REVISITING LIMITS AND PITFALLS OF QE IN THE EMERGING MARKETS[1]

Daniel DĂIANU[2]
Alexie ALUPOAIEI[3]
Matei KUBINSCHI[4]

Abstract

The pandemic caused by COVID-19 is another huge blow to the world economy after the financial crisis that erupted in 2008. A health crisis has been interweaving with severe economic and social strain following a necessary lockdown for several months during 2020. Although most economies seem to have climbed out of the deep hole caused by The Shutdown, with a current strong economic rebound underway in large parts of the world economy, a longer-term recovery is likely to be difficult as it is surrounded by significant uncertainties and contradictory effects. This paper relies on the line of reasoning presented in Daianu (2020). It highlights the forceful and coordinated policy response in advanced economies in order to deal with the multiple shocks represented by COVID-19. Its main focus is on policy responses in the emerging economies, which have tried to replicate measures adopted in the advanced economies. The paper highlights significant differences between the advanced economies and the emerging economies, which must be considered when trying to adopt QE in the latter. The main inference is that there are limits and pitfalls for the emerging economies when it comes to practice the policy responses of the advanced economies.

Keywords: currency substitution, debt monetization, emerging economies, external debt, financial crisis, fiscal policy, inflation, monetary policy, pandemic shock, Quantitative Easing (QE), reserve currency

JEL Classification: E52, F34, E58, G12, G15, P51

---

[1] *The paper was presented at the 4th annual CBBH conference "How are central banks dealing with macroeconomic consequences of Covid-19 pandemic?", 4 November, 2021, Sarajevo. This paper relies on Daniel Daianu's "Limits and pitfalls of QE in emerging markets", SUERF Policy Brief, No.281, September 2020 (which was previously published by Opinii BNR, July 2020). The views expressed herein do not necessarily represent the position of the institutions the authors are affiliated with.*

[2] *Daniel Daianu is President of the Romanian Fiscal Council and special advisor on Euro Area affairs at the National Bank of Romania, e-mail: Daniel.daianu@bnro.ro.*

[3] *Bucharest Academy of Economic Studies, E-mail: alexie.alupoaiei@bnro.ro.*

[4] *Bucharest Academy of Economic Studies, E-mail: matei.kubinschi@bnro.ro.*

Appendix

Quantifying changes in monetary policy transmission in Romania during normal and crisis times

Structural changes in the monetary policy transmission mechanism have been analysed by policy-makers and researchers alike due to their importance in effectively implementing and calibrating monetary policy instruments. Sims and Zha (2006) argue in favor of allowing for time or state-dependent variations in the empirical modelling framework in order to account for various types of changes in policy regimes. Naturally, the VAR framework becomes an obvious candidate for incorporating extensions such as time variation in the structural coefficients or disturbances to account for a wide pallet of changes in the sources of economic variations. In the current context, emerging market economies face several structural changes associated with the development of the financial sector and the strengthening of the transmission mechanism, coupled with several crisis episodes, with significant levels of uncertainty, during which monetary policy transmission may be hampered.

In order to investigate empirically the transmission of structural shocks in different regimes, we resort to a Markov-Switching Bayesian Structural VAR framework, following Sims, Waggoner and Zha (2008):

$$y_t A(s_t^c) = \sum_{i=1}^{p} y_{t-i} A_i(s_t^c) + \varepsilon_t \Xi^{-1}(s_t^v)$$

where: y_t is the vector of endogenous variables, s_t^c and s_t^v are the processes defined for the coefficients and disturbances and p is the number of lags.

The current exercise focuses on identifying changes in the monetary policy transmission mechanism in Romania, in normal and crisis times, in order to ascertain that volatility as well as structural changes play an important role in emerging market economies and should be taken into account when searching for the optimal policy mix. The dataset comprises of the classical macroeconomic variables used to describe a small-open economy – economic growth, inflation, exchange and interest rates – while the period analysed is 2005-2021 taking into account several factors including the implementation of an inflation targeting strategy by the central bank in 2005. The current simulation will introduce a switching behavior between two regimes only for the disturbances of the model (s_t^v) interpreted as capturing variation in the sources of economic disturbances, as well as in the model coefficients (s_t^c). The intuition behind specifying two volatility regimes is related to temporary episodes of macroeconomic stress during which the size of shocks significantly increases, while different coefficient regimes capture deeper structural shifts within the transmission mechanism. The model is identified recursively, via Cholesky ordering, and the parameters are estimated using Bayesian techniques and by specifying 2 lags, a common practice in the related literature, seen as a compromise between model size and specificity.

The estimated volatility and coefficient regimes are plotted in Figure A.1 and A.2 – we can observe that the model adequately distinguishes between periods of heightened uncertainty, such as the Global Financial Crisis, the Eurozone Sovereign Debt Crisis or the Covid-19 pandemic and tranquil episodes, mostly observed after 2015 and briefly interrupted by transitory spikes of volatility. Moreover, while volatility regimes correctly identify periods of temporary stress, shifts in coefficient regimes uncover more long-lasting effects of the financial crisis and sovereign debt crisis, one may see in Figure A.2, interpreted as structural shifts in elasticities as opposed to changes in volatility, with an impact on the amplitude of

shocks. Consequently, the model distinguishes between temporary volatility with dissipating effects and structural changes (breaks) brought by the crisis episodes in the last decades, which have significantly affected monetary policy transmission.

Figure A.1. Estimated Volatility Regimes from the MS-SBVAR Model

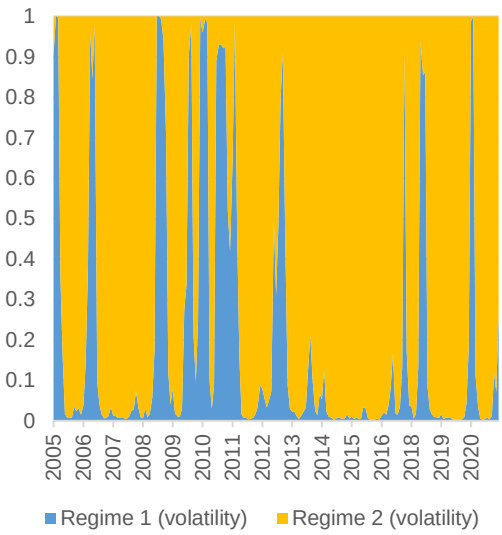
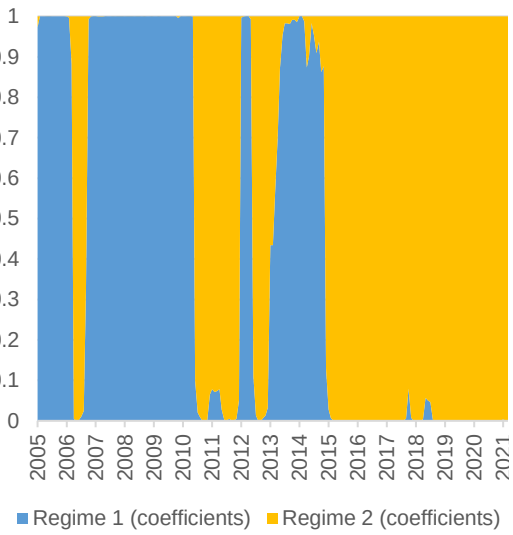


Figure A.2. Estimated Coefficient Regimes from the MS-SBVAR Model

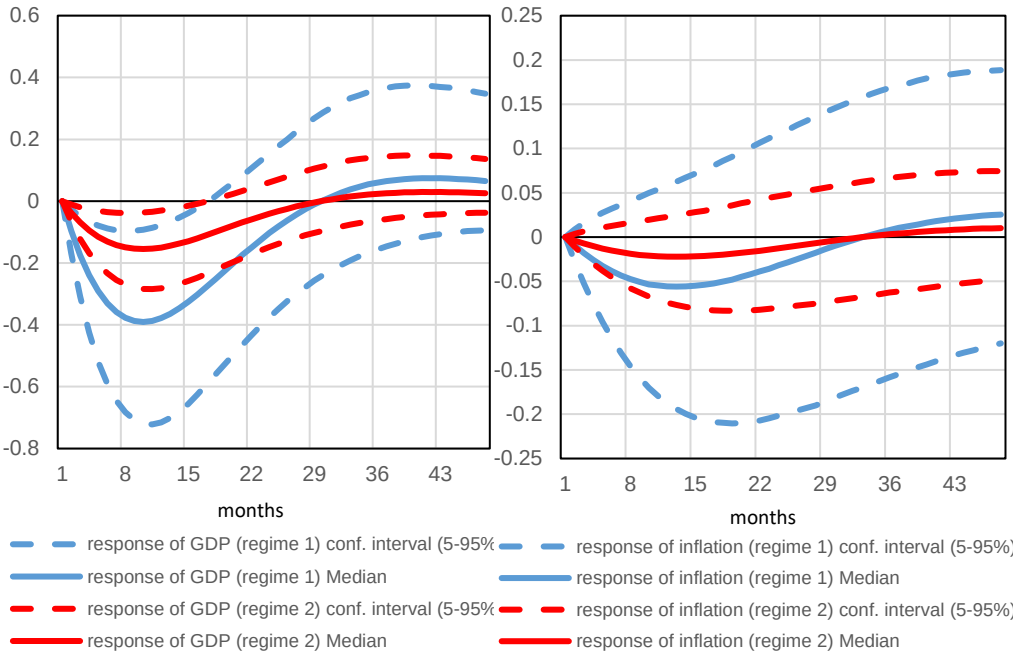


Source: Own estimation.

The central instrument used to highlight the differences in the shock transmission mechanism between different regimes are the regime dependent impulse response functions, traditionally used in the literature to study the monetary policy framework. Figures A.3 – A.6 plot the response of the real economy to a monetary policy shock (modelled as an increase in short-term interest rates) in both regimes. Estimation results show a similar response between regimes in terms of sign, while magnitude is roughly three times higher for the volatile regime as compared to the tranquil period.

Figure A.3. Regime-dependent Impulse Response Functions of Economic Growth (Real GDP) to a Monetary Policy Shock in Romania

Figure A.4. Regime-dependent Impulse Response Functions of Inflation to a Monetary Policy Shock in Romania



Source: Own estimation.

Figure A.5. Regime-dependent Impulse Response Functions of Economic Growth (Real GDP) to a Monetary Policy Shock in Romania

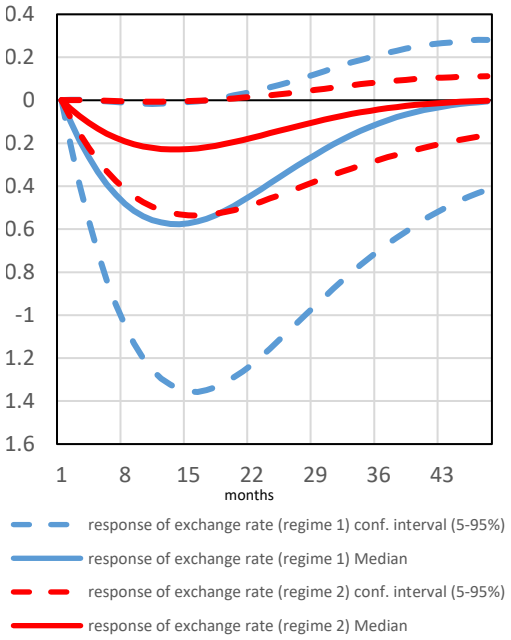
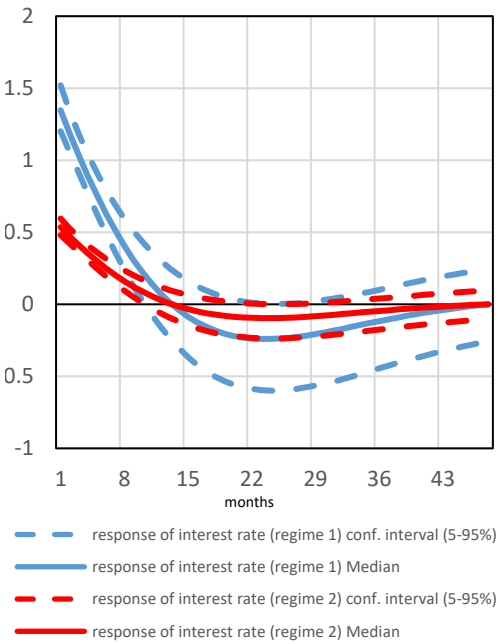


Figure A.6. Regime-dependent Impulse Response Functions of Inflation to a Monetary Policy Shock in Romania



Source: Own estimation.

The bottom line is that is that policy-makers, especially in emerging market economies characterized by higher volatility of the macro-financial environment, should take into account the significant differences in the transmission of shocks, in crisis and tranquil times, when formulating economic policy decisions. In other words, volatility is a significant factor to take into account when implementing monetary policy, especially when considering unconventional tools during stress episodes, such as Quantitative Easing, in order to arrive at optimal welfare enhancing decisions. Moreover, a distinction should be made between short disruptions with temporary amplification or dampening effects and structural changes, reflecting regimes changes in the model coefficients, which have long-term implications on the monetary policy transmission mechanism.