Constructing early warning system of currency crises for Indonesia leading indicator approach

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Abstrak

The 1997-1999 currency crises series was a major shock to Indonesian economy. The crises had damaged Indonesian economy, since economic growth declined sharply and Indonesian banking system was in collapse. Should the monetary authority and business practitioners anticipated the currency crises, the social loss caused by it could be reduced. Learning from past mistakes, an early warning system to predict the possibility of currency crises occurrence in the near future is needed.
This study applies the leading indicator approach to construct early warning system of currency crisis for Indonesia, both by using individual and composite leading indicators. A currency crises in this study is defined as any observation of exchange market pressure {EMI') over EMPs mean plus one time of EMPs standard deviation. Meanwhile, the threshold level for indicator's signal issuance is set to leave 20% best observations. Each indicator's performance is measured by using three criteria: (I) percentage of correctly called crises; (2) adjusted noise to signal ratio; and (3) probability of crisis following a signal.
Results from this study show that there are five best individual indicators that can fulfil all of the criteria: (1) Rupiah REER misalignment over its trend value; (2) Deposit Money Banks' foreign assets growth; (3) financial account surplus; (4) base money growth; and (5) financial account surplus to GDP ratio. From the best individual indicators, 17 best composite indicators can be constructed. The first best composite indicator is the "VW', which is a direct combination of "Rupiah REER misalignment over its trend" and "Deposit Money Banks' foreign assets growth".