Industry Update: Yesterday, Today and Tomorrow

Central States Actuarial Forum
Grinnell, Iowa
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I.I.I. Mission Statement

Improving public understanding of insurance...

...what it does and how it works.
How 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
Insurance and Agriculture
Protecting America’s Farms

Weather-Related Crop Insurance Payouts
Through September 30
Excess Moisture / Flood: $4+ billion
Hail: $178 million

Source: USDA, Aon (Steve Bowen).
Catastrophes

Extreme Weather Threatens Union
A Small Town in Missouri
1982 Union, Missouri, Flood
A Storm for the Ages

Bourbeuse River
Record Crest
33.8 feet
12/5/1982

Source: Fox2News.com, @BoxxRadio.
2015 Union, Missouri, Flood
A Storm for the Ages

Sources: CBSnews.com; fox2news.com

Bourbeuse River
Record Crest
34.3 feet
12/29/2015
2017 Union, Missouri, Flood

“Unfortunately, it’s a river and Mother Nature. And we can’t control her.”

![Flooded area](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>Crest (feet)</th>
</tr>
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<tbody>
<tr>
<td>1936</td>
<td>0.40</td>
</tr>
<tr>
<td>1948</td>
<td>0.40</td>
</tr>
<tr>
<td>1948</td>
<td>0.40</td>
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<tr>
<td>1976</td>
<td>0.50</td>
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<tr>
<td>2014</td>
<td>0.55</td>
</tr>
<tr>
<td>2012</td>
<td>0.64</td>
</tr>
<tr>
<td>2000</td>
<td>0.68</td>
</tr>
<tr>
<td>2001</td>
<td>0.78</td>
</tr>
<tr>
<td>1996</td>
<td>0.80</td>
</tr>
<tr>
<td>2007</td>
<td>1.14</td>
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Bourbeuse River Crest
29.4 feet
May 2-3, 2017

2019: Union, Missouri, Embraces Resilience
Community Hardening

Dickey Bub Berm

Shopping on One Side

Park on the Other
U.S. Inflation-Adjusted Cat Losses

2018 – Third worst year for U.S. Insured Catastrophe Losses. Average Insured Loss per Year for 1980-2018 is $19.3 B.

*2018: Inflation-adjusted estimate, subject to change. 2010s is average of 2010 to 2018. All losses are Direct.
Sources: Property Claims Service, a Verisk Analytics business; Insurance Information Institute.
Insurance Leading Throughout History

- 1648
- 1784
- 1870
- 1969
- ???

Cyber-Physical Systems
Yesterday: Industry Results

Higher Rates, Moderating Claim Rates Buoy Results
Are Insurers Growing?

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.
Are Insurers Making Money?

Through first quarter. Adjusted for inflation using the BLS CPI calculator.
Sources: ISO/APCI.
Policyholder Surplus By Quarter

Surplus Has Rebounded from Q4 Decline Caused by Stocks. 78 Cents of Premium per Dollar of Surplus.

Sources: ISO, A.M. Best.
P/C Insurance Industry
Combined Ratio*

Through Q2.

Sources: A.M. Best; ISO, a Verisk Analytics company.
Catastrophe Claims, by Season

Catastrophe Claims as % of Total Claims

Catastrophe Claims Hit Hardest in Second and Third Quarters.

Losses are net of reinsurance but include Loss Adjustment Expenses.

Sources: ISO PCS; Insurance Information Institute calculations.
Key sources of P/C insurer profits

Through second quarter. Not adjusted for inflation.
Data are before taxes and exclude extraordinary items.
Source: NAIC data, sourced from S&P Global Market Intelligence.

Strong Capital Gains, Underwriting Result Lifted Profits.
Sources of investment gains

Through Second Quarter. Sources: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.
Yields Have Been Under 4 Percent Since 2009.

Source: NAIC data, sourced from S&P Global Market Intelligence, ISO/PCI.
Personal Auto Has Returned to Underwriting Profitability. In Commercial Auto the Fever May Have Broken.

Source: NAIC data, sourced from S&P Global Market Intelligence.
Loss Costs Have Tapered Off the Past 2 Years

After Several Years of Steep Increases the Cost of Accidents has Tapered Off. Consumer Prices Overall Rose 6.6 Percent from 2016 to 2018.

Source: Fast Track Monitoring System.
Auto Repair: Complexity Grows

More Cool Stuff to Fix

- More Parts, More Labor: Higher Costs
- Electronics Add to Cost, Complexity

<table>
<thead>
<tr>
<th>Parts/Collision Claim on Current Year Car</th>
</tr>
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<tbody>
<tr>
<td>2001</td>
</tr>
<tr>
<td>2009</td>
</tr>
<tr>
<td>2018</td>
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28% Increase!

- Electronics: 40-50% of cost of vehicle
  - Pre-repair scan: $63
  - Post-repair scan: $93
  - Calibration labor: sublet at $150
  - OEM: 98% of camera/sensors

* Property Damage Only.
SOURCES: “2019 Crash Course,” CCC Information Services; Ford Motor Co.;
Workers Comp:
Soft Market Offsetting Exposure Growth

NPW (billions)

Private Carriers: Tax Law Changes Boosted Net Premiums.

Source: NCCI.
Favorable Loss Trends Let Private Carriers Post Lowest C.R. Since 1930s.

Source: NCCI..
Focus on Iowa

Growth and Profitability
2019: Tepid Growth in the Midwest

Source: S&P Global Intelligence, sourced from NAIC data.
Return on Net Worth and Direct Premiums Written All Lines

Iowa vs. USA

**Premium Growth**

- **Annual % change**
  - Orange: Iowa
  - Blue: USA

**Return on Net Worth**

- **Sources:** NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report.
All Lines: 10-Year Average DPW Growth and Return on Net Worth

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report
Return on Net Worth and Direct Premiums Written PP Auto

Iowa vs. USA

**Premium Growth**

- **Iowa**
- **USA**

**Return on Net Worth**

- **Iowa**
- **USA**

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report.
PP Auto: 10-Year Average DPW Growth and Return on Net Worth

![Maps showing DPW and RNW growth rates for different states.]

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report
Return on Net Worth and Direct Premiums Written Commercial Auto

Iowa vs. USA

Premium Growth

Return on Net Worth

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report.
Comm. Auto: 10-Year Average DPW Growth and Return on Net Worth

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report
Return on Net Worth and Direct Premiums Written Workers Comp
Iowa vs. USA

**Premium Growth**

- **Annual % change**
  - Iowa
  - USA

**Return on Net Worth**

- **Annual % change**
  - Iowa
  - USA

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report.
Workers Comp: 10-Year Average DPW Growth and Return on Net Worth

Sources: NAIC data sourced from S&P Market Intelligence; NAIC Profitability Report
Tomorrow

Is Recession Lurking?
Outlook: The Economy

Real GDP Growth Forecasts


Source: Blue Chip Economic Indicators, September 2019.
Worries About Economy Have Sent Investors Into Treasuries.

Source: Federal Reserve Bank of St. Louis (FRED)
Today: Marijuana and Insurance
Support for Legalization Grows

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

No survey in years where no data appears.
Cannabis & Insurance
The Science

Review of Literature

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

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

THC Levels not an Accurate Indication of Impairment

BAC and ‘feeling drunk’ rise and fall in lockstep

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

Current marijuana laws by state

- Fully legal
- Medical use legal and recreational use decriminalized
- Medical use legal
- Recreational use decriminalized
- Fully illegal

*CBD/Low THC medical program.

Change in Collision Frequency, 2012-2017*

* Vs. Neighboring States.
Is Medical Marijuana Covered by Comp?

• Reimbursable in a handful of states
• Unclear whether reimbursable in many states
• Reimbursement not required
• Reimbursement prohibited or ineligible

Many state medical marijuana laws specifically exempt certain entities from the reimbursement requirement, usually health insurance providers.
New Mexico is the Only State That Provides a Fee Schedule for Medical Marijuana\(^1\)

Maximum reimbursable amount

$12.02 per gram
or $11,056 per year

In context

If a one-gram joint costs $12, that’s 921 joints per year

\(^1\)“Healthcare Provider Fee Schedule and Billing Instructions,” State of New Mexico Workers’ Compensation Administration.
Reimbursement Complications

- Cash-only business
- Proper dosages poorly understood, non-standardized
- No standardized “serving” of marijuana. Potency levels non-standardized
- Expenses can vary widely
Workers Comp Issues: Can You Get Fired?

*CBD/Low THC medical program. †Oklahoma has not yet released its final medical marijuana rules. ‡Provides limited protections to state employees.
Source: Insurance Information Institute, 2019.

Only 13 states have anti-discrimination/reasonable accommodation for off-duty marijuana use.
Summary

- Insurance Industry Leads Through Disruption
- Iowa Results Resemble the Rest of USA
- 2019 Results Promising, With Long-Awaited Improvement in Auto Lines and Workers Comp Setting Records
- Economic Growth Steady – How Long Will it Last?
- Marijuana: New Challenges for Insurers
Thank you for your time and your attention!