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Statistical Model of Recovery Rate and Loss Given Default by Internal Ratings-Based Approach

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Abstract

Basel II Accord requires Japanese banks that the RR (Recovery Rate) or LGD (Loss Given Default) be needed to estimate by a statistical model in order to progress from FIRB (Foundation Internal Ratings-Based approach) to AIRB (Advanced Internal Ratings-Based approach).However, there is no standard method to estimate RR or LGD, because not enough data has been collected and the general approach to value the "collection in-progress" default loans has not been developed yet.

In this paper, we define the default by the rating drops in the internal ratings-based approach and estimate RR, which is assumed to be the function of collaterals and guaranties by using real data of credit obligation. The practical RR estimation model is suggested by considering the long term of the default loan recovery and the case of return to the non-default rating in the internal ratings. We reach the conclusion that the ratio of collaterals and guaranties is an important determinant of RR.

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Keywords: Loss Given Default, Internal Ratings-Based Approach, Recovery Rate,

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