

THE COINTEGRATION AMONG PRICES AND EXCHANGE RATES IN NEW MEMBERS OF EU

Darja Boršič

This paper analyses the validity of purchasing power parity in Slovenia, Czech Republic and Hungary in comparison with selected members of European Union: Austria, Germany, France and Italy, which are also main EU trading partners of the selected new members of EU. The observed period ranges from January 1992 (1993 for Czech Republic) to December 2000. That is from the beginning of transition till the end of the individual European currencies and the introduction of Euro.

The purchasing power parity theory suggests that exchange rate system should provide a mechanism, which would enable a basket of goods being purchased in both analysed countries to cost the same amount of money when recalculated in one currency.

Regarding the low national price level of all countries in question compared to the members of European Union after the decade of reforms, one can conclude that the purchasing power parity does not hold.

The empirical studies show different results regarding the validity of purchasing power parity¹. However, empirical studies of purchasing power parity usually find evidence in favour of purchasing power parity in the long run and/or when there are huge price differentials among the two countries (McNown and Wallace, 1989). However, Choudry et al. 1993 and Abuaf and Jorion 1990 argue that neither the long run nor the high inflation is the sufficient condition for the validity of purchasing power parity. The analyses proving the validity of this theory in the periods of high inflation include Frenkel (1978), Taylor and McMahon (1988), McNown and Wallace (1989) and Liu (1992).

Different cointegration tests are used to examine the relationship among prices and exchange rates in the above mentioned economies. First, Engle and Granger test is conducted testing for cointegration among relative prices and nominal exchange rates. These tests are followed by the Johansen cointegration test searching for cointegration among individual prices of the two countries in question and nominal exchange rates. Both types of tests show that there is no cointegration among the variables and the theory of purchasing power parity in the selected new members of EU can be rejected.

Since the observed Central European countries are all new members of EU, the purchasing power parity and the price level should gradually converge to the European average. Thus, this study can contribute to the recognition and understanding of the present differences in the purchasing power parity and price levels among the new members of EU and their main EU trading partners.

¹ Review articles in this field are: Officer 1976, Froot and Rogoff 1995, Rogoff 1996, Sarno and Taylor 2002 and Taylor and Taylor (2004).