Discussion of Carey and Gordy (2006)

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Points for Discussion

• Starting Point for Defining Systematic LGD
  – Firm-Level vs. Individual Instrument Level

• Effect of Firm Structure in determining individual instrument LGD which is itself influenced by debt structure
  – Viewed almost in context of “game theory”, particularly when discussing timing of bankruptcy
Starting Point for Defining Systematic LGD

• Definition was always instrument-centric, attributable, perhaps, to the employment of most interested participants
  – Bank regulators were worried about “downturn LGD” for loans
  – Portfolio Managers were focused on their specific asset classes
  – Most distressed players interested in the debt tranche that would yield the most profit to their specific strategy, either trading or with taking over the firm

Nobody really “owned” firm-level LGD
Starting Point for Defining Systematic LGD (cont’d)

• Data on entire debt structure of defaulted firms was hard to get and the vast majority of data was trading prices, which may not reflect actual trades

• Debate as to whether data on trading prices 30 days after default was a good proxy for Ultimate Recovery
  – Google “Systematic LGD” and the majority of academic and industry studies that come up in the first 2 pages of the search results used trading prices at default as data source

• Happily, issues of Nominal Recovery, Discounted Recovery and the appropriate recovery rate do not appear to be important to these topics
Starting Point for Defining Systematic LGD (cont’d)

• Given all of the above, it is not surprising that researchers could not find the macro explanatory variable(s) for Ultimate Recovery
• Default rates seemed to fit for prices of defaulted instruments 30 days, but in 2000-2001 signaled a significant decline in loan recoveries that did not ultimately occur
• Given the importance of Firm-Level LGD as the starting point, time to ponder how this might one day effect banks, regulators, rating agencies, investors, etc.
  • Does Basel “downturn LGD” focus on firm-level determinants and senior bank debt as a % of total debt?
The Role of Debt Mix in LGD

Findings for discussion:

- Understanding a firm’s debt structure is key to understanding instrument level LGD
- Bank loan share as a percentage of the firm’s total debt influences firm-level LGD
  - “Bank loan” taken to mean “debt instrument with ability to force firm into bankruptcy”
The Role of Debt Mix in LGD

• Therefore, the structuring of a firm’s instruments will influence the firm-level LGD. This, in turn, influences (re-influences?) the individual instruments ‘LGDs
The Role of Debt Mix in LGD

• Interesting extension of current logic to help explain behavior of both LGD and defaults
  – Happily anticipate continued research on this topic
  – Potential new explanatory variable in link between default and recovery

• But, what if the majority of bank debt holders are not banks?
• And, what happens if the bond holders catch on to this?
  – Could this be part of the reason for the substantial decreases in high yield bond origination?
Additional Points to Ponder

• In the U.S., the majority on new non-investment grade transactions are bank-debt only transactions blurring the line between firm-level LGD and instrument-level LGD
  – 60% of Moody’s rated transactions in this category had senior bank debt only in 2005, trend continues this year

• The majority of distressed debt holders are not banks or bond funds, but hedge funds and distressed funds that are changing the dynamics as they are not “relationship-driven” and usually have a different agenda from originating banks and funds.
Additional Points to Ponder

• When does a loan stop being a loan for the purposes of this topic? Given the current weakening of covenants, substantially increased second lien bank debt, etc.; are we looking at “bonds in drag”?

• Recent substantial decline in Senior Unsecured bond recoveries attributable to structural issues with senior unsecured often becoming the debt tranche with the most junior claim. The recoveries were consistent with historic recoveries for senior subordinated debt
Summary

• Firm-level LGD the correct starting place in trying to find the variables that influence systematic LGD
  – Starting point for Moody’s LGD ratings
  – Can macro-economic variables effect firm-level recovery but not instrument-level LGD?
• Under at least some circumstances, debt structure will influence both firm level-LGD and instrument-level LGD
• “Game theory” aspects influence timing of default and also influences individual instrument LGD. Another facet of “structure matters”
Summary (cont’d)

• Quantity and Quality of data will be an issue for the foreseeable future.
• Topic may have important Basel-related implications
“Please, sirs, may I have some more? ”

• Issues that I look forward to subsequent research-
  – Additional determinants of firm-level LGD, especially any macro-economic findings
  – Continued research into the potential new explanatory link between default and recovery using bank loan share of total debt structure
  – Time in bankruptcy as an explanatory variable for LGD. If it is not a determinant, than why are so many senior creditors “bribing” junior creditors so as to make them go away?
  – “Loss as % of Origination” versus LGD
### Quick Review of some of the Underlying Assumptions

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<thead>
<tr>
<th>Carey and Gordy:</th>
<th>Moody’s Research:</th>
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<tr>
<td>Firm-level recovery is unimodal with mean near 50%</td>
<td>Yes</td>
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<td>All bank-debt recoveries higher than average firm-level recoveries</td>
<td>Yes, but not as high as published. Moody’s excludes ABL-only defaults</td>
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<td>Smooth relationship between full loss and full recovery bank debt interval</td>
<td>Yes, some recoveries slightly over 100%</td>
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<td>Absolute priority violations, while frequent, tend to be minor</td>
<td>Yes, Moody’s models these violations into LGD ratings</td>
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<td>Financial variables (EBITDA, etc.) not very helpful in determining firm-level value</td>
<td>Same conclusion</td>
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<td>“Regulation” only strongly significant variable related to industry</td>
<td>Yes</td>
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