MOODY'S
INVESTORS SERVICE

Europe 2020 Project Bond Initiative

Roundtable 3: Expected impact of the project bond initiative on the capital markets funding of projects

JOHAN VERHAEGHE, VP - SENIOR CREDIT OFFICER

11 APRIL, 2011

Content

About Moody's Investors Service

» Moody's Investors Service ("Moody's") is a leading provider of credit ratings, research, and risk analysis.

» The firm's ratings and analysis track debt covering more than
  - 110 countries
  - 12,000 corporate issuers
  - 25,000 public finance issuers
  - 106,000 structured finance obligations

» Moody's Investors Service is a subsidiary of Moody's Corporation (NYSE: MCO), which reported revenue of $2.0 billion in 2010, employs approximately 4,500 people worldwide and maintains a presence in 26 countries.

Additional information is available at www.moodys.com.

Why are credit ratings important?

- Moody's credit ratings are opinions of the relative credit risk of financial obligations.
  - Ratings are expressed on a 21-category rating scale, ranging from Aaa to C
  - Transparency of ratings supported by clear rating methodologies, timely communication and relevant research

- Importance for investors:
  - Well-understood categorisation of credit quality across debt sectors and regions
  - Anchored in rigorous analysis
  - Independent perspective on credit risk

- Importance for issuers:
  - Facilitate borrowers' access to global capital markets

- Relevant to other stakeholders
  - Including regulators, legislators and academic researchers

Credit ratings play a significant role in financial markets and are relevant to a broad range of market participants.

Overview of ratings process

» Gathering information
  – Lead analyst assigned to a particular issuer or debt obligation ("Lead Analyst”) assembles relevant information

» Credit analysis
  – Analysis of the issuer or debt obligation based on relevant rating methodologies
  – Lead Analyst formulates his/her views for consideration by Rating Committee

» Rating Committee
  – Lead Analyst presents his/her credit analysis and rating recommendation to Rating Committee
  – Members of Rating Committee reflect relevant expertise.
  – Diversity of opinion is encouraged and discussed openly
  – Credit ratings are determined by majority vote

» Dissemination of Credit Rating Announcement

» On-going monitoring

Regulatory oversight of ratings process has increased

Rating Drivers for Project Finance

- Rating methodologies published by Moody's set out relevant rating approach
- Sector rating methodologies include:
  - PFI/PPP/P3 projects (Separate methodologies for construction phase and operations phase)
  - Power Generation Projects
  - Operational Toll Roads
  - Operational Airports (Concession-based framework)
  - General project finance rating methodology
- Rating methodologies include scorecards
  - Scorecards provide a broad prediction of credit quality to within 1-2 notches of rating
  - Scorecards inform Rating Committee deliberations but do not determine rating
- Published research provides additional insight into key considerations for rated precedents

Moody's methodologies and scorecards available free to the market

Illustration: PPP Projects - Construction Phase

www.moodys.com

Rating Methodology

Moody's Global
Project Finance

December 2007

Construction Risk in Privately-Financed Public Infrastructure (PFI/PPP/P3) Projects

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Summary

- Moody's is implementing this methodology in order to improve the transparency of its approach to evaluating construction risk in privately financed, public infrastructure projects ("PFI/PPP"). The methodology incorporates a broad range of market comments received by Moody's as part of a review process initiated by the publication of our August 2006 *Request for Comment* on this topic.
- Moody's will apply this methodology globally when assigning ratings to this class of project financings. The methodology augments our existing analytical framework with a quantitative model designed to explicitly incorporate Moody's assumptions about the likelihood of construction over-runs, the value of parent guarantees from construction contractors as well as the benefit of various types of financial supports including performance bonds and letters of credit and the interactions between them.
- The quantitative model uses Monte Carlo simulations to model PFI/PPP projects on an expected loss basis. The model results are an input to a rating framework that incorporates those aspects of construction programs that are less suited to modeling but that Moody's feels are critical to the analysis of PFI/PPP infrastructure financings. The model is available to market participants at no cost upon execution of a usage agreement. For further information on how to obtain the model, please contact Moody's at pppmodels@moodys.com.
- Moody's is concurrently publishing a rating methodology for the analysis of operating risk in PFI/PPP projects. Consistent with existing practice, we plan to consider separately risks in the construction and operations phases of PFI/PPP projects. Should projects be structured with a significantly higher risk profile in construction than in operations, Moody's would normally expect to adjust a project's rating for the operations phase to reflect successful construction and transition to project operations. Moody's will comment on the relative risk of the construction and operations phases of new PFI/PPP projects as ratings are assigned.

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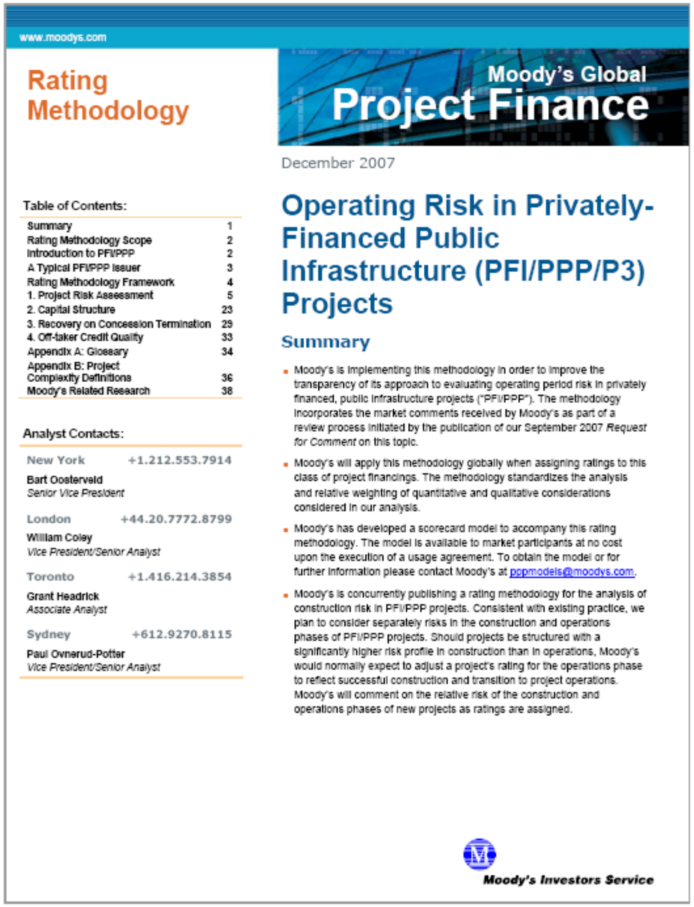
Key inputs:

- Contract size
- Debt amount
- Complexity of scope
- Contractor support
  - Rating
  - Liability exposure
- Third party support(s) - for each support:
  - Rating
  - Support level
  - LCs/ adjudication bond
- Grant funding

Construction phase risk modelled as a financial exposure supported by a portfolio of financial assets.

Illustration: PPP Projects - Operating Phase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Rating Methodology

Moody's Global
Project Finance

December 2007

Operating Risk in Privately-Financed Public Infrastructure (PFI/PPP/P3) Projects

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Summary

- Moody's is implementing this methodology in order to improve the transparency of its approach to evaluating operating period risk in privately financed, public infrastructure projects ("PFI/PPP"). The methodology incorporates the market comments received by Moody's as part of a review process initiated by the publication of our September 2007 *Request for Comment* on this topic.
- Moody's will apply this methodology globally when assigning ratings to this class of project financings. The methodology standardizes the analysis and relative weighting of quantitative and qualitative considerations considered in our analysis.
- Moody's has developed a scorecard model to accompany this rating methodology. The model is available to market participants at no cost upon the execution of a usage agreement. To obtain the model or for further information please contact Moody's at ppmodels@moodys.com.
- Moody's is concurrently publishing a rating methodology for the analysis of construction risk in PFI/PPP projects. Consistent with existing practice, we plan to consider separately risks in the construction and operations phases of PFI/PPP projects. Should projects be structured with a significantly higher risk profile in construction than in operations, Moody's would normally expect to adjust a project's rating for the operations phase to reflect successful construction and transition to project operations. Moody's will comment on the relative risk of the construction and operations phases of new projects as ratings are assigned.

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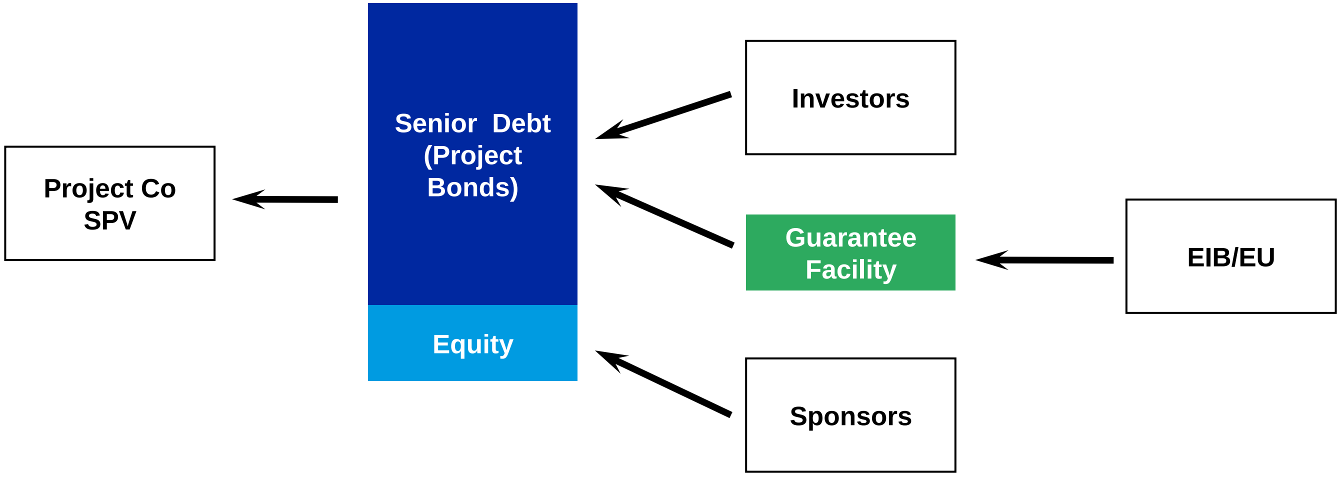
A simpler scoresheet, but with more inputs

4-stage assessment

- » Project Risk Assessment
- » Capital Structure
- » Loss Given Default
- » Offtaker Rating

Scoresheet incorporates 40 different drivers of credit strength

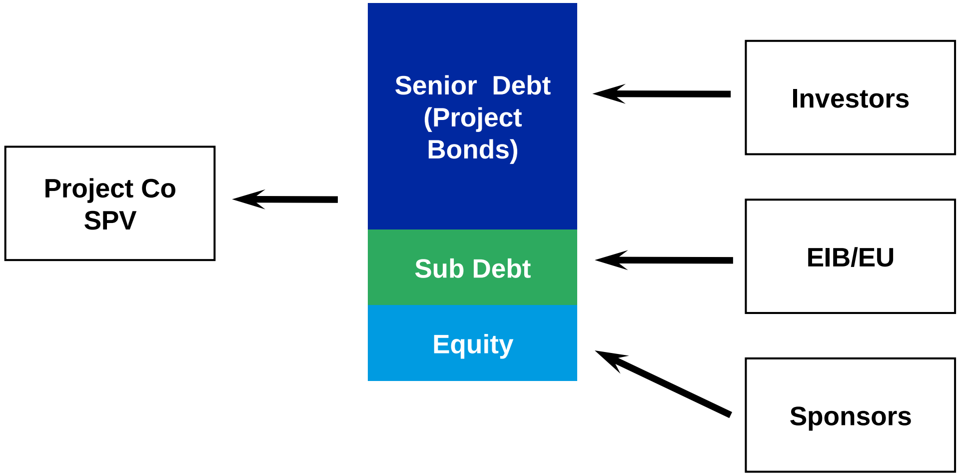
Commentary on proposed support: Guarantee



- Partial guarantee likely to be credit positive for senior debt
  - Reduced probability of default
  - Mitigation of loss given default
- Methodology scorecards and models recognise benefits of increased liquidity, but are not currently structured for "fine tuning"
- Similarly, mitigation of loss given default would be beneficial, but difficult to calibrate impact under current methodologies.

Moody's to comment in further detail in written submission to Consultation (to be published)

Commentary on proposed support: Sub debt



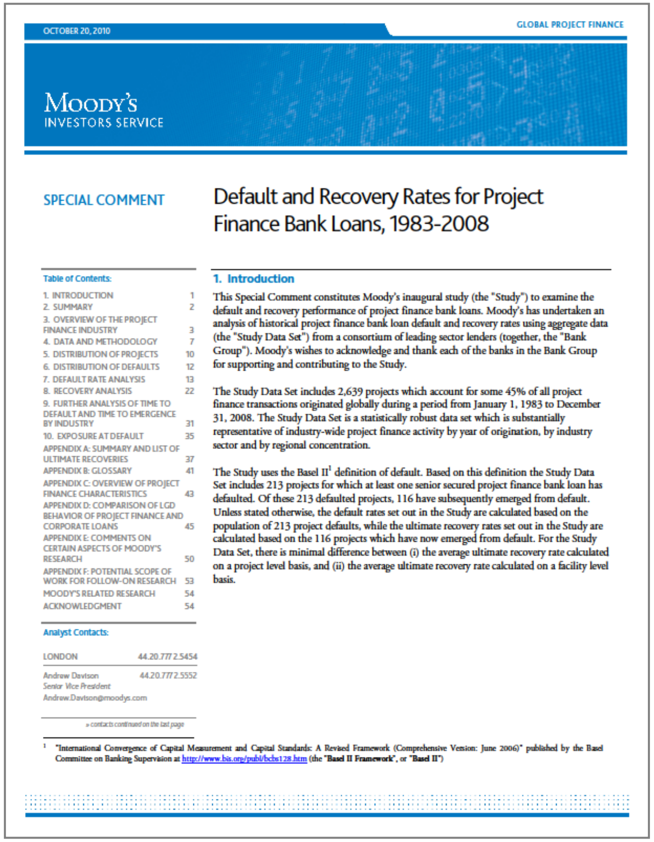
- Subordinated debt specifically contemplated in Moody's rating methodologies
- Methodology scorecards and models available to assess likely impact of proposed support on credit quality of senior debt
- Differential impact vs Guarantee arises from funded vs contingent support
  - Sub debt funds assumed spent in base case
  - Incremental cost of carry likely for sub debt

Moody's to comment in further detail in written submission to Consultation (to be published)

Q&A

Appendix: Relevant Research

Default and Recovery Study Published in October 2010


OCTOBER 20, 2010

GLOBAL PROJECT FINANCE

MOODY'S INVESTORS SERVICE

SPECIAL COMMENT

Default and Recovery Rates for Project Finance Bank Loans, 1983-2008

Table of Contents:

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1. Introduction

This Special Comment constitutes Moody's inaugural study (the "Study") to examine the default and recovery performance of project finance bank loans. Moody's has undertaken an analysis of historical project finance bank loan default and recovery rates using aggregate data (the "Study Data Set") from a consortium of leading sector lenders (together, the "Bank Group"). Moody's wishes to acknowledge and thank each of the banks in the Bank Group for supporting and contributing to the Study.

The Study Data Set includes 2,639 projects which account for some 45% of all project finance transactions originated globally during a period from January 1, 1983 to December 31, 2008. The Study Data Set is a statistically robust data set which is substantially representative of industry-wide project finance activity by year of origination, by industry sector and by regional concentration.

The Study uses the Basel II[1] definition of default. Based on this definition the Study Data Set includes 213 projects for which at least one senior secured project finance bank loan has defaulted. Of these 213 defaulted projects, 116 have subsequently emerged from default. Unless stated otherwise, the default rates set out in the Study are calculated based on the population of 213 project defaults, while the ultimate recovery rates set out in the Study are calculated based on the 116 projects which have now emerged from default. For the Study Data Set, there is minimal difference between (i) the average ultimate recovery rate calculated on a project level basis, and (ii) the average ultimate recovery rate calculated on a facility level basis.

[1] "International Convergence of Capital Measurement and Capital Standards: A Revised Framework (Comprehensive Version: June 2006)" published by the Basel Committee on Banking Supervision at http://www.bis.org/publ/bcbs128.htm (the "Basel II Framework", or "Basel II")

- Study data based on PF Bank Loans
- Includes 2,639 projects representing almost 45% of all project finance transactions originated worldwide 1 Jan 1983 to 31 Dec 2008
- Substantially representative of worldwide project finance activity
- Includes 213 defaulted projects
  - 116 Ultimate Recoveries
  - 34 Distressed Sales
  - 63 Defaults in Work Out

This research is freely available to the market (http://v3.moodys.com/Pages/PFSplashPage.aspx)
The Study provides a significant body of information to industry stakeholders about the credit characteristics of the Project Finance asset class

Key Findings

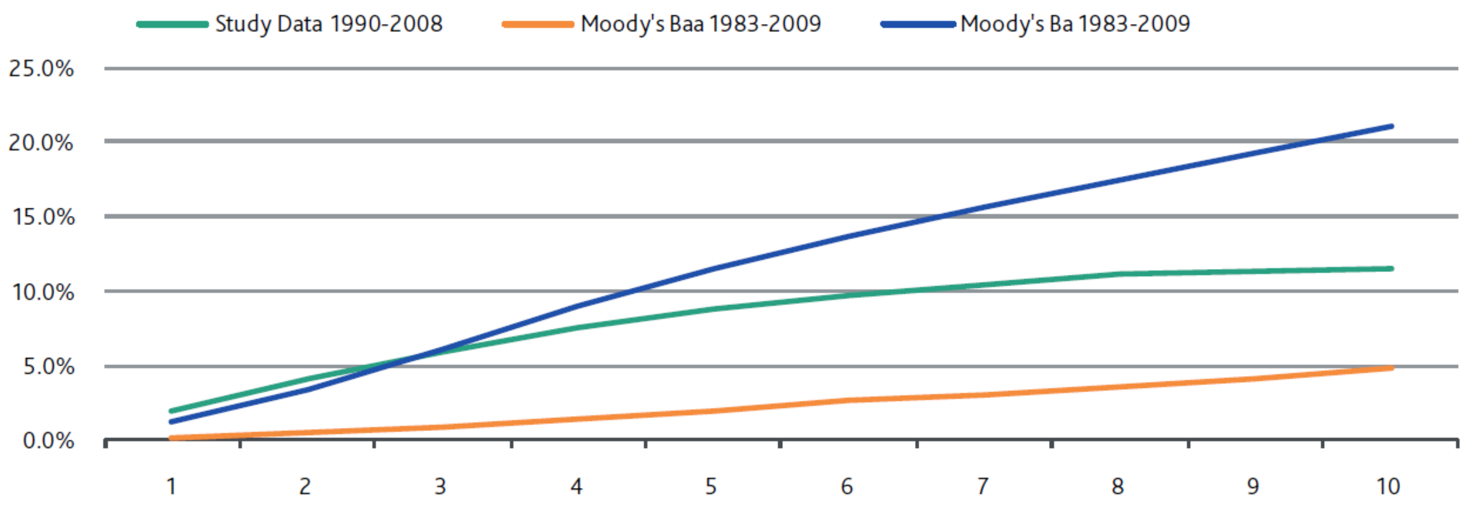
- Cumulative default rates are consistent with ratings in the Baa/Ba rating categories;
- Average ultimate recovery rates are high;
- Ultimate recovery rates are substantially independent of economic cycle;
- Average recovery rates for work outs exceed those for distressed sale exits
- Projects face material incremental risk during the construction phase; and
- Key points of comparison between the project finance Study Data Set and corporate bank loans

Project Finance is a resilient class of specialised corporate lending.
Risk allocation, structural features and underwriting disciplines have proved effective

Cumulative Default Rates

EXHIBIT 12

Chart of data presented in Exhibit 11



- Cumulative default rates consistent with Baa/Ba rating categories
- Rate of increase (i.e. annual default rate) reduces approx 4-5 yrs post origination
- Higher annual default rates during construction vs operations

Long-term lending does not necessarily mean higher-risk.

Incremental Risk During Construction Phase

EXHIBIT 12

Chart of data presented in Exhibit 11

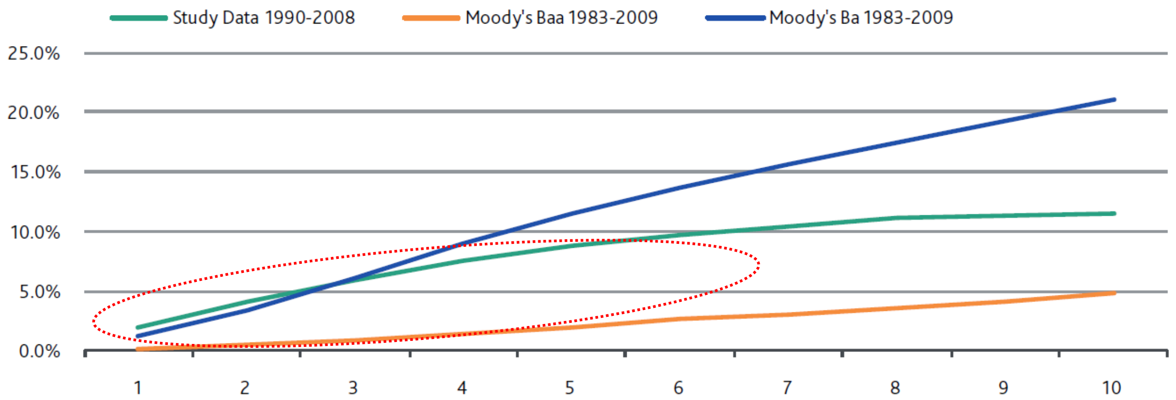


EXHIBIT 31

Distribution of Defaults and Ultimate Recoveries by project phase

Project Phase	Count (Note 1)	Average Years to Default (Note 1)	Count (Note 2)	Average ultimate Recovery Rate (Note 2)	Average Years To Emergence (Note 2)
Construction	40	3.1	30	67.5%	2.9
Operations	96	3.8	73	80.1%	2.0
Total	**136**	**3.6**	**103**	**76.4%**	**2.3**

- » Annual default risk is materially higher for projects during construction.
- » Recoveries are materially lower for projects during construction.

Significant incremental risk during construction phase

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