The Effect of Exchange Rate Volatility upon Foreign Trade of Romanian Agricultural Products

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Non-Technical Summary

The article gives an empirical look of the effect of exchange rate volatility on international trade flows of transition economies in Eastern Europe by studying the case of Romanian agricultural export between 1999 and 2008.

The consequences of exchange rate depreciation or strengthening on the foreign trade of a country are widely explored in the literature, but the effect of exchange rate volatility on foreign trade has been investigated just for about a dozen years and different results have been found. While some analyses showed negative relation between exchange rate volatility and foreign trade other found positive correlation but there were empirical studies with neutral effects. Previous research ignored Eastern and Central European countries in studying exchange rate volatility although major macroeconomic changes has been taken place in the process of implementing market economy mechanism.

A gravity model has been employed in this study, which is extensively applied in international trade analysis. The estimated gravity equation includes the following independent variables: domestic gross product per capita and population in export destination countries, geographic distance between exporter country and export destination countries, exchange rate volatility, the level of tariffs, and three dummy (neighbors, EU, and CEFTA) variables. Exchange rate volatility is estimated using the moving standard deviation of the first differences in the monthly nominal exchange rate of each year of the analyzed period.

The study finds that the exchange rate volatility has negative effect on Romanian agri-food export: increasing volatility by 10% results in 5% decrease of agri-food export. This negative effect of exchange rate volatility was estimated during the period of 1999 and 2008 when the volatility of Romanian new leu (RON) to the national currencies of export destination countries is decreasing.

Furthermore the findings indicate that the income and the population in the export destination countries have positive, while the distance has negative impact on Romanian agri-food export in accordance with the theoretical assumptions.

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The policy implications of adverse effect of exchange rate volatility on Romanian agri-food trade are related to the process of joining to euro zone and to the attitude of agri-food products trading firms. The agricultural holdings and firms operating in food industry are interested in introducing euro as earlier as possible. At the same time Romanian agri-food trading firms should cover their risks which arise from currency volatility using the opportunities offered by the forward and future markets, which have also been developing intensively in Romania in the last period.

KEYWORDS: international trade, gravity model, exchange rate volatility, Romania