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MONETARY RULES AND THEIR IMPORTANCE IN CONTEXT OF MONETARY UNION AND ECONOMIC CRISIS

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FOREWORD

Nowadays, in the time of economic and debt crisis, many European Union member countries are exposed to the large complex of negative implications of recession, peaking rates of unemployment, increased public debt burden as well as worsen conditions to maintain fiscal sustainability. Moreover, increased uncertainty on the financial markets resulted in higher volatility of market prices/rates that reduced predictability of market trends, even in the short period. As a direct response to the crisis related issues that put economies under the pressure resulted from the initial shock followed by a lagging recession, central banks employed discretionary monetary policy mix to reduce liquidity constrains and improve downward interest rates flexibility.

While the overall access of commercial banks to the liquidity clearly improved afterward, private sector and governments still suffered from reduced supply of new loans. Even more, high risk margins reduced effects of monetary incentives. Introduction of new elements in the monetary policy strategies (massive quantitative easing, additional refinancing facilities on short-term as well as long-term basis, debt market interventions, etc.) helped central banks to reduce interest rates down. However, the overall responsiveness of economies to reduced costs of capital seems to be limited. As a result, more and more questions associated with optimal monetary policy mix arises daily as a direct response to the puzzling effects of discretionary monetary fine-tuning or even monetary policy driven post-crisis economic recovery at all.

Current crisis period represents very convenient example of how traditional monetary policy strategies doesn’t work (or at least are not so effective) at bad times while being quite successful in guarantying monetary stability at good times. Money demand instability, monetary base “explosion” and liquidity trap are key examples of problems that are really challenging for monetary authorities. Even the key monetary policy objective of low and stable inflation became a subject of a wide academic discussion provided its relevancy during the crisis affected by increased uncertainty and weak overall demand. Competitive internal devaluation and reflation represents vicious discretionary based examples of inflation driven recovery with hardly expected and potentially dangerous medium-term implications especially for sustainability of weak economic growth rates, natural market incentives.

However, there are also other problems that may follow alongside the success in demand driven economic recovery associated with inflation pressures and short-term interest rates instability originating in excessive money supply and its subsequent reduction during the early periods of recovered economic growth. Associated reduced signal function of interest rates leading path and excessive market distortions may accelerate another even more dangerous wave of crisis.

The main objective of our monograph - *Monetary Rules and their Importance in Context of Monetary Union and Economic Crisis* - is to address selected problems of the monetary policy decision making. Contributing authors examined wide variety of aspects associated with bi-directional relationships between interest rates and macroeconomic fundamental variables. Short-term interest rates represent one of the most crucial variables in the monetary policy frameworks of central banks. It serves not only as a very effective vehicle for a transmission of monetary policy decisions by monetary authorities but also as a convenient indicator of monetary conditions. Interest rates determination represents key pillar in the rules versus discretion dilemma as well as quality (interest rates) versus quantity (money supply) dilemma. While both dilemmas may be considered as obsolete issue in the main streams of economic theory for decades, their relevancy clearly arises in the time of sudden, sharp, lasting and complex downturns in particular as well as world economy.

The monograph *Monetary Rules and their Importance in Context of Monetary Union and Economic Crisis* deals with was elaborated within the project VEGA 1/0973/11 on Monetary Rules and Their Importance in the Context of Monetary Union and Economic Crisis. The monograph is the result of the three year research. It summarizes main outcomes of contributing authors and is enriched by contribution of our foreign partners from the Institute of Economic Sciences in Belgrade in Serbia. The findings of our research were positively appreciated by the Institute; consequently the monograph is published in Belgrade. Multilateral activities, cooperation and experience of this Institute will enable us to disseminate our outcomes on international level. In addition, our research can be inspiring for other new European Union member states or accession countries, such as e.g. Serbia.

Monograph consists of four individual chapters. First chapter, *Interest Rates Determination in the European Transition Economies*, investigates the problem of interest rates determination under different exchange rate regimes and may provide crucial information about implications of relative exchange rate diversity in individual countries. Author analyzes sources of the short-term nominal interest rates volatility in ten European transition economies. Effects of structural shocks (demand, liquidity, inflation, monetary policy and exchange rate structural shocks) as well as changes in inflation expectations to the short-term interest rates are investigated. Author employed VAR methodology and estimated to compute impulse-response functions of the short-term nominal interest rates. Results of estimated model are discussed from the perspective of fixed versus flexible exchange rate dilemma. To provide more rigorous insight into the problem of the exchange rate regime suitability author estimated the model for each particular country employing data for two subsequent periods 2000-2007 (pre-crisis period) and 2000-2012 (extended period). Comparison of the results for both models is crucial to investigate the origins and key implications of current economic crisis on the short-term interest rates volatility.

Second chapter, *Monetary Rules and Their Importance in the Context of Monetary Union*, summarizes relevant literature resources on monetary rules problematic. It describes practical and theoretical background of monetary rules also from the perspective of time inconsistency aspect. Following subsection offers pros and cons concerning rules and discretion, it outlines monetary rules history as well as their current criticism due to financial and economic crisis. Later on, monetary rules are analyzed in the context of particular monetary strategies such as exchange rate targeting, inflation targeting, etc. Sixth subsection focuses on the methodology of monetary rules quantification also in respect to new European Union member states with particular impact on the Taylor rule. Finally, several monetary rules, precisely the Taylor-type rules are quantified for Slovak economy as an example of a post-transition economy facing the specific situation of its integration to the euro area and financial and economic crisis at the same time. Estimation process is based on linear regression with Newey-West standard errors approach. Unlike previous research aspect of monetary integration, breaking points as well as period of crisis are taken into account. Break points are identified and confirmed using the Quandt-Andrews and Chow break point test. Obtained results enable us to characterize monetary policy in the Slovak Republic and evaluate its compatibility with the single euro area monetary policy and to compare it with monetary policy setting in other Visegrad countries, i.e. the Czech Republic, Hungary and Poland, which experienced similar transition process but, unlike Slovakia, have not chosen, yet, to adopt euro.

Third chapter, *Effectiveness of the Interest Rate Channel in the Context of Monetary Union and Economic Crisis*, is focused on analysis of the transmission process of monetary policy in euro area in general as well as for the EMU countries and selected transition economies such as V4 countries. Authors employed VAR methodology to identify the effects of the monetary shocks on selected variables. From the calculated impulse-response functions authors investigated interest rate pass-through to macroeconomic variables. Model is estimated for the pre-crisis and extended period and countries are divided to three groups - northwest EU countries, south EU countries and Visegrad countries to improve empirical results and following discussion.

Fourth chapter, *Forecasting Serbian Quarterly GDP*, focuses on forecasting of Serbian GDP, which is crucial in application of forward-looking monetary policy. The authors of the chapter extend classical Box-Jenkins approach, also known as Seasonal Autoregressive Integrated Moving Average (SARIMA) stochastic model. The chapter is relevant as prediction is quite difficult in general and especially in countries in transition, which is the case of Serbia. Their results are confronted with the estimations of financial institutions in Serbia.

The monograph is dedicated to researchers, students, teachers, central bankers, general public and to all who are interested in the fields of macroeconomics, monetary policy and international finance. Individual chapters have ambition to enlighten issues and challenges of monetary policy implementation in the context of monetary union and economic crisis.

Košice, December 2013

Rajmund Mirdala

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