



## After the Crisis: the Economics of the P-C Insurance Industry Energy Market Trends and Challenges

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Insurance Information Institute

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### Presentation Outline

- The Economic Storm: Reasons for Optimism, Causes for Concern
- Demand Drivers for Energy and Energy Insurance
- Looking Beyond the Crisis: Energy and Insurance Markets
- Energy Consumption, Capacity and Carbon Emissions
  - Long-Term Investment in Energy Sector and Insurance Implications
- Insurance Industry Financial Overview and Outlook
  - Profitability
  - Financial Strength
  - Premium Growth / Soft Market

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## Presentation Outline

- Insurance Industry Financial Overview and Outlook
  - Underwriting Performance
  - Capital / Capacity
  - Financial Market Impacts
- Tort System Review: Overview and Causes for Concern
- Catastrophe Loss Overview
- Deepwater Horizon: Implications for Energy and Insurance Markets

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## The Economic Storm

**The US Economic Recovery  
Will Remain Weak Impacting  
Insurance and Energy Markets Alike**

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## Reasons for Optimism, Causes for Concern in the P/C Insurance Industry

- Economic recovery in US is self-sustaining: no double dip recession
- European debt crisis will pass; concerns are overblown
  - Volatility will remain a reality, however
- No secondary spike in unemployment or swoon in payrolls
  - But job and wage growth will remain sluggish
- Global P/C (re)insurance has recaptured 100% of capital / capacity eroded away during the financial crisis
  - Critical given ongoing volatility and threat of severe hurricane season in the US and high catastrophe losses on a global basis

Source: Insurance Information Institute

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## Reasons for Optimism, Causes for Concern in the P/C Insurance Industry

- Investment environment is / remains much more favorable
  - Volatility, however, will persist and yields remain low
  - Both are critical issues in pricing long-tailed commercial lines like WC, D&O
- Financial strength and ratings of global (re)insurance industries remained strong throughout the financial crisis in sharp contrast with banks
- Insurers avoided draconian outcomes in financial services reform
- Tort environment in US is beginning to deteriorate; no tort reform in US
- Major transformation of US economy underway with major opportunities for insurers through 2020 in health, tech, natural resources and *energy*

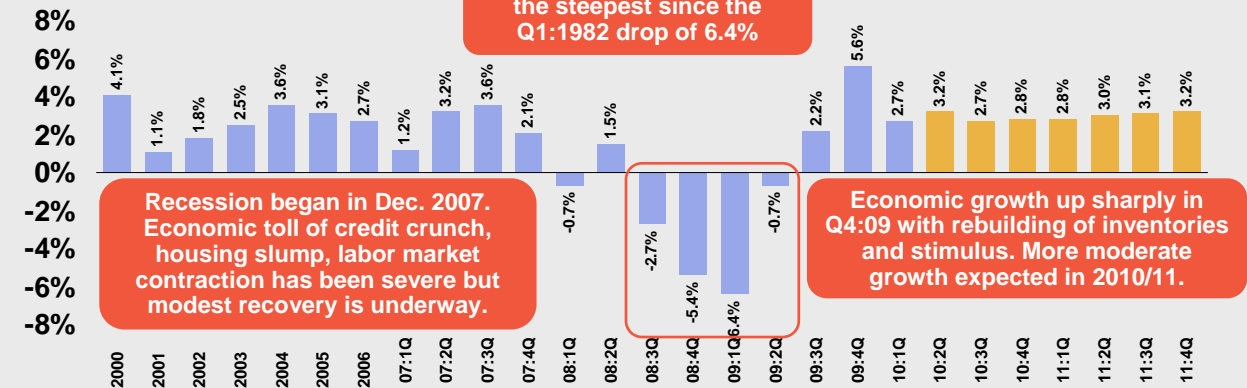
Source: Insurance Information Institute

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# US Real GDP Growth: Exerts a Strong Influence on Energy Demand\*

Real GDP growth



**Demand for energy and commercial insurance has been impacted by sluggish economic conditions**

\*Estimates / Forecasts from Blue Chip Economic Indicators  
Source: US Department of Commerce, Blue Economic Indicators 7/10; Insurance Information Institute

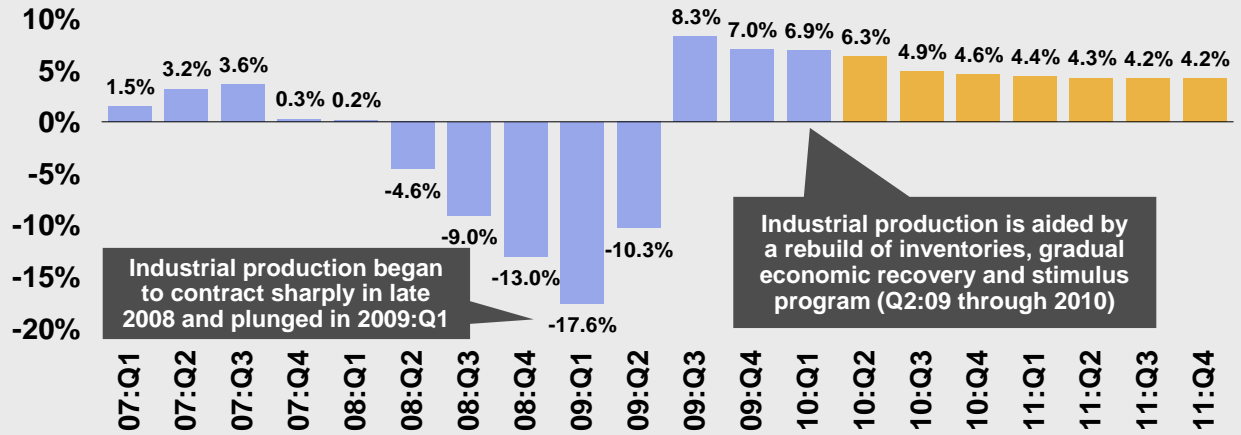


## Factors Influencing Demand for Energy and Insurance

**Commercial and Consumer Demand Drivers Remain Tepid**

## Total Industrial Production

2007:Q1 to 2011:Q4F



Industrial production began to contract sharply in late 2008 and plunged in 2009:Q1

Industrial production is aided by a rebuild of inventories, gradual economic recovery and stimulus program (Q2:09 through 2010)

End of recession in mid-2009, stimulus program benefited industrial production and insurance exposure both directly and indirectly, albeit it very modestly; stimulus effect is waning in 2010 and will be gone in 2011

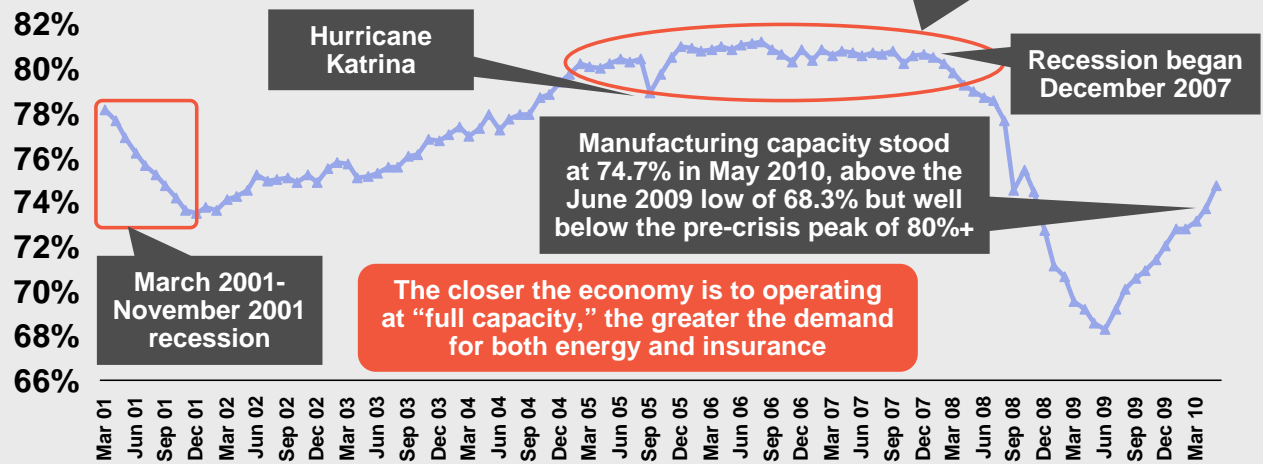
Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (7/10); Insurance Information Institute

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## Recovery in Capacity Utilization Is a Positive Sign for Energy and Insurance

Percent of manufacturing capacity



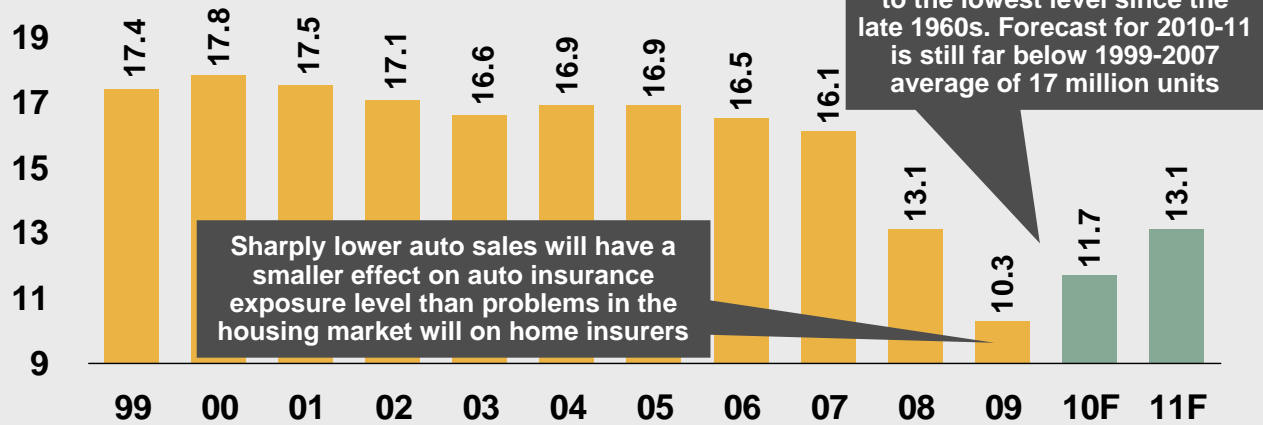
Source: Federal Reserve Board statistical releases at <http://www.federalreserve.gov/releases/g17/Current/default.htm>

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### Auto / Light Truck Sales: 1999-2011F

Millions of units



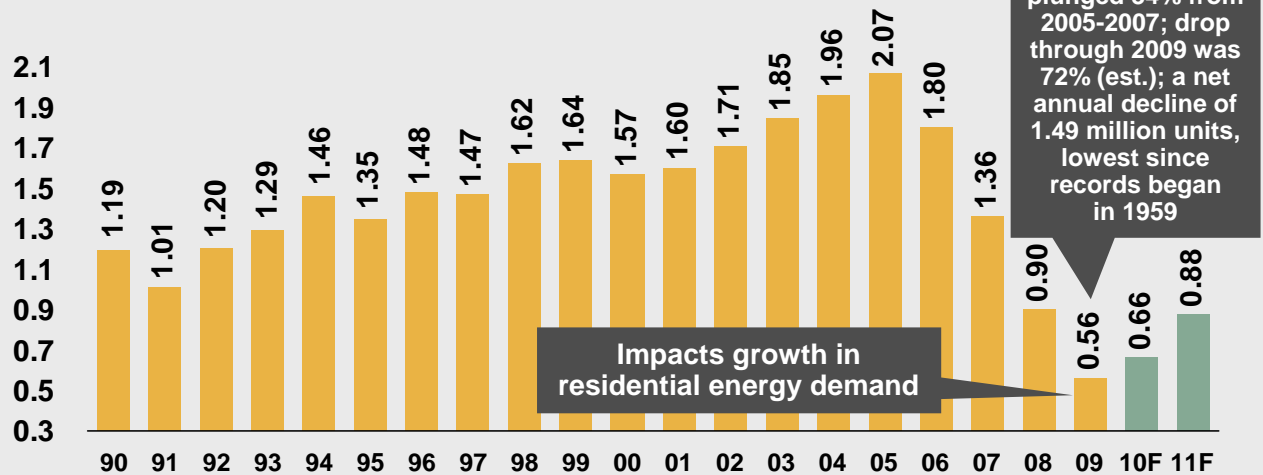
**Car/light truck sales will recover from the 2009 low point, but high unemployment, tight credit are still restraining sales; gas prices could once again become a factor, too**

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (7/10); Insurance Information Institute



### New Private Housing Starts: 1990-2011F

Millions of units

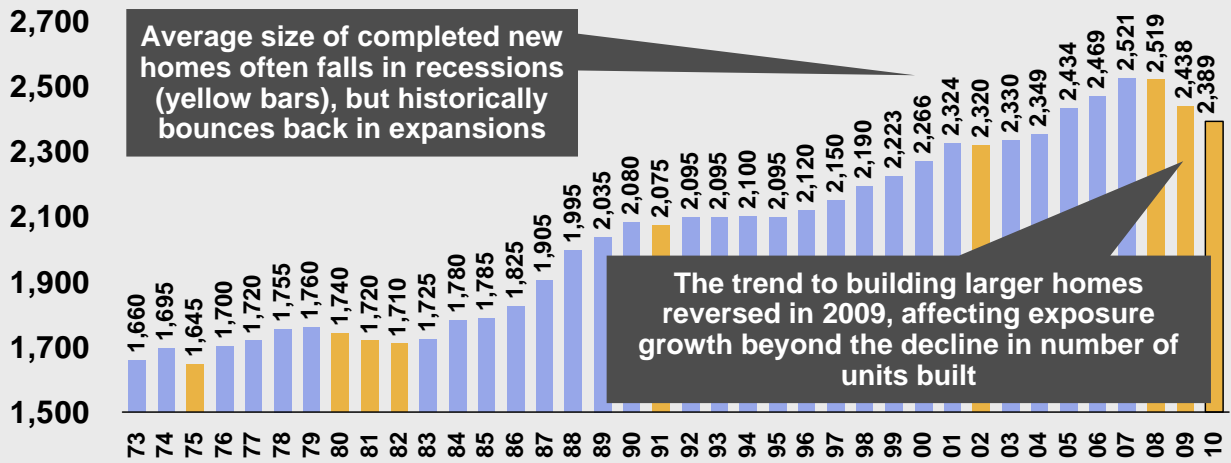


**Weak housing markets impacts energy and insurance demand**

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (7/10); Insurance Information Institute



## Average Square Footage of New Homes in US, 1973-2010:Q1

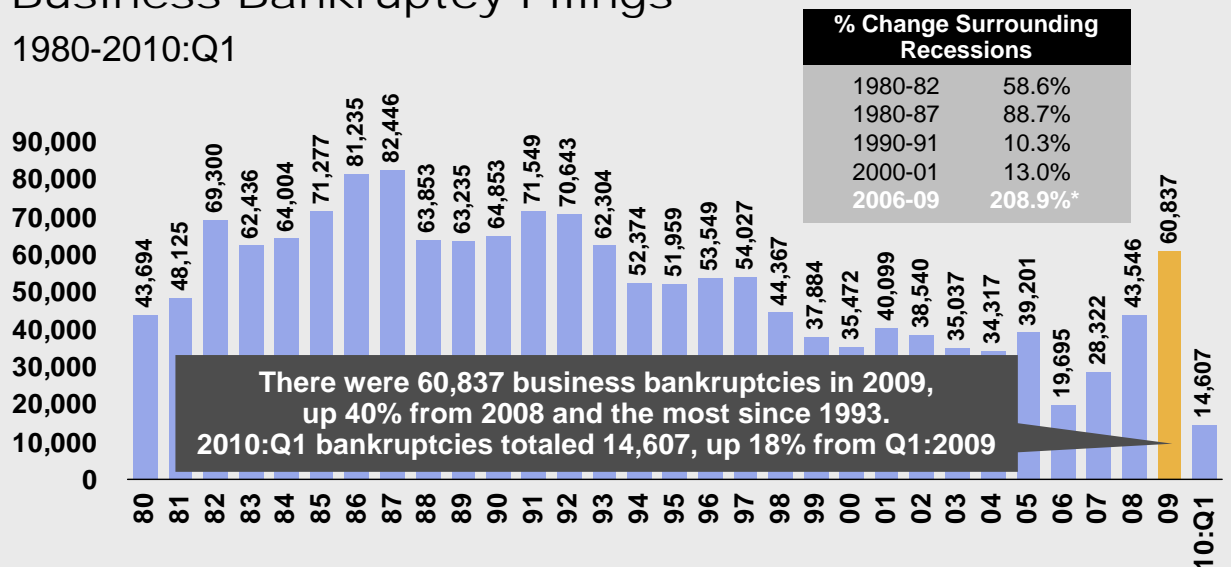


Source: U.S. Census Bureau: [http://www.census.gov/const/www/quarterly\\_starts\\_completions.pdf](http://www.census.gov/const/www/quarterly_starts_completions.pdf); Insurance Information Institute

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## Business Bankruptcy Filings 1980-2010:Q1



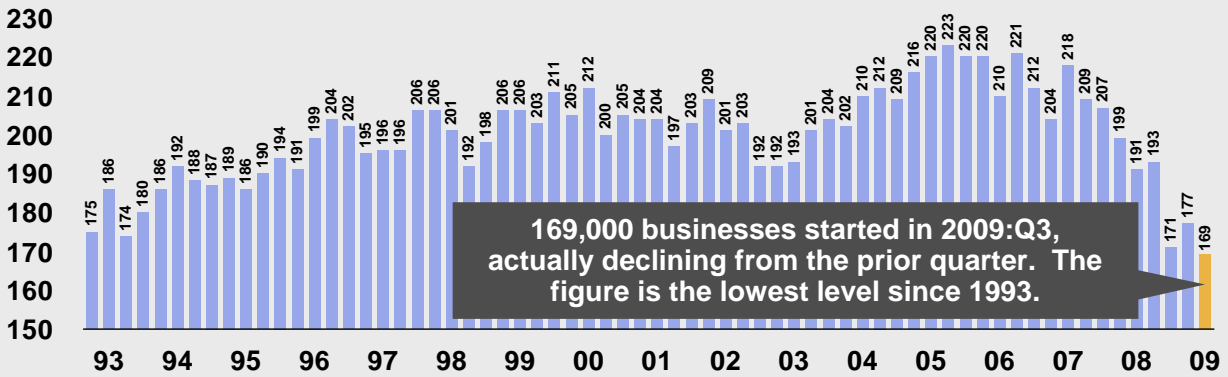
Source: American Bankruptcy Institute; Insurance Information Institute

Significant exposure implications for all commercial lines

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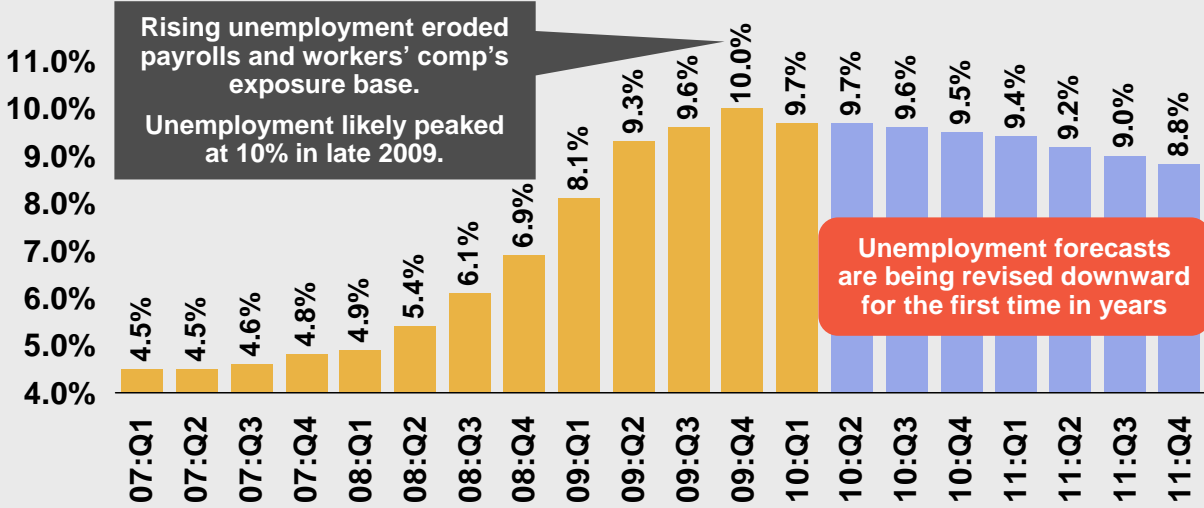
## Private Sector Business Starts 1993:Q2-2009:Q3\* (thousands)



**Business starts are down nearly 20% in the current downturn, holding back most types of commercial insurance exposure**

\*Latest available as of June 7, 2010, seasonally adjusted  
Source: Bureau of Labor Statistics, <http://www.bls.gov/news.release/cewbd.t07.htm>

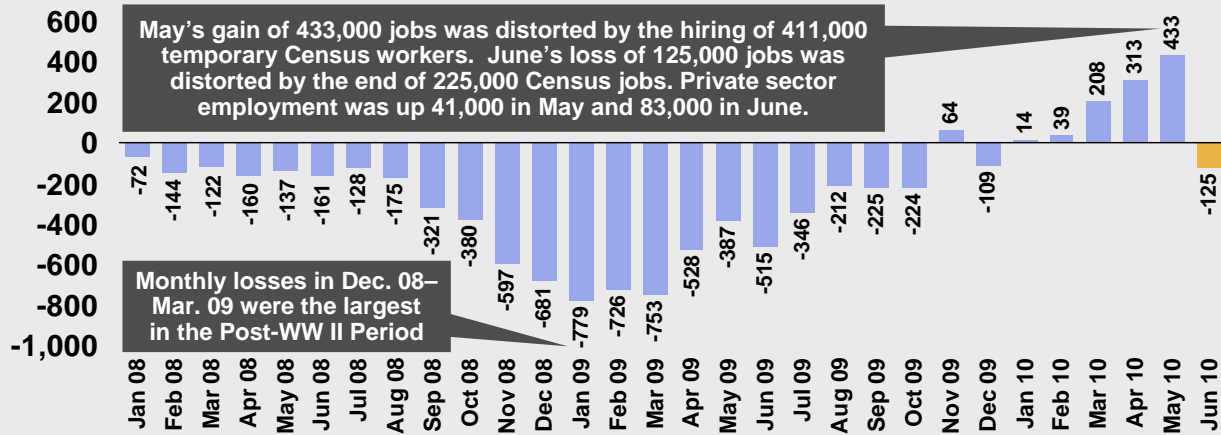
## US Unemployment Rate 2007:Q1 to 2011:Q4F



■ = actual; ■ = forecasts  
Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (7/10); Insurance Information Institute

## Monthly Change Employment\*

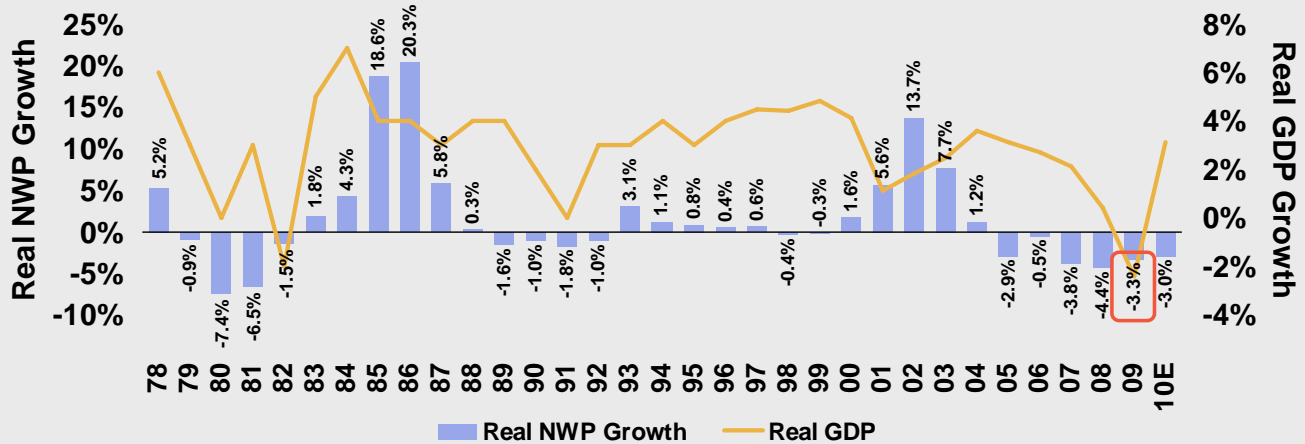
January 2008 through June 2010\* (thousands)



Job losses since the recession began in Dec. 2007 peaked at 8.4 mill in Dec. 09; stands at 7.4 million through June 2010; 14.6 million people are now defined as unemployed

\*Estimate based on Reuters poll of economists.  
Source: US Bureau of Labor Statistics: <http://www.bls.gov/ces/home.htm>; Insurance Information Institute

## Real GDP Growth vs. Real P/C Premium Growth: Modest Association



P/C insurance industry's growth is influenced modestly by growth in the overall economy

Sources: A.M. Best, US Bureau of Economic Analysis, Blue Chip Economic Indicators, 7/10; Insurance Information Institute



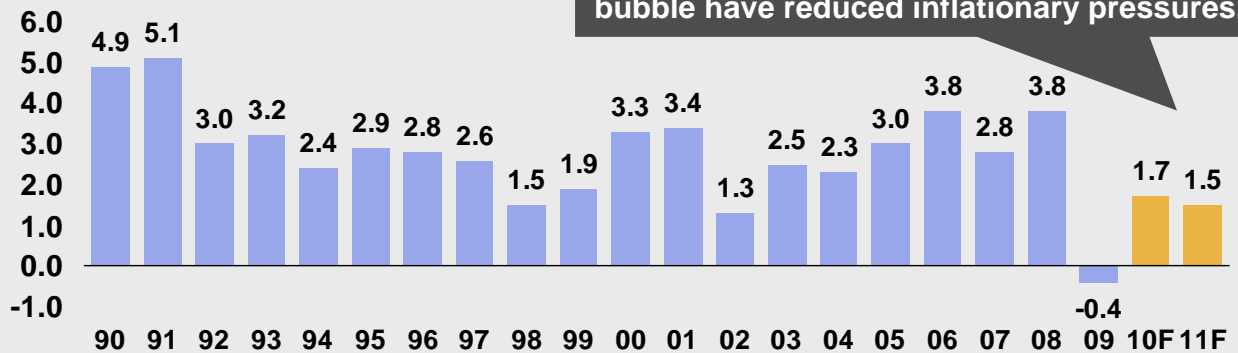
Inflation Trends: Concerns over Stimulus Spending and Monetary Policy Have Not Yet Materialized

Rising Inflation Would Pressure Claim Cost Severities via Higher Materials, Labor, Medical and Tort Costs

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Annual Inflation Rates (CPI-U, %), 1990-2011F Percentage



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

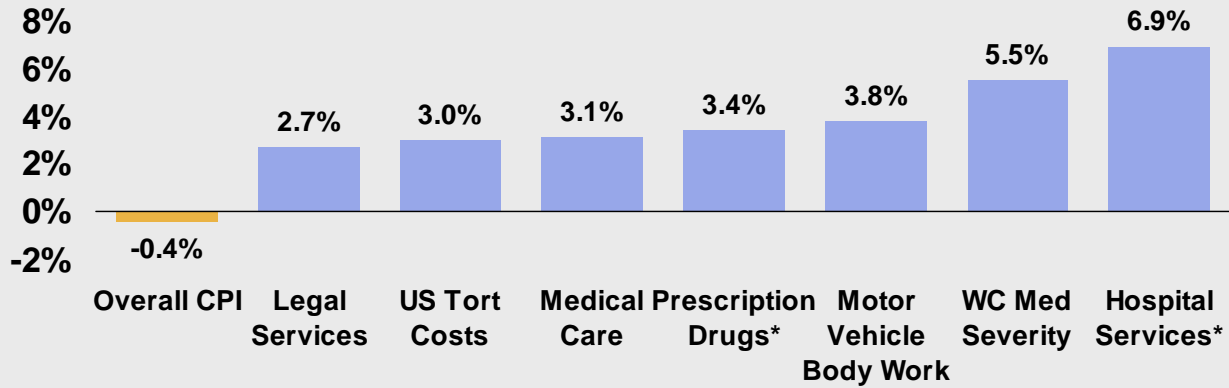
There is so much slack in the US economy inflation should not be a concern through 2010/11, but deficits and monetary policy remain longer run concerns

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators, July 10, 2010 (forecasts)

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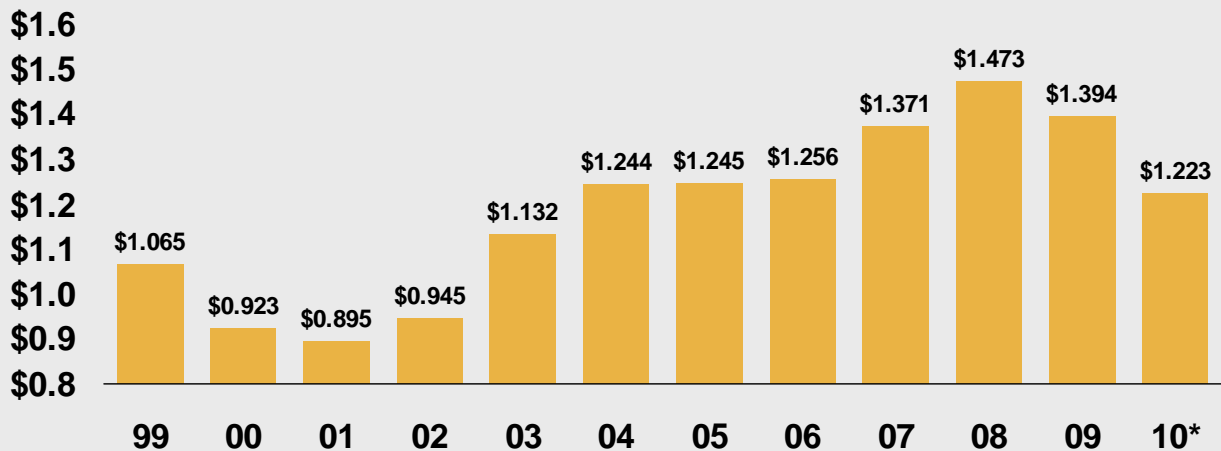
## P/C Insurers Experience Inflation More Intensely than 2009 CPI Suggests



**Healthcare and legal / tort costs are a major P/C insurance cost driver. These are expected to increase above the overall inflation rate (CPI) indefinitely**

\*Measured Dec. 2009 vs. Dec. 2008  
Source: Bureau of Labor Statistics. Tort cost is 2009 Towers-Perrin estimate. WC figure is I.I.I. estimate based on historical NCCI data

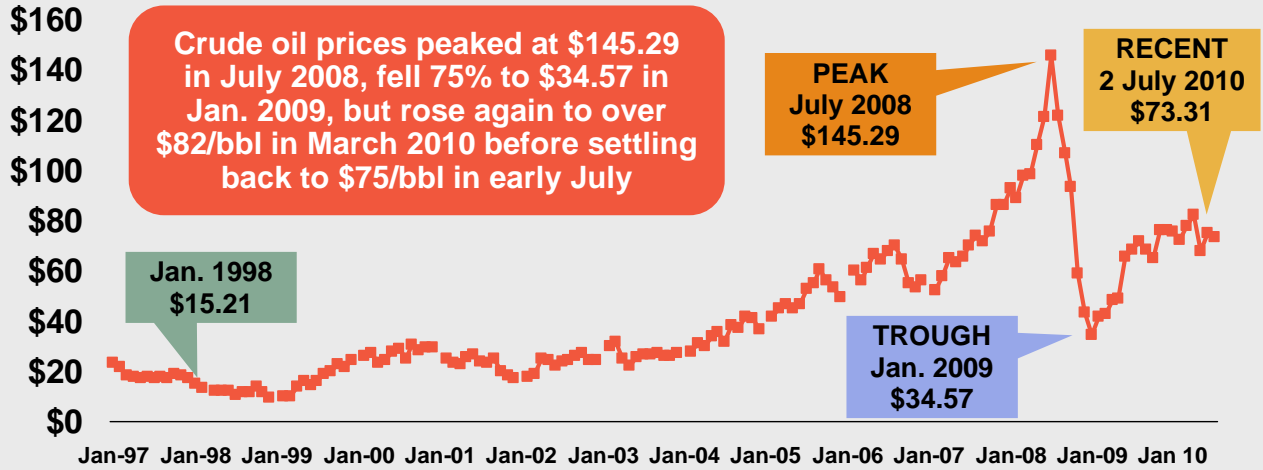
## Recent Appreciation of the Dollar Reduces Inflationary Pressure, Especially for Energy Inputs US Dollar vs. Euro, 1999 through June 2010



\*As of June 2010  
Source: US Federal Reserve, Board of Governors; Insurance Information Institute

# World Crude Oil Prices: 1997-July 2010

Dollars per barrel\*



\*All countries spot market price weighted by estimated export volume  
 Source: Energy Information Administration; <http://tonto.eia.doe.gov/dnav/pet/hist/wotworldw.htm>

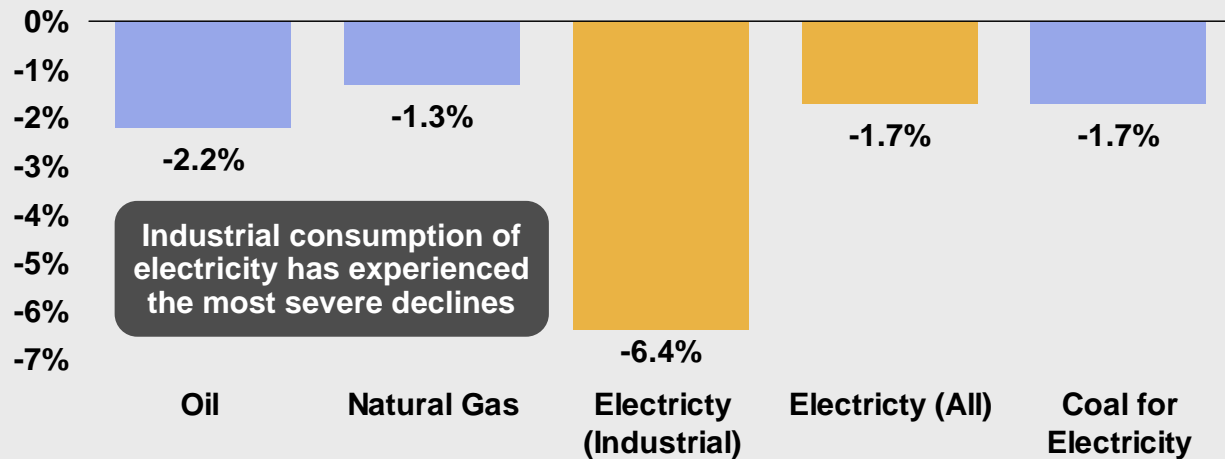


## Beyond the Crisis

Impacts on Energy Demand, Supply and Insurance Exposure

## Severe Recession Depressed US Energy Demand

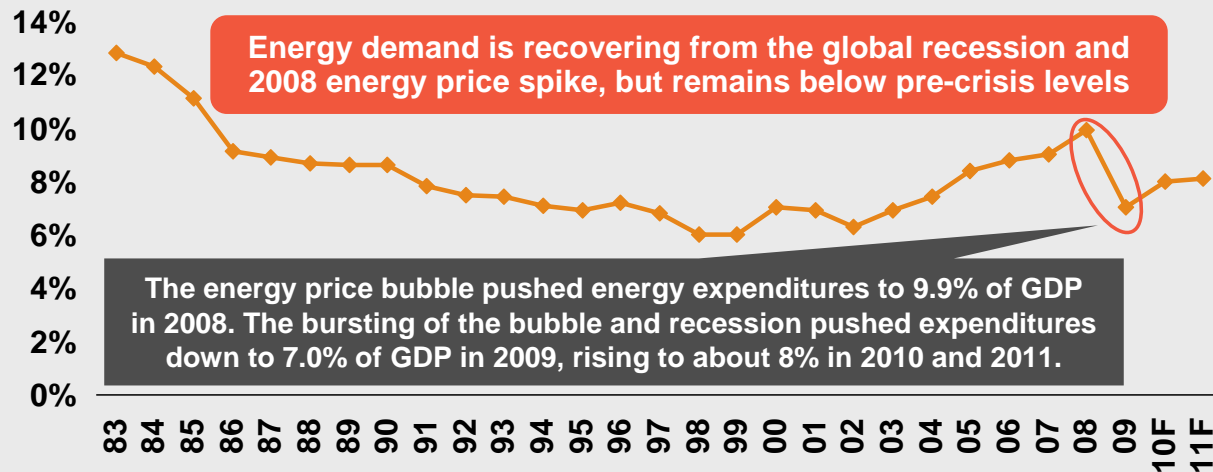
Percentage change in consumption, 2009 vs. 2008



Sources: Energy Information Administration based on Short-Term Energy Outlook, March 2009 and March 2010

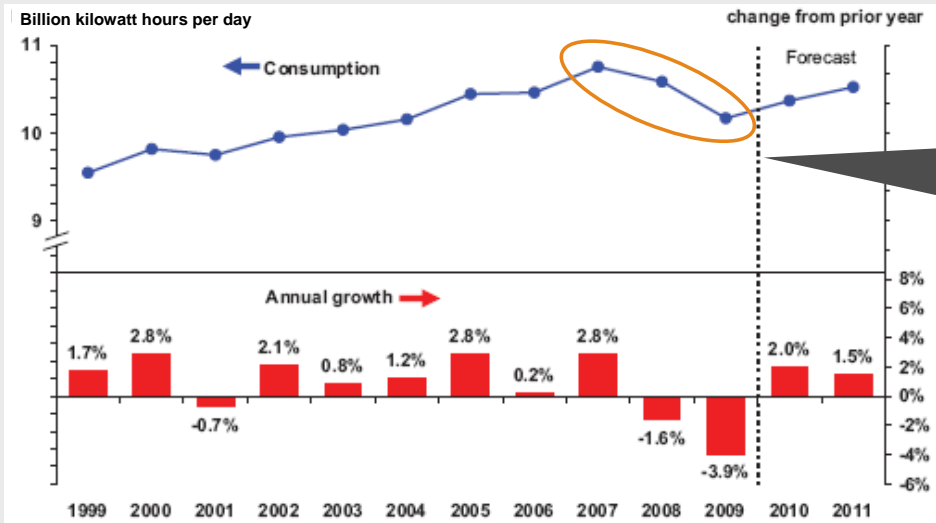
## US Energy Expenditures Have Been Hurt by Recession

As a percentage of GDP



Source: Energy Information Administration, Short-Term Energy Outlook, March 2010; Ins. Information Institute

## U.S. Total Electricity Consumption 1999-2011P

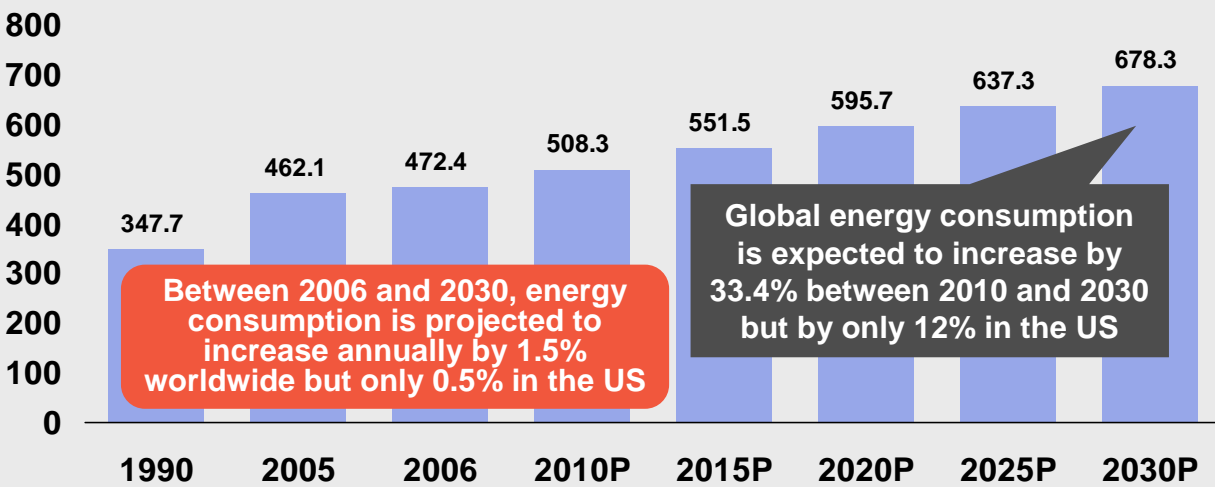


Recession had a significant, but in the long-run, minor impact on electricity consumption

Modest growth in consumption is projected for both 2010 and 2011

Sources: Energy Information Administration: *Short-Term Energy Outlook*, March 2010; Insurance Information Institute

## World Primary Energy Consumption: 1990-2030P Quadrillion BTUs

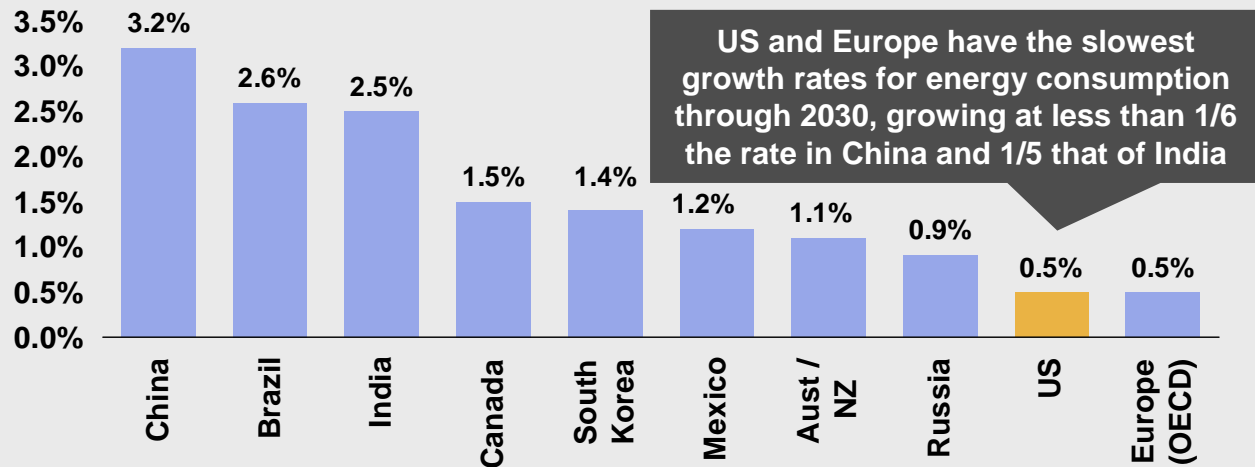


Between 2006 and 2030, energy consumption is projected to increase annually by 1.5% worldwide but only 0.5% in the US

Global energy consumption is expected to increase by 33.4% between 2010 and 2030 but by only 12% in the US

Source: Energy Information Administration, *2009 International Energy Outlook*, Insurance Information Institute

## Average Annual Change in Total Energy Consumption by Country / Region: 2006-2030P Quadrillion BTUs

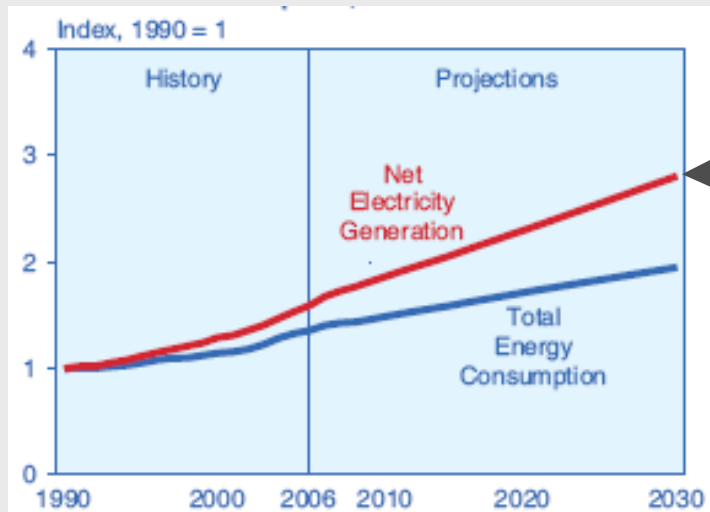


Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute

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## Global Net Electricity Generation Is Growing Faster than Consumption



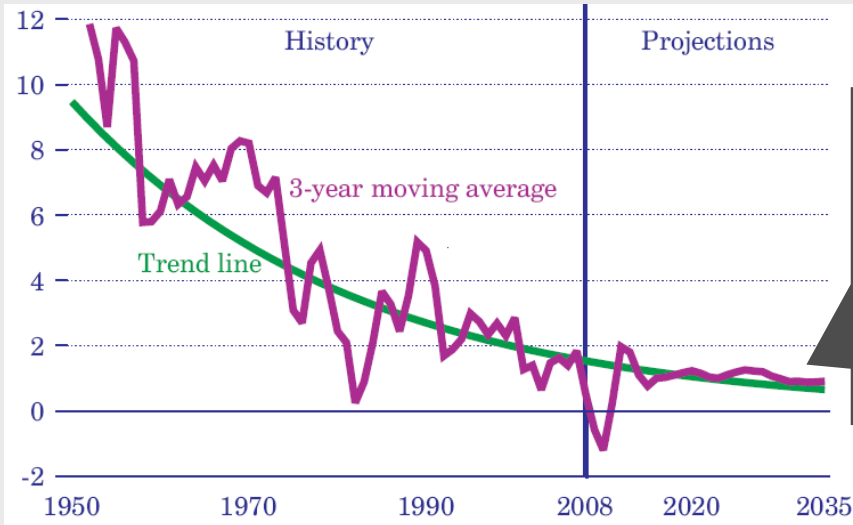
- Electricity generation is growing faster than total energy consumption
- This suggests that there is a net substitution away from other energy sources to electricity
- Implies a bright future for utilities
- Requires significant insurance capacity

Sources: Energy Information Administration: International Energy Outlook 2009; Insurance Information Institute

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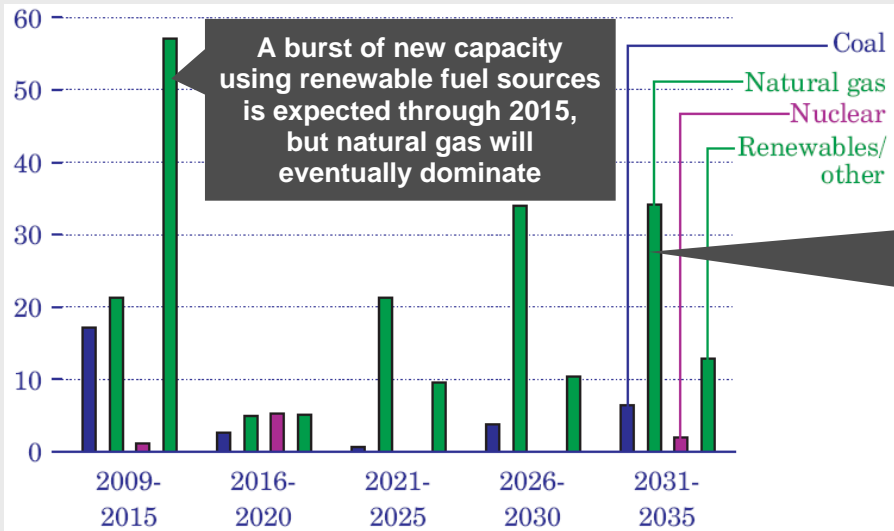
## US Electricity Demand Growth 1950-2035P (billions kilowatt hours)



Electricity demand continues to grow but at a slower rate in response to slowing population growth and efficiency enhancements. Demand for insurance should be similar but could vary depending on liability environment.

Sources: Energy Information Administration: *Annual Energy Outlook 2010*; Insurance Information Institute

## US Electricity Generation Additions by Fuel Type 2009-2035P (gigawatts)



Natural gas will account for most of the capacity additions in the US longer-run. Globally the majority will be from coal.

Sources: Energy Information Administration: *Annual Energy Outlook 2010*; Insurance Information Institute



## Energy Consumption, Capacity and Carbon

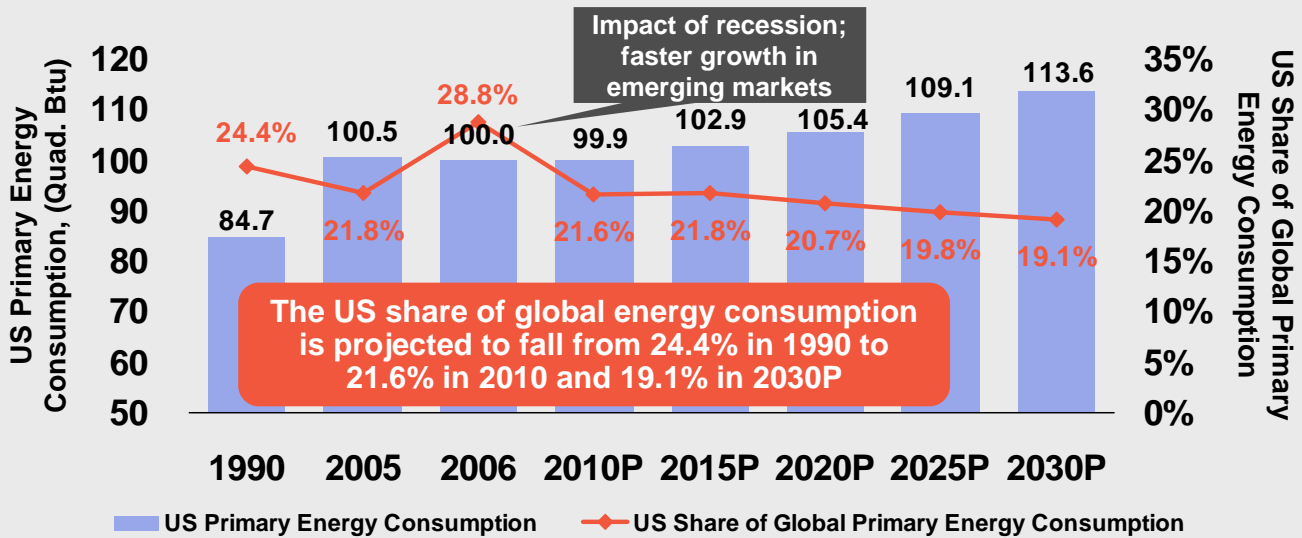
### Long-Run Projections for the US Energy Sector Relative to the Global Energy Market and Insurance Implications

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## US Primary Energy Consumption

As a share of global consumption: 1990-2030P

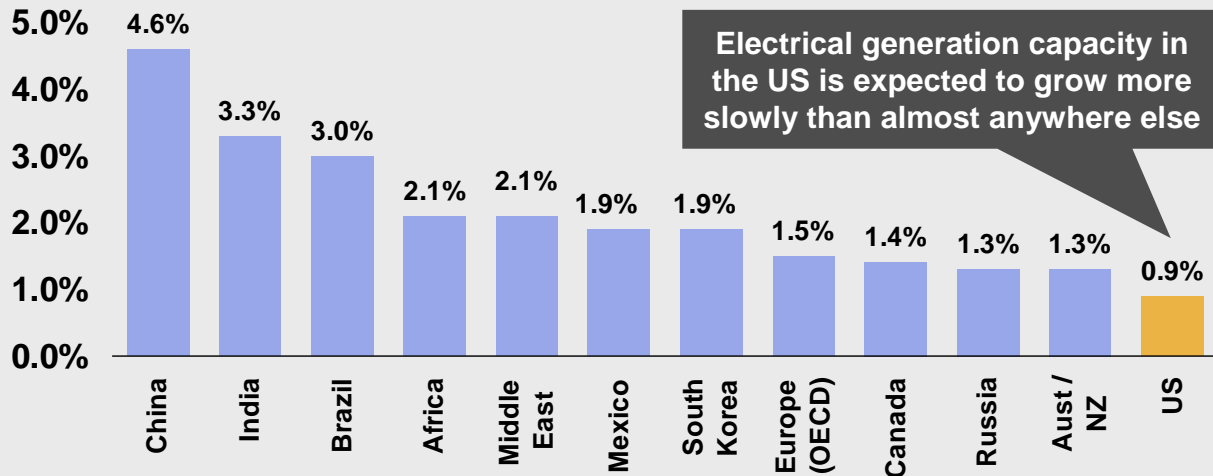


Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute calculations

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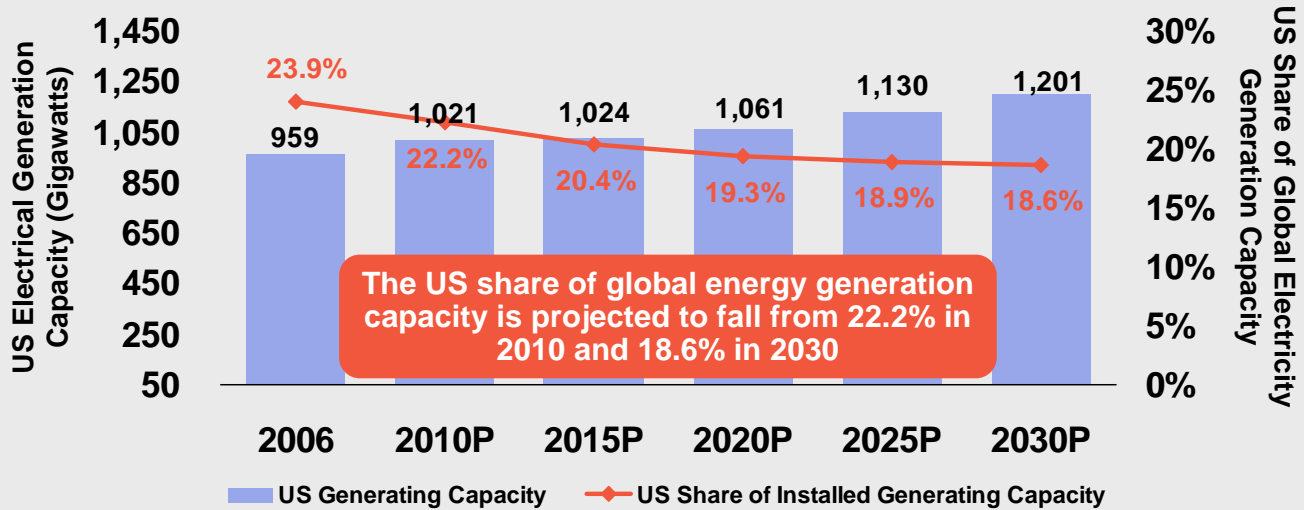
### Average Annual Change in Electricity Generating Capacity by Country / Region: 2006-2030P (Gigawatts)



Electrical generation capacity in the US is expected to grow more slowly than almost anywhere else

Source: Energy Information Administration, 2009 International Energy Outlook, Ins. Information Institute

### US Global Electricity Generation Capacity As a share of global capacity, 1990-2030P

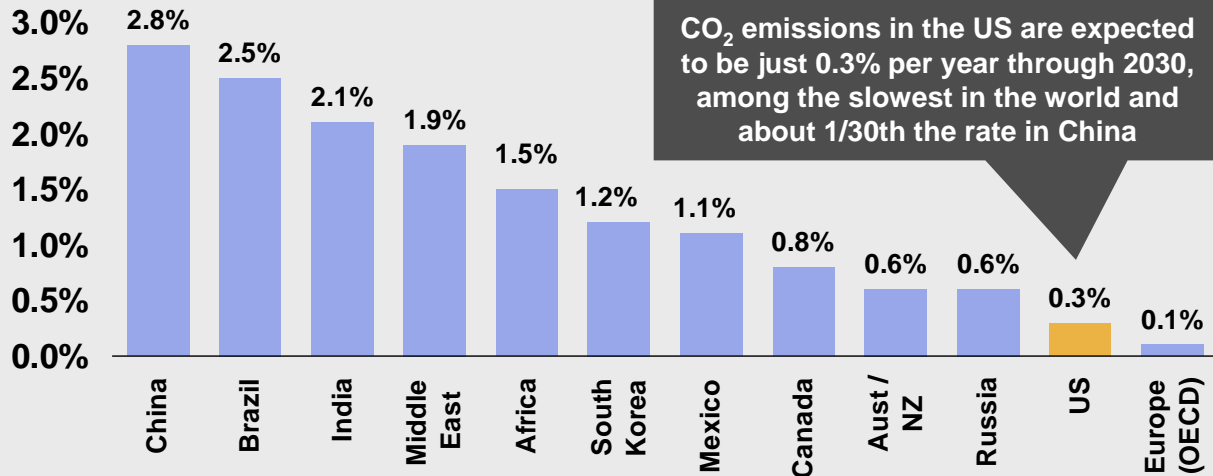


The US share of global energy generation capacity is projected to fall from 22.2% in 2010 and 18.6% in 2030

Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute calculations

### Average Annual Change in Carbon Dioxide Emissions by Country / Region: 2006-2030P

Millions of metric tons



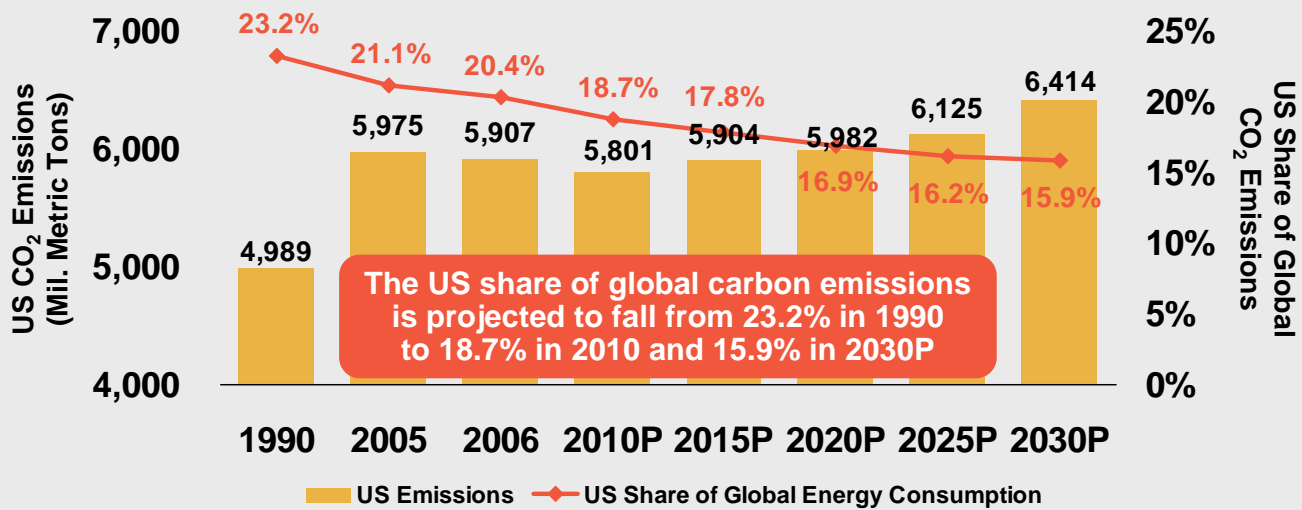
Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute

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### US Carbon Dioxide Emissions

As a share of global emissions, 1990-2030P

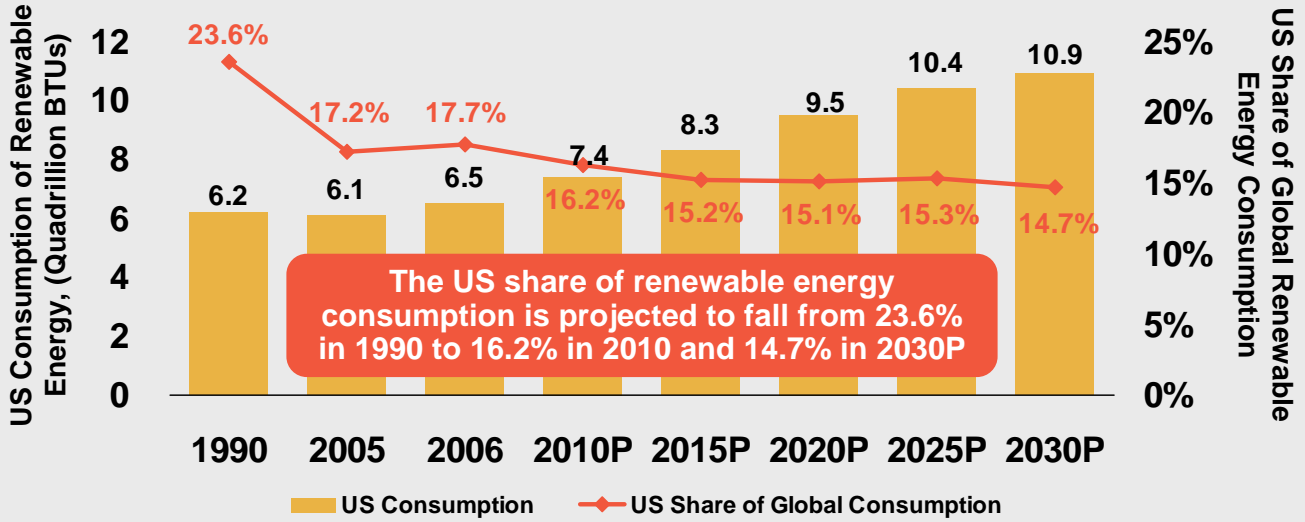


Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute calculations

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### US Consumption of Hydroelectric & Other Renewable Energy As a share of global consumption, 1990-2030P

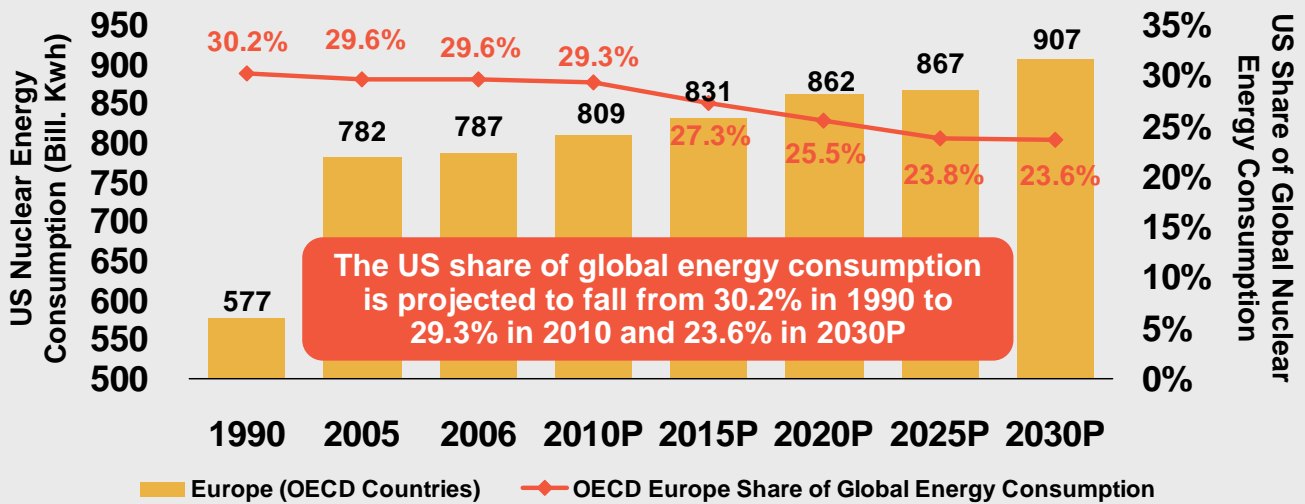


Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute calculations

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### US Nuclear Energy Consumption as a Share of Global Consumption: 1990-2030P



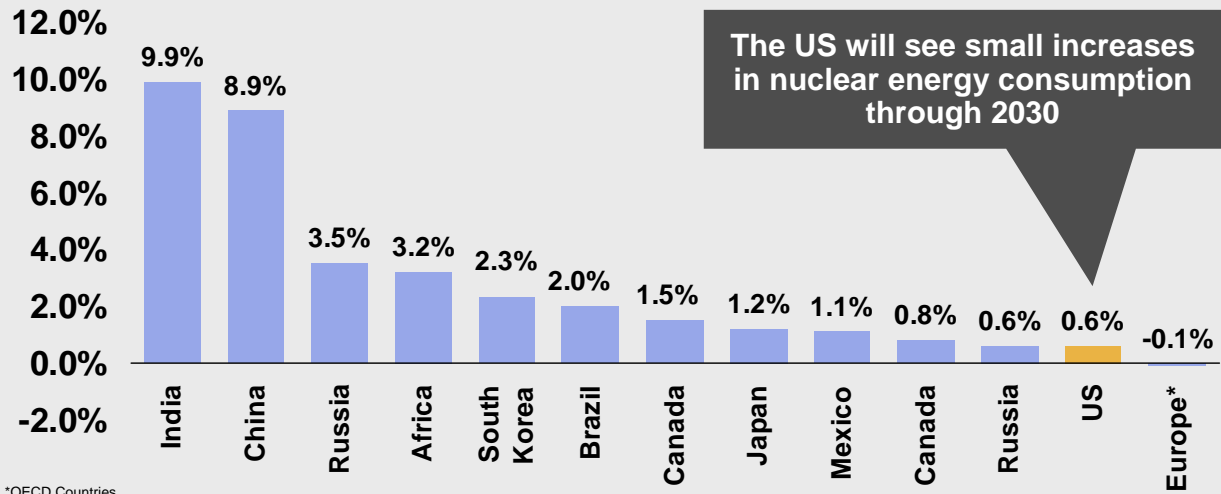
Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute calculations

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### Average Annual Change in Nuclear Energy Consumption by Country / Region: 2006-2030P

Billions of kilowatt hours



The US will see small increases in nuclear energy consumption through 2030

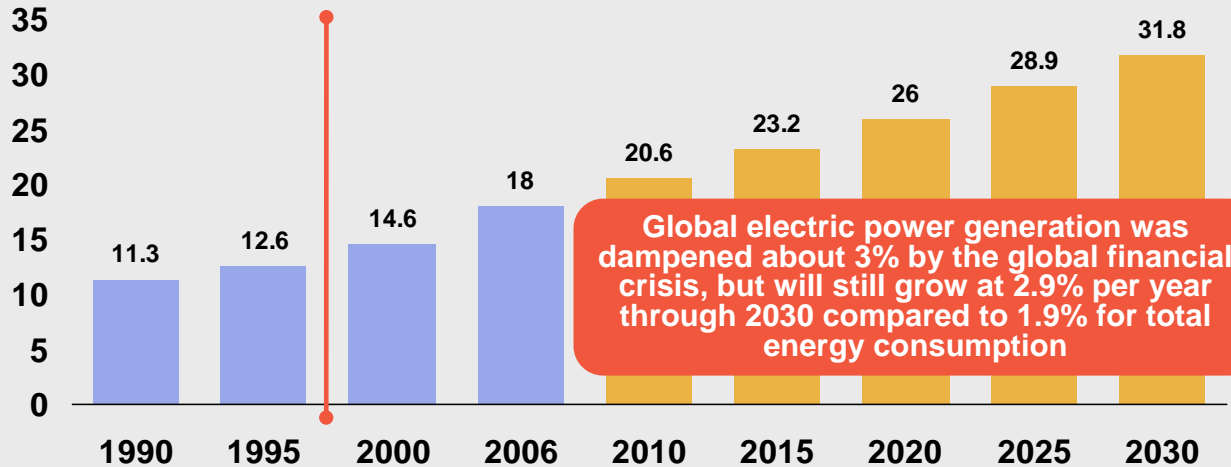
\*OECD Countries.  
Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute



### Energy Infrastructure

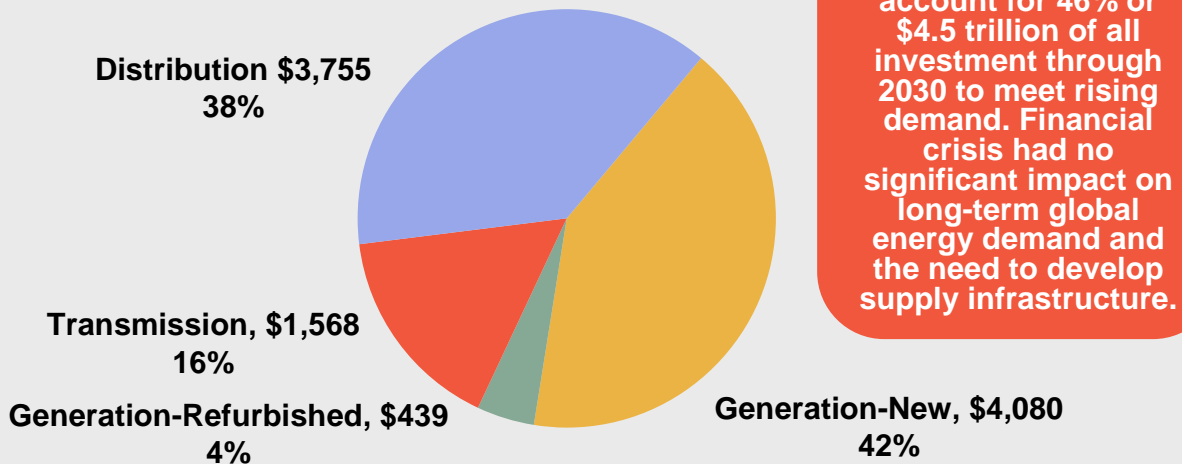
Huge Investments Required over Next 30 Years in US and Globally; Will Drive Demand for Energy Insurance Products Too

### World Net Effective Electric Power Generation, 1990-2030P Trillions of kilowatt hour sc



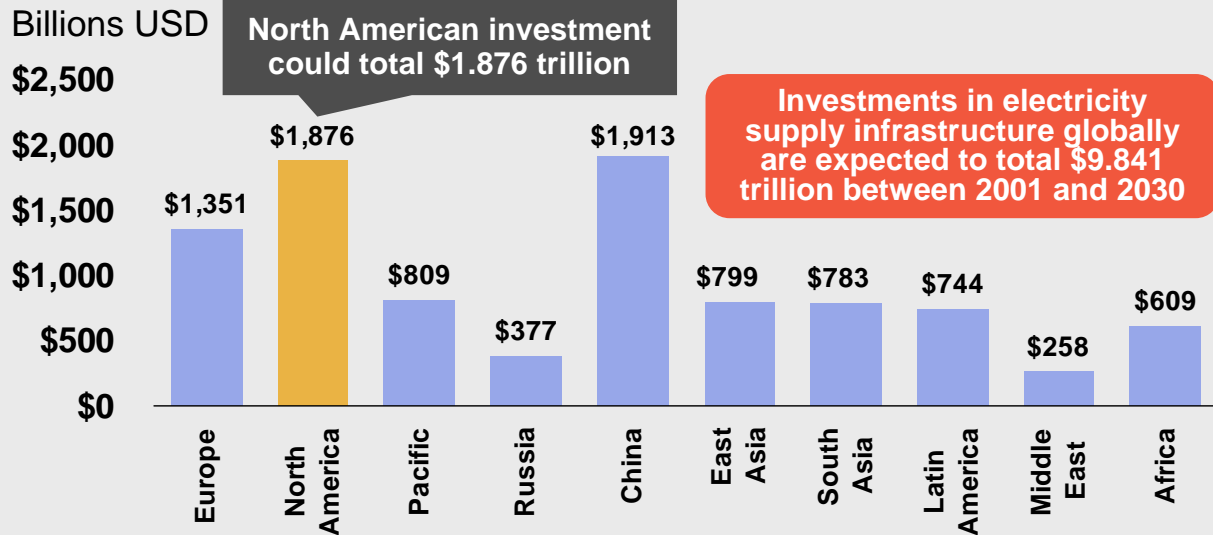
Source: Energy Information Administration, 2009 International Energy Outlook, Insurance Information Institute

### World Energy Supply Infrastructure Investment by Category: 2001-2030P Billions USD



Source: International Atomic Energy Agency, World Outlook for Electricity Investment

### Electricity Supply Infrastructure: Despite Crisis, Huge Investments Needed Along with Insurance: 2001-2030 (Est.)



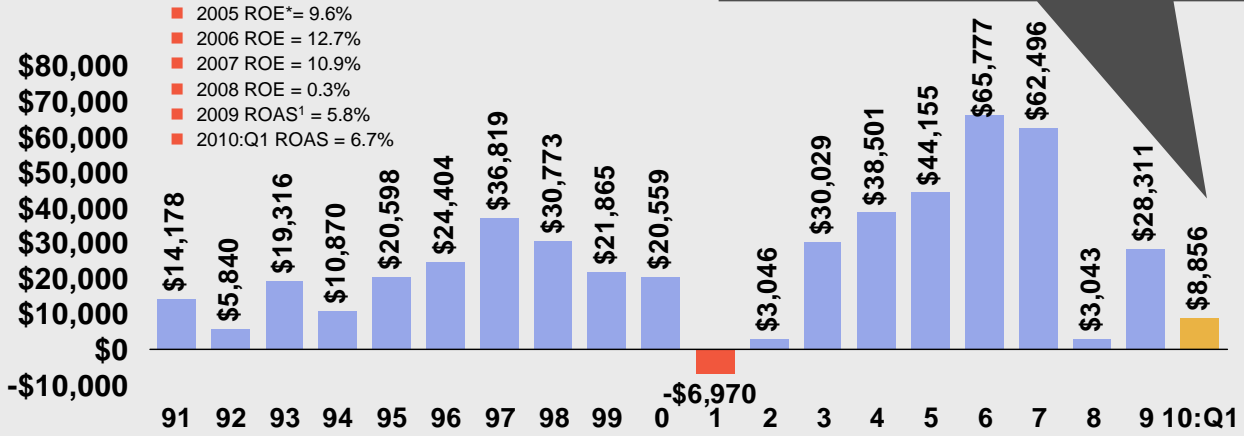
Source: International Atomic Energy Agency, World Outlook for Electricity Investment



### Insurance Industry Financial Performance

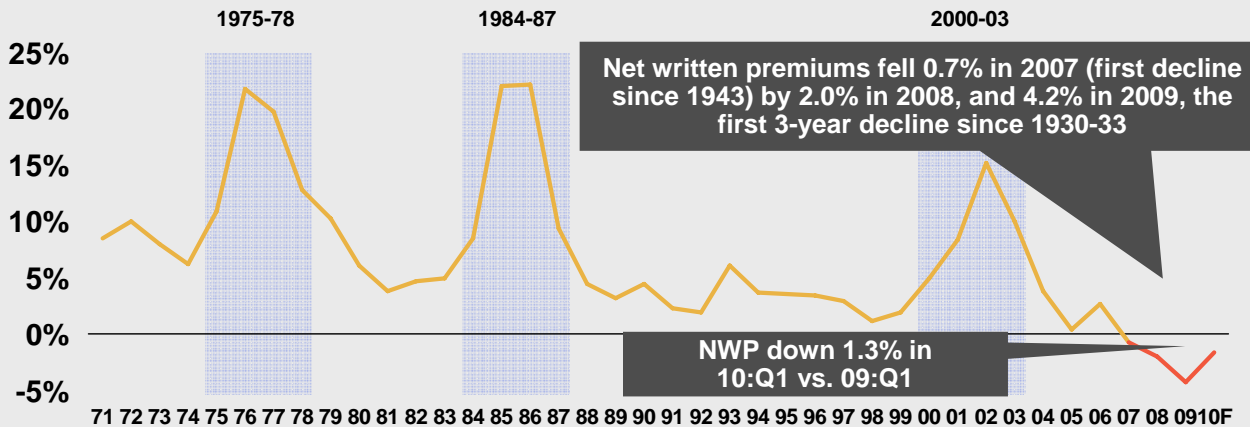
Impacted by Soft Market,  
Volatile Investment Environment

## P/C Net Income after Taxes 1991-2010: Q1 (millions USD)



\* ROE figures are GAAP; 1Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields an 8.3% ROAS for 2010:Q1, 7.3% for 2009 and 4.4% for 2008  
2009 net income was \$34.5 billion and \$20.8 billion in 2008 excluding M&FG  
Sources: A.M. Best, ISO, Insurance Information Institute

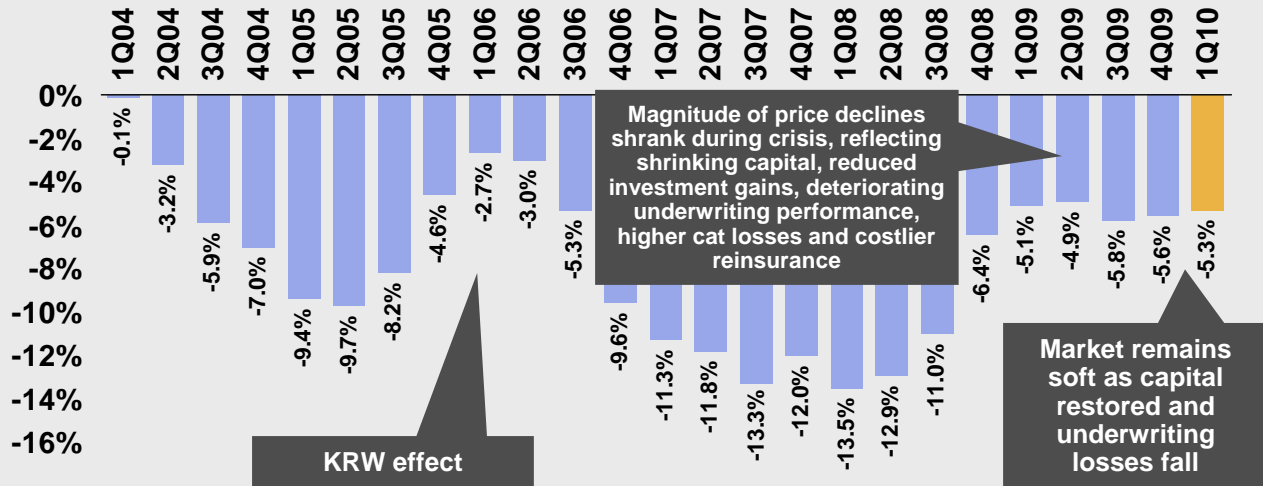
## Soft Market Appears to Persist in 2010 Relief in 2011?



Shaded areas denote "hard market" periods  
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute

## Average Commercial Rate Change

All lines: (1Q:2004-1Q:2010)



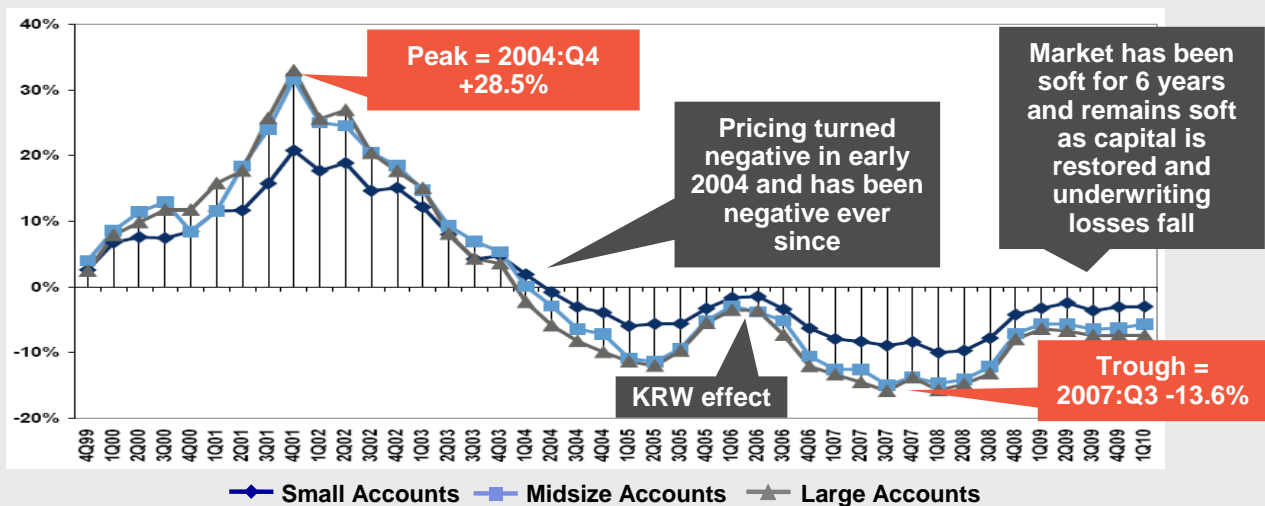
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

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## Change in Commercial Rate Renewals

By account size: 1999:Q4 to 2010:Q1



Source: Council of Insurance Agents and Brokers; Insurance Information Institute

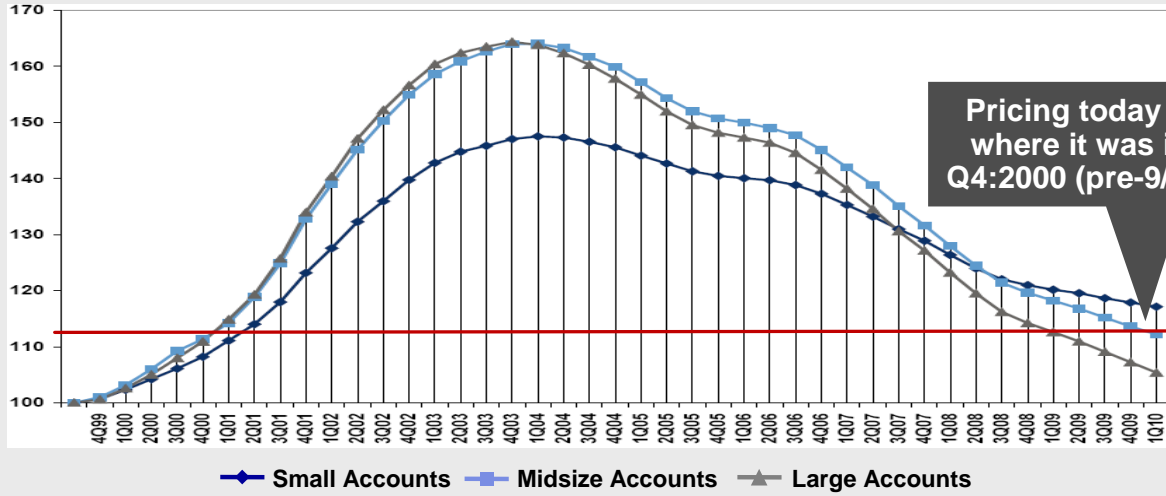
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# Cumulative Quarterly Commercial Rate Changes

By account size: 1999:Q4 to 2010:Q1

1999:Q4 = 100



Source: Council of Insurance Agents and Brokers; Insurance Information Institute

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Capital / Policyholder Surplus (US)

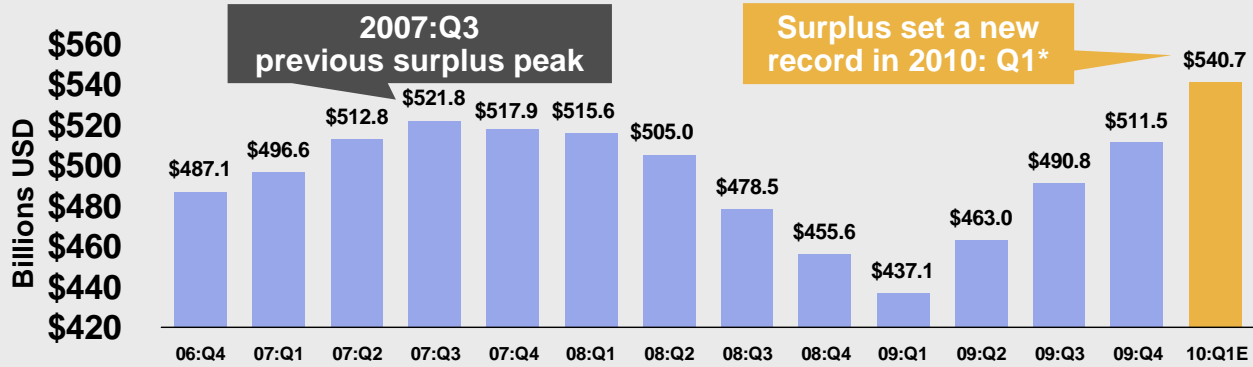
Shrinkage, but Not Enough to Trigger Hard Market

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# Policyholder Surplus

2006:Q4-2010:Q1E



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

Sources: ISO, A.M. Best

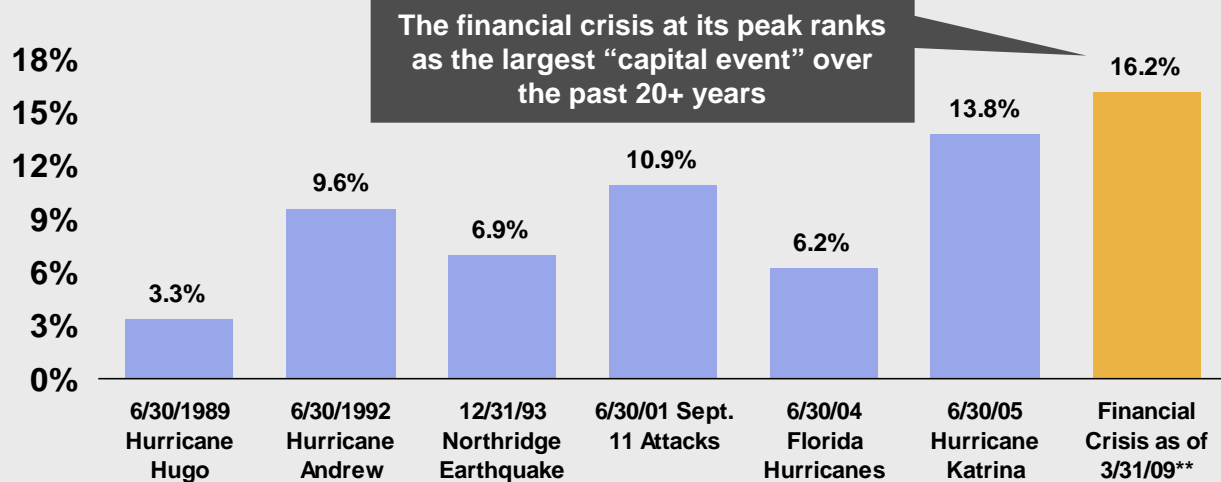
### Quarterly Surplus Changes Since 2007:Q3 Peak

08:Q2: -\$16.6B (-3.2%)	09:Q2: -\$58.8B (-11.2%)
08:Q3: -\$43.3B (-8.3%)	09:Q3: -\$31.8B (-5.9%)
08:Q4: -\$66.2B (-12.9%)	09:Q4: -\$10.3B (-2.0%)
09:Q1: -\$84.7B (-16.2%)	10:Q1: +\$18.9B (+3.6%)

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# 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

\*\* Date of maximum capital erosion; As of 9/30/09 (latest available) ratio = 5.9%

Source: PCS; Insurance Information Institute

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## Investment Performance

Investments Are a Principal Source of Declining Profitability

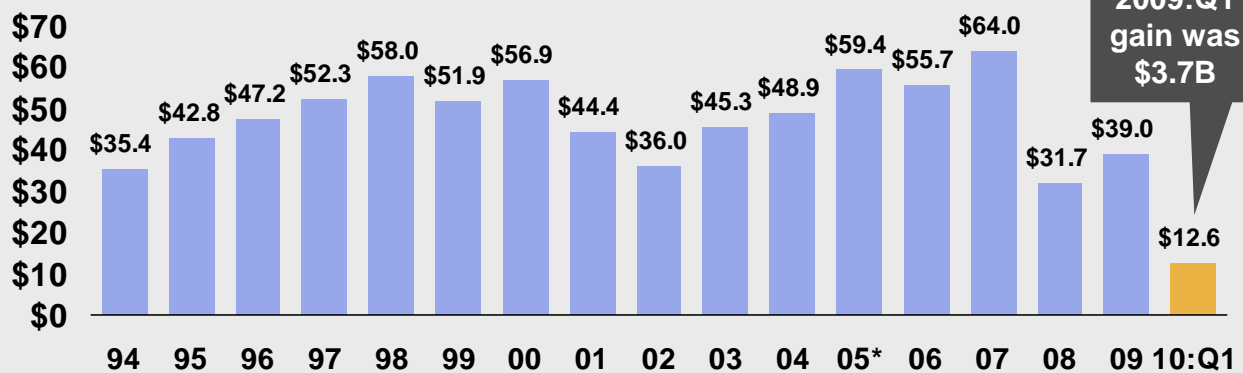
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## Property / Casualty Insurance Industry Investment

Gain: 1994-2010:Q1<sup>1</sup>

Billions USD



**In 2008, investment gains fell by 50% due to lower yields and nearly \$20B of realized capital losses. 2009 saw smaller realized capital losses but declining investment income.**

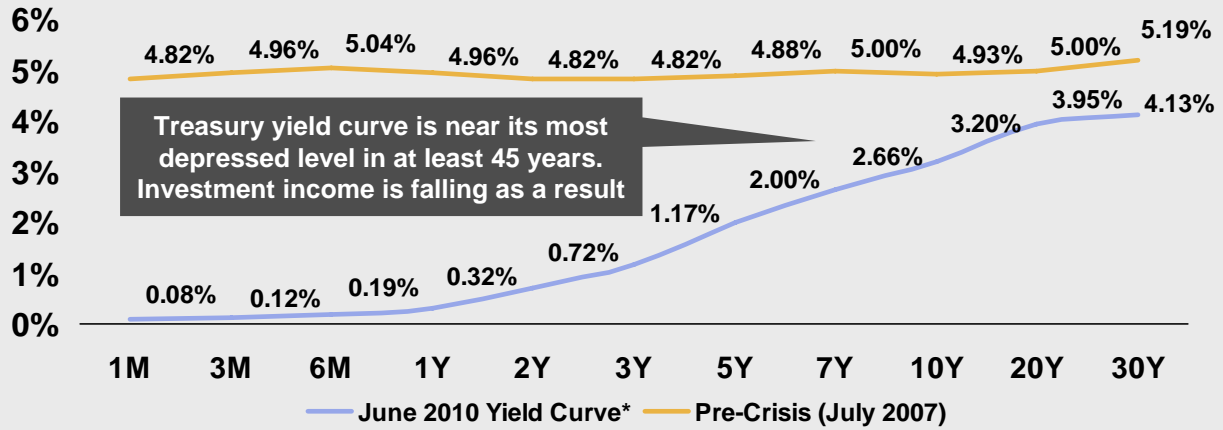
<sup>1</sup> Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.  
\* 2005 figure includes special one-time dividend of \$3.2B  
Sources: ISO; Insurance Information Institute

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## Treasury Yield Curves

Pre-Crisis (July 2007) vs. June 2010



Treasury yield curve is near its most depressed level in at least 45 years. Investment income is falling as a result

**Stock dividend cuts have further pressured investment income**

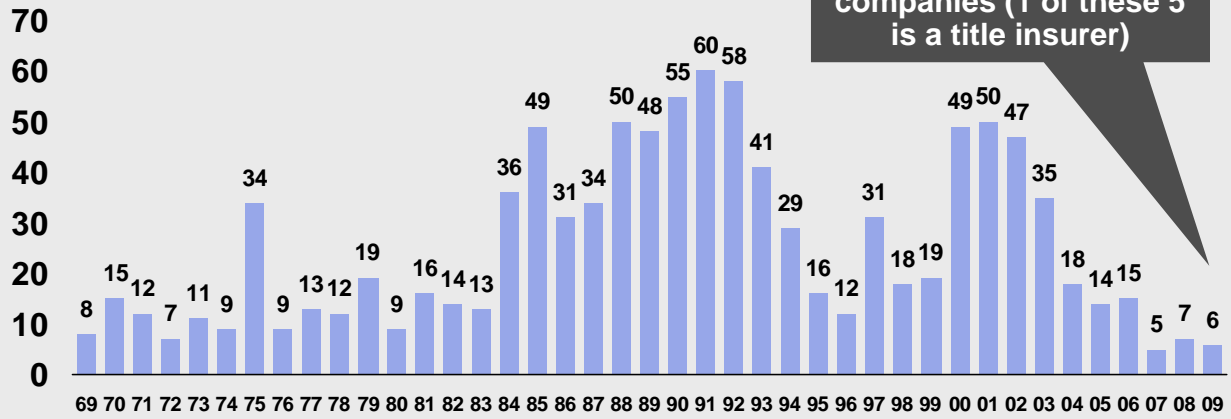
Sources: Board of Governors of the United States Federal Reserve Bank; Insurance Information Institute



## Financial Strength and Ratings

Industry Has Weathered the Storms Well

### P/C Insurer Impairments: 1969-2009

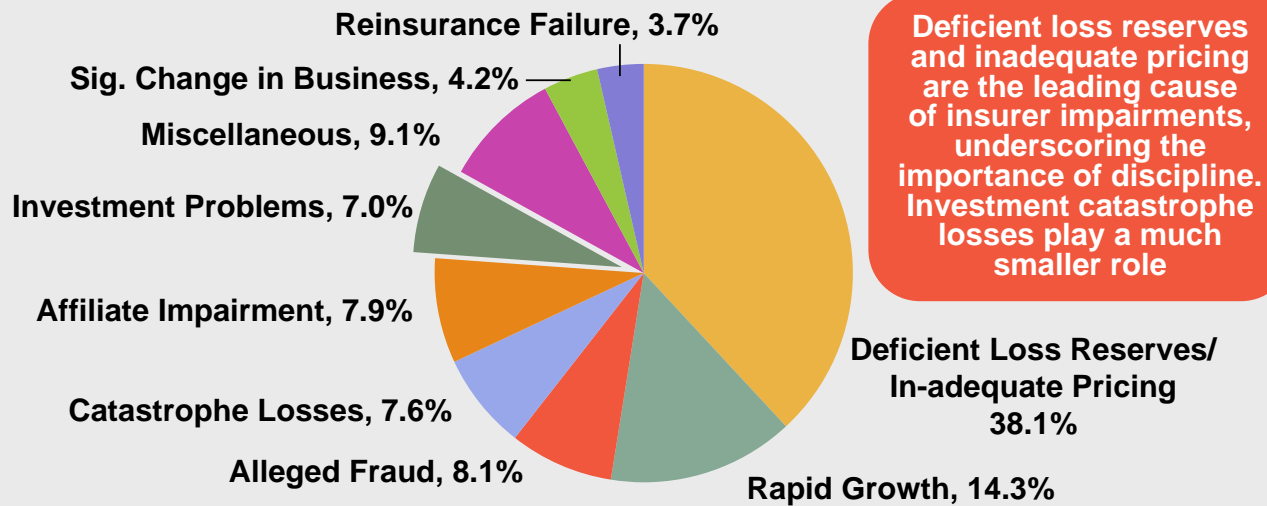


The number of impairments varies significantly over the P/C insurance cycle, with peaks occurring well into hard markets

Source: A.M. Best; Insurance Information Institute



### Reasons for US P/C Insurer Impairments: 1969-2008



Source: A.M. Best; 1969-2008 Impairment Review, Special Report, Apr. 6, 2009





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## Shifting Legal Liability and Tort Environment

### Is the Tort Pendulum Swinging Against Insurers?

## Important Issues & Threats Facing Insurers: 2010-2015

### 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 liability
- Historically *extremely* costly to p/c insurance industry
- Leads to reserve deficiency, rate pressure

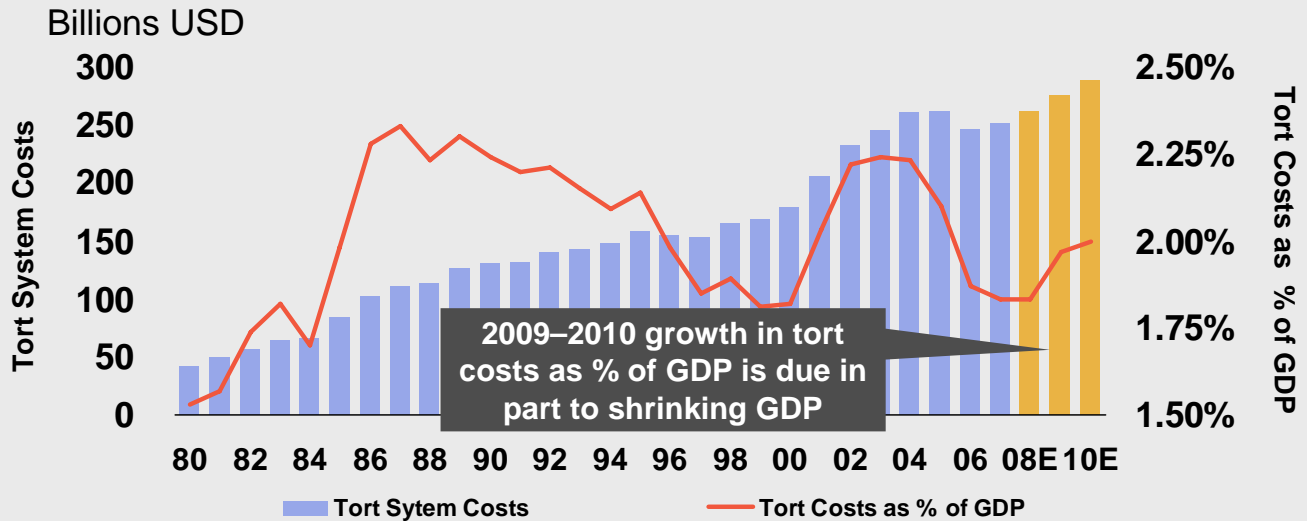
**Bottom line: tort “crisis” is on the horizon and will be  
recognized as such by 2012–2014**

Source: Insurance Information Institute

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## 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

## Business Leaders' Ranking of Liability Systems

### Best States

- Delaware
- North Dakota
- Nebraska
- Indiana
- Iowa
- Virginia
- Utah
- Colorado
- Massachusetts
- South Dakota

#### New in 2009

- North Dakota
- Massachusetts
- South Dakota

#### Drop-offs

- Maine
- Vermont
- Kansas

### Worst States

- New Mexico
- Florida
- Montana
- Arkansas
- Illinois
- California
- Alabama
- Mississippi
- Louisiana
- West Virginia

#### Newly Notorious

- New Mexico
- Montana
- Arkansas

#### Rising Above

- Texas
- South Carolina
- Hawaii

Midwest / West has mix of good and bad states

Source: US Chamber of Commerce 2009 State Liability Systems Ranking Study; Insurance Information Institute

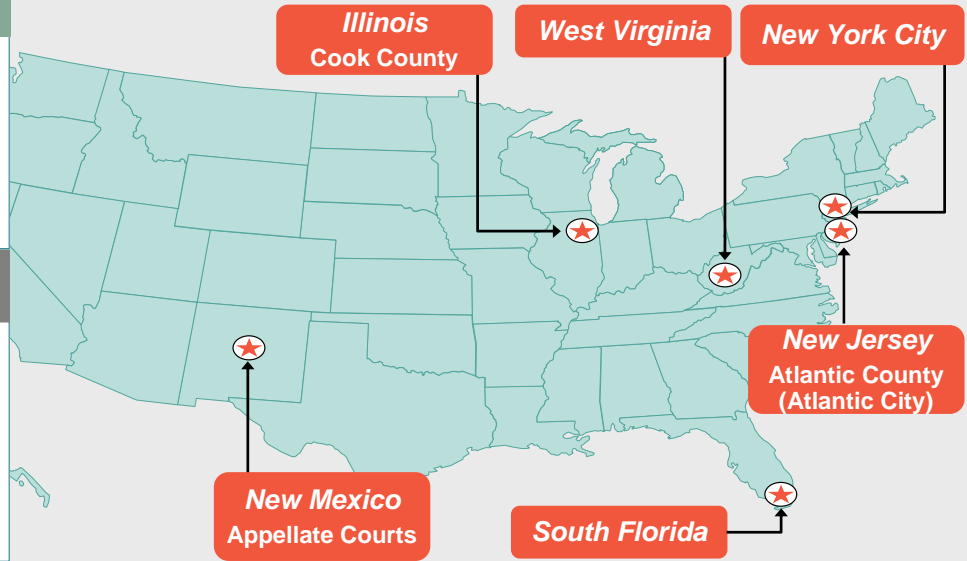
## The Nation's Judicial Hellholes: 2010

### Watch List

- California
- Alabama
- Madison County, IL
- Jefferson County, MS
- Texas Gulf Coast
- Rio Grande Valley, TX

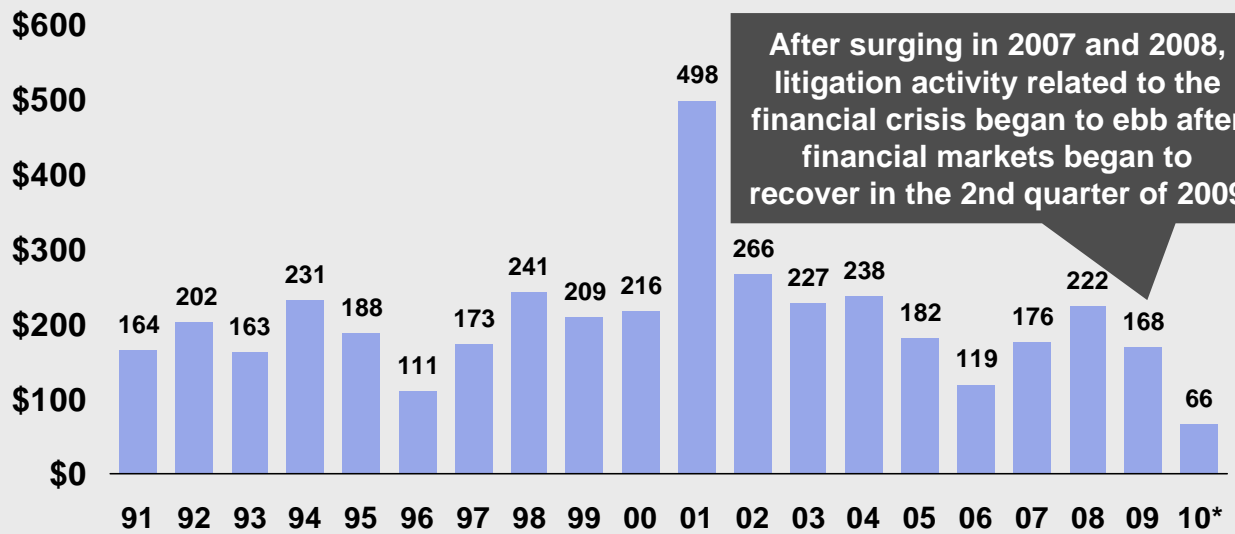
### Dishonorable Mention

- AR Supreme Court
- MN Supreme Court
- ND Supreme Court
- PA Governor
- MA Supreme Judicial Court
- Sacramento County



Source: American Tort Reform Association; Insurance Information Institute

## Securities Class Action Suits Filed: 1991-2010\*



\*Securities fraud suits filed in U.S. federal courts as of June 30, 2010  
 Source: Stanford University School of Law (securities.stanford.edu); Insurance Information Institute



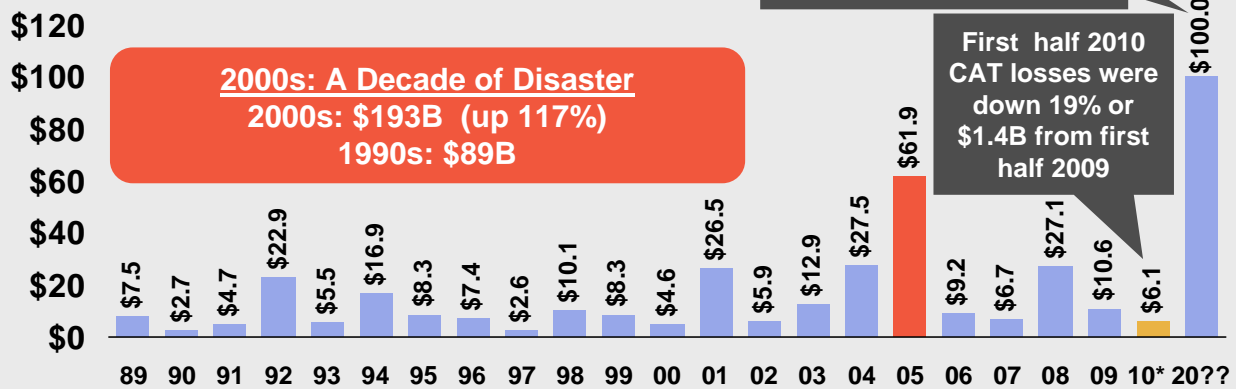
### Catastrophic Loss - Catastrophe Losses Are Trending Adversely

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### US Insured Catastrophe Losses

Billions USD



**2000s: A Decade of Disaster**  
 2000s: \$193B (up 117%)  
 1990s: \$89B

\$100 billion CAT year is coming eventually

First half 2010 CAT losses were down 19% or \$1.4B from first half 2009

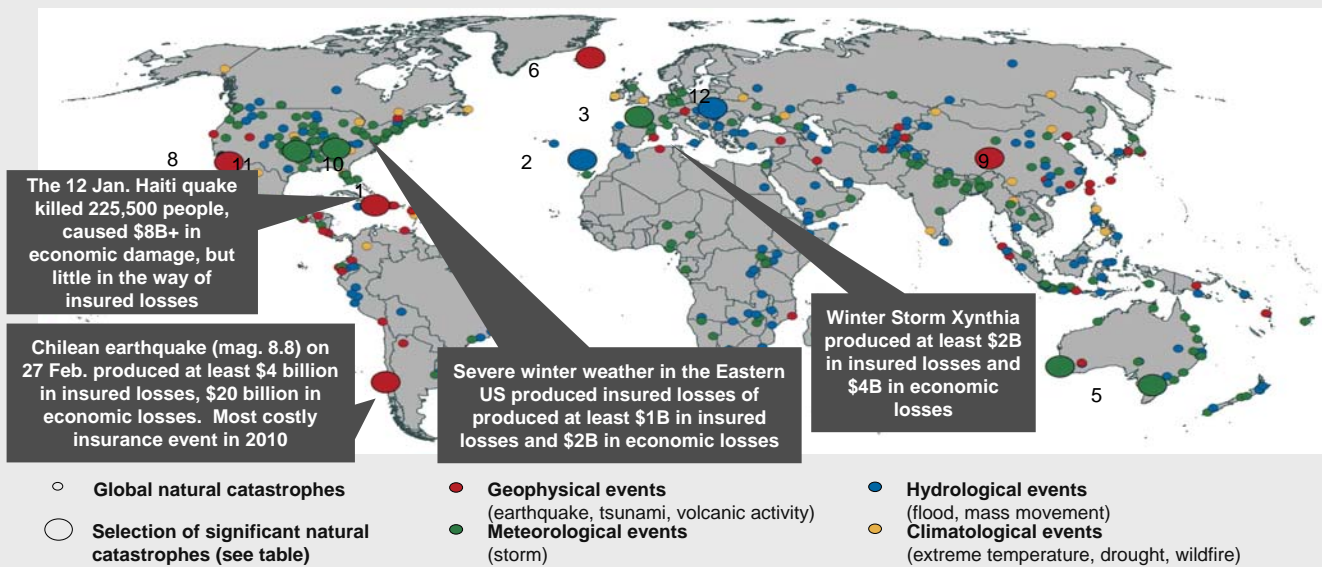
**2010 CAT losses are running below 2009, so far figures do not include an estimate of deepwater horizon loss**

\*Through June 30, 2010  
 Note: 2001 figure includes \$20.3B for 9/11 losses reported through 12/31/01. Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = \$12.2B  
 Sources: Property Claims Service/ISO; Munich Re; Insurance Information Institute

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## Global Natural Catastrophes: January-June 2010



© 2010 Münchener Rückversicherungs-Gesellschaft, Geo Risks Research, NatCatSERVICE – As at 16 June 2010

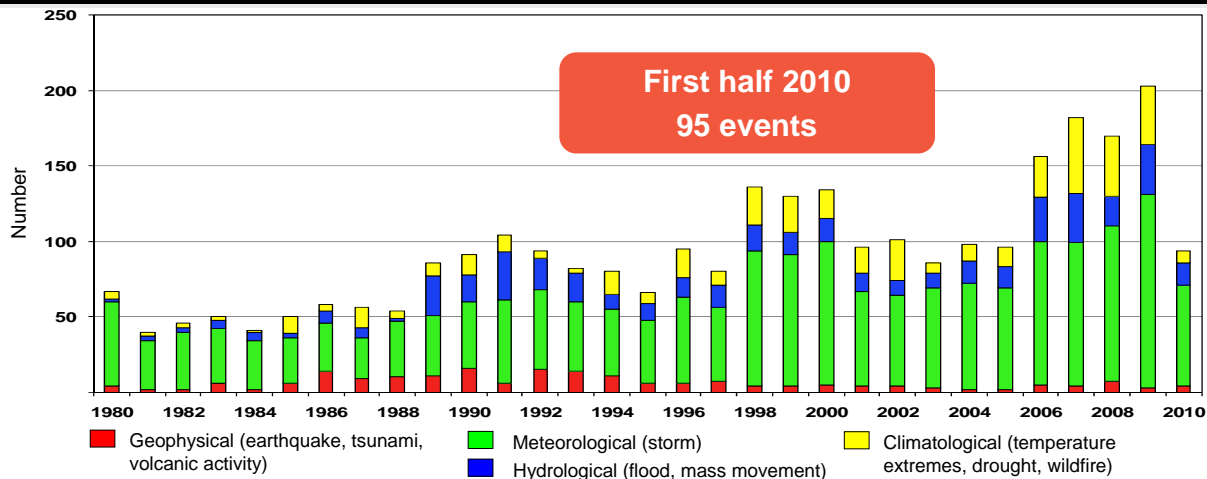
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## Natural Disasters in the United States: 1980-2010

Number of events (annual totals 1980-2009 vs. first half 2010)

Number of events in first half of 2010 is close to the annual totals from five of past ten years.



Source: MR NatCatSERVICE

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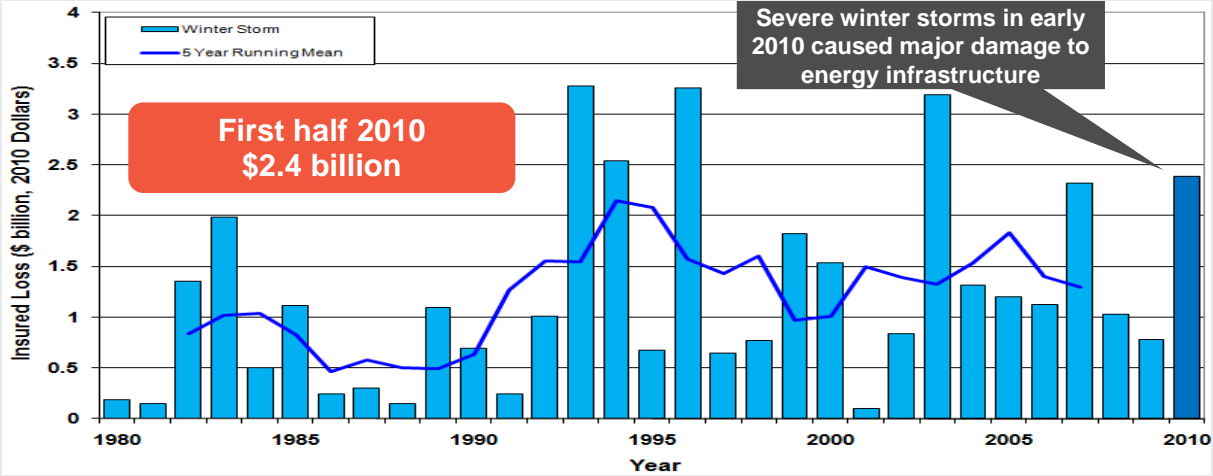
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## US Winter Storm Loss Trends

Annual totals 1980-2009 vs. first half 2010

Average annual winter storm losses have increased over 50% since 1980.



Source: Property Claims Service, MR NatCatSERVICE

© 2010 Munich Re

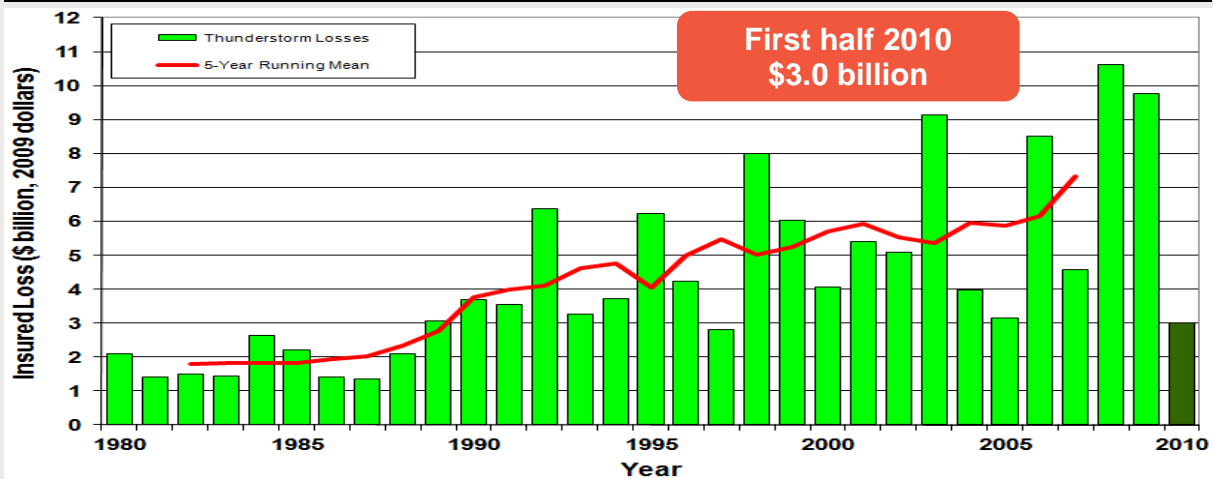
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## US Thunderstorm Loss Trends

Annual totals 1980-2009 vs. first half 2010

Thunderstorm losses have quadrupled since 1980.



Source: Property Claims Service, MR NatCatSERVICE

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## Outlook for 2010 North Atlantic Hurricane Season\*

Forecast Parameter	Average (1950-2000)	2010 Forecast*
Named Storms	9.6	18
Named Storm Days	49.1	90
Hurricanes	5.9	10
Hurricane Days	24.5	40
Major Hurricanes	2.3	5
Major Hurricane Days	5.0	13
Accumulated Cyclone Energy	96.1	185
<b>Net Tropical Cyclone Activity</b>	<b>100%</b>	<b>195%</b>

**The 2010 hurricane season is expected to be nearly twice as active as the long-run average (195% of normal)**

\*Forecast as of June 2, 2010  
Source: Colorado State University, Department of Atmospheric Sciences; Insurance Information Institute

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## Probability of Landfall of at Least One Major Hurricane (CAT 3-4-5) in 2010\*

Region	Average Over Last Century	2010 Forecast*
Entire U.S. Coastline	52%	76%
U.S. East Coast Incl. FL Peninsula	31%	51%
<b>Gulf Coast from FL Panhandle to Brownsville, TX</b>	<b>30%</b>	<b>50%</b>
Caribbean	42%	65%

**The probability of a major hurricane making landfall somewhere along the US coast is greatly elevated in 2010, including a 50% chance along the oil spill-impacted gulf coast**

\*Forecast as of June 2, 2010  
Source: Colorado State University, Department of Atmospheric Sciences; Insurance Information Institute

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## The Deepwater Horizon Disaster

### Insurance and Energy Market Implications

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## Largest International Oil Well Blowouts by Volume As of July 12, 2010

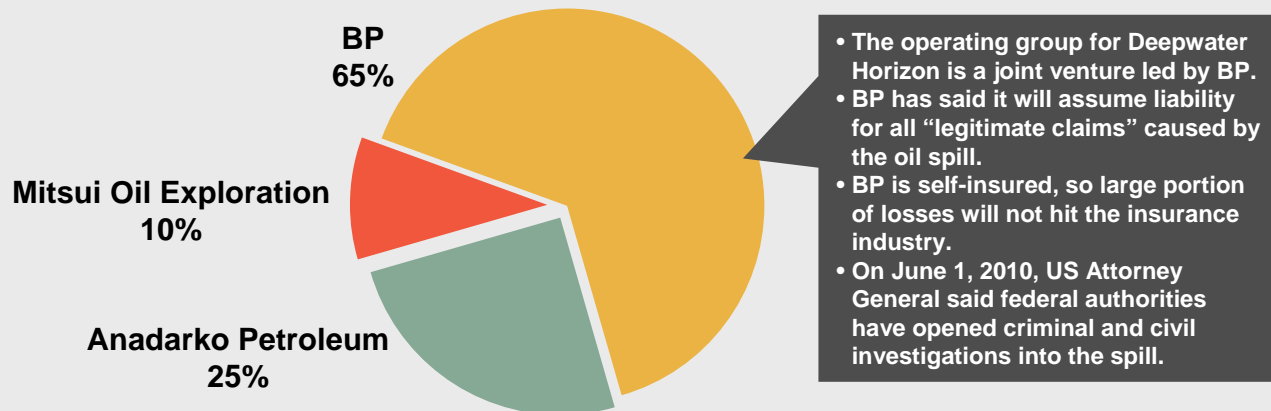
Date	Well	Location	Bbl Spilled
April 20 2010-present	Deepwater Horizon	Gulf of Mexico, USA	est. 4,050,000 thru July 12*
June 1979-April 1980	Ixtoc I	Bahia del Campeche, Mexico	3,300,000
October 1986	Abkatun 91	Bahia del Campeche, Mexico	247,000
April 1977	Ekofisk Bravo	North Sea, Norway	202,381
January 1980	Funiwa 5	Forcados, Nigeria	200,000
October 1980	Hasbah 6	Gulf, Saudi Arabia	105,000
December 1971	Iran Marine International	Gulf, Iran	100,000
January 1969	Alpha Well 21 Platform A	Pacific, CA, USA	100,000
March 1970	Main Pass Block 41 Platform C	Gulf of Mexico	65,000
October 1987	Yum II/Zapoteca	Bahia del Campeche, Mexico	58,643
December 1970	South Timbalier B-26	Gulf of Mexico, USA	53,095

\*Based on estimate of 50,000 barrels per day for 781 days derived from Flow Rate Technical Group whose members include U.S. Geological Survey (USGS), NOAA, Bureau of Ocean Energy Management (part of DOE) and outside academics. Does not include offset for any amounts recovered.  
Source: American Petroleum Institute (API), 09/18/2009; <http://www.api.org/ehs/water/spills/upload/356-Final.pdf> and updates from the Insurance Information Institute

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## Operating Group for Deepwater Horizon: Joint Venture



- The operating group for Deepwater Horizon is a joint venture led by BP.
- BP has said it will assume liability for all “legitimate claims” caused by the oil spill.
- BP is self-insured, so large portion of losses will not hit the insurance industry.
- On June 1, 2010, US Attorney General said federal authorities have opened criminal and civil investigations into the spill.

As of early July, BP says that its costs have exceeded \$3 billion, including \$105 million paid on 32,000 claims. BP CEO Tony Hayward is insisting “Other parties besides BP may be responsible for costs and liabilities arising from the oil spill, and we expect those parties to live up to their obligations.” But Anadarko accuses BP of gross negligence.

Source: Barclays Capital research note 05/10/10; I.I.I. research

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## Long-Run Implications of Deepwater Horizon on Energy & Energy Insurance Markets

- Deepwater Horizon will become the single most expensive environmental disaster in US history
- Reaction (and overreaction) to spill will have multi-decade impact on energy business
  - Impacts will not be confined to offshore oil & gas industry

Source: Insurance Information Institute

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## Long-Run Implications of Deepwater Horizon on Energy & Energy Insurance Markets

- Current administration's hostility toward some energy segments is obvious and politicization of Deepwater incident means there are potential impacts on:
  - Carbon legislation (cap & trade)
  - Coal mining & equipment (not just in the US)
  - Oil sands and pipeline projects
  - Utilities
  - Nuclear power
  - Alternative energy
  - Fiscal policy / "stimulus"

Source: Insurance Information Institute

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## Long-Run Implications of Deepwater Horizon US Energy Policy Shift

- Danger that Deepwater results in "Three Mile Island effect"
  - Regulatory, political reaction could make future deep water drilling impossible (logistically, economically)
  - Higher (unlimited) limits of financial responsibility
  - Drilling moratorium remains in effect despite impact on jobs, economy
  - CA, FL no longer willing to consider offshore drilling
- Hostility toward fossil fuels intensifies
  - More regulation (not necessarily based on facts or science)
  - Higher taxes on energy producers
  - Higher costs for consumers
  - Continued / higher subsidies for alternative fuels / technologies

Source: Insurance Information Institute

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## Long-Run Implications of Deepwater Horizon US Energy Policy Shift

- Corporate governance
  - Accountability for issue will quickly rise to the highest levels
  - The Tony Hayward legacy

Source: Insurance Information Institute

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## Oil Spill Testimony by I.I.I.

**Hearing on the Liability and Financial  
Responsibility for Oil Spills under the  
Oil Pollution Act of 1990 and Related  
Statutes**

**House Committee on Transportation  
and Infrastructure**

Testimony of  
Robert P. Hartwig, Ph.D., CPCU  
President & Economist  
Insurance Information Institute  
New York, NY

June 9, 2010  
Washington, DC



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**Thank you for your time  
and your attention!**

*Twitter: [twitter.com/bob\\_hartwig](https://twitter.com/bob_hartwig)*

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