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HETEROGENEOUS AGENTS FINANCIAL AND MONETARY MODELS IN CONTINUOUS TIME

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ABSTRACT

Heterogeneous agent models have become an active branch of economic research, as a result of the criticism brought to estimates based on the existence of a representative agent, which is a major simplification of the reality. However, in the case of Romania, such an analysis is scarce. In this context, this paper aims to make a first step in estimating heterogenous agent models in continuous time in the case of Romania, bringing a new perspective on the transmission mechanisms of economic policies. Empirical evidence shows an increased consumption in the case of higher productivity agents as compared to low productivity households, in tandem with a greater propensity to save, regardless the amount of assets held. Such results are confirmed as well by the inclusion within the model of more types of assets. Inequality among agents is evaluated to lead to a reduction in the efficiency of the fiscal policy. Against this background, while on the short term the impact of a fiscal shock is expected to have a similar magnitude to the one resulted from representative agent estimates, on the medium term it is anticipated to fade off much faster. In the case of monetary policy, including heterogeneity does not change the ordinary functioning of the interest rate channel. At the same time, another novelty element brought by this paper refers to the implications of heterogeneity on the impact of European funds, feature only marginally explored in economic literature even in the case of developed economies. In the case of the Next Generation programme, financial and monetary models with heterogeneous agents suggest a potential lower impact as compared to classical estimates, amid both the significant decrease in stimulative effects and qualitative factors.

KEY WORDS: heterogeneous agents, inequality, representative agent, fiscal policy, monetary policy, European funds, Next Generation EU

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