Journal of International Money and Finance 32 (2013) 700–718

Contents lists available at SciVerse ScienceDirect

Journal of International Money and Finance

journal homepage: www.elsevier.com/locate/jimf

Does the euro dominate Central and Eastern European money markets?

Alexander Kadow[a,*], Mario Cerrato[b], Ronald MacDonald[b], Stefan Straetmans[c]

[a] *Deutsche Bundesbank, Economics Department, Wilhelm-Epstein-Strasse 14, 60431 Frankfurt am Main, Germany*
[b] *University of Glasgow, United Kingdom*
[c] *Maastricht University, Netherlands*

JEL classification:
E58
F36
G15

Keywords:
German Dominance Hypothesis
Global VAR
Central and Eastern Europe
Monetary integration

A B S T R A C T

The so-called German Dominance Hypothesis (GDH) claimed that Bundesbank policies were transmitted into other European Monetary System (EMS) interest rates during the pre-euro era. We reformulate this hypothesis for the Central and Eastern European (CEE) countries that are on the verge of accessing the eurozone. We test this “Euro Dominance Hypothesis (EDH)” in a novel way using a global vector autoregressive (GVAR) approach that combines country-specific error correction models in a global system. We find that euro area monetary policies are transmitted into CEE money market rates, providing evidence for monetary integration between the eurozone and CEE countries. Our framework also allows for introducing global monetary shocks to provide at least tentative empirical evidence regarding the effects of the recent financial crisis on monetary integration in Europe.

1. Introduction

Long before the introduction of a single European currency, the notion of potential asymmetries within the European Monetary System (EMS) startled a debate both between academics and central bankers. The claim was that other members' central banks surrendered their monetary sovereignty to

* Corresponding author. Tel.: +49 69 9566 4252; fax: +49 69 9566 6734.
E-mail address: alexander.kadow@bundesbank.de (A. Kadow).

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http://dx.doi.org/10.1016/j.jimonfin.2012.06.004

the Deutsche Bundesbank by mimicking German monetary policies with an eye towards keeping their domestic currency values stable vis-à-vis the Deutschmark (DM).

This so-called *German Dominance Hypothesis* (henceforth GDH) has received considerable attention in the empirical exchange rate literature. Whilst monetary economic theory provides arguments in favour of an asymmetric monetary system (Barro and Gordon, 1983; Giavazzi and Pagano, 1988), conclusive and robust empirical evidence on the validity of the GDH is rather scant. The econometric approach used to test the GDH was typically based on short-run nominal money market rates and identified asymmetries in the EMS using Granger causality tests. The monetary system was considered asymmetric in the strict sense if there was evidence for unidirectional causality from German money market rates to the other EMS members (Uctum, 1999). Several authors (Katsimbris and Miller, 1993; Hassapis et al., 1999) added an extra-European dimension to test how monetary innovations from the rest of the world (ROW), proxied by the US, were transmitted into the EMS. International asymmetry in this context implied that the ROW only affected the other EMS countries through its impact on German money market rates. German Dominance would then only be fulfilled if both forms of asymmetry could not be rejected simultaneously.

German monetary leadership in the EMS has been investigated empirically by a number of authors. Fratianni and von Hagen (1990), von Hagen and Fratianni (1990) and de Grauwe (1989), for example, find no statistical evidence for the notion of German Dominance – at least not in the strong form of unidirectional causality. Their results rather support the idea of multidirectional linkages within the EMS, attributing the Bundesbank an important, yet not dominant, role. Karfakis and Moschos (1990), on the other hand, fail to reject the GDH.[1] Using a bivariate set-up, they conclude that German interest rates Granger-cause other EMS members' rates.

We believe, however, that previous empirical results on the GDH should be taken with a pinch of salt due to several limitations in the econometric methodology employed at that time. In particular, the notion of cointegration was not well established and often not tested for at all. Commonly used vector autoregressive (VAR) specifications in first differences are hence likely to yield biased estimates. Also, Granger causality tests suffer from a timing problem as they are unable to distinguish between the short run and the long run. These issues are addressed properly by Kirchgässner and Wolters (1993). They formulate and test the GDH in a multivariate cointegration framework and find evidence for German Dominance by imposing appropriate restrictions on the loading coefficients and the cointegrating vector.

The original GDH debate was essentially couched in terms of the loss of monetary independence (a cost). The notion of German Dominance referred to the alleged contradiction between the symmetry of monetary policy adjustments the design of the EMS had intended and the claim that the Bundesbank was dictating its monetary policy to other members' central banks, hereby turning the EMS into a "Greater DM Area". In today's institutional environment of a still enlarging eurozone, however, the alternative notion of monetary integration (arguably a benefit) seems more appropriate.[2]

Indeed, the institutional environment in Europe has changed fundamentally since the earlier tests of the GDH with the creation of the European Economic Monetary Union (EMU). Whilst the empirical evidence on German Dominance in the pre-euro era (and the loss of monetary autonomy of national central banks to the Bundesbank) remains a matter of debate, the European Central Bank (ECB) nowadays acts as the single legal body that is ultimately in charge of monetary policymaking for the whole euro area. The eurozone as monetary system is hence by definition symmetric, if we are willing to abstract from potential governance issues within the ECB. The question of greater cooperation of national central banks as opposed to following a hegemonic player no longer applies in the absence of the "$N-1$ problem".[3] For countries *outside* the EMU, however, the case is not as clear-cut. Whilst potential ECB leadership may be desirable from a convergence perspective, it may equally turn out to

[1] Giavazzi and Giovanni (1987) and MacDonald and Taylor (1991) are amongst others to support the idea of German Dominance as well.

[2] Estonia was the latest country to introduce the euro in 2011.

[3] See Fratianni and von Hagen (1992) for a lucid discussion of the cooperative versus the disciplinary interpretation of the EMS.