Behavioral Expectation and Institutional Fundamentals in Macroeconomics

Abstract

This thesis advances the frontier of behavioral macroeconomics by systematically integrating non-rational expectations, heuristic switching, and heterogeneous agent interactions into core macroeconomic frameworks, with a focus on policy design in both emerging economies and the United States. It challenges the rational expectations (RE) paradigm, demonstrating that deviations from RE not only enhance empirical accuracy but also enrich the policy relevance of macroeconomic models—particularly under extreme uncertainty such as the COVID-19 pandemic and episodes of the zero lower bound. The research is structured around three core objectives. First, it proposes a behavioral fiscal debt management model with multi-maturity bonds, proving that lengthening debt duration stabilizes fiscal outcomes during financial crises. Additionally, the findings suggest that the crisis period is associated with a transition from a No Dominance (ND) regime toward Monetary Dominance (MD) in the United States. Second, it develops a Behavioral New Keynesian DSGE (BNK-DSGE) model for India's pandemic period, showing that behavioral expectations outperform rational expectations in replicating output and inflation dynamics, with vaccination functioning as a persistent positive supply shock. Third, it undertakes empirical investigations in behavioral macroeconomics using the Restricted Generalized Method of Moments (RGMM). Using RGMM, the thesis estimates a New Keynesian Phillips Curve (NKPC) for India through dynamic panel methods—specifically the restricted Arellano–Bond estimator—extending the Gali and Gertler framework. It also revisits the Mankiw–Romer–Weil growth model, combining restricted and standard GMM approaches to demonstrate how proximate factors, such as capital accumulation, interact with fundamental determinants, including institutions, culture, and social norms, in shaping cross-country income differences. Collectively, these findings establish behavioral expectations as structural features of modern economies rather than modeling artifacts. By embedding cognitive frictions, social norms, and institutional influences into macroeconomic analysis, this thesis provides a forward-looking synthesis that redefines stabilization policy, debt management, and growth empirics for an age of persistent uncertainty.

Keywords: Behavioral Macroeconomics; New Keynesian DSGE Models; Fiscal Debt Management; Restricted GMM; Institutional Economics; Mankiw–Romer–Weil Model.