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Early-Warning Systems: A Survey and a Regime-Switching Approach

Abdul Abiad

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Research Department

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Prepared by Abdul Abiad¹

Authorized for distribution by Ashoka Mody

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Abstract

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Previous early-warning systems (EWSs) for currency crises have relied on models that require a priori dating of crises. This paper proposes an alternative EWS, based on a Markov-switching model, which identifies and characterizes crisis periods endogenously; this also allows the model to utilize information contained in exchange rate dynamics. The model is estimated using data for the period 1972–99 for the Asian crisis countries, taking a country-by-country approach. The model outperforms standard EWSs, both in signaling crises and reducing false alarms. Two lessons emerge. First, accounting for the dynamics of exchange rates is important. Second, different indicators matter for different countries, suggesting that the assumption of parameter constancy underlying panel estimates of EWSs may contribute to poor performance.

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Author's E-Mail Address: aabiad@imf.org

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