What’s Driving the P/C Industry?

CAS Webinar
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I.I.I. Mission Statement

Improving public understanding of insurance...

...what it does and how it works
10 Key Ways Insurance Drives Economic Growth

**Safety/Security**
1. Insurers are financial first responders
2. Insurers are risk mitigators

**Economic/Financial Stability**
3. Insurers are capital protectors
4. Insurance is a partner in social policy
5. Insurance sustains the supply chain
6. Insurers are capital infusers

**Development**
7. Insurers are community builders
8. Insurance enables infrastructure improvements
9. Insurers are innovation catalysts
10. Insurers are credit facilitators
The State of Resilience
A Case Study: Flood Risk
1982 Union, Missouri, Flood

A Storm for the Ages

Source: Fox2News.com, @BoxxRadio.

Bourbeuse River
Record Crest
33.8 feet
12/5/1982
2015 Union, Missouri, Flood

A Storm for the Ages

Bourbeuse River
Record Crest
34.3 feet
12/29/2019

Sources: CBSnews.com; fox2news.com
2017: A Record Year Of Catastrophe Losses

- Flooding events spurred 73% of federal disaster declarations
- Thunderstorm related losses 2\textsuperscript{nd} highest ever in U.S.
- $14 billion insured wildfire losses; California damage estimated ~$11 billion
- N.A. hurricane season record-breaking insured & economic losses; disasters affected >25 million Americans
- Cyber: Risk continuing to increase
- Auto: Reaching epidemic proportions
Actuaries Climate Index – Measuring Weather Extremes

Seasonal Five-Year Moving Average, United States

1961-1990: Index Average is 0.00

Index Measures Frequency of Extreme Events (Heat, Drought, Wind, Rain, Sea Level) Vs. 1961-1990 Average

Source: Actuaries Climate Index, http://actuariesclimateindex.org/home/
NFIP Payouts To The Small Group Of Americans With Flood Insurance Have Skyrocketed

78% Of NFIP's Payouts Have Occurred In The Last 13 Years

Cost of Paid NFIP Claims

- Aug 2005: Hurricane Katrina
- Oct 2012: Superstorm Sandy
- Aug 2017: Hurricane Harvey

Source: FEMA NFIP
Coverage Gaps Have Serious Consequences For American Families And Businesses

88% Of American Households Lack Flood Insurance

Major Populations Without Flood Insurance (%):
- Texas: 80%
- Florida: 60%
- Puerto Rico: 99%

Source: McKinsey; FEMA NFIP
The Insurance Coverage Gap Cost Consumers An Estimated $1.3 Trillion From 2005-2015

- Over the last decade, more than 70 percent of all catastrophes losses worldwide were uninsured.

- Flooding is not covered by standard homeowners insurance or commercial insurance policies, making it one of the largest uninsured risks for consumers.

Source: Swiss Re; Wikimedia Commons; DOD
## (Re)insurance Products

<table>
<thead>
<tr>
<th>Private Industry</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FEMA Reinsurance</strong></td>
<td>Through a $150 million purchase of private reinsurance products, FEMA was able to recover approximately $1 billion, or an eighth of its total 2017 losses.</td>
</tr>
<tr>
<td><strong>NFIP NatCat Bonds</strong></td>
<td>By issuing new natural catastrophe bonds geared towards institutional investors, the NFIP can bring an estimated $500 million of additional reinsurance coverage.</td>
</tr>
<tr>
<td><strong>Private Market Flood Products</strong></td>
<td>During 2017, the private flood insurance market added 50 new carriers. Direct private flood insurance premiums written reached $630 million, an increase of $217 million over 2016.</td>
</tr>
</tbody>
</table>

Financial Results

Light, Favorable Winds Buoy Results
Commercial & Personal Lines Direct Premiums

Sources: NAIC via SNL Financial; Insurance Information Institute calculations.

Since 2016:Q1, personal DPW have grown by over 5% but commercial DPW by less than 3%.
The tax reform act at the end of 2017 led to the spike in net written premium in 2018 - $314B at Second Quarter.

As a general rule, net written premium growth tracks nominal GDP growth.

All data through second quarter.
SOURCES: NAIC data sourced through S&P Global Intelligence, Bureau of Economic Affairs, Insurance Information Institute.
Direct Premium Growth, Annual Change

Rising Auto Rates Driving Premium Growth - $337B at Second Quarter.

All data through second quarter.
SOURCES: NAIC data sourced through S&P Global Intelligence, Bureau of Economic Affairs, Insurance Information Institute.
Net underwriting results in the first half of the year have been quite variable, but mostly losses.

Sources: ISO/PCI; Insurance Information Institute.
Even as Prevailing Rates Rise in the Next Few Years, Portfolio Yields Are Unlikely to Rise Quickly, Since Low Yields of Recent Years Are “Baked In” to Future Returns.

Sources: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.
In the first half of the year, net investment income has been steady but realized capital gains/losses have been variable.
In the first half of the year, net income varied considerably.

2018:1H was the second-highest first-half profit in the last dozen years.

*adjusted for inflation using the BLS CPI calculator, to 2018 dollars
Sources: ISO, a Verisk Analytics company; Insurance Information Institute.
Policyholder Surplus By Quarter

Amount of Surplus

($ Billions)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Amount of Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:Q2</td>
<td>749</td>
</tr>
<tr>
<td>10:Q1</td>
<td>761</td>
</tr>
</tbody>
</table>

Change from Prior Quarter

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Change from Prior Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:Q2</td>
<td>0.4%</td>
</tr>
<tr>
<td>15:Q3</td>
<td>-2%</td>
</tr>
<tr>
<td>15:Q4</td>
<td>0%</td>
</tr>
<tr>
<td>16:Q1</td>
<td>-1%</td>
</tr>
<tr>
<td>16:Q2</td>
<td>0%</td>
</tr>
<tr>
<td>16:Q3</td>
<td>-1%</td>
</tr>
<tr>
<td>16:Q4</td>
<td>0%</td>
</tr>
<tr>
<td>17:Q1</td>
<td>-1%</td>
</tr>
<tr>
<td>17:Q2</td>
<td>0%</td>
</tr>
<tr>
<td>17:Q3</td>
<td>-1%</td>
</tr>
<tr>
<td>17:Q4</td>
<td>0%</td>
</tr>
<tr>
<td>18:Q1</td>
<td>-0.4%</td>
</tr>
<tr>
<td>18:Q2</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Tax Law Increased Surplus at Year-End 2017 and Makes Surplus Growth a Bit More Volatile. $1.30 Surplus per $1 Premium.

Sources: ISO, A.M. Best.
2017:Q4 Scuttlebutt

Is a hard market coming?
The three “hard markets” in this 45-year span were in 1976–77, 1985–86, and 2001–03.

The two “hard markets” in this 21-year span were in 1985–86, and 2001–03.
I.I.I. Hypothesis
What causes a hard market?

- Return on equity falls to 4% or below?
- Surplus drops due to financial market declines and/or significant underwriting losses?
- Unusually large losses due to catastrophes?
## P/C Industry ROE and Hard Markets

<table>
<thead>
<tr>
<th>Year</th>
<th>ROE</th>
<th>NWP-GDP Growth in Following Year</th>
<th>Hard Market?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>2.4%</td>
<td>10.7%</td>
<td>Yes</td>
</tr>
<tr>
<td>1984</td>
<td>1.8%</td>
<td>14.6%</td>
<td>Yes</td>
</tr>
<tr>
<td>2001</td>
<td>-1.2%</td>
<td>12.0%</td>
<td>Yes</td>
</tr>
<tr>
<td>2002</td>
<td>2.1%</td>
<td>5.1%</td>
<td>Yes</td>
</tr>
<tr>
<td>2017</td>
<td>5.0%</td>
<td>0.4%*</td>
<td>No</td>
</tr>
</tbody>
</table>

* Direct Written Premium – GDP Growth through Second Quarter
## Policyholder Surplus and Hard Markets

<table>
<thead>
<tr>
<th>Year</th>
<th>Surplus Decline</th>
<th>NWP-GDP Growth in Following Year</th>
<th>Hard Market?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>-2.7%</td>
<td>14.6%</td>
<td>Yes</td>
</tr>
<tr>
<td>1999</td>
<td>-0.9%</td>
<td>-1.5%</td>
<td>No</td>
</tr>
<tr>
<td>2000</td>
<td>-4.7%</td>
<td>5.1%</td>
<td>Yes</td>
</tr>
<tr>
<td>2001</td>
<td>-8.0%</td>
<td>12.0%</td>
<td>Yes</td>
</tr>
<tr>
<td>2008</td>
<td>-12.5%</td>
<td>-2.2%</td>
<td>No</td>
</tr>
<tr>
<td>2011</td>
<td>-0.8%</td>
<td>0.2%</td>
<td>No</td>
</tr>
<tr>
<td>2017</td>
<td>+7.4%</td>
<td>0.4%</td>
<td>No</td>
</tr>
</tbody>
</table>

* Direct Written Premium – GDP Growth through Second Quarter
## CAT Claims and Hard Markets

<table>
<thead>
<tr>
<th>Year</th>
<th>CAT Claims Over $25 billion (2016 Adjusted)</th>
<th>NWP-GDP Growth in Following Year</th>
<th>Hard Market?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>$39.6</td>
<td>0.9%</td>
<td>No</td>
</tr>
<tr>
<td>1994</td>
<td>$27.7</td>
<td>-1.2%</td>
<td>No</td>
</tr>
<tr>
<td>2001</td>
<td>$36.4</td>
<td>12.0%</td>
<td>Yes</td>
</tr>
<tr>
<td>2004</td>
<td>$36.4</td>
<td>-6.2%</td>
<td>No</td>
</tr>
<tr>
<td>2005</td>
<td>$77.1</td>
<td>-3.1%</td>
<td>No</td>
</tr>
<tr>
<td>2008</td>
<td>$30.7</td>
<td>-2.2%</td>
<td>No</td>
</tr>
<tr>
<td>2011</td>
<td>$35.2</td>
<td>0.2%</td>
<td>No</td>
</tr>
<tr>
<td>2012</td>
<td>$36.8</td>
<td>1.3%</td>
<td>No</td>
</tr>
<tr>
<td>2017</td>
<td>$90.5</td>
<td>0.4%</td>
<td>No</td>
</tr>
</tbody>
</table>
Hard Market in 2018?

- **Strong indicator: ≤ 4% ROE**
  - Consistent hard markets in years comparisons.

- **Indifferent indicator: Surplus Increase/Decrease**
  - Inconsistent hard/soft markets in years comparisons.

- **Weak indicator: Large Cat Losses**
  - Consistent non-movement; even with 2017 potentially being one of the worst years on record.
Commercial Rate Changes
Commercial Auto . . . And Everything Else
Rate Changes Worldwide

Rates Soft/Flat, Especially in Reinsurance

**Global Insurance Rates Through Q2 2018**

**Global Reinsurance January Renewals**

Rates Worldwide Increasing a Bit (Australia)

Sources: Marsh Insurance Market Index, JLT Re.
Liability Rate Changes

Slight Softening, Though Local Markets Vary

U.S. Casualty

2.6% - 2.4%

U.S. Financial and Prof Liab

2.7% - 0.9%

SOURCE: Marsh Insurance Market Index.
Property/Cyber Rate Changes

A Flat Market, Though Local Markets Vary

**U.S. Property**

**U.S. Cyber**

SOURCE: Marsh Insurance Market Index.
‘Material’ Increases in Auto, Property, Umbrella; Q2 Increases > Q1 Increases

Sources: Willis Towers Watson, MarketScout.
Property Rates Closely Following Loss Experience, Especially in Catastrophe Prone Areas.

Sources: MarketScout, Insurance Information Institute..
Commercial Auto Rate Change (vs. Year Earlier)

Sources: MarketScout, Insurance Information Institute.
Workers Comp Rate Change (vs. Year Earlier)

Stellar Results Have Created a Soft Market.

Sources: MarketScout, Insurance Information Institute.
Economic Outlook

The Strength of the Economy Will Influence the Insurance Environment

Except for the three “hard markets” in this 47-year period, Net Written Premiums track Nominal GDP—not year by year but fairly well.

Since the start of 2012, the economy (as measured by real GDP) grew 3% or faster (at an annual rate) in a calendar quarter only 10 times in 22 quarters. But twice in the last 5.

*GDPnow estimate

**Percent change from previous quarter, seasonally-adjusted at an annual rate

Sources: U.S. Department of Commerce; Insurance Information Institute.
Quarterly U.S. Real GDP Growth: Range of Forecasts

Tough times ahead? With interest rates rising, most forecasts expect U.S. growth to slow by 2020; some foresee a sharp slowdown.

Sources: Blue Chip Economic Indicators, September 2018 issue; Insurance Information Institute.
The length of the expansions greatly exceeds the length of contractions (recessions).

*Through October 2018; June 2009 was the “official” end of recession.
Sources: National Bureau of Economic Research; Insurance Information Institute.
State-by-State Leading Indicators through February 2019

Near-term growth forecasts vary widely by state. Strongest growth = dark green (1.5%-4.5%); then light green; then gray; weakest = beige (-1.5% to -4.5%)

Sources: Federal Reserve Bank of Philadelphia at www.philadelphiafed.org/index.cfm, released October 4, 2018; Next release is November 5, 2018; Insurance Information Institute.
Growth of Nonresidential Fixed Investment: Implications for Commercial Insurance

Sources: bea.gov, news release “Gross Domestic Product: Second Quarter 2018 (Second Estimate), Table 6; Insurance Information Institute.

Rising exposure base bodes well for commercial premium growth

Percent Change from same quarter, prior year

- Structures
- Equipment
- Intellectual property products
Since nearly 50% of P/C bond/cash investments are in 5-year or longer maturities, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, through August 2018. Sources: Federal Reserve Bank at [http://www.federalreserve.gov/releases/h15/data.htm](http://www.federalreserve.gov/releases/h15/data.htm); National Bureau of Economic Research (recession dates); Insurance Information Institute.

Sources: Blue Chip Economic Indicators (9/18); Insurance Information Institute
Cannabis and Insurance
A Sensitive Issue
Support for Legalization Grows

% Saying Yes

“Do You Think the Use of Marijuana Should Be Made Legal, Or Not?”

No survey in years where no data appears.
Support for Legalization Grows

**% Saying Yes**

“Do You Think the Use of Marijuana Should Be Made Legal, Or Not?”

- **Democrats**: 28, 49, 54, 67, 72
- **Independents**: 50, 28, 50, 67, 72
- **Republicans**: 20, 30, 36, 49, 51

**Sources**: Gallup Poll Social Series, [http://news.gallup.com/poll/221018/record-high-support-legalizing-marijuana.aspx](http://news.gallup.com/poll/221018/record-high-support-legalizing-marijuana.aspx)
Cannabis in the USA

Legalization is Accelerating

Congressional Cannabis Caucus

Rohrbacher (CA)
Bluemenauer (OR)
Young (AK)
Polis (CO)

The Science of Weed

What the Experts Say

- **Conclusive evidence**
  - Improves the lot of adults in chronic pain.

- **Substantial evidence**
  - Increases the risk of motor vehicle crashes.

## Cannabis as Medicine

### Treatments for Occupational-Related Conditions

<table>
<thead>
<tr>
<th>Work-Related Conditions</th>
<th>Cannabis vs. Opioids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Pain</td>
<td>‘Highly suggestive studies’</td>
</tr>
<tr>
<td>Anxiety and Depression</td>
<td>- Death Certificate Study</td>
</tr>
<tr>
<td>PTSD</td>
<td>- Dispensaries Study</td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>- Medicare/Medicaid Study</td>
</tr>
<tr>
<td>Spasticity Following Spinal Cord Injury</td>
<td>- Auto Fatality Study</td>
</tr>
<tr>
<td></td>
<td>Not conclusive – Further Study Needed</td>
</tr>
</tbody>
</table>

Road Safety

Better Economy = More Drivers = More Accidents

14 Percent of Injury Crashes

Economic well-being

Distracted driving

Faster driving

Expensive auto parts

Safety Devices Can Be Expensive

Legalized marijuana

It’s Not Funny

Why rates go up

Source: Insurance Information Institute research.
Accident Probability

Chance of Accident Rises Sharply As Consumption Rises.

Legal Sales Lead to More Accidents

Look at ‘Real World’ Crashes

All Measures Statistically Significant

‘Overall’ Measure a Good Proxy for What Will Happen in Any State

Auto Accidents are 6% of WC claims; 12% of Losses

* Vs. Neighboring States.

SOURCE: Highway Loss Data Institute.
Illegal Everywhere, but What Makes You High?

RI: ‘Zero Tolerance (Medical Exception).’ Rest of NE: ‘Incapable of Driving Safely.’

SOURCE: National Conference of State Legislators, National Organization for Reform of Marijuana Laws (NORML),
Blood Levels vs. Intoxication

BAC and ‘feeling drunk’ rise and fall in lockstep.

THC levels in blood and ‘feeling high’ rise and fall at different rates.

It is difficult to use blood test to measure whether someone is high.

## State of the Debate

### Lots of Questions

<table>
<thead>
<tr>
<th>Insurers Are Asking</th>
<th>Employers Are Asking</th>
<th>Regulators Are Asking</th>
<th>Legislators Are Asking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Schedule I Status Change?</td>
<td>Does WC Cover a High Worker?</td>
<td>How Can Reimbursement Be Handled?</td>
<td>What Are the Key Issues in the Debate?</td>
</tr>
</tbody>
</table>

Employment Trends in Insurance

We’re Doing More With No More People
U.S. Employment in the Direct P/C Insurance Industry: 1990–2018*

*As of July 2018; not seasonally adjusted; Does not include agents & brokers.

Note: Recessions indicated by gray shaded columns.

U.S. Employment in the Reinsurance Industry: 1990–2018*

*As of July 2018; not seasonally adjusted; Does not include agents & brokers.

Note: Recessions indicated by gray shaded columns.


*As of July 2018; not seasonally adjusted. Includes all types of insurance.  
Note: Recessions indicated by gray shaded columns.  
U.S. Employment in Independent Claims Adjusting: 1990–2018*

*As of July 2018; not seasonally adjusted.

Note: Recessions indicated by gray shaded columns.
Questions?
Thank you!

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