

The External Environment and Insurance Tectonic Shifts, Global Transformation

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Robert P. Hartwig, Ph.D., CPCU, President & Economist Insurance Information Institute 110 William Street New York, NY 10038 Tel: 212.346.5520 Cell: 917.453.1885 bobh@iii.org www.iii.org

Presentation Outline: The External Environment and Insurance



- Major Categories of External Risks
- Global Economic Environment
- Geopolitical Issues
- Terrorism/Torts/Cyber
- P/C Insurance & Reinsurance Operating Environment
- Natural Catastrophe Risk
- The "New" Investment Environment
- Insurance Regulatory Trends in the Post-Crisis World

Q&A



Risk & Insurance U.S. and Global Perspective

The External Environment: Is the World Becoming a Riskier Uncertain Place? 5 Major Categories for External Global Risks, Uncertainties and Fears: Insurance Solutions

- **1. Economic Risks**
- **2. Geopolitical Risks**
- **3. Environmental Risks**
- 4. Technological Risks
- **5. Societal Risks**

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Uncertainty, Risk and Fear Abound: Insurance Can Help Mitigate Risk

- Economic Issues in US, Europe
- Weakness in China/Emerging Economies
- Political Gridlock in the US, Europe, Japan
- Fiscal Imbalances
- Monetary Policy/Tapering/Low Interest Rates
- Unemployment
- Political Upheaval in the Ukraine, Middle East
 - Argentina, Venezuela, Thailand
- Resurgent Terrorism Risk
- Diffusion of Weapons of Mass Destruction
- Cyber Attacks
- Record Natural Disaster Losses
- Climate Change
- Environmental Degradation
- Income Inequality
- (Over)Regulation



Are "Black Swans" everywhere or does it just seem that way?

Top 5 Global Risks in Terms of *Likelihood*, 2007—2014: Insurance Can Help With Most



Concerns Shift Considerably Over Short Spans of Time. 2014 Includes a Mix of Environmental Economic, Social and Environmental Risks

Source: World Economic Forum, Global Risks 2014; Insurance Information Institute.

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Top 5 Global Risks in Terms of *Impact*, 2007—2014: Insurance Can Help With Most



Concerns Over the Impacts of Economics Risks Remained High in 2014, but Societal, Environment and Technological Risks Also Loom Large

Source: World Economic Forum, Global Risks 2014; Insurance Information Institute.

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In the US. Western Europe and Japan approximately 50%-60% of economic losses from nat cat events are recovered through (re)insurance. In other parts of the world the recovery rate is much smaller. Do you see this as a major opportunity or are there intractable issues that make closing this "uninsurance gap" impractical?

- A. Yes—There are significant growth opportunities for (re)insurers today
- **B.** Yes—There are significant opportunities but most of the markets for these risks are not sufficiently well developed
- C. No—The "uninsurance gap" consists primarily of risks that are difficult of impossible to (re)insure
- D. Not Sure/Don't Know

Gap Between GDP Growth and Reinsurance ; Limit in Asia-Pacific Region: 2004—2013





Sources: Guy Carpenter, World Bank, IMF; Insurance Information Institute .



Globalization: The Global Economy Creates and Transmits Risks

Globalization Is a Double Edged Sword— Creating Opportunity and Wealth But Potentially Creating and Amplifying Risk Emerging vs. "Advanced" Economies

US Real GDP Growth*





Demand for Insurance Should Increase in 2014/15 as GDP Growth Accelerates Modestly and Gradually Benefits the Economy Broadly

* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 3/14; Insurance Information Institute.

GDP Growth: Advanced & Emerging Economies vs. World, 1970-2015F



Source: International Monetary Fund, World Economic Outlook, January 2014 WEO Update; Ins. Info. Institute.





Insurance Regulation Will Necessarily Become More Transnational, Following Patterns of Global Economic Growth, the Creation of New Insurable Exposures and International Capital Flows

Sources: World Trade Organization data through 2011; Insurance Information Institute estimate for 2013 based on IMF forecasts as of July 2013.

Real GDP Growth Forecasts: Major Economies: 2011 – 2015F





Growth Prospects Vary Widely by Region: Growth Returning in the US, Recession in the Eurozone, Some strengthening in Latin America

Sources: Blue Chip Economic Indicators (2/2014 issue); IMF; Insurance Information Institute.

Real GDP Growth Forecasts: Selected Economies: 2011 – 2014F





Growth Outside the US, Europe and Japan is Relatively Strong

Sources: Blue Chip Economic Indicators (9/2013 issue); Insurance Information Institute.

Potential Output of Total Economy: US, China, India, Indonesia and Japan, 2000-2060F



Growth in economic output will be concentrated in certain developing economies such as China and India

China will likely become the world's largest economy between 2025 and 2030

Source: OECD; Insurance Information Institute .



Insurance Regulation Will Necessarily Become More Transnational, Following Patterns of Global Economic Growth, the Creation of New Insurable Exposures and International Capital Flows

Sources: World Trade Organization data through 2011; Insurance Information Institute estimate for 2013 based on IMF forecasts as of July 2013.

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World Population Growth: 2010–2100F



Sources: United Nations, World Population Prospects, June 13, 2013; Insurance Information Institute .

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Population Growth: Developed vs. Less Developed Countries 2010—2100F





Sources: United Nations, World Population Prospects, June 13, 2013; Insurance Information Institute .



Global Insurance Premium Growth Trends: Non-Life (P/C) and Life

Growth Is Uneven Across Regions and Market Segments

Distribution of Global Insurance Premiums, 2012 (\$ Trillions)



Total Premium Volume = \$4.613 Trillion*



Source: Swiss Re, sigma, No. 3/2013; Insurance Information Institute.

Distribution of Nonlife Premium: Industrialized vs. Emerging Markets, 2012

Premium Growth Facts

- Emerging market's share of nonlife premiums increased to 17.3% in 2012 from 14.3% in 2009. The share of premiums written in the \$2 trillion global nonlife market remains much larger (82.7%) but continues to shrink.
- The financial crisis and sluggish recovery in the major insurance markets will accelerate the expansion of the emerging market sector



2012, \$Billions

Sources: Swiss Re sigma No.3/2013; Insurance Information Institute research.

Premium Growth by Region, 2012



Global Premium Volume Totaled \$4.613 Trillion in 2012, up 2.4% from \$4.566 Trillion in 2011. Global Growth Was Weighed Down by Slow Growth in N. America and W. Europe and Partially Offset by Emerging Markets

Source: Swiss Re, sigma, No. 3/2013.

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Global Real (Inflation Adjusted) Premium Growth (Life and Non-Life): 2012



Market	Life	Non-Life	Total	
Advanced	1.8	1.5	1.7	
Emerging	4.9	8.6	6.8 <	
World	2.3	2.6	2.4	

growth in emerging markets was 4 times that of advanced economies in 2012

Source: Swiss Re, sigma, No. 3/2013; Insurance Information Institute.

Non-Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2012



Market	Life	Non-Life	Total
Advanced	1.8	1.5	1.7
Emerging	4.9	8.6	6.8
World	2.3	2.6	2.4

Source: Swiss Re, sigma, No. 3/2013.

Global Real (Inflation Adjusted) Nonlife Premium Growth: 1980-2010



Net Premium Growth: Annual Change, 1971—2013:Q3



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

Non-Life Insurance: Global Real (Inflation **Adjusted) Premium Growth, 2012**



- Pre-crisis average growth 2004–2007
- Post-crisis average growth 2009–2012

Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2012



Market	Life	Non-Life	Total
Advanced	1.8	1.5	1.7
Emerging	4.9	8.6	6.8
World	2.3	2.6	2.4

Source: Swiss Re, sigma, No. 3/2013.

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Life Insurance: Global Real (Inflation Adjusted) Premium Growth, 2012



Pre-crisis average growth 2004–2007

Post-crisis average growth 2009–2012

Growth rate 2012

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Life and Non-Life Insurance Penetration as a % of GDP: 1962-2012



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Premiums Written in Life and Non-Life, by Region: 1962-2012



Emerging market shares rose rapidly over the past 50 years



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Population Distribution, by Region: 1962-2062F



Enormous population shifts will impact insurance demand over the next half century



Source: Swiss Re, sigma, No. 3/2013 from United Nations Department of Economic and Sovial Affairs, Population Division.

Relationship Between Real GDP and Real Life and Non-Life Premium Growth, 2012

Advanced Markets 20% 15% Real premium growth 2012 10% 5% 0% -5% -10%-15% -20% -8% -6% -4% -2% 0% 2% 4% 6% Real GDP growth 2012 Life insurance Non-life insurance GDP growth equal to premium growth The was a clear but highly relationship between real GDP growth and real premium growth in advance markets in 2012

Emerging Markets



The correlation between real GDP growth and real premium growth in emerging markets was much stronger than in advanced markets in 2012

Source: Swiss Re, sigma, No. 3/2013.

Insurance Density and Penetration for Advanced and Emerging Markets, 2012



Advanced Markets Premiums in USD 0 1000 2000 3000 4000 5000 6000 7000 8000 Switzerland Netherlands Denmark Japan uxembourg Finland Hong Kong Norway United Kinadom United States Ireland Australia G7 Sweden Tawan Average Belgium France Canada Singapore Germany South Korea EU. 27 countries Austria New Zealand Spending and penetration are Italy Spain generally much higher in srael advanced markets, though growth Portugal Iceland is fastest in emerging markets Cyprus Malta ٠ Greece 0% 5% 10% 20% 15%

Life premiums per capita

Non-life premiums per capita • Premiums as a % of GDP



Source: Swiss Re, sigma, No. 3/2013.



The Unfortunate Nexus: Opportunity, Risk & Instability

Most of the Global Economy's Future Gains Will be Fraught with Much Greater Risk and Uncertainty than in the Past
Terrorism Risk in 2013: Greatest Business Opportunities Are Often in Risky Nations





*** Please Select Country from the dropdown or Click on Map to get Country Snapshot ***

Terrorism remains a greater concern in the Middle East, Africa and South Asia

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Source: Aon PLC; Insurance Information Institute.

Political Risk in 2013: Greatest Business Opportunities Are Often in Risky Nations

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Latin and South America also present insurers with growth opportunities but political instability has increased markedly

Risk Rating

*** Please Select Country from the dropdown or Click on Map to get Country Snapshot ***

The fastest growing markets are generally also among the politically riskiest, including East and South Asia and Africa

Problems in the Ukraine will intensify political risk in several former Soviet republics

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Gap Between Economic and Insured Losses: 1980–2013



Sources: Guy Carpenter, Swiss Re; Insurance Information Institute .



Some Key Drivers in the US Economy

External Economic Considerations that Could Drive Growth

Unemployment and Underemployment Rates: Still Too High, But Falling





Source: US Bureau of Labor Statistics; Insurance Information Institute.

US Unemployment Rate Forecast



📒 = actual; 📃 = forecasts

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (3/14 edition); Insurance Information Institute.

Monthly Change in Private Employment



Private Employers Added 8.64 million Jobs Since Jan. 2010 After Having Shed 5.01 Million Jobs in 2009 and 3.76 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

Source: US Bureau of Labor Statistics: <u>http://www.bls.gov/ces/home.htm</u>; Insurance Information Institute

New Private Housing Starts, 1990-2019F



Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the "Great Recession" Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (3/14 and 3/13); Insurance Information Institute.

Florida Total Private Housing Starts, 2000 – 2017F



U.S. Residual Market: Total Policies In-Force (1990-2012) (000)



U.S. Residual Market Exposure to Loss (1990-2012) (\$ Billions)



Source: PIPSO; Insurance Information Institute (I.I.I.).

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Value of New Private Construction: Residential & Nonresidential, 2003-2013*



Remains Well Below Pre-Crisis Peak; Residential Dominates

*2013 figure is a seasonally adjusted annual rate as of December.

Sources: US Department of Commerce; Insurance Information Institute.

Value of Private Construction Put in Place, by Segment, Jan. 2014 vs. Jan. 2013*



Private Construction Activity is Up in Most Segments, Including the Key Residential Construction Sector; Bodes Well for Early 2014

*seasonally adjusted

Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.

Private Construction by Segment/Project Type, Jan. 2014 vs. Jan. 2013*



Private Construction Activity is Up in Many Segments, Including the Key Residential Construction Sector, But Down in a Few

*seasonally adjusted

Source: U.S. Census Bureau, <u>http://www.census.gov/construction/c30/c30index.html</u>; Insurance Information Institute.

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Value of New Federal, State and Local Government Construction: 2003-2013*



Government Construction Spending Peaked in 2009, Helped by Stimulus Spending, but Continues to Contract As State/Local Governments Grapple with Deficits and Federal Sequestration Takes Hold

*2013 figure is a seasonally adjusted annual rate as of December. Sources: US Department of Commerce; Insurance Information Institute.

Surety, Net Premiums Written, 1990-2013E, (\$ millions)



Note: 1990-1992 includes Financial Guaranty.

Source: A.M. Best; Insurance Information Institute estimate for 2013 based on 9-month data from SNL Financial.

Surety Combined Ratio, 1990-2012*



*Net basis. Note: 1990-1992 includes Financial Guaranty.

Source: A.M. Best; Insurance Information Institute.

Construction Employment, Jan. 2010—February 2014*





Construction and manufacturing employment constitute 1/3 of all payroll exposure.

*Seasonally adjusted.

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

Dollar Value* of Manufacturers' Shipments Monthly, Jan. 1992—Dec. 2013





Monthly shipments in Dec. 2013 exceeded the pre-crisis (July 2008) peak. Manufacturing is energy-intensive and growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property, and various Liability Coverages.

*seasonally adjusted; Dec. 2013 is preliminary; data published February 4, 2014. Source: U.S. Census Bureau, Full Report on Manufacturers' Shipments, Inventories, and Orders, http://www.census.gov/manufacturing/m3/

Manufacturing Growth for Selected Sectors, 2013 vs. 2012*



Manufacturing Is Expanding—Albeit Slowly—Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages

*Seasonally adjusted; Date are YTD comparing data through November 2013 to the same period in 2012. Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders, http://www.census.gov/manufacturing/m3/*

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Manufacturing Employment, Jan. 2010—February 2014*



Manufacturing employment is a surprising source of strength in the economy. Employment in the sector is at a multi-year high.

*Seasonally adjusted; Jan. and Feb. 2014 are preliminary Sources: US Bureau of Labor Statistics at <u>http://data.bls.gov</u>; Insurance Information Institute.

Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q4





Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: <u>http://research.stlouisfed.org/fred2/series/WASCUR;</u> National Bureau of Economic Research (recession dates); Insurance Information Institute.

Business Investment: Expected to Accelerate, Fueling Commercial Exposure Growth



Source: IHS Global Insights as of Jan. 13, 2014; Insurance Information Institute.

ISM Non-Manufacturing Index (Values > 50 Indicate Expansion)



Non-manufacturing industries have been expanding and adding jobs. This trend is likely to continue through 2014.

Source: Institute for Supply Management at http://www.ism.ws/ismreport/nonmfgrob.cfm; Insurance Information Institute.

Business Bankruptcy Filings, 1980-2013



Sources: American Bankruptcy Institute (1980-2012) at

http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=61633; 2013 data from United States Courts at http://news.uscourts.gov; Insurance Information Institute.

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12 Industries for the Next 10 Years: **Insurance Solutions Needed**

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Health Care	
Health Sciences	Many industries are poised for growth, though insurers' ability to capitalize on these industries
Energy (Traditional)	
Alternative Energy	
Petrochemical	
Agriculture	
Natural Resources	
Technology (incl. Biotechnology)	varies widely
Light Manufacturing	
Insourced Manufacturing	
Export-Oriented Industries	
Shipping (Rail, Marine, Trucking, Pipelines)	

U.S. Natural Has Imports and Exports, 1990 - 2040





The US is now the largest gas producer in the world, though Russia is the largest exporter. The US needs to invest in its pipeline and LNG infrastructure and expedite regulatory approval to realize its full export potential

U.S. Electricity Generation by Fuel, 1990 - 2040

Trillions of kilowatt Hours



U.S. Primary Energy Consumption by Fuel, 1990 - 2040

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U.S. Petroleum and Other Liquid Fuel Supplies by Source, 1990 - 2040

Millions of Barrels per Day



Liquid fuel consumption is expected to change little through 2040, though "tight" oil will account for a much larger share thereby reducing imports of petroleum products

Oil & Gas Extraction Employment, Jan. 2010—Feb. 2014*





*Seasonally adjusted

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



The Future of Healthcare in America

P/C Insurers Are Increasingly Along for the Ride in the American Health Care Saga

U.S. Health Care Expenditures, 1965–2022F





most of the past half century, far outstripping population growth, inflation of GDP growth

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

National Health Care Expenditures as a Share of GDP, 1965 – 2022F*





Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at <u>http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html</u> accessed 3/14/14; Insurance Information Institute.

Rate of Health Care Expenditure Increase Compared to Population, CPI and GDP



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Medical Cost Inflation vs. Overall CPI, 1995 - 2013



Sources: Med CPI from US Bureau of Labor Statistics, WC med severity from NCCI based on NCCI states.
WC Medical Severity Generally Outpaces the Medical CPI Rate



Sources: Med CPI from US Bureau of Labor Statistics, WC med severity from NCCI based on NCCI states.



CYBER RISK

Cyber Risk is a Rapidly Emerging Exposure for Businesses Large and Small in Every Industry

NEW III White Paper:

http://www.iii.org/assets/docs/pdf/paper_CyberRisk_2013.pdf



Do you see the market for cyber risk insurance products as a major growth opportunity for commercial insurers?

- A. Yes—Cyber products represent one of the industry's brightest growth opportunities over the next several years
- **B.** No—Cyber products represent only limited growth opportunities for insurers
- C. Opportunities for insurers in the cyber insurance market have been overly hyped

Data Breaches 2005-2013, by Number of Breaches and 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.



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







Insurance Shares Continued to Rise

Sources: Towers Watson, 2011 Update on US Tort Cost Trends, III Calculations based on data from Appendix 4.

Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010





73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10

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.

Sources: Towers Watson, 2011 Update on US Tort Cost Trends, III Calculations based on data from Appendix 4.

Business Leaders Ranking of Liability Systems in 2012





Source: US Chamber of Commerce 2012 State Liability Systems Ranking Study; Insurance Info. Institute.

The Nation's Judicial Hellholes: 2012/2013

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P/C Insurance & Reinsurance Operating Environment

External and Internal Influences Exert Impacts



P/C (Re)Insurance Industry Financial Overview

2013: Best Year in the Post-Crisis Era

Performance Improved with Lower CATs, Strong Markets

P/C Net Income After Taxes 1991–2013:Q3 (\$ Millions)





•ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.9% ROAS through 2013:Q3, 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 – 2013:Q3*



*Profitability = P/C insurer ROEs. 2011-13 figures are estimates based on ROAS data. Note: Data for 2008-2013 exclude mortgage and financial guaranty insurers.

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

A 100 Combined Ratio Isn't What It Once Was: Investment Impact on ROEs



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

* 2008 -2013 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2013:9M combined ratio including M&FG insurers is 95.8; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%.
Source: Insurance Information Institute from A.M. Best and ISO Verisk Analytics data.

ROE: Property/Casualty Insurance vs. Fortune 500, 1987–2013E*



* Excludes Mortgage & Financial Guarantee in 2008 – 2013E. 2013 P/C ROE is through 2013:Q3. Sources: ISO, *Fortune*; Insurance Information Institute.

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ROE: ROEs by Industry vs. Fortune 500, 1987–2012*



* All figures are GAAP.

Sources: ISO, Fortune; Insurance Information Institute.

RNW All Lines by State, 2003-2012 Average: Highest 25 States



RNW All Lines by State, 2003-2012 Average: Lowest 25 States





1. UNDERWRITING

Underwriting Losses in 2013 Much Improved After High Catastrophe Losses in 2011/12

P/C Insurance Industry Combined Ratio, 2001–2013:Q3*





* 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:Q3 = 95.8.

Sources: A.M. Best, ISO.

Number of Years with Underwriting Profits by Decade, 1920s–2010s



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. guaranty insurers was 99.3, which would bring the 2000s total to 4 years with an u/w profit. **Data for the 2010s is for the period 2010 through 2013.

Note: Data for 1920–1934 based on stock companies only.

Sources: Insurance Information Institute research from A.M. Best Data.

Underwriting Gain (Loss) 1975–2013:Q3*

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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.

Combined Ratios by Predominant Business Segment, 2013:9M vs. 2012:9M*



P/C Reserve Development, 1992–2015E



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: A.M. Best, ISO, Barclays Research (estimates).

P/C Estimated Loss Reserve Deficiency/ (Redundancy), Excl. Statutory Discount



Line of Business	2013
Personal Auto Liability	-\$3.9B
Homeowners	-\$0.4
Other Liab (incl. Prod Liab)	\$7.5
Workers Compensation	\$11.1
Commercial Multi Peril	\$1.9
Commercial Auto Liability	\$0.7
Medical Professional Liab.	-\$3.5
Reinsurance—Nonprop Assumed	\$1.0
All Other Lines*	-\$4.6
Total Core Reserves	\$9.8
Asbestos & Environmental	\$11.2
Total P/C Industry	\$21.0B

Source: A.M. Best, P/C Review/Preview 2014; Insurance Information Institute. *Excluding mortgage and financial guaranty



Performance by Segment

Commercial Lines Combined Ratio, 1990-2015F*



*2007-2012 figures exclude mortgage and financial guaranty segments. Source: A.M. Best (1990-2014F); Conning (2015F) Insurance Information Institute.

Commercial Auto Combined Ratio: 1993–2015F



Commercial Auto is Expected to Improve as Rate Gains Outpace Any Adverse Frequency and Severity Trends

Sources: A.M. Best (1990-2014F); Conning (2015F); Insurance Information Institute.

Commercial Multi-Peril Combined Ratio: 1995–2015F



Commercial Multi-Peril Underwriting Performance is Expected to Improve in 2013 Assuming Normal Catastrophe Loss Activity

*2013F-2012F figures are Conning figures for the combined liability and non-liability components.. Sources: A.M. Best; Conning; Insurance Information Institute.

General Liability Combined Ratio: 2005–2015F



Commercial General Liability Underwriting Performance Has Been Volatile in Recent Years

Inland Marine Combined Ratio: 1999–2015F



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

Other & Products Liability Combined Ratio: 1991–2013F



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, 1991-2015F





U.S. Insured Catastrophe Loss Update

2013 Was a Welcome Respite from the High Catastrophe Losses in Recent Years

U.S. Insured Catastrophe Losses



*Through 12/31/13.

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.

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Insurers Making a Difference in Impacted Communities







Presentation of a check to Moore, OK, Public School Relief Fund 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

Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2013*



*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 10 States for Insured Catastrophe Losses, 2013



\$ Millions



Top 5 States by Insured Catastrophe Losses in 2012*



*Includes catastrophe losses of at least \$25 million. Sources: PCS unit of ISO; Insurance Information Institute. INSURANCE

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Top States by Inflation-Adjusted Insured Catastrophe Losses, 1983–2012

Over the Past 30 Years Florida Has Accounted for the Largest Share of Catastrophe Losses in the U.S., Followed by Texas and Louisiana



Source: PCS unit of ISO, Verisk Company.; Insurance Information Institute.

Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1993–2012¹



- 1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2012 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.

Top 16 Most Costly Disasters in U.S. History

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(Insured Losses, 2012 Dollars, \$ Billions)



*PCS estimate as of 4/12/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

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

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(Insured Losses, 2012 Dollars, \$ Billions)



*Figures do not include federally insured flood losses.

**Estimate based on PCS value of \$18.75B as of 4/12/13.

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

Top 12 Most Costly Hurricanes in U.S. History



(Insured Losses, 2012 Dollars, \$ Billions)

10 of the 12 most costly hurricanes in insurance history occurred over the past 9 years (2004–2012)



*PCS estimate as of 4/12/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

Total Value of Insured Coastal Exposure in 2012

(2012, \$ Billions)



Total Value of Insured Coastal Exposure in 2007

(2007, \$ Billions)



Hurricane Sandy: Average Claim Payment by Type of Claim



Post-Sandy, the I.I.I. worked very hard to make help media, consumers and regulators understand the distinction between a flood claim and a standard homeowners claim. *NFIP is \$24B in debt.*

*Includes rental and condo policies (excludes NFIP flood). **As of Oct. 31, 2013.

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of March 2013; Insurance Information Institute.

Total Potential Home Value Exposure to Storm Surge Risk in 2013*

(\$ Billions)



*Insured and uninsured property. Based on estimated property values as of April 2013.

Source: Storm Surge Report 2013, CoreLogic.

Top 10 Winter Storm and Winter Damage Events in the US and Canada, 1980-2013* THINST



Ranked by Insured Loss, in Millions of \$ 2013*

Period	Area	Economic Loss (in inflation- adjusted 2013 \$US mill)	Insured Loss (in inflation-adjusted 2013 \$US mill)	Fatalities
Mar. 11-14, 1993	CAN, USA	8,061	3,224	270
Dec. 17-30,1983	USA	2,339	2,058	500
Apr. 13-17, 2007	CAN, USA	2,247	1,775	23
Dec. 10-13, 1992	USA	4,981	1,660	19
Jan. 5-12, 1998	CAN, USA	4,145	1,644	45
Feb. 10-12, 1994	USA	4,716	1,258	9
Jan. 17-20, 1994	USA	1,572	1,258	70
Apr. 7-11, 2013	USA	1,600	1,200	N/A
Jan. 1-4, 1999	CAN, USA	1,398	1,084	25
Jan. 31-Feb. 2, 2011	USA	1,346	1,010	36

*Top 10 events in original insured loss dollars were adjusted to and ranked by the Insurance Information Institute to 2013 inflation-adjusted values. Sources: Munich Re NatCatSERVICE; Insurance Information Institute.

Winter Storm and Winter Damage Events in the US and Canada, 1980-2013 (2013 US\$)



Insured winter storm and damage losses in Jan. 2014 already totaled \$1.5 billion. Continued severe weather since then makes it likely that 2014 will become one of the top 5 costliest winters since 1980.

Sources: Munich Re NatCatSERVICE; Insurance Information Institute.

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



As of December 31, 2013	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
Severe Thunderstorm	69	110	16,341	10,274
Winter Storm	11	43	2,935	1,895
Flood	19	23	1,929	240
Earthquake & Geophysical	6	1	Minor	Minor
Tropical Cyclone	1	1	Minor	Minor
Wildfire, Heat, & Drought	22	29	620	385
Totals	128	207	21,825	12,794

Significant Natural Catastrophes, 2013



Date	Event	Estimated Economic Losses (US \$m)	Estimated Insured Losses (US \$m)
February 24 – 25	Winter Storm	1,300	690
March 18 – 19	Thunderstorms	2,200	1,600
April 7 – 11	Winter Storm	1,600	1,200
April 16 – 18	Thunderstorms	1,100	560
May 18 – 20	Thunderstorms	3,100	1,800
May 28 – 31	Thunderstorms	2,800	1,400
August 6 – 7	Thunderstorms	1,300	740
September 9 – 16	Flooding	1,500	160
November 17 - 18	Thunderstorms	1,300	931

INSURANCE INFORMATION

U.S. Thunderstorm Insured Loss Trends, 1980 – 2013



Insured Homeowners Losses Due to Lightning, 2004-2012



\$ Millions



The Increased Number and Value of Expensive Electronic Devices in Homes is Pushing the Total Lightning Claim Costs Up Even as the Number of Lightning Claims Falls

Natural Disasters in the United States, 1980 – 2013 Number of Events (Annual Totals 1980 – 2013)



INSURANCE

INFORMATION

Number of Acres Burned in Wildfires, 1980 – 2013





Losses Due to Natural Disasters in the US, 1980–2013





Insured US Tropical Cyclone Losses, 1980 - 2013



The current 5-year average (2008 - 2013) insured tropical cyclone loss is \$5.6 billion per year.



Sources: Property Claims Service, Munich Re NatCatSERVICE, NFIP

U.S. Residual Market: Total Policies In-Force (1990-2012) (000)



U.S. Residual Market Exposure to Loss (1990-2012) (\$ Billions)



Source: PIPSO; Insurance Information Institute (I.I.I.).

FORMATION

Homeowners Insurance Catastrophe-Related Claim Frequency and Severity, 1997—2012*



*All policy forms combined, countrywide.

Source: Insurance Research Council, Trends in Homeowners Insurance Claims, Sept. 2012 from ISO Fast Track data.

Natural Loss Events: Full Year 2013





- **Natural catastrophes** 0
- \bigcirc Selection of significant **Natural catastrophes**

- **Geophysical events** (earthquake, tsunami, volcanic activity) **Meteorological events** (storm)
- Hydrological events (flood, mass movement)
- **Climatological events** \bigcirc (extreme temperature, drought, wildfire)
- Extraterrestrial events (Meteorite impact)

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

Natural Disasters Worldwide, 1980 – 2013 (Number of Events)





Losses Due to Natural Disasters Worldwide, 1980–2013 (Overall & Insured Losses)





Flood Insurance

Biggert-Waters 2012 Created Opportunity for Private Insurers

2014 Backtracking on Those Reforms Reduces Opportunities

Hurricane Sandy: Average Claim Payment by Type of Claim



Post-Sandy, the I.I.I. worked very hard to make help media, consumers and regulators understand the distinction between a flood claim and a standard homeowners claim. *NFIP is \$24B in debt.*

*Includes rental and condo policies (excludes NFIP flood). **As of Oct. 31, 2013.

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of March 2013; Insurance Information Institute.

Total Potential Home Value Exposure to Storm Surge Risk in 2013*

(\$ Billions)



*Insured and uninsured property. Based on estimated property values as of April 2013.

Source: Storm Surge Report 2013, CoreLogic.



Q. Do you think it is fair that flood insurance premium increases are higher if people who live in high flood risk areas and rebuild their homes do not elevate them?



Almost two-thirds of Americans think that it is fair that flood insurance premiums be raised for people who live in high flood risk areas and rebuild their homes after a flood but do not elevate them.

Source: Insurance Information Institute Annual Pulse Survey.



Terrorism Update

Down to the Wire? Boston Bombings Underscore the Need for Extension of the Terrorism Risk Insurance Program Download III's Terrorism Insurance Report at: <u>http://www.iii.org/white_papers/terrorism-</u> risk-a-constant-threat-2013.html

Loss Distribution by Type of Insurance from Sept. 11 Terrorist Attack (\$ 2011)



NSURANCE

Total Insured Losses Estimate: \$40.0B**

*Loss total does not include March 2010 New York City settlement of up to \$657.5 million to compensate approximately 10,000 Ground Zero workers or any subsequent settlements.

**\$32.5 billion in 2001 dollars.

Source: Insurance Information Institute.

Terrorism Insurance Take-up Rates, By Year, 2003-2012



In 2003, the first year TRIA was in effect, the terrorism take-up rate was 27 percent. Since then, it has increased steadily, remaining in the low 60 percent range since 2009.

Source: Marsh Global Analytics, 2013 Terrorism Risk Insurance Report, May 2013.
Terrorism Risk Insurance Program



- Testified before Senate Banking Cmte. in Sept. 2013
- Testified before House Financial Services Nov. 2013
- Provided testimony at NYC hearing on June 2013
- I.I.I. Accelerated Planned Study on Terrorism Risk and Insurance in the Wake of Boston and Hearings; Was Well Received and Widely Circulated
 - Working with Trades, Congressional Staff, GAO & Others





Senate Banking Committee, 9/25/13

House Financial Services Subcommittee, 11/13/13



SURPLUS/CAPITAL/CAPACITY

2013 Recorded Yet Another Record High in the Primary and Reinsurance Sectors

Policyholder Surplus, 2006:Q4–2013:Q3

INSURANCE INFORMATION INSTITUTE



The industry now has \$1 of surplus for every \$0.78 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 . Sources: ISO, A.M .Best.

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

US Policyholder Surplus: 1975–2013*





The Premium-to-Surplus Ratio Stood at \$0.78:\$1 as of 9/30/13, a Near Record Low (at Least in Recent History)*

* As of 9/30/13.

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

U.S. INSURANCE MERGERS AND ACQUISITIONS, 10 2002-2012 (1)





(1) Includes transactions where a U.S. company was the acquirer and/or the target.

Source: Conning proprietary database.



REINSURANCE MARKET CONDITIONS

Ample Capacity as Alternative Capital is Transforming the Market



(\$ Billions)



Global Reinsurance Capital Has Been Trending Generally Upward Since the Global Financial Crisis, a Trend that Seems Likely to Continue

*Includes both traditional and non-traditional forms of reinsurance capital.

Source: Aon Benfield Aggregate study for the 6 months ending June 2013; Insurance Information Institute.

Long-Term Evolution of Shareholders' Funds for the Guy Carpenter Global Reinsurance Composite



INSURANCE

INFORMATION

Source: Guy Carpenter

Reinsurance Pricing: Rate-on-Line Index by Region, 1990 – 2014*





*As of Jan. 1. Source: Guy Carpenter

Alternative Capacity as a Percentage of Global Property Catastrophe Reinsurance Limit

(As of Year End)



Source: Guy Carpenter

Sources of Reinsurance Capital Change: YE 2012 to YE 2013





Source: Guy Carpenter in conjunction with A.M. Best

USD Billions

Sources: Guy Carpenter and A.M. Best; Insurance Information Institute .

Property Catastrophe Reinsurance Capacity by Source as of Mid-2013 (\$ Bill)



Source: Guy Carpenter; Mid-Year Market Report, September 2013; Insurance Information Institute.

Alternative Capacity Development, 2001—2013:H1

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Source: Guy Carpenter; Mid-Year Market Report, September 2013; Insurance Information Institute.

Investor by Category, 2013 vs. 2012*

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Source: Aon Benfield Securities; Insurance Information Institute.

Non-Traditional Property Catastrophe Limits by Type, YE 2012 vs. YE 2015E



NON-TRADITIONAL P/CAT LIMITS BY TYPE



Source: Guy Carpenter; *As Of Mar-2013

Source: Guy Carpenter; Reinsurance Association of America; Insurance Information Institute.

Catastrophe Bonds: Issuance and Outstanding, 1997-2013*





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Catastrophe Bond Issuance Is Approaching Pre-Crisis Levels While Risk Capital Outstanding Stands at an All-Time Record

*Through Dec. 31, 2013. Source: Guy Carpenter; Insurance Information Institute.

Questions Arising from Influence of Alternative Capital

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- Could Pension Fund Money Swamp Traditional Capacity?
 - US private pension funds hold ~\$7 trillion in assets
 - 2% allocation = \$140 billion
 - Global property cat capital = ~\$316 bill as of mid-2013
- Do New Investors Have a Lower Cost of Capital?
 - New capacity expects 6-8% rate of return compared to 8-10% for traditional reinsurance, according to Dowling & Partners
- Will Reinsurance Pricing Become More Closely Linked to Interest Rates?

Terms and Conditions Could Weaken

Multi-year deals



INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

Property/Casualty Insurance Industry Investment Income: 2000–2013*1



Investment Income Fell in 2012 and is Falling in 2013 Due to Persistently Low Interest Rates, Putting Additional Pressure on (Re) Insurance Pricing

¹ Investment gains consist primarily of interest and stock dividends.. *Estimate based on annualized actual 9M:2013 investment income of \$34.338B. Sources: ISO: Insurance Information Institute.

P/C Insurer Net Realized Capital Gains/Losses, 1990-2013:Q3



90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 1213:9M

Insurers Posted Net Realized Capital Gains in 2010, 2011 and 2012 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were the Primary Cause of 2008/2009's Large Drop in Profits and ROE

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

Property/Casualty Insurance Industry Investment Gain: 1994–2013:Q3¹

(\$ Billions)



Investment Income Continued to Fall in 2013 Due to Low Interest Rates but Realized Investment Gains Were Up Sharply; 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;

Sources: ISO; Insurance Information Institute.

Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line*





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.

U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2014*



'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14

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 February 2014. Note: Recessions indicated by gray shaded columns. Sources: Federal Reserve Bank at <u>http://www.federalreserve.gov/releases/h15/data.htm</u>. National Bureau of Economic Research (recession dates); Insurance Information Institutes. INSURANCE

U.S. Treasury Security Yields: A Long Downward Trend, 1990–2014*



*Monthly, constant maturity, nominal rates, through February 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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Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014



The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Until Unemployment Drops Below 6.5% or Until Inflation Expectations Exceed 2.5%; Low Rates Add to Pricing Pressure for Insurers.

Source: Federal Reserve Board of Governors; Insurance Information Institute.

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Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014



Higher longer-term yields will help insurers but short term yields are expected to lag behind

Source: Federal Reserve Board of Governors (2006-2013), Swiss Re (2014-2015); Insurance Information Institute.

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Outlook for U.S. Treasury Bond Yields Through 2015



Long-term yields should begin to normalize in 2014 but short-term yields will % Yield remain very low until 2015 4.20 4.5 4.0 3.50 ■ 3-Month ■ 5-Year ■ 10-Year 3.5 3.0 2.35 2.30 2.5 1.80 1.80 2.0 1.40 1.5 1.17 0.76 1.0 0.5 0.06 0.09 0.10 0.0 2012 2013 2014F 2015F

Longer-tail lines like MPL and workers comp will benefit the most from the normalization of yields

Source: Federal Reserve Board of Governors (2012-2013), Swiss Re (2014-2015); Insurance Information Institute.

Average Maturity of Bonds Held by US P/C Insurers, 2006—2011*

Average Maturity (Years)



Falling Average Maturity (and Duration) of the P/C Industry's Bond Portfolio is Contributing to the Drop in Investment Income Along With Lower Yields

*Year-end figures. Latest available.

Sources: Insurance Information Institute calculations based on A.M. Best data.

Distribution of Bond Maturities, P/C Insurance Industry, 2003-2012

The main shift over these years has been from bonds with longer maturities to bonds with shorter maturities. The industry first trimmed its holdings of over-10-year bonds (from 24.6% in 2003 to 15.5% in 2012) and then trimmed bonds in the 5-10-year category (from 31.3% in 2003 to 27.6% in 2012). Falling average maturity of the P/C industry's bond portfolio is contributing to a drop in investment income along with lower yields.

60%

80%

100%

Sources: SNL Financial; Insurance Information Institute.

20%

40%

0%

Bonds Rated NAIC Quality Category 3-6 as a Percent of Total Bonds, 2003–2012

There are many ways to capture higher yields on bond portfolios. One is to accept greater risk, as measured by NAIC bond ratings. The ratings range from 1 to 6, with the highest quality rated 1. Even in 2012, over 95% of the industry's bonds were rated 1 or 2.

Sources: SNL Financial; Insurance Information Institute.

PRICING DISCIPLINE: MIXED PICTURE

Commercial Renewal Pricing Under Some Pressure

Net Premium Growth: Annual Change, 1971—2013:Q3

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

Growth in Direct Written Premium by Line, 2013-2015F*

Average Commercial Rate Change, All Lines, (1Q:2004–3Q:2013)

$\begin{array}{c} 1004\\ 2004\\ 2005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\ 3005\\$

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

Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2013:Q3

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 Qtrly. Commercial Rate Changes, WINSURANCE by Account Size: 1999:Q4 to 2013:Q3

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.
Change in Commercial Rate Renewals, by Line: 2013:Q3

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Major Commercial Lines Renewed Uniformly Upward in Q3:2013 for the 9th Consecutive Quarter; Property Lines & Workers Comp Leading the Way; Cat Losses and Low Interest Rates Provide Momentum Going Forward

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.

Rate Movements by Business Segment as of January 1, 2014



Source: Doy Carpenter The Roures provided term are averages and logisficant variability exists in initiatival programs. " Loss Tree

Sources: Guy Carpenter; Insurance Information Institute .

Casualty: Typical Excess of Loss Rate Changes as of Jan. 1, 2014







Regulation: The Ultimate External Factor

Regulation Has Shaped and Reshaped Insurance for Hundreds of Years— *The Future Will Be No Different*



New Waves of Regulations

<u>2008 - Present</u> Global Crisis and Regulatory Response

The Global Financial Crisis: The Pendulum Swings Again: Dodd-Frank & Systemic Risk

- Dodd-Frank Act of 2010: The implosion of the housing bubble and virtual collapse of the US banking system, the seizure of credit markets and massive government bailouts of US financial institutions led to calls for sweeping regulatory reforms of the financial industry
- Limiting Systemic Risk is at the Core of Dodd-Frank
- Designation as a Systemically Important Financial Institutional (SIFI) Will Result in Greater Regulatory Scrutiny and Heightened Capital Requirements
- Dodd-Frank Established Several Entities Impacting Insurers
 - Federal Insurance Office
 - Financial Stability Oversight Council
 - Office of Financial Research
 - Consumer Financial Protection Bureau

The Global Financial Crisis: The Pendulum Swings Again: Dodd-Frank & Systemic Risk



- Insurers—as Non-Bank Financial Institutions—Have Escaped Some, though Not All of the Most Draconian Provision of Dodd-Frank
 - In particular, small number of large insurers will (are) receiving a designations as Systemically Important Financial Institutions (SIFIs)
- Insurers Generally Reject the Notion that Insurance Is Systemically Risky (or that any Individual Insurer is Systemically Important)
- Such a Designation Makes the Fed the Penultimate Regulator
- To Date: AIG, Prudential Have Been Designated as non-bank SIFIs by the FSOC
 - MetLife is still under evaluation
- Fed Reserve Seems Open to Developing a Tailored Capital Requirement Approach for Insurers
 - Conflicting language in the DFA make this somewhat difficult
 - SIFIs may need Fed approval to repurchase shares on increase dividend

Global Financial Crises & Global Systemic Risk



- The Global Financial Crisis Prompted the G-20 Leaders to Request that the Financial Stability Board (FSB) Assess the Systemic Risks Associated with SIFIs, Global-SIFIs in Particular
- In July 2013, the FSB Endorsed the International Association of Insurance Supervisors Methodology for Identifying Globally Systemically Important Insurers (G-SIIs)
- For Each G-SII, the Following Will Be Required:
 - (i) Recovery and resolution plans
 - (ii) Enhanced group-wide supervision
 - (iii) Higher loss absorbency (HLA) requirements
- G-SIIs as Designated by the FSB as of July 2013:

 Allianz SE 	AIG	Assicurazioni Generali
 Aviva 	Axa	MetLife
 Ping An 	Prudential Financial	Prudential plc

Global Financial Crises & Global Systemic Risk: Key Dates



Implementation Date	Action	
July 2013	Designation of G-SIIs (annual updates thereafter beginning Nov. 2014)	
July 2014	FSB to make a decision on the G-SII status of, and appropriate risk mitigating measures for major reinsurers	
By G-20 Summit 2014	IAIS to develop backstop capital requirements to apply to all group activities, incl. non-ins. subs.	
End 2015	IAIS to develop HLA requirements that will apply to G-SIIs staring in 2019	
January 2019	G-SIIs to apply HLA requirements	

Sources: Financial Stability Board, "Globally Systemically Important Insurers (G-SIIs) and the Policy Measures that Will Apply to Them," July 18, 2013.

Global Financial Crises & Global Systemic Risk...There's More...



- IAIS Also Plans to Develop the First-Ever Risk-Based Global Insurance Capital Standards by 2016
- Would be Tested in 2017-2018; Implemented in 2019
- Would Be Included as Part of ComFrame and Apply to Internationally Active Insurance Groups (IAIGs): ~50 IAIGs Designations Likely
- While Flexibility May Exist within the Standards, Doubts in the US Are Likely to Be Strong
 - Concern that the standards may be bank-centric
 - Questions as to whether such standards are even needed:
 - "Although US state insurance regulators continue to have doubts about the timing, necessity and complexity of developing a global capital standard given regulatory differences around the globe, we intend to remain fully engaged in the process to ensure that any development augments the strong legal entity capital requirements in the US that have provided proven and tested security for US policyholders and stable insurance markets for consumers and industry." --NAIC President Ben Nelson (P/C 360, Oct. 16, 2013)



Financial Strength & Underwriting

Cyclical Pattern is P-C Impairment History is Directly Tied to Underwriting, Reserving & Pricing

P/C Insurer Impairments, 1969–2012



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

Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2012





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

Reasons for US P/C Insurer Impairments, 1969–2012



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



Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

Rapid Growth 'A Leading Cause' of Impairment'

"The leading causes of impairment are deficient loss reserves (inadequate pricing) and **rapid growth**, together comprising more than 50 percent of annual impairments."

- A.M. Best, 2013

Annualized Growth in **Final Years** 45.0% 39.5% 40.0% 35.0% 27.7% 30.0% 25.0% 20.0% 16.2% 15.0% 10.0% 5.0% 0.0% Tower Legion Reliance Insurance (2001)National (2013)(1999)

Source: SNL Financial, Insurance Information Institute.

Top 10 Lines of Business for US P/C Impaired Insurers, 2000–2012

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Workers Comp and Pvt. Passenger Auto Account for More Than 40 Percent of the Impaired Insurers Since 2000



Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.



Insurance Information Institute Online:

www.iii.org

Thank you for your time and your attention! Twitter: twitter.com/bob_hartwig Download at www.iii.org/presentations