P/C Industry Overview and Outlook

Buckeye Actuarial Continuing Education
October 19, 2018

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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
Financial Results

Light, Favorable Winds Buoy Results
Net Premium Growth, Annual Change

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

The tax reform act at the end of 2017 led to the spike in net written premium in 2018 - $314B at Second Quarter.

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

All data through second quarter.
SOURCES: NAIC data sourced through S&P Global Intelligence, Bureau of Economic Affairs, Insurance Information Institute.
Net Underwriting Gains & Losses, 1st Halves of Each Year, 2007-2018

Low Cats in First Half of Year Helped 2017 Result.

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.
Net Investment Gains Vary Mainly With Realized Capital Gains/Losses, 1st Halves, 2007-2018

In the first half of the year, net investment income has been steady but realized capital gains/losses have been variable.

Sources: ISO/PCI; Insurance Information Institute.
P/C Industry Net Income After Taxes*, 1st Halves, 2007-2018

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

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.
P/C Insurance Industry Combined Ratio*

Through Q2.


Policyholder Surplus By Quarter

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.
Ohio Results
An Industry Prospers
P/C Insurer Profitability in OH is Above That of the U.S. Overall Over the Past Decade
U.S.: 7.1%
OH: 9.6%

Source: NAIC.

Average 2007–2016
U.S.: 4.2%
OH: 8.1%

Source: NAIC.

Average 2007–2016
U.S.: 5.6%
OH: 11.4%

Source: NAIC.
All Lines: 10-Year Average RNW OH and Nearby States, 2007–2016

- Ohio: 9.6%
- Indiana: 7.3%
- U.S.: 7.1%
- Pennsylvania: 6.8%
- Kentucky: 5.1%
- Michigan: 2.6%

Ohio All Lines Profitability is Above the U.S. Average and Regional Average (6.3%)

Sources: NAIC, Insurance Information Institute.
PP Auto: 10-Year Average RNW OH and Nearby States, 2007–2016

- **Ohio**: 8.1%
- **Indiana**: 6.3%
- **Pennsylvania**: 5.8%
- **U.S.**: 4.2%
- **Kentucky**: 2.5%
- **Michigan**: -3.0%

Ohio PP Auto Profitability is Above the U.S. and Regional Average (3.9%)

Sources: NAIC, Insurance Information Institute.
Top Ten Most Expensive and Least Expensive States for Automobile Insurance, 2015

<table>
<thead>
<tr>
<th>Rank</th>
<th>Most Expensive States</th>
<th>Average Expenditure</th>
<th>Rank</th>
<th>Least Expensive States</th>
<th>Average Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New Jersey</td>
<td>$1,265.69</td>
<td>1</td>
<td>Idaho</td>
<td>$573.83</td>
</tr>
<tr>
<td>2</td>
<td>New York</td>
<td>1,234.84</td>
<td>2</td>
<td>Iowa</td>
<td>599.03</td>
</tr>
<tr>
<td>3</td>
<td>Louisiana</td>
<td>1,231.77</td>
<td>3</td>
<td>South Dakota</td>
<td>615.78</td>
</tr>
<tr>
<td>4</td>
<td>Michigan</td>
<td>1,231.39</td>
<td>4</td>
<td>Maine</td>
<td>617.73</td>
</tr>
<tr>
<td>5</td>
<td>D.C.</td>
<td>1,190.39</td>
<td>5</td>
<td>North Dakota</td>
<td>637.54</td>
</tr>
<tr>
<td>6</td>
<td>Florida</td>
<td>1,185.25</td>
<td>6</td>
<td>North Carolina</td>
<td>655.37</td>
</tr>
<tr>
<td>7</td>
<td>Rhode Island</td>
<td>1,147.95</td>
<td>7</td>
<td>Wyoming</td>
<td>656.64</td>
</tr>
<tr>
<td>8</td>
<td>Delaware</td>
<td>1,145.66</td>
<td>8</td>
<td>Wisconsin</td>
<td>664.81</td>
</tr>
<tr>
<td>9</td>
<td>Massachusetts</td>
<td>1,058.50</td>
<td>9</td>
<td>Indiana</td>
<td>666.24</td>
</tr>
<tr>
<td>10</td>
<td>Connecticut</td>
<td>1,048.56</td>
<td>10</td>
<td>Vermont</td>
<td>680.18</td>
</tr>
</tbody>
</table>

Ohio Ranked 38th in Average Expenditure for Auto Insurance in 2015. The Average Expenditure was $702.59.

1Based on average automobile insurance expenditures. Source: © 2017 National Association of Insurance Commissioners.

- Ohio: 11.4%
- Pennsylvania: 7.0%
- Indiana: 7.0%
- U.S.: 5.6%
- Kentucky: 4.2%
- Michigan: 2.3%

Ohio Comm. Auto Profitability is Above the U.S. and Regional Average (6.4%)

Sources: NAIC, Insurance Information Institute.
**All Lines DWP Growth: OH vs. U.S.**

*Average 2008–2017*
- **U.S.: 2.5%**
- **OH: 2.3%**

Source: NAIC data, sourced from S&P Global Market Intelligence, Insurance Information Institute.
Private Passenger Auto DWP Growth: OH vs. U.S.

Average 2008–2017

U.S.: 3.6%
OH: 2.8%

Source: NAIC data, sourced from S&P Global Market Intelligence, Insurance Information Institute.
Commercial Auto DWP Growth: OH vs. U.S.

Source: NAIC data, sourced from S&P Global Market Intelligence, Insurance Information Institute.
2017:Q4 Scuttlebutt

Is a hard market coming?
Three Hard Markets in the Last 45 Years

Net Premium Growth (All P/C Lines) Minus Nominal GDP, Annual Change

The three “hard markets” in this 45-year span were in 1976–77, 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: \( \leq 4\% \) 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.
Commercial Rate Changes

Commercial Auto . . . And Everything Else
Rates Soft/Flat, Especially in Reinsurance

Global Insurance Rates Through Q2 2018

Rates Worldwide Increasing a Bit (Australia)

Global Reinsurance January Renewals

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

Slight Softening, Though Local Markets Vary

**U.S. Casualty**

- Q2 2012: 2.6%
- Q4 2012: 1.1%
- Q2 2013: 1.5%
- Q4 2013: 1.2%
- Q2 2014: 1.0%
- Q4 2014: 0.8%
- Q2 2015: 0.6%
- Q4 2015: 0.4%
- Q2 2016: 0.2%
- Q4 2016: 0.0%
- Q2 2017: 0.0%
- Q4 2017: 0.0%
- Q2 2018: -2.4%

**U.S. Financial and Prof Liab**

- Q2 2012: 2.7%
- Q4 2012: 2.1%
- Q2 2013: 1.6%
- Q4 2013: 1.2%
- Q2 2014: 0.8%
- Q4 2014: 0.4%
- Q2 2015: 0.0%
- Q4 2015: 0.0%
- Q2 2016: 0.0%
- Q4 2016: 0.0%
- Q2 2017: 0.9%
- Q4 2017: 0.5%
- Q2 2018: 0.9%

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

A Flat Market, Though Local Markets Vary

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

Sources: Willis Towers Watson, MarketScout.
Commercial Property Rate Change (vs. Year Earlier)

Sources: MarketScout, Insurance Information Institute.

Property Rates Closely Following Loss Experience, Especially in Catastrophe Prone Areas.
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
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.
Quarterly U.S. Real GDP Growth: Forecasts

As Interest Rates Rise, Most Economists Forecast Slower Growth.

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.
US Treasury Note 10-Year Yields*: Is the long downward trend over?

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

Democrats
Independents
Republicans


28 49 54 67 72

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

Cannabis in the USA

Legalization is Accelerating

Congressional Cannabis Caucus

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

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

Work-Related Conditions
- Chronic Pain
- Anxiety and Depression
- PTSD
- Traumatic Brain Injury
- Spasticity Following Spinal Cord Injury

Cannabis vs. Opioids
- ‘Highly suggestive studies’
  - Death Certificate Study
  - Dispensaries Study
  - Medicare/Medicaid Study
  - Auto Fatality Study
- Not conclusive – Further Study Needed

Road Safety

Better Economy = More Drivers = More Accidents

Economic well-being

Distracted driving

Expensive auto parts

Faster driving

Legalized marijuana

It’s Not Funny

14 Percent of Injury Crashes

Safety Devices Can Be Expensive

Speed Still Kills

Source: Insurance Information Institute research.
Accident Probability


Chance of Accident Rises Sharply As Consumption Rises.
Legal Sales Lead to More Accidents

Percent Change in Collision Frequency, 2012-2016*

- CO: 14.0%
- WA: 6.2%
- OR: 4.5%
- Overall: 3.0%

* Vs. Neighboring States.

- 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

SOURCE: Highway Loss Data Institute.
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>
</tr>
</thead>
<tbody>
<tr>
<td>Will Schedule I Status Change?</td>
<td>Does WC Cover a High Worker?</td>
</tr>
<tr>
<td>Is Medical Marijuana Covered?</td>
<td>Is Drug-Free Workplace Affected?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulators Are Asking</th>
<th>Legislators Are Asking</th>
</tr>
</thead>
<tbody>
<tr>
<td>How Can Reimbursement Be Handled?</td>
<td>What Are the Key Issues in the Debate?</td>
</tr>
<tr>
<td>Can Worker Rights, Employer Needs Be Balanced?</td>
<td>If We Legalize, What Will Feds Do?</td>
</tr>
</tbody>
</table>

Questions?
Thank you!

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