

MONETARY POLICY TRANSMISSION MECHANISM ONTO THE REAL ECONOMY-A LITERATURE REVIEW

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Abstract:

This paper aims to emphasize the importance of the monetary policy transmission mechanism onto the financial sector and especially on the real economy, considering theoretical and empirical representative research for the field approached. The study uses a qualitative approach based mainly on a comparative analysis between points of view, methodological aspects and results. The main findings obtained from the analysis of specialized literature are the following: the impact of monetary policy decisions on the real economy is significant, even in conditions of economical and financial turmoil like the subprime crisis; the range of tools, mathematical techniques and econometric models used in professional studies is extensive and in development; the main factor influencing the functionality of the monetary policy transmission mechanism remains the "texture" of the financial system.

Key words: monetary policy transmission mechanism, transmission channels, pass-through, real economy, financial crises

JEL classification: E52

1. INTRODUCTION

The crucial importance of monetary policy at the macroeconomic level has raised the interest of specialists more than half a century ago, giving birth to a broad spectrum of views, dominated by the conviction according to which monetary policy transmission mechanism may be compared with a "black box". [Bernanke, Gertler, 1995].

Specialists in this area motivate the increased interest for the process of monetary transmission invoking two main reasons: first, the necessity of understanding the manner in which monetary policy affects the economy is essential for calibrating the monetary policy and second, in order to establish the appropriate instruments, decision-makers must be able to determine the moment of policy introduction with precision as high and its effects onto the real sphere.

The problem highlighted in the literature which is the subject of this work originated in the subprime financial and economic turmoil. The magnitude without precedent of the financial crisis triggered in the summer of 2007 with epicentre in the real estate market of the United States, stressed the (temporary) loss of capacity of monetary policy to influence economic and financial climate. Therefore, the issue of the study consists in the following main question: does monetary policy influences (significantly) the real economy- even in crises conditions? If it does, which are the main factors influencing the functionality of the monetary policy transmission mechanism and with the help of which techniques we may assess its efficiency?

This paper presents the following structure: the first part of the study highlights the importance of the monetary policy transmission mechanism at macroeconomic level; section two sketches the issue of the transmission of monetary impulses on the real economy, in the light of representative literature in the field approached; section three reviews some aspects of the research methodology. The study ends with some conclusions and directions for future research in the field.

2. PROPAGATION OF MONETARY IMPULSES ON THE REAL ECONOMY

Like fiscal authorities, central banks affect developments in the real economy, but by means of a transmission mechanism of monetary impulses- as a prime base of monetary policy. In the light of definitions that have been given to the concept of "monetary policy transmission mechanism", literature is characterized by relative uniformity. Thus, according to Taylor, the

transmission of monetary policy is "the process by which monetary policy decisions are transmitted in real GDP and inflation." [1995, p:11] In addition, in recent specialized studies one may observe the same conception in terms of the essence of the monetary policy transmission mechanism. [Belke, Polleit, 2009]

In specialized literature prevail two approaches as regards the functioning of the monetary policy transmission mechanisms: monetary approach (money view), according to which interest rate changes have a direct impact on investment and exchange rate and credit-oriented approach (credit/lending view) according to which intermediaries have a substantial role in the transmission of monetary impulses on production and prices. [Cecchetti, 1999]

Among the most representative optics we must mention the monetarist and keynesist visions which differ in terms of the designing of the transmission mechanisms of monetary impulses. Unlike the keynesist view, the monetarist one claims that variation in the interest rate has both direct and indirect effects on the volume of expenditures.

In order to facilitate the process of understanding the functionality of the monetary policy transmission mechanism, literature is generally focused on the analysis of its two segments: monetary policy impulses transmission onto financial variables and the connection between the financial and real sector. Economists in this area give special attention to the particularly important role of the banking sector (as intermediary) in the transmission of monetary policy impulses, especially in states having the financial system based mainly on banks. [Sukmana, Kassim, 2008, Tobias, Hyun, 2010]

From another perspective, most empirical studies consider two essential elements concerning the functionality of the monetary mechanism, namely: analysis of the effects of monetary policy shocks and respectively identification of channels through which changes in the conduct of monetary policy have an impact on the real economy. [Endut, Morle, Tien, 2009, Gambetta, Forni, Jarociński, 2010]

So that monetary policy decision-makers to be able to properly assess the magnitude and sense of the measures taken, it is essential to understanding the monetary policy transmission channels to the real economy. Over time, for instance in the works of authors Belke and Polleit, were stroked the monetary transmission channels, four of which were judged to be principal: interest rate channel, price of financial assets channel, exchange rate channel and credit channel. [Cited by Taylor, 1995]

Analysis of efficiency of monetary channels was preceded by empirical studies that have demonstrated the fact that monetary policy has a significant impact on the real economy [Cecchetti, 1994]. In this sense, studies unanimously reflect that "the real effects of monetary policy are systematic, meaningful and significant". [Friedman, 1995, p:31]

With the changes in the structure of financial systems has been supported a new classification of monetary transmission channels, as follows: the traditional channel of interest rate; the channel of prices of other assets (exchange rate channel, stock channel, credit channels (bank lending channel and balance-sheet channel) and household liquidity channel). [Mishkin, 1996]

If we consider the importance of concepts concerning the interest rate channel, they are different. Thus, some economists argue that there is sufficient evidence in favour of strong impact exerted on the real economy through interest rate [Taylor, 1995], but amid criticism from economists who have targeted the concentration on a single price in the economy - interest rates, research expanded on exchange rate channel. Significant role of the exchange rate channel, particularly within small and open economies is illustrated by economists such as Bryant, Hooper and Mann [1993].

As regards the balance-sheet channel, it is based on the information asymmetry of credit market that generates adverse selection and moral hazard. In the literature, there have been sketched two channels namely: effects on cash flows of the enterprises and the unanticipated level of prices. [Mishkin, 1996, Stankov, 2010] Although most studies deal with the credit channel in the light of the expenditure incurred by operators, this channel was found to be applicable in the case of consumer spending too, particularly in the case of durable goods and housing.

Another transmission channel of monetary impulses which is given attention in most investigations is that of the inflationary expectations of financial market participants and general public. [Ireland, 2005, Killey, Mishkin, 2010]

In recent literature, for example in optics of the authors Boivin, Killey and Mishkin, the transmission channels of monetary policy in the real economy are classified into two categories: neoclassical channels (with the condition of perfect financial markets) and non-neoclassical channels (credit channels, manifested in the presence of market imperfections). [2010]

Over time, it was outlined a number of elements with which economists have associated the efficiency of monetary policy propagation channels among which there are: credibility enjoyed or not by the monetary authority [Loayza, Schmidt-Hebbel, 2002], lag (delay) with which monetary impulses are transmitted on the real economy, usually considered to be long and variable [Ireland, 2005], the phenomenon of banking globalization [Cetorelli, Goldberg, 2009] or pass-through of transmission channels. [Karagiannis, Yannis, Prodromos, 2010, Borožan, 2011].

In the field approached, interest of researchers was manifested on a variety of levels. Thus, specialized studies discuss the monetary policy transmission mechanism considering various geographic locations, for example: Egypt [Al-Mashat, Billmeier, 2007], USA [Mertens, 2008] or Croatia [Borožan, 2011].

The interest of economists was not limited to the analysis of monetary policy transmission mechanism to the level of a single state, the reasoning being generalized to certain geographical areas. In this regard, considerable attention was paid to countries from Central and Eastern Europe [Coricelli, Égert, MacDonald, 2006 Égert, MacDonald, 2008 Égert, MacDonald, 2009], the states of the European Union and of the euro area [Boivin, Giannoni and Mojon, 2008, Hallett, Richter, 2009], or even at regional level (for example, the comparisons of euro area-U.S.A [Musso, Neri, Stracca, 2011] or Asia-Latin America-Olivero [Yuan, Jeon, 2011]).

A better understanding of the transmission mechanisms of monetary policy requires an analysis of the factors of influence. Taking into account the fact that the transmission of monetary policy has particular features from a geographical area to another, from one state to another, or even within a country from one period to another, specialized studies reveal the structure of the financial system as a dominant factor of influence.

A general valid conviction in terms of the factors that have influence on monetary transmission mechanism is also seen in representative research as follows: "most economists think the monetary transmission mechanism will vary systematically across countries with differences in terms of size, degree of concentration and the health of the banking system and the differences in the availability of financing in the primary market." [Cecchetti, 1994, p:22] Moreover, Cecchetti points out the differences in the financial systems and the resultant differences in national legal structures. [1994]

In order to improve the design and functionality of the transmission mechanisms of monetary policy, with the passage of time and mutations produced in the context of globalization, the visions of economists have been expanded. Thus, the latter have done analysis on the transmission mechanism of monetary policy decisions taking into consideration also the incomes. [Mishra, Montiel, Spilimbergo, 2010]

It is worth mentioning that in low income countries, traditional channels (interest rate channel, credit channel) are obstructed in terms of an institutional framework with impairments, reduced depth of financial markets and high costs associated with loans for businesses. Also, the functionality of exchange rate channel is undermined by central bank interventions on the foreign exchange market.

It has also been under consideration the degree of development of states, some authors being noted by treating some aspects within the transmission mechanisms in developed countries [McCallum, 2004], while others have focused their attention on emerging economies [Papadamou, Kandil, 2006, Oikonomou, 2007, 2008, Turner, Mohanty, Mukherjee, Bhattacharya, 2011].

In view of the uncertainty surrounding the process of elaborating and implementing monetary policy, particularly in emerging countries, some economists have analyzed the efficiency

of transmission mechanisms, in parallel, in states such as the Czech Republic, Hungary and Poland. [Papadamou, Oikonomou, 2007]

Another element that has a high relevance in analyzing transmission mechanisms of monetary policy decisions is the monetary policy regime practiced. Having in regard the trend in recent years of large-scale adoption of the inflation targeting regime, some researchers have concluded that the improved macroeconomic performance was due to a considerable extent of the adoption of inflation targeting regime. [Mishkin, Schmidt-Hebbel, 2006, Krusen, 2011]

This vision was not however shared by Ball or Sheridan [2003] who brought as a counter-argument that there were developed states that have achieved superior performance, though not have adopted the inflation targeting regime.

As regards measuring the effectiveness of the transmission mechanisms of monetary impulses, there are few studies that capture this aspect. For example, in Turkey, both stock and credit channels are partially functional and the most effective channel for the transmission of monetary policy decisions at the level of the real economy is that of inflation expectations. [Takim, 2011]

In view of the magnitude of the effects of the subprime crisis, experts in the field have approached the transmission mechanism of monetary policy in light of the current financial and economic disturbances too, by emphasising the important role of macro prudential-supervising, inflationary expectations channel and even the role of the real estate sector as a potential source of financial instability. [Hallett, Richter, 2009, Boivin, Killey, Mishkin, 2010, Walentin, 2011]

On the basis of empirical research, economists motivate the mutations ("freezing" of the functionality of the monetary policy transmission mechanism, influence of inflationary phenomenology in the context of a growing sovereign debt) in the transmission of monetary policy in the real sphere in recent years relying mainly on two factors: "structural changes in the economy, in particular at the level of credit markets and the interaction between changes in monetary policy actions and manner of formation of expectations." [Boivin, Killey, Mishkin, 2010, p:23]

Another concern addressed by economists, in the context of the current financial turmoil, is the emergence of a new propagation channel namely risk taking- "a previously unknown and independent part of the monetary transmission mechanism". [Ingves, 2011, p:8, López, Tenjo, Zárate, 2011]

In the paper "Monetary Transmission Channels Around the Subprime Crisis: The US experience", economists Bates and Vaugirard analyse the functionality of each transmission channel and oscillate between a total ineffective monetary policy and one partially inefficient. Taking into consideration the results of research they adopt an intermediate position between the two types of policy. [2009]

Therefore, the authors views with regard to the transmission of monetary impulses on the real economy are similar, but factors such as the texture of the financial systems, legislative framework, structure of economies diminish or improve the functionality of certain monetary transmission channels and in the end, the factors mentioned above and beyond, contribute to undermining or increasing the effectiveness of the monetary policy transmission mechanism.

3.CONSIDERATIONS ON RESEARCH METHODOLOGY IN THE FIELD APPROACHED

The majority of specialized studies reflect the use of both qualitative and quantitative tools, the point of departure in the course of research being represented by theoretical approach. Thus, initially it is being carried out an overview of the main concepts to be operated upon, including: monetary policy, monetary transmission mechanism, lag, transmission channels, pass-through and others.

In most of cases, theoretical approach is complemented by an empirical research. In general, empirical research comes to add a plus of value from earlier studies, for example by introducing new variables within the model producing new information.

An econometric study-topical and representative for the issue of this paper is made by economists Forni and Gambetta, titled *The dynamic effects of monetary policy: A structural factor model approach*. [2010] Researchers studying the effects of monetary policy with the help of a structural factor model (FLGR — after the names of the authors-Forni, Giannone, Lippi, Reichlin) compared it with VAR and FAVAR models. The main result of the study reveals the importance of major use of extensive sets of information and at the same time an element that detracts from the relevance of the results obtained with the help of VAR and FAVAR models.

With reference to the empirical research carried out on the functionality of the monetary policy transmission mechanism, it should be noted that the range of tools, mathematical techniques and econometric models used in professional studies is very extensive, including among others: Kalman filter [Hallett, Richter, 2009], the autoregressive vector-VAR [Boivin, Killey, Mishkin, 2010], numerical simulations [Tervala, 2008], DSGE- stochastic, dynamic, general equilibrium model, FAVAR – autoregressive vector increased factor [Boivin, Killey, Mishkin, 2010].

A considerable part of studies begins with the construction of the hypothesis, which usually calls for the following processes: harmonising, differentiating, concomitant variation and analogies. As regards the methods used in the context of investigations, we can mention as being with predominant character the induction. For instance, as indicated above, by studying the monetary transmission mechanism at the level of a state, some economists have generalized the reasoning behind monetary areas or regions.

In recent years, the literature in the field approached has achieved a more quantitative note generated by the desire of harmonizing to a degree as high of theoretical investigations with empirical research, providing major importance to the comparison strength of results.

4. FINAL CONCLUSIONS

In view of the magnitude of the responsibility of monetary policy decision-makers, it is crucially to understanding the transmission mechanisms of monetary impulses, the appropriate conduct of monetary policy and of the effects and intensity of effects on the real economy.

According to the literature which is the subject of this study and economical practice too, monetary policy has a significant impact on the real economy (even during financial crises), through a range of channels that is in a continuous diversification and acting either simultaneously or in parallel.

If we consider the importance of transmission channels of monetary impulses to the economy in terms of competitive and efficient markets, it is being given importance to the interest rate and financial assets price channels. Instead, in the presence of market imperfections, priority is being given to the credit channel. On the other hand, scholars and practitioners who emphasize communication and transparency in the relationship with financial markets brought to the fore the inflationary expectations channel.

In view of the foregoing, it can be asserted that the spectrum of views in the field of monetary transmission mechanism is very vast. Also, currently, as regards future research palette in the field approached, we believe that there is a fairly extensive research regarding: the role of risk taking channel sketched by the current crises, measuring the efficiency of the monetary transmission channels and the issue a very low level (below zero) of monetary policy interest rate.

The motivation for choosing the literature included in this work consists in the clarity of reasoning, the representative nature of research, diversity of specific tools and research methodology and last but not least, the importance of practical studies, reflected in a more judicious design and implementation of monetary policy and better understanding of the transmission mechanism by the actors of financial systems.

The main conclusion of this study is that monetary policy transmission mechanism represents one of the topics that will always raise the interest of specialists, considering its continuous evolution which asks for a permanent understanding and assessment of its functionality, but mostly because of its practical importance at macroeconomic level- national and global.

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