Institute of Economic Studies (IES)
Charles University
Prague, Czech Republic

elminejad.com
ali.elminejad@fsv.cuni.cz
+420-608 381 289
+1 (949) 678 7917

Research Statement

My research rests on two columns. First, **Meta-Analysis in Macroeconomics** to investigate the sources of heterogeneity among estimates in the literature. Second, **Empirical/Quantitative Macroeconomics**, primarily developing and estimating dynamic macroeconomic models with heterogeneous agents using microdata to study the effects of monetary policy among other policies on different economic indicators, particularly household welfare.

Meta-Analysis in Macroeconomics. I focus on this field of research to take stock of the empirical macroeconomics and finance literature. I question the assumption that observational studies reporting more precision are always informative and less biased than studies reporting less precision. Moreover, I investigate the factors of study design that systematically influence the reported estimates. To this purpose, I employ Bayesian methods and Monte Carlo simulations to address model uncertainty and examine the most significant aspects of studies affecting the magnitude of estimates.

In my first paper, *"The Calvo Parameter Revisited: An Unbiased Insight"*(Applied Economics Letters, forthcoming), I provide a meta-analysis of the Calvo parameter estimated within the new Keynesian Phillips curve. Novel linear and non-linear techniques, together with Bayesian model averaging results, indicate that the reported estimates are systematically affected by various aspects of research design, such as instrument selection and authors affiliation.

The second paper, *"Intertemporal Substitution in Labor Supply: A Meta-Analysis"* (Review of Economic Dynamics, forthcoming), with T. Havranek, R. Horvath, and Z. Irsova, examines the estimated Frisch elasticity of labor supply at the intensive and extensive margins as a fundamental structural parameter in macroeconomic models. We show that the mean reported estimates of the elasticity on both margins are exaggerated due to publication bias, and a total hours elasticity of about 0.25 is the most consistent with empirical evidence. Similarly, the third paper, *"Estimating Relative Risk Aversion from the Euler Equation: The Importance of Study Design and Publication Bias"* (draft), with T. Havranek and Z. Irsova, focuses on the estimates of relative risk aversion (RRA) as another crucial deep parameter in modern dynamic macro models. Investigating 1021 estimates from 92 studies, we find a mean RRA corrected for bias around 1 and 2–7 for the economic and finance literature, respectively. These results imply that asset pricing models with alternative preferences are as problematic as their standard counterparts.

For future research in this field, I have been working on the sources of heterogeneity among empirical estimates of the New Keynesian Phillips Curve (NKPC) in the literature by accounting for the characteristics of studies. I develop another meta-analysis with N. Buliskeria and Z. Irsova on the forward-looking inflation and the forcing variable's coefficients of the empirical NKPC. Our aim is mainly to investigate the effect of different sources of expected inflation used in the literature on the precision of the estimated NKPC.

In a broader future project, *"Do Two Wrongs Make a Right? Publication Bias and Attenuation Bias"*, I investigate attenuation bias as a proxy for measurement error in the economics literature. Using a unique data set including more than 600 meta-studies and 20,000 individual studies, I exploit that part of the literature uses IV methods to address attenuation bias and other endogeneity biases, while another part uses simple OLS. After correcting publication bias, assuming the classical measurement error and the absence of weak instruments, the effects estimated by IV methods must have values larger than the OLS estimates on average since they account for all biases, including attenuation bias. Therefore, the difference between IV and OLS estimates is informative about the average size and extent of attenuation bias in the economics literature. Preliminary results suggest that although attenuation bias is not negligible, publication bias is more problematic than attenuation bias as it is larger on average. To my knowledge, the relationship between publication bias and attenuation bias in the economics literature has not been previously investigated despite its likely prevalence.

Empirical/Quantitative Macroeconomics. As my other main research interest, I work on models concerning macroeconomic outcomes of different economic decisions and policies. I particularly investigate the interaction between macroprudential and monetary policies to explore their effect on various indicators such as stability, household welfare, and consumption. Although financial stability has been a crucial topic since the last financial crisis, there has yet to be a consensus in the literature on a formal framework to embrace monetary and macroprudential policies to address financial stability in a New Keynesian model. In my research, I mostly rely on the Non-Representative Agent New Keynesian (NRANK) framework, including Two-Agent New Keynesian (TANK) and Heterogeneous Agent New Keynesian (HANK) models.

My current work in progress *"Macroprudential Intervention and (Un)employed Households"* (draft), studies the effects of monetary and macroprudential policies on the behavior of households under the two-agent New Keynesian setting with a banking sector. I develop a two-agent New Keynesian DSGE model à la Gertler and Karadi (2011) to compare the welfare effects of different policy regimes. I mainly focus on the interest rate spread movement and its effect on household consumption and social welfare in the economy when monetary and macroprudential policies consider it. The main findings suggest a significant welfare improvement in the regulated economy if a monetary policy rule reacts to the interest rate spread. The maximum welfare gain is achieved when both augmented monetary and tax policies consider the deviation of the expected interest rate spread from its steady state value. The results also demonstrate that a regulated economy with an augmented Taylor rule is associated with a faster recovery after a monetary policy shock hits the economy.

I plan to pursue several research avenues related to this line of research. I aim to develop and estimate a more sophisticated model within the heterogeneous agent framework with different adjustments:

- Different class of preferences for households, e.g., habit formation, Epstein-Zin.
- Other channels of heterogeneity, e.g., heterogeneous expectations (beliefs).

These adjustments can help develop a more realistic model that matches real-world data. Applying these changes, I plan to extend the basic HANK model to study the effect of macroprudential and monetary policies on households' welfare. I am particularly interested in solving the model when there is a high level of inattention among the households in the economy. Studying the effect of monetary, fiscal, and macroprudential policies on the housing market (with different levels of search intensity) in a model with heterogeneous agents is another topic I aim to follow for future research.

Modern macroeconomic models often overlook belief differences, primarily due to a prevailing assumption that everyone shares uniform expectations, known as the full-information and rational expectations (FIRE) assumption. My work in progress, *"Endogenous Beliefs and Welfare Effects of Macroprudential Policy"*, challenges this convention by spotlighting the often under-explored realm of belief heterogeneity. I aim to address the effect of different systems of beliefs on the decisions made by households in an economy with financial frictions. First, drawing on extensive datasets such as the Survey of Consumer Expectations (SCE), Survey of Consumer Finances (SCF), Panel Study of Income Dynamics (PSID), and the Current Population Survey (CPS), this study offers empirical evidence supporting the premise that while households access a comprehensive information set, their beliefs shaped by deep parameters like risk aversion differ. Second, this paper incorporates the banking system into a New Keynesian model with heterogeneous agents based on the differences in their belief systems. The expected results will show the correlation between the beliefs (attention level) and welfare effects of macroprudential/monetary policies during business cycles. This work will contribute to two strands of literature studying heterogeneous expectations and the interaction between macroprudential and monetary policies.

Regardless of the topic of my research projects, I greatly appreciate the opportunity to collaborate with other researchers. Interacting with other economists in an active research environment is an excellent opportunity to learn from their experience and develop my research ideas effectively. Moreover, I am eager to bridge the interdisciplinary gaps and work alongside experts from various fields and disciplines. This synergy has the potential to birth transformative and socially impactful solutions. Hence, throughout my future projects, I look forward to collaborating with researchers not only in my field of research but also in other disciplines.