

# Chapter 12

## Monetary Policy Transmission Mechanism in Romania Over the Period 2001 to 2012: A BVAR Analysis

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### **ABSTRACT**

*This chapter aims to provide additional empirical evidence on monetary policy transmission mechanism in Romania over the period 2001 to 2012 based on a BVAR analysis with a KoKo Minnesota/Litterman prior. The importance of the central bank is rising in Romania considering its main attribution to control the interest rate in accordance with its objectives. The empirical evidence provides a significant contribution to literature taking into account the characteristics of the selected emerging country, i.e. Romania, a former communist country in Central and Eastern Europe.*

### **INTRODUCTION**

Monetary policy and its effects on inflation and real economic activity have been an important subject of debate in the economic literature. Fetai and Izet (2011) consider that in contrast with conventional theory and empirical research from the developed economies, the empirical research related to the emerging countries suggests a potential weakness and instability of the conventional monetary policy instruments (i.e. interest rate, monetary base) during the transition period, due to structural and institutional deficiencies from these countries (underdeveloped financial systems, high inflation rate, dollarization/eurorization of the assets and liabilities). Moreover, transition is a dynamic process. Therefore, the monetary transmission mechanism can change in time.

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Darvas (2009) asserted that the monetary transmission mechanism describes the effects of monetary policy on macroeconomic and financial variables and its analysis is an important part in macroeconomic policy research and is crucial for the conduct of monetary policy. Moreover, in a monetary union it is important to have a similar business cycle and a unitary monetary mechanism transmission for all the countries. Only in such a context will a single currency have positive effects on price level and on other important macroeconomic variables.

Cogley and Sargent (2005) consider that modifications in the economy structure have an impact on the monetary policy transmission mechanism. In our opinion, in Romania, the current account liberalization, the trade deficit, the integration in the European Union, the global financial crisis are some of the processes that affected the structure of the economy. Furthermore, the new monetary policy strategy –inflation targeting- adopted in 2005 by the central bank has influenced the monetary policy mechanism. As a country that intends to join a monetary union, the analysis of the monetary policy mechanism can offer important issues regarding the euro-adoption. In these conditions, new pieces of evidence regarding the monetary transmission mechanism in emerging countries are necessary in order to assess as exactly as possible its impact on real economy.

In this study we intend to emphasize the inflation dynamics and persistence, the inflation determinants, to study the impact of a monetary shock on a set of variables, the correlations between the gross domestic product, inflation rate, interest rate, monetary aggregate M2, unemployment rate and wage index in Romania over the period 2001 to 2012. In order to achieve these objectives, we use a Bayesian Vector Autoregression (BVAR) model with a Ko Minnesota/Litterman prior distribution, as it was developed in Koop and Korobilis's paper (2009). In our opinion, the contribution of this study to the literature is important, but also original from many points of view.

First of all, from our knowledge, a BVAR model with quarterly data was rarely used to analyze Romania's monetary policy. Spulbar *et al.* (2011) used a BVAR model to analyze the monetary policy in Romania. In comparison with that paper we are using a different set of variables (i.e. real GDP, unemployment rate and wage index) and quarterly data. Secondly, the results are important for understanding the way in which the monetary policy developed. Thirdly, the time interval covered by the analysis is considerably long, comprising significant events that affected Romania's economy.

The paper is structured as follows. Section II reviews the literature on the monetary policy transmission mechanism. Section III presents the econometric methodology and the data adopted in this study. Section IV discusses the results. Finally, section V presents the conclusions.

## **LITERATURE ON THE MONETARY POLICY TRANSMISSION MECHANISM IN TRANSITION COUNTRIES**

The use of VAR models to analyze the monetary policy transmission mechanism is widely spread in the economic literature. These models were used both for developed and emerging countries. The VAR models are considered to be the most relevant in the econometric modelling of the monetary policy transmission mechanism. Within the VAR models, the studies based on BVAR techniques have a major importance and are widely used. Furthermore, the VAR methodology was developed in the papers of Gerlach and Smets (1995), Leeper *et al.* (1996), Christiano *et al.* (1999).

The latter study offers a detailed review of various papers that use VAR models in order to analyze the monetary policy in USA. In Europe, Angeloni *et al.* (2003), Peersman and Smets (2001) studied

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