Abstract

This thesis analyses the effects of Basel II regulatory framework on banks' project finance loans. It deals with three key issues related to: i) the capital requirements that a bank has to hold for each loan issued; ii) the impact of the so-called Basel II risk-drivers on the loan price measures (interest rates and spreads) and iii) the methodologies used by banks to estimate the probability of default of a specific project.

With regard to capital requirements our evidences confirm the crucial role played by Internal Rating Based (IRB) approaches. Generally, we show that the IRB approaches lead to smaller capital requirements than both the standardized approach and the slotting approach. In addition, we provide interesting evidence on the "appropriate" measure of probability of default to be used in order to feed the regulatory formula. Furthermore, to detect how the Basel II IRB approaches affect the bank loan pricing mechanism, we develop a multi-period risk-adjusted pricing methodology under the prevalent loan repayment schemes, based on the theoretical framework provided by Hasan and Zazzara (2006).

In addition to the previous literature, we shed more light on: i) the contribution of the two types of losses (expected and unexpected) to the total risk adjusted spread, finding evidence which is consistent with what credit risk modeling theory suggests; ii) the implications stemming from the adoption of the IRB advanced approach, showing that lower risk adjusted spreads are assured when the effect of longer maturities (higher spreads) is off balanced by a reduction in LGD (estimated through internal models).

JEL classification: G12, G21, G28, G32.
Keywords: Asset Pricing; Banks; Basel II; Capital Requirement; Project Finance, Risk Management; Regulation.