An Industry and Economy in Transition:
Overview and Outlook for P/C Insurance Markets for 2012 & Beyond

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Presentation Outline

- U.S. Economic Overview and Outlook
  - Economy as a Growth Engine for P/C Insurers
  - Labor Market Review
- Summary of P/C Financial Performance
- Catastrophe Loss Developments & Trends
  - US, Global
- A History of Claim Activity in the US
- Will the Market Turn? Four Necessary Criteria:
  - Underwriting Loss Trends
  - Capital/Capacity
  - Reinsurance Markets
  - Pricing Discipline
- Analysis by Key Line
- Other Contributing Factors to the Underwriting Cycle
  - Investment Environment
  - Tort/Casualty Environment
  - Inflation
- Q&A
Economics 2012:
The World Is Changing

2012 Is the First Year Since 2005 Where Economic Perceptions and Reality in the US Will Be Positive

Potentially Enormous Benefits for P/C Insurers
Economic Outlook for 2012

- Economic Growth Will Accelerate Modestly in 2012/13, Beating Expectations
  - No Double Dip Recession
  - Economy is more resilient than most pundits presume
- Consumer Confidence Will Continue to Improve
- Consumer Spending/Investment Will Continue to Expand
- Consumer and Business Lending Continue to Expand
- Housing Market Remains Weak, but Some Improvement Expected in 2012
- Inflation Remains Tame
  - Runaway inflation highly unlikely but energy spike possible; Fed has things under control
  - Deflation—threat has virtually disappeared
- Private Sector Hiring Remains Consistently Positive, Exceeds Expectations
  - Unemployment dips below 8% by year’s end
- Sovereign Debt, Euro Currency/Economy, Muni Bond “Crises” Overblown
- Current Middle East Turmoil Poses Somewhat Greater Risk to US Economy
- Interest Rates Remain Low by Historical Standards; Edge Up by Year’s End
- Stock and Bond Markets More Stable, Less Volatile
- Political Environment Is More Hospitable to Business Interests
- Obama Wins Re-Election Based on Improving Economy; Foreign Policy
Insurance Industry Predictions for 2012

- P/C Insurance Exposures Grow Robustly
  - Personal and commercial exposure growth is certain in 2012; Strongest since 2004
  - But restoration of destroyed exposure will take until mid-decade

- P/C Industry Growth in 2012 Will Be Strongest Since 2003
  - Growth likely to exceed A.M. Best projection of +3.8% for 2012
  - No traditional “hard market” emerges in 2012

- Underwriting Fundamentals Deteriorate Modestly
  - Some pressure from claim frequency, in some severity in key lines

- Increasing Private Sector Hiring Will Drive Payrolls/WC Exposures
  - Wage growth is also positive and could modestly accelerate
  - WC will prove to be tough to fix from an underwriting perspective

- Increase in Demand for Commercial Insurance Will Accelerate in 2012
  - Includes workers comp, property, marine, many liability coverages
  - Laggards: inland marine, aviation, commercial auto, surety
  - Personal Lines: Auto leads, homeowners lags (though HO leads in NPW growth due to rates)

- Investment Environment Is/Remains Much More Favorable
  - Return of realized capital gains as a profit driver
  - Interest rates remain low; Some upward pressured if economic strength surprises

- Industry Capacity Hits a New Record by Year-End 2012 (Barring Mega-CAT)
The Strength of the Economy Will Influence P/C Insurer Growth Opportunities

Growth Will Expand Insurable Exposures and Help Absorb Excess Capital
US Real GDP Growth*

The Q4:2008 decline was the steepest since the Q1:1982 drop of 6.8%

Recession began in Dec. 2007. Economic toll of credit crunch, housing slump, labor market contraction has been severe but modest recovery is underway

2011 got off to a sluggish start, but growth is expected to proceed at a modest pace in 2012-2013

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

* Estimates/Forecasts from Blue Chip Economic Indicators.
Source: US Department of Commerce, Blue Economic Indicators 1/12; Insurance Information Institute.
Optimism among consumers is recovering, in part due to an improving jobs outlook, after plunging amid the debt debate debacle and S&P downgrade.

Consumer confidence has been low for years amid high unemployment, falling home prices and other factors adversely impact consumers, but improved substantially in late 2011 and early 2012.

Source: University of Michigan; Insurance Information Institute
New auto/light truck sales fell to the lowest level since the late 1960s. Forecast for 2012-13 is still far below 1999-2007 average of 17 million units, but a recovery is underway.

Job growth and improved credit market conditions will boost auto sales in 2012 and beyond.

Car/Light Truck Sales Will Continue to Recover from the 2009 Low Point, Bolstering the Auto Insurer Growth and the Manufacturing Sector.

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (10/11 and 1/12); Insurance Information Institute.
New Private Housing Starts, 1990-2022F

The plunge and lack of recovery in homebuilding and in construction in general is holding back payroll exposure growth.

Little Exposure Growth Likely for Homeowners Insurers Until at least 2014. Also Affects Commercial Insurers with Construction Risk Exposure, Surety

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (10/11 and 1/12); Insurance Information Institute.
The manufacturing sector has been expanding and adding jobs. The question is whether this will continue.

The value of Manufacturing Shipments in Dec. 2011 was up 29.0% to $459B from its May 2009 trough. Dec. figure is only 5.3% below its previous record high.

Monthly shipments are nearly back to peak (in July 2008, 8 months into the recession). Trough in May 2009. Growth from trough to December 2011 was 29.0%. This growth leads to gains in many commercial exposures: WC, Commercial Auto, Property and Various Liability Coverages.

Recovery in Capacity Utilization is a Positive Sign for Commercial Exposures

The US operated at 78.1% of industrial capacity in Dec. 2011, above the June 2009 low of 68.3% and a post-crisis high.

The closer the economy is to operating at “full capacity,” the greater the inflationary pressure.

Non-manufacturing industries have been expanding and adding jobs. The question is whether this will continue.

Source: Institute for Supply Management; Insurance Information Institute
2010 bankruptcies totaled 56,282, down 7.5% from 60,837 in 2009—which were up 40% from 2008 and the most since 1993. As of 2011:Q3 filings are down 15.4% from 2010:Q3.

Sources: American Bankruptcy Institute at http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=61633; Insurance Information Institute
Business starts were up 4.5% to 370,000 in the first half of 2011 vs. first half 2011. 722,000 new business starts were recorded in 2010, up 3.6% from 697,000 in 2009, which was the slowest year for new business starts since 1993.

* Data through June 30, 2011 are the latest available as of February 6, 2012; Seasonally adjusted; **Annualized based on 2011:H1 actual data.

### 11 Industries for the Next 10 Years: Insurance Solutions Needed

<table>
<thead>
<tr>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care</td>
</tr>
<tr>
<td>Health Sciences</td>
</tr>
<tr>
<td>Energy (Traditional)</td>
</tr>
<tr>
<td>Alternative Energy</td>
</tr>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Natural Resources</td>
</tr>
<tr>
<td>Environmental</td>
</tr>
<tr>
<td>Technology (incl. Biotechnology)</td>
</tr>
<tr>
<td>Light Manufacturing</td>
</tr>
<tr>
<td>Export-Oriented Industries</td>
</tr>
<tr>
<td>Shipping (Rail, Marine, Trucking)</td>
</tr>
</tbody>
</table>

Many industries are poised for growth, but many insurers do not write in these economic segments.
Massive Job Losses Sapped the Economy and Commercial/Personal Lines Exposure, But Trend is Improving
Unemployment and Underemployment Rates: Stubbornly High in 2011, But Falling

January 2000 through January 2012, Seasonally Adjusted (%)

Traditional Unemployment Rate U-3

Unemployment + Underemployment Rate U-6

Recession ended in November 2001

Unemployment kept rising for 19 more months

Recession began in December 2007

U-6 went from 8.0% in March 2007 to 17.5% in October 2009; Stood at 15.1% in Jan. 2012

Unemployment stood at 8.3% in January 2012

Unemployment peaked at 10.1% in October 2009, highest monthly rate since 1983.

Peak rate in the last 30 years: 10.8% in November - December 1982

Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is now clearly improving

Monthly Change in Private Employment

January 2008 through January 2012* (Thousands)


Monthly Losses in Dec. 08–Mar. 09 Were the Largest in the Post-WW II Period

257,000 private sector jobs were created in January


Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.
Sources: [http://research.stlouisfed.org/fred2/series/WASCUR](http://research.stlouisfed.org/fred2/series/WASCUR); National Bureau of Economic Research (recession dates); Insurance Information Institute.
In December, 37 states and the District of Columbia reported over-the-month unemployment rate decreases, 3 had increases, and 10 had no change.

*Provisional figures for December 2011, seasonally adjusted.

In December, 37 states and the District of Columbia reported over-the-month unemployment rate decreases, 3 had increases, and 10 had no change.

*Provisional figures for December 2011, seasonally adjusted.
US Unemployment Rate

2007:Q1 to 2013:Q4F*

Rising unemployment eroded payrolls and workers comp’s exposure base. Unemployment peaked at 10% in late 2009.

Unemployment forecasts remain stubbornly high through 2012, but still imply millions of new jobs will be created.

Jobless figures have been revised downwards for 2012.

* = actual;      = forecasts

Sources: US Bureau of Labor Statistics; Insurance Information Institute (forecasts)
Insurance Industry Employment Trends

Soft Market, Difficult Economy, Outsourcing, Productivity Enhancements and Consolidation Have Contributed to Industry’s Job Losses

This spurt results from 2010 census data and revised industry counts. BLS adjusted data for March 2010 through March 2011 but did not revise pre-March 2010 counts. Employment numbers prior to March 2011 are not comparable to subsequent data.

*As of December 2011; Not seasonally adjusted; Does not including agents & brokers.
Note: Recessions indicated by gray shaded columns.
As of December 2011, claims adjusting employment was down by 2,500 or 4.8% to 49,500 since the recession began in Dec. 2007 (compared to overall US employment decline of 4.1%).

*As of December 2011; Not seasonally adjusted.

Note: Recessions indicated by gray shaded columns.

As of December 2011, Life insurance industry employment was down by 10,500 or 3.0% to 343,800 since the recession began in Dec. 2007 (compared to overall US employment decline of 4.1%).

Every 4-5 years BLS reconciles its data with census data; sometimes this reclassifies employment within industries. This drop, spread over March 2004-March 2005, moved some people to the Health/Medical Expense sector.

*As of December 2011; Not seasonally adjusted; Does not including agents & brokers.

Note: Recessions indicated by gray shaded columns.

As of December 2011, Health-Medical insurance industry employment was down by 11,000 or 2.5% to 430,900 since the recession began in Dec. 2007 (compared to overall US employment decline of 4.1%).

*As of December 2011; Not seasonally adjusted; Does not including agents & brokers.

Note: Recessions indicated by gray shaded columns.

As of December 2011, US employment in the reinsurance industry was up by 400 or 1.5% to 27,300 since the recession began in Dec. 2007 (compared to overall US employment decline of 4.1%).

*As of December 2011; Not seasonally adjusted; Does not including agents & brokers.
Note: Recessions indicated by gray shaded columns.
As of December 2011, employment at insurance agencies and brokerages was down by 33,000 or 4.9% to 646,600 since the recession began in Dec. 2007 (compared to overall US employment decline of 4.1%).

*As of December 2011; Not seasonally adjusted. Includes all types of insurance.
Note: Recessions indicated by gray shaded columns.
U.S. Employment in Third-Party Administration of Insurance Funds: 1990–2011*

Thousands

*As of December 2011; Not seasonally adjusted. Includes all types of insurance.

Note: Recessions indicated by gray shaded columns.

Profit Recovery Was Set Back in 2011 by High Catastrophe Loss & Other Factors
P/C Net Income After Taxes
1991–2011:Q3 ($ Millions)

P-C Industry 2011:Q3 profits were down 71% to $8.0B vs. 2010:Q3, due primarily to high catastrophe losses and as non-cat underwriting results deteriorated.

* ROE figures are GAAP; \(^1\)Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 3.0% ROAS for 2011:Q3, 7.5% for 2010 and 7.4% for 2009.

Sources: A.M. Best, ISO, Insurance Information Institute
A 100 Combined Ratio Isn’t What It Once Was: Investment Impact on ROEs

A combined ratio of about 100 generated ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979.

Combined Ratios Must Be Lower in Today’s Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2008-2010 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2011-12 combined ratios are A.M. Best estimate excl. M&FG insurers.

Source: Insurance Information Institute from A.M. Best and ISO data.
Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2012F*

History suggests next ROE peak will be in 2016-2017

*Profitability = P/C insurer ROEs. 2011-12 figures are A.M. Best estimates. Note: Data for 2008-2012 exclude mortgage and financial guaranty insurers. For 2011:Q3 ROAS = 1.9% including M&FG.
Source: Insurance Information Institute; NAIC, ISO, A.M. Best.
ROE: Property/Casualty Insurance vs. Fortune 500, 1987–2011*

P/C Profitability Is Both by Cyclicality and Ordinary Volatility

Sources: ISO, Fortune; A.M. Best (2011 P/C ROE); Insurance Information Institute (2011 Fortune 500 est.)
The P/C Insurance Industry Fell Well Short of Its Cost of Capital Every Year Since 2008

US P/C Insurers Missed Their Cost of Capital by an Average 6.7 Points from 1991 to 2002, but on Target or Better 2003-07, Fell Short in 2008-2010

The Cost of Capital is the Rate of Return Insurers Need to Attract and Retain Capital to the Business

* Return on average surplus used as proxy for ROE in 2008-2010 and excluding mortgage and financial guaranty insurers for these years. 2011 figure is A.M. Best ROE estimate. Change in model methodology in 2011 increased cost of capital by approximately 90 basis points.

Source: The Geneva Association, Insurance Information Institute
P/C Insurance Industry ROE vs. Fortune 500, 1975 – 2011*

*2011 is A.M. Best figure excl. mortgage and financial guaranty segments.
Source: Insurance Information Institute; NAIC, ISO.
Global Catastrophe Loss Developments and Trends

2011 Rewrote Catastrophe Loss and Insurance History

But Will Losses Turn the Market?
Global Catastrophe Loss Summary: 2011

- **2011 Was the Highest Loss Year on Record for Economic Losses Globally**
  - Extraordinary accumulation of severe natural catastrophe: Earthquakes, tsunami, floods and tornadoes are the primary causes of loss

- **$380 Billion in Economic Losses Globally (New Record)**
  - New record, exceeding the previous record of $270B in 2005

- **$105 Billion in Insured Losses Globally**
  - 2011 losses were 2.5 times 2010 insured losses of $42B
  - Second only to 2005 on an inflation adjusted basis (new record on a unadjusted basis)
  - Over 5 times the 30-year average of $19B

- **$72.8 Billion in Economic Losses in the US**
  - Represents a 129% increase over the $11.8 billion amount through the first half of 2010

- **$35.9 Billion in Insured Losses in the US Arising from 171 CAT Events**
  - Fifth highest year on record
  - Represents 51% increase over the $23.8 billion total in 2010

Source: Munich Re; Insurance Information Institute.
Natural Loss Events, 2011

World Map

Number of Events: 820

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

Source: MR NatCatSERVICE
## Natural Catastrophes Worldwide, 2011

### Overview and Comparison with Previous Years

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
<th>Average of the last 10 years 2001-2010</th>
<th>Average of the last 30 years 1981-2010</th>
<th>Top Year 1981-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of events</td>
<td>820</td>
<td>970</td>
<td>790</td>
<td>630</td>
<td>2007 (1,025)</td>
</tr>
<tr>
<td>Overall losses in US$ m (original values)</td>
<td>380,000</td>
<td>152,000</td>
<td>113,000</td>
<td>75,000</td>
<td>2005 (227,000)</td>
</tr>
<tr>
<td>Insured losses in US$ m (original values)</td>
<td>105,000</td>
<td>42,000</td>
<td>35,000</td>
<td>19,000</td>
<td>2005 (101,000)</td>
</tr>
<tr>
<td>Fatalities</td>
<td>27,000</td>
<td>296,000</td>
<td>106,000</td>
<td>69,000</td>
<td>2010 (296,000)</td>
</tr>
</tbody>
</table>

Source: MR NatCatSERVICE

© 2011 Munich Re
## 5 Costliest Natural Catastrophes Worldwide in Terms of Insured Losses, 2011 ($Mill)

<table>
<thead>
<tr>
<th>Date</th>
<th>Region</th>
<th>Event</th>
<th>Fatalities</th>
<th>Overall losses US$ m</th>
<th>Insured losses US$ m</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 11</td>
<td>Japan</td>
<td>Earthquake, tsunami</td>
<td>15,840</td>
<td>210,000</td>
<td>35,000-40,000</td>
</tr>
<tr>
<td>Feb. 22</td>
<td>New Zealand</td>
<td>Earthquake</td>
<td>181</td>
<td>16,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Aug. 1 – Nov. 15</td>
<td>Thailand</td>
<td>Floods, landslides</td>
<td>813</td>
<td>40,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Apr. 22-28</td>
<td>USA</td>
<td>Severe storms/tornadoes</td>
<td>350</td>
<td>15,000</td>
<td>7,300</td>
</tr>
<tr>
<td>Aug. 22 - Sep. 2</td>
<td>USA, Caribbean</td>
<td>Hurricane Irene</td>
<td>55</td>
<td>15,000</td>
<td>7,000</td>
</tr>
</tbody>
</table>

Source: MR NatCatSERVICE
In 2011, just 37% of insured natural catastrophe losses were in the Americas, barely half the average of 66% over the prior 30 years (1981-2010).

<table>
<thead>
<tr>
<th>Continent</th>
<th>Insured losses US$ m</th>
</tr>
</thead>
<tbody>
<tr>
<td>America (North and South America)</td>
<td>40,000</td>
</tr>
<tr>
<td>Europe</td>
<td>2,000</td>
</tr>
<tr>
<td>Africa</td>
<td>Minor damages</td>
</tr>
<tr>
<td>Asia</td>
<td>45,000</td>
</tr>
<tr>
<td>Australia/Oceania</td>
<td>18,000</td>
</tr>
</tbody>
</table>

In 2011, 61% of insured natural catastrophe losses were in the Asia/Pacific region, nearly 3.5 times the average of 13% over the prior 30 years (1981-2010).

Source: MR NatCatSERVICE
In 2011, 61% of natural catastrophe losses were in the Asia/Pacific region, nearly 3.5 times the average of 13% over the prior 30 years (1981-2010).
2011 set a record for both overall economic losses in Asia ($266B) and insured losses ($45B). The rapid economic development of Asia and increased insurance penetration guarantee that losses will trend higher in the future.
Top 16 Most Costly World Insurance Losses, 1970-2011**

(Insured Losses, 2011 Dollars, $ Billions)

5 of the top 14 most expensive catastrophes in world history have occurred within the past 2 years

Taken as a single event, the Spring 2011 tornado and thunderstorm season would likely become the 5th costliest event in global insurance history

*Average of range estimates of $35B - $40B as of 1/4/12; Privately insured losses only.
**Figures do not include federally insured flood losses.
Sources: Swiss Re sigma 1/2011; Munich Re; Insurance Information Institute research.
There were 820 events in 2011.
Worldwide Natural Disasters 1980–2011, Overall and Insured Losses

(Insured Losses, 2011 Dollars, $ Billions)

Overall losses (in 2011 values)    Insured losses (in 2011 values)

2011
Overall Losses: $380 Bill
Insured Losses: $105 Bill

Source: MR NatCatSERVICE

© 2011 Munich Re
U.S. Insured Catastrophe Loss Update

2011 Was One of the Most Expensive Years on Record
Top 14 Most Costly Disasters in U.S. History

(Insured Losses, 2011 Dollars, $ Billions)

Taken as a single event, the Spring 2011 tornado and storm season are is the 4th costliest event in US insurance history.

Hurricane Irene became the 11th most expense hurricane in US history.

*Losses will actually be broken down into several “events” as determined by PCS. Includes losses for the period April 1 – June 30. Sources: PCS; Insurance Information Institute inflation adjustments.
Natural Disasters in the United States, 1980 – 2011
Number of Events (Annual Totals 1980 – 2011)

There were 117 natural disaster events in 2011

Source: MR NatCatSERVICE
Losses Due to Natural Disasters in the US, 1980–2011 (Overall & Insured Losses)

(2011 Dollars, $ Billions)

2011 was the 5th most expensive year on record for insured catastrophe losses in the US.

Approximately 50% of the overall cost of catastrophes in the US was covered by insurance in 2011.

Overall Losses: $72.8 Bill
Insured Losses: $35.9 Bill

Source: MR NatCatSERVICE
© 2011 Munich Re
US Insured Catastrophe Losses

($ Billions, 2011 Dollars)

$100 Billion CAT Year is Coming Eventually

Record Tornado Losses Caused 2011 CAT Losses to Surge

US CAT Losses in 2011 Were the 5th Highest in US History on An Inflation Adjusted Basis

*PCS estimate through Sept. 30, 2011.

Note: 2001 figure includes $20.3B for 9/11 losses reported through 12/31/01 ($25.9B 2011 dollars). Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = $12.2B ($15.6B in 2011 dollars.)

Sources: Property Claims Service/ISO; Insurance Information Institute.
# Natural Disaster Losses in the United States: 2011

As of Jan. 1, 2012

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Number of Events</th>
<th>Fatalities</th>
<th>Estimated Overall Losses (US $m)</th>
<th>Estimated Insured Losses (US $m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe Thunderstorm</td>
<td>69</td>
<td>617</td>
<td>46,548</td>
<td>25,813</td>
</tr>
<tr>
<td>Winter Storm</td>
<td>9</td>
<td>67</td>
<td>2,708</td>
<td>2,017</td>
</tr>
<tr>
<td>Flood</td>
<td>14</td>
<td>20</td>
<td>2,705</td>
<td>535</td>
</tr>
<tr>
<td>Earthquake</td>
<td>5</td>
<td>1</td>
<td>257</td>
<td>50</td>
</tr>
<tr>
<td>Tropical Cyclone</td>
<td>3</td>
<td>0</td>
<td>10,700</td>
<td>5,510</td>
</tr>
<tr>
<td>Wildfire</td>
<td>58</td>
<td>15</td>
<td>1,922</td>
<td>855</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>33</td>
<td>8,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Source: MR NatCatSERVICE
2011’s Most Expensive Catastrophes, Insured Losses

Thunderstorms, Apr. 22-26: $7,300
Thunderstorms, May 20-27: $6,900
Hurricane Irene, Aug. 26-28**: $5,000
Thunderstorms, Apr. 3-5: $2,000
Thunderstorms, Apr. 8-11: $1,510
Thunderstorms, Apr. 14-16: $1,400
Thunderstorms, Jun. 16-22: $1,200
Texas Drought, 2011*: $1,000
Thunderstorms, Jul. 10-14: $980
Winter Storm, Jan. 31-Feb. 3: $975
Thunderstorms, Aug. 18-19: $840
Thunderstorms, Apr. 19-20: $830
Wildfire, Sep. 4-19: $530
Flooding, April*: $500

Includes $1.65B in AL, mostly in the Tuscaloosa and Birmingham areas

Includes approximately $2B in losses for May 22 Joplin tornado

Includes $700 million in flood losses insured through the National Flood Insurance Program.

Source: PCS except as noted by “**” which are sourced to Munich Re; Insurance Information Institute.
Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2011*

The Catastrophe Loss Component of Private Insurer Losses Has Increased Sharply in Recent Decades

*Insurance Information Institute estimates for 2010 and 2011 based on A.M. Best data.

Notes: Private carrier losses only. Excludes loss adjustment expenses and reinsurance reinstatement premiums. Figures are adjusted for losses ultimately paid by foreign insurers and reinsurers.

Source: ISO; Insurance Information Institute.
Thunderstorm losses in 2011 totaled a record $25.8 billion.

Hurricanes get all the headlines, but thunderstorms are consistent producers of large scale loss. 2008-2011 are the most expensive years on record.

Average thunderstorm losses are up more than 5 fold since the early 1980s.

Source: Property Claims Service, MR NatCatSERVICE
Insured winter storm losses in 2011 totaled $2.0 billion. Average winter storm losses have nearly doubled since the early 1980s.

Source: Property Claims Service, MR NatCatSERVICE

8.3 millions acres were burned by wildfires in 2011, one of the worst years on record, causing $855 in insured losses.

Source: National Forest Service, MR NatCatSERVICE
Notable Wildfires in 2011

- Worst wildfire year on record in Texas due to persistent drought.

- **Spring**: Over 3 million acres burned in west Texas from 12 major seats of fire. Over 200 homes and businesses destroyed, $50 million insured loss.

- **September**: Bastrop County Complex Fire near San Antonio destroys over 1,600 homes, insured loss of $530 million.

Source: FEMA
U.S. Insured Catastrophe Losses by Cause of Loss, 2011 ($ Millions)

- Hurricanes & Tropical Storms, $5,510 (72.1%)
- Thunderstorms (Incl. Tornadoes), $25,813 (15.4%)
- Flood, $535, (1.5%)
- Wildfires, $855 (2.8%)
- Winter Storms, $2,017 (5.6%)
- Other, $1,000 (1.5%)
- Geological Events, $50, (0.1%)

Thunderstorm/Tornado losses were 2.5 times above the 30-year average.

2011’s insured loss distribution was unusual with tornado and thunderstorm accounting for the vast majority of loss.

Source: ISO’s Property Claim Services Unit, Munich Re; Insurance Information Institute.
Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1990–2011:H1

1. Catastrophes are defined as events causing direct insured losses to property of $25 million or more in 2009 dollars.
2. Excludes snow.
3. Does not include NFIP flood losses
4. Includes wildland fires
5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.
2011: Nowhere to Run, Nowhere to Hide

Most of the Country East of the Rockies Suffered Severe Weather in 2011, Impacting Most Insurers
The number of federal disaster declarations set a new record in 2011, with 99, shattering 2010’s record 81 declarations.

There have been 2,049 federal disaster declarations since 1953. The average number of declarations per year is 34 from 1953-2010, though that few haven’t been recorded since 1995.

The Number of Federal Disaster Declarations Is Rising and Set a New Record in 2011


Over the past nearly 60 years, Texas has had the highest number of Federal Disaster Declarations.


Federal Disasters Declarations by State, 1953 – 2012: Lowest 25 States*

Over the past nearly 60 years, Utah and Rhode Island had the fewest number of Federal Disaster Declarations.


SPRING 2011 TORNADO & SEVERE STORM OUTBREAK

2011 Losses Are Putting Pressure on US P/C Insurance and Reinsurance Markets
Number of Tornadoes and Related Deaths, 1990 – 2012*

Tornadoes claimed 550 lives in 2011, the most since 1925

There were 1,709 tornadoes recorded in the US in 2011

Insurers Expect to Pay at Least $2 Billion Each for the April 2011 Tornadoes in Alabama and a Similar Amount for the May Storms in Joplin

*Through February 5, 2012.
There were 1,893 tornadoes in the US in 2011 far above average, but well below 2008's record.

Deadly and costly April/May spike

Source: [http://www.spc.noaa.gov/wcm/](http://www.spc.noaa.gov/wcm/)
Insurers Making a Difference in Impacted Communities

Destroyed home in Tuscaloosa. Insurers will pay some 165,000 claims totaling $2 billion in the Tuscaloosa/Birmingham areas alone.

Presentation of a check to Tuscaloosa Mayor Walt Maddox to the Tuscaloosa Storm Recovery Fund

Source: Insurance Information Institute
1,894 tornadoes killed 552 people in 2011, including at least 340 on April 26 mostly in the Tuscaloosa area, and 130 in Joplin on May 22.

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#
Location of Large Hail Reports in the US, 2011

There were 9,417 “Large Hail” reports in 2011, causing extensive damage to homes, businesses and vehicles.

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#
Location of Wind Damage Reports in the US, 2011

There were 18,685 “Wind Damage” reports through Dec. 27, causing extensive damage to homes and businesses.

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#
Severe Weather Reports, 2011

There were 29,996 severe weather reports in 2011; including 1,894 tornadoes; 9,417 “Large Hail” reports and 18,685 high wind events.

Number of Severe Weather Reports in US, by Type, 2011

- Tornadoes, 1,894, 6%
- Large Hail, 9,417, 31%
- Wind Damage, 18,685, 63%

Tornadoes accounted for just 6% of all Severe Weather Reports but more than 550 deaths in 2011, the most in 75 years.

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#
The BIG Question: When Will the Market Turn?

Are Catastrophes and Other Factors Pressuring Insurance Markets?
## Criteria Necessary for a “Market Turn”:
### All Four Criteria Must Be Met

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Status</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Sustained Period of Large Underwriting Losses | Early Stage, Inevitable | • Apart from 2011 CAT losses, overall p/c underwriting losses remain modest  
• Combined ratios (ex-CATs) still in low 100s (vs. 110+ at onset of last hard market)  
• Prior-year reserve releases continue to reduce u/w losses, boost ROEs, though more modestly |
| Material Decline in Surplus/Capacity          | Entered 2011 At Record High; Since Fallen | • Surplus hit a record $565B as of 3/31/11  
• Fell by 4.6% through 9/30/11 (latest available)  
• Little excess capacity remains in reinsurance markets  
• Weak growth in demand for insurance is insufficient to absorb much excess capacity |
| Tight Reinsurance Market                      | Somewhat in Place        | • Much of the global “excess capacity” was eroded by cats  
• Higher prices in Asia/Pacific  
• Modestly higher pricing for US risks |
| Renewed Underwriting & Pricing Discipline      | Some Firming esp. in Property, WC | • Commercial lines pricing trends have turned from negative to flat or up in some lines (property, WC); Casualty is flat.  
• Competition remains intense as many seek to maintain market share |

Sources: Barclays Capital; Insurance Information Institute.
Do the Property Catastrophe Events of 2011 Impact Casualty Markets?

- Unlikely that Record 2011 Property CAT Loss Will Impact Casualty Markets in Any Material Way, Including Professional Liability Lines

- Global P/C & Reinsurance Industries Entered 2011 w/ Record Capital
  - Events so far in 2011 are earnings events, rather than capital events

- Natural Catastrophe and Casualty Risks Are Largely Uncorrelated
  - Risks are different
  - Geographically, mostly distinct primary carriers: Japan-Australia-NZ-US
  - Casualty markets generally don’t influence property markets

- Property and Casualty Risks Are Largely Siloed


- Casualty Markets Have Their Own Issues
  - Tort environment
  - Inflation
  - Public policy
1. UNDERWRITING

Have Underwriting Losses Been Large Enough for Long Enough to Turn the Market?
As Recently as 2001, Insurers Paid Out Nearly $1.16 for Every $1 in Earned Premiums

Heavy Use of Reinsurance Lowered Net Losses

Relatively Low CAT Losses, Reserve Releases

Relatively Low CAT Losses, Reserve Releases

Higher CAT Losses, Shrinking Reserve Releases, Toll of Soft Market

Best Combined Ratio Since 1949 (87.6)

Cyclical Deterioration

Avg. CAT Losses, More Reserve Releases


Sources: A.M. Best, ISO.
Cumulative underwriting deficit from 1975 through 2010 is $455B

Large Underwriting Losses Are NOT Sustainable in Current Investment Environment

* Includes mortgage and financial guaranty insurers in all years

Sources: A.M. Best, ISO; Insurance Information Institute.
Number of Years with Underwriting Profits by Decade, 1920s–2010s

<table>
<thead>
<tr>
<th>Decade</th>
<th>Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920s</td>
<td>6</td>
</tr>
<tr>
<td>1930s</td>
<td>7</td>
</tr>
<tr>
<td>1940s</td>
<td>10</td>
</tr>
<tr>
<td>1950s</td>
<td>8</td>
</tr>
<tr>
<td>1960s</td>
<td>4</td>
</tr>
<tr>
<td>1970s</td>
<td>5</td>
</tr>
<tr>
<td>1980s</td>
<td>0</td>
</tr>
<tr>
<td>1990s</td>
<td>0</td>
</tr>
<tr>
<td>2000s*</td>
<td>3</td>
</tr>
<tr>
<td>2010s**</td>
<td>0</td>
</tr>
</tbody>
</table>

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

* 2009 combined ratio excl. mort. and finl. guar. ins. was 99.3, which would bring the 2000s total to 4 years with an u/w profit.
**Data for the 2010s includes 2010 and 2011.
Note: Data for 1920–1934 based on stock companies only.
Sources: Insurance Information Institute research from A.M. Best Data.
Reserve Releases Remained Strong in 2010 But Tapered Off in 2011. Releases Are Expected to Further Diminish in 2012 and 2103

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

Sources: Barclays Capital; A.M. Best.
## P/C Estimated Loss Reserve Deficiency/(Redundancy), Excl. Statutory Discount

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Auto Liability</td>
<td>-$1.8B</td>
</tr>
<tr>
<td>Homeowners</td>
<td>-$0.2</td>
</tr>
<tr>
<td>Other Liab (incl. Prod Liab)</td>
<td>$4.0</td>
</tr>
<tr>
<td>Workers Compensation</td>
<td>$8.2</td>
</tr>
<tr>
<td>Commercial Multi Peril</td>
<td>$1.5</td>
</tr>
<tr>
<td>Commercial Auto Liability</td>
<td>$0.0</td>
</tr>
<tr>
<td>Medical Malpractice</td>
<td>-$4.0</td>
</tr>
<tr>
<td>Reinsurance—Nonprop Assumed</td>
<td>$3.4</td>
</tr>
<tr>
<td>All Other Lines*</td>
<td>-$2.2</td>
</tr>
<tr>
<td><strong>Total Core Reserves</strong></td>
<td><strong>$8.9</strong></td>
</tr>
<tr>
<td>Asbestos &amp; Environmental</td>
<td>$7.4</td>
</tr>
<tr>
<td><strong>Total P/C Industry</strong></td>
<td><strong>$16.3B</strong></td>
</tr>
</tbody>
</table>

Financial Strength & Underwriting

Cyclical Pattern is P-C Impairment History is Directly Tied to Underwriting, Reserving & Pricing
3 small insurers in Missouri did encounter problems in 2011 following the May tornado in Joplin. They were absorbed by a larger insurer and all claims were paid.

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

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

Source: A.M. Best; Insurance Information Institute
Historically, Deficient Loss Reserves and Inadequate Pricing Are By Far the Leading Cause of P-C Insurer Impairments. Investment and Catastrophe Losses Play a Much Smaller Role.

- Deficient Loss Reserves/Inadequate Pricing: 40.3%
- Reinsurance Failure: 3.6%
- Alleged Fraud: 7.8%
- Catastrophe Losses: 7.1%
- Affiliate Impairment: 7.8%
- Sig. Change in Business: 8.6%
- Investment Problems (Overstatement of Assets): 7.3%
- Misc.: 4.0%
- Rapid Growth: 13.6%


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

- 26.6% Workers Comp
- 22.2% Pvt. Passenger Auto
- 10.9% Commercial Multi peril
- 8.1% Commercial Auto Liability
- 7.7% Other Liability
- 6.9% Med Mal
- 6.5% Surety
- 4.4% Title
- 4.8% Financial Guaranty

Number of Recessions Endured by P/C Insurers, by Number of Years in Operation

Number of Recessions Since 1860

<table>
<thead>
<tr>
<th>Number of Years in Operation</th>
<th>Recessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-50</td>
<td>8</td>
</tr>
<tr>
<td>51-75</td>
<td>13</td>
</tr>
<tr>
<td>76-100</td>
<td>20</td>
</tr>
<tr>
<td>101-125</td>
<td>27</td>
</tr>
<tr>
<td>126-150</td>
<td>32</td>
</tr>
</tbody>
</table>

Many US Insurers Are Close to a Century Old or Older

Insurers are true survivors—not just of natural catastrophes but also economic ones.

Sources: Insurance Information Institute research from National Bureau of Economic Research data.
Performance by Segment: Personal Lines
While homeowners insurance has grown faster than auto over the past decade, auto is generally more profitable.

Average 2000-2010
Auto = 2.8
Home = 6.4%
All Lines = 3.6%

Homeowners Line Could Deteriorate in 2011 Due to Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity.

Sources: A.M. Best (1990-2012E); Insurance Information Institute.

Private Passenger Auto Accounts for 34% of Industry Premiums and Remains the Profit Juggernaut of the P/C Insurance Industry

Sources: A.M. Best (1990-2012F); Insurance Information Institute.
Claim Trends in Auto Insurance

Frequency and Severity Trends Are Mixed But On Net Have Deteriorated
Bodily Injury: Severity Trend Rising, Frequency Decline Has Ended

Annual Change, 2005 through 2011*

**Severity**

- 2005: 2.9%
- 2006: 4.7%
- 2007: 5.7%
- 2008: 5.9%
- 2009: 2.1%
- 2010: 3.2%
- 2011: 3.5%

**Frequency**

- 2005: -5.4%
- 2006: -3.8%
- 2007: -4.0%
- 2008: -4.2%
- 2009: -2.2%
- 2010: 0.0%
- 2011: 2.2%

Cost Pressures Will Increase if BI Severity Frequency Increases Continue

*For 2011, data are for the 4 quarters ending with 2011:Q3.
Source: ISO/PCI Fast Track data; Insurance Information Institute
Property Damage Liability: Severity is Up, Frequency Nearly Flat Since 2009

Annual Change, 2005 through 2011*

Severity/Frequency Trends Were Stable Through 2010, But Rising Severity in 2011 Is a Concern

*For 2011, data are for the 4 quarters ending with 2011:Q3.
Source: ISO/PCI Fast Track data; Insurance Information Institute
No-Fault (PIP) Liability: Frequency and Severity Trends Are Adverse*

Annual Change, 2005 through 2011*

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>-4.8%</td>
<td>4.7%</td>
</tr>
<tr>
<td>2006</td>
<td>-5.7%</td>
<td>2.4%</td>
</tr>
<tr>
<td>2007</td>
<td>-4.1%</td>
<td>6.4%</td>
</tr>
<tr>
<td>2008</td>
<td>-5.7%</td>
<td>6.5%</td>
</tr>
<tr>
<td>2009</td>
<td>5.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>2010</td>
<td>5.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>2011</td>
<td>-0.7%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Multiple States Are Experiencing Severe Fraud and Abuse Problems in their No-Fault Systems, Especially FL, MI, NY and NJ

*No-fault states included are: FL, HI, KS, KY, MA, MI, MN, NY, ND and UT; 2010 data are for the 4 quarters ending 2011:Q3.
Source: ISO/PCI Fast Track data; Insurance Information Institute
Collision Coverage: Frequency and Severity Trends Are Up in 2011*

Annual Change, 2005 through 2011*

The Recession, High Fuel Prices Have Helped Temper Frequency and Severity, But this Trend Will Likely Be Reversed Based on Evidence from Past Recoveries

*For 2011, data are for the 4 quarters ending with 2011:Q3.
Source: ISO/PCI Fast Track data; Insurance Information Institute
Comprehensive Coverage: Frequency and Severity Trend in 2011 is Unfavorable

Severe weather is a principal cause of the spike in both frequency and severity in 2011.

Annual Change, 2005 through 2011*

Weather Creates Volatility for Comprehensive Coverage; Recession Has Helped Push Down Frequency and Temper Severity, But This Factors Will Weaken as Economy Recovers

*For 2011, data are for the 4 quarters ending with 2011:Q3.
Source: ISO/PCI Fast Track data; Insurance Information Institute
Average No-Fault Claim Severity, 2011:Q3*

MI, NJ, NY and FL currently are the largest states that have the most severe problems in their no-fault system.

NY has the 4th highest auto no-fault average claim cost (severity) in the US.

Several States Including NY Have Severe and Growing Problems With Rampant Fraud and Abuse in their No-Fault Systems. Claim Severities Are Up Sharply.

*Average of the four quarters ending 2011:Q3.
Source: ISO/PCI Fast Track data; Insurance Information Institute.
Performance by Segment: Commercial Lines
A.M. Best Commercial Lines Outlook: Negative (as of January 2012)

- Underwriting Margins Pressured
  - Will recent rate increases hold?
- Loss Reserve Redundancies Fade
- Historically Low Investment Yields

OFFSETTING FACTORS

- Capitalization Still Solid
- Emergence of Sophisticated Price Monitoring and Underwriting Tools
Commercial Lines Combined Ratio, 1990-2012F*

Commercial lines underwriting performance in 2011 was the worst since 2002.

*2007-2012 figures exclude mortgage and financial guaranty segments.
Source: A.M. Best; Insurance Information Institute
Commercial Auto Combined Ratio: 1993–2012F

Commercial Auto is Expected to Deteriorate as Loss Frequency and Severity Trends Deteriorate 2011-2012

Sources: A.M. Best Insurance Information Institute.

Commercial Multi-Peril Underwriting Performance is Expected to Improve in 2012 Assuming Normal Catastrophe Loss Activity

*2011-12 figures are A.M. Best estimate/forecast for the combined liability and non-liability components. Sources: A.M. Best; Insurance Information Institute.
Inland Marine Combined Ratio: 1999–2012F

Inland Marine is Expected to Remain Among the Most Profitable of All Lines

Sources: A.M. Best (historical and forecast); Insurance Information Institute.
Other & Products Liability Combined Ratio: 1991–2012F

Liability Lines Have Performed Better in the Post-Tort Reform Era (~2005), but There Has Been Some Deterioration in Recent Years

Sources: A.M. Best; Insurance Information Institute.
Medical Malpractice Combined Ratio vs. All Lines Combined Ratio, 1991-2012

Med Mal Insurers in 2011 paid out $0.87 in loss and expense for every $1 they earned in premiums.

The dramatic improvement over the past decade has restored med mal’s viability.

In 2001, med mal insurers paid out $1.55 for every dollar earned.

Source: AM Best, Insurance Information Institute
Workers Comp Underwriting Results Are Deteriorating Markedly and the Worst They Have Been in a Decade

Sources: A.M. Best; Insurance Information Institute.
Workers Compensation Operating Environment

The Weak Economy and Soft Market Have Made the Workers Comp Operating Increasingly Challenging
Workers Comp Medical Claim Costs Continue to Rise

Average Medical Cost per Lost-Time Claim

Medical Claim Cost ($000s)

- Annual Change 1991–1993: +1.9%
- Annual Change 1994–2001: +8.9%
- Annual Change 2002-2009: +6.6%

Cumulative Change = 238% (1991-2010p)

Does smaller pace of increase suggest that small med-only claims are becoming lost-time claims?

Accident Year

2010p: Preliminary based on data valued as of 12/31/2010
1991-2008: Based on data through 12/31/2008, developed to ultimate
Based on the states where NCCI provides ratemaking services; Excludes the effects of deductible policies
Workers Comp Indemnity Claim Costs Decline in 2010

Average Indemnity Cost per Lost-Time Claim

Claiming behavior has changed significantly. Large numbers of lost time, low severity claims have entered the system—claims that previously were medical only, driving down average indemnity costs per claim.

Annual Change 1991–1993: -1.7%
Annual Change 1994–2001: +7.3%
Annual Change 2002–2009: +4.1%

2010p: Preliminary based on data valued as of 12/31/2010
1991–2008: Based on data through 12/31/2008, developed to ultimate
Based on the states where NCCI provides ratemaking services
Excludes the effects of deductible policies
Workers Compensation Premium Continues Its Sharp Decline

Net Written Premium

<table>
<thead>
<tr>
<th></th>
<th>State Funds ($ B)</th>
<th>Private Carriers ($ B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>31.0</td>
<td>31.3</td>
</tr>
<tr>
<td>1991</td>
<td>31.3</td>
<td>30.5</td>
</tr>
<tr>
<td>1992</td>
<td>29.8</td>
<td>30.5</td>
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<tr>
<td>1993</td>
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<td>2005</td>
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<td>2006</td>
<td>37.6</td>
<td>34.6</td>
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<td>2007</td>
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<td>2008</td>
<td>32.1</td>
<td>31.0</td>
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<tr>
<td>2009</td>
<td>29.9</td>
<td>31.3</td>
</tr>
<tr>
<td>2010p</td>
<td>29.1</td>
<td>29.8</td>
</tr>
</tbody>
</table>

Source: 1990–2009 Private Carriers, Best's Aggregates & Averages; 2010p, NCCI
1996–2010p State Funds: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, UT Annual Statements
State Funds available for 1996 and subsequent

Peak was 2008:Q1 at $6.60 trillion.

Recent trough (2009:Q3) was $6.25 trillion, down 5% from prior peak.

Latest (2011:Q3) was $6.64 trillion, a new peak

Growth rates in 2011
Q2 over Q1: 0.6%
Q3 over Q2: 0.4%

Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates
Sources http://research.stlouisfed.org/fred2/series/WASCUR; National Bureau of Economic Research (recession dates); Insurance Information Institutes.
Payroll vs. Workers Comp Net Written Premiums, 1990-2011

**Payroll Base**

*Billions*

<table>
<thead>
<tr>
<th>Payroll Base*</th>
<th>$Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/90-3/91</td>
<td>3/01-11/01</td>
</tr>
</tbody>
</table>

**WC NWP**

*Billions*

<table>
<thead>
<tr>
<th>WC NWP</th>
<th>$Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/90-3/91</td>
<td>3/01-11/01</td>
</tr>
</tbody>
</table>

WC premium volume dropped two years before the recession began.

WC net premiums written were down $14B or 29.3% to $33.8B in 2010 after peaking at $47.8B in 2005.

Resumption of payroll growth and rate increases suggests WC NWP will grow again in 2012.

*Private employment; Shaded areas indicate recessions. Payroll and WC premiums for 2011 is I.I.I. estimate

Sources: NBER (recessions); Federal Reserve Bank of St. Louis at [http://research.stlouisfed.org/fred2/series/WASCUR](http://research.stlouisfed.org/fred2/series/WASCUR); NCCI; I.I.I.
Average Approved Bureau Rates/Loss Costs

History of Average WC Bureau Rate/Loss Cost Level Changes

Cumulative 1990–1993: +36.3%
Cumulative 1994–1999: -27.8%
Cumulative 2000–2003: +17.1%
Cumulative 2004–2011: -26.2%

*States approved through 4/8/11.
Note: Countrywide approved changes in advisory rates, loss costs and assigned risk rates as filed by applicable rating organization.
Source: NCCI.
Workers Comp Rate Changes, 2008:Q4 – 2011:Q4

The Q4 2011 WC rate change was the largest among all major commercial lines.

Source: Council of Insurance Agents and Brokers; Information Institute.
Direct Premiums Written: Worker’s Comp
Percent Change by State, 2005-2010*

Top 25 States

Only 7 (small) states showed growth in workers comp premium volume between 2005 and 2010

*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

Sources: SNL Financial LC.; Insurance Information Institute.
### Direct Premiums Written: Worker’s Comp Percent Change by State, 2005-2010*

#### Bottom 25 States

<table>
<thead>
<tr>
<th>State</th>
<th>Percent Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>-22.6</td>
</tr>
<tr>
<td>ME</td>
<td>-23.7</td>
</tr>
<tr>
<td>GA</td>
<td>-24.2</td>
</tr>
<tr>
<td>KY</td>
<td>-25.0</td>
</tr>
<tr>
<td>IN</td>
<td>-25.2</td>
</tr>
<tr>
<td>NH</td>
<td>-25.2</td>
</tr>
<tr>
<td>OR</td>
<td>-26.8</td>
</tr>
<tr>
<td>DC</td>
<td>-26.9</td>
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<tr>
<td>MA</td>
<td>-28.1</td>
</tr>
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<td>-28.3</td>
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<td>VT</td>
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<tr>
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</tr>
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<td>CA</td>
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<tr>
<td>FL</td>
<td>-57.7</td>
</tr>
</tbody>
</table>

*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

Sources: SNL Financial LC.; Insurance Information Institute.
2. SURPLUS/CAPITAL/CAPACITY

Have Large Global Losses Reduced Capacity in the Industry, Setting the Stage for a Market Turn?
Surplus as of 9/30/11 was $538.6 billion down 4.6% from the record $564.7 billion as of 3/31/11, but still up 23.2% ($101.5 billion) from the crisis trough of $437.1 billion at 3/31/09. Prior peak was $521.8 billion as of 9/30/07.

Surplus as of 9/30/11 was 3.2% above the 2007 peak.

"Surplus" is a measure of underwriting capacity. It is analogous to "Owners Equity" or "Net Worth" in non-insurance organizations.

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

* As of 9/30/11.

A.M. Best is predicting year-end 2011 surplus was down just 1.7% and that surplus will increase sharply by 8.4% in 2012.

The Industry now has $1 of surplus for every $0.83 of NPW, close to the strongest claims-paying status in its history.

Surplus as of 9/30/11 was down 4.6% below its all time record high of $564.7B set as of 3/31/11. Further declines are possible.

Quarterly Surplus Changes Since 2011:Q1 Peak

11:Q2: -$5.6B (-1.0%)  11:Q3: -$26.1B (-4.6%)

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

Sources: ISO, A.M. Best.
Implied Excess (Deficit) Capital Assuming Premium/Surplus Ratio = 0.9:1

Excess/(Deficit) Capital (Policyholder Surplus)

Annual Change in Policyholder Surplus


Note: The assumption of a 0.9:1 P/S ratio is derived from a Feb. 2011 announcement by Advisen, Ltd., that the US P/C insurance industry has $74 billion in excess capital. The implied P/S ratio (calculated by III) is 0.88:1, which was rounded to 0.9:1.

Source: Insurance Information Institute calculations from A.M. Best and ISO data.

* Net Premiums Written
M&A Activity in the US P/C Insurance Industry, 1997-2011*

*2011 data are through December 1.
Source: SNL Securities; Insurance Information Institute.
In 2010 One Insurer’s Paid-in Capital Rose by $22.5B as Part of an Investment in a Non-insurance Business
Historically, Hard Markets Follow When Surplus “Growth” is Negative*

Surplus growth was positive until Q1:2011 but is now down slightly

2008 surplus plunge did not lead to a hard market

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

* 2011 NWP and Surplus figures are % changes as of Q3:11 vs. Q3:10.
Sources: A.M. Best, ISO, Insurance Information Institute
Ratio of Net Premiums Written to Policyholder Surplus, 1970-2011*

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

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

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

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

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

Sources: Insurance Information Institute calculations from A.M. Best data.
3. REINSURANCE MARKET CONDITIONS

Record Global Catastrophes Activity is Pressuring Pricing
Global Property Catastrophe Rate on Line Index, 1990—2012 (as of Jan. 1)

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

Sources: Guy Carpenter; Insurance Information Institute.
Most excess reinsurance capacity was removed from the market in 2011, but there does not appear to be a shortage, leading relatively flat 2012 reinsurance renewals except in areas hit hard by CATs.

Reinsurer Share of Recent Significant Market Losses

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

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

Is There Evidence of a Broad and Sustained Shift in Pricing?
Soft Market Persisted into Early 2011 but Growth Returned: More in 2012?

Net Written Premiums Fell 0.7% in 2007 (First Decline Since 1943) by 2.0% in 2008, and 4.2% in 2009, the First 3-Year Decline Since 1930-33.

NWP was up 3.5% (est.) in 2011. 2012 expected growth is 3.8%.

*2011 and 2012 figures are A.M. Best Estimates
Shaded areas denote “hard market” periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.
P/C Net Premiums Written: % Change, Quarter vs. Year-Prior Quarter

Through 2011:Q3, growth in personal lines predominating cos. (+3.1%) and commercial lines predominating cos. (+3.9%), diversified (+2.3%)

Finally! Back-to-back quarters of net written premium growth (vs. the same quarter, prior year)

Sources: ISO, Insurance Information Institute.
Average Commercial Rate Change, All Lines, (1Q:2004–4Q:2011)

Pricing as of Q3:2011 was positive for the first time since 2003. Slightly stronger gains in Q4.

Q2 2011 marked the 30th consecutive quarter of price declines

Source: Council of Insurance Agents & Brokers (1Q04-4Q11); Insurance Information Institute
Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2011:Q4

Percentage Change (%)

Peak = 2001:Q4 +28.5%

Pricing turned positive (+0.9%) in Q3:2011, the first increase in nearly 8 years; Q4:2011 renewals were up 2.8%

Pricing Turned Negative in Early 2004 and Remained that way for 7 ½ years

Trough = 2007:Q3 -13.6%

Source: Council of Insurance Agents and Brokers; Barclay’s Capital; Insurance Information Institute.
Despite Q4:2011 gain of 2.8%, pricing today is where it was in late 2000 (pre-9/11)

Upward pricing pressure is small for large accounts, 1.8% in Q4:2011, vs. 3.1% for small accounts and 3.5% for medium accounts

Source: Council of Insurance Agents and Brokers; Barclay’s Capital; Insurance Information Institute.
Global Reinsurance Market Capacity is Down in Mid-2011 Due to Large Catastrophe Losses

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

Source: Aon Reinsurance Market Outlook, September 2011 from Individual Company and AonBenfield Analytics; Insurance Information Institute.
Change in Commercial Rate Renewals, by Line: 2011:Q4

Property lines are showing larger increases than casualty lines, with the exception of workers compensation.


Source: Council of Insurance Agents and Brokers; Insurance Information Institute.
The cost of risk cannot continue to fall as actual results deteriorate.
How the Risk Dollar is Spent (2011)

Management & Professional Liability Costs Account for 9% - 13% of the Risk Dollar

Firms w/Revenues < $1 Billion

- Liability Premiums, 21%
- Liability Retained Losses, 13%
- Total Mgmt. Liab., 13%
- WC Premiums, 8%
- WC Retained Losses, 9%
- Total Prof. Liability Costs, 8%
- Property Premiums, 21%
- Retained Property Losses, 3%

Firms w/Revenues > $1 Billion

- Liability Premiums, 10%
- Liability Retained Losses, 12%
- Total Mgmt. Liab., 6%
- WC Premiums, 8%
- WC Retained Losses, 21%
- Property Premiums, 13%
- Total Prof. Liability Costs, 3%
- Retained Property Losses, 8%
- Total Prof. Liability Costs, 8%

Source: 2011 RIMS Benchmark Survey, Advisen; Insurance Information Institute
Top 25 States

North Dakota is the growth juggernaut of the P/C insurance industry—too bad nobody lives there...

Sources: SNL Financial LC.; Insurance Information Institute.
Direct Premiums Written: All P/C Lines Percent Change by State, 2005-2010

Bottom 25 States

US Direct Premiums Written declined by 1.6% between 2005 and 2010

States with the poorest performing economies also produced the most negative net change in premiums of the past 5 years

Sources: SNL Financial LC; Insurance Information Institute.
Distribution by Channel Type Continues to Evolve
All P/C Lines Distribution Channels, Direct vs. Independent Agents

Independent agents steadily lost market share from the early 1980s through the early 2000s across all P/C lines, but have gained or held generally steady in recent years. Direct channels include exclusive agency companies, direct marketers and direct sales (e.g., internet).

Source: Insurance Information Institute; based on data from Conning and A.M. Best.
Independent agents have lost significant personal lines market share since the early 1970s. Although the trend has slowed, it may be accelerating again.

Source: Insurance Information Institute; based on data from Conning and A.M. Best.
Independent agents have seen only modest erosion in commercial lines market share in recent decades.
Other Cycle-Influencing Factors

Could Other Factors Act as a Catalyst to Turn the Market?
INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

*Does It Influence Underwriting or Cyclicality?*
Investment gains through Q3:2011 were $2.1B above the same period in 2010—a surprise given falling rates and flat stock markets.

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

1 Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

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

Sources: ISO; Insurance Information Institute.
P/C Insurer Net Realized Capital Gains/Losses, 1990-2011E


*2011 is an estimate based on annualized actual 2011 9-month figure of $5.5B.
Sources: A.M. Best, ISO, Insurance Information Institute.
Yields on 10-Year U.S. Treasury Notes have been essentially below 4% since January 2008.

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

*Monthly, through January 2012. Note: Recessions indicated by gray shaded columns.
Sources: Federal Reserve Bank at http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TCMNOM_Y10.txt
National Bureau of Economic Research (recession dates); Insurance Information Institutes.
The spread between the two yields reflects confidence (or lack of it) in the economy’s prospects. A wider spread indicates worry; narrower = confidence.

*through 11/30/2011

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

The Fed is actively signaling that it is determined to keep rates low through late 2014.

Source: Federal Reserve Board of Governors; Insurance Information Institute.
Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line*

<table>
<thead>
<tr>
<th>Line</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Personal Lines</td>
<td>-1.8%</td>
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<tr>
<td>Pvt Pass Auto</td>
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<tr>
<td>Pers Prop</td>
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<tr>
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<tr>
<td>Reinsurance**</td>
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</table>

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

*Based on 2008 Invested Assets and Earned Premiums
**US domestic reinsurance only
Source: A.M. Best; Insurance Information Institute.
Shifting Legal Liability & Tort Environment

Is the Tort Pendulum Swinging Against Insurers?
Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical, 1980-2013E

Tort costs in dollar terms have remained high but relatively stable since the mid-2000s, but are down substantially as a share of GDP.

2.21% of GDP in 2003 = pre-tort reform peak

Deepwater Horizon Spike in 2010

1.68% of GDP in 2013

Sources: Towers Watson, 2011 Update on US Tort Cost Trends, Appendix 1A
Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010

Billions of Dollars

- 2005: $143.5B  
  66.4% insured, 33.6% self-(un)insured

- 2009: $126.5B  
  64.4% insured, 35.6% self-(un)insured

Tort Costs and the Share Retained by Risks Both Grew Rapidly from the mid-1970s to mid-2000s, When Tort Costs Began to Fall But Self-Insurance Shares Continued to Rise

The Share of Tort Costs Retained by Risks Has Been Steadily Increasing for Nearly 40 Years. This Trend Contributes Has Left Insurers With Less Control Over Pricing.

Business Leaders Ranking of Liability Systems in 2010

**Best States**
1. Delaware
2. North Dakota
3. Nebraska
4. Indiana
5. Iowa
6. Virginia
7. Utah
8. Colorado
9. Massachusetts
10. South Dakota

**New in 2010**
- North Dakota
- Massachusetts
- South Dakota

**Worst States**
41. New Mexico
42. Florida
43. Montana
44. Arkansas
45. Illinois
46. California
47. Alabama
48. Mississippi
49. Louisiana
50. West Virginia

**Newly Notorious**
- New Mexico
- Montana
- Arkansas

**Rising Above**
- Texas
- South Carolina
- Hawaii

Midwest/West has mix of good and bad states.

The Nation’s Judicial Hellholes: 2011

**Watch List**
- Eastern District of Texas
- Cook County, IL
- Southern NJ
- Franklin County, AL
- Smith County, MS
- Louisiana

**Dishonorable Mention**
- MI Supreme Court
- AK Supreme Court
- MO Supreme Court

Source: American Tort Reform Association; Insurance Information Institute
Inflation

Is it a Threat to Claim Cost Severities
Annual Inflation Rates, (CPI-U, %), 1990–2017F

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

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

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

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators, 10/11 and 1/12 (forecasts).
P/C Personal Insurance Claim Cost Drivers Grow Faster Than the Core CPI Suggests

Price Level Change: 2011 vs. 2010

Healthcare costs are a major liability, med pay, and PIP claim cost driver. They are likely to grow faster than the CPI for the next few years, at least.

Copper prices spiked and retreated in 2011. In July its price was 33% higher than a year earlier; by November it cost 8% less than in November 2010.

Medical Cost Inflation Has Outpaced Overall Inflation For Over 50 Years

A claim that cost $1,000 in 1961 would cost nearly $17,500 based on medical cost inflation trends over the past 51 years.

Source: Department of Labor (Bureau of Labor Statistics)
Thank you for your time and your attention!

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