Essays on Monetary Policy of India

Abstract

This dissertation comprises three essays that investigate the redistributive, welfare, and aggregate macroeconomic effects of monetary policy in India, employing both theoretical and empirical methodologies suited to an economy characterized by pervasive heterogeneity and sectoral dualism. It provides novel insights into monetary transmission mechanisms within the context of a large, structurally diverse emerging market like India.

In an economy where low-productivity, price-volatile agriculture continues to employ a substantial share of the labor force, and a significant proportion of households exhibit hand-to-mouth behavior with high marginal propensities to consume, conventional representative-agent frameworks prove inadequate. The first chapter develops a Heterogeneous Agent New Keynesian (HANK) model calibrated to Indian macroeconomic and micro-distributional features, quantifying the heterogeneous consumption, income, and asset responses to policy shocks. The findings suggest stronger aggregate consumption responses to monetary expansions than what is typically observed in advanced economies, while also documenting a muted transmission to agricultural households due to sector-specific price fluctuations.

The second chapter employs a micro-founded welfare evaluation framework by estimating compensating variation from detailed household survey data. It leverages machine learning techniques to address data scarcity and provides household-level out-of-sample predictions. The analysis uncovers substantial heterogeneity in welfare effects across rural and urban populations, driven by differences in exposure to labor income, financial asset returns, and commodity price channels. Notably, welfare losses from contractionary policy are disproportionately concentrated among households below the poverty line.

The third chapter analyzes the macroeconomic implications of the Reserve Bank of India's accommodative policy stance during the COVID-19 shock, wherein the policy rate remained unchanged at a historically low level for eight consecutive quarters between 2020 and 2022. Using an augmented HANK framework with firm-level heterogeneity, this essay demonstrates that the lower-for-longer strategy led to increased capital accumulation and higher output among firms, alongside a modest formalization of the labor market. Firms with less volatile beliefs respond most strongly. Households remain mostly indifferent to alternative policy stances. Households with stable formal employment are least impacted by the pandemic shocks, and they respond first to policy easing.

Altogether, these chapters emphasize the critical role of household and sectoral heterogeneity in shaping the transmission of monetary policy in India. The findings challenge the applicability of standard macroeconomic models designed for developed economies in emerging market economies, thereby contributing to a growing body of literature advocating for context-specific, micro-founded policy frameworks.