Impact of exchange rate volatility on import flows: The case of Malaysia and the United States

Abstract

This article investigates empirically both linear and nonlinear relationships between exchange rate volatility and import flows for the United States and Malaysia. Previous empirical work has neglected nonlinear relationships, focusing instead on linear causal relationships between exchange rate volatility and import flows, which may have generated misleading conclusions. Using annual American and Malaysian data for the periods 1975/2009 and 1980/2009, this article differs from earlier studies by adding a Brock-Dechert-Scheinkman (BDS) test to investigate the independent and identically distributed (i.i.d.) residual and then employing nonlinear causality tests to investigate the existence of nonlinear causal relationships. Two major findings emerge. First, the BDS test shows the residual of the linear model is not i.i.d. Second, the nonlinear causality test shows both Malaysia and the US have nonlinear causal relationships between exchange rate volatility and import flows.