

THE PARTICULARITIES OF THE MONETARY POLICY TRANSMISSION MECHANISM IN ROMANIA

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The process of transmitting monetary policy impulses to the real economy presents a series of particularities from one country to another, mainly because of the diversity of financial systems. Thereby, the functionality of various monetary policy transmission channels is significantly influenced by the specific features of each country's financial system.

The objective of this paper is to highlight some of the key features of the monetary policy transmission mechanism in Romania, taking into consideration the dominant role of the banking sector in the national financial system.

Key words: monetary policy, transmission mechanism, interest rate channel, credit channel

JEL code classification: E51, E52, E58, G21

1. Introduction

Although economists don't agree about how monetary policy conducted by a central bank affects the economy (their views diverge in terms of the specific channels through which monetary policy works) an understanding of the transmission process is essential to the appropriate design and implementation of such a monetary policy.

Monetary policy compresses the rules and various actions adapted by a central bank in order to achieve its objective(s). These actions, when undertaken by the bank, set into motion a series of effects (consequences). It is generally assumed that monetary policy effects start with changes in financial market conditions, work through changes in firms and private household spending, and eventually exert, via demand and supply, effects on the economy's price level. The path of consequences a change in the economy's stock of money triggers in terms of real magnitudes is known as *transmission mechanism*.

The empirical studies of monetary policy transmission mechanisms focus upon two major aspects: 1) identification of the effects of monetary policy shocks and 2) identification of those channels through which changes in monetary policy stances reflect on the economy. The first aspect deals with attempts to identify the exogenous monetary policy shocks and their subsequent effects on macroeconomic variables, whereas the second aims at investigating which channels in particular are at work. Through various channels of the transmission mechanism the central banks affect different variables and different markets, and at various speeds and intensities. Identifying these channels is important and attracts a lot of attention from economists, policy makers and investors alike, because they determine the most effective set of policy instruments, the timing of policy changes, and hence the main restrictions that central banks face in making their decisions.

In Romania, the monetary transmission channels were subjects for some papers. Pelinescu (2001) revealed some circumstances such as weak competition, soft budgetary constraints and lax corporate governance that lead to a short transmission period of the mechanism in the Romanian economy. Popa et al. analysed the impact of inflation targeting regime on the monetary transmission channels and Antohi, Udrea and Braun (2003) established an econometric model of the monetary policy transmission mechanism for the period October 1999 – May 2002.

The paper is organized as follows. The second section of the paper consists in a survey of the literature regarding the monetary policy transmission channels. In the third section we present some key features of the monetary policy transmission mechanism in Romania highlighting the role of the banking sector in transmitting the monetary policy impulses to the real economy. The final section focuses upon some main conclusions and key aspects of the paper.

2. Literature review regarding the monetary policy transmission channels

Monetary policy decisions are transmitted through the economy in a variety of ways and that eventually reflect upon the evolution of prices and output. The monetary transmission mechanism is a combination of all the economic channels through which, over a certain period of time, monetary policy affects the economy.

Mishkin (1995) identifies four channels of monetary policy transmission (in the context of the US experience): interest rate channel, credit channel (balance-sheet channel and bank-lending channel), the exchange rate channel and other asset prices channel.

A transmission channel is the *interest rate channel*, the traditional mechanism and the one often regarded as the “main channel of monetary policy transmission”, a position taken by Taylor (1995), but strongly disputed by Bernanke and Gertler (1995). On the one hand Taylor emphasizes the importance of financial prices (like interest rate) as opposed to financial quantities in the transmission process and argues that there is strong empirical evidence for substantial interest rate effects on consumer and investment spending. On the other hand Bernanke and Gertler emphasize the importance of the financial market quantities: credits.

The *credit channel*, according to the “credit view”, implies that monetary policy affects the real economy by shifting the supply schedule of credit. The credit view is composed of two different views, namely the “lending view” and the “balance-sheet view”. Kashyap and Stein (1994) trace the origins of thought on the bank lending channel back to Roosa (1951) and also highlight Blinder and Stiglitz’s (1983) resurrection of the loanable funds theory and Bernanke and Blinder’s (1988) extension of the IS-LM model as two approaches that account for this additional source of monetary non-neutrality.

According to Kashyap, Stein, and Wilcox (1993) and Kashyap and Stein (1994) the narrow credit channel or the narrow bank lending channel refers to that situation in which small banks are more limited than large banks in their ability to find alternative funding sources when monetary policy is tight and are, therefore, less able to make loans. The second channel formalized by Bernanke and Gertler (1989), referred to as the balance-sheet mechanism or broad credit channel, can exist because tighter monetary policy causes firms’ interest payments to rise at a time when revenues are falling, weakening firms’ balance sheets and limiting their ability to grow and spend. Policymakers at times have also resorted to more direct actions to limit bank credit “availability”, such as credit controls or jawboning (Romer and Romer, 1993). There is abundant evidence on the empirical relationship between monetary policy, bank loans and economic activity but in most of the studies the general conclusion is that tight monetary policy leads to a drop in bank credit, which has large negative impact on economic activity.

After discussing about the interest rate there is no reason to focus on only one it as a channel of monetary transmission, because monetary policy can also have important effects on the prices of bonds, equity, real estate and foreign exchange. Given the fact that there are special features of the transmission of monetary policy through the exchange rate, we will discuss about equity, bonds, and real estate as a single group, asset price channel. The additional *asset price channels* are highlighted by Tobin’s (1969) *q*-theory of investment and Ando and Modigliani’s (1963) life-cycle theory of consumption.

The *exchange rate channel* plays an important role particularly in open economies and also in developing countries with only rudimentary markets for bonds, equities and real estates (Kamin et al., 1998). This channel works through both aggregate demand and aggregate supply effects.

The literature identifies also a fifth channel, separate from the others, based on private sector expectations about the future stance of monetary policy and, more generally, about all future-related variables. This *expectations channel* implies that all variables that have intertemporal implications, and are therefore determined in a forward-looking way, are affected by agents' beliefs about future shocks to the economy and how the central bank will react to them. The specific mechanisms for the expectations channel are intertemporal versions of the static interest rate, asset price, exchange rate, and monetary and credit mechanisms.

3. The role of the banking sector in the monetary policy transmission mechanism in Romania

Not all economies react in the same way to changes in monetary policy. The choice of transmission mechanisms and their effectiveness in the conduct of monetary policy depend on the specific features of the economy in question. For purposes of illustration, Loayza & Schmidt-Hebbel (2002) divided the monetary transmission into two steps.

According to the authors, the first step consists in the fact that policy instrument affects various asset markets and prices, and the second step, when these changes affect spending decisions by firms and households. Each step is affected by the economy's specific features, and in particular its stage of financial development and openness to international trade and capital. The effect that changes in market prices can have on aggregate demand is also determined by the solvency and liquidity of firms and households.

Romania is not an exception. In order to estimate the effectiveness of a certain transmission channel we have to analyse several characteristics of the Romanian financial system: whether it is based primarily on banks or comprises a variety of financial institutions, whether it is run publicly or privately, and whether it offers a large range of financial products. These characteristics in turn affect the effectiveness of NBRs' monetary policy.

According to the specialised literature in the field⁴²¹, an important role in transmitting the monetary policy impulses to the real economy has the structure of the financial system. In Romania, taking into consideration the particularities of the financial system (bank-based system), the transmission of monetary policy impulses is carried out mainly by the lending channel and the interest rate channel.

Monetary policy measures adopted by the NBR are transmitted to the economy also by the exchange rate channel and the expectation channel. However, in this paper we consider only the bank lending and interest rate channels, which have a considerably greater importance given the prevalence of the banking sector in the national financial system.

In the period until 2000, the credit channel and the interest rate channel were almost inactive, therefore the monetary policy transmission mechanism had a low efficiency. The possibilities of the NBR to influence the real economy have been reduced, due mainly to the banking system that was dominated by a few banks, which did not depend on resources drawn from central bank, the budget deficits that were financed by the banking sector and the volume of bank loans that presented low levels.

After 2000, in the context of the reforms undertaken in the Romanian economy, the restrictive monetary policy pursued by the central bank had positive results. The disinflation process and increasing competition among banks led credit institutions to reduce active and passive interest rates for operations in lei, as well as the margin between them. Also, 2000 marks the beginning of the recovery process of financial intermediation and the connections between financial variables and the real economy⁴²².

The developments in the financial system of the Romanian economy after 2000 contributed to the

⁴²¹ Cecchetti, Stephan G. (2009), „Legal Structure, Financial Structure, and The Monetary Policy Transmission Mechanism”, *Working Papers*, No. 7151, June, 1999, at www.nber.org/papers/w7151.pdf?new_window=1

⁴²² Antohi, D., Udrea, I. & Braun, H. (2003), “Monetary Policy Transmission in Romania”. *National Bank of Romania, Occasional Papers*, No. 3, p. 9, at <http://www.bnr.ro/PublicationDocuments.aspx?icid=6786>

efficiency in transmitting the monetary policy impulses to the real economy.

The Romanian financial system is dominated by the banking sector (see data in Table 1) so that the transmission of monetary policy impulses is more sensitive to its features and how it functions. Therefore, the changes occurred in the Romanian banking sector in the period after 2000, led to significant changes in the transmission of monetary policy decisions on the real economy.

Table 1. *Romanian' financial system characteristics during the period 2000 – 2009*

Indicators	2000	2002	2005	2006	2007	2008	2009
The share of bank assets per total financial system assets	20,4	86,35	83,7	83,8	82,16	82,76	...
The share of bank assets to GDP	30,6	31,9	44,76	50,6	61,5	62,4	67,30
Market concentration (top five banks in the system / total assets, in percent)	65,5	62,8	58,8	60,3	56,4	54,4	54
Share of assets held by banks with private capital per total assets of the banking system	53,9	59,6	94	94,5	94,5	94,7	92,7
Share of assets held by foreign-owned banks per total banking system assets	50,9	56,4	62,2	88,6	87,8	88,3	85,3
Market capitalization to GDP (%)	3,8	6,05	19,52	21,28	27,3	11,23	18,81

Source: NBR - Annual Reports, 2000-2006, Report on financial stability, 2008, 2009;
<http://www.bnr.ro/Indicatori-agregati-privind-institutiile-de-credit-3368.aspx> and data processed.

As we can see in Table 1 there is a predominance of private ownership in the banking sector. This improved the monetary policy transmission mechanism. Also significant is the presence of the foreign private capital in the banking sector, which has positive effects, translated into better corporate governance in the banking sector, increase efficiency and strengthen risk management of banking sector stability. However, the presence of foreign banks may reduce the efficiency of transmission of monetary policy decisions because they have better access to external financing, being less dependent on attracting domestic resources. Also, given the current crises in international financial markets, foreign capital can transmit by contagion, some of the risk to the national financial system. Another feature of the Romanian banking sector with influence on the monetary policy transmission mechanism is the degree of concentration. This feature determines that the impact of monetary policy decisions are perceived and transmitted uneven in the economy. An important aspect that indicates the progress of the Romanian banking sector is the significant increase of non-government credit share in GDP (from 9.3% in 2000 to 39.3% in 2008), showing a positive change in the attitude of the credit institutions to the real economy and the return to the traditional function of financial intermediation. Restoring the financial intermediation process and unlocking of the credit lending channel, after 2000, were caused by changes in the supply and demand offers.

Simultaneously with the reinvigorating of the credit channel, in the context of the recovery process of financial intermediation, a revival of interest rate channel was noticed too, these two components of the monetary transmission mechanism being interconnected. In comparison with the period until 2000, when the elasticity coefficient of the demand for loans and deposits with the interest rate was low, in recent years the interest rate channel proves to be quite efficient, in the context of the relationship central bank – commercial banks but also in the context commercial banks – customers.

The main tool that we can use to highlight the impact of monetary policy decisions on the real economy and thus, on prices, through the banking system is NBRs main instrument of monetary policy, i.e. the monetary policy interest rate. This has a direct impact on the interbank interest

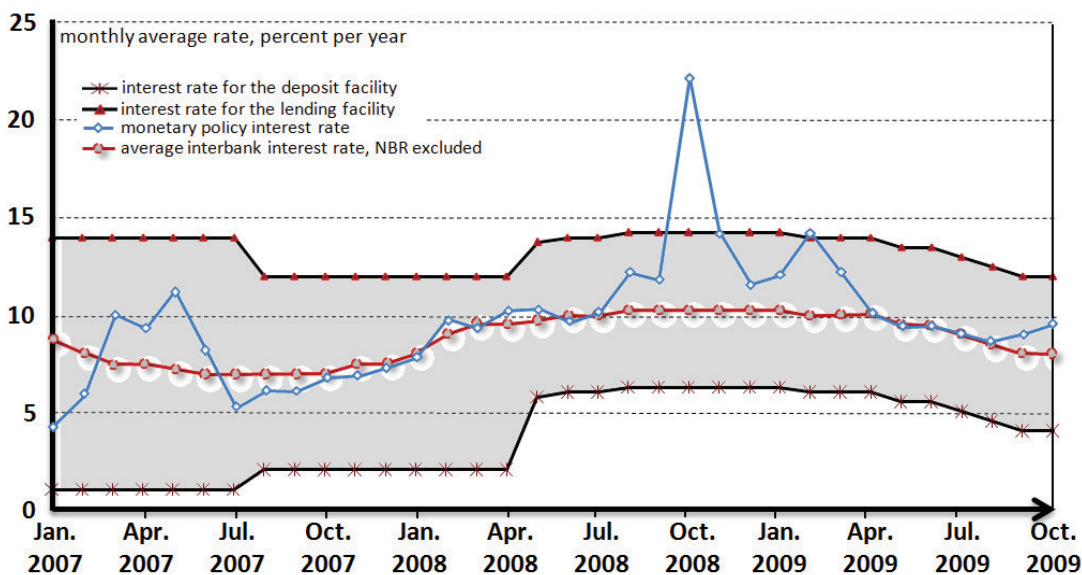
rates because through monetary policy operations, the central bank has the ability to influence the volume of market liquidity. In turn, changes in the interbank interest rate affect the interest rates used by banks on deposits and loans, which have an impact on consumer decisions, investments, savings and therefore ultimately, on the aggregate demand in the economy.

In order to improve the signal role of the monetary policy interest rate and increase the efficiency of the transmission mechanism, in May 2008, the central bank decided to reduce the due date of the key instrument of monetary policy (the standard operations of deposits, whose maturity has been reduced from two weeks to one week) and to narrow the amplitude of the corridor formed by the interest rates on standing facilities to a value of ± 4 percentage points (see Figure 1).

Changes in the monetary policy interest rate are transmitted to the real economy after a certain period of time, as a result of gradual adjustments of bank interest rates.

Furthermore, the transmission of monetary impulses is uncertain and there may be circumstances in which the interbank interest rate does not react to the signal of the monetary policy interest rate. According to Figure 1, one can notice that in certain periods of time there is a significant gap between these two interest rates. For example, in October 2008, in the context of the current international crisis, there were significant malfunctions on the interbank market, reflected by the amplitude of the gap between the interbank interest rate and the monetary policy interest rate. The increased disbelief and the risk aversion of the credit institutions resulted in a significant decrease in the interbank market transactions so that the monthly average interbank rate reached a level of 23%, well above the monetary policy interest rate of 10.25%. In this context, the central bank, considering that it is the case of an unrealistic growth, granted the possibility to temporarily suspend publication of the interbank market indices (ROBID / ROBOR), when the quotations for participants' deposits (ROBOR) to the calculation of the average interest rates interbank exceeds the interest rate on lending facility by more than 25% (BNR, 2008).

Figure 1. *The evolution of the monetary policy interest rate and the interbank interest rate, in the corridor formed by the interest rate for the deposit and credit facilities, in Romania, January 2007 – October 2009*



Source: processed data from the site www.bnr.ro

In February 2009, in the context of a reduction in the economic growth rate and in lending activity, given the current international crisis, NBR started to relax the monetary policy, as shown by the reduction of the monetary policy interest rate and the Reserve Requirements. Nevertheless, the reactions of the bank interest rates to the monetary policy impulses are slow and limited in

size due to the high degree of cautious of the credit institutions, but also to people and traders' reluctance to borrow.

Conclusions

Monetary policy decisions have an impact on the real economy through several channels, whose importance varies from one country to another, mainly depending on the specifics of each economy, on the financial system structure and the existing legal framework.

In Romania, taking into consideration the particularities of the financial system (bank-based system), the transmission of monetary policy impulses to the real economy is carried out mainly by the lending channel and the interest rate channel.

In the period after 2000, the efficiency of the transmission of monetary policy decisions on the real economy via the lending channel and the interest rate channel has increased, due to the positive developments of the national economy in general and of the banking system in particular.

In the context of the current turmoil, the significant contraction of supply and demand for bank loans, due to deteriorating macroeconomic indicators and uncertainty about the prospects of national economies, leads to difficulties in transmitting monetary policy decisions, as shown by the week and small-scale reaction of bank interest rates. Thus, the activity of the National Bank of Romania is not an easy one, if we consider the fact that through the operational framework of the monetary policy, the central bank wishes, on the one hand, to achieve its primary objective (price stability) and, on the other hand, to renew the activity of bank lending, which was significantly influenced by the current crisis.

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