Public information arrival and investor reaction during a period of institutional change: An episode of early years of a newly independent central bank

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Employing unique data derived directly from the Reuters electronic brokerage platform for currency trading, this paper investigates the reaction of investors to central bank announcements on the foreign exchange market in Poland in the years 2000–2003. Our sample period captures a time during which the National Bank of Poland (NBP) gained independence and it was transforming institutionally and switching to a new monetary policy regime; namely inflation targeting. Evidence indicates that central bank communication helped reduce foreign exchange market uncertainty, measured by the conditional variance of foreign exchange returns, and increased trading volume. The findings suggest that in newly emerging economies with major institutional changes, investors may react significantly to central bank communication, and central banks can hence play an important role in market development during an institutional change. Our results also have broader implications for the applicability of micro-structure models in newly emerging economies. Journal of Comparative Economics 43 (3) (2015) 727–753. Department of Accounting and Financial Management, Newcastle Business School (NBS), Northumbria University, City Campus East, Newcastle upon Tyne, NE1 8ST, United Kingdom; Department of Economics and Finance, Southern Illinois University Edwardsville, Edwardsville, IL 62026-1102, USA; The Center for European Integration Studies (ZEI), Walter-Flex-Straße 3, 53113 Bonn, Germany; The Emerging Markets Group (EMG), 106 Bunhill Row, London, EC1Y 8TZ, United Kingdom.

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1. Introduction

Starting from the early 1990s, many Central and Eastern European (CEE) countries have implemented major economic and financial reforms, including the establishment of an independent central bank, resulting in the emergence of new financial instruments and significant financial market development. Since 2004, most of these countries have now joined the European Union (EU), and some of them are also included in the Eurozone. However, despite significant reforms having been implemented, only a few empirical studies have examined the developments in the financial markets of the new EU countries. In this paper, we focus on the Polish foreign exchange market returns and trading volume and provide evidence on how foreign exchange market investors react to public information arrival, measured by central bank announcements.

We employ both a unique data set, which includes the foreign exchange market returns and volume of trade, and a sample period (2000–2003) that allows us to capture the reaction of investors to communications of a freshly instituted Monetary Policy Council (MPC) and a transforming newly independent central bank. During our sample period, the National Bank of Poland (NBP) had emphasized transparency as a key component of their monetary policymaking. Hence, our findings shed some light on the question of how a newly established institution implementing significant policy changes (namely, inflation targeting regime) along with a new institutional structure (i.e. a new independent central bank and the introduction of the MPC) in an emerging market economy affects investor behavior. In this paper, we are interested in both the wealth and uncertainty (i.e. risk) effects of central bank announcements during a period of major institutional change. As the independent central banks in the CEE countries are relatively new, one of their key objectives is to provide a transparent central communication mechanism intended to reduce uncertainty in financial markets. Our paper is similar in spirit to the work by Gómez et al. (2006), who investigated the introduction of the new European Central Bank (ECB) and how ECB actions had affected investor reaction and hence the determination of the euro exchange rate.

Studying the Polish foreign exchange market is both interesting and important for several other reasons. First, there is scant evidence on the impact of public information arrival in newly emerging European financial markets. It is well known that public information arrival, typically measured by the publicly released economic and financial data, is a building block of many theoretical models of asset price determination. Although the empirical evidence on linking public information to asset market behavior is still accumulating, the main focus has been mostly on industrial countries. Previous studies that have tested the importance of public information in explaining variation in asset returns in advanced markets typically indicate mixed evidence. Thus, our paper providing further evidence on the importance of public information arrival in an emerging EU market, contained in central bank announcements in the Polish foreign exchange market, contributes to this line of literature. To the best of our knowledge, there is hardly any evidence on the significance of public information arrival in Poland.

Second, the establishment of independent central banks in CEE countries is relatively new, and there is therefore not much accumulated evidence regarding whether central bank announcements in these economies can create wealth effects via movements in foreign exchange rates and if they can reduce market uncertainty.

Third, understanding the empirical link between monetary policy announcements, including those of money supply and exchange rate changes, helps better understand how monetary transmission mechanism works in emerging economies under significant institutional changes. Although the Polish market is relatively small, it is very dynamic and has grown rapidly. It is by far the largest financial market, and Poland is the biggest economy, in the entire CEE region. It is expected that such a transmission channel, if it exists, will play a much more important role in the near future as the National Bank of Poland becomes much stronger institutionally, and as Poland becomes an important financial market in the region and prepares for Eurozone membership. If a significant empirical link exists between monetary policy announcements and foreign exchange market activity, then exchange rates could play a more important role in monetary policy decisions or policy rules. Hence, this paper also contributes to the literature on the role of asset prices in the monetary transmission mechanism.

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1 For example, the mixture of distributions model (MODM) and the recent microstructure theories rely on public information arrival to explain movements in asset returns. MODM models are associated with Clark (1973) and Tauchen and Pitts (1983), while microstructure theories are reviewed in O'Hara (1995) and Lyons (2001).
2 Melvin and Yin (2000) and Edmonds and Kutan (2002) provide a review of recent work.
3 See, for example, Cutler et al. (1989), Berry and Howe (1994), Mitchell and Mulherin (1994) and, Andersen et al. (2000).
4 To the best of our knowledge, there are two other related studies on Poland (see Serwa (2006) and Rozkrut et al. (2007)), however our paper is quite different from them. We explain the differences between our and their contribution in the next sections.
5 For a review of these issues, see Modigliani (1971), Mishkin (1977) and Mishkin (2007), Kamin et al. (1998), Gilchrist and Leahy (2002), and Ehrmann and Fratzscher (2004).
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