Evaluating Currency Crises: A Multivariate Markov Regime Switching Approach

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This paper provides the empirical framework to analyse the nature of currency crises by extending earlier work of Jeanne and Masson (2000) who suggest that a currency crisis model with multiple equilibria can be estimated using Markov regime switching (MRS) models. However, Jeanne and Masson (2000) assume that the transition probabilities across equilibria are constant and independent of fundamentals. Thus, currency crisis is driven by a sunspot unrelated to fundamentals. This paper further contributes to the literature by suggesting a multivariate MRS model, first introduced by Phillips (1991), to be used to analyse the nature of currency crises. In the new set up, one can test for the impact of the unobserved dynamics of fundamentals on the probability of devaluation. Empirical evidence shows that expectations about fundamentals, which are reflected by their unobserved state variables, not only affect the probability of devaluation but can also be used to forecast a currency crisis one period ahead.