## *The Polish Zloty / Euro Exchange Rate under Free Float: An Econometric Investigation*


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## *Non-Technical Summary*


Empirical studies of exchange rates in the emerging economies are usually medium-term as they assume foreign debt stabilization and the Balassa-Samuelson mechanism being in force. This perspective becomes doubtful when the investigation sets out to detect the major exchange rate determinants.

In the paper we present discussion on the model specification problems that are usually ignored in standard exchange rate models. The discussion is supported and illustrated by the empirical results we obtained for the zloty/euro exchange rate in the period capturing Poland's EU joining as well as the subprime crash 1999m01-2009m09. There are four main outcomes of the paper:

(i) the usual behavioural equilibrium exchange rate models are over-parameterized but it is still possible to construct such models if one takes into account heterogeneity of the external debt,

(ii) in the short-term the zloty/euro exchange rate is driven by the fluctuations of the risk which in turn may be partly described by fiscal tensions,

(iii) it is possible to construct a VAR model comprising both short- and medium-term determinants of the zloty/euro exchange rate, and last but not least,

(iv) PPI is determined in the *tradables* markets in line with the PPP model’s predictions together with a disinflationary trend, which may be interpreted as a result of increasing labour productivity (and slowing down unit labour costs).

A set of structural vector error correction (VEC) models is constructed and discussed for the Polish zloty / euro exchange rate in the period of free float, 1999-2009.

An attempt is made to construct an eclectic VEC model comprising two approaches:

(i) a medium-term behavioral equilibrium exchange rate model (BEER), and

(ii) a short-term capital enhanced equilibrium model (CHEER).

The estimation results indicate that extension of the CHEER model to include risk premium approximated by short-term government debt stabilizes the relationship between the real zloty /euro exchange rate and the real interest rates. The attempts at extending the PPI-based real zloty/euro exchange rate to the standard proxy of the Balassa-Samuelson failed. However, taking account of the foreign debt heterogeneity allows identifying an alternative channel transmitting the impacts of the supply-side factors. The results point to relationships existing between the real exchange rate and terms of trade. The latter turn out to be determined by foreign direct investments and this finding confirms the thesis that FDI accumulation, total factor productivity growth and improvement of the non-price competitiveness of the *tradables* sector in Poland are interrelated. As a result, the thesis about a ‘permanent’ medium-term appreciatory trend in the zloty/euro exchange rate is becoming less and less obvious.



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