

Industry
Perspectives:
Challenges and
Opportunities

August 3, 2012



AON BENFIELD

Quick Look Back at 2011

Real Catastrophes

Event	Issue
Christchurch 2	
Japan Earthquake and Tsunami	Tsunami not modeled
Tuscaloosa	
Joplin	
Christchurch 3	
Thailand Flooding	No model



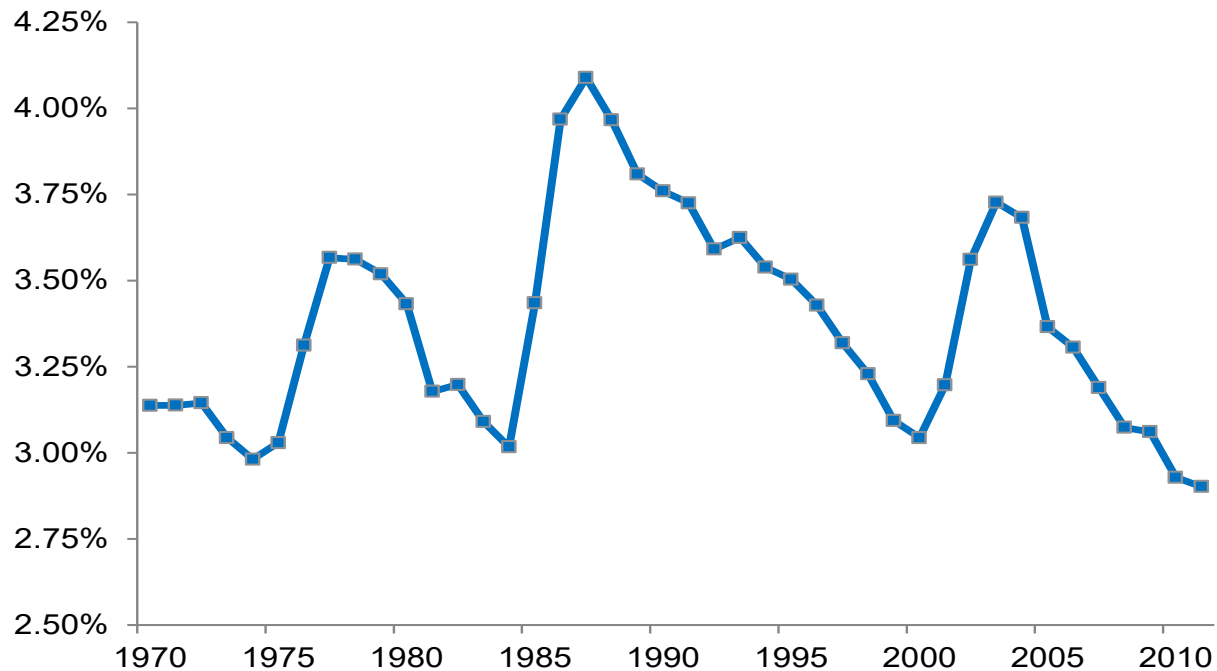
Unreal Catastrophes

Event	Issue
RMS 11 USA	Change management
RMS 11 Europe	Change management



Macro Premium Trends

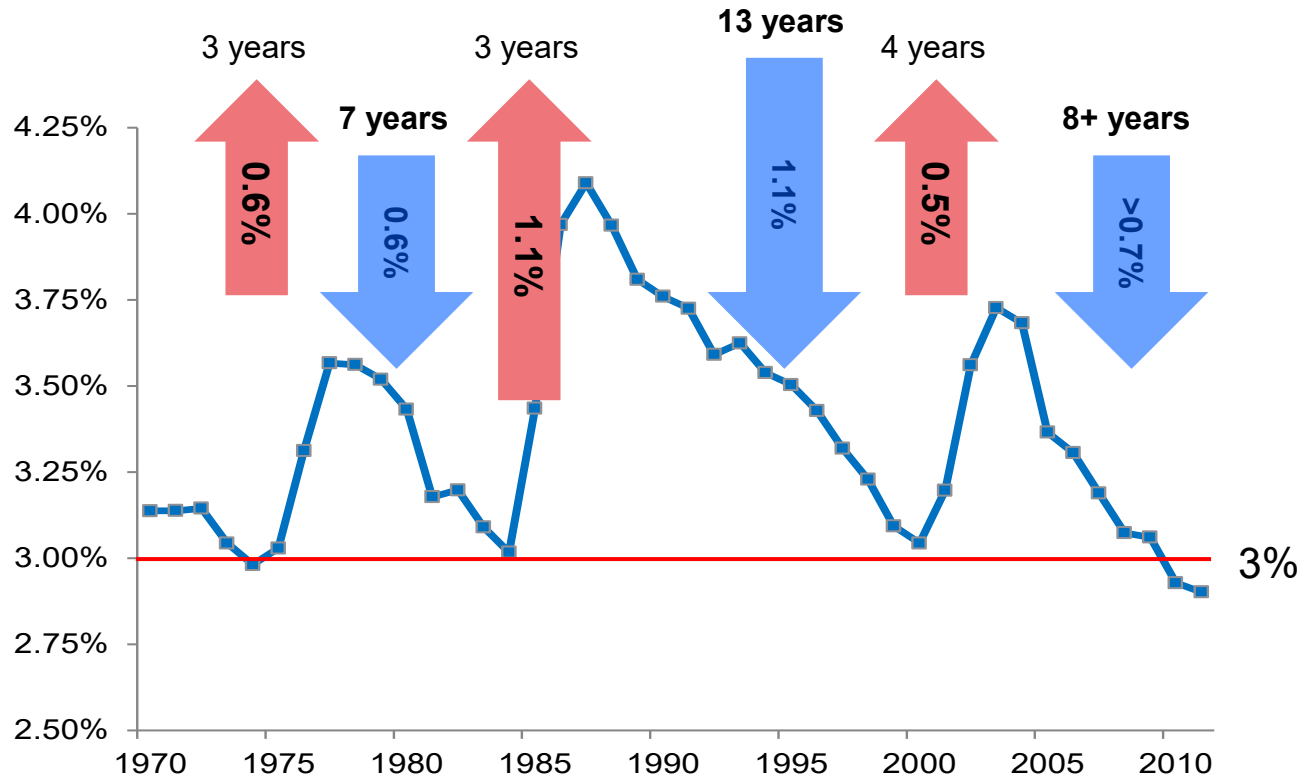
Premium to GDP Ratio



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

Macro Premium Trends

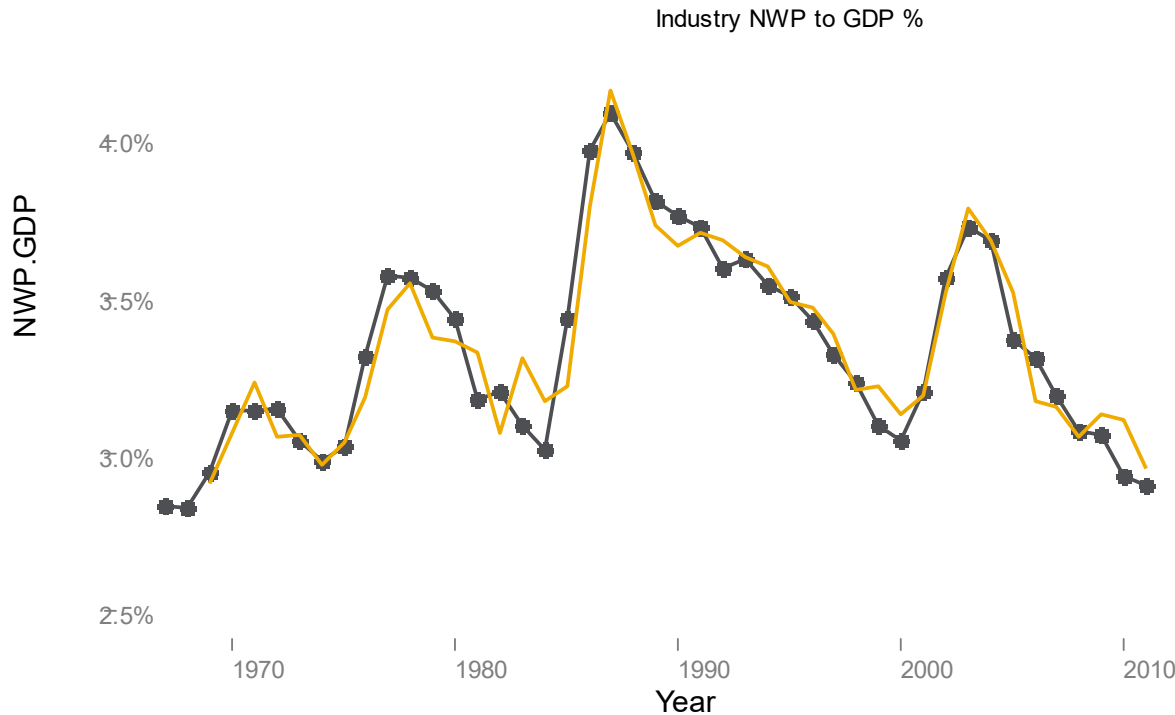
Premium to GDP Ratio



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

Linking Loss and Premium

Modeling the Underwriting Cycle – Simple Linear Regression (data through YE 2011)



Industry cyclical behavior can be replicated with a simple time series model that links changes to the Loss/GDP ratio and NWP/GDP

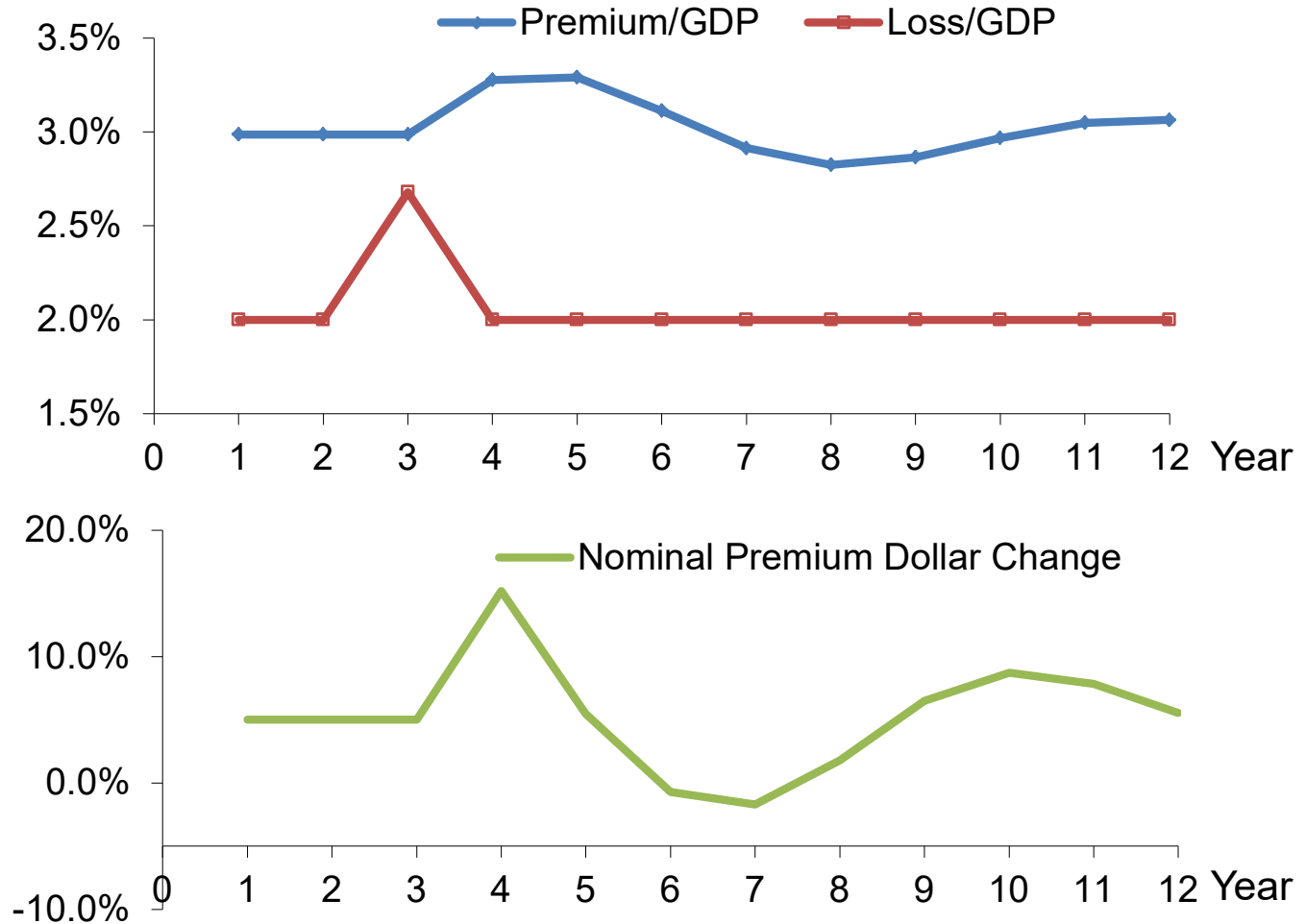
Loss/GDP becomes the signal, the Premium/GDP factors provide a feedback loop driving the cycle

	Parameter	Std. Error	p Value
Constant	0.0106	0.0018	9.69E-07
Prior Loss/GDP	0.4512	0.0858	5.49E-06
Prior Premium/GDP	1.0156	0.1177	1.38E-10
Second Prior Premium/GDP	-0.6706	0.0969	2.76E-08
Regression R²	89.9%		

Signal

Noise

Pro-cyclical Dynamic Model: Animal Spirits or Actuarial Inadequacies?



- Impact of \$100B loss shock on cycle model shows pro-cyclical nature
- Assumes 3% real GDP growth and 2% inflation

Projections and a Bayesian Linear Regression Model

- Use Bayesian Markov Chain Monte Carlo (MCMC) simulation techniques to estimate linear regression parameters of the UW cycle model
 - Non-informative normal priors for independent variables, non-informative uniform prior for residual error
- Advantages
 - Simulation framework allows for additional flexibility and extension of the model, if desired
 - Joint posterior distribution easily obtained; incorporates relationships between covariates
- Non-informative priors for the Bayesian method produce nearly identical point estimates

Simple vs. Bayesian Linear Regression

	Parameter		Std. Error	
	Simple	Bayesian	Simple	Bayesian
Constant	0.0106	0.0105	0.0018	0.0018
Prior Loss/GDP	0.4512	0.4545	0.0858	0.0870
Prior Premium/GDP	1.0156	1.0072	0.1177	0.1187
Second Prior Premium/GDP	-0.6706	-0.6650	0.0969	0.0983

NWP to GDP: Actual vs. Fitted and Projections

Actual vs. Fitted including 25th percentile to 75th percentile error bands

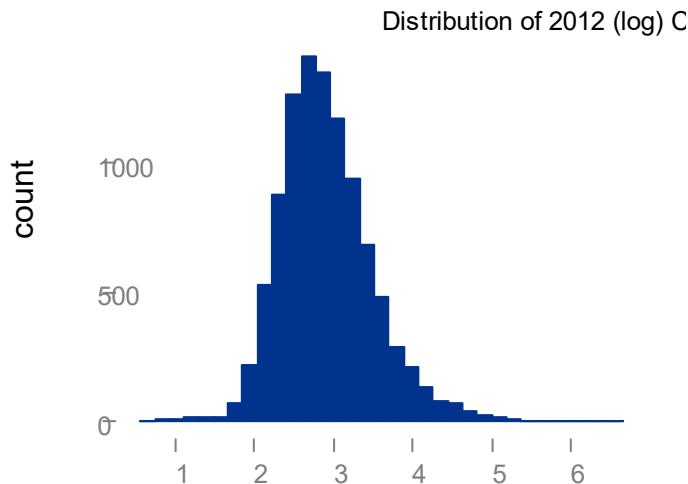


Projection Summary 2012 - 2014

Year	Prem/GDP			NWP \$			NWP % Change		
	Median	10%tle	90%tle	Median	10%tle	90%tle	Median	10%tle	90%tle
2011	2.9%			438.0	438.0	438.0			
2012	3.1%	2.9%	3.2%	475.1	453.8	496.9	8.5%	3.6%	13.5%
2013	3.2%	2.9%	3.5%	506.3	464.3	549.2	6.7%	-0.9%	14.1%
2014	3.2%	2.8%	3.6%	517.2	448.4	586.2	2.1%	-7.3%	11.1%

Projections – Cat Losses

- Aggregated cat losses simulated based on modeled industry cat losses net of reinsurance
 - Hurricane, Earthquake, and large Other Wind Perils
- Same distribution assumed for years 2012 – 2014



EP Summary (\$B)

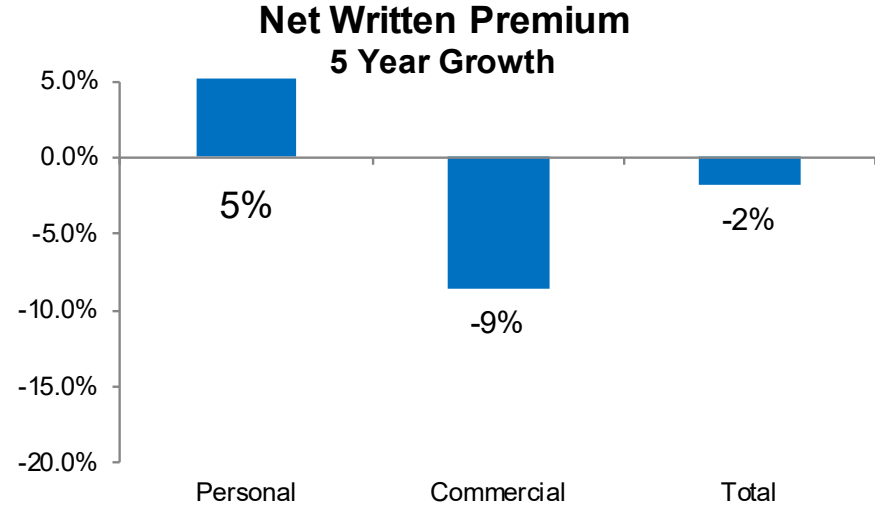
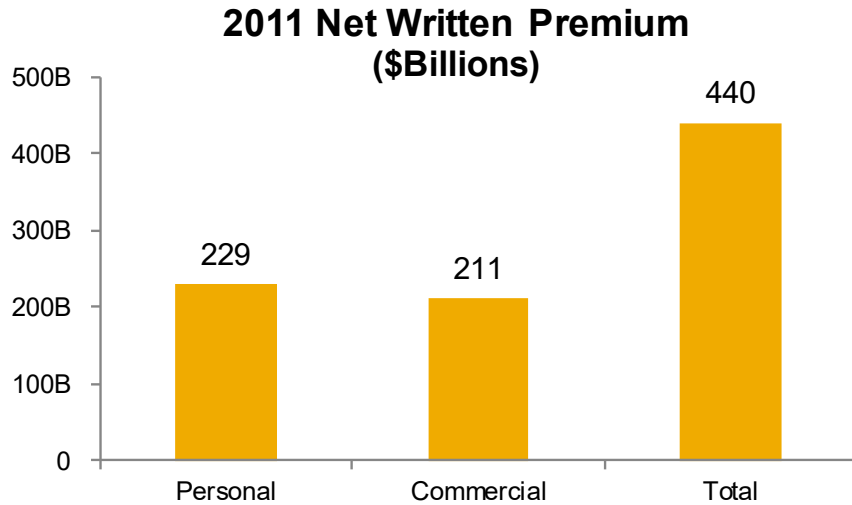
Percentile	Return Period	Loss
99.9%	1000	213.1
99.6%	250	162.0
99.0%	100	111.0
95.0%	20	53.9
90.0%	10	38.9
80.0%	5	28.5

Summary of Projected Cat Losses (\$B)

Year	Mean	Median	Std Dev.	10%tle	90%tle
2012	23.0	17.2	24.4	9.4	38.9
2013	23.0	17.3	23.6	9.4	39.4
2014	23.1	17.4	24.3	9.5	39.7

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

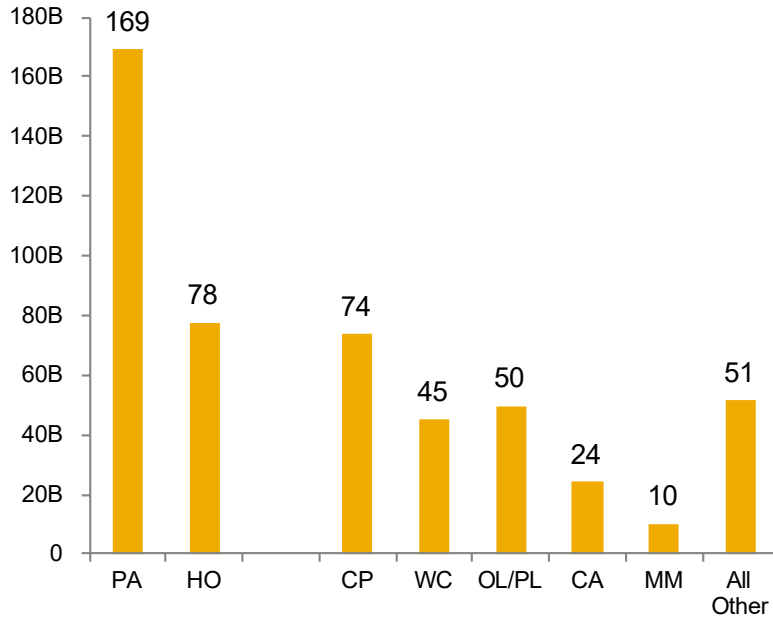
Commercial premium decreases driving overall negative 2% premium change

Statutory NWP increased 3.3% in 2011

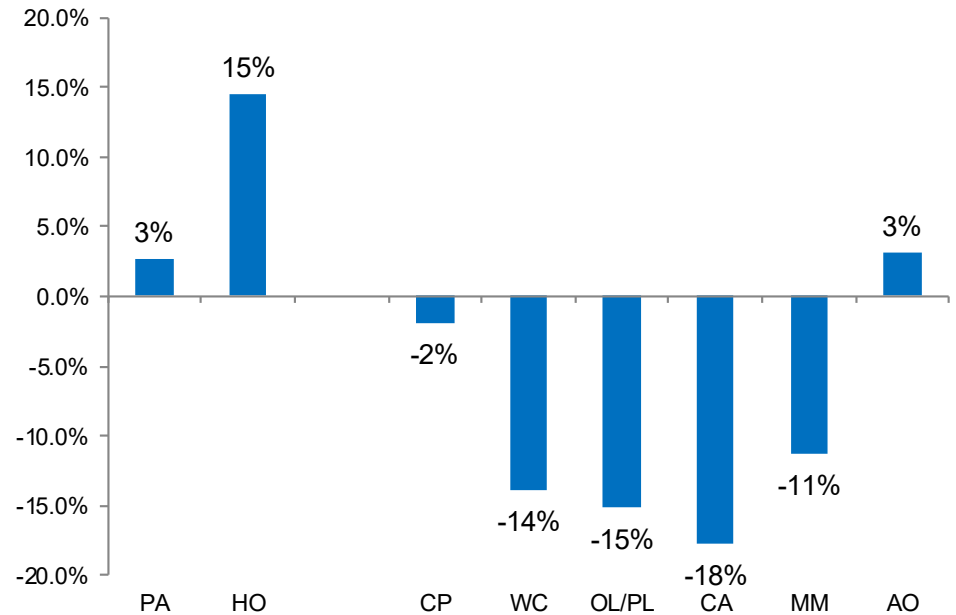
US Direct Written Premium, 5 Year Trends

Line of Business Detail

2011 Direct Written Premium (\$Billions)



Direct Written Premium 5 Year Growth

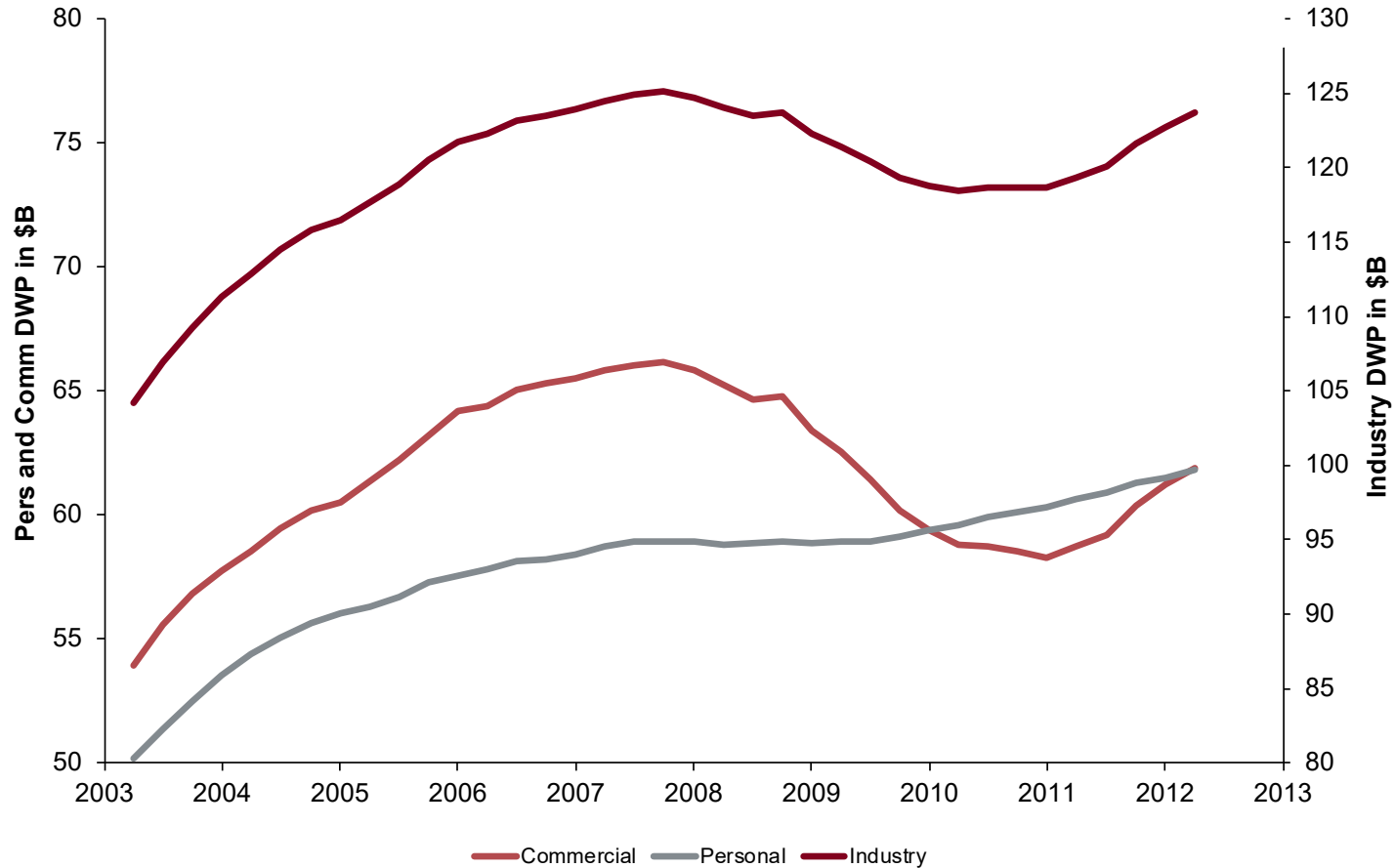


Personal lines able to maintain positive growth over the last 5 years, largely driven by homeowners

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

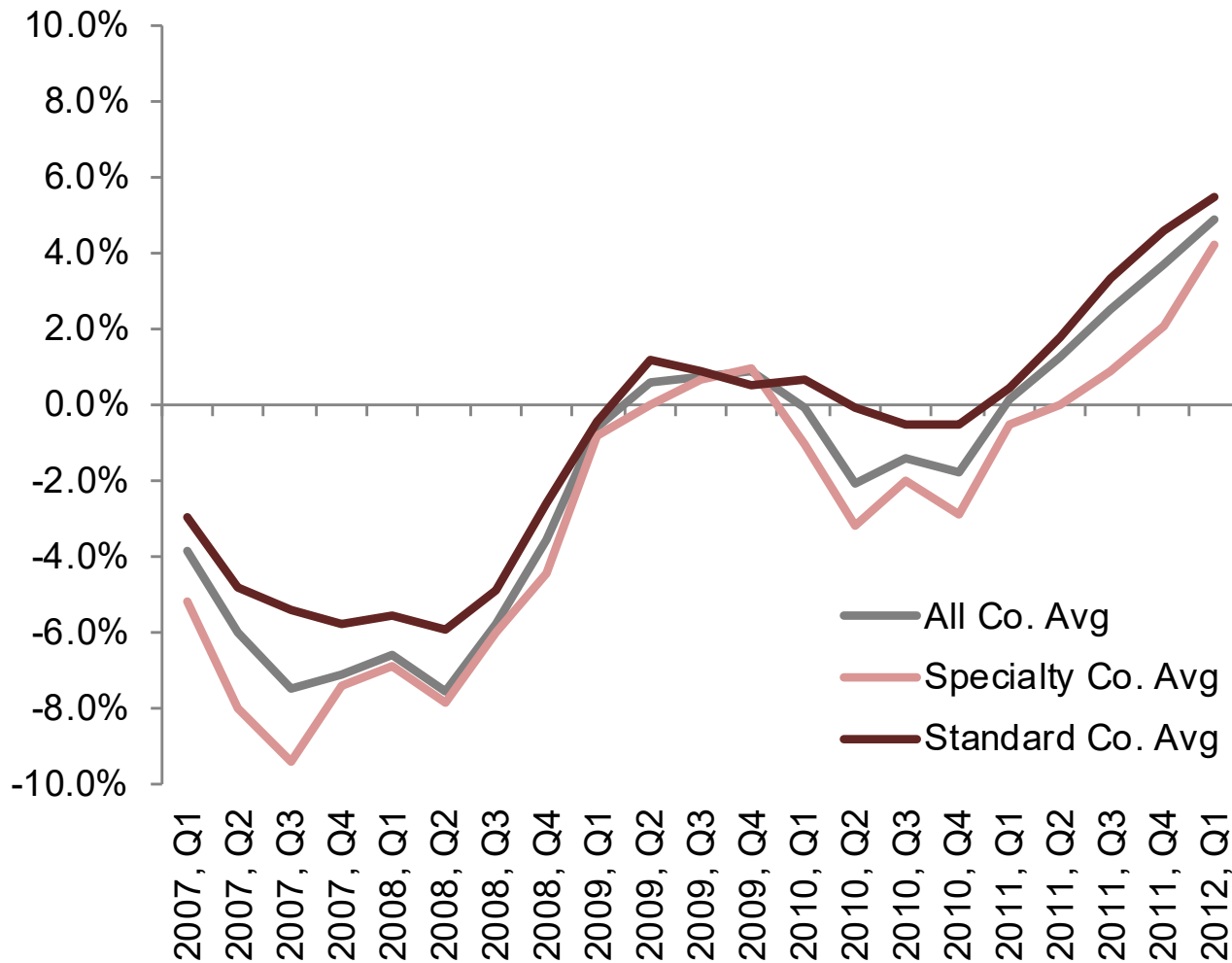
Macro Premium Trends: Personal Lines (Briefly) Overtakes Commercial

Statutory Direct Written Premium Rolling Four Quarter Average



Commercial Lines Casualty Rate Change

Aon Benfield Indices

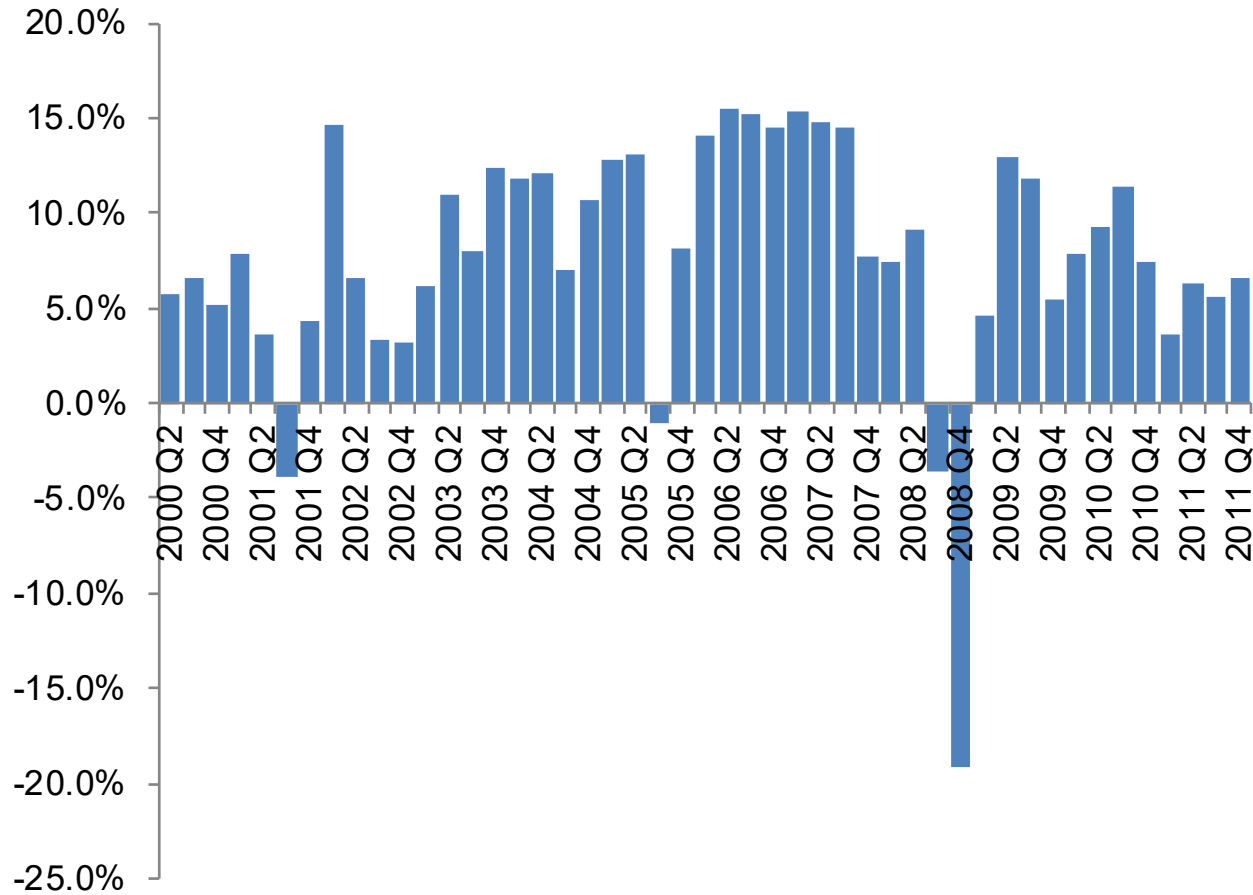


Gap between top line and reported rate has closed in most recent quarter as audit premiums decreased

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

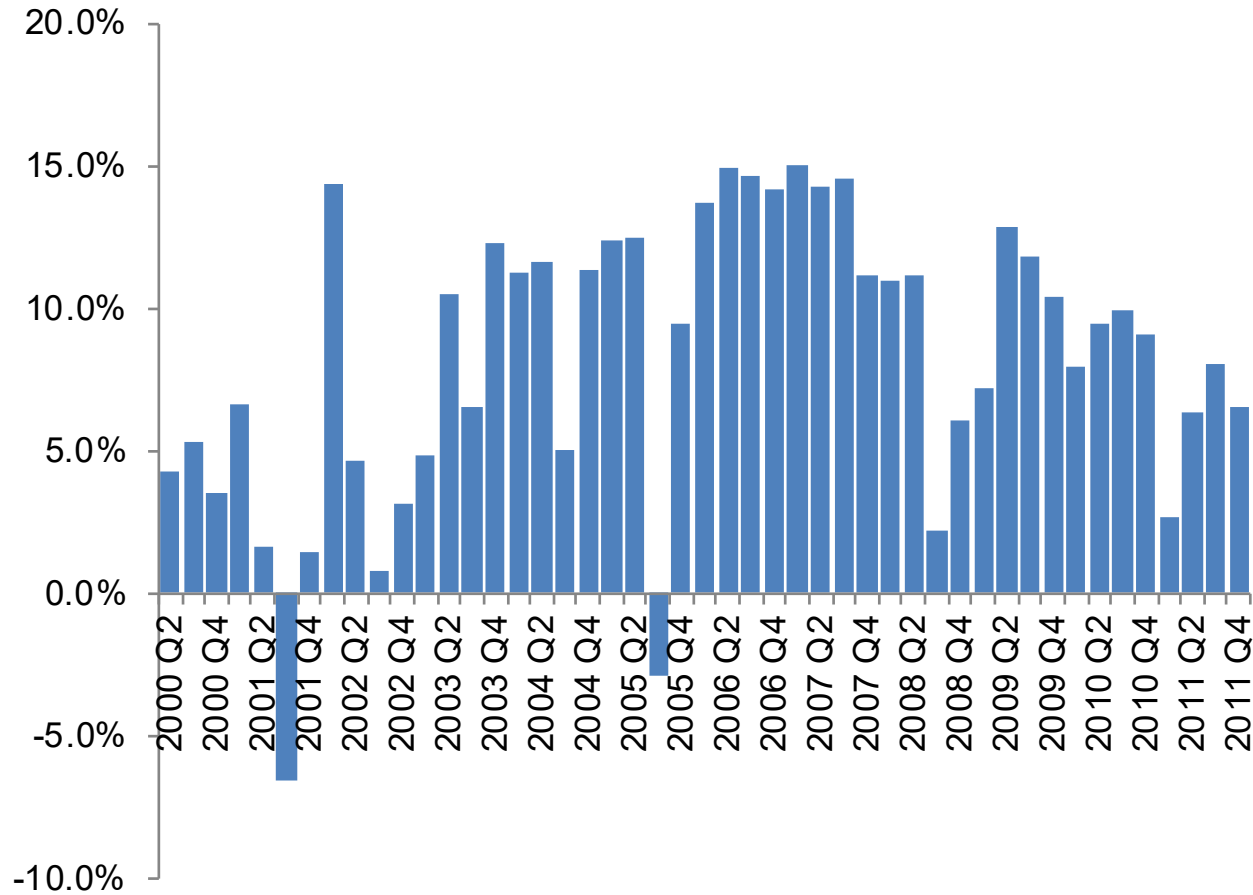
2000- Present, All P&C Stock Companies

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



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

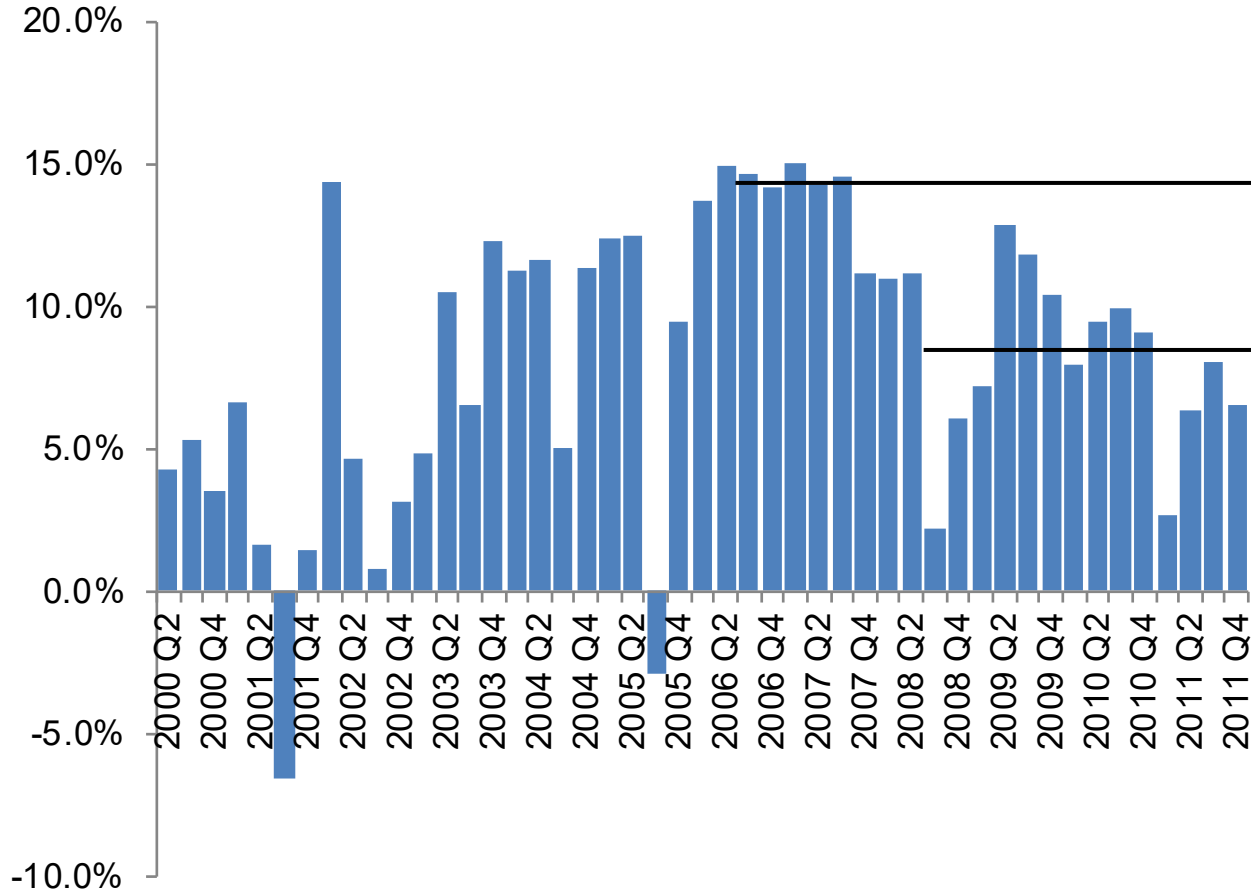
All P&C Adjusted, Average 8.2%, SD 5.0%



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%

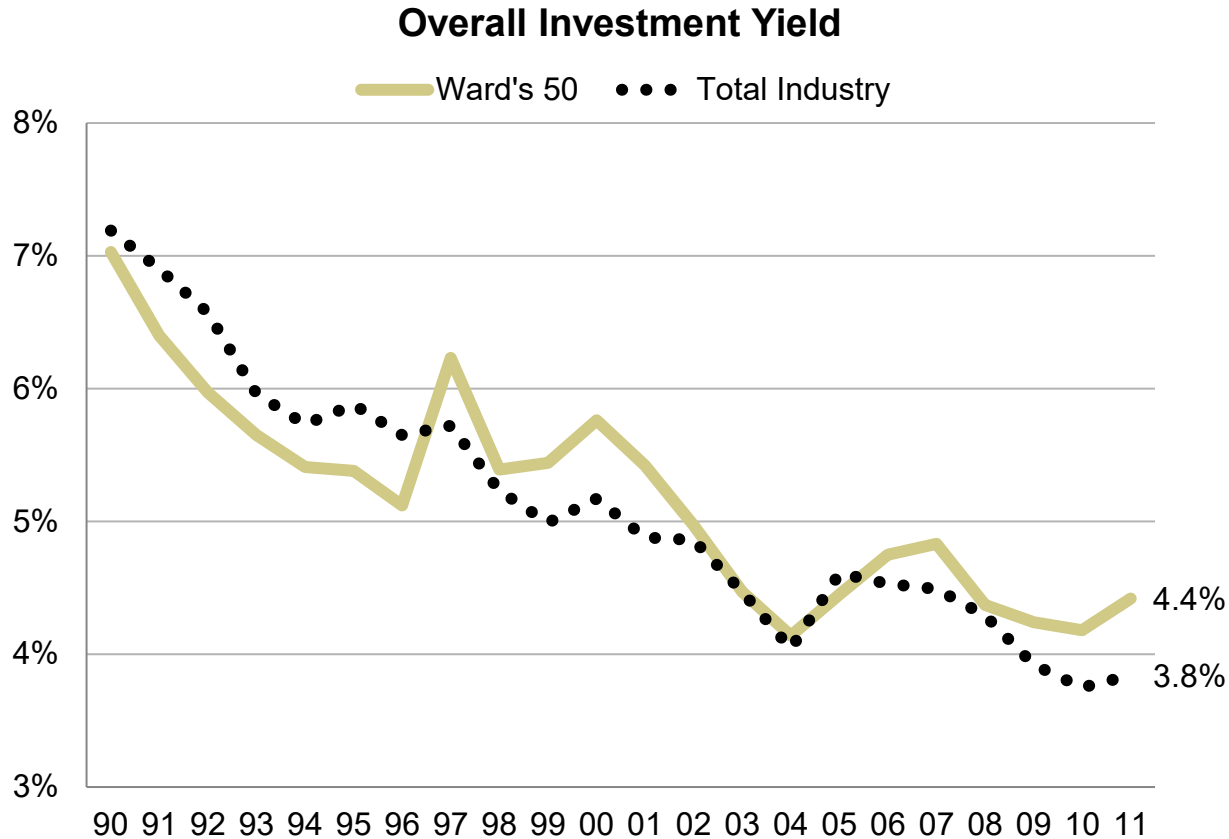


Pre-financial
crisis 14% ROE

Post-financial
crisis 8% ROE

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

Declining Investment Returns



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

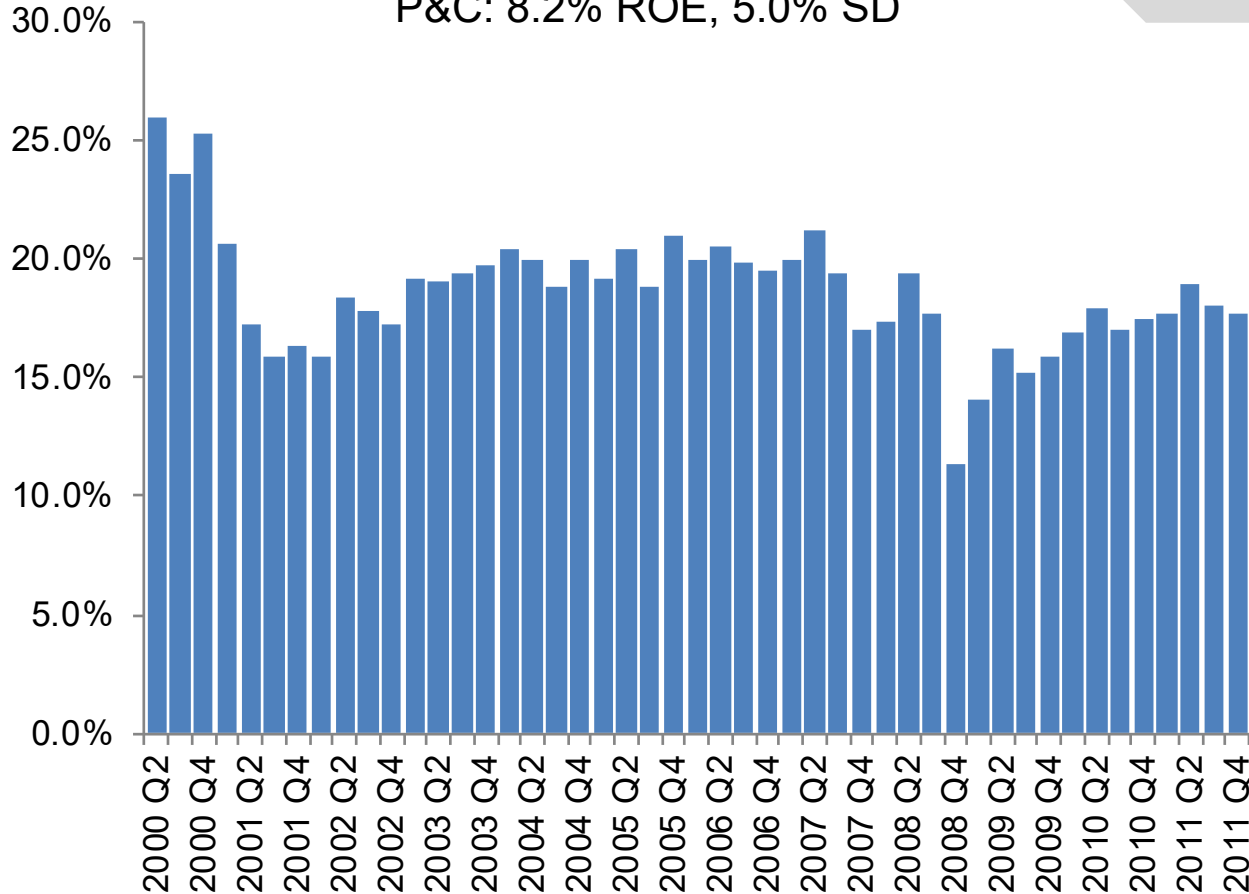
Opportunities

- 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?

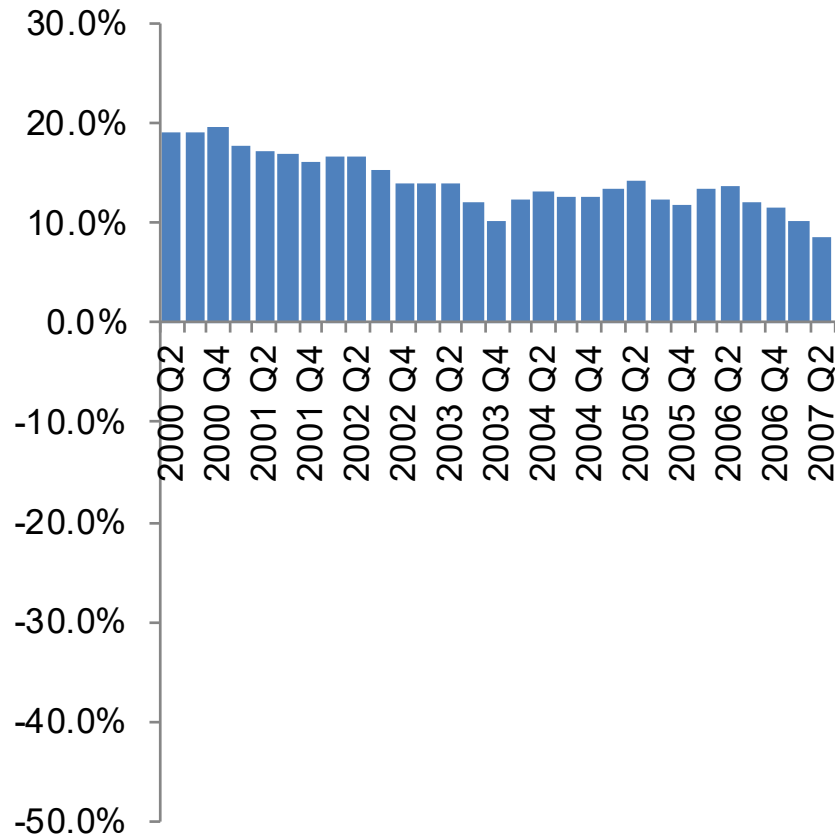
S&P 100, Average 18.6%, SD 2.6%
P&C: 8.2% ROE, 5.0% SD

Twice the return
 Half the volatility



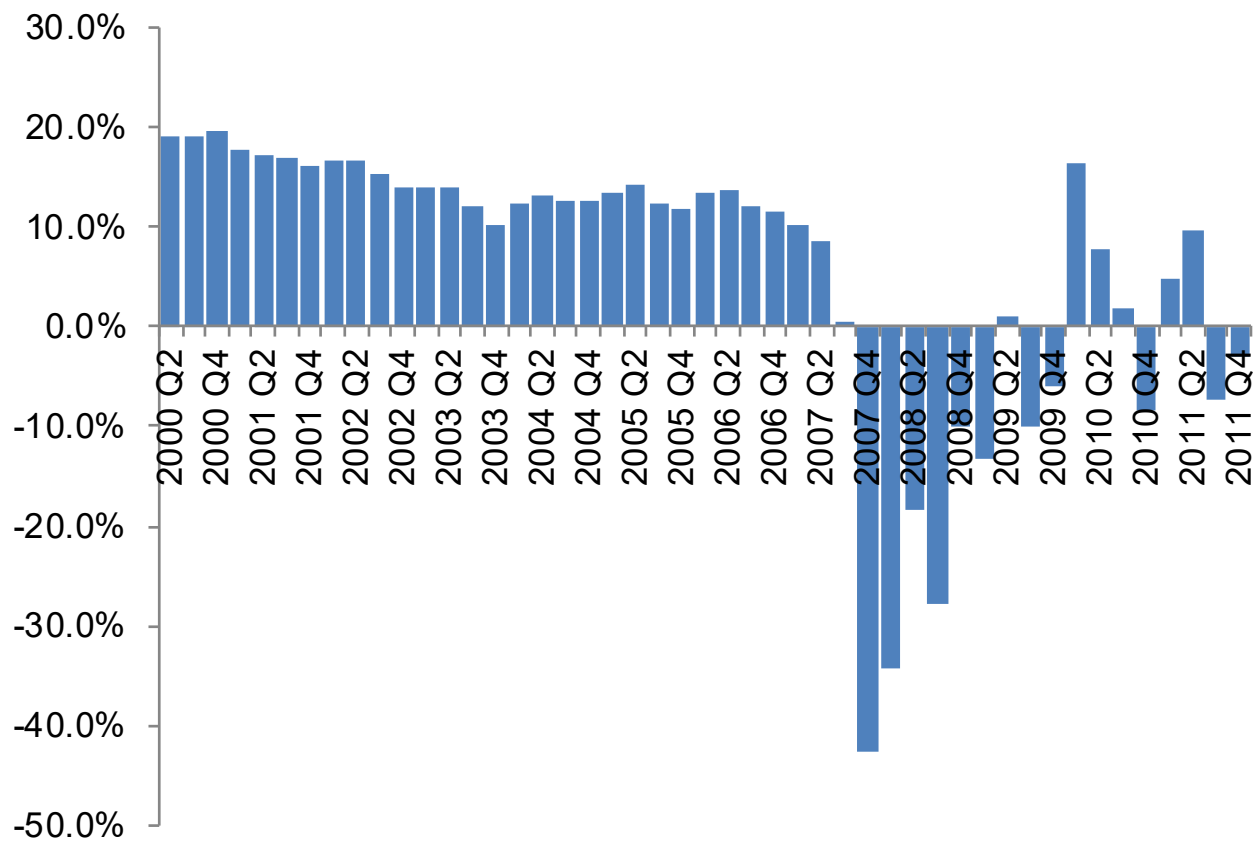
Past Performance...

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



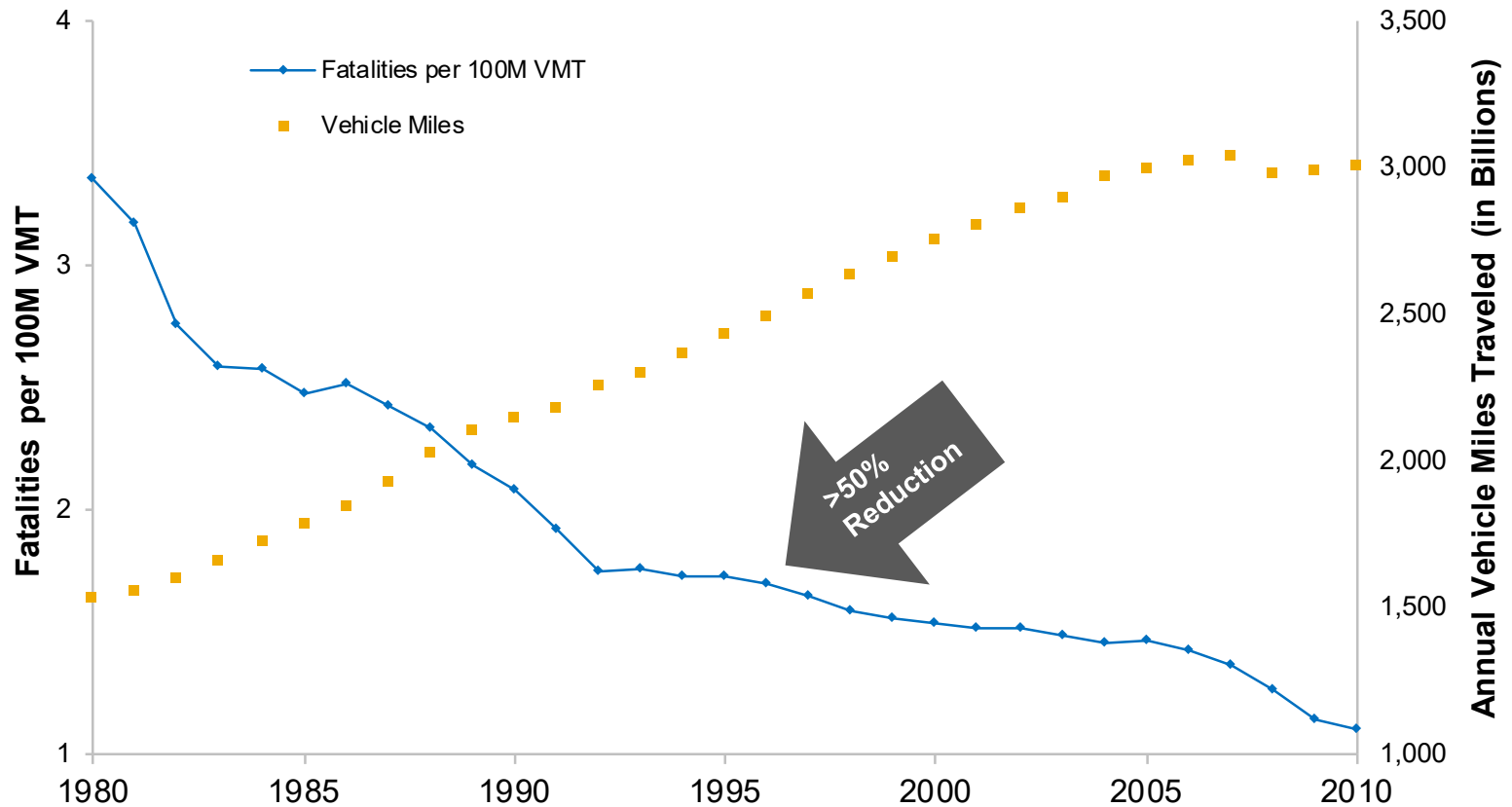
...Not Necessarily Indicative of Future Performance

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

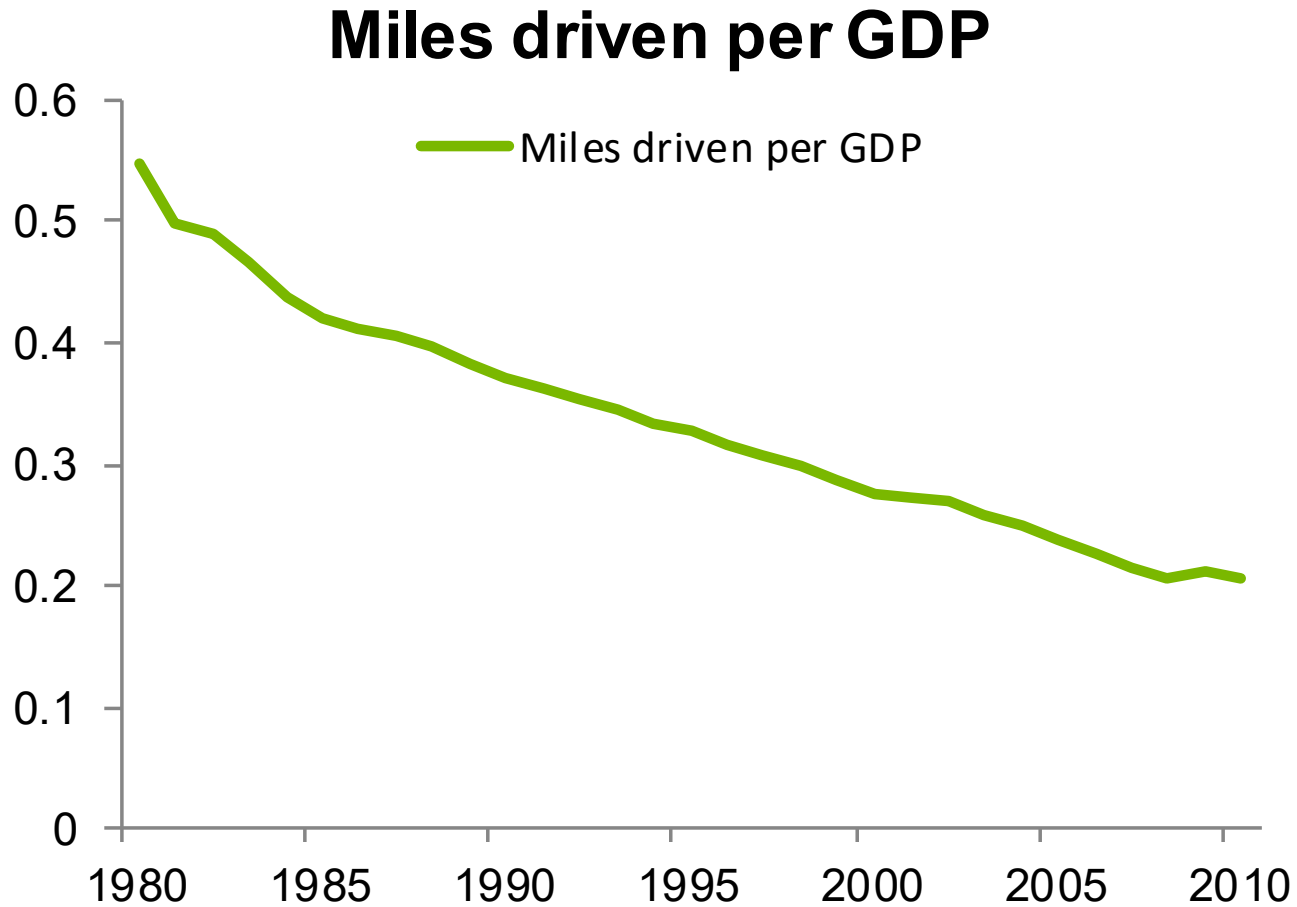


Auto Frequency **DOWN** 1980-2010

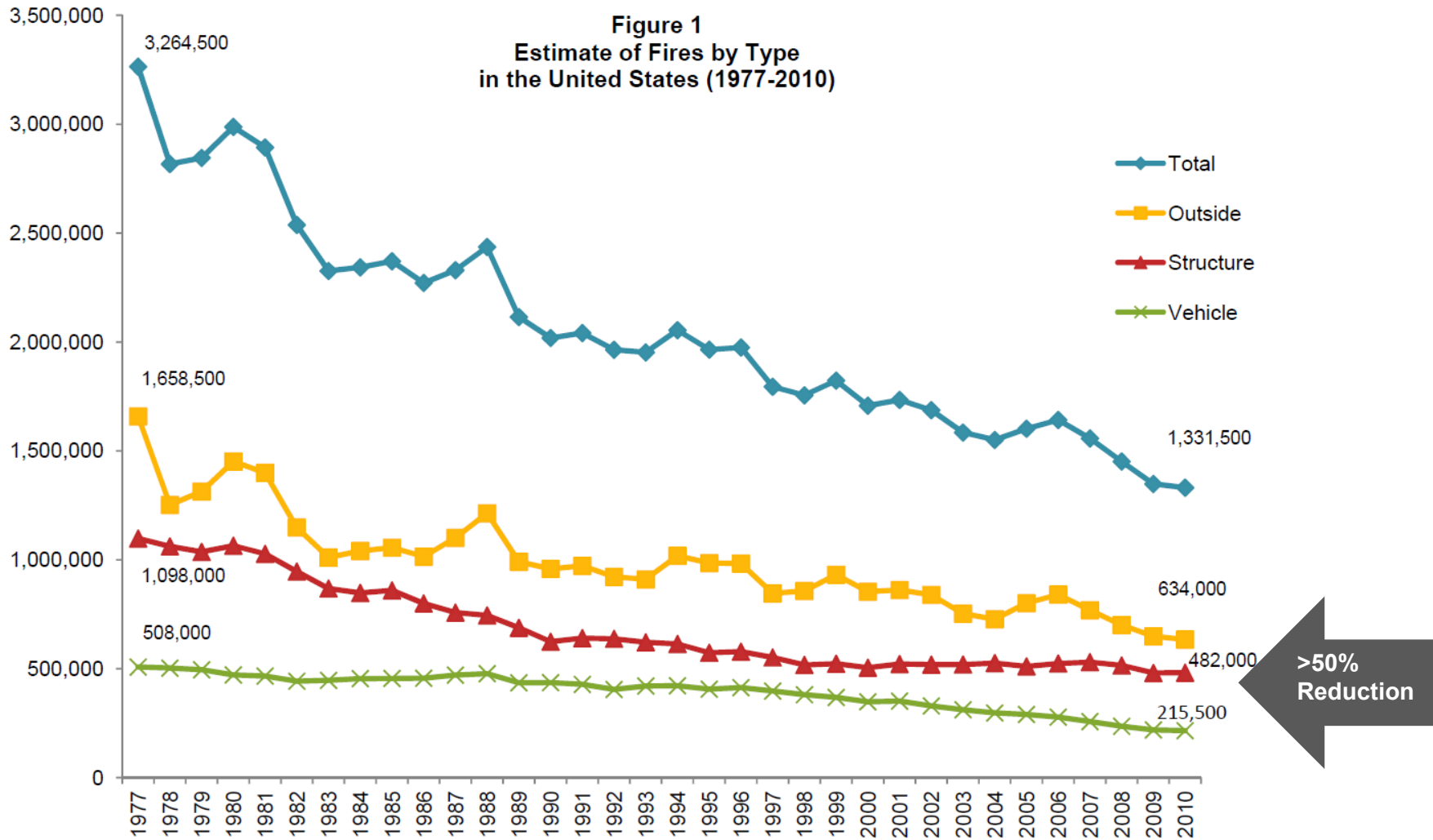
Fatalities Per 100M Vehicle Miles Traveled



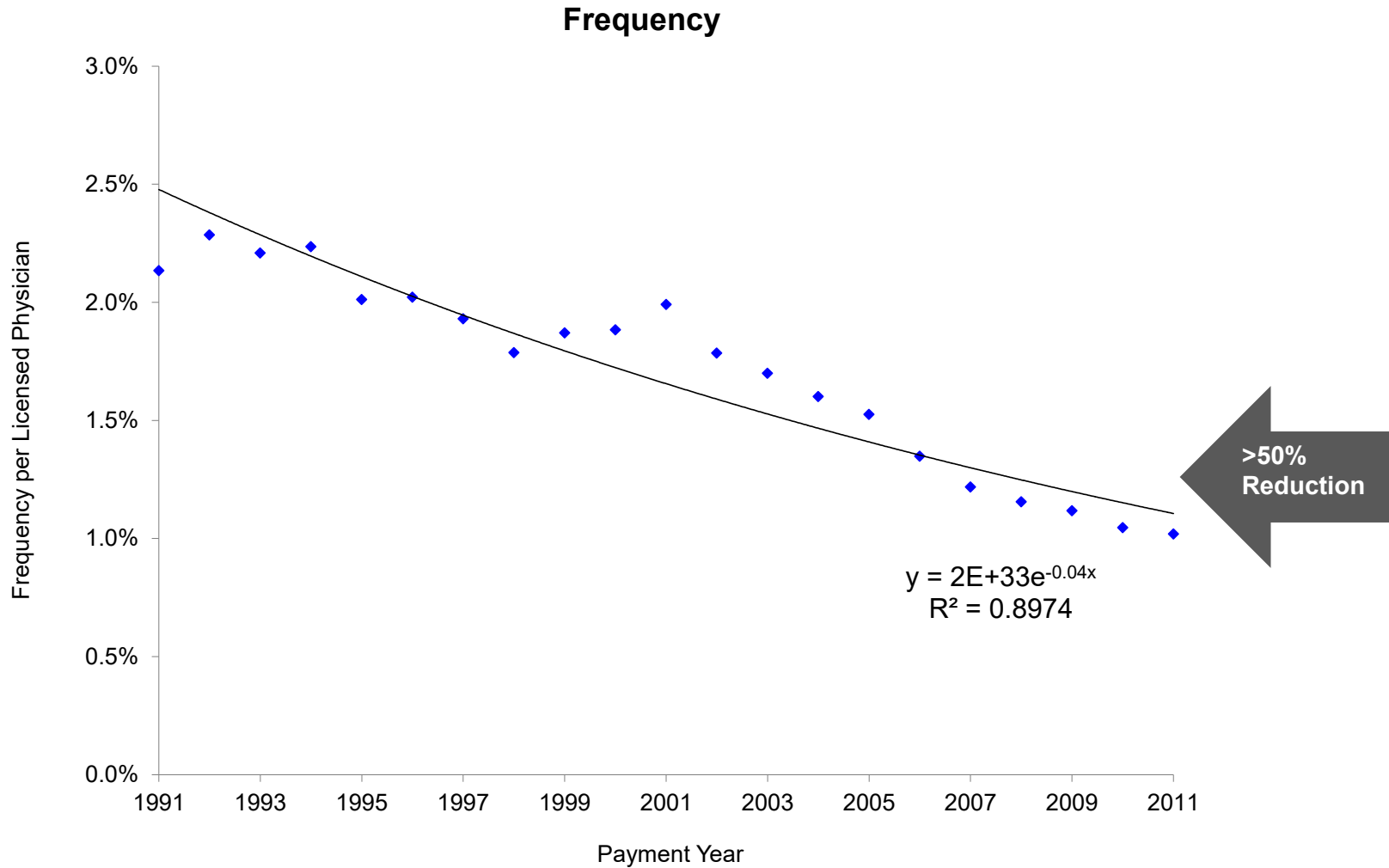
Auto Economic Efficiency **UP** 1980-2010



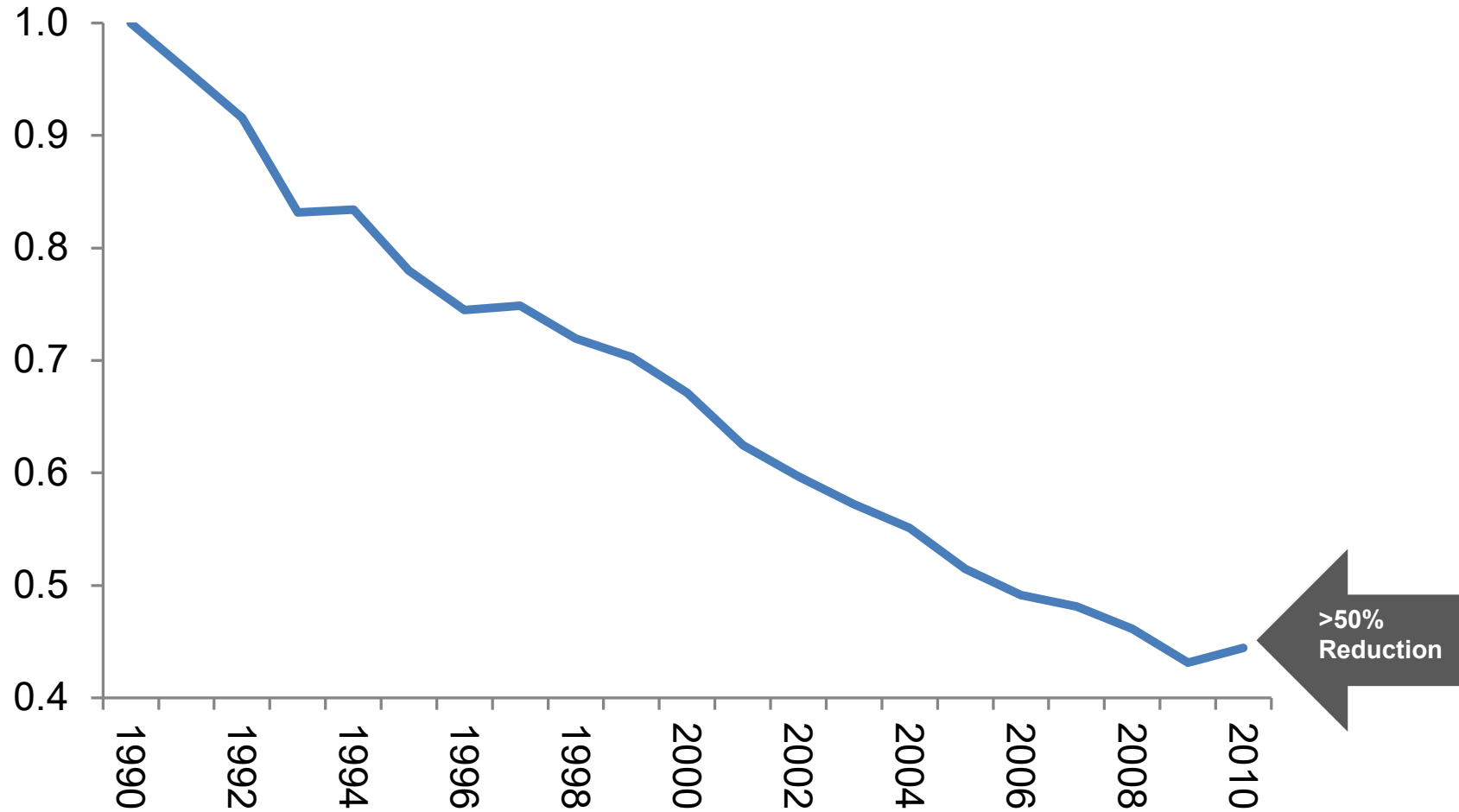
Fire Loss Frequency **DOWN** 1977-2010



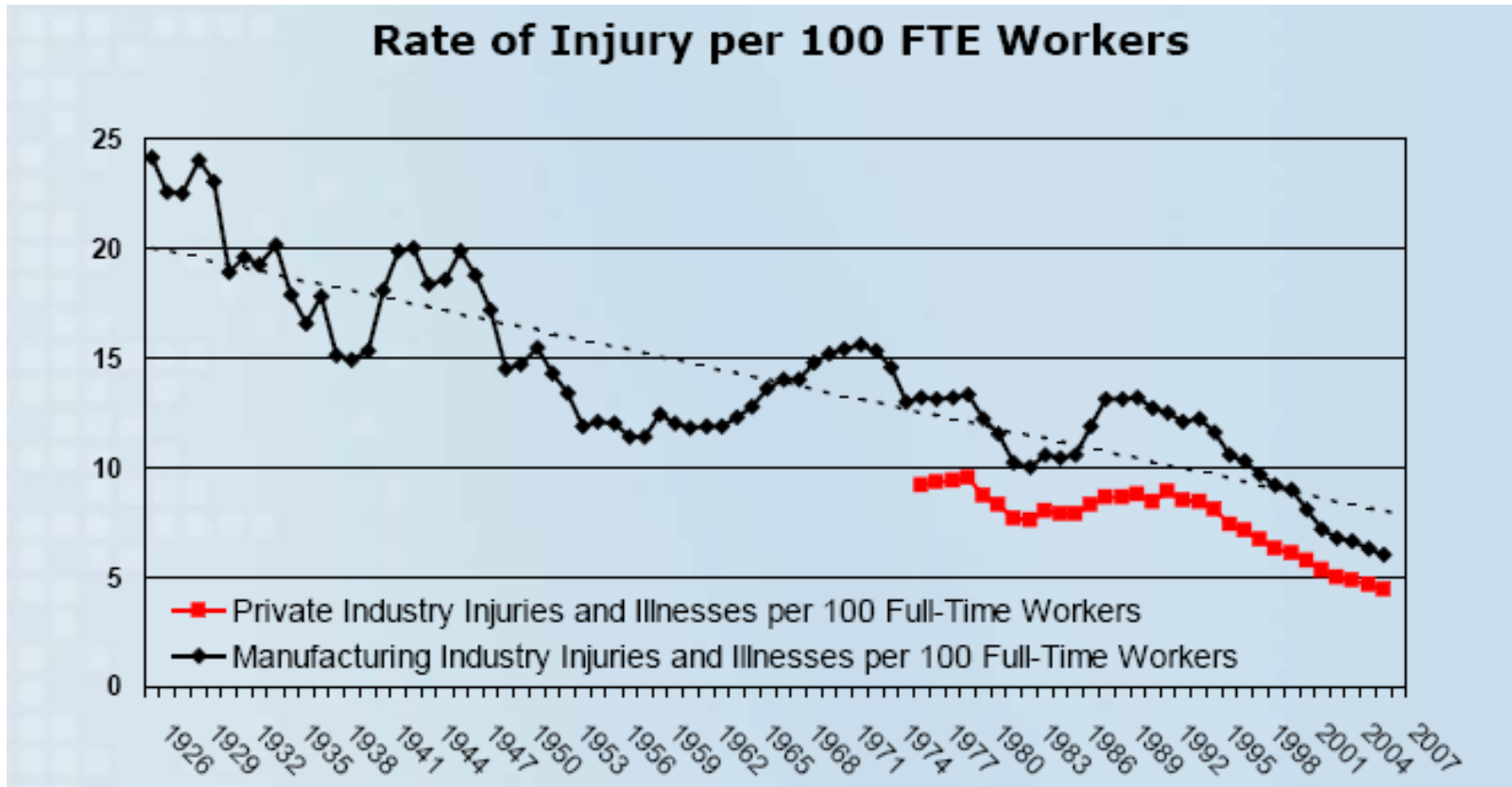
Medical Malpractice Liability Frequency **DOWN** 1991-2011



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



WC Frequency Declines Since 1920s Within Manufacturing



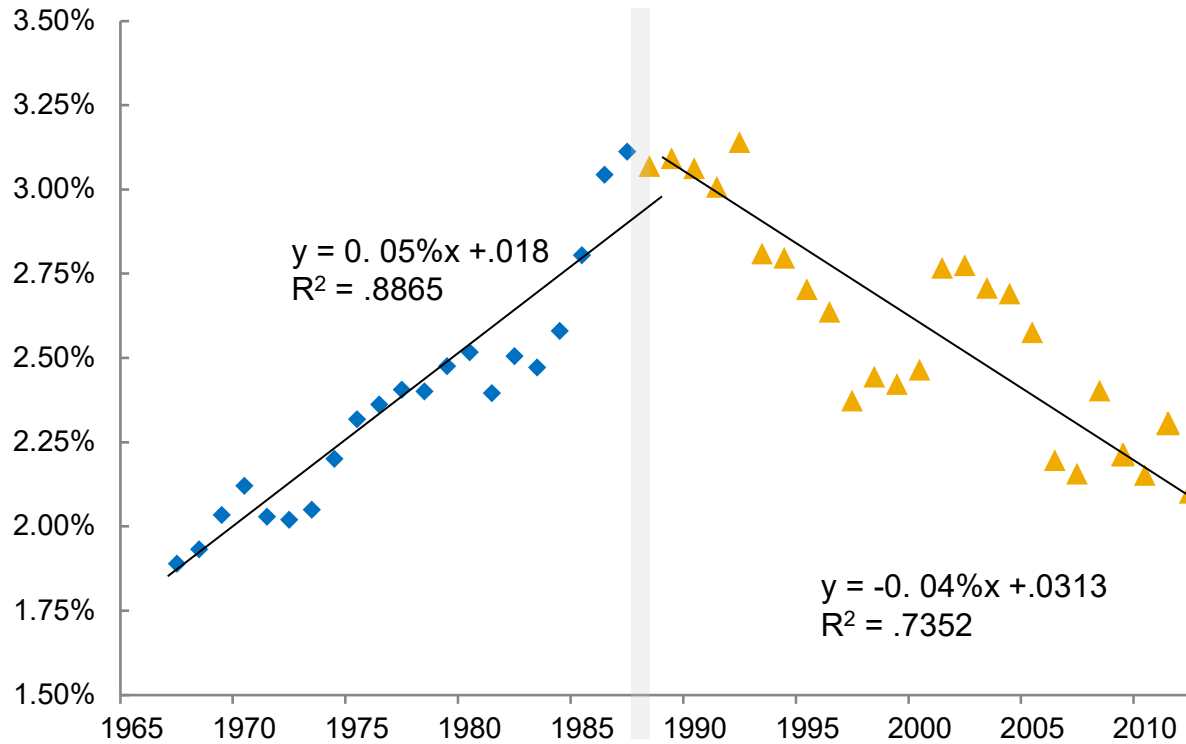
Opportunities

- 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

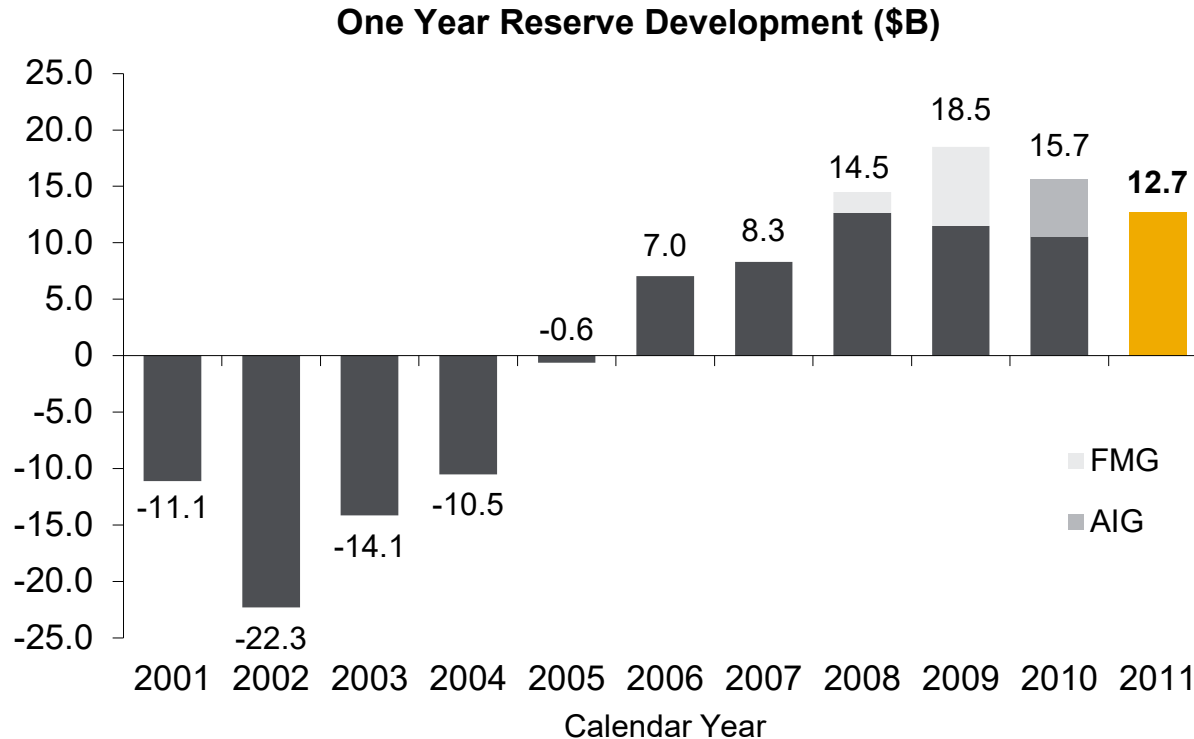
Insured Loss % Gross Domestic Product **DOWN** 1986-2011

Insured Risk Innovation Deficit

Calendar Year Incurred Loss % of GDP



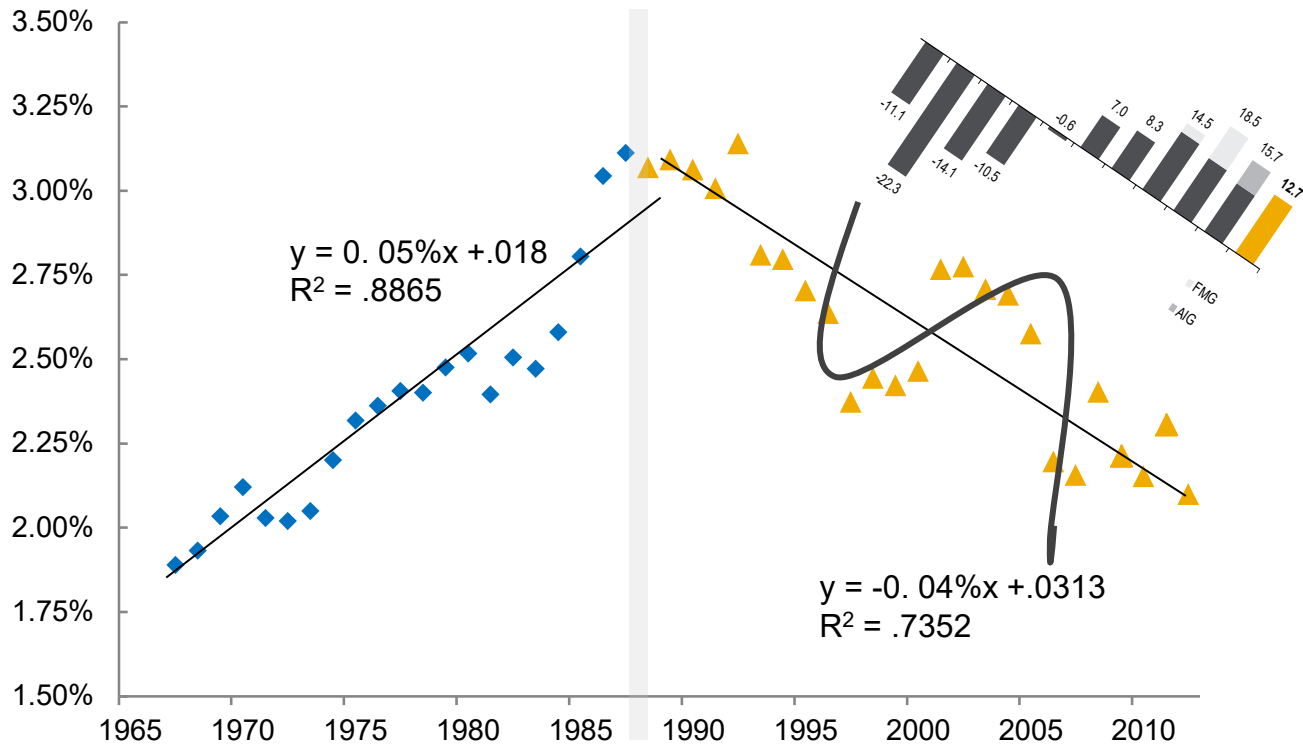
U.S. P&C Industry Reserve Development (2001 – 2011)



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

Reserve Development and Cat Losses Explain Deviations Since 2000

Calendar Year Incurred Loss % of GDP

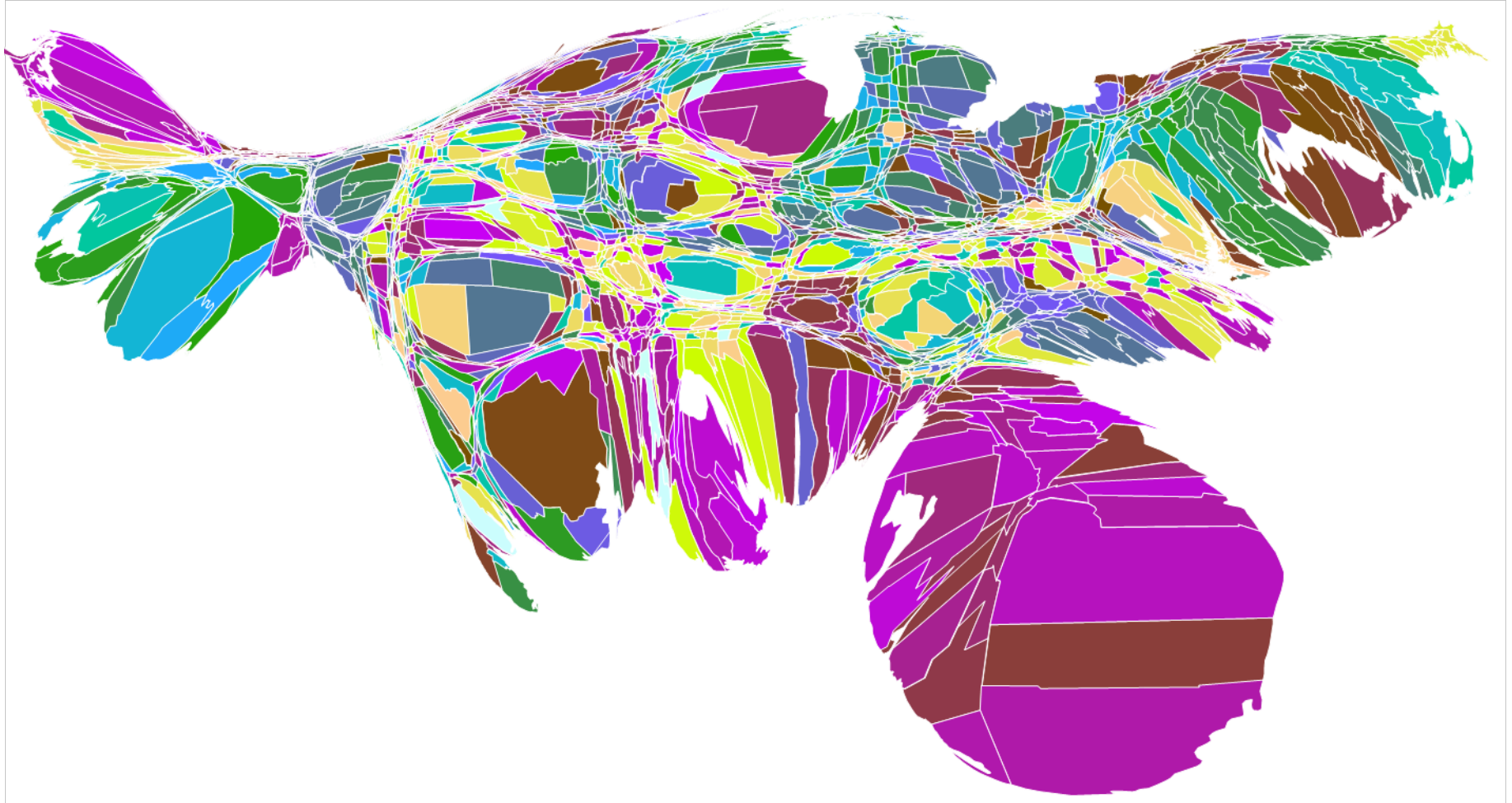


Opportunities

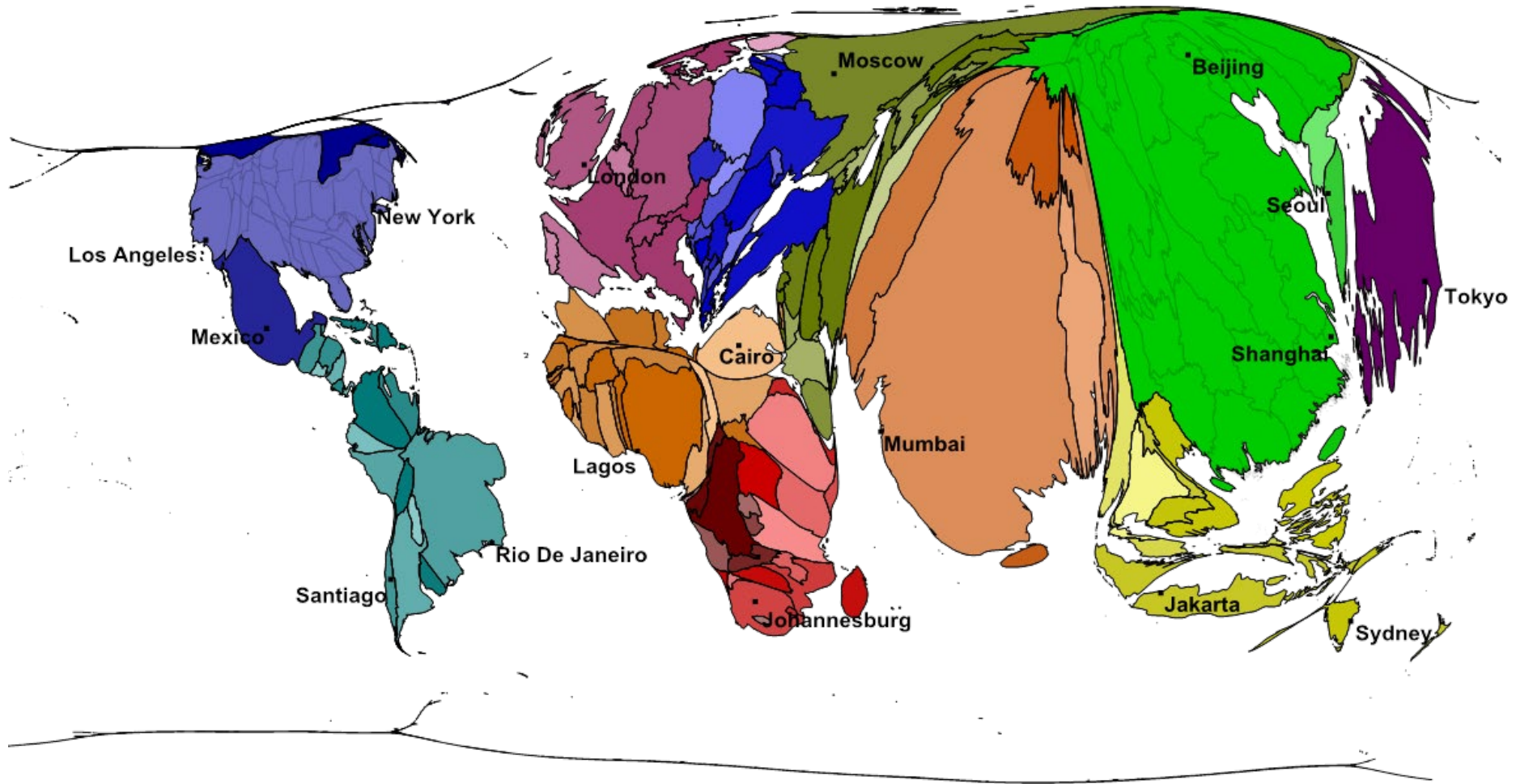
- Property
 - Science: constant, understandable, risk can be effectively modeled
 - Uncontrollable peril and demographics inexorably driving increased risk
 - Clear path to growth for industry: 15% five year growth in homeowners premium
 - Opportunity: clear for superior, analytically-led insurance and 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

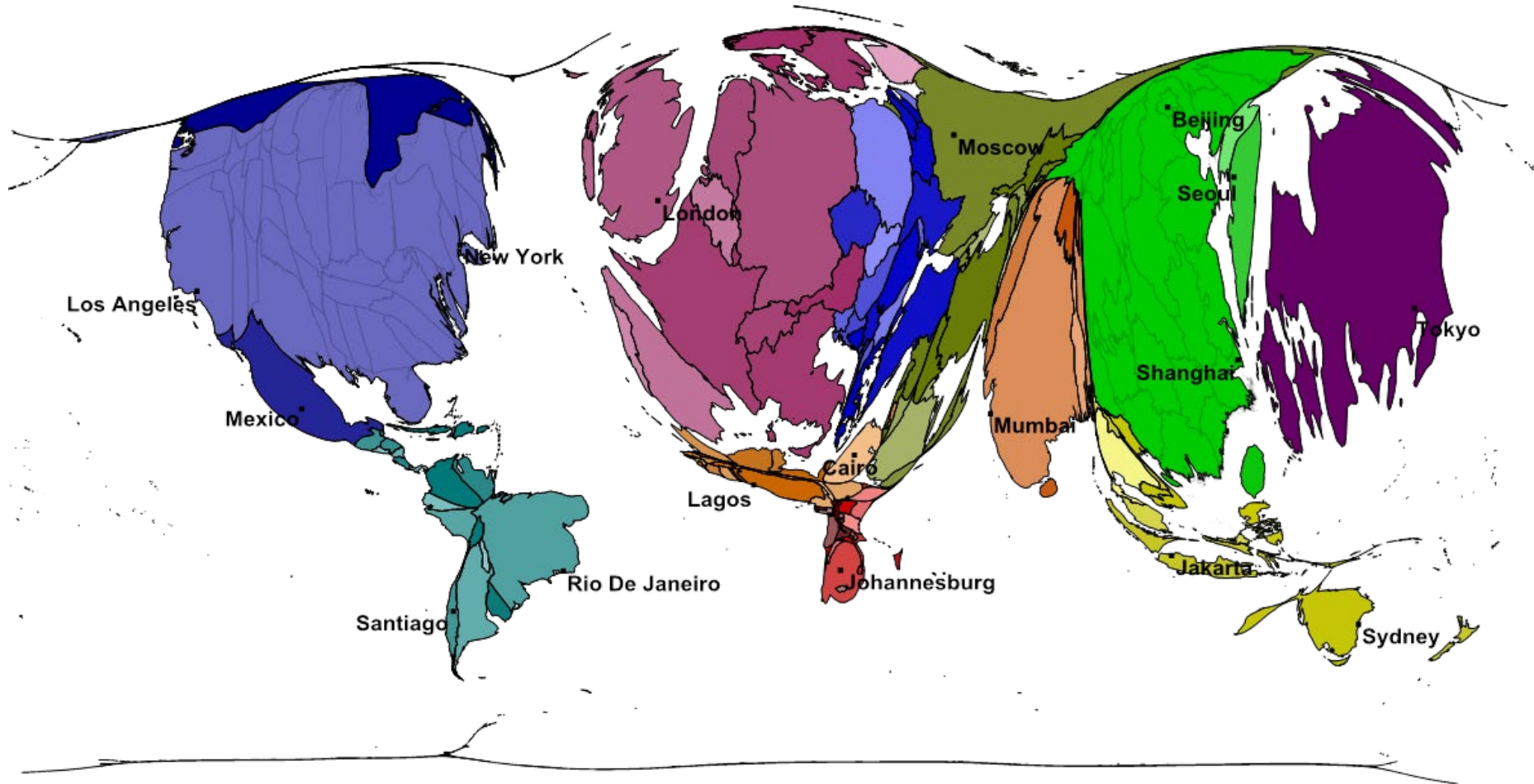


Population – Human Exposure to Peril

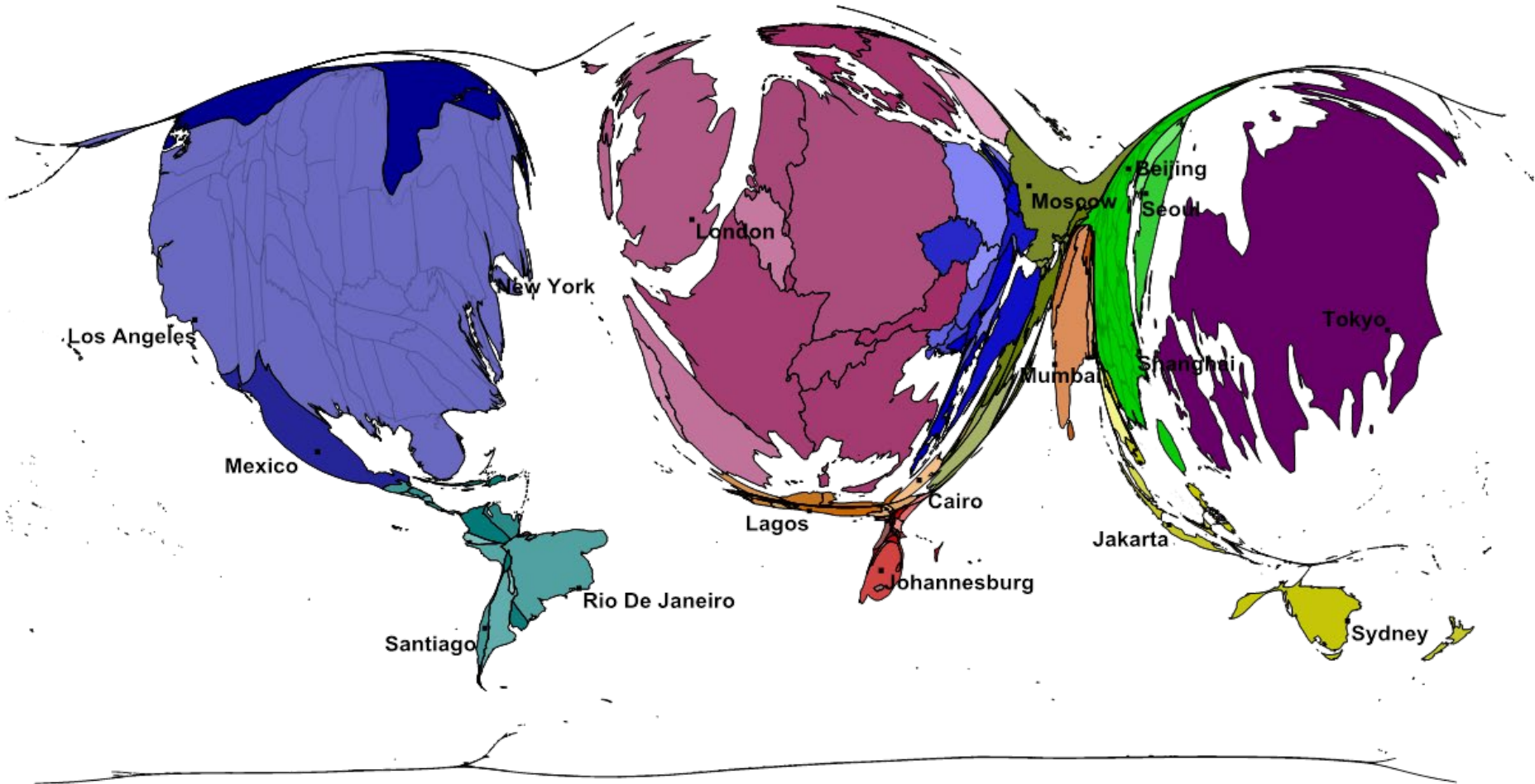


Gross Domestic Product – Current Economic Exposure

Clear Global Opportunity



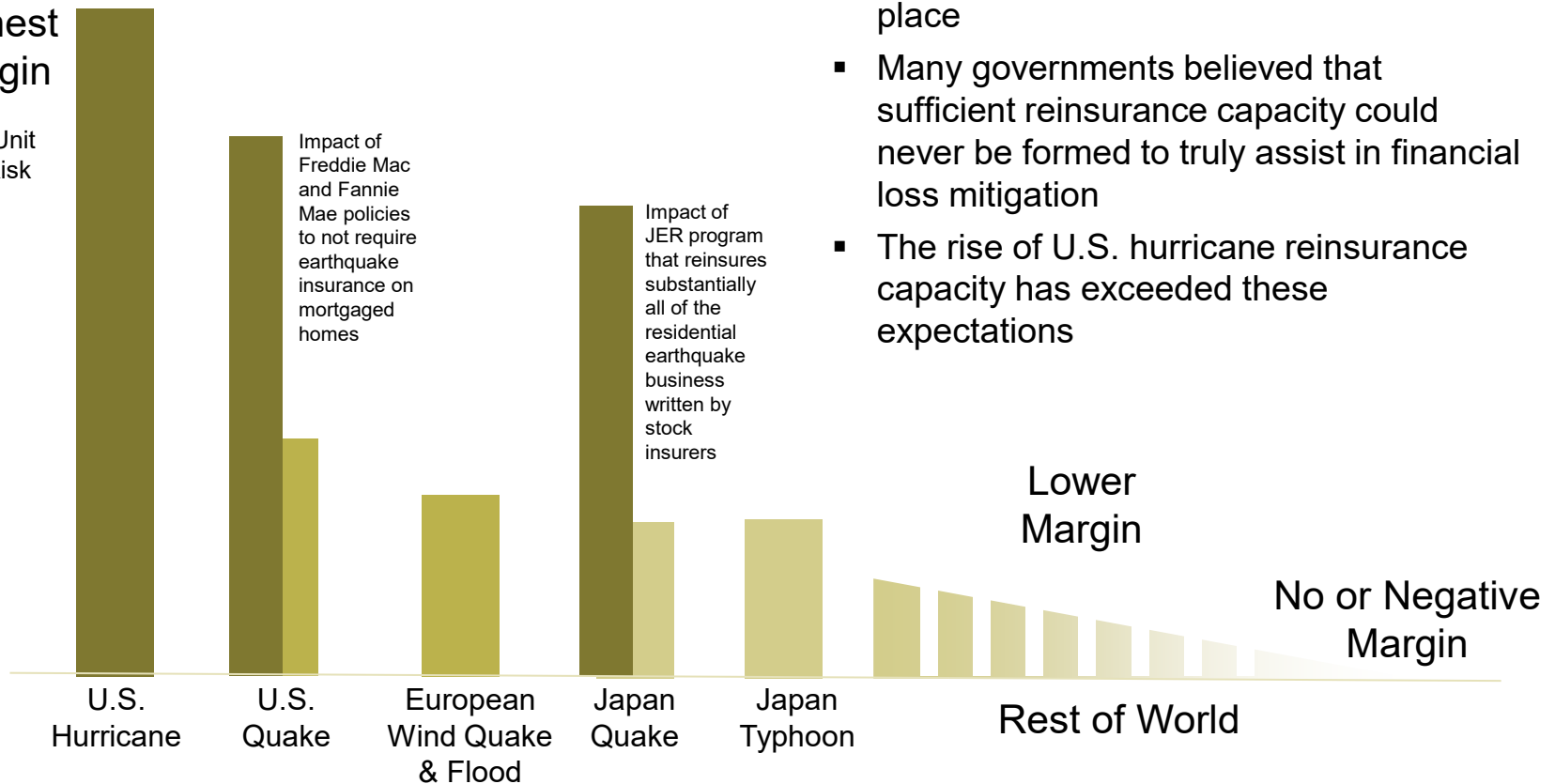
Wealth – Drives Economic and Insurance Loss



Global Distribution of Catastrophe Business

Highest Margin

Per Unit Of Risk



- Global reinsurance capacity has risen far beyond the levels contemplated when many of today's government insurance risk management strategies were set in place
- Many governments believed that sufficient reinsurance capacity could never be formed to truly assist in financial loss mitigation
- The rise of U.S. hurricane reinsurance capacity has exceeded these expectations

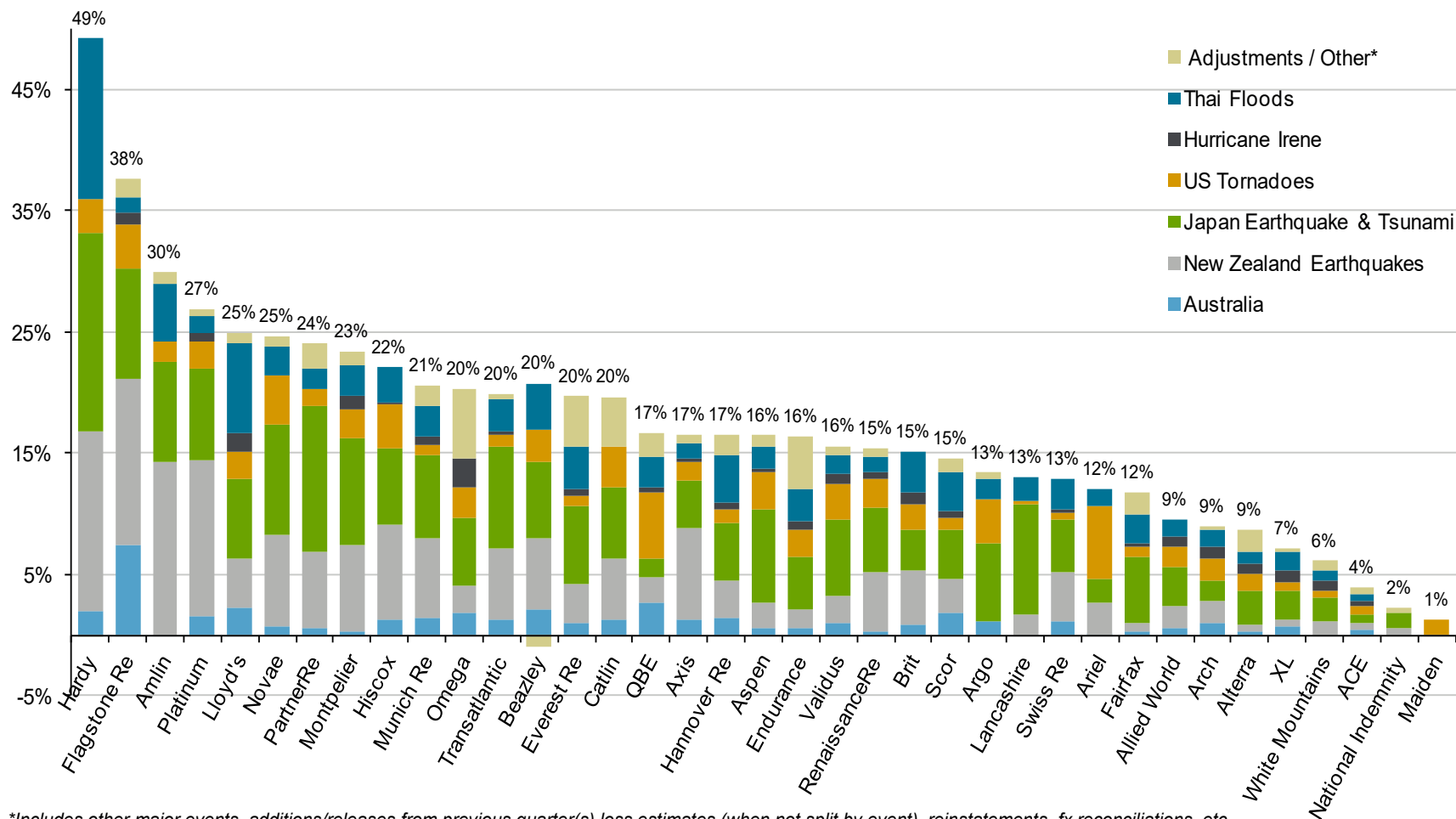
Opportunities

- 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: global reinsurance capacity adequate to replace government schemes
- 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

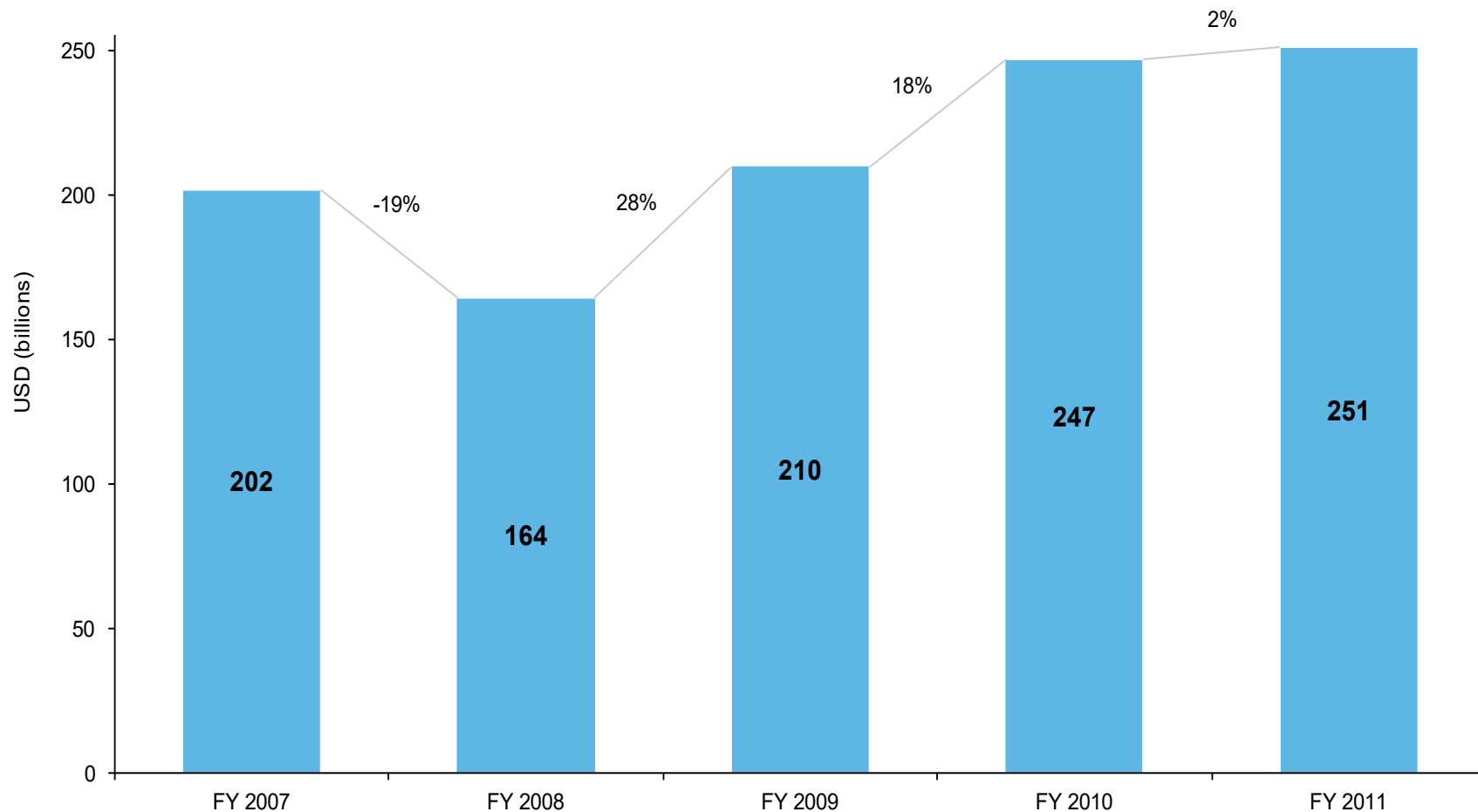


*Includes other major events, additions/releases from previous quarter(s) loss estimates (when not split by event), reinstatements, fx reconciliations, etc. Splits by event are shown as latest reported, i.e. could be from 1Q, 1H, 9M or FY 2011 results. Some Thai flood loss estimates are from preliminary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



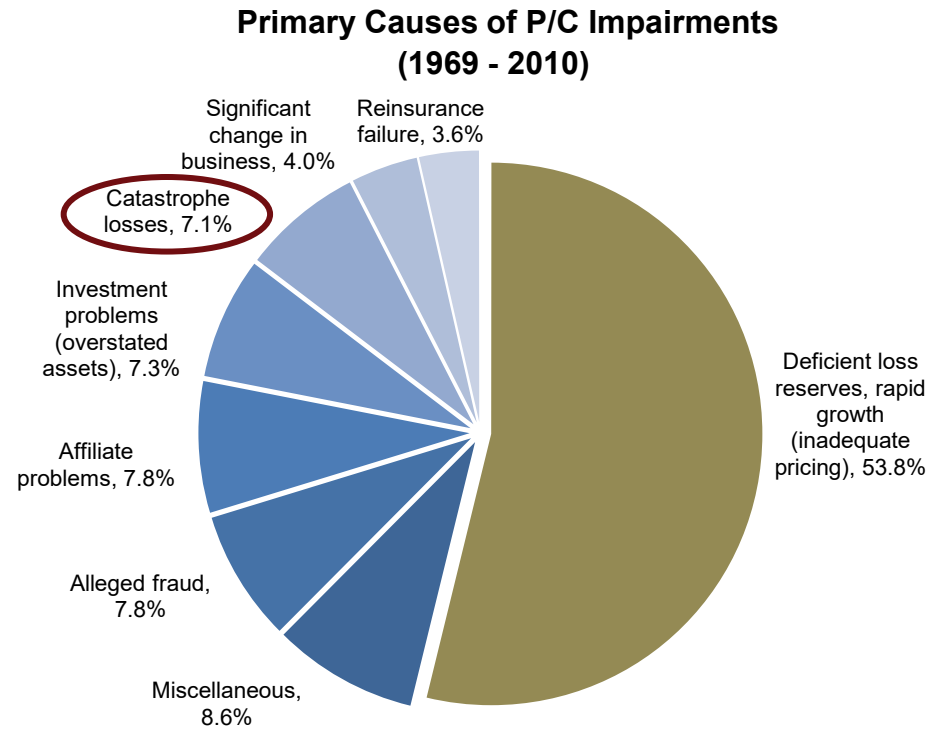
Reinsurance Effectively Manages Catastrophe Risk

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



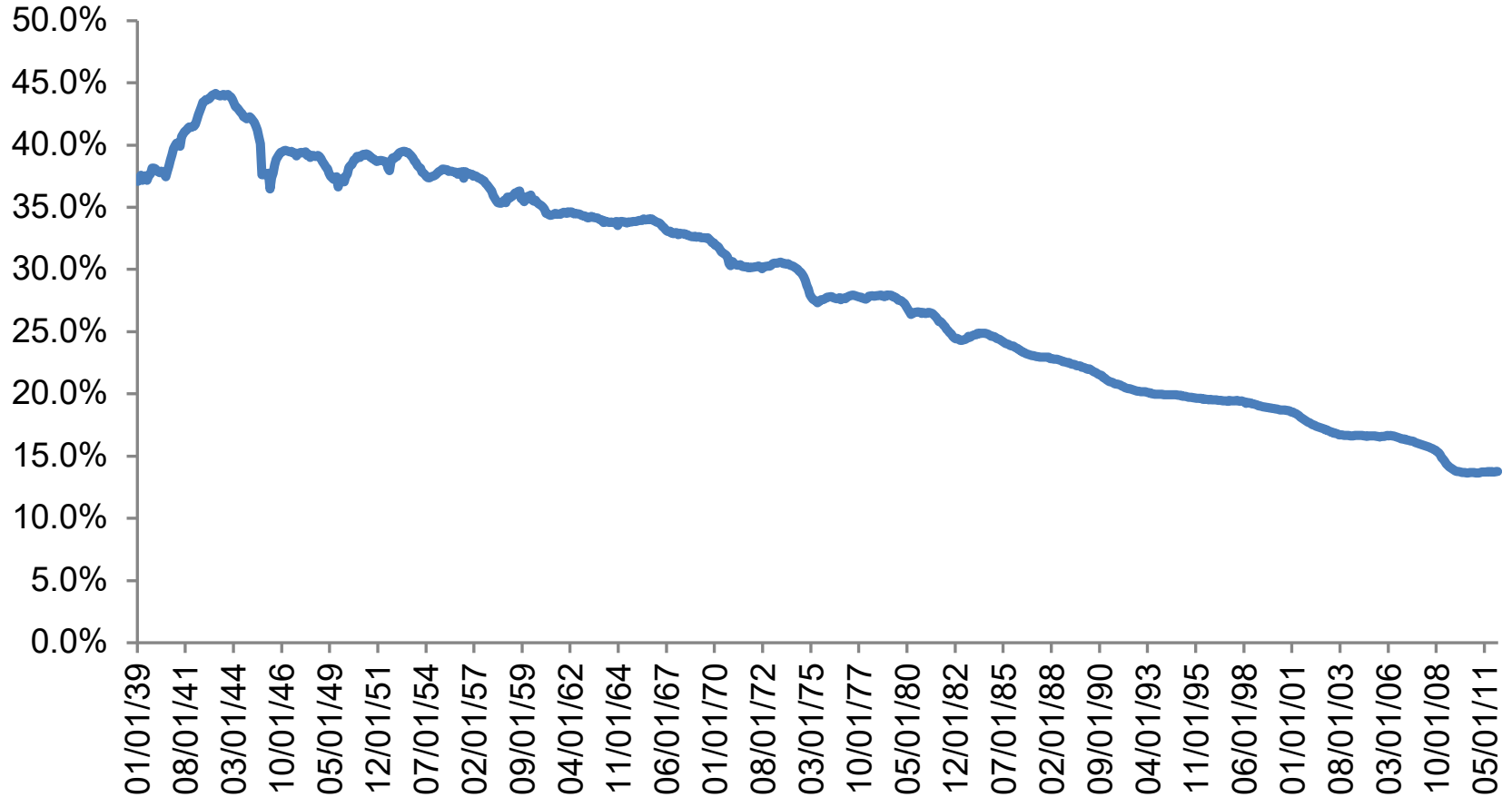
Insurance risk is the main killer of US P&C companies based on 40 year track record

Source: A. M. Best Impairment Study, 2011

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

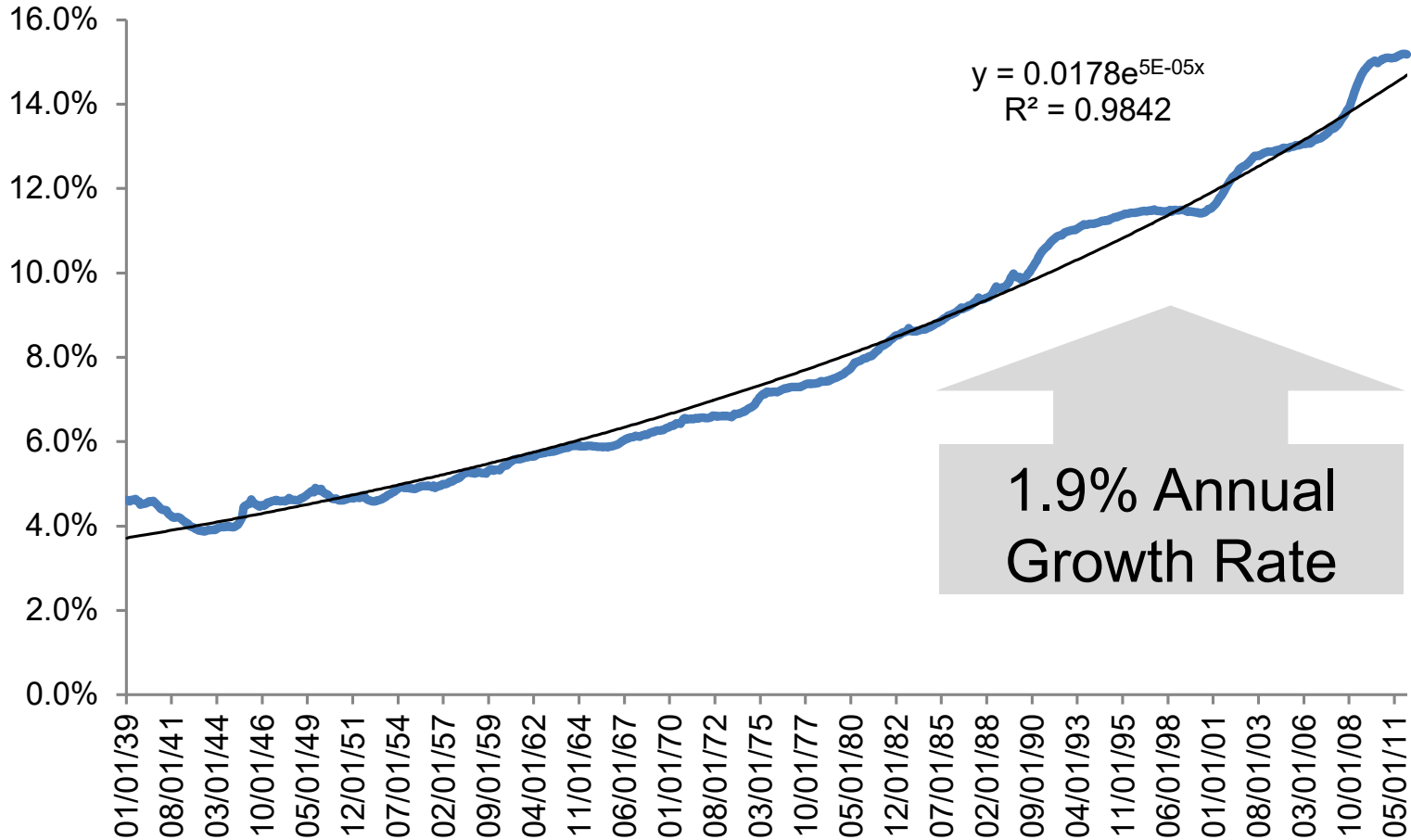
Percent of Total Non-Farm Employment in Goods Producing Industries

Goods Producing

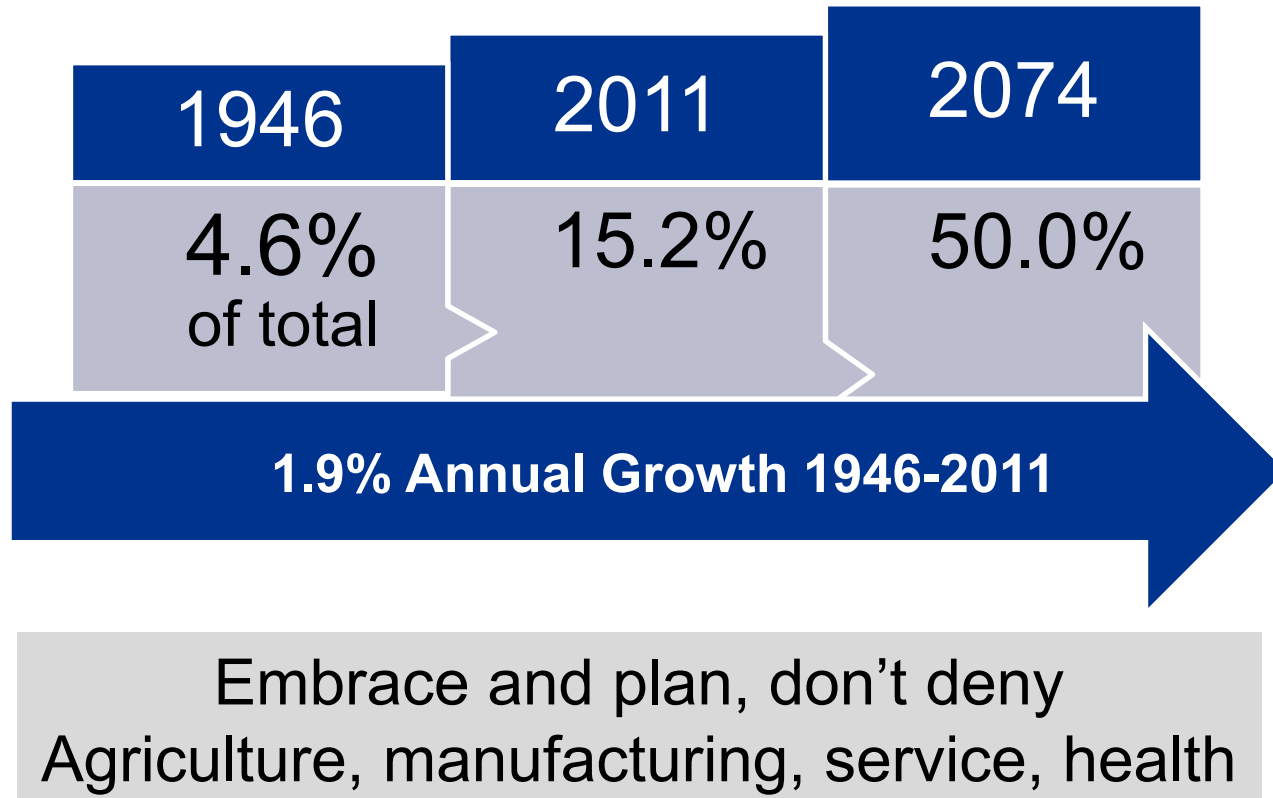


Percent of Total Non-Farm Employment in Healthcare & Education

Healthcare & Education



Implications of Historical Growth Rate on Employment in Health/Ed



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

Contact Information

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