UNCERTAIN TIMES: ECONOMIC & INSURANCE INDUSTRY OUTLOOK FOR 2014 AND BEYOND

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Property Casualty Insurance Industry: Financial Update

2013 was a welcome respite from near-record catastrophe activity

2014: too soon to tell



P/C Industry Net Income after Taxes

1991 - 2014:Q1



ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields an 8.2% ROAS through 2014:Q1, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

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



Profitability Peaks & Troughs in the P/C Insurance Industry 1975 - 2014:Q1*



*Profitability = P/C insurer ROEs. 2011-14 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.

Source: Insurance Information Institute; NAIC, ISO, A.M. Best.





ROE: Property / Casualty Insurance by Major Event 1987 – 2014:Q1



* Excludes Mortgage & Financial Guarantee in 2008 – 2014. 2014 figure is through Q1:2014.

Sources: ISO, Fortune; Insurance Information Institute.



P/C Insurance Industry Combined Ratio

2001 – 2014:Q1*



* Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013: = 96.1; 2014:Q1 = 97.3. Sources: A.M. Best. ISO.



A 100 Combined Ratio Isn't What It Once Was

Investment impact on ROEs

Combined Ratio / ROE



Combined ratios must be lower in today's depressed investment environment to generate risk appropriate ROEs

* 2008 -2014 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2014:Q1 combined ratio including M&FG insurers is 97.3; 2013 = 96.1; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%.

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



Net Premium Growth: Annual Change 1971 — 2014:Q1

Percent



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:2014



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents & Brokers; Insurance Information Institute

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3Q12 4Q12 1Q13 2Q13 2Q12 3Q1 401

Change in Commercial Rate Renewals, by Line

2014:Q1

Percentage Change (%)

D&O increases are large than any other 6.0% line, followed by EPL and Workers Comp 5.0% 4.1% 4.0% 3.3% 3.0% 2.0% 1.7% 2.0% 1.5% 0.9% 0.7% 1.0% 0.0% 0.0% Commercial Business **Construction Commercial** Surety General Umbrella Workers Property Interruption Liability Auto Comp

Major commercial lines renewed generally upward in Q4:2014 for the 11th consecutive quarter; D&O, employment practices and workers comp leading the way; lower cat losses and falling reinsurance prices have pressured property coverages lower; low interest rates still exert upward rate pressure

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Insurance Information Institute.





Change in Commercial Rate Renewals, by Account Size 1999:Q4 - 2014:Q1

Percentage Change (%)



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.





Cumulative Quarterly Commercial Rate Changes, by Account Size 1999:Q4 - 2014:Q1

1999:Q4 = 100



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.



Policyholder Surplus

2006:Q4 - 2014:Q1



The industry now has \$1 of surplus for every \$0.73 of NPW, close to the strongest claims-paying status in its history

2010:Q1 data includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business

The P/C insurance industry entered 2014 in very strong financial condition

Sources: ISO, A.M .Best.



US Insurance Mergers and Acquisitions, P/C Sector 2002 – 2013 (1)



(1) Includes transactions where a U.S. company was the acquirer and/or the target. Source: Conning proprietary database.



U.S. Insured Catastrophe Loss Update

2013 was a welcome respite from the high catastrophe losses in recent years

...but 2014 was the 5th costliest winter on record in the US



U.S. Insured Catastrophe Losses



*Through 6/30/14.

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.



Combined Ratio Points Associated with Catastrophe Losses

1960 - 2013*

Combined Ratio Points



*2010s represent 2010-2013.

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 (1960-2011); A.M. Best (2012E) Insurance Information Institute.





Top 16 Most Costly Disasters in US History, Insured Losses 2013 Dollars



Hurricane Irene became the 12th most expensive hurricane in US history in 2011

12 of the 16 most expensive events in US history have occurred over the past decade

Sources: PCS; Insurance Information Institute inflation adjustments to 2013 dollars using the CPI.







Source: The Property Claim Services (PCS) unit of ISO, a Verisk Analytics company.





*Includes catastrophe losses of at least \$25 million.

Sources: PCS unit of ISO: Insurance Information Institute.

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Colorado



Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss $1994 - 2013^{1}$



Source: ISO's Property Claim Services Unit.

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Insured cat losses from 1993-2012 totaled \$386.7B, an average of \$19.3B per year or \$1.6B per month

Hurricanes & Tropical Storms, \$159.1

Wind losses are by far cause the most catastrophe losses, even if hurricanes / **TS** are excluded



Natural Disasters in the United States

1980 - 2013

Number of Events (Annual Totals 1980 – 2013)



Source: MR NatCatSERVICE



Losses Due to Natural Disasters in the US

1980 – 2013 (Overall and Insured Losses)

2013 Dollars, \$ Billions



Source: MR NatCatSERVICE



Natural Disaster Losses in the United States, by Type, 2013

As of December 31, 2013	Number of Events	Fatalities	Estimated Overall Losses (US \$m)
Severe Thunderstorm	69	110	16,341
Winter Storm	11	43	2,935
Flood	19	23	1,929
Earthquake & Geophysical	6	1	Minor
Tropical Cyclone	1	1	Minor
Wildfire, Heat, & Drought	22	29	620
Totals	128	207	21,825

Source: Munich Re NatCatSERVICE

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Estimated Insured Losses (US \$m)

10,274

1,895

240

Minor

Minor

385

12,794



Top 16 Most Costly World Insurance Losses, 1970 – 2013*

Insured Losses, 2013 Dollars

Hurricane Sandy is now the 6th costliest event in global insurance history



*Figures do not include federally insured flood losses.

Sources: Munich Re; Swiss Re; Insurance Information Institute research.





Natural Loss Events Full year 2013

World Map



Source: Munich Re Geo Risks Research, NatCatSERVICE – as of January 2014.

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Natural catastrophes

Selection of significant Natural catastrophes

Geophysical events (earthquake, tsunami, volcanic activity)

Meteorological events (storm)

Hydrological events (flood, mass movement)

Climatological events (extreme temperature, drought, wildfire)

Extraterrestrial events (Meteorite impact)



Natural Disasters Worldwide

1980 - 2013

Number of Events



Source: MR NatCatSERVICE



Losses Due to Natural Disasters Worldwide

1980 – 2013 (Overall and Insured Losses)

2013 Dollars, \$ Billions



Source: MR NatCatSERVICE



US Thunderstorm Insured Loss Trends 1980 – 2013



Source: Property Claims Service, and MR NatCatSERVICE



Convective Loss Events in the US

1980 - 2013

Number of Events



Source: Geo Risks Research, NatCatSERVICE.



Convective Loss Events in the US

1980 – 2012 and first half 2013 (overall and insured losses) **\$** Billions US





Analysis contains: straight-line winds, tornadoes, hail, heavy precipitation, flash floods, lightning. Source: Geo Risks Research, NatCatSERVICE,



Insured Homeowners Losses Due to Lightning 2004 - 2013



The increased number and value of expensive electronic devices in homes has pushed total lightning claim costs to about \$1 billion in many years even as the number of lightning claims falls

Source: Insurance Information Institute.

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2013

2012



Outlook for the 2014 Atlantic Hurricane Season

Hurricanes and tropical storms drive some of the largest losses utilities expect each year







Sources: PCS; Insurance Information Institute inflation adjustments to 2013 dollars using the CPI.



Outlook for 2014 Hurricane Season

30% less active than typical year

	Median*	2005 (Katrina Year)	2014F
Named Storms	12.0	28	10
Named Storm Days	60.1	115.5	40
Hurricanes	6.5	14	4
Hurricane Days	21.3	47.5	15
Major Hurricanes	2.0	7	1
Major Hurricane Days	3.9	7	3
Accumulated Cyclone Energy	92.0	NA	65
Net Tropical Cyclone Activity	103%	275%	70%

*Over the period 1981-2010. Source: Dr. Philip Klotzbach and Dr. William Gray, Colorado State University, June 2, 2014.



Probability of Major Hurricane Landfall (CAT 3, 4, 5) 2014

	Average*
Entire US Coast	52%
US East Coast Including Florida Peninsula	31%
Gulf Coast from FL Panhandle to Brownsville, TX	30%
Alsoabove-average major hurricane	

landfall risk in caribbean for 2011 (32% vs. 42%)

*Average over the past century. Source: Dr. Philip Klotzbach and Dr. William Gray, Colorado State University, June 2, 2014.





Selected Large Outages Associated with Tropical Systems By State

Millions of Customers

Florida: Frances (2004) Florida: Wilma (2005) New Jersey: Sandy (2012) Texas: Ike (2008) New York: Sandy (2012) Florida: Charley (2004) Pennsylvania: Sandy (2012) Alabama: Ike (2008) Mississippi: Katrina (2005) New York: Irene (2011) Katrina: Katrina (2005) New Jersey: Irene (2011) Texas: Rita (2005) Connecticut: Sandy (2012)



Sources: US Dept. of Energy, Vertyx, AP analysis; Insurance Information Institute.





Fire & Ice

Increasingly extreme weather has proven costly to utilities and insurers alike

The "polar vortex" and wildfire



Winter 2014

The "polar vortex"



This winter's "Polar Vortex" allowed frigid air to stream southward into the Eastern US and Canada. Minimum temperatures in some locations were the coldest in 20 years. Cold, snow and ice led to several significant frozen precipitation and freezing events, reaching as far south as the Gulf Coast and North Florida

Energy demand skyrocketed, created stress on the grid and caused natural gas prices to skyrocket

Source: NASA; Munich Re.



Winter Storm and Winter Damage Events in the US and Canada

$1980 - 2014^*$

Insured Losses (Millions, \$ 2014)



Insured winter storm and damage losses in the US and Canada totaled \$2.4 billion this year, making 2014 the 5th costliest winter since 1980. Economic losses totaled \$3.4 billion.

Sources: Munich Re NatCatSERVICE: Insurance Information Institute.



Number of Acres Burned in Wildfires 1980 – 2013



Source: National Interagency Fire Center



Wildland Fire Outlook for the Western US Is Grave

Much of the West and Northwest US is at an elevated risk for wildfire due to prolonged drought and high temperatures



Source: National Interagency Fire Center





Cyber Risk

Cyber risk is a rapidly emerging exposure for businesses large and small in every industry **NEW III white paper available at: <u>www.iii.org</u>**

CYBER RISKS: THE GROWING THREAT

JUNE 2014

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Data Breaches 2005-2013

By number of breaches and records exposed

Data Breaches/Millions of Records Exposed



The total number of data breaches (+38%) and number of records exposed (+408%) in 2013 soared

*2013 figures as of Jan. 1, 2014 from the ITRC updated to an additional 30 million records breached (Target) as disclosed in Jan. 2014. Source: Identity Theft Resource Center.

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Millions

- 240
- 200
- 160
- 120
- 80
- 40
- 0





External Cyber Crime Costs

Fiscal Year 2013

Information loss (43%) and business disruption or lost productivity (36%) account for the majority of external costs due to cyber crime.

*Other costs include direct and indirect costs that could not be allocated to a main external cost category Source: 2013 Cost of Cyber Crime: United States, Ponemon Institute.



2013 Data Breaches By Business Category

By number of breaches



The majority of the 614 data breaches in 2013 affected business and medical/healthcare organizations (Govt./Military breaches fell)

Source: Identity Theft Resource Center, http://www.idtheftcenter.org/images/breach/2013/UpdatedITRCBreachStatsReport.pdf





Main Causes of Data Breach Globally



Malicious or criminal attacks are most often the cause of data breach globally. Some 42 percent of incidents concern a malicious or criminal attack, while 30 percent concern a negligent employee or contractor (human factor).

*The most common types of malicious or criminal attacks include malware infections, criminal insiders, phishing/social engineering and SQL injection. Source: 2014 Cost of a Data Breach Study: Global Analysis, the Ponemon Institute, sponsored by IBM, May 2014



The Most Costly Cyber Crimes

Fiscal year 2013



Denial of service, malicious code and web-based attacks account for more than 55 percent of all cyber costs per U.S. organization on an annual basis.

Source: 2013 Cost of Cyber Crime: United States, Ponemon Institute.



Top 10 Global Business Risks for 2014



Cyber and reputational challenges are the most significant movers in this year's Risk Barometer rankings. Cyber moved into the top 10 global business risks for the first time.

Source: Allianz Risk Barometer on Business Risks 2014



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0	80%	90%	100%

Perception is that the Risk of Cybercrime Is Increasing



The perception of the risk of cybercrime is increasing at a faster pace than reported actual occurrences. In 2014, some 48% of respondents said their perception of the risk of cybercrime increased, up from 39% in 2011.

Source: 2014 Global Economic Crime Survey, PWC.





Cybercrime Costs Are Higher for U.S. Companies Compared to Global Average



US organizations are more at risk of suffering financial losses in excess of \$1 million due to cybercrime.

Source: 2014 Global Economic Crime Survey, PWC.





Increase in Purchase of Cyber Insurance among US Companies 2013



Interest in cyber insurance continues to climb. The number of companies purchasing cyber insurance increased 21 percent from 2012 to 2013.

Source: Benchmarking Trends: Interest in Cyber Insurance Continues to Climb, Marsh Risk Management Research Briefing, April 2014







Investments: The New Reality

Investment performance is a key driver of profitability **Depressed yields are still pressuring pricing**





Property / Casualty Insurance Industry Investment Income $2000 - 2014^{1}$ **Investment earnings are still 16% below their \$** Billions 2007 pre-crisis peak \$60 \$54.6 \$52.3 \$51.2 \$49.5 \$49.2 \$50 \$47.6 \$47.1 \$39.6 \$38.9 \$40 \$38.7

Due to persistently low interest rates, investment income fell in 2012 and in 2013 and is falling again in 2014.

1 Investment gains consist primarily of interest and stock dividends. Sources: ISO: Insurance Information Institute..

\$37.1

2001

\$30

2000

\$36.7

2002 2003

*2014 investment income is estimated Q1, annualized.

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2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014*





Property / Casualty Insurance Industry Investment Income



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, constant maturity, nominal rates, through June 2014.

Sources: Federal Reserve Bank at http://www.federalreserve.gov/releases/h15/data.htm. National Bureau of Economic Research (recession dates); Insurance Information Institute.

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lows in 2013. Longer-



Energy Sector: Industry Future is Bright

US is becoming an energy powerhouse; will fuel P&C exposures

Need infrastructure investment



U.S. Natural Gas Production

2000 - 2013**Trillions of Cubic Ft. per Year** The U.S. is already the world's largest natural gas \$28 producer—recently overtaking Russia. This is a potent driver of commercial insurance exposures \$26 \$24 \$22.4 \$21.6 \$22 \$21.1 \$20.6 \$20.2 \$20.2 \$19.9 \$20.0 \$19.5 \$19.4 \$20 \$18.9 \$18 \$16 \$14 \$12 \$10 01 02 04 05 07 08 10 00 03 06 09

Source: Energy Information Administration, Short-Term Energy Outlook (April 8, 2014), Insurance Information Institute.





U.S. Crude Oil Production

2005 - 2015P



Source: Energy Information Administration, Short-Term Energy Outlook (April 8, 2014), Insurance Information Institute.



Oil & Gas Extraction Employment

Jan 2010 – June 2014*

Thousau 220	Oil and gas extraction employment is up 35.2% since Jan. 2010 as the energy sector booms. Domestic energy production is essential to any robust economic recovery in the US.
210	
200	192.6 193.3 193.3 193.3 193.4 193.3 193.4
190	3 3 3 3 3 3 8 0.9 8 0.9 8 0.9 18 1.9 18 2 18 2 18 2 18 2 18 2 18 2 18 2 18
180	66 172.5 172.5 173.6 177 178 178
170	4 8.7 8.7 9.5 61.5 61.2 61.2 61.2 166.1 11 11 11 11 11 11 11 11 11 11 11 11 1
160 5	
150	
1/10	22/12/20/20/20/20/20/20/20/20/20/20/20/20/20

*Seasonally adjusted

Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

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Highest since Aug. 1986



8/13 9/13 9/13 1/14 5/14 5/14 6/14



Power Sector Supply, Demand and Investment

Substantial energy infrastructure investments are necessary for decades to come—along with insurance solutions



World Primary Energy Consumption



Source: Energy Information Administration, 2013 International Energy Outlook, Insurance Information Institute.

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819.6

2040P



Cumulative Projected Investment in Global Energy Infrastructure 2011 – 2035 (\$ Trillion)



Projected energy infrastructure investment through 2035 total \$38 trillion; Implies substantial incurrence of risk.

Source: International Energy Agency, World Energy Outlook 2011.



U.S. Electricity Generation by Fuel

1990 – 2040F (Trillions of Kilowatt Hours)



Source: US Energy Information Administration, 2014 Annual Energy Outlook Early Release Overview; Insurance Information Institute.



US Electric Power Generation by Fuel Source 2010 - 2040F

Billions of Kilowatt Hours



Demand for electricity is expected to grow at an 0.8% annual rate through 2040. Renewables and natural gas will account for an increasing share of fuel source

Source: US Energy Information Administration, Annual Energy Outlook 2014, Appendix A7.



035	2040
J35	2040

US Electric Power Generation by Fuel Source

2012 – 2040F (Billion kWh)



Source: US Energy Information Administration, Annual Energy Outlook 2014; Insurance Information Institute.

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Natural gas generation will account for the majority of new capacity



-0.5%

Nuclear Petroleum



U.S. Private Power Construction

2000 – 2014* (% Change, 3-Month Moving Avg.)



*Through April 2014.

Source: US Dept. of Commerce; Energy Information Administration, Wells Fargo Securities (June 6, 2014 research report).

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Power construction accounts for a large share of all construction activity. The recent slowdown was in part due to the expiration of renewable production tax credits. Going forward, about 75% of new capacity will be for gas fired plants



Value of Power Sector Construction



The Value of Power Construction in the US Is Rising

*seasonally adjusted at annualized rates through May 2014 (latest available). Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.



Investment in US Power Plants

2004 - 2013



An estimated \$1.234 trillion will be invested in power plants through 2035

*Includes geothermal, concentrating solar power and marine.

Sources: International Energy Agency, 2014 World Energy Investment Outlook, Table 3.2; Insurance Information Institute.





Investment in US Transmission & Distribution Infrastructure



An estimated \$819 billion will be invested in transmission and distribution infrastructure through 2035

Sources: International Energy Agency, 2014 World Energy Investment Outlook, Table 3.3; Insurance Information Institute.





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Thank you for your time and your attention!

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