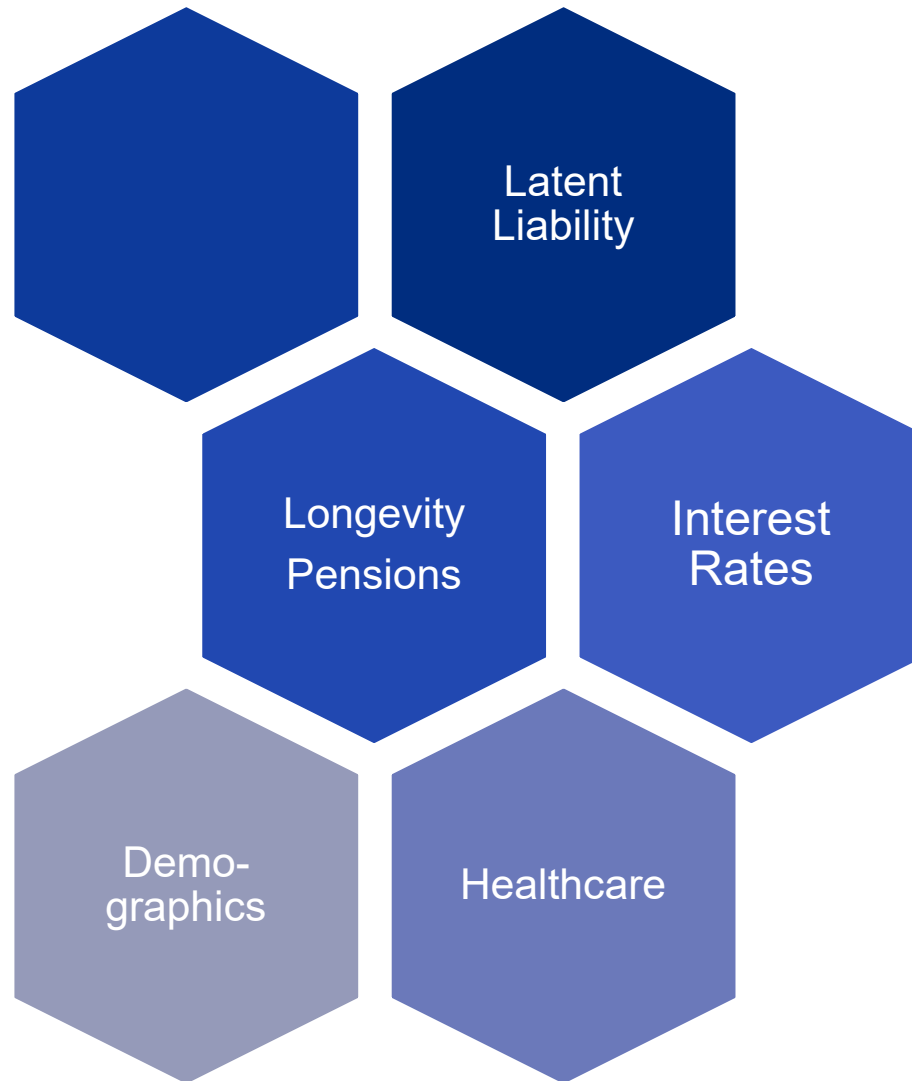
# Expenses By Product Focus



Data reflects results of companies with at least 50% of premium generated by primary line of business

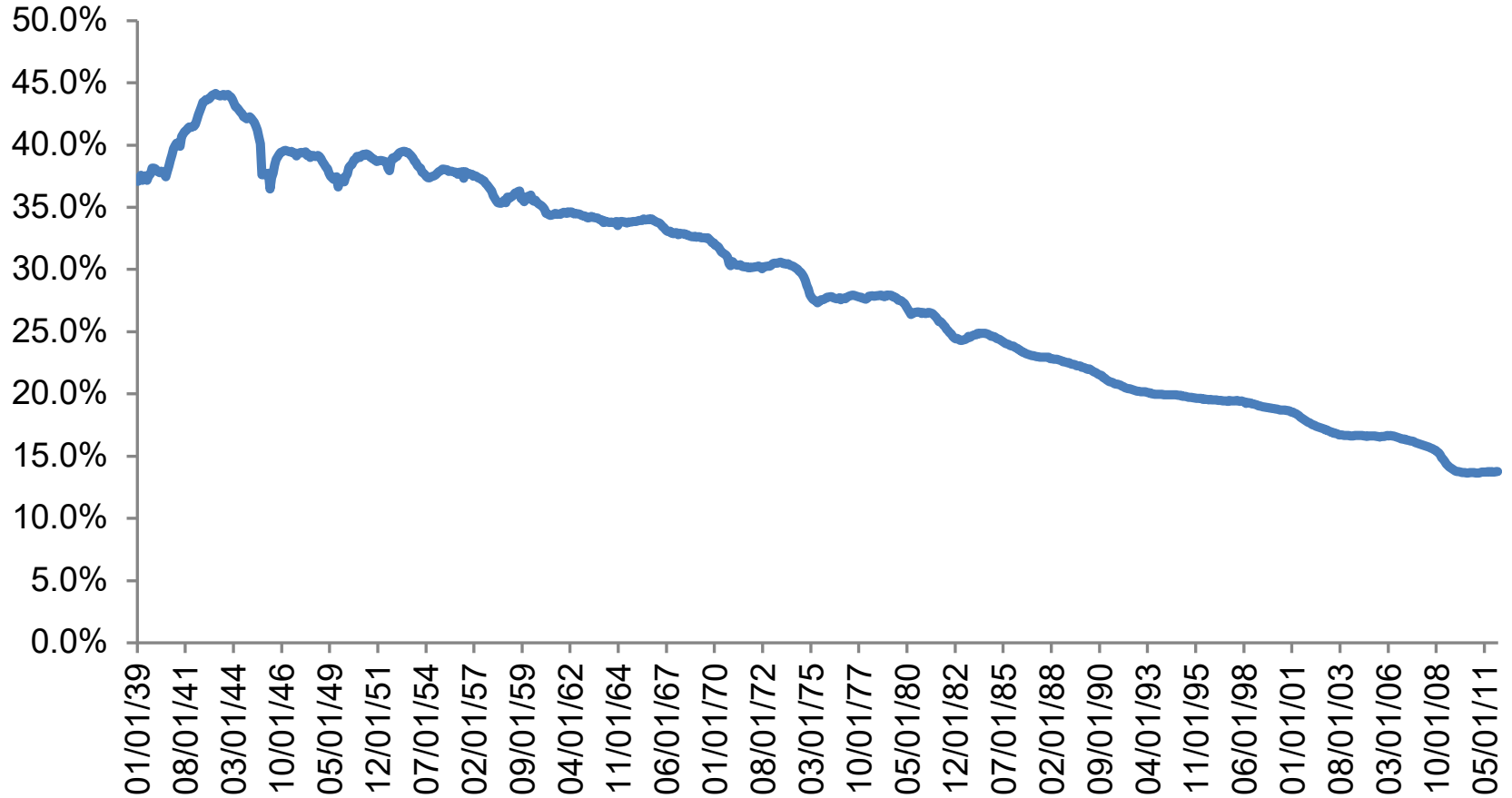
# Long-Term Challenges

---



# Percent of Total Non-Farm Employment in Goods Producing Industries

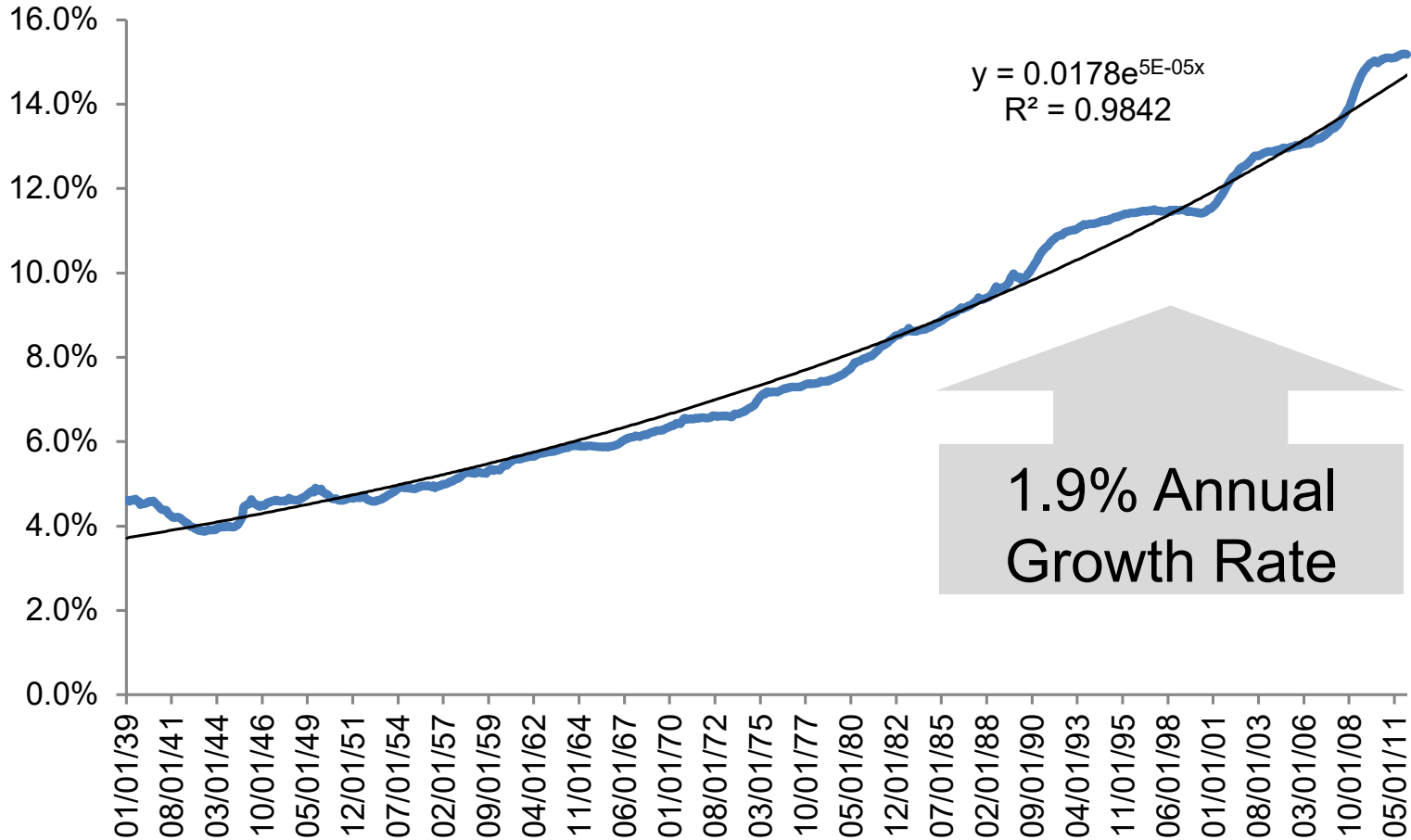
## Goods Producing





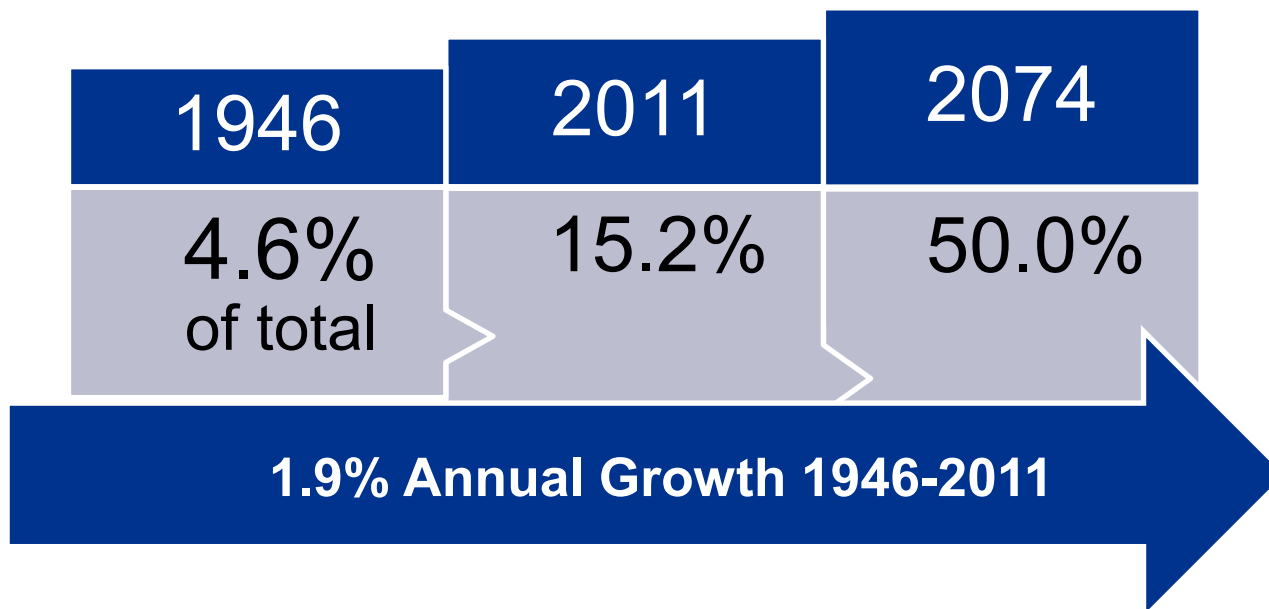
# Percent of Total Non-Farm Employment in Healthcare & Education

## Healthcare & Education



## Implications of Historical Growth Rate on Employment in Health/Ed

---



Embrace and plan, don't deny  
Agriculture, manufacturing, service, health

# Opportunities

---

- Demographic
  - Demographic challenges provide opportunities for new product innovation
  - Aging populations and legacy distribution vs. internet distribution
  - Opportunity: “Lifetime” products, perpetual homeowners insurance or auto insurance
  - Opportunity: reverse mortgage with bundled P&C cover and home value protection

## Opportunities and Challenges: Working with Aon Benfield

---

- Aon Benfield has worked successfully with many clients to solve different challenges and capitalize on opportunities
- Innovations show-cased throughout the conference work towards the same ends
- We look forward to working with each of you to help fuel a profitable and growing future

# Contact List

---

**Stephen Mildenhall**

CEO, Aon Benfield Analytics

+1.312.381.5880

[stephen.mildenhall@aonbenfield.com](mailto:stephen.mildenhall@aonbenfield.com)