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Implications of ERM2 for Poland's monetary policy

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Abstract

We propose an extension to the inflation targeting regime currently pursued by Poland. It incorporates the exchange rate stability constraints as imposed by the obligatory participation in the ERM2 that Poland needs to satisfy prior to adopting the euro. The modified policy is based on the forward-looking inflation targeting supplemented with the exchange rate stability objective. Its effective implementation depends on the determined long-term equilibrium exchange rate and the observed degree of exchange rate volatility. Both are empirically estimated by employing the Johansen cointegration tests and the threshold generalized autoregressive heteroscedasticity model with the in-mean extension and generalized error distribution (TGARCH-M-GED).

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1. Introduction

This study aims at devising a monetary policy framework that is conducive to monetary convergence in Poland; particularly under the exchange rate stability constraints imposed by the obligatory participation in the ERM2 that Poland needs to satisfy prior to adopting the euro. We consider a proper transition from the current framework of direct inflation targeting (DIT) via ERM2 to the actual euro adoption.

Our underlying assumption is that a strict variant of DIT is not suitable for convergence to the euro since some attention shall now be paid to the exchange rate stability objective. This

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necessitates a more flexible DIT policy that combines achieving price convergence with exchange rate stability. Therefore, an accurate determination of the long-term market equilibrium exchange rate as well as the knowledge of prevalent exchange rate volatility is critical for designing the optimal policy framework. We model and empirically assess both the exchange rate equilibrium and volatility. We identify two crucial convergence tasks for monetary authorities: (1) reducing the (forward-looking) differential between the domestic and the eurozone inflation and (2) lowering the exchange rate volatility. These objectives are treated in the following way. The differential between the domestic and the implicit eurozone inflation forecast enters the central bank reaction function as proposed by Orlowski (2005b) in his framework based on relative inflation forecast targeting (RIFT). In such a dual target-dual instrument framework, a central bank adjusts interest rates in response to changes in the relative inflation forecast. Exchange rate smoothing is viewed as a policy indicator variable and is carried primarily through foreign exchange (FX) market interventions.

We further analyze repercussions and policy responses to the official reference exchange rate set within the ERM2 mechanism, which may differ from the dynamic equilibrium exchange rate as perceived by financial markets. In general terms, an official rate perceived by the market as suboptimal is likely to exacerbate exchange rate volatility. A rate viewed as too weak may jeopardize the inflation target while one which is perceived as too strong may contribute to real currency appreciation and the deterioration of balance of payments. We estimate the dynamic equilibrium exchange rate by employing the Johansen trace cointegration test and the threshold generalized autoregressive heteroscedasticity model with the in-mean extension and generalized error distribution (TGARCH-M-GED).

The paper is organized as follows. Section 2 elaborates choices of parameters for a central bank loss function with respect to constraints imposed by the euro-convergence and ERM2. Different venues of expanding policy flexibility are overviewed in Section 3. A model outlining a central bank reaction function and instrument rules under the proposed policy framework is developed in Section 4. The implications of deviations of the official reference exchange rate from the dynamic market equilibrium rate are covered in Section 5. Empirical estimation of the dynamic equilibrium rate on the basis of the cointegration and volatility dynamics tests is examined in Section 6. A synthesis along with some policy recommendations is presented in Section 7.

2. Flexible inflation targeting for euro-convergence

Following our assumption that monetary policy remains autonomous to the very end of the euro accession process while controlling a stable path of nominal exchange rate, we advocate supplementing the DIT framework with an ancillary objective of exchange rate stability. In quintessence, we see no conflict between the precepts of the ERM2 and a continuous pursuit of DIT, however, in a modified, more elaborate format. We certainly acknowledge the constraints imposed by the ERM2, namely the requirements of: (1) applying this mechanism for at least 2 years prior to the examination period qualifying for the eurozone, (2) maintaining currency stability within a 'normal' band of fluctuations and (3) refraining from currency devaluation in any form. We agree with the widely accepted opinion that the ERM2 participation should not exceed the required minimum 2-year period (Szapáry, 2000; Kenen and Meade, 2003; Kočenda et al., 2006).

The choices between price stability and exchange rate stability objectives can be explained by weighting parameters of an open-economy central bank loss function. It is not our intention to