The Paramount Importance of Discipline in Loss Reserving

Reinsurance in China
June 2002

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Presentation Summary

- Principles of Reserving
- Importance of Discipline
- Evaluation of Performance
- Commentary
- Conclusions
Importance of Disciplined Reserving

If loss reserves are inadequate:

- Surplus is overstated
- Net income is overstated

Principles of Reinsurance CPCU/ARe
Loss Reserve Principles

An actuarially sound loss reserve for a defined group of claims as of a given valuation date is a provision, based on estimates derived from reasonable assumptions and appropriate actuarial methods for the unpaid amount required to settle all claims, whether reported or not, for which liability exists on a particular accounting date.

The uncertainty inherent in the estimation of required provisions for unpaid losses or loss adjustment expenses implies that a range of reserves can be actuarially sound. The true value of the liability for losses or loss adjustment expenses at any accounting date can be known only when all attendant claims have been settled.
Causes of Insolvencies
AM Best

“Deficient loss reserves (intrinsically linked with inadequate pricing) and rapid growth were the most dominant causes of insolvencies. Together these accounted for 50% of the insolvencies…..”

AM Best
P/C Insurers
1969-1990
June 1991
Causes of Insolvencies P/C Insurers

Deficient Loss reserves  28 %
   (Inadequate Pricing)
Rapid growth  21 %
Alleged fraud  10 %
Overstated assets  10 %
Change in business  9 %
Reinsurance failure  7 %
Catastrophe losses  6 %
Miscellaneous  9 %

AM Best
1969-1990
June 1996
## US Reinsurers’ Combined Ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Combined Ratio</th>
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<tbody>
<tr>
<td>2001</td>
<td>141.0%</td>
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<tr>
<td>2000</td>
<td>113.2%</td>
</tr>
<tr>
<td>1999</td>
<td>114.0%</td>
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<tr>
<td>1998</td>
<td>107.0%</td>
</tr>
<tr>
<td>1997</td>
<td>102.0%</td>
</tr>
<tr>
<td>1996</td>
<td>103.0%</td>
</tr>
<tr>
<td>1995</td>
<td>109.5%</td>
</tr>
<tr>
<td>1994</td>
<td>108.0%</td>
</tr>
<tr>
<td>1993</td>
<td>106.0%</td>
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<tr>
<td>1992</td>
<td>118.0%</td>
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US Reinsurers’ Combined Ratio’s Continued

<table>
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<th>Year</th>
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<tr>
<td>1991</td>
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<tr>
<td>1990</td>
<td>106.3%</td>
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<tr>
<td>1989</td>
<td>106.9%</td>
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<td>1988</td>
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<tr>
<td>1987</td>
<td>103.3%</td>
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<tr>
<td>1986</td>
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<td>1985</td>
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<tr>
<td>1984</td>
<td>128.2%</td>
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<tr>
<td>1983</td>
<td>116.4%</td>
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<tr>
<td>1982</td>
<td>111.6%</td>
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## Loss Reserve Development
### Accident Year

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<th>Change From Original</th>
<th>Price Direction</th>
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<tr>
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<td>- - 5.0 %</td>
<td></td>
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<tr>
<td>1992</td>
<td>- 1.0 %</td>
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</tr>
<tr>
<td>1993</td>
<td>- 5.7 %</td>
<td>Post Andrew</td>
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<tr>
<td>-</td>
<td>- 3.1 %</td>
<td>hard market</td>
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<tr>
<td>1995</td>
<td>- 7.6 %</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>3.0 %</td>
<td>Soft Market</td>
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<tr>
<td>1997</td>
<td>7.6 %</td>
<td>through 2000</td>
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<td>1998</td>
<td>21.0 %</td>
<td></td>
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<tr>
<td>1999</td>
<td>15.4 %</td>
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<td>2000</td>
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AM Best
Professional Reinsurers
69 Companies 2001
Exhibit A
Excess Reinsurance
Historical Loss Development

Based on combined treaty and facultative data; all patterns
Assume no development beyond oldest evaluation age in triangles.

Reinsurance Association of America
Historical Loss Development Study - 2001 Edition
www.reinsurance.org
Exhibit D-1
Primary vs. Reinsurer
Historical Loss Development
Automobile Liability

Primary Companies Data Source: A.M. best Company (2000)

Reinsurance Association of America
*Historical Loss Development Study - 2001 Edition*
www.reinsurance.org
Exhibit H-1
Impact of Mass Torts on
Historical General Liability Development Factors

Reinsurance Association of America
Historical Loss Development Study - 2001 Edition
www.reinsurance.org
Changing Loss Development
Quicker Development

◆ Rising medical expenses
◆ Changing negligence standards
◆ Claims made policies
◆ Change in retentions
◆ Change in mix of business
◆ Affect of workers compensation discounting

Reinsurance Association of America
*Historical Loss Development Study*
2001 Edition
www.reinsurance.org
US Reinsurance Summary

- 2001 worst ever
- Surplus loss 2 out of last 3 years
- Conservative premium to surplus ratio 1:1 or less
- Consolidating market
- No underwriting profit for 20 years
Loss Reserve Discounting

“...it is folly to suggest...that all property/casualty insurance reserves be discounted.

“Discounting might be acceptable if reserves could be precisely established.

“...Chronic problems (judicial action, medical inflation as examples) are constantly working to make reserves inadequate.

“Discounting would exacerbate this already serious situation and....would provide a new tool for the companies that are inclined to fudge.”

Warren Buffett, Berkshire Hathaway
2001, Letter to Shareholders
Conclusion

◆ Disciplined loss reserving essential to solvency
◆ Reserving based on estimates which change overtime
◆ Industry practice and US regulatory guidance synchronized
◆ Little margin for error
◆ Surplus eroded by:
  a) Mass Torts
  b) Natural Disasters
  c) Terrorism
Conclusion

◆ Need conservative business practices
◆ Need conservative regulatory practices
◆ Need large amounts in surplus
◆ Reinsurance critical for solvency
◆ Reinsurer regulation critical