

Monetary Policy Approaches Taking into Consideration the Current Economic Context*

Anca Maria GHERMAN

Bucharest Academy of Economic Studies
anca.maria.gherman@gmail.com

Alexandra ADAM

Bucharest Academy of Economic Studies
alexandra.adam@economie.ase.ro

Abstract. *Questions of interest among monetary policy makers involves the identification and analysis of various relationships between macroeconomic variables. To analyze these variables and their interrelations it is necessary to build a macroeconomic model which is based on a vector autoregressive, and in which exogenous shocks have impact on the study variables. How exogenous variables affect the variables of interest represent the transmission mechanisms. Estimates of the transmission mechanism has been considered traditionally, one of the major objectives of many macroeconomic studies. Such empirical researchers have obtained two major conclusions: first, that the transmission mechanism varies over time and the second is that the exogenous shocks change over time. Modeling these variables can intercept all these variations? The conclusions of these models are sufficient for monetary policy makers?*

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In a dynamic macroeconomic framework, which resonates with alternating periods of economic growth and crisis followed by recession, it is interesting to research the effectiveness of macroeconomic stabilization and structural policies. What is the impact of these economic policies in the context of a global economic crisis? Operation of monetary policy transmission mechanisms remains valid? Are there the same channels of monetary transmission or are permanently diversifying depending on the economy's needs? These are some questions that we want to find reasoned replies.

Worldwide, economic fluctuations over the past three years have been a challenge in terms of monetary policy effectiveness in order to achieve the objectives and also to identify how the decision is transferred to the real economy. Hence, there appeared the need to develop judges and complex models that capture more accurately the changes of exogenous shocks and of the time variable parameters.

Regarding the objectives, the monetary policy aims both ensuring a bigger occupation and price stability. This dual purpose, known and studied in the literature as "dual mandate" of monetary policy ("Why a Dual Mandate is Right for Monetary Policy?", Benjanim M Friedman, William Joseph Maier - Harvard University), can be seen in contrast with the stated purpose of many central banks that is primarily concerned and sometimes exclusively of price stability.

There are two circumstances in which a central bank should focus on this single goal. The first situation is the one in which there are other public policy instruments to ensure desirable levels of some real variables such as GDP and employment. The second circumstance is the assumption that output and employment stability cannot be achieved more easily and directly by monetary policy than in terms of price developments. During the current macroeconomic context, the fact that price stability is a necessary but not sufficient condition made the idea of the monetary policy dual mandate to become apparent.

Today few economists and a few businessmen, investors in the market or even ordinary people concerned about economic developments and thus about the evolution of business believe that the central bank's actions have no impact on the evolution of GDP and employment, or more generally, on the real variables which over time have been in the public attention. The fact that monetary policy can not increase the natural rate of employment or cannot achieve the GDP corresponding to full employment it cannot be an excuse for the lack of efforts to bring these real variables as close to optimal levels in the condition of business cycles disturbances.

It would be equally wrong to believe that monetary policy actions, on short and medium run, which are optimal for obtaining price stability, are always the best to achieve maximum of sustainability in terms of GDP and

employment. Olivier Blanchard and Jordi Gali call this possibility “divine coincidence” (Blanchard, Gali, 2007).

It is not legitimate to replace the question “Can and how can monetary policy affect real economic outcomes?” with the question “Can monetary policy do that?”. Both theory and empirical part show that monetary policy can influence a significant period of time, not only prices but also GDP, employment and other important aspects of non-financial economic activities. Thus the relevant question is: “In what sense should it do this thing?”. The answer can be determined from a relevant analysis of the central bank activity.

In order to formulate policies we must know how the macroeconomics operates. Not knowing how it works is the key obstacle in formulating policies (McCallum, 1997). In the last five decades monetary theory and the practice of monetary policy have informed each other on this issue. The knowledge such gained has provided new insights those who take decisions on monetary policy.

In principle, the process is as follows: both in theory and from observation data, the economists derivate in time basic scientific principles. These principles are used to construct quantitative methods, algorithms, such as econometric models needed for quantitative assessment of the economy’s (true but unknown) structure. Using these constructions systematically in order to evaluate different policies and to develop monetary policy decisions make monetary policy more and more of an applied science.

Applied monetary policy can be divided into two categories: first category involves systematic reasoning, algorithms – such as econometric models – and the second category concerns the economic reasoning itself and can be considered an art to create economic policies.

Monetary policy makers have acknowledged that their work involves not only current policies but also how they perceive different future policies. Also the wish to optimize the behavior of economic agents has not stopped to future expectations but has incorporated macroeconomic fundamentals in various models. Specifically, these models were manifested in two recent theories: the real business cycle theory and the neoknesian theory. In contrast to the old Keynesian theory, the new theory is based on microeconomic foundations related to the Keynesian concepts: nominal rigidities, non-neutrality of money and business cycle fluctuations inefficiency arising from the optimizer behavior. Real business cycle approach involves using a stochastic general equilibrium model.

Monetary policy decisions are transmitted through different monetary channels in different proportions and with certain lags. The impact of decisions through monetary policy channels varies depending on the economy structure.

In order to assess the relationship between two phenomena or variables, two methods or approaches have been developed over time: structural models to

examine whether a variable affects another, building, on an existing data, a model which explains the transmission channel of these variations and models in a simplified form that analyze whether a variable affects another variable by assessing trends and relations between the two (variables).

For example, a monetary policy change and its potential effect on production is assessed in a structural model by describing the economic system and the relationship between different variables at a micro and macroeconomic level, by describing the related equations and then by evaluating the entire causal chain. A simplified model will analyze only if a change in monetary policy is accompanied by a change in production taking into account, also, if it is just a random or systematic connection, observable within a specified time period.

The main disadvantage of structural models consists of the right specification of the model, because if this is not correct all findings and demonstrations are obviously flawed, in other words the evidence of a structural model will be as plausible as the model built is plausible. Another disadvantage is ignoring some transmission mechanisms that may be important for the relationship between money and economic activity.

Questions about the occurrence of changes in transmission mechanisms are as equally frequent as those related to changes in real business cycles. Estimation of the transmission mechanism has been considered, traditionally, one of the major objectives of many macroeconomic studies. Such empirical researchers have made two major things: first, the fact that the transmission mechanism varies over time and the second consists of the change of exogenous shocks over time.

Economists as Primiceri, Cogley and Sargent have studied the problem of exogenous shocks volatility and how the transmission mechanisms of monetary policy change across different economic periods. Giorgio Primiceri developed a simple modeling strategy for the moving rule of fluctuations in the covariance matrix and proposed an efficient algorithm MCMC (Markov chain Monte Carlo) to estimate the probability of subsequent numerical evaluation of the model. This model was tested on data specific to the US economy, emphasizing the role of monetary policy in the dynamics of inflation and unemployment.

Researchers have identified two main causes of these variables volatility. As shown in the studies of economists such as Blanchard and Simon (2001), Stock and Watson (2002), Sims and Zha (2004), exogenous shocks heteroscedasticity is a first explanation. The second cause is represented by the changes of transmission mechanisms, that is the way macroeconomic variables respond to shocks. If monetary policy varies over time there will be a direct effect on the spread mechanism of innovation. Moreover, if economic agents are rational and forward-looking, monetary policy changes will be incorporated

in private sector expectations, inducing further changes in the transmission mechanisms.

G. Primiceri tried to structure an appropriate framework for estimating and interpreting changes in monetary policy (in terms of both structured and unstructured part) and to show how this change propagates in the economy. It is essential that both coefficients and the covariance matrix to be able to fluctuate over time in order to distinguish between the changes of exogenous innovations and those of the transmission mechanisms.

In recent literature, the models of time variation, in the form of linear structures with discrete breaks, aimed at capturing a finite number of alternative schemes – Hamilton (1989). Discrete breaks models can successfully represent some of the rapid changes in monetary policy, but they do not capture with the same accuracy changes in the private sector behavior, in which the process of aggregation is usually designed to flatten most of the variables.

Even in a structural VAR model, the equations representing the private sector can be regarded as reduced forms of a behavioral model in which the private sector policies and its way of action are not easily distinguishable. If policies are also influenced by forward-looking variables (instead of being influenced only by current and past variables) then the VAR corresponding equation will reflect a combination of policy and private sector behavior, with minor effects on the coefficients fluctuations. The existence of any type of dynamic learning of private agents or of monetary authorities clearly favors a model with minor and continuous changes of the coefficients, compared to a model incorporating discrete breaks.

As a conclusion, the monetary policy progress makes art, judge to remain crucial for monetary policy management. In other words, monetary policy cannot be conducted only on the results of models or rules. No matter how sophisticated are, the models are vulnerable to changes in the economy structure, which is usually discovered with lags (Blinder, 2006). In addition, models do not use only a small part of the available data and information. Many other information talk about the complexity of the economy structure and have relevance in order to elaborate monetary policy, but they are not the result of applying algorithmic methods (Croitoru, 2008).

Thus, a good monetary policy needs to assume, besides a quantitative assessment of the economy structure, a structure containing all the available ex ante information: anecdotal and unquantifiable information; qualitative assessments regarding the errors materialization, forecasts of exogenous variables. Best decisions are always the result of filtering the information obtained from the models and rules with unalgorithmic elements.

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