INFLATION DYNAMICS IN INDIA: A STUDY OF EXTERNAL SHOCKS AND MONETARY POLICY RESPONSE

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ABSTRACT

This study examines the determinants of inflation volatility in India, with a particular focus on the roles of exchange rate and trade deficits, while evaluating the moderating influence of monetary policy. Employing monthly data from April 2012 to December 2024, the analysis utilizes the Autoregressive Distributed Lag (ARDL) and Nonlinear ARDL (NARDL) models to capture both linear and asymmetric dynamics across short-run and long-run horizons. The empirical results confirm a significant long-run relationship between exchange rate and inflation volatility. Conversely, trade deficits do not exhibit a statistically significant long-run influence on inflation volatility. However, in the short run, the interaction between trade deficits and changes in the Weighted Average Call Rate (WACR) is significant, suggesting that monetary policy can intensify the inflationary effects of external imbalances under certain conditions.

Further analysis using the NARDL approach reveals asymmetry in the impact of exchange rate dynamics, where the effect on inflation volatility is contingent on the monetary policy stance. These findings underscore the dual challenge faced by policymakers in simultaneously targeting inflation and ensuring external stability. The results imply that monetary tightening may not uniformly curb inflation volatility unless accompanied by measures that stabilize the exchange rate. Therefore, policy recommendations include strengthening the coordination between inflation targeting and exchange rate management, deploying macroprudential buffers to mitigate external shocks, and considering pre-emptive monetary responses to exchange rate pressures. Future research could extend this framework by incorporating high-frequency financial indicators, real-time policy measures, or sentiment-based proxies to better capture the evolving inflation dynamics in open emerging economies.

Keywords: Inflation volatility, Exchange rate, Trade deficit, Monetary policy, ARDL, NARDL