Rebuilding Capital Markets: Understanding RMBS & CMBS 2.0

Jeffrey Rauland
Director of Valuation Services
Opus Capital Markets Consultants, LLC
Overview
This panel will discuss...

Ratings methodology, modeling, and advanced analytics for mortgage pools...

Appendix A. Sample Size for Due Diligence Error Review

STATISTICALLY MEANINGFUL SAMPLE

For a pool of L mortgage loans, we seek the sample size S (0 < S ≤ L) of randomly chosen loans that will expedite the error review and permit us to conclude that the entire pool of L loans is highly likely to have an error rate less than ε. Imagine that the review of the S loans finds n errors (0 ≤ n ≤ S). We find that the value of S that permits the conclusion with confidence level ζ that the entire pool has error rate of ε or less is given by the solution to

\[ \sqrt{v(1-v) - \frac{\varepsilon^2}{4}} = \frac{n}{L} \]

We have the following notation assignments:

- y = L - S
- v = \frac{n}{L}
- \varepsilon

Example 2:
Same scenario as Example 1, except Level C underwriting and property valuation exception loans are removed from the pool with no substitutions.

In this example, we apply the 10% aggregate underwriting and property valuation Level C loan exception rate to the weighting of the unsampled portion of the pool and reduce the entire pool by 20 loans, which is the number of loans deemed exceptions and removed from the pool. We then calculate the loss coverage adjustment in the following manner:

92.3% of the pool is assigned 8% loss coverage and the remaining 7.7% of the pool is assigned 10.4% loss coverage.

0.923 x 8.00% = 7.38%
0.077 x (at least) 10.4% = 0.80%
Total ‘AAA’ loss coverage = 8.18% (7.38% + 0.80%)

The SIFMA due diligence working group is proposing a Level D due diligence grade for a loan file that is missing material documentation and has insufficient information to perform full due diligence. We will generally assign...
Overview

Everything you wanted to know, but ...

- History and problems in securitization
- Proposed changes to address these problems
- Opportunities (& pitfalls) for appraisers created by these changes and new regulations.

But first ... some definitions ...
What is “due diligence”? 

Due Diligence

Concept first introduced in the Securities Act of 1933, under the “due diligence defense”

Defined as:

“An examination being achieved by asking certain key questions, including, do we buy, how do we structure the acquisition and how much do we pay?”

For RMBS / CMBS, this refers to the collection & verification of vital loan data.
Three Legs of Due Diligence  
(for MBS & Whole Loans)

- Credit (the borrower)
- Collateral (documents)
- Property
- Compliance – the fourth leg of the stool.

We are concerned with the Property component.
Three Legs of Due Diligence
When one is missing ...

Mayhem strikes ...
- Credit
  - Borrower doesn’t pay
- Collateral
  - Can’t foreclose
- Property
  - Can’t recover losses
- Compliance
  - The Fed’s pay a visit
Seller & buyer or issuer & underwriter perform due diligence.
Outside firms engaged to do heavy lifting.
Results are vetted between parties, and then communicated to Rating Agency (if rated deal)
Reports are summary level data.
Lack of true third-party research on deal.
Rating Agency did not have loan-level detail / lack of transparency.
Rating Agency received filtered results and had little or no control over procedures.
Data lacked uniformity – hard to read.
Lack of transparency, and detail lead to inaccurate rating models. Lack of uniformity makes it difficult to compare deal to deal. Lack of oversight can lead to undue influence on the reported results.
Ratings Agencies now demand:
- Standardized fields on tape.
- Use of third-party due diligence firms, with very stringent requirements for firms engaged.
- Supervision of due diligence process.
- Prescribed procedures
- Results reported directly to the rating agency.
The Valuation Process
Residential Mortgage Backed Securities
The Rating Agencies

- Standard & Poors, Moody’s Investor Service, Fitch, DBRS.
- Third Party Due Diligence Firm Required
- Independent Valuation Required
- Grading Based on valuation quality, competence, and supportability.
- Processes involve validation of valuation results.
Grading System = A – B – C – D

DD firm must evaluate the appraisal. If unsupported, grade = C

Cascading value process
- AVM based on highest confidence
  - < 10% Variance = A
  - > 10% Variance & “no hit” -> BPO/Field Review/Appraisal
  - > 10% Variance = C
  - Missing appraisal = D

Results reported directly to the rating agency.
Moody's Investor Service

- Grading System = A – B – C – D
- DD firm must review the appraisal for quality & competency. If it does not pass, moves to AVM.
- AVM, BPO, etc. reconciled by DD firm.
- If “no hit” or “bad hit”, moves to BPO or field review & graded

- Grade A
  - < 10% Variance
  - Complete – no construction or major repairs
  - Average or better condition
  - Appraisal used standard GSE forms
  - Appraiser was appropriately licensed.

- Grade B = attributes of A, but has minor deferred maintenance
- Grade C = any one of the attributes of A are not present.
- Grade D = No appraisal
Independent Valuation Firm Engaged
Desk review, AVM, or BPO ordered entire sample

- < 10% Variance: use tape value
- > 10% Variance: use lower of reconciled vs. origination value.

If large number of loans are out of tolerance, then sample will be upsized.

For seasoned loans/NPA, use BPO to establish current value & reconcile by other firm.
<table>
<thead>
<tr>
<th></th>
<th>S&amp;P</th>
<th>Moody’s</th>
<th>DBRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Grade A – D</td>
<td>Grade A – D</td>
<td>Use most conservative value.</td>
</tr>
<tr>
<td>Due Diligence</td>
<td>Third party firm</td>
<td>Third party firm</td>
<td>Third party firm &amp; separate valuation.</td>
</tr>
<tr>
<td>Results</td>
<td>Valuation results affect grade.</td>
<td>Valuation results &amp; appraisal quality affect grade.</td>
<td>Valuation results become new value evaluated.</td>
</tr>
<tr>
<td>Reporting</td>
<td>Direct to S&amp;P</td>
<td>Direct to Moody’s</td>
<td>Direct to DBRS</td>
</tr>
</tbody>
</table>
So What?!!
What’s in it for appraisers?
What's in it for appraisers?

- What appraisers are to loans, due diligence firms are to mortgage trades.
- Third party firms are now required.
- Emphasis is on appraisal quality.
- Appraisals are required.
- Validation of value products is encouraged.
- More valuation products are now required.
Opportunities for Appraisers
Firms like Opus previously had no valuation group.
Two years ago we had a small group of appraisers from an outside firm.
Over the last year we grew from five employees in valuation to 60+
Over the next year we will grow to 100+
Appraisal talent is shifting from the street to institutions and due diligence firms.
Due Diligence Projects

- **Securitization**
  - Future – what will happen?
- **Forensic**
  - Past – what went wrong?
- **Servicing**
  - Present – what’s going on?
- **Specialized**
  - Commercial, High Value, etc.
- **Origination**
  - Rent an appraisal dept.
Institutions (lenders, investors …)

- New lenders formed from old operations, spinoffs, & startups.
- New & expanding depts.
  - Appraisal
  - Capital Markets
  - Compliance
- Repurchase Defense
- Servicing Departments
New products are being brought to market involving photographs, statistical analysis, research (w/o analysis), and other opportunities. Some are semi-automated.
The Keys to Success
What you need to do
Color!!

Reporting = black & white
Analyzing = color

Tell us why & how.
Support

• Backup what you do with facts & figures.
• “Appraiser’s Files”, “Knowledge & Experience”, etc. are not good sources
• Sources must be reproducible.
Conclusions must be logical.
For example – a property has been listed for $350,000 for 480 days, and it is appraised for $400,000.
Be a storyteller, not a form-filler.

- Monkeys & children can be trained to do data capture.
- Walk the reader through your research and conclusions from start to finish.
Due Diligence Jobs
Key Attributes
Be Adaptable

• Deals vary
• Clients have different needs
• Markets & motivations change.
• Appraisers must be able to adapt to a wide variety of data sources, available resources, client demands, etc.
Hard Working

- Firm deadlines
- Aggressive demands
- Scope Creep
- Last minute changes
- Require long hours, weekends, etc.
Able to Make Decisions

• No fence sitters.
• Can someone else reach a different conclusion?
• May have slim resources -- need to decide based on what is in the file.
Summary
What we learned on Summer Vacation
Take Aways

• There is plenty of blame to go around, BUT ...
• All parties have learned from the past and have corrected flaws in the system.
• More emphasis is now placed on quality, competency & integrity.
• Appraising will change dramatically; however there are new opportunities in valuation.
For more information ...

Contact:

Jeff Rauland,
Director of Valuation Services

224-632-1300
jeff.rauland@opuscmc.com