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Exchange rate pass-through in central and eastern European EU Member States[☆]

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Abstract

This paper provides estimates of exchange rate pass-through (ERPT) to consumer prices for nine central and eastern European Member States. Using a five-variate cointegrated VAR (vector autoregression) for each country and impulse responses derived from the VECM (vector error correction model), we show that ERPT to consumer prices averages about 0.6 using the cointegrated VAR and 0.5 using the impulse responses. We also find that the ERPT seems to be higher for countries that have adopted some form of fixed exchange rate regime. These results are robust to alternative normalisation of the VAR and alternative ordering of the impulse responses.

JEL classification: E31; F31

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1. Introduction

The estimation of exchange rate pass-through (ERPT) for central and eastern European economies helps to determine the extent to which fluctuations in the nominal exchange rates

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affect inflation in these countries. From a policy point of view, knowledge of the link between nominal exchange rates and inflation in central and eastern European economies is important for several reasons.

First, knowledge about ERPT can be an important element in policy discussions about exchange rate options in countries with fixed exchange rates. When the global financial crisis started to affect the central and eastern European region in late 2008, for example, public discussions arose on the pros and cons of devaluing the currency in some countries with fixed exchange rates. In such discussions, quantitative knowledge about ERPT is a key element as the beneficial effects of devaluation on competitiveness are likely to be limited if the degree of pass-through is assessed to be high.

Second, nominal exchange rate fluctuations can have a short-term character, but they could also be of a structural nature associated with the real appreciation trend that so-called catching-up economies tend to experience (due to e.g. Balassa–Samuelson effects). In catching-up economies with a nominal trend appreciation of the currency (such as Slovakia before it adopted the euro in January 2009), knowledge of the link between nominal exchange rates and inflation in catching-up countries may shed light on the degree to which inflation convergence vis-à-vis the euro area is sustainable after the conversion rate to the euro is irrevocably fixed (and the dampening impact of the nominal appreciation on inflation disappears). This is of key relevance for the assessment of the sustainability of inflation convergence, as required by the Maastricht convergence criteria for euro adoption.[1]

Third and more generally, knowledge of the exchange rate pass-through dynamic also has important monetary policy implications. For example, the extent and timing of the pass-through is important for forecasting inflation and thus for monetary policy decision-making. This is particularly the case in countries with inflation-targeting regimes.

The added value of this study is two-fold. First, it provides new estimates of ERPT for the economies of nine central and eastern European EU Member States.[2] There is relatively little empirical work done on assessing ERPT for these economies, certainly compared to the vast amount of work done in relation to advanced economies. Second, our methodological framework (cointegrated VAR) is more sophisticated than in most previous studies on ERPT in central and eastern Europe. The cointegration approach provides a coherent means by which to deal with the inherent non-stationarity of the variables of interest in a simultaneous framework. In addition, it enables retention of the important information contained in 'levels' variables, which is particularly relevant for catching-up economies.

This paper is structured as follows. Section 2 provides an overview of some earlier studies on ERPT, focusing on central and eastern Europe. Section 3 describes the data and the methodology used and Section 4 contains the main empirical results. Finally, Section 5 concludes.

[1] Inflation convergence as a policy issue relating to factors other than the exchange rate channel has been the subject of other recent academic research. For example, Bulir and Hurnik (2007) highlight the importance of factor and product market liberalisation for countries preparing for euro adoption.

[2] The countries covered in this paper are: Bulgaria (BG), the Czech Republic (CZ), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Poland (PL), Romania (RO) and Slovakia (SK). The analysis was carried out before Slovakia and Estonia adopted the euro (in January 2009 and January 2011, respectively).