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Fiscal Deficits and Exchange Rate Misalignment in Poland: An Econometric Analysis of ERM2 Consequences

Abstract

The paper aims to verify hypotheses about the sources of the medium-term misalignment of the zloty/euro (PLN/euro) real exchange rate (RER). The theoretical framework of the research results from the rejection of the Balassa-Samuelson model as the environment for analysing the PLN/euro exchange rate. The research is confined to the real exchange rate defined for tradables' prices for three reasons:

- controversies regarding the BS effect estimates that arise from the absence of sufficiently detailed data, the impossibility of dividing an economy into clear-cut sectors manufacturing tradables and non-tradables, the influence of the distribution sector on the RER, as well as the unmet assumption that prices are formed exclusively by the market mechanisms,
- the comparison of RERs defined for the consumer prices indexes and for price indexes in the sector of tradables (PPI) explicitly shows that the Balassa-Samuelson effect was present up to the beginning of 2000 ,
- the purchasing power parity hypothesis is not met at the level of tradables' prices.

The research outcome is a small structural econometric model constructed using procedures of the cointegration analysis. The model's properties are defined by two cointegrating vectors describing the medium-term equilibrium conditions for the real exchange rate and domestic real interest rates, respectively. The PPI-based RER is the function of relative real interest rates and the risk premium proxy (the share of the governmental sector's short-term debt in GDP), whereas domestic interest rates are linked with the foreign interest rates, the trade balance / GDP ratio and state budget deficit / GDP ratio.

The model's properties are examined using the generalized impulse responses analysis. The conclusions are following:

- exogenous shocks influencing the risk premium are the factor that affects the PPI-based PLN/euro exchange rate the most strongly,
- a larger state budget deficit leads to a short-term appreciation of the zloty and it does not affect the medium-term path of the zloty exchange rate,
- the dependence of the domestic interest rates on the foreign interest rates and trade balance / GDP ratio is so strong that in the longer time horizon the central bank's oversensitivity to the inflationary tensions leads to the domestic currency appreciation via interest rates increase.

These conclusions allow to define the most important tasks for the economic policy: refining of the interest rate policy and smoothing of the risk premium variations before ERM2 is entered.

Keywords: real exchange rate misalignment, risk premium, cointegration analysis