

CERGE-EI Research Competition

Project title: **Price Convergence between the EU and the New Member Countries**

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Non-technical summary

Three papers were produced by this project:

1. Wolszczak-Derlacz J., (2008) Price convergence in the EU – an aggregate and disaggregate approach, International Economics and Economic Policy, Springer

Available at: (<http://www.springerlink.com/content/p046214173u36712/>)

This article examines price dispersion in the European Union (EU) over fifteen years (1990-2005). An extensive overview of the literature offers inconclusive results with the half-lives of price shocks from 2.8 to 282 months. The macro approach is based on a Comparative Price Level index (CPL). The disaggregate analysis utilizes the actual prices of almost 150 individual products sold in the 15 capital cities of the EU.

The magnitude of the price dispersion is higher when the disaggregated data, rather than the aggregate data are considered. The half-life estimated by system General Method of Moments for CPLs equals 5.4 years while, when computed on the basis of actual prices using the same estimator, it is half of that value and equals 2.4.

Additionally, the model is tested to measure the contribution of different factors in explaining the observed convergence pattern. Most of the explanatory power comes from the differences in GDP (or wages), exchange rate volatility and differences in taxes. The Euro effect when controlling for exchange rate volatility is not significant.

2. Wolszczak-Derlacz J., (2008) Does One Currency Mean One Price?, EUI Working Paper MWP 2008/21, Florence

(Available at: <http://cadmus.eui.eu/dspace/handle/1814/8747>)

Theory suggests that through higher trade volume and stronger competition in the Eurozone one currency would lead to a reduction of price dispersion. As far as prices are concerned two effects were expected: an immediate effect due to the technical characteristics of the changeover process and a long-term effect leading to price convergence.

The article examines both the short-term changeover effect and long term. They are evaluated by difference-in-difference (DD) methodology. No evidence is found for any significant price rise due to the adoption of the single currency (at least for 144 products analyzed). Moreover, there is no evidence of a positive Euro effect either on price dispersion or on the speed of price convergence. These lacks of Euro effects have strong policy implication for future members of EMU.

3. De Blander R., Wolszczak-Derlacz J. (2008), Price Convergence in the EU and in the New Member States

This paper examines price dispersion in the European Union (EU15) and in the three New Member States (Poland, Hungary and Czech Republic) between 1995 and 2006. The research is motivated by the fact that the price convergence problem is at the top of the public agenda in many New Member States (NMS). Prices in NMS in 2006 were still considerably lower than in the core EU countries. For each category of goods, price dispersion is lower in OMS than in the sample of all countries analyzed. The magnitude of price dispersion is higher when the disaggregated data, rather than the aggregate data, are considered. Sigma convergence measured as decline in the standard deviation over time is not statistically significant for most individual products.

For individual products we found strong evidence for mean-reversion in the time series of price differences across countries. For NMS the half-lives are the lowest, implying a quick convergence process. Construction of indices changes the picture. The relative LOOP is rejected in most cases. This is probably connected with the aggregation bias.

Further studies should go in the direction of analyses of prices of individual products, as traders do not compare indices but make a decision on buying and selling on the basis of concrete price differences, and through their activities the LOOP works.

Key words price convergence, price dispersion, law of one price,

CONCLUSION:

- Prices in New Member States (NMS) in 2006 were still considerably lower than in the core EU countries;
- For NMS the half-lives of price shocks indicating the speed of convergence are lower than in the whole EU, implying a quick convergence process;
- The magnitude of the price dispersion is higher when the disaggregated data, rather than the aggregate data are considered. This is connected with the aggregation bias that wipes out part of the price dispersion during the process of constructing indices;
- There is no evidence of Euro effect on price levels, price dispersion and on the speed of price convergence