

The Role of Heterogeneity in Early Warning Systems for Sovereign Debt Crises

Ana-Maria FUERTES and Elena KALOTYCHOU

*Cass Business School, City University
106 Bunhill Row, London EC1Y 8TZ.
email: a.fuertes@city.ac.uk - e.kalotychou@city.ac.uk*

ABSTRACT

This paper compares alternative sovereign default models that differ in how unobservable country, regional and time heterogeneities are treated. The analysis is based on annual data 1983-2002 for 96 developing economies. Inference-based criteria and the plausibility of estimates overwhelmingly favour the more complex models that permit the link between the default probability and the fundamentals to be time and country heterogeneous. However, simplicity beats complexity in forecasting. This finding is based on out-of-sample forecast evaluation using several loss functions, equal-predictive-ability tests and various naïve benchmarks. Parsimonious pooled logit models produce the most accurate forecasts and outperform the various naïve benchmarks.

Key Words: Credit risk; Default probability; Emerging markets; Loss function; Panel logit; Predictive performance; Unobserved heterogeneity.

JEL classification: C15; C32; C33.