

Rating of Infrastructure Projects According to Basel II

Clemens Elbing¹, Armin Liebchen

Abstract

Key issue of the paper is to investigate in rating systems according to Basel II, how risks of financing infrastructure projects are handled and which requirements result in the project appraisal, strategies and allocation of risks between the project stakeholders. Finally a process-model for structuring infrastructure projects as hybrid-tool combining benchmarking, simulation and subjective judgement techniques for Cash-flow based Financial Engineering, Risk Management and Value Engineering is presented. The authors developed this model and currently investigate in the implementation as software tool for banks and investors which will lead to improved confidence in the bankability of infrastructure projects and external rating according to Basel II.

1 Introduction

Worldwide risk analysis of bank-loans currently finds itself in a transition phase. The so called Basel II regime named after the committee's seat in Switzerland, sets up a reform which aims to reduce risks of default for all kinds of bank-loans by enhancing the transparency of the credit decision-making process.

Based on typical project risks, rating according to Basel II is explained, which consequences the rating results have on project finance, which decisions need to be made during the appraisal stage, how infrastructure projects are structured and how value for money can be achieved over the whole lifecycle of projects.

2 Typical Project Risks

Basic definitions for uncertainties, risks and parameters are made and sector specific aspects/ risks are presented for certain project types which is fundamental for the explanation of the rating

process. Project specific aspects are classified in terms of technical, economical and others. Risks should be identified in the categories global risks (political, commercial, legal, environmental, regulatory) and project risks (construction, operational, financial, revenue).

3 How does the rating process work?

It is described how project risks and global risks like sovereign, market and regulation risks are analysed in the rating process and which decision parameters lead to the rating results. Rating can be understood as hybrid structured process which combines benchmarking, simulation and judgement. For the rating process necessary elements, parameters and rating drivers are presented. The down-leveling of risks already in the project appraisal phase is one of the outstanding challenges in future project-designing.

4 Structuring infrastructure projects in order to prepare for Basel II rating

In the fourth section it is explained which models and analyse techniques can be utilised in an iterative process-model during the appraisal stage of infrastructure projects in order to optimise the project structures and to create a robust and bankable project cash flow for the rating process. The integrated process-model is Cash-flow based and offers tools for Financial Engineering, Risk Management and Value Engineering over the whole lifecycle of infrastructure projects.

5 Conclusion and Prospect

In the conclusion future requirements for special purpose entities in the infrastructure sector are presented. The final remarks will be dedicated to the rating-oriented risk analysis itself which supports identifying risks for the whole lifecycle and helps achieving financial close.

¹ Bauhaus-Universität Weimar, Chair Construction Economics, clemens.elbing@bauing.uni-weimar.de.