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Equilibrium exchange rates in South Eastern Europe, Russia, Ukraine and Turkey: Healthy or (Dutch) diseased?

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Abstract

This paper investigates the equilibrium exchange rates of three South Eastern European countries (Bulgaria, Croatia and Romania), of two CIS economies (Russia and Ukraine) and of Turkey. A systematic approach in terms of different time horizons at which the equilibrium exchange rate is assessed is conducted, combined with a careful analysis of country-specific factors. For Russia, a first look is taken at the Dutch disease phenomenon as a possible driving force behind equilibrium exchange rates. A unified framework including productivity and net foreign assets completed with a set of control variables such as openness, public debt and public expenditures is used to compute total real misalignment bands.

JEL classification: E31; O11; P17

Keywords: Balassa–Samuelson; Dutch disease; Bulgaria; Croatia; Romania; Russia; Ukraine; Turkey

1. Introduction

The ambition of this paper is to look at equilibrium exchange rates of three South Eastern European countries, namely Bulgaria, Croatia and Romania, of two CIS economies, namely Russia and Ukraine, and of Turkey. The choice of these countries may appear surprising at the first sight. But it is not. The prospect of joining the EU and the actual accession of eight

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countries from Central and Eastern Europe to the European Union in May 2004 have crowded out attention from equilibrium exchange rates of the rest of the former Soviet block. This paper makes a, hopefully not futile, attempt to cover countries of the former Soviet block so badly treated in the literature, for which data are readily available to conduct a more than narrative country-by-country analysis. They are Bulgaria, Croatia, Romania, Russia and Ukraine. Bulgaria, Romania and probably Croatia will join the EU in the foreseeable future, and questions related to entering ERM-II and adoption of the euro for the new EU member states will pop up soon. But perhaps more important is this question, which also applies to Russia and Ukraine: do these countries have their exchange rates "right" and are they not misaligned after having implemented reform measures with diverging speed and success to turn their economies to a market economy? The reason for Turkey being involved in this investigation is the accession negotiations opening in October 2005 with this country, and in this context, the equilibrium exchange rate of Turkey may not be confined solely to the Turkish central bank and the IMF any more but may be of interest also for European policy makers in the future.

Although a considerable number of the papers on this topic deal with these countries in a panel context, such as Halpern and Wyplosz (1997, 2001), Krajnyák and Zettelmeyer (1998), Begg et al. (1999), De Broeck and Sløk (2001), Dobrinsky (2003) and Fischer (2004), only very few studies focus on the countries in South Eastern Europe and the CIS individually. Chobanov and Sorsa (2004) analyze Bulgaria and Stapafora and Stavrev (2003), Sosunov and Zamulin (2004) and Rautava (2004) study the case of Russia. Crespo-Cuaresma et al. (2004) apply the monetary model to Bulgaria, Croatia, Romania and Russia. For Turkey, Doroodian et al. (2002) and Atasoy and Saxena (2004) investigate the equilibrium real exchange rate. Civcir (2004) and Crespo-Cuaresma et al. (2004) analyze the monetary model for Turkey.

This paper offers to fill this gap. We propose a systematic approach in terms of different time horizons at which the equilibrium exchange rate is assessed. First, we take a look at the deviation from absolute PPP. Subsequently, we investigate whether the real exchange rates in levels correspond to the underlying productivity levels. In the next step, factors behind real exchange rate movements are studied. First, the simple Balassa–Samuelson effect and the Dutch disease are put under the microscope and are then incorporated in a more unified framework, namely the stock-flow approach, which also includes other channels explaining real exchange rate developments. Both time series and panel data are used to study deviations from the equilibrium exchange rate.

The remainder of the paper is structured as follows: Section 2 describes the theoretical underpinnings. Section 3 deals with data and econometric issues. Section 4 provides some stylized facts regarding the real exchange rate of the countries under study, followed by Section 5 with the estimation results. Section 6 finally presents some concluding remarks.

2. Theoretical background

2.1. The real exchange rate in level

In the paper, we follow a bottom-up approach in that we start looking at approaches to the equilibrium exchange rate which are assumed to hold in the long run and then move forward systematically toward shorter time horizons.