LGD Modelling - Comparison of models

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Abstract

Since Basel 2, financial institution can determine the capital required for credit risk by using advanced internal models; which requires the determination of Loss Given Default (LGD). LGD is also an important element in assets pricing. Observed LGDs present an asymmetric and bimodal distribution. Several models have been proposed formalizing these features. Most used models are presented and used in this article to determine the dynamic of retail's loans provided online. The retained models are: Censored Least Square Method, Censored Linear Regression (Tobit) Model, Censored Linear Regression Three-Tiered Tobit Model, Ǟřnflated Beta Regression Model, Beta Linear Regression Model and Censored Gamma Linear Regression Model. These models are used to determine directly the dynamic of LGD, but also to model the dynamic of losses and then deduce the LGD.

JEL Classification:

keywords: LGD, Bimodal distribution, Beta distribution, Gamma distribution, Logistic regression, Tobit regression, Zero/One adjusted distribution, Inflated distribution, OLS, Defaulted loans.

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