

Sample Subprime MBS Structure

Individual Mortgages

M1 M2 M3 M4 M5 M6 M7 M8 M9 M10
M11 M12 M13 M14 M15 M16 M17 M18 M19 M20
M21 M22 M23 M24 M25 M26 M27 M28 M29 M30
M31 M32 M33 M34 M35 M36 M37 M38 M39 M40
M41 M42 M43 M44 M45 M46 M47 M48 M49 M50
M51 M52 M53 M54 M55 M56 M57 M58 M59 M60
M61 M62 M63 M64 M65 M66 M67 M68 M69 M70
M71 M72 M73 M74 M75 M76 M77 M78 M79 M80
M81 M82 M83 M84 M85 M86 M87 M88 M89 M90
M91 M92 M93 M94 M95 M96 M97 M98 M99 M100

Mortgage Pools

2/28 Hybrid ARM Mortgage Pool

REMIC Trust

Special Purpose Vehicle (RMBS Trust)

RMBS Bonds

'AAA' RMBS

'AA' RMBS

'BBB' RMBS

'BBB-' RMBS

Residual

Senior/Sub 6-Pack Structure vs. the XS/OC Structure

Collateral

Deal with 6-Pack Structure

Deal with XS/OC

AAAs

AAAs

AA "M1"

A "M2"

RRR "M3"

BB "B1"

B "B2"

N.R. "B3"

IO

Interest on the Bonds

Interest on the Bonds

Note: The scale in Figure 1 does not accurately reflect relative size of bonds, IO or interest flow. Source: UBS

Source: UBS.

Sample Subprime RMBS Payments

Monthly Mortgage Payments

REMIC Trust

Accounts

Interest Payments

Principal Payments

Sample RMBS Interest Waterfall


Allocation of Interest


Source: Gorton (2008)

Table 2
Summary Statistics for CDO and CDO\(^2\) Tranches in our Simulation under Baseline Parameters

<table>
<thead>
<tr>
<th></th>
<th>Attachment points</th>
<th>Default probability</th>
<th>Expected payoff</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDO</td>
<td>Junior</td>
<td>0%–6%</td>
<td>97.52%</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>Mezzanine</td>
<td>6%–12%</td>
<td>2.07%</td>
<td>&gt; 0.99</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
<td>12%–100%</td>
<td>&lt; 0.00%</td>
<td>&gt; 0.99</td>
</tr>
<tr>
<td>CDO(^2)</td>
<td>Junior</td>
<td>0%–6%</td>
<td>56.94%</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Mezzanine</td>
<td>6%–12%</td>
<td>&lt; 0.00%</td>
<td>&gt; 0.99</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
<td>12%–100%</td>
<td>&lt; 0.00%</td>
<td>&gt; 0.99</td>
</tr>
</tbody>
</table>

Note: While the parameter values used in our simulation do not map into any particular market, they were chosen to mimic broadly the types of collateral and securitizations commonly observed in structured finance markets.
Figure 1
Sensitivity of CDO and CDO² to Changes in Default Correlation

Note: Figure 1 explores the sensitivity of the original collateralized debt obligation and the CDO² tranches to changes in default correlation for bonds within each collateralized debt obligation. The correlation in defaults for bonds belonging to different collateral pools remains fixed at zero. The figure displays the expected payoff as a function of the default correlation, normalized by the expected payoff under the baseline calibration.

Assumes rho = 0.20
Figure 2
Sensitivity of CDO and CDO\(^2\) to Changes in Default Probability

**A: CDO**

**B: CDO\(^2\)**

Note: Figure 2 explores the sensitivity of the original collateralized debt obligation and the CDO\(^2\) tranches to changes in the default probability for bonds in each collateralized debt obligation. The figure displays the expected payoff as a function of the default probability, normalized by the expected payoff under the baseline calibration.

Assumes pDefault = 0.05

Source: Coval et al. (2009).