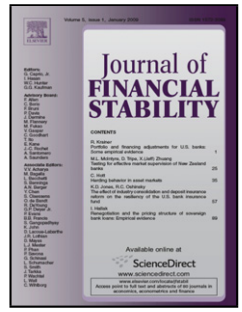

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Is It Obligor or Instrument That Explains Recovery Rate: Evidence from US Corporate Bond

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Highlights:

- Contribution is unobservable heterogeneities in analysis of bond recovery rates
- An obligor-varying linear factor model significantly improves model fit
- Latent economic cyclical effects are well represented by firm level heterogeneity
- Normal distributional assumption of the recovery rates is evidently supported
- The model leads to a more right clustered loss distribution than other methods

Abstract: This study investigates the impacts of unobservable firm heterogeneity on modelling corporate bond recovery rates at the instrument level. Based on the recovery information over a long horizon from 1986 to 2012, we find that an obligor-varying linear factor model presents significant improvements in explaining the variations of recovery rates with a remarkably high intra-class correlation being observed. It emphasizes that the inclusion of an obligor-varying random effect term has effectively explained the unobservable firm level information shared by instruments of the same issuer and thus results in an improvement of predictive accuracy of recovery rates. The empirical results show that the latent economic cyclical effects have been well represented by firm level heterogeneity, and strong evidence is presented for the normal distributional assumption of the recovery rates. Finally, we demonstrate the choice of recovery rate models may influence portfolio risk with the obligor-varying factor model generating a more right clustered loss distribution than other regression methods on the aggregated portfolio.

Keywords: Unobservable Heterogeneity, Loss Given Default, Portfolio Loss Distribution

JEL classification: **G21 G28**