Risk Retention Group Benchmarking Study
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Commitment Beyond Numbers

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About the Presenters

- Fellow of Casualty Actuarial Society (FCAS)
  - CAS Board of Directors 2015-17
- B.S. Secondary Math Education – Miami University 1987
- 2017-19 Captive Power 50
- ICCIE Instructor

Robert J. Walling III
Principal
Pinnacle Actuarial Resources, Inc.
About the Presenters

- Fellow of the Casualty Actuarial Society
- Graduate of Illinois State University
- 22 years of experience, primarily in commercial lines
- Reserving studies for:
  - Insurance companies (SAO and financial exams)
  - Captive insurance companies
  - Self-insured entities
- Extensive experience reviewing industry financial statement data and associated trends
- Experience in workers’ compensation, liability lines, medical professional liability and commercial automobile

Erich A. Brandt
Senior Consulting Actuary
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About the Presenters

• Associate of the Casualty Actuarial Society
• Associate in Risk Management (ARM)
• B.A. Mathematics – Carthage College
• 18 years of experience, primarily in commercial lines
• Reserving studies for:
  • Insurance companies (SAO and financial exams)
  • Captive insurance companies
  • Self-insured entities
  • Public entities
• Funding recommendations for emerging coverages
• Experience reviewing industry financial statement data and associated trends
• Risk margin modeling

Gregory W. Fears Jr.
Consulting Actuary
Pinnacle Actuarial Resources, Inc.
Presentation Outline

• Overview
• Data Used
• Intended Use
• RRG Demographics
• Capitalization
• Operating Results
• Trends and Benchmarks
  – Premium
  – Loss & LAE
Introduction

• Risk Retention Group (RRG)
  – Risk Retention Act (RRA) of 1986
    • “Federal legislation passed in 1986 that authorized the formation of purchasing groups and group self-insurance programs for certain types of liability exposures. According to the Act, members of risk purchasing groups (RPGs) and risk retention groups (RRGs) must be engaged in similar or related businesses or activities.” from www.irmi.com

• RRG Benchmarking Study - Technical Approach
  – Using RRG annual statement data pulled from A.M. Best
  – Data as of December 31, 2017
  – Calendar or accident years 2008 through 2017
Annual Statement Data Used

- Income Statement - net income, net underwriting income, policyholder surplus
- Statement of Cash Flows - net investment income
- Statutory Page 14 - direct premium and loss data
- Schedule P – loss and expense data, net earned premiums, one- and two-year loss development values
- Underwriting and Investment Exhibit - net written premiums, investment data
- Insurance Expense Exhibit - premium and loss data, expense data
- A.M. Best General Information - state of domicile, Best's Financial Strength Rating
- Annual Statement Assets Page - asset data
Intended Use

• Comparison of RRGs to Total U.S. Property & Casualty (P/C) Industry
  — Total U.S. P/C Industry (Industry) is all Schedule P lines of business (LOB)

• RRGs are different than the Industry

• Provide trends and benchmarks for RRGs
RRG Demographics

• Number of RRGs
  – As of 12/31/17
  – “As was”

• Direct written premium (DWP) growth
  – Over $3 billion in 2017

• Domiciliary States
  – By number of RRGs
  – By average RRG DWP

• Line of business mix
  – Medical professional liability (MPL)
  – Other liability (OL)
  – Commercial auto liability (CAL)
Total RRG Growth – Premium (000s) and Number

*Figure III.A
Total RRG Growth – Premium (000s) and Number - “as was data”
Number of RRGs and Average Size by Domiciliary State

*Figure III.B.1 & III.B.2*
RRG 2017 DWP by LOB ($Millions)

*Figure III.C.1*
RRG Direct Written Premium (000s) by Risk State

*Figure III.C.2*
MPL DWP (000s) by State

*Figure VI.B.3
CAL DWP (000s) by State

*Figure VI.B.6
# Mono-line RRG Writers

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>Number of RRGs</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL</td>
<td>27</td>
<td>12%</td>
</tr>
<tr>
<td>OL</td>
<td>48</td>
<td>21%</td>
</tr>
<tr>
<td>MPL</td>
<td>102</td>
<td>45%</td>
</tr>
<tr>
<td>Total</td>
<td>226</td>
<td></td>
</tr>
</tbody>
</table>

*Mono-line is defined as: over 90% of DWP in one LOB*
RRG Capitalization

• Comparison of RRGs to U.S. Property & Casualty (P/C) Industry
  – Ratio of net written premium (NWP) to Surplus (S)
    • RRGs lower than the Industry
  – Risk based capital ratio (RBC)
    • Mono-line RRGs roughly 4.0 – 5.0
  – Leverage ratios
    • RRGs lower than the Industry
Net Written Premium to Surplus Ratio

*Figure IV.A.1*
Direct Written Premium to Surplus Ratio

*Figure IV.A.2*
Mono-line RRG RBC Ratios by Year

*Figure IV.B*
Net Leverage Ratio

*Leverage Ratio = (NWP/Surplus) + (Net Losses + LAE + Unearned Premiums)/Surplus

*Figure IV.C
RRGs Overall Operating Results

• Comparison of RRGs to Total U.S. P/C Industry
  – Net income to NWP ratios
    • RRGs are decreasing
  – Underwriting vs. investment income
    • Cyclical
    • By line of business (LOB)
  – Accident year (AY) combined ratio
    • RRGs higher than the Industry
  – Calendar year (CY) combined ratio
    • RRGs by LOB
Net Income to Net Written Premium Ratio

*Figure V.A.2*
Total U.S. P/C Industry Net Income Breakdown as % of Surplus

*Figure V.B.1*

Net Investment Gain (Loss)  | Net Underwriting Gain (Loss)  | Label of Total %
--- | --- | ---
20.00% | 16.54% | 2.88% | 8.20% | 8.50% | 4.14% | 7.46% | 12.03% | 11.63% | 10.07% | 7.41% | 5.79%

-20.00%
Total RRG Net Income Breakdown as % of Surplus

*Figure V.B.2*

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Investment Gain (Loss)</th>
<th>Net Underwriting Gain (Loss)</th>
<th>Label of Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>15.37%</td>
<td></td>
<td>15.37%</td>
</tr>
<tr>
<td>2008</td>
<td>16.21%</td>
<td></td>
<td>16.21%</td>
</tr>
<tr>
<td>2009</td>
<td>16.03%</td>
<td></td>
<td>16.03%</td>
</tr>
<tr>
<td>2010</td>
<td>14.63%</td>
<td></td>
<td>14.63%</td>
</tr>
<tr>
<td>2011</td>
<td>12.43%</td>
<td></td>
<td>12.43%</td>
</tr>
<tr>
<td>2012</td>
<td>11.82%</td>
<td></td>
<td>11.82%</td>
</tr>
<tr>
<td>2013</td>
<td>9.90%</td>
<td></td>
<td>9.90%</td>
</tr>
<tr>
<td>2014</td>
<td>6.58%</td>
<td></td>
<td>6.58%</td>
</tr>
<tr>
<td>2015</td>
<td>6.22%</td>
<td></td>
<td>6.22%</td>
</tr>
<tr>
<td>2016</td>
<td>4.98%</td>
<td></td>
<td>4.98%</td>
</tr>
<tr>
<td>2017</td>
<td>7.08%</td>
<td></td>
<td>7.08%</td>
</tr>
</tbody>
</table>
MPL RRGs Net Income Breakdown as % of Surplus

*Figure V.B.4*
CAL RRGs Net Income Breakdown as % of Surplus

*Figure V.B.5*
Trade Basis Net Combined Ratio - AY

*Figure V.C*
RRG Combined Ratio - CY

*Figure V.D*
RRG Premium Trends and Benchmarks

• Comparison of RRGs to Total U.S. P/C Industry
  – Premium growth
    • Overall: both RRGs and Industry increasing
    • By LOB:
      – MPL: RRGs increasing while Industry decreasing
      – CAL: both RRGs and Industry increasing, but RRGs more rapidly
  – NWP / DWP ratios:
    • RRGs lower ratio, retain less risk than the Industry
  – Market share: All lines and by LOB (using DWP)
    • Overall RRGs market share is increasing
Total Premium Growth

*Figure VI.A.1
MPL Premium Growth

*Figure VI.A.2*
CAL Premium Growth

*Figure VI.A.5*
RRG vs. Industry NWP/DWP

*Figure VI.C.1
MPL RRG vs. Industry NWP/DWP

*Figure VI.C.2*
CAL RRG vs. Industry NWP/DWP

*Figure VI.C.5*
MPL RRG vs. Industry Market Share

*Figure VI.D.2*
CAL RRG vs. Industry Market Share

*Figure VI.D.5*
RRG Loss and LAE Trends and Benchmarks

• Comparison of RRGs to Total U.S. P/C Industry
  – AY Loss & LAE ratios: All lines and by LOB
    • RRGs increasing while Industry is relatively stable
    • MPL increasing for both
  – CY Loss & LAE ratios: All lines
    • RRGs increasing while Industry is relatively stable
    • RRG spike in 2014 related to one RRG merger
  – Adverse Development: All lines and by LOB
  – Loss Development Patterns
    • RRGs have slower loss development than the Industry
Total Loss & LAE Net AY Loss Ratio

*Figure VII.A.1*
MPL Loss & LAE Net AY Loss Ratio

*Figure VII.A.3*
CAL Loss & LAE Net AY Loss Ratio

*Figure VII.A.4*
Loss & LAE Net CY Loss Ratio

*Figure VII.B.1
CY Net Loss and LAE to NWP

*Figure VII.C.1*
Total 1 Year Development as % of Prior Year Surplus

*Figure VII.D.1*
RRG 1 Yr Dev as % of Prior Year Surplus by LOB

*Figure VII.D.2
## Comparison of RRG Versus Industry 1 Year Development

<table>
<thead>
<tr>
<th>Year</th>
<th>Commercial Auto Liability</th>
<th>Medical Professional Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>Industry</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>(741,883)</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>(443,667)</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td>(389,670)</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>(324,929)</td>
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<tr>
<td>2012</td>
<td></td>
<td>541,090</td>
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<tr>
<td>2013</td>
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<td>708,638</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>784,252</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td>1,655,510</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>1,858,619</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>1,632,406</td>
</tr>
</tbody>
</table>
CAL RRG 1 Year Development

*Includes Spirit Commercial Auto RRG

Calendar Year

1yr Development | Prior YE Surplus | IRIS #11

2013 | 2014 | 2015 | 2016 | 2017

0% | 10% | 20% | 30% | 40% | 50% | 60%

(20,000) | - | 20,000 | 40,000 | 60,000 | 80,000 | 100,000
RRG vs. Industry CAL Reported Incurred Loss Development

*Figure VII.E.1*
RRG vs. Industry CAL Reported Incurred Loss Development

- RRG Incurred
- Industry Incurred
- Trucking - Slow
- Trucking - Medium
- Trucking - Fast

Percent of Ultimate vs. Months of Maturity
RRG vs. Industry MPL-CM Reported Incurred Loss Development

*Figure VII.E.2*
Conclusion

• Overview
• Data Used
• Intended Use
• RRG Demographics
• Capitalization
• Operating Results
• Trends and Benchmarks
  – Premium
  – Loss & LAE
Questions
Join Us for the Next APEX Webinar

Thursday, April 25
2:00 p.m. ET
Registration is Open

Clustering 101 for Insurance Applications

Linda Brobeck
Tom Kolde
Final Notes

• We’d like your feedback and suggestions
  • Please complete our survey

• For copies of this APEX presentation
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Thank You for Your Attention

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