

Early warning systems for predicting currency crises in Armenia

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Hayk Avetisyan
Monetary Policy Department

Executive summary

On the brink of the global financial and economic crisis, developing countries, Armenia among them, were enjoying enormous economic progress, based on huge foreign currency inflows. Against the background of the global crisis, the termination of such flows stirred a wave of currency crises since autumn of 2008, which was also showed up in Armenia. In this study we will attempt to identify leading indicators for predicting currency crises in Armenia [as well as in CIS and CEE countries] and to build applied early warning systems (EWS) by using the conventional Signaling approach and relatively new Classifications tree models. As a result, it was found out that almost all the indicators discussed had good forecasting properties for Armenia's economy, and among them one may especially point out such leading indicators as budget deficit, credit, inflation, foreign debt and bank assets indicators. At the same time 9 out of 24 variables discussed come in to have the best leading properties, signaling at least with 3 quarters' advance. Addressing the issue of the causes of crises it was revealed that most crises observed in developing countries in Europe had been attributable to the problems of budget deficit and excess financing: self-fulfilling crises also hold a significant share. The models (including combined ones) developed in this paper are remarkable for their high forecasting power and good properties while the model, based on a CART methodology, with its main forecasting properties even surpasses all other types of models for EWS available in the literature. In addition, all models best predicted the currency crisis in Armenia in March of 2009, so they can be used in forecasting currency and financial crises in Armenia (and other countries in the region as well).

In a crisis you are a hostage of your past...

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