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Advancing Loss Given Default Prediction Models: How the Quiet Have Quickened

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Abstract

We describe LossCalc™ version 2.0: the Moody's KMV model to predict loss given default (LGD), the equivalent of (1 — recovery rate). LossCalc is a statistical model that applies multiple predictive factors at different information levels: collateral, instrument, firm, industry, country and the macroeconomy to predict LGD. We find that distance-to-default measures (from the Moody's KMV structural model of default likelihood) compiled at both the industry and firm levels are predictive of LGD. We find that recovery rates worldwide are predictable within a common statistical framework, which suggests that the estimation of economic firm value (which is then available to allocate to claimants according to each country's bankruptcy laws) is a dominant step in LGD determination. LossCalc is built on a global dataset of 3,026 recovery observations for loans, bonds and preferred stock from 1981 to 2004. This dataset includes 1,424 defaults of both public and private firms – both rated and unrated instruments – in all industries. We demonstrate out-of-sample and out-of-time LGD model validation. The model significantly improves on the use of historical recovery averages to predict LGD.

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