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EarlyWarning for Financial Stress Events:A Credit-Regime Switching Approach

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Abstract : We propose a new early warning model for predicting financial stress events for a given future time. In this model, we examine whether credit conditions play an important role as a nonlinear propagator of shocks when predicting the likelihood of occurrence of financial stress events for a given future time. This propagation takes the form of a threshold regression in which a regime change occurs if credit conditions cross a critical threshold. Given the new early warning model for financial stress events, we evaluate the performance of this model and currently available alternatives, such as the model from signal extraction approach, and linear regression model. In-sample forecasting results indicate that the three types of models are useful tools for predicting financial stress events while none of them outperforms others across all criteria considered. The out-of-sample forecasting results suggest that the credit-regime switching model performs better than the two others across all criteria and all forecasting horizons considered.

Keywords : cut-off probability, early warning model, financial crisis, financial stress, regime-switching model, forecasting horizons
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