The performance of inflation targeting regimes in emerging market and developing countries: A propensity score matching approach

Abstract

Inflation targeting (IT) is a widely used monetary policy. We examine the effects of it on emerging and developing countries' inflation, output growth, dollarization, real effective exchange rate (REER), REER volatility, fiscal balance, output volatility and inflation volatility via propensity score matching.

Propensity score matching is based on matching IT adopters and non-IT adopters on their propensity scores. The mean difference of the outcomes between these two is the average treatment effect (ATT). The main aim of it is to solve the self-selection problem. Propensity scores indicate the likelihood of adaptation of IT and these can be estimated via a probit model. Our dependent variable is an IT dummy and our independent variables are lagged inflation rate, broad money growth, GDP per capita growth rate, Lane and Milesi-Ferretti's international investment position data and trade to GDP ratio. We include a popularity of IT indicator (total number of countries adopted IT that year) following Lucotte (2012) and a structural parameter (a central bank independence index) for robustness tests.

In our main analysis, there is a decrease in GDP growth after the introduction of IT. Moreover, there is a decrease in REER suggesting there is a depreciation. The increase in fiscal balance implies the government becomes more efficient in tax collection after the loss of the seignorage income. There is also an increase in GDP per capita volatility and GDP volatility. Note that almost all of our results are robust.

Keywords: Inflation targeting, propensity score matching, emerging countries, dollarization, real effective exchange rate.

JEL classification: E4, E5, E6, F3, H6