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## Monetary policy rules in Central and Eastern European Countries: Does the exchange rate matter?

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#### ABSTRACT

We estimate monetary policy rules for six Central and Eastern European Countries (CEEC) during the period when they prepared for membership to the EU and monetary union. By taking changes in the policy settings explicitly into account and by splitting up the exchange rate impact into two different components we significantly improve estimation results for monetary policy rules in CEEC. We uncover that the focus of the interest rate setting behaviour in the Czech Republic, Hungary and Poland explicitly switched from defending the peg to targeting inflation. For Slovakia, however, there still seemed to be on ongoing focus on the exchange rate. Finally, Slovenia and, after a policy switch, Romania exhibit a solid relation with inflation as well.

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#### 1. Introduction

Monetary policy in Central and Eastern European Countries (CEEC) has drawn increasing attention from academics and practitioners. While preparing for membership to the EU and monetary union, the central banks in CEEC were challenged by high inflation in the earlier periods, and then managed to disinflate fairly successfully. The way this was achieved, however, was considerably different: The Czech Republic, Hungary, Poland and Slovakia focused on exchange rate targeting during the first years, but then gradually made their exchange rate system more flexible and adopted inflation targeting as their monetary policy strategy. Romania and Slovenia never officially had a fixed exchange rate regime. While Romania adopted inflation targeting only in August 2005, Slovenia officially followed a monetary targeting strategy for most of the time before adopting a two-pillar-like strategy in the run-up to monetary union (for the official exchange rate and monetary policy regimes see Tables 1 and 2).

For these six countries, the interest rate setting behaviour of a central bank can provide important insights into the objectives which are most important in its conduct of monetary policy. A standard approach is to estimate a Taylor-like interest rate reaction function. While the empirical literature concludes that the monetary policy by most successful central banks in large industrial countries can be described by such a reaction function (Clarida et al., 1998), evidence for emerging economies and particularly transition economies is comparatively poor.

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**Table 1**Official monetary policy strategies for Central and Eastern European Countries.

Czech Republic		Hungary		Poland	
1994– 1997	Exchange rate and monetary targeting (credit volume and M2)	1994-2002	Exchange rate targeting	1994–1998	Exchange rate targeting
1998- 2001	Net inflation <sup>a</sup> targeting	2002-	Inflation targeting (CPI annual average) <sup>c</sup>	1998-	Inflation targeting (end of year CPI inflation)
2002-	Headline inflation targeting with linear and declining target band				
Romania		Slovakia		Slovenia	
1994– 7/2005	No official commitment to a monetary policy strategy	1994–1998	Exchange rate targeting	1994–1995	Base money targeting
8/2005- 2008	Inflation targeting	1998-2008	Informal inflation targeting	1996	Base money and M1- targeting
		11/2005- 12/2008 2009-	ERM-II Euro system	1997–2000	M3-targeting <sup>b</sup>
				2001–2006 06/2004– 12/2006 2007–	Two-pillar strategy <sup>d</sup> ERM-II Euro system

<sup>&</sup>lt;sup>a</sup> Headline inflation minus regulated prices and changes in indirect taxes.

 Table 2

 Official exchange arrangements for Central and Eastern European Countries. Source: IMF, Annual Report of Exchange Rate Arrangements and Restrictions, various issues.

Czech Republic		Hungary		Poland		
01/01/1994- 29/02/1996 01/03/1996- 26/05/1997	Basket peg, 65% DEM, 35%USD, Band: ±0.5% Band: ±7.5%	01/01/1994- 31/12/1996 01/01/1997- 31/12/1999	Crawling peg <sup>a</sup> , 70% Ecu, 30% USD, Band: ±2.25% 70% DEM, 30% USD	01/01/1994- 15/05/1995 16/05/1995- 24/02/1998	Crawling peg, 45% USD, 35% DEM, 10% GBP, 5% FRF, 5% CHF Band: ±1% Band: ±7%	
27/05/1997- present	Managed float	01/01/2000– 30/04/2001	100% EUR	25/02/1998- 31/12/1998	Band: ±10%	
-		01/05/2001- 30/09/2001	Band: ±15%	01/01/1999- 11/04/2000	45% USD,55% EUR	
		01/10/2001- 25/02/2008	Peg to EUR, Band: ±15%	12/04/2000- present	Free float	
		26/02/2008- present	Managed float			
Romania		Slovak Republic		Slovenia		
Since 01/01/1994	Managed float	01/01/1994- 31/12/1996 01/01/1997- 30/09/1998	Basket peg,60% DEM, 40%USD, Band: ±1.5% Band: ±7%	01/01/1994- 26/06/2004 27/06/2004- 31/12/2006	Managed float ERM2	
		01/10/1998- 24/11/2005	Managed float	Since 01/01/ 2007	Euro area member	
		25/11/2005- 31/12/2008	ERM2			
		Since 01/01/2009	Euro area member			

 $<sup>^{\</sup>rm a}$  Until 16.3.1995, the NBH devalued in discrete steps.

Regime shifts, however, seem to matter. Kahn and Parrish (1998), for example, find that significant structural breaks in the monetary policy reaction function occurred, after New Zealand and the UK introduced inflation targeting. In both countries the significance of the exchange rate lost importance. Neumann and von Hagen (2002) disclose the same result for a larger country set. Assenmacher-Wesche (2006) estimates reaction functions with time-varying coefficients for Germany, the United Kingdom and the US. These empirical results stress the importance of taking policy changes into account.

Since CEEC are small open economies, one may argue that besides regime shifts also the exchange rate plays a major role in the reaction function. Ball (1999) argues that pure inflation targeting without explicit attention to the exchange rate is

<sup>&</sup>lt;sup>b</sup> In Slovenia also including foreign exchange deposits of private households.

<sup>&</sup>lt;sup>c</sup> Exchange rate targeting continues in a wide band (±15%).

<sup>&</sup>lt;sup>d</sup> Similar to the strategy of the European Central Bank the Bank of Slovenia bases its monetary policy indicators on two pillars, i.e. indicators of liquidity, and other economic indicators.

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