Property / Casualty
State of the Market

Greg Williams – Vice President
Agenda

• State of the Market
• Market Forces
• Financial Indicators & Underwriting Details
• Outlooks
• “In the News”
  – Cyber Security
  – Autonomous Cars
U.S. Property/Casualty Industry

The State of the Market

- Competitive Environment
- Uncertain loss reserve adequacy
- Manageable Catastrophe Losses
- Continued Investment Pressures
U.S. Property/Casualty Industry

Market Forces

- Active M&A
- Competitive Reinsurance Environment
- Predictive Modeling and Data Analytics Advances
- Regulation
- Risk Adjusted Capital (BCAR) remains “Strong”
## Property/Casualty Financial Indicators

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Net Premiums Written (%)</td>
<td>4.4</td>
<td>4.4</td>
<td>4.3</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Change in Surplus (%)</td>
<td>6.3</td>
<td>10.7</td>
<td>3.4</td>
<td>-0.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Combined Ratio (Reported)</td>
<td>102.5</td>
<td>96.4</td>
<td>97.4</td>
<td>98.3</td>
<td>99.2</td>
</tr>
<tr>
<td>Net Investment Yield (%)</td>
<td>3.6</td>
<td>3.4</td>
<td>3.6</td>
<td>3.3</td>
<td>3.1</td>
</tr>
<tr>
<td>After-tax Return on Surplus (ROE) (%)</td>
<td>6.5</td>
<td>9.3</td>
<td>9.2</td>
<td>8.1</td>
<td>6.1</td>
</tr>
</tbody>
</table>
## Property/Casualty Underwriting Details

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Written Premium Growth (%)</strong></td>
<td>4.3</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Combined Ratio (Reported)</strong></td>
<td>97.4</td>
<td>98.3</td>
<td>99.2</td>
</tr>
<tr>
<td><strong>Less: Catastrophe Losses (%)</strong></td>
<td>4.0</td>
<td>3.5</td>
<td>4.7</td>
</tr>
<tr>
<td><strong>Less: A&amp;E Losses (%)</strong></td>
<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>CY Combined Ratio (Normalized)</strong></td>
<td>92.9</td>
<td>94.2</td>
<td>94.1</td>
</tr>
<tr>
<td><strong>Less: Core Loss Reserve Dev. (%)</strong></td>
<td>-2.4</td>
<td>-1.9</td>
<td>-2.1</td>
</tr>
<tr>
<td><strong>AY Combined Ratio (Normalized)</strong></td>
<td>95.4</td>
<td>96.1</td>
<td>96.2</td>
</tr>
</tbody>
</table>
# U.S. Property/Casualty Product Line Underwriting Trends Combined Ratios

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Passenger Auto</td>
<td>101.0</td>
<td>102.0</td>
<td>102.1</td>
<td>101.6</td>
<td>102.4</td>
<td>104.6</td>
<td>102.7</td>
</tr>
<tr>
<td>Homeowners &amp; Farm.</td>
<td>106.9</td>
<td>122.1</td>
<td>103.9</td>
<td>90.5</td>
<td>92.7</td>
<td>91.8</td>
<td>95.4</td>
</tr>
<tr>
<td>Other &amp; Product Liability</td>
<td>110.9</td>
<td>99.6</td>
<td>103.2</td>
<td>100.4</td>
<td>101.4</td>
<td>105.7</td>
<td>104.1</td>
</tr>
<tr>
<td>Workers' Compensation</td>
<td>116.5</td>
<td>118.6</td>
<td>111.2</td>
<td>103.2</td>
<td>100.6</td>
<td>95.8</td>
<td>103.3</td>
</tr>
<tr>
<td>CMP</td>
<td>100.1</td>
<td>113.2</td>
<td>105.0</td>
<td>97.7</td>
<td>99.2</td>
<td>94.7</td>
<td>103.8</td>
</tr>
<tr>
<td>Commercial Auto</td>
<td>97.8</td>
<td>103.6</td>
<td>107.0</td>
<td>106.7</td>
<td>103.3</td>
<td>108.8</td>
<td>102.9</td>
</tr>
<tr>
<td>Medical Pro. Liability</td>
<td>82.0</td>
<td>88.0</td>
<td>93.3</td>
<td>89.5</td>
<td>103.6</td>
<td>102.3</td>
<td>97.0</td>
</tr>
</tbody>
</table>
U.S. Property/Casualty – Estimated Loss & LAE Reserve Deficiencies – ($ in billions)
(Excluding Statutory Discount)

<table>
<thead>
<tr>
<th>Product Line</th>
<th>12/31/14</th>
<th>12/31/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers' Compensation</td>
<td>8.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Other/Products Liability</td>
<td>3.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Reinsurance-Non Proportional Assumed</td>
<td>0.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Commercial Multiple Peril</td>
<td>2.6</td>
<td>2.9</td>
</tr>
<tr>
<td>Commercial Auto Liability</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Homeowners</td>
<td>-0.3</td>
<td>-0.2</td>
</tr>
<tr>
<td>Personal Auto Liability</td>
<td>-1.1</td>
<td>-0.8</td>
</tr>
<tr>
<td>Medical Professional Liability</td>
<td>-3.7</td>
<td>-3.3</td>
</tr>
<tr>
<td>All Other Lines</td>
<td>-3.1</td>
<td>-2.0</td>
</tr>
<tr>
<td><strong>Total Core Reserves</strong></td>
<td><strong>8.8</strong></td>
<td><strong>11.9</strong></td>
</tr>
<tr>
<td>Asbestos &amp; Environmental</td>
<td>8.6</td>
<td>5.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.4</strong></td>
<td><strong>17.8</strong></td>
</tr>
</tbody>
</table>
Outlooks

Personal Lines: Stable
Commercial Lines: Negative
Reinsurance: Negative
Cyber-Security Issues & Insurance Companies

• Background
• A.M. Best’s Approach to Evaluating Cyber-Security
  – How do companies protect themselves against cyber threats?
  – How should cyber exposure be aggregated for companies issuing cyber-security insurance
• Results of Recent A.M. Best Survey
Cyber-Security Issues & Insurance Companies

- **Target of Data Breach / Cyber-Attack**
  - 69.5% YES
  - 30.5% NO

- **Remedial Actions Taken**
  - Applied patches: 32.5%
  - Added additional security measures: 49.4%
  - Changed passwords: 20.5%
  - Improved firewall: 36.1%
  - Other: 28.9%

- **Frequency of Penetration Testing**
  - Quarterly: 6.5%
  - Semi-Annually: 22.0%
  - Annually: 47.6%
  - Never: 23.8%

- **Investment in Upgrading Systems and Preventing Cyber-Attacks**

  - > $1M:
    - Projected Investment: 50.6%
    - Investment Toward Preventing Cyber-Attacks: 21.8%
    - Investment in Upgrading Systems: 10.4%
  - $50K - $1M:
    - Projected Investment: 35.2%
    - Investment Toward Preventing Cyber-Attacks: 28.8%
    - Investment in Upgrading Systems: 15.2%
  - $10K - $50K:
    - Projected Investment: 36.2%
    - Investment Toward Preventing Cyber-Attacks: 24.8%
    - Investment in Upgrading Systems: 10.6%
  - < $10K:
    - Projected Investment: 42.9%
    - Investment Toward Preventing Cyber-Attacks: 24.8%
    - Investment in Upgrading Systems: 10.6%
Cyber-Security Issues & Insurance Companies

- Purchase Cybersecurity Insurance:
  - Yes: 22.7%
  - No: 77.3%

- Cybersecurity Insurance Policy Limits:
  - $1M-$5M: 40.4%
  - $5M-$10M: 20.5%
  - $10M-$50M: 13.0%
  - Over $50M: 4.3%
  - None: 21.7%

- Cybersecurity Insurance Coverage:
  - Physical Damage & Property
  - D&O
  - Business Interruption
  - Third Party Liability
  - Data Breach
  - Does not purchase
Autonomous Cars

• Background
• Recent Developments
• Potential Obstacles to Mass Adoption
• Potential Impact on Insurance Industry