

"Lithuania in the Euro Area: Monetary Transmission and Macroprudential Policies"

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October 2016

Non-technical summary

Lithuania lost its ability to set interest rates and conduct monetary policy since the decision to follow a fixed exchange rate regimes to the euro. Now being part of the euro area itself, the country is fully integrated in the system. This has crucial implications for the Lithuanian economy given that interest-rate decisions are made in favor of the euro area as a whole, with Lithuania only a tiny part in the decision making.

Furthermore, some specific characteristics of the housing markets in Lithuania can make that the single monetary policy is transmitted in a different way in this economy than in other countries. Housing loans (and loans to non-financial corporations, NFCs) in Lithuania are almost exclusively made at variable interest rates (which are set for fixed periods, e.g. of up to 1 year), which are quick to respond to changes in borrowing costs in the financial markets (Karmaziene and Varanauskiene, 2014).¹ In the big countries of the euro area, however, the majority of households take mortgages at a fixed rate.² Moreover, Lithuania, as a new member of the euro area has to implement its macroprudential policies in the context of this new economic setting, interacting with their new monetary union members, that share indeed the same monetary policy. Lithuania's entry to the euro area also leads towards the integration of its financial market infrastructure into the respective euro area infrastructure. In general, this integration means the (inter)connection of financial market structures to form a union, which implements uniform standards.

Indeed the Bank of Lithuania pursues macroprudential policy at the national level³ and monitors and assesses the macroprudential risk for the stability of the domestic financial system; in doing this it has the possibility to cooperate with the ECB and other national and international institutions.⁴ One of the intermediate objectives set is to mitigate excessive credit growth and too high leverage. It may be further strengthened by high leverage and, for example, a high ratio of a loan and the value of collateral used for the loan (LTV)⁵ available in the market. Along these lines, in this paper, we focus on the implementation macroprudential policies by creating a countercyclical rule for the LTV.

In this paper, we develop a two-country monetary union new Keynesian general equilibrium model (DSGE) with housing and collateral constraints, to be calibrated for Lithuania and the rest of the euro area. Within this setting, and following the recent entrance of Lithuania in the EMU, the aim of this paper is twofold. First, we study how shocks are transmitted differently in the two regions, considering the recent common monetary policy. We look indeed at the same monetary policy shock and other shocks, i.e. technology and house price that, even if they are common, may have a different impact on the two economies and will have to be accommodated by the single monetary policy. Then, we analyze how macroprudential policies should be conducted in Lithuania, in the context of the EMU. As a macroprudential tool, we propose a decentralized Taylor-type rule for the Loan To

¹In the beginning of 2013, about 70 per cent of new loans to households were issued at flexible interest rates. In 2014 and 2015, the proportion increased to more than 80 per cent (in 2015 the ratio of flexible rate loans, for both households and NFC, reached 90 per cent). Data from Statistics of Bank of Lithuania website.

²See Ehrmann and Ziegelmeyer (2014) on data ECB. In Table 3, they report the share of flexible-rate mortgages among the oldest active mortgages related to the household main residence.

³As of 24 September 2014, a law obligates the Bank of Lithuania to conduct macroprudential policy.

⁴See Financial Stability Review (Bank of Lithuania, 2015).

⁵The LTV in Lithuania has been set at 85 per cent in 2015 (Bank of Lithuania, 2015), which is above the average 78 per cent ratio for the last decade.

Value ratio (LTV) which responds to national deviations in output and house prices. We also include the common monetary policy with a Taylor rule, consistent with the ECB target of price stability, with interest-rate smoothing for interest-rate setting by a single central bank. In each country, there is a group of individuals that are credit constrained and need housing collateral to obtain loans. Countries trade goods, and savers in each country have access to foreign assets. The novelty of this paper is indeed its special application to the case of Lithuania in a two countries framework with respect to the rest of the euro area.⁶

Results from our model show that common shocks (monetary policy⁷, technology⁸ or house price⁹ shocks) are transmitted in a stronger way in Lithuania than in the rest of the euro area, given that the former country has variable-rate mortgages and a higher LTV ratio than its European partners. With respect to macroprudential policies, we find that the optimal policy is that Lithuania may have a different intensity in its LTV setting than the rest of the euro area, given that monetary policy is more effective in this country. We also find that the LTV rule is welfare enhancing for the whole monetary union, although there exists a welfare trade-off between borrowers and savers. The borrowers are better off because macroprudential measures reduce the collateral constraint, the house prices are less volatile and they can have a more stable consumption path. On the other side, savers are worse off because they own the firm and ideally they would like to live in a world in which there is price stability, also target of monetary policy. However, in our model the monetary policy seems to be less effective, as for instance in the euro area.

⁶There is also some literature looking at the response of the Lithuanian economy to a common ECB rate shock. In particular, Stakėnas and Stasiukynaitė (2016), through an empirical structural VAR, look at the responses of GDP, HICP (excl. energy) and credit to non-financial institutions and households in Lithuania (and to GDP and HICP only for the euro area) due to a 100 bp increase in the Euribor. Their results are in line with some previous studies such as Georgiadis (2015) and Errit and Uuskula (2014) concluding that the response to a monetary policy shock coming from the euro area is quite substantial.

⁷In particular, we see that in Lithuania the increase in borrowing, caused by a common monetary policy shock, is stronger than in the rest of the euro area.

⁸Following the technology shock, inflation decreases and reduces the interest rate. The main difference comes in the financial side. Given that Lithuania has a higher LTV than the rest of the euro area and the interest rate is variable, borrowing increases by more in Lithuania following the fall in the common policy rate.

⁹This shock causes credit to increase by more in Lithuania than in the rest of the euro area.