‘Leaning Against the Wind’ versus Macroprudential Policy: Robust Welfare Analysis in a DSGE Model with Two Financial Frictions[1]

Mariusz Górajski[a,], Zbigniew Kuchta[a]

[a]*Faculty of Economics and Sociology, University of Lodz, Rewolucji 1905 r. 41, 90-214 Lodz, Poland*

Abstract

This paper compares the central bank’s ’Leaning against the wind’ strategy with a mix of conventional monetary and macroprudential policies. Within an estimated DSGE model for the U.S. economy, we analyze several policy schemes of the robust macroprudential and monetary policy rules under the parameter uncertainty. We consider coordination and non-coordination between monetary and macroprudential authorities. Our model assumes two types of financial frictions: the first in the contract between depositors and banks and the other between banks and entrepreneurs. Additionally, we include into the model four financial shocks. The first two affect the banking sector by tightening the terminal capital adequacy ratio and decreasing banks’ wealth. The other two hit the non-financial sector by increasing the risk of gross return on capital and reducing entrepreneurial net worth. Our analysis indicates that the coordination of monetary and macroprudential policies is the most welfare-improving strategy for a broad range of response variables. However, the coordination between the central bank and macroprudential authority generates additional costs in terms of the risk of the high volatility of output gap and inflation. Moreover, we observe no-coordination between the authorities is preferred over the conventional Taylor and coordinated schemes if the policymakers expect both improvements in inflation and output gap stabilization and reduction in the credit growth. Finally, the robust ’Leaning against the wind’ monetary policy rule may yields benefits in terms of a decreased Bayesian risk of welfare losses if the coordination of both policies is unattainable and authorities do not perceive the target variables correctly.

Keywords: leaning agaist the wind, robust monetary and macroprudential policy, financial stability, DSGE models, parameter uncertainty

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Email addresses: `mariusz.gorajski@uni.lodz.pl` (Mariusz Górajski), `zbigniew.kuchta@uni.lodz.pl` (Zbigniew Kuchta)