Loss Reserving for Financial Guaranty Insurance

Casualty Loss Reserve Seminar
Disney’s Contemporary Resort
September 21, 2010

Presented by:

Kyle S. Mrotek, FCAS, MAAA
Principal & Consulting Actuary
Agenda

- Background
- Surveillance
- Statutory Loss Reserving
- FAS 163
- Other Loss Reserving Issues
- Other FGI Reserves
- Industry Outlook
- Closing
Background

What is FGI?

- An insurance policy under which loss is payable upon proof of occurrence of financial loss to an insured claimant as a result of any of the following events:
  - Failure of obligor on a debt instrument to pay P&I when due when the failure is the result of a financial default or insolvency
  - Changes in the levels of interest rates, rate of exchange of currency, value of specific assets or commodities, or other events which the commissioner determines are substantially similar to any of the foregoing

- 263 words

Source: NAIC Financial Guaranty Insurance Guideline #1626
Background

What is NOT FGI?

- Warranty
- Performance guarantee
- Debt protection
- Residual value
- Many others
- 1,176 words

Source: NAIC Financial Guaranty Insurance Guideline #1626
Background

What is insured?

- Timely payment of principal and interest on debt securities
- Products
  - Municipal Bonds – Tax-exempt bonds that finance public and private works projects
  - Asset-Backed Securities – Pooled assets that are backed by commercial and consumer assets
  - Both domestic and international

Source: http://www.afgi.org/
Background

FGI vs. Traditional P/C Lines

- Monoline
- Zero loss underwriting
  - Only issues with the lowest probable risk of defaulting are insured
- Timeliness of payment
  - Pay claim upfront and pursue salvage/subrogation subsequently
- Surveillance
  - Detect and remediate problems before they occur
- Reliance on high credit ratings

Source: http://www.afgi.org/; Company Annual Statements
## Change In Ratings

<table>
<thead>
<tr>
<th>FG Insurer</th>
<th>Fitch</th>
<th>Moody’s</th>
<th>S&amp;P</th>
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<tbody>
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<td>’06</td>
<td>’09</td>
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<tr>
<td>Ambac</td>
<td>AAA</td>
<td>WR</td>
<td>Aaa</td>
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<tr>
<td>Assured Guaranty</td>
<td>AAA</td>
<td>WR</td>
<td>Aa1</td>
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<tr>
<td>Berkshire</td>
<td>N/A</td>
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<td>CIFG</td>
<td>AAA</td>
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<td>Radian</td>
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<td>WR</td>
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<td>MBIA</td>
<td>AAA</td>
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<td>Syncora</td>
<td>AAA</td>
<td>WR</td>
<td>Aaa</td>
</tr>
</tbody>
</table>

Source: Annual Reports
Background

Status of FG Insurers

<table>
<thead>
<tr>
<th>FG Insurer</th>
<th>Status</th>
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<tbody>
<tr>
<td>Ambac</td>
<td>Impaired</td>
</tr>
<tr>
<td>Assured Guaranty</td>
<td>Ongoing concern</td>
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<tr>
<td>Berkshire</td>
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<tr>
<td>CIFG</td>
<td>Impaired</td>
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<td>FGIC</td>
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</tr>
<tr>
<td>MBIA</td>
<td>Impaired</td>
</tr>
<tr>
<td>Syncora</td>
<td>Impaired</td>
</tr>
</tbody>
</table>

Impaired refers to Good Co/Bad Co, rehabilitation, suspension of claim payments, negotiations with counter-parties, etc.
Surveillance

- Monitor outstanding insured obligations
  - Periodically review financial and operations info
  - Frequent contact with interested parties

Issues
- Insured credit quality
- Economic
- Regulatory

Warning signs
- Poor financial results
- Trustee/servicer problems
Surveillance

- Categorization
  - Three to seven categories
  - Example categories
    * Low – OK now, but nearer problem now than when U/W
    * Medium – Generally OK, but more significant deterioration than “Low”
    * High – Significant weaknesses, but no default yet
    * Very High – Already defaulted or probable

No loss reserve

Associated loss reserve

Milliman
Statutory Loss Reserving

- **Occurrence**
  - Payment default on insured obligation
    - “The initial date of default shall be considered the incident which gives rise to a claim” (SSAP No. 60)
    - “Case basis”
  - Future losses related to “healthy” credits not in the loss reserve

- **Contract-by-contract basis**

- **Discount rate ~ YTM on investments**
Statutory Loss Reserving

- Public finance
  - Surveillance
  - Third party SME
    - Engineers
    - Financial analysts
- Case study
  - Jefferson County, AL
  - $3.2B bond indebtedness for sewer system
  - Litigation
  - Compare debt service to income generation of sewer system and intrinsic collateral value
  - http://www.bloomberg.com/apps/news?pid=newsarchive&refer=home&sid=aF_f8gLLNvn0
Statutory Loss Reserving

- Structured finance
  - Collateral
    - Current roll to loss
      - Frequency
        - Rolling average by loan credit status
        - Example:
          - \( \Pr(\text{Default} \mid 30-59 \text{ D}) = 30\% \)
          - \( \Pr(\text{Default} \mid 60-89 \text{ D}) = 60\% \)
          - \( \Pr(\text{Default} \mid 90 + \text{ D}) = 100\% \)
      - Severity
        - Compare loan balance and expenses vs. recoveries
Statutory Loss Reserving

- Structured finance (continued)
  - Collateral (continued)
    - Actuarial approach
      - Paid and “incurred” LDF/B-F
      - Estimated case reserves using delinquent inventory
      - A priori key considerations
        - Borrower, property, and loan characteristics
        - Economics
        - Persistency
  - Security capital structure
Statutory Loss Reserving

- LAE Reserve
  - Minimal

- IBNR Reserve
  - Minimal
  - Sometimes zero
  - “Loss reserves shall include a reserve for claims reported and unpaid net of collateral” (SSAP No. 60)
Statutory Loss Reserving

Industry Reserve Ratio Comparison: IBNR/Case

Calendar Year End

IBNR/Case

FG

P&C Excl FG & MI
Statutory Loss Reserving

Industry Reserve Ratio Comparison: LAE/Loss

Calendar Year End

LAE / Loss

-10% -5% 0% 5% 10% 15% 20% 25%

0 2001 2002 2003 2004 2005 2006 2007 2008 2009

FG
P&C Excl FG & MI
FG x MBIA
FAS 163

Purpose

- To create consistency in the recognition and measurement of financial guaranty claim liabilities
  - Requires FGI recognize a claim liability prior to an event of default when there is evidence that credit deterioration has occurred
  - Increase comparability in financial reporting
- To expand disclosures about FGI contracts
  - Goal to improve the quality of information provided to users of financial statements
FAS 163

- Claim Liability Recognition and Measurement
  - Recognize when FGI expects claim loss will exceed UPR
  - Calculated by policy, then aggregated (no off-set)
  - Use discounted expected net cash outflows
    - Risk-free rate
    - Expected claim payments net of recoveries, gross of reinsurance
    - Probability-weighted cash flows reflecting all possible outcomes

- Disclosures
  - Policies for surveillance and loss mitigation
  - Credit deterioration categorization
  - Others

- SSAP 60 “Financial Guaranty Insurance” amended Dec 2009
Other Loss Reserving Issues

- CDS wraps – Mark-to-market benefit
- Commutations with counter-parties
- Litigation
- Credit for put-backs
  - $10B-$20B FV of repurchases for BOA
  - Top 11 U.S. lenders, $55B-$179B of ultimate loss

<table>
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<tr>
<th>FG Insurer</th>
<th>Recovery ($B)</th>
</tr>
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<tbody>
<tr>
<td>Ambac</td>
<td>$2.3</td>
</tr>
<tr>
<td>Assured Guaranty</td>
<td>1.3</td>
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<tr>
<td>MBIA</td>
<td>2.1</td>
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</tbody>
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Source: Company SEC filings or Annual Statements, AFGI, Chris Gamaitoni
Other Loss Reserving Issues

Illustration of Process to Calculate Probability of Repurchase

- Repurchase? Yes
- Repurchase? No
- Repurchase? Yet to be decided

Model Calibration
Other FGI Reserves

- Contingency reserves
  - >$5B
- Unearned premium reserves
  - ~ $10B
- Premium deficiency reserves
  - $0

Property and Casualty Practice Note
December 2009

- Economic Conditions: A number of Opinions identify various economic conditions as risk factors. With the current strains on the economy—and housing markets in particular—regulators expect the Appointed Actuary of a company that faces such risks to attempt to quantify those risks in the analysis. Mere disclaimers are insufficient. Actuaries should consider the potential for premium deficiencies, particularly in long-duration contracts such as mortgage or financial guaranty products. The actuary may include the Premium Deficiency Reserve in Exhibit A and comment accordingly within the Opinion. The CASTF advises actuaries to contact the regulator of domicile for further guidance on expected disclosure.
Industry Outlook

- Challenge for industry
- Franchise value suffered
  - Investors dissatisfied with rating agencies
    - “Depfa will call a pig a pig: Ambac – the whole Ambac, not just part of it – has failed, and the entire company should be in rehabilitation or liquidation”
- Muni penetration down (9% vs. >50%) - Moody’s
- New capital cherry picking best risks
- Credit profiles of municipalities deteriorating
- But, concept sensible
Closing

- Opportunity for actuaries
  - Greater awareness of tail risk (AAA to below inv grade)
  - Underwriting and surveillance in high demand
  - Low penetration of actuaries (3 CAS members at FGs)
Contact Info

Kyle Mrotek, FCAS, MAAA
Principal & Consulting Actuary
Milliman, Inc.
15800 W. Bluemound Rd., Suite 100
Brookfield, WI  53005
(262) 796-3331
kyle.mrotek@milliman.com